



General Bid Bulletin No. 8 11 October 2021

METRO MANILA SUBWAY PROJECT PHASE I

PACKAGE CP103: TWO UNDERGROUND STATIONS (ANONAS AND KATIPUNAN) AND TUNNELS (IFB No: 21-035-6)

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 CP103 bidding documents, password is MMSP103.

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 CP103 (Anonas and Katipunan)			
ITEM NO.	REFERENCE/CLAUSE/SECTION	QUERIES	RESPONSE	

		Volume I Part1: Bid Procedures	
1.	 EQC-10 2.4.2 (a) Specific Experience relating to Stations and Tunnels Works. As a prime contractor (single entity or JV) (iv) for two (2) contract for underground stations and tunnel works that have been satisfactorily and substantially completed (iii) between 1st January 2000 and BID submission deadline. In the case of multiple contracts, the above minimum value for experience as a prime contractor shall be applied to combined contract packages. 	The bidder would like the Employer to clarify what does the "value" means in this sentence. Please specify what is required to submit in case of multiple bids/contracts.	The term "value" should be interpreted as "two (2) contract for underground stations and tunnel works".
	······································	Volume IA Bill of Quantities (BOQ)	
2.	Busduct Size Discrepancy DWG and BOQ DWG :STN-MEP-ELL-AN-2001	Based on BOQ, Rating of Busduct is 4,000A. However, based on SLD, Busduct is rated 5000A. Which shall govern?	Rating(s) shall follow with the drawing and are subject for validation with/upon shop drawing review and approval.
3.	ATS Size Discrepancy DWG and BOQ DWG :STN-MEP-ELL-AN-2003	In BOQ and TS, ATS is 1200AT, 3P. However, in SLD, ATS is 2000A TP. Which will govern?	Rating(s) shall follow with the drawing and are subject for validation with/upon shop drawing review and approval.
4.	PLC panel mentioned in the BOQ. Required panel Detail	Kindly provide us further details for the following PLC Panels that were included in your BOQ.	 See ref. dwg no. STN-MEP-BMS-AN-3733(R0 of 9/2020 for the presentation of PLC; Basically, PLCs are use with automation system and

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		1113 1113(lo) 1113 1113(lp)	therefore they must be searched in all bid/design drawings.		
5.	BOQ-2001(6) - UT-CE-AN-0005 BOQ-2001(1) - UT-CE-AN-0005 /Bill No. 2A Bill No. 2A Bill No. 2 STATION CIVIL STRUCTURE WORKS BILL No. 2A ANONAS STATION BOQ-2001(6) - UT-CE-KP-0006 BOQ-2001(1) - UT-CE-KP-0006 /Bill No. 2B BILL No. 2B KATIPUNAN STATION Pay Item 2001 (6) Clearing and Grubbing Pay Item 2001(1) Removal of Existing Asphalt/Concrete Paving and Base Course Pay Item 2001(3) Removal of Sidewalk and Median	 A. Based on the attached drawing (UT-CE-AN-0005.pdf), the Bidder identified the quantities for the work items set out in Bill No.2A as follows: 2001(6): 10,601m2 2001(1): 3,136m2 2001(3): 219m2 The above quantities are much different from what are given in the BOQ, especially for 2001(1). Please clarify reason of those differences, and revise them if necessary. B. Based on the attached drawing (UT-CE-KP-0006.pdf), the Bidder identified the quantity for the work items set out in Bill No.2B as follows: 2001(6): 23,753m2 2001(1): 4,457m2 The above quantities are different from what is given in the BOQ. Please confirm if our identification is correct. 	The information in the BOQ is correct.		

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	Pay Item 2001 (6) Clearing and Grubbing Pay Item 2001(1) Removal of Existing Asphalt/Concrete Paving and Base Course		
6.	Bill NO.5A STATIONS E & M WORKS (ANONAS STATION) Tunnel Drainage TUNNEL DRAINAGE SYSTEM in Bill NO.5A STATIONS E & M WORKS (ANONAS STATION)	We understood, Tunnel drainage system will be installed between KATIPUNAN ST and ORTIGAS NORTH ST. Pump sum will be provided 1 no and discharge water transfer to ORTIGAS NORTH ST under platform. It is under Bill NO.5B STATIONS E & M WORKS (KATIPUNAN STATION). Please clarify.	Please refer STN-MEP-PLD-TUN7-4001. The number of Pump is two.
7.	BOQ-46/1811(10) BOQ-58/1811(10) Ceiling - Solid Plate	In BOQ, there is item 1811(10) Solid Plate but is not found in the drawings. Please confirm the location of this item in the drawing. This is for both Anonas and Katipunan Station.	Solid plate located in entrance ceiling along the VT void. Refer to detail drawing 9060 detail tag A.
8.	BOQ-46/1811(10) BOQ-58/1811(10) Stainless Steel Ceiling Panel	In BOQ, there is item 1203(1) Stainless Steel Ceiling Panel but is not found in the drawings. Please confirm the location of this item in the drawing. This is for both Anonas and Katipunan Station.	Stainless steel ceiling panel is located in 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.
9.	VolumeIA Part 1 Section VI (BOQ), Volume III Part 2 Section VI (TS_Arch),	The bidder would like to clarify that all the designs complied with the Philippine regulation including Bureau of Fire Protection National Capital Region.	Refer to GS section 101, and TS_MEP section 101.1.1 Execution/Construction

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	Volume III Part 2 Section VI		
	(TS_MEP) and,		
	Volume III Part 2 Section VI (DRW)		
	Local Regulation		
10.	BOQ-117 to BOQ-118	The Bidder would like to clarify that TVF-01, 02,	Bidder should consider 360,000CMH (100CM/Sec) on
	Pay item No. 1227(1)	03 and 04 shall be quoted based on the	their quote
	AN-MZ-TVF-01, 02, 03 and 04	360,000CMH.	
	indicated 36,000CMH		
	supply/36,000CMH exhaust. However,		
	in Tunnel Ventilation Silencer		
	indicated 360,000CMH. There is a		
	discrepancy in the above items.		
11.	BOQ-127,	The Bidder would like to confirm that the Bidder	The bidder should quote "nr" for lighting points, locally
	Pay item No. 1116(1a) lighting points;	shall quote based on the "Linear meter" for these works.	controlled ceiling mounted.
	locally controlled ceiling mounted,	works.	
	Page 122		
	1116.4.2 Basis of Payment		
	There is a discrepancy in the TS and BOQ.		
	BOQ.		
	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.		
12.	Architectural Works	The Bidder kindly requests that detailed	The pay item 1812 (4) quantified as lump sum in TS

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	(Built-ins and Countertops) Bill of Quantities Items 1812 (3), 1812 (4), 1822 (1), and 1822 (2)	drawings of built-ins and countertops be provided in order for us to propose the correct unit prices in the BOQ.	and BOQ. Hence no quantities will be provided. 1812 (4)- Built-ins (Pantry Counter) : Refer drawing AN/KP-9640 The pay item 1812 (3) does not exist in TS. 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 AN/KP- 9600 1822 (2)- Ledge Quartz : Refer drawing AN/KP-9610		
13.	BOQ-15/Bill NO.2A BOQ-26/Bill NO.2B Pay ITEM No. 2001(1) 2001(2)	For proper preparation of the technical bid and commercial bid, please indicate in drawing/sketch the location / area of such existing structure / obstruction as provided in the BoQ items in question.	Please refer to the series of drawing : UT-CE-AN-0001 , UT-CE-KP-0001		
	2001(3)				

14.	Volume 1A, Section VI	The Bidder would like to request the Employer	
	Bidding Forms: Bill of Quantities	to provide a soft data (excel format) of the Bill of	
	(BOQ)	Quantities (BOQ).	
		Volume II Works Requirements Section	VI
		Works Requirements – General Specification	n (GS)
15.	Section VI (GS) Appendix 5	It is indicated that the Design, Supply and Fix	As indicated in Appendix 4, Table 2.3, Item 23
	App 4-35	are under CP103, while CP106 to provide	Design/Supply/Fix is by CP103 Contractor.
	23 Earth Mat System	dimensions and locations. The Civil work	
	Design – CP 103	contractors and CP106 to coordinate and agree	1. The design of overall station Earth Mat should
	Supply – CP 103	on dimensions and locations.	be less than 2 Ohms
	Fix – CP 103		
	Remarks – CP106's requirement to	1. The Bidder would like to clarify the	2. Earth mat System is part of CP 103 scope refer

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	Civil packages. Earth Mat system design by Civil electrical team. The design of overall stations Earth Mat should be less than 1 Ohms.	requirement of overall Earth Mat system resistance, is it 1 Ohm or 2 Ohm.2. Bidder would like to confirm that Earth Mat system design is not part of the scope of CP103.	to Earthing Schematic Diagram STN-MEP- ELL-AN-2031 revision 1
16.	Vol. II, Sec.VI General Specification; Appendix 8_BIM Employer's Information Requirements BIM LOD 300 Issuance	Please confirm that Client prepared BIM LOD 300 will be issued to the Contractor before the commencement of project.	LOD 300 BIM models will be issued after the commencement of project. During project Implementation.
17.	Vol. II, Sec.VI General Specification; Appendix 8_BIM Employer's Information Requirements BIM Construction timeline animation	The "Construction timeline animation" which presents site progress is not indicated on issued tender documents. Please confirm this is not part of the Contractors scope.	This scope is not required. However it is contractor's option if they want to apply this feature in the project.
18.	Vol. II, Sec.VI General Specification; Appendix 8_BIM Employer's Information Requirements BIM LOD 300 Details	Please confirm our understanding that for any details that will be found out to be not included in the BIM LOD 300 issued by Client shall not be the Contractor's responsibility to update up to LOD 300 detail.	Yes. The contractor's responsibility is to update from the LOD 300 Model issued by the Engineer. If there are any missing details from the LOD 300 BIM model, the Engineer will update and re-issue the model to the Contractor. Please refer to LOD 300 Matrix is define in the LOD Specification located in the Digital Engineering Appendix 8.
19.	 Volume II Part 2 Section VI (GS) Volume II Part 2 Section VI (TS) 3. Mechanical, Electrical and Plumbing, Elevator of Pedestrian bribe 2 	The Bidder could not find Technical Specification for Elevator of Pedestrian bribe 2 and bidder understand these Elevator is outdoor type.The Bidder would like to request Employer to provide Technical Specification for this outdoor type elevator.	Please refer the revised Article "2324 MACHINE ROOM LESS ELEVATOR". It is applicable for outdoor type.
20.	Appendix 1	The Bidder understands the Electrical and	Bidder understanding is not correct as per technical

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	App 1-5 (3) Electrical and Mechanical (E&M) Works a) Electrical, Mechanical, and Plumbing System. Design and manufacture, installation, testing and commissioning of the E&M station and E&M tunnel shall comprise, but not be limited to, the following:	Mechanical design is not the scope of the bidder and bidder shall follow the Employer's Drawings. Kindly confirm.	specification general requirement section 101.1.1.1 (design principle). By the said section, the scope of the contractor is not only limited to following the employer's drawings.	
21.	App 8-4 Appendix 8 1. BIM Employer's Information Requirement	It is not clear on what is the Main purpose of BIM that will serve as desired result of the project. The Bidder would like to request the Employer to provide detail purpose of this requirements.	 The Client have 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: 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 	

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			 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 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 Provide an open source as-built BIM model, which can be used by the Client to operate and maintain the line wide project. 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. 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. The BIM process shall be implemented for the whole of Contract phase for modelling, visualization, clash detection, CSD/SEM, simulation for Engineering study, coordination, documentation, creation of As- 	

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22.	Арр 8-8	The Bidder would like to clarify if the Bidder will	 built, collaborative use of the models throughout the project delivery as defined in this document. 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. We will use BS ISO 19650 format. The Engineer will 	
22.	App 8-8 Appendix 8 1.7 Information Requirements Use of BIM Model: Transmittals, Formal Correspondences, and Other Information	follow the format of transmittal as per BS ISO 19650 - Master Information Delivery since it is not indicated in the requirements.	provide the format to the contractor once mobilized.	
23.	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 bidder referring to existing condition of the site. The important is to reflect the proposed site design for implementation.	
24.	App 8-17 Appendix 8 1.8.7 Coordination & Clash Mitigation Process	The Bidder would like to clarify if what portion of BIM shall be provided for clash detection.	Since LOD 300 model will be provided by the Engineer based on the 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.	
25.	App 8-17 Appendix 8 1.8.7 Coordination & Clash Mitigation Process	The Bidder would like to clarify if clash report will be required even if there would be no cases of clashing.	Since LOD 300 model will be provided by the Engineer based on the 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.	
26.	App 8-43	The Bidder would like to clarify if it can use the	Yes. We will update the software version as discuss	

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	Appendix 8 – Annex 1 1.4.5.2 Agreed Format of Exchanged Model Data	latest and optimal version of the software since the model files cannot revert back to previous version.	and agreed in the implementation stage.
27.	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.	Submission will be BIM model Phase LOD350, LOD 400 and LOD 500 models. This will discussed in the project implementation
28.	App 8-48 Appendix 8 – Annex 1 1.6 BIM Uses	The Bidder would like to clarify if what are to include and exclude on the list of BIM Uses that will use/will be applicable on the project.	Please refer to Attachment: (For additional references, please refer to App 8-33 Appendix 8 – Annex 1 1.3.2 Level of Development Matrix)
		Volume II Works Requirements Section	
29.	3rd Party Certification Tunnel Ventilation System	Works Requirements – Technical Specification Please clarify if third party certification is required for the tunnel ventilation system performance verification.	NO, but GC MEP need to emphasize that a Certification of Test / Result / Report are required as stated in Technical Specification Section 1226, 1227, 1228, 1229, 1230, 1231, 1232
30.	RAMS / EMC report Tunnel Ventilation System	Please confirm if a RAMS (Reliability, Availability, Maintainability and Safety) report and EMC (Electromagnetic Compatibility) report is required for the tunnel ventilation system.	Yes, and all other required certified Test / Result / Report are stipulated in Technical Specification Section 1226, 1227, 1228, 1229, 1230, 1231, 1232
31.	Technical Specification; Part 1226.1.1 Item (d) and Part 1226.1.2 International Railway Practice Standard Tunnel Ventilation System	Tunnel Ventilation System. As stated in the Specification Part 1226.1.1 Item (d) that, " The provision of safety critical functions and equipment shall comply with appropriate international railway practice".	Yes, it is confirmed that the phrase "The provision of safety critical functions and equipment shall comply with appropriate international railway practices " is mention in the Technical Specification section 1226.1.1 clause (d).
		Please confirm that stated "international railway practice" are in accordance to the standards listed in Part 1226.1.2 (b) \cdot items (i) to (v).	

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32.	Technical Specification; Part 1226.1.1 Item (b) Design Review Tunnel Ventilation System	Please clarify the time of submission of the required design review documents as stated in Part 1226.1.1 item (b) . Is it required to submit during the tender stage or only during the actual project implementation?	It is not required to submit during tender stage as per, Part 1226.1.1 item (b) clearly stated that "Contractor shall submit a list of all design review documents to the Engineer for notice of no objection, as per the submission schedule given in the General Specifications". And if the contractor thoroughly read and understand the Bid Docs, the contractor will be guided by the Gen Specs section 119 "Documents & Drawing submittals & reviews" also section 120 "Documents submittals and response procedure". And as an experience contractor it is an amateur work of submitting a design review for Tunnel Ventilation System during tender stage.	
33.	Vol. II, Sec.VI Technical Specification; Tunnel Lighting, Part 2400.1.1 Details of Requirement Tunnel Lighting	Please provide details of requirement as stated in Part 2400.1.1 Item 2 (ii) that, "Presentations, reviews and audit support as described in General Specifications"~	 See GS for all the sequences of works and operations due for the execution of the contractor 1. Demarcation lines for all MEP works are basically the same even if it shows one service or system upon the other. Therefore, this connotes that the demarcation line as well shown here can be applied for tunnel lighting system. 2. in the absence of the bid/design drawing(s) of the tunnel lighting, the bidder/contractor (from/with their expertise) can create a scenario, based with the lux level as prescribed in the TS to arrive with the BOQ for bid 	

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			purpose. STN-MEP-FPS-TUN6-2101 STN-MEP-FPS-TUN7-210
			Turnel Wet Standpipe & Hose System East Most Montes st: Hontes st: Hontes st: Center of Unreal EP Center of Unreal EP Center of Unreal EP
34.	Vol. II, Sec.VI Technical Specification; Tunnel Lighting, Part 2400.1.1 Details of Requirement Tunnel Lighting	Please provide details of requirement as stated in Part 2400.1.1 Item 2 (iii) that states " Interface management with other interfacing contractors".	 See GS for all the sequences of works and operations due for the execution of the contractor 1. Demarcation lines for all MEP works are basically the same even if it shows one service or system upon the other. Therefore, this connotes that the demarcation line as well shown here can be applied for tunnel lighting

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			system. 2. in the absence of the bid/design drawing(s) of the tunnel lighting, the bidder/contractor (from/with their expertise) can create a scenario, based with the lux level as prescribed in the TS to arrive with the BOQ for bid purpose. STN-MEP-FPS-TUN6-2101 STN-MEP-FPS-TUN6-2101 STN-MEP-FPS-TUN7-210 Ture WeiSchope & Heel Spin Level A arrive a tree of the spin of the arrive 		
35.	Vol. II, Sec.VI Technical Specification; Tunnel Lighting, Part 2400.1.1 Details of Requirement	Please provide details of requirement as stated in Part 2400.1.1 Item 2 (vi) that states " Dismantling , removal and/or disposal of temporary work;"	See GS for all the sequences of works and operations due for the execution of the contractor, for better understanding kindly refer to TS part 24 section 2400.1.1 (vi)		
36.	Tunnel Lighting Vol. II, Sec.VI Technical Specification; Tunnel Lighting, Part 2400.1.1	Tunnel Lighting. Please clarify the time of submission of the required design review documents or inputs as	See GS for all the sequences of works and operations due for the execution of the contractor. 1.It's during the actual project implementation thru		

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	Design Review Tunnel Lighting	stated in Part 2400.1.1 Item 2 , (i) to (vii) . Is it during this tender stage or during the actual project implementation?	contractors' compliance with contract documents as define in GS section 102 (C). 2. In compliance in item 1, the bidder shall refer to technical specification volume 2-part 2 Work Requirements Section 6 under 2400.1.2 (i) citing review of construction detail design or shop drawings.
37.	Mechanical, Electrical and Plumbing, 18 3) Shop Drawing (c) Shop Drawings (i) The requirements of Shop Drawings or Working Drawings to be prepared by the Contractor along with the Contractor's obligations in this connection have been outlined in the Section 119.3.1, 119.3.2, 120.1, 120.11 of the General Specifications and elsewhere in the Contract Documents, which shall be followed by the Contractor. In addition, the Contractor shall also comply with the requirements specified herein. The Contractor shall submit for approval detailed shop drawings of all equipment and all materials required for completing the project, and no material or equipment may be delivered to the jobsite or installed until the Contractor has in his possession the approved shop drawings	The Bidder could not find Section 120.11. Kindly provide the document of Section 120.11.	Concerning shop drawing Bidder to consult and follow all relevant documentation as stated If the contractor can read thoroughly the text of the General Specification, they will understand that this is just a typographical error, as this clearly shown the table of content which the section 120 is only up to 120.6 120 120.6 120 120.2 Records and Reports 100 120.3 Submission to the Engineer 110 120.4 The Engineer's Response Procedures 111 120.4 The Engineer's Response procedures 112 120.5 Storage and archive of documents 113 120.6 Measurement and Payment 113

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	for the particular material or equipment. The shop drawings shall be complete as described herein.		
38.	3 Mechanical, Electrical and Plumbing, 563 1227 Fans (TVS) 1227.1.2 Submittals (f) Factory Acceptance Tests (FAT) shall be carried out for each fan type and size. The tests shall verify fan performance such as Rotating speed, volume flow rate, fan total, static and outlet velocity pressures, fan total and static efficiencies, noise power level, motor current, voltage, frequency, motor power input and power factor for both forward and reverse directions of airflow (where applicable). FAT shall be witnessed by the Employer / Engineer.	The Bidder would like to exclude Factory Acceptance Test (FAT) abroad due to uncertainties during this pandemic time?	Contractor need to follow the condition of the ER to proceed with Factor Acceptance Test on manufacturer factory location.
39.	 3Mechanical, Electrical and Plumbing, 382 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: 	The Bidder would like to request the Employer to provide information when or what condition the Bidder to select/use Type A or Type B insulation.	The contractor need to go through the Text of the Technical Specification as this was clearly stipulated that they can use both type in any condition as per Section 1212.2.1

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40.	 (a) Type-A Insulation of Air- Conditioning duct work 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, Completely Closed Cell, physically cross-linked Polyolefin foam 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 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 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.	This is not provided in the Bid Docs of CP103 for the contractor this is due to the fact that the Attachment 7 of Article 29 (Japanese Standard) is already incorporated in the design. But if the contractor insists to have the said attachment, the document can be seen in General Specification Appendix 22 of CP101 packages which is composed of 50 pages.	
41.	Page 151	The Bidder would like to know which insulation	The most stringent conditions shall prevail.	

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42.	 1120 Electrical Wiring and Accessories Page 153 1120.2.2 (c) Grounding Wire On page 151 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." Volume II Part 2 Section VI (TS) Mechanical, Electrical and Plumbing, Page 62 1109 Grounding System; 1109.2.2 Main Ground Terminal Box (c) 1109.2.2 Main Ground Terminal Box. (c) Two main ground terminal blocks shall be placed at platform level by the civil work both sides. Another main grounding terminal block shall be at mezzanine level inside electrical supply room. Volume III Part 2 Section VI 	for grounding should be used? As per Technical Specifications, another main grounding terminal block shall be at mezzanine level inside electrical supply room, while in Earthing System Schematics and Grounding Layout, main grounding terminal block is in SSS Room. The Bidder would like to know which shall govern. The Bidder would like to clarify if MGT in SSS Room will be transferred to Electrical Supply Room or additional MGT will be added in Electrical Supply Room.	 The bidder shall ensure that the insulation for grounding system shall be used in appropriate application specified in the Technical Specification. Use the specification in page 151 in answer from previous reply. Contractor to follow bid documents, i.e design drawings.	

	Metro Manila Subway Project Phase 1 PACKAGE CP103 (Anonas and Katipunan)				
ITEM NO.	V V				
Anonas Station					

	Anonas Station Dwg nos. STN-MEP-ELL-AN-2031 and STN-MEP-ELL-AN-3432		
43.	Volume II Part 2 Section VI (TS) 3. Mechanical, Electrical and Plumbing, Page 62 1109 Grounding System; 1109.2.2 Main Grounding Terminal Box (c) Volume III Part 2 Section VI MEP Drawings: Katipunan Station Dwg nos. STN-MEP-ELL-KP-2031; STN-MEP-ELL-KP-3423; STN-MEP- ELL-KP-3424 1109.2.2 Main Ground Terminal Box. (c) Two main ground terminal blocks shall be placed at platform level by the civil work both sides. Another main grounding terminal block shall be at mezzanine level inside electrical supply room.	As per Technical Specifications, another main grounding terminal block shall be at mezzanine level inside electrical supply room, while in Earthing System Schematics and Grounding Layout, main grounding terminal block is in SSS Room. The Bidder would like to know which shall govern. The Bidder would like to clarify if MGT in SSS Room will be transferred to Electrical Supply Room or additional MGT will be added in Electrical Supply Room.	Contractor to follow bid documents, i.e design drawings
44.	Page 145 2012.4.4 Adjacent Important Structures Monitoring Adjacent Important Structures	Please provide the necessary drawings or information such as foundation information of each existing structures to prepare the monitoring plan.	As-build Plan of existing structures will be provided as follow. Building of World Citi College : GN-CE-0003 Building of World Citi Medical Center : GN-CE-0003 Road LGU : GN-CE-0001 ~ 00010

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	Monitoring		Road DPWH : GN- CE-0001 ~ 00010 Future facilities in Camp Aguinaldo : Additional sketch will be provided " Existing Site Development Plan U-1 1/7 "
45.	Tunnel Fire protection	Please provide a dedicated specification for fire protection of tunnel works.	Please refere MEP-FPS-TUN6-0201 for AN,STN- MEP-FPS-TUN7-0201 for KP
46.	Page 27 ISO Certification Table C-1 Manufacturer's/Supplier's Qualification No.3 Quality Certification of Organization and Quality Assurance - i.e. valid ISO certification or as required in the specifications (GS/TS) of each material and full conformity with the Contract Documents, etc.	Certain part of specifications such as door hardware, acoustical ceiling, metal louvers, raised access floors, granite tiles, ceramic tiles, etc. do not require the manufacturer(s)/supplier(s) to have ISO certification. Please advise if ISO certification is required in manufacturer(s)/supplier(s) of such products.	ISO certification is required as per specs.
47.	 (WR)_4(TS_MEP)_1Mar2021 Part 12 Mech 1221.2.1 Technical Requirements 3) Motor The motor shaft shall be supported on active magnetic radial and thrust bearings. Magnetic bearing control 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. 	Does this mean that the Chiller to be offered must be magnetic type? Please confirm.	As stated in the ER compressor motor shall be a semi- hermetic type.

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48.	(WR)_4(TS_MEP)_1Mar2021 Part 12 Mech 1227 Fans (TVS) 1227.1.2 Submittals (f) Factory Acceptance Tests (FAT) shall be carried out for each fan type and size. The tests shall verify fan performance such as Rotating speed, volume flow rate, fan total, static and outlet velocity pressures, fan total and static efficiencies, noise power level, motor current, voltage, frequency, motor power input and power factor for both forward and reverse directions of airflow (where applicable). FAT shall be witnessed by the Employer / Engineer.	Can we exclude Factory Acceptance Test (FAT) abroad due to uncertainties during this pandemic time?	FAT cannot be excluded as per ER requirements.	
49.	(WR)_4(TS_MEP)_1Mar2021 Part 12 Mech 1213 VRF 1213.2.1 Outdoor Unit 9) Coating (a) The outdoor unit shall be coated with the Seacoast Protection Coating (Bermuda Special) if the installation site falls within the following criteria:	Criteria Table is missing. Please provide.	Bidder to refer to 1213.2.1 Outdoor Unit 9) Coating (i) The salt spray coating shall adhere to the following specifications.	
50.	(WR)_4(TS_MEP)_1Mar2021 Part 12 Mech 1213 VRF 1213.3.2 Service	Our understanding is that there is NO requirement of heating mode and defrost mode in VRF AC unit. Please confirm.	Bidder is correct	

1) Duct Insulation

	Metro Manila Subway Project Phase 1 PACKAGE CP103 (Anonas and Katipunan)			
ITEM NO.	REFERENCE/CLAUSE/SECTION	QUERIES	RESPONSE	
	(i) Outdoor UnitOperation Mode (Cooling Only, Heating Only, Cooling Main, Heating Main)			
51.	 (WR)_4(TS_MEP)_1Mar2021 Part 12 Mech 1214.1.9, 1215.1.10, 1216.1.8, 1217.1.6, 1218.1.6 (b) Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of fan units that fails in materials or workmanship within specified period. 	Please define the condition of "specified period" for Special Warranty for: TS1214: Fan Coil Unit TS1215: Air Handling Unit TS1216: FAN TS1217: Chilled Water Pump TS1218: Condenser Water Pump	Concerning 1227 Fans (TVS) 1227.1.3 Quality Control and Assurance (g) High temperature tests shall be conducted on one TVF fan with air of minimum two hundred fifty (250) °C flowing through the fan for a period of minimum two (2) hours. Bidder to follow TS	
52.	(WR)_4(TS_MEP)_1Mar2021 Part 12 Mech 1227 Fans (TVS) 1227.1.3 Quality Control and Assurance STN-MEP-VAC-KP-5106 (g) High temperature tests shall be conducted on one TVF fan with air of minimum two hundred fifty (250) °C flowing through the fan for a period of minimum two (2) hours.	Based on Equipment Schedule, TVS Fan Temperature Rating is 250°C ,1Hr. But Specification states 250°C, 2Hrs. Please clarify.	Concerning 1227 Fans (TVS) 1227.1.3 Quality Control and Assurance (g) High temperature tests shall be conducted on one TVF fan with air of minimum two hundred fifty (250) °C flowing through the fan for a period of minimum two (2) hours Bidder to follow Tech Specs	
53.	(WR)_4(TS_MEP)_1Mar2021 Part 12 Mech 1212 Duct and Pipe Insulation 1212.2.1 Technical Requirements	Kindly inform us when or what condition are we going to use Type A or Type B insulation.	Bidder need to consult with Tech Spces because condition regarding the subject matter are already provided (Section 1212.2.1).	

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	The materials, thickness and finishes for insulation applied for various services are specified as: (a) Type-A Insulation of Air- Conditioning duct work 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, Completely Closed Cell, physically cross-linked Polyolefin foam			
54.	Telephone System Scope of work	For Telephone System, shall we consider wirings from Telephone Outlet to MDF?	See ref. dwg. no. STN-MEP-ELV-AN-2044(R0) of 9/2020 for the contractor/bidder scope demarcation.	
55.	LAN System Scope of work	For LAN System, shall we consider wirings from LAN Outlet to MDF?	See ref. dwg. no. STN-MEP-ELV-AN-2044(R0) of 9/2020 for the contractor/bidder scope demarcation.	
56.	(WR)_1(GS)_23Mar2021 App-4 CONTRACTOR'S INTERFACE 2.3 Stations and Substations 23.Earth Mat System CP106' s requirement to Civil packages. Earth Mat system design by Civil electrical team. The design of overall station Earth Mat should be less than 1 Ohms	(WR)_4(TS_MEP)_1Mar2021 Part 11 Elec 1109 Grounding system, stated 2 Ohm. Which is requirement of overall Earth Mat system resistance 10hm or 2 oh Also, we understood that Earth Mat system design is not part of scop of CP103.	1. Refer to the Technical Specification 1109 which is 2 Ohms. Please refer with typical 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. See NOTES for the mandatory required resistance reading. 2. Earth mat system design is included in CP103 scope.	
57.	Uninterruptable Power Supply System Technical Specifications 3:	Please confirm if the UPS is in parallel configuration.	See ref. dwg. no. STN-MEP-ELL-AN-2011(R0) of 9/2020 for the exact configuration.	

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	Mechanical, Electrical and Plumbing / Section 1114			
58.	Vol. II, Sec.VI Technical Specification; Architecture, Part C01.3 - Item 5 Mock-up Requirements. Sub- item c.iii.5 Mock-up Ventilation airflow performance	Mock-up Requirement. Please confirm our understanding that the " Ventilation airflow performance" requirement for mock-ups is only related to Architectural finishes like door louvers, door undercut and the likes.	Bidder to consult with MEP Tech Specs regarding Mock-up as this is specified on case to case basis.	
59.	Vol. II, Sec.VI Technical Specification; Architecture, Part C01.3 - Item 5 Mock-up Requirements. Sub- item d) Mock-up Mechanical / Electrical components	Mock-up Components Please confirm our understanding that mechanical and electrical components related to Mock-up 1 to 6 shall involve only exposed fittings (like air grilles, wall outlets, light fittings, floor drains, etc.) which are only in direct conjuction to architectural finishes and will not involve any mechanical / electrical equipment (like Fan, FCU, Panelboard etc.)	Bidder to consult with MEP Tech Specs regarding Mock-up as this is specified on case to case basis.	
60.	CO1.3 /Page Nos. 34 & 35 Signages Mock-up	Please clarify if signage for Mock-up 5 is required as signage is not specified under Mock- up 5 but the other mock-up required signages and are shown in the drawing.	As specified in TS, For mock up 5: C01.3, 5, d (vii) (1) Signage fixture is required.	
61.	 Page No. 581 Raised Access Floor Assembly FVF-01 Raised Access Floor a) Description: Anti-static vinyl tile adhered/fastened to raised flooring system and dust proofing epoxy coating under floor, including all fastenings and accessories to complete the installation. 	 Ref. dwg. No. STN-AR-A-AN-9010 and STN-AR-A-KP-9010. Please confirm if the following items are included in Pay Item 1808 Raised Access Floor Assembly. a. 600 x 600 x 3mm Resilient Vinyl Tile on Raised Floor b. Dust Proofing Epoxy coating under Floor to 	No. vinyl tile and epoxy floor not part of raised floor assembly (1808). There are two separate items: a. 1808 - Raised Access Floor Assembly b. 1801(1) - Epoxy coating (Dust proof)	

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		FVF-01	
62.	Page 581 Clause 1808.2.1 TS Section 1808.2.1 Anti-static vinyl tile adhered/fastened to raised flooring system STN-AR-A-AN-9010/KP-9010 Raised Access Floor Assembly Drawing No. STN-AR-A-AN- 9010/KP-9010 600 x 600 x 3mm Resilient vinyl tile on raised floor system	There appears to be a conflict in the finish of raised flooring. Kindly clarify which finish will govern, anti- static vinyl tile or resilient vinyl tile.	Anti-static vinyl tile adhered/fastened to raised flooring system. Technical specification prevails, refer to TS Section 1808.
63.	STN-AR-A-KP-7008 STN-AR-A-AN-7007 KP-B1F/D18 AN-BIF/D36 Glass Door 16mm tempered Fire Glass Panel with security Film	Please confirm if these Doors are non-Fire Rated. In the Door Schedule, it is indicated as FIRE RATING (HRS) AS 0.0; While the description indicated as "16mm tempered Fire Glass Panel with security Film"	Doors are non-Fire Rated. "16mm tempered Fire Glass Panel with security Film" indicate in door schedule is wrong. Refer drawing STN-AR-A-AN-7013 Doors and Ironmongery for door Type T7
64.	STN-AR-A-AN-1202 STN-AR-A-AN-1601 STN-AR-A-AN-0802 GL-05 infront of BAL-03a along Grid B and Grid Line 15-17	Please clarify if GL-05 is required above 300mmH SS Skirting along Grid Line B and Grid Line 15-17? Floor Plan STN-AR-A-AN-1202 shows 300mmH SS Skirting beside Bal-03a, B1F Level Plan Wall types STN-AR-A-AN-0802 shows only Railing.	GL-05 is required above 300mmH SS Skirting as indicated in floor plan STN-AR-A-AN-1202, cross section - STN-AR-A-AN-1601, long section A - STN-AR- A-AN-1701.

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		but the Section 1601 shows a GL-05 above 300mm ht SS Skirting. Please clarify if GL-05 is required above the 300 Skirting.		
65.	STN-AR-A-AN-2602 STN-AR-A-KP-2602 STN-AR-A-AN-9010 STN-AR-A-KP-9010	Which thickness prevails for lightweight concrete? Dwg. No. STN-AR-A-AN-9010/KP-9010 Section : t = 500mm Dwg. No. STN-AR-A-AN-2602/KP-2602 : t = 400mm	Follow 500mm thickness as per drawing. STN-AR-A-AN-9010/KP-9010	
66.	STN-AR-A-AN-9010 STN-AR-A-KP-9010	Please advise FC-01, FC-02 and FC-03 are included in Pay Item 1021 (1) c1 - Concrete trowel with floor hardener.	FC-01, FC-02 and FC-03 are incorrect identification not part of Pay Item 1021 (1) c1. pay item 1021 (1) c1 refer to FCF-02-Concrete trowel with floor hardener,	
67.	STN-AR-A-AN-0201 STN-AR-A-KP-0201	Please advise the related Pay Item for Floor Plain Cement Trowelled Finish (F-00), Cold applied concrete hardener on cement trowelled Finish.	F-00 indicated at M&E shaft in STN-AR-A-AN-0501 finishing schedule (2 of 2) with no finish. The slab to be cement trowelled finish which is part of the structural pay item. For Concrete-Filled Floor with Trowel Finish and Concrete Hardener(FCF-04), refer pay item 1021 (1) c2	
68.	Page No. 501 Intumescent Paint TS 1047 METAL STRUCTURES Section 1047.2.2 Materials	Please confirm if the following supports require intumescent painting:a. TS 1030 - Braces for ceiling supportsb. TS 1030 - hangers for lighting and signages and the like	No. Wall Detail Label at Vent Tower 02 is wrongly tagged. Correct one is noise barrier. Tag should refer to drawing STN-AR-A-AN-9241	

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	14) Paint Item l) l) Steel frame members shall be fully applied with waterborne fire-protection intumescent paint system in accordance to the required fire resistance ratings.			
69.	STN-AR-A-AN-6061 STN-AR-A-AN-9240 STN-AR-A-AN-9241 STN-AR-A-AN-6065 Vent Tower 02	Please confirm if the Wall Detail Label at Vent Tower 02 which is STN-AR-A-AN-9240 (Detail for Metal Louver) is correct, since at the Elevation it is supposed to be Noise Barrier.	16mm thick glass (GL-05) to be followed as per drawing STN-AR-A-AN-7007 and TS 1012.2.1.1.e for GL-05	
70.	STN-AR-A-AN-9002 STN-AR-A-AN-9003 STN-AR-A-KP-9002 STN-AR-A-KP-9003 Additional Concrete	Please provide us details such as reinforcement bars and concrete grade for the following: a. 70mm thk additional concrete b. Section (Type 1 & 2) - Concrete filling (1st stage and 2nd stage)	The concrete back-filling behind stone cladding to be revised to metal sub-frame. Updated drawing and details shall be provided.	
71.	(WR)_4(TS_MEP)_1Mar2021 Part 12 1236 - Package Type Sewer Treatment Plant 1236.4.2 Basis of Payment Drainage and Wastewater Treatment Plant	Please confirm that pay item 1236(2) as specified in section 1236 is not applicable for CP103 contract. The same is not found in the tender drawings and BOQ provided.	Bidders to check Sewage system schematic diagram and Ground Floor Plan.	
72.	(WR)_4(TS_MEP)_1Mar2021 Part 11 1121 LV Power cable 1121.1.2 Summary FIRE RATED CABLE	DO YOU HAVE MORE DETAILED SPECS FOR THE FIRE RATED CABLE? HOW MANY HOURS DOES IT NEED TO BE RATED (E.G. 2-HOURS, 3 HOURS)? WHAT CATEGORY IS THE FIRE RATED CABLE BELONG? (E.G. CWZ, ETC)	fired rated cables specs to be minimum 2 hours. Contractor must comply with standards and regulations spituled in the ER regarding railway project. Ex: NFPA 130.	

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73.	MATERIAL BRANDS	DO YOU HAVE ANY PREFERRED BRANDS OR LIST OF BRANDS FOR BUSDUCT, PANELBOARD/SWITCHGEAR, CIRCUIT BREAKERS, CAPACITOR BANK, METERING, SPD, CURRENT TRANSFORMER, RELAYS, ISOLATION TRANSFORMER, RELAYS, ISOLATION TRANSFORMER, LIGHTNING ARRESTER, GROUNDING, CABLETRAYS, RACEWAY, PVC PIPES, METALLIC PIPES, FIRE SEALANT, BMS, LV CABLES, CONTROL CABLES, WIRES, FIRE RATED CABLES, FDAS, TELEPHONE, LAN, PUBLIC ADDRESS, CCTV, ACCESS CONTROL, DATA CABLES, ETC.	 All electrical equipment shall be the latest technology available in the market and complying to the international standard test. Vendor lists is not part of the TS and/or GS, hence, contractor to further raise this issue and/or clarify with Client/DOTr.
74.	(WR)_4(TS_MEP)_1Mar2021 Section 1225 P2_S(VI)_(WR)_6(TS_PB)_30Sep202 0 Section 2322 Independent Commissioning Specialist Contractor. 1225 Testing, Inspection and Commissioning.	 Independent 3rd party commissioning requirement has been specified in the following section for Mechanical and Plumbing works : 1.Part 1201 - Water Pumping System 2.Part 1225 – Testing and Commissioning (details described in attached spec.) 3.Part 1236 – Packaged Type Sewer Treatment Plant 4.Part 1237 – Water Supply and Pipe Works However for Electrical works only section 2322 - Field Inspection and Acceptance Tests, states the requirement for independent electrical equipment testing firm for Pedestrian Bridge. Please confirm that independent testing firm services are not required for Electrical works of Stations, Station Plaza and Tunnels. 	 T&C (Testing and Commissioning) for the Electrical Systems and Services that require(s) 3rd party is given (as a direct sample) in TS, Section 1130.4; Other electrical systems and services that require so shall consult always with the provisions of the TS and/or GS as maybe appropriate and/or applicable; On the other hand, FAT (factory acceptance test) shall be consulted with GS, Section 106, 116.4 and Appendix 2.

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75.	(WR)_4(TS_MEP)_1Mar2021 Section 1225 1225 Testing, Inspection and Commissioning. P2_S(VI)_(WR)_6(TS_PB)_30Sep202 0 Section 2322 2322 Field Inspection and Acceptance Test. Independent Commissioning Specialist Contractor.	Please confirm our understanding that independent testing firm services are not required for field test and pre-commissioning activities. (Field test and pre-commissioning activities may be carried out by contractor without the presence of independent testing firm). Please confirm.	The Bidder is advice to consult the Tech Specs as this is case to case depending on the system involve	
76.	Vol. II , Sec.VI Technical Specification; Part 1226.1.2 SES Tunnel Ventilation System	Please confirm that the SES (Subway Environmental Simulation) shall only be done based on the details of SEDH (Subway Environmental Design Handbook).	Tunnel ventilation modelling (1D simulation) is mandatory to predict temperature, pressure and airflow response of the system under all operating modes (normal operation, congested mode and fire emergencies in tunnels) The subway environmental simulation (SES) program is used for the simulations. A SES report should present studies for : 1. Normal operation; 2.Congested mode ; 3. Fire emergencies in tunnels; 4. Pressure transient analysis; 5. Infiltration and exfiltration analysis. The SES report should be read alongside the following design reports : 1.VAC, TVS and SCADA report; 2.CFD (3D simulation) report. Regarding design standards and guidelines, the design	

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of tunnel ventilation system must be in accordance with:
1. Mandatory standards :
-Fire Code of the Philippines ;
- NFPA 130-2017 edition "standard for fixed guideway transit and passengers rail system; -Japanese railway standards.
Reference:
Contract package CP101
Part 2: Employer's Requirements April 2020
23.3.2.1.2. Codes and Standards
"the tunnel ventilation system design shall be based on the NFPA 130 and any other relevant Japanese Standards and Codes or equivalent international standards and shall also comply with all applicable local codes, regulations and standards."
2. Design guidelines :
In addition to relevant codes and standards to be applied, following guidelines shall be used for the design of environmental control system.

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			Subway Environmental Design Handbook (SEDH), Vol 1 and Vol 2 Conclusion : SES cannot be done only based on SEDH. SES must consider all above mandatory standards and design guidelines.
77.	(WR)_4(TS_MEP)_1Mar2021 Section 1203 Elevator Lift Car Finish 1203.3.6 Elevator Car	Section 1203.3.6 states as per employer's, if required, elevator car shall be Glass Car. However 'Car Interior and Elevator Finishes' states car front panel, side panel and back panel shall be scratch resistant stainless steel SS304. Please advise if elevator cars in Anonas and Katipunan stations shall be Glass Car or with Stainless Steel finish.	Bidder is advice to consult Architectural Drawings (STN-AR-A-AN-9670 or STN-AR-A-KP-9670) regarding the details of Elevator Car finishes
78.	Page No. 348/ TS Section 1027.2.1 Item 3c Rubbed concrete finish Unless otherwise shown in the Drawings, only exposed surfaces shall have a rubbed finish.	As per specification, all exposed surface of the walls require rubbed Concrete Finish. However, there is no pay item for the rubbed concrete finish at the walls. Please also confirm if these exposed wall surface requires fluoro resin based painting	Rubbed concrete finish refers to Cement Plaster Finish, which is identified in pay item 1027 (5) and TS 1027. No exposed wall surface requires acrylic water based paint as identified in summary of specification (0201) drawing. Fluoro resin based paint is applied for soffit of slab.
79.	Page No. 33/ TS Section C01.3.5. Item d(i) Page No. 751/TS Section Appendix 2 - Mock-up 6 Skylight (1) Visual Mock-upthis mock-up	Mock - Up 6 refers to Entrance No. 1 at Katipunan Station. It is mentioned that the mock up "shall include at least but not limited to, a set of roof and ceiling, skylight, a set of rain gutter"	Skylight not required. Follow the mock up drawing provided in Appendix 2 of TS.

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	shall include at least not limited to, a set of roof and ceiling, skylight, a set of rain gutter	However, Entrance No.1 does not have any skylight. Therfore please advise if the skylight is still required as part of the mock up No. 6 exercise.	
80.	TS 1811.2.3 Item 6 (TS_Arch Page 615)	The ceiling assemblies as per specifications shall be fire resistant. Please advise the fire rating requirements and the paint finish for ceiling hangers and threaded rods.	Follow requirements mentioned in TS 1811.2.4 Materials e. Hanger Rods or Flat Hangers: Mild steel, zinc-coated or protected with rust-inhibitive paint.
81.	Vol. II, Sec.VI Technical Specification Design Scope MEP System in Tunnel	Please provide further details to the particular design scope that is required for MEP systems in Tunnel area which includes Tunnel lighting, Tunnel drainage, Tunnel fire protection and Tunnel Ventilation.	Tunnel Ventilation: Please see General Specification Section 101, General Specification Appendix 1, Technical Specification "General Requirement", and Technical Specification Sec. 1226, Sec. 1227, Sec. 1228, Sec. 1229, Sec. 1230, Sec. 1231, Sec. 1232 for Tunnel Ventilation reference. Tunnel Drainage: Contractor may refer to General Specification Appendix 1: Scope of Works, 2.2 Building works and

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			Technical Specification, Civil, 2013.3 Station and Tunnel Drainage. (Under Civil Works). Tunnel Fire Protection: Contractor may refer to General Specification Appendix 1: Scope of Works, 2.2 Building works and Technical Specification, "General Requirement" and Sec. 1240, 1241 for reference. Tunnel Lighting 1.Demarcation lines for all MEP works are basically the same even if it shows one service or system upon the other. Therefore, this connotes that the demarcation line as well shown here can be applied for tunnel lighting system. 2. In the absence of the bid/design drawing(s) of the tunnel lighting, the bidder/contractor (from/with their expertise) can create a scenario, based with the lux level as prescribed in the TS to arrive with the BOQ for bid purpose see STN-MEP-FPS-TUN6-2101 and STN- MEP-FPS-TUN7-210	
82.	Vol. II, Sec.VI Technical Specification; Part 1226.1.1 Item (b) Design Review Tunnel Ventilation System	Please clarify who will be responsible for any changes in specification and variation from the Tender requirement as a result of Contractor's design review and verification.	This is Contractor responsibility as stated in the General Specification Section 101 & Technical Specification (General Requirement) Section 101.1.1 (Execution/Construction).	
83.	(TS) Underground Structures 73 2007.2.4 Concrete Mix Design	In table 2007.2.1, Concrete Mix Properties, Class F Concrete requires GGBS. Due to limited supply and uncommon (not yet widely used) in the Philippines, the bidder would like to inquire whether alternative material such as fly ash can	No objection to use PFA as alternative of GGBS.	

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		be used or we can just use normal concrete without GGBS nor flyash.		
84.	(TS) Underground Structures732007.2.4 Concrete Mix Design	In table 2007.2.1, Concrete Classes E and F have the same structural application. Please clarify when to use Class E and Class F concrete.	Contractor shall decide and propose as and when necessary.	
85.	(TS) Architecture 381 Protective Coatings (Anti-Graffiti)	Requirements for Anti-Graffiti Coatings are specified in the Technical Specifications but there is no BOQ Pay Item. The Bidder would like to confirm that Anti-Graffiti is not included in the scope of works of CP103 Contractor.	It is included. Please refer to Tech Specs item 1032.	
86.	(TS) Underground Structures 45 2004.5.1 Integrity Test	The Bidder would like to request that specification, sizes and locations of sonic tubes for the cross hole sonic test be provided.	Please refer to Technical Specifications for Underground Structures & Tunnels Item 2004.5. Integrity testing shall comprise sonic logging and transient vibration testing of the completed Diaphragm Wall which shall be carried out in accordance with approved methods: ASTM D 4428 & ASTM D 5882 respectively. Contractor to submit drawings of proposed pipe layout to the Engineer for approval prior to commencing fabrication of reinforcement cages.	
87.	Technical Specifications 2: Architecture C01 GENERAL REQUIREMENTS C01.2 Codes, Standards and Regulations C01.2 Codes, Standards and Regulations: 1) Codes and Standards The design and construction of the Permanent Works shall comply with	The Bidder would like to clarify that design is not part of bidder's scope for these requirements and only in case of discrepancy the Employer/Engineer will instruct in accordance with those requirements, kindly confirm.	Yes. As mentioned in the Bid documents.	

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88.	 the following ordinances, codes, standards, specifications and guidelines, and the priority of these codes and standards, in case of any discrepancy, shall be in accordance with the following order. 2) The building codes and standards of the Philippines 3) The building codes and standards of Japan Technical Specifications (TS) 3: Mechanical, Electrical and Plumbing Page i of the TS Table of Contents: 1106 CCTV Systems (Not Used, By CP106) Page 9: Communication and Information System In the Technical Specification, it is indicated in page i:, "1106 CCTV System (Not Used, By CP106)". However, in page 9 it is indicated: "The Communication and Information System (Not Used, By CP106)". However, in page 9 it is indicated: "The Communication and Information System such as CCTV, Public Address (PA), and Clock and Guidance Signage at the underground station shall be provided to consider the station users' convenience and to monitor the 	The Bidder would like to clarify that these systems are not scope of work of CP103 and no need to provide cost proposal?	Bid documents, i.e TS and Drawings clearly elaborate the contractor's scope and that must be adhered and/or followed.	

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security for safety and secure operation of the station. However, for the paid & unpaid area as the part of conventional building facility & system, these systems will be provided and controlled by the railway system under CP 106 package."				
3: Mechanical, Electrical and Plumbing Required and/or target room condition of Temperature and Humidity	The Bidder could not find designed outside air Temperature and Humidity, also the required or target room condition of Temperature and Humidity, drawings of Ventilation and Air- Conditioning Schedule STN-MEP-VAC-AN-5102 and STN-MEP-VAC-KP-5104 indicated required Room Temperature of SSS, ESR, UPS ROOM, AFC, TER, TU R, SER, SUR however other room is not indicated.	1.Please refer STN-MEP-VAC-AN-5101 2. 34.5 degree C DB, 52.8% RH		
	 Please provide all rooms and areas requirement and/or target Temperature and Humidity based on the design calculation. Please provide designed bases of outside air Temperature and Humidity. 			
4: Underground Structures EQC-4, 1.1.5 Method of Implementation of the Works, BF-45, Method of Implementation of the	In the Technical Specifications (TS), it is mentioned that Part 22: 2200 NATM and Related works is "Not Used". The Bidder would like to clarify if the Bidder needs to provide Method Statement for the	Please refer to "Standard Specification for Tunneling 2016: Mountain Tunneling JSCE"		
	security for safety and secure operation of the station. However, for the paid & unpaid area as the part of conventional building facility & system, these systems will be provided and controlled by the railway system under CP 106 package." 3: Mechanical, Electrical and Plumbing Required and/or target room condition of Temperature and Humidity 4: Underground Structures EQC-4, 1.1.5 Method of Implementation of the Works, BF-45,	security for safety and secure operation of the station. However, for the paid & unpaid area as the part of conventional building facility & system, these systems will be provided and controlled by the railway system under CP 106 package." 3: Mechanical, Electrical and Plumbing Required and/or target room condition of Temperature and Humidity of Temperature and Humidity of Temperature and Humidity dumidity, drawings of Ventilation and Air- Conditioning Schedule STN-MEP-VAC-AN-5102 and STN-MEP-VAC-KP-5104 indicated required Room Temperature of SSS, ESR, UPS ROOM, AFC, TER, TU R, SER, SUR however other room is not indicated. 1. Please provide all rooms and areas requirement and/or target Temperature and Humidity based on the design calculation. 2. Please provide designed bases of outside air Temperature and Humidity. 4: Underground Structures EQC-4, 1.1.5 Method of Implementation of the Works, BF-45, Method of Implementation of the		

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	Page 192 Part 22: 2200 NATM and Related works (3) Tunnel Works; TBM Tunnel and NATM Tunnel,	1.1.5 Method of Implementation of the Works, and Method of Implementation of the Works.	
	3.3 Tunnels Works; Open Cut and Cover Tunnel and NATM Tunnel for Construction of Station and TBM Tunnel for Tunnel between Stations,Part 22: 2200 NATM and Related		
91.	 works – "Not Used" 1: Civil Works (General) EQC-5, 1.1.5 Method of Implementation of the Works, BF-45, Method of Implementation of the Works, Page 51 to 61 Part 3: Surface Courses (5) Roadworks; Portland Cement Concrete and Asphalt Pavement, 3.5 Roadworks; Portland Cement Concrete and Asphalt Pavements, Part 3: Surface Courses; 	In the Technical Specifications (TS), it is mentioned in Part 3 Surface Courses that all related specification for Asphalt Pavement are "Not Used" such as: 301 Bituminous Prime Coat 302 Bituminous Tack Coat 303 Bituminous Seal Coat 304 Bituminous Surface Treatment 305 Bituminous Road Mix Surface Course 306 Bituminous Plant-Mix Surface Course- General 307 Cold Asphalt Plant-Mix 308 Bituminous Plant-Mix (Stockpile Maintenance Mixture) 309 Bituminous Concrete Surface Course, Hot- Laid	The general matters related to subway construction are mentioned in EQC. On the other hand, The matters related to CP103 are mentioned in TS. Regarding the provision of the method statement please judge based on the construction contents.

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	 301 Bituminous Prime Coat – (Not Used) 302 Bituminous Tack Coat – (Not Used) 303 Bituminous Seal Coat – (Not Used) 304 Bituminous Surface Treatment – (Not Used) 305 Bituminous Road Mix Surface Course – (Not Used) 306 Bituminous Plant-Mix Surface Course-General – (Not Used) 307 Cold Asphalt Plant-Mix – (Not Used) 308 Bituminous Plant-Mix (Stockpile Maintenance Mixture) – (Not Used) 309 Bituminous Concrete Surface Course, Hot-Laid – (Not Used) 	The Bidder would like to confirm if the Bidder needs to provide Method Statement for the Asphalt Pavement as required in the Evaluation and Qualification Criteria (EQC); 1.1.5 Method of Implementation of the Works, and Method of Implementation of the Works.		
92.	Section VI (TS) 1. Civil Works (General) 222-338 618 Fire Protection System, 619 Electrical Work, 620 Hangers and Supports for Electrical Systems, 621 Electrical Identification, 622 Raceway and Boxes for Electrical Systems, 623 Electrical Wires and Cables, 624 Wiring Devices, 625 Panelboards, 626 Surge Protective Devices, 627 Underground Ducts	The Bidder would like to clarify that TS_Civil (GN) Clause 618 up to 636 are for tunnel work only and TS_MEP is for Building MEP works of stations.	Coring shall be performed for the full length of the Diaphragm wall panel	

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93.	and Raceways for Electrical Systems, 628 Automatic Transfer Switches, 629 Engine Generators, 630 Grounding and Bonding for Electrical Systems, 631 Interior lighting, 632 Exterior Lighting, 633 Electrical Controls and Miscellaneous Electrical Equipment, 634 Lightning Protection System, 636 Field Inspection and Acceptance Tests Section VI (TS) 2. Architecture 741 to 751, and 6 Appendix 2 Full Scale Mock-up Assembly Unit Requirements, Volume II Part 2 Section VI (TS) Mechanical, Electrical and Plumbing, Appendix 2 Mock-up 1-Mock-up for Anonas Escalator at B1F Level, Mock-up2-Mock-up for Anonas Escalator at B1F Level, Mock-up3-Mock-up for Anonas Elevator at B1F Level TS_MEP	The Bidder would like to confirm the following: 1. ELV&ESC will inspect at Factory by the Employer's 5 (Five) Representatives. The Bidder would like to clarify the concept on Factory Mock up. 2. On-site Elevator and Escalator Mock-up. The Bidder would like to ask the concept of on site mock up.	Bidder query is clear expalin in the Tech Specs 1203.1.4	

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94.	MEP GENERAL WORKS LIST OF ACRONYMS AND DEFINITION OF 1203.1.4 Factory Mock-up Inspection (Elevator) and 1233.1.5 Factory Mock-up Inspection (Escalator) Section VI (TS) 3Mechanical, Electrical and Plumbing, TS MEP 662 of 749TS 1235.2.2 Pipe Fittings 1235.2.2.g Aluminum rectangular pipe shall be used for downspout including all necessary fastenings, bracketing and accessories required to complete the installation. Sizes, Profile and configurations: As indicated in the Drawings. (1) Size: 125 mm (2) Thickness: 1.8 mm	Based on STN-MEP-PLD-AN-3201 drawing, the size of the aluminum rectangular pipe for downspout is 100mm while on TS, the downspout size is 125mm. Bidder would like to confirm which will prevail.	The downspout size is 125 mm on TS. Please follow TS.	
95.	Volume II Section VI Technical Specifications (TS) Page 44 Work Requirements: 4: Underground Structures 2004 Diaphragm Wall, 2004.4 Concrete Cores of Diaphragm Wall,	Bidder would like to clarify the required length of Core Sampling at each location.	Coring shall be performed for the full length of the Diaphragm wall panel	

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	2004.4.1 Sampling and Testing		
96.	Volume II, Section VI Technical Specifications (TS) Page 143 to 149 Work Requirements Technical Specifications (TS), 4: Underground Structures, Item no. 2012 Instrumentation and Monitoring	 Adjacent important structures as shown in "Table 2012.4.1" are required to monitor the displacement, tilt, differential settlement & inclination of structure. If there are other important structures to be monitored, please clarify important structures. Please clarify dilapidation survey area to be monitored ground surface settlement every 5m. 	 Other important structures should be detemined by contractor, if necessary. Extent of Dilapidation survey area is shown in GS 139.2 and 139.7. Minimum requirements for ground settlement monitoring is shown in TS Table 2012.4.2. Survey and Monitoring of ground surface settlement should be proposed by the contractor and approved by the Engineer.
		Volume III Part2: Works Requirements Works Requirements – Employer's Drawings	
97.	14 / Arch_AN / STN-AR-A-AN-1150 to 1404, 15 / Arch_KP / STN-KP-1100 to 1403	At STN-AR-A-AN-1150 to 1404 ANONAS STATION TOP OF SLAB to B3F PLATFORM LEVEL PLAN & STN-AR-A-KP-1100 to 1403 KATIPUNAN STATION GROUND to B3F PLATFORM LEVEL PLAN, may we assume the FHC: Fire Hose Cabinet to be MEP works? FHC If under Architectural works, please provide specification and detail.	Location, Specification and Quantity of FHC is MEP Scope of Work.
98.	Tunnel Lighting	Tunnel Lighting Please provide tender drawings for basis of pricing of tunnel lighting system.	 This is designer's scope and must be raised clarification with appropriate entity. 1. Demarcation lines for all MEP works are basically the same even if it shows one service

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			or system upon the other. Therefore, this connotes that the demarcation line as well shown here can be applied for tunnel lighting system. 2. In the absence of the bid/design drawing(s) of the tunnel lighting, the bidder/contractor (from/with their expertise) can create a scenario, based with the lux level as prescribed in the TS to arrive with the BOQ for bid purpose. STN-MEP-FPS-TUN6-2101 STN-MEP-FPS-TUN7-210 for the State of the State
99.	TVS Ductworks Tunnel Ventilation System	Tunnel Ventilation System. Please provide tender drawings for our basis of pricing of tunnel ventilation ductworks.	Bidder is advise to consult with VAC drawing The contractor can refer to drawing number STN- MEP-VAC-AN-3160-3166, STN-MEP-VAC-AN-3100- 3106 STN-MEP-VAC-AN-3110-3115 STN-MEP-VAC-AN-3120-3125

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			STN-MEP-VAC-AN-3130-3135 STN-MEP-VAC-AN-3140-3144 STN-MEP-VAC-KP-3100-3106 STN-MEP-VAC-KP-3110-3116 STN-MEP-VAC-KP-3120-3126 STN-MEP-VAC-KP-3130-3135	
100.	Section VI MEP Drawings: Anonas Station, Anonas Station STN-MEP-VAC- CWD-1104 MEP Drawings:	In the "Detail of Air Conditioning for Railway Systems Room with Raised Floor", the Supply duct with thermal insulation is connected to the Raised Floor. However, the supplied cooled air is possible to condense at the surface of raised floor material inside raised floor. Bidder would like to confirm if the Bidder shall	The contractor can use insulated duct.	
	Katipunan Station Katipunan Station SNT-MEP-VAC-1104 Ventilation & Air Conditioning Typical Installation Detail Sheet-4	provide condensation prevention type material onto the surface of Raised Floor material to avoid condensation.		
101.	Section VI (TS)3. Mechanical, Electrical and Plumbing Page 396 1213.2.1 Outdoor Unit 6) Compressor (b) A crankcase heater(s) shall be factory mounted on the compressor(s).	The Bidder would like to clarify if the crankcase heater(s) is required or not.	As stated in the Tech Specs 1213.2.1 the crankcase heater(s) is required.	

(b) A challed as incatch(s) shall be		
factory mounted on the compressor(s).		
Volume II Part 2 Section VI (TS)	It is mentioned in the Drawings that the Total	It is liter liters/ day. Also, contractor to take in
3. Mechanical, Electrical and		consideration that it is stated in the Tech Specs
Plumbing,	Liters and the Total Capacity of STP in	1236.1.6 a) Package type STP is for reference only. STP

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	Volume III Part 2	Katipunan Station is 30559.3 Liters as well. However, it is not mentioned if is it per hours or	Specialist contractor shall provide detailed drawings to meet building requirements.
	Section VI	per day.	neet building requirements.
	MEP Drawings:		
	Anonas Station,	The Bidder would like to clarify if the designed	
		STP influent amount of 30559.3 Liters is per	
	MEP Drawings:	hours or per day.	
	Katipunan Station		
	Page 671,		
	STN-MEP-PLD-AN-5301,		
	STN-MEP-PLD-KP-5301		
	STN-MEP-PLD-AN-5301 STN-MEP-PLD-AN-5301		
	Anonas Station Sewage System		
	Equipment Schedule,		
	STN-MEP-PLD-KP-5301 Katipunan		
	Station Sewage System Layout		
	Equipment Schedule		
	Anonas Station:		
	Total Capacity of $STP = 30559.3$		
	Katipunan Station:		
	Total Capacity of $STP = 30599.9$		
103.	Architecture Drawings:	The Bidder would like to clarify that platform	As stated by the Contractor "positive air pressure in
	Anonas Station,	area is a positive air pressure more than the	platform area". This is correct the positive air pressure
	STN-AR-A-AN-9064	tunnel or not.	in the platform area is required.
	Typical Details of Platform Flase		

Metro Manila Subway Project Phase 1 PACKAGE CP103 (Anonas and Katipunan)			
EFERENCE/CLAUSE/SECTION	QUERIES	RESPONSE	
ling hitecture Drawings: ipunan Station V-AR-A-KP-9064 ical Details of Platform Flase ling en the train arrived, and PSD is n, the air of station may go into the nel area. However, it depends on the gn air valance. hitecture Drawings: onas Station, V-MEP-BMS-1001 ttrol & Monitoring Interface gram for Water Cooled Chiller, V-MEP-BMS-1002 ttrol & Monitoring Interface gram for Air Cooled Chiller, hitecture Drawings: ipunan Station V-MEP-BMS-1004 ttrol & Monitoring Interface gram for Chilled Water Metering Domestic Water Metering System ter cooled and Air-cooled chiller	The Bidder would like to clarify the Flow switch and/or Flow meter is for non-commercial purpose, it is for part of chiller control system.	 Refer to the Technical Specification 1217.2.1 under sequence of operation. The Bidder should refer to the related Technical Plans. Basically, design stages define the ideal operations and needs of the client and/or designer; Flow switch or flow meter is part of the bid documents and therefore it should be there to function its purpose. 	
	ing hitecture Drawings: punan Station I-AR-A-KP-9064 ical Details of Platform Flase ing en the train arrived, and PSD is h, the air of station may go into the lel area. However, it depends on the gn air valance. hitecture Drawings: nas Station, I-MEP-BMS-1001 trol & Monitoring Interface gram for Water Cooled Chiller, I-MEP-BMS-1002 trol & Monitoring Interface gram for Air Cooled Chiller, hitecture Drawings: punan Station I-MEP-BMS-1004 trol & Monitoring Interface gram for Chilled Water Metering	PACKAGE CP103 (Anonas and Katipunan) GPERENCE/CLAUSE/SECTION QUERIES ing hitecture Drawings: punan Station I-AR-A-KP-9064 ical Details of Platform Flase ing n the train arrived, and PSD is n, the air of station may go into the el area. However, it depends on the gn air valance. nitecture Drawings: nas Station, trol & Monitoring Interface gram for Water Cooled Chiller, trol & Monitoring Interface gram for Air Cooled Chiller, hitecture Drawings: purpose, it is for part of chiller control system. hitecture Drawings: purpose, it is for part of chiller control system.	

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	demand of chiller. However, STN- MEP-BMS-CWD-1004 indicated "CHILLED WATER METERING SYSTEM FOR COMMERCIAL."			
105.	Architecture Drawings: Anonas Station, Architecture Drawings: Katipunan Station STN-MEP-BMS-CWD-1004 Control & Monitoring Interface Diagram for Chilled Water Metering and Domestic Water Metering System INTEGRATION WITH BMS THE METERS SHALL COMMUNICATE WITH BMS THROUGH STANDARD OPEN PROTOCOL SUCH AS M-BUS, BACNET TCP/IP, BACNET MS/TP. WHERE THE WATER METER COMMUNICATION PROTOCOL IS NOT BACNET, A GATEWAY SHALL BE PROVIDED	Based on the design drawings system Sequences the meters shall direct to connect to CPM (Chiller Plant Manager) for control chiller demand. The Bidder would like to clarify those meters shall connect to CPM, BMS shall connect to CPM for monitoring of demand kW and/or %.	 Refer to the Technical Specification 1217.2.1 under sequence of operation. The Bidder should refer to the related Technical Plans. Basically, design stages define the ideal operations and needs of the client and/or designer; Those meters are part of the bid documents and therefore it should be there to function its purpose. 	
106.	Architecture Drawings: Anonas Station, Architecture Drawings: Katipunan Station STN-MEP-BMS-CWD-1002	First paragraph says BMS shall control to reset set point however, second paragraph says maintenance purposes only.The Bidder would like to clarify that BMS is require to control CPM, however, set point of CPM shall be able to change by CPM only to	 Refer to the Technical Specification 1217.2.1 under sequence of operation. The Bidder should refer to the related Technical Plans. Basically, design stages define the ideal operations and needs of the client and/or designer; 	

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	Control & Monitoring Interface	avoid unexpected issue.	Those meters are part of the bid documents and
	Diagram for Air Cooled Chiller		therefore it should be there to function its purpose.
	INTEGRATION WITH BMS		
	1, THE BMS OPERATOR SHALL BE		
	ABLE TO CONTROL THE CHILLER		
	PLANT MANAGER THROUGH		
	GATEWAY TO RESET THE		
	CHILLED WATER SUPPLY		
	TEMPERATURE SET POINT AND		
	CURRENT LIMIT		
	FOR EACH CHILLER.		
	2, CONTROL OF THE CHILLER		
	PLANT MANAGER THROUGH THE		
	BMS WILL BE FOR		
	MAINTENANCE		
	PURPOSES ONLY. ALL		
	AUTOMATIC CHILLER PLANT		
	SEQUENCE WILL BE EXECUTED		
	THROUGH THE		
	CPM ONLY AND NOT BMS.		
107.	Architecture Drawings:	Air Handling Unit detail is indicated CO2	1. Refer to the Technical Specification 1217.2.1 under
	Anonas Station,	sensor. However, BMS point is not indicated.	sequence of operation.
			2. The Bidder should refer to the related Technical
	Architecture Drawings:	The Bidder would like to clarify if the CO2 sensor	Plans.
	Katipunan Station	shall provide and install at near the Return Air Temperature sensor and CO2 sensor connect to	3. Basically, design stages define the ideal operations and needs of the client and/or designer;
	STN-MEP-BMS-CWD-1003	DDC for required operation especially FIRE	and needs of the client and/or designer,
	Control & Monitoring Interface	MODE.	Refer to the drawing STN-MEP-BMS-CWD-1003
	Diagram for Air Handling Unit		showing that CO2 is connected with BMS/PLC System.
			showing that CO2 is connected with Divis/i Le System.

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108.	Architecture Drawings: Anonas Station, Architecture Drawings: Katipunan Station STN-MEP-VAC-AN-3820 to 3837	The drawings indicated "Pit width and length". However, it is depending on the maker (model) of escalator. The Bidder would like to clarify that Bidder shall follow the required internal size between handrail. However, for other sizes such as pit width and length can propose for the Employer's/ Engineer's review for approval.	The dimension of pits is already provided in drawing STN-MEP-VAC-AN-3820 to 3837 and also contracto can consult with Tech Specs Section 1233 for othe dimension requirement. Also, contractor is advice t coordinate with Architectural drawing for validation of the dimension.	
109.	MEP Drawings: Katipunan Station STN-MEP-VAC-KP-5101 Water Cooled Chiller Schedule and Air Cooled Chiller Schedule Both of Notes 4 indicated that "Chiller manufacture shall supply and install refrigerant leak detector device along with alarm". However, Air Cooled Chiller is installing above ground of outside open area if use individual type leak detector install below of chiller cannot detect leak due to wind.	The Bidder would like to clarify that Leak detector device shall factory fitted type such as pressure sensor/switch.	As mentioned in drawing STN-MEP-VAC-KP-510 "Water Cooled Chiller Schedule and Air Cooled Chille Schedule" general notes #4 "Chiller manufacturer sha supply and install refrigerant leak detector devic along with alarm". And if the factory fitted type for lead detector conforms to General Note#4, GC MEP has n object with contractor proposal. Also contractor i advice to review and refer to BMS CWD Drawin (STN-MEP-BMS-CWD-1001 & 1002) and VAC CWI Drawing (STN-MEP-VAC-CWD-1108) for additional information with regards to the control, monitoring and location of sensors/detectors/alarm devices of th said system.	
110.	MEP Drawings: Katipunan Station, STN-MEP-PLD-KP-5101,	The Bidder would like to confirm that the Wall Mounted Water Heater shall be Instantaneous type.	Yes, Contractor to refer to TS. Section 1237.2.9 an drawing equipment schedule.	
	Volume II Part 2			

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ITEM NO.	REFERENCE/CLAUSE/SECTION	QUERIES	RESPONSE	
	Section VI (TS) 3: Mechanical, Electrical and Plumbing 679 TS 1237.2.9 Water Heater Drawing indicated Horizontal Wall Mounted Water Heater with Capacity (Litter) however, TS123.2.9 indicated Instantaneous			
111.	GEOTECHNICAL PLAN AND PROFILE (9 / 11) (12K300m - 12k800m). Soil Profile	RELEVANT INFO INTERMEDIATE PIT / PUMP PIT There is a indacted/drawn Rectangle Wall Plan located center of Intermediate Pit Location between (12K+300m -12K+800m) stations. Please provide Section / elevation detail plan	Please refer to "Intermediate Pit General Drawing" with drawing number: TN-CE-PIT-0001.	
112.	8_CP103_P2_S(VI)_(WR)_6(ED)_30 Nov2020_06_Civil_TBM/ DRG No.: TN-CE-PIT-00010 to 00014 Intermediate Pit Construction Process	Regarding the intermediate pit, please show the Employer's geotechnical interpretation on why the soil improvement is not planned in such a high permeability rock area. The permeability at the nearest BH(IS70) is $k=2.10*10^{1} \text{ m/day}$, which is equivalent to $2.4*10-2 \text{ cm/sec}$.	IS70 permeability is 9.7 10^(-11) cm/sec. And around existing datum are that IS71 permeability is 6.3x10^(-5)cm/sec, IS73 permeability is 1.1x10^(- 4)cm/sec. From the results of the existing ground condition, it is expected that the there will be no need for ground improvement.	
113.	3Mar2021_19_MEP_KP. STN-MEP-PLD-TUN7-4001 Tunnel Drainage System Sump Details & Section	Tunnel Drainage System This DWG has mentioned pump pit and submersible pumps. Please provide pump pit location, pump specification, and piping layout for CP-103 scope area from Ortigas North st to East Ave st.	Pump Pit was located at No.12km 268.5m. Please find "GN-CE-0008"	
114.	01_CP103_P1_S(IA)_(BF- BOQ)_8June2021 / STN MEP FPS-AN-5101 /	BOQ shows FHC type 1 quantity = 22 nos., but Equipment Schedule, and Schematic Drawing shows 24 nos.	Please refer to Equipment schedule.	

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	STN MEP FPS-AN-2401 Fire Hose Cabinet, Type 1	Can we pressume that FHC type 1 quantity = 24 nos.? As shown on Equipment Schedule, Schematic Drawing and Layout plan? Please advise.		
115.	01_CP103_P1_S(IA)_(BF- BOQ)_8June2021 / STN MEP FPS-AN-5101 / STN MEP FPS-AN-2401 Landing valve, 65mm diameter	BOQ shows Landing valve, 65mm dia. quantity = 0 nos., but Equipment Schedule, and Schematic Drawing shows 10 nos. Can we add Landing valve, 65mm dia. quantity = 10 nos. on our BOQ? As shown on Equipment Schedule, Schematic Drawing and Layout plan? Please advise.	Please refer to Equipment schedule.	
116.	01_CP103_P1_S(IA)_(BF- BOQ)_8June2021 / STN MEP FPS-KP-5101 / STN MEP FPS-KP-2401 Fire Hose Cabinet, Type 1	BOQ shows FHC type 1 quantity = 18 nos., but Equipment Schedule, and Schematic Drawing shows 27 nos. Can we pressume that FHC type 1 quantity = 27 nos.? As shown on Equipment Schedule, Schematic Drawing and Layout plan? Please advise.	Please refer to Equipment schedule.	
117.	01_CP103_P1_S(IA)_(BF- BOQ)_8June2021 / STN MEP FPS-KP-5101 / STN MEP FPS-KP-2401 Landing valve, 65mm diameter	BOQ shows Landing valve, 65mm dia. quantity = 6 nos., but Equipment Schedule, and Schematic Drawing shows 8 nos. Can we presume that Landing valve, 65mm dia. quantity = 8 nos.? As shown on Equipment Schedule, Schematic Drawing and Layout plan? Please advise.	Please refer to Equipment schedule.	
118.	14 / Arch_AN / STN-AR-A-AN-1302, 1303, 15 / Arch_KP / STN-KP-1302,1303	At STN-AR-A-AN-1302,1303 ANONAS STATION B2F LEVEL PLAN & STN-AR-A-KP- 1302,1303 KATIPUNAN STATION B2F LEVEL PLAN, please provide the specification and detail of the clouded item beside Ramp.	The item in the clound is not handrail. It is concrete corner cover at floor gap beside ramp. Updated drawing shall be provided.	

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119.	14 / Arch_AN / STN-AR-A-AN-0200, 15 / Arch_AN / STN-AR-A-KP-0200, Waterproofing	At STN-AR-A-AN-0200, STN-AR-A-KP-0200 ANONAS/KATIPUNAN STATION SUMMARY SPECIFICATION 11.WATERPROOFING & SEALANTS, Elastomeric Type Waterproofing(WPS-02) at Platform Level is indicated but in STN-AR-A-AN-0501 ANONAS STATION FINISHING SCHEDULE it is only applied at GF Roof. If needed at Platform Level, please indicate the waterproofing construction range.	No waterproofing is applied at platform level. Updated drawing shall be provided.
120.	STN-AR-A-AN-9130	The material designation of Item 9 - Spider	Since the beam supports only the spider for glass

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	STN-AR-A-KP-9130 Material Item "9" Spider fittings as per vendor.	Fittings as per Vendor in drawing STN-AR-A-AN-9130 seems to be incorrect. Please provide the correct indication.	fixation, and it requires esthetically nice form, it will be provided by the vendor as indicated.	
121.	8_CP103_P2_S(VI)_(WR)_6(ED)_30 Nov2020_06_Civil_TBM/ Dwg. No.: TN-CE-TBM-0067 SEGMENT COUPLER GENERAL DRAWING	 Tunnel steel facilities (SS400 with hot-dip galvanizing) should be fixed to Insert plug M-12 (SUS304) embedded in the RC segment. Please clarify: 1) Please show how to fix steel facilities to Insert plug. If the bolt is the contractor's scope, please show material and its length. 	Please note that only the evacuation passage is part of the civil package. This is the contractor's scope. Bolt material is stainless steel and its standard length is 40 mm.	
122.	8_CP103_P2_S(VI)_(WR)_6(ED)_3M ar2021_01_Civil_GN/ Dwg. No.: GN-CE-CD-0014 ~ 0018 FACILITIES ENERAL DRAWING EVACUATION PASSAGE BY CIVIL TROUGH DECK BY CIVIL	 Tunnel steel facilities (SS400 with hot-dip galvanizing) should be fixed to Insert plug M-12 (SUS304) embedded in the RC segment. Please clarify: 1) Dissimilar materials between stainless and the hot-dipped galvanized steel seem to be possibly happened galvanic corrosion. Please confirm. 	Please note that only the evacuation passage is part of the civil package. The contractor is required to install an isolation seal to prevent the two materials from coming into direct contact with each other.	
123.	Topographic Survey Drawings, and b_Geotechnical Survey Data for CP103//01 Sub Con Issue Doc/B Final Borehole Log Elevation	Ground elevation given in Topographic Survey Drawing is based on MSL. Please clarify the elevation of the top of Bore Hole Log is also based on MSL.	Yes, the elevation indicated in the Borehole Log is based on MSL.	
124.	14 / Arch_AN / STN-AR-A-AN-0201, 15 / Arch_AN / STN-AR-A-KP-0201 Exterior wall Finish	At STN-AR-A-AN-0201,STN-AR-A-KP-0201 ANONAS/KATIPUNAN STATION SUMMARY SPECIFICATION, Acrylic Rubber Based Semi- Gloss Paint is indicated at 17 Spray Paint Work	Refer to BOQ, Pay item no. 1032 (1) a2	

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		for Exterior walls.	
105		Please include this item in the Bill of Quantities.	X 7
125.	14 / Arch_AN / STN-AR-A-AN-0201,	At STN-AR-A-AN-0201,STN-AR-A-KP-0201	Yes.
	15 / Arch_AN / STN-AR-A-KP-0201	ANONAS/KATIPUNAN STATION SUMMARY	F-00 (No Floor Finish): Cold Applied Concrete
	Floor Finish	SPECIFICATION 21.INTERIOR FINISHING,	Hardener on cement; Steel Trowelled Finish (Plain
		Cold Applied Concrete Hardener on cement;	Cement Trowelled Finish Flooring). Included in BOQ
		Steel Trowelled Finish(Plain Cement Trowelled	pay item 1021(1)c1.
		FinishFlooring) is indicated.	
		May we assume that this finish will be applied	
		to Floor Finish Callout F-00 (No Floor Finish)	
		If this is correct please add this finish as F-00	
		(No Floor Finish):Cold Applied Concrete Hardener on cement; Steel Trowelled	
		Hardener on cement; Steel Trowelled Finish(Plain Cement Trowelled Finish Flooring)	
		to the Bill of Quantities.	
126.	14 / Arch_AN / STN-AR-A-AN-9810,	At STN-AR-A-AN-9810 TYPICAL DETAILS OF	No.
120.	15 / Arch_AN / STN-AR-A-KP-9810	EMERGENCY STAIR BAL-06 RAILING, details	BAL-06a is included in BOQ, refer pay item 1051(6)a1
	Stair Railing	for Stair Railing (BAL-06a) is indicated. Since	Hot-dip Galvanized Railing).
	Stall Kalling	this item in not included in the Bill of Quantities,	not up Garvanized Rannig/.
		may we add this item as same category with	
		Stair Railing (BAL-02) Pay Item 1051(6)a1 Hot-	
		dip Galvanized Railing?	
127.	14 / Arch_AN /	For Ticket Counter and Customer Service	Yes.
	STN-AR-A-AN-9310, 15 / Arch KP /	Reinforced Concrete Lintel, Dimensions differs	200x1200mm Lintel dimension as indicated in STN-
	STN-AR-A-KP-9310	as follows,	AR-A-AN-9310 Detail Section 2 & 3 is correct.
	Reinforced Concrete Lintel	STN-AR-A-AN-9310 TYPICAL DETAILS	
		OF TICKET COUNTER WINDOW/	
		Materials List	
		··· (13)400x1200mm	
		STN-AR-A-AN-9310 TYPICAL DETAILS	

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128.	14 / Arch_AN / STN-AR-A-AN-1404, 4103 15 / Arch_KP / STN-AR-A-KP-1300, 4000 Wall Finish	OF TICKET COUNTER WINDOW/ Section 2&3 ··· 200x1200mm May we assume the one indicated at STN-AR-A- AN-9310 TYPICAL DETAILS OF TICKET COUNTER WINDOW/ Section 2&3, 200x1200mm to be correct? At B2F Emergency Staircase-02 and other Staircases, Wall Finish differs as follows, STN-AR-A-KP-1300 KATIPUNAN STATION B2F LEVEL PLAN (PART 1 OF 6) ··· Acrylic Polyurethane Paint (PT-02) STN-AR-A-KP-4000 KATIPUNAN STATION ESCAPE STAIRS-02 DETAILS (1 OF 2) ··· Acrylic Emulsion Paint (PT-01) May we assume the one indicated at STN-AR-A- KP-4000 KATIPUNAN STATION ESCAPE STAIRS-02 DETAILS (1 OF 2), Acrylic Emulsion Paint (PT-01) to be correct?	Yes. PT-01 (Acrylic Emulsion Paint) indicated in STN-AR- A-KP-4000 is correct as per Finishing Schedule.	
129.	14 / Arch_AN / STN-AR-A-AN9064, 15 / Arch_KP / STN-AR-A-KP—9064 Platform H-beam Light Box	At STN-AR-A-AN-9064, KP-9064 TYPICAL DETAILS OF PLATFORM FALSE CEILING, Platform H-beam Light Box (Steel Galvanize 150x100x10mm Paint Finish) is indicated but is nowhere to be found in the drawings. Please provide its construction range.	The H-beam light box is located in platform columns.	

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130.	04_CP103_P2_S(VI)_(WR)_3(TS_Arc h)_16Mar2021.pdf <page 679="">,14 / Arch_AN / STN-AR-A-AN-9610, 15 / Arch_KP / STN-AR-A-KP-9610 Urinal Partition</page>	At B1F WC Male, the specification of Urinal Partition differs as follows, 04_CP103_P2_S(VI)_(WR)_3 (TS_Arch)_16Mar2021.pdf <page 679=""> ··· Moisture-Resistant Phenolic Board Partition (PB-01) STN-AR-A-AN-9610, KP-9610 TYPICAL DETAILS OF WALL HUNG URINAL ··· Quartz Ledge t=20 (SCT-02) May we consider 04_CP103_P2_S(VI)_ (WR)_3(TS_Arch)_16Mar2021.pdf <page 679=""> correct and consider the specification to be Moisture-Resistant Phenolic Board Partition</page></page>	Yes. Follow Technical Specification Moisture-Resistant Phenolic Board for urinal partitions(PB-01).		

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		(PB-01)?		
131.	04_CP103_P2_S(VI)_(WR)_3(TS_Arc h)_16Mar2021.pdf <page 261="">,14 / Arch_AN / STN-AR-A-AN-9671, 9700, 15 / Arch_KP / STN-AR-A-KP-9671, 9700</page>	The finish of Elevator Pit differs as follows, 04_CP103_P2_S(VI)_(WR)_3 (TS_Arch)_16Mar2021.pdf <page 261=""> Cementitious Waterproofing (WPS-03)</page>	Follow Technical Specification- Cementitious Waterproofing (WPS-03) for elevator pit.	

131.	04_CP103_P2_S(VI)_(WR)_3(TS_Arc	The finish of Elevator Pit differs as follows,	Follow Technical Specification- Cementitious
	h)_16Mar2021.pdf <page 261="">,14 /</page>	04_CP103_P2_S(VI)_(WR)_3	Waterproofing (WPS-03) for elevator pit.
	Arch_AN /	(TS_Arch)_16Mar2021.pdf	
	STN-AR-A-AN-9671, 9700, 15 /	epage 261>	
	Arch_KP /	··· Cementitious	
	STN-AR-A-KP-9671, 9700	Waterproofing (WPS-03)	
	Elevator Pit	STN-AR-A-AN-9671, KP-9671	
		TYPICAL DETAILS OF ELEVATOR	
		EV-02 SECTIONS (CONCOURSE	
		TO PLATFORM), STN-AR-A-AN-9700,	
		KP-9700 TYPICAL DETAILS OF	
		EV-01 (GROUND TO CONCOURSE)	
		··· Asphalt Membrane	
		Waterproofing (WPS-01)	
		May we consider 04_CP103_P2_S(VI)_	
		(WR)_3(TS_Arch)_16Mar2021.pdf <page 261=""></page>	
		correct and consider the specification to be	
		Cementitious Waterproofing (WPS-03)?	
132.	PHP CP103 Working BOQ	The following items are indicated in the	No. some items are under MEP scope of works.
		drawings but not found in PHP CP103 Working	
		BOQ, may we consider these items under	Architectural scope:
		Architectural scope of works	1.5mm thk Aluminum Powder Coat Finish-Included in
			Pay item 1811(8) Aluminum Ceiling Panel without
		STN-AR-A-AN-9062/5, KP-9062/5	perforation
		1.5mm thk Aluminum Powder	1.5mm thk SS plate- 1803 (3) b
		Coat Finish	9mm thk Gypsum Board- 1030 (2)
			1.2mm thk SS plate (Elevator Frame)- 1803(3)
		STN-AR-A-AN-9064/A, KP-9064/A	
		Lighting Box 350x180	MEP scope:
		③.5mm thk SS plate	Lift Hook 3kN capacity each (10pcs)- MEP (elevator

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		 ⑦mm thk Gypsum Board STN-AR-A-AN-9670, KP-9670 ③.2mm thk SS plate (Elevator Frame) STN-AR-A-AN-9671/2, KP-9671/2 Lift Hook 3kN capacity each (10pcs) (Load Capacity 30kN) 	shaft) Fire Rated SS Access Panel 1100x500 ⁻ MEP (as per MEP TS 1203.3.16 (g))	
133.	14 / Arch_AN / STN-AR-A-AN-1200 to 1305, 15 / Arch_KP / STN-AR-A-KP-1200 to 1305 Gutter	STN-AR-A-AN-9700/5, KP-9700/5 Fire Rated SS Access Panel 1100x500 At STN-AR-A-AN-1200 to 1305 & KP-1200 to 1305 B1F & B2F Level Plan, may we assume the size and finish of Gutter at B1F & B2F Exterior wall part (excluding inside double wall) to be 200x100 Asphalt Membrane Waterproofing (WPS-01) + Mortar Steel Trowel?	No. It should be 200 X 300 asphalt membrane waterproofing. Refer to Detail 1 of STN-AR-A-AN/KP- 9030 for size of gutter with asphalt waterproofing.	
134.	14 / Arch_AN / STN-AR-A-AN-0201, 15 / Arch_KP / STN-AR-A-KP-0201	At STN-AR-A-AN-0201, KP-0201 ANONAS & KATIPUNAN STATION SUMMARY SPECIFICATION (2 OF 2), the following items are indicated but not found in the drawings and Bill of Quantities. If necessary, please provide its construction range. Guard Post, Steel Pipe φ=150 H=1200, Paint Finish on Rust Paint Sealer	The summary specification is generic and is not applicable when not specified in drawing . The application of finishes for specific locations/rooms are to be as per finishes schedule and technical specification.	
		Opening Edge Protection, Stainless Steel Maintenance Catwalk, Hot-dipped		

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ITEM NO.	REFERENCE/CLAUSE/SECTION	QUERIES	RESPONSE	
		Galvanized Steel Grating on Steel Frames with Handrails Rock Wool 60kg/m2 t=100 with wiremesh provision (Bottom of Slab)		
135.	14 / Arch_AN / STN-AR-A-AN- 9252/6,7, 15 / Arch_KP / STN-AR-A-KP- 9252/6,7 Handrail	At STN-AR-A-AN-9252/6,7,KP-9252/6,7 TYPICAL DETAILS OF BAL-03b & BAL-07 RAILING, BAL-07 Handrail (Type-1 &2) is indicated but is nowhere to be found in the drawings. If necessary, please provide its construction range.	Refer to Concourse Plan STN-AR-A-KP-1202, 1203 BAL-3b, located at the guard rail along AFC. BAL-07, located at escalators for short cut prevention.	
136.	14 / Arch_AN / STN-AR-A-AN-7010, 9700 STN-AR-A-KP-7010, 9700 Louver Size	Louver Size of AN-GF L01 and AN-B1F L01 differs as follows, STN-AR-A-AN-7010 ANONAS STATION and STN-AR-A-KP-7010 KATIPUNAN STATION DOOR & IRONMONGERY SCHEDULE (5 OF 5) W800xH350 STN-AR-A-AN-9700 and STN-AR-A- KP-9700 TYPICAL DETAILS OF EV - 01 (GROUND TO CONCOURSE) W850xH400 May we consider STN-AR-A-AN-7010 ANONAS STATION and STN-AR-A-KP-7010 KATIPUNAN STATION DOOR & IRONMONGERY SCHEDULE (5 OF 5).	Follow 850X400 size, as shown in Typical Detail STN- AR-A-AN-9700 and STN-AR-A-KP-9700	
137.	14 / Arch_AN / STN-AR-A-AN-6021 Downspout	W800xH350 to be correct? At STN-AR-A-AN-6021 ANONAS STATION ENTRANCE-02 ROOF, GROUND & TOP OF SLAB LEVEL PLANS Roof Level Grid 35/A and	Follow STN-AR-A-AN-6021 indicated down spout size of,75mmX75mm	

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		B, Downspout 125x125mm is shown for Canopy Gutter (W=100mm), may we read it as 75x75mm instead?		
138.	14 / Arch_AN / STN-AR-A-AN-9850 Ladder	At STN-AR-A-AN-9850 TYPICAL DETAILS OF LADDER FOR OUTDOOR UNITS is shown but is nowhere to be found in the drawings. May we assume that it is unnecessary? If necessary, please provide its construction range.	Ladder is necessary.Refer drawing 9850 where Plan and section indicated with the ladder to reach grating level.	
139.	14 / Arch_AN / STN-AR-A-AN-0501, 1203 Baseboard	At B1F Emergency Staircase-01, the existence of 1200x150x30mm Granite stone-polished finish (SKT-01) differs as follows, STN-AR-A-AN-0501 ANONAS STATION FINISHING SCHEDULE (2 OF 2) Non-Existent STN-AR-A-AN-1203 ANONAS STATION B1F LEVEL PLAN (PART 4 OF 6) Existent	Yes. Follow STN-AR-A-AN-0501. SKT-01 indicated in drawing STN-AR-A-AN-1203, refers to hallway only.	
		May we assume the one indicated at STN-AR-A- AN-0501 ANONAS STATION FINISHING SCHEDULE (2 OF 2), Non-Existent to be correct?		
140.	14 / Arch_AN / STN-AR-A-AN-0501, 1203 Wall Finish	At B1F Emergency Staircase-01, Wall Finish differs as follows, STN-AR-A-AN-0501 ANONAS STATION FINISHING SCHEDULE (2 OF 2) ···· Acrylic Emulsion Paint (PT-01) STN-AR-A-AN-1203 ANONAS STATION B1F LEVEL PLAN (PART 4 OF 6) ··· 1200x600x10mm Ceramic Tile (CTL-01) + 1200x150x10mm Ceramic Tile (CTL-02)	Yes. Follow STN-AR-A-AN-0501. Ceramic Tile indicated in drawing STN-AR-A-AN- 1203, refers to hallway only.	

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		May we assume the one indicated at STN-AR-A- AN-0501 ANONAS STATION FINISHING SCHEDULE (2 OF 2), Acrylic Emulsion Paint (PT-01) to be correct?		
141.	14 / Arch_AN / STN-AR-A-AN-0501, 1100, 6008 Stair Riser Finish	At Ground Level(Plinth Level) Station Entry Stair Riser Finish differs as follows, STN-AR-A-AN-0501 ANONAS STATION FINISHING SCHEDULE (2 OF 2) ···· 600x150x25mm Granite Stone- Polished Finish (FLG-06) STN-AR-A-AN-1100 ANONAS STATION GROUND LEVEL PLAN (PART 1 OF 6) STN-AR-A-AN-6008/2 ELEVATION-B ANONAS STATION ENTRANCE-01 ELEVATION(1 OF 2) ··· 1200X80X25mm Granite Stone - Polished finish (for Floor Gutter) (FLG-03) May we assume the one indicated at STN-AR-A- AN-0501 ANONAS STATION FINISHING SCHEDULE (2 OF 2) 600x150x25mm Granite Stone-Polished Finish (FLG-06) to be correct?	Follow Finishing schedule (STN-AR-A-AN-0501) - 600X150X25 mm for the stair riser.	
142.	14 / Arch_AN / STN-AR-A-AN-0601, 2103 to 2106 Smoke Screen (Curtain)	At B1F Unpaid Area, Paid Area, the layout of the Smoke Screen (Curtain) differs at STN-AR-A- AN-0601 ANONAS STATION B1F LEVEL PLAN LEGAL CHECK DRAWING and STN- AR-A-AN-2103 to 2106 ANONAS STATION B1F LEVEL RCP PLAN (PART-03 to 06 OF 06). May we consider STN-AR-A-AN-0601 ANONAS STATION B1F LEVEL PLAN LEGAL CHECK DRAWING correct?	Follow legal check drawing(STN-AR-A-AN-0601) indicated smoke screen.	

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143.	14 / Arch_AN / STN-AR-A-AN-0201, 5102 to 5108 Mirror	At B1F WC Male & Female, the thickness of Mirror differs as follows, STN-AR-A-AN-0201 ANONAS STATION SUMMARY SPECIFICATION (2 OF 2) ···· t=4.0mm Glass STN-AR-A-AN-5102 to 5108 ANONAS STATION ENLARGE PUBLIC TOILET(MALE & FEMALE) PLANS & SECTIONS ··· t=12mm Laminated Glass (GL-03) May we consider STN-AR-A-AN-5102 to 5108 ANONAS STATION ENLARGE PUBLIC TOILET(MALE & FEMALE) PLANS & SECTIONS correct and consider the thickness to be t=12mm Laminated Glass (GL-03)?	4mm glass or 12mm laminated glass is wrong. Follow as indicated in Technical Specifications 1002.6.3 Mirror thickness 6.0mm	
144.	14 / Arch_AN / STN-AR-A-AN-5001 Wash Basin Counter & Mirror	At STN-AR-A-AN-5001 ANONAS STATION ENLARGE STAFF WC (FEMALE) PLANS & SECTIONS B1F Staff WC (F), the length of Wash Basin Counter & Mirror differs as follows, DETAIL 1 WC PLAN (FEMALE) L=1960mm DETAIL 6 SECTION 03 L=1150mm May we consider DETAIL 1 WC PLAN (FEMALE) correct and consider the length to be L=1960mm?	Yes. Detail 1 WC Plan (Female) L=1960mm is correct.	
145.	14 / Arch_AN / STN-AR-A-AN-5003 Wash Basin Counter & Mirror	At STN-AR-A-AN-5003 ANONAS STATION ENLARGE STAFF WC (MALE) PLANS & SECTIONS B1F Staff WC (M), the length of Wash Basin Counter & Mirror differs as follows,	Yes. Detail 1 WC Plan (Male) L=2450mm is correct.	

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		DETAIL 1 WC PLAN (MALE) L=2450mm DETAIL 4 SECTION C L=930mm May we consider DETAIL 1 WC PLAN (MALE) correct and consider the length to be L=2450mm?		
146.	14 / Arch_AN / STN-AR-A-AN-7007 Fire Rating Hours	At STN-AR-A-AN-7007 ANONAS STATION DOOR & IRONMONGERY SCHEDULE (2 OF 5), Fire Rating Hours is not indicated in Door AN-B1F D35. Since its Door type is Type T4A as shown below, may we consider the fire rating hours to be 1.5hrs?	Yes. T4A Door Type is 1.5 hrs. fire rating.	
147.	14 / Arch_AN / STN-AR-A-KP-9170 Ramp Handrail	At STN-AR-A-KP-4201 KATIPUNAN STATION RAMP DETAIL AT ENTRY-04, may we assume the Ramp and Stair Handrail to be BAL-04 instead of BAL-01a since BAL-04 is Ramp Handrail as shown in STN-AR-A-KP-9190 TYPICAL DETAILS OF BAL-01a, 01b & BAL- 04 RAILING?	Follow BAL-04 Ramp handrail as indicated in Typical detail drawing STN-AR-A-KP-9190.	
148.	14 / Arch_AN / STN-AR-A-KP-6040 Stairs Handrail	At STN-AR-A-KP-6040 KATIPUNAN STATION ES-01 PLANS Entrance Stairs (Grid 20), BAL- 02b is indicated as Handrail for Stair but there is no BAL-02b. May we read it as BAL-01b (Wall Mounted Handrail) instead?	Follow BAL-01b (Wall mounted handrail) for stair at GL 20 of Entrance area.	
149.	15 / Arch_KP / STN-AR-A-KP-2501, 1601 Floor Finish	At B1F Emergency Staircase-01 and other Staircases, Floor Finish differs as follows, STN-AR-A-KP-2501 KATIPUNAN STATION B1F LEVEL PLAN FLOOR FINISHES (PART 2 OF 6)	Follow Concrete Trowel with Floor Hardener (FCF-02) at emergency staircases as indicated in STN-AR-A-KP- 2501, Floor finishes plan.	

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150.	14 / Arch_AN / STN-AR-A-KP- 6004,6013,6024,9060 Drop Ceiling	 Concrete Trowel with Floor Hardener (FCF-02) STN-AR-A-KP-1601 KATIPUNAN STATION CROSS SECTION D Cinder Concrete Filled Floor with Trowel finished with Concrete Hardener (FCF-04) May we assume the one indicated at STN-AR-A- KP-2501 KATIPUNAN STATION B1F LEVEL PLAN FLOOR FINISHES (PART 2 OF 6), Concrete Trowel with Floor Hardener (FCF-02) to be correct? At B1F Entrance Staircase, drop ceiling height differs as follows, STN-AR-A-KP-6004 KATIPUNAN STATION ENTRANCE-1 SECTION (1 OF 3), STN-AR-A-KP-6013 KATIPUNAN STATION ENTRANCE- 2 SECTIONS (1 OF 2), STN-AR-A- KP-6024 700mm STN-AR-A-KP-9060 TYPICAL DETAILS OF CEILING AT ENTRY STRUCTURE<detail-a></detail-a> 450mm May we assume the one indicated in AR-A-KP-6004 KATIPUNAN STATION ENTRANCE-1 SECTION (1 OF 3), STN-AR-A-KP-6013 	The dimension of drop ceiling at VT interface should be as per drawing Section, STN-AR-A-KP-6024 (H=700mm)	

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		ceiling H=700mm to be correct?	
151.	14 / Arch_AN / STN-AR-A-KP-	At B1F Level Unpaid Area (Grid 7 to 8/A), Wall	GTL-01&02 wall finishes to be followed. The drawings
	1200,2903	Finish differs as follows,	referenced in the query are indicated the same.
	Wall Finish	STN-AR-A-KP-1200 STATION B1F	
		LEVEL PLAN (PART 01 OF 06),	
		STN-AR-A-KP-6001 KATIPUNAN	
		STATION ENTRANCE-1 PLANS	
		(2 OF 4)	
		···· CTL1:1200x600x10mm	
		Ceramic tile	
		CTL2:1200x150x10mm	
		Ceramic tile,Cement Med	
		grey	
		STN-AR-A-KP-2903 KATIPUNAN	
		STATION B1F LEVEL WALL	
		FINISHES (2 OF 18)	
		···· GTL-01:600x1200x30mm	
		Granite stone-Honed	
		finish	
		GTL-02:1200x150x30mm	
		Granite stone-Honed	
		finish	
		May we assume the one indicated in STN-	
		AR-A-KP-2903 KATIPUNAN STATION B1F	
		LEVEL WALL FINISHES	
		(2 OF 18), GTL-01,02 to be correct?	
152.	14 / Arch_AN / STN-AR-A-KP-0501	At STN-AR-A-KP-0501 KATIPUNAN	For Garbage access corridor, refer to B1F level (STN-
	Room not found	FINISHING SCHEDULE (2 OF 2), although	AR-A-KP-1200) GL 4-5 and A-B.
		Garbage Access Corridor is indicated, it is	
		nowhere to be found in the drawings. Please	
		provide its construction range.	

Annex "A"

	Metro Manila Subway Project Phase 1 PACKAGE CP103 (Anonas and Katipunan)			
ITEM NO.	REFERENCE/CLAUSE/SECTION	QUERIES	RESPONSE	
153.	14 / Arch_AN / STN-AR-A-KP-0501 Wall Finish	At STN-AR-A-KP-0501 KATIPUNAN FINISHING SCHEDULE (2 OF 2) Top of Slab Level,B1F Level Unpaid Area, although wall finish PLS-01:Smooth Plaster Cement Finish is indicated , It is nowhere to be found in the drawings. Please provide its construction range.	Refer to drawing, LONG SECTION A (PART-01 OF 04) STN-AR-A-AN-1700 identified with PLS-01.	
154.	14 / Arch_AN / STN-AR-A-KP-0501,1202,2501 Floor Finish	At B1F Level S&T Shaft, Floor Finish differs as follows, STN-AR-A-KP-0501 KATIPUNAN FINISHING SCHEDULE (2 OF 2) ···· FCF-02:Concrete trowel with floor hardener STN-AR-A-KP-1202 KATIPUNAN STATION B1F LEVEL PLAN (PART 03 OF 06),STN-AR-A-KP- 2501 KATIPUNAN STATION B1F LEVEL PLAN-FLOOR FINISHES (PART 2 OF 6) ···· FLC-02:300x300x10mm Non slip Ceramic tile STN-AR-A-KP-2501 KATIPUNAN STATION B1F LEVEL PLAN- FLOOR FINISHES (PART 2 OF 6) ···· F-00(Flooring Legends):No Floor Finish May we assume the one indicated in STN- AR-A-KP-1202 KATIPUNAN STATION B1F LEVEL PLAN (PART 03 OF 06),STN-AR-A-KP- 2501 KATIPUNAN STATION B1F LEVEL PLAN (PART 03 OF 06),STN-AR-A-KP- 2501 KATIPUNAN STATION B1F LEVEL PLAN-FLOOR FINISHES (PART 2 OF 6), FLC-	The query is repeated from Ver.3 (query no. 161) - The response is as below: No. Concrete Trowel with Floor Hardener (FCF-02) in drawing STN-AR-A-KP-0501 is correct.	

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Annex	Metro Manila Subway Project Phase 1 PACKAGE CP103 (Anonas and Katipunan)			
ITEM NO.	REFERENCE/CLAUSE/SECTION	QUERIES	RESPONSE	
		correct?		
155.	15 / Arch_KP / STN-AR-A-KP-1202 Railing	At STN-AR-A-KP-1202 Katipunan Station B1F Level Plan (Part-03 of 06), may we assume the clouded item at B1F Beside Security Check to be Railing (BAL-08)?	The query attached drawing with clouded area to be provided with BAL-03b	
156.	15 / Arch_AN / STN-AR-A-KP-0201, 5100,5110 Mirror	At B1F WC Male & Female, the thickness of Mirror differs as follows, STN-AR-A-KP-0201 ANONAS STATION SUMMARY SPECIFICATION (2 OF 2) ··· t=4.0mm Glass STN-AR-A-KP-5100,5110 KATIPUNAN STATION ENLARGE PUBLIC TOILET(MALE & FEMALE) PLANS ··· t=12mm Laminated Glass (GL-03)	4mm glass or 12mm laminated glass is wrong. Follow as indicated in Technical Specifications 1002.6.3 Mirror thickness 6.0mm	

Annex "	Metro Manila Subway Project Phase 1 PACKAGE CP103 (Anonas and Katipunan)			
ITEM NO.	REFERENCE/CLAUSE/SECTION	QUERIES	RESPONSE	
		May we consider STN-AR-A-KP-5100, 5110 KATIPUNAN STATION ENLARGE PUBLIC TOILET(MALE & FEMALE) PLANS correct and consider the thickness to be t=12mm Laminated Glass (GL-03)?		
157.	15 / Arch_KP / STN-AR-A-KP- 1200,1202,1205 Escalator & Elevator Sump	At STN-AR-A-KP-1200,1202,1205 Katipunan Station B1F Level Plan, please provide the detail and finish of Escalator & Elevator Sump (1000x1000) at B1F Unpaid Area.	Follow, WPS-03(cementitious waterproofing) for escalator & elevator sump internal finish as per TS. External finish to be same as flooring finish.	
		UNPAID AREA \$38.85 + +3.20 FIGURE CLG-03 GTL-1.2 GTL-1.2 GTL-1.2 DRAIN STN-AR-A-KP-9330 SENSOR POST		
158.	15 / Arch_KP / STN-AR-A-KP-1704,1707,9210 Cat Ladder	At STN-AR-A-KP-1704,1707 Katipunan Station Long Section B, may we assume the Detail of Cat Ladders for VS, VE, and Relief Cutout at B1F & B2F to be STN-AR-A-KP-9210 Typical Details of Roof Access Hatch & Elevator Pit Ladder?	Follow ladder detail for the identified locations VS, VE and relief cuout as per drawing: TYPICAL DETAILS OF CAT LADDER DETAILS, STN-AR-A-KP- 9220/9221	

Annex '	A		•		
	Metro Manila Subway Project Phase 1 PACKAGE CP103 (Anonas and Katipunan)				
ITEM NO.	REFERENCE/CLAUSE/SECTION	QUERIES	RESPONSE		
159.	15 / Arch_KP / STN-AR-A-KP-6000,9840 Flood Barrier	Vs cutout VE cutout Vs cutout	The slope shown at GF entrance flood barrier area is correct. The flood barrier is existent in both drawings referenced (STN-AR-A-KP-6000 Entrance 1 Plans and STN-AR-A-KP-9840 Typical Details of Flood Barrier.		
160.	14 / Arch_KP / STN-AR-A-KP-7007 Ironmongery Type	At STN-AR-A-KP-7007 KATIPUNAN STATION DOOR AND IRONMONGERY SCHEDULE (1 OF 4), Ironmongery Type of Door KP-GF D04 is Type 10. Since its Door Type is Type T1A(Watertight Door) as shown below, may we read Type 10 as Type 10(Ws-3)?	STN-AR-A-KP-7007 DOOR AND IRONMONGERY SCHEDULE (1 OF 4) Ironmongery Type of Door KP-GF D04 Type 10 is incorrect. Door Type T1A(Watertight Door) Type 10(Ws-3) is		

General Bid Bulletin No.8 Annex "A"

	Metro Manila Subway Project Phase 1			
	PACKAGE CP103 (Anonas and Katipunan)			
ITEM NO.	REFERENCE/CLAUSE/SECTION	QUERIES	RESPONSE	

		DOOR TYPE T1A CLEAR W=600, H=2190(1.5 HRS FIRE RATED, WATER TIGHT DOOR) 720 9 9 9 9 9 9 9 9 9 9 9 9 9	correct. Follow drawing DOOR AND IRONMONGERY SET, STN-AR-A-KP-7011 - Door Type T1A
161.	14 / Arch_AN / STN-AR-A-AN-0500,9500 15 / Arch_KP / STN-AR-A-KP-0500, 9500,9501 Wall Finish	Regarding the wall finish PB-01 Phenolic Board, the thickness differs as follows, STN-AR-A-AN-0500 ANONAS STATION FINISHING SCHEDULE t=12mm STN-AR-A-AN-9500,9501 TYPICAL DETAILS OF TOILET CUBICLE PARTITION	Technical specification prevails, Refer to TS 1816.2.1 (2) (a) . The toilet cubicle partition thickness is 18mm.

	Metro Manila Subway Project Phase 1 PACKAGE CP103 (Anonas and Katipunan)			
ITEM NO.	REFERENCE/CLAUSE/SECTION	QUERIES	RESPONSE	
		••••(8)8 MM THK PHENOLIC BOARD LAMINATED FINISH May we assume the one indicated at STN-AR-A- AN-9500 TYPICAL DETAILS OF TOILET CUBICLE PARTITION, thickness t=18mm to be correct?		
162.	14 / Arch_AN / STN-AR-A-AN-8200 to 8207 15 / Arch_KP / STN-AR-A-KP-8200 to 8206 Signages	The following sign are indicated at drawings but nowhere to be found in BOQ, Please add these items in the BOQ Bill No. 4A & 4B. or Please let us know under which signage PAY ITEM these Signs are classified. Level Signs Prohibitory Signs	The items identified in query and respective pay items are: Level Signs under pay item 1813 (1) - Identification Signs Prohibitory Signs under pay item 1813 (4) (3) - Explanatory Signs	
163.	STN-MEP-ELL-KP-3223 Station Sub Station STN-MEP-ELL-AN-3232 Station Sub Station TR-01, TR-02 LOCATION	For correct estimation, Please advice. Where is exact location for TR-01, TR-02 in the station substation?	Refer to Drawing No. STN-MEP-ELL-AN-3332 for the Station Substation Location.	
164.	MEP_KP/STN-MEP-ELL-KP-2052- 2055 Electrical Panel Schedule 20% SPARE	20% SPARE is indicated in panel schedule. KINDLY SPECIFY WHAT WILL BE THE SPECIFIC CAPACITIES AND NO. OF BREAKER THAT WILL BE SPARE. 20% Spare TPN Multiple	 The 20% spare requirement are required with MDBs, SMDBs, and also MCCs (i.e Main Switchboards) per TS, Section 1113.2.1.(b); Therefore, per TS, the CB spare rating(s) shall be computed applied in the MDL (maximum demand load), and shall be correlated with the nominal CB ratings used with "THAT" main switchboard. 	
165.	Common Electric a DWGs SOLID CABLE FOR 2.0mm ² AND 3.5mm ²	KINDLY CONFIRM IF WE WILL USE SOLID CABLE FOR 2.0mm ² AND 3.5mm ² .	Stringent materials shall be used only with project MMSP of which are categorically, specifically, and purposely defined in all project documents.	

	Metro Manila Subway Project Phase 1 PACKAGE CP103 (Anonas and Katipunan)			
ITEM NO.	REFERENCE/CLAUSE/SECTION	QUERIES	RESPONSE	
166.	STN-MEP-ELL-KP-3222~3224 STN-MEP-ELL-AN-3231~3233 Builer's work for other package equipment's	Please provide builer's work requirements detail for other package's equipment in the TSS, SSS, TUR, TER, SER, SUR, Generator Rm. Etc. Or included in other package ?	 Builder's work drawings and/or builder's work requirement details (for Electrical works) are of bidder's/contractor's scope during shop drawing submittal stage; Therefore, the bidder/contractor must avail all the required drawings shown in the bid/design drawings, i.e LV distribution layouts, containment layout, etc. to come up with builder's work for other package equipment. 	
167.	8_CP103_P2_S(VI)_(WR)_6(ED)_30 Mar2021_08_Civil_UT/ Drawing No.: UT-CE-AN-0008 ANONAS STATION DETOUR AND TRAFFIC CONTROL PLAN "Road will be closed for 2 weeks for diaphragm wall construction"	We understand that the road closure is not limited to 2 weeks, and the Contractor can decide such period and frequency in consultation with the relevant department and/or local office. Please clarify the above understanding is all right.	yes correct. the drawing is for reference only.	
168.	8_CP103_P2_S(VI)_(WR)_6(ED)_30 Mar2021_08_Civil_UT/ Drawing No.:UT-CE-KT-0004 KATIPUNAN AVENUE STATION CONSTRUCTION AND STATION YARD PLAN Proposed Road Widening	A. May we know what is the reason behind the proposed road widening?B. Please clarify the proposed road widening shown in the drawing is the Permanent Works. If "yes", please advise the items of BOQ for measurement and payment for those works. If "no", please clarify the Contractor can decide whether it is necessary or not to widen the road in consultation with the relevant department and/or local office.	Road widening is planned with the ease of entry and exit of large construction vehicles, however this drawing is for reference only. please plan according to " Volume II PART 2: WORKS REQUIREMENTS Section VI: Works Requirements General Specifications (GS) 114"	
169.	STN-MEP-VAC-AN-3826 Escalator Rise	Drawing state escalator rise is 5.85m for Escalators 6,7,8	The drawing is correct . 5.85m rise this is based on MEP Drawing and Architectural Drawing.	

	Metro Manila Subway Project Phase 1 PACKAGE CP103 (Anonas and Katipunan)			
ITEM NO.	REFERENCE/CLAUSE/SECTION	QUERIES	RESPONSE	

	Drawing vs BOQ discrepancies.	BOQ States : ESCA - 6, 7, 8; indoor type; 11.54m rise, Please confirm drawing correct and amend BOQ accordingly.	
170.	STN-MEP-VAC-AN-3829,3835 Escalator Rise Drawing vs BOQ discrepancies.	Drawing states escalator rise is 11.54m for Escalators 10,11,12,13,14,15,16 rise BOQ states : ESCA - 10, 11, 12, 13, 14, 15,16 indoor type; 5.85m rise Please confirm drawing correct and amend BOQ accordingly.	The drawing is correct. 11.54m rise this is based on MEP Drawing and Architectural Drawing.
171.	STN-AR-A-AN-7401, STN-AR-A-KP-7401 Fridge	Please confirm the specification of Fridge at (B1F Lactation Station). The fridge is mentioned in the loose furniture schedule (See drawing ref no: STN-AR-A-AN-7401, KP 7401) FRIDGE	Refer to TS and BOQ, miscellaneous 1812 (1) system furniture.

	Metro Manila Subway Project Phase 1 PACKAGE CP103 (Anonas and Katipunan)				
ITEM NO.	REFERENCE/CLAUSE/SECTION	QUERIES	RESPONSE		
172.	STN-AR-A-KP-0501 Finishing Schedule / Wall Plan Layout	 GWW-01 Glass Wool Acoustic Panel: Please provide section detail of GWW-01 Glass Wool coustic Panel) for reference and guidance. In Technical Specification Clasue 1031.2.2, there are 2 types of thickness for Glass Wool Acoustic Panel (i.e 27mm and 42.4mm mm). Please confirm which thickness is to be followed Glass Wool Acoustic Panel Glass Wool Acoustic Panel Acoustical Performance: Derived from tests conducted according to ASTM C 423 on a Type D5 mounting by a National Voluntary Accreditation Program (NVLAP) accredited laboratory 27 mm Thickness Noise Reduction Coefficient (NRC)-0.75. 52.4 mm Thickness NRC - 0.95 	 Follow manufacturers detail as per Arc TS 1031 & MEP TS 1223 Follow 52.4mm thickness NRC-0.95 in line with TS MEP 1223.2.1 		
173.	STN-AR-A-KP-1100 Flood Panels	Please confirm if the Flood Panels shown at Drawing No. STN-AR-A-KP-1100 is included in our scope of work. If yes, what is the Pay Item at the BOQ.	Yes. Refer Pay item no. 1809, Flood Barrier Assembly - Manual.		

Annex "	Metro Manila Subway Project Phase 1 PACKAGE CP103 (Anonas and Katipunan)			
ITEM NO.	REFERENCE/CLAUSE/SECTION	QUERIES	RESPONSE	
174.	STN-MEP-VAC-KP-5102 Katipunan Station Ventilation & Air Conditioning Schedule Sheet-2 Schedule of Chilled Water Air Handling Unit (AHU) under Note #5: "AHU's have been sized such that failure of any active AHU for platform or concourse, other units shall be able to cater 75% of total platform or concourse cooling load requirement".	When Bidder considers this requirement, the AHU cooling load will increase to150% of schedule of drawing and different compare to requirement indicated BOQ. The Bidder would like to clarify that AHU cooling load shall follow the schedule of drawing.	The total cooling load for AHU is 150%, however, the AHU capacity in Equipment schedule have been considered.	
175.	STN-MEP-VAC-KP-5102 Katipunan Station Ventilation & Air Conditioning Schedule Sheet-2 Schedule of Chilled Water Air Handling Unit (AHU) under Note #5: "AHU's have been sized such that failure of any active AHU for platform or concourse, other units shall be able to cater 75% of total platform or concourse cooling load requirement".	When Bidder consider this requirement the AHU Supply Air Volume will be increase to 150% of schedule of drawing.The Bidder would like to clarify that Supply Air Volume shall follow schedule of the drawing.	The total cooling load for AHU is 150%, however, the AHU capacity in Equipment schedule have been considered.	
176.	UT-CE-AN-0008 Anonas Station Detour and Traffic Control Plan	The Bidder understands that A. Luna Street will be closed to traffic for two (2) weeks for the diaphragm wall construction. Please confirm that we can also close this portion of A. Luna Street during road/ traffic decking and excavation works.	UT-CE-AN-0008(Anonas 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	
177.	STN-AR-A-KP-7107 STN-AR-A-KP-1300	In the drawings mentioned, wall access panel type A-67, A-68, A-70 and A-72 are reflected but not in the BOQ. The Bidder would like to confirm to which pay item nos. these wall panels be	Please refer below: pay item 1814 (1) a2 for A67 pay item 1814 (1) b4 for A68	

	Metro Manila Subway Project Phase 1 PACKAGE CP103 (Anonas and Katipunan)				
ITEM REFERENCE/CLAUSE/SECTION QUERIES RESPONSE					

	STN-AR-A-KP-1302	included.	pay item 1814 (1) b2 for A70
			pay item 1814 (1) a1 for A72
178.	Equipment	Does the Employer have a preferred brand or	Bidder to check Tech Specs & Gen Specs
	Mechanical, Electrical and Plumbing	model for Mechanical, Electrical and Plumbing	
	equipment	equipment?	
179.	MEP Drawings: Anonas Station	The Bidder understands that the tunnel	Please see Drawing No. STN-MEP-BMS-AN-0021(R1)
	Anonas station STN-MEP-BMS-CWD-	ventilation system is control by BMS with	of November 2020 for the scope of the bidder; 2.
	1013&1014,	receive interface signal from other packages. Is	However, in addition with Item No. 1, the bidder must
	and	Bidder's understanding correct?	see also GS provision(s) - General Requirement -
	MEP Drawings: Katipunan Station		General, particularly but not limited with Section 101.1.1 in the delivery of the contractor's
	Katipunan station		101.1.1 in the delivery of the contractor's responsibility(ies) and contractual obligations.
	SNT-MEP-BMS-CWD-1013&1014		responsibility les) and contractual obligations.
	Tunnel ventilation system control by		
	other packages via BMS of CP103		
180.	8_CP103_P2_S(VI)_(WR)_6(ED)_30N	Regarding the intermediate pit, please show the	IS70 permeability is 9.7 10 ⁽⁻¹¹⁾ cm/sec.
	ov2020_06_Civil_TBM/	Employer's geotechnical interpretation on why	And around existing datum are that IS71 permeability
	DRG No.:	the soil improvement is not planned in such a	
	TN-CE-PIT-00010 to 00014	high permeability rock area. The permeability at the nearest BH(IS70) is k=2.10*10^1 m/day,	6.3x10^(-5)cm/sec, IS73 permeability is 1.1x10^(-4)cm/sec.
		which is equivalent to $2.4*10-2$ cm/sec.	From the results of the existing ground condition, it is
		which is equivalent to 2.4 To 2 cm/sec.	expected that the there will be no need for ground
			improvement.
181.	3Mar2021_19_MEP_KP.	Tunnel Drainage System	Pump Pit was located at No.12km 268.5m. Please find
	STN-MEP-PLD-TUN7-3401	This DWG has mentioned half of between	"GN-CE-0008".
	Tunnel Drainage System Enlargement	Katipuman st to Ortigas North st.	
	Layout	Please provide CP-103 scope area from Ortigas	
	Tunnel Drainage System	North st to East Ave st.	
182.	14 / Arch_AN /	At B2F Emergency Staircase-02 and other	Yes.
	STN-AR-A-AN-1404, 4103 15 /	Staircases, Wall Finish differs as follows,	PT-01 (Acrylic Emulsion Paint) indicated in STN-AR-
	Arch_KP /	STN-AR-A-KP-1300 KATIPUNAN	A-KP-4000 is correct as per Finishing Schedule.

Annex "	A	Metro Manila Subway Project Phase	1					
	PACKAGE CP103 (Anonas and Katipunan)							
ITEM NO.	REFERENCE/CLAUSE/SECTION	QUERIES	RESPONSE					
	STN-AR-A-KP-1300, 4000	STATION B2F LEVEL PLAN (PART 1 OF 6) ··· Acrylic Polyurethane Paint (PT-02) STN-AR-A-KP-4000 KATIPUNAN STATION ESCAPE STAIRS-02 DETAILS (1 OF 2) ··· Acrylic Emulsion Paint (PT-01) May we assume the one indicated at STN-AR-A- KP-4000 KATIPUNAN STATION ESCAPE STAIRS-02 DETAILS (1 OF 2), Acrylic Emulsion Paint (PT-01) to be correct?						
	Vol	<i>ume IV Part3: Conditions of Contract and Con</i>	tract Forms					
183.	PC-7 ATTACHMENT-2A TO PART A : CONTRACT DATA OF PARTICULAR CONDITIONS OF CONTRACT PROVISION BY THE CP102 CONTRACTOR FOR TBM RETRIEVAL AT EAST AVENUE STATION (2) Period and other conditions for provision of TBM Windows: (i) CP102 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.	The timeline provided (which is a period of no shorter than 2 months per each tunnel) is the minimum limit period of Retrieval Windows. The Bidder would like to clarify the maximum limit of period of CP102 TBM Retrieval Windows to firm the programme.	Maximum time will be subject to discussions between CP102 Contractor and CP103 Contractor as interface coordination.					

	Annex "A" Metro Manila Subway Project Phase 1 PACKAGE CP103 (Anonas and Katipunan)					
ITEM NO.	REFERENCE/CLAUSE/SECTION	QUERIES	RESPONSE			
184.	PC-9 ATTACHMENT-2B TO PART A : CONTRACT DATA OF PARTICULAR CONDITIONS OF CONTRACT PROVISION BY THE CP104 CONTRACTOR FOR TBM RETRIEVAL AT ORTIGAS NORTH STATION (2) Period and other conditions for provision of TBM Windows: (i) CP104 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.	The timeline provided (which is a period of no shorter than 2 months per each tunnel) is the minimum limit period of Retrieval Windows. The Bidder would like to clarify the maximum limit of period of CP102 TBM Retrieval Windows to firm the programme.	Maximum time will be subject to discussions between CP104 Contractor and CP103 Contractor as interface coordination.			
185.	EQC-10 "At least, one (1) project including NATM tunnel of cross-sectional area more than 40m2." BF-32 "At least, one (1) project including NATM tunnel of cross-sectional area more than 60m2."	There is a discrepancy between EQC-10 and the Bidding Form BF-32 regarding the NATM tunnel's cross-sectional area for Key Activity (1). Please clarify which will govern.	 40 m2 is correct. Please read Key Activity (1) in Form EXP – 2(b) as follows: Two (2) project for tunneling works, each including bored tunnel by NATM method; At least, one (1) project including NATM tunnel of cross-sectional area more than 40 m2. 			

	Metro Manila Subway Project Phase 1 PACKAGE CP103 (Anonas and Katipunan)				
ITEM NO.	REFERENCE CLAUSE/SECTION	ADDENDUM No. 8			
Volume I. Part 1 Bidding Procedures					
1	Volume I, Invitation for	Replace Clause 8 of INVITATION FOR BIDS with the following:			
	Bids				
		8. Bids must be delivered to the address above on or before 10:00 am on 9			
		December, 2021 and must be accompanied by a Bid security of Japanese Yen			
		Eight Hundred Million (JPY 800,000,000).			