



General Bid Bulletin No. 8
11 October 2021

METRO MANILA SUBWAY PROJECT PHASE I

PACKAGE CP102:
TWO UNDERGROUND STATIONS (QUEZON AVENUE AND EAST AVENUE)
AND TUNNELS
(IFB No: 21-034-6)

TO ALL PROSPECTIVE BIDDERS:

This General Bid Bulletin is issued to amend/clarify certain provisions in the Bidding Documents for the above-mentioned Project. Please refer to the attached Annexes of this General Bid Bulletin for details:

1. Annex "A" – Answers to Queries from Prospective Bidders including Clarifications to the Bidding Documents.
2. Annex "B" – Addendum to the Bidding Documents
3. Annex "C" – Not Applicable

All other portions of the Bidding Documents not affected by these revisions, amendments and/or clarifications shall remain unchanged.

To access the CP102 bidding documents, password is MMSP102.

Revisions/amendments/clarifications made herein shall be conserved as an integral part of the Bidding Documents of this Project

For your guidance and information.

For the Bids and Award Committee

SIGNATURE REDACTED

WEBSTER M LAUREÑANA
Chairperson

Metro Manila Subway Project Phase 1 PACKAGE CPI02 (Quezon Avenue and East Avenue)			
ITEM NO.	REFERENCE/CLAUSE/SECTION	QUERIES	RESPONSE

Volume IA Bill of Quantities (BOQ)			
1.	Bill NO.4A Bill NO.4B DWG Arch Fire Shutter Doors 1011 (1) c FS Fire Shutter Door with Access Door m2 63.48 1011 (1) c FS Fire Shutter Door with Access Door m2 114.87 DWG No STN-AR-A-QA-7010: DOOR & IRONMONGERY SCHEDULE (1 OF 5) DWG No STN-AR-A-EA-7008: EAST AVENUE STATION DOOR AND IRONMONGERY SCHEDULE (1 OF 4)	The clear widths of the FS Fire Shutter Door with Access Doors indicate the widths of the fire shutter doors only without the widths of the Access Doors in the drawings. However may we consider that the areas of the Access Doors portions are added to those of the FS Fire Shutter Door in the quantities in the Bill No. 4?	Yes. The Access Doors are included in the FS Fire Shutter Door in the quantities in the Bill No. 4.
2.	BOQ-140 BOQ-230 1109 1109(4) 20mm diameter x 3000mm long ground rod In the QUANTITY Column "By Civil Contractor"	In the QUANTITY Column, It is indicated "By Civil Contractor" The Bidder would like to clarify what number and pay item numbers for the 20mm diameter x 3000 long ground rod.	These rods are included in the Scope of work of the Civil Contractor. Please refer to Volume II Part 2 Works Requirement Section VI Work Requirements item 1109.4.2 of MEP works for the pay item concerns.
3.	2309 of Bill No. 7A	Reference is made to the item number 2309 of Bill No. 7A for Pedestrian Bridge 1. We would appreciate it if you would provide us with its breakdown in lieu of lump sum.	The breakdown will not be provided. The bidder should estimate the price based on the drawings.

Metro Manila Subway Project Phase 1 PACKAGE CPI02 (Quezon Avenue and East Avenue)			
ITEM NO.	REFERENCE/CLAUSE/SECTION	QUERIES	RESPONSE
4.	2400 of Bill No. 8 for Tunnel Lighting	Reference is made to the item number 2400 of Bill No. 8 for Tunnel Lighting. We would appreciate it if you would provide us with its breakdown in lieu of the total length together with the detailed drawings of the tunnel lighting.	The breakdown will not be provided. The bidder should estimate the price based on the drawings.
5.	1100-1110 of Bill Nos. 6A, 6B and 6C	Reference is made to the item numbers 1100-1110 of Bill Nos. 6A, 6B and 6C for Station Plazas (North Avenue Station, Quezon Avenue Station and East Avenue Station respectively). We would appreciate it if you would provide us with the breakdown of these items in lieu of lump sum.	The breakdown will not be provided. The bidder should estimate the price based on the drawings.
6.	Unit Rates for BOQ Items without Quantities A rate or price shall be entered against each item in the priced Bill of Quantities, whether quantities are stated or not.	Please confirm that, for those BOQ Items which are remeasurable but have no quantity shown, the Bidder is allowed to estimate the quantity and base its unit rate on that quantity. The Bidder will show the estimated quantity and the unit rate.	Please specify which items are "remeasurable" but have no quantity. Please indicate.
7.	Approval from Local Government Units	Will the Employer assist the Contractor to obtain approvals from LGU's?	Yes. The Employer shall assist the Contractor to obtain approvals from LGU's.
8.	Payatas Landfill Site	At the Pre-Bid Meeting it was confirmed that waste or garbage can be disposed of at the Payatas Landfill Site. However the site was closed in 2018 and is not currently available. Please advise where waste or garbage should be disposed of..	The Contractor is responsible for disposal of spoil materials. DOTr will assist the Contractor in finding a disposal site.
9.	Architectural Works (Built-ins and Countertops) Bill of Quantities Items 1812 (4), 1822 (1),	The Bidder kindly requests that detailed drawings of built-ins and countertops be provided in order for us to propose the correct unit prices in the BOQ.	The pay item 1812 (4) quantified as lump sum in TS and BOQ. Hence no quantities will be provided. 1812 - Built-ins (Pantry Counter), Refer drawing EA/QA-9640.

Metro Manila Subway Project Phase 1 PACKAGE CP102 (Quezon Avenue and East Avenue)											
ITEM NO.	REFERENCE/CLAUSE/SECTION	QUERIES	RESPONSE								
	and 1822 (2)		The pay items 1822 (1), and 1822 (2) are provided with quantity in Sqm and drawings are available to take measurement. 1822 (1)- Quartz Countertop, Refer drawing EA/QA-9600 1822 (2)- Ledge Quartz, Refer drawing EA/QA-9610.								
10.	BOQ Bill 5A and Bill 5 B Section 1113 (2a to 2b) STN-MEP-ELL-QA, STN-MEP-ELL-EA-2001	Please clarify which Capacitor Bank rating will prevail: <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Station</th> <th>Tech Specs</th> <th>Plans</th> <th>BOQ</th> </tr> </thead> <tbody> <tr> <td>Quezon Avenue</td> <td>Not Mention</td> <td>APFC PANEL-01 & 02, 600KVAR</td> <td>APFC PANEL-01 & 02, 500KVAR</td> </tr> </tbody> </table>	Station	Tech Specs	Plans	BOQ	Quezon Avenue	Not Mention	APFC PANEL-01 & 02, 600KVAR	APFC PANEL-01 & 02, 500KVAR	Drawings shall prevail over BOQ. Rating(s) shall follow with the drawing and are subject for validation with/upon shop drawing review and approval.
Station	Tech Specs	Plans	BOQ								
Quezon Avenue	Not Mention	APFC PANEL-01 & 02, 600KVAR	APFC PANEL-01 & 02, 500KVAR								
11.	BOQ Bill 5A and 5B Pay item No.1234(1) Technical Specifications 1209.2.1 item 1) e	Please clarify the material to be used for the Condensate Drain Piping. The BOQ states Polyvinyl Chloride (PVC) pipes and fittings; series 1000 while the Technical Specifications states Galvanized Iron(GI) pipe.	Please follow general notes on the drawings. Drawings shall prevail over BOQ.								
12.	BOQ Bill 5A and 5B Pay item 1213 (5)	Please provide material specifications for refrigerant trunking and fittings.	Contractor is advised to check technical specifications (Section 1213) concerning refrigerant pipes.								
13.	Bill of Quantity (BOQ) - Bill 5A Item no. 1201 (1), 1201 (2) & 1201 (3) STN-MEP-PLD-QA-5301 STN-MEP-PLD-QA-5101 STN-MEP-PLD-EA-5301 STN-MEP-PLD-EA-5101	Based on our reliable Suppliers/Manufacturers the 2900RPM has a frequency of 50Hz which is not applicable in the Philippines since our standard frequency here is 60hz. The available RPM for 60hz is 3500RPM. Please confirm the RPM to be used for Pumps.	Significant parameters for pump are stated already (Flow and TDH) on Drawings. RPM will be included on manufacturer's recommendation based on the 60Hz rating.								
14.	BOQ Pay Item 1017 (1) b	Please clarify where the locations and details of the Aluminum Bandless Gutter are..	The location for the aluminum bandless gutter is at Entrance (canopy). Refer to the drawing STN-AR-A-QA-9112, Detail B.								
15.	Bill of Quantities; Bill 5A; Pay Item No.	Kindly verify which raceway shall be used for	The raceway to be used for the Access Control System								

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PACKAGE CPI02 (Quezon Avenue and East Avenue)

ITEM NO.	REFERENCE/CLAUSE/SECTION	QUERIES	RESPONSE
	<p>1124</p> <p>Technical Specifications 3: Mechanical, Electrical and Plumbing Part 1124.2.20 - Wiring</p> <p>Quezon Avenue Station: STN-MEP-ELV-QA-2081 STN-MEP-ELL-QA-3311 to STN-MEP-ELL-QA-3344</p> <p>East Avenue Station: STN-MEP-ELV-EA-2045 STN-MEP-ELL-EA-3640 to STN-MEP-ELL-EA-3665</p>	<p>Access Control System:</p>	<p>is the BOQ. IMC and PVC shall be used if it is concealed. Refer to the technical specification as indicated in Section 1124.2.20.</p>
16.	<p>Bill of Quantities; Bill 5A; Pay Item No. 1124</p> <p>Technical Specification 3: Mechanical, Electrical and Plumbing Part 1124.2.20 - Wiring</p> <p>STN-MEP-ELV-QA-2081 STN-MEP-ELL-QA-3311 to STN-MEP-ELL-QA-3344</p> <p>STN-MEP-ELV-EA-2045 STN-MEP-ELL-EA-3641 to STN-MEP-ELL-EA-3665</p>	<p>Kindly verify which trunking shall be used for Access Control System:</p>	<p>Trunking to be used for access control systems will be as per Drawings.</p>

**Metro Manila Subway Project Phase 1
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ITEM NO.	REFERENCE/CLAUSE/SECTION	QUERIES	RESPONSE																								
17.	BILL NO. 5B - Pay Item No. 1213 (2) STN-MEP-VAC-EA-5102	Please provide the cooling capacity rating of the AHU unit with tagging EA-MZ-AHUDX-01. There is no indicated capacity in the BOQ and Equipment Schedule.	The rating of ATS indicated in the drawings shall prevail, ratings shall be verified upon shop drawings submittals in compliance to the Philippine Electrical Code Article 6.95.																								
18.	Bill of Quantities; Bill 5A & SB; Pay Item No. 1126 Technical Specifications 3: Mechanical, Electrical and Plumbing Par\ 1126.2.1 Scope of Supply Part 1126.3.1 Method of Measurement Part 1126.3.2 Basis of Payment STN-MEP-ELV-QA-2071 SThI-MEP-ELV-EA-2044	Kindly clarify our scope of work under Telephone and Broadband Distribution System due to conflicts as follows: <table border="1" data-bbox="786 643 1361 1217"> <thead> <tr> <th>Items</th> <th>Scope of Supply</th> <th>Method of Measurement</th> <th>Basis of Payment</th> <th>Bill of Quantities</th> <th>Plan Q, Ave and E. Ave</th> </tr> </thead> <tbody> <tr> <td>Equipment and Devices</td> <td>By TSP</td> <td>Not Mentioned</td> <td>By Contractor</td> <td>Not Mentioned</td> <td>By TSP</td> </tr> <tr> <td>Wires and Cables</td> <td>By TSP</td> <td>From IDF to individual outlets - By Contractor Riser - Not Mentioned</td> <td>Not Mentioned</td> <td>Not Mentioned</td> <td>By TSP</td> </tr> <tr> <td>Raceways and Trunking</td> <td>By TSP</td> <td>From IDF to individual outlets - By Contractor Riser - Not Mentioned</td> <td>Not Mentioned</td> <td>Pay Item 1126</td> <td>By Contractor</td> </tr> </tbody> </table> <p align="center">TSP - Telephone Service Provider</p>	Items	Scope of Supply	Method of Measurement	Basis of Payment	Bill of Quantities	Plan Q, Ave and E. Ave	Equipment and Devices	By TSP	Not Mentioned	By Contractor	Not Mentioned	By TSP	Wires and Cables	By TSP	From IDF to individual outlets - By Contractor Riser - Not Mentioned	Not Mentioned	Not Mentioned	By TSP	Raceways and Trunking	By TSP	From IDF to individual outlets - By Contractor Riser - Not Mentioned	Not Mentioned	Pay Item 1126	By Contractor	Bidders can refer to Ventilation & Air Conditioning Layout Drawing for the Tunnel Ventilation Duct (Drawing No. STN-MEP-VAC-EA-3100 to 3107, STN-MEP-VAC-EA-3120 to 3126, STN-MEP-VAC-EA-3130 to 3135).
Items	Scope of Supply	Method of Measurement	Basis of Payment	Bill of Quantities	Plan Q, Ave and E. Ave																						
Equipment and Devices	By TSP	Not Mentioned	By Contractor	Not Mentioned	By TSP																						
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19.	Bill of Quantities; Bill 5A & SB; Pay Item No. 1126 Technical Specifications 3: Mechanical,	Kindly clarify our scope of work under Local Area Network (LAN) System due to conflicts as follows:	1. For LAN, see STN-MEP-ELV-QA-2102 (R0) of 9/2020 which shows the bidder/contractor scope from tapping point to MDF, and from MDF to LAN outlets																								

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	<p>Electrical and Plumbing Par\ 1126.2.1 Scope of Supply Part 1126.3.1 Method of Measurement Part 1126.3.2 Basis of Payment</p> <p>STN-MEP-ELV-QA-2071 STN-MEP-ELV-EA-2044 Bill of Quantities; BMI 5A & 5B; Pay Item No. 1127</p> <p>Technical Specifications 3: Mechanical, Electrical and Plumbing Part 1127.2.1 Scope of Supply Part 1127.3.1 Method of Measurement Pan 1127.3.2 Basis of Payment</p> <p>STN-MEP-ELV-QA-2102 STN-MEP-ELV-EA-2045</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">Items</th> <th style="width: 10%;">Scope of Supply</th> <th style="width: 10%;">Method of Measurement</th> <th style="width: 10%;">Basis of Payment</th> <th style="width: 10%;">Bill of Quantities</th> <th style="width: 10%;">Pan Q, Ave and E. Ave</th> </tr> </thead> <tbody> <tr> <td>Equipment and Devices</td> <td>Not Mentioned</td> <td>Not Mentioned</td> <td>By Contractor</td> <td>Not Mentioned</td> <td>By TSP</td> </tr> <tr> <td>Wires and Cables</td> <td>Not Mentioned</td> <td>From IDF to individual outlets - By Contractor Riser - Not Mentioned</td> <td>Not Mentioned</td> <td>Not Mentioned</td> <td>By TSP</td> </tr> <tr> <td>Raceways and Trunking</td> <td>Not Mentioned</td> <td>From IDF to individual outlets - By Contractor Riser - Not Mentioned</td> <td>Not Mentioned</td> <td>Pay Item 1127</td> <td>By Contractor</td> </tr> </tbody> </table> <p align="center"><small>TSP - Telephone Service Provider</small></p>	Items	Scope of Supply	Method of Measurement	Basis of Payment	Bill of Quantities	Pan Q, Ave and E. Ave	Equipment and Devices	Not Mentioned	Not Mentioned	By Contractor	Not Mentioned	By TSP	Wires and Cables	Not Mentioned	From IDF to individual outlets - By Contractor Riser - Not Mentioned	Not Mentioned	Not Mentioned	By TSP	Raceways and Trunking	Not Mentioned	From IDF to individual outlets - By Contractor Riser - Not Mentioned	Not Mentioned	Pay Item 1127	By Contractor	<p>of CP106 and/or railway system.</p> <p>2. Also refer to the note indicated in STN-MEP-ELV-QA-2102 stated that LAN SYSTEM EQUIPMENTS ARE INDICATIVE ONLY. LAN EQUIPMENT INSTALLATION AND WIRE LAYING, "CONTAINMENT ROUTING CONTRACTOR" NEEDS TO COORDINATE WITH TELEPHONE SERVICE PROVIDER DURING EXECUTION.</p> <p>3. The contractor shall refer to Technical Specification under the General item of the General requirements and to ensure to comply Section 101.1.1 Design Principle item A-H.</p>
Items	Scope of Supply	Method of Measurement	Basis of Payment	Bill of Quantities	Pan Q, Ave and E. Ave																						
Equipment and Devices	Not Mentioned	Not Mentioned	By Contractor	Not Mentioned	By TSP																						
Wires and Cables	Not Mentioned	From IDF to individual outlets - By Contractor Riser - Not Mentioned	Not Mentioned	Not Mentioned	By TSP																						
Raceways and Trunking	Not Mentioned	From IDF to individual outlets - By Contractor Riser - Not Mentioned	Not Mentioned	Pay Item 1127	By Contractor																						
20.	Locations of some missing Architectural items	<p>May we know the locations of the following Pay Items:</p> <p>1811 (9) Aluminum Composite Panel Cladding 1811 (10) Solid Plate 1811 (11) Stainless Steel Plate and Corner Trim 1203 (1) Stainless Steel Ceiling Panel 1804 (2) Extruded Aluminum Horizontal Louvers with Insect Screen</p>	<p>The following pay item materials and their location are identified below:</p> <p>1811 (9) Aluminum Composite Panel Cladding - located at entry structure ceiling/wall interface (top). Refer to drawing (9060), Detail C. 1811 (10) Solid Plate - located at entry structure ceiling/wall interface (bottom). Refer to drawing (9060), Detail A. 1811 (11) Stainless Steel Plate and Corner Trim -</p>																								

Metro Manila Subway Project Phase 1 PACKAGE CPI02 (Quezon Avenue and East Avenue)			
ITEM NO.	REFERENCE/CLAUSE/SECTION	QUERIES	RESPONSE
		1804 (3) Extract Air Aluminum Louver with Insect Screen 1803 (3) c Aluminum Corner Trim	located at wall chamfer. Refer to drawing (9830). 1203 (1) Stainless Steel Ceiling Panel - located at the lift car ceiling. Refer to architectural TS 1820 ELEVATOR CAB FINISHES (Refer to MEP TS 1203.2.6.10.b). Car dims can be extracted from drawing 9700. 1804 (2) Extruded Aluminum Horizontal Louvers with Insect Screen - located at recess ceiling. Refer to drawing (9062) detail 5. 1804 (3) Extract Air Aluminum Louver with Insect Screen - located at lift shafts. Refer to drawing (9131). 1803 (3) c Aluminum Corner Trim - located at ceiling edge profile. Refer to drawing (9063).
21.	Ironmongeries	May we know which Door Types have the following Ironmongeries: 1004 (2) a3 Finishing Hardware Lockset - Deadlock 1004 (2) d1 Finishing Hardware Door Closer - Door Coordinator 1004 (2) n Finishing Hardware Door Stop	The following ironmongeries are used in the following door types: 1004 (2) a3 Finishing Hardware Lockset - Deadlock - It is in door type 2 and 3. Refer to specification, 1004.3.7 Hardware sets. 1004 (2) d1 Finishing Hardware Door Closer / Coordinator - It is in door type 1, 2, 3, 4, 4a, 5. Refer to specification, 1004.3.7 Hardware sets. 1004 (2) n Finishing Hardware Door Stop is not type specific. Conditions for application are outlined in TS 1004.2.2 (5).
22.	Bill 5A and Bill 5B Pay item no 1202(7) STN-MEP-FPS-CWD-0102	Please confirm if the Clean gas type fire extinguisher in the General notes, Legends and Abbreviation Drawing pertains to the CO2 type fire extinguisher in the BOQ .	Yes, It is a CO2 type fire extinguisher.

Metro Manila Subway Project Phase 1 PACKAGE CPI02 (Quezon Avenue and East Avenue)																	
ITEM NO.	REFERENCE/CLAUSE/SECTION	QUERIES	RESPONSE														
		<p>GENERAL NOTES:</p> <table border="1"> <tr> <td style="text-align: center;">16</td> <td style="text-align: center;"> FEX</td> <td>4.5KG, CLEAN GAS TYPE FIRE EXTINGUISHER</td> </tr> <tr> <td style="text-align: center;">17</td> <td style="text-align: center;"> WFEX</td> <td>22.6KG, CLEAN GAS WHEELED TYPE FIRE EXTINGUISHER</td> </tr> </table> <p>BOQ:</p> <table border="1"> <tr> <td style="text-align: center;">1202(7)</td> <td>FEX - CO2 type, 4.5kg</td> <td style="text-align: center;">pc</td> <td style="text-align: center;">26.00</td> </tr> <tr> <td style="text-align: center;">1202(7)</td> <td>WFEX - CO2 type, 22.6kg</td> <td style="text-align: center;">pc</td> <td style="text-align: center;">1.00</td> </tr> </table>	16	 FEX	4.5KG, CLEAN GAS TYPE FIRE EXTINGUISHER	17	 WFEX	22.6KG, CLEAN GAS WHEELED TYPE FIRE EXTINGUISHER	1202(7)	FEX - CO2 type, 4.5kg	pc	26.00	1202(7)	WFEX - CO2 type, 22.6kg	pc	1.00	
16	 FEX	4.5KG, CLEAN GAS TYPE FIRE EXTINGUISHER															
17	 WFEX	22.6KG, CLEAN GAS WHEELED TYPE FIRE EXTINGUISHER															
1202(7)	FEX - CO2 type, 4.5kg	pc	26.00														
1202(7)	WFEX - CO2 type, 22.6kg	pc	1.00														
<i>Volume II Works Requirements Section VI Works Requirements – General Specification (GS)</i>																	
23.	<p>VI 10 103.2.1 Permits and Approvals “It shall also include the obtaining of all necessary licenses, permits and approvals as may be required by the Contract or by the Laws of the Philippines, prior to Commencement of the Works and for any and all other works or operations which must be performed before the Works may commence in a lawful, safe and secure manner”.</p>	<p>Please confirm that for mobilization itself, it will only be necessary to provide proof of having submitted an application.</p>	<p>No, It is the responsibility of the Contractor to provide necessary permits and approval from relevant authorities.</p>														
24.	<p>VI 20, 69 106.1, 116.4.3 Attendance at Factory Acceptance Tests “The Contractor shall note that the Employer and two (2) officers from the Employer and two (2) numbers of personnel from the Engineer will witness the TBM Factory Test.” “At his sole discretion, the Engineer shall</p>	<p>Please confirm the number of people to attend Factory Acceptance Tests.</p>	<p>Max. 4 delegates from the Employer and Engineer are stipulated unless otherwise specified.</p>														



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	direct a maximum of four (4) delegates to attend and witness each FAT.”		
25.	VI GS 56 113.1.1 Diversion of Utilities by Others “It is the intent of the Employer that all utilities, including water, drainage, electricity, communications and the like which obstruct the Permanent Works shall be removed, diverted or relocated by others prior to the commencement of the Works.”	Please confirm that all utilities will have been dealt with prior to the Commencement Date. If this is not the case then please confirm when those remaining utilities will be diverted.	Existing utilities are to be removed under a separate Advance Works contract that is to be bid shortly. The PS item under CP102 provides funds for removal of as-yet unidentified utilities that are found to also need removal.
26.	VI GS 59 114.1.5 Approval of Traffic Diversions “In addition to the above and prior to the implementation of site’s specific traffic control schemes, the Contractor shall obtain any necessary approval from relevant authorities who have jurisdiction over or ownership of the existing traffic way including the Traffic Police (Highway Patrol Group, HPG) and LGUs, as applicable.”	Please confirm that the traffic diversions shown on the drawings (including Traffic Impact Assessments) have been approved by the relevant authorities.	The traffic diversion plan shown on the drawings has not been approved by the relevant authorities. The final TMP will be provided by the civil contractor and to be sent and approved by the relevant authorities prior to the commencement.
27.	VI GS 59 114.1.7 Reduction in Traffic Lanes “The existing traffic on roads at the Site must be maintained at all times during the Work and if diversions are provided these must be of the same traffic capacity as the original road.”	Please confirm that the Engineer will accept the traffic diversions as shown on the drawings.	The drawings are "reference only". Please plan according to Volume II. PART 2: WORKS REQUIREMENTS Section VI: Works Requirements General Specifications (GS) 114.

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28.	Costs for Permanent Power Supply	Please confirm that the Contractor will not be charged for any electric power provided by CP106 through Permanent Works Plant.	1. Contractor/Bidder to refer with GS Section 104.1.8.2, and if necessary, refer with Section 104.1.8.3, 2. The bidder/contractor must be aware and/or clarified of the operational meanings of permanent and temporary power supplies, and the latter shall only apply during the construction period and of which to be referred with Item No. 1 above.
29.	VIGS 68 116.4.1 Factory acceptance test The detailed equipment will be subject by FAT and shall be confirmed with the Engineer based on the contractor's tender proposal and accepted condition by the engineer.	Please confirm either: a) with which document the detailed equipment will be submitted by Contractor at tender period b) or if it is not to be submitted at the tender period, but to be discussed at construction period.	Sub-clause 116.4.1 lists the items of equipment subject to FAT inspection by the Employer. The Bidder should include in his Proposal a confirmatory list of all items of equipment he understands will be subject to FAT as no additional payment is provided for such inspections. During negotiations, this list may be subject to modification.
30.	General Specification Clause 140 and Appendix 8 Sub- Clause 1.6 refers	Please advise if the BIM Execution Plan (BEP) LOD 100-300, which will be provided by Engineer to the Contractor, already includes the multi-discipline federated 3D BIM model, and ready for the Contractor to immediately check and update.	Yes. The Engineer will provide BIM LOD 300 models to the contractor.
31.	the scope of the CP102 Contract	Please clarify and confirm that the following works shall not be included in the scope of the CP102 Contract:- - Potential remedial works of the diaphragm walls constructed by the CP101 Contractor including water leakage/ seepage. Provision of temporary dewatering pumps and waste water	Please judge based on Volume IV. Part 3: Conditions of Contract and Contract Forms Section VIII Particular Conditions (PC) ATTACHMENT-2B TO PART A : CONTRACT DATA OF PARTICULAR CONDITIONS OF CONTRACT PROVISION OF TUNNEL WORKSITE AND TBM LAUNCH SHAFT BY THE CP101 CONTRACTOR AT NORTH AVENUE

Metro Manila Subway Project Phase 1 PACKAGE CP102 (Quezon Avenue and East Avenue)			
ITEM NO.	REFERENCE/CLAUSE/SECTION	QUERIES	RESPONSE
		treatment plant from the launching shaft during the TBM tunneling works by the CP102 Contractor.	STATION and decide through Interface coordination with CP101.
32.	Advertising Panels	a) Please confirm that the provision of advertising panels is in CP106 scope. b) Please confirm what provision (if any) shall be made by CP102 for advertising panels.	a) The provision of the advertising panel is in civil scope. b) Please refer to BOQ. Under pay item "Gallery wall SS structural Module" number: 1035 (2) is the provision to be made by the civil contractor.
33.	App 8-4 Appendix 8 1. BIM Employers Information Requirement	It is not clear on what is the Main purpose of BIM that will serve as the desired result of the project. The Bidder would like to request the Employer to provide a detailed purpose of these requirements.	The Client has mandated the use of Building Information Management (BIM) throughout the construction, and operational stages of the project to fully utilize the potential for significant cost savings. The Metro Manila Subway Project (MMSP) provides an opportunity for the Client to establish and implement a robust working procedure for delivering a coordinated BIM model. The main objective of this BIM EIR are: <ul style="list-style-type: none"> •To establish a collaborative design using a common data environment (CDE) with all design discipline and stakeholders throughout the entire project lifecycle. •To standardize the production process and ensure all deliverables (2D, 3D drawings, BIM models and data schedules) are produced and issued in a uniform manner to the specified Engineer's CAD Manual, BIM standard / Approved issued BIM documents, •To define the structure of potential and proposed data embedded within digital BIM models such as for further use in future operations and maintenance, •To eliminate waste by creating a virtual building

Metro Manila Subway Project Phase 1 PACKAGE CPI02 (Quezon Avenue and East Avenue)			
ITEM NO.	REFERENCE/CLAUSE/SECTION	QUERIES	RESPONSE
			<p>processes in which the design, construction, performance, and operations can be visualized and stimulated, thus leading to potential cost saving in rework, coordination, clash mitigation and longer-term benefits within the post construction operations phase yet to be fully defined or established</p> <ul style="list-style-type: none"> • Provide an open source as-built BIM model, which can be used by the Client to operate and maintain the line wide project. <p>The purpose of this Building Information Modelling (BIM) Employer Information Requirement (EIR) is to define the minimum information requirements for BIM use to be achieved by the Contractor in the Project to achieve the Client's overall BIM objective.</p> <p>This document will outline the objectives of the BIM implementation for the MMSP line; Level of Development (LOD) to achieve BIM modelling in construction; as-built and handing over phases, exchange of information, and collaborative design process as a requirement of the project.</p> <p>The BIM process shall be implemented for the whole Contract phase for modelling, visualization, clash detection, CSD/SEM, simulation for Engineering study, coordination, documentation, Validation of As-built, 3D scanning and collaborative use of the models throughout the project delivery as defined in this document.</p>

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			The Contractor shall implement a collaborative work in progress procedure with all Interface disciplines which is outlined in the Role and Responsibility table in BEP, for the information exchange and sharing of the BIM model and update of As-built information through the Common Data Environment (CDE) as appointed by the Client.
34.	App 8-8 Appendix 8 1.7 Information Requirements Use of BIM Model: Transmittals, Formal Correspondences, and Other Information	The Bidder would like to clarify if the Bidder will follow the format of transmittal as per BS ISO 19650 - Master Information Delivery since it is not indicated in the requirements.	We will use BS ISO 19650 format. The Engineer will provide the format to the contractor once mobilized.
35.	App 8-8 Appendix 8 1.7 Information Requirements	The Bidder would like to clarify what are the provisional requirements for the BIM that are supposed to be as additional content for the model.	The contractor needs to provide asset information to the BIM model in COBIE format as stated in the ER. Asset Information Requirement will be provided once the Operator of the project will be on boarded. This is <u>non-graphical information for Asset Management</u> .
36.	App 8-8 Appendix 8 1.7 Information Requirements	The Bidder would like to clarify if information about existing conditions will be included in BIM.	No, If the bidder is referring to the existing condition of the site. The importance is to reflect the proposed site design for implementation.
37.	App 8-17 Appendix 8 1.8.7 Coordination & Clash Mitigation Process	The Bidder would like to clarify what portion of BIM shall be provided for clash detection.	Since the LOD 300 model will be provided by the Engineer based on the JDT design drawings, There is no 100% percent assurance it is clash free. It is the responsibility of the Contractor to update the model in LOD 350 as a clash free model.
38.	App 8-17 Appendix 8 1.8.7 Coordination & Clash Mitigation Process	The Bidder would like to clarify if a clash report will be required even if there would be no cases of clashing.	Since the LOD 300 model will be provided by the Engineer based on the JDT design drawings, There is no 100% percent assurance it is clash free. It is the responsibility of the Contractor to update the model in LOD 350 as a clash free model.

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39.	App 8-43 Appendix 8 – Annex 1 1.4.5.2 Agreed Format of Exchanged Model Data <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">File Format</th> <th style="text-align: left;">Purpose</th> </tr> </thead> <tbody> <tr> <td>Revit 2020</td> <td>Cross-reference of Revit models</td> </tr> <tr> <td>Navisworks 2020</td> <td>Clash detection analysis Design review</td> </tr> </tbody> </table>	File Format	Purpose	Revit 2020	Cross-reference of Revit models	Navisworks 2020	Clash detection analysis Design review	The Bidder would like to clarify if it can use the latest and optimal version of the software since the model files cannot revert back to the previous version.	Yes. We will update the software version as discussed and agreed in the implementation stage.
File Format	Purpose								
Revit 2020	Cross-reference of Revit models								
Navisworks 2020	Clash detection analysis Design review								
40.	App 8-45 Appendix 8 – Annex 1 1.4.11 Workflow 	The Bidder would like to clarify if and when will the contractor receive a BIM LOD 300 model from the Engineer.	As of now the Engineer is modeling the LOD 300. We are aiming to finish by this year.						
41.	App 8-45 Appendix 8 – Annex 1 1.4.11 Workflow 	The Bidder would like to clarify if when will be the period of submissions for BIM by the Contractor.	The Bidders are advised to submit BIM model Phase LOD350, LOD 400 and LOD 500 models. This will be discussed in the project implementation.						
42.	App 8-48 Appendix 8 – Annex 1 1.6 BIM Uses	The Bidder would like to clarify if what is to include and exclude on the list of BIM Uses that will use/will be applicable on the project.	Please refer below: (For additional references, please refer to App 8-33 Appendix 8 – Annex 1 1.3.2 Level of Development Matrix). Please refer to the attachment.						
43.	Attachment-2B	Reference is made to Attachment-2B to the Particular Specifications(PS). Subclause(1)(i) states that the TBM Launch Shaft at North	This is to accommodate the Bidder's choice of either one or two TBM scenarios to do both tunnels NAS / QAS.						

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		Avenue Station needs to be complete and free of encumbrances to facilitate the assembly and driving of TBM;s from this Shaft by the contractor. However, contrary to the above, subclause(2)(i) states that CP101 Contractor will leave Retrieval Shaft including access road within custody of the Contractor for the purpose of TBM Retrieval Windows for the period of no shorter than two(2) months per each tunnel. Please clarify	
44.	Appendix 4	Please confirm if removal and/or relocation of the existing facilities mounted on or attached to the existing pedestrian bridges to be demolished during construction of new pedestrian bridges at the Quezon Avenue Station, such as traffic signals, traffic signs, CCTVs, advertisement boards, planter boxes etc., shall be carried out under the Contract CP102.	Yes, the bidder's understanding is correct.
45.	VIGS 170 142.1 Checking Temporary Works "Erection of Temporary Works shall not be commenced until the Form shown in Appendix 2 of TS 2000 of the Technical Specifications has been signed by the Temporary Works Coordinator (See GS 142.2 below) and the Third Party Verifier ("TPV") or other person approved by the Engineer."	a) Can we appoint one party to check temporary works, rather than having two parties? b) Does this form need to be signed only for Major Temporary Works?	a)The Temporary Works Coordinator appointed is a person within the Contractor's organization while TPV shall be an independent firm. b) signed for all Temporary Works.

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46.	VI GS APP1-7 2.5 Tunnel Lighting Works	Please advise whether Tunnel Lighting is included in CP102 or CP106 scope of work.	CP102 scope of work.
47.	VI GS 147 134.4 Special Attendance on Interfacing Contractors Special attendance shall include cutting of holes and other openings, forming chases, providing built-in sleeves, providing draw wires, grouting in bolts, anchors, brackets, base plates, frames and the like, including making good to the disturbed work and cleaning after completion of the disturbed work.	Please confirm that special attendance on Interfacing Contractors will follow the allocation of responsibilities listed in GS Appendix 4.	The Bidder's understanding is correct.
48.	Warranty Periods The Specifications contain a wide range of requirements for warranty periods.	Please confirm that all requirements for warranty in the Specifications will be subordinated to the requirements of the Conditions of Contract Clause 11 [Defects Liability].	All requirements for warranty in the Specifications shall be applied to relevant items prevailing over the requirements of the Conditions of Contract Clause 11 [Defects Liability].
49.	VI GS 88 118.5.5.3 Demobilization Plan (a) Coordination with concerned local government units to promote compatibility of adjoining land uses with the intended subway project station including its exit and entrance;	a) Please advise what action the Contractor is to take to promote adjoining land use. b) Please confirm that reinstatement of public areas (roads etc.) and private land will be to the condition that they were in when taken over by the Contractor.	a) The Contractor shall coordinate with the Local Government Unit. b) Confirmed that reinstatement of public areas (roads etc.) and private land will be to the condition that they were in when taken over by the Contractor.

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	and (b) Allocation of at least 30% of total area of construction yards for green and open spaces, including but not limited to setting up of vertical and pocket gardens, mini open parks system to promote urban biodiversity		
50.	Truck Ban in Manila	Please confirm that the Contractor will not be obliged to comply with any ban on the movement of trucks in Manila.	The Contractor will have to go through the approval process of MMDA and any involved LGU to obtain waivers on the truck ban. DOTr will assist in this process.
51.	Location of Spoil Disposal Site	a) Please confirm whether different types of waste or spoil have to be sent to different sites. b) Please confirm the location of the sites for the spoil and waste disposal.	a) It depends on the types of the waste and disposal site. The Contractor shall submit a project-specific and detailed Waste Management Program for proper handling, collection and disposal of solid, contaminated, hazardous and liquid wastes generated during construction for the Engineer's review and approval as per Sub-Clause 118.5.2 of General Specifications. b)The Contractor is responsible for disposal of spoil materials. DOTr will assist the Contractor in finding a disposal site.
52.	Appendix 4 Page App 4-25 Appendix 4 Contractor's Interface Coordination with Others 1. General ... Contractor's responsibility to develop Interface Schedules in accordance with his interface management plan. The interfaces in	The bidder would like to clarify that Appendix 4 items are only for the reference of Interface Management plan and develop Interface Schedules. These reference items work, without detail, the bidder will not be able to estimate costs and include in the bid quotation.	The Bidder shall estimate the cost and include in the bid price based on Appendix 4.

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	these tables are intended for Bidders' reference at the Tender Stage.		
53.	<p>Page 20 106 Testing 106.1 General</p> <p>The Conti actor shall note that the Employer and two (2) officers front the Employer and two (2) numbers of personnel front the Engineers will witness the TBM Factory Test. In addition, f&M Building facilities such as Elevator, Escalator, VAC, Chiller and Air Handling Unit shall be subject to Factory Acceptance Tests. Other E&M Building Services for inclusion into the Stations shall also be subject to Factory Acceptance Test. Building Services On-Site Tests; Pre- commissioning, Commissioning, Performance Tests and Integrations Tests shall also be performed by the Contractor in accordance with the Contractor's Testing Plans (as consented by the Engineer). The Contractor shall bear all their costs for their attendance at these tests including transportation, accommodation, etc.</p>	<p>The Bidder would like to clarify that the Bidder shall include the cost of the five (5) personnel (Employer and two (2) officers from the Employer and two (2) numbers of personnel from the Engineer) who will attend the FAT of E&M Building equipment/ material.</p>	<p>The bidder shall include the cost of four (4) personnel (two (2) officers from the Employer and two (2) officers from the Engineer) who will attend the FAT of E&M Building equipment/ material.</p>
54.	"Volume II	In the Cover Page, it is stamped as "(Draft)".	Yes, this is the authorized Bid Document for the

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	PART 2: WORKS REQUIREMENTS Section VI: Works Requirements General Specifications (GS)	Bidder would like to ask if it is the authorized version for the tender.	Tender.
55.	140 DIGITAL ENGINEERING REQUIREMENTS APPENDIX 8 - ANNEX 2	We would consider modeling only hot rolled steel members for the bridge. Please confirm this is acceptable.	Yes for structural models. For other disciplines please follow LOD Specification.
56.	140 DIGITAL ENGINEERING REQUIREMENTS APPENDIX 8 - ANNEX 2	LOD definitions are not available for Tunnel and many other Civil Elements. Can you confirm these will be provided?	Yes. Other LOD definition can be discussed during implementation period Refer to Attachment.
57.	140 DIGITAL ENGINEERING REQUIREMENTS	The Model we will receive from the Engineer will be LOD300 and the modeling will consist of all the elements with Proper Family Type and Parameters (Empty), ready for future COBie development. Please confirm if our understanding is correct.	Yes
58.	CP 102 CIVIL DRAWINGS TBM TUNNEL	Will Engineer model Segmental rings for TBM be provided in LOD 300? Please confirm.	No. It is the Contractor who will provide 350 to 500 models.
59.	CP 102 COMBINED DRAWINGS QUEZON AVENUE STATION PEDESTRIAN BRIDGE 1	Bridge Model will be developed by steel vendor / fabricator to LOD 350 using specialist software like Tekla. Model will then be exported and inserted in Revit for coordination purposes. Please confirm this approach is acceptable.	Yes this is accepted for coordination purposes only. But for producing LOD BIM models, the contractor needs to use Revit the Modelling Software.
60.	Work Requirements	Volume II Part2: Work Requirements are marked "Draft". Will a "Final" version be issued or are the Bidders to consider this document as the "Final" version?	Please consider this document as the final version.
61.	Volume II PART 2 WORK REQUIREMENTS Section VI Work Requirements	May we ask if the suggested changes shown below in format acceptable? Our insurer suggests that the expiration date of	The Bidder is referred to Volume I, Bidding Procedures, Section IV Bidding Forms, Form of Bid Security (Bank Guarantee), the 1st Paragraph on Page

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	General Specifications (GS) Clause 130 SECURITIES AND INSURANCES	<p>the Bid Security be defined similarly to the Performance Security and Bank Guarantee for Advance Payment and Retention Money. We would appreciate it if you consider the amendments as stated below.</p> <p><small>This guarantee will expire and shall be returned to the Applicant whichever is earlier of: (a) if the Applicant is the successful Bidder, upon our receipt of copies of the Contract Agreement signed by the Applicant and the Performance Security issued to the Beneficiary in relation to such Contract Agreement; or (b) if the Applicant is not the successful Bidder, upon the earliest of (i) our receipt of a copy of the Beneficiary's notification to the Applicant of the result of the bidding process; or (ii) twenty-eight (28) days after the end of the Bid Validity Period; or (c) (M1) (expiry date)</small></p>	<p>BF-11 of Form of Bid Security (Bank Guarantee) , the underlined wording is acceptable:</p> <p>This guarantee will expire and shall be returned to the Applicant on [the specific date after twenty eight (28) days beyond the original bid validity period from the Bid submission deadline] or, in any of the cases in (a) or (b) below, whichever comes earlier: (a) if the Applicant is the successful Bidder, upon our receipt of copies of the Contract Agreement signed by the Applicant and the Performance Security issued to the Beneficiary in relation to such Contract Agreement; or (b) if the Applicant is not the successful Bidder, upon the earlier of (i) our receipt of a copy of the Beneficiary's notification to the Applicant of the results of the bidding process; or (ii) twenty eight (28) days after the end of the Bid Validity Period.</p>
<i>Volume II Works Requirements Section VI Works Requirements – Technical Specification (TS)</i>			
62.	TS 3 151, 153 1120, 1120.2.2 (C) Electrical Wiring and Accessories: Grounding Wire "Grounding conductors shall be of flame retardant, low smoke zero halogen (LSOH) and anti-termite type." "Grounding wire: Moisture-resistant thermoplastic (TW), single conductor together with branch	The Bidder would like to know which insulation for grounding should be used?	The most stringent type of grounding wires shall be used with appropriate application(s) in compliance with the TS provision(s).

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	<p>circuit wires or feeders in the raceway."</p>		
63.	<p>TS 3 156 1120.4.2 Wires Used For Lighting And Small Power Basis of Payment Dwg No. STN-MEP-ELL-QA-3103</p>	<p>As per the technical specification basis of payment, wires used for lighting and small power is in THHN while in the Lighting layout drawing, it is indicated "PVC insulated FRLSHF". The Bidder would like to know which shall govern? The Bidder would like to clarify if the wire type is in correct label of "PVC insulated FRLSHF" since PVC cannot be LSHF type, it contains halogen.</p>	<p>The final and/or updated BOQs shall follow, base, and comply with approved shop drawing(s).</p>
64.	<p>TS 3 382 1212.2.1 Rockwool or Elastomeric Closed Cell Rubberized The specification of air conditioning duct insulation has discrepancy among Bill of Quantities, Technical Specification and Drawings. In accordance with 1.5 Priority of Documents in GC_CDS_PC_CF, we apply Rockwool, 25mm thick 64kg/cu.m, 0.035W/mK. Please confirm. Bill of Quantities: Rockwool: 64kg/cu.m; 0.035W/mK Technical</p>	<p>The Bidder would like to clarify can we follow the Rockwool, 25mm thick 64kg/cu.m, 0.035W/mK</p>	<p>Bidders are advised to follow the Tech Specs and BOQ.</p>

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	Specification: Closed Cell Rubberized or Polyolefin with aluminum foil, 25mm thick, 64kg/cu.m; 0.035W/mK.		
65.	TS 3 396 1213.2.1 9) (a) 9) Coating #1 “(a) The outdoor unit shall be coated with the Seacoast Protection Coating (Bermuda Special) if the installation site falls within the following criteria:”	As per drawings indicated outdoor unit installation locations outside of the station without enclosure, it’s possible to get direct winds but both stations are far from the sea.	Bidders are advised to follow the Tech Specs.
66.	TS 3 405 1213.3.1 4) Refrigerant piping, (c) Insulation Material Shall be nineteen (19) mm thick...	In the BOQ, thermal insulation is elastomeric rubber class 0 15mm thick for 22.23mm diameter and below and 20mm thick for 28.58mm diameter and above. The Bidder would like to clarify which to follow?	The contractor is advised to follow the Tech Specs Section 1213.3 for insulation characteristics which is 19mm thick as stated below. (c) Insulation Material - Shall be nineteen (19) mm thick closed cellular type, Fire and Smoke Class “0” as per ASTM E84 or “Crosslink Polyolefin” foam with factory applied reinforced aluminum foil and acrylic backing with aluminum weatherproof jacket where the pipe is exposed.
67.	TS 3 407 1213.3.2 1) (a) (i) Heating Mode (i) Outdoor Unit Operation Mode	The Bidder understands that Variable Refrigerant Flow (VRF) Air-Conditioning has NO requirement for heating mode (Heating Only and Heating Main) and defrost mode in VRF AC unit. Is Bidder’s understanding correct?	Bidder is correct.

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	(Cooling Only, Heating Only, Cooling Main, Heating Main)		
68.	TS 3 671 1236.1.5 Treated Sewage Water (a) The Sewage Treatment Plant is a prefabricated FRP factory made product that satisfies the DENR discharge standard, and the treated sewage water is discharged as per location on the plan. The discharge water standard of DENR is prescribed according to discharge destination. (b) Effluent Standard of DENR	In 1236.1.5 it mentions the requirement of Effluent water quality, but it does not indicate the Influent water quality and volume in specification and drawings. The Bidder would like to request to kindly provide designed Influent water quality and designed water volume per/day or m3, accordingly.	Please refer to TS section 1236.1.5 and 1236.1.6. DENR Effluent Standard indicated.
69.	TS 3 679 1237.2.9 Water Heater All showers should be provided with instantaneous water heaters as shown on the drawing. For the capacity refer to the schedule of equipment. DWG No STN-MEP-PLD-QA-5101	Kindly verify what type of water heater is to be used for all showers. Based on Technical Specification it is Instantaneous, but based on the Equipment Schedule it has a capacity which is a requirement for a storage type water heater.	Bidders are advised to follow TS. Section 1237.2.9 stating that water heaters to be used are instantaneous type.
70.	TS3 8 101.1.1 (a) Standards	Please confirm that the Plant does not need to comply with the highest standards available but only to the standards agreed for the Contract.	1. The compliance with all project documents, i.e. - TS, GS, REGULATIONS, etc. are all basic, primary, and mandatory requisites to comply with MMSP, and these are required with and upon the

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	(a) Functionality: Mechanical & electrical systems of the building services shall provide a "high level" (to the highest standards available, using proven up-to-date good Engineering Practices to fit for its purpose) of functionality for an accurate, reliable, smooth and safe operation.		bidders/contractors, to execute their opportunities per their contractual obligations.
71.	TS3 8 101.1.1 (c) Reliability and Availability (c) Reliability: Building services shall be designed to ensure a high degree of reliability under all operating conditions (normal as well as emergency situations). Adequate redundancy in the system shall be provided for ensuring high degree of Availability.	Please provide your reliability, availability and maintainability (RAM) requirements for Plant.	1. The compliance with all project documents, i.e. - TS, GS, REGULATIONS, etc. are all basic, primary, and mandatory requisites to comply with MMSP, and these are required with and upon the bidders/contractors, to execute their opportunities per their contractual obligations.
72.	TS3 9 101.1.1 Provision for CP106 Services However, the provision for their services such as duct for main trunk line, etc. shall be provided by the	Please confirm that as listed in GS Appendix 4, the CP106 Contractor will provide and install its own cable support equipment.	Comply with project specifications and as well as refer with containment layout drawing ref.no. STN-EMP-ELL-QA-0002(R2)

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	building M&E works under the close coordination with them.		
73.	VI TS3 32 101.1.1 1) a) Work Deviations (a) Where such approved changes/modifications/amendments require a different quantity and arrangement of ductwork, piping, wiring conduit, and equipment from that specified or indicated on the drawing, and the Contractor shall furnish and install any such ductwork, piping, structural supports, insulation, controllers, motors, starters, electrical wiring and conduit, and any other additional equipment required by the system, at no additional cost to the Employer.	Please confirm that the Works shall be paid for as constructed in accordance with the rates and prices in the Bills of Quantities.	The reference text shown and depicted is as per the contractual obligation of the contractor, and therefore, it is mandatory to be complied.
74.	TS3 217 1130.1.7 BMS Work in OCC (a) All necessary equipment at Station and OCC like work station,	Please confirm that communication between the BMS in each station and the OCC will be done by the ICSS and that CP102 has no scope of work in the OCC.	Refer with TS Section 1130 and BMS drawings listed in STN-MEP-BMS-QA-0021(R1) for the full scope. However, full functionality and operability shall comply as stated in TS General requirement - General.

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	PLCs/DDCs/Redundant Server,		
75.	TS3 238 1130.2.3 2) Fire Prevention Independent Television Fire preventive shutters, etc. refer to fire preventive shutters which can be remotely controlled, Independent Television (ITV), etc. which are set up at necessary locations for fire prevention.	a) Please confirm whose scope of work it is to provide the Independent Television. b) If it is CP102 scope then please explain the requirements of Independent Television.	Refer with TS Section 1130.1.1, where scope of work between OCC level and station levels are categorically defined. At this point as well, the bidder is to be reminded of their contractual obligations per TS Section General requirement - General at which BMS drawings shall be referred at which physical locations of ITVs are discerned.
76.	TS1 241 619.1 b) Power Supply Provide temporary circuits, overcurrent devices, conduit and wiring, and other equipment required during construction and change-over from existing to proposed electric system. Perform work at the convenience of the DOTr or Private Operators.	Please confirm that all electric power to CP102 Plant will be derived from transformers installed in the stations by CP106 and there will be no need for change-overs from temporary electrical power.	Contractor/Bidder to refer with GS Section 104.1.8.2, and if necessary, refer with Section 104.1.8.3 If the required Electric Power is normal or permanent it will never supply a temporary power because the required temporary power is separate scope from the normal. Please refer to the previous response citing GS Section 1.1 provisions.
77.	IV TS3 151 1120 Cable specification LSOH All main and sub-circuit wires shall be installed in conduits, trunking, wire mesh	The Bidder interprets the requirement of LSOH is NOT applied for lighting systems, but only grounding conductors. Please confirm.	1. The bidder/contractor must correlate, compare, assess, and apply the TS, Drawings, best trade practices, industry standards, etc. to ensure that everything and aspects with MMSP shall conform with GS; 2. And always be reminded that contractor/bidder

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	as appropriate. All the mains, sub-mains and final sub-circuits shall include insulated grounding conductor size in accordance with PEC. Grounding conductors shall be of flame retardant, low smoke zero halogen (LSOH) and anti-termite type. The current carrying capacities and voltage drops of cables shall be in accordance with PEC, with ratings adjusted to suit local conditions.		shall be responsible, accountable with the full operational and functionality of all the systems per TS, General requirement, General; 3. Stringent materials shall be used only with project MMSP of which are categorically, specifically, and purposely defined in all project documents.
78.	IV TS3 151 1120 Cable specification anti-termite All main and sub-circuit wires shall be installed in conduits, trunking, wire mesh as appropriate. All the mains, sub-mains and final sub-circuits shall include insulated grounding conductor size in accordance with PEC. Grounding conductors shall be of flame retardant, low smoke zero halogen (LSOH) and anti-termite type. The current carrying capacities and voltage drops of cables shall be in accordance with PEC, with ratings adjusted to suit local conditions.	The Bidder interprets the requirement that anti-termite is NOT applied for lighting systems, but only grounding conductors. Please confirm.	1. The bidder/contractor must correlate, compare, assess, and apply the TS, Drawings, best trade practices, industry standards, etc. to ensure that everything and aspects with MMSP shall conform with GS; 2. And always be reminded that contractor/bidder shall be responsible, accountable with the full operational and functionality of all the systems per TS, General requirement, General; 3. Stringent materials shall be used only with project MMSP of which are categorically, specifically, and purposely defined in all project documents.
79.	IV TS3 364 1211.2.1 1)	The Bidder would like to apply 70-80 gm/m2 with 95% Zinc - 5% Aluminium for the zinc	Bidder to follow Technical Specification.

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	Duct specification. Ductwork including fittings, shall be made of commercial grade galvanized sheet metal of the following thickness. GI Sheet Metals. Zinc Coating for Indoor Use shall be minimum of 100 gm/m ² and for Outdoor Use shall be minimum of 100 gm/ m ² .	coating level of the duct sheet, which is considered the commercial market in the Philippines. Please confirm.	
80.	IV TS3 529 1222.2.1 18) (c), (vi) Pressure Independent Control Valve specification. The valve seat shall be made from stainless steel.	The Bidder would like to offer a NON-stainless valve seat because stainless steel made valve seat is not available for Pressure Independent control Valve manufacturer.	Bidders are advised to follow the Tech Specs.
81.	IV TS3 671 1236 Package Type Sewer Treatment Plant	Please specify the water condition of influent sewage treatment.	Please refer to TS section 1236.1.5 and 1236.1.6. DENR Effluent Standard indicated.
82.	TS2 449 1041 Gypsum Board 118mm	As per the details on the specifications, the C channel size should be 0.55 mm thick minimum, 72mm wide minimum and having two flanges of 30mm minimum each, and the fixing of wall stud shall be 0.55 mm thick, 70mm wide having one flange of 34 mm and another of 36mm. However on the detailed drawings it is indicated that the C channel shall be 70 x 50 x 3mm and the wall	TS referenced in the query is incorrect. Wall stud indicated 76x40x0.8 is correct. Drawing. STN-AR-A-QA-9001 material 11) & TS 1041.2.1.2 e) mentions the same size as 76 x 40 x 0.8 MM thk WALL STEEL STUD @ 360 MM C/C.

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		stud shall be 76 x 40 x 0.8mm. Which shall govern?	
83.	TS2 449 1041 Gypsum Board 140mm	As per the details on the specifications, the C channel size should be 0.55 mm thick minimum, 72mm wide minimum and having two flanges of 30mm minimum each, and the fixing of wall stud shall be 0.55 mm thick, 70mm wide having one flange of 34 mm and another of 36mm. However on the detailed drawings it is indicated that the C channel shall be 70 x 50 x 3mm and the wall stud shall be 76 x 40 x 0.8mm. Which shall govern?	TS referenced in the query is incorrect. Wall stud indicated 76x40x0.8 is correct. Drawing. STN-AR-A-QA-9001 material 11) & TS 1041.2.1.2 e) mentions the same size as 76 x 40 x 0.8 MM thk WALL STEEL STUD @ 360 MM C/C.
84.	TS1 90 400.2.1 Cement The cement used shall be of the same type and brand and shall be made from the same mill and raw material.	Please confirm that any cement from any supplier and mill that meets the requirements of the Specification will be acceptable.	Not acceptable. For acceptance, the Contractor shall arrange sampling and testing as per Employer requirements.
85.	TS2 418 BOQ 1035.2.14 2) 1035 (2) Gallery Wall Stainless Steel Structure Volume IA Part 1 Section IV Bill	Gallery Wall Stainless Steel Structure Module is specified in the Bill of Quantities (BOQ). However no drawings and details are found. Kindly provide the drawings and details	Only SS frames as "gallery wall space" should be prepared in this scope. Art work will be installed by railway operators in the future.

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	No. 4A, BOQ-54, and Bill No. 4B BOQ-66 Part D.4 Miscellaneous, Galley Wall Stainless Steel Structure Module, No. 1035		
86.	TS2 469 Arch 1046.1.2 4) Concrete Hollow Block DWG Nos. STN-AR-A-QA/EA-0200 states the following: 09 CONCRETE BLOCK, BRICK & LIGHTWEIGHT CONCRETE EXTERIOR WALL/INTERIOR WALL 200MM: CONCRETE BLOCK SHALL BE CONFORM TO JIS A5406	a) May we use concrete hollow blocks conforming to the Philippine national standard rather than JIS A5406 which are not commonly available, especially shapes, in the Philippines? b) Please also confirm that thickness shall be 150mm as shown in DWG Nos. STN-AR-A-QA/EA-9001 and BOQ, but not 200 mm.	a) Concrete Hollow Blocks should conform to Clause 1046.2.3 Materials and comply all the required quality test as per DPWH Standard and Specifications. ITP to be submitted by the Contractor for GC checking and approval. b) Confirm 150mm thickness as shown on the detailed drawings.
87.	TS 2 402 1033.2.1 1033.2.2 Metal Deck, Catwalk for Equipment Maintenance and FRP Chequered Plate Cover 1033.2.1 Product Selection (p396) (2) Refer to the Drawings, in particular the steel deck schedule for specific size and configurations. 1033.2.2 Material	We cannot find any detailed drawings for the items specified in this section of the specifications. We cannot also find any specification on FRP chequered plate cover in addition to the detailed drawings. Therefore can we assume that this section 1033 of the specifications are not applicable for the CP102 contract? Or otherwise please issue the layout and detailed drawings indicating full scope of works together with pay items and quantities in Bill No. 4.	FRP chequered plate is being used in structural drawings. Pay item 1033 (2) - FRP Chequered Plate Cover Applicable to CP 102 contract

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	4) Catwalk for Equipment Maintenance Fabricate catwalks including platforms, railings, ladders, supports and hangers, and arrangement of members as shown on drawings.		
88.	TS2 Arch p611 to p612 1811.2.1 Armstrong Aluminum Ceiling Panels: CLG-1, CLG-2, CLG-3, CLG-6, CLG-7 Manufacturer: Armstrong or approved equal or better.	a) Please provide us with the clear specifications for these ceiling materials so that we are able to compare similar material specifications to the specified specification. b) Can you also let us know the contact of the Armstrong representative in charge of these particular ceilings?	a) Refer to TS 1811.2.1 & Please provide cost estimate from the given drawings. b) Please check Armstrong ceiling solutions' web page. https://www.armstrongceilings.com/commercial/en/
89.	TS2 Arch p299 to p302 1018.6.1 1) b) Granite Stones: FLG-01, FLG-01, FLG-02, FLG-03, FLG-04, GTL-01, GTL-02, GTL-03, GTL-04, GTL-05, SKT-01, In-laid Granite Stone Directional Symbol with Metal Trim, Granite Stone Threshold Manufacturer: Kaufmanstone or approved equal or better.	The requirements are proprietary specifications. Therefore there will be no competitiveness in prices. Please specify other granite stones which the bidders are able to select from a list of approved manufacturers in order to make prices competitive and to avoid increase of the project cost.	Granite stone can be referred to other suppliers that has equal or better materials specifications matching the stones indicated. Bidders can select/nominate different supplier/manufacturer as long as the size and color of granite stone match the specifications. "Approved equal or better" is indicated in the stone specifications to avoid reference to a single supplier/Manufacturer. Possible other comparative suppliers are "Euroasia" and "MultiRich" for your selection of competitive prices. Just for Bidders'/ contractor's reference only.
90.	TS4	This referenced clause TS2100.3.4 does not	The correct reference is Clause TS 2012.4 Monitoring.

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	157 2100.3.4 2100.9.1 Limit of Ground Surface Settlement "The settlement of the ground surface should be satisfied in the TS Sub-Clause 2100.3.4 of this Clause."	concern the limit of ground settlement but monitoring and control of TBM. Please clarify and advise and provide the limits of ground surface settlement.	Table 2012.4.3 Control and Review Levels provides guidance on settlement limits.
91.	TS4 44 2004.4.1 Concrete Cores from Diaphragm Wall "The frequency of coring shall be 1% for diaphragm wall panels with minimum of 2 numbers in each station or as instructed by the Engineer."	Please clarify what is the 1% and if this is for the whole station/block? For instance, in 100 panels we have to test 1 panel only??	1% means 1% of the number of diaphragm wall panels in each station. In case of 100 panels, 2panel shall be tested. Because there are a minimum of 2 numbers in each station.
92.	TS1 4 101.2.2 Location of Disposal of Demolished Structures ...All sections of structures removed which are not designated for stockpiling or re-laying shall become the property of the Government and be removed from the project or disposed of in a	Please provide the location and distance from site for the disposal of the properties designated as belonging to the Government which are to be disposed of in a manner approved by the Engineer.	In TS 101.2.2, here say how to categorize removed material, not any disposal site is provided by the Government or the Engineer. Regarding Disposal site, please see Answer of the next item of this GBB.

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	manner approved by the Engineer.		
93.	TS-4 7 102.1 Excavation: Disposal Sites Provided by the Employer	a) Who will be responsible for the management & maintenance of the designated disposal area? b) For computation of hauling cost, can we request the definite or allotted volume that can be disposed of to each disposal area? c) Does the contractor need to pay taxes, fees or royalties to the LGU and/or private sector that owns the disposal area?	In Clause TS 102.1, "Disposal Sites Provided by the Employer" is not described. Please read Clause TS 102.2.9; Unsuitable material removed shall be disposed off in designated areas shown on the Plans or approved by the Engineer. In Bid Drawings, There are no designated areas shown on the Plans, so the Contractor needs to find it for approval, in accordance with the following Clause. Clause TS 100.2.2; If the disposal location is off the project, the Contractor shall make all necessary arrangements with property owners in writing for obtaining suitable disposal locations ,,, Considering the above, following information shall be released, just for reference. a) The disposal site owner or The Contractor will do. b) attached map shows as sample location. c) If the Contractor will be the one who receives money from the disposal owner, they will be the one to pay. If the disposal owner will receive money from the contractor or from DOTr, they will be the one to pay.
94.	TS-4 155 2100.3.3 b) and c) TBM Manufacture (b) Cutter motors, with gear reducers, seals for soil, and thrust jacks shall be provided by a Japanese supplier; (c) TBM main body, Cutter Head,	i) Please define the term "Japanese Supplier" ii) Please define the term "processed"; iii) Please confirm that the manufacturer is entitled to source component parts from any country in the world provided compliance with Eligible Source Countries is maintained.	Please refer to the following document issued by JICA: December 21st, 2018 Japan International Cooperation Agency Operational Rules of Special Terms for Economic Partnership (STEP) of Japanese ODA Loans 1.

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	Drive Unit of Cutter, Erector and structure of Screw Conveyor shall be processed and assembled in Japan;		
95.	3. Mechanical, Electrical and Plumbing Page 61 1109.1.3 Submittals (b) Submit test results. Indicate overall resistance to ground and resistance of earth mat. Same should be restricted within 2 Ohm.	The Bidder would like to clarify that the overall resistance test 2 Ohm is at the grounding terminal in the grounding terminal box and overall resistance test 2 Ohm is at the end point of the earth mat system.	Refer to TS Section 1109.3.3 and all provision(s) stipulated in the Technical Specifications shall prevail./ Please refer with Drwg. No. STN-MEP-ELL-QA-2031(R0) of Sept. 2020, earth resistance readings are to be measured at the "main earth mat's" earth/ground termination points and/or at the test links.
96.	3. Mechanical, Electrical and Plumbing 279 1201.2.7 Pumps and Motors (F) Unless otherwise stated pump set pipework shall consist of proprietary copper tube to PMEC. Copper fittings shall comply with PMEC and threads to PMEC where applicable.	The Bidder would like to clarify that copper tube and fittings shall comply with PMEC and is not applicable for the Pumps and Motors.	ER stated that unless pump set pipework shall consist of copper tube, it shall comply with PMEC. Only for the pipe work (pipe and fittings) not for the pumps and motors.
97.	3. Mechanical, Electrical and Plumbing 279 1201.2.7 Pumps and Motors (g) Flanges shall comply with the requirements of PMEC	The Bidder would like to clarify, can the Bidder propose other standard flanges such as JIS, EN, UL.	Please refer to section 1237.2.3 of the TS.
98.	3. Mechanical, Electrical and Plumbing	As per Bidder's experience, the listed Code and	Bidder not to be confused, ER concept is to comply in

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	13 Code and Regulation (a) The MEP facilities, plumbing, sanitary drainage, storm drainage, water supply & distribution, water and waste water treatment and fire protection services installation shall be of the highest quality in accordance with the standards as specified and shall conform to the following:..	Regulation of TS_MEP is applicable however, two or more code and regulation together' is unable to comply due to different standards. The Bidder would like to clarify that Bidder shall comply with one of the listed Code or regulations for Employer's/Engineer's approval.	accordance with the codes and regulation on MEP system which is applicable.
99.	2: Architecture 217 101 L2.1 Product Selection e) Curtain Jamb Guides: Galvanized steel with exposed finish matching min. curtain slats, 1.6 min thick. However, 1.6 mm material is not available in the Philippines until this time.	It is mentioned: e) Curtain Jamb Guides: Galvanized steel with exposed finish matching min. curtain slats, 1.6 mm thick. However, 1.6 mm material is not available in the Philippines at this time. The Bidder would like to clarify that Bidder can propose Fire shutter with test certification even if not 1.6min thickness for the Employer's/Engineer's review for approval.	Please follow the specifications in the bidding documents.
100.	3. Mechanical, Electrical and Plumbing 510 1.221.2.1 Technical Requirements 3) Motor The motor shaft shall be supported on active magnetic radial and thrust bearings. Magnetic bearing control	The Bidder would like to confirm that the said statement means that the Chiller to be offered must be magnetic type?	Bidder is reminded that the said motor is semi-hermetic type

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	shall be equipped with auto vibration reduction and balancing systems. During a power failure event, the magnetic bearings shall remain active throughout the compressor coast down.		
101.	3. Mechanical, Electrical and Plumbing 404 1213.3.2 Service (i) Outdoor Unit •Operation Mode (Cooling Only, Heating Only, Cooling Main, Heating Main)	The Bidder's understanding is that there is NO requirement of heating mode and defrost mode in VRF AC units.	Bidder is correct.
102.	3. Mechanical, Electrical and Plumbing 1212 Duct and Pipe Insulation 1212.2. 1 Technical Requirements 1) Duct Insulation The materials, thickness and finishes for insulation applied for various services are specified as: (a) Type-A Insulation of Air-Conditioning ductwork shall have (i) Twenty-five (25) mm thick, Elastomeric Closed Cell Rubberized Type (ANSI/ASTM C534) (b) Type-B insulation of Air-Conditioning duct work shall have (i) Twenty-five (25) mm thick,	The Bidder would like to request the Employer to provide information when or in what condition the Bidder to select/use Type A or Type B insulation.	Bidder is advised to consult the ER as it already provided conditions.

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	Completely Closed Cell, physically cross-linked Polyolefin foam		
103.	Section VI (TS) 3. Mechanical, Electrical and Plumbing Page 10 Smoke Control System The smoke control system design has followed the Attachment 7 of Article 29 of Japanese Standard of "Technical Regulatory Standard on Japanese Railways". Based on the above, Smoke Control System shall be provided for the Public areas of Platform and Concourse, Habitable rooms, Stores and Corridors. For the equipment rooms, provisioned with a clean gas flooding system, extraction system shall be provided. There shall be no smoke control system for TVF room, machine room, pump rooms, toilets and showers.	As per Technical specification of MEP — (TS) the Smoke control system design has followed the Attachment 7 of Article 29. However, the Bidder couldn't find Attachment 7. The Bidder would like to request for Attachment 7.	Bidder to refer to Japanese Fire Prevention Standards for Underground Stations MLITT Ministerial Ordinance Article No. 29. 1. Project document(s) is the responsibility and obligation of the designer, and therefore, designer to respond.
104.	3. Mechanical, Electrical and Plumbing, Page 32, Section VI General Specifications - (GS) Page 158 e) Supply of Spare Parts, Special Tools, Test Equipment and	The Bidder would like to clarify the "Spare Parts" on what Clause or Specification shall follow, Appendix-1 of MEP — Technical specification shall follow, Appendix-1 of MEP - Technical Specification or 138.1 (b) of General Specifications.	Section 128 Defects Liability- those spare parts that deal with failures of the contractor, physical damage works, etc. while section 138- are basic spare parts list requirements used in the commissioning, maintenance of all systems, etc. This section shall be assessed by the frequencies of demands and/or damages of these parts and consequently shall be given more percentage respectively. Section 138 spare parts percentages shall be basically based on BOQ. Generally, these sections

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	<p>Consumable, 138.1 Details of Supply e) Supply of Spare Parts, Special Tools, Test Equipment and Consumable: The Contract Spares, as specified in the Section 138 of the General Specifications, shall be supplied by the Contractor. The Contract Spares shall be sufficient for the frill operation of Permanent Works for a period of 2 (two) years after Contractor’s Defect Notification Period. The indicative Contract Spares’ items and their indicative quantities are shown in the Appendix-1 of this document. However, the Contactor must ensure that the total quantity to be supplied is within 2% of the total quantity installed or at least one for each critical equipment and identified under categories shown in 13.8.1 (b) of General Specifications.</p> <p>138.1 Details of Supply: (b) The Spare Parts to be supplied by the Contractor shall consist of: (i) Commissioning Spares; and (ii) Spare parts, consumables, and</p>		<p>are almost in similarity with each other which shall objectively answer for a fail safe and/or trouble free operation. In any case, all doubts shall be correlated, referred with, and/or assessed per best trade practices, expertise, and experience.</p>

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	necessary tools required for two (2) years operation and maintenance after the Defect Notification Period (for those spare parts named in this paragraph (ii), hereinafter referred to as "Contract Spares").		
105.	3. Mechanical, Electrical and Plumbing 151 1120 Electrical Wiring and Accessories 153 1120.2.2 (c) Grounding Wire On page 15.1 it states that: "Grounding conductors shall be of flame retardant, low smoke zero halogen (LSOH) and anti-termite type." while, on page 153 it states that: "Grounding wire: Moisture-resistant thermoplastic (TW), single conductor together with branch circuit wires or feeders in raceway."	The Bidder would like to know which insulation for grounding should be used?	1. The most stringent material shall be used per specific purpose to ensure compliance with GS/TS.
106.	3. Mechanical, Electrical and Plumbing Page 158 1121 Low Voltage Power Cables; 1.121.1. (i) Technical Specifications states that:	The drawing plans only reflect Cu/XLPE cables and all without steel armor. The Bidder would like to confirm which will prevail.	Bidders to comply and/or follow TS provisions as appropriate as drawings are derivatives of these documents.

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	<p>“Armouring shall be single flat/round wire of galvanized steel for multicore cables and aluminium (if required) for single core cable.”</p>		
107.	<p>3. Mechanical, Electrical and Plumbing Page 158 Page 159 1121 Low Voltage Power Cables; 1121 .1 .2 Summary; 1121.2.1 General (b) All low voltage power cables shall be of 600/1000V grade fire resistant type with Low Smoke and Fume (LSF) and zero Halogen and Cross-Linked Polyethylene (XLPE) insulated as per Philippine Electrical Code.. ”</p> <p>“All cable insulation shall be low smoke non-halogen compound (LSZH), Fire Rated cables for few feeders which will run during Fire Condition.”</p>	<p>The Bidder would like to confirm which shall govern.</p> <p>The Bidder would like to clarify if all LV power cables are fire- rated, or only those stated as fire-rated.</p>	<p>Refer to the loads that are running during fire mode scenario/ We have 2 power conditions, i.e. - normal and emergency conditions. And it is very clear in the specifications that all loads running in Fire conditions and/or emergencies, that all cables to be used shall be fire rated. Refer and/or validate also with the finalized system operation description of FDAS.</p> <p>Fire rated cables are used with those involved with Fire Scenarios, therefore, refer with FDAS project documents to identify and categorize the use of fire rated cables; 2. However, see other documents like GS/TS and adjacent and/or similar systems that may require these FRs in maybe special cases.</p>
108.	<p>3. Mechanical, Electrical and Plumbing Page 205 1126 Telephone and Broadband Distribution System</p>	<p>The Specification did not indicate the requirement of PABX.</p> <p>The Bidder would like to request the Employer to provide the requirement of PABX.</p>	<p>See the SLD of the telephone system for the PABX inclusion and scope.</p>
109.	<p>3. Mechanical, Electrical and Plumbing Page 396</p>	<p>The Bidder would like to clarify that each outdoor unit shall be equipped with inverter</p>	<p>As stated in the Tech Specs " (a) Each outdoor unit module shall be equipped with one inverter driven</p>

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	<p>6) Compressor: (a) Each outdoor unit module shall be equipped with one inverter driven scroll hermetic compressor. . .</p> <p>7) Electrical: (e) Motor starter shall be magnetic across the line for motors less than seven-point five (7.5) horse power and reduced voltage port winding or wye-delta type for motors larger than seven-point five (7.5) horsepower. . .</p>	<p>driven scroll hermetic compressor instead of wye-delta type for motors larger than seven-point five (7.5) horsepower is not required.</p>	<p>scroll hermetic compressor. Non inverter-driven compressors, which cause inrush current (demand charges) and require larger wire sizing, shall not be allowed."</p>
110.	<p>3. Mechanical, Electrical and Plumbing Page 83 1113.2.4 Main Disconnect/ Circuit Breakers and Components (b) All ACB shall be horizontal withdrawal type with automatic control connector and shall comply with and fully Type-tested to UL 1066/ ANSI 37.13.</p>	<p>Type testing is part of the IEC standard. The Bidder would like to propose IEC standard to be included, Type test, in compliance standard for ACB</p>	<p>1. Contractor shall provide comparison sheet/statement between ANSI and IEC salient points of test methodologies for review and approval.</p>
111.	<p>VI TS 2 Arch 215 1011.1.6 1) 216 1011.2.1 2) 3) Codes and Standards Japanese Industrial Standard (JIS) or</p>	<p>a) Please let us know the exact name of the Fire Prevention Standards for Underground Stations in Japanese so that we can refer to the said standards. b) If we provide the Fire Shutter Doors as per Fire Prevention Standards for underground</p>	<p>a) Fire Protection and Safety Evacuation Design • The Building Standard Law of Japan (Ministerial Ordinance, MLITT of Japan) • The Fire Laws of Japan (The Fire Defense Agency of Japan) • Fire Prevention Standards for Underground Stations</p>

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	<p>equivalent standard: Fire Prevention Standards for Underground Stations (Japan) Product Selection FS Fire Shutter Door: as per Fire Prevention Standards for Underground Stations (Japan) FS Fire Shutter Door with Access Door: as per Fire Prevention Standards for Underground Stations (Japan)</p>	<p>stations (Japan), are those shutters able to obtain the required fire rating certifications based on Philippine standards, codes and regulations? c) If not, please issue revised specifications to comply with Philippine standards, codes and regulations together with addendum.</p>	<p>(Japan) b) Bidder to meet the requirement as specified in TS, since Authority approval procedures are irrelevant for bidding purposes. c) TS do not need to be revised due to the above reasons.</p>
112.	<p>TS 4 UG 144. 2012.3 Preventive or Remedial Measures for Ground Movement "The Contractor shall design and carry out preventive measures to minimize ground movement upon consent of the Engineer. The Contractor shall also propose and implement contingency plans in reference to Table 2012.4.3 when the ground movement is expected to exceed the agreed action level or indicate that final long term ground movement will exceed the expected values established in the Ground Movement Analysis Report."</p>	<p>Please confirm that, since the diaphragm walls are designed by the Employer, any preventive or remedial measures to deal with ground movement behind diaphragm walls exceeding the agreed action levels will be instructed by the Engineer and paid for under a Variation Order.</p>	<p>The Contractor shall be responsible for the adequacy, stability and safety of all Site operations and of all methods of construction.</p>
113.	<p>VI TS5 64 BOQ</p>	<p>May we request for the detailed drawing for the steel decking?</p>	<p>The Contractor shall be responsible for designs of the temporary works including steel decking.</p>

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	2307 2307 Steel Decking		
114.	GS TS02 Conflicting Requirements Between the General Specification and Architectural Specification	Please confirm that where the requirements of the Architectural Specification TS02 conflict with the requirements of the General Specification, then the requirements of the General Specification will take precedence.	Architectural Specification TS02 shall take precedence.
115.	VI GS 158 to 163 138.1 (b) & 138 Supply of Spare Parts, Special Tools, Test Equipment and Consumables 138.1 (a) (b) The Spare Parts to be supplied by the Contractor shall consist of: (i) Commissioning Spares; and (ii) Spare parts, consumables, and necessary tools required for two (2) years operation and maintenance after the Defect Notification Period (for those spare parts named in this paragraph (ii), hereinafter referred to as "Contract Spares").	Please confirm that the understanding of the clause 138 below is correct: the Contractor require to supply the followings: (i) Commissioning Spares for the use of the Contractor which the Contractor will not be required to give the Employer; and (ii) Spare parts, consumables, and necessary tools during the Defect Notification Period for Employer's maintenance which the Contractor will be required to give the Employer, and include in the Contract Price i.e. Price in BOQ, (iii) Contract Spare parts, consumables, and necessary tools required for two (2) years operation and maintenance after the Defect Notification Period which the Contractor will be required to give the Employer, and include in the Contract Price i.e. Price in BOQ, and (iv) Recommended Spare Parts and Special Tools as stipulated in 138.9 which the Contractor will not be required to give the Employer unless the Employer issues an instruction to purchase the same, as a variation to the contract.	(i)Commissioning Spares: Bidder's understanding is correct. (ii)Spares during DNP:Bidder's understanding is not correct. Such spare parts, consumables and tools which may or may not be used during the Defect Notification Period should not be included in the Contract Price i.e. Price in BOQ (iii)Contract Spare Parts:Bidder's understanding is correct (iv)Recommended Spare Parts: We reiterate the clause mentioned in GS 138.9,namely.: "The Employer has an option to purchase such spare parts and special tools at the agreed rates/and prices attached to the Letter of Acceptance subject to adjustment for changes in cost under GCC Sub-Clause 13.3 (where applicable)." As such, the Employer may exercise this option in whatever manner he thinks appropriate. It is not necessarily limited to the exercise of this option under GCC Sub-Clause 13 (Variations and Adjustments).

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116.	Volume II Part 2 Works Requirements Section VI Technical Specifications (TS) 4: Underground Structures Page 172 2100.4.10 Tests 4) Segment Tests Also, the Contractor shall provide one specimen per test.	The Bidder would like to clarify if each test method for the Segments shall require only 1 segment per test? Can the contractor propose a quantity of segment to be tested based on its Quality Control Plan & other International Standard?	Contractor shall submit ITP and method of test for Engineer's approval. Contractor shall apply standards specification which is written in project technical specifications and Employer's Requirements. If the contractor plans to propose international standards which are not stated in ER, the contractor shall seek approval from Employer without cost implication.
117.	Volume II Part 2 Section VI Technical Specifications (TS) 2. Mechanical, Electrical and Plumbing Page 77 to 79 1113 Low Voltage Switchgear/Panelboards 1113.2 Products 1113.2.1 General 1113.2.2 Panel Construction	As per Technical Specifications (TS) of MEP – The Bidder would like to clarify if its understanding is correct: 1. Only MDB with ACB Main breaker are by definition considered as Switchboard. Therefore, Type Tested, with Certified True Copies of full type-test report is required. 2. Only MCC Panels are required to be IP54 enclosure. 3. Other Panel not stated on 1 and 2 will be IP 42 Panel Form 3b and Type as per local practice and should follow TS 1113.2.2 (p)	1. Main Switchboard refers to the MDBs, as mentioned with the TS section 1113.1.2 shown in Item nos. a, d; the testing required shall be for all the switchboards, i.e. - DBs, SMDBs, and MDBs; 2. Yes, MCCs are clearly stated to be IP54 based on Technical Specification 1113.2.2. 3. Yes, your understanding is correct.
118.	Volume II Part 2 Section VI Technical Specifications (TS) 1. Civil Works (General) and 3. Mechanical, Electrical and Plumbing	Tunnel and Station Fire hydrant, electrical and drainage has specification requirements in the Civil TS and MEP TS. The Bidder would like to confirm that the	For tunnel electrical: 1. The bidder must follow both the TS of CIVIL and the TS of MEP of which both contained mandatory and basic electrical specifications.

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ITEM NO.	REFERENCE/CLAUSE/SECTION	QUERIES	RESPONSE
	<p>Volume IA Part 1 Bidding Procedures Bill of Quantities (BOQ) 1: Civil Works</p> <p>3: Mechanical, Electrical and Plumbing,</p> <p>Bill of Quantities (BOQ)</p> <p>Both Civil works specification and MEP specification indicated the same or similar CONTENTS. However, the detail requirements do not correlate with each other, Bidder does not understand which specification to follow.</p>	<p>specification to be followed is MEP of TS as it has the BOQ pay item number.</p>	<p>2. During contractor submittal stages, the contractor shall provide compliance statements for both.</p> <p>For Tunnel drainage and fire hydrant/hose valve: To avoid confusion, the contractor is reminded that Tunnel drainage is under Civil scope of work, while Tunnel fire hydrant (hose valve) is under MEP scope of work. Refer to technical drawing STN-MEP-PLD-KP-2201 for demarcation reference.</p>
119.	<p>Section VI Technical Specification(TS) 4:Underground Structures, 2000.1.5 Adverse Conditions, 3) Preferred Solutions for Diaphragm Wall Construction d) Cut off level of Diaphragm Wall</p>	<p>Please advise if there is any mandatory requirement for Contractor to temporarily cure and protect the temporary structural steel members that may be exposed after the diaphragm wall was cut and removed?</p>	<p>Please refer to the drawing GN-CE-CD-0027(REMOVING OF DIAPHRAGM WALL HEAD GENERAL DRAWING). Upper surface of D-wall concrete is 2.0m below ground level. On the other hand, The covering depth between the concrete surface and the reinforcing bar is 10 cm according to REINFORCEMENT DETAIL SECTION drawings such as STN-CE-QA-103,STN-CE-QA-107 STN-CE-QA-113 STN-CE-EA-104 STN-CE-EA-109 STN-CE-EA-114.therefor re-bar will not exposed.</p>
120.	<p>Section VI Technical Specification(TS) 4:Underground Structures 2000.2.19 Demolition; and Pay Item 2000 (1) Temporary Works</p>	<p>Bidder understands that Payment Item 2000 (1) literally consists of the temporary works, and does not include any demolition works as defined by 2000.2.19 that shall be included into the</p>	<p>Demolition works are being undertaken through a separate Advance Works contract (AWP1) which is to be bid shortly. In the event there are remaining structures to be demolished, such work will be covered</p>

Metro Manila Subway Project Phase 1 PACKAGE CP102 (Quezon Avenue and East Avenue)			
ITEM NO.	REFERENCE/CLAUSE/SECTION	QUERIES	RESPONSE
		relevant scope of work. Please advise otherwise.	by the Provisional Sum item 3 (PS3).
121.	Section VI Technical Specification(TS) 4:Underground Structures 2001.4.1 4) Removal of Lighting Poles	Please provide the drawing for the foundation of lighting poles which shall be removed, transported and delivered to governorate stores. Please also advise whether Pay Item 2001 (4) shall include the costs for excavation and/or demolition of the foundation, disposal thereof, and reinstatement of the ground.	The drawings for the foundations for the lighting stanchions to be removed are not available at this time. Please make appropriate assumptions in pricing this work as it is a minor item. The demolition of the fountain will be accomplished under a separate advance work contract (AWP1) to be bid shortly. Reinstatement will be by the CP102 Contractor.
122.	Section VI Technical Specification(TS) 4:Underground Structures 2003.3.1 Method of Measurement 2) Excavation (Rock)	Please provide the geotechnical category of rock for excavation under TS 2003.1 2).	Correct clause for this work appears to be 2003.3. 2)., not 2003.1. 2). BOQ shows only rock excavation, no soil excavation. Therefore price this work on the basis of all rock excavation.
123.	Section VI Technical Specification(TS) 4:Underground Structures, 2005.2.1 Method of Measurement, 3) Reinstatement of Single Arm Street Lighting, Double Arms Street Lighting, Panel Board for Street Lighting and Street Signs	Bidder understand that the prices in Pay Item Nos. 2005 (6)/(7)/(8)/(9) literarily consist of the site reinstatement work, which do not include any cost for materials for / supply of Street Lightings, or transport thereof from the vendor's or governorate stores. Please advise otherwise.	Bidder's understanding is correct.
124.	Section VI Technical Specification(TS) 4:Underground Structures, 2007.2.9 Quality Control, 2) Workability Limits	Please provide the whole sentence, as the current one is incomplete. See below. "The baches or mixing operator shall maintain the workability of the concrete mixes when delivered to the Works in accordance with the slump requirements specified in ...ERROR...	Sentences should read: ... Table 2007.2.1 Concrete Class and Properties.
125.	Section VI Technical Specification(TS) 4:Underground Structures, 2100.6.11 TBM Grouting,	Please provide the minimum uniaxial compressive strength of the grout at the age of 24 hrs and 28 days.	The grout injection shall comply with Appendices No.22, Backfill Injection, JSCE Design Standards for Railway Structures and Commentary (Shield Tunnel),

Metro Manila Subway Project Phase 1
PACKAGE CPI02 (Quezon Avenue and East Avenue)

ITEM NO.	REFERENCE/CLAUSE/SECTION	QUERIES	RESPONSE																		
	1) Grouting Material		2006. The material shall be of two-liquid and instant setting type. The compressive strength of the material shall be as follows; o (1 hour) >= 0.1 to 0.15 N/mm2 o (28 days) >= 1.5 N/mm2 The Contractor shall test and confirm the actual condition of the primary grouting every 10 rings.																		
126.	VolumeII Part2 Works Requirements SectionVI Works Requirements - Technical Specification (TS) 1236 Package Type Sewer Treatment Plant	If we guarantee to satisfy DENR discharge standard, can we propose site assembled concrete STP?	During the bidder's tender stage it is a requirement for the bidder to follow technical specification Section 1236 , "Package Type Sewer Treatment Plant". During the construction stage, you will have the opportunity to propose the variation order to be reviewed by the client.																		
127.	Volume II Part2 Works Requirements SectionVI Works Requirements - Technical Specification (TS), 1238 Water Storage & Sewage Holding Tanks, 1238.2 Product	Bidder would like to clarify Material for Water storage & Sewage Holding Tanks as follows. <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th style="text-align: center;">Item</th> <th style="text-align: center;">Material</th> <th style="text-align: center;">Spec</th> </tr> </thead> <tbody> <tr> <td>Sewage ejector tank-01</td> <td>SS</td> <td>TS1238.2.1(a)</td> </tr> <tr> <td>Sewage sump pit-01</td> <td>RC</td> <td>Not Mentioned</td> </tr> <tr> <td>Fir Water Tank</td> <td>SS</td> <td>TS1238.2.3(a)</td> </tr> <tr> <td>Domestic Water Tank</td> <td>SS</td> <td>TS1238.2.4(a)</td> </tr> <tr> <td>Make up Water Tank</td> <td>SS</td> <td>TS1238.2.5(a)</td> </tr> </tbody> </table>	Item	Material	Spec	Sewage ejector tank-01	SS	TS1238.2.1(a)	Sewage sump pit-01	RC	Not Mentioned	Fir Water Tank	SS	TS1238.2.3(a)	Domestic Water Tank	SS	TS1238.2.4(a)	Make up Water Tank	SS	TS1238.2.5(a)	Concerning material for Water Storage and Sewage Holding Tanks, contractor is advise to see reference below: Sewage Ejector Tank- Bidder to refer to Technical Specification 1238 (a). For tank material. Sewage Sump Pit- Bidder to refer to civil drawing (STN-CE-EA-0301) for reference. Fire Water Tank- Bidder to refer to Technical Specification 1238 (a). For tank material. Domestic Water Tank- Bidder to refer to Technical Specification 1238 (a). For tank material.
Item	Material	Spec																			
Sewage ejector tank-01	SS	TS1238.2.1(a)																			
Sewage sump pit-01	RC	Not Mentioned																			
Fir Water Tank	SS	TS1238.2.3(a)																			
Domestic Water Tank	SS	TS1238.2.4(a)																			
Make up Water Tank	SS	TS1238.2.5(a)																			

Metro Manila Subway Project Phase 1 PACKAGE CPI02 (Quezon Avenue and East Avenue)			
ITEM NO.	REFERENCE/CLAUSE/SECTION	QUERIES	RESPONSE
			Make Up Water Tank- Bidder to refer to Technical Specification 1238 (a). For tank material.
128.	Volume II Part2 Works Requirements, SectionVI Works Requirements - Technical Specification (TS), 1130 Building Management System (BMS), 1130 2.1 2) Electro-Magnetic Compatibility	1)Bidder would like to clarify that EMC/EMI compatibility is limited to PLC/DDC Panel only. 2)Regarding to EMC/EMI compatibility, what Code or Standard shall be complied with?	1. This is to clarify to the bidder that all electronic and electrical equipment, inclusive of PLC/DDC shall be required for compatibility with EMC/EMI. 2. The bidder should refer to TS section 1130.1.2 ,1130.1.3 and IEC 60601-1-2 for the Code or Standards to be compiled.
129.	Volume II Part2 Works Requirements, SectionVI Works Requirements - Technical Specification (TS), 1130 Building Management System (BMS), 1130 2.2, 6)Technical Requirements of Programmable Logic Controller /DirectDigital Controller (SIL-2 PLC/DDC)	Bidder would like to clarify that the requirement of "the system shall comply with minimum safety criteria of Safety Integrity Level 2 (SIL2)" is limited to PLC/DDC configuration only.	Yes it is applied to PLC/DDC configuration, however the bidder/contractor shall still be contractually liable and accountable per GS requirements of full functional and operational of the system.
130.	Volume II Part2 Works Requirements, SectionVI Works Requirements - Technical Specification (TS), 1130 Building Management System (BMS), 1130 2.2, 7) PLC/DDC, the sentence in Note: "Also, the BMS contractor shall ensure that the functionality of the BMS system as End to End is SIL 2 system."	Bidder would like to clarify that "End to End" in this sentence equals "in the PLC/DDC".	Yes it is applied to PLC/DDC configuration, however the bidder/contractor shall still be contractually liable and accountable per GS requirements of full functional and operational of the system.
131.	Volume II	In the Cover Page, it is stamped as "(Draft)". Bidder would like to ask if it is the authorized	Yes, this is the authorized Bid Document for the Tender.

Metro Manila Subway Project Phase 1 PACKAGE CP102 (Quezon Avenue and East Avenue)			
ITEM NO.	REFERENCE/CLAUSE/SECTION	QUERIES	RESPONSE
	PART 2: WORKS REQUIREMENTS Section VI: Works Requirements Technical Specifications (TS) 1: Civil Works (General)	version for the tender.	
132.	Volume II PART 2: WORKS REQUIREMENTS Section VI: Works Requirements Technical Specifications 2: Architecture	In the Cover Page, it is stamped as "(Draft)". Bidder would like to ask if it is the authorized version for the tender.	Yes, this is the authorized Bid Document for the Tender.
133.	Volume II PART 2: WORKS REQUIREMENTS Section VI: Works Requirements Technical Specifications 3: Mechanical, Electrical and Plumbing	In the Cover Page, it is stamped as "(Draft)". Bidder would like to ask if it is the authorized version for the tender.	Yes, this is the authorized Bid Document for the Tender.
134.	Volume II PART 2: WORKS REQUIREMENTS Section VI: Works Requirements Technical Specifications (TS) 4: Underground Structures	In the Cover Page, it is stamped as "(Draft)". Bidder would like to ask if it is the authorized version for the tender.	Yes, this is the authorized Bid Document for the Tender.
135.	"Volume II PART 2: WORKS REQUIREMENTS Section VI: Works Requirements Technical Specifications (TS) 5: Pedestrian Bridge"	In the Cover Page, it is stamped as "(Draft)". Bidder would like to ask if it is the authorized version for the tender.	Yes, this is the authorized Bid Document for the Tender.
136.	"Volume II PART 2: WORKS REQUIREMENTS Section VI: Works Requirements Technical Specifications 6: Tunnel Lighting"	In the Cover Page, it is stamped as "(Draft)". Bidder would like to ask if it is the authorized version for the tender.	Yes, this is the authorized Bid Document for the Tender.

Metro Manila Subway Project Phase 1 PACKAGE CPI02 (Quezon Avenue and East Avenue)									
ITEM NO.	REFERENCE/CLAUSE/SECTION	QUERIES	RESPONSE						
137.	TS3 Mechanical Electrical, Plumbing: Fire Pump Section 1114	Please confirm if the UPS is in parallel configuration	Yes it is, See ref. dwg. no. STN-MEP-ELL-QA/EA-2011(R0) of 9/2020 for configuration.						
138.	Technical Specification 3: MEP Pipe works section 1209.2.1 (b)	Please provide Condensate Drain Piping Layout for Quezon Avenue and East Avenue.	Bidders can refer to the Chilled Water Layout drawing.						
139.	Technical Specification 3: MEP Section 1236	Please provide the Sewage Treatment Plant Influent parameters and Flow Rate for Quezon Avenue Station.	Please refer to TS section 1236.1.5 and 1236.1.6.						
140.	Technical Specification 3: MEP Section 1113.2.2(h) STN-MEP-ELL-EA-2007 to STN-MEP-ELL-EA-2010; STN-MEP-ELL-EA-2015 to STN-MEP-ELL-EA-2030; STN-MEP-ELL-EA-2032 to STN-MEP-ELL-EA-2052; STN-MEP-ELL-EA-2055 to STN-MEP-ELL-EA-2065;	Please clarify which enclosure will be considered for Panelboards according to the following references: <table border="1" style="margin: 10px auto; width: 80%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Tech Specs</th> <th style="text-align: center;">Plans</th> <th style="text-align: center;">BOQ</th> </tr> </thead> <tbody> <tr> <td style="text-align: center; vertical-align: top;"> All MCCs shall be complied with IP44/NEMA 3I enclosure because same shall be placed inside the plant room. Remaining all panels shall be IP 42 enclosure as per local practice in Philippine. </td> <td style="text-align: center; vertical-align: middle;">NEMA 1</td> <td style="text-align: center; vertical-align: middle;">Not mentioned</td> </tr> </tbody> </table>	Tech Specs	Plans	BOQ	All MCCs shall be complied with IP44/NEMA 3I enclosure because same shall be placed inside the plant room. Remaining all panels shall be IP 42 enclosure as per local practice in Philippine.	NEMA 1	Not mentioned	Enclosure specifications stipulated in the TS shall prevail and BOQ will be per approved Shop Drawings.
Tech Specs	Plans	BOQ							
All MCCs shall be complied with IP44/NEMA 3I enclosure because same shall be placed inside the plant room. Remaining all panels shall be IP 42 enclosure as per local practice in Philippine.	NEMA 1	Not mentioned							
141.	Section VI Technical Specifications 3: Mechanical, Electrical, Plumbing: Section 1213.2.1 9) Coating (i) The salt spray coating shall adhere to the following specifications	Please provide Clear specification of salt spray coating as indicated in table at page 398.	Bidders are advised to follow technical specs. (250deg C, 2hrs).						
142.	Section VI Technical Specifications 3:	We interpret NO requirement of heating mode and defrost mode in the VRF AC unit. Please	To avoid any confusion, the Motorized Valve & PIBCV are two separate devices, and will both be used in the						

Metro Manila Subway Project Phase 1 PACKAGE CP102 (Quezon Avenue and East Avenue)			
ITEM NO.	REFERENCE/CLAUSE/SECTION	QUERIES	RESPONSE
	Mechanical, Electrical, Plumbing: Section 1213.3.2.1.a (i)Operation Mode (Cooling Only, Heating Only, Cooling Main, Heating Main)	confirm and advise.	installation of VAC equipment. But to give more information to Bidder regarding the said device installation detail, the bidder needs to check the Standard Detail / Typical Installation Detail - Sheet 6 (Drawing No. STN-MEP-VAC-CWD-1106)
143.	Technical Specifications 3: Mechanical, Electrical, Plumbing: Section 1222.2.1.18 STN- MEP-VAC-CWD-1106	Please verify what will be used in the Air Handling Units and Fan Coil Units: Motorized valve and balancing valve (as per schematic diagram) ; or Pressure Independent Control valve (PICV} (as per Technical Specifications).	Contractor is advised to follow the type and quantity of portable fire extinguisher as per Technical drawing (STN-MEP-FPS-EA-3200,3210,3220,3230,3240,3250).
144.	Technical Specification 3: Mechanical Electrical and Plumbing / Section 1237.2.9 STN-MEP-PLD-KP-5101 STN-MEP-PLD-QA-5101	There is conflict with the Electric Water Heater Type in Quezon Ave and East Avenue Station. Instantaneous Type is specified in the Technical Specifications but Storage Type is specified in the Drawing/Equipment Schedule. Please confirm which will prevail.	The Bidder is advised to follow Technical Specification. See attached excerpt.
<i>Volume III Part2: Works Requirements Works Requirements – Employer’s Drawings (DRW)</i>			
145.	UT-CE-EA-0002	"Note 1" of the drawing number UT-CE-EA-0002 states that the new 115kV transmission line along East Avenue to be decided whether it shall be relocated or not. According to the drawing number UT-CE-EA-0005, High Tension Steel Pole (new on-going installation) shall be removed. Please confirm if the new 115kV transmission line referred to in the drawing number UT-CE-EA-0002 will be removed by other prior to the commencement of the Works	Please refer to GBB No.5. 115KV cable will be relocated by Meralco before D-wall construction.

Metro Manila Subway Project Phase 1 PACKAGE CP102 (Quezon Avenue and East Avenue)			
ITEM NO.	REFERENCE/CLAUSE/SECTION	QUERIES	RESPONSE
		as stated in the drawing number UT-CE-EA-0005 and clause 1134.1.1 of the General Specifications (GS).	
146.	Water meter DWG; STN-MEP-PLD-QA-2101	Please confirm whether the water meters below are analog type, not electronic type to read counter: a) Master meter b) Sub-meter	Bidders to check whether there is electrical stub out on the water meter. If there is no, they may use analog type and otherwise. Also please refer to TS Section 1237.2.16 and STN-MEP-PLD-CWD-1101 for other requirements.
147.	Detail of Fan Acoustic enclosure DWG; STN-MEP-VAC-CWD-1103	Please provide a list of which fans shall be equipped with the acoustic enclosure like this.	Bidders are advised to consult the equipment schedule, drawing, and Tech Specs.
148.	FCF-02 & FCF-03 Dwg Nos STN-AR-A-QA/EA-9010	The drawing describes FCF-01 & FCF-03. Mustn't the description be FCF-02 & FCF-03 in the "MARK" section? Kindly revise the drawing to correct the misprint.	The description in the drawing should be "FCF-02 & FCF-03". No further information will be provided as it is not necessary for bidding.
149.	Oil Dyke Upstand Drawing Nos. STN-AR-A-QA/EA-9030	Kindly identify which pay item in BOQ is for concrete upstand. If there is none, please provide specification and the pay item in Bill No. 4. Can you also provide the same for "OIL FENCE"?	Under Pay item no. 900 (1) (c1) – Structural Concrete includes an oil fence.
150.	AFC Raceway Drawing Nos. STN-AR-A-QA/EA-9050	The drawings indicate the AFC Raceway to be installed. However we cannot find any pay items for the AFC raceway in BOQ. Kindly provide the pay items and quantities for the same in Bill No. 4.	AFC raceway under pay item no. 1117 – Cable tray.
151.	Recessed Corner Ceilings at Public WC areas Drawing Nos. STN-AR-A-QA/EA-9062	Detail No. 5 of the Drawing Nos. STN-AR-A-OS/ON-9062 and Drawing Nos. STN-AR-A-OS/ON-5101 to 5109 indicate recessed corner ceilings. However we cannot find any pay items for the recessed corner ceilings in BOQ. Kindly provide the pay items and quantities for the same in Bill No. 4.	Reference drawing STN-AR-A-OS/ON-9062 and Drawing Nos. STN-AR-A-OS/ON-5101 to 5109 are not part of the CP 102. Recessed corner ceiling under Pay item no. 1811 (9) - Aluminum Composite Panel Cladding.
152.	Stainless Steel and Gypsum Board	The drawings nos. STN-AR-A-OS/ON-9111	Reference drawings STN-AR-A-OS/ON-9111 are not

Metro Manila Subway Project Phase 1 PACKAGE CP102 (Quezon Avenue and East Avenue)			
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	cladding around the Fire Shutters at Platform Level DWG Nos. STN-AR-A-QA/EA-9111	indicates the followings: 10 1.2 MM THK SS PLATE However we cannot find any pay item for these works in BOQ. Kindly provide the pay items and quantities for the above works at the columns in Bill No. 4.	part of the CP 102. 1.2 mm thk SS Plate under pay item 1803 (3) b.
153.	Stainless Steel Canopy With Gutter at Entrances DWG Nos. STN-AR-A-QA/EA-9112	The drawing nos. STN-AR-A-QA/EA-9112 indicate SS canopy with gutter and sealant. Please advise pay item number for this works	Under pay item 1017(1)b, TS - 1017.2.1, 2, d) Gutter Cover: 2 mm thk stainless steel sheet, GA 304.
154.	SS Claddings around Elevator doors DWG Nos. STN-AR-A-QA/EA-9130 and 9131	The drawings indicate the followings: 3 1.2 MM THK SS PLATE Kindly advise the pay number for this work.	1.2 mm thk SS Plate under pay Item No. 1803 (3) b.
155.	DWG Arch Bill No. 4 Roof Floor Finish, Downspouts, Drain Channels at Entrance DWG Nos. STN-AR-A-QA/EA-9180 Materials 3 MORTAR TROWEL (METAL LATHE BASE) 4 125 MM ALUMINUM RECTANGULAR PIPE T=1.8 MM 6 BOLT DOWN STAINLESS STEEL BAR GRATE TRAFFIC,PEDESTRIAN RATED 8 CENTER BRACKET 9 9 MM THK FLAT BAR 10 10 MM THK MS PLATE 12 T TUBE CAP 13 SMOOTH PRECAST POLYMER	a) No. 3 of the Materials states MORTAR TROWEL (METAL LATHE BASE). However Section-1 and Detail-A describe both No 3 and FCF-02. Floor Finish Material of FCF-02 defined as CONCRETE TROWEL WITH FLOOR HARDENER. Please clarify which one is correct. If 3 MORTAR TROWEL (METAL LATHE BASE) is correct, then no pay item in BOQ, please provide the pay item and quantities in Bill No. 4. b) No. 13 of the Materials states (SIZE AS PER MEP). However no sizes are specified in MEP drawings. Please specify the sizes. We request more specific details of materials, thickness, and joint details for the drain channels as well as No. 6: SS gratings. All the steel materials such as Nos8, 9, 10 have neither anti-rust treatment nor finishes. Please specify them.	Item 3, 6, 13: required material/specification/size to be provided in revised drawing. Revised BOQ will be submitted. a) "CONCRETE TROWEL WITH FLOOR HARDENER" is correct. Under pay item 1021 (1) c1 b)No.13 refers to dwg. STN-AR-A-QA-9180 material 13) SMOOTH PRECAST POLYMER TRENCH BODY SLOPED TO CATCH BASIN (SIZE AS PER MEP - 200 X 200 MM WITH 1:200 SLOPE) No. 6 refers to dwg. STN-AR-A-QA-9330, TYPICAL DETAILS OF SS GRATING. material 3) 5 MM. THK. NON-PERFORATED STAINLESS STEEL GRATING MILLED FINISH TO COMPLY SLIP RESISTANCE REQUIREMENTS Refer TS: 1805 STAINLESS

Metro Manila Subway Project Phase 1 PACKAGE CP102 (Quezon Avenue and East Avenue)			
ITEM NO.	REFERENCE/CLAUSE/SECTION	QUERIES	RESPONSE
	TRENCH BODY SLOPED TO CATCH BASIN (SIZE AS PER MEP) 14 ROOF DRAIN HORIZONTAL Floor Finish Material FCF-02 CONCRETE TROWEL WITH FLOOR HARDENER	c) With regards to No. 4, Is 125 MM ALUMINUM RECTANGULAR PIPE T=1.8 MM meant for 1235 Aluminium Rectangular Pipe? If so, please provide the specifications on this work since there are no specifications. If not, please provide the specifications and pay items for these works. d) We cannot also find any pay items for Material nos. 3, 6, 8, 9, 10, 12, 13 and 14 in BOQ. Kindly provide the pay items and quantities for the above works in Bill No. 4 after you have provided answers for the above clarifications.	STEEL FLOOR GRATING For steel materials finishes for Nos. 8,9,10 refer to TS MEP 1235.2.7 c) No. 4 125 MM square pipe as shown in the drawing. Refer to MEP TS 1235.2.2 (g) d) Item 3 is included in Pay Item No. 1021 (1) c1. Item 6 is included in Pay Item No. 1805 (1) a1 Items 8, 9, 10, 12 & 13 are included in Pay Item No. 1235 (6) Item 14 is included in Pay Item No. 1017 (1).
156.	Wall Access Panels Wall Access Hatch/Panel - Standard Fire-Rated Items a) to j) DWG Nos. STN-AR-A- QA/EA-9420	The descriptions of the specifications do not match the drawings. Can we consider that the specifications supersede the drawings? Please provide revised drawings in accordance with the specifications.	Bidder to comply with the technical specification.
157.	Floor Traps DWG Nos. STN-AR-A-QA/EA-9660 7 FLOOR TRAP	There are neither specifications nor pay items. Please provide the specifications and pay items and quantities.	Refer DWG Nos. STN-AR-A-QA/EA-9660 7 FLOOR TRAP should be read as FLOOR DRAIN under pay item 1235 (4) & MEP TS 1235.4.2.
158.	Nosing Strips at the Stairs DWG Nos. STN-AR-A-ON/OS-9810 7 TYPICAL CORNER DETAIL	There is TYPICAL CORNER DETAIL in these drawings. However we cannot find any specifications and pay items in BOQ. Please provide the specifications and the pay items together with quantities in Bill No. 4.	Reference drawing DWG Nos. STN-AR-A-ON/OS-9810 are not part of the CP 102. Nosing strips at the stair under pay item 1803 (3) c and TS 1803.2.1.4.
159.	SS Plate Finish for the Stair and Escalator Ceilings at Entry DWG Nos. STN-AR-A-QA/EA-9060: Detail A	The drawings indicate an SS plate installed at 50 x 50 x 3mm L angle steel with a galvanized frame at the junction of flat part and slope part of the ceilings.	For SS ceiling finish, please refer to pay item 1811 (10) All necessary fasteners, trims & other accessories are part of the system & will not have separate pay items.

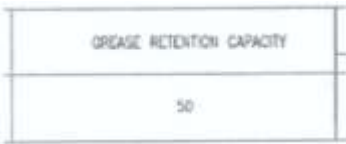
Metro Manila Subway Project Phase 1 PACKAGE CP102 (Quezon Avenue and East Avenue)			
ITEM NO.	REFERENCE/CLAUSE/SECTION	QUERIES	RESPONSE
	DWG Nos. STN-AR-A-EA- 6003, 6013, 6014 and 6023 and the similar drawings for the Quezon Avenue station	However we cannot find any pay item in BOQ. Kindly provide the pay items and quantities for the above SS plate and L angle steel in Bill No. 4.	
160.	Foundations of Flyovers	Please provide drawings of the foundations of flyovers which coincide with the alignment, so that the impact of tunnelling can be assessed.	Please refer to GBB No. 6 Attachments.
161.	GEO-002 and GEO-004	Drawing numbers GEO-002 and GEO-004 include borehole numbers BH-08 and BH-10 respectively. However, these borehole logs cannot be located in the geotechnical information contained in the folder, "b_Geotechnical Survey Data for CP102" of Volume V Part 4 Relevant information. Please provide us with the results of the geotechnical investigation of these boreholes.	Please refer to GBB No.5
162.	Drawings of North Avenue Station contained in Annex C of GBB No.5	Reference is made to the Temporary Works Drawings of North Avenue Station contained in Annex C of GBB No.5 issued on 6 September 2021. Please clarify and advise if the following works shall be carried out under the Contract CP102:- <ul style="list-style-type: none"> - Supply, installation and removal of Steel Water Barrier - Removal/demolition of the diaphragm walls down tp 2m below the existing ground level - Transportation off-site, relocation, disposal or selling of dismantled temporary strut and waling members and king posts installed by the CP101 Contractor - Instrumentation and monitoring installed by 	All works pointed out except supply and installation of Steel Water Barrier are scope of CP102.



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ITEM NO.	REFERENCE/CLAUSE/SECTION	QUERIES	RESPONSE
		the CP101 Contractor	
163.	Drawings of North Avenue Station contained in Annex C of GBB No.5	Should the same waterproofing materials being used by the CP101 Contractor be used for the Top slab of the North Avenue Station to be constructed by the CP 102 Contractor to ensure the compatibility, please advise the detail of the waterproofing materials for pricing.	Please plan according to Volume II Part 2: Works Requirements Section VI Works Requirements Technical Specifications (TS) 4: Underground Structures 2011 Waterproofing and CIVIL DRAWINGS COMMON DETAILS GN-CE-CD-0023-025.
164.	MMS-GC-101-NAS-DWG-TP-100003	Reference is made to the drawing number MMS-GC-101-NAS-DWG-TP-100003 showing the king post layout of the launching shaft area to be installed by the CP101 Contractor. Please be advised that since some king posts are located in close proximity to the railway center, they will clash with the maneuver of the rolling stocks for the TBM driving. Please provide us with the design report of the struts and kind posts for our planning of relocation of these king posts.	The railway center in the drawing is the subway track center. Please plan the temporary track for TBM excavation avoiding the king posts shown in the drawing.
165.	the abandoned ground anchors installed during construction of the basement structures of "Solaire	Reference is made to the abandoned ground anchors installed during construction of the basement structures of "Solaire". We understand that these ground anchors were installed nearby/underneath the MRT 3 structures and foundations, and that there is a possibility that the TBM tunnel driving may clash with these ground anchors. We presume that should these ground anchors be encountered by the TBM driving, the ground anchors should be cut or removed. Please advise if MRT 3 has agreed with removal of the ground anchors obstructing the TBM driving or not and if there are any specific restrictions/constraints which may be imposed	Client is taking action on it now, and the result will be provided to The Contractor, once it is finalized. Pricing shall be followed in the current provided information.

Metro Manila Subway Project Phase 1 PACKAGE CP102 (Quezon Avenue and East Avenue)			
ITEM NO.	REFERENCE/CLAUSE/SECTION	QUERIES	RESPONSE
		by MRT 3 based upon your previous discussion with MRT 3.	
166.	NA Station Architectural and MEP Works	Please confirm that the Contractor is not required to do any architectural or MEP or similar work in the TBM shaft area of NA Station.	It is considered to utilize the TBM shaft area but has not finalized the plan yet. Contractor to follow current bid document.
167.	Mapang Akit Street Road Traffic Drawing UT-CE-EA-0009 Detour and Traffic Control Plan indicates that this street is maintained open to traffic with a steel traffic deck.	Please confirm that the Contractor is allowed to close this road to traffic during construction of the diaphragm walls in this location and for the construction and removal of the traffic deck.	UT-CE-EA-0009 (East Avenue Station Detour and Traffic Control Plan) is "reference only". Please plan according to Volume II PART 2: WORKS REQUIREMENTS Section VI: Works Requirements General Specifications (GS) 114.
168.	Volume III Part2: Works Requirements	We would appreciate it if you would advise us of the brand or manufacturer of the following items, should you have any preferred ones from the viewpoint of the system wide maintenance or overall operation <ol style="list-style-type: none"> 1. Lighting Fixtures 2. Receptacle Outlet / Wiring Devices 3. Fire alarm Devices and Equipment 4. Panel boards / Circuit Breakers (CB's, MCCB's) 5. Access Control System DCC/Devices 6. CATV Devices 7. BMS Equipment and Devices. 	No brand and/or vendor list ever provided in the bid documents. As per Technical Specification, latest technology should be provided for selected equipment/components.
169.	the drawing for the structure detail and reinforcement detail of the North Avenue Station	Reference is made to the drawing for the structure detail and reinforcement detail of the North Avenue Station contained in Annex C of GBB No.5 issued on 6 September 2021. With respect to the temporary openings to be provided in the Top. B1F and B2F slabs (2 numbers at each floor level, 26m long x 3.5m wide), please	The openings(26m long x 3.5m wide) will be used for track rail installation by CP106. regarding the interface requirements, please decide through interface coordination with CP106. Regarding BOQ please plan accordingly for the current BOQ.

Metro Manila Subway Project Phase 1 PACKAGE CP102 (Quezon Avenue and East Avenue)			
ITEM NO.	REFERENCE/CLAUSE/SECTION	QUERIES	RESPONSE
		clarify and confirm:- - Please advise the purpose of the temporary openings and the interfacing requirements, if the other interface contractors use the opening, including hand over and access dates of the interface contractors. - Please note that there is no item for the mechanical couplers to be installed along the temporary opening in the BOQ. Please advise which item should cover the couplers.	
170.	North Avenue Station Plaza: Access Dates A set of drawings is provided for this area and Bill 2A and 6A is provided for payment. There is no specification for this work.	a) Please provide the date when access will be provided by CP101 to the whole area of the North Avenue Station Plaza for CP102 construction. b) Please provide the date when access will be provided to the works area at CP101 Station shown on Drawing No. UT-CE-QA-0011. c) Please provide the date when access will be granted to CP102 for the track slab of North Avenue Station for launching and recovery of TBM's.	The time for Access to the Site shall be "within two (2) weeks after Commencement Date" as per Sub-Clause 2.1 of Part A: Contract Data of Particular Conditions. North Avenue Station all access dates should be coordinated with CP101 contractor as interface coordination.
171.	Tunnel Fire Hose Box DWG No STN-MEP-FPS-TUN5-3110	Please provide dimension of Tunnel Fire Hose Box	Tunnel fire protection system does not provide the fire box
172.	TBM Thrust Force on Segmental Lining DWG No TN-CE-TBM-0006. STRUCTURE DRAWING OF TBM SEGMENT SHEET 1/2	Please specify the maximum allowable thrust force on the segmental lining for design of the tunnel boring machine (TBM), such as dimensions of the thrust shoe and capacity of the thrust force of TBM jack.	The total expected thrust force will be 48,000KN.
173.	Bid drawings.	Please provide CAD files for the bid drawings.	The CAD file will be provided to the successful bidder.
174.	Volume IA Part 1 Bill of Quantities (BOQ),	The Bidder would like to confirm that the Bidder shall quote based on the "Linear meter" for these	The bidder should quote "nr" for lighting points, locally controlled ceiling mounted.

Metro Manila Subway Project Phase 1 PACKAGE CP102 (Quezon Avenue and East Avenue)			
ITEM NO.	REFERENCE/CLAUSE/SECTION	QUERIES	RESPONSE
	<p>BOQ-133, Pay item No. 1116(1a) lighting points; locally controlled ceiling mounted,</p> <p>Volume II Part 2 Section VI: Technical Specifications (TS) 3: Mechanical, Electrical and Plumbing Page 122 1116.4.2 Basis of Payment There is a discrepancy in the TS and BOQ.</p> <p>In the Technical Specification, it is indicated that the Basis of Payment is "Linear meter", while in the BOQ under the column UNIT it is "nr" for lighting points; locally controlled ceiling mounted.</p>	works.	
175.	Drawing No. GN-CE-CD-0001, Sheet No.3 CONCRETE STRENGTH CRITERIA, and Section IV Bidding Form Bill of Quantities Bill NO.2A & 2B	Referring to "Station" in the Drawing GN-CE-CD-0001 Sheet-3, Non-Shrink Mortar is shown at the top of the Columns. However, there are no separate Pay Items sighted in BOQ 2A & 2B. Please advise whether Non-Shrink Mortar is separately measured and paid, or advise otherwise.	No. Non-Shrink Mortar is not separately measured and paid
176.	MEP Drawings, "NOTES" refers "PVC insulated FRLSHF"; and	Bidder is unable to find the relevant specification nor the Basis of Payment for the "PVC insulated FRLSHF" in the Technical	1.The bidder should refer to PEC 2017 Chapter 2 for the Industry Standard of Wiring,

Metro Manila Subway Project Phase 1 PACKAGE CPI02 (Quezon Avenue and East Avenue)											
ITEM NO.	REFERENCE/CLAUSE/SECTION	QUERIES	RESPONSE								
	Section II MEP - (TS) Page 164-166 1121 Low Voltage Power Cables	Specification 1121. Employers are also requested to clarify whether "PVC insulated FRLSHF wire is available in the market, as Bidder understands that PVC cannot meet LSHF.	2. The bidder should also refer to the Bid/ Design Drawing to determine the correct or relevant specification of wires as referred to item number 1. 3. If there's inconsistencies between the TS and drawings the most stringent material shall be used.								
177.	MEP Drawings: Electrical LV Schematic Diagrams; and Section II MEP - (TS) Page 158 1121 Low Voltage Power Cables; 1121.1.1 (i) Armouring	Bidders understand that the cables designated in the drawings as "Cu_XLPE" do not require the armouring, although the Technical Specification 1121.1.1 (i) requires armouring. Employers are kindly requested to advise whether and where the armoured cables specified by 1121.1.1 (i) are used.	XLPE with Armour Copper is the construction industry standard and best practices, therefore follow TS 1121.1.1.								
178.	STN-MEP-PLD-EA-0101	Please provide a pipe conversion schedule for Galvanized Iron to PPR.	Please refer to TS for pipe Specification.								
179.	STN-MEP-PLD-EA-5201	Please provide a unit of measurement for the Retention capacity for Oil Grease Trap. 	Please refer to BOQ pay item 1235 (4) for the capacity.								
180.	Technical Specification 3: MEP Stormwater Pipe Works Section 1235.2.2 (a) Bill of Quantities Bill 5A/B Item 1235 SPL-PB-P-QA-5001	Please verify which material for stormwater pipelines and fitting (gravity) shall prevail. <table border="1" data-bbox="779 1193 1361 1327"> <thead> <tr> <th>Item</th> <th>As per Specs</th> <th>As per Plan</th> <th>As per BOQ</th> </tr> </thead> <tbody> <tr> <td>Stormwater Pipes and Fittings</td> <td>Cast Iron (CI)</td> <td>Polyvinyl Chloride (PVC) series 1000 SDR 34</td> <td>1. Ductile Iron (DI) 2. Cast iron (CI)</td> </tr> </tbody> </table>	Item	As per Specs	As per Plan	As per BOQ	Stormwater Pipes and Fittings	Cast Iron (CI)	Polyvinyl Chloride (PVC) series 1000 SDR 34	1. Ductile Iron (DI) 2. Cast iron (CI)	Drawing shall prevail. Please follow Technical Specification (Section 1234.2.2).
Item	As per Specs	As per Plan	As per BOQ								
Stormwater Pipes and Fittings	Cast Iron (CI)	Polyvinyl Chloride (PVC) series 1000 SDR 34	1. Ductile Iron (DI) 2. Cast iron (CI)								
181.	STN-AR-A-QA-7015	May we request for the details of Door Type T2;	Door type T2 marked as "Not Used" in drawing STN-								

Metro Manila Subway Project Phase 1 PACKAGE CP102 (Quezon Avenue and East Avenue)			
ITEM NO.	REFERENCE/CLAUSE/SECTION	QUERIES	RESPONSE
		it is marked as "Not Used" in the drawings, however, there are 16 T2 Type Doors in Quezon Ave. Station as per Door Schedule.	AR-A-QA-7015 is wrong. Refer to drawing STN-AR-A-EA-7012 for details of door Type T2.
182.	STN-MEP-PLD-EA-3331 STN-MEP-PLD-EA-3335 STN-MEP-PLD-EA-4305	Please confirm if we can use the detailed drawing of Sewage Ejector Pit at East Avenue Station - Mezzanine Level as reference for the Sewage Ejector Pit at Platform level.	Contractor can use a detailed sewage ejector pit at mezzanine level for reference only. Contractor must follow the dimension and capacity of the sewage pit at platform level stated on the drawing.
183.	STN-MEP-FPS-EA-4101	The Fire and Jockey Pump Controller on East Avenue was not reflected on the pump room details plan. Please provide details for the the Fire and Jockey Pump Controllers	Fire and Jockey Pump controllers' detailed dimensions will be included on manufacturer's recommendation. Contractor to include location of controllers on the submission of the shop drawing.
184.	Quezon Avenue Station: STN-MEP-ELL-QA-2181 to STN-MEP-ELL-QA-3944 East Avenue Station: STN-MEP-ELL-EA-2101 to STN-MEP-ELL-EA-3945	Please identify the following legends: <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>a.</p> </div> <div style="text-align: center;">  <p>b.</p> </div> </div>	1. See ref. dwg. No. STN-FPS-CWD-0102(R1) of 11/2020.RF: Radio Frequency SD: Smoke Detector CGP: Clear Glass Panel
185.	Bill of Quantities; Bill 5A; Pay Item No. 1123 Technical Specifications 3: Mechanical, Electrical and Plumbing Part 1123.2.2 - Wire Part 1123.3.1 – Installation STN-MEP-ELL-EA-2101 to STN-MEP-ELL-EA-2104 STN-MEP-ELL-QA-2181 to STN-MEP-ELL-QA-218	Please verify which wire size shall govern:	Electrical Drawings shall govern BOQ and TS. The contractor shall submit material submittal form for technical approval during the shop drawing stage.

Metro Manila Subway Project Phase 1
PACKAGE CPI02 (Quezon Avenue and East Avenue)

ITEM NO.	REFERENCE/CLAUSE/SECTION	QUERIES	RESPONSE
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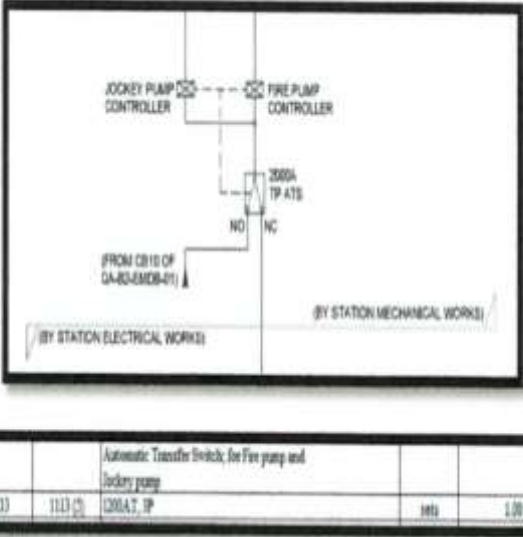
		<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;"></th> <th style="width: 35%;">Technical Specification</th> <th style="width: 15%;">Plan</th> <th style="width: 40%;">BOQ</th> </tr> </thead> <tbody> <tr> <td style="vertical-align: top;">Wire Classification and size</td> <td style="vertical-align: top;"> <p>Item No. 1121.2.2 Conduit and Wire no. 1) Wire letter c.</p> <p>Number and size of conductors shall be rated for fire alarm and as recommended by the fire alarm system manufacturer but not less than:</p> <p>(i) 18 AWG (0.5mm) Shielded Twisted Pair for initiating device, signaling line circuit and voice circuit.</p> <p>(ii) 18 AWG (1.25mm) Unshielded Twisted Pair for notification appliance circuit and 24Vdc power supply</p> <p>Item No. 1121.1.1 Installation</p> <p>The system shall be using with 2.0mm² for power, 1.5mm² for loop, 1.5mm² for communication, and solid copper high temperature PVC insulated, power limited to 230V, 20°C the protective signaling type cable for initiating and notification circuit throughout.</p> </td> <td style="vertical-align: top;"> <p>Loop - 2C x 1.5sqmm IN COPPER CONDUCTOR FIBER CABLE</p> <p>Power - 2C x 2.5sqmm IN COPPER CONDUCTOR FIBER CABLE</p> <p>Communication - 2C x 1.5sqmm IN COPPER CONDUCTOR FIBER CABLE</p> </td> <td style="vertical-align: top;"> <p>Approved FDAS system inter cables</p> <p>Approved FDAS wires/cables drawing into conduits</p> </td> </tr> </tbody> </table>		Technical Specification	Plan	BOQ	Wire Classification and size	<p>Item No. 1121.2.2 Conduit and Wire no. 1) Wire letter c.</p> <p>Number and size of conductors shall be rated for fire alarm and as recommended by the fire alarm system manufacturer but not less than:</p> <p>(i) 18 AWG (0.5mm) Shielded Twisted Pair for initiating device, signaling line circuit and voice circuit.</p> <p>(ii) 18 AWG (1.25mm) Unshielded Twisted Pair for notification appliance circuit and 24Vdc power supply</p> <p>Item No. 1121.1.1 Installation</p> <p>The system shall be using with 2.0mm² for power, 1.5mm² for loop, 1.5mm² for communication, and solid copper high temperature PVC insulated, power limited to 230V, 20°C the protective signaling type cable for initiating and notification circuit throughout.</p>	<p>Loop - 2C x 1.5sqmm IN COPPER CONDUCTOR FIBER CABLE</p> <p>Power - 2C x 2.5sqmm IN COPPER CONDUCTOR FIBER CABLE</p> <p>Communication - 2C x 1.5sqmm IN COPPER CONDUCTOR FIBER CABLE</p>	<p>Approved FDAS system inter cables</p> <p>Approved FDAS wires/cables drawing into conduits</p>	
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186.	<p>Technical Specifications 3: Mechanical, Electrical and Plumbing Part 1125 - Master Antenna Television System</p> <p>STN-MEP-ELV-QA-3410 to STN-MEP-ELV-QA-3415</p> <p>STN-MEP-ELV-EA-3640 to STN-Mep-ELV-EA-3665</p>	<p>Please confirm if the MATV System is included in our scope of work.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;"></th> <th style="width: 35%;">Technical Specification</th> <th style="width: 15%;">Plan</th> <th style="width: 40%;">BOQ</th> </tr> </thead> <tbody> <tr> <td style="vertical-align: top;">MATV</td> <td style="vertical-align: top;"> <p>The MATV scope of works should be under the close coordination with Telephone Service Provider. Based on this, the provision for their service such as duct, trunking and tray for trunk line, etc. shall be provided by the civil package</p> </td> <td style="vertical-align: top;"> <p>Reflected in Auxiliary Plans of East Avenue and Quezon Avenue Stations</p> </td> <td style="vertical-align: top;"> <p>Not Mentioned</p> </td> </tr> </tbody> </table>		Technical Specification	Plan	BOQ	MATV	<p>The MATV scope of works should be under the close coordination with Telephone Service Provider. Based on this, the provision for their service such as duct, trunking and tray for trunk line, etc. shall be provided by the civil package</p>	<p>Reflected in Auxiliary Plans of East Avenue and Quezon Avenue Stations</p>	<p>Not Mentioned</p>	<p>Yes, it is included in the package. Please see technical specification (101.1.1) and dwg. No. STN-MEP-ELV-QA-2019(R0) of 9/2020 Design Principle under communication and information system.</p>
	Technical Specification	Plan	BOQ								
MATV	<p>The MATV scope of works should be under the close coordination with Telephone Service Provider. Based on this, the provision for their service such as duct, trunking and tray for trunk line, etc. shall be provided by the civil package</p>	<p>Reflected in Auxiliary Plans of East Avenue and Quezon Avenue Stations</p>	<p>Not Mentioned</p>								
187.	<p>STN-MEP-VAC-EA-3811</p> <p>STN-MEP-VAC-EA-3812</p> <p>STN-MEP-VAC-EA-3813</p> <p>STN-MEP-VAC-EA-3814</p>	<p>Please confirm the number of stops for each elevator unit at East Avenue Station (ELV-01 to ELV04).</p>	<p>Number of stops in ELV 01: 3 no's (Refer Archi dwg 1102,1201,1205)</p> <p>Number of stops in ELV 02: 2 no's (Refer Archi dwg 1106,1205)</p> <p>Number of stops in ELV 03: 2 no's (Refer Archi dwg 1002,1003)</p> <p>Number of stops in ELV 04: 3 no's (Refer Archi dwg</p>								

Metro Manila Subway Project Phase 1 PACKAGE CPI02 (Quezon Avenue and East Avenue)											
ITEM NO.	REFERENCE/CLAUSE/SECTION	QUERIES	RESPONSE								
			1303,1402,1502)								
188.	STN-AR-A-EA-1802 STN-AR-A-EA-1803 STN-MEP-VAC-EA-3811 STN-MEP-VAC-EA-3812 STN-MEP-VAC-EA-3813 STN-MEP-VAC-EA-3814	Please confirm which will govern the number of openings as well as its orientation for each elevator at East Avenue Station (ELV-01 to ELV-04). See Annex A	Architectural drawings indicated the number of openings and orientation for elevators will govern.								
189.	STN-MEP-VAC-QA-3812	Please confirm which will govern regarding the travel height of ELV-01 for Quezon Avenue Station. <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;"></th> <th style="width: 15%;">As per BOQ</th> <th style="width: 15%;">As per Drawing</th> <th style="width: 15%;">As per Technical Specifications</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">Travel Height of ELV-01 Quezon Avenue Station</td> <td style="text-align: center;">12.3m</td> <td style="text-align: center;">10.990m</td> <td style="text-align: center;">Not Specified</td> </tr> </tbody> </table>		As per BOQ	As per Drawing	As per Technical Specifications	Travel Height of ELV-01 Quezon Avenue Station	12.3m	10.990m	Not Specified	Follow the BOQ travel height 12.3 m as indicated Drawing STN-MEP-VAC-QA-3812 travel height 10.99 m is incorrect.
	As per BOQ	As per Drawing	As per Technical Specifications								
Travel Height of ELV-01 Quezon Avenue Station	12.3m	10.990m	Not Specified								
190.	STN-AR-A-QA-0501	May we know the exact location and pay Bern no. for BAL-04 and GL42?	BAL-04 is for the accessible ramp location and the pay item for BAL-04 is 1051 (5) a1. No GL42 exists. If the query is about GL02 - Laminated glass, 30mm (Commercial area) and pay item for GL02 is 1012(9) a3. If it's about GL04 - 12mm toughened glass (Lift enclosure glazing) and pay item for GL04 is 1012(9)a1.								
191.	STN-AR-A-QA-0501	May we know the Pay Item No. for the following railings: - BAL-05 - BAL-07	Pay item for the following items are: BAL-05 is Stainless Steel Handrail with Glass Railing 1051 (5) b3 (Between escalator and stairs). BAL-07 is Stainless Steel Handrail 1051 (5) a3 (shortcut prevention at escalator).								
192.	STN-MEP-ELV-QA-2081 STN-MEP-ELL-QA-3311 to STN-MEP-ELL-QA-3344	Please provide pay items in BOQ for the following as these are reflected on plans a. Door Controller Points b. Push Button Points NOTE: The above items are included in EA	The bidder can refer to EA station BOQ for the Door Controller points and Push Button points for QA station.								

Metro Manila Subway Project Phase 1 PACKAGE CP102 (Quezon Avenue and East Avenue)			
ITEM NO.	REFERENCE/CLAUSE/SECTION	QUERIES	RESPONSE
		Station BOQ.	
193.	SPL-WS-NA-6003	The distribution pipe for water meter assembly (WMA) is 20mm dia that well supplies the 50mm dia pipe size. Please confirm WMA pipe size.	The Bidder can use the Equipment Schedule (STN-MEP-VAC-EA-5102) as a reference on their data gathering
194.	SPL-PB1-P-QA-5003 SPL-PB1-P-QA-5004 SPL-PB1-P-QA-5007 SPL-PB1-P-QA-5009 SPL-PB1-P-QA-5010	There is a conflict with the downspout pipe diameter reflected in the Schematic Diagram (all downspouts are 80mm) while the Drawing Layout (80mm & 100mm) is located at Quezon Avenue Pedestrian Bridge 1. Please confirm which size of pipes will prevail. 	The scope of work for the Telephone and Broadband Distribution system to be followed is as per QA and EA drawings.
195.	SPL-E-EA-5001	Please confirm if the lighting fixtures with "By Others" specified in the Drawing's Lighting Electrical Legend is excluded in our	As per the design drawing, scope of work for the local area network should be plants for QA and EA.

Metro Manila Subway Project Phase 1
PACKAGE CP102 (Quezon Avenue and East Avenue)

ITEM NO.	REFERENCE/CLAUSE/SECTION	QUERIES	RESPONSE
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196.	DWG: STN-MEP-ELL-OA-2003 BOQ: BILL NO. 5A - STATIONS E & M WORKS (QUEZON AVENUE STATION), Item 1113, 1113 (5)	Scope. Kindly clarify the discrepancy of ATS size between the drawing and BOQ as shown below: 	Please refer to the attachment.
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Volume IV Part3: Conditions of Contract and Contract Forms

197.	VIII Page – PC-6 Attachment 1 to Part A: Contract Data of Particular Conditions of Contract SCHEDULE OF KEY DATES KD 1-1 and KD 1-2 Completion of Basic Structure of Stations and Provision of Access to the	Please identify exactly and specifically Rooms or Areas for the CP106 Systems Contractor to commence their works since CP 102 contractor shall make clean, dry and watertight conditions prior to the handover of the Rooms or the Areas, including temporary air-conditioning. CP102 contractor shall pay delay damages in case of any delay from these key dates.	The Contractor shall coordinate with Interfacing contractors.
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Metro Manila Subway Project Phase 1 PACKAGE CP102 (Quezon Avenue and East Avenue)			
ITEM NO.	REFERENCE/CLAUSE/SECTION	QUERIES	RESPONSE
	CP 106 Systems Contractor to install Systems Equipment. The Station structures shall have been substantially completed including lighting, ventilation, temporary air-conditioning, plumbing, interface works, related finishes, to allow the CP106 Systems Contractor access for the installation of system equipment, cabling works and associated works. The above access shall be provided on a room by room or an area by area basis to be required by CP106 Systems Contractor in accordance with the detailed schedule to be agreed upon at the time of preparation of CIP (Coordinated Installation Program). All areas shall be clean, dry and watertight prior to the handover of Rooms or Areas for the CP106 Systems Contractor to commence their works in.		
198.	IV BF-45 Bid Contents 7.5 Proposed Use and Reinstatement of Works Area. Technical Bid Contents 7.5 "The Bidder shall show, in outline, his proposed layout of works area for:	Is there any location close to the site appointed by the Employer?	No. Contractor shall propose his layout of the works area.

Metro Manila Subway Project Phase 1 PACKAGE CP102 (Quezon Avenue and East Avenue)			
ITEM NO.	REFERENCE/CLAUSE/SECTION	QUERIES	RESPONSE
	(a) The Contractor's Office and other facilities (b) Laboratory (c) Workshop (d) Warehouse and storage area (e) Concrete batching plant and mixing plant (f) Other necessary facilities"		
199.	VIII Works Trains	Please confirm whether CP106 will be providing CP102 with the use of its works trains for CP102 trackside installations.	The Contractor shall coordinate with CP106 contractor.
<i>Volume V. Part 4: Relevant Information</i>			
200.	b_ Geotechnical Survey Data for CP102	Reference is made to the geotechnical information contained in the folder, " b_ Geotechnical Survey Data for CP102" of Volume V Part 4 Relevant Information. There are no core photographs of the boreholes in the geotechnical investigation report. We would appreciate it if you would provide us with the photographs of the core boxes for our reference.	Core box Photos are attached in GBB No.5
201.	b_Geotechnical Survey Data for CP102	Reference is made to the geotechnical information contained in the folder, "b_Geotechnical Survey Data for CP102" of Volume V Part 4 Relevant Information. According to the "Geotechnical Investigation Report - September 2020", borehole scanning was carried out in the borehole numbers EAS-04, EAS-07 and EAS-09. However, the scanning data for these three boreholes are not included in the folder "J Borehole Scanning" under the folder	Please refer to GBB No.5

Metro Manila Subway Project Phase 1 PACKAGE CP102 (Quezon Avenue and East Avenue)			
ITEM NO.	REFERENCE/CLAUSE/SECTION	QUERIES	RESPONSE
		"01 SubCon issue Doc" of "b_Geotechnical Survey Data for CP102". Please furnish us with the pdf file showing the result of the borehole scanning for the borehole bumbere EAS-04, EAS-07 and EAS-09.	
202.	IV Part 3 VIII PC-10 Attach B Works Area for CP102 at North Avenue Station "The Contractor will be provided with a Tunnel Worksite of approximately 3,500m2 in size and a TBM Launch Shaft by the CP101 contractor at the southern end of the North Avenue Station Box ..."	Drawing UT-CE-QA-0011 Construction Yard Plan shows an area of 5,501m2 will be provided for use by CP102 but the Contract Data says that only approximately 3,500m2 will be provided. Please confirm the size and dimensions of the area	Drawing UT-CE-QA-0011 Construction Yard Plan shows an area of 5,501m2 is correct.
203.	GC 17.3 Employer's Risks (h) any operation of the forces of nature which is unforeseeable or against which an experienced contractor could not reasonably have been expected to have taken adequate preventive precautions.	Employers are requested to confirm that tropical depressions and cyclones are included in GC 17.3.	The indicated weather disturbances are considered to be predictable in the short and medium term; as such they are not taken to be an Employer's Risk.
204.	GC 17.1 Indemnities, 2nd paragraph The Employer shall indemnify and hold harmless the Contractor ... in respect of (1) bodily injury, sickness, disease or death, which is attributable to any negligence, willful act or breach of the Contract by the Employer, the Employer's Personnel, or any of their respective agents GS 130.2 Insurances (b) Insurance against Injury to Persons and Damages to Property/Public Liability (Third Party Liability Insurance)	Employer is requested to confirm that 1. Employer's Personnel and Employer's respective agents are insured by Employers Workers Compensation Insurance, hence Contractor is not required to procure Worker's Insurance for Employer's Personnel and Employer's respective agents. 2. All Insurances procured by Contractor under the Contract are specified solely by GS130.2. Please advise whether Employer's other contractors (i.e. CP101, CP103 and CP106's contractor) shall be included in "the Third Party"	1. Insurance requirements are provided GS sub-clause 130.2 and repeated in ATTACHMENT-4 TO PART A : CONTRACT DATA OF PARTICULAR CONDITIONS OF CONTRACT SCHEDULE OF INSURANCES (Clause 18 of Conditions of Contract). As indicated therein, Third Party coverage (under the CAR insurance) includes coverage for the Employer, his Consultants, the Interface Contractor and the Related Works Contractor or including their subcontractor as separate insured.

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		that shall be insured by GS 130.2 (b). And if not, please further advise what kind of responsibility each contractor shall contractually assume in case of bodily injury or property damage, as there is no contractual relationship between the contractors and the Contractor.	2. GS sub-clause 130.2 Insurances provides for additional insurances that may be required. The need for these may be discussed during negotiations with the winning bidder. 3. As indicated in Attachment 4, the insurance policy shall include a cross liability clause such that the insurance shall apply to the Contractor, his Subcontractor, the Employer, his Consultants, the Interface Contractor and the Related Works Contractor or including their subcontractor as separate insured. Thus, the CP102, CP104, CP106 and CP107 need to be included as Interface Contractors in the coverage.
205.	Section III, Particular Conditions Attachment-2A Provision of TBM Retrieval Windows to the CP103 Contractor at East Avenue Station, (2) Period and other conditions for provision of TBM Windows (i) The Contractor shall leave the Retrieval Shaft ... no shorter than two (2) months per each tunnel.	Employers are requested to set the Key Dates to define the commencement days of the said two (2) months. Without such Key Dates, Bidder is unable to establish the construction schedule. Bidder's further concern is that interface coordination can not be agreed should Contractor's and CP103's schedules be too far.	Please adhere to the Key Dates in the Bid Document.
206.	Section III, Particular Conditions Attachment-2A Provision of TBM Retrieval Windows to the CP103 Contractor at	Employer is requested to clarify the followings: 1. Who has the custody of the working area lent for CP103 to carry out works for connecting the tunnel and Retrieval Shaft.	1. During the TBM Retrieval window at East Avenue, the custodian is CP 103 after coordination with CP 102. 2. Agreed 3. Contractors are to coordinate to minimise risk of

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	East Avenue Station, (2) Period and other conditions for provision of TBM Windows (ii) In addition to the above provision of custody of Retrieval Shaft, the Contractor shall lend appropriate working area ... so that CP103 Contractor may carry out works for connecting the tunnel and Retrieval Shaft.	2. Duration of working area lent for CP103 will not exceed the two (2) months as stipulated in (i) above. 3. Contractor is entitled to claim to the Employer any cost incurred due to CP103 overstaying in the Retrieval Shaft and/or working area.	claim situation, if this situation was to occur
207.	Section III, Particular Conditions Attachment-2B Provision of Tunnel Worksite and TBM Launch Shaft by the CP101 Contractor at North Avenue Station, (2) Period and other conditions for provision of TBM Worksite and Launch Shaft, (i) CP101 Contractor will leave the Retrieval Shaft ... no shorter than two (2) months per each tunnel.	Employers are requested to set the Key Dates to define the commencement days of the said two (2) months. Without such Key Dates, Bidder is unable to establish the construction schedule. Bidder's further concern is that interface coordination can not be agreed should Contractor's and CP101 schedules be too far.	Please adhere to the Key Dates in the Bid Document.
208.	Section III, Particular Conditions Attachment-2B Provision of Tunnel Worksite and TBM Launch Shaft by the CP101 Contractor at North Avenue Station, (2) Period and other conditions for provision of TBM Worksite and Launch Shaft, (ii) In addition to the above provision of custody of Retrieval Shaft, CP101 Contractor will lend appropriate working area ... so that the Contractor may carry out	Employer is requested to clarify the followings: 1. Who has the custody of the working area lent from CP101 to carry out works for connecting the tunnel and Retrieval Shaft. 2. What provision shall be applicable to the duration of working area lent from CP101 exceeding the two (2) months as stipulated in (i) above.	1. While CP 102 is using the TBM Shaft at North Avenue the custodian is CP 102 after coordination with CP 101. 2. If this situation were to occur, the CP 102 Contractor would retain sole responsibility of the worksite until their works are complete.

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	works for connecting the tunnel and Retrieval Shaft.		
209.	a_Topographic Survey Data for CP102	Reference is made to the "Topological survey report - June 2019" contained in the folder "a_Topographic Survey Data for CP102" of Volume V Part 4 Relevant Information. Please furnish us with CAD/Excel files containing the LiDAR measurement data.	The CAD file and excel will be provided to the successful bidder.
210.	g_Recommendation for Monitoring of MRT3 Structure" of Volume V Part 4 Relevant Information.	Reference is made to the letter from Mr. Fabrizio Tuccari, Structural engineer for MRT3, to Engr. Michael Capati, Director for Operations Metro Rail Transit Line-3. dated 2 October 2020 contained in the folder, "g_Recommendation for Monitoring of MRT3 Structure" of Volume V Part 4 Relevant Information. The table for "Detailed Clarifications" attached to the above-referenced letter suggests a possibility that the TBM tunnel driving may clash with the existing ground anchors left in the ground after construction of the basement structure of "Solaire", and implies potential impact of the removal of the ground anchors upon the building structure. We would appreciate it if you would furnish us with the as-built records/drawings of the abandoned ground anchors including the locations, levels, material specifications of the ground anchors and if the tension forces of the ground anchors have been released or not. The information is essential for assessment and determination of the potential influences to the TBM driving and the basement	The redesign of the alignment between NA and QA is on-going to avoid interfering with the existing ground anchor of Solaire. This information of modified alignment will be shared during the negotiation stage or after the commencement. Bidder to estimate without considering crashing and removing the ground anchors.

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		<p>structure of "Solaire", such as extent of the affected tunnel length, the number of the ground anchors to be removed during the TBM driving, potential impact to the basement structure and the like. Please note that without the as-built information of the existing ground anchors which may be encountered and removed during the construction., it is considered impracticable to estimate properly and reasonably additional costs and time to deal with these anchors.</p> <p>Furthermore, in case that there is no or insufficient as-build information available at the time of submitting the Tender, please confirm that should the existing ground anchors be encountered during tunnel excavation and the TBM driving be adversely affected by the existing ground anchors, the encountered ground anchors shall be considered as unforeseeable man-made physical obstructions and the Contract Price, relevant Key Dates and Completion Date shall be adjusted to the clause 4.12 "Unforeseeable Physical Conditions" of the Conditions of Contract.</p>	

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<i>Volume II Works Requirements Section VI</i> <i>Works Requirements – Technical Specification (TS)</i>								
1.	TS 2100 6.1 TBM(s)Operation (a) The Contractor shall submit a method statement of tunnelling. The method statement shall include the following;	Add the following phrase in 2100 6.1 TBM Operation (a): (xvii) Cutter intervention plan.						
2.	TS 2012 Instrumentation and Monitoring 2012.4.4 Adjacent Important Structures Monitoring Table 2012.4.1 Adjacent Important Structures Monitoring	Add the item below in 2012.4.4 Table 2012.4.1 Adjacent Important Structures for Monitoring: Table 2012.4.1 Adjacent Important Structures Monitoring <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Location</th> <th style="text-align: center;">Structure</th> <th style="text-align: center;">Remark</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">Tunnel</td> <td style="text-align: center;">MRT 3 (Branch Line)</td> <td style="text-align: center;">Viaduct settlement and incline monitoring</td> </tr> </tbody> </table>	Location	Structure	Remark	Tunnel	MRT 3 (Branch Line)	Viaduct settlement and incline monitoring
Location	Structure	Remark						
Tunnel	MRT 3 (Branch Line)	Viaduct settlement and incline monitoring						
<i>Volume III Part2: Works Requirements</i> <i>Works Requirements – Employer’s Drawings (DRW)</i>								

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ITEM NO.	REFERENCE CLAUSE/SECTION	ADDENDUM No. 8
3.	CIVIL DRAWINGS EAST AVENUE STATION No. UT-CE-EA-0006	Please replace the drawing below: UT-CE-EA-0006 Please see the attachment