



**MASTER SERVICES AGREEMENT**

This Master Services Agreement (“Agreement”) is made and entered into as of \_\_\_\_\_, 20\_\_ (“Effective Date”) by and between Maryland Broadband Cooperative, Inc. having its principal place of business at 2129A Northwood Drive, Salisbury, MD 21801 (“Company”), and \_\_\_\_\_, a \_\_\_\_\_ organized under the laws of the state of \_\_\_\_\_, and having its principal place of business at \_\_\_\_\_ (“Contractor”). Company and Contractor are each sometimes hereinafter referred to as a “Party”, and collectively as the “Parties”. The efforts of Contractor under this Agreement will support the Prime Contract No. [xxx] (“Prime Contract”), dated [xxx], issued by the [XXX] (“Government Agency”).

Project Name & Number (hereinafter “Contract”)	
Prime Contract Number	
Agreement Number	
Date Issued	
Awarding Agency	
Contract Type (fixed fee, cost-reimbursement)	
Approved Budgeted Amount	Base Year: Option Period 1:
Period of Performance	Base Year: Option Period 1:

This Agreement comprises the below terms and conditions (Sections 1-40) and includes the following Attachments, which are hereby made a part of this Agreement:

<b>ATTACHMENTS</b>	
A.	Scope of Work
B.	Payment and Schedule
C.	Approved Budget
D.	Required Invoice Form
E.	Government Flowdowns, if applicable
F.	Contractor FFATA Form, if applicable
G.	IRS Form W-9

This Agreement and the above Attachments, together with any subsequent amendments and Change Orders (as hereinafter defined) are collectively referred to as the “Contract Documents”.



For and in consideration of the mutual covenants and agreements herein contained and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, and with intent to be legally bound hereby, the Parties hereto agree as follows:

## **1. TERM**

This Agreement is effective on the Effective Date and will remain in effect for the Period of Performance, unless terminated sooner as provided in Section 13, Termination (the "Term").

## **2. SCOPE OF WORK**

### **2.1. Scope of Work.**

Contractor shall provide all Services and Materials set forth in the Scope of Work defined in Attachment A in accordance with the terms and conditions of this Agreement (hereinafter "Services and Materials"), as may be amended from time to time in accordance with Section 24 of this Agreement. Contractor will perform the Services with due care and diligence and in a professional manner, providing all personnel, equipment, supplies, and facilities necessary for such performance.

### **2.2. Services and Materials.**

2.2.1 Contractor warrants that all Services and Materials will strictly conform to all requirements of this Agreement, including without limitation all Attachments. To the extent of any non-conformity in the Services or Materials, Contractor will, upon receipt of a notice of non-conformance by Company, promptly repair, replace, or re-perform its work, at Contractor's expense, keeping Company up to date on anticipated completion date; but in no event shall completion date be less than 10 days without written notice to Company.

2.2.2 Company or Government Agency may furnish to Contractor, without cost to Contractor, such equipment or data as Government Agency/Contractor in its sole discretion deems necessary for the Contractor to perform. Within fifteen (15) days of completion or termination of this Agreement, Contractor shall return such equipment and data to Government Agency/Contractor in the condition it was when given to Contractor (for equipment, reasonable wear and tear excepted). The handling and use of any equipment or data provided by Government is subject to the Flowdown Provisions in Attachment D. Any equipment provided shall be documented and signed for, with documentation provided to the Company.

## **3. AUTHORIZATIONS AND ACCESS**

3.1. Unless otherwise provided in this Agreement, or in the Attachments to this Agreement, it will be the responsibility of Company to obtain all governmental approvals, rights of way, licenses, permits, easements, and other third party or private individual consents (collectively, the "Authorizations") necessary for the installation and operation of the Services and Materials at each Location Site as set forth in the Attachment A Scope of Work ("Location Site"). Unless otherwise provided in this Agreement, Company also is responsible for obtaining all authorizations necessary for Contractor to access each Location Site.

3.2. Company will provide Contractor with reasonable access to each Location Site, upon reasonable notice and during mutually agreed upon times, so that Contractor can deliver, install, and test the Services and Materials.



#### **4 ACCEPTANCE**

4.1. Contractor will provide Company with written notice after the Services and Materials have been delivered, installed, and tested at each Location Site. Within ten (10) business days after receipt of such notice, Company will conduct an inspection to verify that the Services and Materials meet all applicable requirements and provisions of this Agreement, including the Attachment A Scope of Work. Such verification by Company within ten (10) business days after receipt of Contractor's notice shall constitute Company's Acceptance of the Services and Materials at said Location Site. However, regardless of Company's acceptance, final acceptance resides with the Government Agency. Should the Government Agency at any time identify deficiencies and those deficiencies are within the Contractor's requirements and provisions of this Agreement, including the Scope of Work as defined in Attachment A, Contractor promptly shall correct those deficiencies at Contractor's sole expense. The expense associated with Company's representatives traveling to each Location Site to conduct the inspection shall be the sole responsibility of Company.

4.2. In the event Company's inspection of Services and Materials at a Location Site within the time allowed by Section 4.1 reveals a failure by Contractor to meet the applicable requirements and provisions of this Agreement, including the Attachment A Scope of Work, Company shall promptly notify Contractor in writing of the deficiencies, and Contractor promptly shall correct said deficiencies at Contractor's sole expense. Upon receipt of written notice from Contractor that all deficiencies have been corrected, Company shall be deemed to have accepted the Services and Materials at said Location Site, unless Company notifies Contractor in writing within ten (10) business days that deficiencies remain. Company's failure to have prepared the Site Location shall not constitute a reason not to accept the Contractor's Materials and Services. If Company so notifies Contractor of continued deficiencies, the Parties will repeat the procedures set forth in this paragraph until such time as the Services and Materials are accepted by Company.

4.3. Company's failure to inspect Services at a Location Site within the time allowed by Sections 4.1 or 4.2 shall not constitute a waiver of Company's right to inspect the Services and Materials at the Location Site.

4.4. For purposes of this Agreement, the term "Acceptance of Services and Materials" shall refer to Company's acceptance of Services and Materials at a Location Site pursuant to Section 4.1, Section 4.2 or Section 4.3.

4.5. If Company notifies Contractor of deficiencies at a Location Site after Acceptance of Services and Materials has occurred, Company shall be responsible to reimburse Contractor for all reasonable re-mobilization expenses incurred by Contractor to revisit said Location Site in order to correct the deficiencies, and the correction of those deficiencies shall be at Contractor's sole expense.

4.6. Company may revoke Acceptance of Services and Materials by written notice to the Contractor, but only if (i) nonconforming Services and Materials previously were accepted by Company but thereafter failed to be accepted by Government Agency, (ii) because the nonconformity was not discovered before Acceptance of Services and Materials, (iii) on the basis of a reasonable assumption that the nonconforming Services and Materials would be cured by Contractor, or (iv) because Company incorrectly believed that Government Agency would accept the Services and Materials as conforming under the Prime Contract. To revoke its prior acceptance, Company will notify Contractor in writing, explaining in reasonable detail the reasons for the revocation. Thereafter, the process set forth in Section 4.2 above shall be followed to cure the non-conformity.



4.7 Notwithstanding any other provision of this Agreement, Company shall have no obligation to make payment to Contractor for any Services or Materials, or any portion thereof: (i) which Company has not accepted, (ii) which have not been accepted by the Government Agency, (iii) as to which Company has revoked its Acceptance of Services and Materials, (iv) as to Contractor's outstanding required correction of any deficiencies or non-conformity in the Services or Materials identified by the Company or by the Government Agency, or (v) which is otherwise the subject of a good faith payment dispute.

## **5. WARRANTIES**

5.1. Contractor hereby represents, warrants and covenants as follows:

5.1.1 Contractor has sufficient legal rights to enter into this Agreement, and is not presently suspended, proposed for debarment, or debarred or otherwise ineligible for award of a Government contract.

5.1.2 Contractor shall comply with the terms and conditions of the Agreement as well as all applicable Federal, state, and local laws, rules, or regulations, including but not limited to those rules and regulations identified in Attachment E to this Agreement.

5.1.3 Contractor is financially solvent, able to pay its debts and possessed of sufficient working capital to provide the Services and Materials in accordance with this Agreement.

5.1.4 Contractor is authorized to do business in the locations where it shall provide the Services and Materials and is properly licensed by all necessary governmental and public and quasi-public authorities having jurisdiction over it to provide the Services and Materials under the terms of this Agreement.

5.1.5. Contractor warrants that, having conducted adequate due diligence, to the best of its knowledge and belief, and except as otherwise set forth in this Agreement, it does not have any actual, apparent or perceived organizational conflicts of interest as defined by the Federal Acquisition Regulations or other applicable law and that should it identify an actual, apparent or perceived conflict it shall immediately notify Company in writing. Contractor agrees that it will not, during the Term of this Agreement, enter into any relationships that result in a conflict of interest.

If Company determines that an organizational conflict of interest has been identified in the Contractor, Company shall submit Contractor's disclosure and proposed mitigation plan to Government Agency. If Government Agency determines that Contractor's conflict cannot be, or has not been, mitigated to its satisfaction, Contractor shall have the right to revise the mitigation plan and if such plan is unsatisfactory, Company may make changes to this Agreement to satisfy Government Agency that the conflict has been mitigated or it may terminate this Agreement upon written notice and without liability or penalty. In the event Government Agency approves any organizational conflict of interest mitigation plan that Contractor has proposed, the approved mitigation plan shall be automatically incorporated into this Agreement.

5.1.6. Contractor's execution of this Agreement and the Contractor's performance of its obligations hereunder does not now and shall not in the future violate any agreement between the Contractor and any third party, or any obligation of the Contractor to any third party,



including, without limitation, any non-compete agreement or obligation

5.1.7. Contractor has the experience and skills necessary to provide the Services and Materials required pursuant to this Agreement; all Services and Materials provided by the Contractor shall be performed in a professional manner in accordance with all professional standards applicable to the Contractor. Company may require Contractor to remove from any such site any employees of Contractor, or of any Contractor of Contractor, that Company or Government Agency determines in its sole discretion to be incompetent, careless, or for any other reasonable reason at the Contractor's expense.

5.1.8. Contractor warrants the Materials and Services to be of good, workmanlike and professional quality, fit for the particular purpose and fully in accordance with the requirements and provisions of this Agreement, including the Attachment A Scope of Work, as well as applicable laws, regulations and Flowdown Provisions in Attachment E; and that Contractor shall purchase, title, manage and dispose of all Materials in accordance with all applicable laws, rules and regulations and in accordance with the Flowdown Provisions in Attachment E. ***[if Contractor's warranty is intended to extend for a time period beyond the date of acceptance, insert applicable warranty provisions here]***

5.1.9 In addition to the foregoing representations, warranties and covenants, Contractor hereby assigns to Company, and Company shall have the benefit of, any and all Contractors' and suppliers' warranties and representations with respect to the Materials and Services provided to Company. Contractor agrees that, in agreements with its Contractors and suppliers, Contractor shall require that such parties: (i) consent to the assignment of such warranties and representations to Company, and (ii) agree that such warranties and representations are enforceable by the Company in its own name.

5.1.10 Contractor warrants and covenants that it shall furnish, without limitation, all labor, supervision, tools, equipment, materials and supplies necessary for the performance of the Services, and for the provision of the Materials, in a proper, efficient, timely and workmanlike manner. Contractor shall prosecute all duties undertaken in this Agreement in a prompt and diligent manner, so as to promote the general progress of the entire construction. Any materials that are to be furnished by Contractor hereunder shall be furnished in sufficient time to enable the Contractor to perform and complete its duties under this Agreement within the time or times provided for in this Agreement. Upon written request, Contractor shall promptly furnish to Company such evidence as Company may reasonably require relating to Contractor's ability to fully perform all of its duties under this Agreement in the manner and within the time specified herein. The Parties agree, and Contractor expressly acknowledges, that time is of the essence in the Contractor's performance of all of its duties under this Agreement.

5.2 Company hereby represents, warrants and covenants as follows:

5.2.1 Company has sufficient legal rights to enter into this Agreement and is financially solvent, able to pay its debts and possessed of sufficient working capital to pay for the Services and Materials in accordance with this Agreement.

5.2.2 Company's execution of this Agreement and the Company's performance of its



obligations hereunder does not now and shall not in the future violate any agreement between the Company and any third party, or any obligation of the Company to any third party, including, without limitation, any non-compete agreement or obligation; Company shall notify Contractor in writing if any litigation is instituted against Company that may have a material effect on Company's performance of its obligations hereunder.

## **6 PRICING**

6.1 See Attachment B for pricing information and payment terms.

## **7 IMPORTANCE OF PRIME CONTRACT AND FUNDING, IF APPLICABLE**

7.1 Funding. Contractor will perform this Agreement in support of the Prime Contract at the payment amounts and payment terms specified in Attachment B, Payment and Schedule. Notwithstanding any other provision in this Agreement, Company's obligation to make payments to Contractor under this Agreement is contingent on: (1) Company receiving funding under the Prime Contract; (2) Contractor's satisfactory performance of the Agreement as determined by Company in its sole discretion as Company may be informed by the Government Agency.

7.2 Importance of Prime Contract. Contractor understands that the work contemplated by this Agreement is pursuant to a Prime Contract awarded by a Government Agency of the U.S. Government, any state, county or municipal government. Contractor shall take all reasonable and necessary steps to enable Company to comply with the terms and conditions of the Prime Contract affected by this Agreement.

7.3 Incorporation of the Flowdown Provisions, If Applicable. The Prime Contract requirements set forth in the provisions to this Agreement or identified by reference in Attachment E (collectively, the "Flowdown Provisions") are hereby incorporated into this Agreement and, even if not fully expressed herein, apply to Contractor with the same force and effect as if set forth in full text. If any Prime Contract clause or other provision incorporated herein refers specifically to another provision as governing subcontract arrangements under the Prime Contract, then such other provision also is incorporated herein by reference and Contractor and all lower tier Contractors shall be required to comply with its terms.

7.4 Intent to Conform to Prime Contract. The Parties intend that this Agreement includes all Prime Contract provisions required by law or regulation to be included in a subcontract of this type, or which are reasonably necessary to ensure that the Contractor's work will conform to the Prime Contract. In the event the Parties have omitted such a Prime Contract provision (or such a provision is subsequently added to the Prime Contract), the Parties will negotiate in good faith to add such provision to this Agreement.

## **8. KEY PERSONNEL**

Contractor's "Key Personnel" are identified in Attachment A (Scope of Work) and are considered essential to perform this Agreement. Contractor may only change the Key Personnel by obtaining Company's written approval, which shall not be unreasonably withheld. Contractor will use commercially reasonable efforts to ensure the continuity of its Key Personnel assigned to perform this Agreement.

## **9. REPORTING**



9.1. Reporting. Contractor shall comply with any reporting requirements included in the Scope of Work at Attachment A and with the applicable reporting requirements under the Flowdown Provisions in Attachment E. Reporting requirements shall survive the termination of this Agreement for three years from the date Company makes its final payment to Contractor or for three years after any final adjudication related to this Agreement, whichever is later.

9.2. On Request. Contractor acknowledges that Company has an obligation to communicate with Government Agency about this Agreement on a regular basis. Therefore, Contractor shall respond to Company's reasonable requests for information in a timely and complete manner.

## **10. TAXES**

For the Services and Materials provided under this Agreement, upon Company's Acceptance of Services and Materials, Contractor shall charge and Company shall pay applicable Federal, state or local sales or use taxes, or consumption taxes that Contractor is legally obligated to charge ("Taxes"), provided that such Taxes are stated on the invoices that Contractor provides to Company and Contractor's invoices state such Taxes separately and meet the requirements for a valid tax invoice. The unit pricing and total pricing amounts set forth in Attachment B of this Agreement include all applicable Taxes.

## **11. SUBCONTRACTS**

Contractor shall perform this Agreement with its own resources unless it gets prior written approval from Company to use other resources or services (each, a "lower-tier Contractor"), or receives equipment or data in accordance with Section 2.2.2. Copies of all proposed lower-tier Contractor agreements must be provided to Company as part of the approval process. Any agreement with a lower-tier Contractor must make the lower-tier Contractor subject to the terms and conditions applicable to Contractor under this Agreement including all Flowdown Provisions. Without limiting the foregoing, in all lower-tier subcontract agreements Contractor shall obtain a right to terminate for convenience to mitigate the reimbursement amounts payable by Company in the event of termination under Section 13.4, Termination for Convenience. Lower-tier Contractor agreements involving an aggregate amount of less than \$10,000 shall not be subject to this provision.

## **12. STOP WORK**

Company may, at any time, by written order to Contractor, direct Contractor to stop all, or part, of performance required by this Agreement for a defined period starting when the Stop Work Order is delivered to Contractor, and for any further period to which the Parties may agree ("Stop Work Order"). The Stop Work Order shall be specifically identified as a stop-work order issued under this section. Upon receipt of the Stop Work Order, Contractor shall immediately comply with its terms and take all reasonable steps to minimize the incurrence of costs allocable to the work covered by the Stop Work Order during the period of work stoppage.

Within a period after a Stop-Work Order is delivered to Contractor, or within any extension of that period to which the Parties shall have agreed, Company shall either-

1. Cancel the Stop-Work Order; or
2. Terminate the work covered by the Stop Work Order as provided in Section 13, Termination of this Agreement.



If a Stop-Work Order issued under this clause is canceled or the period of the Stop Work Order or any extension thereof expires, Contractor shall resume work. Company shall make an equitable adjustment in the delivery schedule or contract price, or both, and the Agreement shall be modified, in writing as required by Section 24, If the Stop Work Order results in an increase in the time required for Contractor to perform, or in cost to perform, Contractor shall assert a claim for the adjustment within 15 days after the end of the period of work stoppage; provided, that, if Company decides the facts justify the action, Company may receive and act upon the claim asserted at any time before final payment under this Agreement.

If a Stop-Work Order is not canceled and the work covered by the Stop Work Order is terminated for the convenience of the Company, Company shall allow reasonable costs resulting from the Stop-Work Order in arriving at the termination settlement.

### **13. TERMINATION.**

#### **13.1 Termination for Cause:**

Notwithstanding any other provision in this Agreement, upon the occurrence of any of the following events, and in addition to any other available remedies pursuant to Sections 4.6 and 29 of this Agreement, Company may terminate this Agreement for cause, upon seven (7) day's written notice to the breaching Party following the expiration of any stated cure periods:

13.1.1 The breach of any material term or condition of this Agreement if such breach remains uncured for a period of ten (10) days after delivery to the Contractor of written notice of such breach;

13.1.2 Contractor applies for or consents to the appointment of a receiver, trustee or similar officer for it or any substantial part of its property or assets, or any such appointment is made without such application or consent by the Company and remains undischarged for a period of 60 days;

13.1.3 Contractor files a petition in bankruptcy or makes a general assignment for the benefit of creditors.

13.1.4 Contractor sells, transfers or otherwise disposes of all or substantially all of its assets to any person, or the person or persons which presently control Contractor cease(s) to control Contractor.

13.1.5 Suspension or debarment of Contractor;

13.1.6. Investigation, indictment or conviction of Contractor for violating any federal or state Laws or regulations relating to anti-corruption, procurement, the False Claims Act or any other law or regulation in fraud, dishonesty or theft; or Contractor agreeing to an administrative sanction for violating any federal or state laws relating to anti-corruption, procurement the False Claims Act or any other law or regulation in fraud, dishonesty or theft.

#### **13.2 Company Right to Terminate:**

Notwithstanding any other provision in this Agreement, upon the occurrence of any of the following events, and in addition to any other available remedies pursuant to Sections 4.6 and 29 of this Agreement,





the Company may terminate this Agreement for cause immediately, without liability, by written notice to the Contractor in the event of:

- 13.2.1. Contractor breaches any of its representations, warranties, covenants or certifications contained in this Agreement
- 13.2.2. Contractor's unresolved conflict of interest as solely determined by Company;
- 13.2.3. Contractor's Change in Control, other than a Change in Control of the Contractor to which the Company in its sole discretion provides its prior written consent. "Change in Control" means any of the following transactions involving Contractor: (i) a merger, (ii) a consolidation, (iii) a transfer of all or substantially all of the assets of Contractor in one or more transactions during a twelve month period, or (iv) the entry into a joint venture or other contractual arrangement pursuant to which another person or entity obtains rights to control the management or policies of Contractor.

13.3 Termination Force Majeure:

Neither Party will be responsible to the other for any failure in performance of any part of this Agreement if and to the extent that it is caused by acts of God, war, riots and acts of terrorism, provided that such failure in performance could not have been avoided or corrected through the exercise of reasonable diligence (hereinafter referred to as a "Force Majeure Event").

13.3.1 The Party whose performance is affected by a Force Majeure Event (hereinafter referred to as the "Affected Party") must promptly notify the other Party in writing of the Force Majeure Event, giving details of the Force Majeure Event circumstances, its anticipated effect upon the Affected Party's performance under this Agreement and the remedial action the Affected Party is taking.

13.3.2 Upon providing such notice, the obligations of the Affected Party will be suspended to the extent directly and solely caused by the Force Majeure Event so long as the Force Majeure Event continues, provided that the Affected Party uses commercially reasonable efforts to take remedial action.

13.3.3 Notwithstanding the foregoing, if the Affected Party's performance is delayed or otherwise affected by any Force Majeure Event for more than ten (10) days, the other Party in its sole discretion may terminate the Agreement upon written notice to the Affected Party and will only be responsible for fees that accrue up to the date of such termination.

13.4 Termination for Convenience:

Notwithstanding the foregoing, Company may terminate this Agreement without cause by providing written notice of termination to Contractor and such termination will be effective as of the date given in such notice. In the event of termination by Company without cause, Company shall be responsible to pay Contractor for (a) Contractor performance as of the date and time of notification and (b) all of the Materials purchased and delivered by Contractor. Upon receipt of Company's written notice of termination without cause, Contractor shall issue an invoice for the amounts due pursuant to this Section and, to the extent the amounts are not disputed by Company under Attachment B of this Agreement, Company shall issue payment of said invoice within thirty (30) days of receipt.

13.5 Effect of Termination:



If either Party terminates this Agreement for cause pursuant to Section 13.1, Company shall compensate Contractor for all Services performed by Contractor as of the date and time of notification and for all of the Materials to the extent that said Materials have already been purchased and delivered by Contractor as of the date and time of notification. Contractor shall issue an invoice for the amounts due pursuant to this Section and, to the extent the amounts are not disputed by Company under Attachment B of this Agreement, Company shall issue payment of said invoice within thirty (30) days of receipt.

13.6. The rights and remedies of the Parties under this section are in addition to any other rights and remedies provided by law or under this Agreement.

#### **14. LIENS**

14.1 If the Materials or Services, or any portion thereof, becomes subject to any mechanics', artisans', or materialmen's lien, or other encumbrances, Contractor shall promptly cause such lien or encumbrance to be discharged and released of record (by payment, posting of bond, court deposit or other means) without cost to the Company; provided however, that if any such lien or encumbrance is not so discharged and released within ten (10) days after written notice by Company to Contractor, then the Company may, at its option: (i) pay or secure the release or discharge thereof (in which case Contractor shall indemnify the Company against all costs and expenses (including reasonable attorneys' fees) incurred in discharging and releasing such lien or encumbrance), or (ii) terminate this Agreement immediately upon written notice to Contractor.

14.2 Contractor shall, as and when requested, furnish evidence satisfactory to the Company that all amounts due for labor and material furnished by or to the Contractor in connection with performance of this Agreement have been paid, including union, health, welfare and pension fund payments and payroll taxes. Such evidence shall be furnished in such form and manner as requested by the Company. Contractor, when requested, shall furnish to the Company releases of bond rights and lien rights by persons who have furnished labor, material or other things in the performance of the Services and the provision of the Materials. Contractor shall deliver the Materials and Services free from all claims, encumbrances and liens.

#### **15. SITE CONDITIONS**

15.1 Contractor represents that it has inspected the Location Sites where the Services are to be performed and is familiar with the conditions of the Location Sites, and agrees that no claim shall be made whatsoever for costs, damages or expenses as a result of the conditions of the site, except as provided in paragraphs 15.2 and 15.3 below.

15.2 Contractor shall promptly, and before such conditions are disturbed, notify Company in writing of: (i) subsurface or latent physical conditions at the site differing materially from those indicated in this Agreement and the Contract Documents, or (ii) unknown physical conditions at the Site Locations of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in the Services of the character provided for in this Agreement. The Company shall promptly investigate the conditions, and if the Company, in its sole discretion, finds that such conditions do materially so differ and cause a significant increase or decrease in Contractor's cost of and/or the time required for performance of any part of the Services under this Agreement, Company shall use commercially reasonable efforts to obtain an equitable adjustment of contract price approval from the Government Agency and shall use commercially reasonable efforts to obtain an extension of the time for performance approval from the Government Agency, and to the extent that such requested approval or approvals from the Government Agency are granted, then in that event, this Agreement shall be modified accordingly.



153 The pricing charged for the Services does not include the cost for rock excavation. If the Company in its sole discretion determines that rock excavation is necessary in the performance of the Services, the Company shall use commercially reasonable efforts to obtain an equitable adjustment of contract price and time for performance from the Government Agency and, to the extent that such requested approval or approvals from the Government Agency are granted, then in that event, this Agreement shall be modified accordingly.

## **16. INSURANCE**

16.1. During the Term of this Agreement, Contractor shall keep and maintain in effect, at its sole cost and expense, insurance coverage requirements as required by the Company's Prime Contract as provided in the Statement of Work, Attachment A. Notwithstanding the insurance coverage requirements under by the Company's Prime Contract, during the Term of this Agreement, Contractor shall keep and maintain in effect, at its sole cost and expense, at least the following minimum insurance coverage requirements:

- 16.1.1 General Liability (including completed operations coverage) in the amounts of \$1,000,000 (combined single limit) Bodily Injury/Property Damage coverage per occurrence, and \$2,000,000 general aggregate coverage.
- 16.1.2 Owner's and Contractor's Protective Insurance, with the same limits required for General Liability.
- 16.1.3 Automobile Liability in the amount of \$1,000,000 (combined single limit), Property Damage and Bodily Injury coverage.
- 16.1.4 Professional Liability, in an amount not less than \$500,000.00 per occurrence and \$3,000,000.00 aggregate.
- 16.1.5 Umbrella Coverage for all of the above, in an amount not less than \$2,000,000.00.
- 16.1.6 Worker's Compensation as defined in the Maryland General Statutes, or the relevant state statutes.

16.2 The Company shall be named as an Additional Insured on the Contractor's General Liability, Automobile Liability and Umbrella Liability policies and coverage shall be Primary and Non-Contributory. A waiver of subrogation in favor of the Company shall apply on all Policies.

16.3 Certificates of insurance, as evidence of the insurance required by this Agreement, shall be furnished by Contractor to Company within thirty (30) days of the Effective Date, and annually thereafter.

16.4. Should Contractor cancel or have cancelled the insurance coverage, it shall provide thirty (30) days prior written notice to the Company. Nevertheless, Contractor shall ensure that alternative insurance coverage is obtained so as not to allow any lapse of the requirements of this Section.

## **17. INDEMNIFICATION AND LIMITATION OF LIABILITY**

17.1 Contractor will indemnify, defend and hold harmless Company, and its affiliates, and their officers, directors, employees, agents, members and contractors from and against all loss, damage, liability, cost and expense (including reasonable attorney's fees and expenses) arising out of any claims or



actions by third parties that relate to: (a) Contractor's breach of any of its representations, warranties or covenants in this Agreement; (b) any personal or bodily injury (including, without limitation, death) or damage, loss or destruction of any real or tangible personal property which any third party claims arise out of or relate to (i) Contractor's performance of or failure to perform any term, condition or obligation under this Agreement, or (ii) any negligent act or omission of Contractor's directors, agents, employees, contractors or representatives; and (c) any infringement or misappropriation of any patent, copyright, trademark, trade secret or other proprietary right arising from the Services.

17.2 Company will indemnify, defend and hold harmless Contractor, its officers, directors, employees, agents and contractors from and against all loss, damage, liability, cost and expense (including reasonable attorney's fees and expenses) arising out of any claims or actions by third parties that relate to (a) Company's breach of any of its representations, warranties or covenants in this Agreement, and (b) any personal or bodily injury (including, without limitation, death) or damage, loss or destruction of any real or tangible personal property which any third party claims arise out of or relate to (i) Company's performance of or failure to perform any term, condition or obligation under this Agreement, or (ii) any negligent act or omission of Company's directors, agents, employees, contractors or representatives.

17.3. Contractor assumes full responsibility for and shall indemnify Company against any and all losses or damage of whatsoever kind and nature to any and all Government property, including any equipment, supplies, accessories, or parts furnished, while in Contractor's custody and care for storage, repairs, or service to be performed under the terms of this Agreement, resulting in whole or in part from the negligent acts or omissions of the Contractor, or any employee, agent or representative of the Contractor. The Company, at its option may, in lieu of payment for lost or damaged Government property, require the Contractor to replace at its own expense, all property lost or damaged.

17.4 Each Party's obligation to defend under this Agreement is independent of its obligation to indemnify here under, and each Party's obligations under this section are independent of any other obligation of such Party under this Agreement.

17.4.1 Each Party will use counsel reasonably satisfactory to the indemnified Parties to defend each indemnified claim, and the indemnified Parties will reasonably cooperate (at the indemnifying Party's expense) with the indemnifying Party in the defense.

17.4.2 Neither Party will consent to the entry of any judgment or enter into any settlement without the other Party's prior written consent, which consent will not be unreasonably withheld, conditioned or delayed.

17.5. NOTWITHSTANDING ANY OTHER PROVISION OF THIS AGREEMENT, NEITHER PARTY SHALL BE LIABLE FOR ANY DAMAGES FOR LOST PROFITS, REVENUES, GOODWILL, ANTICIPATED SAVINGS, DATA OR COST OF PURCHASING REPLACEMENT SERVICES, OR ANY INDIRECT, INCIDENTAL, SPECIAL, CONSEQUENTIAL, EXEMPLARY OR PUNITIVE DAMAGES, COSTS OR LIABILITIES ARISING OUT OF THE PERFORMANCE OR FAILURE TO PERFORM UNDER THIS AGREEMENT.

## **18. PUBLICITY**

Contractor shall submit, to the Company, a proposed copy of all advertising, sales promotion, press releases, and any other publicity matters or any publication relating to this Agreement or to the Services to be provided by Contractor under this Agreement (collectively "Publication") wherein the name,



trademark, or service mark of the Company or its affiliates or of the government is mentioned; and the Contractor shall not publish or use such Publication without the Company's prior written approval, which shall not be unreasonably withheld or delayed. Any such submission of a proposed Publication by the Contractor shall be provided to the Company at least thirty (30) days prior to the proposed usage of the Publication by Contractor.

## **19. COMMUNICATION WITH GOVERNMENT AGENCY**

Contractor shall not initiate substantive communications directly or indirectly with Government Agency regarding this Agreement or any obligations hereunder without Company's prior written consent.

## **20. CONFIDENTIALITY**

20.1 The Parties hereby agree that if either Party provides (or, prior to the execution hereof, has provided) confidential or proprietary information to the other Party ("Proprietary Information"), such Proprietary Information shall be held in confidence, and the receiving Party shall afford such Proprietary Information the same care and protection as it affords generally to its own confidential and proprietary information (which in any case shall be not less than reasonable care) in order to avoid disclosure to or unauthorized use by any third party.

20.2 As used herein, Proprietary Information shall mean any and all technical or business information furnished in whatever form or medium, or disclosed by one Party to the other including, but not limited to, product or service specifications, prototypes, computer programs, models, drawings, network designs, as built documentation, marketing, plans, member information and financial data, including but not limited to costs and prices for services and goods.

20.3 All Proprietary Information, unless otherwise specified in writing, shall remain the property of the disclosing Party and shall be used by the receiving Party only for the intended purpose, and such written Proprietary Information, including all copies, extracts and summaries thereof, shall be returned to the disclosing Party or destroyed after the receiving Party's need for it has expired, upon the request of the disclosing Party or immediately after the period specified in Section 20.6 below. If destroyed, the Disclosing Party shall provide a statement of destruction to the disclosing Party, within ten (10) days. Proprietary Information shall not be reproduced except to the extent necessary to accomplish the purpose and intent of this Agreement, or as otherwise may be permitted in writing by the disclosing Party.

20.4 The foregoing provisions of this section shall not apply to any Proprietary Information which (i) becomes publicly available other than through the recipient; (ii) is required to be disclosed by a governmental or judicial law, order, rule or regulation; (iii) is independently developed by the receiving Party; (iv) becomes available to the receiving Party without restriction from a third party; or (v) becomes relevant to the settlement of any dispute or enforcement of either Party's rights under this Agreement in accordance with the provisions of this Agreement, in which case appropriate protective measures shall be taken to preserve the confidentiality of such Proprietary Information as fully as possible within the confines of such settlement or enforcement process. If any Proprietary Information is required to be disclosed, the Party required to make such disclosure shall promptly inform the other Party of the requirements of such disclosure.

20.5 Notwithstanding the foregoing provisions of this section, either Party may disclose Proprietary Information to its employees, directors, agents, and legal, financial, and accounting advisors and providers (including its lenders and other financiers) to the extent necessary or appropriate in connection with the negotiation and/or performance of this Agreement or its obtaining of financing, provided that



each such party is notified of the confidential and proprietary nature of such Proprietary Information and is subject to or agrees to be bound by similar restrictions on its use and disclosure.

20.6 The provisions of this Section shall survive expiration or termination of this Agreement for a period of three (3) years.

20.7 To the extent that the Parties have entered into a separate confidentiality agreement or nondisclosure agreement prior to the Effective Date of this Agreement, then that earlier agreement shall be superseded by the provisions of this Section 20.

20.8. In performing this Agreement, the Parties may have access to Government confidential information. Duplicating or disclosing any of this Government confidential information is prohibited by Law. Contractor shall maintain the confidentiality of Government confidential information and any interpretations or derivations of the Government confidential information that it may have access to as a result of performing this Agreement unless it obtains Company's prior written consent to release the information. Contractor shall incorporate this Section, in any agreement with lower tier contractors or other agents the Contractor employs to perform this Agreement.

## **21. REQUIRED NOTIFICATION**

Contractor shall notify Company immediately upon: (i) any significant findings, breakthroughs, or events of unusual interest, (ii) any significant problems, delays, or adverse conditions (including physical, legal, regulatory, labor or social conditions) that may materially affect performance, such as those rendering Contractor's records in the System for Award Management, or other required registration systems, inaccurate or outdated, (iii) any adverse publicity related to this Agreement, (iv) overpayment from Company; and (v) any suspension or debarment, any other administrative misconduct (*e.g.*, a declaration of ineligibility to contract with any government), criminal investigations, arrest or indictment, *qui tam* lawsuits, civil False Claims investigations raised against Contractor or its affiliates, employees or agents, and as further required by the Attachments.

## **22. AUDIT RIGHTS**

Company may audit, with reasonable notice as defined solely by the Company, and at its expense and through its designated representative, the Contractor's financial books or records related to this Agreement, and may receive, inspect or examine any disclosure statement of the Contractor made to the Government Agency related to this Agreement. All such records shall be maintained in accordance with recognized accounting practices and applicable laws and regulations, including but not limited to those included in Attachment E, Flowdown Provisions. Contractor shall make available and/or submit to Company its financial books and records related to this Agreement as may be necessary for Company to conduct such audit. Such audit rights shall survive termination of this Agreement for three years from Company's payment of Contractor's final invoice under this Agreement or until three years after any final adjudication related to this Agreement, whichever is later.

## **23. COMPLIANCE WITH LAWS, POLICIES and ETHICAL BUSINESS CONDUCT**

Contractor shall comply with all applicable Laws and regulations including but not limited to the Procurement Integrity Act, the False Claims Act, anti-corruption laws and regulations, conflicts of interest of laws and regulations, and anti-kickback laws and regulations in performance of this Agreement and with its own policies and procedures as consistent with this Agreement. Contractor also agrees to comply with any applicable representations and certifications specified in the Attachments. Contractor hereby



agrees to execute such further documents as Company and/or Government Agency and/or any other Government Agency may reasonably require in connection with the award or performance of this Agreement.

Contractor shall execute its business in with integrity and in a manner consistent with the requirements of applicable Laws such as 48 CFR 9.104-1.

## **24. CHANGES/MODIFICATIONS/AMENDMENTS**

24.1 Generally. Except as provided in Sections 24.2 and 24.3 below, this Agreement will not be modified, changed, amended or altered in any manner without written agreement designated by the Parties as an "amendment" and signed by the authorized representatives of both Parties. Any other change not signed by the authorized representative of each Party shall be deemed not to have been authorized by Company and will not be effective.

24.2 Change Orders. Company may, by notice of providing a "Change Order" to Contractor, unilaterally make changes to the Materials or Services or other aspects of this Agreement such as the time or place of performance. The giving of the Change Order shall automatically be deemed to modify this Agreement accordingly.

If performing in accordance with the terms of any such Change Order would cause a material increase or decrease in Contractor cost or time, Contractor must, within ten (10) days from the Change Order date, notify Company in writing, explaining in reasonable detail the amount of the impact and the reasons therefor. Upon its receipt of such notice, Company may, in its reasonable discretion, make an equitable adjustment to the payment terms by sending Contractor a written payment adjustment notification, at which time this Agreement will be deemed automatically modified to include the new payment amount(s). Contractor may dispute the payment terms of any Change Order (including as it may be so adjusted) in accordance with the terms of Section 29 Disputes, provided that Contractor shall continue performance as changed without interruption and without awaiting settlement of the dispute.

24.3 Amendments from Prime Contract. Contractor shall, at the request of Company, accept amendments to this Agreement, whether new or modified provisions, as Company reasonably deems necessary in order for it to comply with the provisions of the Prime Contract. If any such change causes a material increase or decrease in Contractor cost or the time required for performance of any part of the Scope of Work, Company, in its reasonable discretion, will make an equitable adjustment to the agreed upon price and modify this Agreement accordingly.

Contractor shall continue performance during the adjustment process and must assert its right to an equitable adjustment in writing within ten (10) days from the date of receipt of Company's Change Order. Failure to agree to an adjustment is subject to Section 29, Disputes.

## **25. INDEPENDENT CONTRACTOR**

25.1 The Parties expressly intend and agree that Contractor is acting as an independent contractor and not as an agent or employee of Company. Contractor shall not have the authority to enter into any agreement purporting to bind the Company without the Company's written authorization.

25.2 Contractor retains sole and absolute discretion, control and judgment regarding the manner and means of performing and providing the Services.



25.3 Contractor understands and agrees that it shall not be entitled to any of the rights and privileges established for Company's employees, including but not limited to retirement benefits; medical, life insurance or disability coverage; severance pay; and paid vacation or sick pay.

25.4 Contractor understands and agrees that Company will not pay or withhold from the compensation paid to Contractor any sums customarily paid or withheld for or on behalf of employees for income tax, unemployment insurance, social security, workers compensation or any other withholding tax, insurance or payment, and all such payments as may be required by law are the sole responsibility of Contractor.

## **26. CONTRACT DOCUMENTS**

Except as otherwise set forth herein, in the event of inconsistency between provisions of the Contract Documents, the inconsistency shall be resolved by giving precedence in the following order: (i) the Agreement; (ii) Attachments A, B, C, D and E.

## **27. NOTICES**

All notices shall be in writing and sent by registered or certified mail, postage prepaid, or via nationally recognized courier with confirmation to the following addresses:

Maryland Broadband Cooperative, Inc.	
2129A Northwood Drive	
Salisbury, MD 21801	
Attn: Drew Van Dopp	
dvandopp@mdbc.us	

If a Party changes its address during the terms hereof, it shall so advise the other Party in writing and any notice thereafter required to be given shall be sent according to the new information.

## **28. CHOICE OF LAW**

This Agreement shall be governed by the laws of the State of Maryland, and any action to enforce or interpret the provisions of this Agreement or the rights and obligations of the Parties arising hereunder shall be maintained only in the courts of the State of Maryland or of the United States of America for the District of Maryland.

## **29. DISPUTES**

29.1 In the event of any disagreement regarding performance under or interpretation of this Agreement, and prior to the commencement of any formal proceedings, the Parties shall continue performance as set forth in this Agreement and shall attempt in good faith to reach a negotiated resolution by designating a representative of appropriate authority to resolve the dispute.

29.2 Any dispute that cannot be resolved through the informal process set forth in Section 29.1, or by such other mediation or arbitration procedure agreed to by both Parties, each in its sole discretion, shall be resolved by a court of competent jurisdiction of the State of Maryland or of the United States of America for the District of Maryland. The Parties expressly agree that the prevailing Party in any litigation under this section shall be entitled to recover its reasonable attorneys' fees and costs of the litigation.





293 Contractor shall proceed diligently with performance of this Agreement and comply with any direction from Company, pending final resolution of any dispute arising under or relating to this Agreement.

### **30. ASSIGNMENT**

Contractor shall not assign, novate or otherwise transfer by operation of law or otherwise this Agreement or any of its rights or obligations under this Agreement and shall not subcontract any of performance hereunder without the prior written consent of Company in its sole discretion which consent shall not be unreasonably withheld.

Making any such assignment, novation or transfer not in accordance with this Section 30 shall be a material breach of this Agreement.

### **31. WAIVER**

Neither Party shall be deemed to have waived the exercise of any right that it holds, hereunder unless such waiver is made expressly and in writing and no delay or omission by either Party in exercising any such right shall be deemed a waiver of its future exercise. No such waiver made in any instance involving the exercise of any such right shall be deemed a waiver in any other instance, or for any other right.

### **32. REMEDIES**

No remedy provided for herein is intended to be exclusive, but each remedy shall be cumulative and in addition to and may be exercised concurrently with any other remedy available to either Party at law or in equity.

### **33. ENTIRE AGREEMENT**

This Agreement constitutes the entire agreement between Contractor and Company with respect to the subject matter hereof and, other than by operation of a Change Order issued by the Company under Section 24 above, shall not be amended or modified without specific written agreement to that effect signed by both Parties. No oral statement of any person whatsoever shall, in any manner or degree, modify or otherwise affect the terms and provisions of this Agreement.

### **34. ARTICLE HEADINGS**

The headings of the several Articles are inserted for convenience of reference only and are not intended to be a part of or to affect the meaning or interpretation of this Agreement.

### **35. SUCCESSORS AND ASSIGNS**

This Agreement shall inure to the benefit of and shall be binding upon the Parties hereto and their respective successors and permitted assigns, if any, if consistent with Section 30 of this Agreement.

### **36. THIRD PARTY BENEFICIARY**

Other than as specifically set forth in this Agreement, this Agreement is not intended to create and does not create any rights in or benefits to any third party.



**37. SEVERABILITY**

If any term, covenant or condition contained in this Agreement is, to any extent, held invalid or unenforceable in any respect under the laws governing this Agreement, the remainder of this Agreement shall not be affected thereby, and each term, covenant or condition of this Agreement shall be valid and enforceable to the fullest extent permitted by law.

**38. SURVIVABILITY**

The terms and conditions of this Agreement that by their sense and context are intended to survive after performance hereunder shall survive the termination or expiration of this Agreement, including but not limited to Attachment B and Sections 10, 16, 17, 20, and 23.

**39. INTERPRETATION**

Should it be necessary to construe an ambiguity or to otherwise interpret any language in this Agreement, the fact that one Party drafted this Agreement, or otherwise began the drafting of this Agreement, or drafted the majority of this Agreement shall not be a factor in the interpretation or construction of any part of this Agreement.

**40. COUNTERPARTS**

This Agreement may be executed simultaneously in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

The Parties hereby agree to the foregoing and have duly executed this Agreement by their respective duly authorized officers, as of the Effective Date first above written.

MARYLAND BROADBAND COOPERATIVE, INC. [\_\_\_\_\_]

By: \_\_\_\_\_

By: \_\_\_\_\_

Name: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_



## Maryland Broadband Cooperative Attachment A Statement of Work

All capitalized terms used in this Attachment A Scope of Work, and not otherwise defined herein, shall have the meanings which are ascribed to them in the Master Service Agreement entered into by and between the Parties.

### A. Statement of Work

- 1. Project Planning:** [Describe and reference which Tasks below it supports.]
- 2. Financial:** [Provide required documentation to support materials and services provided, to justify invoices submitted to MDBC in the provided format.]
- 3. Services and Materials:** On a comprehensive basis, Contractor, acting itself, and through its permitted subcontractors and assignees, shall provide the Company with all Services and Materials relating to: [Describe services to be provided.]

\_\_\_\_\_, as set forth in the attached [Contractor proposal to the Company dated \_\_\_\_\_, 202\_, (“Contractor Proposal”)] [Scope or Statement of Work portion of the Company Request for Proposals dated \_\_\_\_\_, 202\_, (“RFP”)], which is hereby made a part of this Attachment A Statement of Work. [The attached Maryland Broadband Cooperative Construction Standards and Specifications and Material Specifications (“Specifications”) are also made a part of this Attachment A Statement of Work.]

In the event of any inconsistency between provisions of the [Contractor Proposal] [RFP] and this Attachment A or the Agreement, the inconsistency shall be resolved by giving precedence in the following order: (i) the Agreement; (ii) this Attachment A[, including the Specifications]; (iii) the [Contractor Proposal] [RFP].

- 4. Key Personnel:** [If applicable, list any Key Personnel assigned to work on this Agreement.]
- 5. Deliverables:** [Describe final deliverables.]
- 6. Schedule** [Insert schedule here, or otherwise either (1) attach the schedule document and reference it here as being made a part of this Attachment A Statement of Work, or (2) if the schedule is part of the attached Contractor Proposal or the attached RFP, then make reference to it here.]

### B. REPORTS

[List any reports and due dates if reports are required either as part of performance or as a government requirement.]



**The Maryland Broadband Cooperative  
Fiber Optic Network**

**CONSTRUCTION  
STANDARDS AND SPECIFICATIONS  
AND  
MATERIAL SPECIFICATIONS**

# **ENGINEERING AND CONSTRUCTION STANDARDS AND SPECIFICATIONS**

## **1. GENERAL ENGINEERING GUIDELINES**

- 1.1 The Contractor will be responsible for developing all drawings and general notes necessary to facilitate the acquisition of permits, including scaled plan and profile data, if required (“Contract Drawings”). The scale, size, and format of drawings, based on the requirements of the permitting agency, will be noted on both the permit and Contract Drawings.
- 1.2 The Contractor will be responsible for developing a set of project typical drawings and project specifications for review by Company (“Project Specifications”). The Company shall have ten (10) business days to review and comment on the Project Specifications. The Contractor will then incorporate any Company comments into the Project Specifications and shall utilize these for development of all Contract Drawings.
- 1.3 Any drawings and details required for permitting approval will be included in the engineering design effort (e.g., bridge details, isometric views, construction details, make-ready drawings, etc.).
- 1.4 Engineering design should provide for the development of the most economically feasible and efficiently constructed route (provided however, that public safety and worker safety considerations shall not be compromised) and should include the following criteria: safety and security of the cable facility, maintenance and restoration considerations, workman safety, and public welfare and safety.
- 1.5 Maintenance access and facility security concerns shall be noted for all construction methods including underground and aerial applications.
- 1.6 The transmission quality and characteristics of the fiber optic cable are degraded if the cable is subjected to excessive pulling tensions or excessively short bending radii. All engineering designs should be made in a manner to avoid such circumstances.
- 1.7 The number of fusion splices in any section will be controlled to reduce transmission loss.

## **2. CONTRACT DRAWINGS**

- 2.1 Contractor shall prepare Contract Drawings that meet the Project Specifications and meet the requirements of the permitting authority.
- 2.2 Drawings shall be oriented to read from left to right. Offsets shall be shown from the curb as reference. Stationing and offsets shall be shown

at running line deviations, points of intersection, permanent landmarks, and target buildings. There shall be a minimum of two offsets and station marks on each page.

- 2.3 All handholes and manholes shall be planned as to not be in intersections and/or high traffic areas.
- 2.4 The Contract Drawings shall show all planned slack loop locations and ground rod locations. Drawings shall have a scale that meets the requirements of the permitting agency(ies). Drawings shall be supplied to the Company in AutoCad 2000 format on CD and generated on 11x17 paper, unless directed differently by the permitting authority.
- 2.5 Aerial drawings shall include planned slack loop locations, planned splice case locations, down guys, pole to pole guys, anchors, arms, risers, and lateral cables. Aerial drawings shall also include offsets and stationing as described above.

### **3. PERMITS**

- 3.1 The Contractor will work closely with Company to determine the necessary rights-of-way ("ROW") and permits and develop a permit tracking form.
- 3.2 The Project Manager for the Contractor will be required to meet with each agency, along with representatives from Company, and collect the necessary information from the agencies for design and permit submittal. These meetings will commence no later than two (2) weeks after the "Notice to Proceed" is given to the Contractor.

### **4. PERMIT TRACKING FORM**

- 4.1 The permit tracking form ("Permit Tracking Form") is a listing and status of all required permits and agreements associated with the Network. The Permit Tracking Form is an essential document utilized in planning and scheduling activity.
- 4.2 The Permit Tracking Form is prepared by the Contractor based upon initial contacts with agencies, landowners, and jurisdictions. The Permit Tracking Form is continuously updated by the Contractor as permitting progresses and shall be made available for review by the Company.

### **5. REDLINE DRAWINGS**

- 5.1 Contractor shall provide "As-Built" drawings in AutoCad 2000 format, as well as 11x17 paper copies, to the Company. Contractor shall update actual construction progress on redline drawings during construction. Such drawings shall be available to the Company for review throughout performance of the Services.

## **6.1 CONSTRUCTION SPECIFICATIONS**

6.1.1 All Materials and equipment shall be applied, installed, connected, erected, utilized, cleaned and conditioned in accordance with the instructions of the applicable manufacturer, fabricator or processor, except as otherwise provided in the Contract Documents. All conduits and cable shall be plugged or capped during the construction process and upon completion to prevent any intrusion of silt, water, or foreign substances into the Network. Contractor shall abide by the following acceptable practices to complete the installation:

## **6.2 DIRECT BURIED FIBER OPTIC CABLE**

6.2.1 The Contractor's Project Manager or his/her designee shall carefully inspect cable and all other Materials during and prior to installation to be certain that it is free from defects or damage.

6.2.2 Bends of small radii and twists that might damage cable shall be avoided. During the installation, cable shall not be bent in a radius less than 20 times the outside diameter of the cable or as specified by the cable manufacturer.

6.2.3 Care is to be exercised during the plowing operation, to insure that the cable is fed either manually or by capstan into the ground through the plow loose and without tension.

6.2.4 All open cable ends, either placed or remaining on a cable reel, shall have a cable cap placed on them.

## **7. PLOWING**

7.1 Plowing innerduct includes the hauling of inner duct from storage area to work location and any handling required to properly install (via direct burying) the innerduct in the ground to a minimum depth of 48", or in accordance with jurisdictional authorities. This includes coordination with utility owners in locating their facilities prior to the installation of the innerduct.

7.2 The equipment and construction methods used by the Contractor shall be such as to cause minimum displacement of the soil. The slot made in the soil by the cable plows shall be closed immediately by driving a vehicle track or wheel over the slot or by other suitable means.

7.3 Damage to banks, ditches, and roads caused by the equipment shall be immediately repaired and restored to original condition to the satisfaction of the jurisdictional authorities.

- 7.4 The Contractor shall promptly repair any damage to fences, lawns, shrubbery, drives, and any other property damaged during construction to original condition.

After installation, the fiber optic cable shall be tested for sheath faults to ground by the Contractor.

- 7.5 The start pits, finish pits, and pits at points of intersections will be excavated in advance of plowing. Utility crossings will be exposed prior to start of plowing operations. The Contractor will exercise care in the use of trenching equipment and shovels in joining slots and/or trenches to other slots/trenches to be certain that the cable is not damaged.

## **8. GRASS/SOD TRENCH INSTALLATION**

- 8.1 Contractor shall excavate as required (i.e. machine trench, backhoe, hand dig, etc.) to install ducts as indicated in the Contract Drawings and typicals to allow a minimum of forty-two inches (42") of cover to top of conduit below finished grade, or as specified on the Contract Drawings and/or permits. The installation shall be complete with removal and disposal of excavated materials or materials not suitable for backfill and the installation of the conduit.
- 8.2 Restoration shall include the placement of select fill or clean backfill properly compacted. Clean backfill is defined as existing native soil containing material that is free of debris. Restoration may also include shoring, bracing, road bore connections, and all other operations necessary to complete the installation.
- 8.3 Trenches shall be kept as straight as practical. The bottom of the trench shall be smooth and free from any sharp edges. The trench shall be kept clear of debris and loose rock. All changes in trench grade shall be less than one foot (1') per ten feet (10').
- 8.4 In applications where HDPE ducts are installed, Contractor shall install the ducts to prevent excessive waving of the ducts within the trench. Contractor shall tension the ducts to prevent waving in the trench prior to backfilling. Conduits shall be installed in such a manner as to keep conduit configuration consistent. Conduits shall be bound along the trench line every ten feet (10') to maintain this configuration and minimize spiraling.
- 8.5 Warning tape shall be installed twelve inches (12") below existing grade.
- 8.6 Contractor shall be responsible to ensure tie ins and duct couplings are made to ensure elevations remain as straight as possible and that the duct and conduit joints provide an airtight seal. Contractor shall furnish duct couplers to achieve this requirement.



- 8.7 All trench sections must be closed at the end of each working day. Contractor shall restore the surface conditions to original or better conditions or as required by the jurisdictional authorities.
- 8.8 If Company elects to use a dielectric cable, Contractor shall furnish and install 14 gauge insulated locate wire within all trench line excavations leading into access points. Locate wire shall be installed as described and as shown on the typical details. Where a metallic sheath is present in the cable no locate wire is necessary.
- 8.9 Contractor shall notify Company of areas where minimum cover requirements cannot be met. Contractor shall ensure that locations with minimum cover are protected by such means as to cover conduit with ¼" steel plates, concrete slurry, or both. This material and installation cost shall be borne by Contractor.

## **9. PAVEMENT TRENCH INSTALLATION**

- 9.1 Contractor shall excavate as necessary to install ducts as specified on the construction typicals or as specified on the Contract Drawings and typicals. The installation shall be completed by saw cutting the roadway surfaces, removing and disposing of excavated pavement and excess excavated material and installing the conduit.
- 9.2 Restoration shall include the placement of select fill or clean backfill compacted in eight-inch (8") lifts. Clean backfill is defined as existing native soil containing material that is free of debris and contains no cobbles. Restoration may also include shoring, bracing, road bore connections, and all other operations necessary to complete the installation.
- 9.3 Temporary pavement restoration shall be required when vehicular traffic shall be present prior to final pavement restoration. Final pavement restoration shall be governed by the jurisdictional authorities. Final asphalt restoration shall typically include roto-milling to remove existing asphalt six inches (6") on each side of the trench. Final concrete restoration shall typically include replacing the concrete to match the existing roadway cross-section.
- 9.4 Trenches shall be kept as straight as practical. The bottom of the trench shall be smooth and free from any sharp edges. The trench shall be kept clear of debris and loose rock. All changes in trench grade shall be less than one foot (1') per ten feet (10'). Conduits shall be placed in the excavation as straight as practical.
- 9.5 In applications where HDPE ducts are installed, Contractor shall install the ducts to prevent excessive waving of the ducts within the trench. Contractor shall tension the ducts to prevent waving in the trench prior to backfilling. Conduits shall be installed in such a manner as to keep conduit configuration consistent. Conduits shall be bound along the

trench line every ten feet (10') to maintain this configuration and minimize spiraling.

- 9.6 Warning tape shall be installed twelve inches (12") below existing grade.
- 9.7 Contractor shall be responsible to ensure tie ins and duct couplings are made to ensure elevations remain straight as possible and that the duct and conduit joints provide an airtight seal. Contractor shall furnish duct couplers to achieve this requirement.
- 9.8 Driveways, lanes, or roadways when required to be open cut, shall be opened just prior to the conduit placing. In no case shall the driveway, lane, or roadway be left impassable at the end of each workday. The general public safety is paramount and appropriate steps shall be taken by the Contractor to ensure safety at all times. Where a drive or roadway must be left open for traffic, Contractor must provide the material and method required to allow for movement of traffic.
- 9.9 Trenches shall be promptly backfilled with select material and placed so that final grade is restored to original grade to ensure no hazard to vehicular, animal or pedestrian traffic. No trenches shall be left open overnight. Upon approval all open trenches shall be properly guarded or barricaded to prevent damage or injury.
- 9.10 In areas inaccessible to tamping type rollers where compaction is required, a mechanical tamper of a size suitable for the work involved shall be used. Pneumatic tampers shall be operated at pressures no less than those recommended by the manufacturer.
- 9.11 If Company elects to use a dielectric cable, Contractor shall furnish and install 14 gauge insulated locate wire within all trench line excavations leading into access points. Locate wire shall be installed as described and as shown on the typical details. Where a metallic sheath is present in the cable no locate wire is necessary.
- 9.12 Contractor shall notify Company of areas where minimum cover requirements cannot be met. Contractor shall ensure that locations with minimum cover are protected by such means as to cover conduit with ¼" steel plates, concrete slurry, or both. This material and installation cost shall be borne by Contractor.

## **10. BORE INSTALLATION**

- 10.1 Boring shall be completed with the excavation of bore launching and receiving pits, any required shoring, any required rock removal, and the installation of the conduit at a depth no less than forty-two inches (42") of cover. Bore installation shall include pushing, boring, or simultaneously boring and pushing casing pipes and duct under roads, exit ramps, railroad tracks, driveways, sidewalks, trees, environmentally sensitive areas and other features indicated on the Contract Drawings or as

directed by jurisdictional authorities. Acceptable methods of boring include jack boring, dry auger boring, and directional boring.

- 10.2 Duct shall be installed in locations as shown on the Contract Drawings. Contractor shall plan all bores as to not exceed fifteen degrees (15°) of bends in the duct. Bore pits shall be placed to conform to regulations mandated by the jurisdictional authorities as necessary.
- 10.3 Before boring, Contractor shall check all obstructions and clearances. All existing utilities and facilities shall be located and remain open until the bore has been completed.
- 10.4 No bore pits or potholes shall be left open overnight. Upon approval, all open bore pits or potholes shall be properly guarded or barricaded to prevent damage or injury.
- 10.5 Contractors' bore operator and navigator shall maintain communication at all times. When visual obstruction or distance precludes un-aided verbal communication, the operator and navigator shall utilize radio communication devices. An additional third person that has a clear view of the entire operation shall be used, wherever practical without creating an additional safety hazard.
- 10.6 The boring operator shall have full control of the direction of the boring tool at all times. Shallow, misdirected, unsuccessful bores and voids shall be abandoned and completely at Contractor's expense. Under no circumstances shall the Contractor be allowed to cut or disturb pavement or asphalt, or excavate within the relative limits of any roadway surface to retrieve any lost boring apparatus.
- 10.7 All ends of bore casing shall be sealed using non-shrink grout. All conduits shall be capped, sealed watertight and shall be well marked to accommodate locating. All bore pits shall be dewatered.
- 10.8 Restoration shall include the placement of select fill or clean backfill compacted in eight-inch (8") lifts. Clean backfill is defined as existing native soil containing material that is free of debris and contains no cobbles. Restoration may also include shoring, bracing, road bore connections, and all other operations necessary to complete the installation. Surfaces shall be restored to original or better condition or as mandated by the jurisdictional authorities.
- 10.9 Contractor is to use proper dewatering and containment methods for removal and disposal of bore water and any and all additives for wall stabilization.
- 10.10 Setup of directional boring equipment must be made in a manner to minimize damage to the surrounding area. Emphasis shall be placed on setup locations to ensure that the equipment, debris, and/or bore water

overflow do not encroach onto private property or public drainage systems. Contractor shall be responsible for disposing of all waste.

- 10.11 All directional boring equipment shall have electrical protective devices to protect the operators from electrical shock. Company requires that these devices not be circumvented in any way and that all protective safety equipment is worn or used by all required individuals. Anyone not wearing or using protective equipment shall not approach or touch the directional drilling equipment.
- 10.12 No items attached to the backside of the reamer shall be allowed without the use of a free-moving swivel to eliminate the rotation of trailing stem. When adding additional stem or attachments where the addition/attachment is not within sight of the bore machine operator, all power providing any movement to stems shall be disengaged and the stems at the boring rig shall be locked down. Power shall only be reinstated after the item being attached to the stem is securely connected and all personnel are clear of moving components.
- 10.13 Contractor shall be responsible ensure tie ins and duct couplings are made to ensure elevations remain straight as possible and that the duct and conduit couplers provide an airtight seal.
- 10.14 If Company elects to use a dielectric cable, Contractor shall furnish and install 14 gauge insulated locate wire within all trench line excavations leading into access points. Locate wire shall be installed as described and as shown on the typical details. Where a metallic sheath is present in the cable no locate wire is necessary.

## **11. BRIDGE & TUNNEL ATTACHMENT INSTALLATION**

- 11.1 Contractor shall furnish and install hangers and hardware for the attachment of the duct or conduit to bridges and tunnel walls. Hangers and hardware shall be as shown on the Contract Drawings. All hardware shall be hot dipped galvanized after manufacture.
- 11.2 Conduit used for bridge and tunnel attachments shall be bullet resistant FRE or GRS pipe. Conduit shall be supported at intervals shown on the Contract Drawings while not exceeding ten feet (10') separation between hangers. At no time shall Contractor install the conduit or hardware to be the lowest point on the bridge.
- 11.3 Contractor shall furnish and install expansion joints at all structure joints. At no time shall spacing of expansion joints exceed one hundred linear feet (100') of duct.
- 11.4 All nuts shall be tightened with a torque wrench to the appropriate pressure. Contractor shall double nut all hanger bolts. All nuts shall be placed with "Locktite" or an approved equal locking compound.

- 11.5 Installation and materials shall be in accordance with the jurisdictional authorities. Contractor shall perform the Services in such a manner to avoid disrupting vehicular or pedestrian traffic unless approved by the jurisdictional authorities.
- 11.6 Contractor shall install pullboxes as shown on the Contract Drawings. Pullboxes shall be independently supported so as to not rely on the conduit for support.
- 11.7 When necessary, Contractor shall perform cores of the bridge abutment walls or tunnel walls. Cores shall be performed as specified in Section 16, Coring. Contractor shall be sure to sweep the conduit gradually for all transitions to buried conduits. Steel conduit shall be maintained until the desired depth is achieved for the transition.
- 11.8 Conduit bends shall be no less than 36" radius. Prefabricated bends shall not be altered without Company approval.

**12. RODDING, ROPING, AND INNERDUCT INSTALLATION IN EXISTING DUCT**

- 12.1 Contractor shall determine the integrity of existing sections of conduit prior to installation of any pull line.
- 12.2 Contractor shall use a variable length rodder to physically "rod" the existing innerduct. This activity will determine whether or not the conduit run is continuous or whether collapsed or damaged conduits exist. Should damaged conduit be found, Contractor shall notify the Company.
- 12.3 Once a determination has been made that the conduit run is successful, Contractor shall "rope" the existing conduit run with a pull line or mule tape.
- 12.4 Proofed and/or verified conduits shall have innerducts placed within them as directed by Company. Contractor shall use swivels any time innerduct is being installed to prevent twisting of the duct.
- 12.5 Contractor shall apply lubricant as required during the innerduct installation process.
- 12.6 Contractor shall provide enough manpower to sufficiently manage and supervise all installations.
- 12.7 Contractor shall ensure breakaway tension of the winch is within the specifications of the innerduct manufacturer.
- 12.8 Each innerduct shall have a pull line or other pull rope installed.
- 12.9 Contractor shall furnish and install a blank duct plug to each innerduct, making sure to tie-off all pull lines.

- 12.10 Contractor shall use caution through the entire rodding, roping and innerduct installation process to avoid damaging any existing conduits, innerducts, cables, or other previously existing plant.
- 12.11 Contractor shall prepare, and furnish to Company, butterfly drawings of manhole system showing Company duct and overall layout of ducts in the manhole.

### **13. MANHOLE INSTALLATION**

- 13.1 The Contractor shall install manholes at locations as shown on the Contract Drawings and as approved by Company. The Contractor shall install manholes to the specifications as depicted on the typical drawings and any applicable jurisdictional authorities' specifications.
- 13.2 Contractor shall place the manholes on a minimum eight-inch (8") thick bed. Bed material shall consist of clean three quarter inch (3/4") crushed stone placed on filter fabric. For open bottom manholes, Contractor shall place a rodent-proof mesh on top of the gravel bedding. The ducts shall enter and leave manholes exactly opposite each other. Frames and covers shall be installed to match existing grade unless otherwise noted and shall be shimmed with either steel or concrete spacers.
- 13.3 Contractor shall not use material less than five thousand pounds per square inch (5,000 psi) in density to shim frames and covers or as necessary to maintain the load rating on the manholes.
- 13.4 The manholes shall not be installed on steep banks or slopes where the cover cannot be leveled within a tolerance of one-inch (1") of drop to twelve inches (12") of grade.
- 13.5 All manhole penetrations shall be sealed with a non-shrink grout. All conduit and duct ends shall be sealed with Contractor supplied duct plugs/caps. Large diameter ducts shall be trimmed neatly inside the manhole. For PVC conduit installation, conduits shall be flush to the interior manhole wall. During installation of HDPE conduits, conduits shall extend 12" into the manhole.
- 13.6 Contractor shall install racks, hooks, and apurtences on manholes as per the manufacturer's recommendations.

### **14. HANDHOLE INSTALLATION**

- 14.1 Contractor shall install handholes at locations as shown on the drawings and as approved by Company. The Contractor shall install handholes to the specifications as depicted on the typical drawings and any applicable jurisdictional authorities' specifications.

- 14.2 Contractor shall place the handholes as per the typical drawings. Contractor shall place a rodent-proof mesh on top of the gravel bedding. The ducts shall enter and leave handholes exactly opposite each other.
- 14.3 Handholes shall be placed so that the top sits flush with the existing grade unless otherwise noted.
- 14.4 The handholes shall not be installed on steep banks or slopes where the cover cannot be leveled within a tolerance of one-inch (1") of drop to twelve inches (12") of grade.
- 14.5 All conduit and duct ends shall be sealed with Contractor supplied duct plugs/caps. Large diameter ducts shall be trimmed neatly inside the manhole. For PVC conduit installation, conduits shall be flush to the interior manhole wall. During installation of HDPE conduits, conduits shall extend 12" into the manhole.

## **15. ROUTE MARKERS**

- 15.1 Contractor shall install cable route warning signs along the route to allow for route protection and maintenance. Contractor shall exercise special caution to locate the cable route markers and cable location signs to avoid interference with the warning tape, conduit, and any other existing facilities.

## **16. CORING**

- 16.1 Contractor shall perform all cores into abutments, tunnel walls, manholes, handholes, and vaults by utilizing a core drill with a core type bit. Contractor shall drill a pilot hole prior to performing the core to verify the core's location. Contractor shall core a hole that is not more than one half inch (1/2") greater than the outside diameter of the conduit that is being placed through the core. Contractor shall seal the core utilizing a non-shrink grout. In addition, Contractor shall adhere to the specifications imposed by the owner of the facility being cored into.
- 16.2 Contractor shall perform all cores into buildings by utilizing a core drill with a core type bit. Contractor shall drill a pilot hole prior to performing the core to verify the core's location. Contractor shall core a hole that is not more than two inches (2") greater than the outside diameter of the conduit that is being placed through the core. Contractor shall furnish and install a link seal on both ends of the core and tighten in a criss-cross fashion. In addition, Contractor shall adhere to the specifications imposed by the owner of the facility being cored into.
- 16.3 Contractor shall stub out conduit according to the NESC.
- 16.4 All clean up is the responsibility of the Contractor.

## **17. UNDERGROUND FIBER OPTIC CABLE INSTALLATION**

- 17.1 Contractor shall install fiber optic cable in the conduit system as specified in the Contract Drawings, and in accordance with the manufacturer's recommendations.
- 17.2 Each reel of fiber optic cable will be tested at the factory. The Contractor may at its discretion, reel test the fiber cable prior to installation. Contractor assumes responsibility of the fiber cable until Acceptance of Services and Materials by Company.
- 17.3 Contractor shall maintain comprehensible two-way radio communication among crew members at all times during fiber optic cable installation.
- 17.4 Company is providing Contractor the option to blow, jet, or pull the fiber optic cable for installation. Should Contractor choose to install the cable by pulling, Contractor shall be responsible for furnishing and installing pull rope.
- 17.5 Contractor shall, to the best of its ability, install the fiber optic cable in the most consistent manner throughout the duct system. This shall include, but is not limited to, installation within the same color or location of duct.
- 17.6 Contractor is responsible for the protection of fiber optic cable until Acceptance of Services and Materials by Company of the installed, spliced and tested cable from Contractor. This includes, but is not limited to, storage of the cable prior to installation, overnight protection because the entire cable was not installed prior to stopping work for the day, and during transportation to the jobsite.
- 17.7 Contractor shall leave slack coils as shown on the Contract Drawings. Cable slack coils shall have a radius no smaller than ten (10) times the outside diameter of the cable unless more stringent guidelines are recommended by the manufacturer. Contractor shall leave seventy-five feet (75') of cable slack coiled in handholes and manholes that will be utilized for splicing as shown on the Contract Drawings. In all other handholes and manholes, Contractor shall leave slack as noted on Contract Drawings and as needed for on-going operations and maintenance of the Network. All cable slack shall be neatly coiled and secured with black electrical tape.
- 17.8 Contractor shall rack all slack coils to the existing handhole or manhole racking. Cable shall be identified in each manhole/handhole utilizing cable tags. Contractor shall label all cable tags with a permanent marker. Labels shall include the count of fiber and any requested Company information.
- 17.9 Contractor shall avoid bends of small radii and twists that may damage the fiber optic cable. During installation, Contractor shall not bend cable in a radius less than twenty (20) times the outside diameter of the cable.



Contractor shall utilize pulleys, sheaves, radius wheels, or other devices to meet this requirement.

- 17.10 Contractor shall not pull the cable with more than six hundred (600) pounds of dynamic tension and shall use a breakaway swivel. Contractor shall use safeguards such as adjustable slip clutch capstan winches or pulling dynamometers. Contractor shall be responsible for proving that all safeguards have been calibrated and demonstrate their functionality.
- 17.11 Contractor shall install the cable into the conduit system without splices in the fiber optic cable except where noted on the Contract Drawings.
- 17.12 Contractor shall dispose of all reels in an appropriate manner. Contractor shall also supply sufficient maintenance cable for restoration of the Network. Contractor shall properly dispose of any cable determined to be "unusable".
- 17.13 Contractor shall redline drawings to produce and submit to Company as-built drawings of the installed fiber optic cable.
- 17.14 Red line drawings shall be completed by Contractor. Red line drawings shall include:
  - 17.14.1 At **EVERY** manhole and handhole, verification of the occupied duct (e.g. Orange duct entering, Blue duct leaving).
  - 17.14.2 At **EVERY** manhole and handhole, Contractor must write down sequential footage markings at the manhole or handhole entry point for each cable. There should be two separate footages at each location with the footage recorded being correctly labeled as to its direction and location (i.e. 5005' – North cable at Manhole POE; 3001' – South cable at Manhole POE).
  - 17.14.3 At **EACH** splice manhole and handhole, Contractor must write down sequential footage markings at the manhole or handhole entry point and at the butt of the splice enclosure for each cable. There should be four separate footages at each butt splice location with each footage recorded being correctly labeled as to its direction and location (i.e. 5005' – North cable at Manhole POE; 5055' – North cable at entrance of splice enclosure; 3001' – South cable at Manhole POE; 2051 – South cable at entrance of splice enclosure).

## 18. AERIAL FIBER OPTIC CABLE INSTALLATION

- 18.1 Contractor shall install fiber optic cable as specified on the Contract Drawings. Contractor shall install fiber optic cable in accordance with the manufacturer's recommendations. Installation shall be performed in accordance with all jurisdictional authorities.

- 18.2 Each reel of fiber optic cable will be tested at the factory. The Contractor may, at its discretion, reel test the fiber cable prior to installation. Contractor assumes responsibility of the fiber cable until Acceptance of Services and Materials by Company.
- 18.3 All strand and fiber cable, down guys, pole-to-pole guys, anchors, arms, risers, lateral cables, etc. shall be installed as shown on the Contract Drawings. Not shown, but included, are bonds to other communication strands (not power communication) at first, last, and every tenth pole, fiber tags at every pole, tree trims, and pole stepping as required.
- 18.4 There shall be strand continuity throughout the system. Strand to strand bonds shall be accomplished using a separate bond clamp and #10 copper bond, (i.e. double framed poles).
- 18.5 Anchors and guy wires shall always be installed and tensioned prior to sagging.
- 18.6 Guy strand size shall be the same as the supporting strand when the guy has a lead over height ratio of 1/2 or better. 10M strand shall be utilized for sidewalk anchors and at locations where the lead over height ratio is less than 1/2.
- 18.7 Guys shall be attached to standard pole line hardware and anchor rods using a perform dead end, two-bolt clamp for 6.6M strand, three-bolt clamp for 10M strand or strand vice, or as otherwise approved by Company.
- 18.8 Where authorized by the local utility companies, an auxiliary eye attachment may be used to attach a guy to an existing anchor rod.
- 18.9 Anchor rods shall not protrude more than twelve (12) inches above ground level. Where authorized by the governing pole owner(s), strain insulators shall be installed on all down and pole-to-pole guys.
- 18.10 Guy guards (shields) shall be utilized on all down guys.
- 18.11 At junction poles and dead end poles, all strands will be bonded or grounded.
- 18.12 Metal, wood or fiberglass standoff may be used to clear obstructions if approved by the local utilities.
- 18.13 Fiber optic cable shall be smoothly installed using single lashing to strand except at railroad crossings, river/stream crossings, roadways and commercial driveways, these crossings shall be double lashed. Loose lashing or excessive twisting or weaving of cable around messenger shall be cause for rejection.

- 18.14 Cable shall not be pulled with more than 600 lbs. of dynamic tension. Safeguards, such as break-away swivels, adjustable slip-clutch capstan winches, or pulling dynamometers shall be used.
- 18.15 Cable rollers shall be placed as necessary to protect the cable and property and to assure proper clearance over driveways and streets.
- 18.16 Cable shall be lashed to a supporting strand using a 0.045" stainless steel lashing wire maintaining an average of 2,400 feet of lashing wire per 1,000 feet of strand.
- 18.17 Bends of small radii and twists that may damage the fiber optic cable shall be avoided. During cable placement, cable shall not be bent in a radius less than twenty (20) times the outside diameter of the cable or as specified by the manufacturer. Pulleys, sheaves or radius wheels shall be used to meet this requirement.
- 18.18 Cable shall not be pulled at greater than 180 degrees of cable bend per pull.
- 18.19 Lashing wire shall be terminated with a lashing wire clamp on each side of every pole. The lashing wire shall be wrapped two times around the strand before terminating in the lashing wire clamp. The lashing wire shall be placed between the two washers and shall be wrapped no more than 1/2 turn. The lashing wire must not cross itself under the washers. When the lashing wire is securely fixed, the end of the lashing wire shall not be exposed. When double lashing, do not place both lashing wires under the same washer.
- 18.20 At each pole the cable and strand shall be separated by cable support and spacers. A minimum of two (2) straps and spacers shall be used.
- 18.21 For each reel of fiber optic cable placed, the location of slack loops shall be determined by the Specifications and in accordance with jurisdictional authority or pole owners. Each reel will be utilized completely for each section. The length of slack loops shall be 100 linear feet or as specified by the pole owners. Slack loops shall be located as far from the pole as possible (with a minimum of 4 linear feet) and installed as shown in the Contract Drawings. Slack coils shall not be placed on the pole. Contractor shall not coil the cable on the pole, nor exceed the recommended bend radii in the slack loop.
- 18.22 Fiber warning tags will be placed at each pole. Contractor shall label all cable tags with a permanent marker. Labels shall include the count of fiber and any requested Company information.
- 18.23 Contractor shall redline drawings to produce and submit to Company as-built drawings of the installed fiber optic cable, which shall include:

- 18.23.1 At **EVERY** pole, the reel number(s) and sequential numbers at the pole.
- 18.23.2 At **EACH** slack loop, the sequential number entering and leaving the slack loop.
- 18.23.3 At **EACH** splice location, the sequential numbers entering and exiting the splice enclosure.

## **19. SHELTER INSTALLATION**

- 19.1 Contractor shall furnish and install shelters as set forth in the Contract Documents. The concrete pads for the shelters shall be sized equal to the shelters and be monolithic pours.
- 19.2 Crusher run driveways shall be installed and shall not exceed 12' wide and 24' long.
- 19.3 A one hundred Amp electric service will be installed to all shelter locations. Contractor is not responsible for costs charged by electric companies for this installation. Contractor will install the panel, conduit from the shelter to the meter channel, meter channel and pressure treated housing to mount the meter channel.
- 19.4 Contractor will assist the Company in the negotiation of a lease or ROW for the location of each shelter.
- 19.5 Contractor will install a serving handhole and two conduits within the same trench into the shelter.
- 19.6 Contractor will install ground rods to ground the shelter to maximum resistance of 25 ohms.

## **20. GROUNDING AND BONDING**

- 20.1 Contractor shall perform bonding and grounding of all armored cables as depicted in the typical drawings. All bonding and grounding shall be performed in accordance with the splice case manufacturer's specifications.
- 20.2 All bonds shall be clean and free of debris and sealed within the splice closure.
- 20.3 Ground rods shall be placed at all splice locations. The ground rod furnished by Contractor shall be five-eighths inch (5/8" diameter and eight feet (8') long copper clad and installed to leave eight inches (8") exposed inside the manhole or handhole. Contractor shall install a #6 AWG

jacketed solid copper wire from the ground rod to the splice closure attached via mechanical clamps.

## **21. FIBER OPTIC SPLICING**

- 21.1 Splicing of fiber optic cable shall only occur at locations approved by Company or as indicated on splice assignment sheets.
- 21.2 Contractor shall splice all fibers in accordance with and as designated in the splice assignment sheets approved by Company. Contractor shall splice the fiber optic cable in accordance with the manufacturer's recommendations.
- 21.3 Contractor shall confirm, prior to splicing, that the information indicated by the splice assignment sheets are correct and consistent with what the Contractor actually encounters in the field. If any information is absent or incorrect on the splice drawings, it is the Contractor's responsibility to notify Company and obtain the correct information.
- 21.4 Contractor shall inspect all splicing equipment prior to splicing activities to insure the equipment is in good, clean working condition. Contractor shall calibrate the splicing equipment as recommended by the manufacturer. Company reserves the right to inspect the splicing equipment and to request the Contractor to calibrate and/or clean the equipment upon inspection.
- 21.5 All fibers are to be fusion spliced and organized, placed and secured in the splice enclosure equipment approved by Company. Where applicable, a heat oven shall be used to heat shrink all sleeves. A heat gun that is hand applied shall not be permitted. Care must be exercised to prevent damage to exposed fibers by overheating. The acrylic coating should not be removed beyond the areas that will be covered by the heat shrink sleeves.
- 21.6 If a fiber/ribbon must be cut as part of the Services, Contractor shall check the fiber(s) with a fiber traffic identifier to confirm that the fibers do not have live traffic. Contractor shall not cut any fiber(s) without authorization by Company. If splicing on or around active fibers is required, Contractor shall exercise special care and precautions. Additionally, Contractor shall have all necessary materials to make temporary and permanent repairs to any active fibers that may be damaged during the course of the Services.
- 21.7 All splicing shall be monitored by use of the splicing equipment's integrated local injection and detection or profile alignment system or separately by uni-directional testing with an OTDR. Although there are no requirements for individual splice loss, the overall span loss must meet the end-to-end loss requirements described in "Fiber Test Acceptance". Any re-splicing done at this time, before the splice case is closed and mounted, does not constitute an "attempt" as will be discussed further in

this document. An “attempt” can only be determined when a bi-directional loss value is measured for the splice in question via an OTDR as specified.

- 21.8 Splice data shall be recorded during the fusion splicing and shall include time of day, weather conditions including temperature and humidity, equipment used, and all other pertinent splicing information.
- 21.9 Within each splice enclosure, Contractor shall use a label maker to clearly print and identify each tray with the corresponding fibers and/or ribbons contained therein.

## **22. FIBER ACCEPTANCE TESTING**

- 22.1 Contractor shall verify that all fibers have one-to-one continuity on the new cable both at the fiber level and the pigtail level. In addition, Contractor shall visually inspect fiber color and buffer tube color at each end of a span. Contractor shall immediately take action to correct any transposed or “frogged” fiber in the system. Contractor shall perform this testing and make any necessary repairs prior to fiber Acceptance testing.
- 22.2 Contractor shall follow the specifications set forth in “Fiber Optic Splicing”, “OTDR Testing”, and “Power (Insertion) Loss Testing”, for Company’s Acceptance of Services and Materials of the fiber system. This section shall identify the final deliverables Contractor will supply to Company in order to receive Acceptance of Services and Materials of the fiber system.
- 22.3 Contractor shall submit the results from the OTDR and End-to-End Power Meter Testing to Company for review. Contractor shall submit one (1) copy of the test results in an electronic format approved by Company. Company shall review this data and provide the Contractor with a list of deficiencies. Contractor shall then work in an expeditious manner to repair all of the deficiencies.
- 22.4 The bi-directional fiber loss calculations recorded on the *End-to-End Power Meter Test Results* form will be the guideline by which Company will accept or reject the Services and Materials.
- 22.5 In the event that the Contractor cannot meet Company’s allowable end-to-end power meter loss objectives due to excessive splice loss within two (2) additional splice reburn attempts, Contractor shall proceed with splicing according to the following parameters:
  - 22.5.1 Contractor shall notify Company of the situation and provide documentation of all three (3) splice attempts.
  - 22.5.2 Contractor shall cut out approximately two inches (2”) of fiber on each side of the splice and provide it to Company.

22.5.3 Contractor shall attempt a final splice with power optimization to obtain a splice loss of no more than 0.10 dB greater than required.

22.5.4 If Contractor cannot obtain this loss, Contractor shall make one final splice to obtain a splice loss near the original condition. Contractor shall then mark the fiber "Out-of-spec" (OOS).

22.5.5 Contractor shall be responsible for providing test data on Company approved forms.

## **23. OTDR TESTING**

23.1 After all splice points for the fiber optic spans are completed, Contractor shall record measurements of the splice losses with an Optical Time Domain Reflectometer (OTDR). These measurements must be made after the splice cases are closed and permanently racked in manhole/handhole or lashed to strand in order to check for macro-bending problems, unless directed by Company where temporary testing splices are required. Contractor shall follow Company specifications to test the fiber optic cable as well as the specifications of the cable manufacturer and the equipment manufacturer.

23.2 Company has standardized on GN NetWorks Optical Test System Emulation Software for analyzing, reporting and printing OTDR traces. The GN Networks software is able to read GN Nettest T5 format OTDR traces or Bellcore – GR-196 CORE OTDR Data Standard (Issue 1, 9/95) format traces. Company requires the use of OTDRs that are able to produce one of these trace formats for the acceptance testing. OTDRs that are acceptable for testing on include; but not limited to; models CMA 4000/8800 and TD-3000. Operations of these OTDRs shall be in accordance with the manufacturer's specifications.

23.3 Contractor shall note the fiber type and calibrate all testing and splicing equipment as applicable. This shall include, but not be limited to, dispersion, clad, pulse width, range, scan rate, and refractive index. Contractor shall set the machine to match the manufacturer's recommendation for the fiber being tested. Contractor shall use the same calibration for all similar type fibers in both directions within the same fiber optic span under test. Fibers shall be tested with an OTDR at 1310 nm and 1550 nm for Standard Single Mode Fiber.

23.4 Contractor shall test all fibers bi-directionally, after splicing has occurred. If testing from a terminated end, Contractor shall utilize a minimum of a one-kilometer (1 km) launch cord / pulse suppressor. Contractor shall allow enough time during the production of a trace to allow the signal to normalize before recording.

23.5 Contractor shall analyze the results of the OTDR testing to correct deficiencies in the field splices. Company's guidelines for individual and overall fiber optic span splice loss shall be as follows:

Splice Method	Glass Type	Uni-Directional Guideline (+/-)	Power Meter Span Splice Loss Factor (@ 1310nm)	Power Meter Span Splice Loss Factor (@ 1550nm)
Single Fusion	Single Mode	0.20 dB	0.10 dB	0.10 dB
Mass Fusion	Single Mode	0.30 dB	0.15 dB	0.15 dB

23.6 When saving end-to-end signature test OTDR traces for each attempt of each fiber on the optic span, Contractor shall use the Company approved format. Each diskette/CD shall be labeled with the cable type and make, the date the traces were shot, and the name of the person and company operating the OTDR. Contractor shall use the following labeling system to save traces during OTDR testing:

AAABBBWD.nnn where:

- AAA: Location code for the “from” site, provided by Company
- BBB: Location code for the “to” site, provided by Company
- W: The wavelength of the test (8 for 850 nm, 3 for 1310 nm, 5 for 1550 nm)
- D: Direction of the testing on the fiber optic span or Loop ID if direction included in Site Code
- nnn: The fiber number being tested

## 24. POWER (INSERTION) LOSS TESTING

24.1 When working on terminated fibers or as directed by Company, Contractor shall test the fiber optic cable using two (2) self-contained optical power meters. Insertion loss testing shall be performed at 1310 nm and 1550 nm for Standard Single Mode Fiber.

24.2 Contractor shall provide the results from the insertion loss test on Company’s *End-to-End Power Meter Results* form. All information must be filled out on the form including location of “from” and “to” test sites and reference loss at both locations, as well as the Contractor and operator information.

24.3 Contractor shall calculate the net span loss of the fiber under test in the field by subtracting the source reference reading of the equipment from the far end test power meter reading. Contractor shall be responsible to verify that the absolute value of the span loss of any given fiber is within Company’s maximum calculated allowable loss budget. These loss budgets are provided by Company and are calculated using actual recorded loss data of the fiber optic cable plus estimated losses due to splices, IFC pigtailed, and connectors. If a fiber exceeds the budgeted



loss, Contractor shall analyze the OTDR traces to troubleshoot the fiber optic span and immediately correct the deficiencies.

- 24.4 Contractor shall perform the insertion loss test bi-directionally with the average of the loss in the two directions used for Company's fiber system Acceptance of Services and Materials. However, no uni-directional span loss shall exceed 10% of the Maximum Calculated Allowable Budget as specified on the *End-to-End Power Meter Test Results* form.

## **MATERIALS SPECIFICATIONS**

### **1. Fiber Optic Cable**

Ez-Prep Loose Tube Cable – XX Fibers strand single armor

### **2. Shelters**

- Size nominal 8' wide exterior x nominal 12' long exterior x nominal 9'1" high interior, one room concrete shelter
- Standard construction in accordance with product specifications. The structural loads of the proposed concrete shelter are as follows:
  - 200 pounds per square foot distributed floor loading while on foundation
  - 125 pounds per square foot distributed floor loading while lifting
  - 100 pounds per square foot distributed roof load
  - 120 mph wind load
  - Seismic zone 4
- Exposed aggregate exterior
- The proposed shelter walls are capable of stopping 30.06 rifle fire per UL752 requirements. Unless otherwise specified, the shelter door is not bullet resistant.
- The proposed shelter walls will provide a two hour fire rating
- The walls and ceiling will be insulated with hardboard insulation, total wall is R-11
- The interior walls and ceiling will be sheathed with ½" white nupoly board
- Light colored industrial grade vinyl tile floor covering
- One (1) 42" wide x 84" high insulated steel exterior door, with stainless steel ball-bearing tamper-proof hinges, passage style lever handle, deadbolt lockset and fiberglass weather hood
- One (1) hydraulic door closer

### **3. Power Distribution**

- One (1) 200 Amp, 10,000 AIC, 120/240 VAC, single phase, 60 Hz, 30 space main breaker, snap-in utility power distribution panel, in a NEMA 1 surface mount enclosure
- Circuit breakers for all installed equipment and customer loads as specified

- One (1) 200 Amp, 240 Volt, fused, double pole, single throw safety switch
- Four (4) 20 Amp specification grade duplex receptacles
- One (1) 20 Amp specification grade exterior duplex receptacle on a ground fault interrupter circuit

#### **4. Lighting**

- Three (3) 80 Watt surface mounted fluorescent light fixtures with rfi noise suppression filters
- One (1) exterior door light with vandal resistant lens

#### **5. HVAC**

- Two (2) nominal 24,000 Btu/hr wall mount air conditioning units, with low ambient and compressor anti cycle controls, integral 5 kW resistance heat strips and washable dust filters
- Redundant lead/lag controls allowing approximately equal operating time on each air conditioning unit

#### **6. Alarm Device Contacts**

- The following alarm device contacts will be wired and brought to a location specified by the customer. The alarm wires will be coiled and tagged for identification per industry standards.
- There are no provisions for audible, visual or remote alarm monitoring offered, except where it is integral to the device offered or stated otherwise in this proposal
  - One (1) line voltage smoke detector
  - One (1) intrusion alarm switch with form "C" contacts rated .1 Amps at 28 Vdc
  - One (1) high temperature alarm, which will consist of single pole double throw dry contacts. Adjustment range is 30 - 110° F
  - One (1) low temperature alarm, which will consist of single pole double throw dry contacts Adjustment range is 30 - 110° F

#### **7. Grounding**

- Provisions for the connection of a grounding electrode conductor at the shelter service equipment

- One "halo" ground system consisting of a 2 AWG stranded green insulated copper halo, approximately 6 inches below the ceiling, with vertical 2 AWG bare/tinned copper drops through the floor at each corner. A length of wire is coiled at each drop to allow attachment to an exterior ring ground system by others
- One (1) ¼" x 4 " x 24 " isolated copper ground plate

## 8. Generator Set

A standby generator power system with features as described below:

- Quantity: 1
- Type: Standby rated
- Fuel Type: Propane
- Manufacturer: Generac
- Model: SD20
- Output kW: 20
- Power factor: 1
- Phase: Single
- Voltage: 120/240
- Frequency: 60 Hz
- Governor: Electronic
- Enclosure: weatherproof
- Fuel tank type: subbase double wall
- Fuel piping: included
- Engine coolant heater: Volt:110
- Oil & Antifreeze: Included
- Battery and battery rack: included
- Battery voltage: 12Vdc
- Battery cables: Included
- Muffler Type: Critical
- Flexible exhaust section: Included

## 9. Control & Monitoring

- Meter package: hour, frequency, Voltage, ammeter
- Alarm contacts:
- Dry contacts:
- Remote annunciator: none

## 10. HDPE/Duct and Innerduct

High Density Polyethylene (HDPE) smooth or ribbed wall SDR 11 coilable 1.25" OD conduit.

## 11. Handholes

30"x48"x30" Polymer Concrete Box and Cover Assembly with a 20k load-rating lid.

- 12. Handhole Lock Assembly for use on NAWCAD Patuxent River (PAX) lids.**  
LockOut™ Device. Handhole locking device controls access to utility vaults and fiber boxes.



**Maryland Broadband Cooperative (MDBC)  
Attachment B**

**Payment Terms for [Cost Reimbursement, Fixed Price, Time and Materials]**

**A. Payment Amounts & Terms:**

Contractor shall be paid according to the following pricing terms, which include all applicable Taxes (as the term is hereinafter defined):

*[insert applicable pricing and payment terms]*


[This section covers what the payment amount and terms will be and include the total amount of the Agreement which shall not be exceeded.]

**B. Receipt of Invoices**

**[This section covers how MDBC expects the sub to deliver invoices.]**

All invoices referenced in this Agreement, shall not be deemed received by MDBC for purposes of the payment requirements under this Agreement unless the invoice is sent to the following MDBC email address: [email address] by the Invoicing Deadline (as defined below) for each invoice.

**C. Invoicing Deadline**

Contractor shall send an invoice each month for the costs incurred during the month consistent with the delivery schedule in Attachment A, Scope or Work.

**D. Invoice Requirements**

All invoices for performance under this Agreement shall clearly and completely account for all allocable, allowable and reasonable costs as defined in the Federal Acquisition Regulations, Federal Cost Accounting Standards or other applicable laws and regulations.

Contractor shall not invoice for or provide any in-kind contributions under this Agreement.

Contractor shall invoice consistent with the budget it provided MDBC as part of Contractor’s proposal.



MdBC has the discretion to deny costs in the event it determines costs are not reasonable, allocable or allowable under this Agreement; or, costs do not comply with the terms of this Agreement or with applicable laws and regulations.

**E. Documentation and Additional Information**

In addition to sending each invoice as required by the Contract Documents, Contractor shall provide any additional information MdBC requests within five (5) business days after MdBC has made such a request.

**F. Taxes**

Contractor shall list nontaxable services separately from taxable services.

**G. Payment**

Company shall pay any undisputed portions of such invoices within thirty (30) days after receipt. Company may dispute in good faith any portion of an invoice from the Contractor, provided that Company has provided written notice and: (i) pays the full undisputed portion of the invoice by its due date, (ii) provides Contractor with a written statement and supporting documentation regarding the dispute by the due date of the relevant invoice, and (iii) negotiates in good faith with Contractor to resolve the dispute consistent with the requirements of this Agreement.

If Company fails to pay the undisputed portions of any invoice within thirty (30) days after receipt, Contractor may assess and Company will pay a late payment charge of 0.5% per month (6% annually).

Subject to applicable Laws, regulations and to this Agreement (including all Contract Documents), Contractor shall have no right to payment for services performed or materials provided if Contractor does not send an invoice by the Invoicing Deadline or if MdBC determines the invoice is a Deficient Invoice as defined in Attachment B.

Should all or any portion of the amount contained in any invoice submitted to MdBC be denied, or should MdBC determine that Contractor's invoice was deficient, as defined in this Attachment, MdBC shall provide written notice to Contractor of MdBC's denial ("Payment Denial Notice"). Contractor shall be deemed to have accepted the denial of payment, as contained in MdBC's Payment Denial Notice, unless Contractor responds in writing to MdBC within ten (10) business days of the date of MdBC's Payment Denial Notice. Contractor's response to MdBC's Payment Denial Notice shall include substantiation and supporting documentation for the payment of any denied amount set forth in MdBC's Payment Denial Notice.

**H. Material Delay, Disruption or Interference**

If the Company, or other contractors or utility owners performing other work for the Company, or anyone for whom the Company is responsible, materially delays, disrupts, or interferes with the performance or progress of the Contractor, then upon written notice



by Contractor detailing the event, given within five (5) days of the subject event, the Parties shall negotiate in good faith as to an equitable adjustment in the payment amounts, and the time periods for performance, or both, as the case may be. To the extent that Contractor fails to provide such written notice to the Company with the aforesaid five (5) day time period, any such claim shall be waived by Contractor, and Contractor shall have no right to any such adjustments.

**I. Deficient Invoice**

Any invoice that fails to include the information required in the MDBC Invoice Template at Attachment C and/or any invoice that is not accompanied by supporting information, or for which the additional information requested by MDBC has not been provided within has not been provided within five (5) business days is a “Deficient Invoice” and will not be paid.

**J. Liability**

Anything in this Agreement (including the Contract Documents), any other agreement or otherwise to the contrary notwithstanding, MDBC SHALL NOT BE LIABLE OR OBLIGATED UNDER THIS AGREEMENT OR UNDER CONTRACT, NEGLIGENCE, STRICT LIABILITY OR OTHER LEGAL OR EQUITABLE THEORY(IES) (INCLUDING WITHOUT LIMITATION UNJUST ENRICHMENT) FOR:

- (A) ANY SPECIAL, PUNITIVE, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES (INCLUDING LOST PROFITS);
- (B) ANY AMOUNTS THAT OTHERWISE WOULD HAVE BEEN PAYABLE TO CONTRACTOR FOR SERVICES RENDERED OR MATERIALS PROVIDED UNDER THIS AGREEMENT IF CONTRACTOR FAILS TO COMPLY WITH THE PAYMENT PROVISIONS IN THIS ATTACHMENT B (INCLUDING WITHOUT LIMITATION CONTRACTOR’S FAILURE TO TIMELY SUBMIT INVOICES OR SUPPORTING INFORMATION IN CONNECTION THEREWITH); OR
- (C) ANY OTHER DAMAGES IN EXCESS OF THE AMOUNTS MDBC ALREADY PAID TO CONTRACTOR UNDER THIS AGREEMENT. THE **PROVISIONS** SET FORTH IN THIS PARAGRAPH WILL APPLY TO THE MAXIMUM EXTENT PERMITTED UNDER APPLICABLE LAW and, notwithstanding any other provision in this Agreement (including in the Contract Documents), any other agreement or otherwise, the provisions set forth in this paragraph shall survive the termination or expiration of this Agreement.

**K. No Further Payments**

Contractor shall provide the materials and perform all services under this Agreement in consideration for the foregoing payment arrangements. MDBC shall be under no obligation to pay Contractor additional amounts even if Contractor exceeds the amounts set forth in the Contractor’s submitted Budget unless Contractor has requested in writing permission to exceed its submitted budget and MDBC has approved Contractor’s request. MDBC shall be under no obligation to pay Contract amounts that MDBC, in its





sole discretion, determines are not allowable, allocable and reasonable as defined by the Federal Acquisition Regulations, Federal Cost Accounting Standards or other applicable laws or regulations.

**L. Travel Costs: Lodging, Meals, Transportation, Incidentals**

Travel costs incurred directly in performing this Agreement shall be identified on all invoices and all travel costs incurred in excess of \$75.00 shall be supported by adequate documentation in order to be reimbursed. Travel expenses shall be reimbursed in accordance with the U.S. Government Federal Travel Regulations (FTR), including daily per-diem rates, published by the General Services Administration (GSA), in effect at the time of travel or with any similar government requirements.

Travel under this Agreement may be further restricted by the regulations included in Attachment **X**, Flowdown Provisions or in Attachment A, the Statement of Work.

**M. Cost and Pricing, If Applicable [in the event MdBC and its subs are required to provide this type of information, MdBC will want protection.]**

Contractor agrees to indemnify and hold Company harmless to the full extent of any price or cost reduction effected by the Government Agency, that may result from

- (i) The cost or pricing data/information submitted by Contractor or its lower-tier subcontractors, which is not accurate, current or complete as of the date submitted or certified by Contractor;
- (ii) Contractor's failure or the failure of its lower-tier subcontractors to disclose and consistently follow applicable cost accounting practices and standards or otherwise comply with applicable Federal Acquisition Regulations, the applicable Government Agency acquisitions regulations, and regulations promulgated by the Cost Accounting Standards Board.

**N. Disallowed Costs**

In the event that any Government Agency (a) disallows any costs for which MdBC has reimbursed Contractor hereunder, or (b) reduces the costs payable to MdBC under the Subcontract as a result of (i) any defective cost or pricing data submitted by Contractor or (ii) any adjustment under any Cost Accounting Standard or cost accounting practice disclosure requirement applicable to Contractor, Contractor shall promptly pay to MdBC the amount of any such disallowance or reduction.

If Contractor fails to make prompt payment of such amounts after MdBC's written request for payment, MdBC may withhold such amounts from any other sums then due and payable to Contractor under this Agreement.

Furthermore, to the extent applicable, Contractor warrants to MdBC that it will hold MdBC harmless as a result of any damages or losses MdBC suffers resulting from the inaccuracy, incompleteness, or outdated nature of any cost or pricing data submitted to MdBC or the Government Agency in support of this Agreement and any proposal, response or offer preceding it.



**O. Closeout Procedures**

Following the completion or termination of this Agreement, Contractor shall submit a final invoice which shall be marked as such and which shall identify any final amounts due under this Contract. The final invoice shall be submitted no later than 60 days of completion of the Contract.



## ATTACHMENT D

### **FEDERAL GOVERNMENT**

### **PRIME CONTRACT FLOWDOWN CLAUSES, DISCLOSURES AND REPORTING (SIMPLIFIED ACQUISITION THRESHOLD, COMMERCIAL ITEM, DEPARTMENT OF DEFENSE)**

#### **APPLICABLE TO CONTRACTOR**

Pursuant to FAR 52.252-2, Clauses Incorporated by Reference, the following clauses, disclosures, and reporting as applicable, are incorporated into this Agreement with the same force and effect as if they were given in full text.

The full text of any Federal Government regulation clause may be accessed electronically at:

[FAR Regulations](#)

To the extent applicable, the following substitutions are made for this Agreement:

- The term “Agreement” is substituted for the terms “contract,” “offer,” “task order.”
- The term “Contractor” is substituted for the term “contractor,” or “bidder.”
- The term “Government Agency” is substituted for the terms or references to: “DoD,” “Department of Defense,” “government,” “contracting officer,” “agency,” “United States,” “contracting activity,” or similar terms.

52.204-24 Representation Regarding Certain Telecommunications and Video Surveillance Services or Equipment.

52.204-25 Prohibition on Contracting for Certain Telecommunications and Video Surveillance Services or Equipment.

52.204-26 Covered Telecommunications Equipment or Services-Representation.

52.223-18 Encouraging Contractor Policies to Ban Text Messaging While Driving.

52.225-13 Restrictions on Certain Foreign Purchases.

52.225-25 Prohibition on Contracting with Entities Engaging in Certain Activities or Transactions Relating to Iran-Representation and Certifications.

52.203-18 Prohibition on Contracting with Entities that Require Certain Internal Confidentiality Agreements or Statements-Representation.

52.203-19 Prohibition on Requiring Certain Internal Confidentiality Agreements or Statements.

52.204-9 Personal Identity Verification of Contractor Personnel.

52.204-10 Reporting Executive Compensation and First-Tier Subcontract Awards.

52.204-21 Basic Safeguarding of Covered Contractor Information Systems.



52.204-23 Prohibition on Contracting for Hardware, Software, and Services Developed or Provided by Kaspersky Lab and Other Covered Entities.

52.209-2 Prohibition on Contracting with Inverted Domestic Corporations-Representation.

52.209-7 Information Regarding Responsibility Matters.

52.209-9 Updates of Publicly Available Information Regarding Responsibility Matters.

52.209-10 Prohibition on Contracting with Inverted Domestic Corporations.

FAR 52.222-62, Paid Sick Leave Under Executive Order 13706

52.222-55 Minimum Wages Under Executive Order 13658.

52.223-4 Recovered Material Certification.

52.225-1 Buy American-Supplies

52.225-5 Trade Agreements.

52.225-20 Prohibition on Conducting Restricted Business Operations in Sudan-Certification.

52.239-1 Privacy or Security Safeguards.

DFARS 252.204-7009, Limitations on the Use or Disclosure of Third-Party Contractor Reported Cyber Incident Information

DFARS 252.204-7012, Safeguarding Covered Defense Information and Cyber Incident Reporting

DFARS 252.239-7010, Cloud Computing Services

DFARS 252.246-7008, Sources of Electronic Parts

### **Federal Government Required Equal Employment Compliance Requirements**

**This agreement incorporates by reference, as applicable, the Equal Employment Clauses set forth in 41 C.F.R. §§ 60-1.4(a); 60-300.5(a) (replaces 41 C.F.R. § 60-250.5); 60-741.5(a) and the Employee Notification Clauses set forth in 29 C.F.R. Part 471 Appendix A, as amended. This contractor and subcontractor shall abide by the requirements of 41 C.F.R. §§ 60-1.4(a); 60-300.5(a); 60-741.5(a). These regulations prohibit discrimination against qualified protected veterans; against qualified individuals with disabilities; and against individuals based on their race, color, religion, sex, sexual orientation, gender identity, or national origin. These regulations also require covered contractors and subcontractors to take affirmative action to employ and advance in employment qualified protected veterans and all individuals regardless of race, color, religion, sex, sexual orientation, gender identity, national origin, or disability.**