



**GOVT. OF MAHARASHTRA**

**PUBLIC WORK DEPARTMENT**

**STATE SCHEDULE OF  
RATE 2021-22**



**For State of Maharashtra**  
(w.e.f. 06/08/2021)



## **Preface**

Govt. of Maharashtra, Public works Department is glad to publish new State Schedule of Rates for the year 2021-22 as approved vide शासन क्रमांक रादसू - २०२१/ प्र. क्र. - ०७/ नियोजन -०३ दिनांक ०६/०८/ २०२१

Thr S.S.R. shall be effective from 06 August 2021. In 2021-22 S.S.R. all the sections related to Road work, Bridge & CD work, Building work are included. In addition 56 new items based on new innovative technology available in the market are also made available in 2021-22 SSR.

Please email your suggestion on nagpur.ce@mahapwd.com

### **For Road, Survey, DPR & Road Furniture :-**

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### **For Buildings :-**

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### **For Briges & CD work -**

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### **For Green Building & Survey :-**

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### **For new items :-**

nashik.se@mahapwd.com

### **For coastal items :-**

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### **For Bamboo & Bridge cum Bhandara items :-**

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### **For Machinery rates :-**

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### **For General Note :-**

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**STATE SCHEDULE RATE FOR YEAR 2021-22**

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महाराष्ट्र शासन  
सार्वजनिक बांधकाम विभाग  
शासन परिपत्रक क्रमांक. रादसू-२०२१/प्र.क्र.०७/नियोजन-३  
मादाम कामा मार्ग, हुतात्मा राजगुरु चौक,  
मंत्रालय, मुंबई-४०० ०३२.  
दिनांक :- ०६/०८/२०२१

**प्रस्तावना :-**

सार्वजनिक बांधकाम विभागामार्फत संपूर्ण राज्यात रस्ते, पूल, इमारतींची बांधकामे व दुरुस्तीची कामे केली जातात. त्यामुळे सर्व जिल्ह्यातील दरसूचीत समानता आणण्यासाठी व आवश्यक बाबींचे सुसूत्रीकरण करण्यासाठी मागील तीन वर्षांपासून संपूर्ण राज्यासाठी एकच दरसूची (SSR) तयार करण्यात येत आहे. यासाठी विविध सार्वजनिक बांधकाम मंडळातील अधीक्षक अभियंत्यांची समिती तयार करण्यात येते. समितीमार्फत दरसूचीतील विविध बाबींचा, साहित्याच्या/मजुरीच्या/यंत्रसामुग्रीच्या दरांमधील वाढीचा अभ्यास करून तसेच कंत्राटदाराच्या प्रतिनिधींच्या मागण्यांचा विचार करून विविध बाबींचे दर ठरविण्यात येतात.

तसेच विभागात प्रगत तंत्रज्ञान अंगीकारण्यासाठी बांधकामांच्या नविन बाबींचा अभ्यास करून त्यांचा आवश्यकतेनुसार समावेश राज्य दरसूचीत करण्यात येतो.

सार्वजनिक बांधकाम विभाग राज्यातील सर्व विभागांच्या इमारतींची बांधकामे करीत असून शासनाचे इतर विभाग तसेच स्थानिक स्वराज्य संस्था राज्य दरसूचीचा वापर करतात. ह्या सर्व बाबींवर सखोल विचार होऊन पुढील आदेश निर्गमित करण्यात येत आहेत.

**शासन परिपत्रक:-**

१) राज्यदरसूची सन २०२१-२२ सदरचे परिपत्रक निर्गमित केलेल्या दिनांकापासून लागू करण्यात येत असून ती शासनाच्या वेबसाईट [www.mahapwd.com](http://www.mahapwd.com) वर उपलब्ध करण्यात येत आहे. ही दरसूची संपूर्ण राज्यात सार्वजनिक बांधकाम विभागांमार्फत केल्या जाणा-या खुद्द सार्वजनिक बांधकाम विभाग तसेच अन्य विभागांच्या कामांकरीता लागू राहील. तसेच राज्याचे इतर विभाग, महामंडळे इ. व स्थानिक स्वराज्य संस्था मार्फत करण्यात येणारी बांधकामे, देखभाल दुरुस्तीची कामे यासाठी सदर दरसूची वापरता येईल.

२) विविध जिल्ह्यातील विविध भौगोलिक परिस्थितीनुसार दरसूचीतील संबंधीत बाबींच्या दरात बदल करण्याचे अधिकार सर्व अधीक्षक अभियंता (सा.बां) यांना प्रदान करण्यात येत असून त्यांनी परिस्थितीचा अभ्यास करून त्यांच्या कार्यक्षेत्रातील कामांकरीता याबाबत योग्य निर्णय घ्यावा.

३) दरसूचीच्या टिप्पणीत डांबराचे दर निश्चित करतांना डांबराच्या दरात मागील १२ महिन्यांमध्ये झालेल्या चढउतार लक्षात घेऊन सन २०२१-२०२२ करीता डांबराचा सरासरी दर अंतीम करुन डांबराच्या बाबींचे व जून, २०२१ मधील सिमेंट व स्टीलचे (GST रहीत) तारांकीत दर (Star Rates) घेण्यात आले आहेत. तसेच स्थानिक क्षेत्रानुसार मूळ दरात करावयाची वाढ, साहित्याच्या अंतरामुळे दरांमध्ये करावयाची वाढ, अंदाजपत्रके तयार करतांना घ्यावयाची दक्षता, साहित्याची तपासणी करणे, निविदा प्रपत्रे तयार करतांना घ्यावयाची दक्षता, रोड फर्निचर इ. बाबींसाठी आवश्यक सूचना नमूद करण्यात आल्या आहेत. हया सूचनांचा अभ्यास करुन सर्व मुख्य अभियंता/अधीक्षक अभियंता/कार्यकारी अभियंता यांनी बांधकामाच्या अंदाजपत्रकांना तांत्रिक मान्यता प्रदान करावी.

सदर शासन परिपत्रक महाराष्ट्र शासनाच्या [www.maharashtra.gov.in](http://www.maharashtra.gov.in) या संकेतस्थळावर उपलब्ध करण्यात आले असून त्याचा सांकेतांक २०२१०८०६१७४५१३६६१८ असा आहे. हे परिपत्रक डिजीटल स्वाक्षरीने साक्षांकित करुन काढण्यात येत आहे.

महाराष्ट्राचे राज्यपाल यांच्या आदेशानुसार व नावाने.

Prashant  
Vinayakrao Patil

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8c505422af66a5628314537e, cn=Prashant Vinayakrao Patil  
Date: 2021.08.09 11:55:27 +05'30'

( प्रशांत पाटील )  
अवर सचिव

प्रत,

- १) मुख्य सचिव यांचे सहसचिव, मंत्रालय, मुंबई
- २) अपर मुख्य सचिव, यांचे स्वीय सहायक, सार्वजनिक बांधकाम विभाग, मंत्रालय, मुंबई.
- ३) सचिव (रस्ते), यांचे स्वीय सहायक, सार्वजनिक बांधकाम विभाग, मंत्रालय, मुंबई.
- ४) सचिव (बांधकामे), यांचे स्वीय सहायक, सार्वजनिक बांधकाम विभाग, मंत्रालय, मुंबई.
- ५) सर्व मंत्रालयीन विभाग
- ६) मुख्य अभियंता, सार्वजनिक बांधकाम प्रादेशिक विभाग, मुंबई/कोकण/पुणे/ नाशिक/ औरंगाबाद/ अमरावती/नागपूर
- मुख्य अभियंता, सा.बां. प्रा.विभाग, नागपूर यांनी सादर केलेल्या राज्य दरसूचीच्या प्रस्तावात शासन स्तरावरून केलेल्या दुरुस्तीनुसार राज्य दरसूची अद्ययावत करुन सा.बां. विभागाच्या संकेतस्थळावर प्रसिध्द करावी तसेच स्वाक्षांकित छापील प्रत (Hard Copy) विहीत मुल्यासह मागणी केल्यास उपलब्ध करुन द्यावी.
- ७) मुख्य अभियंता, राष्ट्रीय महामार्ग (सा.बां.) विभाग, कोकण भवन, नवी मुंबई.
- ८) सर्व अधीक्षक अभियंते, सार्वजनिक बांधकाम मंडळे.
- ९) अधीक्षक अभियंता, दक्षता व गुणनियंत्रण मंडळ, नवी मुंबई/पुणे/नाशिक/औरंगाबाद/अमरावती/नागपूर.
- १०) अधीक्षक अभियंता, दक्षता पथक, मुंबई
- ११) अधीक्षक अभियंता, संकल्पचित्र मंडळ (पुल व इमारती), कोकण भवन, नवी मुंबई.
- १२) सर्व कार्यकारी अभियंते, सार्वजनिक बांधकाम विभाग
- १३) सर्व तांत्रिक अधिकारी, सार्वजनिक बांधकाम विभाग, मंत्रालय, मुंबई.
- १४) निवडनस्ती (नियोजन-३).

# 1 Important issues for State Schedule of Rates

## Section A - General Notes

- i) Schedule of Rates prepared for the year 2021-22 is operative from 6<sup>th</sup> August, 2021 and is applicable for all the Districts of Maharashtra. Schedule of Rates are worked out considering the rates of materials prevailing in all districts. If the basic rates of murum, sand, metal and bricks for a particular district deviates from the rates considered in the SSR, then the Superintending Engineer, PWD of that particular district may change rate/s for that particular item/s. While doing so concerned Superintending Engineer, PWD shall keep the reasons in writing on record.
- ii) For the rates in Corporation area, Municipal Council Areas, Notified Tribal area, Hilly inaccessible areas & Central Jail premises, Sugarcane factory area, Tiger Project areas, Coal / Manganese /Lime Mining area, Naxalite affected area and Mental Hospital premises & Pandemic Special Centers, an increase of percentages over the normal schedule of rates (Basic completed item Rates) prescribed for the year 2021-22 are as follows:-

	Specific Areas	Percentage in Rates
a)	Corporation Areas	5%
b)	Municipal Council Areas	4%
c)	Sugarcane factory area (within 10 km. radius)	5%
d)	Notified Tribal Areas / Hilly Area / Inaccessible areas/ Pandemic Special Centers	10%
e)	Inside Premises of Central Jail, Mental Hospital, Yerawada Printing press.	15%
f)	Tiger project area in Amaravati, Yavatmal, Wardha, Nagpur, Bhandara, Gondia & Chandrapur Distt.	20%
g)	Coal / Lime / Manganese Mining area	5%
h)	Naxalite affected area	20%
i)	Metropolitan areas notified by UDD excluding Municipal Corporation and Council areas	2%

In addition to this, for items involving construction and repair of sewer lines/ storm water drains, concerned Superintending Engineer, PWD shall increase the rate accordingly

Issue rates of Schedule 'A' materials for above notified area shall be increased by respective percentage. The above percentage shall be applied on the cost of items after deducting the cost of Specified materials, if issued on Schedule 'A'.

The Superintending Engineers (PWD) shall Specify the Sugar factory areas/ Coal mine areas/ Notified Tribal areas under their circles.

The Notified Hilly / Inaccessible areas shall be considered as per Government Resolution, Planning Department No. DVK-2009/CR-6/D-1483 Dated 18.01.2010 & 31.01.2018, No. DVK-2015/CR-42/D-1481A Dated 15.06.2018 & 20.11.2018 and DVK-2015/CR-35/D-1483 Dated 31.07.2015 and applicable GRs of Planning Department.

The Superintending Engineer, PWD shall decide necessary increase in ii(a) above if required for traffic restriction hours and Labour rates for night working.

1) For all district excluding Gadchiroli, following instructions are applicable:-

The works which are pertaining to inside premises of central jail, Mental Hospital, Yerawada Printing press as well as in Corporation area, an increase of percentage over normal scheduled rates shall be considered both simultaneously e. g. If central jail is situated in corporation area an increase of 5% for corporation area and 15% for jail premises total 20% shall be considered.

2) For Gadchiroli District Notified Tribal area, Hilly or inaccessible area, an increase shall be  $(10\%+20\%)=30\%$ .

iii) Schedule of rates is based on the following basic rates of materials: -

The basic rates for materials Cement, Steel, Sand, Bricks may vary from district to district. While preparing the item rates for State Schedule of Rates, the basic rates from all Districts are considered at an average level.

Sr. No.	Material	Basic rate for 2021-22(Excluding GST)
1	Cement /PPC	Rs. 5,600/- Per M. T.
2	PSC	Rs. 5,960/- Per M. T.
3	GGBFS (IS-16714)	Rs. 4,160/- Per M. T.
4	TMT-FE-500 reinforcement	Rs. 47,000/- Per M. T.
5	HCRM/ CRS reinforcement	Rs. 56000/- Per M. T.
6	Structural Steel	Rs. 54000/- Per M. T.
7	Tubular Steel	Rs. 55000/- Per M.T.
8	Bitumen VG-30 (Packed)	Rs. 38360/- Per M. T.Ex. Refinery Mumbai
9	Bitumen VG-10 (Packed)	Rs. 37477/- Per M. T. Ex. Refinery Mumbai
10	Bitumen VG-40 (Bulk)	Rs. 34585/- Per M. T. Ex. Refinery Mumbai
11	Bitumen VG-30 (Bulk)	Rs. 32877/- Per M. T. Ex. Refinery Mumbai
12	Bitumen VG-10 (Bulk)	Rs. 32569/- Per M. T. Ex. Refinery Mumbai
13	Bitumen VG-40 (Packed)	Rs. 41503/- Per M. T. Ex. Refinery Mumbai
14	Bitumen Emulsion	Rs. 30495/- Per M. T. Ex. Refinery Mumbai
15	CRMB - 55	Rs. 32130/- Per M. T.
16	CRMB - 60	Rs. 32510/- Per M. T.

The Rates of Bitumen given above are average rates of last 12 month. While preparing estimates, the rates prevailing at that time of Ex-Refinery Mumbai, shall be considered. The Rates of Steel given above are as per SAIL Dtd. June 2021 & rates of Cement are of Dtd. June 2021. All rates are exclusive of GST

The Portland Pozzolana Cement (PPC) & Portland Slag Cement (PSC) shall be of reputed manufacturer only.

While preparing estimates if any specific grade of structural steel other than the SSR and grade of Bitumen other than SSR is required, then concerned Superintending Engineer, PWD shall be competent to incorporate the same in the detailed estimate.

Labour rates are provided and certified by labour commissioner, Nagpur.

Machinery hire charges rates are provided by Mechanical wing of PWD.

iv) **Taxes and Govt. Circulars.**

- Material Rates are exclusive of GST (Goods & Service Tax). Rates for completed items are also exclusive of GST. While preparing the estimates, separate provision for GST shall be made in recapitulation sheet.
- As per Govt. Circular No.SSR - 1090/CR-6453/PLN-3 Dt. 14.07.1993 and as per GR of Industries and power Department No. BCA-2009/CR-108/Labour 7-A dated 17.06.2010, Labour Cess at 1% has been considered separately in Rate Abstracts.
- For labour amenities and all other overhead charges, 10% provision is considered in Rate Abstract. In addition, 10% provision for Contractor's Profit is also considered separately.

- v) The Government of Maharashtra, Revenue and Forest Departments Gazette No.146 Dt. 04 June 2021 States that the **Royalty charges of Rs. 600/- Per Brass (i.e. Rs.211.95 /cum.)** are to be considered. The surcharge levied on Royalty shall also be payable to the contractor in following manner . Royalty charges on all minor minerals do not form part of Rate Abstract and shall be reimbursed separately on production of proof to that effect. The Superintending Engineer, PWD may modify and circulate Royalty charges in case of any modifications are made by Govt. of Maharashtra. **Royalty charges against estimated quantity shall be included in Recapitulation sheet.**
- a) **For sand = Royalty + surcharge (2%) + Distt. Mineral Foundation Cess (10%)**  
 $= 211.95 + 4.23 + 21.19 = 237.37 \text{ Per Cum}$
- b) **For All Other Minerals = Royalty + surcharge (2%)**  
 $= 211.95 + 4.23 = 216.18 \text{ per cum}$
- vi) **For crushed metal aggregates separate royalty charges shall not be considered as it is a finished product.**
- vii) **In water scarcity area (the locality declared as drought prone area by District Collector for specified period), the Superintending Engineer, PWD concerned shall suitably increase the rate for particular item considering the requirement of water for that item.**
- viii) **Leads and lifts**
- a) Rates For transportation of material by Truck from different leads have been worked out as per table given by National Building Organization. The cost per trip shown in statement 'C', also includes charges of running empty vehicle for return trip. For calculation of transportation charges rates tabulated in material master for following items are considered in the formula  
a ) Mazdoor    b) Diesel    c) Mobile Oil    d) Truck
- b) For calculation of pay load factor a truck of 10 M. T. capacity is considered.
- c) The rates worked out in the Rate Abstract include initial lead of 50 m. for all completed items. **Actual lead charges are to be added for items while framing the estimate wherever applicable.**
- d) Lead charges for various materials are given in **statement C-1** and these are **inclusive of loading and unloading charges**. Hence loading and unloading charges shall not be considered separately.
- e) The Basic rates for all quarrying materials such as Rubble, boulders, aggregates, sand, murum, selected earth etc. are taken as rates at quarry with lead of 50 mtr. (Head load lead is not to be deducted from lead)
- ix) **Hot-Mix Hot laid Bituminous Works:-**
- a) The rates of Bitumen VG-40, Bitumen VG-30, and Bitumen VG-10 grade bitumen are Separate. Hence specify the grade accordingly in items of work to be executed.
- b) References of PWD Standard Specifications, MORTH specifications are mentioned in bracket below the description of the items.
- x) **The concrete works :-**
- The rates of cement concrete item are based on Standard consumption. **The mix design shall be carried out for Concrete Grade above M-20 grade.** If the consumption as per approved mix design varies ( more or less 5% ) from standard consumption, accordingly the positive difference in the cost of cement shall not be paid to contractor.
- xi) **Work in Severe / Adverse / Foul Condition :**
- a) For such work, the rate for **excavation shall be increased by 25% over the scheduled rates of excavation.**
- b) For other items required to be executed in foul condition up to **Ground Level / Bed Level**, the rate shall be increased by **5% over schedule rates** of individual items of CSR. This increase is over and above under general note 2.
- c) The above hike in rates of (a) & (b) shall be subject to the express condition that the **prior approval of Superintending Engineer, PWD is obtained. The foul condition shall be certified by the Executive Engineer.**

**xii) General Guidelines :-**

- a) The contents of SSR Annexure are as follows :- Statement A-1 - Material Master. (Basic rates of materials) Statement A-2 - Labour Master.
- b) References of PWD Standard Specification/ MORT & H Specification are mentioned in schedule of rates.
- c) In case of sudden rush of works like Kumbhmela at Nasik, Guru-ta-Gaddi at Nanded, Asian games at Pune, the Department may face shortage of material and other resources. In such situation the concerned Superintending Engineer, PWD shall prepare the new Schedule of Rates or make necessary amendment/s in SSR with the prior permission of the respective Chief Engineer, PWD.
- d) For works in Ratnagiri, Sindhudurg districts specific District Schedule of Rates shall be prepared by respective SE.
- e) The testing facilities, for construction materials, which are not available in Government Laboratories/ Institutions, test results can be obtained from ISO Certified and NABL Accredited private quality control Laboratories / Govt. approved Engineering colleges, Polytechnic.
- f) Use of Geo textiles, for strengthening the soil is work of special techniques requiring precise use of materials and skilled supervision. Use of Geo textiles in soil stabilization may be included in estimate only after the prior permission of the Chief Engineer concerned.
- g) As far as possible, use of Cold mix items shall be discouraged. However, if found necessary, Rate Analysis for cold mix item with seal coat shall be approved by the Superintending Engineer, PWD of that particular Circle.
- h) Superintending Engineer, PWD shall decide reduced task rates for Items required for diversion, wherever diversion is required.
- i) The rates of Material, Labour and Machinery are same for all over state, however if any changes at local level, it shall be approved by the Superintending Engineer, PWD of that particular Circle.
- p) **Disclaimer about RA :-**  
**Rate Analysis is to be used only for base purpose of rates arrived in SSR. If any corrections found in RA, it should brought in the notice of SSR committee, so that committee will take review on it and will take decision to correct RA. No person / Contractor / Organisation can claim any amount based on the 'Rate Abstract' for the particular item. The 'Rate Abstracts' are nearly for estimation purposes as guidelines.**
- q) राज्य दरसूचीमध्ये अद्यावत तंत्रज्ञानावर आधारीत काही विशिष्ट बाबी उत्पादकाचे नावासह २०१९, २०२०, २०२१ या तीन वर्षांमध्ये समाविष्ट करण्यात आलेल्या होत्या. ह्या बाबी विशिष्ट खाजगी कंपन्यांशी निगडीत असल्या तरी राज्य दरसूचीमध्ये समाविष्ट करणे शासनाच्या दृष्टीने हितावह असल्याने अशा नविन बाबीं करिता परिशिष्ट 'A' वेगळ्याने प्रसिद्ध करण्यात येत आहे.

## Section B - Instructions for preparing estimate

- i) A As per revised circular issued by Dy. Directorate of Insurance Maharashtra State vide letter No. क्र. प्रविनी - 2314/ देयक कपात रक्कम/ संकीर्ण/ अभि-3, दिनांक 31/03/2015, Insurance towards labour is not considered in rate abstract of SSR items. Provision for the same shall be made in the recapitulation sheet as follows.

a)	Work value upto :- 25.00 Lakhs	1.00%
b)	Work value above :- 25.00 Lakhs	0.50%

- i) B The Contractor shall insure Project / Work facility for entire period of contract including all assets existing on the date of award of work and any subsequent assets created during **construction and maintenance including extension, if any, and upto DLP period** shall stand covered under this insurance coverage. The Contractor shall submit the insurance document within 7 working days from the date of work commencement order. **This insurance premium shall stand reimbursable in the 1st RA bill.** The amount for premium of such insurance shall be as per GIS (General Insurance Scheme) norms of Govt. of India. Such insurance, since reimbursable, is not considered in rate abstract of SSR items, the amount of assets premium shall be considered as 1% per Annum for total period of construction and maintenance including DLP in recapitulation sheet while framing the estimate.

- ii) For items of buildings having ground plus upper floors rate shall be increased as follows for the floor lift.

Sr.No.	Floor	For Every Floor Separate Item
		Rate to be increased by 1%
a)	Ground floor	Nil
b)	First floor	1%
c)	Second floor	2%
d)	Third floor	3%
e)	Fourth floor	4%

Above fourth floor the percentage increase in Rates floor wise shall be decided by concerned SE, PWD.

Note : The lift height for floor to floor shall be considered as 3.8 Mtr.

iii) **Transportation Charges:-**

- a) The transportation charges beyond 30 km to 50 km are with 5 km interval, 50 km to 100 km with 10 km interval, 100 km to 200 km with 25 km interval. The transportation charges for intermediate km. within the range shall be worked out by linearly **interpolating between rates of the lower and upper values in the range.**
- b) Statement C2 is for loading, unloading and stacking charges. Loading and unloading charges are to be deducted from Transportation charges in Statement C1, wherever transportation charges without loading and unloading are required.
- c) Rate of transportation of bulk bitumen from refinery to the plant site is Rs. 8.50 / M.T./ km. Rate of heating and decanning bulk bitumen is Rs. 115.00 / M.T.
- d) While framing the estimates, for transportation of bitumen and RCC hume pipe, **Toll charges payable at various Toll palzas shall be considered under a separate item. The rate shall be adopted as per NHAI/ MORTH toll policy.** The rate per kilometre shall be adopted for this shall be payable to contractor on submission of Toll receipt at various Toll plazas by shortest route.
- iv) **The items for which rates are not included in state schedule of Rates, the rates shall be approved by concerned superintending Engineer, PWD.**
- v) The rates for items pertaining to Parks & Gardens shall be taken from the SSR of Parks & Gardens wing of PWD.
- vi) For items of excavation, foundation concrete and masonry etc. for C. D. works, rates shall be adopted from corresponding items under respective building sections.



- vii) Rates for items of excavation are worked out by considering the excavation using machineries. But where site is inaccessible for machinery then rates for manual excavation shall be taken with prior permission of the Superintending Engineer, concerned.
- viii) For scaffolding work required to be erected for carrying out repairing work on external faces of building at various heights (viz. Repairs to chajja, external plastering, painting etc.). The rate of respective item shall be increased by 1%, provided the work is carried out by erecting scaffolding. For specific cases rate analysis shall be got approved from concerned Superintending Engineer, PWD. If separate item for scaffolding is considered in estimate, then this increase shall not be applied.
- ix) All concrete items considered in SSR are inclusive of normal curing system.
- x) For building works costing more than Rs. 25.00 Crore, curing shall invariably be done by intelligent curing system. Separate Rate analysis approved by concerned Superintending Engineer, PWD shall be used for estimation purpose.
- xi) For repair works considering small quantity of work nominal mix shall be used for PCC / RCC items.
- xii) If higher Concrete grade, is required for any specific work, the rate analysis of the same shall be derived by adding difference in standard cement consumption in relevant SSR item's rate and shall be got approved from the Superintending Engineer, PWD of concerned circle.
- xiii) For deep foundation works, if found necessary, additional deep work charges, shall be got sanctioned from the Chief Engineer of concerned region.
- xiv) For preparation of estimates the detailed plans (Civil and Electrical) shall be finalized with consent of user department and then the detailed estimate is to be prepared and submitted for Administrative Approval.
- xv) In respect of new buildings and bridges, type of foundation should be fixed on the basis of detailed soil investigation report and no change in foundation shall be made without study of technical and financial implications. If such change is required out of technical necessity, the approval of the competent authority, which has given administrative approval, be taken first and then only changes should be executed.
- xvi) While preparing Estimate, if the item of dewatering is necessary in estimate, proper item must be included and verified by the Superintending Engineer of concerned District. The dewatering rates in Bridges/Building section includes post monsoon flow of river/Nallahs having general seepage of water only and does not include provision of cofferdam, caging etc. In specific condition, if cofferdam/caging/dewatering using mechanical pumps is felt necessary then appropriate dewatering item from SSR shall be taken or separate rate analysis shall be prepared and got approved from concerned Superintending Engineer, PWD.
- xvii) While preparing Estimate, actual and practical distance of worksite from quarries shall be taken and adequate quantity of good quality material shall be ascertained by concerned Executive Engineer. Extra care shall be taken in case of lead of murum and sand.
- xviii) Provision shall be made for taking Photographs, Video Shooting, load testing etc. separately in detail estimate and shall form part of Schedule B.
- xix) The use of Power Roller shall not be encouraged.
- xx) For building works for the excavation beyond 3.0 metre depth, following increase in basic rate of an item shall be made:-
  - a) 3.0 m to 4.50 m depth add 20 %
  - b) 4.5 m to 6.0 m depth add 30 %
  - c) Depth beyond 6.0 m extra percent to be decided by concerned Superintending Engineer.
- xxi) The rates of various Concrete and BT items are inclusive of SCADA. SCADA is compulsarily adopted to the various works as per Govt. circular. However where it is not possible to use/adopt SCADA due to not availability of internet network or in case of small works, Misc. works, Repair works the rate shall be deducted from basic SSR rates. The amount to be deducted for concrete items shall be Rs. 120.00 per cum and for BT item shall be Rs. 60.00 per cum and the amount shall be converted per Sqm respectively. The permission of not adopting SCADA shall be obtained from the Superintending Engineer or Chief Engineer who is the Competent Authority to accord Technical Sanction prior to execution or at the time of sanction of estimate as the case may be.



- xxii)** For RCC / PQC items involving modified type of curing, the basic rate of such items shall be increased by 5% to consider cost of curing compound.
- xxiii)** For built up drain, the basic rate of item shall be increased as mentioned for foul conditions ( i.e. Point No. (x) Page No. 4 of this general note)
- xxiv)** The DPR and estimate must certify on quarry chart that
  - a) Quarries selected have sufficient quantity of required of specific quality needed.
  - b) That shortest lead has been considered while preparing the estimates.
- xxv)** For murum & earth, lead from nearby farms / private lands shall not be taken. It should be taken from approved quarries only.
- xxvi)** The rates of sand shall be average of the sand sale rates of last five years obtained from respective District Collector. Also the rates of items shall be in two parts i.e. 1) small works requiring sand upto 10Cum & 2) works requiring sand more than 10 Cum.
- xxvii)** Manufactured sand/ Crushed sand shall be used for work if natural sand is not available. However, in such cases the job mix design shall be get done before use wherever required.
- xxviii)** New items included in last year SSR shall be encouraged & used on pilot basis.

### **Section C - Testing of Materials**

- i) Laboratory testing charges are not considered in the Rate Abstracts. Wherever required separate item shall be taken in the estimate for material testing charges, on the basis of testing frequency and charges fixed by Vigilance & Quality Control Circle, for the current year and shall form part of Schedule B of tender.
- ii) For Specific tests like span load tests, plate/ pile load test etc. which are not included in the rate analysis of item, the rates for these tests shall be prepared on the basis of rates approved by M.E.R.I./ any competent Institute of Govt. of Maharashtra or Govt. of India.

## Section D - Instructions for tender Clause

- i) The contractor shall produce the **work insurance policy**, the same will be reimbursed to the contractor. If contractor fails to produce the work insurance policy, Concerned Executive Engineer shall **draw the policy**, the expenditure incurred for drawing the policy shall be recovered from the 1st R.A. bill of the contractor as penalty to the Contractor.

- ii) If completion period of work is Extended, then period of work Insurance must be renewed/ extended as per requirement.

iii) **Mandatory Testing of Material and Penalty Clause**

It is mandatory on the part of contractor to carry out all the required tests of various construction materials as mentioned in schedule 'B' of the tender. If the contractor fails to submit required test result of the various construction materials as mentioned in the items of schedule 'B', he will be liable to deposit the amount at penal rate of five times of the amount of particular test which he has not carried out. Contractor will be informed by the Engineer-in-Charge through letter. On receipt of letter, contractor will have to either deposit the said amount or to carry out the required test within ten days. If he again fails to carry out the required tests in stipulated time limit, the said tests will be carried out by the department and total expenditure incurred on the testing charges plus five times amount of testing charges will be recovered from the contractor's bill.

As this recovery is only due to the negligence on the part of contractor to carry out work as per Tender conditions and Executive Engineer's decision will be final and binding on the contractor and it can not be challenged by the contractor by way of Appeal, Arbitration or in the Court of Law.

Considering above, relevant clause shall be included in DTP.

**Tender Percentage for Royalty, Testing charges and Man power**

While preparing D.T.P, the Schedule "B"/BOQ amount shall be divided as(A) work Portion and (B), Royalty charges, Testing charges and Man power for Dept

For B-1 tender the Percentage shall be applied to work portion. (A) only.

For B-2 tender the Rate of item shall be applied to work portion. (A) only.

In above both case the part "B" of schedule B/BOQ will be intact.

Considering above, relevant clause shall be included in DTP.

The percentage above or below coated by the successful bidder shall not be applied for the items of Testing Charges, Royalty and also insurance premium for all types of contract.

- iv) **GSB : The works, in which the granular sub-base is proposed to be used as per pavement design or the otherwise, suitable gradation as per the requirements of the drainage in the sub-base strata, quality of sub-base on which road structure is going to be rested and the requirements of strengthening of base/sub-base course. There are 6 gradation available in MORTH specification and the contractor shall use proper graded GSB if the design is to be submitted by the contractor or suitable gradation shall be selected by the technical sanctioning authority as per the site requirements. No extra payment shall be made**

- v) **Seal Coat : It is observed that, whenever the item involved in bitumen spray such as BUSG/Surface dressing / DBM / BBM /Liquid seal coat, the spraying of asphalt is unreasonably uneven there by reduces the life of treatment imparted. The reasons could be attributed to lack of supervision on the part of contractor, lack of supervision on the part of supervisory engineers from PWD or may be due to the negligence of sprayer. In all probabilities, in spite of heavy investment done by the Government for construction/resurfacing / strengthening of pavement structure, the work does not endure its designed life. In consequences the department has to receive comments from users of road ultimately damaging the image of the department or Government.**

**In order to eliminate this problem, the contractor shall submit photographs / video-graphs of bitumen spray over the prepared surface and submit along with the bills without which the payment against such items shall not be released. The photos shall be geo-tagged in order to ascertain the application of bitumen spray at the particular location of work. No extra payment shall be made**

- vi) For the use of branded items / fixtures / tiles or any lavish treatment, the item rate list shall be approved by territorial SE / competent authority with the prior approval from user department & their demand in writing. Even if the items / products are to be used through CR where the authority of technical sanctioning rests with EE, the executive engineer concerned shall obtain prior approval of Superintending Engineer concerned.
- vii) **Tining to Rigid Pavements :-**  
It is observed that wherever the tining work is executed on site the tining work is unreasonably uneven there by reducing the life of the pavement, which cause skidding of the vehicles on the road surface. The reasons could be attributed to lack of supervision & workmanship on the part of contractor & lack of supervision on the part of supervisory Engineer from PWD in all probabilities, In spite of heavy investment done by the government for resurfacing/ strengthening of pavement. In consequences the road user endanger his life or may face any accident.  
In order to eliminate this problem the contractor /agency shall submit photograph / videography of the tining treatment done to the road surface along with the bills to Deputy Engineer / Executive Engineer for payment without which the payment against such items shall not be released.
- viii) For GST charges on Royalty and material testing, the receipt of payment of GST charges on royalty and testing charges shall be submitted by the contractor at the time of Bill payment and amount will be reimbursed to the contractor accordingly.
- ix) Cement / Steel / Bitumen या साहित्यांच्या दरामध्ये निविदेतील star rate च्या १० % पेक्षा कमी चढ-उतार असेल तर normal price variation च्या गुणांकना नुसार भाववाढ देय राहिल. जर असा फरक १० % पेक्षा जास्त फरकाने कमी अथवा जास्त झाल्यास निविदेमध्ये नमुद star rate व प्रत्यक्षातील दर यांच्यातील फरक +/- १० % इतकी अधिक / वजा रक्कम कंत्राटदारास देय राहिल. अशा प्रसंगी +/- १० % मर्यादेपर्यंत भाववाढ व उर्वरित चढउतारास +/- रक्कम गुणांकित करून त्याप्रमाणे कंत्राटदारास अधिकची रक्कम द्यावी अथवा कंत्राटदाराकडून उणे रक्कम देयकातून वसूल करावी.

## Section E - Additional notes for Coastal Items

- i) Coastal items are applicable for Mumbai City, Mumbai Suburban, Thane, Palghar, Raigad, Ratnagiri & Sindhudurg Districts.
- ii) This schedule of rates is applicable to all coastal protection works such as Anti Sea Erosion Bund, Groyne, Breakwater etc. to be constructed in the tidal condition along the sea coast & in the sea/creek area of all Coastal Districts.
- iii) For all completed items no initial lead is considered for material like sand, metal, stones etc. Lead charges for these materials shall be added while estimation.
- iv) Following increase over normal schedule of rates mentioned in this schedule are admissible on following accounts.
  - a) Defence Area [such as INS Hamla, Malad for security reasons] : 10%  
In Case more than one percentage increase on basic rates is admissible, instead of adding both the percentages, the higher percentage should be considered. (e.g. if any Defence area falls in the Municipal Corporation area then percentage addition will be only 10% and not with 10% + 5%). The above percentage increase should be applied on completed item rate.
- v) Items which comes under tidal condition 10% is to be added over completed item rate.
- vi) The head load is to be considered with prior permission of Coastal Engineer while preparing detailed rate analysis for inaccessible area where shifting of materials by head load is necessary. The State Schedule of Rates shall be adopted.
- vii) For the works in Elephanta, Arnala Fort, Panju island and such other islands and works such as light houses, guide poles to be constructed on the island or in the Sea/Creek, the actual boat charges for transportation of materials and labours shall be taken and detailed rate analysis for transportation of materials by boats shall be done and approved by Coastal Engineer. The boat charges shall be considered as follows:
  - a) Small boat (Single Cylinder @ Carrying Capacity = 1.50 MT) : Rs.4500/- per Day
  - b) Big boat (Double Cylinder @ Carrying Capacity = 5.00 MT) : Rs.8000/- per Day
- viii) The items included in this Section of schedule of rates are special items required for Coastal Engineering Works. For other items, State schedule of Rates should be adopted. Items which comes under tidal condition 10% is to be added over completed item rate.
- ix) For all works of Coastal Engineering Circle (Excluding building), for item of excavation rates of corresponding bridge items shall be considered.

## Section F - Road Furniture

- i) IRC 67 2012 Table 6.2 Suggested Guidelines for Usage of Retro-Reflective Sheeting

Class of Sheeting	Type of Sheeting (ASTM)	Category of Road				
		National/State Highway	Major District Roads	Rural Roads	Urban/City Roads	Express way
Class A	Type I	No	Yes	Yes	No	No
	Type II	No	Yes	Yes	No	No
Class B	Type III	Yes	Yes	Yes	Yes	No
	Type IV	Yes	Yes	Yes	Yes	No
Class C	Type VIII	Yes	No	No	Yes	Yes
	Type IX	Yes	No	No	Yes	Yes
	Type XI	Yes	No	No	Yes	Yes

- ii) IRC 67 2012 Table 8.3 Colour Pattern for Direction Information Signs

Road Type	Backgrou	Arrows/Border/Letters
Expressway	Blue	White
National Highway (NH)	Green	White
State Highway (SH)	Green	White
Major District Road (MDR)	Green	White
Village Road (VR)	White	Black
Urban/City Road	Blue	White

- iii) Warranty for Class B and Class C sheet of Cautionary / Mandatory / Informative Sign boards

**Class B** ( Type IV High intensity micro-prismatic grade sheeting-HIP) shall have **7 years written warranty** from the manufacturer and authorised distributor/convertor issued for field performance including the screen printed areas and cut-out sheeting and cut-out durable transparent overlay film and this warranty certificate in original should be submitted to the Engineer in Charge by the contractor/supplier.

Class C ( Type XI Micro prismatic grade sheeting) shall have **10 years written warranty** from the manufacturer and authorised distributor/convertor issued for field performance including the screen printed areas and cut-out sheeting and cut-out durable transparent overlay film and this warranty certificate in original should be submitted to the Engineer in Charge by the contractor/supplier.

The contractor shall produce the written warranty from the manufacturer and authorise distributor/convertor, else 20% of single item amount shall be deducted from his first R.A. Bill.



सत्यमेव जयते

# **GOVERNMENT OF MAHARASHTRA**

## **PUBLIC WORKS DEPARTMENT**

### **STATE SCHEDULE OF RATES**

**2021-22** ☐



## STATE SCHEDULE OF RATES 2021-22

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
<b>Road Survey and DPR</b>								
1	Road Survey and DPR	1.01		Fixing chainage Stone /Bench mark Stone / Center Stone / Apex Stone in earth and all sorts of soil and soft murum including conveying excavated material, fixing stone, including paintaining lettering numbers and back filling etc. complete.	As directed by Engineer in charge	Number	175	175
2	Road Survey and DPR	1.02		Taking the trial pit for roads, alignment, C.D. Works in earth soil of all sorts, sands gravel or soft murum, including stacking the excavated material including all lifts and necessary back filling upto depth 1.5 meters	As directed by Engineer in charge	Cubic Metre	454	454
3	Road Survey and DPR	1.03		Taking the trial pit for roads, alignment, C.D. Works in earth soil of all sorts, sands gravel, or soft murum, including stacking the excavated material including all lifts and necessary back filling upto depth 3.0 meters	As directed by Engineer in charge	Cubic Metre	489	489
4	Road Survey and DPR	1.04		Taking the trial pit for roads, alignment, C.D. Works in Hard murum, including stacking the excavated material including all lifts and necessary back filling upto depth 1.5 meters	As directed by Engineer in charge	Cubic Metre	594	594
5	Road Survey and DPR	1.05		Taking the trial pit for roads, alignment, C.D. Works in Hard murum, including stacking the excavated material including all lifts and necessary back filling upto depth 3.0 meters	As directed by Engineer in charge	Cubic Metre	664	664
6	Road Survey and DPR	1.06		Taking the trial pit for roads, alignment, C.D. Works in Hard murum, and Boulders including stacking the excavated material including all lifts and necessary back filling upto depth 1.5 meters	As directed by Engineer in charge	Cubic Metre	734	734
7	Road Survey and DPR	1.07		Taking the trial pit for roads, alignment, C.D. Works in Hard murum, and Boulders including stacking the excavated material including all lifts and necessary back filling upto depth 3.0 meters	As directed by Engineer in charge	Cubic Metre	928	928
8	Road Survey and DPR	1.08		Fixing survey pegs in earth and all sorts Soil, Sand, Gravel, Soft Murum, etc. including conveying, fixing etc. complete.	As directed by Engineer in charge	Number	11	11
9	Road Survey and DPR	1.09		Reconnaissance Survey of Road alignment in plain country including taking three dimensions of apexes, verification of type of land etc. alongwith the alignment etc. complete (Without Chaining).	As directed by Engineer in charge	Kilometre	2011	1887
10	Road Survey and DPR	1.10		Reconnaissance Survey of Road alignment in plain country including taking three dimensions of apexes, verification of type of land etc. alongwith the alignment etc. complete (With Chaining).	As directed by Engineer in charge	Kilometre	5108	4535
11	Road Survey and DPR	1.11		Reconnaissance Survey of a road alignment for new hilly road utilising exsisting forest cart tracks with use of ghat tracer (if found necessary), taking three dimensions of apexes including verification of type of land etc. complete. (Without Chaining)	As directed by Engineer in charge	Kilometre	5427	4574
12	Road Survey and DPR	1.12		Reconnaissance Survey of road alignment for new hilly road utilising exsisting forest cart tracks with use of ghat tracer (if found necessary), taking three dimensions of apexes including verification of type of land etc. complete. (With Chaining)	As directed by Engineer in charge	Kilometre	5221	4452
13	Road Survey and DPR	1.13		Reconnaissance Survey of road alignment in hilly road utilising exsisting forest cart tracks with use of ghat tracer (if found necessary), taking three dimensions of apexes including verification of type of land etc. complete. (Without Chaining) .	As directed by Engineer in charge	Kilometre	2885	2238
14	Road Survey and DPR	1.14		Reconnaissance Survey of road alignment in hilly road utilising existing forest cart tracks with use of ghat tracer (if found necessary), taking three dimensions of apexes including verification of type of land etc. complete. (With Chaining) .	As directed by Engineer in charge	Kilometre	5571	4803
15	Road Survey and DPR	1.15		Detailed survey of road in plain country including chaining and levelling with cross sections at every two chains inclusive of closing of survey each day.	As directed by Engineer in charge	Kilometre	6094	4073
16	Road Survey and DPR	1.16		Detailed survey of road length where earthwork is partly done including chaining and levelling with cross sections at every two chains inclusive of closing survey each day.	As directed by Engineer in charge	Kilometre	5853	3331
17	Road Survey and DPR	1.17		Detailed survey of road through hilly country taking cross section at every chains or as required including chaining , levelling and closing survey each day.	As directed by Engineer in charge	Kilometre	9344	5375
18	Road Survey and DPR	1.18		Detailed survey of road through hilly country taking cross section at every chains as desired including chaining ,levelling and closing survey each day utilising existing cart track.	As directed by Engineer in charge	Kilometre	7425	4908



Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
19	Road Survey and DPR	1.19		Providing and Fixing Wooden survey pegs including White washing etc. complete.	As directed by Engineer in charge	Number	48	31
20	Road Survey and DPR	1.2		Carrying out catchment area traverse survey of minor stream (not traceable in toposheet) below 100 acres	As directed by Engineer in charge	Kilometre	3313	1914
21	Road Survey and DPR	1.21		Cutting down branches of trees , bushes etc. stacking the material neatly as directed (For Motarable Road)	As directed by Engineer in charge	Kilometre	7648	7648
22	Road Survey and DPR	1.22		Providing detailed layout plan of area in scale 1:500 including carrying out contour survey and detailed Engineering plane table Survey with the help of 24 Alidade. The dolomite area measurement of the plot and structures, trees, over head line and under ground service amenities within the area, with triangular method and giving detailes of the structures, such as total area, type of building and distance from all corners taking trial pit 0.5x0.5x2.00 m.-2Nos. per acre and collection of record from city survey / D.I.L.R. authorities and authentication. The plan shall be traced on 75 micron polyster film and shall be submitted along with three Amonia prints. The contour levels shall be marked at 0.5 Meter intervals. Note:- The items includes- 1)Traversing work with theodolite and steel tape. 2) Levelling Grid Work of the terrain. 3)Detailed Engineering Survey and contouring work of the terrain. 4)Plotting work. 5)Collection of Record. a) up to 1 Acre	MORTH	Acre	8407	6979
23	Road Survey and DPR	1.23		Providing detailed layout plan of area in scale 1:500 including carrying out contour survey and detailed Engineering plane table Survey with the help of 24' Alidade. The dolomite area measurement of the plot and structures, trees, over head line and under ground service amenities within the area, with triagular method and giving detailes of the structures, such as total area, type of building and distance from all corners taking trial pit 0.5x0.5x2.00 m.-2Nos. per acre and collection of record from city survey / D.I.L.R. authorities and authentication. The plan shall be traced on 75 micron polyster film and shall be submitted along with three Amonia prints. The contour levels shall be marked at 0.5 Meter intervals. Note:- The items includes- 1)Traversing work with theodolite and steel tape. 2) Levelling Grid Work of the terrain. 3)Detailed Engineering Survey and contouring work of the terrain. 4)Plotting work. 5)Collection of Record. b) Above 1 Acre	As directed by Engineer in charge	Acre	8528	6979
24	Road Survey and DPR	1.24		Reconnaissance survey including study of sheets, maps etc. for alignment including 3 dimension of apexes, fixing pegs, chain and compass or cross staff survey with L-Section and cross section of alignment at every 30 m or at every change of deviation whichever is less including fly levels at closing of day, fixing apex and B.M. stones of size 0.20*0.20*0.75 m in 1:2:4 C.C. at every 200 m and preparation of alignment plans and all type of compliance if required from department.	As directed by Engineer in charge	Kilometre	28033	14115
25	Road Survey and DPR	1.25		Preparation of detailed Plans and Estimates of road including typing in 5 copies, ammonia prints, with colouring of plans, proper filing, indexing and paging etc. complete and all types of compliance, if required from Department.	As directed by Engineer in charge	Kilometre	15468	13976
26	Road Survey and DPR	1.26		Survey of C.D. works including taking L-section of Road, catchment area plan by Traverse method and taking trial pits of size 1.00x1.00x1.50 m including preparation of detailed Plans and Estimates in 5 copies and all types of compliance if required from the Department.	As directed by Engineer in charge	Number	15508	11467

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
27	Road Survey and DPR	1.27		Survey of Minor bridge including taking L section of existing road and two defined cross sections ,one of U/s and one of D/s, one vergin cross section on alternate proposed cross sections and bed slope of stream upto sufficient long distance as required with chain and compass. Taking three trial pits of size 1.00x1.00x3.0 m and collecting samples of materials at site for ascertaining the silt factor, unit weight test, specific gravity from Govt. approved laboratories( testing charges to be borne by the agency) and preparation of detailed survey data, submission of the project duly typed and colouring of the ammonia prints, site plan and other drawings etc. complete if required from the Department.	As directed by Engineer in charge	Number	59013	34026
28	Road Survey and DPR	1.28		Survey of major bridge including taking L-section of existing road two defined cross -sections (one at U/S and one at D/s) and one vergin cross section on alternate proposed cross sections and bed slope of stream upto sufficient long distance as required with chain and compass.Taking 5 trial pits, three in bed, two on banks of size 2.00x2.00x3.00 m for collecting samples of materials at site for ascertaining the silt factor, unit weight test, specific gravity from Govt. approved laboratories (testing charges to be borne by the agency) and preparation of detailed survey data, submission of the project duly typed and colouring of ammonia prints, site plan and other drawings etc.complete. And all types of compliance if required from Department. (Excluding taking trial bores and contouring)	As directed by Engineer in charge	Running Metre	1824	1108
29	Road Survey and DPR	1.29		Contour Survey of stream U/S and D/S of proposed bridge site including levelling at every 30 X 30 m preparing contour map with Autocad prints etc.complete in 5 sets.	As directed by Engineer in charge	Square Metre	98244	61672
30	Road Survey and DPR	1.3		Survey of raised Causeway including reconnaissance, taking L section of existing road one defined one vergin one alternate proposed cross section and stream upto sufficient lengths with chain and compass taking two trial pits of size 2.00x2.00x3.00 m. collecting samples at site ascertaining silt factor and preparation of detailed survey data,submission of the project duly typed colouring of the ammonia prints,site plan and other drawing etc.complete if required from Deparetment.	As directed by Engineer in charge	Number	40087	22530
31	Road Survey and DPR	1.31		Preparation of detailed plans and estimates of Raise Causeway on the basis of the approved detailed survey data by competent authority including typing in 5 copies ammonia prints site plan other drawings with colouring of plans proper filling indexing and paging etc.complete and all types of compliance if required from Department.	As directed by Engineer in charge	Number	9880	8766
32	Road Survey and DPR	1.32		Complete survey of stream having catchment area upto 1 sq. mile including catchment survey taking necessary L.S./C.S. and other details etc. complete.	As directed by Engineer in charge	Number	8606	4419
33	Road Survey and DPR	1.33		Complete survey of stream having catchment area above 1 sq. Mile and upto 5 sq. Miles including taking necessary L.S./C.S. and other details etc. complete.	As directed by Engineer in charge	Number	17955	12341
34	Road Survey and DPR	1.34		Reconnaissance survey of alignment in plain country for approaches to the bridge including taking three dimensions of apexes. ( Without chaining )	As directed by Engineer in charge	Kilometre	2155	1691
35	Road Survey and DPR	1.35		Fly levelling for carrying out bench mark.	As directed by Engineer in charge	Kilometre	1743	1148
36	Road Survey and DPR	1.36		Detailed survey of approaches including Chain and Compass survey along bridge alignment and approaches including closing each day work.	As directed by Engineer in charge	Kilometre	4439	3088
37	Road Survey and DPR	1.37		Taking longitudinal section of streams extending upstream and downstream side of the bridge site, requisite number of cross section of the stream on either sides block contouring and other details etc. complete. (Length of L.S. and C.S. for contouring to be worked out)	As directed by Engineer in charge	Kilometre	5373	4022
38	Road Survey and DPR	1.38		Demarcation of right of way (ROW) as per design using total station including calculation of co-ordinates of 30 Meter interval on both sides of road.	As directed by Engineer in charge	Kilometre	9581	5024

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
39	Road Survey and DPR	1.39		Preparation of Land Acquisition proposal including collection of 7/12 and 8/A documents marking alignment on village maps , area calculation, preparation of proposal, printing, binding, etc. complete and submission of 5 sets more ever liasoning and coordination with revenue authorities with compliance if any until finalisation of award including Joint measurement of the alignment. For new alignment.	As directed by Engineer in charge	Kilometre	17920	6002
40	Road Survey and DPR	1.40		Preparation of Land Acquisition proposal including collection of 7/12 and 8/A documents marking alignment on village maps , area calculation, preparation of proposal, printing, binding, etc. complete and submission of 5 sets more ever liasoning and coordination with revenue authorities with compliance if any until finalisation of award including Joint measurement of the alignment. For existing alignment.	As directed by Engineer in charge	Kilometre	17453	7918
41	Road Survey and DPR	1.41		Carrying of detailed topographic survey by using total station along the existing or new road including taking L-section and cross section at every 30 meter ROW ,taking at least 10 spot levels per cross section, picking up all existing details inside the Row like electric telephone line , encroachments, structures etc. connecting all the primary total station control points by G.I.S.Bench marks level or whichever available with department using auto level and preparing Auto CAD plan by using above data taking out 1 set of black and white printout on 50 micron polyster film sheet A2 size and 2 sets of coloured printout on A2 size submitting soft copy all data on CD. Plain Terrain New Alignment	As directed by Engineer in charge	Kilometre	45123	21734
42	Road Survey and DPR	1.42		Carrying of detailed topographic survey by using total station along the existing or new road including taking L-section and cross section at every 30 meter ROW ,taking at least 10 spot levels per cross section, picking up all existing details inside the Row like electric telephone line , encroachments, structures etc. connecting all the primary total station control points by G.I.S.Bench marks level or whichever available with department using auto level and preparing Auto CAD plan by using above data taking out 1 set of black and white printout on 50 micron polyster film sheet A2 size and 2 sets of coloured printout on A2 size submitting soft copy all data on CD. Plain Terrain Existing Alignment.	As directed by Engineer in charge	Kilometre	41998	18367
43	Road Survey and DPR	1.43		Carrying of detailed topographic survey by using total station along the existing or new road including taking L-section and cross section at every 30 meter ROW ,taking at least 10 spot levels per cross section, picking up all existing details inside the Row like electric telephone line , encroachments, structures etc. connecting all the primary total station control points by G.I.S.Bench marks level or whichever available with department using auto level and preparing Auto CAD plan by using above data taking out 1 set of black and white printout on 50 micron polyster film sheet A2 size and 2 sets of coloured printout on A2 size submitting soft copy all data on CD. Hilly Terrain New Alignment	As directed by Engineer in charge	Kilometre	57488	28569
44	Road Survey and DPR	1.44		Demarcation of Road boundry (ROW) including fixing the boundry stones of standard size and shape including fixing in block of standard size of C.C. of 1:4:8 white washing at 30 M interval on both sides	As directed by Engineer in charge	Kilometre	39395	10355
45	Road Survey and DPR	1.45		Taking trial bores 75 to 100 mm for 53.0 to 88.9 mm core dia over burden ( by diamond drilling machine ) such as soil of all sorts, soft murum, hard murum and boulders and in soft rock including all materials such as casing pipes and accessories oil, grease, steel, rods, and such other materials as required (including conveying the material to site of work) . Preserving the loose sample in glass jar and core sample serially on site of work and conveying the same to HQ of concernring office as directed. a) over burden 0 to 50 meter.	As directed by Engineer in charge	Running Metre	2085	422

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
46	Road Survey and DPR	1.46		Taking trial bores 75 to 100 mm for 53.0 to 88.9 mm core dia in rocks as specified below including all necessary materials such as oil,grease,steel boostan and such other materials as required (including conveying the material to site of work) and Preserving the core sample serially on site of work and conveying the same to HQ of concernring office as directed. <u>Quartzite with diamond drill with Nx Bit 0 to 50 metre</u>	As directed by Engineer in charge	Running Metre	6784	492
47	Road Survey and DPR	1.47		Taking trial bores 75 to 100 mm for 53.0 to 88.9 mm core dia in rocks as specified below including all necessary materials such as oil,grease,steel boostan and such other materials as required (including conveying the material to site of work) and Preserving the core sample serially on site of work and conveying the same to HQ of concernring office as directed. <u>Quartzite with diamond drill with Ax Bit 0 to 50 metre</u>	As directed by Engineer in charge	Running Metre	4091	895
48	Road Survey and DPR	1.48		Taking trial bores 75 to 100 mm for 53.0 to 88.9 mm core dia in rocks as specified below including all necessary materials such as oil,grease,steel boostan and such other materials as required (including conveying the material to site of work) and Preserving the core sample serially on site of work and conveying the same to HQ of concernring office as directed. <u>Other Rock with diamond drill. 0 to 50 metre</u>	As directed by Engineer in charge	Running Metre	3880	492
49	Road Survey and DPR	1.49		Providing tun tappa core boxes of jungle wood of size1.25mx 0.35x 0.15m for preserving core sample with all fixtures and fastening handles including locking arrangment etc . complete.	As directed by Engineer in charge	Number	5205	1661
50	Road Survey and DPR	1.50		Providing and maintaining temporary platform of bore location in river bed in upto 1M of standing water and of size 3.50 x 4.00 M by using sand bags in layer for platform including all required materials labours etc. complete.	As directed by Engineer in charge	Number	12293	6948
51	Road Survey and DPR	1.51		Providing and maintaining temporary platform for erecting boring machined in river bed to the depth of standing water 1m to 2m and of size 3.50 x 4.00 M by using 20 Nos. of M.S. empty barrels in M.S. frame made of M.S. angle size 50 x 50 x 5 mm with fabrication and over it a jungle wood planks platform of size 3.50 x 4.00 x 0.03 M size including supplying of nylon rope 24 mm dia. for anchoring platform include passage platform and enganging a labour etc. complete. 1 m to 2 m	As directed by Engineer in charge	Number	20028	6948
52	Road Survey and DPR	1.52		Providing and maintaining temporary platform for erecting boring machined in river bed to the depth of standing water 2 m and above and of size 3.50 x 4.00 M by using 20 Nos. of M.S. empty barrels in M.S. frame made of M.S. angle size 50 x 50 x 5 mm with fabrication and over it a jungle wood planks platform of size 3.50 x 4.00 x 0.03 M size including supplying of nylon rope 24 mm dia. for anchoring platform include passage platform and enganging a labour etc. complete. 2 m and Above.	As directed by Engineer in charge	Number	20637	6948
53	Road Survey and DPR	1.53		Providing and maintaining temporary platform for inspection from one bank to another bank of bore location in river bed in all depth of standing water of size 1.30 x 2.00 M by using 4 Nos. of M.S. empty barrels in M.S. frame made of M.S. angle size 50 x 50 x 5 mm with fabrication and over it a jungle wood planks platform of size 1.30 x 2.00 x 0.03 M size including supplying of nylon rope 24 mm dia. and 300 M length of movement of platform enganging a labour on inspection days etc. complete.	As directed by Engineer in charge	Number	19205	10451
54	Road Survey and DPR	1.54		Conveying the boring machine and engine and all its accessories etc. to the site of the work and back including loading unloading etc. complete. ( Note - Distance to be measured from the station of boring machine engine etc. of district head quarters to site of the work by short route ).	As directed by Engineer in charge	Kilometre	82	14
55	Road Survey and DPR	1.55		Shifting boring plant with all its components and reinstalling the same at the directed place including all its charges etc. complete.	As directed by Engineer in charge	Shift	8504	8105
56	Road Survey and DPR	1.56		Providing detailed reports of the inspection logging of drilled hole by observing visual description of data as per depth, thickness of layer, type of sample, wash sample, bore recovery type of drill etc. complete.	As directed by Engineer in charge	Number	9680	0

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
57	Road Survey and DPR	1.57		Providing detailed geological reports of proposed site by maintaining geotechnical investigation of structure stratification collecting soil, rock and ground water samples for laboratory tests to arrive the foundation design parameters . Rock properties such as type of rock, jointing fractures, etc. complete with suggestion about the site foundation and remedies.	As directed by Engineer in charge	Report	38720	0
58	Road Survey and DPR	1.58		Preparing land plans and land schedule including carrying out plane table survey for Private / Forest land on both side of road in Rural and Urban areas. The work of plotting and certificate from T.I.L.R. or other authorities shall be obtained from correctness of prepared plans. Tracing ang taking out prints and preparing the requisite booklets duly bounds and printing with all materials etc. Three land plan booklets along with original tracing shall be supplied including procurement of village maps / forest land plans from concern authorities.Note : The item plane table includes following points 1 ) Carrying out plane table survey. 2) Plotting of duly surveyed area . 3) Collection of data from D.I.L.R. authorities and verification of survey maps by D.I.L.R. authorities . 4) Preparing three booklets of survey maps including taking out prints of survey maps, binding etc. 5) Carrying out plane table survey of the Private / Forest land along the road upto 30 meters on either side from the road centre.	As directed by Engineer in charge	Kilometre	40875	13770
59	Road Survey and DPR	1.59		Geometrical design of road horizontal and vertical curves for design speed specified by IRC including carrying out trail for optimising of civil cost minimising land acquisition and maximum use of existing facility and preparation of widening arrangement drawing for insisting structures stake out date for horizontal alignment and working levels including super elevation effect etc. complete.	As directed by Engineer in charge	Kilometre	12359	4224
60	Road Survey and DPR	1.60		Transferring and taking out design on coordinates of baseline on ground using nails for exsisting road surfaces and survey pegs for new alignments including taking out coordinates for horizontal curves at required interval of 50 meters etc. complete. ( Extra line such as right of way median edges to toe line not included).	As directed by Engineer in charge	Kilometre	12408	6367
61	Road Survey and DPR	1.61		Preparation of roadway, drawing (Plan And Profile ) on computer by using Autocad of required scale showing all topo feature and proposed construction details such as carriage way , median service road, toe line, retaining walls, cross drainage works, major structures, etc. complete. Including indexing, level tables, legend, basic information of project and design details etc.	As directed by Engineer in charge	Kilometre	10497	7919
62	Road Survey and DPR	1.62		Preparation of Engineering drawing as strip plan, widening scheme, index / key map, typical cross section, retaining walls, road furniture, general arrangement drawings for bus bays / truck lay-bays / rest areas / toll plaza / booths / and type drawing of pipe/ slab drains etc. on computer using Auto CAD.	As directed by Engineer in charge	Kilometre	9343	6765
63	Road Survey and DPR	1.63		Survey of C.D. works including taking L-Section of road, catchment area plan by Traverse method and taking trial pits of size 1.50M x 1.50M x 1.50M including preparation of detailed plans and estimates in 5 copies and all types of compliance if required from the department.	As directed by Engineer in charge	Number	9508	6967
64	Road Survey and DPR	1.64		Design of junctions including detail layout of traffic signs, informatory boards traffic islands. Breaks in median verge including working levels at junctions as per IRC standards etc. complete. a) Major Junction	As directed by Engineer in charge	Number	28760	19019
65	Road Survey and DPR	1.65		Design of junctions including detail layout of traffic signs, informatory boards traffic islands. Breaks in median verge including working levels at junctions as per IRC standards etc. complete. b) Minor Junction	As directed by Engineer in charge	Number	16387	9236
66	Road Survey and DPR	1.66		Preparaion of initial design of flyovers with preparing General Arrangement drawing with dimensions etc. complete and preparation of rough estimate for all components of bridge. Including supplying four copies of coloured drawings and copy of drawing on C.D. ( excluding geotechnical and structural design part.)	As directed by Engineer in charge	Running Metre	774	142

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
67	Road Survey and DPR	1.67		Preparation of draft / Final Report comprising of technical, financial economic feasibility and environmental aspects of the project including executive summary and detailed chapters on necessity and introduction of project existing and future traffic, design philosophy scope of work, summary of available cost estimates justification for rates adopted, key points of execution, salient features of the project, location of toll plaza, toll rate / policy to be adopted and specification of major construction items etc. in 8 copies having attractive cover and binding s directed by engineer in charge etc. complete.	As directed by Engineer in charge	Number	279329	210722
68	Road Survey and DPR	1.68		Preparation of Autocad drawing with colour print for Building / Bridge / Road/ CD Works in required size etc. complete. - A-0 Size	As directed by Engineer in charge	Number	4704	4341
69	Road Survey and DPR	1.69		Preparation of Autocad drawing with colour print for Building / Bridge / Road/ CD Works in required size etc. complete. A-1 Size	As directed by Engineer in charge	Number	3866	3543
70	Road Survey and DPR	1.70		Preparation of Autocad drawing with colour print for Building / Bridge / Road/ CD Works in required size etc. complete. A-2 Size	As directed by Engineer in charge	Number	2960	2717
71	Road Survey and DPR	1.71		Autocad drawing with colour print out for Building / Bridge / Road/ CD Works in required size etc. complete. A-0 Size	As directed by Engineer in charge	Number	145	0
72	Road Survey and DPR	1.72		Autocad drawing with colour print out for Building / Bridge / Road/ CD Works in required size etc. complete. A-1 Size	As directed by Engineer in charge	Number	97	0
73	Road Survey and DPR	1.73		Autocad drawing with colour print out for Building / Bridge / Road/ CD Works in required size etc. complete. A-2 Size	As directed by Engineer in charge	Number	48	0
74	Road Survey and DPR	1.74		Autocad drawing with colour print out for Building / Bridge / Road/ CD Works in required size etc. complete. A-3 Size	As directed by Engineer in charge	Number	18	0
75	Road Survey and DPR	1.75		Autocad drawing with colour print out for Building / Bridge / Road/ CD Works in required size etc. complete. A-4 Size	As directed by Engineer in charge	Number	12	0
76	Road Survey and DPR	1.76		Deploying Automated Traffic Count and classification system on Road (Two Lane) in both direction at designated traffic count post by using High Definition Cameras..Collecting the Non Editable Data In DVR System with necessary electronic and electrical arrangements or inventor of required capacity Classification of data as per vehicle category as required with the help of software and submitting the the reports to the concerned department in hard copies as well as in soft copy, including using necessary technical manpower etc. complete. A) Up to 7 Days (Two Lane)	As directed by Engineer in charge	Day	33676	14342
77	Road Survey and DPR	1.77		Deploying Automated Traffic Count and classification system on Road (One Lane) in both direction at designated traffic count post by using High Definition Cameras..Collecting the Non Editable Data In DVR System with necessary electronic and electrical arrangements or inventor of required capacity Classification of data as per vehicle category as required with the help of software and submitting the the reports to the concerned department in hard copies as well as in soft copy, including using necessary technical manpower etc. complete. B) Extra charges for every additional lane (If required)	As directed by Engineer in charge	Day	25632	12182
78	Road Survey and DPR	1.78	As directed by Engineer in charge	Providing of Jeep/vehicle for conveying surey material, Engineers, labours etc. complete	As directed by Engineer in charge		3630	0

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<b>SSR 2021-2022 :- Road Sub Grade</b>								
79	Road Sub grade	2.01	MORTH 201	Cutting down trees including trunks and branches with girths above 30cm to 60cm and stacking the materials neatly with all lifts and lead of 1000m as directed and earth filling in the depression / pit if any.	MORTH 201	Number	478	436
80	Road Sub grade	2.02	MORTH 201	Cutting down trees including trunks and branches with girths above 60cm to 90cm and stacking the materials neatly with all lifts and lead of 1000m. as directed and earth filling in the depression/pit if any.	MORTH 201	Number	789	662
81	Road Sub grade	2.03	MORTH 201	Cutting down trees including trunks and branches with girths above 90cm to 180cm and stacking the materials neatly with all lifts and lead of 1000m. as directed and earth filling in the depression/pit if any.	MORTH 201	Number	1633	1463
82	Road Sub grade	2.04	MORTH 201	Cutting down trees including trunks and branches with girths above 180cm to 270cm and stacking the materials neatly with all lifts and lead of 1000m. as directed and earth filling in the depression/pit if any.	MORTH 201	Number	2799	2545
83	Road Sub grade	2.05	MORTH 201	Cutting down trees including trunks and branches with girths above 270cm to 450cm and stacking the materials neatly with all lifts and lead of 1000m. as directed and earth filling in the depression/pit if any.	MORTH 201	Number	2903	2744
84	Road Sub grade	2.06	MORTH 201	Cutting down trees including trunks and branches with girths above 450cm and stacking the materials neatly with all lifts and lead of 1000m. as directed and earth filling in the depression/pit if any.	MORTH 201	Number	3178	3004
85	Road Sub grade	2.07	MORTH 201	Clearing grass and removal of rubbish up to a distance of 50 metres outside the periphery of the area .	MORTH 201	Square Metre	4	4
	Road Sub grade	2.08	MORTH 201	Deleted			-	-
86	Road Sub grade	2.09	MORTH 201	Clearing and grubbing road land including uprooting rank vegetation, grass, bushes, shrubs, saplings and trees girth up to 300 mm, removal of stumps of trees cut earlier and disposal of unserviceable materials and stacking of serviceable material to be used or auctioned up to a lead of 1000 metres including removal and disposal of top organic soil not exceeding 150 mm in thickness.	MORTH 201	Square Metre	11	11
87	Road Sub grade	2.10	MORTH 301	Excavation for roadway in earth, soil of all sorts, sand, gravel or soft murum including dressing section to the required grade, camber and side slopes and conveying the excavated materials with all lifts upto a lead of 50m. and spreading for embankment or stacking as directed. By Manual Means. ( Item used only when Quantivy is below 10 Cu.m.)	MORTH 301	Cubic Metre	283	283
88	Road Sub grade	2.11	MORTH 301	Excavation for roadway in earth, soil of all sorts, sand, gravel or soft murum including dressing section to the required grade, camber and side slopes and conveying the excavated materials with all lifts upto a lead of 50m. and spreading for embankment or stacking as directed.	MORTH 301	Cubic Metre	104	7
	Road Sub grade	2.12	MORTH 301	Deleted			-	-
89	Road Sub grade	2.13	MORTH 301	Excavation for roadway in hard murum and boulder including dressing section to the required grade, camber and side slopes and conveying the excavated materials with all lifts upto a lead of 50m.and spreading for embankment or stacking as directed.	MORTH 301	Cubic Metre	121	7
90	Road Sub grade	2.14	MORTH 301	Excavation for roadway in soft rock, including dressing section to the required grade, camber and side slopes and conveying the excavated materials with all lifts upto a lead of 50m. and spreading or stacking as directed.	MORTH 301	Cubic Metre	157	21
91	Road Sub grade	2.15	MORTH 301	Excavation for roadway in hard rock by controlled blasting including dressing section to the required grade, camber and side slopes and conveying the excavated materials with all lifts upto a lead of 50m. and spreading for embankment or stocking as directed.	MORTH 301	Cubic Metre	250	24

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92	Road Sub grade	2.16	MORTH 301	Excavation for roadway in hard rock by wedging and chiselling or line drilling including dressing section to the required grade, camber and side slopes and conveying the excavated materials with all lifts upto a lead of 50m. and spreading for embankment or stacking as directed.	MORTH 301	Cubic Metre	1208	377
	Road Sub grade	2.17	MORTH 309	Deleted			-	-
92	Road Sub grade	2.18	MORTH 309	Excavation for catch / side water gutter in all sorts of soils to the specified section including stacking the excavated stuff in a regular bund and disposing of unsuitable or excess stuff as directed all sorts of soils.	MORTH 309	Cubic Metre	104	6
	Road Sub grade	2.19	MORTH 309	Deleted			-	-
93	Road Sub grade	2.20	MORTH 309	Excavation for catch / side water gutter in Hard murum and boulder strata to the specified section including stacking the excavated stuff in a regular bund and disposing of unsuitable or excess stuff as directed.	MORTH 309	Cubic Metre	121	6
94	Road Sub grade	2.21	MORTH 309	Excavation for catch / side water gutter in Soft rock strata to the specified section including stacking the excavated stuff in a regular bund and disposing of unsuitable or excess stuff as directed.	MORTH 309	Cubic Metre	185	21
95	Road Sub grade	2.22	MORTH 309	Excavation for catch / side water gutters in Hard rock strata to the specified section including stacking the excavated stuff in a regular bund by chiselling and wedging and disposing of unsuitable or excess stuff as directed.	MORTH 309	Cubic Metre	1208	377
96	Road Sub grade	2.23	MORTH 305	Watering and compacting of embankment formed of materials obtained from the road cutting within a lead of 50 m, not less than 97 % of standard Proctor density after laying them in layers of 20 cm. to 30 cm. with vibratory roller.	MORTH 305	Cubic Metre	81	4
97	Road Sub grade	2.24	MORTH 305	Watering and compacting of embankment formed of materials obtained from the road cutting within a lead of 50 m, not less than 97% of standard Proctor density after laying them in layers of 20 cm. to 30 cm. with Power roller.	MORTH 305	Cubic Metre	64	4
98	Road Sub grade	2.25	MORTH 305	Conveying materials obtained from road cutting including all lifts, laying in layers of 20cm to 30cm. breaking clods, dressing to the required lines, curves, grades and section, watering and compacting to not less than 97% of standard Proctor density for a lead of over 50m. to 300m. inclusive from the site of excavation to the site of deposition as directed.	MORTH 305	Cubic Metre	177	84
99	Road Sub grade	2.26	MORTH 305	Conveying materials obtained from road cutting including all lifts, laying in layers of 20cm. to 30cm. breaking clods, dressing to the required lines, curves, grades and section, watering and compacting to not less than 97% of standard proctor density for a lead of 300m. to 500m. inclusive, from the site of excavation to the site of deposition as directed.	MORTH 305	Cubic Metre	359	196
100	Road Sub grade	2.27	MORTH 305	Providing earth work in embankment with approved materials obtained from departmental land upto lead of 50m. including all lifts, laying in layers of 20cm. to 30cm. thickness breaking clods, dressing to the required lines, curves, grades & section, watering and compaction with vibratory roller to achieve not less than 97 % of standard proctor density etc. complete ( Material obtained from departmental Land)	MORTH 305	Cubic Metre	201	7
101	Road Sub grade	2.28	MORTH 305	Providing earth work in embankment with approved materials obtained from other sources upto lead of 50m. including all lifts, laying in layers of 20cm. to 30cm. thickness breaking clods, dressing to the required lines, curves, grades & section, watering and compaction with vibratory roller with V-Sat attachment to achieve not less than 97 % of standard proctor density etc. complete ( Material obtained from Other sources)	MORTH 305	Cubic Metre	546	7
102	Road Sub grade	2.29a		Supplying hard murum/ kankar at the road site, including conveying and stacking complete.		Cubic Metre	398	50
103	Road Sub grade	2.29b		Supplying soft murum at the road site, including conveying and stacking complete.		Cubic Metre	395	50
104	Road Sub grade	2.30		Spreading hard murum/ soft murrum/ gravel or kankar for side width complete		Cubic Metre	74	74
105	Road Sub grade	2.31		Compacting the hard murum side widths including laying in layers on each side with vibratory roller including artificial watering etc. complete.		Square Metre	19	3



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106	Road Sub grade	2.32		Picking the road surface including sectioning etc. complete (WBM surface.)		Square Metre	28	12
107	Road Sub grade	2.33		Picking the road surface including sectioning etc. complete (BT surface.)		Square Metre	38	12
108	Road Sub grade	2.34		Providing dry rubble stone pitching 23 cm (about 9 ) thick including all material, quarry spalls, labour etc. complete.		Square Metre	386	109
109	Road Sub grade	2.35	MORTH 402	Providing, laying and spreading soil on a prepared sub grade, pulverizing, mixing the spread soil in place with rotavator with 3 per cent slaked lime with minimum content of 70 per cent of CaO, grading with motor grader and compacting with the road roller at OMC to achieve atleast 98 per cent of the max dry density to form a layer of sub base.	MORTH 402	Cubic Metre	563	30
110	Road Sub grade	2.36	MORTH 402	Providing, laying and spreading soil on a prepared sub grade, pulverizing, adding the designed quantity of cement to the spread soil, mixing in place with rotavator, grading with the motor grader and compacting with the road roller at OMC to achieve the desired unconfined compressive strength and to form a layer of sub-base/base.	MORTH 402	Cubic Metre	752	30
111	Road Sub grade	2.37	MORTH 402	Laying and spreading available soil in the sub-grade on a prepared surface, pulverizing, mixing the spread soil in place with rotavator with 3 per cent slaked lime having minimum content of 70 per cent of CaO, grading with motor grader and compacting with the road roller at OMC to the desired density to form a layer of improved sub grade.	MORTH 402	Cubic Metre	510	22
	Road Sub grade	2.38	MORTH 402	Deleted			-	-
112	Road Sub grade	2.39	MORTH 403	Construction of embankment with Flyash conforming to table 1 of IRC: SP: 58 - 2001 obtained from coal or lignite burning thermal power stations as waste material, spread and compacted in layer of 200mm thickness each at OMC, all as specified in IRC: SP: 58-2001 and as per approved plans.	MORTH 403	Cubic Metre	137	8

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
<b>SSR 2021-2022 :- Road Sub Base and Base Course</b>								
113	Road Sub Base and Base Course	3.01	MORTH 401	Construction of granular sub-base by providing close graded Material, mixing in a mechanical mix plant at OMC, carriage of mixed Material to work site, spreading in uniform layers with motor grader/ Paver on prepared surface and compacting with vibratory roller to achieve the desired density, complete as per clause 401 -- <u>Plant Mix Method and Grading - I Material</u>	MORTH 401	Cubic Metre	1864	34
114	Road Sub Base and Base Course	3.02	MORTH 401	Construction of granular sub-base by providing close graded Material, mixing in a mechanical mix plant at OMC, carriage of mixed Material to work site, spreading in uniform layers with motor grader / Paver on prepared surface and compacting with vibratory roller to achieve the desired density, complete as per clause 401 -- <u>Plant Mix Method and Grading - II Material</u>	MORTH 401	Cubic Metre	1849	34
115	Road Sub Base and Base Course	3.03	MORTH 401	Construction of granular sub-base by providing close graded Material, mixing in a mechanical mix plant at OMC, carriage of mixed Material to work site, spreading in uniform layers with motor grader / Paver on prepared surface and compacting with vibratory roller to achieve the desired density, complete as per clause 401-- <u>Plant Mix Method and Grading - III Material</u>	MORTH 401	Cubic Metre	1835	38
116	Road Sub Base and Base Course	3.04	MORTH 401	Construction of granular sub-base by providing close graded material, spreading in uniform layers with motor grader / Paver on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with vibratory roller to achieve the desired density, complete as per clause 401 -- By Mix in Place Method and <u>Grading - I Material</u>	MORTH 401	Cubic Metre	1650	30
117	Road Sub Base and Base Course	3.05	MORTH 401	Construction of granular sub-base by providing close graded material, spreading in uniform layers with motor grader / Paver on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with vibratory roller to achieve the desired density, complete as per clause 401 -- By Mix in Place Method and <u>Grading - II Material</u>	MORTH 401	Cubic Metre	1635	30
118	Road Sub Base and Base Course	3.06	MORTH 401	Construction of granular sub-base by providing close graded material, spreading in uniform layers with motor grader/ Paver on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with vibratory roller to achieve the desired density, complete as per clause 401 -- By Mix in Place Method and <u>Grading - III Material</u>	MORTH 401	Cubic Metre	1617	30
119	Road Sub Base and Base Course	3.07	MORTH 403	Lime, Fly ash Stabilized Soil Sub-Base -- Construction of Sub-base using lime - Fly ash admixture with granular soil, free from organic matter/ deleterious material or clayey silts and low plasticity clays having PI between 5 and 20 and liquid limit less than 25 and commercial dry lime, slaked at site or pre-slaked with CaO content not less than 50 per cent, Fly ash to conform to gradation as per clause 4.3 of IRC: 88-1984, lime + Fly ash content ranging between 10 to 30 per cent, the minimum un-confined compressive strength and CBR value after 28 days curing and 4 days soaking to be 7.5kg/sq, cm and 25 per cent respectively, all as specified in IRC: 88-1984.	MORTH 403	Cubic Metre	1254	11
	Road Sub Base and Base Course	3.08	MORTH 404	Cement Treated Crushed Rock or combination as per clause 403.2 and table 400.4 in Sub base/ Base -- Providing, laying and spreading Material on a prepared sub grade, adding the designed quantity of cement to the spread Material, mixing in place with rotavator, grading with the motor grader and compacting with the road roller at OMC to achieve the desired unconfined compressive strength and to form a layer of sub-base/base course.	MORTH 403	Cubic Metre		
120	Road Sub Base and Base Course	3.08a	MORTH 403	A) For Sub-base Course	MORTH 403	Cubic Metre	2256	30

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121	Road Sub Base and Base Course	3.08b	MORTH 404	B) For Base Course	MORTH 404	Cubic Metre	2110	30
122	Road Sub Base and Base Course	3.09	MORTH 305.4.3	Scarifying the existing granular road surface to a depth of 50 mm and disposal of scarified material within all lifts and leads upto 1000 metres.	MORTH 501.8.2.1	Square Metre	44	37
123	Road Sub Base and Base Course	3.10	MORTH 202	Dismantling of flexible pavements and disposal of dismantled materials up to a lead of 1000 metres, stacking serviceable and unserviceable materials separately etc. complete.	MORTH 202	Cubic Metre	392	218
124	Road Sub Base and Base Course	3.11	MORTH 202	Dismantling of cement concrete pavement by mechanical means using pneumatic tools, breaking to pieces not exceeding 0.02 cum in volume and stock piling at designated locations and disposal of dismantled materials up to a lead of 1000 metres, stacking serviceable and unserviceable materials separately etc. complete.	MORTH 202	Cubic Metre	1164	163
125	Road Sub Base and Base Course	3.12	MORTH 501.8	Making 50 mm x 25 mm furrows, 45 degree to the center line of the road and at one metre interval in the existing thin bituminous wearing coarse including sweeping and disposal of excavated material within 1000 metres lead	MORTH 501.8	Square Metre	8	7
126	Road Sub Base and Base Course	3.13	MORTH 501.8	Making 50 mm x 50 mm furrows, 45 degree to the center line of the road and at one metre interval in the existing thin bituminous wearing coarse including sweeping and disposal of excavated material within 1000 metres lead	MORTH 501.8	Square Metre	15	14
127	Road Sub Base and Base Course	3.14		Brooming the W.B.M. surface by wire Brushes, coir brushers, dusting, cleaning etc. for receiving the bituminous treatment complete. Brooming the water Bound Macadam surface by wire.		Square Metre	17.00	17.00
	Road Sub Base and Base Course	3.15	MORTH 404	Deleted				
	Road Sub Base and Base Course	3.16	MORTH 404	Deleted				
	Road Sub Base and Base Course	3.17	MORTH 404	Deleted				
128	Road Sub Base and Base Course	3.18	MORTH 404	Providing, laying, spreading and compacting stone aggregates of specific sizes to water bound macadam specification including spreading in uniform thickness, hand packing to proper grade and camber, applying and brooming requisite type of screening/ binding Materials to fill up the interstices of coarse aggregate, watering and compacting with Vibratory roller. to the required density. By Mechanical Means - Grading I (Using Screening Type A (13.2) mm Aggregate)	MORTH 404	Cubic Metre	2059	35
129	Road Sub Base and Base Course	3.19	MORTH 404	Providing, laying, spreading and compacting stone aggregates of specific sizes to water bound macadam specification including spreading in uniform thickness, hand packing to proper grade and camber, applying and brooming requisite type of screening/ binding Materials to fill up the interstices of coarse aggregate, watering and compacting with vibratory roller to the required density. By Mechanical Means -Grading I (Using Screening Type B (11.2 mm) Aggregate)	MORTH 404	Cubic Metre	2043	35
130	Road Sub Base and Base Course	3.20	MORTH 404	Providing, laying, spreading and compacting stone aggregates of specific sizes to water bound macadam specification including spreading in uniform thickness, hand packing to proper grade and camber, applying and brooming requisite type of screening/ binding Materials to fill up the interstices of coarse aggregate, watering and compacting with vibratory roller to the required density. By Mechanical Means - Grading II (Using Screening Type B (11.2 mm) Aggregate)	MORTH 404	Cubic Metre	2043	35
131	Road Sub Base and Base Course	3.21	MORTH 405	Crushed Cement Concrete Sub-base / Base - Breaking and crushing of material obtained by breaking damaged cement concrete slabs to size range not exceeding 75 mm as specified in table 400.7 transporting the aggregates obtained from breaking of cement concrete slabs at a lead of 1 km., laying and compacting the same as sub base/ base course, constructed as WBM to clause 404 except the use of screening or binding material.	MORTH 405	Cubic Metre	386	212

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
132	Road Sub Base and Base Course	3.22	MORTH 405.2	Penetration Coat Over Top Layer of Crushed Cement Concrete Base -- Spraying of bitumen over cleaned dry surface of crushed cement concrete base at the rate of 25 kg per 10 sqm by a bitumen pressure distributor, spreading of key aggregates at the rate of 0.13 cum per 10 sqm by a mechanical gritter and rolling the surface as per clause 506.3.8	MORTH 405.2	Square Metre	24	2
133	Road Sub Base and Base Course	3.23	MORTH 406	Wet Mix Macadam -- Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the Material with water at OMC in mechanical mix plant carriage of mixed Material by tipper to site, laying in uniform layers with paver in sub- base / base course on well prepared surface and compacting with vibratory roller to achieve the desired density. Laying By Grader/Paver.	MORTH 406	Cubic Metre	1926	39
134	Road Sub Base and Base Course	3.24	MORTH 407	Crusher Run Macadam Base -- Providing crushed stone aggregate, depositing on a prepared surface by hauling vehicles, spreading and mixing with a motor grader, watering and compacting with a vibratory roller to clause 410 to form a layer of sub-base/Base -- By Mix in Place Method for 53 mm maximum size	MORTH 407	Cubic Metre	1736	25
135	Road Sub Base and Base Course	3.25	MORTH 407	Crusher Run Macadam Base -- Providing crushed stone aggregate, depositing on a prepared surface by hauling vehicles, spreading and mixing with a motor grader, watering and compacting with a vibratory roller to clause 410 to form a layer of sub-base/Base -- By Mix in Place Method for 45 mm maximum size	MORTH 407	Cubic Metre	1739	28
136	Road Sub Base and Base Course	3.26	MORTH 407	Crusher Run Macadam Base -- Providing crushed stone aggregate, depositing on a prepared surface by hauling vehicles, spreading and mixing with a motor grader, watering and compacting with a vibratory roller to clause 410 to form a layer of sub-base/Base -- By Mixing Plant Method for 53 mm maximum size	MORTH 407	Cubic Metre	1963	23
137	Road Sub Base and Base Course	3.27	MORTH 407	Crusher Run Macadam Base -- Providing crushed stone aggregate, depositing on a prepared surface by hauling vehicles, spreading and mixing with a motor grader, watering and compacting with a vibratory roller to clause 410 to form a layer of sub-base/Base -- By Mixing Plant Method for 45 mm maximum size	MORTH 407	Cubic Metre	1963	23
138	Road Sub Base and Base Course	3.28	MORTH 202	Dismantling of existing B.T. Surface (flexible Pavement) to a depth of 50 mm. manually including loading of dismantled material to transport vehicle at site excluding lead charges	MORTH 202	Square Metre	26	22
139	Road Sub Base and Base Course	3.29	MORTH 502	Prime coat - Providing and applying primer coat with bitumen emulsion on prepared surface of granular Base including cleaning of road surface and spraying, primer at the rate of 0.60 kg/sqm using mechanical means.	MORTH 502	Square Metre	26	1
140	Road Sub Base and Base Course	3.30	MORTH 503	Providing and applying tack coat on the prepared surface heating by fumes in Boiler and spraying bitumen set footed in bitumen boller on B.T. surface 2.5 kg/10 sqm.(VG-30 bulk bitumen rates are considered to arrive at rates)	MORTH 503	Square Metre	13	1
141	Road Sub Base and Base Course	3.31	MORTH 503	Providing and applying tack coat on the prepared surface heating by fumes in Boiler and spraying bitumen with sprayer on Dry / Hungry B.T. surface 3 kg/10 sqm. (VG-30 bulk bitumen rates are considered to arrive at rates)	MORTH 503	Square Metre	15	1
142	Road Sub Base and Base Course	3.32	MORTH 503	Providing and applying tack coat on the prepared surface heating by flames in Boiler and spraying bitumen with sprayer on Granular surface treated with primer @ 2.75 kg/10 sqm(VG-30 bulk bitumen rates are considered to arrive at rates)	MORTH 503	Square Metre	14	1
143	Road Sub Base and Base Course	3.33	MORTH 503	Providing and applying tack coat on the prepared surface heating by flames in Boiler and spraying bitumen with sprayer on Concrete surface treated with primer @ 3.25 kg/10 sqm (VG-30 bulk bitumen rates are considered to arrive at rates)	MORTH 503	Square Metre	16	1
144	Road Sub Base and Base Course	3.34	MORTH 503	Providing and applying tack coat with bitumen emulsion (RS1) using emulsion pressure distributer at the rate of 0.20 kg per Sq.M. on the prepared bituminous cleaned with mechanical broom	MORTH 503	Square Metre	10	1

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
145	Road Sub Base and Base Course	3.35a	MORTH 505	Providing and constructing 75 mm. thick Modified Penetration Macadam (MPM) road surface including all materials, preparing the existing road surface, spreading 40 mm. stone metal layers 30% crusher broken metal + 70% Hand broken (by breaking rubble obtained by blasting) heating and spraying the bitumen of specified grade @ 2 Kg/sqm, spreading 12 mm.size chips compacting with three wheel static roller having weight 8 to 10 MT. to achive the desired degree of compaction as per Technical Specification Clause 506 etc. complete. Including picking of existing WBM surface. (VG-30 bulk bitumen rates are considered to arrive at rates)	IRC-SP-20, 2002 Clause No. 8.7.3	Square Metre	229	7
146	Road Sub Base and Base Course	3.35b	MORTH 505	Providing and constructing 75 mm. thick Modified Penetration Macadam (MPM) road surface including all materials, preparing the existing road surface, spreading 40 mm. stone metal layers 100% crusher broken metal with conical crusher plant heating and spraying the bitumen of specified grade @ 2 Kg/sqm, spreading 12 mm.size chips compacting with three wheel static roller having weight 8 to 10 MT. to achive the desired degree of compaction as per Technical Specification Clause 506 etc. complete. Including picking of existing WBM surface. (VG-30 bulk bitumen rates are considered to arrive at rates)	IRC-SP-20, 2002 Clause No. 8.7.3	Square Metre	239	7
147	Road Sub Base and Base Course	3.36a	MORTH 505	Providing and constructing 75 mm. thick Modified Penetration Macadam (MPM) road surface including all materials, preparing the existing road surface, spreading 40 mm. stone layers metal 30% crusher broken metal + 70% Hand broken metal (By breaking Rubble obtained by blasting) , heating and spraying the bitumen of specified grade @ 2 kg / sqm , spreading 12mm.size chips compacting with three wheel static roller having weight 8 to 10 MT. to achive the desired degree of compaction as per Technical Specification Clause 506 etc.complete, including applying tack coat of specified grade of bitumen at the rate of 0.30 Kg Sqm. on existing bitumen surface. (VG-30 bulk bitumen rates are considered to arrive at rates)	IRC-SP-20, 2002 Clause No. 8.7.3	Square Metre	223	3
148	Road Sub Base and Base Course	3.36b	MORTH 505	Providing and constructing 75 mm. thick Modified Penetration Macadam (MPM) road surface including all materials, preparing the existing road surface, spreading 40 mm. stone layers metal 100% crusher broken metal with conical crusher plant , heating and spraying the bitumen of specified grade @ 2 kg / sqm , spreading 12mm.size chips compacting with three wheel static roller having weight 8 to 10 MT. to achive the desired degree of compaction as per Technical Specification Clause 506 etc.complete, including applying tack coat of specified grade of bitumen at the rate of 0.30 Kg Sqm. on existing bitumen surface. (VG-30 bulk bitumen rates are considered to arrive at rates)	IRC-SP-20, 2002 Clause No. 8.7.3	Square Metre	232	3
149	Road Sub Base and Base Course	3.37a	MORTH 505	Providing and constructing 50 mm. thick Modified Penetration Macadam (MPM) road surface including all mataerials, preparing the existing road surface, spreading 40mm. stone metal layers 30% crusher broken metal + 70% Hand broken (by breaking rubble obtained by blasting) heating and spraying the bitumen of specified grade @ 1.75 kg/sqm, spreading 12mm.size chips compacting with static roller having weight 8 to 10 MT. to achive the desired degree of compaction as per Technical Specification Clause 506 etc. complete. Including picking of existing WBM surface.(VG-30 bulk bitumen rates are considered to arrive at rates)	IRC-SP-20, 2002 Clause No. 8.7.3	Square Metre	171	9
150	Road Sub Base and Base Course	3.37b	MORTH 505	Providing and constructing 50 mm. thick Modified Penetration Macadam (MPM) road surface including all mataerials, preparing the existing road surface, spreading 40mm. stone metal layers 100% crusher broken metal with conical crusher plant heating and spraying the bitumen of specified grade @ 1.75 kg/sqm, spreading 12mm.size chips compacting with static roller having weight 8 to 10 MT. to achive the desired degree of compaction as per Technical Specification Clause 506 etc. complete. Including picking of existing WBM surface.(VG-30 bulk bitumen rates are considered to arrive at rates)	IRC-SP-20, 2002 Clause No. 8.7.3	Square Metre	184	9

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
151	Road Sub Base and Base Course	3.38a	MORTH 505	Providing and constructing 50 mm. thick Modified Penetration Macadam (MPM) road surface including all materials, preparing the existing road surface, spreading 40mm. stone layers metal 30% crusher broken metal + 70% Hand broken metal (By breaking Rubble obtained by blasting) , heating and spraying the bitumen of specified grade @ 1.75 kg / sqm, spreading 12mm.size chips compacting with Static roller having weight 8 to 10 MT. to achive the desired degree of compaction as per Technical Specification Clause 506 etc.complete, including applying tack coat of bitumen Of specified grade at the rate of 0.30 Kg Sqm.(on existing bitumen surface.)	IRC-SP-20, 2002 Clause No. 8.7.3	Square Metre	178	2
152	Road Sub Base and Base Course	3.38b	MORTH 505	Providing and constructing 50 mm. thick Modified Penetration Macadam (MPM) road surface including all materials, preparing the existing road surface, spreading 40mm. stone layers metal 100% crusher broken metal with conical crusher palnt, heating and spraying the bitumen of specified grade @ 1.75 kg / sqm, spreading 12mm.size chips compacting with Static roller having weight 8 to 10 MT. to achive the desired degree of compaction as per Technical Specification Clause 506 etc.complete, including applying tack coat at the rate of 0.30 Kg Sqm.on existing bitumen surface. (VG-30 bulk bitumen rates are considered to arrive at rates)	IRC-SP-20, 2002 Clause No. 8.7.3	Square Metre	191	2
153	Road Sub Base and Base Course	3.39	MORTH 504	Providing, laying and compacting of Built-up-spray grout layer 75 mm thick over prepared base consisting of two layers composite construction of compacted crushed coarse aggregates with application of bituminous binder of biyumen of specified Grade @ 1.520 Kg/ Sqm after each layer, ( i.e 1.520x2=3.04 say 3.00 Kg/Sqm) and with key aggregates placed on top of the second layer and compacting with static roller 8 to 10 MT. Excluding cost of tack coat and scarifying etc. Complete.(VG-30 bulk bitumen rates are considered to arrive at rates)	MORTH 504	Square Metre	272	3
154	Road Sub Base and Base Course	3.40	MORTH 504	BITUMINOUS MACADAM: Proving and laying bituminous macadam using crushed aggregates of Grading 1, premixed with bituminous binder, transported to site with VTS , laid over a previously prepared surface, finished to the required grade, level, alignment, and rolling to achieve the desired compaction for 80/100 mm compacted thickness with 3.3 % using specified grade of Bitumen. -- USING Batch mix type hot mix plant with SCADA, Sensor Paver, vibratory roller.(VG-30 bulk bitumen rates are considered to arrive at rates)	MORTH 504	Cubic Metre	5931	76
	Road Sub Base and Base Course	3.41	MORTH 504	Deleted	MORTH 504	Cubic Metre		
155	Road Sub Base and Base Course	3.42	MORTH 504	BITUMINOUS MACADAM:--Providing and laying bituminous macadam using crushed aggregate of Grading 1, premixed with bituminous binder, transported at site with VTS, laid over a previously prepared surface , finished to the required grade ,level, alignment,and rolling to achieve the desired density for 80/100 mm compacted thickness with drum mix type hot mix plant with SCADA having complying essential features of Hot mix plant as per IRC-27 2009 specified conditions and attachments such as electronic load sensor based belt conveyers,automatic synchronization of bitumen and aggregate fedder,built in dust controller system and PLC for Drum Mix plant ,Sensor paver,and Vibratory roller excluding prime/Tack coat etc. complete --Bitumen 3.30% of specified grade (VG-30 bulk bitumen rates are considered to arrive at rates)	MORTH 504	Cubic Metre	5468	76
	Road Sub Base and Base Course	3.43	MORTH 504	Deleted	MORTH 504	Cubic Metre		
156	Road Sub Base and Base Course	3.44	MORTH 505	DENSE BITUMINOUS MACADAM: Proving and laying dense bituminous macadam using crushed aggregates of Grading 1, premixed with bituminous binder of specified grade of Bitumen @ 4.50 per cent by weight of total mix and filler, transported to site with VTS , laid over a previously prepared surface, finished to the required grade, level, alignment, and rolling to achieve the desired density for 76-100 mm compacted thickness .USING Batch mix type hot mix plant with SCADA, Sensor Paver, Vibratory roller with Stone Dust filler.(VG-30 bulk bitumen rates are considered to arrive at rates)	MORTH 505	Cubic Metre	7297	80

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
	Road Sub Base and Base Course	3.45	MORTH 505	Deleted	MORTH 505	Cubic Metre		
157	Road Sub Base and Base Course	3.46	MORTH 505	DENSE BITUMINOUS MACADAM:--Providing and laying dense bituminous macadam using crushed aggregate of grading 1, premixed with bituminous binder Bitumen of specified grade,@ 4.50 % by weight of total mix and filler, transported at site with VTS, laid over a previously prepared surface , finished to the required grade ,level, alignment,and rolling to achieve the desired density for 76/100 mm compacted thickness with drum mix type hot mix plant with SCADA having complying essential features of Hot mix plant as per IRC-27-2009 specified conditions and attachments such as electronic load sensor based belt conveyers, automatic synchronization of bitumen and aggregate fedder,built in dust controller system and PLC for Drum Mix plant ,Sensor paver, and Vibratory roller excluding prime/Tack coat etc. complete --Bitumen VG-30 grade with stone dust filler (VG-30 bulk bitumen rates are considered to arrive at rates)	MORTH 505	Cubic Metre	6731	80
	Road Sub Base and Base Course	3.47	MORTH 507	Deleted	MORTH 507	Cubic Metre		
158	Road Sub Base and Base Course	3.48	MORTH 507	BITUMINOUS CONCRETE:- Providing and laying bituminous concrete using crushed aggregates of grading 1, premixed with bituminous binder @ 5.20 per cent by weight of total mix and filler, transported to site with VTS , laid over a previously prepared surface, finished to the required grade, level, alignment, and rolling to achieve the desired compaction for 50 mm compacted thickness with specified grade of Bitumen,Excluding prime / tack coat. For Bitumen of specified grade -- USING Batch mix type hot mix plant with SCADA, Sensor Paver, Vibratory roller with Stone Dust filler. (VG-30 bulk bitumen rates are considered to arrive at rates)	MORTH 507	Cubic Metre	7866	81
	Road Sub Base and Base Course	3.49	MORTH 509	Deleted	MORTH 509	Cubic Metre		
159	Road Sub Base and Base Course	3.50	MORTH 509	BITUMINOUS CONCRETE:--Providing and laying bituminous concrete using crushed aggregate of grading 1, premixed with bituminous binder @5.40% by weight of total mix and filler, transported at site with VTS, laid over a previously prepared surface, finished to the required grade ,level, alignment, and rolling to achieve the desired density for 50mm compacted thickness with drum mix plant with SCADA, Sensor paver and Vibratory roller excluding prime/Tack coat etc. complete --Bitumen of specified grade with stone dust filler. (VG-30 bulk bitumen rates are considered to arrive at rates)	MORTH 509	Cubic Metre	7694	81
	Road Sub Base and Base Course	3.51	MORTH 509	Deleted	MORTH 509	Cubic Metre		

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
<b>SSR 2021-2022 :- Road surface and rigid pavement</b>								
160	Road Surfacing Course	4.01	MORTH 511	Providing bituminous Type A liquid seal coat on bituminous surface including supplying all materials and bitumen of specified grade preparing existing road surface, heating and applying bitumen @ 0.98 KgSqm. by mechanical means, spreading chips and rolling, by static roller having weight 8 to 10 MT. etc. complete. (VG-30 bulk bitumen rates are considered to arrive at rates)	MORTH 511	Square Metre	64	1
	Road Surfacing Course	4.02	MORTH 511	Deleted	MORTH 511		-	-
161	Road Surfacing Course	4.03	MORTH 511	Providing and laying of Type - B premix seal coat with HMP of appropriate crushed stone chipping 6.70 mm size and penetration bitumen of specified grade @ 0.68 Kg / Sqm. , preparing existing road surface including mixing in suitable Batch Mix plant and rolling by static roller having weight 8 to 10 MT. etc. complete. (VG-30 bulk bitumen rates are considered to arrive at rates)	MORTH 511	Square Metre	57	1
162	Road Surfacing Course	4.04	MORTH 509	Surface Dressing -- Providing and laying surface dressing as wearing course in single coat using crushed stone aggregates of specified size on a layer of bituminous binder laid on prepared surface and rolling with 8-10 tonne smooth wheeled steel roller. -- a) 19 mm nominal chipping size (bitumen 12.00 kg/10 Sq.M.) -- Bitumen of specified grade (VG-30 bulk bitumen rates are considered to arrive at rates)	MORTH 509	Square Metre	61	1
163	Road Surfacing Course	4.05	MORTH 509	Surface Dressing -- Providing and laying surface dressing as wearing course in single coat using crushed stone aggregates of specified size on a layer of bituminous binder laid on prepared surface and rolling with 8-10 tonne smooth wheeled steel roller. -- b) 13 mm nominal chipping size (bitumen 10.00 kg/10 Sq.M -- Bitumen of specified grade (VG-30 bulk bitumen rates are considered to arrive at rates)	MORTH 509	Square Metre	58	1
164	Road Surfacing Course	4.06	MORTH 509	Surface Dressing -- Providing and laying surface dressing as wearing course in single coat using crushed stone aggregates of specified size on a layer of bituminous binder laid on prepared surface and rolling with 8-10 tonne smooth wheeled steel roller. -- c) 10 mm nominal chipping size (bitumen 9.0 kg/10 Sq.M -- Bitumen of specified grade (VG-30 bulk bitumen rates are considered to arrive at rates)	MORTH 509	Square Metre	54	1
165	Road Surfacing Course	4.07	MORTH 509	Surface Dressing -- Providing and laying surface dressing as wearing course in single coat using crushed stone aggregates of specified size on a layer of bituminous binder laid on prepared surface and rolling with 8-10 tonne smooth wheeled steel roller. -- d) 6 mm nominal chipping size (bitumen 7.50 kg/10 Sq.M -- Bitumen of specified grade (VG-30 bulk bitumen rates are considered to arrive at rates)	MORTH 509	Square Metre	48	1
	Road Surfacing Course	4.08	MORTH 511	Deleted	MORTH 511	Square Metre		
	Road Surfacing Course	4.09	MORTH 511	Deleted	MORTH 511	Square Metre		
	Road Surfacing Course	4.10	MORTH 511	Deleted	MORTH 511	Square Metre		
166	Road Surfacing Course	4.11	MORTH 510	Open Graded Premix Surfacing- Providing and Laying OGC 20 mm thickness composed of 13.2 mm to 5.6 mm aggregates premixed with bituminous binder transported to site with VTS , laid over a previously prepared surface, finished to the required grade, level, alignment, and rolling to achieve the desired compaction but excluding prime / tack and Seal coat. For Bitumen of specified grade--USING drum mix type hot mix plant with SCADA, Paver and Vibratory roller( over BT Surface) (VG-30 bulk bitumen rates are considered to arrive at rates)	MORTH 510	Square Metre	140	5



Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
167	Road Surfacing Course	4.12	MORTH 510	Open Graded Premix Surfacing- Providing and Laying OGC 20 mm thickness composed of 13.2 mm to 5.6 mm aggregates premixed with bituminous binder transported to site with VTS , laid over a previously prepared surface, finished to the required grade, level, alignment, and rolling to achieve the desired compaction but excluding prime / tack and Seal coat. For Bitumen of specified grade--USING drum mix type hot mix plant with SCADA, Paver and Vibratory roller ( Over MPM Surface) (VG-30 bulk bitumen rates are considered to arrive at rates)	MORTH 510	Square Metre	142	5
168	Road Surfacing Course	4.13	MORTH 511	9 MM SEAL COAT: Providing and laying of Type A 9mm premix seal coat with HMP of aproprate capacity crushed stone chiping 6.7 mm size and penetration bitumen of specified grade @ 1.2kg/Sq.m, preparing existing road surface by mechanical means, spreading chips and rolling, by static roller having weight 8 to 10 MT. etc. complete.(VG-30 bulk bitumen rates are considered to arrive at rates)	MORTH 511	Square Metre	76	6

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
<b>SSR 2021-2022 :- Rigid Pavement</b>								
169	Rigid Pavement	5.01	MORTH 602	Providing and laying in-situ M30 Grade unreinforced plain cement concrete pavement over a prepared sub base with 43 grade cement , coarse and fine aggregate( natural sand/ VSI grade finely washed crushed sand) conforming to IS 383, using fine and coarse aggregates combined gradation as per Table 600-3 of MORTH Specification 2013, mixed in a batching and mixing plant/ non tilting mixer and Weigh batcher as per approved mix design, admixtures, transporting to site, spreading, laying with approved make paver,compacted and finished in a continuous operation, finishing to lines and grades as directed by Engineer-in-charge and curing by curing compound /by providing cement vata in cement Mortar 1:8 @0.6m X 0.6m centre to centre, admeasuring 80 mm at bottom and 40 mm at top with depth of 75mm and maintaining the same throughout curing period by any other method approved by Engineer-in-charge.	MORTH 602	Cubic Metre	6746	198
170	Rigid Pavement	5.02	MORTH 602	Providing and laying in-situ M35 Grade unreinforced plain cement concrete pavement over a prepared sub base with 43 grade cement , coarse and fine aggregate ( natural sand/ VSI grade finely washed crushed sand) conforming to IS 383, using fine and coarse aggregates combined gradation as per Table 600-3 of MORTH Specification 2013, mixed in a batching and mixing plant/ non tilting mixer and Weigh batcher as per approved mix design, admixtures, transporting to site, spreading, laying with approved make paver,compacted and finished in a continuous operation, finishing to lines and grades as directed by Engineer-in-charge and curing by curing compound /by providing cement vata in cement Mortar 1:8 @0.6m X 0.6m centre to centre, admeasuring 80 mm at bottom and 40 mm at top with depth of 75mm and maintaining the same throughout curing period by any other method approved by Engineer-in-charge.	MORTH 602	Cubic Metre	6851	193
171	Rigid Pavement	5.03	MORTH 602	Providing and laying in-situ M40 Grade unreinforced plain cement concrete pavement over a prepared sub base with 43 grade cement , coarse and fine aggregate ( natural sand/ VSI grade finely washed crushed sand) conforming to IS 383, using fine and coarse aggregates combined gradation as per Table 600-3 of MORTH Specification 2013, mixed in a batching and mixing plant/ non tilting mixer and Weigh batcher as per approved mix design, admixtures, transporting to site, spreading, laying with approved make paver,compacted and finished in a continuous operation, finishing to lines and grades as directed by Engineer-in-charge and curing by curing compound /by providing cement vata in cement Mortar 1:8 @0.6m X 0.6m centre to centre, admeasuring 80 mm at bottom and 40 mm at top with depth of 75mm and maintaining the same throughout curing period by any other method approved by Engineer-in-charge.	MORTH 602	Cubic Metre	6937	193
172	Rigid Pavement	5.04	MORTH 602	Providing and laying in-situ M30 Grade unreinforced plain cement concrete pavement over a prepared sub base with 43 grade cement , coarse and fine aggregate ( natural sand/ VSI grade finely washed crushed sand) conforming to IS 383, using fine and coarse aggregates combined gradation as per Table 600-3 of MORTH Specification 2013, mixed in a Tilting type Concrete Mixer as per approved mix design, admixtures, spreading, laying compacting and finished in a continuous operation without paver machine, finishing to lines and grades as directed by Engineer-in-charge and curing by curing compound /by providing cement vata in cement Mortar 1:8 @0.6m X 0.6m centre to centre, admeasuring 80 mm at bottom and 40 mm at top with depth of 75mm and maintaining the same throughout curing period by any other method approved by Engineer-in-charge.	MORTH 602	Cubic Metre	6895	949

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
173	Rigid Pavement	5.05	MORTH 602	Providing and laying in-situ M35 Grade unreinforced plain cement concrete pavement over a prepared sub base with 43 grade cement , coarse and fine aggregate ( natural sand/ VSI grade finely washed crushed sand) conforming to IS 383, using fine and coarse aggregates combined gradation as per Table 600-3 of MORTH Specification 2013, mixed in a Tilting type Concrete Mixer as per approved mix design, admixtures, spreading, laying compacting and finished in a continuous operation without paver machine, finishing to lines and grades as directed by Engineer-in-charge and curing by curing compound /by providing cement vata in cement Mortar 1:8 @0.6m X 0.6m centre to centre, admeasuring 80 mm at bottom and 40 mm at top with depth of 75mm and maintaining the same throughout curing period by any other method approved by Engineer-in-charge.	MORTH 602	Cubic Metre	7006	949
174	Rigid Pavement	5.06	MORTH 602	Providing and laying in-situ M40 Grade unreinforced plain cement concrete pavement over a prepared sub base with 43 grade cement , coarse and fine aggregate ( natural sand/ VSI grade finely washed crushed sand) conforming to IS 383, using fine and coarse aggregates combined gradation as per Table 600-3 of MORTH Specification 2013, mixed in a Tilting type Concrete Mixer as per approved mix design, admixtures, spreading, laying compacting and finished in a continuous operation without paver machine, finishing to lines and grades as directed by Engineer-in-charge and curing by curing compound /by providing cement vata in cement Mortar 1:8 @0.6m X 0.6m centre to centre, admeasuring 80 mm at bottom and 40 mm at top with depth of 75mm and maintaining the same throughout curing period by any other method approved by Engineer-in-charge.	MORTH 602	Cubic Metre	7093	949
175	Rigid Pavement	5.07	MORTH 602	Providing and laying in-situ M30 Grade unreinforced plain cement concrete pavement with max 20% fly Ash ( Fly-ash upto 20% by weight of Cement) over a prepared sub base with 43 grade cement , coarse and fine aggregate ( natural sand/ VSI grade finely washed crushed sand) conforming to IS 383, using fine and coarse aggregates combined gradation as per Table 600-3 of MORTH Specification 2013, mixed in a batching and mixing plant/ non tilting mixer and Weigh batcher as per approved mix design, admixtures, transporting to site, spreading, laying with approved make paver,compacted and finished in a continuous operation, finishing to lines and grades as directed by Engineer-in-charge and curing by curing compound /by providing cement vata in cement Mortar 1:8 @0.6m X 0.6m centre to centre, admeasuring 80 mm at bottom and 40 mm at top with depth of 75mm and maintaining the same throughout curing period by any other method approved by Engineer-in-charge.	MORTH 602	Cubic Metre	6344	198
176	Rigid Pavement	5.08	MORTH 602	Providing and laying in-situ M35 Grade unreinforced plain cement concrete pavement with max 20% fly Ash ( Fly-ash upto 20% by weight of Cement) over a prepared sub base with 43 grade cement , coarse and fine aggregate ( natural sand/ VSI grade finely washed crushed sand) conforming to IS 383, using fine and coarse aggregates combined gradation as per Table 600-3 of MORTH Specification 2013, mixed in a batching and mixing plant/ non tilting mixer and Weigh batcher as per approved mix design, admixtures, transporting to site, spreading, laying with approved make paver,compacted and finished in a continuous operation, finishing to lines and grades as directed by Engineer-in-charge and curing by curing compound /by providing cement vata in cement Mortar 1:8 @0.6m X 0.6m centre to centre, admeasuring 80 mm at bottom and 40 mm at top with depth of 75mm and maintaining the same throughout curing period by any other method approved by Engineer-in-charge.	MORTH 602	Cubic Metre	6436	193

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
177	Rigid Pavement	5.09	MORTH 602	Providing and laying in-situ M40 Grade unreinforced plain cement concrete pavement with max 20% fly Ash ( Fly-ash upto 20% by weight of Cement) over a prepared sub base with 43 grade cement , coarse and fine aggregate ( natural sand/ VSI grade finely washed crushed sand) conforming to IS 383, using fine and coarse aggregates combined gradation as per Table 600-3 of MORTH Specification 2013, mixed in a batching and mixing plant/ non tilting mixer and Weigh batcher as per approved mix design, admixtures, transporting to site, spreading, laying with approved make paver,compacted and finished in a continuous operation, finishing to lines and grades as directed by Engineer-in-charge and curing by curing compound /by providing cement vata in cement Mortar 1:8 @0.6m X 0.6m centre to centre, admeasuring 80 mm at bottom and 40 mm at top with depth of 75mm and maintaining the same throughout curing period by any other method approved by Engineer-in-charge.	MORTH 602	Cubic Metre	6511	193
178	Rigid Pavement	5.10	MORTH 602	Providing and laying in-situ M30 Grade unreinforced plain cement concrete pavement with max 20% fly Ash ( Fly-ash upto 20% by weight of Cement) over a prepared sub base with 43 grade cement , coarse and fine aggregate ( natural sand/ VSI grade finely washed crushed sand) conforming to IS 383, using fine and coarse aggregates combined gradation as per Table 600-3 of MORTH Specification 2013, mixed in a Tilting type Concrete Mixer as per approved mix design, admixtures, spreading, laying compacting and finished in a continuous operation without paver machine, finishing to lines and grades as directed by Engineer-in-charge and curing by curing compound /by providing cement vata in cement Mortar 1:8 @0.6m X 0.6m centre to centre, admeasuring 80 mm at bottom and 40 mm at top with depth of 75mm and maintaining the same throughout curing period by any other method approved by Engineer-in-charge.	MORTH 602	Cubic Metre	6515	974
179	Rigid Pavement	5.11	MORTH 602	Providing and laying in-situ M35 Grade unreinforced plain cement concrete pavement with max 20% fly Ash ( Fly-ash upto 20% by weight of Cement) over a prepared sub base with 43 grade cement , coarse and fine aggregate ( natural sand/ VSI grade finely washed crushed sand) conforming to IS 383, using fine and coarse aggregates combined gradation as per Table 600-3 of MORTH Specification 2013, mixed in a Tilting type Concrete Mixer as per approved mix design, admixtures, spreading, laying compacting and finished in a continuous operation without paver machine, finishing to lines and grades as directed by Engineer-in-charge and curing by curing compound /by providing cement vata in cement Mortar 1:8 @0.6m X 0.6m centre to centre, admeasuring 80 mm at bottom and 40 mm at top with depth of 75mm and maintaining the same throughout curing period by any other method approved by Engineer-in-charge.	MORTH 602	Cubic Metre	6612	974
180	Rigid Pavement	5.12	MORTH 602	Providing and laying in-situ M40 Grade unreinforced plain cement concrete pavement with max 20% fly Ash ( Fly-ash upto 20% by weight of Cement) over a prepared sub base with 43 grade cement , coarse and fine aggregate ( natural sand/ VSI grade finely washed crushed sand) conforming to IS 383, using fine and coarse aggregates combined gradation as per Table 600-3 of MORTH Specification 2013, mixed in a Tilting type Concrete Mixer as per approved mix design, admixtures, spreading, laying compacting and finished in a continuous operation without paver machine, finishing to lines and grades as directed by Engineer-in-charge and curing by curing compound /by providing cement vata in cement Mortar 1:8 @0.6m X 0.6m centre to centre, admeasuring 80 mm at bottom and 40 mm at top with depth of 75mm and maintaining the same throughout curing period by any other method approved by Engineer-in-charge.	MORTH 602	Cubic Metre	6688	974

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
181	Rigid Pavement	5.13	MORTH 601	Construction of dry lean cement concrete Sub- base over a prepared sub-grade with coarse and fine aggregate ( natural sand/ VSI grade finely washed crushed sand) conforming to IS: 383, the size of coarse aggregate not exceeding 25 mm, , cement content not to be less than 150 kg/ cum, optimum moisture content to be determined during trial length construction, concrete strength not to be less than 10 Mpa at 7 days, mixed in a batching plant/ Weigh batch mixer, transported to site with all leads and lifts, laid with a paver with electronic sensor /by suitable means as approved by Engineer-in-charge , compacting with vibratory roller, finishing, curing and including preparation of sub-grade surface if required etc. complete.	MORTH 601	Cubic Metre	3410	50
182	Rigid Pavement	5.14	MORTH 602.6.5	Providing and fixing in position TMT FE 500, 32 mm dia dowel bars precoated with anticorrosive epoxy paint of required Dia. 60 cms. Long and at 30.00 cm. C/C and wherever directed including handling, straightening, necessary cutting supported by TMT FE 500, chairs with proper alignment by using properly designed assembly of Bulkheads lubricating half length with bituminous paint as directed etc. complete.	MORTH 602.6.5	Number	481	148
183	Rigid Pavement	5.15	MORTH 602.6.5	Providing and fixing in position TMT FE 500, 25mm dia dowel bars precoated with anticorrosive epoxy paint of required Dia. 60 cms. Long and at 30.00 cm. C/C and wherever directed including handling, straightening, necessary cutting supported by TMT FE 500, chairs with proper alignment by using properly designed assembly of Bulkheads lubricating half length with bituminous paint as directed etc. complete.	MORTH 602.6.5	Number	386	148
184	Rigid Pavement	5.16	MORTH 602.6.4.2	Providing and fixing in position TMT FE 500, tie bars precoated with anticorrosive epoxy paint of 12 mm dia. 70 cms.long and at 30.00 cm. C/C and wherever directed including handling, straightening wrapping with paper of approved quality for half length, necessary cutting, handling, straightening , supported by assembly of TMT FE 500, chairs with proper alignment etc. complete.	MORTH 602.6.4.2	Number	274	148
185	Rigid Pavement	5.17	MORTH 602.6.3 & 602.6.4	Cutting transverse contraction joints 3 to 4 mm wide and depth 60mm. .in concrete slab using concrete cutting machine with diamond studded saw within 48 hours of casting of bay / slab etc. complete including subsequent widening of the groove 8 to 10 mm. wide at top having depth of 15 mm. as directed by Engineer incharge.	MORTH 602.6.3 & 602.6.4	Running Metre	72	18
186	Rigid Pavement	5.18	MORTH 602.6.3 & 602.6.4	Providing to contraction joints polysuphide sealent (Pouring grade) confirming to BS : 5212 - 1989 into sawed groove widened at top for sealent reservoir of specified size and shape as per detailed drawing including fixing Polyethylene foam backer rod of required diameter (appraox. 25% larger than the initial 3 mm.to 4 mm. joint) overlaid with bond breaking tape as per detailed drawing. Item includes cleaning the joints with water jet / air compressor and allowing joint to become thoroughly dry before sealent is applied and applying primer. (A) Contraction and longitudinal joints (15 mm. deep x 8 mm.wide)	MORTH 602.6.3 & 602.6.4	Running Metre	166	28
187	Rigid Pavement	5.19	MORTH 602.5	Providing and laying 125 micron Low Density Polyethylene (LDPE) sheet confirming to IS 3395 : 1997 below concrete pavement including all materials and labour complete.	MORTH 602.5	Square Metre	21	8
188	Rigid Pavement	5.20	As directed by Engineer Incharge	Providing and fixing factory made Hydraulically pressed Mechanically vibrated and compacted precast inter locking cement concrete paving blocks 80MM thick in M-40 grade of approved size and shape for City streets, small /medium market roads,low volume roads, utility cuts on arterial roads etc. as specified and as per IS 15658:2006 including cost of all materials, manufacturing, curing, transportation of blocks to work site including loading, unloading and stacking as directed, laying paving blocks in position over prepared bed of natural sand / crushed sand of 50 mm thickness including necessary excavation in all stratas, spreading blindge of fine sand over the prepared bed, compacting blocks by plate vibrator etc. complete.	IRC-SP-63	Square Metre	1135	94

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
189	Rigid Pavement	5.21	As directed by Engineer Incharge	Providing and fixing factory made Hydraulically pressed Mechanically vibrated and compacted precast inter locking cement concrete paving blocks 100MM thick in M-50 grade of approved size and shape for City streets and roads with high volume/ heavy traffice as specified and as per IS 15658:2006 including cost of all materials, manufacturing, curing, transportation of blocks to work site including loading, unloading and stacking as directed, laying paving blocks in position over prepared bed of natural sand / crushed sand of 50 mm thickness including necessary excavation in all stratas, spreading blinding of fine sand over the prepared bed, compacting blocks by plate vibrator etc. complete.	IRC-SP-63	Square Metre	1154	111
190	Rigid Pavement	5.22	As directed by Engineer Incharge	Providing and laying in situ cement concrete M -30 with tremix treatment for 200 mm thickness for Concrete Road is including laying plastic sheet for 125 micron thickness with groove cutting of 4 mm wide and 20 mm deep with necessary refilling with bitumen ( excluding reinforcement) with coarse and fine aggregate ( natural sand/ VSI grade finely washed crushed sand) etc. complete	MORTH 602	Cubic Metre	7706	1931
191	Rigid Pavement	5.22 b	As directed by Engineer Incharge	Providing and laying in situ cement concrete M -30 with tremix treatment for 200 mm thickness for Concrete Road is including laying plastic sheet for 125 micron thickness with groove cutting of 4 mm wide and 20 mm deep with necessary refilling with polysulphide sealant (Pouring grade) confirming to BS : 5212 - 1989 into sawed groove widened at top for sealant reservoir of specified size and shape as per detailed drawing including fixing Polyethylene foam backer rod of required diameter ( excluding reinforcement) with coarsen and fine aggregate Using V.S.I.Quality Artificial Sand etc. complete	MORTH 602	Cubic Metre	8583	1931

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
<b>SSR 2021-2022 :- Roads Furniture</b>								
	Road Furniture	6.01	MORTH 807	Providing and fixing trap/ granite/ quartzite/ gneiss guard stone/ indicator stones/ boundary stones of standard size and shape including fixing in block of____ standard size with white washing etc.complete				
192	Road Furniture	a	MORTH 807	Deleted	MORTH 807	Number		
193	Road Furniture	b	MORTH 807	Deleted	MORTH 807	Number		
194	Road Furniture	c	MORTH 807	Deleted	MORTH 807	Number		
	Road Furniture	6.02	MORTH 805	Providing and fixing _____ metre stones as per I.R.C. standard including fixing in standard size _____ block including curing, painting lettering etc. complete.				
195	Road Furniture	a	MORTH 805	RCC 200 meter Stone in CC 1:4:8	MORTH 805	Number	969	275
196	Road Furniture	b	MORTH 805	Fixing 1:2:4 ordinary km. stones in C.C. 1:4:8	MORTH 805	Number	2970	737
197	Road Furniture	c	MORTH 805	Fixing R.C.C. 5th Km. stones, in c.c. 1:4:8	MORTH 805	Number	4979	1328
	Road Furniture	6.03	MORTH 202	Dismantling of _____Stone including cutting of earth, foundation and disposal of dismantled material with all lifts and lead upto 1000 m and back filling of pit.				
198	Road Furniture	a	MORTH 202	Dismantling 5th Km. Stone	MORTH 805	Number	690	518
199	Road Furniture	b	MORTH 202	Ordinary Km. Stone	MORTH 805	Number	408	302
200	Road Furniture	c	MORTH 202	Hectometer Stone	MORTH 805	Number	82	60
	Road Furniture	6.04	MORTH 805.1	Painting with approved enamel paint in two coats including cleaning surface and lettering for_____ stone etc. complete.				
201	Road Furniture	a	MORTH 805.1	200 Mt. Stone	MORTH 805.1	Number	127	95
202	Road Furniture	b	MORTH 805.1	Ordinary Kilometer Stone	MORTH 805.1	Number	457	301
203	Road Furniture	c	MORTH 805.1	Lettering of Fifth Km. Stone	MORTH 805.1	Number	484	246
204	Road Furniture	d	MORTH 805.1	Lettering of Boundary Stone	MORTH 807	Number	40	19
205	Road Furniture	e	MORTH 801	Lettering for cautionary/ mandatory sign boards and village name boards	MORTH 801	Number	190	121
206	Road Furniture	f	MORTH 801	Lettering for informatory sign boards etc. complete.	MORTH 801	Number	236	153
207	Road Furniture	g	MORTH 801	Lettering on masonry works with nalla flow direction, span number and location etc. complete.	MORTH 801	Number	27	16
208	Road Furniture	6.05	MORTH 801	Painting letters upto 20 cm height complete brushes, coir brushers, dusting, cleaning, including cost of paint etc. complete.	MORTH 801	Number	27	21
209	Road Furniture	6.06	MORTH 801	Painting and numbering trees with white background and black lettering etc. complete.	MORTH 801	Number	29	23
210	Road Furniture	6.07	MORTH 801	Providing white and colour washing to road side trees in 2 coats in 2 bands of white and one red band at centre of 30 cm height each including preparing the surface, cost of material, conveying etc. complete.	MORTH 801	Number	52	33
	Road Furniture	6.08	MORTH 801	Painting Line, Dashes, Arrows etc on Roads in two coats on new work with ready mixed road marking paint confirming to I.S. 164 on Bituminous surface including cleaning the surface of all dirt, dust and other foreign matter, demarcation at site and traffic control (Over/Upto __cm wide) (MORTH-803) -- _____ Surface				
211		a	MORTH 801	Over 10cm Wide On New Surface	MORTH 803	Square Meter	323	132
212	Road Furniture	b	MORTH 801	Upto 10 cm Wide On Old Surface	MORTH 803	Square Meter	292	106
213		c	MORTH 801	Over 10cm Wide On Old Surface	MORTH 803	Square Meter	216	96
214	Road Furniture	d	MORTH 801	Upto 10 cm Wide On Old Surface	MORTH 803	Square Meter	228	106

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
215	Road Furniture	6.09	MORTH 806	Supplying and Fixing of Molded Shank Raised Pavement Markers / Cat's Eye made of polycarbonate and ABS moulded body and reflective panels with micro prismatic lens capable of providing total internal reflection of the light entering the lens face and shall support a load of 16000 kg tested in accordance to ASTM D 4280 Type H and complying to Specifications of Category A of MORTH Circular No RW/NH/33023/10-97 DO III Dt 11.06. 1997. The height, width and length shall not exceed 50 mm, 100 mm and 102 +/- 2 mm and with minimum reflective area of 13 Sqcm on each side and the slope to the base shall be 35 +/- 5 degree. The strength of detachment of the integrated cylindrical shanks, (of diameter not less than 19 +/- 2 mm and height not less than 30+/- 2 mm) from the body is to be a minimum value of 500 Kg. Fixing will be by drilling holes on the road for the shanks to go inside, without nails and using epoxy resin based adhesive as per manufacturer's recommendation and complete as directed by the engineer.The contractor shall submit a two year warranty for satisfactory field performance including stipulated retro-reflectance of the reflecting panel, to the Engineer.	MORTH 804	Number	501	78
216	Road Furniture	6.10	MORTH 806	Providing and Fixing of Median Marker that are made of tough, high impact resistant, injection-molded, thermoplastic body with an isosceles trapezoidal structure of length, width and height not less than 15cm, 10cm and 10cm respectively and thickness not less than 1.8mm, the body structure shall be rounded at its acute angle, all the corners and edges. The plastic used for molding the Median Marker shall have a minimum Notched Izod Impact strength value of 600 J/m at room temperature, when tested in accordance with ASTM D256 and shall retain at least 70% of this value when subjected to accelerated weathering for 1000hrs as per ASTM G155 or UL746C. The logo of the manufacturer shall be embossed on either side of the body in the injection molding process. The Median Marker shall have rectangular-shaped, fluorescent yellow color retro-reflective sheeting of size not less than 8.5cm*8.5cm and with fully reflective micro prismatic cube corners as its retro-reflective elements as per IRC 67 2010 and ASTM D4956 type XI specifications reflectivity values. The retro-reflective sheeting shall be one or both sides of the Median Marker and shall be edge protected with no exposed edges which will prevent edge lifting, vandalism, sheeting damage, etc. The Median Marker shall be fixed by a combination of epoxy adhesive and grouting.	MORTH 806	Number	709	27
217	Road Furniture	6.11	MORTH 804	Providing and fixing reflective fluorescent tape on old road sign board by following the procedure recommended by manufacturer.Tape shall be consist of white or coloured sheeting having smooth outer surface which has the property of retro-reflection over its entire surface.It shall be weather resistant and show colour fastness.It shall be new and unused and shall show no evidance of cracking,scaling,pitting,blistings,edge lifting and shall have negligible shrinkage or expansion including cleaning / scraping and painting of existing board etc. complete. (Guidance on the recommended application of each class of tape may be taken from IRC-67)	MORTH 804	Square Meter	6037	1806
218	Road Furniture	6.12	MORTH 803.4	Road Marking with Hot Applied Thermoplastic Compound with Reflectorizing Glass Beads on Bituminous Surface- Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorizing glass beads @ 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 .The finished surface to be level, uniform and free from streaks and holes.complete.	MORTH 803.4	Square Meter	666	27
219	Road Furniture	6.12 b	MORTH 803.4	Providing and applying Cold plastic paint two component rolled on surfacing material solvent free,high build two pack seamless,tough,skid resistant,material with has property of attaining 2.00mm thickness in single coat application white(or as required colour )based on glass and colour retaining acralic cross linking resin system for coloured road surfacing including surface cleaning and cost of all material etc. complete. (All inclusive on bitumen or concrete surface) work shall carried out as per IRC 35-2015 clause 2.2)	MORTH 803.4	Square Meter	1537	55



Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
220	Road Furniture	6.13	MORTH 806	Providing and fixing Aluminum-backed flexible prismatic (AFP) sheeting consisting Yellow colored flexible prismatic sheeting with non-metallic prismatic lens as Retroreflective elements and conforming to ASTM D 4956-09 Type VI specification for rebound able Retroreflective sheeting. This flexible prismatic sheeting shall be of 1ft width and laminated at the back with a 50 micron Aluminum (Al) foil with pressure sensitive adhesive and liner. Further, this flexible prismatic sheeting shall have screen printed arrow/slant line pattern in black color in a continuous roll format. Neither AFP sheeting nor the flexible prismatic sheeting used in it shall crack when slowly bent in 1 second time around a 1/8th inch mandrel after being conditioned for 24hrs at 0°C and tested as per section S2.2.2. of ASTM D 4956-09. The AFP sheeting, with the liner removed, shall be applied with a neoprene contact adhesive with a Polychloroprene as base, viscosity of 200-450 cps and solid content of 20-30%. Once applied, the edges of the product shall be sealed all around with a two-part epoxy based structural adhesive and shall be extremely resistant to peel-off. A test report from institutes like ARAI/CPRI confirming to above mentioned flexibility and ASTM D4956-09 Type VI retro reflectivity.	MORTH 806	Square Meter	7841	358
221	Road Furniture	6.14	MORTH 806	Providing Vertical Delineator having wide angle cube corner micro prismatic non metallic reflective sheeting confirming to Type XI of ASTM D4956 -09 with White Color and Red Color combination and having minimum of retro reflective exposed area of 125 Sq CM on top slots and 35 Sq CM on bottom slots and no edges shall be exposed for tampering. This tubular delineator shall have a core and shell construction, shell shall be made of tough, high impact resistant, injection-molded, thermoplastic outer body and the inner core shall consist of powder coated or painted Mild steel of minimum thickness 1.0mm.and core-shell structure shall be of height not less than 800 mm above the ground and width not less than 80 mm. The metallic core of the delineator shall extend 300mm beyond the shell length from bottom for installing in the ground. The extended portion shall have slots to insert anchoring rods for enhancing the concrete grip. The logo of the manufacturer shall be embossed on either side of the body in the injection molding process. The engineering thermoplastic used for making the delineator body shall have minimum initial mechanical properties of 600J/m tested in accordance with ASTM D256 and shall retain at least 70% of these minimum initial values.	MORTH 806	Number	2954	431
222	Road Furniture	6.15	MORTH 806	Road Delineators: Supplying and installation of delineators (Roadway Indicators, Hazard markers, Object markers) 80 to 100 cm high above ground level, painted black and white in 15 cm wide strips, fitted with 80x100mm rectangular or 75mm dia. Circular reflectorised panels at the top, buried or pressed into the ground and confirming to I.R.C. 79 and the drawings	MORTH 806	Number	1047	21
223	Road Furniture	6.16	MORTH 806	Providing and fixing steel pipe delineators of 10 cm. in diameter and total height of 130 cm, provided with 2 strips of white retroreflective sheeting of size 5 cm. x 32.5 cm. each fixed horizontally and 2 strips of red retroreflective sheeting each having size 5 cm. x 32.5 cm. fixed horizontally at top, with M.S. round cap having diameter 11 cm. and wire mesh at top (10 guage thick) and height of wire mesh 15 cm, M.S. hold fast 6 mm thick with 35 cm. in length, fixing the delineators in C.C. 1:4:8 concrete block of size 25 cm. x 25 cm. x 45 cm. with necessary excavation etc. complete.	MORTH 806	Number	1164	21

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
224	Road Furniture	6.17	MORTH 804	Supplying of Solar Raised Pavement Markers made of polycarbonate molded body with circular shape, solar powered, LED self illumination in active mode, 360 degree illumination and reflective panels with micro prismatic lens capable of providing total internal reflection of the light entering the lens face in passive mode. The marker shall support a load of 20000 kg tested in accordance to ASTM D 4280. The marker should be resistant to dust and water ingress according to IP 65 standards and should withstand temperatures in the range of 0 C to 70 C. Color of lighting could be provided in red or yellow (amber) as per requirement and typical frequency of blinking is 1 Hz. There should be current losses of less than 20 micro-amperes at 2.4 V in sleep-charging mode to enhance the life of the marker and a full charge should provide for a minimum autonomy of 50 hours. The height, width and length of the marker shall not be less than 10 mm x 100 mm x 100 mm. Also, the surface diameter of the marker shall not be less than 100 mm respectively. The weight of the marker shall not exceed 0.5 Kilograms. Fixing will be by drilling holes on the road for the shanks to go inside, without nails and using epoxy resin based adhesive, and complete as directed by the engineer. The	MORTH 804	Number	3990	150
225	Road Furniture	6.18	MORTH 806	Supplying precast conventional reflective delinators on four sides for road signs	MORTH 806	Number	584	132
226	Road Furniture	6.19	MORTH 801	Fixing in position Cautionary/ Mandatory sign boards in ground with C C 1:4:8 block of 60cm x 60cm x 75cm size etc. complete as directed including all leads.	MORTH 801	Number	928	118
227	Road Furniture	6.20	MORTH 801	Fixing in position Road Junction/ Informatory Sign Board in ground with C.C.1:4:8 block of 60cm x 60cm x 75cm size including all leads complete.	MORTH 801	Number	1915	237
228	Road Furniture	6.21	MORTH 806	Providing and fixing including conveyance charges upto a distance of 200 Km. precast concrete post delinators, post of size 130 x 90 x 1300 milimetre consisting of 4 B.T. wires with 14,000 Kg/cm2 C.C. M-20 grade 16mm dia. hold fast, including excavation and C.C. 1:4:8 foundation block, oil painting post with 3 coats and Red fluorescent tape 75 x 75mm and white floursent border 20mm wide around the red tape on all the four sides with necessary adhesive and lamination etc. complete.	MORTH 806	Number	722	134
229	Road Furniture	6.22	MORTH 801	Supplying rolled steel channel post of 100 x 50 mm (ISMC) drilled on top and painted with one coat of epoxy primer and two coats of epoxy finish paint having black and white bands of 25 cm last part of the post 0.75 m below ground level is painted with three coats of red lead paint with 2 nos. of high tensile G.I. bolt and nut of size 10 mm Dia. of 25 mm long including transportation etc. complete. Spec. No. : As per IRC-67, and M.O.R.T. and H. Circular No. RW/NH-33023/31/88 D.O.III Dated 2-5-1994	MORTH 801	Running Metre	1367	214
230	Road Furniture	6.23	MORTH 801	Supplying M.S. Angle iron post of size 65 mm x 65 mm x 6 mm drilled on top and painted with one coat of epoxy primer and two coats of epoxy finish paint having black and white bands of 25 cm, last part of the post 0.75 m below ground level is painted with three coats of red lead paint with 2 nos. of high tensile G.I. bolt and nut of size 10 mm dia. of 25 mm long including transportation etc. complete. Spec. No. : As per IRC-67, and M.O.R.T. and H. Circular No. RW/NH-33023/31/88 D.O.III Dated 2-5-1994	MORTH 801	Running Metre	1287	258
	Road Furniture	6.24	MORTH 801	Supplying M.S. Angle iron post of size _____ duly painted with one coat of red oxide paint and two coats of synthetic enamel finish paint having black and white bands of 25 cm width including 2 nos of G.I. bolt and nut of size 10 mm dia. And 20 mm long including transportation etc. complete. Spec. No. : As per IRC-67, and M.O.R.T. and H. Circular No. RW/NH-33023/31/88 D.O.III Dated 2-5-1994				
231	Road Furniture	a		Post of size 65 mm x 65 mm x 6 mm	MORTH 801	Running Metre	753	163
232	Road Furniture	b	MORTH 801	Post of size 50 mm x 50 mm x 5 mm	MORTH 801	Running Metre	511	163
233	Road Furniture	6.25	MORTH 801	Supplying M.S. Angle iron frame for informatory sign boards of size 35 mm x 35 mm x 3 mm welded and making necessary holes required for fixing and painted with one coat of epoxy primer and two coats epoxy finish paint etc. complete.Spec. No. : As per IRC-67, and M.O.R.T. and H. Circular No. RW/NH-33023/31/88 D.O.III Dated 2-5-1994	MORTH 801	Running Metre	369	163

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	Road Furniture	6.26	MORTH 805	Providing and constructing Information Pillar of Brick Masonry in C.M. 1:6 of size 2.0 m x 0.23m x 1.0 m with base pedestal of size 2.3 m x 0.35 m x 0.45 m (0.3 m above ground), excavation in ground upto 0.4 m, laying 0.15 m thick 80 mm soling, 0.10 m thick c.c. 1:3:6, finishing the pedestal and pillar in cement plaster 12 mm thick in C.M. 1:5 and finishing the pillar with neat cement finish, applying flat oil paint of approved colour in two coats, including curing, finishing etc complete. (In Strata/Soil _____) Spec. No. :As directed by Engineer-in-charge.				
234	Road Furniture	a	MORTH 805	In Strata other than B.C. Soil	MORTH 805	Number	12349	3599
235	Road Furniture	b	MORTH 805	In B.C. Soil with 12 mm thick R.C.C. raft in M-15, including reinforcement e.	MORTH 805	Number	14537	3795
	Road Furniture	6.27	MORTH 801	Providing and fixing Mandatory/Regulatory sign boards in circular shape of _____ mm dia made out of _____mm aluminum sheet bonded with white retro reflective sheeting of Class B ( Type IV High intensity micro-prismatic grade sheeting-HIP) having pressure sensitive/heat activated adhesive retroreflective specified back ground, border and back side retroreflective symbols, letters, numerals, arrow as per IRC:67-2012 Table No 8.3 Supported with back support frame 25mm x 25mm x 3mm, duly painted on back side with grey stove enamel paint and supported on one no. of M. S. angle iron post of size 65 mm X 65 mm X 6 mm, 3.45 m long, duly painted with flat oil paint having alternate black and white bands of 25 cm width including G.I. fixtures etc; fixing the boards in M25 grade concrete block of size 60cm X 60cm X 75cm including transportation etc; complete. Class B ( Type IV High intensity micro-prismatic grade sheeting-HIP) shall have 7 years written warranty from the manufacturer and authorised distributor/convertor issued for field performance including the screen printed areas and cut-out sheeting and cut-out durable transparent overlay film and this warranty certificate in original should be submitted to the Engineer in charge by the contractor/supplier.				
236	Road Furniture	a	MORTH 801	600 mm dia made out of 1.5mm aluminum sheet	MORTH 801	Number	4080	344
237	Road Furniture	b	MORTH 801	600 mm dia made out of 3mm aluminum composite material	MORTH 801	Number	4740	344
238	Road Furniture	c	MORTH 801	750 mm dia made out of 2mm aluminum sheet	MORTH 801	Number	5824	344
239	Road Furniture	d	MORTH 801	750 mm dia made out of 4mm aluminum composite material	MORTH 801	Number	8458	344
240	Road Furniture	e	MORTH 801	900 mm dia made out of 2mm aluminum sheet	MORTH 801	Number	6561	344
241	Road Furniture	f	MORTH 801	900 mm dia made out of 4mm aluminum composite material	MORTH 801	Number	7515	344
242	Road Furniture	g	MORTH 801	1200 mm dia made out of 2mm aluminum sheet	MORTH 801	Number	9861	344
243	Road Furniture	h	MORTH 801	1200 mm dia made out of 4mm aluminum composite material	MORTH 801	Number	11546	344
	Road Furniture	6.28	MORTH 801	Providing and fixing Mandatory/Regulatory sign boards in circular shape of _____mm dia made out of _____mm aluminum sheet bonded with white retro reflective sheeting of Class C ( Type XI Micro prismatic grade sheeting) having pressure sensitive/heat activated adhesive retroreflective specified back ground, border and back side retroreflective symbols, letters, numerals, arrow as per IRC:67-2012 Table No 8.3 Supported with back support frame 25mm x 25mm x 3mm, duly painted on back side with grey stove enamel paint and supported on one no. of M. S. angle iron post of size 65 mm X 65 mm X 6 mm, 3.45 m long, duly painted with flat oil paint having alternate black and white bands of 25 cm width including G.I. fixtures etc; fixing the boards in M25 grade concrete block of size 60cm X 60cm X 75cm including transportation etc; complete. Class C ( Type XI Micro prismatic grade sheeting) shall have 10 years written warranty from the manufacturer and authorised distributor/convertor issued for field performance including the screen printed areas and cut-out sheeting and cut-out durable transparent overlay film and this warranty certificate in original should be submitted to the Engineer in charge by the contractor/supplier.				
244	Road Furniture	a	MORTH 801	600 mm dia made out of 1.5mm aluminum sheet	MORTH 801	Number	4975	344
245	Road Furniture	b	MORTH 801	600 mm dia made out of 3mm aluminum composite material	MORTH 801	Number	5361	344
246	Road Furniture	c	MORTH 801	750 mm dia made out of 2mm aluminum sheet	MORTH 801	Number	6669	344
247	Road Furniture	d	MORTH 801	750 mm dia made out of 4mm aluminum composite material	MORTH 801	Number	7325	344

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248	Road Furniture	e	MORTH 801	900 mm dia made out of 2mm aluminum sheet	MORTH 801	Number	8666	344
249	Road Furniture	f	MORTH 801	900 mm dia made out of 4mm aluminum composite material	MORTH 801	Number	9620	344
250	Road Furniture	g	MORTH 801	1200 mm dia made out of 2mm aluminum sheet	MORTH 801	Number	13918	344
251	Road Furniture	h	MORTH 801	1200 mm dia made out of 4mm aluminum composite material	MORTH 801	Number	15603	344
	Road Furniture	6.29	MORTH 801	Providing and fixing Cautionary/Warning sign boards in Equilateral Triangle size of ____mm made out of ____mm aluminum sheet bonded with white retro reflective sheeting of Class B ( Type IV High intensity micro-prismatic grade sheeting-HIP) having pressure sensitive/heat activated adhesive retroreflective specified back ground, border and back side retroreflective symbols, letters, numerals, arrow as per IRC:67-2012 Table No 8.3 Supported with back support frame 25mm x 25mm x 3mm, duly painted on back side with grey stove enamel paint and supported on one no. of M. S. angle iron post of size 65 mm X 65 mm X 6 mm, 3.45 m long, duly painted with with flat oil paint having alternate black and white bands of 25 cm width including G.I. fixtures etc; fixing the boards in M25 grade concrete block of size 60cm X 60cm X 75cm including transportation etc; complete. Class B ( Type IV High intensity micro-prismatic grade sheeting-HIP) shall have 7 years written warranty from the manufacturer and authorised distributor/convertor issued for field performance including the screen printed areas and cut-out sheeting and cut-out durable transparent overlay film and this warranty certificate in original should be submitted to the Engineer in charge by the contractor/supplier.				
252	Road Furniture	a	MORTH 801	600 mm made out of 1.5mm aluminum sheet	MORTH 801	Number	3469	344
253	Road Furniture	b	MORTH 801	600 mm made out of 3mm aluminum composite material	MORTH 801	Number	3685	344
254	Road Furniture	c	MORTH 801	750 mm made out of 2mm aluminum sheet	MORTH 801	Number	3918	344
255	Road Furniture	d	MORTH 801	750 mm made out of 4mm aluminum composite material	MORTH 801	Number	4234	344
256	Road Furniture	e	MORTH 801	900 mm out of 2mm aluminum sheet	MORTH 801	Number	4781	344
257	Road Furniture	f	MORTH 801	900 mm made out of 4mm aluminum composite material	MORTH 801	Number	5304	344
258	Road Furniture	g	MORTH 801	1200 mm made out of 2mm aluminum sheet	MORTH 801	Number	6538	344
259	Road Furniture	h	MORTH 801	1200 mm made out of 4mm aluminum composite material	MORTH 801	Number	7468	344
	Road Furniture	6.30	MORTH 801	Providing and fixing Cautionary/Warning sign boards in Equilateral Triangle size of ____ mm made out of ____mm aluminum sheet bonded with white retro reflective sheeting of Class C ( Type XI Micro prismatic grade sheeting) having pressure sensitive/heat activated adhesive retroreflective specified back ground, border and back side retroreflective symbols, letters, numerals, arrow as per IRC:67-2012 Table No 8.3 Supported with back support frame 25mm x 25mm x 3mm, duly painted on back side with grey stove enamel paint and supported on one no. of M. S. angle iron post of size 65 mm X 65 mm X 6 mm, 3.45 m long, duly painted with with flat oil paint having alternate black and white bands of 25 cm width including G.I. fixtures etc; fixing the boards in M25 grade concrete block of size 60cm X 60cm X 75cm including transportation etc; complete. ClassC ( Type XI Micro prismatic grade sheeting) shall have 10 years written warranty from the manufacturer and authorised distributor/convertor issued for field performance including the screen printed areas and cut-out sheeting and cut-out durable transparent overlay film and this warranty certificate in original should be submitted to the Engineer in charge by the contractor/supplier.				
260	Road Furniture	a	MORTH 801	600 mm made out of 1.5mm aluminum sheet	MORTH 801	Number	3936	344
261	Road Furniture	b	MORTH 801	600 mm made out of 3mm aluminum composite material	MORTH 801	Number	4151	344
262	Road Furniture	c	MORTH 801	750 mm made out of 2mm aluminum sheet	MORTH 801	Number	4559	344
263	Road Furniture	d	MORTH 801	750 mm made out of 4mm aluminum composite material	MORTH 801	Number	4875	344
264	Road Furniture	e	MORTH 801	900 mm made out of 2mm aluminum sheet	MORTH 801	Number	5873	344
265	Road Furniture	f	MORTH 801	900 mm made out of 4mm aluminum composite material	MORTH 801	Number	6396	344
266	Road Furniture	g	MORTH 801	1200 mm made out of 2mm aluminum sheet	MORTH 801	Number	8584	344
267	Road Furniture	h	MORTH 801	1200 mm made out of 4mm aluminum composite material	MORTH 801	Number	9514	344

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	Road Furniture	6.31	MORTH 801	Providing and fixing Cautionary/Warning sign boards in Octagone size of ____mm made out of ____mm aluminum sheet bonded with white retro reflective sheeting of Class B ( Type IV High intensity micro-prismatic grade sheeting-HIP) having pressure sensitive/heat activated adhesive retoreflective specified back ground, border and back side retoreflective symbols, letters, numerals, arrow as per IRC:67-2012 Table No 8.3 Supported with back support frame 25mm x 25mm x 3mm, duly painted on back side with grey stove enamel paint and supported on one no. of M. S. angle iron post of size 65 mm X 65 mm X 6 mm, 3.45 m long, duly painted with flat oil paint having alternate black and white bands of 25 cm width including G.I. fixtures etc; fixing the boards in M25 grade concrete block of size 60cm X 60cm X 75cm including transportation etc; complete. Class B ( Type IV High intensity micro-prismatic grade sheeting-HIP) shall have 7 years written warranty from the manufacturer and authorised distributor/convertor issued for field performance including the screen printed areas and cut-out sheeting and cut-out durable transparent overlay film and this warranty certificate in original should be submitted to the Engineer in charge by the contractor/supplier.				
268	Road Furniture	a	MORTH 801	750 mm made out of 2mm aluminum sheet	MORTH 801	Number	6038	344
269	Road Furniture	b	MORTH 801	750 mm made out of 4mm aluminum composite material	MORTH 801	Number	6877	344
270	Road Furniture	c	MORTH 801	900 mm out of 2mm aluminum sheet	MORTH 801	Number	7655	344
271	Road Furniture	d	MORTH 801	900 mm made out of 4mm aluminum composite material	MORTH 801	Number	8862	344
	Road Furniture	6.32	MORTH 801	Providing and fixing Cautionary/Warning sign boards in Octagone size of _____ mm made out of ____mm aluminum sheet bonded with white retro reflective sheeting of Class C ( Type XI Micro prismatic grade sheeting) having pressure sensitive/heat activated adhesive retoreflective specified back ground, border and back side retoreflective symbols, letters, numerals, arrow as per IRC:67-2012 Table No 8.3 Supported with back support frame 25mm x 25mm x 3mm, duly painted on back side with grey stove enamel paint and supported on one no. of M. S. angle iron post of size 65 mm X 65 mm X 6 mm, 3.45 m long, duly painted with flat oil paint having alternate black and white bands of 25 cm width including G.I. fixtures etc; fixing the boards in M25 grade concrete block of size 60cm X 60cm X 75cm including transportation etc; complete. Class C ( Type XI Micro prismatic grade sheeting) shall have 10 years written warranty from the manufacturer and authorised distributor/convertor issued for field performance including the screen printed areas and cut-out sheeting and cut-out durable transparent overlay film and this warranty certificate in original should be submitted to the Engineer in charge by the contractor/supplier.				
272	Road Furniture	a	MORTH 801	750 mm made out of 2mm aluminum sheet	MORTH 801	Number	7863	344
273	Road Furniture	b	MORTH 801	750 mm made out of 4mm aluminum composite material	MORTH 801	Number	8702	344
274	Road Furniture	c	MORTH 801	900 mm made out of 2mm aluminum sheet	MORTH 801	Number	10403	344
275	Road Furniture	d	MORTH 801	900 mm made out of 4mm aluminum composite material	MORTH 801	Number	11611	344

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
	Road Furniture	6.33		Providing and fixing of retro- reflectorised informatory sign board rectangular/Square in shape having area less than 0.9 square meter made out of ____mm aluminum sheet bonded with white retro reflective sheeting of Class __ ( Type IV High intensity micro-prismatic grade sheeting-HIP) having pressure sensitive/heat activated adhesive retoreflective specified back ground, border and back side retoreflective symbols, letters, numerals, arrow as per IRC:67-2012 Table No 8.3, supported with back support frame 25mm x 25mm x 3mm, duly painted on back side with two coats of grey stove enamel paint and supported on one no. mild steel angle iron post 75 mm x 75 mm x 6 mm, 3.5 mt long firmly fixed to the ground by means of properly designed foundation with M25 grade cement concrete 45 cm x 45 cm x 60 cm, 60 cm below ground level as per approved drawing The angle iron post shall be duly painted with one coat of epoxy primer and two coats of epoxy finish paints having alternate black and white bands of 25 cm width including GI fixures and transportation etc.complete.The nut bolts of board with angle iron post/supporting structure after fixing at site has to be electrically welded. Class B ( Type IV High intensity micro-prismatic grade sheeting-HIP) sheeting shall have 7 years written warranty from the manufacturer and authorised distributor/convertor issued for				
276	Road Furniture	a	MORTH 801	2mm aluminum sheet Class B	MORTH 801	Square Meter	8989	315
277	Road Furniture	b	MORTH 801	4mm aluminum composite material Class B	MORTH 801	Square Meter	10480	315
278	Road Furniture	c	MORTH 801	2mm aluminum sheet of Class C	MORTH 801	Square Meter	12500	315
279	Road Furniture	d	MORTH 801	4mm aluminum composite material Class C	MORTH 801	Square Meter	13990	315
	Road Furniture	6.34		Providing and fixing of retro- reflectorised informatory sign board rectangular/Square in shape having area greater than 0.9 square meter made out of ____mm aluminum sheet bonded with white retro reflective sheeting of Class __ ( Type IV High intensity micro-prismatic grade sheeting-HIP) having pressure sensitive/heat activated adhesive retoreflective specified back ground, border and back side retoreflective symbols, letters, numerals, arrow as per IRC:67-2012 Table No 8.3, supported with back support frame 25mm x 25mm x 3mm, duly painted on back side with two coats of grey stove enamel paint and supported on two no. mild steel angle iron post 75 mm x 75 mm x 6 mm, 3.5 mt long firmly fixed to the ground by means of properly designed foundation with M25 grade cement concrete 45 cm x 45 cm x 60 cm, 60 cm below ground level as per approved drawing The angle iron post shall be duly painted with one coat of epoxy primer and two coats of epoxy finish paints having alternate black and white bands of 25 cm width including GI fixures and transportation etc.complete.The nut bolts of board with angle iron post/supporting structure after fixing at site has to be electrically welded. Class B ( Type IV High intensity micro-prismatic grade sheeting-HIP) sheeting shall have 7 years written warranty from the manufacturer and authorised distributor/convertor issued for				
280	Road Furniture	a	MORTH 801	2mm aluminum sheet Class B	MORTH 801	Square Meter	11394	375
281	Road Furniture	b	MORTH 801	4mm aluminum composite material of Class B	MORTH 801	Square Meter	12885	375
282	Road Furniture	c	MORTH 801	2mm aluminum sheet bonded of Class C	MORTH 801	Square Meter	14904	375
283	Road Furniture	d	MORTH 801	4mm aluminum composite material of Class C	MORTH 801	Square Meter	16395	375
	Road Furniture	6.35	MORTH 801	Providing and erecting Overhead signs made out of ____mm aluminum sheet bonded with white retro reflective sheeting of Class__ ( Type IV High intensity micro-prismatic grade sheeting-HIP) having pressure sensitive/heat activated adhesive retoreflective specified back ground, border and back side retoreflective symbols, letters, numerals, arrow as per IRC:67-2012, with designed back support frame of mild steel angle with vertical and lateral clearance given in clause 801 and 802, duly painted on back side with two coats of grey stove enamel paint and installed as per clause 802.6 over a designed support system of structural steel work trestles and trusses of sections and type as per structural design requirements and approved plans including painting with one coat of epoxy primer and two coats of epoxy finish paint.The nut bolts of board with angle iron post/supporting structure after fixing at site has to be electrically welded. Class B ( Type IV High intensity micro-prismatic grade sheeting-HIP) sheeting shall have 7 years written warranty from the manufacturer and authorised distributor/convertor issued for field performance including the screen printed areas and cut-out sheeting and cut-out durable transparent overlay film and this warranty certificate in				

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
284	Road Furniture	a	MORTH 801	2mm aluminum sheet of Class B	MORTH 801	Square Meter	6388	163
285	Road Furniture	b	MORTH 801	4mm aluminum composite material of Class B	MORTH 801	Square Meter	7879	163
286	Road Furniture	c	MORTH 801	2mm aluminum sheet of Class C	MORTH 801	Square Meter	9898	163
287	Road Furniture	d	MORTH 801	4mm aluminum composite material Class C	MORTH 801	Square Meter	11389	163
288	Road Furniture	6.36	MORTH 801	Providing and fixing board displaying information, such as 'Name of work, Tender cost, Name of Contractor, Work completion and liability period etc', having rectangular shape of 1.20m x 0.90m size made out 18 gauge (1.25mm) thick mild steel sheet painted with one coat of Zinc chromate stoving primer and two coats of enamel paint on front side and grey stove enamel on back side and border / messages / symbols etc. with approved colour shade paint complete, on M.S.angle of size 35 x 35 x 3 mm frame with properly cross braced M.S. angles of size 35mmx35mmx3mm duly painted including Two M.S. angle iron posts of size 65 mm x 65 mm x 6 mm, 3.65 m long painted with alternate black and white bands of 25 cm width including all fixtures etc.and fixing the boards in 1:4:8 concrete block of size 60 cm x 60 cm x 75 cm including, excavation, refilling, transportation, and labour etc complete. Spec. No. As directed by Engineer in Charge	MORTH 801	Number	9284	2550
289	Road Furniture	6.37	MORTH 805	Providing and fixing R.C.C. precast cement concrete M-15 pedestal OF SIZE 0.75 X 0.75 X 0.20 m including cost of steel reinforcement for Km. stone as per detailed drawing and specification including transportation of pedestal Block, all lifts etc. complete.	As directed by Engineer-in-charge.	Number	1581	262
290	Road Furniture	6.38	IRC-67 2012	Providing and fixing cautionary / warning sign board of size 60 cm. having shape of equilateral triangle with apex point upwards. prepared on 16 gauge M.S. sheet including painting with one coat of zinc cromate stoving primer and two coats each of white back ground, red border and backside gray stove enamelled, bonded with cut out of Retro reflective sheet Engineering grade, symbol / letters / numerals / border / arrow, coated with non pealable crystal clear protective transparent coat retaining 100% reflection including one number of M.S. Angle iron post of size 50 x 50 x 5 mm of 3.65 m. long inflated at bottom drilled on top in one piece without joint painted with white and black bands of 30 cm. fixing board and post with 2 Nos. high strength G.I. bolts and nuts of size 10 mm dia. and 20 mm long including all taxes, conveying, fixing in ground with cement concrete 1:4:8 block of 60 cm x 60 cm x 75 cm size etc.complete. 60 cm. equilateral triangle M.S. sheet with Engineering grade,	IRC-67 2012	Number	4612	893
291	Road Furniture	6.39	IRC-67 2012	Providing and fixing Mandatory / Regulatory sign board of circular shape of size 60 cm. dia. prepared on 16 gauge M.S. sheet including painting with zinc chromate stoving primer and two coats each of white back ground,red border and backside gray stove enamelled, bonded with cut out of Retro reflective sheet Engineering grade, symbol / letters / numerals / border, coated with non pealable crystal clear protective transparent coat retaining 100% relection including one number of M.S. Angle iron post of size 50 x 50 x 5 mm of 3.45 m. long inflated at bottom drilled on top in one piece without joint painted with white and black bands of 30 cm. fixing board and post with 2 Nos. high strength G.I. bolts and nuts of size 10 mm dia. and 20 mm long including all taxes, conveying, fixing in ground with cement concrete 1:4:8 block of 60 cm x 60 cm x 75 cm size etc. complete. circular shape of size 60 cm. dia. M.S. sheet with Retro reflective sheet Engineering grade	IRC-67 2012	Number	5705	893

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
292	Road Furniture	6.40	IRC-67 2012	Providing and fixing sign boards of size 90cm having shape of an equilateral triangle made out of 14 gauge sheet with retro reflective sheeting of Engineering Grade as per M.O.T. specification No. 801-3(1993) white reflective back ground, lettering symbol bordering of black non reflective paint including M. S. angle iron back frame of size 35 mm X 35 mm X 5 mm & M.S.angle one post of 50mm x 50mm x 5mm size 3.45 metre long duly painted with white and black bands including fixing M.S. angle of the boards with galvanised nuts and bolts and washers. The Board shall be as per IRC-67-1977 including conveying fixing in ground with C.C. 1:4:8 block of size 0.60 x 0.60 x 0.75 m, with 7 year guarantee for the sheeting etc. complete. Mild Steel Board with Engineering Grade	IRC-67 2012	Number	5443	1516
293	Road Furniture	6.41	IRC-67 2012	Providing and fixing road junction/information sign boards of size 1.80 x 0.90 Meter Prepared 16 guageM.S.sheet on frame of M.S.angle of size 35 x 35 x 5 mm with cross bracing of size 35x35x5 mm including painting with one coat of zinc cromate stoving primer and two coats each of green/white back ground and back side gray stove enamelled, bonded with red retro reflective sheet Engineering grade, border / letters / numeral /arrows, coated with non pealable crystal clear protective transperent coat retaining 100% reflection including two angle iron post of size 65 x 65 x 6 mm of 3.65 m. long inflated at bottom ,drilled on top and painted in white and black bands of 30 cm. with 4 Nos. high strength G.I. bolts and nuts of size 10 mm dia. and 20 mm long. Sheet and angle iron post in one piece without joints including all taxes, conveying, fixing in ground with cement concrete 1:4:8 block of 60 cm x 60 cm x 75 cm size as directed by Engineer-in-charge etc. complete. Mild Steel Board with Engineering Grade.	IRC-67 2012	Number	17279	2149
294	Road Furniture	6.42	IRC-67 2012	Providing and fixing road junction/ information sign boards of size 1.80 x 0.90 Meter Prepared 16 guage Alluminium sheet on frame of size 35 x 35 x 5 mm with cross bracing of size 35x35x5 mm including bonded with IRC Specified colour of retro reflective sheeting of Type IV High Intensity Micro-Prismatic Grade Sheeting (HIP) having pressure sensitive / heat activated adhesive, IRC Specified colour retro reflective cutout border & messages having pressure sensitive adhesive having border & messages in IRC Specified colour background including two angle iron post of size 65 x 65 x 6 mm of 3.65 m. long inflated at bottom drilled on top and painted in whiteand black bands of 30 cm. with 4 Nos. high strength G.I. bolts and nuts of size 10 mm dia. and 20 mm long sheet and angle iron post in one piece without joints including all taxes, conveying, fixing in ground with cement concrete 1:4:8 block of 60 cm x 60 cm x 75 cm size as directed by Engineer-in-charge etc. complete. Alluminium sheet Type IV High Intensity Micro-Prismatic Grade Sheeting.	IRC-67 2012	Number	18423	2149
295	Road Furniture	6.43	IRC-67 2012	Providing and fixing informatory sign boards in rectangular shape of size 1.80m x 0.90m made out of 3mm aluminum composite panel bonded with IRC Specified colour of retro reflective sheeting of Type IV High Intensity Micro-Prismatic Grade Sheeting (HIP) having pressure sensitive / heat activated adhesive, IRC Specified colour retro reflective cutout border & messages having pressure sensitive adhesive having border & messages in IRC Specified colour background including M. S. angle iron frame of size 35 mm X 35 mm X 5 mm & two M.S. angle iron post of size 65 mm X 65 mm X 6 mm, 3.65 m long, duly painted with flat oil paint having alternate black and white bands of 25 cm width including G.I. fixtures etc; fixing the boards in M-20 concrete block of size 60cm X 60cm X 75cm including transportation etc; complete. Aluminum composite panel with Type IV High Intensity Micro-Prismatic Grade Sheeting.	IRC-67 2012	Number	20804	2010



Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
296	Road Furniture	6.44	IRC-67 2012	Providing and fixing road junction/ information sign boards of size 1.80 x 1.20 Meter Prepared 16 guage M.S.sheet on frame of size 40x40x5 mm with cross bracing of size 35x35 x 5 mm including painting with one coat of zinc cromate stoving primer and two coats each of green/white back ground and back side gray stove enamelled, bonded with red retro reflective sheet Engineering grade, border / letters / numeral /arrows, coated with non pealable crystal clear protective transperent coat retaining 100% reflection includingtwo angle iron post of size 65 x 65 x 6 mm of 3.65 m. long inflated at bottom drilled on top and painted in whiteand black bands of 30 cm. with 4 Nos. high strength G.I. bolts and nuts of size 10 mm dia. and 20 mm long sheet and angle iron post in one piece without joints including all taxes, conveying, fixing in ground with cement concrete 1:4:8 block of 60 cm x 60 cm x 75 cm size as directed by Engineer-in- charge etc. complete. Mild Steel Board with Engineering Grade.	IRC-67 2012	Number	19512	2347
297	Road Furniture	6.45	IRC-67 2012	Providing and fixing road junction/ information sign boards of size 1.80 x 1.20 Meter Prepared 16 guage Alluminium sheet on frame of with angle iron frame of size40x40x5mm with cross bracing of size 35x35x5 mm including Type IV High Intensity Micro-Prismatic Grade Sheeting (HIP) having pressure sensitive / heat activated adhesive, IRC Specified colour retro reflective cutout border & messages having pressure sensitive adhesive having border & messages in IRC Specified colour back ground including two angle iron post of size 65 x 65 x 6 mm of 3.65 m. long inflated at bottom drilled on top and painted in whiteand black bands of 30 cm. with 4 Nos. high strength G.I. bolts and nuts of size 10 mm dia. and 20 mm long sheet and angle iron post in one piece without joints including all taxes, conveying, fixing in ground with cement concrete 1:4:8 block of 60 cm x 60 cm x 75 cm size as directed by Engineer-in- charge etc. complete. Alluminium sheet Type IV High Intensity Micro-Prismatic Grade Sheeting.	IRC-67 2012	Number	21454	2218
298	Road Furniture	6.46	IRC-67 2012	Providing and fixing informatory sign boards in square or rectangular shape of size 1.80m x1.20m made out of 3mm Aluminum composite panel bonded with IRC Specified colour of retro reflective sheeting of Type IV High Intensity Micro-Prismatic Grade Sheeting (HIP) having pressure sensitive / heat activated adhesive, IRC Specified colour retro reflective cutout border & messages having pressure sensitive adhesive having border & messages in IRC Specified colour background including M. S. angle iron frame of size 35 mm X 35 mm X 5 mm & two M.S. angle iron post of size 65 mm X 65 mm X 6 mm, 3.65 m long, duly painted with flat oil paint having alternate black and white bands of 25 cm width including G.I. fixtures etc; fixing the boards in M-20 concrete block of size 60cm X 60cm X 75cm including transportation etc; complete. Aluminum composite panel with Type IV High Intensity Micro-Prismatic Grade Sheeting.	IRC-67 2012	Number	24751	2334
299	Road Furniture	6.47	IRC-67 2012	Providing and fixing Road junction / Information sign board of size 0.90 m x 0.60 m. prepared on 16 gauge M.S. sheet with angle iron frame of size 35x35x5 mm including painting with one coat of zinc cromate stoving primer and two coats each of green/ white back ground and back side gray stove enamelled, bonded with red retro reflective sheet Engineering grade, border / letters / numeral / arrows, coated with non pealable crystal clear protective coat retaining 100% reflection including two angle iron post of size 50x50x5 mm of 3.65 m. long inflated at bottom drilled on top and painted in white and black bands of 30 cm. with 4 Nos. high strength G.I. bolts and nuts of size 10 mm dia. and 20 mm long sheet and angle iron post in one piece without joints including all taxes, conveying, fixing in ground with cement concrete 1:4:8 block of 60 cm x 60 cm x 75 cm size as directed by Engineer-in-charge etc. complete. Mild Steel Board with Engineering Grade.	IRC-67 2012	Number	7835	1384

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
300	Road Furniture	6.48	IRC-67 2022	Providing and fixing informatory sign boards of size 0.90 x 0.60 m made out of 14 guage Aluminum sheet bonded with IRC Specified colour of retro reflective sheeting of Type IV High Intensity Micro-Prismatic Grade Sheeting (HIP) having pressure sensitive / heat activated adhesive, IRC Specified colour retro reflective cutout border & messages having pressure sensitive adhesive having border & messages in IRC Specified colour background including on frame of with angle iron frame of size 35 x 35 x 5 mm and two M.S. angle iron post of size 65 mm X 65 mm X 6 mm, 3.65 m long, duly painted with flat oil paint having alternate black and white bands of 25 cm width including G.I. fixtures etc; fixing the boards in 1:4:8 concrete block of size 60cm X 60cm X 75cm including transportation etc; complete. Alluminium sheet Type IV High Intensity Micro-Prismatic Grade Sheeting	IRC-67 2022	Number	10322	1194
301	Road Furniture	6.49	IRC-67 2012	Providing and fixing informatory sign boards shape of size 0.90 x 0.60 m made out of 3mm Aluminum composite panel bonded with IRC Specified colour of retro reflective sheeting of Type IV High Intensity Micro-Prismatic Grade Sheeting (HIP) having pressure sensitive / heat activated adhesive, IRC Specified colour retro reflective cutout border & messages having pressure sensitive adhesive having border & messages in IRC Specified colour background including M. S. angle iron frame of size 35 mm X 35 mm X 5 mm & M.S. angle iron post of size 65 mm X 65 mm X 6 mm, 3.65 m long, duly painted with flat oil paint having alternate black and white bands of 25 cm width including G.I. fixtures etc; fixing the boards in M-20 concrete block of size 60cm X 60cm X 75cm including transportation etc; complete. Aluminum composite panel with Type IV High Intensity Micro-Prismatic Grade Sheeting. Spec.No. As per IRC-67, 2015	IRC-67 2012	Number	11468	1109
302	Road Furniture	6.50	IRC-67 2012	Providing and fixing sign boards of size size 60 x 80 cm made out of 14 gauge M.S.Sheet with retro reflective sheeting of Engineering Grade as per M.O.T. specification No. 801-3(1993) white reflective back ground, lettering symbol bordering of black non reflective paint including 3.65 metre long M.S.angle one post of 65 x 65 x 6 mm size duly painted with white and black bands including fixing the boards of M.S. angle with galvanised nuts and bolts and washer. The Board shall be as per IRC-67-1977 including conveying fixing in ground with C.C. 1:4:8 block of size 0.60 x 0.60 x 0.75 m, with 7 year guarantee for the sheeting etc. complete. Mild Steel Board with Engineering Grade.	IRC-67 2012	Number	7322	1069
303	Road Furniture	6.51	IRC-67 2012	Providing and fixing informatory sign boards of size 60 cm x 80 cm made out of 14 guage Aluminum sheet bonded with IRC Specified colour of retro reflective sheeting of Type IV High Intensity Micro-Prismatic Grade Sheeting (HIP) having pressure sensitive / heat activated adhesive, IRC Specified colour retro reflective cutout border & messages having pressure sensitive adhesive having border & messages in IRC Specified colour background including M.S. angle iron post of size 65 mm X 65 mm X 6 mm, 3.65 m long, duly painted with flat oil paint having alternate black and white bands of 25 cm width including G.I. fixtures etc; fixing the boards in 1:4:8 concrete block of size 60cm X 60cm X 75cm including transportation etc; complete. Alluminium sheet Type IV High Intensity Micro-Prismatic Grade Sheeting	IRC-67 2012	Number	7976	999

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
304	Road Furniture	6.52	IRC-67 2012	Providing and fixing informatory sign boards of size 60 cm x 80 cm made out of 3mm Aluminum composite panel bonded with IRC Specified colour of retro reflective sheeting of Type IV High Intensity Micro-Prismatic Grade Sheeting (HIP) having pressure sensitive / heat activated adhesive, IRC Specified colour retro reflective cutout border & messages having pressure sensitive adhesive having border & messages in IRC Specified colour background including M. S. angle iron frame of size 35 mm X 35 mm X 5 mm & M.S. angle iron post of size 65 mm X 65 mm X 6 mm, 3.65 m long, duly painted with flat oil paint having alternate black and white bands of 25 cm width including G.I. fixtures etc; fixing the boards in M-20 concrete block of size 60cm X 60cm X 75cm including transportation etc; complete. Aluminum composite panel with Type IV High Intensity Micro-Prismatic Grade Sheeting.	IRC-67 2012	Number	8677	873
305	Road Furniture	6.53	IRC-67 2012	Providing and fixing N.H./ S.H. Route Marker size 60 cm x 45 cm with one No. direction plate of size 30 cm x 25 cm prepared on 16 gauge M.S. sheet including painting with one coat of zinc cromate stoving primer and two coats each of white and green back ground and back side gray stove enamelled, bonded with cut out of red Retro reflective sheet Engineering grade, border / letters / numerals and arrow, coated with non peelable crystal clear protective transparent coat retaining 100% reflection including one number of M.S. Angle iron post of size 50 x 50 x 5 mm of 3.65 m. long inflated at bottom drilled on top in one piece without joint painted with white and black bands of 30 cm. fixing board and post with 4 Nos. of high strength G.I. bolts and nuts of size 10 mm dia. and 20 mm long including all taxes, conveying, fixing in ground with cement concrete 1:4:8 block of 60 cm x 60 cm x 75 cm size as directed by Engineer-in-charge etc. complete. Mild Steel Route Marker with Engineering Grade	IRC-67 2012	Number	4097	816
306	Road Furniture	6.54	IRC-67 2012	Providing and fixing N.H./ S.H. Route Marker size 60 cm x 45 cm with one No. direction plate of size 30 cm x 25 cm prepared on 16 guage Alluminium sheet including Type IV High Intensity Micro-Prismatic Grade Sheeting (HIP) having pressure sensitive / heat activated adhesive, IRC Specified colour retro reflective cutout border & messages having pressure sensitive adhesive having border & messages in IRC Specified colour background, including one number of M.S. Angle iron post of size 50 x 50 x 5 mm of 3.65 m. long inflated at bottom drilled on top in one piece without joint painted with white and black bands of 30 cm. fixing board and post with 4 Nos. of high strength G.I. bolts and nuts of size 10 mm dia. and 20 mm long including all taxes, conveying, fixing in ground with cement concrete 1:4:8 block of 60 cm x 60 cm x 75 cm size as directed by Engineer-in-charge etc. complete. Alluminium sheet Type IV High Intensity Micro-Prismatic Grade Sheeting	IRC-67 2012	Number	4491	816
307	Road Furniture	6.55	IRC-67 2012	Providing and fixing Road junction / Information sign board of size 1.20 m x 0.90 m. prepared on 16 gauge M.S. sheet with angle iron frame of size 35 x 35 x 5 mm with cross bracing of size 35 x 35 x 5 mm including painting with one coat of zinc cromate stoving primer and two coats each of green/white back ground and back side gray stove enamelled, bonded with red retro reflective sheet Engineering grade, border / letters / numeral /arrows, coated with non peelable crystal clear protective transperent coat retaining 100% reflection includingtwo angle iron post of size 65 x 65x 6 mm of 3.65 m. long inflated at bottom drilled on top and painted in whiteand black bands of 30 cm. with 4 Nos. high strength G.I. bolts and nuts of size 10 mm dia. and 20 mm long sheet and angle iron post in one piece without joints including all taxes, conveying, fixing in ground with M-20 cement concrete of 60 cm x 60 cm x 75 cm size as directed by Engineer-in- charge etc. complete. Mild Steel sheet with Engineering grade.	IRC-67 2012	Number	14486	1779

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
308	Road Furniture	6.56	IRC-67 2012	Providing and fixing informatory sign boards in rectangular shape of size 1.20m x 0.90m made out of 16 guage Aluminum panel bonded with IRC Specified colour of retro reflective sheeting of Type IV High Intensity Micro-Prismatic Grade Sheeting (HIP) having pressure sensitive / heat activated adhesive, IRC Specified colour retro reflective cutout border & messages having pressure sensitive adhesive having border & messages in IRC Specified colour background including M. S. angle iron frame of size 35 mm X 35 mm X 3 mm & two M.S. angle iron post of size 65 mm X 65 mm X 6 mm, 3.65 m long, duly painted with flat oil paint having alternate black and white bands of 25 cm width including G.I. fixtures etc; fixing the boards in M-20 concrete block of size 60cm X 60cm X 75cm including transportation etc; complete. Aluminum Panel Type IV High Intensity.	IRC-67 2012	Number	14215	1779
309	Road Furniture	6.57	IRC-67 2012	Providing and fixing informatory sign boards in rectangular shape of size 1.20m x 0.90m made out of 3mm Aluminum composite panel bonded with IRC Specified colour of retro reflective sheeting of Type IV High Intensity Micro-Prismatic Grade Sheeting (HIP) having pressure sensitive / heat activated adhesive, IRC Specified colour retro reflective cutout border & messages having pressure sensitive adhesive having border & messages in IRC Specified colour background including M. S. angle iron frame of size 35 mm X 35 mm X 3 mm & two M.S. angle iron post of size 65 mm X 65 mm X 6 mm, 3.65 m long, duly painted with flat oil paint having alternate black and white bands of 25 cm width including G.I. fixtures etc; fixing the boards in M-20 concrete block of size 60cm X 60cm X 75cm including transportation etc; complete. Aluminum composite panel Type IV High Intensity.	IRC-67 2012	Number	16425	1779
310	Road Furniture	6.58	IRC-67 2012	Providing and fixing informatory sign boards in square or rectangular shape of any size for overhead gantries or alike made out of 3mm aluminum composite panel bonded with IRC Specified colour of retro reflective sheeting of Type XI Diamond Grade Sheeting (DG3) With ECF( Electronic Cutable Film) Lettring having pressure sensitive / heat activated adhesive, IRC Specified colour retro reflective cutout border & messages having pressure sensitive adhesive having border & messages in IRC Specified colour background including M. S. angle iron frame and bracing of size 35 mm X 35 mm X 5 mm and duly painted with flat oil paint including G.I. fixtures etc. and fixing the boards. (The work to be executed with prior approval of Superintending Engineer.)	IRC-67 2012	Number	12300	1144

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
<b>SSR 2021-2022 :- Road Miscellaneous items</b>								
311	Road Miscellaneous items	7.01	MORTH 408	Providing and casting in situ or precast tapering R.C.C. M-20 Barrier type Kerb without gutter ( as per IRC 86 1983) embedded 125mm below ground level over M-10 PCC finished neatly with C.M. 1:2, setting the same in C.M. 1:2, including the required excavation in any strata and removing the excavated stuff any where in city and redoing the surface as specified and directed by Engineering In-charge. Using Concrete Batching and Mixing Plant	MORTH 408	Running Metre	518	161
312	Road Miscellaneous items	7.02	MORTH 408	Providing and casting in situ or precast tapering R.C.C. M-20 Semi Barrier type Kerb without gutter ( as per IRC 86 1983) embedded 125mm below ground level over M-10 PCC finished neatly with C.M. 1:2, setting the same in C.M. 1:2, including the required excavation in any strata and removing the excavated stuff any where in city and redoing the surface as specified and directed by Engineering In-charge. Using Concrete Batching and Mixing Plant	MORTH 408	Running Metre	482	155
313	Road Miscellaneous items	7.03	MORTH 408	Providing and casting in situ or precast tapering R.C.C. M-20 Mountable type Kerb without gutter ( as per IRC 86 1983) embedded 125mm below ground level over M-10 PCC finished neatly with C.M. 1:2, setting the same in C.M. 1:2, including the required excavation in any strata and removing the excavated stuff any where in city and redoing the surface as specified and directed by Engineering In-charge. Using Concrete Batching and Mixing Plant	MORTH 408	Running Metre	457	150
314	Road Miscellaneous items	7.04	MORTH 408	Providing and casting in situ or precast tapering R.C.C. M-20 Barrier type Kerb with gutter ( as per IRC 86 1983) embedded 125mm below ground level over M-10 PCC finished neatly with C.M. 1:2, setting the same in C.M. 1:2, including the required excavation in any strata and removing the excavated stuff any where in city and redoing the surface as specified and directed by Engineering In-charge. Using Concrete Batching and Mixing Plant	MORTH 408	Running Metre	904	201
315	Road Miscellaneous items	7.05	MORTH 408	Providing and casting in situ or precast tapering R.C.C. M-20 Semi Barrier type Kerb with gutter ( as per IRC 86 1983) embedded 125mm below ground level over M-10 PCC finished neatly with C.M. 1:2, setting the same in C.M. 1:2, including the required excavation in any strata and removing the excavated stuff any where in city and redoing the surface as specified and directed by Engineering In-charge. Using Concrete Batching and Mixing Plant	MORTH 408	Running Metre	798	178
316	Road Miscellaneous items	7.06	MORTH 408	Providing and casting in situ or precast tapering R.C.C. M-20 Mountable type Kerb with gutter ( as per IRC 86 1983) embedded 125mm below ground level over M-10 PCC finished neatly with C.M. 1:2, setting the same in C.M. 1:2, including the required excavation in any strata and removing the excavated stuff any where in city and redoing the surface as specified and directed by Engineering In-charge. Using Concrete Batching and Mixing Plant	MORTH 408	Running Metre	719	164
317	Road Miscellaneous items	7.07	As directed by Engineer Incharge	Providing and fixing in position Guard Railing as per Drg. No. 15 Type C dt. 20-4-79, with 3 rows of 50mm dia. G.I. pipe 30cm a part and fixed in M.S. channels of section 125 x 65 x 6 mm spaced 2.5 C/c 1:2:4 c.c. bedding of size 45 x 30cm. as per detailed drawing, with 3 coats of approved yellow and black paint including necessary excavation in any strata.	RD	Running Metre	2863	160
318	Road Miscellaneous items	7.08	As directed by Engineer Incharge	Providing and fixing in position Guard Railing as per Drg. No. 15 Type C dt. 20-4-79, with 3 rows of 40mm dia. G.I. pipe 30cm a part and fixed in M.S. channels of section 100 x 50 x 6 mm spaced 2.5 C/c 1:2:4 c.c. bedding of size 45 x 30 x 30cm. as per detailed drawing, with 3 coats of approved of yellow and black paint including necessary excavation in any strata.	RD	Running Metre	2626	132
319	Road Miscellaneous items	7.09	As directed by Engineer Incharge	Providing and fixing Guard Railing of 1000mm height as per Type D Drg. No. 15 dt. 20-4-79, and fixed in 40 x 40 x 6mm iron, angle embedded in 1:2:4 cement concrete bedding patti as per detailed drawing, with 3 coats of approved of yellow and black paint.	RD	Running Metre	2480	171

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
320	Road Miscellaneous items	7.10	As directed by Engineer Incharge	Providing and fixing Guard Railing of 1000 mm height in 25mm M.S. square bars 100 mm C/c. as per Type drawing No. 6 dt. 20-8- 85 and fixed in 50mm x 50mm x 6mm iron angle embedded in 1:2:4 C.C. bedding 55 x 45 cm and 50 x 6 iron patti as per detailed drawing with 3 coats of approved yellow and black paint.	RD	Running Metre	2958	234
321	Road Miscellaneous items	7.11	MORTH	Design of overlay for existing B.T. surface with carrying out testing by Benkelman Beam method as per guide lines in IRC 81:1997 including design and testing at site. The charges for transportation of Benkelman Beam, loaded truck, labour for testing and traffic control are not included.	IRC-81	Kilometre	6378	447
322	Road Miscellaneous items	7.12	MORTH	Carrying out roughness index / road unevenness test with car mounted / jeep towed ARUR machine (Automatic road unevenness Recorder) Calibrated from C.R.R.I. New Delhi (Central Road Research Institute) or any other equivalent authority including taking observations, feeding data and giving computerized test result including hire charges of all machinery and labour completed. i) Road surface single lane (B.TW.B.M.) 3.75 m Width.	As Directed by Engineer In Charge	Kilometre	578	0
323	Road Miscellaneous items	7.13	MORTH	Carrying out roughness index / road unevenness test with car mounted / jeep towed ARUR machine (Automatic road unevenness Recorder) Calibrated from C.R.R.I. New Delhi (Central Road Research Institute) or any other equivalent authority including taking observations, feeding data and giving computerized test result including hire charges of all machinery and labour completed. i) Road surface single lane (B.TW.B.M.) 5.5 m to 7.00 m. Width.	As Directed by Engineer In Charge	Kilometre	1148	0
324	Road Miscellaneous items	7.14	MORTH	Carrying out roughness index / road unevenness test with car mounted / jeep towed ARUR machine (Automatic road unevenness Recorder) Calibrated from C.R.R.I. New Delhi (Central Road Research Institute) or any other equivalent authority including taking observations, feeding data and giving computerized test result including hire charges of all machinery and labour completed. i) Road surface single lane (B.TW.B.M.) Each additional lane Width.	As Directed by Engineer In Charge	Kilometre	574	43
325	Road Miscellaneous items	7.15	MORTH	Dead Journey charges for Transportation of machine/ vehical for Carrying out roughness index / road unevenness test with car mounted / jeep towed ARUR machine (Automatic road unevenness Recorder) Calibrated from C.R.R.I. New Delhi (Central Road Research Institute) or any other equivalent authority including taking observations, feeding data and giving computerized test result including hire charges of all machinery and labour completed. Spec. No. : As directed by Engineer in charge.	As Directed by Engineer In Charge	Kilometre	14	1
326	Road Miscellaneous items	7.16	MORTH 702	Providing and laying a woven Polypropylene Geotextile of Type-I manufactured from black UV stabilised Polypropylene Tape yarn on the prepared subgrade as the separator cum reinforcement with necessary overlap as per drawing.( For use this item SE/CE permission is obligatory.)	MORTH 702	Square Metre	164	75
327	Road Miscellaneous items	7.17	MORTH 702	Providing and laying a woven Polypropylene Geotextile of Type-II manufactured from black UV stabilised Polypropylene Tape yarn on the prepared subgrade as the separator cum reinforcement with necessary overlap as per drawing.( For use this item SE/CE permission is obligatory.)	MORTH 702	Square Metre	164	75
328	Road Miscellaneous items	7.18	MORTH 702	Providing and laying a woven Polypropylene Geotextile of Type-III manufactured from black UV stabilised Polypropylene Tape yarn on the prepared subgrade as the separator cum reinforcement with necessary overlap as per drawing. ( For use this item SE/CE permission is obligatory.)	MORTH 702	Square Metre	164	75
329	Road Miscellaneous items	7.19	MORTH 702	Providing and laying a fibre glass geogrid of Tensile strength 50 kN/m manufactured from high quality glass fibre strands and coated with a polymer modified bitumen as reinforcement to Asphalt overlay flexible pavements and Asphalt over distressed rigid P.C.C.	MORTH 702	Square Metre	154	75
330	Road Miscellaneous items	7.20	MORTH 702	Providing and laying a fibre glass geogrid of Tensile strength 100 kN/m manufactured from high quality glass fibre strands and coated with a polymer modified bitumen as reinforcement to Asphalt overlay flexible pavements and Asphalt over distressed rigid P.C.C.	MORTH 702	Square Metre	231	97

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
331	Road Miscellaneous items	7.21	As directed by Engineer Incharge	Providing and Constructing gabion structure 1 Meter high or required section made up of soft mechanically woven hexagonal shaped G.I. wire confirming to IS 16014:2012 having zinc plus PVC coating of overall diameter of 3.7 mm and tying lacing wire of 3.2 mm with edge wire confirming to overall diameter 4.4 mm edges being mechanically selvedge including placing in position, fitting neatly with trap stone rubble (15 to 23 cm) all loose ends to be securely tied (Excluding transportation) etc. complete. ( In Dry condition and for under water installation extra cost to be considered)	MORTH 2503	Cubic Metre	3638	579
332	Road Miscellaneous items	7.22	As directed by Engineer Incharge	Providing and Constructing gabion structure 0.50 Meter high or required section made up of soft mechanically woven hexagonal shaped G.I. wire confirming to IS 16014:2012 having zinc plus PVC coating of overall diameter of 3.7 mm and tying lacing wire of 3.2 mm with edge wire confirming to overall diameter 4.4 mm edges being mechanically selvedge including placing in position, fitting neatly with trap stone rubble (15 to 23 cm) all loose ends to be securely tied (Excluding transportation) etc. complete.( In Dry condition and for under water installation extra cost to be considered)	MORTH 2503	Cubic Metre	3433	684
333	Road Miscellaneous items	7.23	MORTH 702	Providing and laying Needle Punched and mechanically bonded non woven Geotextile of Type III indigenously manufactured from high quality Propylene staple fibers (continuous filament will not be accepted) on the prepared subgrade for Seperation.( For use this item SE/CE permission is obligatory.)	MORTH 702	Square Metre	160	73
334	Road Miscellaneous items	7.24	MORTH 703	Providing and laying Needle Punched and mechanically bonded non woven Geotextile of Type II indigenously manufactured from high quality Propylene staple fibers (continuous filament will not be accepted) on the prepared subgrade for Seperation.( For use this item SE/CE permission is obligatory.)	MORTH 702	Square Metre	160	73
335	Road Miscellaneous items	7.25	MORTH 202	Removal of telephone / Electric poles including excavation and dismantling of foundation concrete and lines under the supervision of concerned department, disposal with all lifts and up to a lead of 1000 metres and stacking the serviceable and unserviceable material separately	MORTH 202	Number	358	337
	Road Miscellaneous items	7.26	MORTH 303	Deleted	MORTH 303	Square Metre		
	Road Miscellaneous items	7.27	MORTH 407	Deleted	MORTH 407	Cubic Metre		
	Road Miscellaneous items	7.28	MORTH 408	Deleted	MORTH 407	Cubic Metre		
336	Road Miscellaneous items	7.29	MORTH 409	Footpaths and Separators -- Construction of footpath/separator by providing a 150 mm compacted granular sub base as per clause 401 and 25 mm thick cement concrete grade M15, over laid with pre-cast concrete tiles in cement mortar 1:3 including provision of all drainage arrangements but excluding kerb channel.	MORTH 409	Square Metre	836	81
337	Road Miscellaneous items	7.30	MORTH 810	Metal Beam Crash Barrier -- Type - A, W : Metal Beam Crash Barrier (Providing and erecting a W metal beam crash barrier comprising of 3 mm thick corrugated sheet metal beam rail, 70 cm above road/ground level, fixed on ISMC series channel vertical post, 150 x 75 x 5 mm spaced 2 m centre to centre, 1.8 m high, 1.1 m below ground/road level, all steel parts and fitments to be galvanised by hot dip process, all fittings to conform to IS:1367 and IS:1364, metal beam rail to be fixed on the vertical post with a spacer of channel section 150 x 75 x 5 mm, 330 mm long complete as per clause 810)""	MORTH 810	Running Metre	4445	240

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
338	Road Miscellaneous items	7.31	MORTH 810	Metal Beam Crash Barrier -- Type - B, THRIE : Metal Beam Crash Barrier (Providing and erecting a Thrie metal beam crash barrier comprising of 3 mm thick corrugated sheet metal beam rail, 85 cm above road/ground level, fixed on ISMC series channel vertical post, 150 x 75 x 5 mm spaced 2 m centre to centre, 2 m high with 1.15 m below ground level, all steel parts and fitments to be galvanised by hot dip process, all fittings to conform to IS:1367 and IS:1364, metal beam rail to be fixed on the vertical post with a space of channel section 150 x 75 x 5 mm, 546 mm long complete as per clause 810)""	MORTH 810	Running Metre	6343	240
339	Road Miscellaneous items	7.32	MORTH 811	Flexible Crash Barrier, Wire Rope Safety Barrier (Providing and erecting a wire rope safety barrier with vertical posts of medium weight RS Joist (ISMB series) 100 mm x 75 mm (11.50 kg/m), 1.50 m long 0.85 m above ground and 0.65 m below ground level, split at the bottom for better grip, embedded in M 15 grade cement concrete 450 x 450 x 450 mm, 1.50 m center to center and with 4 horizontal steel wire rope 40 mm dia and anchored at terminal posts 15 m apart. Terminal post to be embedded in M 15 grade cement concrete foundation 2400 x 450 x 900 mm (depth), strengthened by a strut of RS joist 100 x 75 mm, 2 m long at 450 inclination and a tie 100 x 8 mm, 1.50 m long at the bottom, all embedded in foundation concrete as per approved design and drawing, rate excluding excavation and cement concrete.)	MORTH 811	Running Metre	2277	144
340	Road Miscellaneous items	7.33	MORTH 811	Anti - Glare Screen with 25 mm steel pipe framework fixed with circular and rectangular vans (Providing and erecting an anti - glare screen with 25 mm dia vertical pipes fabricated and framed in the form of panels of one metre length and 1.75 mtr height fixed with circular vane 250 mm dia at top and rectangular vane 600 x 300 mm at the middle, made out of steel sheet of 3 mm thickness, end vertical pipes of the panel made larger for embedding in foundation concrete, applying 2 coats of paint on all exposed surfaces, all as per approved design and drawings.)	MORTH 811	Running Metre	1985	71
341	Road Miscellaneous items	7.34	MORTH 811	Anti - Glare Screen with Rectangular Vane of MS sheet (Providing and erecting anti - glare screen with rectangular vanes of size 750 x 500 mm made from MS sheet, 3 mm thick and fixed on MS angle 50 x 50 x 6 mm at an angle of 450 to the direction of flow of traffic, 1.5 m center to center, top edge of the screen 1.75 m above ground level, vertical post firmly embedded in cement concrete foundation 0.60 m below ground level, applying 2 coats of paint on exposed faces, all complete as per approved design and drawings)	MORTH 811	Running Metre	1049	95
342	Road Miscellaneous items	7.35	MORTH 809	Providing Reinforced cement concrete crash barrier at the edges of the road, approaches to bridge structures and medians, constructed with R.C.C. M 20 Grade concrete with HYSD reinforcement conforming to IRC:21 and dowel bars 25 mm dia, 450 mm long at expansion joints filled with pre-moulded asphalt filler board, keyed to the structure on which it is built and installed as per design given in the enclosure to MOST circular No. RW/NH - 33022/1/94-DO III dated 24 June 1994 as per dimensions in the approved drawing and at locations directed by the Engineer, all as specified etc. complete. Spec: MORT and H 2013 Cl 811 Page No 360	MORTH 809	Running Metre	3747	112
343	Road Miscellaneous items	7.36	MORTH 809	Providing Reinforced cement concrete crash barrier at the edges of the road, approaches to bridge structures and medians, constructed with R.C.C. M 25 Grade concrete with HYSD reinforcement conforming to IRC:21 and dowel bars 25 mm dia, 450 mm long at expansion joints filled with pre-moulded asphalt filler board, keyed to the structure on which it is built and installed as per design given in the enclosure to MOST circular No. RW/NH - 33022/1/94-DO III dated 24 June 1994 as per dimensions in the approved drawing and at locations directed by the Engineer, all as specified etc. complete. Spec: MORT and H 2013 Cl 811 Page No 360	MORTH 809	Running Metre	3550	112



Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
344	Road Miscellaneous items	7.37	MORTH 809	Providing Reinforced cement concrete crash barrier at the edges of the road, approaches to bridge structures and medians, constructed with R.C.C. M 30 Grade concrete with HYSD reinforcement conforming to IRC:21 and dowel bars 25 mm dia, 450 mm long at expansion joints filled with pre-moulded asphalt filler board, keyed to the structure on which it is built and installed as per design given in the enclosure to MOST circular No. RW/NH - 33022/1/94-DO III dated 24 June 1994 as per dimensions in the approved drawing and at locations directed by the Engineer, all as specified etc. complete. Spec: MORT and H 2013 Cl 811 Page No 360	MORTH 809	Running Metre	3570	112

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
<b>SSR 2021-2022 :- Road Maintenance</b>								
345	Road Maintenance	8.01	RD	Labour for filling pot holes with premix asphalt chips, cleaning the road surface with wire brushes and gunny bags, applying tack coat, spreading mixture hand ramming or light compaction with power roller conveying material to the site of work (excluding cost and of material fuel and heating asphalt) etc complete.	As Directed by Engineer In Charge	Square Metre	68	67
346	Road Maintenance	8.02	RD	Labour for metal patch repairs including preparing surface, adding required quantity of metal, murum, watering, ramming etc complete. Spec.No.: As directed by Engineer- in-charge. (excluding cost and of material )	As Directed by Engineer In Charge	Square Metre	87	58
347	Road Maintenance	8.03	MORTH 3002	Restoration of rain cuts with soil, murum gravel or a mixture of these, clearing the loose soil, benching for 300mm width laying fresh material in layers not exceeding 250 mm and compaction with plate compactor or power rammer to restore the original alignment, level and slopes as per drawings and MORTH specification clause 3002	MORTH 3002	Cubic Metre	185	121
348	Road Maintenance	8.04	MORTH 3003	Making up loss of material/irregularities on shoulders to the design level by adding fresh approved selected soil and compacting it with appropriate equipment at OMC as per MORTH specification clause 3003	MORTH 3003	Square Metre	47	16
349	Road Maintenance	8.05	MORTH 3003	Stripping excess soil from the shoulder surface to achieve the approved level and compacting with plate compactor at OMC as per drawings as per MORTH specification clause 3003	MORTH 3003	Square Metre	20	15
350	Road Maintenance	8.06	MORTH 3004.2	Repair to pot holes by removal of failed material, trimming the sides to vertical and levelling the bottom, cleaning the same with compressed air or any appropriate method filled with 75mm B.M, applying bitumen tack coat at the bottom and vertical sides as per as per MORTH specification clause 3004.1 and 3004.2	MORTH 3004.2	Cubic Metre	6637	125
351	Road Maintenance	8.07	RD	Patch repair on already filled pot holes with 20 mm premix carpet and seal coat as per MORTH specification clause 3004.1 and 3004.2	As Directed by Engineer In Charge	Square Metre	227	7
352	Road Maintenance	8.08	MORTH 3004.2	Repair to pot holes and removal of loose material, trimming of sides, cleaning of surface by providing tack coat, 20 mm thick pre-mix carpet and seal coat as per MORTH specification clause 3004.1 and 3004.2	MORTH 3004.2	Square Metre	326	63
353	Road Maintenance	8.09	RD	Maintenance of gravel road including making up the loss of profile, rectifying corrugated surface, filling up of depressions, pot holes and erosion gullies by adding fresh material and compacting it with appropriate equipment or to strip excess of material from the road surface as per drawings etc complete	As Directed by Engineer In Charge	Square Metre	100	17
354	Road Maintenance	8.10	RD	Providing pick and roll surface by picking the old WBM surface to the required standard, adding 30% of 40mm size metal and required quantity of murum including laying sectioning, watering, compacting with static roller with thin layer of murum blindage on carrageway, watering and compacting by static roller, including cost of all materials, loading, unloading, stacking and labour etc. complete. Spec.No. : As directed by Engineer- in-charge.	As Directed by Engineer In Charge	Square Metre	104	13
355	Road Maintenance	8.11	RD	Maintenance of WBM road including filling up of pot holes, ruts and rectifying corrugated surface, damaged edges and ravelling etc. complete	As Directed by Engineer In Charge	Square Metre	235	54
356	Road Maintenance	8.12	RD	The maintenance of drains include erosion, repair, clearing, cleaning, reshaping, regrading, deepening of side drains as well as catch water drains etc. complete	As Directed by Engineer In Charge	Running Metre	17	17
357	Road Maintenance	8.13	RD	Maintenance of Hume pipe Culvert by way of Clearing, Cleaning, Erosion repair, repairs to cracks, parapet wall and protection work as per drawing etc. complete	As Directed by Engineer In Charge	Number	2306	1096
358	Road Maintenance	8.14	RD	Maintenance of road signs by way of cleaning and repainting of mandatory / regulatory / cautionary / informatory and place identifications sign board as per drawings etc. complete	As Directed by Engineer In Charge	Kilometre	4506	2916

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
359	Road Maintenance	8.15	RD	Maintenance of Kilometer stones, and 200 metre by way of refitting of tilted stones repairing with cement mortar, cleaning, repairing and lettering on 200 metre km stone and 5th km stone etc. complete	As Directed by Engineer In Charge	Kilometre	1021	707
360	Road Maintenance	8.16	RD	Cutting of branches of trees and shrubs from the road way or with in R.O.W including disposal of wood and leaves to suitable location etc. complete	As Directed by Engineer In Charge	Number	239	175
361	Road Maintenance	8.17	RD	Trimming of grass, shrubs and weeds from the shoulders/berms and disposing off the same to suitable locations etc. complete	As Directed by Engineer In Charge	Square Metre	8	8
362	Road Maintenance	8.18	RD	Maintenance of guard stones/ boundry stones/ indicator stones by way of refitting of tilted stones repairing with cement mortar, cleaning, repairing and white washing etc. complete	As Directed by Engineer In Charge	Kilometre	1012	446
363	Road Maintenance	8.19	RD	Repair of steel railing to bring it to original shape cleaning and repainting as per drawing etc. complete	As Directed by Engineer In Charge	Running Metre	405	224
364	Road Maintenance	8.20	RD	Repair of RCC railing to bring it to the original shape, cleaning and repainting as per drawings etc. complete	As Directed by Engineer In Charge	Running Metre	773	323
365	Road Maintenance	8.21	RD	Removal of steel railing and refixing of railing to submersible bridges including cleaning and repainting etc complete	As Directed by Engineer In Charge	Running Metre	477	371
366	Road Maintenance	8.22	RD	White washing two coats on parapet walls and white washing and geru lime painting to tree trunks including preparation of surface by cleaning scraping etc. complete	As Directed by Engineer In Charge	Square Metre	23	15
367	Road Maintenance	8.23	RD	Dressing of side shoulder / Scrapping the road side shoulder by Mechanical means ( By JCB /DOUZER) including excavation of raised side shoulders upto 15cm depth including remooving /cutting bushes,grass and dressing shoulder to desired camber and disposing of excavated stuff up to road boundary etc complete. as directed by Engineer In Charge.	As Directed by Engineer In Charge	Square Metre	9	0
368	Road Maintenance	8.24	MORTH	Providing and Laying Pressure Sensitive Technology ( PST ) based Insstapatch ready mix compound for repair potholes, manufactured from aggregates of 4-12 mm, treated with special grade bitumen, Pressure Sensitive Polymer( PSP) and Cross Linking Chemical (CLC) agents etc, technically evaluated for repairs on bitumenous/concrete surfaces, confirming to CRRI and IRC accredited norms for pressure sensitive polymer products for repairs of Potholes on road/ Pavements, havinf upto 25mm thick insstapatch layer on base of compacted aggregates ( Crusher Brocken ) of 50mm thickness including labours, material, tools and tampering etc complete.	As Directed by Engineer In Charge	Square Metre	932	45
369	Road Maintenance	8.25	MORTH 514	Providing, laying and rolling Micro seal surfacing ( 10 mm thick ) for preventive maintainance including supplying all materials , preparing the existing road surface , heating bitumen , aggregates , lime in hot mix plant , laying the mix seal surfacing by paver finisher and compaction by power roller etc complete.( Using 60/70 bulk bitumen for mixing and tack coat over black topped surface by using 0.14 Cum per 10 Sqm. of crusher aggregate passing 100 % through 6.30 mm sieve and retained100 % on 0.075 mm size sieve 0.2 Kg / Sqm lime and 11.00 kg / 10 Sqm bulk bitumen for fixing and 0.50 kg / Sqm for tack coat ) Spec: As directed by Engineer In Charge and IRC SP 78 - 2008	As Directed by Engineer In Charge	Square Metre	100	14
370	Road Maintenance	8.26	MORTH 514	Providing, laying and rolling Micro seal surfacing ( 10 mm thick ) for preventive maintainance including supplying all materials , preparing the existing road surface , heating bitumen , aggregates , lime in hot mix plant , laying the mix seal surfacing by paver finisher and compaction by power roller etc complete.( Using 60/70 bulk bitumen for mixing and tack coat over black topped surface by using 0.14 Cum per 10 Sqm. of crusher aggregate passing 100 % through 9.50 mm sieve and retained100 % on 0.075 mm size sieve 0.2 Kg / Sqm lime and 9.50 kg / 10 Sqm bulk bitumen for fixing and 0.50 kg / Sqm for tack coat ) Spec: As directed by Engineer In Charge and IRC SP 78 -2008	As Directed by Engineer In Charge	Square Metre	94	4

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
371	Road Maintenance	8.27	MORTH 408	Providing and laying shoulder drain of trap rubble of 0.45 x 0.45 meter section at 45 degree angle to the road edge including hand packing, filling voids with sand/shingle of approved quality and ramming etc. complete as desired.	As Directed by Engineer In Charge	Running Metre	295	47
372	Road Maintenance	8.28	As Directed by Engineer In Charge	Providing and laying Pressure Sensitive Technology ( PST ) based ready mix compound for repairing potholes, manufactured from aggregates of 4-12mm, treated compound having mix of bituminous antistriping compound, stabilizer, Pressure Sensitive Polymer and water repellent compound like oil soluble polyacid etc. having good consistency for laying, technically evaluated for repairs on bituminous/concrete surface confirming to CRRI and IRC accredited norms for pressure sensitive polymer products for repairs fo potholes on road/ pavement having upto 25mm thick ready thickness including labours, material, tools and tampering etc. complete. (Undertaking shall be taken from the supplier before starting the work)		Square Metre	502	97
373	Road Maintenance	8.29	As Directed by Engineer In Charge	Supply of self watering system Multi Stage Tree guard / Protctor 110 mm dia & total height of 1800 mm made up with HDPE. In tubular section, first stage will be 600mm long & second and forth stage 65% perforated casting in HDPE tubular section of 300mm long each tubular section & third and fifth stage of plain 300mm long each tubular section in 110mm dia. all sections fix with stagewise with leakproof fixing arrangement 2 no tubular rubber section of 75mm dia, 1.5mm thick & length 350 mm (fix on both 65% perforated tubular section at top for increase the water holding capacity as per plant height). The specially designed rubber water holding device of size 90mm dia outside & 12mm dia innerside of 1.5mm thick as per design fix on 40mm dia. 100mm long pvc pipe seperately.(for inserting the plants). 2 nos 40mm dia. treated bamboo of 2.00 mtr. height (buried 150 mm below the bottom of excavated pit & stand with tubular section) 2 nos rubber/pvc ties ( fix at bottom & top of plain tubular section with bamboo) 2 nos 5mm dia. fromate (fixing at bottom o tubular section for deep root irrigation system) 2 nos 600mm long HDPE lateral pipe of 5mm dia. with deep roor irrigation system (insert in the gromate & pit away form 200 mm from plant roots). 1200 mm long barbed		Number	402	97
374	Road Maintenance	8.3	As Directed by Engineer In Charge	Supply of self watering system tree guard in 110 mm dia, 1.80 mt height made up of cotton canvas cloth of polymer pipe of 15 litres water storage capacity stand with 2 nos. 40 mm dia treated bamboo of 2 mt ht. tie with tag at two nos and specially designed dexpandable rubber seal 110 mm dia outer & 25 mm dia. inner dia installed on bottom of pipe, and 0.60 m long HDPE lateral pipe 2 nos 5mm dia to carry the water near root zone connected with gromate fix in treeguard and rapping 1.20m long barbed wire to middle of treeguard for protection agianst cattles and other external factors as per specification. ( cost of plant & fixing charges will be extra as per approved rates). (Note :- Plant height should be required above 2.50 m & Dia of stem 25 mm at bottom )		Number	226	4
375	Road Maintenance	8.31	As Directed by Engineer In Charge	Fixing and Transporting of self watering system tree guard-insertion of sapling in self watering tree guard and capping the bottom with expandable rubber seal. Supporting the bamboo with the help of cable tie. Bamboo to be buried 0.15 mt ht. below of excavated pit. Strengthening the bamboo in pit with adequate measures. Circulating the barbed wire around tree guard at middle ht. from bottom and fixing it. Thr rates excluding the cost of barbed wire, bamboo, expandable seal, tree guard and all other required material. Fixing to be carried out as per manual instruction.		Number	181	3
376	Road Maintenance	8.32	Rd.43.3.1	Providing 50 mm thick Full grout bituminous treatment including supplying all materials , preparing the exisisting road surface,applying tack coat @ 0.735 kg / sqm and laying the required thickness of metal layer, heating and spraying bitumen of specified Grade at the rate of 5.00 kg / sqm , spreading chips and laying seal coat of specified Grade of bitumen of 1.70 Kg/sqm and compacting , making the surface good etc. complete ( For only Patch Repair works / For Road work ) (VG-30 bulk bitumen rates are considered to arrive at rates)	As Directed by Engineer In Charge	Square meter	555	114

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
377	Road Maintenance	8.33	Rd.45.3.1	Providing 50 mm thick semi grout bituminous treatment including supplying all materials , preparing the exisisting road surface,applying tack coat @ 0.735 kg / sqm and laying the required thickness of metal layer, heating and spraying bitumen of specified Grade at the rate of 2.75 kg / sqm , spreading chips and laying seal coat of specified Grade of bitumen of 1.25 Kg/sqm and compacting , making the surface good etc. complete ( For only Patch Repair works / For Road work ) (VG-30 bulk bitumen rates are considered to arrive at rates)	As Directed by Engineer In Charge	Square meter	447	114
378	Road Maintenance	8.34	MORTH 505	Providing and constructing 75 mm. thick Modified Penetration Macadam (MPM) road surface including all materials, preparing the existing road surface, spreading 40 mm. stone layers metal 30% crusher broken metal + 70% Hand broken metal (By breaking Rubble obtained by blasting) , heating and spraying the bitumen of VG-30 grade @ 2 kg / sqm , spreading 12mm.size chips compacting with three wheel static roller having weight 8 to 10 MT. to achive the desired degree of compaction as per Technical Specification Clause 506 etc.complete, including applying tack coat of VG 10 grade bitumen at the rate of 0.30 Kg Sqm. on existing bitumen surface. ( For Repair works only)	As Directed by Engineer In Charge	Square meter	270	5
379	Road Maintenance	8.35	MORTH 505	Providing and constructing 50 mm. thick Modified Penetration Macadam (MPM) road surface including all materials, preparing the existing road surface, spreading 40mm. stone layers metal 30% crusher broken metal + 70% Hand broken metal (By breaking Rubble obtained by blasting) , heating and spraying the bitumen of VG-30 @ 1.75 kg / sqm, spreading 12mm.size chips compacting with Static roller having weight 8 to 10 MT. to achive the desired degree of compaction as per Technical Specification Clause 506 etc.complete, including applying tack coat at the rate of 0.30 Kg Sqm.( for repair works only)	As Directed by Engineer In Charge	Square meter	212	4

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
<b>SSR 2021-2022 :- Cross Drainage Works</b>								
380	Cross Drainage Works	11.01	CD 1	Providing rubble filling of trap/ granite/ quartzite gneiss stones for foundations including filling voids with sand/grit and compaction etc complete.	CD.1 Page.No. 159	Cubic Meter	1621	417
381	Cross Drainage Works	11.02	CD 3A	Providing and laying in situ / ready mix cement concrete of M-10 proportion with trap/ granite/ quartzite/ gneiss metal in foundation including necessary form work, compacting and curing etc. complete. (with reversible drum type mixer with SCADA with fine aggregates of required specifications (Natural sand / VSI sand finely washed etc )	CD.-3 Page.No. 160	Cubic Meter	6207	417
382	Cross Drainage Works	11.03		Providing & laying in situ cement concrete of M 10 proportion with trap/ granite/ quartzite/ gneiss metal in foundation including necessary form work compacting and curing etc. complete. with reversible Drum Type mixer with SCADA. With crushed sand .			5570	1448
383	Cross Drainage Works	11.04	CD 3B	Providing and laying in situ cement concrete of 1:4:8 proportion with trap/ granite/ quartzite/ gneiss metal in foundation including necessary form work, compacting and curing etc. complete. (with reversible drum type mixer with SCADA with fine aggregates of required specifications (Natural sand / VSI sand finely washed etc )	CD.3 Page.No. 160	Cubic Meter	5780	1448
384	Cross Drainage Works	11.06	CD 4	Providing rubble stone paving 15cm thick in 1:3 cement mortar over a bedding of 15cm thick cement concrete of 1:4:8 proportion with trap /granite /quartzite /gneiss metal including striking joints and watering etc. complete.	CD.4 Page.No. 160	Square Meter	2197	926
385	Cross Drainage Works	11.07	CD 6	Providing uncoursed rubble trap /quartzite /gneiss stone masonry in cement mortar 1:5 for piers, abutments, wings, returns, head-walls, parapet etc. including bailing out of water, striking joints of the non exposed faces, pointing the exposed faces with cement mortar 1:3, scaffolding, watering to masonry and etc. complete.	CD.6 Page.No. 162	Cubic Meter	5486	2045
386	Cross Drainage Works	11.08	CD 7	Providing and laying cement concrete pipe of IS 458:2003 NP-2 class of 450mm diameter in proper line, level and slope including providing and fixing collars in cement mortar 1:2 and curing etc. complete.	CD.7 Page.No. 162	Running Metre	1927	2045
387	Cross Drainage Works	11.09	CD 7	Providing and laying cement concrete pipe of IS 458:2003 NP-2 class of 600mm diameter in proper line, level and slope including providing and fixing collars in cement mortar 1:2 and curing etc. complete.	CD.7 Page.No. 162	Running Metre	2678	407
388	Cross Drainage Works	11.10	CD 7	Providing and laying cement concrete pipe of IS 458:2003 NP-2 class of 800mm diameter in proper line, level and slope including providing and fixing collars in cement mortar 1:2 and curing etc. complete.	CD.7 Page.No. 162	Running Metre	4078	407
389	Cross Drainage Works	11.11	CD 7	Providing and laying cement concrete pipe of IS 458:2003 NP-2 class of 900mm diameter in proper line, level and slope including providing and fixing collars in cement mortar 1:2 and curing etc. complete.	CD.7 Page.No. 162	Running Metre	4790	407
390	Cross Drainage Works	11.12	CD 7	Providing and laying cement concrete pipe of IS 458:2003 NP-2 class of 1000mm diameter in proper line, level and slope including providing and fixing collars in cement mortar 1:2 and curing etc. complete.	CD.7 Page.No. 162	Running Metre	5378	407
391	Cross Drainage Works	11.13	CD 7	Providing and laying cement concrete pipe of IS 458:2003 NP-2 class of 1200mm diameter in proper line, level and slope including providing and fixing collars in cement mortar 1:2 and curing etc. complete.	CD.7 Page.No. 162	Running Metre	7561	407
392	Cross Drainage Works	11.14	CD 7	Providing and laying cement concrete pipe of IS 458:2003 NP-3 class of 600mm diameter in proper line, level and slope etc. complete.	CD.7 Page.No. 162	Running Metre	4750	685
393	Cross Drainage Works	11.15	CD 7	Providing and laying cement concrete pipe of IS 458:2003 NP-3 class of 800mm diameter in proper line, level and slope etc. complete.	CD.7 Page.No. 162	Running Metre	7416	685
394	Cross Drainage Works	11.16	CD 7	Providing and laying cement concrete pipe of IS 458:2003 NP-3 class of 900mm diameter in proper line, level and slope etc. complete.	CD.7 Page.No. 162	Running Metre	8233	685

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
395	Cross Drainage Works	11.17	CD 7	Providing and laying cement concrete pipe of IS 458:2003 NP-3 class of 1000mm diameter in proper line, level and slope etc. complete.	CD.7 Page.No. 162	Running Metre	9052	685
396	Cross Drainage Works	11.18	CD 7	Providing and laying cement concrete pipe of IS 458:2003 NP-3 class of 1200mm diameter in proper line, level and slope etc. complete.	CD.7 Page.No. 162	Running Metre	11756	685
397	Cross Drainage Works	11.19	CD 7	Providing and laying cement concrete pipe of IS 458:2003 NP-4 class of 900mm diameter in proper line, level and slope etc. complete.	CD 7 Page 167	Running Metre	9045	685
398	Cross Drainage Works	11.20	CD 7	Providing and laying cement concrete pipe of IS 458:2003 NP-4 class of 1000mm diameter in proper line, level and slope etc. complete.	CD 7 Page 167	Running Metre	11042	685
399	Cross Drainage Works	11.21	CD 7	Providing and laying cement concrete pipe of IS 458:2003 NP-4 class of 1200mm diameter in proper line, level and slope etc. complete.	CD 7 Page 167	Running Metre	12943	685
400	Cross Drainage Works	11.22	CD 8	Providing cast in situ / ready mix block of M10 cement concrete with circular or other shaped opening for waterway including necessary formwork, compaction, finishing and curing etc. complete. (with reversible drum type mixer/ concrete batch mix plant (pan mixer) with SCADA with fine aggregates of required specifications (Natural sand / VSI sand finely washed etc ), cement 4.05 bags/cumt)	CD.8 Page.No. 163	Cubic Meter	8354	2986
401	Cross Drainage Works	11.24	CD 27	Providing selected hard murum filling including laying in layers of 15 to 20cm with watering and compacting etc. complete.	CD.14 Page.No. 167	Cubic Meter	615	216
402	Cross Drainage Works	11.25	CD	Providing and laying in situ / ready mix M-20 cement concrete of trap /granite /quartzite /gneiss metal for approach slab / Rigid pavement including compacting, finishing, curing etc. complete. (excluding reinforcement) (with reversible drum type mixer/ concrete batch mix plant (pan mixer) with SCADA with fine aggregates of required specifications (Natural sand / VSI sand finely washed etc ), cement 6.40 bags/cumt)	CD.15 Page.No. 168 and B.7. Page No. 38	Cubic Meter	7572	1442
403	Cross Drainage Works	11.27	CD 27	Providing and fixing stream lined M-20 grade RCC guard stone including mild steel bar reinforcement etc. complete.	CD.20 Page.No. 169	Number	963	183
404	Cross Drainage Works	11.28	CD	Providing cast in situ / ready mix M10 grade cement concrete for head walls of CD work / retaining walls etc. including necessary form work, compaction, finishing and curing etc. complete. (with reversible drum type mixer/ concrete batch mix plant (pan mixer) with SCADA with fine aggregates of required specifications (Natural sand / VSI sand finely washed etc ), cement 4.05 bags/cumt)	CD 8 Page 163	Cubic Meter	8751	2986
405	Cross Drainage Works	11.29	CD	Providing cast in situ / ready mix M20 grade cement concrete for head walls of CD work / retaining walls etc. including necessary form work, compaction, finishing and curing etc. complete. (with reversible drum type mixer/ concrete batch mix plant (pan mixer) with SCADA	CD 8 Page 163	Cubic Meter	9953	2986
406	Cross Drainage Works	11.30	CD	Providing and casting in situ / ready mix PCC M15 grade of trap metal for coping to head walls / parapet including centering, form work, compaction and curing etc. complete. (with reversible drum type mixer/ concrete batch mix plant (pan mixer) with SCADA with fine aggregates of required specifications (Natural sand / VSI sand finely washed etc )	Bd-E-7	Cubic Meter	9276	2986
407	Cross Drainage Works	11.31	CD	Providing and casting in situ / ready mix PCC M20 grade of trap metal for coping to head walls / parapet including centering, form work, compaction and curing etc. complete. (with reversible drum type mixer/ concrete batch mix plant (pan mixer) with SCADA with fine aggregates of required specifications (Natural sand / VSI sand finely washed etc )	Bd-E-8	Cubic Meter	9454	2986

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
<b>SSR 2021-2022 :- Bridge Foundation and Sub Structure</b>								
408	Bridge Foundation and Sub Structure	12.02	BR 3A	Excavation for foundation in earth, soils of all types, sand, gravel, soft murum including shoring and strutting, dewatering as necessary and disposing off excavated stuff as directed etc. complete. ( By /manauaal Means ) a) Upto 1.50m lift Normal Rate b) 1.50m to 3.00m lift, Add 10% c) 3.00m to 4.50m lift, Add 20% d) 4.50m to 6.0m lift, Add 30%	BR.3 Page Number 102	Cubic Metre	225	225
409	Bridge Foundation and Sub Structure	12.03	BR 3A	Excavation for foundation in earth, soils of all types, sand, gravel, soft murum including shoring and strutting, dewatering as necessary and disposing off excavated stuff as directed etc. complete. ( By Mechanical Means ) a) Upto 1.50m lift Normal Rate b) 1.50m to 3.00m lift, Add 10% c) 3.00m to 4.50m lift, Add 20% d) 4.50m to 6.0m lift, Add 30%	BR.3 Page Number 102	Cubic Metre	86	12
410	Bridge Foundation and Sub Structure	12.04	BR 3B	Excavation for foundation in hard murum including shoring and strutting, dewatering as necessary and disposing off excavated stuff as directed etc. complete. a) Upto 1.50m lift Normal Rate b) 1.50m to 3.00m lift, Add 10% c) 3.00m to 4.50m lift, Add 20% d) 4.50m to 6.0m lift, Add 30%	BR.3 Page Number 102	Cubic Metre	222	109
411	Bridge Foundation and Sub Structure	12.06	BR 3C	Excavation for foundation in hard murum and boulders including shoring and strutting, dewatering as necessary and disposing off excavated stuff as directed etc. complete. a) Upto 1.50m lift Normal Rate b) 1.50m to 3.00m lift, Add 10% c) 3.00m to 4.50m lift, Add 20% d) 4.50m to 6.0m lift, Add 30%	BR.3 Page Number 102	Cubic Metre	265	146
412	Bridge Foundation and Sub Structure	12.08	BR 3D	Excavation for foundation in soft rock including shoring and strutting, dewatering as necessary and disposing off excavated stuff as directed etc. complete. a) Upto 1.50m lift Normal Rate b) 1.50m to 3.00m lift, Add 10% c) 3.00m to 4.50m lift, Add 20% d) 4.50m to 6.0m lift, Add 30%	BR.3 Page Number 102	Cubic Metre	526	219
413	Bridge Foundation and Sub Structure	12.09	BR 3E	Excavation for foundation in hard rock by blasting including shoring and strutting, dewatering as necessary and disposing off excavated stuff as directed etc. complete. a) Upto 1.50m lift Normal Rate b) 1.50m to 3.00m lift, Add 10% c) 3.00m to 4.50m lift, Add 20% d) 4.50m to 6.0m lift, Add 30%	BR.3 Page Number 102	Cubic Metre	1168	360
414	Bridge Foundation and Sub Structure	12.10	BR 3E	Excavation for foundation in hard rock by controlled blasting including shoring and strutting, dewatering as necessary and disposing off excavated stuff as directed etc. complete. a) Upto 1.50m lift Normal Rate b) 1.50m to 3.00m lift, Add 10% c) 3.00m to 4.50m lift, Add 20% d) 4.50m to 6.0m lift, Add 30%	BR.3 Page Number 102	Cubic Metre	1262	396



Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
415	Bridge Foundation and Sub Structure	12.11	BR 3F	Excavation for foundation in hard rock by chiselling and wedging or line drilling including shoring and strutting, dewatering as necessary and disposing off excavated stuff as directed etc. complete. a) Upto 1.50m lift Normal Rate b) 1.50m to 3.00m lift, Add 10% c) 3.00m to 4.50m lift, Add 20% d) 4.50m to 6.0m lift, Add 30%	BR-3 Page Number 102	Cubic Metre	1821	1704
416	Bridge Foundation and Sub Structure	12.12	BR 3G	Excavation for foundation in laterite rock including shoring and strutting, dewatering as necessary and disposing off excavated stuff as directed etc. complete. a) Upto 1.50m lift Normal Rate b) 1.50m to 3.00m lift, Add 10% c) 3.00m to 4.50m lift, Add 20% d) 4.50m to 6.0m lift, Add 30%	BR.3 Page Number 102	Cubic Metre	1669	1514
417	Bridge Foundation and Sub Structure	12.13	BR 3G	Providing and fixing 25mm diameter steel anchor dowel in hard rock including drilling hole of 32 mm diameter up to 0.75 mtrs depth, placing the dowel in position and effectively grouting the hole with CM 1:1 proportion etc. complete.	As directed by Engineer in charge.	Number	1460	436
418	Bridge Foundation and Sub Structure	12.22	BR 4 B	Dewatering on BHP basis by using water pump including diversion of stream, providing cofferdams, earthen bunds etc. as may be necessary for foundation and other parts of the the works and pumping out water during and after excavation as may be required by using 3.0 BHP pump etc. complete. (prior approval of Superintending Engineer will be necessary)	BR 4 Page No 104.105	Hour	171	128
419	Bridge Foundation and Sub Structure	12.23	BR 4 B	Dewatering on BHP basis by using water pump including diversion of stream, providing cofferdams, earthen bunds etc. as may be necessary for foundation and other parts of the the works and pumping out water during and after excavation as may be required by using 5.0 to 9.0 BHP pump etc. complete. (prior approval of Superintending Engineer will be necessary)	BR 4 Page No 104.105	Hour	193	128
420	Bridge Foundation and Sub Structure	12.24	BR 4 B	Dewatering on BHP basis by using water pump including diversion of stream, providing cofferdams, earthen bunds etc. as may be necessary for foundation and other parts of the the works and pumping out water during and after excavation as may be required by using 10.0 to 19.0 BHP pump etc. complete. (prior approval of Superintending Engineer will be necessary)	BR 4 Page No 104.105	Hour	215	128
421	Bridge Foundation and Sub Structure	12.25	BR 5A	Providing and laying in situ / ready mix / ready mix M10 cement concrete of trap/ granite/ quartzite/ gneiss metal in foundation including necessary centering, formwork, bailing out water, compacting and curing etc. complete. (with fully automatic micro processor based PLC with SCADA enabled with reversible drum type mixer/ concrete batch mix plant (pan mixer) with natural /artificial sand)	BR.5 Page Number 105 and B.7, Page Number 38	Cubic Metre	5206	815
422	Bridge Foundation and Sub Structure	12.27	BR 6	Providing uncoursed rubble stone masonry of trap/ granite/ quartzite/ gneiss metal in CM 1:5 for foundation of piers, abutments, wings etc. including bailing out of water, striking joints, scaffolding and watering etc. complete.	BR.6 Page Number 105	Cubic Metre	4695	2263
423	Bridge Foundation and Sub Structure	12.28	BR 8	Providing, fabricating, launching, floating and grounding in position steel curbs for wells with necessary steel bracings and steel cutting edges as shown in the detailed drawings and technical specifications etc. complete.	BR.8 Page Number 108	Metric Tonne	71402	18640
424	Bridge Foundation and Sub Structure	12.29	BR 9A	Providing and laying in situ / ready mix / ready mix CC M10 of trap/ granite/ quartzite/ gneiss metal in the hollow of the steel curbs including compacting by vibrating and curing etc. complete. (with fully automatic micro processor based PLC with SCADA enabled with reversible drum type mixer/ concrete batch mix plant (pan mixer) with fine aggregates of required specifications ( VSI sand finely washed etc )	BR.9 Page Number 109 and B.7, Page Number38	Cubic Metre	5014	1106

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
425	Bridge Foundation and Sub Structure	12.31	BR 10	Providing, fabricating and setting out MS cutting edge for RCC well curbs as per detailed drawings and technical specifications etc. complete.	BR.10 Page Number 110	Metric Tonne	65018	11109
426	Bridge Foundation and Sub Structure	12.32	BR 13A	Providing and laying in situ / ready mix / ready mix M20 RCC work with trap/ granite/ quartzite/ gneiss metal in well steining including shuttering, compacting by vibrating, finishing and curing etc. complete. (fully automatic micro processor based PLC with SCADA enabled with reversible drum type mixer/ concrete batch mix plant (pan mixer) with fine aggregates of required specifications ( VSI sand finely washed etc ), excluding reinforcement)	BR.13 Page Number 112 and B. 7, Page Number38	Cubic Metre	6522	1205
427	Bridge Foundation and Sub Structure	12.34	BR 13A	Providing and laying in situ / ready mix / ready mix M25 RCC work with trap/ granite/ quartzite/ gneiss metal in well steining including shuttering, compacting by vibrating, finishing and curing etc. complete. (fully automatic micro processor based PLC with SCADA enabled with reversible drum type mixer/ concrete batch mix plant (pan mixer) with fine aggregates of required specifications ( VSI sand finely washed etc ), excluding reinforcement)	BR.13 Page Number 112 and B. 7, Page Number38	Cubic Metre	6600	1205
428	Bridge Foundation and Sub Structure	12.36	BR	Providing and laying in situ / ready mix / ready mix M20 RCC work with trap/ granite/ quartzite/ gneiss metal in well steining including shuttering, compacting by vibrating, finishing and curing etc. complete. (fully automatic micro processor based PLC with SCADA enabled concrete batch mix plant / pan mixer with fine aggregates of required specifications ( VSI sand finely washed etc ), excluding reinforcement)	BR.13 Page Number 112 and B. 7, Page Number38	Cubic Metre	6862	1204
429	Bridge Foundation and Sub Structure	12.38	BR	Providing and laying in situ / ready mix / ready mix M25 RCC work with trap/ granite/ quartzite/ gneiss metal in well steining including shuttering, compacting by vibrating, finishing and curing etc. complete. (fully automatic micro processor based PLC with SCADA enabled concrete batch mix plant / pan mixer with fine aggregates of required specifications ( VSI sand finely washed etc ), excluding reinforcement)	BR.13 Page Number 112 and B. 7, Page Number38	Cubic Metre	6940	1204
430	Bridge Foundation and Sub Structure	12.40	BR 14	Sinking of wells upto 5.0 metres diameter for foundation through all strata (except rock) to be removed by grabbing and chiselling soft disintegrated rock including blasting, large scale dewatering, heavy chiselling, cutting by pneumatic tools, all materials available to sink through such strata including removal of obstacle and use of necessary plant and machinery, divers etc. and proper seating of the wells etc. complete. (depth 0 to 5 metre) i) Add 30% extra for depth 5 to 10 m ii) Add 40% extra for depth 10 to 15 m iii) Add 60% extra for depth 15 to 20 m iv) Add 100% extra for depth above 20 m	BR.14 Page Number 113	Running Metre	39114	8692
431	Bridge Foundation and Sub Structure	12.41	BR 14	Sinking of wells above 5.0 metres and upto 6.0 metres diameter for foundation through all strata (except rock) to be removed by grabbing and chiselling soft disintegrated rock including blasting, large scale dewatering, heavy chiselling, cutting by pneumatic tools, all materials available to sink through such strata including removal of obstacle and use of necessary plant and machinery, divers etc. and proper seating of the wells etc. complete. (depth 0 to 5 metre) i) Add 30% extra for depth 5 to 10 m ii) Add 40% extra for depth 10 to 15 m iii) Add 60% extra for depth 15 to 20 m iv) Add 100% extra for depth above 20 m	BR.14 Page Number 113	Running Metre	49430	9335

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
432	Bridge Foundation and Sub Structure	12.42	BR 14	Sinking of wells above 6.0 metres and upto 7.0 metres diameter for foundation through all strata (except rock) to be removed by grabbing and chiselling soft disintegrated rock including blasting, large scale dewatering, heavy chiselling, cutting by pneumatic tools, all materials available to sink through such strata including removal of obstacle and use of necessary plant and machinery, divers etc. and proper seating of the wells etc. complete. (depth 0 to 5 metre) i) Add 30% extra for depth 5 to 10 m ii) Add 40% extra for depth 10 to 15 m iii) Add 60% extra for depth 15 to 20 m iv) Add 100% extra for depth above 20 m	BR.14 Page Number 113	Running Metre	54104	11201
433	Bridge Foundation and Sub Structure	12.43	BR 14	Sinking of wells above 7.0 metres and upto 8.0 metres diameter for foundation through all strata (except rock) to be removed by grabbing and chiselling soft disintegrated rock including blasting, large scale dewatering, heavy chiselling, cutting by pneumatic tools, all materials available to sink through such strata including removal of obstacle and use of necessary plant and machinery, divers etc. and proper seating of the wells etc. complete. (depth 0 to 5 metre) i) Add 30% extra for depth 5 to 10 m ii) Add 40% extra for depth 10 to 15 m iii) Add 60% extra for depth 15 to 20 m iv) Add 100% extra for depth above 20 m	BR.14 Page Number 113	Running Metre	76235	13651
434	Bridge Foundation and Sub Structure	12.44	BR 14	Sinking of wells above 8.0 metres and upto 9.0 metres diameter for foundation through all strata (except rock) to be removed by grabbing and chiselling soft disintegrated rock including blasting, large scale dewatering, heavy chiselling, cutting by pneumatic tools, all materials available to sink through such strata including removal of obstacle and use of necessary plant and machinery, divers etc. and proper seating of the wells etc. complete. (depth 0 to 5 metre) i) Add 30% extra for depth 5 to 10 m ii) Add 40% extra for depth 10 to 15 m iii) Add 60% extra for depth 15 to 20 m iv) Add 100% extra for depth above 20 m	BR.14 Page Number 113	Running Metre	85513	17384
435	Bridge Foundation and Sub Structure	12.45	BR 14	Sinking of wells above 9.0 metres and upto 10.0 metres diameter for foundation through all strata (except rock) to be removed by grabbing and chiselling soft disintegrated rock including blasting, large scale dewatering, heavy chiselling, cutting by pneumatic tools, all materials available to sink through such strata including removal of obstacle and use of necessary plant and machinery, divers etc. and proper seating of the wells etc. complete. (depth 0 to 5 metre) i) Add 30% extra for depth 5 to 10 m ii) Add 40% extra for depth 10 to 15 m iii) Add 60% extra for depth 15 to 20 m iv) Add 100% extra for depth above 20 m	BR.14 Page Number 113	Running Metre	91425	18609

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
436	Bridge Foundation and Sub Structure	12.46	BR 14	Extra charges for sinking of various diameter of well foundation in hard rock encountered during sinking by chiselling in water etc. complete.	BR. 14A Page Number 113	Cubic Metre	2679	2493
437	Bridge Foundation and Sub Structure	12.47	BR 16	Providing steel anchor dowel bars of 32 mm diameter and 4 m length at the base of the well including drilling holes of 60 mm diameter up to 2.5 m depth in rock, placing the dowels in position and effectively grouting the holes with CM 1:1 etc. complete.	BR.16 Page Number 120	Number	6856	1288
438	Bridge Foundation and Sub Structure	12.48	BR 16A	Providing steel anchor dowel bars of 32 mm diameter and 4 m length through steining of the wells including provision of necessary ducts through staining, drilling holes of 60 mm diameter up to 2.5 m depth in rock, placing the dowels in position and effectively grouting the holes with CM 1:1 etc. complete.	BR. 16 Page Number 120	Number	7246	1610
439	Bridge Foundation and Sub Structure	12.49	BR 17A	Providing and laying in situ / ready mix / ready mix M15 CC of trap/ granite /quartzite /gneiss metal for the bottom plugs of wells in the dry condition including compaction and curing wherever necessary etc. complete. (with fully automatic micro processor based PLC with SCADA enabled with reversible drum type mixer/ concrete batch mix plant (pan mixer) with fine agreeegates of required specifications ( VSI sand finely washed etc )	BR.17 Page Number 120 and B. 7, Page Number38	Cubic Metre	6526	1653
440	Bridge Foundation and Sub Structure	12.51	BR 17B	Providing and laying in situ / ready mix M15 CC of trap/ granite /quartzite /gneiss metal for the bottom plugs of wells under water including compaction and curing wherever necessary etc. complete. (with fully automatic micro processor based PLC with SCADA enabled with reversible drum type mixer/ concrete batch mix plant (pan mixer) with fine agreeegates of required specifications ( VSI sand finely washed etc )	BR.17 Page Number 120 and B. 7, Page Number38	Cubic Metre	7091	2116
441	Bridge Foundation and Sub Structure	12.55	BR 59 a	Providing and laying in situ / ready mix controlled grade of M15 of trap /granite /quartzite /gneiss metal for RCC works in cut off walls / curtain walls including necessary scaffolding, centering, compacting by vibrator, finishing and curing etc. complete. (with fully automatic micro processor based PLC with SCADA enabled with reversible drum type mixer/ concrete batch mix plant (pan mixer) VSI sand crushed, excluding reinforcement)	As directed by Engineer in charge.	Cubic Metre	6590	1296
442	Bridge Foundation and Sub Structure	12.57	BR 59 a	Providing and laying in situ / ready mix controlled grade of M20 of trap /granite /quartzite /gneiss metal for RCC works in cut off walls / curtain walls including necessary scaffolding, centering, compacting by vibrator, finishing and curing etc. complete. (with fully automatic micro processor based PLC with SCADA enabled with reversible drum type mixer/ concrete batch mix plant (pan mixer) with fine agreeegates of required specifications ( VSI sand finely washed etc ), excluding reinforcement)	As directed by Engineer in charge.	Cubic Metre	7400	1296
443	Bridge Foundation and Sub Structure	12.59	BR 59 a	Providing and laying in situ / ready mix controlled grade of M25 of trap /granite /quartzite /gneiss metal for RCC works in cut off walls / curtain walls including necessary scaffolding, centering, compacting by vibrator, finishing and curing etc. complete. (with fully automatic micro processor based PLC with SCADA enabled with reversible drum type mixer/ concrete batch mix plant (pan mixer) with fine agreeegates of required specifications ( VSI sand finely washed etc ), excluding reinforcement)	As directed by Engineer in charge.	Cubic Metre	7475	1296
444	Bridge Foundation and Sub Structure	12.67.a	BR	Providing and Constructing Temporary Island 16 m diameter for Construction of Well Foundation for 8m dia. Well. Note:- For other well diameters rate can be worked out on the basis of cross-sectional area of well. The diameter of the island shall be in the conformity with clause 1203.2 of MoRTH For depth of water 1.0 m and height of island to be 1.25 m.	BR.7. P.Number 107	Number	72282	10819

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
445	Bridge Foundation and Sub Structure	12.67.b	BR	Providing and Constructing Temporary Island 16 m diameter for Construction of Well Foundation for 8m dia. Well. Note:- For other well diameters rate can be worked out on the basis of cross-sectional area of well. The diameter of the island shall be in the conformity with clause 1203.2 of MoRTH For depth of water 4.0 m and height of island 4.5 m.	BR.7. P.Number 107	Number	336374	84650
446	Bridge Foundation and Sub Structure	12.68.a	BR	Providing and Constructing Temporary Island 12 m diameter for Construction of Well Foundation for 6 m dia. Well. Note:- For other well diameters rate can be worked out on the basis of cross-sectional area of well. The diameter of the island shall be in the conformity with clause 1203.2 of MoRTH For depth of water 1.0 m and height of island to be 1.25 m.	BR.7. P.Number 107	Number	41931	6086
447	Bridge Foundation and Sub Structure	12.68.b	BR	Providing and Constructing Temporary Island 12 m diameter for Construction of Well Foundation for 6 m dia. Well. Note:- For other well diameters rate can be worked out on the basis of cross-sectional area of well. The diameter of the island shall be in the conformity with clause 1203.2 of MoRTH For depth of water 4.0 m and height of island 4.5 m.	BR.7. P.Number 107	Number	208446	57615
448	Bridge : Bored Pile	12.70	MORTH	Back filling behind abutment, wing wall and return wall as per drawings and technical specifications etc. complete. (by granular material)	MORT and H 2200 &-710.1.4 of IRC 78	Cubic Metre	770	105
449	Bridge : Bored Pile	12.71	MORTH	Back filling behind abutment, wing wall and return wall as per drawings and technical specifications etc. complete. (by sandy material)	MORT and H 2200 &-710.1.4 of IRC 78	Cubic Metre	1792	105
450	Bridge : Bored Pile	12.72	MORTH	Providing and laying of filter media with granular materials/ stone crushed aggregates satisfying the requirements laid down in clause 2504.2.2 of MoRTH specifications to a thickness of not less than 600 mm with smaller size towards the soil and bigger size towards the wall and provided over the entire surface behind abutment, wing wall and return wall to the full height compacted to a firm condition as per drawing and technical specifications etc. complete.	MORT and H 2200 &-710.1.4 of IRC 78	Cubic Metre	1193	140

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
<b>SSR 2021-2022 :- Bridge Bearings</b>								
451	Bridge Bearings	13.01	BR 34A	Providing and fixing neoprene bearing as per detailed drawings etc. complete.	As directed by Engineer in charge.	Cubic Centimetre	2	1
452	Bridge Bearings	13.02	BR	Providing tar paper bearing including laying in proper position etc. complete.	As directed by Engineer in charge	Square Metre	92	32
453	Bridge Bearings	13.04	MORTH	Supplying, fitting and fixing in position true to line and level cast steel rocker bearing conforming to IRC:83 (Pt-1) section IX and clause 2003 of MoRTH specifications including all accessories as per drawings and technical specifications etc. complete.	MORT and H - 2000,1000,2200 & IRC 83-1982	Metric Tonne	310	4
454	Bridge Bearings	13.05	MORTH	Supplying, fitting and fixing in position true to line and level forged steel rocker bearing including all accessories as per drawings and technical specifications conforming to IRC:83 (Pt-1) section IX and clause 2003 of MoRTH specifications etc. complete.	MORT and H 2000 and 2200	Metric Tonne	310	4
455	Bridge Bearings	13.06	MORTH	Supplying, fitting and fixing in position true to line and level sliding plate bearing with PTFE surface sliding on stainless steel including all accessories as per drawings and technical specifications and BS:5400, section 9.1 and 9.2 and clause 2004 of MoRTH specifications etc. complete.	MORT and H 2000 and 2200	Metric Tonne	287	16
456	Bridge Bearings	13.07	MORTH	Supplying, fitting and fixing in position true to line and level elastomeric bearing including all accessories as per drawing and technical specifications and IRC:83 (Pt-II) section IX and clause 2005 of MoRTH specifications etc. complete.	MORT and H 2000 and 2200	Cubic Centimetre	1	0
457	Bridge Bearings	13.08	MORTH	Supplying, fitting and fixing in position true to line and level sliding plate bearing with stainless steel plate sliding on stainless steel plate with mild steel matrix including all accessories as per drawings and technical specifications etc. complete.	MORT and H 2000 and 2200	Metric Tonne	278	9
458	Bridge Bearings	13.09	MORTH	Supplying, fitting and fixing in position true to line and level POT- PTFE bearing consisting of a metal piston supported by a disc or unreinforced elastomer confined within a metal cylinder, sealing rings, dust seals, PTFE surface sliding against stainless steel mating surface, complete assembly to be of cast steel / fabricated structural steel, metal and elastomer elements to be as per IRC: 83 part I and II respectively and other parts conforming to BS:5400, section 9.1 and 9.2 and clause 2006 of MoRTH specifications as per drawing and approved technical specifications etc. complete.	MORT and H 2000 and 2200	Metric Tonne	206	7

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
<b>SSR 2021-2022 :- Bridge Super Structure</b>								
459	Bridge Super Structure	14.01	BR 35A	Providing, cutting, bending, hooking, tying and laying in position TMT FE 500 steel bars for reinforcement for all RCC works as per detailed drawings etc. complete.	BR.35 Page Number 134	Metric Tonne	69888	7809
460	Bridge Super Structure	14.02	BR 35B a	Providing and joining 25 mm diameter MS / TMT FE 500 steel reinforcement bars by bottle nuts including supplying and fitting them in position etc. complete.	As directed by Engineer in charge	Number	1173	720
461	Bridge Super Structure	14.03	BR 35B b	Providing and joining 32 mm diameter MS /TMT FE 500 steel reinforcement bars by bottle nuts including supplying and fitting them in position etc. complete.	As directed by Engineer in charge.	Number	1374	720
462	Bridge Super Structure	14.04	BR 36A	Providing welded joints for 25 mm and below diameter bars for steel reinforcement etc. complete.	BR.36 Page Number 134	Number	403	305
463	Bridge Super Structure	14.05	BR 36B	Providing welded joints for 32 mm and below diameter bars for steel reinforcement etc. complete.	BR.36 Page Number 134	Number	410	305
464	Bridge Super Structure	14.06	BR	Providing and fixing in position to the exact profile and prestressing the high tensile strands to specified ultimate strength, standard end anchorages, cable ducts, grouting ducts after prestressing and bearing plates with wedges as per detailed drawings including necessary plant and machinery for prestressing etc. complete.	As directed by Engineer in charge.	Metric Tonne	164449	8955
465	Bridge Super Structure	14.07	BR 38A	Providing and laying in situ / ready mix M-20 controlled cement concrete of trap/ granite/ quartzite/ gneiss metal for RCC work in solid/ deck slab etc. including ramming, vibrating, curing, formwork, centering and finishing in cement plaster excluding reinforcement etc. complete. (with fully automatic micro processor based PLC with SCADA enabled concrete batch mix plant / pan mixer and fine aggregates of required specifications ( VSI sand finely washed etc ) i) Height up to 5 m, normal rate. ii) Height 5 to 7.50 m, add 5 percent extra over basic rate. iii) Height 7.50 to 10 m, 7.50 percent extra. iv) Over 10 m Height, add 10 percent extra for every 2.50m rise.	BR.38(a) Page Number 135 and B. 7, Page Number38	Cubic Metre	9579	2986
466	Bridge Super Structure	14.15	BR	Providing and laying in situ / ready mix M-25 controlled cement concrete of trap/ granite/ quartzite/ gneiss metal for RCC work in solid/ deck slab etc. including ramming, vibrating, curing, formwork, centering and finishing in cement plaster excluding reinforcement etc. complete. (with fully automatic micro processor based PLC with SCADA enabled concrete batch mix plant / pan mixer and fine aggregates of required specifications ( VSI sand finely washed etc ) i) Height up to 5 m, normal rate. ii) Height 5 to 7.50 m, add 5 percent extra over basic rate. iii) Height 7.50 to 10 m, 7.50 percent extra. iv) Over 10 m Height, add 10 percent extra for every 2.50m rise.	BR.38(b and c) Page Number 135 and B. 7, Page Number38	Cubic Metre	10181	2986

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
467	Bridge Super Structure	14.17	BR	Providing and laying in situ / ready mix M-30 controlled cement concrete of trap/ granite/ quartzite/ gneiss metal for RCC work in solid/ deck slab etc. including ramming, vibrating, curing, formwork, centering and finishing in cement plaster excluding reinforcement etc. complete. (with fully automatic micro processor based PLC with SCADA enabled concrete batch mix plant / pan mixer and fine aggregates of required specifications ( VSI sand finely washed etc ) i) Height up to 5 m, normal rate. ii) Height 5 to 7.50 m, add 5 percent extra over basic rate. iii) Height 7.50 to 10 m, 7.50 percent extra. iv) Over 10 m Height, add 10 percent extra for every 2.50m rise.	BR.38(a) Page Number 135 and B. 7, Page Number38	Cubic Metre	10284	2986
468	Bridge Super Structure	14.19	BR 38A	Providing and laying in situ / ready mix M-20 controlled cement concrete of trap/ granite/ quartzite/ gneiss metal for RCC work in main/ cross girders, diaphragms etc. including ramming, vibrating, curing, formwork, centering and finishing in cement plaster excluding reinforcement etc. complete. (with fully automatic micro processor based PLC with SCADA enabled concrete batch mix plant / pan mixer and fine aggregates of required specifications ( VSI sand finely washed etc ) i) Height up to 5 m, normal rate. ii) Height 5 to 7.50 m, add 5 percent extra over basic rate. iii) Height 7.50 to 10 m, 7.50 percent extra. iv) Over 10 m Height, add 10 percent extra for every 2.50m rise.	BR.38(b and c) Page Number 135 and B. 7, Page Number38	Cubic Metre	9916	2986
469	Bridge Super Structure	14.27	BR	Providing and laying in situ / ready mix M-25 controlled cement concrete of trap/ granite/ quartzite/ gneiss metal for RCC work in main/ cross girders, diaphragms etc. including ramming, vibrating, curing, formwork, centering and finishing in cement plaster excluding reinforcement etc. complete. (with fully automatic micro processor based PLC with SCADA enabled concrete batch mix plant / pan mixer and fine aggregates of required specifications ( VSI sand finely washed etc ) i) Height up to 5 m, normal rate. ii) Height 5 to 7.50 m, add 5 percent extra over basic rate. iii) Height 7.50 to 10 m, 7.50 percent extra. iv) Over 10 m Height, add 10 percent extra for every 2.50m rise.	BR.38(b and c) Page Number 135 and B. 7, Page Number38	Cubic Metre	10539	2986
470	Bridge Super Structure	14.29	BR	Providing and laying in situ / ready mix M-30 controlled cement concrete of trap/ granite/ quartzite/ gneiss metal for RCC work in main/ cross girders, diaphragms etc. including ramming, vibrating, curing, formwork, centering and finishing in cement plaster excluding reinforcement etc. complete. (with fully automatic micro processor based PLC with SCADA enabled concrete batch mix plant / pan mixer and fine aggregates of required specifications ( VSI sand finely washed etc ) i) Height up to 5 m, normal rate. ii) Height 5 to 7.50 m, add 5 percent extra over basic rate. iii) Height 7.50 to 10 m, 7.50 percent extra. iv) Over 10 m Height, add 10 percent extra for every 2.50m rise.	BR.38(b and c) Page Number 135 and B. 7, Page Number38	Cubic Metre	10646	2986
471	Bridge Super Structure	14.31	MORTH C1-2604	Providing and laying buried type expansion joint (expansion gap being 20mm) covered with 12mm thick 200 mm wide galvanised weldable structural steel plate as per IS 2062 placed symmetrically to the centre line of the joint, resting freely over the top surface of the deck concrete, welding of 8mm diameter 100mm long galvanised nails spaced 300mm intervals along the centre line of the plate, all as specified in MoRTH clause 2604 etc. complete.	BR.43 Page Number 138	Running Metre	914	201
472	Bridge Super Structure	14.32	BR 43A	Providing copper plate expansion joints as per detailed drawing Number 4/D-1 of 1972 D type etc. complete.	BR.43 Page Number 138	Running Metre	4119	201



Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
473	Bridge Super Structure	14.33	BR 43B	Providing expansion joints with 25mm thick bituminous pad as per detailed drawings etc. complete.	BR.43 Page Number 138	Square Metre	993	122
474	Bridge Super Structure	14.34	BR 45	Providing and laying in situ / ready mix 1:4:8 cement concrete of trap /granite /quartzite /gneiss metal for haunch filling including compacting, curing, mixing etc. complete. (with fully automatic micro processor based PLC with SCADA enabled with reversible drum type mixer/ concrete batch mix plant (pan mixer) with fine agreeegates of required specifications ( VSI sand finely washed etc )	B R.45 Page Number 139	Cubic Metre	4824	992
475	Bridge Super Structure	14.36	BR 46	Providing trap/ granite/ quartzite/ gneiss rubble filling over haunches and arches including hand packing etc. complete.	BR.46 Page Number 140	Cubic Metre	878	116
476	Bridge Super Structure	14.39	BR	Providing and laying in situ / ready mix M20 CC of trap/ granite/ quartzite/ gneiss metal for wearing course 8cm thick including compacting, finishing, curing and filling in joints with bitumen etc. complete. (with fully automatic micro processor based PLC with SCADA enabled concrete batch mix plant / pan mixer with fine agreeegates of required specifications ( VSI sand finely washed etc )	BR.47(a) Page Number 140 and B. 7, Page Number38	Cubic Metre	6022	1094
477	Bridge Super Structure	14.41	BR 48	Providing vent holes 100mm diameter GI pipe in the slab and wearing course with iron grill at the top and GI pipe at bottom as per drawing etc. complete.	BR.48 Page Number 142	Number	602	58
478	Bridge Super Structure	14.44.a	BR	Providing and laying in situ / ready mix M20 RCC of trap/ granite/ quartzite/ gneiss metal for RCC work of ballast walls, kerbs and box returns including scaffolding, compaction, formwork finishing and curing etc. complete. (excluding reinforcement, with fully automatic micro processor based PLC with SCADA enabled concrete batch mix plant / pan mixer with fine agreeegates of required specifications ( VSI sand finely washed etc ) RCC work of Ballast walls & Kerb	BR.50 Page Number 143 and B. 7, Page Number38	Cubic Metre	8866	2937
479	Bridge Super Structure	14.44.b	BR	Providing and laying in situ / ready mix M20 RCC of trap/ granite/ quartzite/ gneiss metal for RCC work of ballast walls, kerbs and box returns including scaffolding, compaction, formwork finishing and curing etc. complete. (excluding reinforcement, with fully automatic micro processor based PLC with SCADA enabled concrete batch mix plant / pan mixer with fine agreeegates of required specifications ( VSI sand finely washed etc ) RCC work of Box returns	BR.50 Page Number 143 and B. 7, Page Number38	Cubic Metre	9564	2937
480	Bridge Super Structure	14.44.c	BR	Providing and laying in situ / ready mix M20 RCC of trap/ granite/ quartzite/ gneiss metal for RCC work of ballast walls, kerbs and box returns including scaffolding, compaction, formwork finishing and curing etc. complete. (excluding reinforcement, with fully automatic micro processor based PLC with SCADA enabled concrete batch mix plant / pan mixer with fine agreeegates of required specifications ( VSI sand finely washed etc ) RCC work of Box Cell	BR.50 Page Number 143 and B. 7, Page Number38	Cubic Metre	10262	2937
481	Bridge Super Structure	14.47	BR	Providing RCC parapet with CC M20 of trap/ granite/ quartzite/ gneiss metal with cast in situ/precast panels as per the detailed drawing including reinforcement, scaffolding, centering, formwork, compacting, finishing and curing etc. complete. (with fully automatic micro processor based PLC with SCADA enabled concrete batch mix plant / pan mixer) fine agreeegates of required specifications ( VSI sand finely washed etc )	BR.51 (a) Page Number 144 and B. 7, Page Number38	Running Metre	1969	889
482	Bridge Super Structure	14.48	BR 51B	Providing railing of mild steel angle post 2.0m center to center of section 75mm x 75mm x 10mm or equivalent I/C section of height 1.05 above bridge surface with minimum anchor length of 30cm including hold fast of 25mm diameter MS bar welded at the bottom and concreting of 1:3:6 of size 30cm x 30cm x 30cm with three rows of 40mm B class GI pipe provided at 30cm on center to center including scaffolding and one coat of anticorrosive paint with two coats of oil painting, curing of concrete etc. complete.	B.R.51(b) Page Number 145	Running Metre	3337	35

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
483	Bridge Super Structure	14.49	BR 51C	Providing RCC railing of cast in situ / ready mix RCC posts with M20 CC of trap/ granite/ quartzite/ gneiss metal for horizontal and vertical members as per detailed drawings including reinforcement, scaffolding, centering, formwork, compaction, finishing and curing with watering chemical compound etc. complete. (fully automatic micro processor based PLC with SCADA enabled with reversible drum type mixer/ concrete batch mix plant (pan mixer) fine aggregates of required specifications ( VSI sand finely washed etc )	BR.51(c) Page Number 145 and B. 7, Page Number38	Running Metre	2089	283
484	Bridge Super Structure	14.50	BR 55	Providing 100mm diameter GI water spouts as per detailed drawings in RCC slab and wearing surface / kerb etc. complete.	BR.55 Page Number 150	Number	988	290
485	Bridge Super Structure	14.55	MORTH	Providing and laying 6 mm thick mastic asphalt wearing course on top of deck slab excluding prime coat with paving grade bitumen meeting the requirements given in table 500-29, prepared by using mastic cooker and laid to required level and slope after cleaning the surface including providing antiskid surface with bitumen precoated fine grained hard stone chipping at an approximate spacing of 10 cm center to center in both directions, pressed into surface when the temperature of surfaces not less than 100 deg C, protruding 1 mm to 4mm over mastic surface as per clause 515 etc. complete.	MORT and H 500, 2700	Square Metre	310	57
486	Bridge Super Structure	14.55.a	MORTH	Providing and laying 12 mm thick mastic asphalt wearing course on top of deck slab excluding prime coat with paving grade bitumen meeting the requirements given in table 500-29, prepared by using mastic cooker and laid to required level and slope after cleaning the surface including providing antiskid surface with bitumen precoated fine grained hard stone chipping of 4.75 mm nominal size at the rate of 0.005 cum per 10 Square Metre and at an approximate spacing of 10 cm center to center in both directions, pressed into surface when the temperature of surfaces not less than 100 deg C, protruding 1 mm to 4mm over mastic surface as per clause 515 etc. complete.	MORT and H 500, 2700	Square Metre	442	103
487	Bridge Super Structure	14.56	MORTH	Construction of precast RCC railing of M30 Grade, aggregate size not exceeding 12 mm, true to line and grade, tolerance of vertical RCC post not to exceed 1 in 500, centre to centre spacing between vertical post not to exceed 2000 mm, leaving adequate space between vertical post for expansion as per approved drawings and technical specifications etc. complete.	MORT and H 2700, 1500, 1600 and 1700	Running Metre	1877	202
488	Bridge Super Structure	14.57	MORTH	Construction of RCC railing of M30 Grade in situ / ready mix with 20 mm nominal size aggregate true to line and grade, tolerance of vertical RCC post not to exceed 1 in 500, center to center spacing between vertical post not to exceed 2000 mm, leaving adequate space between vertical post for expansion, complete with fully automatic micro processor PLC with SCADA enabled reversible drum type mixer/ concrete batch mix plant (pan mixer) as per approved drawings and technical specifications etc. complete with fine aggregates of required specifications ( VSI sand finely washed etc )	MORT and H 2700, 1500, 1600 and 1700	Running Metre	1981	202
489	Bridge Super Structure	14.58	MORTH	Providing and laying in PCC M15 grade leveling course below approach slab complete with fully automatic micro processor PLC with SCADA enabled reversible drum type mixer/ concrete batch mix plant (pan mixer) as per drawings and Technical specifications etc. complete with fine aggregates of required specifications ( VSI sand finely washed etc )	MORT and H 1700 and 2700	Cubic Metre	5481	873
490	Bridge Super Structure	14.59	MORTH	Providing and laying of RCC in M30 grade approach slab including reinforcement and formwork complete with fully automatic micro processor PLC with SCADA enabled reversible drum type mixer/ concrete batch mix plant (pan mixer) as per drawings and technical specifications etc. complete with fine aggregates of required specifications ( VSI sand finely washed etc )	MORT and H 1500, 1600, 1700 and 2700	Cubic Metre	9840	1215
491	Bridge Super Structure	14.60	MORTH	Providing, transporting and placing in position precast pretensioned concrete girders as per drawings and technical specifications etc. complete.	MORT and H 1800, 2300	Cubic Metre	24201	4185

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
492	Bridge Super Structure	14.61	MORTH	Providing and applying two coat of water based cement paint to un plastered concrete surface after cleaning the surface of dirt, dust, oil, grease, efflorescence etc. complete. (applying 1 litre paint on 2 Square Metret)	MORT and H 2800,	Square Metre	207	32
493	Bridge Super Structure	14.62	MORTH	Providing and laying a burried expansion joint, expansion gap being 20 mm, covered with 12 mm thick, 200 mm wide galvanized weldable structural steel plate as per IS: 2062, placed symmetrical to center line of the joint, resting freely over the top surface of the deck concrete, welding of 8 mm diameter 100 mm long galvanised nails spaced 300 mm c/c along the center line of the plate, all as specified in clause 2604 etc. complete.	MORT and H 2600	Running Metre	1971	30
494	Bridge Super Structure	14.63	MORTH	Providing and filling 20 mm thick compressible fibre board in expansion joint complete as per drawings and technical specifications etc. complete.	MORT and H 2600	Running Metre	376	10
495	Bridge Super Structure	14.64	MORTH	Providing and filling joint sealing compound with coarse sand and 6% bitumen by weight as per drawings and technical specifications etc. complete.	MORT and H 2600	Running Metre	43	30
496	Bridge Super Structure	14.65	MORTH	Providing and laying of asphaltic plug joint to provide for horizontal movement of 25 mm and vertical movement of 2 mm, depth of joint varying from 75 mm to 100 mm, width varying from 500 mm to 750 mm in traffic direction covered with a closure plate of 200 mm X 6 mm of weldable structural steel conforming to IS:2062, asphaltic plug to consist of polymer modified bitumen binder, carefully selected single size aggregate to 12.5mm nominal size and a heat resistant foam caulking /backer rod all as per approved drawings and specifications etc. complete.	MORT and H 2600	Running Metre	1551	67
497	Bridge Super Structure	14.66	MORTH	Providing and laying of an elastomeric slab steel expansion joint, catering to right or skew in less than 20 degree, moderately curved with maximum horizontal movement upto 50 mm to be installed by the manufacture / supplier or their authorized representative ensuring compliance to the manufactures instructions for installation for road and bridge works as per approved drawings and standard specifications etc. complete.	MORT and H 2600	Running Metre	12671	93
498	Bridge Super Structure	14.67	MORTH	Providing and laying of compression seal joint consisting of steel armoured nosing at two edges of the joint gap suitably anchored to the deck concrete and a preformed chloroprene elastomer or closed cell foam joint sealer compressed and fixed into the joint gap with special adhesive binder to cater for a horizontal movement upto 40 mm and vertical movement of 3 mm etc. complete.	MORT and H ? 2600	Running Metre	4584	56
499	Bridge Super Structure	14.68	MORTH	Providing and laying of a strip seal expansion joint catering to maximum horizontal movement upto 70 mm to be installed by the manufacturer / supplier to their authorized representative ensuring compliance to the manufacturers instruction for installation as per approved drawings and standard specifications etc. complete.	MORT and H ? 2600	Running Metre	12655	77
500	Bridge Super Structure	14.69	MORTH	Providing and laying boulders apron on river bed for protection against scour with stone boulders weighing not less than 40Kilogram each complete as per drawings and Technical specifications etc. complete. (boulder laid without wire crates)	MORT and H-2500	Cubic Metre	1762	828
501	Bridge Super Structure	14.70	MORTH	Providing and laying of boulder apron laid in wire crates made with 4 mm dia GI wire conforming to IS:2801 and IS:4828 in 100 mm X 100 mm mesh weaved diagonally including 10% extra for laps and joints laid with stone boulder weighing not less than 40Kilogram each etc. complete.	MORT and H-2500	Cubic Metre	2537	595
502	Bridge Super Structure	14.71	MORTH	Providing and laying of apron with cement concrete blocks of size 0.50X0.50X0.50m cast in situ / ready mix and made with nominal mix of M15 grade cement concrete with a minimum cement content of 250Kilogram/cum with fully automatic micro processor PLC with SCADA enabled reversible drum type mixer/ concrete batch mix plant (pan mixer) as per IRC:21-2000 etc. complete.	MORT and H-2500	Cubic Metre	6026	1204
503	Bridge Super Structure	14.72	MORTH	Providing and laying pitching on slopes laid over prepared filter media including boulder apron laid dry in front of toe of embankment complete as per drawing and technical specifications etc. complete. (by stone/boulder)	MORT and H-2500	Cubic Metre	1762	828

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
504	Bridge Super Structure	14.73	MORTH	Providing and laying pitching on slopes laid over prepared filter media including boulder apron laid dry in front of toe of embankment complete with fully automatic micro processor PLC with SCADA enabled reversible drum type mixer/ concrete batch mix plant (pan mixer) as per drawings and technical specifications etc. complete. (concrete blocks of size 0.30x 0.30x0.30m in CC M15 grade) with fine aggregates of required specifications ( VSI sand finely washed etc )	MORT and H-2500	Cubic Metre	5871	1056
505	Bridge Super Structure	14.74	MORTH	Providing and laying filter material underneath pitching in slopes as per drawings and technical specifications etc. complete.	MORT and H-2500	Cubic Metre	2370	924
506	Bridge Super Structure	14.75	MORTH	Laying of a geotextile filter between pitching and embankment slopes on which pitching is laid to prevent escape of the embankment material through the voids of the stone pitching / cement concrete blocks as well as to allow free movement of water without creating any uplift head on the pitching etc. complete.	MORT and H ? 700 and 1500	Square Metre	259	183
507	Bridge Super Structure	14.76	MORTH	Providing and laying rubble stone flooring laid in cement mortar 1:3 as per drawings and technical specifications etc. complete.	MORT and H 2500	Cubic Metre	6219	2101
508	Bridge Super Structure	14.77	MORTH	Providing and laying cement concrete blocks of M15 grade flooring laid in cement mortar 1:3 as per drawings and technical specifications etc. complete.	MORT and H 2500	Cubic Metre	7144	1563
509	Bridge Super Structure	14.78	MORTH	Construction of dry rubble flooring at cross drainage works etc. complete.	MORT and H 2500	Cubic Metre	3501	2567
510	Bridge Super Structure	14.79	MORTH	Construction of stone masonry curtain wall in cement mortar 1:3 as per drawings and technical specifications etc. complete.	MORT and H 2500	Cubic Metre	5542	2725
511	Bridge Super Structure	14.81	MORTH	Providing flexible apron of 100 cm thick comprising of loose stone boulders weighing not less than 40Kilogram beyond curtain wall etc. complete.	MORT and H ? 2500	Cubic Metre	1867	933
512	Bridge Super Structure	14.82	MORTH	Providing and construction of a gabian structure for retaining earth with segments of wire crates of size 7.0 x 3.0 x 0.6m each divided into 1.5 m compartments by cross netting, made from 4 mm galvansed steel wire @ 32Kilogram per 10 Square Metre having minimum tensile strength of 300Mpa conforming to IS:280 and galvanizing coating conforming to IS:4826 woven into mesh with double twist, mesh size not exceeding 100x100mm, filled with boulders with least dimension of 200mm, all loose ends to be tied with 4mm galvanized steel wire etc. complete.	MORT and H-2500	Cubic Metre	2485	195
513	Bridge Super Structure	14.83	MORTH	Providing and constructing gabain structures for erosion control, river training works and protection works with wire crates of size 2.0m x 1.0m x 0.30m each divided into 1 m compartments by-cross netting, made from 4 mm galvanized steel wire @ 32Kilogram per 10Square Metre having minimum tensile strength of 300Mpa conforming to IS:280 and galvanizing coating conforming to IS 4826, woven into mesh with double twist, mesh size not exceeding 100 x 100mm, filled with boulders with least dimension of 200mm, all loose ends to be securely tied with 4mm galvanized steel wire etc. complete.	MORT and H-2500	Cubic Metre	4464	692
514	Bridge Super Structure	14.84	MORTH	Removal of existing 75mm thick cement concrete wearing coat including its disposal complete as per technical specification without causing any detrimental effect to any part of the bridge structure and removal of dismantled material with all lifts and lead up to 1000m etc. complete.	MORT and H-2800	Square Metre	196	74
515	Bridge Super Structure	14.85	MORTH	Removal of existing asphaltic wearing coat comprising of 50mm thick asphaltic concrete laid over 12 mm thick mastic asphalt including disposal with all lift and lead upto 100m etc. complete.	MORT and H-2800	Square Metre	144	55
516	Bridge Super Structure	14.86	MORTH	Providing and laying cement concrete wearing coat M30 grade with batch mix type / concrete mixer with SCADA including reinforcement as per drawings and technical specifications etc. complete with fine aggregates of required specifications ( VSI sand finely washed etc )	MORT and H ? 2700	Cubic Metre	11305	1357

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
517	Bridge Super Structure	14.87	MORTH	Providing and laying of reinforced cement concrete in M-30 grade approach slab / Rigid Pavement including formwork complete with fully automatic micro processor based PLC with SCADA enabled with reversible drum type mixer/ concrete batch mix plant (pan mixer) as per drawings and technical specifications etc. complete with fine aggregates of required specifications ( VSI sand finely washed etc ) ( excluding reinforcement )	MORT and H ? 1500, 1600, 1700 and 2700	Cubic Metre	7671	1215
518	Bridge Super Structure	14.88	BR 62	Providing and laying 0.90 meter thick metal mat consisting of rubble, oversize metal and normal size metal in specified thickness as per detailed drawing including supplying all materials, hand packing of rubble, spreading metal in layers and hard murum including watering and compaction with power roller etc. complete.	As directed by Engineer in charge	Square Metre	1373	116

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
<b>SSR 2021-2022 :- Bridge : Bored Pile</b>								
519	Bridge : Bored Pile	15.02	BR	Providing and laying cast in situ / ready mix M30 RCC for 450mm diameter bored piles each of load capacity as per design and of specified diameter of as directed, placed through steel shell sunk to the required depth through all strata except rock, excluding provision of reinforcement including placing concrete by tremie arrangement, compaction of concrete and withdrawal of steel shell with fully automatic micro processor based PLC with SCADA enabled with reversible drum type mixer/ concrete batch mix plant (pan mixer) etc. complete.with fine aggregates of required specifications VSI sand finely washed etc i) Add 30% extra for depth 5 to 10 m ii) Add 40% extra for depth 10 to 15 m iii) Add 60% extra for depth 15 to 20 m iv) Add 100% extra for depth above 20 m	BR-21 Page 124, MORTH - 1100 and 1700	Running Metre	2713	376
520	Bridge : Bored Pile	15.03	MORTH	Excavation for foundation of structure as per drawing and technical specifications including setting out, construction of shoring , brushing, removal of stumps and other deleterious matter, dressing of side and bottom and back filling with approved material etc. complete. (in marshy soil by mechanical means)	M.O.R.T and H - 304	Cubic Metre	743	218
521	Bridge : Bored Pile	15.04	BR	Providing and laying cast in situ / ready mix M30 RCC for 475 mm diameter bored piles each of load capacity as per design and of specified diameter of as directed, placed through steel shell sunk to the required depth through all strata except rock, excluding provision of reinforcement including placing concrete by tremie arrangement, compaction of concrete and withdrawal of steel shell with fully automatic micro processor based PLC with SCADA enabled with reversible drum type mixer/ concrete batch mix plant (pan mixer) etc. complete with fine aggregates of required specifications VSI sand finely washed etc i) Add 30% extra for depth 5 to 10 m ii) Add 40% extra for depth 10 to 15 m iii) Add 60% extra for depth 15 to 20 m iv) Add 100% extra for depth above 20 m	BR-21 Page 124, MORTH - 1100 and 1700	Running Metre	2852	419
522	Bridge : Bored Pile	15.05	MORTH	Providing and filling annular space around footing in rock by using concrete of M15 grade etc. complete.	M.O.R.T and H - 2100	Cubic Metre	5161	740
523	Bridge : Bored Pile	15.06	BR	Providing and laying cast in situ / ready mix M30 RCC for 500 mm diameter bored piles each of load capacity as per design and of specified diameter of as directed, placed through steel shell sunk to the required depth through all strata except rock, excluding provision of reinforcement including placing concrete by tremie arrangement, compaction of concrete and withdrawal of steel shell with fully automatic micro processor based PLC with SCADA enabled with reversible drum type mixer/ concrete batch mix plant (pan mixer) etc. complete with fine aggregates of required specifications ( VSI sand finely washed etc ) i) Add 30% extra for depth 5 to 10 m ii) Add 40% extra for depth 10 to 15 m iii) Add 60% extra for depth 15 to 20 m iv) Add 100% extra for depth above 20 m	BR-21 Page 124, MORTH - 1100 and 1700	Running Metre	2966	435
524	Bridge : Bored Pile	15.07	MORTH	Providing and filling sand in foundation trenches / below Raft as per drawing and technical specifications etc. complete. (Coarse Sand and Gravel )	M.O.R.T and H - 300,2100	Cubic Metre	2894	218

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
525	Bridge : Bored Pile	15.08	BR	Providing and laying cast in situ / ready mix M30 RCC for 525 mm diameter bored piles each of load capacity as per design and of specified diameter of as directed, placed through steel shell sunk to the required depth through all strata except rock, excluding provision of reinforcement including placing concrete by tremie arrangement, compaction of concrete and withdrawal of steel shell with fully automatic micro processor based PLC with SCADA enabled with reversible drum type mixer/ concrete batch mix plant (pan mixer) etc. complete.with fine aggregates of required specifications ( VSI sand finely washed etc ) i) Add 30% extra for depth 5 to 10 m ii) Add 40% extra for depth 10 to 15 m iii) Add 60% extra for depth 15 to 20 m iv) Add 100% extra for depth above 20 m	BR-21 Page 124, MORTH - 1100 and 1700	Running Metre	3082	406
526	Bridge : Bored Pile	15.09	MORTH	Providing stone masonry work in cement mortar 1:3 in foundation with watering complete as per drawings and technical specifications etc. complete. (coursed rubble masonry, first sort)	M.O.R.T and H - 1400	Cubic Metre	5482	2748
527	Bridge : Bored Pile	15.10	BR	Providing and laying cast in situ / ready mix M30 RCC for 550mm diameter bored piles each of load capacity as per design and of specified diameter of as directed, placed through steel shell sunk to the required depth through all strata except rock, excluding provision of reinforcement including placing concrete by tremie arrangement, compaction of concrete and withdrawal of steel shell with fully automatic micro processor based PLC with SCADA enabled with reversible drum type mixer/ concrete batch mix plant (pan mixer) etc. complete.with fine aggregates of required specifications VSI sand finely washed etc i) Add 30% extra for depth 5 to 10 m ii) Add 40% extra for depth 10 to 15 m iii) Add 60% extra for depth 15 to 20 m iv) Add 100% extra for depth above 20 m	BR-21 Page 124, MORTH - 1100 and 1700	Running Metre	3210	467
528	Bridge : Bored Pile	15.11	MORTH	Providing stone masonry work in cement mortar 1:3 in foundation with watering complete as per drawings and technical specifications etc. complete. (random rubble masonry)	M.O.R.T and H - 1400	Cubic Metre	5264	2513
529	Bridge : Bored Pile	15.12	BR	Providing and laying cast in situ / ready mix M30 RCC for 600mm diameter bored piles each of load capacity as per design and of specified diameter of as directed, placed through steel shell sunk to the required depth through all strata except rock, excluding provision of reinforcement including placing concrete by tremie arrangement, compaction of concrete and withdrawal of steel shell with fully automatic micro processor based PLC with SCADA enabled with reversible drum type mixer/ concrete batch mix plant (pan mixer) etc. complete.with fine aggregates of required specifications ( VSI sand finely washed etc ) i) Add 30% extra for depth 5 to 10 m ii) Add 40% extra for depth 10 to 15 m iii) Add 60% extra for depth 15 to 20 m iv) Add 100% extra for depth above 20 m	BR-21 Page 124, MORTH - 1100 and 1700	Running Metre	4683	525
530	Bridge : Bored Pile	15.13	MORTH	Providing and laying PCC in M15 grade levelling course of 100 mm thick below pile cap with fully automatic micro processor PLC with SCADA enabled reversible drum type mixer/ concrete batch mix plant (pan mixer) etc. complete.	M.O.R.T and H - 1100, 1700	Cubic Metre	4901	1065

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
531	Bridge : Bored Pile	15.14	BR	Providing and laying cast in situ / ready mix M30 RCC for 625mm diameter bored piles each of load capacity as per design and of specified diameter of as directed, placed through steel shell sunk to the required depth through all strata except rock, excluding provision of reinforcement including placing concrete by tremie arrangement, compaction of concrete and withdrawal of steel shell with fully automatic micro processor based PLC with SCADA enabled with reversible drum type mixer/ concrete batch mix plant (pan mixer) etc. complete.with fine aggregates of required specifications ( VSI sand finely washed etc ) i) Add 30% extra for depth 5 to 10 m ii) Add 40% extra for depth 10 to 15 m iii) Add 60% extra for depth 15 to 20 m iv) Add 100% extra for depth above 20 m	BR-21 Page 124, MORTH - 1100 and 1700	Running Metre	4826	855
532	Bridge : Bored Pile	15.15	MORTH	Providing Ist class brick masonry work in 1:3 in sub structure complete with watering as per drawings and technical specifications etc. complete. (excluding pointing and plastering)	MORT and H ? 1300, 2200	Cubic Metre	7594	1393
533	Bridge : Bored Pile	15.16	BR	Providing and laying cast in situ / ready mix M30 RCC for 650mm diameter bored piles each of load capacity as per design and of specified diameter of as directed, placed through steel shell sunk to the required depth through all strata except rock, excluding provision of reinforcement including placing concrete by tremie arrangement, compaction of concrete and withdrawal of steel shell with fully automatic micro processor based PLC with SCADA enabled with reversible drum type mixer/ concrete batch mix plant (pan mixer) etc. complete.with fine aggregates of required specifications ( VSI sand finely washed etc ) i) Add 30% extra for depth 5 to 10 m ii) Add 40% extra for depth 10 to 15 m iii) Add 60% extra for depth 15 to 20 m iv) Add 100% extra for depth above 20 m	BR-21 Page 124, MORTH - 1100 and 1700	Running Metre	4976	566
534	Bridge : Bored Pile	15.18	BR	Providing and laying cast in situ / ready mix M30 RCC for 750mm diameter bored piles each of load capacity as per design and of specified diameter of as directed, placed through steel shell sunk to the required depth through all strata except rock, excluding provision of reinforcement including placing concrete by tremie arrangement, compaction of concrete and withdrawal of steel shell with fully automatic micro processor based PLC with SCADA enabled with reversible drum type mixer/ concrete batch mix plant (pan mixer) etc. complete.with fine aggregates of required specifications VSI sand finely washed etc ) i) Add 30% extra for depth 5 to 10 m ii) Add 40% extra for depth 10 to 15 m iii) Add 60% extra for depth 15 to 20 m iv) Add 100% extra for depth above 20 m	BR-21 Page 124, MORTH - 1100 and 1700	Running Metre	7257	815



Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
535	Bridge : Bored Pile	15.20	BR	Providing and laying cast in situ / ready mix M30 RCC for 800 mm diameter bored piles each of load capacity as per design and of specified diameter of as directed, placed through steel shell sunk to the required depth through all strata except rock, excluding provision of reinforcement including placing concrete by tremie arrangement, compaction of concrete and withdrawal of steel shell with fully automatic micro processor based PLC with SCADA enabled with reversible drum type mixer/ concrete batch mix plant (pan mixer) etc. complete.with fine aggregates of required specifications ( VSI sand finely washed etc ) i) Add 30% extra for depth 5 to 10 m ii) Add 40% extra for depth 10 to 15 m iii) Add 60% extra for depth 15 to 20 m iv) Add 100% extra for depth above 20 m	BR-21 Page 124, MORTH - 1100 and 1700	Running Metre	7648	893
536	Bridge : Bored Pile	15.58	BR	Providing and laying cast in situ / ready mix M30 RCC for 825 mm diameter bored piles each of load capacity as per design and of specified diameter of as directed, placed through steel shell sunk to the required depth through all strata except rock, excluding provision of reinforcement including placing concrete by tremie arrangement, compaction of concrete and withdrawal of steel shell with fully automatic micro processor based PLC with SCADA enabled with reversible drum type mixer/ concrete batch mix plant (pan mixer) etc. complete.with fine aggregates of required specifications ( VSI sand finely washed etc ) i) Add 30% extra for depth 5 to 10 m ii) Add 40% extra for depth 10 to 15 m iii) Add 60% extra for depth 15 to 20 m iv) Add 100% extra for depth above 20 m	BR-21 Page 124, MORTH - 1100 and 1700	Running Metre	7937	962
537	Bridge : Bored Pile	15.60	BR	Providing and laying cast in situ / ready mix M30 RCC for 900 mm diameter bored piles each of load capacity as per design and of specified diameter of as directed, placed through steel shell sunk to the required depth through all strata except rock, excluding provision of reinforcement including placing concrete by tremie arrangement, compaction of concrete and withdrawal of steel shell with fully automatic micro processor based PLC with SCADA enabled with reversible drum type mixer/ concrete batch mix plant (pan mixer) etc. complete.with fine aggregates of required specifications ( VSI sand finely washed etc ) i) Add 30% extra for depth 5 to 10 m ii) Add 40% extra for depth 10 to 15 m iii) Add 60% extra for depth 15 to 20 m iv) Add 100% extra for depth above 20 m	BR-21 Page 124, MORTH - 1100 and 1700	Running Metre	8626	1114
538	Bridge : Bored Pile	15.62	BR	Providing and laying cast in situ / ready mix M30 RCC for 975 mm diameter bored piles each of load capacity as per design and of specified diameter of as directed, placed through steel shell sunk to the required depth through all strata except rock, excluding provision of reinforcement including placing concrete by tremie arrangement, compaction of concrete and withdrawal of steel shell with fully automatic micro processor based PLC with SCADA enabled with reversible drum type mixer/ concrete batch mix plant (pan mixer) etc. complete.with fine aggregates of required specifications ( VSI sand finely washed etc ) i) Add 30% extra for depth 5 to 10 m ii) Add 40% extra for depth 10 to 15 m iii) Add 60% extra for depth 15 to 20 m iv) Add 100% extra for depth above 20 m	BR-21 Page 124, MORTH - 1100 and 1700	Running Metre	9363	1275

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
539	Bridge : Bored Pile	15.64	BR	Providing and laying cast in situ / ready mix M30 RCC for 1000 mm diameter bored piles each of load capacity as per design and of specified diameter of as directed, placed through steel shell sunk to the required depth through all strata except rock, excluding provision of reinforcement including placing concrete by tremie arrangement, compaction of concrete and withdrawal of steel shell with fully automatic micro processor based PLC with SCADA enabled with reversible drum type mixer/ concrete batch mix plant (pan mixer) etc. complete.with fine aggregates of required specifications ( VSI sand finely washed etc ) i) Add 30% extra for depth 5 to 10 m ii) Add 40% extra for depth 10 to 15 m iii) Add 60% extra for depth 15 to 20 m iv) Add 100% extra for depth above 20 m	BR-21 Page 124, MORTH - 1100 and 1700	Running Metre	11460	1448
540	Bridge : Bored Pile	15.66	BR	Providing and laying cast in situ / ready mix M30 RCC for 1050 mm diameter bored piles each of load capacity as per design and of specified diameter of as directed, placed through steel shell sunk to the required depth through all strata except rock, excluding provision of reinforcement including placing concrete by tremie arrangement, compaction of concrete and withdrawal of steel shell with fully automatic micro processor based PLC with SCADA enabled with reversible drum type mixer/ concrete batch mix plant (pan mixer) etc. complete.with fine aggregates of required specifications ( VSI sand finely washed etc ) i) Add 30% extra for depth 5 to 10 m ii) Add 40% extra for depth 10 to 15 m iii) Add 60% extra for depth 15 to 20 m iv) Add 100% extra for depth above 20 m	BR-21 Page 124, MORTH - 1100 and 1700	Running Metre	12449	1555
541	Bridge : Bored Pile	15.68	BR	Providing and laying cast in situ / ready mix M30 RCC for 1100 mm diameter bored piles each of load capacity as per design and of specified diameter of as directed, placed through steel shell sunk to the required depth through all strata except rock, excluding provision of reinforcement including placing concrete by tremie arrangement, compaction of concrete and withdrawal of steel shell with fully automatic micro processor based PLC with SCADA enabled with reversible drum type mixer/ concrete batch mix plant (pan mixer) etc. complete.with fine aggregates of required specifications ( VSI sand finely washed etc ) i) Add 30% extra for depth 5 to 10 m ii) Add 40% extra for depth 10 to 15 m iii) Add 60% extra for depth 15 to 20 m iv) Add 100% extra for depth above 20 m	BR-21 Page 124, MORTH - 1100 and 1700	Running Metre	13489	1693
542	Bridge : Bored Pile	15.70	BR	Providing and laying cast in situ / ready mix M30 RCC for 1200 mm diameter bored piles each of load capacity as per design and of specified diameter of as directed, placed through steel shell sunk to the required depth through all strata except rock, excluding provision of reinforcement including placing concrete by tremie arrangement, compaction of concrete and withdrawal of steel shell with fully automatic micro processor based PLC with SCADA enabled with reversible drum type mixer/ concrete batch mix plant (pan mixer) etc. complete.with fine aggregates of required specifications ( VSI sand finely washed etc ) i) Add 30% extra for depth 5 to 10 m ii) Add 40% extra for depth 10 to 15 m iii) Add 60% extra for depth 15 to 20 m iv) Add 100% extra for depth above 20 m	BR-21 Page 124, MORTH - 1100 and 1700	Running Metre	15954	2052

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
543	Bridge : Bored Pile	15.72	BR	Providing and laying cast in situ / ready mix M30 RCC for 1500 mm diameter bored piles each of load capacity as per design and of specified diameter of as directed, placed through steel shell sunk to the required depth through all strata except rock, excluding provision of reinforcement including placing concrete by tremie arrangement, compaction of concrete and withdrawal of steel shell with fully automatic micro processor based PLC with SCADA enabled with reversible drum type mixer/ concrete batch mix plant (pan mixer) etc. complete.with fine aggregates of required specifications ( VSI sand finely washed etc ) i) Add 30% extra for depth 5 to 10 m ii) Add 40% extra for depth 10 to 15 m iii) Add 60% extra for depth 15 to 20 m iv) Add 100% extra for depth above 20 m	BR-21 Page 124, MORTH - 1100 and 1700	Running Metre	24936	3192
544	Bridge : Bored Pile	15.110	BR	Providing and laying cast in situ / ready mix M35 RCC for 450 mm diameter bored piles each of load capacity as per design and of specified diameter of as directed, placed through steel shell sunk to the required depth through all strata except rock, excluding provision of reinforcement including placing concrete by tremie arrangement, compaction of concrete and withdrawal of steel shell with fully automatic micro processor based PLC with SCADA enabled with reversible drum type mixer/ concrete batch mix plant (pan mixer) etc. complete.with fine aggregates of required specifications ( VSI sand finely washed etc ) i) Add 30% extra for depth 5 to 10 m ii) Add 40% extra for depth 10 to 15 m iii) Add 60% extra for depth 15 to 20 m iv) Add 100% extra for depth above 20 m	BR-21 Page 124, MORTH - 1100 and 1700	Running Metre	2814	376
545	Bridge : Bored Pile	15.111	BR	Providing and laying cast in situ / ready mix M35 RCC for 475 mm diameter bored piles each of load capacity as per design and of specified diameter of as directed, placed through steel shell sunk to the required depth through all strata except rock, excluding provision of reinforcement including placing concrete by tremie arrangement, compaction of concrete and withdrawal of steel shell with fully automatic micro processor based PLC with SCADA enabled with reversible drum type mixer/ concrete batch mix plant (pan mixer) etc. complete.with fine aggregates of required specifications (VSI sand finely washed etc ) i) Add 30% extra for depth 5 to 10 m ii) Add 40% extra for depth 10 to 15 m iii) Add 60% extra for depth 15 to 20 m iv) Add 100% extra for depth above 20 m	BR-21 Page 124, MORTH - 1100 and 1700	Running Metre	2959	419
546	Bridge : Bored Pile	15.112	BR	Providing and laying cast in situ / ready mix M35 RCC for 500 mm diameter bored piles each of load capacity as per design and of specified diameter of as directed, placed through steel shell sunk to the required depth through all strata except rock, excluding provision of reinforcement including placing concrete by tremie arrangement, compaction of concrete and withdrawal of steel shell with fully automatic micro processor based PLC with SCADA enabled with reversible drum type mixer/ concrete batch mix plant (pan mixer) etc. complete.with fine aggregates of required specifications ( VSI sand finely washed etc ) i) Add 30% extra for depth 5 to 10 m ii) Add 40% extra for depth 10 to 15 m iii) Add 60% extra for depth 15 to 20 m iv) Add 100% extra for depth above 20 m	BR-21 Page 124, MORTH - 1100 and 1700	Running Metre	3084	434

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
547	Bridge : Bored Pile	15.113	BR	Providing and laying cast in situ / ready mix M35 RCC for 525 mm diameter bored piles each of load capacity as per design and of specified diameter of as directed, placed through steel shell sunk to the required depth through all strata except rock, excluding provision of reinforcement including placing concrete by tremie arrangement, compaction of concrete and withdrawal of steel shell with fully automatic micro processor based PLC with SCADA enabled with reversible drum type mixer/ concrete batch mix plant (pan mixer) etc. complete.with fine aggregates of required specifications (VSI sand finely washed etc ) i) Add 30% extra for depth 5 to 10 m ii) Add 40% extra for depth 10 to 15 m iii) Add 60% extra for depth 15 to 20 m iv) Add 100% extra for depth above 20 m	BR-21 Page 124, MORTH - 1100 and 1700	Running Metre	3215	451
548	Bridge : Bored Pile	15.114	BR	Providing and laying cast in situ / ready mix M35 RCC for 550 mm diameter bored piles each of load capacity as per design and of specified diameter of as directed, placed through steel shell sunk to the required depth through all strata except rock, excluding provision of reinforcement including placing concrete by tremie arrangement, compaction of concrete and withdrawal of steel shell with fully automatic micro processor based PLC with SCADA enabled with reversible drum type mixer/ concrete batch mix plant (pan mixer) etc. complete.with fine aggregates of required specifications ( VSI sand finely washed etc ) i) Add 30% extra for depth 5 to 10 m ii) Add 40% extra for depth 10 to 15 m iii) Add 60% extra for depth 15 to 20 m iv) Add 100% extra for depth above 20 m	BR-21 Page 124, MORTH - 1100 and 1700	Running Metre	3359	468
549	Bridge : Bored Pile	15.115	BR	Providing and laying cast in situ / ready mix M35 RCC for 600 mm diameter bored piles each of load capacity as per design and of specified diameter of as directed, placed through steel shell sunk to the required depth through all strata except rock, excluding provision of reinforcement including placing concrete by tremie arrangement, compaction of concrete and withdrawal of steel shell with fully automatic micro processor based PLC with SCADA enabled with reversible drum type mixer/ concrete batch mix plant (pan mixer) etc. complete.with fine aggregates of required specifications ( VSI sand finely washed etc ) i) Add 30% extra for depth 5 to 10 m ii) Add 40% extra for depth 10 to 15 m iii) Add 60% extra for depth 15 to 20 m iv) Add 100% extra for depth above 20 m	BR-21 Page 124, MORTH - 1100 and 1700	Running Metre	4857	526

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
550	Bridge : Bored Pile	15.116	BR	Providing and laying cast in situ / ready mix M35 RCC for 625 mm diameter bored piles each of load capacity as per design and of specified diameter of as directed, placed through steel shell sunk to the required depth through all strata except rock, excluding provision of reinforcement including placing concrete by tremie arrangement, compaction of concrete and withdrawal of steel shell with fully automatic micro processor based PLC with SCADA enabled with reversible drum type mixer/ concrete batch mix plant (pan mixer) etc. complete.with fine aggregates of required specifications ( VSI sand finely washed etc ) i) Add 30% extra for depth 5 to 10 m ii) Add 40% extra for depth 10 to 15 m iii) Add 60% extra for depth 15 to 20 m iv) Add 100% extra for depth above 20 m	BR-21 Page 124, MORTH - 1100 and 1700	Running Metre	5015	545
551	Bridge : Bored Pile	15.117	BR	Providing and laying cast in situ / ready mix M35 RCC for 650 mm diameter bored piles each of load capacity as per design and of specified diameter of as directed, placed through steel shell sunk to the required depth through all strata except rock, excluding provision of reinforcement including placing concrete by tremie arrangement, compaction of concrete and withdrawal of steel shell with fully automatic micro processor based PLC with SCADA enabled with reversible drum type mixer/ concrete batch mix plant (pan mixer) etc. complete.with fine aggregates of required specifications (VSI sand finely washed etc )oncrete batch mix plant / pan mixer etc. complete. i) Add 30% extra for depth 5 to 10 m ii) Add 40% extra for depth 10 to 15 m iii) Add 60% extra for depth 15 to 20 m iv) Add 100% extra for depth above 20 m	BR-21 Page 124, MORTH - 1100 and 1700	Running Metre	5179	566
552	Bridge : Bored Pile	15.118	BR	Providing and laying cast in situ / ready mix M35 RCC for 750 mm diameter bored piles each of load capacity as per design and of specified diameter of as directed, placed through steel shell sunk to the required depth through all strata except rock, excluding provision of reinforcement including placing concrete by tremie arrangement, compaction of concrete and withdrawal of steel shell with fully automatic micro processor based PLC with SCADA enabled with reversible drum type mixer/ concrete batch mix plant (pan mixer) etc. complete.with fine aggregates of required specifications ( VSI sand finely washed etc ) i) Add 30% extra for depth 5 to 10 m ii) Add 40% extra for depth 10 to 15 m iii) Add 60% extra for depth 15 to 20 m iv) Add 100% extra for depth above 20 m	BR-21 Page 124, MORTH - 1100 and 1700	Running Metre	7520	814

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
553	Bridge : Bored Pile	15.119	BR	Providing and laying cast in situ / ready mix M35 RCC for 800 mm diameter bored piles each of load capacity as per design and of specified diameter of as directed, placed through steel shell sunk to the required depth through all strata except rock, excluding provision of reinforcement including placing concrete by tremie arrangement, compaction of concrete and withdrawal of steel shell with fully automatic micro processor based PLC with SCADA enabled with reversible drum type mixer/ concrete batch mix plant (pan mixer) etc. complete.with fine aggregates of required specifications ( VSI sand finely washed etc ) i) Add 30% extra for depth 5 to 10 m ii) Add 40% extra for depth 10 to 15 m iii) Add 60% extra for depth 15 to 20 m iv) Add 100% extra for depth above 20 m	BR-21 Page 124, MORTH - 1100 and 1700	Running Metre	7950	893
554	Bridge : Bored Pile	15.120	BR	Providing and laying cast in situ / ready mix M35 RCC for 825 mm diameter bored piles each of load capacity as per design and of specified diameter of as directed, placed through steel shell sunk to the required depth through all strata except rock, excluding provision of reinforcement including placing concrete by tremie arrangement, compaction of concrete and withdrawal of steel shell with fully automatic micro processor based PLC with SCADA enabled with reversible drum type mixer/ concrete batch mix plant (pan mixer) etc. complete.with fine aggregates of required specifications ( VSI sand finely washed etc ) i) Add 30% extra for depth 5 to 10 m ii) Add 40% extra for depth 10 to 15 m iii) Add 60% extra for depth 15 to 20 m iv) Add 100% extra for depth above 20 m	BR-21 Page 124, MORTH - 1100 and 1700	Running Metre	8202	961
555	Bridge : Bored Pile	15.121	BR	Providing and laying cast in situ / ready mix M35 RCC for 900 mm diameter bored piles each of load capacity as per design and of specified diameter of as directed, placed through steel shell sunk to the required depth through all strata except rock, excluding provision of reinforcement including placing concrete by tremie arrangement, compaction of concrete and withdrawal of steel shell with fully automatic micro processor based PLC with SCADA enabled with reversible drum type mixer/ concrete batch mix plant (pan mixer) etc. complete.with fine aggregates of required specifications ( VSI sand finely washed etc ) i) Add 30% extra for depth 5 to 10 m ii) Add 40% extra for depth 10 to 15 m iii) Add 60% extra for depth 15 to 20 m iv) Add 100% extra for depth above 20 m	BR-21 Page 124, MORTH - 1100 and 1700	Running Metre	8941	1115
556	Bridge : Bored Pile	15.122	BR	Providing and laying cast in situ / ready mix M35 RCC for 975 mm diameter bored piles each of load capacity as per design and of specified diameter of as directed, placed through steel shell sunk to the required depth through all strata except rock, excluding provision of reinforcement including placing concrete by tremie arrangement, compaction of concrete and withdrawal of steel shell with fully automatic micro processor based PLC with SCADA enabled with reversible drum type mixer/ concrete batch mix plant (pan mixer) etc. complete.with fine aggregates of required specifications ( VSI sand finely washed etc ) i) Add 30% extra for depth 5 to 10 m ii) Add 40% extra for depth 10 to 15 m iii) Add 60% extra for depth 15 to 20 m iv) Add 100% extra for depth above 20 m	BR-21 Page 124, MORTH - 1100 and 1700	Running Metre	9734	1276

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
557	Bridge : Bored Pile	15.123	BR	Providing and laying cast in situ / ready mix M35 RCC for 1000 mm diameter bored piles each of load capacity as per design and of specified diameter of as directed, placed through steel shell sunk to the required depth through all strata except rock, excluding provision of reinforcement including placing concrete by tremie arrangement, compaction of concrete and withdrawal of steel shell with fully automatic micro processor based PLC with SCADA enabled with reversible drum type mixer/ concrete batch mix plant (pan mixer) etc. complete.with fine aggregates of required specifications ( VSI sand finely washed etc ) i) Add 30% extra for depth 5 to 10 m ii) Add 40% extra for depth 10 to 15 m iii) Add 60% extra for depth 15 to 20 m iv) Add 100% extra for depth above 20 m	BR-21 Page 124, MORTH - 1100 and 1700	Running Metre	11855	1458
558	Bridge : Bored Pile	15.124	BR	Providing and laying cast in situ / ready mix M35 RCC for 1050 mm diameter bored piles each of load capacity as per design and of specified diameter of as directed, placed through steel shell sunk to the required depth through all strata except rock, excluding provision of reinforcement including placing concrete by tremie arrangement, compaction of concrete and withdrawal of steel shell with fully automatic micro processor based PLC with SCADA enabled with reversible drum type mixer/ concrete batch mix plant (pan mixer) etc. complete.with fine aggregates of required specifications ( VSI sand finely washed etc ) i) Add 30% extra for depth 5 to 10 m ii) Add 40% extra for depth 10 to 15 m iii) Add 60% extra for depth 15 to 20 m iv) Add 100% extra for depth above 20 m	BR-21 Page 124, MORTH - 1100 and 1700	Running Metre	13341	1566
559	Bridge : Bored Pile	15.125	BR	Providing and laying cast in situ / ready mix M35 RCC for 1100 mm diameter bored piles each of load capacity as per design and of specified diameter of as directed, placed through steel shell sunk to the required depth through all strata except rock, excluding provision of reinforcement including placing concrete by tremie arrangement, compaction of concrete and withdrawal of steel shell with fully automatic micro processor based PLC with SCADA enabled with reversible drum type mixer/ concrete batch mix plant (pan mixer) etc. complete.with fine aggregates of required specifications ( VSI sand finely washed etc ) i) Add 30% extra for depth 5 to 10 m ii) Add 40% extra for depth 10 to 15 m iii) Add 60% extra for depth 15 to 20 m iv) Add 100% extra for depth above 20 m	BR-21 Page 124, MORTH - 1100 and 1700	Running Metre	13967	1706
560	Bridge : Bored Pile	15.126	BR	Providing and laying cast in situ / ready mix M35 RCC for 1200 mm diameter bored piles each of load capacity as per design and of specified diameter of as directed, placed through steel shell sunk to the required depth through all strata except rock, excluding provision of reinforcement including placing concrete by tremie arrangement, compaction of concrete and withdrawal of steel shell with fully automatic micro processor based PLC with SCADA enabled with reversible drum type mixer/ concrete batch mix plant (pan mixer) etc. complete.with fine aggregates of required specifications ( VSI sand finely washed etc ) i) Add 30% extra for depth 5 to 10 m ii) Add 40% extra for depth 10 to 15 m iii) Add 60% extra for depth 15 to 20 m iv) Add 100% extra for depth above 20 m	BR-21 Page 124, MORTH - 1100 and 1700	Running Metre	16522	2068

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
561	Bridge : Bored Pile	15.127	BR	Providing and laying cast in situ / ready mix M35 RCC for 1500 mm diameter bored piles each of load capacity as per design and of specified diameter of as directed, placed through steel shell sunk to the required depth through all strata except rock, excluding provision of reinforcement including placing concrete by tremie arrangement, compaction of concrete and withdrawal of steel shell with fully automatic micro processor based PLC with SCADA enabled with reversible drum type mixer/ concrete batch mix plant (pan mixer) etc. complete.with fine aggregates of required specifications ( VSI sand finely washed etc ) i) Add 30% extra for depth 5 to 10 m ii) Add 40% extra for depth 10 to 15 m iii) Add 60% extra for depth 15 to 20 m iv) Add 100% extra for depth above 20 m	BR-21 Page 124, MORTH - 1100 and 1700	Running Metre	25820	3217
562	Bridge : Bored Pile	15.128	BR	Providing, placing and driving in position 6mm thick permanent MS liner up to required depth with 12 mm thick MS cutting edge of 0.50 meter length of bottom including fabricating, cutting the MS sheet to required diameter and shape, welding the joints and driving with the help of required machineries, all materials, labour and lift etc. complete.	MORTH 4th Revision No.1204 and 1904	Metric Tonne	91824	16487
563	Bridge : Bored Pile New Item	15.129	BR	Providing and laying cast in situ / ready mix M40 RCC for 450 mm diameter bored piles each of load capacity as per design and of specified diameter of as directed, placed through steel shell sunk to the required depth through all strata except rock, excluding provision of reinforcement including placing concrete by tremie arrangement, compaction of concrete and withdrawal of steel shell with fully automatic micro processor based PLC with SCADA enabled with reversible drum type mixer/ concrete batch mix plant (pan mixer) etc. complete.with VSI quality artifical sand (depth 0 to 5 metre) i) Add 30% extra for depth 5 to 10 m ii) Add 40% extra for depth 10 to 15 m iii) Add 60% extra for depth 15 to 20 m iv) Add 100% extra for depth above 20 m	BR-21 Page 124, MORTH - 1100 and 1700	Running Metre	2836	376
564	Bridge : Bored Pile New Item	15.130	BR	Providing and laying cast in situ / ready mix M40 RCC for 475 mm diameter bored piles each of load capacity as per design and of specified diameter of as directed, placed through steel shell sunk to the required depth through all strata except rock, excluding provision of reinforcement including placing concrete by tremie arrangement, compaction of concrete and withdrawal of steel shell with fully automatic micro processor based PLC with SCADA enabled with reversible drum type mixer/ concrete batch mix plant (pan mixer) etc. complete.with VSI quality artifical sand (depth 0 to 5 metre) i) Add 30% extra for depth 5 to 10 m ii) Add 40% extra for depth 10 to 15 m iii) Add 60% extra for depth 15 to 20 m iv) Add 100% extra for depth above 20 m	BR-21 Page 124, MORTH - 1100 and 1700	Running Metre	2984	419



Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
565	Bridge : Bored Pile New Item	15.131	BR	Providing and laying cast in situ / ready mix M40 RCC for 500 mm diameter bored piles each of load capacity as per design and of specified diameter of as directed, placed through steel shell sunk to the required depth through all strata except rock, excluding provision of reinforcement including placing concrete by tremie arrangement, compaction of concrete and withdrawal of steel shell with fully automatic micro processor based PLC with SCADA enabled with reversible drum type mixer/ concrete batch mix plant (pan mixer) etc. complete.with VSI quality artifical sand (depth 0 to 5 metre) i) Add 30% extra for depth 5 to 10 m ii) Add 40% extra for depth 10 to 15 m iii) Add 60% extra for depth 15 to 20 m iv) Add 100% extra for depth above 20 m	BR-21 Page 124, MORTH - 1100 and 1700	Running Metre	3097	434
566	Bridge : Bored Pile New Item	15.132	BR	Providing and laying cast in situ / ready mix M40 RCC for 525 mm diameter bored piles each of load capacity as per design and of specified diameter of as directed, placed through steel shell sunk to the required depth through all strata except rock, excluding provision of reinforcement including placing concrete by tremie arrangement, compaction of concrete and withdrawal of steel shell with fully automatic micro processor based PLC with SCADA enabled with reversible drum type mixer/ concrete batch mix plant (pan mixer) etc. complete.with VSI quality artifical sand (depth 0 to 5 metre) i) Add 30% extra for depth 5 to 10 m ii) Add 40% extra for depth 10 to 15 m iii) Add 60% extra for depth 15 to 20 m iv) Add 100% extra for depth above 20 m	BR-21 Page 124, MORTH - 1100 and 1700	Running Metre	3245	451
567	Bridge : Bored Pile New Item	15.133	BR	Providing and laying cast in situ / ready mix M40 RCC for 550 mm diameter bored piles each of load capacity as per design and of specified diameter of as directed, placed through steel shell sunk to the required depth through all strata except rock, excluding provision of reinforcement including placing concrete by tremie arrangement, compaction of concrete and withdrawal of steel shell with fully automatic micro processor based PLC with SCADA enabled with reversible drum type mixer/ concrete batch mix plant (pan mixer) etc. complete.with VSI quality artifical sand (depth 0 to 5 metre) i) Add 30% extra for depth 5 to 10 m ii) Add 40% extra for depth 10 to 15 m iii) Add 60% extra for depth 15 to 20 m iv) Add 100% extra for depth above 20 m	BR-21 Page 124, MORTH - 1100 and 1700	Running Metre	3392	468
568	Bridge : Bored Pile New Item	15.134	BR	Providing and laying cast in situ / ready mix M40 RCC for 600 mm diameter bored piles each of load capacity as per design and of specified diameter of as directed, placed through steel shell sunk to the required depth through all strata except rock, excluding provision of reinforcement including placing concrete by tremie arrangement, compaction of concrete and withdrawal of steel shell with fully automatic micro processor based PLC with SCADA enabled with reversible drum type mixer/ concrete batch mix plant (pan mixer) etc. complete.with VSI quality artifical sand (depth 0 to 5 metre) i) Add 30% extra for depth 5 to 10 m ii) Add 40% extra for depth 10 to 15 m iii) Add 60% extra for depth 15 to 20 m iv) Add 100% extra for depth above 20 m	BR-21 Page 124, MORTH - 1100 and 1700	Running Metre	4897	526

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
569	Bridge : Bored Pile New Item	15.135	BR	Providing and laying cast in situ / ready mix M40 RCC for 625 mm diameter bored piles each of load capacity as per design and of specified diameter of as directed, placed through steel shell sunk to the required depth through all strata except rock, excluding provision of reinforcement including placing concrete by tremie arrangement, compaction of concrete and withdrawal of steel shell with fully automatic micro processor based PLC with SCADA enabled with reversible drum type mixer/ concrete batch mix plant (pan mixer) etc. complete.with VSI quality artifical sand (depth 0 to 5 metre) i) Add 30% extra for depth 5 to 10 m ii) Add 40% extra for depth 10 to 15 m iii) Add 60% extra for depth 15 to 20 m iv) Add 100% extra for depth above 20 m	BR-21 Page 124, MORTH - 1100 and 1700	Running Metre	5058	545
570	Bridge : Bored Pile New Item	15.136	BR	Providing and laying cast in situ / ready mix M40 RCC for 650 mm diameter bored piles each of load capacity as per design and of specified diameter of as directed, placed through steel shell sunk to the required depth through all strata except rock, excluding provision of reinforcement including placing concrete by tremie arrangement, compaction of concrete and withdrawal of steel shell with fully automatic micro processor based PLC with SCADA enabled with reversible drum type mixer/ concrete batch mix plant (pan mixer) etc. complete.with VSI quality artifical sandoncrete batch mix plant / pan mixer etc. complete. (depth 0 to 5 metre) i) Add 30% extra for depth 5 to 10 m ii) Add 40% extra for depth 10 to 15 m iii) Add 60% extra for depth 15 to 20 m iv) Add 100% extra for depth above 20 m	BR-21 Page 124, MORTH - 1100 and 1700	Running Metre	5226	566
571	Bridge : Bored Pile New Item	15.137	BR	Providing and laying cast in situ / ready mix M40 RCC for 750 mm diameter bored piles each of load capacity as per design and of specified diameter of as directed, placed through steel shell sunk to the required depth through all strata except rock, excluding provision of reinforcement including placing concrete by tremie arrangement, compaction of concrete and withdrawal of steel shell with fully automatic micro processor based PLC with SCADA enabled with reversible drum type mixer/ concrete batch mix plant (pan mixer) etc. complete.with VSI quality artifical sand (depth 0 to 5 metre) i) Add 30% extra for depth 5 to 10 m ii) Add 40% extra for depth 10 to 15 m iii) Add 60% extra for depth 15 to 20 m iv) Add 100% extra for depth above 20 m	BR-21 Page 124, MORTH - 1100 and 1700	Running Metre	7581	814
572	Bridge : Bored Pile New Item	15.138	BR	Providing and laying cast in situ / ready mix M40 RCC for 800 mm diameter bored piles each of load capacity as per design and of specified diameter of as directed, placed through steel shell sunk to the required depth through all strata except rock, excluding provision of reinforcement including placing concrete by tremie arrangement, compaction of concrete and withdrawal of steel shell with fully automatic micro processor based PLC with SCADA enabled with reversible drum type mixer/ concrete batch mix plant (pan mixer) etc. complete.with VSI quality artifical sand (depth 0 to 5 metre) i) Add 30% extra for depth 5 to 10 m ii) Add 40% extra for depth 10 to 15 m iii) Add 60% extra for depth 15 to 20 m iv) Add 100% extra for depth above 20 m	BR-21 Page 124, MORTH - 1100 and 1700	Running Metre	8020	892

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
573	Bridge : Bored Pile New Item	15.139	BR	Providing and laying cast in situ / ready mix M40 RCC for 825 mm diameter bored piles each of load capacity as per design and of specified diameter of as directed, placed through steel shell sunk to the required depth through all strata except rock, excluding provision of reinforcement including placing concrete by tremie arrangement, compaction of concrete and withdrawal of steel shell with fully automatic micro processor based PLC with SCADA enabled with reversible drum type mixer/ concrete batch mix plant (pan mixer) etc. complete.with VSI quality artifical sand (depth 0 to 5 metre) i) Add 30% extra for depth 5 to 10 m ii) Add 40% extra for depth 10 to 15 m iii) Add 60% extra for depth 15 to 20 m iv) Add 100% extra for depth above 20 m	BR-21 Page 124, MORTH - 1100 and 1700	Running Metre	8277	961
574	Bridge : Bored Pile New Item	15.140	BR	Providing and laying cast in situ / ready mix M40 RCC for 900 mm diameter bored piles each of load capacity as per design and of specified diameter of as directed, placed through steel shell sunk to the required depth through all strata except rock, excluding provision of reinforcement including placing concrete by tremie arrangement, compaction of concrete and withdrawal of steel shell with fully automatic micro processor based PLC with SCADA enabled with reversible drum type mixer/ concrete batch mix plant (pan mixer) etc. complete.with VSI quality artifical sand (depth 0 to 5 metre) i) Add 30% extra for depth 5 to 10 m ii) Add 40% extra for depth 10 to 15 m iii) Add 60% extra for depth 15 to 20 m iv) Add 100% extra for depth above 20 m	BR-21 Page 124, MORTH - 1100 and 1700	Running Metre	9030	1115
575	Bridge : Bored Pile New Item	15.141	BR	Providing and laying cast in situ / ready mix M40 RCC for 975 mm diameter bored piles each of load capacity as per design and of specified diameter of as directed, placed through steel shell sunk to the required depth through all strata except rock, excluding provision of reinforcement including placing concrete by tremie arrangement, compaction of concrete and withdrawal of steel shell with fully automatic micro processor based PLC with SCADA enabled with reversible drum type mixer/ concrete batch mix plant (pan mixer) etc. complete.with VSI quality artifical sand (depth 0 to 5 metre) i) Add 30% extra for depth 5 to 10 m ii) Add 40% extra for depth 10 to 15 m iii) Add 60% extra for depth 15 to 20 m iv) Add 100% extra for depth above 20 m	BR-21 Page 124, MORTH - 1100 and 1700	Running Metre	9841	1275
576	Bridge : Bored Pile New Item	15.142	BR	Providing and laying cast in situ / ready mix M40 RCC for 1000 mm diameter bored piles each of load capacity as per design and of specified diameter of as directed, placed through steel shell sunk to the required depth through all strata except rock, excluding provision of reinforcement including placing concrete by tremie arrangement, compaction of concrete and withdrawal of steel shell with fully automatic micro processor based PLC with SCADA enabled with reversible drum type mixer/ concrete batch mix plant (pan mixer) etc. complete.with VSI quality artifical sand (depth 0 to 5 metre) i) Add 30% extra for depth 5 to 10 m ii) Add 40% extra for depth 10 to 15 m iii) Add 60% extra for depth 15 to 20 m iv) Add 100% extra for depth above 20 m	BR-21 Page 124, MORTH - 1100 and 1700	Running Metre	11961	1454

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
577	Bridge : Bored Pile New Item	15.143	BR	Providing and laying cast in situ / ready mix M40 RCC for 1050 mm diameter bored piles each of load capacity as per design and of specified diameter of as directed, placed through steel shell sunk to the required depth through all strata except rock, excluding provision of reinforcement including placing concrete by tremie arrangement, compaction of concrete and withdrawal of steel shell with fully automatic micro processor based PLC with SCADA enabled with reversible drum type mixer/ concrete batch mix plant (pan mixer) etc. complete.with VSI quality artifical sand (depth 0 to 5 metre) i) Add 30% extra for depth 5 to 10 m ii) Add 40% extra for depth 10 to 15 m iii) Add 60% extra for depth 15 to 20 m iv) Add 100% extra for depth above 20 m	BR-21 Page 124, MORTH - 1100 and 1700	Running Metre	13458	1562
578	Bridge : Bored Pile New Item	15.144	BR	Providing and laying cast in situ / ready mix M40 RCC for 1100 mm diameter bored piles each of load capacity as per design and of specified diameter of as directed, placed through steel shell sunk to the required depth through all strata except rock, excluding provision of reinforcement including placing concrete by tremie arrangement, compaction of concrete and withdrawal of steel shell with fully automatic micro processor based PLC with SCADA enabled with reversible drum type mixer/ concrete batch mix plant (pan mixer) etc. complete.with VSI quality artifical sand (depth 0 to 5 metre) i) Add 30% extra for depth 5 to 10 m ii) Add 40% extra for depth 10 to 15 m iii) Add 60% extra for depth 15 to 20 m iv) Add 100% extra for depth above 20 m	BR-21 Page 124, MORTH - 1100 and 1700	Running Metre	14096	1701
579	Bridge : Bored Pile New Item	15.145	BR	Providing and laying cast in situ / ready mix M40 RCC for 1200 mm diameter bored piles each of load capacity as per design and of specified diameter of as directed, placed through steel shell sunk to the required depth through all strata except rock, excluding provision of reinforcement including placing concrete by tremie arrangement, compaction of concrete and withdrawal of steel shell with fully automatic micro processor based PLC with SCADA enabled with reversible drum type mixer/ concrete batch mix plant (pan mixer) etc. complete.with VSI quality artifical sand (depth 0 to 5 metre) i) Add 30% extra for depth 5 to 10 m ii) Add 40% extra for depth 10 to 15 m iii) Add 60% extra for depth 15 to 20 m iv) Add 100% extra for depth above 20 m	BR-21 Page 124, MORTH - 1100 and 1700	Running Metre	16709	2062
580	Bridge : Bored Pile New Item	15.146	BR	Providing and laying cast in situ / ready mix M40 RCC for 1500 mm diameter bored piles each of load capacity as per design and of specified diameter of as directed, placed through steel shell sunk to the required depth through all strata except rock, excluding provision of reinforcement including placing concrete by tremie arrangement, compaction of concrete and withdrawal of steel shell with fully automatic micro processor based PLC with SCADA enabled with reversible drum type mixer/ concrete batch mix plant (pan mixer) etc. complete.with VSI quality artifical sand (depth 0 to 5 metre) i) Add 30% extra for depth 5 to 10 m ii) Add 40% extra for depth 10 to 15 m iii) Add 60% extra for depth 15 to 20 m iv) Add 100% extra for depth above 20 m	BR-21 Page 124, MORTH - 1100 and 1700	Running Metre	26098	3192

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
<b>SSR 2021-2022 :- Bridge Maintenance</b>								
581	Bridge Maintenance	16.01	BR	Providing and injecting epoxy grout including structuring of crack in the body of slab girder by sand blasting, fixing inlet tube arrangement including cost of materials, machinery required for the work and labour charges etc. complete.	As directed by Engineer in charge.	Kilogram	1365	167
582	Bridge Maintenance	16.02	BR	Repairing of honey combed or spilling area by chipping out the damaged spalled or honey combed portion of concrete up to rusted rebars, cleaning of all rust, scale and loose materials, scaffolding, compressed air machinery etc. complete. (item includes use of air compressor, chipping machine and scaffolding for height 8 to 10 meter)	As directed by Engineer in charge.	Square Metre	770	60
583	Bridge Maintenance	16.03	BR	Providing and applying well mixed polymer cement slurry in ratio 1:2 over well soaked but surface dry concrete and steel rebar for adhesion of fresh cement and sand mortar as per specification as directed etc. complete. (item includes use of polymers like sikalatex or similar materials of relevant specification and scaffolding for height 8 to 10 meter)	As directed by Engineer in charge.	Square Metre	818	60
584	Bridge Maintenance	16.04	BR	Repairs of expansion joints by removing rich mix cement concrete including stacking the spoil as directed with all leads, lifts etc. complete. (use of equipments like air compressor is considered in the item)	As directed by Engineer in charge.	Square Metre	3519	1088
585	Bridge Maintenance	16.07	BR	Providing and laying in situ / ready mix M35 grade RCC jacketing work around the existing piers of bridges etc. complete. (with fully automatic micro processor based PLC with SCADA enabled concrete batch mix plant / pan mixer with fine aggregates of required specifications ( VSI sand finely washed etc ), height of 8 to 10 meter)	As directed by Engineer in charge.	Cubic Metre	7536	1508
586	Bridge Maintenance	16.09	BR	Providing and injecting epoxy grout including structuring of cracks in the body of slab girder, fixing inlet tube arrangement including cost of materials, machinery required for the work labour charges etc. (2kg of grout is considered per hole)	As directed by Engineer in charge.	Number	2718	334

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
<b>SSR 2021-2022 :- Bridge : Bored Pile</b>								
587	Bridge : Bored Pile	17.01	BR	Extra for Chiselling in hard rocks including removing and stacking the loose material and disposing the unserviceable materials as directed etc. complete. 550 mm dia	MORT&H (5th Rev.) 1111	Running Meter	987	987
588	Bridge : Bored Pile	17.02	BR	Extra for Chiselling in hard rocks including removing and stacking the loose material and disposing the unserviceable materials as directed etc. complete. 650 mm dia	MORT&H (5th Rev.) 1111	Running Meter	1314	1314
589	Bridge : Bored Pile	17.03	BR	Extra for Chiselling in hard rocks including removing and stacking the loose material and disposing the unserviceable materials as directed etc. complete. 900mm dia	MORT&H (5th Rev.) 1111	Running Meter	1647	1647
590	Bridge : Bored Pile	17.04	BR	Extra for Chiselling in hard rocks including removing and stacking the loose material and disposing the unserviceable materials as directed etc. complete. 1000 mm dia	MORT&H (5th Rev.) 1111	Running Meter	2597	2597
591	Bridge : Well Foundation	17.05	BR	Providing and Constructing Temporary Island 16 m diameter for Construction of Well Foundation for 8m dia. Well. Note:- For other well diameters rate can be worked out on the basis of cross-sectional area of well. The diameter of the island shall be in the conformity with clause 1203.2 of MoRTH a) For depth of water 1.0 m and height of island to be 1.25 m. (Well Diameter - 8m), (Island Diameter-16m)	MORT&H (5th Rev.) 1204	Number	74220	10465
592	Bridge : Well Foundation	17.06	BR	Providing and Constructing Temporary Island 16 m diameter for Construction of Well Foundation for 8m dia. Well. Note:- For other well diameters rate can be worked out on the basis of cross-sectional area of well. The diameter of the island shall be in the conformity with clause 1203.2 of MoRTH b) For depth of water 4.0 m and height of island to be 4.50 m. (Well Diameter - 8m), (Island Diameter-16m)	MORT&H (5th Rev.) 1204	Number	370691	82443
593	Bridge : Well Foundation	17.07	BR	Sinking of 5 m Dia. well for foundation in hard strata (Hard Rock)/Boulder etc. which can be removed by grabbing and chiselling soft disintegrated rock which requires special efforts, including blasting, large scale dewatering, heavy chiselling, cutting by pneumatic tools and all materials available to sink through such strata including removal of obstacles and use of necessary plant and machinery, driver etc and proper setting of wells including all methods except pneumatic sinking (depth 0 to 5 Metres). Note : Add 1)30% Extra for 5 to 10 M depth 2)40% Extra for 10 to 15 M depth 3) 60% Extra for depth 15 M to 20 M 4) 100% Extra for depth above 20 M.	MORT&H (5th Rev.) 1208	Running Meter	58929	11328

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
594	Bridge : Well Foundation	17.08	BR	Sinking of 6 m Dia. well for foundation in hard strata (Hard Rock)/Boulder etc. which can be removed by grabbing and chiselling soft disintegrated rock which requires special efforts, including blasting, large scale dewatering, heavy chiselling, cutting by pneumatic tools and all materials available to sink through such strata including removal of obstacles and use of necessary plant and machinery, driver etc and proper setting of wells including all methods except pneumatic sinking (depth 0 to 5 Metres). Note : Add 1)30% Extra for 5 to 10 M depth 2)40% Extra for 10 to 15 M depth 3) 60% Extra for depth 15 M to 20 M 4) 100% Extra for depth above 20 M.	MORT&H (5th Rev.) 1208	Running Meter	89788	14346
595	Bridge : Well Foundation	17.09	BR	Sinking of 7 m Dia. well for foundation in hard strata (Hard Rock)/Boulder etc. which can be removed by grabbing and chiselling soft disintegrated rock which requires special efforts, including blasting, large scale dewatering, heavy chiselling, cutting by pneumatic tools and all materials available to sink through such strata including removal of obstacles and use of necessary plant and machinery, driver etc and proper setting of wells including all methods except pneumatic sinking (depth 0 to 5 Metres). Note : Add 1)30% Extra for 5 to 10 M depth 2)40% Extra for 10 to 15 M depth 3) 60% Extra for depth 15 M to 20 M 4) 100% Extra for depth above 20 M.	MORT&H (5th Rev.) 1208	Running Meter	106655	18110
596	Bridge : Well Foundation	17.10	BR	Sinking of 8 m Dia. well for foundation in hard strata (Hard Rock)/Boulder etc. which can be removed by grabbing and chiselling soft disintegrated rock which requires special efforts, including blasting, large scale dewatering, heavy chiselling, cutting by pneumatic tools and all materials available to sink through such strata including removal of obstacles and use of necessary plant and machinery, driver etc and proper setting of wells including all methods except pneumatic sinking (depth 0 to 5 Metres). Note : Add 1)30% Extra for 5 to 10 M depth 2)40% Extra for 10 to 15 M depth 3) 60% Extra for depth 15 M to 20 M 4) 100% Extra for depth above 20 M.	MORT&H (5th Rev.) 1208	Running Meter	148973	23364
597	Bridge : Well Foundation	17.11	BR	Sinking of 9 m Dia. well for foundation in hard strata (Hard Rock)/Boulder etc. which can be removed by grabbing and chiselling soft disintegrated rock which requires special efforts, including blasting, large scale dewatering, heavy chiselling, cutting by pneumatic tools and all materials available to sink through such strata including removal of obstacles and use of necessary plant and machinery, driver etc and proper setting of wells including all methods except pneumatic sinking (depth 0 to 5 Metres). Note : Add 1)30% Extra for 5 to 10 M depth 2)40% Extra for 10 to 15 M depth 3) 60% Extra for depth 15 M to 20 M 4) 100% Extra for depth above 20 M.	MORT&H (5th Rev.) 1208	Running Meter	160639	24892

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
598	Bridge : Well Foundation	17.12	BR	Sinking of 10 m Dia. well for foundation in hard strata (Hard Rock)/Boulder etc. which can be removed by grabbing and chiselling soft disintegrated rock which requires special efforts, including blasting, large scale dewatering, heavy chiselling, cutting by pneumatic tools and all materials available to sink through such strata including removal of obstacles and use of necessary plant and machinery, driver etc and proper setting of wells including all methods except pneumatic sinking (depth 0 to 5 Metres). Note : Add 1)30% Extra for 5 to 10 M depth 2)40% Extra for 10 to 15 M depth 3) 60% Extra for depth 15 M to 20 M 4) 100% Extra for depth above 20 M.	MORT&H (5th Rev.) 1208	Running Meter	177752	28765
599	Bridge : Well Foundation	17.13	BR	Providing and constructing one span service road 10m wide to reach island location. For 1 pier location to another pier location ( Depth of standing water 1 m)	MORT&H (5th Rev.) 1200	Running Meter	4449	152
600	Bridge : Well Foundation	17.14	BR	Providing and laying in situ / ready mix M-20 cement concrete Trap/ Granite/ Quartzite/ Gneiss metal for R.C.C. well curbs including necessary compacting by vibrating, finishing and curing complete. with fine aggregates of required specifications ( VSI sand finely washed etc ) (excluding reinforcement and including shuttering) A) With Batch Mix Plant With fully automatic micro processor based PLC with SCADA enabled	MORT&H (5th Rev.) 1205	Cubic Meter	6914	1560
601	Bridge : Well Foundation	17.15	BR	Providing and laying in situ / ready mix M-25 cement concrete Trap/ Granite/ Quartzite/ Gneiss metal for R.C.C. well curbs including necessary compacting by vibrating, finishing and curing complete. with fine aggregates of required specifications ( VSI sand finely washed etc ) (excluding reinforcement and including shuttering) A) With Batch Mix Plant With fully automatic micro processor based PLC with SCADA enabled	MORT&H (5th Rev.) 1205	Cubic Meter	7140	1560
602	Bridge : Well Foundation	17.16	BR	Providing and laying in situ / ready mix M-30 cement concrete Trap/ Granite/ Quartzite/ Gneiss metal for R.C.C. well curbs including necessary compacting by vibrating, finishing and curing complete. with fine aggregates of required specifications ( VSI sand finely washed etc ) (excluding reinforcement and including shuttering) A) With Batch Mix Plant With fully automatic micro processor based PLC with SCADA enabled	MORT&H (5th Rev.) 1205	Cubic Meter	7291	1560
603	Bridge : Well Foundation	17.17	BR	Providing and laying in situ / ready mix M-35 cement concrete Trap/ Granite/ Quartzite/ Gneiss metal for R.C.C. well curbs including necessary compacting by vibrating, finishing and curing complete. with fine aggregates of required specifications ( VSI sand finely washed etc ) (excluding reinforcement and including shuttering) A) With Batch Mix Plant With fully automatic micro processor based PLC with SCADA enabled	MORT&H (5th Rev.) 1205	Cubic Meter	6977	1560
604	Bridge : Well Foundation	17.18	BR	Providing and laying in situ / ready mix M-20 cement concrete trap / granite / quartzite / gneiss metal for the intermediate plug of wells in the dry or under water including compation by vibrating and curing wherever necessary etc complete with fine aggregates of required specifications ( VSI sand finely washed etc ) D) INTERMEDIATE PLUG With Batch Mix Plant, With fully automatic micro processor based PLC with SCADA enabled	MORT&H (5th Rev.) 1211	Cubic Meter	6605	1383
605	Bridge : Well Foundation	17.19	BR	Providing and laying in situ / ready mix M-25 cement concrete trap / granite / quartzite / gneiss metal for the intermediate plug of wells in the dry or under water including compation by vibrating and curing wherever necessary etc complete with fine aggregates of required specifications ( VSI sand finely washed etc ) D) INTERMEDIATE PLUG With Batch Mix Plant, With fully automatic micro processor based PLC with SCADA enabled	MORT&H (5th Rev.) 1211	Cubic Meter	6676	1383



Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
606	Bridge : Well Foundation	17.20	BR	Providing and laying in situ / ready mix M-30 cement concrete trap / granite / quartzite / gneiss metal for the intermediate plug of wells in the dry or under water including compaction by vibrating and curing wherever necessary etc complete with fine aggregates of required specifications ( VSI sand finely washed etc ) D) INTERMEDIATE PLUG With Batch Mix Plant, With fully automatic micro processor based PLC with SCADA enabled	MORT&H (5th Rev.) 1211	Cubic Meter	6995	1528
607	Bridge : Well Foundation	17.21	BR	Providing and laying in situ / ready mix M-25 cement concrete of trap / granite / quartzite/ gneiss metal for top plug of wells including compaction by vibration and curing etc complete centering formwork shall be of steel/plywood B) With Batch Mix Plant With fully automatic micro processor based PLC with SCADA enabled, fine aggregates of required specifications ( VSI sand finely washed etc )	MORT&H (5th Rev.) 1209	Cubic Meter	7568	1528
608	Bridge : Well Foundation	17.22	BR	Providing and laying in situ / ready mix M-30 cement concrete of trap / granite / quartzite/ gneiss metal for top plug of wells including compaction by vibration and curing etc complete centering formwork shall be of steel/plywood B) With Batch Mix Plant With fully automatic micro processor based PLC with SCADA enabled fine aggregates of required specifications ( VSI sand finely washed etc )	MORT&H (5th Rev.) 1209	Cubic Meter	7668	1528
609	Bridge : Well Foundation	17.23	BR	Providing and laying in situ / ready mix M-25 cement concrete of trap / granite / quartzite/ gneiss metal for reinforced cement concrete well caps including necessary formwork compaction by vibrating finishing in CM 1:3 with fine aggregates of required specifications ( VSI sand finely washed etc ) etc complete (Excluding reinforcement) A) Well Cap (With with reversible drum type mixer/ concrete batch mix plant (pan mixer) .	MORT&H (5th Rev.) 1700, 2205,2304	Cubic Meter	7219	1393
610	Bridge : Well Foundation	17.24	BR	Providing and laying in situ / ready mix M-30 cement concrete of trap / granite / quartzite/ gneiss metal for reinforced cement concrete well caps including necessary formwork compaction by vibrating finishing in CM 1:3 with fine aggregates of required specifications ( VSI sand finely washed etc ) etc complete (Excluding reinforcement) A) Well Cap (With with reversible drum type mixer/ concrete batch mix plant (pan mixer) .	MORT&H (5th Rev.) 1700, 2205,2304	Cubic Meter	7311	1393
611	Bridge : Well Foundation	17.25	BR	Providing and laying in situ / ready mix M-35 cement concrete of trap / granite / quartzite/ gneiss metal for reinforced cement concrete well caps including necessary formwork compaction by vibrating finishing in CM 1:3 with fine aggregates of required specifications ( VSI sand finely washed etc ) etc complete (Excluding reinforcement) A) Well Cap (With with reversible drum type mixer/ concrete batch mix plant (pan mixer) .	MORT&H (5th Rev.) 1700, 2205,2304	Cubic Meter	7493	1393
612	Bridge : Well Foundation	17.26	BR	Providing Sump pit in hard strata in wells as directed or as shown in drawing including shoring and strutting as necessary and disposing of excavated stuff	As directed by Engineer-in Charge	Cubic Meter	3851	2558
613	Bridge : Well Foundation	17.27	BR	Providing and filling in well with sand/ rubble and sand/ shingle and sand including compacting between the top and bottom plugs etc. Complete	MORT&H (5th Rev.) 1210	Cubic Meter	1604	231
614	Bridge sub structure and Foundation	17.28	BR	Providing and laying plain in situ / ready mix M-20 cement concrete of trap/ granite/quartzite/gneiss/crushed stone metal mechanically mixed, placed in foundation and compacted by vibration including necessary bailing out water, curing curing concrete batch mix plant / pan mixer with fine aggregates of required specifications ( VSI sand finely washed etc ) (excluding dewatering by pump) for 14 days RCC Grade.With Concrete Mixer	MORT&H (5th Rev.) 1700	Cubic Meter	6979	1672

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
615	Bridge sub structure and Foundation	17.29	BR	Providing and laying plain in situ / ready mix M-25 cement concrete of trap/ granite/quartzite/gneiss/crushed stone metal mechanically mixed, placed in foundation and compacted by vibration including necessary bailing out water, curing curing concrete batch mix plant / pan mixer with fine aggregates of required specifications ( VSI sand finely washed etc ) (excluding dewatering by pump) for 14 days RCC Grade.With Concrete Mixer	MORT&H (5th Rev.) 1700	Cubic Meter	7332	1672
616	Bridge sub structure and Foundation	17.30	BR	Providing and laying plain in situ / ready mix M-30 cement concrete of trap/ granite/quartzite/gneiss/crushed stone metal mechanically mixed, placed in foundation and compacted by vibration including necessary bailing out water, curing curing concrete batch mix plant / pan mixer with fine aggregates of required specifications ( VSI sand finely washed etc ) (excluding dewatering by pump) for 14 days RCC Grade.With Concrete Mixer	MORT&H (5th Rev.) 1700	Cubic Meter	7238	1672
617	Bridge sub structure and Foundation	17.31	BR	Providing and laying plain in situ / ready mix M-35 cement concrete of trap/ granite/quartzite/gneiss/crushed stone metal mechanically mixed, placed in foundation and compacted by vibration including necessary bailing out water, curing curing concrete batch mix plant / pan mixer with fine aggregates of required specifications ( VSI sand finely washed etc ) (excluding dewatering by pump) for 14 days RCC Grade.With Concrete Mixer	MORT&H (5th Rev.) 1700	Cubic Meter	7830	1648
618	Bridge sub structure and Foundation	17.32	BR	Providing and laying in situ / ready mix M-20 controlled reinforced cement concrete of trap metal for raft slab including "V" haunches, formwork, scaffolding, compaction by vibrating, finishing curing etc. complete. concrete batch mix plant / pan mixer with fine aggregates of required specifications ( VSI sand finely washed etc ) etc. complete. (excluding reinforcement). a) RCC Grade with reversible drum type mixer/ concrete batch mix plant (pan mixer) .	MORT&H (5th Rev.) 1700, 2304	Cubic Meter	5928	851
619	Bridge sub structure and Foundation	17.33	BR	Providing and laying in situ / ready mix M-25 controlled reinforced cement concrete of trap metal for raft slab including "V" haunches, formwork, scaffolding, compaction by vibrating, finishing curing etc. complete. concrete batch mix plant / pan mixer with fine aggregates of required specifications ( VSI sand finely washed etc ) etc. complete. (excluding reinforcement). a) RCC Grade with reversible drum type mixer/ concrete batch mix plant (pan mixer) .	MORT&H (5th Rev.) 1700, 2304	Cubic Meter	6042	851
620	Bridge sub structure and Foundation	17.34	BR	Providing and laying in situ / ready mix M-30 controlled reinforced cement concrete of trap metal for raft slab including "V" haunches, formwork, scaffolding, compaction by vibrating, finishing curing etc. complete. concrete batch mix plant / pan mixer with fine aggregates of required specifications ( VSI sand finely washed etc ) etc. complete. (excluding reinforcement). a) RCC Grade with reversible drum type mixer/ concrete batch mix plant (pan mixer) .	MORT&H (5th Rev.) 1700, 2304	Cubic Meter	6143	843

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
621	Bridge sub structure and Foundation	17.35	BR	Providing and laying in situ / ready mix M-35 controlled reinforced cement concrete of trap metal for raft slab including "V" haunches, formwork, scaffolding, compaction by vibrating, finishing curing etc. complete. concrete batch mix plant / pan mixer with fine aggregates of required specifications ( VSI sand finely washed etc ) etc. complete. (excluding reinforcement). a) RCC Grade with reversible drum type mixer/ concrete batch mix plant (pan mixer) .	MORT&H (5th Rev.) 1700, 2304	Cubic Meter	6023	843
622	Bridge sub structure and Foundation	17.36	BR	Providing and fixing pressure relief pipes of 110 mm diameter of PVC as per drawing for R.C.C Raft, galleries returns, abutments, wing wall etc complete.	MORT&H (5th Rev.) 2705, 2706	Running Meter	471	75
623	Bridge sub structure and Foundation	17.37	BR	Providing and laying weep holes of 100 mm diameter PVC pipes as per drawing for abutment returns, return walls etc. Complete.	MORT&H (5th Rev.) 2705, 2706	Running Meter	482	71
624	Bridge sub structure and Foundation	17.38	BR	Providing and laying in situ / ready mix M-15 plain cement concrete of trap /granite/quartzite/ gneiss metal for cast in situ piers, abutment, returns, wings etc. including provision of "V" shaped false joints to form suitable panels on the faces to approve design with compacting by vibrating and curing complete, including plywood/steel form work centering ( excluding dewatering by means of pump) and including bailling out water and curing finishing in CM 1:3 etc. complete. as directed by engineer in charge basic rate shall be increased for height above 5.00 m in following manners (a) Height upto 5 M. (With Concrete Mixer)With fine aggregates of required specifications ( VSI sand finely washed etc ) i) Height up to 5 m, normal rate. ii) Height 5 to 7.50 m, add 5 percent extra over basic rate. iii) Height 7.50 to 10 m, 7.50 percent extra. iv) Over 10 m Height, add 10 percent extra for every 2.50m rise.	MORT&H (5th Rev.) 1700, 2204	Cubic Meter	6990	1817
625	Bridge sub structure and Foundation	17.39	BR	Providing and laying in situ / ready mix M-20 plain cement concrete of trap /granite/quartzite/ gneiss metal for cast in situ piers, abutment, returns, wings etc. including provision of "V" shaped false joints to form suitable panels on the faces to approve design with compacting by vibrating and curing complete, including plywood/steel form work centering ( excluding dewatering by means of pump) and including bailling out water and curing finishing in CM 1:3 etc. complete. as directed by engineer in charge basic rate shall be increased for height above 5.00 m in following manners (a) Height upto 5 M. (With Concrete Mixer)With fine aggregates of required specifications ( VSI sand finely washed etc ) i) Height up to 5 m, normal rate. ii) Height 5 to 7.50 m, add 5 percent extra over basic rate. iii) Height 7.50 to 10 m, 7.50 percent extra. iv) Over 10 m Height, add 10 percent extra for every 2.50m rise.	MORT&H (5th Rev.) 1700, 2204	Cubic Meter	7699	1817

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
626	Bridge sub structure and Foundation	17.40		Providing and laying in situ / ready mix M-25 plain cement concrete of trap /granite/quartzite/ gneiss metal for cast in situ piers, abutment, returns, wings etc. including provision of "V" shaped false joints to form suitable panels on the faces to approve design with compacting by vibrating and curing complete, including plywood/steel form work centering ( excluding dewatering by means of pump) and including bailling out water and curing finishing in CM 1:3 etc. complete. as directed by engineer in charge basic rate shall be increased for height above 5.00 m in followinh manners (a) Height upto 5 M. (With Concrete Mixer)With fine agreeegates of required specifications ( VSI sand finely washed etc ) i) Height up to 5 m, normal rate. ii) Height 5 to 7.50 m, add 5 percent extra over basic rate. iii) Height 7.50 to 10 m, 7.50 percent extra. iv) Over 10 m Height, add 10 percent extra for every 2.50m rise.		Cubic Meter	7544	1817
627	Bridge sub structure and Foundation	17.41		Providing and laying in situ / ready mix M-30 plain cement concrete of trap /granite/quartzite/ gneiss metal for cast in situ piers, abutment, returns, wings etc. including provision of "V" shaped false joints to form suitable panels on the faces to approve design with compacting by vibrating and curing complete, including plywood/steel form work centering ( excluding dewatering by means of pump) and including bailling out water and curing finishing in CM 1:3 etc. complete. as directed by engineer in charge basic rate shall be increased for height above 5.00 m in followinh manners (a) Height upto 5 M. (With Concrete Mixer)With fine agreeegates of required specifications ( VSI sand finely washed etc ) i) Height up to 5 m, normal rate. ii) Height 5 to 7.50 m, add 5 percent extra over basic rate. iii) Height 7.50 to 10 m, 7.50 percent extra. iv) Over 10 m Height, add 10 percent extra for every 2.50m rise.		Cubic Meter	7783	1817
628	Bridge sub structure and Foundation	17.42		Providing and laying in situ / ready mix M-35 plain cement concrete of trap /granite/quartzite/ gneiss metal for cast in situ piers, abutment, returns, wings etc. including provision of "V" shaped false joints to form suitable panels on the faces to approve design with compacting by vibrating and curing complete, including plywood/steel form work centering ( excluding dewatering by means of pump) and including bailling out water and curing finishing in CM 1:3 etc. complete. as directed by engineer in charge basic rate shall be increased for height above 5.00 m in followinh manners (a) Height upto 5 M. (With Concrete Mixer)With fine agreeegates of required specifications ( VSI sand finely washed etc ) i) Height up to 5 m, normal rate. ii) Height 5 to 7.50 m, add 5 percent extra over basic rate. iii) Height 7.50 to 10 m, 7.50 percent extra. iv) Over 10 m Height, add 10 percent extra for every 2.50m rise.		Cubic Meter	8835	1817

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
629	Bridge sub structure and Foundation	17.43	BR	<p>Providing and laying in situ / ready mix M-20 plain cement concrete of trap /granite/quartzite/ gneiss metal for cast in situ piers, abutment, returns, wings etc. including provision of "V" shaped false joints to form suitable panels on the faces to approve design with compacting by vibrating and curing complete, including plywood/steel form work centering ( excluding dewatering by means of pump) and including bailling out water and curing finishing in CM 1:3 etc. complete. as directed by engineer in charge basic rate shall be increased for height above 5.00 m in followinh manners</p> <p>b) Height upto 5 M. (With Batch Mix Plant)</p> <p>With fully automatic micro processor based PLC with SCADA enable with fine agreeegates of required specifications ( VSI sand finely washed etc )</p> <p>i) Height up to 5 m, normal rate.</p> <p>ii) Height 5 to 7.50 m, add 5 percent extra over basic rate.</p> <p>iii) Height 7.50 to 10 m, 7.50 percent extra.</p> <p>iv) Over 10 m Height, add 10 percent extra for every 2.50m rise.</p>	MORT&H (5th Rev.) 1700, 2204	Cubic Meter	8073	1817
630	Bridge sub structure and Foundation	17.44	BR	<p>Providing and laying in situ / ready mix M-25 plain cement concrete of trap /granite/quartzite/ gneiss metal for cast in situ piers, abutment, returns, wings etc. including provision of "V" shaped false joints to form suitable panels on the faces to approve design with compacting by vibrating and curing complete, including plywood/steel form work centering ( excluding dewatering by means of pump) and including bailling out water and curing finishing in CM 1:3 etc. complete. as directed by engineer in charge basic rate shall be increased for height above 5.00 m in followinh manners</p> <p>b) Height upto 5 M. (With Batch Mix Plant)</p> <p>With fully automatic micro processor based PLC with SCADA enable with fine agreeegates of required specifications ( VSI sand finely washed etc )</p> <p>i) Height up to 5 m, normal rate.</p> <p>ii) Height 5 to 7.50 m, add 5 percent extra over basic rate.</p> <p>iii) Height 7.50 to 10 m, 7.50 percent extra.</p> <p>iv) Over 10 m Height, add 10 percent extra for every 2.50m rise.</p>	MORT&H (5th Rev.) 1700, 2204	Cubic Meter	8221	1817

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
631	Bridge sub structure and Foundation	17.45	BR	<p>Providing and laying in situ / ready mix M-30 plain cement concrete of trap /granite/quartzite/ gneiss metal for cast in situ piers, abutment, returns, wings etc. including provision of "V" shaped false joints to form suitable panels on the faces to approve design with compacting by vibrating and curing complete, including plywood/steel form work centering ( excluding dewatering by means of pump) and including bailling out water and curing finishing in CM 1:3 etc. complete. as directed by engineer in charge basic rate shall be increased for height above 5.00 m in followinh manners</p> <p>b) Height upto 5 M. (With Batch Mix Plant)</p> <p>With fully automatic micro processor based PLC with SCADA enable with fine agreeegates of required specifications ( VSI sand finely washed etc )</p> <p>i) Height up to 5 m, normal rate.</p> <p>ii) Height 5 to 7.50 m, add 5 percent extra over basic rate.</p> <p>iii) Height 7.50 to 10 m, 7.50 percent extra.</p> <p>iv) Over 10 m Height, add 10 percent extra for every 2.50m rise.</p>	MORT&H (5th Rev.) 1700, 2204	Cubic Meter	8274	1817
632	Bridge sub structure and Foundation	17.46	BR	<p>Providing and laying in situ / ready mix M-35 plain cement concrete of trap /granite/quartzite/ gneiss metal for cast in situ piers, abutment, returns, wings etc. including provision of "V" shaped false joints to form suitable panels on the faces to approve design with compacting by vibrating and curing complete, including plywood/steel form work centering ( excluding dewatering by means of pump) and including bailling out water and curing finishing in CM 1:3 etc. complete. as directed by engineer in charge basic rate shall be increased for height above 5.00 m in following manners</p> <p>b) Height upto 5 M. (With Batch Mix Plant)</p> <p>With fully automatic micro processor based PLC with SCADA enable with fine agreeegates of required specifications ( VSI sand finely washed etc )</p> <p>i) Height up to 5 m, normal rate.</p> <p>ii) Height 5 to 7.50 m, add 5 percent extra over basic rate.</p> <p>iii) Height 7.50 to 10 m, 7.50 percent extra.</p> <p>iv) Over 10 m Height, add 10 percent extra for every 2.50m rise.</p>	MORT&H (5th Rev.) 1700, 2204	Cubic Meter	8774	1817

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
633	Bridge sub structure and Foundation	17.47	BR	Providing and laying in situ / ready mix M-20 cement concrete of trap /granite/quartzite/ gneiss metal for cast in situ R.C.C. solid piers,column etc . including provision of V shaped false joints to form suitable panels on the faces to approve design with compacting by vibrating and curing complete. Including plywood/steel formwork, centering ( excluding dewatering by means of pump) and including bailling out water and including CM 1:3 curing complete. a) Height upto 5 M. (With Concrete Mixer) i) Height up to 5 m, normal rate. ii) Height 5 to 7.50 m, add 5 percent extra over basic rate. iii) Height 7.50 to 10 m, 7.50 percent extra. iv) Over 10 m Height, add 10 percent extra for every 2.50m rise with fine agreeegates of required specifications ( VSI sand finely washed etc )	MORT&H (5th Rev.) 1700, 2204, 2304	Cubic Meter	7581	1817
634	Bridge sub structure and Foundation	17.48	BR	Providing and laying in situ / ready mix M-25 cement concrete of trap /granite/quartzite/ gneiss metal for cast in situ R.C.C. solid piers,column etc . including provision of V shaped false joints to form suitable panels on the faces to approve design with compacting by vibrating and curing complete. Including plywood/steel formwork, centering ( excluding dewatering by means of pump) and including bailling out water and including CM 1:3 curing complete. a) Height upto 5 M. (With Concrete Mixer) i) Height up to 5 m, normal rate. ii) Height 5 to 7.50 m, add 5 percent extra over basic rate. iii) Height 7.50 to 10 m, 7.50 percent extra. iv) Over 10 m Height, add 10 percent extra for every 2.50m rise with fine agreeegates of required specifications ( VSI sand finely washed etc )	MORT&H (5th Rev.) 1700, 2204, 2304	Cubic Meter	7729	1817
635	Bridge sub structure and Foundation	17.49	BR	Providing and laying in situ / ready mix M-30 cement concrete of trap /granite/quartzite/ gneiss metal for cast in situ R.C.C. solid piers,column etc . including provision of V shaped false joints to form suitable panels on the faces to approve design with compacting by vibrating and curing complete. Including plywood/steel formwork, centering ( excluding dewatering by means of pump) and including bailling out water and including CM 1:3 curing complete. a) Height upto 5 M. (With Concrete Mixer) i) Height up to 5 m, normal rate. ii) Height 5 to 7.50 m, add 5 percent extra over basic rate. iii) Height 7.50 to 10 m, 7.50 percent extra. iv) Over 10 m Height, add 10 percent extra for every 2.50m rise.	MORT&H (5th Rev.) 1700, 2204, 2304	Cubic Meter	7825	1817

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
636	Bridge sub structure and Foundation	17.50	BR	Providing and laying in situ / ready mix M-35 cement concrete of trap /granite/quartzite/ gneiss metal for cast in situ R.C.C. solid piers,column etc . including provision of V shaped false joints to form suitable panels on the faces to approve design with compacting by vibrating and curing complete. Including plywood/steel formwork, centering ( excluding dewatering by means of pump) and including bailling out water and including CM 1:3 curing complete. a) Height upto 5 M. (With Concrete Mixer) i) Height up to 5 m, normal rate. ii) Height 5 to 7.50 m, add 5 percent extra over basic rate. iii) Height 7.50 to 10 m, 7.50 percent extra. iv) Over 10 m Height, add 10 percent extra for every 2.50m rise with fine agreeegates of required specifications ( VSI sand finely washed etc )	MORT&H (5th Rev.) 1700, 2204, 2304	Cubic Meter	8835	1817
637	Bridge sub structure and Foundation	17.51	BR	Providing trap/granite/quartzite/gneiss rubble filling over haunches and arches including hand packing. Spec. Number: BR.34 Page Number 146	MORT&H (5th Rev.) 1700, 1704	Cubic Meter	840	137
638	Bridge sub structure and Foundation	17.52	BR	Providing and laying in situ / ready mix controlled M-20 cement concrete of of trap / granite / quartzite/ gniess metal for reinforced cement concrete caps over piers and abutments including necessary sacffolding plywood/steel formwork, compacting by vibrating, finishing in CM 1:3 and curing etc complete ( Excluding reinforcement) With reversible drum type mixer/ concrete batch mix plant (pan mixer) . with fine agreeegates of required specifications ( VSI sand finely washed etc )	MORT&H(5th Rev.) 1700, 2205, 2304	Cubic Meter	7447	1850
639	Bridge sub structure and Foundation	17.53	BR	Providing and laying in situ / ready mix controlled M-25 cement concrete of of trap / granite / quartzite/ gniess metal for reinforced cement concrete caps over piers and abutments including necessary sacffolding plywood/steel formwork, compacting by vibrating, finishing in CM 1:3 and curing etc complete ( Excluding reinforcement) With reversible drum type mixer/ concrete batch mix plant (pan mixer) . with fine agreeegates of required specifications ( VSI sand finely washed etc )	MORT&H(5th Rev.) 1700, 2205, 2304	Cubic Meter	8079	1850
640	Bridge sub structure and Foundation	17.54	BR	Providing and laying in situ / ready mix controlled M-30 cement concrete of of trap / granite / quartzite/ gniess metal for reinforced cement concrete caps over piers and abutments including necessary sacffolding plywood/steel formwork, compacting by vibrating, finishing in CM 1:3 and curing etc complete ( Excluding reinforcement) With reversible drum type mixer/ concrete batch mix plant (pan mixer) . with fine agreeegates of required specifications ( VSI sand finely washed etc )	MORT&H(5th Rev.) 1700, 2205, 2304	Cubic Meter	8318	1850
641	Bridge sub structure and Foundation	17.55	BR	Providing and laying in situ / ready mix controlled M-35 cement concrete of of trap / granite / quartzite/ gniess metal for reinforced cement concrete caps over piers and abutments including necessary sacffolding plywood/steel formwork, compacting by vibrating, finishing in CM 1:3 and curing etc complete ( Excluding reinforcement) With reversible drum type mixer/ concrete batch mix plant (pan mixer) . with fine agreeegates of required specifications ( VSI sand finely washed etc )	MORT&H(5th Rev.) 1700, 2205, 2304	Cubic Meter	9005	1850



Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
642	Bridge sub structure and Foundation	17.56	BR	Providing and placing Cage Unit, with 12 m Dia of each cage in the unit, for each support of staging for 6 m well foundation to two lane bridge, embedded 0.50m below the bed and raised 0.50m above HTL, comprising 25mm dia vertical HYSD bars/ ISMB Sections and bamboos within, stirrups of 25mm and 12mm dia - HYSD bars, including boulder filling with void filling and compaction, with reinforcement, Bolts, fabrication and placing cage in position as per design and drawing complete. 1). For depth of water 5.0 M (Item shall be included in Estimate with prior permission of SE, with due attention to site condition and actual requirement for creek bridges. Depth of standing water shall be verified and certified by EE for each span separately, and accordinly provisions shall be made) For intermediate depth of water rate shall be derived by interpolation.	MORT&H (5th Rev.) 1814	Number	470928	25218
643	Bridge sub structure and Foundation	17.57	BR	Providing and placing Cage Unit, with 12 m Dia of each cage in the unit, for each support of staging for 6 m well foundation to two lane bridge, embedded 0.50m below the bed and raised 0.50m above HTL, comprising 25mm dia vertical HYSD bars/ ISMB Sections and bamboos within, stirrups of 25mm and 12mm dia - HYSD bars, including boulder filling with void filling and compaction, with reinforcement, Bolts, fabrication and placing cage in position as per design and drawing complete. 1). For depth of water 10.0 M (Item shall be included in Estimate with prior permission of SE, with due attention to site condition and actual requirement for creek bridges. Depth of standing water shall be verified and certified by EE for each span separately, and accordinly provisions shall be made) For intermediate depth of water rate shall be derived by interpolation.	MORT&H (5th Rev.) 1814	Number	1305050	76318
644	Bridge Super Structure	17.58	BR	Providing and laying in situ / ready mix M-20 cement concrete of trap / granite / quartzite/ gniess metal for reinforced cement concrete block below the bearing including necessary scaffolding, plywood/steel formwork, compaction by vibrating, finishing in CM 1:3 and curing complete (Excluding reinforcement) Using reversible drum type mixer/ concrete batch mix plant (pan mixer) with fine agreeegates of required specifications ( VSI sand finely washed etc )	MORT&H (5th Rev.) 1700, 2205, 2304	Cubic Meter	6603	1283
645	Bridge Super Structure	17.59	BR	Providing and laying in situ / ready mix M-25 cement concrete of trap / granite / quartzite/ gniess metal for reinforced cement concrete block below the bearing including necessary scaffolding, plywood/steel formwork, compaction by vibrating, finishing in CM 1:3 and curing complete (Excluding reinforcement) Using reversible drum type mixer/ concrete batch mix plant (pan mixer) .	MORT&H (5th Rev.) 1700, 2205, 2304	Cubic Meter	6409	1283
646	Bridge Super Structure	17.60	BR	Providing and laying in situ / ready mix M-30 cement concrete of trap / granite / quartzite/ gniess metal for reinforced cement concrete block below the bearing including necessary scaffolding, plywood/steel formwork, compaction by vibrating, finishing in CM 1:3 and curing complete (Excluding reinforcement) Using reversible drum type mixer/ concrete batch mix plant (pan mixer) with fine agreeegates of required specifications ( VSI sand finely washed etc )	MORT&H (5th Rev.) 1700, 2205, 2304	Cubic Meter	6848	1283
647	Bridge Super Structure	17.61	BR	Providing and laying in situ / ready mix M-35 cement concrete of trap / granite / quartzite/ gniess metal for reinforced cement concrete block below the bearing including necessary scaffolding, plywood/steel formwork, compaction by vibrating, finishing in CM 1:3 and curing complete (Excluding reinforcement) Using reversible drum type mixer/ concrete batch mix plant (pan mixer) .	MORT&H (5th Rev.) 1700, 2205, 2304	Cubic Meter	7329	1283

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
648	Bridge Super Structure	17.62	BR	Providing and laying in situ / ready mix M-40 cement concrete of trap / granite / quartzite/ gniess metal for reinforced cement concrete block below the bearing including necessary scaffolding, plywood/steel formwork, compaction by vibrating, finishing in CM 1:3 and curing complete (Excluding reinforcement) Using reversible drum type mixer/ concrete batch mix plant (pan mixer) with fine agreeegates of required specifications ( VSI sand finely washed etc )	MORT&H (5th Rev.) 1700, 2205, 2304	Cubic Meter	7367	1283
649	Bridge Super Structure	17.63	BR	Providing and laying in situ / ready mix M-45 cement concrete of trap / granite / quartzite/ gniess metal for reinforced cement concrete block below the bearing including necessary scaffolding, plywood/steel formwork, compaction by vibrating, finishing in CM 1:3 and curing complete (Excluding reinforcement) Using reversible drum type mixer/ concrete batch mix plant (pan mixer) .	MORT&H (5th Rev.) 1700, 2205, 2304	Cubic Meter	7509	1283
650	Bridge Super Structure	17.64	BR	Providing and laying in situ / ready mix M-50 cement concrete of trap / granite / quartzite/ gniess metal for reinforced cement concrete block below the bearing including necessary scaffolding, plywood/steel formwork, compaction by vibrating, finishing in CM 1:3 and curing complete (Excluding reinforcement) Using reversible drum type mixer/ concrete batch mix plant (pan mixer) with fine agreeegates of required specifications ( VSI sand finely washed etc )	MORT&H (5th Rev.) 1700, 2205, 2304	Cubic Meter	7821	1283
651	Bridge Super Structure	17.65	BR	Providing and cutting bending, hooking, laying in position and tying HCRM/ CRS for reinforcement as per detailed drawings for R.C.C. work Note : Where item no 34(c) considered in estimate, Anti Corrosive Treatment Shall not be considered additionaly. HCRM : High Corrosion Resistance Marine. CRS : Corrosion Resistance Steel.	Specifications : MORT&H (5th Rev.) 1600	Metric Tonne	68640	7562
652	Bridge : Well Foundation	17.66	BR	Chipping and dressing of the R.C.C. piles upto 0.60 meter including cleaning reinforcement and removal of dismantled materials upto a distance of 50 meter beyond the building area etc. for providing pile caps.	Specifications : MORT&H (5th Rev.) 2604	Number	622	622
653	Bored Pile, Well Foundation, sub & Super Structure	17.67		Supply of all types of Structural steel conforming to Fe 410 B of IS 2062, Fabrication, assembling, erection / slewing/ end launching of Steel girders ( NOT requiring traffic block) upto 45.7 m span on sub structure incl. provision of trolley refuges, incl. loading, unloading, lift and taxes complete, assembly of girders on drift/ bolts, field riveting/ welding, assembling of temporary support for side slewing, raising of girders to the bed block level, providing sliding arrangements (Material at site, fabrication at site, erection / launching etc only) PLATE GIRDER / Semi Through Girder		M.T	102061	25708
654	Bored Pile, Well Foundation, sub & Super Structure	17.68		Extra for working under running traffic / traffic block conditions for above Items.		M.T	20412	0
655	Bored Pile, Well Foundation, sub & Super Structure	17.69		Metalizing of steel work of girder with grit blasting as per IRS - B1-2011 following by one coat of etch primer (as per IS:5666) one coat of Zinc Chrome primer (as per IS:104) and two coats of aluminium paint (as per IS:2339) with all labour, tools,plants and materials.		Square Metre	169	48
656	Bored Pile, Well Foundation, sub & Super Structure	17.70		Providing sacrificial shuttering for deck slab made up with galvanised Cold Rolled Cold Annealed (CRCA) steel of 310 MPA Grade with all Contractor's material, labour, erection fixing, welding etc. (Decking Sheet )		M.T	63208	3061

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
657	Bored Pile, Well Foundation, sub & Super Structure	17.71		Providing and removing barricading with the help of portable fencing along the running track where the work is to be done in close vicinity of the track. Fencing shall consist of self supporting steel angles of size 50 x50x6mm, 1.5m long provided with hooks etc. and embedded in CC 1:2:4 block of size 0.23x0.23x0.23M placed at c/c distance of 2.0 M along the track. 12 mm dia rods in three horizontal layers tack welded with the angle posts including providing Retro-reflective tapes in Horizontal & vertical direction. Note : Released material will be the property of the contractor after the completion of work. Cost of cement to be paid separately.		Running metre	559	34
658	Bored Pile, Well Foundation, sub & Super Structure	17.72		Load testing of one or more spans of bridge as selected by the Engineer as per approved load test procedure following relevant IS/IRC / Railway codes with contractor's labour, deflection measuring instruments, loading materials, recording and analyzing the load testing results including all leads and lifts etc. completeas required. The rates are all inclusive and will be paid after load test is finished and girder is cleared of the kentledges/ loading materials etc. The load shall be 1.25 times the stipulated design load based on Design load & not span ( for Span design load upto 100 MT.)		PER TEST	132784	96408
659	Bored Pile, Well Foundation, sub & Super Structure	17.73		Load testing of one or more spans of bridge as selected by the Engineer as per approved load test procedure following relevant IS/IRC / Railway codes with contractor's labour, deflection measuring instruments, loading materials, recording and analyzing the load testing results including all leads and lifts etc. completeas required. The rates are all inclusive and will be paid after load test is finished and girder is cleared of the kentledges/ loading materials etc. The load shall be 1.25 times the stipulated design load based on Design load & not span ( Extra for every increase of 100.00mt. or part there for in the span load capacity up to 800.00 mt.)		PER TEST	131582	96408

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
<b>SSR 2021-2022 :- Arch Bridge</b>								
660	Arch Bridge	18.01		Providing factory made hydraulically pressed mechanically vibrated and compacted Precast Ready Mix M-30 controlled cement concrete of trap /granite/quartzite/gneiss metal Blocks of 520 mm top & 460 mm bottomX1000mm length and 400mm thick having various cross section areas for assembly of Arch Strip, including lifting hooks, including machined surfaced laser cut, trapezoidal steel moulds. As specified and as per IS 456:2000 including cost of all materials, preparation of casting bed, manufacturing, curing, removing from steel moulds by using crane or required machinery and stacking of blocks for preparation of arch strip of various lengths, including lead of all materials up to RMC plant, with fully automatic micro processor based PLC with SCADA enabaled concrete Batch Mix Plant ( PAN Mixer )with Crushed sand VSI Grade. etc. complete. as directed by the Engineer in charge.	As directed by Engineer-in Charge	Number	3006	225
661	Arch Bridge	18.02		Providing factory made hydraulically pressed mechanically vibrated and compacted Precast Ready Mix M-40 controlled cement concrete of trap /granite/quartzite/gneiss metal Blocks of 520 mm top & 460 mm bottomX1000mm length and 400mm thick having various cross section areas for assembly of Arch Strip, including lifting hooks, including machined surfaced laser cut, trapezoidal steel moulds. As specified and as per IS 456:2000 including cost of all materials, preparation of casting bed, manufacturing, curing, removing from steel moulds by using crane or required machinery and stacking of blocks for preparation of arch strip of various lengths, including lead of all materials up to RMC plant, with fully automatic micro processor based PLC with SCADA enabaled concrete Batch Mix Plant ( PAN Mixer )with Crushed sand VSI Grade. etc. complete. as directed by the Engineer in charge.	As directed by Engineer-in Charge	Number	3178	225
662	Arch Bridge	18.03		Providing factory made hydraulically pressed mechanically vibrated and compacted Precast Ready Mix M-50 controlled cement concrete of trap /granite/quartzite/gneiss metal Blocks of 520 mm top & 460 mm bottomX1000mm length and 400mm thick having various cross section areas for assembly of Arch Strip, including lifting hooks, including machined surfaced laser cut, trapezoidal steel moulds. As specified and as per IS 456:2000 including cost of all materials, preparation of casting bed, manufacturing, curing, removing from steel moulds by using crane or required machinery and stacking of blocks for preparation of arch strip of various lengths, including lead of all materials up to RMC plant, with fully automatic micro processor based PLC with SCADA enabaled concrete Batch Mix Plant ( PAN Mixer )with Crushed sand VSI Grade. etc. complete. as directed by the Engineer in charge.	As directed by Engineer-in Charge	Number	3414	225
663	Arch Bridge	18.04		Providing factory made hydraulically pressed mechanically vibrated and compacted Precast Ready Mix M-30 controlled cement concrete of trap /granite/quartzite/gneiss metal Socket Blocks of 520 mm top & 460 mm bottom x1000mm length and 300mm thick having various cross section areas for assembly of Arch Strip, including lifting hooks, including machined surfaced laser cut, trapezoidal steel moulds. As specified and as per IS 456:2000 including cost of all materials, preparation of casting bed, manufacturing, curing, removing from steel moulds by using crane or required machinery and stacking of blocks for preparation of arch strip of various lengths, including lead of all materials up to RMC plant, with fully automatic micro processor based PLC with SCADA enabaled concrete Batch Mix Plant ( PAN Mixer )with Crushed sand VSI Grade. etc. complete. as directed by the Engineer in charge.	As directed by Engineer-in Charge	Number	4729	243

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
664	Arch Bridge	18.05		Providing factory made hydraulically pressed mechanically vibrated and compacted Precast Ready Mix M-40 controlled cement concrete of trap /granite/quartzite/gneiss metal Socket Blocks of 520 mm top & 460 mm bottom x1000mm length and 300mm thick having various cross section areas for assembly of Arch Strip, including lifting hooks, including machined surfaced laser cut, trapezoidal steel moulds. As specified and as per IS 456:2000 including cost of all materials, preparation of casting bed, manufacturing, curing, removing from steel moulds by using crane or required machinery and stacking of blocks for preparation of arch strip of various lengths, including lead of all materials up to RMC plant, with fully automatic micro processor based PLC with SCADA enabled concrete Batch Mix Plant ( PAN Mixer )with Crushed sand VSI Grade. etc. complete. as directed by the Engineer in charge.	As directed by Engineer-in Charge	Number	4847	243
665	Arch Bridge	18.06		Providing factory made hydraulically pressed mechanically vibrated and compacted Precast Ready Mix M-50 controlled cement concrete of trap /granite/quartzite/gneiss metal Socket Blocks of 520 mm top & 460 mm bottom x1000mm length and 300mm thick having various cross section areas for assembly of Arch Strip, including lifting hooks, including machined surfaced laser cut, trapezoidal steel moulds. As specified and as per IS 456:2000 including cost of all materials, preparation of casting bed, manufacturing, curing, removing from steel moulds by using crane or required machinery and stacking of blocks for preparation of arch strip of various lengths, including lead of all materials up to RMC plant, with fully automatic micro processor based PLC with SCADA enabled concrete Batch Mix Plant ( PAN Mixer )with Crushed sand VSI Grade. etc. complete. as directed by the Engineer in charge.	As directed by Engineer-in Charge	Number	4922	243
666	Arch Bridge	18.07		Providing and laying M-50 grade Ready Mix cement concrete of 60mm thickness, mechanically vibrated and compacted above linearly and parallelly arranged precast blocks placed on ISMC 100 base to form a layer of screed concrete over unit arch strip. Including HYFLEX steel wire rope – 6 X 36, steel core fixed with aluminum ferrules of required size and shape in individual block, for connecting blocks in unit arch strip. Including crimping of each ferule with wire rope using embedded steel bar of 8mm diameter and 150mm in length. Including 10mm dia steel rods for fixing wire ropes. Including Z-plate acting as form work and steel separation plate of 10mm thickness over individual joint. As specified and as per IS 456:2000 including cost of all materials, preparation of level bed, curing, , including lead of all materials up to RMC plant / casting yard, etc. complete. as directed by the Engineer in charge.	As directed by Engineer-in Charge	Square Metre	4828	311
667	Arch Bridge	18.08		Providing Lifting, transportation and placing activities of precast arch units and sockets from casting yard / RMC plant to construction site including all necessary lifting arrangements in hydraulic telescopic cranes of appropriate lifting capacity, transportation on flat bed trailer of required length, including lifting slings with D-shackle, pulling ratchets, including ISMC 300 steel supporting cross beam, two numbers of P type 10 ton capacity chain pulley , including temporary supports for lifting and transporting on trailers, including construction of leveling platform crane and trailer, including scaffolding and platform at pier / abutment top level, including necessary all manpower., etc. complete., as directed by Engineer In Charge.	As directed by Engineer-in Charge	Metric Tonne	1526	289

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
<b>SSR 2021-2022 :- Bridge Maintenance New Item</b>								
668	Bridge Maintenance New Item	19.01	BR	Providing and fabricating structural steel work for Sakav Decking in rolled sections like joists, channels, angles, tees etc. as per detailed design and drawings or as directed including cutting, fabricating, hoisting, erecting, fixing in position making riveted / bolted /welded connections without connecting plates, braces etc. and including one coat of anticorrosive paint and over it two coats of oil painting of approved quality and shade etc. complete.	As directed by Engineer in Charge	Metric Tonne	73203	12598
669	Bridge Maintenance New Item	19.02	BR	Providing epoxy mortar with quartz sand with proportion epoxy concrete sand 1:6 for repairs to the cracked pier, girder etc including chipping the loose cracked concrete cleaning rust by means of brush, sand blasting and rebuilding the section giving minimum 3 day compressive strenght of 525 Kilogram/cm2 and maximum epoxy consumption of 315 Kilogram/m3 of mortar with all materails labour equipment etc complete (Quartz Sand 885 Kilogram/Cum)	As directed by Engineer in Charge	Cubic Meter	246626	18290
670	Bridge Maintenance New Item	19.03	BR	Providing and laying epoxy concrete with epoxy aggregate proportion 1:4 using epoxy fine quartz sand, course quartz sand and trap metal in suitable proportion by weight including weighing, mixing placing inclusive of celaning the surface by wire, brush, sand balsting for applying the tackcoat of epoxy as directed and giving minimum 3 days compressive strength of 525 Kilogram/cm2 and maximum epoxy consumption of 214 Kilogram/m3 of concrete including necessary formwork with all materials, labour, centering equipment etc complete as directed. (scaffolding will be paid separately if required)( Fine sand 660 Kilogram/Cum, Course Sand 660Kilogram/Square Metre, Trap metal 660 Kilogram/Square Metre)	As directed by Engineer in Charge	Cubic Meter	143153	14067
671	Bridge Maintenance New Item	19.04	BR	Providing and applying epoxy paint primer with middle coat and top coat to superstructure including scaffolding etc complete.	As directed by Engineer in Charge	Square Meter	606	276
672	Bridge Repair New Item	19.05	BR	Making and working inside steel cages for crocodile including handling the same with suitable hanging arrangements	As directed by Engineer in Charge	Number	572584	2600
673	Bridge Repair New Item	19.06	BR	Underwater Inspection : Underwater inspection cum video graph shall be arranged by divers to inspect from the cavity of well foundation and mapping of the cavity. A) Before rectification work	As directed by Engineer in Charge	Number	150060	39000
674	Bridge Repair New Item	19.07	BR	Underwater Inspection : Underwater inspection cum video graph shall be arranged by divers to inspect from the cavity of well foundation and mapping of the cavityB) After rectification work	As directed by Engineer in Charge	Number	77595	15600
675	Bridge Repair New Item	19.08	BR	Underwater Surface Preparation: Crack surface shall be cleaned using underwater jet to remove the fungal growth and other foreign materials to enable a clean and visible surface. The item includes the cost of hire charges of all equipment, diving equipment and all charges for divers etc., complete.	As directed by Engineer in Charge	Running Meter	810	650
676	Bridge Repair New Item	19.09	BR	Underwater Crack Groove Cutting: Groove shall be cut using under water concrete cutting machine of size of 50 mm wide and 75 mm deep on each side of the crack to form as "V" groove all along the crack to fill the underwater polyester resin/ Epoxy putty (horizontal and vertical cracks). After the groove cutting, the concrete shall be removed from the groove using the pneumatic concrete chipping machine to form "V" groove. The item includes the cost of hire charges of pneumatic equipment, air compressor and all charges for divers with accessories etc., complete.	As directed by Engineer in Charge	Running Meter	2430	1950

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
677	Bridge Repair New Item	19.10	BR	Underwater Crack Sealing/Filling using underwater Epoxy mortar : Under water Epoxy putty shall be mixed using the slow speed heavy duty mixing machine to obtain a uniform mix. The mixed materials shall be placed all along the prepared "V" groove and finished smoothly using the putty blade/ trowel within 30 minutes by using the divers. The finished surface shall be allowed for curing minimum of 24 hours to attain the strength. The item includes the cost all materials, hire charges for all machineries and all charges for divers with accessories etc., complete. Make - Material of reputed manufacturer	As directed by Engineer in Charge	Kilogramme	2165	1300
678	Bridge Repair New Item	19.11	BR	Underwater P/Fixing the Nozzle for high pressure underwater epoxy grout: Drilling hole of 12/ 18 mm dia to a depth of minimum 100 mm across the crack to an angle of 45° @ 500 mm C/C, using pneumatic drilling machine without disturbing the epoxy mortar filled on the "V" groove with the help of divers. The nozzle shall be inserted in the drilled hole and fixed using the under water polyester resin grout and allowed for curing for final set. The item includes the cost of all materials, hire charges for all machineries and all charges for divers with accessories etc., complete.	As directed by Engineer in Charge	Number	865	475
679	Bridge Repair New Item	19.12	BR	Underwater for high pressure underwater epoxy grout: Grouting with Water Insensitive Underwater Epoxy Grout Base and hardener shall be mixed with using hand held heavy duty electrically operated mixing machine until uniform mix is obtained. The mixed material shall be poured in to the high pressure grouting machine container and grouted through the non-return nozzle already fixed on cracks. The grouting shall be done from the bottom of crack until grout rejects of all other grouting ports. The grouting shall be carried out with the help of divers and underwater communication device to know the conditions. The item includes the cost of all materials, hire charges for all machineries and all charges for divers with accessories etc., complete.	As directed by Engineer in Charge	Kilogramme	2376	1300
680	Bridge Repair New Item	19.13	BR	Providing fixing of dowel rod of 16 mm dia in the river bed for 400 mm depth @ 1000 mm c/c in single layer and grouting with underwater epoxy grout includes the cost of hire charges of all machineries, barge, boat, cost of all tools and all labour charges etc., complete.	As directed by Engineer in Charge	Number	4309	2600
681	Bridge Repair New Item	19.14	BR	Providing fixing of shear links of 12 mm dia in the periphery of the well wall for 100 mm mm depth @ 500 mm c/c bothway and grouting with underwater epoxy grout includes the cost of hire charges of all machineries, barge, boat, cost of all tools and all labour charges etc., complete.	As directed by Engineer in Charge	Number	885	650
682	Bridge Repair New Item	19.15	BR	Providing Filling of concrete encasing of grade M35 around the periphery of the pier of 500 mm thick upto 3.5 m from the river bed level including Scarifical leakproof MS shuttering includes the cost of hire charges of all machineries, barge, boat, cost of all tools and all labour charges etc., complete.	As directed by Engineer in Charge	Cubic Meter	94192	7410
683	Bridge Repair New Item	19.16	BR	Surface Preparation: Crack surface shall be cleaned using underwater jet to remove the fungal growth and other foreign materials to enable a clean and visible surface. The item includes the cost of hire charges of all equipment, diving equipment and all charges for divers etc., complete.	As directed by Engineer in Charge	Running Meter	744	592
684	Bridge Repair New Item	19.17	BR	Crack Groove Cutting: Groove shall be cut using hand held electrically operated concrete cutting machine of size of 50 mm wide and 75 mm deep on each side of the crack to form as "V" groove all along the crack to fill the polyester resin/ Epoxy putty (horizontal and vertical cracks). After the groove cutting, the concrete shall be removed from the groove using the pneumatic concrete chipping machine to form "V" groove. The item includes the cost of hire charges for all machineries, tools and barges and all labour charges etc., complete.	As directed by Engineer in Charge	Running Meter	860	592

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
685	Bridge Repair New Item	19.18	BR	Crack Sealing/Filling using epoxy mortar: Base and hardener of the high strength repair mortar . Epoxy putty shall be mixed using the slow speed heavy duty mixing machine to obtain a uniform mix. The mixed materials shall be placed all along the prepared "V" groove and finished smoothly using the putty blade/ trowel within 30 minutes by using the divers. The finished surface shall be allowed for curing minimum of 24 hours to attain the strength. The item includes the cost of hire charges of all equipment , tools and plants and all labour charges etc.. complete.	As directed by Engineer in Charge	Kilogramme	1293	592
686	Bridge Repair New Item	19.19	BR	Providing and Fixing of 12 mm nozzle in the crack portion @ 500 c/c including material, labour complete in all respect.	As directed by Engineer in Charge	Number	264	167
687	Bridge Repair New Item	19.20	BR	Providing Repairing of honeycombs and minor damages with Polymer Modified Morter including material,labour complete in all respect.	As directed by Engineer in Charge	Kilogramme	169	84
688	Bridge Repair New Item	19.21	BR	Application of Protective coating Supply and application of Siliane/ Siloxane primer. Primer shall be applied by brush/ sprayed over the prepared concrete surface at 0.30 to 0.40 litter/ Square Metre by using the airless nozzle gun. After applying primer coat, Single component aliphatic acrylate UV resistant protective cum decorative coat DEKilogramUARD S or similar shall be applied over the primed surface using airless nozzle gun in two coats and each coat shall b e 150 microns DFT. Including cost of all materials, cost of hire charges of tools and plants and all labour charges etc. complete.	As directed by Engineer in Charge	Square Meter	1259	579
689	Bridge Repair New Item	19.22	BR	Providing Boulder to the cavity area of 75-200mm in size includes the cost of hire charges of all machineries, barge, boat, cost of all tools and all labour charges etc., complete.	As directed by Engineer in Charge	Cubic Meter	4267	2458
690	Bridge Repair New Item	19.23	BR	Providing filling of Micro-concrete and 10 mm aggregate ( 1:1) including scarificial leakproof MS shuttering includes the cost of hire charges of all machineries, barge, boat, cost of all tools and all labour charges etc., complete.	As directed by Engineer in Charge	Cubic Meter	113577	23400
691	Bridge Repair New Item	19.24	BR	Providing Grounting of nozzles with Low Viscosity Epoxy grout including material, labour complete in all respect.	As directed by Engineer in Charge	Cubic Meter	1521	592
692	Bridge Repair New Item	19.25	BR	Drilling 32 mm dia hole and upto depth of 400 mm and grouting with epoxy resin of reinforcement steel of 25 mm dia of all manpower and equipments complete in all respect	As directed by Engineer in Charge	Number	4340	1866
693	Bridge Repair New Item	19.26	BR	Re-casting of bracket with micro-concrete and 10 mm aggregate ( 1:1) with leakproof shuttering all manpower and equipments complete in all respect	As directed by Engineer in Charge	Cubic Meter	94807	15550
694	Bridge Repair New Item	19.27	BR	P/fixing of carbon 100 mm x 1.4 mm carbon laminate with adhesive including of all manpower and equipments complete in all respect	As directed by Engineer in Charge	Running Meter	7028	1737
695	Bridge Repair New Item	19.28	BR	P/Applying prestressing to the laminate with hydraulic system to the required force as per approved design with all manpower and equipments complete in all respect	As directed by Engineer in Charge	Running Meter	7508	2316
696	Bridge Repair New Item	19.29	BR	P/Fixing of carbon fiber sheet of 430 GSM with adhesive including of hanging scofolding of all manpower and equipments complete in all respect	As directed by Engineer in Charge	Square Meter	8986	1866
697	Bridge Repair New Item	19.30	BR	Providing and fixing carbon fiber anchor including drilling hole in the base concrete fixing the anchor using epoxy 50X55 system spreading the anchor fibers in star pattern including appication of saturant etc. complete.	As directed by Engineer in Charge	Number	542	311
698	Bridge Repair New Item	19.31	BR	Anticorrosive treatment to expose reinforcement in two coats with time interval of minimum 4 hours between each coat. The application shall be done by brush.	As directed by Engineer in Charge	Square Meter	571	311
699	Bridge Repair New Item	19.32	BR	Carry out application of "Bi-polar migratory corrosion inhibitor" on concrete surface. This inhibitor has migratory kind of property which permits the material to migrate to a virtual extent of 100mm, through pores of concrete.inhibiting the corrosion etc complete.	As directed by Engineer in Charge	Square Meter	750	498
700	Bridge Repair New Item	19.33	BR	Providing & applying structural grade epoxy latex bond coat prior to application of any type of mortar confirming to IS codes or equivalent to ensure bond between old concrete & new concrete by brush application etc complete.	As directed by Engineer in Charge	Square Meter	765	311



Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
701	Bridge Repair New Item	19.34	BR	Providing & applying 2 coats of compatible Polyurethane on epoxy fiber wrapped surface with brush /spray application etc complete.	As directed by Engineer in Charge	Square Meter	796	498
702	Bridge Repair New Item	19.35	BR	Providing & applying 20mm thick single coat Epi-bond plaster on FRP wrap surface & other area etc complete.	As directed by Engineer in Charge	Square Meter	1191	498
703	Bridge Repair New Item	19.36	BR	Providing 10 mm dia and 150 mm long tie rod stud through corrugated GI decking sheet and welding to the deck slab reinforcement for holding decking sheets in place etc complete.	As directed by Engineer in Charge	Number	65	16
704	Bridge Repair New Item	19.37	BR	Dismantling of concrete pedestal up to required height including cutting reinforcement by using of concrete saw, complete including all fixing arrangements of the machines, water for cooling, diamond saw, other accessories, safety of workers and removal and disposal of debris as per instruction of site in- charge etc complete	As directed by Engineer in Charge	Number	18500	2433
705	Bridge Repair New Item	19.38	BR	Dismantling of concrete pedestal up to required height using electrical breakers including cutting reinforcement by gas cutters, other accessories, safety of workers and removal and disposal of debris as per instruction of site in- charge	As directed by Engineer in Charge	Number	4878	2719
706	Bridge Repair New Item	19.39	BR	Providing and applying anticorrosive treatment with epoxy zinc rich primer to the exposed reinforcement after cleaning either with wire brush or sand blasting including all tools, tackels, machinery etc. complete.	As directed by Engineer in Charge	Square Meter	728	493
707	Bridge Repair New Item	19.4	BR	Stone work Joint Filling :Racking of joints in Course rubble masonry (CRM). Sealing of the joints with epoxy mortar confirming to Section 2800 of technical specification, including pointing, finishing ect., complete.	As directed by Engineer in Charge	Number	1372	493
708	Bridge Repair New Item	19.41	BR	Dismantelling existing damaged Drainage Water Spout and providing 100mm diameter GI water spouts as per detailed drawings in RCC slab and wearing surface/kerb etc.complete	As directed by Engineer in Charge	Number	3118	1972
709	Bridge Repair New Item	19.42	BR	Providing and fixing additional reinforcement to replace the corroded diameter of existing steel for strengthening purpose.	As directed by Engineer in Charge	Number	85	8
710	Bridge Repair New Item	19.43	BR	Raising of folding to reach the entire surface area of bridge. upto10 m height above ground level, made with MS tube, horizontal and vertical tub joint with cup and lock system with MS tubes, challies, MS clamp and maintaing it in a serveciabl econdition for execution work of cleaning and/ or pointing and or/applying protection coating and/ inspection of work at required locations and removing it there after etc complete. (Item includes making of temporary support for scaffolding, cost of scaffolding, labour, material, safety devices etc..all complete)	As directed by Engineer in Charge	Square Meter	681	148
711	Bridge Repair New Item	19.44	BR	Structural Repairs to damaged concrete surface with polymer concrete /mortar with AC-ACRYLATE-REPAIR and AC-BOND-AID as detailed in the method statement including material, labour, etc., all complete as directed by engineer. (Repairs to deck slab, piers, abutment, girders and other locations up to 40 mm thickness).	As directed by Engineer in Charge	Square Meter	3833	592
712	Bridge Repair New Item	19.45	BR	Core Strengthening of Concrete Structure: Strengthening of concrete structure including grouting of concrete with epoxy, AC-DUR-IE, as detailed in the method statement. Item includes cost of material, labour, equipment's and also removal of nozzles and finishing of the surface after the work.	As directed by Engineer in Charge	Number	4070	986
713	Bridge Repair New Item	19.46	BR	Erecting supports for placing the jacks, props and necessary steel structure. Placing of the jacks below bearings. (as per the design of lifting scheme). The lifting scheme shall be put up to the approval of consultants after approval of the work shall be done by competent authority. Cost of the bearings, design of erection system, jacks, platforms, safety devices, etc., complete including releasing of bridge span on the new bearings. (Bearing replacement from 50 to 100 numbers per bridge)	As directed by Engineer in Charge	Number	32845	4395

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
714	Bridge Repair New Item	19.47	BR	Providing and flooding high molecular weight lowest viscous thermoset Monomer MONOPOL (<10 CPs viscosity) at the dosage of 2 Kg/sqm on the deck bridge slab for rendering intrinsic impermeability, improving cohesion and sealing micropores in deck bridge slab. The procedure includes cleaning the slab with wire brushing and air blowing, flooding the slab at the dosage of 2 Kgs/sqm over cleaned surface and brooming it further to allow fullest penetration and complete receival inside the concrete. The material shall have following properties: Material-Low viscosity high molecular weight thermosett resin grout, Viscosity-Less than 10 centipoise per second, Mechanical strength properties of the material (after 7 days) Compressive strength (ASTM-D-695-96)Min 60 MPa, Tensile strength (ASTM-D-638-95)Min. 18 MPa, Flexure (ASTM-D-790-96)Min. 30 MPa.	As directed by Engineer in charge	Square Metre	2,125.00	310.00
715	Bridge Repair New Item	19.48	BR	Providing and laying low viscosity, abrasion resistant, insitu UV resistant sealer Monopol-160 into all type of concrete pavement cracks wherever required in culverts, bridges and pavements as per manufacturer's specifications and guidelines etc. complete including chipping the surface and making groove into cracks 5mm x 10mm and cleaning the surface and pouring the material into cracks etc. complete.	As directed by Engineer in charge	Running Metre	243.00	133.00
716	Bridge Repair New Item	19.49	BR	Providing and laying low viscosity, abrasion resistant, insitu UV resistant sealer Monopol-160 into all type of wearing sealer coat & pot hole filler wherever required in culverts, bridges and pavements as per manufacturer's specifications and guidelines including removing loose concrete, cleaning the surface, mixing and pouring the merterial about 20mm thick etc complete.	As directed by Engineer in charge	Square Metre	7,388.00	2252.00
717	Bridge Repair New Item	19.5	BR	Providing and applying interpenetrating Polymer network concrete coating system for bridges, bridge decks, girders, piers, RCC strectures for protections against chemical and weather resistance complete comprising of one Primer Coat of epoxy phenolic interpenetrating polymer, two middle coats of IPNet Middle Coat and a Top Coat of IPNet PU (Aliphatic PU) to a total thickness of 300±15 microns over a thoroughly prepared surface with an interval of 3 hours to 78 hours between the coats. The application shall be in red and white colour and shall conform to the following: a. Tensile strength: Minimum tensile strength of the coating must be 15 N/mm 2 and it should be determined as per ASTM D-2370-73 b. Elongation: Minimum elongation of the coating must be 15% and it should be determined as per ASTM D-2370-73 c. Specific permeability: The maximum value must be 0.15 mg/cm 2 /mm/24hr and it should be determined as per ASTM D-1653-74 d. Adhesion with concrete: The minimum adhesion with concrete by pullout method must be 2.5N/mm 2 and it should be determined as per BS-3900-E-10-79 e. Impedence (In 3.0 % NaCl Solution) Initial 9 x 10 10 ohms minimum After 30 days 1 x 10 8 ohms minimum f. QUV Condensation test: Minimum 500 hrsas per ASTM-G-154	As directed by Engineer in charge	Square Metre	550.00	148.00

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
<b>SSR 2021-2022 :- Excavation</b>								
718	Excavation	21.01	BDA 1	Excavation for foundation in earth, soil of all types, sand, gravel and soft murum, including removing the excavated material up to a distance of 50 m. beyond the building area and stacking and spreading as directed, dewatering, preparing the bed for the foundation and necessary back filling, ramming, watering including shoring and strutting etc. complete. (Lift upto 3.00 m.) By Manual Means	Bd.A.1 Page Number 259	Cubic Metre	232	232
719	Excavation	21.02	BDA 1	Excavation for foundation in earth, soil of all types, sand, gravel and soft murum, including removing the excavated material up to a distance of 50 m. beyond the building area and stacking and spreading as directed, dewatering, preparing the bed for the foundation and necessary back filling, ramming, watering including shoring and strutting etc. complete. (Lift upto 1.5 m.) By Mechanical Means	Bd.A.1 Page Number 259	Cubic Metre	193	109
720	Excavation	21.03	BDA 1	Excavation for foundation in earth, soils of all types, sand, gravel and soft murum, including removing the excavated material upto a distance of 50 metres beyond the building area and stacking and spreading as directed, dewatering, preparing the bed for the foundation and necessary back filling, ramming, watering including shoring and strutting etc. complete. (Lift from 1.5m to 3.0m) By Manual Means	Bd.A.1 Page Number 259	Cubic Metre	306	306
721	Excavation	21.04	BDA 1	Excavation for foundation in earth, soils of all types, sand, gravel and soft murum, including removing the excavated material upto a distance of 50 metres beyond the building area and stacking and spreading as directed, dewatering, preparing the bed for the foundation and necessary back filling, ramming, watering including shoring and strutting etc. complete. (Lift from 1.5m to 3.0m) By Mechanical Means	Bd.A.1 Page Number 259	Cubic Metre	241	136
722	Excavation	21.05	BDA 2	Excavation for foundation in hard murum including removing the excavated material upto distance of 50 metres beyond the building area and stacking and spreading as directed, dewatering, preparing the bed for the foundation and necessary back filling, ramming, watering including shoring and strutting etc. complete. (Lift upto 1.50 m) By Manual Means	Bd.A.1 Page No.259	Cubic Metre	354	354
723	Excavation	21.06	BDA 2	Excavation for foundation in hard murum including removing the excavated material upto distance of 50 metres beyond the building area and stacking and spreading as directed, dewatering, preparing the bed for the foundation and necessary back filling, ramming, watering including shoring and strutting etc. complete. (Lift upto 1.50 m) By Mechanical Means	Bd.A.2 Page Number 259	Cubic Metre	212	120
724	Excavation	21.07	BDA 2	Excavation for foundation in hard murum including removing the excavated material upto a distance of 50 metres beyond the building area and stacking and spreading as directed, dewatering, preparing the bed for the foundation and necessary back filling, ramming, watering including shoring and strutting etc. complete. (Lift from 1.5 to 3.0m) By Manual Means	Bd.A.1 Page No.259	Cubic Metre	403	403
725	Excavation	21.08	BDA 2	Excavation for foundation in Hard murum including removing the excavated material upto a distance of 50 metres beyond the building area and stacking and spreading as directed, dewatering, preparing the bed for the foundation and necessary back filling, ramming, watering including shoring and strutting etc. complete. (Lift from 1.5 to 3.0m.) By Mechanical Means	Bd.A.2 Page Number 259	Cubic Metre	265	150
726	Excavation	21.10	BDA 3	Excavation for foundation in hard murum and boulders including removing the excavated material up to a distance 50 metres, beyond the building area and stacking and spreading as directed, dewatering, preparing the bed for the foundation and necessary back filling, ramming, watering including shoring and strutting etc. complete. (Lift upto 1.5m.) By Mechanical Means	Bd.A.3 Page Number 259	Cubic Metre	235	132

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
727	Excavation	21.12	BDA 3	Excavation for foundation in Hard murum and boulders including removing the excavated material upto a distance of 50 metres, beyond the building area and stacking and spreading as directed, dewatering, preparing the bed for the foundation and necessary back filling, ramming, watering including shoring and strutting etc. complete. (Lift from 1.5 m to 3.0 m.) By Mechanical Means	Bd.A.3 Page Number 259	Cubic Metre	291	163
728	Excavation	21.14	BDA 4	Excavation for foundation in <b>Soft rock and old cement or lime masonry foundations</b> including removing the excavated material upto a distance of 50 metres beyond the building area and stacking as directed, including dewatering, preparing the bed for the foundation and necessary back filling with available earth /murum, ramming, watering including shoring and strutting etc. complete (lift upto 1.5m) By Mechanical Means	Bd.A.4 Page Number 259	Cubic Metre	402	272
729	Excavation	21.16	BDA 4	Excavation for foundation in <b>Soft rock and old cement or lime masonry foundations</b> including removing the excavated material upto a distance of 50 metres beyond the building area and stacking as directed, including dewatering, preparing the bed for the foundation and necessary back filling with available earth/murum, ramming ,watering including shoring and strutting etc. complete. (Lift from 1.5m To 3.0 m.) By Mechanical Means	Bd.A.4 Page Number 259	Cubic Metre	490	336
730	Excavation	21.17	BDA 5	Excavation for foundation in <b>Hard rock by blasting</b> including trimming and leveling the bed by chiseling where necessary and removing the excavated material and stacking it in measurable heaps within a distance of 50 metres from the building area including dewatering and back filling with available earth/murum, watering, ramming, etc. complete. (Lift upto 1.5m) By Mechanical Means	Bd.A.5 Page Number 259	Cubic Metre	811	426
731	Excavation	21.18	BDA 5	Excavation for foundation in <b>Hard-rock by blasting</b> including trimming and leveling the bed by chiselling where necessary and removing the excavated material and stacking it in measurable heaps within a distance of 50 metres from the building area including dewatering and back filling with available earth/murum watering, ramming etc. complete. (Lift from 1.5m To 3.0 m) By Mechanical Means	Bd.A.5 Page Number 259	Cubic Metre	964	527
732	Excavation	21.19	BDA 5 B1	Excavation for foundation in <b>Hard-rock by controlled blasting including</b> trimming and leveling the bed by chiselling where necessary and removing the excavated material and stacking it in measurable heaps within a distance of 50 metres. from the building area including dewatering and back filling with available earth soil /murum watering, ramming etc. complete. (Lift upto 1.5m) By Mechanical Means	Bd.A.5 Page Number 259	Cubic Metre	1051	439
733	Excavation	21.20	BDA 6	Excavation for foundation in <b>Hard rock by chiselling, wedging, line drilling,</b> etc. including trimming and levelling the bed, removing the excavated material upto a distance of 50 metres beyond the building area stacking as directed, dewatering and back filling with available earth/ murum watering, ramming etc. complete. (Lift upto 1.5 m). By Mechanical Means	Bd.A.6 Page Number 260	Cubic Metre	1223	838
734	Excavation	21.21	BDA 7	Excavation for foundation in <b>laterite rock (soft or hard)</b> including trimming and levelling the bed for the foundation, removing the excavated material up to a distance of 50 metres beyond the building area, stacking as directed, dewatering and back filling with available murum, watering, ramming etc. complete. (Lift upto 1.5 m.) By Mechanical Means	Bd.A.7, Page Number 260	Cubic Metre	1370	838
735	Excavation	21.22	BDW	Providing preconstructional antitermite treatment as per I.S. 6313 (Part-II) by treating the bottom surface and sides of excavation at the rate of 5 litres of emulsion concentrate of 1.0 percent of chlorophyrifos per square meter of surface area covering 10 years guarantee on bond paper.	As directed by Engineer in charge.	Square Metre	92	6
736	Excavation	21.23	BDW	Providing preconstructional antitermite treatment as per I.S. 6313 (Part-II) treatment by treating the backfill in immediate contact with foundation at the rate of 5 litres of emulsion concentrate of 1.0 percent of clorophyrifos per square metre of vertical surface area covering 10 years guarantee on bond paper.	As directed by Engineer in charge.	Square Metre	97	6

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
737	Excavation	21.24	BDW	Providing preconstructional antitermite treatment as per I.S. 6313 (Part-II) by treating the top surface of plinth filling at the rate of 5 litres of emulsion concentrate at 1.0 percent of clorophyrifos per square metre of surface area covering ten years guarantee on bond paper.	As directed by Engineer in charge.	Square Metre	94	7
738	Excavation	21.25	BDW	Providing preconstructional antitermite treatment as per I.S. 6313 (Part-I) to the soil along the external face of building by punching holes of 1.2 of 1.5 C.M. diametre about 30 -60 cm deep at 15 cm c/c as close to the wall as possible and to inject 0.5 percent of aldrin or clorophyrifos at the rate of 7.5 litres per hole and sealing the same with proper filling and covering 10 years guarantee on bond paper.	As directed by Engineer in charge.	Square Metre	153	22
739	Excavation	21.26	BDW	Providing antitermite treatment to the wooden frames of doors/windows of the existing building as per I.S. 6313 (Part-III) by drilling 6mm dia. holes at four corners on one side and four corners on other side at a downward angle of about 45 degree at the junction of wood work and masonry and injecting 150 ml. of chlorodane 5% W.C. and sealing by filling putty etc. complete covering 2 years guarantee on bond paper.	As directed by Engineer in charge.	Number	65	9
740	Excavation	21.27	BDW	Providing antitermite treatment to the joints of wooden beams/joist used for the roof work of the existing building as per I.S. 6313 (Part-III) by drilling 6mm dia. holes at a downward angle of about 45 degree at the junction of wood work and masonry and injecting 80 ml. of chlorodane 5% W.C. and sealing by filling putty etc. complete covering 2 years guarantee on bond paper.	As directed by Engineer in charge.	Number	50	15
741	Excavation	21.28	BDW	Providing antitermite treatment to the sides of flooring of the existing building as per I.S. 6313 (Part-III) by punching holes 6mm dia. drilled at a distance of 30cm. centre to centre and injecting one percent of chlorodane emulsion concentrate at the rate of 50 ml per hole and sealing by filling putty etc. complete covering 2 years guarantee on bond paper.	As directed by Engineer in charge.	Number	23	9
742	Excavation	21.29	BDW	Providing antitermite treatment around the periphery of the existing building as per I.S. 6313 (Part-III) by excavating trenches of 20cm width and exposing the sides of columns and plinth beams upto a depth of 300mm and injecting one percent of chlorodane emulsion concentrate at the rate of 2.25 litres per Running metre and refilling the trenches etc. complete covering 2 years guarantee on bond paper.	As directed by Engineer in charge.	Running Metre	60	33
743	Excavation	21.30	BDW	Providing general pest control services to the building to control the nuisance of cockroaches, lizards, pin bores and other insects etc. with 4 operations in a year and monthly check up.	As directed by Engineer in charge.	Square Metre	22	8
744	Excavation	21.31	BDW	Providing general pest control services to small size of inspection chamber to control the nuisance of cockroaches during the year with monthly check up.	As directed by Engineer in charge.	Number	175	113
745	Excavation	21.32	BDW	Providing general pest control services to big size of inspection chamber to control the nuisance of cockroaches during the year with monthly check up.	As directed by Engineer in charge.	Number	341	148
746	Excavation	21.33	BDW	Labour charges for removing grass, thorney shrubs, Jungli shrub, Kubabul and alike grass along roadside making the ground clean by showel and phavaras etc. complete.	As directed by Engineer in charge.	Square Metre	7	7
747	Excavation	21.34	BDW	Removing grass, gazer grass and disposing off out of building premises including making clean the ground by shovel and phavaras etc. complete.	As directed by Engineer in charge.	Square Metre	6	6
748	Excavation	21.36	BDA 10	Filling in plinth and floors with approved excavated material in 15cm. to 20cm. layers including watering and compacting etc. complete.	Bd.A.10 Page Number 262	Cubic Metre	113	113
749	Excavation	21.37	BDA 11	Filling in plinth and floors with contractors material/brought from outside and approved by Engineer incharge in layers of 15 cm to 20 cm including watering and compaction etc. complete.	Bd.A.11 Page Number 263	Cubic Metre	550	127
750	Excavation	21.38	BDA 12	Providing dry/ trap/ granite/ quartzite/ gneiss rubble stone soling 15 cm to 20 cm thick including hand packing and compacting etc. complete.	Bd.A. 12 Page Number 264	Cubic Metre	1294	408

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751	Excavation	21.39	BDA 13	Providing and filling in the foundation with sand of approved quality including watering, compacting etc. complete. (To be executed with prior approval of Superintending Engineer)	Bd.A.13 Page Number 264	Cubic Metre	2172	113
752	Excavation	21.40	BDA	Providing soling using 80 mm size trap metal in 15 cm. layer including filling voids with Crushed sand/grit, ramming, watering etc. complete.	As directed by Engineer in charge.	Cubic Metre	1322	412

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<b>SSR 2021-2022 :- Pile Foundation: Building</b>								
753	Pile Foundation: Building	22.01	Bd-B	Providing and laying cast in situ / Ready Mix Cement Concrete M-20 RCC single rim bored pile of 225 mm dia. each of load capacity as per design and of specified diameter of pile and bulb as directed, sunk to the required depth through all strata except rock, excluding provision of reinforcement including placing with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade) by tremie arrangement, compaction of concrete including chipping and dressing including chipping and dressing if required etc. complete. (Excluding steel reinforcement)	As directed by Engineer in charge	Running Metre	750	170
754	Pile Foundation: Building	22.02	Bd-B	Providing and laying cast in situ / Ready Mix Cement Concrete of M20 grade RCC single rim bored pile of 300 mm dia. each of load capacity as per design and of specified diameter of pile and bulb as directed, sunk to the required depth through all strata except rock, excluding provision of reinforcement including placing with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade) by tremie arrangement compaction of concrete including chipping and dressing etc. complete. (Excluding steel reinforcement)	As directed by Engineer in charge	Running Metre	970	258
755	Pile Foundation: Building	22.03	Bd-B	Providing and laying cast in situ / Ready Mix Cement Concrete M-20 for single rim bored pile of 380 mm dia. each of load capacity as per design and of specified diameter of pile and bulb as directed, sunk to the required depth through all strata except rock, excluding provision of reinforcement including placing with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade) by tremie arrangement compaction of concrete including chipping and dressing etc. complete. (Excluding steel reinforcement)	As directed by Engineer in charge	Running Metre	1267	372
756	Pile Foundation: Building	22.04	Bd-B	Providing and laying cast in situ / Ready Mix Cement Concrete M-20 for single rim bored pile of 450 mm dia. each of load capacity as per design and of specified diameter of pile and bulb as directed, sunk to the required depth through all strata except rock, excluding provision of reinforcement including placing with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade) by tremie arrangement compaction of concrete including chipping and dressing etc. complete. (Excluding steel reinforcement)	As directed by Engineer in charge	Running Metre	1607	517
757	Pile Foundation: Building	22.05	Bd-B	Providing and laying M-20 RCC cast in situ single rim bored pile of 535 mm dia. each of load capacity as per design and of specified diameter of pile and bulb as directed, sunk to the required depth through all strata except rock, excluding provision of reinforcement including placing with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade) by tremie arrangement compaction of concrete including chipping and dressing etc. complete. (Excluding steel reinforcement)	As directed by Engineer in charge	Running Metre	2045	670
758	Pile Foundation: Building	22.06	Bd-B	Providing and laying cast in situ / Ready Mix Cement Concrete M-20 for single rim bored pile of 600 mm dia. each of load capacity as per design and of specified diameter of pile and bulb as directed, sunk to the required depth through all strata except rock, excluding provision of reinforcement including placing with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade) by tremie arrangement compaction of concrete including chipping and dressing etc. complete. (Excluding steel reinforcement)	As directed by Engineer in charge	Running Metre	2446	823

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
759	Pile Foundation: Building	22.07	Bd-B	Providing and laying cast in situ / Ready Mix Cement Concrete M-25 for single rim bored pile of 225 mm dia. each of load capacity as per design and of specified diameter of pile and bulb as directed, sunk to the required depth through all strata except rock, excluding provision of reinforcement including placing with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade) by tremie arrangement compaction of concrete including chipping and dressing etc. complete. (Excluding steel reinforcement)	As directed by Engineer in charge	Running Metre	757	170
760	Pile Foundation: Building	22.08	Bd-B	Providing and laying cast in situ / Ready Mix Cement Concrete M-25 for single rim bored pile of 300 mm dia. each of load capacity as per design and of specified diameter of pile and bulb as directed, sunk to the required depth through all strata except rock, excluding provision of reinforcement including placing with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade) by tremie arrangement compaction of concrete including chipping and dressing etc. complete. (Excluding steel reinforcement)	As directed by Engineer in charge	Running Metre	995	258
761	Pile Foundation: Building	22.09	Bd-B	Providing and laying cast in situ / Ready Mix Cement Concrete M-25 for single rim bored pile of 380 mm dia. each of load capacity as per design and of specified diameter of pile and bulb as directed, sunk to the required depth through all strata except rock, excluding provision of reinforcement including placing with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade) by tremie arrangement compaction of concrete including chipping and dressing etc. complete. (Excluding steel reinforcement)	As directed by Engineer in charge	Running Metre	1287	372
762	Pile Foundation: Building	22.10	Bd-B	Providing and laying cast in situ / Ready Mix Cement Concrete M-25 for single rim bored pile of 450 mm dia. each of load capacity as per design and of specified diameter of pile and bulb as directed, sunk to the required depth through all strata except rock, excluding provision of reinforcement including placing with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade) by tremie arrangement compaction of concrete including chipping and dressing etc. complete. (Excluding steel reinforcement)	As directed by Engineer in charge	Running Metre	1720	517
763	Pile Foundation: Building	22.11	Bd-B	Providing and laying cast in situ / Ready Mix Cement Concrete M-20 for double rim bored pile of 225 mm dia. each of load capacity as per design and of specified diameter of pile and bulb as directed, sunk to the required depth through all strata except rock, excluding provision of reinforcement including placing with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade) by tremie arrangement compaction of concrete including chipping and dressing etc. complete. (Excluding steel reinforcement)	As directed by Engineer in charge	Running Metre	860	170
764	Pile Foundation: Building	22.12	Bd-B	Providing and laying cast in situ / Ready Mix Cement Concrete M-20 for double rim bored pile of 300 mm dia. each of load capacity as per design and of specified diameter of pile and bulb as directed, sunk to the required depth through all strata except rock, excluding provision of reinforcement including placing with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade) by tremie arrangement compaction of concrete including chipping and dressing etc. complete. (Excluding steel reinforcement)	As directed by Engineer in charge	Running Metre	1251	258



Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
765	Pile Foundation: Building	22.13	Bd-B	Providing and laying cast in situ / Ready Mix Cement Concrete M-20 for double rim bored pile of 380 mm dia. each of load capacity as per design and of specified diameter of pile and bulb as directed, sunk to the required depth through all strata except rock,excluding provision of reinforcement including placing with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade) by tremie arrangement compaction of concrete including chipping and dressing etc. complete. (Excluding steel reinforcement)	As directed by Engineer in charge	Running Metre	1846	372
766	Pile Foundation: Building	22.14	Bd-B	Providing and laying cast in situ / Ready Mix Cement Concrete M-20 for double rim bored pile of 450 mm dia. each of load capacity as per design and of specified diameter of pile and bulb as directed, sunk to the required depth through all strata except rock,excluding provision of reinforcement including placing with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade) by tremie arrangement compaction of concrete including chipping and dressing etc. complete. (Excluding steel reinforcement)	As directed by Engineer in charge	Running Metre	2575	517
767	Pile Foundation: Building	22.15	Bd-B	Providing and laying cast in situ / Ready Mix Cement Concrete M-25 for double rim bored pile of 225 mm dia. each of load capacity as per design and of specified diameter of pile and bulb as directed, sunk to the required depth through all strata except rock,excluding provision of reinforcement including placing with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade) by concrete prepared in reversible drum type concrete mixer by tremie arrangement, compaction of concrete including chipping and dressing etc. complete. (Excluding steel reinforcement)	As directed by Engineer in charge	Running Metre	896	170
768	Pile Foundation: Building	22.16	Bd-B	Providing and laying cast in situ / Ready Mix Cement Concrete M-25 for double rim bored pile of 300 mm dia. each of load capacity as per design and of specified diameter of pile and bulb as directed, sunk to the required depth through all strata except rock, excluding provision of reinforcement including placing with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade) by concrete prepared in reversible drum type concrete mixer by tremie arrangement, compaction of concrete including chipping and dressing etc. complete. (Excluding steel reinforcement)	As directed by Engineer in charge	Running Metre	1327	258
769	Pile Foundation: Building	22.17	Bd-B	Providing and laying cast in situ / Ready Mix Cement Concrete M-25 for double rim bored pile of 380 mm dia. each of load capacity as per design and of specified diameter of pile and bulb as directed, sunk to the required depth through all strata except rock, excluding provision of reinforcement including placing with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade) by concrete prepared in reversible drum type concrete mixer by tremie arrangement, compaction of concrete including chipping and dressing etc. complete. (Excluding steel reinforcement)	As directed by Engineer in charge	Running Metre	1984	372

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
770	Pile Foundation: Building	22.18	Bd-B	Providing and laying cast in situ / Ready Mix Cement Concrete M-25 for double rim bored pile of 450 mm dia. each of load capacity as per design and of specified diameter of pile and bulb as directed, sunk to the required depth through all strata except rock, excluding provision of reinforcement including placing with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade) by concrete prepared in reversible drum type concrete mixer by tremie arrangement, compaction of concrete including chipping and dressing etc. complete. concrete prepared in reversible drum type concrete mixer by tremie arrangement, compaction of concrete including chipping and dressing etc. complete. (Excluding steel reinforcement)	As directed by Engineer in charge	Running Metre	2787	517
771	Pile Foundation: Building	22.19	Bd-B	Providing and laying cast in situ / Ready Mix Cement Concrete M-25 for double rim bored pile of 535 mm dia. each of load capacity as per design and of specified diameter of pile and bulb as directed, sunk to the required depth through all strata except rock, excluding provision of reinforcement including placing with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade) by concrete prepared in reversible drum type concrete mixer by tremie arrangement, compaction of concrete including chipping and dressing etc. complete. (Excluding steel reinforcement)	As directed by Engineer in charge	Running Metre	4003	670
772	Pile Foundation: Building	22.20	Bd-B	Providing and laying cast in situ / Ready Mix Cement Concrete M-25 for in situ double rim bored pile of 600 mm dia. each of load capacity as per design and of specified diameter of pile and bulb as directed, sunk to the required depth through all strata except rock, excluding provision of reinforcement including placing with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade) by concrete prepared in reversible drum type concrete mixer by tremie arrangement, compaction of concrete including chipping and dressing etc. complete. concrete prepared in reversible drum type concrete mixer by tremie arrangement, compaction of concrete including chipping and dressing etc. complete. (Excluding steel reinforcement)	As directed by Engineer in charge	Running Metre	5190	823
773	Pile Foundation: Building	22.21	Bd/B-4 P-270	Providing and laying cast in situ / Ready Mix Cement Concrete M-30 for bored piles each of load capacity and as per design and of 325 mm diameter or as directed placed through steel shells sunk to the required depth through all strata except rock excluding provision of reinforcement as per detailed drawings and design approved by the Engineer-in- charge including placing with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade) by concrete prepared by tremie arrangement, compaction of concrete including chipping and dressing etc. complete. concrete by tremie arrangements, compaction of concrete including chipping and dressing and withdrawal of shell etc. complete. (Excluding steel reinforcement)	As directed by Engineer in charge	Running Metre	2460	1273

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
774	Pile Foundation: Building	22.22	Bd/B-4 P-270	Providing and laying cast in situ / Ready Mix Cement Concrete M-30 for bored piles each of load capacity and as per design and of 350mm diameter or as directed placed through steel shells sunk to the required depth through all strata except rock excluding provision of reinforcement as per detailed drawings and design approved by the Engineer-in- charge including placing with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade) by tremie arrangements, compaction of concrete including chipping and dressing and withdrawal of shell etc. complete. (Excluding steel reinforcement)	As directed by Engineer in charge	Running Metre	2566	1298
775	Pile Foundation: Building	22.23	Bd/B-4 P-270	Providing and laying cast in situ / Ready Mix Cement Concrete M-30 for bored piles each of load capacity and as per design and of 400 mm diameter.or as directed placed through steel shells sunk to the required depth through all strata except rock excluding provision of reinforcement as per detailed drawings and design approved by the Engineer-in- charge including placing with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade) by tremie arrangements, compaction of concrete including chipping and dressing and withdrawal of shell etc. complete. (Excluding steel reinforcement)	As directed by Engineer in charge	Running Metre	2785	1351
776	Pile Foundation: Building	22.24	Bd/B-4 P-270	Providing and laying cast in situ / Ready Mix Cement Concrete M-30 for bored piles each of load capacity and as per design and of 425mm diameter or as directed placed through steel shells sunk to the required depth through all strata except rock excluding provision of reinforcement as per detailed drawings and design approved by the Engineer-in- charge including placing with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade) by tremie arrangements, compaction of concrete including chipping and dressing and withdrawal of shell etc. complete. (Excluding steel reinforcement)	As directed by Engineer in charge	Running Metre	2906	1381
777	Pile Foundation: Building	22.25	Bd/B-4 P-270	Providing and laying cast in situ / Ready Mix Cement Concrete M-30 for bored piles each of load capacity and as per design and of 475mm diameter or as directed placed through steel shells sunk to the required depth through all strata except rock excluding provision of reinforcement as per detailed drawings and design approved by the Engineer-in- charge including placing with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade) by tremie arrangements, compaction of concrete including chipping and dressing and withdrawal of shell etc. complete. (Excluding steel reinforcement)	As directed by Engineer in charge	Running Metre	3207	1447
778	Pile Foundation: Building	22.26	Bd/B-4 P-270	Providing and laying cast in situ / Ready Mix Cement Concrete M-30 for bored piles each of load capacity and as per design and of 500mm diameter or as directed placed through steel shells sunk to the required depth through all strata except rock excluding provision of reinforcement as per detailed drawings and design approved by the Engineer-in- charge including placing with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade) by tremie arrangements, compaction of concrete including chipping and dressing and withdrawal of shell etc. complete. (Excluding steel reinforcement)	As directed by Engineer in charge	Running Metre	3663	1668

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
779	Pile Foundation: Building	22.27	Bd/B-4 P-270	Providing and laying cast in situ / Ready Mix Cement Concrete M-30 for bored piles each of load capacity and as per design and of 525 mm diameter or as directed placed through steel shells sunk to the required depth through all strata except rock excluding provision of reinforcement as per detailed drawings and design approved by the Engineer-in- charge including placing with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade) by tremie arrangements, compaction of concrete including chipping and dressing and withdrawal of shell etc. complete. (Excluding steel reinforcement)	As directed by Engineer in charge	Running Metre	3912	1705
780	Pile Foundation: Building	22.28	Bd/B-4 P-270	Providing and laying cast in situ / Ready Mix Cement Concrete M-30 for bored piles each of load capacity and as per design and of 550 mm diameter or as directed placed through steel shells sunk to the required depth through all strata except rock excluding provision of reinforcement as per detailed drawings and design approved by the Engineer-in- charge including placing with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade) by tremie arrangements, compaction of concrete including chipping and dressing and withdrawal of shell etc. complete. (Excluding steel reinforcement)	As directed by Engineer in charge	Running Metre	4071	1743
781	Pile Foundation: Building	22.29	Bd/B-4 P-270	Providing and laying cast in situ / Ready Mix Cement Concrete M-30 for bored piles each of load capacity and as per design and of 600 mm diameter or as directed placed through steel shells sunk to the required depth through all strata except rock excluding provision of reinforcement as per detailed drawings and design approved by the Engineer-in- charge including placing with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade) by tremie arrangements, compaction of concrete including chipping and dressing and withdrawal of shell etc. complete. (Excluding steel reinforcement)	As directed by Engineer in charge	Running Metre	4411	1826
782	Pile Foundation: Building	22.30	Bd/B-4 P-270	Providing and laying cast in situ / Ready Mix Cement Concrete M-30 for bored piles each of load capacity and as per design and of 625 mm diameter or as directed placed through steel shells sunk to the required depth through all strata except rock excluding provision of reinforcement as per detailed drawings and design approved by the Engineer-in- charge including placing with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade) by tremie arrangements, compaction of concrete including chipping and dressing and withdrawal of shell etc. complete. (Excluding steel reinforcement)	As directed by Engineer in charge	Running Metre	4786	1870
783	Pile Foundation: Building	22.31	Bd/B-4 P-270	Providing and laying cast in situ / Ready Mix Cement Concrete M-30 for bored piles each of load capacity and as per design and of 650 mm diameter or as directed placed through steel shells sunk to the required depth through all strata except rock excluding provision of reinforcement as per detailed drawings and design approved by the Engineer-in- charge including placing with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade) by tremie arrangements, compaction of concrete including chipping and dressing and withdrawal of shell etc. complete. (Excluding steel reinforcement)	As directed by Engineer in charge	Running Metre	4975	1915

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
784	Pile Foundation: Building	22.32	Bd/B-4 P-270	Providing and laying cast in situ / Ready Mix Cement Concrete M-30 for bored piles each of load capacity and as per design and of 750 mm diameter or as directed placed through steel shells sunk to the required depth through all strata except rock excluding provision of reinforcement as per detailed drawings and design approved by the Engineer-in- charge includingplacing with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade) by tremie arrangements, compaction of concrete including chipping and dressing and withdrawal of shell etc. complete. (Excluding steel reinforcement)	As directed by Engineer in charge	Running Metre	5905	2117
785	Pile Foundation: Building	22.33	Bd/B-4 P-270	Providing and laying cast in situ / Ready Mix Cement Concrete M-30 for bored piles each of load capacity and as per design and of 800 mm diameter. or as directed placed through steel shells sunk to the required depth through all strata except rock excluding provision of reinforcement as per detailed drawings and design approved by the Engineer-in- charge includingplacing with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade) by tremie arrangements, compaction of concrete including chipping and dressing and withdrawal of shell etc. complete. (Excluding steel reinforcement)	As directed by Engineer in charge	Running Metre	6366	2228
786	Pile Foundation: Building	22.34	Bd/B-4 P-270	Providing and laying cast in situ / Ready Mix Cement Concrete M-30 for bored piles each of load capacity and as per design and of 825 mm diameter or as directed placed through steel shells sunk to the required depth through all strata except rock excluding provision of reinforcement as per detailed drawings and design approved by the Engineer-in- charge includingplacing with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade) by tremie arrangements, compaction of concrete including chipping and dressing and withdrawal of shell etc. complete. (Excluding steel reinforcement)	As directed by Engineer in charge	Running Metre	7122	2549
787	Pile Foundation: Building	22.35	Bd/B-4 P-270	Providing and laying cast in situ / Ready Mix Cement Concrete M-30 for bored piles each of load capacity and as per design and of 900 mm diameter or as directed placed through steel shells sunk to the required depth through all strata except rock excluding provision of reinforcement as per detailed drawings and design approved by the Engineer-in- charge includingplacing with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade) by tremie arrangements, compaction of concrete including chipping and dressing and withdrawal of shell etc. complete. (Excluding steel reinforcement)	As directed by Engineer in charge	Running Metre	7893	2735
788	Pile Foundation: Building	22.36	Bd/B-4 P-270	Providing and laying cast in situ / Ready Mix Cement Concrete M-30 for bored piles each of load capacity and as per design and of 975 mm diameter or as directed placed through steel shells sunk to the required depth through all strata except rock excluding provision of reinforcement as per detailed drawings and design approved by the Engineer-in- charge includingplacing with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade) by tremie arrangements, compaction of concrete including chipping and dressing and withdrawal of shell etc. complete. (Excluding steel reinforcement)	As directed by Engineer in charge	Running Metre	8724	2937

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
789	Pile Foundation: Building	22.37	Bd/B-4 P-270	Providing and laying cast in situ / Ready Mix Cement Concrete M-30 for bored piles each of load capacity and as per design and of 1000 mm diameter or as directed placed through steel shells sunk to the required depth through all strata except rock excluding provision of reinforcement as per detailed drawings and design approved by the Engineer-in-charge including placing with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade) by tremie arrangements, compaction of concrete including chipping and dressing and withdrawal of shell etc. complete. (Excluding steel reinforcement)	As directed by Engineer in charge	Running Metre	9019	3008
790	Pile Foundation: Building	22.38	Bd/B-4 P-270	Providing and laying cast in situ / Ready Mix Cement Concrete M-30 for bored piles each of load capacity and as per design and of 1050 mm diameter or as directed placed through steel shells sunk to the required depth through all strata except rock excluding provision of reinforcement as per detailed drawings and design approved by the Engineer-in-charge including placing with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade) by tremie arrangements, compaction of concrete including chipping and dressing and withdrawal of shell etc. complete. (Excluding steel reinforcement)	As directed by Engineer in charge	Running Metre	9624	4737
791	Pile Foundation: Building	22.39	Bd/B-2 P-269	Chiseling through pile shells in hard strata like boulders, soft and hard rocks Upto and inclusive of 550 mm diameter including removing and stacking the loose materials etc. complete and disposing of the unserviceable materials outside complete.	As directed by Engineer in charge	Rig Hour	868	868
792	Pile Foundation: Building	22.40	Bd/B-2 P-269	Chiseling through pile shells in hard strata like boulders, soft and hard rocks Beyond 550 mm and upto and inclusive of 750 mm dia. including removing and stacking the loose materials etc. complete and disposing of the unserviceable materials outside complete.	As directed by Engineer in charge	Rig Hour	1366	1366
793	Pile Foundation: Building	22.41	Bd/B-2 P-269	Chiseling through pile shells in hard strata like boulders, soft and hard rocks Beyond 750 mm and upto and inclusive of 900 mm dia including removing and stacking the loose materials etc. complete and disposing of the unserviceable materials outside complete.	As directed by Engineer in charge	Rig Hour	1580	1580
794	Pile Foundation: Building	22.42	Bd/B-2 P-269	Chiseling through pile shells in hard strata like boulders, soft and hard rocks Beyond 900 mm and upto and inclusive of 1050 mm dia. including removing and stacking the loose materials etc. complete and disposing of the unserviceable materials outside complete.	As directed by Engineer in charge	Rig Hour	2285	2285
795	Pile Foundation: Building	22.43	Bd/B-8 P-271	Carrying out load test for 1.5 times the proposed safe working load on the pile in driven position upto 400 mm diameter including construction of test cap, use of accessories and instruments including providing graphs as per I.S. code or Std.Specifications and dismantling the test cap after testing and cleaning the site complete.	As directed by Engineer in charge	Number	100493	81478
796	Pile Foundation: Building	22.44	Bd/B-8 P-271	Carrying out load test for 1.5 times the proposed safe working load on the pile in driven position above 400 mm and upto to 550 mm diameter including construction of test cap, use of accessories and instruments including providing graphs as per I.S. code or Std.Specifications and dismantling the test cap after testing and cleaning the site complete.	As directed by Engineer in charge	Number	121651	102636
797	Pile Foundation: Building	22.45	Bd/B-8 P-271	Carrying out load test for 1.5 times the proposed safe working load on the pile in driven position above 550 mm and upto 650 mm diameter including construction of test cap, use of accessories and instruments including providing graphs as per I.S. code or Std.Specifications and dismantling the test cap after testing and cleaning the site complete.	As directed by Engineer in charge	Number	167546	148531
798	Pile Foundation: Building	22.46	Bd/B-8 P-271	Carrying out load test for 1.5 times the proposed safe working load on the pile in driven position above 650 mm and upto 750 mm diameter including construction of test cap, use of accessories and instruments including providing graphs as per I.S. code or Std.Specifications and dismantling the test cap after testing and cleaning the site complete.	As directed by Engineer in charge	Number	210548	191533

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
799	Pile Foundation: Building	22.47	Bd/B-8 P-271	Carrying out load test for 1.5 times the proposed safe working load on the pile in driven position above 750 mm and upto 825 mm diameter including construction of test cap, use of accessories and instruments including providing graphs as per I.S. code or Std.Specifications and dismantling the test cap after testing and cleaning the site complete.	As directed by Engineer in charge	Number	253607	230981
800	Pile Foundation: Building	22.48	Bd/B-8 P-271	Carrying out load test for 1.5 times the proposed safe working load on the pile in driven position above 825 mm and upto 900 mm diameter including construction of test cap, use of accessories and instruments including providing graphs as per I.S. code or Std.Specifications and dismantling the test cap after testing and cleaning the site complete.	As directed by Engineer in charge	Number	294402	271776
801	Pile Foundation: Building	22.49	Bd/B-8 P-271	Carrying out load test for 1.5 times the proposed safe working load on the pile in driven position above 900 mm diameter including construction of test cap, use of accessories and instruments including providing graphs as per I.S. code or Std.Specifications and dismantling the test cap after testing and cleaning the site complete.	As directed by Engineer in charge	Number	367151	344525
802	Pile Foundation: Building	22.50		Empty boring for 325 to 400 mm dia bored R.C.C. cast in situ piles including withdrawal of shell, removal of earth to a distance of 50 metres etc. complete. Spec :(As directed by Engineer in Charge)	As directed by Engineer in charge	Running Metre	540	540
803	Pile Foundation: Building	22.51		Empty boring for 425 to 500 mm dia. bored R.C.C. cast in situ piles including withdrawal of shell, removal of earth to a distance of 50 metres etc. complete. Spec :(As directed by Engineer in Charge)	As directed by Engineer in charge	Running Metre	628	628
804	Pile Foundation: Building	22.52		Empty boring for 525 to 600 mm dia. bored R.C.C. cast in situ piles including withdrawal of shell, removal of earth to a distance of 50 metres etc. complete. Spec :(As directed by Engineer in Charge)	As directed by Engineer in charge	Running Metre	1271	1271
805	Pile Foundation: Building	22.53		Empty boring for 625 to 700 mm dia. bored R.C.C. cast in situ piles including withdrawal of shell, removal of earth to a distance of 50 metres etc. complete. Spec :(As directed by Engineer in Charge)	As directed by Engineer in charge	Running Metre	1307	1307
806	Pile Foundation: Building	22.54		Empty boring for 725 to 1050 mm dia. bored R.C.C. cast in situ piles including withdrawal of shell, removal of earth to a distance of 50 metres etc. complete. Spec :(As directed by Engineer in Charge)	As directed by Engineer in charge	Running Metre	1402	1402
807	Pile Foundation: Building	22.55		Chipping and dressing of the R.C.C. piles upto 0.60 meter including cleaning reinforcement and removal of dismantled materials upto a distance of 50 meter beyond the building area etc. for providing pile caps. Spec :(As directed by Engineer in Charge)	As directed by Engineer in charge	Number	701	701
808	Pile Foundation: Building	22.56		Providing bentonite slurry process for various diameter of piles vide Item Nos 1 (i to xxiv) above. Spec : (As directed by Engineer in Charge)	As directed by Engineer in charge	Running Metre	70	28
809	Pile Foundation: Building	22.57		Providing placing and Driving in position 6 millimeter mild steel liner for R.C.C. Piles upto required depth with 12mm thick mild steel cutting edge of 0.50m length at bottom including fabricating cutting the mild steel sheet to required diameter and shape ,welding the joints and driving with the help of required machineries including all materials labours and lifts etc. complete as directed by the Engineer in charge. Upto 3.00 meter deep liner	As directed by Engineer in charge	Metric Tonne	88585	19978
810	Pile Foundation: Building	22.58		Providing placing and Driving in position 6 millimeter mild steel liner for R.C.C. Piles upto required depth with 12mm thick mild steel cutting edge of 0.50m length at bottom including fabricating cutting the mild steel sheet to required diameter and shape ,welding the joints and driving with the help of required machineries including all materials labours and lifts etc. complete as directed by the Engineer in charge. Spec :(As directed by Engineer in Charge From 3.00 to 9.50 meter deep liner	As directed by Engineer in charge	Metric Tonne	92241	23634

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
811	Pile Foundation: Building	22.59		Providing and laying Cast in situ/Ready Mix cement concrete M-20 of trap metal for R.C.C. pile caps as per detailed designs and drawings, including bailing out water manually, centering, formwork, laying/pumping, compacting, finishing and curing etc. with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete.with Crushed sand VSI Grade/V.S.I. quality Artificial Sand, complete. (Excluding steel reinforcement)	As directed by Engineer in charge	Cubic Metre	7534	2043
812	Pile Foundation: Building	22.60		Providing and laying Cast in situ/Ready Mix cement concrete M-25 of trap metal for R.C.C. pile caps as per detailed designs and drawings, including bailing out water manually, centering, formwork, laying/pumping, compacting, finishing and curing etc. with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete.with Crushed sand VSI Grade/V.S.I. quality Artificial Sand, complete. (Excluding steel reinforcement)	As directed by Engineer in charge	Cubic Metre	7759	2043
813	Pile Foundation: Building	22.61		Providing and laying Cast in situ/Ready Mix cement concrete M-30 of trap metal for R.C.C. pile caps as per detailed designs and drawings, including bailing out water manually, centering, formwork, laying/pumping, compacting, finishing and curing etc. with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade) complete. (Excluding steel reinforcement)	As directed by Engineer in charge	Cubic Metre	7971	2043



Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
<b>SSR 2021-2022 :- Structural Steel Work</b>								
814	Structural Steel Work	23.01	BDC 2	Providing and fabricating structural steel work in rolled sections like joists, channels, angles, tees etc. as per detailed design and drawings or as directed including cutting, fabricating, hoisting, erecting, fixing in position making riveted / bolted /welded connections <b>without connecting plates, braces etc.</b> and including one coat of anticorrosive paint and over it two coats of oil painting of approved quality and shade etc. complete.	Bd.C.2 Page Number 275	Metric Tonne	89181	15068
815	Structural Steel Work	23.02	BDC 3	Providing and fabricating structural steel work in rolled sections, fixed <b>with connecting plates or angle cleats in main and cross beams, hip and jack rafters, purlins connecting to truss members</b> and the like, as per detailed designs and drawing or as directed including cutting, fabricating, hoisting, erecting, fixing in position, making riveted/ bolted/ welded connections and one coat of anticorrosive paint and over it two coats of oil painting of approved quality and shade etc. complete.	Bd.C.3 Page Number 275	Metric Tonne	85585	13755
816	Structural Steel Work	23.03	BDC 6	Providing structural steel work in single stanchions composed of R.S.J. Channel etc. with caps, bases, mild steel plated, angle brackets, cleats, gusset plates, anchor bolts etc. as per detailed designs and drawings or as directed including cutting, fabrication, hoisting, erecting fixing in position, making riveted/ bolted/ welded connection and one coat of anticorrosive paint and over it two. coats of oil painting approved quality and shade etc. complete.	Bd.C.6 Page Number 277	Metric Tonne	85803	13401
817	Structural Steel Work	23.04	BDC 8	Providing structural steel work in trusses, other similar trussed purlins and members with all bracing, gusset plates etc. as per detailed designs and drawings or as directed including cutting, fabricating, hoisting, erecting fixing in position, Making riveted/ bolted/ welded connection and one coat of anticorrosive paint and over it 2 coats of oil painting approved quality and shade etc. complete.	Bd.C.8 Page Number 278	Metric Tonne	105909	31968
818	Structural Steel Work	23.05	BDC	Providing and fixing 50 mm. dia. medium class G.I.pipe gate with wicket gate of approved drawing with all fixtures and fittings in two leaves with strong hold fast embedded in c.c. block at top and bottom with locking arrangement including cutting, bending, making holes and with one coat of primer etc. complete.	As directed by Engineer in charge.	Square Metre	6676	3685
819	Structural Steel Work	23.06	BDC	Providing and erecting structural steel for sakav with all bracing gusset plates etc. as per detailed design and drawing or as directed including cutting, fabricating, hoisting, erecting, fixing in position, making riveted/ bolted/welded connection and oil painting with 2 coats of approved quality and shade etc. complete.	As directed by Engineer in charge.	Metric Tonne	110168	35733
820	Structural Steel Work	23.07	BDC	Providing, fabricating and erecting at site of work the tubular steel structure (shed) as per standard design and specifications having various spans in between trusses and in multiples of standard length of bays as specified as per standard specifications, inclusive of cost of steel tubular trusses, tubular columns purlins, tie runners, foundation bolts, base plates, nuts and bolts, welding wherever required etc. as per detailed drawing inclusive of one coat of anticorrosive paint and two coats of oil painting of approved quality and shade etc. complete. Spec. Number : As directed by Engineer-in-charge.	B-18 Page Number 78	Metric Tonne	100574	21410
821	Structural Steel Work	23.08	BDC	Providing Gas or Electrical welding for structural steel section, plates as per detailed drawing. For less than 10 mm thick section.	B.18, Page No 78	Centimetre	11	8
822	Structural Steel Work	23.09	BDW 6A	Providing and fixing mild steel grill gate as per the detailed drawing including hinges, locking arrangements and painting in three coats of oil paint of approved colour and shade etc. complete.(weight 18 Kilogram. to 20 Kilogram. Per Sq.m.) Spec.Number: As directed by Engineer- in-charge.	Spec. Number As directed byEngineer in Charge.	Square Metre	1917	252

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
823	Structural Steel Work	23.11		Providing structural steel work of rectangular hollow steel section for steel trusses, other similar trussed items like purlin and members with all bracing, gusset plates etc. as per detailed designs and drawings or as directed including cutting, fabricating, hoisting, erecting, fixing in position making riveted/bolted/ welded connections and one coat of anticorrosive paint and over it two coats of oil painting of approved quality and shade complete.	Spec. Number As directed by Engineer in Charge.	Metric Tonne	101994	21410
824	Structural Steel Work	23.12		Providing structural steel work in hollow section of various thickness and sizes in square, rectangular and round shape from 25mm to 450mm section as per IS 4923 YST 310 Grade produced from iron ore and blast furnace route etc. as per detailed designs and drawing or as directed including cutting, fabricating, hoisting, erecting, fixing in position, making riveted/bolted/ welded connections and painting complete.	Spec. Number As directed by Engineer in Charge.	Metric Tonne	101994	21410

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
<b>SSR 2021-2022 :- Plain Cement Concrete</b>								
825	Plain Cement Concrete	24.01	BDE 1	Providing and laying Cast in situ/Ready Mix cement concrete in <b>M-10</b> of trap/ granite/ quartzite/ gneiss metal <b>for foundation and bedding</b> including bailing out water, Steel centering, formwork, laying/pumping, compacting, roughening them if special finish is to be provided, finishing if required and curing complete, with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)	Bd. E. 1 Page Number 287	Cubic Metre	<b>5538</b>	1508
826	Plain Cement Concrete	24.04	BDE 2	Providing and laying Cast in situ/Ready Mix cement concrete in <b>M15</b> of trap/ granite/quartzite/gneiss metal <b>for steps including</b> steel centering, formwork, laying/pumping, compacting, roughening them if special finish is to be provided, finishing uneven and honeycombed surface and curing etc. complete. The Cement Mortar 1:3 plaster is considered for rendering uneven and honeycombed surface, only. Newly laid concrete shall be covered by gunny bag, plastic, tarpaulin etc. (Wooden centering will not be allowed.),with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)	Bd.E.2 Page Number 288 and B.7 Page No 38	Cubic Metre	6030	1508
827	Plain Cement Concrete	24.06	BDE 2	Providing and laying Cast in situ/Ready Mix cement concrete in <b>M20</b> of trap/ granite/quartzite/gneiss metal <b>for steps including steel centering,</b> formwork, laying/pumping, compacting, roughening them if special finish is to be provided, finishing uneven and honeycombed surface and curing etc. complete. The Cement Mortar 1:3 plaster is considered for rendering uneven and honeycombed surface, only. Newly laid concrete shall be covered by gunny bag, plastic, tarpaulin etc. (Wooden centering will not be allowed.), with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)	Bd.E.2 Page Number 288 and B.7 Page No 38	Cubic Metre	6365	1508
828	Plain Cement Concrete	24.08	BDE 4	Providing and laying Cast in situ/Ready Mix cement concrete in <b>M15</b> of trap/ granite/quartzite/gneiss metal <b>for bed blocks, foundation blocks</b> and such other items including bailing out water, Steel centering, formwork, laying/ pumping, compacting, roughening them if special finish is to be provided, finishing uneven and honeycombed surface and curing etc. complete. The Cement Mortar 1:3 plaster is considered for rendering uneven and honeycombed surface only. Newly laid concrete shall be covered by gunny bag, plastic, tarpaulin etc. (Wooden centering will not be allowed.), with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)	Bd.E.4 Page Number 289 and B-7, Page Number38	Cubic Metre	6030	1508
829	<b>Plain Cement Concrete</b>	24.10	BDE 4	Providing and laying Cast in situ/Ready Mix cement concrete in <b>M20</b> of trap/ granite/quartzite/gneiss metal <b>for bed blocks, foundation blocks</b> and such other items including bailing out water, Steel centering, formwork, laying/ pumping, compacting, roughening them if special finish is to be provided, finishing uneven and honeycombed surface and curing etc. complete. The Cement Mortar 1:3 plaster is considered for rendering uneven and honeycombed surface only. Newly laid concrete shall be covered by gunny bag, plastic, tarpaulin etc. (Wooden centering will not be allowed.), with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)	Bd.E.4 Page Number 289 and B-7, Page Number38	Cubic Metre	6365	1508

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
830	Plain Cement Concrete	24.12	BDE 7	Providing and laying Cast in situ/Ready Mix cement concrete in <b>M-20</b> of trap / granite /quartzite/ gneiss metal for arches including skew backs as per detailed drawing or as directed in <b>superstructure</b> including steel centering, formwork, compacting, finishing with minimum thickness of 1:3 cement plaster to give a smooth and even surface or roughening them if special finish is to be provided and curing and finishing if required complete, with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer. complete, . With fine aggregate (Crushed sand VSI Grade)	Bd.E.7 Page No 291 and B-7 Page No .38	Cubic Metre	12167	3992
831	Plain Cement Concrete	24.14	BDE 5	Providing and laying Cast in situ/Ready Mix cement concrete in <b>M15</b> of trap/ granite/quartzite/gneiss metal for <b>plain or molded sills, cornice, jambs, block in course, or architraves of required size and shapes</b> including steel centering, formwork, laying/ pumping, compacting, roughening them if special finish is to be provided,finishing uneven and honeycombed surface and curing etc. complete. The Cement Mortar 1:3 plaster is considered for rendering uneven and honeycombed surface only. Newly laid concrete shall be covered by gunny bag, plastic, tarpaulin etc. (Wooden centering will not be allowed.) with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)	Bd.E. 5/Page Number 290/I.S. 456 (2000)	Cubic Metre	6030	1659
832	Plain Cement Concrete	24.15	BDE 5	Providing and laying Cast in situ/Ready Mix cement concrete in <b>M20</b> of trap/ granite/quartzite/gneiss metal for <b>plain or molded sills, cornice, jambs, block in course, or architraves of required size and shapes</b> including steel centering, formwork, laying/ pumping, compacting, roughening them if special finish is to be provided,finishing uneven and honeycombed surface and curing etc. complete. The Cement Mortar 1:3 plaster is considered for rendering uneven and honeycombed surface only. Newly laid concrete shall be covered by gunny bag, plastic, tarpaulin etc. (Wooden centering will not be allowed.) with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer etc. complete, With fine aggregate (Crushed sand VSI Grade)	Bd.E. 5/Page Number 290/I.S. 456 (2000)	Cubic Metre	6365	1659
833	Plain Cement Concrete	24.16	BDE 3	Providing and laying Cast in situ/Ready Mix cement concrete <b>M-15</b> of trap/ granite/quartzite/gneiss metal <b>for coping to plinth or parapet, moulded or chamfered</b> as per drawing or as directed including steel centering, plywood/ steel formwork compacting,roughening them if special finish is to be provided, finishing uneven and honeycombed surface and curing etc. complete. The Cement Mortar 1:3 plaster is considered for rendering uneven and honeycombed surface only. Newly laid concrete shall be covered by gunny bag, plastic, tarpaulin etc. (Wooden centering will not be allowed.) With fine aggregate (Crushed sand VSI Grade)	Bd.E. 3/Page Number 288/I.S. 456 (2000)	Cubic Metre	6030	1659

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
<b>SSR 2021-2022 :- Reinforced Cement Concrete</b>								
834	Reinforced Cement Concrete	25.11	BDF 3	Providing and laying in situ /Ready Mix cement concrete <b>M-20</b> of trap / granite /quartzite/ gneiss metal for R.C.C. work in <b>foundations like raft, strip foundations, grillage and footings</b> of R.C.C. columns and steel stanchions etc. including bailing out water, Steel centering formwork, laying/pumping cover blocks, compaction and curing roughening the surface if special finish is to be provided (Excluding reinforcement and structural steel) etc. complete, with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)	Bd.F.3 Page Number 298 and B.7, Page Number38	Cubic Metre	6666	1987
835	Reinforced Cement Concrete	25.13	BDF 3	Providing and laying Cast in situ/Ready Mix cement concrete <b>M-25</b> of trap / granite /quartzite/ gneiss metal for R.C.C. work in <b>foundations like raft, strip foundations, grillage and footings</b> of R.C.C. columns and steel stanchions etc. including bailing out water, Steel centering, formwork ,cover blocks, laying/pumping, compaction and curing roughening the surface if special finish is to be provided (Excluding reinforcement and structural steel) etc. complete, with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)	Bd.F.3 Page Number 298 and B.7, Page Number38	Cubic Metre	6836	1987
836	Reinforced Cement Concrete	25.15	BDF 3	Providing and laying Cast in situ/Ready Mix cement concrete <b>M-30</b> of trap / granite /quartzite/ gneiss metal for R.C.C. work in <b>foundations like raft, strip foundations, grillage and footings</b> of R.C.C. columns and steel stanchions etc. columns as per detailed designs and drawing or as directed including Steel centering formwork, cover blocks laying/pumping, compaction finishing the formed surfaces with cement mortar 1:3 of sufficient minimum thickness to give a smooth and even surface or roughening if special finish is to be provided and curing etc. complete. (Excluding reinforcement and structural steel), with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)	Bd.F.3 Page Number 298 and B.7, Page Number38	Cubic Metre	7006	1987
837	Reinforced Cement Concrete	25.17	BDF 3	Providing and laying Cast in situ/Ready Mix cement concrete <b>M-35</b> of trap / granite /quartzite/ gneiss metal for R.C.C. work in foundations like raft, strip foundations, grillage and footings of R.C.C. columns and steel stanchions etc. columns as per detailed designs and drawing or as directed including Steel centering, formwork, cover blocks, laying/pumping, compaction finishing the formed surfaces with cement mortar 1:3 of sufficient minimum thickness to give a smooth and even surface or roughening if special finish is to be provided and curing etc. complete,(Excluding reinforcement and structural steel).with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)	Bd.F.3 Page Number 298 and B.7, Page Number38	Cubic Metre	7091	1987
838	Reinforced Cement Concrete	25.19	BDF 3	Providing and laying Cast in situ/Ready Mix cement concrete <b>M-40</b> of trap / granite /quartzite/ gneiss metal for R.C.C. work in foundations like raft, strip foundations, grillage and footings of R.C.C. columns and steel stanchions etc. columns as per detailed designs and drawing or as directed including steel centering, formwork, cover blocks, laying/pumping, compaction finishing the formed surfaces with cement mortar 1:3 of sufficient minimum thickness to give a smooth and even surface or roughening if special finish is to be provided and curing etc. complete. (Excluding reinforcement and structural steel).with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)	Bd.F.3 Page Number 298 and B.7, Page Number38	Cubic Metre	7311	1987

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
839	Reinforced Cement Concrete	25.31	BDF 5	Providing and laying Cast in situ/Ready Mix cement concrete <b>M-20</b> of trap / granite /quartzite/ gneiss metal for <b>R.C.C. columns</b> as per detailed designs and drawing or as directed including steel centering, formwork, cover blocks, laying/pumping, compaction finishing the formed surfaces with cement mortar 1:3 of sufficient minimum thickness to give a smooth and even surface or roughening if special finish is to be provided and curing etc. complete.(Excluding reinforcement and structural steel).with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)	Bd.F.5 Page Number 300 and B.7, Page.Number 38	Cubic Metre	12987	4962
840	Reinforced Cement Concrete	25.33	BDF 5	Providing and laying Cast in situ/Ready Mix cement concrete <b>M-25</b> of trap / granite /quartzite/ gneiss metal for <b>R.C.C. columns</b> as per detailed designs and drawings or as directed including steel centering, formwork, cover blocks, laying/pumping, compaction finishing the formed surfaces with cement mortar 1:3 of sufficient minimum thickness to give a smooth and even surface or roughening if special finish is to be provided and curing etc. complete.(Excluding reinforcement and structural steel).with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)	Bd.F.5 Page Number 300 and B-7,Page No 38.	Cubic Metre	13157	4962
841	Reinforced Cement Concrete	25.35	BDF 5	Providing and laying Cast in situ/Ready Mix cement concrete <b>M-30</b> of trap / granite /quartzite/ gneiss metal for <b>R.C.C. columns</b> as per detailed designs and drawing or as directed including steel centering, formwork,cover blocks, laying/pumping, compaction finishing the formed surfaces with cement mortar 1:3 of sufficient minimum thickness to give a smooth and even surface or roughening if special finish is to be provided and curing etc. complete,(Excluding reinforcement and structural steel). with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)	Bd.F.5 Page Number 300 and B.7, Page.Number 38	Cubic Metre	13326	4962
842	Reinforced Cement Concrete	25.37	BDF 5	Providing and laying Cast in situ/Ready Mix cement concrete <b>M-35</b> of trap / granite /quartzite/ gneiss metal for <b>R.C.C. columns</b> as per detailed designs and drawing or as directed including steel centering, formwork, cover blocks, laying/pumping, compaction finishing the formed surfaces with cement mortar 1:3 of sufficient minimum thickness to give a smooth and even surface or roughening if special finish is to be provided and curing etc. complete,(Excluding reinforcement and structural steel).with fully automatic micro processor based PLC without SCAD Aenabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)	Bd.F.5 Page Number 300 and B.7, Page.Number 38	Cubic Metre	13411	4962
843	Reinforced Cement Concrete	25.39	BDF 5	Providing and laying Cast in situ/Ready Mix cement concrete M-40 of trap / granite /quartzite/ gneiss metal for R.C.C. columns as per detailed designs and drawing or as directed including steel centering, formwork, cover blocks, laying/pumping, compaction finishing the formed surfaces with cement mortar 1:3 of sufficient minimum thickness to give a smooth and even surface or roughening if special finish is to be provided and curing etc. complete,(Excluding reinforcement and structural steel).with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)	Bd.F.5 Page Number 300 and B.7, Page.Number 38	Cubic Metre	13496	4962

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
844	Reinforced Cement Concrete	25.50	BDF 6	Providing and laying Cast in situ/Ready Mix cement concrete <b>M-20</b> of trap / granite /quartzite/ gneiss metal for <b>R.C.C. beams and lintels</b> as per detailed designs and drawings or as directed including steel centering, formwork, cover blocks, laying/pumping, compactionand roughening the surface if special finish is to be provided and curing etc. complete. (Excluding reinforcement and structural steel). with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)	Bd.F.6 Page Number 300 and B.7, Page Number38	Cubic Metre	11483	4777
845	Reinforced Cement Concrete	25.52	BDF 6	Providing and laying Cast in situ/Ready Mix cement concrete in M-25 of trap/ granite/ quartzite/ gneiss metal for R.C.C. beams and lintels as per detailed designs and drawings or as directed including steel centering, formwork, cover blocks, laying/pumping, compactionand roughening the surface if special finish is to be provided and curing etc. complete. (Excluding reinforcement and structural steel).with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)	Bd.F.6 Page Number 300 and B.7, Page Number38	Cubic Metre	11652	4777
846	Reinforced Cement Concrete	25.54	BDF 6	Providing and laying Cast in situ/Ready Mix cement concrete M-30 of trap / granite /quartzite/ gneiss metal for R.C.C. beams and lintels as per detailed designs and drawings or as directed including steel centering, formwork, cover blocks, laying/pumping, compactionand roughening the surface if special finish is to be provided and curing etc. complete. (Excluding reinforcement and structural steel).with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)	Bd.F.6 Page Number 300 and B.7, Page Number38	Cubic Metre	11822	4777
847	Reinforced Cement Concrete	25.56	BDF 6	Providing and laying Cast in situ/Ready Mix cement concrete M-35 of trap / granite /quartzite/ gneiss metal for R.C.C. beams and lintels as per detailed designs and drawings or as directed including steel centering, formwork, cover blocks, laying/pumping, compactionand roughening the surface if special finish is to be provided and curing etc. complete. (Excluding reinforcement and structural steel).with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)	Bd.F.6 Page Number 300 and B.7, Page Number38	Cubic Metre	11907	4777
848	Reinforced Cement Concrete	25.58	BDF 6	Providing and laying Cast in situ/Ready Mix cement concrete M-40 of trap / granite /quartzite/ gneiss metal for R.C.C. beams and lintels as per detailed designs and drawings or as directed including steel centering, formwork, cover blocks, laying/pumping, compactionand roughening the surface if special finish is to be provided and curing etc. complete. (Excluding reinforcement and structural steel). with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)	Bd.F.6 Page Number 300 and B.7, Page Number38	Cubic Metre	12161	4777
849	Reinforced Cement Concrete	25.70	BDF 8	Providing and laying Cast in situ/Ready Mix cement concrete <b>M-20</b> of trap/ granite / quartzite/ gneiss metal for <b>R.C.C. slabs and landings</b> as per detailed designs and drawings including steel centering, formwork, cover blocks, laying/pumping, compaction finishing the formed surfaces with cement mortar 1:3 of sufficient minimum thickness to give a smooth and even surface or roughening if special finish is to be provided and curing etc. complete,(Excluding reinforcement and structural steel).with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)	Bd.F.8 Page Number 302 and B.7, Page Number38	Cubic Metre	13943	5627



Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
850	Reinforced Cement Concrete	25.72	BDF 8	Providing and laying Cast in situ/Ready Mix cement concrete M-25 of trap/ granite / quartzite/ gneiss metal for R.C.C. slabs and landings as per detailed designs and drawings including steel centering, formwork, cover blocks, laying/pumping, compaction finishing the formed surfaces with cement mortar 1:3 of sufficient minimum thickness to give a smooth and even surface or roughening if special finish is to be provided and curing etc. complete,(Excluding reinforcement and structural steel).with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)	Bd.F.8 Page Number 302 and B.7, Page Number38	Cubic Metre	14114	5627
851	Reinforced Cement Concrete	25.74	BDF 8	Providing and laying Cast in situ/Ready Mix cement concrete M-30 of trap/ granite / quartzite/ gneiss metal for R.C.C. slabs and landings as per detailed designs and drawings including steel centering, formwork, cover blocks, laying/pumping, compaction finishing the formed surfaces with cement mortar 1:3 of sufficient minimum thickness to give a smooth and even surface or roughening if special finish is to be provided and curing etc. complete,(Excluding reinforcement and structural steel).with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)	Bd.F.8 Page Number 302 and B.7, Page Number38	Cubic Metre	14285	5627
852	Reinforced Cement Concrete	25.76	BDF 8	Providing and laying Cast in situ/Ready Mix cement concrete M-35 of trap/ granite / quartzite/ gneiss metal for R.C.C. slabs and landings as per detailed designs and drawings including steel centering, formwork, cover blocks, laying/pumping, compaction finishing the formed surfaces with cement mortar 1:3 of sufficient minimum thickness to give a smooth and even surface or roughening if special finish is to be provided and curing etc. complete,(Excluding reinforcement and structural steel). with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)	Bd.F.8 Page Number 302 and B.7, Page Number38	Cubic Metre	14371	5627
853	Reinforced Cement Concrete	25.78	BDF 8	Providing and laying Cast in situ/Ready Mix cement concrete M-40 of trap/ granite / quartzite/ gneiss metal for R.C.C. slabs and landings as per detailed designs and drawings including steel centering, formwork, cover blocks, laying/pumping, compaction finishing the formed surfaces with cement mortar 1:3 of sufficient minimum thickness to give a smooth and even surface or roughening if special finish is to be provided and curing etc. complete,(Excluding reinforcement and structural steel).with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)	Bd.F.8 Page Number 302 and B.7, Page Number38	Cubic Metre	14627	5627



Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
<b>SSR 2021-2022 :- Reinforced Cement Concrete</b>								
854	Reinforced Cement Concrete	26.05	BDF 9	Providing and laying Cast in situ/Ready Mixcement concrete M-20 of trap/ granite/ quartzite/ gneiss metal for R.C.C. chajja as per detailed design and drawings including steel centering, formwork, cover blocks, laying/pumping, compacting and roughening the surface if special finish is to be provided and curing complete. (Excluding reinforcement and structural steel). with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)	Bd.F.9 Page Number 303 and B.7, Page Number38	Cubic Metre	13111	5627
855	Reinforced Cement Concrete	26.07	BDF 9	Providing and laying Cast in situ/Ready Mixcement concrete M-25 of trap/ granite/ quartzite/ gneiss metal for R.C.C. chajja as per detailed design and drawings including steel centering, formwork, cover blocks, laying/pumping, compacting and roughening the surface if special finish is to be provided and curing complete. (Excluding reinforcement and structural steel). with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)	Bd.F.9 Page Number 303 and B.7, Page Number38	Cubic Metre	13283	5627
856	Reinforced Cement Concrete	26.09	BDF10	Providing and laying Cast in situ/Ready Mix cement concrete M-20 of trap / granite / quartzite / gneiss metal for R.C.C. canopy as per detailed designs and drawings including steel centering, formwork, laying/pumping, compacting and roughening the surface if special finish is to be provided and curing etc. complete (excluding reinforcement), with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)	Bd.F.8 Page Number 303 and B.7, Page Number38	Cubic Metre	13111	5627
857	Reinforced Cement Concrete	26.11	BDF10	Providing and laying Cast in situ/Ready Mix cement concrete M-25 of trap / granite / quartzite / gneiss metal for R.C.C. canopy as per detailed designs and drawings including steel centering, formwork, laying/pumping, compacting and roughening the surface if special finish is to be provided and curing etc. complete (excluding reinforcement). with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)	Bd.F.8 Page Number 303 and B.7, Page Number38	Cubic Metre	13283	5627
858	Reinforced Cement Concrete	26.17	BDF 11	Providing and laying Cast in situ/Ready Mix cement concrete in M-20 of trap/ granite/ quartzite/ gneiss metal for R.C.C. pardi of required thickness including steel centering, formwork, cover blocks, laying/pumping, compacting , curing , finishing and rougheningthem if special finish is to be provided and curing complete.(Excluding reinforcement and structural steel).with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)	Bd.F.11 Page Number 304 and B.7, Page Number 38	Cubic Metre	14692	6917
859	Reinforced Cement Concrete	26.19	BDF 11	Providing and laying Cast in situ/Ready Mix cement concrete in M-25 of trap/ granite/ quartzite/ gneiss metal for R.C.C. pardi of required thickness including steel centering, formwork, cover blocks, laying/pumping, compacting and roughening them if special finish is to be provided and curing complete. (Excluding reinforcement and structural steel).with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)	Bd.F.11 Page Number 304 and B.7, Page Number 38	Cubic Metre	14863	6917

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
860	Reinforced Cement Concrete	26.23	BDF 12	Providing and laying Cast in situ/Ready Mix cement concrete in <b>M-20</b> of trap/ granite/ quartzite/ gneiss metal for <b>R.C.C.coping to plinth or parapet and sill of doors and windows moulded</b> as per detailed drawings or chamfered as approved by the Engineer including steel centering, formwork, cover blocks, laying/pumping, compacting , curing , finishing and roughening them if special finish is to be provided and curing complete. (Excluding reinforcement and structural steel).with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)	Bd. F. 12 Page Number 304 and B-7, Pg 38	Cubic Metre	6800	2068
861	Reinforced Cement Concrete	26.25	BDF 13A	Providing and laying Cast in situ/Ready Mix cement concrete in <b>M-20</b> of trap / quartzite /granite /gneiss metal <b>for R.C.C. Waist slab, and steps of staircases</b> as per detailed design and drawings or as directed including steel centering, formwork, steel props, laying/pumping, compaction, finishing uneven and honeycombed surface with C.M. 1:3 of sufficient minimum thickness to give a smooth and even surface or roughening the surface if special finish is to be provided and curing etc. complete. (Excluding reinforcement, including cover block).(Newly laid concrete shall be covered by gunny bag, plastic, tarpaulin etc.) with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)	Bd. F. 13 Page Number 305 /I.S. 456 (2000	Cubic Metre	13137	5652
862	Reinforced Cement Concrete	26.26	BDF 13A	Providing and laying Cast in situ/Ready Mix cement concrete in M-25 of trap / quartzite /granite /gneiss metal for R.C.C. Waist slab, and steps of staircases as per detailed design and drawings or as directed including steel centering, plywood/ steel formwork, steel props, laying/pumping, compaction, finishing uneven and honeycombed surface with C.M. 1:3 of sufficient minimum thickness to give a smooth and even surface or roughening the surface if special finish is to be provided and curing etc. complete. (Excluding reinforcement, including cover block).(Newly laid concrete shall be covered by gunny bag, plastic, tarpaulin etc.) with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)	Bd. F. 13 Page Number 305 /I.S. 456 (2000	Cubic Metre	13360	5652
863	Reinforced Cement Concrete	26.27	BDF 14A	Providing and laying Cast in situ/Ready Mix cement concrete in M-20 of trap / quartzite /granite /gneiss metal for R.C.C.newel posts of staircase as per detailed design and drawings including steel centering, plywood / steel formwork, steel props, laying / pumping, compaction, finishing uneven and honeycombed surface with C.M.1:3 of sufficient minimum thickness to give a smooth and even surface or roughening the surface if special finish is to be provided and curing etc. complete. (Excluding reinforcement, including cover block). (Newly laid concrete shall be covered by gunny bag, plastic, tarpaulin etc.) with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)	Bd. F. 14 Page Number 305 /I.S. 456 (2001	Cubic Metre	12048	4563
864	Reinforced Cement Concrete	26.28	BDF 14A	Providing and laying Cast in situ/Ready Mix cement concrete in M-25 of trap / quartzite /granite /gneiss metal for R.C.C.newel posts of staircase as per detailed design and drawings including steel centering, plywood / steel formwork, steel props, laying/pumping, compaction, finishing uneven and honeycombed surface with C.M.1:3 of sufficient minimum thickness to give a smooth and even surface or roughening the surface if special finish is to be provided and curing etc. complete. (Excluding reinforcement, including cover block). (Newly laid concrete shall be covered by gunny bag, plastic, tarpaulin etc.) with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)	Bd. F. 14 Page Number 305 /I.S. 456 (2002	Cubic Metre	12219	4563

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
865	Reinforced Cement Concrete	26.29	BDF 15A	Providing and laying Cast in situ/Ready Mix cement concrete in M-20 of trap /granite / gneiss/ quartzite metal for R.C.C. arches with skew backs as per detailed design and drawings or as directed including steel centering, plywood/steel formwork, steel props, laying/pumping, compaction, finishing uneven and honeycombed surface with C.M. 1:3 of sufficient minimum thickness to give a smooth and even surface or roughening the surface if special finish is to be provided and curing etc. complete. (Excluding reinforcement, including cover block). Newly laid concrete shall be covered by gunny bag, plastic, tarpaulin etc. with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)	Bd. F. 15 Page Number 306 /I.S. 456 (2003	Cubic Metre	13290	5060
866	Reinforced Cement Concrete	26.30	BDF 15A	Providing and laying Cast in situ/Ready Mix cement concrete in M-25 of trap /granite / gneiss/ quartzite metal for R.C.C. arches with skew backs as per detailed design and drawings or as directed including steel centering, plywood/steel formwork, steel props, laying/pumping, compaction, finishing uneven and honeycombed surface with C.M. 1:3 of sufficient minimum thickness to give a smooth and even surface or roughening the surface if special finish is to be provided and curing etc. complete. (Excluding reinforcement, including cover block). Newly laid concrete shall be covered by gunny bag, plastic, tarpaulin etc. (Wooden centering will not be allowed) With fine aggregate (Crushed sand VSI Grade)	Bd. F. 15 Page Number 306 /I.S. 456 (2003	Cubic Metre	13461	5060
867	Reinforced Cement Concrete	26.31	BDF 16	Providing and laying Cast in situ/Ready Mix cement concrete in M-20 of trap / granite /gneiss / quartzite metal for R.C.C. fins of required thickness in position as shown on the drawings or as directed by Engineer-in-charge including steel centering, plywood / steel formwork, steel props, laying/pumping, compaction, finishing uneven and honeycombed surface with C.M. 1:3 of sufficient minimum thickness to give a smooth and even surface or roughening the surface if special finish is to be provided and curing etc. complete. (Excluding reinforcement, including cover block) Newly laid concrete shall be covered by gunny bag, plastic, tarpaulin etc. with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)	Bd. F. 16 Page Number 306 /I.S. 456 (2004	Cubic Metre	17214	7667
868	Reinforced Cement Concrete	26.32	BDF 16	Providing and laying Cast in situ/Ready Mix cement concrete in M-25 of trap / granite /gneiss / quartzite metal for <b>R.C.C. fins</b> of required thickness in position as shown on the drawings or as directed by Engineer-in-charge including steel centering, plywood / steel formwork, steel props, laying/pumping, compaction, finishing uneven and honeycombed surface with C.M. 1:3 of sufficient minimum thickness to give a smooth and even surface or roughening the surface if special finish is to be provided and curing etc. complete. (Excluding reinforcement, including cover block) Newly laid concrete shall be covered by gunny bag, plastic, tarpaulin etc. with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)	Bd. F. 16 Page Number 306 /I.S. 456 (2004	Cubic Metre	17429	7667
869	Reinforced Cement Concrete	26.33	BDF 17	Providing and fixing in position TMT - FE - 500 bar reinforcement of various diameters for R.C.C. pile caps, footings, foundations, slabs, beams columns, canopies, staircase, newels, chajjas, lintels pardis, copings, fins, arches etc. as per detailed designs, drawings and schedules. including cutting, bending, hooking the bars, binding with wires or tack welding and supporting as required complete.	Bd.F.17, Page Number 306	Metric Tonne	71778	11037

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
870	Reinforced Cement Concrete	26.34	BDF 17	Providing and fixing in position HCRM / CRS (Corrosion Resistant Steel) bar reinforcement of various diameters for R.C.C. pile caps, footings, foundations, slabs, beams columns, canopies, staircase, newels, chajjas, lintels pardis, copings, fins, arches etc. as per detailed designs, drawings and schedules. including cutting, bending, hooking the bars, binding with wires or tack welding and supporting as required complete.	Bd.F.17, Page Number 306	Metric Tonne	83326	11037
871	Reinforced Cement Concrete	26.36		Providing and applying Anti corrosive treatment to reinforcement as per cement polymer composite coating (C.P.C.C.) method developed by C.E.C.R.I. including cleaning the bar by means of any established mechanical or manual method for removing rust and deleterious material, applying rapid setting primer and cement polymer sealing coat of approved and licensed by CECRI including redoing the process if damage occurs during handling, stacking etc. complete. (With prior approval of SE)	As directed by Engineer in Charge	Metric Tonne	10122	6077
872	Reinforced Cement Concrete	26.37	MORT and H 1600 Edition 2001.	Providing Fusion Bonded Epoxy Coating (FBEC) to reinforced bars of 8mm diameter as per IS: 13620-1993 specifications for a thickness of 175micron Permissible variation of 50 micron including testing of coating at plant, including cost for careful handling using PVC coating, binding wires instead of G. I. wires to and from Plant) touching up the material supplied repair work etc complete as per detailed specifications. (Lead 200km from plant) etc complete. (Item shall be used for new structures.) Note : The item should be executed with prior approval of Superintending Engineer. FREQUENCY OF TEST OF FUSION BONDED EPOXY COAT a) Coating thickness shall be tested at a frequency of not less than one full length bar every twenty bars for each size b) continuity of coating shall be determined by testing one full length bar in every twenty bars for each size c) Coating thickness over the whole of the coated bar section shall be determined by sectioning and examining one bar in every twenty tonnes for each size. d) For testing adhesion of coating, samples shall be selected from each size according to the frequency given below: Nominal Size of Bar, MM Number of Samples For all types of bar : Minimum 1 for every diameter or as directed by engineer in charge	As directed by Engineer in Charge	Metric Tonne	19328	970
873	Reinforced Cement Concrete	26.38	MORT and H 1600 Edition 2001.	Providing Fusion Bonded Epoxy Coating (FBEC) to reinforced bars of 10mm diameter as per IS: 13620-1993 specifications for a thickness of 175micron Permissible variation of 50 micron including testing of coating at plant, including cost for careful handling using PVC coating, binding wires instead of G. I. wires to and from Plant) touching up the material supplied repair work etc complete as per detailed specifications. (Lead 200km from plant) etc complete. (Item shall be used for new structures.) Note : The item should be executed with prior approval of Superintending Engineer. FREQUENCY OF TEST OF FUSION BONDED EPOXY COAT a) Coating thickness shall be tested at a frequency of not less than one full length bar every twenty bars for each size b) continuity of coating shall be determined by testing one full length bar in every twenty bars for each size c) Coating thickness over the whole of the coated bar section shall be determined by sectioning and examining one bar in every twenty tonnes for each size. d) For testing adhesion of coating, samples shall be selected from each size according to the frequency given below: For all types of bar : Minimum 1 for every diameter or as directed by engineer in charge	As directed by Engineer in Charge	Metric Tonne	15420	970

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
874	Reinforced Cement Concrete	26.39	RT and H 1600 Edition 20	<p>Providing Fusion Bonded Epoxy Coating (FBEC) to reinforced bars of 12mm diameter as per IS: 13620-1993 specifications for a thickness of 175micron Permissible variation of 50 micron including testing of coating at plant, including cost for careful handling using PVC coating, binding wires instead of G. I. wires to and from Plant) touching up the material supplied repair work etc complete as per detailed specifications. (Lead 200km from plant) etc complete. (Item shall be used for new structures.)</p> <p>Note : The item should be executed with prior approval of Superintending Engineer. FREQUENCY OF TEST OF FUSION BONDED EPOXY COAT</p> <p>a) Coating thickness shall be tested at a frequency of not less than one full length bar every twenty bars for each size</p> <p>b) continuity of coating shall be determined by testing one full length bar in every twenty bars for each size</p> <p>c) Coating thickness over the whole of the coated bar section shall be determined by sectioning and examining one bar in every twenty tonnes for each size.</p> <p>d) For testing adhesion of coating, samples shall be selected from each size according to the frequency given below:</p> <p>For all types of bar : Minimum 1 for every diameter or as directed by engineer in charge</p>	As directed by Engineer in Charge	Metric Tonne	13305	970
875	Reinforced Cement Concrete	26.40	RT and H 1600 Edition 20	<p>Providing Fusion Bonded Epoxy Coating (FBEC) to reinforced bars of 16mm diameter as per IS: 13620-1993 specifications for a thickness of 175micron Permissible variation of 50 micron including testing of coating at plant, including cost for careful handling using PVC coating, binding wires instead of G. I. wires to and from Plant) touching up the material supplied repair work etc complete as per detailed specifications. (Lead 200km from plant) etc complete. (Item shall be used for new structures.)</p> <p>Note : The item should be executed with prior approval of Superintending Engineer. FREQUENCY OF TEST OF FUSION BONDED EPOXY COAT</p> <p>a) Coating thickness shall be tested at a frequency of not less than one full length bar every twenty bars for each size</p> <p>b) continuity of coating shall be determined by testing one full length bar in every twenty bars for each size</p> <p>c) Coating thickness over the whole of the coated bar section shall be determined by sectioning and examining one bar in every twenty tonnes for each size.</p> <p>d) For testing adhesion of coating, samples shall be selected from each size according to the frequency given below:</p> <p>For all types of bar : Minimum 1 for every diameter or as directed by engineer in charge</p>	As directed by Engineer in Charge	Metric Tonne	10385	970

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
876	Reinforced Cement Concrete	26.41	RT and H 1600 Edition 20	Providing Fusion Bonded Epoxy Coating (FBEC) to reinforced bars of 20mm diameter as per IS: 13620-1993 specifications for a thickness of 175micron Permissible variation of 50 micron including testing of coating at plant, including cost for careful handling using PVC coating, binding wires instead of G. I. wires to and from Plant) touching up the material supplied repair work etc complete as per detailed specifications. (Lead 200km from plant) etc complete. (Item shall be used for new structures.) Note : The item should be executed with prior approval of Superintending Engineer. FREQUENCY OF TEST OF FUSION BONDED EPOXY COAT a) Coating thickness shall be tested at a frequency of not less than one full length bar every twenty bars for each size b) continuity of coating shall be determined by testing one full length bar in every twenty bars for each size c) Coating thickness over the whole of the coated bar section shall be determined by sectioning and examining one bar in every twenty tonnes for each size. d) For testing adhesion of coating, samples shall be selected from each size according to the frequency given below: For all types of bar : Minimum 1 for every diameter or as directed by engineer in charge	As directed by Engineer in Charge	Metric Tonne	8638	970
877	Reinforced Cement Concrete	26.42	RT and H 1600 Edition 20	Providing Fusion Bonded Epoxy Coating (FBEC) to reinforced bars of 25mm diameter as per IS: 13620-1993 specifications for a thickness of 175micron Permissible variation of 50 micron including testing of coating at plant extra cost for careful handling using PVC coating, binding wires instead of G. I. wires to and from Plant) touching up the material supplied repair work etc complete as per detailed specifications. (Lead 200km from plant) etc complete. (Item shall be used for new structures.) Note : The item should be executed with prior approval of Superintending Engineer. charge	As directed by Engineer in Charge	Metric Tonne	7258	970
878	Reinforced Cement Concrete	26.44	RT and H 1600 Edition 20	Providing Fusion Bonded Epoxy Coating (FBEC) to reinforced bars of 32mm diameter as per IS: 13620-1993 specifications for a thickness of 175micron Permissible variation of 50 micron including testing of coating at plant extra cost for careful handling using PVC coating, binding wires instead of G. I. wires to and from Plant) touching up the material supplied repair work etc complete as per detailed specifications. (Lead 200km from plant) etc complete. (Item shall be used for new structures.) Note : The item should be executed with prior approval of Superintending Engineer. FREQUENCY OF TEST OF FUSION BONDED EPOXY COAT a) Coating thickness shall be tested at a frequency of not less than one full length bar every twenty bars for each size b) continuity of coating shall be determined by testing one full length bar in every twenty bars for each size c) Coating thickness over the whole of the coated bar section shall be determined by sectioning and examining one bar in every twenty tonnes for each size. d) For testing adhesion of coating, samples shall be selected from each size according to the frequency given below: For all types of bar : Minimum 1 for every diameter or as directed by engineer in charge	As directed by Engineer in Charge	Metric Tonne	5994	970
879	Reinforced Cement Concrete	26.46	BDF 20	Providing and fixing in position after hoisting, precast 1:2 cement mortar reinforced jali 50 mm thick with 3 mm diameter mild steel bar reinforcement, of approved design on both side, fixing in cement mortar 1:3 and curing etc. complete	Bd. F. 20 Page Number 307	Square Metre	858	149
880	Reinforced Cement Concrete	26.47	BDF 20	Providing and fixing in position after hoisting, precast 1:2 cement mortar reinforced jali 80 mm thick with 3 mm diameter mild steel bar reinforcement, of approved design on both sides, fixing in cement mortar 1:3 and curing etc .complete.	Bd. F. 20 Page Number 308	Square Metre	1143	149

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
881	Reinforced Cement Concrete	26.58	BDF 41	Providing and laying Cast in situ/Ready Mix C.C. M-20 of trap metal for RCC rectangular grid beam with slab as per detailed design and drawing, steel centering, formwork, cover blocks, laying/pumping, compacting, curing, finishing and roughening them to form surface with C.M. 1:3 of sufficient minimum thickness to give smooth and even surface or roughening them if special finish is to be provided and curing complete (Excluding reinforcement and structural steel). with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)	Bd.F.6, Page Number300 / Bd.F.8, Page Number302 and B.7 Page Number 38.	Cubic Metre	14208	6723
882	Reinforced Cement Concrete	26.60	BDF 41	Providing and laying Cast in situ/Ready Mix C.C. M-25 of trap metal for RCC rectangular grid beam with slab as per detailed design and drawing or as directed including dewatering if necessary, steel centering, formwork, cover blocks, laying/pumping, compacting, finishing the form surface with C.M. 1:3 of sufficient minimum thickness to give smooth and even surface or roughening them if special finish is to be provided and curing complete (Excluding reinforcement and structural steel). with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)	Bd.F.6, Page Number300 / Bd.F.8, Page Number302 and B.7 Page Number 38.	Cubic Metre	14379	6723
883	Reinforced Cement Concrete	26.62	BDF 41	Providing and laying Cast in situ/Ready Mix C.C. M-30 of trap metal for RCC rectangular grid beam with slab as per detailed design and drawing or as directed including dewatering if necessary, steel centering, formwork, cover blocks, laying/pumping, compacting, curing, finishing and roughening them to form surface with C.M. 1:3 of sufficient minimum thickness to give smooth and even surface or roughening them if special finish is to be provided and curing complete (Excluding reinforcement and structural steel). with fully automatic micro processor based PLC with SCADA enabled concrete batch mix plant (pan mixer). With fine aggregate (Crushed sand VSI Grade)	Bd.F.6, Page Number300 / Bd.F.8, Page Number302 and B.7 Page Number 38.	Cubic Metre	14550	6723
884	Reinforced Cement Concrete	26.64	BDF	Providing and laying Cast in situ/Ready Mix C.C. M-35 of trap metal for RCC rectangular grid beam with slab as per detailed design and drawing or as directed including dewatering if necessary, steel centering, formwork, cover blocks, laying/pumping, compacting, finishing the form surface with C.M. 1:3 of sufficient minimum thickness to give smooth and even surface or roughening them if special finish is to be provided and curing complete (Excluding reinforcement and structural steel). with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)	Bd.E.2 Page Number 288 and B.7 Page No 38	Cubic Metre	14632	6723
885	Reinforced Cement Concrete	26.66	BDF 41	Providing and laying Cast in situ/Ready Mix C.C. M-40 of trap metal for RCC rectangular grid beam with slab as per detailed design and drawing or as directed including dewatering if necessary, steel centering, formwork, cover blocks, laying/pumping, compacting, finishing the form surface with C.M. 1:3 of sufficient minimum thickness to give smooth and even surface or roughening them if special finish is to be provided and curing complete (Excluding reinforcement and structural steel). with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)	Bd.E.4 Page Number 289 and B-7, Page Number38	Cubic Metre	14892	6723
886	Reinforced Cement Concrete	26.68	BDF	Providing and fixing during laying in RCC Slab rectangular 2 mm thick M.S. sheet fan hook box of size 180x100 mm with required depth with holes or notches as required, bottom and top sides of 1.6 mm M.S. sheet fixed with 3.5 mm dia. round headed screws together with 12 mm dia. M.S. bar bent to shape with hooked ends for fan hook and painting to exposed surface	As directed by Engineer in charge	Number	395	28

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
<b>SSR 2021-2022 :- Brick Masonry</b>								
887	Brick Masonry	27.01	BDG 1	Providing <b>second class Burnt</b> Brick masonry with conventional/ I.S. type bricks in cement mortar <b>1:6 in foundations and plinth of inner walls/ in plinth external walls</b> including bailing out water manually , striking joints on unexposed faces, raking out joints on exposed faces and watering etc. Complete.	Bd.G. 1 Page Number 313	Cubic Metre	<b>7343</b>	1499
888	Brick Masonry	27.02	BDG 2	Providing <b>first class Burnt Brick</b> masonry with conventional/ I.S. type bricks in cement mortar <b>1:6 in plinth</b> including bailing out water manually, striking joints on unexposed faces, pointing with cement mortar 1:3 on exposed face and watering etc. Complete.	Bd.G.2 Page Number 313	Cubic Metre	7224	1641
889	Brick Masonry	27.03	BDG 3	Providing <b>second class Burnt Brick</b> masonry with conventional/ I.S. type bricks in cement mortar <b>1:6 in plinth</b> as <b>backing in composite masonry</b> including bailing out water manually, striking joints, raking out joints and watering etc Complete.	Bd.G.3 Page Number 314	Cubic Metre	<b>7116</b>	1273
890	Brick Masonry	27.05	BDG 5	Providing <b>second class Burnt Brick</b> masonry with conventional/ I.S. type bricks in cement mortar 1:6 in <b>superstructure</b> including striking joints, raking out joints, watering and scaffolding etc. Complete	Bd.G.5 Page Number 315	Cubic Metre	7570	1609
891	Brick Masonry	27.06	BDG 7	Providing second class Burnt Brick masonry with conventional/ I.S. type bricks in cement mortar <b>1:4</b> in half brick thick wall including mild steel longitudinal reinforcement of 2 bars of 6 mm diameter / 2 hoop iron strips 25 mm X 1.6 mm placed at every third course, properly bent and bonded at ends scaffolding, <b>racking out joints and watering etc. complete.</b>	Bd.G.7 Page Number 316	Square Metre	1023	192
892	Brick Masonry	27.07	BDG 8	Providing Burnt Brick-on-edge masonry with second class bricks of conventional type bricks in cement mortar 1:3 including mild steel longitudinal reinforcement of 2 bars of 6mm diameter / one strips of hoop iron 25 mm X 1.6 mm placed at every third course, properly bent and bonded at ends, scaffolding, <b>raking out joints and watering etc .complete.</b>	Bd.G.8 Page Number 317	Square Metre	741	167
893	Brick Masonry	27.08	BDG 9	Providing first class Burnt Brick masonry with conventional / I.S. type bricks in cement mortar 1:4 including scaffolding, racking out joints pointing in C.M. 1:3 and watering in pillars of rectangular or square shape as shown on the drawing or as directed etc.complete.	Bd.G.9 (a) Page Number 317	Cubic Metre	8721	2552
894	Brick Masonry	27.09	BDG 9	Providing first class Brick masonry with conventional / IS. type bricks in cement mortar 1:4 including scaffolding, racking out joints pointing in C.M 1:3 and watering etc. in pillars of curved shapes, as shown on the drawing or as directed etc. complete.	Bd.G.9 (b) Page Number 317	Cubic Metre	10320	2744
895	Brick Masonry	27.10	BDG 10	Providing second class Burnt Brick masonry with conventional / I.S. type bricks in cement mortar 1:4 including scaffolding, racking out joints and watering etc. in pillar of rectangular shapes as shown in the drawings or as directed complete.	Bd.G.10 (a) Page Number 318	Cubic Metre	8025	1856
896	Brick Masonry	27.11	BDG 10	Providing second class Burnt Brick masonry with conventional / I.S. type bricks in cement mortar 1:4 including scaffolding, racking out joints and watering etc.in pillar of curved shapes as shown in the drawing or as directed complete.	Bd.G.10 (b) Page Number 318	Cubic Metre	9599	2024
897	Brick Masonry	27.12	BDG	Providing <b>fly ash brick masonry</b> with conventional / I.S. type fly ash bricks in C.M. <b>1:6 in foundation and plinth</b> including bailing out water manually striking joints, racking out joints watering and scaffolding etc. complete.	As director by engineer in charge and BDG- 2 and 5	Cubic Metre	6762	1499
898	Brick Masonry	27.13	BDG	Providing <b>fly ash brick masonry</b> with conventional/ I.S. type bricks in cement mortar <b>1:6 in superstructure</b> including striking joints, raking out joints, watering and scaffolding etc. Complete	As director by engineer incharge and BDG- 2 and 5	Cubic Metre	6978	1609



Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
899	Brick Masonry	27.14	BDG	Providing Second class fly ash brick masonry with conventional / I.S. type bricks in cement mortar 1:4 in half brick thick wall including mild steel longitudinal reinforcement of two bars of 6 mm diameter / two hoop iron strips 25 mm x 1.60 mm at every third course, properly bent and bounded at ends scaffolding raking out joints and watering etc. complete.	Bd. G. 7 Page 316	Square Metre	952	192
900	Brick Masonry	27.15	BDG	Providing Autoclaved Aerated Concrete Block masonry of conforming to IS:2185 (Part 3) - 1984 in extra fine jointing mortar of fixoblock of UltraTech or equivalent in superstructure including striking joints, raking out joints and scaffolding etc. Complete. (The test shall be carried out conforming to IS:6441 (Part I) - 1972)	As directed by engineer in charge	Cubic Metre	7045	1962
901	Brick Masonry	27.16	BDG	Providing Autoclaved Aerated Concrete Block masonry of conforming to IS:2185 (Part 3) - 1984 in extra fine jointing mortar of fixoblock of UltraTech or equivalent in Half brick thick wall including striking joints, raking out joints and scaffolding etc. Complete. (The test shall be carried out conforming to IS:6441 (Part I) - 1972)	As directed by engineer in charge	Square Metre	984	162

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
<b>SSR 2021-2022 :- Stone Masonry</b>								
902	Stone Masonry	28.01	BDH 1	Providing uncoursed rubble masonry of trap / granite / quartzite / gneiss stones in cement mortar 1:6 in foundation and plinth of inner walls / in plinth of external walls including bailing out water manually , striking joints on un exposed faces and watering etc.complete.	Bd.H.1 Page Number 329	Cubic Metre	4757	2370
903	Stone Masonry	28.02	BDH 2	Providing uncoursed rubble masonry of trap / granite / quartzite / gneiss stones in cement mortar 1:5 in basements including scaffolding, bailing out water manually, racking out joints when plastering is to be done striking joints where no pointing or plastering is to be done and watering etc.complete.	Bd.H.2 Page Number 329	Cubic Metre	4881	2370
904	Stone Masonry	28.03	BDH 3	Providing uncoursed rubble masonry of trap / granite / quartzite / gneiss stone in cement mortar 1:3 in basement with patent water proofing compound added to it at rate of 1Kilogramper bag of cement including bailing out water manually, scaffolding racking out joints when plastering is to be done and watering etc. complete.	Bd.H.3 Page Number 331	Cubic Metre	5134	1995
905	Stone Masonry	28.04	BDH 4	Providing uncoursed rubble masonry of trap / granite / quartzite / gneiss stones in cement mortar 1:6 in superstructure including racking out joints when plastering is to be done / striking joints when no plastering is to be done on inside watering and scaffolding etc.complete.	Bd.H.4 Page Number 331	Cubic Metre	5238	2851
906	Stone Masonry	28.05	BDH 5	Providing random rubble masonry second sort of trap / granite / quartzite / gneiss stones in cement mortar 1:6 in plinth including bailing out water manually , striking joints on unexposed faces. (Excluding pointing) etc.complete.	Bd.H.5 Page Number 331	Cubic Metre	4486	2441
907	Stone Masonry	28.06	BDH 6	Providing random rubble masonry second sort of trap / granite / quartzite / gneiss stones in cement mortar 1:6 in superstructure racking out joints when plastering is to be done / striking joints when no pointing or plastering is to be done on the inside watering and scaffolding etc.complete.	Bd.H.6 Page Number 332	Cubic Metre	5132	2717
908	Stone Masonry	28.07	BDH 7	Providing random rubble masonry first sort of trap / granite / quartzite / gneiss stones in cement mortar 1:6 in external walls of plinth including bailing out water manually , racking out joints when pointing is to be done and striking joints from inside including watering etc.complete.	Bd.H.7 Page Number 332	Cubic Metre	5623	3208
909	Stone Masonry	28.08	BDH 8	Providing random rubble masonry first sort of trap /granite / quartzite / gneiss stones in cement mortar 1:6 in superstructure including bailing out water manually ,raking out joints from outside and striking joints when no pointing or plastering is to be done from inside watering and scaffolding etc.complete.	Bd.H.8 Page Number 332	Cubic Metre	5951	3512
910	Stone Masonry	28.09	BDH 11	Providing coursed rubble masonry second sort of trap / granite / quartzite / gneiss stones in cement mortar 1:6 in external walls of plinth including bailing out water manually , striking joints inside and raking out joints from outside and watering etc.complete	Bd. H.11 Page Number 333	Cubic Metre	10709	3034
911	Stone Masonry	28.10	BDH 12	Providing coursed rubble masonry second sort of trap / granite / quartzite / gneiss stones in cement mortar 1:6 in superstructure including raking out joints when plastering is to be done and striking joints when no plastering is to be done on the inside, watering scaffolding etc.complete.	Bd.H.12 Page Number 333	Cubic Metre	11272	3520
912	Stone Masonry	28.11	BDH 13	Providing coursed rubble masonry first sort of trap / granite / quartzite / gneiss stones in cement mortar 1:6 in external work of plinth including bailing out water manually, striking joints inside and watering etc.complete.	Bd.H.13 Page Number 333	Cubic Metre	11392	3717

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
913	Stone Masonry	28.12	BDH 14	Providing coursed rubble masonry first sort of trap / granite / quartzite / gneiss stones in cement mortar 1:6 in superstructure including racking out joints on the inside when plastering is to be done, watering and scaffolding etc. complete.	Bd.H.14 Page Number 333	Cubic Metre	12175	4116
914	Stone Masonry	28.13	BDH 40	Providing coursed rubble masonry first sort for pillars of trap / granite / quartzite / gneiss stones in cement mortar 1:6 including pointing with cement mortar 1:3 scaffolding and watering etc.complete.	Bd.H.40 Page Number 345	Cubic Metre	11500	5456

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
<b>SSR 2021-2022 :- Concrete Block Masonry</b>								
915	Concrete Block Masonry	29.01	BDI 1	Providing and laying masonry of I.S. Standard C.C. hollow block 100 x 200 x 400 mm with 100mm thick in cement mortar 1:6 proportion for superstructure including curing, scaffolding etc. complete.	Bd.I.1 Page Number 349	Square Metre	1166	526
916	Concrete Block Masonry	29.02	BDI 1	Providing and laying masonry of I.S. Standard C.C. hollow block 200 x 200 x 400 with 200mm thick mm in cement mortar 1:6 proportion for superstructure including curing, scaffolding etc. complete.	Bd.I.1 Page Number 349	Square Metre	1264	548
917	Concrete Block Masonry	29.03	BDI	Providing and constructing masonry in precast solid Concrete Block (Grade D-50 As per I.S. 2185, Part-I, 1974, Reframed 1987) having compressive strength 5-00 N/mm2) of size (300 mm x 200 mm x 150mm) in cement mortar 1:6 for superstructure including striking joints on unexposed faces, racking out joints on exposed faces, watering, curing and scaffolding etc. complete.	As directed by Engineer in Charge.	Cubic Metre	7257	1357
918	Concrete Block Masonry	29.04	BDI	Providing and constructing masonry in Autoclaved Areaclaved ( Celluar) Concrete Block of aproved manufacturer confirming to IS 2185 Part III 1984 of size ( 625x240x225)mm in extra fine jointing mortar of fixoblock of in foundaions and plinth of inner walls/in plinth external walls including bailing out water,striking joints on unexposed faces,racking out joints on exposed faces and watering etc.complete	As directed by Engineer in Charge.	Cubic Metre	7518	1499
919	Concrete Block Masonry	29.05	BDI	Providing and constructing masonry in Autoclaved Areaclaved ( Celluar) Concrete Block of aproved manufacturer confirming to IS 2185 Part III 1984 of size ( 625x240x225)mm in extra fine jointing mortar of fixoblock of in superstucture including,striking joints,racking out joints watering and scaffolding etc.complete	As directed by Engineer in Charge.	Cubic Metre	7596	1578
920	Concrete Block Masonry	29.06	BDI	Providing and constructing masonry in Autoclaved Areaclaved (Celluar) Concrete Block of aproved manufacturer confirming to IS 2185 Part III 1984 of size (625x 240x100)mm in extra fine jointing mortar of fixoblock of in half brick thick wall including 2 hoop iron strips 25mm x 1.6mm at every third course,properly bend and bonded at ends scaffolding racking out joints and watering compete	As directed by Engineer in Charge.	Square Metre	947	192
921	Concrete Block Masonry	29.11	BDI	Providing Green Build Product (GBP) Build Fast Plus masonry ecofriendly wet mix /Blocks laying Adhesive is a pre-polymerized, wet mix jointing adhesive which is suitable for Building masonry walls with all kind of blocks with thickness of thin layer of 2mm to 4mm between masonry units. There is no need to pre-wet the Blocks nor to post cure the wall with water.Confirming to IS 2185 of size 75 x 240x 650 mm in superstructure including striking joints, racking outjoints faces and scaffolding etc. complete.	(As directed by Engineer in Charge)	Square Metre	1385	532
922	Concrete Block Masonry	29.12	BDI	Providing Green Build Product (GBP) Build Fast Plus masonry ecofriendly wet mix /Blocks of size 100 X 240 x 650 mm laying Adhesive is a pre-polymerized, wet mix jointing adhesive which is suitable for Building masonry walls with all kind of blocks with thickness of thin layer of 2mm to 4mm between masonry units. There is no need to pre-wet the Blocks nor to post cure the wall with water.Confirming to IS 2185 of size in superstructure including striking joints, racking out joints faces and scaffolding etc. complete.	As directed by Engineer in Charge.	Square Metre	1543	608
923	Concrete Block Masonry	29.13	BDI	Providing Green Build Product (GBP) Build Fast Plus masonry ecofriendly wet mix /Blocks of size 200 X 240 x 650 mm laying Adhesive is a pre-polymerized, wet mix jointing adhesive which is suitable for Building masonry walls with all kind of blocks with thickness of thin layer of 2mm to 4mm between masonry units. There is no need to pre-wet the Blocks nor to post cure the wall with water.Confirming to IS 2185 of size in superstructure including striking joints, racking out joints faces and scaffolding etc. complete.	As directed by Engineer in Charge.	Square Metre	2540	684

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
<b>SSR 2021-2022 :- Expansion Joint</b>								
924	Expansion Joint	30.01	BDK 1	Providing expansion joints in R.C.C. framed structure (interior column) with plain premoulded filler 25 mm thick including fixing T.W. battens on both faces and finishing as directed etc. Complete.	Bd.K.1 Page Number 359	Square Metre	3757	1072
925	Expansion Joint	30.02	BDK 1	Providing expansion joints in R.C.C. framed structure (exterior Columns) with plain premoulded filler 25 mm thick and 3 mm thick alluminium plate, hold fast, fixing T.W. battens on internal face, finishing etc. complete as directed.	Bd.K.1 Page Number 359	Square Metre	4442	1099
926	Expansion Joint	30.03	BDK 1	Providing expansion joints in R.C.C. framed structure (at floor level) with premoulded filler 25 mm thick and 3 mm thick aluminium plate as required, bitumen poured filler and fixing T.W. battens on rear faces etc. complete as directed.	Bd.K.1 Page Number 359	Square Metre	4586	1083
927	Expansion Joint	30.04	BDK 1	Providing expansion joints in R.C.C. framed structure (at terrace level) with premoulded filler 25 mm thick and 3 mm thick aluminium plate as required, bituminous poured filler, fixing lead, flashing on upper side and T.W. battens on inner face finishing etc. Complete as directed.	Bd.K.1 Page Number 359	Square Metre	4480	994
928	Expansion Joint	30.05	BDK 1A	Providing expansion joints in reinforced cement concrete framed structure (interior columns) with plain premoulded filler with confirming to IS 1838,1961, 25 mm thick with 75 mm wide and 1 mm thick stainless steel plate finishing etc. complete as directed	Bd K 1 A	Square Metre	5482	1775
929	Expansion Joint	30.06	BDK 1B	Providing expansion joints in R.C.C. framed structure (exterior column) with plain premoulded filler 25 mm thick with 75 mm wide and 1 mm thick stainless steel plate and finishing etc. complete.	Bd.K.1 B	Square Metre	5807	1775
930	Expansion Joint	30.07	BDK 1C	Providing expansion joints in R.C.C. framed structure (at floor level) with plain premoulded filler 25 mm thick with 75 mm wide and 1 mm thick stainless steel plat and finishing etc. complete.	Bd.K.1 C	Square Metre	5345	703
931	Expansion Joint	30.08	BDK 1D	Providing expansion joints in R.C.C. framed structure (at Terrace level) with premoulded filler 25 mm thick with 40 mm wide and 1 mm thick stainless steel plate as required, bitumen poured filler and finishing etc. complete as directed.	Bd.K.1 D	Square Metre	5321	703
932	Expansion Joint	30.09	BDK	Providing and fixing of BITUFLEX CLOSE CELL FOAM of size 30 mm x 30 mm in double layer in the expansion joints in R.C.C framed structure (at floor level / at terrace level / interior columns) for overlapping of closed cell foam joints, applying TP- 40 PRIMER on both the sides of concrete surface, filling the 25 mm x 25 mm gap with the POLYDEE-41 highly flexible sealant and covering the joint with Polydee-LM, 150 mm width in 2 coats etc. complete.	As directed by Engineer in charge	Running Metre	2190	244
933	Expansion Joint	30.10	BDK	Providing and fixing of BITUFLEX CLOSE CELL FOAM of size 30 mm x 30 mm in double layer in the expansion joints in R.C.C. framed structure (Exterior column) with closed cell foam , applying TP-40 PRIMER on both the sides of concrete surface, filling the 25 mm x 25 mm gap with the POLYSEAL, highly flexible sealant and covering the joint with Polydee- LM, 150 mm width in 2 coats and fixing the aluminium plate of 100 mm wide and 3 mm thick on external face of column etc. complete.Note- for item Number 9 and 10 Prior approval of Superintending Engineer is Necessary before execution of work.	As directed by Engineer in charge	Running Metre	2142	183
934	Expansion Joint	30.11		Providing and fixing bituminous pad 25mm thick for expansion joints in retaining wall, compound wall etc. complete.	As directed by Engineer in charge	Square Metre	1435	176

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
<b>SSR 2021-2022 :- Water Proofing</b>								
935	Water Proofing	31.01	BDJ 2	Providing and laying damp proof course 50 mm thick in M20 cement concrete layer and bitumen / using cement with waterproofing compound curing, formwork etc. complete.	Bd.J.2 Page Number 355	Square Metre	404	92
936	Water Proofing	31.02	BDJ 3	Providing and applying Bitumen VG30/VG40 layer at 2 Kilogram. per square meter over the terrace, structural slab including cleaning the surface for waterproofing as directed complete	Bd.J.3 Page Number 356	Square Metre	122	14
937	Water Proofing	31.03	BDJ	Providing leak proof treatment by Injection grouting method to old floor without removing tiles of W.C., bath, with cement sand proportion of 1:1.5 and waterproofing compound at 2 Kilogram/bag of cement mixed in 35 liters of water including drilling holes in required position grouting with above mixed solution and ceiling etc. complete.	As directed by Engineer in charge.	Litre	36	14
938	Water Proofing	31.04	BDJ	Providing cement based water proofing treatment to terraces (Indian water proofing or alike) with brick bats laid in required slope to drain the water for any span after cleaning the base surface. Applying a coat of cement slurry admixed with approved water proofing compound and laying the brick bats on bottom layer in C.M.1:5 admixed with approved water proofing compound filling up to half depth of brick bats, curing this layer for 3 days, applying cement slurry over this layer joints of brick bats with C.M.1:3 admixed with approved water proofing compound and finally top finishing with average 20 mm. thick layers of same mortar added with jute fiber at 1Kilogramper bag including finishing the surface smooth with cement slurry admixed with approved water proofing compound. Marking finished surface with false squares of 300mm x 300 mm. making the junctions at the parapet rounded and tapered top for required height, with drip mould at the junction of plaster and parapet and curing and covering 10 years Guarantee against leakproofness on Court fee stamp paper of Rs. 500/- including ponding test etc. complete.	As directed by Engineer in charge.	Square Metre	1080	571
939	Water Proofing	31.05	BDJ	Providing water proof bedding for flooring of Bath and WC 25 mm thick in C.M. 1:3 including using approved water proofing compound in specified proportion as per manufacturers specifications for per bag of cement including leveling, curing and covering 10 years guarantee on court fee stamp paper of Rs.500/- including ponding test etc. complete.	As directed by Engineer in charge.	Square Metre	401	198
940	Water Proofing	31.06	BDJ	Providing waterproof plaster in W.C. and bath 12 mm thick for dado in cement mortar 1:3 with neat finishing, floating using waterproofing compound at the rate of 1 Kilogram. per bag of cement of approved make and manufacturer and curing etc. complete. (Excluding Tiles) (As directed by Engineer in Charge)	As directed by Engineer in charge.	Square Metre	363	225
941	Water Proofing	31.07	BDJ	Providing waterproof plaster in W.C. and bath 20 mm thick for dado in cement mortar 1:3 with neat finishing, floating using waterproofing compound at the rate of 1 Kilogram. per bag of cement of approved make and manufacturer and curing (and filling joints of Nahani trap and any outlet by properly) etc. complete.	As directed by Engineer in charge.	Square Metre	496	257
942	Water Proofing	31.08	BDJ	Removing the tar or coba and disposing of the material as directed etc. complete.	As directed by Engineer in charge.	Square Metre	25	25
943	Water Proofing	31.09	BDJ	Providing and applying water proofing treatment using acrylic polymer modified cement based water proofing coating with fibre glass mesh mixing at the rate of powder to liquid (2:1) by weight covering 9 to 10 Square Metre /Kilogram with two coat using approved chemicals for masonry and concrete surface by brush covering 7 years guarantee on Stamp Papers etc. complete.	As directed by Engineer in charge	Square Metre	594	298

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
944	Water Proofing	31.10	BDJ	Providing and laying jointless Polydee-LM, a highly flexible elastometric coating for RCC / cementitious surface for terrace waterproofing on B.B. Coba / R.C.C, after application of TP- 42 Primer on perfectly clean surface (free from loose dust and foreign matter) application of 1st coat of Polydee-LM @ 700 gms/Square Metre and applying 2nd coat of Polydee-LM @ 700 gms/Square Metre and finishing the same with sprinkling the AG-10 granules on the wet coating. (After finishing covering the treatment with 25mm cement plaster for protection with fibrillated 6mm Plyplast fibre @ 125 gms/Square Metre to be paid in separate item.) covering 7 years guarantee on Court Fee Stamp Paper of Rs. 100/- etc. complete.	As directed by Engineer in charge	Square Metre	1258	221
945	Water Proofing	31.11	BDJ	Providing and applying a base coat comprising of 1KilogramPolydee-MC and 1Kilogramfresh cement after wetting the surface followed by drying the surface for 2 days, apply primer coat of TP-40 and after drying, applying Polydee-11 two component (mixing ratio 2 A : 1 B ) Antibacterial food grade coating inside drinking water tank in two coats with time interval of minimum 8 hrs. covering 7 years guarantee on Court Fee Stamp Paper of Rs. 100/- etc. complete.	As directed by Engineer in charge	Square Metre	1210	221
946	Water Proofing	31.12	BDJ	Providing and fixing 20 to 25 mm thick rough shahabad box type waterproofing for basement or underground floor on a base of Cement concrete 1:3:6, including sub base of 2.50 centimeter thick Cement mortar 1:3 with conceal, secrete (RMW), Algae proof or other alike waterproofing liquids, raking of joints upto 35 mm depth, filling the joints with 6 mm size crushed metal, hand grouting with cement slurry, curing and cleaning, with 7 years guarantee on court fee stamp of Rs. 100/- with ponding test etc complete. (excluding Cement concrete 1:3:6 base concrete )	Bd.J.2 Page Number 355	Square Metre	1199	371
947	Water Proofing	31.13	BDJ	Providing and fixing 20 to 25 mm thick rough shahabad box type waterproofing treatment to vertical outside faces of Reinforced Cement concrete walls of basement or underground floor including filling the gap of 25 mm between rough shahabad and R.C.C. walls with cement grout mixed with water proofing liquid Algae proof or other alike with one tile lift method, brushing the joints horizontally with cement slurry mixed with water proofing liquid for width 30 to 35 mm and sloping coping over topmost tile with cement mortar 1:3, butting the bottom most with Cement concrete 1:2:4 mixed with water proofing liquid, curing, with 7 years guarantee on court fee stamp of Rs.100/- with ponding test etc complete. (excluding Cement concrete 1:3:6 base concrete)	Bd.J.2 Page Number 355	Square Metre	1243	481
948	Water Proofing	31.14	BDJ	Providing and laying perforated PVC 160 mm dia pipe in proper line,leveland slope including necessary material fitting etc. complete.	As directed by Engineer in charge	Running Metre	1101	369
949	Water Proofing	31.15	BDJ	Providing and applying required coats of a water based UV resistant Evercrete Top Seal sealant to protect natural stone, bricks, concrete and wooden structures from water intrusion and staining due to water penetration and algue formation etc complete	As directed by Engineer in charge.	Square Metre	537	105
950	Water Proofing	31.16	BDJ	Providing and applying required coats of a water based Evercrete Deep Penetrating Sealer (DPS) on cement concrete surface like roads, beams, and columns, plastered walls, basements, roofs, potable water tanks etc to react with cement and to penetrate concrete structure thereby making it resistant to chemicals / chlorides water to make it dust proof and to act as a water resistant at the same time which Strengthens the treated surface and reduce the curing period etc complete. - Note -- for item Number 7 to 4 prior approval of Superintending Engineer will be necessary	As directed by Engineer in charge.	Square Metre	834	118

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
951	Water Proofing	31.17		Providing water proofing treatment as per IS : 1346-1966 to generally inaccessible sloping Reinforced Cement Concrete Terrace slab with bitumen felts in all positions in five course, consisting of applying cold bitumen primer coat at the rate of 2.5 litre per 10 Square Metre., hot bitumen layer at the rate of 14.50Kilogramper 10 Square Metre. and over the same layer of bitumen felt of type III grade (I) as per IS: 1332-1965 across the slope with 10 cm overlap commencing at lowest level and again applying hot bitumen course at the rate of 14.50Kilogramper 10 Square Metre. and finally spreading over it grit at the rate of 14.50Kilogramper 10 Square Metre. including all lifts, leads and scaffolding whenever necessary complete as directed with four years' guarantee on requisite stamp paper etc. complete.	As directed by Engineer in charge	Square Metre	550	204
952	Water Proofing	31.26	BDJ	Providing waterproofing in W.C. and bath including brick bat coba in all position including providing and laying 12mm bedding in cement mortor 1:3 on vergin concrete slab with waterproofing compound @ 1Kilogram/per bag of cement laying brick bat coba of required thickness in cm 1:5 with waterproofing compound 1 Kilogram/bag of cement grouting and finishing the top layer with 20mm thick brick bedding in cm mortor 1:3 with waterproofing compound 1 Kilogram/per bag of cement and testing the treated portion for 48 hours by pond test and covering ten years' guarantee on requisite stamp paper including curing etc. complete.	As directed by Engineer in charge	Cubic Metre	5908	3163



Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
<b>SSR 2021-2022 :- Plastering and Pointing</b>								
953	Plastering and Pointing	32.01	BDL 1	Providing internal cement plaster 6 mm thick in a single coat in cement mortar 1:4 without neeru finish to concrete surface in all positions including scaffolding and curing etc. complete.	Bd.L.1 Page Number 367	Square Metre	191	156
954	Plastering and Pointing	32.02	BDL 1	Providing internal cement plaster 6 mm thick in a single coat in cement mortar 1:3 without neeru finish to concrete surface in all positions including scaffolding and curing etc. complete.	Bd.L.1 Page Number 367	Square Metre	197	156
955	Plastering and Pointing	32.03	BDL 2	Providing internal cement plaster 12mm thick in single coat in cement mortar 1:5 without neeru finish to concrete or brick surfaces, in all positions including scaffolding and curing etc. complete.	Bd. L.2 Page Number 368	Square Metre	257	192
956	Plastering and Pointing	32.04	BDL 2A	Providing internal cement plaster 12mm thick in single coat in cement mortar 1:4 without neeru finish to concrete or brick surfaces, in all positions including scaffolding and curing etc. complete.	Bd. L.2 Page Number 368	Square Metre	264	192
957	Plastering and Pointing	32.05	BDL 2B	Providing internal cement plaster 12mm thick in single coat in cement mortar 1:3 without neeru finish to concrete or brick surfaces, in all position including scaffolding and curing etc. complete.	Bd.L.2 Page Number 368	Square Metre	274	192
958	Plastering and Pointing	32.06	BDL 4	Providing internal cement plaster 20mm thick in Single coats in cement mortar 1:5 without neeru finish, to concrete, brick surface, in all positions including scaffolding and curing etc. complete	Bd.L.4 Page Number 368	Square Metre	359	238
959	Plastering and Pointing	32.07	BDL 4A	Providing internal cement plaster 20mm thick in Single coats in cement mortar 1:4 without neeru finish, to concrete, brick surface, in all positions including scaffolding and curing etc.complete.	Bd.L.4 Page Number 368	Square Metre	366	238
960	Plastering and Pointing	32.08	BDL 4B	Providing internal cement plaster 20mm. thick in Single coats in cement mortar 1:3 without neeru finish, to concrete, brick surface, in all positions including scaffolding and curing etc. complete.	Bd.L.4 Page Number 368	Square Metre	376	238
961	Plastering and Pointing	32.11	BDL 7	Providing sand faced plaster externally in cement mortar using approved screened sand, in all positions including base coat of 15 mm thick in cement mortar 1:4 using waterproofing compound at 1Kilogramper cement bag curing the same for not less than 2 days and keeping the surface of the base coat rough to receive the sand faced treatment 6 to 8 mm thick in cement mortar 1:4 finishing the surface by taking out grains and curing for fourteen days scaffolding etc.complete.	Bd.L.7 Page Number 369	Square Metre	599	389
962	Plastering and Pointing	32.12	BDL 8	Providing rough cast cement plaster externally in two coats to concrete, brick or stone masonry surfaces in all positions with base coat of 12 to 15 mm thick in C.M. 1:4 and rough cast treatment 12mm thick in proportion 1:1 1/2:3 including scaffolding and fourteen days curing complete.	Bd.L.8 Page Number 370	Square Metre	531	399
963	Plastering and Pointing	32.13	BDL 9	Providing rough cast cement plaster externally in two coats with coloured cement finish to concrete/ brick/ stone masonry surfaces in all positions with base coat 12 to 15 mm. thick in C.M. 1:4 using gray cement and rough cast treatment 12 mm thick in proportion of 1:1 1/2:3 using colour pigment including scaffolding and fourteen days curing etc. complete.	Bd.L.9, Page Number370	Square Metre	540	399
964	Plastering and Pointing	32.15	BDL 10	Providing neeru finish to plastered surfaces in all positions including scaffolding and curing etc. complete.	Bd. L.10, Page Number370	Square Metre	61	53
965	Plastering and Pointing	32.16	BDL 15A	Providing flush grooved pointing with cement mortar 1:3 for brick work including scaffolding and curing etc. complete.	Bd. L.15 Page Number 372	Square Metre	163	146
966	Plastering and Pointing	32.17	BDL 15B	Providing flush grooved pointing with cement mortar 1:3 for stone masonry work including scaffolding and curing etc. complete.	Bd. L.15 Page Number 372	Square Metre	172	146
967	Plastering and Pointing	32.18	BDL 16	Providing tuck pointing with cement mortar 1:3 for stone/Brick masonry including scaffolding and curing etc. complete.	Bd. L. 16 Page Number 373	Square Metre	169	146

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
968	Plastering and Pointing	32.19	BDL 17	Providing weathered pointing with cement mortar 1:3 for stone/ Brick masonry including scaffolding and curing etc. complete.	Bd. L. 17 Page Number 373	Square Metre	169	146
969	Plastering and Pointing	32.20	BDL 18	Providing vee pointing with cement mortar 1:3 for stone / Brick masonry including scaffolding and curing etc. complete	Bd. L. 18 Page Number 373	Square Metre	163	146
970	Plastering and Pointing	32.21	BDL	Providing fine cement finish 1.5 mm thick over green plaster surface including scaffolding curing etc. complete.	As directed by Engineer in charge.	Square Metre	68	54
971	Plastering and Pointing	32.22	BDL	Labour charges for providing groove in external plaster having width and spaced as directed by engineer incharge etc. complete.	As directed by Engineer in charge.	Running Metre	46	46
972	Plastering and Pointing	32.23	BDL	Providing patti/ band 75mm wide on plastered surface 12 mm to 15 mm thick in C.M. 1:3 line and level including neat finishing scaffolding curing etc. complete.	As directed by Engineer in charge.	Running Metre	49	42
973	Plastering and Pointing	32.24	BDL	Providing patti/ band 100mm wide on plastered surface 12 mm to 15 mm thick in C.M. 1:3 line and level including neat finishing scaffolding curing etc. complete.	As directed by Engineer in charge.	Running Metre	63	54
974	Plastering and Pointing	32.25	BDL	Providing patti/ band 150mm wide on plastered surface 12 mm to 15 mm thick in C.M. 1:3 line and level including neat finishing scaffolding curing etc. complete.	As directed by Engineer in charge.	Running Metre	77	62
975	Plastering and Pointing	32.26	BDL	Providing and fixing chicken mesh of 22 gauge, with about 30 cm. width at the junction of R.C.C members and brick work, of approved quality including fixing mesh in position by necessary drilling in concrete /B.B.masonry and or tying by binding wire etc. complete.	As directed by Engineer in Charge:	Running Metre	129	15
976	Plastering and Pointing	32.27	BDL	Providing and applying plaster with plaster of paris in 6mm thickness to previously plaster surface in all position including preparing the surface scaffolding etc. complete.	As directed by Engineer in Charge.	Square Metre	136	75
977	Plastering and Pointing	32.28	BDL	Providing and applying spray plaster made with finely graded marble and quartz in 2 mm thickness in two coats using putty knife or trowel to newly plaster fairly even surface after minimum 30 days gap in all position including finishing the surface using zero number sand paper or fine emry paper gently level the area by moving paper in round circles removing the dust and clean the surface with dry cloth and scaffolding including all materials and labour etc. complete.	As directed by Engineer in Charge.	Square Metre	308	57
978	Plastering and Pointing	32.29	BDL	Providing and applying laying Aggregate plaster in granite / marble stones, as decorative finish to give granite / marble like appearance to concrete, brick or block surfaces in all position including preparation of surface smoothly, evenly by racking of joints in case of Brick or block work including backing layer of 12 mm thick with cement mortar 1:3 with 2% integral cement water proofing compound, roughening for wall keying hardening and drying the surface for a minimum five days gaps including second coat of cement lime mortar into a proportion 1:4 preparing the surface for three coat of marble finish plaster giving a thin coat of white cement and two parts of course calcite powder, applying the mortar with steel float on the surface in proper evenness applying at coat of white cement and lime to set a smooth finish then applying a thin coat of slurry made of white cement and black oxide colour in required proportion by the steel float to get black streaks on the surface and curing the surface for two days including all materials and labour etc. complete.	As directed by Engineer in Charge.	Square Metre	2008	635
979	Plastering and Pointing	32.30	BDL	Providing and applying plaster / wall punning with plaster of paris ( with plaster of paris material) in 10 to 13 millimeter thickness to previously plastered surface / or on newly brick surface ( Excluding rough cast plaster ) in all position including preparing and Finishing the surface scaffolding etc.complete.	As directed by Engineer in charge.	Square Metre	535	182

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
980	Plastering and Pointing	32.31	BDL	Providing and applying gypsum plaster ( with Gypsum material ) with finishing with gypsum material in 10 to 13 millimeter thickness to previously plastered surface / or on newly brick surface ( Excluding rough cast plaster ) in all position including preparing and Finishing the surface scaffolding etc.complete.	As directed by Engineer in charge.	Square Metre	712	182
981	Plastering and Pointing	32.32	BDL	Providing and applying Texture plaster with finishing with texture material of approved make in 3 to 4 millimeter thickness on previously plastered surface, including Plaster Groove 6mm thickness or Tape Grooves 35 to 45 mm thickness or as required, in all position including preparing the surface, scaffolding etc. complete.	As directed by Engineer in charge.	Square Metre	596	105
982	Plastering and Pointing	32.33	BDL	Removing the existing cement plaster of any thickness without causing dust nuisance and stacking the debris upto a distance of 50 metres or spreading in the compound and cleaning the site etc. complete.	As directed by Engineer in charge.	Square Metre	49	49
983	Plastering and Pointing	32.34	BDL	Providing and applying Two coats of wall care Putty on plastered surface and Ceiling and Walls to prepare surface even and smooth of approved make, etc complete.	As directed by Engineer in charge.	Square Metre	87	49
984	Plastering and Pointing	32.36	BDL	Providing cement patta / band of 2.50 cm width on either side of edges of plaster for doors and windows including scaffolding ,finishing, curing etc. complete.	As directed by Engineer in charge.	Square Metre	37	30
985	Plastering and Pointing	32.37	BDL	Providing groove to required size at specified location as directed by Engineer, at junction of brick masonry wall and R.C.C beams or Column, at junction of composite masonry, including scaffolding, finishing, curing etc. complete.	As directed by Engineer in charge.	Running Metre	38	38

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
<b>SSR 2021-2022 :- Paving Flooring and dado</b>								
986	Paving Flooring and dado	33.01	BDM 1	Providing and laying Rough Shahabad Stone Flooring 25mm to 30mm thick and of required width in plain/ diamond pattern on a bed of 1:6 C.M. including cement float, striking joints, pointing in cement mortar 1:3 curing and cleaning etc. complete.	Bd.M.1 Page Number 379	Square Metre	694	274
987	Paving Flooring and dado	33.02	BDM 1A	Providing and laying Rough Shahabad Stone Flooring 40mm.to 45 mm. thick and of required width in plain/ diamond pattern on a bed of 1:6 C.M. including cement float, striking joints, pointing in cement mortar 1:3 curing and cleaning etc. etc. complete	Bd.M.1 Page Number 379	Square Metre	775	282
988	Paving Flooring and dado	33.03	BDM 1B	Providing and laying Rough Shahabad Stone Flooring 50mm to 60mm thick and of required width in plain/ diamond pattern on a bed of 1:6 C.M. including cement float, striking joints, pointing in cement mortar 1:3 curing and cleaning etc. etc. complete.	Bd.M.1 Page Number 379	Square Metre	846	295
989	Paving Flooring and dado	33.04	BDM 3	Providing and laying Polished Shahabad Stone flooring 25mm to 30mm thick and required width wide in plain/ diamond pattern on a bed of 1:6 C.M. including cement float, filling joints, with neat cement slurry, curing, polishing and cleaning etc. complete.	Bd.M.3 Page Number 380	Square Metre	782	276
990	Paving Flooring and dado	33.05	BDM 3A	Providing and laying Polished Tandur Stone flooring 25mm to 30mm thick required width in plain/ diamond pattern on a bed of 1:6 C.M. including cement float, filling joints with neat cement slurry, curing, polishing and cleaning etc. complete.	Bd.M.3 Page Number 380	Square Metre	1013	347
991	Paving Flooring and dado	33.06	BDM 3B	Providing and laying machine cut machine Polished Kota stone flooring 25mm to 30mm thick and required width in plain/ diamond pattern on bed of 1:6 C. M. including cement float, filling joints with neat cement slurry, curing, polishing and cleaning etc. complete.	Bd.M.3 Page Number 380	Square Metre	1217	309
992	Paving Flooring and dado	33.07	BDM	Providing and laying handcut polished Kotah Stone flooring 25mm to 30mm thick and 30cm wide in plain/diamond pattern on a bed of 1:6 C.M. including cement float, filling joints with neat cement slurry, curing, polishing and cleaning etc. complete.	Bd.M.3 Page Number380	Square Metre	1153	265
993	Paving Flooring and dado	33.08	BDM	Providing and laying polished hand cut Kotah Stone flooring 25mm to 30mm thick and 45cm to 55cm wide in plain/diamond pattern on a bed of 1:6 C.M. including cement float, filling joints with neat cement slurry, curing, polishing and cleaning complete.	Bd.M.3 Page Number380	Square Metre	1231	265
994	Paving Flooring and dado	33.09	BDM 7	Providing and laying cement concrete flooring 40 mm thick with M15 cement concrete laid to proper level and slope in alternate bays including compaction, filling joints, marking lines to give the appearance of tiles of 30 cm x 30 cm or other size laid diagonally /square etc finishing smooth (with extra cement) in any colour as directed and curing etc. complete.with Crushed sand VSI Grade	Bd.M.7 Page Number 383	Square Metre	505	291
995	Paving Flooring and dado	33.10	BDM 7	Providing and laying cement concrete flooring 40 mm thick with M15 cement concrete laid to proper level and slope in alternate bays including compaction, filling joints, marking lines to give the appearance of tiles of 30 cm x 30 cm or other size laid diagonally/ square etc finishing smooth (with extra cement) in any colour as directed and curing etc. complete. With Crushed Sand.	Bd.M.7 Page Number 383	Square Metre	460	291
996	Paving Flooring and dado	33.11	BDM 6	Providing and laying cement concrete flooring 40mm thick with M20 cement concrete laid to proper level and slope in alternate bays, including compaction, filling joints, marking lines to give appearance of tiles of 30cm x 30cm or other size laid diagonally/square etc. finishing smooth (with extra cement) in any colour as directed and Curing etc. complete. With Crushed sand VSI Grade	Bd.M.6 Page Number 381	Square Metre	510	291
997	Paving Flooring and dado	33.12	BDM 6	Providing and laying cement concrete flooring 40mm thick with M20 cement concrete laid to proper level and slope in alternate bays, including compaction, filling joints, marking lines to give appearance of tiles of 30cm x 30cm or other size laid diagonally/square etc. finishing smooth (with extra cement) in any colour as directed and Curing etc. complete. With Crushed sand VSI Grade	Bd.M.6 Page Number 381	Square Metre	494	291

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
998	Paving Flooring and dado	33.13	BDM 7A	Providing and laying cement concrete flooring 50 mm thick with M15 cement concrete laid to proper level and slope in alternate bays including compaction filling joints, marking lines to give the appearance of tiles of 30cm x 30cm or other size laid diagonally/ square etc finishing smooth (with extra cement) in any colour as directed and curing etc. complete.with Crushed sand VSI Grade	Bd.M.7 Page Number 383	Square Metre	547	291
999	Paving Flooring and dado	33.14	BDM 7A	Providing and laying cement concrete flooring 50 mm thick with M15 cement concrete laid to proper level and slope in alternate bays including compaction filling joints, marking lines to give the appearance of tiles of 30cm x 30cm or other size laid diagonally/square etc finishing smooth (with extra cement) in any colour as directed and curing etc. complete. With Crushed Sand.	Bd.M.7 Page Number 383	Square Metre	526	291
1000	Paving Flooring and dado	33.15	BDM 6A	Providing and laying cement concrete flooring 50mm thick with M20 cement concrete laid to proper level and slope in alternate bays including compaction, filling joints, marking lines to give the appearance of tiles of 30cm x 30cm or other size laid diagonally/ square etc. finishing smooth (with extra cement) in any colour as directed and curing etc. complete.with Crushed sand VSI Grade	Bd.M.6 Page Number 381	Square Metre	560	291
1001	Paving Flooring and dado	33.16	BDM 6A	Providing and laying cement concrete flooring 50mm thick with M20 cement concrete laid to proper level and slope in alternate bays including compaction, filling joints, marking lines to give the appearance of tiles of 30cm x 30cm or other size laid diagonally/ square etc. finishing smooth (with extra cement) in any colour as directed and curing etc. complete. With Crushed Sand.	Bd.M.6 Page Number 381	Square Metre	445	199
1002	Paving Flooring and dado	33.17	BDM 22	Providing and laying machine cut machine polished shahabad Stone slabs 20 to 25mm thick for treads and risers of steps and staircases, with rounded nosing for the treads on a bed of 1:4 cement mortar including cement float, filling joints with neat cement slurry, curing, polishing and cleaning etc. complete.	Bd.M.22 Page Number 390	Square Metre	1068	541
1003	Paving Flooring and dado	33.18	BDM 22B	Providing and laying machine cut machine polished machine cut Kota stone slabs 20 to 25 mm thick for treads and risers of steps and staircases, with rounded nosing for the treads on a bed of 1:4 cement mortar including cement float, filling joints with neat cement slurry, curing, polishing and cleaning etc. complete.	Bd.M.22 Page Number 390	Square Metre	1493	541
1004	Paving Flooring and dado	33.19	BDM 29B	Providing sills of polished Kota stone 25 mm to 30mm thick, on a bed of 1:4 cement mortar including cement float, filling joints with slurry, curing,moulding edges, polishing and cleaning etc. complete.	Bd.M.29 Page Number 391	Square Metre	1215	317
1005	Paving Flooring and dado	33.20	BDM 29C	Providing sills of polished Kadappa stone 25mm to 30mm thick, on a bed of 1:4 cement mortar including cement float, filling joints with slurry, curing polishing and cleaning etc. complete.	Bd.M.29 Page Number 391	Square Metre	1064	317
1006	Paving Flooring and dado	33.21	0	Providing sills of required material 20mm to 25mm thick, on a bed of cement mortar 1:4 including cement float, filling joints with neat cement slurry, curing, polishing, moulding edges, cleaning complete. a) Marble other than white makrana	Spec.Number: Bd.M.31/Page Number392	Square Metre	2126	317
1007	Paving Flooring and dado	33.22	0	Providing sills of required material 20mm to 25mm thick, on a bed of cement mortar 1:4 including cement float, filling joints with neat cement slurry, curing, moulding edges, polishing,cleaning complete. b) Granite	Spec.Number: Bd.M.31/Page Number393	Square Metre	3872	317
1008	Paving Flooring and dado	33.23	BDM 15	Providing and fixing black kadappa stone as shelves 25mm. thick machine polished, extending the polish upto 20 cm width on lowerside, rounding corners, laying in position jointing with bedding cement mortar 1:4 proportion curing etc etc. complete.	Bd.M.29 Page Number 391	Square Metre	1181	360

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
1009	Paving Flooring and dado	33.24	BDM 12	Providing and laying matt finish ceramic tiles of having size 30 cm x 30 cm confirming to I.S.15622/2006 (group D II-A) and 7 to 8 mm thick for flooring in required position laid on a bed of 1:4 cement mortar including cement float, filling joint with white/colour cement slurry cleaning curing etc. complete.	Bd.M.12 Page Number 385.	Square Metre	1157	336
1010	Paving Flooring and dado	33.25	BDM 13	Providing and laying ceramic tiles of having size 30 cm. x 30 cm. and confirming to corresponding I.S. for dado and skirting in required position with readymade adhesive mortar of approved quality on plaster of 1:2 cement mortar including joint filling with white/ colour cement slurry cleaning curing etc. complete.	Bd.M.13 Page Number 386.	Square Metre	1226	410
1011	Paving Flooring and dado	33.26	BDM 13	Providing and laying ceramic tiles having size 30 cm. x 45 cm. confirming to corresponding I.S. for dado and skirting in required position with readymade adhesive mortar of approved quality on plaster of 1:2 cement mortar including joint filling with white/ colour cement slurry cleaning curing etc. complete.	Bd.M.13 Page Number 386.	Square Metre	1249	407
1012	Paving Flooring and dado	33.27	BDM 13	Providing and laying ceramic tiles having size 30 cm. x 60 cm. confirming to corresponding I.S. for dado and skirting in required position with readymade adhesive mortar of approved quality on plaster of 1:2 cement mortar including joint filling with white/ colour cement slurry cleaning curing etc. complete.	Bd.M.13 Page Number 386.	Square Metre	1270	410
1013	Paving Flooring and dado	33.28	BDM	Providing Mirror polishing to Kota Stone including using all necessary stones and equipments cleaning, washing etc. complete. For Flooring	As directed by Engineer in charge.	Square Metre	129	34
1014	Paving Flooring and dado	33.29	BDM	Providing Mirror polishing to Kota Stone including using all necessary stones and equipments cleaning, washing etc. complete. For Skirting	As directed by Engineer in charge.	Running Metre	62	34
1015	Paving Flooring and dado	33.30	BDM	Providing and laying in situ cement concrete M20 with tremix treatment for 100 mm thickness for flooring with groove cutting of 4mm wide and 20mm deep with necessary refilling with bitumen etc. complete.	As directed by Engineer in charge	Square Metre	746	180
1016	Paving Flooring and dado	33.31	BDM	Providing and laying in situ cement concrete M30 with tremix treatment for 200 mm thickness for flooring with groove cutting of 4mm wide and 20mm deep with necessary refilling with bitumen etc. complete.	As directed by Engineer in charge	Square Metre	1379	326
1017	Paving Flooring and dado	33.32	BDM 35	Providing 25 mm to 30 mm thick partition of polished black kadappa stone slab of approved quality including giving required size and shape etc. Fixing in cement mortar 1:3 curing and cement etc. complete. a) One side polish	Bd.M.35 B/P Number393	Square Metre	969	313
1018	Paving Flooring and dado	33.33	BDM 35	Providing 25 mm to 30 mm thick partition of polished black kadappa stone slab of approved quality including giving required size and shape etc. Fixing in cement mortar 1:3 curing and cement etc. complete. b) Both side polish	Bd.M.35 B/P Number393	Square Metre	1118	313
1019	Paving Flooring and dado	33.34	BDM 3	Providing and laying in position flooring of telephone black / Amba White / Cat bary brown / Ruby red / Ocean Brown granite stone of approved shade and size 18 mm to 20 mm thick on bed 1:6 cement mortar including cement floats striking joints, pointing in C.M. 1:3 curing and cleaning etc. complete.	Bd.M. 3 B/Page Number 380	Square Metre	4005	313
1020	Paving Flooring and dado	33.35	BDM 22	Providing and fixing machine cut machine polished 18 mm to 20 mm thick telephone black / Amba White / Cat bary brown / RBI red / Ocean Brown granite stone for treads and risers of steps and staircases of approved colour and shade with full moulding and three grooved line for the treads on bed of 1:4 Cement mortar including float filling joints with neat cement slurry curing polishing and cleaning etc. complete.	Bd. M.22 B/Page Number 390	Square Metre	4138	414
1021	Paving Flooring and dado	33.36	BDM 35	Providing and fixing machine cut mirror polished 18 mm to 20 mm thick telephone black granite / Amba White / Cat bary brown / RBI red / Ocean Brown granite stone partition with full moulding the edges etc. complete . Both side polish	Bd.M.35 B/Page Number393	Square Metre	4003	313

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
1022	Paving Flooring and dado	33.37	BDM 35	Providing and fixing machine cut mirror polished 18 mm to 20 mm thick telephone black / Amba White / Cat bary brown / RBI red / Ocean Brown granite stone partition with full moulding the edges etc. complete. One side polish	Bd.M.35 B/Page Number393	Square Metre	3997	313
1023	Paving Flooring and dado	33.38	BDM 35	Providing and preparing kitchen otta up to 75 cm width,made up from 30 mm thick and 75 cm high vertical support for kadppa at 1 m. c/c of 25 mm thick both side polished kadappa middle shelf and bottom of 20 mm thick one side polished kadappa with facia patti of 20 x 50 mm kadappa including all material labour cutting fixing with cement mortar and araldite curing polished and cleaning etc. complete.	Bd.M.35C / Page Number 393	Square Metre	2758	373
1024	Paving Flooring and dado	33.39	BDM 35	Providing and fixing 1.5 mm thick polyvenyl vinyl chloride flooring including leveling the base with white cement including pasting with appropriate material cleaning the surface etc. complete	Bd.M.35C / Page Number 393	Square Metre	604	157
1025	Paving Flooring and dado	33.40	BDM 12	Providing and laying vitrified mirror / glossy finish tiles decorative type having size 590 mm to 605 mm x 590 mm to 605 mm of 8 to 10 mm thickness and confirming to IS. 15622-2006 ( group Bla) of approved make, shade and pattern for flooring in required position laid on a bed of 1:4 cement mortar including neat cement float, filling joints, curing and clearing etc. complete.	Bd.M. 12 Page Number385	Square Metre	1155	257
1026	Paving Flooring and dado	33.41	BDM 12	Providing and laying vitrified mirror / glossy finish tiles having size 590 mm to 605 mm x 590 mm to 605 mm of 8 to 10 mm thickness and confirming to IS. 15622-2006 ( group Bla) of approved make, shade and pattern for dado and skirting in required position fixed in 1:4 cement mortar including neat cement float, filling joints, curing and clearing etc. complete	Bd.M. 12 Page Number385	Square Metre	1227	332
1027	Paving Flooring and dado	33.42	BDM 12	Providing and laying vitrified matt fininsh tiles having size 590 mm to 605 mm x to 605 mm of 8 to 10 mm thickness and confirming IS. 15622-2006 (Group Bla) of approved make, shade and pattern for flooring in required position laid on a bed of 1:4 cement morar including neat cement float, filling joints, curing and cleaning etc. complete.	Bd.M.12 Page Number 385	Square Metre	1579	257
1028	Paving Flooring and dado	33.43	BDM 12	Providing and laying vitrified matt finish tiles having size 590 mm to 605 mm x to 605 mm of 8 to 10 mm thickness and confirming IS. 15622-2006 (Group Bla) of approved make, shade and pattern for dado and skirting in required position fixed in 1:4 cement mortar including neat cement float, filling joints, curing and cleaning etc. complete.	Bd.M.12 Page Number 385	Square Metre	1982	332
1029	Paving Flooring and dado	33.44	BDM 12	Providing and laying vitrified rustic matt stone finish tiles having size 590 mm to 605 mm x 590 mm to 605 mm of 8 to 10mm thickness and confirming to IS. 15622-2006 (Group Bla) of approved make, shade and pattern for flooring in required position laid on a bed of 1:4 cement mortar including neat cement float, filling joints, curing and cleaning etc. complete.	Bd.M.12 Page Number 385	Square Metre	1743	336
1030	Paving Flooring and dado	33.45	BDM 12	Providing and laying vitrified rustic matt stone finish tiles having size 590 mm to 605 mm x 590 mm to 605 mm to 8 to 10mm thickness and confirming to IS. 15622-2006 (Group Bla) of approved make, shade and pattern for dado and skirting in required position fixed in 1:4 cement mortar including neat cement float, filling joints, curing and cleaning. etc. complete.	Bd.M.12 Page Number 385	Square Metre	1814	410
1031	Paving Flooring and dado	33.46	BDM 12	Providing and laying vitrified stone effect finish tiles having size 590 to 605 mm x 590 to 605 mm of 8 to 10 mm thickness and confirming to IS. 15622-2006 (Group Bla) of approved make, shade and pattern for flooring in required position laid on a bed of 1:4 cement mortar including required position laid on a bed of 1:4 cement mortar including neat cement float, filling joints, curing and cleaning etc. complete	Bd.M. 12 Page Number 385	Square Metre	1743	336
1032	Paving Flooring and dado	33.47	BDM 12	Providing and laying vitrified stone effect finish tiles having size 590 to 605 mm x 590 to 605 mm of 8 to 10 mm thickness and confirming to IS. 15622-2006 (Group Bla) of approved make, shade and pattern for dado and skirting in required position fixed in 1:4 cement mortar including required position laid on a bed of 1:4 cement mortarincluding neat cement float, filling joints, curign and cleaning etc. complete.	Bd.M. 12 Page Number 385	Square Metre	1814	410

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
1033	Paving Flooring and dado	33.48	BDM 12	Providing and fixing green marble of 18 to 20 mm thick for door frame/ dado/ window boxing etc. On C.M. 1:6 including filling joints with polymer base filler nosing / moulding the sharp edges wherever necessary, curing, etc. complete.	Bd. M. 12	Square Metre	2347	300
1034	Paving Flooring and dado	33.49	BDM	Providing and fixing heavy duty inter locking concrete Grey paving blocks of 60 mm thickness of having a strength of 300 Kilogram/Sq.cm. of approved quality and shape on a bed of crushed sand of 25 to 30 mm thick including skirting joints and cleaning etc. complete.	A directed by Engineer in charge	Square Metre	916	95
1035	Paving Flooring and dado	33.50	BDM	Providing and fixing heavy duty inter locking concrete Grey paving blocks of 80 mm thickness of having a strength of 300 Kilogram/Sq.cm. of approved quality and shape on a bed of crushed sand of 25 to 30 mm thick including skirting joints and cleaning etc. complete.	A directed by Engineer in charge	Square Metre	1013	95
1036	Paving Flooring and dado	33.51	BDM	Providing and fixing heavy duty inter locking concrete Coloured paving blocks of 60 mm thickness of having a strength of 300 Kilogram/Sq.cm. of approved quality and shape on a bed of crushed sand of 25 to 30 mm thick including skirting joints and cleaning etc. complete	A directed by Engineer in charge	Square Metre	900	95
1037	Paving Flooring and dado	33.52	BDM	Providing and fixing heavy duty inter locking concrete Coloured paving blocks of 80 mm thickness of having a strength of 300 Kilogram/Sq.cm. of approved quality and shape on a bed of crushed sand of 25 to 30 mm thick including skirting joints and cleaning etc. complete	As directed by Engineer in charge	Square Metre	1147	95
1038	Paving Flooring and dado	33.53	BDM 12	Providing and fixing heavy duty inter locking concrete RUBBER MOULD GLOSSY PAVING BLOCKS of 60 millimeter thickness of having a strength of 400 Kilogram/sq.m of approved quality and shape on a bed of crushed sand of 25 to 30 millimeter thick including striking joints and cleaning etc. complete. (using 100% crushed sand)	Bd. M-12 page Number 385	Square Metre	923	95
1039	Paving Flooring and dado	33.54	BDM	Providing and fixing heavy duty inter locking concrete Rubber mould glossy paving blocks of 80 mm thickness of having a strength of 400 Kilogram/Sq.cm. of approved quality and shape on a bed of crushed sand of 25 to 30 mm thick including skirting joints and cleaning etc. complete. (using 100% crushed sand)	Bd. M.	Square Metre	1382	95
1040	Paving Flooring and dado	33.55	BDM	Providing and fixing heavy duty inter locking concrete Coloured paving blocks of 40 mm thickness of having a strength of 200 Kilogram/Sq.cm. of approved quality and shape on a bed of crushed sand of 25 to 30 mm thick including skirting joints and cleaning etc. complete.	As directed by Engineer in charge	Square Metre	823	95
1041	Paving Flooring and dado	33.56	BDM	Providing leather finished polishing to Granite Stone slab by continuous grinding in 4 coats of different bits to receive rough and matt finish including buffing process before laying and fixing of stone as per drawing and design, including cleaning, washing and finishing etc. complete.	As directed by Engineer in charge	Square Metre	620	149
1042	Paving Flooring and dado	33.57	BDM	Providing leather finished polishing to Kota / Marble / Shahabad / Kadappa Stone slab by continuous grinding in 4 coats of different bits to receive rough and matty finish including buffing process before laying and fixing of stone as per drawing and design, including cleaning, washing and finishing etc. complete.	As directed by Engineer in charge	Square Metre	526	149
1043	Paving Flooring and dado	33.58	BDM 12	Providing and laying Vitrified mirror/glossy finish having decorative type of size 590 millimeter to 605 millimeter x 590 millimeter to 605 millimeter of 8 to 10 millimeter thickness (on a existing flooring) with bonding chemical and confirming to IS 15622-2006 (Group Bla) of approved make shade and pattern for flooring in required position laid on a bed of bonding chemical filling joints curing and cleaning etc . complete.	Bd. M-12 page Number 385	Square Metre	1192	148
1044	Paving Flooring and dado	33.59	0	Providing and laying Vitrified MATT finish having decorative type of size 600 millimeter x 600 millimeter of 8 to 10 millimeter thickness (on a existing flooring) with bonding chemical and confirming to IS 15622-2006 (Group Bla) of approved make shade and pattern for flooring in required position laid on a bed of bonding chemical filling joints curing and cleaning etc .complete.	Bd. M-12 page Number 386	Square Metre	1611	148



Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
1045	Paving Flooring and dado	33.61	0	Providing and laying Vitrified MATT finish having decorative type of size 1000 millimeter x 1000 millimeter of 8 to 10 millimeter thickness (on a existing flooring) with bonding chemical and confirming to IS 15622-2006 (Group Bla) of approved make shade and pattern for flooring in required position laid on a bed of bonding chemical filling joints curing and cleaning etc .complete.	Bd. M-12 page Number 388	Square Metre	2198	148
1046	Paving Flooring and dado	33.62	0	Providing and laying Vitrified RUSTIC MATT STONE finish having decorative type tiles of size 600 millimeter x 600 millimeter of 8 to 10 millimeter thickness (on a existing flooring) with bonding chemical and confirming to IS 15622-2006 (Group Bla) of approved make shade and pattern for flooring in required position laid on a bed of bonding chemical filling joints curing and cleaning etc. complete.	Bd. M-12 page Number 386	Square Metre	1733	185
1047	Paving Flooring and dado	33.65	BDM 12	Providing and laying Vitrified STONE EFFECT FINISH having decorative type tiles of size 590 millimeter to 605 millimeter x 590 millimeter to 605 millimeter of 8 to 10 millimeter thickness (on a existing flooring) with bonding chemical and confirming to IS 15622-2006 (Group Bla) of approved make shade and pattern for flooring in required position laid on a bed of bonding chemical filling joints curing and cleaning etc. complete.	Bd. M-12 page Number 385	Square Metre	1786	185
1048	Paving Flooring and dado	33.66	BDM	Providing and laying chequered tiles of approved quality of size 30 cm x 30 cm, confirming to corresponding I.S. for flooring in required position laid on a bed of 1:4 cement mortar including cement float, filling joint with cement slurry cleaning curing etc. complete.	Bd. M-12 page Number 385	Square Metre	707	186
1049	Paving Flooring and dado	33.67	BDM	Providing and laying Antiskid Ceramic tiles of approved quality of size 30 cm x 30 cm and confirming to IS 15622-2006 (Group-B IIA) for antiskid flooring in required position laid on a bed of 1:4 cement mortar including cement float, filling joint with cement slurry cleaning curing etc. complete.	Bd. M-12 page Number 385	Square Metre	1176	336
1050	Paving Flooring and dado	33.68	BDM	Providing and laying telephone black / Amba White / Cadburybrown / Ruby red / Ocean Brown granite stone of 18 to 20 mm thick for door frame/ dado/ window boxing etc. On C.M. 1:6 including filling joints with polymer base filler nosing/moulding the sharp edges wherever necessary, curing, etc. complete.	As directed by Engineer-In- Charge	Square Metre	4354	641
1051	Paving Flooring and dado	33.75	BDM	Providing and laying Polished Kota stone flooring With Hand-Cut Polished Kota Stones 25mm to 30mm thick and required width in plain/diamond pattern on bed of 1:6 Cement mortar including cement float, filling joints with neat cement slurry, curing, cleaning and Mirror Polishing etc. complete Note- Water absorption for <u>kota stone</u> should not exceed 0.05%.( Item to be used with prior permission of Superintending Engineer )	Bd. M-3 page Number 380	Square Metre	1481	453
1052	Paving Flooring and dado	33.76	BDM	Providing, laying and fixing exterior grade fibrilling fibre reinforcement heavy duty designer cement concrete tiles for Flooring of approved colour and design 22 +/- 2 mm thick bayer colour pigmented as per IS ..1237 - 1980 having compressive strength more than 500 Kilogram/sq.cm reaffirmed in 2006 ,having wert transvrse strength of 3.5 / mm 2, water absorption less than 10 % abrasion / wear resistance less than 2 mm ,skid resistance more than 25.0 (ASTM:E303) and no fading as per DIN - 51094 of size 300 x 300 in plan / designed pattern on a bed of 1:4 cement mortar including cement float ,filling joints with neat cement slurry ,curing, polishing and cleaning etc. complete. For flooring.	As directed by Engineer-In- Char	Square Metre	1078	336

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
1053	Paving Flooring and dado	33.77	BDM	Providing, laying and fixing exterior grade fibrilling fibre reinforcement heavy duty designer cement concrete tiles for steps and dado of approved colour and design 22 +/- 2 mm thick bayer colour pigmented as per IS 1237 - 1980 reaffirmed in 2006 ,having wert transvrse strength of 3.5 / mm 2, water absorption less than 10 % abrasion / wear resistance less than 2 mm ,skid resistance more than 25.0 (ASTM:E303) and no fading as per DIN - 51094 in plan / designed pattern on a bed of 1:4 cement mortar including cement float ,filling joints with neat cement slurry ,curing,polished and cleaning etc. complete. For steps, and dado	As directed by Engineer-In- Char	Square Metre	1147	410
1054	Paving Flooring and dado	33.78	BDM	Machine polishing to cement/marble mosaic tiled flooring or any other type of flooring including cleaning, washing, etc. complete.	As directed by Engineer in Charge	Square Metre	163	140
1055	Paving Flooring and dado	33.79	BDM	Hand polishing to dado, skirting including cleaning, washing etc. complete.	As directed by Engineer in Charge	Square Metre	75	71
1056	Paving Flooring and dado	33.80	BDM	Providing wax polishing to floors and dado, preparing the surface, scaffolding etc. complete.	As directed by Engineer in Charge	Square Metre	406	210
1057	Paving Flooring and dado	33.81	BDM	Providing and fixing in required position skirting or dado of polished Kotah Stone slab 25 mm to 30 mm thick fixed on base on plaster of cement mortar 1:4 including cement float, filling joints with cement slurry, curing rubbing, polishing and cleaning complete.	As directed by Engineer in Charge	Square Metre	1281	345

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
<b>SSR 2021-2022 :- Wood Finish</b>								
1058	Wood Finish	34.01	BDN 1.1	Providing and applying boiled linseed oil in one coat, to the new wood work, including knotting, preparing the surface, scaffolding etc. complete as directed.	Bd. N. 1. 1 Page Number 399	Square Metre	25	16
1059	Wood Finish	34.02	BDN 1.1	Providing and applying boiled linseed oil in two coats to the new wood work, including knotting, preparing the surface, scaffolding etc. complete as directed.	Bd.N.1.1 Page Number 399	Square Metre	41	29
1060	Wood Finish	34.03	BDN 1.2	Providing and applying Wax polish to the new wood work including knotting, preparing the surface, scaffolding etc. complete as directed.	Bd.N.1.2 Page Number 399	Square Metre	52	45
1061	Wood Finish	34.04	BDN 1.2	Providing and applying Wax polish to the old wood work including knotting, preparing the surface, scaffolding etc. complete as directed.	Bd. N. 1.2 Page Number 399	Square Metre	42	29
1062	Wood Finish	34.05	BDN 1.3	Providing and applying French polish for required finish on previously polished wood including knotting, preparing the surfaces, scaffolding etc. complete as directed	Bd.N.1.3 Page Number 399	Square Metre	118	83
1063	Wood Finish	34.06	BDN 1.3	Providing and applying french polish to new wood work, for required finishing including. knotting, preparing the surfaces, scaffolding etc. complete as directed.	Bd.N.1.3 Page Number 399	Square Metre	230	181
1064	Wood Finish	34.07	BDN 1.4	Providing and applying varnish in one coat on previously varnished wood work including knotting, preparing the surface, scrapping, scaffolding, etc. complete.	Bd.N.1.4 Page Number 400	Square Metre	38	20
1065	Wood Finish	34.08	BDN 1.4	Providing and applying Varnish in two coats on new wood work including knotting, preparing the surface, scaffolding etc. Complete.	Bd.N.1.4 Page Number 400	Square Metre	59	29
1066	Wood Finish	34.09	BDN	Providing and applying melamine polish of required finish to the wood work by spray machine including knotting and preparing the even surface by scraping, applying French polish , scaffolding if required etc. complete. Note:The work to be executed on prior approval of Superintending Engineer will be necessary.	As directed by Engineer-in charge.	Square Metre	799	515
1067	Wood Finish	34.10	BDN	Providing and applying coal tar in one coat on previously coal tarred wood including preparing the surface, scaffolding etc. complete. (coal tar shall be minimum 300 grams per Square Metre.)	As directed by Engineer-in charge.	Square Metre	63	35
1068	Wood Finish	34.11	BDN	Providing and applying coal tar in two coats on new wood work including preparing the surface, scaffolding etc. complete. (coal tar shall be minimum 500 grams per Square Metre.)	As directed by Engineer-in charge.	Square Metre	99	53

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
<b>SSR 2021-2022 :- Oil Painting</b>								
1069	Oil Painting	35.01	BDO 1	Providing and applying two coats of lead/zinc base oil paint/ bituminous paint of approved colour and shade to new wood work and fiber boards including preparing the surface, knotting, scaffolding if necessary, excluding primer coat etc. complete.	Bd.O. 1 Page Number 403	Square Metre	85	30
1070	Oil Painting	35.02	BDO 2	Providing and applying one coat of lead/zinc base oil paint/ bituminous paint of approved colour and shade to old wood work previously painted and fiber boards including if necessary scaffolding, preparing surface excluding primer coat etc. complete.	Bd.0.2 Page Number 404	Square Metre	44	15
1071	Oil Painting	35.03	BDO 2A	Providing and applying two coats of lead/zinc base oil paint/bituminous paint of approved colour and shade to old wood work and fiber boards previously painted including if necessary scaffolding, preparing the surface excluding priming coat etc. complete.	Bd.0.2 Page Number 404	Square Metre	68	30
1072	Oil Painting	35.04	BDO 3	Providing and applying two coats of lead/zinc base oil paint/ bituminous paint of approved colour to new structural steel work and iron work in buildings including scaffolding if necessary, cleaning and preparing the surface etc. complete. (excluding primer coat).	Bd.0.3 Page Number 404	Square Metre	85	33
1073	Oil Painting	35.05	BDO 4	Providing and applying one coat of aluminium paint of approved make to new structural steel work in building and workshop including scaffolding if necessary, cleaning and preparing surface (excluding primer coat) etc. complete.	Bd.O.4 Page Number 405	Square Metre	76	26
1074	Oil Painting	35.06	BDO 4A	Providing and applying 2 coats of alluminium paint of approved make to new structural steel work in buildings and workshops including scaffolding if necessary, cleaning and preparing the surface (excluding primer coat)etc. complete.	Bd.0.4 Page Number 405	Square Metre	114	45
1075	Oil Painting	35.07	BDO 5	Providing and applying two coats of synthetic enamel paint of approved colour to new /old structural steel work and wood work in buildings, including scaffolding if necessary, cleaning and preparing the surface (excluding primer coat) etc. complete.	Bd.O.5 Page Number 405	Square Metre	89	45
1076	Oil Painting	35.08	BDO 6	Providing and applying one coat of flat oil paint of approved colour to the old structural steel work and iron work previously painted in building including scaffolding, if necessary, cleaning and preparing surface (excluding primer coat) etc. complete.	Bd.0.6 Page Number 406	Square Metre	54	24
1077	Oil Painting	35.09	BDO 6A	Providing and applying two coats of flat oil paint of approved colour to the old structural steel work and iron work previously painted in building including scaffolding, if necessary, cleaning and preparing the surface (excluding primer coat) etc. complete.	Bd.0.6 Page Number 406	Square Metre	80	44
1078	Oil Painting	35.10	BDO 7	Providing and applying one coat of flat oil paint of approved colour and shade to internal / external plastered surfaces including scaffolding if necessary, cleaning and preparing the surface (excluding primer coat) etc. complete.	Bd.0.7 Page Number 406	Square Metre	51	24
1079	Oil Painting	35.11	0	Providing and applying two coats (exterior quality) of flat oil paint of approved colour and shade to the plastered surface in buildings and workshops including scaffolding if necessary, cleaning the surface and preparing surface etc. complete. (excluding primer coat)	As directed by Engineer- in- charge.	Square Metre	83	42
1080	Oil Painting	35.12	BDO 7A	Providing and applying two coats of flat oil paint of approved colour and shade to internal / external plastered surfaces including scaffolding if necessary, cleaning and preparing the surface (excluding primer coat) etc. complete.	Bd.O.7 Page Number 406	Square Metre	96	42
1081	Oil Painting	35.13	BDO 8	Providing and applying two coats of water proof cement paint of approved manufacture and of approved colour to the plastered surfaces including scaffolding if necessary, cleaning and preparing the surface, watering for two days etc. complete.	Bd.0.8 Page Number 406	Square Metre	74	48
1082	Oil Painting	35.14		Providing and applying two coats of water proof cement paint of approved manufacture and of approved colour to old plastered surfaces including scaffolding if necessary, cleaning and preparing the surface, watering for two days etc. complete.	As directed by Engineer- in- charge.	Square Metre	73	48

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
1083	Oil Painting	35.15		Providing and applying three coats of water proof cement paint of approved manufacture and of approved colour to new plastered surfaces including scaffolding if necessary, cleaning and preparing the surface, watering for two days etc. complete.	Spec.Number: Bd.O.8/Page Number406	Square Metre	97	64
1084	Oil Painting	35.16		Providing and applying three coats of water proof cement paint of approved manufacture and of approved colour to old plastered surfaces including scaffolding if necessary, cleaning and preparing the surface, watering for two days etc. complete.	Spec.Number: Bd.O.8/Page Number406	Square Metre	91	64
1085	Oil Painting	35.18	BDO 8B	Removing old paint from steel and other metal surfaces and making the surfaces even with hand scrapping, scaffolding etc. complete.	As directed by Engineer in charge.	Square Metre	16	16
1086	Oil Painting	35.19	BDO 8C	Providing and applying priming coat over new wood and wood based surfaces, including preparing the surface by thoroughly cleaning oil, grease, dirt and other foreign matter, sand papering and knotting, scaffolding etc. complete.	As directed by Engineer in charge.	Square Metre	31	12
1087	Oil Painting	35.20	BDO 8D	Providing and applying priming coat over new/old steel and other metal surfaces including preparing the surface by thoroughly cleaning oil, grease, dirt and other foreign matter and scoured with wire brushes, fine steel wool, scrappers and sand paper, scaffolding etc. complete.	As directed by Engineer in charge.	Square Metre	33	18
1088	Oil Painting	35.21	BDO 8E	Providing and applying priming coat on concrete/ masonry/ Asbestos Cement plastered surfaces including scaffolding if necessary, preparing the surface by thoroughly cleaning oil, grease, dirt and other foreign matter and sand papering as required etc. complete.	As directed by Engineer in charge.	Square Metre	34	12
1089	Oil Painting	35.22	BDO 8F	Providing and applying one coat of seal cement primer of approved manufacture and shed including scaffolding preparing the surface by cleaning dirt and other foreign matters, scrapping if necessary including scaffolding etc. complete.	As directed by Engineer in charge.	Square Metre	19	15
1090	Oil Painting	35.23	BDO	Providing and applying pearl/ luster finish paint of approved colour and shade to the existing plaster surface including scaffolding, preparing the surface, applying the acrylic wall putti etc. complete.	As directed by Engineer in charge.	Square Metre	197	65
1091	Oil Painting	35.24	BDO	Providing and applying two coats of textured synthetic paint of approved shade and quality and one coat of primer before applying textured paint including scaffolding if necessary preparing surface by thoroughly cleaning oil, grease, dirt and other materials as required, etc. complete.	As directed by Engineer in charge.	Square Metre	148	26
1092	Oil Painting	35.25	BDO	Providing and applying two coats of exterior acraylic emulsion paint confirming to corresponding I.S. of approved manufacture and of approved colour to the plastered surfaces including cleaning ,preparing the plaster surface, applying primer coat ,scaffolding if necessary , and watering the surface for two days etc complete.	As directed by Engineer in charge.	Square Metre	240	162
1093	Oil Painting	35.26	BDO	Providing and applying two coats of exterior weather shield paint of approved manufacture and of approved colour to the plastered surfaces including cleaning ,preparing the plaster surface ,applying primer coat ,scaffolding if necessary, and watering the surface for two days etc complete. NOTE: For Item Number 15 to 18 prior approval of Superintending Engineer will be necessary	As directed by Engineer in charge.	Square Metre	238	162

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
1094	Oil Painting	35.29	BDO	Providing and applying external raincoat painting with crack filling acrylic polymer based chemical compound coating to the external surface of walls to prevent water seepage in the masonry walls during monsoon added with required shade Steiner to give required shade to the surface in two coats. Including providing three coat of priming of polymer base primer including preparing surface scrapping the existing loose old paint, removing loose particles of sand on the surface opening and cleaning the cracks developed in the external plaster, removing loose particles by chiseling, filling cracks by chemicals compound of approved make with proper penetration etc. Coating of Raincoat with the help of brush and as per instructions and specification given by manufacturer and with instruction from Engineer in-charge. Work shall be executed by certified applicator only and covering gurantee of 3 years on court stamp paper of Rs. 500/- and necessary testing etc. complete.	As directed by Engineer in charge.	Square Metre	241	30

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
<b>SSR 2021-2022 :- Colouring</b>								
1095	Colouring	36.02	BDP 1	Providing and applying white-wash in one coat on old / new plastered or masonry surfaces and asbestos cement sheets including scaffolding and preparing the surface by brushing and brooming down etc. complete.	Bd.P.1 Page Number 411	Square Metre	7	6
1096	Colouring	36.03	BDP 1A	Providing and applying white-wash in two coats on old / new plastered or masonry surfaces and asbestos cement sheets including scaffolding and preparing the surface by brushing and brooming down etc. complete.	Bd. P. I Page Number 411	Square Metre	11	8
1097	Colouring	36.04	BDP 2	Providing and applying colour-wash of approved colour and shade in one coat to new surface including scaffolding, brushing and brooming down (excluding base coats of white wash) etc. complete.	Bd. P.2 Page Number 412	Square Metre	9	7
1098	Colouring	36.05	BDP 2A	Providing and applying colour-wash of approved colour and shade in two coats to new surface including scaffolding, brushing and brooming down (excluding base coat of white-wash) etc. complete.	Bd.P.2 Page Number 412	<u>Square Metre</u>	17	10
1099	Colouring	36.06	BDP 3	Providing and applying colour-wash of approved colour and shade in one coat to old surfaces which are to be recoloured including scaffolding, brushing and brooming down. (excluding base coat of white wash) etc. complete.	Bd.P.3 Page Number 412	Square Metre	7	5
1100	Colouring	36.07	BDP 3A	Providing and applying colour-wash of approved colour and shade in two coats to old surfaces which are to be recoloured including scaffolding, brushing and brooming down. (excluding base coat of white-wash) etc. complete.	Bd.P.3 Page Number 412	Square Metre	15	11
1101	Colouring	36.08	BDP 4	Providing and applying washable powder distemper of approved colour and shade to old and new surfaces in one coat including scaffolding, preparing the surfaces (excluding the priming coat)etc. complete.	Bd.P.4 Page Number 413	Square Metre	17	7
1102	Colouring	36.09	BDP 4A	Providing and applying washable powder distemper of approved colour and shade to old and new surfaces in two coats including scaffolding, preparing the surfaces. (excluding the primer coat) etc .complete.	Bd. P.4 Page Number 413	Square Metre	26	12
1103	Colouring	36.10	BDP 5	Providing and applying washable oil-bound distemper of approved colour and shade to old and new surfaces in one coat including scaffolding, preparing the surfaces. (excluding the primer coat.)etc. complete.	Bd. P.5 Page Number 413	Square Metre	29	13
1104	Colouring	36.11	BDP 5A	Providing and applying washable oil-bound distemper of approved colour and shade to old and new surfaces in two coats including scaffolding, preparing the surfaces. (excluding the primer coat.) etc. complete.	Bd.P.5 Page Number 413	Square Metre	43	18
1105	Colouring	36.12	BDP 6	Providing and applying plastic emulsion paint of approved quality, colour and shade to old and new surfaces in two coats including scaffolding, preparing the surface. (excluding the primer coat)etc. complete.	Bd.P.6 Page Number 414	Square Metre	70	22
1106	Colouring	36.13	BDP 6A	Providing and applying plastic emulsion paint of approved quality, colour and shade to old surface in three coats including scaffolding, preparing the surface. (excluding primer coat) etc. complete.	Bd.P.6 Page Number 414 and Pre-approval of Superintending Engineer	Square Metre	88	26
1107	Colouring	36.14	BDP 6A	Providing and applying plastic emulsion paint of approved quality, colour and shade to new surface in three coats including scaffolding, preparing the surface. (excluding primer coat) etc. complete.	Bd.P.6 Page Number 414 and Pre-approval of Superintending Engineer	Square Metre	100	38

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
1108	Colouring	36.15	BDP	Washing and cleaning of decorated wall surfaces with soap, soda and water etc. complete.	As directed by Engineer in charge.	Square Metre	3	3
1109	Colouring	36.16	BDP	Providing and applying plastic emulsion paint of approved quality, colour and shade to old and new surfaces in single coat including scaffolding, preparing the surface. (excluding the primer coat)etc. complete.	Bd.P.6 Page Number 414	Square Metre	52	13
1110	Colouring	36.19	BDP	Scrapping the old plastered internal surface with sand paper and coating the entire surface with mixture of whiting or glue and linseed oil including scaffolding etc. complete as directed.	As directed by Engineer in charge.	Square Metre	34	30
1111	Colouring	36.20	BDP	Providing and applying interior wall finish luster of approved make on internal wall surface as detailed below Scrapping the surface with emery paper and wipe clean wall primer with brush with mineral turpentine with brush 8 to 10% and oil 15 to 20% with roller and allowing to dry for a period 6 to 8 hours. wall putty with appropriate proportion of water allowing to dry for period 4 to 6 hours. Scrapping with Emery paper 180 and wipe clean. Applying wall primer with brush with mineral turpentine 8 to 10% and oil 15 to 20% with roller Scrapping Emery paper 320 and wipe clean, interior wall finish luster 1st coat with brush/rubber/spray with mineral turpentine 7 to 9% and Oil with roller 19 to 21% After 8 hours of activity Applying 2nd coat or wall finish Lustre with mineral turpentine 7 to 9 % with brush and Oil with roller 19 to 21% after allowing dry for the period of 6 to 8 hours activity. (With prior approval of S.E.)	As directed by Engineer in charge.	Square Metre	225	124
1112	Colouring	36.21	BDP	Providing and applying Royale Luxury Emulsion of approved make on internal wall surface as detailed below Scrapping for surface with emery paper and wipe clean for area. wall primer with brush by adding mineral turpentine oil by 8 to 10 % or water by 15 to 20% allowing to dry for 6 to 8 hours After applying acrylic wall putty with appropriate prpportion of water of allow to dry for period of 4 to 6 hours of activity. Scrapping with emery paper and wipe clean Applying paints Royale Luxury emulsion 1st coat with brush water content water 40 to 45% or 65 to 70% by role Applying paints Royale luxury emulsion 2nd coat with brush with water content 40 to 45% or 65 to 70 % by roller. (With prior approval of S.E.)	As directed by Engineer in charge.	Square Metre	250	126



Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
<b>SSR 2021-2022 :- Wood Work</b>								
1113	Wood Work	37.01	BDQ 1	Providing and fixing <u>Indian</u> teak wood planking 25 mm thick for flooring plained on both sides, tongued and grooved including scaffolding, if necessary, and one coat of primer etc. complete.	Bd.Q. 1 Page Number 419	Square Metre	3187	148
1114	Wood Work	37.02	BDQ 1A	Providing and fixing <u>Indian</u> teak wood planking 50 mm thick for flooring plained on both sides, tongued and grooved including scaffolding, if necessary, and one coat of primer etc. complete.	Bd.Q.1 Page Number 419	Square Metre	6238	114
1115	Wood Work	37.03	BDQ 2	Providing and fixing <u>Indian</u> teak wood joists and girders in timber floors of single, double or framed type including scaffolding if necessary, and one coat of primer etc. complete.	Bd.Q.2 Page Number 420	Cubic Metre	117864	1484
1116	Wood Work	37.04	BDQ 2A	Providing and fixing Jungle (hard) wood of approved species joists and girders in timber floor of single, double or framed type including scaffolding if necessary and one primer coat etc. complete.	Bd.Q.2 Page Number 420	Cubic Metre	59598	4995
1117	Wood Work	37.05	BDQ 3	Providing and fixing Indian teak wood plank ceiling 20 mm thick plain underside tongued and grooved including iron screws, scaffolding, if necessary, including one primer coat on under side and one coat of coal tar on upper side etc. complete.	Bd.Q.3 Page Number 421	Square Metre	2714	223
1118	Wood Work	37.06	BDQ 4	Providing and fixing Indian teak wood framed collar beam / king post / queen post truss, with all Iron work including scaffolding, if necessary, and one coat of primer etc. complete.	Bd.Q.4, Page Number 422	Cubic Metre	157761	34609
1119	Wood Work	37.07	BDQ 4A	Providing and fixing in teak wood framed collar beam / king post / queen post truss, with all iron work including scaffolding, if necessary and primer coat etc. complete.	Bd.Q.4, Page Number 422	Cubic Metre	86763	34609
1120	Wood Work	37.08	BDQ 5	Providing and fixing country teak wood common rafters, purlins and purlin cleats, hip rafters, jack rafters, ridges, wall plates, post plates and posts for roofing etc. including scaffolding, if necessary, all iron work and one coat of primer etc. complete.	Bd.Q.5, Page Number 423	Cubic Metre	142424	14836
1121	Wood Work	37.09	BDQ 5A	Providing and fixing teak wood common rafters, purlins and purlin cleats, hip rafters, jack rafters, ridges, wall plates, post plates and posts for roofing, etc. including scaffolding, if necessary all iron work and one coat of primer etc. complete.	Bd.Q.5, Page Number 423	Cubic Metre	70273	14836
1122	Wood Work	37.10	BDQ 8	Providing and fixing teak wood hand rail of 60 mm x 75 mm as per detailed drawings or as directed by the Engineer, including french polishing, etc. complete. (Note : The work to be executed on preapproval of Superintending Engineer).	Bd.Q.8, Page Number 425	Running Metre	1207	445
1123	Wood Work	37.11	0	Providing and fixing country teak wood two way trellis work with battens or laths 2.5 cm x 1.2 cm and 5 cm x 5 cm openings including frame of 8 cm x 5 cm vertical and horizontal scantlings and coat of primer etc. complete.	Bd/Q-6 P-424	Square Metre	1944	148
1124	Wood Work	37.12	0	Providing and fixing hard wood of approved species two way trellis work with battens or laths 2.5 cm x 1.2 cm and 5 cm x 5 cm openings including frame of 8 cm x 5 cm vertical and horizontal scantlings and coat of primer etc. complete.	Bd/Q-6 P-425	Square Metre	863	148
1125	Wood Work	37.13	BDQ 18	Providing and fixing decorative teak plywood veneer lining 4 mm thick with backing of teak wood frame work of battens 12 mm X 25 mm at 30 cm center to center fixed to walls and pillars with 12 mm thick phywood building without skirting and cornice as per drawings including necessary iron work and finishing the exposed wood work with french polish etc. complete.	Bd.Q. 18 Page Number 431	Square Metre	1187	319
1126	Wood Work	37.14	0	Providing and fixing 20 mm thick superior veneer board pelmet box 150 to 200 mm wide to doors or window frames including 20mm dia. Aluminium curtain rod with sockets and finishing with french polishing (without top)etc. complete.	As directed by Engineer- in- charge.	Square Metre	3663	2022
1127	Wood Work	37.15	0	Providing and fixing 20 mm thick Laminated sheet board pelmet box 150 to 200mm wide to doors or window frames including 20 mm dia. Aluminium curtain rod with sockets and finishing with french polishing (without top) etc.complete.	As directed by Engineer- in- charge.	Square Metre	3324	2022

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
1128	Wood Work	37.16	BDQ 19	Providing and fixing <u>Indian</u> teak wood eaves boards 15 cm wide and 25 mm thick plain decorative type including scaffolding and painting with two coats etc. complete.	Bd.Q. 19 Page Number 432	Running Metre	649	148
1129	Wood Work	37.17	BDQ 19A	Providing and fixing seasoned and treated jungle wood of approved species eaves board 15 cm wide and 25 mm thick plain decorative type including scaffolding and painting with two coats etc. complete.	Bd.Q. 19 Page Number 432	Running Metre	436	160
1130	Wood Work	37.18	BDQ 20	Providing and fixing Teak wood eaves plate of size 10cm wide and 20 mm thick including scaffolding and painting in two coats etc. complete.	Bd.Q.20 Page Number 432	Running Metre	342	89
1131	Wood Work	37.19	BDQ 21	Providing and fixing country teak wood barge board 22 cm wide and 20mm thick plain type including scaffolding and painting in two coats etc. complete.	Bd.Q.21 Page Number 433	Running Metre	712	148
1132	Wood Work	37.20	BDQ 21A	Providing and fixing seasoned and treated jungle wood of approved species barge board 22 cm wide and 20 mm thick plain type including scaffolding and painting in two coats etc. complete.	Bd.Q.21 Page Number 433	Running Metre	413	148
1133	Wood Work	37.21	BDQ	Providing and fixing shutter to wall cupboard made from 19 mm thick Teak particle board with approved coloured laminated face 1.5 mm thick bonded with phenol formaldehyde synthetic resin B.W.P. grade including lipping beading iron oxidised fixtures and fastening and oil primer coat etc. complete. (Excluding cupboard frame).	As directed by Engineer in charge.	Square Metre	3370	159
1134	Wood Work	37.22	BDQ	Providing and fixing Shutter to wall Cupboard consisting of Teak Wood styles and Rails 25 mm thick and 75 mm wide with panel insert of 12 mm thick particle Board with one approved coloured Laminated Face on one side 1.5 mm thick, bonded with Phenol Formaldehyde Synthetic Resin including Lipping Beading. Iron oxidised fixtures and fastening and oil primer coat etc. complete. (Excluding cupboard frame).	As directed by Engineer in charge.	Square Metre	3457	199
1135	Wood Work	37.23	BDQ 22	Providing and fixing jungle wood ballies of approved species 85 mm average dia. for common rafters, purlins, ridges, hip and valley rafters, jack rafters, wall plates, post plates, posts etc. including all iron work scaffolding if necessary and oiling in one coat etc. complete.	Bd.Q.22/Page Number434	Running Metre	460	151
1136	Wood Work	37.24	BDQ 23	Providing and fixing 100 mm dia. Country teak wood ballies for post truss of 6.00 m. span as per drawing or as directed by Engineerin-charge including all iron work, scaffolding if necessary and oiling etc. complete.	Bd.Q.22/Page Number434	Running Metre	302	38
1137	Wood Work	37.25	3 BDN 12 B	Providing and applying Wax polishing to the old wood work including knotting, preparing the surface, scaffolding etc. complete as directed.	Bd.N.1.2/Page Number399	Square Metre	53	39
1138	Wood Work	37.26	BDQ	Providing and fixing 3.5 to 4 mm thick Veneer finish wall Panaling made out of 50 x 25 mm (finished size) C.C.T.W. frame work or size of 600 x 600 mm center or as per site condition covered by 6 mm thick marine plywood of the generally confirming to I:S 710-1980 finished with 3.5 to 4 mm thick matching Veneer of approved color and in satin walnut groov matched veneer pattern and design including melamine polishing & design with antitermite treatment etc. to plywood and woodwork with ten years guarantee bond etc. including all lead and lifts complete as per Architects Drawing and instructions of Engineer Incharge.	As directed by Engineer in charge.	Square Metre	4455	2198

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
<b>SSR 2021-2022 :- Roofing and Ceiling</b>								
1139	Roofing and Ceiling	38.01	BDR 1	Providing and fixing Mangalore tiled roofing with class 'AA' tiles including securing the last course of tiles near the eaves with steel flat 40 mm x 3 mm and 1.22 mm wire fixing 50 mm x 25 mm horizontal teak wood battens and iron works and oiling the battens etc. complete. (Excluding ridge and hip tiles).	Bd.R.1, Page Number 449	Square Metre	1096	140
1140	Roofing and Ceiling	38.02	BDR 2	Providing and fixing Mangalore tiled roofing with class 'AA' tiles including securing the last course of tiles near the eaves with steel flat 40 mm x 3 mm and 1.22 mm wire fixing country teak wood sloping battens of 25 x 12 mm teak wood horizontal battens of 50mm x 25mm over the slopping battens, all iron work and coal tarring the battens etc. complete (Excluding ridge and hip tiles).	Bd.R.2, Page Number 450	Square Metre	1114	148
1141	Roofing and Ceiling	38.03	BDR 3	Providing and fixing Mangalore tile ridge and hip tiles of class 'AA' including scaffolding if necessary, pointing with coloured cement mortar and curing etc. complete.	Bd.R.3, Page Number 450	Running Metre	286	149
1142	Roofing and Ceiling	38.04	BDR 5	Providing and fixing corrugated galvanised iron sheets of 0.63mm thick (24 B.W.G.) for roofing without wind tiles including fastening with galvanised iron screws and bolts, lead and bitumen washers as per drawing etc. complete.(Weight of 5.5 Kilogram/sq.m.).	Bd.R.5, Page Number 453	Square Metre	816	111
1143	Roofing and Ceiling	38.05	BDR 5	Providing and fixing plain zinc sheeting of 0.80 mm thick (22 B.W.G.) over the ridge hip or valley to galvanized iron sheet roofing including all fastening and bolt galvanised iron screws and bolts, lead and bitumen washers etc. complete.(Weight of 6.8 Kilogram/sq.m.).	Bd.R.5, Page Number 453	Square Metre	1042	135
1144	Roofing and Ceiling	38.06	BDR 7	Providing and fixing 6.00 mm thick ISI mark Asbestos Cement Corrugated sheet roofing including galvanised iron 'J' or 'L' hook bolts galvanised iron band bituminous G.I. washers, galvanised iron clamps, bolts, nuts and scaffolding etc. complete.	Bd. R.7, Page Number 453	Square Metre	403	186
1145	Roofing and Ceiling	38.07	BDR 9	Providing and fixing 6 mm thick ISI mark Asbestos Cement ridge capping for roofing including galvanised iron hooks, bolts, galvanised iron and bituminous washers, galvanised iron clamps, bolts, nuts including scaffolding etc. complete.	Bd.R.9, Page Number 455	Running Metre	591	198
1146	Roofing and Ceiling	38.08	BDR 10	Providing and fixing valley gutter of 22 B.W.G. (0.8 mm) plain galvanised iron sheets 120 cm wide with teak wood planking 20 mm thick including two coats of coal-tarring the upper surface of plank etc. complete. (excluding painting to underside of plank).	Bd. R. 10, Page Number 455	Running Metre	2734	422
1147	Roofing and Ceiling	38.09	BDR 10A	Providing and fixing valley gutter of 22 B.W.G. (0.8 mm) plain galvanised iron sheets 90 cm wide with teak wood planking 20 mm thick including two coats of coal-tarring the upper surface of plank etc. complete. (excluding painting to underside of plank).	Bd. R. 10, Page Number 455	Running Metre	2067	452
1148	Roofing and Ceiling	38.10	BDR 10B	Providing and fixing valley gutter of 24 B.W.G. (0.63 mm) thick G.I. sheet 120 cm wide with 20 mm thick teak wood planking underneath coal tarring etc. complete.	Bd. R. 10, Page Number 455	Running Metre	2494	301
1149	Roofing and Ceiling	38.11	BDR 11	Providing and fixing glass tiles of Mangalore type at required places in Mangalore tile roof including scaffolding if necessary etc. complete.	Bd. R. 11, Page Number 456	Number	623	71
1150	Roofing and Ceiling	38.12	BDR 13	Providing and fixing Mangalore pattern cowl ventilator tiles in the required places in a Mangalore tiled roof including scaffolding if necessary etc. complete.	Bd. R. 13, Page Number 459	Number	364	42
1151	Roofing and Ceiling	38.13	BDR 16	Providing and fixing false ceiling of plain asbestos cement sheets 4 mm thick with teak wood beadings 45 x 12 mm with frame work of teak wood battens of size 70 x 60 mm at 1.00 M center to center including scaffolding, if necessary, all iron work and painting (visible surfaces) to A.C. sheet and beading in two coats etc. complete. (excluding T.W. runner to be paid separately).	Bd.R.16, Page Number 460	Square Metre	1759	232

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
1152	Roofing and Ceiling	38.14	BDR	Providing and fixing frame work of anodised aluminium sections for suspended false ceiling consisting of aluminium T 50 mm x 40 mm weighing 0.39 Kilogram/m. at 60 cms c/c and fixed with ( 15 x 15 mm) flanges weighing 0.119 Kilogram/m suspended on 6 mm dia. mild steel rod weighing 0.22 Kilogram/m fixed on wall and beams including rounding of the edges with aluminium T of 50 mm x 40 mm weighing 0.39 Kilogram/m etc. including all labour etc. complete.	As directed by Engineer in charge.	Square Metre	1178	753
1153	Roofing and Ceiling	38.15	BDR	Providing and fixing frame work of galvanised iron for suspended false ceiling which includes galvanised iron perimeter channels of size 27 mm and 0.5 mm thick having one flange of 20 mm and another of 30 mm along with perimeter of the ceiling, fixing in brick wall / partition with the help of rawal plugs and screws, suspending galvenised iron intermediate channels of size 45 mm and 0.9 mm thick with two flanges of 15 mm each from the soffit at 1200 mm centers with steel galvanised iron hanger of width 25 mm x 0.5 mm fasteners, ceiling section of 0.5 mm thickness having curved wedge of 51.5 mm and two flanges of 26 mm each with lips of 10.5 mm fixed to the intermediate channel with the help of connecting clips and in direction perpendicular to the intermediate channel at 450 mm centers, 12.5 mm dry walls screws at 230 mm centers; fixing screws mechanically either with screw driver or drilling machine with suitable attachment etc. complete.	As directed by Engineer in charge.	Square Metre	1118	763
1154	Roofing and Ceiling	38.16	BDR 17	Providing and fixing false ceiling of teak wood particle board half perforated sheet 12 mm thick including scaffolding, if necessary, all iron work and two coats of oil painting to boards and beading i.e. visible surface etc. complete. (excluding frame work and runners)	Bd. R. 17 Page Number 461	Square Metre	927	309
1155	Roofing and Ceiling	38.17	BDR	Providing and fixing false ceiling of 10 to 12 mm thick decorative boards of fibrous plaster of paris including scaffolding if necessary all architectural work like mouldings, cornices, coves, domes, cups as per detailed drawings and three coats of spray painting to boards etc. complete. (excluding frame work, runners and mild steel suspenders).	As directed by Engineer in charge.	Square Metre	1132	452
1156	Roofing and Ceiling	38.18	BDR 19	Providing and fixing false ceiling of 12mm thick as per drawings including powder coated G.I. wall angle of 20mm x 20mm size, G.I. grid runners of size 20mm x 38mm at 600mm center to center both ways and suspended using G.I. 3mm wire including fixing using butterfly clips and fasteners including transporting, scaffolding all necessary labour and machinery, finishing etc. complete.	Bd. R. 19 Page Number 462	Square Metre	1438	678
1157	Roofing and Ceiling	38.19	BDR	Providing and fixing false ceiling of 15mm thick as per drawings including powder coated G.I. wall angle of 20 mm x 20 mm x 0.60 mm size, G.I. grid runners of size 15 mm x 38 mm at 600 mm center to center both ways and suspended using G.I. 3 mm wire including fixing using butterfly clips and fasteners including transporting, scaffolding all necessary labour and machinery, finishing etc. complete.	As directed by Engineer in charge.	Square Metre	1642	744
1158	Roofing and Ceiling	38.20	BDR 17	Providing and fixing false ceiling of T.W. partical board half perforated sheets 12 mm thick with frame work of M.S. angle 40 x 40 x 5 mm and T of size 40 x 40 x 6 mm at 60 cm center to center including 12 mm dia. hangers, T.W. battens 50 x 25 mm and beading 25 x 15 mm thick scaffolding, if necessary, all iron work and two coats of painting to boards and beading i.e. visible surface etc. complete.	Bd. R. 17, Page Number 461	Square Metre	1521	335
1159	Roofing and Ceiling	38.21	BDR 17	Providing and fixing False ceiling of 12 mm thick Laminated board with frame of M.S. angle 40 x 40 x 5 mm and Tee of size 40 x 40 x 6mm at 60 cm c/c including 12 mm dia. hangers, T.W. battens 50 x 25 mm and beading 25 x 15 mm thick scaffolding if necessary, all Iron work etc. complete.	Bd. R. 17, Page Number 461	Square Metre	2237	335

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
1160	Roofing and Ceiling	38.22	BDR	Providing and applying two coats of bitumen to roof on new dungaree cloth one coat on each side etc. complete as directed.	As directed by Engineer in charge.	Square Metre	149	50
1161	Roofing and Ceiling	38.23	BDR	Providing and applying one coat of bitumen to roof (without cloth) including scaffolding etc. complete as directed.	As directed by Engineer in charge.	Square Metre	49	36
1162	Roofing and Ceiling	38.24	BDR	Removing and resetting Mangalore tiles from roof including refixing loose battens etc. complete.	As directed by Engineer in charge.	Square Metre	91	89
1163	Roofing and Ceiling	38.25	BDR	Removing the tiles, battens and dungry cloth purlins, rafters and ridges etc. from roof, sorting out the serviceable and unserviceable materials and stacking the same as and where directed in the compound, scaffolding etc. complete.	As directed by Engineer in charge	Square Metre	68	68
1164	Roofing and Ceiling	38.26	BDR	Removing G.I. or A.C. sheet roofing including purlins, principal rafters etc. including sorting serviceable and unserviceable materials, stacking the same as and where directed in the compound including scaffolding etc. complete.	As directed by Engineer in charge.	Square Metre	84	84
1165	Roofing and Ceiling	38.27	BDR	Removing and lowering the roof truss carefully without damaging the members and stacking as and where directed in the compound including scaffolding etc. complete.	As directed by Engineer in charge.	Number	730	730
1166	Roofing and Ceiling	38.28	BDR	Removing R.S. girders of any size and span lowering the same and stacking neatly wherever directed in the compound scaffolding etc. complete.	As directed by Engineer in charge.	Metric Tonne	2271	2271
1167	Roofing and Ceiling	38.29	BDR	Providing fixing <u>country</u> teak wood battens 50 mm x 25 mm for Mangalore tile roof work with all iron work scaffolding and oiling the battens etc. complete.	As directed by Engineer in charge.	Running Metre	104	19
1168	Roofing and Ceiling	38.30	BDR	Providing fixing teak wood battens 25 mm x 12 mm for Mangalore tile roof work with iron work scaffolding and oiling the battens etc. complete.	As directed by Engineer in charge.	Running Metre	45	23
1169	Roofing and Ceiling	38.31	BDR	Providing and fixing sky light in R.C.C. roof including frame made of M.S. angle 50 x 50 x 6 mm with hold fast, sheet glass <u>12 mm</u> thick, Chicken mesh 24 gauge with all accessories and required fixtures and fastening fitting including painting etc. complete.	As directed by Engineer in charge.	Square Metre	1491	117
1170	Roofing and Ceiling	38.32	BDR	Providing and fixing 12 mm dia. mild steel bar upto 0.5 M. length for anchor rods with necessary threading nuts and bolts etc. complete.	As directed by Engineer in charge.	Number	128	103
1171	Roofing and Ceiling	38.33	BDR 3	Providing fixing Mangalore tile roofing with class AA tiles in cement mortar 1:4 on sloping slab including necessary scaffolding, curing, finishing, etc. complete.	Bd. R. 3A., Page Number 449	Square Metre	979	435
1172	Roofing and Ceiling	38.34	BDR	Providing and fixing colour coated Zinalume ( R ) AZ150 ( min 150 gms/sq.mt. total on each side ) profiled sheets for roofing. The feed material is manufactured out of nominal 0.45 mm Base Metal Thickness ( BMT ) (0.5 mm TCT ), Hi-strength steel with min.550 MPa yield strength, metallic hot dip coated with Aluminium-Zinc alloy (55% aluminium 43.4% zinc 1.6% silicon) with COLORBOND ( R ) steel quality super durable polyester paint coat ( with inorganic pigment). The paint shall have a total coating thickness of nominal 35 um, comprising of nominal 25 um exterior coat on top surface and nominal 10 um reverse coat on back surface. Profile sheet shall have nom. 950-1050 mm effective cover width and nominal 25-30 mm deep ribs with subtle square fluting in the five pan at nominal 180-250 mm center- to-center. The end rib shall be designed for anti-capillary groove. and return leg. The feed material should have coil manufacturers product details marked a regular interval. Including fasteners with min. fastened with min. 25 um Zinc-Tin alloy coated, Hex head, self-drilling screw etc. complete. (weight of profile 4.52 Kilogram/Square Metre)	As directed by Engineer in charge.	Square Metre	1095	112

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
1173	Roofing and Ceiling	38.35	BDR	Providing and fixing of colour coated Zincaluminium( R ) AZ150 ( min 150 gms/sq.mt. total on each side ) profiled sheets for roofing. The feed material is manufactured out of nominal 0.45 mm Base Metal Thickness ( BMT ) (0.5 mm TCT ), Hi-strength steel with min.550 MPa yield strength, metallic hot dip coated withAluminium-Zinc alloy (55% aluminiumm 43.4% zinc 1.6% silicon) with COLORBOND ( R ) steel quality super durable polyster paint coat ( with inorganic pigment). The paint shall have a total coating thickness of nominal 35 mm, comprising of nominal 25mmexterior coat on top surface and nominal 10 um reverse coat on back surface. Profile sheet shall have nom. 950-1050 mm effective cover width and nominal 25-30 mm deep ribs with sublet square fluting in the five pan at nominal 180-250 mmcenter- to-center. The end rib shall be designed for anti-capacity groove. and return leg. The feed material should have coil manufacturers product details marked a regular interval. including fasteners with min. fastened with min. 25 um Zinc-Tin alloy coated, Hex head, self-drilling screw etc. complete. (weight of profile 4.52 Kilogram/Square Metre). 600 mm girth (Surface Width)	As directed by Engineer in charge.	Running Meter	702	67
1174	Roofing and Ceiling	38.36	BDR	Providing and fixing of colour coated Zinc aluminium ( R ) AZ150 ( min 150 gms/sq.mt. total on each side ) profiled sheets for roofing. The feed material is manufactured out of nominal 0.45 mm Base Metal Thickness ( BMT ) (0.5 mm TCT ), Hi-strength steel with min.550 MPa yield strength, metallic hot dip coated with Aluminium-Zinc alloy (55% aluminiumm 43.4% zinc 1.6% silicon) with COLORBOND ( R ) steel quality super durable polyster paint coat ( with inorganic pigment). The paint shall have a total coating thickness of nominal 35 um, comprising of nominal 25um exterior coat on top surface and nominal 10 um reverse coat on back surface. Profile sheet shall have nom. 950-1050 mm effective cover width and nominal 25-30 mm deep ribs with subtle square fluting in the five pan at nominal 180-250 mm center- to-center. The end rib shall be designed for anti-capacity groove. and return leg. The feed material should have coil manufacturers product details marked a regular interval. including fasteners with min. fastened with min. 25 um Zinc-Tin alloy coated, Hex head, self-drilling screw etc. complete. (weight of profile 4.52 Kilogram/Square Metre). 900 mm girth (Surface Width)	As directed by Engineer in charge.	Running Meter	996	101
1175	Roofing and Ceiling	38.37	BDR	Providing and fixing UPVC Roof made up of 3 layers roofing material of thickness 2mm having width of 1130 mm and of required Length having Tensile strength not less than 330 Kilogram/cm2, including fastening with self drilling screw having washers made of stainless steel etc. complete.	As directed by Engineer in charge.	Square Metre	1477	111
1176	Roofing and Ceiling	38.38	BDR	Providing and fixing PVC coloured Ridge tiles over UPVC roofing where required having size 113cm x 41cm for ridge including fastening with self drilling screw having washers made of stainless steel etc. complete.	As directed by Engineer in charge.	Running Metre	1271	67
1177	Roofing and Ceiling	38.39	BDR	Providing and fixing 15 mm thick eco-friendly densified edge calcium silicate false ceiling of approved texture of size 595mm x 595mm in true horizontal level, suspended on interlocking metal grid of hot dipped galvanized steel sections (galvanising at @12 gm/sq.m including both sides) consisting of main T runner suitably spaced at joints to get required length and size 24X38mm. made from 0.33mm thick(minimum ) sheet, spaced 1200mm center to center and cross T of size 24X28mm made of 0.33mm thick(minimum ) sheet to be interlocked at the middle of the 1200x600 mm panel to form the grid of size 600x600mm resting on periphery walls/partitions on a perimeter wall angle precoated steel of size 24x24x3000 made of 0.4 mm thick (minimum) sheet with the help of all plugs at 450mm and laying 15 mm thick densified edges calcium silicate ceiling tiles of approved texture (spintone/cosmos/hexa) in the grid, including light fittings , fixtures , smoke detectors etc., wherever required. Main T runners suspended from ceiling with using G.I. slotted cleats of size 25x35x1.6 mm fixed to ceiling using 12.5mm dia. And 50mm long dash fasteners, 4mm G.I. adjustable rods with galvanized steel levels clips of size 85x30x0.8mm, spaced at 1200mm center to center along main T bottom exposed with 24mm of all T	As directed by Engineer in charge.	Square Metre	2235	385

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
1178	Roofing and Ceiling	38.40	BDR	Providing and fixing false ceiling with eco-friendly light-weight calcium silicate tiles of spintone surface texture aerolite make or equivalent of size 595mm x 595mm having 15mm thick densified micro look edge and 100% humidity resistance incombustible as per BS 46part IV and thermal conductivity 0.043 w/m 0 KC and NRC 0.50 placed in true horizontal level suspended grid of size 600x600mm made from hot dipped G.I. steel sections ion silhouette profile, rotary stitched double webbed white with 6mm reveal profile (white/black), wherein, main T runner of size 42mmx14mm between main tee 600mm center-to-center and secondary cross T of size 33x14x0.43mm thick of length 600mm long spaced inter-locked at middle of the first crossed T in each panel to form grid of 1200mmx600mm resting on periphery wall Profile wall section 19mm (7+7) x 19mmx0.40thicknesses and laying false ceiling for services like diffusers grills including cutting, making opening for light fittings, fixtures, , smoke detectors etc., wherever required. Main T runners suspended from ceiling with using G.I. soffit cleats of size 25x35x1.6 mm of required length fixed to the ceiling with 6mm dia and 50mm long dash fastener, 4mm dia G.I. adjustable rods with powder coated/good quality G.I. level adjustment clips of 35x35x0.8mm spaced	As directed by Engineer in charge.	Square Metre	2236	386
1179	Roofing and Ceiling	38.41	BDR	Providing and fixing self supporting steel roofing system for a Godown or alike made up of structural grade steel sheet of 912 millimeter width ( tolerance +/- 2 millimeter ), moulded at site using mechanical press dies to the desired curve and shape to form 605 millimeter wide interlocking panels . The interlocking panels shall be pressed to close the seam forming water tight joints for a span of 15.30 meter having arch rise as 3.06 meter, arch length 17.75 meter. The base material made up of imported galvalume steel complying to ASTM A792 having base metal thickness of 0.80 millimeter ( tolerace + / - 0.02 millimeter ) with alloy coating AZ 150 and paint coating of regular modified polyster , top coat 25 micron and bottom coat 12 micron as per approved colour , including fixing hangers , clamps etc.as may be necessary of Proflex standard, including fixing sky light of 2 millimeter thick polycarbonate sheet of size 2' x 7' and turbo ventilator of 24" diameter to be installed at every 30 feet along the length of roof including finishing, testing and cleaning etc. complete.	As directed by Engineer in charge.	Square Metre	2068	376
1180	Roofing and Ceiling	38.42	BDR	Providing and fixing self supporting steel roofing system for a Godown or alike made up of structural grade steel sheet of 912 millimeter width ( tolerance + / - 2 millimeter ), moulded at site using mechanical press dies to the desired curve and shape to form 605 millimeter wide interlocking panels . The interlocking panels shall be pressed to close the seam forming water tight joints for a span of 21.30 meter having arch rise as 4.26 meter, arch length 25.13 meter. The base material made up of imported galvalume steel complying to ASTM A792 having base metal thickness of 1.00 millimeter ( tolerace + / - 0.02 millimeter ) with alloy coating AZ 150 and paint coating of regular modified polyster , top coat 25 micron and bottom coat 12 micron as per approved colour , including fixing hangers , clamps etc.as may be necessary of Proflex standard, including fixing sky light of 2 millimeter thick polycarbonate sheet of size 2' x 14' and turbo ventilator of 24" diameter to be installed at every 30 feet along the length of roof including finishing , testing and cleaning etc. complete.	As directed by Engineer in charge.	Square Metre	2150	376

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
1181	Roofing and Ceiling	38.43	BDR	Providing and fixing self supporting steel roofing system for a Godown or alike made up of structural grade steel sheet of 912 millimeter width ( tolerance + / - 2 millimeter ), moulded at site using mechanical press dies to the desired curve and shape to form 605 millimeter wide interlocking panels . The interlocking panels shall be pressed to close the seam forming water tight joints for a span of 25.00 meter having arch rise as 5.00 meter, arch length 29.00 meter The base material made up of imported galvalume steel complying to ASTM A792 having base metal thickness of 1.20 millimeter ( tolerace + / - 0.02 millimeter ) with alloy coating AZ 150 and paint coating of regular modified polyster , top coat 25 micron and bottom coat 12 micron as per approved colour , including fixing hangers , clamps etc.as may be necessary of Proflex standard, including fixing sky light of 2 millimeter thick polycarbonate sheet of size 2' x 14' and turbo ventilator of 24" diameter to be installed at every 30 feet along the length of roof including finishing , testing and cleaning etc. complete.	As directed by Engineer in charge.	Square Metre	2271	376
1182	Roofing and Ceiling	38.44	BDR	Providing and fixing self supporting steel roofing system for a Godown or alike made up of structural grade steel sheet of 912 millimeter width ( tolerance + / - 2 millimeter ), moulded at site using mechanical press dies to the desired curve and shape to form 605 millimeter wide interlocking panels . The interlocking panels shall be pressed to close the seam forming water tight joints for a span of 28.75 meter having arch rise as 5.75 meter, arch length 33.92 meter. The base material made up of imported galvalume steel complying to ASTM A792 having base metal thickness of 1.40 millimeter ( tolerace + / - 0.02 millimeter ) with alloy coating AZ 150 and paint coating of regular modified polyster , top coat 25 micron and bottom coat 12 micron as perapproved colour , including fixing hangers , clamps etc.as may be necessary of Proflex standard, including fixing sky light of 2 millimeter thick polycarbonate sheet of size 2' x 14' and turbo ventilator of 24" diameter to be installed at every 30 feet along the length of roof including finishing , testing and cleaning etc. complete.	As directed by Engineer in charge.	Square Metre	2614	376
1183	Roofing and Ceiling	38.45	BDR	Providing and Fixing of Mineral Fibre Board Acoustical Suspended Ceiling System with ultima (Bevelled Tegular) Edge Tiles of size 15mm Exposed GRID. The tiles should have Humidity Resistance (RH) of 99%, NRC 0.7, Light Reflectance 85%, Thermal Conductivity k = 0.052 - 0.057 w/m K, Colour White, Fire Performance UK Class 0 / Class 1 (BS 476 pt - 6 &7) in module size of 600 x 600 x 20mm , suitable for Green Building application, with Recycled content of 32%. The tile shall be laid on precoated G.I.channel on XL2 Clip having a web height of 32 mm with 15 mm wide T - section flanges colour white having rotary stitching on all T sections i.e. the Main Runner, 1200 mm and 600 mm Cross Tees with a web height of 32 mm and a load carrying capacity of 7.7 Kilograms/M2 and minimum pull out strength of 100 Kilograms.. The T Sections have a Galvanizing of 90 grams per M2 and need to be installed with Suspension system. The Tile and Grid system used together should carry a 10 year warranty. products approved as per GRIHA and BS 476 etc. complete.	As directed by Engineer in charge.	Square Metre	2020	226



Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
1184	Roofing and Ceiling	38.46	BDR	Providing and Fixing of Mineral Fibre Suspended Ceiling System with Bioguard (Bevelled Tegular) EDGE TILES WITH 15mm Exposed GRID. The tiles should have Humidity Resistance (RH) of 99%, Light Reflectance 90%, Thermal Conductivity k = 0.052 - 0.057 w/m K, Colour White, Fire Performance UK Class 0/Class 1 (BS 476 Part 6 and 7), in module size of 600x600 x 16mm with Anti Microbial coating on the face of the tile, suitable for Green Building application, with Recycled content of 34%. The tile shall be laid on precoated G.I. channel on XL2 Clip having a web height of 32 mm 32 with 15 mm wide T - section flanges colour white having rotary stitching on all T sections i.e. the Main Runner and 1200 mm Cross Tees with a web height of 32 mm and a load carrying capacity of 7.7 Kilograms/M2 and pull out strength of 100Kilograms. . The T Sections have a Galvanizing of 90 grams per M2 and need to be installed with Suspension system The Tile and Grid system used together should carry a 10 year warranty. products approved at GRIHA and BS 476 etc. complete.	As directed by Engineer in charge.	Square Metre	1884	226
1185	Roofing and Ceiling	38.47	BDR	Providing and Fixing Soft Fibre Acoustical Suspended Ceiling System with Optra (Bevelled Tegular) Edge Tiles of size 15mm Exposed Grid. The tiles should have Humidity Resistance (RH) of 95%, NRC 0.9 - 1.0, Light Reflectance 785%, Colour White, Fire Performance UK Class 0 / Class 1 (BS 476 pt - 6 &7) in module size of 600 x 600 x 15mm , suitable for Green Building application, with Recycled content of 66% GW and 74% RW. The tile shall be laid on precoated G.I channel 32 with 15 mm wide T - section flanges colour white having rotary stitching on all T sections i.e. the Main Runner, 1200 mm and 600 mm Cross Tees with a web height of 32 mm and a load carrying capacity of 7 Kilograms/M2 with a minimum pull out strength of 100 Kilograms. The T Sections have a Galvanizing of 90 grams per M2 and need to be installed with Suspension system The Tile and Grid system used together should carry a 10 year warranty. products approved as per GRIHA and BS 476 etc. complete.	As directed by Engineer in charge.	Square Metre	2646	196
1186	Roofing and Ceiling	38.48	BDR	Providing and Fixing of GI Lay in Plain metal ceiling consisting of 600x600mm Lay in tiles of pre coated galvanized steel in 0.5 mm thickness in Global white color tile to be laid on grid systems with 15mm wide T - section flanges color white having rotary stitching on the Main Runner, 1200 mm and 600 mm Cross Tees.Providing and Fixing of GI Lay in Plain metal ceiling consisting of 600x600mm Lay in tiles of pre coated galvanized steel in 0.5 mm thickness in Global white color tile to be laid on grid systems with 15mm wide T - section flanges color white having rotary stitching on the Main Runner, 1200 mm and 600 mm Cross Tees.products approved as per GRIHA and BS 476 etc. complete.	As directed by Engineer in charge.	Square Metre	2027	237
1187	Roofing and Ceiling	38.49	BDR	Providing and Fixing Mineral Fibre Acoustical Suspended Ceiling System with Dune (Bevelled Tegular) Edge Tiles of size 15mm Exposed Grid. The tiles should have Humidity Resistance (RH) of 99%,NRC 0.5, Light Reflectance 85%, Thermal Conductivity k = 0.052 - 0.057 w/m K, Colour White, Fire Performance UK Class 0 / Class 1 (BS 476 pt - 6 &7) in module size of 600 x 600 x 16mm , with Recycled content of 35 %. The tile shall be laid on precoated G.I.channel height 32 with 15 mm wide T - section flanges colour white having rotary stitching and XL2 CLIP on all T sections i.e. the Main Runner, 1200 mm and 600 mm Cross Tees with a web height of 32mm and a load carrying capacity of 7.57 Kilograms/M2 and pull out strength of minimum 100 Kilograms.. The T Sections have a Galvanizing of 90 grams per M2 and need to be installed with Suspension system. The Tile and Grid system used together should carry a 10 year warranty.approved as per GRIHA and BS 476 etc. complete.	As directed by Engineer in charge.	Square Metre	1670	196

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
1188	Roofing and Ceiling	38.50	BDR	Providing and Fixing Mineral Fibre Acoustical Suspended Ceiling System with Fine Fissured (Bevelled Tegular) Edge Tiles of size 15mm Exposed Grid. The tiles should have Humidity Resistance (RH) of 99%,NRC 0.6, Light Reflectance 85%, Thermal Conductivity k = 0.052 - 0.057 w/m K, Colour White, Fire Performance UK Class 0 / Class 1 (BS 476 pt - 6 &7) in module size of 600 x 600 x 16mm , with Recycled content of 31 %. The tile shall be laid on precoated G.I channel height of 32 with 15 mm wide T - section flanges colour white having rotary stitching and XL2 CLIP on all T sections i.e. the Main Runner, 1200 mm and 600 mm Cross Tees with a web height of 32mm and a load carrying capacity of 7.57 Kilograms/M2 and pull out stength of minimum 100 Kilograms.. The T Sections have a Galvanizing of 90 grams per M2 and need to be installed with Suspension system. The Tile and Grid system used together should carry a 10 year warranty. product approved in GRIHA and BS 476 etc. complete.	As directed by Engineer in charge.	Square Metre	1463	196
1189	Roofing and Ceiling	38.51	BDR	Providing and fixing in position Gypsum board false ceiling with 12.5 mm thick Gypsum boards, screwed/fixd to the under structure of suspended G.I. Grid constructed and suspended from the main ceiling consisting of ceiling sections of size 25 x 50 mm maximum center to center distance of 600 milimetre perimeter channel and intermediate channels at maximum center to center distance 1200 milimetre galvanized grid should be fixed to reinforced cement concrete slab. The gypsum board should be fixed to galvanized iron grid with necessary screws. The boards should be taped and filled from underside to give smooth, seamless ceiling. The rate should include necessary additional ceiling sections and intermediate channels. Additional intermediate channels should be fixed to strap hangers for additional support to prevent strapping at every 1200 milimetre item to be completed in all respect including necessary sleeves for ducts finishing of joints cut outs, painting including labour, material, lifts etc. all complete.	As directed by Engineer in charge.	Square Metre	1637	940
1190	Roofing and Ceiling	38.52	BDR	Providing and fixing Modular false ceiling of 600 x 600 mm center to center and 13 mm thick square mineral fiber board to be fixed on frame work of alluminium sections for suspended false ceiling consisting of alluminium T 2"x1 ½" (50 mm x 40 mm) weighing 0.39 Kilogram/m at 60 cms center center and fixed with ½" x ½" (15 x 15 mm) flanges weighing 0.19 Kilogram/m suspended on 6 mm dia mild steel rod weighing 0.22 Kilogram/m, fixed on wall and beams including rounding of the edges with alluinium T of 2" x 1 ½" (50 mm x 40 mm) weighing 0.39 Kilogram/m etc. (all alluminium sections shall be anodized) including all labour, material, lifts etc. complete.	As directed by Engineer in charge.	Square Metre	2160	828
1191	Roofing and Ceiling ( New Item)	38.53		Providing and fixing self supporting steel roofing system (Proflex) for a Godown or alike made up of structural grade steel sheet of 912 millimeter width ( tolerance + / - 2 millimeter ), moulded at site using mechanical press dies to the desired curve and shape to form 605 millimeter wide interlocking panels . The interlocking panels shall be pressed to close the seam forming water tight joints for a span of 32.5 meter having arch rise as 6.5 meter, arch length 37.7 meter. The base material made up of imported galvalume steel complying to ASTM A792 having base metal thickness of 1.60 millimeter ( tolerace + / - 0.02 millimeter ) with alloy coating AZ 150 and paint coating of regular modified polyster , top coat 25 micron and bottom coat 12 micron as perapproved colour , including fixing hangers , clamps etc.as may be necessary of Proflex standard, including fixing sky light of 2 millimeter thick polycarbonate sheet of size 2' x 14' and turbo ventilator of 24" diameter to be installed at every 30 feet along the length of roof including finishing , testing and cleaning etc. complete.	As directed by Engineer in charge.	Square Metre	2568	373

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
<b>SSR 2021-2022 :- Doors and Windows</b>								
1192	Doors and Windows	39.01	BDT	Providing and fixing frame with / without ventilator of size as specified with Country cut teak wood for doors and windows including chamfering, rounding, rebating, iron holdfast of size 300mm x 40mm x 5mm with oil painting, etc. complete	As directed by Engineer in charge.	Cubic metre	183164	2199
1193	Doors and Windows	39.02	BDT	Providing and fixing frame with / without ventilator of size as specified with Country non teak wood for doors and windows including chamfering, rounding, rebating, iron holdfast of size 300mm x 40mm x 5mm with oil painting, etc. complete.	As directed by Engineer in charge.	Cubic metre	99553	128
1194	Doors and Windows	39.03	BDT-4	Providing and fixing the Country cut teak wood second class fully glazed openable fanlight rectangular in shape as per detailed drawing excluding the frame, stainless steel fixtures and fastenings and finishing the wood work with 3 coats of oil painting.	BD-T-4 Page Number 479	Square Metre	4692	2019
1195	Doors and Windows	39.04	BDT 7 and 8	Providing and fixing Country cut teak wood double or single leaf second class fully panelled door shutter with 35mm thick style and rail with 25 mm thick panels with openable fan light as per detailed drawings. Excluding the door frame 60mm x 100mm stainless steel fixtures and fastening and finishing the wood work with oil painting 3 coats. (Excluding the door frame)	BD-T-7 and 8 Page Number 481-82	Square Metre	8784	2695
1196	Doors and Windows	39.05	BDT-11	Providing and fixing Country cut teak wood single leaf panelled door shutter without fanlight and 25mm thick as per drawing consisting of T.W. top rail size 100mm x 25mm and bottom lock rail 200mm x 25mm insert pannel 12 mm thick commercial ply faced T.W. particle board with phenol formaldehyde synthetic resin (Generally confirming to ISI 3097) excluding frame, including stainless steel fixture and fastening and T.W. beading to junctions of panelled inserts and as instructed by the Engineer in charge including 3 coats of oil painting etc. complete.	As directed by Engineer in charge.	Square Metre	5401	1629
1197	Doors and Windows	39.06	BDT-11	Providing and fixing single leaf panelled door shutter without fanlight and shutter 35 mm thick as per drawing consisting of T.W. top rail size 100mm x 35 mm and bottom and lock rail 200mm x 35mm insert panel 12 mm thick commercial ply faced T.W. particle board with phenol formaldehyde synthetic resin (Generally confirming to ISI 3097) excluding frame, including stainless steel fixtures fastening and T.W. beading at junction of panels inserts and as instructed by the Engineer in charge including 3 coats of oil painting etc. complete.	As directed by Engineer in charge.	Square Metre	7512	2308
1198	Doors and Windows	39.07	BDT-11	Providing and fixing single or double leaf panelled door shutter excluding frame with glazed openable fanlight shutter 35 mm thick as per detailed drawing consisting panelled vertical styles 100 mm x 35 mm and lock and bottom rail 200 mm x 35 mm and panels 12 mm thick both side commercial ply faced particle board including stainless steel fixtures and fastening and T.W. beading at junctions of panel inserts and as instructed by the Engineer in charge including 3 coats of oil painting etc. complete.	As directed by Engineer in charge.	Square Metre	6723	2435
1199	Doors and Windows	39.08	BDT-12	Providing and fixing Country cut teak wood double or single leaf panelled shutters, 35 mm thick style top and freze rail 95 x 35 thick with lock and bottom rail 195 x 25 mm thick and panels without ventilator as per detailed drawing excluding the door frame, stainless steel fixtures and fastening and finishing the wood work with oil painting 3 coats complete	BD-T-11 and 12 Page Number 482-83	Square Metre	8732	2467
1200	Doors and Windows	39.09	BDT-34	Providing and fixing solid core flush door shutter in single leaf 32 mm thick decorative type of exterior grade as per detailed drawings approved face veneers 3 mm thick on both faces or as directed, all necessary beads, mouldings and lipping, wrought iron hold fasts, chromium plated fixtures and fastenings, with brass mortise lock, chromium plated handles on both sides, and finishing with French Polish etc. complete.	BD-T-34 Page Number 499	Square Metre	2824	700

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
1201	Doors and Windows	39.10	BDT-36	Providing and fixing solid core flush door shutter commercial in single leaf 32 mm thick without ventilator commercial type of exterior grade as per detailed drawings with wrought iron hold fast, stainless steel fixtures and fastenings and handles on both sides and finishing with oil painting 3 coats complete.	BD-T-36 Page Number 500	Square Metre	2652	804
1202	Doors and Windows	39.11	BDT	Providing and fixing solid core flush door commercial type on single leaf 16 mm thick Bison Panel cement bonded particle Board including Teak wood lipping beading on all four edges without ventilator commercial type of exterior grade as per detailed drawings with wrought iron hold fast, stainless steel fixtures and fastenings and handles on both sides and finishing with oil painting three coats complete.	As directed by Engineer in charge.	Square Metre	3583	808
1203	Doors and Windows	39.12	BDT-39	Providing and fixing Country cut teak wood single leaf door shutter with teak wood style and rail of 25 mm thick including fixing 50 mm x 25 mm size welded mesh of 10 gauge as per detailed drawing or as directed with stainless steel fixture and fastening finishing with 3 coats of oil painting etc. complete.	BD-T-39 Page Number 500	Square Metre	4980	827
1204	Doors and Windows	39.13	BDT	Providing and fixing factory made panelled door shutter in single leaf 35 mm thick style and rail without ventilator with CCTW panels 12 mm thick including wrought iron hold fast and stainless steel fixtures with oil painting 3 coats etc. complete.	As directed by Engineer in charge.	Square Metre	2285	526
1205	Doors and Windows	39.14	BDT	Providing and fixing Country cut teak wood single leaf panelled door shutters 35 mm thick style and rail and 19 mm thick T.W. panels as per detailed drawing including wrought iron hold fast stainless steel fixtures and fastening and three coats of oil painting etc. complete.	As directed by Engineer in charge.	Square Metre	4382	680
1206	Doors and Windows	39.15	BDT-42	Providing and fixing fully glazed double leaf window shutter with openable fanlight including Country cut teak wood 25 mm thick style and rails with plain / obscured glass panels 5 mm thick as per drawing or as directed by the Engineer in charge with stainless steel fixtures and fastening and finishing the wood work with oil painting three coats etc. complete.	BD-T-42 Page Number 503	Square Metre	4330	1414
1207	Doors and Windows	39.16	BDT-42	Providing and fixing Country cut teak wood window with double leaf half glazed and half panelled shutter with style 70 x 20 mm thick rails 95 x 20 mm thick and pannels 15mm thick with ventilator including wrought iron hold fast, stainless steel fixtures and fastenings and finishing the wood work with oil painting 3 coats etc. complete.	BD-T-42 Page Number 503	Square Metre	5001	1423
1208	Doors and Windows	39.17	BDT-43	Providing and fixing Country cut teak wood windows with double leaf 25 mm thick planked shutters without ventilators as per detailed drawings including stainless steel fixtures and fastenings and finishing the wood work with oil painting 3 coats etc. complete	BD-T-43 Page Number 503	Square Metre	6081	1073
1209	Doors and Windows	39.18	BDT-43	Providing and fixing Country cut teak wood windows / ventilators with double leaf panelled shutters 25 mm thick without ventilators as per detailed drawing including stainless steel fixtures and fastenings and finishing the wood work with oil painting 3 coats etc. complete.	BD-T-43 Page Number 503	Square Metre	7030	1194
1210	Doors and Windows	39.19	BDT-53	Providing and fixing steel window of various sizes as per detailed drawing without hot dip zinc coating, without ventilators, including fabricating / glazing with plain / obscured glass panels of approved type and quality, iron oxidised fixtures and fastenings, oil painting two coats complete.	BD-T-53 Page Number 509	Square Metre	4244	1369
1211	Doors and Windows	39.20	BDT-53	Providing and fixing steel window of various sizes as per detailed drawing without hot dip zinc coating, without ventilators, including fabricating / glazing with plain / obscured glass panels of approved type and quality, iron oxidised fixtures and fastenings, finishing with oil painting two coats complete (with guard bars 12 mm square at 10 cm c/c.)	BD-T-53 Page Number 509	Square Metre	4485	912

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
1212	Doors and Windows	39.21	BDT	Providing and fixing steel window C.R.C. sheet as per I.S. 1513 : 1986. gauge sect. 65 x 40 x 25 mm shutter single sheet of 24 gauge single leaf joined by fusion welding at appropriate points with vertical grooves of 15 mm wide and 15 mm deep at a distance of 45 mm. The first and last rib should be 60 mm away from vertical edge of the shutter. the shutter shall be welded, with angle to from the periphery of the shutter. At the center of the frame there shall be angle welded to bifurcate the frame into segments with two leaf shutter square 12 mm square guard bars at 120 mm center with all accessories	As directed by Engineer in charge.	Square Metre	3839	1295
1213	Doors and Windows	39.22	BDT	Providing and fixing in position factory made box type steel window with glazed fanlight including steel windows of cold rolled section of 105mm x 60mm x 1.25mm thick frame section filled with cement concrete (1:2:4) and metal pressed steel shutters of 20 gauge (1mm) as per detailed drawing and design or as directed including providing horizontal mild steel 12mm square bars at 10cm center to center, required F7B section, section 76, section 20mm x 5mm mild steel flat for shutter and F4B section for frame, 3mm thick glass of approved quality for fanlight necessary fixtures and fastening etc. complete finishing with one coat of anticorrosive paint etc.complete	As directed by Engineer in charge.	Square Metre	5150	982
1214	Doors and Windows	39.23	BDT	Providing and fixing in position factory made box type fully glazed window consisting of cold rolled section of 105mm x 60mm x 1.25mm thick frame section filled with cement concrete (1:2:4) and steel section F4B as per detailed drawing and design including mild steel 12mm square bars at 10cm center to center, required F7B section, section T6, section for shutter frame (Louvered clips in case of Louvered window portion) and 3mm thick glass of approved quality of necessary fixtures and fastening, finishing with one coat of anticorrosive paint etc. complete .	As directed by Engineer in charge.	Square Metre	4475	982
1215	Doors and Windows	39.24	BDT-55	Providing and fixing rolling shutter fabricated from steel laths of minimum thickness 0.9 mm with lock plate of 3.15 mm thickness reinforced with 35 x 35 x 5 mm angle section fitted with sliding bolts and handles for both sides, deep M.S. channel section of depth and thickness not less than 65 mm and 3.15 mm respectively with hold fast arrangements, M.S. Bracket plate 300 x 300 x 3.15 mm minimum size and shape with square bar, suspension shaft of minimum 32 mm diameter, hood cover of M.S. sheet not less than 0.9 mm thickness and of any size at top and safety devices including mechanical gear operation arrangement consisting of worm gear wheels and worms of high grade cast iron or mild steel and one coat of red lead primer etc. complete. (I.S. 62481979) (Without mechanical gear)	BD-T-55 Page Number 510	Square Metre	4310	800
1216	Doors and Windows	39.25	BDT-55	Providing and fixing rolling shutter fabricated from steel laths of minimum thickness 0.9 mm with lock plate of 3.15 mm thickness reinforced with 35 x 35 x 5 mm angle section fitted with sliding bolts and handles for both sides, deep M.S. channel section of depth and thickness not less than 65 mm and 3.15 mm respectively with hold fast arrangements, M.S. Bracket plate 300 x 300 x 3.15 mm minimum size and shape with square bar, suspension shaft of minimum 32 mm diameter, hood cover of M.S. sheet not less than 0.9 mm thickness and of any size at top and safety devices including mechanical gear operation arrangement consisting of worm gear wheels and worms of high grade cast iron or mild steel and one coat of red lead primer etc. complete. (I.S. 62481979) (With mechanical gear)	BD-T-55 Page Number 510	Square Metre	4730	851

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
1217	Doors and Windows	39.26	BDT-57	Providing and fixing collapsible steel gate in one / two leaves with hot rolled vertical channels of 18 x 9 x 3 mm minimum size, crossings of M.S. flats of size 18 x 5 mm T or E section for runner of minimum 40 x 6 mm size for flange, M.S. flat for top runner of minimum size 40 x 12 mm with roller wheels confirming to grade F.G. 150 fitted with snap headed rivets of minimum size 6 mm max. spacing of vertical channels be 100 mm enclosed gate position and clear space of 150 mm between two sets of crossings with hold fasts, stoppers, spaces, handles, locking arrangement and one coat of red lead primer and oil painting etc. complete. (I.S. 105211983).	BD-T-57 Page Number 511	Square Metre	3736	1027
1218	Doors and Windows	39.27	BDT-67	Providing and fixing partition of welded mesh of 3 mm dia. wires 50 mm x 25 mm size mesh including integrated non teak seasoned wood frame 80 x 50 mm of vertical and horizontal scantling and finishing with oil painting 3 coats etc. complete	BD-T-67 Page Number 515	Square Metre	2436	824
1219	Doors and Windows	39.28	BDS	Providing and fixing sheet glass of 24 oz. for all size including putty etc. complete	BD-S Page Number 465 to 467	Square Metre	876	407
1220	Doors and Windows	39.29	BDT-53	Providing and fixing steel ventilator fully glazed partly fixed as per detailed drawing without hot dip zinc coating including fabricating glazing with plain / obscured glass panes 5 mm thick and approved type and quality and iron oxidized fixtures and fastening oil paint 2 coats etc. complete.	BD-T-53 Page Number 509 As directed by Engineer in charge.	Square Metre	3090	762
1221	Doors and Windows	39.30	BDT-53	Providing and fixing steel ventilator fully glazed partly fixed as per detailed drawing with hot dip zinc coating including fabricating glazing with plain / obscured glass pans 5 mm thick and approved type quality and iron oxidized fixtures and fastening with guard square bars 12 mm 10 cm c/c and oil painting 2 coats etc. complete.	BD-T-53 Page Number 509 As directed by Engineer in charge.	Square Metre	4449	1453
1222	Doors and Windows	39.31	BDT	Providing and fixing M.S. grill door 24 Kilogram/Square Metre of various size as per detailed drawings without hot dip coating, iron fixtures and fastenings and 3 coats of oil painting etc	As directed by Engineer in charge.	Square Metre	3033	1134
1223	Doors and Windows	39.32	BDT	Providing and fixing CCTW beading of size 40 mm x 20 mm to the door frame including chamfering finishing with 3 coats of oil painting etc. complete	As directed by Engineer in charge.	Running metre	162	52
1224	Doors and Windows	39.33	BDT	Providing and fixing steel frame of angle 50 x 50 x 6 mm size for window with 16 mm with mild steel bars horizontally at 10 cm c/c for ventilator portion and at 15 cm c/c for remaining portion with M.S. flat of size 40 x 6 mm vertical at center including iron hold fast boxes for fixing 40 x 6 mm vertical at center including iron hold fast boxes for fixing 40 x 6 mm vertical at center including iron hold fast boxes for fixing shutters including welding finishing painting etc. complete.	As directed by Engineer in charge.	Square Metre	2735	688
1225	Doors and Windows	39.34	BDT	Providing and fixing steel frame of angle 40 x 40 x 5 mm size for windows with 16 mm dia. mild steel bars horizontally at 10 cm c/c for ventilator portion and 15 cm c/c for remaining portion with M.S. flat of size 40 x 6 mm vertical at center including iron hold fast boxes for fixing 40 x 6 mm vertical at center including iron hold fast boxes for fixing shutters including welding finishing painting etc. complete.	As directed by Engineer in charge.	Square Metre	2139	745
1226	Doors and Windows	39.35	BDT	Providing and fixing steel frame door of angle 50 x 50 x 6 mm with mild steel bars 16 mm dia. horizontally at 10mm c/c for ventilator portion including iron hold fast boxes for fixing shutters including welding, finishing, painting etc. complete.	As directed by Engineer in charge.	Square Metre	1866	780
1227	Doors and Windows	39.36	BDT	Providing and fixing steel frame door of angle 40 x 40 x 5 mm with 16 mm dia. mild steel bars horizontally at 10cm c/c for ventilator portion including iron hold fast for the fixing shutters including welding, painting, finishing etc. complete.	As directed by Engineer in charge.	Square Metre	1636	780

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
1228	Doors and Windows	39.37	BDT	Providing and fixing in position. (as per I.S.1868 / 1982) Aluminium sliding window of two tracks with rectangular pipe having overall dimension 63.50 x 38.10 x 1.02 mm at weight 0.547 Kilogram/Running metre. and window frame bottom track section 61.85 x 31.75 x 1.20 mm at weight 0.695 Kilogram/Running metre. Top and side track section 61.85 x 31.75 x 1.30 mm at weight 0.659 Kilogram/Running metre. The shutter should be of bearing bottom 40 x 18 x 1.25 mm at weight 0.417 Kilogram/Running metre. Inter locking section 40 x 18 x 1.10 mm at weight 0.469 Kilogram/Running metre. And handle section 40 x 18 x 1.25 mm at weight 0.417 Kilogram/Running metre. and top section 40 x 18 x 1.25 mm at weight 0.417 Kilogram/Running metre. As per detailed drawings and as directed by Engineer in charge with all necessary Aluminium sections fixtures and fastenings such as roller bearing in nylon casting and self locking catch fitted in vertical section of shutter including 5 mm thick plain glass with all required screws and nuts etc, complete. With colour Anodising with box.	As directed by Engineer in charge.	Square Metre	5606	1132
1229	Doors and Windows	39.38	BDT	Providing and fixing in position. (as per I.S.1868 / 1982) Aluminium sliding window of two tracks with rectangular pipe having overall dimension 63.50 x 38.10 x 1.02 mm at weight 0.547 Kilogram/Running metre. and window frame bottom track section 61.85 x 31.75 x 1.20 mm at weight 0.695 Kilogram/Running metre. Top and side track section 61.85 x 31.75 x 1.30 mm at weight 0.659 Kilogram/Running metre. The shutter should be of bearing bottom 40 x 18 x 1.25 mm at weight 0.417 Kilogram/Running metre. Inter locking section 40 x 18 x 1.10 mm at weight 0.469 Kilogram/Running metre. And handle section 40 x 18 x 1.25 mm at weight 0.417 Kilogram/Running metre. and top section 40 x 18 x 1.25 mm at weight 0.417 Kilogram/Running metre. As per detailed drawings and as directed by Engineer in charge with all necessary Aluminium sections fixtures and fastenings such as roller bearing in nylon casting and self locking catch fitted in vertical section of shutter including 5 mm thick plain glass with all required screws and nuts etc, complete. With colour Anodising without box	As directed by Engineer in charge.	Square Metre	5272	1132
1230	Doors and Windows	39.39	BDT	Providing and fixing in position. (as per I.S.1868 / 1982) Aluminium sliding window of two tracks with rectangular pipe having overall dimension 63.50 x 38.10 x 1.02 mm at weight 0.547 Kilogram/Running metre. and window frame bottom track section 61.85 x 31.75 x 1.20 mm at weight 0.695 Kilogram/Running metre. Top and side track section 61.85 x 31.75 x 1.30 mm at weight 0.659 Kilogram/Running metre. The shutter should be of bearing bottom 40 x 18 x 1.25 mm at weight 0.417 Kilogram/Running metre. Inter locking section 40 x 18 x 1.10 mm at weight 0.469 Kilogram/Running metre. And handle section 40 x 18 x 1.25 mm at weight 0.417 Kilogram/Running metre. and top section 40 x 18 x 1.25 mm at weight 0.417 Kilogram/Running metre. As per detailed drawings and as directed by Engineer in charge with all necessary Aluminium sections fixtures and fastenings such as roller bearing in nylon casting and self locking catch fitted in vertical section of shutter including 5 mm thick plain glass with all required screws and nuts etc, complete. With powder coating with box	As directed by Engineer in charge.	Square Metre	4794	1132

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
1231	Doors and Windows	39.40	BDT	Providing and fixing in position. (as per I.S.1868 / 1982) Aluminium sliding window of two tracks with rectangular pipe having overall dimension 763.50 x 38.10 x 1.02 mm at weight 0.547 Kilogram/Running metre. and window frame bottom track section 61.85 x 31.75 x 1.20 mm at weight 0.695 Kilogram/Running metre. Top and side track section 61.85 x 31.75 x 1.30 mm at weight 0.659 Kilogram/Running metre. The shutter should be of bearing bottom 40 x 18 x 1.25 mm at weight 0.417 Kilogram/Running metre. Inter locking section 40 x 18 x 1.10 mm at weight 0.469 Kilogram/Running metre. And handle section 40 x 18 x 1.25 mm at weight 0.417 Kilogram/Running metre. and top section 40 x 18 x 1.25 mm at weight 0.417 Kilogram/Running metre. As per detailed drawings and as directed by Engineer in charge with all necessary Aluminium sections fixtures and fastenings such as roller bearing in nylon casting and self locking catch fitted in vertical section of shutter including 5 mm thick plain glass with all required screws and nuts etc, complete. With powder coating without box	As directed by Engineer in charge.	Square Metre	4769	1132
1232	Doors and Windows	39.41	BDT	Providing and fixing in position (as per 1868 / 1982) Alluminium sliding window of three tracks with rectangular pipe 95 x 38.10 x 0.90 mm at weight 0.637 Kilogram/Running metre. with window frame bottom track section 92 x 31.75 x 1.30 mm at weight 1.070 Kilogram/Running metre.. Top and side track section 92 x 31.75 x 1.30 mm at weight 0.933 Kilogram/Running metre. The shutter should be of bearing bottom 40 x 18 x 1.25 mm at weight 0.417 Kilogram/Running metre. Inter locking section 40 x 18 x 1.10 mm at weight 0.469 Kilogram/Running metre. and handle and top section 40 x 18 x 1.25 mm at weight 0.417 Kilogram/Running metre. As per detailed drawings and as directed by Engineerincharge with all necessary Aluminium sections fixtures and fastenings such as roller bearing in nylon casting and self locking catch fitted in vertical section of shutter including 5 mm thick plain glass and aluminium mosquito net shutter with stainless steel jail with all required screws and nuts etc, complete. With colour Anodising with box	As directed by Engineer in charge.	Square Metre	5826	1359
1233	Doors and Windows	39.42	BDT	Providing and fixing in position (as per 1868 / 1982) Aluminium sliding window of three tracks with rectangular pipe 95 x 38.10 x 0.90 mm at weight 0.637 Kilogram/Running metre. with window frame bottom track section 92 x 31.75 x 1.30 mm at weight 1.070 Kilogram/Running metre.. Top and side track section 92 x 31.75 x 1.30 mm at weight 0.933 Kilogram/Running metre. The shutter should be of bearing bottom 40 x 18 x 1.25 mm at weight 0.417 Kilogram/Running metre. Inter locking section 40 x 18 x 1.10 mm at weight 0.469 Kilogram/Running metre. and handle and top section 40 x 18 x 1.25 mm at weight 0.417 Kilogram/Running metre. As per detailed drawings and as directed by Engineerincharge with all necessary Aluminium sections fixtures and fastenings such as roller bearing in nylon casting and self locking catch fitted in vertical section of shutter including 5 mm thick plain glass and aluminium mosquito net shutter with stainless steel jail with all required screws and nuts etc, complete. With colour Anodising without box	As directed by Engineer in charge.	Square Metre	5471	1359



Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
1234	Doors and Windows	39.43	BDT	Providing and fixing in position (as per 1868 / 1982) Aluminium sliding window of three tracks with rectangular pipe 95 x 38.10 x 0.90 mm at weight 0.637 Kilogram/Running metre. with window frame bottom track section 92 x 31.75 x 1.30 mm at weight 1.070 Kilogram/Running metre.. Top and side track section 92 x 31.75 x 1.30 mm at weight 0.933 Kilogram/Running metre. The shutter should be of bearing bottom 40 x 18 x 1.25 mm at weight 0.417 Kilogram/Running metre. Inter locking section 40 x 18 x 1.10 mm at weight 0.469 Kilogram/Running metre. and handle and top section 40 x 18 x 1.25 mm at weight 0.417 Kilogram/Running metre. As per detailed drawings and as directed by Engineerincharge with all necessary Aluminium sections fixtures and fastenings such as roller bearing in nylon casting and self locking catch fitted in vertical section of shutter including 5 mm thick plain glass and aluminium mosquito net shutter with stainless steel jail with all required screws and nuts etc, complete. With powder coating with box	As directed by Engineer in charge.	Square Metre	5157	1359
1235	Doors and Windows	39.44	BDT	Providing and fixing in position (as per 1868 / 1982) Aluminium sliding window of three tracks with rectangular pipe 95 x 38.10 x 0.90 mm at weight 0.637 Kilogram/Running metre. with window frame bottom track section 92 x 31.75 x 1.30 mm at weight 1.070 Kilogram/Running metre.. Top and side track section 92 x 31.75 x 1.30 mm at weight 0.933 Kilogram/Running metre. The shutter should be of bearing bottom 40 x 18 x 1.25 mm at weight 0.417 Kilogram/Running metre. Inter locking section 40 x 18 x 1.10 mm at weight 0.469 Kilogram/Running metre. and handle and top section 40 x 18 x 1.25 mm at weight 0.417 Kilogram/Running metre. As per detailed drawings and as directed by Engineerincharge with all necessary Aluminium sections fixtures and fastenings such as roller bearing in nylon casting and self locking catch fitted in vertical section of shutter including 5 mm thick plain glass and aluminium mosquito net shutter with stainless steel jail with all required screws and nuts etc, complete. With powder coating without box	As directed by Engineer in charge.	Square Metre	4864	1359
	Doors and Windows	39.45	BDT	a) Supplying and fixing in position Aluminium four track sliding windows with outer frame made from section of over all size 122 mm x 45 mm, bottom section with drain section track weighing 1.83Kilogramper metre and top and side section of size 122x 31.75 mm weighing 1.15Kilogramper running metre with shutter sections made of 18 mm x 40 mm size having average weight of 0.6Kilogramper running metre (or as required size) with change in proportionate weight, with 6 mm float glass in three equal panels and alluminium coated stainless steel mosquito net in one (2/3 of opening) panel fixed with new neoprene gasket, shutters to be provided with nylon encased stainless steel rollers, necessary locks and handles complete.				
1236		a		a) Colour anodized	As directed by Engineer in charge.	Square Metre	7062	1674
1237	1	b		b) Powder Coated	As directed by Engineer in charge.	Square Metre	6274	1674

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
1238	2	39.47	BDT	Providing and Fixing 30 MM thick BOTH SIDE PRELAMINATED SOLID PANEL PVC DOOR SHUTTER consisting of frame made out of M.S tubes of 19 guage thickness and, size 19 x 19 mm for styles and 15 x15 mm for the top and bottom rails, M.S frame shall have a coat of metel primer of approved make and manufacture. M.S frame shall be covered with heat moulded PVC 'C' channel made from 5 mm (+/0.25) thick prelaminated sheet of density 600 Kilogram/cbm ,of size 30mm thickness 70mm width out of which 50mm shall be flat and 20mm shall be tapered in 45° angle on either side forming stiles ; and 5 mm thick ,95 mm wide PVC sheet out of which 75 mm shall be falt and 20 mm shall be tapered in 45 on the inner side to form top and bottom rail and 115 mm wide PVC sheet out of which 75 mm shall be falt and 20 mm shall be tapered on both sides to form lock rail.Top,bottom and lock rail shall be provided either side of the panel. An additional 5 mm (+/0.25) thick PVC strip of 20 mm width is to be stuck on the bottom side of the ' c ' channel prelaminated paneling of 5 mm (+/0.25) thick PVC sheet to be fitted inside the M.S. frame welded/ sealed to the styles and rails with 5 mm (+/0.25) x 30 mm PVC sheet beading on either side and joined together with solvent cement adhesive etc ,10 mm thickness (5 mm (+/0.25) x 2 nos ) 20 mm wide cross PVC sheet as gap insert for the rail and bottom rail. Door to be fixed to frames with 2 nos M.S powder coated but hinges of	As directed by Engineer in charge.	Square Metre	6020	984
1239	Doors and Windows	39.48	BDT	Providing and fixing 34 mm thick moulded door shutter consisting of solid core single leaf flush door of 30 mm thickness lipped with 15 mm ( 5mm x 3) thick x 30 mm width on one style and top rail and 10 mm (5mm x 2) thick x 30 mm width on other style and bottom rails. The inner panels laminated with 2 mm thick termite proof, water proof and fire resistant moulded PVC sheet with 2,4,6 design in different plain and /or prelim colours on one side after routing the moulded design on flush doors and 2 mm plain and /or pre lam PVC on other side using rubber adhesive on flush door and solvent cement adhesive on the PVC lipping etc. as per direction of Engineer in charge and manufacturers specification and drawing etc. complete.	As directed by Engineer in charge.	Square Metre	6858	984
1240	Doors and Windows	39.49	BDT	Providing and fixing cold rolled steel hollow door frame 105mm x 60mm for anysizes including hold fast hinges, tie members with red oxide and gray paint etc. complete as per I.S.I. specifications and code of practice prescribed including anticorrosive treatment as directed by the engineer.	As directed by Engineer in charge.	Running Metre	1819	425
1241	Doors and Windows	39.50	BDT	Providing and fixing in position aluminium openable window of any size as per detailed drawing and as directed by Engineer in charge with all necessary aluminum sections including necessary fixtures and fastening with 5 mm thick clear float glass etc. complete. a) With colour anodizing Note While arriving at the rate of item of item weight at 6.90 Kilogram/Square Metre is considered.	As directed by Engineer in charge.	Square Metre	5386	1753
	Doors and Windows	39.51	BDT	Providing and fixing in position aluminium openable window of any size as per detailed drawing and as directed by Engineerincharge with all necessary alluminium sections including necessary fixtures and fastening with 5 mm thick clear float glass etc. complete.				
1242			a	a) Colour anodized	As directed by Engineer in charge.	Square Metre	5663	1753
1243			b	b) Powder Coated	As directed by Engineer in charge.	Square Metre	5113	1753
	Doors and Windows	39.52	BDT	Providing and fixing in position aluminium fixed window fully glazed of any size as per detailed drawing and as directed by Engineerincharge with all necessary alluminium sections including necessary fixtures and fastening such as 5 mm thick clear float glass etc. complete. Note While arriving at the rate of item of item weight at 6.90 Kilogram/Square Metre is considered.				

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
1244			a	a) Colour anodized	As directed by Engineer in charge.	Square Metre	5108	1403
1245			b	b) Powder Coated	As directed by Engineer in charge.	Square Metre	4820	1403
	Doors and Windows	39.53	BDT	Providing and fixing in positionaluminium fixed window fully glazed of any size as per detailed drawing and as directed by Engineerincharge with all necessary alluminium sections including necessary fixtures and fastening such as 5 mm thick clear float glass etc. complete.				
1246			a	a) Colour anodized	As directed by Engineer in charge.	Square Metre	5474	1403
1247			b	b) Powder Coated	As directed by Engineer in charge.	Square Metre	4846	1403
1248	Doors and Windows	39.54	BDT	Providing and fixing in position aluminium partly openable and partly fixed window of any size as per detailed drawing and as directed by Engineerincharge with all necessary alluminium sections including necessary fixtures and fastening with 5 mm thick float glass etc. complete. a) With colour anodizing Note While arriving at the rate of item of item weight at 6.90 Kilogram/Square Metre is considered.	As directed by Engineer in charge.	Square Metre	5843	1753
1249	Doors and Windows	39.55	BDT	Providing and fixing in position aluminium partly openable and partly fixed window of any size as per detailed drawing and as directed by Engineerincharge with all necessary alluminium sections including necessary fixtures and fastening with 5 mm thick float glass etc. complete. b) With powder coating Note While arriving at the rate of item of item weight at 6.90 Kilogram/Square Metre is considered.	As directed by Engineer in charge.	Square Metre	5824	1753
1250	Doors and Windows	39.56	BDT	Providing and fixing M40 grade thick vibrated pull cast or similar type concrete frame with chamfer conforming to I.S. 65241983 having 6 mm dia. bars 3 Nos. And stirrups @250 mm c/c and fixing in wall with 6 Nos of hold fast of 12 mm dia bars 500 mm long including primer and oil painting etc, complete) frame size 60 mm x 100 mm .	As directed by Engineer in charge.	Running metre	899	391
1251	Doors and Windows	39.57	BDT	Providing and fixing M40 grade thick vibrated pull cast or similar type concrete frame with chamfer conforming to I.S. 65241983 having 6 mm dia bars 3 Nos. And strips @250 mm c/c and fixing in wall with 6 Nos. of hold fast of 12 mm dia bars 500 mm long including primer and oil painting etc, complete) frame size 60 mm x 125 mm	As directed by Engineer in charge.	Running metre	977	456
1252	Doors and Windows	39.58	BDT	Providing and fixing fiber glass reinforced polyster door shutter 30 mm thick as per IS 14856 (2000) (Reaffirmed 2006) without ventilator including chromium plated fixtures and fastening with chromium plated handles on both sides, etc complete	As directed by Engineer in charge.	Square Metre	2990	656
1253	Doors and Windows	39.59	BDT	Providing and fixing fiber glass reinforced polyster door shutter 35 mm thick as per IS 14856 (2000) (Reaffirmed 2006) without ventilator including chromium plated fixtures and fastening with chromium plated handles on both sides, etc complete.	As directed by Engineer in charge.	Square Metre	3166	542
1254	Doors and Windows	39.60	BDT	Providing and fixing acrylic plastic sheet panels of approved quality in required thickness plain clear or any colour or obscured linings in lieu of glass pans to doors/windows including providing and fixing clips, putty etc. complete. (a) 2.00 mm thick.	As directed by Engineer in charge.	Square Metre	1395	582
1255	Doors and Windows	39.61	BDT	Providing and fixing acrylic plastic sheet panels of approved quality in required thickness plain clear or any colour or obscured linings in lieu of glass pans to doors/windows including providing and fixing clips, putty etc. complete. (b) 3.00 mm thick.	As directed by Engineer in charge.	Square Metre	1723	582

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
1256	Doors and Windows	39.62	BDT	Providing and fixing 24 gauge plain aluminium sheet on the face of door shutter including cutting to required size and fixing the screws including making good the damages if any to existing door shutter and frame etc. complete as directed or as per detailed drawing	As directed by Engineer in charge.	Square Metre	1045	492
1257	Doors and Windows	39.63	BDT	Providing and fixing in position, Double shuttered aluminium extruded powder coated openable door of specified size with aluminium door frame of powder coated section 101.60 x 44.75mm , 3.18 mm thick and shutter comprising of powder coated section having bottom and lock rail of size 150 mm x 44.5 mm x 3.00 mm thick top rails 47.62 x 44.45 mm x 3.00 mm thick , vertical style 47.62 x 44.45 mm, 3.00 mm thick and for shutter plain glass panes 5 mm thick for top panels and 12mm thick both side laminated phenol bonded particle board panels for bottom panels etc. , I.S.I. mark , heavy duty, Hydraulic floor spring of 150Kilogramcapacity , having heavy duty concealed lock, necessary beading, glazing clips, PVC gaskets, 250mm length aluminium tower bolts, 150mm dia. pad handle, etc. as per detailed design and drawing or as directed by engineer in charge including all materials , labours, and equipment etc.complete	As directed by Engineer in charge.	Square Metre	7858	1912
1258	Doors and Windows	39.64	BDT	Providing and fixing in position, Single shuttered aluminium extruded powder coated openable door of overall size 0.90 m x 2.40 m with aluminium door frame of powder coated section 101.60 x 44.75mm , 3.18 mm thick and shutter comprising of powder coated section having bottom and lock rail of size 150 mm x 44.5 mm x 3.00 mm thick top rails 47.62 x 44.45 mm x 3.00 mm thick , vertical style 47.62 x 44.45 mm, 3.00 mm thick and for shutter plain glass panes 5 mm thick for top panels and 12mm thick both side laminated phenol bonded particle board panels for bottom panels etc. , I.S.I. mark , heavy duty, Hydraulic floor spring of 150Kilogramcapacity , having heavy duty concealed lock, necessary beading, glazing clips, PVC gaskets, 250mm length tower bolts, 150mm diam. pad handle, etc. as per detailed design and drawing or as directed by engineer in charge including all materials , labours, and equipment etc.Complete	As directed by Engineer in charge.	Square Metre	7387	2479
1259	Doors and Windows	39.65	BDT	Providing and fixing in position, Single shuttered aluminium extruded powder coated openable door of overall size 0.90 m x 2.40 m with aluminium door frame of powder coated section 101.60 x 44.75mm , 3.18 mm thick and shutter comprising of powder coated section having bottom and lock rail of size 150 mm x 44.5 mm x 3.00 mm thick top rails 47.62 x 44.45 mm x 3.00 mm thick , vertical style 47.62 x 44.45 mm, 3.00 mm thick and for shutter plain glass panes 5 mm thick for top panels and 12mm thick both side laminated phenol bonded particle board panels for bottom panels etc. , I.S.I. mark , with bijagiri having heavy duty concealed lock, necessary beading, glazing clips, PVC gaskets, 250mm length tower bolts, 150mm diam. pad handle, etc. as per detailed design and drawing or as directed by engineer in charge including all materials , labours, and equipment etc. complete	As directed by Engineer in charge.	Square Metre	8434	3846
1260	Doors and Windows	39.66	BDT	Providing and fixing 50 mm x 50 mm Mild Steel square pipe framed steel windows of various sizes as per details with welded square bars 12 mm at 10 cm center to center without hot dip zinc coating without / with ventilator including fabrication, glazing with plain / obscured glass panes 5 mm thick of approved type and quality, all fixtures and fastenings and finishing with one coat of primer complete.	As directed by Engineer in charge.	Square Metre	3096	1168
1261	Doors and Windows	39.68	BDT	Providing and fixing in position powder coated aluminium louvered windows / ventilator of various sizes with powder coating as per detailed drawing and specifications including aluminium frames 80 x 38 mm x 1.22 mm box type, 5 mm thick sheet glass louvers, of approved quality etc. complete.	As directed by Engineer in charge.	Square Metre	3107	1294

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
1262	Doors and Windows	39.69	BDT	Providing and fixing partitions made up of CCTW frame of size 75 mm x 50 mm at 60 cm c/c with 9 mm thick commercial ply and 4mm thick veneer on both sides with French polish etc. complete.	As directed by Engineer in charge.	Square Metre	4611	873
1263	Doors and Windows	39.70	BDT	Providing and fixing Country cut teak wood partly veneered and partly glazed partition with 75 mm x 50 mm frame at 60 cm center and 9 mm thick commercial ply on both sides, decorative veneer of 4 mm thick and plain glass 5 mm thick, including French polishing etc. complete	As directed by Engineer in charge.	Square Metre	3075	761
1264	Doors and Windows	39.71	BDT	Providing and fixing welded mesh of 50 mm x 25 mm and (11 gauge) to Country cut teak wood frame work as per detailed drawing or as directed, iron fastening with one coat of primer, scaffolding, including TW frame work of 70 mm x 75 mm and covering CCTW battens of 45 mm x 10 mm etc. complete.	As directed by Engineer in charge.	Square Metre	1821	251
1265	Doors and Windows	39.72	BDT	Providing and fixing in position anodised extruded aluminum partitions, partly glazed and partly laminated having frame made out of extruded tubular section of size 40 mm x 60 mm with 12 mm thick three layered flat pressed teak wood particle board bonded with BWP type exterior grade phenol formaldehyde synthetic resin conforming to IS 128231990, laminated on both sides, Novateak or equivalent and 5 mm thick selected quality plain/ float glass panels fixed with aluminum glass clips 12 mm x 12 mm and rubber cushioning beading to glass partitions as per approved drawing etc. complete	As directed by Engineer in charge.	Square Metre	3087	980
1266	Doors and Windows	39.73	BDT	Providing and fixing in position extruded aluminium partitions having frame made out of extruded tubular section of size 65 mm x 40 mm with 12 mm thick three layered flat pressed teak wood particle board bonded with BWP type exterior grade phenol formaldehyde synthetic resin conforming to IS 129231990, laminated on both sides, Novateak or equivalent with aluminium glazing clips of size 12 mm x 12 mm (conical) as per drawing etc. complete.	As directed by Engineer in charge.	Square Metre	3397	1161
1267	Doors and Windows	39.74	BDT	Providing and fixing fly proof mesh shutter to ventilator / window using CCTW members of size 45 x 22 mm for frame work and 35 x 22 mm for middle support and fixing fly proof mesh on it and covering TW battens of size 20 x 10 mm including priming and two coats of oil painting to the new wood and steel work and all labour charges including all fixture and fastenings etc. complete	As directed by Engineer in charge.	Square Metre	3129	861
1268	Doors and Windows	39.75	BDT	Providing coloured anodising treatment to aluminium sections of the doors , windows, and ventilators including all the intermediate supports , side supports, screws and all the necessary fixtures with all leads, lifts, fixing charges etc. complete (Complete measurement on actual square meter basis of opening area shall be paid.)	As directed by Engineer in charge.	Square Metre	878	720
1269	Doors and Windows	39.76	BDT	Providing and fixing aluminium grill diamond mesh type DG202 of 7.5 mm thick including fixing in position anodised aluminium frame section of 80 x 38 mm x 1.22 mm size box, cutting to the required size with all wastage , labour, lead lift etc. complete.	As directed by Engineer in charge.	Square Metre	5390	1693
1270	Doors and Windows	39.77	BDT	Providing and fixing in position Mild steel fixed staggered ( Z Type ) Ventilator as per detailed drawing with hot deep zink coating including fabricating with Mild steel 'Z' Section of size 20mm x 25 mm and 3 mm thick at weight 1.42 Kilogram/Running metre, with stainless steel mosquito net of 304 Grade, 4 mm thick float glass as directed by Engineer In charge including necessary welding, grinding, two coats of oil paint etc. complete	As directed by Engineer in charge.	Square Metre	3675	1077
1271	Doors and Windows	39.78	BDT	Providing and fixing in position anodised (as per IS 1868/1982) Aluminium fixed staggered ( Z Type) Ventilator with aluminium rectangular pipe 63 mm x 38.10 mm x 1.22 mm at weight 0.650 Kilogram/Running metre, Aluminium angle of size 15 mm x 15 mm x 1 mm, aluminium channel of 9 mm sizes, S.S. mosquito net of 304 Grade, 4 mm thick float glass per detailed drawing and as directed by Engineer in charge etc. complete.	As directed by Engineer in charge.	Square Metre	3452	1052

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1272	Doors and Windows	39.79	BDT	Providing and fixing welded mesh of 11 gauge wires having mesh size 50 mm x 25 mm including M.S Angle frame of size 35 mm x 35 mm x5 mm in position with oil painting 3 coats etc. complete	As directed by Engineer in charge.	Square Metre	2444	1025
1273	Doors and Windows	39.80	BDT	Providing and Fixing 32 mm thick One piece single moulded puff ABSTRONE BUTADYNE STYRINE (ABS) Door shutter for internal use including toilets made up of outer ABS sheet of 1.2 mm thick having puff insulation of 35 to 40 Kilogram/Cubic Metredensity and 10 mm dia.for steel bars 2 Nos., wooden block to receive fixtures, having M.S. hinges 100 mm length, M.S. handles 150 mm length and 10 mm dia sliding door bolt etc. complete	As directed by Engineer in charge.	Square Metre	4680	1794
1274	Doors and Windows	39.81	BDT	Providing and fixing 30mm thick SOLID PANEL PVC INTERNAL DOOR SHUTTER consisting of frame made out of M.S. tubes of 19 gauge thickness and size of 40mm x 20mm for stiles ,top, lock and bottom rails. M.S. frame shall have a coat of steel primers of approved make and manufacture. M.S. frame shall be covered with 5mm thick heat molded PVC channel of size 30 x 100mm forming stiles, and 5mm thick, 125mm wide PVC sheets for top rail, lock rail and bottom rail on either side, and 15mm (5mm x 3) thick, 20mm wide cross PVC sheet as gap insert for top rail and bottom rail. Paneling of 10 mm thick prelam PVC sheet to be fitted in the M.S. frame welded / sealed to the stiles and rails with 30mm wide x 5mm thick PVC sheet beading on either side, and joined together with solvent cement adhesive etc. An additional 5mm thick PVC strip of 20mm width is to be stuck on the interior side of the C Channel using PVC solvent cement adhesive. including stainless steel fixtures and fastening Complete as per direction of Engineerincharge,manufacturer'sspecification and drawing.	As directed by Engineer in charge.	Square Metre	5868	984
1275	Doors and Windows	39.82	BDT	Providing and fixing 30mm thick PVC FLUSH L DOOR SHUTTER consisting of panel of hollow PVC profile of 20 mm thickness consisting frame made out of M.S. tubes of 19 gauge thickness and size of 19mm x 19mminserted inside the hollow section of stiles rails top ?and bottom rails and two 19x 19 mm MS tubes inserted horizontally inside the hollow profile section using 4/5 mm sheet using screws hollow profile shall be lipped with 10 mm (5mm x2) thick x 20 mm width on stiles and rails using solvent cement. The inner panel shall be laminated with 5mm thick termite proof waterproof plain /prelam PVC sheet using solvent cement on the both sides of the panel including stainless steel fixtures and fastening etc. Complete as per direction of Engineer incharge, manufacturers specification and drawing.	As directed by Engineer in charge.	Square Metre	6020	984
1276	Doors and Windows	39.83	BDT	Providing and fixing partition 4 mm thick Indian teak Veneer on one side and 6mm commercial type plywood on the other side including C.T.W. frame of 70 x 35 mm at 60 cm C/C on both ways, including finishing with French polishing to Veneer face and oil painting / french polishing to other face etc.complete. (without skirting)	As directed by Engineer in charge.	Square Metre	2978	514
1277	Doors and Windows	39.84	BDT	Providing and fixing partitions with 12 mm thick three layered flat pressed teakwood particle board both faces commercial bonded with phenol formal dehyde synthetic resin including CTW vertical 70 x 70 mm and top and bottom rail of 70 x 35 mm and covering batten of 20 x 10 mm at 1.00 metre apart on both ways or as directed including finishing with one coat of primer complete.	BD-T-63 Page Number 518	Square Metre	3332	551
1278	Doors and Windows	39.85	BDT	Providing and fixing partitions with 12 mm thick three layerd flat pressed teakwood commercial board compressed one face and other teak veneer bonded with phenol formaldehyde synthetic resin including CTW vertical 70 x 70 mm and top and bottom rail of 70 x 35 mm and covering batten of 20 x 10 mm at 1.00 metre apart on both ways or as directed including finishing with one coat of primer complete.	BD-T-63 Page Number 518	Square Metre	3963	551

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1279	Doors and Windows	39.86	BDT	Providing and fixing partition with 12mm thick three layered flat pressed veneer teak wood partical board with both faces teak veneer bonded with phenol formaldehyde synthetic resin including C.T.W. vertical 70 x 70 mm and top and bottom rail of 70 x 35 mm and covering battern of 20 x 10 mm at 1.00 metre apart on both ways or as directed including finishing with one coat of primer complete.	BD-T-68 Page Number 520	Square Metre	2614	847
1280	Doors and Windows	39.87	BDT	Providing and fixing in position C.C.T.W. brackets for weather sheds of section 70 x 45 mm with mortise and tenon joinery at 1.2 to 1.5 metre center to center or as directed and teak wood battens of required section, including fixing three numbers of iron nut and bolts to each bracket, necessary scaffolding and two coats of painting to wood work etc. complete.	As directed by Engineer in charge.	Cubic metre	128748	20667
1281	Doors and Windows	39.88	BDT	Providing and fixing 22 B.W.G. plain galvanised iron sheets on top of weather shed, including scaffolding, fixing by means of nut and bolts or as directed etc. complete. (Brackets of 70 x 45 mm to be paid separately)	As directed by Engineer in charge.	Square Metre	1041	221
1282	Doors and Windows	39.89	BDT	Providing and fixing 22 B.W.G. plain FRP sheets on top of weather shed, including scaffolding, fixing by means of nut and bolts or as directed etc. complete. (Brackets of 70 x 45 mm to be paid separately)	As directed by Engineer in charge.	Square Metre	3144	221
1283	Doors and Windows	39.90	BDT	Providing and fixing 4 mm thick plain A.C. sheets (of IS std.) on top of the weather shed including scaffolding, fixing by means of nuts and bolts or as directed etc. complete as per detailed drawing (Brackets of 70 x 45 mm to be paid separately).	As directed by Engineer in charge.	Square Metre	561	221
1284	Doors and Windows	39.92	BDT	Providing and fixing country teak wood runner size 150 x 75 mm over partition, including rounding, fixing in the masonry where necessary beading on sides etc. complete.	As directed by Engineer in charge.	Running metre	1083	154
1285	Doors and Windows	39.93	BDT	Providing and fixing teak wood cover moulding 45 x 20 mm over doors and windows in the required shape and size as per drawing, including all mouldings and finishing with french polishing etc. complete.	As directed by Engineer in charge.	Running metre	155	37
1286	Doors and Windows	39.94	BDT	Providing and fixing aluminium grill (5.13 Kilogram/Square Metre) decorative of various sizes as per detail drawing and specification etc. complete. (Prior permission to be obtained from S.E. before execution of this item) ( 5.13 Kilogram/Square Metre)	As directed by Engineer in charge.	Square Metre	2581	996
1287	Doors and Windows	39.95	BDT	Providing and fixing solid core flush door shutter in double leaf 32 mm thick decorative type of exterior grade as per detailed drawings approved face veneers 3 mm thick on both faces or as directed, all necessary beads, mouldings and lipping, wrought iron hold fasts, chromium plated fixtures and fastenings, with brass mortise lock, chromium plated handles on both sides, and finishing with French Polish etc. complete.	As directed by Engineer in charge.	Square Metre	3291	879
1288	Doors and Windows	39.96	BDT	Providing and fixing Country teak wood Four leaf paneled shutters, 35 mm thick style and rail and 25 mm thick panels without ventilator as per detailed drawing excluding the door frame, stainless steel fixtures and fastening and finishing the wood work with oil painting 3 coats complete	As directed by Engineer in charge.	Square Metre	6986	1292

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<b>SSR 2021-2022 :- Iron Work</b>								
1289	Iron Work	40.01	BDU 1	Providing and fixing mild steel grill work for windows, ventilators etc. 20 Kilogram/Square Metre as per drawing including fixtures, necessary welding and painting with one coats of anticorrosive paint and two coats of oil painting complete.	Bd.U.1 Page Number 537	Square Metre	1845	298
1290	Iron Work	40.02	BDU 1A	Providing and fixing mild steel grill work for windows, ventilators, etc. 15 Kilogram/Square Metre as per drawing including fixtures necessary welding and painting with one coat of anticorrosive paint and two coats of oil painting complete.	Bd.U.1 Page Number 537	Square Metre	1507	298
1291	Iron Work	40.03	BDU 2	Providing and fixing mild steel grill railing 20 Kilogram/sq.m with teak wood hand rail of size 75mm x 60 mm.and sill of 75mm.x 25 mm.and newel posts for staircases, including fabricating, fix-tures, erecting, painting the grill work with one coat of anti-corrosive paint and two coats of oil painting with approved colour and polishing the sill, hand rail and the newel post with french polish.	Bd.U.2 Page Number 537	Square Metre	2890	271
1292	Iron Work	40.04	BDU 2A	Providing and fixing mild steel grill railing 15 Kilogram/sq.m with Ghanateak wood hand rail of size 75mm x 60 mm and sill of 75mm.x 25mm and newel posts for staircases, including fabricating, fixtures, erecting, painting the grill work with one coat of anticorrosive paint and two coats of oil painting with approved colours and polishing the sill, hand rail and the newel post with french polish.	Bd.U.2 Page Number 537	Square Metre	2582	271
1293	Iron Work	40.05	BDW	Providing and erecting Y type barbed wire fencing with seven rows of wire with 2.45 mm dia G.I. pipe ( Rezan/ concentiDeleted ire 0.75 mm dia ) with hot dip and G.I. coated hooks as per drawing supported on M.S. angle 50 x 50 x 6 mm at 2.5 mtr. c/c including fixing and fastening with wire, painting M.S. angles with one coat of red lead primer and two coat of oil paint etc. complete.	As directed by Engineer in charge.	Running Metre	824	166
1294	Iron Work	40.06	BDW	Providing and fixing 40mm diameter and 1.5 mm thick Stainless steel hand railing in S.S.304 Grade including fabricating ,fixtures, errecting, necessary welding, grinding, finishing, buffing to stainless steel pipe etc. complete	As directed by Engineer Incharge	Running Metre	2152	926
1295	Iron Work	40.07	BDW	Providing and fixing 900mm high S.S.304 Grade Stainless steel railing with 40mm diameter and 1.5mm thick at top,40mm diameter and 1.5mm thick vertical supports spaced at 1.5m center to center and 8mm thick toughened glass including fabricating ,fixtures, errecting , necessary welding , grinding , finishing, buffing to stainless steel pipe etc. complete	As directed by Engineer Incharge	Running Metre	4004	901
1296	Iron Work	40.08	BDW	Providing and Fixing mat finish stainless steel (of 302 grade ) railing with top pipe of 50 mm dia. and vertical pipe of 38 mm dia at 0.60 m c/c or as required and horizontal pipes of 25 mm dia in three rows, all pipes of 2 mm thick including buffing,fabricating fixtures and fastening including pipe base of appropriate diameter and ball base of 75 mm dia above newel post of 75 mm diameter etc. complete (Prior approval of sample and brand by Ex.Engineer is necessary before use)	As directed by Engineer Incharge	Square Metre	3240	1009
1297	Iron Work	40.09	BDW	Providing and fixing mild steel grill railing weighing 15Kilogram/ Square Metre. with teak wood hand rail of size 75mm.x 60mm. and sill 75mm.x 25mm.and posts for verandah including fabricating, fixtures, erecting and painting the grill work with one coat of anticorrosive paint and two coats of oil paint and polishing the grill, hand rail with French polish. Spec. Number : Bd.U.3	As directed by Engineer Incharge	Square Metre	2461	748



Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
1298	Iron Work	40.10	BDW	Providing and fixing mild steel grill railing weighing 15Kilogram/ Square Metre. with PVC handrail cover and newel post for staircases, including fabricating, fixtures, drilling holes in concrete / other surface, erecting the grill work, necessary welding, fixing by nuts and bolts, fixing PVC handrail cover, with one coat of anticorrosive paint and two coats of oil painting with approved colour and shade, remaking the damaged surface, cleaning, etc. complete. Spec. Number : As directed by Engineer in charge.	As directed by Engineer Incharge	Square Metre	2114	748
1299	Iron Work	40.11	BDW	Providing and fixing mild steel grill railing weighing 20Kilogram/ Square Metre. with PVC handrail cover and newel post for staircases, including fabricating, fixtures, drilling holes in concrete / other surface, erecting the grill work, necessary welding, fixing by nuts and bolts, fixing PVC handrail cover, with one coat of anticorrosive paint and two coats of oil painting with approved colour and shade, remaking the damaged surface, cleaning, etc. complete. Spec. Number : As directed by Engineer in charge.	As directed by Engineer Incharge	Square Metre	2660	748

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<b>SSR 2021-2022 :-Water Supply and Sanitary Fitting</b>								
1300	Water Supply and Sanitary Fitting	41.01	BDV 1	Providing and laying cast iron pipes of B class of 80mm diameter with sockets and spigot ends/ flanges and cast centrifugally / vertically including specials, laying pipes and back filling the trench complete including excavation.	Bd.V.1 Page Number 547	Running Metre	1119	95
1301	Water Supply and Sanitary Fitting	41.02	BDV 1A	Providing and laying cast iron pipes of B class of 100mm diameter with sockets and spigot ends/ flanges and cast centrifugally/vertically including specials, laying pipes and back filling the trench complete including excavation.	Bd.V.1 Page Number 547	Running Metre	1497	119
1302	Water Supply and Sanitary Fitting	41.03	BDV 1B	Providing and laying cast iron pipes of B class of 150mm diameter with sockets and spigot ends/ flanges and cast centrifugally/ vertically including specials, laying pipes and back filling the trench complete including excavation.	Bd.V.1 Page Number 547	Running Metre	2920	434
1303	Water Supply and Sanitary Fitting	41.04	BDV 2	Providing and making lead joints for 80mm diameter cast iron pipe line including lead and testing.	Bd.V.2 Page Number 549	Number	724	398
1304	Water Supply and Sanitary Fitting	41.05	BDV 2A	Providing and making lead joints for 100mm diameter cast iron pipes line including lead and testing.	Bd.V.2 Page Number 549	Number	790	398
1305	Water Supply and Sanitary Fitting	41.06	BDV 2B	Providing and making lead joints for 150mm diameter cast iron pipe line including lead and testing	Bd.V.2 Page Number 549	Number	863	398
1306	Water Supply and Sanitary Fitting	41.07	BDV 3	Providing and making flanged connection for the 80mm diameter cast iron pipe line including painting rubber insertion, nuts and bolts etc. complete.	Bd.V.3 Page Number 550	Number	218	82
1307	Water Supply and Sanitary Fitting	41.08	BDV 3A	Providing and making flanged connection for the 100mm diameter cast iron pipe line including painting rubber insertion, nuts and bolts etc. complete.	Bd.V.3 Page Number 550	Number	275	82
1308	Water Supply and Sanitary Fitting	41.09	BDV 3B	Providing and making flanged connection for the 150mm diameter cast iron pipe line including painting rubber insertion, nuts and bolts etc. complete.	Bd.V.3 Page Number 550	Number	326	122
1309	Water Supply and Sanitary Fitting	41.10	BDV 5	Providing and fixing on walls/ ceiling/ floors, 15 mm dia. heavy grade having embossed as ISI Mark galvanised iron pipes weight of 1.48 Kilogram/metre with necessary fittings. remaking good the demolished portion and applying primer of anti-corrosive oil paint 2 coats Including necessary scaffolding and removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	Bd.V.5 Page Number 551	Running Metre	405	124
1310	Water Supply and Sanitary Fitting	41.11	BDV 5	Providing and fixing on walls/ ceiling/ floors 20 mm dia. heavy grade having embossed as ISI Mark galvanised iron pipes of 1.93 Kilogram/meter with necessary fitting remaking good the demolished portion and applying primer of anti-corrosive oil paint, 2 coats Including necessary scaffolding and removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	Bd.V.5 Page Number 551c	Running Metre	457	170
1311	Water Supply and Sanitary Fitting	41.12	BDV 5	Providing and fixing on walls/ ceiling/ floors, 25 mm dia. heavy grade having embossed as ISI Mark galvanised iron pipes weight of 3.01 Kilogram/meter with necessary fittings . remaking good the demolished portion and applying primer of anti-corrosive oil paint 2 coats Including necessary scaffolding and removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	Bd.V.5 Page Number 551	Running Metre	580	124

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
1312	Water Supply and Sanitary Fitting	41.13	BDV 5	Providing and fixing on walls/ ceiling/ floors, 32 mm dia. heavy grade having embossed as ISI Mark galvanised iron pipes weight of 3.89 Kilogram/meter with necessary fittings . remaking good the demolished portion and applying primer of anti-corrosive oil paint 2 coats Including necessary scaffolding and removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	Bd.V.5 Page Number 551	Running Metre	624	127
1313	Water Supply and Sanitary Fitting	41.14	BDV 5	Providing and fixing on walls/ ceiling/ floors, 40 mm dia. heavy grade having embossed as ISI Mark galvanised iron pipes weight of 4.49 Kilogram/meter with necessary fittings and remaking good the demolished portion and applying primer of anti-corrosive oil paint 2 coats Including necessary scaffolding and removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	Bd.V.5 Page Number 551	Running Metre	688	128
1314	Water Supply and Sanitary Fitting	41.15	BDV 5	Providing and fixing on walls/ ceiling/ floors, 50 mm dia heavy grade having embossed as ISI Mark galvanised iron pipes weight of 6.33 Kilogram/meter with necessary fittings.and remaking good the demolished portion and primer of anti corrosive oil paint 2 coats Including necessary scaffolding and removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	Bd.V.5Page Number 551	Running Metre	884	129
1315	Water Supply and Sanitary Fitting	41.16	BDV 5	Providing and fixing on walls/ ceiling/ floors, 80 mm dia.heavy grade having embossed as ISI Mark galvanised iron pipes weight of 10.15 Kilogram/meter with necessary fittings. and remaking good the demolished portion and applying primer of anti-corrosive oil paint 2 coats Including necessary scaffolding and removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	Bd.V.5 Page Number 551	Running Metre	1409	133
1316	Water Supply and Sanitary Fitting	41.17	BDV 5	Providing and fixing on walls/ ceiling/ floors, 100 mm dia.heavy grade having embossed as ISI Mark galvanised iron pipes weight of 14.74 Kilogram/meter with necessary fittings. and remaking good the demolished portion and applying primer of anti-corrosive oil paint 2 coats Including necessary scaffolding and removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	Bd.V.5 Page Number 551	Running Metre	1576	136
1317	Water Supply and Sanitary Fitting	41.18	BDV 5	Providing and laying in trenches 15 mm dia. medium grade having embossed as ISI Mark galvanised iron pipes of 1.25 Kilogram/meter necessary fitting remaking good the demolished portion with filling trenches and with primer of anti-corrosive oil paint, 2 coats Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	Bd.V.5 Page Number 551	Running Metre	408	176
1318	Water Supply and Sanitary Fitting	41.19	BDV 5	Providing and laying in trenches 20 mm dia. medium grade having embossed as ISI Mark galvanised iron pipes ?of 1.63 Kilogram/meter necessary fitting remaking good the demolished portion with filling trenches and with primer of anti-corrosive oil paint, 2 coats Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	Bd.V.5 Page Number 551	Running Metre	463	220
1319	Water Supply and Sanitary Fitting	41.20	BDV 5	Providing and laying in trenches 25 mm dia. medium grade having embossed as ISI Mark galvanised iron pipes ?of 2.49 Kilogram/meter necessary fitting remaking good the ?demolished portion with filling trenches and with primer of anti-corrosive oil paint, 2 coats Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	Bd.V.5 Page Number 551	Running Metre	477	195
1320	Water Supply and Sanitary Fitting	41.21	BDV 5	Providing and laying in trenches 32 mm dia.medium grade having embossed as ISI Mark galvanised iron pipes ?of 3.20 Kilogram/meter necessary fitting remaking good the demolished portion with filling trenches and with primer of anti-corrosive oil paint, 2 coats Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	Bd.V.5 Page Number 551	Running Metre	554	212

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1321	Water Supply and Sanitary Fitting	41.22	BDV 5	Providing and laying in trenches 40 mm dia. medium grade having embossed as ISI Mark galvanised iron pipes of 3.68 Kilogram/meter necessary fitting remaking good the demolished portion with filling trenches and with primer of anti-corrosive oil paint, 2 coats Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	Bd.V.5 Page Number 551	Running Metre	630	227
1322	Water Supply and Sanitary Fitting	41.23	BDV 5	Providing and laying in trenches 50 mm dia. medium grade having embossed as ISI Mark galvanised iron pipes of 5.17 Kilogram/meter necessary fitting remaking good the demolished portion with filling trenches and with primer of anti-corrosive oil paint, 2 coats Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	Bd.V.5 Page Number 551	Running Metre	770	235
1323	Water Supply and Sanitary Fitting	41.24	BDV 5	Providing and laying in trenches 80 mm dia. medium grade having embossed as ISI Mark galvanised iron pipes of 8.57 Kilogram/meter necessary fitting remaking good the demolished portion with filling trenches and with primer of anti-corrosive oil paint, 2 coats Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	Bd.V.5 Page Number 551	Running Metre	1070	238
1324	Water Supply and Sanitary Fitting	41.25	BDV 5	Providing and laying in trenches 100 mm dia. medium grade having embossed as ISI Mark galvanised iron pipes of 12.43 Kilogram/meter necessary fitting remaking good the demolished portion with filling trenches and with primer of anti-corrosive oil paint , 2 coats Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	Bd.V.5 Page Number 551	Running Metre	1350	262
1325	Water Supply and Sanitary Fitting	41.26	BDV 7	Providing and fixing 15mm diameter water meter with non-return valve including strainer, sockets/ union nut including water meter box making locking arrangement and lock. [Without chamber].	Bd.V.7 Page Number 554	Number	3396	369
1326	Water Supply and Sanitary Fitting	41.27	BDV 7	Providing and fixing 20mm diameter water meter with non-return valve including strainer, sockets/ union nut including water meter box making locking arrangement and lock. (without chamber).	Bd.V.7 Page Number 554	Number	4557	369
1327	Water Supply and Sanitary Fitting	41.28	BDV 7	Providing and fixing 25mm diameter water meter with non-return valve including strainer, sockets/ union nut and including water meter box making locking arrangement and lock. [Without chamber].	Bd.V.7 Page Number 554	Number	6373	369
1328	Water Supply and Sanitary Fitting	41.29	BDV 7	Providing and fixing 40mm diameter water meter with non-return valve including strainer,sockets/ union nut and including water meter box making locking arrangements and lock. [Withoutchamber].	Bd.V.7 Page Number 554	Number	10804	1107
1329	Water Supply and Sanitary Fitting	41.30	BDV 7	Providing and fixing 50mm diameter water meter with non-return valve including strainer,sockets/ union nut and including water meter box making locking arrangement and lock. [without chamber]	Bd.V.7 Page Number 554	Number	13954	1107
1330	Water Supply and Sanitary Fitting	41.31	BDV 7	Providing and fixing 80mm diameter water meter with non-return valve including strainer, sockets/ union nut and including water meter box making locking arrangement and lock.[Without chamber].	Bd.V.7 Page Number 554	Number	23434	1476
1331	Water Supply and Sanitary Fitting	41.32	BDV 7	Providing and fixing 100mm diameter water meter with non-return valve including strainer, sockets/ union nut and including water meter box making locking arrangements and lock. [Without chamber].	Bd.V.7 Page Number 554	Number	32922	1476
1332	Water Supply and Sanitary Fitting	41.40	BDV 8	Providing and fixing 15 mm dia. screw down bib/ stop tap of brass including necessary socket union nut complete.	Bd.V.8 Page Number 554	Number	637	99

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1333	Water Supply and Sanitary Fitting	41.41	BDV 8	Providing and fixing 20 mm dia. screw down bib/ stop tap of brass including necessary socket union nut complete.	Bd.V.8 Page Number 554	Number	919	99
1334	Water Supply and Sanitary Fitting	41.42	BDV 8	Providing and fixing 25 mm dia. screw down bib/ stop tap of brass including necessary socket union nut complete.	Bd.V.8 Page Number 554	Number	1292	99
1335	Water Supply and Sanitary Fitting	41.43	BDV 9	Providing and fixing screw down 15 mm dia. wheeled stop tap of brass including necessary sockets/union nut complete	Bd.V.9 Page Number 555	Number	468	99
1336	Water Supply and Sanitary Fitting	41.44	BDV 9	Providing and fixing screw down for 20 mm dia. wheeled stop tap of brass including necessary sockets/union nut complete.	Bd.V.9 Page Number 555	Number	605	99
1337	Water Supply and Sanitary Fitting	41.45	BDV 9	Providing and fixing screw down for 25 mm dia. wheeled stop tap of brass including necessary sockets/union nut complete.	Bd.V.9 Page Number 555	Number	785	99
1338	Water Supply and Sanitary Fitting	41.46	BDV 9	Providing and fixing screw down for 32 mm dia. wheeled stop tap of brass including necessary sockets/union nut complete.	Bd.V.9 Page Number 555	Number	877	111
1339	Water Supply and Sanitary Fitting	41.47	BDV 9	Providing and fixing screw down for 40 mm dia. wheeled stop tap of brass including necessary sockets/union nut complete.	Bd.V.9 Page Number 555	Number	1059	111
1340	Water Supply and Sanitary Fitting	41.48	BDV 9	Providing and fixing screw down for 50 mm dia. wheeled stop tap of brass including necessary sockets/ union nut complete.	Bd.V.9 Page Number 555	Number	1798	133
1341	Water Supply and Sanitary Fitting	41.49	BDV 9	Providing and fixing screw down for 65 mm dia. wheeled stop tap of brass including necessary sockets/union nut complete.	Bd.V.9 Page Number 555	Number	2478	133
1342	Water Supply and Sanitary Fitting	41.50	BDV 9	Providing and fixing screw down for 80 mm. dia. wheeled stop tap of brass including necessary sockets/union nut complete.	Bd.V.9 Page Number 555	Number	4110	133
1343	Water Supply and Sanitary Fitting	41.51	BDV 12	Providing and fixing 100 mm dia. chromium plated brass showers rose to 15mm dia. supply pipe including necessary bend and socket complete.	Bd.V. 12 Page Number 556	Number	476	99
1344	Water Supply and Sanitary Fitting	41.52	BDV 14	Providing and fixing 15mm diameter concussion push button type brass/gun metal self- closing tap including necessary socket complete.	Bd.V.14 Page Number 557	Number	422	15
1345	Water Supply and Sanitary Fitting	41.53	BDV 14	Providing and fixing 25mm diameter concussion push button type brass/gun metal self- closing tap including necessary socket complete	Bd.V. 14 Page Number 557	Number	492	148
1346	Water Supply and Sanitary Fitting	41.54	BDV	Providing and fixing push cock (Self closing tap) symet type of 15 mm dia. including necessary socket, testing etc. complete.	As directed by Engineer- in- charge.	Number	418	148
1347	Water Supply and Sanitary Fitting	41.55	BDV	Providing and fixing push cock (Self closing tap) symet type of 20 mm dia. including necessary socket, testing etc. complete.	As directed by Engineer- in- charge.	Number	429	148

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1348	Water Supply and Sanitary Fitting	41.56	BDV 19	Providing and fixing 45 cm wide mild steel ladder of 40mm x 6 mm mild steel flat stringers and steps of 18 mm dia. mild steel bar for water tank including fixing it in (1:2:4) M-15 cement concrete block 60cm x 30cm x 30cm and painting the ladder complete. (Anti Corossive Paint)	Bd. V. 19 Page Number 559	Running Metre	1151	635
1349	Water Supply and Sanitary Fitting	41.57	BDV 23	Providing and fixing White Glazed Earthenware full stall type Urinal with P.V.C. flushing cistern of 5 liters capacity with fitting, inlet pipes and stop tap, brackets for fixing the cistern, 32 mm dia. P.V.C flush pipe with fittings and flushing arrangement including lead soil pipe, lead trap, soil pipe connection up to the outside face of the wall	Bd.V.23 Page Number 562	Number	8410	1144
1350	Water Supply and Sanitary Fitting	41.58	BDV 23	Providing and fixing White Glazed Earthenware Squatting plate (Ladies Urinal) with P.V.C. flushing cistern of 5 liters capacity with fitting, inlet pipes and stop tap, brackets for fixing the cistern, 32 mm dia. P.V.C flush pipe with fittings and flushing arrangement including lead soil pipe, lead trap, soil pipe connection up to the outside face of the wall	Bd.V.23 Page Number 562	Number	3986	1088
1351	Water Supply and Sanitary Fitting	41.59	BDV 23	Providing and fixing coloured glazed earthenware full stall type Urinal with P.V.C. flushing cistern of 5 liters capacity with fitting, inlet pipes and stop tap brackets for fixing the cistern 32mm dia. P.V.C. flush pipe with fittings and flushing arrangement including lead soil pipe, lead trap soil pipe connection up to the outside face of the wall.	Bd.V.23 Page Number 562	Number	9507	1531
1352	Water Supply and Sanitary Fitting	41.60	BDV 26	Providing and fixing white glazed earthenware lipped flat back/corner type Urinal with PVC 5 liters flushing cistern with fittings, inlet pipe with stop tap, brackets for fixing the cistern, 32 mm diameter P.V.C. flush pipe with fitting including lead soil pipe, lead trap and soil pipe connection up to the outside face of wall.	Bd.V.26 Page Number 564	Number	4448	1088
1353	Water Supply and Sanitary Fitting	41.61	BDV 27	Providing and fixing coloured glazed earthenware lipped flat back/corner type urinal with PVC 5 liters flushing cistern with fittings, capacity with fittings, inlet pipe and stop tap, brackets for fixing the cistern, P.V.C. flush pipe with fittings including lead soil pipe, lead trap and soil pipe connection up to the outside face of the wall.	Bd.V.27 Page Number 564	Number	4661	1088
1354	Water Supply and Sanitary Fitting	41.62	BDV 29	Providing and laying 100 mm dia. half round white glazed earthenware pipes in 1:5:10 cement concrete bedding including bends, etc. complete.	Bd.V.29 Page Number 565	Running Metre	413	67
1355	Water Supply and Sanitary Fitting	41.63	BDV 30	Providing and fixing white glazed earthenware Wash Hand Basin of 55cm. x 40 cm. size including cold water pillar tap/cold and hot water pillar tap brackets, rubber plugs and brass chain, stop tap and necessary pipe connections including P.V.C. waste pipe and trap up to the outside face of the wall. Making good the damaged surface, testing etc. complete.	Bd.V.30 Page Number 565	Number	5318	1826
1356	Water Supply and Sanitary Fitting	41.64	BDV 30	Providing and fixing white glazed earthenware Wash Hand Basin of 45cm x 30cm size including cold water pillar tap/cold and hot water pillar tap brackets, rubber plugs and brass chain, stop tap and necessary pipe connection including P.V.C. waste pipe and trap up to the outside face of the wall. Making good the damaged surface, testing etc. complete.	Bd.V.30 Page Number 565	Number	5342	1826
1357	Water Supply and Sanitary Fitting	41.65	BDV 30	Providing and fixing white glazed earthenware Wash Hand Basin of 63cm x 45cm size including Bib cock stop tap brass heavy 15mm, brackets, rubber plugs and brass chain, stop tap and necessary pipe connection including P.V.C. waste pipe and trap up to the outside face of the wall.	Bd.V.30 Page Number 565	Number	6483	1826
1358	Water Supply and Sanitary Fitting	41.66	BDV 30	Providing and fixing coloured glazed earthenware Wash Hand Basin of 55cm x 40 cm size including cold water pillar tap/cold and hot water pillar tap brackets, rubber plugs and brass chain, stop tap and necessary pipe connection including P.V.C. waste pipe and trap up to the outside face of the wall. Making good the damaged surface, testing etc. complete.	Bd.V.30 Page Number 565	Number	5558	1826

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1359	Water Supply and Sanitary Fitting	41.67	BDV 30	Providing and fixing coloured glazed earthenware Wash Hand Basin of 45 cm x 30 cm size including cold water pillar tap/cold and hot water pillar tap brackets, rubber plugs and brass chain, stop tap and necessary pipe connection including P.V.C. waste pipe and trap up to the outside face of the wall. Making good the damaged surface, testing etc. complete.	Bd.V.30 Page Number 565	Number	5161	1826
1360	Water Supply and Sanitary Fitting	41.69	BDV	Providing and fixing White glazed with bottle trap earthenware Wash Hand Basin of 55x40 cm size including cold water piller taps, brackets, rubber plugs and brass chain, stop tap, chromium plate bottle trap and necessary pipe connections including UPAC waste pipe and trap upto the outside face of the wall, making good the damaged surface, testing etc. complete.	BDV.-30 Page Number616	Number	6577	1732
1361	Water Supply and Sanitary Fitting	41.70	BDV	Providing and fixing White glazed with bottle trap earthenware Wash Hand Basin of 63x45 cm size including cold water piller taps, brackets, rubber plugs and brass chain, stop tap, chromium plate bottle trap and necessary pipe connections including UPAC waste pipe and trap upto the outside face of the wall, making good the damaged surface, testing etc. complete.	BDV.-30 Page Number616	Number	7455	1732
1362	Water Supply and Sanitary Fitting	41.72	BDV	Providing and fixing Coloured glazed with bottle trap earthenware Wash Hand Basin of 55x40 cm. size including cold water piller taps, brackets, rubber plugs and brass chain, stop tap, chromium plate bottle trap and necessary pipe connections including UPAC waste pipe and trap upto the outside face of the wall, making good the damaged surface, testing etc. complete.	BDV.-30 Page Number616	Number	4805	1384
1363	Water Supply and Sanitary Fitting	41.74	BDV 30	Providing and fixing coloured glazed earthenware Wash Hand Basin of 63 cm x 45 cm size including cold water pillar tap/cold and hot water pillar tap brackets, rubber plugs and brass chain, stop tap and necessary pipe connection including P.V.C. waste pipe and trap up to the outside face of the wall.	Bd.V.30 Page Number 565	Number	5637	1476
1364	Water Supply and Sanitary Fitting	41.75	BDV 31	Providing and fixing white glazed earthenware sink 600mm x 200mm x 450mm including all connection of the G.I. supply and P.V.C. waste pipes up to the outside face of the wall, cold water chromium plated screw down bib tap, rolled steel or C.I. brackets, rubber plug with chain and stop tap complete.	Bd.V.31 Page Number566	Number	5122	1732
1365	Water Supply and Sanitary Fitting	41.76	BDV 31	Providing and fixing white glazed earthenware sink 450mm x 200mm x 300mm including all connection of the G.I. supply and lead waste pipes up to the outside face of the wall, cold water chromium plated screw down bib tap, rolled steel or C.I. brackets, rubber plug with chain and stop tap complete.	Bd.V.31 Page Number566	Number	3983	1732
1366	Water Supply and Sanitary Fitting	41.77	BDV	Providing and fixing Autoclosing pillar cock of pressmatic tap of approved make or equivalent including all fixtures, fittings etc. complete.	As directed by Engineer in charge.	Number	2314	369
1367	Water Supply and Sanitary Fitting	41.78	BDV	Providing and constructing granite kitchen platform with fixing of stainless steel sink 600 mm x 450 mm size as per detailed drawing including vertical both side polished kadappah stone 25 to 30 mm thick supports with kadappah top 35 to 40 mm thick and polished granite 16 to 20 mm top with side strips of granite at front and both sides of platform raised with two vertical granite supports 15 cm height and top granite of 75 x 40 cm including cutting, opening for sink of required size in kadappah as well as granite etc. complete. (Platform top size 5.00 m x 0.60 m and height is 0.75 m)	As directed by Engineer in charge.	Square Metre	9675	1317
1368	Water Supply and Sanitary Fitting	41.79	BDV 32	Providing and fixing 8 cm C.I. Nahani Trap including C.I. grating bend and piece of C.I. pipe upto the outside face of the wall complete.	Bd.V.32 Page Number567	Number	972	295
1369	Water Supply and Sanitary Fitting	41.80	BDV 32	Providing and fixing 10cm C.I. Nahani Trap including C.I. grating bend and piece of C.I. pipe upto the outside face of the wall complete.	Bd.V.32 Page Number567	Number	1104	295

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
<b>SSR 2021-2022 :-Water Supply and Sanitary Fitting</b>								
1370	Water Supply and Sanitary Fitting	42.01	BDV 37	Providing and laying 100mm diameter half round salt glazed stoneware pipes in brick masonry including fittings such as bends, tees, single junction, necessary excavation and jointing complete.	Bd.V.37, Page Number 571	Running Metre	467	123
1371	Water Supply and Sanitary Fitting	42.02	BDV 38	Providing and fixing 15cm x 10cm salt glazed stoneware gully trap in cement concrete 1:4:8 outside the building including cast iron grating in the sink, connecting glazed stoneware pipe, brick masonry chamber with cast iron lid and cast iron grating for the gully trap.	Bd.V.38, Page Number 572	Number	1374	295
1372	Water Supply and Sanitary Fitting	42.03	BDV 39	Providing and laying 100 mm dia salt glazed stoneware pipe including fittings such as bends, tees, single junction, double junctions laying, jointing (including excavation and refilling the trenches) complete.	Bd.V.39, Page Number 573	Running Metre	323	146
1373	Water Supply and Sanitary Fitting	42.04	BDV 39	Providing and laying for 150 mm dia salt glazed stoneware pipe including fittings Such as bends, tees, single junction, double junctions laying, jointing (including excavation and refilling the trenches) complete.	Bd.V.39, Page Number 573	Running Metre	394	146
1374	Water Supply and Sanitary Fitting	42.05	BDV 39	Providing and laying for 225mm dia. salt glazed S.W. Pipe including fitting such as bends, tees, single junction, double junctions laying, jointing (including excavation and refilling the trenches) complete	Bd.V.39, Page Number 573	Running Metre	433	146
1375	Water Supply and Sanitary Fitting	42.06	BDV 41	Providing and laying concrete pipes of I.S.NP. class of 100mm diameter in proper line, level and slope including necessary collars, excavation, laying, fixing with collars in cement mortar 1:1 and refilling the trench complete.	Bd.V.41, Page Number 573	Running Metre	488	244
1376	Water Supply and Sanitary Fitting	42.07	BDV 41	Providing and laying concrete pipes of I.S.NP. class of 150mm diameter in proper line, level and slope including necessary collars, excavation, laying, fixing with collars in cement mortar 1:1 and refilling the trench complete.	Bd.V.41, Page Number 573	Running Metre	515	267
1377	Water Supply and Sanitary Fitting	42.08	BDV 41	Providing and laying concrete pipes of I.S.NP. class of 225mm diameter in proper line, level and slope including necessary collars, excavation, laying, fixing with collars in cement mortar 1:1 and refilling the trench complete.	Bd.V.41, Page Number 573	Running Metre	544	267
1378	Water Supply and Sanitary Fitting	42.09	BDV 41	Providing and laying concrete pipes of I.S.NP. class of 300mm diameter in proper line, level and slope including necessary collars, excavation, laying, fixing with collars in cement mortar 1:1 and refilling the trench complete.	Bd.V.41, Page Number 573	Running Metre	727	276
1379	Water Supply and Sanitary Fitting	42.10	BDV 43	Providing and constructing Brick Masonry Inspection Chamber 60cm x 45cm x 90cm including 1:4:8 cement concrete foundation 1:2:4 cement concrete channels half round G.S.W. pipes, Brick Masonry, plastering from inside and airtight C. I. cover of 75Kilogramwith lid and frame fixed in cement concrete.	Bd.V.43, Page Number 574	Number	12348	1546
1380	Water Supply and Sanitary Fitting	42.11	BDV 43	Providing and constructing Brick Masonry Inspection Chamber 90cm x 45cm x 90cm including 1:4:8 cement concrete foundation 1:2:4 cement concrete channels half round G.S.W.pipes, Brick Masonry, plastering from inside and C.I. lid cover of 75Kilogramwith lid and frame fixed in cement concrete.	Bd.V.43 Page Number 574	Number	13229	1764
1381	Water Supply and Sanitary Fitting	42.12	BDV 43	Providing and constructing Brick Masonry Inspection Chamber 60cm x 45cm x 90cm including 1:4:8 cement concrete foundation 1:2:4 cement concrete channels half round G.S.W. pipes, Brick Masonry, plastering from inside and with frame fixed in cement concrete with R.C.C. Cover medium duty 140Kilogramwith frame etc complete.	Bd.V.43, Page Number 574	Number	7818	1554
1382	Water Supply and Sanitary Fitting	42.13	BDV 43	Providing and constructing Brick Masonry Inspection Chamber 90cm x 45cm x 90cm including 1:4:8 cement concrete foundation 1:2:4 cement concrete channels half round G.S.W.pipes, Brick Masonry, plastering from inside and with frame fixed in cement concrete with R.C.C. Cover medium duty 140Kilogramwith frame etc complete.	Bd.V.43, Page Number 574	Number	9330	1779



Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
1383	Water Supply and Sanitary Fitting	42.14	BDV 44	Providing and constructing Brick Masonry inspection Chamber 90cm x 45cm including 1:4:8 C.C foundation, 1:2:4 C.C.channels/half round glazed stoneware pipe channel, salt glazed stone-ware intercepting trap with rodding pipe set in 1:4:8 cement concrete block, brick masonry plastering inside and Outside, with C.I. lead cover of 75Kilogramwith frame fixed in cement concrete.	Bd.V.44, Page Number 575	Number	13815	1764
1384	Water Supply and Sanitary Fitting	42.15	BDV 44	Providing and constructing Brick Masonry inspection trap Chamber 90cm x 45cm including 1:4:8 C.C foundation, 1:2:4 C.C.channels/half round glazed stoneware pipe channel, salt glazed stone-ware intercepting trap with rodding pipe set in 1:4:8 cement concrete block, brick masonry plastering inside and Outside, fixed in cement concrete with R.C.C. Cover medium duty 140 Kilogram. etc complete	Bd.V.44, Page Number 575	Number	9810	1764
1385	Water Supply and Sanitary Fitting	42.16	BDV	Providing and constructing Brick Masonry Inspection Chamber 60cm x 45cm With R.C.C. raft in B.C. soil area including cost of reinforcement, 1:2:4 cement concrete channels half round G.S.W. pipes, Brick Masonry, plastering from inside and airtight 75 mm thick R.C.C. cover medium duty 100Kilogrametc. complete.	Bd.V.43 Page Number 574	Number	7730	2436
1386	Water Supply and Sanitary Fitting	42.17	BDV	Providing and constructing Brick Masonry Inspection Chamber 90cm x 45cm With R.C.C. raft in B.C. soil area including cost of reinforcement, 1:2:4 cement concrete channels half round G.S.W. pipes, Brick Masonry, plastering from inside and airtight with 75 mm thick R.C.C. cover medium duty 140Kilogrametc. complete.	Bd.V.43 Page Number 574	Number	9388	2900
1387	Water Supply and Sanitary Fitting	42.18	BDV 45	Providing and fixing hume pipe septic tank 900mm diameter with vent pipe and cap including necessary (including excavation and laying)	Bd.V.45, Page Number 575	Number	15690	3635
1388	Water Supply and Sanitary Fitting	42.19	BDV 46	Providing soak pit of size 120cm x 120cm x 120cm including excavating and filling with brick-bats.	Bd.V.46, Page Number 576	Number	2683	1051
1389	Water Supply and Sanitary Fitting	42.20	BDV	Providing and fixing 450mm x 550mm size superior type Belgium mirror with 16mm dia. nickel plated towel rod etc. complete.	As directed by Engineer in charge.	Number	787	178
1390	Water Supply and Sanitary Fitting	42.21	BDV 60	Providing, laying and fixing P.V.C. pipe of 15mm dia. with fittings such as bends, tees, reducers, clamps, etc. including necessary excavation, trench filling etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	As directed by Engineer in charge.	Running Metre	77	30
1391	Water Supply and Sanitary Fitting	42.22	BDV 60	Providing, laying and fixing P.V.C. pipe of 20mm dia. with fittings such as bends, tees, reducers, clamps, etc. including necessary excavation, trench filling etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	As directed by Engineer in charge.	Running Metre	115	30
1392	Water Supply and Sanitary Fitting	42.23	BDV 60	Providing, laying and fixing P.V.C. pipe of 25mm dia. with fittings such as bends, tees, reducers, clamps, etc. including necessary excavation, trench filling etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	As directed by Engineer in charge.	Running Metre	145	30
1393	Water Supply and Sanitary Fitting	42.24	BDV 60	Providing, laying and fixing P.V.C. pipe of 32mm dia. with fittings such as bends, tees, reducers, clamps, etc. including necessary excavation, trench filling etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	As directed by Engineer in charge.	Running Metre	196	30

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
1394	Water Supply and Sanitary Fitting	42.25	BDV 60	Providing, laying and fixing P.V.C. pipe of 40mm dia. with fittings such as bends, tees, reducers, clamps, etc. including necessary excavation, trench filling etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	As directed by Engineer in charge.	Running Metre	281	37
1395	Water Supply and Sanitary Fitting	42.26	BDV 60	Providing, laying and fixing P.V.C. pipe of 50mm dia. with fittings such as bends, tees, reducers, clamps, etc. including necessary excavation, trench filling etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	As directed by Engineer in charge.	Running Metre	417	44
1396	Water Supply and Sanitary Fitting	42.27	BDV 60	Providing, laying and fixing P.V.C. pipe of 75mm dia. with fittings such as bends, tees, reducers, clamps, etc. including necessary excavation, trench filling etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	As directed by Engineer in charge.	Running Metre	390	44
1397	Water Supply and Sanitary Fitting	42.28	BDV 60	Providing, laying and fixing P.V.C. pipe of 110 mm. dia. with fittings such as bends, tees, reducers, clamps, etc. including necessary excavation, trench filling etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	As directed by Engineer in charge.	Running Metre	535	44
1398	Water Supply and Sanitary Fitting	42.29	BDV	Providing and fixing partition with kadappa stone of all sizes and 25 mm thick polished on both side and edges to original including fixing in position in cement mortar 1:4 curing polish-ing, cleaning etc complete.	As directed by Engineer in charge.	Square Metre	1029	194
1399	Water Supply and Sanitary Fitting	42.30	BDV	Providing and fixing Orissa type white glazed earthenware 575 mm water closet pan including S trap with earthenware foot rests, cast iron soil and vent pipe upto outside face of the wall 1:2:4 brick bat lime concrete bedding without flushing tank and its accessories etc. complete.	As directed by Engineer in charge.	Number	3742	2214
1400	Water Supply and Sanitary Fitting	42.31	BDV	Providing and fixing chromium plated towel rod 16 mm dia and 75 cm. in length including all accessories complete.	As directed by Engineer in charge.	Number	272	33
1401	Water Supply and Sanitary Fitting	42.32	BDV	Providing and Fixing half turn 25 mm dia gun metal flushing cock including all accessories etc. complete.	As directed by Engineer in charge.	Number	846	74
1402	Water Supply and Sanitary Fitting	42.33	BDV	Providing and fixing 1st class white glazed earthenware Orissa Type W.C. Pan 580 mm dia including P or S trap cast iron soil and vent pipe upto the outside face of the wall (1:5:1 0) cement concrete bedding 15 mm thick, 10 liter P.V.C. flushing cistern with all necessary pipe connection etc. complete.	As directed by Engineer in charge.	Number	6860	1651
1403	Water Supply and Sanitary Fitting	42.34	BDV	Providing and fixing European type white glazed earthenware coupled closet symphonic trap with symphonic low level white glazed 10 litres cistern with black backlite seat with all necessary pipe connection etc. complete.	As directed by Engineer in charge.	Number	10463	1990
1404	Water Supply and Sanitary Fitting	42.35	BDV	Providing and fixing orissa type colour glazed earthenware 625 x 450 mm. w.c. pan including trap, C.I. soil and vent pipe upto the out side face of wall including 100 mm. dia. C.I. plug, bend, 15mm. thick 10 litre PVC flushing cistern with all necessary pipe connection etc. complete.	As directed by Engineer in charge.	Number	9229	1902
1405	Water Supply and Sanitary Fitting	42.36	BDV	Providing and fixing 40 mm. dia Ball cock medium type with PVC float including sockets and necessary fittings and tested as per municipal requirements etc. complete.	As directed by Engineer in charge.	Number	1080	78
1406	Water Supply and Sanitary Fitting	42.37	BDV	Providing and fixing 15 mm. dia Ball cock medium type with PVC float including sockets and necessary fittings and tested as per municipal requirement etc. complete.	As directed by Engineer in charge.	Number	422	78

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
1407	Water Supply and Sanitary Fitting	42.38	BDV	Cleaning elevated water storage Reservoir within a given period, by using bleaching powder at the rate of 14 gm/sq.m .washing thrice potassium permanganate at the rate of 2.50 gm/sq.m. finally, cleaning washing by using nylon brush, coir string and duster, bailing out water etc. complete. i) Tank capacity up to 2,000 litre.	As directed by Engineer in charge.	Number	459	301
1408	Water Supply and Sanitary Fitting	42.39	BDV	Cleaning elevated water storage Reservoir within a given period, by using bleaching powder at the rate of 14 gm/sq.m .washing thrice potassium permanganate at the rate of 2.50 gm/sq.m. finally, cleaning washing by using nylon brush, coir string and duster, bailing out water etc. complete. ii) Tank capacity up to 2,001 to 5000 litre.	As directed by Engineer in charge.	Number	579	337
1409	Water Supply and Sanitary Fitting	42.40	BDV	Cleaning elevated water storage Reservoir within a given period, by using bleaching powder at the rate of 14 gm/sq.m .washing thrice potassium permanganate at the rate of 2.50 gm/sq.m. finally, cleaning washing by using nylon brush, coir string and duster, bailing out water etc. complete. iii) Tank capacity up to 5,001 to 7000 litre.	As directed by Engineer in charge.	Number	608	337
1410	Water Supply and Sanitary Fitting	42.41	BDV	Cleaning elevated water storage Reservoir within a given period, by using bleaching powder at the rate of 14 gm/sq.m .washing thrice potassium permanganate at the rate of 2.50 gm/sq.m. finally, cleaning washing by using nylon brush, coir string and duster, bailing out water etc. complete. iv) Tank capacity up to 7,001 to 10000 litre.	As directed by Engineer in charge.	Number	765	373
1411	Water Supply and Sanitary Fitting	42.42	BDV	Cleaning elevated water storage Reservoir within a given period, by using bleaching powder at the rate of 14 gm/sq.m .washing thrice potassium permanganate at the rate of 2.50 gm/sq.m. finally, cleaning washing by using nylon brush, coir string and duster, bailing out water etc. complete. v) Tank capacity upto 10,001 to 15,000 litre.	As directed by Engineer in charge.	Number	918	484
1412	Water Supply and Sanitary Fitting	42.43	BDV	Cleaning elevated water storage Reservoir within a given period, by using bleaching powder at the rate of 14 gm/sq.m .washing thrice potassium permanganate at the rate of 2.50 gm/sq.m. finally, cleaning washing by using nylon brush, coir string and duster, bailing out water etc. complete. vi) Tank capacity upto 15,001 to 20,000 litre.	As directed by Engineer in charge.	Number	1446	888
1413	Water Supply and Sanitary Fitting	42.44	BDV	Cleaning elevated water storage Reservoir within a given period, by using bleaching powder at the rate of 14 gm/sq.m .washing thrice potassium permanganate at the rate of 2.50 gm/sq.m. finally, cleaning washing by using nylon brush, coir string and duster, bailing out water etc. complete. vii) Tank capacity upto 20,001 to 30,000 litre.	As directed by Engineer in charge.	Number	2266	1467
1414	Water Supply and Sanitary Fitting	42.45	BDV	Cleaning elevated water storage Reservoir within a given period, by using bleaching powder at the rate of 14 gm/sq.m .washing thrice potassium permanganate at the rate of 2.50 gm/sq.m. finally, cleaning washing by using nylon brush, coir string and duster, bailing out water etc. complete. viii) Tank capacity upto 30,001 to 40,000 litre	As directed by Engineer in charge.	Number	2484	1646
1415	Water Supply and Sanitary Fitting	42.46	BDV	Cleaning elevated water storage Reservoir within a given period, by using bleaching powder at the rate of 14 gm/sq.m .washing thrice potassium permanganate at the rate of 2.50 gm/sq.m. finally, cleaning washing by using nylon brush, coir string and duster, bailing out water etc. complete. ix) Tank capacity up to 40,001 to 50000 litre.	As directed by Engineer in charge.	Number	3393	2261
1416	Water Supply and Sanitary Fitting	42.47	BDV	Cleaning elevated water storage Reservoir within a given period, by using bleaching powder at the rate of 14 gm/sq.m .washing thrice potassium permanganate at the rate of 2.50 gm/sq.m. finally, cleaning washing by using nylon brush, coir string and duster, bailing out water etc. complete. x) capacity 50,001 litre to one lakh.	As directed by Engineer in charge.	1000 Litre	55	38
1417	Water Supply and Sanitary Fitting	42.48	BDV	Cleaning elevated water storage Reservoir within a given period, by using bleaching powder at the rate of 14 gm/sq.m .washing thrice potassium permanganate at the rate of 2.50 gm/sq.m. finally, cleaning washing by using nylon brush, coir string and duster, bailing out water etc. complete. xi) Capacity above one lakh upto 4.00 lakh	As directed by Engineer in charge.	1000 Litre	29	23

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
1418	Water Supply and Sanitary Fitting	42.49	BDV	Cleaning elevated water storage Reservoir within a given period, by using bleaching powder at the rate of 14 gm/sq.m .washing thrice potassium permanganate at the rate of 2.50 gm/sq.m. finally, cleaning washing by using nylon brush, coir string and duster, bailing out water etc. complete. xii) Capacity above 4.00 lakh upto 7.00 lakh .	As directed by Engineer in charge.	1000 Litre	23	18
1419	Water Supply and Sanitary Fitting	42.50	BDV	Cleaning elevated water storage Reservoir within a given period, by using bleaching powder at the rate of 14 gm/sq.m .washing thrice potassium permanganate at the rate of 2.50 gm/sq.m. finally, cleaning washing by using nylon brush, coir string and duster, bailing out water etc. complete. xiii) Capacity above 7.00 lakh upto 12.00 lakh.	As directed by Engineer in charge.	1000 Litre	19	15
1420	Water Supply and Sanitary Fitting	42.51	BDV	Providing and fixing 75 mm dia stabiliser pipe/ P.V.C. soil vent/waste pipe and with necessary fixtures and fitting such as bends, tees, single junctions, slotted vent, clamps etc. complete	As directed by Engineer in charge.	Running Metre	539	151
1421	Water Supply and Sanitary Fitting	42.52	BDV	Providing and fixing 100 mm dia stabiliser pipe/ P.V.C. soil vent/waste pipe and with necessary fixtures and fitting such as bends, tees, single junctions, slotted vent, clamps etc. complete.	As directed by Engineer in charge.	Running Metre	735	151
1422	Water Supply and Sanitary Fitting	42.53	BDV	Providing and fixing H.D.P container one piece moulded water tank made out of high density polythylene and built corrugated inclusive of delivery up to destination hoisting and fixing of accessories such as inlet,outlet overflow pipe inclusive of all tanks capacity between 200 to 1000 liters	As directed by engineer-in- charge.	Litre	13	1
1423	Water Supply and Sanitary Fitting	42.54	BDV	Providing and fixing H.D.P container one piece moulded water tank made out of low density polythylene and built corrugation including of delivery up to destination hoisting and fixing of accessories such as inlet, outlet overflow of all tanks capacity above 1000 to 20,000 litres	As directed by engineer-in- charge.	Litre	11	1
1424	Water Supply and Sanitary Fitting	42.55	BDV	Providing and fixing on walls/ ceiling/ floor 15 mm dia. CPVC pipe with necessary fittings, remaking good the demolished portion etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	BD.V 5 page 551 and as directed by Engineer in charge	Running Metre	246	167
1425	Water Supply and Sanitary Fitting	42.56	BDV 5	Providing and fixing on walls/ceiling/floor 20 mm dia. CPVC pipe with necessary fittings, remaking good the demolished portion etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	BD.V 5 page 551 and as directed by Engineer in charge	Running Metre	285	174
1426	Water Supply and Sanitary Fitting	42.57	BDV 5	Providing and fixing on walls/ ceiling/ floor 25 mm dia. CPVC pipe with necessary fittings, remaking good the demolished portion etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	BD.V 5 page 551 and as directed by Engineer in charge	Running Metre	336	174
1427	Water Supply and Sanitary Fitting	42.58	BDV 5	Providing and fixing on walls/ ceiling/ floor 32 mm dia. CPVC pipe with necessary fittings, remaking good the demolished portion etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	BD.V 5 page 551 and as directed by Engineer in charge	Running Metre	393	174
1428	Water Supply and Sanitary Fitting	42.59	BDV 5	Providing and fixing on walls /ceiling/ floor 40 mm dia. CPVC pipe with necessary fittings, remaking good the demolished portion etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	BD.V 5 page 551 and as directed by Engineer in charge	Running Metre	492	174
1429	Water Supply and Sanitary Fitting	42.60	BDV 5	Providing and fixing on walls/ ceiling/ floor 50 mm dia. CPVC pipe with necessary fittings, remaking good the demolished portion etc. complete.	BD.V 5 page 551 and as directed by Engineer in charge	Running Metre	683	174

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
1430	Water Supply and Sanitary Fitting	42.61	BDV 5	Providing and laying in trenches 15 mm dai. CPVC pipe including necessary excavation, fittings. Refilling trenches etc. complete Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	BD.V 5 page 551 and as directed by Engineer in charge	Running Metre	253	177
1431	Water Supply and Sanitary Fitting	42.62	BDV 5	Providing and laying in trenches 20 mm dai. CPVC pipe including necessary excavation, fittings. Refilling trenches etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	BD.V 5 page 551 and as directed by Engineer in charge	Running Metre	286	177
1432	Water Supply and Sanitary Fitting	42.63	BDV 5	Providing and laying in trenches 25 mm dai. CPVC pipe including necessary excavation, fittings. Refilling trenches etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	BD.V 5 page 551 and as directed by Engineer in charge	Running Metre	381	219
1433	Water Supply and Sanitary Fitting	42.64	BDV 5	Providing and laying in trenches 32 mm dai. CPVC pipe including necessary excavation, fittings. Refilling trenches etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	BD.V 5 page 551 and as directed by Engineer in charge	Running Metre	438	219
1434	Water Supply and Sanitary Fitting	42.65	BDV 5	Providing and laying in trenches 40mm dai. CPVC pipe including necessary excavation, fittings. Refilling trenches etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	BD.V 5 page 551 and as directed by Engineer in charge	Running Metre	537	219
1435	Water Supply and Sanitary Fitting	42.66	BDV 5	Providing and laying in trenches 50mm dai. CPVC pipe including necessary excavation, fittings. Refilling trenches etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	BD.V 5 page 551 and as directed by Engineer in charge	Running Metre	723	219
1436	Water Supply and Sanitary Fitting	42.67	BDV 32	Providing and fixing 10 cm PVC nahani trap with grating etc. complete.	BD.V 32 A page 551 and as directed by Engineer in charge	Number	496	295
1437	Water Supply and Sanitary Fitting	42.68	BDV	Providing and fixing reinforced cement concrete cover of size 90 cm x 45 cm with frame over inspection chamber etc. complete. Heavy duty (225 Kilogram)	As directed by Engineer in charge.	Number	4966	330
1438	Water Supply and Sanitary Fitting	42.69	BDV	Providing and fixing reinforced cement concrete cover of size 90 cm x 45 cm with frame over inspection chamber etc. complete. Medium duty (140 Kilogram)	As directed by Engineer in charge.	Number	3732	563
1439	Water Supply and Sanitary Fitting	42.70	BDV	Providing and fixing reinforced cement concrete cover of size 60 cm x 45 cm with frame over inspection chamber etc. complete. Heavy duty (160 Kilogram)	As directed by Engineer in charge.	Number	5024	528
1440	Water Supply and Sanitary Fitting	42.71	BDV	Providing and fixing reinforced cement concrete cover of size 60 cm x 45 cm with frame over inspection chamber etc. complete. Medium duty (100 Kilogram)	As directed by Engineer in charge.	Number	3199	528

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
1441	Water Supply and Sanitary Fitting	42.72	BDV 4	Providing and making ISI Mark ferrule connection of 15 mm dia. to water main including ferrule coupling cast iron bell mouth cover, built in non return valve and fixing including excavation and reinstatement complete.	Bd.V. 4 page 551	Number	1129	474
1442	Water Supply and Sanitary Fitting	42.73	BDV 4	Providing and making ISI Mark ferrule connection of 20 mm dia. to water main including ferrule coupling cast iron bell mouth cover, built in non return valve and fixing including excavation and reinstatement complete.	Bd.V. 4 page 551	Number	1545	474
1443	Water Supply and Sanitary Fitting	42.74	BDV 4	Providing and making ISI Mark ferrule connection of 25mm dia.to water main including ferrule coupling cast iron bell mouth cover, built in non return valve and fixing including excavation and reinstatement complete.	Bd.V. 4 page 551	Number	2299	474
1444	Water Supply and Sanitary Fitting	42.75	BDV 4	Providing and making ISI Mark ferrule connection of 32 mm dia. to water main including ferrule coupling cast iron bell mouth cover, built in non return valve and fixing including excavation and reinstatement complete.	Bd.V. 4 page 551	Number	3538	474
1445	Water Supply and Sanitary Fitting	42.76	BDV 4	Providing and making ISI Mark ferrule connection of 40mm dia. to water main including ferrule coupling cast iron bell mouth cover, built in non return valve and fixing including excavation and reinstatement complete.	Bd.V. 4 page 551	Number	4833	474
1446	Water Supply and Sanitary Fitting	42.77	BDV 4	Providing and making ISI Mark ferrule connection of 50 mm dia. to water main including ferrule coupling cast iron bell mouth cover, built in non return valve and fixing including excavation and reinstatement complete.	Bd.V. 4 page 551	Number	7883	474
1447	Water Supply and Sanitary Fitting	42.78	BDV 4	Providing and fixing stainless steel sink of size 600 x 510 x 200 mm includng coupling, outlet pipe, elbow and other necessary fitting, finishing etc. complete.	As directed by Engineer in charge	Number	14948	2602
1448	Water Supply and Sanitary Fitting	42.79	BDV	Providing and fixing C.P. Angular stop clock with wall flange of approved make continental including necessary sockets/union nut etc. complete.	As directed by Engineer in charge	Number	2671	225
1449	Water Supply and Sanitary Fitting	42.80	BDV	Providing and fixing C.P.Two way BIB cock of approved make continental including necessary sockets/union nut etc. complete.	As directed by Engineer in charge	Number	1342	225
1450	Water Supply and Sanitary Fitting	42.81	BDV	Providing and fixing C.P. wall mixer with provision for overhead shower with 115mm long bend pipe and wall flange of approved make including necessary sockets/union nut etc. complete.	As directed by Engineer in charge	Number	3753	450
1451	Water Supply and Sanitary Fitting	42.82	BDV	Providing and fixing C.P. pillar cock long neck with aerator of approed make including necessary sockets/union nut etc. complete.	As directed by Engineer in charge	Number	1338	225
1452	Water Supply and Sanitary Fitting	42.83	BDV	Providing and fixing C.P. BIB cock with wall flange of approved make including necessary sockets/ union nut etc. complete.	As directed by Engineer in charge	Number	1061	264
1453	Water Supply and Sanitary Fitting	42.84	BDV	Providing and fixing C.P. sink cock with raised J" shaped swinging casted spout ofapproved make including necessary sockets/ union nut etc. complete."	As directed by Engineer in charge	Number	1654	225

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
1454	Water Supply and Sanitary Fitting	42.85	BDV	Providing and fixing P.V.C. Rain water pipes of 160mm outer diameter and having wall thickness of 2.2 to 2.7 mm confirming to I.S. 13592-1992 including proper rainwater receiving recess with P.V.C. plug, bend, necessary fittings, such as, offsets, shoes, including fixing the pipe on wall using approved wooden cleats projecting 25mm to 40mm from face of wall a fixing with clips of approved quality and number ,filing the joint using rubber gasket with solvent cement and properly resting the shoe of pipes on C.C. or masonry blocks, including necessary scaffolding and maintenance for 3 yrs for any leakages or dislocations of pipes. All the P.V.C. fittings and additional 2 piece socket clips shall be got approved from engineer in charge etc. complete.	As directed by Engineer Incharge	Running Metre	1343	226
1455	Water Supply and Sanitary Fitting	42.86	BDV	Providing and fixing European type wall-hung white water closet of approved make with push valve concealed type with cover plate 32mm size of approved make including soil pipe, vent pipe up to outside face of wall ,100mm dia. G.I. plug bend inlet pipe all fittings, cuttingand making good walls, floors etc. complete.	As directed by Engineer Incharge	Number	12391	1990
1456	Water Supply and Sanitary Fitting	42.87	BDV	Providing and fixing P.V.C. Rain water pipes of 110mm outer diameter and having wall thickness of 2.2 to 2.7 mm confirming to I.S. 13592-1992 including proper rainwater receiving recess with P.V.C. plug, bend, necessary fittings, such as, offsets, shoes, including fixing the pipe on wall using approved wooden cleats projecting 25mm to 40mm from face of wall a fixing with clips of approved quality and number ,filing the joint using rubber gasket with solvent cement and properly resting the shoe of pipes on C.C. or masonry blocks, including necessary scaffolding and maintenance for 3 yrs for any leakages or dislocations of pipes. All the P.V.C. fittings and additional 2 piece socket clips shall be got approved from engineer in charge etc. complete.	As directed by Engineer Incharge	Running Metre	502	151
1457	Water Supply and Sanitary Fitting	42.88	BDV	providing and fixing oval type under counter wash hand basin of 16 inch x 22 inch size and of special colour shade having telephonic black / coloured granite of 180 mm thick stone black kadappa framework including chromium plated coupling bottle - Trap using CERA company or equivalent oval tupa wash basin model no 3448 as per detailed drawing or as directed by engg incharge etc complete. (Counter size 1.20 m x 0.60 m )	As directed by Engineer in charge	Number	10458	151

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
<b>SSR 2021-2022 :-Water Supply and Sanitary Fitting</b>								
1458	Water Supply and Sanitary Fitting	43.01	BDV 5	Providing and laying in walls/ceilings/floors 15 mm dia. medium grade having embossed as ISI Mark galvanised iron pipes of 1.25 Kilogram/metre necessary fitting remaking good the demolished portion with filling trenches and with primer of anti-corrosive oil paint, 2 coats complete. Including necessary scaffolding and removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	Bd.V.5 Page Number 551	Running Metre	337	124
1459	Water Supply and Sanitary Fitting	43.02	BDV 5	Providing and laying in walls/ceilings/floors 20 mm dia. medium grade having embossed as ISI Mark galvanised iron pipes of 1.63 Kilogram/metre necessary fitting remaking good the demolished portion with filling trenches and with primer of anti-corrosive oil paint, 2 coats complete. Including necessary scaffolding and removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	Bd.V.5 Page Number 551	Running Metre	380	166
1460	Water Supply and Sanitary Fitting	43.03	BDV 5	Providing and laying in walls/ceilings/floors 25 mm dia. medium grade having embossed as ISI Mark galvanised iron pipes of 2.49 Kilogram/metre necessary fitting remaking good the demolished portion with filling trenches and with primer of anti-corrosive oil paint , 2 coats complete. Including necessary scaffolding and removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	Bd.V.5 Page Number 551	Running Metre	432	126
1461	Water Supply and Sanitary Fitting	43.04	BDV 5	Providing and laying in walls/ceilings/floors 32 mm dia. medium grade having embossed as ISI Mark galvanised iron pipes of 3.20 Kilogram/metre necessary fitting remaking good the demolished portion with filling trenches and with primer of anti-corrosive oil paint , 2 coats complete. Including necessary scaffolding and removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	Bd.V.5 Page Number 551	Running Metre	522	127
1462	Water Supply and Sanitary Fitting	43.05	BDV 5	Providing and laying in walls/ ceilings/floors 40 mm dia. medium grade having embossed as ISI Mark galvanised iron pipes of 3.68 Kilogram/metre necessary fitting remaking good the demolished portion with filling trenches and with primer of anti-corrosive oil paint , 2 coats complete. Including necessary scaffolding and removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	Bd.V.5 Page Number 551	Running Metre	576	128
1463	Water Supply and Sanitary Fitting	43.06	BDV 5	Providing and laying in walls/ceilings/floors 50 mm dia. medium grade having embossed as ISI Mark galvanised iron pipes of 5.17 Kilogram/metre necessary fitting remaking good the demolished portion with filling trenches and with primer of anti-corrosive oil paint , 2 coats complete. Including necessary scaffolding and removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	Bd.V.5 Page Number 551	Running Metre	722	129
1464	Water Supply and Sanitary Fitting	43.07	BDV 5	Providing and laying in walls/ceilings/floors 80 mm dia. medium grade having embossed as ISI Mark galvanised iron pipes of 8.57 Kilogram/metre necessary fitting remaking good the demolished portion with filling trenches and with primer of anti-corrosive oil paint , 2 coats complete. Including necessary scaffolding and removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	Bd.V.5 Page Number 551	Running Metre	1131	133
1465	Water Supply and Sanitary Fitting	43.08	BDV 5	Providing and laying in walls/ceilings/floors 100 mm dia. medium grade having embossed as ISI Mark galvanised iron pipes of 12.43 Kilogram/metre necessary fitting remaking good the demolished portion with filling trenches and with primer of anti-corrosive oil paint , 2 coats complete. Including necessary scaffolding and removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	Bd.V.5 Page Number 551	Running Metre	1232	136



Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
1466	Water Supply and Sanitary Fitting	43.09	BDV 5	Providing and laying in trenches 15 mm dia.heavy grade having embossed as ISI Mark galvanised iron pipes of 1.48 Kilogram/metre necessary fitting remaking good the demolished portion with filling trenches and with primer of anti-corrosive oil paint , 2 coats complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	Bd.V.5 Page Number 551	Running Metre	434	176
1467	Water Supply and Sanitary Fitting	43.10	BDV 5	Providing and laying in trenches 20 mm dia. heavy grade having embossed as ISI Mark galvanised iron pipes of 1.93 Kilogram/metre necessary fitting remaking good the demolished portion with filling trenches and with primer of anti-corrosive oil paint , 2 coats complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	Bd.V.5 Page Number 551	Running Metre	510	217
1468	Water Supply and Sanitary Fitting	43.11	BDV 5	Providing and laying in trenches 25 mm dia. heavy grade having embossed as ISI Mark galvanised iron pipes of 3.01 Kilogram/metre necessary fitting remaking good the demolished portion with filling trenches and with primer of anti-corrosive oil paint , 2 coats complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	Bd.V.5 Page Number 551	Running Metre	590	217
1469	Water Supply and Sanitary Fitting	43.12	BDV 5	Providing and laying in trenches 32 mm dia. heavy grade having embossed as ISI Mark galvanised iron pipes of 3.89 Kilogram/metre necessary fitting remaking good the demolished portion with filling trenches and with primer of anti-corrosive oil paint , 2 coats complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	Bd.V.5 Page Number 551	Running Metre	617	218
1470	Water Supply and Sanitary Fitting	43.13	BDV 5	Providing and laying in trenches 40 mm dia. heavy grade having embossed as ISI Mark galvanised iron pipes of 4.49 Kilogram/metre necessary fitting remaking good the demolished portion with filling trenches and with primer of anti-corrosive oil paint , 2 coats complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	Bd.V.5 Page Number 551	Running Metre	687	227
1471	Water Supply and Sanitary Fitting	43.14	BDV 5	Providing and laying in trenches 50 mm dia. heavy grade having embossed as ISI Mark galvanised iron pipes of 6.33 Kilogram/metre necessary fitting remaking good the demolished portion with filling trenches and with primer of anti-corrosive oil paint , 2 coats complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	Bd.V.5 Page Number 551	Running Metre	858	235
1472	Water Supply and Sanitary Fitting	43.15	BDV 5	Providing and laying in trenches 80 mm dia. heavy grade having embossed as ISI Mark galvanised iron pipes of 10.15 Kilogram/metre necessary fitting remaking good the demolished portion with filling trenches and with primer of anti-corrosive oil paint , 2 coats complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	Bd.V.5 Page Number 551	Running Metre	1297	238
1473	Water Supply and Sanitary Fitting	43.16	BDV 5	Providing and laying in trenches 100 mm dia. heavy grade having embossed as ISI Mark galvanised iron pipes of 14.74 Kilogram/metre necessary fitting remaking good the demolished portion with filling trenches and with primer of anti-corrosive oil paint , 2 coats complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	Bd.V.5 Page Number 551	Running Metre	1694	262
1474	Water Supply and Sanitary Fitting	43.17	BDV 23	Providing and fixing 8 cm rigid PVC Nahani trap including PVC grating ,bend, connecting piece of UPVC pipe up to the outside face of wall ,making the good damaged surface and testing etc. complete ( Prior approval of sample and brand by Ex. Engr. is necessary before use)	Specfications	Number	493	295

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
1475	Water Supply and Sanitary Fitting	43.18	BDV 24	Providing and fixing 15 cm rigid PVC Nahani trap including PVC grating ,bend,connectingpiece of UPVC pipe up to the outside face of wall ,making the good damaged surface and testing etc. complete ( Prior approval of sample and brand by Ex. Engr. is necessary before use)	Specfications	Number	533	295
1476	Water Supply and Sanitary Fitting	43.19	BDV 21	Providing and fixing European type white glazed earthenware water closet pan with UPVC seat and lid with chromium plated brass hinges and rubber buffers including UPVC and vent pipe up to the outside face of wall 10 litre enameled low level flushing cistern with fittings pipe stop tap brackets for fixing cistern 32 mm dia. UPVC flush pipe with fittings and clamps ,20 mm dia.UPVC overflow pipe ,mosquito proof couplings G.I. chain and pulley,with water Jet and fitting including cutting and making good to the walls and floors testing etc. complete.(prior approval of sample and brand by Ex. Engineer is necessary before use)	Specfications	Number	10753	1990
1477	Water Supply and Sanitary Fitting	43.20	BDV 21	Providing and fixing European type white glazed earthenware water closet pan with UPVC seat and lid with chromium plated brass hinges and rubber buffers including UPVC and vent pipe up to the outside face of wall without flushing cistern with flush cock and with water Jet and necessary fittings including cutting and making good to the walls and floors testing etc. complete.( prior approval of sample and brand by Ex. Engineer is necessary before use)	Specfications	Number	9936	1990
1478	Water Supply and Sanitary Fitting	43.21	BDV 22	Providing and fixing European type Colour glazed earthenware water closet pan with UPVC seat and lid with chromium plated brass hinges and rubber buffers including UPVC and vent pipe up to the outside face of wall 10 liter enameled low level flushing cistern with fittings pipe stop tap brackets for fixing cistern 32 mm dia. UPVC flush pipe with fittings and clamps ,20 mm dia.UPVC overflow pipe ,mosquito proof couplings G.I. chain and pulley,with water Jet and fitting including cutting and making good to the walls and floors testing etc. complete.( prior approval of sample and brand by Ex. Engineer is necessary before use)	Specfications	Number	10746	1990
1479	Water Supply and Sanitary Fitting	43.22	BDV 23	Providing and fixing European type Colour glazed earthenware water closet pan with UPVC seat and lid with chromium plated brass hinges and rubber buffers including UPVC and vent pipe up to the outside face of wall without flushing cistern with flush cock and with water Jet and necessary fittings including cutting and making good to the walls and floors testing etc. complete.( prior approval of sample and brand by Ex. Engineer is necessary before use)	Specfications	Number	9929	1990
1480	Water Supply and Sanitary Fitting	43.23	BDV 20	Providing and fixing Anglo Indian type white glazed earthenware water closet pan with trap with UPVC seat and lid with chromium plated brass hinges and rubber buffers including UPVC and vent pipe up to the outside face of wall with flushing cistern and necessary fittings including cutting and making good to the walls and floors testing etc. complete.( prior approval of sample and brand by Ex. Engineer is necessary before use)	Specfications	Number	6370	2348
1481	Water Supply and Sanitary Fitting	43.24	BDV 22	Providing and fixing high level 10 liter capacity with fittings inlet PVC pipe with stop tap ,brackets for fixing the cistern,32 mm dia. PVC flush pipe with fitting and clamps 20 mm dia. PVC overflow pipe with mosquito proof couplings, galvanised iron chain and pulley painting if ordered to cistern pipe etc. and cutting and making good the damaged wall and testing etc. complete ( Prior approval of sample and brand by Ex. Engr. is necessary before use)	Specfications	Number	1244	348
1482	Water Supply and Sanitary Fitting	43.25	BDV 23	Providing and fixing in position UPVC ultra violet stabilized 110 mm outer diameter cowl dome confirming to I.S.-4985 including making joints with solvent cement etc. complete	Specfications	Number	156	74
1483	Water Supply and Sanitary Fitting	43.26	BDV 23	Providing and fixing Glass self 125 mm wide and 600 mm long with necessary chromium plated brackets providing T.W.gutties etc. complete	Specfications	Number	316	135

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
1484	Water Supply and Sanitary Fitting	43.27	BDV 23	Providing , constructing and fixing 250 mm dia. Inspection chamber made up of UPVC material of thickness 3.5 mm and height of 259 mm with inlet and outlet of 110 mm dia. with 75 mm dia. U Trap, Ultra shaft pipe of Upvc material having height of 470 mm and fixing Ultra 250 mm dia. UPVC cover and frame in 150 mm thick in c.c.1:2:4, having crushed sand bed of 100 mm thick of size 550 mm dia. Including excavation and refilling the sides of chamber by crushed sand cushioning 150 mm thickness, connecting all required UPVC fittings with rubber lubricant etc. complete.	Specifications	Number	3581	583
1485	Water Supply and Sanitary Fitting	43.28	Bd-V	Providing , constructing and fixing 450 mm dia. Inspection chamber made up of Polypropylene / polyethylene material of thickness 3.5 mm and height of 388 mm with 160 or 200 mm main inlet (s) outlet and 110 and / or 160 mm branch inlets, with 450 mm dia. Ultra shaft pipe of HDPE material having height of 460 mm, having R.C.C. cover and frame fixing in 150 mm thick in c.c.1:2:4, having crushed sand bed of 150 mm thick of size 750 mm dia. Including excavation and refilling the sides of chamber by sand crushed cushioning 150 mm thickness, connecting all required UPVC fittings with rubber lubricant etc. complete.	As Directected By Engineer Incharge	Number	10341	729
1486	Water Supply and Sanitary Fitting	43.29	Bd-V	Providing , constructing and fixing 600 mm dia. Inspection chamber made up of Polypropylene / polyethylene material Having 315 mm diameter inlet(s)/outlets and with eccentric reducers as per requirement to connect 160 mm and 200 mm pipes having thickness of 5 mm and 600 mm in height, with inbuilt shaft achieve the invert depth as per site condition of wall thickness of 5 mm having R.C.C. cover and frame fixing in 150 mm thick in c.c.1:2:4, having crushed sand bed of 150 mm thick of size 750 mm dia. Including excavation and refilling the sides of chamber by ?sand crushed cushioning 150 mm thickness, connecting all required UPVC fittings with rubber lubricant etc.complete.	As Directected By Engineer Incharge	Number	20393	781
1487	Water Supply and Sanitary Fitting	43.30	Bd-V	Providing , laying and fixing ,jointing Eco- drain 110 mm SN 8 Nu- Drain Upvc pipes or of equivalent make, manufacture as per EN 13476 or equivalent as per I.S.15328 with fittings such a bends, tees, coupler, etc, jointing with rubber lubricant including necessary excavation, trench refilling with selective excavated material etc. complete.	As Directected By Engineer Incharge	Running Metre	333	44
1488	Water Supply and Sanitary Fitting	43.31	Bd-V	Providing , laying and fixing ,jointing Eco- drain 160 mm SN 4 Nu- Drain Upvc pipes or of equivalent make, manufacture as per EN 13476 or equivalent as per I.S.15328 with fittings such a bends, tees , coupler, etc, jointing with rubber lubricant including necessary excavation, trench refilling with selective excavated materialetc. complete.	As Directected By Engineer Incharge	Running Metre	522	44
1489	Water Supply and Sanitary Fitting	43.32	Bd-V	Providing , laying and fixing ,jointing Eco- drain 200 mm SN 4 Nu- Drain Upvc pipes or of equivalent make, manufacture as per EN 13476 or equivalent as per I.S.15328 with fittings such a bends, tees tees, coupler etc, jointing with rubber lubricant including necessary excavation, trench refilling with selective excavated materialetc. complete.	As Directected By Engineer Incharge	Running Metre	926	44
1490	Water Supply and Sanitary Fitting	43.33	Bd-V	Providing , Laying and fixing, jointing Eco Drain 250 mm SN-04 Nu-Drain Upvc pipe or of equivalent make, manufacture as per EN 13476 or equivalent as per I.S.15328 & 16098 with fittings such a bends, tees, coupler, etc. jointing with rubber lubricant, including necessary excavation, trench refilling with selective excavated material etc. complete.	As Directected By Engineer Incharge	Running Metre	1788	74
1491	Water Supply and Sanitary Fitting	43.34	Bd-V	Providing , Laying and fixing, jointing Eco Drain 315 mm SN-04 Nu-Drain Upvc pipe or of equivalent make, manufacture as per EN 13476 or equivalent as per I.S.15328 & 16098 with fittings such a bends, tees, coupler, etc. jointing with rubber lubricant, including necessary excavation, trench refilling with selective excavated material etc. complete.	As Directected By Engineer Incharge	Running Metre	2688	103
1492	Water Supply and Sanitary Fitting	43.35	BDV	Providing and fixing 15 mm diameter PVC Aqua kraft type of approved make super bib tap with flange including all accessories etc complete	As Directected By Engineer Incharge	Number	381	113

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1493	Water Supply and Sanitary Fitting	43.36	BDV	Providing and fixing 15 mm diameter PVC Aqua kraft type of approved make super Two Way bib tap with flange and extender including all accessories etc complete	As Directected By Engineer Incharge	Number	599	113
1494	Water Supply and Sanitary Fitting	43.37	BDV	Providing and fixing 15 mm diameter PVC Aqua kraft type of approved make super push button type cock / tap with flange including all accessories etc complete	As Directected By Engineer Incharge	Number	397	113
1495	Water Supply and Sanitary Fitting	43.38	BDV	Providing and fixing 15 mm diameter PVC Aqua kraft type of approved make super wall sink type tap with flange including all accessories etc complete	As Directected By Engineer Incharge	Number	865	113
1496	Water Supply and Sanitary Fitting	43.39	BDV	Providing and fixing 15 mm diameter PVC Aqua kraft type of approved make super jet spray with flange 2 in 1 faucet 1.50 metre long including all accessories etc complete	As Directected By Engineer Incharge	Number	663	113
1497	Water Supply and Sanitary Fitting	43.40	BDV	Providing and fixing 15 mm diameter PVC Aqua kraft type of approved make super right angle stop tap with flange including all accessories etc complete	As Directected By Engineer Incharge	Number	386	113
1498	Water Supply and Sanitary Fitting	43.41	BDV	Providing and fixing 15 mm diameter PVC Aqua kraft type of approved make super Pillar tap with flange including all accessories etc complete	As Directected By Engineer Incharge	Number	501	113
1499	Water Supply and Sanitary Fitting	43.42	BDV	Providing and fixing ISI 1729/2002 grade 75 mm dia Cast Iron Waste Water Pipe with lugs necessary fittings such as bends, tees, single junction, double junction, slotted vent, offsets on wall or into the ground including filling joints with cement mortar 1:2 proportion fixing on wall by means by galvanised Mild Steel bracket of 30 x 5 mm plate and 8 mm square rod with Galvanised Iron clamp with washer as per design drawing and as directed to keep pipe 50 mm away from wall including necessary scaffolding and painting the exposed faces with one coat of red lead oil paint and two coats of gray oil paint including removing the existing pipe if necessary and conveying and stacking in PWD Chowky or as directed by Engineer-in-Charge.	As Directected By Engineer Incharge	Running Metre	1621	495
1500	Water Supply and Sanitary Fitting	43.43	BDV	Providing and fixing ISI 1729/2002 grade 100 mm dia Cast Iron Soil Pipes With lugs including plug bend necessary fittings such as bends, tees, single junction, double junction, slotted vent, offsets on wall or into the ground including filling joints with cement mortar 1:2 proportion fixing on wall by means of galvanised Mild Steel bracket of 30 x 5 mm plate and 8 mm square rod with Galvanised Iron clamp with washer as per design, drawing and as directed to keep pipe 50 mm away from wall including necessary scaffolding and painting the exposed faces with one coat of red lead oil paint and two coats of white oil paint including removing the existing pipe if necessary and conveying and stacking in PWD Chowky or as directed by Engineer-in-Charge.	As Directected By Engineer Incharge	Running Metre	1894	495
1501	Water Supply and Sanitary Fitting	43.44	BDV	Providing and fixing Wall Mounted European type white glazed earthenware water closet pan with UPVC seat and lid with chromium plated brass hinges and rubber buffers including UPVC and vent pipe up to the outside face of wall 10 liter enameled low level flushing cistern with fittings pipe stop tap brackets for fixing cistern 32 mm dia. UPVC flush pipe with fittings and clamps ,20 mm dia.UPVC overflow pipe ,mosquito proof couplings G.I. chain and pulley,with water Jet and fitting including cutting and making good to the walls and floors testing etc. complete.( prior approval of sample and brand by Ex. Engineer is necessary before use)	As Directected By Engineer Incharge	Number	11447	1602

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
<b>SSR 2021-2022 :-Building Miscellaneous Item</b>								
1502	Building Miscellaneous Item	44.01	BDW 2	Guniting by dry mix process as per IS 9012 ( 1978) to ceiling sofit etc. in C.M. 1:3, 20mm thick under pressure of 2.1Kilogramto 2.8Kilogramper sq.cm including forms, scaffolding,floating the surface, curing for 14 days etc. complete (Excluding reinforcement)	Bd.W.2 Page Number582	Square Metre	527	272
1503	Building Miscellaneous Item	44.02	BDW 2A	Guniting by dry mix process as per IS 9012 ( 1978) to ceiling sofit etc. in C.M. 1:3, 25mm thick under pressure of 2.1Kilogramto 2.8Kilogramper sq.cm including forms, scaffolding,floating the surface, curing for 14 days etc. complete ( Excluding reinforcement)	Bd.W.2 Page Number582	Square Metre	559	272
1504	Building Miscellaneous Item	44.03	BDW 2B	Guniting by dry mix process as per IS 9012 ( 1978) to ceiling sofit etc. in C.M. 1:3,40mm thick under pressure of 2.1Kilogramto 2.8Kilogramper sq.m including forms, scaffolding,floating the surface, curing for 14 days etc. complete ( Excluding reinforcement)	Bd.W.2 Page Number582	Square Metre	648	272
1505	Building Miscellaneous Item	44.04	BDW 2C	Guniting by dry mix process as per IS 9012 ( 1978) to ceiling sofit etc. in C.M. 1:3,50mm thick under pressure of 2.1Kilogramto 2.8Kilogramper sq.cm including forms, scaffolding,floating the surface, curing for 14 days etc. complete ( Excluding reinforcement)	Bd.W.2 Page Number582	Square Metre	760	272
1506	Building Miscellaneous Item	44.05	BDW 2D	Guniting by dry mix process as per IS 9012 ( 1978) to beams in C.M. 1:3,20mm thick under pressure of 2.1Kilogramto 2.8Kilogramper sq.cm including forms, scaffolding,floating the surface, curing for 14 days etc. complete ( Excluding reinforcement)	Bd.W.2 Page Number582	Square Metre	559	304
1507	Building Miscellaneous Item	44.06	BDW 2E	Guniting by dry mix process as per IS 9012 ( 1978) to beams in C.M. 1:3,25mm thick under pressure of 2.1Kilogramto 2.8Kilogramper sq.cm including forms, scaffolding,floating the surface, curing for 14 days etc. complete ( Excluding reinforcement)	Bd.W.2 Page Number582	Square Metre	593	304
1508	Building Miscellaneous Item	44.07	BDW 2K	Guniting by dry mix process as per IS 9012 ( 1978) to the vertical surface ( other than column) in C.M. 1:3,20mm thick under pressure of 2.1Kilogramto 2.8Kilogramper sq.cm.including forms,scaffolding, floating the surface curing for 14 days etc.complete ( excluding reinforcement)	Bd.W.2 Page Number582	Square Metre	509	272
1509	Building Miscellaneous Item	44.08	BDW 2L	Guniting by dry mix process as per IS 9012 ( 1978) to the vertical surface ( other than column) in C.M. 1:3, 25mm thick under pressure of 2.1Kilogramto 2.8Kilogramper sq.cm.including forms,scaffolding, floating the surface curing for 14 days etc.complete ( excluding reinforcement)	Bd.W.2 Page Number582	Square Metre	539	272
1510	Building Miscellaneous Item	44.09	BDW 3	Providing and erecting 1.5 metre high wire fencing with seven rows of barbed wire supported on M.S.Angles ( 50mm x 50mm x 6mm) at 2.5 Metres, Center to center including excavating pits for foundqtion, fixing post in cement cocnrete 1:4:8 of size 45 x 45 x 45 cm fastening the wire and painting the M.S.Angles with one coat of red lead primer and two coats of painting etc.complete.	Bd.W.3 Page Number583	Running Meter	613	205
1511	Building Miscellaneous Item	44.10	BDW 6	Providing and fixing mild steel grill gate with angle iron frame 65mm x 65mm x 10mm with iron bars at 150mm C/C and diagonal flats as per the detailed drawing including hinges, pivot block locking arrangement, welding riveting and oil painting of three coats of approved shade Weight of gate 35 Kilogram/Smt.	Bd.W.6 Page Number585	Square Metre	2974	492
1512	Building Miscellaneous Item	44.11	BDW 7	Providing and fixing 90 cm x 60 cm Marble plate engraving 10 cm. height letter, figures including painting the lefters/figures with approved colour and shade complete	Bd.W.7 Page Number586	Number	7356	1430
1513	Building Miscellaneous Item	44.12	BDW 7	Providing and fixing 90 cm x 60 cm Granite plate engraving 10 cm. height letter, figures including painting the lefters/figures with approved colour and shade complete	Bd.W.7 Page Number586	Number	7985	1430

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
1514	Building Miscellaneous Item	44.13	BDW	Providing and erecting 1.2 meter high wire fencing with five rows of barbed wire supported on mild steel angle ( 50 x 50x 6mm) post at 2.5 m c/c including excavation of pits of foundation concrete fixing the posts in ( 1:4:8) cement concrete block of 45x45x45 cm and fastening the Wires and painting the angles with one coat with red lead primer and two coats of oil painting etc.complete	Bd.W.3 Page Number583	Running Meter	715	199
1515	Building Miscellaneous Item	44.14	BDW	Providing and fixing rain tattis with bamboos and karve grass with 75 mm thick grass and removing the same after rain is over (size of bamboos 50 mm to 75mm dia and 3 M to 3.5 M long)	As directed by Engineer in charge.	Square Metre	103	54
1516	Building Miscellaneous Item	44.15	BDW	Providing and fixing grass chhapper (roof) with necessary bamboos and karve frame with 75mm. thick grass etc.removing the same after rain is over (size of bamboos 50mm to 75mm dia and 3 M to 3.5M long)	As directed by Engineer in charge.	Square Metre	112	54
1517	Building Miscellaneous Item	44.16	BDW	Providing and fixing grass chhapper (roof) with necessary bamboos and karve frame with 75mm. thick grass etc.removing the same after rain is over (size of bamboos 25mm dia and 3 M to 3.5 M long)	As directed by Engineer in charge.	Square Metre	126	68
1518	Building Miscellaneous Item	44.17	BDW	Providing and fixing Bamboo Matting screen for partition with bamboo sticks	As directed by Engineer in charge.	Square Metre	197	129
1519	Building Miscellaneous Item	44.18	BDW	Providing and fixing lioghtening conductor system comprising of erecting Air-Termination consisting of tubular copper rod of 25mm dia. 1.2 mm thick with multiple points head 1.2 mt. long ( Heavy Duty) welded or clamped to G.I. pipe pole B grade 50 mm diaof requiired length with M.S. round bnase plate 25 Cm diam and 10mm thick at bottom embeded in cement concrete 1:3:6 dfoundation of size 45 cm diam x 45 cm Height and providing earthing with copper earth plate of size 60 x 60 x 0.3 cms with cadmium plated nut bolts to fix earthing strip burried in specially prepared earth pits 1.5 metre below ground level with 40Kilogramcharcoal and salt with altemate layers of charcoal and salt and G.I.pipe 40mm dia 2 meter length burried in earthe upto earthling plate remining portion above ground level for watering and refilling comcpete Note- Copper strip fropm lightning conductor is not considered in this item.	BDW 1 Page 581	Number	22189	5091
1520	Building Miscellaneous Item	44.19	BDW	Providing and fixing copper strip 25mm wide and 3mm thick for lightening conductor including fixing with screws required scaffolding etc.complete Note- Lightning conductor and earthinf pits is not considered in this item	BdW 1 Page 581 as directed Engineer in Charge	Running Meter	652	265
1521	Building Miscellaneous Item	44.20	BDW	Providing and fixing in position alluminium strips of size 50mm x 3mm for nosing the steps including fixing with screws and raval plugs, bending and cutting to the required shape and size, finishing with paint, necessary mortar bedding of 1:3 cement mortar to get exact line and level including watering and curing etc.complete	As directed by Engineer in charge.	Running Meter	248	168
1522	Building Miscellaneous Item	44.21	BDW	Providing and fixing crimped with G.I. mesh and size 20 mm x 20mm 10 guage to iron angle frame including welding crimp mesh to angle frame and steel flat, fixing the frame in its original position and oil painting etc.complete ( excluding cost of structural steel)	As directed by Engineer in charge.	Square Metre	624	322
1523	Building Miscellaneous Item	44.23	BDW	Providig and fixing wleded mesh fabric for guniting of mesh size 75 mm x 75mm and 10 guage thick including scaffolding etc.complete	As directed by Engineer in charge.	Square Metre	858	301
1524	Building Miscellaneous Item	44.24	BDW	Providing and fixing welded mesh fabric for guniting of mesh size 150mm x 150mm and 10 guage i.e. 3.25mm thick including scaffolding etc.complete	As directed by Engineer in charge.	Square Metre	825	301

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
<b>SSR 2021-2022 :- Building Maintenance</b>								
1525	Building Maintenance	46.01	BDW 8-2	Removing double country tiled roof with ridge and with battens and stacking the materials as directed with all leads and lifts, complete including removing wood work below etc. complete	Bd.W.8 Page Number587	Square Metre	105	105
1526	Building Maintenance	46.02	BDW 8-4	Removing planking from roof or ceiling and stacking them sa directed with all leads and lifts etc. complete	Bd.W.8 Page Number587	Square Metre	47	47
1527	Building Maintenance	46.03	BDW 8-5A	Removing Queen Post truss from roof and stacking the materials as directed with all leads and lifts etc. complets	Bd.W.8 Page Number587	Number	1685	1685
1528	Building Maintenance	46.04	BDW 8-5B	Removing King Post truss from roof and stacking the materials as directed with all leads and lifts etc. complets	Bd.W.8 Page Number587	Number	1099	1099
1529	Building Maintenance	46.05	BDW 8-5C	Removing other type truss below 5 metres span from roof and stacking the materials as directed with all leads and lifts etc. complets	Bd.W.8 Page Number587	Number	824	824
1530	Building Maintenance	46.06	BDW 8-8	Dismantling flat wooden or A.C. Sheet ceiling with frame work including stacking the materials as directed with all leads, lifts etc. complete.	Bd.W.8 Page Number587	Square Metre	56	56
1531	Building Maintenance	46.07	BDW 8-9	Removing cloth ceiling including frame work and stacking the materials as ditected with all leads, lifts etc. complete	As directed by Engineer in charge.	Square Metre	28	28
1532	Building Maintenance	46.08	BDW 8	Dismantling brick masonry in Mud and stacking the materials as directed with all leads, lifts etc. complete.	As directed by Engineer in charge.	Cubic metre	245	245
1533	Building Maintenance	46.09	BDW 8	Dismantling brick masonry in lime or cement mortar and stacking the materils as directed with all leads, lifts etc.	As directed by Engineer in charge.	Cubic metre	315	315
1534	Building Maintenance	46.10	BDW 8	Dismantling stone masonry in Mud including stacking the materials as directed with all leads, lifts etc. complete.	As directed by Engineer in charge.	Cubic metre	252	252
1535	Building Maintenance	46.11	BDW 8	Dismantling stone masonry in lime or cement mortar including stacking the materils as directed with all leads, lifts etc.	As directed by Engineer in charge.	Cubic metre	357	357
1536	Building Maintenance	46.12	BDW 8	Removing lime or lean cement concrete including stacking the spoils as directed with all leads, lifts etc, complete.	As directed by Engineer in charge.	Cubic metre	525	525
1537	Building Maintenance	46.13	BDW 8	Removing rich mix cement concrete including stacking the spoils as directed with all leads, lifts etc, complete.	As directed by Engineer in charge.	Cubic metre	876	876
1538	Building Maintenance	46.14	BDW 8	Removing brick bat coba including stacking the spoils as directed with all leads, lifts etc, complete.	As directed by Engineer in charge.	Cubic metre	596	596
1539	Building Maintenance	46.15	BDW 8	Removing doors and windows with frames and stacking the materials as directed with all leads, lifts etc. complete.	As directed by Engineer in charge.	Number	147	147
1540	Building Maintenance	46.16	BDW 8	Removing ventilators and small windows with frame and stacking the materials with all leads, lifts etc. complete.	As directed by Engineer in charge.	Number	125	125
1541	Building Maintenance	46.17	BDW 8	Removing wooden or A.C. partition including frame work and stack-ing the materials as with all leads, lifts etc. complete.	As directed by Engineer in charge.	Square Metre	38	38
1542	Building Maintenance	46.18	BDW 8	Removing teak wood trellies work with frame including stacking the materials as directed with all leads, lifts etc. complete.	As directed by Engineer in charge.	Square Metre	32	32
1543	Building Maintenance	46.19	BDW 8	Removing cement tiles, or marble or polished shahabad floor or dado without bed concrete including stacking the materials as directed with all leads, lifts etc. complete	As directed by Engineer in charge.	Square Metre	42	42

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
1544	Building Maintenance	46.21	BDW 8	Dismantling wooden floor including beams and joists, stacking the materials as directed with all leads, lifts etc. complete.	As directed by Engineer in charge.	Square Metre	35	35
1545	Building Maintenance	46.23	BDW 8	Removing mud plaster including disposing of the spoils as directed with all leads, lifts etc, complete.	As directed by Engineer in charge.	Square Metre	14	14
1546	Building Maintenance	46.24	BDW 8	Removing wire fencing with wooden post and stacking the material with all leads, lifts etc. complete.	As directed by Engineer in charge.	Running Metre	47	47
1547	Building Maintenance	46.25	BDW 8	Removing wire fencing with iron/ C.C. fencing post and stacking the materials as directed with all leads, lifts etc. complete.	As directed by Engineer in charge.	Running Metre	63	63
1548	Building Maintenance	46.26	BDW 8	Removing iron pipe raling having wooden R.C.C. or C.C. or iron post and stacking the materials as directed etc. complete.	As directed by Engineer in charge.	Running Metre	65	65
1549	Building Maintenance	46.27	BDW 8	Removing earthen, stonewate pipe and stacking them as directed with all leads, lifts etc. complete.	As directed by Engineer in charge.	Running Metre	21	21
1550	Building Maintenance	46.28	BDW 8	Removing cast iron or wrought iron or A.C. pipe and stacking them as directed with all leads, lifts etc. complete.	As directed by Engineer in charge.	Running Metre	21	21
1551	Building Maintenance	46.29	BDW 8	Dismantling the R.C.C. Work 1:2:4 and sorting out the materials such as steel etc. as directed and stacking them within the specified lead as directed etc. complete.	As directed by Engineer in charge.	Cubic metre	1366	1366
1552	Building Maintenance	46.30	BDW 8	Removing Np-2 and Np-3 class pipes including stacking at road side as directed by the Engineer in charge. Upto 900mm dia. etc complete.	As directed by Engineer in charge.	Running Metre	230	93
1553	Building Maintenance	46.31	BDW 8	Removing Np-2 and Np-3 class pipes including stacking at road side as directed by the Engineer in charge. Upto 900mm dia and above. etc complete.	As directed by Engineer in charge.	Running Metre	300	163
1554	Building Maintenance	46.32	BDW 8	Removing single country tiled roof with battens and stacking the materials as directed with all leads and lifts etc. complete.	As directed by Engineer in charge.	Square Metre	67	67
1555	Building Maintenance	46.33	BDW 8	Removing battens from roof and stacking them as directed with all leads and lifts etc. complete.	As directed by Engineer in charge.	Running Metre	9	9
1556	Building Maintenance	46.34	BDW 8	Removing matting from roof and stacking as directed with all leads and lifts etc. complete.	As directed by Engineer in charge.	Square Metre	18	18
1557	Building Maintenance	46.35	BDW 8	Removing purlins from roof including stacking as directed with all leads , lifts etc. complete.	As directed by Engineer in charge.	Running Metre	20	20
1558	Building Maintenance	46.36	BDW 8	Removing rafters from roof including the materials as directed with all leads , lifts etc. complete.	As directed by Engineer in charge.	Running Metre	20	20
1559	Building Maintenance	46.37	BDW 8	Removing cloth partition with frame work and stacking the materials as directed with all leads , lifts etc. complete.	As directed by Engineer in charge.	Square Metre	17	17
1560	Building Maintenance	46.38	BDW	Providing and fixing Jute Kantan (Tarat) screen to the scaffold-ing for external guniting as directed including removing the same after the work is over etc. complete.	As directed by Engineer in charge.	Square Metre	57	18



Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
1561	Building Maintenance	46.39	BDW	Providing and erecting chain link fencing 1.6 M. height with G.I. chain link of size 50 x 50 mm, 8 gauge thick and fixed 75 mm above ground level on vertical M.S. Angles of 40 x 40 x 6 mm size, including excavating pits for foundation and embedded in C.C. block of 1:4:8 mix of size 450 x 450 x 670 mm. at 1.75 M. c/c with iron bar 16mm dia as hold fast including welding link with angle frame at 30 cm c/c with nuts and bolts and horizontal M.S. Angles at top and bottom of 25 x 25 x 5 mm size and vertical M.S. flat 35 x 5 mm and 25 x 5 mm horizontal including cross support of 40 x 40 x 6 mm angles both side at every corner or bend embedded in concrete blocks of 1:4:8 of size 450 x 450 x 670 mm including 3 coats of oil painting etc. complete.	As directed by Engineer in charge.	Running Metre	2306	307
1562	Building Maintenance	46.40	BDW	Removing urinal pans or wash hand basins with frame including disconnecting the sanitary and water supply connections, removing the same carefully and stacking the serviceable materials as and where directed including throwing the unserviceable materials outside etc complete	As directed by Engineer in charge.	Number	90	90
1563	Building Maintenance	46.41	BDW	Removing W.C. pans including disconnecting the sanitary and water supply connections, removing and breaking flooring and bed concrete around pan removing the same carefully and stacking the serviceable materials as and where directed including throwing the unserviceable materials out side etc. carefully and throwing out the refusal outside etc. complete.	As directed by Engineer in charge.	Number	195	195
1564	Building Maintenance	46.42	BDW	Providing and fixing double scaffolding system (cup lock type) on the exterior side of building/structure, including additional rows of scaffolding in stepped manner as per requirement of site, made with 40mm dia M.S. tube, placed 1.5 metre centre to centre, horizontal & vertical tubes joint with cup & lock system with M.S. Tubes, M.S. tube chalis, M.S. clamps and staircase system in the scaffolding for working platform etc. and maintaining it in a serviceable condition for execution of work of cleaning and/ or pointing and/ or applying chemical and removing it thereafter. The scaffolding system shall be stiffened with bracings, runners, connecting with the building etc, wherever required, if feasible, for inspection of work at required locations with essential safety features for the workmen etc., complete as per directions and approval of Engineer-in-charge. Note:- (1) The elevational area of the scaffolding shall be measured for payment purpose. (2) The payment will be made once only for execution of all items for such works.	As directed by Engineer in charge.	Square Metre	187	200
1565	Building Maintenance	46.43	BDW	Removing Mangalore tiled roof and ridge tiles with battens, ridge and barge boards, eaves 8 A boards etc and sacking the materials as directed with all leads and lifts complete. Including removing wood work below etc. complete.	As directed by Engineer in charge.	Square Metre	109	109
1566	Building Maintenance	46.44	BDW	Providing and erecting 1.5 metre high wire fencing with seven rows of barbed wire supported on M.S. Angles (50 mm x 50 mm x 6 mm) at 2.5 metres centre to centre including excavating pits for foundation, fixing posts in cement concrete of size 45 x 45 x 45 cm, fastening the wire and painting the M.S. Angles with one coat of red lead primer and two coats of painting etc. complete.	Bd.W.3 Page Number583	Running Meter	807	214
1567	Building Maintenance	46.45	BDW	Providing and erecting 1.5 metre high wire fencing with seven rows of barbed wire supported on wooden post of specified size at 2.5 M C/C including excavating pits for foundation, fixing post in cement concrete 1:4:8 block of concrete of size 45 x 45 x 45 cm fastening the wire and coal tarring wooden post in two coats etc. complete.	Bd.W.4 Page Number583	Running Meter	768	214
1568	Building Maintenance	46.46	BDW	Replacement of damaged aluminium Butt Hinges of 125 mm of approved quality and make to door shutter including removing existing the same in original position making proper adjustment for smooth operation etc. complete as per sample approved by Engineer incharge.	As directed by Engineer in charge.	Number	267	92

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
1569	Building Maintenance	46.47	BDW	Replacement of damaged Mortise Lock of approved quality and make to door shutter including Removing and Refixing with Necessary screw, making proper adjustment for smooth operation etc. complete as per sample approved by Engineer in-charge.	As directed by Engineer in charge.	Number	1125	116
1570	Building Maintenance	46.48	BDW	Replacement of damaged Aldrop 300 mm Chromium plated of approved quality and make to door shutter including removing existing the same in original position making proper adjustment for smooth operation etc. complete as per sample approved by Engineer in-charge.	As directed by Engineer in charge.	Number	340	48
1571	Building Maintenance	46.49	BDW	Replacement of damaged Aldrop 300 mm Iron Oxidised of approved quality and make to door shutter including removing existing the same in original position making proper adjustment for smooth operation etc. complete as per sample approved by Engineer in-charge.	As directed by Engineer in charge.	Number	290	48
1572	Building Maintenance	46.50	BDW	Replacement of damaged Tower Bolt 300 mm Chromium plated of approved quality and make to door/window shutter including removing existing the same in original position making proper adjustment for smooth operation etc. complete as per sample approved by Engineer in-charge.	As directed by Engineer in charge.	Number	172	24
1573	Building Maintenance	46.51	BDW	Replacement of damaged Alluminium Handle 125 mm of approved quality and make to door/window shutter including removing existing the same in original position making proper adjustment for smooth operation etc. complete as per sample approved by Engineer in-charge.	As directed by Engineer in charge.	Number	163	48
1574	Building Maintenance	46.52	BDW	Replacement of damaged Lock of approved quality and make to cupboard and doorwer including Removing and Refixing with necessary screw, making proper adjustment for smooth operation etc. complete as per sample approved by Engineer in-charge.	As directed by Engineer in charge.	Number	188	24
1575	Building Maintenance	46.53	BDW	Removing chockes and leakages from down take G.I/CI/PVC pipe line on walls floor level by using zoola / scaffolding and rectify the same for functioning with all lifts etc. complete.	As directed by Engineer in charge.	Number	295	295
1576	Building Maintenance	46.54	BDW	Manualy clearing the chockes from under ground drainage line including Inspection chambers with the help of required tools for propre functioning line chamber to chamber etc. complete.	As directed by Engineer in charge.	Running Metre	46	46
1577	Building Maintenance	46.55	BDW	Manualy clearing by removeing the chockes from Nahni Trap, Gully Trap, Wash basin unit, Sink and WC with the help of required tools for proper functioning the same etc. complete.	As directed by Engineer in charge.	Number	175	175
1578	Building Maintenance	46.56	BDW	Filling tiles joint portion of flooring and dado filling with white cement by removing existing loose mortar/ cement slurry from joint with tools and finish with washing cleaning and curing etc. complete.	As directed by Engineer in charge.	Square Metre	222	185
1579	Building Maintenance	46.57	BDW	Providing and fixing 6 mm thick commercial plywood with jungle wood frame work of 50 x 35 mm size at 60 cm on both ways for closing the window portion/openings for protection from falling debris, dust etc. including cutting, fixing with nails and removing after the same after completion of the work. (To be used after approval of Superintending Engineer)	As directed by Engineer in charge.	Square Metre	975	205
1580	Building Maintenance	46.58	BDW	Removal of plants / ficus grown by pulling out root system embedded in masnory, cutting stem and application of high/gur/lime formulation as specified by the Architect or other patented chemical biocide treatment such as biocide 'Glycel' (iso proplamine salt of glyphosate) or other chemical as specified by the Engineer in charge etc. complete.	As directed by Engineer in charge.	Number	179	78
1581	Building Maintenance	46.59	BDW	Lowering down the debris obtained from breaking and removing the cement plaster / burnt brick masonry of the first floor by any means without causing dust nuisance and damage to structure, stacking the same as and where directed including cleaning the site complete.	As directed by Engineer in charge.	Cubic metre	708	708

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
<b>SSR 2021-2022 :- Structural Strengthening</b>								
1582	Structural Strengthening	47.01	BDSS	Providing & Applying chemical for cleaning the exposed steel structure, TMT bars, etc. of structure by grinding the surface by grinder machine, wire brush, removing existing corrosion from the metal also removing loose particles, of the area by water jet, (using other mechanical / manual means) and apply on prepared surface of as corrosion preventive coat on prepared TMT bars, steel structure,metal surface etc. to protect it from corrosion etc. as per manufacturer's specification ( using other manual / mechinical means) after that Providing and applying high abrasive resistant, self curing, UV resistant,impermeable ,high strength, non shrink, Poly Ironite Ceramic Cementitious (PICC) repair mortar resurfacing on concrete surface of thickness up to 10 mm including breaking honey comb area, (using manual/mechanical means) , clean the concrete surface with special chemical clonon with pressure water jet for removing of algae fungi, apply bond coat Kelox water misible epoxy before PICC application with all leads and lifts, Material, Machinery, labour, scaffolding, etc. complete as per specification and as directed by engineer-in-charge.	As directed by Engineer in charge.	Square Metre	3863	523
1583	Structural Strengthening	47.02	BDSS	Providing and grouting the holes by Poly Ceramic Cementitious i.e NicGrout G 06 + 53 grade cement material of as per requirement to reduce the porosity of concrete / Masonry structure and to increase the strength of structure using grouting pipes , grouting m/c, mixer etc and all relevant safety with all leads and lifts, material, machinery, labour, etc. Complete as per specification and as directed by Engineer-in-Charge.	As directed by Engineer in charge.	Kilogram	79	31
1584	Structural Strengthening	47.03	BDSS	Providing and applying high abrasive resistant, UV resistant,impermeable ,self curing,high strength, non shrink, Poly Ironite Ceramic Cementitious (PICC) repair mortar for water proofing on concrete surface with thickness up to 5 mm, , apply bond coat Kelox Water Misible epoxy before PICC application (using manual/mechanical means) and Providing and Applying PCC up to 50 mm thickness for desire slope to drain the water and kept ponded for continuous period of 3 days to detect any seepage / leakage/ dampness if any, the surface then shall be cleared, complete as per specification including cost of all materials, machinery, labour, insurance charges as directed by the Engineer in charge.	As directed by Engineer in charge.	Square Metre	1465	179
1585	Structural Strengthening	47.04	BDSS	PICC Coating for concrete Bridge repair work :-Providing and applying Poly Ironite Ceramic Cementitious (PICC) material of Self curing ,High Abrasion resistant , Non shrink ,High strength,UV resistant, repair mortar coating on bond coat Kelox water missable epoxy of on concrete surface upto 10 mm thickness including Cleaning the concrete surface of bridge by grinding the surface by grinder machine with wire brush /diamond wheel, removing existing loose particles etc. by using grinder, wire brush,breaker machine, water jet(using other mechanical / manual means) also removing of algae fungi by special chemical of clonon etc.complete with all leads and lifts, Material, Machinery, Labour, Scaffolding etc. complete as per specification and as directed by engineer-in-charge.	As directed by Engineer in charge.	Square Metre	5050	1244
1586	Structural Strengthening	47.05	BDSS	Removal of Vegetation/Plants:- Removal of entire root inside the bridge portion. Remains of the root shall be treated with special chemical Steripure MBT 20. Top 50 mm shall filled with high strength grout including cost of all material, machinery, labour, scaffolding, etc.as per specification and as directed by Engineer-in-Charge.	As directed by Engineer in charge.	Square Metre	1543	607

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
1587	Structural Strengthening	47.06	BDSS	Providing & Applying DuraClean- WR for cleaning the TMT bars, steel structure etc. of structure by Waterjet cleaning/ grinding the surface by grinder machine, wire brush, removing existing corrosion from the metal surface also removing loose particles(using other mechanical / manual means) and apply on prepared surface of DuraGuard - as corrosion preventive coat on prepared TMT bars, steel structure,metal surface etc. to protect it from corrosion etc. as per manufacturer's specification ( using other manual / mechinical means) complete as per specification including cost of all materials, machinery, labour, insurance charges as directed by the Engineer in charge.	As directed by Engineer in charge.	Square Metre	1463	78
1588	Structural Strengthening	47.07	BDSS	PICC filling for Honey combing area at concrete surface:-Providing and applying Poly Ironite Ceramic Cementitious (PICC) material of Self curing ,High Abrasion resistant , Non shrink ,High strength,UV resistant, repair mortar coating on Kelox water missble epoxy of concrete surface fill the honey combing area etc. on tacky primer coat upto 10 mm thickness or as per the surface conditions including Cleaning the concrete surface of bridge by grinding the surface by grinder machine with wire brush /diamond wheel, removing existing loose particles etc. by using grinder, wire brush,breaker machine, water jet(using other mechanical / manual means) also removing of algae fungi by special chemical of clonon. etc.complete with all leads and lifts, Material, Machinery, Labour, Scaffolding etc. complete as per specification and as directed by engineer-in-charge.	As directed by Engineer in charge.	Square Metre	5367	1591
1589	Structural Strengthening	47.08	BDSS	Providing and applying Poly Ironite Ceramic Cementitious (PICC) of self curing, a high abrasion resistant, non-shrink, high strength,low porosity, UV resistant repair mortar on Concrete road etc including cleaning the Concrete surface on concrete road by breaking, cleaning with wire brush , removing existing loose particles etc. by using wire brush,breaker machine, air (using other mechanical / manual means) then applying Kelox ( water missible epoxy)of , bond coat on prepared concrete surface for bonding the old surface to new repair mortar etc. as per manufacturer's specification ( using other manual / mechinical means) then apply repair mortar of PICC to fill the concrete surface upto 15 mm coat etc.complete with all leads and lifts, Material, Machinery, Labour etc. complete as per specification and as directed by engineer-in-charge.	As directed by Engineer in charge.	Square Metre	5163	382
1590	Structural Strengthening	47.09	BDSS	Providing and applying Poly Ironite Ceramic Cementitious (PICC) of self curing, a high abrasion resistant, non-shrink, high strength,low porosity, UV resistant repair mortar on Concrete road etc including cleaning the Concrete surface on concrete road by breaking, cleaning with wire brush , removing existing loose particles etc. by using wire brush,breaker machine, air (using other mechanical / manual means) then applying Kelox ( water missible epoxy)of , bond coat on prepared concrete surface for bonding the old surface to new repair mortar etc. as per manufacturer's specification ( using other manual / mechinical means) then apply repair mortar of PICC to fill the concrete surface upto 25 mm coat etc.complete with all leads and lifts, Material, Machinery, Labour etc. complete as per specification and as directed by engineer-in-charge.	As directed by Engineer in charge.	Square Metre	7196	382
1591	Structural Strengthening	47.10	BDSS	Providing and applying Poly Ironite Ceramic Cementitious (PICC) of self curing, a high abrasion resistant, non-shrink,high strength, low porosity, UV resistant coating mortar on existing GSB of 100 mm thickness , get levelled the surface and cure then applying self curing coating PICC mortar for 50 mm thickness after stamp the surface by special concrete stamping mold as per specified texture and colour etc.complete with all leads and lifts, Material, Machinery, Labour etc. complete as per specification and as directed by engineer-in- charge.	As directed by Engineer in charge.	Square Metre	3028	103

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
1592	Masonry Bridge Repair	47.11	BDSS	Masonry Bridge repair work:-Providing pointing on masonry surface of Bridge with UV resistance, Non-shrink. high strength, high abrasion, material like Poly Ironite Ceramic Cementitious (PICC) self curing cementitious material for masonry joint filling to depth of 20mm including pointing work of masonry by removing of existing loose portion of stone masonry by braking removing existing loose particles upto required depth 50 mm or as per site confiton cleaning with special chemicals clonon and water jet under pressure for removing algae, fungi, applying bond coat Kelox water missable epoxy before repair material application complete as per specification including cost of all material, machinery, labour,scaffolding, transportation etc. with all leads and lifts as directed by the engineer-in- charge.	As directed by Engineer in charge.	Square Metre	5702	1593
1593	Structural Strengthening	47.12	BDSS	Providing & Applying DuraClean- WR - for cleaning the TMT bars, steel structure etc. of structure by Waterjet cleaning/ grinding the surface by grinder machine, wire brush, removing existing corrosion from the metal surface also removing loose particles(using other mechanical / manual means) and apply on prepared surface of DuraCap 2 coats corrosion preventive coat on prepared TMT bars, steel structure,metal surface etc. to protect it from corrosion etc. as per manufacturer's specification ( using other manual / mechinical means) complete as per specification including cost of all materials, machinery, labour, insurance charges as directed by the Engineer in charge.	As directed by Engineer in charge.	Square Metre	519	22
1594	Bitumen and concrete road Pot Hole Repairing	47.13	BDSS	Providing and applying Poly Ironite Ceramic Cementitious (PICC) of self curing, a high abrasion resistant, non-shrink, high strength,low porosity, UV resistant repair mortar to fill the pot holes on Concrete/Bitumen road including cleaning the pot holes on concrete/Bitumen road by breaking, clean with wire brush , Air blower, removing existing loose particles etc. by using wire brush,breaker machine, air jet(using other mechanical / manual means) then applying Kelox water missiable epoxy bond coat on prepared concrete/Bitumen surface pot hole for bonding the old surface to new repair mortar etc. as per manufacturer's specification ( using other manual / mechanical means) then apply repair mortar to fill the pot holes on concrete/Bitumen surface upto 75 mm depth to match existing road thickness etc. Complete with all leads and lifts, Material, Machinery, Labour etc. complete as per specification and as directed by engineer-in-charge.	As directed by Engineer in charge.	Kilogram.	56	4
1595	Bitumen and concrete road Pot Hole Repairing	47.14	BDSS	Providing and applying Poly Ironite Ceramic Cementitious (PICC) of self curing, a high abrasion resistant, non-shrink, high strength,low porosity, UV resistant repair mortar to fill the pot holes on Concrete/Bitumen road including cleaning the pot holes on concrete/Bitumen road by breaking, clean with wire brush , Air blower, removing existing loose particles etc. by using wire brush,breaker machine, air jet(using other mechanical / manual means) then applying Kelox water missiable epoxy bond coat on prepared concrete/Bitumen surface pot hole for bonding the old surface to new repair mortar etc. as per manufacturer's specification ( using other manual / mechanical means) then apply fast seting repair mortar to fill the pot holes on concrete/Bitumen surface upto 75 mm depth to match existing road thickness etc. & movement the vechical within 1 hour. complete with all leads and lifts, Material, Machinery, Labour etc. complete as per specification and as directed by engineer-in-charge.	As directed by Engineer in charge.	Kilogram.	150	4

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
1596	Structural Strengthening	47.15	BDSS	Providing and applying 30 mm thick self curing Ceremic Polymer Microconcrete of approved make having Compressive strength above M30, non shrink, impermeable , filling mortar to load carrying R.C.C member in two layers on cleaned concrete surface , including honey comb area (using manual/mechanical means). Mixing mortar of Nicosil C80 and fresh 53 grade cement with required water cement ratio for desired consistency and applying and finishing by manual trawelling , curing after curing initial setting time etc, as per manufacturers specification etc. complete as per specification and as directed by engineer-in- charge. Work shall be executed by certified applicator only and work shall be guaranteed for 5 years and guarantee shall be provided on Rs. 500 /- stamp paper. (Bond coat mentioned below is to be done before coating)	As directed by Engineer in charge.	Square Metre	2421	200
1597	Structural Strengthening	47.16	BDSS	Providing and applying Kelox R 101 (Resin) + Kelox H 404 (Hardner) water misible epoxy of approved make for bonding old concrete to new moratr after mixing slowly in predefined ratio and applying by brush on the surface, when it is tacky then apply the moratr complete as per specification and as directed by engineer-in-charge. Work shall be executed by certified applicator only and work shall be guaranteed for 5 years and guarantee shall be provided on Rs. 500 /- stamp paper	As directed by Engineer in charge.	Square Metre	723	75
1598	Structural Strengthening	47.17	BDSS	Corrosion protection of unexposed old reinforcement on non-spalled concrete by Insertion of sustained release Corrosion inhibiting caplets like Powrthrow which protect both anodic & cathodic sites and reduces Corrosion potential Ecorr by minimum 80 mV in conductive medium, by drilling 20-22 mm dia holes into the concrete at a depth of 30-40 mm and inserts to be filled by epoxy sealant EPCO-1010. Caplets shall inhibit corrosion inhibition efficiency of 98% (when added 0.03 % by weight) against control sample evaluated by Tafel polarization method. Depth of penetration for effective corrosion protection shall be 120mm & film formation of 20 Microns as evaluated by CSIR-CECRI Karaikudi.Spacing of Powrthrow shall be- a) For RCC Columns- 1 Units in a single drilled hole at a spacing of 1m c/c from two opposite faces in staggered fashion b) For RCC Beams- 1 Units in a single drilled hole at a spacing of 1m c/c from two opposite faces in staggered fashion C) RCC Slab- 4 Units in a single drilled hole in 1 sqm area in a grid pattern	As directed by Engineer in charge	Square Metre	1068.00	212.00
1599	Structural Strengthening	47.18	BDSS	Providing protection of unexposed old reinforcement on non spalled concrete by insertion of sustained release corrosion inhibitor caplets like POWRTHROW sustained release Corrosion inhibiting caplets of to protect both anodic & cathodic sites and shall reduce to reduce corrosion potential Ecorr by minimum 80 mV in conductive medium, by drilling 20 mm holes into the concrete at a depth of 25 mm and inserts to be filles by EPCO-PC-Putty. Caplets shall inhibit corrosion inhibition efficiency of 98% (when added 0.03% by weight) against control sample evaluated by Tafel polarization method. Depth of penetration for effective corrosion protection shall be 120 mm and film formation of 20 Microns as evaluated by CSIR-CECRI Karaikudi.	As directed by Engineer in charge	Number	290.00	50.00
1600	Structural Strengthening	47.19	BDSS	Providing and applying Elastomeric, Anti carbonation, Anti corrosive, UV resistant, Solvent based Pure Aliphatic Acrylate System- MONOPOL 456 on the exterior faces of Buildings Protection against ION penetration, carbonation,UV radiations and wethering effect conforming to ASTM D 4541-02 having Electrochemical impedance of 107 Ω and achieving dry film thickness of minimum 200 microns in a primer coat followed by two top coats using brush or spray after complete cleaning & removal of oil, grease or loose particles from the surface etc. complete.	As directed by Engineer in charge	Square Metre	456.00	148.00

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
<b>SSR 2021-2022 :- Green Building</b>								
1601	Masonry	48.01		Providing and constructing non load bearing wall with 200mm Horizontally perforated clay hollow blocks of approved make with compressive strength not less than 35 Kilogram/Sqcm, U value of 47.0 W/m2K, Water Absorption of 15%, masonry to be done using fine aggregate (natural sand/crushed sand VSI grade finely washed etc.) cement mortar 1:6 with blocks of size 400mm x 200mm x 200mm (12.5 bricks per Square Metre. excluding mortar joint thickness) including cost of materials, labour charges, scaffolding, curing at all heights, complete as per specifications & directions of Engineer-in Charge. Cost shall be inclusive of filling the Blocks with Cement mortar at exposed junctions and filling with concrete using 12mm down size aggregates at Window and door Jambs for fixing hold fast, anchors etc.	As directed by Engineer in charge	Square Metre	1820	729
1602	Masonry	48.02		Providing and constructing non load bearing wall with 150mm Horizontally perforated clay hollow blocks of approved make with compressive strength not less than 35Kilogram/Sqcm, U value of 47.0 W/m2k, Water Absorption of 15%, with cement mortar 1:6 with blocks of size 400mm x 150mm x 200mm (12.5 bricks per Sq.m excluding mortar joint thickness) including cost of materials, labour charges, scaffolding, curing at all heights, complete as per specifications & directions of Engineer-in Charge. Cost shall be inclusive of filling the Blocks with Cement mortar at exposed junctions and filling with concrete using 12mm down size aggregates at Window and door Jambs for fixing hold fast, anchors etc.	As directed by Engineer in charge	Square Metre	1699	694
1603	Masonry	48.03		Providing and constructing non load bearing wall with 100mm Horizontally perforated clay hollow blocks of approved make with compressive strength not less than 35Kilogram/Sq.cm, U value of 47.0 W/m2k, Water Absorption of 15%, with cement mortar 1:6 with blocks of size 400mm x 100mm x 200mm (12.5 bricks per Square Metre. excluding mortar joint thickness) At every 5th course level, Concrete band of 100mm thick with 1:3:6 Mix Concrete along with Nominal Reinforcement to be provided. The rate inclusive of cost of materials, labour charges, scaffolding, curing at all height, complete as per specifications & directions of Engineer-in Charge. Cost shall be inclusive of filling the Blocks with Cement mortar at exposed junctions and filling with concrete using 12mm down size aggregates at Window and door Jambs for fixing hold fast, anchors etc.	As directed by Engineer in charge	Square Metre	1363	455
1604	Flooring	48.04		Providing and laying 18 mm thick ADONI BROWN LEATHER FINISH stone for flooring, machine cut in required size, approved shade, color and texture laid using white cement slurry over 20 mm (average) thick base of cement mortar 1:4 followed by laying, fixing and jointed with white cement slurry mixed with matching pigment, including rubbing and curing moulding and polishing to edge to give high gloss finish etc complete. The application rate for tile adhesives shall be as per manufacturer's recommendations. as per detail drawing. The rate shall be inclusive of all labour, material, wastage, scaffolding, transportation, taxes, including all leads, lifts at all levels and as directed by Engineer in charge. Complete. a) Flooring	As directed by Engineer in charge	Square Metre	4540	906

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
1605	Flooring	48.05		Providing and laying 18 mm thick ADONI BROWN LEATHER FINISH stone for flooring, machine cut in required size, approved shade, color and texture laid using white cement slurry over 20 mm (average) thick base of cement mortar 1:4 followed by laying, fixing and jointed with white cement slurry mixed with matching pigment, including rubbing and curing moulding and polishing to edge to give high gloss finish etc complete. The application rate for tile adhesives shall be as per manufacturer's recommendations. as per detail drawing. The rate shall be inclusive of all labour, material, wastage, scaffolding, transportation, taxes, including all leads, lifts at all levels and as directed by Engineer in charge. Complete. a) Skirting	As directed by Engineer in charge	Square Metre	5535	953
1606	Flooring	48.06		Providing and Laying factory made coloured chamfered edge Cement concrete grass paver blocks of required strength,thickness & size/shape, made by table vibratory method using PU mould, laid in required colour & pattern over 50mm thick compacted bed of fine fine aggregate (natural sand/crushed sand VSI grade finely washed etc.), compacting and proper embedding/laying of inter locking paver blocks into the fine aggregate (natural sand/crushed sand VSI grade finely washed etc.) bedding layer through vibratory compaction by using plate vibrator, filling the joints with fine aggregate (natural sand/crushed sand VSI grade finely washed etc.) and cutting of paver blocks as per required size and pattern, finishing and sweeping extra fine aggregate (natural sand/crushed sand VSI grade finely washed etc.) and complete as per manufacturer spsecifications & direction of Engineer-in-Charge. 60mm thick CC paver block of M-35 grade concrete with approved colour and design & pattern.	As directed by Engineer in charge	Square Metre	1040	94
1607	Flooring	48.07		Bamboowood 14 mm thick tile flooring including quater round, door reduces and plywood- Providing & fixing in position Phenol bonded Epitome Bamboowood flooring with planks of sizes 14mm thick, 1800mm length (minimum) and 130mm wide (minimum), in approved colour, texture and finish, having Performance Appraisal Certificate (PAC) issued by Building Materials & Technology Promotion Council (MBTPC). The flooring shall be fixed with tongue and groove interlocaking system, with plywood of mr grade of 18mm thickness as base and underlayment of 4mm thick expanded poly ethylene foam sheets having density 40Kilogram/cum, over prepared surface with necessary quarter round planks of size 1900mm x 18mm and dorr reducer of size 1900mm x 44mm, wherever required. The Epitome Bamboowood planks shall have minimum density of 1000 Kilogram/cum & minimum Hardness 1000 Kilogramf. with Eco friendly UV coating, all complete as per direction of Engineer in-charge.	As directed by Engineer in charge	Square Metre	7340	225
1608	Flooring	48.08		Bamboowood 14mm thick Tile Flooring including quarter round & door reducer - Providing & fixing in position Phenol bonded Epitome Bamboowood flooring with planks of sizes 14mm thick, 1800mm length (minimum) and 130mm wide (minimum), in approved colour, texture and finish, having Performance Appraisal Certificate (PAC) issued by Building materials & Technology Promotion Council (BMTPC). The flooring shall be fixed with tongue and groove interlocaking system, with 2mm underlay as sound abrobing and moisture barrier and underlayment of 4mm thick expanded poly ethylene foam sheets having density 40Kilogram/cum, over prepared surface with necessary quarter round planks of size 1900mm x 18mm and dorr reducer of size 1900mm x 44mm, wherever required. The Epitome Bamboowood planks shall have minimum density of 1000 Kilogram/cum & minimum Hardness 1000 Kilogramf. with Eco friendly UV coating, all complete as per direction of Engineer in-charge	As directed by Engineer in charge	Square Metre	5661	225



Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
1609	Flooring	48.09		Bamboowood 14mm thick wall Skirting - Providing & fixing in position Phenol bonded Epitome Bamboowood in wall skirting with planks of sizes 14mm thick, 1900mm length (minimum) and 85mm wide (minimum), in approved colour, texture and finish, having Performance Appraisal Certificate (PAC) issued by Building materials & Technology Promotion Council (BMTPC). The skirting shall be fixed SS screws & rawl plugs, over underlayment of 4mm thick expanded poly ethylene foam sheets having density 40Kilogram/cum, over prepared surface. The Epitome Bamboowood planks shall have minimum density 1000 Kilogram/cum & minimum Hardness 1000 Kilogramf. with Eco friendly UV coating, all complete as per direction of Engineer in-charge	As directed by Engineer in charge	Square Metre	6234	944
1610	Flooring	48.10		Bamboowood 20mm thick Decking Outdoor Flooring Tile Providing & fixing in position Phenol bonded Epitome Bamboowood deck flooring tiles with planks of sizes 20mm thick, 1900 mm length and 135mm wide ,in approved colour , texture and finish , having performance Appraisal Certificate (PAC) issued by Building Materials& Technology promotion Council (BMTPC)with necessary profiled edges and groove fixed with 40mm ss screws 3 nos in each tile to frame work made of second class seasoned and treated teak wood of size 38x38 mm placed underneath across the tile at both ends and in centre fixed with clips holding in position. The Epitome Bamboowood planks shall have minimum density of 1000 Kilogram/cum & minimum hardness 1000 Kilogramf.all complete as per direction of engineer in-charge.	As directed by Engineer in charge	Square Metre	10551	356
1611	Colouring	48.11		Providing and applying 2 coats of 100% Pure acrylic low VOC and APEO & HCHO free water based paint of approved colour that belongs to class 1 flame spread resistance of approved make Paint should provide durable and long lasting silk finish with a high crack tolerance of upto 1mm. Paint should have an outstanding washability with high resistance to wide range of bacteria and fungus. Paint has to be applied on smooth and uniform surface prepared by an acrylic copolymer low VOC & Odour putty. This surface should be primed with water based low VOC Primer. The work activity should cover all aspects of applying paints from surface preparation as directed by Engineer in charge.	As directed by Engineer in charge	Square Metre	307	107
1612	Colouring	48.12		Providing and applying 2 Coats of 100% Pure acrylic water based paint with special heat reflectance property to withstand the harsh climate for period of atleast 10 years of approved make. Paint system should provide durable and long lasting finish with DFT of min 90 microns and should protect against concrete carbonation with R value of minimum 600 and equivalent concrete layer thickness value of min 150 cm. Paint should have breathability property and should be able to cover hairline cracks in the surface upto 0.5mm The paint has to be applied on a coat of high quality acrylic copolymer based alkali resistant primer with excellent penetrating properties including cleaning, with all leads and lifts at all levels etc complete, as directed by Engineer in charge.	As directed by Engineer in charge	Square Metre	200	64
1613	Colouring	48.13		Providing and applying 2 Coats of high quality acrylic copolymer matt latex low VOC emulsion paint of approved shade that gives smooth, flat and washable and durable finishing of approved make. Paint should have good flow levelling property with good colour retention and incan antibacterial property. Paint has to be applied on smooth and uniform surface prepared by an acrylic copolymer low VOC & Odour putty. This surface should be primed with water based low VOC acrylic copolymer based primer sealer that has incan antibacterial property. The work activity should cover all aspects of applying paints from surface preparation, filling to erecting and dismantling of scaffolding, finishing the surface etc as directed by Engineer in charge.	As directed by Engineer in charge	Square Metre	142	54

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
1614	Colouring	48.14		Providing and applying 2 Coats of 100% Pure acrylic low VOC water based paint with to withstand for period of atleast 5 years of approved make. Paint should provide durable long lasting silk finish with high resistance to UV and resistance to spreading of flame. Paint should protect against concrete carbonation with R value of minimum 600 and ability to built cracks upto min 0.7mm. The paint has to be applied on High quality water based acrylic copolymer primer with good alkali resistance properties. With all leads and lifts at all levels etc. complete, as directed by Engineer in charge.	As directed by Engineer in charge	Square Metre	178	64
1615	Colouring	48.15		Providing and applying impression 24 carrat Luxury paint of approved make & approved brand Emulsion paint to interior walls and ceilings of approved quality, colour and shade to new surface in two coats, including sub surface prparation by Acrylic putty and Acrylic primer coats including scaffolding, preparing the surface. etc. complete (Low VOC).	As directed by Engineer in charge	Square Metre	200	64
1616	Colouring	48.16		Providing and applying anti Peel paint of approved make & approved brand exterior Emulsion paint of approved quality, colour and shade to old and new surface in two coats, including exterior acrylic primer coat, scaffolding, preparing the surface etc. complete (Heat Reflective Paint).	As directed by Engineer in charge	Square Metre	200	64
1617	Colouring	48.17		Providing and applying top coat exterior paint to terrace of approved make, shade and quality and one coat of primer before applying textured paint including scaffolding if necessary preparing surface by thoroughly cleaning of oil, grease, dirt and other material and fine aggregate (natural sand/crushed sand VSI grade finely washed etc.) preparing as required, etc. complete.	As directed by Engineer in charge	Square Metre	387	116
1618	Roofing	48.18		Providing & laying water proof treatment of terrace slab with B.B. Coba in all position with an average thickness of 150mm consisting specialised materials as per the manufactures specifications and covering 10 years guarantee on court fee stamp paper including all lead, lift, etc. complete.	As directed by Engineer in charge	Square Metre	1464	473
1619	Roofing	48.19		Providing and applying two coats of High Albedo paint having minimum Solar Reflective Index (SRI) 108 (with solar reflectance & thermal emittance tested as per ASTM) C 1549 and ASTM C 1371 respectively, VOC less than 10 cc/gm. The coating thickness and the methodology of application shall strctly as per manufacturer's specifitions and as approved by engineer in charge. Surface preparation includes cleaning with metal wire brush to remove all dust, fungus etc, washing with water all complete. The contractor shall give guarantee for the performance of SRI and also the durability of coating, all complete as per direction of Engineer - in- incharge.	As directed by Engineer in charge	Square Metre	410	78
1620	Doors & Windows	48.20		Bamboowood paneling or paneling and glazing in paneled and glazed shutters for doors of 25 to 40mm thick. Providing & fixing in position Phenol bonded Bamboowood paneling of 10mm thick, in 25 to 40 mm thick paneled or paneled and glazed shutters for doors, windows, clerestorey windows in approved colous, texture & finishi. The bamboo wood planks shall have minimum density of 1000 Kilogram/cum & minimum Hardness 1000 Kilogramf. The panels shall have profiled interlocking system locked in place with bamboo pins, all complete as per direction of the Entgineer inchargeand (Area of opening for panel inserts excluding portion inside grooves or rebates)	As directed by Engineer in charge	Square Metre	3603	670

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1621	Doors & Windows	48.21		Bamboowood paneled or paneled and glazed Shutters of Doors Providing of fixing, in position Phenol bonded Bamboowood panelled or paneled and glazed shutters for doors, windows, clerestorey windows with pre-molded 30mm thick planks, in approved colour, texture & finish. It shall have 10mm wide, 25mm deep grove to fit inpanels. The bamboowood shall have minimum density of 1000 Kilogram/cum, minimum Hardness 1000 Kilogramf. All styles and rails shall have profiled interlocking system locked in place by bamboo pins, all complete as per direction of Engineer in-charge (The paneling will be paid for separately)	As directed by Engineer in charge	Square Metre	5392	226
1622	Doors & Windows	48.22		Providing and fixing in position U.P.V.C.(Unplasticized Poly Vinyl Chloride) having multi- chambered outer frame section (73 x 50)mm with an outer wall thickness of 2mm & steel reinforcement, multi-chambered slider frame (73x 60) mm with steel reinforcement, multi- chambered slider sash (46x 82) mm with steel reinforcement designed to give optimum strength, 5 mm thick toughened double glass with 12 mm spacer of good quality including alluminium track, Inter-locking profile, coextruded beadings, EPDM gaskets,silicon sealent,sliding handle, fixtures and fastenings (couplings, hinges) including with all required screws and nuts with all necessary U.P.V.C. sections as per the detailed drawing and as directed by Engineer-In-Charge etc. complete.	As directed by Engineer in charge	Square Metre	9462	0
1623	Doors & Windows	48.23		Sliding Window- 3 Track (2 Glass shutter + 1 flymesh) of approved make with DGU, providing and fixing of Sliding Window- 3 Track (2 Glass shutter + 1 flymesh ). For details refer to Specifications. As directed by Engineer in charge.	As directed by Engineer in charge	Square Metre	16061	984
1624	Doors & Windows	48.24		Providing & fixing of Casement fixed window of approved make with DGU. The extruded aluminium sections of Alloy 6063 tolerances confirming to DIN standard from approved raw material V2 / V4 as directed by Engineer in charge.	As directed by Engineer in charge	Square Metre	17018	984
1625	Plumbing	48.25		Providing and fixing sink cock with regular swinging spout (Wall Mounted Model) with wall flange with approved make includng other necessary fitting, etc. complete as directed by Engineer in charge.	As directed by Engineer in charge	Number	2115	229
1626	Plumbing	48.26		Providing and fixing sink cock with regular swinging spout (Wall Mounted Model) with wall flange with approved make includng other necessary fitting, etc complete as directed by Engineer in charge.	As directed by Engineer in charge	Number	1594	37
1627	Plumbing	48.27		Providing and fixing C.P. 2 Way BIB cock with wall flange of approved make including necessary sockets/ union nut etc. complete as directed by Engineer in charge.	As directed by Engineer in charge	Number	2359	225
1628	Plumbing	48.28		Providing and fixing C.P. BIB cock with wall flange of approved make including necessary sockets/ union nut etc. complete as directed by Engineer in charge.	As directed by Engineer in charge	Number	1688	37
1629	Plumbing	48.29		Providing and fixing Hand shower (health faucet) with 8mm dia. 1m long flexible tube having wall hook with approved make including necessary sockets/ union nut etc. complete as directed by Engineer in charge.	As directed by Engineer in charge	Number	1859	225
1630	Plumbing	48.3		Providing and fixing white european type wall-hung, of size 360mm x 360mm x 575mm with flush valve of approved make including soil pipe, vent pipe upto outside face of wall, 100mm dia C.I. plug bend inlet pipe all fittings,cutting & making good walls, floors etc as directed by Engineer in charge.	As directed by Engineer in charge	Number	17820	624
1631	Plumbing	48.31		Providing and fixing white glazed urinal of series with Pressmatic auto closing valve of having 32mm diameter P.V.C. flush pipe with fitting and flushing of approved make and arrangement including lead soil pipe, lead trap & soil pipe connection upto the outside face of wall etc.complete as directed by Engineer in charge.	As directed by Engineer in charge	Number	10353	624

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1632	Plumbing	48.32		Providing and fixing wall hung white wash basin of size 350x450x165mm with approved make pillar cock, C.P. Angular stop cock long thread approved make continental including SS bottle trap of approved make having necessary pipe connection up to the outside face of the wall etc complete as directed by Engineer in charge.	As directed by Engineer in charge	Number	6006	624
1633	Plumbing	48.33		Providing and fixing Shower Head with shower arm of approved make shower tube hand shower with divertor of spout including all necessary pipe fittings and connections etc. complete as directed by Engineer in charge.	As directed by Engineer in charge	Number	14831	624
1634	Plumbing	48.34		Providing and fixing Shower Head, with shower arm of approved make mixer of including all necessary pipe fittings and connections etc. complete as directed by Engineer in charge.	As directed by Engineer in charge	Number	5471	624
1635	Plumbing	48.35		Providing and fixing Oval Type Under Counter Wash Hand Basin of 420 x 590 x 195mm size with pillar cock, C.P.Angular stop cock, long thread of approved make continental including SS bottle trap of necessary pipe connection up to the outside face of the wall, having Telephonic Black / Colour Granite of 180 mm thick fixed on Black Kadappa Framework, etc. Complete as directed by Engineer in charge.	As directed by Engineer in charge	Number	19728	624
1636	Plumbing	48.36		Providing and fixing Table top white wash basin of size 120x635x405mm rubber plugs and brass chain, with pillar cock, C.P.Angular stop cock long thread, continental including S.S. bottle trap of approved make having necessary pipe connection up to the outside face of the wall.etc complete as directed by Engineer in charge.	As directed by Engineer in charge	Number	24196	624
1637	Plumbing	48.37		Providing and fixing white Opal series European type wall-hung, of size 400 mm x 370 mm x 575mm with approved make flush valve including soil pipe, vent pipe upto outside face of wall, 100mm dia C.I. plug bend inlet pipe all fittings, cutting & making good walls, floors etc as directed by Engineer in charge.	As directed by Engineer in charge	Number	23429	624
1638	Plumbing	48.38		Providing and fixing Orissa Pan of size 580x445x260 mm with approved make flush valve including trap, C.I. soil and vent pipe upto outside face of wall including 100mm dia. C.I. plug, bend and necessary pipe connection, etc complete. As directed by Engineer in charge.	As directed by Engineer in charge	Number	7185	624
1639	Plumbing	48.39		Providing and fixing C.P. a 2-Way BIB cock with wall flange of approved make including necessary sockets/ union nut etc. complete as directed by Engineer in charge.	As directed by Engineer in charge	Number	2364	223
1640	Plumbing	48.4		Providing and fixing white wash basin with half pedestal of size 515mmX615mmX460mm including pillar cock auto-closing system CP angular stop cock long thread of approved make continental including S.S. bottle trap of necessary pipe connection upto the outside face of the wall.	As directed by Engineer in charge	Number	11030	1885
1641	Plumbing	48.41		Providing and fixing white european type wall-hung pan, of size 350mm x 355mm x 570 mm concealed flush tank with floor-mounting frame installing kit and drain pipe connection set for wall hung WC, with approved make square control plates including soil pipe, vent pipe upto the outside face of wall, 100mm dia C.I. plug bend inlet pipe all fittings, cutting & making good walls, floors etc. complete.	As directed by Engineer in charge	Number	30447	1990
1642	Plumbing	48.42		Providing and fixing Orissa type white glazed earthenware water closet pan of size 260mm x 440mm x 580mm with approved make Slim wall hung cistern with installation kit including S or P trap with cast iron soil and vent pipe upto outside face of the wall 1:2:4 brick bat lime concrete bedding without flushing tank and its accessories etc.complete.	As directed by Engineer in charge	Number	3358	1651
1643	Plumbing	48.43		Providing and fixing white glazed urinal of size 710x460x300mm with sensotronic concealed type flushing valve for urinal with complete kit having fittings, inlet pipe with stop tap, brackets for fixing the cistern, 32mm diameter P.V.C. flush pipe with fitting and flushing arrangement including lead soil pipe, lead trap & soil pipe connection upto the outside face of wall etc complete.	As directed by Engineer in charge	Number	18526	1515

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
1644	Plumbing	48.44		Providing and fixing of approved make white aquafree Waterless Urinal of with cartride size of 31.5x33x60cm including other necessary fittings etc. complete.	As directed by Engineer in charge	Number	18012	624
1645	Plumbing	48.45		Providing and fixing wall-hung white wash basin of size 470x575x190mm of approved make half pedestal, pillar cock, C.P.Angular stop cock, long thread continental including S.S. bottle trap of having necessary pipe connections up to the outside face of the wall.etc complete.	As directed by Engineer in charge	Number	18012	624
1646	Rain water harvesting	48.46		RWH - Shallow Percolation Pit providing, constructing 2.0m deep shallow depth percolation pit comprising of 1.0m dia pre-cast RCC rings, 300mm thick side filling around outside of RCC rings (annular space) with 40mm size boulders including filling of percolation pit up to 0.5m depth (from bottom up) with 25-75mm clean washed gravels followed by 0.5m depth of 10-25mm of clean washed stones followed by 0.5m of washed river fine aggregate (natural sand/crushed sand VSI grade finely washed etc.) including netlon mesh between each gravel/fine aggregate (natural sand/crushed sand VSI grade finely washed etc.) media layer including covering with RCC slab, manhole frame & cover, PVC rungs etc. including arrangement for inlet & outlet pipe, excavation & backfilling as shown in the drawing. The rate shall be inclusive of all labour, material, wastage, scaffolding, transportation, taxes, including all leads, lifts at all levels. All material should be of approved make. All works complete as per the drawing, technical specification and direction of the Engineer in charge	As directed by Engineer in charge	Number	51500	14047
1647	Rain water harvesting	48.47		RWH - Recharge Pit Providing and constructing recharge pit of 2.0m deep and 1.0m dia of pre-cast RCC rings with 6.5" dia x 25m deep borewell at the floor of recharge pit including installation of combination of solid/perforated PVC casing pipe wrapped around with netlon mesh including 300mm thick sidefilling around outside of RCC rings (annular space) with 40mm size boulders including filling of recharge pit up to 0.5m depth with 25-75mm clean washed gravels from bottom up followed by 0.5m depth of 10-25mm of clean washed stones followed by 0.5m of washed river fine aggregate (natural sand/crushed sand VSI grade finely washed etc.) including netlon mesh between each gravel/fine aggregate (natural sand/crushed sand VSI grade finely washed etc.) media layer including covering with RCC slab, manhole frame & cover, PVC rungs, PVC end-caps, fittings etc. including arrangement for inlet & outlet pipe excavation & backfilling as shown in the drawing. The rate shall be inclusive of all labour, material, wastage, scaffolding, transportation, taxes, including all leads, lifts at all levels. All material should be of approved make. All works complete as per the drawing, technical specification and direction of the Engineer in charge	As directed by Engineer in charge	Number	91300	18098
1648	Rain water harvesting	48.48		Boring/drilling bore well of 300mm dia for casing/ strainer pipe, by suitable method prescribed in IS: 2800 (part I), including collecting samples from different strata, preparing and submitting strata chart/ bore log, including hire & running charges of all equipments, tools, plants & machinery required for the job, all complete as per direction of Engineer in charge, upto 90m depth below ground level.	As directed by Engineer in charge	Running metre	416	91
1649	Rain water harvesting	48.49		Supplying, assembling, lowering and fixing in vertical position in bore well, unplasticized PVC medium well-casing pipe of 150mm dia, conforming to IS:12818, including required hire and labour charges, fittings & accessories etc. all complete, for all depths, as per the direction of Engineer in charge.	As directed by Engineer in charge	Running metre	480	18
1650	Rain water harvesting	48.50		Supplying, assembling, lowering and fixing in vertical position in bore well, unplasticized PVC medium well screen pipes with ribs of 100mm dia, conforming to IS:12818, including required hire and labour charges, fittings & accessories etc. all complete, for all depths, as per the direction of Engineer in charge.	As directed by Engineer in charge	Number	325	7

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
1651	Rain water harvesting	48.51		Supplying, filling, spreading & leveling stone boulders of size range 5cm to 20cm in recharge pit, in the required thickness, for all leads & lifts, all complete as per the direction of Engineer-in-charge.	As directed by Engineer in charge	Cubic Metre	1129	175
1652	Rain water harvesting	48.52		Supplying, filling, spreading & leveling gravels of size range 5mm to 10mm, in the recharge pit, over the existing layer of boulders, in required thickness, for all leads & lifts, all complete as per direction of Engineer-in-charge.	As directed by Engineer in charge	Cubic Metre	1374	175
1653	Rain water harvesting	48.53		Supplying, filling, spreading & leveling coarse fine aggregate (crushed sand VSI grade finely washed etc.) of size range 1.5mm to 2mm in recharge pit, in required thickness over gravel layer, for all leads & lifts, all complete as per direction of Engineer in charge.	As directed by Engineer in charge	Cubic Metre	1374	175
1654	Rain water harvesting	48.54		Gravel packing in tubewell construction in accordance with IS:4097, including providing gravel: fine/ medium/ coarse, in required grading & sizes as per the actual requirement, all complete as per direction of Engineer in charge.	As directed by Engineer in charge	Cubic Metre	1409	210
1655	Others	48.55		Providing and Fixing Sun Louvre panels roll formed, 0.6mm thick, pre-painted stove enameled aluminium strip of a corrosion resistant alloy, including necessary fitting etc. complete, as directed by Engineer in Charge.	As directed by Engineer in charge	Square Metre	7091	895
1656	Others	48.56		Providing & fixing heat insulation by wrapping the pipes with glass wool/asbestos fibre rope or tape/videoflex 32 mm as directed by Engineer in charge.	As directed by Engineer in charge	Running metre	220	41
1657	Others	48.57		Providing & fixing heat insulation by wrapping the pipes with glass wool/asbestos fibre rope or tape/videoflex 25 mm as directed by Engineer in charge.	As directed by Engineer in charge	Running metre	169	38
1658	Others	48.58		Providing & fixing heat insulation by wrapping the pipes with glass wool/asbestos fibre rope or tape/videoflex 15 mm as directed by Engineer in charge.	As directed by Engineer in charge	Running metre	136	35
1659	Others	48.59		CoolMortar - Providing & fixing 40mm thick CoolMortar for insulation which has proportioned blend of white cement, well-graded fine aggregate (natural sand/crushed sand VSI grade finely washed etc.) and selected assortment of fine metal and mineral stabilizers to provide a heat barrier including filling joints, curing and cleaning complete. The rate shall be inclusive of all labour, material, scaffolding, transportation, taxes, including all leads, lifts at all levels and shall be as directed by Engineer in charge.	As directed by Engineer in charge	Square Metre	3222	865
1660	Others	48.60		Bamboowood 10mm thick Wall Cladding including Threshold & T-mold - Providing & fixing in position Phenol bonded Bamboowood wall cladding at all height with planks of sizes 10mm thick, 1900mm length (minimum) and 135mm wide approved colour, texture and finish, having Performance Appraisal Certificate (PAC) issued by Building materials & Technology Promotion Council (BMTPC). with necessary profiled edges fixed with BR nails to frame work made of second class teak wood of size 50 x 50mm in centre and ends of each tile. The bamboowood cladding shall be laid over teak wood frame and hold in place by 50mm thick teak wood placed in centre of two teak wood and backlayment and covered with 1.00mm thick expanded poly ethylene foam of density 25Kilogram/cum in two layers first layer on wall surface before fixing wooden frame and second layer on frame under cladding. The Bamboowood planks shall have minimum density of 1000 Kilogram/cum & minimum Hardness 1000 Kilogramf. with Eco friendly UV coating, all complete as per direction of Engineer in-charge.	As directed by Engineer in charge	Square Metre	6904	1155

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1661	Others	48.61		Bamboowood 10mm thick Wall Cladding including Threshold & T-mold for Accoustic purpose Providing & fixing in position Phenol bonded Bamboowood wall cladding at all height with planks of sizes 10mm thick, 1900mm length (minimum) and 135mm wide approved colour, texture and finish, having Performance Appraisal Certificate (PAC) issued by Building Materials & Technology Promotion Council (BMTPC) with necessary profiled edges fixed with BR nails to frame work made of second class teak wood of size 50 x 50 mm in centre and ends of each tile. The bamboowood cladding shall be laid over glass wool of 50mm thickness filled in between two teak wood frame and hold in place by 50mm thick teak wood placed centre of two teak wood and covered with mesh (rabbit) fixed to teak woodframe work with wire nails as backlayment and covered with 1.00mm thick expanded poly ethylene foam of density 25Kilogram/cum in two layers first layer on wall surface before fixing wooden frame and second layer on frame under cladding. The Bamboowood planks shall have minimum density of 1000 Kilogram/cum & minimum Hardness 1000 Kilogramf. with Eco friendly UV coating, all complete as per direction of Engineer in-charge.	As directed by Engineer in charge	Square Metre	6470	300

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<b>SSR 2021-2022 :- Coastal</b>								
1662	Coastal	49.01		Supplying and spreading geofabric filter layer of Geotextile of Polypropylene multifilament woven to the line, level and grade with pore size less than 0.075 mm and permeability greater than 9.0 litre/Square Metre/second confirming specification IS:1969 and ASTM standard including conveying to the site, joining and stitching with proper overlap and laying at excavated surface in tidal condition as directed by Engineer- in- Charge etc. complete.	As directed by Engineer in charge	Square Metre	85	10.60
	Coastal	49.02		Providing and laying filter layer of polythene bags, filled with a/b/c including conveying and placing in proper line, level as per drawing in tidal condition as directed by Engineer - in- Charge.	As directed by Engineer in charge			
1663		a		sand obtained from excavation of foundation		Cubic Metre	430	145
1664		b		50% Sand obtained from excavation + 50% crushed sand		Cubic Metre	916	173
1665		c		crushed sand (upto 5 mm) brought by Contractor		Cubic Metre	1452	250
1666	Coastal	49.03	Rd - 19; Rd - 29; Rd - 27.	Supplying and laying trap stones upto 20 kilogram for Filter / Core layer including conveying with all the leads, lifts, laying in required lines, level, slope as per drawing including necessary equipments and machinery as directed by etc. complete in tidal conditions.	Spec.Number-Rd-19, Page-187; Rd-29, Page-193; Rd-27, Page-192. [Except weight of stone specified in wording of specification]	Cubic Metre	724	70
1667	Coastal	49.04	Rd - 19; Rd - 29; Rd - 27.	Supplying and laying laterite stones upto 20 kilogram for Filter / Core layer including conveying with all the leads, lifts, laying in required lines, level, slope as per drawing including necessary equipments and machinery as directed by etc. complete in tidal conditions.	Spec.Number-Rd-19, Page-187; Rd-29, Page-193; Rd-27, Page-192. [Except weight of stone specified in wording of specification]	Cubic Metre	560	70
1668	Coastal	49.05	Rd - 19; Rd - 29; Rd - 27.	Supplying and laying trap stone weighing 20 to 50 kilogram for Core / Sub armour layer including conveying with all the leads, lifts, laying in required lines, level, slope as per drawing including necessary equipments and machinery as directed by etc. complete in tidal conditions.	Spec.Number-Rd-19, Page-187; Rd-29, Page-193; Rd-27, Page-192. [Except weight of stone specified in wording of specification]	Cubic Metre	736	70
1669	Coastal	49.06	Rd - 19; Rd - 29; Rd - 27.	Supplying and laying laterite stone weighing 20 to 50 kilogram for Core / Sub armour layer including conveying with all the leads, lifts, laying in required lines, level, slope as per drawing including necessary equipments and machinery as directed by etc. complete in tidal conditions.	Spec.Number-Rd-19, Page-187; Rd-29, Page-193; Rd-27, Page-192. [Except weight of stone specified in wording of specification]	Cubic Metre	585	70



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1670	Coastal	49.07		Laying of trap / laterite stones by rearrangement of stones displaced from existing protection bund weighing upto 50 kilogram for Core / Sub armour layer including collection, sorting and relaying in required lines, level, slope as per drawing including necessary equipments and machinery as directed by etc. complete in tidal conditions.	as directed by Engineer in charge	Cubic Metre	137	70
1671	Coastal	49.08	Rd - 19; Rd - 29; Rd - 27.	Supplying and laying trap stone weighing 50 to 100 kilogram for Core / Sub armour / Armour layer including conveying with all the leads, lifts, laying in required lines, level, slope as per drawing including necessary equipments and machinery as directed by etc. complete in tidal conditions.	Spec.Number-Rd-19, Page-187; Rd-29, Page-193; Rd-27, Page-192. [Except weight of stone specified in wording of specification]	Cubic Metre	791	70
1672	Coastal	49.09	Rd - 19; Rd - 29; Rd - 27.	Supplying and laying laterite stone weighing 50 to 100 kilogram for Core / Sub armour / Armour layer including conveying with all the leads, lifts, laying in required lines, level, slope as per drawing including necessary equipments and machinery as directed by etc. complete in tidal conditions.	Spec.Number-Rd-19, Page-187; Rd-29, Page-193; Rd-27, Page-192. [Except weight of stone specified in wording of specification]	Cubic Metre	644	70
1673	Coastal	49.10		Laying of trap stones by rearrangement of stones displaced from existing protection bund weighing 50 to 100 kilogram for Core / Sub armour / Armour layer including collection, sorting and laying in required lines, level, slope as per drawing including necessary equipments and machinery as directed by etc. complete in tidal conditions.	as directed by Engineer in charge	Cubic Metre	204	70
1674	Coastal	49.11	Rd - 19; Rd - 29; Rd - 27.	Providing and laying trap stones weighing 100 to 200 kilogram for Core / Sub armour / Armour layer including conveying with all the leads, lifts, laying in required lines, level, slope as per drawing including necessary equipments and machinery as directed by etc. complete in tidal conditions.	Spec.Number-Rd-19, Page-187; Rd-29, Page-193; Rd-27, Page-192. [Except weight of stone specified in wording of specification]	Cubic Metre	995	141
1675	Coastal	49.12		Laying of trap stones by rearrangement of stones displaced from existing protection bund weighing 100 to 200 kilogram Sub armour / Apron / Armour layer including collection, sorting and laying in required lines, level, slope as per drawing including necessary equipments and machinery as directed by etc. complete in tidal conditions.	as directed by Engineer in charge	Cubic Metre	408	141
1676	Coastal	49.13	Rd - 19; Rd - 29; Rd - 27.	Providing and laying trap stones weighing 200 to 300 kilogram for Apron / Armour layer including conveying with all the leads, lifts, laying in required lines, level, slope as per drawing including necessary equipments and machinery as directed by etc. complete in tidal conditions.	Spec.Number-Rd-19, Page-187; Rd-29, Page-193; Rd-27, Page-192. [Except weight of stone specified in wording of specification]	Cubic Metre	1069	141

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
1677	Coastal	49.14		Laying of trap stones by rearrangement of stones displaced from existing protection bund weighing 200 to 300 kilogram for Apron / Armour layer including collection, sorting and laying in required lines, level, slope as per drawing including necessary equipments and machinery as directed by etc. complete in tidal conditions.	as directed by Engineer in charge	Cubic Metre	461	141
1678	Coastal	49.15	Rd - 19; Rd - 29; Rd - 27.	Providing and laying trap stones weighing 300 to 500 kilogram for Sub armour / Apron / Armour layer including conveying with all the leads, lifts, laying in required lines, level, slope as per drawing including necessary equipments and machinery as directed by etc. complete in tidal conditions.	Spec.Number-Rd-19, Page-187; Rd-29, Page-193; Rd-27, Page-192. [Except weight of stone specified in wording of specification]	Cubic Metre	1113	141
1679	Coastal	49.16		Laying of trap stones by rearrangement of stones displaced from existing protection bund weighing 300 to 500 kilogram for Sub armour / Apron / Armour layer including collection, sorting and laying in required lines, level, slope as per drawing including necessary equipments and machinery as directed by etc. complete in tidal conditions.	as directed by Engineer in charge	Cubic Metre	514	141
1680	Coastal	49.17	Rd - 19; Rd - 29; Rd - 27.	Providing and laying trap stones weighing 500 to 1000 kilogram for Apron / Armour layer including conveying with all the leads, lifts, laying in required lines, level, slope as per drawing including necessary equipments and machinery as directed by etc. complete in tidal conditions.	Spec.Number-Rd-19, Page-187; Rd-29, Page-193; Rd-27, Page-192. [Except weight of stone specified in wording of specification]	Cubic Metre	1211	141
1681	Coastal	49.18		Laying of trap stones by rearrangement of stones displaced from existing protection bund weighing 500 to 1000 kilogram for Apron / Armour layer including collection, sorting and laying in required lines, level, slope as per drawing including necessary equipments and machinery as directed by etc. complete in tidal conditions.	as directed by Engineer in charge	Cubic Metre	568	141
1682	Coastal	49.19	Rd - 19; Rd - 29; Rd - 27.	Providing and laying trap stones weighing above 1000 kilogram for Apron / Armour layer including conveying with all the leads, lifts, laying in required lines, level, slope as per drawing including necessary equipments and machinery as directed by etc. complete in tidal conditions.	Spec.Number-Rd-19, Page-187; Rd-29, Page-193; Rd-27, Page-192. [Except weight of stone specified in wording of specification]	Cubic Metre	1256	141
1683	Coastal	49.20		Laying of trap stones by rearrangement of stones displaced from existing protection bund weighing above 1000 kilogram for Apron / Armour layer including collection, sorting and laying in required lines, level, slope as per drawing including necessary equipments and machinery as directed by etc. complete in tidal conditions.	as directed by Engineer in charge	Cubic Metre	621	141

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
	Coastal	49.21	Rd - 19; Rd - 29; Rd - 27.	Providing & fixing G.I. wire Gabions coated with Zinc+PVC of required size, section including boxes made of mechanically woven hexagonal shaped wire mesh of type, 10x12cm. edges mechanically selvedged made of heavily (Zinc+ PVC) coated G.I. wires as per BS: 443, mesh wire 3.00 mm Ø edge wire 3.9 mm Ø and filled with 20 to 50 kilogram weight trap stones including conveying with all the leads & lifts and placing at required places in required line, level, slope as per drawing, section as directed etc. complete under tidal conditions.	Spec.Number-Rd-19, Page-187; Rd-29, Page-193; Rd-27, Page-192. [Except weight of stone specified in wording of specification]			
1684		a		(a) Gabions of size – 1.00 x 1.00 x 1.00 M		Cubic Metre	2866	363
1685		b		(b) Gabions of size – 1.50 x 1.00 x 1.00 M		Cubic Metre	2485	338
1686		c		(c) Gabions of size – 2.00 x 1.00 x 1.00 M		Cubic Metre	2410	308
1687		d		(d) Gabions of size – 3.00 x 1.00 x 1.00 M		Cubic Metre	2356	254
1688		e		(e) Gabions of size – 4.00 x 1.00 x 1.00 M		Cubic Metre	2242	190
	Coastal	49.22	Rd - 19; Rd - 29; Rd - 27.	Providing and laying box type flexible gabions of required size and rope of 10 mm Ø polypropylene material four strand mesh of 150 mm x 150 mm size, filled with hand packed stones of 20 to 50 kilogram in weight; so as to give total mass required with all leads and lifts including fusing top of gabions, tying to each other and laying to required line, level, slope as per drawing, section as directed etc. complete under tidal conditions.	Spec.Number-Rd-19, Page-187; Rd-29, Page-193; Rd-27, Page-192. [Except weight of stone specified in wording of specification]			
1689		a		(a) Gabions of size – 1.00 x 1.00 x 1.00 M		Cubic Metre	2498	363
1690		b		(b) Gabions of size – 1.50 x 1.00 x 1.00 M		Cubic Metre	2307	338
1691		c		(c) Gabions of size – 2.00 x 1.00 x 0.50 M		Cubic Metre	2155	308
1692		d		(d) Gabions of size – 3.00 x 1.00 x 1.00 M		Cubic Metre	2048	254
1693	Coastal	49.23	Bd.E.5	Providing and laying precast tetrapods / blocks of plain cement concrete of M-30 grade, weighing 2000 kilogram each of required shape for armour layer including necessary steel formwork/mould including applying form releasing agent including vibration, curing, conveying and placing them in correct profile as per drawing including all labours, materials, equipments, machinery such as crane of adequate capacity and boom length, with all lead and lift etc. complete in tidal conditions.	Spec. NumberBd. E. 5; Page Number 67 / 2012	Number	9511	1632
1694	Coastal	49.24	Bd.E.5	Providing and laying precast tetrapods / blocks of plain cement concrete of M-30 grade, weighing 3000 kilogram each of required shape for armour layer including necessary steel formwork/mould including applying form releasing agent including vibration, curing conveying and placing them in correct profile as per drawing including all labours, materials, equipments, machinery such as crane of adequate capacity and boom length, with all lead and lift etc. complete in tidal conditions.	Spec. NumberBd. E. 5; Page Number 67 / 2012	Number	12968	2299
1695	Coastal	49.25	25	Relaying of precast concrete tetrapods / blocks, weighing upto 4000 kilogram each of required shape for armour layer including removing from existing protection bund and relaying in correct profile as per drawing including all labours, materials, equipments, machinery such as crane of adequate capacity and boom length, with all lead and lift etc. complete in tidal conditions.	As directed by Engineer -in- Charge	Number	2463	281
1696	Coastal	49.26	Bd.E.5	Providing and laying in situ M-20 cement concrete of trap / granite / quartzite / gneiss metal with 15% plum of trap stones for foundation and bedding of retaining walls and jetty etc. including necessary formwork, compacting, curing, bailing out water manually in tidal range etc. complete.	Spec. NumberBd. E. 5; Page Number 67 / 2012	Cubic Metre	6467	1601

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
1697	Coastal	49.27	Bd.E.5	Providing and laying in situ M-25 cement concrete of trap / granite / quartzite / gneiss metal with 15% plum of trap stones for retaining walls and jetty etc. including necessary formwork, compacting, curing, bailing out water manually in tidal range etc. complete.	Spec. NumberBd. E. 5; Page Number 67 / 2012	Cubic Metre	6651	1601
1698	Coastal	49.28	28	Providing and fixing stainless steel bollard of steel pipe 1.00 metre long of 250 mm inner diameter and circular top plate of 350 mm diameter with 5 mm thickness on deck of jetty in cement concrete including necessary fixtures and fastening etc. complete. (Stainless steel of grade S-304)	As directed by Engineer -in- Charge	Number	20651	1407
1699	Coastal	49.29	29	Providing and fixing stainless steel mooring ring in cement concrete on deck of jetty consist of 32 mm thick steel bar, 225 mm inner diameter, steel ring with 75 mm inner diameter steel hook of 32 mm diameter as per approved drawing etc. complete. (Stainless steel of grade S-304)	As directed by Engineer -in- Charge	Number	9813	281
1700	Coastal	49.30	30	Providing and fixing fenders made from used tyres including fixing by stainless steel chain links of 8mm dia. and anchor bolts of 16 mm diameter etc. complete as per drawing and as directed under tidal range.	As directed by Engineer -in- Charge	Number	2402	889
1701	Coastal	49.31	31	Supplying and laying 100% PP Staple fibre Non woven Geobags filled with locally available sand (initial Lead of 50m) having minimum mass of 400 GSM and Tensile strength of 22/24 KN/M in MD/CD and elongation of 60/60 %. The specified Geotextile (Bags) shall have puncture resistance of 4100 N and abrasion resistance of greater than 75% of strength & thickness, to be laid as per drawing in required line, level, slope as per drawing, section in tidal condition as directed by Engineer - in - Charge. (Size of Bag 1.00 x 0.70m with inflated thickness of 10cm at Centre weight of each filled bag shall be in between 130 to 150 kilogram)	As directed by Engineer -in- Charge	Number	304	44
1702	Coastal	49.32	32	Supplying and laying 100% PP Staple fibre Non woven Geo bags filled with locally available sand (initial Lead of 50m) having minimum mass of 400 GSM and Tensile strength of 22/24 KN/M in MD/CD and elongation of 60/60 %. The specified Geotextile (Bags) shall have puncture resistance of 4100 N and abrasion resistance of greater than 75% of strength & thickness, to be laid as per drawing in required line, level, slope as per drawing, section in tidal condition as directed by Engineer - in - Charge. (Size of Bag 2.00 x 1.50m with inflated thickness of 40cm at Centre weight of each filled bag shall be in between 550 to 600 kilogram)	As directed by Engineer -in- Charge	Number	1733	165
	Coastal	49.33	33	Providing laying and placing in position segment of a/b/c diameter UV Resistance Geotextile tubes as per design and drawing of High strength woven Geotextile made from polypropylene multifilament woven in both warf and weft directions, with cover of UV protective pp tape woven Geotextile with pore size less than 0.075 millimetre and permeability greater than 9.00 litre/square metre/second conforming specification IS:1969 and ASTM standards placed parallel to high water line and duly filled with sea sand mechanically by sand dredging machine so as to act as main burnt and toe burm at offshore to hold accumulated sand on beach including all labour, plant, equipment and machinery required including shuttering and scaffolding as directed by Engineer-in-Charge of the work etc. complete.	As directed by Engineer -in- Charge			
1701		a		(a) Geotextile tubes of diameter – 3.00 M		Running metre	11165	515
1702		b		(b) Geotextile tubes of diameter – 1.50 M		Running metre	6321	258

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
<b>SSR 2021-2022 :- New Items 2018-19</b>								
1703	Waterproofing Treatment	50.01		Waterproofing Treatment to existing Terrace by using Polymeric cementitious membrane of approved make & approved by Engineer in charge by replacing the existing waterproofing treatment. Break open the existing I.P.S. and brick bat coba of the terrace slab to expose the bare slab. (If there are cracks on the bare slab open the crack in V Groove and fill it with P.M.M. and if there are lots of honeycombs and identified bad patches of concrete the same should be grouted by grouting procedures). Clean the entire surface thoroughly and over this prepared surface, apply three coats of polymeric waterproofing coating having a breathable non toxic acrylic polymer liquid of approved make & approved by Engineer in charge, over this waterproofing treatment, provide and lay brick bat coba of average 112 mm thickness.	As directed by Engineer in charge	Square metre	1981	1018
1704	Waterproofing Treatment	50.02		Waterproofing Treatment to existing Toilet and bathrooms by using Polymeric cementitious membrane of approved make & approved by Engineer in charge and replacing the existing waterproofing treatment. Break open the existing I.P.S. and brick bat coba of the toilet and bathroom areas to expose the bare slab. (If there are cracks on the bare slab open the crack in V Groove and fill it with P.M.M. and if there are lots of honeycombs and identified bad patches of concrete the same should be grouted by grouting procedures). Clean the entire surface thoroughly and over this prepared surface, apply three coats of polymeric waterproofing coating having a breathable non toxic acrylic polymer liquid of approved make & approved by Engineer in charge over this waterproofing treatment, provide and lay brick bat coba of average 112 mm thickness.	As directed by Engineer in charge	Square metre	1981	1018
1705	Waterproofing Treatment	50.03		Clean the deck surface of the bridge of all loose particles, dust, cement laitance etc. preferably done by using machine like device. Inspect for cracks/construction joints. Fill the cracks by Flexiroof PU of approved make & approved by Engineer in charge (This coating is to be protected by providing IPS on top of it). Provide and apply a primer coat of Flexiroof PU Primer of approved make & approved by Engineer in charge on the cleaned RCC deck surface using a soft paint brush. Shake the container well and directly apply the primer by brush. Allow it to set for 30 - 45 mins. Provide and apply Flexiroof PU of approved make & approved by Engineer in charge by brush, roller or airless spray equipment. Apply at a rate of 1 Kilogram/Square Metre for the first coat evenly over the primer surface and allow to set for 12 hours. After ensuring that the first coat is set and cured, apply the second coat in similar manner at a rate of 0.5 Kilogram/Square Metre and allow to set. While the second coat is has reasonably hardened but still wet and tacky on surface, sprinkle sand over the surface to make it rough so as to provide mechanical key for the protective screed/I.P.S. Ensure that the sand does not gets embedded in the second coat and remains on the surface. Allow the two coats of Flexiroof PU of approved make & approved by Engineer in charge to air cure for 4-5 days before proceeding with the protective screed. This should be followed by application of compatible I.P.S. of 25 MM thick waterproof bedding of I.P.S. The liquid membrane should have a track record of atleast 4 years in India & Gulf region and have atleast an 4 year track record in PWD. Single Component, Liquid Applied, Polyurethane Membrane should have following minimum properties: 1. Water permeability (DIN 1048): Nil as per DIN 1048 @ 7 bar of hydrostatic pressure. 2. Moisture permeability: < 0.4 g/m2/day 3. Accelerated Weathering (IS 101): 2000 hrs No cracking or blister formation. 4. Adhesion to concrete (ASTM D 1000): >21 Kilogram/cm2 (Concrete Fails) 5. Tensile Strength: > 2.0 MPa (ASTM D412) 6. Should not be water soluble or water dilutable	As directed by Engineer in charge	Square metre	2134	450

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
1706	Waterproofing Treatment	50.04		<p>Clean the R.C.C. roof slab surface of all loose particles, dust, cement laitance etc. preferably done by using machine like device. Inspect for cracks/construction joints. Fill the cracks by Flexiroof PU of approved make &amp; approved by Engineer in charge (This coating is to be protected by providing I.P.S. on top of it). Provide and apply a primer coat of Flexiroof PU Primer of approved make &amp; approved by Engineer in charge on the cleaned RCC deck surface using a soft paint brush. Shake the container well and directly apply the primer by brush. Allow it to set for 30 - 45 mins. Provide and apply Flexiroof PU of approved make &amp; approved by Engineer in charge by brush, roller or airless spray equipment. Apply at a rate of 1 Kilogram/Square Metre for the first coat evenly over the primer surface and allow to set for 12 hours. After ensuring that the first coat is set and cured, apply the second coat in similar manner at a rate of 0.5 Kilogram/Square Metre and allow to set. While the second coat is has reasonably hardened but still wet and tacky on surface, sprinkle sand over the surface to make it rough so as to provide mechanical key for the protective screed/IPS. Ensure that the sand does not gets embedded in the second coat and remains on the surface. Allow the two coats of Flexiroof PU of approved make &amp; approved by Engineer in charge to air cure for 4-5 days before proceeding with the protective screed. This should be followed by application of compatible IPS of 25 MM thick waterproof bedding. The liquid membrane should have a track record of atleast 4 years in India &amp; Gulf region and have atleast an 4 year track record in PWD.</p> <p>Single Component, Liquid Applied, Polyurethane Membrane should have following minimum properties:</p> <ol style="list-style-type: none"> <li>1. Water permeability (DIN 1048): Nil as per DIN 1048 @ 7 bar of hydrostatic pressure.</li> <li>2. Moisture permeability: &lt; 0.4 g/m2/day</li> <li>3. Accelerated Weathering (IS 101): 2000 hrs No cracking or blister formation.</li> <li>4. Adhesion to concrete (ASTM D 1000): &gt;21 Kilogram/cm2 (Concrete Fails)</li> <li>5. Tensile Strength: &gt; 2.0 MPa (ASTM D412)</li> <li>6. Should not be water soluble or water dilutable</li> </ol>	As directed by Engineer in charge	Square Metre	2135	450
1707	Waterproofing Treatment	50.05		<p>Clean the RCC roof slab surface of all loose particles, dust, cement laitance etc. preferably done using machine like device. Inspect for cracks /construction joints. Fill the cracks by Elastorooft PU of approved make &amp; approved by Engineer in charge. Provide and apply a primer coat of Sunprime PU primer of sunanda or equivalent or approved by Engineer in charge on the cleaned RCC slab surface using a soft paint brush. Shake the container well and directly apply the primer by brush. Allow to set for 30 - 45 mins depending on the ambient temperature. After the primer has totally cured and dried, apply Elastorooft PU of approved make &amp; approved by Engineer in charge by brush, roller or airless spray equipment. Apply at a rate of 1 Kilogram/Square Metre for the first coat evenly over the primer surface and allow to set for 12 hours. After ensuring that the first coat is set and cured, apply the second coat in similar manner at a rate of 0.5 Kilogram/Square Metre and allow to set. While the second coat is has reasonably hardened but still wet and tacky on surface, sprinkle sand over the surface to make it rough so as to provide mechanical key for the protective screed/I.P.S. of 25 MM thick waterproof bedding. Ensure that the sand does not gets embedded in the second coat and remains on the surface. Allow the two coats of Elastorooft PU of approved make &amp; approved by Engineer in charge to air cure for 4-5 days before proceeding with the protective screed. Single Component, Liquid Applied, Polyurethane Membrane should have following minimum properties:</p> <ol style="list-style-type: none"> <li>1. Specific gravity: 1.30 ± 0.1</li> <li>2. Elongation %: &gt;600</li> <li>3. Tensile strength: &gt;2.48 MPa</li> </ol>	As directed by Engineer in charge	Square Metre	1440	450

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
1708	Protective coating and DPR	50.06		Providing and applying two coats of protective membrane over the cured concrete surface like R.C.C. footings, columns, plinth beams etc. which will be submerged under soil so as to protect the same. Apply two pack coal tar epoxy system of Sunepoxy Coaltar of approved make & approved by Engineer in charge, having solid content ranges from 80-100%, Tack free time 4-6 hrs. Recoat after 16-24 hrs. Mix Part A and Part B of Sunepoxy Coaltar of approved make & approved by Engineer in charge in 1:1 ratio with slow speed stirrer and apply the same on a clean R.C.C. surface by brush. Allow to set for 8-10 hours and apply the second coat. The rate to include for application at all levels to various RCC elements to the satisfaction of the EIC etc. complete.	As directed by Engineer in charge	Square Metre	247	120
1709	Corrosion Inhibiting Admixture	50.07		Providing & Supplying corrosion inhibiting admixture in concrete to protect steel bars for all concrete in every part Polyalk CP 293 of approved make & approved by Engineer in charge migrating, non-nitrite based corrosion inhibiting admixture shall be added at a dose of 3 Kilograms per cum of concrete. The admixture should protect both cathodic and anodic sites and have been accredited by Indian Roads Congress, recommended for use by Ministry of Road Transport & Highways and should have a 4 year track record of use in both the Gulf Region and India. Admixture should have evaluated test reports demonstrating a corrosion rate of zero coulombs after 9 test cycles as per ASTM G 109 when tested from a research institution NBA accredited Grade A and internationally ranked among top 5 research institutions in the world in Annual Survey conducted by Georgia Institute of Technology ranking of research institutions. PH of admixture should be alkaline in nature, specific gravity of 0.99 – 1.1, colour : brownish. The contractor must intimate the engineer in charge prior to addition in concrete for recording. If the admixture is put in the concrete mix at the batching plant, a written record of the amount of admixture used shall be supplied to the engineer. The engineer must ensure that the specified dosage of admixture is added in the concrete mix. (Material Cost Analysis only)	As directed by Engineer in charge	Kilogram	210	---
1710	Waterproofing admixture	50.08		Providing and mixing shrinkage compensating admixture cum plasticizer – Sunplex 330 gms pouch of approved make & approved by Engineer in charge, adding per 50Kilogram bag of cement in sand faced cement plaster to internal/external surfaces in finished in proper line and level. Add Sunplex in dry machine mix before addition of gauging water. (Material Cost Analysis only)	As directed by Engineer in charge	Pouch	42	---
1711	Bonding agent	50.09		Providing and applying one pack bonding coat between concrete members like RCC slabs, columns, beams, chajjas, pardis etc and cement mortar plaster using Hack Aid Plast of approved make & approved by Engineer in charge. Clean the concrete surface thoroughly to remove dust, dirt, grime, deshuttering oils and rub down to a clean surface. Apply Hack Aid Plast of approved make & approved by Engineer in charge by spray on the entire concrete surface. Provide a lean cement - sand dash coat over the same. Allow the dash coat to set for around 24 hours. Further plastering as per specifications can continue.	As directed by Engineer in charge	Square metre	54	33

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
1712	Water proofing	50.10		<p>Clean the surface to remove dirt, loose particles. Examine the surface closely for any cracks. Clean the cracks. Provide and fill a pure acrylic, polymer modified ready to use paste Polyfill AR of approved make &amp; approved by Engineer in charge having a cream coloured viscous emulsion ready to use acrylic polymeric non-shrink crackfiller putty with auto suction properties and requiring no bonding agent, no curing and no requirement for opening the existing cracks finishing with subsequent filling as required. Provide and apply three coats of 100% acrylic waterproof heat insulating breathable decorative external coating Sunext 8 of approved make &amp; approved by Engineer in charge, in the desired shade. Stir well and apply by brush for three coats. Applying three coats at an interval of 4-6 hours between each coat.</p> <p>High Performance 100% Acrylic, Waterproof, Anti-fungal, Anti-carbonation, Heat Insulating External Paint should have following minimum properties:</p> <ol style="list-style-type: none"> <li>1. Specific Gravity: 1.3 ± 0.1 at 25°C</li> <li>2. pH: 7.0 to 10.00</li> <li>3. Viscosity: 18 to 30 sec. at 25°C by Ford Cup Number B-4 (Dilute 2 parts of product with 1 part of water)</li> <li>4. CO2 diffusion resistance co- efficient (DIN EN 1062-6 (2002-10): 7.59 x105</li> <li>5. CO2 diffusion equivalent air layer thickness (DIN EN 1062-6 (2002-10): 127m @ 190 microns DFT</li> <li>6. Adhesion (ASTM D 4541): 2.3 N/mm2 (Concrete / Substrate Failure)</li> <li>7. Solar Reflectance Index (ASTM E 1980 11,EN 673:2011, EN 410:2011): 107</li> </ol> <p>It shall be applied as per manufacturers specification.</p>	As directed by Engineer in charge	Square metre	251	163
	Door and Windows	50.11	BD-T	<p>Providing and fixing factory made door/Window frames of required colour made with wood Polymer composite (WPC) extruded internal ribbed sections conforming to American Society for testing and materials (ASTM) in regard with density, tensile strength, flexural strength, Izod impact, water absorption and screw withdrawal strength with wall thickness of 5mm (+/-1mm) and with frames having mitred joints at each corner, joined together by two nos. of 10 x 8 mm &amp; 40 mm long PVC dovetail keys including hard wood piece support along the full vertical and horizontal length in rebate portion hole for fixing hinges and fixtures and the frames fixed to Walls/columns with 15 mm long dash fasteners/holdfasts (dash fasteners/holdfasts to be paid separately) etc. complete as per the direction of Engineer in charge,with prior approval of concerned Superintending Engineer.</p>	As directed by Engineer-in-charge			
1713		a		1.1. For Profile size of 75 x 50 mm with 32 x 12 mm rebate		Running metre	435	74
1714		b		1.2 For Profile size of 100 x 50 mm with 32 x 12 mm rebate		Running metre	535	90
1715		c		1.3 For Profile size of 125 x 50 mm with 38 x 12 mm rebate		Running metre	635	108
1716		d		1.4 For Profile size of 120 x 50 mm with 32 x 12 mm double rebate (Window Section)		Running metre	650	110



Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
1717	Paving , Flooring and dado	50.12	BD-M	Supply & Fixing of Rectified Porcelain Stoneware Tiles for Ventilated Facades of Specified size as per specification/ site drawings having 6 mm and 9 mm thickness with factory made Kerfs (grooves) as per need and size 600/1200 and 800/1600. The Rectified Porcelain Stoneware Tiles shall possess properties having Water absorption < 0.5% Bending Strength > 40 N/mm2 and are resistant to : UV Light, chemicals, smog, thermal shocks & bacteria. The facade will be made from Nexion Rectified Porcelain Stoneware Tiles (Sintered Compact Surfaces) specified as per ISO 13006 : Annex G- EN 14411 : Annex G : Dry Pressed Ceramic Tiles and all the tests carried out by Italian labs accredited according to ISO/ IEC 17025 : 2005. The Terramilano Fixing sub structure will confirm to Norme Tec niche per le Costruzioni NTC/8 (Technical Standard for construction) guidelines for construction in Italy, Eurocode 0 " Information on the method of semi-probabilistic limit states and safety factor " Euro coad 1 " Determination and calculation of actions on structure " Euro 9 " Project aluminum structures " UNI 11018 and ETAG 034 The Substructure will consists of Upright extruded aluminum profile TruSt80, alloy 6060 T5 thickness equal to 1.5 to 2 mm and dimension 80 x 110 mm, inter axis 80 cm of Length 3660 mm, 8085 Aluminum box Section of 1 x 3 inch,1x2inch and 1x 5 inch of length 3660 mm and thickness 1.5 to 2 mm as per need. Brackets St80 galvanized steel and aluminum of 80 mm x 60 mm, aluminum L bracket size 1.5 x 1.5 inch and 1 x 2.5 inch thickness 3 mm that allow to anchor the vertical stand to the Building, 9 mm/6mm S10 Hooks Harmonic Stainless Steel AISI 304 which supports the weight of the Tiles; Bossong/Hilti Mechanical Fasteners and Nylon Anchor Fastner; and Structural Sealant of 3M for Ventilated Facade. Packing of Edges and corner with window seal with ACP of appoved make for water Proofing and alteration. Inclusive of scaffolding and fixing. The installation method differ according to the structure of building and design. For EXTERNAL AND INTERNAL CLADDING OF STRUCTURE. with prior approval of concerned Superitending Engineer.	As directed by Engineer-in-charge	Square Metre	8694	1478
1718	Paving , Flooring and dado	50.13	BD-M	Supply & Fixing of Rock / Stone Finished outdoor vitrified flooring Tiles 20 mm thick and required width wide in plain pattern including Cement float, filling joints, with neat cement slurry, Natural sand, curing and cleaning complete. with prior approval of concerned Superitending Engineer.	As directed by Engineer-in-charge	Square Metre	2850	485
1719	Paving , Flooring and dado	50.14	BD-M	Supply & Fixing of Rock / Stone Finished outdoor vitrified flooring Tiles 16 mm thick and required width wide in plain pattern including Cement float, filling joints, with neat cement slurry, Natural sand, curing and cleaning complete. with prior approval of concerned Superitending Engineer.	As directed by Engineer-in-charge	Square Metre	2650	450
1720	Paving , Flooring and dado	50.15	BD-M	Supply & Fixing of Rock / Stone Finished outdoor vitrified flooring Tiles 16 mm thick and required width wide in plain pattern including Cement float, filling joints, with neat cement slurry, Natural sand, curing and cleaning complete with prior approval of concerned Superitending Engineer.	As directed by Engineer-in-charge	Square Metre	2550	433
1721	Paving , Flooring and dado	50.16	BD-M	Supply & Fixing of Full Body Vitrifid Steptiles Ready to install Treads and Risers 16 mm thick, required width and required finish in plain pattern including Cement float, filling joints, with neat cement slurry, Natural sand, curing and cleaning etc complete. with prior approval of concerned Superitending Engineer.	As directed by Engineer-in-charge	Square Metre	2850	485
1722	Paving , Flooring and dado	50.17	BD-M	Supply & Fixing of Full Body Vitrifid Steptiles Ready to install Treads and Risers 12 mm thick, required width and required finish in plain pattern including Cement float, filling joints, with neat cement slurry, Natural sand, curing and cleaning etc complete.	As directed by Engineer-in-charge	Square Metre	2450	416

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
1723	Paving , Flooring and dado	50.18	BD-M	Supply & Fixing of Rock/ Stone Finished Full Body Vitrifid Steptiles with thick Bullnose for Ready to install Treads and Risers, 16 mm thick and of required width in plain pattern including Cement float, filling joints, with neat cement slurry, Natural sand, curing and cleaning complete. with prior approval of concerned Superitending Engineer.	As directed by Engineer-in-charge	Square Metre	3150	535
1724	Paving , Flooring and dado	50.19	BD-M	Supply & Fixing of Rock/ Stone Finished Full Body Steptiles Stone Vitrifid Tiles with thick Bullnose for Ready to install Steps and Risers 12 mm thick and required width wide in plain pattern including Cement float, filling joints, with neat cement slurry, Natural sand, curing and cleaning complete. with prior approval of concerned Superitending Engineer.	As directed by Engineer-in-charge	Square Metre	2650	450
1725	Oil Painting	50.20	IS 12594-1988	Providing hot dip galvanizing conforming to IS 12594-1988 to reinforcement bars, having mass of zinc coating shall not be less than 610 grm/Square Metre of bar surface area factory control process with Degreasing, Rinsing, Acid Pickling, Again Rinsing after picking, Fluxing, Hot Dip Galvanizing in molten Zinc bath Having Zinc purity of bath minimum 98.5% Quenching & Passivation Process. 32 mm to 40 mm dia. with prior approval of concerned Superitending Engineer.	As directed by Engineer-in-charge	Metric Tonne	15513	2637
1726	Oil Painting	50.21	IS 12594-1988	Providing hot dip galvanizing conforming to IS 12594-1988 to reinforcement bars, having mass of zinc coating shall not be less than 610 grm/Square Metre of bar surface area factory control process with Degreasing, Rinsing, Acid Pickling, Again Rinsing after picking, Fluxing, Hot Dip Galvanizing in molten Zinc bath Having Zinc purity of bath minimum 98.5% Quenching & Passivation Process. 16 to 25 mm dia with prior approval of concerned Superitending Engineer.	As directed by Engineer-in-charge	Metric Tonne	16296	2770
1727	Oil Painting	50.22	IS 12594-1988	Providing hot dip galvanizing conforming to IS 12594-1988 to reinforcement bars, having mass of zinc coating shall not be less than 610 grm/Square Metre of bar surface area factory control process with Degreasing, Rinsing, Acid Pickling, Again Rinsing after picking, Fluxing, Hot Dip Galvanizing in molten Zinc bath Having Zinc purity of bath minimum 98.5% Quenching & Passivation Process. 8 to 12 mm dia with prior approval of concerned Superitending Engineer.	As directed by Engineer-in-charge	Metric Tonne	16941	2880
1728	Block masonry	50.23	BD-I	Providing and constructing non load bearing wall with 200 mm Horizontally perforated THERMO clay hollow blocks with compressive strength not less than 35Kilogram/Sqcm, U value of 0.60 W/m2K, Water Absorption of 15% masonry to be done using sand cement mortar 1:6 with blocks of size 400mm x 200 mm x 200 mm (12.5 brick per Square Metre. excluding mortar joint thickness) including cost of material, labour charges, scaffolding, curing at all height, complete as per specification & directions of Engineer in charge. Cost shall be inclusive of filling the blocks with cement mortar at exposed junctions and filling with concrete using 12mm down size aggregates at Window and door Jambs for fixing hold fast.anchors etc. It must be green building certified from IGBC and Griha and Should comply IS code 3952 with prior approval of concerned Superitending Engineer.	As directed by Engineer-in-charge	Square Metre	2840	555

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1729	Block masonry	50.24	IS code 3952	Providing and constructing non load bearing wall with 150 mm Horizontally perforated THERMO clay hollow blocks with compressive strength not less than 35Kilogram/Sqcm, U value of 0.60 W/m2K, Water Absorption of 15% masonry to be done using sand cement mortar 1:6 with blocks of size 400mm x 150 mm x 200 mm (12.5 brick per Square Metre. excluding mortar joint thickness) including cost of material, labour charges, scaffolding, curing at all height, complete as per specification & directions of Engineer in charge. Cost shall be inclusive of filling the blocks with cement mortar at exposed junctions and filling with concrete using 12mm down size aggregates at Window and door Jambs for fixing hold fast.anchors etc. It must be green building certified from IGBC and Griha and Should comply IS code 3952 with prior approval of concerned Superintending Engineer.	As directed by Engineer-in-charge	Square Metre	2750	467
1730	Plastering and pointing	50.25		Dry wall cladding with clay tile; Designing, supplying and fixing of Clay tile of Wienerberger (Red Series or Grey Series) or Equivalent with suitable size and thickness not less than 20 mm as per manufacturer with approved colour and pattern with composition of finest powdered clay and colour mixtures. The clay tile shall be fixed on the suitable farming system by using continuous aluminium profiled section as per manufacturer with suitable size and spacing to withstand the structural design criteria specified in the technical specification by using necessary HDG brackets, SS316 grade anchor bolts etc as per manufacturer specification. Cladding joints should be with open groove system. with prior approval of concerned Superintending Engineer.	As directed by Engineer-in-charge	Square Metre	10590	400
1731	Block masonry	50.26		Providing and constructing non load bearing wall with 200 mm Grinded Horizontally perforated clay hollow blocks with compressive strength not less than 35Kilogram/Sqcm, U value of 1.00 W/m2K, Water Absorption of 15% tolerance on Grinded brick height is +/- 1.00 mm, masonry to be done using POROTHERM Dry Flx. System with 20 mm thick S shape application (Application method need to be followed as per Wienerberger methodology) blocks of size 400mm x 200 mm x 200 mm (12.5 brick per Square Metre.) including cost of material, labour charges, scaffolding, curing at all height, complete as per specification & directions of Engineer in charge. Cost shall be inclusive of end bricks to be used at window and door jambs for fixing hold fast. anchors etc.,plastering is to be done as per requirement .and is to be considered seperatly with prior approval of concerned Superintending Engineer.	As directed by Engineer-in-charge	Square Metre	1822	130
1732	Block masonry	50.27		Providing and constructing non load bearing wall with 150 mm Grinded Horizontally perforated clay hollow blocks with compressive strength not less than 35Kilogram/Sqcm, U value of 1.2 W/m2K, Water Absorption of 15% tolerance on Grinded brick height is+/- 1.00 mm, masonry to be done using Dry Flx. System with 20 mm thick S shape application (Application method need to be followed as per Wienerberger methodology) blocks of size 400mm x 150 mm x 200 mm (12.5 brick per Square Metre.) including cost of material, labour charges, scaffolding, curing at all height, complete as per specification & directions of Engineer in charge. Cost shall be inclusive of end bricks to be used at window and door jambs for fixing hold fast. anchors etc.,plastering is to be done as per requirement and is to be considered seperatly	As directed by Engineer-in-charge	Square Metre	1650	130

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
1733	Block masonry	50.28	BD-I	Providing and constructing non load bearing wall with 100 mm Grinded Horizontally perforated clay hollow blocks with compressive strength not less than 35Kilogram/Sqcm, U value of 1.7 W/m2K, Water Absorption of 15% tolerance on Grinded brick height is +/- 1.00 mm, masonry to be done using Dry Flx. System with 20 mm thick S shape application (Application method need to be followed as per Wienerberger methodology) blocks of size 400mm x 100 mm x 200 mm (12.5 brick per Square Metre.) including cost of material, labour charges, scaffolding, curing at all height, RCC. stiffener band necessary at every 1.0 meter height of the wall, complete as per specification & directions of Engineer in charge. Cost shall be inclusive of end bricks to be used at window and door jambs for fixing hold fast. anchors etc.,plastering is to be done as per requirement ,and is to be considered separately with prior approval of concerned Superintending Engineer.	As directed by Engineer-in-charge	Square Metre	1325	130
1734	Plastering and pointing	50.29	BD-I	Providing and fixing of imported clay tiles on M.S. frame Work using Mediterranean plus roof tiles of Wienerberger tile of colour Red Engobe or equivalent with necessary accessories required to fix tile including clips and screw (Prior permission of S.E. is to be obtained before inclusion)	As directed by Engineer-in-charge	Square Metre	3062	555
1735	Waret supply and sanitary	50.30	BD-V	Providing and fixing Ductile iron manhole cover of light/medium/heavy duty with frame of any size over inspection chamber etc. complete (Prior permission of S.E. is to be obtained before inclusion of this item in the estimate)	As directed by Engineer-in-charge	Kilogram	75	12
1736	Waret supply and sanitary	50.31	BD-V	Providing and constructing Ductile Iron circular manhole 45 cm dia. At top 90 cm at bottom up to 1.80 meter to 2.70 meter depth including excavation, laying 1:4:8 cement concrete bedding 15 cm thick burnt brick masonry with 1:1 cement mortar plaster 25 mm thick inside and outside 20 mm (1:3) ductile iron heavy type cover with ring 125Kilogram weight. High strength. More life and Durability, Good Antiskid Grip, Suitable to heavy theatric loading, Light weight casting after cost benefits for Transportation Refilling etc. as per requirement. with prior approval of concerned Superintending Engineer.	As directed by Engineer-in-charge	Number	12000	2040
	Geosynthetic	50.32	MORTH Section-700	Providing and laying CE Marked Woven Polypropylene Geotextile indigenously manufactured from black UV stabilized polypropylene tape yarn of Techfab India on the prepared subgrade for Reinforcement cum separation cum drainage & filtration application with necessary overlaps as per drawing etc. complete. (Specification: MORTH Section-700) with prior approval of concerned Superintending Engineer.	As directed by Engineer-in-charge			
1737				a)TFI-5300 Type-I		Square Metre	160	44
	Geosynthetic	50.33	MORTH Section-700	Providing and laying CE Marked Woven Multifilament Polyester Geotextile indigenously manufactured using high molecular weight, high tenacity polyester filament yarn with high tensile strength, low elongation and low creep of Techfab India on the prepared subgrade for Reinforcement cum separation cum drainage & filtration application with necessary overlap as per drawing etc. complete. (Specification: MORTH Section-700) with prior approval of concerned Superintending Engineer.	As directed by Engineer-in-charge			
1738		a		a) TFI-3100		Square Metre	160	44
1739		b		b) TFI-3200		Square Metre	224	44

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
	Geosynthetic	50.34	MORTH Section-700	Providing and laying CE Marked Needle Punched and Mechanically Bonded Non-Woven Geotextile (TechGeo) indigenously manufactured from high quality polypropylene staple fibres (continuous filament will not be accepted) of Techfab India on the prepared subgrade for separation, drainage & filtration application with necessary overlaps as per drawing etc. complete. (Specification: MORTH Section-700 ) with prior approval of concerned Superintending Engineer.	As directed by Engineer-in-charge			
1740		a		a) TFI TECHGEO PR-15		Square Metre	134	44
1741		b		b) TFI TECHGEO PR-20		Square Metre	151	44
1742		c		c) TFI TECHGEO PR-30		Square Metre	167	44
1743		d		d) TFI TECHGEO PR-40		Square Metre	207	44
1744		e		e) TFI TECHGEO PR-60		Square Metre	279	88
	Geosynthetic	50.35	MORTH Section-700	Providing and Laying CE marked Knitted and PVC coated Polyester Biaxial Geogrid (Techgrid) for Basal Reinforcement indigenously manufactured from selected high tenacity polyester yarn with high molecular weight of Techfab India (> 25000 g/mol), and low carboxyl end group (<30mmol/Kilogram) (extruded PP geogrids & Polyester strips & Geostrips, Steel Strips not allowed & not accepted). Requirement of geogrid strength in both direction and granular fill. (Coating of Geogrid/ reinforcing geosynthetic material with LDPE, Latex, Bitumen and any other coating will not be allowed and will not be accepted). For reinforcement application to subgrade, unbound sub base / base courses & soil stabilization, etc. complete (Specification: MORTH Section-700). with prior approval of concerned Superintending Engineer.	As directed by Engineer-in-charge			
1745		a		a) TFI TechGrid GeoGrid TGB-40		Square Metre	199	44
1746		b		b) TFI TechGrid GeoGrid TGB-60		Square Metre	240	44
	Geosynthetic	50.36	MORTH Section-700	Providing and laying CE Marked PP Extruded Biaxial Geogrid for basal reinforcement, indigenously manufactured from virgin high density polypropylene of Techfab India having aperture size of (38 x 38)mm and ultimate tensile strength of 20 kN/m on both direction with minimum junction strength of 95% & minimum radial stiffness of 350 kN/m (@0.5% strain for reinforcement application to subgrade, unbound sub base / base courses & soil stabilization, etc. complete (Specification: MORTH Section-700).with prior approval of concerned Superintending Engineer.	As directed by Engineer-in-charge			
1748		a		a) TFI TechGrid GeoGrid PP2020		Square Metre	230	44
1749		b		b) TFI TechGrid GeoGrid PP3030		Square Metre	296	44
	Geosynthetic	50.37	MORTH Section-700	Providing and laying CE Marked knitted and PVC coated Polyester Uniaxial Geogrid (Techgrid) indigenously manufactured from selected high tenacity polyester yarn with high molecular weight of Techfab India (> 25000 g/mol), and low carboxyl end group (<30 mm mol /Kilogram) (extruded PP geogrid & Polyester strip & Geostrip, steel strips not allowed & not accepted ) with granular fill as per design prepared by technical provider of reinforced earth wall and slope. The reinforced earth wall and slope should have 100% coverage of 5m width knitted and PVC coated Polyester geogrid. (Coating of Geogrid/Reinforcing geosynthetic material with LDPE, Latex, Bitumen and any other coating will not be allowed and will not be accepted) for reinforced soil wall and reinforced slope application, etc. complete (Specification: MORTH Section-3100).with prior approval of concerned Superintending Engineer.	As directed by Engineer-in-charge			
1750		a		a) TFI TechGrid GeoGrid TGU-40		Square Metre	181	44
1751		b		b) TFI TechGrid GeoGrid TGU-60		Square Metre	202	44

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
	Geosynthetic	50.38	MORTH Section-700	Providing and laying Geocell-Techcell CE Marked a three dimensional honeycomb like cellular confinement system having weld spacing 356mm and cell depth 150mm of Techfab India, indigenously manufactured by blend of various polyethylene and additives, polyethylene strips ultrasonically welded consists of a multiple rhomboidal indentations over the entire strip on the prepared subgrade for subgrade stabilization by reinforcement and drainage application for roads, ground improvement work and erosion control of slopes etc. complete. (Specification: MORTH Section-700) with prior approval of concerned Superintending Engineer.	As directed by Engineer-in-charge			
1752		a		a) TFI TechCell GeoCell-356x150		Square Metre	560	44
1758		b		b) TFI TechCell GeoCell-660x75		Square Metre	326	44
	Geosynthetic	50.39	MORTH Section-700	Providing and laying CE Marked Reinforced Non-Woven Composite indigenously manufactured needle punched polypropylene (continuous filament will not be accepted) of Techfab India, Reinforced with high tenacity Polyester Yarn on the prepared sub grade for Reinforcement cum separation cum drainage & filtration application with necessary overlaps as per drawing etc. complete. (Specification: IRC:SP:59-MORTH Section-700) with prior approval of concerned Superintending Engineer.	As directed by Engineer-in-charge			
1759		a		a) TFI TGC-60		Square Metre	207	44
1760		b		b) TFI TGC-90		Square Metre	252	44
	Geosynthetic	50.40	MORTH Section-700	Providing and inserting CE Marked Prefabricated Vertical Drain / Band Drain (TechDrain) of Techfab India indigenously manufactured with Polypropylene Core and wrapped with Non-Woven Geotextile in the very soft clay to a design depth for quick consolidation etc. complete. (Specification: MORTH Section-700).with prior approval of concerned Superintending Engineer.	As directed by Engineer-in-charge			
1761		a		a) TFI TechDrain TD-3520 U 100mm x 4mm		Running metre	73	4
1762		b		b) TFI TechDrain TD-5020 U 100mm x 5mm		Running metre	87	4
	Geosynthetic	50.41	MORTH Section-700	Providing & fixing CE Marked Metal Gabions indigenously manufactured as per required section including boxes made of mechanically woven hexagonal shaped wire mesh of type, (8 x 10)cm, edges mechanically selvaged made of heavily (Zinc + PVC) coated G.I. wires as per BS:443, mesh wire 2.70/3.70 mm Ø (ID/OD), edge wire 3.40/4.40 mm Ø (ID/OD) of Techfab India type and filled with 20 to 50Kilogramweight trap stones including conveying with all leads and lifts and placing at required places in required line, level, slope, section as directed, etc. and tied by 5% lacing wire 2.20/3.20 mm Ø (ID/OD) as directed by Engineer-in-charge. For retaining walls, toe walls, etc. for slope protection & erosion control application of river bank & sea-shore etc. complete (Specification: MORTH section-2500. (Excluding Rubble) with prior approval of concerned Superintending Engineer.	As directed by Engineer-in-charge			
1763		a		a) For 1m height		Cubic Metre	1953	88
1764		b		b) For 0.5m height		Cubic Metre	2280	44
	Geosynthetic	50.42	MORTH Section-700	Providing and laying CE Marked Glassfibre GeoComposite (TechGlass AIC) indigenously manufactured from high performance glass fibre roving to form a reticular structural material with a unique combination of fused fibre glass and polypropylene non-woven needle punched geotextile to asphalt overlay flexible pavements and asphalt overlay distressed rigid pavements of Techfab India for Reinforcement, seizure reflective cracks, reduced surface rutting & water infiltration. (Specification: MoRTH section-700).with prior approval of concerned Superintending Engineer.	As directed by Engineer-in-charge			
1765		a		a) TFI Techglass AIC-50		Square Metre	240	44
1766		b		b) TFI Techglass AIC-100		Square Metre	268	44

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
	Geosynthetic	50.43	MORTH Section-700	Providing and laying a Paving Fabric CE Marked Needle Punched and Mechanically Bonded Non-Woven Geotextile of Techfab India, indigenously manufactured from high quality polypropylene staple fibres (continuous filament will not be accepted) with heat treatment on one side to form a strong, flexible and dimensionally stable fabric structure, with optimum bitumen retention capacity to asphalt overlay over flexible pavement and distresses rigid pcc pavement for moisture barrier, avoid reflective cracking and stress relieving membrane with necessary overlaps as per drawing, etc. complete. (Specification: MORTH section-700). with prior approval of concerned Superintending Engineer.	As directed by Engineer-in-charge			
1767				a) TFI TechPave-C040		Square Metre	116	44
	Geosynthetic	50.44	MORTH Section-700	Providing and laying Fin Drains (Drainage Composite) TFI TDC-55130W CE Marked indigenously manufactured by thermo bonding a polypropylene drainage core- Geonet comprises of two sets of parallel overlaid ribs integrally connected to have a rhomboidal shape and Needle Punched & Thermally Bonded Nonwoven Geotextile on the prepared sub base of paved/unpaved roads & behind the RE wall by replacing granular filter media for separation, drainage & filtration application with necessary overlaps as per drawing etc. complete . (Specification: MORTH Section-700 ) with prior approval of concerned Superintending Engineer.	As directed by Engineer-in-charge			
1768				a) TFI TDC-55130W		Square Metre	431	44
	Geosynthetic	50.45	MORTH Section-700	Construction of Reinforced Earth Wall in M-35 Block Facia by Providing and Laying CE marked Knitted and PVC coated Polyester Uniaxial Geogrid (Techgrid) of Techfab India indegeniously manufactured from selected high tenacity polyester yarn with high molecular weight (> 25000 g/mol), and low carboxyl end group (<30mmol/Kilogram) for Reinforced soil wall (extruded PP geogrids & Polyester strips & Geostrips, Steel Strips not allowed & not accepted) with granular fill of PHi-32 degree (design is to be carried out in accordance with BS-8006 / FHWA) with concrete block by M-35 as facia, casting & erection of blocks with Techgrid, providing & laying levelling pad by M-15, providing and laying coping beam by M-35, providing and laying 300mm thick filtermedia etc. completed as per necessary drawing and instruction of Engineer-in-charge. Excluding providing, laying and compacting selected backfill and retained fill behind the wall, excavation and ground improvement, if any. The reinforced earth wall and slope should have 100% coverage of 5m width Knitted and PVC coated Polyester Geogrid. (Coating of Geogrid/ Reinforcing geosynthetic material with LDPE, Latex, Bitumen and any other coating will not be allowed and will not be accepted). (Specification: MORTH Section-3100) with prior approval of concerned Superintending Engineer.	As directed by Engineer-in-charge			
1769		a		a) RE Wall Height 1 to 4 meter		Square Metre	5486	44
1770		b		b) RE Wall Height 4 to 6 meter		Square Metre	5832	88
1771		c		c) RE Wall Height 6 to 8 meter		Square Metre	6085	132
1772		d		d) RE Wall Height 8 to 10 meter		Square Metre	6313	177
1773		e		e) RE Wall Height 10 to 12 meter		Square Metre	6831	221
1774		f		f) RE Wall Height 12 to 14 meter		Square Metre	7285	265

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
	Road safty work	50.46	IS: 10146-1982, IS:10141-1982	Providing Heavy Duty Fibre Glass Reinforced Plastic Temporary Barricade of 1.75 m hight, with base width of 430 mm as a provision to accept water ballasting of 101 Itrs-110 Ltrs approx. and arrangement for traffic diversion such as traffic signals during construction at site, for day and night as per requirement. The raw material shall be UV stabilized Linear Low Density Polyethylene and should meet the requirements stipulated in standard IS: 10146-1982, IS:10141-1982 and should also comply to FDA:CFR Title 21.177.1520. Olefin Polymers , with specific FRP Grade 300-104 reinforced during moulding process to the permissible extent for improved impact strength. Qualification Criteria: For qualifying the sample , few tests shall be performed at Government Lab OR NABL Accredited Lab on Site Safety Fence sample, failure or deviations in test results of sample shall be disqualified.The tests and qualifying results are as under, (a) tensile strength at yield by ASTM D 638 =20.93 mPA, (b) Elongation at break ASTM D 638 = 121.66 mPA (c) Flexural Modulus ASTM D 790 = 633.76 mPA (d) Izod Impact Strenth (Notched) ASTM D 256 = 4.41Kilogram/ Square Metre (e) Izod Impact Strenth (Un-Notched) ASTM D 256 = 67.04Kilogram/ Square Metre (f) Drop Impact strength 25KilogramLoad from 1 m, 2 m & 5m height the weight of empty single Rotomoulded Plastic Barricade without water ballasting shall be 34 Kilograms approx. & total weight after water allasting shall be 135 Kilograms -140 Kilograms +/- 5 Kilograms (tolarance)The main Barricade body of hight 1750 mm approx is connected with the Extension body through 4 set of nut bolt washers .extension body through 4 set of nut bolt washers. Extension body is designed with 9 Nos kiss offs on rear side; the dimension of Extension body are 1500 mm (length),70 mm (width),250 mm (effetive height after fixing ) & dimension of its male collarare 1420 mm (length),25 mm (width),30 mm approx ( height), it is inserted in U groove provisioned on top of main body Barricade Model for interlconnecting,the minimum thickness of all over surface of plastic barricaed shall be 5 mm +/- 20%.the rear bottam shall have to provision to fix two brackets at both end in corner for anchoring purpose .each rear bracket is constructed through rod of Dia.60 mm with curvature welded with MS strip of 3 mm thick ,50 mm width and 90 mm length at its top and base ,effective bracket shall be 410 mm approx. the anchoring hole in each bracket shall be 18 mm dia. for routine the MS bolts of 16 mm thickness and 150 mm length with sharp pointed edge at one end .the upper part of each bracket shall have a slot size of 30 mm x 10 mm for connecting it with barracade model through bolts.similarly front bracket for site safety fence is 3 mm thick ,50 mm width, feective height after single bend is 230 mm and anchoring in each bracket shall be dia 18 mm unique safety feature for firm gripping to prevent from displacement and falling when inter connected even without water filling . There shall be 7 no's premoulded	As directed by Engineer-in-charge			
1775		a		a) For 725 mm height (LType Jersey Barrier ) ,Empty Weight:6.67 Kilogram/ Rgm,Weight Full : 35.89Kilogram/ Rgm approx. (After Water / Sand Filling)		Running metre	1846	314
1776		b		b) For 750 mm height (With Interlocking provison - For Traffic Delineation Applications ) , Empty Weight:9.04 Kilogram/ Rgm,Weight Full : 57.14Kilogram/ Rgm approx. (After Water / Sand Filling)		Running metre	2872	488
1777		c		c) For 750 mm height ( Jersey Barrier Model with unique Interlocking Provision) , Empty Weight:9.0 Kilogram/ Rgm,Weight Full : 55.00Kilogram/ Rgm approx. (After Water / Sand Filling)		Running metre	5026	854
1778		d		d) Site Safety Fence (1.75 Mtrs(H)) (Efficient Substitution to sheet Metal Barricade) , Empty Weight 16.57: Kilogram/ Rgm,Weight Full : 74.29 Kilogram/ Rgm approx. (After Water / Sand Filling)		Running metre	8103	1377
1779		e		e) Site Safety Fence (2.00 Mtrs(H)) (Efficient Substitution to sheet Metal Barricade) , Empty Weight : 17.00 Kilogram/ Rgm,Weight Full : 70.00 Kilogram/ Rgm approx. (After Water / Sand Filling)		Running metre	8718	1482



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1780	Road work	50.47	RD	organosilance Nanotechnology for Bituminous organosilance nanotechnology such as Zycotherm added in the bitumen binder @ 0.1% dosage to the weight of the bitumen at HMA plant to schive chemical bonding,complete coating and consistant compaction in various bituminous mixes such as BM/DBM/Carpet/sealcoat/MSS/SDBC etc.as per the direction of Engineer-in-charge with prior approval of concerned Superitending Engineer.	As directed by Engineer-in-charge	Kilogram	1400	238
1781	Road work	50.48	RD	Water proofing of subgrade:waterproofing on top compacted (as per relevant MORT&H specification)sub grade and shoulder soil base with organosilance Nanotechonology & nano acrylic co-polymer with water (<1000 ppm TDS)in the ratio of 1KilogramOrganosilance Nanotechonology :1Kilogramnano acrylic co-polymer :200 liter water spray @3 liter/Square Metre in two spray application (1.5 liter +1.5 liter) as per direction of the Engineer-in-charge. with prior approval of concerned Superitending Engineer.	As directed by Engineer-in-charge	Square Metre	15	2
1782	Road work	50.49	RD	providing and applying primer coat with bitumen emulsion on prepared surface of Aggregate layer including clearing of road surface and spraying primer mixed with Nano- Technology silance in the ratio 1:100:100 (1Kilogramsilance :100KilogramSS1 Emulsion:100 liter water);the rate of 1 Liter/Square Metre using mechanical means as per the direction of Engineer-in-charge. with prior approval of concerned Superitending Engineer.	As directed by Engineer-in-charge	Square Metre	18	3
1783	Road work	50.50	RD	Tack coat (with Silance nanotechnology):preparing and applying of water soluable organo silance nanotechnology (for bitumen emulsion application ,IRC approved) with cationic bitumen emulsion CRS1 amd water (< 1000 ppm TDS) in the ratio of 1:4Kilogram organo silance : 100Kilogram cationic bitumen emulsion CRSS1: 200 liter water. with prior approval of concerned Superitending Engineer.	As directed by Engineer-in-charge	Square Metre	8	2
1784	Road work	50.51	RD	Construction of stabilised soil base with organo silance by providing locally available moorum/soil(70%) mixed with 30% GSB II with 2% cement by MDD of mix, 0.6 Kilogram/Cum nanotechnology silane & 0.6 Kilogram/ cum of Acrilic Nano - Co polymer, Spreading in uniform layers with grader on prepared surface by mixing in place method withrotavator at OMC and compacting with smooth wheel roller to achieve the desired density, complete as per Table 2.3 of IRC SP - 77-2008 as per direcion of Engineer - in -charge. with prior approval of concerned Superitending Engineer.	As directed by Engineer-in-charge	Cubic Metre	1613	275
1785	Road work	50.52	RD	Construction of stabilised soil base with organo silance by providing locally available moorum/soil(70%) mixed with 30% GSB II with 3% cement by MDD of mix, 0.6 Kilogram/Cum nanotechnology silane & 0.6 Kilogram/ cum of Acrilic Nano - Co polymer, Spreading in uniform layers with grader on prepared surface by mixing in place method withrotavator at OMC and compacting with smooth wheel roller to achieve the desired density, complete as per Table 2.3 of IRC SP - 77-2008 as per direcion of Engineer - in -charge.with prior approval of concerned Superitending Engineer.	As directed by Engineer-in-charge	Cubic Metre	1701	289

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1786	Road work	50.53	RD	Construction of stabilised soil base with organo silance by providing locally available moorum/soil(70%) mixed with 30% GSB II with 4% cement by MDD of mix, 0.6 Kilogram/Cum nanotechnology silane & 0.6 Kilogram/ cum of Acrilic Nano - Co polymer, Spreading in uniform layers with grader on prepared surface by mixing in place method withrotavator at OMC and compacting with smooth wheel roller to achieve the desired density, complete as per Table 2.3 of IRC SP - 77-2008 as per direcion of Engineer - in -charge.	As directed by Engineer-in-charge	Cubic Metre	1789	304
1787	Road work	50.54	RD	Supplying trap/granite/quartzite/gneiss stone metal of required size by bringing the boulders / Rubble at the road side breaking them to required gradation including conveying the boulders /Rubble and stacking the broken metal etc. complete . (Prior approval of sample stack of broken metal by the Ex. Engineer is necessary the date of approval will form part of the measurements) a)80 mm Metal, By breaking rubble obtained by blasting.(Hand broken). with prior approval of concerned Superitending Engineer.	As directed by Engineer-in-charge	Cubic Metre	730	325
1788	Road work	50.55	RD	Supplying trap/granite/quartzite/gneiss stone metal of required size by bringing the boulders / Rubble at the road side breaking them to required gradation including conveying the boulders /Rubble and stacking the broken metal etc. complete . (Prior approval of sample stack of broken metal by the Ex. Engineer is necessary the date of approval will form part of the measurements) a)40 mm Metal, By breaking rubble obtained by blasting.(Hand broken).	As directed by Engineer-in-charge	Cubic Metre	780	350
1789	Road work	50.56	RD	Supplying trap/granite/quartzite/gneiss stone metal of required size by bringing the boulders / Rubble at the road side breaking them to required gradation including conveying the boulders /Rubble and stacking the broken metal etc. complete . (Prior approval of sample stack of broken metal by the Ex. Engineer is necessary the date of approval will form part of the measurements) a)80 mm Metal, By breaking Boulders (Hand broken).	As directed by Engineer-in-charge	Cubic Metre	700	335
1790	Road work	50.57	RD	Supplying trap/granite/quartzite/gneiss stone metal of required size by bringing the boulders / Rubble at the road side breaking them to required gradation including conveying the boulders /Rubble and stacking the broken metal etc. complete . (Prior approval of sample stack of broken metal by the Ex. Engineer is necessary the date of approval will form part of the measurements) a)40 mm Metal, By breaking Boulders (Hand broken).	As directed by Engineer-in-charge	Cubic Metre	750	360
1791	Road work	50.58	RD	Spreading 80/40 mm metal for road work including sectionong etc complete as directed by Engineer in charge .	As directed by Engineer-in-charge	Cubic Metre	85	75
1792	Road work	50.59	RD	Compacting the sub grade/gravel/oversize metal (200 mm loose) layers for all width with Power roller having weight 8 to 10 MT. including necessary, labour, materials and artificial watering complete.	As directed by Engineer-in-charge	Square Metre	27	4
1793	Road work	50.60	RD	Compacting the sub grade/gravel/oversize metal (200 mm loose) layers for all width with Vibratory roller having weight 8 to 10 MT. including necessary, labour, materials and artificial watering complete.	As directed by Engineer-in-charge	Square Metre	37	4
1794	Road work	50.61	RD	Compacting the sub grade / gravel / size metal (100 mm loose) layers for all widths with Power roller having weight 8 to 10 MT. including necessary, labour, materials and artificial watering complete.	As directed by Engineer-in-charge	Square Metre	25	4
1795	Road work	50.62	RD	Compacting the sub grade / gravel / size metal (100 mm loose) layers for all widths with vibratory roller having weight 8 to 10 MT. including necessary, labour, materials and artificial watering complete.	As directed by Engineer-in-charge	Square Metre	34	4

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
1796	Miscellaneous	50.79	BD-W	Providing and applying two coats Apex Ultima Puranature Anti-Pollution Or equivalent approved brand, paint should decomposes organic substances and inorganic gases(NOx, VOC's, CO, SOx, formaldehydes, etc.) in presence of natural or artificial light. It contains Graphene and nanoparticles of titanium oxide. and Absorbs CO2 (4.8 Kilogram/15 l). plaster crack should be filled by Acrylic base Crack seal/Textured Crack filler, Paint has to applied on one coat of Apex Ultima Puranature Anti-Pollution Primer or Equivalent. Warranty Should be given by the Manufaturer The work should be done by the Manufacturer Recommended applicator and he should be able to furnish stage wise onsite technical reports from the concerned company technologist.	As directed by Engineer-in-charge	Square Metre	372	0
1797	Miscellaneous	50.80	BD-W	Supply of ready mix patch repairing compound as per section 3000.2.2(filling pothole and patches repair with specific approval of the engineer),MORT&H specifications for roads and bridge works,5th Revision, for instant repair of surface defects of road under all weather conditions.The premix should consists of a binder with hydrophilic properties and accelerated adherence to all types of aggregares and can be applied on all patches and potholes including water logged patches and poyholes and in rainy conditions. The material should be suitable for both Bituminous and concrete roads with quick setting properties and allow traffic to be released within 10 mins.of patch or pothole repair.the material should for use on roads with both passanger and heavy commercial vechiles.The mix should be suitable for repairing of surfacing course and should be comparising of fine aggregates 0-10 mm,(5.5-7.5 %).additives as ewquired.the mix should packed in bags which can be easily handled manually and be storable under normal storage conditions for at least 8 month.	As directed by Engineer-in-charge	Kilogram	25	0
	Door and Windows	50.81	BD-T	Fire Door 45mm 1HR FRL (60/60) 3 Criteria - INTEGRITY / INSULATION/ STABILITY WOODEN DOOR - Fire Door Tested in accordance to IS: 3614 Part 2.	As directed by Engineer-in-charge			
				Providing 60 min Fire rated doors system duly tested for 3 criteria - Integrity, Insulation and Stability Criteria as per the IS: 3614 Part 2 and BS: 476 part 22 at National Test House, Govt of India laborator and/or with Central Building Research Institute, Govt of India undertaking with standard heating conditions as specified in IS:3614 Part II 1992 and BS: 476 part 20 & 22 1987 to achieve the required integrity, insulation and stability (i.e. to restrict the heat radiation, temperature rise on the non fire side to the maximum of 140° C above the ambient temperature on the exposed surface of the shutter. The fire doors are tested with NCBN technology ("Non Combustible by Nature"). with prior approval of concerned Superitending Engineer.				
1798				a) Door Frame: Supplying frames for Fire resistant door shutters 1st class Malaysian Hardwood Frame densified (810 Kilogram/cum) and pressure treated with fire retardant chemicals in vacuum impregnation vessel under 160 psi pressure as per IS:401and kiln seasoned to moisture below 15% as per IS:1141 of section 120 X 60 mm spray quoted with 2 coats of intumescent paint of minimum 200 micron, with single row of Brush- Type ASTROFLAME intumescent strip of size 10mm x 4mm affixed in the slit of the Frame for fire and smoke sealing, etc. complete.		Running metre	1527	503

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
1799				b)Shutter : Providing of 65mm thick asbestos free composite - 3 criteria - fire, heat and smoke check Accoustic Door Shutter with flame guard of 120 minutes IS3614 part -II comprising of 2x9mm Calcium Silicate boards, Chemical treated internal timber with Fire retardant chemicals in pressure impregnation vessels under 160 PSI pressure as per IS:401and kiln seasoned to moisture below 15% as per IS:1141 frame work of 100x32 mm with 32mm thick infill of ceramic fiber (density 128Kilograms/CMT), vermaculite mix faced with 6mm Fire retardant High Density ply, internally lipped with hardwood beading, and pasted in Hydraulic Press under 50 tonnes pressure, spray quoted with 2 coats of In tumescent paint of minimum 200 micron, and with 1 row of Brush- Type Astroflame® intumescent strip (imported) of size 10mmx4mm concealed for fire and smoke sealing in the grooves in the shutter on all edges except bottom, without any external lipping.		Square Metre	8786	2547
1800				c) Vision Panel: 1 HR rated E Class clear high stress fire rated glass is pre fabricated strategically inside the shutter structure with 10 mm inside the shutter on all sides with U- glazing. An additional insulated powdercoated 'Z' channel of 16 swg MS sheet to be fixed for reinforcement of the joints. With clear fire resistant glass panes 11mm thick having minimum 120 minutes fire <u>Description</u>		Square Metre	33463	0
	Door and Windows	50.82	BD-T	Providing of Accoustic Door to effectively control noise inconference rooms, broadcasting studios, theatres and music practice rooms. with prior approval of concerned Superitending Engineer.	As directed by Engineer-in-charge			
1801				a)Door Frame: Providing Frames for Accoustic door shutters with double rabbit of 68mm 1st class Malaysian Hardwood Frame densified and pressure treated with chemicals in vacuum impregnation vessel under 160 PSI pressure as per IS:401and kiln seasoned to moisture below 15% as per IS:1141 of section 120 X 70 mm spray quoted with 2 coats of In tumescent paint of minimum 200 micron, with 1 row of Hafele Accoustic seals concealed in the groove of the Frame for noise control, etc. complete as per direction of Engineer in Charge		Running metre	1895	503
1802				b)Shutter: Providing of 65mm thick Accoustic Door Shutters with wooden structure comprising of Chemical treated internal timber with anti termite chemicals in pressure impregnation vessels under 160 PSI pressure as per IS:401and kiln seasoned to moisture below 15% as per IS:1141 frame work of 100x 48 mm with 48 mm thick infill of ceramic vermiculite mix of density 54Kilograms/CMT, 3mm sheet rubber interlayer sheet on one side for acoustic property, faced with 6mm High Density Waterproof Ply confirming to IS Code 2201, internally lipped with hardwood beading, and pasted in Hydraulic Press under 50 tonnes pressure, spray quoted with 2 coats of PU paint of minimum 200 micron of color of engineer choice (any Veneer or Lamination will cost extra), without any external lipping along with double rebatting in shutters & accoustic seal		Square Metre	13449	2547
	Door and Windows	50.83	BD-T	2 Hour Insulated, Flame, Smoke Radiation check Lead Lined Fire Door 57mm 2HR FRL (120/120) 3 Criteria - INTEGRITY / INSULATION/ STABILITY WOODEN DOOR - Fire Door Tested in accordance to IS: 3614 Part 2. with prior approval of concerned Superitending Engineer	As directed by Engineer-in-charge			

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
				Providing of 120 min Fire rated lead lined doors system duly tested for 3 criteria - Integrity, Insulation and Stability Criteria as per the IS: 3614 Part 2 and BS: 476 part 22 with standard heating conditions as specified in IS:3614 Part II 1992 and BS: 476 part 20 & 22 1987 to achieve the required integrity, insulation and stability (i.e. to restrict the heat radiation, temperature rise on the non fire side to the maximum of 140° C above the ambient temperature on the exposed surface of the shutter. The fire doors are tested with NCBN technology ("Non Combustible by Nature"). Lead lined to check radiation. Code No; 2 Hour Insulated, Flame, Smoke Radiation check Lead Lined Fire Door 57mm 2HR FRL (120/120) 3 Criteria - INTEGRITY / INSULATION/ STABILITY WOODEN DOOR - Fire Door Tested in accordance to IS: 3614 Part 2.				
1803				a) <u>Door Frame</u> : Providing Frames for Lead Lined Fire resistant door shutters 1st class Malaysian Hardwood Frame densified and pressure treated with fire retardant chemicals in vacuum impregnation vessel under 160 PSI pressure as per IS:401and kiln seasoned to moisture below 15% as per IS:1141 of section 140 X 70 mm with 45mm thick two layered 3mm Lead Line Sheets with 10mm overlap from either side & spray quoted with 2 coats of Intumescent paint of minimum 200 micron, with 1 row of Brush- Type Astroflame® intumescent strip (imported) of size 10mmx4mm concealed in the groove of the Frame for fire and hot and cold smoke sealing, etc. complete as per direction of Engineer in Charge		Running metre	2981	503
1804				b) <u>Shutter</u> : Providing of 57mm thick asbestos free composite, 'TUFWUD' brand - 3 criteria - fire, heat and smoke check Lead Lined Door Shutter with flame guard of 120 minutes IS3614 part -II comprising of 2x9mm Calcium Silicate boards, Chemical treated internal timber with Fire retardant chemicals in pressure impregnation vessels under 160 PSI pressure as per IS:401and kiln seasoned to moisture below 15% as per IS:1141 frame work of 100x30 mm with 30mm thick infill of ceramic fibre (density 128 Kilograms/CMT) vermiculite mix, 3mm thick Lead Sheet on one side faced & 3mm Fire retardant High Density Fibreboard, internally lipped with hardwood beading, and pasted in Hydraulic Press under 50 tonnes pressure, spray quoted with 2 coats of Intumescent paint of minimum 300 micron, and with 1 row of Brush- Type Astroflame® intumescent strip (imported) of size 10mmx4mm concealed for fire and smoke sealing in the grooves in the shutter on all edges except bottom, without any external lipping.		Square Metre	20416	2547
	Door and Windows	50.84	BD-T	Providing of Lead Lined Door system with 120x60 mm Hardwood Frames, interlayered with 3mm lead and 44mm Solid core flush door shutters conforming to the I.S. specification 2202-1991 (specification for wooden flush door shutter – solid core type), interlayered with 3mm lead with prior approval of concerned Superintending Engineer.	As directed by Engineer-in-charge			
1805				a) <u>Door Frame</u> : Providing Frames for Lead Lined door shutters 1st class Malaysian Hardwood Frame densified and pressure treated with fire retardant chemicals in vacuum impregnation vessel under 160 PSI pressure as per IS:401 and kiln seasoned to moisture below 15% as per IS:1141 of section 120 X 70 mm with 45mm thick two layered 3mm Lead Line Sheets being overlapped from either side, spray quoted with 2 coats of Enamel paint after one coat of white wood primer of minimum 200 micron etc. complete as per direction of Engineer in Charge. with prior approval of concerned Superintending Engineer.		Running metre	2523	503

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
1806				b) <u>Shutter</u> : Supplying of ' 44mm Solid core flush door shutters conforming to the I.S. specification 2202-1991 (specification for wooden flush door shutter – solid core type). 32mm Wooden structure of 1st class Hardwood or Pinewood of at least 50mm width, top and bottom rails of 75mm width, with filler material without any gap of 1st Class Hardwood, or pine wood, all chemically treated for termite and borer resistance as per IS 401:2001 under minimum 150 PSI pressure, and seasoned as per IS 1141: 1993 upto desired moisture level as per IS 287, with one side 3mm HDF & other side 3mm lead & 6mm BWP ply; all hot-pressed with Phenol Formaldehyde resin, internally lipped with hardwood beading, and pasted in Hydraulic Press under 50 tonnes pressure, spray quoted with 2 coats of enamel paint of minimum 300 micron. with prior approval of concerned Superintending Engineer.		Square Metre	16897	2547
1807	water supply and sanitary	50.85	BD-V	Providing and fixing Ductile iron Man Hole Covers/ Strom Water Grating and Grating with frame of Various sizes, weight and types and load bearing capacity as per EN-124, equivalent NECO with prior approval of concerned Superintending Engineer.	As directed by Engineer-in-charge	Kilogram	150	15
	water supply and sanitary	50.86	BD-V	Supplying installation testing and commisssoning of Hubless centrifugally cast iron pipes as per ISI 15905 equivalent to NECO inclusive of all necessary special fitting like bends, tees, and caps, 'Y' bends for cleaning offsets, junctions, cowls, etc. lad under floor/fixed on walls and in pipe shafts etc. complete. The quoted rate should include lead and lifting charges to all levels, necessary scaffolding and supports like hanger supports grip bolts and CV sheet 304 grade clamps etc. with prior approval of concerned Superintending Engineer.	As directed by Engineer-in-charge			
1808		a		a) 50 mm dia		Running metre	1100	110
1809		b		b) 65 mm dia		Running metre	1280	128
1810		c		c) 75 mm dia		Running metre	1380	138
1811		d		d) 100 mm dia		Running metre	1600	160
1812		e		e) 150 mm dia		Running metre	2850	285
1813		f		f) 200 mm dia		Running metre	4750	285

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
<b>SSR 2021-2022 :- New Items 2019--20</b>								
1814	Accoustic	51.01		Providing & Fixing in position, Acoustical Panelling made from Fabric wrapped Compressed polyester fibre nonwoven 9 mm panels on, 50 x 50 mm sal-wood frame of 600 x 600 c to c having wooden supports from wall of required length, in front of 1000 gsm synthetic wool 50 mm thick with chicken mesh on wall side, including cost of required Cut-Outs, decorative mouldings / finishing-items / paint & Scaffolding, as per Architectural & Acoustical Design & Instructions & Complete in all aspects.including all materials labour.finishing etc complete	As directed by Engineer-in-charge	Square Metre	4590	1375
1815	Accoustic	51.02		Providing & Fixing in position, Acoustical Panelling made from Wood-wool board 20mm on, 50 x 50 mm Sal-wood frame of 600 x 600 c to c having wooden supports from wall of required length, in front of 1000 Gsm synthetic wool 50 mm thick with chicken mesh on wall side, including cost of required Cut-Outs, decorative mouldings / finishing-items / paint & Scaffolding, as per Architectural & Acoustical Design & Instructions & Complete in all aspects. including all materials labour,finishing etc complete	As directed by Engineer-in-charge	Square Metre	3430	1025
1816	Accoustic	51.03		Providing & Fixing in position, Acoustical Panelling made from Gypsum plain 12mm panels on, 50 x 50 mm Sal-wood frame of 600 x 600 c to c having wooden supports from wall of required length, in front of 1000 Gsm synthetic wool 50 mm thick with chicken mesh on wall side, including cost of required Cut-Outs, decorative mouldings / finishing-items / paint & Scaffolding, as per Architectural & Acoustical Design & Instructions & Complete in all aspects. including all materials labour,finishing etc complete	As directed by Engineer-in-charge	Square Metre	2300	690
1817	Accoustic	51.04		Providing & Fixing in position, Acoustical Panelling made from 12mm wp Ply wood & 1.5mm laminate on, 50 x 50 mm Sal-wood frame of 600 x 600 c to c having wooden supports from wall of required length, in front of 1000 Gsm synthetic wool 50 mm thick with chicken mesh on wall side, including cost of required Cut-Outs, decorative mouldings / finishing-items / paint & Scaffolding, as per Architectural & Acoustical Design & Instructions & Complete in all aspects.including all materials labour,finishing etc complete	As directed by Engineer-in-charge	Square Metre	5090	1500
1818	Accoustic	51.05		Providing & Fixing in position Acoustical Doors along with 150 x 150 mm teak wood frame, doors made from 50mm Teak wood frame 600 x600 c to c filled with 1000 Gsm synthetic wool 50mm thick and 3mm Tecsound from both sides, 12mm waterproof ply & veneer from both sides , including 150mm heavy duty SS hinges (Geze / Dorma or eq.) 4 no each leaf, with Door-closer (Dorma / Geze or eq.) including cost of required Cut-Outs, decorative mouldings / finishing-items / melamine polish & Scaffolding as per Architectural & Acoustical Design & Instructions & Complete in all aspects .including all materials labour.finishing etc complete	As directed by Engineer-in-charge	Square Metre	23700	7100
1819	Accoustic	51.06		Providing & fixing in position Stage flooring Made from 18mm plywood 1200 x 2400 & 18mm Teakwood planks 100 x 800 having tongue & grove on Sal-wood frame of 50 x 100 at 600mm c to c on stage surface including cost of required Cut-Outs, decorative mouldings / finishing-items / polish etc., as per Architectural & Acoustical Design & Instructions & Complete in all aspects. .including all materials labour,finishing etc complete	As directed by Engineer-in-charge	Square Metre	8215	2460
1820	Accoustic	51.07		Providing & Fixing in position, Acoustical Ceiling made from Gypsum Plain Panels on approved heavy duty G.I. frame ceiling channels at 450 c to c, & intermediate channels not more than 1200 c to c, along with ply wood forms suspended with Hangers from Roof, in front of 1000 Gsm synthetic wool 50 mm thick, with Paint, including cost of required Cut-Outs, decorative mouldings / finishing-items & Scaffolding, as per Architectural & Acoustical Design & Instructions & Complete in all aspects.including all materials labour.finishing etc complete	As directed by Engineer-in-charge	Square Metre	1465	430

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
1821	Accoustic	51.08		Providing & Fixing in position, Acoustical Ceiling made from Compressed polyester fibre nonwoven 9mm panels on approved heavy duty GI frame 300 mm c to c & intermediate channels at 1200 mm c to c, suspended with Hangers from Roof, including cost of required Cut-Outs, decorative mouldings / finishing-items & Scaffolding, as per Architectural & Acoustical Design & Instructions & Complete in all aspects including all materials labour,finishing etc complete	As directed by Engineer-in-charge	Square Metre	2865	850
1822	Accoustic	51.09		Providing & Fixing in position, Acoustical Ceiling made from Rigitone 8/18 perforated panels on approved heavy duty G.I. frame, ceiling channels at 300 c to c, & intermediate channels not more than 1200 c to c, suspended with Hangers from Roof, in front of 1000 Gsm synthetic wool 50 mm thick, with Paint, including cost of required Cut-Outs, decorative mouldings / finishing-items & Scaffolding, as per Architectural & Acoustical Design & Instructions & Complete in all aspects including all materials labour,finishing etc complete	As directed by Engineer-in-charge	Square Metre	4135	1200
1823	Accoustic	51.10		Providing & Fixing in position, Acoustical Panelling made from 12mm thick Agro wood strips of 50, 75 7 100 mm width on 50 x 50 mm Sal-wood frame of 600 x 600 c to c having supports from wall of required length, in front of 1000 gsm synthetic wool 50 mm thick with approved coloured fabric on strips side & chicken mesh on wall side, including cost of required Cut-Outs, decorative mouldings / finishing-items / Melamine Polish & Scaffolding, as per Architectural & Acoustical Design & Instructions & Complete in all aspects. including all materials labour,finishing etc complete	As directed by Engineer-in-charge	Square Metre	5075	1500
1824	Accoustic	51.11		Providing & Fixing in position, Fabric wrapped Compressed polyester fibre nonwoven 9mm panels above the wood wool board panelling or existing sal wood frame, using adhesive, as per Architectural & Acoustical Design & Instructions & Complete in all aspects. including all materials labour,finishing etc complete	As directed by Engineer-in-charge	Square Metre	2950	875
1825	Accoustic	51.12		Providing & Fixing in position, Partition made from 12mm thick Gypsum from both sides on 50 x 50 mm Sal-wood frame of 600 x 600 c to c, having of 800 gsm synthetic wool 50 mm thick in between, including cost of required Cut-Outs & Scaffolding, as per Architectural & Acoustical Design & Instructions & Complete in all aspects including all materials labour,finishing etc complete	As directed by Engineer-in-charge	Square Metre	2524	750
1826	Accoustic	51.13		Providing & Fixing in position, Carpet more than 800+ gsm, made with100% stain proof fibres of approved make along with 5mm underlay as per Architectural & Acoustical Design & Instructions & Complete in all aspects including all materials labour,finishing etc complete	As directed by Engineer-in-charge	Square Metre	1450	435
1827	Accoustic	51.14		Providing & Fixing in position, 1000 mm wide Auto-glow Aluminium extruded strips on auditorium steps as per Design & Instructions & Complete in all aspects. Make Piccolo or Nexus	As directed by Engineer-in-charge	Number	1410	420
1828	Accoustic	51.15		Providing & Fixing in position, 12mm wp Ply wood & 1.5mm laminate panels above the fabricated frame on one side , as per Architectural & Acoustical Design & Instructions & Complete in all aspects. including all materials labour,finishing etc complete	As directed by Engineer-in-charge	Square Metre	3170	950
1829	Accoustic	51.16		Providing & Fixing in position, MS fabrication work using angles, sqr tubes, c channels etc for various partition frame as per Design & Instructions & Complete in all aspects . including all materials labour,finishing etc complete	As directed by Engineer-in-charge	Kilogram	85	25
1830	Accoustic	51.17		Providing & Fixing in position, Under Deck insulation for metal deck using 1000 Gsm synthetic wool with fixed to deck using adhesive and chicken mesh.	As directed by Engineer-in-charge	Square Metre	740	220



Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
1831	Accoustic	51.18		Providing & fixing in position, heavy duty fully upholstered Auditorium chairs 520 mm c to c tip-up type. Height of back should be less than 1030 mm with plastic protective cover on back and bottom having teak wood handles. Back to back distance is 1000mm. The auditorium chairs should be of following specifications 1. Powder Coated Heavy duty MS Stand. 2. Individually moulded , ergonomically designed seat and back cushions. 3.Moulded Polyurethane Foam cushion. PU foam density 48 – 52 Kilograms/cu.mtr 4. Moulded Polyurethane Foam manufactured in certified ISO 9001 facility to ensure consistency in density for longevity .5.Upholstered in Foam laminated stretch sandwich Fabric for clean finish and soft comfortable feel as per the colour & pattern selected by the client. 6.Seat and Back should have moulded synthetic protective cover. 7. Wooden or PU armrest 65mm x 20mm - 330mm long . 8.Mounted using Anchor fasteners.	As directed by Engineer-in-charge	Number	6000	1800
1832	Accoustic	51.19		Providing and Fixing Rollar Blinds AMI Make or approved make & shade of 38mm round Aluminium channel with Blackout fabric & telting with chain (Ball) system with all necessary fixtures and fitting etc. complete. (Sample to be final by Engineer In-charge prior execution of work)	As directed by Engineer-in-charge	Square Metre	2152	645
1833	Accoustic	51.20		Providing and Fixing Vertical Blinds of approved Make and shade of 100mm regular fabric with powder coated aluminium channel with telting PVC chain & bottom weight plate with all necessary fixtures and fitting etc. complete. (Sample to be final by Engineer In-charge prior execution of work)	As directed by Engineer-in-charge	Square Metre	1025	300
1834	Furniture	51.21		Executive's Table @ 1800Lx900Dx750HT Providing & Fixing of Table @ 1800Lx900Dx750HT - TOP & GABLE END to be made of Membrane finish with soft water fall edges & curved panel & Decorated Anodized section MODESTY PANEL to be made of 18 mm thick Prelaminated particle board with PVC edge band as per drawing	As directed by Engineer-in-charge	Number	17231	---
1835	Furniture	51.22		Pedestal Unit @ 420Lx450Dx650HT Providing & Fixing of PEDESTAL @ 420Lx450Dx650HT :- To be made out of Complete Membrane consist of three Drawers as per drawing.	As directed by Engineer-in-charge	Number	9004	---
1836	Furniture	51.23		Credestal @ 1200Lx450Lx650HT Providing & Fixing of LOW HEIGHT CREDESTAL @ 1200L X 450D X 650H :- To be made out of Membrane Finish ( 2 Openable Shutter & 3 Drawer Pedestal in between )as per drawing.	As directed by Engineer-in-charge	Number	17498	---
1837	Furniture	51.24		Executive Table @ 2250Lx2100Dx750HT including Low Height Credestal @ 1200Lx450Dx650HT Providing & Fixing of Table @ 2250Lx2100Dx750HT TOP & GABLE END to be made of Membrane finish with soft water fall edges & curved panel & Decorated Anodized section MODESTY PANEL to be made of 18 mm thick Prelaminated particle board with PVC edge band. INCLUDING CREDESTAL @ 1200L X 450D X 650H :- To be made out of Membrane Finish ( 2 Openable Shutter & 3 Drawer Pedestal in between ) as per drawing.	As directed by Engineer-in-charge	Number	42635	---

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
1838	Furniture	51.25		Medium Height Partition @ 1800/1200HT TILE BASED PARTITION SYSTEM:- Tile based Aluminum partition system of 1800/1200 mm ht. made of 60mm thk aluminum frames having two separate race ways for laying electrical & computer wiring. The wire management shall be through to the race way to be fitted at bottom of partition and other immediately below of work top with hook on type raceway cover for easy access of wires. Frames to be joined by aluminum connectors with M6 x 16 pan-head machin screw and washer with aluminum post cover. Post cover of snap on fashion to be connected on aluminum connectors. All visible aluminium to be in anodized finish. The top/ exposed sides of the frame and posts should be covered with horizontal/ Vertical trim and caps made of Aluminum in anodized finish in order to enhance its look.Upper tiles of partition to be in Soft Board or Marker tile of 9mm. thk., and prelaminated partical board lower tiles in laminate finish of 9mm. thk. on both the sides.	As directed by Engineer-in-charge	Running meter	7552	---
1839	Furniture	51.26		Free Standing Table @ 1500Lx600Dx750HT Providing and fixing Table of Size 1500 x 600 x 750 mm. Top: made from 25 mm Prelaminated Particle board. All edges are covered by 2 mm. Thk. PVC edge bands glued by hot melt glue applied by auto edge banding machine. Legs : C Shape made from CRCA Sheet with Powder Coat finish. Modesty panel : Made from 18mm both side prelaminated particle boards.All edges are covered by 0.8mm PVC edge bands glued by hot melt glue applied by auto edge banding machine.KEYBOARD TRAY ( WITHOUT MOUSE TRAY ) :- Metal Powder Coated - Black Color, CPU TROLLEY :- Metal Powder Coated - Black Color, 3 DRAWER PEDESTAL UNIT having overall size 392L x 450D x 680Ht. mm. with central lock and key. Drawers and body are complete metal with powder coat finish, facia in 18 mm prelaminated particle board,	As directed by Engineer-in-charge	Number	16893	---
1840	Furniture	51.27		<u>Free Standing Table @ 1350Lx600Dx750HT</u> Providing and fixing Table of Size 1350 x 600 x 750 mm. Top: made from 25 mm Prelaminated Particle board. All edges are covered by 2 mm. Thk. PVC edge bands glued by hot melt glue applied by auto edge banding machine. Legs : C Shape made from CRCA Sheet with Powder Coat finish. Modesty panel : Made from 18mm both side prelaminated particle boards.All edges are covered by 0.8mm PVC edge bands glued by hot melt glue applied by auto edge banding machine.KEYBOARD TRAY ( WITHOUT MOUSE TRAY ) :- Metal Powder Coated - Black Color, CPU TROLLEY :- Metal Powder Coated - Black Color, 3 DRAWER PEDESTAL UNIT having overall size 392L x 450D x 680Ht. mm. with central lock and key. Drawers and body are complete metal with powder coat finish, facia in 18 mm prelaminated particle board,	As directed by Engineer-in-charge	Number	16411	---
1841	Furniture	51.28		Free Standing Table @ 1200Lx600Dx750HT Providing and fixing Table of Size 1200 x 600 x 750 mm. Top: made from 25 mm Prelaminated Particle board. All edges are covered by 2 mm. Thk. PVC edge bands glued by hot melt glue applied by auto edge banding machine. Legs : C Shape made from CRCA Sheet with Powder Coat finish. Modesty panel : Made from 18mm both side prelaminated particle boards.All edges are covered by 0.8mm PVC edge bands glued by hot melt glue applied by auto edge banding machine.KEYBOARD TRAY ( WITHOUT MOUSE TRAY ) :- Metal Powder Coated - Black Color, CPU TROLLEY :- Metal Powder Coated - Black Color, 3 DRAWER PEDESTAL UNIT having overall size 392L x 450D x 680Ht. mm. with central lock and key. Drawers and body are complete metal with powder coat finish, facia in 18 mm prelaminated particle board,	As directed by Engineer-in-charge	Number	14436	---

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
1842	Furniture	51.29		Library Area Table @ 1350Lx750Dx750HT Providing & Fixing of FREE STANDING TABLE @ 1350Lx750Dx 750HT:- TOP to be made of 25 mm thick Prelaminated particle board with PVC edge band, BENT LEG to be CHROME FINISH as per drawing.	As directed by Engineer-in-charge	Number	10897	---
1843	Furniture	51.30		Providing & Fixing Curvilinear Workstation @ 1500/1500Lx600/600Dx750HT Providing & Fixing Curvilinear Workstation @ 1500/1500Lx600/600Dx750HT, Curvilinear Table Top @ 1500/1500Lx600/600D :- TOP to be made of 25 mm thick Prelaminated particle board with PVC edge band, GABLE END to be made of 25 mm thick Prelaminated particle board with PVC edge band, KEYBOARD TRAY ( WITHOUT MOUSE TRAY ) :- Metal Powder Coated - Black Color, CPU TROLLEY :- Metal Powder Coated - Black Color, along with 3 DRAWER PEDESTAL UNIT having overall size 392L x 450D x 680Ht. mm. with central lock and key. 3 Drawers and body are complete metal with powder coat finish, facia in 18 mm prelaminated particle board,	As directed by Engineer-in-charge	Number	15767	---
1844	Furniture	51.31		Conference Table @ 3600Lx1400Dx750HT Providing & Fixing of Main Table @ 3600Lx1400Dx750HT - made up of 18+18mm Thick MDF top with PVC Membrane finish and waterfall edge profile. Aluminium Anodized finish beeding of 4mm thich is running all over the table top edge. Gable ends is Aerofoiled Shape with front edges in PVC Membrane finish and rest in Prelaminated MDF with batton structure. Gable ends should be hollow from inside for the provision of passing electrical and Data wiring. , MODESTY PANEL:- to be made of 18 mm thick Prelaminated particle board with PVC edge band Access Flap:- For Wire manager 2 Nos	As directed by Engineer-in-charge	Number	99105	---
1845	Furniture	51.32		Conference Table @ 1800 x 900 x 750 mm Ht. Providing & Fixing of Main Table @ 1800Lx900Dx750HT - made up of 18+18mm Thick MDF top with PVC Membrane finish and waterfall edge profile. Aluminium Anodized finish beeding of 4mm thich is running all over the table top edge. Gable ends is Aerofoiled Shape with front edges in PVC Membrane finish and rest in Prelaminated MDF with batton structure. Gable ends should be hollow from inside for the provision of passing electrical and Data wiring. , MODESTY PANEL:- to be made of 18 mm thick Prelaminated particle board with PVC edge band Access Flap:- For Wire manager 1 Nos	As directed by Engineer-in-charge	Number	21108	---
1846	Furniture	51.33		12 Seater Reading Table for Library @ 3600Lx1200Dx750HT Providing and Fixing 12 Seater Reading Table for Libenary @ 3600Lx1200Dx750HT Top: made from 25 mm Prelaminated Particle board. All edges are covered by 2 mm. Thk. PVC edge bands glued by hot melt glue applied by auto edge banding machine. Gable Ends : made from 25 mm Prelaminated Particle board. All edges are covered by 2 mm. Thk. PVC edge bands glued by hot melt glue applied by auto edge banding machine. Modesty panel : Made from 18mm both side prelaminated particle boards.All edges are covered by 0.8mm PVC edge bands glued by hot melt glue applied by auto edge banding machine	As directed by Engineer-in-charge	Number	29536	---
1847	Furniture	51.34		3 DRAWER PEDESTAL UNIT @ 392L x 450D x 680Ht. mm. 3 DRAWER PEDESTAL UNIT having overall size 392L x 450D x 680Ht. mm. with central lock and key. 3 Drawers and body are complete metal with powder coat finish, facia in 18 mm prelaminated particle board.	As directed by Engineer-in-charge	Number	8108	---
1848	Furniture	51.35		Low Height Openable Storage @ 900Lx450x750HT Providing and fixing Openable Steel Storage of 900 x 450 x 750Ht, with 2 adjustable shelves, Complete body & shutter made in 0.8 mm thick & Top in 2 mm thick CRCA, 2 Shutter to be mounted with the help of cup hinges, and 4 adjustable levelers, enitre storage in powder coated finish with 60 to 80 microns. with 25 mm. thk additional Top on top of storage as as per drawing	As directed by Engineer-in-charge	Number	12646	---

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
1849	Furniture	51.36		Medium Height Steel Storage @ 750Lx450Dx1200HT Providing and fixing Openable Steel Storage of 750 x 450 x 1200Ht, with 2 adjustable shelves, Complete body & shutter made in 0.8 mm thick & Top in 2 mm thick CRCA, 2 Shutter to be mounted with the help of cup hinges, and 4 adjustable levelers, enitre storage in powder coated finish with 60 to 80 microns. with 25 mm. thk. as per drawing.	As directed by Engineer-in-charge	Number	15452	---
1850	Furniture	51.37		Full Height Steel Storage @ 750Lx450Dx2100HT Providing and fixing Openable Steel Storage of 750 x 450 x 2100Ht, with 4 adjustable shelves, Complete body & shutter made in 0.8 mm thick & Top in 2 mm thick CRCA, 4 Shutter to be mounted with the help of cup hinges, and 4 adjustable levelers, enitre storage in powder coated finish with 60 to 80 microns as as per drawing.	As directed by Engineer-in-charge	Number	18925	---
1851	Furniture	51.38		Multiple Compartment Lockers @ 1140Lx 457D x 1830 mm. Ht. Providing and fixing Multiple Compartment Lockers @ 1140Lx 457D x 1830 mm. Ht. with 12 Compartments , Complete body & shutter made of CRCA Sheet with powder coated finish as per approved color.	As directed by Engineer-in-charge	Number	43427	---
1852	Furniture	51.39		Book Case with Glass Shutter @ 825Lx300Dx1650HT Providing & Fixing of Book Case with Glass Shutter @ 825Lx300Dx1650HT:- To be made out of complete body & in 0.7mm thick CRCA & Shutter in 1.2mm thick CRCA with glass pannel in Powder coating finish as per drawing.	As directed by Engineer-in-charge	Number	26727	---
1853	Furniture	51.40		Providing & Arrangemnt of High Back, Synchronized Mechanism with Multiple Locking, Adjustable Armrest, Gaslift for Seat height adjustment, Standard 5-prong P/Nylon Base with Leatherite Upholstery	As directed by Engineer-in-charge	Number	17371	---
1854	Furniture	51.41		Providing & Arrangemnt of High Back Chair - TILT MECHANISM WITH MULTILOCKING, HIGH DENSITY CUSHION ON SEAT COMPOSITE LEATHER WITH METALLIC SILVER FINISH BASE AND ARMS WITH P.U.CASTORS GASLIFT FOR HEIGHT ADJUSTMENT.	As directed by Engineer-in-charge	Number	15474	---
1855	Furniture	51.42		Providing & Arrangemnt of Mid Back, Normal Syncro Mechanism , Fixed Armrest , Gaslift for Seat height adjustment, Standard 5-prong/Nylon Base with Leather Upholstery	As directed by Engineer-in-charge	Number	9563	---
1856	Furniture	51.43		Providing & Arrangemnt of Mid Back, ECO CTS Mechanism , Fixed Armrest , Gaslift for Seat height adjustment, Standard 5-prong P/Nylon Base with Fabric Upholstery	As directed by Engineer-in-charge	Number	6520	---
1857	Furniture	51.44		Public Seating Chair. - 3 Seater Providing and Fixing 3 seater Public seating chair made of complete metal with Legs in Crome finish and seates in silver powder coating finish.	As directed by Engineer-in-charge	Number	18056	---

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
1858	Furniture	51.45		<p>Double Faced Mobile Unit for Compactor 2150mmH x 2745mmW x 900mmD</p> <p>Providing and fixing Double Faced Mobile Unit for Compactor 2150mmH x 2745mmW x 900mmD - BASE</p> <p>FRAME : Base Frame shall be fabricated in channel Type from minimum 2.5 mm thick MS Sheet Size of Channel 25mm x 100mm x 45mm.</p> <p>GUIDE RAILS : The guide rails shall be made out of 28mm Bright bar placed on 1.2 mm thick M.S. Plate which will be above the floor and are as per the international standard of safety.</p> <p>SUPER STRUCTURE : Super structure of the Mobile storage system will consist of knock down type panels. All the components such as shelves, front panel, end panel, vertical rear panel, central partition etc. Will act as an integral member of the Unit. SHELVES : Shelves made of 22SWG thick Prime Quality C.R.C.A. having 10 folds each will be provided each designed to carry a U.D.L. of 70 Kilograms. VERTICAL PANEL : Vertical panel consists of the front, Centre &amp; rear panel shall be made out of 20SWG thick C.R.C.A. Prime quality Mild Steel &amp; designed to take the load of shelves. DRIVE COVER PANEL : Made out of 22SWG thick C. R.C. A. prime quality Steel to cover the entire drive mechanism. CENTRE PARTITION : The Centre partition will comprise of a full C.R.C.A. prime quality Mild Steel 22SWG Sheet. LOCKING : System will be provided with individual rack locking as well as centralised locking arrangement on the last unit when all units are brought together, central lock when operated gets locked with the floor &amp; does not allow access to the units. DRIVE MECHANISM : Driving Mechanism will be provided externally supported on special grade anti-friction bearing to have smooth &amp; effortless movement. Entire mechanism or gear &amp; sprockets shall be incorporated within the front panel provided in the front of the unit within an area of 1000mm x 200mm x 60mm. DRIVING WHEEL : Fully Powder Coated three pronged drive wheel for better torque &amp; free movement of the rack over the guide rail. INDEXING ARRANGEMENT : Acrylic card holders provided on the front panel for easy identification &amp; retrieval. FINAL FINISH : Powder Coating (8 tanks process with 70 microns).</p>	As directed by Engineer-in-charge	Number	135808	---

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
1859	Furniture	51.46		<p>Single Faced Mobile Unit for Compactor 2150mmH x 2745mmW x 457mmD</p> <p>Providing and fixing Single Faced Mobile Unit for Compactor 2150mmH x 2745mmW x 457mmD - BASE</p> <p>FRAME : Base Frame shall be fabricated in channel Type from minimum 2.5 mm thick MS Sheet Size of Channel 25mm x 100mm x 45mm.</p> <p>GUIDE RAILS : The guide rails shall be made out of 28mm Bright bar placed on 1.2 mm thick M.S. Plate which will be above the floor and are as per the international standard of safety.</p> <p>SUPER STRUCTURE : Super structure of the Mobile storage system will consist of knock down type panels. All the components such as shelves, front panel, end panel, vertical rear panel, central partition etc. Will act as an integral member of the Unit. SHELVES : Shelves made of 22SWG thick Prime Quality C.R.C.A. having 10 folds each will be provided each designed to carry a U.D.L. of 70 Kilograms. VERTICAL PANEL : Vertical panel consists of the front, Centre &amp; rear panel shall be made out of 20SWG thick C.R.C.A. Prime quality Mild Steel &amp; designed to take the load of shelves. DRIVE COVER PANEL : Made out of 22SWG thick C. R.C. A. prime quality Steel to cover the entire drive mechanism. CENTRE PARTITION : The Centre partition will comprise of a full C.R.C.A. prime quality Mild Steel 22SWG Sheet. LOCKING : System will be provided with individual rack locking as well as centralised locking arrangement on the last unit when all units are brought together, central lock when operated gets locked with the floor &amp; does not allow access to the units. DRIVE MECHANISM : Driving Mechanism will be provided externally supported on special grade anti-friction bearing to have smooth &amp; effortless movement. Entire mechanism or gear &amp; sprockets shall be incorporated within the front panel provided in the front of the unit within an area of 1000mm x 200mm x 60mm. DRIVING WHEEL : Fully Powder Coated three pronged drive wheel for better torque &amp; free movement of the rack over the guide rail. INDEXING ARRANGEMENT : Acrylic card holders provided on the front panel for easy identification &amp; retrieval. FINAL FINISH : Powder Coating (8 tanks process with 70 microns).</p>	As directed by Engineer-in-charge	Number	99768	---

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
1860	Furniture	51.47		<p>Single Faced Fixed Unit for Compactor 2150mmH x 2745mmW x 457mmD</p> <p>Providing and fixing Single Faced Fixed Unit for Compactor 2150mmH x 2745mmW x 457mmD - BASE</p> <p>FRAME : Base Frame shall be fabricated in channel Type from minimum 2.5 mm thick MS Sheet Size of Channel 25mm x 100mm x 45mm.</p> <p>GUIDE RAILS : The guide rails shall be made out of 28mm Bright bar placed on 1.2 mm thick M.S. Plate which will be above the floor and are as per the international standard of safety.</p> <p>SUPER STRUCTURE : Super structure of the Mobile storage system will consist of knock down type panels. All the components such as shelves, front panel, end panel, vertical rear panel, central partition etc. Will act as an integral member of the Unit. SHELVES : Shelves made of 22SWG thick Prime Quality C.R.C.A. having 10 folds each will be provided each designed to carry a U.D.L. of 70 Kilograms. VERTICAL PANEL : Vertical panel consists of the front, Centre &amp; rear panel shall be made out of 20SWG thick C.R.C.A. Prime quality Mild Steel &amp; designed to take the load of shelves. DRIVE COVER PANEL : Made out of 22SWG thick C. R.C. A. prime quality Steel to cover the entire drive mechanism. CENTRE PARTITION : The Centre partition will comprise of a full C.R.C.A. prime quality Mild Steel 22SWG Sheet. LOCKING : System will be provided with individual rack locking as well as centralised locking arrangement on the last unit when all units are brought together, central lock when operated gets locked with the floor &amp; does not allow access to the units. DRIVE MECHANISM : Driving Mechanism will be provided externally supported on special grade anti-friction bearing to have smooth &amp; effortless movement. Entire mechanism or gear &amp; sprockets shall be incorporated within the front panel provided in the front of the unit within an area of 1000mm x 200mm x 60mm. DRIVING WHEEL : Fully Powder Coated three pronged drive wheel for better torque &amp; free movement of the rack over the guide rail. INDEXING ARRANGEMENT : Acrylic card holders provided on the front panel for easy identification &amp; retrieval. FINAL FINISH : Powder Coating (8 tanks process with 70 microns).</p>	As directed by Engineer-in-charge	Number	64014	---

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
1861	Furniture	51.48		<p>Double Faced Mobile Unit for Compactor 2150mmH x 1830mmW x 900mmD</p> <p>Providing and fixing Double Faced Mobile Unit for Compactor 2150mmH x 1830mmW x 900mmD - BASE</p> <p>FRAME : Base Frame shall be fabricated in channel Type from minimum 2.5 mm thick MS Sheet Size of Channel 25mm x 100mm x 45mm.</p> <p>GUIDE RAILS : The guide rails shall be made out of 28mm Bright bar placed on 1.2 mm thick M.S. Plate which will be above the floor and are as per the international standard of safety.</p> <p>SUPER STRUCTURE : Super structure of the Mobile storage system will consist of knock down type panels. All the components such as shelves, front panel, end panel, vertical rear panel, central partition etc. Will act as an integral member of the Unit. SHELVES : Shelves made of 22SWG thick Prime Quality C.R.C.A. having 10 folds each will be provided each designed to carry a U.D.L. of 70 Kilograms. VERTICAL PANEL : Vertical panel consists of the front, Centre &amp; rear panel shall be made out of 20SWG thick C.R.C.A. Prime quality Mild Steel &amp; designed to take the load of shelves. DRIVE COVER PANEL : Made out of 22SWG thick C. R.C. A. prime quality Steel to cover the entire drive mechanism. CENTRE PARTITION : The Centre partition will comprise of a full C.R.C.A. prime quality Mild Steel 22SWG Sheet. LOCKING : System will be provided with individual rack locking as well as centralised locking arrangement on the last unit when all units are brought together, central lock when operated gets locked with the floor &amp; does not allow access to the units. DRIVE MECHANISM : Driving Mechanism will be provided externally supported on special grade anti-friction bearing to have smooth &amp; effortless movement. Entire mechanism or gear &amp; sprockets shall be incorporated within the front panel provided in the front of the unit within an area of 1000mm x 200mm x 60mm. DRIVING WHEEL : Fully Powder Coated three pronged drive wheel for better torque &amp; free movement of the rack over the guide rail. INDEXING ARRANGEMENT : Acrylic card holders provided on the front panel for easy identification &amp; retrieval. FINAL FINISH : Powder Coating (8 tanks process with 70 microns).</p>	As directed by Engineer-in-charge	Number	95652	---



Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
1862	Furniture	51.49		<p>Single Faced Mobile Unit for Compactor 2150mmH x 1830mmW x 457mmD</p> <p>Providing and fixing Single Faced Mobile Unit for Compactor 2150mmH x 1830mmW x 457mmD - BASE</p> <p>FRAME : Base Frame shall be fabricated in channel Type from minimum 2.5 mm thick MS Sheet Size of Channel 25mm x 100mm x 45mm.</p> <p>GUIDE RAILS : The guide rails shall be made out of 28mm Bright bar placed on 1.2 mm thick M.S. Plate which will be above the floor and are as per the international standard of safety.</p> <p>SUPER STRUCTURE : Super structure of the Mobile storage system will consist of knock down type panels. All the components such as shelves, front panel, end panel, vertical rear panel, central partition etc. Will act as an integral member of the Unit. SHELVES : Shelves made of 22SWG thick Prime Quality C.R.C.A. having 10 folds each will be provided each designed to carry a U.D.L. of 70 Kilograms. VERTICAL PANEL : Vertical panel consists of the front, Centre &amp; rear panel shall be made out of 20SWG thick C.R.C.A. Prime quality Mild Steel &amp; designed to take the load of shelves. DRIVE COVER PANEL : Made out of 22SWG thick C. R.C. A. prime quality Steel to cover the entire drive mechanism. CENTRE PARTITION : The Centre partition will comprise of a full C.R.C.A. prime quality Mild Steel 22SWG Sheet. LOCKING : System will be provided with individual rack locking as well as centralised locking arrangement on the last unit when all units are brought together, central lock when operated gets locked with the floor &amp; does not allow access to the units. DRIVE MECHANISM : Driving Mechanism will be provided externally supported on special grade anti-friction bearing to have smooth &amp; effortless movement. Entire mechanism or gear &amp; sprockets shall be incorporated within the front panel provided in the front of the unit within an area of 1000mm x 200mm x 60mm. DRIVING WHEEL : Fully Powder Coated three pronged drive wheel for better torque &amp; free movement of the rack over the guide rail. INDEXING ARRANGEMENT : Acrylic card holders provided on the front panel for easy identification &amp; retrieval. FINAL FINISH : Powder Coating (8 tanks process with 70 microns).</p>	As directed by Engineer-in-charge	Number	69900	---

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
1863	Furniture	51.50		<p>Single Faced Fixed Unit for Compactor 2150mmH x 1830mmW x 457mmD</p> <p>Providing and fixing Single Faced Fixed Unit for Compactor 2150mmH x 1830mmW x 457mmD - BASE FRAME : Base Frame shall be fabricated in channel Type from minimum 2.5 mm thick MS Sheet Size of Channel 25mm x 100mm x 45mm.</p> <p>GUIDE RAILS : The guide rails shall be made out of 28mm Bright bar placed on 1.2 mm thick M.S. Plate which will be above the floor and are as per the international standard of safety.</p> <p>SUPER STRUCTURE : Super structure of the Mobile storage system will consist of knock down type panels. All the components such as shelves, front panel, end panel, vertical rear panel, central partition etc. Will act as an integral member of the Unit. SHELVES : Shelves made of 22SWG thick Prime Quality C.R.C.A. having 10 folds each will be provided each designed to carry a U.D.L. of 70 Kilograms. VERTICAL PANEL : Vertical panel consists of the front, Centre &amp; rear panel shall be made out of 20SWG thick C.R.C.A. Prime quality Mild Steel &amp; designed to take the load of shelves. DRIVE COVER PANEL : Made out of 22SWG thick C. R.C. A. prime quality Steel to cover the entire drive mechanism. CENTRE PARTITION : The Centre partition will comprise of a full C.R.C.A. prime quality Mild Steel 22SWG Sheet. LOCKING : System will be provided with individual rack locking as well as centralised locking arrangement on the last unit when all units are brought together, central lock when operated gets locked with the floor &amp; does not allow access to the units. DRIVE MECHANISM : Driving Mechanism will be provided externally supported on special grade anti-friction bearing to have smooth &amp; effortless movement. Entire mechanism or gear &amp; sprockets shall be incorporated within the front panel provided in the front of the unit within an area of 1000mm x 200mm x 60mm. DRIVING WHEEL : Fully Powder Coated three pronged drive wheel for better torque &amp; free movement of the rack over the guide rail. INDEXING ARRANGEMENT : Acrylic card holders provided on the front panel for easy identification &amp; retrieval. FINAL FINISH : Powder Coating (8 tanks process with 70 microns).</p>	As directed by Engineer-in-charge	Number	44223	---
1864	Furniture	51.51		<p>Stool for Lab and Class-IV</p> <p>Providing and fixing 4 legged Lab stool, Legs made of 16 Guage 45 MM Outer dimension MS Pipe, Duly painted, With a 304 Grade Stainless steel 12 inch wide seat with a 1 inch collar, Height adjustment via a screw. as per design and drawing and instructions of Engineer in charge.</p>	As directed by Engineer-in-charge	Number	2617	---
1865	Furniture	51.52		<p>Alluminium foldable ladder for store</p> <p>Providing &amp; Fixing Foldable Alluminum Ladder 1500 mm. Ht.</p>	As directed by Engineer-in-charge	Number	3961	---
1866	Furniture	51.53		<p>Sofa Set 3+1+1</p> <p>Providing &amp; fixing Sofa Set 3+1+1 Brown and Cream leather DIMENSION Length: 182.5 (cms) Breadth (cms): 100 (cms)Height (cms): 100 (cms) Weight (Kilograms): 66 (Kilogram) Seating Capacity: Five Seat</p>	As directed by Engineer-in-charge	Number	39612	---
1867	Furniture	51.54		<p>Tea Table 900mm X 750mm X 450mm for m.s. ante chamber</p> <p>Providing And Fixing Of Tea Table 900mm X 750mm X 450mm With 12mm Thick Colour Etched Tempered Glass With Bevelled Drawing Made Out Of 18mm Thick Waterproofing Ply. The Outer Laces To Be Finished With High Quality 4 Mm Thik Veneer Or 1 Mm Thik Mica Etc.</p>	As directed by Engineer-in-charge	Number	11123	---

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
1868	Furniture	51.55		<p>Single Bed @ 2025LX 1000DX 650H</p> <p>Providing and fixing Single Bed of Size 2025Lx1000Dx650H with mattress and pillow. Understructure: - The legs are made of Square tube of size 25 x 25mm made out of MS with a thickness of 1.2 mm. The legs should have corner brackets welded to it at two levels. The corner brackets are made of 2mm thick CRCA having a L shaped structure to join the side panels and headboard to the leg. Three nos. of Horizontal stiffeners are provided at equal intervals. The stiffeners are made of Square tube of size 25 x 25mm made out of MS with a thickness of 1.2mm. The middle Horizontal Stiffener has a leg attached to it to transfer the load to the ground and add to the strength and stability of the complete structure. This leg is also made of Square tube of size 25 x 25mm made out of MS with a thickness of 1.2mm. All Metal components to undergo 7 tank treatment process and should be powder coated to the thickness of minimum 50 Microns DFT.Side Panel: - The side panels are made up of 18mm thick Prelam Particle Board with both side decorative laminate. All exposed edges are sealed with 2mm thick PVC edge Banding. The overall width of the side panel is 150mm. The side panels have 18mm thick prelam particle board Baton running for required length to add rigidity to the structure.</p> <p>Head Board :- The head board is made up of 18mm thick Prelam Particle Board with both side decorative laminate. All exposed edges are sealed with 2mm thick PVC edge Banding. The head board size to be considered as 1000 x 650mm.</p> <p>Foot Board :- The foot board is made up of 18mm thick Prelam Particle Board with both side decorative laminate. All exposed edges are sealed with 2mm thick PVC edge Banding. The head board size to be considered as 1000 x 450mm.</p> <p>Bed Base: - The Bed Base is made up of 12mm thick Prelam Particle Board with both side White laminate.</p>	As directed by Engineer-in-charge	Number	19367	---
1869	Furniture	51.56		<p>Dressing Table @400LX 400DX 1800H</p> <p>Providing &amp; Fixing Dressing Table of size 400LX 400DX 1800H.The Dressing table unit is made up of 18mm thick Prelam Particle Board with both side decorative laminate. All exposed edges are sealed with 2mm thick PVC edge Banding. The unit has one drawer and one shelf. The dressing table has a mirror of 4mm thick pasted on 18mm thick prelm particle board attached to the base unit. The mirror size considered is 1155 x 360 x 4(t). The mirror has been pasted using high quality 3M sticker.</p>	As directed by Engineer-in-charge	Number	17352	---
1870	Furniture	51.57		<p>Wardrobe with Mirror @ 900LX 600DX 1965H</p> <p>Providing and Fixing Wardrobe with Mirror of size 900LX 600DX 1965H The wardrobe side panels and doors are made up of 18mm thick Prelam Particle Board with both side decorative laminate. All exposed edges are sealed with 2mm thick PVC edge Banding. The shelves are made of 18mm thick Prelam Particle Board with decorative laminate on both sides. The top is made of 36mm prelam particle board with decorative laminate on both sides. (18mm Prelam Particle board and 18mm batons on all sides to achieve 36mm overall thickness). The exposed edges of the top are sealed with 2mm thick PVC edge Banding. The top most part of the wardrobe has an aluminum hanger rod of EBCO make. One drawer of size 400(W) x 150(H) x 450 (D) made of 18mm thick prelam Particle Board has been considered. The drawer will have a multipurpose lock of EBCO premium make. The wardrobe handles are Satin SS finish of 160mm pitch. The wardrobe has a multipurpose lock of EBCO make. All hinges considered are Hettich make. Necessary good quality hardwares have been considered as required.</p>	As directed by Engineer-in-charge	Number	40389	---

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
1871	Furniture	51.58		Bed Side Table @ 400LX 400DX 415H Providing and Fixing Bed Side Table of size 400LX 400DX 415H The bed side unit is made up of 18mm thick Prelam Particle Board with both side decorative laminate. All exposed edges are sealed with 2mm thick PVC edge Banding. The bed side table has one drawer and one shelf. The shelf is made of 18mm thick Prelam Particle Board with both side decorative laminate. All exposed edges are sealed with 2mm thick PVC edge Banding	As directed by Engineer-in-charge	Number	6401	---
1872	Furniture	51.59		Kitchen Trolley Providing and Fixing stainless steel kitchen trolley of overall 26 " height and 22" depth,supported on aluminium pipes ,trolley basket made out of 5 mm stainless steel rod fitted on telescopic channel of size 1.5 " x 20 " x 22 " on both sides of trolley of 12 " or above size, panel having 40Kilogramload bearing capacity of trolley made out of 20 mm PUC coated plywood and colour combination as directed by E-I-C.Inner side of panel covered by white mica ,100 mm s.s. decorative handle.(The width and height of individual compartments shall be kept as directed by Engineer-in-charge)	As directed by Engineer-in-charge	Running metre	16125	---
1873	Doors and windows	51.60		Solid Core Flush door Single leaf Providing and fixing factory made solid core flush door in single leaf 35 mm thick, decorative types, of exterior grade, as per detailed drawings, conforming to I.S.:2202 - 1962 (Revised) with approved face veneers on both faces with/without glazing and venetians in the positions shown on the drawings or as directed, all necessary beads, moulding and lipping, holdfasts, mat finish stainless steel fixtures fastenings , finishing with french-polish/ waxing complete. (without door frame).(Sample to be got approved from Ex.Engineer before use) Commercial Hard Wood shutter	As directed by Engineer-in-charge	Square Metre	2750	---
1874	Doors and windows	51.61	BDR	Solid Core Flush door Double leaf Providing and fixing factory made solid core flush door shutters in double leaves 35mm thick,decorative type of exterior grade, as per detailed drawings, conforming to I.S.: 2202 – 1966 (Revised) including approved face veneers on both sides, without glazing and venetians including mat finish stainless steel fixtures and fastening, stoppers and finishing with french polishing etc. (Excluding door frame)(Sample to be got approved from Ex. Engineer before use) Commercial Hard Wood shutter	As directed by Engineer-in-charge	Square Metre	3100	---
1875	Plastering	51.62	BDL	Providing Silica plaster plaster externally in two coats in all positions including base coat of 8 to 10 mm thick curing the same for not less than two days and keeping the surface of base coat rough to receive the final coat treatment 5 to 7 mm thick .finishing the surface by taking out grains and curing for 8 to 10 daysscaffolding etc complete.(The silica plast material shall contain 53 grade OPC cement with pozzolanic materials .size of agreegates shall be of 3 mm having 1:3 proportion with cement.	As directed by Engineer-in-charge	Square Metre	560	331
1876	PWD persons	51.63	BDV	Providing and Fixing toilet set for differently Abled persons consist of Floor Mounted white vitreous china water Closet including 6 litre capacity white vitreous china flushing Cistern with raised soft-push button, white vitreous china wash basin of size 46 x 36 cm and one no SS 304 hinged rail 76 cms & three no SS 304of (Grab Bar) 60 cms all including cutting and making good the walls and floors wherever required ,seat cover, cistern & wash basin fittings,nuts, bolts and gasket etc complete as per the direction of Engineer-In-charge.	As directed by Engineer-in-charge	Square Metre	70780	21000

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
1877	PWD persons	51.64	BDT	Providing and fixing ISI marked double swing flush door shutters conforming to IS :2202 (Part I) Non-decorative type, core of block board construction with frame of 1st class hard wood and well matched teak 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters. 30 mm thick including ISI marked Stainless Steel L- hinges with necessary screws Fittings & Fixtures per leaf SS kick plates on both sides of the door of 300mm height Heavy Duty satin finish butt SS Hinges (100mm x 75mm x 3mm in size) -4 nos. SS finished lever handle with mortise lock- 1 Number Floor spring- 1 Number 100mm x 100mm safety glass at the specified location	As directed by Engineer-in-charge	Square Metre	12500	3750
1878	PWD persons	51.65		Providing and applying blue and white coloured thermoplastic road marking paints for marking a 3ft x 3 ft universal accessibility symbol within the parking bay as per the drawings and up to the satisfaction of the engineer in charge.	As directed by Engineer-in-charge	Number	1575	470
1879	PWD persons	51.66		Acrylic tactile audio map Design, supply, fabrication and fixing of acrylic, non glare, tactile audio pictorial building layout as per the approved size, design and make, having 6mm thick acrylic non glare base plate of the approved colour and non glare acrylic cut out symbols and upper case Sans Serif letters of 12mm height, raised 3mm above base plate and Grade 2/ Grade 1 Braille to be integral with the sign face and be raised 0.5mm above base plate. The map to be installed at the specified location as per accessibility standards, shall be oriented to the position of the viewer and to be installed at a height of 800 mm from the finished ground/ floor level and using the necessary hardware specified by the manufacturer and to be installed up to the satisfaction of the engineer in charge	As directed by Engineer-in-charge	Number	20790	6237
1880	PWD persons	51.67	RD	Directional signage Design, supply, fabrication and fixing acrylic multilingual Braille (raised dots) directional signboards of size 6" x 9" designed as per accessibility standards and having 4mm thick acrylic base plate with Upper Case Sans Serif words made of white acrylic non glare cut out letters of height 15mm raised not less than 0.8mm above base plate and the equivalent word written in Hindi with Devnagri non glare acrylic letters of height 15mm raised not less than 0.8mm above base plate and having a non glare acrylic cut arrow pointing in the required direction. Each signboard to be fixed as per manufacturers specifications on the wall at the approved location and at a height of 1200mm from FFL and as per the directions by the engineer in charge.	As directed by Engineer-in-charge	Number	1633	490
1881	PWD persons	51.68		Floor Directories Providing and fixing acrylic multilingual Braille (raised dots) ADA compliant modular floor directories system on all floors of size 1.5' x 2' , showing the floor plan and the list of rooms on that floor, to be installed on each floor near the staircase, designed as per standards and having 4mm thick blue acrylic base plate with Upper Case Sans Serif words and symbols made of white acrylic non glare cut out letters of height 20mm raised not less than 0.8mm above base plate and the equivalent word/s written in Hindi with Devnagri non glare imported acrylic letters of height 15mm raised not less than 0.8mm above base plate. Grade 2/ Grade 1 Braille to be integral with the sign face and be raised 0.5mm above base plate. Each directory to be fixed as per manufacturers specifications on the wall at the approved location at a height of 1200mm from FFL and as per the directions by the engineer in charge.	As directed by Engineer-in-charge	Number	17418	5225

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1882	PWD persons	51.69		Providing an ADA compliant Disability Service Desk having a lowered portion (800mm from FFL) and leg space of 450 mm, having the approved design and of the approved make as per manufacturers specifications	As directed by Engineer-in-charge	Number	22000	6600
1883	PWD persons	51.70		Providing and fixing SS-304 studs having 35mm dia. of the approved brand and make inside the building on all floors in corridors, lobbies level differences etc. as per accessibility standards and as per the installation instructions prescribed by the manufacturer, using the necessary adhesive including finishing work up to the satisfaction of the engineer in charge complete.	As directed by Engineer-in-charge	Number	59	17
1884	PWD persons	51.71		Providing and fixing SS-304 strips of size 280mm x 35mm of the approved brand and make inside the building on all floors in corridors, lobbies level differences etc. as per accessibility standards and as per the installation instructions prescribed by the manufacturer, using the necessary adhesive including finishing work up to the satisfaction of the engineer in charge complete.	As directed by Engineer-in-charge	Number	293	87
1885	PWD persons	51.72		Providing and fixing Braille indicators for handrails of the approved design and make having Braille dots raised 0.5mm above base plate, to be installed at the specified locations as per the directions of the engineer in charge	As directed by Engineer-in-charge	Number	1500	450
1886	PWD persons	51.73		Providing and fixing stainless steel (Grade 304) railing made of hollow tubes, channels, plates etc. including welding grinding, buffing, polishing and making curvature (wherever required) and fitting the same with necessary stainless steel nuts and bolts complete, i/c fixing the railing with necessary accessories and stainless steel dash fasteners, stainless steel bolts, etc. of the required size on the top of the floor of the side of waste slab with suitable arrangement as per approval of engineer in charge (for payment purpose, only the weight of the stainless steel members shall be considered excluding fixing accessories such as nut bolts, fasteners etc.). 50mm dia. pipe, 1.5mm thickness and weight 1.92Kilogram/ r. metre	As directed by Engineer-in-charge	Kilogram	694	205
1887	PWD persons	51.74		ADA compliant modular Multilingual and tactile Emergency evacuation map of each floor indicating the current position of the viewer saying "YOU ARE HERE" of 15mm height letters in red with white background, indicating the emergency exits, locations of fire extinguishers etc. Signs shall have a solid header with the text "EVACUATION PLAN" in contrasting uppercase letters no less than 3/4" in height. The size of the board shall be 2ft x 2ft and shall be installed at a height of 1200mm from FFL and shall be oriented to the position of the viewer as per the direction of the site engineer	As directed by Engineer-in-charge	Number	19750	5925
1888	PWD persons	51.75		Fire exit and floor identification signage as per manufacturer's specifications, ADA compliant and modular system	As directed by Engineer-in-charge	Number	7500	2250
1889	PWD persons	51.76		Supplying and installing of in position the signages " FIRE ORDER" it should contain the following matter on 3mm thick "Opaque" PVC foam board of computerized cut, PVC Non-reflective self adhesive vinyl painted foam board of 3' x 4'.Product to be ADA compliant and modular system.	As directed by Engineer-in-charge	Number	19780	5934
1890	PWD persons	51.77		Providing an emergency evacuation chair of the approved design, weight and loading capacity	As directed by Engineer-in-charge	Number	73500	22050
1891	PWD persons	51.78		Providing and fixing the reader of the approved brand and make as per the manufacturers specifications and as per the directions of the engineer in charge	As directed by Engineer-in-charge	Number	23100	6930
1892	PWD persons	51.79		Providing and fixing the transmitter of the approved brand and make on each floor as per the manufacturers specifications and as per the directions of the engineer in charge	As directed by Engineer-in-charge	Number	3675	1100

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1893	PWD persons	51.80		Providing and fixing SS Braille buttons in the elevator of the approved brand and make to be installed using the specified adhesive and as per the instructions given by the manufacturer	As directed by Engineer-in-charge	Number	189	56
1894	PWD persons	51.81		Providing and fixing of high intensity reflective conspicuity tape 25 to 50mm width, on edges of treads in staircase including, cutting, pasting etc. of make 3M or equivalent brand as per the direction of engineer in charge	As directed by Engineer-in-charge	Running metre	160	48
1895	PWD persons	51.82		Providing a folding wheelchair of Pioneer Surgicals Brand, model Number PS 809/ equivalent make as per the directions of the engineer in charge.	As directed by Engineer-in-charge	Number	8950	2685
1896	PWD persons	51.83		Design, supply, fabrication and fixing of SS, non glare Signage board (2 ft. x 2 ft.- 1 Number) for the accessible parking, as per the approved design and make, having 1.2mm thick SS non glare base plate and Grade 2/ Grade 1 Braille (raised dots)to be etched/ engraved and be raised 0.5mm above base plate and Upper Case San Serif words and Universal Accessibility Symbol to be etched/ engraved and signage to be installed at a height of 2100mm from the ground level using a post of MS hollow square section (50mm x 50mm) as per the installation procedure specified by the manufacturer and as per accessibility standards and up to the satisfaction of the engineer in charge.	As directed by Engineer-in-charge	Number	23100	6930
1897	PWD persons	51.84		Design, supply, fabrication and fixing of SS, non glare multilingual Braille (raised dots) entrance signage (size 1 ft x 1 ft) as per the approved design and make,indicating the name of the building. Having 1.2mm thick SS non glare blue coloured base plate with the 'Universal Accessibility Symbol' and Upper case Sans Serif words of height 15mm engraved on it along with the equivalent word/ s written in Hindi using Devnagri script of height 15mm in white colour. Grade 2/ Grade 1 Braille to be etched/ engraved and be raised 0.5mm above base plate.The signage to be installed at the specified location on the compound wall near the site entrance gate installed at a height of 1200 mm from the finished ground/ floor level, using the necessary hardware specified by the manufacturer and to be installed up to the satisfaction of the engineer in charge.	As directed by Engineer-in-charge	Number	5969	1791
1898	PWD persons	51.85		Providing and laying in place 300mm x 300mm x 16mm cement tactile directional and warning tiles (for a person with visual impairment)of the approved brand and make and specified colour for outdoor floors such as footpath, courtyard, multimodals location etc. laid on 20mm thick base of cement mortar 1:4 (1 cement: 4 coarse sand) in all shapes and patterns including grouting the joints with white cement with matching pigments etc. complete as per direction of engineer in charge	As directed by Engineer-in-charge	Square Metre	1550	465
1899	PWD persons	51.86		Providing and laying in place 300mm x 300mm x 9.8mm vitrified tactile warning and directional tiles of the approved brand, make and colour inside the buildings at in all corridors and lobbies, level differences etc. as per accessibility standards and as per the installation instructions prescribed by the manufacturer including zarri making wherever required and finishing including grouting the joints with white cement with matching pigments etc. up to the satisfaction of the engineer in charge complete.	As directed by Engineer-in-charge	Square Metre	2200	660
1900	PWD persons	51.87		Design, supply, fabrication and fixing acrylic multilingual Braille (raised dots) signboards of size 6"x 9" for room titles, designed as per the drawings issued and having 4mm thick blue acrylic base plate with Upper Case San Serif words made of white acrylic non glare cut out letters of height 15mm raised not less than 0.8mm above base plate and the equivalent word/s written in Hindi with Devnagri non glare acrylic letters of height 15mm raised not less than 0.8mm above base plate. Grade 2/ Grade 1 Braille to be integral with the sign face and be raised 0.5mm above base plate.Each signboard to be fixed as per manufacturers specifications on the wall adjoining the respective room door at a height of 1200mm from FFL and as per the directions by the engineer in charge.	As directed by Engineer-in-charge	Number	1633	490

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1901	PWD persons	51.88	BDM	Providing and fixing in place 300mm x 300mm x 3mm polyurethane stick on tactile directional tiles and warning tiles having beveled edges and of the approved brand, make and colour and conforming to ISO 23599: 2012 inside the building on all floors in corridors, lobbies , level differences as per accessibility standards and to be installed as per the installation instructions given by the manufacturer using butyl rubber adhesive and the hardware specified by the manufacturer, as per the direction of the engineer in charge complete.	As directed by Engineer-in-charge	Number	3545	1064
1902	PWD persons	51.89		Grab bars-Providing SS grab bars set for accessible toilets comprising of 4 nos. Grab bars as specified below.(1 nos. wing grab bar + 1 nos. L shaped grab bar + 2 nos. straight grab bars = 1 typical set) 27a) Swing grab bar (1 NOS) Providing a S.S. 304 SWING HANDICAP GRAB BAR - 700 mm and of DIA: 32MM and thickness 1.5mm of the roved brand and make. 27b) L Shaped grab bar (1 NOS) Providing S.S. 304 L SHAPED DISABLED GRAB BAR of IZE-600MM (H) X 600MM (D) and 32MM DIA. and thickness mm of the approved brand and make. 27c) Straight grab bar (2 NOS) Providing S.STEEL 304 GRAB RAIL (600 MM),32MM DIA. and thickness 1.5mm of the approved brand and make.	As directed by Engineer-in-charge	Number	19500	5850
1903	PWD persons	51.90		Providing and Fixing Accessible Wayfinding and navigation signage systems - Providing and fixing in location as diected by Engineer in Charge, accessible modular wayfinding and navigational signage system comprising of ADA and Harmonised Guidelines compliant sigange and wayfinding elements, in multilingual, tactile and braille format. Sigange systems to be designed for entire building / complex under consideration	As directed by Engineer-in-charge	Number	85640	25692
1904	Doors and Windows	51.91	BDT	Providing & fixing factory-made steel door of Single leaf External Embossed Wood finish type with a.) frame of size 100x58 mm conforming to IS : 4351-2003 , 1.2 mm thick pre galvanized sheet with mitred and welded cones , frame stretches, hinge reinforcing plates , fixing plates and hardware mounting plates and Polyurethane foam infill b.) Shutter of thickness 46mm made of 0.8 mm thick slip coated pre galvanized steel sheet on both sides conforming to ASTM A527/ASTM A525, BS 2989 1994, IS 277 , Zinc coating 120 GSM . Lock formed panels with internal stiffeners of 3mm thick made of galvanized sheet, 3 mm thick hinge reinforcing hardware mounting plates and lock protection with Honey-comb craft paper infill of thickness 150 GSM of load bearing capacity 500 Kilogram/Square Metre. c.) Finish: Powder coated surface finished with thermosetting polyurethane paint of Aliphatic grade of thickness 60-micron d.) Accessories: Min 8 Anchor fastener of HILTI make, min 3 SS Ball Bearing Butt Hinges of Dorset make, Dorset Mortise lock, SS Tower bolt of 200 mm size, Eye hole, Door stopper complete.	As directed by Engineer-in-charge	Square Metre	6368	263
1905	Doors and Windows	51.92	BDT	Providing & fixing factory-made steel door of Single leaf External Plain Wood finish type with a.) frame of size 100x58 mm conforming to IS : 4351-2003 , 1.2 mm thick pre galvanized sheet with mitred and welded cones , frame stretches, hinge reinforcing plates , fixing plates and hardware mounting plates and Polyurethane foam infill b.) Shutter of thickness 46mm made of 0.8 mm thick slip coated pre galvanized steel sheet on both sides conforming to ASTM A527/ASTM A525, BS 2989 1994, IS 277 , Zinc coating 120 GSM . Lock formed panels with internal stiffeners of 3mm thick made of galvanized sheet, 3 mm thick hinge reinforcing hardware mounting plates and lock protection with Honey-comb craft paper infill of thickness 150 GSM of load bearing capacity 500 Kilogram/Square Metre. c.) Finish: Powder coated surface finished with thermosetting polyurethane paint of Aliphatic grade of thickness 60-micron d.) Accessories: Min 8 Anchor fastener of HILTI make, min 3 SS Ball Bearing Butt Hinges of Dorset make, Dorset Mortise lock, SS Tower bolt of 200 mm size, Eye hole, Door stopper complete. Sizes up to 1200 x2439 mm	As directed by Engineer-in-charge	Square Metre	6080	263



Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
1906	Doors and Windows	51.93	BDT	Providing & fixing factory-made steel door of Single leaf External Plain Wood finish type with a.) frame of size 100x58 mm conforming to IS : 4351-2003 , 1.2 mm thick pre galvanized sheet with mitred and welded cones , frame stretches, hinge reinforcing plates , fixing plates and hardware mounting plates and Polyurethane foam infill b.) Shutter of thickness 46mm made of 0.8 mm thick slip coated pre galvanized steel sheet on both sides conforming to ASTM A527/ASTM A525, BS 2989 1994, IS 277 , Zinc coating 120 GSM . Lock formed panels with internal stiffeners of 3mm thick made of galvanized sheet, 3 mm thick hinge reinforcing hardware mounting plates and lock protection with Honey-comb craft paper infill of thickness 150 GSM of load bearing capacity 500 Kilogram/Square Metre. c.) Finish: Powder coated surface finished with thermosetting polyurethane paint of Aliphatic grade of thickness 60-micron d.) Accessories: Min 8 Anchor fastener of HILTI make, min 3 SS Ball Bearing Butt Hinges of Dorset make, Dorset Mortise lock, SS Tower bolt of 200 mm size, Eye hole, Door stopper complete. Sizes up to 1200 x2439 mm	As directed by Engineer-in-charge	Square Metre	5790	263
1907	Doors and Windows	51.94	BDT	Providing & fixing factory-made steel door of Single leaf Internal Plain Wood finish type with a.) frame of size 100x58 mm conforming to IS : 4351-2003 , 1.2 mm thick pre galvanized sheet with mitred and welded cones , frame stretches, hinge reinforcing plates , fixing plates and hardware mounting plates and Polyurethane foam infill b.) Shutter of thickness 46mm made of 0.8 mm thick slip coated pre galvanized steel sheet on both sides conforming to ASTM A527/ASTM A525, BS 2989 1994, IS 277 , Zinc coating 120 GSM . Lock formed panels with internal stiffeners of 3mm thick made of galvanized sheet, 3 mm thick hinge reinforcing hardware mounting plates and lock protection with Honey-comb craft paper infill of thickness 150 GSM of load bearing capacity 500 Kilogram/Square Metre. c.) Finish: Powder coated surface finished with thermosetting polyurethane paint of Aliphatic grade of thickness 60-micron d.) Accessories: Min 8 Anchor fastener of HILTI make, min 3 SS Ball Bearing Butt Hinges of Dorset make, Dorset cylindrical lock, SS Tower bolt of 200 mm size, Door stopper complete.	As directed by Engineer-in-charge	Square Metre	5509	263
1908	Doors and Windows	51.95	BDT	Providing & fixing factory-made steel door of Single leaf Internal Plain Steel finish type with a.) frame of size 100x58 mm conforming to IS : 4351-2003 , 1.2 mm thick pre galvanized sheet with mitred and welded cones , frame stretches, hinge reinforcing plates , fixing plates and hardware mounting plates and Polyurethane foam infill b.) Shutter of thickness 46mm made of 0.8 mm thick slip coated pre galvanized steel sheet on both sides conforming to ASTM A527/ASTM A525, BS 2989 1994, IS 277 , Zinc coating 120 GSM . Lock formed panels with internal stiffeners of 3mm thick made of galvanized sheet, 3 mm thick hinge reinforcing hardware mounting plates and lock protection with Honey-comb craft paper infill of thickness 150 GSM of load bearing capacity 500 Kilogram/Square Metre. c.) Finish: Powder coated surface finished with thermosetting polyurethane paint of Aliphatic grade of thickness 60-micron d.) Accessories: Min 8 Anchor fastener of HILTI make, min 3 SS Ball Bearing Butt Hinges of Dorset make, Dorset cylindrical lock, SS Tower bolt of 200 mm size, Door stopper complete.	As directed by Engineer-in-charge	Square Metre	5211	263

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1909	Doors and Windows	51.96	BDT	Providing & fixing factory-made Single leaf 2 hour fire rated door as per IS 3614 Part 2 & BS 476 Part 20 & 22, tested to UL 10 C and conforming to NFPA 80 , tested at NTL /CBRI/ARAI of Plain Steel finish type with a.) Frame of size 143x58 mm and thickness of 1.6 mm thick skin pass galvanized iron sheet (Conform to IS 277 ) formed to single or double rebate profile b.) Shutter of 46 mm thickness and constructed from 1.2 mm thick skin pas galvanized iron sheet (Conform to IS 277) infill Rockwool / Mineral wool/ Honey comb craft paper c.) Vision glass of 5mm thick clear/wired glass Circular or Rectangular d.) Finish : Primed with zinc phosphate stoving primer and finished with Polyurethane aliphatic grade or epoxy paint as required of thickness 60 micron e.) Accessories : Min 8 Anchor fastener of HILTI make, min 3 SS Ball Bearing Butt Hinges, Mortise sash lock with lever handle, Mortise dead bolt , Mortise latch , Door closer and Flush bolts complete.	As directed by Engineer-in-charge	Square Metre	7236	263
1910	Doors and Windows	51.97	BDT	Providing & fixing factory-made Single leaf 2 hour fire rated door as per IS 3614 Part 2 & BS 476 Part 20 & 22, tested to UL 10 C and conforming to NFPA 80 , tested at NTL /CBRI/ARAI of Plain Steel finish type with a.) Frame of size 143x58 mm and thickness of 1.6 mm thick skin pass galvanized iron sheet (Conform to IS 277 ) formed to single or double rebate profile b.) Shutter of 46 mm thickness and constructed from 1.2 mm thick skin pas galvanized iron sheet (Conform to IS 277) infill Rockwool / Mineral wool/ Honey comb craft paper c.) Vision glass of 5mm thick clear/wired glass Circular or Rectangular d.) Finish : Primed with zinc phosphate stoving primer and finished with Polyurethane aliphatic grade or epoxy paint as required of thickness 60 micron e.) Accessories : Min 8 Anchor fastener of HILTI make, min 3 SS Ball Bearing Butt Hinges, Mortise sash lock with lever handle, Mortise dead bolt , Mortise latch , Door closer , Panic bar and external trim lock and Flush bolts complete.	As directed by Engineer-in-charge	Square Metre	8686	263
1911	Doors and Windows	51.98	BDT	Providing & fixing factory-made Aluminum windows of aluminum alloy HE 9WP (6063 T5/T6), powder coating of jotun/AkzoNobel of 60 micron thickness a.) Glass: 5mm thick clear float of Saint Gobain / Asahi make b.) Mesh of SS Type 304 grade of .22 mm thickness c.) Accessories: EPDM (Ethylene Propylene Diene Monomer) Gasket , SS Screws , Aluminum cleats , Roller , Push handle , Fly mesh handle , Anti lifter , U guide glass and mesh shutter complete	As directed by Engineer-in-charge	Square Metre	5471	385
1912	Doors and Windows	51.99	BDT	Providing & fixing factory-made steel windows constructed of Skin Pass Galvanized Iron Sheet (as per IS 513 “D” Quality, Galvanized as per IS 277 with Hot Zinc Coating of 120 grams / Sq.Mtr& thickness of 0.6 mm) with a. ) Window Shutter of .6mm thick skin pass Galvanized Iron Sheet b.) Window Frames of .8m thick skin pass Galvanized Iron sheet of size 80mm X 45mm c.) Mullion : of 0.8mmthick skin pass Galvanized Iron sheet of size 80mm X 60mm d.) Vision Glass of 4mm clear float glass in rectangular shape. e.) Finish : Coated with Zinc Phosphate Primer or Thermosetting Polyurethane paint of Aliphatic Grade providing high levels of scratch resistance and durability f. ) MS Grill of 10 mm square MS bright bars g.) Accessories : SS Pin type Hinges — 1 Set; Polypropylene , Handle — 1, Friction Stay Powder Coated – 1, MS powder coated Tower bolt — 2 (Ethyl Propylene Diamine Monomer (EPDM) Should be used all around glass in shutter for fixing of glass); corner brackets — 4 (made of Polypropylene each per shutter and frame) complete	As directed by Engineer-in-charge	Square Metre	6383	385

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
1913	Doors	51.100		Providing,applying,fabricating and fixing panel of aluminium composite panel cladding in approved shape made out of 4 mm thick ACP sheet material consisting of 3mm thick FR grade mineral core following NBC part IV Fire and life safety (having 2 hours fire resistance in accordance to ASTM E119-12 and BS476 part 6 and 7 class O) sandwiched between two aluminium sheets (each 0.5 mm thick of AA 5005/AA3105 grade) The aluminium composite panel cladding sheet shall be coil coated with kynar 500 based PVDF/Lumiflon based fluropolymer resin (having 70:30 ratio of PVDF and acrylic) coating of approved colour and sg=hade on top face and polymer (service) coating of bottom face as specified using stainless steel screws,nuts,bolts,washers,cleats,weather silicon sealent,backer rods etc .overall weight of the ACP shall not be less than 7.5 Kilogram/Square Metre)	As directed by Engineer-in-charge	Square Metre	3870	1150
1914	Plastering and Pointing	51.101	BDL	Providing internal cement plaster 25 mm thick in single coat using Ready to use wall plaster in cement mortar 1:4 to concrete, brick, stone surfaces in all positions including scaffolding and curing. Providing groove at joint of B.B. Masonry and concrete members complete. With Prior Approval of Concerned S.E.	As directed by engineer in charge	Square Meter	527	185
1915	Plastering and Pointing	51.102	BDL	Providing internal cement plaster 20mm thick in a single coat using Ready to use wall plaster to concrete, brick surfaces in all positions including scaffolding and curing. Providing groove at joint of B.B.Masonry and concrete members complete. a) cement ratio 1:5 With Prior Approval of Concerned S.E.	As directed by engineer in charge	Square Meter	445	170
1916	Plastering and Pointing	51.103	BDL	Providing internal cement plaster 20mm thick in a single coat using Ready to use wall plaster to concrete, brick surfaces in all positions including scaffolding and curing. Providing groove at joint of B.B.Masonry and concrete members complete. b) cement mortar 1:4 With Prior Approval of Concerned S.E.	As directed by engineer in charge	Square Meter	458	170
1917	Plastering and Pointing	51.104	BDL	Providing internal cement plaster 20mm thick in a single coat using Ready to use wall plaster to concrete, brick surfaces in all positions including scaffolding and curing. Providing groove at joint of B.B.Masonry and concrete members complete C ) cement mortar 1:3 With Prior Approval of Concerned S.E.	As directed by engineer in charge	Square Meter	472	170
1918	Plastering and Pointing	51.105	BDL	Providing internal cement plaster 20mm thick in a single coat using Ready to use wall plaster in cement mortar 1:3 to stone masonry surfaces in all positions including scaffolding and curing. Providing groove at joint of stone masonry and concrete members complete. With Prior Approval of Concerned S.E.	As directed by engineer in charge	Square Meter	472	170
1919	Plastering and Pointing	51.106	BDL	Providing internal cement plaster 12 mm thick in a single coat using Ready to use wall plaster to concrete or brick surface in all positions including scaffolding and curing complete. Providing groove at joint of B.B. Masonry and concrete members complete. a) cement ratio 1:5 With Prior Approval of Concerned S.E.	As directed by engineer in charge	Square Meter	230	85
1920	Plastering and Pointing	51.107	BDL	Providing internal cement plaster 12 mm thick in a single coat using Ready to use wall plaster to concrete or brick surface in all positions including scaffolding and curing complete. Providing groove at joint of B.B. Masonry and concrete members complete. b) cement ratio 1:4 With Prior Approval of Concerned S.E.	As directed by engineer in charge	Square Meter	244	85
1921	Plastering and Pointing	51.108	BDL	Providing internal cement plaster 12 mm thick in a single coat using Ready to use wall plaster to concrete or brick surface in all positions including scaffolding and curing complete. Providing groove at joint of B.B. Masonry and concrete members complete. c) cement ratio 1:3 With Prior Approval of Concerned S.E.	As directed by engineer in charge	Square Meter	254	82
1922	Plastering and Pointing	51.109	BDL	Providing internal cement plaster 6 mm thick in a single coat using Ready to use wall plaster in cement mortar 1:3 to concrete surface in all positions including scaffolding and curing. Providing groove at joint of B.B.Masonry and concrete members complete. With Prior Approval of Concerned S.E.	As directed by engineer in charge	Square Meter	193	57

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
1923	Brick Masonary	51.110	BDG	Providing Autoclaved areated concrete block masonry of approved manufacture confirming to IS 2185 Part III 1984 of size 600 mm x 200mm and thickness 100,150, 200 or 250 mm using Ready to use BLOCK JOINT MORTAR1:6 in foundations and plinth of inner walls / external walls including bailing out water, striking joints on unexposed faces, racking out joints on exposed faces and watering complete.. With Prior Approval of Concerned S.E.	As directed by engineer in charge	Cubic Meter	6951	1260
1924	Iron Work	51.111	BDW	Providing and fixing 50mm diameter and 1.5 mm thick Stainless steel hand railing in S.S.304 Grade including fabricating ,fixtures, erecting, necessary welding, grinding, finishing, buffing to stainless steel pipe etc. complete	As directed by Engineer Incharge	Running Metre	3250	1399
	water supply and sanitary	51.112	BDW	Providing and installing bio digester unit based on DRDO technology made of fibre reinforced plastic (FRP) having composition and following technical specifications and including necessary pipe and accessories up to 3 meter length, excluding the necessary excavation for installing the bio digester. Percentage of fibre glass (glass content in fibre glass should be minimum 30%): -33.33% Percentage of polyester resin: - 66.67% Water absorption (as per ASTM):-0.30% Flammability as per ASTM Tensile strength:-115 MPA Specific Gravity at 25 degree centigrade 1.45 Izod impact strength:-65KJ/M2 Heat defection/distort temperature:-65deg C Corrosion resistance (Non Corrosive) fitted with Inlet pipe size rigid PVC: -100mm Outlet pipe size rigid PVC:-80mm Gas outlet rigid PVC with Valve: 20mm Bacteria immobilization PVC mattes (on all partition) With DRDO TOT licensee and latest batch certificate(month & year of supply) and capacity as below				
1925		a		a) Up to 10 user size (1.0mx1.0mx0.70m), Capacity of biodigester:-700 liters, Area of top, bottom and side walls: - 4.80 sq.m, Area of partition walls: 1.40sq.m, Total weight of FRP: - 33.48 Kilogram, Bacteria inoculums quantity: - 200 liters , Minimum thickness of side walls / top and bottom: 3mm, Number of inside partitions: - 3, Minimum thickness of partition wall: 3mm.	As directed by Engineer Incharge	Number	40565	4000
1926		b		b) Up to 15 user size (1.0mx1.0mx1.0m), Capacity of biodigester:-1000 liters, Area of top, bottom and side walls: - 6 sq.m, Area of partition walls: 2 sq.m, Total weight of frp: - 54 Kilogram, Bacteria inoculums quantity: - 400 liters, Minimum thickness of side walls / top and bottom: 4mm, Number of inside partitions: - 3, Minimum thickness of partition wall: 3mm	As directed by Engineer Incharge	Number	68345	6800
1927		c		c) Up to 25 user size (1.5mx1.0mx1.0m), Capacity of biodigester:-1500 liters, Area of top, bottom and side walls:- 8 sq.m, Area of partition walls: 2 sq.m, Total weight of frp: - 82.80 Kilogram, Bacteria inoculums quantity: - 600 liters, Minimum thickness of side walls / top and bottom: 5mm, Number of inside partitions: - 3, Minimum thickness of partition wall: 3mm	As directed by Engineer Incharge	Number	93175	9300
1928		d		d) Up to 40 user size (2.0mx1.0mx1.0m), Capacity of biodigester:-2000 liters, Area of top, bottom and side walls: - 10 sq.m, Area of partition walls: 3 sq.m, Total weight of frp: - 106.20 Kilogram, Bacteria inoculums quantity: - 600 liters, Minimum thickness of side walls / top and bottom: 5mm, Number of inside partitions: - 3, Minimum thickness of partition wall: 3mm	As directed by Engineer Incharge	Number	123978	12000

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
1929		e		e) Up to 60 user size (2.4mx1.25mx1m), Capacity of Biodigester:-3000 liters, Area of top, bottom and side walls: - 13.30 sq.m, Area of partition walls: 3.75sq.m, Total weight of FRP: - 139.95 Kilogram, Bacteria inoculums quantity: - 1000 liters, Minimum thickness of side walls / top and bottom: 5mm, Number of inside partitions: - 3, Minimum thickness of partition wall: 3mm	As directed by Engineer Incharge	Number	163261	16000
1930		f		f) Up to 80 user size (2.7mx1.5mx1m), Capacity of Biodigester:-4000 liters, Area of top, bottom and side walls: - 16.50 sq.m, Area of partition walls: 4.50sq.m, Total weight of FRP: - 202.50 Kilogram, Bacteria inoculums quantity: - 1400 liters, Minimum thickness of side walls / top and bottom: 6mm, Number of inside partitions: - 4, Minimum thickness of partition wall: 3mm	As directed by Engineer Incharge	Number	236232	23000
1931		g		g) Up to 100 user size (2.5mx2mx1m), Capacity of Biodigester:-5000 liters, Area of top, bottom and side walls: - 19.00 sq.m, Area of partition walls: 8.00sq.m, Total weight of FRP: - 248.40 Kilogram, Bacteria inoculums quantity: - 1800 liters, Minimum thickness of side walls / top and bottom: 6mm, Number of inside partitions: - 4, Minimum thickness of partition wall: 3mm	As directed by Engineer Incharge	Number	290862	29000
1932		h		h) Up to 150 user size (3.2mx2.0mx1.25m), Capacity of Biodigester:-8000 liters, Area of top, bottom and side walls: - 25.80 sq.m, Area of partition walls: 10.00sq.m, Total weight of FRP: - 397.08 Kilogram, Bacteria inoculums quantity: - 3200 liters, Minimum thickness of side walls / top and bottom: 7mm, Number of inside partitions: - 4, Minimum thickness of partition wall: 4mm	As directed by Engineer Incharge	Number	466876	46000
1933		i		i) Up to 200 user size (4mx2.0mx1.25m), Capacity of Biodigester:-10000 liters, Area of top, bottom and side walls: - 31.00 sq.m, Area of partition walls: 10.00sq.m, Total weight of FRP: - 462.60 Kilogram, Bacteria inoculums quantity: - 3400 liters, Minimum thickness of side walls / top and bottom: 7mm, Number of inside partitions: - 4, Minimum thickness of partition wall: 4mm	As directed by Engineer Incharge	Number	549936	54000
1934		j		j) Up to 300 user size (4.8mx2.0mx1.25m), Capacity of Biodigester:-12000 liters, Area of top, bottom and side walls: - 36.20 sq.m, Area of partition walls: 10.00sq.m, Total weight of FRP: - 593.28 Kilogram, Bacteria inoculums quantity: - 4200 liters, Minimum thickness of side walls / top and bottom: 8mm, Number of inside partitions: - 4, Minimum thickness of partition wall: 4mm	As directed by Engineer Incharge	Number	689174	68000
1935		k		k) Up to 400 user size (5mx2.0mx1.5m), Capacity of Biodigester:-15000 liters, Area of top, bottom and side walls: - 41.00 sq.m, Area of partition walls: 12.00sq.m, Total weight of FRP: - 678.80 Kilogram, Bacteria inoculums quantity: - 5200 liters, Minimum thickness of side walls / top and bottom: 8mm, Number of inside partitions: - 4, Minimum thickness of partition wall: 4mm	As directed by Engineer Incharge	Number	800153	80000
1936		l		l) Up to 500 user size (6mx2.0mx1.6m), Capacity of Biodigester:-20000 liters, Area of top, bottom and side walls: - 50.72 sq.m, Area of partition walls: 13.36sq.m, Total weight of FRP: - 917.86 Kilogram, Bacteria inoculums quantity: - 7000 liters, Minimum thickness of side walls / top and bottom: 9 mm, Number of inside partitions: - 4, Minimum thickness of partition wall: 4mm	As directed by Engineer Incharge	Number	1081250	100000
1937	water proofing	51.113	BDJ	Providing and laying Hyperplas Aluminium or equivalent polymeric multiple monolithic five layer water proofing flexible, pliable and high tensile strength membrane (3 Kilogram/Square Metre) which is comprise of top with "V" shape embossed 40 micron Aluminium foil to bear thermal expansion and avoiding delamination & consist of centre core of 90 micron thick High Molecular High density Polyethylene film (HMHDPE) which is protected on both the side with polymeric mix. Applying the membrane by thermofusing to roof & parapet after applying thin film of hot blown bitumen 85/25 or 90/15 grade @ 1.2 Kilogram/Square Metre maximum as per surface condition or Hyperplas primer @ 250 gms/Square Metre as per site condition on the surface to be treated with 10 cm overlapping including finishing etc. complete and covering guarantee of 7 years on stamp paper of Rs. 100/- and as directed by Engineer-in-charge. (Prior permission of S.E.in writing is necessary before inclusion of this item in estimate).	As directed by Engineer Incharge	Square Metre	829	238

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
1938	water proofing	51.114	BDJ	Providing and laying Hyperplas standard or equivalent polymeric multiple monolithic five layer water proofing flexible, pliable and high tensile strength membrane (3 Kilogram/Square Metre) & consist of centre core of 90 micron thick High Molecular High density Polyethylene film (HMHDPE) which is protected on both the side with polymeric mix. Applying the membrane by thermofusing to roof & parapet after applying thin film of hot blown bitumen 85/25 or 90/15 grade @ 1.2 Kilogram/Square Metre maximum as per surface condition or Hyperplas primer @ 250 gms/Square Metre as per site condition on the surface to be treated with 10 cm overlapping including finishing etc. complete and covering guarantee of 7 years on stamp paper of Rs. 100/- and as directed by Engineer-in-charge. (Prior permission of S.E.in writing is necessary before inclusion of this item in estimate).	As directed by Engineer Incharge	Square Metre	668	150
1939	water proofing	51.115	BDJ	Providing and laying mechanical protective layer over water proofing membrane with cement screed plaster 1:5 after laying chicken mesh over membrane including curing etc. complete 20 mm thick with cost of chicken mesh etc. complete and covering 7 years guarantee on court stamp paper of Rs.100/- including necessary testing specified by Engineer (Prior permission of S.E. is necessary before inclusion of this item in estimate) (Note :- This item shall be executed over item Number 5 of BD-J Water Proofing)	As directed by Engineer Incharge	Square Metre	353	132
1940	Plastering	51.116	BDL	Providing and applying a Silicon Base Water Repellent Stone Sealers, on Brick / Stone masonry / Concrete surfaces in Two coats by spraying. Including cleaning / sand blasting for removing dirt / cement mortar patches etc. by force water jet, wire brushing etc. complete.	As directed by Engineer Incharge	Square Metre	545	0
1941	Plastering	51.117	BDL	Providing internal / external 12 mm thick Ready Mix plaster confirming to IS:4031(Part-4) 1988 and IS 383-1970 in a single coat using Cement mortar of proportion 1:4 containing special type of polymer additives about 0.4%, to all type of surfaces in all positions including scaffolding and curing complete.	As directed by Engineer Incharge	Square Metre	234	77
1942	Plastering	51.118	BDL	Providing internal / external 20 mm thick Ready Mix plaster confirming to IS:4031(Part-4) 1988 and IS 383-1970 in a single coat using Cement mortar of proportion 1:4 containing special type of polymer additives about 0.4%, to all type of surfaces in all positions including scaffolding and curing complete	As directed by Engineer Incharge	Square Metre	408	147
1943	Brick Masonary	51.119	BGG	Providing brick masonry with interlock "Fourlock" bricks in retaining walls ,diaphragm wall ,compound wall ,plinth & partition wall etc of specified 150 mm thick including construction with interlock "Fourlock" brick, filling the hollow spaces with cementious grout material of proportion of C:M 1:6 using trap stone grit metal/artificial sand dusting off the finished brick masonry"Fourlock" bricks, surface,watering & curing etc complete. ( Including steel reinforcement of 8mm bar as strengthening bar in hollow spaces of fourlock bricks with cementious greet material )	As directed by Engineer Incharge	Square Metre	1449	320
1944	Brick Masonary	51.120	BGG	Providing brick masonry with interlock "Fourlock" bricks in plinth & superstructure of specified 150 mm thick including construction with interlock "Fourlock" bricks,filling the hollow spaces with cementious grout material of proportion of C:M 1:6 using trap stone grit metal/artificial sand including dusting off the finished brick masonry surface,watering & curing etc complete. ( Excluding steel reinforcecement for strengthening )	As directed by Engineer Incharge	Square Metre	1219	320
1945	Brick Masonary	51.121	BGG	Providing brick masonry with interlock "Fourlock" bricks in retaining walls ,diaphragm wall ,compound wall ,plinth & partition wall etc of specified 100 mm thick including construction with interlock "Fourlock" brick, filling the hollow spaces with cementious grout material of proportion of C:M 1:6 using trap stone grit metal/artificial sand dusting off the finished brick masonry"Fourlock" bricks, surface,watering & curing etc complete. ( Including steel reinforcement of 8mm bar as strengthening bar in hollow spaces of fourlock bricks with cementious greet material )	As directed by Engineer Incharge	Square Metre	1270	281

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
1946	Brick Masonary	51.122	BGG	Providing brick masonry with interlock "Fourlock" bricks in plinth & superstructure of specified 100 mm thick including construction with interlock "Fourlock" bricks,filling the hollow spaces with cementious grout material of proportion of C:M 1:6 using trap stone grit metal/artificial sand including dusting off the finished brick masonry surface,watering & curing etc complete. ( Excluding steel reinforcement for strengthening )	As directed by Engineer Incharge	Square Metre	1038	260
1947	Rigid Pavement (New item)	51.123	RD	Construction of M-40 grade reinforced prestressedd precast concrete panel of 200 mm thickness having size 4.5m x 3.5m or as per drawing, casting the panels as per approved design and drawing in factory or plant including cost of all materials, formwork, reinforcement, dowel bars, tie bars, chairs, lifting bolts, grout ports, labour and all necessary machineries which are required for prestressing the wires, preparing concrete mix as per job mix design (The minimum cement content for M40 grade of PPCP shall be 440 Kilogram/cum of concrete), making slots in panels for fixing dowel bars, tie bars, and placing necessary reinforcement as per design and drawing, steam/curing for 28 days including lifting, transportating and placing the panels at the required position, line, level and alignment as directed by Enginner in Charge, with max 20% fly Ash ( Fly-ash upto 20% by weight of Cement) over a prepared sub base. including providing and fixing in position MS Plain dowel bars precoated with anticorrosive epoxy paint of required Dia. having 45 cms. length and at 30.00 cm. c/c lubricated for half length with bituminous paint and providing & fixing TMT Fe 500 tie bars 12 mm dia. 60 cm long at 75 cm c/c handling, straightening, necessary cutting supported by TMT EE 500 chairs	As directed by Engineer in charge	Cubic Metre	11385	NA
1948	Road Furniture	51.124	RD	Providing and laying of Plastirib T or equivalent raised profile edge line marking (audible vibratory) with special hot applied thermoplastic road marking compound according to IRC 35 : 2015, Clause 7.7 with2 mm thick base coat layer above that ribs profile size of length 40 mm x width 140 mm x height 6mm thick (Total 8 mm thick) at the distance of 250 mm between two ribs including reflectorizing glass beads @ 250 gm / sq. mtr. area. The minimum and maximum width of raised profile should be 150 mm. The thickness of 8 mm profil should be exclusive of surface applied glass beads. The finished surface to be exclusive of surface applied glass beads. The finished surface to be levelled, uniform and free from streaks and holes, to be applied on edge lines.	As directed by Engineer in charge	Square Metre	1009	27
1949	Road Furniture	51.125	RD	Providing and laying of Plastirib 2K or equivalent raised profile edge line marking (audible vibratory) with special 2 component cold applied road marking compound according to IRC 35 : 2015, Clause 7.7 with 2 mm thick base coat layer above that ribs profile size of length 40 mm x width 140 mm x height 6mm thick (Total 8 mm thick) at the distance of 500 mm between two ribs including reflectorizing glass beads @ 250 gm / sq. mtr. area. The minimum and maximum width of raised profile should be 150 mm. The thickness of 8 mm profil should be exclusive of surface applied glass beads. The finished surface to be exclusive of surface applied glass beads. The finished surface to be levelled, uniform and free from streaks and holes, to be applied on edge lines.	As directed by Engineer in charge	Square Metre	2629	27
1950	Road Furniture	51.126 a	RD	Providing and Laying of Rumble strips with Plastirib 2K, or equivalent 2 component cold plastic profiled material to give total width of 500 mm and height of 10 mm. Ramp provided to give width of 145 mm, width of ribs to be 55mm laid at centre to centre distance of 35 mm, with reflective glass beads @ 350 gm / Square Metre. The finished surface to be levelled, uniform and free from streaks and holes, to be applied on the edge lines, including surface cleaning and cost of all materials etc. complete.	As directed by Engineer in charge	Square Metre	3706	27

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
1951	Road Furniture	51.126 b	RD	Providing and Laying of 2 or more sets (6 Nos. each set) Dual Ribs Pattern Rumble Markings on roads with vehicular speeds of more than 50 Km/hr laid as per the spacing recommended for each set under Table 11.1 and Fig. 11.2 of IRC 35:2015 using Plastirib 2K, or equivalent 2 component cold plastic profiled material. Each Dual Rib pattern rumble marking shall have width of 500 mm. Each dual rib pattern rumble marking shall have 2 ribs each of Width of 100 mm and height 20 mm. Gap between two ribs shall be 300 mm. Each rumble marking shall be made complete with drop on Soild Plus reflective glass beads @ 300 gm / Square Metre spread throughout the surface of marking. The finished surface to be levelled, uniform and free from streaks and holes, including surface cleaning and cost of all materials etc. complete.	As directed by Engineer in charge	Square Metre	4333	44
1952	Road Furniture	51.127	RD	Supplying and fixing of Plastic body studs with two shanks and without shanks of SWAREFLEX or equivalent in yellow, red and white color made of ABS body with size 100*100*17.9 mm, having reflective panels of 34 special Swaro glass reflective elements embedded in plastic and 19 degrees tilted to provide the highest reflectivity. Having reflective panels in yellow, red and white plastic with yellow, red, white or green Swaro glass elements. The studs shall have a compressive strength test certificate of 25 tons in accordance with ASTDM D 4280 and successfully passing retro reflectivity test as per EN 1463-1 and the road test EN 1463-2 from a reputed laboratory. The fixing of the road studs shall be done by using a recommended Two Component Epoxy. In addition two holes should be drilled in the depth of 50 mm on the road for the version with two shanks.	As directed by Engineer in charge	Number	477	27
1953	Road Furniture	51.128	RD	Supplying and fixing of Swareflex or equivalent Metal Road studs with shank, made of Die-cast Aluminum alloy molded body with the size of 100*100*19.8 mm, shank size 50mm, having reflective panels of 34 glass reflective elements embedded in plastic and 19 degrees tilted to provide the highest reflectivity having reflective panels in yellow, red and white plastic with yellow, red, white or green glass elements. The weight of Aluminum stud should be not less than 370 grams. The studs shall have a compressive strength test certificate of 40 tons in accordance with ASTDM D 4280-04 and successfully passing retro reflectivity test as per EN 1463 part 1 & part 2, from a reputed international laboratory . The bidder shall attach a product warranty certificate against Breakage and loss of reflectivity from the manufacturer for 3 years from installation. The fixing of road studs shall be done by using a recommended Two Component Epoxy after drilling 60 mm hole on the road for the shank to go inside.	As directed by Engineer in charge	Number	562	27
1954	Road Furniture	51.129	RD	Supplying and fixing of Plastic body of Swaro Warn or equivalent 184*81*60 mm, mounted on road side plastic guide posts at a height of 80cm to 100cm from the ground level and fixed on post with screws supplied with the Swaro warn product. Swaro Warn comes in white or blue color. Visual wildlife warning system deflecting the headlights of approaching vehicle towards Road side at Dusk or night for creating a visual warning fence for the wildlife to avoid the accidents of wild life. Confirming standards RVS 04.03.12. The Swaro Warn article 7178 can be used for all types of terrain.	As directed by Engineer in charge	Number	3446	27



Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
1955	Road Sub Grade	51.130	RD	Soil Stabilisation-Stabilization of in-situ (existing pavement crust) or soil or otherwise sub-base course upto the required depth by cold in-situ recycling using chemical additives/otherwise: Providing pulverizing,spreading,milling and mixing of chemical additives at the rate of minimum 750 ml/cum require quantity as per job mix design in accordance with IRC37-2012.Cementitious additive @ rate of minimum 4% should be spread on the existing pavement using a mobile truck mounted containerized cement/additive spreader with microprocessor controlled weighing and spreading system.The additive spreader shall have variable working width sufficient to cover whole pavement lane.The in-situ stabilization process shall be carried out by a mobile and self propelled stabilizer / reclaimer of working width of 2.4 mt and with minimum engine horse power of 440 kw with a variable working depth of minimum 50 cm.The resultant stabilised mix then would be profiled to the required grade ,level and thickness using motor grader and the mix would be compacted using 20 tonne pad foot roller in combination with smooth whell roller to achieve desired proctor density as per IRC37-2012 and complete in all respects and curing with water as required including all materials ,labor and machinery etc. The entire In-situ process would be carried out in single pass with milling and pulverzing of damaged asphalt pavement/soil/aggregates/soil-aggregate mixture to the desired depth and with simultaneous addition of additives and water with machine integrated spray bars fitted on the wheeled self-propelled and vibratory pad foot roller to achieve desired proctor density in all respects. Necessary graded stone aggregates shall be added to achieve desired profile of the road. The minimum unconfined compressive strength (UCS) of stabilized sub base should be 4.5 to 7 MPa after 7 / 28 days curing as per IRC37-2012 .Also ,durability aspects (wet-dry cycles) of stabilized sub base should be satisfied as per IRC37-2012 .The gradation mixes and magterials should be as per IRC37-2012.	As directed by Engineer in charge	Cubic Metre	3587.78	0
1956	Road Maintainance	51.131	RD	Rehabilitation of existing damaged asphalt pavement by, cold, in-situ, recycling process, using foam bitumen as binder and cement as filler, as per IRC 120 2015 / IRC 37 2012. A layer of 20 mm fresh aggregates to a thickness of 30 mm, or, as per design mix, would be pre-spread evenly, on the existing surface using paver / motor grader. 1.00% cement by weight of mix shall be pre-spread on the layer of fresh aggregates using truck mounted cement spreader with computer-controlled spreader system of width 2.40 meters. The freshly laid aggregates, spreaded cement, and, a layer of existing damaged pavement shall be then pulverised and recycled in-situ by injecting 2% bitumen (VG30) as foam-bitumen to design depth using self-propelled 4 wheeled, cold recycler machine with working width of 2.4 m fitted with 440 KW engine. The machine shall have in-built bitumen heating unit and duel spray bar, for foaming the heated bitumen (VG30) and water spray bar. The built-in nozzles shall evenly spray both, foamed bitumen and water during the milling process. The resultant mix would then compact to required density by heavy roller, profiled by grader and further compacted by smooth roller and PTR. (This cold recycled surface shall be then covered with tack coat and bituminous concrete of 50mm thickness, cost of both to be accounted separately)	As directed by Engineer in charge	Running Metre	6933	0

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
1957	Road Safety	51.132	RD	Providing and erecting a Road Restraint system - Roller System Barrier ETI Roller System H1 & H2 comprising of post of hot dip galvanized steel of 139.8mm diameter (L-2200 and L-750 ) thickness 4.5 mm spaced with interval of 1 meter installed in to hardened road . Safety frame rail from sheet of 3.20mm thick are fixed to main posts, shock absorbing rollers 345 mm diameter and 480mm height made of polypropylene - EVA , post caps, locker , pipes and connection material. Distance between main post and short post shall be 500 mm. the height of upper edge rail is 960 mm. All steel parts( FRAME s235R equivalent SS400) and post S235JR shall be hot dip galvanised to protect against corrosion. The system shall be installed in accordance with the drawings and assembly instructions. etc. complete.	As directed by Engineer in charge	Running Metre	74443	0
1958	Road Surfacing Course	51.133	MORTH Section-515	Providing and laying Stone Matrix Asphalt with 100-120 TPH batch type hot mix plant producing an average output of 75 tonne per hour using crushed aggregate of specified grading premixed with bituminous binder @ 5.80 minimum percent of mix and filler, transporting the hot mix towards site, laying with hydrostatic paver finisher with sensor control to required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH specification clause Number515 etc. complete in all respects, IRC SP 79	MORTH Section-515	Cubic Metre	10404	0
1959	Road Maintainance	51.134	RD	Milling of existing bituminous surface to specified depth of bituminous layer including disposal of removed material with all lift and lead upto 1000 m etc complete. Using machine like Writgen (W100) or equivalent	As directed by Engineer in charge	Square Metre	42.41	0
1960	Road Maintainance	51.135	RD	Providing and applying low viscosity bitumen emulsion RS1 for sealing cracks less than 3 mm wide or incipient fretting or disintegration in an existing bituminous surfacing.	As directed by Engineer in charge	Square Metre	31	0
1961	Road Surfacing Course	51.136	MORTH Section-514	Providing and laying Microsurfacing course comprising of dry (A) fine aggregates confirming to Type III grading @12 Kilogram/Square Metre. of Road Surface coverage of specification as per IRC SP 81, 2008 Polymer / latest modified cationic quick setting bitumen emulsion having 60% binder content and 3.6% polymer (B) @ 12.5% by weight of fine aggregate ordinary portland cement (C) @ 2% by weight of aggregate chemical additives (D) @1.5% by weight of fine aggregate and water as per requirement.	MORTH Section-514	Square Metre	179	0
1962	Road Maintainance	51.137	RD	Providing and laying a Stress Absorbing Membrane Interlayer (SAMI) / bitumen impregnated geotextile layer after cleaning the road surface, geotextile conforming to requirements of clause 703.3, laid over a tack coat with 1.05Kilogramper Square Metre of paving grade bitumen 80 - 100 penetration / emulsion as per requirement and as directed by Engineer in Charge.	As directed by Engineer in charge	Square Metre	124	0
1963	Road Maintainance	51.138	RD	Pot Hole filling with Jet Patcher-Repairs to potholes 50 mm upto 100 mm by using semidense bituminous concrete in cold mix by using emulsion including making the potholes /patches in regular shape and size. Removing loose pockets, Dewatering in potholes,tack coats of 25 Kilogram/10 Sq.Mt.with RS1 emulsion etc.by use of advanced jetpatching technolgy machine of approved make and specification having capacity 5.50 TO 8.00 cubic meters with auxillary engine with direct drive to heavy duty blower, Rotary Positive Displacement Blower with direct drive and separate airline silencer. (Capacity – 15 PSI, Flow rate 1370/cum/hr). cleaning as directed by Engineer – in-Charge etc. complete (Emulsion @ 5% by weight of mix )	As directed by Engineer in charge	Square Metre	1634	0

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
1964	Road Surfacing Course	51.139 a	MORTH 511	Open Graded Premix Surfacing- Providing and Laying OGC 20 mm thickness composed of 13.2 mm to 5.6 mm aggregates premixed with bituminous binder transported to site with VTS , laid over a previously prepared surface, finished to the required grade, level, alignment, and rolling to achieve the desired compaction but excluding prime / tack and Seal coat. For Bitumen of specified grade--USING Batch mix type hot mix plant with SCADA, Paver and Vibratory roller( over BT Surface) (VG-30 bulk bitumen rates are considered to arrive at rates)	MORTH 511	Square Metre	162	5
1965	Road Surfacing Course	51.139 b	MORTH 511	Open Graded Premix Surfacing- Providing and Laying OGC 20 mm thickness composed of 13.2 mm to 5.6 mm aggregates premixed with bituminous binder transported to site with VTS , laid over a previously prepared surface, finished to the required grade, level, alignment, and rolling to achieve the desired compaction but excluding prime / tack and Seal coat. For Bitumen of specified grade--USING Batch mix type hot mix plant with SCADA, Paver and Vibratory roller ( Over MPM Surface) (VG-30 bulk bitumen rates are considered to arrive at rates)	MORTH 511	Square Metre	167	5
<b>BRIDGE &amp; CD WORKS</b>								
1966	Bridge Maintenance	51.140	BR	Chipping of all loose and Spalling of concrete to bottom of slab, beams etc.(wherever required), cleaning of reinforcement, carrying out thorough sand blasting, application of anti-corrosive zinc rich epoxy primer to exposed reinforcement including cost of material, labour, equipment, tools, scaffolding etc. complete.	As directed by Engineer in charge	Square Metre	515	--
1967	Bridge Maintenance	51.141	BR	Providing and applying epoxy bonding agent for bonding old to new concrete for structural members prior applying the epoxy mortar to the concrete surfaces etc complete.	As directed by Engineer in charge	Square Metre	510	--
1968	Bridge Maintenance	51.142	BR	Providing and applying epoxy mortar of resin and hardner with Sillica sand upto 20 mm thickness of Sika/Fosroc/Pidilite or its equivalent including proper wire brushing etc complete as per the direction of Site-In-Charge.	As directed by Engineer in charge	Square Metre	4730	--
1969	Bridge Maintenance	51.143	BR	Charges for groove cutting of15 mm x 15 mm deep along crack and sealing and refilling the same with epoxy mortar including cost of material, labour etc. complete	As directed by Engineer in charge	Running metre	453	--
1970	Bridge Maintenance	51.144	BR	Cleaning of rocker & roller bearing using high pressure water jet, free from rust scales, re-setting & greasing the bearings using graphite grease including cost of materials, labour etc., complete.	As directed by Engineer in charge	Per bearing	9160	--
1971	Bridge Maintenance	51.145	BR	Bearing cleaning and pier cap cleaning for the proper movement of bearing etc. complete including all tools and machineries scaffolding etc. complete as per the direction of Site in Charge.	As directed by Engineer in charge	Number	9430	--
1972	Bridge Maintenance	51.146	BR	Providing and applying “high strength, non shrink free flow grout material” i. e. micro concrete (like shrink comp or equivalent) having compressive strength as 400 Kilogram/sq.cm. including finishing the surface and curing for 07 days. Etc complete. The usage of this non shrink concrete with zero slump is to allow to occupy every free space leaving no voids, thereby producing dense concrete with proper bonding with concrete (The quoted rates to be inclusive of all materials, labours, tools & tackles, transportation, taxes etc complete) to be applied for foundation and strengthening of pier etc and as per the direction of Site-In-Charge. (The product like Ultratech/Rendroc (RGL) of FOSROC or its equivalent)	As directed by Engineer in charge	Cubic M.	67000	--
1973	Bridge Maintenance	51.147	BR	Providing applying Polymer modified cement mortar pointing to the stone massonry structure including chipping, cleaning, applying bonding agent, staggering, curing and and all tools and tackes including safety etc. complete.	As directed by Engineer in charge	Square Metre	1390.32	--

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
1974	Bridge Maintenance	51.148	BR	Grouting to the Dowel bars with epoxy of resin+hardner to ensure the proper fixing of dowel bars including all the machineries etc. complete, as per the direction of Site- In-Charge.	As directed by Engineer in charge	Number	423	--
1975	Bridge Maintenance	51.149	BR	Providing and applying waterproof coating to the concrete surface to resist entry of moisture and prevent growth of fungus etc. complete as per the direction of site in charge.	As directed by Engineer in charge	Square Metre	97.41	--
1976	Bridge Maintenance	51.150	BR	Lifting of span and bearing locations by suitable hydraulic jacks connected by high pressure, rubber hoses to pump & removal of old exsting bearing ( Roller side only) As per Quotation	As directed by Engineer in charge	Span	175964.37	--
1977	Bridge Maintenance	51.151	BR	Strengthening structural elements by providing & fixing CARBON FIBER (Make Sika or BASF or FOSROC) Surface preparation: Grinding concrete substrate, cleaning it with wire brush removing oil, laitance if present, rounding sharp edges to min 25 mm radius etc. complete. Profiling: providing & Applying compatible Mbrace primer on prepared substrate, Filling the holes and uneven surface with high strength epoxy putty etc. complete IF Required. Wrapping: Providing & Applying first coat of Saturant, cutting the carbon fiber sheet to size, wrapping the fiber sheet to structural element at desired orientation using tamping roller to avoid any air voids etc. complete. Sand pasting: Providing & Applying second coat of Saturant after min. 12 hrs, rectify air voids if any paste the rive sand on it to make surface rough to take any further finishes (Mode of measurement: Per sq.mt of Mbrace CF 400 sheet applied and not surface area of Concrete application & Quantity will be measured including wastage) The rate includes all type of material,application,equipment & scaffolding etc complete. Rate is applicable for all height & level.	As directed by Engineer in charge	Square Metre	6130	--
1978	Bridge Maintenance	51.152	BR	Replacement of existing damaged Expansion joints by providing and laying of Strip Seal Expansion Joint System, including removal of existing damaged exp joints by dismantling of deck slab, wearing coat etc. and back filling of the recess up to final finish level with conc of grade M-35, complete as per M.O.R. T&H specification.	As directed by Engineer in charge	Running metre	18747.01	--
1979	Bridge Maintenance	51.153	BR	Providing Polymer modified cement Mortar treatment after removing of existing, clading, plaster, gunite & cleaning and preparing the surface.Applying Polymer cement bond coat and Polymer modified cement Mortar as per manufacturer specification up to 50 mm thick with 8% polymer by weight of cement to fill the all cavities & making protective cover plaster including shuttering	As directed by Engineer in charge	Square Metre	6075	--
1980	Bridge Maintenance	51.154	BR	Providing, drilling and fixing Nipples for pressure injection grouting of polymer cement grout etc. complete	As directed by Engineer in charge	Number	257.8	--
1981	Bridge Maintenance	51.155	BR	Filling voids/honeycomb with high pressure injection grouting of Polymer Cement Grout (10% of Polymer by Weight of Cement)	As directed by Engineer in charge	Kilogram	211	--
1982	Bridge Maintenance	51.156	BR	Providing and laying in situ / ready mix M35 grade RCC jacketing work around the existing piers of bridges etc. complete. (with fully automatic micro processor based PLC with SCADA enabled concrete batch mix plant / pan mixer with fine agreeegates of required specifications ( VSI sand finely washed etc ), height of 8 to 10 meter)	As directed by Engineer in charge	Number	8925	--

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
1983	Bridge cum Bhandara	51.157		A) Precast BeB Panals 1 Providing and fixing Precast M 25 grade Concrete curved section of 100 mm thick to serve as bandhara as per the standard drawing approved by department having elliptical shape with base upto 6m as per table attached to be casted in factory in suitable sections and transporting to site and erecting the same including all leads, lifts, labour and machinaries with finishing .Number of elements in which compled section is proposed to be cast shall be approved.Necessary equipments for placing giving support through turn bucle or similar arrangement to maintain its verticality till insitu joining..The total steel quantity is 75Kilogram per cubic meter of concrete The method statement shall be prepared and got approved from engineer including cost of plasticizer and viscocity admixture.	As directed by Engineer in charge	Sqm	2967	0
1984	Bridge cum Bhandara	51.158		b) Hot Dip Galvanised Needle Gate 1 Manufacturing with OAP & fabrication of hot dip galvanised needle gates - curved type of required size and Weight as per the detailed design and drawings with all material, Mild steel confirming to IS 2062, Rubber seal confirming to IS 4623 & Welding electrodes AWS E6013 for general weld joints. It includes all materials, Labour charges, machinery charges, 1km lead charges of transportation, loading and unloading charges of Gate parts at Site, Inspection & Quality control charges, Sand blasting,overhead charges of 10%, and all incidental charges including all duties, taxes, levies and insurance charges excluding GST	As directed by Engineer in charge	MT	166000	49800
1985	Bridge cum Bhandara	51.159		Providing and fabricating and fixing at site hot dip galavanised structural steel work in rolled sections like joists, channels, angles, tees etc. as per detailed design and drawings or as directed including cutting, fabricating, hoisting, erecting, fixing in position making riveted I bolted Iwelded connections without connecting plates, braces etc. complete including all transporation , labour and all lift excluding GST	As directed by Engineer in charge	MT	110000	33000
1986	Bridge cum Bhandara	51.160		c) FRP Needle Gate 1 Providing , supplying and fixing of FRP gates -needles in curved or straight shape in size required size and 60mm thick for the Bridge -cum- Bandhara .The gate/needles should withstand under minimum water pressure of 7.00 tonne. with interlocking arrangements, required rubber seals to arrest water leakage due to surface unevenness including FRP "C" channels at both side of gate of size 100 mm x 100 mm with 10 mm thick, with lifting eye bolts. And as per specifications mentioned in the Technical spectications and product features excluding GST	As directed by Engineer in charge	Sqm	18340	5502
1987	Bridge cum Bhandara	51.161		Providing and fixing Sill beam in size 100 X100 mm with 10 mm thick, in FRP material with lifting eye bolts. And as per specifications mentioned in the Technical spectications and product features excluding GST	As directed by Engineer in charge	Rmt	2500	750

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
1988	Cubical Toilet	51.162		Supply and installation of cubicles of width and depth as per Athena Lite- SS Series Cubicles- Std Sizes (W x D x H): 900 mm x 1550 mm x 2105 mm, (Height is including 100 mm gap from bottom, Door Width- 600 mm specifications/ site drawings). Cubicle height to be 2105 mm. Made from solid grade compact high pressure laminate as per IS:2046 and EN-438 manufactured under high specific pressure > 5 MPa and temperature >120°C, All doors will be of single colour and made of 12 mm thick Merino HPL compact panel. The doors will have chamfered edges. Each door will be supported by 3 stainless steel made hinges affixed to the pilasters. Size of panels to be as per drawing. HARDWARE & ACCESSORIES are H shaped (Top) head frame structure made of extruded Aluminium grade 6063 T5-50 micron epoxy powder coated for surface protection, Size to be 125x70x5T. Corner joinery section, Size to be 40x16.5x1.8T. U-Channel Wall joinery section,Size to be 22x16x1.6T. Door stopper section, Size to be 21x12.5x1.6T. Spring loaded Butt Hinges made from Stainless steel grade 304. Surface finish to be matt type. Covers to be lacor coated.etc complete.	As directed by Engineer-in-charge	Square Metre	11178	280
1989	Cubical Toilet	51.163		Supply and installation of CEILING HUNG cubicles of width and depth as per specifications/ site drawings. Cubicle height to be 2400 mm. Std Sizes (W x D x H): 900 mm x 1550 mm x 2400 mm, (Height is including 100 mm gap from bottom) Door Width- 600 mmITEM DESCRIPTION Made from solid grade Merino make compact high pressure laminate as per IS:2046 and EN 438 manufactured under high specific pressure > 5 MPa and temperature >120° C, All doors will be of single colour and made of 18 mm thick Merino HPL compact panel. The doors will have chamfered edges. Each door will be supported by 3 stainless steel made hinges affixed to the pilasters. All intermediate partitions or dividers will be made of 12 mm thick Merino HPL compact laminate panels. Size of panels to be as per drawing. HARDWARE & ACCESSORIES are H shaped (Top) head frame structure made of extruded Aluminum grade 6063 T5-50 micron epoxy powder coated for surface protection. Size to be 125x70x5T. Corner joinery section, Size to be 40x16.5x1.8T. U-Channel Wall joinery section, Size to be 22x16x1.6T. Door stopper section, Size to be 21x12.5x1.6T. Spring loaded Butt Hinges made from Stainless steel grade 304. Surface finish to be matt type. Covers to be lacor coated.Coat hook with rubber stopper made from Stainless steel grade 304. Surface finish to be matt type. etc complete.	As directed by Engineer-in-charge	Square Metre	9037	215
1990	Cubical Toilet	51.164		Supply and installation of PD DOOR cubicles of width and depth as per specifications/ site drawings. PD Door height to be 1980/2100 mm.PD Doors Series : Std Sizes (W x H): 2100 mm x 7500 mm (Height is including 150 mm gap from bottom), Door Made from solid grade Merino Make compact high pressure laminate as per IS:2046 manufactured under high specific pressure > 5 MPa and temperature >120°C ,.Panel thickness 12 mm. Size of panels to be as per drawing. HARDWARE & ACCESSORIES are Specially designed D-shape wall mounted pole made from extruded grade aluminum alloy 6063/HE9/T-6 and epoxy powder coated (color as per specifications) for surface protection. Size to be 46x41x2T, Matching profile and color Nylon Polyamide-6 caps to cover aluminum Poles, Self closing Hinges (Gravity mechanism) made from Nylon Polyamide grade-6. Color to be as per specifications, Stainless steel grade 304 screws, Anti-rotation Nylon polyamide grade-6 expandable wall plugs, etc complete.	As directed by Engineer-in-charge	Square Metre	8715	697

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
1991	Cubical Toilet	51.165		Supply and installation of 12MM BOX UP cubicles of width and depth as per specifications/ site drawings. Cubicle height to be 2100mm Titan Box up 18 mm Series Cubicles: Std Sizes (W x D x H)- 900 mm x 1550 mm x 2100 mm, (Height is including 100 mm gap from bottom) Door Size- 600 mm mm. Titan Box up 18 mm Series Cubicles: Std Sizes (W x D x H)- 900 mm x 1550 mm x 2100 mm, (Height is including 100 mm gap from bottom) Door Size- 600 mm Titan Box up 18 mm Series Cubicles: Std Sizes (W x D x H)- 900 mm x 1550 mm x 2100 mm, (Height is including 100 mm gap from bottom) Door Size- 600 mm ITEM DESCRIPTION: Made from solid grade Merino make compact high pressure laminate as per IS:2046 manufactured under high specific pressure > 5 MPa and temperature >120°C, All doors will be of single colour and made of 18 mm thick Merino HPL compact panel. All pilasters will be made of 18 mm thick Merino HPL compact panel. HARDWARE & ACCESSORIES are No head frame structure, all panels to be aliengned to the top, Corner joinery section made from Stainless steel grade 304. Surface finish to be brush type. A thin plastic film pasted for surface protection. Size to be 35mmx15mmx0.8 mm. etc complete.	As directed by Engineer-in-charge	Square Metre	8617	256
1992	Cubical Toilet	51.166		Supply and installation of cubicles of width and depth as per specifications/ site drawings. Cubicle height will be 1980 mm Titan Std Series Cubicles: Std Sizes (W x D x H): 900 mm x 1550 mm x 1980 mm/2039 mm ( Height is including 150 mm gap from bottom) Door Size- 600 mm when top rail of rectangular cross section is used and 2039 mm when top rail of circular cross section is used ITEM DESCRIPTION Made from solid grade Merino make compact high pressure laminate as per IS:2046 and EN-438 manufactured under high specific pressure > 5 MPa and temperature >120°C, All doors will be of single colour and made of 12 mm thick Merino HPL compact panel. All pilasters will be made of 12 mm thick HPL compact panel. Size of panels to be as per drawing. HARDWARE & ACCESSORIES are Top rail is made of stainless steel grade 304. There are two options for the top rail. First one comes with a rectangular cross section (Size to be 55mmx42mmx1.6 mmT) and the other one comes with circular cross section (Diameter 32 mm). Surface finish to be brush type. A thin plastic film pasted for surface protection. Corner joinery section made from Stainless steel grade 304. Surface finish to be brush type. A thin plastic film pasted for surface protection. Size to be 35mmx15mmx0.8 mm. etc complete.	As directed by Engineer-in-charge	Square Metre	8307	264
1993	Cubical Toilet	51.167		Supply and installation of ZMS (Nylon) cubicles of width and depth as per specifications/ site drawings. Cubicle height will be 2003 mm. ZMS Series Cubicles: Std Sizes (W x D x H): 900 mm x 1550 mm x 2003 mm, (Height is including 150 mm gap from bottom) Door Width- 600 mm ITEM DESCRIPTION Made from solid grade compact high pressure laminate as per IS:2046 and EN-438 manufactured under high specific pressure > 5 MPa and temperature >120°C. All doors will be of single colour and made of 12 mm thick HPL compact panel. All pilasters will be made of 12 mm thick HPL compact panel. All intermediate partitions or dividers will be made of 12 mm thick HPL compact laminate panels. Size of panels to be as per drawing. HARDWARE & ACCESSORIES are Semi-spherical (Top) head frame structure for surface protection. Size to be 50x32x1.6T. Corner joinery section, Size to be 40x16.5x1.8T. U-Channel Wall joinery section, Size to be 22x16x1.6T. Door stopper section, Size to be 21x12.5x1.6T. Stainless steel grade 304 screws, Anti-rotation Nylon polyamide grade-6 expandable wall plugs, The Work shall complete as per drawing , under supervision of engineer in charge, etc complete.	As directed by Engineer-in-charge	Square Metre	5892	256

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
1994		51.168	MORTH 602	Steel Fiber Reinforcement: Supplying, Providing and Mixing Hooked End/Crimped steel fibers with aspect ratio between 50 to 80 (Diameter between 0.45 to 01mm and length between 12.5 to 60mm) manufactured from cold drawn wire and having a minimum tensile strength of 1100N/Sq.mm, as per CE Certification label mark, HE non-glued/ HE glued, non-balling, conforming to ASTM A 820 /EN 14889-1, compatible with all construction chemicals used for the batching, laying and curing of concrete. The fibers shall be added to the concrete at specified dosage and shall be mixed with the concrete ingredients for sufficient time to ensure uniform distribution and pumping concrete. Addition of steel fibers in cement concrete for flooring/pavement/CC roads (All ground supported slab)/underground structure/precast items (like drains, manhole covers, walls, paver blocks, pipes, tunnel segments) etc. doses as per approved designs and directions of Engineer-in-Charge. HSN Code for Steel Fibres is 73170013. Regularly used are MSCF 50; MSH 10050; MSH 7560; MSH7035; MSH 6035; MSH 5530; NSH-G 7560; MSH-G 7035; MSH-G 6035; MSH-G 5530 etc. are some of the widely used sizes.	MORTH 602.2.5 AND IRC:SP:46	KILOGRAM	112	--
	Door and Windows	51.169	BD-T	Fire Door 55mm 2HR FRL (120/120) 3 Criteria - INTEGRITY / INSULATION/ STABILITY WOODEN DOOR - Fire Door Tested in accordance to IS: 3614 Part 2.	As directed by Engineer-in-charge			
				Providing of 120 min Fire rated doors system duly tested for 3 criteria - Integrity, Insulation and Stability Criteria as per the IS: 3614 Part 2 and BS: 476 part 22 at National Test House, Govt of India laborator and/or with Central Building Research Institute, Govt of India undertaking with standard heating conditions as specified in IS:3614 Part II 1992 and BS: 476 part 20 & 22 1987 to achieve the required integrity, insulation and stability (i.e. to restrict the heat radiation, temperature rise on the non fire side to the maximum of 140° C above the ambient temperature on the exposed surface of the shutter. The fire doors are tested with NCBN technology ("Non Combustible by Nature").				
1995				a) Door Frame: Supplying & Fixing frames for Fire resistant door shutters 1st class Malaysian Hardwood Frame densified (810 Kilogram/cum) and pressure treated with fire retardant chemicals in vacuum impregnation vessel under 160 psi pressure as per IS:401and kiln seasoned to moisture below 15% as per IS:1141 of section 120 X 70 mm spray quoted with 2 coats of intumescent paint of minimum 200 micron, with single row of Brush- Type ASTROFLAME intumescent strip of size 10mm x 4mm affixed in the slit of the Frame for fire and smoke sealing, etc. complete.		Running metre	1797	503
1996		51.170		b)Shutter : Supplying & Fixing of 55mm thick asbestos free criteria checked - fire, heat and smoke resistant composite Fire check Door Shutter complying with with fire performance - FD 120 as per IS:3614 (part - II) comprising of 2x8mm Calcium Silicate boards over Chemically treated (with Fire retardant chemicals in vaccum pressure impregnation vessels under 160 psi pressure as per IS:401 and kiln seasoned to moisture below 15% as per IS:1141) internal timber (Malaysian Hard Wood, densified to 810 Kilogram/cum) frame work of 100x32 mm with 32mm thick infill of ceramic fiber (density 128 Kilogram/cum), vermaculite mix faced with 3mm Fire retardant High Density fibre board, internally lipped with hardwood beading and pasted in Hydraulic Press under 25 MPa, spray quoted with 2 coats of in-tumescent paint of minimum 300 micron, and with single row of Brush- Type intumescent strip of size 10mmx4mm affixed on periphery for fire and smoke sealing in the slit on all edges of shutter except bottom, without any external lipping.		Square Metre	10376	2547



Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
1997		51.171		c) Vision Panel: 2 HR rated E Class clear high stress fire rated glass is pre fabricated strategically inside the shutter structure with 10 mm inside the shutter on all sides with U- glazing. An additional insulated powdercoated 'Z' channel of 16 swg MS sheet to be fixed for reinforcement of the joints.		Square Metre	57133	-
	Door and Windows		BD-T	Providing of 2 Hour Rated Acoustic Fire Door to effectively control noise in conference rooms, broadcasting studios, theatres and music practice rooms. duly tested for 3 criteria - Integrity, Insulation and Stability Criteria as per the IS: 3614 Part 2 and BS: 476 part 22 with standard heating conditions as specified in IS:3614 Part II 1992 and BS: 476 part 20 & 22 1987 to achieve the required integrity, insulation and stability (i.e. to restrict the heat radiation, temperature rise on the non fire side to the maximum of 140° C above the ambient temperature on the exposed surface of the shutter. The accoustic fire doors are tested with NCBN technology ("Non Combustible by Nature") duly tested for sound insulation as per ISO 10140-2 / ASTM E 90 for sound transmission loss evaluation of 42db in reverberation chamber at ARAI.	As directed by Engineer-in-charge			
1998		51.172		a)Door Frame: Providing & Fixing Frames for Fire resistant door shutters 1st class Malaysian Hardwood Frame densified and pressure treated with fire retardant chemicals in vacuum impregnation vessel under 160 PSI pressure as per IS:401and kiln seasoned to moisture below 15% as per IS:1141 of section 120 X 70 mm spray quoted with 2 coats of In tumescent paint of minimum 200 micron, with 1 row of Brush- Type Astroflame® intumescent strip (imported) of size 10mmx4mm concealed in the groove of the Frame for fire and smoke sealing, etc. complete as per direction of Engineer in Charge		Running metre	1895	503
1999		51.173		b)Shutter: Supplying & Fixing of 75mm thick asbestos free, fire, heat and smoke resistant composite Acoustic Door Shutter complying with with fire performance - FD 120 as per IS:3614 (part - II) comprising of 2x12mm Calcium Silicate boards over Chemically treated (with Fire retardant chemicals in vaccum pressure impregnation vessels under 160 psi pressure as per IS:401 and kiln seasoned to moisture below 15% as per IS:1141) internal timber (Malaysian Hard Wood, densified to 810 Kilogram/cum) frame work of 100x36 mm with 36mm thick infill of ceramic fiber (density 128 Kilogram/cum), vermaculite mix faced with 6mm Fire retardant High Density fibre ply, internally lipped with hardwood beading and pasted in Hydraulic Press under 25 MPa, spray quoted with 2 coats of in-tumescent paint of minimum 300 micron, and with single row of Brush- Type intumescent strip of size 10mmx4mm affixed on periphery for fire and smoke sealing in the slit on all edges of shutter except bottom and placement of 3 mm thick rubber membrane, at the inside face, sandwiched between calcium silicate board & high density fire retardant ply, without any external lipping with triple rebatting in shutters, etc complete. Providing of Fire Barrier Systems to prevent the spread of fire and smoke within roof and ceiling voids.	As directed by Engineer-in-charge	Square Metre	15145	2547

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
2000	Door and Windows	51.174	BD-T	Fire Barrier: Providing 100mm thick asbestos free composite - 3 criteria - fire, heat and smoke check Fire Barrier to prevent the spread of fire and smoke within roof and ceiling voids with flame guard of 120 minutes as per IS: 3614 part -II comprising of 4 x 12mm thick Calcium Silicate boards, Chemical treated internal timber with Fire retardant chemicals in pressure impregnation vessels under 160 PSI pressure as per IS:401and kiln seasoned to moisture below 15% as per IS:1141 frame work of 50mm x 100 mm with 50mm thick infill of ceramic fiber (density 96Kilograms/CMT), vermaculite mix reinforced by MS 8mm bars supported within the existing structure & sealed with fire retardant Poly Urethane foam. All empty spaces will be filled with ceremic wool as per instruction of the engineer.	As directed by Engineer-in-charge	Square Metre	10327	1189
2001	Door and Windows	51.175	BD-T	Panic Bar: (For 2 Hr fire Rated single Panic bar) Supplying, fitting & fixing Surface mounted Crash Bar/ panic Bar of touch pad style ,made of heavy duty cast iron/ steel body & latches with SS ,BHMA certified & conforming to ANSI A 156.3 for grade-1 ( 3 hours fire rated ) and suitable for surface mounting to wooden/hollow metal/ Al framed door,with maximum operating force 8Kilogram for unlocking easily & outwardly during emergency,complete in all respect as per direction & satisfaction of Engineer-in charge including all taxes & incidental charges. (Note: To be installed at "FIRE EXIT"only under location specific instruction of Eingeener-in -Charge.)	As directed by Engineer-in-charge	Number	10052	1412
2002	Door and Windows	51.176	BD-T	Door Closure: (For 2 Hr fire Rated EN-3 Door Closure) Supplying, fitting & fixing Surface mounted overhead Door Closer for 2 hour fire rated doors of different size (e.g size -EN-3 for leaf width upto 900mm) CE certified, marked & conforming to EN - 1154 of approved quality (Internationally reputed brand like Dorma, Geze, Hafele, Assabloy & Magnum etc.) fitted and fixed Complete as per direction & satisfaction of Engineer -in Charge including all taxes & incidental charges.	As directed by Engineer-in-charge	Number	3870	376
2003	Door and Windows	51.177	BD-T	12"SS Handle: (For 2 Hr fire Rated 12"SS Handle) Supplying, fitting & fixing Stainless Steel 'D' or 'H' type of size 300 mm x 19 mm tubular Handle with Grade 304, CE certified, marked & conforming to EN - 1154 of approved quality (Internationally reputed brand like Dorma, Geze, Hafele, Assabloy & Magnum etc.)as per direction of Eingeener -in Charge fitted and fixed complete including all taxes & incidental charges.	As directed by Engineer-in-charge	Number	2016	250
2004	Road works	51.178	Rd	White topping on concrete overlay for Urban road Construction of Thin White Topping plain cement concrete pavement over a prepared sub base with 43 grade cement, coarse and fine aggregate conforming to IS 383, maximum size of coarse aggregate not exceeding 25 mm, replacing cement by fly ash to the extent of 15 per cent and sand by 10 per cent, mixed in a batching and mixing plant as per approved mix design, transported to site, laid with a fixed form or slip form paver, spread, compacted and finished in a continuous operation including provision of contraction, construction and longitudinal joints with panel size of 1m X 1m, joint filler, sealant primer, joint sealant, debonding strip, dowel bar, tie rod, admixtures, polypropylene fiber as approved, curing compound, finishing to lines and grades as per drawing	As directed by Engineer-in-charge AND IRC:SP 76-2008	Cubic Metre	5673	35

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
2005	Road Furniture	51.179	Rd	Standard Metal Delineator Supply and Installation of Road delienators ( Road way Delienators ) as per MORT&H clause 806.The structure shall be manufactured in roll forming process and shall have height not less than 800 mm above the ground, width not less than 100 mm and shall extend not more than 300mm below the ground while being installed in confirmation with IRC:79 1981or as directed by engineer in charge.The delineator shall be painted with powder coat of minimum 40 microns thickness for protection against corrosion, on top of which Type XI retro reflective sheeting shall be pasted on both sides. The delienator shall consist minimum retro reflective unit exposed area of 330 cm2 white color, full cube corner micro prismatic non-metallic retro reflective sheeting on each side conforming with IRC 67 2012 and meeting the coefficient of retro reflection values as per ASTM D 4956 Type XI table specification.The front and back faces of the delineator should be curved with a radius of not more than 200 mm and with delta angle (or central angle of curve) lying between 20o and 30o, to increase the visibility of the delineator for vehicles moving in continuous curves. The delineator shall have grooves across the length to make the reflective sheets vandal-proof.	IRC 79:1981	Number	1329	356
2006	Road Furniture	51.180	Rd	Flexible Median Marker Supply and Fixing of Flexible Median Marker which shall be made of tough, high impact resistant, injection-molded, thermoplastic body with U shape structure with overall height of minimum 180mm and shank depth of minimum 30mm and thickness not less than 2mm. The exposed body structure should be cornered rounded for better aesthetics. The plastics used for the molding the flexible median marker shall have a minimum notched Izod Impact strength value of 4.11J/cm (@thickness 3.17mm) at room temperature, tested in accordance with ASTM D256. The outer part of the body shall have the Abrasion loss not less than 35 mm3 when tested accordance with DIN53505 and DIN53516 respectively and shall retain at least 70% of this value when it is subjected to accelerated weathering for 500hrs as per the ASTM G155 standard. . The logo of the manufacturer shall be embossed on either side of the body in the injection molding process. - The flexible median marker shall have U shaped florescent yellow color retro-reflective sheeting with minimum exposed reflective area 285 mm2. The reflective sheeting should confirm to Type XI Florescent Yellow sheeting as per IRC 67 2012 and ASTM D4956-11. The product design has to with stand all natural impacts and should not get damaged if any pedestrian stamp on top of it intentionally or unintentionally. The product should bend up to 90 degree on both sides (becoming completely horizontal), it should be able to take minimum 200 stamping without any significant damage. The Flexible Median Marker shall be fixed by a combination of epoxy adhesive and grouting/Drilling as per Engineer IN Charge	IRC 67:2012	Number	405	-
2007	Road works	51.181		BITUMNOUS CONCRETE :- Providing and laying Bituminous concrete using crushed stone aggregates of specified grading, premixed with HIMA Grade bituminous binder like ART (Highly Modified Asphalt Binder having not less than 90°C Softening Point and not less than 90% Elastic Recovery) @ 5.4% (percentage by weight of total mix) and lime filler @ 2% (percentage by weight of Aggregate) prepeared in Batch Type Hot Mix Plant and filler, transporting the hot mix to work site by tippers, laying with paver finisher equiped with electronic sensor to the required grade, level and alignment and rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired 40/50 mm compacted thickness and density as per specification, complete and as per directions of Engineer-in-Charge.	As directed by Engineer-in-charge	cubic meter	12480	75

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
2008		51.182		Providing, Supplying, Laying & Fixing of concrete Canvas 5mm thick (flexible concrete impregnated fabric which hardens when hydrated to form thin, durable, water proof & fire resistant concrete layer within 24 hrs) for slope protection/drain lining/concrete repair works and other similar works complete in all respect and as per direction of engineer-in-charge. Special Condition 1) Contractor shall submit all relevant test certificates of the material. 2) Mass of unset concrete canvas should be 7Kilogram/Square Metre. 3) Width of roll should be 1 m.	As directed by Engineer-in-charge	Square meter	4326	66
2009		51.183		Providing, Supplying, Laying & Fixing of concrete Canvas 8mm thick (flexible concrete impregnated fabric which hardens when hydrated to form thin, durable, water proof & fire resistant concrete layer within 24hrs) for slope protection/drain lining/concrete repair works and other similar works complete in all respect and as per direction of engineer-in-charge. Special Condition 1) Contractor shall submit all relevant test certificates of the material. 2) Mass of unset concrete canvas should be 12Kilogram/Square Metre. 3) Width of roll should be 1.1m.	As directed by Engineer-in-charge	Square meter	6079	63
2010		51.184		Providing, Supplying, Laying & Fixing of concrete Canvas 13mm thick (flexible concrete impregnated fabric which hardens when hydrated to form thin, durable, water proof & fire resistant concrete layer within 24hrs) for slope protection/drain lining/concrete repair works and other similar works complete in all respect and as per direction of engineer-in-charge. Special Condition 1) Contractor shall submit all relevant test certificates of the material. 2) Mass of unset concrete canvas should be 19Kilogram/Square Metre. 3) Width of roll should be 1.1m.	As directed by Engineer-in-charge	Square meter	7482	87
2011		51.185		Providing, Supplying, Laying & Fixing of concrete Canvas hydro 5mm thick (flexible concrete impregnated fabric which hardens when hydrated to form thin, durable, water proof & fire resistant concrete layer within 24hrs) for slope protection/drain lining/concrete repair works and other similar works complete in all respect and as per direction of engineer-in-charge. Special Condition 1) Contractor shall submit all relevant test certificates of the material. 2) Mass of unset concrete canvas should be 8Kilogram/Square Metre. 3) Width of roll should be 1m.	As directed by Engineer-in-charge	Square meter	6391	49
2012		51.186		Providing, Supplying, Laying & Fixing of concrete Canvas hydro 8mm thick (flexible concrete impregnated fabric which hardens when hydrated to form thin, durable, water proof & fire resistant concrete layer within 24hrs) for slope protection/drain lining/concrete repair works and other similar works complete in all respect and as per direction of engineer-in-charge. Special Condition 1) Contractor shall submit all relevant test certificates of the material. 2) Mass of unset concrete canvas should be 13Kilogram/Square Metre. 3) Width of roll should be 1m.	As directed by Engineer-in-charge	Square meter	10884	61

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
2013	Building Roofing	51.187		Supply and Installation of translucent roof with DPI Flux standing seam multicell polycarbonate panel system. The system with complete assembly of co extruded UV protected multicell panels incorporated into a complete system. Co-extruded UV protected polycarbonate panel system of min 12 mm thick of 900 mm (min.) width with angular daylighting concept. Panels shall have minimum six layers with truss bridge design for higher flexibility & strength. Panels with all fixing accessories to ensure best performance for wind uplift, vibration, oil canning and visual appearance. Panels shall be manufactured with vertical standing seam at both sides of the panel. Panels shall be fixed on Purlin with snap on connectors with double tooth grip lock locking mechanism and will be secured on MS structure (will be paid Separately) with 3 numbers self-drilling screws & trapezoid SS fasteners holding the base of the standing seam offering best stability having a pull-out load of min. 7000N (7KN) tested as per ISO 6892:1998 and IS 1608: 2005, as per design requirement. Panels must satisfy Dart drop impact test as per IS 14443-97 shall show no sign of breakage on Polycarbonate sheets which have been exposed to UV for a min. of 500 Hours as per ASTM G 155. Panels shall not have Yellowness Index as per ASTM D 1925 of 15 units when tested on a sample exposed to UV for 500 Hours as per ASTM G 155. U value shall not be more than 1.6 W/m2K as per EN ISO 10077-2:2018. Panel shall be with additional End cap/Aluminium U/F profile/ Glazing Bar for ends as required. Panel shall be fixed over MS structural steel/MS purlin (paid separately) conforming to the detail technical specifications as per approved architectural drawings. Trained and factory authorized labour with supervision to complete the entire panel installation as per drawing & direction of the engineering in charge. Colour: As per Approval. Approved Make: FLUX by DPI Daylighting or approved equivalent The 12mm thick panels shall be used for a roofing height of upto 15 mtrs.	As directed by Engineer-in-charge	Square Metre	3938	448
2014	Building Roofing	51.188		Supply and Installation of Dpi Flux translucent roof with standing seam multicell polycarbonate panel system. The system with complete assembly of co extruded UV protected multicell panels incorporated into a complete system. Co-extruded UV protected polycarbonate panel system of min 16 mm thick of 1200mm (min.) width with angular daylighting concept. Panels shall have minimum seven layers in a truss bridge design for higher flexibility & strength. Panels with opaque and translucent clear combination as per required lux level and design requirements with all fixing accessories to ensure best performance for wind uplift, vibration, oil canning and visual appearance. Panels shall have an additional IR Blocking features for enhance thermal comfort. Panels shall be manufactured with vertical standing seam at both sides of the panel. Panels shall be fixed on Purlin with snap on connectors with double tooth grip lock locking mechanism and will be secured on MS structure (will be paid Separately) with 3 numbers self-drilling screws & trapezoid SS fasteners holding the base of the standing seam offering best stability having a pull-out load of min. 7000N (7KN) tested as per ISO 6892:1998 and IS 1608: 2005, as per design requirement. Panels must satisfy Dart drop impact test as per IS 14443-97 shall show no sign of breakage on Polycarbonate sheets which have been exposed to UV for a min. of 500 Hours as per ASTM G 155. Panels shall not have Yellowness Index as per ASTM D 1925 of 15 units when tested on a sample exposed to UV for 500 Hours as per ASTM G 155. U value shall not be more than 1.9 W/m2K as per EN ISO 10077-2:2018. Panel shall be with additional End cap/Aluminium U/F profile/ Glazing Bar for ends as required. Panel shall be fixed over MS structural steel/MS purlin (paid separately) conforming to the detail technical specifications as per approved architectural drawings. Trained and factory authorized labour with supervision to complete the entire panel installation as per drawing & direction of the engineer in charge. Colour: As per approval The 16mm thick panels shall be used for a roofing height of upto 15 mtrs.	As directed by Engineer-in-charge	Square Metre	4992	448

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
2015	Building Roofing	51.189		Supply and Installation of Dpi Flux translucent roof with standing seam multicell polycarbonate panel system. The system with complete assembly of co extruded UV protected multicell panels incorporated into a complete system. Co-extruded UV protected polycarbonate panel system of min 18 mm thick of 1200mm (min.) width with angular daylighting concept. Panels shall have minimum seven layers in a truss bridge design for higher flexibility & strength. Panels with opaque and translucent clear combination as per required lux level and design requirements with all fixing accessories to ensure best performance for wind uplift, vibration, oil canning and visual appearance. Panels shall have an additional IR Blocking features for enhance thermal comfort. Panels shall be manufactured with vertical standing seam at both sides of the panel. Panels shall be fixed on Purlin with snap on connectors with double tooth grip lock locking mechanism and will be secured on MS structure (will be paid Separately) with a continuous aluminium I Beam holding the base of the standing seam along the length of the panel & fixed with purlin with self-drilling hex head screws offering best stability with a pull-out load of min. 21000N (21KN) tested as per ISO 6892:1998 and IS 1608: 2005., as per design requirement. Panels must satisfy Dart drop impact test as per IS 14443-97 shall show no sign of breakage on Polycarbonate sheets which have been exposed to UV for a min. of 500 Hours as per ASTM G 155. Panels shall not have Yellowness Index as per ASTM D 1925 of 15 units when tested on a sample exposed to UV for 500 Hours as per ASTM G 155. U value shall not be more than 1.9 W/m2K as per EN ISO 10077-2:2018. Panel shall be with additional End cap/Aluminium U/F profile/ Glazing Bar for ends as required. Panel shall be fixed over MS structural steel/MS purlin (paid separately) conforming to the detail technical specifications as per approved architectural drawings. Trained and factory authorized labour with supervision to complete the entire panel installation as per drawing & direction of the engineer in charge. Colour: As per approval. The 18mm thick panels shall be used for a roofing height of upto 25 mtrs	As directed by Engineer-in-charge	Square Metre	5411	448

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
2016	Building Roofing	51.190		Supply and Installation of Dpi Flux translucent roof with standing seam multicell polycarbonate panel system. The system with complete assembly of co extruded UV protected multicell panels incorporated into a complete system. Co-extruded UV protected polycarbonate panel system of min 22 mm thick of 1200mm (min.) width with angular daylighting concept. Panels shall have minimum seven layers in a truss bridge design for higher flexibility & strength. Panels with opaque and translucent clear combination as per required lux level and design requirements with all fixing accessories to ensure best performance for wind uplift, vibration, oil canning and visual appearance. Panels shall have an additional IR Blocking features for enhance thermal comfort. Panels shall be manufactured with vertical standing seam at both sides of the panel. Panels shall be fixed on Purlin with snap on connectors with double tooth grip lock locking mechanism and will be secured on MS structure (will be paid Separately) with a continuous aluminium I Beam holding the base of the standing seam along the length of the panel & fixed with purlin with self-drilling hex head screws offering best stability with a pull-out load of min. 21000N (21KN) tested as per ISO 6892:1998 and IS 1608: 2005., as per design requirement. Panels must satisfy Dart drop impact test as per IS 14443-97 shall show no sign of breakage on Polycarbonate sheets which have been exposed to UV for a min. of 500 Hours as per ASTM G 155. Panels shall not have Yellowness Index as per ASTM D 1925 of 15 units when tested on a sample exposed to UV for 500 Hours as per ASTM G 155. U value shall not be more than 1.9 W/m2K as per EN ISO 10077-2:2018. Panel shall be with additional End cap/Aluminium U/F profile/ Glazing Bar for ends as required. Panel shall be fixed over MS structural steel/MS purlin (paid separately) conforming to the detail technical specifications as per approved architectural drawings. Trained and factory authorized labour with supervision to complete the entire panel installation as per drawing & direction of the engineer in charge. Colour: As per approval The 22mm thick panels shall be used for a roofing height of upto 55 mtrs.	As directed by Engineer-in-charge	Square Metre	6086	448
2017	Building	51.191		Providing and applying two coats of Hues Surface Coatings Clear Coat (Stone-X ) with silicon technology on stones, clay tiles, bricks, facades,sand stone,plastered,texture finished interior or exterior surfaces.(It is tested with standand test method NumberIS15489:2004 & Low VOC as per ASTM D2369/ISO 11890-1 and water vapour permeability as per ASTM D-1653/ISO 7783).Surface preparation includes cleaning and scrubbing with brush,soap and water to remove all dust, fungus,cement, paints etc,washing with water all complete.The coating thickness and the methodology of application shall strictly as per manufacturer's specifitions and as approved by engineer in charge.The contractor shall give guarantee for the performance of coating for water repellency and also the durability of coating, all complete as per direction of Engineer - in- incharge.	As directed by Engineer-in-charge	Square Metre	272	147
2018	Building	51.192		Providing and Fixing Processed Stone Cladding on wall surface/ plywood surface. RCC pardi/ Wall and all type of Interior, Exterior Compound wall and Gate etc. of cladding processed stone with material of Processed clay, Wooden chips, Silica sand, Cement, GFRc admixtures, Colour pigments, Fiber up to thick of 230 mm/ 25 mm including scaffolding, fixing of screw, etc. (As directed by Engineer in Charge)	As directed by Engineer-in-charge	Square Metre	8581	178
2019	Road	51.193		FRP Beam Crash Barrier -- Type - A, W : FRP Beam Crash Barrier (Providing and erecting a W "FRP beam crash barrier comprising of 3 mm thick corrugated sheet FRP beam rail, 70 cm above road/ground level, fixed on ISMC series channel vertical post, 150 x 75 x 5 mm spaced 2 m centre to centre, 1.8 m high, 1.1 m below ground/road level, all steel parts and fitments to be galvanised by hot dip process, all fittings to conform to IS:14856 (2000) and IS:18319 (2015), FRP beam rail to be fixed on the vertical post with a spacer of channel section 150 x 75 x 5 mm, 330 mm long complete as per clause 810)" As directed by Engineer incharge.	As directed by Engineer-in-charge	Running metre	3292	378

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
2020	Road	51.194		FRP Beam Crash Barrier -- Type - B, THRIE : FRP Beam Crash Barrier (Providing and erecting a Thrie " FRP beam crash barrier comprising of 3 mm thick corrugated sheet FRP beam rail, 85 cm above road/ground level, fixed on ISMC series channel vertical post, 150 x 75 x 5 mm spaced 2 m centre to centre, 2 m high with 1.15 m below ground level, all steel parts and fitments to be galvanised by hot dip process, all fittings to conform to IS:14856 (2000) and IS:18319 (2015), FRP beam rail to be fixed on the vertical post with a space of channel section 150 x 75 x 5 mm, 546 mm long complete as per clause 810)" As directed by Engineer incharge.	As directed by Engineer-in-charge	Running metre	4752	484
2021	Building	51.228	As directed by Engineer in charge	Providing and fixing in position various capacity rainwater harvesting dual intensity auto flush open ended at drain outlet filter with working principal of COHESSIVE AND CENTRIFUGAL FORCE having filter element made out of S.S. 304 screen with mesh size of 205 microns having rainfall capacity of 75 m/hr intensity with operating pressure of 0.060Kilogramper sq.cm. of Head with discharge capacity ranging from 10 to 480 lit/min including all necessary accessories like coupler,bends,PVC valve,etc fixing with Bombay nails of required length etc. complete with inlet size of 90 mm to 110 mm diameter from rooftop pipe with drain outlet of 90 mm to 110 mm diameter size with clean water outlet of 62 mm to 90 mm diameter size including fitting and fixing excluding inlet and outlet piping etc complete as per the direction by engineer in charge.	As directed by Engineer in charge			
2022	Building	51.228.a	As directed by Engineer in charge	FL-100 for the catchment up to 110 sq.m. system size 90 mm diameter inlet, 63 mm diameter clean water outlet, 90 mm diameter drain outlet (filterain,tee,door bend, valve 63mm)	As directed by Engineer in charge	Number	7203	0
2023	Building	51.228.b	As directed by Engineer in charge	FL-150 for the catchment up to 150 sq.m. system size 90 mm diameter inlet, 75 mm diameter clean water outlet, 90 mm diameter drain outlet (filterain,tee,door bend, valve 63mm)	As directed by Engineer in charge	Number	9746	0
2024	Building	51.228.c	As directed by Engineer in charge	FL-200 for the catchment up to 225 sq.m. system size 110 mm diameter inlet, 75 mm diameter clean water outlet, 90 mm diameter drain outlet (filterain,tee,door bend, valve 75mm)	As directed by Engineer in charge	Number	10381	0
2025	Building	51.228.d	As directed by Engineer in charge	FL-300 for the catchment up to 350 sq.m. system size 110 mm diameter inlet, 90 mm diameter clean water outlet, 90 mm diameter drain outlet (filterain,tee,door bend, valve 90mm)	As directed by Engineer in charge	Number	14195	0
2026	Building	51.228.e	As directed by Engineer in charge	FL-500 for the catchment up to 500 sq.m. system size 110 mm diameter inlet, 90 mm diameter clean water outlet, 110 mm diameter drain outlet (filterain,tee,door bend, valve 90mm)	As directed by Engineer in charge	Number	20275	0
2027	Surveying	51.229	As directed by Engineer in charge	To carry out linear Drone survey agencies will use fully autonomous professional survey grade drone and in post process for aerial triangulation required ground control points and benchmarks will be collected by using survey grade dual frequency DGPS-PPK system. After post processing agency will deliver following final output. 1.Geotagged images in JPG format with resolution of 4-5cm/pixel with 70% overlap 2. GCP values in .CSV format. 3. 3D point cloud cover in .las format. 4. digital surface model (DSM) in .tiff format. 5. 2D orthorectified images in .t iff format with 5 cm resolution which gives capability to capture detailed features.	As directed by Engineer in charge	running kilometre	8500	0



Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
2028	Surveying	51.229a	As directed by Engineer in charge	To carry out polygon Drone survey agencies will use fully autonomous professional survey grade drone and in post process for aerial triangulation required ground control points and benchmarks will be collected by using survey grade dual frequency DGPS-PPK system. After post processing agency will deliver following final output. 1.Geotagged images in JPG format with resolution of 4-5cm/pixel with 70% overlap 2. GCP values in .CSV format. 3. 3D point cloud cover in .las format. 4. digital surface model (DSM) in .tiff format. 5. 2D orthorectified images in .tiff format with 5 cm resolution which gives capability to capture detailed features.	As directed by Engineer in charge	Square kilometre	22500	0
2029	Surveying	51.230	As directed by Engineer in charge	Scanning, Digitisation and Geo-referencing of cadastral /revenue maps and interpretation of all existing features like building, water bodies, rivers, agricultural field etc to generate base map. Creation of GIS platform by using orthorectified image and revenue data by Linking of textual data(7/12) which special data( Vector digitised maps). All will helps to analyse and identify all affected properties.	As directed by Engineer in charge	Square kilometre	4000	0
2030	Ceiling and roofing	51.231	As directed by Engineer in charge	FALSE CEILING SYSTEM GI METAL BIOGUARD CLIP IN PLAIN TILE WITH CARRIER SYSTEM 600 X 600MM Providing & Fixing horizontal level suspended ceiling comprising of GI Bioguard Clip-in Plain Tile 600x600mm (Nominal Size) tiles of 120 gsm galvanized steel as per IS 277 (2003) suitable for architectural finishes in 0.5mm thickness as per in IS:513 (1994) in Global white color with concealed suspension system having a bevelled edge of 3x3mm and height of 33mm on one side and 18mm on the other side. Tiles shall be flattened by precision leveller to minimize sag to less than 1/400mm. The tiles shall have double round pip of $\phi$ 2mm and $\phi$ 6mm for secure engagement and levelling respectively, along with swing down feature and special tabs to allow removal of tile to enable plenum access. The coated surface of the tile shall exhibit anti-microbial properties (eradication and inhibition of growth) and shall achieve up to 99.99% reduction in bacterial activity as per ISO22196:2011. The tile shall be electrostatically polyester powder coated using RoHS compliant powder having coating thickness ranging from 60-80 microns. The powder coating shall pass Salt Spray Test for 750 Hours as per ASTM B117, QUV –A Test for 1000hours as per ASTM G-154 – (Cycle – 1) and Humidity test for 1000hours as per DIN 50017. The powder coating shall have an adhesion of GT0 as per EN ISO 2409. The shade variation across batches shall be delta E<1 using Excite/BYK Gardner instrument and gloss level of 25±5% at 60° as per ASTM D523. The tile shall have scratch, mar & abrasive resistance properties. The tile shall have a Light Reflectance of $\geq$ 63% in accordance to ASTM 1477-98 and Fire Performance of class 0/1 as per BS 476 Part 6 & 7 in module size of 600x600mm. SUSPENSION & INSTALLATION: Shall comprise of 3000mm long ‘C’ channels of 38H x 12W mm and 1mm thick spaced at 1200mm centre to centre securely fixed to the structural soffit using threaded rod (Approved make/Third Party Supply) connecting to C-channel hanger of 109x18.5x16.5mm at 1200mm C/C and anchor fastener (Approved make/Third Party Supply). The last hanger at the end of each C-channel shall not be greater than 600mm from the adjacent wall. Use a C-channel connector of 99.5x35x 9mm for splicing together two pieces of C-channels. 4000mm Clip-in bar of 16W x 40H mm and 0.6mm thick made of galvanized steel of 140gsm as IS 277 (2003) and shall be spaced at 600mm centre to centre in a direction perpendicular to the C-channels and secured at every intersection with C-channel using a Clip-in bar hanger	As directed by Engineer in charge	Square Metre	2709	237

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
2031	Ceiling and roofing	51.232	As directed by Engineer in charge	<p>ACOUSTICAL WALL PANELLING – FABRIC WRAPPED OF SIZE: 600X600/1200X25MM</p> <p>Providing and Fixing of Acoustical Wall Panel with square edges made of fibre glass substrate 25mm thick, wrapped on the front side with an acoustically transparent fabric as per the approved shade (Husk, Copper, Sangria, Sesame, Coffee, Charcoal, Titanium, Flame, Peanut and Shell). The panel shall be classified for Fire Class A, as per ASTM E-84. The Acoustical Wall Panel shall be of sizes 600x600mm (Nominal) or 600x1200mm (Nominal) and shall achieve an NRC of 0.85 (Average value of Absorption Co-efficient readings taken at 250 Hz, 500 Hz, 1000 Hz and 2000 Hz) with 50mm airgap as per ASTM C423 to be fixed to wall on a framework of wooden battens and using Wall panel Impalers (supplied by the manufacturer) or by using construction adhesives (as per the instructions laid down by the manufacturer). The fibre glass substrate shall have a recycle content of 85%.</p> <p>Installation:An appropriate vapour barrier (by others) shall be applied/installed on the vertical surface before the installation to properly seal against entry of any moisture. Vapour barrier (by others) shall be installed as per Manufacturer’s recommendation. Install wooden batten grid (provided by others) of section 50x50mm or as approved by the Architect on the solid wall/partition to provide level and plumb surface. The Impalers shall be fixed to the battens using self-tapping screws, 3 nos. in case of 600x600mm and 4 nos. in case of 600x1200mm. Silica based construction adhesive (by others) to be dabbed on to the projecting elements (spikes) of the Impalers. Wall Panels shall be pierced through the spikes of the Impalers ensuring the line and level of the panels are maintained</p>	As directed by Engineer in charge	Square Metre	6545	0
2032	Ceiling and roofing	51.233	As directed by Engineer in charge	<p>CHANNELLED WALL PANELLING OF SIZE: 192X2400X15MM</p> <p>Providing and Fixing Channelled perforated panels of width 192mm, thickness of 15mm and length 2400 mm, made of a Moisture resistant fibre board substrate with a laminated facing as per the approved shade (Portland Maple, Sea Beech, Siam Wood &amp; Mystique Walnut, Interior White, Alumina Pearl) and a melamine balancing layer on the reverse side. The boards shall have a special perforation pattern where the reverse surface has a “Helmholtz” fluted perforation with consecutive 3mm wide groove followed by 13mm or 21mm of visible pane (G-13/ G-21). The edges of the panel shall be “tongue-and-grooved” to fix special clips for installation and seamless visual. The back of the perforated panel shall have sound absorbing non-woven Soundtex acoustical fleece hot pressed to achieve NRC of 0.5. for G-21 and 0.6 for G-13. (Average value of Absorption Co-efficient readings taken at 250 Hz, 500 Hz, 1000 Hz and 2000 Hz) as per ASTM C423 and Humidity Resistance (RH) of 70% with camber limit less than 1mm/1000mm and bow less than 1mm/300mm.The panels shall be mounted on special aluminium splines (keel) using inside clips provided by Manufacturer and approved by the Architect/ Engineer-in-Charge.</p>	As directed by Engineer in charge	Square Metre	4867	0

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
2033				<p>Installation: An appropriate vapour barrier (by others) shall be applied/installed on the vertical surface before the installation to properly seal against entry of any moisture. Vapour barrier (by others) shall be installed as per Manufacturer's recommendation. Install wooden batten grid (provided by others) of section 50x50mm or as approved by the Architect on the solid wall/partition to provide level and plumb surface for fixing Keel. Install Keel vertically using screws and plugs at spacing of not more than 600mm centre-to-centre. The first and last keel should not be more than 150mm from the ends. Trim the tongue of the first bottom panel and install using headless nail with groove side upward. Subsequent panels are installed with tongue side downward by engaging with each other using tongue and groove mechanism and secured by inside clip. Continue this process until required height is achieved. Shorter butt edges need to be joined using industrial/wood glue. The keel shall also be used for transition of the butt end of adjacent panel at every 7.2m. Install the Skirting (provided by others) of width 50mm or more as required by the Architect/ Engineer-in-Charge. Finish off the edges using wooden moulding of matching colour (by others). Installation should be carried out as per Manufacturer recommended procedure.</p>				
2034	Ceiling and roofing	51.234	As directed by Engineer in charge	<p>Providing &amp; Fixing Of Classic Axiom Perimeter Trim with 19mm face for perimeter solution of acoustical ceiling using appropriate Accessories</p> <p>Classic Vector Axiom (AX4VESTRI/ AX4VECURI xx) to offer perimeter solution with acoustical ceiling system. Classic Vector Axiom (AX2STR42I/ AX2CUR42Ixx) is made of extruded aluminum of O/L dimension of 19.3 x 100 x 3000mm. The inverted F- Shape section provides 2 flanges and 19mm face for resting of tiles. Classic Axiom must be powder coated in Global White. Profile to have engineered design boss for fitment of Tee bar connector, Splice plate Corner connector &amp; hanger clips. Classic Axiom (AX4VECURI xx) can be curved to a minimum radius of 600mm</p> <p>Axiom Splice Plate (AX4SPLICEI/AXSPLICEI): Formed to fit into special boss in the Axiom and locked in place with factory-installed screws. These Steel splice plates (AX4SPLICEI) are used to align and secure all joints between sections of Axiom trims. Corners are to be formed by mitering the end of axiom and splice plate (AXSPLICE) to be bent at right angle for connecting the end pieces.</p> <p>Axiom Tee-Bar Connection Clip (AXTBICI): Commercial quality G.I formed to fit into special boss of trim and locked in place by factory-installed screws and attached to (XL-24 / XL-15/Silhouette) suspension system members. T-Bar connection clips are used to attach the Axiom to the supporting Suspension system members. One clip is required at each location where the grid system intersects the Axiom trim.</p> <p>Hanging Grid Lines (AXHGLD): Axioms to be hung in accordance to the structural ceiling by engaging the</p>	As directed by Engineer in charge	Running metre	1196	0

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
2035	Furniture	51.235	As directed by Engineer in charge	Supply, fixing and installation of 4mm thick Aluminium Composite Panel (ACP) of approved colour for external cladding in combination of solid and metallic colours, including all necessary Framework, support and complete weather sealing as per architectural drawing. The Aluminium Composite Panel (ACP) should be made out of thermoplastic core of low-density polyethylene LDPE (100% virgin mix), sandwiched between two aluminium sheets of ALLOY GRADE- 5000 series, each not less than 0.50 mm thick, total thickness of aluminium composite panels not to be less than 4 mm, the exposed surface thereof shall have Stove lacquered finishing coat not less than (26 + - 2) micron (containing minimum 70% kynar 500 based PVDF) of colour and shade as per architectural design. The inside surface (facing the building exterior surface)shall have polyster based powder coating not less than 25 Micron with protective peel-off foil on the exterior face (peel off film will in no case leave any adhesive mark over the composite panel surface after it is peeled off). The supporting framework shall be made out of 50 mm X25mm X 3mm thick Aluminium section to be spaced horizontally and vertically for fixing of panel of size 900 mm X 1200 mm and fixed to the building structure as per design through 50mm X50mm X5 mm MS angle clamps prefixed to masonry or slab, columns with Hilti make anchor fastener screws. The fixing of panel to be done with the help of VHB tapes and screws and all the sealing of joints to be done with weather sealent Silicon as directed by Engineer-in-charge. (Prior permission of S.E. is necessary before inclusion of this item in estimate)	As directed by Engineer in charge	Square metre	3302	610
2036	Furniture	51.236	As directed by Engineer in charge	Supplying and fixing of 6mm thick Exterior Compact Laminate or High Pressure Laminate of approved colour by approving authority with UV resistant Decorative colour paper on both side typically made out of multiple layers of craft papers and then impregnated with thermosetting phenolic resins, on top of it melamine treated barrier paper and decorative paper and wear layer on both the sides saturated with melamine resins and then covered with UV resistant acrylic resin layer which makes it extremely durable and weather resistant compressed together on extremely high pressure and hardened with electron beam curing to get the total desired thickness of 6mm matching European standard specification as per EN 438 -part 6, protected with 60 Micron protective peel-off film on both side which in no case leave any adhesive mark over the panel surface after it is peeled off. Fixing of the same to be done on a supporting frame of 50 mm X 5 mm X 3 mm powder coated aluminium box section to be spaced horizontally and vertically in 600mm X 600mm grid and fixed to building structure as per design through 50mmX50mmX mm 5 mm MS angle bracket prefixed to masonry slab or columns with Hilti make anchor fastener along with all related hardware and fixtures. The panel should then be fixed on the Aluminium section with the help of pure polyester exterior grade colour coating rivets as per architectural drawings or as directed by Engineer-in-charge. Each panel should be riveted on substructure maintaining a gap of 6mm on all the sides between each Panel for Air circulation and expansion and contraction as per installation specifications provided by the manufacturer. The cost shall include all expenses related to storage, material handling, lifting, freight, labour, scaffolding etc as directed by Engineer-in-charge. (Prior permission of S.E. is necessary before inclusion of this item in estimate)	As directed by Engineer in charge	Square metre	5672	610

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
2037	Road furniture	51.237	As directed by Engineer in charge	Providing and Laying of 2 or more sets (6 Nos. each set) Dual Ribs Pattern Rumble Markings on roads with vehicular speeds of more than 50 Km/hr laid as per the spacing recommended for each set under Table 11.1 and Fig. 11.2 of IRC 35:2015 using Plastirib 2K, or equivalent 2 component cold plastic profiled material. Each Dual Rib pattern rumble marking shall have width of 500 mm. Each dual rib pattern rumble marking shall have 2 ribs each of Width of 60 mm and height 20 mm. Gap between two ribs shall be 300 mm. Each rumble marking shall be made complete with drop on Soild Plus reflective glass beads @ 300 gm / Square Metre spread throughout the surface of marking. The finished surface to be levelled, uniform and free from streaks and holes, including surface cleaning and cost of all materials etc. complete. as directed by Engineer-in-charge.	As directed by Engineer in charge	Square metre	4582	49

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
<b>SSR 2021-2022 :- New Items 2020-21</b>								
	Bridge cum Bhandara	52.01		Providing , constructing and fixing Precast M 30 grade Self Compacted Concrete of required thickness of curved section to serve as arch type bandhara as per the standard drawing , cast in suitable casting yard including cost of all basic materials ,labour , charges for casting formworks, TMT ( Fe -500) reinforcement as per standard drawings required for arches only , casting of end pillars and bottom haunch as per drawing at site ,transportation of arch segment to site from casting yard , unloading and erecting the same at site to make arch shape Bandhara , filling joints of Arch segment with M-30 grade self compacted concrete at site , providing waterproofing impermeable geotex membrane at joints as per standard drawings and providing all requisite safety measure during casting and erecting the arches (excluding transporation of basic material from quarry / market ) etc complete.				
2038		a		a) 125 mm Thick precast ( For span Upto 6.50 M )	As directed by Engineer in charge	Square meter	3849	1155
2039		b		b) 150 mm Thick Precast ( For Span above 6.50 m to 10.00 m)	As directed by Engineer in charge	Square meter	4337	1301
	Bridge cum Bhandara	52.02		Providing and casting in stu RCC M 30 grade Self Compacted Concrete of required thickness for arch type bandhara as per the standard drawing including cost all basic material ,labour , including cost of formworks, TMT ( Fe500 ) reinforcement as per standard drawings required for arches only , casting of end pillars and bottom haunch as per drawing to make arch shape Bandhara , providing waterproofing impermeable geotex membrane at joints and providing all requisite safety measure during construction of the arches (excluding transporation of basic material from quarry / market) etc complete.				
2040		a		a) 150mm Thick ( For span Upto 6.50 M )	As directed by Engineer in charge	Square meter	4179	1254
2041		b		b) 200 mm Thick ( For Span above 6.50 m to 10.00 m)	As directed by Engineer in charge	Square meter	4976	1493
2042	Bridge cum Bhandara	52.03		Appointing Expert /Professional Consultant for selection of Bandhara sites upto 100 m length having minimum 2 visits per bandhara , noting the broad features like span, height, type of foundation, special features specific to the site to come to the conclusion of adopting standard design & drawing, checking suitability of site, finalizing site for construction of Bandhara and submitting the observation note accordingly to Department. ( Transportation from Regional Head quarter to actual site and accomodation at site / Taluka head quarter / District Headquarter is not included in this item and it shall be paid separately wherever necessary.)	As directed by Engineer in charge	Per Site	7000	0

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
2043	Bridge cum Bhandara	52.04		Detailed survey for bandhara - Taking longitudinal section of stream extending 1.20 km on upstream and downstream side of the bandhara site, taking cross sections at every 100 m interval of the stream on upstream side, taking bed slope of stream and other details, taking 3 trial pits 1.00 m x 1.00 m x 3.00 m, plotting details of stratification indicating type of soil/rock, preparation of detailed survey data including preparation of hydraulic design including calculations for afflux, height of the weir and storage capacity of bandhara etc., obtaining the village map and studying the land width of nalla, make a preliminary assessment of likely storage of nalla with nalla training as per width shown in village map, marking on village map the locations of existing wells, bore wells within radius of 1.5 km by total station and also depth of water and borewell depth, identifying the maji malgajari tanks or other lakes owned by Govt. within radius of 3 km, assessing the radial distance and plan area as per village map, preparing detailed plans referring the std. design & drawing and preparing detailed estimate as per approved SSR in 3 copies and submitting the project duly typed along with relevant drawings in hard and soft copies in CD / Pen Drive etc. as required by the Department.	As directed by Engineer in charge	Per No	126012	0
2044	bambusa bamboos item	52.05		Providing and constricting Rammed Earth walls built out of normal compacted soil with temporary steel formwork, similar to one for concreting, has to be erected; soil is placed into the framework and compacted. Soon after finishing compacting, the formwork can be removed. The ideal soil for this kind of building consists in a good mix of different sizes of granularity, from clay (about 10-40%) to silt (about 10-40%) to sand (about 35-65%) and even very fine gravel. Top soil and organic soil have a strong smell of moldy, especially when fresh or humid are not suitable for building. The mix for rammed earth wall shall consist of soil, sand and cement / lime (5% to 8%) as binding material. The minimum thickness shall be around 35cm, mainly to allow stability and thermal mass. The work must got done under supervision of an experience Mason including necessary scaffolding, formwork, labour, material and finishing etc. complete.	As directed by Engineer in charge	Cum	11300	6540
2045	bambusa bamboos item	52.06		Providing and fixing Bamboo Shingle roofing with top layer of Bamboo shingles, made of flattened CCB pressure treated bamboo of 50-100mm dia and in size of 450mm x150mm and 3 to 5 mm thick laid over bamboo battens of minimum 25mm thickness, perpendicular to rafter/Beam at spacing of 150mm c/c including laying of bituminous sheet 3 mm thick and minimum overlap of 300 mm placed over sub-purling which is laid parallel to main rafter /beam consisting of 50mm dia not less than 3m length at spacing of 300mm c/c on treated Bamboo woven matt of approved design made out of thin Bamboo strips, supported by CCB treated Bamboo purlins of min dia 50mm not less than 3m length at spacing of 300mm c/c and WPC sheet 6 mm thick, junction details as per drawing and design including all Bamboo accessories like CCB treated Shingles, antiabrasive fire retardant coating (top and bottom surfaces of roofing system as directed by Engineer in Charge), Bamboo, bamboo mats, SS clamps, nails, Screws, including required scaffolding and cost of labour material with all lead & lifts and machinery & equipment charges, etc complete.	As directed by Engineer in charge	Square meter	10150	1100

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2046	bambusa bamboos item	52.07		Providing and fixing in position Phenol bonded Bamboo wood flooring with planks of sizes 14mm thick, 1800 mm length (minium) and 130 mm wide (minimum), in approved colour, texture and finish, having Performance Appraisal certified (PAC) issued by Building Materials & Technology Promotion Council (BMTPC). The flooring shall be fixed with tongue and groove interlocking system, with underlayment of 4mm thick expanded poly ethylene foam sheets having density 40kg/One Cubic metre, over prepared surface with necessary quarter round planks of size 1900mm x 18mm and door reducer of size 1900mm x 44mm, wherever required. The bamboo wood planks shall have minimum density of 1000 kg/One Cubic metre & minimum Hardness 1000kgf. with Eco friendly UV coating, all complete as per direction of Engineer in -charge. Ground floor	As directed by Engineer in charge	Square meter	5006	64
2047	bambusa bamboos item	52.08		Providing & fixing in position Phenol bonded Bamboo wood partition 60mm thick at all height with planks of size 10mm thick, 1800mm length ( minimum) and 130mm ( minimum), in approved colour, texture and finish, on both side having Performance Appraisal Certificate (PAC ) issued by Building Material & Technology Promotion Council (BMTPC), with necessary profiled edges fixed with 40 mm SS screws 5nos in each tile to frame made of second class teak wood of size 40 x 40 mm in center of each tiles and bottom / top of work height. The bamboo wood planks shall have minimum density of 1000kg / cum & minimum Hardness 1000kgf. with Eco friendly UV coating, all complete as per direction of the Engineer in -charge.	As directed by Engineer in charge	Square Metret	9650	110
2048	bambusa bamboos item	52.09		Providing & fixing after cutting in proper size & shape bamboo pole of Dentreocalamus stocksii with minimum wall thickness of 10 mm of size 50 mm(+/- 5 mm) diameter (i.e., 50mm dia. in bottom & top dia. should be 35mm & average dia. should not be less than 40mm & taper length should not more than 2.5mm per Rmt), which is well seasoned by freshly cut canes including treatment with preservative inside the bamboo pole & dosing with CCB (Chromium Copper Bromate) using pressure vacuum treatment plant with retention level of minimum 8% and in accordance with IS 9096. These bamboos are used for making beams & columns including bending of bamboos, joining, bunching of bamboos, assembly and its installation as per design using bamboo pegs (45 degree), SS Studs fixed with nuts & bolts (304 grade), GI plates coated with epoxy coating, including transportation & cost of material, antiabrasive fire retardant coating before bunching of bamboos( Two coats before bunching and final coat after complete installation as directed by Engineer in Charge) , necessary scaffolding with all lead, lift, machinery & equipment charges, etc. complete, as directed by the Engineer in charge	As directed by Engineer in charge	Running metre	1225	571
2049	bambusa bamboos item	52.1		Providing and fixing in roof system after cutting in proper size and shape Griha Certified WPP sheet made of wood polymer composite - WPC) of thickness 6mm, density more than 550 kg/cum, having proper screw holding capacity. This board shall not be pasted with treated bamboo mats and fixed over bamboo purlins with SS Nails/SS Screws. The bamboo mat design visible from below may be hapazard. The rates shall be including trasportation, cost of WPC Board and all fixtures and fastenings with necessary scaffolding with all lead and lift, machinery and equipment charges etc. complete as directed by Engineer in charge.	As directed by Engineer in charge	Square meter	1430	208



Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
2050	bambusa bamboos item	52.11		Supply & Application of Fire retardant Polish with Fire Retardant sealer field coat of approved make & one, two or three coats. Top Coat to provide class-I surface spread of flame as per BS:476 Part 6 & 7 and IS-12777 in clear shade including cleaning, injecting of fire retardent sealer and preparation of surface including transportation and cost of material, necessary scaffolding with all lead, lift, machinery & equipment charges, etc. complete as per instructions of Engineer-In-Charge/Manufacturers specification,3- Apply Two coats of fire retardant clear solvent based top coat which specific gravity should be 0.97 in regular 4-6 hour duration	As directed by Engineer in charge	Square meter	1512	195
2051	Waterproofing	52.12		Waterproofing Treatment to new terrace by using Polymeric Cementitious Membrane as approved by Engineer in charge, followed by 112mm thick brick bat coba covered with 20 mm mortar finish. If there are cracks on the bare slab, open the crack in V Groove and fill it with ready to use repair polymer modified mortar based on special cements, aldehyde based polymers with thixotropy modifying agents. If there are lots of honeycombs and identified bad patches of concrete the same should be grouted as per the instructions of site incharge. (The grouting shall be paid separately). Clean the entire surface thoroughly and over this prepared surface, apply three coats of polymeric Cementitious waterproofing coating having a non-toxic, 2-(methoxycarbonyl)-1-propene-Butyl-2 propenoate (MPBP) based polymeric waterproofing solution as approved by Engineer in charge. Provide and lay 112 mm average thicknes of brick bat coba in cement mortar 1:5 over 12mm thick CM 1:3 bedding with one pouch of 330 grams of thorough blend of special cements, aldehyde based polymers, shrinkage compensating agents as approved by Engineer in charge per 50 Kg bag of cement and finishing with 20 mm thick cement plaster in cement mortar 1:3 by mixing one 330 grams pouch of above admixture per 50 Kg bag of cement, including all lead, lifts and laid to proper slope to drain off water entirely preparing bell mouth including watta, beveled or champhered portion at the junction of parapet and work up to a height of 300 mm or as directed and including finishing the top layer of waterproofing treatement with false marking of 30 cm x 30 cm or as directed, curing and covering the whole treatment. MPBP Polymeric Waterproofing Coating for Concrete and Masonry should have following minimum properties: (1) Elongation % (ASTM D412-2016): @ 100% (2) Tensile Strength N/mm2 (ASTM D412-2016): 3.3 (3) Specific Gravity: 1.02 ± 0.02 (4) Total Solids (ASTM D1644-2012): 43.98 (5) Hardness Shore A (ASTM D2240-2015): 82	As directed by Engineer in charge	Square Metre	1510	817

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2052	Waterproofing	52.13		Waterproofing Treatment to new Toilet/bathroom by using Polymeric Cementitious Membrane as approved by Engineer in charge, followed by 112mm thick brick bat coba covered with 20 mm mortar finish. If there are cracks on the bare slab, open the crack in V Groove and fill it with ready to use repair polymer modified mortar based on special cements, aldehyde based polymers with thixotropy modifying agents. If there are lots of honeycombs and identified bad patches of concrete the same should be grouted as per the instructions of site incharge. (The grouting shall be paid separately). Clean the entire surface thoroughly and over this prepared surface, apply three coats of polymeric Cementitious waterproofing coating having a non-toxic, 2-(methoxycarbonyl)-1-propene-Butyl-2 propenoate (MPBP) based polymeric waterproofing solution as approved by Engineer in charge. Provide and lay 112 mm average thicknes of brick bat coba in cement mortar 1:5 over 12mm thick CM 1:3 bedding with one pouch of 330 grams of thorough blend of special cements, aldehyde based polymers, shrinkage compensating agents as approved by Engineer in charge per 50 Kg bag of cement and finishing with 20 mm thick cement plaster in cement mortar 1:3 by mixing one 330 grams pouch of above admixture per 50 Kg bag of cement, including all lead, lifts and laid to proper slope to drain off water entirely preparing bell mouth including watta, beveled or champhered portion at the junction of wall and work up to a height of 300 mm or as directed and including finishing the top layer of waterproofing treatement with false marking of 30 cm x 30 cm or as directed, curing and covering the whole treatment. MPBP Polymeric Waterproofing Coating for Concrete and Masonry should have following minimum properties:1) Elongation % (ASTM D412-2016): @ 100% 2) Tensile Strength N/mm2 (ASTM D412-2016): 3.3 3) Specific Gravity: 1.02 ± 0.02 4) Total Solids (ASTM D1644-2012): 43.98 5) Hardness Shore A (ASTM D2240-2015): 82	As directed by Engineer in charge	Square Metre	1510	817

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
2053	Waterproofing	52.14		<p>Waterproofing treatment to new terrace by using chlorinated paraffinated talcum polyurethane (CPTP) elastomeric membrane as approved by Engineer in charge, followed by average 112mm thick brick bat coba covered with 40mm thick IPS.</p> <p>The procedure includes filling of cracks on the RCC slab with high performance polyurethane (liquid applied) membrane. Clean the entire surface thoroughly and over this prepared surface, apply a primer coat of high performance polyurethane (liquid applied) membrane as approved by Engineer in charge. Apply the primer by roller. Extend the coating to parapet walls including the top of parapet. Allow the primer coat to set for 24 hrs. After the primer coat is set, apply two coats of chlorinated paraffinated talcum polyurethane (CPTP) elastomeric membrane as approved by Engineer in charge on surface. Ensure that pinholes are touched up properly. While the second coat of high performance polyurethane (liquid applied) membrane is wet and tacky, sprinkle coarse sand over the surface to make it rough and provide mechanical key for further treatment. Provide and lay average 15 mm thk protective coat of CM in 1:4 over the surface and allow to set and cure. Provide and lay 112 mm thk BB coba in average thickness in cement mortar 1:5 with one pouch of thorough blend of special cements, aldehyde based polymers, shrinkage compensating agents and selected sands having high abrasion resistance as approved by Engineer in charge per 50 Kg bag of cement and finishing with 40 mm thick IPS layer in M-20 CC by mixing one pouch of 330 grams of thorough blend of special cements, aldehyde based polymers, shrinkage compensating agents per 50 Kg bag of cement, including all leads, lifts and laid to proper slope to drain off water entirely preparing bell mouth including watta, beveled or champhered portion at the junction of parapet and work up to a height of 300 mm or as directed and including finishing the top layer of waterproofing treatment with false marking of 30 cm x 30 cm or as directed, curing and covering the whole treatment. The liquid membrane should have a track record of atleast 4 years in India &amp; Gulf region and have atleast an 4 year track record in PWD. Single Component, Liquid Applied, chlorinated paraffinated talcum polyurethane (CPTP) elastomeric membrane should have following minimum properties: 1) Water Permeability (DIN 1048): Nil as per DIN 1048 @ 7 bar of Hydrostatic Pressure. 2) Moisture Permeability: &lt; 0.4 g/m2/day 3) Accelerated Weathering (IS 101): 2000 hrs No cracking or blister formation 4) Adhesion to concrete (ASTM D 1000): &gt;21 Kg/cm2 (Concrete Failure) 5) Tensile Strength &gt; 2.0 MPa (ASTM D412) 6) Should not be water soluble or water</p>	As directed by Engineer in charge	Square Metre	3003	817

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
2054	Waterproofing	52.15		<p>Waterproofing treatment to new terrace by using chlorinated paraffinated talcum polyurethane (CPTP) elastomeric membrane as approved by Engineer in charge, followed by average 112mm thick brick bat coba covered with 40mm IPS.</p> <p>The procedure includes filling of cracks on the RCC slab with chlorinated paraffinated talcum polyurethane (CPTP) elastomeric membrane. Clean the entire surface thoroughly and over this prepared surface, apply a primer coat of CPTP admixed appropriately in dimethyl benzene Primer as approved by Engineer in charge. Apply the primer by roller. Extend the coating to parapet walls including the top of parapet. Allow the primer coat to set for 24 hrs. After the primer coat is set, apply two coats of continuous chlorinated paraffinated talcum polyurethane (CPTP) elastomeric membrane as approved by Engineer in charge on surface. Ensure that pinholes are touched up properly. While the second coat of CPTP is wet and tacky, sprinkle coarse sand over the surface to make it rough and provide mechanical key for further treatment. Provide and lay average 15 mm thk protective coat of CM in 1:4 over the surface and allow to set and cure. Provide and lay 112 mm thk BB coba in average thickness in cement mortar 1:5 with one pouch of thorough blend of special cements, aldehyde based polymers, shrinkage compensating agents - which is based on special cements, aldehyde based polymers, shrinkage compensating agents and selected sands having high abrasion resistance as approved by Engineer in charge per 50 Kg bag of cement and finishing with 40 mm thick IPS layer in CC M – 20 by mixing one pouch of 330 grams of thorough blend of special cements, aldehyde based polymers, shrinkage compensating agents per 50 Kg bag of cement, including all lead, lifts and laid to proper slope to drain off water entirely preparing bell mouth including watta, beveled or champhered portion at the junction of parapet and work up to a height of 300 mm or as directed and including finishing the top layer of waterproofing treatment with false marking of 30 cm x 30 cm or as directed, curing and covering the whole treatment. Single Component, Liquid Applied, chlorinated paraffinated talcum polyurethane (CPTP) elastomeric membrane should have following minimum properties: 1) Specific Gravity: 1.30 ± 0.1 2) Elongation %: &gt;600 3) Tack Free Time: 24-48 hrs 4) Tensile Strength N/mm2: 2.1 5) Shore Hardness: 40 ± 5</p>	As directed by Engineer in charge	Square Metre	2102	817

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
2055	Waterproofing	52.16		Removing loose rust from the reinforcement bars by wire brushing, light hammering etc. and applying sulphate and chloride free inorganic single component rust remover Rusticide as approved by Engineer in charge conforming to IS 9077. The rusted surface shall become blackish non rusted colour. After 24 hours of application of rust remover, loose particles shall be removed by brush. Apply one more coat of Rusticide. Apply bonding coat slurry of high performance acrylic polymer - Methyl 2-methylpropenoate copolymer with another enoate as approved by Engineer in charge on entire surface. Mix 1 Kg of acrylic polymer with 0.5 Kg of cement. Finish it with ready to use repair polymer modified mortar based on special cements, aldehyde based polymers with thixotropy modifying agents as approved by Engineer in charge (The Polymer Modified Mortar (PMM) should attain min. compressive strength of 20 N/mm2 in 1 day and 30 N/mm2 in 7 days) by adding 13 - 16% water by weight of polymer modified mortar for treatment to the damaged RCC members. Add 1 Kg of Migrating Corrosion Inhibiting Admixture as approved by Engineer in charge per 25 Kg bag of polymer modified mortar. After mixing polymer modified mortar, it can be trowel applied or sprayed. When applying by hand, polymer modified mortar must be forced tightly into the substrate to ensure complete contact with the substrate. (If scaffolding is required, same shall be provided and will be paid under relevant item) (Upto 15 mm thickness at a time).	As directed by Engineer in charge	Square Metre	2184	420
2056	Waterproofing	52.17		Removing loose rust from the reinforcement bars by wire brushing, light hammering etc. and applying sulphate and chloride free inorganic single component rust remover Rusticide as approved by Engineer in charge conforming to IS 9077. The rusted surface shall become blackish non rusted colour. After 24 hours of application of rust remover, loose particles shall be removed by brush. Apply one more coat of Rusticide. Apply bonding coat slurry of high performance acrylic polymer - Methyl 2-methylpropenoate copolymer with another innovate as approved by Engineer in charge on entire surface. Mix 1 Kg of acrylic polymer with 0.5 Kg of cement. Finish it with ready to use repair polymer modified mortar based on special cements, formaldehyde based polymer with thixotropy modifying agents as approved by Engineer in charge (The Polymer Modified Mortar (PMM) should attain min. compressive strength of 20 N/mm2 in 1 day and 30 N/mm2 in 7 days) by adding 13 - 16% water by weight of polymer modified mortar for treatment to the damaged RCC members. Add 1 Kg of Migrating Corrosion Inhibiting Admixture as approved by Engineer in charge per 25 Kg bag of polymer modified mortar. After mixing polymer modified mortar, it can be trowel applied or sprayed. When applying by hand, polymer modified mortar must be forced tightly into the substrate to ensure complete contact with the substrate. (If scaffolding is required, same shall be provided and will be paid under relevant item) (15-30 mm thickness at a time).	As directed by Engineer in charge	Square Metre	1457	202

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
2057	Waterproofing	52.18		For Strengthening of concrete RCC, Columns, Beams, Slabs, Foundation etc. Execute the work as follows. Remove dust, laitance, grease, oil, curing compounds, waxes, foreign particles, coatings and disintegrated materials by mechanical means (i.e., blast cleaning). Empty entire pre-packed and pre-weighed contents of 'B' Component into pail containing 'A' Component. Mix for 30 seconds with a low speed stirrer. (400-600 rpm). After proper mixing of component 'A' and 'B', now empty entire pre-packed and pre-weighed part 'C' component into the mix and using a mechanical stirrer mix all the components for 1-3 minutes with a low speed stirrer (400 to 600 rpm). Caution: Mix only that limited quantity which can be placed within the pot life. Material should be quickly brushed/ poured from pail onto concrete surface to obtain prolonged working life. Inspect the underside for evidence of full depth cracks that may require additional treatment to prevent draining of the resin. Cracks greater than 1/8" width should be repaired individually. Fill 1/8" or larger cracks with loose sand and pour small quantity of mixed 2-(methoxycarbonyl)-1-Propene Resin Sealer Cum Grout as approved by Engineer in charge into the crack, allow to cure. The above Material is spread evenly on the surface as a flood coat with a squeegee or rollers on horizontal and vertical surfaces and allowed to absorb completely into the concrete substrate. Drill injecting holes to a depth of 2 - 4" in concrete depending upon the width of crack, extent of damage and dimension of structural element. Fix the grouting nozzle and inject the mixture of 2-(methoxycarbonyl)-1-Propene Resin Sealer Cum Grout at pressure of 50 - 100 psi. (Rate for fixing nozzle is not included in this item). Low Viscosity, Transparent, Three Component, 2-(methoxycarbonyl)-1-Propene Resin Sealer Cum Grout should have following minimum properties: 1. Viscosity: < 5 cps 2. Flexural Strength (ASTM D-790): 1 day - 17.2 MPa 3. Bond Strength (ASTM C-882): 2 days - 14.4 MPa (Dry Cure); 14 days - 15.8 MPa (Moist cure) 4. Volume Solids %: ~100 It shall be applied as per manufacturer's specification. (If scaffolding is required, same shall be provided and will be paid under relevant item) (Coatings and Grouting Items shall be separate)	As directed by Engineer in charge	Kilo Gram	1958	1009

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
2058	Waterproofing	52.19		Providing and applying one coat of thiazolinones (TZ) based Microbial Wall Wash and Anti-rooting Solution treatment as approved by Engineer in charge to entire surface of external wall. At the junction of chajja and wall and also on the parapet wall top, give a coat of anti fungal treatment. Cracks, if any, shall be filled with acrylic polymeric non-shrink crack filler putty as approved by Engineer in charge, before giving waterproofing treatment to the external surfaces. This is followed by one coat of 2-(methoxycarbonyl)-1-propene-Butyl-2 propenoate (MPBP) based polymeric waterproofing solution as approved by Engineer in charge, having a non-toxic acrylic polymer liquid and white cement mix in proportion 1:1 by weight with coat interval as 24 hours. Air curing shall be done for 24 hours. Before giving this treatment the entire surface of wall shall be thoroughly cleaned to remove existing paint, dust, dirt, oil etc. After the waterproofing treatment is cured, provide and apply two coats of titanium dioxide based 2-(methoxycarbonyl)-1-propene-butyl-2 propenoate (TMPBP) emulsion, heat insulating, waterproofing exterior coating as approved by Engineer in charge in the desired shade. The inter-coat gap to be 24 hours. The rate shall include complete treatment mentioned above. 100% Acrylic, Decorative, Waterproofing, Heat Insulating, Exterior Coating, Anticarbonation Coating should have following minimum properties: 1. Specific Gravity: $1.3 \pm 0.1$ at 25°C 2. pH: 7.0 to 10.00 3. Viscosity: 18 to 30 sec. at 25°C by Ford Cup No. B-4 (Dilute 2 parts of product with 1 part of water) (If scaffolding is required, same shall be provided and will be paid under relevant item)	As directed by Engineer in charge	Square Metre	381	205
2059	Waterproofing	52.20		Providing and fixing zinc alloy based galvanic disk type sacrificial anodes (50 mm dia, 18 mm thick) as approved by Engineer in charge to the reinforcement, that should have a 3 years track record of use in PWD projects, 4 year track record in corrosive region of abroad and pass 500 hours salt spray test as per ASTM B 117. The anode shall be connected to the reinforcement steel by connectors provided with the anode. Sacrificial Galvanic Anode should have following minimum properties: 1. Base: Zinc Alloy 2. Conformance: ASTM B 418 Type II 3. Zinc Mass: Min 40 g per anode 4. Geometry: Disc Type 5. Diameter: 50 mm 5. Height: 18 mm 6. Surface Area: 6751 sq mm It shall be applied as per manufacturers specification. (If scaffolding is required, same shall be provided and will be paid under relevant item)	As directed by Engineer in charge	Square Metre	1085	34

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
2060	Waterproofing	52.21		<p>Make the surface clean of loose particles, dirt, dust, oils, and paints etc. by wire brush. Remove all laitance from surface. On the entire clean surface, apply a coat of Ter polymer of enoates of 2-(methoxycarbonyl)-1-propene-Butyl-2 propenoate (MPBP) and propenonitrile as approved by Engineer in charge and cement (1:0.25) by spray or ordinary cement brush. Fill up all bug holes with above slurry. Apply slurry generously on entire surface without pinholes. Similar treatment to be given to other block surface immediately. Place coated area of one block over coated area of another block immediately after application. Polymeric bonding agent to be used for AAC Block to AAC Block &amp; CC Brick Block to CC Brick Block should have following minimum properties:</p> <p>1. Base: Polymeric Emulsion  2. Specific Gravity: <math>1.03 \pm 0.02</math>  3. pH Value: 7.5 - 8</p> <p>It shall be applied as per manufacturer's specification.  (If scaffolding is required, same shall be provided and will be paid under relevant item)</p>	As directed by Engineer in charge	Square Metre	159	29
2061	Waterproofing	52.22		<p>It is ready to use inorganic, bio compatible, low viscosity, non hazardous, soil stabilizing two component colloidal silica base chemical grout. Providing and carrying out this grouting to stabilize the strata above the tunnel, foundations, cutting slope stabilization and sub structures by using ultimate fine Nano grout as approved by Engineer in charge. Drill injecting holes to required depth in loose soil strata. Fix the grouting pipes. Grout must be continuously stirred during addition of accelerator and fully mixed to transparent solution prior to grouting into the soil/strata. No white precipitates should remain in the grout mix. This is ultimate fine grouting can be completed by Nano grout. Solvent Free, Inorganic, Hydrophilic, Non-hazardous, Low Viscosity Chemical Grout for Stabilization and Consolidation of Sandy/Silty Soil should have following minimum properties:</p> <p>Grout: (Rate for fixing nozzle is not included in this item).  1) Specific Gravity: <math>1.2 \pm 0.1</math> 2) pH: <math>11.3 \pm 0.1</math> 3) Viscosity in B4 Ford cup at 28°C: 12-15 sec</p> <p>Accelerator:  1) Specific Gravity: <math>1.07 \pm 0.01</math> 2) pH: <math>7.0 \pm 0.1</math> 3) Viscosity in B4 Ford cup at 28°C: 10-12 sec</p> <p>Sungeogrout Mix:  1) Specific Gravity: <math>1.2 \pm 0.1</math> 2) Viscosity in B4 Ford cup at 28°C: 12-15 sec</p> <p>It shall be applied as per manufacturer's specification.  (If scaffolding is required, same shall be provided and will be paid under relevant item)</p>	As directed by Engineer in charge	Kilo Gram	618	342



Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
2062	Waterproofing	52.23		<p>Waterproofing Treatment to plastered surface of toilet &amp; bathroom walls minimum up to 90 cm (Dado) by using 2-(methoxycarbonyl)-1-propene-Butyl-2 propenoate (MPBP) based polymeric waterproofing solution as approved by Engineer in charge. Clean the entire surface thoroughly and over this prepared surface, apply three coats of 2-(methoxycarbonyl)-1-propene-Butyl-2 propenoate (MPBP) based polymeric waterproofing solution as approved by Engineer in charge. While the 3 coat is wet broadcast sand on the surface. Provide 20 mm thick cement plaster in CM 1:3 with one pouch of 330 grams of thorough blend of special cements, aldehyde based polymers, shrinkage compensating agents as approved by Engineer in charge per 50 Kg bag of cement including all lead, lifts, curing etc complete. Acrylic Polymeric Waterproofing Coating for Concrete and Masonry should have following minimum properties:</p> <ol style="list-style-type: none"> <li>1. Elongation % (ASTM D412-2016): @ 100%</li> <li>2. Tensile Strength N/mm<sup>2</sup> (ASTM D412-2016): 3.3</li> <li>3. Specific Gravity: 1.02 ± 0.02</li> <li>4. Total Solids (ASTM D1644-2012): 43.98</li> <li>5. Hardness Shore A (ASTM D2240-2015): 82</li> </ol> <p>It shall be applied as per manufacturer's specification.</p>	As directed by Engineer in charge	Square Metre	439	187
2063	Waterproofing	52.24		<p>Providing &amp; mixing liquid internal curing compound which is based on water soluble oxyethylene polymer (OEP) for RCC, Shotcrete, mortar. The liquid shall be conforming to AS 3799 -1998 for curing efficiency not less than 90% &amp; capable of improving workability, pumpability, impermeability, full hydration of all types of cement essential for optimum strength development. The dose of liquid shall be average 1.25 % by weight of cement. The liquid is to be mixed with gauging water while mixing the concrete/motar/shotcrete.</p>	As directed by Engineer in charge	Litre	525	58

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
2064	Waterproofing	52.25		Clean the existing surface / terrace thoroughly to remove dirt, loose particles, laitance etc. For emergency waterproofing of existing terrace. Use a vacuum cleaner or high pressure jet or wire brushing as per requirement. Examine the surface closely for any cracks. Fill it with acrylic polymeric non-shrink crack filler putty as approved by Engineer in charge a pure aliphatic, acrylic, polymer modified ready to use paste. After filling, allow the surface to dry for atleast 24 hrs. If the depth of the crack is more than 2-3 mm apply in layers at intervals. Moisten the surface with a water jet one day prior to the application of waterproofing coating. Mix 1 part of 2-(methoxycarbonyl)-1-propene-Butyl-2 propenoate (MPBP) membrane as approved by Engineer in charge and 1 part of grey cement by weight using a low speed mechanical stirrer to form slurry lump free consistency. Apply this as a primer coat of 2-(methoxycarbonyl)-1-propene-Butyl-2 propenoate (MPBP) membrane as approved by Engineer in charge. Apply the same slurry by roller at 24 hrs interval between the applications of each coat. Extend the coating to parapet walls. Allow the primer coat to set for 24 hrs. After the primer coat is set, apply two coats of pure enoate based polymer titanium dioxide based 2-(methoxycarbonyl)-1-propene-butyl-2 propenoate (TMPBP) and 2-(methoxycarbonyl)-1-propene-Butyl-2 propenoate (MPBP) of waterproof coating as approved by Engineer in charge on surface. Ensure that no pinholes are let untouched. Allow the membrane to cure for 24-48 hours. Single Component, UV Resistant, Elastomeric, High Build Waterproof Coating (Confirming to DIN 1048) should have following minimum properties: 1) Elongation % (ASTM D 638): @ 400% 2) Tensile Strength (ASTM D 412): 150 psi 3) Water Permeability (DIN 1048): Zero 4) Solids: > 65% 5) pH: 8.5 - 10.5	As directed by Engineer in charge	Square Meter	703.95	194.62
2065	Waterproofing	52.26		Providing Water proofing treatment to old terraces by removing existing treatment, sealing of cracks by non shrink crack fill compound applying first coat of polymer modified semi-viscous paste prepared by mixing polymer of approved make and Cement in 1 : 2 proportion (1 litre polymer : 2 Kg Cement )or Rohnex water proofing system in two coats(1kg powder,700 ml water and polymer jelly for first coat & 1 kg powder,500 ml water & polymer jelly for second coat) to a neatly cleaned and dust free concrete surface and upto 300 mm over parapet wall prepared by removing loose and deposited material with brush and water, followed by two coat of flexible cementitious coating of approved make after laying glass fibre mesh of 10 x 10 specification of approved make over tacky surface of first coat of polymer followed by second coat in transverse direction, sprinkling coarse sand over it, followed by protective mechanical cover of 40 mm to 75 mm. thick cement concrete of 1:2:3 proportion using coarse aggregate of 10 MSA and water proofing compound of approved make along with 14 guage 40 mm x 40 mm size welded mesh and and polypropylene fibres @ 125 gm per bag of cement within it conforming to IS in pannels of 3m/4m or as per site condition & filling the joints with polt sulphide sealant(0.12 kg per sq.mt.) after curing, including providing holler with drip moulds at the junction and finishing the concrete surface with neat cement slurry including curing as directed and ponding the surface as directed etc. complete; covering 10 years guarantee against leakproofness on Court Fee Stamp Paper of Rs. 100/-	As directed by Engineer- in-charge.	Square Meter	1909	244

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
2066	Waterproofing	52.27		Providing water proofing treatment to newly laid fully cured concrete slab of terraces by applying first coat of polymer modified semi - viscous paste prepared by mixing polymer of approved make chemical and Cement in 1:2 proportion (1 litre polymer : 2 Kg Cement)or Rohnex water proofing system in two coats(1kg powder,700 ml water and polymer jelly for first coat & 1 kg powder,500 ml water & polymer jelly for second coat) to a neatly cleaned and dust free concrete surface and upto 300 mm over parapet wall prepared by removing loose and deposited material with brush and water, laying glass fibre mesh of 10 x 10 specification of approved make over tacky surface of first coat of polymer followed by second coat in transverse direction, laying mechanical protective cover to polymer coating treatment with brick bat coba with burnt broken brick bats laid in C.M. 1:5 admixed with approved water proofing compound filling up to half depth of brick bats, curing this layer for 3 days, applying cement slurry over this layer, joints of Brick Bats with C.M. 1:3 admixed with approved water proofing compound and finally top finishing with average 20mm thick layer of same mortar added with polypropylene fibers at 125 gm per bag of cement including finishing the surface smooth with neat cement slurry admixed with approved water proofing compound, Marking finished surface by false squares of 300 mm x 300 mm, Making the junctions at the parapet rounded and tapered top for required height, with drip mould at the junction of plaster and parapet and curing and covering 10 years Guarantee against leakproofness on court fee stamp paper Rs. 100/- including ponding test etc. complete	As directed by Engineer in Charge	Square Meter	1214	199
2067	Waterproofing	52.28		Providing Grouting by specially prepared grout of approved make chemical with cement in proportion 1:3.5 (1 part chemical & 3.5 part cement by weight) along with 50 ml super plasticizer non cracking antiwash high strength polymer cement grout P C grout available in bags or equivalent with proper water for injectable consistency and applying it in the body of structure like slab, beam, column, pillars, deckslab, retaining wall, basement, underground and elevated water storage reservoir concrete and brick wall, crack portion of structure etc. by injecting method, to achieve its original strength including drilling of suitable diameter drills holes at 2 to 4 Nos. per sqm. using caps and nozzle grouting machinery necessary, scaffolding, finishing and covering guarantee of 10 years on court stamp paper of Rs. 100/- and necessary testing etc. complete. (Prior permission of S.E. in writing is necessary before inclusion of this item in estimate)	As directed by Engineer In Charge	Kilo Gram	392	79

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
2068	Bridge repair	52.29		For all concrete New / Repair of RCC / PSC Bridges using migrating, non-nitrite based corrosion inhibiting admixture as approved by Engineer in charge at a dose of 3 Kg per cum of concrete. The admixture should protect both cathodic and anodic sites and has been recommended for use by Ministry of Road Transport & Highways and should have a 8 year track record of use in both abroad and India. Admixture should have evaluated test reports demonstrating a corrosion rate of zero coulombs after 9 test cycles and less than 2000 coulombs as per ASTM G 109 when tested from a research institution NBA accredited Grade A and internationally ranked among top 5 research institutions in the world in Annual Survey conducted by Georgia Institute of Technology ranking of research institutions. PH of admixture should be alkaline in nature and is based on Polyalkalene polyamines with specific gravity of 0.99 - 1.1 brownish colour. The contractor must intimate the engineer in charge prior to addition in concrete for recording. If the admixture is put in the concrete mix at the batching plant, a written record of the amount of admixture used shall be supplied to the engineer. The engineer must ensure that the specified dosage of admixture is added in the concrete mix. (If scaffolding is required, same shall be provided and will be paid under relevant item)	As directed by Engineer in charge	Kilo Gram	210	0
2069	Bridge repair	52.3		For Strengthening of concrete RCC, PSC bridges including piers, girders, deck slabs etc. Execute the work as follows. Remove dust, laitance, grease, oil, curing compounds, waxes, foreign particles, coatings and disintegrated materials by mechanical means (i.e., blast cleaning). Empty entire pre-packed and pre-weighed contents of 'B' Component into pail containing 'A' Component. Mix for 30 seconds with a low speed stirrer. (400-600 rpm). After proper mixing of component 'A' and 'B', now empty entire pre-packed and pre-weighed part 'C' component into the mix and using a mechanical stirrer mix all the components for 1-3 minutes with a low speed stirrer (400 to 600 rpm). Caution: Mix only that limited quantity which can be placed within the pot life. Material should be quickly brushed/ poured from pail onto concrete surface to obtain prolonged working life. Inspect the underside for evidence of full depth cracks that may require additional treatment to prevent draining of the resin. Cracks greater than 1/8" width should be repaired individually. Fill 1/8" or larger cracks with loose sand and pour small quantity of mixed 2-(methoxycarbonyl)-1-Propene Resin Sealer Cum Grout as approved by Engineer in charge into the crack, allow to cure. The above Material is spread evenly on the surface as a flood coat with a squeegee or rollers on horizontal and vertical surfaces and allowed to absorb completely into the concrete substrate. Drill injecting holes to a depth of 2 - 4" in concrete depending upon the width of crack, extent of damage and dimension of structural element. Fix the grouting nozzle and inject the mixture of 2-(methoxycarbonyl)-1-Propene Resin Sealer Cum Grout at pressure of 50 - 100 psi. (Rate for fixing nozzle is not included in this item). Low Viscosity, Transparent, Three Component, 2-(methoxycarbonyl)-1-Propene Resin Sealer Cum Grout should have following minimum properties: 1. Viscosity: < 5 cps 2. Flexural Strength (ASTM D-790): 1 day - 17.2 MPa 3. Bond Strength (ASTM C-882): 2 days - 14.4 MPa (Dry Cure); 14 days - 15.8 MPa (Moist cure) 4. Volume Solids %: ~100 It shall be applied as per manufacturer's specification. (If scaffolding is required, same shall be provided and will be paid under relevant item) (Coatings and Grouting Items shall be separate)	As directed by Engineer in charge	Kilo Gram	1958	1009

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
2070	Bridge repair	52.31		<p>Cleaning the existing surface by mechanical means such as sand blasting so as to remove all the existing loose rust etc. Cleaning the existing concrete substrate to achieve maximum adhesion between the coating and substrate. Free the surface from loose material, grease and oil by water jet/mechanical means. Dry the surface completely. Providing and applying one coat of Two component, solvent free, substituted long chain nylon reticulant based coating/primer as approved by Engineer in charge. This should be followed by two coats of protective two component, acyclic polyisocyanate reticulant (APR) based, UV resistant coating as approved by Engineer in charge. Apply the coats by brush or spray at 4-6 hours interval between each coat. Manufacturer of the coating shall be Dakks ISO 9001:2015 accredited for manufacturing and design; &amp; have a track record of supplying the anticarbonation coating internationally. Two Component, Air Drying, Acyclic, Polyisocyanate Reticulant (APR) based coating should have following properties:</p> <ol style="list-style-type: none"> <li>1. Carbon dioxide diffusion equivalent air layer thickness (DIN EN 1062-6): &gt; 200 m</li> <li>2. Carbon dioxide diffusion resistance co-efficient (DIN EN 1062-6): &gt; 1.0 X 10<sup>5</sup></li> <li>3. Elongation of cured film shall be as per ASTM D 2370/98: &gt; 17 %</li> <li>4. Chloride Ion Diffusion (ASTM C 1556): &gt; 8.61 X 10<sup>-12</sup></li> <li>5. The top coat shall have a minimum 5 year track record of use in the weather conditions of the Mumbai region</li> <li>6. Minimum DFT of the entire coating system: 250 micron</li> <li>7. Solid content of the base coat material: &gt; 95%</li> <li>8. Solid content of the top coat material: &gt; 37%</li> <li>9. The shade of the top coat should be different from the shade of the base anti-carbonation coating.</li> <li>10. The base anti-carbonation coating material shall have evaluated test reports demonstrating conformance to the following properties when tested from a research institution NBA accredited Grade A and internationally ranked among top 5 research institutions in the world in Annual Survey conducted by Georgia Institute of Technology ranking of research institutions.</li> </ol> <p>It shall be applied as per manufacturer's specification. (If scaffolding is required, same shall be provided and will be paid under relevant item)</p>	As directed by Engineer in charge	Square Metre	636	176

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
2071	Bridge repair	52.32		<p>Cleaning the existing steel surface by mechanical means such as sand blasting so as to remove all the existing loose rust etc. Using cotton waste swab and apply Rusticide as approved by Engineer in charge rust converting, steel passivating, flash rust preventing sulphate and chloride free, non-alkaline, inorganic single component, and nano film forming surface passivator (conforms to IS 9077-1979 (reaffirmed 1997) App. B Cl. 5.3.3 for procedure). After 24 hours remove the free / loose rust particles by simple dusting with brush. Providing and applying one coat of Two component, anti-corrosive, solvent free, substituted long chain nylon reticulant based coating/primer LCNr as approved by Engineer in charge. This should be followed by two coats of protective two component, acrylic polyisocyanate reticulant based, UV resistant anticorrosive coating of APR as approved by Engineer in charge. Apply the coats by brush or spray at 4-6 hours interval between each coat. Two Component, Air Drying, Acrylic Polyisocyanate Reticulant (APR) based Coating should have following properties:</p> <ol style="list-style-type: none"> <li>1. Volume Solids: <math>40 \pm 3\%</math> (Depending upon shade)</li> <li>2. Adhesion (ASTM D 4541): <math>&gt; 500</math> psi (Concrete Failure)</li> <li>3. Impact Resistance (ASTM G 14): 25 - 30 J</li> <li>4. Conformance: IS 13213</li> <li>5. Dry Film Thickness/Coat: 40-50 microns at recommended coverage</li> </ol> <p>It shall be applied as per manufacturer's specification. (If scaffolding is required, same shall be provided and will be paid under relevant item)</p>	As directed by Engineer in charge	Square Metre	649	176
2072	Bridge repair	52.33		<p>Remove loose, disintegrated and porous concrete at cracks and joints. Repair the same with epoxy or polymer modified mortar. Drill injecting holes to a depth of 2-4 inches in the concrete depending upon width of cracks, extent of damage and dimension of structural elements. Fix the grouting nozzles. Clean all loose dust particles from the cracks and holes by blowing compressed air through all the nozzles in succession. Mix and place Polyurethane Based Leakage Sealing Grouting as approved by Engineer in charge. Mix one batch at a time using a bucket and drill connected to a stirrer. Polyurethane Based Leakage Sealing Grouting by using PU Foam Grout should have following minimum properties:</p> <ol style="list-style-type: none"> <li>1. Viscosity @ 25°C: <math>1300 \pm 400</math> cps</li> <li>2. Specific Gravity: <math>1.16 \pm 0.05</math></li> </ol> <p>It shall be applied as per manufacturer's specification. (If scaffolding is required, same shall be provided and will be paid under relevant item)</p>	As directed by Engineer in charge	Kilo Gram	2583	684

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
2073	Bridge repair	52.34		<p>It is ready to use inorganic, bio compatible, low viscosity, non hazardous, soil stabilizing two component colloidal silica base chemical grout. Providing and carrying out this grouting to stabilize the strata above the tunnel, foundations, cutting slope stabilization and sub structures by using ultimate fine Nano grout as approved by Engineer in charge. Drill injecting holes to required depth in loose soil strata. Fix the grouting pipes. Grout must be continuously stirred during addition of accelerator and fully mixed to transparent solution prior to grouting into the soil/strata. No white precipitates should remain in the grout mix. This is ultimate fine grouting can be completed by Nano grout. Solvent Free, Inorganic, Hydrophilic, Non-hazardous, Low Viscosity Chemical Grout for Stabilization and Consolidation of Sandy/Silty Soil should have following minimum properties:</p> <p>Grout: (Rate for fixing nozzle is not included in this item).</p> <p>1) Specific Gravity: <math>1.2 \pm 0.1</math></p> <p>2) pH: <math>11.3 \pm 0.1</math></p> <p>3) Viscosity in B4 Ford cup at 28°C: 12-15 sec</p> <p>Accelerator:</p> <p>1) Specific Gravity: <math>1.07 \pm 0.01</math></p> <p>2) pH: <math>7.0 \pm 0.1</math></p> <p>3) Viscosity in B4 Ford cup at 28°C: 10-12 sec</p> <p>Sungeogrout Mix:</p> <p>1) Specific Gravity: <math>1.2 \pm 0.1</math></p> <p>2) Viscosity in B4 Ford cup at 28°C: 12-15 sec</p> <p>It shall be applied as per manufacturer's specification.</p> <p>(If scaffolding is required, same shall be provided and will be paid under relevant item)</p>	As directed by Engineer in charge	Kilo Gram	618	342
2074	Bridge repair	52.35		<p>Removing loose rust from the reinforcement bars by wire brushing, light hammering etc. and applying sulphate and chloride free inorganic single component rust remover Rusticide as approved by Engineer in charge conforming to IS 9077. The rusted surface shall become blackish non rusted colour. After 24 hours of application of rust remover, loose particles shall be removed by brush. Apply one more coat of Rusticide. Apply bonding coat slurry of high performance acrylic polymer - Methyl 2-methylpropenoate copolymer with another enoate as approved by Engineer in charge on entire surface. Mix 1 Kg of acrylic polymer with 0.5 Kg of cement. Finish it with ready to use repair polymer modified mortar based on special cements, aldehyde based polymers with thixotropy modifying agents as approved by Engineer in charge (The Polymer Modified Mortar (PMM) should attain min. compressive strength of 20 N/mm<sup>2</sup> in 1 day and 30 N/mm<sup>2</sup> in 7 days) by adding 13 - 16% water by weight of polymer modified mortar for treatment to the damaged RCC members. Add 1 Kg of Migrating Corrosion Inhibiting Admixture as approved by Engineer in charge per 25 Kg bag of polymer modified mortar. After mixing polymer modified mortar, it can be trowel applied or sprayed. When applying by hand, polymer modified mortar must be forced tightly into the substrate to ensure complete contact with the substrate.</p> <p>(If scaffolding is required, same shall be provided and will be paid under relevant item)</p> <p>(Upto 15 mm thickness at a time).</p>	As directed by Engineer in charge	Square Metre	2184	420

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
2075	Bridge repair	52.36		Removing loose rust from the reinforcement bars by wire brushing, light hammering etc. and applying sulphate and chloride free inorganic single component rust remover Rusticide as approved by Engineer in charge conforming to IS 9077. The rusted surface shall become blackish non rusted colour. After 24 hours of application of rust remover, loose particles shall be removed by brush. Apply one more coat of Rusticide. Apply bonding coat slurry of high performance acrylic polymer - Methyl 2-methylpropenoate copolymer with another innovate as approved by Engineer in charge on entire surface. Mix 1 Kg of acrylic polymer with 0.5 Kg of cement. Finish it with ready to use repair polymer modified mortar based on special cements, formaldehyde based polymer with thixotropy modifying agents as approved by Engineer in charge (The Polymer Modified Mortar (PMM) should attain min. compressive strength of 20 N/mm <sup>2</sup> in 1 day and 30 N/mm <sup>2</sup> in 7 days) by adding 13 - 16% water by weight of polymer modified mortar for treatment to the damaged RCC members. Add 1 Kg of Migrating Corrosion Inhibiting Admixture as approved by Engineer in charge per 25 Kg bag of polymer modified mortar. After mixing polymer modified mortar, it can be trowel applied or sprayed. When applying by hand, polymer modified mortar must be forced tightly into the substrate to ensure complete contact with the substrate. (If scaffolding is required, same shall be provided and will be paid under relevant item) (15-30 mm thickness at a time).	As directed by Engineer in charge	Square Metre	1457	202
2076	Bridge repair	52.37		Providing and fixing zinc alloy based galvanic disk type sacrificial anodes (50 mm dia, 18 mm thick) as approved by Engineer in charge to the reinforcement, that should have a 3 year track record of use in PWD projects, 4 year track record in corrosive region of abroad and pass 500 hours salt spray test as per ASTM B 117. The anode shall be connected to the reinforcement steel by connectors provided with the anode. Sacrificial Galvanic Anode should have following minimum properties: 1. Base: Zinc Alloy 2. Conformance: ASTM B 418 Type II 3. Zinc Mass: Min 40 g per anode 4. Geometry: Disc Type 5. Diameter: 50 mm 5. Height: 18 mm 6. Surface Area: 6751 sq mm It shall be applied as per manufacturer's specification. (If scaffolding is required, same shall be provided and will be paid under relevant item)	As directed by Engineer in charge	Kilo Gram	1085	34



Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
2077	Bridge repair	52.38		Rake out loose pointing mortar material atleast upto 50 mm in depth and clean with using a nylon brush or low-pressure compressed air. It may require more depth some times depending upon the loss of integrity of existing mortar. Care is to be taken that the adjacent good and sound matrix is not disturbed. Provide anti-rooting treatment to entire recessed pointed area. Clean the joint area properly and pointing shall be done with High Viscosity having special thicxotropic chemicals along with long chain nylon reticulent (LCNR) Epoxy Resin Mortar as approved by Engineer in charge. Mix 2 kg Resin + 1 kg Hardener + 9-12 kg Quartz Sand (Graded) thoroughly to homogeneity using a slow speed (300-500 rpm) flame proof or air driven drill fitted with a mixing attachment. Hand press this mortar in the joint and finish the surface and allow the mortar to set for minimum 24 hours. (If scaffolding is required, same shall be provided and will be paid under relevant item)	As directed by Engineer in charge	R. Mtr.	69	34
2078	Bridge repair	52.39		Rake out loose pointing mortar material from the joints of the heritage stone masonry atleast upto 50 mm in depth and clean the same by using a nylon brush or low-pressure compressed air. It may sometimes require more depth depending upon the loss of integrity of existing mortar. Care is to be taken that the adjacent good and sound matrix is not disturbed. Provide anti-rooting treatment to entire recessed pointed area. Clean the joint area properly and pointing shall be filled with a special mix of lime base hydraulic mortar and water for masonry with highly sulphate resistant cement and silica aggregates as approved by Engineer in charge. This lime based mortar is based on special limes with thixotropic agents, aldehyde based polymer and selected sands having high abrasion resistance. Hand press this mortar in the joint and finish the surface and allow the mortar to set for minimum 24 hours. Mortar should have Compression Strength of Appr. 10 N/mm2. (If scaffolding is required, same shall be provided and will be paid under relevant item)	As directed by Engineer in charge	R. Mtr.	490	342
2079	Bridge repair	52.4		Remove loose, disintegrated and porous concrete at cracks and joints. Repair the same with epoxy or polymer modified mortar. Drill injecting holes to a depth of 2 - 4 inches in the concrete depending upon width of cracks, extent of damage and dimension of structural elements. Fix the grouting nozzles. Clean all loose dust particles from the cracks and holes by blowing compressed air through all the nozzles in succession. Whenever required grouting nozzle can be introduced for subsequent cementitious lime grout which is based on special limes with thixotropic agents, aldehyde based polymer and selected sands having high abrasion resistance by using Lime based Hydraulic Injection Suspension as approved by Engineer in charge. Before injecting the grout, it is advisable to make sure the nozzles are free of dust. Care is to be taken that the air pressure is monitored and maintained so as not to damage the matrix. Mix cementitious lime based hydraulic ready to use - Hydraulic Injection Suspension with 35 - 45% water by its weight in clean container using a low speed air driven mixer / stirrer to form a mix of uniform and flowable consistency. Depending on temperature, the water demand may vary. Lime based Hydraulic Injection Suspension should have following properties: 1. Bulk Density: 1.8 ± 0.2 2. Compressive Strength (28 days): W/P (0.45) - Appx. 10 Mpa. It shall be applied as per manufacturer's specification. (If scaffolding is required, same shall be provided and will be paid under relevant item)	As directed by Engineer in charge	Kilo Gram	490	342

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
2080	Bridge repair	52.41		Remove roots of the plant from joints of the stone masonry manually. Make sure that no part of the root has remained inside the masonry. Pour thiazolinones based Microbial Wall Wash and Anti-rooting Solution as approved by Engineer in charge in the Stone Masonry joints depending upon width of roots, extent of damage and dimension of roots of plant. For wider roots, it is necessary to first drill the holes in the bark from all the sides which should subsequently totally filled with Microbial Wall Wash and Anti-rooting Solution so that the same percolate in the bark. On complete absorption of the liquid, refill and the process must be continued atleast 5 - 6 times, if necessary. Microbial Wall Wash and Antirooting Solution should have following properties: 1. pH (5 % Solution): 6 - 8 2. Specific Gravity @ RT: 1.05 ± 0.02 It shall be applied as per manufacturer's specification. (If scaffolding is required, same shall be provided and will be paid under relevant item)	As directed by Engineer in charge	Kilo Gram	802	342
2081	Road Surevy	52.42		Visits ( minimum 2) to site of Bridge/Bandhara of length upto 100 m by Expert/Professional Consultant, noting the broad features like span, height, type of foundation, special features specific to the site to come to the conclusion of adopting standard design & drawing, checking suitability of site, finalizing site for construction of Bridge/Bandhara and submitting the observation note accordingly to Department. ( Transporation from Regional Head quarter to actual site and accomodation at site / Taluka head quarter / District Headquarter is not included in this item and it shall be paid separately wherever necessary.)	As directed by Engineer in charge	Per Site	25000	0
2082	Road Surevy	52.43		Taking longitudinal section of stream extending 1.20 km on upstream side of the bandhara site, requisite number of cross sections (minimum 3) of the stream on upstream side, taking bed slope of stream and other details, taking 3 trial pits 1.00 m x 1.00 m x 3.00 m, plotting details of stratification indicating type of soil/rock, preparation of detailed survey data including preparation of hydraulic design including calculations for afflux, height of the weir and storage capacity of bandhara etc., obtaining the village map and studying the land width of nalla, make a preliminary assessment of likely storage of nalla with nalla training as per width shown in village map, marking on village map the locations of existing wells, bore wells within radius of 1.5 km and also depth of water and borewell depth, identifying the maji malgujari tanks or other lakes owned by Govt. within radius of 3 km, assessing the radial distance and plan area as per village map, preparing detailed plans referring the std. design & drawing and preparing detailed estimate as per approved SSR in 3 copies and submitting the project duly typed along with relevant drawings in hard and soft copies in CD / Pen Drive etc. as required by the Department.	As directed by Engineer in charge	No	126012	0

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
2083	Drone survey	52.44		To carry out linear Drone survey agencies will use fully autonomous professional survey grade drone and in post process for aerial triangulation required ground control points and benchmarks will be collected by using survey grade dual frequency DGPS-PPK system. After post processing agency will deliver following final output. 1.Geotagged images in JPG format with resolution of 4-5cm/pixel with 70% overlap 2. GCP values in .CSV format. 3. 3D point cloud cover in .las format. 4. digital surface model (DSM) in .tiff format. 5. 2D orthorectified images in .tiff format with 5 cm resolution which gives capability to capture detailed features. For Linear UAV Survey	As directed by Engineer in charge	Running kilometre	8500	0
2084	Drone survey	52.45		To carry out polygon Drone survey agencies will use fully autonomous professional survey grade drone and in post process for aerial triangulation required ground control points and benchmarks will be collected by using survey grade dual frequency DGPS-PPK system. After post processing agency will deliver following final output. 1.Geotagged images in JPG format with resolution of 4-5cm/pixel with 70% overlap 2. GCP values in .CSV format. 3. 3D point cloud cover in .las format. 4. digital surface model (DSM) in .tiff format. 5. 2D orthorectified images in .tiff format with 5 cm resolution which gives capability to capture detailed features. For Polygon UAV Survey	As directed by Engineer in charge	Running kilometre	22900	0
2085	Road Furniture new item	52.46		Supplying and fixing M.S. Pipe 80 mm diameter ( 4.85 mm thick ) heavy type drilled on top and painted with one coat of epoxy primer and two coats of epoxy finish paint having black and white bands of 25 cm, last part of the post 0.75 mt. below ground level is painted with three coats of red lead paint with two number of high tensile G.I. bolt and nut of size 10 mm die of 25 mm long including transportation etc. complete.	As directed by Engineer in charge	Running Meter	1401	174
2086	Road Furniture new item	52.47		Supplying and fixing G.I. Pipe 50 mm diameter heavy type drilled on top and painted with one coat of epoxy primer and two coats of epoxy finish paint having black and white bands of 25 cm, last part of the post 0.75 mt. below ground level is painted with three coats of red lead paint with two number of high tensile G.I. bolt and nut of size 10 mm die of 25 mm long including transportation etc. complete.	As directed by Engineer in charge	Running Meter	1241	174

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
2087	Partition	52.48		Medium Height Partition @ 1800/1200HT TILE BASED PARTITION SYSTEM Tile based Aluminum partition system of 1800/1200mm ht. made of 60mm thick aluminum frames having two separate race ways for laying electrical & computer wiring. The wire management shall be through to the race way to be fitted at bottom of partition other immediately below of work top with hook on type raceway cover for easy access of wires. Frames to be joined by aluminum connectors with M6 x 16 pan-head machine screw and washer with aluminum post cover. Post cover snap on fashion to be connected on aluminum connector visible aluminium to be in anodized / powdercoated finish. The top exposed sides of the frame and posts should be covered with horizontal/ Vertical trim and caps made of Aluminum in anodized / powdercoated finish in order to enhance its look.Upper tiles on the partition to be in Soft Board or Marker or prelaminated partical board tile of 9mm. thk., prelaminated partical board lower tiles in laminate finish 9mm. thk. on both the sides .Size :- 1200/1800mm (H)	As directed by Engineer in charge	Square Metre	5741	0
2088	Partition	52.49		Full Height Partitions in Solid finish Providing and Fixing 80mm to 85mm thick Full height Double Skin partition up to 3 mtr height with All visible sections in Anodized / Powdercoated finish. Made up of Frames and Tiles. Frame construction In combinaton of Aluminium Rails and Bottom ,Center and Top members, Connected with 2 way Round Shape Post , 3way Post , 4 way Post made up of Aluminium Extruded and Tiles in 9mm thk. Prelaminated Partical Board of on both side. With all the Joints in the partitions covered with PVC extrusions to provide better sound Proofing. Tiles to be separated 55mm from each other to provide adequate space for drawing cables for electric, data and telephone with proper facility for fixing electrical and data switch plates. as per design and drawing.	As directed by Engineer in charge	Square Metre	6459	0
2089	Partition	52.5		Full Height Partitions in Glass finish Providing and Fixing 80mm to 85mm thick Full height Double Skin partition up to 3 mtr height with All visible sections in Anodized / Powdercoated finish. Made up of Frames and Tiles. Frame construction In combinaton of Aluminium Rails and Bottom ,Center and Top members, Connected with 2 way Round Shape Post , 3way Post , 4 way Post made up of Aluminium Extruded and Tiles in 5mm thk. Non Toughened Glass on both side. With all the Joints in the partitions covered with PVC extrusions to provide better sound Proofing. Tiles to be separated 55mm from each other to provide adequate space for drawing cables for electric, data and telephone with proper facility for fixing electrical and data switch plates. as per design and drawing.		Square Metre	7894	0
2090	Door	52.51		Providing and fixing Factory made 31mm ABS Plastic Door made of abs plastic moulded sheet of 1.5 mm thickness P.U. foam insulated of density 40 kg per cubic meter with seasoned wood to fit lock and hardware covered with aluminium 'A' section of 31mm x 27mm x27mm x 1.5mm thick powder coated and fitted with PVC ' L' Corner of dimension 75mm x75mm x 10mm thick on all four sides including all labour, material,stainless steel fixtures and fastening etc complete	3627	Square Metre	3627	495

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
2091	Lamination	52.52		Providing and fixing 4mm thick High Pressure interior compact Laminate made out of thermosetting resign treated Kraft as core material and design paper as a finish surface. Compact laminates should have the characteristic of flame retardant fulfilled the criteria of under BS-476/97 and EN438-6 with classification of BS1D0 standard property, Anti bacterial and anti-termite property under JIS Z2801:2000, Chemical resistance, Scratch resistant ,fire resistance, weather & climatic shock resistance( The manufacturer should provide10 years warranty certification on any manufacturing and moisture related defects.)The compact laminates should be resistance to water immersion through permissible increase on thickness and mass <0.60% and board should have density >1.35kg/cm3 and fulfilled the criteria of FSCand Green Guard Gold certification and manufactured under EN438-2&3:2005 standard . Finish and colour of compact laminates should be finalised under direction of Engineer –in-charge.Including fixing Compact laminates on 25x50mm aluminium tube or approved tube size at 600mm c/c under desirable height and fixed through same compact colour rievts or compact adhesive as per recommended by compact supplied agency. Finish and colour of Interior clade should be approved under engineer-in-charge direction.	As directed by Engineer in charge	Square Metre	3933	798
2092	Lamination	52.53		Providing and fixing 6 mm thick High Pressure interior compact Laminate made out of thermosetting resign treated Kraft as core material and design paper as a finish surface. Compact laminates should have the characteristic of flame retardant fulfilled the criteria of under BS-476/97 and EN438-6 with classification of BS1D0 standard property, Anti bacterial and anti-termite property under JIS Z2801:2000, Chemical resistance, Scratch resistant ,fire resistance, weather & climatic shock resistance( The manufacturer should provide10 years warranty certification on any manufacturing and moisture related defects.)The compact laminates should be resistance to water immersion through permissible increase on thickness and mass <0.60% and board should have density >1.35kg/cm3 and fulfilled the criteria of FSCand Green Guard Gold certification and manufactured under EN438-2&3:2005 standard . Finish and colour of compact laminates should be finalised under direction of Engineer –in-charge. including fixing Compact laminates on 25x50 mm aluminium tube or approved tube size at 600 mm c/c under desirable height and fixed through same compact colour rievts or compact adhesive as per recommended by compact supplied agency. Finish and colour of Interior clade should be approved under engineer-in-charge direction.	As directed by Engineer in charge	Square Metre	4605	798

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
<b>SSR 2021-2022 :- Rebar</b>								
2093	Rebar	53.01	BDC 2	Supplying, Drilling/Cleaning hole and injecting chemical. Application to be designed separately for Rebars as Simply Supported, Moment or Splice Connection as per EC2/TR 023 or relevant tested and accepted rebar guidelines. The chemical should have ETA approval for seismic rebar as a minimum qualifying criterion. Drilling hole with double flute type drill bits or hollow drill bits to the required depth by rotary hammer drill, cleaning with brush and jet of clean air, filling resin and hardener using serrated nozzle to eliminate mixing error with standard HDE A22 battery dispenser along with piston plug. The installation and the setting instructions should be strictly followed as per the manufacturer's recommendations. The adequate diameter and embedment of rebars to be decided as per PROFIS Rebar Software & the report to be submitted to the project manager/ design engineer for approval. Scanning before drilling to be done to avoid hitting existing rebars. Re 500 -8mm dia 160mm depth	Bd.C.2 Page No. 275	Number	243	19
2094	Rebar	53.02	BDC 2	Supplying, Drilling/Cleaning hole and injecting chemical. Application to be designed separately for Rebars as Simply Supported, Moment or Splice Connection as per EC2/TR 023 or relevant tested and accepted rebar guidelines. The chemical should have ETA approval for seismic rebar as a minimum qualifying criterion. Drilling hole with double flute type drill bits or hollow drill bits to the required depth by rotary hammer drill, cleaning with brush and jet of clean air, filling resin and hardener using serrated nozzle to eliminate mixing error with standard HDE A22 battery dispenser along with piston plug. The installation and the setting instructions should be strictly followed as per the manufacturer's recommendations. The adequate diameter and embedment of rebars to be decided as per PROFIS Rebar Software & the report to be submitted to the project manager/ design engineer for approval. Scanning before drilling to be done to avoid hitting existing rebars. Re 500 -10 mm dia 200mm depth	Bd.C.2 Page No. 275	Number	436	19
2095	Rebar	53.03	BDC 2	Supplying, Drilling/Cleaning hole and injecting chemical. Application to be designed separately for Rebars as Simply Supported, Moment or Splice Connection as per EC2/TR 023 or relevant tested and accepted rebar guidelines. The chemical should have ETA approval for seismic rebar as a minimum qualifying criterion. Drilling hole with double flute type drill bits or hollow drill bits to the required depth by rotary hammer drill, cleaning with brush and jet of clean air, filling resin and hardener using serrated nozzle to eliminate mixing error with standard HDE A22 battery dispenser along with piston plug. The installation and the setting instructions should be strictly followed as per the manufacturer's recommendations. The adequate diameter and embedment of rebars to be decided as per PROFIS Rebar Software & the report to be submitted to the project manager/ design engineer for approval. Scanning before drilling to be done to avoid hitting existing rebars. Re 500 -12 mm dia 240mm depth	Bd.C.2 Page No. 275	Number	541	19

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
2096	Rebar	53.04	BDC 2	Supplying, Drilling/Cleaning hole and injecting chemical. Application to be designed separately for Rebars as Simply Supported, Moment or Splice Connection as per EC2/TR 023 or relevant tested and accepted rebar guidelines. The chemical should have ETA approval for seismic rebar as a minimum qualifying criterion. Drilling hole with double flute type drill bits or hollow drill bits to the required depth by rotary hammer drill, cleaning with brush and jet of clean air, filling resin and hardener using serrated nozzle to eliminate mixing error with standard HDE A22 battery dispenser along with piston plug. The installation and the setting instructions should be strictly followed as per the manufacturer's recommendations. The adequate diameter and embedment of rebars to be decided as per PROFIS Rebar Software & the report to be submitted to the project manager/ design engineer for approval. Scanning before drilling to be done to avoid hitting existing rebars. Re 500 -16 mm dia 320mm depth	Bd.C.2 Page No. 275	Number	791	21
2097	Rebar	53.05	BDC 2	Supplying, Drilling/Cleaning hole and injecting chemical. Application to be designed separately for Rebars as Simply Supported, Moment or Splice Connection as per EC2/TR 023 or relevant tested and accepted rebar guidelines. The chemical should have ETA approval for seismic rebar as a minimum qualifying criterion. Drilling hole with double flute type drill bits or hollow drill bits to the required depth by rotary hammer drill, cleaning with brush and jet of clean air, filling resin and hardener using serrated nozzle to eliminate mixing error with standard HDE A22 battery dispenser along with piston plug. The installation and the setting instructions should be strictly followed as per the manufacturer's recommendations. The adequate diameter and embedment of rebars to be decided as per PROFIS Rebar Software & the report to be submitted to the project manager/ design engineer for approval. Scanning before drilling to be done to avoid hitting existing rebars. Re 500 -20 mm dia400mm depth	Bd.C.2 Page No. 275	Number	1179	23
2098	Rebar	53.06	BDC 2	Supplying, Drilling/Cleaning hole and injecting chemical. Application to be designed separately for Rebars as Simply Supported, Moment or Splice Connection as per EC2/TR 023 or relevant tested and accepted rebar guidelines. The chemical should have ETA approval for seismic rebar as a minimum qualifying criterion. Drilling hole with double flute type drill bits or hollow drill bits to the required depth by rotary hammer drill, cleaning with brush and jet of clean air, filling resin and hardener using serrated nozzle to eliminate mixing error with standard HDE A22 battery dispenser along with piston plug. The installation and the setting instructions should be strictly followed as per the manufacturer's recommendations. The adequate diameter and embedment of rebars to be decided as per PROFIS Rebar Software & the report to be submitted to the project manager/ design engineer for approval. Scanning before drilling to be done to avoid hitting existing rebars. Re 500 -25mm dia 500mm depth	Bd.C.2 Page No. 275	Number	3285	48

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
2099	Rebar	53.07	BDC 2	Supplying, Drilling/Cleaning hole and injecting chemical. Application to be designed separately for Rebars as Simply Supported, Moment or Splice Connection as per EC2/TR 023 or relevant tested and accepted rebar guidelines. The chemical should have ETA approval for seismic rebar as a minimum qualifying criterion. Drilling hole with double flute type drill bits or hollow drill bits to the required depth by rotary hammer drill, cleaning with brush and jet of clean air, filling resin and hardener using serrated nozzle to eliminate mixing error with standard HDE A22 battery dispenser along with piston plug. The installation and the setting instructions should be strictly followed as per the manufacturer's recommendations. The adequate diameter and embedment of rebars to be decided as per PROFIS Rebar Software & the report to be submitted to the project manager/ design engineer for approval. Scanning before drilling to be done to avoid hitting existing rebars. Re 500 -32mm dia 640mm depth	Bd.C.2 Page No. 275	Number	6240	64
2100	Rebar	53.08	BDC 2	Supplying, Drilling/Cleaning hole and injecting chemical. Application to be designed separately for Rebars as Simply Supported, Moment or Splice Connection as per EC2/TR 023 or relevant tested and accepted rebar guidelines. The chemical should have ETA approval for seismic rebar as a minimum qualifying criterion. Drilling hole with double flute type drill bits or hollow drill bits to the required depth by rotary hammer drill, cleaning with brush and jet of clean air, filling resin and hardener using serrated nozzle to eliminate mixing error with standard HDE A22 battery dispenser along with piston plug. The installation and the setting instructions should be strictly followed as per the manufacturer's recommendations. The adequate diameter and embedment of rebars to be decided as per PROFIS Rebar Software & the report to be submitted to the project manager/ design engineer for approval. Scanning before drilling to be done to avoid hitting existing rebars. HY20 -8mm dia 160mm depth	Bd.C.2 Page No. 275	Number	218	19
2101	Rebar	53.09	BDC 2	Supplying, Drilling/Cleaning hole and injecting chemical. Application to be designed separately for Rebars as Simply Supported, Moment or Splice Connection as per EC2/TR 023 or relevant tested and accepted rebar guidelines. The chemical should have ETA approval for seismic rebar as a minimum qualifying criterion. Drilling hole with double flute type drill bits or hollow drill bits to the required depth by rotary hammer drill, cleaning with brush and jet of clean air, filling resin and hardener using serrated nozzle to eliminate mixing error with standard HDE A22 battery dispenser along with piston plug. The installation and the setting instructions should be strictly followed as per the manufacturer's recommendations. The adequate diameter and embedment of rebars to be decided as per PROFIS Rebar Software & the report to be submitted to the project manager/ design engineer for approval. Scanning before drilling to be done to avoid hitting existing rebars. HY200 -10 mm dia 200mm depth	Bd.C.2 Page No. 275	Number	392	19



Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
2102	Rebar	53.10	BDC 2	Supplying, Drilling/Cleaning hole and injecting chemical. Application to be designed separately for Rebars as Simply Supported, Moment or Splice Connection as per EC2/TR 023 or relevant tested and accepted rebar guidelines. The chemical should have ETA approval for seismic rebar as a minimum qualifying criterion. Drilling hole with double flute type drill bits or hollow drill bits to the required depth by rotary hammer drill, cleaning with brush and jet of clean air, filling resin and hardener using serrated nozzle to eliminate mixing error with standard HDE A22 battery dispenser along with piston plug. The installation and the setting instructions should be strictly followed as per the manufacturer's recommendations. The adequate diameter and embedment of rebars to be decided as per PROFIS Rebar Software & the report to be submitted to the project manager/ design engineer for approval. Scanning before drilling to be done to avoid hitting existing rebars. HY200 -12 mm dia 240mm depth	Bd.C.2 Page No. 275	Number	480	19
2103	Rebar	53.11	BDC 2	Supplying, Drilling/Cleaning hole and injecting chemical. Application to be designed separately for Rebars as Simply Supported, Moment or Splice Connection as per EC2/TR 023 or relevant tested and accepted rebar guidelines. The chemical should have ETA approval for seismic rebar as a minimum qualifying criterion. Drilling hole with double flute type drill bits or hollow drill bits to the required depth by rotary hammer drill, cleaning with brush and jet of clean air, filling resin and hardener using serrated nozzle to eliminate mixing error with standard HDE A22 battery dispenser along with piston plug. The installation and the setting instructions should be strictly followed as per the manufacturer's recommendations. The adequate diameter and embedment of rebars to be decided as per PROFIS Rebar Software & the report to be submitted to the project manager/ design engineer for approval. Scanning before drilling to be done to avoid hitting existing rebars. HY200 -16 mm dia 320mm depth	Bd.C.2 Page No. 275	Number	663	21
2104	Rebar	53.12	BDC 2	Supplying, Drilling/Cleaning hole and injecting chemical. Application to be designed separately for Rebars as Simply Supported, Moment or Splice Connection as per EC2/TR 023 or relevant tested and accepted rebar guidelines. The chemical should have ETA approval for seismic rebar as a minimum qualifying criterion. Drilling hole with double flute type drill bits or hollow drill bits to the required depth by rotary hammer drill, cleaning with brush and jet of clean air, filling resin and hardener using serrated nozzle to eliminate mixing error with standard HDE A22 battery dispenser along with piston plug. The installation and the setting instructions should be strictly followed as per the manufacturer's recommendations. The adequate diameter and embedment of rebars to be decided as per PROFIS Rebar Software & the report to be submitted to the project manager/ design engineer for approval. Scanning before drilling to be done to avoid hitting existing rebars. HY200 -20 mm dia400mm depth	Bd.C.2 Page No. 275	Number	892	23

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
2105	Rebar	53.13	BDC 2	Supplying, Drilling/Cleaning hole and injecting chemical. Application to be designed separately for Rebars as Simply Supported, Moment or Splice Connection as per EC2/TR 023 or relevant tested and accepted rebar guidelines. The chemical should have ETA approval for seismic rebar as a minimum qualifying criterion. Drilling hole with double flute type drill bits or hollow drill bits to the required depth by rotary hammer drill, cleaning with brush and jet of clean air, filling resin and hardener using serrated nozzle to eliminate mixing error with standard HDE A22 battery dispenser along with piston plug. The installation and the setting instructions should be strictly followed as per the manufacturer's recommendations. The adequate diameter and embedment of rebars to be decided as per PROFIS Rebar Software & the report to be submitted to the project manager/ design engineer for approval. Scanning before drilling to be done to avoid hitting existing rebars. HY 200 -25mm dia 500mm depth	Bd.C.2 Page No. 275	Number	2240	75
2106	Rebar	53.14	BDC 2	Supplying, drilling/cleaning hole and fixing of Torque Controlled Expansion Anchor HST3, of sizes ranging from M8 to M24. The Anchor should be third party tested, possess ETA approval and should be pre-assembled with a galvanized bolt as per EN ISO 4042: 1999, ingenious expansion sleeve M10 and M16 (galvanized) and M8, M12, M20, M24 - Stainless Steel (EN ISO 4042: 1999), a nut of Strength Class 8 (EN ISO 20898-2:2012) and a galvanized washer (EN ISO 4042:1999). The anchor should be approved for use in Cracked Concrete. Anchor must be tested and approved as per Seismic C1 and C2 Category of TR045. ETA to have Fire Resistance values for up to 120 mins as per EOTA TR 020 and FM Approval (use in Pipe Hangers). Anchor shall be fixed at right embedment depth as per embedment mark and activated using Hilti AT Tool Module to ensure adequate torque as per manufacture's torque tolerance published in ETA and same shall be documented and submitted to Project Manager at the time of inspection. Design of Anchor should be done as per ETAG 001 Annex C and TR045 using PROFIS Software as per actual load data and site conditions as provided by structural consultant and the report to be submitted to the project manager and design engineer for approval. Scanning before drilling to be done with Hilti PS Scanning tool to avoid rebar hits. stud anchor HST3 M8x95-30	Bd.C.2 Page No. 275	Number	149	7

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
2107	Rebar	53.15	BDC 2	Supplying, drilling/cleaning hole and fixing of Torque Controlled Expansion Anchor HST3, of sizes ranging from M8 to M24. The Anchor should be third party tested, possess ETA approval and should be pre-assembled with a galvanized bolt as per EN ISO 4042: 1999, ingenious expansion sleeve M10 and M16 (galvanized) and M8, M12, M20, M24 - Stainless Steel (EN ISO 4042: 1999), a nut of Strength Class 8 (EN ISO 20898-2:2012) and a galvanized washer (EN ISO 4042:1999). The anchor should be approved for use in Cracked Concrete. Anchor must be tested and approved as per Seismic C1 and C2 Category of TR045. ETA to have Fire Resistance values for up to 120 mins as per EOTA TR 020 and FM Approval (use in Pipe Hangers). Anchor shall be fixed at right embedment depth as per embedment mark and activated using AT Tool Module to ensure adequate torque as per manufacture's torque tolerance published in ETA and same shall be documented and submitted to Project Manager at the time of inspection. Design of Anchor should be done as per ETAG 001 Annex C and TR045 using PROFIS Software as per actual load data and site conditions as provided by structural consultant and the report to be submitted to the project manager and design engineer for approval. Scanning before drilling to be done with PS Scanning tool to avoid rebar hits. stud anchor HST3 SS M8x95-30	Bd.C.2 Page No. 275	Number	379	7
2108	Rebar	53.16	BDC 2	Supplying, drilling/cleaning hole and fixing of Torque Controlled Expansion Anchor HST3, of sizes ranging from M8 to M24. The Anchor should be third party tested, possess ETA approval and should be pre-assembled with a galvanized bolt as per EN ISO 4042: 1999, ingenious expansion sleeve M10 and M16 (galvanized) and M8, M12, M20, M24 - Stainless Steel (EN ISO 4042: 1999), a nut of Strength Class 8 (EN ISO 20898-2:2012) and a galvanized washer (EN ISO 4042:1999). The anchor should be approved for use in Cracked Concrete. Anchor must be tested and approved as per Seismic C1 and C2 Category of TR045. ETA to have Fire Resistance values for up to 120 mins as per EOTA TR 020 and FM Approval (use in Pipe Hangers). Anchor shall be fixed at right embedment depth as per embedment mark and activated using AT Tool Module to ensure adequate torque as per manufacture's torque tolerance published in ETA and same shall be documented and submitted to Project Manager at the time of inspection. Design of Anchor should be done as per ETAG 001 Annex C and TR045 using PROFIS Software as per actual load data and site conditions as provided by structural consultant and the report to be submitted to the project manager and design engineer for approval. Scanning before drilling to be done with PS Scanning tool to avoid rebar hits. stud anchor HST3 M10x110-30	Bd.C.2 Page No. 275	Number	224	7

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
2109	Rebar	53.17	BDC 2	Supplying, drilling/cleaning hole and fixing of Torque Controlled Expansion Anchor HST3, of sizes ranging from M8 to M24. The Anchor should be third party tested, possess ETA approval and should be pre-assembled with a galvanized bolt as per EN ISO 4042: 1999, ingenious expansion sleeve M10 and M16 (galvanized) and M8, M12, M20, M24 - Stainless Steel (EN ISO 4042: 1999), a nut of Strength Class 8 (EN ISO 20898-2:2012) and a galvanized washer (EN ISO 4042:1999). The anchor should be approved for use in Cracked Concrete. Anchor must be tested and approved as per Seismic C1 and C2 Category of TR045. ETA to have Fire Resistance values for up to 120 mins as per EOTA TR 020 and FM Approval (use in Pipe Hangers). Anchor shall be fixed at right embedment depth as per embedment mark and activated using AT Tool Module to ensure adequate torque as per manufacture's torque tolerance published in ETA and same shall be documented and submitted to Project Manager at the time of inspection. Design of Anchor should be done as per ETAG 001 Annex C and TR045 using PROFIS Software as per actual load data and site conditions as provided by structural consultant and the report to be submitted to the project manager and design engineer for approval. Scanning before drilling to be done with PS Scanning tool to avoid rebar hits. studanchorHST3 SS M10x110-30	Bd.C.2 Page No. 275	Number	467	7
2110	Rebar	53.18	BDC 2	Supplying, drilling/cleaning hole and fixing of Torque Controlled Expansion Anchor HST3, of sizes ranging from M8 to M24. The Anchor should be third party tested, possess ETA approval and should be pre-assembled with a galvanized bolt as per EN ISO 4042: 1999, ingenious expansion sleeve M10 and M16 (galvanized) and M8, M12, M20, M24 - Stainless Steel (EN ISO 4042: 1999), a nut of Strength Class 8 (EN ISO 20898-2:2012) and a galvanized washer (EN ISO 4042:1999). The anchor should be approved for use in Cracked Concrete. Anchor must be tested and approved as per Seismic C1 and C2 Category of TR045. ETA to have Fire Resistance values for up to 120 mins as per EOTA TR 020 and FM Approval (use in Pipe Hangers). Anchor shall be fixed at right embedment depth as per embedment mark and activated using AT Tool Module to ensure adequate torque as per manufacture's torque tolerance published in ETA and same shall be documented and submitted to Project Manager at the time of inspection. Design of Anchor should be done as per ETAG 001 Annex C and TR045 using PROFIS Software as per actual load data and site conditions as provided by structural consultant and the report to be submitted to the project manager and design engineer for approval. Scanning before drilling to be done with PS Scanning tool to avoid rebar hits. stud anchor HST3 M12x115-20	Bd.C.2 Page No. 275	Number	238	7

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
2111	Rebar	53.19	BDC 2	Supplying, drilling/cleaning hole and fixing of Torque Controlled Expansion Anchor HST3, of sizes ranging from M8 to M24. The Anchor should be third party tested, possess ETA approval and should be pre-assembled with a galvanized bolt as per EN ISO 4042: 1999, ingenious expansion sleeve M10 and M16 (galvanized) and M8, M12, M20, M24 - Stainless Steel (EN ISO 4042: 1999), a nut of Strength Class 8 (EN ISO 20898-2:2012) and a galvanized washer (EN ISO 4042:1999). The anchor should be approved for use in Cracked Concrete. Anchor must be tested and approved as per Seismic C1 and C2 Category of TR045. ETA to have Fire Resistance values for up to 120 mins as per EOTA TR 020 and FM Approval (use in Pipe Hangers). Anchor shall be fixed at right embedment depth as per embedment mark and activated using AT Tool Module to ensure adequate torque as per manufacture's torque tolerance published in ETA and same shall be documented and submitted to Project Manager at the time of inspection. Design of Anchor should be done as per ETAG 001 Annex C and TR045 using PROFIS Software as per actual load data and site conditions as provided by structural consultant and the report to be submitted to the project manager and design engineer for approval. Scanning before drilling to be done with PS Scanning tool to avoid rebar hits. stud anchor HST3 SSM12 x 115-20	Bd.C.2 Page No. 275	Number	716	7
2112	Rebar	53.20	BDC 2	Supplying, drilling/cleaning hole and fixing of Torque Controlled Expansion Anchor HST3, of sizes ranging from M8 to M24. The Anchor should be third party tested, possess ETA approval and should be pre-assembled with a galvanized bolt as per EN ISO 4042: 1999, ingenious expansion sleeve M10 and M16 (galvanized) and M8, M12, M20, M24 - Stainless Steel (EN ISO 4042: 1999), a nut of Strength Class 8 (EN ISO 20898-2:2012) and a galvanized washer (EN ISO 4042:1999). The anchor should be approved for use in Cracked Concrete. Anchor must be tested and approved as per Seismic C1 and C2 Category of TR045. ETA to have Fire Resistance values for up to 120 mins as per EOTA TR 020 and FM Approval (use in Pipe Hangers). Anchor shall be fixed at right embedment depth as per embedment mark and activated using AT Tool Module to ensure adequate torque as per manufacture's torque tolerance published in ETA and same shall be documented and submitted to Project Manager at the time of inspection. Design of Anchor should be done as per ETAG 001 Annex C and TR045 using PROFIS Software as per actual load data and site conditions as provided by structural consultant and the report to be submitted to the project manager and design engineer for approval. Scanning before drilling to be done with PS Scanning tool to avoid rebar hits. stud anchor HST3 SS M8x95-30	Bd.C.2 Page No. 275	Number	464	7

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
2113	Rebar	53.21	BDC 2	Supplying, drilling/cleaning hole and fixing of Torque Controlled Expansion Anchor HST3, of sizes ranging from M8 to M24. The Anchor should be third party tested, possess ETA approval and should be pre-assembled with a galvanized bolt as per EN ISO 4042: 1999, ingenious expansion sleeve M10 and M16 (galvanized) and M8, M12, M20, M24 - Stainless Steel (EN ISO 4042: 1999), a nut of Strength Class 8 (EN ISO 20898-2:2012) and a galvanized washer (EN ISO 4042:1999). The anchor should be approved for use in Cracked Concrete. Anchor must be tested and approved as per Seismic C1 and C2 Category of TR045. ETA to have Fire Resistance values for up to 120 mins as per EOTA TR 020 and FM Approval (use in Pipe Hangers). Anchor shall be fixed at right embedment depth as per embedment mark and activated using AT Tool Module to ensure adequate torque as per manufacture's torque tolerance published in ETA and same shall be documented and submitted to Project Manager at the time of inspection. Design of Anchor should be done as per ETAG 001 Annex C and TR045 using PROFIS Software as per actual load data and site conditions as provided by structural consultant and the report to be submitted to the project manager and design engineer for approval. Scanning before drilling to be done with PS Scanning tool to avoid rebar hits. stud anchor HST3 SS M16x145-45	Bd.C.2 Page No. 275	Number	1112	9
2114	Rebar	53.22	BDC 2	Supplying, drilling/cleaning hole and fixing of Torque Controlled Expansion Anchor HST3, of sizes ranging from M8 to M24. The Anchor should be third party tested, possess ETA approval and should be pre-assembled with a galvanized bolt as per EN ISO 4042: 1999, ingenious expansion sleeve M10 and M16 (galvanized) and M8, M12, M20, M24 - Stainless Steel (EN ISO 4042: 1999), a nut of Strength Class 8 (EN ISO 20898-2:2012) and a galvanized washer (EN ISO 4042:1999). The anchor should be approved for use in Cracked Concrete. Anchor must be tested and approved as per Seismic C1 and C2 Category of TR045. ETA to have Fire Resistance values for up to 120 mins as per EOTA TR 020 and FM Approval (use in Pipe Hangers). Anchor shall be fixed at right embedment depth as per embedment mark and activated using AT Tool Module to ensure adequate torque as per manufacture's torque tolerance published in ETA and same shall be documented and submitted to Project Manager at the time of inspection. Design of Anchor should be done as per ETAG 001 Annex C and TR045 using PROFIS Software as per actual load data and site conditions as provided by structural consultant and the report to be submitted to the project manager and design engineer for approval. Scanning before drilling to be done with PS Scanning tool to avoid rebar hits. Safety stud anchor HST3 M20x170	Bd.C.2 Page No. 275	Number	785	11

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
2115	Rebar	53.23	BDC 2	Supplying, drilling/cleaning hole and fixing of Torque Controlled Expansion Anchor HST3, of sizes ranging from M8 to M24. The Anchor should be third party tested, possess ETA approval and should be pre-assembled with a galvanized bolt as per EN ISO 4042: 1999, ingenious expansion sleeve M10 and M16 (galvanized) and M8, M12, M20, M24 - Stainless Steel (EN ISO 4042: 1999), a nut of Strength Class 8 (EN ISO 20898-2:2012) and a galvanized washer (EN ISO 4042:1999). The anchor should be approved for use in Cracked Concrete. Anchor must be tested and approved as per Seismic C1 and C2 Category of TR045. ETA to have Fire Resistance values for up to 120 mins as per EOTA TR 020 and FM Approval (use in Pipe Hangers). Anchor shall be fixed at right embedment depth as per embedment mark and activated using AT Tool Module to ensure adequate torque as per manufacture's torque tolerance published in ETA and same shall be documented and submitted to Project Manager at the time of inspection. Design of Anchor should be done as per ETAG 001 Annex C and TR045 using PROFIS Software as per actual load data and site conditions as provided by structural consultant and the report to be submitted to the project manager and design engineer for approval. Scanning before drilling to be done with PS Scanning tool to avoid rebar hits. stud anchor HST3 SS M20x170	Bd.C.2 Page No. 275	Number	2581	11
2116	Rebar	53.24	BDC 2	Supplying, drilling/cleaning hole and fixing of Torque Controlled Expansion Anchor HST3, of sizes ranging from M8 to M24. The Anchor should be third party tested, possess ETA approval and should be pre-assembled with a galvanized bolt as per EN ISO 4042: 1999, ingenious expansion sleeve M10 and M16 (galvanized) and M8, M12, M20, M24 - Stainless Steel (EN ISO 4042: 1999), a nut of Strength Class 8 (EN ISO 20898-2:2012) and a galvanized washer (EN ISO 4042:1999). The anchor should be approved for use in Cracked Concrete. Anchor must be tested and approved as per Seismic C1 and C2 Category of TR045. ETA to have Fire Resistance values for up to 120 mins as per EOTA TR 020 and FM Approval (use in Pipe Hangers). Anchor shall be fixed at right embedment depth as per embedment mark and activated using AT Tool Module to ensure adequate torque as per manufacture's torque tolerance published in ETA and same shall be documented and submitted to Project Manager at the time of inspection. Design of Anchor should be done as per ETAG 001 Annex C and TR045 using PROFIS Software as per actual load data and site conditions as provided by structural consultant and the report to be submitted to the project manager and design engineer for approval. Scanning before drilling to be done with PS Scanning tool to avoid rebar hits. stud anchor HST3 M24x200 30	Bd.C.2 Page No. 275	Number	144	38

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
2117	Rebar	53.25	BDC 2	Supplying, drilling/cleaning hole and fixing of Torque Controlled Expansion Anchor HST3, of sizes ranging from M8 to M24. The Anchor should be third party tested, possess ETA approval and should be pre-assembled with a galvanized bolt as per EN ISO 4042: 1999, ingenious expansion sleeve M10 and M16 (galvanized) and M8, M12, M20, M24 - Stainless Steel (EN ISO 4042: 1999), a nut of Strength Class 8 (EN ISO 20898-2:2012) and a galvanized washer (EN ISO 4042:1999). The anchor should be approved for use in Cracked Concrete. Anchor must be tested and approved as per Seismic C1 and C2 Category of TR045. ETA to have Fire Resistance values for up to 120 mins as per EOTA TR 020 and FM Approval (use in Pipe Hangers). Anchor shall be fixed at right embedment depth as per embedment mark and activated using AT Tool Module to ensure adequate torque as per manufacture's torque tolerance published in ETA and same shall be documented and submitted to Project Manager at the time of inspection. Design of Anchor should be done as per ETAG 001 Annex C and TR045 using PROFIS Software as per actual load data and site conditions as provided by structural consultant and the report to be submitted to the project manager and design engineer for approval. Scanning before drilling to be done with PS Scanning tool to avoid rebar hits. stud anchor HST3 SS M24x200 30	Bd.C.2 Page No. 275	Number	3326	13
2118	Rebar	53.26	BDC 2	Suppling, Drilling/Cleaning hole and fixing make heavy duty ETA Approved Chemical Anchor of appropriate size and fixing plates subsequently. Anchor comprises of HVU-2 flexible foil capsule that contains styrene free Urethane Methacrylate resin, hardener, quartz, sand/corundum and HAS-U threaded rod of minimum 5.8 steel grade, galvanized to minimum 5 microns. Anchor should be approved for cracked concrete, seismic & diamond drill holes. Manufacture should submit Anchor Design report based on design loads & other parameters as provided by consultants. Chemical anchors should be designed in accordance with EOTA-TR-029 "guidelines for anchorage of chemical anchors for use in concrete" for approval. Application at site should be done as per manufacturer guidelines. Any report submittal with Installation pictures should be done using CFS-DM Software, which shall be charged extra. Anchor HVU2+ HAS U M10X90-21	Bd.C.2 Page No. 275	Number	390	8
2119	Rebar	53.27	BDC 2	Suppling, Drilling/Cleaning hole and fixing make heavy duty ETA Approved Chemical Anchor of appropriate size and fixing plates subsequently. Anchor comprises of HVU-2 flexible foil capsule that contains styrene free Urethane Methacrylate resin, hardener, quartz, sand/corundum and HAS-U threaded rod of minimum 5.8 steel grade, galvanized to minimum 5 microns. Anchor should be approved for cracked concrete, seismic & diamond drill holes. Manufacture should submit Anchor Design report based on design loads & other parameters as provided by consultants. Chemical anchors should be designed in accordance with EOTA-TR-029 "guidelines for anchorage of chemical anchors for use in concrete" for approval. Application at site should be done as per manufacturer guidelines. Any report submittal with Installation pictures should be done using CFS-DM Software, which shall be charged extra. AnchorHVU2+ HAS U M12x110-90	Bd.C.2 Page No. 275	Number	584	8



Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
2120	Rebar	53.28	BDC 2	Suppling, Drilling/Cleaning hole and fixing make heavy duty ETA Approved Chemical Anchor of appropriate size and fixing plates subsequently. Anchor comprises of HVU-2 flexible foil capsule that contains styrene free Urethane Methacrylate resin, hardener, quartz, sand/corundum and HAS-U threaded rod of minimum 5.8 steel grade, galvanized to minimum 5 microns. Anchor should be approved for cracked concrete, seismic & diamond drill holes. Manufacture should submit Anchor Design report based on design loads & other parameters as provided by consultants. Chemical anchors should be designed in accordance with EOTA-TR-029 “guidelines for anchorage of chemical anchors for use in concrete” for approval. Application at site should be done as per manufacturer guidelines. Any report submittal with Installation pictures should be done using CFS-DM Software, which shall be charged extra. Anchor HVU2+ HAS U M16x125	Bd.C.2 Page No. 275	Number	926	9
2121	Rebar	53.29	BDC 2	Suppling, Drilling/Cleaning hole and fixing make heavy duty ETA Approved Chemical Anchor of appropriate size and fixing plates subsequently. Anchor comprises of HVU-2 flexible foil capsule that contains styrene free Urethane Methacrylate resin, hardener, quartz, sand/corundum and HAS-U threaded rod of minimum 5.8 steel grade, galvanized to minimum 5 microns. Anchor should be approved for cracked concrete, seismic & diamond drill holes. Manufacture should submit Anchor Design report based on design loads & other parameters as provided by consultants. Chemical anchors should be designed in accordance with EOTA-TR-029 “guidelines for anchorage of chemical anchors for use in concrete” for approval. Application at site should be done as per manufacturer guidelines. Any report submittal with Installation pictures should be done using CFS-DM Software, which shall be charged extra. Anchor HVU2+ HAS U M20x170	Bd.C.2 Page No. 275	Number	1561	11
2122	Rebar	53.30	BDC 2	Suppling, Drilling/Cleaning hole and fixing make heavy duty ETA Approved Chemical Anchor of appropriate size and fixing plates subsequently. Anchor comprises of HVU-2 flexible foil capsule that contains styrene free Urethane Methacrylate resin, hardener, quartz, sand/corundum and HAS-U threaded rod of minimum 5.8 steel grade, galvanized to minimum 5 microns. Anchor should be approved for cracked concrete, seismic & diamond drill holes. Manufacture should submit Anchor Design report based on design loads & other parameters as provided by consultants. Chemical anchors should be designed in accordance with EOTA-TR-029 “guidelines for anchorage of chemical anchors for use in concrete” for approval. Application at site should be done as per manufacturer guidelines. Any report submittal with Installation pictures should be done using CFS-DM Software, which shall be charged extra. Anchor HVU2+ HAS U M24x300	Bd.C.2 Page No. 275	Number	2132	14

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
2123	Rebar	53.31	BDC 2	Suppling, Drilling/Cleaning hole and fixing make heavy duty ETA Approved Chemical Anchor of appropriate size and fixing plates subsequently. Anchor comprises of HVU-2 flexible foil capsule that contains styrene free Urethane Methacrylate resin, hardener, quartz, sand/corundum and HAS-U threaded rod of minimum 5.8 steel grade, galvanized to minimum 5 microns. Anchor should be approved for cracked concrete, seismic & diamond drill holes. Manufacture should submit Anchor Design report based on design loads & other parameters as provided by consultants. Chemical anchors should be designed in accordance with EOTA-TR-029 “guidelines for anchorage of chemical anchors for use in concrete” for approval. Application at site should be done as per manufacturer guidelines. Any report submittal with Installation pictures should be done using CFS-DM Software, which shall be charged extra. Anchor HVU2+ HAS U M30 x 270	Bd.C.2 Page No. 275	Number	6300	19
2124	Ceiling and roofing ( New Item )	53.32	As directed by Engineer in charge	ACOUSTICAL WOODWOOL WALL PANELLING: Providing & fixing of 100% Natural Material- Magnesite (Hygroscopic & biologically sound binding agent) bonded woodwool Heradesign planks of 600Mm*1200Mm *25Mm thickness made out of wood wool fibre of width 1Mm Fiber thickness mixed with Natural water & Magnesite (No-Cement) with open & smooth surface texture, Weight of panel to be 11.3 Kg/m2. A Completly harmless Envirenment & Human Friendly & also a disposable or recyclable Material & can last for more than 80 Years in building interiors As it has long lifespan & suitable for Indoor conditions with relative air humidity of upto 90%. Magnesite protects the wood cells against ageing & fungal attack. To achive upto NRC=1.00 it should be a clear gap of 200Mm from wall slab along with the backing of Mineral wool of 50mm thick with 64 kg/m3 density. Ecologically Sound Material with high mechanical strength with Crash test of 90Km/H with Ball Impact Test DIN18032 & EN13964 with flying colors & A sustainable material (PEFC & FSC Certified) along with EPD Certified Acc. to EN ISO 14025 (AUB-Envirenmental Product declaration). Manufacturing tolerance for nominal size: Length, Width & Thickness ± 1 mm, & In a Standard Climate of 23° C and 50% rel. humidity. FIXING & SUBSTRUCTURE: Impact Resitant According to DIN-18023 or EN13964 to be Fixed on CD Sections Profile framework with Screw 9Pc/Panel & Centre Distance Support of 300Mm & Centre distance of Cross Profile would be at 600Mm & Main Profile at 900Mm CD Profile is made out of GI( Sections Profile 60/27/0.6Mm-0.6MmThick x 60Mm Width x 0.27Mm height). The Main Profile is in the legth of 3000Mm & to form a section of 600mm x 1200mm. Heradesign Superfine panels to be fixed on the wall with a minimum of 200Mm void or gap with Galvanized screws of length 50Mm & Dia 4.5Mm with a backing of Mineral Wool of density 64kg/m3 density (50mm thick).Colour Of Panels : NATURAL BEIGE, Can be Painted to the desired colour (Any- RAL, NCS or StoColor Shades) using water based color by Spray method prior to installation. FIRE CLASS as per EN 13501-1:B –s1, d0. Test Certificates to be submitted.	As directed by Engineer in charge	Square Metre	6585	301

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
2125	Ceiling and roofing ( New Item )	53.33	As directed by Engineer in charge	ACOUSTICAL WOODWOOL FALSE CEILING: Providing & fixing of 100% Natural Material- Magnesite (Hygroscopic & biologically sound binding agent) bonded woodwool Heradesign planks of 600Mm*1200Mm *25Mm thickness made out of wood wool fiber of width 1Mm Fiber thickness mixed with Natural water & Magnesite (No-Cement) with open & smooth surface texture, Weight of panel to be 11.3 Kg/m2. A Completely harmless Environment & Human Friendly & also a disposable or recyclable Material & can last for more than 80 Years in building interiors As it has long lifespan & suitable for Indoor conditions with relative air humidity of upto 90%. Magnesite protects the wood cells against ageing & fungal attack. To achieve upto NRC=1.00 it should be a clear gap of 200Mm from wall slab along with the backing of Mineral wool of 50mm thick with 64 kg/m3 density. Ecologically Sound Material with high mechanical strength with Crash test of 90Km/H with Ball Impact Test DIN18032 & EN13964 with flying colors & A sustainable material (PEFC & FSC Certified) along with EPD Certified Acc. to EN ISO 14025 (AUB-Environmental Product declaration). Manufacturing tolerance for nominal size: Length, Width & Thickness ± 1 mm, & In a Standard Climate of 23° C and 50% rel. humidity. FIXING & SUBSTRUCTURE: Impact Resistant According to DIN-18023 or EN13964 to be Fixed on CD Sections Profile framework with Screw 9Pc/Panel & Centre Distance Support of 300Mm & Centre distance of Cross Profile would be at 600Mm & Main Profile at 900Mm CD Profile is made out of GI( Sections Profile 60/27/0.6Mm-0.6MmThick x 60Mm Width x 0.27Mm height). The Main Profile is in the length of 3000mm & to form a section of 600mm x 1200mm. The CD Profile is to be suspended from soffit with the help of nonius hanger at a center distance of 900mm. UD Profile 28/27/0.6mm to be fixed on wall at the perimeter of the wall. If the main CD profile needs to extended, it needs to be connected with CD profile connector 60/27. The CD profiles to be connected to each other at the intersection by CD cross connector. Heradesign Superfine panels to be fixed to the ceiling with a minimum of 200mm void or gap with Galvanized screws of length 50Mm & Dia 4.5Mm with a backing of Mineral Wool of density 64kg/m3 density (50mm thick). Colour pf Panels : NATURAL BEIGE, Can be Painted to the desired colour (Any- RAL, NCS or StoColor Shades) using water based color by Spray method prior to installation. FIRE CLASS as per EN 13501-1:B –s1, d0. Test Certificates to be submitted.	As directed by Engineer in charge	Square Metre	7632	301

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
2126	Ceiling and roofing ( New Item )	53.34	As directed by Engineer in charge	METAL FALSE CEILING WITHOUT SUSPENSION SUPPORT FROM TRUE CEILING: Providing & fixing horizontal level suspended metal ceilings comprising of Metalworks F-H 600 Hook-on corridor system manufactured by Armstrong Ceiling Solutions with Rectangular panels made of 0.7mm thick Galvanised Steel (GI) of 120gsm, post coated to Global White colour, suitable for Interior applications and architectural finishes, double grid concealed system and butt joint panels. The panel width shall be 300mm, length ranging from 1500mm to 2660mm. General Specifications:Entire system to be designed for Interior applications, and concealed Grid, Butt joint panels. Panel Specifications: Material: The F-H 600 rectangular Hook-on panels to be made of galvanized steel (GI) of minimum 120gsm hot dipped galvanization (both sides included) as per IS 277 (2003), zero or minimum spangled, in minimum base material thickness of 0.7mm as per in IS:513 (1994). Dimensions: The panel Length varies between 1500mm to 2660mm, panel Width shall be 300mm. The dimensional tolerances for length shall be ±1.0m up to 1000mm L; ±1.5mm between 1001 to 2000mm L; ±2.0mm between 2001 to 3000mm L. The dimensional tolerances for width shall be ±0.5m up to 300mm W. Dimensional Tolerances for panel Thickness / panel width / panel length - to be measured in accordance with TAIM standards. Edge detail: the panels shall ha+A3ve Square Edge, with a 3mm(W) x 8mm(H) black foam gasket glued at the edges, typically on one long and one short side. All adjacent panels shall touch each other forming a butt joint and concealed grid visuals. Upturns: The short side of the panel shall have vertical upturns of minimum 30mm (H) and shall be bent appropriately bent as per the manufacturer's specifications for providing hook-on ends. The long side shall have inside horizontal bends of 5-15mm for rigidity and vertical upturns of 40mm (for length ranging from 1251-2660mm). Surface Finish: Plain: The panels shall be in plain unperforated finish (without any acoustical backing / felt). Colour and finishes: The panel surface shall be electrostatically powder coated (post coat) on visible side after mechanical production, using RoHS compliant powder, to achieve coating thickness ranging from 60-80µ and architectural quality finish. The powder coating shall pass Salt Spray Test for 750 Hours as per ASTM B117, QUV –A Test for 1000hours as per ASTM G-154 – (Cycle – 1) and Humidity test for 1000hours as per DIN 50017, 250 hours of condensation test (as per DIN 50017 or DIN EN ISO 6270-1 Norms), UV resistance of 500 hours and 50% gloss retention (as per ASTM G 154 UVB-313 Norms). The powder coating shall have an adhesion of GT0 as per EN ISO 2409. The shade variation across batches shall be delta E (Δe) <1 measured using Excite/BYK Gardner instrument and gloss level of 25±5% at 60° as per ASTM D523.The colour / shade to be Global White (Polyester for Interior) as approved by the Architect or Engineer-in-charge. Surface Protection: The visible panel surface shall be protected using a guard film made of LDPE of 50µ thickness, having appropriate surface adhesion (or tackiness) corresponding to surface gloss level. Light reflectance: The panel shall have a Light Reflectance of ≥ 63% in accordance to ASTM 1477-98. Flatness and Sag limit: Panels shall be flattened by precision leveller to minimize sag to less than Length/400mm. The difference between the two diagonal dimensions of the panel to be less than 1mm. The sag to be measured at the center in accordance with TAIM standards. Access and Plenum space: The panels to be Fully Accessible, with system height of 98mm, and would require a plenum height of a minimum 450mm clear space from bare ceiling / rigid structure for installation. Packaging: The Panels shall be packed in wooden crates of appropriate dimensions based on panel sizes. The wooden planks for rates shall have thickness of approx.15mm, width of around 4” and gap between two planks around 3”. Crates to have layer separators of 1” x 2” dimensions to prohibit load transfer on bottom panels, and the crates lifting to be 2way or 4way. The bottom of crates shall be completely closed, and the panels kept inside shall have cushioning of corrugated sheets or other appropriate material. Installation Specifications: Primary and secondary runners Installation: U-Profiles, spaced at 1200mm, to be suspended from ceiling using clamping brackets and threaded rods OR hanger wires. Hanger wires must be wrapped tightly with 3 full wraps. The J-Bars (directional) shall intersect the U-profile at 90° at every module dictated by the panel length. The J-Bar is connected to the U-	As directed by Engineer in charge	Square Metre	6511	376

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
2127	Ceiling and roofing ( New Item )	53.35	As directed by Engineer in charge	<p>METAL BAFFLE CEILING : Providing &amp; fixing of horizontal level suspended ceiling comprising of Vertical Linear Baffle Ceiling made out of Aluminum Extrusion in Aluminum alloy grade 6063 T5. The baffle blade shall be in size of 100x25x3600mm in powder coated to Woodgrain/Plain finish (Red Oak, Cherry, Black &amp; White).. The baffle shall be electrostatically polyester powder coated to a coating thickness of 60-80 micron. The powder coating shall pass Salt Spray Test for 750 Hours as per ASTM B117, QUV –A Test for 1000hours as per ASTM G-154 – (Cycle – 1) and Humidity test for 1000hours as per DIN 50017. The powder coating shall have an adhesion of GT0 as per EN ISO 2409. The shade variation within a manufacturing batch shall be delta E&lt;1 using Excite/BYK Gardner instrument and gloss level 25±5 at 60° as per ASTM D523 (Not applicable of Wood Grain Shade). The baffle blade shall be suspended using Slotted U-profile of 20 x 30 x 3700mm (Thk-1.5mm) having slots in module of 25mm to keep baffles at an on-center spacing in multiples of 25mm. Longer lengths of Baffle to be connected by Baffle Joiner and the ends to be fixed with End caps..SUSPENSION: Shall be hanged using baffle hanger from U-profile made of mild steel with powder coating thickness of 60-80 micron. The U – profile to comprise of alternate square &amp; rectangular slots of 6.5x6.5mm &amp; 28x6.5mm respectively on the web for locking the baffle hanger using plugin clip to secure the hanger in perfect position and achieve uniform spacing between baffles. The overall dimension of the U – profile is 20(W) x 30(H) x 3750(L) mm and is rolled form from 1.5mm thick mild steel with a powder coating thickness of 60-80micron. U- Profile to be connected to each other using U –Profile Splice. The U- profile shall be hanged from the true ceiling using threaded rod using a U- Profile hanger.</p> <p>The Baffle along with suspension system used together shall carry a 10 year warranty against manufacturing defect and manufacturer shall provide a warranty certificate. The supply shall be backed by a Manufacturing Test Certificate. INSTALLATION:</p> <p>Installation of U-Grid:</p> <p>The U profile to be suspended at every 1200mm center to center using 6mm threaded rod from the structural soffit using U-profile hanger. U-profile splice to be used to join more than one U profiles of length 3.7M. 1st U-Grid Channel must be no more than 400mm from the perimeter.</p> <p>Installation of Baffles:</p> <p>Locate the slot for Baffle Hangers in U Profile section at 1200mm centers. Hangers are inserted into the slot, then rotated 90° and fixed into position by tightening the grub screw. Baffle to be lifted into position and hangers engage over lip of U-Grid Channel. Each Hanger to be secured into position by inserting the Locking Clip.</p> <p>When doing continuous installation, Baffles blades are to be connected at ends with Baffle Joiner, which are inserted into the top and bottom slots of the Baffle closed profile for alignment only. The bottom Joiner to be located first and fastened on one side only. The top Joiner to be fitted then and secured with grub screws on one side. Then the two Baffle sections shall be joined and the top Joiner is screw fastened on the 2nd Baffle profile.</p> <p>End Caps to be located by pushing the End Cap tongues into open Baffle slots.</p> <p>Installation should be carried out as per Manufacturer recommended procedure.</p>	As directed by Engineer in charge	Square Metre	13131	301

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
2128	Ceiling and roofing ( New Item )	53.36	As directed by Engineer in charge	<p>METAL OPEN CELL CEILING : Providing &amp; fixing horizontal level Open cell Aluminium lay-in ceiling tiles with border panels forming board edge of size 600x600x38mm (Nominal) having cell size of 100x100mm made of AA-3003-H14 (Tempered) grade Aluminium suitable for architectural finishes in 0.35mm thickness as per in IS:2676 (1981) in Global white color. The tile shall be electrostatically polyester powder coated using RoHS compliant powder having coating thickness ranging from 60-80 microns. The powder coating shall pass Salt Spray Test for 750 hours as per ASTM B117, QUV –A Test for 1000 hours as per ASTM G-154 – (Cycle – 1) and Humidity test for 1000 hours as per DIN 50017. The powder coating shall have an adhesion of GT0 as per EN ISO 2409. The shade variation across batches shall be delta E&lt;1 using Excite/BYK Gardner instrument and gloss level of 25±5% at 60° as per ASTM D523. Tile shall have a Fire Performance class A as per GB 8624-2012. SUSPENSION: The tile shall be laid on 15 mm wide T - section flanges colour global white (matching to tile colour) having double stroke rotary stitching on all T sections i.e. the Main Runner, 1200 mm &amp; 600 mm Cross Tees with a web height of 38mm (all sections). The deflection loading of the system shall be 12.5 kg/m2 (as per standard installation layout mentioned below) and main beam tested as per ASTM C635 (Deflection limit less than L/360) with a deflection loading of 15kg/m. The end details of the cross tee shall be made of pre hardened steel clip fixed to the ends of the cross tee to provide double locking between “cross tee to cross tee” and “cross tee to main beam”. All main beam to main beam and cross tee to cross tee connection shall have a pull out strength of more than 100kg. The T Sections shall be made of hot dipped galvanized steel 90 gsm and pre-painted steel with baked polyester paint of OT bending capability.</p> <p>The Tile &amp; Grid system used together shall carry a 10 year warranty against manufacturing defect and manufacturer shall provide a warranty certificate. The Tile &amp; Grid shall have the manufacturers name embossed/printed on it. The supply shall be backed by a Manufacturing Test Certificate. INSTALLATION: To comprise main runner spaced at 1200mm securely fixed to the structural soffit using suspension system (specifications below) at 1200mm maximum. The First/Last suspension system at the end of each main runner shall not be greater than 450mm from the adjacent wall along with the first and the last main beam shall be at less than 600mm from the wall.</p> <p>Flush fitting 1200mm long cross tees to be interlocked between main runners at 600mm to form 1200 x 600 mm module. Cut cross tees longer than 600mm require independent support. 600 x 600mm module to be formed by fitting 600mm long flush fitting cross tees centrally between the 1200 mm cross tees.</p> <p>Perimeter trim to be wall angles of size 3000x19x19mm, secured to walls using screws at 450mm centre to centre maximum. All border cut tiles shall be laid, using lay-in end cap for installation to have a Microlook effect on perimeters.</p> <p>Installation shall be carried out as per Manufacturer recommended procedure.</p> <p>SUSPENSION SYSTEM accessories manufactured and supplied by Manufacturer consisting of M6 Anchor Fasteners with hanger hole, pre Straightened Hanger wire of dia – 2.5 mm of 1.80 m length having a tensile strength of 344-413 MPa and a minimum loading strength of 110 kgs. Additionally, adjustable hook clips made of 0.7mm thick Grade 1 C55 galvanized spring steel of dimension 100 x 20mm and 4 mm aquiline wire to be used for level adjustment during installation purpose in main runners.</p>	As directed by Engineer in charge	Square Metre	3530	301

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
2129	Ceiling and roofing ( New Item )	53.37	As directed by Engineer in charge	<p>ACOUSTICAL GLASS FIBRE FALSE CEILING BLADES : Providing and Fixing Acoustical blade which are 40 mm thick, flat glass fibre panels with Humidity Resistance RH 90%, with factory fitted embedded metal insert with ¼” – 20 threading for fixing cable adjuster for hanging application. Acoustical blades shall have sizes of 200x1200mm, 200x1600mm, 400x1200mm, 400x1600mm, 400x1800mm, 500x1200mm or 500x1600mm with both side laminated scrim finished with uniform water based paint on all surface (including edges). Acoustical performance of 0.65 NRC(for 400mm high x 40mm thick baffles with 400mm on centre distance and overall depth of construction 1000mm) as per ASTM C-423 (Average value of Absorption Co-efficient readings taken at 250 Hz, 500 Hz, 1000 Hz and 2000 Hz) in standard White color with Light reflectance 87% or in the color specified by the Architect (Shell / Tangerine / Cranberry / Moss / Kiwi / Reef / Lagoon), Fire Performance Class B2 – s1, d0 as per EN 13501-1 .The blade shall be made of Glass fibre panel with density of 110-120 Kg/ m3. SUSPENSION: The panel shall be hung using hanging kit comprising of griper structure anchor &amp; cap of dia 20mm, spring loaded bottom end cable adjuster of dia. 9mm and 2.4m long aircraft cable of 1/16” dia. The Blade along with suspension system shall carry a 1 year warranty against manufacturing defect and manufacturer shall provide a warranty certificate. The supply shall be backed by a Manufacturing Test Certificate.</p> <p>Suspension System Details</p> <p>Components 1) Griper structure anchor 2) Gripper anchor cap 3) Cable adjuster 4) Aircraft Cable Cable adjuster Spring loaded bottom end cable adjuster of dia. 9mm and 45mm long Aircraft cable Material Galvanized Steel Aircraft cable dimension 1/16” Ø x 2.4m Tolerance ±1mm. INSTALLATION:</p> <p>Hanger Wire Attachment to Structure: Attach the gripper structure anchor to the structure with an appropriate fastener (1/4”-20 Threading) that will carry the full weight of the blades. Insert the end of the cable into the gripper anchor cap. Screw the gripper anchor cap completely into the gripper structure anchor.</p> <p>Insert Suspension Cables: The panel is to be suspended using the aircraft cables which are suspended from the soffit using the gripper structure anchors and its other end passing through the bottom end cable adjuster. The height &amp; level of the panels can be adjusted using the bottom end cable adjusters.</p> <p>Suspension of Blade: Locate the two factory fitted female inserts on the blades. Suspend the Blades by screwing the bottom end of the cable adjuster into the female inserts.</p> <p>Installation should be carried out as per Manufacturer recommended procedure.</p>	As directed by Engineer in charge	Square Metre	17457	301

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
2130	Ceiling and roofing ( New Item )	53.38	As directed by Engineer in charge	<p>ACOUSTICAL GLASS FIBRE FALSE CEILING CLOUDS &amp; SHAPES : Providing and Fixing Acoustical Clouds/Shapes - Acoustical clouds which are 30 mm thick, flat glass fibre panels of Humidity Resistance RH 95%, with embedded frame made of aluminium extruded section of 38X10mm of grade 6063-T6 as per dimension mentioned in below table for reinforcement and secured hanging. Embedded extrusion shall have grub slot with pre inserted nut for group hanging and connected using Aluminium die casted corner connector with ¼” – 20 threading for hanging using cable adjuster for independent clouds. The form of Acoustical Clouds/Shapes - shall be Square / Convex / Concave / Circle / Hexagon / Trapezoid / Parallelogram (Left &amp; Right) / Rectangle (Small &amp; Large) in standard Traffic White color with light reflectance 90% as per ASTM 1477-98 or in the color specified by the Architect / Engineer in charge (Shell / Tangerine / Cranberry / Moss / Kiwi / Reef / Lagoon). The Acoustical Clouds/Shapes shall be made of Glass fibre panel with density of 110-120 Kgs/m3 along with acoustical sound absorbing scrim on the face to achieve sound absorption as per below mentioned table in accordance to EN ISO 354 :2003 (average of 500-4000Hz) . The face and edges shall be finished with matching water based texture paint. Shape Nominal Size and Sound Absorption – Metric Sabin</p> <p>1. Square 1170x1170mm - 2.48 Metric Sabin 2. Convex 1170x1140mm 2.28 Metric Sabin 3. Concave 1170x1140mm 1.94 Metric Sabin 4. Circle 1170 Dia. 2.12 Metric Sabin 5. Hexagon 1170x1010mm 1.61 Metric Sabin 6. Trapezoid 1170x1170mm 2.15 Metric Sabin 7. Left Parallelogram 1170x1170mm 2.15 Metric Sabin 8. Right Parallelogram 1170x1170mm 2.15 Metric Sabin.The panel shall be hung as per the following based on the installation. Individual Suspension - The panel shall be hung using deck hanging kit comprising of griper structure anchor &amp; cap of dia. 20mm, spring loaded bottom end cable adjuster of dia. 9mm and 2.4m long aircraft cable of 1/16” dia. The number of deck hanger will be as per Table 1 above.</p> <p>The Acoustical Clouds/Shapes shall carry a 1 year warranty against manufacturing defect and supported by a manufacturer warranty certificate. The supply shall be backed by a Manufacturing Test Certificate.</p> <p>Suspension System Details Components 1) Griper structure anchor, 2) Gripper anchor cap 3) Cable adjuster 4) Aircraft Cable Cable adjuster Spring loaded bottom end cable adjuster of dia. 9mm and 45mm long Aircraft cable Material Galvanized Steel Aircraft cable dimension 1/16” Ø x 2.4m Tolerance ±1mm INSTALLATION:</p> <p>Individual Suspension.</p> <p>The panels to be suspended individually using the Acoustical Clouds/Shapes Deck hanging kit as per the number specified in above Table 1.</p> <p>Hanger Wire Attachment to Structure: Attach the gripper structure anchor to the true ceiling using an appropriate fastener (1/4"-20 Threading) that will carry the full weight of the panels. Insert the end of the cable into the gripper anchor cap. Screw the gripper anchor cap completely into the gripper structure anchor.</p> <p>The panel to be suspended using the aircraft cables from the soffit by fixing the cap end of the cable to gripper structure anchors and the other end passing through the bottom end cable adjuster. The height &amp; level of the panels can be adjusted using the bottom end cable adjusters.</p> <p>Suspend the Acoustical Clouds/Shapes by locating and screwing the bottom end of the cable adjuster into the threading of the connector.</p> <p>The height &amp; level of the panels can be adjusted using the bottom end cable adjuster.</p>	As directed by Engineer in charge	Square Metre	17751	226



Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
2131	Ceiling and roofing ( New Item )	53.39	As directed by Engineer in charge	<p>CUSTOM PRINTED ACOUSTICAL FALSE CEILING :Providing &amp; Fixing of Custom color Printed Mineral Fibre Acoustical Suspended Ceiling System with 19mm thick Microlook 90 Edge Tiles with 15mm face exposed grid. The tiles shall have smooth bright laminated visual with Humidity Resistance (RH) of 99%, NRC 0.7 (Average value of Absorption Co-efficient readings taken at 250 Hz, 500 Hz, 1000 Hz and 2000 Hz) as per ASTM C423 standard, CAC of 41db as per ASTM E1414, Light Reflectance <math>\geq 87\%</math> as per ASTM E-1477, Thermal Conductivity <math>k = 0.045 - 0.048</math> W/mK, Colour Global White, Fire Performance of Class 0/1 as per BS 476 Part6/7 and Class A as per ASTM E 84 with 19mm Square Tegular/Microlook 90' edge and 8mm drop in module size of 600 x 600mm. The scrim on the face of the tile shall be cleanable, soil and scratch resistant and having superior scrub-ability (Gardner Test). The tiles shall be classified as ISO 14644-1 cleanroom class 5. The tile shall have a rating of 8 or above for tests conducted for Resistance to growth of Mold in accordance to ASTM D3273. It shall be suitable for Green Building application, with Recycled content of 36%. The tile shall have certifications from GRIHA and GreenPro thereby confirming that it is an environment friendly product.</p> <p>SUSPENSION: The tile shall be laid on with 15 mm wide T - section flanges colour global white (matching to tile color) having roll formed double stroke rotary stitching on all T sections i.e. the Main Runner, 1200 mm &amp; 600 mm Cross Tees with a web height of 38mm (all sections). The deflection loading of the system shall be 12.5 kg/m<sup>2</sup> (as per standard installation layout mentioned below) and main beam tested as per ASTM C635 (Deflection limit less than L/360) with a deflection loading of 15kg/m. The end details of the cross tee shall be made of pre hardened steel and fixed to the ends of the cross tee to provide double locking between “cross tee to cross tee” and “cross tee to main beam”. All main beam to main beam and cross tee to cross tee connection shall have a pull out strength of more than 100kg. The T Sections shall be made of hot dipped galvanized steel of 90 gsm as per IS 277 (2003) and pre-painted steel with baked polyester paint with 0T bending capability. All border cross tee/main beam shall be levelled using perimeter fill.</p> <p>INSTALLATION: To comprise main runner spaced at 1200mm securely fixed to the structural soffit using suspension system (specifications above) at 1200mm maximum. The First/Last suspension system at the end of each main runner shall not be greater than 450mm from the adjacent wall along with the first and the last main beam shall be at less than 600mm from the wall. Flush fitting 1200mm long cross tees to be interlocked between main runners at 600mm to form 1200 x 600 mm module. Cut cross tees longer than 600mm require independent support. 600 x 600mm module to be formed by fitting 600mm long flush fitting cross tees centrally between the 1200 mm cross tees. Perimeter trim to be wall angles of size 3000x19x19mm, secured to walls using screws at 450mm centre to centre maximum. Installation shall be carried out as per Manufacturer recommended procedure. SUSPENSION SYSTEM accessories supplied by Manufacturer consisting of M6 Anchor Fasteners with hanger hole, pre-straightened hanger wire of dia – 2.5 mm of 1.80 m length having a tensile strength of 344-413 MPa and a minimum loading strength of 110 kgs. (Optionally, adjustable hook clips made of 0.7mm thick Grade 1 C55 galvanized spring steel of dimension 100 x 20mm and 4 mm aquiline wire to be used for level adjustment during installation purpose in main runners)..</p>	As directed by Engineer in charge	Square Metre	7410	226

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
2132	Ceiling and roofing ( New Item )	53.40	As directed by Engineer in charge	<p>PRIVIDING AND FIXING METAL WALL PANELLING: W-H 1100 Hook-on wall cladding system manufactured by Armstrong Ceiling Solutions with Rectangular panels made of 1.0mm thick Galvanised Steel (GI) of 120gsm, post coated to wood grain finish, suitable for Interior applications and architectural finishes, wall mounted concealed grid system and butt joint panels. The panel width shall be 495mm, length ranging from 300mm to 1195mm.</p> <p>General Specifications: Entire system to be designed in accordance with EN 13964 and TAIM e.V. quality guidelines suitable for Green Building Application for Interior applications, and concealed Grid, Butt joint panels.Panel Specifications: Material: The W-H 1100 rectangular Hook-on panels to be made of galvanized steel (GI) of minimum 120gsm hot dipped galvanization (both sides included) as per IS 277 (2003), zero or minimum spangled, in minimum base material thickness of 1.0mm as per in IS:513 (1994) Dimensions: The panel Length varies between 300mm to 1195mm, panel Width is 495mm. The dimensional tolerances for length shall be ±1.0m up to 1000mm L; ±2.0mm between 1001 to 2000mm L;. The dimensional tolerances for width shall be ±0.75m up to 600mm W;. Dimensional Tolerances for panel Thickness / panel width / panel length - to be measured in accordance with TAIM standards. Edge detail: The panels shall have Square Edge, with a 5mm(W) x 8mm(H) black foam gasket glued at the edges, typically on one long and one short side. All adjacent panels shall touch each other forming a butt joint and concealed grid visuals. Upturns: The hook side of the panel shall have vertical upturns of minimum 30mm (H) and shall be bent appropriately bent as per the manufacturer's specifications for providing hook-on ends. The long side shall have inside horizontal bends of around 10mm for rigidity and vertical upturns of 30mm.Surface Finish: Plain / Perforated: The panels shall be in plain or perforated finish with acoustical backing / felt. Colour and finishes: The panel surface shall be electrostatically powder coated (post coat) on visible side after mechanical production, using RoHS compliant powder, to achieve coating thickness ranging from 60-100µ and architectural quality finish. The shade variation across batches shall be delta E (Δe) &lt;1 measured using Excite/BYK Gardner instrument and gloss level of 25±5% at 60° as per ASTM D523. The shade to be White or std wood grain as approved by the Architect or Engineer-in-charge. Surface Protection: The visible panel surface shall be protected using a guard film made of LDPE of 50µ thickness, having appropriate surface adhesion (or tackiness) corresponding to surface gloss level. Flatness and Sag limit: Panels shall be flattened by precision leveller to minimize sag to less than Length/400mm. The difference between the two diagonal dimensions of the panel to be less than 1mm. The sag to be measured at the center in accordance with TAIM standards. Access space: The panels to be progressively Accessible, with system depth of 60mm (+17mm / -8mm) and would require a plain flat vertical clear rigid wall / structure for installation of the grid system with appropriate depth an clear space. Packaging: The Panels shall be packed in wooden crates of appropriate dimensions based on panel sizes. The wooden planks shall have thickness of approx.15mm, width of around 4” and gap between two planks around 3”. Crates to have layer separators of 1” x 2” dimensions to prohibit load transfer on bottom panels, and the crates lifting to be 2way or 4way. The bottom of crates shall be completely closed, and the panels kept inside shall have cushioning of corrugated sheets or other appropriate material. Suspension System Specifications:Grids: Primary Runners would be GI U-Wall Profile (minimum galvanization 120gsm) of 50mm(W) x 2400mm(L) x 24mm(D) x 1.5mm(T), machine formed slotted profile.</p> <p>Accessories: Accessories would include connector for U-Wall Profile (GI), suspending element for U-Wall Profile (GI), supporting bracket (Rubber), Wall Anchor for U-Wall Profile (GI), Corner Wall Anchor for U-Wall Profile (GI). Wall anchor for C-wall profileminimum 1.25mm thick, galvanization 120 gsm Suspending elementminimum 1.2mm thick, galvanization 120 gsm</p>	As directed by Engineer in charge	Square Metre	12770	301

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
2133	Ceiling and roofing ( New Item )	53.41	As directed by Engineer in charge	<p>PRIVIDING AND FIXING MODULAR ACOUCTICAL WOODEN WALL PANELLING: Of nominal width 100 / 150mm, having 80mm wide panel with 20mm reveal having a thickness of 15mm thickness and length 2400 mm. The panel shall be made of a Moisture resistant fibre board substrate having a minimum density of 595 Kg/m<sup>3</sup> with a laminated facing as per the approved shade (Portland Maple, Sea Beech, Siam Wood &amp; Mystique Walnut) and a melamine balancing layer on the reverse side. The panel shall have 0.7mm PVC edge banding along the length side with a similar finish as that of the face. The back of the panel shall have a black acoustic felt to cover the reveal of 20mm to attain an NRC of 0.4 for 150mm. / 0.5 for 100mm. module (Average value of Absorption Co-efficient readings taken at 250 Hz, 500 Hz, 1000 Hz and 2000 Hz) as per ASTM C423. The panels shall provide a Humidity Resistance (RH) of 70% with camber limit less than 1mm/1000mm and bow less than 1mm/300mm. The back of the panels shall be profile-grooved to receive 3600mm special main beam carrier with integrated factory fitted clips for installation. SUSPENSION: The panels shall be upward mounted on 24 mm wide T - section flanges having rotary stitching along the length of the beam with a web height of 43mm. The Main Beam shall have integrated (factory fitted) locking clips installed at 100 / 150mm centre to centre distance. The deflection loading of the main beam tested as per ASTM C635 (Deflection limit less than L/360) shall be at least 21.4kg/m. The end details of the main beam shall be made of pre hardened steel and fixed to the ends with 3 point fixing. All main beam to main beam connection shall have a pull out strength of more than 100kg. The T Sections shall be made of hot dipped galvanized steel of 100 gsm as per IS 277 (2003) and pre-painted steel with baked polyester paint with OT bending capability. Installation should be carried out as per Manufacturer recommended procedure. The grid shall be installed with suspension system of Manufacturer make.</p> <p>The panel &amp; grid system used together shall carry a 1 year warranty against manufacturing defect and manufacturer shall provide a warranty certificate. The panel &amp; grid shall have the manufacturers name embossed/printed on itself. The supply shall be backed by a Manufacturer Test Certificate. CEILING INSTALLATION:</p> <p>Perimeter trim to be wall angles of size 3000x19x19mm, secured to walls at 450 mm maximum centre to centre. Mount the wall angle around perimeter at desired height. Install the main beam with factory fitted locking clip at a level 16mm above the wall angle level. Main beam to be supported from the structure with 1st suspension not more than 300mm from the wall and distance between suspensions to be less than 900mm centre to centre. Each main beam are to be place at 600mm centre to centre with the 1st main beam at not more than 100mm from the wall. Install the panels one-by-one by inserting the profile-groove at the back of the panel in the clips fitted on the main beam. Use a wood splice accessory provided by Manufacturer to join planks. Continue installing rows of planks till the actual length/width is achieved. Place the border panels on the wall angles for a finished visual. Finish the edges using the edge banding tape to cover the cut edge of the panel provided by Manufacturer.</p> <p>SUSPENSION SYSTEM accessories manufactured and supplied by Manufacturer consisting of M6 Anchor Fasteners with hanger hole, pre straightened Hanger wire of dia – 2.5 mm of 1.80 m length having a tensile strength of 344-413 MPa and a minimum loading strength of 110 kgs. Additionally, adjustable hook clips made of 0.7mm thick Grade 1 C55 galvanized spring steel of dimension 100 x 20mm and 4 mm aquiline wire to be used for level adjustment during installation purpose in main runners.</p> <p>WALL INSTALLATION: An appropriate vapour barrier (by others) shall be applied/installed on the vertical surface before the installation to properly seal against entry of any moisture. Vapour barrier (by others) shall be installed as per Manufacturer's</p>	As directed by Engineer in charge	Square Metre	10884	301

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
2134	Ceiling and roofing ( New Item )	53.42	As directed by Engineer in charge	<p>PRIVIDING AND FIXING ANTIMICROBIAL ACOUSTICAL FALSE CEILING: Bioguard Mineral Fibre Acoustical Suspended Ceiling System with 19mm thick Acoustics Microlook 90 Edge Tiles with 15mm face exposed grid. The tiles shall have smooth bright laminated visual with Humidity Resistance (RH) of 99%, NRC 0.7 (Average value of Absorption Co-efficient readings taken at 250 Hz, 500 Hz, 1000 Hz and 2000 Hz) as per ASTM C423 standard, CAC of 41db as per ASTM E1414, Light Reflectance <math>\geq 87\%</math> as per ASTM E-1477, Thermal Conductivity <math>k = 0.052 - 0.057</math> W/mK, Colour Global White, Fire Performance of Class 0/1 as per BS 476 Part6/7 and Class A as per ASTM E 84 with 19mm Square Tegular/Microlook 90° edge and 8mm drop in module size of 600 x 600mm./ 600x1200mm. The scrim on the face of the tile shall be cleanable, washable up to 500 cycle as per ASTM D-4828 and resistant to disinfectants. The tile shall be treated with Anti Microbial coating on the face of the tile to achieve cleanroom classification of class 5 (Class 100) as per ISO 14644-1 and suitable for zone 4 area having partical emission under normal conditions of ISO 5, Decontamination Class of CP10 and Bacteriological Cleanliness Class B1 for specific strains as per NF S 90-35:2003 The tile shall have a rating of 8 or above (face) for tests conducted for Resistance to growth of Mold in accordance to ASTM D3273. It shall be suitable for Green Building application, with Recycled content of 35% having VOC and Formaldehyde emission rate less than 0.1mg/m2/hr. The tile shall have certifications from GRIHA and GreenPro thereby confirming that it is an environment friendly product. SUSPENSION: The tile shall be laid on 15 mm wide T - section flanges colour global white (matching to tile color) having roll formed double stroke rotary stitching on all T sections i.e. the Main Runner, 1200 mm &amp; 600 mm Cross Tees with a web height of 38mm (all sections). The deflection loading of the system shall be 12.5 kg/m2 (as per standard installation layout mentioned below) and main beam tested as per ASTM C635 (Deflection limit less than L/360) with a deflection loading of 15kg/m. The end details of the cross tee shall be made of pre hardened steel and fixed to the ends of the cross tee to provide double locking between “cross tee to cross tee” and “cross tee to main beam”. All main beam to main beam and cross tee to cross tee connection shall have a pull out strength of more than 100kg. The T Sections shall be made of hot dipped galvanized steel of 90 gsm as per IS 277 (2003) and pre-painted steel with baked polyester paint with 0T bending capability. All border cross tee/main beam shall be levelled using perimeter fill. INSTALLATION: To comprise main runner spaced at 1200mm securely fixed to the structural soffit using suspension system (specifications above) at 1200mm maximum. The First/Last suspension system at the end of each main runner shall not be greater than 450mm from the adjacent wall along with the first and the last main beam shall be at less than 600mm from the wall. Flush fitting 1200mm long cross tees to be interlocked between main runners at 600mm to form 1200 x 600 mm module. Cut cross tees longer than 600mm require independent support. 600 x 600mm module to be formed by fitting 600mm long flush fitting cross tees centrally between the 1200 mm cross tees. Perimeter trim to be wall angles of size 3000x19x19mm, secured to walls using screws at 450mm centre to centre maximum. Installation shall be carried out as per Manufacturer recommended procedure. SUSPENSION SYSTEM accessories supplied by Manufacturer consisting of M6 Anchor Fasteners with hanger hole, pre-straightened hanger wire of dia – 2.5 mm of 1.80 m length having a tensile strength of 344-413 MPa and a minimum loading strength of 110 kgs. (Optionally, adjustable hook clips made of 0.7mm thick Grade 1 C55 galvanized spring steel of dimension 100 x 20mm and 4 mm aquiline wire to be used for level adjustment during installation purpose in main runners).</p>	As directed by Engineer in charge	Square Metre	2998	301

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
2135	Ceiling and roofing ( New Item )	53.43	As directed by Engineer in charge	<p>PRIVIDING AND FIXING ACOUSTICAL FALSE CEILING WITH 0.7 NRC: Sierra Mineral Fibre Acoustical Suspended Ceiling System with 13mm thick Microlook Edge Tiles with 15mm face exposed grid. The tiles shall have smooth laminated salt pepper visual with Humidity Resistance (RH) of 95%, NRC 0.7 (Average value of Absorption Co-efficient readings taken at 250 Hz, 500 Hz, 1000 Hz and 2000 Hz) as per ASTM C423 standard, CAC of 28db as per ASTM E1414, Light Reflectance ≥85% as per ASTM E-1477, Thermal Conductivity <math>\lambda = 0.037\text{W/mK}</math>, Colour Global White, Fire Performance of class A2-s1, d0 according to EN 13501-1 with 13mm Microlook edge and 8mm drop in module size of 600 x 600mm. The scrim on the face of the tile shall be cleanable. The tiles shall be classified as ISO 14644-1 cleanroom class 5. It shall be suitable for Green Building application, with Recycled content of 60%. The tile shall have certifications from GRIHA and GreenPro thereby confirming that it is an environment friendly product.</p> <p>SUSPENSION: The tile shall be laid on 15 mm wide T - section flanges colour global white (matching to tile color) having roll formed double stroke rotary stitching on all T sections i.e. the Main Runner, 1200 mm &amp; 600 mm Cross Tees with a web height of 38mm (all sections). The deflection loading of the system shall be 12.5 kg/m<sup>2</sup> (as per standard installation layout mentioned below) and main beam tested as per ASTM C635 (Deflection limit less than L/360) with a deflection loading of 15kg/m. The end details of the cross tee shall be made of pre hardened steel and fixed to the ends of the cross tee to provide double locking between “cross tee to cross tee” and “cross tee to main beam”. All main beam to main beam and cross tee to cross tee connection shall have a pull out strength of more than 100kg. The T Sections shall be made of hot dipped galvanized steel of 90 gsm as per IS 277 (2003) and pre-painted steel with baked polyester paint with OT bending capability. All border cross tee/main beam shall be levelled using perimeter fill. The Tile &amp; Grid system used together shall carry a 10 year warranty against manufacturing defect and manufacturer shall provide a warranty certificate. The Tile &amp; Grid shall have the manufacturers name embossed/printed on it. The supply shall be backed by a Manufacturing Test Certificate. INSTALLATION: To comprise main runner spaced at 1200mm securely fixed to the structural soffit using suspension system (specifications above) at 1200mm maximum. The First/Last suspension system at the end of each main runner shall not be greater than 450mm from the adjacent wall along with the first and the last main beam shall be at less than 600mm from the wall. Flush fitting 1200mm long cross tees to be interlocked between main runners at 600mm to form 1200 x 600 mm module. Cut cross tees longer than 600mm require independent support. 600 x 600mm module to be formed by fitting 600mm long flush fitting cross tees centrally between the 1200 mm cross tees.</p> <p>Perimeter trim to be wall angles of size 3000x19x19mm, secured to walls using screws at 450mm centre to centre maximum. Installation shall be carried out as per Manufacturer recommended procedure.</p> <p>SUSPENSION SYSTEM accessories supplied by Manufacturer consisting of M6 Anchor Fasteners with hanger hole, pre-straightened hanger wire of dia – 2.5 mm of 1.80 m length having a tensile strength of 344-413 MPa and a minimum loading strength of 110 kgs. (Optionally, adjustable hook clips made of 0.7mm thick Grade 1 C55 galvanized spring steel of dimension 100 x 20mm and 4 mm aquiline wire to be used for level adjustment during installation purpose in main runners).</p>	As directed by Engineer in charge	Square Metre	2077	301

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
2136	Ceiling and roofing ( New Item )	53.44	As directed by Engineer in charge	PRIVIDING AND FIXING ACOUSTICAL FALSE CEILING WITH 0.9 NRC: Sierra Mineral Fibre Acoustical Suspended Ceiling System with 15mm thick Sierra OP Tegular 15/90 Edge Tiles with Suprafine 15mm face exposed grid. The tiles shall have smooth laminated visual with Humidity Resistance (RH) of 95%, NRC 0.90 (Average value of Absorption Co-efficient readings taken at 250 Hz, 500 Hz, 1000 Hz and 2000 Hz) as per ASTM C423 standard, CAC of 25db as per ASTM E1414, Light Reflectance ≥86% as per ASTM E-1477, Thermal Conductivity $\lambda = 0.040$ W/mK, Colour Global White, Fire Performance of class A2-s1, d0 according to EN 13501-1 with 15mm Tegular 15/90° edge and 8mm drop in module size of 600 x 600mm. The scrim on the face of the tile shall be cleanable and classified as ISO 14644-1 cleanroom class 5. It shall be suitable for Green Building application, with Recycled content of 43% and VOC Emissions (French) class of A+. The tile shall have Environmental Product Declaration as per ISO 14025 and EN 15804+A2. The tile shall have certifications from GRIHA and GreenPro thereby confirming that it is an environment friendly product. SUSPENSION: The tile shall be laid on Suprafine 38 with 15 mm wide T - section flanges colour global white (matching to tile color) having roll formed double stroke rotary stitching on all T sections i.e. the Main Runner, 1200 mm & 600 mm Cross Tees with a web height of 38mm (all sections). The deflection loading of the system shall be 12.5 kg/m2 (as per standard installation layout mentioned below) and main beam tested as per ASTM C635 (Deflection limit less than L/360) with a deflection loading of 15kg/m. The end details of the cross tee shall be made of pre hardened steel and fixed to the ends of the cross tee to provide double locking between “cross tee to cross tee” and “cross tee to main beam”. All main beam to main beam and cross tee to cross tee connection shall have a pull out strength of more than 100kg. The T Sections shall be made of hot dipped galvanized steel of 90 gsm as per IS 277 (2003) and pre-painted steel with baked polyester paint with OT bending capability. All border cross tee/main beam shall be levelled using perimeter fill. The Tile & Grid system used together shall carry a 10 year warranty against manufacturing defect and manufacturer shall provide a warranty certificate. The Tile & Grid shall have the manufacturers name embossed/printed on it. The supply shall be backed by a Manufacturing Test Certificate. INSTALLATION: To comprise main runner spaced at 1200mm securely fixed to the structural soffit using suspension system (specifications above) at 1200mm maximum. The First/Last suspension system at the end of each main runner shall not be greater than 450mm from the adjacent wall along with the first and the last main beam shall be at less than 600mm from the wall. Flush fitting 1200mm long cross tees to be interlocked between main runners at 600mm to form 1200 x 600 mm module. Cut cross tees longer than 600mm require independent support. 600 x 600mm module to be formed by fitting 600mm long flush fitting cross tees centrally between the 1200 mm cross tees. Perimeter trim to be wall angles of size 3000x19x19mm, secured to walls using screws at 450mm centre to centre maximum. Installation shall be carried out as per recommended procedure. SUSPENSION SYSTEM accessories supplied by consisting of M6 Anchor Fasteners with hanger hole, pre-straightened hanger wire of dia – 2.5 mm of 1.80 m length having a tensile strength of 344-413 MPa and a minimum loading strength of 110 kgs. (Optionally, adjustable hook clips made of 0.7mm thick Grade 1 C55 galvanized spring steel of dimension 100 x 20mm and 4 mm aquiline wire to be used for level adjustment during installation purpose in main	As directed by Engineer in charge	Square Metre	2380	301
2137	Ceiling and roofing ( New Item )	53.45	As directed by Engineer in charge	NATURAL BAMBOO WALL PANELLING : Providing & fixing of Wooden Grill panel with backer made of natural bamboo with 24mm Face black exposed grid. The Grill panels shall be made of rapidly renewable natural bamboo core having density 600+Kgs/m3 as per BS EN323 (1993) and bending strength of 96+ N/mm2 as per BS EN310 (1993). The Grill panel shall have a seven layer UV coating of thickness 0.09-0.11mm as per BS EN71 finished to natural or carbonized shades. The Grill panel shall be of nominal size 35x300x2400mm comprising 8 blades/slats of 35x16x2376mm with centre to centre spacing of 37.5mm fixed through Backer of size 12x22x300mm having centre to centre spacing of 300mm and additional end backers at 150mm from both the edges. The Grill panel shall have a fire performance of Class A according to ASTM-E84. The Grill panel shall have moisture content of 8-14% as per IS 1708 (Part 1):1986 and a Humidity Resistance (RH) of 70%.	As directed by Engineer in charge	Square Metre	18751	226

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
2138	Ceiling and roofing ( New Item )	53.46	As directed by Engineer in charge	<p>NATURAL BAMBOO CEILING: Providing &amp; fixing of Wooden Grill panel with backer made of natural bamboo with 24mm Face black exposed grid. The Grill panels shall be made of rapidly renewable natural bamboo core having density 600+Kgs/m3 as per BS EN323 (1993) and bending strength of 96+ N/mm2 as per BS EN310 (1993). The Grill panel shall have a seven layer UV coating of thickness 0.09-0.11mm as per BS EN71 finished to natural or carbonized shades. The Grill panel shall be of nominal size 35x300x2400mm comprising 8 blades/slats of 35x16x2376mm with centre to centre spacing of 37.5mm fixed through Backer of size 12x22x300mm having centre to centre spacing of 300mm and additional end backers at 150mm from both the edges. The Grill panel shall have a fire performance of Class A according to ASTM-E84. The Grill panel shall have moisture content of 8-14% as per IS 1708 (Part 1):1986 and a Humidity Resistance (RH) of 70% .SUSPENSION: The tile shall be installed on 24 mm wide T - section flanges having rotary stitching on all T sections i.e. the Main Runner, 1200 mm &amp; 600 mm Cross Tees with a web height of 43mm, 35mm and 30mm respectively. The deflection loading of the system shall be 17.8 kg/m2 (as per standard installation layout mentioned below) and main beam tested as per ASTM C635 (Deflection limit less than L/360) with a deflection loading of 21.4kg/m. The end details of the main beam and cross tee shall be made of pre hardened steel fixed to the ends. The cross tee to provide double locking between “cross tee to cross tee” and “cross tee to main beam”. All main beam to main beam and cross tee to cross tee connection shall have a pull out strength of more than 100kg. The T Sections shall be made of hot dipped galvanized steel of 100 gsm as per IS 277 (2003) and pre-painted steel with baked polyester paint with 0T bending capability. All exposed panel ends to be covered using edge caps. All wall angles to be covered using ledgers. Installation should be carried out as per Manufacturer recommended procedure. The grid shall be installed with suspension system of recommended make. INSTALLATION: To comprise main runner spaced at 1200mm centre to centre securely fixed to the structural soffit using suspension system (specifications below) at 1200mm maximum centre. The First/Last suspension system at the end of each main runner should not be greater than 450mm from the adjacent wall. Flush fitting 1200mm long cross tees to be interlocked between main runners at 600mm centre to form 1200 x 600 mm module. Cut cross tees longer than 600mm require independent support. 600 x 600mm module to be formed by fitting 600mm long flush fitting cross tees centrally between the 1200 mm cross tees. Perimeter trim to be wall angles of size 3000x19x19mm, secured to walls at 450 mm maximum centre to centre. Metal spring backer clips shall be used to fix the Grill panel to suspension system with a grid formation of 600mm along the blade/slat and 2 pieces along each backer (total 8 clips per full panel size) for every individual panel. Raise the panel up against the suspension system and align the backers with the suspension system. Push upwards on the spring backer clip to engage the clip tabs on to the suspension system flange. Ensure that both clip tabs engage the suspension system flange. SUSPENSION SYSTEM accessories manufactured and supplied by Manufacturer consisting of M6 Anchor Fasteners with hanger hole, pre Straightened Hanger wire of dia – 2.5 mm of 1.80 m length having a tensile strength of 344-413 MPa and a minimum loading strength of 110 kgs. Additionally, adjustable hook clips made of 0.7mm thick Grade 1 C55 galvanized spring steel of dimension 100 x 20mm and 4 mm aquiline wire to be used for level adjustment during installation purpose in main runners.</p>	As directed by Engineer in charge	Square Metre	20953	301
2139	Expansion Joint ( New Item )	53.47	As directed by Engineer in charge	Providing and fixing interior wall to wall expansion joint cover model W90 for 50 mm gap size, this surface mounted aluminium cover is designed for interior application where low maintenance is desirable. This model is made using Aluminium alloy 6063 and temper T5/T6. This cover is installed using stainless steel clip in the rear which helps the movement to + 10 mm.	As directed by Engineer in charge	Running Meter	2329	1008
2140	Expansion Joint ( New Item )	53.48	As directed by Engineer in charge	Providing and fixing of external wall to wall cover model ASM 200X for 50 mm gap size, this surface-mounted metal wall cover is designed for exterior applications where low maintenance or tamper-resistant applications are desired. The free-floating aluminum center plate spans the joint and slides over the surface of the wall to allow required movement.EPDM vapor barrier to protect the joint with water. This profile is extruded aluminum with ASTM B 221, Alloy 6063-T5. This profile has been tested under Architectural Testing Agency ( an Intertek Company) for the movement performance. The minimum opening of the profile is 10mm ( -40mm) and the maximum opening of the profile is 76mm (+26mm) which is more than ±50% movement.	As directed by Engineer in charge	Running Meter	2689	1008

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
2141	Expansion Joint ( New Item )	53.49	As directed by Engineer in charge	Providing and fixig of floor to floor expansion joint cover GFT 200 for 50 mm gap size. The cover which is designed for interior floor to floor application suitable for most floor finishes where frame depth and configuration is variable to suit selected finish. It is a gasketed floor to floor joint cover comprises of extruded aluminium frames made of aluminium alloy 6063 temper T5/ T6 and TPR seal having strength of 90 shore A as per ASTM D2000 and available in 4 colours, with standard loading capacity of 500 lbs. The nominal joint width of the profile is 51 mm which contracts down to 38 mm as minimum and can expand 64 mm as maximum, the movement has been tested with Architectural testing INC., an Intertek company (Intertek – ATI) as per ASTM E 1399-97 Report no. 84287.01-106-31	As directed by Engineer in charge	Running Meter	2987	1008
2142	Expansion Joint ( New Item )	53.50	As directed by Engineer in charge	Providing and Fixing of external Roof cover model RJT 200 for 50 mm gap size, Aluminium roof cover comprised of extruded alumunium components, Injection molded turnbar, duroflex gaskets and EPDM vapor barrier.This profile is extruded aluminum with ASTM B 221, Alloy 6063-T5. This profile has been tested under Architectural Testing Agency ( an Intertek Company) for the movement performance. The minimum opening of the profile is 3mm ( -47mm) and the maximum openeing of the profile is 92mm (+42mm) which is more than ±50% movement.	As directed by Engineer in charge	Running Meter	6242	1008
2143	Green Building ( New Item )	53.51	As directed by Engineer in charge	Supplying and providing various materials for REED BED filter media of 1 meter depth comprising of 300 mm thick brick bats at bottom,60 mm/40 mm gravel 150 mm thick over it,20 mm gravel 100 mm thick,Natural sand 100 mm thick,activated charcoal 60/40mm 50 kg 175 mm thick, 50 kg of coco pit in powder form 175 mm thick and 5 nos aquatic plants at top.The rate is exclusive of cost of tank but inclusive of fixing non return valve including all materials labour etc.	As directed by Engineer in charge	Cubic Meter	15319	2565
2144	Precast RCC Panels	53.52	As directed by Engineer in charge	Providing and fixing in position factory made EPS cement sandwich wall/roof/floor light weight solid core pannel made of core material of EPS granule ball/beads (conforming to IS 4671:1984 and shall have density not less than 15 kg per cum) adhesive, cement,sand,flyash and other bonding material in mortar state processed to form in a preset mould. The outer face on both sides of the panels will be non asbestos fibre cement board confirming to IS 14862:2000 or Calcium Silicate Board confirming to EN 14306:2009 of 5 mm thick each Panels shall be laid on 6 mm thick cement mortar ( 1 cement : 2 fine sand)mixed with chemical adhesive of 0.5 Kg per 50 Kg of cement or shall be preferbly fixed into 'C' channel made of 1.2 mm thick MS plate screwed/fastenered to the salb/coloumn/beam etc. The Panel shall fixed vertically with tongue and groove joint and horizontally locked with steel bar between each other and floors and filled with cement mortar and adhesive. Panels should be used as floor and roofing with additional structure support, steel or RCC depending upon the design. All the operation shall be completed in all respect as per drawing, manufacturing specification and under the overall direction of Enginner-in-charge ( Cost oa all the material is included except 'C' channel which will be paid separtely) A) Non Load bearing panels 60 mm thick required size	As directed by Engineer in charge	Square Metre	2553	0



Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
2145	Precast RCC Panels	53.53	As directed by Engineer in charge	Providing and fixing in position factory made EPS cement sandwich wall/roof/floor light weight solid core pannel made of core material of EPS granule ball/beads (conforming to IS 4671:1984 and shall have density not less than 15 kg per cum) adhesive, cement,sand,flyash and other bonding material in mortar state processed to form in a preset mould. The outer face on both sides of the panels will be non asbestos fibre cement board confirming to IS 14862:2000 or Calcium Silicate Board confirming to EN 14306:2009 of 5 mm thick each Panels shall be laid on 6 mm thick cement mortar ( 1 cement : 2 fine sand)mixed with chemical adhesive of 0.5 Kg per 50 Kg of cement or shall be preferbly fixed into 'C' channel made of 1.2 mm thick MS plate screwed/fastenered to the salb/coloumn/beam etc. The Panel shall fixed vertically with tongue and groove joint and horizontally locked with steel bar between each other and floors and filled with cement mortar and adhesive. Panels should be used as floor and roofing with additional structure support, steel or RCC depending upon the design. All the operation shall be completed in all respect as per drawing, manufacturing specification and under the overall direction of Enginner-in-charge ( Cost oa all the material is included except 'C' channel which will be paid separately) B) Non Load bearing panels 75 mm thick required size	As directed by Engineer in charge	Square Metre	2861	0
2146	Precast RCC Panels	53.54	As directed by Engineer in charge	Providing and fixing in position factory made EPS cement sandwich wall/roof/floor light weight solid core pannel made of core material of EPS granule ball/beads (conforming to IS 4671:1984 and shall have density not less than 15 kg per cum) adhesive, cement,sand,flyash and other bonding material in mortar state processed to form in a preset mould. The outer face on both sides of the panels will be non asbestos fibre cement board confirming to IS 14862:2000 or Calcium Silicate Board confirming to EN 14306:2009 of 5 mm thick each Panels shall be laid on 6 mm thick cement mortar ( 1 cement : 2 fine sand)mixed with chemical adhesive of 0.5 Kg per 50 Kg of cement or shall be preferbly fixed into 'C' channel made of 1.2 mm thick MS plate screwed/fastenered to the salb/coloumn/beam etc. The Panel shall fixed vertically with tongue and groove joint and horizontally locked with steel bar between each other and floors and filled with cement mortar and adhesive. Panels should be used as floor and roofing with additional structure support, steel or RCC depending upon the design. All the operation shall be completed in all respect as per drawing, manufacturing specification and under the overall direction of Enginner-in-charge ( Cost oa all the material is included except 'C' channel which will be paid separately) C) Non Load bearing panels 90 mm thick required size	As directed by Engineer in charge	Square Metre	3314	0

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
2147	Precast RCC Panels	53.55	As directed by Engineer in charge	Providing and fixing in position factory made EPS cement sandwich wall/roof/floor light weight solid core pannel made of core material of EPS granule ball/beads (conforming to IS 4671:1984 and shall have density not less than 15 kg per cum) adhesive, cement,sand,flyash and other bonding material in mortar state processed to form in a preset mould. The outer face on both sides of the panels will be non asbestos fibre cement board confirming to IS 14862:2000 or Calcium Silicate Board confirming to EN 14306:2009 of 5 mm thick each Panels shall be laid on 6 mm thick cement mortar ( 1 cement : 2 fine sand)mixed with chemical adhesive of 0.5 Kg per 50 Kg of cement or shall be preferbly fixed into 'C' channel made of 1.2 mm thick MS plate screwed/fastenered to the salb/coloumn/beam etc. The Panel shall fixed vertically with tongue and groove joint and horizontally locked with steel bar between each other and floors and filled with cement mortar and adhesive. Panels should be used as floor and roofing with additional structure support, steel or RCC depending upon the design. All the operation shall be completed in all respect as per drawing, manufacturing specification and under the overall direction of Enginner-in-charge ( Cost oa all the material is included except 'C' channel which will be paid separately) D) Non Load bearing panels 100 mm thick required size	As directed by Engineer in charge	Square Metre	3767	0
2148	Road Furniture	53.56	MORTH 803.4	Providing and laying of white pre-formed patterned pavement marking tapes, with pre-coated self-adhesive, having abrasion-resistant high refractive index microcrystalline ceramic beads bonded to a highly durable top coat, having a nominal thickness of 2.0 mm at pattern heights, meeting the requirements specified in ASTM D4505-12. The patterned surface shall have approximately 50% ± 15% of the surface area raised and presenting a near vertical face, angled from 0 degree to 60 degree, to traffic from any direction. All microcrystalline ceramic beads shall have a minimum index of refraction of 2.3 and 1.8 and ceramic beads shall show resistance to corrosion on exposure to a 1% solution of sulfuric acid. The applied marking surface to be level, uniform and free from streaks, cracks and holes. Markings shall have initial average skid resistance value of at least 45 BPN when tested according to ASTM E303 and meet the initial retro reflectance average values as measured in accordance with the stated testing procedures in the following table: Test Method (Description of conditions)Typical average initial coefficients of retroreflected luminance, RL ASTM E1710 (Dry Average)500 mcd/m2/lux ASTM E2177 (Wet Recovery Average)250 mcd/m2/lux ASTM E2832 (Wet Continuous Average)250 mcd/m2/lux *Observation Angle = 1.05°, Entrance Angle = 88.8°	MORTH 803.4	Square Meter	7494	27

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
2149	Road Furniture	53.57	MORTH 803.4	<p>Providing and laying of white contrast pre-formed patterned pavement marking tapes, with pre-coated self-adhesive, having abrasion-resistant high refractive index microcrystalline ceramic beads bonded to a highly durable top coat, having a nominal thickness of 2.0 mm at pattern heights, meeting the requirements specified in ASTM D4505-12. The patterned surface shall have approximately 50% <math>\pm</math> 15% of the surface area raised and presenting a near vertical face, angled from 0 degree to 60 degree, to traffic from any direction. Contrast markings shall consist of durable, retroreflective white, pliant polymer materials with durable matte black, non-reflective, pliant polymer borders.</p> <p>All microcrystalline ceramic beads shall have a minimum index of refraction of 2.3 and 1.8 and ceramic beads shall show resistance to corrosion on exposure to a 1% solution of sulfuric acid.</p> <p>The applied marking surface to be level, uniform and free from streaks, cracks and holes. Markings shall have initial average skid resistance value of at least 45 BPN when tested according to ASTM E303 and meet the initial retro reflectance average values as measured in accordance with the stated testing procedures in the following table:</p> <p>Test Method (Description of conditions)Typical average initial coefficients of retroreflected luminance, RL</p> <p>ASTM E1710 (Dry Average)500 mcd/m<sup>2</sup>/lux</p> <p>ASTM E2177 (Wet Recovery Average)250 mcd/m<sup>2</sup>/lux</p> <p>ASTM E2832 (Wet Continuous Average)250 mcd/m<sup>2</sup>/lux</p> <p>*Observation Angle = 1.05°, Entrance Angle = 88.8°</p>	MORTH 803.4	Square Meter	9345	27
2150	Road Furniture	53.58	MORTH 801	<p>Providing and fixing Mandatory/Regulatory sign boards in circular shape of _____ mm dia made out of _____mm aluminum sheet bonded with white retro reflective sheeting of Class B ( Type IV High intensity micro-prismatic grade sheeting-HIP) having pressure sensitive/heat activated adhesive retorelective specified back ground, border and back side retorelective symbols, letters, numerals, arrow as per IRC:67-2012 Table No 8.3 Supported with back support frame 25mm x 25mm x 3mm, duly painted on back side with grey stove enamel paint and supported on one no. of M. S. angle iron post of size 65 mm X 65 mm X 6 mm, 3.45 m long, duly painted with flat oil paint having alternate black and white bands of 25 cm width including G.I. fixtures etc; fixing the boards in M25 grade concrete block of size 60cm X 60cm X 75cm including transportation etc; complete. Class B ( Type IV High intensity micro-prismatic grade sheeting-HIP) shall have 7 years written warranty from the manufacturer and authorised distributor/convertor issued for field performance including the screen printed areas and cut-out sheeting and cut-out durable transparent overlay film and this warranty certificate in original should be submitted to the Engineer in charge by the contractor/supplier.</p> <p><b>a. 600 mm dia made out of 3mm aluminum composite material with 0.25 mm skin thickness on either side</b></p>	MORTH 801	Number	5460	341

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
2151	Road Furniture	53.59	MORTH 801	<p>Providing and fixing Mandatory/Regulatory sign boards in circular shape of _____ mm dia made out of _____mm aluminum sheet bonded with white retro reflective sheeting of Class B ( Type IV High intensity micro-prismatic grade sheeting-HIP) having pressure sensitive/heat activated adhesive retoreflective specified back ground, border and back side retoreflective symbols, letters, numerals, arrow as per IRC:67-2012 Table No 8.3 Supported with back support frame 25mm x 25mm x 3mm, duly painted on back side with grey stove enamel paint and supported on one no. of M. S. angle iron post of size 65 mm X 65 mm X 6 mm, 3.45 m long, duly painted with with flat oil paint having alternate black and white bands of 25 cm width including G.I. fixtures etc; fixing the boards in M25 grade concrete block of size 60cm X 60cm X 75cm including transportation etc; complete. Class B ( Type IV High intensity micro-prismatic grade sheeting-HIP) shall have 7 years written warranty from the manufacturer and authorised distributor/convertor issued for field performance including the screen printed areas and cut-out sheeting and cut-out durable transparent overlay film and this warranty certificate in original should be submitted to the Engineer in charge by the contractor/supplier.</p> <p><b>b. 750 mm dia made out of 4mm aluminum composite material with 0.5 mm skin thickness on either side</b></p>	MORTH 801	Number	7482	341
2152	Road Furniture	53.60	MORTH 801	<p>Providing and fixing Mandatory/Regulatory sign boards in circular shape of _____ mm dia made out of _____mm aluminum sheet bonded with white retro reflective sheeting of Class B ( Type IV High intensity micro-prismatic grade sheeting-HIP) having pressure sensitive/heat activated adhesive retoreflective specified back ground, border and back side retoreflective symbols, letters, numerals, arrow as per IRC:67-2012 Table No 8.3 Supported with back support frame 25mm x 25mm x 3mm, duly painted on back side with grey stove enamel paint and supported on one no. of M. S. angle iron post of size 65 mm X 65 mm X 6 mm, 3.45 m long, duly painted with with flat oil paint having alternate black and white bands of 25 cm width including G.I. fixtures etc; fixing the boards in M25 grade concrete block of size 60cm X 60cm X 75cm including transportation etc; complete. Class B ( Type IV High intensity micro-prismatic grade sheeting-HIP) shall have 7 years written warranty from the manufacturer and authorised distributor/convertor issued for field performance including the screen printed areas and cut-out sheeting and cut-out durable transparent overlay film and this warranty certificate in original should be submitted to the Engineer in charge by the contractor/supplier.</p> <p><b>c. 900 mm dia made out of 4mm aluminum composite material with 0.5 mm skin thickness on either side</b></p>	MORTH 801	Number	9700	341

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
2153	Road Furniture	53.61	MORTH 801	<p>Providing and fixing Mandatory/Regulatory sign boards in circular shape of _____ mm dia made out of _____mm aluminum sheet bonded with white retro reflective sheeting of Class B ( Type IV High intensity micro-prismatic grade sheeting-HIP) having pressure sensitive/heat activated adhesive retroreflective specified back ground, border and back side retroreflective symbols, letters, numerals, arrow as per IRC:67-2012 Table No 8.3 Supported with back support frame 25mm x 25mm x 3mm, duly painted on back side with grey stove enamel paint and supported on one no. of M. S. angle iron post of size 65 mm X 65 mm X 6 mm, 3.45 m long, duly painted with with flat oil paint having alternate black and white bands of 25 cm width including G.I. fixtures etc; fixing the boards in M25 grade concrete block of size 60cm X 60cm X 75cm including transportation etc; complete. Class B ( Type IV High intensity micro-prismatic grade sheeting-HIP) shall have 7 years written warranty from the manufacturer and authorised distributor/convertor issued for field performance including the screen printed areas and cut-out sheeting and cut-out durable transparent overlay film and this warranty certificate in original should be submitted to the Engineer in charge by the contractor/supplier.</p> <p><b>d.1200 mm dia made out of 4mm aluminum composite material with 0.5 mm skin thickness on either side</b></p>	MORTH 801	Number	15105	341
2154	Road Furniture	53.62	MORTH 801	<p>Providing and fixing Mandatory/Regulatory sign boards in circular shape of _____mm dia made out of _____mm aluminum sheet bonded with white retro reflective sheeting of Class C ( Type XI Micro prismatic grade sheeting) having pressure sensitive/heat activated adhesive retroreflective specified back ground, border and back side retroreflective symbols, letters, numerals, arrow as per IRC:67-2012 Table No 8.3 Supported with back support frame 25mm x 25mm x 3mm, duly painted on back side with grey stove enamel paint and supported on one no. of M. S. angle iron post of size 65 mm X 65 mm X 6 mm, 3.45 m long, duly painted with with flat oil paint having alternate black and white bands of 25 cm width including G.I. fixtures etc; fixing the boards in M25 grade concrete block of size 60cm X 60cm X 75cm including transportation etc; complete. Class C ( Type XI Micro prismatic grade sheeting) shall have 10 years written warranty from the manufacturer and authorised distributor/convertor issued for field performance including the screen printed areas and cut-out sheeting and cut-out durable transparent overlay film and this warranty certificate in original should be submitted to the Engineer in charge by the contractor/supplier.</p> <p><b>a. 600 mm dia made out of 3mm aluminum composite material with 0.25 mm skin thickness on either side</b></p>	MORTH 801	Number	5993	341

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
2155	Road Furniture	53.63	MORTH 801	<p>Providing and fixing Mandatory/Regulatory sign boards in circular shape of ____mm dia made out of ____mm aluminum sheet bonded with white retro reflective sheeting of Class C ( Type XI Micro prismatic grade sheeting) having pressure sensitive/heat activated adhesive retoreflexive specified back ground, border and back side retoreflexive symbols, letters, numerals, arrow as per IRC:67-2012 Table No 8.3 Supported with back support frame 25mm x 25mm x 3mm, duly painted on back side with grey stove enamel paint and supported on one no. of M. S. angle iron post of size 65 mm X 65 mm X 6 mm, 3.45 m long, duly painted with with flat oil paint having alternate black and white bands of 25 cm width including G.I. fixtures etc; fixing the boards in M25 grade concrete block of size 60cm X 60cm X 75cm including transportation etc; complete. Class C ( Type XI Micro prismatic grade sheeting) shall have 10 years written warranty from the manufacturer and authorised distributor/convertor issued for field performance including the screen printed areas and cut-out sheeting and cut-out durable transparent overlay film and this warranty certificate in original should be submitted to the Engineer in charge by the contractor/supplier.600 mm dia made out of 3mm aluminum composite material with 0.25 mm skin thickness on either side</p> <p><b>b. 750 mm dia made out of 4mm aluminum composite material with 0.5 mm skin thickness on either side</b></p>	MORTH 801	Number	8318	341
2156	Road Furniture	53.64	MORTH 801	<p>Providing and fixing Mandatory/Regulatory sign boards in circular shape of ____mm dia made out of ____mm aluminum sheet bonded with white retro reflective sheeting of Class C ( Type XI Micro prismatic grade sheeting) having pressure sensitive/heat activated adhesive retoreflexive specified back ground, border and back side retoreflexive symbols, letters, numerals, arrow as per IRC:67-2012 Table No 8.3 Supported with back support frame 25mm x 25mm x 3mm, duly painted on back side with grey stove enamel paint and supported on one no. of M. S. angle iron post of size 65 mm X 65 mm X 6 mm, 3.45 m long, duly painted with with flat oil paint having alternate black and white bands of 25 cm width including G.I. fixtures etc; fixing the boards in M25 grade concrete block of size 60cm X 60cm X 75cm including transportation etc; complete. Class C ( Type XI Micro prismatic grade sheeting) shall have 10 years written warranty from the manufacturer and authorised distributor/convertor issued for field performance including the screen printed areas and cut-out sheeting and cut-out durable transparent overlay film and this warranty certificate in original should be submitted to the Engineer in charge by the contractor/supplier.600 mm dia made out of 3mm aluminum composite material with 0.25 mm skin thickness on either side</p> <p><b>c. 900 mm dia made out of 4mm aluminum composite material with 0.5 mm skin thickness on either side</b></p>	MORTH 801	Number	11689	341

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
2157	Road Furniture	53.65	MORTH 801	<p>Providing and fixing Mandatory/Regulatory sign boards in circular shape of ____mm dia made out of ____mm aluminum sheet bonded with white retro reflective sheeting of Class C ( Type XI Micro prismatic grade sheeting) having pressure sensitive/heat activated adhesive retoreflective specified back ground, border and back side retoreflective symbols, letters, numerals, arrow as per IRC:67-2012 Table No 8.3 Supported with back support frame 25mm x 25mm x 3mm, duly painted on back side with grey stove enamel paint and supported on one no. of M. S. angle iron post of size 65 mm X 65 mm X 6 mm, 3.45 m long, duly painted with with flat oil paint having alternate black and white bands of 25 cm width including G.I. fixtures etc; fixing the boards in M25 grade concrete block of size 60cm X 60cm X 75cm including transportation etc; complete. Class C ( Type XI Micro prismatic grade sheeting) shall have 10 years written warranty from the manufacturer and authorised distributor/convertor issued for field performance including the screen printed areas and cut-out sheeting and cut-out durable transparent overlay film and this warranty certificate in original should be submitted to the Engineer in charge by the contractor/supplier.600 mm dia made out of 3mm aluminum composite material with 0.25 mm skin thickness on either side</p> <p><b>d. 1200 mm dia made out of 4mm aluminum composite material with 0.5 mm skin thickness on either side</b></p>	MORTH 801	Number	17254	341
2158	Road Furniture	53.66	MORTH 801	<p>Providing and fixing Cautionary/Warning sign boards in Equilateral Triangle size of ____mm made out of ____mm aluminum sheet bonded with white retro reflective sheeting of Class B ( Type IV High intensity micro-prismatic grade sheeting-HIP) having pressure sensitive/heat activated adhesive retoreflective specified back ground, border and back side retoreflective symbols, letters, numerals, arrow as per IRC:67-2012 Table No 8.3 Supported with back support frame 25mm x 25mm x 3mm, duly painted on back side with grey stove enamel paint and supported on one no. of M. S. angle iron post of size 65 mm X 65 mm X 6 mm, 3.45 m long, duly painted with with flat oil paint having alternate black and white bands of 25 cm width including G.I. fixtures etc; fixing the boards in M25 grade concrete block of size 60cm X 60cm X 75cm including transportation etc; complete. Class B ( Type IV High intensity micro-prismatic grade sheeting-HIP) shall have 7 years written warranty from the manufacturer and authorised distributor/convertor issued for field performance including the screen printed areas and cut-out sheeting and cut-out durable transparent overlay film and this warranty certificate in original should be submitted to the Engineer in charge by the contractor/supplier.</p> <p><b>600 mm made out of 3mm aluminum composite material with 0.25 mm skin thickness on either side</b></p>	MORTH 801	Number	4229	341

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
2159	Road Furniture	53.67	MORTH 801	<p>Providing and fixing Cautionary/Warning sign boards in Equilateral Triangle size of ____mm made out of ____mm aluminum sheet bonded with white retro reflective sheeting of Class B ( Type IV High intensity micro-prismatic grade sheeting-HIP) having pressure sensitive/heat activated adhesive retoreflective specified back ground, border and back side retoreflective symbols, letters, numerals, arrow as per IRC:67-2012 Table No 8.3 Supported with back support frame 25mm x 25mm x 3mm, duly painted on back side with grey stove enamel paint and supported on one no. of M. S. angle iron post of size 65 mm X 65 mm X 6 mm, 3.45 m long, duly painted with with flat oil paint having alternate black and white bands of 25 cm width including G.I. fixtures etc; fixing the boards in M25 grade concrete block of size 60cm X 60cm X 75cm including transportation etc; complete. Class B ( Type IV High intensity micro-prismatic grade sheeting-HIP) shall have 7 years written warranty from the manufacturer and authorised distributor/convertor issued for field performance including the screen printed areas and cut-out sheeting and cut-out durable transparent overlay film and this warranty certificate in original should be submitted to the Engineer in charge by the contractor/supplier.</p> <p><b>750 mm made out of 4mm aluminum composite material with 0.5 mm skin thickness on either side</b></p>	MORTH 801	Number	5006	341
2160	Road Furniture	53.68	MORTH 801	<p>Providing and fixing Cautionary/Warning sign boards in Equilateral Triangle size of ____mm made out of ____mm aluminum sheet bonded with white retro reflective sheeting of Class B ( Type IV High intensity micro-prismatic grade sheeting-HIP) having pressure sensitive/heat activated adhesive retoreflective specified back ground, border and back side retoreflective symbols, letters, numerals, arrow as per IRC:67-2012 Table No 8.3 Supported with back support frame 25mm x 25mm x 3mm, duly painted on back side with grey stove enamel paint and supported on one no. of M. S. angle iron post of size 65 mm X 65 mm X 6 mm, 3.45 m long, duly painted with with flat oil paint having alternate black and white bands of 25 cm width including G.I. fixtures etc; fixing the boards in M25 grade concrete block of size 60cm X 60cm X 75cm including transportation etc; complete. Class B ( Type IV High intensity micro-prismatic grade sheeting-HIP) shall have 7 years written warranty from the manufacturer and authorised distributor/convertor issued for field performance including the screen printed areas and cut-out sheeting and cut-out durable transparent overlay film and this warranty certificate in original should be submitted to the Engineer in charge by the contractor/supplier.</p> <p><b>900 mm made out of 4mm aluminum composite material with 0.5 mm skin thickness on either side</b></p>	MORTH 801	Number	6557	341



Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
2161	Road Furniture	53.69	MORTH 801	<p>Providing and fixing Cautionary/Warning sign boards in Equilateral Triangle size of ____mm made out of ____mm aluminum sheet bonded with white retro reflective sheeting of Class B ( Type IV High intensity micro-prismatic grade sheeting-HIP) having pressure sensitive/heat activated adhesive retoreflective specified back ground, border and back side retoreflective symbols, letters, numerals, arrow as per IRC:67-2012 Table No 8.3 Supported with back support frame 25mm x 25mm x 3mm, duly painted on back side with grey stove enamel paint and supported on one no. of M. S. angle iron post of size 65 mm X 65 mm X 6 mm, 3.45 m long, duly painted with with flat oil paint having alternate black and white bands of 25 cm width including G.I. fixtures etc; fixing the boards in M25 grade concrete block of size 60cm X 60cm X 75cm including transportation etc; complete. Class B ( Type IV High intensity micro-prismatic grade sheeting-HIP) shall have 7 years written warranty from the manufacturer and authorised distributor/convertor issued for field performance including the screen printed areas and cut-out sheeting and cut-out durable transparent overlay film and this warranty certificate in original should be submitted to the Engineer in charge by the contractor/supplier.</p> <p><b>1200 mm made out of 4mm aluminum composite material with 0.5 mm skin thickness on either side+F26</b></p>	MORTH 801	Number	9604	341
2162	Road Furniture	53.70	MORTH 801	<p>Providing and fixing Cautionary/Warning sign boards in Equilateral Triangle size of ____ mm made out of ____mm aluminum sheet bonded with white retro reflective sheeting of Class C ( Type XI Micro prismatic grade sheeting) having pressure sensitive/heat activated adhesive retoreflective specified back ground, border and back side retoreflective symbols, letters, numerals, arrow as per IRC:67-2012 Table No 8.3 Supported with back support frame 25mm x 25mm x 3mm, duly painted on back side with grey stove enamel paint and supported on one no. of M. S. angle iron post of size 65 mm X 65 mm X 6 mm, 3.45 m long, duly painted with with flat oil paint having alternate black and white bands of 25 cm width including G.I. fixtures etc; fixing the boards in M25 grade concrete block of size 60cm X 60cm X 75cm including transportation etc; complete. ClassC ( Type XI Micro prismatic grade sheeting) shall have 10 years written warranty from the manufacturer and authorised distributor/convertor issued for field performance including the screen printed areas and cut-out sheeting and cut-out durable transparent overlay film and this warranty certificate in original should be submitted to the Engineer in charge by the contractor/supplier.</p> <p><b>600 mm made out of 3mm aluminum composite material with 0.25 mm skin thickness on either side</b></p>	MORTH 801	Number	4526	341

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
2163	Road Furniture	53.71	MORTH 801	<p>Providing and fixing Cautionary/Warning sign boards in Equilateral Triangle size of _____ mm made out of _____mm aluminum sheet bonded with white retro reflective sheeting of Class C ( Type XI Micro prismatic grade sheeting) having pressure sensitive/heat activated adhesive retoreflective specified back ground, border and back side retoreflective symbols, letters, numerals, arrow as per IRC:67-2012 Table No 8.3 Supported with back support frame 25mm x 25mm x 3mm, duly painted on back side with grey stove enamel paint and supported on one no. of M. S. angle iron post of size 65 mm X 65 mm X 6 mm, 3.45 m long, duly painted with with flat oil paint having alternate black and white bands of 25 cm width including G.I. fixtures etc; fixing the boards in M25 grade concrete block of size 60cm X 60cm X 75cm including transportation etc; complete. ClassC ( Type XI Micro prismatic grade sheeting) shall have 10 years written warranty from the manufacturer and authorised distributor/convertor issued for field performance including the screen printed areas and cut-out sheeting and cut-out durable transparent overlay film and this warranty certificate in original should be submitted to the Engineer in charge by the contractor/supplier.</p> <p><b>750 mm made out of 4mm aluminum composite material with 0.5 mm skin thickness on either side</b></p>	MORTH 801	Number	5410	341
2164	Road Furniture	53.72	MORTH 801	<p>Providing and fixing Cautionary/Warning sign boards in Equilateral Triangle size of _____ mm made out of _____mm aluminum sheet bonded with white retro reflective sheeting of Class C ( Type XI Micro prismatic grade sheeting) having pressure sensitive/heat activated adhesive retoreflective specified back ground, border and back side retoreflective symbols, letters, numerals, arrow as per IRC:67-2012 Table No 8.3 Supported with back support frame 25mm x 25mm x 3mm, duly painted on back side with grey stove enamel paint and supported on one no. of M. S. angle iron post of size 65 mm X 65 mm X 6 mm, 3.45 m long, duly painted with with flat oil paint having alternate black and white bands of 25 cm width including G.I. fixtures etc; fixing the boards in M25 grade concrete block of size 60cm X 60cm X 75cm including transportation etc; complete. ClassC ( Type XI Micro prismatic grade sheeting) shall have 10 years written warranty from the manufacturer and authorised distributor/convertor issued for field performance including the screen printed areas and cut-out sheeting and cut-out durable transparent overlay film and this warranty certificate in original should be submitted to the Engineer in charge by the contractor/supplier.</p> <p><b>900 mm made out of 4mm aluminum composite material with 0.5 mm skin thickness on either side</b></p>	MORTH 801	Number	7224	341

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
2165	Road Furniture	53.73	MORTH 801	<p>Providing and fixing Cautionary/Warning sign boards in Equilateral Triangle size of _____ mm made out of _____mm aluminum sheet bonded with white retro reflective sheeting of Class C ( Type XI Micro prismatic grade sheeting) having pressure sensitive/heat activated adhesive retoreflective specified back ground, border and back side retoreflective symbols, letters, numerals, arrow as per IRC:67-2012 Table No 8.3 Supported with back support frame 25mm x 25mm x 3mm, duly painted on back side with grey stove enamel paint and supported on one no. of M. S. angle iron post of size 65 mm X 65 mm X 6 mm, 3.45 m long, duly painted with with flat oil paint having alternate black and white bands of 25 cm width including G.I. fixtures etc; fixing the boards in M25 grade concrete block of size 60cm X 60cm X 75cm including transportation etc; complete. ClassC ( Type XI Micro prismatic grade sheeting) shall have 10 years written warranty from the manufacturer and authorised distributor/convertor issued for field performance including the screen printed areas and cut-out sheeting and cut-out durable transparent overlay film and this warranty certificate in original should be submitted to the Engineer in charge by the contractor/supplier.</p> <p><b>1200 mm made out of 4mm aluminum composite material with 0.5 mm skin thickness on either side</b></p>	MORTH 801	Number	10791	341
2166	Road Furniture	53.74	MORTH 801	<p>Providing and fixing Cautionary/Warning sign boards in Octagone size of _____mm made out of _____mm aluminum sheet bonded with white retro reflective sheeting of Class B ( Type IV High intensity micro-prismatic grade sheeting-HIP) having pressure sensitive/heat activated adhesive retoreflective specified back ground, border and back side retoreflective symbols, letters, numerals, arrow as per IRC:67-2012 Table No 8.3 Supported with back support frame 25mm x 25mm x 3mm, duly painted on back side with grey stove enamel paint and supported on one no. of M. S. angle iron post of size 65 mm X 65 mm X 6 mm, 3.45 m long, duly painted with with flat oil paint having alternate black and white bands of 25 cm width including G.I. fixtures etc; fixing the boards in M25 grade concrete block of size 60cm X 60cm X 75cm including transportation etc; complete. Class B ( Type IV High intensity micro-prismatic grade sheeting-HIP) shall have 7 years written warranty from the manufacturer and authorised distributor/convertor issued for field performance including the screen printed areas and cut-out sheeting and cut-out durable transparent overlay film and this warranty certificate in original should be submitted to the Engineer in charge by the contractor/supplier.</p> <p><b>750 mm made out of 4mm aluminum composite material with 0.5 mm skin thickness on either side</b></p>	MORTH 801	Number	8822	341

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
2167	Road Furniture	53.75	MORTH 801	<p>Providing and fixing Cautionary/Warning sign boards in Octagone size of ____mm made out of ____mm aluminum sheet bonded with white retro reflective sheeting of Class B ( Type IV High intensity micro-prismatic grade sheeting-HIP) having pressure sensitive/heat activated adhesive retoreflective specified back ground, border and back side retoreflective symbols, letters, numerals, arrow as per IRC:67-2012 Table No 8.3 Supported with back support frame 25mm x 25mm x 3mm, duly painted on back side with grey stove enamel paint and supported on one no. of M. S. angle iron post of size 65 mm X 65 mm X 6 mm, 3.45 m long, duly painted with with flat oil paint having alternate black and white bands of 25 cm width including G.I. fixtures etc; fixing the boards in M25 grade concrete block of size 60cm X 60cm X 75cm including transportation etc; complete. Class B ( Type IV High intensity micro-prismatic grade sheeting-HIP) shall have 7 years written warranty from the manufacturer and authorised distributor/convertor issued for field performance including the screen printed areas and cut-out sheeting and cut-out durable transparent overlay film and this warranty certificate in original should be submitted to the Engineer in charge by the contractor/supplier.</p> <p><b>900 mm made out of 4mm aluminum composite material with 0.5 mm skin thickness on either side</b></p>	MORTH 801	Number	11553	341
2168	Road Furniture	53.76	MORTH 801	<p>Providing and fixing Cautionary/Warning sign boards in Octagone size of _____ mm made out of ____mm aluminum sheet bonded with white retro reflective sheeting of Class C ( Type XI Micro prismatic grade sheeting) having pressure sensitive/heat activated adhesive retoreflective specified back ground, border and back side retoreflective symbols, letters, numerals, arrow as per IRC:67-2012 Table No 8.3 Supported with back support frame 25mm x 25mm x 3mm, duly painted on back side with grey stove enamel paint and supported on one no. of M. S. angle iron post of size 65 mm X 65 mm X 6 mm, 3.45 m long, duly painted with with flat oil paint having alternate black and white bands of 25 cm width including G.I. fixtures etc; fixing the boards in M25 grade concrete block of size 60cm X 60cm X 75cm including transportation etc; complete. Class C ( Type XI Micro prismatic grade sheeting) shall have 10 years written warranty from the manufacturer and authorised distributor/convertor issued for field performance including the screen printed areas and cut-out sheeting and cut-out durable transparent overlay film and this warranty certificate in original should be submitted to the Engineer in charge by the contractor/supplier.</p> <p><b>750 mm made out of 4mm aluminum composite material with 0.5 mm skin thickness on either side</b></p>	MORTH 801	Number	9893	341

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
2169	Road Furniture	53.77	MORTH 801	<p>Providing and fixing Cautionary/Warning sign boards in Octagone size of _____ mm made out of ____mm aluminum sheet bonded with white retro reflective sheeting of Class C ( Type XI Micro prismatic grade sheeting) having pressure sensitive/heat activated adhesive retoreflective specified back ground, border and back side retoreflective symbols, letters, numerals, arrow as per IRC:67-2012 Table No 8.3 Supported with back support frame 25mm x 25mm x 3mm, duly painted on back side with grey stove enamel paint and supported on one no. of M. S. angle iron post of size 65 mm X 65 mm X 6 mm, 3.45 m long, duly painted with with flat oil paint having alternate black and white bands of 25 cm width including G.I. fixtures etc; fixing the boards in M25 grade concrete block of size 60cm X 60cm X 75cm including transportation etc; complete. Class C ( Type XI Micro prismatic grade sheeting) shall have 10 years written warranty from the manufacturer and authorised distributor/convertor issued for field performance including the screen printed areas and cut-out sheeting and cut-out durable transparent overlay film and this warranty certificate in original should be submitted to the Engineer in charge by the contractor/supplier.</p> <p><b>900 mm made out of 4mm aluminum composite material with 0.5 mm skin thickness on either side</b></p>	MORTH 801	Number	13094	341
2170	Road Furniture	53.78	MORTH 801	<p>Providing and fixing of <b>retro- reflectorised informatory sign board rectangular/Square</b> in shape having area less than 0.9 square meter made out of 4 mm aluminum composite panel with 0.5 mm skin thickness on either side bonded with white retro reflective sheeting of <b>Class B</b> ( Type IV High intensity micro-prismatic grade sheeting-HIP) having pressure sensitive adhesive retoreflective specified back ground, border and back side retoreflective symbols, letters, numerals, arrow as per IRC:67-2012 Table No 8.3, supported with back support frame 25mm x 25mm x 3mm, duly painted on back side with two coats of grey stove enamel paint and supported on one no. mild steel angle iron post 75 mm x 75 mm x 6 mm, 3.5 mt ~ 3.9 mlong firmly fixed to the ground by means of properly designed foundation with M25 grade cement concrete 45 cm x 45 cm x 60 cm, 60 cm below ground level as per approved drawing The angle iron post shall be duly painted with one coat of epoxy primer and two coats of epoxy finish paints having alternate black and white bands of 25 cm width including fixtures and transportation etc.complete.The nut bolts of board with angle iron post/supporting structure after fixing at site has to be electrically welded. Class B ( Type IV High intensity micro-prismatic grade sheeting-HIP) sheeting shall have 7 years written warranty from the manufacturer including the <b>Digitally Printed</b> areas with Latex printing technology with sheeting manufacturer approved inks and laminated with UV overlay film and this warranty certificate along with sheeting manufacturer attested 3 years outdoor weathering test report from Indian govt lab must be submitted to the Engineer in charge by the contractor/supplier.</p>	MORTH 801	Square Meter	13700	312

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
2171	Road Furniture	53.79	MORTH 801	Providing and fixing of <b>retro- reflectorised informatory sign board</b> rectangular/Square in shape having area less than 0.9 square meter made out of 4 mm aluminum composite panel with 0.5 mm skin thickness on either side bonded with white retro reflective sheeting of <b>Class C</b> ( Type XI Type XI Micro prismatic grade sheeting) having pressure sensitive adhesive retoreflective specified back ground, border and back side retoreflective symbols, letters, numerals, arrow as per IRC:67-2012 Table No 8.3, supported with back support frame 25mm x 25mm x 3mm, duly painted on back side with two coats of grey stove enamel paint and supported on one no. mild steel angle iron post 75 mm x 75 mm x 6 mm, 3.5 mt ~ 3.9 mtlong firmly fixed to the ground by means of properly designed foundation with M25 grade cement concrete 45 cm x 45 cm x 60 cm, 60 cm below ground level as per approved drawing The angle iron post shall be duly painted with one coat of epoxy primer and two coats of epoxy finish paints having alternate black and white bands of 25 cm width including fixures and transportation etc.complete.The nut bolts of board with angle iron post/supporting structure after fixing at site has to be electrically welded. Class C (Type XI Micro prismatic grade sheeting)) sheeting shall have 10 years written warranty from the manufacturer including the <b>Digitally Printed</b> areas with Latex printing technology with sheeting manufacturer approved inks and laminated with UV overlay film and this warranty certificate along with sheeting manufacturer attested 3 years outdoor weathering test report from Indian govt lab must be submitted to the Engineer in charge by the contractor/supplier.	MORTH 801	Square Meter	16105	312
2172	Road Furniture	53.80	MORTH 801	Providing and fixing of <b>retro- reflectorised informatory sign board rectangular/Square</b> in shape having area greater than 0.9 square meter made out of 4 mm aluminum composite panel with 0.5 mm skin thickness on either side bonded with white retro reflective sheeting of <b>Class B</b> ( Type IV High intensity micro-prismatic grade sheeting-HIP) having pressure sensitive adhesive retoreflective specified back ground, border and back side retoreflective symbols, letters, numerals, arrow as per IRC:67-2012 Table No 8.3, supported with back support frame 25mm x 25mm x 3mm, duly painted on back side with two coats of grey stove enamel paint and supported on two no. mild steel angle iron post 75 mm x 75 mm x 6 mm, 3.5 mt ~ 3.9 mtlong firmly fixed to the ground by means of properly designed foundation with M25 grade cement concrete 45 cm x 45 cm x 60 cm, 60 cm below ground level as per approved drawing The angle iron post shall be duly painted with one coat of epoxy primer and two coats of epoxy finish paints having alternate black and white bands of 25 cm width including fixures and transportation etc.complete.The nut bolts of board with angle iron post/supporting structure after fixing at site has to be electrically welded. Class B ( Type IV High intensity micro-prismatic grade sheeting-HIP) sheeting shall have 7 years written warranty from the manufacturer including the <b>Digitally Printed</b> areas with Latex printing technology with sheeting manufacturer approved inks and laminated with UV overlay film and this warranty certificate along with sheeting manufacturer attested 3 years outdoor weathering test report from Indian govt lab must be submitted to the Engineer in charge by the contractor/supplier.	MORTH 801	Square Meter	15602	120

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
2173	Road Furniture	53.81	MORTH 801	Providing and fixing of <b>retro- reflectorised informatory sign board rectangular/Square</b> in shape having area greater than 0.9 square meter made out of 4 mm aluminum composite panel bonded with 0.5 mm skin thickness on either side with white retro reflective sheeting of <b>Class C</b> ( Type XI Type XI Micro prismatic grade sheeting) having pressure sensitive adhesive retoreflective specified back ground, border and back side retoreflective symbols, letters, numerals, arrow as per IRC:67-2012 Table No 8.3, supported with back support frame 25mm x 25mm x 3mm, duly painted on back side with two coats of grey stove enamel paint and supported on two no. mild steel angle iron post 75 mm x 75 mm x 6 mm, 3.5 mt ~ 3.9 mtlong firmly fixed to the ground by means of properly designed foundation with M25 grade cement concrete 45 cm x 45 cm x 60 cm, 60 cm below ground level as per approved drawing The angle iron post shall be duly painted with one coat of epoxy primer and two coats of epoxy finish paints having alternate black and white bands of 25 cm width including fixures and transportation etc.complete.The nut bolts of board with angle iron post/supporting structure after fixing at site has to be electrically welded. ClassC_ ( Type XI Type XI Micro prismatic grade sheeting) sheeting shall have 10 years written warranty from the manufacturer including the <b>Digitally Printed</b> areas with Latex printing technology with sheeting manufacturer approved inks and laminated with UV overlay film and this warranty certificate along with sheeting manufacturer attested 3 years outdoor weathering test report from Indian govt lab must be submitted to the Engineer in charge by the contractor/supplier.	MORTH 801	Square Meter	18007	373
2174	Road Furniture	53.82	MORTH 801	Providing and erecting <b>Overhead signs</b> made out of <b>4 mm aluminum composite panel with 0.5 mm skin thickness on either side</b> bonded with white retro reflective sheeting of <b>Class B</b> ( Type IV High intensity micro-prismatic grade sheeting-HIP) having pressure sensitive adhesive retoreflective specified back ground, border and back side retoreflective symbols, letters, numerals, arrow as per IRC:67-2012, with designed back support frame of mild steel angle with vertical and lateral clearance given in clause 801 and 802, duly painted on back side with two coats of grey stove enamel paint and installed as per clause 802.6 over a designed support system of structural steel work trestles and trusses of sections and type as per structural design requirements and approved plans including painting with one coat of epoxy primer and two coats of epoxy finish paint.The nut bolts of board with angle iron post/supporting structure after fixing at site has to be electrically welded. Class B ( Type IV High intensity micro-prismatic grade sheeting-HIP) sheeting shall have 7 years written warranty from the manufacturer including the <b>Digitally Printed</b> areas with Latex printing technology with sheeting manufacturer approved inks and laminated with UV overlay film and this warranty certificate along with sheeting manufacturer attested 3 years outdoor weathering test report from Indian govt lab must be submitted to the Engineer in charge by the contractor/supplier.This item does not include the cost of structural steel work required for support system.	MORTH 801	Square Meter	11099	161

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
2175	Road Furniture	53.83	MORTH 801	Providing and erecting <b>Overhead signs</b> made out of <b>4 mm aluminum composite panel with 0.5 mm skin thickness on either side</b> bonded with white retro reflective sheeting of <b>Class C</b> (Type XI Micro prismatic grade sheeting) having pressure sensitive adhesive retoreflective specified back ground, border and back side retoreflective symbols, letters, numerals, arrow as per IRC:67-2012, with designed back support frame of mild steel angle with vertical and lateral clearance given in clause 801 and 802, duly painted on back side with two coats of grey stove enamel paint and installed as per clause 802.6 over a designed support system of structural steel work trestles and trusses of sections and type as per structural design requirements and approved plans including painting with one coat of epoxy primer and two coats of epoxy finish paint.The nut bolts of board with angle iron post/supporting structure after fixing at site has to be electrically welded. Class _C_ ( Type XI Type XI Micro prismatic grade sheeting) sheeting shall have 10 years written warranty from the manufacturer including the <b>Digitally Printed</b> areas with Latex printing technology with sheeting manufacturer approved inks and laminated with UV overlay film and this warranty certificate along with sheeting manufacturer attested 3 years outdoor weathering test report from Indian govt lab must be submitted to the Engineer in charge by the contractor/supplier.This item does not include the cost of structural steel work required for support system.	MORTH 801	Square Meter	13001	161
2176	Road Furniture	53.84	MORTH 801	Providing and fixing <b>board displaying information</b> , such as "Name of work, Tender cost, Name of Contractor, Work completion and liability period etc", having rectangular shape of <b>1.20m x 0.90m size</b> made up of <b>4 mm aluminum composite pannel sheet with 0.5 mm skin thickness on either side</b> bonded with white retro reflective sheeting of <b>Class B</b> (Type IV High intensity micro-prismatic grade sheeting-HIP) having pressure sensitive adhesive. Retro reflective sheeting with specified background, border and back side reto reflective symbols, letters, numerals, arrow as per IRC: 67-2012 Table No 8.3, on M.S.angle of size 35 x 35 x 3 mm frame with properly cross braced M.S. angles of size 35mmx35mmx3mm duly painted including Two M.S. angle iron posts of size 65 mm x 65 mm x 6 mm, 3.65 m long painted with alternate black and white bands of 25 cm width including all fixtures etc.and fixing the boards in 1:4:8 concrete block of size 60 cm x 60 cm x 75 cm including, excavation, refilling, transportation, and labour etc complete. Class B (Type IV High intensity micro-prismatic grade sheeting-HIP) shall have 7 years written warranty from the manufacturer including the <b>Digitally Printed</b> areas with Latex printing technology with sheeting manufacturer approved inks and laminated with UV overlay film and this warranty certificate in original should be submitted to the Engineer in charge by the contractor/supplier.	MORTH 801	Square Meter	12896	2543



Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
2177	Road Furniture	53.85	MORTH 801	Providing and fixing <b>board displaying information</b> , such as "Name of work, Tender cost, Name of Contractor, Work completion and liability period etc", having rectangular shape of <b>1.20m x 0.90m size</b> made up of <b>4 mm aluminum composite pannel sheet with 0.5 mm skin thickness on either side</b> bonded with white retro reflective sheeting of <b>Class C</b> (Type XI Micro prismatic grade sheeting) having pressure sensitive adhesive. Retro reflective sheeting with specified background, border and back side reto reflective symbols, letters, numerals, arrow as per IRC: 67-2012 Table No 8.3, on M.S.angle of size 35 x 35 x 3 mm frame with properly cross braced M.S. angles of size 35mmx35mmx3mm duly painted including Two M.S. angle iron posts of size 65 mm x 65 mm x 6 mm, 3.65 m long painted with alternate black and white bands of 25 cm width including all fixtures etc.and fixing the boards in 1:4:8 concrete block of size 60 cm x 60 cm x 75 cm including, excavation, refilling, transportation, and labour etc complete. Class <b>_C_</b> (Type XI Micro prismatic grade sheeting) shall have 10 years written warranty from the manufacturer including the <b>Digitally Printed</b> areas with Latex printing technology with sheeting manufacturer approved inks and laminated with UV overlay film and this warranty certificate in original should be submitted to the Engineer in charge by the contractor/supplier.	MORTH 801	Square Meter	14933	2543
2178	Road Furniture	53.86	MORTH 801	Providing and fixing <b>board displaying information</b> , such as "Name of work, Tender cost, Name of Contractor, Work completion and liability period etc", having rectangular shape of <b>1.80m x 1.20m size</b> made up of <b>4 mm aluminum composite pannel sheet with 0.5 mm skin thickness on either side</b> bonded with white retro reflective sheeting of <b>Class B</b> (Type IV High intensity micro-prismatic grade sheeting-HIP) having pressure sensitive adhesive. Retro reflective sheeting with specified background, border and back side reto reflective symbols, letters, numerals, arrow as per IRC: 67-2012 Table No 8.3, on M.S.angle of size 35 x 35 x 3 mm frame with properly cross braced M.S. angles of size 35mmx35mmx3mm duly painted including Two M.S. angle iron posts of size 65 mm x 65 mm x 6 mm, 3.65 m long painted with alternate black and white bands of 25 cm width including all fixtures etc.and fixing the boards in 1:4:8 concrete block of size 60 cm x 60 cm x 75 cm including, excavation, refilling, transportation, and labour etc complete. Class B (Type IV High intensity micro-prismatic grade sheeting-HIP) shall have 7 years written warranty from the manufacturer including the <b>Digitally Printed</b> areas with Latex printing technology with sheeting manufacturer approved inks and laminated with UV overlay film and this warranty certificate in original should be submitted to the Engineer in charge by the contractor/supplier.	MORTH 801	Square Meter	24573	2543

Sr. No.	Chapter	SSR Item No.	Reference No.	Description of the item	Additional Specification	Unit	Completed Rate for 2021-22 excluding GST In Rs.	Labour Rate for 2021-22 excluding GST In Rs.
2179	Road Furniture	53.87	MORTH 801	Providing and fixing <b>board displaying information</b> , such as "Name of work, Tender cost, Name of Contractor, Work completion and liability period etc", having rectangular shape of <b>1.80m x 1.20m size</b> made up of <b>4 mm aluminum composite pannel sheet with 0.5 mm skin thickness on either side</b> bonded with white retro reflective sheeting of <b>Class C</b> (Type XI Micro prismatic grade sheeting) having pressure sensitive adhesive. Retro reflective sheeting with specified background, border and back side reto reflective symbols, letters, numerals, arrow as per IRC: 67-2012 Table No 8.3, on M.S.angle of size 35 x 35 x 3 mm frame with properly cross braced M.S. angles of size 35mmx35mmx3mm duly painted including Two M.S. angle iron posts of size 65 mm x 65 mm x 6 mm, 3.65 m long painted with alternate black and white bands of 25 cm width including all fixtures etc.and fixing the boards in 1:4:8 concrete block of size 60 cm x 60 cm x 75 cm including, excavation, refilling, transportation, and labour etc complete. Class _C_ (Type XI Micro prismatic grade sheeting)) shall have 10 years written warranty from the manufacturer including the <b>Digitally Printed</b> areas with Latex printing technology with sheeting manufacturer approved inks and laminated with UV overlay film and this warranty certificate in original should be submitted to the Engineer in charge by the contractor/supplier.	MORTH 801	Square Meter	28648	2543

**MATERIAL RATES FOR SSR For Year 2021-22**

Sr. No.	Description	Per Unit	Rate (Excluding GST) SSR 2021-22
<b>Building (Bd-A : Excavation)</b>			
1	Blasting Powder	Kg.	78.00
2	Detonator	No.	21.00
3	Fuse	No.	188.00
4	Nipple For Fastening Detenator	No.	49.00
5	Noble Dynamite	Kg.	116.00
6	Red Tape Safety Fuse	R.Mt.	14.00
7	Blasting Fuse (Fuse wire)	No.	19.00
<b>Building (Bd-C : Structural Steel Work)</b>			
1	M.S.screws etc. 35mm dia. and 75mm long (100nos.)	Per Box	131.00
2	Nut Bolts 16mm dia./Nails all size	Kg.	94.00
3	Nut Bolts washers 12mm dia. 45mm long	No.	18.00
4	Nut Bolts washers 12mm dia. 75mm long	No.	24.00
5	M.S. Locking Arrangement for gate	No.	798.00
<b>Building (Bd-F : Reinforcement Cement concrete)</b>			
1	Binding Wire	Kg.	88.00
2	Centering Oil	Ltr.	19.00
3	Plastic Cover Block	No.	4.00
4	R.C.C.Jali 50mm thick	Sq.Mt.	534.00
5	Plastizer (Rheobuild) 825 Rmt.	Ltr.	162.00
6	Concrete Spacer Block 15 mm	No.	5.00
7	Concrete Spacer Block 20 mm	No.	5.00
8	Concrete Spacer Block 25 mm	No.	6.00
9	Concrete Spacer Block 30 / 40 mm	No.	7.00
10	Anticorrrisive Primer Coat	Ltr.	165.00
11	Swaling Coat	Ltr.	144.00
12	PVC Coated GI Wire	L/M	206.00
13	Repairs to cut ends and damages with special liquid epoxy	L/M	116.00
14	Epoxy paint	Ltr	433.00
15	R.C.C.Jali 80mm thick	Sq.Mt.	777.00
<b>Building (Bd-G : Brick Work)</b>			
1	1st Class Bricks (Red)	No.	8.00
2	AAC Block 600x200x100 mm	No.	56.00
3	Jointing Mortar	Kg	25.00
4	Fly ash Bricks	No.	7.00
<b>Building (Bd-H : Stone Masonry)</b>			
1	Corner stone 38*20*30cm	No.	90.00
2	Khandakies	No.	78.00
3	Pin Header (Standard Size)	No.	61.00
<b>Building (Bd-I : Cement Concrete Stone Masonry)</b>			
1	Hollow Blocks C.C.0.2*0.2*0.4M	No.	43.00
2	Hollow Blocks C.C.0.1*0.2*0.4M	No.	37.00
3	Hollow Block C C 0.30 x 0.20 x 0.15	No.	45.00
4	Siporex Block 75x240x650 mm	No.	79.00
5	GBP Build Fast plus	Kg.	36.00
6	Siporex Block 100x240x650 mm	No.	88.00
7	Siporex Block 200x240x650 mm	No.	172.00
<b>Building (Bd-J : Water Proofing)</b>			
1	Bitumen (Compound)	Kg.	65.00
2	Brick bats	Cu.Mt.	778.00
3	Water proof compound I.S	Kg.	146.00
4	Tar Felt B.H.I.S.1.3mm thick	Sq.Mt.	96.00
5	Acrylic Polymer Modified waterproofing Powder	Kg.	174.00
6	Acrylic Polymer Modified Liquid	Ltr.	236.00
7	Fibre Glass Mesh	Sq.Mt.	74.00
8	Bitumen 85/25 Grade	Kg.	64.00
9	Bitumen 85/25 Grade Cold Primer	Kg.	49.00
10	Grit (Add Below 5.6)	Cmt	790.00
11	Bitumen Felt	Sqm	93.00
<b>Building (Bd-K : Expansion Joint)</b>			
1	Polydee-TP40 Primer	Kg.	562.00
2	Polydee-TP40 Primer	Kg.	559.00
3	Polydee-LM	Kg.	560.00
4	Polydee-LM 150mm width	Kg.	627.00
5	Bituflex Cloesdcell foam 30x30 mm	R.Mt.	69.00
6	AG 10 Granules	Kg.	26.00
7	Polydee-MC	Kg.	897.00
8	Polydee-41 sealant and polyseal	Kg.	905.00
9	Polydee-11	Kg.	1340.00
10	Bitumen Pad 25mm thick 1.20 x 1.20 Mtr	Smt.	998.00

Sr. No.	Description	Per Unit	Rate (Excluding GST) SSR 2021-22
<b>Building (Bd-L : Plastering and Pointing)</b>			
1	Neeru / Sanala	Kg.	7.00
2	White Putty (Cement)	Kg.	29.00
3	Texture Material	bags	1420.00
<b>Building (Bd-M : Paving,Flooring and Dado)</b>			
1	Rough Shahabad 25 to 30mm thick	Sq.Mt.	234.00
2	Rough Shahabad 40 to 45 mm thick	Sq.Mt.	286.00
3	Polished Shahabad 25 to 30mm thick	Sq.Mt.	278.00
4	Rough Shahabad 50 to 60mm thick	Sq.Mt.	327.00
5	Polished Shahabad 40 to 50mm thick For step	Sq.Mt.	448.00
6	Polished Shahabad Machine cut 25mm thick	Sq.Mt.	313.00
7	Polished Shahabad for step 25mm thick	Sq.Mt.	328.00
8	Tandoor Polished 25mm thick (Machine cut)	Sq.Mt.	392.00
9	Tandoor Polished 25mm thick (Hand Cut)	Sq.Mt.	334.00
10	Tandoor Polished for steps 25mm thick	Sq.Mt.	418.00
11	Black Kadappa (one side polish) (Machine cut) 25 mm thick	Sq.Mt.	454.00
12	Black Kadappa (one side polish) (Machine cut) 35mm thick	Sq.Mt.	520.00
13	Both Sides Polished Kadappa stone 25mm thick	Sq.Mt.	570.00
14	Kota stone (Machine cut) upto 25-30mm thick one side polished	Sq.Mt.	564.00
15	Kota stone (Hand cut) upto 25-30mm thick one side polished	Sq.Mt.	527.00
16	Kota stone for step polished) upto 25mm thick (1.2*0.3M)	Sq.Mt.	580.00
17	Ceramic tiles 30*30cm	Sq.Mt.	509.00
18	Ceramic Antiskid Flooring Tiles 30 x 30 cm	Sq.Mt.	523.00
19	Ceramic Tiles for dado 30 cm x 30 cm	Sq.Mt.	504.00
20	Ceramic Tiles for dado 30 x 45 cm	Sq.Mt.	534.00
21	Heavy duty interlocking concrete block 60mm thick gray 300 kg/sq.cm.	Sq.Mt.	535.00
22	Heavy duty interlocking concrete block 60mm thick coloured 300kg/sq.cm	Sq.Mt.	596.00
23	Heavy duty interlocking concrete block 80mm thick gray 300kg/sq.cm	Sq.Mt.	684.00
24	Heavy duty interlocking concrete block 80mm thick coloured 300kg/sq.cm	Sq.Mt.	789.00
25	Heavy duty interlocking concrete block 80mm thick rubber mould glossy 400kg/sq.cm	Sq.Mt.	972.00
26	Heavy duty interlocking concrete block 40mm thick colour 200 kg/sq.cm	Sq.Mt.	536.00
27	Telephone Black Granite	Sq.Mt.	2664.00
28	Green marble	Sq.Mt.	1303.00
29	Vitrified tiles Glossy Size 590 to 605 mm* 590 to 605 mm*8 to 10mm	Sq.Mt.	608.00
30	Vitrified matt finish - size 590 to 605 mm* 590 to 605 mm *8 to 10mm	Sq.Mt.	938.00
31	Vitrified rustic matt stone finish size 590 to 605mm *590 to 605mm*8 to 10mm	Sq.Mt.	1005.00
32	Vertified stone effect finish size 590 to 605mm* 590 to 605mm * 8 to 10mm	Sq.Mt.	1047.00
33	Calcet Powder	Kg.	305.00
34	Black Oxide powder	Kg.	130.00
35	Fevi Matt Chemical 10 Kg Bag	bags	744.00
36	Marble chips	Kg.	51.00
37	Heavy duty interlocking concrete block 60mm thick rubber mould glossy 400kg/sq.cm	Sq.Mt.	614.00
38	Tremix Treatment 100 mm thick	Sq.Mt.	81.00
39	Marble mosaic chequered tiles (gray)	Sq.Mt.	285.00
40	Colour cement	Kg.	18.00
41	Heavy Duty Designer come. tile for flooring	Sq.Mt.	944.00
42	Heavy Duty Designer come. tile for Steps	Sq.Mt.	1017.00
43	PVC flooring	Sq.Mt.	366.00
44	Ceramic Tiles for dado 30 x 60 cm	Sq.Mt.	611.00
45	Marble (other than white makrana)	Sq.Mt.	1399.00
46	Kota stone (Hand cut) upto 45-55mm thick one side polished	Sq.Mt.	909.00
47	Vitrified matt finish - size 895 to 900 mm* 895 to 900 mm *10 to 12 mm	Sq.Mt.	1100.00
<b>Building (Bd-N : Wood finish)</b>			
1	Bees wax	Kg.	162.00
2	Coal Tar	Kg.	75.00
3	Common Spirit	Ltr.	95.00
4	French Polish	Ltr.	205.00
5	Varnish	Ltr.	194.00
6	Malemaine Polish	Ltr.	387.00
7	C.C.T.W. Ballies 125 mm Diameter	R.Mt.	182.00
<b>Building (Bd-O : Oil Painting)</b>			
1	Oil enamel paint/flat/glossy paint(ready mix) (with I.S.I. Mark)	Ltr.	292.00
2	Synthetic paint (ready mix)	Ltr.	275.00
3	Catonic emulsion paint	Kg.	344.00
4	White oil paint 100ml pack tin	No.	42.00
5	Red Oxide paint	Ltr.	177.00
6	Cement paint	Kg.	65.00

Sr. No.	Description	Per Unit	Rate (Excluding GST) SSR 2021-22
7	Steel Primer	Ltr.	173.00
8	Primer for plaster surface	Ltr.	190.00
9	Putty	Kg.	30.00
10	Boiled linseed oil	Ltr.	85.00
11	Linseed oil double boiled	Ltr.	126.00
12	Terpentine	Ltr.	98.00
13	Wood Primer	Ltr.	152.00
14	Brush for lettring	No.	43.00
15	Brush for road marking 5cm	No.	100.00
16	Brush for marking road 8cm	No.	195.00
17	Brush for road marking 10cm	No.	233.00
18	Lustre paint	Ltr.	233.00
19	Textured Synthetic paint	Ltr.	244.00
20	White lead paint	Kg.	310.00
21	Birla wall care putty	Kg.	53.00
22	Aluminium Paint	Lit.	310.00
23	Plastic emulsion paint	Ltr.	325.00
24	Acrylic Emulsion Paint	Ltr.	221.00
25	Exterior Primer	Ltr.	137.00
26	Weather shield paint	Ltr.	315.00
<b>Building (Bd-P : Colour,white washing,distempering)</b>			
1	Neel	Kg.	156.00
2	Oil bound distemper	Kg.	106.00
3	Red powder / Geru	Kg.	21.00
4	Saras	Kg.	68.00
5	Scrapping sand paper size (30 * 20cm)	No.	14.00
6	Dry distemper	Kg.	89.00
7	Chunam / White lime Powder	Kg.	15.00
8	paint Luster Paint	Ltr.	220.00
9	Roller Brush	No.	277.00
10	Royale Luxury Emulsion Paint	Ltr.	429.00
<b>Building (Bd-Q : Wood work)</b>			
1	Country Teak Wood	Cu.Mt.	108229.00
2	Ghana teak wood	Cu.Mt.	94404.00
3	Teak Wood planks above 2.5 m length	Cu.Mt.	100060.00
4	Teak wood bidding 1/2" * 1/2"	Rmt	22.00
5	T.W.Balli 100 mm dia	Rmt	183.00
6	Jungle wood (non teak) normal	Cu.Mt.	39636.00
7	Bamboo 25mm dia.(4.5 to 6m)	No.	26.00
8	Bamboo 50mm dia.	No.	28.00
9	Bamboo Matting 1.2*1.8m	Sq.Mt.	62.00
10	Ply wood 12mm thick	Sq.Mt.	484.00
11	Ply wood 6mm thick	Sq.Mt.	350.00
12	Mica laminate as per ISI 0.1 mm thick	Sq.Mt.	829.00
13	Face Veneel board 4 mm thick	Sq.Mt.	489.00
14	Particle board B.W.P.Phinol bond 12mm thick	Sq.Mt.	386.00
15	Particle board B.W.P.Phinol bond 19 mm thick	Sq.Mt.	656.00
16	Formica 1.5 mm thick	Sq.Mt.	1132.00
17	Tower bolt brass oxidised 10 mm dia length 150 mm	No	211.00
18	Ferical	Kg	213.00
19	Ply wood 18mm thick Commercial	Sq.Mt.	893.00
20	Teak wood battens 50 * 25mm	Cu.Mt.	62580.00
21	Teak wood batten 25 mm * 12 mm	Cu.Mt.	63875.00
22	Veneer 3.5 to 4 mm thick	Sq.mt.	504.00
23	Alluminium rod 25mm dia	Rmt.	66.00
<b>Building (Bd-R : Rofing and ceiling)</b>			
1	A.C.Corrugated sheet 6mm thick	Sq.Mt.	133.00
2	A.C.Sheet ridge	Pair	309.00
3	A.C.Sheet plain 4mm thick	Sq.Mt.	226.00
4	G.C.I. Sheet (Corrugated) 22 BWG	M.T.	69265.00
5	G.C.I. Sheet (Corrugated) 24 BWG	M.T.	68953.00
6	G.I. Sheet (plain) 22 BWG	Sq.Mt.	561.00
7	G.I. Sheet (plain) 24 BWG	Sq.Mt.	493.00
8	G.I.Washers	Kg.	113.00
9	G.I. J or L hooks 6 mm dia.	No.	9.00
10	Nails iron all size	Kg.	89.00
11	Mangalore tiles class AA	No.	21.00
12	Mangalore Ridge / Hip tiles	No.	37.00
13	Mangalore Glass tiles	No.	406.00
14	Mangalore Pattern cowl Ventilator	No.	261.00
15	G.I. Pre coated trapezoidal 0.50 mm thick roof Metalic Coloured Sheet	Sq.Mt.	919.00
16	G.I. Pre coated Ridge Sheet	R.Mt.	715.00
17	Gypsum powder	Kg.	25.00

Sr. No.	Description	Per Unit	Rate (Excluding GST) SSR 2021-22
18	Aluminium Alloy plate 2mm thick	Sq.Mt.	1600.00
19	Aluminium sheeting fixed with encapsuled lens type reflective sheeting including 2% towards lettering , cost of angle iron, cost of drilling holes , nuts, bolts etc. and signs as applicable.	Kg.	172.00
20	Plaster Of Paris	bags	246.00
21	Decorative Board of Fibrous Plaster of Paris 12 to 15 mm	Sq.Mt.	401.00
22	Acoustic Board 12 mm thick	Sq.Mt.	284.00
23	Gypsum Board 12.5 mm thick	Sq.Mt.	218.00
24	UPVC 3 layer trapezoidal 2.00 mm sheet	Sq.Mt.	884.00
25	Light weight calcium silicate tile of size 595 x 595 mm of texture spin stone / cosmos / plain / Glode fine fissured.	Sq.Mt.	1049.00
26	Bioguard Board 16 mm	Sq.Mt.	1073.00
27	Ultima tile	Sq.Mt.	1333.00
28	Optra tile	Sq.Mt.	1715.00
29	Proflex Sheet 1 mm	Kg.	89.00
30	Sky light 2 mm thick	Kg.	1384.00
31	Hanger rod 4mm thick	No.	13.00
32	level Adjustment clip size 85x30x0.8mm	No.	13.00
33	Dash fastener 12.5mm dia 50mm long	No.	55.00
34	Soffit cleat 25mmx35mmx1.60mm	No.	7.00
35	Wooden Screws with plastic rawl plugs 35mmx8mm	No.	73.00
36	Light weight calcium silicate tiles of size 595x595mm of texture Spintone for Tegular edge ceiling	No.	1231.00
37	Plain Zinc Sheet	Sq.Mt.	253.00
38	UPVC ridge/hip tiles	No.	384.00
39	Hanger wire (2.68 mm dia), 1.82 m long	No.	23.00
40	Dune edge tiles	Sq.Mt.	924.00
41	Fine fissured edge tiles	Sq.Mt.	756.00
42	Turbo ventilator 24"	No.	8680.00
43	Tarat 36" width ( Gunny Cloth)	R.Mt.	67.00
44	Wire glass	Sq.Mt.	660.00
45	Fire wood	Quintal	371.00
46	Precoated Galvanised Steel Plain Sheet	Smt	1086.00
47	Connecting clip for supports	No.	9.00
48	Dry wall screws 25 mm	No.	5.00
49	Jointing Compound	Kg.	50.00
50	Jointing Tape	Rmt.	7.00
51	Minaral Fibre board 600 x 600 mm	Sq.Mt.	984.00
52	Perimeter Channel 80 x 8 mm	Kg.	201.00
53	Screws 1 12"	No.	2.00
54	Screws 1/2"	No.	2.00
55	Rawal Plug	No.	2.00
55	Plain Zinc Sheet 0.50 mm thick	Sq.mt.	654.00
<b>Building (Bd-T : Doors and windows)</b>			
1	Aldrop 300*16mm Chromium Plated	No.	193.00
2	Aldrop Iron Oxidise 300*16mm	No.	152.00
3	Aldrop Stainless steel 300*16mm	No.	403.00
4	Handle 125mm M.S. Chromium Plated	No.	77.00
5	Handle 150mm Brass Chromium plated (Rounded Shape)	No.	288.00
6	Handle Alluminium 125 mm	No.	71.00
7	Iron hinges chromium plated 125mm	No.	77.00
8	But Hinges Alluminium 125mm	No.	84.00
9	G.I.Screw 50mm	Doz.	30.00
10	G.I.Screw 25mm	Doz.	17.00
11	Stainless Steel Hinges - 125mm 14 gauge (Heavy Duty)	No.	79.00
12	Tower bolt Aluminium 10mm dia.length 250mm	No.	90.00
13	Tower bolt Aluminium 10mm dia.length 200mm	No.	78.00
14	Tower bolt M.S. Chromium plated 10mm dia,length 300mm	No.	86.00
15	Tower bolt M.S. Chromium plated 10mm dia,length 200mm	No.	79.00
16	Cold Rolled Steel Hollow Section Door frame 1829*610mm	No.	1940.00
18	Aluminium stay 25cm	No.	3359.00
19	Aluminium stay 30cm	No.	83.00
20	Jali fly proof	Sq.Mt.	254.00
21	Jali chicken mesh	Sq.Mt.	2705.00
22	Jali welded mesh 25*25* 13 Guage	Sq.Mt.	181.00
23	Jali welded mesh 25*25* 11 Guage	Sq.Mt.	306.00
24	Jali welded mesh 50*25 13 Guage	Sq.Mt.	204.00
25	Jali welded mesh 50*25 11 Guage	Sq.Mt.	350.00
26	Hold fast Iron 300*40*5mm	No.	73.00
27	Sliding Door Bolt Stainless Steel 12mm dia. 250mm length	No.	119.00
28	Glass plain 3mm	Sq.Mt.	353.00
29	Glass plain 5mm	Sq.Mt.	495.00

Sr. No.	Description	Per Unit	Rate (Excluding GST) SSR 2021-22
30	Glass obscured (bajara) 5mm	Sq.Mt.	528.00
31	G.I. Nut Bolt	Kg.	118.00
32	Housing box to rolling shutter	Sq.Mt.	1433.00
33	Mechanical Gear For Rolling Shutter	No.	2286.00
34	Mortice lock superior	No.	834.00
35	Solid Core commercial shutter 30mm thick phenol bonded with face veneer 3 mm thick both side	Sq.Mt.	941.00
36	Iron washer 12mm to 16mm	No.	2.00
37	Aluminium Section	Kg.	198.00
38	Nylon / PVC Gasket	R.Mt.	31.00
39	Alluminium Screw 32 x 6 mm, 25 x 6 mm	Doz.	28.00
40	Concealed locking arrangement of 100 mm length for sliding window	No.	131.00
41	Alluminium Grill 7.50 mm thick	Sq.Mt.	1258.00
42	Hydraulic floor spring heavy duty ( 150 Kg capacity) ISI mark	No.	1209.00
43	Iron Oxidized sliding door bolt 200 mm length, 12 mm dia	No.	91.00
44	Powder and Chemicals for colour anodizing process of alluminium sections	Kg.	48.00
45	Lock for Sliding Shutter	No.	142.00
46	All Bearing Roller	No.	105.00
47	All Frame Rail Angle	Kg.	230.00
48	Welding Electrodes	No.	6.00
49	C.R.C. Sheet	Sq.Mt.	614.00
50	Abstrone Butadyne Styrene (ABS) Door Shutter including Transportation	No.	699.00
51	Puff Insulation 35-40 Kg/Cumt. Density	Kg.	296.00
52	PVC Door Shutter 34 mm thick Factory Made Shutter	Sq.Mt.	4271.00
53	FRP Door Shutter 30 mm thick Factory Made Shutter	Sq.Mt.	1369.00
54	FRP Door Shutter 35 mm thick Factory Made Shutter	Sq.Mt.	1488.00
55	Bison Pannel	Sq.Mt.	512.00
56	PVC factory made solid panel door shutter with stainless steel fixtues & fastening	Sq.Mt.	4162.00
57	PVC factory made flush door 30 mm with stainless steel fixtues & fastening	Sq.Mt.	4036.00
58	Sliding door bolt Chromium plated 250mm	No.	87.00
59	Acrylic Plain Sheet 3 mm	Sq.Mt.	941.00
60	Aldrop Stainless steel 300*16mm	No	382.00
61	Aldrop Stainless steel 250*16 mm	No	338.00
62	Handle 150mm Stainless Steel (Rounded Shape)	No	35.00
63	Handle 200mm Stainless Steel (Rounded Shape)	No	75.00
64	Stainless Steel Hinges - 100mm 14 gauge (Heavy Duty)	No	44.00
65	Stainless Steel Hinges - 125mm 14 gauge (Heavy Duty)	No	74.00
66	Housing box to rolling shutter	Smt	1538.00
67	Mechanical Gear For Rolling Shutter	No	2294.00
68	Door Stopper Stainless Steel	No	152.00
69	Tower Bolt Stainless Steel 200 mm	No.	89.00
70	Tower Bolt Stainless Steel 250 mm	No.	162.00
71	Sliding Door Bolt Stainless Steel 250 mm	No.	110.00
72	Handle Stainless Steel 100 mm	No.	45.00
73	Eye Hole Lens	No.	228.00
74	Rolling Shutter	Smt.	2061.00
75	Ply Wood	Smt.	440.00
76	Stainless steel hooks and eyes 200 mm	No.	77.00
77	Steel Window	Kg.	55.00
78	Powder Coating	Sq.Mt.	500.00
79	Rubber Lining	R.Mt.	28.00
80	Ply wood 9 mm thick	Sq.Mt.	458.00
81	Laminated board double 12mm thick	Sq.Mt.	890.00
82	Alluminium Section anodized	Kg.	248.00
83	Handle iron oxidised 150 mm	No.	63.00
84	Hinges iron oxidised 100 mm	No.	46.00
85	T. W. Particle board, both face laminated 12 mm	Smt.	449.00
86	Battens T.W. 70 x 45 mm	Cmt.	88143.00
87	Nuts and Bolts	Nos.	116.00
88	Plain FRP Sheet 22 B.W.G.	Smt.	2580.00
89	TW Runner (6" x 3")	Cmt.	88581.00
90	Alluminium Screw	Doz.	9.00
91	F Patti	Kg.	207.00
92	Teak wood planks above 2.5m length	Cu.Mt.	49973.00
93	Vision Panel	No.	239.00
94	Solid core shutter 35 mm thick with commercial veneer facing and phenol bonded	Sq.mt.	1321.00
95	Oil Paint	Ltr.	298.00
96	Acrylic Plain Sheet 2 mm thick	Sq.Mt.	786.00
97	Aluminium Sheet 24 B.W.G	Sq.mt.	427.00

Sr. No.	Description	Per Unit	Rate (Excluding GST) SSR 2021-22
98	Alluminium Section with Powder Coating	Kg.	232.00
99	Concealed lock	No.	144.00
100	Mosquito proof Nylone net	Sq.Mt.	243.00
101	Solid Core commercial shutter 30mm thick phenol bonded with face veneer 3 mm thick both side with bidding patty	Sq.Mt.	985.00
<b>Building (Bd-V : Water supply and sanitary fittings)</b>			
1	G.I. Pipe 100mm dia. Medium type	R.Mt.	879.00
2	G.I. Pipe 100mm dia. Heavy type	R.Mt.	1163.00
3	G.I. Pipe 15mm dia. Medium type	R.Mt.	156.00
4	G.I. Pipe 15mm dia. Heavy type	R.Mt.	190.00
5	G.I. Pipe 20mm dia. Medium type	R.Mt.	182.00
6	G.I. Pipe 20mm dia. Heavy type	R.Mt.	215.00
7	G.I. Pipe 25mm dia. Medium type	R.Mt.	220.00
8	G.I. Pipe 25mm dia. Heavy type	R.Mt.	301.00
9	G.I. Pipe 32mm dia. Medium type	R.Mt.	274.00
10	G.I. Pipe 32mm dia. Heavy type	R.Mt.	321.00
11	G.I. Pipe 40mm dia. Medium type	R.Mt.	323.00
12	G.I. Pipe 40mm dia. Heavy type	R.Mt.	370.00
13	G.I. Pipe 50mm dia. Medium type	R.Mt.	431.00
14	G.I. Pipe 50mm dia. Heavy type	R.Mt.	503.00
15	G.I. Pipe 65mm dia. Medium type	R.Mt.	544.00
16	G.I. Pipe 65mm dia. Heavy type	R.Mt.	638.00
17	G.I. Pipe 80mm dia. Medium type	R.Mt.	670.00
18	G.I. Pipe 80mm dia. Heavy type	R.Mt.	858.00
19	PVC Nahani Trap 75 mm	No.	119.00
20	G.I. Clamps 100mm to 150mm	No.	26.00
21	PVC Nahani Trap 150 mm	No.	152.00
22	G.I. Clamps 12mm to 32mm	No.	26.00
23	G.I. Clamps 40mm to 80mm	No.	19.00
24	Anglo Indian W.C. Pan Colour	No.	1170.00
25	G.I. Fixtures	Kg.	96.00
26	P.V.C. Cowl 100 mm	No.	68.00
27	G.I. Screws 30mm	No.	6.00
28	G.I. Screws 40mm	No.	7.00
29	G.I. Union 25mm dia.	No.	100.00
30	Gully trap cover with frame	No.	610.00
31	Gun Metal stop tap with crutch wheel 20mm	No.	510.00
32	Gun metal stop tap with crutch wheel 25mm	No.	815.00
33	Gun metal stop tap with crutch wheel 15mm	No.	371.00
34	Gun metal stop tap with crutch wheel 20mm	No.	664.00
35	C.I. Bend 75mm dia.	No.	288.00
36	C.I. Bend 100mm dia.	No.	342.00
37	C.I. Bip tap 12mm	No.	103.00
38	C.I. Grating 150mm dia.	No.	130.00
39	C.I. Grating 100mm dia.	No.	72.00
40	C.I. Grating 75mm dia.	No.	45.00
41	C.I. Brackets	Pair	132.00
42	C.I. Collars 100mm dia.	No.	333.00
43	C.I. Copllers 75mm dia.	No.	244.00
44	C.I. Cover 45*30 cm with frame	No.	614.00
45	C.I. Cowl / Vent 100mm dia.	No.	346.00
46	C.I. Cowl / Vent 150mm dia.	No.	708.00
47	C.I. Cowl / Vent 75mm dia.	No.	274.00
48	C.I. Hinged Cover with frame	No.	650.00
49	C.I. Man hole cover 50 kg.	No.	3993.00
50	C.I. Man hole cover 75 kg.	No.	5876.00
51	C.I. Man hole cover 100 kg.	No.	7402.00
52	C.I. Man hole cover 175 kg. Heavy (0.9*0.45m)	No.	13700.00
53	C.I. Nahani trap 100mm dia. (375mm long)	No.	475.00
54	C.I. Nahani trap 75 to 80mm dia. (375mm long)	No.	361.00
55	C.I. 100*75*300 long arm (wt. 6kg) nahani trap	No.	1077.00
56	C.I. Soil pipe 100mm dia.	R.Mt.	949.00
57	C.I. Soil pipe 150mm dia.	R.Mt.	1779.00
58	C.I. Soil pipe 75 to 80mm dia.	R.Mt.	766.00
59	C.I. Shoe 75 mm dia.	No.	278.00
60	C.I. Shoe 100 mm dia.	No.	404.00
61	C.I. Shoe 150mm	No.	565.00
62	Ball cock 15mm dia. P.V.C. FLOAT	No.	315.00
63	Ball cock 25mm dia. P.V.C. FLOAT	No.	614.00
64	Ball cock 40mm dia. P.V.C. FLOAT	No.	754.00
65	Ball cock 50mm dia. P.V.C. FLOAT	No.	2077.00
66	Bib cock stop tap brass heavy 15mm	No.	421.00
67	Bib cock stop tap brass heavy 20mm	No.	645.00



Sr. No.	Description	Per Unit	Rate (Excluding GST) SSR 2021-22
68	Bib cock stop tap brass heavy 25mm	No.	945.00
69	Bib tap 12mm brass medium	No.	265.00
70	Colour wash hand basin 55*40cm	No.	1403.00
71	Colour wash hand basin 63*45cm	No.	1472.00
72	White glazed wash basin 45*30cm	No.	1225.00
73	White glazed wash hand basin 55*50cm	No.	1723.00
74	P.V.C. flexible Waste Pipe 32 mm dia	No.	54.00
75	White Glazed Wash Hand Basin 63 x 45 cm	No.	2218.00
76	Sink white glazed 45*20*30cm	No.	882.00
77	Pedestal for wash basin (standard size)	No.	2142.00
78	C.C.Septic tank 0.9m dia.(2.5m long)	No.	8593.00
79	C.C.Septic tank 1.20m dia.(2.5m long)	No.	11187.00
80	C.I.Steps for manhole	No.	561.00
81	C.I.Cover with frame (Gully trap)	No.	219.00
82	C.I.Plug Bend 150MM dia.	No.	1187.00
83	Clamp for G.I.pipe 25mm	No.	16.00
84	Colour European type W.C.Pan	No.	4757.00
85	European type glazed W.C.pan	No.	4763.00
86	W.C.PAN Coloured glazed 64CM.(Orissa)	No.	2534.00
87	W.C.PAN White glazed 58 CM.Indian	No.	2491.00
88	W.C.PAN White glazed 57.50 CM (Orissa)	No.	979.00
89	Fibre flushing tank for W.C.	No.	740.00
90	Flushing tank automatic Urinal 10ltr. C.I.	No.	993.00
91	Flushing tank automatic Urinal 5ltr. (P.V.C.)	No.	727.00
92	Low level flush pr. St. 10ltr.	No.	1302.00
93	Flat back Urinal	No.	1508.00
94	Stall Type Urinal	No.	4417.00
95	Lipped type Urinal	No.	624.00
96	Coloured glazed full stall Urinal	No.	4430.00
97	Bleaching Powder	Kg.	78.00
98	Potassium Permanganate	Kg.	396.00
99	Nylon Brush	No.	70.00
100	Duster	No.	93.00
101	Plastic Bucket	No.	125.00
102	Coir	Kg.	68.00
103	Gunny Cloth	R.Mt.	45.00
104	Kharata	No.	50.00
105	Wheel stop tap brass 15mm	No.	281.00
106	Wheel stop tap brass 20mm	No.	385.00
107	Wheel stop tap brass 25mm	No.	526.00
108	Socket brass for 32mm tap	No.	61.00
109	Socket brass for 40mm tap	No.	76.00
110	Socket brass for 50mm tap	No.	122.00
111	Socket brass for 65mm tap	No.	183.00
112	Socket for 100mm tap	No.	450.00
113	Socket for 15mm tap	No.	24.00
114	Socket for 20mm tap	No.	33.00
115	Socket for 25mm tap	No.	41.00
116	Socket for 32mm tap	No.	67.00
117	Socket for 40mm tap	No.	80.00
118	Socket for 50mm tap	No.	123.00
119	Socket for 65mm tap	No.	197.00
120	Socket for 80mm tap	No.	288.00
121	Span Yarn	No.	154.00
122	Strainer for 100mm	No.	2788.00
123	Strainer for 40mm	No.	526.00
124	Strainer for 50mm	No.	802.00
125	Strainer for 80mm	No.	1779.00
126	Strainer for 15mm	No.	162.00
127	Strainer for 20mm	No.	167.00
128	Strainer for 25mm	No.	246.00
129	Stone ware pipe 100mm dia.	R.Mt.	115.00
130	Stone ware pipe 150mm dia.	R.Mt.	163.00
131	Stone ware pipe 225mm dia.	R.Mt.	218.00
132	Stone ware glazed pipe half round 100mm dia.	R.Mt.	158.00
133	Stop tap brass with crunch wheel 15mm dia.	No.	120.00
134	Towel rod with clamps 16mm dia.	No.	198.00
135	Mirror 40*50cm. With plastic frame	No.	305.00
136	Brass T Thimble Socket 32mm dia.	Pair	115.00
137	Brass wheel stop tap 32mm dia.	No.	566.00
138	Brass wheel stop tap 40mm dia.	No.	704.00
139	Brass wheel stop tap 50mm dia.	No.	1253.00
140	Brass wheel stop tap 65mm dia.	No.	1741.00
141	Brass wheel stop tap 80mm dia.	No.	2999.00

Sr. No.	Description	Per Unit	Rate (Excluding GST) SSR 2021-22
142	Half turn flush cock 25mm dia.	No.	627.00
143	12mm flexible inlet pipe connection	No.	294.00
144	Bell mouth cover 100mm dia.	No.	87.00
145	Box chamber with lock 0.6*0.45m	No.	627.00
146	Brass nozzle pillar tap 12mm	No.	263.00
147	Black bakelite seat to european closer	No.	404.00
148	Concussion push button type gun metal tap 15 to 25mm dia.	No.	179.00
149	Coupling cast Iron 100mm dia.	No.	391.00
150	Coupling cast Iron 80mm dia.	No.	368.00
151	Chromium plated 12mm dia.bib cock	No.	84.00
152	C.I.Trap grating 15*10 cm	No.	86.00
153	C.I.Y junction 100mm dia.	No.	886.00
154	C.I.Y junction 150mm dia.	No.	1964.00
155	C.I.Y junction 75mm dia.	No.	642.00
156	Enameled bend 40mm dia.	No.	218.00
157	Ferrul for C.I.pipr 100mm	No.	166.00
158	White glazed foot rest chequered 25*10 cm	Pair	169.00
159	Half round earthenware pipe 100mm(60cm long)	No.	110.00
160	Half round earthenware pipe 150mm(60cm long)	No.	339.00
161	Jute Rope	Kg.	100.00
162	Half round chaina ware pipe 100mm(60cm long)	No.	109.00
163	Lead pipe 32mm dia.	R.Mt.	344.00
164	Mohagani seat with lid	No.	316.00
165	Mosquito proof coupling	No.	51.00
166	Non-return valve 15mm for water meter	No.	210.00
167	Non-return valve 25mm for water meter	No.	362.00
168	Non-return valve 20mm for water meter	No.	256.00
169	Pillar tap 12mm dia.chromium plated heavy	No.	527.00
170	P.Trap and lead pipe upto 40mm dia.	No.	315.00
171	Rubber gasket (25, 28 and 20 cm)	R.Mt.	173.00
172	Rubber Incertion	Kg.	320.00
173	Rubberised adhesive	Ltr.	340.00
174	Salt glazed stone ware gully trap (150*150mm)	No.	135.00
175	Self project tap brass chromium plated 15mm	No.	143.00
176	Sewer trap	No.	730.00
177	Shower rose chromium plated brass 10cm	No.	288.00
178	P.V.C. pipe 15mm dia.10kg/cm2 pressure(class IV)	R.Mt.	30.00
179	P.V.C. pipe 20mm dia.10kg/cm2 pressure(class IV)	R.Mt.	54.00
180	P.V.C. pipe 25mm dia.10kg/cm2 pressure(class IV)	R.Mt.	73.00
181	P.V.C. pipe 32mm dia.10kg/cm2 pressure(class IV)	R.Mt.	106.00
182	P.V.C. pipe 40mm dia.10kg/cm2 pressure(class IV)	R.Mt.	155.00
183	P.V.C. pipe 50mm dia.10kg/cm2 pressure(class IV)	R.Mt.	280.00
184	P.V.C. pipe 60mm dia.10kg/cm2 pressure(class IV)	R.Mt.	344.00
185	P.V.C. pipe 75mm dia.4 kg/cm2 pressure(class II)	R.Mt.	220.00
186	P.V.C. 75 mm Soil Pipe 6 Kg/cm2 Pressure	R.Mt.	242.00
187	P.V.C. pipe 90mm dia.4 kg/cm2 pressure(class II)	R.Mt.	219.00
188	P.V.C.pipe 110mm dia.4kg/cm2 pressure (class II)	R.Mt.	312.00
189	P.V.C. 110 mm Rain Water Pipe 6Kg/cm2 Pressure	R.Mt.	219.00
190	P.V.C. 110 mm Soil Pipe 6 Kg/cm2 Pressure	R.Mt.	364.00
191	P.V.C.pipe 140mm dia.4kg/cm2 pressure (class II)	R.Mt.	506.00
192	P.V.C.pipe 160mm dia.4kg/cm2 pressure (class II)	No.	676.00
193	P.V.C.pipe 160mm dia.Soil Pipe	R.Mt.	696.00
194	P.V.C.pipe 160mm dia. Rain Water Pipe	R.Mt.	696.00
195	P.V.C.Socket 15mm dia.	No.	8.00
196	P.V.C.Socket 20mm dia.	No.	10.00
197	P.V.C.Socket 25mm dia.	No.	14.00
198	P.V.C.Socket 32mm dia.	No.	16.00
199	P.V.C.Socket 40mm dia.	No.	22.00
200	P.V.C.Socket 50mm dia.	No.	37.00
201	P.V.C.Socket 60mm dia.	No.	55.00
202	P.V.C.Flushing tank (12 ltr. Capacity)	No.	970.00
203	Flush valve 32mm dia.	No.	1496.00
204	Ferocret tank	Ltr.	13.00
205	Stainless Steel sink of size 600*510*200mm of niral or equivalent make	No.	7084.00
206	C.P.pillar cock jaquar make continental (Cat.No. CON-011)	No.	660.00
207	C.P.pillar cock (ISI) jaquar make continental	No.	673.00
208	C.P.pillar cock long neck with aerator jaquar make continental (Cat.No. CON- 021)	No.	896.00
209	C.P.Bib cock (ISI) jaquar make continental (Cat.No. CON-037)	No.	627.00
210	C.P.Bib Cock long thread jaquar make continental (Cat.No. CON-039)	No.	635.00
211	C.P.2-way bib cock jaquar make continental (Cat.No. CON-041)	No.	899.00
212	C.P.bib cock with wall flange long thread jaquar make continental (Cat.No. CON- 047)	No.	655.00
213	C.P.Bib cock with nozzle jaquar make continental (Cat.No. CON-049)	No.	680.00

Sr. No.	Description	Per Unit	Rate (Excluding GST) SSR 2021-22
214	C.P.Angular stop cock jaquar make continental (Cat.No. CON-053)	No.	618.00
215	C.P.Angular stop cock long thread jaquar make continental (Cat.No. CON-055)	No.	1997.00
216	C.P.angular stop cock with wall flange jaquar make continental (Cat.No. CON- 059)	No.	608.00
217	C.P.central hole basin mixer without popup waste system with 450mm long braided hoses jaquar make continental (Cat.No. CON-167B)	No.	2161.00
218	C.P.wall mixer with telephone shower arrangement only but without telphone shower crutch jaquar make continental (Cat.No. CON-217)	No.	2633.00
219	C.p.wall mixer non-telephonic shower arrangement jaquar make continental (Cat.No. CON-219)	No.	2237.00
220	C.P.wall mixer(wall mounted model) with telephone shower arrangement only and with telephone shower crutch jaquar make continental (Cat.No. CON-267)	No.	2910.00
221	C.P.wall mixer with provision for overhead shower with 115mm long bend pipe and wall flange jaquar make continental (Cat.No. CON-273UPR)	No.	2969.00
222	C.P.sink mixer with swinging casted spout (wall mounted) jaquar make continental (Cat.No. CON-309)	No.	2318.00
223	C.P.sink mixer swinging spout (table mounted model) 450mm long braided hoses jaquar make continental (Cat.No. CON-309B)	No.	3237.00
224	C.P.sink cock with swinging casted spout jaquar make continental (Cat.No. CON- 347)	No.	1160.00
225	C.P.sink cock with raised 'J' shaped swinging casted spout (table mounted) jaquar make continental (Cat.No. CON- 359)	No.	1140.00
226	C.p.shower arm 190mm long light body with wall flange jaquar make continental (Cat. No. SHA - 477)	No.	484.00
227	C.P.Flush cock with wall flange 25mm with plain knob jaquar make continental (Cat.No. FLR 6081)	No.	1553.00
228	C.P.Towel rail 24" jaquar make continental (Cat. No. ACN 1111N )	No.	872.00
229	C.P.Towel ring square jaquar make continental (Cat. No. ACN 1121N )	No.	749.00
230	C.P.Soap dish hooker jaquar make continental (Cat. No. AKB 35731 )	No.	680.00
231	C.p.soap dish (polyurethane) jaquar make continental (Cat. No. AQN 7733 )	No.	969.00
232	C.P.Toilet paper holder jaquar make continental (Cat. No. AQ 7751 )	No.	868.00
233	C.P.Toilet rack 24"with lower hanger jaquar make continental (Cat. No. ACN 1181N )	No.	1957.00
234	C.P.Handshower (health faucet) 1m.PVC tube with wall hook jaquar make (Cat. No. ALD 563 )	No.	861.00
235	C.P.Pillar cock jaquar make queen's collection (quarter turn fitting) (Cat. No. QQT 7011 )	No.	1247.00
236	C.P.Bib cock with wall flange aqua make queen's collection (quarter turn fitting) (Cat. No. QQT7037 )	No.	1209.00
237	C.P.2-way bib cock with wall flange aqua make queen's collection (quarter turn fitting) (Cat. No. QQT 7041 )	No.	1763.00
238	C.P.Angular stop cock with wall flange aqua make queen's collection (quarter turn fitting) (Cat. No. QQT 7053 )	No.	1128.00
239	C.P.central hole basin mixer with regular spout without popup waste system with 450mm long braided hoses jaquar make queen's collection (quarter turn fitting) (Cat. No. QQT 7167bB )	No.	2728.00
240	C.P.central hole basin mixer with regular spout with popup waste system with 450mm long braided hoses jaquar make queen's collection (quarter turn fitting) (Cat. No. QQT 7169b )	No.	3245.00
241	C.P.central hole basin mixer with small spout without popup waste system with 450mm long braided hoses jaquar make queen's collection (quarter turn fitting) (Cat. No. QQT 7171B)	No.	2949.00
242	C.P.wall mixer (wall mounted model) with telephonic shower arrangement only but without crutch jaquar make queen's collection (quarter turn filling) (Cat. No. QQT 7217 )	No.	3228.00
243	C.P.wall mixer non-telephonic shower system jaquar make queen's collection (quarter turn filling) (Cat. No. QQT 7219 )	No.	3268.00
244	C.P.wall mixer (wall mounted model) with telephonic shower arrangement only and with telephone shower crutch jaquar make queen's collection (quarter turn filling) (Cat. No. QQT 7267)	No.	3967.00
245	Hydraulic door closer	No.	1258.00
246	cPVC pipe 15mm dia.	R.Mt.	55.00
247	cPVC pipe 20mm dia.	R.Mt.	78.00
248	cPVC pipe 25mm dia.	R.Mt.	119.00
249	cPVC pipe 32mm dia.	R.Mt.	172.00
250	cPVC pipe 40mm dia.	R.Mt.	251.00
251	cPVC pipe 50mm dia.	R.Mt.	404.00
252	cPVC Coupling for 15mm dia.	No.	13.00
253	cPVC Coupling for 20mm dia.	No.	15.00
254	cPVC Coupling for 25mm dia.	No.	25.00
255	cPVC Coupling for 32mm dia.	No.	50.00
256	cPVC Coupling for 40mm dia.	No.	92.00
257	cPVC Coupling for 50mm dia.	No.	178.00
258	Elbow 90 Degree for 15mm dia.	No.	19.00
259	Elbow 90 Degree for 20mm dia.	No.	22.00

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260	Elbow 90 Degree for 25mm dia.	No.	36.00
261	Elbow 90 Degree for 32mm dia.	No.	79.00
262	Elbow 90 Degree for 40mm dia.	No.	142.00
263	Elbow 90 Degree for 50mm dia.	No.	183.00
264	Tee for 15mm dia.	No.	22.00
265	Tee for 20mm dia.	No.	30.00
266	Tee for 25mm dia.	No.	44.00
267	Tee for 32mm dia.	No.	102.00
268	Tee for 40mm dia.	No.	171.00
269	Tee for 50mm dia.	No.	363.00
270	End cap for 15mm dia.	No.	11.00
271	End cap for 20mm dia.	No.	14.00
272	End cap for 25mm dia.	No.	20.00
273	End cap for 32mm dia.	No.	41.00
274	End cap for 40mm dia.	No.	60.00
275	End cap for 50mm dia.	No.	126.00
276	Ball cock for 15mm dia.	No.	109.00
277	Ball cock for 12mm dia.	No.	160.00
278	Ball cock for 25mm dia.	No.	297.00
279	Ball cock for 32mm dia.	No.	519.00
280	Ball cock for 40mm dia.	No.	820.00
281	Araldite adhesive	Kg	1267.00
282	Ball valves for 50mm dia.	No.	1418.00
283	Male adapter (Brass Threads) for 15mm dia.	No.	150.00
284	Male adapter (Brass Threads) for 20mm dia.	No.	190.00
285	Male adapter (Brass Threads) for 25mm dia.	No.	285.00
286	Male adapter (Brass Threads) for 32mm dia.	No.	587.00
287	Male adapter (Brass Threads) for 40mm dia.	No.	715.00
288	Male adapter (Brass Threads) for 50mm dia.	No.	1350.00
289	Male adapter (Plastic Threads) for 15mm dia.	No.	16.00
290	Male adapter (Plastic Threads) for 20mm dia.	No.	21.00
291	Male adapter (Plastic Threads) for 25mm dia.	No.	32.00
292	Male adapter (Plastic Threads) for 32mm dia.	No.	55.00
293	Male adapter (Plastic Threads) for 40mm dia.	No.	82.00
294	Male adapter (Plastic Threads) for 50mm dia.	No.	151.00
295	Female adapter (Brass Threads) for 15mm dia.	No.	142.00
296	Female adapter (Brass Threads) for 20mm dia.	No.	182.00
297	Female adapter (Brass Threads) for 25mm dia.	No.	227.00
298	Female adapter (Brass Threads) for 32mm dia.	No.	586.00
299	Female adapter (Brass Threads) for 40mm dia.	No.	665.00
300	Female adapter (Brass Threads) for 50mm dia.	No.	1269.00
301	Female adapter (Plastic Threads) for 15mm dia.	No.	21.00
302	Female adapter (Plastic Threads) for 20mm dia.	No.	29.00
303	Female adapter (Plastic Threads) for 25mm dia.	No.	42.00
304	Union for 15mm dia.	No.	84.00
305	Union for 20mm dia.	No.	102.00
306	Union for 25mm dia.	No.	114.00
307	Union for 32mm dia.	No.	159.00
308	Union for 40mm dia.	No.	257.00
309	Union for 50mm dia.	No.	464.00
310	Cross for 15mm dia.	No.	32.00
311	Cross for 20mm dia.	No.	63.00
312	Step over Bend 15mm dia.	No.	63.00
313	Step over Bend 20mm dia.	No.	101.00
314	Tee holder for 15mm dia.	No.	32.00
315	Tee holder for 32mm dia.	No.	89.00
316	End plug threaded for 15mm dia.	No.	16.00
317	R.C.C.Chamber cover with frame 90cm*45cm Heavy Duty 225kg	No.	3653.00
318	R.C.C.Chamber cover with frame 90cm*45cm Medium Duty 140kg	No.	2451.00
319	R.C.C.Chamber cover with frame 60cm*45cm Heavy Duty 160kg	No.	3363.00
320	R.C.C.Chamber cover with frame 60cm*45cm Medium Duty 100kg	No.	2058.00
321	I.S.I.Ferrul Connection 15mm dia.	No.	539.00
322	I.S.I.Ferrul Connection 20mm dia.	No.	883.00
323	I.S.I.Ferrul Connection 25mm dia.	No.	1506.00
324	I.S.I.Ferrul Connection 32mm dia.	No.	2530.00
325	I.S.I.Ferrul Connection 40mm dia.	No.	3600.00
326	I.S.I.Ferrul Connection 50mm dia.	No.	6121.00
327	Water meter 15 mm diameter	No.	1455.00
328	Water meter 20 mm diameter	No.	2345.00
329	Water meter 25 mm diameter	No.	3645.00
330	Water meter 40 mm diameter	No.	6175.00
331	Water meter 50 mm diameter	No.	8140.00
332	Water meter 80 mm diameter	No.	13386.00

Sr. No.	Description	Per Unit	Rate (Excluding GST) SSR 2021-22
333	Water meter 100 mm diameter	No.	18885.00
334	Non return Valve 40 mm diameter	No.	1668.00
335	Non return Valve 50 mm diameter	No.	2368.00
336	Non return Valve 80 mm diameter	No.	6620.00
337	Non return Valve 100 mm diameter	No.	12429.00
338	Colour Wash Hand Basin 0.45 x 0.30	No.	781.00
339	White Glaze Earth Sink 0.6 x 0.2 x 0.45	No.	1816.00
340	Clamp for G.I.pipe 200mm	No.	40.00
341	European type glazed W.C.pan 68cm	No.	2637.00
342	European white glazed earthen ware closet pan	No.	2623.00
343	P.V.C. Nahni Trap	R.Mt.	166.00
344	P.V.C. Connector. 15 mm dia	No.	67.00
345	Low level flushing cistern	No.	1134.00
346	Upvc sanitary pipes all 20 mm dia.	R.Mt.	96.00
347	Upvc sanitary pipes all 75 mm dia.	R.Mt.	225.00
348	Bib cock stop tap brass heavy 15mm	No.	865.00
349	Stainless Steel sink of size 610 x 460 x 200 mm of nirali or equivalent make	No.	10138.00
350	Upvc sanitary pipes all 63 mm dia.	R.Mt.	1517.00
351	W.C.PAN Colour glazed 57.50 CM (Orissa)	No.	1545.00
352	Piller cock mixer & Angle cock	No.	836.00
353	Upvc sanitary pipes all 25 mm dia.	R.Mt.	408.00
354	Upvc sanitary pipes all 15 mm dia.	R.Mt.	193.00
355	Cement	bags	285.00
356	Upvc sanitary pipes all 40 mm dia.	R.Mt.	659.00
357	Upvc sanitary pipes all 50 mm dia.	R.Mt.	934.00
358	Stainless Steel sink of size 470 x 420 x 178 mm of nirali or equivalent make	No.	5219.00
359	Bib cock Long Arm	No.	307.00
360	Bottletrap wash basin 32 mm Cromium Plated	No.	1485.00
361	Upvc sanitary pipes all 32 mm dia.	R.Mt.	539.00
362	Hamp rope	Kg.	102.00
363	Bib cock cock stop tap brass heavy 15 mm	No.	432.00
364	Colour wash hand basin 45*30cm	No.	781.00
365	Ultra 250 mm. dia. uPVC 90 degree junction chamber base with U trap	No.	1021.00
366	Ultra 250 mm.dia. uPVC Cover & Frame	No.	442.00
367	uPVC Blanking Plug 110 mm	No.	263.00
368	uPVC 90 degree bend	No.	241.00
369	Ultra Shaft 250x470mm	No.	352.00
370	Water jet with accessories	No.	374.00
371	White glazed full stall urinal	No.	4625.00
372	Glass plain 6mm thick	Sq.Mt.	976.00
373	White Glazed Earthenware Squatting plate (Ladies Urinal)	No.	692.00
374	Autoclosing pillar cock of pressmatic tap	No.	1511.00
375	PVC Aqua kraft type super bib tap 15 mm	No.	212.00
376	PVC Aqua kraft type super Two Way bib tap 15 mm	No.	414.00
377	Super push button type cock / tap with flange 15 mm	No.	228.00
378	PVC Aqua kraft type super jet spray 15 mm	No.	459.00
379	PVC Aqua kraft type super right angle stop tap	No.	234.00
380	PVC Aqua kraft type super Pillar tap 15 mm	No.	353.00
381	Fixing in CC BK Clamp, Battan	No.	26.00
382	Wall Mounted European type glazed W.C.pan	No.	7498.00
383	Super wall sink type tap with flange 15 mm	No.	645.00
384	Two Way bib tap with flange	No.	415.00
385	super jet spray with flange 2 in 1 faucet 1.50 metre long	No.	460.00

Sr. No.	Description	Per Unit	Rate (Excluding GST) SSR 2021-22
<b>Building (Bd-W : Water supply and sanitary fittings)</b>			
1	Chlorypyriphos	Liter	276.00
2	Solvent	Ltr	408.00
3	D.D.V.P.	Ltr	543.00
4	Malathion	Ltr	302.00
5	Pine Oil	Ltr	484.00
6	S.S. Pipe 40 mm dia	Rmt	156.00
7	Mild Steel	M.T.	41115.00
8	Barbed Wire	Kg.	92.00
9	Concentina Coil Wire	Rmt	180.00
10	M.S. Steel	Kg	38.00
12	RCC Pole	No	292.00
14	Green marble	Sq.Mt	1305.00
15	Telephone black granite	Sq.Mt	2708.00
16	Karva (for roof and sides 10kg bundle)	Bundle	26.00
17	Tatti	Sq.Mt	21.00
18	Bamboo 25mm dia.	R.Mt	22.00
20	Lightening Conductor	No.	9437.00
21	Salt	Kg.	23.00
22	Copper Tape width 25mm*3mm thick	Kg	445.00
23	Aluminium Strips 50 mm x 3 mm	R.Mt	68.00
24	Crippled wire 3' - 0" , 4' - 0" and 5' - 0" wide	Sq.mt	223.00
25	Welding Electrodes	No	6.00
26	Welded Mesh 75 X 75 mm	Sqm	213.00
27	Welded Mesh 150 X 150 mm	Sqm	181.00
28	Tarat 36" width (Gunny cloth)	R.Mt	36.00
29	Chain link 3' - 0" , 4' - 0" and 5' - 0" wide	Sq.Mt	205.00
30	Bamboo 50mm dia.	R.Mt	17.00
31	Hold Fast for Steel Gate	No.	64.00
32	Nut Bolts 12 mm dia. /Nails all size	No.	88.00
33	M.S. Pipe 40 mm dia	Rmt	152.00
34	Welding Rod	Box	409.00
35	PVC hand rail cover	Rmt.	235.00
36	Antitermite Liquid	Kg.	3701.00
37	Lock for Drawer/Cupboard	No.	137.00
38	Glycel	Ltr.	298.00
39	Hing	Kg.	3276.00
40	Hot lime	Kg.	6.00
41	Ladder	No.	118.00
42	Fine tooth chisel	No.	65.00
43	Saw	No.	36.00
44	Gloves	No.	12.00
<b>CD Works (CD : Cross Drainage Works)</b>			
1	R.C.C.Pipe 1200mm dia.(Np3)2.5m long	R.Mt.	8815.00
2	R.C.C.Pipe 1100mm dia.(Np3)2.5m long	R.Mt.	8658.00
3	R.C.C.Pipe 1000mm dia.(Np3)2.5m long	R.Mt.	6626.00
4	R.C.C.Pipe 900mm dia.(Np3)2.5m long	R.Mt.	5963.00
5	R.C.C.Pipe 800mm dia.(Np3)2.5m long	R.Mt.	5294.00
6	R.C.C.Pipe 700mm dia.(Np3)2.5m long	R.Mt.	4150.00
7	R.C.C.Pipe 600mm dia.(Np3)2.5m long	R.Mt.	3120.00
8	R.C.C.Pipe 500mm dia.(Np3)2.5m long	R.Mt.	2353.00
9	R.C.C.Pipe 450mm dia.(Np3)2.5m long	R.Mt.	2085.00
10	R.C.C.pipe Np2 class 1000mm dia. 2.5m long	R.Mt.	3763.00
11	R.C.C.Np2 Pipe Collar 1000 mm Dia.	No.	374.00
12	R.C.C.pipe Np2 class 1200mm dia. 2.5m long	R.Mt.	5497.00
13	R.C.C.Np2 Pipe Collar 1200 mm Dia.	No.	540.00
14	R.C.C.pipe Np2 class 1800mm dia. 2.5m long	R.Mt.	9170.00
15	R.C.C.pipe Np2 class 900mm dia. 2.5m long	R.Mt.	3299.00
16	R.C.C.Np2 Pipe Collar 900 mm Dia.	No.	358.00
17	R.C.C.pipe Np2 class 800mm dia. 2.5m long	R.Mt.	2758.00
18	R.C.C.Np2 Pipe Collar 800 mm Dia.	No.	273.00
19	R.C.C.pipe Np2 class 700mm dia. 2.5m long	R.Mt.	2332.00
20	R.C.C.pipe Np2 class 600mm dia. 2.5m long	R.Mt.	1655.00
21	R.C.C.Np2 Pipe Collar 600 mm Dia.	No.	165.00
22	R.C.C.pipe Np2 class 500mm dia. 2.5m long	R.Mt.	1318.00
23	R.C.C.pipe Np2 class 450mm dia. 2.5m long	R.Mt.	1074.00
24	R.C.C.Np2 Pipe Collar 450 mm Dia.	No.	107.00
25	R.C.C.pipe Np2 class 100mm dia. 2m long	R.Mt.	327.00

Sr. No.	Description	Per Unit	Rate (Excluding GST) SSR 2021-22
26	R.C.C.pipe Np2 class 150mm dia. 2m long	R.Mt.	346.00
27	R.C.C.pipe Np2 class 225mm dia. 2m long	R.Mt.	392.00
28	R.C.C.pipe Np2 class 300mm dia. 2m long	R.Mt.	642.00
29	RCC Pipe Np 4 heavy duty non presure pipe 1000 mm diameter	R.Mt.	8266.00
30	RCC Pipe Np4 heavy duty non presure pipe 1200 mm diameter	R.Mt.	9824.00
31	RCC Pipe Np4 heavy duty non presure pipe 900 mm diameter	R.Mt.	6629.00
<b>General Rates</b>			
1	Cement	M.T.	5600.00
2	Structural Steel	M.T.	54000.00
3	TMT FE - 500	M.T.	47000.00
4	HCRM/CRS Reinforcement	M.T.	56000.00
5	Tubular steel	M.T.	55000.00
6	Bitumen VG 10 (Bulk) (80/100)	M.T.	38569.00
7	Bitumen VG 30 (Bulk) (60/70)	M.T.	32877.00
8	Bitumen VG 40 (Bulk) (30/40)	M.T.	34585.00
9	Bitumen VG 30 (Packed) (60/70)	M.T.	38360.00
10	Bitumen VG 40 (Packed) (30/40)	M.T.	41503.00
11a	Bitumen VG 10 (Packed) (80/100)	M.T.	37477.00
12	Sand - Natural	Cu.Mt.	1575.00
13	Sand - V.S.I.(Vertical Shaft Impact Crusher)Quality Artifitial Sand	Cu.Mt.	900.00
14	Natural Sand - Screened (for plaster work only)	Cu.Mt.	1685.00
15	Bricks II Class	No.	8.00
16	Rubble stone excluding royalty	Cu.Mt.	610.00
17	Aggregate 40 mm (Hand Broken) Blasted excluding royalty	Cu.Mt.	865.00
18	Aggregate 25 mm	Cu.Mt.	996.00
19	Aggregate 20 mm	Cu.Mt.	996.00
20	Aggregate 12 mm	Cu.Mt.	996.00
21	Aggregate 10 mm	Cu.Mt.	996.00
22	Aggregate 6 mm	Cu.Mt.	996.00
23	Stone Dust	Cu.Mt.	783.00
24	Soft Murum	Cu.Mt.	285.00
25	Hard Murum	Cu.Mt.	288.00
26	Water	1000 lit.	200.00
27	White Cement	Kg.	31.00
28	Plasticizer	Ltr.	145.00
29	Stainless Steel Plate	Kg.	181.00
30	EMULSION RS1 ( Hincol) BULK	M.T.	31974.00
31	EMULSION RS1 ( Hincol) Packed	M.T.	39365.00
32	WASTE PLASTIC to be used in bituminous treatment as per IRC SP-098-2013	Kg.	59.00
33	Portland Slag Cement (PSC)	Bag	298.00
34	Ground Granulated Blast Furnance Slag (GGBS)	M.T.	4160.00
<b>General (MORTH: Roads)</b>			
1	Bitumen VG-40 (bulk (30-40 grade))	M.T.	34585.00
2	Stone Boulder of size 150 mm and below at Cruser Plant	Cu.Mt.	823.00
3	Supply of quarried stone 150 - 200 mm size for Hand Broken at site	Cu.Mt.	788.00
4	Boulder with minimum size of 300 mm for Pitching at Site	Cu.Mt.	788.00
5	Coarse sand at Mixing Plant	Cu.Mt.	1643.00
6	Coarse sand at Site	Cu.Mt.	1643.00
7	Murum at Site	Cu.Mt.	285.00
8	Fly ash conforming to IS: 3812 ( Part II & I) atHMP Plant / Batching Plant / Crushing Plant	Cu.Mt.	1544.00
9	Filter media/Filter Material as per Table 300-3 (MoRT&H Specification)	Cu.Mt.	685.00
10	Close graded Granular sub-base Material 53 mm to 9.5 mm	Cu.Mt.	991.00
11	Close graded Granular sub-base Material 37.5 mm to 9.5 mm	Cu.Mt.	991.00
12	Close graded Granular sub-base Material 26.5 mm to 9.5 mm	Cu.Mt.	991.00
13	Close graded Granular sub-base Material 9.5 mm to 4.75 mm	Cu.Mt.	991.00
14	Close graded Granular sub-base Material 9.5 mm to 2.36 mm	Cu.Mt.	991.00
15	Close graded Granular sub-base Material 4.75mm to 2.36 mm	Cu.Mt.	991.00
16	Close graded Granular sub-base Material 4.75mm to 75 micron mm	Cu.Mt.	991.00
17	Close graded Granular sub-base Material 2.36 mm	Cu.Mt.	991.00
18	Stone crusher dust finer than 3mm with not more than 10% passing 0.075 sieve.	Cu.Mt.	895.00
19	Coarse graded Granular sub-base Material 2.36 mm & below	Cu.Mt.	895.00
20	Coarse graded Granular sub-base Material 4.75mm to 75 micron mm	Cu.Mt.	895.00
21	Coarse graded Granular sub-base Material 4.75 mm to 2.36 mm	Cu.Mt.	895.00
22	Coarse graded Granular sub-base Material 9.5 mm to 4.75 mm	Cu.Mt.	991.00
23	Coarse graded Granular sub-base Material 26.5 mm to 4.75 mm	Cu.Mt.	991.00
24	Coarse graded Granular sub-base Material 26.5 mm to 9.5 mm	Cu.Mt.	991.00
25	Coarse graded Granular sub-base Material 37.5 mm to 9.5 mm	Cu.Mt.	991.00

Sr. No.	Description	Per Unit	Rate (Excluding GST) SSR 2021-22
26	Coarse graded Granular sub-base Material 53 mm to 26 .5mm	Cu.Mt.	991.00
27	Aggregates below 5.6 mm	Cu.Mt.	991.00
28	Aggregates 22.4 mm to 2.36 mm	Cu.Mt.	991.00
29	Aggregates 22.4 mm to 5.6 mm	Cu.Mt.	991.00
30	Aggregates 45 mm to 2.8 mm	Cu.Mt.	991.00
31	Aggregates 45 mm to 22.4 mm	Cu.Mt.	991.00
32	Aggregates 53 mm to 2.8 mm	Cu.Mt.	991.00
33	Aggregates 53 mm to 22.4 mm	Cu.Mt.	991.00
34	Aggregates 63 mm to 2.8 mm	Cu.Mt.	991.00
35	Aggregates 63 mm to 45 mm	Cu.Mt.	991.00
36	Aggregates 90 mm to 45 mm	Cu.Mt.	991.00
37	Aggregates 10 mm to 5 mm	Cu.Mt.	991.00
38	Aggregates 11.2 mm to 0.09 mm	Cu.Mt.	991.00
39	Aggregates 13.2 mm to 0.09 mm	Cu.Mt.	991.00
40	Aggregates 13.2 mm to 5.6 mm	Cu.Mt.	991.00
41	Aggregates 13.2 mm to 10 mm	Cu.Mt.	991.00
42	Aggregates 20 mm to 10 mm	Cu.Mt.	991.00
43	Aggregates 25 mm to 10 mm	Cu.Mt.	991.00
44	Aggregates 19 mm to 6 mm	Cu.Mt.	991.00
45	Aggregates 37.5 mm to 19 mm	Cu.Mt.	991.00
46	Aggregates 37.5 mm to 25 mm	Cu.Mt.	991.00
47	Aggregates 6 mm nominal size	Cu.Mt.	991.00
48	Aggregates 10 mm nominal size	Cu.Mt.	991.00
49	Aggregates 13.2/12.5 mm nominal size	Cu.Mt.	991.00
50	Aggregates 20 mm nominal size	Cu.Mt.	991.00
51	Aggregates 25 mm nominal size	Cu.Mt.	991.00
52	Aggregates 40 mm nominal size	Cu.Mt.	991.00
53	Binding wire	Kg.	75.00
54	Bitumen ( Cationic Emulsion )	M.T.	30495.00
55	Bitumen VG-30 (bulk (60-70 grade))	M.T.	42210.00
56	Bitumen VG -10 (bulk (80-100 grade ))	M.T.	40910.00
57	Bitumen (Cutback )	M.T.	41500.00
58	Bitumen (emulsion)	M.T.	30495.00
59	Bitumen (modified graded) (bulk Cr-60)	M.T.	40460.00
60	Geo grids	Sq.Mt.	68.00
61	Geomembrane	Sq.Mt.	95.00
62	Geonets	Sq.Mt.	72.00
63	Geotextile	Sq.Mt.	63.00
64	Geotextile filter fabric	Sq.Mt.	56.00
65	LDO	Ltr.	37.00
66	Pavement Marking Paint	Ltr.	231.00
67	RCC Pipes 200 mm dia, 2.5 m long for drainage	R.Mt.	381.00
68	Quarry spall	Cum	610.00
69	Road Barricade Perforated fench (2000 x 1000 x 40 mm )	No.	3675.00
70	Road Barricade Sand Fillable only 1 mtr. [1000(L) x 350(W) x 760(H) mm ]	No.	3024.00
<b>Coastal Material list</b>			
1	Polypropylene multifilament woven geotextile fabric for filter layer (approved opening size 0.075mm & water permeability 9.00 Litres/Sqm/Second)	Sqm	60.00
2	Polythene bags	No.	9.00
3	Trap stones weighing upto 20 kilogram	Cum	520.00
4	Trap stones weighing from 20 to 50 kilogram	Cum	520.00
5	Trap stones weighing from 50 to 100 kilogram	Cum	520.00
6	Trap stones weighing from 100 to 200 kilogram	Cum	520.00
7	Trap stones weighing from 200 to 300 kilogram	Cum	544.00
8	Trap stones weighing from 300 to 500 kilogram	Cum	544.00
9	Trap stones weighing from 500 to 1000 kilogram	Cum	588.00
10	Trap stones weighing from 1000 kilogram and above	Cum	588.00
11	Laterite stones rubbles upto 20 kilogram	Cum	385.00
12	Laterite stones rubbles from 20 to 50 kilogram	Cum	396.00
13	Laterite stones rubbles from 50 to 100 kilogram	Cum	399.00



Sr. No.	Description	Per Unit	Rate (Excluding GST) SSR 2021-22
14	Gabions boxes of mechanically woven hexagonal shaped wire mesh of type, 10 cm x 12 cm. edges mechanically selvedged (Zinc+ PVC) coated G.I. wires as per BS: 443, mesh wire dia. 3.00 mm, edge wire 3.70 mm size		
	a) Gabion size - 1.00 x 1.00 x 1.00 M	No.	1540.00
	b) Gabion size - 1.50 x 1.00 x 1.00 M	No.	1870.00
	c) Gabion size - 2.00 x 1.00 x 1.00 M	No.	2630.00
	d) Gabion size - 3.00 x 1.00 x 1.00 M	No.	3630.00
	e) Gabion size - 4.00 x 1.00 x 1.00 M	No.	4675.00
15	Flexible gabions of polypropylene material of 10 mm ø four strand mesh size of 150mm x 150 mm size		
	a) Gabion size - 1.00 x 1.00 x 1.00 M	No.	1237.00
	b) Gabion size - 1.50 x 1.00 x 1.00 M	No.	1650.00
	c) Gabion size - 2.00 x 1.00 x 1.00 M	No.	1457.00
	d) Gabion size - 3.00 x 1.00 x 1.00 M	No.	2870.00
16	Used tyre fender	No.	357.00
17	Geotextile bags of sizes		0.00
	a) Geotextile bags size - 1.00 x 0.70 M	No.	210.00
	b) Geotextile bags size - 2.00 x 1.50 M	No.	1265.00
18	Geotextile tube of 20 metre long &		0.00
	a) Geotextile tube diameter - 3.00 M	Rmt.	105548.00
	b) Geotextile tube diameter - 1.50 M	Rmt.	64935.00

**LABOUR RATES FOR SSR For Year 2021-22**

<b>Sr. No.</b>	<b>Description</b>	<b>Per Unit</b>	<b>Rate</b>
1	Black Smith With Tools - II Class	Day	611.00
2	Stone Cutter With Tools - Semi Skilled	Day	641.00
3	Mason I Class Skilled	Day	641.00
4	Mason II Class Skilled	Day	641.00
5	Carpenter I Class Skilled	Day	641.00
6	Carpenter II Class Skilled	Day	641.00
7	Plumber With Tools - Skilled	Day	641.00
8	Glazier With Tools - Skilled	Day	641.00
9	Tin Smith With Tools - Semi Skilled	Day	611.00
10	Painter I Class Skilled	Day	641.00
11	Painter II Class Skilled	Day	641.00
12	Head Fitter With Tools - Skilled	Day	641.00
13	Mechanic	Day	641.00
14	Lorry Driver / Mixer Operator	Day	641.00
15	Welder / Driller - Skilled	Day	641.00
16	Polishman - Semi Skilled	Day	611.00
17	Assistant Plumber - Skilled	Day	611.00
18	Maistry Skilled / Supervisor / Mate	Day	641.00
19	Vibrator Operator - Skilled	Day	641.00
20	Skilled Labour	Day	579.00
21	Boreman Skilled	Day	641.00
22	Asphalt Sprayer Skilled	Day	641.00
23	Minor or Blaster Semi Skilled	Day	611.00
24	Quarry Man - Semi Skilled	Day	611.00
25	Painter / White Washer - Semi Skilled	Day	611.00
26	Labour for Excavation in Hard Rock (Un Blast)	Day	579.00
27	Tile Turner Semi Skilled	Day	611.00
28	Mazdoor - For Polishing	Day	579.00
29	Bar Bender Skilled	Day	611.00
30	Bhisti (Mixing / Curing) - Semi Skilled	Day	611.00
31	Mukadam - Semi Skilled	Day	611.00
32	Tar Handler - Semi Skilled	Day	611.00
33	Helper Un Skilled	Day	611.00
34	Tree Cutter - Semi Skilled	Day	611.00
35	Navaghani	Day	611.00
36	Mazdoor - Unskilled Heavy Male	Day	579.00
37	Mazdoor - Unskilled Heavy Female	Day	579.00
38	Below Boy	Day	579.00
39	Fitter With Tools I Class Skilled	Day	641.00
40	Fitter With Tools II Class Skilled	Day	611.00
41	Gun Man for Guniting	Day	641.00
42	Laboratory Assistant	Day	641.00
43	Labour for Tile Turning	Day	579.00
44	Excavator - Unskilled Heavy	Day	579.00
45	Breaker - Semi Skilled	Day	611.00
46	Hole Driller Semi Skilled	Day	611.00
47	Chiseler Semi Skilled	Day	611.00
48	Foreman Skilled	Day	641.00
49	Bandhani Semi Skilled	Day	611.00
50	Emgraver for lettering Skilled	Day	641.00
51	Frabi - Weld - Drilling	Day	611.00
52	Khalashi / Diers	Day	641.00
53	Jack Hammer Operator	Day	641.00
54	Electrician	Day	641.00
55	Welder Skilled	Day	641.00

Sr. No.	Description	Per Unit	Rate
56	Labour for Traffic Regulation	Day	579.00
57	Watchman	Day	579.00
58	Compressor Operator / Driver	Day	641.00
59	Supervisor / Mate	Day	641.00
60	Blacksmith (1st Class) Welder / Plumber / Electrician.	Day	641.00
61	Blaster (Stone Cutter)	Day	579.00
62	Mali	Day	611.00
63	Mazdoor / Dresser (Semi Skilled)	Day	611.00
64	Mazdoor / Dresser Sinker B116 Skilled	Day	611.00
65	Medical Officer	Day	2285.00
66	Operator (grouting)	Day	641.00
67	Para Medical Personnel	Day	1145.00
68	Mazdoor unskilled female (light)	Day	611.00
69	Painting Lettering Number	Day	611.00
70	Junior Engineer	Day	1610.00
71	Surveyor	Day	1110.00
72	Autocad Operator	Day	1610.00
73	Attendent	Day	579.00
74	Computer Typist	Day	870.00
75	Tracer	Day	1110.00
76	Total Station Operator	Day	1610.00
77	Senior Engineer	Day	2345.00
78	Assistant	Day	870.00
79	Operator / Fitter	Day	641.00
80	Mazdoor Unskilled Light Male	Day	579.00
81	Computer Operator	Day	980.00
82	Survey Helper	Day	579.00
83	Technician	Day	2345.00
84	Skilled Assistants-on the site	Day	641.00
85	Supervisor	Day	1110.00
86	Valuation expert	Day	1950.00
87	Office support Staff	Day	579.00
88	Co-ordinator	Day	1300.00
89	Senior Surveyor	Day	1110.00
90	Revenue expert	Day	1300.00
91	Welder	Day	611.00

**(A) Usage Rates of Plant and machinery for Year 2021-22**

Sr.No.	Description of Machine	Unit	Cap.	Rate
1	2	3	4	5
<b>A</b>	<b>Earthmoving Machinery</b>			
1	Dozer D-8 H ( Heavy )	Hour	270 HP	3472.00
2	Dozer D 80 A 12 (Medium )	Hour	180 Hp	2433.00
3	Dozer D-3 B (Medium)	Hour	65 HP	1267.00
4	Hydraulic Excavator (BEML BE 200, Tata Hitachi EX200 or	Hour	0.9 Cum	1831.00
5	Hydraulic Excavator (BEML BE 200, Tata Hitachi EX200 or	Day	0.9 Cum	14648.00
6	Excavator (JCB JS140/Tata Hitachi EX120 or equivalent))	Hour	0.6 Cum	1492.00
7	Excavator (JCB JS140/Tata Hitachi EX120)	Day	0.6 Cum	11936.00
8	Hydraulic Excavator (wheeled)	Hour	0.3 Cum	968.00
9	Hydraulic Excavator (wheeled)	Day	0.3 Cum	7744.00
10	Loader 1 cum bucket capacity	Hour	1 Cum	968.00
11	Loader 1 cum bucket capacity	Day	1 Cum	7744.00
12	Motor grader 3.35 mtr Blade	Hour	145 Hp	1780.00
13	Tandem Vibratory Road Roller 8 tonne	Hour	8 Tonn	1800.00
14	Static Road Roller 8 tonne	Hour	8 Tonn	691.00
15	Pneumatic Road Roller	Hour	8 Tonn	1100.00
16	Tipper -10 cum	Km.	10 Cum	67.23
17	Tipper -10 cum (20 Km/Hr)	Hour	10 Cum	1200.00
18	Tipper -6 cum	Km.	6 Cum	48.00
19	Tipper -6 cum	t.km	6 Cum	4.80
20	Tipper -6 cum (20 Km/Hr)	Hour	6 Cum	960.00
21	Tipper -3.5 cum	Km.	3.5 Cum	42.41
22	Tipper -3.5 cum (20 Km/Hr)	Hour	3.5 Cum	857.00
23	Tractor	Hour	35 HP	350.00
24	Tractor with rotevator	Hour	35 HP	370.00
25	Tractor with Ripper	Hour	35 HP	650.00
26	Water Tanker	Hour	9000 Liter	844.95
27	Water Tanker (15 km per Hour)	Km.	9000 Liter	56.33
<b>B</b>	<b>Asphalt / Road Machinery</b>			
28	Air Compressor 175 cfm	Hour	175 cfm	687.00
29	Air Compressor 510 cfm	Hour	510 cfm	766.00
30	Bitumen Pressure Distributor (Spray Bar Width 4.5 Mtr.)	Hour	4 to 9 KLtr.	1296.00
31	Bitumen Boiler oil fired	Hour	2000 Ltr.	205.00
32	Emulsion Pressure Distrubutor	Hour	4 to 9 KLtr.	1084.00
33	Hot Mix Plant 90-120 TPH capacity (Drum Mix Plant) with SCADA	Hour	90 TPH	13650.00
34	Hot Mix Plant 60-90 TPH capacity (Drum Mix Plant) with SCADA	Hour	60 TPH	11550.00
35	Hot Mix Plant 40-60 TPH capacity (Drum Mix Plant) with SCADA	Hour	40 TPH	10500.00
36	Hydraulic chip Spreader (3 Mtr.Width)	Hour	3 Mtr.	430.00
37	Integrated Stone Crusher 100 TPH	Hour	100 TPH	12600.00
38	Integrated Stone Crusher 200 TPH	Hour	200 TPH	15750.00
39	Mastic Cooker	Hour		970.00
40	Mechanical Broom Hydraulic (Width 2.25 Mtr.)	Hour	2.25 Mtr.	378.00
41	Motor grader 3.35 mtr Blade	Hour	145 HP	1780.00
42	Paver Finisher Hydrostatic with sensor control 100TPH	Hour	100 TPH	3150.00
43	Paver Finisher Mechanical 100 TPH	Hour	100 TPH	1260.00
44	Pot Hole Repair kit mounted on truck	Hour		400.00
45	Road Marking Machine	Hour		105.00

Sr.No.	Description of Machine	Unit	Cap.	Rate
1	2	3	4	5
46	Batch Mix Asphalt Plant 160 TPH with SCADA	Hour	160 TPH	31500.00
47	Batch Mix Asphalt Plant 120 TPH with SCADA	Hour	120 TPH	26250.00
48	Batch Mix Asphalt Plant 80 TPH with SCADA	Hour	80 TPH	21000.00
49	Dumper 6 cum Capacity with VTS	Hour	6 Cum	961.00
50	Loader 1.00 cum Bucket capacity	Hour	1.00 Cum	968.00
51	Loader 1.00 cum Bucket capacity	Day	1.00 Cum	7744.00
<b>C</b>	<b>Concrete Machinery</b>			
52	Batching and mixing plant (a) 30 cum capacity with SCADA	Hour	30 cum	1835.00
53	Batching and mixing plant (b) 15-20 cum capacity with SCADA	Hour	15-20 cum	1575.00
54	Concrete Paver Finisher with 40 HP Motor	Hour		2725.00
55	Concrete Pump of 45 & 30 cum capacity	Hour	30 - 45 cum	757.00
56	Concrete Bucket	Hour	1 cum	50.00
57	Concrete Mixer (a) 0.28 - 04 cum	Hour	0.28 - 04 cum	470.00
58	Concrete Mixer (b) 1 cum	Hour	1 cum	630.00
59	Reversible drum concrete mixer with SCADA	Hour	1 Cum	730.00
60	Transit Mixer 4.0/4.5 cum	Hour	4 - 4.5 cum	1470.00
61	Transit Mixer 4/4.5 cum	t.km	4 - 4.5 cum	10.50
62	Transit Mixer 3.0 cum	Hour	3 cum	1155.00
63	Transit Mixer 3.0 cum	t.km	3 cum	8.50
64	Cement concrete batch mix plant @ 175 cum per hour (effective output) with SCADA	Hour	175 cum	11025.00
65	Cement concrete batch mix plant @ 75 cum per hour with SCADA	Hour	75 cum	6825.00
66	Wet Mix Plant 100 TPH	Hour	100 TPH	4200.00
67	Wet Mix Plant 75 TPH	Hour	75 TPH	3150.00
68	Wet Mix plant 60 TPH	Hour	60 TPH	1935.00
69	Vibrator (Electrical)	Hour		157.00
70	Vibrator (Diesel)	Day		1000.00
<b>D</b>	<b>Other Allied Machinery</b>			
71	Crane (a) 80 tonnes	Hour	80 Tonnes	2700.00
72	Crane 40 tonne capacity	Hour	40 Tonnes	2394.00
73	Crane 20 tonne capacity	Hour	20 Tonnes	2025.00
74	Crane 15 tonne capacity	Hour	15 Tonnes	1772.00
75	Crane 10 tonne capacity	Hour	10 Tonnes	1000.00
76	Crane 5 tonne capacity	Hour	5 Tonne	579.00
77	Cranes (c) 3 tonnes	Hour	3 Tonnes	442.00
78	Generator (a) 125 KVA	Hour	125 kva	1293.00
79	Generator (b) 63 KVA	Hour	63 kva	620.00
80	GSB Plant 50 cum	Hour	50 Cum	1825.00
81	Kerb Casting Machine	Hour		550.00
82	Piling Rig with Bantonite Pump	Hour		4725.00
83	Ripper	Hour		25.00
84	Rotavator	Hour		20.00
85	Truck 5.5 cum per 10 tonnes	Km.	10 Tonnes	48.00
86	Truck 5.5 cum per 10 tonnes	Hour	10 Tonnes	960.00
87	Truck 5.5 cum per 10 tonnes	t.km	10 Tonnes	4.80
88	Air Compressor with pneumatic chisel attachment for cutting hard clay 400 CFM	Hour	CFM	766.00
89	Belt conveyor system	Hour		125.00
90	Boat to carry atleast 20 persons	Hour		550.00
91	Cold mining machine @ 20 cum per hour	Hour		150.00

Sr.No.	Description of Machine	Unit	Cap.	Rate
1	2	3	4	5
92	Compressor with guniting equipment along with accessories 260/250 CFM	Hour	CFM	732.00
93	Generator 33 KVA	Hour	33 KVA	432.00
94	Generator 100 KVA	Hour	100 KVA	911.00
95	Generator 250 KVA	Hour	250 KVA	2000.00
96	Generator 325 KVA	Hour	325 KVA	2500.00
97	Joint cutting machine with 2-3 blades (for rigid pavement)	Hour		840.00
98	Jack for lifting 40 tonne capacity	Day	40 Tonnes	3000.00
99	Piling ring including double acting pile driving hammer (Hydraulic ring)	Hour		4725.00
100	Plate Compactor	Hour		155.00
101	Texturing machine (for rigid pavement)	Hour		145.00
102	Truck Trailor 30 tonne capacity	Hour		1138.00
103	Truck Trailor 30 tonne capacity	t.km		2.00
104	Vibrating Pile driving hammer complete with power unit and accessories	Hour		4725.00
105	Pile boring machinery 325-400 mm dia.	R.Mt		186.00
106	Pumping Charges	Cmt		210.00
107	Pile Boring Machine 325 to 400 mm	Day		4110.00
108	Pile Boring Machine 425 to 500 mm	Day		4280.00
109	Pile Boring Machine 525 to 600 mm	Day		4762.00
110	Pile Boring Machine 625 to 700 mm	Day		5713.00
111	Pile Boring Machine 725 to 1050 mm	Day		6200.00
112	Bentonite Pump	Day		75.00
113	Grouting Gun	Hour		259.00
114	Chain and pulley	Day		250.00
115	Welding machine	Day		350.00
116	Electric drill machine	Day		350.00
117	Electric gas cutting	Day		245.00
118	Rammer	Hour		156.00
119	Polishing machine with Polishman	Day		809.00
120	Tile Cutting Machine	Hour		32.00
121	Hand polishing with Polishman	Day		609.00
122	Tile Polishing machine (Grinder)	Day		185.00

## STATEMENT - C (With Manual Loading)

(FOR YEAR 2021-2022) **Maharashtra**

Cost of Diesel (As on 01-04-2021)  
Cost of mobile Oil ( As on 01-04-2021)  
Labour Charges of mazdoor

86.28 Per Litre  
300 Per Litre  
579 Per Labour

Carrage of material over distance exceeding 0.50 km. including loading and unloading.

Lead in Km	Av.Speed Km/Hrs	Factor	No. of Trips	Km done	Qty of Diesel= 4Km/Ltr	Cost of Diesel	Qty of mobile oil in Ltr	Cost of mobile oil@300/Ltr	Cost of 6 Mazdoor @560/lbr	Hire Charges of Truck@Rs . 2200 per day	Total cost	add 10% Overhead Charges	Gross Total of 12+13	Cost per Trip=(Col 14/4)	Lead in km	Fuel Componant	Cost Per trip 10 MT
L	S	F	$N=8/((F*(L/S))+1)$	$(2*NL)+6$													
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
0.50	15.00	2.00	7.5	13.50	3.38	291.63	0.076	22.82	3474.00	2200.00	5988.45	598.85	6587.30	878.31	0.50	46.12	878.31
1.00	16.00	2.00	7.11	20.22	5.06	436.58	0.114	34.16	3474.00	2200.00	6144.74	614.47	6759.21	950.66	1.00	72.83	950.66
1.50	16.50	2.00	6.77	26.31	6.58	567.72	0.148	44.42	3474.00	2200.00	6286.14	628.61	6914.75	1021.38	1.50	99.46	1021.38
2.00	17.00	2.00	6.48	31.92	7.98	688.51	0.180	53.87	3474.00	2200.00	6416.38	641.64	7058.02	1089.20	2.00	126.02	1089.20
2.50	17.25	2.00	6.20	37.00	9.25	798.09	0.208	62.44	3474.00	2200.00	6534.53	653.45	7187.98	1159.35	2.50	152.67	1159.35
3.00	17.50	2.00	5.96	41.76	10.44	900.76	0.235	70.47	3474.00	2200.00	6645.23	664.52	7309.75	1226.47	3.00	179.25	1226.47
3.50	17.75	2.00	5.74	46.18	11.55	996.53	0.260	77.96	3474.00	2200.00	6748.49	674.85	7423.34	1293.26	3.50	205.91	1293.26
4.00	18.00	2.00	5.54	50.32	12.58	1085.40	0.283	84.92	3474.00	2200.00	6844.32	684.43	7528.75	1358.98	4.00	232.37	1358.98
4.50	18.25	2.00	5.36	54.24	13.56	1169.96	0.305	91.53	3474.00	2200.00	6935.49	693.55	7629.04	1423.33	4.50	258.89	1423.33
5.00	18.50	2.00	5.19	57.90	14.48	1249.33	0.326	97.74	3474.00	2200.00	7021.07	702.11	7723.18	1488.09	5.00	285.51	1488.09
5.50	18.50	2.00	5.02	61.22	15.31	1320.95	0.344	103.34	3474.00	2200.00	7098.29	709.83	7808.12	1555.4	5.50	312.09	1555.40
6.00	18.75	2.00	4.88	64.56	16.14	1392.56	0.363	108.95	3474.00	2200.00	7175.51	717.55	7893.06	1617.43	6.00	338.45	1617.43
6.50	18.85	2.00	4.73	67.49	16.87	1455.54	0.380	113.87	3474.00	2200.00	7243.41	724.34	7967.75	1684.51	6.50	364.98	1684.51
7.00	19.00	2.00	4.61	70.54	17.64	1521.98	0.397	119.07	3474.00	2200.00	7315.05	731.51	8046.56	1745.46	7.00	391.57	1745.46
7.50	19.15	2.00	4.49	73.35	18.34	1582.38	0.413	123.80	3474.00	2200.00	7380.18	738.02	8118.20	1808.06	7.50	417.99	1808.06
8.00	19.30	2.00	4.37	75.92	18.98	1637.59	0.427	128.12	3474.00	2200.00	7439.71	743.97	8183.68	1872.7	8.00	444.46	1872.70
8.50	19.45	2.00	4.27	78.59	19.65	1695.40	0.442	132.64	3474.00	2200.00	7502.04	750.20	8252.24	1932.61	8.50	470.92	1932.61
9.00	19.60	2.00	4.17	81.06	20.27	1748.90	0.456	136.82	3474.00	2200.00	7559.72	755.97	8315.69	1994.17	9.00	497.43	1994.17
9.50	19.80	2.00	4.08	83.52	20.88	1801.53	0.470	140.94	3474.00	2200.00	7616.47	761.65	8378.12	2053.46	9.50	523.70	2053.46
10.00	20.00	2.00	4.00	86.00	21.50	1855.02	0.484	145.13	3474.00	2200.00	7674.15	767.42	8441.57	2110.39	10.00	550.04	2110.39
11.00	21.00	2.00	3.91	92.02	23.01	1985.30	0.518	155.32	3474.00	2200.00	7814.62	781.46	8596.08	2198.49	11.00	602.22	2198.49
12.00	22.00	2.00	3.83	97.92	24.48	2112.13	0.551	165.24	3474.00	2200.00	7951.37	795.14	8746.51	2283.68	12.00	654.08	2283.68
13.00	23.00	2.00	3.76	103.76	25.94	2238.10	0.584	175.10	3474.00	2200.00	8087.20	808.72	8895.92	2365.94	13.00	705.99	2365.94
14.00	24.00	2.00	3.69	109.32	27.33	2358.03	0.615	184.48	3474.00	2200.00	8216.51	821.65	9038.16	2449.37	14.00	757.93	2449.37
15.00	25.00	2.00	3.64	115.20	28.80	2484.86	0.648	194.40	3474.00	2200.00	8353.26	835.33	9188.59	2524.34	15.00	809.67	2524.34
20.00	25.00	2.00	3.08	129.20	32.30	2786.84	0.727	218.03	3474.00	2200.00	8678.87	867.89	9546.76	3099.6	20.00	1073.17	3099.60
25.00	25.00	2.00	2.67	139.50	34.88	3009.45	0.785	235.44	3474.00	2200.00	8918.89	891.89	9810.78	3674.45	25.00	1336.84	3674.45

Cost of Diesel (As on 01-04-2021) 86.28 Per Litre  
Cost of mobile Oil ( As on 01-04-2021) 300 Per Litre  
Labour Charges of mazdoor 579 Per Labour  
Carrage of material over distance exceeding 0.50 km. including loading and unloading.

Lead in Km	Av.Speed Km/Hrs	Factor	No. of Trips	Km done	Qty of Diesel= 4Km/Ltr	Cost of Diesel	Qty of mobile oil in Ltr	Cost of mobile oil@300/Ltr	Cost of 6 Mazdoor @560/lbr	Hire Charges of Truck@Rs . 2200 per day	Total cost	add 10% Overhead Charges	Gross Total of 12+13	Cost per Trip=(Col 14/4)	Lead in km	Fuel Componant	Cost Per trip 10 MT
L	S	F	$N=8/((F*(L/S))+1)$	$(2*NL)+6$													
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>	<b>13</b>	<b>14</b>	<b>15</b>	<b>16</b>	<b>17</b>	<b>18</b>
30.00	30.00	2.00	2.67	166.20	41.55	3584.93	0.935	280.46	3474.00	2200.00	9539.39	953.94	10493.33	3930.09	30.00	1592.48	3930.09
35.00	30.00	2.00	2.40	174.00	43.50	3753.18	0.979	293.63	3474.00	2200.00	9720.81	972.08	10692.89	4455.37	35.00	1854.79	4455.37
40.00	30.00	2.00	2.18	180.40	45.10	3891.23	1.015	304.43	3474.00	2200.00	9869.66	986.97	10856.63	4980.11	40.00	2117.08	4980.11
45.00	30.00	2.00	2.00	186.00	46.50	4012.02	1.046	313.88	3474.00	2200.00	9999.90	999.99	10999.89	5499.95	45.00	2379.25	5499.95
50.00	30.00	1.75	2.04	210.00	52.50	4529.70	1.181	354.38	3474.00	2200.00	10558.08	1055.81	11613.89	5693.08	50.00	2633.57	5693.08
60.00	35.00	1.75	2.00	246.00	61.50	5306.22	1.384	415.13	3474.00	2200.00	11395.35	1139.54	12534.89	6267.45	60.00	3146.74	6267.45
70.00	35.00	1.75	1.78	255.20	63.80	5504.66	1.436	430.65	3474.00	2200.00	11609.31	1160.93	12770.24	7174.29	70.00	3667.89	7174.29
80.00	35.00	1.75	1.60	262.00	65.50	5651.34	1.474	442.13	3474.00	2200.00	11767.47	1176.75	12944.22	8090.14	80.00	4189.26	8090.14
90.00	35.00	1.75	1.45	267.00	66.75	5759.19	1.502	450.56	3474.00	2200.00	11883.75	1188.38	13072.13	9015.26	90.00	4710.84	9015.26
100.00	35.00	1.75	1.33	272.00	68.00	5867.04	1.530	459.00	3474.00	2200.00	12000.04	1200.00	13200.04	9924.84	100.00	5232.06	9924.84
125.00	40.00	1.50	1.41	358.50	89.63	7733.28	2.017	605.00	3474.00	2200.00	14012.28	1401.23	15413.51	10931.57	125.00	6505.04	10931.57
150.00	40.00	1.50	1.21	369.00	92.25	7959.33	2.076	622.69	3474.00	2200.00	14256.02	1425.60	15681.62	12960.02	150.00	7801.84	12960.02
175.00	40.00	1.25	1.24	440.00	110.00	9490.80	2.475	742.50	3474.00	2200.00	15907.30	1590.73	17498.03	14111.31	175.00	9077.93	14111.31
200.00	40.00	1.25	1.1	446.00	111.50	9620.22	2.509	752.63	3474.00	2200.00	16046.85	1604.69	17651.54	16046.85	200.00	10372.85	16046.85
250.00	40.00	1.25	0.91	461.00	115.25	9943.77	2.593	777.94	3474.00	2200.00	16395.71	1639.57	18035.28	19818.99	250.00	12960.31	19818.99
300.00	40.00	1.25	0.77	468.00	117.00	10094.76	2.633	789.75	3474.00	2200.00	16558.51	1655.85	18214.36	23655.01	300.00	15549.30	23655.01
350.00	40.00	1.25	0.67	475.00	118.75	10245.75	2.672	801.56	3474.00	2200.00	16721.31	1672.13	18393.44	27452.9	350.00	18137.37	27452.90
400.00	40.00	1.25	0.59	478.00	119.50	10310.46	2.689	806.63	3474.00	2200.00	16791.09	1679.11	18470.20	31305.42	400.00	20726.78	31305.42
500.00	40.00	1.25	0.48	486.00	121.50	10483.02	2.734	820.13	3474.00	2200.00	16977.15	1697.72	18674.87	38905.98	500.00	25903.05	38905.98
600.00	40.00	1.25	0.41	498.00	124.50	10741.86	2.801	840.38	3474.00	2200.00	17256.24	1725.62	18981.86	46297.22	600.00	31074.30	46297.22
700.00	40.00	1.25	0.35	496.00	124.00	10698.72	2.790	837.00	3474.00	2200.00	17209.72	1720.97	18930.69	54087.69	700.00	36255.12	54087.69
800.00	40.00	1.25	0.31	498.31	124.58	10748.76	2.803	840.92	3474.00	2200.00	17263.68	1726.37	18990.05	61717.66	800.00	41433.11	61717.66
900.00	40.00	1.25	0.27	500.42	125.11	10794.49	2.815	844.49	3474.00	2200.00	17312.98	1731.30	19044.28	69333.08	900.00	46610.48	69333.08
1000.00	40.00	1.25	0.25	502.12	125.53	10830.73	2.824	847.33	3474.00	2200.00	17352.06	1735.21	19087.27	76945.56	1000.00	51784.89	76945.56

Asst. Chief Engineer (Mech.)  
P. W. Region,Pune



# STATEMENT - C 1 (With Manual Loading)

For 2021-2022 Maharashtra

Cost of Diesel ( 01-04-2021)  
Cost of Oil ( As on 01-04-2021)  
Labour Charges of mazdoor

86.28 Per Litre  
300 Per Litre  
579 Per Labour

Lead in km	Cost Per Trip Lead Charges	Fuel Component	ConcreteBlock (FORM)		Cement, Lime, Stone Block, GI, CI, CC & AC Pipes / Sheet& Plate, Glass in packs, Distemper, AC Sheet, Fitting Iron Sheet		Bricks		Tiles Half Round Tiles /Roofing Tiles/Manlore Tiles		Steel (MS, TMT, H.Y.S.D.) Structural Steel		Flooring Tiles Ceramic/ Marbonate		Asphalt In Drum (approx Gross wt 172 kg per drum)	
L	Rs.		Unit Cum		Unit MT.		Unit Per 1000 Nos.		Unit Cum		Unit MT.		Unit Sqm		Unit Drums.	
			L.F.	Fuel	L.F.	Fuel	L.F.	Fuel Comp.	L.F.	Fuel Comp.	L.F.	Fuel Comp.	L.F.	Fuel Comp.	L.F.	Fuel Comp.
			7.00	Comp.	10.00	Comp.	3.105		5		10.00		100		50	
0.50	878.31	46.12	125.47	6.59	87.83	4.61	282.87	14.85	175.66	9.22	87.83	4.61	8.78	0.46	17.57	0.92
1.00	950.66	72.83	135.81	10.40	95.07	7.28	306.17	23.46	190.13	14.57	95.07	7.28	9.51	0.73	19.01	1.46
1.50	1021.38	99.46	145.91	14.21	102.14	9.95	328.95	32.03	204.28	19.89	102.14	9.95	10.21	0.99	20.43	1.99
2.00	1089.20	126.02	155.60	18.00	108.92	12.60	350.79	40.59	217.84	25.20	108.92	12.60	10.89	1.26	21.78	2.52
2.50	1159.35	152.67	165.62	21.81	115.94	15.27	373.38	49.17	231.87	30.53	115.94	15.27	11.59	1.53	23.19	3.05
3.00	1226.47	179.25	175.21	25.61	122.65	17.93	395.00	57.73	245.29	35.85	122.65	17.93	12.26	1.79	24.53	3.59
3.50	1293.26	205.91	184.75	29.42	129.33	20.59	416.51	66.32	258.65	41.18	129.33	20.59	12.93	2.06	25.87	4.12
4.00	1358.98	232.37	194.14	33.20	135.90	23.24	437.67	74.84	271.80	46.47	135.90	23.24	13.59	2.32	27.18	4.65
4.50	1423.33	258.89	203.33	36.98	142.33	25.89	458.40	83.38	284.67	51.78	142.33	25.89	14.23	2.59	28.47	5.18
5.00	1488.09	285.51	212.58	40.79	148.81	28.55	479.26	91.95	297.62	57.10	148.81	28.55	14.88	2.86	29.76	5.71
5.50	1555.40	312.09	222.20	44.58	155.54	31.21	500.93	100.51	311.08	62.42	155.54	31.21	15.55	3.12	31.11	6.24
6.00	1617.43	338.45	231.06	48.35	161.74	33.85	520.91	109.00	323.49	67.69	161.74	33.85	16.17	3.38	32.35	6.77
6.50	1684.51	364.98	240.64	52.14	168.45	36.50	542.52	117.55	336.90	73.00	168.45	36.50	16.85	3.65	33.69	7.30
7.00	1745.46	391.57	249.35	55.94	174.55	39.16	562.14	126.11	349.09	78.31	174.55	39.16	17.45	3.92	34.91	7.83
7.50	1808.06	417.99	258.29	59.71	180.81	41.80	582.31	134.62	361.61	83.60	180.81	41.80	18.08	4.18	36.16	8.36
8.00	1872.70	444.46	267.53	63.49	187.27	44.45	603.12	143.14	374.54	88.89	187.27	44.45	18.73	4.44	37.45	8.89
8.50	1932.61	470.92	276.09	67.27	193.26	47.09	622.42	151.67	386.52	94.18	193.26	47.09	19.33	4.71	38.65	9.42
9.00	1994.17	497.43	284.88	71.06	199.42	49.74	642.24	160.20	398.83	99.49	199.42	49.74	19.94	4.97	39.88	9.95
9.50	2053.46	523.70	293.35	74.81	205.35	52.37	661.34	168.66	410.69	104.74	205.35	52.37	20.53	5.24	41.07	10.47
10.00	2110.39	550.04	301.48	78.58	211.04	55.00	679.67	177.15	422.08	110.01	211.04	55.00	21.10	5.50	42.21	11.00
11.00	2198.49	602.22	314.07	86.03	219.85	60.22	708.05	193.95	439.70	120.44	219.85	60.22	21.98	6.02	43.97	12.04
12.00	2283.68	654.08	326.24	93.44	228.37	65.41	735.48	210.65	456.74	130.82	228.37	65.41	22.84	6.54	45.67	13.08
13.00	2365.94	705.99	337.99	100.86	236.59	70.60	761.98	227.37	473.19	141.20	236.59	70.60	23.66	7.06	47.32	14.12
14.00	2449.37	757.93	349.91	108.28	244.94	75.79	788.85	244.10	489.87	151.59	244.94	75.79	24.49	7.58	48.99	15.16
15.00	2524.34	809.67	360.62	115.67	252.43	80.97	812.99	260.76	504.87	161.93	252.43	80.97	25.24	8.10	50.49	16.19
20.00	3099.60	1073.17	442.80	153.31	309.96	107.32	998.26	345.63	619.92	214.63	309.96	107.32	31.00	10.73	61.99	21.46
25.00	3674.45	1336.84	524.92	190.98	367.45	133.68	1183.40	430.54	734.89	267.37	367.45	133.68	36.74	13.37	73.49	26.74
30.00	3930.09	1592.48	561.44	227.50	393.01	159.25	1265.73	512.88	786.02	318.50	393.01	159.25	39.30	15.92	78.60	31.85

Cost of Diesel ( 01-04-2021) 86.28 Per Litre  
Cost of Oil ( As on 01-04-2021) 300 Per Litre  
Labour Charges of mazdoor 579 Per Labour

Lead in km	Cost Per Trip Lead Charges	Fuel Component	ConcreteBlock (FORM)		Cement, Lime, Stone Block, GI, CI, CC & AC Pipes / Sheet& Plate, Glass in packs, Distemper, AC Sheet, Fitting Iron Sheet		Bricks		Tiles Half Round Tiles /Roofing Tiles/Manlore Tiles		Steel (MS, TMT, H.Y.S.D.) Structural Steel		Flooring Tiles Ceramic/ Marbonate		Asphalt In Drum (approx Gross wt 172 kg per drum)	
L	Rs.		Unit Cum		Unit MT.		Unit Per 1000 Nos.		Unit Cum		Unit MT.		Unit Sqm		Unit Drums.	
			L.F.	Fuel Comp.	L.F.	Fuel Comp.	L.F.	Fuel Comp.	L.F.	Fuel Comp.	L.F.	Fuel Comp.	L.F.	Fuel Comp.	L.F.	Fuel Comp.
			7.00		10.00		3.105		5		10.00		100		50	
35.00	4455.37	1854.79	636.48	264.97	445.54	185.48	1434.90	597.36	891.07	370.96	445.54	185.48	44.55	18.55	89.11	37.10
40.00	4980.11	2117.08	711.44	302.44	498.01	211.71	1603.90	681.83	996.02	423.42	498.01	211.71	49.80	21.17	99.60	42.34
45.00	5499.95	2379.25	785.71	339.89	550.00	237.93	1771.32	766.26	1099.99	475.85	550.00	237.93	55.00	23.79	110.00	47.59
50.00	5693.08	2633.57	813.30	376.22	569.31	263.36	1833.52	848.17	1138.62	526.71	569.31	263.36	56.93	26.34	113.86	52.67
60.00	6267.45	3146.74	895.35	449.53	626.75	314.67	2018.50	1013.44	1253.49	629.35	626.75	314.67	62.67	31.47	125.35	62.93
70.00	7174.29	3667.89	1024.90	523.98	717.43	366.79	2310.56	1181.29	1434.86	733.58	717.43	366.79	71.74	36.68	143.49	73.36
80.00	8090.14	4189.26	1155.73	598.47	809.01	418.93	2605.52	1349.20	1618.03	837.85	809.01	418.93	80.90	41.89	161.80	83.79
90.00	9015.26	4710.84	1287.89	672.98	901.53	471.08	2903.47	1517.18	1803.05	942.17	901.53	471.08	90.15	47.11	180.31	94.22
100.00	9924.84	5232.06	1417.83	747.44	992.48	523.21	3196.41	1685.04	1984.97	1046.41	992.48	523.21	99.25	52.32	198.50	104.64
125.00	10931.57	6505.04	1561.65	929.29	1093.16	650.50	3520.63	2095.02	2186.31	1301.01	1093.16	650.50	109.32	65.05	218.63	130.10
150.00	12960.02	7801.84	1851.43	1114.55	1296.00	780.18	4173.92	2512.67	2592.00	1560.37	1296.00	780.18	129.60	78.02	259.20	156.04
175.00	14111.31	9077.93	2015.90	1296.85	1411.13	907.79	4544.71	2923.65	2822.26	1815.59	1411.13	907.79	141.11	90.78	282.23	181.56
200.00	16046.85	10372.85	2292.41	1481.84	1604.69	1037.29	5168.07	3340.69	3209.37	2074.57	1604.69	1037.29	160.47	103.73	320.94	207.46
250.00	19818.99	12960.31	2831.28	1851.47	1981.90	1296.03	6382.93	4174.01	3963.80	2592.06	1981.90	1296.03	198.19	129.60	396.38	259.21
300.00	23655.01	15549.30	3379.29	2221.33	2365.50	1554.93	7618.36	5007.83	4731.00	3109.86	2365.50	1554.93	236.55	155.49	473.10	310.99
350.00	27452.90	18137.37	3921.84	2591.05	2745.29	1813.74	8841.51	5841.34	5490.58	3627.47	2745.29	1813.74	274.53	181.37	549.06	362.75
400.00	31305.42	20726.78	4472.20	2960.97	3130.54	2072.68	10082.26	6675.29	6261.08	4145.36	3130.54	2072.68	313.05	207.27	626.11	414.54
500.00	38905.98	25903.05	5558.00	3700.44	3890.60	2590.31	12530.11	8342.37	7781.20	5180.61	3890.60	2590.31	389.06	259.03	778.12	518.06
600.00	46297.22	31074.30	6613.89	4439.19	4629.72	3107.43	14910.54	10007.83	9259.44	6214.86	4629.72	3107.43	462.97	310.74	925.94	621.49
700.00	54087.69	36255.12	7726.81	5179.30	5408.77	3625.51	17419.55	11676.37	10817.54	7251.02	5408.77	3625.51	540.88	362.55	1081.75	725.10
800.00	61717.66	41433.11	8816.81	5919.02	6171.77	4143.31	19876.86	13344.00	12343.53	8286.62	6171.77	4143.31	617.18	414.33	1234.35	828.66
900.00	69333.08	46610.48	9904.73	6658.64	6933.31	4661.05	22329.49	15011.43	13866.62	9322.10	6933.31	4661.05	693.33	466.10	1386.66	932.21
1000.00	76945.56	51784.89	10992.22	7397.84	7694.56	5178.49	24781.18	16677.90	15389.11	10356.98	7694.56	5178.49	769.46	517.85	1538.91	1035.70

Asst. Chief Engineer (Mech.)  
P. W. Region,Pune

# STATEMENT - C (With Machine Loading)

(FOR YEAR 2021-2022) Maharashtra

Cost of Diesel (As on 01-04-2021) 86.28 Per Litre  
 Cost of mobile Oil ( As on 01-04-2021) 300 Per Litre  
 Hire charges of Loader 569 Per trip with 85% bucket effi., Cycle time 6 minutes)  
 Carrage of material over distance exceeding 0.50 km. including loading and unloading.

Lead in Km	Av.Speed Km/Hrs	Factor	No. of Trips	Km done	Qty of Diesel= 4Km/Ltr	Cost of Diesel	Qty of mobile oil in Ltr	Cost of mobile oil@300/Ltr	Hire Charges of Truck@ Rs. 2200 per Day	Total cost	add 10% Overhead Charges	Gross Total of 12+13	Cost per Trip=(Col 13/4)	Cost of loader per trip of tipper	Total Cost	Lead in km
L	S	F	$N=8/((F*(L/S))+1)$	$(2*NL)+6$												
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
0.50	15.00	2.00	7.50	13.50	3.38	291.63	0.076	22.82	2200.00	2514.45	251.45	2765.90	368.79	569.00	937.79	0.50
1.00	16.00	2.00	7.11	20.22	5.06	436.58	0.114	34.16	2200.00	2670.74	267.07	2937.81	413.13	569.00	982.13	1.00
1.50	16.50	2.00	6.77	26.31	6.58	567.72	0.148	44.42	2200.00	2812.14	281.21	3093.35	456.97	569.00	1025.97	1.50
2.00	17.00	2.00	6.48	31.90	7.98	688.51	0.180	53.87	2200.00	2942.38	294.24	3236.62	499.77	569.00	1068.77	2.00
2.50	17.25	2.00	6.20	37.01	9.25	798.09	0.208	62.44	2200.00	3060.53	306.05	3366.58	542.80	569.00	1111.80	2.50
3.00	17.50	2.00	5.96	41.74	10.44	900.76	0.235	70.47	2200.00	3171.23	317.12	3488.35	585.54	569.00	1154.54	3.00
3.50	17.75	2.00	5.74	46.16	11.54	995.67	0.260	77.90	2200.00	3273.57	327.36	3600.93	627.63	569.00	1196.63	3.50
4.00	18.00	2.00	5.54	50.31	12.58	1085.40	0.283	84.92	2200.00	3370.32	337.03	3707.35	669.38	569.00	1238.38	4.00
4.50	18.25	2.00	5.36	54.22	13.56	1169.96	0.305	91.53	2200.00	3461.49	346.15	3807.64	710.67	569.00	1279.67	4.50
5.00	18.50	2.00	5.19	57.93	14.48	1249.33	0.326	97.74	2200.00	3547.07	354.71	3901.78	751.36	569.00	1320.36	5.00
5.50	18.50	2.00	5.02	61.19	15.30	1320.08	0.344	103.28	2200.00	3623.36	362.34	3985.70	794.45	569.00	1363.45	5.50
6.00	18.75	2.00	4.88	64.54	16.13	1391.70	0.363	108.88	2200.00	3700.58	370.06	4070.64	834.48	569.00	1403.48	6.00
6.50	18.85	2.00	4.73	67.55	16.89	1457.27	0.380	114.01	2200.00	3771.28	377.13	4148.41	876.17	569.00	1445.17	6.50
7.00	19.00	2.00	4.61	70.48	17.62	1520.25	0.396	118.94	2200.00	3839.19	383.92	4223.11	916.86	569.00	1485.86	7.00
7.50	19.15	2.00	4.49	73.29	18.32	1580.65	0.412	123.66	2200.00	3904.31	390.43	4294.74	957.35	569.00	1526.35	7.50
8.00	19.30	2.00	4.37	75.98	19.00	1639.32	0.428	128.25	2200.00	3967.57	396.76	4364.33	997.80	569.00	1566.80	8.00
8.50	19.45	2.00	4.27	78.57	19.64	1694.54	0.442	132.57	2200.00	4027.11	402.71	4429.82	1037.71	569.00	1606.71	8.50
9.00	19.60	2.00	4.17	81.06	20.27	1748.90	0.456	136.82	2200.00	4085.72	408.57	4494.29	1077.71	569.00	1646.71	9.00
9.50	19.80	2.00	4.08	83.57	20.89	1802.39	0.470	141.01	2200.00	4143.40	414.34	4557.74	1116.42	569.00	1685.42	9.50
10.00	20.00	2.00	4.00	86.00	21.50	1855.02	0.484	145.13	2200.00	4200.15	420.02	4620.17	1155.04	569.00	1724.04	10.00
11.00	21.00	2.00	3.91	91.95	22.99	1983.58	0.517	155.18	2200.00	4338.76	433.88	4772.64	1221.57	569.00	1790.57	11.00
12.00	22.00	2.00	3.83	97.83	24.46	2110.41	0.550	165.11	2200.00	4475.52	447.55	4923.07	1286.71	569.00	1855.71	12.00
13.00	23.00	2.00	3.76	103.63	25.91	2235.51	0.583	174.89	2200.00	4610.40	461.04	5071.44	1350.55	569.00	1919.55	13.00
14.00	24.00	2.00	3.69	109.38	27.35	2359.76	0.615	184.61	2200.00	4744.37	474.44	5218.81	1413.43	569.00	1982.43	14.00
15.00	25.00	2.00	3.64	115.09	28.77	2482.28	0.647	194.20	2200.00	4876.48	487.65	5364.13	1475.14	569.00	2044.14	15.00
20.00	25.00	2.00	3.08	129.08	32.27	2784.26	0.726	217.82	2200.00	5202.08	520.21	5722.29	1859.74	569.00	2428.74	20.00
25.00	25.00	2.00	2.67	139.33	34.83	3005.13	0.784	235.10	2200.00	5440.23	544.02	5984.25	2244.09	569.00	2813.09	25.00
30.00	30.00	2.00	2.67	166.00	41.50	3580.62	0.934	280.13	2200.00	6060.75	606.08	6666.83	2500.06	569.00	3069.06	30.00

Cost of Diesel (As on 01-04-2021) 86.28 Per Litre  
 Cost of mobile Oil ( As on 01-04-2021) 300 Per Litre  
 Hire charges of Loader 569 Per trip with 85% bucket effi., Cycle time 6 minutes)  
 Carrage of material over distance exceeding 0.50 km. including loading and unloading.

Lead in Km	Av.Speed Km/Hrs	Factor	No. of Trips	Km done	Qty of Diesel= 4Km/Ltr	Cost of Diesel	Qty of mobile oil in Ltr	Cost of mobile oil@300/Lt r	Hire Charges of Truck@ Rs. 2200 per Day	Total cost	add 10% Overhead Charges	Gross Total of 12+13	Cost per Trip=(Col 13/4)	Cost of loader per trip of tipper	Total Cost	Lead in km
L	S	F	$N=8/((F*(L/S))+1)$	$(2*NL)+6$												
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
35.00	30.00	2.00	2.40	174.00	43.50	3753.18	0.979	293.63	2200.00	6246.81	624.68	6871.49	2863.12	569.00	3432.12	35.00
40.00	30.00	2.00	2.18	180.55	45.14	3894.68	1.016	304.70	2200.00	6399.38	639.94	7039.32	3226.36	569.00	3795.36	40.00
45.00	30.00	2.00	2.00	186.00	46.50	4012.02	1.046	313.88	2200.00	6525.90	652.59	7178.49	3589.25	569.00	4158.25	45.00
50.00	30.00	1.75	2.04	210.26	52.56	4534.88	1.183	354.78	2200.00	7089.66	708.97	7798.63	3818.08	569.00	4387.08	50.00
60.00	35.00	1.75	2.00	246.00	61.50	5306.22	1.384	415.13	2200.00	7921.35	792.14	8713.49	4356.75	569.00	4925.75	60.00
70.00	35.00	1.75	1.78	254.89	63.72	5497.76	1.434	430.11	2200.00	8127.87	812.79	8940.66	5029.12	569.00	5598.12	70.00
80.00	35.00	1.75	1.60	262.00	65.50	5651.34	1.474	442.13	2200.00	8293.47	829.35	9122.82	5701.76	569.00	6270.76	80.00
90.00	35.00	1.75	1.45	267.82	66.95	5776.45	1.506	451.91	2200.00	8428.36	842.84	9271.20	6373.95	569.00	6942.95	90.00
100.00	35.00	1.75	1.33	272.67	68.17	5881.71	1.534	460.15	2200.00	8541.86	854.19	9396.05	7047.04	569.00	7616.04	100.00
125.00	40.00	1.50	1.41	357.65	89.41	7714.29	2.012	603.52	2200.00	10517.81	1051.78	11569.59	8225.26	569.00	8794.26	125.00
150.00	40.00	1.50	1.21	368.26	92.07	7943.80	2.072	621.47	2200.00	10765.27	1076.53	11841.80	9806.49	569.00	10375.49	150.00
175.00	40.00	1.25	1.24	438.85	109.71	9465.78	2.468	740.54	2200.00	12406.32	1240.63	13646.95	11034.84	569.00	11603.84	175.00
200.00	40.00	1.25	1.10	447.38	111.84	9649.56	2.516	754.92	2200.00	12604.48	1260.45	13864.93	12565.09	569.00	13134.09	200.00
250.00	40.00	1.25	0.91	459.90	114.98	9920.47	2.587	776.12	2200.00	12896.59	1289.66	14186.25	15627.04	569.00	16196.04	250.00
300.00	40.00	1.25	0.77	468.65	117.16	10108.56	2.636	790.83	2200.00	13099.39	1309.94	14409.33	18687.10	569.00	19256.10	300.00
350.00	40.00	1.25	0.67	475.11	118.78	10248.34	2.673	801.77	2200.00	13250.11	1325.01	14575.12	21748.81	569.00	22317.81	350.00
400.00	40.00	1.25	0.59	480.07	120.02	10355.33	2.700	810.14	2200.00	13365.47	1336.55	14702.02	24809.66	569.00	25378.66	400.00
500.00	40.00	1.25	0.48	487.20	121.80	10508.90	2.741	822.15	2200.00	13531.05	1353.11	14884.16	30931.15	569.00	31500.15	500.00
600.00	40.00	1.25	0.41	492.08	123.02	10614.17	2.768	830.39	2200.00	13644.56	1364.46	15009.02	37053.52	569.00	37622.52	600.00
700.00	40.00	1.25	0.35	495.62	123.90	10690.09	2.788	836.33	2200.00	13726.42	1372.64	15099.06	43173.87	569.00	43742.87	700.00
800.00	40.00	1.25	0.31	498.31	124.58	10748.76	2.803	840.92	2200.00	13789.68	1378.97	15168.65	49298.11	569.00	49867.11	800.00
900.00	40.00	1.25	0.27	500.42	125.11	10794.49	2.815	844.49	2200.00	13838.98	1383.90	15222.88	55420.80	569.00	55989.80	900.00
1000.00	40.00	1.25	0.25	502.12	125.53	10830.73	2.824	847.33	2200.00	13878.06	1387.81	15265.87	61540.54	569.00	62109.54	1000.00

Asst. Chief Engineer (Mech.)  
 P. W. Region,Pune

# STATEMENT - C 1 (With Machine Loading)

(FOR YEAR 2021-2022) Maharashtra

Cost of Diesel (As on 01-04-2021) 86.28 Per Litre  
 Cost of mobile Oil ( As on 01-04-2021) 300 Per Litre  
 Hire charges of Loader 569 Per trip with 85% bucket effi., Cycle time 6 minutes)  
 Carrage of material over distance exceeding 0.50 km. including loading and unloading.

Lead in km	Total Cost Per Trip Lead Charges (Including lodar)	Fuel Component										
			Murrum, Building Rubish, Earth		Manure Sludge		Excavated Rock soling stone		Sand, Stone below 40 mm, Normal Brick sider aggre. Timber		Stone aggregate 40mm Normal size and above	
			Unit Cum		Unit Cum		Unit Cum		Unit Cum		Unit Cum	
			L.F.	Fuel Comp.	L.F.	Fuel Comp.	L.F.	Fuel Comp.	L.F.	Fuel Comp.	L.F.	Fuel Comp.
			6.00		5.45		4.70		5.75		6	
0.50	937.79	46.12	156.30	7.69	172.07	8.46	199.53	9.81	163.09	8.02	156.30	7.69
1.00	982.13	72.83	163.69	12.14	180.21	13.36	208.96	15.50	170.81	12.67	163.69	12.14
1.50	1025.97	99.46	171.00	16.58	188.25	18.25	218.29	21.16	178.43	17.30	171.00	16.58
2.00	1068.77	126.02	178.13	21.00	196.10	23.12	227.40	26.81	185.87	21.92	178.13	21.00
2.50	1111.80	152.67	185.30	25.45	204.00	28.01	236.55	32.48	193.36	26.55	185.30	25.45
3.00	1154.54	179.25	192.42	29.88	211.84	32.89	245.65	38.14	200.79	31.17	192.42	29.88
3.50	1196.63	205.91	199.44	34.32	219.57	37.78	254.60	43.81	208.11	35.81	199.44	34.32
4.00	1238.38	232.37	206.40	38.73	227.23	42.64	263.49	49.44	215.37	40.41	206.40	38.73
4.50	1279.67	258.89	213.28	43.15	234.80	47.50	272.27	55.08	222.55	45.02	213.28	43.15
5.00	1320.36	285.51	220.06	47.59	242.27	52.39	280.93	60.75	229.63	49.65	220.06	47.59
5.50	1363.45	312.09	227.24	52.02	250.17	57.26	290.10	66.40	237.12	54.28	227.24	52.02
6.00	1403.48	338.45	233.91	56.41	257.52	62.10	298.61	72.01	244.08	58.86	233.91	56.41
6.50	1445.17	364.98	240.86	60.83	265.17	66.97	307.48	77.66	251.33	63.47	240.86	60.83
7.00	1485.86	391.57	247.64	65.26	272.63	71.85	316.14	83.31	258.41	68.10	247.64	65.26
7.50	1526.35	417.99	254.39	69.67	280.06	76.70	324.76	88.93	265.45	72.69	254.39	69.67
8.00	1566.80	444.46	261.13	74.08	287.49	81.55	333.36	94.57	272.49	77.30	261.13	74.08
8.50	1606.71	470.92	267.79	78.49	294.81	86.41	341.85	100.20	279.43	81.90	267.79	78.49
9.00	1646.71	497.43	274.45	82.91	302.15	91.27	350.36	105.84	286.38	86.51	274.45	82.91
9.50	1685.42	523.70	280.90	87.28	309.25	96.09	358.60	111.43	293.12	91.08	280.90	87.28
10.00	1724.04	550.04	287.34	91.67	316.34	100.92	366.82	117.03	299.83	95.66	287.34	91.67
11.00	1790.57	602.22	298.43	100.37	328.54	110.50	380.97	128.13	311.40	104.73	298.43	100.37
12.00	1855.71	654.08	309.29	109.01	340.50	120.01	394.83	139.17	322.73	113.75	309.29	109.01
13.00	1919.55	705.99	319.93	117.67	352.21	129.54	408.41	150.21	333.83	122.78	319.93	117.67
14.00	1982.43	757.93	330.41	126.32	363.75	139.07	421.79	161.26	344.77	131.81	330.41	126.32
15.00	2044.14	809.67	340.69	134.95	375.07	148.56	434.92	172.27	355.50	140.81	340.69	134.95
20.00	2428.74	1073.17	404.79	178.86	445.64	196.91	516.75	228.33	422.39	186.64	404.79	178.86
25.00	2813.09	1336.84	468.85	222.81	516.16	245.29	598.53	284.43	489.23	232.49	468.85	222.81
30.00	3069.06	1592.48	511.51	265.41	563.13	292.20	652.99	338.83	533.75	276.95	511.51	265.41

Cost of Diesel (As on 01-04-2021) 86.28 Per Litre  
 Cost of mobile Oil ( As on 01-04-2021) 300 Per Litre  
 Hire charges of Loader 569 Per trip with 85% bucket effi., Cycle time 6 minutes)  
 Carrage of material over distance exceeding 0.50 km. including loading and unloading.

Lead in km	Total Cost Per Trip Lead Charges (Including Iodar)	Fuel Component										
			Murrum, Building Rubish, Earth		Manure Sludge		Excavated Rock soling stone		Sand, Stone below 40 mm, Normal Brick sider aggre. Timber		Stone aggregate 40mm Normal size and above	
			Unit Cum		Unit Cum		Unit Cum		Unit Cum		Unit Cum	
			L.F.	Fuel Comp.	L.F.	Fuel Comp.	L.F.	Fuel Comp.	L.F.	Fuel Comp.	L.F.	Fuel Comp.
			6.00		5.45		4.70		5.75		6	
35.00	3432.12	1854.79	572.02	309.13	629.75	340.33	730.24	394.64	596.89	322.57	572.02	309.13
40.00	3795.36	2117.08	632.56	352.85	696.40	388.46	807.52	450.44	660.06	368.19	632.56	352.85
45.00	4158.25	2379.25	693.04	396.54	762.98	436.56	884.73	506.22	723.17	413.78	693.04	396.54
50.00	4387.08	2633.57	731.18	438.93	804.97	483.22	933.42	560.33	762.97	458.01	731.18	438.93
60.00	4925.75	3146.74	820.96	524.46	903.81	577.38	1048.03	669.52	856.65	547.26	820.96	524.46
70.00	5598.12	3667.89	933.02	611.32	1027.18	673.01	1191.09	780.40	973.59	637.89	933.02	611.32
80.00	6270.76	4189.26	1045.13	698.21	1150.60	768.67	1334.20	891.33	1090.57	728.57	1045.13	698.21
90.00	6942.95	4710.84	1157.16	785.14	1273.94	864.37	1477.22	1002.31	1207.47	819.28	1157.16	785.14
100.00	7616.04	5232.06	1269.34	872.01	1397.44	960.01	1620.43	1113.20	1324.53	909.92	1269.34	872.01
125.00	8794.26	6505.04	1465.71	1084.17	1613.63	1193.59	1871.12	1384.05	1529.44	1131.31	1465.71	1084.17
150.00	10375.49	7801.84	1729.25	1300.31	1903.76	1431.53	2207.55	1659.97	1804.43	1356.84	1729.25	1300.31
175.00	11603.84	9077.93	1933.97	1512.99	2129.14	1665.68	2468.90	1931.47	2018.06	1578.77	1933.97	1512.99
200.00	13134.09	10372.85	2189.02	1728.81	2409.92	1903.28	2794.49	2206.99	2284.19	1803.97	2189.02	1728.81
250.00	16196.04	12960.31	2699.34	2160.05	2971.75	2378.04	3445.97	2757.51	2816.70	2253.97	2699.34	2160.05
300.00	19256.10	15549.30	3209.35	2591.55	3533.23	2853.08	4097.04	3308.36	3348.89	2704.23	3209.35	2591.55
350.00	22317.81	18137.37	3719.64	3022.90	4095.01	3327.96	4748.47	3859.01	3881.36	3154.33	3719.64	3022.90
400.00	25378.66	20726.78	4229.78	3454.46	4656.63	3803.08	5399.71	4409.95	4413.68	3604.66	4229.78	3454.46
500.00	31500.15	25903.05	5250.03	4317.18	5779.84	4752.85	6702.16	5511.29	5478.29	4504.88	5250.03	4317.18

Asst. Chief Engineer (Mech.)  
 P. W. Region,Pune

**STATEMENT - C 1 ( Pipes)**  
**(FOR YEAR 2021-2022) Maharashtra**

Cost of Diesel (As on 01-04-2021)  
 Cost of mobile Oil ( As on 01-04-2021)  
 Hire charges of Loader  
 Hire charges of Truck

86.28 Per Litre  
 300 Per Litre  
 569 Per trip  
 2400 Per Day

Lead in km	Total Cost Per Trip  Lead Charges (Including	Fuel Component							Lead Charges for NP-2 Class Pipes															
			100 mm		150 mm		225 mm		300 mm		450 mm		600 mm		800 mm		900mm		1000 mm		1200 mm		1800 mm	
			Rgm		Rgm		Rgm		Rgm		Rgm		Rgm		Rgm		Rgm		Rgm		Rgm		Rgm	
			L.F.	Fuel Comp.		Fuel Comp.	L.F.	Fuel Comp.	L.F.	Fuel Comp.	L.F.	Fuel Comp.	L.F.	Fuel Comp.	L.F.	Fuel Comp.	L.F.	Fuel Comp.	L.F.	Fuel Comp.	L.F.	Fuel Comp.	L.F.	Fuel Comp.
			208.00		156		114.00		87.50		62.50		37.50		27.50		22.50		12.50		10.00		5.00	
0.50	937.79	46.12	4.51	0.22	6.01	0.30	8.23	0.40	10.72	0.53	15.00	0.74	25.01	1.23	34.10	1.68	41.68	2.05	75.02	3.69	93.78	4.61	187.56	9.22
1.00	982.13	72.83	4.72	0.35	6.30	0.47	8.62	0.64	11.22	0.83	15.71	1.17	26.19	1.94	35.71	2.65	43.65	3.24	78.57	5.83	98.21	7.28	196.43	14.57
1.50	1025.97	99.46	4.93	0.48	6.58	0.64	9.00	0.87	11.73	1.14	16.42	1.59	27.36	2.65	37.31	3.62	45.60	4.42	82.08	7.96	102.60	9.95	205.19	19.89
2.00	1068.77	126.02	5.14	0.61	6.85	0.81	9.38	1.11	12.21	1.44	17.10	2.02	28.50	3.36	38.86	4.58	47.50	5.60	85.50	10.08	106.88	12.60	213.75	25.20
2.50	1111.80	152.67	5.35	0.73	7.13	0.98	9.75	1.34	12.71	1.74	17.79	2.44	29.65	4.07	40.43	5.55	49.41	6.79	88.94	12.21	111.18	15.27	222.36	30.53
3.00	1154.54	179.25	5.55	0.86	7.40	1.15	10.13	1.57	13.19	2.05	18.47	2.87	30.79	4.78	41.98	6.52	51.31	7.97	92.36	14.34	115.45	17.93	230.91	35.85
3.50	1196.63	205.91	5.75	0.99	7.67	1.32	10.50	1.81	13.68	2.35	19.15	3.29	31.91	5.49	43.51	7.49	53.18	9.15	95.73	16.47	119.66	20.59	239.33	41.18
4.00	1238.38	232.37	5.95	1.12	7.94	1.49	10.86	2.04	14.15	2.66	19.81	3.72	33.02	6.20	45.03	8.45	55.04	10.33	99.07	18.59	123.84	23.24	247.68	46.47
4.50	1279.67	258.89	6.15	1.24	8.20	1.66	11.23	2.27	14.62	2.96	20.47	4.14	34.12	6.90	46.53	9.41	56.87	11.51	102.37	20.71	127.97	25.89	255.93	51.78
5.00	1320.36	285.51	6.35	1.37	8.46	1.83	11.58	2.50	15.09	3.26	21.13	4.57	35.21	7.61	48.01	10.38	58.68	12.69	105.63	22.84	132.04	28.55	264.07	57.10
5.50	1363.45	312.09	6.56	1.50	8.74	2.00	11.96	2.74	15.58	3.57	21.82	4.99	36.36	8.32	49.58	11.35	60.60	13.87	109.08	24.97	136.35	31.21	272.69	62.42
6.00	1403.48	338.45	6.75	1.63	9.00	2.17	12.31	2.97	16.04	3.87	22.46	5.42	37.43	9.03	51.04	12.31	62.38	15.04	112.28	27.08	140.35	33.85	280.70	67.69
6.50	1445.17	364.98	6.95	1.75	9.26	2.34	12.68	3.20	16.52	4.17	23.12	5.84	38.54	9.73	52.55	13.27	64.23	16.22	115.61	29.20	144.52	36.50	289.03	73.00
7.00	1485.86	391.57	7.14	1.88	9.52	2.51	13.03	3.43	16.98	4.48	23.77	6.27	39.62	10.44	54.03	14.24	66.04	17.40	118.87	31.33	148.59	39.16	297.17	78.31
7.50	1526.35	417.99	7.34	2.01	9.78	2.68	13.39	3.67	17.44	4.78	24.42	6.69	40.70	11.15	55.50	15.20	67.84	18.58	122.11	33.44	152.64	41.80	305.27	83.60
8.00	1566.80	444.46	7.53	2.14	10.04	2.85	13.74	3.90	17.91	5.08	25.07	7.11	41.78	11.85	56.97	16.16	69.64	19.75	125.34	35.56	156.68	44.45	313.36	88.89
8.50	1606.71	470.92	7.72	2.26	10.30	3.02	14.09	4.13	18.36	5.38	25.71	7.53	42.85	12.56	58.43	17.12	71.41	20.93	128.54	37.67	160.67	47.09	321.34	94.18
9.00	1646.71	497.43	7.92	2.39	10.56	3.19	14.44	4.36	18.82	5.68	26.35	7.96	43.91	13.26	59.88	18.09	73.19	22.11	131.74	39.79	164.67	49.74	329.34	99.49
9.50	1685.42	523.70	8.10	2.52	10.80	3.36	14.78	4.59	19.26	5.99	26.97	8.38	44.94	13.97	61.29	19.04	74.91	23.28	134.83	41.90	168.54	52.37	337.08	104.74
10.00	1724.04	550.04	8.29	2.64	11.05	3.53	15.12	4.82	19.70	6.29	27.58	8.80	45.97	14.67	62.69	20.00	76.62	24.45	137.92	44.00	172.40	55.00	344.81	110.01
11.00	1790.57	602.22	8.61	2.90	11.48	3.86	15.71	5.28	20.46	6.88	28.65	9.64	47.75	16.06	65.11	21.90	79.58	26.77	143.25	48.18	179.06	60.22	358.11	120.44
12.00	1855.71	654.08	8.92	3.14	11.90	4.19	16.28	5.74	21.21	7.48	29.69	10.47	49.49	17.44	67.48	23.78	82.48	29.07	148.46	52.33	185.57	65.41	371.14	130.82
13.00	1919.55	705.99	9.23	3.39	12.30	4.53	16.84	6.19	21.94	8.07	30.71	11.30	51.19	18.83	69.80	25.67	85.31	31.38	153.56	56.48	191.96	70.60	383.91	141.20
14.00	1982.43	757.93	9.53	3.64	12.71	4.86	17.39	6.65	22.66	8.66	31.72	12.13	52.86	20.21	72.09	27.56	88.11	33.69	158.59	60.63	198.24	75.79	396.49	151.59

Cost of Diesel (As on 01-04-2021)  
 Cost of mobile Oil ( As on 01-04-2021)  
 Hire charges of Loader  
 Hire charges of Truck

86.28 Per Litre  
 300 Per Litre  
 569 Per trip  
 2400 Per Day

Lead in km	Total Cost Per Trip Lead Charges (Including	Fuel Component	Lead Charges for NP-2 Class Pipes																					
			100 mm		150 mm		225 mm		300 mm		450 mm		600 mm		800 mm		900mm		1000 mm		1200 mm		1800 mm	
			Rgm		Rgm		Rgm		Rgm		Rgm		Rgm		Rgm		Rgm		Rgm		Rgm		Rgm	
			L.F.	Fuel		Fuel	L.F.	Fuel	L.F.	Fuel	L.F.	Fuel	L.F.	Fuel	L.F.	Fuel	L.F.	Fuel	L.F.	Fuel	L.F.	Fuel	L.F.	Fuel
			208.00	Comp.	156	Comp.	114.00	Comp.	87.50	Comp.	62.50	Comp.	37.50	Comp.	27.50	Comp.	22.50	Comp.	12.50	Comp.	10.00	Comp.	5.00	Comp.
15.00	2044.14	809.67	9.83	3.89	13.10	5.19	17.93	7.10	23.36	9.25	32.71	12.95	54.51	21.59	74.33	29.44	90.85	35.99	163.53	64.77	204.41	80.97	408.83	161.93
20.00	2428.74	1073.17	11.68	5.16	15.57	6.88	21.30	9.41	27.76	12.26	38.86	17.17	64.77	28.62	88.32	39.02	107.94	47.70	194.30	85.85	242.87	107.32	485.75	214.63
25.00	2813.09	1336.84	13.52	6.43	18.03	8.57	24.68	11.73	32.15	15.28	45.01	21.39	75.02	35.65	102.29	48.61	125.03	59.42	225.05	106.95	281.31	133.68	562.62	267.37
30.00	3069.06	1592.48	14.76	7.66	19.67	10.21	26.92	13.97	35.07	18.20	49.10	25.48	81.84	42.47	111.60	57.91	136.40	70.78	245.52	127.40	306.91	159.25	613.81	318.50
35.00	3432.12	1854.79	16.50	8.92	22.00	11.89	30.11	16.27	39.22	21.20	54.91	29.68	91.52	49.46	124.80	67.45	152.54	82.44	274.57	148.38	343.21	185.48	686.42	370.96
40.00	3795.36	2117.08	18.25	10.18	24.33	13.57	33.29	18.57	43.38	24.20	60.73	33.87	101.21	56.46	138.01	76.98	168.68	94.09	303.63	169.37	379.54	211.71	759.07	423.42
45.00	4158.25	2379.25	19.99	11.44	26.66	15.25	36.48	20.87	47.52	27.19	66.53	38.07	110.89	63.45	151.21	86.52	184.81	105.74	332.66	190.34	415.83	237.93	831.65	475.85
50.00	4387.08	2633.57	21.09	12.66	28.12	16.88	38.48	23.10	50.14	30.10	70.19	42.14	116.99	70.23	159.53	95.77	194.98	117.05	350.97	210.69	438.71	263.36	877.42	526.71
60.00	4925.75	3146.74	23.68	15.13	31.58	20.17	43.21	27.60	56.29	35.96	78.81	50.35	131.35	83.91	179.12	114.43	218.92	139.86	394.06	251.74	492.58	314.67	985.15	629.35
70.00	5598.12	3667.89	26.91	17.63	35.89	23.51	49.11	32.17	63.98	41.92	89.57	58.69	149.28	97.81	203.57	133.38	248.81	163.02	447.85	293.43	559.81	366.79	1119.62	733.58
80.00	6270.76	4189.26	30.15	20.14	40.20	26.85	55.01	36.75	71.67	47.88	100.33	67.03	167.22	111.71	228.03	152.34	278.70	186.19	501.66	335.14	627.08	418.93	1254.15	837.85
90.00	6942.95	4710.84	33.38	22.65	44.51	30.20	60.90	41.32	79.35	53.84	111.09	75.37	185.15	125.62	252.47	171.30	308.58	209.37	555.44	376.87	694.30	471.08	1388.59	942.17
100.00	7616.04	5232.06	36.62	25.15	48.82	33.54	66.81	45.90	87.04	59.79	121.86	83.71	203.09	139.52	276.95	190.26	338.49	232.54	609.28	418.56	761.60	523.21	1523.21	1046.41
125.00	8794.26	6505.04	42.28	31.27	56.37	41.70	77.14	57.06	100.51	74.34	140.71	104.08	234.51	173.47	319.79	236.55	390.86	289.11	703.54	520.40	879.43	650.50	1758.85	1301.01
150.00	10375.49	7801.84	49.88	37.51	66.51	50.01	91.01	68.44	118.58	89.16	166.01	124.83	276.68	208.05	377.29	283.70	461.13	346.75	830.04	624.15	1037.55	780.18	2075.10	1560.37
175.00	11603.84	9077.93	55.79	43.64	74.38	58.19	101.79	79.63	132.62	103.75	185.66	145.25	309.44	242.08	421.96	330.11	515.73	403.46	928.31	726.23	1160.38	907.79	2320.77	1815.59
200.00	13134.09	10372.85	63.14	49.87	84.19	66.49	115.21	90.99	150.10	118.55	210.15	165.97	350.24	276.61	477.60	377.19	583.74	461.02	1050.73	829.83	1313.41	1037.29	2626.82	2074.57

Asst. Chief Engineer (Mech.)  
 P. W. Region,Pune



**STATEMENT - C 1 ( Pipes)**  
**(FOR YEAR 2021-2022) Maharashtra**

Cost of Diesel (As on 01-04-2021)	86.28	Per Litre
Cost of mobile Oil ( As on 01-04-2021)	300	Per Litre
Hire charges of Loader	569	Per trip
Hire charges of Truck	2400	Per Day

Lead in km	Total Cost Per Trip Lead Charges (Including lodar)	Fuel Component	Lead Charges for NP-3 Class Pipes															
			300 mm		450 mm		600 mm		800 mm		900mm		1000 mm		1200 mm		1800 mm	
			Rgm		Rgm		Rgm		Rgm		Rgm		Rgm		Rgm		Rgm	
			L.F.	Fuel Comp.	L.F.	Fuel Comp.	L.F.	Fuel Comp.	L.F.	Fuel Comp.	L.F.	Fuel Comp.	L.F.	Fuel Comp.	L.F.	Fuel Comp.	L.F.	Fuel Comp.
			75.00		32.50		22.50		15.00		12.50		10.00		7.50		5.00	
0.50	937.79	46.12	12.50	0.61	28.86	1.42	41.68	2.05	62.52	3.07	75.02	3.69	93.78	4.61	125.04	6.15	187.56	9.22
1.00	982.13	72.83	13.10	0.97	30.22	2.24	43.65	3.24	65.48	4.86	78.57	5.83	98.21	7.28	130.95	9.71	196.43	14.57
1.50	1025.97	99.46	13.68	1.33	31.57	3.06	45.60	4.42	68.40	6.63	82.08	7.96	102.60	9.95	136.80	13.26	205.19	19.89
2.00	1068.77	126.02	14.25	1.68	32.89	3.88	47.50	5.60	71.25	8.40	85.50	10.08	106.88	12.60	142.50	16.80	213.75	25.20
2.50	1111.80	152.67	14.82	2.04	34.21	4.70	49.41	6.79	74.12	10.18	88.94	12.21	111.18	15.27	148.24	20.36	222.36	30.53
3.00	1154.54	179.25	15.39	2.39	35.52	5.52	51.31	7.97	76.97	11.95	92.36	14.34	115.45	17.93	153.94	23.90	230.91	35.85
3.50	1196.63	205.91	15.96	2.75	36.82	6.34	53.18	9.15	79.78	13.73	95.73	16.47	119.66	20.59	159.55	27.45	239.33	41.18
4.00	1238.38	232.37	16.51	3.10	38.10	7.15	55.04	10.33	82.56	15.49	99.07	18.59	123.84	23.24	165.12	30.98	247.68	46.47
4.50	1279.67	258.89	17.06	3.45	39.37	7.97	56.87	11.51	85.31	17.26	102.37	20.71	127.97	25.89	170.62	34.52	255.93	51.78
5.00	1320.36	285.51	17.60	3.81	40.63	8.78	58.68	12.69	88.02	19.03	105.63	22.84	132.04	28.55	176.05	38.07	264.07	57.10
5.50	1363.45	312.09	18.18	4.16	41.95	9.60	60.60	13.87	90.90	20.81	109.08	24.97	136.35	31.21	181.79	41.61	272.69	62.42
6.00	1403.48	338.45	18.71	4.51	43.18	10.41	62.38	15.04	93.57	22.56	112.28	27.08	140.35	33.85	187.13	45.13	280.70	67.69
6.50	1445.17	364.98	19.27	4.87	44.47	11.23	64.23	16.22	96.34	24.33	115.61	29.20	144.52	36.50	192.69	48.66	289.03	73.00
7.00	1485.86	391.57	19.81	5.22	45.72	12.05	66.04	17.40	99.06	26.10	118.87	31.33	148.59	39.16	198.11	52.21	297.17	78.31
7.50	1526.35	417.99	20.35	5.57	46.96	12.86	67.84	18.58	101.76	27.87	122.11	33.44	152.64	41.80	203.51	55.73	305.27	83.60
8.00	1566.80	444.46	20.89	5.93	48.21	13.68	69.64	19.75	104.45	29.63	125.34	35.56	156.68	44.45	208.91	59.26	313.36	88.89
8.50	1606.71	470.92	21.42	6.28	49.44	14.49	71.41	20.93	107.11	31.39	128.54	37.67	160.67	47.09	214.23	62.79	321.34	94.18
9.00	1646.71	497.43	21.96	6.63	50.67	15.31	73.19	22.11	109.78	33.16	131.74	39.79	164.67	49.74	219.56	66.32	329.34	99.49
9.50	1685.42	523.70	22.47	6.98	51.86	16.11	74.91	23.28	112.36	34.91	134.83	41.90	168.54	52.37	224.72	69.83	337.08	104.74
10.00	1724.04	550.04	22.99	7.33	53.05	16.92	76.62	24.45	114.94	36.67	137.92	44.00	172.40	55.00	229.87	73.34	344.81	110.01
11.00	1790.57	602.22	23.87	8.03	55.09	18.53	79.58	26.77	119.37	40.15	143.25	48.18	179.06	60.22	238.74	80.30	358.11	120.44
12.00	1855.71	654.08	24.74	8.72	57.10	20.13	82.48	29.07	123.71	43.61	148.46	52.33	185.57	65.41	247.43	87.21	371.14	130.82
13.00	1919.55	705.99	25.59	9.41	59.06	21.72	85.31	31.38	127.97	47.07	153.56	56.48	191.96	70.60	255.94	94.13	383.91	141.20
14.00	1982.43	757.93	26.43	10.11	61.00	23.32	88.11	33.69	132.16	50.53	158.59	60.63	198.24	75.79	264.32	101.06	396.49	151.59

Cost of Diesel (As on 01-04-2021)	86.28	Per Litre
Cost of mobile Oil ( As on 01-04-2021)	300	Per Litre
Hire charges of Loader	569	Per trip
Hire charges of Truck	2400	Per Day

Lead in km	Total Cost Per Trip Lead Charges (Including lodar)	Fuel Component	Lead Charges for NP-3 Class Pipes															
			300 mm		450 mm		600 mm		800 mm		900mm		1000 mm		1200 mm		1800 mm	
			Rgm		Rgm		Rgm		Rgm		Rgm		Rgm		Rgm		Rgm	
			L.F.	Fuel Comp.	L.F.	Fuel Comp.	L.F.	Fuel Comp.	L.F.	Fuel Comp.	L.F.	Fuel Comp.	L.F.	Fuel Comp.	L.F.	Fuel Comp.	L.F.	Fuel Comp.
			75.00		32.50		22.50		15.00		12.50		10.00		7.50		5.00	
15.00	2044.14	809.67	27.26	10.80	62.90	24.91	90.85	35.99	136.28	53.98	163.53	64.77	204.41	80.97	272.55	107.96	408.83	161.93
20.00	2428.74	1073.17	32.38	14.31	74.73	33.02	107.94	47.70	161.92	71.54	194.30	85.85	242.87	107.32	323.83	143.09	485.75	214.63
25.00	2813.09	1336.84	37.51	17.82	86.56	41.13	125.03	59.42	187.54	89.12	225.05	106.95	281.31	133.68	375.08	178.25	562.62	267.37
30.00	3069.06	1592.48	40.92	21.23	94.43	49.00	136.40	70.78	204.60	106.17	245.52	127.40	306.91	159.25	409.21	212.33	613.81	318.50
35.00	3432.12	1854.79	45.76	24.73	105.60	57.07	152.54	82.44	228.81	123.65	274.57	148.38	343.21	185.48	457.62	247.31	686.42	370.96
40.00	3795.36	2117.08	50.60	28.23	116.78	65.14	168.68	94.09	253.02	141.14	303.63	169.37	379.54	211.71	506.05	282.28	759.07	423.42
45.00	4158.25	2379.25	55.44	31.72	127.95	73.21	184.81	105.74	277.22	158.62	332.66	190.34	415.83	237.93	554.43	317.23	831.65	475.85
50.00	4387.08	2633.57	58.49	35.11	134.99	81.03	194.98	117.05	292.47	175.57	350.97	210.69	438.71	263.36	584.94	351.14	877.42	526.71
60.00	4925.75	3146.74	65.68	41.96	151.56	96.82	218.92	139.86	328.38	209.78	394.06	251.74	492.58	314.67	656.77	419.57	985.15	629.35
70.00	5598.12	3667.89	74.64	48.91	172.25	112.86	248.81	163.02	373.21	244.53	447.85	293.43	559.81	366.79	746.42	489.05	1119.62	733.58
80.00	6270.76	4189.26	83.61	55.86	192.95	128.90	278.70	186.19	418.05	279.28	501.66	335.14	627.08	418.93	836.10	558.57	1254.15	837.85
90.00	6942.95	4710.84	92.57	62.81	213.63	144.95	308.58	209.37	462.86	314.06	555.44	376.87	694.30	471.08	925.73	628.11	1388.59	942.17
100.00	7616.04	5232.06	101.55	69.76	234.34	160.99	338.49	232.54	507.74	348.80	609.28	418.56	761.60	523.21	1015.47	697.61	1523.21	1046.41
125.00	8794.26	6505.04	117.26	86.73	270.59	200.16	390.86	289.11	586.28	433.67	703.54	520.40	879.43	650.50	1172.57	867.34	1758.85	1301.01
150.00	10375.49	7801.84	138.34	104.02	319.25	240.06	461.13	346.75	691.70	520.12	830.04	624.15	1037.55	780.18	1383.40	1040.25	2075.10	1560.37
175.00	11603.84	9077.93	154.72	121.04	357.04	279.32	515.73	403.46	773.59	605.20	928.31	726.23	1160.38	907.79	1547.18	1210.39	2320.77	1815.59
200.00	13134.09	10372.85	175.12	138.30	404.13	319.16	583.74	461.02	875.61	691.52	1050.73	829.83	1313.41	1037.29	1751.21	1383.05	2626.82	2074.57

Asst. Chief Engineer (Mech.)  
P. W. Region,Pune

**STATEMENT - C 1 ( Pipes)**  
**(FOR YEAR 2021-2022) Maharashtra**

Cost of Diesel (As on 01-04-2021)	86.28	per litre
Cost of mobile Oil ( As on 01-04-2021)	300	Per litre
Hire charges of Loader	569	per litre
Hire charges of Truck	2200	per Day

Lead in km	Total Cost Per Trip Lead Charges (Including	Fuel Component													
				600 mm		800 mm		900mm		1000 mm		1200 mm		1800 mm	
			Rgm		Rgm		Rgm			Rgm		Rgm		Rgm	
			L.F.	Fuel Comp.	L.F.	Fuel Comp.	L.F.	Fuel Comp.	L.F.	Fuel Comp.	L.F.	Fuel Comp.	L.F.	Fuel Comp.	
			22.50		15.00		12.50		10.00		7.50		5.00		
0.50	937.79	46.12	41.68	2.05	62.52	3.07	75.02	3.69	93.78	4.61	125.04	4.61	187.56	9.22	
1.00	982.13	72.83	43.65	3.24	65.48	4.86	78.57	5.83	98.21	7.28	130.95	7.28	196.43	14.57	
1.50	1025.97	99.46	45.60	4.42	68.40	6.63	82.08	7.96	102.60	9.95	136.80	9.95	205.19	19.89	
2.00	1068.77	126.02	47.50	5.60	71.25	8.40	85.50	10.08	106.88	12.60	142.50	12.60	213.75	25.20	
2.50	1111.80	152.67	49.41	6.79	74.12	10.18	88.94	12.21	111.18	15.27	148.24	15.27	222.36	30.53	
3.00	1154.54	179.25	51.31	7.97	76.97	11.95	92.36	14.34	115.45	17.93	153.94	17.93	230.91	35.85	
3.50	1196.63	205.91	53.18	9.15	79.78	13.73	95.73	16.47	119.66	20.59	159.55	20.59	239.33	41.18	
4.00	1238.38	232.37	55.04	10.33	82.56	15.49	99.07	18.59	123.84	23.24	165.12	23.24	247.68	46.47	
4.50	1279.67	258.89	56.87	11.51	85.31	17.26	102.37	20.71	127.97	25.89	170.62	25.89	255.93	51.78	
5.00	1320.36	285.51	58.68	12.69	88.02	19.03	105.63	22.84	132.04	28.55	176.05	28.55	264.07	57.10	
5.50	1363.45	312.09	60.60	13.87	90.90	20.81	109.08	24.97	136.35	31.21	181.79	31.21	272.69	62.42	
6.00	1403.48	338.45	62.38	15.04	93.57	22.56	112.28	27.08	140.35	33.85	187.13	33.85	280.70	67.69	
6.50	1445.17	364.98	64.23	16.22	96.34	24.33	115.61	29.20	144.52	36.50	192.69	36.50	289.03	73.00	
7.00	1485.86	391.57	66.04	17.40	99.06	26.10	118.87	31.33	148.59	39.16	198.11	39.16	297.17	78.31	
7.50	1526.35	417.99	67.84	18.58	101.76	27.87	122.11	33.44	152.64	41.80	203.51	41.80	305.27	83.60	
8.00	1566.80	444.46	69.64	19.75	104.45	29.63	125.34	35.56	156.68	44.45	208.91	44.45	313.36	88.89	
8.50	1606.71	470.92	71.41	20.93	107.11	31.39	128.54	37.67	160.67	47.09	214.23	47.09	321.34	94.18	
9.00	1646.71	497.43	73.19	22.11	109.78	33.16	131.74	39.79	164.67	49.74	219.56	49.74	329.34	99.49	
9.50	1685.42	523.70	74.91	23.28	112.36	34.91	134.83	41.90	168.54	52.37	224.72	52.37	337.08	104.74	
10.00	1724.04	550.04	76.62	24.45	114.94	36.67	137.92	44.00	172.40	55.00	229.87	55.00	344.81	110.01	
11.00	1790.57	602.22	79.58	26.77	119.37	40.15	143.25	48.18	179.06	60.22	238.74	60.22	358.11	120.44	
12.00	1855.71	654.08	82.48	29.07	123.71	43.61	148.46	52.33	185.57	65.41	247.43	65.41	371.14	130.82	
13.00	1919.55	705.99	85.31	31.38	127.97	47.07	153.56	56.48	191.96	70.60	255.94	70.60	383.91	141.20	
14.00	1982.43	757.93	88.11	33.69	132.16	50.53	158.59	60.63	198.24	75.79	264.32	75.79	396.49	151.59	

Cost of Diesel (As on 01-04-2021)	86.28	per litre
Cost of mobile Oil ( As on 01-04-2021)	300	Per litre
Hire charges of Loader	569	per litre
Hire charges of Truck	2200	per Day

Lead in km	Total Cost Per Trip  Lead Charges (Including	Fuel Component														
			600 mm		800 mm		900mm		1000 mm		1200 mm		1800 mm			
			Rgm		Rgm		Rgm		Rgm		Rgm		Rgm			
			L.F.	Fuel Comp.	L.F.	Fuel Comp.	L.F.	Fuel Comp.	L.F.	Fuel Comp.	L.F.	Fuel Comp.	L.F.	Fuel Comp.		
			22.50		15.00		12.50		10.00		7.50		5.00			
15.00	2044.14	809.67	90.85	35.99	136.28	53.98	163.53	64.77	204.41	80.97	272.55	80.97	408.83	161.93		
20.00	2428.74	1073.17	107.94	47.70	161.92	71.54	194.30	85.85	242.87	107.32	323.83	107.32	485.75	214.63		
25.00	2813.09	1336.84	125.03	59.42	187.54	89.12	225.05	106.95	281.31	133.68	375.08	133.68	562.62	267.37		
30.00	3069.06	1592.48	136.40	70.78	204.60	106.17	245.52	127.40	306.91	159.25	409.21	159.25	613.81	318.50		
35.00	3432.12	1854.79	152.54	82.44	228.81	123.65	274.57	148.38	343.21	185.48	457.62	185.48	686.42	370.96		
40.00	3795.36	2117.08	168.68	94.09	253.02	141.14	303.63	169.37	379.54	211.71	506.05	211.71	759.07	423.42		
45.00	4158.25	2379.25	184.81	105.74	277.22	158.62	332.66	190.34	415.83	237.93	554.43	237.93	831.65	475.85		
50.00	4387.08	2633.57	194.98	117.05	292.47	175.57	350.97	210.69	438.71	263.36	584.94	263.36	877.42	526.71		
60.00	4925.75	3146.74	218.92	139.86	328.38	209.78	394.06	251.74	492.58	314.67	656.77	314.67	985.15	629.35		
70.00	5598.12	3667.89	248.81	163.02	373.21	244.53	447.85	293.43	559.81	366.79	746.42	366.79	1119.62	733.58		
80.00	6270.76	4189.26	278.70	186.19	418.05	279.28	501.66	335.14	627.08	418.93	836.10	418.93	1254.15	837.85		
90.00	6942.95	4710.84	308.58	209.37	462.86	314.06	555.44	376.87	694.30	471.08	925.73	471.08	1388.59	942.17		
100.00	7616.04	5232.06	338.49	232.54	507.74	348.80	609.28	418.56	761.60	523.21	1015.47	523.21	1523.21	1046.41		
125.00	8794.26	6505.04	390.86	289.11	586.28	433.67	703.54	520.40	879.43	650.50	1172.57	650.50	1758.85	1301.01		
150.00	10375.49	7801.84	461.13	346.75	691.70	520.12	830.04	624.15	1037.55	780.18	1383.40	780.18	2075.10	1560.37		
175.00	11603.84	9077.93	515.73	403.46	773.59	605.20	928.31	726.23	1160.38	907.79	1547.18	907.79	2320.77	1815.59		
200.00	13134.09	10372.85	583.74	461.02	875.61	691.52	1050.73	829.83	1313.41	1037.29	1751.21	1037.29	2626.82	2074.57		

Asst. Chief Engineer (Mech.)  
P. W. Region,Pune

**THEORITICAL REQUIREMENT OF MATERIALS BUILDING  
EXCAVATION**

Sr. No.	Item	Unit	Rubble in M3	Over size metal in M3	Sand in M3	Quarry in spaul in M3
1	Providing trap rubble soiling 15 to 20cm thick	M3	1.00			0.20
2	Providing soiling using 80mm over size trap metal	M3		1.00	0.15	

**PILE FOUNDATION**

Sr. No.	Item	Unit	Cement in Bag	Sand in M3
1	M-20 RCC cast in situ bored piles	M3	8.00	0.425

**PLAIN CEMENT CONCRETE AND REINFORCED CEMENT CONCRETE**

Sr. No.	Item	Unit	Cement in bags	Screened sand in M3	Course Aggregate		
					40mm in M3	20mm in M3	12/10mm in M3
1	Plain cement concrete 1:5:10	M3	2.60	0.47	0.7	0.2	-
2	Plain cement concrete 1:4:8	M3	3.40	0.47	0.7	0.2	-
3	Plain cement concrete 1:3:6	M3	4.40	0.47	0.7	0.2	-
4	Plain cement concrete 1:2:4	M3	6.40	0.445	0.7	0.2	0.1
5	M-10 grade cement concrete	M3	4.40	0.47	0.7	0.2	-
6	M-15 grade PCC	M3	6.00	0.44	0.6	0.2	0.1
7	M-20 grade PCC	M3	7.00	0.425	0.6	0.2	0.1
8	M-15 grade cement concrete	M3	6.00	0.425	-	0.7	0.2
9	M-20 grade cement concrete	M3	7.00	0.425	-	0.6	0.3
10	M-25 cement concrete	M3	7.50	0.425	-	0.6	0.3
11	M-30 grade cement concrete	M3	8.00	0.425	-	0.6	0.3
12	M-35 grade cement concrete	M3	8.25	0.425	-	0.6	0.3
13	P & F RCC Jali 50mm thick	M2	0.06	-	-	-	-
14	P & L 50mm thick cement mortar layer in 1:8 proportion	M2	0.22	0.06	-	-	-
	M-40 grade	M3	8.50		-	-	-

## BRICK MASONARY

Sr. No.	Item	Unit	Cement in bags	Screened sand in M3	Bricks in Nos	M.S. bars in Kg.
1	First class brick masonry in CM 1:6 in plinth of inner wall I external wall.	M3	1.24	0.25	475	-
2	Second class brick work in CM 1:6 in foundation and plinth of inner wall I external wall.	M3	1.58	0.32	475	-
3	Second class brick work in CM 1:4 with pointing in CM 1:3 to exposed faces.	M3	1.42	0.254	475	-
4	First class brick work in CM 1:6 in Superstructure	M3	1.24	0.25	475	-
5	Second class brick work in CM 1:6 in superstructure	M3	1.58	0.32	475	-
6	Second class brick work in CM 1:8 in superstructure	M3	1.12	0.32	475	-
7	Second class brick work in CM 1:6 as backing in composite masonry	M3	1.58	0.32	475	-
8	Second class half brick masonry in CM 1:4 with 6mm diameter M.S. Bars	M2	0.255	0.034	57	1.76
9	Second class brick masonry in CM 1:3 for edge masonry with 6mm dia meter M.S. Bars	M2	0.21	0.021	38	1.32
10	First class brick masonry in CM 1:4 for pillars rectangular in shape	M3	2.6	0.25	475	-
11	First class brick masonry in CM 1:4 for pillars curved in shape	M3	2.6	0.25	616	-
12	Second class brick masonry in CM 1:4 for pillars rectangular in shape	M3	2.6	0.25	475	-
13	Second class brick masonry in CM 1:4 for pillars curved in shape	M3	2.6	0.25	616	-
14	Second class brick masonry coping in CM 1:6	M3	1.24	0.25	475	-
15	Fire brick masonry in fire clay 1:5 proportion	M3	-	-	480	Fire day in Mortar in M3 0.10

## STONE MASONARY

Sr. No.	Item	Unit	Cement in bags	Screened sand in M3	Trap Rubble in M3	Corner/Quins in Nos
1	UCR masonry in CM 1:6 in foundations and plinth of inner walls/external walls	M3	1.7	0.35	1.16	2
2	UCR masonry in CM 1:3 in basement	M3	2.05	0.35	1.16	2
3	UCR masonry in CM 1:6 in Super structure	M3	1.7	0.35	1.16	2
4	Random rubble masonry in CM 1:6 in foundation	M3	1.7	0.35	1.16	2
5	Random rubble masonry in CM 1:6 in Superstructure	M3	1.7	0.35	1.16	2
6	Random rubble masonry 1st sort in CM 1:6 in external walls of plinth	M3	1.7	0.35	1.16	2
7	Random rubble masonry 1st sort in CM 1:6 in Superstructure	M3	0.7	0.35	1.16	2
8	CR masonry 3rd sort in CM 1:6 in Plinth	M2	1.7	0.35	1.16	2
9	CR masonry 3rd sort in CM 1:6 in Superstructure	M2	1.7	0.35	1.16	2

Sr. No.	Item	Unit	Cement in bags	Screened sand in M3	Trap Rubble in M3	Corner/Quins in Nos	Trap Header in Nos	Khandki in Nos
10	CR masonry 2nd sort in CM 1:6 in plinth	M3	1.70	0.35	0.35	2	7	50
11	CR masonry 2nd sort in CM 1:6 in Superstructure	M3	1.70	0.35	0.35	2	7	50
12	CR masonry 1st sort in CM 1:6 in plinth	M3	1.50	0.30	0.35	2	7	50
13	CR masonry 1st sort in CM 1:6 in Superstructure	M3	1.50	0.30	0.35	2	7	50
14	CR masonry 2nd sort using all stones of full height in each course in CM 1:6 in Plinth	M3	1.70	0.35	0.35	2	7	50
15	CR masonry 2nd sort using all stones of full height in each course in CM 1:6 in Superstructure	M3	1.70	0.35	0.35	2	7	50

Sr. No.	Item	Unit	Cement in bags	Screened sand in M3	Laterite stone 45 x 30 x 20 cm in Nos
16	Laterite masonry in CM 1:6 in foundations	M3	1.02	0.21	45
17	Laterite masonry in CM 1:6 in Superstructure	M3	1.02	0.21	45

### WATER PROOFING TREATEMENT

Sr. No.	Item	Unit	Cement in bags	Screened sand in M3	Course Aggregate	
					20mm in M3	12/10mm in M3
1	50mm thick damp proof coarse in CC 1:2 :4	M2	0.32	0.022	0.033	0.04
2	20mm thick integral finishing in CM 1:3 Brick Bat	M2	0.18	0.020		-
3	W .P. to terrace 112mm thick	M2	0.55	0.07	0.080	-
4	W.P. of BB coba to water closet	M3	4.00	0.23	1.00	-
5	20mm thick water proof plaster in 1:3 for dado	M2	0.22	0.024	-	-
6	25mm thick water proof bedding in CM 1:3	M2	0.27	0.028	-	



## PLASTERING & POINTING

Sr. No.	Item	Unit	Cement in bags	Screened sand in M3	Fine aggregate in M3	Remark
1	6mm plaster in CM 1:4	M2	0.054	0.0076	-	-
2	6mm plaster in CM 1:3	M2	0.07	0.0076	-	-
3	12mm plaster in single coat in CM 1:5	M2	0.09	0.015	-	-
4	12mm plaster in single coat in CM 1:4	M2	0.11	0.015	-	-
5	12mm plaster in single coat in CM 1:3	M2	0.14	0.015	-	-
6	20mm cement plaster in CM 1:3 in single coat	M2	0.228	0.024	-	-
7	20mm cement plaster in CM 1:5 in two coat	M2	0.14	0.025	-	-
8	20mm cement plaster in CM 1:4 in two coat	M2	0.17	0.025	-	-
9	25mm thick plaster in CM 1:4 in two coat	M2	0.217	0.031	-	-
10	Sand faced plaster in CM 1:4 in two coats	M2	0.25	0.033	-	-
11	Rough cast plaster in two coats in CM 1:4	M2	0.25	0.021	0.012	-
12	Rough cast plaster in two coats in CM 1:4 with colour pigment	M2	0.25	0.021	0.012	-
13	Exterior stone crete facing in CM 1:3	M2	0.300	0.015	0.015	-
14	Flush grooved pointing CM 1:3 to brick masonry	M2	0.030	0.003	-	-
15	Flush grooved pointing in CM 1:3 to stone masonry	M2	0.025	0.003	-	-
16	Tuck pointing in CM 1:3 to stone masonry	M2	0.050	0.005	-	-
17	Weathered pointing in CM 1:3 to stone masonry	M2	0.040	0.004	-	-
18	Vee pointing in CM 1:3 to stone masonry	M2	0.030	0.003	-	-
19	Flush pointing in CM 1:3 to stone masonry	M2	0.025	0.003	-	-

## PAVING AND FLOORING

Sr. No.	Item	Unit	Cement in bags	Screened Sand in M3	Metal	
					20mm in M3	12/10mm in M3
1	Rough shahabad flooring 25 to 30mm thick on bed of 1:6 CM with CP 1:3	M2	0.135	0.022	-	-
2	Rough shahabad flooring 40 to 50mm thick on bed of 1:6 CM with CP 1:3	M2	0.14	0.02	-	-
3	Rough shahabad flooring 50 to 60mm thick on bed of 1:6 CM with CP 1:3	M2	0.15	0.02	-	-
4	Rough shahabad flooring 12 to 20mm thick on bed of 1:6 CM with CP 1:3	M2	0.135	0.022	-	-
5	Polished shahabad/tandur/kotah stone flooring 25 to 30mm thick on bed of 1:6 CM	M2	0.135	0.022	-	-
6	Polished shahabad/tandur/kotah stone flooring 25 to 30mm thick on bed of 1:6 CM with kadappa border	M2	0.135	0.022	-	-
7	Polished shahabad/tandur/kotah stone flooring 25 to 30mm thick for dado on 1:4 cement mortar plaster	M2	0.185	0.022	-	-
8	IPS flooring in 1:2:3 proportion 40mm thick	M2	0.334	0.02	0.023	0.007
9	IPS flooring in 1:2 :3 proportion 50mm thick	M2	0.406	0.025	0.028	0.010
10	IPS flooring in 1:2:4 proportion 40mm thick	M2	0.300	0.018	0.027	0.08
11	IPS flooring in 1:2:4 proportion 50mm thick	M2	0.365	0.022	0.033	0.011
12	Plain cement tile 25 x 25 cm flooring on bed of 1:6 cement mortar	M2	0.135	0.020	-	-
13	Plain cement tiles for dado and skirting on 1:4 cement mortar plaster	M2	0.185	0.020	-	-
14	Plain coloured cement tiles for flooring on bed of 1:6 CM	M2	0.135	0.020	-	-
15	Plain coloured cement tiles for dado on plaster of 1:4 cement mortar	M2	0.185	0.020	-	-
16	White glazed tiles 150 x 150 mm for flooring on 1:4 CM	M2	0.20	0.02	-	-
17	White glazed tiles 150 x 150 mm for dado on 1:4 cement mortar plaster	M2	0.20	0.02	-	-
18	Coloured glazed tiles 150 x 150 mm for flooring on bed of 1:4 CM	M2	0.20	0.02	-	-
19	Coloured glazed tiles of 150 x 150 mm for dado on 1:4 cement mortar plaster	M2	0.20	0.02	-	-
20	Gray I White cement based marble mosaic tiles for dado and skirting on 1:4 cement plaster	M2	0.135	0.02	-	-
21	Gray I White cement base marble mosaic tiles for dado and skirting on 1:4 cement plaster bed	M2	0.185	0.02	-	-
22	P & L Machine cut marble slab 60 x 45 cm flooring on 1:6 cement mortar bed	M2	0.135	0.022	-	-
23	P & L Machine cut marble slab dado and skirting on 1:4 cement mortar plaster	M2	0.185	0.02	-	-
24	P & L in situ cement marble mosaic 10mm thick for flooring	M2	0.20	0.0136	-	0.0272
25	Providing and laying in situ cement mosaic dado and skirting 6mm thick on plaster in CM 1:3	M2	0.20	0.02	-	-
26	P & L flooring of Tukda mosaic/china mosaic (broken mosaic tile pieces) on bed of 1:4 cement mortar	M2	0.30	0.024	-	-
27	P & L polished shahabad/ tandur kotah stone slab for treads and risers on bed of 1:4 CM	Mi	0.19	0.02	-	-
28	Polished shahabad stone 40 to 50 mm for treads and risers in CM 1:4	M2	0.19	0.02	-	-
29	Plain cement tiles/plain coloured cement tiles for treads and risers on bed of 1:4 CM	M2	0.19	0.02	-	-
30	Marble mosaic tiles for treads and risers on bed of 1:4 cement mortar	M2	0.19	0.02	-	-
31	Marble slabs 20mm thick for treads and risers	M2	0.19	0.02	-	-
32	Rough shahabad stone 40 to 50 mm for sills on bed of 1:4 CM	M2	0.19	0.02	-	-
33	Polished shahabad tandur/kotah/kadappa stone 40 to 50 mm thick sill on bed of 1:4 CM	M2	0.19	0.02	-	-

Sr. No.	Item	Unit	Cement in bags	Screened Sand in M3	Metal	
					20mm in M3	12/10mm in M3
34	Providing sills of precast marble mosaic tiles on bed of 1:4 CM	M2	0.19	0.02	-	-
35	White marble slabs dado and skirting	M2	0.19	0.02	-	-
36	35mm thick precast polished chequered tiles /colored cement tiles and treads and plain cement tiles for risers	M2	0.16	0.02	-	-
37	Polished chequered marble mosaic tiles 20 x 32 cm size for flooring / treads	M2	0.16	0.02	-	-
38	Marble/Kadappa/tandur stone partition for urinals	M2	0.01	0.005	-	-
39	White glazed tiles / oolour glazed tiles of 200 x 100 mm for flooring on 1: 4 CM	M2	0.22	0.02	-	-
40	White glazed / colour glazed tiles of 200 x 100 mm for dado and skirting	M2	0.02	0.02	-	-
41	25mm thick polished kadappa sills on bed of 1:4 CM	M2	0.04	0.02	-	-
42	30 x 30 cm ceramic tile flooring on bed of 1:4 CM	M2	0.20	0.017	-	-

**Bd - W. MISCELLANEOUS**

Sr. No.	Item	Unit	Cement in bags	Screened sand in	Crushed metal
1	Guiniting by dry mix process in 1:3 ½ CM for ceiling				
(A)	and soffit				
	a) 20mm thick	M2	0.23	0.028	-
	b) 25mm thick	M2	0.29	0.035	-
	c) 40mm thick	M2	0.46	0.056	-
	d) 50mm thick	M2	0.576	0.070	-
(B)	Guiniting by dry mix process in 1:3 ½ CM for beams				
	a) 20mm thick	M2	0.237	0.028	-
	b) 25mm thick	M2	0.296	0.036	-
	c) 40mm thick	M2	0.472	0.057	-
	d) 50mm thick	M2	0.600	0.072	-
(C)	Guiniting by dry mix process in 1:3 ½ CM for columns				
	a) 20mm thick	M2		-	-
	b) 25mm thick	M2	-0.256	0.034	-
	c) 40mm thick	M2	0.444	0.054	-
	d) 50mm thick	M2	0.550	0.067	-
(D)	Vertical surfaces other than columns in 1:3 , ½ CM				
	a) 20mm thick	M2	0.206	0.025	-
	b) 25mm thick	M2	0.257	0.031	-
	c) 40mm thick	M2	0.411	0.05	-
	d) 50mm thick	M2	0.514	0.062	-
2	P & E 1.50m high wire fencing wire fencing with 7 rows of bar bed wire fencing with MS angles at 2.50 M c/c in cc 1:4:8 blocks of 45 x 45 x 45cm	M	0.132	0.018	0.036
3	P & E 1.50m high wire fencing wire fencing with 7 rows of bar bed wire fencing with wooden round bullies	M	0.132	0.018	0.036
4	P & E chain line fencing with CC 1:4:8 blocks of 45 x 45 x 45cm at 1.75m c/c	M	0.310	0.042	0.085

**Bd - V. WATER SUPPLY AND SANITARY**

Sr. No.	Item	Unit	Cement in bags	Sand in M3	Bricks in Numbers	Metal in M3
1	Water meter chamber in brick masonry with cement plaster 15mm dia to 100 mm dia	No.	0.52	0.103	134	0.025
2	45cm wide steel ladder with CC 1:2:4 block of 60 x 30 x 30 cm	No.	0.35	0.024	-	0.048
3	Indian type W .C. pan	No.	0.20	0.02	-	-
4	Orissa type W .C. pan	No.	0.25	0.018	-	-
5	European type W.C. pan	No.	0.25	0.035	-	-
6	Renewing Indian type W .C. pan	No.	0.25	0.035	-	-
7	Full stall type urinal	No.	0.10	0.01	-	-
8	Lipped flat back type urinal	No.	0.10	0.01	-	-
9	Half round white glazed	No.	0.15	0.02	-	0.02
10	Half round salt glazed stone ware pipe in brick masonry	M	0.10	0.02	31	-
11	White glazed earthenware wash hand basin	No.	0.10	0.01	-	-
12	White glazed earthenware sink	No.	0.10	0.01	-	-
13	Nahani trap 8 cm or 10cm dia	No.	0.10	0.01	-	-
14	Gully trap 15 x 10 cm with brick chamber	No.	0.55	0.08	52	0.05
15	Brick masanory inspection chamber 60 x 45 cm and 60cm depth with cement plaster	No.	2.33	0.35	350	0.194
16	Brick masanory inspection chamber 90 x 45 cm and 60cm depth with cement plaster	No.	3.53	0.54	527	0.3
17	Intercepting trap chamber 90 x 45 cm with brick masonry with cement plaster	No.	3.90	0.57	450	0.45
18	Circular manhole 45cm diameter at top and 90cm at bottom and 1.80 to 2.70m depth with cement plaster	No.	6.70	-	-	-
19	Cast iron rain water pipe 75/100/150mm dia	M	0.003	-	-	-
20	Asbestos cement rain water pipe 100/150mm dia	M	0.005	-	-	-
21	Cast iron soil/waste water/vent pipe of 80/100/150mm dia	M	0.007	-	-	-
22	Asbestos cement soil/waste water/vent pipe of 75/100/150 mm dia	M	0.007	-	-	-
23	Salt glazed stoneware pipe 100mm dia	M	0.035	-	-	-
24	Salt glazed stoneware pipe 150mm dia	M	0.045	-	-	-
25	Salt glazed stoneware pipe 225mm dia	M	0.080	-	-	-

**THEORITICAL REQUIREMENT OF MATERIALS OF BLACK TOP ROAD ITEMS  
(AS PER STANDARD SPECIFICATIONS)**

Sr. No	Item	Unit	Asphalt in Kg	Coarse Aggregate					
				40mm in m3	25mm m3 in m	20mm m3 in m	12mm n m in m3	10mm in m3 n m	6mm in m3 n m
1	Providing 50mm thick full grout with seal coat	100 M2	Dose 500.00 Seal coat 125.00 Total 625.00	6.00	-	-	1.50	1.20	-
2	Providing 50mm thick semi frount with seal coat	100 M2	Dose 275.00 Seal coat 125.00 Total 400.00	6.00	-	-	1.50	1.20	-
3	Providing 40mm thick premix carpet	100 M2	304	-	2.	-	3.	-	0.60
4	Providing 25mm thick premix carpet	100 M2	205	-	-	2.	-	1.20	0.60
5	Providing 20mm thick premix carpet	100 M2	156	-	-	-	2.	0.90	0.15
6	Single coat surface dressing on WBM surface	100 M2	200	-	-	-	1.50	-	-
7	Single coat surface dressing on BT surface	100 M2	125	-	-	-	1.	-	-
8	Two coat surface dressing	100 M2	Dose 225.00 Seal coat 125.00 Total 350.00	-	-	-	1.80	1.00	-
9	Bituminious liquid seal coat	100 M2	98	-	-	-	-	-	0.90
10	50mm thick special grout bituminious surface including tack coat and seal coat	100 M2	Tack coat 73.50 Dose 40.00 Seal coat 97.50 Total 211.00	-	-	-	1.80	0.90	-
11	Tack coat on WBM surface	100 M2	100	-	-	-	-	-	-
12	Tack coat on BT surface	100 M2	50	-	-	-	-	-	-
13	Emulsion tack coat on WBM surface	100 M2	35	-	-	-	-	-	-
14	Emulsion tack coat on BT surface	100 M2	25	-	-	-	-	-	-
15	25mm thick hot mix hot laid carpet	100 M2	209	-	-	2.	-	1.20	0.60
16	20mm thick hot mix laid carpet (open graded premix carpet)	100 M2	146	HB Metal 40mm in M3	-	2.	-	0.90	0.15
17	a)75mm thick bituminious bound macadam surface on BT surface	100 M2	250	9.00	-	2.	1.80	-	-
	b)On WBM surface	100 M2	200	9.00	-	2.	1.80	-	-
18	Granular sub-base	M3							
19	Shoulder drain	M							

**THEORITICAL MATERIAL REQUIREMENT  
AS PER STANDARD SPECIFICATIONS  
(REQUIREMENT OF MATERIALS SHALL BE AS PER ACTUAL JOB MIX  
BRIDGE AND C.D. WORKS**

Sr. No.	Item	Unit	Cement in bags	Screened sand in M3	Course Aggregate		
					40mm in M3	20mm in M3	12/10mm in M3
1	Plain cement concrete 1:5:10	M3	2.60	0.47	0.94	-	-
2	Plain cement concrete 1:4:8	M3	3.40	0.47	0.94	-	-
3	Plain cement concrete 1:3:6	M3	4.40	0.47	0.70	0.24	-
4	Plain cement concrete 1:2:4	M3	6.40	0.445		0.67	0.22
5	M-10 grade concrete	M3	4.40	0.47	0.70	0.24	
6	M-15 grade concrete	M3	6.00	0.445		0.67	0.22
7	M-20 grade concrete	M3	7.00	0.445		0.67	0.22
8	M-25 grade concrete	M3	7.50	0.445	-	0.67	0.22
9	M-30 grade concrete	M3	8.00	0.425	-	0.57	0.28
10	M-35 grade concrete	M3	8.25	0.47		0.57	0.28
11	M-40 grade concrete	M3	8.50	0.47		0.57	0.28
11	Cast in situ abutment and piers in M-10	M3	4.40	0.47	0.70	0.57	-
12	Cast in situ abutment and piers in M-15	M3	6.00	0.47	0.70	0.24	-
13	Cast in situ abutment and piers in M-20	M3	7.00	0.47	0.70	0.24	-
14	Cast in situ abutment and piers in M-10 with 15% plum	M3	3.90	0.40	0.55	0.24	0.15
15	Cast in situ abutment and piers in M-15 with 15% plum	M3	5.80	0.40	0.55	0.24	0.15

Sr. No.	Item	Unit	Cement in bags	Screened sand in M3	Trap Rubble in M3	Corner/Quins in Nos	Trap Header in Nos	Khandki in Nos
16	CR masonry in CM 1:5 for parapet with Khandki facing and pointing in CM 1:3	M3	2.90	0.28	12	-	0.17	110
17	Rubble filling behind the abutment	M3	-	-	-	-	1.00	Gravel
18	Trap rubble filling in foundation	M3			-	-	1.00	in M3 0.33
19	Providing Khandki paving of 23cm thick in 1:3 cement mortar over 15cm bed of CC 1:4:8 and poiting in CM 1:3	M3	1.	0.15	40mm crushed metal in m3 0.141	Khandki in Nos 5		

# **RCC PIPES**

Sr. No.	Item	Unit	Cement in bags	Sand in M3	Weight of pipe in	
					NP-2 pipes	NP-3 pipes
1	P & L cc pipes of NP-2 class/ IRC pipes of NP-3 class					
	i)80mm ø	M			20	-
	ii)100mm ø	M			24	-
	iii)150mm ø	M			33	-
	iv)250mm ø	M			52	
	v)300mm ø	M		-	75	
	vi)350mm ø	M			92	240
	vii)400mm ø	M			104	269
	viii)450mm ø	M	0.12	0.009	128	297
	ix)500mm ø	M			141	325
	x)600mm ø	M	0.16	0.011	193	410
	xi)700mm ø	M			223	470
	xii)800mm ø	M	0.188	0.012	287	604
	xiii)900mm ø	M	0.22	0.0154	358	754
	xiv)1000mm ø	M	0.25	0.017	438	829
	xv)1100mm ø	M		-	525	1054
	xvi)1200mm ø	M	0.26	0.018	620	1140



**THEORITICAL MATERIAL REQUIREMENT**  
**M.O.S.T. 2013 EDITION AND DATA BOOK**  
**(Grading Mateial shall be as per actual job mix formula wherever applicable)**  
**1) Primer coat over Granular base (Table : 500.1 Page 145)**

	Cut back MC-70 or any other bitumen mixed with Diesel
i) Low porosity surface such as wet mix 6 to 9 kg/10 m2 macadam and waterbound macadam	6 to 9 kg/10 m2
ii) Medium porosity surface such as cement stabilised soil base	12 to 15 kg/10 m2
iii) High porosity surface such as grave base	12 to 15 kg/10 m2

**2) Bituminous tack coat (Table : 500.2 Page 149)**

i) Normal bituminous surfaces	2.00 to 2.50 kg/10 m2
ii) Dry and hungry bituminous surfaces	2.50 to 3.00 kg/10 m2
iii) Granular surfaces treated with primer	2.50 to 3.00 kg/10 m2
iv) Non bituminous surfaces	
a) Granular base (Not primed)	3.50 to 4.00 kg/10 m2
b) Cement concrete pavement	3.00 to 3.50 kg/10 m2

**3A) Bituminous macadam with 4% bitumen by weight of total mix (Data book) (Density 2.20) Clause no. 504**  
(Excluding primer / tack coat)

A) Bitumen		88 Kg/M3
B) Coarse aggregate	11.20 to	0.835 M3
C) Chipping	2.80 to 11.20mm	0.209 M3
D) Fine aggregate	Below 2.80mm	0.366 M3
<b>Total</b>		<b>1.380 M3</b>

**3B) Bituminous macadam with 3.30% bitumen by weight**

A) Bitumen		72.60 Kg/M3
B) Coarse aggregate	11.20 to 26 40mm	0.835 M3
C) Chipping	2.80 to 11.20mm	0.209 M3
D) Fine aggregate	Below 2.80mm	0.366 M3
<b>Total</b>		<b>1.380 M3</b>

3C) **Bituminous macadam with 3% bitumen by weight of total mix**

A)Bitumen		
B)Coarse aggregate	11.20 to 26 40mm	66 Kg/M3 0.835 M3
C)Chipping	2.80 to 11.20mm	0.209 M3
D)Fine aggregate	Below 2.80mm	0.366 M3
<b>Total</b>		<b>1.380 M3</b>

4) **Bituminous modified Penetration macadam (IRC:SP-20:2002)**

Compacted Thickness	Bitumen	Coarse Aggregate	Key Aggregate
50mm	17.5Kg/10M2	0.60 M3 /10 m2	0.18 M3 /10 m2
75mm	20.00Kg/10M2	0.90 M3/10 m2	0.18 M3 /10 m2

5) **Built up Spray Grout** (Excluding Primer/ Tack coat)clause no. 506

A)Bitumen		30 Kg/10 sqm
B)Coarse aggregate 11.20 to 26.40mm	Crushed stone coarse aggregate passing 53.00 mm and retained on 2.80 mm	1 cum per 10 sqm
C)Fine aggregate Below 2.80mm	Key aggregate passing 22.40 mm and retained on 2.80 mm	0.13 cum per 10 sqm

**Total 1.13 M3**

6) **Dense Bituminious Macadam** (Density 2.30) 40mm compacted thickness with bitumen at 4.5% of total mix (Excluding primer coat/tack coat) Clause no. 507

i.Bitumen	103.50 Kg	
ii.20mm	0.61 M3	} 1.528 M3
iii.10mm	0.459 M3	
iv.5.60mm and below	0.459 M3	
v.Cement filler	0.046 M3	

**7 A) Surface dressing (Table 500.13 page 170)**

	Bitumen	Stone chipping
i) Single coat surface dressing or 1st coat of two coat surface dressing		10 mm size
i)Over B.T. Surface	27.50 kg/10m2	0.105 m3 / 10 m2
ii)Over B.T. W.B.M.	20.00 kg/10m2	12 mm size 0.15 m3/102
ii) Second coat of two coat surface dressing (or as a renewal coat)	10.00 Kg/10M2	0.10 M3/10M2
i) Single coat surface dressing or 1st coat of two coat surface dressing	12 to 14 Kg/10M2	0.10 to 0.12 M3/10M2
i)Ist Coat	22.50 kg/10 m2	10 mm size 0.18 m3 /10m2
ii)IInd Coat	12.50 kg/10 m2	12 mm size 0.10 m3 / 10m2

**8) Open graded premix carpet 20mm thick (Table 500.16 Page 178) Clause no. 509**

i) 13.20mm Nominal size	0.18 M3/10M2	0.18 m3 /10m2
ii) 11.20mm Nominal size	0.09 M3/10M2	0.09 m3 /10m2
iii) Bitumen binder	14.6 Kg/10M2	14.6 Kg /10m2

**9) Mix seal surfacing (Excluding tack coat) Data book clauseno. 510**

	Bitumen	13.20mm	11.20mm	5.60mm	5.60mm & below	Crushed Sand
Type - A	22.00 Kg/10M2	-	0.10 M3/10M3	0.12 M3/10M2	-	0.05 M3/10M2
Type - B	19.00 Kg/10M2	0.04 M3/10M3	0.14 M3/10M2	-	0.09 M3/10M2	

**10) Bituminous Concrete** (Excluding primer /tack coat with cement filler)

Density 2.40 Data Book bitumen content at 5.40 %

i)	Coarse aggregate	(64%	1.006M3	Total
ii)	Fine aggregate	(36%	0.566M3	1.572M3
iii)	Cement	3%	0.072MT/M3	
iv)	Bitumen at	5.40%	129.6 Kg/M3	

**11) Seal coat (Data Book)**

i)	Stone chipping	6.70mm	0.09 M3/10M2	
ii)	Bitumen		9.80 Kg/10M2	

**12) P & L semidense bituminous concrete with 5.50% Bitumen** Clause No. 511  
(Excluding primer/tack coat)

1	Crushed stone			
i)	13.20mm		0.40 M3/M3	
ii)	11.20mm		0.64 M3/M3	Total
iii)	5.60mm and below		0.44 M3/M3	1.48 M3

2	Bitumen		124 Kg/M3	
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**13) Providing and applying premixed seal coat type "B"** Clause no. 513

i)	Sand or grit passing 2.36mm and retained on 180 micron	0.060 M3/10M2	
ii)	Bitumen	6.80 Kg/10M2	

**THEORITICAL MATERIAL REQUIREMENT**  
**M.O.S.T. 2013 EDITION AND DATA BOOK**  
**(REQUIREMENT OF MATERIALS SHALL BE AS PER ACTUAL JOB MIX**  
**BRIDGES AND CULVERTS**

Sr. No. of Data	Item	Unit	Cement in MT	Coarse Sand in M3	Course Aggregate		
					40mm in M3	20mm in M3	10mm in M3
2.3 (i)	<b>PCC / RCC in open foundation</b>						
	a)PCC M-25 grade	M3	0.40	0.365	0.382	0.304	0.294
	b)PCC M-30 grade	M3	0.42	0.365	0.382	0.299	0.304
	c)RCC M-35 grade	M3	0.475	0.40	-	0.57	0.28
	d)RCC M-40 grade	M3	0.50	0.40	-	0.57	0.28
2.3 (ii)	a)PCC M-15	M3	0.33	0.45	0.52	0.22	0.11
	b)ii) PCC M-20	M3	0.38	0.45	0.57	0.22	0.11
	c)ii) RCC M-20	M3	0.40	0.425	-	0.57	0.28
	c) RCC M-25	M3	0.41	0.45	-	0.63	0.27
2.5 (i)	<b>a) PCC/RCC Well Curb</b>						
	i)RCC M-35 grade	M3	0.475	0.40	-	0.57	0.28
	ii)RCC M-40 grade	M3	0.50	0.40	-	0.57	0.28
	<b>b) Well Steining</b>						
	i)PCC M-25 grade	M3	0.40	0.365	0.382	0.304	0.294
	ii)PCC M-30 grade	M3	0.42	0.365	0.382	0.304	0.299
	iii)RCC M-35 grade	M3	0.475	0.40	-	0.57	0.28
	iv)RCC M-40 grade	M3	0.50	0.40	-	0.57	0.28
	c) Bottom Plug M-25	M3	0.44	0.365	0.382	0.304	0.299
			(including 10% extra)				
	d) Top & Intermediate plug in PCC M-25	M3	0.40	0.365	0.382	0.304	0.294
	e) Well cap in RCC M-35	M3	0.46	0.365	0.382	0.304	0.299
2.5 (ii)	<b>a) Well curb</b>						
	i)RCC M-20	M3	0.40	0.425	-	0.57	0.28
	ii)RCC M-25	M3	0.41	0.45	-	0.63	0.27
	<b>b) Well Steining</b>						
	b) i) PCC M-15	M3	0.33	0.45	0.52	0.22	0.11
	c) ii) a) PCC M-20	M3	0.38	0.45	0.57	0.22	0.11
	c) iii) b) RCC M-20	M3	0.40	0.425	-	0.57	0.28
	b) iii) RCC M-25	M3	0.41	0.45	-	0.63	0.27
	<b>c) Bottom Plug</b>						
	PCC M-20 gfrade	M3	0.418	0.45	0.57	0.22	0.11
			(including 10% extra)				
	<b>d) Top &amp; Intermediate plug</b>						
	PCC M-15	M3	0.33	0.45	0.52	0.22	0.11
	<b>e) Well cap</b>						
	i) RCC M-20 grade	M3	0.38	0.45	0.57	0.22	0.11
	ii) RCC M-25 grade	M3	0.40	0.365	0.382	0.304	0.299
	iii) RCC M-30 grade	M3	0.42	0.365	0.382	0.304	0.299
3.3.	<b>a) PCCIRCC for sub structure</b>						
	i) PCC M-25 grade	M3	0.40	0.365	0.382	0.304	0.299
	ii) PCC M-30 grade	M3	0.42	0.365	0.382	0.299	0.304
	iii) RCC M-35 grade	M3	0.46	0.365	0.382	0.304	0.299
	iv) RCC M-40 grade	M3	0.50	0.40	-	0.57	0.28
	<b>b) PCCIRCC for sub</b>						
	i) PCC M-15 grade	M3	0.33	0.45	0.52	0.22	0.11
	ii) PCC M-20 grade	M3	0.38	0.45	0.57	0.22	0.11
	iii) RCC M-20 grade	M3	0.40	0.425	-	0.57	0.28
	iv) RCC M-30 grade	M3	0.41	0.45	-	0.63	0.27
	v) RCC M-30 grade	M3	0.45	0.43	-	0.58	0.28

Sr. No. of Data	Item	Unit	Cement in MT	Coarse Sand in M3	Course Aggregate		
					40mm in M3	20mm in M3	10mm in M3
<b>4.1.</b>	<b>i) RCC Superstructure</b>						
	a) RCC M-35 grade	M3	0.475	0.40	-	0.57	0.28
	b) RCC M-40 grade	M3	0.50	0.40	-	0.57	0.28
	ii) a) RCC M-25 grade	M3	0.41	0.45	-	0.63	0.27
	b) RCC M-30 grade	M3	0.45	0.43	-	0.58	0.28
<b>4.2.</b>	<b>Prestressed concrete</b>						
	a) M-35 grade	M3	0.475	0.40	-	0.57	0.28
	b) M-40 grade	M3	0.50	0.40	-	0.57	0.28
	c) M-45 grade	M3	0.52	0.40	-	0.57	0.28
	d) M-50 grade	M3	0.54	0.40	-	0.57	0.28
<b>4.5.</b>	<b>RCC Wearing Coarse</b>						
	M-30	M3	0.45	0.43	-	0.58	0.28
<b>4.8.</b>	<b>RCC Railing M-30</b>		0.021	0.02	-	0.027	13
<b>4.12.</b>	<b>RCC Approach slab</b>						
	i) M-25 grade	M3	0.41	0.45	-	0.63	0.27
<b>4.13.</b>	<b>PCC Leveling coarse of M-15 below approach slab</b>	M3	0.33	0.45	0.52	0.22	0.11
<b>1.3</b>	<b>PCC Blocks</b>						
<b>4</b>	M-15		0.33	0.45	0.52	0.22	0.11
	<b>Culverts</b>						
	PCC 1:4:8	M3	0.17	0.47	0.89	-	
	PCC 1:3:6	M3	0.22	0.47	0.89	-	-
	PCC M-15 grade	M3	0.33	0.45	-	0.85	-
	PCC M-20 grade	M3	0.40	0.425	-	0.95	-

**STATEMENT OF MATERIAL REQUIRED FOR VARIOUS WBM & B.T. ITEMS**

Sr. No.	Item of Works	Ref. of e-ssr 2019-20 item no.	Material	Material Requirement	Per Unit
1	<b>Granular Sub Base (GSB)</b> Plant Mix Method and Grading -I Material	3.01.	53 mm to 9.5 mm	0.640	Cum/Cum
			9.5 mm to 2.36 mm	0.256	Cum/Cum
			2.36 mm below	0.384	Cum/Cum
2	<b>Granular Sub Base (GSB)</b> Plant Mix Method and Grading -II Material	3.02.	26.5 mm to 9.5 mm	0.448	Cum/Cum
			9.5 mm to 2.36 mm	0.320	Cum/Cum
			2.36 mm below	0.512	Cum/Cum
3	<b>Granular Sub Base (GSB)</b> Plant Mix Method and Grading -III Material	3.03.	9.50 mm to 4.75 mm	0.448	Cum/Cum
			4.75. mm to 2.36 mm	0.160	Cum/Cum
			2.36 mm below	0.672	Cum/Cum
4	<b>Granular Sub Base (GSB)</b> Mix in Place Method and Grading -I Material	3.04.	53 mm to 9.5 mm	0.640	Cum/Cum
			9.5 mm to 2.36 mm	0.256	Cum/Cum
			2.36 mm below	0.384	Cum/Cum
5	<b>Granular Sub Base (GSB)</b> Mix in Place Method and Grading -II Material	3.05.	26.5 mm to 9.5 mm	0.448	Cum/Cum
			9.5 mm to 2.36 mm	0.320	Cum/Cum
			2.36 mm below	0.512	Cum/Cum
6	<b>Granular Sub Base (GSB)</b> Mix in Place Method and Grading -III Material	3.06.	9.50 mm to 4.75 mm	0.448	Cum/Cum
			4.75. mm to 2.36 mm	0.160	Cum/Cum
			2.36 mm below	0.672	Cum/Cum
7	<b>WBM Grading - I</b> Using Screening - Type A	3.18.	90 mm to 45 mm	1.21.	Cum/Cum
			Type A 13.2 mm	0.270	Cum/Cum
			Binding material	0.08	Cum/Cum
8	<b>WBM Grading - I</b> Using Screening - Type B	3.19.	90 mm to 45 mm	1.21.	Cum/Cum
			Type B 11.2 mm	0.240	Cum/Cum
			Binding material	0.08	Cum/Cum
9	<b>WBM Grading - II</b> Using Screening - Type B	3.2.	63 mm to 45 mm	1.21.	Cum/Cum
			Type B 11.2 mm	0.240	Cum/Cum
			Binding material	0.08	Cum/Cum
10	<b>50 mm Modified Penetration Mecadam (MPM) over WBM</b> CB-30% & HB-70%	3.37a	HB metal	0.042	Cum/Sqm
			CB metal	0.033	Cum/Sqm
			Bulk Bitumen (VG-30)	0.00175	M.T./Sqm
11	<b>50 mm Modified Penetration Mecadam (MPM) over WBM</b>	3.37b	CB metal	0.075	Cum/Sqm
			Bulk Bitumen (VG-30)	0.00175	M.T./Sqm
12	<b>50 mm Modified Penetration Mecadam (MPM) over BT</b> CB-30% & HB-70%	3.38a	HB metal	0.042	Cum/Sqm
			CB metal	0.033	Cum/Sqm
			Bulk Bitumen (VG-30)	0.00175	M.T./Sqm
13	<b>50 mm Modified Penetration Mecadam (MPM) over BT</b>	3.38b	CB metal	0.075	Cum/Sqm
			Bulk Bitumen (VG-30)	0.00175	M.T./Sqm
14	<b>75 mm Modified Penetration Mecadam (MPM) over WBM</b> CB-30% & HB-70%	3.35a	HB metal	0.063	Cum/Sqm
			CB metal	0.045	Cum/Sqm
			Bulk Bitumen (VG-30)	0.002	M.T./Sqm
15	<b>75 mm Modified Penetration Mecadam (MPM) over WBM</b>	3.35b	CB metal	0.108	Cum/Sqm
			Bulk Bitumen (VG-30)	0.002	M.T./Sqm
16	<b>75 mm Modified Penetration Mecadam (MPM) over BT</b> CB-30% & HB-70%	3.36a	HB metal	0.063	Cum/Sqm
			CB metal	0.045	Cum/Sqm
			Bulk Bitumen (VG-30)	0.002	M.T./Sqm
			Bulk Bitumen (VG-10)	0.0003	M.T./Sqm
17	<b>75 mm Modified Penetration Mecadam (MPM) over BT</b> CB-100%	3.36b	CB metal	0.108	Cum/Sqm
			Bulk Bitumen (VG-30)	0.002	M.T./Sqm
			Bulk Bitumen (VG-10)	0.0003	M.T./Sqm

**Government of Maharashtra**  
**Vigilance & Quality Control Circle**

**Pune/ Navi Mumbai/ Nasik/ Amravati/ Aurangabad & Nagpur**

**Schedule of Testing charges for Construction Material used for  
Government Works for the Year 2021-22**

**(Effective from 01/07/2021)**

**INDEX**

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1)	Important Notes	1	1
2)	Schedule of Rate for Construction Material Testing Charges	2	7



# Government of Maharashtra Vigilance & Quality Control Circle

Schedule of Testing charges for Construction Material used for  
Government Works for the Year 2021-22  
(Effective from 01/07/2021 and valid up to 30.6.2022)

## Important Notes

- 1) The rates Included in this D.S.R. are applicable for all Divisions and Sub Divisions under P. W. D. and Z. P. Maharashtra State. For work executed in semi Government and Private establishments the rate shall be twice as mentioned in the DSR as per the Government in P.W. D. Guidelines Issued vide Circular No- Lab-1097/34/ NH-2 dated 15.10.1997 Mantralay, Mumbai - 400032.
- 2) The field Officer will have to strictly adhere to the test frequency stipulated as per Government guideline.
- 3) In order to achieve uniformity in testing of material throughout Maharashtra State, tests have been classified as per requirement.

# GOVERNMENT OF MAHARASHTRA

## Vigilance & Quality Control Circle

### Schedule of Testing charges for construction material used for Government Works for the Year 2021-22

**Effective from 1/ 07/2021 and valid Upto 30/06/2022**

Sr. No.	Name of Test	Test	Rate in Rs.
1	2	3	4
	<b><u>BASIC TEST OF CEMENT.</u></b>		
1	Standard Consistency, Fineness, Specific Gravity, Setting Time ( Initial & Final ), Compressive Strength, Soundness.	1 Test	3770.00
	<b><u>BASIC TEST OF AGGREGATE.</u></b>		
2	Water Absorption, Specific Gravity, Impact Value, Crushing Value.	1 Test	2600.00
3	Sieve Analysis.	1 Test	690.00
4	Abrasion Value.	1 Test	1170.00
5	Flakiness Index & Elongation Index.	1 Test	850.00
6	Stripping Value. (for Bituminous Work)	1 Test	745.00
7	Soundness.	1 Test	2495.00
	<b><u>MIX DESIGN.</u></b>		
8	GSB Mix Design./Cement Treated Sub Base ( CTSB)	1 Test	16250.00
9	Wet Mix Macadam Mix Design.	1 Test	16250.00
	<b><u>FINE AGGREGATE.</u></b>		
10	Fineness Modulus ( Sieve Analysis ), Silt & Clay Content	1 Test	1380.00
11	Chloride & Sulphate Content.	1 Test	795.00
12	Silt Factor.	1 Test	850.00
	<b><u>BRICKS</u></b>		
13	Water Absorption (Set of 5 Bricks), Compressive Strength( Set of 5 Bricks), Efflorescence (Set of 5 Bricks).	1 Test	2175.00
	<b><u>FLOORING TILES (MOSSAIC / CEMENT)</u></b>		
14	Flexural test ( Set of 6 Tiles), Water Absorption ( Set of 6 Tiles).Resistance to wear ( Set of 6 Tiles).	1 Test	2495.00
15	Flooring of Natural Stone (Kota, Marble, Granite, Tandur.etc.) Water absorption, Specific gravity	1 Test	1380.00
	<b><u>CERAMIC TILES / VITRIFIED TILES</u></b>		
16	Water Absorption, Modulus of Rupture (Set of 6 Tiles)	1 Test	1595.00
	<b><u>MANGLORE TILES</u></b>		
17	Water Absorption (Set of 6 Tiles), Flexural test (Set of 6 Tiles).	1 Test	1485.00
18	Permeability.	1 Test	955
	<b><u>CONCRETE</u></b>		
19	Compressive Strength OF C.C. Cube (Set of 3 cubes).	1 Test	690.00
20	Concrete Mix Design (With all Tests on basic materials)	1 Test	13755.00
21	Flexural strength of Beam.	1 Test	745.00
22	Permeability Test.	1 Test	1540.00
23	Concrete mix design by Accelerated curing method. (By Accelerated curing method)	1 Mix Design	16250.00
24	Taking of core samples in concrete pavement. (Excluding Dead Journey Charges)	1 Test	2870.00
25	Dead Journey Charges.	Per Km	17.00
	<b><u>CONCRETE PAVING BLOCKS</u></b>		
26	Compressive Strength , Water Absorption,(Set of 8 Blocks)	1 Test	2495.00
	<b><u>MORTOR</u></b>		
27	Compressive Strength.( Set of 3 Cubes)	1 Test	690.00 650.00

Sr. No.	Name of Test	Test	Rate in Rs.
1	2	3	4
	<b><u>STONE/ RUBBLE</u></b>		
28	Crushing Value/Compressive Strength, Water Absorption & Specific Gravity,	1 Test	2020.00
	<b><u>SOIL / MURUM</u></b>		
29	Sieve Analysis.	1 Test	690.00
30	Liquid limit & plastic Limit.	1 Test	1170.00
31	Compaction Test ( Proctor Density ).	1 Test	1860.00
32	C.B.R. Test ( Lab ) With compaction test.	1 Test	6905.00
33	C.B.R. Test ( Field Determination Test) Excluding Transportation.As per IS 2720 Part XXXI	1 Test	2600.00
34	Dead Journey Charges of inspection Vehical	Per Km	17.00
35	Dead Journey Charges of Truck/Tipper	Per Km	62.00
36	Field Density by Sand replacement method.	1 Test	1115.00
37	Sulphate & Chloride Contents.	1 Test	795.00
38	Mechanical Analysis.	1 Test	2230.00
39	Plate Load Bearing Test.(Excluding Transportation)	1 Test	31225.00
40	Free Swell Test for Soil.	1 Test	905.00
	<b><u>BITUMEN</u></b>		
41	Penetration, Softening Point, Flash & Fire Point, Specific Gravity	1 Test	3135.00
42	Viscosity.	1 Test	1910.00
43	Ducility / Elastic Recovery	1 Test	905.00
44	Extraction Test.(Bituminous mix)	1 Test	1595.00
45	Extraction &Sieve Analysis of Bituminous mix ( for BM/DBM/AC) (2 samples of extraction for one sieve analysis including extraction)	1 Test	3930.00
46	Marshall Stability & Flow measurement ( Set of 3 moulds)	1 Test	1115.00
47	Job Mix Design with all Tests on aggregate (Excluding bitumen) for DBM/SDBC/AC/SMA (Stone Mastic Ashphalt) ( Testing of Bitumen shall be seperately Charged)	1 Mix Design	16250.00
48	B. M. Mix Design with all Tests on aggregate (Excluding bitumen ) ( Testing of Bitumen shall be seperately Charged)	1 Mix Design	7490.00
49	Mastic Hardness No.	1 Test	690.00
50	Thin film oven test & test on residue of modified bitumen.	1 Test	3135.00
51	Seperation test for modified bitumen.	1 Test	1115.00
52	Density of Bituminous Core.	1 Test	635.00
53	Taking of core samples in bituminous flexible pavement. (Excluding Dead Journey Charges)	1 Test	2870.00
54	Dead Journey Charges.	Per Km	17.00
	<b><u>BITUMINOUS EMULSION</u></b>		
55	% Residue Test By Evaporation / Sieve Test	1 Test	635.00
56	Partical Charge Test	1 Test	425.00
	<b><u>HOLLOW / SOLID /AAC BLOCKS</u></b>		
57	Density Test . (Set of 3 Blocks ),Compressive Strength. (Set of 3 Blocks ),Water Absorption Test ( Set of 3 Blocks )	1 Test	1965.00
	<b><u>WATER</u></b>		
58	PH Value, Sulphate & Chloride Content.	1 Test	1115.00
	<b><u>WOOD</u></b>		
59	Density, Moisture Content.	1 Test	1060.00
	<b><u>FLUSH DOOR</u></b>		
60	Knife Test, Adhesion Test, End Immersion Test.	1 Test	2710.00

Sr. No.	Name of Test	Test	Rate in Rs.
1	2	3	4
	<b><u>PLYWOOD</u></b>		
61	Determination of Resistance to dry heat,Determination of Moisture Content,Determination of Density,Thickness of Plywood.	1 Test	3400.00
62	Test for Glue Adhesion	1 Test	530.00
	<b><u>PARTICAL BOARD</u></b>		
63	Determination of Moisture Content,Determination of Density	1 Test	1595.00
	<b><u>ALUMINIUM SECTION</u></b>		
64	Thickness, Mass Per Running meter,	1 Test	690.00
65	Test on Powder Coating	1 Test	795.00
	<b><u>A.C. PIPES</u></b>		
66	Water Absorption	1 Test	690.00
67	Bursting Strength	1 Test	530.00
	<b><u>G.I. PIPES</u></b>		
68	Weight per running meter,Diameter of pipe & wall thickness of pipe,	1 Test	265.00
69	Weight of Zinc coating per sq. m.	1 Test	320.00
	<b><u>P.V.C. PIPES (NONPLASTISIZED)</u></b>		
70	Weight per running meter,Diameter of pipe & wall thickness of pipe	1 Test	265.00
	<b><u>STEEL ANTI CORROSIVE TEST</u></b>		
71	Resistance to applied Voltage. ( 1 Hr. Test ) (Set of 2 Bars)	1 Test	1115.00
72	Resistance to applied Voltage.( 30 Days Test ) ( Set of 2 Bars )	1 Test	3135.00
73	Thickness of Coating. (Set of 2 Bars)	1 Test	585.00
74	Chemical Resistance Test.( Set of 8 Bars )	1 Test	2390.00
75	Hardness of Coating Test .	1 Test	320.00
76	Salt Spray Test ( 4 Cycles ) ( Set of 2 Bars )	1 Test	1485.00
	<b><u>STEEL BAR TESTING</u></b>		
77	Upto 16 mm (Set of 3 Bars)	1 Test	1275.00
78	Above 16 mm (Set of 3 Bars) (Tensile strength, %, Elongation, Yield Stress,Weight-Per Meter, Bend / Rebend Test, Proof Stress.)	1 Test	1595.00
79	Nitrol Solution Test. (Set of 3 Bars)	1 Test	3875.00
	<b><u>PAINT / THERMO-PLASTIC PAINT</u></b>		
80	Glass bead contents & grading analysis.	1 Test	3875.00
81	Reflectance & yellowness index.	1 Test	1115.00
82	Flowability.(Percentage residue).	1 Test	1115.00
83	Softening Point. (Ring & ball method).	1 Test	1010.00
84	Drying Time.	1 Test	795.00
	<b><u>COAL TAR EPOXY PAINT</u></b>		
85	Drying Time.	1 Test	795.00
86	Dry Film Thickness.	1 Test	745.00
87	Flexibility.	1 Test	320.00
88	Gel Time.	1 Test	530.00
89	Pot Life.	1 Test	530.00
90	Volume of Solid.	1 Test	1060.00
	<b><u>ROAD SIGN BOARD</u></b>		
91	Retro Reflective Test.	1 Test	3985.00

Sr. No.	Name of Test	Test	Rate in Rs.
1	2	3	4
	<u>ROUGHNESS INDEX / ROAD UN-EVENNESS TEST</u>		
92	Road Surface Single Lane.(3.70 to 5.50 m)	Per Km	745.00
93	Road Surface 1.5 Lane to Two Lane. (5.50 to 7.00 m)	Per Km	1485.00
94	Each Additional Lane.	Per Km	745.00
95	Dead Journey Charges.	Per Km	17.00
	<u>OVERLAY DESIGN</u>		
96	Benkelman Beam Test (Excluding Dead Journey Charges)	Per Km	14125.00
	<u>NON -DESTRUCTIVE TEST</u>		
97	Rebound Hammer Test.	1 Point	265.00
98	Ultrasonic Pulse Velocity	1 Point	370.00

Superintending Engineer  
 Vigilance & Quality Control Circle,  
 Pune-411 001



मुख्य अभियंता

सा.बां. प्रादेशिक विभाग, मध्यवर्ती इमारत, पुणे यांचे कार्यालय

दुरध्वनी :- ०२० २६१२४२९५ E-Mail:- [pune.ce@mahapwd.com](mailto:pune.ce@mahapwd.com) Fax No:- ०२० २६१२६२६८

जा.क्र. मुअपु/का-२/ इमारती-२ / ५९४० / २०१७,

दिनांक - १७.१०.२०१७

परिपत्रक

**विषय :-** शासकीय बांधकामांमध्ये कृत्रिम वाळू (Crushed sand / Artificial Sand ) चा वापर करणेबाबत.

**संदर्भ :-** १. शासन परिपत्रक क्रमांक - संकिर्ण - २००९ / प्र. क्र. १० / रस्ते-१, दि. २३/०७/२००९  
२. या कार्यालयाचे परिपत्रक जा.क्र.का-२/नियोजन/१५०४/२०१३ . दि.८/३/२०१३

सार्वजनिक बांधकाम विभागामार्फत मोठ्या प्रमाणात शासकीय इमारतींची बांधकामे तसेच रस्ते व पूलांची बांधकामे हाती घेण्यात येतात. सदर बांधकामातील काँक्रीटच्या बाबींचे परिमाणेही खुप जास्त असतात. त्यामुळे काँक्रीटच्या घटक भागाचे म्हणजेच या प्रकरणी मुख्यत्वे वाळूच्या मागणी मध्ये प्रचंड प्रमाणात वाढ झाली आहे. बांधकामांसाठी लागणा-या वाळूची मागणी ही उपलब्ध नैसर्गिक वाळूच्या व्यस्त प्रमाणात वाढते आहे. परिणामी वाळूचे बेकायदा उत्खनन वाढून नदी व नाल्यांच्या नैसर्गिक प्रवाहात बाधा पाहोचविण्याचे प्रकार वाढले आहेत. अशा परिस्थितीत नैसर्गिक वाळूचा बांधकामातील वापर कमी करून त्याऐवजी कृत्रिम वाळूचा वापर वाढविणे क्रमप्राप्त असून काळाची गरज आहे.

शासनाच्या दि. २३/०७/२००९ रोजीच्या परिपत्रकान्वये कृत्रिम वाळूच्या वापराच्या अनुषंगाने मार्गदर्शक सुचना निर्गमित केल्या आहेत. त्यास अनुसरून या कार्यालयाच्या दि.८/३/२०१३ रोजीच्या परिपत्रकान्वये क्षेत्रिय कार्यालयांसाठी मार्गदर्शक सुचना निर्गमित केल्या आहेत.

तथापि, आता क्षेत्रिय स्तरावर उपलब्ध यंत्रसामुग्री, त्या अनुषंगाने उपलब्ध होऊ शकणारी कृत्रिम वाळू व त्याची गुणवत्ता विषयक मानके तसेच कृत्रिम वाळूच्या वापरासंदर्भात दक्षता व गुणनियंत्रण मंडळाकडून प्राप्त झालेले अभिप्राय इत्यादींचा विचार करता, नव्याने प्रस्तावित शासकीय बांधकामांमध्ये कृत्रिम वाळूच्या वापरा संदर्भात नव्याने मार्गदर्शक सूचना निर्गमित करणे आवश्यक झाले आहे.


उपरोक्त अनुषंगाने शासकीय बांधकामांमध्ये नैसर्गिक वाळू ऐवजी १०० % कृत्रिम वाळू (Crushed sand / Artificial Sand) वापरण्यास या परिपत्रकान्वये परवानगी देण्यात येत असून, त्याप्रमाणे कृत्रिम वाळू वापरताना खालील नमूद अटीचे पालन होणे अनिवार्य आहे.

१. बांधकामासाठी वापरात येणारी कृत्रिम वाळू ही IS ३८३ : २०१६ मधील खंड ३.१.२ मध्ये नमूद कृत्रिम वाळूच्या व्याख्येनुसार Automatic Vertical Shaft Impactor या मशिन मधुन चांगल्या प्रतीचा खाणीचा दगड भरडुन उत्पादित केलेली असावी.
२. संबंधीत क्षेत्रिय अधिकारी यांनी प्रचलित IS Code ३८३ - २०१६ मधील तक्ता क्र. ९ मध्ये नमूद केले प्रमाणे fine aggregate चे स्विकृती बाबतच्या ग्रेडींग झोन नुसार वर्गीकरण करून व तशा पध्दतीच्या तपासण्या प्रत्यक्ष बांधकामाच्या जागेवर घेतल्यानंतरच कृत्रिम वाळू वापरण्यास परवानगी देण्यात यावी.

३. बांधकाम सुरु करण्यापूर्वी कृत्रिम वाळूच्या स्रोतास (Source of Crushed sand/Artificial sand) कार्यकारी अभियंता यांनी लिखित स्वरूपात मान्यता देणे बंधनकारक राहिल.
४. कृत्रिम वाळूचा वापर करणेपूर्वी अन्य आवश्यक चाचण्यांसह काँक्रीटकरिता चे Mix Design शासकीय प्रयोगशाळेतूनच करून घेणे अनिवार्य राहिल.
५. Prestressed Concrete च्या बाबींमध्ये कृत्रिम वाळूचा वापर करण्यात येऊ नये.
६. बांधकामाच्या काँक्रीटच्या बाबीं करिता Ready Mix Concrete चा वापर टाळणे अनिवार्य आहे.
७. कृत्रिम वाळूचा वापर बांधकामामध्ये करताना कृत्रिम वाळूच्या वापरा बाबतचे विनिर्देश सोबत Annexure-I स्वतंत्रपणे या परिपत्रकासोबत जोडण्यात येत आहेत. त्यानुसार त्या कामाच्या निविदेमध्ये Additional General Specification चा अंतर्भाव करण्यात यावा.
८. सद्यस्थितीत प्रगतीपथावर असलेल्या बांधकामांमध्ये कृत्रिम वाळूचा वापर करणे अनिवार्य झाल्यास या बाबत तांत्रिक मान्यता प्रदान करणा-या सक्षम प्राधिकारी यांना अवगत करण्यात यावी.
९. कृत्रिम वाळूचा वापराबाबत वरील नमूद १ ते ६ अटीचे तंतोतंत पालन करण्यात यावे. तसेच कृत्रिम वाळू वापरल्यास आरसीसी कामास विहित प्रमाणापेक्षा जास्त सिमेंट लागल्यास त्याकरिता संबंधीत ठेकेदारास अतिरिक्त मोबदला देण्यात येणार नाही.
१०. नैसर्गिक वाळू ऐवजी कृत्रिम वाळूचा वापर ज्या बाबींसाठी प्रस्तावित करण्यात येईल अशा बाबींसाठीच्या कमी दराबाबत अंदाजपत्रकानुसार दोन्ही साहित्यांच्या बेसिक दर व साहित्यांचे वाहतुकीचे अंतर विचारात घेऊन संबंधीत क्षेत्रिय अधिकारी यांनी उचित कार्यवाही करावी. तसेच कामावर होणा-या एकंदर खर्च विहित मर्यादेपेक्षा जास्त होणार नाही याची दक्षता संबंधीत क्षेत्रिय अधिकारी यांनी घेण्यात यावी.

#### सहपत्र- Annexure I

स्थळ प्रतीवर मा.मु.अ.यांची स्वाक्षरी असे.

  
 मुख्य अभियंता  
 सा.बां.प्रादेशिक विभाग  
 पुणे करिता  
 Boc  
 Vaiter

- प्रत:- अधीक्षक अभियंता, दक्षता व गुण नियंत्रण मंडळ, पुणे, माहिती साठी पुढील उचित कार्यवाही साठी.
- प्रत:- अधीक्षक अभियंता, सा.बां.मंडळ, पुणे, सातारा, कोल्हापूर, सोलापूर यांना माहिती साठी पुढील उचित कार्यवाही साठी.
- प्रत:- कार्यकारी अभियंता, सा.बां.विभाग पुणे, सा.बां.पूर्व/उत्तर/दक्षिण/इमारती विभाग, पुणे  
 कार्यकारी अभियंता, सा.बां.विभाग सातारा/सा.बां.पश्चिम विभाग, सातारा  
 कार्यकारी अभियंता, सा.बां.विभाग, कोल्हापूर /सा.बां.विभाग (दक्षिण) विभाग, कोल्हापूर/ विशेष प्रकल्प (सा.बां) विभाग, कोल्हापूर / सा.बां.विभाग विभाग, मिरज/ सा.बां.विभाग (पश्चिम) विभाग, सांगली, कार्यकारी अभियंता, सा.बां.विभाग क्र.१ /क्र.२, सोलापूर/सा.बां.विभाग, अकलूज/ सा.बां.विभाग, पंढरपूर यांना माहिती साठी व आवश्यक कार्यवाही साठी रवाना.
- प्रत:- सहा.मुख्य अभियंता (रस्ते/इमारती) यांना माहिती साठी व आवश्यक कार्यवाही साठी.
- प्रत:- उप अभियंता रस्ते /नाबार्ड/इमारती-१ /इमारती-२ यांना माहिती साठी व उचित कार्यवाही साठी.
- प्रत:- निविदा विभाग, मा.मु.अ.प्रादेशिक विभाग, पुणे यांना माहिती साठी व पुढील आवश्यक कार्यवाही साठी.



"Annexure- I"

**Additional Specifications to be included in General Conditions of Contract  
for use of VSI Crushed Sand / Artificial Sand/ Fine Aggregates.**

1. VSI Crushed sand / Artificially manufactured sand / fine aggregates hereinafter referred to as "Crushed Sand" shall be as defined under Cl.3.1.2 of IS 383-2016.
2. The properties of "Crushed Sand" shall confirm to the provisions of IS 383:2016.
3. The "Crushed Sand" shall be free of dust and other Deleterious material.
4. The "Crushed Sand" shall be manufactured using "Automatic Vertical Shaft Impactor "type Crusher only.
5. The quantity of Microfines (Particles below 75 microns) in "Crushed Sand" shall not be more than 7 %.
6. The Contractor shall intimate the Engineer In-Charge regarding the source of supply of "crushed sand". The source of supply of "crushed sand" shall be got approved by the Executive Engineer (Engineer-In-charge) prior to the start of work.
7. Each Load of crushed sand whenever brought on site shall be tested for "Fineness modulus". Fineness modulus shall be within permissible limits, If it doesn't fall within acceptable limits, it shall be rejected.
8. The Test of Compressive strength of concrete / Mortar using "Crushed sand" shall be carried out in presence of Department's Engineer as given below...
  - a) 100 % Cube testing in presence of Junior /Asst./Sectional Engineer.
  - b) 25 % Cube testing in the presence of sub divisional Engineer
  - c) 5 % Cube testing in the presence of Executive Engineer. (Engineer-In-charge)
9. The flakiness index and elongation index tests shall be within permissible limits.
10. The Concrete mix design for each grade of concrete using "Crushed sand" shall be carried out only in Government Quality Control laboratory and the same Mix Design shall be adopted.
11. As far as possible freshly produced "Crushed sand" shall be used. Stored "Crushed sand " shall not be used.
12. For Plastering purpose, if the use of crushed sand is proposed, it shall be used with addition of super plasticisers at the rate of 100ml/bag of cement without any extra cost to Government .



13. The following tests shall be carried out for the use of "Crushed sand".

- a) Sieve analysis
- b) Specific gravity
- c) Water absorption
- d) Bulk density
- e) Alkali aggregate reaction
- f) Soundness
- g) Deleterious Material
- h) Organic impurities
- i) Micro fines Content
- j) Test for silt and clay.
- k) Fineness Modulus test.

14. Necessary Bond regarding the use of "Crushed sand" shall be submitted by the Contractor clearly stating that, if any defects are observed during execution and in defect liability period, the same shall be rectified at his own risk and cost.

15. Grading zone I and II mentioned under Clause 6.3 table 9 of fine aggregates in IS 383:2016 shall only be used for concreting.

16. Reversible drum type / Batch mix plant(pan type) concrete mixer shall be used for concrete.

15. Use of Concrete from Ready Mix Plant (RMC) shall be strictly Prohibited.

16. "Crushed sand" shall not be used for prestressed concrete works.



मुख्य अभियंता

सा.बां. प्रादेशिक विभाग, मध्यवर्ती इमारत, पुणे यांचे कार्यालय

दुरध्वनी :- ०२० २६१२४२९५ E-Mail:- [pune.ce@mahapwd.com](mailto:pune.ce@mahapwd.com) Fax No:- ०२० २६१२६२६८

जा.क्र. मुअपु/का-२/ इमारती-२ / ७२१३ / २०१७, दिनांक - २२/१२/२०१७

## शुद्धिपत्रक

**विषय :-** शासकीय बांधकामांमध्ये कृत्रिम वाळू (Crushed sand /Artificial Sand ) चा वापर करणेबाबत.

**संदर्भ :-** १. शासन परिपत्रक क्रमांक - संकिर्ण - २००९ / प्र. क्र. १० / रस्ते-१, दि. २३/०७/२००९  
२. या कार्यालयाचे परिपत्रक जा.क्र.का-२/नियोजन/१५०४/२०१३ . दि.८/३/२०१३  
३. या कार्यालयाचे परिपत्रक जा.क्र. मुअपु/का-२/ इमारती-२ / ५९४० / २०१७, दिनांक - १७.१०.२०१७.

उपरोक्त संदर्भ पत्र ३ अन्वये विषयांकित शासकीय बांधकामांमध्ये कृत्रिम वाळू (Crushed sand /Artificial Sand ) चा वापर करणेबाबत या कार्यालयामार्फत परिपत्रक काढण्यात आलेले आहे.

या परिपत्रकासोबत बांधकामामध्ये कृत्रिम वाळू (Crushed sand /Artificial Sand ) चा वापर करणे बाबतचे विनिर्देश त्या कामाच्या निविदेमध्ये Additional Specification मध्ये अंतर्भूत करणे बाबत स्वतंत्र "Annexure-I" जोडण्यात आलेले आहे.

सदर "Annexure-I" मधील मुद्दा क्रमांक १६ मध्ये यापूर्वी "Crushed sand" shall not be used for prestressed concrete works. असे नमूद करण्यात आले आहे. या बाबत सदर शुद्धिपत्रकान्वये खालील प्रमाणे सुधारणा करण्यात येत आहे.

**16. "Manufactured aggregates" shall not be permitted for prestressed concrete works.**

*(Signature)*  
मुख्य अभियंता

सा.बां.प्रादेशिक विभाग  
पुणे.करिता

स्थळप्रतीवर मा.मु.अ.यांची स्वाक्षरी असे

प्रत:- मा.सचिव (बांधकामे), सा.बां.विभाग, मंत्रालय, मुंबई यांना वरील संदर्भ पत्रांच्या छायांकित प्रतींसह माहिती साठी .

प्रत:- अधीक्षक अभियंता, दक्षता व गुण नियंत्रण मंडळ, पुणे, माहिती साठी पुढील उचित कार्यवाही साठी.

प्रत:- अधीक्षक अभियंता, सा.बां.मंडळ, पुणे, सातारा, कोल्हापूर, सोलापूर यांना माहिती साठी पुढील उचित कार्यवाही साठी.

<p>महाराष्ट्र शासन सार्वजनिक बांधकाम प्रादेशिक विभाग नागपूर</p> <p>मुख्य अभियंता सा.बां.प्रादेशिक विभाग, नागपूर यांचे कार्यालय, बांधकाम संकुल सिव्हील लाईन्स, नागपूर-४४०००१ (टे.नं.२५६२९८६) (फॅक्स क्र. २५६५९८३) E-Mail-nagpur.ce.@ mahapwd.com</p>	
क्रमांक : का-इमा-१/ कृत्रिम वाळू / ४३५	दिनांक : 15 JAN 2019

### परिपत्रक क्र. - ३६

**विषय :-** रस्ते, पूल व इमारतीच्या बांधकामातील कांक्रिट च्या बाबी मध्ये नैसर्गिक वाळू ऐवजी कृत्रिम वाळू ( Artificial sand/ V.S.I. Crushed sand) वापरण्याची परवानगी देणे बाबत

संदर्भ: १. या कार्यालयाचे पत्र क्र. इमा-१ /कृत्रिमवाळू/१०६८७/ ०१.१२.२०१८  
२. शासन पत्र क्र. संकिर्ण-२००९/ प्र.क्र. १०/रस्ते-१ दि, २३.७.२००९

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१. वर्ष २०१८-१९ च्या राज्यस्तरीय दरसुची मध्ये नैसर्गिक वाळू शिवाय कृत्रिम वाळू (Artificial sand/ V.S.I. Crushed Sand) वापरण्याचा कांक्रिटच्या बाबी मध्ये समावेश करण्यात आला आहे व या अनुषंगाने अधीक्षक अभियंता, सा.बां.मंडळ चंद्रपूर यांनी मागणी केल्याप्रमाणे या कार्यालयाचे संदर्भित पत्र क्र. १ अन्वये सा.बां.विभाग वर्धा अंतर्गतच्या एका कामाकरीता काही अटीच्या अधिन राहून कृत्रिम वाळू (Artificial sand/ V.S.I. Crushed Sand) वापरण्याची परवानगी देण्यात आलेली आहे.
२. आता अनेक कंत्राटदाराकडून कृत्रिम वाळू (Artificial sand/ V.S.I. Crushed Sand) वापरण्याची मागणी करण्यात येत आहे.
३. सबब, सदर मागणीच्या अनुषंगाने बांधकामातील कांक्रिट च्या बाबी मध्ये नैसर्गिक वाळू ऐवजी कृत्रिम वाळू (Artificial sand/ V.S.I. Crushed sand) वापरण्याची सा.बां. प्रादेशिक विभाग नागपूर अंतर्गतच्या कामावर खालील अटीच्या अधीन राहून परवानगी देण्यात येत आहे.

#### A. कंत्राटदारास परवानगी देणे:

- i. कृत्रिम वाळू वापरण्याची परवानगी करीता संबंधीत कंत्राटदाराने कार्यकारी अभियंता यांचे कडे विनंती करावी. त्यानंतर कार्यकारी अभियंता यांनी स्वतः कृत्रिम वाळू च्या Manufacturing Unit चे निरीक्षण करावे. तसेच वापरण्यात येणा-या दगडाचे निरीक्षण करून तयार होणारी कृत्रिम वाळू मानकाप्रमाणेच असेल याची खात्री करावी.
- ii. निरीक्षणानंतर कृत्रिम वाळू Automatic Vertical Shaft Impactor मशीन द्वारा तयार करण्यात येत आहे तसेच Washing Unit असल्याची खात्री करावी. V.S.I. मशीन द्वारा निर्मित कृत्रिम वाळूस परवानगी द्यावी.

- iii. परवानगी देण्यापूर्वी संबंधीत कार्यकारी अभियंता यांनी प्लांट व दगडाचा निरीक्षण अहवाल अभिलेखावर ठेवावा.
- iv. इमारतीचे plaster व Prestressed Concrete मध्ये कृत्रिम वाळू वापरण्यास परवानगी देवू नये.
- v. सोबतच्या Annexure -1 मधील Additional Specifications प्रमाणे व खालील परिच्छेद B. iv ला सहमत असल्याबाबतचे बंधपत्र सदर कंत्राटदाराकडून काम सुरु करण्यापूर्वी घेण्यात यावे.
- vi. सद्यःस्थितीत प्रगतीपथावर असलेल्या बांधकामांमध्ये कृत्रिम वाळूचा वापर करणे अनिवार्य झाल्यास याबाबत तांत्रिक मान्यता प्रदान करणा-या सक्षम प्राधिकारी यांना अवगत करण्यात यावे.

**B. प्रत्यक्ष काम करतांना घ्यावयाची काळजी:**

- i. कृत्रिम वाळूचा वापर करणेपूर्वी अन्य आवश्यक चाचण्यांसह कॉन्क्रीटकरीता चे Mix Design शासकीय प्रयोगशाळेतूनच करून घेणे अनिवार्य राहिल.
- ii. कृत्रिम वाळू ( Artificial sand/ V.S.I. Crushed sand) मानकाप्रमाणे तसेच सहपत्रामधील दिलेल्या चाचण्याप्रमाणे आहे कि नाही हे तपासण्याची प्राथमिक जबाबदारी कार्यकारी अभियंता यांची राहिल. या करीता कार्यकारी अभियंता व उपविभागीय अभियंता यांनी खालील प्रमाणे स्वतः साहित्याची तपासणी करावी.
  - कार्यकारी अभियंता यांनी करावयाची कार्यवाही:
    - a) सदर कृत्रिम वाळू वापरणे सुरु झाल्यानंतर सुरुवातीचे ७ दिवस कार्यकारी अभियंता यांनी कृत्रिम वाळूचे दोन नमुने स्वतः तपासावेत.
    - b) त्या पुढील ३० दिवस, ७ दिवसात एक नमुना या प्रमाणे वाळूची तपासणी करावी.
    - c) त्यापुढे प्रत्येक १५ दिवसात एक नमुन्याची तपासणी करावी.
  - उपविभागीय अभियंता यांनी करावयाची कार्यवाही:
    - a) सदर कृत्रिम वाळू वापरणे सुरु झाल्यानंतर सुरुवातीचे ७ दिवस उपविभागीय अभियंता यांनी कृत्रिम वाळूचे दररोज एक नमुना स्वतः तपासावा.
    - b) त्या पुढील ३० दिवस, ७ दिवसात दोन नमुना या प्रमाणे वाळूची तपासणी करावी.
    - c) त्यापुढे प्रत्येक १५ दिवसात दोन नमुन्याची तपासणी करावी.
- iii. उपविभागीय अभियंता यांनी randomly RMC plant चे inspection करावे. तेथे कृत्रिम वाळूच्या ऐवजी Stone Dust वा इतर तत्सम साहित्याचा वापर करण्यात येत तर नाही ना याची पाहणी करावी.
- iv. एखाद्या प्रकरणात Stone Dust वापरण्यात येत असल्याचे निदर्शनास आल्यास, संबंधीत कंत्राटदारावर पेनल्टी म्हणून सदर Plant वरून वापरण्यात आलेल्या त्यापूर्वीच्या कार्यान्वित केलेल्या कांक्रीटच्या परिमाणाचे ( Quantity) देयक देवू नये.

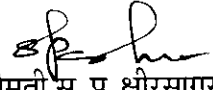
**C. देयकाबाबत:**

- i. प्रगतीतील कामांमध्ये कृत्रिम वाळू ( Artificial sand/ V.S.I. Crushed sand) वापरा करिता कोणतेही अतिरिक्त दर देण्यात येवू नये.
- ii. कृत्रिम वाळू वापरल्यास कांक्रीट मध्ये विहीत प्रमाणापेक्षा जास्त सिमेंट लागल्यास त्याकरीता संबंधीत ठेकेदारास अतिरिक्त मोबदला देण्यात येवू नये.
- iii. काम पुर्ण झाल्यानंतर कार्यकारी अभियंता यांनी कृत्रिम वाळूच्या वापराबाबतचा सर्वेकश अहवाल या कार्यालयास सादर करावा.

४. या पुढील तयार करण्यात येणा-या अंदाजपत्रकांमध्ये नैसर्गिक वाळू ऐवजी कृत्रिम वाळूच्या वापर प्रस्तावित करण्यापूर्वी दोन्ही साहित्यांच्या बेसिक दर व साहित्याचे वाहतुकीचे अंतर विचारात घेऊन संबंधीत क्षेत्रिय अधिकारी यांनी उचित निर्णय घ्यावा.
५. तसेच या कृत्रिम वाळू वापरावयाच्या अनुषंगाने आवश्यक Clauses या पुढील निविदा पत्रामध्ये ठेवावेत. ही जबाबदारी कार्यकारी अभियंता यांची राहिल.
६. कृत्रिम वाळू ( Artificial sand/ V.S.I. Crushed sand) म्हणजे Stone Crusher मधून निघालेली Stone Dust नसून Automatic Vertical Shaft Impactor मशीन द्वारा चांगल्या प्रतिया दगडाला भरडून तयार झाल्यानंतर Washing Unit मधून निघालेली I.S.Code 383-2016 या माणकाप्रमाणे असलेली कृत्रिम वाळू आहे याची कंत्राटदारांसह सा.बां.विभागातील सर्व अभियंत्यांनी नोंद घ्यावी

सहपत्र :- Annexure -1

मूळ प्रत मु.अ.द्वारा मंजूर

  
(श्रीमती सु. प्र. क्षीरसागर)  
सहा.मुख्य अभियंता (इमा.)

- प्रतिलिपी :-१ . अधीक्षक अभियंता, दक्षता व गुण नियंत्रण मंडळ, नागपूर यांना माहितीसाठी करिता
२. अधीक्षक अभियंता, सा.बां.मंडळ, नागपूर/चंद्रपूर/गडचिरोली यांना माहितीस व उचित कार्यवाहीस अग्रेषित.
  ३. कार्यकारी अभियंता ( प्रादेशिक विभागातील सर्व ) यांना माहिती व उचित कार्यवाही करिता अग्रेषित
  ४. सहा. मुख्य अभियंता (रस्ते / इमारती) यांना माहितीसाठी व आवश्यक कार्यवाहीसाठी.
  ५. उपविभागीय अभियंता / शाखा अभियंता ( प्रादेशिक विभागातील सर्व ) यांना माहिती व उचित कार्यवाही करिता अग्रेषित
  ६. मु. अ. कार्यालयातील कार्यासन - रस्ते १/२/३/४/५/६ /इमा १/२/३ / प्र.आ. यांना माहिती करिता.

## **“ Annexure-I ”**

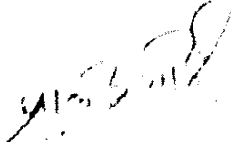
### **Additional Specifications to be included in General Conditions of Contract for use of VSI Crushed Sand / Artificial Sand / Fine Aggregates.**

1. VSI Crushed Sand / Artificially manufactured sand / find aggregates hereinafter referred for as “Crushed Sand” shall be as defined under CL. 3.1.2 of IS 383-2016.
2. The properties of “Crushed Sand” shall confirm to the provisions of IS 383-2016.
3. The “Crushed Sand” shall be free of dust and other Deleterious material.
4. The “Crushed Sand” shall be manufactured using “Automatic Vertical Shaft impactor” type Crusher only.
5. The quantity of Microfines (Particles below 75 microns) in “Crushed Sand” shall not be more than 7 %
6. The Contractor shall intimate the Engineer In-Charge regarding the source of supply of “Crushed Sand”. The source of supply of “Crushed Sand” shall be got approved by the Executive Engineer (Engineer-In-charge) prior to the start of work.
7. Each Load of crushed sand whenever brought on site shall be tested for “Fineness modulus”. Fineness modulus shall be within permissible limits. If it doesn't fall within acceptable limits, it shall be rejected.
8. The Test of Compressive strength of concrete / Mortar using “Crushed sand” shall be carried out in presence of Department's Engineer as given below.
  - a) 100 % Cube testing in presence of Junior / Asstt. / Sectional Engineer
  - b) 25 % Cube testing in the presence of sub divisional Engineer
  - c) 5 % Cube testing in the presence of Executive Engineer (Engineer-In-charge)
9. The flakiness index and elongation index tests shall be within permissible limits.
10. The Concrete mix design for each grade of concrete using “Crushed sand” shall be carried out only in Government Quality Control laboratory and the same Mix Design shall be adopted.
11. As far as possible freshly produced “Crushed Sand” shall be used stored “Crushed sand” shall not be used.

12. For Plastering purpose, if the use of crushed sand is proposed it shall be used with addition of super plasticisers at the rate of 100 ml / Bag of Cement without extra cost to Government. Separate permission shall be taken for use in plastering from concerned Executive Engineer.
13. The following tests shall be carried out for the use of "Crushed sand"
- a) Sieve analysis
  - b) Specific gravity
  - c) Water absorption
  - d) Bulk density
  - e) Alkali aggregate reaction
  - f) Soundness
  - g) Deleterious Material
  - h) Organic impurities
  - i) Micro fines content
  - j) Test for silt and clay
  - k) Fineness Modulus test.
14. Necessary Bond regarding the use of "Crushed sand" shall be submitted by the Contractor clearly stating that, if any defects are observed during execution and defect liability period, the same shall be rectified at his own risk and cost.
15. Grading zone II mentioned under Clause 6.3 table 9 of fine aggregates is IS 383:2016 shall only be used for concreting.
16. Reversible drum type / Batch mix plant (pan type) concrete mixer shall be used for concrete.
17. "Crushed sand" shall not be used for prestressed concrete works.

## PUBLIC WORKS DEPARTMENT

The State Schedule of Rates is recommended for the year 2021-22  
with effect from 15/08/2021



Chief Engineer  
Public Works Konkan Region  
Mumbai



Chief Engineer  
Public Works Region  
Pune



Chief Engineer  
Public Works Region  
Aurangabad



Chief Engineer  
Public Works Region  
Nashik



Chief Engineer  
Public Works Region  
Amravati



Chief Engineer  
Public Works Region  
Nagpur



Chief Engineer  
Public Works Region  
Mumbai

Approved

Secretary (Works)

Secretary (Roads)



**GOVT. OF MAHARASHTRA**  
**PUBLIC WORK DEPARTMENT**

