

Request for Proposal

for

The Hybridization Retrofit, Endurance Testing and Commissioning

of

Three (3) Rubber Tired Gantry Cranes

at

TraPac Container Terminal Oakland

Project No.: ZNA23-0051

Work Location:

TraPac LLC Terminal – Port of Oakland

1155 Maritime Street

Oakland, CA 94607

RFP Release Date: June 18, 2024

Proposal Due Date: COB July 15, 2024

I. General Description

ZPMC North America, Inc. ("ZPMC") will deliver to TraPac Container Terminal ("TraPac") three (3) sets of new hybrid components for existing Mitsui-Paceco Rubber-Tired Gantry Cranes (the "RTGs", or "RTG") and will carry out or cause to be carried out the installation and commissioning of these hybrid components Cranes at TraPac terminal starting in late September 2024 pursuant to that certain Purchase Agreement as may be amended from time to time ("Contract"). The purpose of this Request for Proposal (the "RFP") is to invite interested parties to submit and substantiate their qualifications and proposals in connection with taking delivery of these components and performing the installation and retrofit, conducting endurance testing and re-commissioning of the RTGs as more fully discussed herein (the "Project"). The Project No. is ZNA23-0051 (3 RTGs).

ZPMC North America, Inc. is soliciting proposals from interested parties ("Proposers" or "Contractors") as set forth in this RFP.

II. Project Locations

Project is located at TraPac Container Terminal, Berths 30-31, Port of Oakland. Please see vicinity map attached hereto for specific Project site locations.

The specific location of the RTG hybridization retrofit work area is TBD.

Scope of Work

The contractor's scope of work shall be to provide labor, equipment, consumable materials, site mobilization and demobilization, and project management of its resources to carry out and complete the receipt of hybrid components, installation, endurance testing and commissioning of all three (3) RTGs at the Project location on or before mid-January 2025. The general Scope of Work is further described on **Exhibit A** attached hereto.

III. RFP Schedule

Release of RFP	June 18, 2024
Proposal Package Due date	COB July 15, 2024
Meeting with Potential Contractor(s)	Upon request
Notice of Award	July 22, 2024
Subcontractor Agreement Execution by	July 29, 2024

Note: the above dates are subject to change.

IV. Proposers Obligations

A. Examination of Request for Proposal Documents

The Proposer shall examine the RFP documents, including but not limited to the [Contract], the RFP and its exhibits (collectively, "RFP Documents") and any other data made available to the Proposer

relating to the Project, and shall comply with all instructions and provisions. The proposer shall promptly notify ZPMC N.A. of ambiguities, inconsistencies, or errors, if any, which it may discover upon examination of the RFP Documents and any other data made available to the Proposer relating to the Project.

The submission of a proposal shall constitute an acknowledgement upon which ZPMC may rely that the Proposer has thoroughly examined and is familiar with the RFP Documents and has reviewed all applicable federal, state and local statutes, regulations, ordinances and environmental documents relating to the work and all permits which have been applied for and/or issued pertaining to the Project.

The failure or neglect of a Proposer to examine any of the RFP Documents, statutes, regulations, ordinances, environmental documents or permits shall not relieve the Proposer from any obligations with respect to the RFP Documents or the Project.

B. Inspection of Project Site

The Proposer shall inspect the site and satisfy itself as to the condition of the site, existing obstructions, and any other factors affecting the Project before the delivery of the Proposal. By submitting a Proposal, each Proposer will be presumed to have inspected the site, become thoroughly familiar with the RFP Documents, the Contract Documents as specified in the Contract including all addenda (if applicable). Failure to do so will not relieve a successful Proposer of obligations to furnish all materials and labor, or performing any work required to complete the work in accordance with the RFP Documents and the Contract Documents.

If the Proposer finds facts or conditions which appear to conflict with the RFP Documents or the Contract Documents or with any other data made available to the Proposer relating to the Project, the proposer shall promptly notify ZPMC in writing.

V. Submittal of Proposals

A. Form of Proposal:

Proposer shall submit its proposal form ("Proposal") in accordance with the requirements of this RFP. Each Proposer shall submit the following to Agent one (1) electronic copy of the Proposal via email or by delivery of flash drive or CD-ROM. Please send the Proposal to <u>tendering@zpmc.us</u>

B. Instructions for Proposals:

1. PROPOSER'S NAME AND SIGNATURE

The Proposal shall include the legal name, address and contractor registration number of the Proposer and shall indicate whether Proposer is a sole proprietor, a partnership, a corporation, joint venture or other legal entity. The Proposal shall be signed by a person legally authorized to bind the proposer to a contract. A Proposal signed by an agent shall have a current power of attorney attached certifying agent's authority to bind the Proposer. Upon request, the Proposer shall provide documentation evidencing the Proposer's legal status and showing the authority of the person signing the Proposal form to execute contracts on behalf of the Proposer.

2. PROPOSER'S QUALIFICATIONS

The Proposer and all its subcontractors must have experience and competency in the Scope of Work described in **Exhibit A**; which includes activities such as: STS crane offloading, rigging, welding, mechanical and electrical work, elevator work, cable reel work, and the testing and commissioning of new Super Post-Panamax ship-to-shore container handling cranes. The Proposer must also show that the Proposer and all its subcontractors have the resources and capacity to perform the work items in accordance with the schedule defined herein. A resume that addresses the qualifications noted below shall be prepared and submitted with the Proposal.

(1) EXPERIENCE AND PERFORMANCE QUALIFICATIONS

a. The Proposer must have offloaded and commissioned, as the prime contractor, at least four (4) Super Post-Panamax ship-to-shore container handling cranes in the last three (3) years in the United States. The Proposal shall identify the cranes, with the physical dimensions, electrical control type and vendor, installation locations, dates commissioned, and owner contacts/references that satisfy this requirement.

b. The Proposer shall provide specific offload and commissioning information on the previous cranes noted above, including the contract and actual delivery time and commissioning time.

c. The assigned project manager shall be experienced in the management of STS crane projects. This person must have managed to completion a minimum of two (2) ship-to-shore crane projects of comparable complexity, both being done in the United States. The Proposal shall identify the name of the individual, accompanied by (i) a resume, (ii) a list of projects that satisfy this requirement, and (iii) a statement that such project manager is able to converse fluently in the English language, both written and oral.

d. The Proposer shall be an established firm of sound financial status and good reputation specializing in commissioning of ship-to-shore STS cranes. There shall be sufficient space in Proposer's work schedule for the execution of the Project. The Proposer shall provide suitable documentation to verify compliance with the requirements of this paragraph.

e. The proposer should provide the name list for the project management team, especially the project manager.

(2) SCHEDULE PROPOSAL

a. The Proposal shall include a Project schedule which meets the project requirements and contains, at a minimum, activities for testing, commissioning, demonstration of the Cranes. The schedule shall show the anticipated critical path throughout the Project. The Proposer shall also identify the number of days that have been included in the schedule for inclement weather and other delays.

b. The Proposer should note the Contract Time specified in Section 5.0 of the Subcontractor Agreement form attached hereto as **Exhibit B** ("Agreement"), Contract Time, specifying the number of calendar days to complete the Work. ZPMC recognizes this Contract Time may be subject to revision as a result of Proposal evaluations and negotiations. The Proposer should recognize this as ZPMC's target date for completion of the Work, and ZPMC shall use this proposed project schedule in its evaluation of the overall Proposal.

C. Contract Price

1. Proposer shall submit a lump sum price for the Scope of Work. Proposer shall also provide a Schedule of Rates for any extra work; including rates for labor, supervision and equipment; these rates shall include markups. Proposer shall also include an extra work markup percentage (%) for material buyouts and/or third-party services that may be authorized by ZPMC.

2. All prices in the Proposal shall be in U.S. Dollars and expressed in figures only.

3. Proposer shall acknowledge all exhibits and/or attachments in their Proposal.

4. The lump sum price in the Proposal for the Scope of Work shall include everything necessary for the completion of the Work in accordance with the RFP documents and Contract Documents, including, but not limited to, furnishing all materials, equipment, tools, and other devices and all management, superintendence, labor and services, and design.

5. This RFP requests that the total lump sum price be broken down by the Proposer as follows:

Lump Sum Price for Hybrid Retrofit of three (3) Mitsui-Paceco RTGs\$_____

D. Taxes

1. The service to be provided by Proposer under the Contract does not constitute a "retail sale" as such term is defined in RCW 82.04.050. The prices on the Proposal form shall not include state or local retail sales taxes, except that Subcontractor will pay retail sales tax on all consumables used during the performance of the Work pursuant to the Scope of Work completed within Washington State and on all items, which are not incorporated into the final work, which tax shall be included in the price in the Proposal.

2. No increase will be made in the amount to be paid by ZPMC under this Contract because of any misunderstanding by or lack of knowledge of the Subcontractor as to liability for, or the amount of, any taxes for which the Subcontractor is liable or responsible by law or under the Contract.

VI. Evaluation of Proposals

ZPMC N.A. reserves the right to investigate Proposer as deemed necessary to determine their ability to fulfill the terms of this Project. Proposer shall furnish to Agent all such information and data as required for this purpose. ZPMC also expressly reserves all rights, including, but not limited to, the following unqualified rights to:

- A. Reject any or all of the responses to the RFP.
- B. Revise and/or cancel the RFP, or any portion thereof.
- C. Cancel or elect not to proceed with the RFP for any reason whatsoever.
- D. Re-issue a modified RFP or replacement RFP.
- E. Approve or disapprove the use of particular subcontractor(s) and determine, at sole discretion of ZPMC, whether any penalty or disqualification may apply to a Proposer.
- F. Conduct multiple pre-bid meetings or similar meetings with Proposer(s).
- G. Question outside entities, personnel and consultants regarding the Proposer's past performance.
- H. Create evaluation panels, seek the assistance of outside technical experts and consultants and/or any other source to review and evaluate Proposals.
- I. Hold meetings, conduct discussions and correspond with Proposer concerning its Proposal to gain an improved understanding and evaluation thereof. This process may include "open book" negotiations between ZPMC and Proposer concerning the Proposal.
- J. Waive minor deficiencies, informalities, and irregularities in the Proposal.
- K. Consider data and experience records maintained by ZPMC for all or some construction projects completed by the Proposer.
- L. Issue addenda addressing any or all items/issues in any or all Proposals and from any or all interviews with Proposers to all Proposers (except for items marked as "TRADE SECRET", "CONFIDENTIAL", or "PROPRIETARY" as further defined in Public Records Act).
- M. Elect at any time and for any reason whatsoever not to proceed with the Project, or any portion thereof.

VII. Anticipated Form of Subcontractor Agreement

Subject to a successful bid process, ZPMC's election to continue with the Project, and a full reservation of its rights, ZPMC anticipates that it will enter into the Agreement with its selected subcontractor for the Project in the *Form Subcontractor Agreement* attached hereto as **Exhibit B**.

The Agreement shall incorporate all the exhibits hereto and thus will become part of the Contract Documents.

VIII. Award of Proposal

A. Notice of Award

1. The acceptance of a Proposal will be evidenced by a written notice of award delivered to the Proposer.

2. Within seven (7) days after the issuance of the Notice of Award, the Agreement shall be executed and returned, together with the bonds, and certificates of insurance with endorsements as required by the RFP Documents.

3. The Subcontractor shall not commence Work until ZPMC has received the following documents: the signed Agreement, the pertinent bonds (if applicable), the Certificates of Insurance meeting the requirements of the Contract/RFP Documents. And only after a fully executed copy of the Agreement has been returned to the Subcontractor.

B. Performance and Warranty Bonds. If ZPMC decides to accept the Subcontractor's Proposal, including the supply of a Performance Bond and/or a Warranty Bond, then the following sections will apply.

1. The Subcontractor awarded this Project shall furnish performance and warranty bonds on the forms furnished by ZPMC as security for the faithful performance and completion of the Project. A *Performance Bond* form is attached hereto as **Exhibit C** ("Performance Bond"). A *Form Warranty Bond* is attached hereto as **Exhibit D** ("Warranty Bond").

2. The scope of the Performance Bond shall not affect or alter the liabilities of the Subcontractor to ZPMC under the terms of the RFP Documents or Agreement.

3. If at any time ZPMC determines, in its sole judgment, that the surety is insufficient, ZPMC may require the Subcontractor to furnish additional surety in form and arrangement satisfactory to ZPMC and in an amount not exceeding what was originally required. Payments will not be made on the Agreement until sufficient surety as required is furnished.

IX. Performance of Obligations under the Contract

Except as expressly modified herein, the Subcontractor and any subcontractor(s), shall be bound by the terms of the Contract to the extent that is applicable and shall assume to the extent of the Scope of Work, all the obligations that ZPMC has assumed towards the Customer/Owner (TraPac Terminals) under the Contract Documents. The Subcontractor shall require each of its sub-subcontractors to enter into a similar agreement with the Subcontractor.

X. Insurance Requirements

Subcontractor shall comply with the Insurance Requirements contained in the Form of Subcontractor Agreement, this portion is attached hereto as **Exhibit C** and shall apply to the Project with the following exceptions: none.

All workers on site are required to have their own valid Transportation Worker Identification Credential (TWIC). Non-TWIC workers can be escorted to site by a designated TWIC-holding employee. Each designated TWIC-holding employee can escort up to five (5) non-TWIC workers.

Milestone	Payment
Upon Signing of Agreement	10% of Contract Price
Completion of Mobilization	10% of Contract Price
Substantial Completion of the 1 st RTG	25% of Contract Price
Substantial Completion of the 2 nd RTG	25% of Contract Price
Substantial Completion of the 3 rd RTG	20% of Contract Price
Upon Final Completion of the RTGs, including demobilization,	10% of Contract Price
and delivery of project close out documents	

XI. Payment Schedule

Note: Subcontractor(s) will be required to deliver all final documents, safety records, accident reports, and daily project logs as a condition precedent to final payment.

XII. Equal Opportunity; Nondiscrimination

All qualified Proposers will receive consideration on merit, without regard to any basis prohibited by State or Federal Law.

XIII. RFP AND BID NOT A CONTRACT

This RFP is not a contract or an offer to contract. This RFP shall not, in any manner, be construed to create an obligation on ZPMC to enter into a contract nor shall it result in any obligation on the part of ZPMC to reimburse any party for their efforts of any kind undertaken in anticipation of a contract.

XIV. COSTS AND EXPENSES OF BIDDERS

ZPMC will not reimburse or compensate any person or entity in any manner whatsoever or under any circumstances for any costs or expenses incurred in responding to this RFP, including in the event that ZPMC elects not to proceed with the Project and/or in the event that ZPMC rejects any or all Proposals submitted in response to this RFP. ZPMC shall not be liable for any loss or damage suffered by any person or entity in responding to this RFP without limitation.

XV. BIDS VALID

All Proposals shall be valid for a period not less than <u>60</u> days from the date of submission. Proposer agrees to negotiate the quoted price/Proposal in good faith with ZPMC for a period of <u>14</u> calendar days from the date of submission.

Vicinity Maps

As attached.

Google Maps

TraPac, LLC Oakland California



Imagery ©2024 Google, Imagery ©2024 Airbus, Maxar Technologies, Map data ©2024 500 ft

Work Scope

Hybridization Retrofit Project

Three (3) Mitsui-Paceco RTGs For TraPac

Project Number: ZNA23-0051

1. Projects Introduction

This Work Scope sets out the terms and conditions on which the **Subcontractor** agrees to provide manpower, equipment, and service during **ZPMC** site works. The principal objective of this project is to perform a hybrid retrofit of **Three (3) existing Mitsui-Paceco RTG cranes**.

The subcontractor should provide qualified manpower (Mechanics, Electricians, technicians, etc. and they shall be provided during the entire RTG hybrid retrofit project).

The projects definition as following form.

Project No.	ZNA23-0051
Crane	3 RTGs(RTG 204, RTG 205 and RTG 206)
User	TraPac
Site	TraPac Oakland Berths 30-31
Ready to Ship	08/26/2024 from Shanghai
Ocean Shipping	~30 days
Onsite Start Date	09/25/2024 tentatively set
Project Completion	01/15/2025 subject to onsite start date

projects definition as following form.

2. Hybrid Retrofit Scope:

The hybrid components for the three (3) RTGs will be shipped via container ship and/or over-the-road trucks. All work related to offloading the hybrid components from their shipping container, flatrack and/or flatbed truck will be the responsibility of subcontractor. The subcontractor shall provide qualified technicians and support equipment to offload and handle the hybrid components. We estimate that the subcontractor will need to offload approximately 4-5 loads throughout the project and safely stage in the work area.

TraPac will provide ZPMC and its subcontractor access to all three (3) RTGs simultaneously. Allowing the work to progress in a staggered format. Also, the three (3) RTGs will be staged together (near one another) so that resources can be easily shared between them as the work progresses.

RTG Hybridization Project Work of Scope

- A. Preparation Work for Hybrid Retrofit Modification
 - 1. Component inventory check, prepare the site and pre-inspect the condition of RTG
 - 2. Perform the Fuji drive upgrade before the RTG is retrofit.
 - 3. Test the crane with new drives. Make sure all functions are working properly.

- 4. Remove the old diesel generator.
- 5. Install the base (support) for the new generator cabin.
- 6. Remove covers for all cables.
- B. Major Activities for Hybrid Retrofit
 - 1. Hoist the new diesel generator cabin with new platform and install it in place.
 - 2. Layout and weld B-room support structure brackets.
 - 3. Lift the support structure for the battery room (B-Room).
 - 4. Secure the B-Room main support structure to brackets.
 - 5. Remove covers for cabling and remove any unnecessary cables.
 - 6. Insert new cable tray and cable termination.
 - 7. Prepare and install new cables into cable tray.
 - 8. Hoist and install the B-Room assembly.
 - 9. Install ladder to B-Room.
 - 10. Install B-Room side support structure.
 - 11. Install the cap for generator room.
 - 12. Install new cables run through cable trays into B-Room.
 - 13. Install the anti-collision support for B-room.
 - 14. Apply touchup paint to affected areas, as needed.
 - 15. Lift battery packs to B-Room and stage them for installation.
 - 16. Make modifications in the control cabin panels.
 - 17. Make modifications in E-room and the new engine panel.
- C. Commissioning
 - 1. Make sure all modified cables and wires have been re-terminated.
 - 2. Add coolant, oil and DEF for the new diesel generator, making it ready for startup.
 - 3. Perform battery and engine commissioning.
 - 4. Connect auxiliary power to the E-room and commissioning the PLC.
 - 5. Main power (DC) send to the E-room and test available crane functions.
 - 6. Fine tuning and commissioning of B-room, E-room, operator's cabin and generator.
 - 7. Perform endurance test.
 - a. Check RTG's condition and all functions before commissioning and test as per engineers requirement.
 - b. Adjust the installation and wiring if needed as per engineers requirement.
 - c. Troubleshooting with engineers in commissioning and test.
 - d. Operate RTGs for commissioning and test, including endurance test, measure and record the temperatures during endurance test as per ZPMC report.
 - e. Assist with the OSHA inspection and certification for retrofitted RTGs.

All costs associated with the receiving, offloading, staging, installation, testing and commissioning of the hybrid components shall be included in the subcontractor quotation, including but not limited to the following:

- Supervision, labor, equipment, tools, temporary facilities and consumables, as needed.
- Work truck(s) or service van costs.

3. Personnel and Responsibilities

3.1 Personnel and subcontractor who are involved in the work above shall be trained and experienced and with full insurance under the cost of the subcontractor. All subcontractor personnel who involved in the work shall have the experiences with modifying RTGs, receiving components, installation, testing and commissioning work. ZPMC has the right to require subcontractor to replace the unskilled technicians.

3.2 All works shall be performed to meet the requirements of related standards and procedures, satisfy the requirements of ZPMC handover team and the RTG's final user at the site. ZPMC may reject and issue punch list of improper work, which punch list items should not be considered as an extra work and the subcontractor undertake the related cost.

3.3 All personnel involved in this work shall meet the safety rules and regulations of local area having jurisdiction on this matter. All subcontractor personnel shall follow the safety rules, regulations and practices of TraPac.

4. Highlights

4.1 Any work, materials beyond this scope, the subcontractor shall get approval in writing from the onsite ZPMC representative before works proceeding and/or material purchasing.

4.2 ZPMC has the right to add or reduce the manpower according to projects condition and work performance but shall inform the subcontractor two (2) days in advance.

4.3 Subcontractor shall provide daily work record to ZPMC no later than the next workday.

5. Attachments

Attachment 1: Sample Generator Set Drawings;

Attachment 2: Actual Battery Room Drawings;

Attachment 3: Actual Battery Room Platform & Ladder Drawings;

Attachment 4: Actual Wiring Information;

Attachment 5: Actual Electrical Schematic Modifications









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CUSTOMER: ZPMC_EZ RTGC PCP125Y

PROJECT NO: PT-G2021020406

PROJECT MODEL: PCP125Y QSB5-G11 UCI274E13

VOTAGE/FREQUENCY: 440V/60HZ

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	<u>03</u>		Control	Panel Layout					=F1				
	<u>04</u>		Generat	tor AC wiring d	liagram				=F1				
	<u>05</u>		Battery	circuit					=F1				
2	<u>06</u>		Controll	ler Control Circ	cle Diagram				=F1				
	07 Start/stop control circuit								=F1				
	<u>08</u>		Fuel lev	el control syste	em				=F1				
	<u>09</u>		Governo	or wiring diagr	am 1				=F1				
	<u>10</u>		Governo	or wiring diagr	am 2				=F1				
4	<u>11</u>		Generat	tor wiring diag	ram				=F1				
	<u>12</u>		External	l output circuit	:				=F1				
	<u>13</u>		Lighting	and auxiliary	circuits				=F1				
	<u>14</u>		X1-(1/1	.)					=F1				
	15		X2-(1/2	2)					=F1				
5	16		X2-(2/2	2)					=F1				
	17		X3-(1/3	;)					=F1				
	18		X3-(2/3	;)					=F1				
	19		X3-(3/3	5)					=F1				
	20 Bill Of Materials grouped by manufacturer (筛选A)								=F1				
6	6 Bill Of Materials grouped by manufacturer (筛选A)								=F1				
	_		CUST	OMER:	ZPMC	C_EZ RTO	GC PCP125Y	F	RODUCT MODEL:	PCP125Y Q	SB5-G11 UCI	274E13	
P				/ING:		Drawing	gs list	c	REATION DATE:	2021/2/	/23	PAGE:	2 / 21
	y rowertee		DRAW	ING NO:		02		N	ODIFICATION DATE	: 2021/3/	/1	VERSION:	0

















	А	B	С	D	E	F	G	Н	I		J
1				-X3_4.1	-X3_7.1	-X2(23.1					
2				-MCB5	INOZZ	1011					
4				-K6 -K6 Fuel ¹¹ ⁹⁷ -X1 9.1	-X1 10.1						
5			+Lî	3 - Genset Ø		SEN1					
6				Generator heater]●] - 230V 50/60HZ	Winding temp. sensor					
			CUSTOMER:	ZPMC_EZ RT	GC PCP125Y	PRO	DUCT MODEL:	PCP125Y QS	B5-G11 UCI274	1E13	
	POWertec Gene	TER FEC	DRAWING:	Generator wi	ring diagram	CRE	ATION DATE:	2021/2/2	23 PA	GE:	11/21
			DRAWING NO:	1	L	MOD	IFICATION DATE	2021/3/2	1 VE	RSION	0





		А	В	C		D	Е		F		G	Н	I		J																			
	1																																	
		GE	ENSET CURRENT		GENSET V	OLTAGE	GENERATOR	LIGH HEATER -	T SWITCH	FUEL PUI	MP																							
	2	+L1-J9:45	+L1-J9:44 +L1-J9:43	+L1-J9:42	+LI-J9:34 +L1-J9:35	+L1-J9:36	+L1-J9:37 1+L3-R1:L	L+L3-R1:N	<u>1+L3-L1:L</u>	.+L3-M2:N	.+L3-M2:L																							
	4	COM =F1		U1 =F1			216 = F1	220N1 =F1		2L7 =F1		_																						
_	_		2.1 2.2 3.1	3. 2 4. 1 4. 2 5.	1 5. 2 6. 1 6. 2	7.1 7.2 8.1	8.2 9.1 9.2	• 10. 110. 21	1. 111. 2	• 212. 112. 2	• 13. 113. 214.	• 114. 215. 115.	2																					
	5		MO IN MO	NO UI	S		516	INO																										
) =F1+L1-CT1:IN	=F1+L1-CT3:0 =F1+L1-CT2:0	=F1+L1-CT1:0	=F1+L1-F1:1 =F1+L1-F2:1	=F1+L1-F3:1 =F1+L3-M1:N	=F1+L1-K6:11		=F1+L1-S1:2	=F1+L1-KM:2	=F1+L1-KM:4																							
	6																																	
					ZDMC	F7 DTCC																												
			FRTFC	DDAWLNO			rur1201					PCP125Y	USB5-G11 UCI2	2/4E13	14/04																			
	U	Powertec Genera	ator System Co.,Ltd			X1-(1/1)			ALLON L	DATE:	2021/	2/23		14/21																			
1				URAWING NU:		14			INIOL	JETUALI	UN DATE:	2021/	5/1 \		U																			
	А		В				С				D				Ε				F				G				Η			Ι			J	
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1																									H		EVEL	į	=VEL	LEVEL				
2	<u>:33:1</u> E-stop	<u>3-SR</u> Start	Charger	0	<u>1:B+</u>	<u>s3:4</u> B+	<u>B1:1</u> V+	+>		<u>K5:5</u>			<u>bat-</u> BAT+		<u>м:в-</u> V-	<u>1-C1</u> V-	1.01	1.11 1.12	9:14				<u>att+</u> BAT-		K4:1 Refuel Leve		(4:13 HIGH FUEL L		<u>3:13</u> Low Fuel Le	LOW WATER	2:NO			
4	1203 =F1+L3-E	0505 =F1+L3	0504		B+ =F1+L3-N	B+ =F1+L1-	V+ =F1+L1-MC]	•	V+ =F1+L1-	●]	BAT+ =F1+L3-BAT:I	[V- =F1+L3-I	V- =F1+11-0	V- =F1+I1-X3-		=F1+L1-K		•		BAT- =F1+L3-BAT:B		0804 =F1+L1-		0802 =F1+L1-K	0RD5	=F1+L1-K	0811	=F1+L3-SEN2		●]
		2 2.1	2. 2 3.	1 3.2	2 4. 1	4.2	5. 1 •	5.2	6. 1	6.2	7.1	7.2	8.1	8.2	9.1 •-	9.2	10.	110.	211.	. 111.	212.		213. 1	113. 2	14. 11	4. 21	5. 11	5. 216	5. 116 •	5. 217.	117.	218. 118.	219.	119.2
5	1203 +L1-J9:3	0505 +L1-J9:5	0504	+LL-J9.0	B+ +L1-S3:4	B+ +L1-F4:1	+L1-SW2:3	V+ +L1-MCB3:2	V+ +L1-X2-6.2	+L1-X2-6.1			BAT+ +L1-UCD:+		+L1-J9:1		+1 1-R4·2		+L3-SEN2:COM				BAT- +L1-UCD:-		0804 +L3-SEN3:2C		0802 +L3-SEN4:1C	OROF	+L3-SEN5:3C	0811	+L1-J9:50			
6	<u>=F1</u>	<u>=</u>	Į		<u>=1</u>	<u>=F1</u>	Ē	<u>=F1</u>	<u>=F1</u>	<u>=F1</u>			<u>=</u> FI		<u>=</u>			<u>;</u> נ	=F1						<u>=F1</u>		<u>=</u>		<u>=</u>	ļ	=1]			
					JST0	MER:			Z	PM	C_EZ	Z RT	GC	PCP1	125	Y				PR	RODU	CT N	IODE	L:		PCP	125\	(QS	B5-0	G11 (UCI2	74E13		
\overline{U}	Powertec Ge	₩ĒR	χ∎ <u>Ε</u> (∕stem Co.,		RAWI	NG:)	X2-(1/2)							CR	REAT	ION	DAT	E:			2021	1/2/2	23			PAGE:	1	5/21
				DF	RAWI	NG N	10:					1	5							MO	DIF	ICAT	ION	DAT	E		202	1/3/	1		V	/ERSION	•	0

A	В	C	D	E	F F	G	Н	I		J
1		Δ								
7 +L1-J9:51 SPAER	+L1-J9:17 SPAER +L1-J9:19 SPAER	+L3-SENI WINDING TE					+L1-J9:24 J1939 CANH	+LI-J9:25 J1939 CANL		+L1-J9:14
4	E C C C C C C C C C C	22. 223. 123. 224.	• 124. 225. 125. 226. 126. 22	• 7. 127. 228. 128. 22	• 9. 129. 230. 130. 23	• 1. 131. 232. 132. 233	. 133. 234. 134. 235	5. 135. 236. 136. 2	237. 137. 2	H = 38. 2
5		=F1+L1-J9:18		•		•	0615 =F1+L1-CN8:C	E1+L1-R3		•
6		1			1		I			
D RAW		CUSTOMER:	ZPMC_EZ RTG	IC PCP125Y	PROD	UCT MODEL:	PCP125Y QS	B5-G11 UCI2	74E13	
Powertec Gene	IEKIEC rator System Co.,Ltd	DRAWING:	X2-(2	/2)	CREA	TION DATE:	2021/2/2	23 F	PAGE:	16/21
		DRAWING NO:	16		MODI	FICATION DATE	2021/3/	1 V	ERSION:	0



	А	В	С	D	E	F		G	H	I		J
1												
										GEN	ISET RUNNI	NG
	REMOTE	IDLE/FULL REMOT	E E-STOP OVE	ER VOLTAGE OVER	TEMP GENERAT	OR ALARM I	DLE/FULL	. SPEED	COMMON ALARM	LOW FUEL LEVEL	. S	PARE
	F1+L2-SB3	+L1-SW2:4 F1+L2-ES2	F1+L2-ES2	1+L1-J9:31 1+L1-J9:32	1+L1-J9:33 +L1-K9:10	1+L1-K9:6	C:2A-LJ+L-	-1+L1-K2:1 -1+L1-K6:5	.+L1-K7:10 :1+L1-K7:6	1+L1-K8:9	1+L1-J9:11	1+L1-J9:12
4	5020	0. 221. 121. 222. 12		¹ 24. 225. 125. 226. 126.	₹ ² 227. 127. 228. 128.	229. 129. 230.	130. 231.	131. 232. 132. 2	8 9 9 1 1 1 3 3 3 3 3 1 3 3 5 1 3 3 5 1 3 3 5 1 5 1	235. 135. 236. 136	· 237. 137. 2	690 238. 138. 2
5	0705 0705	0710 (+L2-SB3 1201 (+L1-ES1:2	1202 [+L3-ES3:2		•				•			
e			μ <u>μ</u>									
			CUSTOMER:	ZPMC_EZ R	TGC PCP125Y		PRODU	CT MODEL:	PCP125Y	QSB5-G11 UCI	274E13	
		WERTEC Generator System Co., Ltd.	DRAWING:	X3-	-(2/3)		CREAT	ION DATE:	2021/	/2/23	PAGE:	18/21
			DRAWING NO:		18		MODIF	ICATION DAT	E: 2021,	/3/1	VERSION	0

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2	2										
2	1 ≅ 39. 139. 24	• 0. 140. 241. 14	• • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • •	• 6. 146. 247. 147. 24	4 8. 148. 249. 149. 25	6 0. 150. 2				
5		●	•		● · · · · · · · · · · · · · · · · · · ·						
6	5										
6			CUSTOMER:	ZPMC_EZ RTG	C PCP125Y	PROE	DUCT MODEL:	PCP125Y QSE	35-G11 UCI274	E13	
	Powertec Genera	EKIEC tor System Co.,Ltd.	DRAWING:	X3-(3	/3)	CREA	ATION DATE:	2021/2/2	.3 PAG	iE:	19/21
			DRAWING NO:	19		MOD	IFICATION DATE:	2021/3/1	VER	SION:	0

	Α		В	С		D	E	F		G	Н		Ι		J
							•	•							
	р Г	ABB			Mark						Description		0.03	tity/	
	ŀ				Mark						Description		Quai	uty	
1	ŀ	AF09-30-10	J-11x24-60V AC/DC	- /-	- <u>KIM</u>								1		
-	-	AUX-C 1Q+	-1SY 24 Vdc XT1/XT4	F/P	<u>-Q1</u>								1		
	ļ	SOR-C 24-3	80 Vac/dc XT1/XT4 F/I	Р	<u>-Q1</u>								1		
	L	XT3S 225 T	MF 150-1500-3P-FF U	JL/CSA	<u>-Q1</u>								1		
	A	APT													
	ļ	Reference			Mark						Description		Quar	tity	
	Ļ	LW39-16B-	4AB-02/1		<u>-SW2</u>								1		
2		LW39-16B-	4AB-11/1		<u>-SW1</u>								1		
2	[DSE													
	Ļ	Reference			Mark						Description		Quar	tity	
		DSE7320M	к		<u>-J9</u>								1		
		DSE9701			-UCD								1		
	I	IDEC													
		Reference			Mark						Description		Quar	tity	
		ABW111R			<u>-B2</u>								1		
4		RU-2S DC2	4		-K2,-	К7,-К9							3		
	Γ	RU2S-DC24	ŧV		-K1,-I	КЗ , -К4 , -К5 , -К8							5		
	F	RU4S DC24	ł		<u>-K6</u>								1		
	S	SIEMENS													
		Reference			Mark						Description		Quar	tity	
	Γ	5SY6110-7	7CCC101P		-MCB1	, -MCB2 , -MCB3 , -MCB5							4		
		5SY6210-7	7CCC102P		-MCB4	+ , -MCB6							2		
5	T	TCL													
	ſ	Reference			Mark						Description		Quar	tity	
		L31-1-2A			<u>-S1</u>								1		
	L V	NAGO													
		Reference			Mark						Description		Quar	tity	
		281-4M2 2	IN/2OUT		-X2-4 , -X2-31	, -X2-8 , -X2-9 , -X1-9 , -X1-10 L , -X2-32 , -X2-33 , -X2-34 , -X	, -X1-11 , -X1-12 , -X1-13 , -X 2-35 , -X2-36 , -X2-37 , -X2-38	2-13 , -X1-14 , -X1- 8	-15 , -X2-25 , -X	X2-26 , -X2-27 , -X2-30 ,			23		
6		281-4M2二	进二出		-X1-1, -X1-7, -X2-15 -X3-22 -X3-31 -X3-45	, -X2-1, -X3-1, -X3-2, -X2-2, , -X2-7, -X3-7, -X3-8, -X1-8, , -X3-15, -X2-16, -X3-16, -X3 2, -X2-22, -X3-23, -X2-23, -X 2, -X3-32, -X3-33, -X3-34, -X 5, -X3-46, -X3-47, -X3-48, -X	-X1-2, -X1-3, -X2-3, -X3-3, -X3-9, -X3-10, -X2-10, -X3-1 2-17, -X3-17, -X2-18, -X3-18 2-24, -X3-24, -X3-25, -X3-26 3-35, -X3-36, -X3-37, -X3-38 3-49, -X3-50	-X3-4 , -X1-4 , -X1 11 , -X2-11 , -X2-12 3 , -X2-19 , -X3-19 5 , -X3-27 , -X3-28 3 , -X3-39 , -X3-40	-5 , -X3-5 , -X2 2 , -X3-12 , -X3 , -X2-20 , -X3-2 , -X2-28 , -X2-2 , -X3-41 , -X3-4	-5, -X2-6, -X3-6, -X1-6, -13, -X3-14, -X2-14, 20, -X2-21, -X3-21, 29, -X3-29, -X3-30, 42, -X3-43, -X3-44,			80		
				CUSTOMER.						CT MODEL .			C (1 1 1 1		
			- -								PCP1251	Q2B5	0 110-0	JIZ/4E13	
	Powert	ec Generat	5 IA I EU tor System Co.,Ltd.	DRAWINGBill Of	Mate	rials grouped by	/ manufacturer	(筛选A)	CREAT	ION DATE:	2021	/2/23		PAGE :	20/21
				DRAWING NO:		20			MODIF	ICATION DATE	2021	/3/1		VERSIO	1 0

	Δ		B			F	F		G	Н	Т		1
	~		D	C			1		U	11	L		J
	_	固宜											
		Reference			Mark					Description	Quanti	Ŷ	
		GD-E40-3-	F-532		-SEN3 , -SEN4 , -SEN5						3		
1	I I	光正			I.								
		Reference			Mark					Description	Quanti	у	7
		DYB60-A	C220V		<u>-M2</u>						1		7
	1	和泉									I		
		Reference			Mark					Description	Quanti	у	7
		GE1A-C3	0HAD24-24V		<u>-KT1</u>					Time relay	1		
	, i	康比利											
2		Reference			Mark					Description	Quanti	у	7
		KLY-0.66 N	130I 200/5		-CT1 , -CT2 , -CT3						3		
	ľ	曼科							1				_
		Reference			Mark					Description	Quanti	у	
		KC11P011	-10A-250V		<u>-SS2</u>						1		
		南华机电											_
		Reference			Mark					Description	Quanti	у	
4		LW34 220	/AC 18W 50HZ		-L1 , -L2					Green 250V Single Indicator	2		
· ·		其他											_
		Reference			Mark					Description	Quanti	у	
		617065 15	A 110-250V		<u>-SS1</u>						1		
		RT18-32 1	0A		-F1 , -F2 , -F3 , -F4						4		
		WH-A016	5		<u>-S</u>						1		
		施耐德											_
5		Reference			Mark					Description	Quanti	у	
5		XB5AW33E	31C-24V绿		-B1,-H1						2		
		XB7EA21C	黑色常 开		-B3 , -B4						2		
											•		
c													
0													
Ē				CUSIUMER:		RIGC PCP1251			GI MUDEL:	PCP125Y QS	85-G11 UC	I274E13	
Ū	P Power	●\\V\V/[tec Genera	EKIEC tor System Co., Ltd.	DRAWIN ®i ll Of	Materials group	ed by manufacture	r (筛选A)	CREAT	ION DATE:	2021/2/2	23	PAGE:	21/21
				DRAWING NO:		21		MODIF	ICATION DATE	2021/3/2	1	VERSION	0



revision no.	sub. no.	description	date	signature
0:			2023.12.31	28
62		Add dimensions	2024.03.05	28

Attachment 3 - Battery Room Platform & Ladder



锂电池主要性能参数 Main Data of L	ithium Battery
整机额定输出电压 complete machine rated output voltage	666VDC
整机最大输出功率 complete machine Max output power	450KW
电池电源额定容量 Battery power source rated capacity	128Ah
电池模块额定电压 battery module rated voltage	44.4VDC
电池模块额定容量 battery module rated capacity	128Ah

柴油发电机组主要	性能参数 Main Data	of Diesel Generator				
	柴油机 Diesel	发电机 Generator				
刑上占扣故		STAMFORD				
至又可观俗	CUMMINS	UCI274E1				
Туре	QSB5-G11	460V 3PH 60HZ				
常载功率 Prime power rating	114kW	143KVA				
转速 Speed	1800r.j	p.m				

A−A 5906 3940 1440 1200 975 1110 6400 A−A *M inside

外側 outside

4	PSC319	03	節撞框 Shield frame	# *	b件 elded	1	398	398	
3			柴油发电机组 Diesel & Generator sel	編()	ssembly	1	3500	3500	外動件
2	PSC319	02	直梯 Ladder	46	計 ssembly	1	98	98	
1	PSC319	01	俚电池电气房平台 Palon kazaliy lo litius baloy lisch	·Nan 包	ssembly	1	6600	6600	
NO.	SUB-NO. o	r STDD	NAME & SIZE	MTRL	. or STYLE	QTY/set	each WEI	total GHT	NOTE
PR	OJECT:			DESI	GN STAGE:			SCAL	£ 1:60
ITE	M NAME: 俚电池	地气房平	台总成						PROJ.
	Platform Assembly	for Lithiun	n Battery Electric Room	UKA	NNU: P	SC319	00		-@@-
		DSGN		TRACE			AP	PP.	Ass. A
7	'PMC	DRAW		CHCK			0'TY	/SET	10800
									4

Support Bracket Calculation

─, main data



二、Support Force Calculation

$$RA = \frac{P}{2} + \frac{G^* L1}{L}$$

$$RB = P + G - RA$$

$$RB1 = RB2 = \frac{RB}{2}$$

$$2115.28$$

∴、Strength Calculation Bending Moment







Attachment 4: Wiring information

No.	Cable Type	Amount	Length	Location
1	1×3/0AWG	4 wires	24 M	from "B-ROOM " to "JB-7";
2	1×1/0AWG	4 wires	121M	from "B-ROOM " to "E-ROOM";
3	12x14AWG	1 wire	121M	from "B-ROOM " to "E-ROOM";
4	4x14AWG	5 wires	30 M	from "B-ROOM " to "DIESEL PANEL";
5	7x14AWG	1 Wire	101M	from "E-ROOM " to "DIESEL PANEL"
6	12x14AWG	2Wires	10M	from "JB1 " to "DIESEL PANEL"
7	1×1/0AWG	4 wires	26 M	from "B-ROOM " to "DIESEL PANEL";
8	7x14AWG	2Wires	40M	from "B-ROOM " to "+7S01"
9	optic fiber cable	1 Wire	60M	from "JB-1 " to "Right console"
10	optic fiber cable	1 Wire	60M	from "JB-1 " to "E-ROOM"
11	optic fiber cable	1 Wire	122M	from "B-ROOM " to "E-ROOM"

12. Fiber connection detail: The splice welding process is adopted at the junction of two optical cables.

13. Transformer see SH.NO 002 Type: SG-30KVA

Capacity:30KVA, Size;700x500x750mm, Installation size:550x420, Hole size:4-M16



	1100										
		r F r	HIST	ORY Str				M.E.S. JOB NO.			
		_田	凶	<u>米</u>	尬				BT32	:59	······
NO	DATE		DESCI	RIPTION	1	BY	APPR	M.E.S. CODE W/	ARD. ⊐−	ドワード	
	日付				り	作成	承認	R	T4023	-81-5	
1	00/00/05	FORFI	INAL			Y.M	M.K	PURCHASER 友	·牛·		
3									70.		
4											
5								ТОАО			
6									AC / C	ALLA	ND
:											
								PLANT 装置:			
								40LT	RUBB	ER TIF	RES
								TR	ANSTA	INER	B
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2 2							ang sa sa Tang sa sa		カ	中	小
								上爭区分	80	03	00
								MITSUI ENGINEE	ERING & SHII	PBUILDING	CO., LTD
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Attachment 5 -Electrical Schematic Modifications

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ELEMENTARY DIAGRAM



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ELEMENTARY DIAGRAM DRAWING LIST (1) SH. NO. MITSUI ENCINEERING & SHIPBUILDING CO., LTD.

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SH NO.	NAME OF DWG	DWG. NO.
DOA	ELEMENTARY DIAGRAM DRAWING LIST (1)	BT3259A-E-00A-08
800	ELEMENTARY DIAGRAM DRAWING LIST (2)	BT3259A-E-00B-08
000	ELEMENTARY DIAGRAM DRAWING LIST (3)	BT3259A-E-00C-08
001	ELEMENTARY DIAGRAM EXPLANATION	RT4020A-E-001
002	SINGLE LINE DIAGRAM (INVERTER)	BT3259A-E-002-08
003	REMOTE I/O CONFIGURATION	BT3259A-E-003-08
A01	AC GENERATOR PANEL MAIN CIRCUIT	BT3259A-E-A01
A02	AC GENERATOR PANEL CONTROL CIRCUIT	BT3259A-E-A02
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SH NO.	NAME OF DWG	DWG. NO.
801	CONTROL PANEL POWER CIRCUIT (1)	BT3259A-E-801
B02	CONTROL PANEL POWER CIRCUIT (2)	BT3259AEB0208
B03	CONTROL PANEL POWER CIRCUIT (3)	BT3259A-E-B03-08
804	NO USE	
B05 -	CONTROL PANEL AUX. CIRCUIT (1)	BT3259A-E-B05
B06	NO USE	
807	NO USE	
B08	NO USE	
809	CONTROL PANEL CONTROL CIRCUIT	BT3259AE809
B10	CONTROL PANEL HOIST/GANTRY MOTOR CIRCUIT (1)	BT3259AEB1008
B11	CONTROL PANEL HOIST/GANTRY MOTOR CIRCUIT (2)	RT4023AEB1108
B12	NO USE	
813	NO USE	
B14	CONTROL PANEL TROLLEY MOTOR CIRCUIT (1)	BT3259A-E-B14-0B
815	CONTROL PANEL TROLLEY MOTOR CIRCUIT (2)	RT4020A-EB150B
B16	NO USE	
B17	NO USE	
B18	NO USE	
B19	NO USE	
B20	CONTROL PANEL EMERGENCY STOP CIRCUIT	8T3259A-E-B20
B21	CONTROL PANEL MAIN POWER CIRCUIT	BT3259A-E-B21
B22	CONTROL PANEL INVERTER CHANGE CIRCUIT (1)	BT3259A-E-B22-08
623	NO USE	
B24	NO USE	
B25	NO USE	
826	NO USE	
827	NO USE	
828	NO USE	
B29	NO USE	

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SH NO.	NAME OF DWG	DWG. NO.
B30	CONTROL PANEL REMOTE 1/O CONFIGURATION	BT3259A-E-B30-08
831	CONTROL PANEL SEQUENCER CIRCUIT	BT3259AEB31
B32	CONTROL PANEL DIGITAL INPUT CIRCUIT (1)	RT4020A-E-832-08
B33	CONTROL PANEL DIGITAL INPUT CIRCUIT (2)	BT3259A~E-B33-08
834	CONTROL PANEL DIGITAL INPUT CIRCUIT (3)	BT3259A-E-B34
B35	NO USE	
B36	CONTROL PANEL DIGITAL OUTPUT CIRCUIT (1)	BT3259AEB3608
B37	CONTROL PANEL DIGITAL OUTPUT CIRCUIT (2)	BT3259A-E-B37
838	NO USE	
B39	NO USE	
940	CONTROL PANEL DIGITAL INPUT CIRCUIT (4)	BT3259A-E-B40
B41	NO USE	
B42	NO USE	
B43	NO USE	
B44	NO USE	
B45	NO USE	
B46	NO USE	
B47	NO USE	
848	NO USE	
B49	NO USE	
850	CONTROL PANEL ALARM & MISCLLANEOUS CIRCUIT	BT3259B-E-850
B51	ONTROL PANEL	RT4020A-E-B51
B52	ON TROLLEY FLOOD LIGHT CIRCUIT	BT3259AEB52
B53	CONTROL PANEL SPACE HEATER CIRCUIT	BT3259A-E-B53
854	NO USE	
B55	NO USE	
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SH NO.	NAME OF DWG	DWG. NO.
` C01	TROLLEY AUX.PANEL POWER CIRCUIT (1)	BT3259A-E-C01
C02	TROLLEY AUX.PANEL POWER CIRCUIT (2)	BT3259A-E-C02
C03	NO USE	
C04	NO USE	
C05	NO USE	
C06	NO USE	
C07	TROLLEY AUX. PANEL SOLENOID FOR SPREADER (1)	RT4020A-E-C07
C08	TROLLEY AUX. PANEL RELAY CIRCUIT	BT3259A-E-C08
C09	NO USE	
C10	TROLLEY AUX. PANEL REMOTE I/O CONFIGURATION	BT3259A-E-C10-08
C11	TROLLEY AUX. PANEL SEQUENCER CIRCUIT	BT3259A-E-C11
C12	TROLLEY AUX, PANEL DIGITAL INPUT CIRCUIT (1)	BT3259A-E-C12
C13	TROLLEY AUX. PANEL DIGITAL INPUT CIRCUIT (2)	BT3259A-E-C13
C14	TROLLEY AUX. PANEL DIGITAL INPUT CIRCUIT (3)	BT3259A-E-C14
C15	NO USE	
C16	NO USE	
C17	TROLLEY AUX. PANEL DIGITAL OUTPUT CIRCUIT	BT3259A-E-C17
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SH NO.	NAME OF DWG	DWG. NO.
D01	CONSOLE REMOTE I/O CONFIGURATION	BT3259A-E-D01-08
D02	CONSOLE SEQUENCER CIRCUIT	8T3259A-E-D02
D03	CONSOLE DIGITAL INPUT CIRCUIT (1)	RT4020A-E-D03
DD4	CONSOLE DIGITAL INPUT CIRCUIT (2)	8T3259A-E-D04
D05	CONSOLE DIGITAL INPUT CIRCUIT (3)	RT4020A-E-D05
D06	CONSOLE DIGITAL INPUT CIRCUIT (4)	BT3259A-E-D06
D07	NO USE	· · · · · · · · · · · · · · · · · · ·
008	NO USE	•
D09	CONSOLE DIGITAL OUTPUT CIRCUIT	8T3259AED09
D10	NO USE	
D11	NO USE	
D12	CONSOLE ENGINE EQUIPMENT	8T3259A-E-D12
D13	NO USE	
D14	CONSOLE MISCELLANEOUS CIRCUIT	8T3259A-E-D14
D15	CAB DISTRIBUTION PANEL CIRCUIT	8T3259A-E-D15
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SH NO.	NAME OF DWG	DWG. NO.	
E01 -	ENGINE CONTROL PANEL	5A5109-E01	-
£02	ENGINE CONTROL PANEL	5A5109-E02	-
E03		5A5109-E03	
E04		5A5109-E04	
E05		5A5109-ED5	
E06		5A5109-E06	
E07		5A5109-E07	
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QX4.0.2 QX4.0.3 QX4.0.4 QX4.0.5 QX4.0.6 QX4.0.7 QX4.0.8 QX4.0.10 QX4.0.11 QX4.0.12 QX4.0.13 QX4.0.14 QX4.0.15 QX4.0.0 QX4.0.9 QX4.0.1 16PTS CONTACT OUTPUT MODULE NP1Y16R-08 10 12 13 11 14 15 16 17 7 8 3 5 2 YB366 ₼ YB360 YB365 **YBJ68** YB369 YB36E YB363 1**B**364 **1936** YB361 YB367 AC200V (B09-2) U 12 📱 - KU 23 関 12 1M8 (B21-2) . YB363A **A1** 14 14 14 14 . 20 CR 13 10M 与新图纸003.R 10页三继电器对 接 4M SP1 9M 1 MA 8MA 7MA 2M 142 142 13 13 A2 1.5 12 13 TCB090 - (B37-1) 4M 20CR 8MA 7MA SP1 9M 10M 1MA 2M RU2S-CR-A200 RU2S-CR-A200 RU2S-CR-A200 RU2S-CR-A200 SC-N1 RU2S-CR-A200 SC-0 SC-0 SC-4-0 A 1 2 805-1 A 3 6 805-1 A 3 6 805-1 C 1314 5 2122 C 4344 a 9 5 821-2 A 1 2 801-2 A 3 4 A 5 6 801-2 a 1314 832-1 6 315 QX4.0.12 SPARE QX4.0.4 HOIST EM'CY STOP QX4.0.0 MAIN CONTACTOR AUX. 9M 20CR 1 MA QX4.0.13 QX4.0.5 SPARE QX4.0.1 QX4.0.9 COOLER FOR PANEL 10M INVERTER CONTROL SOURCE 2M HOIST CHANGEOVER AUX. 8MA QX4.0.10 SPARE MAIN CONTACTOR AUX.INDICATION QX4.0.6 QX4.0.2 QX4.0.14 7MA GANTRY CHANGEOVER AUX. SPARE QX4.0.15 QX4.0.3 IX3.0.11 FAULT INDICATION SP1 SPARE BO047 SPARE GANTRY BRAKE 4M QX4.0.7 SH. NO. NAME OF DWG. DIGITAL OUTPUT CIRCUIT(1) CONTROL PANEL B36 MITSUI ENGINEERING & SHIPBUILDING CO., LTD. BT3259A-E-B36-08 05/10/24 3

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16 PTS D/O UNIT NC1Y16S QX33.0.13 QX33.0.14 QX33.0.15 QX33.0.6 QX33.0.11 QX33.0.12 QX33.0.0 QX33.0.2 QX33.0.3 QX33.0.4 QX33.0.5 QX33.0.7 QX33.0.8 QX33.0.10 QX33.0.1 QX33.0.9 NP1Y16R-08 11 12 13 14 15 10 16 17 8 3 -5 7 YC176 YC178 YC170 YC17E YC173 YC177 YC178 2 YC172 2 YC174 2 Ş ίų. j. ÿ 22 22 22 24M (822-1) / 21 12 YCI71A YC176A YC177A YC172A YC178A M ۸ 14 A 1 41 . 14 14 14 21M 22MF 40FT SP4 22MR 23M 27M 25M 26M -28M 29M LOK UNL 20FT 13 13 A2 13 13 A2 A2 12 42 12 13 TCB090 (B09-1) @-AC200V 21M 22MF 22MR 23M 27M 25M 26M 28M 29M LOK UNL 20FT 40FT SP4 RU2S-CR-A200 RU2S-CR-A200 RU2S-CR-A200 SC-03 SC-5-1RM SC-4-1 SC--03 SC--4--0 SC-03 SC-4-0RM RU2S-CR-A200 RU2S-CR-A200 e 9 5 C07-2 e 9 5 C07-2 e 9 5 C07--1A 121CC 1-1A1121C -2 4 1 2 a 9151C07-A 3 4 CO1 - 1 A 3 4 CO1 - 1 A 3 4 CO1 - 1 A 3 4 CO1 - 2 A 3 4 CO A 3 6 CO1 - 1 A 5 6 CO1 - 1 A 5 6 CO1 - 1 A 5 6 CO1 - 2 A 5 6 CO 2-2A34C01-3 2-2A56C01-3 12-11-1314C12-11-01314C1 61314C12-101314 12-101314C ANTI-SWAY TORQUE MOTOR QX33.0.12 TWIST LOCK "UNLOCKED" SOLENOID QX33.0.0 HOIST MOTOR COOLING FAN QX33.0.4 QX33.0.8 TORQUE MOTOR FAN UNL 21M 27M 29M QX33.0.1 QX33.0.5 QX33.0.9 QX33.0.13 SPREADER "RETRACT" SOLENOID SPARE SKEW MOTOR "RICHT" HOIST BRAKE 20FT 25M 22MF QX33.0.2 QX33.0.6 QX33.0.10 SPARE QX33.0.14 SPREADER "EXTEND" SOLENOID SKEW MOTOR "LEFT" TROLLEY BRAKE 40FT 22MR 26M

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QX33.0.3

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SPREADER HYD. PUMP MOTOR

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28M

QX33.0.11 TWIST LOCK "LOCKED"

NAME OF DWG.

QX33.0.15 SPARE

MITSUI ENGINEERING & SHIPBUILDING CO., LTD.

D/O UNIT CIRCUIT

LOK

TROLLEY AUX. PANEL

QX33.0.7

23M

ANTI-SWAY TORQUE MOTOR

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SH. NO.

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SP4

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	IX51.0.0	HOIST UP NOTCH SENSING	IX51.0.4	SPREADER "UNLOCKED"		IX51.0.8	FLOOD LIGHT "ON"		IX52.0.14	4 SPARE			۲
	IX51.0.1	HOIST DOWN NORCH SENSING	IX51.0.5	SPREADER LOCKED	.:	IX51.0.9	LANDED BYPASS]	IX52.0.1	5 SPARE			
	IX51.0.2	GANTRY RIGHT NOTCH SENSING	IX51.0.6	STEERING 90		IX51.0.10	SPREADER HYD. PUMP "START"		IX51.0.1	4 SPARE			
	IX51.0.3	GANTRY LEFT NOTCH SENSING	IX51.0.7	STEERING D		IX51.0.11	SPREADER HYD. PUMP "STOP"		IX51.0.1	⁵ SPARE			
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PB1 (204-1) (#02+3) -> PB1 AC GENERATOR PANEL 14T 14 14j 1ºl P CAB սի CAB ÇAB (49₩ TB2-15 TB2-19 TB2-17 TB2-6 (ธวฉ 86X1 13L e e ър (E02-2) ່ (E02-2) (E03-3) 131 13 0116 0 PB 0|119 0| PB FAL h PB2-TG PPB2 OPB2 TRESET B2-18 -59 ESP 012 012 012 732-26 EBE EEPB 63Q 0²318 ^m (E03-1) 182-58 500 316A 垉 Źрı **立**D4 **立1**6 28X 49₩ гр (E03~3) <E03-1> 04 302 စီ၂ ²| 630 ĵρ PB1 EMERG. STOP 12X (E02-3) ရှ 0^{5 308 4}0 ġ 1920 1920 1 'œ03≁1) <E03-1> (E03-1) 325 323 ຂີ່ (202-3)->218 RSTX 12X RSTX TB2 -47 TB2 -48 TB2 CAB z (E02--3) (£03-2) CO TB2 -25 റ്റ (E03-5) -46 327 317 E TISPL 321 118PL WTH RL (BZ) OL Ó n 14 (28X 14 86X1 14 14 φİ þ SE (86X (13L) (szt) 1 RST) サイズ 配布 白 原 客先 1 ᆂ 1310.1-15 131 13] 13 13 131 TB2 -45 (E01-1)-N1 (E02-3) N2 N2 (804-1) 生工 校 法 設 かわ 枝 取 LOW OIL PRESS. HIGH WATER TEMP. RUNNING ALARN LAMP LAMP BUZZER LOW SPEED RESET EM CY STOP EN CY HOLD MAJOR ALARM 49₩ 13LX 86X 86X1 28> E04+ 2 E02-資材 営業 設計 12 64 COLL 14-13 RU4S-CD-D24 COIL 14-13 RU4S-CD-D24 COILI 14-13 RU4S-CD-D24 24 I RU 智理 総務 (0. ISEC SET) SH No. EO3 BT3259 電制 電計 推建 ENGINE CONTROL PANEL CIRCUIT DIAGRAM(3) HIEF STAFF PRAWING PRAWING NO. CHIEF N ... REVISION DATE BY H. Kasai M. Ohaure M. Ohaura 5A5109-E03 F. NO. 54510945 F. NO. (8)ZUMNSANR 控 з SANYO DENKEN CQ, LTD. 승위 5

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ENGINE	CONTROL P.	ANEL	CIRCUIT	DIAGRAM(6,
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		11 13L 7 CEO2-22 ON AT 153 ENGINE SP	10 15U 6 (ccu-3) 30RPM SOFF AT ENGINE PEED SUBLING EXCHANGE		
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Exhibit B

SUBCONTRACTOR AGREEMENT

THIS SUBCONTRACTOR AGREEMENT ("*Agreement*") is made and entered into on <u>XXXX, 2024</u> ("*Execution Date*") by and between ZPMC NORTH AMERICA INC. ("*ZPMC*"), and ______("*Subcontractor*").

RECITALS

WHEREAS, ZPMC North America Inc. ("ZPMC") has entered into a contract with TraPac, LLC, pursuant to which, the ZPMC shall perform a hybridization retrofit on three (3) rubber tired gantry cranes at TraPac Terminal, (ZPMC Project Number: ZNA23-0051) and provide certain services including installation, modification, testing, commissioning services.

WHEREAS, ZPMC has prepared Drawings, Specifications, and other documents, collectively called "Contract Documents", for the performance of the Project, more fully described in the Scope of Work contained in the Request for Proposal dated June 18, 2024 ("*Request for Proposal*").

WHEREAS, Subcontractor submitted a proposal to Agent dated the [TBD] to perform the Scope of Work, which was accepted by Agent on behalf of ZPMC subject to ZPMC and Subcontractor entering into this Agreement.

NOW, THEREFORE, in consideration of the recitals, the mutual promises in this Agreement and other good and valuable consideration, the receipt and sufficiency of which the parties acknowledge, the parties, intending to be legally bound, stipulate and agree as follows:

AGREEMENT

Section 1.0 CONTRACT DOCUMENTS

For purposes of this Agreement and the Project, Contract Documents shall mean:

- A. This Agreement,
- B. Request for Proposal, including but not limited to, the following parts:
 - 1. Scope of Work attached as **Exhibit A** plus:
 - Attachment 1 Sample Generator Set Drawings
 - Attachment 2 Actual Battery Room Drawings
 - Attachment 3 Actual Battery Room Platform & Ladder Drawings
 - Attachment 4 Actual Wiring Information
 - Attachment 5 Actual Electrical Schematic Modifications

- 2. Labor & Equipment Rate Schedule attached as **Exhibit B**
- 3. Insurance Requirements attached as Exhibit C

C. In addition, parties may enter into other amendments, agreements, and/or change orders in relation to the Project, Scope of Work and/or Agreement, which shall become part of the Contract Documents.

Section 2.0 SUBCONTRACTOR'S REPRESENTATIONS

A. Subcontractor represents that it has the personnel, experience, qualifications, capabilities, capacity, and means to accomplish the Scope of Work in strict accordance with the Contract Documents for the Contract Price, and that it and its subcontractors satisfy the responsibility criteria set forth in the Contract Documents.

B. Subcontractor further represents that he shall provide **qualified technicians** (enough Mechanics\Electricians\Welders\Painters etc.) during the entire hand over period, including the product recovering work, assistance during commissioning work as well as the endurance test. Subcontractor shall not share or borrow supervision and labor from any current (ongoing) project in the Oakland area. This hybrid retrofit project schedule shall not suffer or benefit from the sharing of resources from other projects.

C. Subcontractor further represents that it has carefully examined and is fully familiar with all provisions of the Contract Documents, including any drawings, exhibits, schedules, and/or addenda, that it has fully satisfied itself as to the nature, location, difficulty, character, quality, and quantity of the Scope of Work required by the Contract Documents and the conditions and other matters that may be encountered at or near the Project site(s), or that may affect performance of the Scope of Work or the cost or difficulty thereof including all applicable safety and site responsibilities.

Section 3.0 SUBCONTRACTOR TO FULLY PERFORM THE WORK

A. Subcontractor shall fully execute and complete the entire Scope of Work in accordance with and as described in the Contract Documents, including all exhibits, and/or addenda issued prior to, and all modifications issued after, execution of the Agreement.

B. Subcontractor shall not assign, sublet, subcontract, or transfer this Contract or any portion of this Contract or any money due or to become due under this Contract without ZPMC's prior written consent or this Contract shall be deemed null and void. If Subcontractor subcontracts the Contract without permission resulting in the contract becoming null and void, Subcontractor shall reimburse ZPMC for monetary losses up to the value of this Contract directly attributable to the act of Subcontractor not obtaining prior consent to subcontract the Contract which shall not be presumed but must be affirmatively established. Subcontractor is solely responsible for the safety and wellbeing of its agents, employees, independent contractors, and any other person(s) working on its behalf. Subcontractor is solely responsible for ensuring that each person within its control understands and abides by all site safety requirements and work rules of the applicable Project. In the event that any person within Subcontractor's control is found in violation of any site safety

requirement or work rule applicable to the applicable Project, ZPMC may, at its option, terminate the Contract without prior notice.

Section 4.0 TERMINATION

A. Termination of Contract. Either party may terminate such Contract for cause upon not less than thirty (30) days' prior written notice to the other upon the occurrence of any of the following: (i) the other party's material breach of any provision of this Contract as it applies to the Services provided that such breach has not been cured to the non-breaching party's satisfaction within thirty (30) days after such notice; or (ii) if the non-terminating party shall be or become insolvent, shall call any meeting of creditors or have appointed a receiver or trustee over itself or its assets, or if any petition, proceeding or other action under any bankruptcy laws shall be filed by or instituted against the non-terminating party.

B. Duties Upon Termination. Upon termination of this Contract, Subcontractor shall, at no additional cost, (i) provide ZPMC or its designee a written report on the status of the Services performed in a form and level of detail reasonably satisfactory to ZPMC, (ii) make Subcontractor's personnel reasonably available to meet with ZPMC or its designee, (ii) provide such further information as ZPMC or its designee may reasonably request, and (iv) cooperate with and assist ZPMC to wind-down the Services.

C. Effect of Termination. Termination of this Contract shall not limit either party from pursuing any other remedies available to it pursuant to this Contract.

Section 5.0 SUBCONTRACT PRICE

A. Subcontractor shall perform all of the Work, including its warranty obligations whenever performed, for the fixed price of **XYZ** (**\$XXX,XXX.00**) for retrofitting three (3) RTG cranes. Such amount, as it may be modified by Change Order pursuant to the General Conditions of the Contract, shall be referred to as the "Subcontract Price." All funds in this Agreement shall refer to U.S. Dollars.

B. ZPMC shall pay the Subcontractor in current funds for the Subcontractor's performance of the Work in accordance with the payment schedule specified in this agreement.

Section 6.0 CONTRACT TIME

Subcontractor shall make its best efforts to complete the Scope of Work in accordance with the Project Schedules found in **Appendix I**. Subcontractor shall reference this schedule in performing its obligations under the Agreement. Dates subject to change based on component arrival time at TraPac terminal.

TIME/DEADLINE	TASK	NOTE
September 23, 2024	Commencement of the Work/Mobilize TraPac Oakland	Just prior to components
		arrıval
September 25, 2024	Estimated Arrival of Hybrid Components	ETA is subject
		to change
November 27, 2024	Completion of 1 st RTG	Can be sooner
December 20, 2024	Completion of 2 nd RTG	Can be sooner
January 15, 2025	Completion of 3 rd RTG	Can be sooner

Section 7.0 PAYMENT SCHEDULE

Payment to Subcontractor under this Agreement shall be made according to the following payment schedule:

Milestone	Payment
Upon Signing of Agreement	10% of Contract Price
Completion of Mobilization	10% of Contract Price
Completion of the 1 st RTG	25% of Contract Price
Completion of the 2 nd RTG	25% of Contract Price
Completion of the 3 rd RTG	20% of Contract Price
Upon Final Completion of the RTGs, including demobilization,	10% of Contract Price
and delivery of project close out documents	

- A. No payment by ZPMC to Subcontractor, including final payment, shall be considered as evidence of satisfactory performance in whole or in part of Subcontractor's obligations under this Contract. No payment by ZPMC shall be construed as approval or acceptance of any defective work or service, and Subcontractor shall remain responsible for performance of all obligations in compliance with the Contract Documents. Subcontractor's acceptance of this final payment from ZPMC will be in full settlement, payment, and satisfaction of any and all amounts due to the Subcontractor.
- B. All Extra Work time sheets shall be signed daily by an authorized ZPMC representative, shall be invoiced weekly.
- **C.** Subcontractor shall deliver all final documents, safety records, accident reports, and project logs. as a condition of final payment.
- D. Payments are due 30 days from receipt of invoicing.

Section 8.0 LIQUIDATED DAMAGES FOR DELAY IN COMPLETION

A. It is recognized that time is of the essence and ZPMC has an important need to complete the Project on or prior to the Final Completion Date according to the Project Schedule. Parties agree that it would be extremely difficult and impracticable under the presently known and anticipated facts and circumstances to ascertain and fix the actual damages ZPMC would incur if Subcontractor does not achieve Substantial Completion by the Substantial Completion Date. Accordingly, in addition to, and not in substitution of the liquidated damages provisions of the General Conditions of the Contract, the parties agree that if Subcontractor does not achieve Substantial Completion Date (other than due to Force Majeure or ZPMC caused delays), ZPMC'S remedy for that delay shall be to recover from Subcontractor as liquidated damages (LD's), and not as a penalty, according to the schedule below, per day, per crane for each calendar day or part thereof elapsing from the Substantial Completion Date as defined at 6.0 hereabove until actual Substantial Completion is achieved. In no case shall the total of these liquidated damages exceed 5% of the Contract Price defined in Section 5.0.

The Schedule for LD's will start on the Substantial Completion Date at a rate of **\$500 USD** per day, per crane.

B. Such liquidated damages shall be in lieu of any and all actual, direct, consequential, incidental, indirect and special damages solely for Subcontractor's delay in completion of the Scope of Work. These damages shall not relieve Subcontractor from its obligation to complete the Project, or from other duties, obligations or responsibilities that it may have under the Agreement.

C. ZPMC may set-off and deduct from the Contract Price any liquidated damages owed by Subcontractor. It is expressly agreed that the right of set-off may be exercised independently of or currently with any other rights of ZPMC hereunder, and payment of such sums as may become due to ZPMC shall not affect any rights of ZPMC to matters other than late completion of the Project.

Section 9.0 INDEMNITY

To the fullest extent permitted by law, Subcontractor shall indemnify, defend and hold harmless ZPMC and ZPMC's officers, agents, and employees from and against all claims, damages, losses, and expenses, including but not limited to attorneys' fees, arising out of or resulting from any defect in the products/equipment supplied by Subcontractor or any components thereof, and/or arising out of or resulting from the performance of the Services (regardless of whether or not such claims, damages, losses, and expenses are caused in part by fault or negligence by a party indemnified hereunder). Such obligations shall not be construed to negate, abridge, or otherwise reduce any other right or obligation of indemnity, which would otherwise exist as to any Party or person, including ZPMC and Subcontractor. This provision does not require indemnity against liability for bodily injury or property damage proximately caused by or resulting from the sole negligence of ZPMC, its independent contractors other than Subcontractor, or the agents, employees, or indemnities of ZPMC.

To the fullest extent permitted by law, ZPMC shall indemnify, defend and hold harmless Subcontractor and Subcontractor's officers, agents, and employees from and against all claims, damages, losses, and expenses, including but not limited to attorneys' fees, arising out of or resulting from any defect in the products/equipment supplied by ZPMC or any components thereof, and/or arising out of or resulting from the performance of the Agreement (regardless of whether or not such claims, damages, losses, and expenses are caused in part by fault or negligence by a party indemnified hereunder). Such obligations shall not be construed to negate, abridge, or otherwise reduce any other right or obligation of indemnity, which would otherwise exist as to any Party or person, including ZPMC and Subcontractor. This provision does not require indemnity against liability for bodily injury or property damage proximately caused by or resulting from the sole negligence of Subcontractor, its independent contractors other than ZPMC, or the agents, employees, or indemnities of Subcontractor.

Notwithstanding anything to the contrary under the Contract Documents, neither ZPMC nor Subcontractor shall be liable to the other for loss of profits, loss of revenue, loss of contracts, loss of use, or for any indirect, consequential, special, punitive, or exemplary damages arising out of or in connection with the Contract or the performance of the Services, regardless of whether liability is based on breach of contract, breach of warranty, tort (including negligence and strict liability), statute or other basis of liability.

Section 10.0 SUBCONTRACTOR'S FAILURE TO PERFORM

If Subcontractor is unwilling or unable to furnish any of the equipment or Services in compliance with the requirements of the Contract, or should fail or refuse to perform any other contractual obligation, ZPMC, without terminating this Contract, may at its option after seven (7) days written notice to Subcontractor, furnish or have furnished by others, any such equipment or Services Subcontractor is unwilling or unable to furnish, or to perform or have performed by others any contractual obligation that Subcontractor fails or refuses to perform. If it is necessary for ZPMC to employ an attorney and/or experts to enforce any provision of this Contract, to assert a claim against Subcontractor, to defend a lawsuit filed against Owner, ZPMC or its surety or to protect the interests of the Owner, ZPMC or its surety because of a violation, breach or default of this Contract by Subcontractor, then Subcontractor and its surety will be liable jointly and severally to ZPMC for all reasonable and proper expenses, attorney fees, court cost, and other charges expended or incurred by ZPMC.

Section 11.0 WARRANTIES

Subcontractor shall warrant the Work as follows:

A. Subcontractor warrants that (1) the Subcontractors work will be, of good quality, and free from defects, in material or workmanship, and (2) the Subcontractor's work completed under this Agreement will conform to the Specifications, and Drawings and other requirements referenced to in the Contract Documents;

B. In the event that any part of the Subcontractors work appears to be defective in design (to the extent Subcontractor or its subcontractors provided such design under this Agreement), materials, equipment, workmanship, or fails in service by reason of any such defect, within one year after the Final Completion Date, ZPMC shall promptly notify Subcontractor in writing or by telephone, confirmed in writing, of the apparent defect or failure. Subcontractor shall promptly correct any such defect or failure without cost to ZPMC or, at Subcontractor's election, shall authorize ZPMC or TraPac Terminal to make such repairs or replacements as may be necessary to correct the defect or failure at Subcontractor's sole cost; provided, however, that if the defect is such as to interfere with the Crane's operation and use of the Cranes, ZPMC or TraPac Terminal may proceed forthwith to repair the same at the expense of Subcontractor; provided, ZPMC shall first give notice and obtain Subcontractor's approval thereof, which approval shall not be unreasonably withheld. The foregoing obligations of Subcontractor under this warranty.

Section 12.0 INSURANCES

Subcontractor shall keep in force at all times throughout the Contract Term, at Subcontractor's expense, for the benefit of ZPMC and Owner as required by this Contract, with ZPMC and Owner, and any other parties designated by ZPMC and Owner as additional insureds. Subcontractor hereby waives and shall cause its insurance carriers to waive any and all rights of recovery, claims, actions or causes of action against ZPMC and Owner for any loss or damage to the extent covered by insurance covering improvements or materials at any Project site, except such rights as they may have to the proceeds of such insurance. See **Exhibit C** for coverage limits and additional details.

ZPMC shall keep in force at all times throughout the Contract Term, at ZPMC's expense, for the benefit of Subcontractor and Owner as required by this Contract, with Subcontractor and Owner, and any other parties designated by ZPMC and Owner as additional insureds. ZPMC hereby waives and shall cause its insurance carriers to waive any and all rights of recovery, claims, actions or causes of action against Subcontractor and Owner for any loss or damage to the extent covered by insurance covering improvements or materials at any Project site, except such rights as they may have to the proceeds of such insurance. See **Exhibit C** for coverage limits and additional details.

Section 13.0 RECORD KEEPING AND AUDIT RIGHTS

A. To facilitate audits by ZPMC or its authorized, for any purpose related to the Services associated thereto, Subcontractor shall, at all times, implement and maintain, and require its subcontractors to implement and maintain, such cost control systems and daily record keeping procedures as may be necessary to attain proper fiscal management and detailed financial records for all costs related to the Work. Records subject to audit include project-related records maintained by parent companies, affiliates, subsidiaries and other related parties.

B. ZPMC shall have the right and shall be afforded useful access to all records at all reasonable times (both during performance of the Services and after the final completion) for purposes of inspection, audit, review and copying to the fullest extent as the Owner may require relating to the Work or the Contract. Upon request, Subcontractor shall also fully cooperate in arranging interviews with the Subcontractor's employees and shall require all subcontractors to likewise fully cooperate pursuant to this subsection.

C. Subcontractor may elect to maintain part of the record described above in an electronic format. Subcontractor agrees that if any information related to the Project is maintained in an electronic format, such information will be made available to ZPMC in an electronic and printed format useable by ZPMC within three (3) calendar days after a written request by ZPMC.

D. Subcontractor shall require all its subcontractors to comply with the provisions of this Section 13.0 by insertion of Section 13.0 into each subcontract related to a Project. ZPMC shall have the right (but not the obligation) to act as Subcontractor's authorized representative for the purpose of conducting audits in accordance with Section 13.0 of all accounting and Project-related records in the possession of the contractors. It is specifically understood, however, that ZPMC has no contractual relationship with any of Subcontractor's subcontractors, and it shall remain Subcontractor's financial and contractual responsibility to resolve all such issues with its subcontractors. No such audit or activity by ZPMC shall release Subcontractor or its Sub-subcontractors from, or waive, any provisions of this Section 13.0.

E. Subcontractor shall preserve and make available to ZPMC at Subcontractor's principal place of business all such records and other data covered by this Section 13.0 for a period of one (1) year after final payment, or for the length of time that there are issues outstanding (such as litigation), whichever is longer.

Section 14.0 MISCELLANEOUS PROVISIONS

A. Independent Subcontractor. Subcontractor's employees and agents are independent contractors with respect to ZPMC, and Subcontractor shall be solely responsible for their supervision, daily direction and control. Nothing in this Contract shall be construed to create a partnership, joint venture, or agency relationship between the parties. Nothing in this Agreement shall be interpreted or construed as creating the relationship of employer and employee between ZPMC or its affiliates and either Subcontractor or any employee or agent of Subcontractor. Each party shall be solely responsible for payment of all compensation owed to its employees and agents, and for all federal and state income tax withholding, social security taxes, and unemployment insurance applicable to such personnel as employees of the applicable party. Each party shall bear sole responsibility for any health or disability insurance, retirement benefits, or other welfare or pension benefits (if any) to which such party's employees and agents may be entitled. Each party agrees to indemnify and hold harmless the other party, its affiliates, and each of such other party's or such other party's affiliates' directors, officers, employees and agents, against any claims that the indemnified party has failed to pay compensation or taxes or provide insurance or benefits for employees or agents of the indemnifying party.

B. Assignment/Subcontracting/Outsourcing. This Contract hereunder may not be assigned, subcontracted, or outsourced in whole or in part by Subcontractor without the prior written consent of ZPMC. Any other purported assignment, subcontracting or outsourcing without consent, shall be deemed null and void and of no effect. Subcontractor shall remain responsible for permitted assignees', subcontractors', and outsourcers' performance pursuant to this Contract as if Subcontractor performed the Services itself and shall ensure that all such entities and their employees and agents are bound by and comply with the terms and conditions of this Contract. Any failure of the foregoing to comply with the relevant requirements of this Contract shall be deemed a breach by Subcontractor.

C. Force Majeure. Neither Party shall be liable for any failure or delay in the performance of its obligations under this Contact to the extent such failure or delay is due to causes beyond such Party's reasonable control, including but not limited to, acts of God, acts of civil or military authority, legal restrictions, fires, explosion, embargo, mobilization, riot, plague, epidemic, pandemic, outbreaks of infectious disease or any other public health crisis, including quarantine or other employee restrictions, and to the extent the following are on a national basis, strikes, industrial disturbances, shortage of material, electricity, oil or transport, or restriction in the use of power. Events set forth above are referred to individually and collectively as "Force Majeure Events." The Parties expressly acknowledge that Force Majeure Events do not include vandalism, or the non-performance of third parties or subcontractors relied on for the delivery of the Services under this Contract, unless such failure or non-performance by a third party or subcontractor is itself caused by a Force Majeure Event, as defined above. Upon the occurrence of a Force Majeure Event, the party prevented from or delayed in performing its obligations under this Contract must immediately notify the other party giving full particulars of the event of force majeure and the reasons for the event of force majeure preventing that party from, or delaying that party in performing its obligations under this contract and that party must use its reasonable efforts to mitigate the effect of the event of force majeure upon its or their performance of the contract and to fulfil its or their obligations under the Contract. Upon the occurrence of a Force Majeure Event, the non-performing Party shall be excused from any further performance or observance of the affected obligation(s) for as long as such circumstances prevail, and such Party continues to attempt to recommence performance or observance to the greatest extent possible without delay. An event of force majeure does not relieve a party from liability for an obligation which arose before the occurrence of that event, nor does that event affect the obligation to pay money in a timely manner which matured prior to the occurrence of that event.

D. Entire Agreement. This Contract and all attachments thereto shall constitute the complete agreement between the parties and supersedes all previous agreements or representations, written or oral, with respect to the Services described herein. This Contract may not be modified or amended except in writing signed by the parties.

E. Governing Laws. This Contract will be governed by and construed and enforced in accordance with the laws of the State of California, excluding its principles of conflicts of law. In the event a dispute arises between the parties relating to this Contract, the parties hereby submit to the exclusive jurisdiction of the State and Federal courts located in the State of California for any such actions, suits or proceedings.

F. Counterparts. This Contract may be executed in two or more counterparts, each of which together shall be deemed an original, but all of which together shall constitute one and the same instrument. In the event that any signature is delivered by facsimile transmission or by e-mail delivery of a ".pdf" format data file, such signature shall create a valid and binding obligation of the Party executing (or on whose behalf such signature is executed) with the same force and effect as if such facsimile or ".pdf" signature page were an original hereof.

G. Invalidity. If any provision of this Contract is held to be invalid or unenforceable, such invalidity or unenforceability shall not invalidate this Contract as a whole, but this Contract shall be construed as though it did not contain the particular provision or provisions held to be invalid or unenforceable.

H. Waiver. No waiver shall be deemed to be made by any party of any of its rights hereunder unless the same shall be in a writing signed by the waiving party, and any waiver shall be a waiver only with respect to the specific instance involved and shall in no way impair the rights or the obligations of any party in any other respect at any other time.

Section 15.0 NOTICES

All notices permitted or required under this Agreement shall be deemed given if hand delivered, sent by certified mail, return receipt requested, sent by Federal Express or another recognized overnight delivery service, or sent by facsimile, email or by any other electronic transmission method to the addresses listed below or the subsequent addresses of which the parties give each other notice:

To ZPMC: ZPMC North America Inc.,

Attn: Weihua Mao Address: 2805 McGaw Avenue Irvine, California 92614

To Subcontractor:

Section 16.0 COUNTERPARTS.

This Agreement may be executed in one or more counterparts, each of which shall constitute an original Agreement, but all of which together shall constitute one and the same instrument. Facsimile/PDF signatures shall be deemed binding on the parties.

IN WITNESS WHEREOF, the parties have caused this Agreement to be executed by their duly authorized representatives as of the date first above written.

SHANGHAI ZHENHUA HEAVY INDUSTRIES CO., LTD.

By: ZPMC North America, Inc., a Delaware corporation Its: Agent

By: _____

Name: Lichao Zhang Title: President Date: _____

SUBCONTRACTOR:

By: _____

Name: Title: Date:

EXHIBIT A

Scope of Work

EXHIBIT B Labor & Equipment Rates

EXHIBIT C

INSURANCE REQUIREMENTS

SUBCONTRACTOR LIABILITY INSURANCE

Subcontractor, shall, at its expense, obtain and maintain in full force and effect at all times commencing on the Effective Date of this Agreement and continuing until the completion of the Work, the insurance coverages and limits specified below.

Subcontractor shall require its subcontractors to obtain and maintain the insurance coverages specified below or Subcontractor may provide such coverage on their behalf.

All insurance policies shall be with financially sound and reputable insurance companies authorized to conduct business in the jurisdiction in which the Project is located with an A.M. Best rating of "A-" "VII" or higher and on terms reasonably satisfactory to ZPMC.

- (a) <u>Commercial General Liability Insurance</u>. Commercial general liability insurance, written on an "occurrence" form, including coverage for third party bodily injury and property damage including products/completed operations, blanket contractual liability, with coverage limits of no less than \$1,000,000 for injuries or death and/or damage to property resulting from any one occurrence, a general aggregate limit of not less than \$2,000,000 and a products and completed operations liability aggregate limit of not less than \$1,000,000.
- (b) <u>Automobile Liability Insurance</u>. Automobile liability insurance, including coverage for owned, leased, non-owned and hired automobiles (as applicable) for both bodily injury and property damage in accordance with statutory legal requirements with combined single limits of no less than \$5,000,000 per accident.
- (c) <u>Workers' Compensation / Employer's Liability Insurance</u>. Workers' compensation insurance in accordance with local statutory requirements, including coverage for employer's liability with limits of not less than \$1,000,000 and such other forms of insurance which Subcontractor is required by law to provide for loss resulting from injury, sickness, disability or death of each of their employees. To the extent there is an exposure to injury to Subcontractor's employees arising from the work to be performed, insurance shall cover for U.S. Longshoreman and Harbor Workers' Compensation Act and/or Jones Act and such other laws, regulations or statutes applicable to employees engaged in maritime-related work.

- (d) <u>Professional Liability Insurance</u>. If the work under this Agreement requires the Subcontractor or licensed design professional to provide design services, Subcontractor or licensed design professional shall provide Design Errors and Omissions and/or Professional Liability Insurance coverage for said design services and maintain said policy for four (4) years after completion of the project. Policy must be in place before design starts. Subcontractor shall indemnify and hold harmless ZPMC as specified in "Indemnification of ZPMC/Owner".
- (e) <u>Umbrella Liability Insurance</u>. As required, Umbrella Liability and/or Follow Form Excess over underlying Commercial General Liability, Business Automobile Liability and Employer's Liability Insurances. Coverage limits can be achieved through the combination of Primary and Excess and/or Umbrella Liability Policies.

Required Umbrella Limits of Liability by Contract Value:

Excess and/or Umbrella Liability				
Each occurrence	\$9,000,000			
Aggregate Limit	\$9,000,000			

ZPMC (and Owner if required) shall be added as additional insured (except for Workers Compensation & Employers Liability) and shall provide that the above insurances shall provide for a waiver of subrogation against ZPMC (and Owner if required). Subcontractor shall, upon request, provide certificates of insurance prior to commencement of the work under this Agreement.

The insurances required to be carried by Subcontractor shall be primary insurance and noncontributory and must be fully collectible prior to any other insurance ZPMC may have or be entitled to. The insurance required above must be maintained in full force until the work required under this Agreement is completed.

ZPMC INSURANCE

ZPMC shall, at its expense, obtain and maintain in full force and effect at all times commencing on the Effective Date of this Agreement and continuing until the completion of the Work, the insurance coverages and limits specified below.

All insurance policies shall be with financially sound and reputable insurance companies authorized to conduct business in the jurisdiction in which the Project is located with an A.M. Best rating of "A-" "VII" or higher and on terms reasonably satisfactory to Subcontractor.

(f) <u>All Risk Property Insurance</u>. ZPMC shall provide All Risk property insurance covering the physical loss or damage during the transit or movement, construction to structures, materials, fixtures and equipment, including those

materials, fixtures, or equipment in storage or transit, including any of the foregoing that are owned by the Owner or ZPMC for the full replacement cost of the structures, materials, fixtures and equipment.

Subcontractor (and Owner if required) shall be added as additional insured and shall provide that the above All Risk insurance shall provide for a waiver of subrogation against Subcontractor (and Owner if required). ZPMC shall provide certificates to Subcontractor of insurance prior to commencement of the work under this Agreement.

The insurances required to be carried by ZPMC shall be primary insurance and non-contributory and must be fully collectible prior to any other insurance Subcontractor may have or be entitled to. The insurance required above must be maintained in full force until the work required under this Agreement is completed.