PUNE METRO RAIL PROJECT

BID DOCUMENTS

FOR

Design, Engineering, Manufacture, Supply, Storage, Civil work, Erection, Testing & Commissioning of the Rooftop and Boundary Walls mounted Solar PV projects under RESCO Model including Operation and Comprehensive Maintenance (O&M) of 5.0 MWp Solar PV project for a period of 25 years after commissioning of 10 Nos. of Elevated Stations and 2 Nos. of Depots for Pune Metro Rail Project.

TENDER NO. P1EG -02R/2021

March- 2021

MAHARASHTRA METRO RAIL CORPORATION LIMITED (MAHA-METRO)
Pune Metro Rail Project
(A joint venture of Govt. of India & Govt. of Maharashtra)
101, The Orion, Opposite Don Bosco Youth Centre,
Koregaon Park, Pune-411001
E-mail: tenders.pmrp@mahametro.org
Website: www.punemetrorail.org
Telephone: 020-26051072

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E-TENDER NOTICE
MAHARASHTRA METRO RAIL CORPORATION LTD
Pune Metro Rail Project
(A joint venture of Govt. of India & Govt. of Maharashtra)
101, The Orion, Opposite Don Bosco Youth Centre, Koregaon Park, Pune- 411001

Tender Notice No. P1EG-02R/2021 **Dt. 23.03.2021**

Name of the Work:- Design, Engineering, Manufacture, Supply, Storage, Civil work, Erection, Testing & Commissioning of the Rooftop and Boundary Walls mounted Solar PV projects under RESCO model including Operation and Comprehensive Maintenance (O&M) of 5.0 MWp Solar PV project for a period of 25 years after commissioning of 10 Nos. of Elevated Stations and 2 Nos. of Depots for Pune Metro Rail Project.

KEYDETAILS:

Completion Period	**(a) Execution/ Erection Period:- 1.5 Years** (including Monsoon Period) from the date of issue of LOA **(b) PPA Period:** - 25 years from the date of commissioning & commercial operation (COD).
Documents on sale	Documents can be downloaded from **16.00** hrs. On **23.03.2021** to **16.00** Hrs. On **22.04.2021** from Maha-Metro's e-tender Portal.
Cost of documents	**INR 35,400/- (Rupees Thirty-Five Thousand Four Hundred only)** non-refundable (inclusive of applicable taxes) in the form of remittance through online mode as per Clause 3.10.1 of Section-II of Tender Documents.
Pre-bid Meeting	On **06.04.2021** at **11.00 Hours** in the Office of Maha-Metro, 101, 'The Orion', Opposite Don Bosco Youth Centre, Koregaon Park, Pune- 411001.
Last date of submission of queries for pre- bid by the bidder.	**Up to 16.00 hrs. Dt. 15.04.2021**
Bid Securing Declaration	Bidders are required to submit Form of Bid Securing Declaration as per the **Format-3** along with the Bid.
Date & Time of submission of Tender	Online submission up till **16.00** Hrs. on **22.04.2021** in Maha-Metro's e-tender portal.
Date & Time of Opening of Tender	On **22.04.2021** at **16.30** Hours or as decided by the authority at the Office of Maha-Metro, 101, The Orion, Opposite Don Bosco Youth Centre, Koregaon Park, Pune- 411001.
Sale of document, e-payment procedure, submission and other details are available on Maha-Metro tender portal under section in e- tenders. **https://mahametrorail.etenders.in.** To view this tender notice, interested Agencies may visit the Maha-Metro website **"www.punemetrorail.org".**	

Disclaimer

The Bidding Documents for:-

Design, Engineering, Manufacture, Supply, Storage, Civil work, Erection, Testing & Commissioning of the Rooftop and Boundary Walls mounted Solar PV projects under RESCO model including Operation and Comprehensive Maintenance (O&M) of 5.0 MWp Solar PV project for a period of 25 years after commissioning of 10 Nos. of Elevated Stations and 2 Nos. of Depots for Pune Metro Rail Project.

Contain brief information about the Project and the Works to be executed and various steps involved in the bidding process. The information contained in the Bidding Documents or subsequently provided to Bidders, whether verbally or in documentary or any other form by or on behalf of Maharashtra Metro Rail Corporation Limited (hereinafter referred as "MAHA-METRO" or "the Company" or "Employer") or any of its employees or advisors, is provided to Bidders on the terms and conditions set out in the Bidding Documents and such other terms and conditions subject to which such information is provided.

The Bidding Documents are not an agreement and is neither an offer nor invitation by MAHA-METRO to the prospective Bidders or any other person. The purpose of the Bidding Documents is to provide interested parties with information that may be useful to them in making their Bids pursuant to the Bidding Documents. The Bidding Document include statements, which reflect various assumptions and assessments arrived at by MAHA-METRO in relation to the Project or the work to be executed pursuant to this bidding process. Such assumptions, assessments and statements do not purport to contain all the information that each Bidder may require. The assumptions, assessments, statements and information contained in the Bidding Documents may not be complete, accurate, adequate or correct. Each Bidder should, therefore, conduct its own investigations and analysis and should check the accuracy, adequacy, correctness, reliability and completeness of the assumptions, assessments, statements and information contained in the Bidding Documents and obtain independent advice from appropriate sources.

Information provided in the Bidding Documents to the Bidders is on a wide range of matters, some of which may depend upon interpretation of law. The information given is not intended to be an exhaustive account of statutory requirements and should not be regarded as a complete or authoritative statement of law. MAHA-METRO accepts no responsibility for the accuracy or otherwise for any interpretation or opinion on law expressed herein.

MAHA-METRO, its employees and advisors make no representation or warranty and shall have no liability to any person, including any Bidder under any law, statute, rules or regulations or tort, principles of restitution or unjust enrichment or otherwise for any loss, damages, cost or expense which may arise from or be incurred or suffered on account of anything contained in the Bidding Documents or otherwise, including the accuracy, adequacy, correctness, completeness or reliability of the Bidding Documents and any assessment, assumption, statement or information contained therein or deemed to form part of the Bidding Documents or arising in any way for participation in this bidding stage.

MAHA-METRO also accepts no liability of any nature whether resulting from negligence or otherwise howsoever caused arising from reliance of any Bidder upon the statements/information contained in the Bidding Documents.

MAHA-METRO may in its absolute discretion, but without being under any obligation to do so, update, amend or supplement the information, assessment or assumptions contained in the Bidding Documents. MAHA-METRO also reserves the right to change any or all conditions/ information set in the Bidding Documents at any time by way of revision,

deletion, updating or annulment through issuance of appropriate addendum/corrigendum as MAHA-METRO may deem fit without assigning any reason thereof.

The issue of the Bidding Documents does not imply that MAHA-METRO is bound to select a Bidder or to appoint the selected Bidder for constructing the work envisaged under the Bidding Documents and MAHA-METRO reserves the right to reject all or any of the Bidders or Bids without assigning any reason whatsoever.

The Bidders shall bear all its costs associated with or relating to the preparation and submission of its Bid including but not limited to preparation, copying, postage, delivery fees, expenses associated with any demonstrations or presentations which may be required by MAHA-METRO or any other costs incurred in connection with or relating to its Bid. All such costs and expenses will remain with the Bid and MAHA-METRO shall not be liable in any manner whatsoever for the same or for any other costs or other expenses incurred by a Bidder in preparation or submission of the Bid, regardless of the conduct or outcome of the bidding process.

Maharashtra Metro Rail Corporation Limited

SECTION- I

INTRODUCTION, DEFINITION & ABBREVIATION

Introduction

Maharashtra Metro Rail Corporation Limited (hereinafter called "Maha-Metro") a SPV (Special Purpose Vehicle) has been formed with equal equity participation of Govt. of India & Govt. of Maharashtra for implementation of Rail based Mass Rapid Transit System called "Pune Metro Rail Project" covering a total length of 31.25 Km with 30 nos. of stations.

MAHA-METRO invites eligible bidders to participate in the work Design, Engineering, Manufacture, Supply, Storage, Civil work, Erection, Testing & Commissioning of the Rooftop and Boundary Walls mounted Solar PV projects under RESCO model including Operation and Comprehensive Maintenance (O&M) of 5.0 MWp Solar PV project for a period of 25 years after commissioning of 10 Nos. of Elevated Stations and 2 Nos. of Depots for Pune Metro Rail Project.

For the implementation of above mentioned work, Bidders should submit/upload their bid proposal along with all supporting documents complete in all respect on or before the date and time given in the Notice of Invitation to Tender (NIT & BDS), online on e-tendering website https://mahametrorail.etenders.in

The Bidder should regularly follow up for any Amendment / Corrigendum / Clarification on the above website.

1.0. DEFINITIONS & ABBREVIATIONS

In this "Bid / RFS Document" the following words and expression will have the meaning as herein defined where the context so admits:

1.1. **"Affiliate"** shall mean a company that either directly or indirectly

a. controls or
b. is controlled by or
c. is under common control with

Bidding Company and **"control"** means ownership by one company of at least twenty-six percent (26%) of the voting rights of the other company.

1.2. **"B.I.S"** shall mean specifications of Bureau of Indian Standards (BIS).

1.3. **"Bid"** shall mean the Techno Commercial and Price Bid submitted by the Bidder along with all documents/credentials/attachments annexure etc., in response to this RFS, in accordance with the terms and conditions hereof.

1.4. Any Bidder from a country which shares a land border with India will be eligible to bid in this tender only if the bidder is registered with the Competent Authority. *[where applicable, evident of valid registration by the Competent Authority shall be attached]*

1.5. **"Bidder"** (including the term 'tenderer', 'consultant', 'vendor' or 'service provided' in certain contexts) means any person or firm or company, including any member of a consortium or joint venture (that is an association of several persons, or firms or companies), every artificial juridical person not falling in any of the descriptions of bidders stated hereinbefore, including any agency, branch or office controlled by such person, participating in a procurement process.

1.6. **"Bidders from a country which shares a land border** with **India**" for the purpose of this tender means-

a. An entity incorporated, established or registered in such a country; or

b. A subsidiary of an entity incorporated, established or registered in such a country; or

c. An entity substantially controlled through entities incorporated, established or registered in such a country; or

d. An entity whose beneficial owner is situated in such a country; or

e. An Indian (or other) agent of such an entity; or

f. A natural person who is citizen of such a country; or

g. A consortium or joint venture where any member of the consortium or joint venture falls under any of the above

1.7. The **beneficial owner** for the purpose above will be under:

1. In case of a company or Limited Liability Partnership, the beneficial owner is the natural person (s), who, whether acting alone or together, or through one or more juridical person, has a controlling ownership interest or who exercises control through other means

   Explanation –

   a. "Controlling ownership interest" means ownership of or entitlement to more than twenty-five per cent. Of shares or capital or profits of the company;

   b. "Control" shall include the right to appoint majority of the directors or to control the management or policy decisions including by virtue of their shareholding or management rights or shareholders' agreements or voting agreements;

2. In case of a partnership firm, the beneficial owner is the natural person(s) who, whether acting alone or together, or through one or more juridical person, has ownership of entitlement to more than fifteen percent of capital or profits of the partnership.

3. In case of an unincorporated association or body of individuals, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has ownership of or entitlement to more than fifteen percent of the property or capital or profits of such association or body of individuals;

4. Where no natural person is identified under (1) or (2) or (3) above, the beneficial

owner is the relevant natural person who holds the position of senior managing official;

5. In case of a trust, the identification of beneficial owner(s) shall include identification of the author of the trust, the trustee, the beneficiaries with fifteen percent or more interest in the trust and any other natural person exercising ultimate effective control over the trust through a chain of control or ownership.

1.8. An Agent is a person employed to do any act for another, or to represent another in dealings with third person.

1.9. The successful bidder shall not be allowed to sub-contract works to any contractor form a country which shares a land border with India unless such contractor is registered with the Competent Authority.

Bidder is required to submit the undertaking regarding restrictions on procurement from a bidder of a country which shares land border with India in the format -19 a and 19 b along with the Bid.

For further details and compliance of above, Bidder to refer the order F.No.6/18/2019-PPD dated 23rd July 2020 (and/or its latest amendments) issued by Ministry of Finance, Department of Expenditure, Public Procurement Division). Bidder to also refer Orders/notifications vide No. P-45021/2/2017-PP (BE-II) dated 16th September 2020 & 8th March 2021 issued by Ministry of Commerce and Industry.

And

For registration of bidders having beneficial ownership from countries sharing land border with India, Bidder to refer the Order no. F. No. K-14011/10/2020-UT-V dated 14th September 2020 & 14th August 2020 (and/or its latest amendments) issued by Ministry of Housing and Urban Affairs and Office Memorandum no. P-45021/112/2020-PP(BE-II)(E-43780) dated 28th August 2020 & 24th August 2020 (and/or its latest amendments) issued by Ministry of Commerce and Industry.

Copy attached as Annexure-D.

1.10. **"Bid Capacity"** shall means maximum financial limit of the bidder to undertake the project.

1.11. **"Bid Deadline"** shall mean the last date and time for submission of Biding response to this RFS as specified in Bid information Sheet.

1.12. **"Bid Securing Declaration"** shall mean declaration to be submitted along with the Bid by the Bidder in the form as defined in Clause 3.16 of this RFS, in the prescribed Format- 3.

1.13. **"CEA"** shall mean Central Electricity Authority.

1.14. **"Chartered Accountant"** shall mean a person practicing in India or a firm whereof all the partners practicing in India as a Chartered Accountant(s) within the meaning of the Chartered Accountants Act, 1949.

1.15. **"Competent Authority''** shall mean Managing Director (MD) of Maharashtra Metro Rail Corporation Limited, himself and/or a person or group of persons

nominated by MD for the mentioned purpose herein.

1.16. **"Commissioning,"** means Successful operation of the Project / Works by the Contractor, for the purpose of carrying out Performance Test(s) as defined in RFS.

1.17. **"Company"** shall mean a body incorporated in India under the Companies Act, 1956 or Companies Act, 2013 including any amendment thereto.

1.18. **"Capacity Utilization Factor" (CUF)** means the ratio of the annual output of the plant in kWh versus installed plant capacity for number of days. CUF = plant output in kWh / (installed plant capacity in kWp (DC side) * 365 X 24).

1.19. **"City Limits" means** Municipal Corporation limits/ Master Plan/Industrial area includes SEZ and IT Park etc.

1.20. **"Eligibility Criteria"** shall mean the Eligibility Criteria as set forth in Clause 3.4 of this RFS.

1.21. **"Financially Evaluated Entity"** shall mean the company which has been evaluated for the satisfaction of the Financial Eligibility Criteria set forth in Clause 3.4.3 hereof.

1.22. **"IEC"** shall mean specifications of International Electro-technical Commission.

1.23. **"kWp"** shall mean Kilo-Watt Peak.

1.24. **"kWh"** shall mean Kilo-Watt-hour.

1.25. **"MNRE"** shall mean Ministry of New and Renewable Energy, Government of India.

1.26. **"Model(s)"** shall mean RESCO

1.27. **"LOA"** shall mean Letter of Acceptance / Letter of Allocation

1.28. **"O&M"** shall mean Operation & Comprehensive Maintenance of Rooftop Solar PV system.

1.29. **Owner of the project"** shall mean anyone who has invested 100% of project cost in the Solar Project or the Project Developer who has taken the roof on mutually agreed terms and conditions from the roof top owner(s) (i.e. MAHA-METRO) and enters into a PPA for supply of Rooftop Solar Power.

1.30. **"Project Cost / Project Price" shall** mean the nominal cost price stated by the Bidder for the Scope of Work as per RFS document. based on which subsidy amount (If admissible) will be calculated and provided by MNRE / SECI etc as applicable.

1.31. **"Project capacity"** means Capacity in kWp specified by MAHA-METRO for each station/site consisting of single or multiple rooftops The project capacity specified is on "DC" output Side only.

1.32. **"Performance Ratio" (PR) means** "Performance Ratio" (PR) means the ratio of plant output versus installed plant capacity at any instance with respect to the radiation measured.

PR= (Measured output in kW /Installed Plant capacity in kW *1000 Watt/m^2/Measured radiation intensity in Watt/m^2).

1.33. **"Parent Company"** shall mean a company that holds at least fifty one percent (51%) of the paid-up equity capital directly or indirectly in the Bidding Company as the case may be.

1.34. **"Project Company"** shall mean Company incorporated by the bidder as per Indian Laws in accordance with Clause no 3.5.

1.35. **"Project Sanction Documents"** shall mean the documents as specified in Annexure – A.

1.36. **"Price Bid"** shall mean Bidder's quoted Price as per the Section- VIII of this RFS.

1.37. **"Qualified Bidder"** shall mean the Bidder(s) who, after evaluation of their Techno Commercial Bid as per Clause 3.1 stand qualified for opening and evaluation of their Price Bid.

1.38. **"RFS"** shall mean Request for Selection (RFS)/Bid document/Tender document.

1.39. **"RESCO"** shall mean **Renewable Energy Service Companies.**

1.40. **"RESCO model"** shall mean where the bidders intend to take a rooftop/sites owned by MAHA-METRO on mutually agreed terms and conditions from MAHA-METRO and enters into the PPA with MAHA-METRO for supply of Solar power for 25 years from the date of Commissioning of project.

1.41. **"Statutory Auditor"** shall mean the auditor of a Company appointed under the provisions of the Companies Act, 1956 or under the provisions of any other applicable governing law.

1.42. **"Successful Bidder(s) /Contractor/Project Developers(s)"** shall mean the Bidder(s) selected by MAHA-METRO pursuant to this RFS, for Implementation of Grid Connected Roof Top Solar PV System as per the terms of the RFS Documents, and to whom an Allocation Letter has been issued.

1.43. **"SECI"** shall mean Solar Energy Corporation of India, Delhi (A Govt. of India Enterprise) under MNRE.

1.44. **"SNA"** shall mean State Nodal Agency.

1.45. **"Subsidy"** shall mean as specified in Clause 6.8.

1.46. **"Tendered Capacity"** shall mean the Total aggregate capacity in MW as indicated in table of Clause 2.2, proposed to be allocated by MAHA-METRO to the Successful Bidder through this bidding process as per terms and conditions specified therein.

1.47. **"Ultimate Parent Company"** shall mean a company which directly or

indirectly owns at least fifty-one percent (51%) paid up equity capital in the Bidding Company) and/or in the Financially Evaluated Entity and such Bidding Company and /or the Financially Evaluated Entity shall be under the direct control or indirectly under the common control of such company.

1.48. **"Wp"** shall mean Watt Peak.

1.49. Bid & Tender are synonyms

1.50. Deleted

1.51. **INTERPRETATIONS**

1. Words comprising the singular shall include the plural & vice versa.
2. An applicable law shall be construed as reference to such applicable law including its amendments or re-enactments from time to time.
3. A time of day shall save as otherwise provided in any agreement or document be construed as a reference to Indian Standard Time.
4. Different parts of this contract are to be taken as mutually explanatory and supplementary to each other and if there is any differentiation between or among the parts of this contract, they shall be interpreted in a harmonious manner, so as to give effect to each part.
5. The table of contents and any headings or sub headings in the contract has been inserted for case of reference only & shall not affect the interpretation of this agreement.

SECTION - II

INSTRUCTIONS TO THE BIDDERS & QUALIFICATION CRITERIA

1. INTRODUCTION

Maha-Metro invites eligible applicants to participate in the bidding process for " Design, Engineering, Manufacture, Supply, Storage, Civil work, Erection, Testing & Commissioning of the Rooftop and Boundary Walls mounted Solar PV projects under RESCO model including Operation and Comprehensive Maintenance (O&M) of 5.0 MWp Solar PV project for a period of 25 years after commissioning of 10 Nos. of Elevated Stations and 2 Nos. of Depots for Pune Metro Rail Project".

The generated solar power will be utilized generally for captive requirement of MAHA-METRO and any momentary surplus power will be fed to the MSEDCL/MSETCL grid through a Net Meter. The scheme aims to reduce the fossil fuel based electricity load on main grid and make the metro system self-sustainable from the point of electricity, to the extent possible.

The Bidder is advised to read carefully all instructions and conditions appearing in this document and understand them fully. All information and documents required as per the bid document must be furnished. Failure to provide the information and/or documents as required may render the bid technically unacceptable.
The bidder shall be deemed to have examined the bid document, to have obtained his own information in all matters whatsoever that might affect or have a bearing on the execution of the works in line with the scope of work (specified elsewhere in the document) at the offered rates and to have satisfied himself to the sufficiency of his bid.

The bidder shall also be deemed to know the scope, nature and magnitude of the works and requirement of materials, equipment, tools and labor involved, wage structures and as to what all works he should complete in accordance with the bid documents irrespective of any defects, omissions or errors that may be found in the bid documents.

2. BID DETAILS

2.1 The bidding process is for selection of bidder for implementing Rooftop Including Boundary Walls Mount Solar PV system in RESCO model.

2.2 Bids are invited from the prospective bidders for the Tendered Capacity as indicated below against selected sites of MAHA-METRO. Successful bidder will be selected based on the lowest evaluated price subject to Clause **6.3** of RFS.

a) Tariff will be inclusive of subsidy/incentives available (if any).

b) The maximum allowable fixed tariff needs to be quoted by the bidder applicable for 25 years. The bidder offering lowest tariff will be awarded the contract.
c) Bidders shall quote the Tariff in three decimal places. (Ex. Rs. X.XXX)
d) If two or more bidders quote the same rate, the selection of successful bidder shall be at Employer's discretion.

Further, the developers should abide by all the terms and conditions/technical specifications of the above said order (including the administrative approvals / orders / notification referred in the above mentioned order and further amendments to it time to time by MNRE) and should make eligible themselves for availing the said subsidy/incentive.

Note: Bids not in conformity with above provisions shall be liable for rejection.

List of Selected Sites by MAHA-METRO

S. No	Sites of MAHA-METRO	Approx. Total Capacity (KWp)
1.	Maha-Metro station rooftops 10 Nos (5 Nos. of Reach-1 and 5 Nos of Reach-2)	5000 KWp
2.	Hill view Park Car Depot	
3.	Range Hill Depot	

The above capacity is indicative only, Bidder however has to maximize as per site availability. 25% variation can be operated in these sites to the capacity mentioned in above table. The list of sites is attached at Section-IX.

(i) The tender is for 5.0 MWp Rooftop and Boundary Walls Mount Solar PV Power System on Rooftops and on the boundary walls of the Depots. The above work shall be awarded to a technically qualified bidder. The work as specified above shall be awarded to L-1 (Lowest evaluated bidder) as per clause 6.3 of RFS documents.

(ii) If the developer fails to complete the work of installation in stipulated time, the MAHA-METRO reserves the right to reduce the allotment by extent of uncompleted portion and allot it to any of the developer selected by MAHA-METRO.

2.3 The sites indicated above may vary. However final Letter of Acceptance will indicate the capacities and sites allocated.

For each site, where the projects are required to be installed along with the approximate Total Capacity of the sites is indicated in the table above in Clause no 2.2. However, MAHA-METRO reserves the right to allow the installation of projects in any other site at its own discretion depending on the merit of the case, as per the provisions provided hereinafter.The preliminary survey details are attached as Section – IX, however bidder shall ensure survey of the site for

the installation of capacities as indicated above and MAHA-METRO holds no responsibilities for the correctness of the above data. Attached Section –IX.

2.3.1 After the Letter of Acceptance, the Bidder has to carry out the detailed survey of the sites and submit the calculation, and complete engineering document along with the shadow analysis for the approval of MAHA-METRO.

The Documents required to be submitted are as follows –

i. Capacity Possible site wise

ii. Layout Sketch including wiring & fixing arrangement of the panels site wise.

iii. Tentative installation timetable.

iv. Detail survey including PVsyst Report (site wise)

v. Details of the equipment planned i.e. PV modules (panels), inverters and balance of the plant system.

vi. Detailed simulation for radiation intensity (watt/m2) available during the year at each location.

2.4 SIZE OF THE PROJECTS

2.4.1 The size of project may be in the range of 4.5 to 5.0 MWp on roof top/boundary walls unit can separately connect with the grid and may have separate meters.

2.4.2 Further, Successful bidder to whom Letter of Acceptance is eventually issued will be required to submit detailed proposal of implementation of Solar PV Project for approval and issue of sanction letter by MAHA-METRO. Sanction letter will be issued for the total aggregate capacity submitted by the bidder for approval as per above.

3.0 INSTRUCTIONS TO THE BIDDERS

INFORMATION AND INSTRUCTIONS FOR TENDERERS FOR "e-TENDERING" FORMING PART OF BID DOCUMENTS TO BE POSTED ON WEBSITE

i) The intending tenderers must read the terms and conditions carefully and should only submit the tender if considers eligible and is in possession of all the documents required.

ii) Information and instructions for tenderers posted on website shall form part of tender documents.

iii) The complete Tender Document can only be obtained online after registration of tenderer on the website https://mahametrorail.etenders.in and thereafter on purchasing the Tender Documents through online mode by Credit Card/ Debit Card/Net Banking/RTGS/NEFT (as prescribed in NIT). For other details refer Annexure-IIA (Bid Data Sheet).

iv) Tender can only be submitted after uploading the mandatory scanned copy of documents towards cost of Bid Documents (as prescribed in NIT and ITB clause 3.10.1) and Bid Securing Declaration (as prescribed in NIT and ITB clause 3.16).

v) Those tenderers who are not registered on the website mentioned above shall be required to get registered beforehand. If needed they can be imparted training on 'online tendering process' as per details available on the website.

vi) The intending tenderer must have valid **Class II/Class III** digital signatures with Sign & Encrypt/Decrypt certificates to submit the tender.

vii) The Technical Packages of Online Submitted Bids shall be opened/downloaded by the Opening Committee on due date and time of Bid Opening. The Bid Securing Declaration will be checked and details will be read out for the information of the representatives of the Bidders, present at the time of Opening of the Bid.

viii) Tenderer can upload documents in the form of **JPG** format and **PDF** format.

ix) Tenderer must ensure to quote rates only in excel sheet provided in bid document.

3.1. Bidder must meet the eligibility criteria independently as Bidding Company. Bidding consortium is allowed to participate in this bidding.

Bidder will be declared as a Qualified Bidder based on meeting the eligibility criteria and as demonstrated based on documentary evidence submitted by the Bidder in the Bid.

3.2. Bidder can however use the technical and financial strength of its Parent Company/Affiliate Company to fulfil the Technical and/or Financial Eligibility criteria mentioned below. In such case, Bidders shall submit an Undertaking from the Parent Company/Affiliate Company as per Format-9 and also furnish a certificate of relationship of Parent Company or Affiliate with the Bidding Company as per Format-8, Company Secretary certificate towards shareholding pattern of the Parent Company and the Bidding Company along with Board resolution from the Parent Company.

3.3. Where a work was undertaken by a group, only that portion of the contract which was undertaken by the concerned applicant/member should be indicated and the remaining done by the other members of the group be excluded. This is to be substantiated with documentary evidence.
Financial data for latest last three audited financial years (FY 2017-18 to FY 2019-20 or Calendar year 2018 to 2020 as the case may be) has to be submitted by the tenderer in Format -7 and Format-12 along with audited balance sheets. The financial data in the prescribed format shall be certified by Chartered Accountant with his stamp and signature in original. In case audited balance sheet of the last financial year is not made available by the bidder, the bidder should submit the provisional balance sheet duly certified by statutory auditor. In such a case the financial data of previous '5' audited financial years will be taken into consideration for evaluation. If audited balance sheet of any year other than the last year is not submitted, the tender will be

considered as non-responsive.

3.4 ELIGIBILITY CRITERIA

3.4.1 GENERAL

(a) The Bidder should be either a proprietorship firm or a partnership firm or a company incorporated in India under the Companies Act, 2013 including any amendment thereto and engaged in the business of Solar Power.

A copy of certificate of incorporation to be furnished along with the bid in support of above

i) A Tenderer may be from any country and all areas either a single entity or any combination of entities. In the case of a JV/Consortium: all partners shall be jointly and severally liable for the execution of the Contract in accordance with the Contract terms; and the JV/Consortium shall nominate a Representative who shall have the authority to conduct all business for and on behalf of any and all the partners of the JV/Consortium during the tendering process and, in the event the JV is awarded the Contract, during contract execution.

ii) A Tenderer and all partners constituting the Tenderer, can be from any country. A non-Indian firm is permitted to tender only in a joint venture or consortium arrangement with any other Indian firm having minimum participation interest of 51% or their wholly owned Indian subsidiary registered in India under Companies Act-1956/2013 with minimum 51% participation.

iii) A Tenderer and all partners constituting the Tenderer shall not have a conflict of interest. All Tenderers found to have a conflict of interest shall be disqualified. A Tenderer may be considered to have a conflict of interest with one or more parties in this tendering process, if:

(a) Tenderer and all partners constituting the Tenderer has been engaged by the employer to provide consulting services for the preparation related to procurement or for implementation of the Project.

(b) Tenderer and all partners constituting the Tenderer is any associates/affiliates (inclusive of parent firms) mentioned in subparagraph (a) above; or

(c) A Tenderer and all partners constituting the Tenderer lends, or temporarily seconds its personnel to firms or organizations which are engaged in consulting services for the preparation related to procurement for or implementation of the project, if the personnel would be involved in any capacity on the same project.

iv) A Tenderer and all partners constituting the Tenderer shall submit only one tender in the same tendering process, either individually as a Tenderer or as a partner of a JV. A Tenderer who submits or participates in, more than one tender will cause all of the proposals in which the Tenderer has participated to

be disqualified. No Tenderer can be a subcontractor while submitting a tender individually or as a partner of a JV in the same tendering process. A Tenderer, if acting in the capacity of subcontractor in any tender, may participate in more than one tender, but only in that capacity.

v) Tenderers shall provide such evidence of their continued eligibility satisfactory to the Employer, as the Employer shall reasonably request.

vi) A firm, who has purchased the tender document in their name, can submit the tender either as individual firm or as JV/CONSORTIUM.

vii) Any Central/State government department/public sector undertaking/other government entity or local body (Indian and/or foreign) must not have banned business with the tenderer (any member in case of JV) as on the date of tender submission. Also no contract of the tenderer should have been rescinded / terminated after award by MAHA-METRO or other Metros, during last 5 years, due to non-performance of the tenderer or any of JV/Consortium members. The tenderer should submit undertaking to this effect in Format-15.

viii) Deleted

ix) Tenderer (any member in case of JV/consortium) must not have suffered bankruptcy/ insolvency during the last 5 years. The tenderer should submit undertaking to this effect in Format-17.

x) **IN CASE OF JV/ CONSORTIUM**

a. Lead partner must have a minimum of 51% participation in the JV/Consortium.
b. Other partners must have minimum 20% participation in the JV/Consortium to be termed as substantial partners
c. Partners having less than 20% participation will be termed as non- substantial partner and will not be considered for evaluation which means that their financial soundness and work experience shall not be considered for evaluation of JV/Consortium.
d. In case of JV/Consortium, change in constitution or percentage participation shall not be permitted at any stage after their submission of application otherwise the applicant shall be treated as non-responsive.

xi) **JV/Consortium: Consequences for deviation from JV/Consortium Agreement**

The tenderer, in case of JV/Consortium, shall clearly and unambiguously define the role and responsibilities for each substantial / non-substantial partner in the JV / MOU submitted vide foot note (d) of Format A, providing clearly that any abrogation / subsequent re-assignment of any responsibility by any substantive / non-substantive partner of JV/Consortium in favour of other JV / Consortium partner (without written approval of Employer) or any change in constitution of partners of JV/Consortium from the one given in JV/MOU at tender stage, will be treated, as 'breach of contract condition' and/or 'misrepresentation of facts' (as the case may be).

The Employer in such cases, may in its sole discretion rescind the contract and/or take appropriate action against any member(s) for failure in tender obligation to declare a contractor ineligible for award of any tender in MAHA-METRO or take action to terminate the contract in part or whole as the situation may demand and recover the cost/damages as provided in contract besides forfeiting the performance and other guaranties.

(b) The bidder should have valid GSTIN registration certificate. Registration document(s) to be provided by the bidder where it is presently Operational / Company is registered. **(Copy to be furnished in support).**

3.4.2 TECHNICAL ELIGIBILITY CRITERIA

a) The Bidder as a sole entity should have total installed & commissioned-

Grid connected Solar PV Project (Roof Top and/or Ground Mount) of minimum 4000 KWp (Cumulative Capacity) during last 10 years ending 31.12.2020.

And

One single Ground Mount / Rooftop Solar PV Project of minimum 500 KWp in the last 10 years ending 31.12.2020.

(Note: *The list of projects commissioned indicating whether the project is grid connected, along with a copy of the Commissioning certificate and Work order /Contract Agreement/ from the Client/Owner shall be submitted in support of Clause 3.4.2 (a) above for last 10 years.)*

b) **In case of JV/Consortium** then the cumulative work of 4000 KWp should have been executed/commissioned by all the members collectively together and the requirement of single work of Ground mount/Rooftop of 500 KWp should have been executed/Commissioned by any one of the member/members of JV.

(Note: The list of projects commissioned indicating whether the project is grid connected, along with a copy of the Commissioning certificate and Work order /Contract Agreement/ from the Client/Owner shall be submitted in support of Clause 3.4.2 (b) above for last 10 years.)

c) The Bidder as a sole entity should have Operation & Maintenance (O&M) experience of-

(i) Grid connected Solar PV Project (Roof Top and/or Ground Mount) of minimum 500 KWp (Cumulative Capacity) during last 5 years ending 31.12.2020.

(Note: *The list of O&M projects indicating whether the project is grid connected, along with a copy of the O&M certificate and Work order /Contract Agreement/ from the Client/Owner shall be submitted in support of Clause 3.4.2 (c) above for last 5 years*.)

d) **In case of JV/Consortium** then the cumulative work of Ground mount/Rooftop 500 KWp should have O&M experience by all the members collectively together should have O&M experience by any one of the member/members of JV.

(Note : The list of O&M projects *indicating whether the project is grid connected, along with a copy of the O&M certificate and Work order /Contract Agreement/ from the Client/Owner shall be submitted in support of Clause 3.4.2 (d) above for last 5 years.)*

e) The format is attached as in Format – 10.

(Note: *Project commissioned after **31.12.2020** shall not be considered towards evaluation of eligibility.*)

f) A work completion certificate mentioning the satisfactory operation of the plant issued by employer shall be enclosed in support of claimed experience of work.

g) The above experience shall be only for works executed for Central/State/Semi-Govt./Govt. PSU/Urban Local Bodies/ Listed Companies under the stock exchange of India organisations only)

(Note: The Experience claimed by a Non-substantial partner shall not be considered for evaluation.)

3.4.3 FINANCIAL ELIGIBILITY CRITERIA

Turnover: The Bidder should have an Average Annual Turnover as indicated below:-

(i) The Average Annual Turnover in last three (03) financial years should not be less than Rs. 24.0 Crores Only (Rs. Twenty-Four Crores only).

(ii) **In Case of JV/CONSORTIUM –** the average annual turnover shall be reckoned as algebraic sum of the turnover of each member of JV/Consortium, out of which the Lead member should have the average annual turnover of amount not less Rs. 12.0 Crores (Rs. Twelve Crore Only) in last three financial years.

a) Net Worth: Net Worth of tenderer during last audited financial year should not be less than Rs. 6 Crores (Rs. Six Crores Only) (i.e. as on 31st March, 2020).

In Case of JV/CONSORTIUM, the net worth of the JV shall be reckoned as algebraic sum of the net worth of each member of JV/Consortium, out of which the Lead member should have the net worth of amount not less Rs. 3.0 Crores as on 31st March, 2020.

b) Profitability: Profit before tax should be positive in at least 1 (one) year out of the last 3 audited financial years viz., 2017-18, 2018-19 and 2019-2020 for individual bidder and for every substantial partner in case of JV/CONSORTIUM.

c) **Bid Capacity**: The available Bid Capacity of the Bidder should not be less than Rs. 16.0 Crores.

Available Bid Capacity= 2 x A x N – B

Where,

A = Maximum of the value of similar works executed in any one year during the last three financial years reckoned up to 31st March 2020 (updated to the base date price level assuming 5% inflation per year compounded annually for Indian Project and 2% for foreign project.
N = Number of years prescribed for completion of the present work i.e. 1.5 Years.

B = Value [at price level as on the twenty eight (28) days prior to 'date for Bid submission' (refer Bid Data Sheet)] of existing commitments and on-going works to be completed during next 1.5 Years starting from the twenty eight (28) days prior to date of Bid submission.

In case of JV, the algebraic sum of Bid Capacity of all the members of JV shall be considered as per the latest audited balance sheets and in proportion to the share of proposed JV of each member.

Let the Bid Capacity of Member-1 is 'A' and that of Member-2 is 'B', and the percentage participation of both member is M% & N% respectively. in JV of proportion of then the Bid Capacity of JV will be = (AxM%)+(BxN%)

Note : -

1. **In both the above cases the available bid capacity should be more than Rs. 16.0 Crores.**
2. **A certificate issued from a statutory auditor certifying A and B value must be enclosed with the Technical bid for each member of JV/Consortium or the Single Bidder.**

Bidder to refer format –D for the form of Bid Capacity

3.5 INCORPORATION OF A PROJECT COMPANY

3.5.1 In case the Bidder wishes to incorporate a Project Company, in such a case Bidder if selected as a Successful Bidder shall incorporate a Project Company. Bidder shall be responsible to get all clearance required/obtained in the name of the Bidding Company transferred in the name of the Project Company.

3.5.2 In case of a single bidder, the project company shall be 100% owned, fully subsidiary company. However, the single bidder company is allowed to reduce its share up to 51% after a period of 10 years.

3.5.3 In case of JV, they may form a SPV, fully owned by the JV partners in the ratio of initial shareholding pattern. Further, after a period of 10 years the partners shall be allowed to change their respective shareholding subject to the condition that one of the original JV partner shall always retain a minimum shareholding

of 51%.

3.5.4 Deleted

3.6 BID SUBMISSION BY THE BIDDER

3.6.1 The information and/or documents shall be submitted by the Bidder as per the formats specified in Section-IV & Section -VI of bid document.

3.6.2 Strict adherence to the formats wherever specified, is required. Wherever, information has been sought in specified formats, the Bidder shall refrain from referring to brochures /pamphlets. Non-adherence to formats and / or submission of incomplete information may be a ground for declaring the Bid as non-responsive. Each format has to be duly signed and stamped by the authorized signatory of the Bidder.

3.6.3 The Bidder shall furnish documentary evidence in support of meeting Eligibility Criteria as indicated in Clause no. 3.4.1, 3.4.2 and 3.4.3 to the satisfaction of MAHA-METRO.

3.7 BID SUBMITTED BY A BIDDING COMPANY

3.7.1 The Tenderer shall submit a duly notarized written Power of Attorney (POA) authorizing the signatory (ies) of the Tender to commit the tenderer of each member of the partnership, consortium or joint venture along with copy of Board Resolution/authorization in favour of signatory to POA. In case of Foreign Partners, Power of Attorney(s) and Board Resolution confirming authority on the persons issuing the Power of Attorney for such actions shall be submitted duly notarized by the notary public of country of origin and should be either stamped by Embassy/High Commission or Member Countries of Hague convention may submit all these documents with "Apostille" stamp. Also in case the documents are in foreign language the translation of the same shall be authenticated by Embassy/High Commission.

3.7.2 Each Tenderer (each member in the case of joint venture or consortium) is required to confirm and declare with his Tender that no agent, middleman or any intermediary has been, or will be, engaged to provide any services, or any other item or work related to the award and performance of this Contract and declare that no agency commission or any payment which may be construed as an agency commission has been, or will be, paid and that the tender price will not include any such amount. To fulfil this requirement, the tenderer (each member in case of JV/Consortium) has to sign the declaration given as Format 13 Section VI. If the Employer subsequently finds to the contrary, the Employer reserves the right to declare the Tenderer as non-compliant, and declare any Contract if already awarded to the Tenderer to be null and void.

3.7.3 Canvassing or offer of an advantage or any other inducement by any person with a view to influencing acceptance of a Tender will be an offence under laws of India. Such action will result in the rejection of the Tender, in addition to other punitive measures.

3.8 CLARIFICATIONS AND PRE-BID MEETING

3.8.1 The Tenderer shall check the pages of all documents against page numbers given in indexes and summaries and, in the event of discovery of any discrepancy, the Tenderer shall inform the MAHA-METRO forthwith.

3.8.2 The Tenderer for any reason whatsoever, be in doubt about the meaning of anything contained in the Invitation to Tender, Tender Documents, Technical Specifications and Tender Drawings, shall seek clarification from ED/Procurement & Contracts. Maha-Metro will respond in writing to any request for clarification received in writing from tenderers prior to dead line. The response of MAHA-METRO will be made public on the e-tendering website of MAHA-METRO. All communications between the Tenderer and MAHA-METRO shall be conducted in writing.

3.8.3 Except for any such written clarification by Executive Director/Procurement & Contracts, MAHA-METRO which is expressly stated to be by way of an addendum to the documents and/or for any other document issued by the Employer which is similarly described, no written or verbal communication, representation or explanation by any employee of the Employer or the Engineer shall be taken to bind or fetter the Employer or the Engineer under the Contract.

3.8.4 **Correspondence:** All correspondence from MAHA-METRO pertaining to this tender till the award of the work with tenderer shall be done by **Executive Director/Procurement & Contracts.** The bidders are advised to regularly check their email ID registered with their user account at e-tendering portal https://mahametrorail.etenders.in for any update/addendum/ corrigendum /pre-bid and post-bid queries/any other correspondence by the Employer**.**

3.8.5 The Bidder(s) or their authorized representative(s) is/are invited to attend pre-bid meeting (s), which will take place on date(s) as specified in Bid information sheet, or any such other date as notified by MAHA-METRO.

3.8.6 The purpose of the pre-bid meeting will be to clarify any issues regarding the RFS including in particular, issues raised in writing and submitted by the Bidders.

3.8.7 MAHA-METRO is not under any obligation to entertain/respond to suggestions made or to incorporate modifications sought for.

3.9 AMENDMENTS TO RFS BY MAHA-METRO

3.9.1 At any time prior to the deadline for submission of Bids, the MAHA-METRO may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective Bidder, modify the RFS document by issuing clarification(s) and/or amendment(s)/ corrigendum.

During the tender period, the Employer may issue further instructions to tenderers or any modifications to existing tender documents in the form of an addendum. Such an amendment in the form of an addendum will be made

available at e-tendering website https://mahametrorail.etenders.in to all prospective tenderers who have purchased the tender document in the tender period.

Without prejudice to the order, the provisions in such addenda shall take priority over the Invitation to Tender and Tender Documents issued previously. Tenderers should acknowledge receipt of such addenda and include them in the tender submittal.

3.9.2 MAHA-METRO will not bear any responsibility or liability arising out of non-receipt of the information regarding Amendments in time or otherwise. Bidders must check the website for any such amendment before submitting their Bid.

3.9.3 The Tenderer should note that there might be aspects of his Tender and /or the evaluation documents submitted with the Tender that will necessitate discussion and clarification. Any clarification submitted by a Bidder that is not in response to a request by the Employer shall not be considered. The Employer's request for clarification and the response shall be in writing. If a Bidder does not provide clarifications of its bid by the date and time set in the Employer's request for clarification, its bid may be rejected.

3.9.4 Save as aforesaid, all such amendments or clarifications shall have contractual effect.

3.9.5 All the notices related to this Bid which are required to be publicized shall be uploaded on-line on e-tendering website https://mahametrorail.etenders.in.

3.10 BIDDING PROCESS

3.10.1 Uploading of Tender

i. The tenderer shall submit their tender on-line on e-tendering website https://mahametrorail.etenders.in

ii. 'Cost of Tender Document' should be paid in the form of remittance through online mode as follows:

1) The tenderer shall pay the 'Cost of Tender Documents' of amount INR 35,400/- (Thirty-Five Thousand Four Hundred only) non-refundable (inclusive applicable taxes) in the form of remittance through online mode as follows:

Name of Beneficiary: MMRCL PUNE TENDER FEES AND EMD

Account No: 39212708855

IFSC Code: SBIN0000454

UPI ID: ptfemd@sbi

Applicant shall attach proof of payment along with the submission.

If the Applicant is a registered MSE as per Public Procurement Policy for Micro and Small Enterprises (MSEs) Order, 2012, Applicant shall have to

submit valid proof of registration and any additional documents as necessary along with the submission, failing which the Bid shall be termed as non-responsive and Applicant (Individual Bidder or Consortium) is liable for rejection.

2) The tenderer shall submit the 'Bid Securing Declaration' online through E-tender portal of MAHA-METRO as directed in NIT.

The Tenderer shall ensure that they had received receipt/acknowledgement of their tender submission which is generated by the system itself on successful submission of tender online.

3.10.2 BID FORMATS

The Bid in response to this RFS shall be submitted by the Bidders in the manner provided in Clause 3.6 & Clause 3.10.1 The Bid shall comprise of the following:

(A) TECHNICAL DOCUMENTS

The Bidder shall submit/ upload (through digital signature in e-tender portal of MAHA-METRO) in the Technical Package of its Bid the following documents, duly completed, which in the event of acceptance of the Bid, shall form part of the Contract:

i. Complete bid documents along with addendum/corrigendum/ clarifications & reply of queries issued online to be down loaded by bidder using DSC of authorized signatory only and entire document to be uploaded by bidder on E-Tender portal of MAHA-METRO through the same digital signature of the Bidder.

ii. Physical Sign & seal of bidder on each page of bid documents available online is not required.

iii. Copy of Power of Attorney for signing the bid.

iv. Bid Securing declaration as per Format - 3.

v. Scanned copy of POA of each member in case of JV/ Consortium.

vi. All relevant formats given in Section VI: Format for submitting RFS & Checklist. Physically signed by authorized signatory/POA of bidders or lead member in case of JV/consortium.

vii. Certificate of registration and other statutory documents of formation of bidder's company or JV/ consortium or each member of JV/Consortium (if not appropriate yet) issued by appropriate authority.

viii. Certificate of GST & other applicable tax registration is must be submitted.

ix. Copy of PAN card of bidders. (PAN card of Indian member only of JV/consortium, if JV/consortium consists foreign member).

x. Deleted

xi. Relevant work experience certificates (in line of Section II, IV and VI: Eligibility, Evaluation and Qualification Criteria) and other qualifications certificates as given in Evaluation of Qualification under Section IV

xii. All Format of Section- VI and other enclosure, certificate stated above off or desired elsewhere in the bid documents shall be physically filled, signed and stamped by authorized signatory /POA or bidder or POA of lead member of JV/Consortium **and scanned copies of such enclosures of bid documents should be uploaded** on E-tender portal of MAHA-METRO along with the bid document.

xiii. The enclosures meant for Technical Package shall be uploaded with Technical Envelope & Financial enclosures (If any) shall be uploaded with Commercial Envelope on E-Tender Portal of MAHA-METRO only.

(B) FINANCIAL DOCUMENT

i) Summary sheet provided in the Commercial Envelope Section of E-Tender portal of MAHA-METRO shall be duly filled up online.

ii) Few prices schedules may require to be filled up physically and should be signed and stamped by authorized signatory/POA of bidder or POA of lead member of JV/consortium and scanned copies of such schedules may be uploaded as instructed in the BOQ or tender portals. (Deleted)

iii) The Bid Total Price shall include Total Project Cost (Capital Expenditure) including applicable Taxes and Duties, Royalties etc. The price to be quoted shall be the total price of the Bid as elaborated in Section-VIII-Financial Bid.

3.11 TENDER DUE DATE

The Tenderer shall, on or before the date and time given in the Notice of Invitation to Tender (NIT) submit his Tender online on e-tendering website https://mahametrorail.etenders.in.

3.12 VALIDITY OF TENDER

3.12.1 The Bid shall be valid for a period of **180 days** both days inclusive i.e. the date of submission of tenders and the last date of period of validity of the tender) from the latest Date of Submission of Tenders, with bidder having no right to withdraw, revoke or cancel his offer or unilaterally vary the offer submitted or any terms thereof. In case of the bidder revoking or cancelling his offer or varying any term & conditions in regard thereof or not accepting Letter of Acceptance, MAHA-METRO shall execute the Bid-Securing Declaration submitted by him.

In exceptional circumstances when Letter of Acceptance is not issued, the MAHA-METRO may solicit the Bidder's consent to an extension of the period of validity. The request and the responses thereto shall be made in writing.

3.13 INSTRUCTION REGARDING ONLINE BID SUBMISSION

3.13.1 Deleted

3.13.2 Deleted

3.13.3 Deleted

3.13.4 All enclosures of the Bid other document executed on non-judicial stamp paper, forming part of the Bid and corrections in the Bid, if any, must be signed by the authorized signatory on behalf of the Bidder. No change or supplemental information to a Bid will be accepted after the Bid Deadline, unless the same is requested for by MAHA-METRO.

3.13.5 The Bid must be complete in all technical and commercial respect and should contain requisite certificates, drawings, informative literature etc. as required in the Bid document. Bids with any type of change or modification in any of the terms/ conditions of this document shall be rejected. If necessary, additional papers may be attached by the Bidder to furnish/ submit the required information. Any term/ condition proposed by the Bidder in his bid which is not in accordance with the terms and conditions of the RFS document or any financial conditions, payment terms, rebates etc. mentioned in Price Bid shall be considered as a conditional Bid and will make the Bid invalid.

3.14 BIDDING METHODOLOGY

Single-stage Two-Bid System (Technical Part and Financial Part to be submitted at the same time) shall be followed.
(Refer. Annexure-II-B, Tool Kit for using E-Tender Portal)

i) Tenders have to be uploaded on e-tendering portal https://mahametrorail.etenders.in before the due date and time of tender submission. The bid securing declaration and proof of payment towards cost of tender documents shall be submitted online. It shall be the responsibility of the bidder/tenderer to ensure that the bid along with all enclosures & bid securing declaration, submitted before the dead line for submission.

ii) MAHA-METRO will not receive any 'Bid Securing Declaration' and proof of payment towards 'Cost of Tender Document' and "Tender" sent by post/ courier/email.

iii) The Employer may, at his discretion, extend the deadline for submission of tenders by issuing an amendment in accordance with clause 3.9 above, in which case all rights and obligations of the Employer and the Tenderer previously subject to the original deadline will thereafter be subject to the deadline as extended.

3.15 COST OF BIDDING

The bidder shall bear all the costs associated with the preparation and submission of his offer, and the company will in no case be responsible or liable for those costs, under any conditions. The Bidder shall not be entitled to claim any costs, charges and expenses of and incidental to or incurred by him through or in connection with his submission of bid even though MAHA-METRO may elect to modify/withdraw the invitation of Bid.

3.16 BID SECURING DECLARATION

The Bidder shall submit the Bid Securing Declaration in the Format-3 along with the Bid.

The Bid Securing Declaration should be valid for a period not less than 28 days beyond the bid validity period.

In case of a Joint Venture/Consortium, the Bid-Securing Declaration must be in the name of all members of the Joint Venture that submits the bid.

The Bids shall be summarily rejected if the Bid Securing Declaration is not found in order.

3.16.1 The Successful Bidder shall sign and stamp the Letter of Acceptance and return the duplicate copy of the same to MAHA-METRO within one week from the date of its issue.

3.16.2 The Bid Securing Declaration shall be executed without prejudice to the Bidder being liable for any further consequential loss or damage incurred to MAHA-METRO:

a. If a Bidder withdraws/revokes or cancels or unilaterally varies his bid in any manner during the Bid Validity Period as specified in the RFS document and in accordance with the Clause 3.12.2.

b. If the Successful Bidder fails to unconditionally accept the Letter of Acceptance within one week from the date of its issue and fail or refuse to execute the Contract.

c. If the Successful Bidder fails to furnish the "Performance Security" as per the Clause 3.17.

d. If the Bidder submits, misleading, wrong, fraudulent document or wrong translations into English from foreign language as a part of Bid Submission.

3.17 PERFORMANCE SECURITY/PERFORMANCE BANK GUARANTEE (PBG)

3.17.1 Within 30 days from the date of issue of Letter of Acceptance, Successful Bidder shall furnish the Performance Security amounting to **INR 54 Lakhs** only in the form of unconditional and irrevocable Bank Guarantee in the prescribed format issued by a Scheduled Commercial Bank based in India including scheduled Commercial Foreign Banks having business branch/office in India.

3.17.2 In case of a joint venture/consortium, the performance security is to be submitted in the name of the JV/Consortium. However, splitting of the performance security (while ensuring the security is in the name of JV/consortium) and its submission by different members of the JV/consortium for an amount proportionate to their scope of work or otherwise is also acceptable.

3.17.3 In case of breach of any terms and conditions stipulated in the contract, performance deposit/Guarantee of the firm/company will be liable to be

forfeited/encashed by Maha-Metro besides annulment of the contract.

3.17.4 Not Used.

3.17.5 Not Used.

3.17.6 The Performance Security shall be denominated in Indian Rupees and shall be in the form of a bank guarantee from scheduled commercial bank and shall be payable at Pune. The Bank Guarantee shall also be confirmed from the Pune branch of issuing bank.

3.17.7 The PBG shall be forfeited as follows without prejudice to the Bidder being liable for any further consequential loss or damage incurred to MAHA-METRO.

3.17.7.1 If the Successful Bidder is not able to submit Project Sanction Documents to the satisfaction of MAHA-METRO.

3.17.7.2 If the Successful Bidder is not able to commission the projects to the satisfaction of MAHA-METRO, for which Letter of Acceptance/sanction letter has been issued.

3.17.7.3 If power producer is not able to pay penalty on account of not meeting the year wise requirement of minimum unit generation of installed and commissioned capacity as per Schedule IV of PPA.

3.17.7.4 Termination of Power Purchase agreement due to Power Producer's default on any grounds other than above.

In all the above cases corresponding allocated capacity shall also become liable for cancellation.

Moreover, in case of breach of any terms and conditions stipulated in the contract, performance deposit/Guarantee of the firm/company will be liable to be forfeited/encashed by Maha-Metro besides annulment of the contract.

3.17.8 The Performance Bank Guarantee (PBG) initially shall be valid for a minimum period of 10 Years from the date of issue of Letter of Acceptance (LOA) for an amount of **INR 54 Lakhs** and thereafter, PBG amount shall be reduced to **INR 27 Lakhs** till PPA is in force (renewable every five years).

3.17.9 Additional Performance Security (APS)

Deleted

Note: Power Purchase Agreement format is provided in Tender document as Section-VII. Successful bidder shall submit the Performance Bank Guarantee within 30 days and shall sign the PPA with MAHA-METRO within 60 days of date of issue of Letter of Acceptance.

3.18 OPENING OF BID

3.18.1 The tenders shall be opened online by the opening committee on due date and time of tender opening. The Bid Securing Declaration will be checked at the time of the opening of Bid.

3.18.2 On opening of the Tender, it will be checked if they contain Technical & Financial Packages. Technical packages of the tenderers not containing financial package shall not be opened. The employer shall prepare a record of opening of the, Technical & Financial Packages, which shall include, the name of bidder and whether there is a withdrawal, substitution or modification; alternative proposals, and presence or absence of a Bid Securing Declaration. The Tenderers' representatives who are present may be requested to sign the record. The omission of a bidder's signature on the record shall not invalidate the contents and effect of the record. The tenderers name, presence or absence of a bid securing declaration and such other details as the Employer or his authorized representative, at his discretion, may consider appropriate will be announced at the time of tender opening.

The Technical Package of all tenderers shall be opened in the presence of representatives of tenderers who choose to attend on date & time as mentioned in tender document in the office of the Executive Director (Procurement), MAHARASHTRA METRO RAIL CORPORATION LIMITED, 101, The Orion, Opposite Don Bosco Youth Centre, Koregaon Park, Pune-411001, Maharashtra, India. If such nominated date for opening of Tender is subsequently declared as a Public Holiday by the Employer, the next official working day shall be deemed as the date of opening of Technical Package. The Tender of any tenderer who has not complied with one or more of the foregoing instructions may not be considered.

3.18.3 The Financial Package(s) which tenderer(s) have uploaded online will be opened on a subsequent date after evaluation of technical packages. Financial packages of only those tenderers whose submissions are found substantially responsive and technically compliant will be opened. The time of opening of financial package shall be informed separately to only the Tenderers who have qualified during Technical evaluation stage and tenderers can be present to witness opening of Financial Package.

3.19 RIGHT TO WITHDRAW THE RFS AND TO REJECT ANY BID

3.19.1 This RFS may be withdrawn or cancelled by the MAHA-METRO at any time without assigning any reasons thereof. The MAHA-METRO further reserves the right, at its complete discretion, to reject any or all of the Bids without assigning any reasons whatsoever and without incurring any liability on any account.

3.19.2 MAHA-METRO reserve the right to interpret the Bid submitted by the Bidder in accordance with the provisions of the RFS and make its own judgment regarding the interpretation of the same. In this regard the MAHA-METRO shall have no liability towards any Bidder and no Bidder shall have any recourse to the MAHA-METRO with respect to the selection process. MAHA-METRO shall evaluate the Bids using the evaluation process specified in Section-I, at its sole discretion. Decision of MAHA-METRO in this regard shall be final and binding on the Bidders.

3.19.3 MAHA-METRO reserves its right to vary, modify, revise, amend or change any

of the terms and conditions of the Bid before submission. The decision regarding acceptance or rejection of bid by MAHA-METRO will be full and final.

3.20 ZERO DEVIATION

3.20.1 This is a ZERO Deviation Bidding Process. Bidder is to ensure compliance of all provisions of the Bid Document and submit their Bid accordingly. Tenders with any deviation to the bid conditions shall be liable for rejection.

3.21 EXAMINATION OF BID DOCUMENT

3.21.1 The Bidder is required to carefully examine the Technical Specification, terms and Conditions of Contract, and other details relating to supplies as given in the Bid Document.

3.21.2 The Bidder shall be deemed to have examined the bid document including the agreement/contract, to have obtained information on all matters whatsoever that might affect to execute the project activity and to have satisfied himself as to the adequacy of his bid. The bidder shall be deemed to have known the scope, nature and magnitude of the supplies and the requirements of material and labour involved etc. and as to all supplies he has to complete in accordance with the Bid document.

3.21.3 Bidder is advised to submit the bid on the basis of conditions stipulated in the Bid Document. Bidder's standard terms and conditions if any will not be considered. The cancellation/alteration/amendment/modification in Bid documents shall not be accepted by MAHA-METRO.

3.21.4 Bid not submitted as per the instructions to bidders is liable to be rejected. Bid shall confirm in all respects with requirements and conditions referred in this bid document.

(For additional instruction: Ref. Annexure-II-A- Bid Data Sheet)

Annexure-II- A.

Bid Data Sheet

A. Introduction

General	The following terms are used in the Bidding Documents shall have the same meaning and interpretations: • 'Tender(s)' and 'Bid(s)' • 'Tenderer(s)' and 'Bidder(s)' • 'Employer's Requirements' and 'Work Requirements' • The language of the bid is: **English** • All correspondence/ exchange shall be in the **English language.** • Language for translation of supporting documents and printed literature is **English**
1.1	Design, Engineering, Manufacture, Supply, Storage, Civil work, Erection, Testing & Commissioning of the Rooftop and Boundary Walls mounted Solar PV projects under RESCO model including Operation and Comprehensive Maintenance (O&M) of 5.0 MWp Solar PV project for a period of 25 years after commissioning of 10 Nos. of Elevated Stations and 2 Nos. of Depots for Pune Metro Rail Project.
	National Competitive Bid (NCB) The number of the Invitation for Bids is: **P1EG-02R/2021**
	The Employer is: **Maharashtra Metro Rail Corporation Limited (Maha-Metro)**
1.4 (Additional Para)	The successful Bidder has to establish its co-ordination **Office at Pune** if it does not have at present. The cost and expenses for setting up the said office(s) will be deemed to have been included in the Bill of Quantities and no separate/extra/additional payment will be made on this account.
1.5 (Additional Para)	**Source of Fund for the project**: The project is to be funded by equity from Government of India (GoI) and Government of Maharashtra (GoM). The name of the Employer is: ***Maharashtra Metro Rail Corporation Ltd.*** Funding for the proposed work: **RESCO Model (To be invested by successful bidder)** Name of the project: ***Pune Metro Rail Project.***
1.6	**Make in India** (1) This bid is essentially an NCB (National Competitive Bid) and only Indian bidder may participate.

	(2) Pursuant to the policy of the Government of India for 'Make in India' and promoting manufacturing and production of goods and services in India, Department for Promotion of Industrial and Internal Trade, Ministry of Commerce and Industry has issued Public Procurement (Preference to Make in India) orders/notifications vide No. P-45021/2/2017-PP (BE-II) dated 16th September 2020 & 8th March 2021 and Ministry of New & Renewable Energy has issued Public Procurement (Preference to Make in India) Order vide No. F. No. 283/22/2019-GRID SOLAR dated 09 Feb 2021 shall be applicable in this tender. Minimum local content shall be as per F. No. 283/22/2019-GRID SOLAR dated 09 Feb 2021 for Class- I local supplier & Class - II local supplier. (3) The Bidder shall be required to provide a certificate from the Statutory Auditor or Cost Auditor or practicing Cost Accountant or practising Chartered Accountant giving the percentage only of minimum local content and this certificate from Statutory Auditor or Cost Auditor or practicing Cost Accountant or practising Chartered Accountant shall be attached with the bid uploaded in technical section of e-tender portal. Only percentage values & details as per above notification/order shall be mentioned in these certificates and no financial values shall be mentioned. The Bidder can also provide a certificate from the Statutory Auditor or Cost Auditor of the company (in case of companies) or from a practicing Cost Accountant or practising Chartered Accountant (in respect of suppliers other than companies) giving the percentage of local content & details as specified in above referred notification/order after the Last Date stipulated for Bid Submission but within 15 days from the Last Date stipulated for Bid Submission (For example, if the Last Date stipulated for Bid Submission is 15.12.2019, the certificate has to be submitted on or before 30.12.2019 during office hours). In case the certificate is not received within the stipulated time and duly signed by the person as above, the offer will be considered non-responsive and rejected; and the financial bid of such bidders shall not be opened. This local content should be greater than or equal to the minimum local content specified in Para (2) above for the bid submission to be a valid offer. Only percentage values & details as per above notification/order shall be mentioned in these certificates and no financial values shall be mentioned. This Certificate shall be submitted physically in hard copy in the office of ED (Procurement & Contracts)/Pune duly marked "Not to be Opened by Anyone except ED (Procurement & Contracts)" at the following address: Executive Director (Procurement & Contracts) MAHARASHTRA METRO RAIL CORPORATION LIMITED, 101, The Orion, Opposite Don Bosco Youth Centre, Koregaon Park, Pune 411001 (INDIA) (4) For sake of clarity, 'Local Content' means the amount of value added in India which shall be the total value of items procured (excluding net

	domestic indirect taxes) minus the value of imported content in the item (including custom duties) as a proportion of the total value, in percent. Margin of Purchase Preference shall be 20% as per Order No. F. No. 283/22/2019-GRID SOLAR dated 09 Feb 2021. Purchase Preference shall not be applicable to 'Class-II local supplier' as per the point no. 3(d) of Appendix of the referred order. The item being procured against this tender is not divisible in nature. (5) The technical offers of the Bidders who do not comply / submit the documents on as per above Para (2) and (3) shall be rejected and considered non-responsive and their financial offers shall not be opened. The minimum local content will further be certified for compliance of indigenous content by successful Bidder and reviewed during the design finalization stage as well as during execution from time to time.
2.1.1 (a)	**For further information & Helpline for on line submission of Bid, bidders are advised to contact on** **Mr. Prashant Jadhav : 8879976221 (For E-Tenders Process)**
(b)	All communications & **clarification shall be addressed to** , the following Employer's address : **Executive Director (Procurement & Contracts)**, MAHARASHTRA METRO RAIL CORPORATION LIMITED, 101, The Orion, Opposite Don Bosco Youth Centre, Koregaon Park, Pune- 411001, Maharashtra, India Electronic mail address: tenders.pmrp@mahametro.org
2.1.2	The Bidder shall, on or before the date and time given in the Notice of Invitation to Tender, upload his Bid on e-tendering portal **https://mahametrorail.etenders.in** in accordance with provisions in NIT. The Bidder shall, on or before the date given in NIT, submit his Bid online and follow the procedure and steps of E-Tender portal of MAHA-METRO. Details have been given in E-Toolkit given in Annexure-II-B **Cost of the bid document**: INR 35,400/- non-refundable (inclusive applicable taxes) paid in the form of remittance through online mode as follows: **Name of Beneficiary: MMRCL PUNE TENDER FEES AND EMD** Account No: 39212708855 IFSC Code: SBIN0000454 UPI ID: ptfemd@sbi **Proof of payment towards 'Cost of Tender Document' shall be attached along with the submission.**

	Bid Securing Declaration as per Format-3 to be submitted by the Bidder along with the Bid. If the Bidder fails to submit the scanned copy of the above documents along with the bid, his bid shall be liable for rejection. **Technical Package:** To be submitted at appropriate place i.e. Technical Envelope on e-tender portal. **Financial Package**: Financial bid form to be duly filled up directly in the Commercial Envelope on e-tender portal and nowhere else. • **Bidder should ensure that the none of the part of Financial Bid should be up loaded in anywhere in the technical envelope, if the bidder does so then his bid will be liable for rejection.**
2.2	Deleted
3.1	Maximum number of members in the JV shall be: **3 (Three)** (a & b) Lead member should not have less than 51% participation and other members shall have minimum 20% participation in the proposed JV / Consortium for this work. The authorized representative from lead member only shall be signatory of the bid.
3.4.1 (a) i)	The bidder or a bidding **JV/Consortium** shall authorized a Representative, with a **Power of Attorney (POA**), who shall have the authority to conduct all business for and on behalf of any and all the partners of the JV/Consortium during the tendering process and, in the event the JV/Consortium is awarded the Contract, during contract execution.
3.4.1 x) d (Additional para)	No Bidder can be a subcontractor while submitting a Bid individually in his own name or as a partner of a JV/Consortium in the same bidding process. A Bidder, if proposed as a subcontractor in any Bid, may be a proposed subcontractor in more than one Bid also, but only in the capacity of Sub-contractor.
3.11	The due date of online submission of tender is **Date: as per NIT** **Time: 16:00 hrs** The due date of opening of Tender is **Date: as per NIT** **Time: 16:30 hrs** The Bidder shall, on or before the date and time given in the Notice inviting Bid or as may have been amended from time to time, upload his Bid on e-tendering portal **https://mahametrorail.etenders.in.** Bidders

	may refer to e-tender procedures (Toolkit for using e-tender portal) at Annexure II-B. The Bidders shall furnish the information strictly as per the formats given in the Bid documents without any ambiguity. Maha-Metro shall not be held responsible if the failure of any Bidder to provide the information in the prescribed formats results in a lack of clarity in the interpretation and consequent disqualification of its Bid. In case of support or help required during online submission or difficulty encountered during online submission, the Bidders may contact the following officials: **(Helpline for online submission of Bid only)** **Prashant Jadhav (Tender Executive): 8879976221**
3.13.6	This Bidding Process is in **single stage two-packet system through e-tender portal of MAHA-METRO** & open to all eligible bidders as per qualification criteria mentioned under **Section-II & Section-IV**. Unless otherwise approved by the Employer, the Bids for this Contract will be considered only from those companies, corporation, partnerships, consortia and joint ventures that pass the Eligibility Criteria under Section II based on submissions with the Bid.
3.13.7 (Additional Para)	The bidders or any member of JV/Consortium must not have been banned or blacklisted by any Central/State government department or public sector, as on the date of Bid submission. The Bidder should submit undertaking to this effect. Simultaneously the bidder or any of its member of JV/Consortium should not be listed in exclusion list of **World Bank.** The Bidder should submit undertaking to this effect.
3.13.8 (Additional Para)	In case, the Bidder is a consortium/JV, a detailed Consortium Agreement between the Members of such Consortium stating clearly their inter-relationship and division of work and obligations among the Members as mentioned in Section-II below should be submitted along with the Bid for proper examination by MAHA-METRO. The format of the Consortium Agreement is provided shall be as per Format-13 provided in Section VI: Formats .
3.13.9 (Additional Para)	Further, a Power of Attorney signed by all the JV/Consortium Members duly supported by their board resolutions or statement of joint decision signed by directors must also accompany the Bid authorizing the Lead Member, inter alia, to submit the Bid on their behalf. The formats of the Power of Attorney as well as the board resolution are provided in Section VII: Formats.
3.15.1	**Performance Bank Guarantee** = INR 54 Lakhs Please refer clause 3.17 of this RFS. Shall be submitted by successful bidder in the Format – 4, Section-VI, post award of the work.

	The Performance Guarantee required in the form of a bank guarantee issued from a Scheduled commercial bank of India (excluding Cooperative Banks) or from a scheduled Foreign Bank having business office in India as defined in Section 2(e) of RBI Act 1934 read with Second Schedule in the types and proportions of currencies in which the Contract Price is payable.
4. (Additional Para)	A Pre-Bid meeting shall take place at the following date, time and place: Date: **As per NIT** Time: **As per NIT** Place: **101, The Orion, Opposite Don Bosco Youth Centre, Koregaon Park, Pune 411001 (INDIA)**
5. (Additional Para)	The Bidder is requested, as far as possible, to submit any questions in writing, to reach the Employer before the date and time specified for Pre-Bid meeting in NIT & ITB. The bidder may send such queries either by post to the address mentioned in the bid document or send by mail to tenders.pmrp@mahametro.org MAHA-METRO shall endeavor to respond to the questions raised or clarifications sought by the Bidders by uploading the same in the form of corrigendum/clarification in the e-tender portal of MAHA-METRO within the time and date specified in the NIT. MAHA-METRO will not respond and reply to each of the bidders separately. MAHA-METRO may also on its own motion, if deemed necessary, issue interpretations and clarifications to all Bidders in the form of Addendum and the same shall be uploaded on e-tender portal of MAHA-METRO. All clarifications and interpretations issued by MAHA-METRO shall be deemed to be part of the Bid Documents. Verbal clarifications and information given by MAHA-METRO or its employees or representatives shall not in any way or manner be binding on MAHA-METRO.
6. (Additional Para)	Minutes of the pre-bid meeting, if applicable, including the text of the questions asked by Bidders, without identifying the source, and the responses given, together with any responses prepared after the meeting, will be uploaded on the E-Tender portal of MAHA-METRO.
C. Preparation of Bids	
7. (Additional Para)	Supporting documents related to Work Experience, Financial & Technical eligibility criteria enclosed with the bid, other than English language should accompany a translated copy by a certified translator in English and will have to be endorsed/attested by Indian embassy or any authorized / recognized agency of **India Embassy**, where the supporting documents is being issued. The contact address & identification of certified translator must be mentioned at the end of the translated copy of the document.

	However, such documents provide by bidders from a country which has signed Hague legislation convention 1961 is not required to be endorse by **Indian embassy.** If it carries confirming **Apostille certificate.** The bidder should provide the relevant contact number and E-mail ID, Contact No. along with the postal address in English, of issue authority / agency of such documents for verification purpose.
8. (Additional Para)	The bid documents shall include all the corrigendum/ addendum/ clarifications provided by the Employer during the course before submission of Bid. Failure of the submission of the same shall consider the bidder to be non-responsive and the bid will not be validated.
9. (Additional Para)	The Bidder shall submit/ upload (through digital signature in e-tender portal of Maha-Metro) in the Technical Package of its Bid the following documents, duly completed, which in the event of acceptance of the Bid, shall form part of the Contract: xiv. Complete bid documents along with addendum/ corrigendum/ clarifications & reply of quires issued online to be down loaded by bidder using DSC of authorized signatory only and entire document to be uploaded by bidder on E-Tender portal of MAHA-METRO through the same digital signature of the Bidder. xv. Physical Sign & seal of bidder on each page of bid documents available online is not required. xvi. Copy of Power of Attorney signing the bid. xvii. Bid Securing Declaration as per Format-3 xviii. Scanned copy of POA of each member in case of JV/ Consortium xix. All relevant formats given in Annexure-IIC: format. Physically signed by authorized signatory/POA of bidders or lead member in case of JV/consortium. xx. Certificate of registration and other statutory documents of formation of bidder's company or JV/ consortium or each member of JV/Consortium (if not appropriate yet) issued by appropriate authority. xxi. Copy of PAN card of bidders. (PAN card of Indian member only of JV/consortium, if JV/consortium consists foreign member). xxii. Copy of all financial documents as directed in Section-II. xxiii. Relevant work experience certificate (in line of Section II & IV: Evaluation and Qualification Criteria) and other qualifications certificates as given in Evaluation of Qualification under Section II xxiv. All Format of Section- VI and other enclosure, certificate stated above off or desired elsewhere in the bid documents shall be physically filled, signed and stamped by authorizes signatory /POA or bidder or POA of lead member of JV/consortium and scanned copies of such enclosures of bid documents should be uploaded of E-tender portal of MAHA-METRO along with the bid document. xxv. The enclosures meant for Technical Package shall be uploaded with Technical Envelope & Financial enclosures (If any) shall be

	uploaded with Commercial Envelope on E-Tender Portal of MAHA-METRO only.
	Note: - The Bidder may be requested by MAHA-METRO in writing to amplify, explain and develop the Contractor's Technical Bid in substantially greater detail during the detailed technical package evaluation period. This can be incorporated into the Contract, only those aspects of the Contractor's Technical Bid that the Employer (at its sole discretion) considers clearly conforming will form part of the Contract.
	Commercial Envelope on E-Tender Portal of MAHA-METRO only.
10. (Additional Para)	**i.** Summary sheet provided in the Commercial Envelope Section of E-Tender portal of MAHA-METRO shall be duly filled up online. **ii.** The Bid Total Price includes Taxes and Duties, Unit Prices of materials of each Items, Royalties also. The price to be quoted shall be the total price of the Bid as elaborated in Section-VIII Price Bid **(Format-B & Format-C)**.
11. (Additional Para)	The Letter of Bid with all Schedules/ Forms shall be completed and signed by a duly authorized and empowered representative of the Bidder. If the Bidder comprises a JV/Consortium the Letter of Bid shall be signed by a duly authorized representative of the **Lead Member**. Signatures on the Letter of Bid shall be witnessed and dated. Copies of relevant powers of attorney shall be attached.
12. (Additional Para)	The bidder shall quote the price online only in the **Commercial Envelope of the e-tender portal** of MAHA-METRO in the summary sheet provided for in the aforesaid commercial envelope as directed.
13.(Additional Para)	The price quoted by bidders deemed to be inclusive of all kinds of duties, taxes, and other levies payable as per prevailing legislations, act of Govt. of India, **till the date of** submission of bid.
14. (Additional Para)	Bidders shall quote for the entire work on a "single responsibility" basis such that the Bid Price covers all Contractor's obligations mentioned in or to be reasonably inferred from the Bid Documents in respect this Contract P1EG-02R/2021 and completion of the whole of Works. This includes all requirements under the Contractor's responsibilities for testing and commissioning of the works executed including integrated testing and commissioning, the acquisition of all permits, approvals and tender licenses, etc.; the operation, maintenance and such other items and services as may be specified in the Bid Documents.
15. (Additional Para)	The Employer may get, from the Government, partial or complete waiver of taxes under GST, royalties, duties, Labour, cess, octroi, and other levies payable to various authorities. The successful Bidder (the Contractor) shall maintain meticulous records of all the taxes and duties paid under GST etc. and provide the same with each running bill. In case the waiver becomes effective, the Contractor will be advised on the process to be followed to obtain the refund from the concerned authority. The Contractor shall arrange for the remit of the refund to the Employer. In case of failure by the Contractor to remit such amounts, the same shall be recovered from amounts due for payment to the Contractor. The Pro forma of undertaking is provided as Format-16.

16. (Additional Para)	With the Bid submission, the Bidder shall submit the Pro forma of undertaking provided in Section VI: Formats stating that registrations under various fiscal and labour laws like GST, Profession Tax, Service Tax, Central Excise, Import Export Code, Maharashtra Labour Welfare Fund, Local Body Tax shall be obtained by the bidders in the event of award of the work. The bidder shall submit its registration No. and documents showing registration with EPF Authority and ESIC.
17.(Additional Para)	DELETED
18. (Additional Para)	DELETED
19 (Additional Para)	The currency of the Bid shall be **Indian National Rupees (INR).** The Exchange rates used for the conversion shall be the published FBIL Reference rate (FBIL Reference rate is available on website https://www.fbil.org.in/) 28 days prior to submission of bid.
20 (Additional Para)	The bid validity period shall be **180 days**.
21 (Additional Para)	The Bidder shall submit with his Bid, a Bid Securing Declaration as per Format-3 and as specified in NIT and Clause 3.16 of Section II.
22 (Additional Para)	The Bid-Securing Declaration must be in the name of all members of the Joint Venture/Consortium that submits the bid as specified in Section-II, Clause No. 3.16.
23 (Additional Para)	***The entire Bid Document available on e-tender portal of MAHA-METRO with all corrigendum and Addendum issued from time to time and requisite enclosures described and directed in bid documents shall be uploaded on the e-tender portal of MAHA-METRO by the authorized representative/ signatory on behalf of the bidder with his digital signature (DSC) or any member of JV/Consortium whose DSC is authorized by all member of JV/Consortium. The bidder who fails to upload as mentioned aforesaid, his bids shall be treated as non-responsive and not considered for evaluation The written confirmation of authorization to sign on behalf of the Bidder shall consist of: i. A written power of attorney authorizing the signatories of the Bid to commit each member of the JV. The power of attorney (ies) shall be substantially in the format provided under Section VI: Bidding Forms of these Bidding Documents. ii. A notarized joint letter of authority of digital signature (DSC) holders who is submitting the bid should be enclosed with the bid.
24 (Additional Para)	i. A firm, who has purchased the Bid Document in his name shall submit the Bid in his own name by using his DSC.

	ii. In case of JV/Consortium the power of attorney holder of lead member is authorized to sign all legal documents and other enclosures. However, the digital signature (DSC) of any member of JV/Consortium may be used for accessing/downloading/uploading & submitting the tender documents. iii. Such digital signature holders who is submitting the bid shall be jointly and appropriately authorized by all JV/Consortium partner & a notarized authority letter should be enclosed with the bid. iv. The facility in the e-tender portal of MAHA-METRO is also available for viewing & downloading the document free of cost.
25 (Additional Para)	The bid opening shall take place at office of: Executive Director (Procurement & Contracts) MAHARASHTRA METRO RAIL CORPORATION LIMITED Pune Metro Rail Project, 101, The Orion, Opposite Don Bosco Youth Centre, Koregaon Park, Pune- 411001 Date: as per NIT Time: as per NIT The bidders have only option to submit their bids electronically, the electronic bid opening procedure shall be as under:- *The Technical Envelope / Packages of Online Submitted Bids shall be opened/ downloaded by the opening committee on due date and time of Bid opening.* No minimum number of bids is required in order to proceed to bid opening. The Bid Securing Declaration will be checked at the time of opening of Bid. Technical Envelope/ Package of those Bidders who have not submitted Bid Securing Declaration shall not be opened. Bid which is accompanied by an unacceptable or conditional Bid Securing Declaration shall be liable for rejection . After evaluation of Technical Bid received electronically via E-Tender portal of MAHA-METRO, the Financial/ Commercial Package/ Envelope of bid of technically successful bidder shall be opened. The date & time of opening of Financial Bid shall be communicated to Technically Successful bidder electronically (E-mail).
26. (Additional Para)	The Employer shall prepare a record of the bid opening that shall include, minimum the name of the Bidder and the presence or absence of a bid securing declaration. The Bidders' representatives who are present shall be requested to sign the record. The omission of a Bidder's signature on the record shall not invalidate the contents and effect of the record.

27. (Additional Para)	After the evaluation of the Technical Proposals in accordance with Section-II, the Employer shall prepare a list of responsive Bidders for opening of their Financial Proposals. A date, time and venue will be electronically notified to all Bidders for opening of Financial Proposals. The opening of Financial Proposals shall be done in presence of respective representatives of responsive Bidders who desire to be present & witness the opening process.
E. Evaluation, and Comparison of Bids	
28. (Additional Para)	The Bid drawings and documentation issued for this work is the property of MAHA-METRO (Employer) and shall be used solely for bidding purpose as general guidance. They shall not be used in part or whole or altered form for any other purpose without the permission in writing of the Employer.
	The bid submitted by the bidder should be unconditional & No deviation /reservation & omission is permitted.
29. (Additional Para)	Bids determined to be substantially responsive will be checked by the Employer for any arithmetic errors. Errors will be corrected by the Employer. If the Bidder does not accept the corrected Bid, its Bid will be rejected and the Bid Securing Declaration be executed.
30. (Additional Para)	Bids will be compared in **Indian National Rupees (INR)** only. The Exchange rates used for the conversion shall be the published FBIL Reference rate (FBIL Reference rate is available on website https://www.fbil.org.in/) 28 days prior to submission of bid.
31. (Additional Para)	**Sub-Contract** Sub–contracting shall be generally limited to **50%** of the awarded price of the work, excluding the cost of design, if any. The terms and conditions of subcontracts and the payments that have to be made to the Subcontractors shall be the sole responsibility of the Contractor. For sub-contracts exceeding INR 1 million, it will be obligatory for the Contractor to obtain a "No-Objection" from the Engineer/ Employer. The credentials of the Sub-contractor and Vendor need approval of employer. The Contractor shall certify that the cumulative value of the subcontracts (**including those up to INR 1 million each**) awarded is within the aforesaid **50%** limit.

32. (Additional Para)	In evaluating the Bids, the Employer will determine for each Bid the evaluated Bid price by adjusting the Bid price as follows: (a) Making any corrections for errors. (b) Making appropriate adjustments for conditions, qualifications, deviations, etc. (c) not applicable (d) Converting the amount resulting from applying (a) and (b) above to a single currency. (e) not applicable (f) no change Price variation clause will not be considered for financial evaluation.

F. Award of Contract

33. (Additional Para)	The prices quoted by bidder must be realistic and workable and MAHA-METRO reserve the right to ask a detail analysis of price quoted by the bidder. If the quoted price does not seems workable or bidder fails to justify its workability, in that circumstance the employer is not bounded to award the work to lowest bidder.
34. (Additional Para)	In case, Successful Bidder is a JV/Consortium, then the Performance Security may be furnished on behalf of the JV/Consortium either by the Lead Member or by all the Members of such JV/Consortium in such proportion as may be agreed between them as per JV/Consortium agreement.
35. (Additional Para)	The "Letter of Acceptance" will be sent in duplicate to the successful Bidder, who will return one copy to the Employer duly acknowledged and signed by the authorized signatory, within one week of receipt of the same by him. The Letter of Acceptance will constitute a part of the Contract.
36. (Additional Para)	The Performance Guarantee required in accordance with Clause No.3.15.1, Annexure-II-A shall be for an amount as specified, in the form of a bank guarantee issued from a Scheduled commercial bank of India (excluding Cooperative Banks) or from a scheduled Foreign Bank having business office in India as defined in Section 2(e) of RBI Act 1934 read with Second Schedule in the types and proportions of currencies in which the Contract Price is payable.
37. (Additional Para)	The Bidder has to furnish other Guarantees, Undertakings, and Warranties, in accordance with the provisions of the Section-VI Format for submitting RFS
38. (Additional Para)	Failure of the successful Bidder to comply with the requirements of PPA Section-VII (PPA) shall constitute sufficient grounds for the annulment of the award and shall lead to execution of the Bid Securing Declaration.

39. (Additional Para)	**Guarantees and Warranties** The Contractor shall submit other all Warranties, Guarantees & Undertakings (as applicable) in accordance with this RFS Document and all its addendums and corrigendum.
40. (Additional Para)	**Insurance** The Bidder has to procure all kinds of insurance pertaining to the project i.e. CAR (All risk cover) & other applicable insurance during O&M.

Annexure- IIB

(Tool Kit for using E-Tender Portal of MAHA-METRO)

E-Tender Toolkit

1. TENDERING PROCEDURE

A) Tender Forms

i. Tender Forms can be purchased from the e-Tendering Portal of MAHA-METRO,

i.e. **https://mahametrorail.etenders.in** after paying Tender Fees via online **mode** as Per the **Tender Schedule.**

ii. Bidder should have valid class II/III digital signature certificates (DSC) obtained from any certifying authorities.

iii. Bidder should install the Java and NxtCrypto service available on the Home Page of Download section URL :- **https://mahametrorail.etenders.in**

B) Pre-requisites to participate in the Tenders processed by MAHA-METRO:

i. Enrolment of Contractors on Electronic Tendering System:

The Contractors interested in participating in the Tenders of MAHA-METRO processed using the Electronic Tendering System shall be required to enroll on the Electronic Tendering System to obtain User ID.

If the information is found to be complete, the enrolment submitted by the Vendor shall be approved automatically.

The Contractors may obtain the necessary information on the process of enrolment either from Helpdesk Support Team or may visit the information published under the link Help manual and tutorials on the Home Page of the Electronic Tendering System.

ii. Obtaining a Digital Certificate:

The Bid Data that is prepared online is required to be encrypted and the hash value of the Bid Data is required to be signed electronically using a Digital Certificate (Class - II or Class -III). This is required to maintain the security of the Bid Data and also to establish the identity of the Contractor transacting on the System.

The Digital Certificates are issued by an approved Certifying Authority authorized by the Controller of Certifying Authorities of Government of India through their Authorized Representatives upon receipt of documents required to obtain a Digital Certificate.

Bid data / information for a particular Tender may be submitted only using the Digital Certificate which is used to encrypt the data / information and sign the hash value during the Tender Submission stage. In case during the process of preparing and submitting a Bid for a particular Tender, the Contractor loses his/her Digital Signature Certificate (i.e. due to virus attack, hardware problem, operating system problem); he / she may not be able to submit the Bid online.

Hence, the Users are advised to store his / her Digital Certificate securely and if possible, keep a backup at safe place under adequate security to be used in case of need.

In case of "online tendering", if the Digital Certificate issued to an Authorized User of a Partnership Firm is used for signing and submitting a bid, it will be considered equivalent to a no objection certificate / power of attorney to that User to submit the bid on behalf of the Partnership Firm. The Partnership Firm has to authorize a specific individual via an authorization certificate signed by a partner of the firm (and in case the applicant is a partner, another partner in the same form is required to authorize) to use the digital certificate as per Indian Information Technology Act, 2000.

Unless the Digital Certificate is revoked, it will be assumed to represent adequate authority of the Authority User to bid on behalf of the Firm for the Tenders processed on the Electronic Tender Management System of Government of Maharashtra as per Indian Information Technology Act, 2000. The Digital Signature of this Authorized User will be binding on the Firm. It shall be the responsibility of Partners of the Firm to inform the Certifying Authority or Sub Certifying Authority, if the Authorized User changes, and apply for a fresh Digital Signature Certificate. The procedure for application of a Digital Signature Certificate will remain the same for the new Authorized User.

The same procedure holds true for the Authorized Users in a Private / Public Limited Company. In this case, the Authorization Certificate will have to be signed by the Director of the Company or the Reporting Authority of the Applicant.

For information on the process of application for obtaining Digital Certificate, the Contractors may visit the section Digital Signature Forms on the Home Page of the Electronic Tendering System.

iii. Recommended Hardware and Internet Connectivity:

To operate on the Electronic Tendering System, the Contractors are recommended to use Computer System with at least 1 GB of RAM and broadband connectivity with minimum 512 kbps bandwidth.

iv. Set up of Computer System for executing the operations on the Electronic Tendering System:

To operate on the Electronic Tendering System of MAHA-METRO, the Computer System of the Contractors is required be set up. The Contractors are required to install Utilities available under the section Downloads on the Home Page of the System.

The Utilities are available for download freely from the above mentioned section. The Contractors are requested to refer to the Help manual and Tutorials available online on the Home Page to understand the process of setting up the System, or alternatively, contact the Helpdesk Support Team on information / guidance on the process of setting up the System.

C) The e-tender portal contains two sections Technical Bid Submission & Financial Bid Submission.

i. Technical Bid Section: - Technical Bid Section shall contain all Documents and enclosures as directed in NIT, ITB and EQC. Bidder shall upload the PDF copy of such documents in Technical Section only.

ii. Financial Bid Section: - All prices/Commercial offers/ or any information pertain to commercial offer required by MAHA-METRO from the bidders, shall be filled/ uploaded (If directed by MAHA-METRO) in Financial bid Section only.

iii. No information pertaining to Financial Bid section should be uploaded/disclosed in Technical Bid Section or vice versa.

D) Steps to be followed by Contractors to participate in the e-Tenders processed by MAHA-METRO.

i. Preparation of online Briefcase:

All Contractors enrolled on the Electronic Tendering System of MAHA-METRO are provided with dedicated briefcase facility to store documents / files in digital format. The Contractors can use the online briefcase to store their scanned copies of frequently used documents/files to be submitted as a part of their bid response. The Contractors are advised to store the relevant documents in the briefcase before starting the Tender Submission stage.

In case, the Contractors have multiple documents under the same type (e.g. multiple Work Completion Certificates) as mentioned above, the Contractors advised to either create a single .pdf file of all the documents of same type or compress the documents in a single compressed file in .zip or .rar formats and upload the same.

Note: Uploading of documents in the briefcase does not mean that the documents are available to MAHA-METRO at the time of Tender Opening stage unless the documents are specifically attached to the Tender during the Tender Submission stage.

ii. **Online viewing of Detailed Notice Inviting Tenders:**

The Contractors can view the entire tender document inter alia including Detailed **Tender Notice (NIT**) along with the Time Schedule (Key Dates) for all the Live Tenders/Bids released by MAHA-METRO and **Eligibility Criteria (EQ)** on the home page of MAHA-METRO e-Tendering Portal on **https://mahametrorail.etenders.in** under the section Online Tenders. Viewing & downloading the tender document is free of cost.

iii. **Download of Bidding Documents:**

After going through the NIT & EQ, if bidder finds himself eligible for the bidding, he may purchase the complete bid document via online mode by paying the cost of Tender Document by Debit Card/Credit Card/Net Banking as described on E-Tender Portal. After paying the cost of the document, bidder may download the complete bid documents. The bidder shall not be able to bid without purchasing the bid document as per the online procedure.

iv. **Online Submission of Bid:**

a. At the stage of Bid submission, the Bid Securing Declaration shall be submitted by the Bidder as per Format-3. Bidders are advised to refer the Instruction to Bidders and Bid Data Sheet of the concerning Bid.

b. Bidder to Bid Securing Declaration in technical section of E-Tender Portal.

c. Bidder shall download the Complete Bid Document along with all Corrigendum/Addendum/Clarification etc. by logging in with E-Tender Portal using his DSC (i.e. DSC of POA/ Owner) & read the all tender Instruction & clauses carefully.

d. For submission of Tender Document and Corrigendum, Tick (√) Submission Process has been enabled in Technical section of E-Tender Portal of MAHA-METRO. Bidders have to tick (√) the corresponding checkbox provided in the Technical Section of E-Tendering portal as a token of acceptance of these bid documents & corrigendum / Addendums. By clicking the tick (√) the bid documents & corrigendum /addendum shall automatically attached to offer of bidder. Further bidder may proceed for submission by clicking submit button.

e. If the bidder has completed the submission process of his bid before due date of submission and in between employer issue a corrigendum, in this circumstance the bidder has to re-submit his bid by "clicking tick (√)" to the new added corrigendum, in case the new corrigendum has any implications to his already submitted bid. Bidder may, at his option, amend his bid accordingly & re-submit it.

f. Physical Sign & seal of bidder on each page of Bid Documents available online is not required.

g. All required enclosures as per bid document shall be uploaded in "Technical Envelope" / "Technical Bid Section" of E-Tender portal by using DSC of bidder.

h. The "Technical Envelope" / "Technical Section" of E-Tender portal has been provided with facilities to upload a file of maximum size of 10 mb only at each entity.

i. If bidder are desirous to upload a file more than 10mb size , he shall spilt the file in two or more parts of 10mb or lesser than 10mb each and can upload the same at appropriate **Technical Template** or **"Additional Document"** section of **"Technical Envelope/Technical Bid section"** of E-Tender Portal.

v. Short listing of Contractors for Financial Bidding Process:

The Tendering Authority will first open the Technical Bid documents of all Contractors and after scrutinizing these documents will shortlist the Contractors who are eligible for Financial Bidding Process. The shortlisted Contractors will be intimated by email.

vi. Opening of the Financial Bids:

The Contractors may remain present in the Office of the Tender Opening Authority at the time of opening of Financial Bids.

vii. Tender Schedule (Dates):

All the online activities are time tracked and the Electronic Tendering System enforces time-locks that ensure that no activity or transaction can take place outside the Start and End Dates and Time of the stage as defined in the Tender Schedule.

At the sole discretion of the Tender Authority, the time schedule of the Tender stages may be extended.

Note: - For details illustrations, please refer or down load the PPT demonstration available on E-Tender portal of https://mahametrorail.etenders.in

Terms and Conditions for Online-Payments

The Terms and Conditions contained herein shall apply to any person ("User") using the services of MAHA-METRO Maharashtra, hereinafter referred to as "Merchant", for making Tender fee payments through an online Payment Gateway Service ("Service") offered by ICICI Bank Ltd. in association with E Tendering Service provider and Payment Gateway Service provider through MAHA-METRO Maharashtra website i.e. **https://mahametrorail.etenders.in** Each User is therefore deemed to have read and accepted these Terms and Conditions.

Privacy Policy:

The Merchant respects and protects the privacy of the individuals that access the information and use the services provided through them. Individually identifiable information about the User is not willfully disclosed to any third party without first receiving the User's permission, as covered in this Privacy Policy.

This Privacy Policy describes Merchant's treatment of personally identifiable information that Merchant collects when the User is on the Merchant's website. The Merchant does not collect any unique information about the User (such as User's name, email address, age, gender etc.) except when you specifically and knowingly provide such information on the Website. Like any business interested in offering the highest quality of service to clients, Merchant may, from time to time, send email to the User and other communication to tell the User about the various services, features, functionality and content offered by Merchant's website or seek voluntary information from The User.

Please be aware, however, that Merchant will release specific personal information about the User if required to do so in the following circumstances:

a) In order to comply with any valid legal process such as a search warrant, statute, or court order, or available at time of opening the tender.

b) if any of User's actions on our website violate the Terms of Service or any of our guidelines for specific services, or

c) to protect or defend Merchant's legal rights or property, the Merchant's site, or the Users of the site or;

d) to investigate, prevent, or take action regarding illegal activities, suspected fraud, situations involving potential threats to the security, integrity of Merchant's website/offerings. General

Terms and Conditions for E-Payment on E-Tender Portal

1. Once a User has accepted these Terms and Conditions, he/ she may register on Merchant's website and avail the Services.
2. Merchant's rights, obligations, undertakings shall be subject to the laws in force in India, as well as any directives/ procedures of Government of India, and nothing contained in these Terms and Conditions shall be in derogation of Merchant's right

to comply with any law enforcement agencies request or requirements relating to any User's use of the website or information provided to or gathered by Merchant with respect to such use. Each User accepts and agrees that the provision of details of his/ her use of the Website to regulators or police or to any other third party in order to resolve disputes or complaints which relate to the Website shall be at the absolute discretion of Merchant.

3. If any part of these Terms and Conditions are determined to be invalid or unenforceable pursuant to applicable law including, but not limited to, the warranty disclaimers and liability limitations set forth herein, then the invalid or unenforceable provision will be deemed superseded by a valid, enforceable provision that most closely matches the intent of the original provision and the remainder of these Terms and Conditions shall continue in effect.
4. These Terms and Conditions constitute the entire agreement between the User and Merchant. These Terms and Conditions supersede all prior or contemporaneous communications and proposals, whether electronic, oral, or written, between the User and Merchant. A printed version of these Terms and Conditions and of any notice given in electronic form shall be admissible in judicial or administrative proceedings based upon or relating to these Terms and Conditions to the same extent and subject to the same conditions as other business documents and records originally generated and maintained in printed form.
5. The entries in the books of Merchant and/or the Payment Gateway Service Providers kept in the ordinary course of business of Merchant and/or the Payment Gateway Service Providers with regard to transactions covered under these Terms and Conditions and matters therein appearing shall be binding on the User and shall be conclusive proof of the genuineness and accuracy of the transaction.
6. Refund for Charge Back Transaction: In the event there is any claim for/ of charge back by the User for any reason whatsoever, such User shall immediately approach Merchant with his/ her claim details and claim refund from Merchant alone. Such refund (if any) shall be affected only by Merchant via payment gateway or by means of a demand draft or such other means as Merchant deems appropriate. No claims for refund/ charge back shall be made by any User to the Payment Gateway Service Provider(s) and in the event such claim is made it shall not be entertained.
7. In these Terms and Conditions, the term "Charge Back" shall mean, approved and settled credit card or net banking purchase transaction(s) which are at any time refused, debited or charged back to merchant account (and shall also include similar debits to Payment Gateway Service Provider's accounts, if any) by the acquiring bank or credit card company for any reason whatsoever, together with the bank fees, penalties and other charges incidental thereto.
8. Refund for fraudulent/duplicate transaction(s): The User shall directly contact Merchant for any fraudulent transaction(s) on account of misuse of Card/ Bank details by a fraudulent individual/party and such issues shall be suitably addressed by Merchant alone in line with their policies and rules.
9. Server Slow Down/Session Timeout: In case the Website or Payment Gateway Service Provider's webpage, that is linked to the Website, is experiencing any server related issues like 'slow down' or 'failure' or 'session timeout', the User shall, before initiating the second payment, check whether his/her Bank Account has been debited or not and accordingly resort to one of the following options:

i. In case the Bank Account appears to be debited, ensure that he/ she does not make the payment twice and immediately thereafter contact Merchant via e-mail or any other mode of contact as provided by Merchant to confirm payment.

ii. In case the Bank Account is not debited, the User may initiate a fresh transaction to make payment.

However, the User agrees that under no circumstances the Payment Gateway Service Provider shall be held responsible for such fraudulent/duplicate transactions and hence no claims should be raised to Payment Gateway Service Provider No communication received by the Payment Gateway Service Provider(s) in this regard shall be entertained by the Payment Gateway Service Provider.

Limitation of Liability of Merchant/ Payment Gateway

1. Merchant has made this Service available to the User as a matter of convenience. Merchant expressly disclaims any claim or liability arising out of the provision of this Service. The User agrees and acknowledges that he/ she shall be solely responsible for his/ her conduct and that Merchant reserves the right to terminate the rights to use of the Service immediately without giving any prior notice thereof.
2. Merchant and/or the Payment Gateway Service Providers shall not be liable for any inaccuracy, error or delay in, or omission of (a) any data, information or message, or (b) the transmission or delivery of any such data, information or message; or (c) any loss or damage arising from or occasioned by any such inaccuracy, error, delay or omission, nonperformance or interruption in any such data, information or message. Under no circumstances shall the Merchant and/or the Payment Gateway Service Providers, its employees, directors, and its third party agents involved in processing, delivering or managing the Services, be liable for any direct, indirect, incidental, special or consequential damages, or any damages whatsoever, including punitive or exemplary arising out of or in any way connected with the provision of or any inadequacy or deficiency in the provision of the Services or resulting from unauthorized access or alteration of transmissions of data or arising from suspension or termination of the Services.
3. The Merchant and the Payment Gateway Service Provider(s) assume no liability whatsoever for any monetary or other damage suffered by the User on account of:

(I) the delay, failure, interruption, or corruption of any data or other information transmitted in connection with use of the Payment Gateway or Services in connection thereto; and/ or

(II) any interruption or errors in the operation of the Payment Gateway.

4. The User shall indemnify and hold harmless the Payment Gateway Service Provider(s) and Merchant and their respective officers, directors, agents, and employees, from any claim or demand, or actions arising out of or in connection with the utilization of the Services.

The User agrees that Merchant or any of its employees will not be held liable by the User for any loss or damages arising from your use of, or reliance upon the information contained on the Website, or any failure to comply with these Terms and Conditions where such failure is due to circumstance beyond Merchant's reasonable control.

Miscellaneous Conditions:

Any waiver of any rights available to Merchant under these Terms and Conditions shall not mean that those rights are automatically waived.

1. The User agrees, understands and confirms that his/ her personal data including without limitation details relating to debit card/ credit card transmitted over the Internet may be susceptible to misuse, hacking, theft and/ or fraud and that Merchant or the Payment Gateway Service Provider(s) have no control over such matters.
2. Although all reasonable care has been taken towards guarding against unauthorized use of any information transmitted by the User, Merchant does not represent or guarantee that the use of the Services provided by/ through it will not result in theft and/or unauthorized use of data over the Internet.
3. The Merchant, the Payment Gateway Service Provider(s) and its affiliates and associates shall not be liable, at any time, for any failure of performance, error, omission, interruption, deletion, defect, delay in operation or transmission, computer virus, communications line failure, theft or destruction or unauthorized access to, alteration of, or use of information contained on the Website.
4. The User may be required to create his/ her own User ID and Password in order to register and/ or use the Services provided by Merchant on the Website. By accepting these Terms and Conditions the User agrees that his/ her User ID and Password are very important pieces of information and it shall be the User's own responsibility to keep them secure and confidential. In furtherance hereof, the User agrees to;
    i. Choose a new password, whenever required for security reasons.
    ii. Keep his/ her User ID & Password strictly confidential.
    iii. Be responsible for any transactions made by User under such User ID and Password.

The User is hereby informed that Merchant will never ask the User for the User's password in an unsolicited phone call or in an unsolicited email. The User is hereby required to sign out of his/ her Merchant account on the Website and close the web browser window when the transaction(s) have been completed. This is to ensure that others cannot access the User's personal information and correspondence when the User happens to share a computer with someone else or is using a computer in a public place like a library or Internet cafe.

Debit/Credit Card, Bank Account Details

1. The User agrees that the debit/credit card details provided by him/ her for use of the aforesaid Service(s) must be correct and accurate and that the User shall not use a debit/ credit card, that is not lawfully owned by him/ her or the use of which is not

authorized by the lawful owner thereof. The User further agrees and undertakes to provide correct and valid debit/credit card details.

2. The User may make his/ her payment (Tender Fees) to Merchant by using a debit/credit card or through online banking account. The User warrants, agrees and confirms that when he/ she initiates a payment transaction and/or issues an online payment instruction and provides his/ her card / bank details:
    i. The User is fully and lawfully entitled to use such credit / debit card, bank account for such transactions;
    ii. The User is responsible to ensure that the card/ bank account details provided by him/ her are accurate;
    iii. The User is authorizing debit of the nominated card/ bank account for the payment of Tender Fees.
    iv. The User is responsible to ensure sufficient credit is available on the nominated card/ bank account at the time of making the payment to permit the payment of the dues payable or the bill(s) selected by the User inclusive of the applicable Fee.

Personal Information

1. The User agrees that, to the extent required or permitted by law, Merchant and/ or the Payment Gateway Service Provider(s) may also collect, use and disclose personal information in connection with security related or law enforcement investigations or in the course of cooperating with authorities or complying with legal requirements.
2. The User agrees that any communication sent by the User vide e-mail, shall imply release of information therein/ therewith to Merchant. The User agrees to be contacted via e-mail on such mails initiated by him/ her.
3. In addition to the information already in the possession of Merchant and/ or the Payment Gateway Service Provider(s), Merchant may have collected similar information from the User in the past. By entering the Website the User consents to the terms of Merchant's information privacy policy and to our continued use of previously collected information. By submitting the User's personal information to us, the User will be treated as having given his/her permission for the processing of the User's personal data as set out herein.
4. The User acknowledges and agrees that his/ her information will be managed in accordance with the laws for the time in force.

Payment Gateway Disclaimer: The Service is provided in order to facilitate payment of Tender Fees online. The Merchant or the Payment Gateway Service Provider(s) do not make any representation of any kind, express or implied, as to the operation of the Payment Gateway other than what is specified in the Website for this purpose. By accepting/ agreeing to these Terms and Conditions, the User expressly agrees that his/ her use of the aforesaid online payment service is entirely at own risk and responsibility of the User.

SECTION - III

CONDITIONS OF CONTRACT

3.16 SCOPE OF WORK

3.16.1 The scope of work for the bidder include detailed survey of sites identified in this tender, Design, Engineering, Manufacture, Supply, Storage, Civil work, Erection, Testing & Commissioning of the Rooftop and Boundary Walls mounted Solar PV projects under RESCO model including Operation and Comprehensive Maintenance (O&M) of 5.0 MWp Solar PV project for a period of 25 years after commissioning of 10 Nos. of Elevated Stations and 2 Nos. of Depots for Pune Metro Rail Project.

3.16.2 **PROJECT COST**

3.16.2.1 The Project cost shall include all the costs related to above Scope of Work. Bidder shall quote for the entire facilities on a "single responsibility" basis such that the total Bid Price (Tariff) covers all the obligations mentioned in the Bidding Documents in respect of Design, Engineering, Manufacture, Supply, Storage, Civil work, Erection, Testing & Commissioning of the Rooftop and Boundary Walls mounted Solar PV projects under RESCO model including Operation and Comprehensive Maintenance (O&M) of 5.0 MWp Solar PV project for a period of 25 years after commissioning of 10 Nos. of Elevated Stations and 2 Nos. of Depots for Pune Metro Rail Project, goods and services including spares required if any during O&M period. The Bidder has to take all permits, approvals and licenses, Insurance etc., provide training to O&M staff and such other items and services required to complete the scope of work mentioned above.

3.16.2.2 Not Used.

3.16.2.3 The project cost (Tariff) shall remain firm and fixed and shall be binding on the Successful Bidder till completion of work irrespective of his actual cost of execution of the project. No escalation will be granted on any reason whatsoever. The bidder shall not be entitled to claim any additional charges, even though it may be necessary to extend the completion period for any reasons whatsoever.

3.16.2.4 The cost (Tariff) shall be inclusive of all duties and taxes, insurance etc. The Tariff quoted by the firm shall be complete in all respect and no price variation/adjustment shall be payable.

The Operation & Maintenance of Solar Photovoltaic Power Plant would include wear & tear, overhauling, regular cleaning, machine breakdown, insurance, and replacement of defective modules, invertors/Power Conditioning Unit (PCU), spares, consumables & other parts for a period of 25 years.

3.22.2.5 Not Used.

3.22.2.6 The Bidder shall complete the Price Bid (Section VIII - Format-B) and Price Bid (Section VIII - Format-C) furnished in the RFS Documents.

3.22.2.7.1 Not Used.

3.23 INSURANCE

3.23.1 The Bidder shall be responsible and take an Insurance Policy for transit-cum-storage-cum-erection for all the materials to cover all risks and liabilities for supply of materials on site basis, storage of materials at site, erection, testing and commissioning. The bidder shall also take appropriate insurance during O&M period. The CAR insurance and applicable insurance during O&M period should cover 100% of the cost.

3.23.2 The Bidder shall also take insurance for Third Party Liability covering loss of human life, engineers and workmen and also covering the risks of damage to the third party/ material/ equipment/ properties during execution of the Contract. Before commencement of the work, the Bidder will ensure that all its employees and representatives are covered by suitable insurance against any damage, loss, injury or death arising out of the execution of the work or in carrying out the Contract.

3.23.3 WARRANTEES AND GUARANTEES

The Bidder shall warrant that the goods supplied under this contract are new, unused, of the most recent or latest technology and incorporate all recent improvements in design and materials.

The bidder shall ensure warrantee covering the rectification of any and all defects in the design of equipment, materials and workmanship including spare parts for a period of minimum 2 years from the date of commissioning or more as considered suitable.

The successful bidder has to transfer all the Guarantees /Warrantees of the different components to the Owner of the project. The responsibility of operation of Warrantee and Guarantee clauses and Claims/ Settlement of issues arising out of said clauses shall be joint responsibility of the Successful bidder and the owner of the project. MAHA-METRO will not be responsible in any way for any claims whatsoever on account of the above.

3.24 TYPE AND QUALITY OF MATERIALS AND WORKMANSHIP

3.24.1 The design, engineering, manufacture, supply, installation, testing and performance of the equipment shall be in accordance with latest appropriate IEC/Indian Standards as detailed in the Section- V (Technical specifications) of the bid document. Where appropriate Indian Standards and Codes are not available, other suitable standards and codes as approved by the MNRE shall be used.

3.24.2 The specifications of the components should meet the technical specifications mentioned in Section V.

3.24.3 Any supplies which have not been specifically mentioned in this Contract but which are necessary for the design, engineering, manufacture, supply & performance or completeness of the project shall be provided by the Bidder without any extra cost and within the time schedule for efficient and smooth operation and maintenance of the SPV plant.

3.25 OPERATION & MAINTENANCE (O&M)

The bidder shall be responsible for operation and maintenance of the Solar PV systems for a period of 25 years for during which MAHA-METRO will monitor the project for effective performance in line with conditions specified elsewhere in the bid document. During this period, the bidder shall be responsible for supply of all spare parts as required from time to time for scheduled and preventive maintenance, major overhauling of the plant, replacement of defective modules, inverters, PCU's, etc and maintaining log sheets for operation detail, deployment of staff for continuous operations and qualified engineer for supervision of O&M work, complaint logging & its attending.

The developer (i.e. selected bidder) is responsible for remedying any damage in the roof at the time of installation of Solar Power System and for the whole O&M period (25 Years). To ensure the damages are rectified/made good a third party inspection jointly with power producer and power purchaser will be conducted annually. The developer should immediately take necessary action to repair any damage to the roofs. Maha-Metro may impose suitable penalty for the delay caused to resolve the issue.

3.26 METERING AND GRID CONNECTIVITY

Metering and grid connectivity of the Solar PV system under this scheme would be the responsibility of the Bidder in accordance with the prevailing guidelines of the MAHA-METRO and/or CEA 2010/EA-2003 (if available by the time of implementation). MAHA-METRO could facilitate connectivity; however the responsibility would lie with bidder.

Initially the project shall be captive in nature, however net metering may be made effective based on the latest policy guidelines of MERC/MSEDCL. Net metering as per statutory conditions to be provided at each receiving sub-station i.e. main metering points of supply from MSEDCL only.

The bidirectional electronic energy meter will be installed for the measurement of import/Export of energy at the three metering points of Maha-Metro. The primary metering connection of the purchaser is already having Net-metering facility in the main metering points of supply of utility. The bidder has

to confirm the same at the metering points of Maha-Metro. All liaison work with MSEDCL or licensee for Net-metering approval and other permissions shall be undertaken by the bidder at the behest of purchaser and shall be in the scope of the developer/bidder. A generation meter at each station & Depots should be installed by the developer. Further, a check meter to be installed by the developer/MSEDCL will be in the scope of the developer/MSEDCL as mutually agreed.

3.27 PLANT PERFORMANCE EVALUATION

The successful bidder shall be required to meet minimum guaranteed generation with acceptable Performance Ratio at the time of commissioning and related Capacity Utilization Factor (CUF) as per the Global Horizontal Irradiance (GHI) levels of the location during the O&M period. Performance Ratio should be shown minimum of 75% at the time of inspection for initial commissioning acceptance. Maintenance of Minimum CUF shall be deemed to have been achieved based on the units generated per KWp installed capacity at any site as per the year wise generation table given in Annexure-C. The bidder should send the periodic plant output details to Maha-Metro for ensuring the CUF. The Performance Ratio will be measured at Inverter output level during peak radiation conditions.

3.27.1 PENALTY ON LOWER PERFORMANCE

The successful bidder shall be responsible for the energy generation of the Solar PV power plant for the whole O&M period of 25 years. If in any year of the term of agreement the energy generation (in terms of units) is found to be less than the value committed by successful bidder through Schedule IV of PPA (calculated on the basis of minimum CUF with acceptable degradation values as in tender), a penalty amount as per formula below will be imposed to successful bidder. If successful bidder is unable to pay the penalty in the stipulated time (i.e. 30 Days), the same will be recovered in accordance with clause 3.17 of this RFS or shall be deducted from the subsequent bills and the balance amount will be paid to the bidder.

Penalty= (committed generation as per Schedule-IV of PPA – Actual generation during the same period) x (difference of average landed cost of electricity from grid per unit at the end of that year applicable to power purchaser and applicable solar power tariff payable to power producer for that year).

Example:

Suppose bidder has committed for a generation of 1,31,400 kWh by a plant of 100 kWp for a particular year. The Average cost of electricity from grid is Rs.

8.00/kWh and solar tariff of that year is Rs. 6.00/kWh as per price bid. The actual energy generated by that plant for that year is 1,31,000. So the energy difference happened to be 400 kWh. Corresponding penalty imposed would be (131400-131000)(8-6) = Rs. 800.00*

So, the Penalty that should be paid to MAHA-METRO for that year by the bidder would be Rs.800.00.

3.28 PROGRESS REPORT

The bidder shall submit the progress report fortnightly (15 days) to MAHA-METRO in Prescribed Performa. MAHA-METRO will have the right to depute its representatives to ascertain the progress of contract at the premises of works of the bidder.

3.29 PROJECT INSPECTION

The project progress will be monitored by MAHA-METRO and the projects will be inspected for quality at any time during commissioning or after the completion of the project either by officer(s) from MAHA-METRO or any authorized agency/ expert.

MAHA-METRO may depute a technical person(s) for inspection, Third party verification, monitoring of system installed to oversee, the implementation as per required standards and also to visit the manufacturers' facilities to check the quality of products as well as to visit the system integrators to assess their technical capabilities as and when required.

Any visit to the facility by MAHA-METRO or its representatives shall not be construed as an endorsement by MAHA-METRO of the operation, maintenance, modification and repair procedures employed by bidder at the facility unless the same is projected in the report.

3.30 Deleted

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3.31 APPLICABLE LAW

The Contract shall be interpreted in accordance with the laws of the Union of India.

3.32 SETTLEMENT OF DISPUTE: -

Please refer Clause 17.7 of Power Purchase Agreement

3.33 FORCE MAJEURE

3.33.1. Notwithstanding the provisions of clauses contained in this RFS document; the MAHA-METRO shall not forfeit (a) Security deposit for delay and (b) termination of contract; if Contractor is unable to fulfill his obligation under this contract due to force majeure conditions.

3.33.2. For purpose of this clause, "Force Majeure" means an event beyond the control of the contractor and not involving the contractor's fault or negligence and not foreseeable, either in its sovereign or contractual capacity. Such events may include but are not restricted to Acts of God, wars or revolutions, fires, floods, epidemics, quarantine restrictions and freight embargoes etc.

Whether a "Force majeure" situation exists or not, shall be decided by MAHA-METRO and its decision shall be final and binding on the contractor and all other concerned.

3.33.3. In the event that the contractor is not able to perform his obligations under this contract on account of force majeure, he will be relieved of his obligations during the force majeure period. In the event that such force majeure extends beyond six months, MAHA-METRO has the right to terminate the contract in which case, the security deposit shall be refunded to him.

3.33.4. If a force majeure situation arises, the contractor shall notify MAHA-METRO in writing promptly, not later than 14 days from the date such situation arises. The contractor shall notify MAHA-METRO not later than 3 days of cessation of force majeure conditions. After examining the cases, MAHA-METRO shall decide and grant suitable additional time for the completion of the work, if required.
As per the relevant law, in event of a disagreement between parties on existence of force majeure event arbitration shall decide.

3.34 LANGUAGE

3.34.1. All documents, drawings, instructions, design data, calculations, operation, maintenance and safety manuals, reports, labels and any other date shall be in English Language. The contract agreement and all correspondence between the MAHA-METRO and the bidder shall be in English language.

3.35 PAYMENT TERMS

Please refer Clause 7 of Power Purchase Agreement.

3.36 OTHER CONDITIONS

3.36.1. The Successful bidder shall not transfer, assign or sublet the work under this contract or any substantial part thereof to any other party without the prior consent of MAHA-METRO in writing.

3.36.2. The Successful bidder or its subcontractors shall not display the photographs of the work and not take advantage through publicity of the work without written permission of MAHA-METRO.

3.36.3. The Successful bidder or its subcontractors shall not make any other use

of any of the documents or information of this contract, except for the purposes of performing the contract.

3.36.4. MAHA-METRO will not be bound by any Power of Attorney granted/ issued by the Successful bidder or its subcontractors or by any change in the composition of the firm made during or subsequent to the execution of the contract. However recognition to such Power of Attorney and change (if any) may be given by MAHA-METRO after obtaining proper legal advice, the cost of which will be chargeable to the Successful bidder concerned.

Note: Consultancy and Labor contracts can be sub contracted, with the approval of MAHA-METRO.

3.36.5. SUCCESSORS AND ASSIGNS

In case the MAHA-METRO or Successful bidder may undergo any merger or amalgamation or a scheme of arrangement or similar re- organization & this contract is assigned to any entity (ies) partly or wholly, the contract shall be binding mutatis mutandis upon the successor entities & shall continue to remain valid with respect to obligation of the successor entities.

3.36.6. SEVERABILITY

It is stated that each paragraph, clause, sub-clause, schedule or annexure of this contract shall be deemed severable & in the event of the unenforceability of any paragraph, clause sub-clause, schedule or the remaining part of the paragraph, clause, sub-clause, schedule annexure & rest of the contract shall continue to be in full force & effect.

3.36.7. COUNTERPARTS

This contract may be executed in one or more counterparts, each of which shall be deemed an original & all of which collectively shall be deemed one of the same instrument.

3.36.8. RIGHTS & REMEDIES UNDER THE CONTRACT ONLY FOR THE PARTIES

This contract is not intended & shall not be construed to confer on any person other than the MAHA-METRO and Successful bidder hereto, any rights and / or remedies herein.

3.36.9. <u>EXEMPTION FOR MSEs</u>

Exemption of Cost of Tender Documents is allowed for registered MSEs as per Public Procurement Policy for Micro and Small Enterprises (MSEs) Order, 2012.

3.36.10. <u>CORRESPONDENCE</u>

Applicant requiring any Techno-Commercial clarification of the bid documents may contact in writing, Fax or by e-mail. Verbal clarifications and

information given by the MAHA-METRO or its employees or its Representatives shall not be in any way entertained.

Annexure-III-A

Corrupt and Fraudulent Practices Policy

The Employer, the Implementing Agency/Employer and the contractors, suppliers or consultants must observe the highest standard of ethics during contract procurement and performance.

By signing the Statement of Integrity (form available as Appendix to Letter of Bid) the contractor, supplier or consultant declares that (i) "*it did not engage in any practice likely to influence the contract award process to the Employer's detriment, and that it did not and will not get involved in any anti-competitive practice*", and that (ii) "*the negotiation, the procurement and the performance of the contract did not and shall not give rise to any act of corruption or fraud*".
Moreover, the Agency/Employer requires including in the Bidding Documents and Agency/Employer-financed contracts a provision requiring that bidders and contractors, suppliers and consultants will permit the Agency/Employer to inspect their accounts and records relating to the procurement and performance of the Agency/Employer-financed contract, and to have them audited by auditors appointed by the Agency/Employer.

The Agency/Employer reserves the right to take any action it deems appropriate to check that these ethics rules are observed and reserves, in particular, the rights to:

a) reject a proposal for a contract award if it is established that during the selection process the bidder that is recommended for the award has been convicted of corruption, directly or by means of an agent, or has engaged in fraud or anti-competitive practices in view of being awarded the Contract;
b) declare misprocurement when it is established that, at any time, the Employer, the contractor, the supplier, the consultant or its representatives have engaged in acts of corruption, fraud or anti-competitive practices during the contract procurement or performance without the Employer having taken appropriate action in due time satisfactory to the Agency/Employer to remedy the situation, including by failing to inform the Agency/Employer at the time they knew of such practices.

The Agency/Employer defines, for the purposes of this provision, the terms set forth below as follows:
(a) Corruption of a public officer means:

- The act of promising, offering or giving to a public officer, directly or indirectly, an undue advantage of any kind for himself or for another person or entity, for such public officer to act or refrain from acting in his official capacity; or

- The act by which a public officer solicits or accepts, directly or indirectly, an undue advantage of any kind for himself or for another person or entity, for such public officer to act or refrain from acting in his official capacity.

(b) A *"public officer"* shall be construed as meaning

- any person who holds a legislative, executive, administrative or judicial mandate (within the State of the Employer) regardless of whether that person was nominated or elected, regardless of the permanent or temporary, paid or unpaid nature of the position and regardless of the hierarchical level the person occupies;

- any other person who performs a public function, including for a State institution or a State-owned company, or who provides a public service;

- any other person defined as a public officer by the national laws of the Employer.

(c) Corruption of a private person means:

- the act of promising, offering or giving to any person other than a public officer, directly or indirectly, an undue advantage of any kind for himself or for another person or entity, for such person to perform or refrain from performing any act in breach of its legal, contractual or professional obligations; or

- The act by which any person other than a public officer solicits or accepts, directly or indirectly, an undue advantage of any kind for himself or for another person or entity, for such person to perform or refrain from performing any act in breach of its legal, contractual or professional obligations.

(d) Fraud means any dishonest conduct (act or omission), whether or not it constitutes a criminal offence, deliberately intended to deceive others, to intentionally conceal items, to violate or vitiate consent, to circumvent legal or regulatory requirements and/or to violate internal rules in order to obtain illegitimate profit.

(e) Anti-competitive practices means:
- any concerted or implied practices which have as their object or effect the prevention, restriction or distortion of competition within a marketplace, especially where they (i) limit access to the marketplace or free exercise of competition by other undertakings, (ii) prevent free, competition-driven price determination by artificially causing price increases or decreases, (iii) restrict or control production, markets, investments or technical progress; or (iv) divide up market shares or sources of supply.
- any abuse by one undertaking or a group of undertakings which hold a dominant position on an internal market or on a substantial part of it.
- any practice whereby prices are quoted or set unreasonably low, the object of which is to eliminate an undertaking or any of its products from a market or to prevent it from entering the market.

SECTION-IV

4. EVALUATION CRITERIA

(i) BID EVALUATION

i.1. BID EVALUATION

The evaluation process comprises the following four steps:

Step I	Responsiveness check of Techno Commercial Bid
Step II	Evaluation of Bidder's fulfillment of Eligibility Criteria as per Clause 3.4 of Section-II
Step III	Evaluation of Price Bid
Step IV	Successful Bidders(s) selection

i.2. RESPONSIVENESS CHECK OF TECHNO COMMERCIAL BID

The Techno Commercial Bid submitted by Bidders shall be scrutinized to establish responsiveness to the requirements laid down in the RFS subject to Clause 3.4.1, Clause 3.4.2, and Clause 3.4.3. Any of the following may cause the bid to be considered "**Non-responsive**", at the sole discretion of MAHA-METRO.

i. Bids that are incomplete, i.e. not accompanied by any of the applicable formats inter alia covering letter, power of attorney supported by a board resolution, applicable undertakings, format for disclosure, valid Bid Securing Declaration, etc.;
ii. Bid not signed by authorized signatory and /or stamped in the manner indicated in this RFS;
iii. Material inconsistencies in the information/documents submitted by the Bidder, affecting the Eligibility Criteria;
iv. Information not submitted in the formats specified in this RFS;
v. Bid being conditional in nature;
vi. Bid not received by the Bid Deadline;
vii. Bid having Conflict of Interest;
viii. More than one Member of a Bidding Company using the credentials of the same Parent Company /Affiliate;
ix. Bidder delaying in submission of additional information or clarifications sought by MAHA-METRO as applicable;
x. Bidder makes any misrepresentation.
xi. Bidder does not comply with the order of the Ministry of Housing and Urban Affairs (MoHUA), GoI Order F. No. K-14011/10/2020-UT-V dated 14th August 2020 (F.No.6/18/2019-PPD dated 23rd July 2020 issued by the Ministry of Finance, Department of Expenditure, Public Procurement Division) and the latest amendments. Copy attached as Annexure-D.

Each Bid shall be checked for compliance with the submission requirements set forth in this RFS before the evaluation of Bidder's fulfillment of Eligibility

Criteria is taken up. Clause 3.4 shall be used to check whether each Bidder meets the stipulated requirement. In case of any non-conformity, the tender shall be disqualified and rejected.

5. PRELIMINARY EXAMINATION

5.1 Tenders determined to be technically acceptable after technical evaluation will be checked by the Employer for any arithmetical errors in computation and summation during financial evaluation. Errors will be corrected by the Employer as follows:

a. Where there is a discrepancy between amounts in figures and in words, the amount in words will govern; and

b. Where there is a discrepancy between the unit price and the total amount derived from the multiplication of the unit price and the quantity, the unit price as quoted will normally govern unless in the opinion of the Employer there is an obviously gross misplacement of the decimal point in the unit price, in which event, the total amount as quoted will govern.

5.2 If a Tenderer does not accept the correction of errors as outlined above, his tender will be rejected and the bid securing declaration executed.

6. EVALUATION OF BIDDER'S FULFILMENT OF ELIGIBILITY CRITERIA

6.1 EVALUATION OF ELIGIBILTY:

a. Evaluation of Bidder's Eligibility will be carried out based on the information furnished by the Bidder as per the prescribed Formats and related documentary evidence in support of meeting the Eligibility Criteria as specified in Clause 3.4. Non-availability of information and related documentary evidence for the satisfaction of Eligibility Criteria may cause the Bid to be non-responsive.

b. Tenders not considered substantially responsive and not full-filling the requirements of the tender document as evaluated as per item clause 4 and clause 5 shall be rejected by Employer and shall not be allowed subsequently to be made responsive by correction or withdrawal of the nonconforming deviation or reservation.

c. If any tender is rejected, pursuant to paragraph (b) above, the Financial Package of such tenderer shall not be opened.

d. The decision of the Employer as to which of the tenders are not substantially responsive shall be final.

6.2 EVALUATION OF PRICE BID

a. All technically qualified bidders will be eligible for opening of their financial proposals. The Employer shall notify all technically qualified Bidders to attend the opening of the financial proposals. The financial bids will then be opened in front of representatives of the Bidders.

b. The financial bids of the bidders shall be opened one at a time, reading out: the name of the Tenderer and whether there is a modification; the Tender Price(s), including any discounts and any other details as the Employer may consider appropriate.

Only Financial Package discounts read out and recorded during the opening of Price Bids shall be considered for evaluation.

c. The Tenderers' representatives who are present shall be requested to sign the attendance sheet. The omission of a Tenderer's signature on the record shall not invalidate the contents and effect of the record.

d. The evaluation of Financial proposals by the Employer will take into account, in addition to the tender amounts, the following factors:
   i) Arithmetical errors corrected by the Employer
   ii) Such other factors of administrative nature as the Employer may consider to have potentially significant impact on contract execution, price and payments, including the effect of items or unit rates that are unbalanced or unrealistically priced.

e. Offers, deviations and other factors, which are in excess of the requirements of the tender documents or otherwise will result in the accrual of unsolicited benefits to the Employer, shall not be taken into account in tender evaluation.

f. Price adjustment provisions applicable during the period of execution of the contract shall not be taken into account in tender evaluation.

g. Evaluation of financial offer will be based on rates quoted.

6.2.1 Not Used.

6.2.2 RESCO MODEL

a. The Price bids (of Tariff) shall be evaluated separately.

6.3 SUCCESSFUL BIDDER(S) SELECTION

6.3.1 Bids qualifying in Clause 3.4 shall only be evaluated in this stage.

6.3.2 The Project Cost requirement quoted in all Price Bids of Qualified Bidders shall be used for subsidy as per tender clause 6.8 & 14.1.

6.3.3 The maximum allowable fixed tariff quoted by the bidder in FORMAT-C shall be used for evaluation applicable for 25 years. The bidder offering lowest tariff will be awarded the contract.

6.3.4 Not Used

6.3.5 For Part B

6.3.5.1 Based on the price bid quoted by the bidders, MAHA-METRO shall arrange the bids in the ascending order i.e. L1, L2, L3 , _ _ price) . _ (L1 being the lowest evaluated)

Evaluated price = Effective Tariff as evaluated in Financial BID Format-C.

6.3.5.2 The bidder shall quote Tariff (Rs. /kWh) in –Financial BID for applicable 25 years.

6.3.5.3 Not Used

6.3.5.4 Not Used

6.3.5.5 The evaluation will be done considering the Tariff quoted by the bidder (deemed with all admissible subsidy/ies based on project cost as per tender conditions clause 6.8. & 14.1.)

6.3.5.6 Not Used

6.3.5.7 Not Used.

6.3.5.8 Not Used.

6.3.6 The Letter of Acceptance (LOA) shall be issued to such successful Bidder selected as per the provisions of this Clause 6.3.1, 6.3.2, 6.3.3 & Clause 6.3.5.

6.3.7 Successful Bidder shall unconditionally accept the LOA, and record on one (1) copy of the LOA, "Accepted Unconditionally", under the signature of the authorized signatory of the Successful Bidder and return such copy to the MAHA-METRO within one week of issue of LOA.

6.3.8 If the Successful Bidder, to whom the Letter of Acceptance has been issued, does not fulfil any of the conditions specified in Bid document, MAHA-METRO reserves the right to annul/cancel the award of the Letter of Acceptance of such Successful Bidder and execute the Bid Securing Declaration or forfeit the Performance Security.

6.3.9 The MAHA-METRO at its own discretion, has the right to reject any or all the Bids without assigning any reason whatsoever, at its sole discretion.

6.3.10 There shall be no negotiation on the quoted Project cost or Subsidy requirement between the MAHA-METRO and the Bidder(s), during the process of evaluation.

6.4 INCREASE/DECREASE OF BIDDER ALLOCATED CAPACITY

6.4.1 MAHA-METRO reserves the right to increase/decrease the Bidder Allocated Capacity by up to twenty five percent (25%) for each station/site or any other site at the sole discretion of MAHA-METRO.

6.4.2 Not Used.

6.4.3 In case capacity is enhanced by MAHA-METRO as per Clause 6.4.1 above, successful bidder shall submit PBG of an amount specified by MAHA-METRO in the Sanction Letter within 30 days from the date of issue of allocation letter /sanction letter.

6.5 Not Used.

6.6 NOTIFICATION TO SUCCESSFUL BIDDERS

Prior to the expiry of the period of tender validity prescribed by the Employer, the Employer will notify the successful Tenderer that his tender has been accepted. This letter (hereinafter and in the Conditions of Contract called 'the Letter of Acceptance') shall specify the Tariff at which the Employer will pay for the purchase of power from the Contractor in consideration of the execution, completion, maintenance and guarantee of the works by the Contractor as prescribed by the Contract (hereinafter and in the conditions of Contract called 'the Contract Price').

The "Letter of Acceptance" will be issued under signature of the authorised signatory of MAHA-METRO. The "Letter of acceptance" will be sent in duplicate to the successful Tenderer, who will return one copy to the Employer duly acknowledged and signed by the authorized signatory, within one week of receipt of the same by him. No correspondence will be entertained by the Employer from the unsuccessful Tenderers.

6.6.1 The Letter of Acceptance will constitute a part of the contract.

6.6.2 Deleted

6.7 PROJECT ALLOCATION AND SANCTION

6.7.1 The Bidders, in their own interest are advised to make a preliminary survey of the sites specified in this tender as well as issue of Grid connectivity, and ensure that the sites and facilities are in line with the requirements. Non-completion of other formalities due to Bidder's default after allocation of project will result in forfeiture of PBG amount and execution of Bid Securing Delaration submitted by them.

6.7.2 The Successful Bidders selected as per Clause 6.3 above shall be issued Letter of Acceptance (LOA) indicating the allocated capacity & Project Cost.

6.7.3 The time for submission of project sanction documents by the bidder to MAHA-METRO will be 60 days from the date of issue of LOA which can be extended depending upon the merit of the case. Failure of non-compliance of same shall lead to forfeiture of PBG, in such case the allocated capacity gets cancelled and bidder including its affiliates/GROUP COMPANIES/ Parent / Ultimate parent company may be debarred to participate in MAHA-METRO future tenders for a period as decided by the competent authority of MAHA-METRO.

6.7.3.1 Not Used

6.7.3.2 Not Used.

6.7.4 Not Used.

6.7.5 Not Used.

6.7.6 Not Used.

6.7.7 After the Project Sanctioned Document have been submitted by the Successful Bidder/ Project Developer and accepted by MAHA-METRO", MAHA-METRO will issue the Sanction Letter(s) for the Project (s) in line with the provisions of the RFS document. The Bidder shall complete the design, engineering, manufacture, supply, storage, civil work, erection, testing & commissioning of the project within the specified period from the date of LOA.

6.7.8 If the Bidder fails to commission the sanctioned project within specified time, Liquidated damages (LD) on per day basis calculated for the Performance Security upto period of 9 month's period would be levied. After nine (09) months, the project will be liable for cancellation and the total Performance Security would be forfeited.

6.8. SUBSIDY DISBURSEMENT

6.8.1. The Bidder would be solely responsible to meet any eligibility criteria, for availing subsidy/Incentives if any, applicable for the Bidder and shall follow the guidelines issued by MNRE/SECI available from time to time.

6.8.2. The tariff quoted by the bidder should be inclusive of the subsidy/incentive, if any. The bidder should follow the guidelines available from MNRE/SECI for availing the subsidy/incentives. MAHA-METRO may facilitate the successful bidder for availing the same.

Note: Any subsidy or promotional schemes of any government agency/ ministry declared prospective to Bid submission date shall not be claimed by bidders against this work.

6.8.3 In case the subsidy/Incentive (if any) is availed by the Employer the same will be disbursed as follows:

a) Subsidy/Incentive equivalent to 50% of the total subsidy/incentive will be released after Commissioning and acceptance of project.

b) Subsidy/Incentive equivalent to 25% of total subsidy/incentive will be released at the end of 1 year of O&M period from date of commissioning.

c) Remaining subsidy/ incentive equivalent to 25% of the total subsidy/incentive amount will be released at the end of 2 years of O&M period from date of commissioning.

If any extra facilities are agreed between the Successful Bidder and the Maha-Metro beyond the scope of award letter then extra payment shall be made on mutually decided (Maha-Metro & Successful Bidder) terms and conditions.

6.8.4 Deleted

6.8.5 In case the Successful Bidder/ Project Developer is not the Owner of the Project, subsidy shall be released to Successful Bidder/ Project Developer after written consent of Owner only.

7. OTHER CONDITIONS

7.1. Bidder has to obtain all the necessary approvals/Consent/Clearances required for Erection, Testing, Commissioning and O&M of the project including Grid connectivity. MAHA-METRO shall assist in this regard.

7.2. TAX EXEMPTIONS

Price bids are invited inclusive of applicable Taxes, duties, Cess, royalties, octroi, and other levies payable as per GST, custom Tariff act etc. However, Tax exemptions including certificates of any sort, if available may be dealt with the concerned Dep't of Govt. of India/Govt. of Maharashtra by the bidder. MAHA-METRO in no case will be responsible for providing any tax exemptions to the bidder.

7.3. Eligibility of standalone system:

7.3.1 Standalone system is not allowed under this scheme. The system should be grid interactive.

7.4. Requirement of approvals on makes of the Components:

7.4.1 The modules should be manufactured in India only for availing subsidy/incentive as per clause 14.1.1. Developer to refer MNRE order No. 283/22/2019-Grid Solar dated 09.02.2021 or its latest amendment for purchase preference in Solar Modules. Rest of the components can be procured from any source. However, the credentials of proposed vendor/make shall require prior approval of the Employer/Engineer. Further, the bidder/developer should confirm itself for eligibility for subsidy/incentive as per various guidelines issued by MNRE/SECI for procurement of modules and other system components for availing subsidy/incentive. However, these items should meet the Technical specification and standards mentioned in RFS.

7.5. OPERATION OF THE SYSTEM DURING GRID FAILURE AND CALCULATION OF CUF

11.1 During grid failure, the SPV system stops generating. Any instances of grid failure need to be mentioned in the monthly report and those instances need to be authorized by MAHA-METRO. Then the period will be excluded in calculation of minimum generation requirement on pro rata basis.

11.2 Not Used.

8. LIQUIDATED DAMAGES (LD) FOR DELAY IN PROJECT IMPLEMENTATION

8.1. MAHA-METRO will issue the sanction letter(s) for the Project (s) indicating the subsidy/incentive amount(s) which will be disbursed in line with the provisions of the RFS document. The Bidder shall complete the design, engineering, manufacture, supply, storage, civil work, erection, testing & commissioning of the project within 1.5 Years from the date of issue of sanction letter.

If the bidder fails to commission the sanctioned project within specified time, Liquidated Damages (LD) on per day basis calculated for the Performance Security on a 3 months period would be levied. After 3 months the contract will get cancelled and the total PBG amount would be forfeited.

Ex: (The max timeline for COD with LD clause is 12+3 months)

If project is delayed by 36 days then the Liquidated Damages (LD) will be levied as given below.

Liquidated Damages (LD) = [(Performance Security)/364 days] *delayed days.

Note: Here the 364 days period shall be reckoned as per 12.1 above

9. TIME OF COMPLETION OF SANCTIONED CAPACITY

9.1 MAHA-METRO will issue the sanction letter(s) for the Project (s) in line with the provisions of the RFS document. The Bidder shall complete the design, engineering, manufacture, supply, storage, civil work, erection, testing & commissioning of sanctioned project(s) 1.5 Years from the date of issue of LOA/Sanction Letter or availability of site whichever is later. In case of delay beyond scheduled commissioning period, the bidder shall be liable for Liquidated Damages (LD) as per Clause 12.

9.1.1. The period of construction given in Time Schedule includes the time required for mobilization as well as testing, rectifications if any, retesting and completion in all respects to the entire satisfaction of the Engineer-in-Charge.

9.1.2. A joint programme of execution of the Work will be prepared by the Engineer-in-Charge or its representative nominated for the purpose and Successful bidders based on priority requirement of this project. This programme will take into account the time of completion mentioned in clause 9.1 above and the time allowed for the priority Works by the Engineer-in-Charge.

9.1.3. Monthly/Weekly implementation programme will be drawn up by the Engineer-in-

Charge jointly with the Successful bidder, based on availability of Work fronts as per Clause 9.1.2 above. Successful bidder shall scrupulously adhere to these targets /programmes by deploying adequate personnel, tools and tackles and he shall also supply himself all materials of his scope of supply in good time to achieve the targets/ programmes. In all matters concerning the extent of targets set out in the weekly and monthly programmes and the degree of achievements, the decision of the Engineer- in-Charge will be final and binding.

10. THE PROJECT PROGRESS ON BI-WEEKLY BASIS

Successful bidder authorized representative in whose name Power of Attorney (POA) has been executed and submitted along with the bid shall submit to MAHA-METRO the project progress report on biweekly basis (Every fifteen (15) days), non-submission of the progress report shall be considered as no progress and shall attract punitive actions as per the relevant provision of the Contract. However, the decision of Engineer in – charge shall be final in this regard.

11. INSPECTION AND AUDIT BY THE MAHA-METRO

11.1 The Successful bidder shall permit the MAHA-METRO/MAHA-METRO authorized agency to inspect the Successful bidder's site, accounts and records relating to the performance of the Contractor and to have them audited by auditors appointed by the MAHA-METRO, if so required by the MAHA-METRO any time.

12. COMMISSIONING /COMPLETION CERTIFICATE

12.1 Application for completion/commissioning certificate:

When the Successful bidder fulfils his obligation under the Contract, he shall be eligible to apply for Completion Certificate. The Engineer-in-Charge shall normally issue to the Successful bidder the Completion Certificate within one month after receiving any application from the Successful bidder after verifying from the completion documents and satisfying himself that the Work has been completed and commissioned in accordance with and as set out in Contract documents. The Successful bidder, after obtaining the Completion Certificate, is eligible to avail the subsidy as per the Clause 6.8.

12.1.1 DOCUMENT SUBMISSION FOR ISSUE OF COMMISSINONING/COMPLETION CERTIFICATE

For the purpose of Clause 12.1 above the following documents will be deemed to form the completion documents:

1. Checklist for inspection of Roof top SPV power plants as per MAHA-METRO format.
2. Project completion report from successful bidder as per MAHA-METRO format.
3. Format attached in Section-VI Format-11.

12.1.2 FINAL DECISION AND FINAL CERTIFICATE

Upon completion of 2 years of satisfactory generation and O&M for each commissioned site and subject to the Engineer-in-Charge being satisfied, the Engineer-in-Charge shall (without prejudice to the rights of the MAHA-METRO to retain the provisions of relevant Clause hereof) otherwise give a certificate herein referred to as the Final Certificate to that effect and the Successful bidder shall not be considered to have

fulfilled the whole of his obligations under Contract until Final Certificate shall have been given by the Engineer-in-Charge notwithstanding any previous entry upon the Work and taking possession, working or using of the same or any part thereof by the MAHA-METRO.

12.2 DEDUCTIONS

12.2.1 All costs, damages or expenses which MAHA-METRO may have paid or may have incurred and for which otherwise the Successful bidder was liable, under the provisions of the Contract, will be claimed by MAHA-METRO. All such claims shall be billed by the MAHA-METRO to the and if not paid by the Successful bidder within 15 days of the request of payment, MAHA-METRO may then deduct the amount from any due bill etc i.e., Performance Security or becoming due to the contractor or Successful bidder under the contract or may be recovered by actions of law or otherwise.

12.3 CORRUPT OR FRAUDULENT PRACTICES

The MAHA-METRO requires that Successful Bidders/ Contractors should follow the highest standard of ethics during the execution of contract. In pursuance of this policy, the MAHA-METRO -

12.3.1 Defines, for the purposes of this provision, the terms set forth as follows:

12.3.2 **"Corrupt Practice"** means the offering, giving, receiving or soliciting of anything of value to influence the action of a public official in the bid process or in contract execution and

12.3.3 **"Fraudulent Practice"** means a misrepresentation of facts in order to influence a bid process or the execution of a contract to the detriment of the MAHA-METRO/Govt. scheme, and includes collusive practice among Bidders (prior to or after Bid submission) designed to establish Bid prices at artificial non- competitive levels and to deprive the MAHA-METRO of the benefits of free and open competition.

12.3.4 Will declare a firm ineligible / debarred, either indefinitely or for a specific period of time, a Govt. contract if at any time it is found that the firm has engaged in corrupt or fraudulent practices in competing for, or in executing, a Government/ MAHA-METRO schemes.

13.0 DEBARRED FROM PARTICIPATING IN MAHA-METRO'S SOLAR POWER TENDER

13.1 MAHA-METRO reserves the right to carry out the performance review of each Bidder from the time of submission of Bid onwards. In case it is observed that a bidder has not fulfilled its obligations in meeting the various timelines envisaged, in addition to the other provisions of the RFS, such Bidders may be debarred from participating in MAHA-METRO's any future tender for a period as decided by the competent authority of MAHA-METRO.

13.2 Deleted.

SECTION- V

TECHNICAL SPECIFICATIONS

The proposed projects shall be commissioned as per the technical specifications given below. Any shortcomings will lead to cancelation of t h e project/ (subsidy/incentive) in full or part as decided by MAHA-METRO & Competent Authority's decision will be final and binding on the bidder. (Bidder should make eligible himself regarding the system component use for availing the incentive /subsidy as per concerned guidelines of MNRE/SECI).

14.0 DEFINITION

A Grid Tied Solar Rooftop Photo Voltaic (SPV) power plant consists of SPV array, Module Mounting Structure, Power Conditioning Unit (PCU) consisting of Maximum Power Point Tracker (MPPT), Inverter, and Controls & Protections, interconnect cables and switches. PV Array is mounted on a suitable structure. Grid tied SPV system is without battery and should be designed with necessary features to supplement the grid power during day time. Components and parts used in the SPV power plants including the PV modules, metallic structures, cables, junction box, switches, PCUs etc., should conform to the BIS or IEC or international specifications, as specified herein or otherwise wherever such specifications are available and applicable.

Solar PV system shall consist of following equipment / components.

- Solar PV modules consisting of required number of crystalline PV cells
- Grid interactive Power Conditioning Unit with Remote Monitoring System
- Mounting structures
- Junction Boxes.
- Earthing and lightening protections
- IR/UV protected PVC Cables, pipes & accessories

14.1 SOLAR PHOTOVOLTAIC MODULES

14.1.1. The PV modules used should be PID (Potential Induced Degradation) resistant and tested for PID as per IEC 62804.

- The PV modules used should be made in India for availing subsidy as per clause 6.8.
- The PV modules of foreign make can be used, but in such case the developer will not be eligible for subsidy provided as per clause 6.8.

- Irrespective of the fact whether the subsidy is availed or not the developer must satisfy the Plant Performance as per the clause 3.27.
- Solar PV offset boxes must be used to mitigate effect of PID on Solar PV modules.

14.1.2. The PV modules used must qualify to the latest edition of IEC PV module qualification test or equivalent BIS standards Crystalline Silicon Solar Cell Modules IEC 61215/IS14286. In addition, the modules must conform to IEC 61730 Part-1 requirements for construction & Part 2 – requirements for testing, for safety qualification or equivalent IS.

a. For the PV modules to be used in a highly corrosive atmosphere throughout their lifetime, they must qualify to IEC 61701

b. The total solar PV array capacity should not be less than allocated capacity (kWp) and should comprise of solar crystalline modules of minimum 320 Wp and above wattage. Module capacity less than minimum 320 watts shall not be accepted.

c. Protective devices against surges at the PV module shall be provided. Low voltage drop bypass diodes shall be provided.

d. PV modules must be tested and approved by one of the IEC authorized test centres.

e. The module frame shall be made of corrosion resistant materials, preferably having anodized aluminium.

f. The bidder shall carefully design & accommodate requisite numbers of the modules to achieve the rated power in his bid. MAHA-METRO shall allow only minor changes at the time of execution.

g. Other general requirement for the PV modules and subsystems shall be the Following:

   i. The rated output power of any supplied module shall have tolerance of ± 3%.

   ii. The peak-power point voltage and the peak-power point current of any supplied module and/or any module string (series connected modules) shall not vary by more than 2 (two) per cent from the respective arithmetic means for all modules and/or for all module strings, as the case may be.

   iii. The module shall be provided with a junction box with either provision of external screw terminal connection or sealed type and with arrangement for provision of by-pass diode. The box shall have hinged, weather proof lid with captive screws and cable gland entry points or may be of sealed type and IP-65 rated.

   iv. I-V (Current–Voltage) curves at STC (standard test conditions) should be provided by bidder.

14.1.3. Modules deployed must use a RF (Radio frequency) identification tag. The following information must be mentioned in the RFID used on each module (This can be inside or outside the laminate, but must be able to withstand harsh environmental conditions).

a) Name of the manufacturer of the PV module

b) Name of the manufacturer of Solar Cells.

c) Month & year of the manufacture (separate for solar cells and modules)

d) Country of origin (separately for solar cells and module)

e) I-V curve for the module at STC (1000 w/m2, AM 1.5, 25^0C), I_{max}, V_{max} and FF (Fill Factor) for the module

f) Unique Serial No and Model No of the module

g) Date and year of obtaining IEC PV module qualification certificate.

h) Name of the test lab issuing IEC certificate.

i) Other relevant information on traceability of solar cells and module as per ISO 9001 and ISO 14001

j) Site owners would be required to maintain accessibility to the list of Module IDs along with the above parametric data for each module.

14.1.4. Warranties

a) Material Warranty

i. Material Warranty is defined as: The manufacturer should warrant the Solar Module(s) to be free from the defects and/or failures specified below for a period not less than five (05) years from the date of sale to the original customer ("Customer")

ii. Defects and/or failures due to manufacturing,

iii. Defects and/or failures due to quality of materials,

iv. Non conformity to specifications due to faulty manufacturing and/or inspection processes. If the solar Module(s) fails to conform to this warranty, the manufacturer will repair or replace the solar module(s), at the Owners sole option,

b) Performance Warranty

The predicted electrical degradation of power generated not exceeding 20% of the minimum rated power over the 25 year period and not more than 10% for first ten years period of the full rated original output.

15.0 ARRAY STRUCTURE

a) Hot dip galvanized MS mounting structures may be used for mounting the modules/ panels/arrays. Each structure should have angle of inclination as per the site conditions to take maximum irradiation and same have to be derived from analysis of past years solar irradiation data /shadow analysis. However to accommodate more capacity the angle inclination may be reduced until the plant meets the specified performance ratio requirements.

b) The Mounting structure shall be so designed to withstand the speed for the wind zone of the location where a PV system is proposed to be installed. It may be ensured that the design has been certified by a recognized Lab/ Institution in this regard and submit wind loading calculation sheet to MAHA-METRO. Suitable fastening arrangement such as grouting and clamping should be provided to secure the installation against the specific wind speed.

c) The mounting structure steel shall be as per latest IS 2062: 1992 and Galvanization of the mounting structure shall be in compliance of latest IS 4759.

d) Structural material shall be corrosion resistant and electrolytically compatible with the materials used in the module frame, its fasteners, nuts and bolts. Aluminium structures also can be used which can withstand the wind speed of respective wind zone (if applicable). Necessary protection towards rusting need to be provided either by coating or iodization.

e) The fasteners used should be made up of stainless steel. The structures shall be designed to allow easy replacement of any module. The array structure shall be so designed that it will occupy minimum space without sacrificing the output from the SPV panels. Installation of solar structure should not damage the roof in any way. If any concrete or foundation is required, it should be pre- cast type.

f) Regarding civil structures the bidder need to take care of the load bearing capacity of the roof and need arrange suitable structures based on the quality of roof.

g) The total load of the structure (when installed with PV modules) on the terrace should be less than 60 kg/m^2.

h) The minimum clearance of the structure from the roof level should be 300 mm.

i) For Safety:-

1. Safety ropes shall be provided on shed type structures.
2. Life Line
3. Ladder: where access to solar module is not available, the Aluminium ladder shall be provided by the Developer.
4. Anti-fall edge protection.
5. Walkway

16.0 JUNCTION BOXES (JBs)

a) The junction boxes are to be provided in the PV array for termination of connecting cables. The Junction Boxes (JBs) shall be made of GRP/FRP/Powder Coated Aluminium /cast aluminium alloy with full dust, water & vermin proof arrangement. All wires/cables must be terminated through cable lugs/terminals, crimped properly and with use of cable glands. The JBs shall be such that input & output termination can be made through suitable cable glands.

b) Copper bus bars/terminal blocks housed in the junction box with suitable termination threads Conforming to IP65 standard and IEC 62208:2011 Hinged door with EPDM rubber gasket to prevent water entry with single compression cable glands, provision of earthlings. It should be placed at 5 feet height or above for ease of accessibility.

c) Each Junction Box shall have High quality Suitable capacity Metal Oxide Varistors (MOVs) / surge arrestors, suitable Reverse Blocking Diodes. The Junction Boxes shall have suitable arrangement monitoring and disconnection for each of the groups.

d) Suitable markings shall be provided on the bus bar for easy identification and the cable ferrules must be fitted at the cable termination points for identification.

17.0 DC DISTRIBUTION PANEL BOARD (DCDB)

a) DC Distribution panel to receive the DC output from the array field.

b) DCDB shall have sheet from enclosure of dust & vermin proof conform to IP 65 protection. The bus bars are made of copper of desired size. Suitable capacity MCBs/MCCB shall be provided for controlling the DC power output to the PCU along with necessary surge arrestors.

18.0 AC DISTRIBUTION PANEL BOARD

a) AC Distribution Panel Board (ACDB) shall control the AC power from PCU/ inverter, and should have necessary surge arrestors. Interconnection from ACDB to mains at LT Bus bar while in grid tied mode.

b) All switches and the circuit breakers, connectors should conform to IEC 60947, part I, II and III/ IS 60947 part I, II and III.

c) The change over switches, cabling work should be undertaken by the bidder as part of the project.

d) All the Panel's shall be metal clad, totally enclosed, rigid, floor mounted, air - insulated, cubical type suitable for operation on three phase / single phase, 415 or 230 volts, 50 Hz

e) The panels shall be designed for minimum expected ambient temperature of 45 degree Celsius, 80 percent humidity and dusty weather.

f) All indoor panels will have protection of IP 54 or better. All outdoor panels will have protection of IP65 or better.

g) Should conform to Indian Electricity Act and rules (till last amendment).

h) All the 415 Volt AC or 230 volts devices / equipment like bus support insulators, circuit breakers, VTs etc., mounted inside the switchgear shall be suitable for continuous operation and satisfactory performance under the following supply conditions

Variation in supply voltage	**± 10 %**
Variation in supply frequency	**± 3 Hz**

19.0 PCU/ARRAY SIZE RATIO:

a) The combined wattage of all inverters should not be less than rated capacity of power plant under STC (Standard test conditions).

b) Maximum power point tracker shall be integrated in the PCU/inverter to maximize energy drawn from the array.

20.0 PCU/ INVERTER:

As SPV array produce direct current electricity, it is necessary to convert this direct current into alternating current and adjust the voltage levels to match the grid voltage. Conversion shall be achieved using an electronic Inverter and the associated control and protection devices. All these components of the system are termed the "Power Conditioning Unit (PCU)". In addition, the PCU shall also house MPPT (Maximum Power Point Tracker), an interface between Solar PV array & the Inverter, to the power conditioning unit/inverter should also be DG set interactive. If necessary inverter output should be compatible with the grid frequency. Typical technical features of the inverter shall be as follows:

- Switching devices : IGBT/MOSFET
- Control : Microprocessor / DSP (Digital Signal Processor)
- Nominal AC output voltage and frequency : 415V, 3 Phase, 50 Hz
- Output frequency : 50 Hz
- Grid Frequency Synchronization range : ± 3 Hz
- DC link voltage range : 0 to 1000 V
- Ambient temperature considered : -20^{O} C to 50^{O} C
- Humidity : 95 % Non-condensing
- Protection of Enclosure : IP-20(Minimum) for indoor. IP-65(Minimum) for outdoor.

- Grid Frequency Tolerance range : ± 3 Hz
- Grid Voltage tolerance : - 20% & + 15 %
- No-load losses : Less than 1% of rated power
- Inverter efficiency(minimum) : >93% (In case of 10 kW or above with in-built galvanic isolation)

  >97% (In case of 10 KW or above without inbuilt galvanic isolation)
- THD : < 3%
- PF : > 0.9

a) Three phase PCU/ inverter shall be used with each power plant system (10 kW or above) but In case of less than 10 kW single phase inverter /Three phase PCU/ inverter can be used with consent of MAHA-METRO.

b) PCU/inverter shall be capable of complete automatic operation including wake-up, synchronization & shutdown.

c) The output of power factor of PCU inverter is suitable for all voltage ranges or sink of reactive power; inverter should have internal protection arrangement against any sustainable fault in feeder line and against the lightning on feeder.

d) Built-in meter and data logger to monitor plant performance through existing BMS workstation shall be provided by Developer.

e) Anti-islanding (protecting against islanding of grid): The PCU shall have anti-islanding protection in conformity to IEEE1547/UL 1741/IEC 621116 or equivalent BIS standard. Successful Bidders shall be responsible for galvanic isolation of solar roof top power plant (>100kW) with electrical grid or LT panel.

f) In PCU/Inverter, there shall be a direct current isolation provided at the output by means of a suitable galvanic isolating transformer. If Isolation Transformer is not incorporated with PCU/Inverter, there shall be a separate galvanic Isolation Transformer of suitable rating provided at the output side of PCU/PCU units for capacity more than 100 kW.

g) The PCU/ inverter generated harmonics, flicker, DC injection limits, Voltage Range, Frequency Range and Anti-Islanding measures at the point of connection to the utility services should follow the latest CEA (Technical Standards for Connectivity Distribution Generation Resources) Guidelines.

h) The power conditioning units / inverters should comply with applicable IEC/ equivalent BIS standard for efficiency measurements and environmental tests as per standard codes IEC 61683/IS 61683 and IEC 60068-2(1,2,14,30) / Equivalent BIS Std.

i) The charge controller/ MPPT units environmental testing should qualify IEC 60068-2(1, 2, 14, 30)/Equivalent BIS standard. The junction boxes/ enclosures should be IP 65 (for outdoor)/ IP 54 (indoor) and as per IEC

j) The PCU/ inverters should be tested from the MNRE approved test centres / NABL /BIS /IEC accredited testing- calibration laboratories. In case of imported power conditioning units, these should be approved by international test houses.

k) The charge controller/ MPPT units environmental testing should qualify IEC 60068-2(1, 2, 14, 30)/Equivalent BIS standard. The junction boxes/ enclosures should be IP 65 (for outdoor)/ IP 54 (indoor) and as per IEC 529 specifications.

21.0 INTEGRATION OF PV POWER WITH GRID:

The output power from SPV would be fed to the inverters which converts DC produced by SPV array to AC and feeds it into the main electricity grid after synchronization. In case of grid failure, or low or high voltage, solar PV system shall be out of synchronization and shall be disconnected from the grid. Once the DG set comes into service PV system shall again be synchronized with DG supply and load requirement would be met to the extent of availability of power. 4 pole isolation of inverter output with respect to the grid/ DG power connection need to be provided.

22.0 DATA ACQUISITION SYSTEM / PLANT MONITORING

A. Data Acquisition System

i. Data Acquisition System shall be provided for each of the solar PV plant.

ii. Data Logging Provision for plant control and monitoring, time and date stamped system data logs for analysis with the high quality, suitable PC. Metering and Instrumentation for display of systems parameters and status indication to be provided.

iii. Solar Irradiance: An integrating Pyranometer (Class II or better, along with calibration certificate) provided, with the sensor mounted in the plane of the array readout integrated with data logging system.

iv. Temperature: Temperature probes for recording the Solar panel temperature and ambient temperature to be provided complete with readouts integrated with the data logging system

v. The following parameters are accessible via the operating interface display in real time separately for solar power plant:

a. AC Voltage.
b. AC Output current.
c. Output Power
d. Power factor.
e. DC Input Voltage.
f. DC Input Current.
g. Time Active.
h. Time disabled.
i. Time Idle.
j. Power produced
k. Protective function limits (viz. AC Over voltage, AC Under voltage, over frequency, under frequency, ground fault, PV starting voltage, PV stopping voltage, over current, short circuit etc.

vi. All major parameters available on the digital bus and logging facility for energy auditing through the internal microprocessor and read on the digital front panel at any time) and logging facility (the current values, previous values for up to a month and the average values) should be made available for energy auditing through the internal microprocessor and should be read on the digital front panel.

vii. PV array energy production: Digital Energy Meters to log the actual value of AC/ DC

voltage, Current & Energy generated by the PV system provided. Energy meter along with CT/PT should be of 0.5S accuracy class.

viii. Computerized DC String/Array monitoring and AC output monitoring shall be provided as part of the inverter and/or string/array combiner box or separately.

ix. String and array DC Voltage, Current and Power, Inverter AC output voltage and current (All 3 phases and lines), AC power (Active, Reactive and Apparent), Power Factor and AC energy (All 3 phases and cumulative) and frequency shall be monitored.

x. The time interval between two sets of data shall not be more than 15 minutes. (A min. of 4 samples of data shall be recorded per hour)

xi. Data Acquisition System shall have real time clock, internal reliable battery backup (2 hours) and data storage capacity to record data round the clock for a period of min. 1 year.

xii. Computerized AC energy monitoring shall be in addition to the digital AC energy meter.

xiii. The data shall be recorded in a common work sheet chronologically date wise. The data file shall be MS Excel compatible. The data shall be represented in both tabular and graphical form.

xiv. All instantaneous data shall be shown on the computer screen on the PC provided by MAHA-METRO.

xv. Software shall be provided for USB download and analysis of DC and AC parametric data for individual plant.

xvi. Provision for Internet monitoring and download of data shall be also incorporated.

xvii. Remote Server and Software for centralized Internet monitoring system shall be also provided for download and analysis of cumulative data of all the plants and the data of the solar radiation and environment monitoring system in the central location.

xviii. The bidders shall be obligated to push real-time plant monitoring data on a specified intervals (say 15 minute) through open protocol at receiver location (cloud server) in XML/JSON format, preferably. Suitable provision in this regard will be intimated to the bidders.

xix. The SPV BIDDERS must install necessary equipment at each Corridor to continuously measure solar radiation on module plane, ambient temperature, wind speed and other weather parameters and simultaneously measure the generation of DC power as well as AC power generated from the plant. They will be required to submit this data to MAHA-METRO and/ or through a report on regular basis every month for the entire lifetime of the Project.

xx. All data shall be made available as mentioned above for the entire lifespan of the project.

xxi. The plant SCADA should be Open Platform Communications (OPC) compliant with standard DNP3 and Modbus control interfaces over TCP/ IP having the provision to add protocol converters to implement custom and secure communications protocol standard for providing real time online data (including but not limited to irradiance, plant generation (instantaneous/ daily/ monthly/ yearly), Daily Peak Generation, temperature, wind speed etc.) to MAHA-METRO and integrate with the station existing BMS/SCADA.

xxii. Fibre Optic Ethernet Ring network (Managed type Ethernet switches in each Control Room) should be provided between MCR & Inverter Control Rooms.

B. Solar Radiation and Environment Monitoring System.

i. Computerized solar radiation and environment monitoring system shall be installed on one of the buildings along with the solar PV power plant. Developer need not provide any computer. However, the software, PLC and ethernet switches may be provided to access the same data from existing BMS workstation provided at each station.

ii. The system shall consist of various sensors, signal conditioning, data acquisition, LCD display and remote monitoring.

iii. Global and diffuse beam solar radiation in the plane of array (POA) shall be monitored on continuous basis. Global Horizontal Irradiation at the collector panel is required to be measured.

iv. Solar PV module back surface temperature shall be also monitored on continuous basis.

v. Simultaneous monitoring of DC and AC electrical voltage, current, power, energy and other data of the plant for correlation with solar and environment data shall be provided.

vi. Solar radiation and environment monitoring system shall have real time clock, internal reliable battery backup and data storage capacity to record data round the clock for a period of min. 1 year.

vii. The data shall be recorded in a common work sheet chronologically date wise. The data file should be MS Excel compatible. The data shall be represented in both tabular and graphical form.

viii. All instantaneous data shall be shown on the computer screen.

ix. Historical data shall be available for USB download and analysis.

x. Provision for Internet monitoring and download of data shall be incorporated.

xi. Remote Monitoring and data acquisition through Remote Monitoring System software at the MAHA-METRO site with latest software/hardware configuration and service connectivity for online / real time data monitoring/control complete to be supplied and operation and maintenance/control to be ensured by the supplier. Provision for interfacing these data on MAHA-METRO control server and portal in future.

23.0 METERING

a) The bidirectional electronic energy meter (0.5 S class) shall be installed by Maha-Metro for the measurement of import/Export of energy.

b) The developer should install a meter at every site for measuring energy generated along with a meter as per MSEDCL requirement (as applicable).

c) The bidder must take approval/NOC from the MAHA-METRO and/or MSEDCL (as applicable) for the connectivity, technical feasibility, and synchronization of SPV plant with distribution network and submit the same to MAHA-METRO before commissioning of SPV plant.

d) Liasoning work and approval for Net-metering and other work as per requirement from MSEDCL/DISCOM will be in the scope of bidder. Maha-Metro may facilitate.

e) Reverse power relay shall be provided by Bidder (if necessary), as per local DISCOM requirement.

24.0 POWER CONSUMPTION

a) Regarding the generated power consumption, priority need to be given for internal consumption first and thereafter any excess power can be exported to grid.

25.0 PROTECTIONS

The system should be provided with all necessary protections like earthing, Lightning, and grid islanding as follows:

25.1 LIGHTNING PROTECTION

a) The SPV power plants shall be provided with lightning & overvoltage protection. The main aim in this protection shall be to reduce the over voltage to a tolerable value before it reaches the PV or other sub system components. The source of over voltage can be lightning, atmosphere disturbances etc. The entire space occupying the SPV array shall be suitably protected against Lightning by deploying required number of Lightning Arrestors. Lightning protection should be provided as per IEC 62305 standard. The protection against induced high-voltages shall be provided by the use of metal oxide arrestors (MOVs) and suitable earthing such that induced transients find an alternate route to earth. The Lightning Arrestors is being provided at roof of station as well as Depots by MEP Contractor, however Developer can utilise them considering safety of solar module & other site conditions.

25.2 SURGE PROTECTION

a) Internal surge protection shall consist of three MOV type surge-arrestors connected from +ve and –ve terminals to earth (via Y arrangement)

25.3 EARTHING PROTECTION

a) Each array structure of the PV yard should be grounded/ earthed properly as per IS: 3043-1987. In addition the lighting arrester/masts should also be earthed inside the array field. Earth Resistance shall be tested in presence of the representative of MAHA-METRO as and when required after earthing by calibrated earth tester. PCU, ACDB and DCDB should also be earthed properly.

b) Earth resistance shall not be more than 1 ohms. It shall be ensured that all the earthing points are bonded together to make them at the same potential.

c) At every site, Earthing Mat is being provided and Developer can use the same for solar system grounding purpose. If additional protection is required than Developer has to provide their own Earthing Pits.

25.4 GRID ISLANDING:

a) In the event of a power failure on the electric grid, it is required that any independent power-producing inverters attached to the grid turn off in a short period of time. This prevents the DC-to-AC inverters from continuing to feed power into small sections of the grid, known as “islands.”

Powered islands present a risk to workers who may expect the area to be unpowered, and they may also damage grid-tied equipment. The Rooftop PV system shall be equipped with islanding protection. In addition to disconnection from the grid (due to islanding protection) disconnection due to under and over voltage conditions shall also be provided.

b) A manual disconnect 4pole isolation switch beside automatic disconnection to grid would have to be provided at utility end to isolate the grid connection by the utility personnel to carry out any maintenance. This switch shall be locked by the utility personnel.

26. CABLES: - Cables of appropriate size to be used in the system shall have the following characteristics:

i. Shall meet IEC 60227/IS 694, IEC 60502/IS1554 standards

ii. Temp. Range:-10^{O}C to +80^{O}C.

iii. Voltage rating 660/1000V

iv. Excellent resistance to heat, cold, water, oil, abrasion, UV radiation

v. Flexible Sizes of cables between array interconnections, array to junction boxes, junction boxes To Inverter etc. shall be so selected to keep the voltage drop (power loss) of the entire solar system to the minimum (2%)

vi. For the DC cabling, XLPE or, XLPO insulated and sheathed, UV-stabilized single core multi-stranded flexible copper cables shall be used; Multi-core cables shall not be used. Cables sizes up to 10 sqmm shall be Copper Conductor and above 10 sqmm Aluminium conductor may be used.

vii. For the AC cabling, FRLSZH, XLPE insulated and PVC sheathed single or, multi-core multistranded flexible copper cables shall be used; Outdoor AC cables shall have a UV stabilized outer sheath. Cables sizes up to 10 sqmm shall be Copper conductor and above 10 sqmm Aluminium conductor may be used.

viii. Overall HR FRLSZH insulation for UV protection and confirm IEC 69947.

ix. The cables (as per IS) should be insulated with a special grade PVC compound formulated for outdoor use. Outer sheath of cables shall be electron beam cross-linked XLPO type and black in colour.

x. The DC cables from the SPV module array shall run through a UV-stabilized PVC conduit pipe of adequate diameter with a minimum wall thickness of 1.5mm.

xi. Cables and wires used for the interconnection of solar PV modules shall be provided with solar PV connectors (MC4) and couplers

xii. All cables and conduit pipes shall be clamped to the rooftop, walls and ceilings with thermoplastic clamps at intervals not exceeding 50 cm; the minimum DC cable size shall be 4.0 mm2 copper; the minimum AC cable size shall be 4.0 mm2 copper. In three phase systems, the size of the neutral wire size shall be equal to the size of the phase wires.

xiii. Cable Routing/ Marking: All cable/wires are to be routed in a GI cable tray and suitably tagged and marked with proper manner by good quality ferule or by other

means so that the cable easily identified. In addition, cable drum no. / Batch no. to be embossed/ printed at every one meter. All cable tests and measurement methods should confirm to IEC 60189-1:2018 or latest.

xiv. Cable Jacket should also be electron beam cross-linked XLPO, flame retardant, UV resistant and black in colour.

xv. All cables and connectors for use for installation of solar field must be of solar grade which can withstand harsh environment conditions including High temperatures, UV radiation, rain, humidity, dirt, salt, burial and attack by moss and microbes for 25 years and voltages as per latest IEC standards. DC cables used from solar modules to array junction box shall be solar grade copper (Cu) with XLPO insulation and rated for 1.1kV as per relevant standards only. Cabling in the yard or control room shall be carried out as per IE rule.

xvi. The ratings given are approximate. Bidder to indicate size and length as per system design requirement. All the cables required for the plant shall be provided by the bidder. Any change in cabling sizes if desired by the bidder shall be approved after citing appropriate reasons. All cable schedules/ layout drawings shall be approved prior to installation.

xvii. Multi Strand, Annealed high conductivity copper conductor PVC type 'A' pressure extruded insulation or XLPE insulation. Overall PVC/XLPE insulation for UV protection Armoured cable for underground laying. All cable trays including covers to be provided. All cables conform to latest edition of IEC/ equivalent BIS Standards as specified below: BoS item / component Standard Description Standard Number Cables General Test and Measuring Methods, PVC/XLPE insulated cables for working Voltage up to and including 1100 V, UV resistant for outdoor installation IS /IEC 69947. The total voltage drop on the cable segments from the solar PV modules to the solar grid inverter shall not exceed 2.0%. Selected cables shall carry a current density of maximum 1.2 A/Sq.mm.

xviii. The total voltage drop on the cable segments from the solar grid inverter to the building distribution board shall not exceed 2.0%.

27. CONNECTIVITY

The maximum capacity for interconnection with the grid at a specific voltage level shall be as specified in the Distribution Code/Supply Code and amended from time to time. Following criteria have been suggested for selection of voltage level in the distribution system for ready reference of the solar suppliers.

Plant Capacity	Connecting voltage
Above 100kW	415 V- three Phase

a) MAHA-METRO has voltage levels of 415 V for LT and 33 kV for MV.

b) The solar power can be generated at low voltage levels and may be connected to selected 415 V LT panel of MAHA-METRO. Connection on LT panel of MAHA-METRO is in scope of Developer.

c) Developer's LT panel should adhere to IP-54 (if inside) and IP-65 if outside guidelines.

28. <u>TOOLS & TACKLES AND SPARES</u>:

a) After completion of installation & commissioning of the power plant, necessary tools & tackles shall be maintained by the bidder for maintenance purpose.

b) A list of requisite spares in case of PCU/inverter comprising of a set of control logic cards, IGBT driver cards etc. Junction Boxes. Fuses, MOVs / arrestors, MCCBs etc along with spare set of PV modules be indicated, which shall be maintained. A minimum set of spares shall be maintained in the plant itself for the entire period of warranty and Operation & Maintenance which upon its use shall be replenished. On completion of contract period, the same shall be handed over to MAHA-METRO.

29. <u>DANGER BOARDS AND SIGNAGES</u>:

a) Danger boards should be provided as and where necessary as per IE Act. /IE Rules as amended up to date. Three signage's shall be provided one each at battery –cum-control room, solar array area and main entry in to the area. Text of the signages may be finalized in consultation with MAHA-METRO.

30. <u>FIRE EXTINGUISHERS</u>:

a) The firefighting system for the proposed power plant for fire protection shall be consisting of

i. Portable fire extinguishers in the control room for fire caused by electrical short circuits.

ii. Sand buckets in the control room

b) The installation of Fire Extinguishers should confirm to TAC regulations and BIS standards. The fire extinguishers shall be provided in the control room housing PCUs as well as on the Roof or site where the PV arrays have been installed.

31. <u>DRAWINGS & MANUALS</u>:

a) Three sets of Engineering, electrical drawings and Installation and O&M manuals are to be supplied. Bidders shall provide complete technical data sheets for each equipment giving details of the specifications along with make/makes in their bid along with basic design of the power plant and power evacuation, synchronization along with protection equipment.

b) Approved ISI and reputed makes for equipment be used.

c) For complete electro-mechanical works, bidders shall supply complete design, details and drawings for approval to MAHA-METRO before progressing with the installation work.

32. PLANNING AND DESIGNING:

Developer will engage proof consultant for checking of all Structural, Electrical and all other drawings and designs relating to this solar power project

a) The bidder should carry out Shadow Analysis at the site and accordingly design strings & arrays layout considering optimal usage of space, material and labour. The bidder should submit the array layout drawings along with Shadow Analysis Report to MAHA-METRO/Owner for approval.

b) MAHA-METRO reserves the right to modify the landscaping design, Layout and specification of sub-systems and components at any stage as per local site conditions/requirements.

c) Prior to submission of drawings to MAHA-METRO, Developer will engage third party agency (proof consultant / Chartered engineer) for checking of all Structural, Electrical and all other drawings and designs relating to this solar power project.

d) The same third party agency will have to verify the installation after completion, whether it is safe and is as per the design approved.

e) The third party agency employed by the developer should have earlier experience of such works.

f) The bidder shall submit preliminary drawing for approval & based on any modification or recommendation, if any. The bidder shall submit three sets hard copy and soft copy in CD of final Good for Construction (GFC) drawing for formal approval. The Bidder shall proceed the works with GFC drawings only.

33. DRAWINGS TO BE FURNISHED BY BIDDER AFTER AWARD OF CONTRACT:

The Contractor shall furnish the following drawings including interface drawings after Award/Intent and obtain approval:-

a) General arrangement and dimensioned layout.
b) Schematic drawing showing the requirement of SPV panel, Power conditioning. Unit(s)/ inverter, Junction Boxes, AC and DC Distribution Boards, meters etc.
c) Structural drawing along with foundation details for the structure.
d) Itemized bill of material for complete SPV plant covering all the components and associated accessories.
e) Layout of solar Power Array.
f) Shadow analysis of the area.
g) Guaranteed Technical Particular (GTP) of Solar PV modules, inverters, Remote monitoring system, DC cables, AC cables, Junction Box.

34. SOLAR PV SYSTEM ON THE ROOFTOP FOR MEETING THE ANNUAL ENERGY REQUIREMENT

The Solar PV system on the rooftop of the selected buildings will be installed for meeting the maximum energy requirements depending upon the area of rooftop available and the remaining energy requirement of the office buildings will be met by drawing power from grid.

35. SAFETY MEASURES:

The bidder shall take entire responsibility for electrical safety of the installation(s) including connectivity with the grid and follow all the safety rules

& regulations applicable as per Electricity Act, 2003 and CEA guidelines etc.

35.1 Safety at site:

(a) One safety engineer per 1 MWp & penalty for not following safety:

i) Solar developer shall engage one qualified safety engineer for every 1 MWp capacity or for every 3 km which ever is less, to ensure safe work environment during the execution stage of work.

ii) If found, that safety engineer is not available at site suitable penalty of Rs. 10,000/- (Rupees Ten Thousand Only) shall be imposed per violation/instance on solar developer after issuing of first warning.

(b) Walkway Design specs:

i) Solar developer has to install walkway on every rooftop edge to ensure safety during solar work. The minimum width of walkway to be installed shall be 400 mm with a railing height of minimum 750 mm or design shall be such that it is safe and without occurrence of any shadow on solar modules.

ii) Walkway shall be installed on the rooftop before the start of actual solar installation work, so that the safety of worker can be ensured and also damage to roof sheet can be avoided.

(c) Hot Works permit format & Compulsory submission of Certificate of welder:

Solar developer shall mandatorily submit Certificate of welder engaged

before start of work for safe and proper operation.

(d) Safety document format:

i) Solar developer shall mandatorily conduct an overall safety analysis of all the execution sites and submit safety report to mitigate the probable hazards during the execution of work and shall ensure their compliance at site.

ii) The safety report thus prepared shall be submitted to MAHA-METRO for the approval of MAHA-METRO safety wing.

(e) I-card of workers:

Solar developer shall mandatory issue I-cards to all the workers engaged for work, the details of the same shall be submitted to MAHA-METRO to ensure controlled access.

(f) Lifeline runners & Fall Arrester:

The solar developer shall provide adequate lifeline runners, fall arresters & safety nets to be installed. The details of the same shall be submitted to Maha-Metro safety department before installation

(g) Indemnity bond format:

The solar developer shall duly submit the indemnity bond on Rs. 500 Stamp Paper before start of work at site, after awarding of the work/Contract. This shall be submitted in the format attached as Annexure-B separately for each site.

(h) Crane/Hydra certificate:

i) To ensure safe material handling and movement in MAHA-METRO premises, the solar developer shall mandatorily submit max loading certificate of Hydra and its instructor license before start of material handling work.

ii) Solar developer shall prepare site specific method statement which shall include the placement of hydra/crane, calculations establishing the safe operation of hydra for this particular site based on loading curve of the boom of hydra etc.

36. Re-Powering:-

During the term of agreement, the power producer with the consent of purchaser can change the solar power producing equipment by replacing with higher efficient and higher capacity equipment in the same area as provided for solar PV power plant. This shall be without any change of conditions and tariff of this agreement and without any liability to the purchaser. Cost of shifting of any facilities in the premises or any other cost arising due to above change accrued by purchaser shall be compensated by the power producer.

37. Automatic Cleaning System:

Considering the limitation of time for carrying out O&M activities on the Metro Station & Depot, the developer shall strive to install an automatic cleaning system, which shall become an integral part of solar installation, till an full proof automatic cleaning system is developed/provided, at least a network of sprinkler system covering the entire modules shall be installed, to reduce the requirement of manual cleaning (or) increase the frequency of carryout manual cleaning.

38. Miscellaneous:-

38.1 Miscellaneous arrangements, such as water connection at the nearest point available etc. shall be in the scope of the power purchaser.

38.2 TECHNICAL PARAMETER OF PV MODULE AND VARIOUS OTHER COMPONENTS FOR USE IN GRID CONNECTED SOLAR POWER PLANTS

All components of the PV plant shall be in accordance with technical specifications given in relevant IS/ IEC Standards. The design and commissioning also shall be as per latest IS/ IEC standards. The following are some of the technical measures required to ensure quality of the major components used in grid connected solar power Projects. Under this RFS, use of both Solar Photo voltaic (SPV) cells and Modules manufactured domestically as per specifications and testing requirement fixed by MNRE are mandatory for installation of awarded Solar PV power Plant. Bidder to refer MNRE Order F. No. 283/22/2019-GRID SOLAR dated 09 Feb 2021 in tender document or its latest amendments.

a) PV MODULE QUALIFICATION:

The PV modules used in the grid connected solar power Projects must qualify to the latest edition of any of the following IEC PV module qualification test or equivalent Indian standards.

Standard	Description
IEC 61215-1:2016 (latest edition to be followed)	Terrestrial photovoltaic (PV) Modules- Design qualification and type approval- Part 1:Test requirements
IEC 61215-1-1:2016 (latest edition to be followed)	Terrestrial photovoltaic (PV) modules - Design qualification and type approval - Part 1-1: Special requirements for testing of crystalline silicon photovoltaic (PV) modules
IEC 61215-1-2:2016 (latest edition to be followed)	Terrestrial photovoltaic (PV) modules - Design qualification and type approval - Part 1-2: Special requirements for testing of thin-film Cadmium Telluride (CdTe) based photovoltaic (PV) modules
IEC 61215-1-3:2016 (latest edition to be followed)	Terrestrial photovoltaic (PV) modules - Design qualification and type approval - Part 1-3: Special requirements for testing of thin-film amorphous silicon based photovoltaic (PV) modules
IEC 61215-1-4:2016 (latest edition to be followed)	Terrestrial photovoltaic (PV) modules - Design qualification and type approval - Part 1-4: Special requirements for testing of thin-film Cu (In,GA) (S,Se) based photovoltaic (PV) modules
IEC 62108 :2016	Concentrator photovoltaic (CPV) modules and assemblies - Design qualification and type approval
IEC 61730-1:2016	Photovoltaic (PV) module safety qualification - Part 1: Requirements for construction
IEC 61730-2:2016	Photovoltaic (PV) module safety qualification - Part 2: Requirements for testing
IEC 62716:2013	Photovoltaic (PV) modules - Ammonia corrosion testing (for evaluation of faults caused in PV modules applicable for wet atmospheres having high concentration of dissolved ammonia)
IEC TS 62804-1:2015	Photovoltaic (PV) modules - Test methods for the detection of potential-induced degradation- Part 1: Crystalline Silicon

b) POWER CONDITIONERS/ INVERTERS

The Power Conditioners/Inverters of the SPV power plants must conform the latest edition of IEC/ equivalent Indian Standards as specified below:

Standard	Description
IEC 61683:1999	Photovoltaic systems - Power conditioners – Procedure for measuring efficiency
IEC 62109-2010	Safety of power converters for use in photovoltaic power systems - Part 1: General requirements
IEC 62109-2:2011	Safety of power converters for use in photovoltaic power systems - Part 2: Particular requirements for inverters
IEC 61000-6-2:2016	Electromagnetic compatibility (EMC) - Part 6-2: Generic standards - Immunity standard for industrial environments
IEC 61000-6-4:2018	Electromagnetic compatibility (EMC) - Part 6-4: Generic standards - Emission standard for industrial environments
IEC 62116:2014/ IEEE 1547:2018 Amendment 1/UL 1741 or latest	Utility-interconnected photovoltaic inverters - Test procedure of islanding prevention measures/ IEEE Standard for Interconnecting Distributed Resources with Electric Power Systems / Standard for Inverters, Converters, Controllers and Interconnection System Equipment for Use With Distributed Energy Resources
IEC 60068-2-1:2007	Environmental testing - Part 2-1: Tests - Test A: Cold
IEC 60068-2-2:2007	Environmental testing - Part 2-2: Tests - Test B: Dry heat
IEC 60068-2-14:2009	Environmental testing - Part 2-14: Tests - Test N: Change of temperature
IEC 60068-2-30:2005	Environmental testing - Part 2-30: Tests - Test Db: Damp heat, cyclic (12 h + 12 h cycle)
LVRT Compliance	As per the latest CERC Guidelines / Order/ Regulations
Grid Connectivity	Relevant CERC Regulations (including LVRT Compliance) and Grid Code as amended and revised from time to time

c) As *per the Solar Photovoltaics, Systems, Devices and Components Goods* (Requirements for Compulsory Registration) Order, 2018 or latest, PV Modules and Inverters used in the grid connected solar power Projects shall conform to the Standards Specified as per below and bear the Standard Mark as notified by the Bureau of Indian Standards:

S. No.	Product	Indian Standard Number	Title of Indian Standard
1	Crystalline Silicon Terrestrial Photovoltaic (PV) Modules (Si wafer based)	IS 14286 IS/IEC 61730-1 IS/IEC 61730-2	Crystalline Silicon Terrestrial Photovoltaic (PV) modules - Design Qualification And Type Approval
2	Thin-Film Terrestrial Photovoltaic (PV) Modules (a-Si, CIGS and CdTe)	IS 16077 IS/IEC 61730-1 IS/IEC 61730-2	Thin-Film Terrestrial Photovoltaic (PV) Modules - Design Qualification and Type Approval
3	Power Converters for use in photovoltaic power system	IS 16221 (Part 2)	Safety of Power Converters for use in photovoltaic Power Systems Part 2- Particular Requirements for inverter
4	Utility – Interconnected Photovoltaic inverters	IS 16169	Test Procedure of Islanding Prevention Measures for Utility- Interconnected Photovoltaic Inverters
5	Storage battery	IS 16270	Secondary Cells and Batteries for Solar Photovoltaic Application General Requirements and Methods of Test

38.3 SAFE DISPOSAL OF SOLAR PV MODULES:

The SPV BIDDERS will ensure that all Solar PV modules from their plant after their 'end of life' (when they become defective/ non-operational/ non-repairable) are disposed in accordance with the "e-waste (Management and Handling) Rules, GOI latest edition " notified by the Government and as revised and amended from time to time.

38.4 Lifting Appliances and Gear:

(a) Lifting appliances means a crane, hoist machinery, derrick, winch, gin pole, sheer legs, jack, hoist drum, slewing machinery, pulley blocks, hooks or other equipment used for lifting materials, objects or building workers and lifting gears means ropes, chain slings, web slings, shackles, hooks. Spreader beam, lifting lugs, wire ropes, lifting eyebolts and eye nuts and other accessories of a lifting appliance.

(b) No machine shall be selected to do any lifting on a specific job until its size and

characteristics are considered against:

(i) the weights, dimensions and lift radii of the heaviest and largest loads.
(ii) the maximum lift height, the maximum lift radius and the weight of the loads that must be handled at each.
(iii) the number and frequency of lifts to be made.
(iv) how long the crane will be required on site.
(v) the type of lifting to be done (for example, is precision placement of loads important.
(vi) the type of carrier required (this depends on ground conditions and machine capacity In its operating quadrants: capacity is normally greatest over the rear, less over the side, and non-existent over the front;
(vii) whether loads will have to be walked or carried.
(viii) whether loads will have to be suspended for lengthy periods.
(ix) the site conditions, including the ground where the machine will be set up, access roads and ramps it must travel, space for erection and any obstacles that might impede access or operation.

(c) The contractor shall ensure that a valid certificate of fitness is available for all lifting appliances including synchronized mobile jacks, pre-stressing hydraulic jacks, jacks fitted with launching girders etc. and Employers approval before inducting to the site. Only after obtaining the approval from the Employer any lifting appliances and gear shall be used.

(d) The laminated photocopies of fitness certificate issued by competent person and plant & Machinery In-charge, the Employers' approval letter, the operators' photo, manufacturer's load chart and competency certificate shall always be either kept in the operator cabin or pasted on the lifting appliances however the same shall not hinder the operator/driver vision.

(e) All lifting appliances and loose gears shall be clearly marked for its safe working load and identification by stamping or other suitable means.

(f) The contractor shall also maintain a register containing a system of Identification of all tools and tackles, its date of purchase, safe working load, competent person date of examination etc.

38.4.1 Test and periodical examination of lifting appliances and gears:

(a) All lifting appliances including all parts and gears thereof, whether fixed or movable shall be thoroughly tested and examined by a competent person once at least In every six months or after It has undergone any alterations or repairs liable to affect its strength or stability. Within the validity, if the lifting appliances are shifted to a new site, re-examination by the competent person for ensuring its safety shall also be done.

(b) Contractors can utilize the services of any competent person approved by Chief

Inspector of Factories and as empaneled by the employer.

(c) All alarms and signals like automatic safe load indicators (SLI), boom angle indicators, boom extension indicators, over lift boom alarm, swing alarm, hydraulic safety valves, mechanical radius indicators, load moment indicators etc. shall be periodically examined and maintained always in working condition.

(d) No lifting appliances or gears shall be overloaded in any circumstances except for testing under the supervision of Third party competent person & in controlled environment.

38.4.2 Automatic safe load Indicators and Data Logger in Lifting Appliances

(a) As stipulated in Rule 84 of MBOCW Rules or latest, every lifting appliances and gears like cranes, hydras etc, if so constructed that the safe working load may be varied by raising or lowering of the jib or otherwise shall be attached with an automatic indicator of safe working loads approved by Bureau of Indian standards/ International certifying bodies which gives a warning to the operator whenever the load being handled exceeds the safe working limit.

(b) Provision of functional data logger with alert facility through SMS and web in all cranes shall be mandatory.

(c) Cut-out shall be provided which automatically arrests the movements of the lifting parts of every crane if the load exceeds the safe working limit.

38.4.3 Qualification of operator of lifting appliances etc

(a) The contractor shall not employ any person to drive or operate a lifting machine like crane, hydra etc whether driven by mechanical power or otherwise to work as a operator unless he

(i) Is above twenty eight years of age and possesses a valid heavy transport vehicle driving license

(ii) is absolutely competent and reliable.

(iii) possesses the knowledge of the inherent risks involved in the operation of lifting appliances by undergoing a formal training at any institution of national importance acceptable to Employer.

(iv) is medically examined periodically as specified in schedule VII of BOCW Rules.

38.4.4 General requirements

(a) The sweep area (work area) of the construction machinery shall be always free from obstructions.

(b) All hydraulic piping and fittings shall be maintained leakproof.
(c) The operator cab shall possess good and safe:
i) Structure, windows and windshield wipers
ii) Drivers chair and footrest
iii) Control handles
iv) Cab Instrumentation
v) Telecommunication
vi) Cab out fitting
vii) Wind indicator with an adjustable set point shall be in a position representative for the wind Oh the crane. The indicator shall give continuous information regarding constant speeds and gusts.

38.4.5 Mandatory rigging requirement

(a) Rigging shall be done under experienced and qualified rigger only. All Load shall be adequately and safely rigged to prevent any danger.

(b) The primary requirement in rigging shall be to assess the weight of load before attempting any lift.

(c) All hooks shall be fitted with Master Rings having certificate of fitness from, competent person, so that the hooks are subjected to balanced vertical loading

(d) Only four legged slings shall be allowed which includes master link (ring), intermediate master link (ring) if necessary, chain / wire rope sling, sling hook or other terminal fitting.

(e) Hand spliced slings shall not be used at site for any lifting purpose.

(f) Requirements of outriggers

i) All outriggers shall be fully extended and at all tyres are clear of the ground

ii) Heavy duty blocking having large bearing area shall be necessary to prevent sinking of floats

iii) Provision of heavy steel plates/ high density interconnected wooden logs of required dimension shall be used to uniformly distribute the load

iv) The crane shall be setup on fully compacted ground.

(g) Minimum site illumination is to be ensured at all lifting operations.

(h) Slings shall not be wrapped in hook while lifting of material

38.4.6 Overhead Gantries

(a) All gantries shall have designed End Stoppers and Storm Brakes as per OEM. The design shall be submitted to MAHA-METRO after vetting by independent/Third party Designer

As built certification by contractor's Plant & Machinery In charge shall be submitted.

(b) Railings shall be provided along the gantry track to avoid any worker getting injured

from gantry crane or any of its part during its movement.

(c) Provision of anti-collision devices shall be mandatorily ensured and kept in working condition.

(d) All gantry crane shall be provided with fail safe devices to avoid any hoist free fall in case of brake failure. Wireless operation of Gantry is prohibited.

(e) Fall arrestor arrangement shall be made at access location to the gantry to prevent free fall of the operator during ascend/descend.

(f) Preventive maintenance of Gantry Crane Hoist by OEM with safe worthiness certification during initial assembly and subsequently on six monthly basis shall be ensured.

(g) In respect of age of lifting appliances as specified in Appendix No. 16. contractor Plant & Machinery In-charge shall give indemnity/undertaking regarding the age of appliance.

(h) Helper shall be mandatory with each lifting appliances during their movement at site.

(i) Every Contractor shall appoint/nominate a qualified & competent Lifting Engineer or Lifting Consultant to monitor the lifting operation. The complete lifting operation shall be carried out under the supervision of lifting engineer/consultant. He shall be accountable for the lifting activity. Minimum age of 28 years for crane operators and 24 years for other site personnel like riggers, signalers and helpers etc. is mandatory.

38.4.7 Pick & Carry Operation

(a) Prohibition on Use of "Tractor transmission type Pick and Carry Hydra Crane":
Tractor transmission type Pick and Carry-1®' Generation model is prohibited at MAHA-METRO works. Contractor shall mobilize "Truck transmission type" Pick and Carry (Hydra) Crane - minimum 2""^ Generation model only.

(b) Pick and Carry operation is prohibited at all MAHA-METRO construction sites except for the tailing purpose for lowering of pile cage, erection of radio tower, electrical poles, exhaust structures etc.

(c) For transportation and lifting of small materials like rail sleepers, staging material, concrete blocks, shuttering material, barricade boards etc. loader cranes shall be used Truck mounted cranes with storage facilities to be used for lifting of load and stowed in secured platform and then shifted.

(d) Pick & Cary cranes shall not be used for any lowering operation below the ground level.

38.4.8 Fixed lifting appliances

(a) Fixed lifting appliances like Tower Crane etc. shall be installed by competent person and in such a manner that appliance cannot be displaced by any load, vibration or other influence, operator is not exposed to danger from loads, ropes or drums.

(b) adequate clearance is provided between parts or loads of lifting appliance and the

permanent structure such as walls & objects like posts or any electrical conductors.

(c) all tower crane operators shall be trained and capable to work at height are deployed to operate tower cranes

(d) the ground on which a tower crane stands has adequate bearing capacity and shall be firmed & levelled properly. Such cranes are erected at a reasonably safe distance from excavation and be operate within limits as specified by manufacturer.

(e) tower cranes are sited In such a way that the loads are not handled over any occupied premises, public thoroughfares, railways or near power cables etc other than construction work.

(f) when two or more cranes are operated at same place, measures to ensure positive and proper communication between operators of such cranes to avoid any danger or dangerous occurrences.

(g) fall arrestor arrangement shall be made at access location to the tower crane to prevent free fall of the operator during ascend/descend.

38.4.9 Moveable Lifting appliances

All moveable tower cranes shall be checked and certified for their safe worthiness by the plant and machinery in charge of the contractor after its installation. All original equipment manufacturers (OEM) recommendation for Installation and use shall be strictly complied.

38.4.10 Winches

Every contractor shall ensure that:

(i) winches are not used if control levers operate with excessive friction or play.

(ii) adequate protection is prodded to winch operator against abnormal weather.

(iii) control levers are secured in the neutral position and winches shall be power shut-off whenever winches are left unattended.

(iv) No worker is authorised to transfer, alter or adjust electric control circuits except electrician along with winch operator.

(v) apart from mechanical brakes, winches shall also have the provision of OEM fitted Electrically operated braking system.

(vi) Anchoring and stability of the winches shall be ensured and certified

(vii) Standard counter weight as per OEM recommendation shall be used.

38.4.11 Vacuum and Magnetic lifting gears

Every contractor shall ensure that:

(i) no vacuum lifting gear, magnetic lifting gear or any other lifting gear where load on it is held by adhesive power, be used while workers are performing operations beneath such gear.

(ii) lifting gear used in work shall be provided with an alternative supply of power, such as batteries which may come in operation incase ofpower failure.

(iii) no worker shall be allowed to work within the swinging zone of the lifting gear or load or material suspended to such gear.

38.4.12 Operation of Lifting Appliances

Every contractor shall ensure that:

(i) the complete lifting operation shall be governed by signals as per established standards.

(ii) Adequate measures to be taken to ensure that no worker is allowed to stand or pass under the load.

(iii) No lifting appliances shall be left by the operator while power is on or load is suspended.

(iv) After completion of the lifting operation, all doors of the appliances shall be closed by the operator and ignition/operation key should be handed over to competent reliever operator or site In-charge.

(v) No person shall be allowed to rides or sit on a suspended load.

(vi) Every receptacle/material bucket used for hoisting bricks, tiles, or other material shall be enclosed from all side including bottom completely to prevent fall of any material. No wheel barrow shall be used to lift or lower the material. Such receptacle or bucket shall not be overloaded or the material shall not cross the top level of the bucket.

(vii) No material shall be raised or lowered or slewed which can leads to sudden jerks to appliances.

(viii) No load shall be slewed over public areas without stopping the pedestrians and road traffic first. Measures shall be adopted to divert the traffic during lifting/lowering operation requiring long duration traffic stoppage.

(ix) All loads are provided with minimum two tag lines to ensure that the load can be controlled at all times.

(x) No close working to any live overhead power line is permitted without system of a 'Permit to Work' and prior permission of the employer shall be obtained before performing such operation.

(xi) During shifting of material near open edges, signalman and other workers shall not be allowed to lean out for communicating with ground staff unless they are provided with full body safety harness duly anchored with sturdy points.

(xii) Danger zone shall be identified and cordoned off for all lifting appliances during their

operation.

(xiii) Appropriate measures shall be adopted to prevent foot of the derrick to lift out of its socket or support.

(xiv) All guy ropes of the derrick shall be adequately anchored to rigid points and should in tension with the use of turn buckle without any sagging.

(xv) A register shall be maintained for fitness of the derrick which shall Include all elements like derrick setup, anchoring, lifting tools & tackles, means of access and should be filled & signed after every shifting of the derrick.

(xvi) All lifting appliances, gears, tools & tackles shall be maintained In good condition at all times to avoid any damage to them. Slings shall be discarded once they get any sign of deterioration beyond permissible limit defined by OEM and authenticated by Plant & Machinery In-charge.

(xvii) All lifting gears 8 slings shall be stamped or appropriate tags for their identification no & SWL

(xviii) Knotting/wrapping of chains & slings shall not be allowed at site.

(xix) No person shall be allowed to be raised, lowered or carried by lifting appliances except on man hoist/elevator or on suspended platform or elevated working platforms. Prior permission of employer shall be obtained before permit to use.

(xx) Lifting appliances shall not be used for any dragging or pulling purposes. Contract shall refer to 75% capacity load chart for ascertaining the suitability of crane for safe lifting of load.

(xxi) During tandem lift, available capacity of crane in respect of SWL shall be considered after reduction of 15% for 75% (DIN) load chart respectively. In addition, additional derating as advised by third party testing and certified agency shall also apply

(xxii) During hoisting of long matenal, use of suitable lifting beam is recommended.

(xxiii) Lifting operation for handling load above one ton shall not be allowed without approval of lift plan/study and permit to work. The lift plan/study as well as checklist & work permit shall be signed by the nominated lifting engineer before performing any lifting operation.

(xxiv) No person shall be allowed to rig or de-rig at height unless safe means of access is provided.

(xxv) Only original equipment manufacturer (OEM) supplied/provided load chart shall be used during lifting operation.

(xxvi) Before performing any lifting operation, all electronic devices, control levers, hydraulic oil, wind pressure etc. shall be checked and necessary spare parts to be kept in stock to handle any breakdown during time of lifting operation.

(xxvii) All underground utilities shall be identified and necessary measures shall be adopted before set up of cranes for lifting.

(xxviii) Loose as well as long material shall be adequately tied up with each other before lifting.

(xxix) All equipments including Electrical panels. Hoist if gantries etc shall only be lifted with the help of all lifting point/eye bolts as provided & recommended by the original equipment manufacturer. Safe slinging shall be ensured.

(xxx) Lifting point shall be considered on the I-Girders/U Girder/C Girder/Steel girder/parapet etc during the casting of the same. Design load calculation for the same should be conducted.

(xxxi) Lifting and lowering of the plant & machines like transit mixer, excavator, tractor etc shall be done as per recommendation from the Original Equipment Manufacturer.

(xxxii) Certification from designer for the stability and load bearing of 'A" frame used for lifting of the escalators shall be obtained before its use.

(xxxiii) All lifting activities shall be stopped in case of high speed wind and similar adverse whether condition or as prescribed by the crane manufacturer.

(xxxiv) All cranes shall be provided with fail safe devices to avoid any hoist free fall in case of brake failure.

38.5 TECHNICAL TOUCH POINTS:

S. No.	Description	Provision	Bidder Confirmation
1	Solar Panels Load	25 kg/Sq.m solar panel loading is considered, and roof is designed to be suitable for access with Rafter suitable for live loading of 75kg/Sq.m and Purlin is suitable for live loading of 75kg/Sq.m	Bidder to ensure that loading limit of solar panel including accessories shall not exceed 25kg/Sq.m and roof is accessed only at the location of rafter or purlin and not on roof sheet.
2	Roof Access Door	Location identified vendor to do the access hatch opening.	Bidder shall provide access door with hand railing without damaging the roofing system and ensure water tightness.
3	Rising Clip	The Roofing system has been designed for use of rising clip for fixing Solar panels.	Bidder to ensure that fixing clip shall be adaptable with the Roofing system.
4	Cable Routing	150mm wide ladder type Cable tray has been provided from Roof bottom level (ceiling of concourse) to ASS room located at concourse level.	Bidder shall make note of this provision and any additional requirement shall be engineered and provided by the Bidder.

5	MEP roof cut out	Bidder to make Provision.	As per the architectural latest drawing
6	Water supply at roof top	2 Nos of Water Supply point with 32 mm dia DWS pipe available at Platform roof level is provided for cleaning of solar panels.	Tapping of the water supply point and routing of the water pipes to the respective solar panels shall be included in the Bidder scope.

SECTION -VI BIDDING & CONTRACT FORMAT

GENERAL INFORMATION ABOUT THE TENDERER

Format-A

(To Be submitted along with the Bid)

Name of the Equity holder	Type and Number Of shares owned	Equity % of	Extent of Voting Control

GENERAL INFORMATION ABOUT THE TENDERER

A. TENDERER INFORMATION SHEET		
Tenderer's Legal Name		
Legal status of the Tenderer	Sole Proprietorship Firm / Partnership Firm / Private Limited Company / Public Limited Company / Joint Venture / Consortium (Please tick one)	
In case of JV/Consortium, Legal name of each partner with percentage participation (also provide information of each member in separate sheet (page 2 of 2)	Legal Name of JV/Consortium member	% participation
	1.	
	2.	
	3.	
Lead member of JV/Consortium		
Tenderer's legal address in India, telephone numbers, fax numbers, email address for communication		
Tenderer's authorized signatory (name, designation, address, contact no.)		

Tenderer's authorized representative (name, designation, address, contact no.)	

FOLLOWING NEEDS TO BE SUBMITTED BY THE TENDERER: (by each member in case of JV/consortium) :

a) Affidavit in case of Proprietary firm.

b) Partnership Deed in case of partnership firm.

c) Memorandum & Article of Association in case of a Public/Private limited company.

d) In case of JV/Consortium, MoU/Agreement (duly notarized) entered into by the joint venture / consortium members, containing intended percentage participation, nomination of Lead Member and division of responsibility to clearly define the work of each member etc.

e) Authorization/POA in favour of authorized signatory of tenderer to sign the tender, and also in favour of authorized representative of each member in case of JV/Consortium.

Note: Tenderer's authorized representative shall be deemed to have authority of the tenderer to receive and deliver any correspondence and attend meetings with MAHA-METRO related to the tender.

Format -B

(To Be submitted along with the Bid)

B. JV/CONSORTIUM MEMBER INFORMATION	
MEMBER – 1	
JV/Consortium Member's Legal Name	
Legal status of the Member	Sole Proprietorship Firm / Partnership Firm / Private Limited Company / Public Limited Company (Tick any one)
Member's country of constitution	
Member's legal address, telephone numbers, fax numbers, email address)	
Member's authorized representative (name, designation,	
MEMBER – 2	
JV/Consortium Member's Legal Name	
Legal status of the Member	Sole Proprietorship Firm / Partnership Firm / Private Limited Company / Public Limited Company (Tick any one)
Member's country of constitution	
Member's legal address, telephone numbers, fax numbers, email address)	
Member's authorized representative (name, designation, address)	

SIGNATURE OF AUTHORIZED SIGNATORY
ON BEHALF OF TENDERER

FORMATS FOR SUBMITTING RFS

Format B-1

Covering Letter

(The covering letter should be on the Letter Head of the Bidding Company)

Contract :- **dated_____**

From:_____(Insert name and address of Bidding Company)

_____

Tel.:-..... Fax:-
.....
E-mail address:-.....

To,

Maharashtra Metro Rail Corporation Ltd.
Pune Metro Rail Project
1st Floor, 101, The Orion, Opposite Don Bosco Youth Centre,
Koregaon Park, Pune-411001

Sub:- Bid For Design, Engineering, Manufacture, Supply, Storage, Civil work, Erection, Testing & Commissioning of the Rooftop and Boundary Walls mounted Solar PV projects under RESCO model including Operation and Comprehensive Maintenance (O&M) of 5.0 MWp Solar PV project for a period of 25 years after commissioning of 10 Nos. of Elevated Stations and 2 Nos. of Depots for Pune Metro Rail Project.

Dear Sir,

We, the undersigned….[insert name of the 'Bidder'] having read, examined and understood in detail the RFS Document for Contract:- ....., namely " *Design, Engineering, Manufacture, Supply, Storage, Civil work, Erection, Testing & Commissioning of the Rooftop and Boundary Walls mounted Solar PV projects under RESCO model including Operation and Comprehensive Maintenance (O&M) of 5.0 MWp Solar PV project for a period of 25 years after commissioning of 10 Nos. of Elevated Stations and 2 Nos. of Depots for Pune Metro Rail Project.*" in India hereby submit our Bid comprising of Price Bid and Techno Commercial Bid. We confirm that neither we nor any of our Parent Company / Affiliate/Ultimate Parent Company has submitted Bid other than this Bid directly or indirectly in response to the aforesaid RFS.

We give our unconditional acceptance to the tender dated……and RFS Documents attached thereto, issued by MAHA-METRO, as amended. As a token of our acceptance to the RFS Documents, the same have been initiated by us and enclosed to the Bid. We shall ensure that we execute such RFS Documents as per the provisions of the RFS and provisions of such RFS Documents shall be binding on us.

1. Bid Capacity
   We have bid for the following capacities in various sites as specified in this tender document and have accordingly submitted our Price Bids for the same:

	(RESCO Mode)	Approximate capacity in kWp
1	**TOTAL**	**5000**

2. Bid Securing Declaration

   We have enclosed a Bid Securing Declaration in terms of Clause 3.16 of this RFS.

3. We have submitted our Price Bid strictly as per Section VIII of this RFS, without any deviations, conditions and without mentioning any assumptions or notes for the Price Bid in the said format(s).

4. In case we are a successful Bidder, we shall furnish a declaration at the time of commissioning of the Project to the affect that we have availed only such subsidy/incentive which have been considered in working out the offer of annual tariff and we will not be availing any subsidy henceforth against this work.

5. Acceptance

   We hereby unconditionally and irrevocably agree and accept that the decision made by Maharashtra Metro Rail Corporation Limited in respect of any matter regarding or arising out of the RFS shall be binding on us. We hereby expressly waive any and all claims in respect of Bid process.

   We confirm that there are no litigations or disputes against us, which materially affect our ability to fulfil our obligations with regard to execution of projects of capacity offered by us.

6. Familiarity with Relevant Indian Laws & Regulations

   We confirm that we have studied the provisions of the relevant Indian laws and regulations as required to enable us to submit this Bid and execute the RFS Documents, in the event of our selection as Successful Bidder. We further undertake and agree that all such factors as mentioned in RFS have been fully examined and considered while submitting the Bid.

7. Contact Person

Details of the contact person are furnished as under:

Name	
Designation	
Company	
Address	
Phone Nos.	
Fax Nos.	
E-mail address	

8. All the documents as desired by you in the RFS are uploaded online for your consideration.

It is confirmed that our Bid is consistent with all the requirements of submission as stated in the RFS and subsequent communications from Maharashtra Metro Rail Corporation Limited. The information submitted in our Bid is complete, strictly as per the requirements stipulated in the RFS and is correct to the best of our knowledge and understanding. We would be solely responsible for any errors or omissions in our Bid. We confirm that all the terms and conditions of our Bid are valid for acceptance for a period of 180 days from the Bid deadline. We confirm that we have not taken any deviation so as to be deemed non-responsive.

Dated the_____day of_____, 20…

Thanking you,

We remain,

Yours faithfully,

Name, Designation and Signature of Authorized Person in whose name Power of Attorney/Board Resolution as per Clause…….is issued.

Format – D

Bid Capacity

Bid Capacity Calculation of Single Entity or Members of Consortium/JV

S. No	Each Member Name	Maximum value of similar works executed in any one year during the last three years (Updated to 31.03.2020 price level)	Value of Price level, of existing commitments and ongoing works (During the next 1.5 Years) starting from 28 days prior to date for submission of Bid	No. of years prescribed for Completion of the works for which tenders are invited	Bid Capacity (Rupees in Crores)	Remarks
		A	B	N	(2*A*N) - B	

The above to be duly certified by Statutory Auditor under his signature & stamp.

Format-2

GENERAL PARTICULARS OF THE BIDDER

Name of the Company	
Registered Office Address	
Telephone, Telex, Fax No	
E-mail	
Web site	
Authorized Contact Person(s) with name, designation Address and Mobile Phone No., E-mail address/ Fax No. to whom all references shall be made	
Year of Incorporation	
Have the bidder/Company ever been Debarred By any Govt. Dept. / Undertaking for undertaking any work.	
Reference of any document information attached by the Bidder other than specified in the RFS.	
Whether the Bidder wishes to form a Project Company for execution of work	Yes / No
Bidding company is listed in India	Yes/No
Details of the Ownership structure (Details of persons owning 10% or more of the Total Paid up equity of the Bidding Company in the Format A (General Information about the Tenderer)	

Format-3 Form of Bid-Securing Declaration

Date: _____
Bid No.: _____
Alternative No.: _____
To:

We, the undersigned, declare that:

We understand that, according to your conditions, bids must be supported by a Bid-Securing Declaration.
We accept that we will automatically be suspended from being eligible for bidding in any contract with the entity that invited Bids for the period of time of one year starting on _____ (*bid submission date*), if we are in breach of our obligation(s) under the bid conditions, because we:
(a) Have withdrawn our Bid during the period of bid validity specified in the Letter of Bid or any extension thereto accepted by us; or
(b) Having been notified of the acceptance of our Bid by the Employer during the period of bid validity or any extension thereto accepted by us, (i) fail or refuse to execute the Contract, if required, or (ii) fail or refuse to furnish the Performance Security, in accordance with the ITB.
We understand this Bid-Securing Declaration shall expire if we are not the successful Bidder, upon the earlier of (i) our receipt of your notification to us of the name of the successful Bidder; or (ii) twenty-eight days after the expiration of our Bid validity period.
Name of the Bidder*
Name of the person duly authorized to sign the Bid on behalf of the Bidder** _____
Title of the person signing the Bid _____
Signature of the person named above _____

Date signed _____ day of _____, _____

*: In the case of the Bid submitted by joint venture specify the name of the Joint Venture as Bidder.
**: Person signing the Bid shall have the power of attorney given by the Bidder attached to the Bid.
[Note: In case of a Joint Venture, the Bid-Securing Declaration must be in the name of all members of the Joint Venture that submits the bid.]

Format-4

FORMAT FOR PERFORMANCE BANK GUARANTEE (PBG)

(To be Submitted within 30 days of date of LOA)

(To be on non-judicial stamp paper of appropriate value as per Stamp Act relevant to place of execution.)

*Beneficiary:*_____ *Date:* ____
PERFORMANCE GUARANTEE No.: _____
Guarantor: _____

We have been informed that_____(hereinafter called "the Applicant") has entered into Contract No._____dated__with the Beneficiary, for the execution of_____(hereinafter called "the Contract").

Furthermore, we understand that, according to the conditions of the Contract, a performance guarantee is required.

At the request of the Applicant, we as Guarantor, waiving all objections and defences under the aforementioned contract, hereby irrevocably and independently undertake to pay the Beneficiary any sum or sums not exceeding in total an amount of_____(_____),[1] such sum being payable in the types and proportions of currencies in which the Contract Price is payable, upon receipt by us of the Beneficiary's first demand supported by the Beneficiary's statement, whether in the demand itself or in a separate signed document accompanying or identifying the demand, stating that the Applicant has failed to duly perform the aforementioned contract, without the Beneficiary needing to prove or to show grounds for your demand or the sum specified therein.

This guarantee shall expire, no later than the …. Day of ……, 2… [2], and any demand for payment under it must be received by us at this office indicated above on or before that date.

This guarantee is subject to the Uniform Rules for Demand Guarantees (URDG) 2010 Revision, ICC Publication No. 758, except that the supporting statement under Article 15(a) is hereby excluded.

_____
[signature(s)]

[1] *The Guarantor shall insert an amount representing the percentage of the Accepted Contract Amount specified in the Letter of Acceptance, less provisional sums, if any, and denominated either in the currency(cies) of the Contract or a freely convertible currency acceptable to the Beneficiary.*

[2] *Insert the date 180 days after the expected completion date as estimated from the completion of the Contract period. The Employer should note that in the event of an extension of this date for completion of the Contract, the Employer would need to request an extension of this guarantee from the Guarantor. Such request must be in writing and must be made prior to the expiration date established in the guarantee. In preparing this guarantee, the Employer might consider adding the following text to the form, at the end of the penultimate paragraph: "The Guarantor agrees to a one-time extension of this guarantee for a period not to exceed [six months][one year], in response to the Beneficiary's written request for such extension, such request to be presented to the Guarantor before the expiry of the guarantee."*

Note: All italicized text (including footnotes) is for use in preparing this form and shall be deleted from the final product.

Format-5

Deleted

Format-6

POWER OF ATTORNEY

(To be on non-judicial stamp paper of appropriate value as per Stamp Act relevant to place of execution.)

(To be forwarded on the letterhead of the Bidder/ Lead Member of Consortium)

Format for Board Resolution

(A) Format for the Board resolution to be passed by a Bidder (not applicable in case of consortium)

The Board, after discussion, at the duly convened Meeting on …… (Insert date), with the consent of all the Directors present and in compliance of the provisions of the Companies Act, 1956/2013, passed the following Resolution:

RESOLVED THAT pursuant to the applicable provisions of the Companies Act, 1956/2013 and as permitted under the Memorandum and Articles of Association of the Company, approval of the Board be and is hereby accorded to submit a Bid in response to the Bidding Documents dated _____ issued by Maharashtra Metro Rail Corporation Limited (MAHA-METRO) for *[Insert name of the work]* for Pune Metro Rail Project.

FURTHER RESOLVED THAT Mr./Ms……., (insert the name and designation of the concerned official of the Company) be and is hereby authorized to take all the steps required to be taken by the Company for submission of the aforesaid Bid, including in particular, signing the Bid, making changes thereto and submitting amended Bid, signing and executing all the documents related to the Bid, certified copy of this Board resolution or letter or undertakings, etc., required to be submitted to MAHA-METRO as part of the Bid or such other documents as may be necessary in this regard and to do in our name and our behalf all or any of the acts, deeds or things necessary or incidental to submission of our said Bid including signing and executing the Contract Documents, making representations to MAHA-METRO or any other authority, and providing information / responses to MAHA-METRO, representing us in all matters before MAHA-METRO, and generally dealing with MAHA-METRO in all matters in connection with our Bid till the completion of the bidding process as per the terms of the above said Bidding Documents and further till the Contract is entered into with MAHA-METRO and thereafter till the expiry of the Contract.

FURTHER RESOLVED THAT a power of attorney as per the draft attached to the Bidding Documents be issued in favour of the above named person, _____, to be executed by Mr._____ or Mr. _____, Directors of the Company under the Common seal of the Company, affixation thereof to be witnessed

by one or both of the above named Directors and by Mr. _____, (insert the name and designation of the concerned official of the Company) or as per the Memorandum and Articles of Association of the Company.

Signature and stamp of Company Secretary / Managing Director/Director of Bidder

Notes:

1. This certified true copy should be submitted on the letterhead of the Company, signed by the Company Secretary / Managing Director/Director of the Bidder.

2. The contents of the format may be suitably re-worded indicating the identity of the entity passing the resolution.

3. In the event the Board resolution is from a company incorporated outside India, the same needs to be notarized by a notary in the home country of company passing the resolution and legalized by the Indian Embassy there. However, in case such company is from a country which has signed The Hague Legislation Convention 1961, then the Board Resolution is not required to be legalized by the Indian Embassy if it carries a conforming Appostille certificate.

4. This format may be modified only to the limited extent required to comply with the local regulations and laws applicable to a foreign entity submitting this resolution. For example, reference to Companies Act 1956/2013 may be suitably modified to refer to the law applicable to the entity submitting the resolution. However, in such case, the foreign entity shall submit an unqualified opinion issued by the legal counsel of such foreign entity, stating that the Board resolutions are in compliance with the applicable laws of the respective jurisdictions of the issuing company and the authorizations granted therein are true and valid.

(B) Format for the Board resolution to be passed by Lead Member of Consortium (applicable in case the Bidder is a consortium)

The Board, after discussion, at the duly convened Meeting on …… (Insert date), with the consent of all the Directors present and in compliance of the provisions of the Companies Act, 1956/2013, passed the following Resolution:

RESOLVED THAT pursuant to the applicable provisions of the Companies Act, 1956/2013 and as permitted under the Memorandum and Articles of Association of the Company, approval of the Board be and is hereby accorded to submit a Bid in response to the Bidding Documents dated _____ issued by Maharashtra Metro Rail Corporation Limited (MAHA-METRO) for '……..' [Name of the work] for Pune Metro Rail Project in consortium with _____ (insert the name and address of the other consortium members).

FURTHER RESOLVED THAT pursuant to the applicable provisions of the Companies Act, 1956/2013 and as permitted under the Memorandum and Articles

of Association of the Company, approval of the Board be and is hereby accorded to execute a Consortium Agreement as per the format annexed to the aforesaid Bidding Documents with _____ (insert the name and address of the other consortium members).

FURTHER RESOLVED THAT approval of the Board be and is hereby accorded to the Company to accept and act as the Lead Member of the aforesaid Consortium and also as true and lawful attorney to do in the name and on behalf of the Consortium, all such acts, deeds and things necessary in connection with or incidental to submission of Consortium's Bid in response to the Bidding Documents dated _____ issued by MAHA-METRO for '…….' [name of the work] including signing and submission of the Bid and all documents related to the Bid as specified in the Bidding Documents, including but not limited to undertakings, letters, certificates, acceptances, clarifications, guarantees or any other document, which MAHA-METRO may require us to submit and carrying out the Contract and doing all necessary deeds and things as may be required in respect of the above and also for making representations to MAHA-METRO and providing information / responses to MAHA-METRO, representing the Consortium in all matters before MAHA-METRO, and generally dealing with MAHA-METRO and/or any other authority in all matters in connection with Consortium's Bid, till completion of the bidding process in accordance with the Bidding Documents and further till the Contract is entered into with MAHA-METRO and thereafter till the expiry of the Contract.

FURTHER RESOLVED THAT Mr./Ms……., (insert the name and designation of the concerned official of the Company) be and is hereby authorized to take all the steps required to be taken by the Company for submission of the Consortium's Bid, including in particular, signing the Bid, making changes thereto and submitting amended Bid, signing and executing all the documents related to the Bid, certified copy of this Board resolution or letter or undertakings, etc., required to be submitted to MAHA-METRO as part of the Bid or such other documents as may be necessary in this regard and to do in the name and on behalf the Consortium all or any of the acts, deeds or things necessary or incidental to submission of said Bid including signing and executing the Contract Documents, making representations to MAHA-METRO or any other authority, and providing information / responses to MAHA-METRO, representing the Consortium in all matters before MAHA-METRO, and generally dealing with MAHA-METRO in all matters in connection with our Bid till the completion of the bidding process as per the terms of the above said Bidding Documents and further till the Contract is entered into with the Company and thereafter till the expiry of the Contract.

FURTHER RESOLVED THAT a power of attorney as per the draft attached to the Bidding Documents be issued in favour of the above named person, _____, to be executed by Mr._____ or Mr. _____, Directors of the Company under the Common seal of the Company, affixation thereof to be witnessed by one or both of the above named Directors and by Mr. _____, (insert the name and designation of the concerned official of the Company) or as per the Memorandum and Articles of Association of the Company.

Signature and stamp of Company Secretary / Managing Director/Director of Bidder

Notes:

1. This certified true copy should be submitted on the letterhead of the Company, signed by the Company Secretary / Managing Director/Director of the Bidder.

2. The contents of the format may be suitably re-worded indicating the identity of the entity passing the resolution.

3. In the event the Board resolution is from a company incorporated outside India, the same needs to be notarized by a notary in the home country of company passing the resolution and legalized by the Indian Embassy there. However, in case such company is from a country which has signed The Hague Legislation Convention 1961, then the Board Resolution is not required to be legalized by the Indian Embassy if it carries a conforming Appostille certificate.

4. This format may be modified only to the limited extent required to comply with the local regulations and laws applicable to a foreign entity submitting this resolution. For example, reference to Companies Act 1956/2013 may be suitably modified to refer to the law applicable to the entity submitting the resolution. However, in such case, the foreign entity shall submit an unqualified opinion issued by the legal counsel of such foreign entity, stating that the Board resolutions are in compliance with the applicable laws of the respective jurisdictions of the issuing company and the authorizations granted therein are true and valid.

(C) Format for the Board resolution to be passed by a Member other than the Lead Member of Consortium (applicable in case the Bidder is a consortium)

The Board, after discussion, at the duly convened Meeting on …… (Insert date), with the consent of all the Directors present and in compliance of the provisions of the Companies Act, 1956/2013, passed the following Resolution:

RESOLVED THAT pursuant to the applicable provisions of the Companies Act, 1956/2013 and as permitted under the Memorandum and Articles of Association of the Company, approval of the Board be and is hereby accorded to submit a Bid in response to the Bidding Documents dated _____ issued by Maharashtra Metro Rail Corporation Limited (MAHA-METRO) for '……' [name of the work] for Pune Metro Rail Project in consortium with _____ (insert the name and address of the other consortium members).

FURTHER RESOLVED THAT pursuant to the applicable provisions of the Companies Act, 1956/2013 and as permitted under the Memorandum and Articles of Association of the Company, approval of the Board be and is hereby accorded to execute a Consortium Agreement as per the format annexed to the aforesaid Bidding Documents with _____ (insert the name and address of the other consortium members).

FURTHER RESOLVED THAT approval of the Board be and is hereby accorded to constitute, appoint and authorize _____ (name and registered office address of the Lead Member), which is one of the Members of the Consortium,

to act as the Lead Member of the aforesaid Consortium and also as true and lawful attorney, to do in the name and on behalf of the Consortium, all such acts, deeds and things necessary in connection with or incidental to submission of Consortium's Bid in response to the Bidding Documents dated _____ issued by MAHA-METRO for '…….' [name of the work] including signing and submission of the Bid and all documents related to the Bid as specified in the Bidding Documents, including but not limited to undertakings, letters, certificates, acceptances, clarifications, guarantees or any other document, which MAHA-METRO may require us to submit and carrying out the Contract and doing all necessary deeds and things as may be required in respect of the above and also for making representations to MAHA-METRO and providing information / responses to MAHA-METRO, representing the Consortium in all matters before MAHA-METRO, and generally dealing with MAHA-METRO and/or any other authority in all matters in connection with our Bid, till completion of the bidding process in accordance with the Bidding Documents and further till the Contract is entered into with MAHA-METRO and thereafter till the expiry of the Contract.

FURTHER RESOLVED THAT a power of attorney as per the draft attached to the Bidding Documents be issued in favour of the above said Lead Member, _____, to be executed by Mr._____ or Mr. _____, Directors of the Company under the Common seal of the Company, affixation thereof to be witnessed by one or both of the above named Directors and by Mr. _____, (insert the name and designation of the concerned official of the Company) or as per the Memorandum and Articles of Association of the Company.

FURTHER RESOLVED THAT a power of attorney as per the draft attached to the Bidding Documents be issued in favour of Mr./Ms……., (insert the name and designation of the concerned official of the Company) to be executed by Mr._____ or Mr. _____, Directors of the Company under the Common seal of the Company, affixation thereof to be witnessed by one or both of the above named Directors and by Mr. _____, (insert the name and designation of the concerned official of the Company) or as per the Memorandum and Articles of Association of the Company.

FURTHER RESOLVED THAT Mr./Ms……., (insert the name and designation of the concerned official of the Company) be and is hereby authorized to take all the steps required to be taken by the Company for submission of the aforesaid Bid, including in particular, signing and executing all the documents related to the Bid, certified copy of this Board resolution or letter or undertakings, etc., required to be submitted to MAHA-METRO as part of the Bid or such other documents as may be necessary in this regard and to do in our name and our behalf all or any of the acts, deeds or things necessary or incidental to give effect to this resolution.

Signature and stamp of Company Secretary/Managing Director/Director of Bidder

Notes:

1. This certified true copy should be submitted on the letterhead of the Company, signed by the Company Secretary/Managing Director/Director of the Bidder.

2. The contents of the format may be suitably re-worded indicating the identity of the entity passing the resolution.

3. In the event the Board resolution is from a company incorporated outside India, the same needs to be notarized by a notary in the home country of company passing the resolution and legalized by the Indian Embassy there. However, in case such company is from a country which has signed The Hague Legislation Convention 1961, then the Board Resolution is not required to be legalized by the Indian Embassy if it carries a conforming Appostille certificate.

4. This format may be modified only to the limited extent required to comply with the local regulations and laws applicable to a foreign entity submitting this resolution. For example, reference to Companies Act 1956/2013 may be suitably modified to refer to the law applicable to the entity submitting the resolution. However, in such case, the foreign entity shall submit an unqualified opinion issued by the legal counsel of such foreign entity, stating that the Board resolutions are in compliance with the applicable laws of the respective jurisdictions of the issuing company and the authorizations granted therein are true and valid.

(D) Power of Attorney to be provided by each of the Members of the Consortium (other than the Lead Member) in favour of the Lead Member

WHEREAS Maharashtra Metro Rail Corporation Limited, (the Company) has issued the Bidding Documents on _____ for inviting Bids for '…….' [name of the work] for Pune Metro Rail Project on the terms and contained in the Bidding Documents;

AND WHEREAS …….., ……. and …….. (Insert names of all Members of Consortium) the Members of the Consortium are desirous of submitting a Bid in response to the Bidding Documents, and if selected, undertaking the responsibility of '***Insert the name of the work***' as per the terms of the Bidding Documents;

AND WHEREAS all the Members of the Consortium have agreed under the Consortium Agreement dated …….. entered into between all the Members and submitted along with the Bid to appoint …….. (Insert the name and address of the Lead Member) as Lead Member to represent all the Members of the Consortium for all matters regarding the Bidding Documents and the Bid;

AND WHEREAS pursuant to the terms of the Bidding Documents and the Consortium Agreement, we, the Members of the Consortium hereby designate M/s …….. (Insert name of the Lead Member) as the Lead Member to represent us in all matters regarding the Bid and the Bidding Documents, in the manner stated below:-

Know all men by these presents, We ……. (Insert name and address of the registered office of the Member-1),……. (Insert name and address of the registered office of the Member-2) ……. (Insert name and address of the registered office of the Member-n) do hereby constitute, appoint and authorize ……(name and registered office address of the Lead Member), which is one of the Members of the Consortium, to act as the Lead Member and our true and lawful attorney, to do in our name and on our behalf, all such acts, deeds and things necessary in connection with or incidental to submission of Consortium's Bid in response to the Bidding Document dated _____ issued by the Company for '…….' [name of the work] including signing and submission of the Bid and all documents related to the Bid as specified in the Bidding Documents, including but not limited to undertakings, letters, certificates, acceptances, clarifications, guarantees or any other document, which the Company may require us to submit and carrying out the Contract and doing all necessary deeds and things as may be required in respect of the above. The aforesaid Attorney shall be further authorized for making representations to the Company named in the Bidding Documents, and providing information / responses to the Company named in the Bidding Documents, representing us and the Consortium in all matters before the Company named in the Bidding Documents, and generally dealing with the Company named in the Bidding Documents and/or any other authority in all matters in connection with our Bid, till completion of the bidding process in accordance with the Bidding Documents and further till the Contract is entered into with the Company and thereafter till the expiry of the Contract.

We, as Members of the Consortium, hereby agree to ratify all acts, deeds and things done by our said attorney pursuant to this Power of Attorney and that all acts, deeds and things done by our aforesaid attorney shall be binding on us and shall always be deemed to have been done by us.

All the terms used herein but not defined shall have the meaning ascribed to such terms in the Bidding Documents.

Signed by the within named
…….[Insert the name of the executant company]
through the hand of
Mr. …….
duly authorized by the Board to issue such Power of Attorney

Dated this ……. day of ……

Accepted

……
Signature of Attorney
(Name, designation and address of the Attorney)

Attested

……..
(Signature of the executant)
(Name, designation and address of the executant)

…….
Signature and stamp of Notary of the place of execution

Common seal of …… has been affixed in my/our presence pursuant to Board of Director's Resolution dated……

WITNESS:

1. …….
(Signature)

Name …….

Designation.....……..

2. …….
(Signature)

Name …….

Designation.....……..

Notes:

1. The mode of execution of the power of attorney should be in accordance with the procedure, if any, laid down by the applicable law and the charter documents of the executant(s) and the same should be under common seal of the executant affixed in accordance with the applicable procedure. Further, the person whose signatures are to be provided on the power of attorney shall be duly authorized by the executant(s) in this regard.

2. In the event, power of attorney has been executed outside India, the same needs to be notarized by a notary in the home country of company executing this power of attorney and legalized by the Indian Embassy there. However, in case such company is from a country which has signed The Hague Legislation Convention 1961, then the said power of attorney is not required to be legalized by the Indian Embassy if it carries a conforming Appostille certificate.

3. Also, wherever required, the executant(s) should submit for verification the extract of the chartered documents and documents such as a Board resolution / power of attorney, in favour of the person executing this power of attorney for delegation of power hereunder on behalf of the executant(s).

(E) Format for PoA for Lead Member
POWER OF ATTORNEY

(To be on non-judicial stamp paper of appropriate value as per Stamp Act relevant to place of execution. Foreign companies submitting Bids are required to follow the applicable law in their country)

Power of Attorney to be provided by the BidderCompany/ Lead Member in favour of its representative as evidence of authorized signatory's authority.

Know all men by these presents, We …….(name and address of the registered office of the Bidding Company or Lead Member of the Bidding Consortium, as applicable) do hereby constitute, appoint and authorize Mr./Ms……(name and residential address) who is presently employed with us and holding the position of _____, as our Attorney to do in our name and our behalf all or any of the acts, deeds or things necessary or incidental to submission of our Bid for '…….' [name of the work] for Pune Metro Rail Project in response to the Bidding Document dated _____ issued by Maharashtra Metro Rail Corporation Limited (MAHA-METRO) (the Company) including signing and submission of the Bid and all other documents related to the bidding, including but not limited to undertakings, letters, certificates, acceptances, clarifications, guarantees or any other document which the Company may require us to submit and also signing and executing the Contract Documents. The aforesaid Attorney is further authorized for making representations to the Company or any other authority, and providing information / responses to the Company, representing us in all matters before the Company, and generally dealing with the Company in all matters in connection with our Bid till the completion of the bidding process as per the terms of the Bidding Documents and further till the Contract is entered into with the Company and thereafter till the expiry of the Contract.

We hereby agree to ratify all acts, deeds and things done by our said attorney pursuant to this Power of Attorney and that all acts, deeds and things done by our aforesaid attorney shall be binding on us and shall always be deemed to have been done by us.

(Add in the case of a Consortium)

Our firm is a Member/Lead member of the Consortium of _____, _____ and _____

All the terms used herein but not defined shall have the meaning ascribed to such terms under the Bidding Documents.

Signed by the within named
.....[Insert the name of the executant company]
through the hand of
Mr. …….
duly authorized by the Board to issue such Power of Attorney

Dated this ……. day of ……

Accepted

……
Signature of Attorney
(Name, designation and address of the Attorney)

Attested
……
(Signature of the executant)
(Name, designation and address of the executant)
……
Signature and stamp of Notary of the place of execution

Common seal of …… has been affixed in my/our presence pursuant to Board of Director's Resolution dated……

WITNESS
1. …….
(Signature)

Name …….

Designation.....……..

2. …….
(Signature)

Name …….

Designation.....……..

Notes:

1. The mode of execution of the power of attorney should be in accordance with the procedure, if any, laid down by the applicable law and the charter documents of the executant(s) and the same should be under common seal of the executant affixed in accordance with the applicable procedure. Further, the person whose signatures are to be provided on the power of attorney shall be duly authorized by the executant(s) in this regard.
2. In the event, power of attorney has been executed outside India, the same needs to be duly notarized by a notary public of the jurisdiction where it is executed.
3. Also, wherever required, the executant(s) should submit for verification the extract of the charter documents and documents such as a board resolution / power of attorney, in favour of the person executing this power of attorney for delegation of power hereunder on behalf of the executant(s).

(F) Format for PoA for Other Member(s)
POWER OF ATTORNEY

(To be on non-judicial stamp paper of appropriate value as per Stamp Act relevant to place of execution. Foreign companies submitting Bids are required to follow the applicable law in their country)

Power of Attorney to be provided by each Member other than the Lead Member in favor of its representative as evidence of authorized signatory's authority. (applicable to consortium only)

Know all men by these presents, We ……..(name and address of the registered office of the Member of the Consortium, as applicable) do hereby constitute, appoint and authorize Mr./Ms……(name and residential address) who is presently employed with us and holding the position of _____, as our Attorney to sign and execute the Contract Agreement and any other requisite document in our name and our behalf for '……' [name of the work] for Pune Metro Rail Project in response to the Bidding Document dated _____ issued by Maharashtra Metro Rail Corporation Limited (MAHA-METRO) (the Company) and to do all or any of the acts, deeds or things necessary or incidental to the above.

We hereby agree to ratify all acts, deeds and things done by our said attorney pursuant to this Power of Attorney and that all acts, deeds and things done by our aforesaid attorney shall be binding on us and shall always be deemed to have been done by us.

(Add in the case of a Consortium)

Our firm is a Member of the Consortium of _____, _____ and _____

All the terms used herein but not defined shall have the meaning ascribed to such terms under the Bidding Documents.

Signed by the within named
.....[Insert the name of the executant company]
through the hand of
Mr. …….
duly authorized by the Board to issue such Power of Attorney

Dated this ……. day of ……

Accepted

……
Signature of Attorney
(Name, designation and address of the Attorney)

Attested

……
(Signature of the executant)
(Name, designation and address of the executant)

……
Signature and stamp of Notary of the place of execution

Common seal of …… has been affixed in my/our presence pursuant to Board of Director's Resolution dated……

WITNESS

1. …….
(Signature)

Name …….

Designation.....……..

2. …….
(Signature)

Name …….

Designation.....……..

Notes:

1. The mode of execution of the power of attorney should be in accordance with the procedure, if any, laid down by the applicable law and the charter documents of the executant(s) and the same should be under common seal of the executant affixed in accordance with the applicable procedure. Further, the person whose signatures are to be provided on the power of attorney shall be duly authorized by the executant(s) in this regard.

2. In the event, power of attorney has been executed outside India, the same needs to be duly notarized by a notary public of the jurisdiction where it is executed.

3. Also, wherever required, the executant(s) should submit for verification the extract of the charter documents and documents such as a board resolution / power of attorney, in favour of the person executing this power of attorney for delegation of power hereunder on behalf of the executant(s).

Format -7

FINANCIAL ELIGIBILITY CRITERIA REQUIREMENT (AS PER CLAUSE 3.4)

(To be submitted on the letter head of Bidding Company)

To,

Maharashtra Metro Rail Corporation Ltd.
Pune Metro Rail Project,
101, The Orion, Opposite Don Bosco Youth Centre,
Koregaon Park, Pune 411001
Maharashtra, India

Dear Sir,

Sub: - Bid for "*Design, Engineering, Manufacture, Supply, Storage, Civil work, Erection, Testing & Commissioning of the Rooftop and Boundary Walls mounted Solar PV projects under RESCO model including Operation and Comprehensive Maintenance (O&M) of 5.0 MWp Solar PV project for a period of 25 years after commissioning of 10 Nos. of Elevated Stations and 2 Nos. of Depots for Pune Metro Rail Project*" in response to the **Contract: -** We submit our Bid/Bids for the total capacity of ……MW (Insert total offered capacity

(RESCO Model)		Approximate capacity in kWp
1	**TOTAL**	**5000**

in MW; for Bids for which we submit details of our Financial Eligibility Criteria Requirements.

We certify that the Financially Evaluated Entity (ies) had an Annual Turnover and Net worth as specified in clause 3.4.3 of section II

Name of Financially Evaluated Entity*	Relationship with Bidding Company**	Financial year	Year of Incorporation	Annual Turnover (Rs. Crore)#	Net worth (Rs. Crore)#

as per Clause 3.4.3 (in Rs. Crore)

* The Financially Evaluated Entity may be the Bidding Company itself.

** The column for "Relationship with Bidding Company" is to be filled in only in case financial capability of Parent Company and/or Affiliate has been used for meeting Qualification Requirements.

Financial Year means FY 2017-2018 to FY 2019-2020 or Calendar year 2018 to 2020 in case applicable.

- Attach Separately Format-12 with this format.

Yours faithfully

(Signature and stamp (on each page) of Authorized Signatory of Bidding Company)

Name:-…….
Date:-……
Place:-……..

Signature and stamp (on each page) of Chartered Accountant/Statutory Auditors of Bidding Company.

Name: ……..

Date: …….

Place: ……

Notes:

Audited consolidated annual accounts of the Bidder may also be used for the purpose of financial criteria provided the Bidder has at least 26% equity in each company whose accounts are merged in the audited consolidated accounts and provided further that the financial capability of such companies (of which accounts are being merged in the consolidated accounts) shall not be considered again for the purpose of evaluation of the Bid.

Format-8

Format for certificate of relationship of Parent Company or Affiliate with the Bidding Company.

To,

…….

……

…….

Dear Sir,

Sub: - Bid for "*Design, Engineering, Manufacture, Supply, Storage, Civil work, Erection, Testing & Commissioning of the Rooftop and Boundary Walls mounted Solar PV projects under RESCO model including Operation and Comprehensive Maintenance (O&M) of 5.0 MWp Solar PV project for a period of 25 years after commissioning of 10 Nos. of Elevated Stations and 2 Nos. of Depots for Pune Metro Rail Project*. We hereby certify that M/s……,M/s……..,M/s…….are the Affiliate(s) /Parent Company of the Bidding Company as per the definition of Affiliate/Parent Company as provided in this RFS and based on details of equity holding as on seven (7) days prior to the Bid Deadline.

The details of equity holding of the Affiliate/Parent Company/Bidding Company or vice versa as on seven (7) days prior to the Bid Deadline are given as below:

Name of Bidding Company	Name of the Affiliate of the Bidding Company/ Name of the Parent Company of the Bidding Company	Name of the Company having common control on the Affiliate and the Bidding Company	Percentage of Equity Holding of Parent Company in the Bidding Company

*Strike out whichever is not applicable.

(Insert Name and Signature of Statutory Auditor or in practice Company Secretary of the Bidder)

Format-9

Undertaking from the Technical/Financially Evaluated Entity or its Parent Company/
Ultimate Parent Company/Affiliate Company

(On the Letter Head of the Technical/Financially Evaluated Entity or its Parent Company/Ultimate Parent Company/ Affiliate Company)

Name:

Full Address:

Telephone No.:

E-mail address:

Fax/No.:

To,

…….

Dear Sir,

We refer to the RFS No……..dated…….for "*Design, Engineering, Manufacture, Supply, Storage, Civil work, Erection, Testing & Commissioning of the Rooftop and Boundary Walls mounted Solar PV projects under RESCO model including Operation and Comprehensive Maintenance (O&M) of 5.0 MWp Solar PV project for a period of 25 years after commissioning of 10 Nos. of Elevated Stations and 2 Nos. of Depots for Pune Metro Rail Project*"

"We have carefully read and examined in detail the RFS, including in particular, Clause ….of the RFS, regarding submission of an undertaking, as per the prescribed Format at Annexure…….of the RFS.

We confirm that M/s……(Insert name of Bidding Company/) has been authorized by us to use our Financial/Technical capability for meeting the Financial/Technical Eligibility as specified in Clause….of the RFS referred to above.

We also hereby undertake and confirm that we as parent/affiliate company would provide full technical, design, implementation and operational support to the bidding company for successful implementation and operation of this project.

We have also noted the amount of the Performance Guarantee required to be submitted as per Clause….of the RFS the ……..(Insert the name of the Bidding Company) in the event of it being selected as the Successful Bidder".

In view of the above, we hereby undertake to you and confirm that in the event of failure of ……..(Insert name of the Bidding Company) to submit the Performance

Guarantee in full or in part at any stage, as specified in the RFS, we shall submit the Performance Guarantee not submitted by ……(Insert name of the Bidding Company)".

We have attached hereto certified true copy of the Board Resolution Whereby the Board of Directors of our Company has approved issue of this Undertaking by the company.

All the terms used herein but not defined, shall have the meaning as ascribed to the said terms under the RFS.

Signature of Chief Executive Officer/Managing Director

Common seal of ……..has been affixed in my/our presence pursuant to Board of Director's Resolution dated……

WITNESS

……. (Signature)

Name……

Designation……..

……. (Signature)

Name……

Designation……..

Note: The above undertaking to be submitted separately from the Parent Company/ Ultimate Parent Company/Affiliate Company in case Bidder is using Work Experience/Financial credentials of Parent Company/ Ultimate Parent Company/Affiliate Company for the purpose of qualification.

Format-10

ANNEXURE-1 Work experience

Applicant's legal name …… Date…….
Group Member's legal name…… Page …….. of ……..

pages For similar works as per clause no. 3.4.2

Work Experience		
Contract Number	Information	
Contract Identification		
Award date Completion date		
Employer's Name		
Employer's Address: Telephone / Fax number: E Mail		
Role in Contract (Individual/JV member)	Individual	JV Member
Completion Cost	Currencies (as stated in Clients Certificate)	In equivalent INR at 31.12.2020 price level
If JV member, specify percentage participation in contract & amount (Please refer Note-1)	% participation	In equivalent INR
Quantum of similar work in support of clause no. 3.4.2		In case of JV, actual works executed by the Applicant **(duly substantiated with Client Certificate)**

NOTE: 1. Only the value of contract as executed by the applicant/member in his own name should be indicated. Where a work is undertaken by a group, JV only that portion of the contract which is undertaken by the concerned applicant/member should be indicated and the remaining done by the other members of the group be excluded. This is to be substantiated with documentary evidence.

2. Separate sheet for each work along with Clients Certificate and performance certificate six months in operation after the completion of work, to be submitted.

ANNEXURE - 1A: Summary of Information provided in Annexure-1

Applicant's legal name …….....

Date…….. Group Member's legal name…… Page …….. of ……... pages

Name of Applicant (each member in case of group, JV)	**Total Number of works As per clause no. 3.4.2 at the price level of as on date 31.12.2020**	No. of contracts delayed, i.e., completed beyond the original date of completion

NOTE:-

1. In case the work was done as JV, only the value of work done by the applicant as per his Percentage participation must be given.
2. Reasons of delay whether on contractors account or on account of Employer in each applicable case need to be enclosed separately.
3. Bidder to fill the above for work experience under 3.4.2 a, b, c & d.

Format -11

Certificate from the beneficiary		
RFS No: Date :		
1	Name of the owner / beneficiary & Complete postal address :-	
2	Name of the Authorized contact person : (Including mobile no & Email-id)	
3	Address of SPV power plant installed :	
4	Name of the Installer/Successful Bidder:	
Sr. No	Component	Details
1	Installed Rooftop Solar PV Project capacity in (kWp)	
2	Whether training was provided by installer for operation and maintenance of SPV plant. Note: Operation & Maintenance (O&M) of SPV Plant.	
3	Whether the following documents were provided or not	
	Installation manual(SPV system), certificates, catalogue, As Built drawings for (DC SLD, AC SLD, Plant Layout, Civil & Structural drawings, SCADA drawings, Earthing drawing, Lightning drawings, Bill of Quantity (BOQ), Design sheet for Earthing calculations, other drawings, etc,.	
	Copy of the Warrantees and Guarantees of the different components of Solar PV system.	
	Insurance as per RFS	
	Recommended list of spares for 25 years.	
	Web link for Remote monitoring of SPV plant including username & password to be provided installer to MAHA-METRO.	
	Performance Ratio (PR) should be minimum of 75% for initial commissioning acceptance.	

	Capacity utilization factor (CUF) should be certified by Owner of the plant /beneficiary during 2 years O&M period.		
4	Project cost allocated is Rs. / Wp to		
	Cost break up	Owner share: Rs. ..... / Wp	
		Subsidy Share: Rs. ...../ Wp (If Provided.)	

Declaration:

1. It is to certify that all the information given above is true and correct to best of my knowledge. We are satisfied with the installation of SPV system and working satisfactorily as per above details.
2. I solemnly declare that we including our Affiliate/Group company will not claim any subsidy/incentive using this project under any other schemes of Central/State Govt./Public sector Undertaking.

Signature of Authorized Signatory on each page: _____

Name_____Designation _____

Seal:

Format-12

Annexure -2

Financial DATA

Applicant's legal name ……..……Date:- --/--/2020
Group Member's legal name……
Page …….. of …….. Pages

Each Applicant or member of a JV must fill in this form

Description of Financial Data for Latest Last 3 Years (Indian Rupees) (audited data)

Sr. No.	Financial Year	2017-2018	2018-2019	2019-2020
1	Total Assets			
2	Current Assets			
3	Total External Liabilities			
4	Current Liabilities (Inclusive of provisions, if any)			
5	Annual Profit Before Taxes			
6	Annual Profit After Taxes			
7	Net worth (1-3)			
8	Working Capital (2-4)			
9	Annual Turnover			

Attach copies of the audited balance sheets, including all related notes, income statements for the last three audited financial years, as indicated above, complying with the following conditions.

1. Separate Performa shall be used for each member in case of JV.
2. All such documents reflect the financial data of the Applicant or member in case of JV, and not sister or Parent Company.
3. Financial statements shall be audited by Statutory Auditor of the Company under their seal & stamp and shall be strictly based on Audited Annual Financial results of the relevant period(s). No statements for partial periods will be accepted.
4. Financial statements must be complete, including all notes to the financial statements.
5. Applicants whose financial year closure falls in months other than March, may submit all relevant data for the last 3 years i.e. 2018, 2019 and 2020.
6. **The above Annexure shall be duly certified by Chartered Accountant / Statutory Auditor under his signature & stamp.**

CONSORTIUM AGREEMENT

Format-13

(To be on non-judicial stamp paper of appropriate value as per Stamp Act relevant to place of execution)

(JV/ Consortium Agreement)

(To be on non-judicial stamp paper of appropriate value as per Stamp Act relevant to place of execution, duly signed on each page. Foreign entities submitting the Bid are required to follow the applicable law in their country)

FORM OF CONSORTIUM AGREEMENT BETWEEN
M/S....., M/S.....,
M/S..... AND M/S.....
FOR (……) [Consortium/JV Name]

THIS Consortium Agreement (hereinafter referred to as "Agreement") executed on this..... day of ..... Two thousand Twelve between

..... a company incorporated under the laws of ..... and having its Registered Office at ..... (hereinafter called the "Party 1", which expression shall include its successors, executors and permitted assigns), and

..... a company incorporated under the laws of ..... and having its Registered Office at ..... (hereinafter called the "Party 2", which expression shall include its successors, executors and permitted assigns) and

..... a Company incorporated under the laws of ..... and having its Registered Office at ..... (hereinafter called the "Party 3", which expression shall include its successors, executors and permitted assigns)

(The Bidding consortium should list the name, address of its registered office and other details of all the consortium Members)

for the purpose of submitting the Bid in response to the Bidding Documents and in the event of selection as Successful Bidderto execute the Contract Agreement and/or other requisite documents, and to carry out the '…….' ("Works") for Pune Metro Rail Project to be awarded by Maharashtra Metro Rail Corporation Limited (hereinafter referred as "MAHA-METRO" or "the Company").

Party 1, Party 2, and Party 3 are hereinafter collectively referred to as the "Parties" and individually as a "Party".

WHEREAS MAHA-METRO desired to engage a contractor for ……. [name of the Works] for Pune Metro Rail Project.

AND WHEREAS the Consortium of [.....] (insert the names of all the

Members) intends to participate for the Bid, against the Bidding Documents issued to ……. [Insert the name of purchaser of Bidding Document].

AND WHEREAS Para BDS ITB 4.7 of the Instructions to Bidder stipulates that the Bidders bidding on the strength of a consortium shall submit a legally enforceable Consortium Agreement in a format specified in the Bidding Documents.

NOW THEREFORE, THIS INDENTURE WITNESSTH AS UNDER:

In consideration of the above premises and agreement, all the parties in this Consortium do hereby mutually agree as follows:

1. In consideration of the selection of the Consortium as the Successful Bidderby the Company, we the Members of the Consortium and Parties to the Consortium Agreement do hereby unequivocally agree that M/s..... (Insert name of the Lead Member), shall act as the Lead Member as defined in the Bidding Documents for self and agent for and on behalf of ……. (the names of all the other Members of the Consortium to be filled in here) to do on behalf of the Consortium, all or any of the acts, deeds or things necessary or incidental to the Consortium's Bid for the Contract including submission of the Bid, participating in meetings, responding to queries, submission of information/ documents and generally to represent the Consortium in all its dealings with MAHA-METRO or any other Government Agency or any person, in connection with the Works until culmination of the process of bidding till the Contract is entered into with MAHA-METRO and thereafter till the expiry of the Contract.

2. The Lead Member is hereby authorized by the Members of Consortium and Parties to the Consortium Agreement to bind the Consortium, incur liabilities and receive instructions for and on behalf of all Members. It is agreed by all the Members that entire execution of the Contract including payment shall be carried out exclusively through the Lead Member.

3. The Lead Member shall be liable and responsible for ensuring the individual and collective commitment of each of the Members of the Consortium in discharging all their respective obligations under the Contract with MAHA-METRO. Each Consortium Member further undertakes to be individually liable for the performance of its part of the obligations without in any way limiting the scope of collective liability envisaged in this Agreement.

4. In case of any breach of any of the obligations as specified under clause 3 above by any of the Consortium Members, the Lead Member shall be liable to fulfil such obligation.

5. It is agreed that sharing of responsibilities hereto among the Consortium members shall not in any way be a limitation of responsibility of the Lead Member under these presents.

6. This Consortium Agreement shall be construed and interpreted in accordance with the Laws of _____.

7. The Bid-Securing Declaration is in the name of all members of the Joint Venture/Consortium.

8. It is hereby agreed that in case of selection of bidding consortium as the Successful Bidder, the Parties to this Consortium Agreement do hereby agree that the Lead Member shall furnish the Performance Security on behalf of the Consortium, as stipulated in the Bidding Documents.

9. It is further expressly agreed that the Consortium Agreement shall be irrevocable and, for the Successful Bidder, shall remain valid over the term of the Contract, unless expressly agreed to the contrary by the Company.

10. The Lead Member is authorized and shall be fully responsible for the accuracy and veracity of the representations and information submitted by the Consortium Members respectively from time to time in response to the Bidding Documents for the purposes of the Bidding.

11. It is expressly understood and agreed between the Members that the responsibilities and obligations of each of the Members shall be as follows:

    ……..
    ……..

12. It is agreed by the Members that the above sharing of responsibilities and obligations shall not in any way be a limitation of joint and several responsibilities and liabilities of the Members, with regards to all matters relating to the execution of the Works as envisaged in the Bidding Documents and the Contract. The Parties shall be jointly and severally liable for execution of the Works in accordance with the terms of the Contract and the Bidding Documents.

13. It is clearly agreed that the Lead Member shall ensure performance under the Contract and if one or more Consortium Members fail to perform its /their respective obligations under the agreement(s), the same shall be deemed to be a default by all the Consortium Members.

14. It is hereby agreed that in case of selection of the Consortium as the Successful Bidder, [the Lead Member shall furnish the Performance Security on behalf of the Consortium as stipulated in the Bidding Documents] / [the Performance Security as stipulated in the Bidding Documents shall be furnished by the Members on behalf of the Consortium in such proportion as may be agreed to between us]

15. It is agreed by all the Members that there shall be separate Consortium Bank Account (distinct from the bank accounts of the individual Members) to which the individual Members shall contribute their share capital and/or working capital and the financial obligations of the Consortium shall be discharged through the said Consortium Bank Account only and also all the payments received by the Consortium from the Employer shall be through that account alone.

16. It is hereby expressly agreed between the Parties to this Consortium Agreement that neither Party shall assign or delegate its rights, duties or obligations under this Agreement except with prior written consent of the Company.

17. We hereby agree to ratify all acts, deeds and things lawfully done by the aforesaid Lead Member pursuant to this Agreement and that all acts, deeds and things done by the aforesaid Lead Member shall and shall always be deemed to have been done by us/Consortium.

This Consortium Agreement

(a) has been duly executed and delivered on behalf of each Party hereto and constitutes the legal, valid, binding and enforceable obligation of each such Party,

(b) sets forth the entire understanding of the Parties hereto with respect to the subject matter hereof including the Consortium/Bidder's legal persona and there is or are no other agreements relating to the Consortium/Bidder'sincorporation, constitution, powers or organisation which may affect in any way its ability to carry out the Works;

(c) may not be amended or modified except in writing signed by each of the Parties and with prior written consent of the Company.

IN WITNESS WHEREOF, the Parties to the Consortium Agreement have, through their authorized representatives, executed these presents and affixed common seals of their respective companies on the Day, Month and Year first mentioned above.

Common Seal of .....
has been affixed in my/our
presence pursuant to the
Board of Director's resolution
dated .....

……..
……
(Signature)
representative)
Name: …….
Designation:……..
……..
Place: …….
Date: ……

For and on behalf of
Consortium Member (party 1)
M/s…….

(Signature of authorized

Name:……..
Designation:

Witness:

1. …….
(Signature)
Name …….

Designation.....……..

2. …….
(Signature)
Name …….

Designation.....……..

Common Seal of ..... For and on behalf of
has been affixed in my/our Consortium Member (Party 2)

presence pursuant to the Board of Director's resolution dated ..... M/s…….

…….
(Signature)

Name:
Designation:
Place:
Date:

…….
(Signature of authorized representative)
Name:
Designation:

WITNESS

1. …….
(Signature)
Name ……

Designation.....……..

2. …….
(Signature)
Name ……

Designation.....……..

Attested:

…….
(Signature)
(Notary Public)

Place: …….
Date: …….

Common Seal of ..... has been affixed in my/our presence pursuant to the Board of Director's resolution dated ..... For and on behalf of Consortium Member (Party 3) M/s…….

…….
(Signature)

Name:
Designation:
Place:
Date:

…….
(Signature of authorized representative)
Name:
Designation:

WITNESS

1. …….
(Signature)
Name …….

Designation.....……..

2. …….
(Signature)
Name …….

Designation.....……..

Attested:

…….
(Signature)
(Notary Public)

Place: …….
Date: …….

Format-14

UNDERTAKING FOR CORRUPT & FRAUDULENT PRACTICE

It is confirmed and declared that we, or any of our associate, have not been engaged in any fraudulent and corrupt practice and that no agent, middleman or any intermediary has been, or will be, engaged to provide any services, or any other items of work related to the award and performance of this contract and no agency commission or any payment which may be construed as an agency commission has been, or will be, paid and that the tender price will not any such amount.

In case above is not found true at any later stage, MAHA-METRO may initiate any punitive step it deems fit.

STAMP & SIGNATURE OF AUTHORIZED SIGNATORY

NOTE:

1. In case of JV/Consortium, the undertaking shall be submitted by each member of the JV/Consortium.
2. The undertaking shall be signed by authorized signatory of the tenderer or constituent member in case of JV/Consortium.

FORMAT- 15

(Undertaking as per clause 3.4.1 vii of Section-II)

We do hereby undertake that none of the Central / State government department / public sector undertaking / other government entity or local body has banned business with us as on the date of tender submission. Also none of the work has been rescinded / terminated by MAHA-METRO after award of contract to us during last 5 years due to our non-performance.

STAMP & SIGNATURE OF AUTHORISED SIGNATORY

Note:

1. In case of JV/Consortium, the undertaking shall be submitted by each member of the JV/Consortium.
2. The undertaking shall be signed by authorized signatory of the tenderer. In case of JV/Consortium by the authorized signatory of the constituent members counter signed by the authorized signatory of tenderer.

.

FORMAT- 16

Undertaking for passing on benefits of exemptions to MAHA-METRO and for adjustment of amounts due from balance due

(To be submitted on Bidder's Letterhead)

Dated:……..

Letter of Undertaking

CONTRACT No. ***["Insert Contract No."]***

["Insert Name of the Work."]

I _____ (State Name of Director/Partner/ Karta/Authorized Person) in capacity of _____ of _____(State name of the undertaking organization) here by undertake to reimburse / pass on benefit of any duty draw back / export, import incentive / exemption / concession / benefit etc. obtained for the MAHA-METRO project to MAHA-METRO. I will maintain proper records as required by MAHA-METRO and relevant statute. I will furnish such records to MAHA-METRO as and when required by them.

I agree to adjustment of any benefits/ duty draw back / export, import incentive / exemptions / concessions to be made from the balance due to me without any prejudice.

I also undertake to indemnify MAHA-METRO in case of any loss caused due to non reimbursement / passing on the benefit of duty draw back / export, import incentive / exemption / concession etc.

I state that everything declared by me is true and correct to my belief.

Signed…….
For on behalf of
(Name of Bidder / Consortium)

FORMAT- 17

(Undertaking as per clause 3.4.1 ix of Section-II)

(UNDERTAKING FOR FINANCIAL STABILITY)

We do hereby undertake that we have not suffered bankruptcy/insolvency during the last 5 years.

STAMP & SIGNATURE OF AUTHORISED SIGNATORY

Note :

1. In case of JV/Consortium, the undertaking shall be submitted by each member of the JV/Consortium.
2. The undertaking shall be signed by authorized signatory of the tenderer. In case of JV/Consortium by the authorized signatory of the constituent members counter signed by the authorized signatory of tenderer.

FORMAT- 18

UNDERTAKING FOR DOWNLOADED TENDER DOCUMENT

We here by confirm that, we have downloaded / read the complete set of tender documents /addendum/clarifications along with the set of enclosures hosted on e-tendering portal Punemetrorail.etenders.in We confirm that we have gone through the bid documents, addendums and clarifications for this work placed up to the date of opening of bids on the e-tendering portal [**https://mahametrorail.etenders.in**]. We confirm our unconditional acceptance for the same and have considered for these in the submission of our financial bid.

Signature of authorised signatory

FORMAT- 19 a

UNDERTAKING REGARDING RESTRICTIONS ON PROCUREMENT FROM A BIDDER OF A COUNTRY WHICH SHARES LAND BORDER WITH INDIA

Certificate for Tenders

I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India; I certify that this bidder is not from such a country or, if from such a country, has been registered with the Competent Authority. I hereby certify that this bidder fulfills all requirements in this regard and is eligible to be considered. *[where applicable, evidence of valid registration by the Competent Authority shall be attached]*

Signature of authorised signatory

FORMAT- 19 b

Certificate for Tenders for Works involving possibility of sub-contracting

I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India and on sub-contracting to contractors from such countries; I certify that this bidder is not from such a country or, if from such a country, has been registered with the Competent Authority and will not sub-contract any work to a contractor from such countries unless such contractor is registered with the Competent Authority. I hereby certify that this bidder fulfills all requirements in this regard and is eligible to be considered. *[where applicable, evidence of valid registration by the Competent Authority shall be attached]*

Signature of authorised signatory

Annexure-A

DOCUMENTS REQUIRED FOR PROJECT SANCTION

Following documents will be required to be submitted for project sanction:

1. Project Report

   (Project report should contain the following)

   - Context / background / Introduction
   - Project objectives
   - Target beneficiaries
   - Project strategy / Approach of work & methodology
   - Environmental Impact Assessment, if required.
   - Site details including photographs with date & time stamping
   - Solar resource assessment (along with PVsyst report)
   - Technology selection (Module, Inverter and BOS)
   - Design, Simulation, BOM and layout of SPV plant
   - Grid connectivity and metering scheme
   - Means of financing and project budget
   - Financial, Economic & Risk Analysis
   - Time frame / schedule of implementation
   - Shadow Analysis
   - Savings/reduction achieved in terms of CO2, trees etc equivalent to the project

2. Agreement between the bidder and the owner of the Project and Building/Roof top (Notarized original agreement on stamp paper of appropriate value should be enclosed).

All Agreement shall generally have reference to the MAHA-METRO **Contract:- …….** and Letter of Acceptance and provisions as per terms and conditions, technical specification and performance parameter in line with the MAHA-METRO RFS Document against which Letter of Acceptance has been issued. In addition, it shall indicate the price / tariff payable by the roof top Owner to the developer, payment terms, completion period along with other conditions of contract like insurance, warranty, force majeure, arbitration, jurisdiction, governing law, site access for the developer, and, site access for MAHA-METRO officials for the entire plant life.

3. No Objection Certificate from the MAHA-METRO for grid connectivity.

Annexure – B

Indemnity Bond

THIS INDENTURE made on .....between .....(hereinafter called the Contractor) which expression shall where the context do admits or implies be deemed to include its executors, administrators and assigns of the one part and the Maharashtra Metro Rail Corporation Limited (hereinafter called Maha-Metro) of the other part.

WHEREAS by the agreement (LOA No ..... dated.....) (hereinafter called the said agreement) the contractor has agreed to "----------" and whereas the contractor has applied to the Maharashtra Metro Rail Corporation Limited that they may be allowed advance on the security of materials absolutely belonging to them and brought by them to the site of the works covered under the project of the said agreement for use in the construction of such of the work as they have under taken to execute at rates fixed for the finished work (inclusive of the cost of materials and labour and other charges).

AND WHEREAS the Maharashtra Metro Rail Corporation Limited has agreed to make stage payment to the contractor the total sum of Rs.----------(Rupees ----------only) for stage payment Bill. The quantities and other particulars of which are detailed in this bill for the said works signed by the Contractor on "....." and Maharashtra Metro Rail Corporation Limited has reserved to itself option of making any further advances till date on the security of other materials brought by the contractor to site of the said work.

NOW THIS INDENTURE WITNESS that in pursuance of the said agreement and its consideration of the sum of Rs. ---------- (Rupees ----------only) on or before the execution of these present amount paid to the contractor by the Maharashtra Metro Rail Corporation Limited (the receipt where of the contractor) both hereby acknowledge and of such further Stage payment, if any, as may be made to him so aforesaid to the contractor do the covenant and agreed with the Maharashtra Metro Rail Corporation Limited and declare as follows:

1. That the said sum of Rs. ---------- (Rupees ---------- only) so Stage Payment by the Maharashtra Metro Rail Corporation Limited to the contractors as aforesaid and all or any further sum or sum's advanced as aforesaid shall be employed by the contractor in or towards the execution of the said works and for no other purpose whatsoever.

2. That the Stage Payment detailed in the said running account bill which have been offered to and accepted by the Maharashtra Metro Rail Corporation

Limited as security are absolutely the contractor's own property and free from encumbrances of any kind and the contractor's shall not make any application for or receive any further payments on the security of work executed which are not absolutely his own property and free from encumbrances of any kind the Contractor indemnifies the Maharashtra Metro Rail Corporation Limited against all claims on any materials in respect of which any Stage Payment has been made to him as aforesaid.

3. That the Stage Payment detailed in the said running account bill and all other stage payments on the security of which further payments or Stage Payment any hereafter be made as aforesaid (hereinafter called the said materials) shall be used by the contractor solely in the execution of the said works in accordance with the directions of the Engineer / Maharashtra Metro Rail Corporation Limited and in the terms of the said agreement.

4. That the contractor shall be fully liable for the materials/components and shall make at his own cost all necessary and adequate arrangement for the proper watch, safe custody and protection against all risks including, but not limited to acts of the God of the said materials/components.

5. That the contractor shall be liable to provide on approved insurance in favour of Maharashtra Metro Rail Corporation Limited all such materials/components used for the purpose of entire Metro project that until used till fully commissioned and/ or successful completion of the project, including but not limited to construction and the said materials shall remain at the site of said works in the contractor's custody and on his own responsibility and shall at the time be open to inspection by the Engineer/ Maharashtra Metro Rail Corporation Limited. That the Contractor shall be responsible for all such losses incurred towards such damage and/ or loss of goods in storage and custody and shall indemnify MAHA-Metro towards the same. This insurance will be valid for a period until this material is approved and fixed in the building or advance has been fully recovered from contractor and the validity of all such insurance documents shall be ensured by MAHA-Metro.

6. That the title to Material shall pass to Maha-Metro upon payment and shall become and remain absolute sole property of Maha-Metro.

7. That the said materials/components in the Contractor's custody shall not on any account be removed/shifted except with the prior written permission from the Engineer/ Maha-Metro, as obtained after cumulative inspection by Contractor, Engineer and Maha-Metro.

That the said material shall be shifted to Maha-Metro's store (in Depot or elsewhere as per Maha-Metro's discretion) constructed by the Contractor on the land allotted by Maha-Metro only upon the instruction of the Maha-Metro.

8. That issue of any Stage Payment excess of what is finally required to be used at site would be the contractor's property without any liability on Maharashtra Metro Rail Corporation Limited., who would recover the cost of this from the contractor.

9. That the contractor hereby charges all the said materials components with the repayment to the Maharashtra Metro Rail Corporation Limited of the said sum of Rs. ---------- (Rupees ---- ---------- -----only) and any further sum or sums advanced as aforesaid and all cost charges. Damages and expenses payable under these presents provided always and it is hereby agreed and declared that not with power contained therein, if any, whenever the convenient for payment, and repayment herein before contained shall become enforceable and the money owned shall not be paid in accordance therewith, the Maha-Metro, may at any time thereafter adopt all or any of the following courses as he may deem best.

a. That if the contractor shall at any time not be able to complete any part of the Component / equipment as per provision in contract Agreement it shall be considered as the work being left incomplete by the contractor and action as per the conditions of the contract shall be taken.

b. Deduct all or any of the money owning out of the performance security or any sum due to the contractor under the said agreement.

That in the event of any conflict between the provisions of these presents the said agreement the provisions of these presents shall prevail.

This widening shall be co-extensive to the agreement dated ..... between Maharashtra Metro Rail Corporation Limited, _____. (Client) and ..... (Contractor).

IN WITNESS where of the said contractor and by the order under the direction of Maha-

Metro has here set their respective hands the day and years first above written.

Signed, Sealed & Delivered by the said Contractor:

IN THE PRESENCE OF: WITNESS:

1. NAME: Signature:

SIGNED BY (ADDRESS)

BY THE ORDER AND DIRECTION OF THE Maharashtra Metro Rail Corporation Limited IN THE PRESENCE OF:

SIGNATURE: WITNESS

(NAME AND ADDRESS)

Section-VII
POWER PURCHASE AGREEMENT (PPA)

POWER PURCHASE AGREEMENT (PPA)

This Power Purchase Agreement (PPA) is executed on _____ **(Date), at Pune**, between Authorized representative of Purchaser **Maharashtra Metro Rail Corporation Limited, Pune Metro Rail Project at** 1st Floor, 101, The Orion, Opposite Don Bosco Youth Centre, Koregaon Park, Pune-411001 (hereinafter referred to as "Purchaser") AND M/s _____ **(Developer)** (CIN No._____), a company incorporated under the Companies Act, _____ having its registered office at ___-

_____

_____**, India** (Address) (hereinafter referred to as "Power Producer" which expression shall, unless repugnant to the meaning or context hereof, be deemed to include its successors and assigns) represented through Mr. _____**(Representative of Developer)**. The Purchaser and Power Producer are each individually referred to as a "Party" and collectively as the "Parties".

WHEREAS:

A. The Power Producer has been notified as successful bidder by **Maharashtra Metro Rail Corporation Ltd., Pune Metro Rail Project** for "Design, Manufacture, Supply, Erection, Testing and Commissioning including Warranty, Operation & Maintenance of _____kWp Rooftop Solar PV System at _____(building name)" (Project) and as per competitive bidding under RFS No._____
_____

B. The Power Producer is engaged in the business of design, supply, erection, testing, commissioning, operating and maintenance power plants, including grid connected rooftop power projects.

C. The Power Producer has agreed to install and operate a solar photovoltaic power plant of _____ **kWp** capacity at the Premises after due inspection of the Premises as defined hereinafter and supply the entire Solar Power of the Project to Purchaser on the terms and conditions contained in this Agreement.

D. The Purchaser has agreed to purchase the entire Solar Power of the Project on the terms and conditions contained in this Agreement.

NOW THEREFORE in consideration of the mutual promises, conditions and covenants set forth herein, the Parties hereby agree as below:

1. Definitions and Interpretation

1.1 Definitions

In addition to other capitalized terms specifically defined elsewhere in the Agreement or unless the context otherwise requires the following words and phrases shall be defined as follows:

(a) "Actual Monthly Production" means the amount of energy recorded by the Main Metering System during each calendar month of the Term, pursuant to Section 5.2;

(b) "Affiliate" means with respect to any specified Person, any other Person, directly or indirectly controlling, controlled by or under common control with such specified Person)

(c) "Agreement" means this Power Purchase Agreement executed hereof, including the schedules, amendments, modifications and supplements made in writing by the Parties from time to time.

(d) "Applicable Law" means, with respect to any Person, any constitutional provision, law, statue, rule, regulation, ordinance, treaty, order, decree, judgment, decision, certificate, holding, injunction, registration, license, franchise, permit, authorization, guideline, Governmental Approval, consent or requirement or any Governmental Authority in India having jurisdiction over such Person or its property, enforceable by law or in equity, including the interpretation and administration thereof such Governmental Authority.

(e) "Assignment" has the meaning set forth in Section 14.1:

(f) "Business Day" means any day other than Sunday or any other day on which banks in Maharashtra are required or authorized by Applicable Law to be closed for business:

(g) "Commercial Operation Date" has the meaning set forth in Section

4. 3(b)

(h) "Consents, Clearances and Permits" shall mean all authorization, licenses, approvals, registrations, permits, waivers, privileges, acknowledgements, agreements or concessions required to be obtained From or provided by any concerned authority for the purpose of setting up of the generation facilities and / or supply of power:

(i) "Deemed Generation" has the meaning set forth in Section 5.3 (c)

(j) "Delivery Point" shall be the single point, at a location mutually agreed by the Parties, in line with applicable regulation/ rules where Solar Power is delivered by the Power Producer from the System to the Purchaser.

(k) "Dispute" has the meaning set forth in Section 17.7 (b);

(l) "Disruption Period" has the meaning set forth in Section 5.3 (c)

(m) "Distribution Utility" means the local electric distribution owner and operator providing electric distribution and interconnection services to Purchaser at the Premises;

(n) "Due Date" has the meaning set forth in Section 7.4;

(o) "Effective Date" has the meaning set forth in Section 2;

(p) "Estimated Remaining Payments" means as of any date, the estimated remaining Solar Power Payments to be made through the end of the applicable Term, as reasonably determined by the Power Producer in accordance with Section 7.1;

(q) "Expiration Date" means the date on which the Agreement terminates by reason of expiration of the Term.

(r) "Force Majeure Event" has the meaning set forth in Section 11.1

(s) "Governmental Approval" means any approval, consent, franchise, permit, certificate, resolution, concession, license or authorization issued by or on behalf of any applicable Governmental Authority for the purpose of setting up of the Project and / or for sale and purchase of Solar Power of the Project pursuant to the Agreement.

(t) "Governmental Authority" means any central, state, regional, district, town, city or municipal government, whether domestic or foreign, or any department, agency, bureau, or other administrative, regulatory or judicial body of any such government.

(u) “Indemnified Persons" means the Purchaser Indemnified Parties or the Power Producer-indemnified Parties, as the context requires.

(v) "Insolvency Event" means with respect to a Party, that either

i. Such party has (A) applied for or consented to the appointment of or the taking of possession by a receiver, custodian, trustee, administrator, liquidator on the likes of itself or of all or a substantial part of its assets or business; (B) been unable to pay its debts as such-debts become due; (C) made a general assignment for the benefit of its creditors, (D) commenced a voluntary proceeding under any insolvency or bankruptcy law; (E) filed a petition seeking to take advantage of any other law relating to the bankruptcy, insolvency, reorganization, winding up or composition or readjustment of debts; or (F) taken any corporate or other action for the purpose of effecting any of the foregoing; or

ii. It is clarified that a dissolution or liquidation will not be an Insolvency Event if such dissolution or liquidation is for the purpose of a merger, consolidation or reorganization, and the resulting company retains credit worthiness similar to the dissolved or liquidated entity and expressly assumes all obligations of the dissolved and liquidated entity under this Agreement and is in a position to the perform them.

(w) "Installation Work" means the construction and installation of the System and the Start-up, testing and acceptance (but not the operation and maintenance) thereof; all performed by or for the Power Producer at the Premises.

(x) "Invoice Date has the meaning set forth in Section 7.2.

(y) "Losses" means all losses, liabilities, claims, demands, suits, causes of action, judgments, awards, damages, cleanup and remedial obligations, interest, fines, fees, penalties, costs and expenses (including all attorneys' fees and other costs and expenses incurred in defending any such claims or other matters or in asserting or enforcing and indemnity' obligation)

(z) "Main Metering System" means all meter(s) and metering devices owned by the Power Producer and installed at the Delivery point for measuring and recorded the delivery and receipt of energy.

(aa) "Metering Date" means the first Business day of each calendar month subsequent to the month in which the Solar Power is generated by the Power Producer. The billable units shall be equal to the difference between the meter reading on the Metering Date and the meter reading on the previous month's Metering Date.

(bb) "Party" or Parties" has the meaning set forth in the preamble to this Agreement.

(cc) "Performance Ratio" (PR) means the ratio of plant output versus installed plant capacity at any instance with respect to the radiation measured. PR=(Measured output in kW / Installed plant capacity in kW* 1000 W/m^2 /Measured radiation intensity in W/m^2)

(dd) "Person" means an individual, partnership, corporation, Limited Liability Company, business trust, Joint Stock Company, trust, unincorporated association, joint venture, firm, or other entity, or a Governmental Authority.

(ee) "Power Producer Default" has the meaning set forth in Section 12.1 (a).

(ff) "Power Producer Indemnified" has the meaning set forth in Section

16.2.

(gg) "Premises" means the premises described in Schedule I to this Agreement. For the avoidance of doubt, the Premises include, the entirely of any and underlying real property located at the address described in Schedule I to this Agreement.

(hh) "Purchase Date" means the date on which title to the System transfers to the Purchaser pursuant to the Purchaser exercising its purchase option under Section 3.2.

(ii) "Purchase Price" means the fee payable by Power Purchaser to the Power Producer under the circumstances described in Section 3.2

(jj) "Purchaser Default" has the meaning set forth in Section 12.2 (a).

(kk) "Purchaser Indemnified Parties" has the meaning set forth in Section 16.1

(ll) "Representative" has the meaning set forth in Section 15.1.

(mm) "Scheduled Completion Date" has the meaning set forth in Section 4.1(g)

(nn) "Selectee" means, a new company (i) proposed by the Lenders read with Schedule III hereof and approved .by the Purchaser (ii) or proposed by the Purchaser in accordance. with Schedule III hereof and approved by-the Lenders, for substituting the Power Producer for the residual period of the Agreement by amendment of the Agreement or by execution of a fresh power purchase agreement in-accordance with the terms and conditions contained in the said Schedule.

(oo) "Solar Power" means the supply of electrical energy output from the System.

(pp) "Solar Power Payment" has the meaning set forth in Section 7.1.

(qq) "System" includes the integrated assembly of photovoltaic panels, mounting, assemblies, inverters, converters, metering, lighting fixtures, transformers, ballasts, disconnects, combiners, switches, wiring

devices and wiring, and all other material comprising the Installation Work.

(rr) "System Operations" means the Power Producer's operation; maintenance and repair of the System performed in accordance the requirement herein.

(ss) "Tariff" means the price per kWh set forth in Schedule II hereto.

(tt) "Term" has the meaning set forth in Section 3.1:

1.2 Interpretation

(a) Unless otherwise stated, all references made, in this Agreement to "Sections", "Clauses" and "Schedules" shall refer respectively to Sections, clauses and Schedules of this Agreement. The Schedules to this Agreement form an integral part of this Agreement and shall have effect as though they were expressly set out in the body of this Agreement.

(b) In the Agreement, unless the context otherwise requires (i) words imparting singular connotation shall include plural and vice versa: (ii) the words "include", "includes", and "including" mean include, includes and including "without limitation" and (iii) the words "hereof", "hereto", "herein" and "hereunder" and words of similar import refer to the Agreement as a whole and not to any particular provision of the Agreement.

2. Effective Date

This Agreement shall be effective on the day that falls one Business Day after the date of signing of this Agreement.

3. Terms and Termination

3.1 Term

The term of the Agreement shall commence on the Effective Date and shall continue for twenty five (25) years from the Commercial Operations Date (the "Term"), unless and until terminated earlier pursuant to the provisions of the Agreement. After the Term, the successful bidder/ developer may be allowed to take back the system and make the roof neat and clean including damage free.

The Power Purchaser can terminate the Agreement any time before handing over the premises (rooftop) for installation after giving a seven days' notice. The Power Producer shall not claim anything on account of such termination.

3.2 Purchase Option/ Purchase Obligation

So long as no Purchaser default has occurred and/or be continuing, Purchaser has - the option to purchase the System by paying the Power Producer the Purchase price as per Schedule III to this Agreement. To exercise its purchase option, the Purchaser shall not in less than Ninety (90) days prior to the proposed Purchase Date, provide written notice to the Power Producer of Purchaser's intent to exercise .its option to purchase the System on such purchase date: In the event Purchaser confirms its intention to exercise the purchase option in writing to the Power Producer, (i) Purchaser shall pay the applicable purchase price to the Power Producer on the Purchase Date, and such payment shall be made in accordance with any written instructions delivered to Purchaser by the Power Producer for payments under the Agreement, and (ii) the Parties shall promptly execute all documents necessary to (A) cause title to the System to pass to Purchaser on the Purchase Date, free and clear of all liens and (B) assign all vendor warranties for the System to Purchaser. Upon execution of the documents and payment of the applicable purchase price in each case as described in the preceding sentence, the agreement shall terminate automatically and the Purchaser shall become the owner of the System. Upon such termination, the Power Producer shall offer' its operations and maintenance ("O&M") services to the Purchaser and the Parties may enter into an O&M agreement in this regard. The terms and conditions of the O&M agreement will be negotiated in good

faith between the Parties.

3.3 Conditions of the Agreement prior to installation

In the event that any of the following events or circumstances occur prior to the Commercial Operation Date, the Power Producer may terminate the Agreement, in which case neither Party shall have any liability to the other except for any such liabilities that may have accrued prior to such termination.

(a) There has been a, material adverse change in the rights of Purchaser to occupy the Premises or the Power Producer to install the System at the Premises.

(b) If any dispute arises before commercial operation date, the same shall be resolved under clause, 17.7 (c)

(c) The Power Producer is required to furnish and maintain a Performance Bank Guarantee (PBG) as per clause 3.17, Section-II of the tender document.
The PBG from a Scheduled Commercial Bank is to be maintained.

4 Construction, Installation, Testing and Commissioning of the System.

4.1 Installation Work

a) The Power Producer will cause the Project to be designed, manufactured, supplied, engineered, erected, tested and commissioned, operated & maintained and constructed substantially in accordance with RFS No _____ dated: _____ and the sanction letter issued by **Maharashtra Metro Rail Corporation Ltd., Pune Metro Rail Project**. The Power Producer shall provide to the Purchaser a bill of materials listing the major equipment constituting the System. Such bill of materials shall be provided within 30 days of the Commercial Operation Date.

b) The Power Producer shall have access as reasonably permitted by the Purchaser to perform the Installation Work at the Premises in a manner that minimizes inconvenience to and interference with the use of the Premises to the extent commercially practical.

c) It is agreed between the Parties that the Power Producer shall commission the System with a capacity of _____ **kWp.** Power Producer may construct a System of smaller size if it receives only part approval of government subsidies or for any other material commercial reason, as mutually agreed between the Parties in writing, In the event a System of smaller capacity is eventually agreed to be installed, the clauses pertaining to Purchase Price as set out under this Agreement shall be adjusted proportionately as per mutual agreement between the Parties in writing.

d) The Power Producer shall provide and lay the dedicated electrical cables for transmission of Solar Power from the System up to the Delivery Point. Transmission or distribution of Solar Power beyond this point will be the responsibility of the Purchaser. The Delivery Point shall be where the Main Metering System is located.

e) Unless otherwise agreed between the Parties, the Power Producer shall not do (a) chipping of rooftop; or (b) water proofing of roof to be disturbed ;(c) Carry out any other modification of the Premises without the written consent of the Purchaser.

f) The Power Producer shall maintain general cleanliness of area around the Project during construction and operation period of the Project. In case any damages is caused to the equipment / facilities owned by the Purchaser due to the Power Producer, the same shall be made good rectified by the Power Producer at their cost.

g) The Power Producer shall, within fifteen (15) working days of the Effective Date, submit to the Purchaser shop drawings of the Project for

approval ("Shop Drawings"). The drawings will have to be approved from the Power Purchaser within 3 working days from the submission of the drawings. If the Purchaser has any objection/'recommendation in the Shop Drawings, he shall communicate the same to Power Producer within a period of ten (10) working days of the date of submission of the Shop Drawings. Any delay will extend the Effective Date and such approval shall not be unreasonably withheld. Subject to any punch-list items which shall be agreed by the. Purchaser as not being material to completion of the Project, the Power Producer agrees that it shall achieve the completion of the Project/ Commissioning of the Project within the scheduled completion period from the Effective Date ("_____"). Purchaser shall ensure that sufficient load is available at the Delivery Point to ensure synchronization and withdrawal of power from System.

h) If the Power Producer is unable to commence supply of Solar Power to the Purchaser by the Scheduled Completion Date, other than for the reasons specified in Article 11 and 12.2 (Force Majeure or Purchaser Default), the Power Producer or its contractor shall pay to **Maharashtra Metro Rail Corporation Ltd.,** genuine pre-estimated liquidated damages for the delay in such commencement of supply of Solar Power as per the clause of the **Maharashtra Metro Rail Corporation Ltd.,** RFS appended as Schedule VI format as per respective RFS document to this Agreement.

i) The Purchaser shall ensure that all arrangements and infrastructure for receiving Solar Power beyond the Delivery Point are ready on or prior to the Commercial Operation Date and is maintained in such state in accordance with applicable laws through the Term of the Agreement.

j) Power Producer shall fulfill all obligations undertaken by it under this Agreement.

4.2 Approvals and Permits

Each of the Parties shall assist the other Party in obtaining all necessary Government Approvals, third party approvals and permits including but not limited to those listed in Schedule V hereto and any waivers, approvals or releases required pursuant to any applicable CCR.

4.3 System Acceptance Testing

(a) The Power Producer shall give 10 days advance notice to conduct the testing of the Project and shall conduct testing of the Project in the presence of Purchaser's designated representative.

(b) If the results of such testing indicate that the System is capable of generating electric energy (at full rated KWp) for 5 continuous hours using such instruments and meters as have been installed for such purposes, then the Power Producer shall send a Written notice to Purchaser to that effect, and the date of successful conducting such tests and injection of Power at Delivery Point shall be the "**Commercial Operation Date**"

5 System Operations

5.1 The Power Producer as Owner and Operator

The System will be legally and beneficially owned by the Power Producer and will be operated and maintained and, as necessary, repaired by the Power Producer at its sole cost and expense. Replacement of spare parts if any shall be responsibility of Power Producer for the complete period of Agreement. If any repair or maintenance costs incurred by the Power Producer as a result of Purchaser's breach of its obligations, shall be reimbursed in full by Purchaser.

Power Producer shall not be responsible for any work done by others on any part of the System/Project authorized by the Purchaser and not authorized in advance by the Power Producer in writing. Power Producer shall not be responsible for any loss, damage, cost or expense arising out of or resulting from improper operation or 'maintenance of the System by Purchaser or anyone instructed to do such work by

Purchaser. In the event of a problem with the System, as a result of the Purchaser actions for which Power Producer is not responsible as provided in this Agreement, Purchaser may choose and pay Power Producer for diagnosing and correcting the problem at Power Producer or Power Producer's contractors standard rates.

5.2 Metering

(a) The Power producer shall install the Main Metering System with due certification for the measurement of electrical energy produced by the System.

(b) The meter will be read by Power Producer's personnel on the Metering date. The authorized representative of the Purchaser shall be present at the time of meter reading. Both the Parties shall sign a joint meter reading report. However, in case the Joint meter reading report is not signed in the first three business days of any month due to non-availability of the Purchaser's authorized representative, the report signed by the Power Producer shall be considered as Joint Meter Reading Report. The Parties agree that such Joint meter reading Report shall be final and binding on the Parties.

(c) The Main Metering System at the Delivery Point and any additional meters required by Applicable Law shall be tested, maintained and owned by the Power Producer.

(d) The Power Producer shall connect the Solar output to the existing system of the Purchaser as per the requirements and guidelines of the state DISCOM

(e) The Purchaser may, at its own discretion, install a check meter, at its cost, to verify the measurements of the Main Metering System.

(f) The title to the Solar Power supplied by the Power Producer shall pass

to the Purchaser at the Delivery Point.

(g) Power Producer shall be responsible for transformer etc. "if required" &metering as per respective clause of RFS (reference to be quoted).

5.3 System Disruptions

(a) Availability of premises: Purchaser will provide full access of the site to Power Producer for installation, operation and maintenance of solar power plant during the period of Agreement. Power Purchaser will also provide restricted access of the Premises to Power Producer for operation and maintenance of solar power plant.

(b) Purchaser will not provide/construct any structure within its Premises or around its premises which shades the solar panels effecting the generation of the energy during the Agreement period.

(c) Roof Repair and other System Disruptions In the event that (a) the Purchaser repairs the Premises' roof for any reason not directly related to damage, if any, caused by the System, and such repair required the partial or complete temporary disassembly or movement of the System, or (b) any act or omission of Purchaser or Purchaser's employees, Affiliates, agents or subcontractors (collectively, a "**Purchaser Act**") result in a disruption or outage in System production, and such events attributable to Purchaser (except Force majeure, then, in either case) Purchaser shall (i) pay the Power Producer for all work required by the Power Producer to disassemble or move the System and re-assemble the system after completion of the repair work and (ii) continue to make all payments for the Solar Power during such period of System disruption (the "**Disruption Period**"). For the purpose of calculating Solar Power Payments and lost revenue for such Disruption Period, Solar Power shall be deemed to have been produced at the average rate. Over the preceding 12 (Twelve) months, or, if the disruption occurs

within the first 12 months of operation, the average over such period of operation (deemed generation).Power producer shall inform about the 'disruption or outage in System production, for reasons attributable to purchaser in 'writing with date and time of such occurrences, and Purchaser's liability shall start from the date of intimation for above of disruption or outage in system production, on account of Purchaser.

6 Delivery of Solar Power

6.1 Purchaser Requirement:

Purchaser agrees to purchase one hundred percent (100%) of the Solar Power generated by the System and made available by the Power Producer to Purchaser at the Delivery Point during each relevant month of the Term. In the event that the Purchaser is unable to off take 100% of the electricity generated, when it is generated, then Deemed Generation will apply only in case following conditions:

a) In the event Power Producer is generating power more than the available load, and the Purchaser is not able to export or record the excess units generated due to faults in the equipment's of the Purchaser e.g., Net meter Cables, Equipment's etc., which may stop the feeding / record of the Solar Power generated.

b) In the event that the Purchaser fails to ensure adequate space for solar equipment to ensure that other structures do not partially or wholly shade any part of the Solar Power Plant and if such shading occurs, the Power Producer may apply for Deemed Generation furnishing the calculation for loss in generation due to such shading supported by the relevant data, which shall be approved by Purchaser within one month of submission failing which the Power Producer shall claim provisional deemed generation till the issue is finally settled.

6.2 Estimated Annual Production

The annual estimate of Solar Power with respect to the System for any given year as determined pursuant to this Section shall be the "Estimated Annual Production". The

Estimated Annual Production for each year of the Initial Term is set forth in Schedule IV hereof.

6.3 Suspension of Delivery

Power Producer shall be entitled to suspend delivery of electricity from the System to the Delivery Point for the purpose of maintaining and repairing the System upon giving one week's advance written notice to the Purchaser except in the case 'of emergency repairs. Such suspension of Service shall not constitute a breach of this Agreement provided that the Power Producer shall use commercially reasonable efforts to minimize any 'interruption in service to the Purchaser. However, any preventive maintenance shall be done only during the period when plant is not generating.

7 Tariff and Payments

7.1 Consideration Purchaser shall pay to the Power Producer a monthly payment (the "**Solar Power Payment**") for the Solar Power generated by the System as per the Metering clause 5.2 (b) above during each calendar month of the Term equal to the actual Monthly Production as recorded in Joint Meter Reading Report for the System for the relevant month multiplied by the Tariff irrespective of (i) whether any or all units of Solar Power has been drawn, consumed or utilized by Purchaser and / or (ii) whether any Solar Power has been injected, whether inadvertently or otherwise, into the grid of the Distribution Utility. The Power Producer will bill the Purchaser for each KWh metered as above at the Delivery Point, at the Tariff prevailing at that point of time. As detailed in Schedule - II, the Tariff will be equal to **Rs. _____/kWh** as per **Maharashtra Metro Rail Corporation Ltd.,** allocations. The 'year' Considered shall be the financial year which April 1st to 31st March of every year as per **Maharashtra Metro Rail Corporation Ltd.,** Schedule II provides a detailed year on year tariff schedule.

7.2 Invoice

The Power Producer shall invoice Purchaser on the first day of each month (each, an "**Invoice Date**") commencing on the first Invoice Date to occur after the Commercial Operation Date, for the Solar Power Payment in respect of the immediately preceding

month. The last invoice shall -include production only through the Expiration Date of this Agreement.

7.3 The invoice to the purchaser shall include.

(a) The Solar Power calculations for the relevant billing period.

(b) Supporting data, documents and calculations in accordance with this Agreement.

7.4 Time of payment

Purchaser shall pay all amounts due hereunder within 30 days after the date of the receipt of the invoice via email or post ("**Due Date**").

7.5 Method of Payment

Purchaser shall make all payments under the Agreement by cheque / demand draft/ electronic funds transfer only in immediately available funds to the' account designated by the Power Producer from time to time.. All payments made hereunder shall be non-refundable, subject to the applicable tax deduction at source, and be made free and clear of any other tax, levy, assessment; duties or other charges and not subject to reduction, set-off, or adjustment of any kind. Further, if any taxes and duties are leviable currently or in future, such taxes and duties shall be paid by the Purchaser over and above the solar electricity tariff mentioned in this agreement. Such taxes and duties could include, but not restricted to Electricity Duty, Tax on Sale of Electricity (TOSE). If the Purchaser deducts any tax at source, the Purchaser will issue a tax credit certificates as per law.

7.6 Late Payment Surcharge/ Early Payment Discount

In case payment of any invoice is delayed by the Purchaser beyond its Due Date, a late payment surcharge shall be payable by Purchaser to the Power Producer at the rate of 1% per month ("**Late Payment Surcharge**") calculated on the amount of outstanding payment, calculated on a day to day basis for each day of the delay, compounded on monthly rates. Late Payment Surcharge shall be claimed by the Power Producer, through its subsequent invoice.

7.7 Disputed Payments

In the event that the Purchaser disputes an invoice, it shall give notice of such a dispute within 15 days of receiving the invoice setting out details of the disputed amount. The Purchaser shall pay by the Due Date 100% of any undisputed amount and in case the invoice is disputed, the Purchaser shall pay an amount based on average consumption of last three consecutive undisputed invoices. Amount so recovered shall be subject to final adjustment on resolution of the dispute. Thereafter, the Parties shall discuss and try to resolve the disputed amount within a week of receipt of such notice of dispute. If the Parties resolve the dispute, an appropriate adjustment shall be made in the next invoice. If the dispute has not been resolved by the date of the next invoice the dispute shall be referred to a committee of one member from each of Purchaser and Power Producer, If the dispute is still-not resolved by the next following invoice if shall be 'referred to Arbitration as provided in the present Agreement.

7.8 Change in Law:

(a) For the Purpose of this section 7.8, the term "Change in Law" shall mean the occurrence of any of the following events after the Effective date (Bid Submission Date, only for clause 7.8-Change in Law), resulting into any additional recurring / non-recurring expenditure by the Power Producer or any income to the Power Producer. The enactment, coming into effect, adoption, promulgation, amendment, modification or repeal (without re-enactment or consolidation) in India, of any Law, including rules and regulations framed pursuant to such Law: or

(i) A change in the interpretation of any Law by any Governmental Authority having the legal power to interpret or apply such Law, or any competent court; or

(ii) The imposition of a requirement, for obtaining any Government Approvals which was not required earlier; or

(iii) a change in the terms and conditions prescribed for obtaining any Government Approvals or the inclusion of any new terms or conditions

for Obtaining such Government Approvals; or

(iv) any introduction of any tax made applicable for supply of power by the Power Producer as per the terms of this Agreement. Any benefit due to change in tax on the sale of solar energy shall be passed on to Purchaser.

(v) Any benefit arising due to change in above para (i) to (iv) shall be passed on to the Purchaser. But not include any change in any withholding tax on income or dividends distributed to the shareholders of the Power Producer.

(b) Application and Principles for computing impact of Change in Law:

While determining the consequence of Change in Law under this Article 7.8, the Parties shall have due regard to the Principle that the purpose of compensating the Party affected by such change in Law, is to restore through monthly bill payment, to the extent contemplated in this Article 7.8, the affected Party to the same economic position as if such Change in Law has not occurred and such impact shall be mutually decided in writing.

(c) Solar Power Payment Adjustment Payment on account of Change in Law Subject to provisions mentioned above, the adjustment in Solar Power Payment shall be effective from:

(i) The date of adoption, promulgation, amendment, re-enactment or repeal of the Law or Change in Law; or

(ii) The date of order/ judgment of the competent court; of tribunal or Governmental Authority, if the Change in •law is on account of a change in interpretation of Law.

8 General Covenants

8.1 Power Producer's Covenants

The Power Producer covenants and agrees to the following:

(a) **Notice of Damage or Emergency:** The Power Producer shall (a) promptly notify Purchaser if it becomes aware of any damage to or loss of the use of the System or that could reasonably be expected to adversely affect the System, (b) immediately notify Purchaser once it becomes aware of any event or circumstance that poses an imminent risk to human health, the environment, the System or the Premises.

(b) **System Condition:** The Power Producer shall take all actions reasonably necessary to ensure that the System is capable of providing Solar Power at a commercially reasonable continuous rate: Subject to there being no Purchaser Default, the Power Producer 'shall provide 24 x 7 onsite / offsite monitoring and maintenance of the System throughout the period of this agreement at no additional cost.

(c) The System shall meet minimum guaranteed generation with Performance Ratio (PR) at the time of commissioning and related Capacity Utilization Factor (CUF) as per the daily normalized irradiance levels of the location during the O&M period. PR shall be minimum of 75% at the time of inspection for initial Project acceptance.

(d) **Governmental Approvals :** While providing the Installation work, solar Power and System Operations, the Power Producer shall obtain and maintain and secure all Governmental Approval required to be obtained and maintained and secured by the Power Producer and to enable the Power Producer to perform such obligations

(e) The interconnection of the rooftop solar system with the network of the distribution licensee shall be made as per the technical standards for connectivity of distributed generated resources regulation's .as may be notified by the competent authority. The interconnection of the rooftop solar system shall be as per the contracted load and / or respective

voltage level applicable to the Purchaser as per the provisions of the guidelines issued by the competent authority.

(f) Health and Safety: The Power Producer shall take all necessary and reasonable safety precautions with respect to providing the installation Work, Solar Power, and System Operations that shall comply with all Applicable Law pertaining-to the health and safety of persons and real and personal property.

8.2 Power Producer's Representatives

During the subsistence of this Agreement, the Power Producer undertakes to respond to all questions, concerns and complaints of the Purchaser regarding the System in a prompt and efficient manner. The Power Producer designates the following individual as its representative pertaining to performance of this Agreement till the Commercial Operation Date:

Name: _____

Telephone: _____

Email: _____

The Power Producer designates the following individuals as its representative and primary point of contact pertaining to performance of this Agreement following the Commercial Operation Date till termination:

Name: _____

Telephone: _____

Email: _____

8.3 Purchaser's Covenants

Purchaser covenants and agrees to the following:

(a) **Notice of Damage or Emergency:** Purchaser shall (a) promptly notify the Power Producer if it becomes aware of any damage to or loss of the use of the System or that could reasonably be expected to adversely affect the System; (b) immediately notify the- Power Producer once it becomes aware of any event or circumstance that poses an imminent risk to human health, the environment, the System or the Premises.

(b) **Liens:** Purchaser shall not directly or indirectly cause, create, incur, assume or suffer to exist any Liens on or with respect to the System or any interest therein. If Purchaser breaches its obligations under this Clause, it shall immediately notify the Power Producer in writing, and shall promptly cause such Lien to be discharged and released of record without any cost to the Power Producer, and shall indemnify the Power Producer against all costs and expenses (including reasonable attorneys fees and court costs) incurred in discharging and releasing such Lien.

(c) **Consents and Approvals:** Purchaser shall ensure that any authorizations required of Purchaser under this Agreement, including those required for installation of System at the Premises and to drawal consume Solar Power are provided in a timely manner. The Purchaser shall cooperate with the Power Producer to obtain such approvals, permits, rebates or other 'financial incentives.

(d) **Access to Premises Grant of License:** Purchaser hereby grants to the Power Producer a license co-terminus with the Term, containing all the rights necessary for the Power Producer to use portions of the Premises for the installation, operation and maintenance of the System pursuant to the terms of this Agreement, including ingress and egress rights to the Premises for the Power Producer and its employees and authorized representatives and access to electrical panels and conduits to interconnect or disconnect the System with the Premises electrical wiring with the consent and approval of the Purchaser's

authorized representative identified by the Purchaser. Photo IDs will be provided by the Power Producer. Power Purchaser will assist in availing permissions to the site.

(e) **Security:** The building which has enhanced security of Solar Power System Purchaser will keep the premises locked. Inspite of these measures, if any damages to the System takes place due to theft or vandalism then the same shall be claimed or reimbursed through insurances by Power producer. In case of theft and vandalism acts, the Purchaser will assist the Power Producer in procedures of filing FIRs, insurance claims and any other related activities. Whenever, the damages to the System occurs (except due to negligence of Power Producer) then the same shall be jointly assessed by both the Parties and a severity level will be decided, which will further decide the duration offered to the Power Producer to correct the damage, and the Power Producer shall be paid the amount on the basis of 'Deemed generation' for such a period. Power Producer shall be entitled to any insurance proceeds received for damages in this clause. Purchaser will not conduct activities on, in or about the Premises that have a reasonable likelihood of causing damage, impairment or otherwise adversely affecting the System. If System is damaged due to any such activity or through any other agency contracted by the Purchaser directly or indirectly, such damage will be borne by the Purchaser.

(f) Regardless of whether Purchaser is owner of the Premises or leases the Premises from a landlord, Purchaser hereby covenants that (a) the Power Producer shall have access to the Premises and System during the Term of this Agreement, and (b) neither Purchaser nor Purchaser's landlord will interferer or handle any of the Power Producer's equipment or the System without written authorization from the Power Producer.

(g) **Temporary storage space during installation :** Purchaser shall provide sufficient space at the Premises for the temporary storage and. staging of tools, materials and equipment and for the parking of construction crew vehicles and temporary Construction, trailers and facilities reasonably necessary during the Installation Work, System Operations and access for rigging and material handling.

(h) **Sunlight Easements**: Purchaser will take all reasonable actions as necessary to prevent other building, structures or flora from overshadowing or otherwise blocking access of 'sunlight to the System, including but not limited to-such actions as may be reasonably necessary to obtain a solar access easement for such purpose.

(i) **Evacuation** — Purchaser shall off take 100% of the Solar Power generated from the Delivery Point, and pay all invoices raised by the Power Producer under this Agreement by the 'Due Date and pay interest on delayed payments, if any, as per this Agreement.

(j) **Water** – Power Producer will be responsible for arranging water as per the requirements of the Power Producer, for periodic cleaning of the solar panels. Power Purchaser may provide Raw Water as per availability on chargeable basis.

(k) **Auxiliary Power** — The Purchaser shall provide sufficient auxiliary power to the Power Producer during installation, maintenance and operation of its system, if available and possible on chargeable basis, at the rate Purchaser is paying to the DISCOM.

(l) **Relocation** - If one or more of the Solar Power Plant panels needs to be temporarily moved or its generation suspended, for any other reason requested by the Power Purchaser, the Power Purchaser will be responsible for pre-agreed costs on actuals only, arising from moving, disassembling and re-installing/ commissioning the Solar Power Plant, as agreed between the Parties. The Power Producer will be responsible for providing detailed documentary proof of the actual pre-agreed costs borne for such relocation/disassembling. Within 30 days of these satisfactory documents being provided by the Power Producer, the Purchaser shall reimburse these pre-agreed expenses in full, and delayed payment beyond the date mentioned above will attract Late Payment charges as described in Clause 7.6. During

any interruption in generation during such relocation, the Purchaser will continue to be billed as per Deemed Generation, during the period of interruption, for the affected Solar Power Plant(s).

9 Representations & Warranties

9.1 Representations and Warranties Relating to Agreement Validity In addition to any other representations and warranties contained in the Agreement, each Party represent and warrants to the other that:

(a) It is duly organized and validly existing and in good standing in the jurisdiction of its incorporation;

(b) It has the full right and authority to enter into, execute, deliver, and perform its obligations under the Agreement.

(c) It has taken all requisite corporate or other action to approve the execution, delivery, and performance of the Agreement;

(d) The Agreement constitutes its legal, valid and binding obligation enforceable against such Party in accordance with its terms;

(e) There is not litigation, action, proceeding or investigation pending or, to the best of its knowledge, threatened before any court or other Governmental Authority by, against, affecting or involving any of it's business or assets that could reasonably be expected to adversely affect its ability to carry out the transactions contemplated herein; and

(f) Its execution and performance of the Agreement and the transactions contemplated hereby do not constitute a breach of any term or provision of, or a default under (i) any contract or agreement to which it or any of its Affiliates is a party or by which it or any of its Affiliates or its assets or their property is bound, (ii) its organizational documents, or (iii) any

Applicable Laws.

10 Taxes and Governmental Fees

10.1 Purchaser obligations

Purchaser shall pay for any taxes, fees or charges imposed or authorized by any Governmental Authority in future (as on date no such taxes/fees/charges are being levied) on sale of the Solar Power to Purchaser pursuant to clause 7. The Power Producer shall notify Purchaser in writing with a detailed statement of such amounts, which shall be invoiced by the Power Producer in the monthly bills and payable by Purchaser. Purchaser shall timely report, make filings for, and pay any and all sales, use, income or other taxes, and any other amounts assessed against it due to its purchase of the Solar Power. This Section10.1 excludes taxes specified in Section 10.2.

10.2 Power Producer Obligations

The Power Producer shall be responsible for all income taxes and any and all franchise fees or similar fees assessed against it due to its ownership of the System. The Power Producer shall not be obligated for any taxes payable by or assessed against Purchaser based on or related to Purchasers overall income or revenues.

11 Force Majeure

11.1 Definition

"**Force Majeure Event"** means any act or event that prevents the affected Party from performing its obligation in accordance with the Agreement, if such act or event is beyond the reasonable control of the affected Party and such Party had been unable to overcome such act or event with the exercise of due diligence (including the expenditure of reasonable sums). Subject to the foregoing conditions, "Force Majeure Event" shall include without limitation the following acts or events: (i) natural phenomena, such as storms, hurricanes, floods, lightning, volcanic eruptions and

earthquakes; (ii) explosions or fires arising from lighting or other causes unrelated to the acts or omissions of the Party seeking to be excused from performance; (iii) acts of war or public disorders, civil disturbances, riots, insurrection, sabotage, epidemic, terrorist acts, or rebellion. A Force Majeure Event shall not be based on the economic hardship of either Party. In case of any damage because of force majeure event, the System shall be repaired / commissioned at its own cost by the Power Producer.

11.2 Excused Performance: Except as otherwise specifically provided in the Agreement, neither Party shall be considered in breach of the Agreement or liable for any delay or failure to comply with the Agreement, if and to the extent that such delay or failure is attributable to the occurrence of a Force Majeure Event; provided that the Party claiming relief under this Section 11 shall immediately (i) notify the other Party in writing of the existence of the Force Majeure Event, (ii) exercise all reasonable efforts necessary to minimize delay caused by such Force Majeure Event, (iii) notify the other Party in writing of the cessation or termination of said Force Majeure Event and (iv) provided, however, that Purchaser shall not be excused from making any payments and paying any unpaid amounts due in respect of Solar Power delivered to Purchaser prior to the Force Majeure Event performance interruption.

11.3 Termination as a Consequence of Force Majeure Event

If a Force Majeure Event shall have occurred that has affected the Power Producer's performance of its obligations hereunder and that has continued for a continuous period of one hundred eighty (180) days, then Purchaser shill be entitled to terminate the Agreement and if such Force Majeure Event continues for further ninety (90) days period, the Agreement shall automatically terminate. Upon such termination for a Force Majeure Event, neither Party shall have any liability to the other (other than any such liabilities that have accrued prior to such termination).

12 Default

12.1 Power Producer Defaults and Power Purchaser Remedies

(a) Power Producer Defaults: The following events shall be defaults with

respect to the Power Producer (each, a "**Power Producer Default**").

(i) An Insolvency Event shall have occurred with respect to the Power Producer;

(ii) Failure to achieve Commissioning of the System within the period as per RFS document; and

(iii) The Power Producer breaches any material term of the Agreement and

(A) if such breach can be cured within sixty (60) days after Purchaser's written notice of such breach and the-Power Producer fails to cure the same; or (B) the Power Producer fails to commence and pursue a cure within such sixty (60) days period if a longer cure period is needed.

(b) Purchaser's Remedies:

(i) If a Power Producer Default described in Section 12.1 (a) has occurred and is continuing, in addition to other remedies expressly provided herein, and subject to Section 13, Purchaser shall have a right to deliver a notice of its intention to terminate this Agreement ("Purchaser Preliminary Default Notice"), which shall specify in reasonable detail, the circumstances giving rise to the issue of such notice.

(ii) Upon the occurrence and continuation of Power Producer Default and the failure by the Power Producer to cure such default within the applicable cure period specified in this Article; the Purchaser shall be at liberty avail the services of any other firm / successful bidder.

(iii) Following the issue of Purchaser Preliminary Default Notice, it shall be the responsibility of the Parties to discuss as to what steps shall be taken with a view to mitigate the consequences of the relevant Power Producer's Default having regard to all the circumstances: If the Power Producer Default is not cured within a period of sixty (60) days of the issue of Purchaser Preliminary Default Notice or any other such period

mutually agreed upon by the Parties, the Purchaser shall have the right to terminate this Agreement by issuing a Purchaser Termination Notice.

(iv) Upon the delivery of the Purchaser Termination Notice, this Agreement shall stand terminated. The Power Producer shall have the liability to-make payment within sixty (60) days from the date of Purchaser Termination Notice towards compensation to Purchaser equivalent to the difference between the Tariff and the grid rate notified by the relevant Government Authority for that point in time multiplied by the estimated Solar Power generated for a period of two years following the termination, considered on normative capacity utilization factor.

(v) if the Power Producer fails to remove the System from the Premises within one month from the date of termination, the Purchaser shall be entitled to dispose of the System in any manner it deems fit.

(vi) The Power Purchaser may exercise any other remedy it may have at law or equity or under the Agreement.

12.2 Power Purchaser Defaults and Power Producer's Remedies

(a) Purchaser Default : The following events shall be defaults with respect to Purchaser (each, a "**Purchaser Default**")

(i) An Insolvency Event shall have occurred with respect to Purchaser;

(ii) Purchaser breaches any material term of the Agreement if (A) such breach can be cured within sixty (60) days after the Power Producer's notice of such breach and Purchaser fails to so Cure, or (B) Purchaser fails to commence and pursue said cure within such sixty (60) day period if a longer cure period is needed; and

(iii) Purchaser fails to pay the Power Producer any undisputed amount or, if the amount is disputed, an amount based on average consumption of last three consecutive undisputed invoices to the Power Producer under Section 7.7 of this Agreement within sixty (60) days from the receipt of notice from the Power Producer of such past due amount

(b) Power Producer's Remedies: If a Purchaser Default described in Sections 12.2 (a) has occurred and is continuing, in addition to other remedies expressly provided herein, and subject to Section 13, the Power Producer shall be entitled to terminate this Agreement by serving a thirty (30) days' notice and upon such termination, (A) the Power Producer shall be entitled to receive from Purchaser the Purchase Price. The Purchase Price payable shall be the Purchase Price Specified in Schedule III that falls on such date. Upon the payment of the Purchase Price, the Power Producer shall cause the title of the System to transfer to the Purchaser and (b) the Power Producer may exercise any other remedy it may have at law or equity or under the Agreement.

13 Limitations of Liability

13.1 Except as expressly provided herein, neither Party shall be liable to the other Party or its Indemnified Persons for any special, punitive, exemplary, indirect, or consequential damages, losses or damages for lost revenue or lost profits, whether foreseeable or not, arising out of, or in connection with the Agreement.

13.2 Subject to the provisions of the Agreement, the Power Producer shall be solely responsible for the manner in which its obligations under this Agreement are to be performed. All employees and representatives of the Power Producer, or contractors engaged by the Power producer in connection with Power Producer, shall not be deemed to be employees, representatives, contractors of the Purchaser Nothing contained in the Agreement or in any agreement or contract executed by the Power Producer shall be construed to create any contractual relationship between any such employees, representatives or contractors and the Purchaser.

13.3 Notwithstanding any liability. or obligation that may arise under this Agreement, any loss, damage, liability, payment, obligation or expense which is insured or not or for which the Purchaser can claim compensation under any insurance policy, shall not be charged to or payable by the Purchaser

14 Assignment & Novation

14.1 Assignment: Notwithstanding anything contained herein, the Power Producer has the right to assign all or any of its rights under this Agreement (including rights over any assets hereunder), to any third party including, though not restricted to any lender, equipment lessor or other party("Assignment"), with the consent of the Power Purchaser. The Power Purchaser shall not unreasonably withhold such consent. In the event of such assignment, the Purchaser will be able to hold the Power Producer as well as the party to whom the benefits under this contract are assigned, to be jointly and severally responsible for performing the obligations under this contract.

14.2 Novation: Deleted.

14.3 Notices

Unless otherwise provided in the Agreement, all notices and communications concerning the Agreement shall be in writing and addressed to the Parties at the addresses set forth below:

Power Producer's address and contact details:

Purchasers address and contact details:

Executive Director (Procurement),
Maharashtra Metro Rail Corporation Limited (MAHA-METRO)
Pune Metro Rail Project
(A joint venture of Govt. of India & Govt. of Maharashtra)
101, The Orion, Opposite Don Bosco Youth Centre,
Koregaon Park, Pune-411001
E-mail: tenders.pmrp@mahametro.org
Website: www.punemetrorail.org

14.4 Notice

Unless otherwise provided herein, any notice provided for in the Agreement shall be hand delivered, sent by registered post, or by courier delivery, or transmitted by facsimile and shall be deemed delivered to the addressee or its office when received at the address for notice specified above when hand delivered or sent by courier delivered or sent by courier delivery, upon posting if sent by registered post and upon confirmation of sending when sent by facsimile on the next Business Day.

15. Confidentiality

15.1 Confidentiality obligation

(a) If the Power Producer provides confidential information, including business plans, strategies, financial information, proprietary, patented, licensed, copy righted or trademarked information, and / or technical information regarding the , design, operation and maintenance of the System ("Confidential Information") to Purchaser or, if in the course of performing under the Agreement or negotiating the Agreement Purchaser learns Confidential Information regarding the facilities or plans of the Power Producer, Purchaser shall (a) protect the Confidential information from disclosure to third parties with the same degree of care accorded its own confidential and proprietary information, and (b) refrain from using such Confidential Information, except in the negotiation and performance of the Agreement. Notwithstanding the above, Purchaser may provide such Confidential Information to its officers, directors, manager, employees and Affiliates (collectively "Representatives"), in each case whose access is reasonably necessary for purposes of the Agreement. Each such recipient of confidential information shall be informed by Purchaser of its confidential nature and shall be directed to treat such information confidentially and shall agree to abide by these provisions. Purchaser shall be liable for any breach of this provision by any entity to whom it improperly discloses Confidential Information. All Confidential Information shall remain the property of the Power Producer and shall be returned to. It after Purchaser's need for it has expired or

upon the request of the Power Producer.

(b) If the Purchaser provides confidential information, including business plans, strategies, financial information, proprietary, patented, licensed, copy righted or trademarked information, ("Confidential Information") to the Power Producer or, if in the course of performing under the Agreement or negotiating the Agreement the Power Producer learns Confidential Information regarding the facilities Or plans of the Purchaser, the Power Producer shall (a) protect the Confidential Information from disclosure to third parties with the same degree of care accorded its own confidential and proprietary information, and (b) refrain from using such Confidential Information, except in the negotiation and performance of the Agreement. Notwithstanding the above, the Power Producer may provide such Confidential Information to its officers, directors, managers, employees and Affiliates (collectively, "Representatives"), in each case whose access is reasonably necessary for purposes of the Agreement. Each such recipient of Confidential. Information shall be informed by the Power Producer of its confidential nature and shall be directed to treat such information confidentially and shall agree to abide by these provisions. The Power Producer shall be liable for any breach, of this provision by any entity to whom it improperly discloses Confidential Information. All Confidential Information shall remain the property of the Purchaser and shall be returned to it after the Power Produce's need for it has expired or upon the request of the Purchaser.

15.2 Permitted Disclosures

Notwithstanding any other provision contained herein, neither Party shall be required to hold confidential any information that;

(a) Becomes publically available other than through the receiving Party.

(b) Is required to be disclosed under Applicable Law or pursuant to a validity

issued notice or required filling, but a receiving Party subject to any such requirement shall promptly notify the disclosing Party of such requirement

(c) Is independently developed by the receiving Party ; or

(d) Becomes available to the receiving Party without restriction from a third party under no obligation of confidentiality..

16 Indemnity

16.1 Power Producer's Indemnity

Subject to Section 13, the Power Producer agrees that it shall indemnify and hold harmless Purchaser and its members, officers, employees, students, casual laborers, persons permitted' to run any business or service, such as canteens, stores, photocopy units, banks, post office, courier service, hospital and to any lawful visitors (collectively, the "Purchaser Indemnified Parties") from and against any and all Losses incurred by the Purchaser Indemnified Parties to the extent arising from or out of the following any claim for or arising out of any injury to Or death of any Person or Loss or damage to Property of any Person to the extent arising out of the Power Producer's negligence or willful misconduct. The Power Producer shall not, however, be required to reimburse or indemnify any Purchaser Indemnified Party for any Loss to the extent such Loss is due to the negligence or willful misconduct of any Purchaser indemnified Party.

17. Miscellaneous

17.1 Amendments

This Agreement may only be amended, modified or, supplemented by an instrument in writing executed by duly authorized representatives of the Power Producer and Purchaser.

17.2 Goodwill and Publicity

Neither Party shall use any name, trade name, service mark or trademark of the other

Party in any promotional or advertising material without the prior written consent of such other Party. The Parties shall coordinate arid cooperate with each other when making public announcements related to the execution and existence of this Agreement, and each Party shall have the right to promptly review, comment upon and approve any publicity materials, press releases and other public statements by the other Party that refer to, or that describe any aspect of, this Agreement; provided that no such publicity releases or other public statements (except for fillings or other statements or releases as may be required by applicable law) shall be made by either Party without the prior written consent of the other Party. Without limiting the generality of the foregoing and whether or not the consent of the other Party is required or obtained, all public statements must accurately reflect the rights and obligations of the Parties under this Agreement.

17.3 Industry Standards

Except as otherwise set forth herein, for the purpose of the Agreement, the normal standards of performance within the solar photovoltaic power generation Industry in the relevant market shall be the, measure of whether a Party's performance is reasonable and timely. Unless expressly defined herein, words having well-known technical or trade meanings shall be so construed.

17.4 Cumulative Remedies

Except as set forth to the contrary herein, any right or remedy of the Power Producer or Purchaser shall be cumulative and without prejudice to any other right or remedy.

17.5 No Waiver

The failure of the Power Producer or Purchaser to enforce any of the provisions of the Agreement, or the waiver thereof, shall not be construed as a general waiver or relinquishment on its part of any such provision in any other instance or of any other provision in any instance.

17.6 Survival

The obligations under Section 8:1 (d) (Power Producer Covenant), Sections 8.3(d), (e), (f) and (g) (Purchaser Covenants), Section 10 (Taxes and Governmental Fees),

Section 13 (Limitation of Liability) Section 12.2 (Notices), Section 15 (Confidentiality), or pursuant to other provisions of this Agreement that, by their nature and context, are intended to survive. Termination of this Agreement shall survive the expiration or termination of this Agreement for any reason.

17.7 Governing Law & Jurisdiction

(a) This Agreement shall be governed by and construed in accordance with the laws of India. The Parties agree that the courts in **Pune** shall have jurisdiction over any action or proceeding arising under the Agreement.

(b) In the event of any Dispute, difference of opinion or dispute or claim arising out of or relating to this Agreement or breach, termination or the invalidity thereof, shall firstly be attempted to be resolved by conciliation. Any Dispute that cannot be settled through conciliation procedure shall be referred to arbitration in accordance with the procedure given below. The Parties agree to comply with the awards resulting from arbitration and waive their rights to any form of appeal insofar as such waiver can validly be made. Cost of conciliation shall be equally shared by both the parties.

(c) Dispute, Conciliation, Arbitration

(i) <u>No legal action till the Dispute settlement procedure is exhausted</u>

Any and all dispute shall be settled in accordance with the provisions of this clause No. 7. No action of law concerning or arising out of any dispute shall be commenced unless and until all applicable Dispute Resolution Procedures set out in clause No. 7 shall have been fully exhausted in relation to that dispute.

(ii) <u>Notice of Dispute</u>

For the purpose of Sub-Clause 17.7 of the main PPA, a Dispute shall be deemed to arise when one party serves on the other party a notice in writing (hereinafter called a "Notice of Dispute") stating the nature of Dispute provided that no such notice shall be served later than 60 days after the date of completion of supplies.

(iii) <u>Two stages of dispute resolution</u>

Dispute shall be settled through two stages:

a) Conciliation procedure as established by the Arbitration and Conciliation Act, 1996 & amended by the Arbitration & Conciliation (Amendment) Act, 2015 and any statutory modification or re-enactment thereof and in accordance with this Clause. In the event this procedure fails to resolve the dispute then;
b) Arbitration procedure undertaken as provided by the Arbitration and Conciliation Act, 1996 & amended by the Arbitration & Conciliation (Amendment) Act, 2015 and any statutory modification or re-enactment thereof and in accordance with this Clause.

(iv) Conciliation

Within 60 days of receipt of Notice of Dispute, either party shall refer the matter in dispute for Conciliation.

Conciliation proceedings shall be initiated within 30 days of one party inviting the other in writing to Conciliation. Conciliation shall commence when the other party accepts in writing this invitation. If this invitation is not accepted then the Conciliation shall not take place. If the party initiating conciliation does not receive a reply within 30 days from the date on which he sends the invitation may elect to treat this as a rejection of the invitation to conciliate and inform the other party accordingly.

The Conciliation shall be undertaken by one Conciliator selected from the panel of Conciliators maintained by the Purchaser. The Conciliator shall assist the parties to reach an amicable settlement in an independent and impartial manner.

(v) Conciliation procedure

The Purchaser shall maintain a panel of Conciliator, who shall be from serving or retired engineers of Government Departments, or of Public Sector Undertakings. Out of this panel, a list of three Conciliator shall sent to the Power Producer who shall choose one of them to act as Conciliator and conduct Conciliation proceedings in accordance with Arbitration and Conciliation Act, 1996 & amended by the Arbitration & Conciliation (Amendment) Act, 2015 and any statutory modification or re-enactment thereof.

There will be no objection if Conciliator so nominated is a serving employee of Maha-Metro, who would be Deputy HOD level officer and above.

The Purchaser and the supplier shall in good faith co-operate with the conciliator and in particular shall endeavour to comply with the requests by the conciliator to submit written materials, provide evidence and attend meetings.

Each party may on his own initiatives, or at the initiative of the conciliator, submit to the Conciliator suggestions for the settlement of the dispute.

When it appears to the conciliator that there exist elements of a settlement which may be acceptable to the parties, he shall formulate the terms of a possible settlement and submit them to the parties for their observations. After receiving the observations of the parties, the conciliator may reformulate the terms of a possible settlement in the light of such observations.

If the Parties reach agreement on a settlement of the dispute, they may draw up and sign a written settlement agreement. If requested by the parties, the conciliator may draw up or assist the parties in drawing up a settlement agreement. When the parties sign the settlement agreement, it shall be final and binding on the parties and the persons claiming under them respectively.

The conciliator shall authenticate the settlement agreement and serve a copy thereof to each of the parties. As far as possible, Conciliation proceedings should be completed within 60 days of the receipt of notice by the conciliator.

The parties shall not initiate, during the conciliation proceedings, any arbitral or judicial proceedings in respect of a dispute that is the subject matter of the conciliation proceedings

VI) Termination of conciliation proceedings

The conciliation proceedings shall be terminated:

a) By the signing of settlement agreement by the parties on the date of agreement.
b) By written declaration of the conciliator, after consultation of the parties, to the effect further efforts at conciliation is no longer justified on the date of declaration; or
c) By a written declaration of the parties to the conciliator to the effect that the conciliation proceedings are terminated, on the date of declaration; or
d) By a written declaration of one party to the other party and the conciliator, if appointed, to the effect that the conciliation proceedings are terminated, on the date of declaration.

Upon termination of the conciliation proceedings, the conciliator shall fix the costs of conciliation and give written notice thereof to the parties. The costs shall be borne equally by the parties unless settlement agreement provides for a different apportionment. All other expenses incurred by a party shall be borne by that party.

VII) Arbitration

If the effort to resolve all or any of the disputes through Conciliation fails, then such disputes or differences, whatsoever arises between the parties, shall be referred to Arbitration in accordance with the following provisions.

a) Only such dispute(s) or difference(s) in respect of which notice has been made under clause 7.1, but could not be settled through conciliation, together with counter claims or set off, shall be referred to arbitration. Other matters shall not be referred in arbitration.
b) The Arbitration proceedings shall be assumed to have commenced from the day, a written and valid demand for Arbitration is received by the MD, Maha Metro at Pune.
c) The disputes so referred to arbitration shall be settled in accordance with the Arbitration and Conciliation Act, 1996 & amended by the Arbitration &

Conciliation (Amendment) Act, 2015 and any statutory modification or re-enactment thereof.

Further it is agreed between the parties as under:

VII.I) Number of Arbitrators

The Arbitral Tribunal shall consists of :

a) Sole arbitrator in cases where the total value of all claims in question added together does not exceed Rs. 30 lakh.
b) 3 (three) arbitrators in all other cases.

VII.II) Procedure for appointment of arbitrators

The arbitrators shall be appointed as per following procedure:

(a) In case of sole Arbitrator

Within 60 days from the day when a written and valid demand for arbitration is received by MD/Maha Metro, the purchaser will forward a panel of three names to the Power Producer. The Power Producer shall have to choose one Arbitrator from the panel of three, to be appointed as sole Arbitrator within 30 days of dispatch of the request of the purchaser. If the Power Producer fails to choose one Arbitrator within 30 days of the dispatch of the request of the purchaser then MD/Maha-Metro shall appoint anyone Arbitrator from the panel of three arbitrators as sole arbitrator.

(b) In case of three Arbitrators.

Within 60 days from the day when a written and valid demand for arbitration is received by MD/Maha Metro, the purchaser will forward a panel of five names to the Power Producer. The Power Producer will then give his consent for any one name out of the panel to be appointed as one of the Arbitrators within 30 days of dispatch of the request by the purchaser.

Purchaser will decide the second Arbitrator. MD/Maha/Metro shall appoint the two Arbitrators including the name of one Arbitrator for whom consent was given by the Power Producer, within 30 days from the receipt of the consent. In case the Power Producer fails to give his consent, within 30 days of dispatch of the request of the purchaser, then MD/Maha Metro shall nominate both the Arbitrators from the panel.

The Third Arbitrators shall be chosen by the two Arbitrators so appointed by the parties out of the panel of five Arbitrators provided to Power Producer or from the larger panel of Arbitrators to be provided to them by the Purchaser at the request of the two appointed Arbitrators (if so desired by them) and who shall

act as Presiding Arbitrator. In case of the failure of the two appointed Arbitrators to reach upon consensus within a period of 30 days from their appointment, then, upon request of either or both parties, the Presiding Arbitrator shall be appointed by MD/Maha-Metro.

If one or more Arbitrators appointed as above refuses to act as Arbitrator, withdraws from his office as Arbitrator, or vacates his office as unable/unwilling to perform his functions as Arbitrator for any reason whatsoever or dies or in the opinion of MD/Maha Metro, fails to act without undue delay, the MD/Maha Metro shall appoint new arbitrator to act in his place except in case of new presiding Arbitrator who shall be chosen following the same procedure as mentioned in para above. Such reconstituted tribunal may on its own discretion, proceed with the reference from the stage at which it was left by the previous Tribunal.

The Purchaser at the time of offering the panel of Arbitrators to be appointed as Arbitrator shall also supply the information with regard to the qualifications of the said Arbitrators nominated in the Panel along with their professional experience, phone nos. and addresses to the supplier.

VII.III) Qualification and Experience of the Arbitrators (to be appointed as per sub clause 7VII.II above): The Arbitrators to be appointed shall have minimum qualification and experience as under:

ARBITRATOR shall be:

A working/retired officer (not below E8 grade in a PSU with which Maha Metro has no business relationship) of any discipline of Engineering or Accounts/Finance department, having experience in Contract Management.

A Retired officer (retired not below the SAG level in Railways) of any Engineering services of Indian Railways or Indian Railway Accounts Services, having experience in Contract Management; or retired judge of any High Court or Supreme Court of India or reputed Chartered Accountant.

No person other than the persons appointed as per above procedure and having above qualification and experience shall act as Arbitrator.

7.VII.IV No new claim shall be added during the proceedings by either party. However, a party may amend or supplement the original claim or defence thereof during the course of arbitration proceedings subject to acceptance by Tribunal having due regard to delay in making it.

7.VII.V It is agreed by both the parties that in the cases where Arbitral Tribunal consists of Sole Arbitrator, their disputes shall be resolved by fast track procedure as specified in sub-section(3) of 29 B of the Arbitration and Conciliation (Amendment) Act, 2015 or as amended up to date.

7.VII.VI Arbitration Proceedings shall be held in Pune and the language of the Arbitration Proceedings and that of all documents and communications between the parties shall English.

7.VII.VII The Arbitral Tribunal should record day to day proceedings. The Proceedings shall normally be conducted on the basis of documents and written statements. Arbitration Award shall be in writing and that shall state item wise, the sum and the detailed reasons on which it is based. A model time schedule for conducting Arbitration Proceedings is 180/365 days. Both the parties shall endeavour to adhere to Time schedule for early finalisation of Award.

7.VII.VIII The Award of Sole Arbitrator or the Award by the majority of three Arbitrators as the case may be shall be binding on all parties.

7.VII.IX A party may apply to the Tribunal within 60 days of receipt of Award to make an additional award as to claims presented in the Arbitral Proceedings but omitted from the Arbitral Tribunal.

7.VIII Interest on Arbitration Award

Where the Arbitral Award is for the payment of money, no interest shall be payable on whole or any part of the money for any period, till the date on which the award is made.

7.IX Cost of Conciliation/ Arbitration

The fees and other charges of the Conciliator/Arbitrator shall share equally by the purchaser and the Producer and the purchaser. However, the expenses incurred by each party in connection with the preparation, presentation will be borne by itself.

7.X Jurisdiction of courts

Whereas recourse to a court is to be made in respect of any matter, the purchaser and supplier agree to the sole jurisdiction of courts at Pune, Maharashtra.

7.XI Suspension of work/supplies on Account of Arbitration

The reference to conciliation/ Arbitration shall proceed notwithstanding that the production/supply shall not then be or be alleged to be complete, provided always that the obligation of the Power producer and purchaser shall not be altered by reasons of arbitration being conducted during the progress of the supplies. Neither party shall be entitled to suspend the supplies or part of the supplies, to which the dispute relates on account of Arbitration and payments to the supplier shall continue to be made in terms of the contract.

17.8 Severability

If any term, covenant or condition in the Agreement shall, to arty extent, be invalid or

unenforceable in any respect under Applicable Law, the remainder of the Agreement shall not be affected thereby, and each term, covenant or condition of the Agreement shall be valid and enforceable to the fullest extent permitted by Applicable Law and if appropriate, such invalid or unenforceable provision shall be modified or replaced to give effect to the underlying intent of the Parties and to the intended economic benefits of the Parties.

17.9 Successors and Assigns

This Agreement and the rights and obligations under the Agreement shall be binding upon and shall inure to the benefit of the Power Producer and Purchaser and their respective successors and permitted assigns.

17.10 Counterparts

This Agreement may be executed in one or more counterparts, all of which taken together shall constitute one and the same instrument.

17.11 Independent Service Provider

This Agreement is on a principal to principal basis between the parties hereto Nothing contained in tills Agreement shall be construed or deemed to create any association, partnership or joint venture or employer employee relationship or principal-agent relationship in any manner whatsoever between the Parties

17.12 Non-Exclusive Agreement

This Agreement is on non-exclusive basis. The Purchaser is free to engage any other service provider's or may entrust services similar to those provided by the Power Producer under this Agreement to any other person/s, provided the Power Producer's rights under this Agreement are not affected in any manner

17.13 Entire Agreement

Deleted (Repeat 17.16)

17.14 Insurance

The Power Producer shall maintain at its own costs, throughout the tenure of this

Agreement and any extensions thereof all mandatory insurance coverage for adequate amount including but not restricted to comprehensive general liability insurance including theft and vandalism, covering the System and accidental losses, bodily harm, injury, death of all individuals employed/ assigned by the Power Producer to perform the services required under this Agreement.

17.15 Annual accounts reconciliation shall be conducted annually between the Power Producer and Purchaser.

17.16 Entire Agreement

This Agreement constitutes the entire agreement between the Parties hereto with respect to the subject matter of this Agreement and supersedes all prior agreements and undertakings, written or oral, with respect to the subject matter hereof except as otherwise expressly provided herein. The Schedules annexed to this Agreement also form a part of this Agreement.

IN WITNNESS WHEREOF the Parties have caused the Agreement to be duly executed through their duly authorized representatives as of the date set forth above.

FOR & ON BEHALF OF		**FOR & ON BEHALF OF**	
Maharashtra Metro Rail Corporation Limited		**POWER PRODUCER**	
Signature:		Signature:	
Name:		Name:	
Designation:		Designation:	

WITNESSES			**WITNESSES**		
1)	Signature:		1)	Signature:	
	Name:			Name:	
	Designation:			Designation:	

2)	Signature:		2)	Signature	
	Name:			Name	
	Designation:			Designation	

SCHEDULE-I

Description of the Premises: **Maharashtra Metro Rail Corporation Limited**

Premises Overview	
Segment	
Type of Roof	RCC & GI Roofs
Hours of Operation	Upto 19 Hours
Security	As per Clause 8.3(e) of PPA
	Capacity and Area Requirement
Capacity	_____ kWp (Total Cumulative for all ____)
Module Area	sqrmtr (PV System)
Number of Building	
Roofs	
Capacity	_____ kWp
Distribution	

SCHEDULE II

FEES

Following are the details of the tariff agreed between the parties.

Purchaser shall pay power producer for solar power at the rate equal to INR ___/kWh which is the fixed Tariff as per **Maharashtra Metro Rail Corporation Ltd.,** allocation. Year wise tariff is as follows:

Year 1	
Year 2	
Year 3	
Year 4	
Year 5	
Year 6	
Year 7	
Year 8	
Year 9	
Year 10	
Year 11	
Year 12	
Year 13	
Year 14	
Year 15	
Year 16	
Year 17	

Year 18	
Year 19	
Year 20	
Year 21	
Year 22	
Year 23	
Year 24	
Year 25	

The fees and payment details are provided in detail under clause 7 of this agreement.

SCHEDULE III

The following is the purchase value of the system over a period of 25 years. This may be applicable under the following conditions.

1. The Power Purchaser terminates the PPA before the 25 years PPA Tenure

2. The Power Purchaser wishes to own the Project before the Tenure of the PPA.

3. The Solar Project is relocated or shifted owing to demolition of the Building, damage to the building, change of city plans or any other mason.

The Price reference taken for calculating the total cost of the system is as per RFS rates and has used the CERC guidelines for arriving at the Project cost (The quoted cost should not be more than Rs. 35,734 per kWp including proposed subsidy/incentive).

Year of Term (End of Year)	Year	Purchase Price in Crore (Rs)
1	2021	
2	2022	
3	2023	
4	2024	
5	2025	
6	2026	
7	2027	
8	2028	
9	2029	
10	2030	
11	2031	
12	2032	
13	2033	
14	2034	
15	2035	
16	2036	
17	2037	

18	2038	
19	2039	
20	2040	
21	2041	
22	2042	
23	2043	
24	2044	
25	2045	

The purchase price shall be reduced by the amount of subsidy/incentive paid to the Power Producer.

SCHEDULE IV

The Power Producer agrees to guarantee the following Minimum Generation (table) per annum per kWp for the total system of _____ **kWp**

Minimum Guaranteed Generation per kWp per year			
End of FY	**Minimum Generation (kWh/kWp)**	**End of year**	**Minimum Generation (kWh/kWp)**
2020-21	1314	2033-34	1153
2021-22	1301	2034-35	1142
2022-23	1288	2035-36	1130
2023-24	1275	2036-37	1119
2024-25	1262	2037-38	1108
2025-26	1250	2038-39	1097
2026-27	1237	2039-40	1086
2027-28	1225	2040-41	1075
2028-29	1212	2041-42	1064
2029-30	1200	2042-43	1053
2030-31	1188	2043-44	1043
2031-32	1176	2044-45	1032
2032-33	1165		
Note- For 1st year, pro-rata calculations are to be done till 31st March 2021. 2nd year to start from April 1st, 2021			

	Project :	_____ kWp Solar On-Grid Power Project		
	Location :	Pune, Maharashtra		
Expected Yearly Energy Generation Sheet				
End of Year	Yearly Degradation 'MWh' (Modules & System)		Global incident in coll. Plane (GlobInc) 'kWh/Sq.mtr' Yearly	Energy injected into grid (E_Grid) 'kWh' Yearly 'A'

Client :	Degradation consider in PV system generation data		
1.	1.0%		
2.	1.0%		
3.	1.0%		
4.	1.0%		
5.	1.0%		
6.	1.0%		
7.	1.0%		
8.	1.0%		
9.	1.0%		
10.	1.0%		
11.	1.0%		
12.	1.0%		
13.	1.0%		
14.	1.0%		
15.	1.0%		
16	1.0%		
17	1.0%		
18	1.0%		
19	1.0%		
20	1.0%		
21	1.0%		
22	1.0%		
23	1.0%		
24	1.0%		
25	1.0%		

SCHEDULE V

Government approvals

1. To be obtained by the power producer

All approvals including approvals/consents required under local regulations, building codes and approvals required from the distribution utility etc. relating to installation and operation of the system (including the government incentives/subsidies available for the project) and generation and supply of solar power from the Project. Permissions and coordination with DISCOM or any related organization for NET METERING.

2. To be obtained by Power Purchaser

Any authorizations required of purchaser, including those required for installation of system at the premises. Power Purchaser will bear the cost of net meter only.

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Purchase Price for _____ kWp system @ Rs. _____ /- Watt.	
Year	**Salvage Value (Rs/kWp.)**
1st year	
2nd year	
3rd year	
4th year	
5th year	
6th year	
7th year	
8th year	
9th year	
10th year	
11th year	
12th year	
13th year	
14th year	
15th year	
16th year	

17th year	
18th year	
19th year	
20th year	
21st year	
22nd year	
23rd year	
24th year	
25th year	

The purchase price shall be reduced by the amount of subsidy/incentive paid to the Power Producer.

SCHEDULE VI

RFS

ANNEXURE-I

BANK DETAILS

NAME OF THE BENEFICIARY:

PRINCIPAL PLACE OF BUSINESS &ADDRESS:

NAME OF THE BANK:

BANK ADDRESS:

BANK ACCOUNT NO:

TYPE OF BANK ACCOUNT -

IFSC/NEFT/RTGS CODE:

MICR CODE:

PAN CARD NO:

PHONE NO./FAX NO. WITH STD CODE:

EMAIL ID OF CONTACT PERSON:

SECTION- VIII Financial BID

Format-B

(To be submitted in a separate package as financial bid as per clause 3.10 of Section-II)

Contract:-

S. No	Description	Name of the Sites	Approx. Total Capacity (kWp) (refer clause 2.2)	Project cost excluding O&M for the scope of work (Rs.)	Total Project Cost including O&M for the scope of work (Rs.)
1	Design, Engineering, Manufacture, Supply, Storage, Civil work, Erection, Testing & Commissioning of the Rooftop and Boundary Walls mounted Solar PV projects under RESCO model including Operation and Comprehensive Maintenance (O&M) of 5.0 MWp Solar PV project for a period of 25 years after commissioning of 10 Nos. of Elevated Stations and 2 Nos. of Depots for Pune Metro Rail Project.	I) Metro Stations roof sheds & building roofs of MAHA-METRO II) Boundary walls of Depots	5000 kWp		

Date: ……

Place: .....

Business Address:

Country of Incorporation:

(State or Province to be indicated)

Signature:.....

Printed Name.....

Designation:.....

(Common Seal).....

Format - C PRICE BID FOR RESCO MODEL

(To be submitted in a separate package as financial bid)

TARIFF STREAM FOR 25 YEARS		
S. No.	Year of Operation	Tariff (Rs. / KWH)
1	25 Years	

Date:-……. Signature:-
……

Place:-……. Name:-
……..

Address: - Company Seal

Section-IX

a) Site Details

Sr. No.	Reach	Station Name	Tentative Shaded Roof area (GI sheet)	Tentative Roof area (RCC Roof)	Tentative Total Roof area
1	Reach-1	PCMC	1160 sq. m	-	1160 sq. m
2		Sant Tukaram Nagar	1160 sq. m	-	1160 sq. m
		Bhosari	1160 sq. m	-	1160 sq. m
		Kasarwadi	1160 sq. m	-	1160 sq. m
3		Phugewadi	1160 sq. m	-	1160 sq. m
4		Range Hill Depot	44 sq. m	9890 sq. m	9934 sq. m
		Range Hill Depot boundary walls	-	770 R. Mt	770 R. Mt
5	Reach-2	Vanaz	1700 sq. m	-	1700 sq. m
6		Anand Nagar	1700 sq. m	-	1700 sq. m
		Ideal Colony	1700 sq. m	-	1700 sq. m
		Nal Stop	1700 sq. m	-	1700 sq. m
7		Garware College	1700 sq. m	-	1700 sq. m
8		Hill View Park Car Depot	424 sq. m	2490 sq. m	2914 sq. m
9		Hill View Park Car Depot boundary walls	-	510 R. Mt	510 R. Mt

b) Access Dates:

Sr. No.	Reach	Station Name	Tentative Access dates for solar works	Tentative Commercial Solar Power Generation date
1	Reach-1	PCMC	14-07-2021	11-12-2021
2		Sant Tukaram Nagar	Available	120 days from NTP
3		Bhosari	29-08-2021	26-01-2022
4		Kasarwadi	14-07-2021	11-12-2021
5		Phugewadi	Available	120 days from NTP
6	Reach-2	Vanaz	13-09-2021	10-02-2022

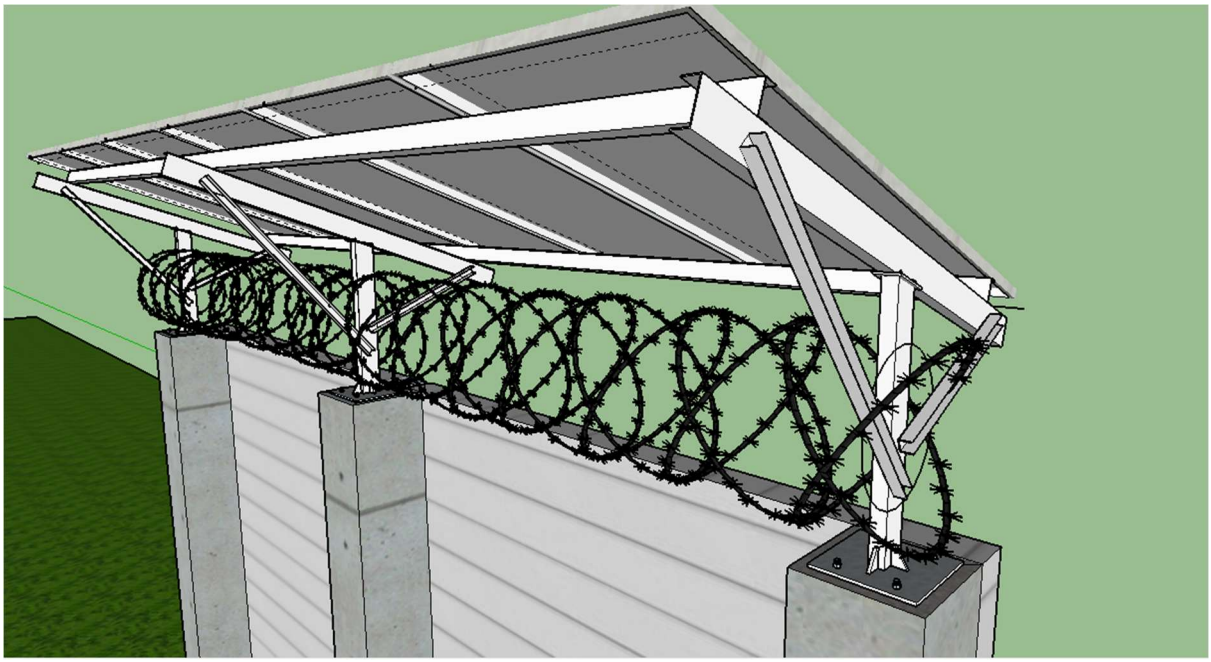
7		Anand Nagar	14-07-2021	11-12-2021
8		Ideal Colony	13-09-2021	10-02-2022
9		Nal Stop	30-09-2021	27-02-2022
10		Garware College	14-08-2021	11-01-2022
11	Range Hill Depot	ETU Shed	27-05-2021	24-10-2021
		PWL Shed	16-04-2021	13-09-2021
		INTEGRATED WORKSHOP BUILDING	08-09-2021	05-02-2022
		ADMIN+OCC	24-07-2021	21-12-2021
12	Range Hill Depot Boundary walls		29-07-2021	29-07-2021
13	Hill View Park Car Depot	INTEGRATED WORKSHOP BUILDING	29-08-2021	26-01-2022
		ETU + HIC SHED	31-01-2021	30-06-2021
		PWL SHED	29-06-2021	26-11-2021
14	Hill View Park Car Depot Boundary Walls		29-06-2021	29-11-2021

Details of DG Set at the sites of PMRP

Sr. No.	Reach	Station Name	DG Capacity (KVA)	DG Output Voltage	DG with AMF Panel (Yes/No)
1	Reach-1	PCMC	250	3 Ph, 415 V	Yes
2		Sant Tukaram Nagar	250	3 Ph, 415 V	Yes
3		Bhosari	250	3 Ph, 415 V	Yes
4		Kasarwadi	250	3 Ph, 415 V	Yes
5		Phugewadi	250	3 Ph, 415 V	Yes
6		Range Hill Depot	625	3 Ph, 415 V	Yes
7	Reach-2	Vanaz	250	3 Ph, 415 V	Yes
8		Anand Nagar	250	3 Ph, 415 V	Yes
9		Ideal Colony	250	3 Ph, 415 V	Yes
10		Nal Stop	250	3 Ph, 415 V	Yes
11		Garware College	250	3 Ph, 415 V	Yes

12		Hill View Park Car Depot	625	3 Ph, 415 V	Yes

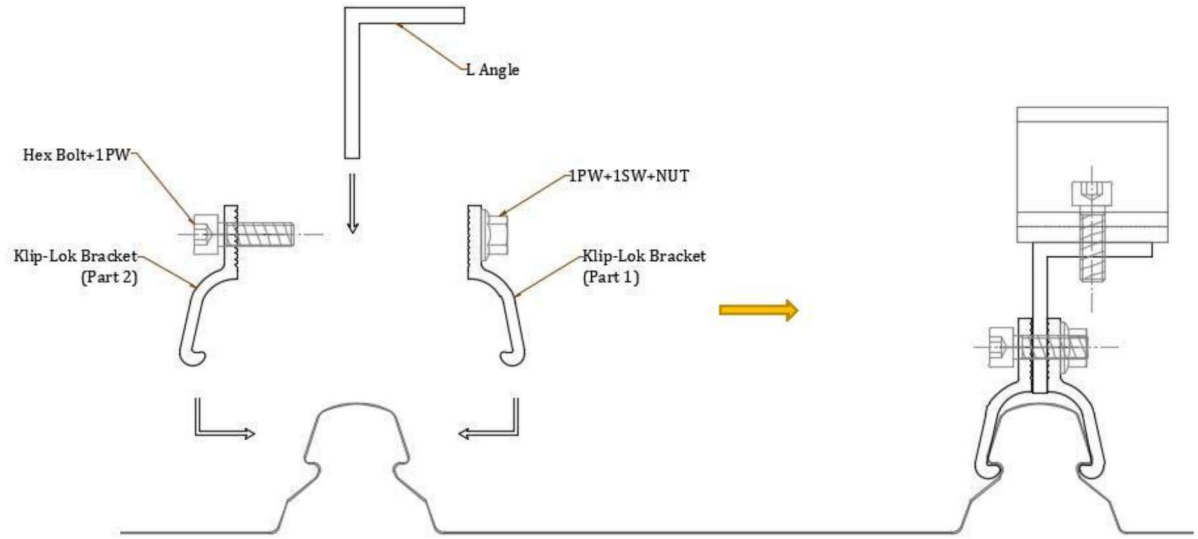
Note: DG synchronisation with solar feeder is in the scope of bidder. However, DG manufacturer is providing the AMF Panel along with synchroniser and associated PLC to automatically switch on DG in the event of power failure (Normal supply). Bidder has to interface with DG manufacturer/E&M Contractor for synchronisation.



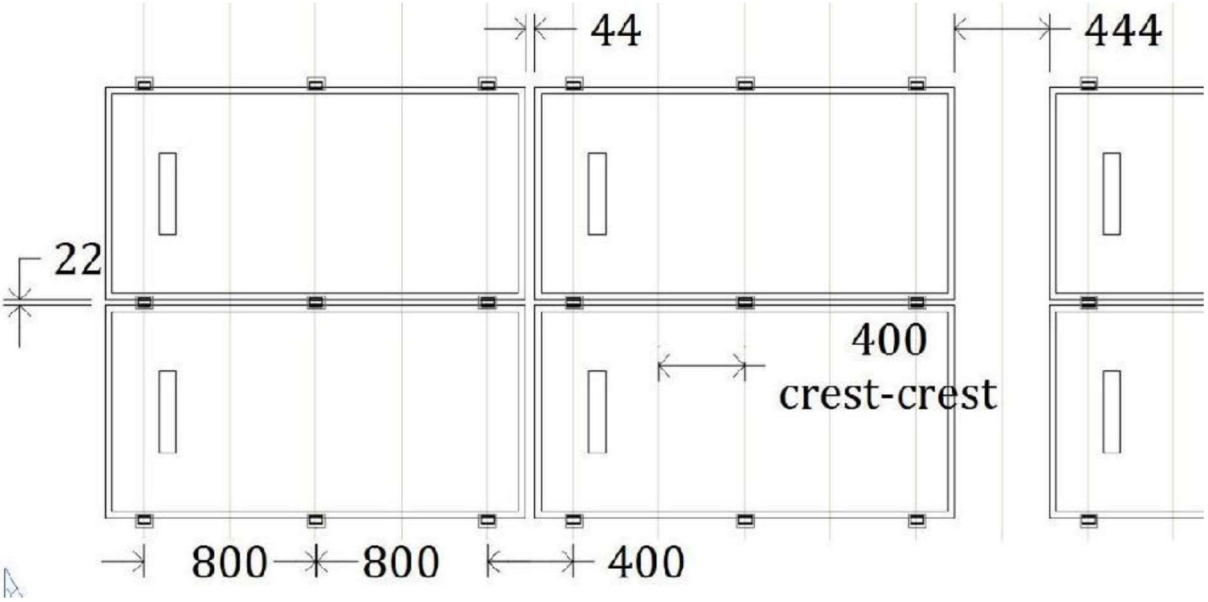
Pic: Conceptual array layout for mounting structure at boundary walls of Depots.

Conceptual mounting arrangements of Solar Module on station roof

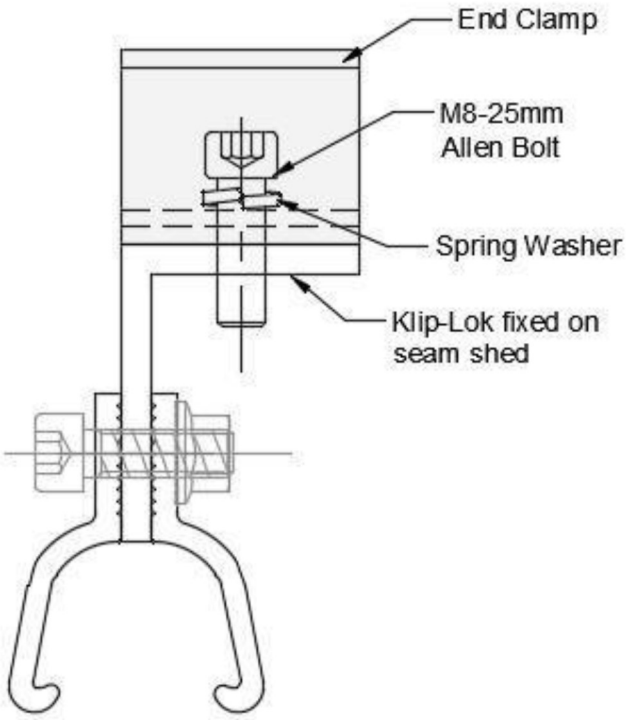
Align the Klip Lok Bracket Part 1 and 2 onto the seam along with L Angle and assemble with the help of Hex Bolt (with 1 spring washer (SW), 2 plain washer (PW) and hex nut), as shown below.



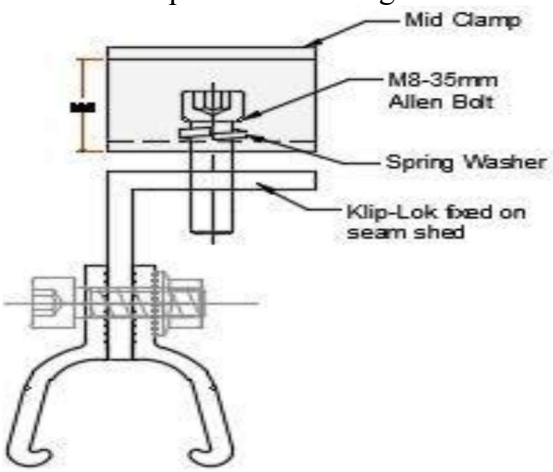
Each Module will have 3 clamp system as shown in fig. (dimensions given are for 400 crest to crest distance)



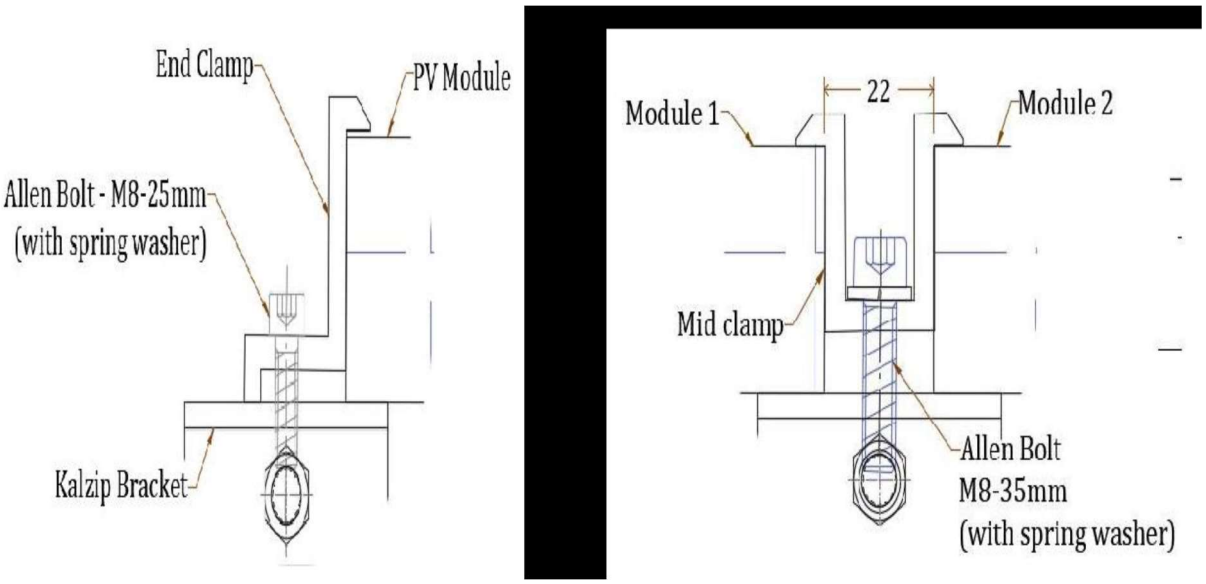
Bolting/mounting detail for end clamps is shown in fig.



Bolting/mounting detail for mid clamps is shown in fig.



Clamping w.r.t modules needs to be done properly as shown in fig.


End Clamp
PV Module
Allen Bolt - M8-25mm
(with spring washer)
Kalzip Bracket
22
Module 1
Module 2
Mid clamp
Allen Bolt
M8-35mm
(with spring washer)

Section-X					
Section X: List of Documents to be submitted					
S. No.	**Description**	**Section**	**Format Name**	**Attached (Yes/No)**	**Page No.**
1.	General Information About Bidder	Section VI	Format- A		
2.	General Information About Bidder (JV/Consortium)	Section VI	Format- B		
3.	Covering letter	Section VI	Format B-1		
4.	Price Bid for RESCO Model	Section VI	Format- C		
5.	Format for Bid Capacity	Section VI	Format- D		
6.	Particulars of Bidder	Section VI	Format – 2		
7.	Format for Bid Securing Declaration	Section VI	Format – 3		
8.	Format for Performance Bank Guarantee	Section VI	Format – 4		
9.	Checklist for Bank Guarantee	Section VI	Format – 5		
10.	Power of Attorney	Section VI	Format – 6		
11.	Financial Eligibility Criteria	Section VI	Format – 7		
12.	Certificate for Relationship with Parent Company	Section VI	Format – 8		
13.	Undertaking from Parent Company	Section VI	Format – 9		
14.	Work Experience	Section VI	Format – 10		
15.	Work Experience Certificate from Owner/ Beneficiary	Section VI	Format – 11		
16.	Financial Data	Section VI	Format – 12		
17.	Consortium Agreement	Section VI	Format – 13		
18.	Undertaking for Corrupt and Fraudulent Practices	Section VI	Format – 14		

19.	Undertaking for not being banned in business	Section VI	Format – 15		
20.	Undertaking for passing on benefits of exemptions to MAHA-METRO and for adjustment of amounts due from balance due	Section VI	Format – 16		
21.	Undertaking for Financial Stability	Section VI	Format – 17		
22.	Undertaking for Downloaded Tender Document	Section VI	Format – 18		
23.	Undertaking regarding restrictions on procurement from a bidder of a country which shares land border with India	Section VI	Format – 19 a & b		
24.	MOA & AOA for single entity and all members of consortium				

Annexure-C					
Minimum Guaranteed Generation per kWp per year.					
Year	**Units**	**Year**	**Units**	**Year**	**Units**
1	1314	10	1200	19	1097
2	1301	11	1188	20	1086
3	1288	12	1176	21	1075
4	1275	13	1165	22	1064
5	1262	14	1153	23	1053
6	1250	15	1142	24	1043
7	1237	16	1130	25	1032
8	1225	17	1119		
9	1212	18	1108		

Annexure-D (copies of the below mentioned orders)

- ***Order F.No.6/18/2019-PPD dated 23rd July 2020 issued by Ministry of Finance, Department of Expenditure, Public Procurement Division).***
- ***Order no. F. No. K-14011/10/2020-UT-V dated 14th September 2020 & 14th August 2020 issued by Ministry of Housing and Urban Affairs***
- ***Office Memorandum no. P-45021/112/2020-PP(BE-II)(E-43780) dated 28th August 2020 & 24th August 2020 issued by Ministry of Commerce and Industry.***
- ***Order F. No. 283/22/2019-GRID SOLAR regarding Make In India Provision dated 09 Feb 2021 issued by Ministry of New & Renewable Energy.***
- ***Order No. P-45021/2/2017-PP (BE-II) dated 16th September 2020 & 8th March 2021 issued by Department for Promotion of Industry and Internal Trade, Ministry of Commerce and Industry.***

F. No. K-14011/10/2020 -UT-V
Government of India
Ministry of Housing and Urban Affairs
Urban Transport Division
(UT-V Desk)

311-B, Nirman Bhawan, New Delhi.
Dated the 14th September, 2020.

To,

MD's of all the Metro Rail Corporations (as per the list attached).

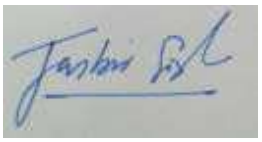
Subject: Mode of submission of application for registration of bidders having beneficial ownership from countries sharing land border with India – regarding.

Sir/Madam,

I am directed to refer to OM dated 04.09.2020 from Department for Promotion of Industry and Internal Trade (DPIIT) and this Ministry's letter dated 14.08.2020 (as enclosed) on the above cited subject for information/ necessary action.

Encl : As above.

Yours Sincerely,



(Jasbir Singh)
Under Secretary to the Govt. of India
Tel: 011-23062285

List of Metro Rail Corporations:

1.	The Managing Director, Delhi Metro Rail Corporation Ltd., Metro Bhawan, Fire Brigade Lane, Barakhamba Road, New Delhi-110 001. Email: mdmetro@dmrc.org	2.	The Managing Director, Chennai Metro Rail Ltd., Admn. Building, Poonamallee High Road, Koyambedu, Chennai-600107. Email: md.cmrl@tn.gov.in mdcmrl2010@gmail.com
3.	The Managing Director, Mumbai Metro Rail Corpn. Ltd., Bandra Kurla Complex, Bandra (East), Mumbai-400051. Email: md.office@mmrcl.com	4.	The Managing Director, Bangalore Metro Rail Corpn. Ltd., 3rd Floor, BMTC Complex, K.H. Road, Shanthinagar, Bangalore-560 027. Email: md@bmrc.co.in
5.	The Managing Director, Noida Metro Rail Corporation Limited, Block-III, 3rd Floor, Ganga Shopping Complex, Sector – 29, Noida - 201301 E.mail: nmrcnoida@gmail.com	6.	The Managing Director, Lucknow Metro Rail Corpn. Ltd., (for Lucknow, Kanpur and Agra Metros) Administrative Building, Near Dr. Bhimrao Ambedkar Samajik Parivartan Sthal, Vipin Khand, Gomti Nagar, Lucknow-226 010. Email: mdlucknowmetro@gmail.com
7.	The Managing Director, National Capital Region Transport Corporation Ltd. (NCRTC), Siri Fort Institutional Area, August Kranti Marg, New Delhi-110 049 E.mail: md.office@ncrtc.in	8.	The Managing Director, Kochi Metro Rail Ltd., 8th Floor, Revenue Tower, Park Avenue, Kochi-682 011 Email: md@kmrl.co.in
9.	The Managing Director, Gujarat Metro Rail Corporation Limited, (for Ahmedabad, Gandhinagar and Surat Metros) Block No.1, 1st Floor, Karma Yogi Bhavan, Sector-10A, Gandhinagar-382 010. Email: md@gujaratmetrorail.com	10.	The Managing Director, Maha- Metro Rail Corporation, (for Nagpur and Pune Metros) "Metro House", 28/2, C.K. Naidu Road, Anand Nagar, Civil Lines, Nagpur-440 001. Email: md@mahametro.org
11	The Metropolitan Commissioner, Mumbai Metropolitan Regional Development Authority (MMRDA) Bandra-Kurla Complex, Bandra East, Mumbai-400 051. Email: mcmmrda@gmail.com	12	The Managing Director, Hyderabad Metro Rail Ltd., Rasoopura, Begumpet, Hyderabad – 500 016 Email: nvsreddyiras@gmail.com
13	The Managing Director, Madhya Pradesh Metro Rail Company Ltd., (for Bhopal and Indore Metros) Palika Bhavan,, Near 6 number Bus Stop Shivaji Nagar, Bhopal – 462016 Email: psuaddmp@mpurban.gov.in	14	The Managing Director, Patna Metro Rail Corporation Limited, Patna, Bihar Email: ud.bihar@gmail.com

No.P-45021/112/2020-PP (BE-II) (E-43780)
Government of India
Ministry of Commerce and Industry
Department for Promotion of Industry and Internal Trade
(Public Procurement Section)

Udyog Bhawan, New Delhi
Dated September 04, 2020

OFFICE MEMORANDUM

Subject: Mode of submission of application for registration of bidders having beneficial ownership from countries sharing land border with India – regarding.

The undersigned is directed to refer to this Department OM of even number dated 28.08.2020 (copy enclosed) on the above mentioned subject and inform that further to the requirements prescribed in OM dated 28.08.2020, applicants are required to submit the registration application in the prescribed format in seven hard copies (instead of four copies prescribed in OM dated 28.08.2020) along with a soft copy in pdf format to email Id dpiit.144@gov.in.

2. This issues with the approval of competent authority.

Encl: As above

(D.V.S.P. Varma)
Under Secretary to Govt. of India
Email: dvsp.varma@nic.in

To

1. All Ministries/ Departments of Government of India
2. All Industry Associations

No.P-45021/112/2020-PP(BE-II)(E-43780)
Government of India
Ministry of Commerce and Industry
Department for Promotion of Industry and Internal Trade
(Public Procurement Section)

Udyog Bhawan, New Delhi
Dated August 28, 2020

OFFICE MEMORANDUM

Subject: Format for registration of bidders from countries which shares land border with India – mode of submission of application for registration along with Appendix 'A' and Appendix 'B' – regarding.

The undersigned is directed to refer to this Department's OM of even number dated 24.08.2020 (copy attached) on the above mentioned subject and inform that applicants are required to submit the registration application in the format as prescribed in above referred OM along with a covering letter in the format enclosed herewith.

2 The application may be submitted in four hard copies in the Office of Joint Secretary (MKN), DPIIT, Room No. 236A, Udyog Bhawan, New Delhi. A soft copy in pdf format may also be sent to email Id dpiit.144@gov.in

3. This issues with the approval of competent authority.

Encl: As above

(D.V.S.P. Varma)
Under Secretary to Govt. of India
Email: dvsp.varma@nic.in

To

1. All Ministries/ Departments of Government of India
2. All Industry Associations

Covering Letter Format

To

The Office of JS(MKN)
Chairman Registration Committee
Room No. 236A, Udyog Bhawan, New Delhi

Subject: Application for registration of bidders having beneficial ownership in countries which share land border with India in accordance with Department of Expenditure Order no. F. No. 6/18/2019-PPD dated 23.07.2020 and DPIIT OM No.P-45021/112/2020-PP(BE-II)(E-43780) dated 24.08.2020 - regarding.

We, M/s _____ (Name of the Bidder), hereby submit an application for registration of our Company in accordance with Department of Expenditure Order No. F. No. 6/18/2019-PPD dated 23.07.2020 and DPIIT OM No.P-45021/112/2020-PP(BE-II)(E-43780) dated 24.08.2020 through its authorized signatory.

2. We confirm that the application complete in all regards, and duly signed by authorised signatory on all pages, is being submitted in four hard copies. We also confirm that a soft copy in pdf format has been emailed to dpiit.144@gov.in . We understand that incomplete application will not be processed and summarily ignored.

3. We also confirm that we, M/s _____ (Name of the Bidder), and M/s ……..(Name of Manufacturer/ Service provider/ Contractor, if different from bidder) are not currently debarred/blacklisted/banned by any Government entity in India.

4. We also confirm that signatory of this letter & application form is the authorised signatory of the _____ (Name of the Bidder). A copy of authorisation letter is enclosed.

(Name and Signature of
authorised signatory of bidder along with
telephone number and email Id)

No.P-45021/112/2020-PP(BE-II)(E-43780)
Government of India
Ministry of Commerce and Industry
Department for Promotion of Industry and Internal Trade
(Public Procurement Section)

Udyog Bhawan, New Delhi
Dated August 24, 2020

OFFICE MEMORANDUM

Subject: Format for registration of bidders from countries which shares land border with India – regarding

The undersigned is directed to refer Department of Expenditure Order (Public Procurement No. 1) dated 23.07.2020 mandating that bidders having beneficial ownership in countries which share land border with India will be eligible to bid in public procurement, only if they are registered with the competent authority. Accordingly, the bidders, who have beneficial ownership in countries which share land border with India and intend to participate in public procurement in India, may submit application for "Registration" in the format enclosed as Appendix "A". Bidders are also required to submit application for "Security Clearance" in the format enclosed as Appendix "B". Complete application containing both "Registration" and "Security Clearance" formats, duly filled in, may be submitted in the Office of Joint Secretary (MKN), DPIIT, Room No. 236A, Udyog Bhawan, New Delhi.

2. The validity period of the registration shall be 12 months from the date of issue of registration letter. However, in case of appointment of new Director(s)/ new shareholders with more than 10% shares/ change in controlling ownership interest or control through other means, the registration shall stand cancelled. In such cases, bidders will be required to apply for a fresh registration. The list of bidders who have been registered with competent authority shall be displayed on the website of DPIIT.

3. The registration granted by this Department shall be only for the purpose of bid participation under Rule 144(xi) of General Financial Rules, 2017.

4. This issues with the approval of competent authority.

Encl: As above

(D.V.S.P. Varma)
Under Secretary to Govt. of India
Email: dvsp.varma@nic.in

To

1. All Ministries/ Departments of Government of India
2. All Industry Associations

Appendix-A

Format for bidder registration under Rule 144(xi) of GFR

Name of Bidder - as defined in the Department of Expenditure Order (Public Procurement No. 1) issued vide No. F.No.6/18/2019-PPD dated 23rd July, 2020	
Type of business entity (Natural Person/ Private Limited Company/ Public Limited Company/ Sole Proprietorship/ One Person Company/ Partnership firm/ Limited Liability Partnership/ Joint Venture/ Trust/ NGO/or any other type of entity) In case of incorporated entity - to attach certificate of incorporation.	
Beneficial owners - as defined in the Department of Expenditure Order (Public Procurement No. 1) issued vide No. F.No.6/18/2019-PPD dated 23rd July, 2020 Details of all beneficial owners having ownership more than that prescribed in Para 9 of Department of Expenditure Order (Public Procurement No. 1) issued vide No. F.No.6/18/2019-PPD dated 23rd July, 2020 may be furnished in the format as given in Annexure -I duly certified by practicing Chartered Account in India.	
Complete **address of the Registered Office** with contact person name, telephone number and email Id.	
Whether registration is being sought as a. Manufacturer/ service provider/ contractor for supply of goods/ services / works or b. As an **agent/reseller/distributor/member of consortium/ Branch Office/ Office Controlled by bidder/any subsidy of any artificial juridical person**/ any other type of category)	

Bidder to give details in which category – registration is being sought.	
In case registration is being sought as an**agent/reseller/distributor/Office controlled by bidder/ any other subsidy of any artificial juridical person /any other category other than manufacturers , service provider and contractor** of above - the **details of manufacturer/ service provider/ contractor** may be furnished in Annexure-II.	
The **details of items (**goods/ services / works**)** for which registration is sought as per Annexure –III	
Financial details in INR/ US Dollar for last five financial years as per Annexure –IV duly certified by practicing Chartered Account in India.	

Note: The terminology "Works" in the entire document means "Works including turnkey works/ projects". Similarly, the terminology "Services" means "Consultancy as well as non-consultancy services".

Annexure-I

Details of beneficial ownership of M/s …….(Name of the bidder)

		Beneficial owner details		
Name of the beneficial owner	**% beneficial ownership**	**Natural person or legal/ artificial juridical person/ entity**	**Country of Citizenship / Country of incorporation of legal/ artificial juridical person/ entity.**	**In case of legal/ artificial juridical person/ entity, beneficial ownership details of such entities may be furnished and so on.**

Annexure-II

Details of manufacturer/ service provider/ contractor

Name of manufacturer/ service provider/ contractor	
Type of business entity (Natural Person/ Private Limited Company/ Public Limited Company/ Sole Proprietorship/ One Person Company/ Partnership firm/ Limited Liability Partnership/ Joint Venture/ Trust/ NGO/or any other type of entity) In case of incorporated entity **-** to attach certificate of incorporation.	
Beneficial owners - as defined in the Department of Expenditure Order (Public Procurement No. 1) issued vide No. F.No.6/18/2019**-**PPD dated 23rd July, 2020 Details of all beneficial owners having ownership more than that prescribed in Para 9 of Department of Expenditure Order (Public Procurement No. 1) issued vide No. F.No.6/18/2019**-**PPD dated 23rd July, 2020 may be furnished in the format as given in Annexure **-**I duly certified by practicing Chartered Account in India.	
Complete **address of the Registered Office of manufacturer/ service provider/ contractor** with contact person name, telephone number and email Id.	
In case of manufacturer, complete address of the**manufacturing premises** with name, telephone number and email Id of contact person.	
In case of service provider/ contractor, **complete address of the premises from where services** are provided may be given with name, telephone number and email Id of contact person.	
The **details of items (**goods/ services / works**)** for which registration is sought as per Annexure –III	
Financial details in INR/USD for last five financial years as per Annexure –IV duly certified by practicing Chartered Account in India.	

Annexure-III

Details of item (goods/ services / works) for which registration is sought

Description of items (goods/ services / works) for which registration is being sought.	
Broad technical specification parameters/ details of items	
Annual Capacity of bidder for each of the goods/ services / works for which registration is being sought.	
Major public procuring entities in India for these items	
Details of contracts received in last 05 years for these items from public procuring entities in India in the format given in Annexure-V	
Details of contracts received in last 05 years for these item from private sector in India in the format given in Annexure-VI	
Details of outsourced components/goods and subcontracted works and services proposed to be used in execution of contract may be provided in the format given in Annexure –VII.	

Note:-

1. Bidder can seek registration for multiple items in an application by providing requisite details for each of the item for which registration is being sought.
2. Registration will be valid for a period of one year from the date of issue.
3. If there is change in the beneficial ownership of the bidder/ manufacturer/ contractor/service provider – this registration shall automatically stand annulled. Fresh registration need to be filed in such cases.

Annexure-IV

Financial details in INR/ US Dollar for last five financial years duly certified by practicing Chartered Account in India.

Financial year (FY)	**Net Sales turnover during the FY**	**Net Profit during the FY**	**Net worth at the end of the FY**

Annexure-V

Details of contracts received in last 05 years from public procuring entities in India

Sr. No.	Description ofgoods/ services / works with broad technical parameters	Procuring entity details – Name and complete address of the Organization.	Purchase Order Qty and value	Status of the Order – Executed successfully/ under execution/ cancelled

Note: The details are required to be furnished only for those goods/ services / works for which registration is being sought.

Annexure-VI

Details of contracts received in last 05 years from private sector in India

Sr. No.	Description ofgoods/ services / works with broad technical parameters	Procuring entity details – Name and complete address of the Organization.	Purchase Order Qty and value	Status of the Order – Executed successfully/ under execution/ cancelled

Note: The details are required to be furnished only for those goods/ services / works for which registration is being sought.

Annexure-VII

Details of outsourced components/goods and subcontracted works and services proposed to be used in execution of contract

Sr. No.	Details of outsourced components/goods and subcontracted works and services	Major technical parameters	Manufactured by /Subcontracted to	Country of Origin

*The details are required to be furnished for top 20 high value outsourced components/goods and subcontracted works and services.

Appendix-B

Proforma for application for security clearance for registration of bidders from countries which share land border with India

I. **Details in respect of bidding company / person**:

Sl. No.	Name of the company / person	Type of company (Pvt. Ltd. / Pub. Ltd. / sole proprietorship / one person company / partnership / LLP / JV / Trust / NGO etc.)	Country of registration in case of company / nationality (if holding multiple nationality, all must be mentioned) in case of person	Registration number with date in case of company / passport nos. and issue date in case of person	Registered office address and correspondence address in case of company / Contact Address in case of person	Previous name of the company, if any	Details of earlier registration, if any (ref. no. & date)

II. **Details of beneficial ownership of entity**:

Sl. No.	Name of the company/individuals which/who are the beneficial owner of bidding company	Country of registration, registration number with date in case beneficial owner is a company / nationality, passport nos. and issue date (if holding multiple nationality, all must be mentioned) in case beneficial owner is an individual	Registered office address in case of company and correspondence address / contact address in case of individual	Details of intermediary company(s) / persons between bidder company or person and beneficial owner company / individual	Enclose a chart depicting the link between bidding company / person and the beneficial company / owners along with details such as address, parentage, passport details (in case of individuals) or company registration details (in case of companies)

III. **Details in respect of Directors of bidding company**:

Sl. No.	Full Name of Board of Directors	Present position held with date (since when)	Date of birth	Parentage (name of father / mother)	Present & Permanent Address	Nationality (if holding multiple nationality, all must be mentioned)	Passport Nos. and issue date, if any	Contact Address & telephone number

IV. **Details of shareholders of bidding company (all companies/entities/individuals with more than 10% shares or having controlling ownership interest or exercising control through other means in case of less than 10% shares):**

Sl. No.	Full Name of individual / company	Parentage (name of father / mother) in case of individuals, and registration number in case of companies	Permanent address / present address in case of individuals, and registered and correspondence address in case of companies	Present position held, in any, in the applicant company	Nationality, in case of individual (if holding multiple nationality, all must be mentioned) / country of registration, in case of company	Passport Nos. and date of issue, if any (date of birth, in case passport is not available) for individuals	% of shares held in the company

V. **Details of tender(s) and specific goods / services / works proposed to be supplied:**

VI. **Reasons for seeking registration with Registration Committee of DPIIT:** A brief note be attached

VII. **Details of nature of activities undertaken by bidding company / person:** A brief note be attached.

VIII. **Details of nature of activities undertaken by beneficial owner of bidding company / person:** A brief note be attached.

IX. Details of criminal cases, if any, against the bidding company, its director(s) or person as per annexure

Annexure

Self-declaration for bidding company and its director(s) / owners or person

a. Name & address and registration number of the company :

b. Name and address of owners (in case of proprietorship firm) / directors of the company / person :

1. _____
2. _____
3. _____
4. _____

c. Are the company owners (in case of proprietorship firm) / directors / person listed above, are the subject of any?

1. Preventive detention proceedings under Public Safety Act / National Security Act etc. : Yes / No
2. Criminal investigation in which chargesheet has been filed : Yes / No

d. If, Yes, please provide following details

1. Case / FIR number :
2. Detention / warrant number, if any, :
3. Police station / district / agency :
4. Sections of law under which case(s) has / have been filed :
5. Name and place of the court :

e. The above mentioned details are in respect of both India and any other foreign country.

(Signature)

Note: The above self-declaration is required to be filled and signed by the authorized signatory of the company.

F. No. K-14011/10/2020 -UT-V
Government of India
Ministry of Housing and Urban Affairs
Urban Transport Division
(UT-V Desk)

311-B, Nirman Bhawan, New Delhi.
Dated the 14th August, 2020.

To,

MD's of all the Metro Rail Corporations (as per the list attached).

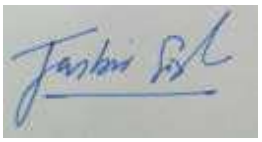
Subject: Request for details regarding Public Procurement in Metro Rail/RRTS Corporations.

Sir/Madam,

I am directed to refer to Department of Expenditure, Ministry of Finance OM dated 23.07.2020 (as enclosed) and to request that the requisite details /comments on Annexure-A and Annexure-B (copies enclosed) regarding public procurements w.r.t. your respective Metro Rail/RRTS projects may be furnished to this Ministry positively by 19.08.2020 2 pm.

Encl : As above.

Yours Sincerely,



(Jasbir Singh)
Under Secretary to the Govt. of India
Tel: 011-23062285

List of Metro Rail Corporations:

1.	The Managing Director, Delhi Metro Rail Corporation Ltd., Metro Bhawan, Fire Brigade Lane, Barakhamba Road, New Delhi-110 001. Email: mdmetro@dmrc.org	2.	The Managing Director, Chennai Metro Rail Ltd., Admn. Building, Poonamallee High Road, Koyambedu, Chennai-600107. Email: md.cmrl@tn.gov.in mdcmrl2010@gmail.com
3.	The Managing Director, Mumbai Metro Rail Corpn. Ltd., Bandra Kurla Complex, Bandra (East), Mumbai-400051. Email: md.office@mmrcl.com	4.	The Managing Director, Bangalore Metro Rail Corpn. Ltd., 3rd Floor, BMTC Complex, K.H. Road, Shanthinagar, Bangalore-560 027. Email: md@bmrc.co.in
5.	The Managing Director, Noida Metro Rail Corporation Limited, Block-III, 3rd Floor, Ganga Shopping Complex, Sector – 29, Noida - 201301 E.mail: nmrcnoida@gmail.com	6.	The Managing Director, Lucknow Metro Rail Corpn. Ltd., (for Lucknow, Kanpur and Agra Metros) Administrative Building, Near Dr. Bhimrao Ambedkar Samajik Parivartan Sthal, Vipin Khand, Gomti Nagar, Lucknow-226 010. Email: mdlucknowmetro@gmail.com
7.	The Managing Director, National Capital Region Transport Corporation Ltd. (NCRTC), Siri Fort Institutional Area, August Kranti Marg, New Delhi-110 049 E.mail: md.office@ncrtc.in	8.	The Managing Director, Kochi Metro Rail Ltd., 8th Floor, Revenue Tower, Park Avenue, Kochi-682 011 Email: md@kmrl.co.in
9.	The Managing Director, Gujarat Metro Rail Corporation Limited, (for Ahmedabad, Gandhinagar and Surat Metros) Block No.1, 1st Floor, Karma Yogi Bhavan, Sector-10A, Gandhinagar-382 010. Email: md@gujaratmetrorail.com	10.	The Managing Director, Maha- Metro Rail Corporation, (for Nagpur and Pune Metros) "Metro House", 28/2, C.K. Naidu Road, Anand Nagar, Civil Lines, Nagpur-440 001. Email: md@mahametro.org
11	The Metropolitan Commissioner, Mumbai Metropolitan Regional Development Authority (MMRDA) Bandra-Kurla Complex, Bandra East, Mumbai-400 051. Email: mcmmrda@gmail.com	12	The Managing Director, Hyderabad Metro Rail Ltd., Rasoopura, Begumpet, Hyderabad – 500 016 Email: nvsreddyiras@gmail.com
13	The Managing Director, Madhya Pradesh Metro Rail Company Ltd., (for Bhopal and Indore Metros) Palika Bhavan,, Near 6 number Bus Stop Shivaji Nagar, Bhopal – 462016 Email: psuaddmp@mpurban.gov.in	14	The Managing Director, Patna Metro Rail Corporation Limited, Patna, Bihar Email: ud.bihar@gmail.com

F.No.6/18/2019-PPD
Ministry of Finance
Department of Expenditure
Public Procurement Division

161, North Block,
New Delhi
23rd July, 2020

Office Memorandum

Subject: Insertion of Rule 144 (xi) in the General Financial Rules (GFRs), 2017

Rule 144 of the General Financial Rules 2017 entitled 'Fundamental principles of public buying', has been amended by inserting sub-rule (xi) as under:

Notwithstanding anything contained in these Rules, Department of Expenditure may, by order in writing, impose restrictions, including prior registration and/or screening, on procurement from bidders from a country or countries, or a class of countries, on grounds of defence of India, or matters directly or indirectly related thereto including national security; no procurement shall be made in violation of such restrictions.

(Sanjay Prasad)
Joint Secretary (PPD)
Email ID: js.pfc2.doe@gov.in
Telephone: 011-23093882

To,

(1) Secretaries of All Ministries/ Departments of Government of India
(2) Chief Secretaries/ Administrators of Union Territories/ National Capital Territory of Delhi

F.No.6/18/2019-PPD
Ministry of Finance
Department of Expenditure
Public Procurement Division

161, North Block,
New Delhi
23rd July, 2020

Order (Public Procurement No. 1)

Subject: Restrictions under Rule 144 (xi) of the General Financial Rules (GFRs), 2017

Attention is invited to this office OM no. 6/18/2019-PPD dated 23rd July 2020 inserting Rule 144 (xi) in GFRs 2017. In this regard, the following is hereby ordered under Rule 144 (xi) on the grounds stated therein:

Requirement of registration

1. Any bidder from a country which shares a land border with India will be eligible to bid in any procurement whether of goods, services (including consultancy services and non-consultancy services) or works (including turnkey projects) only if the bidder is registered with the Competent Authority, specified in **Annex I.**

2. This Order shall not apply to (i) cases where orders have been placed or contract has been concluded or letter/notice of award/ acceptance (LoA) has been issued on or before the date of this order; and (ii) cases falling under **Annex II**.

Transitional cases

3. Tenders where no contract has been concluded or no LoA has been issued so far shall be handled in the following manner: -

   a) *In tenders which are yet to be opened, or where evaluation of technical bid or the first exclusionary qualificatory stage (i.e. the first stage at which the qualifications of tenderers are evaluated and unqualified bidders are excluded) has not been completed*: No contracts shall be placed on bidders from such countries. Tenders received from bidders from such countries shall be dealt with as if they are non-compliant with the tender conditions and the tender shall be processed accordingly.

   b) *If the tendering process has crossed the first exclusionary qualificatory stage*: If the qualified bidders include bidders from such countries, the

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entire process shall be scrapped and initiated *de novo*. The *de novo* process shall adhere to the conditions prescribed in this Order.

c) As far as practicable, and in cases of doubt about whether a bidder falls under paragraph 1, a certificate shall be obtained from the bidder whose bid is proposed to be considered or accepted, in terms of paras 8, 9 and 10 read with para 1 of this Order.

Incorporation in tender conditions

4. In tenders to be issued after the date of this order, the provisions of paragraph 1 and of other relevant provisions of this Order shall be incorporated in the tender conditions.

Applicability

5. Apart from Ministries / Departments, attached and subordinate bodies, notwithstanding anything contained in Rule 1 of the GFRs 2017, this Order shall also be applicable
    a. to all Autonomous Bodies;
    b. to public sector banks and public sector financial institutions; and
    c. subject to any orders of the Department of Public Enterprises, to all Central Public Sector Enterprises; and
    d. to procurement in Public Private Partnership projects receiving financial support from the Government or public sector enterprises/ undertakings.
    e. Union Territories, National Capital Territory of Delhi and all agencies/ undertakings thereof

Definitions

6. "Bidder" for the purpose of this Order (including the term 'tenderer', 'consultant' 'vendor' or 'service provider' in certain contexts) means any person or firm or company, including any member of a consortium or joint venture (that is an association of several persons, or firms or companies), every artificial juridical person not falling in any of the descriptions of bidders stated hereinbefore, including any agency, branch or office controlled by such person, participating in a procurement process.

7. "Tender" for the purpose of this Order will include other forms of procurement, except where the context requires otherwise.

8. "Bidder from a country which shares a land border with India" for the purpose of this Order means

a) An entity incorporated, established or registered in such a country; or
b) A subsidiary of an entity incorporated, established or registered in such a country; or
c) An entity substantially controlled through entities incorporated, established or registered in such a country; or
d) An entity whose *beneficial owner* is situated in such a country; or
e) An Indian (or other) agent of such an entity; or
f) A natural person who is a citizen of such a country; or
g) A consortium or joint venture where any member of the consortium or joint venture falls under any of the above

9. "Beneficial owner" for the purpose of paragraph 8 above will be as under:

(i) In case of a company or Limited Liability Partnership, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person(s), has a controlling ownership interest or who exercises control through other means.
Explanation—

a. "Controlling ownership interest" means ownership of, or entitlement to, more than twenty-five per cent of shares or capital or profits of the company;

b. "Control" shall include the right to appoint the majority of the directors or to control the management or policy decisions, including by virtue of their shareholding or management rights or shareholders agreements or voting agreements;

(ii) In case of a partnership firm, the beneficial owner is the natural person(s) who, whether acting alone or together, or through one or more juridical person, has ownership of entitlement to more than fifteen percent of capital or profits of the partnership;

(iii) In case of an unincorporated association or body of individuals, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has ownership of or entitlement to more than fifteen percent of the property or capital or profits of such association or body of individuals;

(iv) Where no natural person is identified under (i) or (ii) or (iii) above, the beneficial owner is the relevant natural person who holds the position of senior managing official;

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(v) In case of a trust, the identification of beneficial owner(s) shall include identification of the author of the trust, the trustee, the beneficiaries with fifteen percent or more interest in the trust and any other natural person exercising ultimate effective control over the trust through a chain of control or ownership.

10. "Agent" for the purpose of this Order is a person employed to do any act for another, or to represent another in dealings with third persons.

Sub-contracting in works contracts

11. In works contracts, including turnkey contracts, contractors shall not be allowed to sub-contract works to any contractor from a country which shares a land border with India unless such contractor is registered with the Competent Authority. The definition of "contractor from a country which shares a land border with India" shall be as in paragraph 8 above. This shall not apply to sub-contracts already awarded on or before the date of this Order.

Certificate regarding compliance

12. A certificate shall be taken from bidders in the tender documents regarding their compliance with this Order. If such certificate given by a bidder whose bid is accepted is found to be false, this would be a ground for immediate termination and further legal action in accordance with law.

Validity of registration

13. In respect of tenders, registration should be valid at the time of submission of bids and at the time of acceptance of bids. In respect of supply otherwise than by tender, registration should be valid at the time of placement of order. If the bidder was validly registered at the time of acceptance / placement of order, registration shall not be a relevant consideration during contract execution.

Government E-Marketplace

14. The Government E-Marketplace shall, as soon as possible, require all vendors/ bidders registered with GeM to give a certificate regarding compliance with this Order, and after the date fixed by it, shall remove non-compliant entities from GeM unless/ until they are registered in accordance with this Order.

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Model Clauses/ Certificates

15. Model Clauses and Model Certificates which may be inserted in tenders / obtained from Bidders are enclosed as **Annex III**. While adhering to the substance of the Order, procuring entities are free to appropriately modify the wording of these clauses based on their past experience, local needs etc. without making any reference to this Department.

(Sanjay Prasad)
Joint Secretary (PPD)
Email ID: js.pfc2.doe@gov.in
Telephone: 011-23093882

To

(1) Secretaries of All Ministries/ Departments of Government of India for information and necessary action. They are also requested to inform these provisions to all procuring entities.

(2) Secretary, Department of Public Enterprises with a request to immediately reiterate these orders in respect of Public Enterprises.

(3) Secretary DPIIT with a request to initiate action as provided under Annex I

(4) Chief Secretaries/ Administrators of Union Territories/ National Capital Territory of Delhi

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Annex I: Competent Authority and Procedure for Registration

A. The Competent Authority for the purpose of registration under this Order shall be the Registration Committee constituted by the Department for Promotion of Industry and Internal Trade (DPIIT)*.

B. The Registration Committee shall have the following members*:

   i. An officer, not below the rank of Joint Secretary, designated for this purpose by DPIIT, who shall be the Chairman;
   ii. Officers (ordinarily not below the rank of Joint Secretary) representing the Ministry of Home Affairs, Ministry of External Affairs, and of those Departments whose sectors are covered by applications under consideration;
   iii. Any other officer whose presence is deemed necessary by the Chairman of the Committee.

C. DPIIT shall lay down the method of application, format etc. for such bidders as stated in para 1 of this Order.

D. On receipt of an application seeking registration from a bidder from a country covered by para 1 of this Order, the Competent Authority shall first seek political and security clearances from the Ministry of External Affairs and Ministry of Home Affairs, as per guidelines issued from time to time. Registration shall not be given unless political and security clearance have both been received.

E. The Ministry of External Affairs and Ministry of Home Affairs may issue guidelines for internal use regarding the procedure for scrutiny of such applications by them.

F. The decision of the Competent Authority, to register such bidder may be for all kinds of tenders or for a specified type(s) of goods or services, and may be for a specified or unspecified duration of time, as deemed fit. The decision of the Competent Authority shall be final.

G. Registration shall not be granted unless the representatives of the Ministries of Home Affairs and External Affairs on the Committee concur*.

H. Registration granted by the Competent Authority of the Government of India shall be valid not only for procurement by Central Government and its agencies/ public enterprises etc. but **also for procurement by State Governments and their agencies/ public enterprises etc. No fresh registration at the State level shall be required**.

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I. The Competent Authority is empowered to cancel the registration already granted if it determines that there is sufficient cause. Such cancellation by itself, however, will not affect the execution of contracts already awarded. Pending cancellation, it may also suspend the registration of a bidder, and the bidder shall not be eligible to bid in any further tenders during the period of suspension.

J. For national security reasons, the Competent Authority shall not be required to give reasons for rejection / cancellation of registration of a bidder.

K. In transitional cases falling under para 3 of this Order, where it is felt that it will not be practicable to exclude bidders from a country which shares a land border with India, a reference seeking permission to consider such bidders shall be made by the procuring entity to the Competent Authority, giving full information and detailed reasons. The Competent Authority shall decide whether such bidders may be considered, and if so shall follow the procedure laid down in the above paras.

L. Periodic reports on the acceptance/ refusal of registration during the preceding period may be required to be sent to the Cabinet Secretariat. Details will be issued separately in due course by DPIIT.

[*Note:

i. In respect of application of this Order to procurement by/ under State Governments, all functions assigned to DPIIT shall be carried out by the State Government concerned through a specific department or authority designated by it. The composition of the Registration Committee shall be as decided by the State Government and paragraph G above shall not apply. However, the requirement of **political and security clearance as per para D shall remain and no registration shall be granted without such clearance**.

ii. Registration granted by State Governments shall be valid only for procurement by the State Government and its agencies/ public enterprises etc. and shall not be valid for procurement in other states or by the Government of India and their agencies/ public enterprises etc.]

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Annex II: Special Cases

A. Till 31st December 2020, procurement of medical supplies directly related to containment of the Covid-19 pandemic shall be exempt from the provisions of this Order.

B. *Bona fide* procurements made through GeM without knowing the country of the bidder till the date fixed by GeM for this purpose, shall not be invalidated by this Order.

C. *Bona fide* small procurements, made without knowing the country of the bidder, shall not be invalidated by this Order.

D. In projects which receive international funding with the approval of the Department of Economic Affairs (DEA), Ministry of Finance, the procurement guidelines applicable to the project shall normally be followed, notwithstanding anything contained in this Order and without reference to the Competent Authority. Exceptions to this shall be decided in consultation with DEA.

E. This Order shall not apply to procurement by Indian missions and by offices of government agencies/ undertakings located outside India.

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Annex III

Model Clause /Certificate to be inserted in tenders etc.

(While adhering to the substance of the Order, procuring entities and GeM are free to appropriately modify the wording of the clause/ certificate based on their past experience, local needs etc.)

Model Clauses for Tenders

I. Any bidder from a country which shares a land border with India will be eligible to bid in this tender only if the bidder is registered with the Competent Authority.

II. "Bidder" (including the term 'tenderer', 'consultant' or 'service provider' in certain contexts) means any person or firm or company, including any member of a consortium or joint venture (that is an association of several persons, or firms or companies), every artificial juridical person not falling in any of the descriptions of bidders stated hereinbefore, including any agency branch or office controlled by such person, participating in a procurement process.

III. "Bidder from a country which shares a land border with India" for the purpose of this Order means: -

a. An entity incorporated, established or registered in such a country; or
b. A subsidiary of an entity incorporated, established or registered in such a country; or
c. An entity substantially controlled through entities incorporated, established or registered in such a country; or
d. An entity whose *beneficial owner* is situated in such a country; or
e. An Indian (or other) agent of such an entity; or
f. A natural person who is a citizen of such a country; or
g. A consortium or joint venture where any member of the consortium or joint venture falls under any of the above

IV. The *beneficial owner* for the purpose of (iii) above will be as under:

1. In case of a company or Limited Liability Partnership, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has a controlling ownership interest or who exercises control through other means.
Explanation—

a. "Controlling ownership interest" means ownership of or entitlement to more than twenty-five per cent. of shares or capital or profits of the company;

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b. "Control" shall include the right to appoint majority of the directors or to control the management or policy decisions including by virtue of their shareholding or management rights or shareholders agreements or voting agreements;

2. In case of a partnership firm, the beneficial owner is the natural person(s) who, whether acting alone or together, or through one or more juridical person, has ownership of entitlement to more than fifteen percent of capital or profits of the partnership;

3. In case of an unincorporated association or body of individuals, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has ownership of or entitlement to more than fifteen percent of the property or capital or profits of such association or body of individuals;

4. Where no natural person is identified under (1) or (2) or (3) above, the beneficial owner is the relevant natural person who holds the position of senior managing official;

5. In case of a trust, the identification of beneficial owner(s) shall include identification of the author of the trust, the trustee, the beneficiaries with fifteen percent or more interest in the trust and any other natural person exercising ultimate effective control over the trust through a chain of control or ownership.

V. An Agent is a person employed to do any act for another, or to represent another in dealings with third person.

VI. *[To be inserted in tenders for Works contracts, including Turnkey contracts]* The successful bidder shall not be allowed to sub-contract works to any contractor from a country which shares a land border with India unless such contractor is registered with the Competent Authority.

Model Certificate for Tenders (for transitional cases as stated in para 3 of this Order)

"I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India; I hereby certify that this bidder is not from such a country and is eligible to be considered."

Model Certificate for Tenders

"I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India; I certify that this bidder is not from such a country or, if from such a country, has been registered with the

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Competent Authority. I hereby certify that this bidder fulfills all requirements in this regard and is eligible to be considered. [Where applicable, evidence of valid registration by the Competent Authority shall be attached.]"

Model Certificate for Tenders for Works involving possibility of sub-contracting

"I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India and on sub-contracting to contractors from such countries; I certify that this bidder is not from such a country or, if from such a country, has been registered with the Competent Authority and will not sub-contract any work to a contractor from such countries unless such contractor is registered with the Competent Authority. I hereby certify that this bidder fulfills all requirements in this regard and is eligible to be considered. [Where applicable, evidence of valid registration by the Competent Authority shall be attached.]"

Model Certificate for GeM:

"I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India; I certify that this vendor/ bidder is not from such a country or, if from such a country, has been registered with the Competent Authority. I hereby certify that this vendor/ bidder fulfills all requirements in this regard and is eligible to be considered for procurement on GeM. [Where applicable, evidence of valid registration by the Competent Authority shall be attached.]"

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F. No. 283/22/2019-GRID SOLAR

भारत सरकार / Government of India

नवीन और नवीकरणीय ऊर्जा मंत्रालय/ Ministry of New & Renewable Energy

Block No. 14, C.G.O. Complex,
Lodhi Road, New Delhi – 110003
Dated: 09th February, 2021

ORDER

Sub: Public Procurement (Preference to Make in India) to provide for Purchase Preference (linked with local content) in respect of Renewable Energy (RE) Sector.

Ref: Department for Promotion of Industry and Internal Trade (DPIIT) Notification No.P-45021/2/2017-PP (BE-II) dated 4th June, 2020 and dated 16th September, 2020.

The Government of India, Department for Promotion of Industry and Internal Trade (DPIIT) issued Public Procurement (Preference to Make in India), Order 2017 for encouraging 'Make in India' and promoting manufacturing and production of goods and services in India with a view to enhancing income and employment. Further, DPIIT vide order's No.P-45021/2/2017-PP (BE-II) dated 4th June, 2020 and 16th September, 2020, have issued the revised Public Procurement (Preference to Make in India) Order 2017.

2. In the light of the Public Procurement (Preference to Make in India) Order 2017, this Ministry had issued O.M. No. 146/57/2018-P&C dated 11th December, 2018 covering certain products related to renewable energy sector under the Public Procurement (Preference to Make in India) Order and specifying the Minimum Percentage of local content required for such renewable energy products. Further, in pursuance of revised Public Procurement (Preference to Make in India) Order 2017, dated 04.09.2020, this Ministry had issued an Order No. 283/22/2019-GRID SOLAR dated 23.09.2020 on the above mentioned subject.

3. In furtherance of Para 19 of the DPIIT Notification No.P-45021/2/2017-PP(BE-II) dated 16.09.2020 and in supersession of all the aforementioned orders issued by this Ministry, the following has been decided:

i. For the purpose of this order, the definitions of various terms used in the order, and provisions relating to (i) Eligibility of 'Class-I local supplier' / 'Class-II local supplier' / 'Non-local suppliers' for different types of procurement, (ii) purchase preference, (iii) exemption to small purchases, and (iv) margin of purchase preference, shall be the same as in DPIIT order dated 16.09.2020, referred to above and extracts of the same given at **Appendix.**

ii. In procurement of all goods and services or works in respect of which there is sufficient local capacity and local competition as in Annexure-I, only "Class–I local supplier", shall be eligible to bid irrespective of purchase value.

iii. Only 'Class I local supplier' and 'Class-II local supplier', as defined under the DPIIT Notification No.P-45021/2/2017-PP(BE-II) dated 16.09.2020, shall be eligible to bid in procurements undertaken by procuring entities, except when Global tender enquiry has been issued. In global tender enquiries, 'Non-local suppliers' shall also be eligible to bid along with 'Class-I local suppliers' and 'Class-II local suppliers'. In procurement

of all goods, services or works, not covered by sub- para 3 (ii) above, and with estimated value of purchases less than Rs.200 Crore, in accordance with Rule 161(iv) of GFR, 2017, Global tender enquiry shall not be issued except with the approval of competent authority as designated by Department of Expenditure.

iv. For the purpose of this order, 'Works' means all works as per Rule 130 of GFR 2017, and will also include 'turnkey works', Engineering, Procurement and Construction (EPC) contracts and service contracts including System Integrator (SI) contracts.

4. The list of items, in respect of which, local capacity with sufficient competition exists as per **Annexure-I**, will be reviewed at regular intervals with a view to increase number of items in this list.

5. Purchase preference shall be given to local suppliers in accordance with **para 3A & 3B** of DPIIT Order dated 16.09.2020, and extracts of the same given at **Appendix.**

6. Further, it has been decided to constitute a committee for independent verification of self-declarations and auditor's / accountant's certificates on random basis and in the case of complaints. The composition of the committee is given below:

Chairperson	DG, NISE
Member	Dir(JKJ)
Member	Dir(Wind)
External Expert	Dir(Technical),IREDA
Convener	Dir(RG)

7. Further, it has also been decided to constitute a committee to examine the grievances in consultation with stakeholders and recommend appropriate actions to the Competent Authority in MNRE. The composition of the Committee is given below:

Chairperson	EA
Member	Dir(Wind)
Member	Dir(JKJ)
Convener	Dir(RG)

8. The complaint fee of Rs.2 Lakh or 1% of the value of the local item being procured (subject to maximum of Rs.5 Lakh), whichever is higher, shall be paid in the form of online transaction or Demand Draft, drawn in favour of IREDA. In case the complaint is found to be incorrect, the complaint fee shall be forfeited. In case, the complaint is upheld and found to be substantially correct, deposited fee of the complainant would be refunded without any interest.

9. All other conditions, not stipulated in this order, shall be as laid down in the DPIIT's order No.P-45021/2/2017-PP (BE-II) dated 16.09.2020.

10. This order shall be applicable in respect of the procurements made by all attached or subordinate offices or autonomous body under the Ministry of New & Renewable Energy, Government of India including Government Companies as defined in the Companies Act, and /or the States and Local Bodies making procurement under all Central Schemes/ Central Sector Schemes where the Scheme is fully or partially funded by Government of India. The aforesaid order shall also be applicable in respect of funding of capital equipment by IREDA, PFC and REC, for all RE projects, for which the bids are issued on or after 1st April, 2021.

11. Procuring entities as defined in the DPIIT's Order dated 16.09.2020 are advised to revise their tender documents fully complying with the said DPIIT's Order and the subsequent Orders that would be issued in this regard by DPIIT/this Ministry from time to time.

12. All tenders for procurement by Central Government Agencies have to be certified for compliance of the PPP-MII Order by the concerned procurement officer of the Government Organization before uploading in the portal.

13. In pursuance of the provision of para 13 of the DPIIT Order, 2020, equipment used in the renewable energy sector which are manufactured under license from foreign manufacturers holding intellectual property rights and where there is a transfer of technology agreement, if any, are listed as under Annexure-II. However, **Annexure-II** will undergo regular review to check for those items in the list for which sufficient local manufacturing capacity and competition have got developed and which meet minimum local content of 50% now, so that these items become eligible for inclusion in Annexure-I of this order and the provisions as contained in para 3 above of this order start becoming applicable in respect of these items too.

14. In terms of para 13A of DPIIT's Order dated 16.09.2020, the procuring entities, while procuring Solar PV Cells beyond 250 MW per annum, shall prescribe in their respective tenders that foreign companies shall enter into a joint venture with an Indian company to participate in the tender.

15. In order to further encourage Make in India initiative and promote manufacturing and production of goods and services in India, general guidelines as enclosed at **Annexure-III** may be adopted in an appropriate manner according to the circumstances by the procuring entities in their tendering process.

16. This issues in line with the approval from Hon'ble MoS (IC) for NRE and Power.

09/02/21

(Mohd Azmal Mansoori)
Scientist-B
Email: azmal.mnre@gov.in

To:

1. All Ministries/ Departments of Government of India (As per list)
2. Secretary (Coordination), Cabinet Secretariat
3. PS to PM, Prime Minister's Office
4. Vice Chairman, NITI Aayog
5. Chief Secretaries of all States/UTs
6. Director General, Comptroller and Auditor General of India
7. Secretary, DPIIT, Chairman of Standing Committee for implementation of Public Procurement Order, 2017
8. Joint Secretary, DPIIT, Member-Convener of Standing Committee for implementation of Public Procurement Order, 2017
9. Chairperson, CEA
10. CMDs of CPSEs under MNRE & MoP
11. All Group Heads in MNRE

Appendix

Extracts of important provisions contained in DPIIT Order No.P-45021/2/2017-PP (BE-II) dated 16th September, 2020

1. Definitions:

'Local content' means the amount of value added in India which shall, unless otherwise prescribed by the Nodal Ministry, be the total value of the item procured (excluding net domestic indirect taxes) minus the value of imported content in the item (including all customs duties) as a proportion of the total value, in percent.

'Class-I local supplier' means a supplier or service provider, whose goods, services or works offered for procurement, meets the minimum local content as prescribed for 'Class-I local supplier under this Order.

'Class-II local supplier' means a supplier or service provider, whose goods, services or works offered for procurement, meets the minimum local content as prescribed for 'Class-II local supplier' but less than that prescribed for Class-I local supplier' under this Order.

'Non-Local supplier' means a supplier or service provider, whose goods, services or works offered for procurement, has local content less than that prescribed for 'Class-II local supplier under this Order.

'L1' means the lowest tender or lowest bid or the lowest quotation received in a tender, bidding process or other procurement solicitation as adjudged in the evaluation process as per the tender or other procurement solicitation.

'Margin of purchase preference' means the maximum extent to which the price quoted by a "Class-I local supplier" may be above the L1 for the purpose of purchase preference.

'Procuring entity' means a Ministry or department or attached or subordinate office of, or autonomous body controlled by, the Government of India and includes Government companies as defined in the Companies Act.

'Works' means all works as per Rule 130 of GFR- 2017, and will also include 'turnkey works'.

2. Eligibility of 'Class-I local supplier'/ 'Class-II local supplier'/ 'Non-local suppliers' for different types of procurement

a) In procurement of all goods, services or works in respect of which the Nodal Ministry / Department has communicated that there is sufficient local capacity and local competition, only 'Class-I local supplier', as defined under the Order, shall be eligible to bid irrespective of purchase value.

b) Only 'Class I local supplier' and 'Class-II local supplier', as defined under the Order, shall be eligible to bid in procurements undertaken by procuring entities, except when Global tender enquiry has been issued. In global tender enquiries, 'Non-local suppliers' shall also be eligible to bid along with 'Class-I local suppliers' and 'Class-II local suppliers'. In procurement of all goods, services or works, not covered by sub- para 2 (a) above, and with estimated value of purchases less than Rs.200

Crore, in accordance with Rule 161(iv) of GFR, 2017, Global tender enquiry shall not be issued except with the approval of competent authority as designated by Department of Expenditure.

c) For the purpose of this Order, works includes Engineering, Procurement and Construction (EPC) contracts and services include System Integrator (SI) contracts.

3A. Purchase Preference

a) Subject to the provisions of this Order and to any specific instructions issued by the Nodal Ministry or in pursuance of this Order, purchase preference shall be given to 'Class-I local supplier' in procurements undertaken by procuring entities in the manner specified here under.

b) In the procurements of goods or works, which are covered by para 2(b) above and which are divisible in nature, the 'Class-I local supplier' shall get purchase preference over 'Class-II local supplier' as well as 'Non-local supplier', as per following procedure:

i. Among all qualified bids, the lowest bid will be termed as L1. If L1 is 'Class-I local supplier', the contract for full quantity will be awarded to L1.

ii. If L1 bid is not a 'Class-I local supplier', 50% of the order quantity shall be awarded to L1. Thereafter, the lowest bidder among the 'Class-I local supplier' will be invited to match the L1 price for the remaining 50% quantity subject to the Class-I local supplier's quoted price falling within the margin of purchase preference, and contract for that quantity shall be awarded to such 'Class-I local supplier' subject to matching the L1 price, In case such lowest eligible 'Class-I local supplier' fails to match the L1 price or accepts less than the offered quantity, the next higher 'Class-I local supplier' within the margin of purchase preference shall be invited to match the L1 price for remaining quantity and so on, and contract shall be awarded accordingly. In case some quantity is still left uncovered on Class-I local suppliers, then such balance quantity may also be ordered on the L1 bidder.

c) In the procurements of goods or works, which are covered by para 2(b) above and which are not divisible in nature, and in procurement of services where the bid is evaluated on price alone, the 'Class-I local supplier' shall get purchase preference over 'Class-II local supplier' as well as 'Non-local supplier', as per following procedure:

i. Among all qualified bids, the lowest bid will be termed as L1. If L1 is 'Class-I local supplier', the contract will be awarded to L1.

ii. If L1 is not 'Class-I local supplier', the lowest bidder among the 'Class-I local supplier', will be invited to match the L1 price subject to Class-I local supplier's quoted price falling within the margin of purchase preference, and the contract shall be awarded to such 'Class-I local supplier' subject to matching the L1 price.

iii. In case such lowest eligible 'Class-I local supplier' fails to match the L1 price, the 'Class-I local supplier' with the next higher bid within the margin of purchase preference shall be invited to match the L1 price and so on and contract shall be awarded accordingly, In case none of the 'Class-I local supplier' within the margin

of purchase preference matches the L1 price, the contract may be awarded to the L1 bidder.

d) "Class-II local supplier" will not get purchase preference in any procurement, undertaken by procuring entities.

3B. Applicability in tenders where contract is to be awarded to multiple bidders-

In tenders where contract is awarded to multiple bidders subject to matching of L1 rates or otherwise, the 'Class-I local supplier' shall get purchase preference over 'Class-II local supplier' as well as 'Non-local supplier', as per following procedure:

a) In case there is sufficient local capacity and competition for the item to be procured, as notified by the nodal Ministry, only Class I local suppliers shall be eligible to bid. As such, the multiple suppliers, who would be awarded the contract, should be all and only Class I local suppliers'

b) In other cases, 'Class-II local suppliers' and 'Non local suppliers' may also participate in the bidding process along with 'Class I local suppliers' as per provisions of this Order.

c) If 'Class I local supplier' qualify for award of contract for at least 50% of the tendered quantity in any tender, the contract may be awarded to all the qualified bidders as per award criteria stipulated in the bid documents. However, in case 'Class I Local suppliers' do not qualify for award of contract for at least 50% if the tendered quantity, purchase preference should be given to the 'Class I local supplier' over 'Class II local suppliers'/ 'Non local suppliers' provided that their quoted rate falls within 20% margin of purchase preference of the highest quoted bidder considered for award of contract so as to ensure that the 'Class I Local suppliers' taken in totality are considered for award of contract for at least 50% of the tendered quantity.

d) First purchase preference has to be given to the lowest quoting 'Class I local supplier', whose quoted rates fall within 20% margin of purchase preference, subject to its meeting the prescribed criteria for award of contract as also the constraint of maximum quantity that can be sourced from any single supplier. If the lowest quoting 'Class I local supplier', does not qualify for purchases preference because of aforesaid constraints or does not accept the offered quantity, an opportunity may be given to next higher 'Class I local supplier' falling within 20% margin of purchase preference, and so on.

e) To avoid any ambiguity during bid evaluation process, the procuring entities may stipulate its own tender specific criteria for award of contract amongst different bidders including the procedure for purchase preference to 'Class I local supplier' within the broad policy guidelines stipulated in sub-paras above.

4. Exemption of small purchases: Procurements where the estimated value to be procured is less than Rs.5 Lakh shall be exempt from this Order. However, it shall be ensured by procuring entities that **procurement is not split for the purpose of avoiding the provisions of this Order.**

5. **Minimum local content:** The 'local content' requirement to categorize a supplier as 'Class-I local supplier' is minimum 50%. For 'Class-II local supplier', the 'local content' requirement is minimum 20%. Nodal Ministry/ Department may prescribe only a higher percentage of minimum local content requirement to categorize a supplier as 'Class-I local supplier'/ 'Class-II local supplier'. For the items, for which Nodal Ministry/ Department has not prescribed higher minimum local content notification under the Order, it shall be 50% and 20 % for 'Class-I local supplier' / 'Class-II local supplier' respectively.

6. **Margin of Purchase Preference:** The margin of purchase preference shall be 20%.

7. **Specifications in Tenders and other procurement solicitations.**

a) Every procuring entity shall ensure that the eligibility conditions in respect of previous experience fixed in any tender or solicitation do not require proof of supply in other countries or proof of exports.

b) Procuring entities shall endeavor to see that eligibility conditions, including on matters like turnover, production capability and financial strength do not result in unreasonable exclusion of 'Class-I local supplier' / "Class-II local Supplier' who would other be eligible, beyond what is essential for ensuring quality or creditworthiness of the supplier.

c) Procuring entities shall, within 2 months of the issue of this Order review all existing eligibility norms and conditions with reference to sub-paragraphs 'a' and 'b' above.

d) **Reciprocity Clause**

i. When a Nodal Ministry/Department identifies that Indian suppliers of an item are not allowed to participate and/or compete in procurement by any foreign government, due to restrictive tender conditions which have direct or indirect effect of barring Indian companies such as registration in the procuring country, execution of projects of specific value in the procuring country etc., it shall provide such details to all its procuring entities including CMDs/CEOs of PSEs/PSUs, State Government and other procurement agencies under their administrative control and GeM for appropriate reciprocal action.

ii. Entities of countries which have been identifies by the nodal Ministry/Department as not allowing Indian companies to participate in their Government procurement for any item related to that nodal Ministry shall not be allowed to participate in Government procurement in India for all items related to that nodal Ministry/Department, except for the list of items published by the Ministry/Department permitting their participation.

iii. The stipulation in (ii) above shall be part of all tenders invited by the Central Government procuring entities stated in (i) above. All purchases on GeM shall also necessarily have the above provisions for items identified by nodal Ministry/Department.

iv. State Governments should be encouraged to incorporate similar provisions in their respective tenders.

v. The term 'entity' of a country shall have the same meaning as under the FDI Policy of DPIIT as amended from time to time.

e) Specifying foreign certifications/ unreasonable technical specifications/ Brands/ models in the bid document is restrictive and discriminatory practice against local suppliers. If foreign certification is required to be stipulated because of non-availability of Indian Standards and/or for any other reason, the same shall be done only after written approval of Secretary of the Department concerned or any other Authority having been designated such power by the Secretary of the Department concerned.

f) "All administrative Ministries/Departments whose procurement exceeds Rs.1000 Crore per annum shall notify/update their procurement projections every year, including those of the PSEs/PSUs, for the next 5 years on their respective website."

ANNEXURE–I

List of items of goods and services with sufficient local capacity and competition:

A. Small Hydro Power

1. Turbine
2. Generator
3. Penstock pipelines
4. Control panel
5. Governors
6. Cables
7. Valves
8. Transformers
9. Switchgears

B. Wind Power

1. Gear box,
2. Blades,
3. Rotor,
4. Generator,
5. Tower,
6. Hub,
7. Parts of controller,
8. Bearings,
9. Yaw mechanism components,
10. Nacelle

C. Off Grid/ Decentralised Solar Power

1. Solar street lights
2. Solar home lighting systems
3. Solar power packs
4. Micro grid
5. Solar water pumps
6. Inverters
7. Batteries

8. Other solar PV balance of system components for Off Grid/Decentralized solar power projects.

D. Grid connected Solar Power Projects

1. Solar modules
2. Solar inverters

E. Biomass Gasifier

1. Biomass gasifier reactor
2. Feed hopper
3. Ash removal system
4. Ash pump
5. Cyclone
6. Hot gas filter
7. Gas blower
8. Gas piping
9. Control panel
10. Platforms and ladders
11. Water seals
12. Gas burner for start up
13. Automatic gas burner

F. Biomass Cogeneration

1. Boiler and its auxiliaries including ESP
2. Turbines/ generator & its auxiliaries
3. Electrical evacuation and distribution system
4. Bagasse/biomass fuel storage and handling equipment
5. Ash handling systems
6. Cooling tower or air cooled condensers and its auxiliaries
7. Water treatment plant
8. Control system
9. Interface piping
10. EOT crane

11. ETP

G. Municipal Solid Waste (MSW) Projects

1. Boiler
2. Flue gas cleaning system
3. Grab crane system
4. Waste processing system
5. Leachate treatment plant
6. Chimney
7. Water/air condenser
8. Turbine-generator,
9. Water treatment plant
10. Ash treatment plant
11. Control and instrumentation system

H. Waste to Energy (biogas/ bio-CNG)

1. Feed mixer
2. Tank
3. Mixing agitator
4. Feeding pump
5. Digester tank
6. Stirring agitator
7. Double membrane balloon
8. Liquid & gas piping systems
9. Biogas purification system
10. B-CNG booster compressor
11. B-CNG filling header
12. Cylinder casket
13. CNG dispenser
14. Power generator

ANNEXURE-II

The items manufactured under license from foreign manufacturers holding intellectual property rights and where there is a transfer of technology.

- Presently there is no entry for this Annexure.

ANNEXURE-III

General guidelines to be adopted selectively in an appropriate manner by the procuring entities in their tender documents.

1. The bidder shall have to be an entity registered in India in accordance with law.

2. The bids shall be in the language as prescribed by the tenderer/procurer.

3. The bids shall be in Indian National Rupees (INR) only in respect of local content only.

4. Indian subsidiaries of foreign bidders shall meet the qualifying criteria in terms of capability, competency, financial position, past performance etc.

5. The bidder shall follow Indian laws, regulations and standards.

6. To be eligible for participation in the bid, foreign bidders shall compulsorily set up their manufacturing units on a long term basis in India as may be specified by the tenderer/ procurer.

7. Similar or better technology than the technology offered in respect of material, equipment and process involved shall be transferred to India. Along with the transfer of technology, adequate training in the respective field shall also be provided.

8. Country of origin of the equipment/material shall be provided in the bid.

9. For supply of equipment / material from the country of origin other than India, the bidder shall submit performance certificate in support of satisfactory operation in India or a country other than the country of origin having climatic and operational conditions including ambient temperature similar to that of India for more than --- years (to be specified by the procurer).

10. The technologies/ products offered shall be environmentally friendly, consuming less energy, and safe, energy efficient, durable and long lasting under the prescribed operational conditions.

11. The supplier shall ensure supply of spares, materials and technological support for the entire life of the project.

12. The manufacturers/ supplier shall list out the products and components producing Toxic E-waste and other waste as may be specified. It shall have an Extended Producers Responsibility (EPR) so that after the completion of the lifecycle, the materials are safely recycled / disposed of by the Manufacturer/ supplier and for this, the Manufacturer/supplier along with procurer has to establish recycling / disposal unit or as may be specified.

13. Domestic Content requirement (based on the cost of the product) shall be in accordance with the conditions laid down in respective Order(s) of the sectors on Public Procurement (Preference to Make in India) to provide for purchase preference (linked with local content).

14. The equipment/ material sourced from foreign companies may be tested in accredited labs in India before acceptance wherever such facilities are available.

15. The Tender fee and the Bank Guarantee (BG) shall be in Indian Rupees only.

16. The bidder shall have to furnish a certificate regarding cyber security/safety of the equipment/process to be supplied/services to be rendered as safe to connect.

17. Applicable safety requirements shall be met. Regular safety audit shall be carried out by the manufacturer/ supplier.

18. Statutory laws/regulations including the labour and environmental laws shall be strictly complied with during supply, storage, erection, commissioning and operation process. A regular compliance report shall be submitted to the procurer/appropriate Authorities.

19. Formation of new joint venture in India shall be permitted only with the Indian companies.

20. Tendering by the agent shall not be accepted.

21. The original test report in the language prescribed by the procurer shall generally be accepted. Preferably the translated test report shall not be accepted. However, the notarized translation of test reports shall be accepted.

22. Certification/compliance as per the Indian Standards/ International Standards/ Indian Regulations/ specified Standards shall be mandatory, where ever applicable.

23. Quality assurance of the product shall be carried out by the procurer or an independent third party agency appointed by the procurer. Manufacturing Quality Plan as approved by the procurer shall be followed by the manufacturer/supplier.

24. Wherever required, the foreign supplier shall establish fully functional service centers in India and shall keep spares/material locally for future needs of utilities.

25. Arbitration proceedings shall be instituted in India only and all disputes shall be settled as per applicable Indian Laws.

F. No. K-14011/10/2020 -UT-V
Government of India
Ministry of Housing and Urban Affairs
Urban Transport Division
(UT-V Desk)

311-B, Nirman Bhawan, New Delhi.
Dated the 8th March, 2021.

To,

i. MD, Delhi Metro Rail Corporation Limited < mdmetro@dmrc.org>.
ii. MD, Mumbai Metro Rail Corporation Limited < md.office@mmrcl.com>.
iii. MD, Chennai Metro Rail Limited < md.cmrl@tn.gov.in>.
iv. MD, Bangalore Metro Rail Corporation Limited < md@bmrc.co.in>.
v. MD, Noida Metro Rail Corporation Limited < nmrcnoida@gmail.com>.
vi. MD, UP Metro Rail Corporation Limited < mdlucknowmetro@gmail.com>.
vii. MD, MP Metro Rail Corporation Limited < psuaddmp@mpurban.gov.in>.
viii. MD, National Capital Region Transport Corporation< md.office@ncrtc.in >
ix. MD, Kochi Metro Rail Limited < md@kmrl.co.in>.
x. MD, Gujarat Metro Rail Corporation Limited < md@gujaratmetrorail.com>.
xi. MD, Maha Metro Rail Corporation Limited < md@mahametro.org>.
xii. MD, Patna Metro Rail Corporation Limited < ud.bihar@gmail.com>.
xiii. MD, Jaipur Metro Rail Corporation Limited < cmd@jaipurmetrorail.in>
xiv. MC, Mumbai Metropolitan Region Development Authority <mcmmrda@gmail.com>
xv. MD, Hyderabad Metro Rail Limited < nvsreddyiras@gmail.com>.
xvi. MD, Kolkata Metro Rail Corporation Limited < md@kmrc.in>.
xvii. MD, Mumbai Metro One Pvt. Limited abhay.mishra@relianceada.com
xviii. MC, Pune Metropolitan Region Development Authority <comm@pmrda.gov.in>
xix. MD, L&T Metro Rail (Hyderabad) Limited <kvb.reddy@ltmetro.com>
xx. MD, MMMOCL <md@mmmocl.co.in>

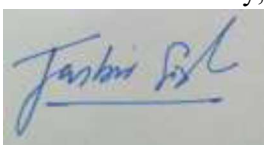
Subject: Clarification for local content calculation under PPP-MII Order –reg.

Sir/Madam,

I am directed to refer to and enclose herewith OM dated 04.03.2021 from Department for Promotion of Industry and Internal Trade (DPIIT), Ministry of Commerce and Industry on the above cited subject for information/ necessary action.

Encl : As above.

Yours Sincerely,



(Jasbir Singh)
Under Secretary to the Govt. of India
Tel: 011-23062285

Copy to (with a request to take similar action in respect of organisations/offices under their purview/ control):
i. Joint Secretary (Smart City), MoHUA / Joint Secretary (SBM), MoHUA / Joint Secretary (PSP), MoHUA / Joint Secretary, (HFA), MoHUA / Joint Secretary (NULM), MoHUA / Joint Secretary (A,

L&E), MoHUA / Joint Secretary (Works), MoHUA / Joint Secretary (AMRUT), MoHUA /, Joint Secretary (N, I & Admin), MoHUA.
ii. Directorate General, CPWD, A-Wing, Room No. 101, Nirman Bhawan, New Delhi – 110011.
iii. Chairman cum Managing Director, NBCC India Limited, NBCC Bhawan, Lodhi Road, New Delhi – 110 003.
iv. Vice Chairman, Delhi Development Authority (DDA), B-Block, 1st Floor, Vikas Sadan, New Delhi – 110023.
v. Chairman cum Managing Director, HUDCO, HUDCO Bhawan, India Habitat Centre, Lodhi Road, New Delhi – 110 003.
vi. Shri Sudhir Kumar Mandal, Joint Secretary, Controller of Publication < copdep@nic.in>.
vii. Director, Directorate of Printing <bansal.arun@gov.in>.
viii. Ms. Ritu Sain, Director (DE)-I, Directorate of Estates < ritusain@ias.nic.in>.
ix. Shri Naveen Yadav, Director (DE)-II, Directorate of Estates < naveen.yadav@nic,in>.
x. Shri K. K. Joadder, Chief Planner, Town and Country Planning Organisation < cp.tcpo@yahoo.com>
xi. Shri P K Gupta, CMD, National Building Construction Corporation < cmdsectt.nbcc@nic.in, bdd@nbccindia.com >.
xii. Prof./ Dr. P.S.N. RAO, Chairman, Delhi Urban Art Commission < drpsnrao@hotmail.com>.
xiii. Shri Hitesh Vaidya, Director, National Institute of Urban Affair < director@niua.org>.
xiv. Shri B.K. Tripathi, Member Secretary, National Capital Region Planning Board < ncrpbms@nic.in>.
xv. Dr Shailesh Kr Agrawal, ED, Building Materials and Technology Promotion Council (BMTPC) < ska@bmtpc.org>.
xvi. Shri Umraw Singh, Director & HOD, National Buildings Organisation, < umraw.s@gov.in>.
xvii. Shri N.S.Mehara, Chief Executive, National Cooperative Housing Federation of India < nchf.2001@yahoo.com>.

P-45021/102/2019-BE-II-Part(1) (E- 50310)
Government of India
Ministry of Commerce and Industry
Department of Promotion of Industry and Internal Trade
(Public Procurement Section)

Udyog Bhawan Delhi-110011
Dated March 4, 2021

OFFICE MEMORANDUM

Subject: Clarification for local content calculation PPP-MII Order –reg.

The undersigned is directed to refer Public Procurement (Preference to Make in India) Order dated 2017, as amended on 16.09.2020 regarding purchase preference for local manufactured items in Public Procurement.

2. References have been received in this department from various procuring entities wherein procuring entities have sought clarification as to whether the bidders offering imported content can claim themselves as Class-I local/Class-II local suppliers claiming the services such as transportation, insurance, installation, commissioning, training and after sales service support like AMC/CMC etc. as local value addition.

3. In this regard it is clarified that the bidders offering imported products will fall under the category of Non- local suppliers. They can't claim themselves as Class-I local suppliers/Class-II local suppliers by claiming the services such as transportation, insurance, installation, commissioning, training and after sales service support like AMC/CMC etc. as local value addition.

4. This issues with the approval of competent authority.

(Pritam Kumar)
Under Secretary to Government of India
E-mail: pritam.k@gov.in
Ph :- 011-23601306

To

All Ministries/Departments of Government of India

No. P-45021/2/2017-PP (BE-II)
Government of India
Ministry of Commerce and Industry
Department for Promotion of Industry and Internal Trade
(Public Procurement Section)

Udyog Bhawan, New Delhi
Dated: 16th September, 2020

To

All Central Ministries/Departments/CPSUs/All concerned

ORDER

Subject: Public Procurement (Preference to Make in India), Order 2017– Revision; regarding.

Department for Promotion of Industry and Internal Trade, in partial modification [Paras 2, 3, 5, 10 & 13] of Order No.P-45021/2/2017-B.E.-II dated 15.6.2017 as amended by Order No.P-45021/2/2017-B.E.-II dated 28.05.2018, Order No.P-45021/2/2017-B.E.-II dated 29.05.2019 and Order No.P-45021/2/2017-B.E.-II dated 04.06.2020, hereby issues the revised 'Public Procurement (Preference to Make in India), Order 2017" dated 16.09.2020 effective with immediate effect.

Whereas it is the policy of the Government of India to encourage 'Make in India' and promote manufacturing and production of goods and services in India with a view to enhancing income and employment, and

Whereas procurement by the Government is substantial in amount and can contribute towards this policy objective, and

Whereas local content can be increased through partnerships, cooperation with local companies, establishing production units in India or Joint Ventures (JV) with Indian suppliers, increasing the participation of local employees in services and training them,

Now therefore the following Order is issued:

1. This Order is issued pursuant to Rule 153 (iii) of the General Financial Rules 2017.

2. **Definitions**: For the purposes of this Order:

   'Local content' means the amount of value added in India which shall, unless otherwise prescribed by the Nodal Ministry, be the total value of the item procured (excluding net domestic indirect taxes) minus the value of imported content in the item (including all customs duties) as a proportion of the total value, in percent.

   'Class-I local supplier' means a supplier or service provider, whose goods, services or works offered for procurement, meets the minimum local content as prescribed for 'Class-I local supplier' under this Order.

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'Class-II local supplier' means a supplier or service provider, whose goods, services or works offered for procurement, meets the minimum local content as prescribed for 'Class-II local supplier' but less than that prescribed for 'Class-I local supplier' under this Order.

'Non - Local supplier' means a supplier or service provider, whose goods, services or works offered for procurement, has local content less than that prescribed for 'Class-II local supplier' under this Order.

'L1' means the lowest tender or lowest bid or the lowest quotation received in a tender, bidding process or other procurement solicitation as adjudged in the evaluation process as per the tender or other procurement solicitation.

'Margin of purchase preference' means the maximum extent to which the price quoted by a "Class-I local supplier" may be above the L1 for the purpose of purchase preference.

'Nodal Ministry' means the Ministry or Department identified pursuant to this order in respect of a particular item of goods or services or works.

'Procuring entity' means a Ministry or department or attached or subordinate office of, or autonomous body controlled by, the Government of India and includes Government companies as defined in the Companies Act.

'Works' means all works as per Rule 130 of GFR- 2017, and will also include *'turnkey works'*.

3. Eligibility of 'Class-I local supplier'/ 'Class-II local supplier'/ 'Non-local suppliers' for different types of procurement

(a) In procurement of all goods, services or works in respect of which the Nodal Ministry / Department has communicated that there is sufficient local capacity and local competition, only 'Class-I local supplier', as defined under the Order, shall be eligible to bid irrespective of purchase value.

(b) Only 'Class-I local supplier' and 'Class-II local supplier', as defined under the Order, shall be eligible to bid in procurements undertaken by procuring entities, except when Global tender enquiry has been issued. In global tender enquiries, 'Non-local suppliers' shall also be eligible to bid along with 'Class-I local suppliers' and 'Class-II local suppliers'. In procurement of all goods, services or works, not covered by sub-para 3(a) above, and with estimated value of purchases less than Rs. 200 Crore, in accordance with Rule 161(iv) of GFR, 2017, Global tender enquiry shall not be issued except with the approval of competent authority as designated by Department of Expenditure.

(c) For the purpose of this Order, works includes Engineering, Procurement and Construction (EPC) contracts and services include System Integrator (SI) contracts.

.....Contd. p/3

3A. Purchase Preference

(a) Subject to the provisions of this Order and to any specific instructions issued by the Nodal Ministry or in pursuance of this Order, purchase preference shall be given to 'Class-I local supplier' in procurements undertaken by procuring entities in the manner specified here under.

(b) In the procurements of goods or works, which are covered by para 3(b) above and which are divisible in nature, the 'Class-I local supplier' shall get purchase preference over 'Class-II local supplier' as well as 'Non-local supplier', as per following procedure:

i. Among all qualified bids, the lowest bid will be termed as L1. If L1 is 'Class-I local supplier', the contract for full quantity will be awarded to L1.

ii. If L1 bid is not a 'Class-I local supplier', 50% of the order quantity shall be awarded to L1. Thereafter, the lowest bidder among the 'Class-I local supplier' will be invited to match the L1 price for the remaining 50% quantity subject to the Class-I local supplier's quoted price falling within the margin of purchase preference, and contract for that quantity shall be awarded to such 'Class-I local supplier' subject to matching the L1 price. In case such lowest eligible 'Class-I local supplier' fails to match the L1 price or accepts less than the offered quantity, the next higher 'Class-I local supplier' within the margin of purchase preference shall be invited to match the L1 price for remaining quantity and so on, and contract shall be awarded accordingly. In case some quantity is still left uncovered on Class-I local suppliers, then such balance quantity may also be ordered on the L1 bidder.

(c) In the procurements of goods or works, which are covered by para 3(b) above and which are not divisible in nature, and in procurement of services where the bid is evaluated on price alone, the 'Class-I local supplier' shall get purchase preference over 'Class-II local supplier' as well as 'Non-local supplier', as per following procedure:

i. Among all qualified bids, the lowest bid will be termed as L1. If L1 is 'Class-I local supplier', the contract will be awarded to L1.

ii. If L1 is not 'Class-I local supplier', the lowest bidder among the 'Class-I local supplier', will be invited to match the L1 price subject to Class-I local supplier's quoted price falling within the margin of purchase preference, and the contract shall be awarded to such 'Class-I local supplier' subject to matching the L1 price.

iii. In case such lowest eligible 'Class-I local supplier' fails to match the L1 price, the 'Class-I local supplier' with the next higher bid within the margin of purchase preference shall be invited to match the L1 price and so on and contract shall be awarded accordingly. In case none of the 'Class-I local supplier' within the margin of purchase preference matches the L1 price, the contract may be awarded to the L1 bidder.

.....Contd. p/4

(d) "Class-II local supplier" will not get purchase preference in any procurement, undertaken by procuring entities.

3B. Applicability in tenders where contract is to be awarded to multiple bidders - In tenders where contract is awarded to multiple bidders subject to matching of L1 rates or otherwise, the 'Class-I local supplier' shall get purchase preference over 'Class-II local supplier' as well as 'Non-local supplier', as per following procedure:

a) In case there is sufficient local capacity and competition for the item to be procured, as notified by the nodal Ministry, only Class I local suppliers shall be eligible to bid. As such, the multiple suppliers, who would be awarded the contract, should be all and only 'Class I Local suppliers'.

b) In other cases, 'Class II local suppliers' and 'Non local suppliers' may also participate in the bidding process along with 'Class I Local suppliers' as per provisions of this Order.

c) If 'Class I Local suppliers' qualify for award of contract for at least 50% of the tendered quantity in any tender, the contract may be awarded to all the qualified bidders as per award criteria stipulated in the bid documents. However, in case 'Class I Local suppliers' do not qualify for award of contract for at least 50% of the tendered quantity, purchase preference should be given to the 'Class I local supplier' over 'Class II local suppliers'/ 'Non local suppliers' provided that their quoted rate falls within 20% margin of purchase preference of the highest quoted bidder considered for award of contract so as to ensure that the 'Class I Local suppliers' taken in totality are considered for award of contract for at least 50% of the tendered quantity.

d) First purchase preference has to be given to the lowest quoting 'Class-I local supplier', whose quoted rates fall within 20% margin of purchase preference, subject to its meeting the prescribed criteria for award of contract as also the constraint of maximum quantity that can be sourced from any single supplier. If the lowest quoting 'Class-I local supplier', does not qualify for purchase preference because of aforesaid constraints or does not accept the offered quantity, an opportunity may be given to next higher 'Class-I local supplier', falling within 20% margin of purchase preference, and so on.

e) To avoid any ambiguity during bid evaluation process, the procuring entities may stipulate its own tender specific criteria for award of contract amongst different bidders including the procedure for purchase preference to 'Class-I local supplier' within the broad policy guidelines stipulated in sub-paras above.

4. **Exemption of small purchases**: Notwithstanding anything contained in paragraph 3, procurements where the estimated value to be procured is less than Rs. 5 lakhs shall be exempt from this Order. However, it shall be ensured by procuring entities that procurement is not split for the purpose of avoiding the provisions of this Order.

5. **Minimum local content**: The 'local content' requirement to categorize a supplier as 'Class-I local supplier' is minimum 50%. For 'Class-II local supplier', the 'local content' requirement is minimum 20%. Nodal Ministry/ Department may prescribe only a higher

.....Contd. p/5

percentage of minimum local content requirement to categorize a supplier as 'Class-I local supplier'/ 'Class-II local supplier'. For the items, for which Nodal Ministry/ Department has not prescribed higher minimum local content notification under the Order, it shall be 50% and 20% for 'Class-I local supplier'/ 'Class-II local supplier' respectively.

6. **Margin of Purchase Preference**: The margin of purchase preference shall be 20%.

7. **Requirement for specification in advance**: The minimum local content, the margin of purchase preference and the procedure for preference to Make in India shall be specified in the notice inviting tenders or other form of procurement solicitation and shall not be varied during a particular procurement transaction.

8. **Government E-marketplace**: In respect of procurement through the Government E-marketplace (GeM) shall, as far as possible, specifically mark the items which meet the minimum local content while registering the item for display, and shall, wherever feasible, make provision for automated comparison with purchase preference and without purchase preference and for obtaining consent of the local supplier in those cases where purchase preference is to be exercised.

9. **Verification of local content**:

   a. The 'Class-I local supplier'/ 'Class-II local supplier' at the time of tender, bidding or solicitation shall be required to indicate percentage of local content and provide self-certification that the item offered meets the local content requirement for 'Class-I local supplier'/ 'Class-II local supplier', as the case may be. They shall also give details of the location(s) at which the local value addition is made.

   b. In cases of procurement for a value in excess of Rs. 10 crores, the 'Class-I local supplier'/ 'Class-II local supplier' shall be required to provide a certificate from the statutory auditor or cost auditor of the company (in the case of companies) or from a practicing cost accountant or practicing chartered accountant (in respect of suppliers other than companies) giving the percentage of local content.

   c. Decisions on complaints relating to implementation of this Order shall be taken by the competent authority which is empowered to look into procurement-related complaints relating to the procuring entity.

   d. Nodal Ministries may constitute committees with internal and external experts for independent verification of self-declarations and auditor's/ accountant's certificates on random basis and in the case of complaints.

   e. Nodal Ministries and procuring entities may prescribe fees for such complaints.

   f. False declarations will be in breach of the Code of Integrity under Rule 175(1)(i)(h) of the General Financial Rules for which a bidder or its successors can be debarred for up to two years as per Rule 151 (iii) of the General Financial Rules along with such other actions as may be permissible under law.

.....Contd. p/6

g. A supplier who has been debarred by any procuring entity for violation of this Order shall not be eligible for preference under this Order for procurement by any other procuring entity for the duration of the debarment. The debarment for such other procuring entities shall take effect prospectively from the date on which it comes to the notice of other procurement entities, in the manner prescribed under paragraph 9h below.

h. The Department of Expenditure shall issue suitable instructions for the effective and smooth operation of this process, so that:

   i. The fact and duration of debarment for violation of this Order by any procuring entity are promptly brought to the notice of the Member-Convenor of the Standing Committee and the Department of Expenditure through the concerned Ministry /Department or in some other manner;

   ii. on a periodical basis such cases are consolidated and a centralized list or decentralized lists of such suppliers with the period of debarment is maintained and displayed on website(s);

   iii. in respect of procuring entities other than the one which has carried out the debarment, the debarment takes effect prospectively from the date of uploading on the website(s) in the such a manner that ongoing procurements are not disrupted.

10. **Specifications in Tenders and other procurement solicitations**:

a. Every procuring entity shall ensure that the eligibility conditions in respect of previous experience fixed in any tender or solicitation do not require proof of supply in other countries or proof of exports.

b. Procuring entities shall endeavour to see that eligibility conditions, including on matters like turnover, production capability and financial strength do not result in unreasonable exclusion of 'Class-I local supplier'/ 'Class-II local supplier' who would otherwise be eligible, beyond what is essential for ensuring quality or creditworthiness of the supplier.

c. Procuring entities shall, within 2 months of the issue of this Order review all existing eligibility norms and conditions with reference to sub-paragraphs 'a' and 'b' above.

d. Reciprocity Clause

   i. When a Nodal Ministry/Department identifies that Indian suppliers of an item are not allowed to participate and/ or compete in procurement by any foreign government, due to restrictive tender conditions which have direct or indirect effect of barring Indian companies such as registration in the procuring country, execution of projects of specific value in the procuring country etc., it shall provide such details to all its procuring entities including CMDs/CEOs of PSEs/PSUs, State Governments and other procurement agencies under their administrative control and GeM for appropriate reciprocal action.

.....Contd. p/7

ii. Entities of countries which have been identified by the nodal Ministry/Department as not allowing Indian companies to participate in their Government procurement for any item related to that nodal Ministry shall not be allowed to participate in Government procurement in India for all items related to that nodal Ministry/ Department, except for the list of items published by the Ministry/ Department permitting their participation.

iii. The stipulation in (ii) above shall be part of all tenders invited by the Central Government procuring entities stated in (i) above. All purchases on GeM shall also necessarily have the above provisions for items identified by nodal Ministry/ Department.

iv. State Governments should be encouraged to incorporate similar provisions in their respective tenders.

v. The term 'entity' of a country shall have the same meaning as under the FDI Policy of DPIIT as amended from time to time.

e. Specifying foreign certifications/ unreasonable technical specifications/ brands/ models in the bid document is restrictive and discriminatory practice against local suppliers. If foreign certification is required to be stipulated because of non-availability of Indian Standards and/or for any other reason, the same shall be done only after written approval of Secretary of the Department concerned or any other Authority having been designated such power by the Secretary of the Department concerned.

f. "All administrative Ministries/Departments whose procurement exceeds *Rs.* 1000 Crore per annum shall notify/ update their procurement projections every year, including those of the PSEs/PSUs, for the next 5 years on their respective website."

10A. Action for non-compliance of the Provisions of the Order: In case restrictive or discriminatory conditions against domestic suppliers are included in bid documents, an inquiry shall be conducted by the Administrative Department undertaking the procurement (including procurement by any entity under its administrative control) to fix responsibility for the same. Thereafter, appropriate action, administrative or otherwise, shall be taken against erring officials of procurement entities under relevant provisions. Intimation on all such actions shall be sent to the Standing Committee.

11. **Assessment of supply base by Nodal Ministries**: The Nodal Ministry shall keep in view the domestic manufacturing / supply base and assess the available capacity and the extent of local competition while identifying items and prescribing the higher minimum local content or the manner of its calculation, with a view to avoiding cost increase from the operation of this Order.

12. **Increase in minimum local content**: The Nodal Ministry may annually review the local content requirements with a view to increasing them, subject to availability of sufficient local competition with adequate quality.

.....Contd. p/8

13. **Manufacture under license/ technology collaboration agreements with phased indigenization**: While notifying the minimum local content, Nodal Ministries may make special provisions for exempting suppliers from meeting the stipulated local content if the product is being manufactured in India under a license from a foreign manufacturer who holds intellectual property rights and where there is a technology collaboration agreement / transfer of technology agreement for indigenous manufacture of a product developed abroad with clear phasing of increase in local content.

13A. In procurement of all goods, services or works in respect of which there is substantial quantity of public procurement and for which the nodal ministry has not notified that there is sufficient local capacity and local competition, the concerned nodal ministry shall notify an upper threshold value of procurement beyond which foreign companies shall enter into a joint venture with an Indian company to participate in the tender. Procuring entities, while procuring such items beyond the notified threshold value, shall prescribe in their respective tenders that foreign companies may enter into a joint venture with an Indian company to participate in the tender. The procuring Ministries/Departments shall also make special provisions for exempting such joint ventures from meeting the stipulated minimum local content requirement, which shall be increased in a phased manner.

14. **Powers to grant exemption and to reduce minimum local content**: The administrative Department undertaking the procurement (including procurement by any entity under its administrative control), with the approval of their Minister-in-charge, may by written order, for reasons to be recorded in writing,

    a. reduce the minimum local content below the prescribed level; or
    b. reduce the margin of purchase preference below 20%; or
    c. exempt any particular item or supplying entities from the operation of this Order or any part of the Order.

    A copy of every such order shall be provided to the Standing Committee and concerned Nodal Ministry / Department. The Nodal Ministry / Department concerned will continue to have the power to vary its notification on Minimum Local Content.

15. **Directions to Government companies**: In respect of Government companies and other procuring entities not governed by the General Financial Rules, the administrative Ministry or Department shall issue policy directions requiring compliance with this Order.

16. **Standing Committee**: A standing committee is hereby constituted with the following membership:

    Secretary, Department for Promotion of Industry and Internal Trade—Chairman
    Secretary, Commerce—Member
    Secretary, Ministry of Electronics and Information Technology—Member
    Joint Secretary (Public Procurement), Department of Expenditure—Member
    Joint Secretary (DPIIT)—Member-Convenor

.....Contd. p/9

The Secretary of the Department concerned with a particular item shall be a member in respect of issues relating to such item. The Chairman of the Committee may co-opt technical experts as relevant to any issue or class of issues under its consideration.

17. **Functions of the Standing Committee**: The Standing Committee shall meet as often as necessary, but not less than once in six months. The Committee

a. shall oversee the implementation of this order and issues arising therefrom, and make recommendations to Nodal Ministries and procuring entities.
b. shall annually assess and periodically monitor compliance with this Order
c. shall identify Nodal Ministries and the allocation of items among them for issue of notifications on minimum local content
d. may require furnishing of details or returns regarding compliance with this Order and related matters
e. may, during the annual review or otherwise, assess issues, if any, where it is felt that the manner of implementation of the order results in any restrictive practices, cartelization or increase in public expenditure and suggest remedial measures
f. may examine cases covered by paragraph 13 above relating to manufacture under license/ technology transfer agreements with a view to satisfying itself that adequate mechanisms exist for enforcement of such agreements and for attaining the underlying objective of progressive indigenization
g. may consider any other issue relating to this Order which may arise.

18. **Removal of difficulties**: Ministries /Departments and the Boards of Directors of Government companies may issue such clarifications and instructions as may be necessary for the removal of any difficulties arising in the implementation of this Order.

19. **Ministries having existing policies**: Where any Ministry or Department has its own policy for preference to local content approved by the Cabinet after 1st January 2015, such policies will prevail over the provisions of this Order. All other existing orders on preference to local content shall be reviewed by the Nodal Ministries and revised as needed to conform to this Order, within two months of the issue of this Order.

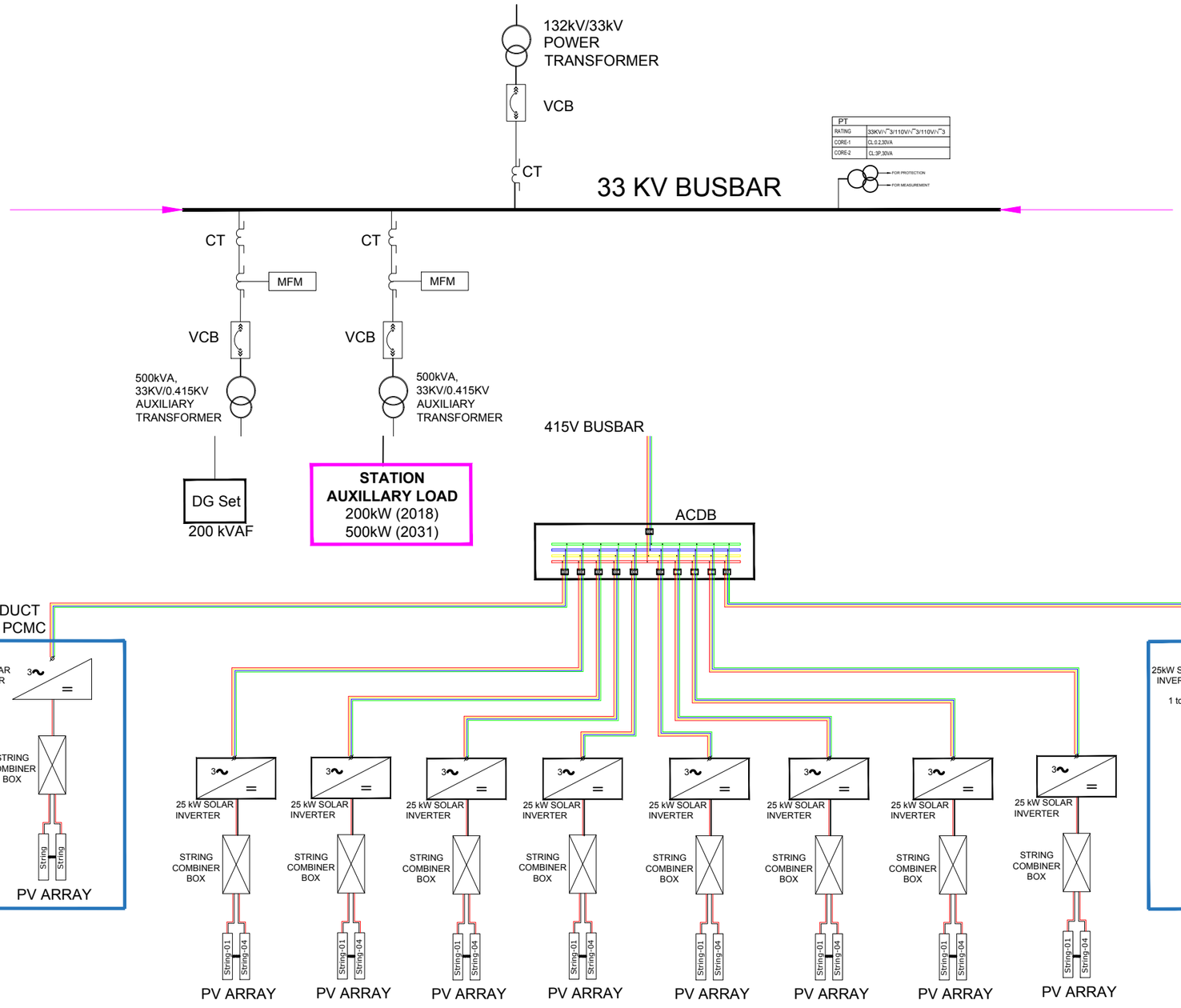
20. **Transitional provision**: This Order shall not apply to any tender or procurement for which notice inviting tender or other form of procurement solicitation has been issued before the issue of this Order.

(Rajesh Gupta)
Director
Tel: 23063211
rajesh.gupta66@gov.in

Annexure E

Tender drawings

TYPICAL SLD FOR ELEVATED STATION



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NO.	DATE	REMARKS	DRAWN
02	28/08/2018	For Approval	AR
01	24/07/2018	For Approval	AR
00	21/03/2018	For Approval	PP

PROJECT TITLE:

Solar PV Rooftop Project for Pune Metro

CLIENT:

Maharashtra Metro Rail Corporation Limited

CONSULTANT :

DRAWING TITLE:

Single Line Diagram

DRAWING NO : ARB_2017046_SLD_C1_SANT T. NAGAR_R01_20180828

DRAWN	AR	SCALE	NTS
CHECKED	MK	SHEET NO	01
APPROVED	CA	PAPER SIZE	A3
DATE	28/08/2018	REV NO.	02

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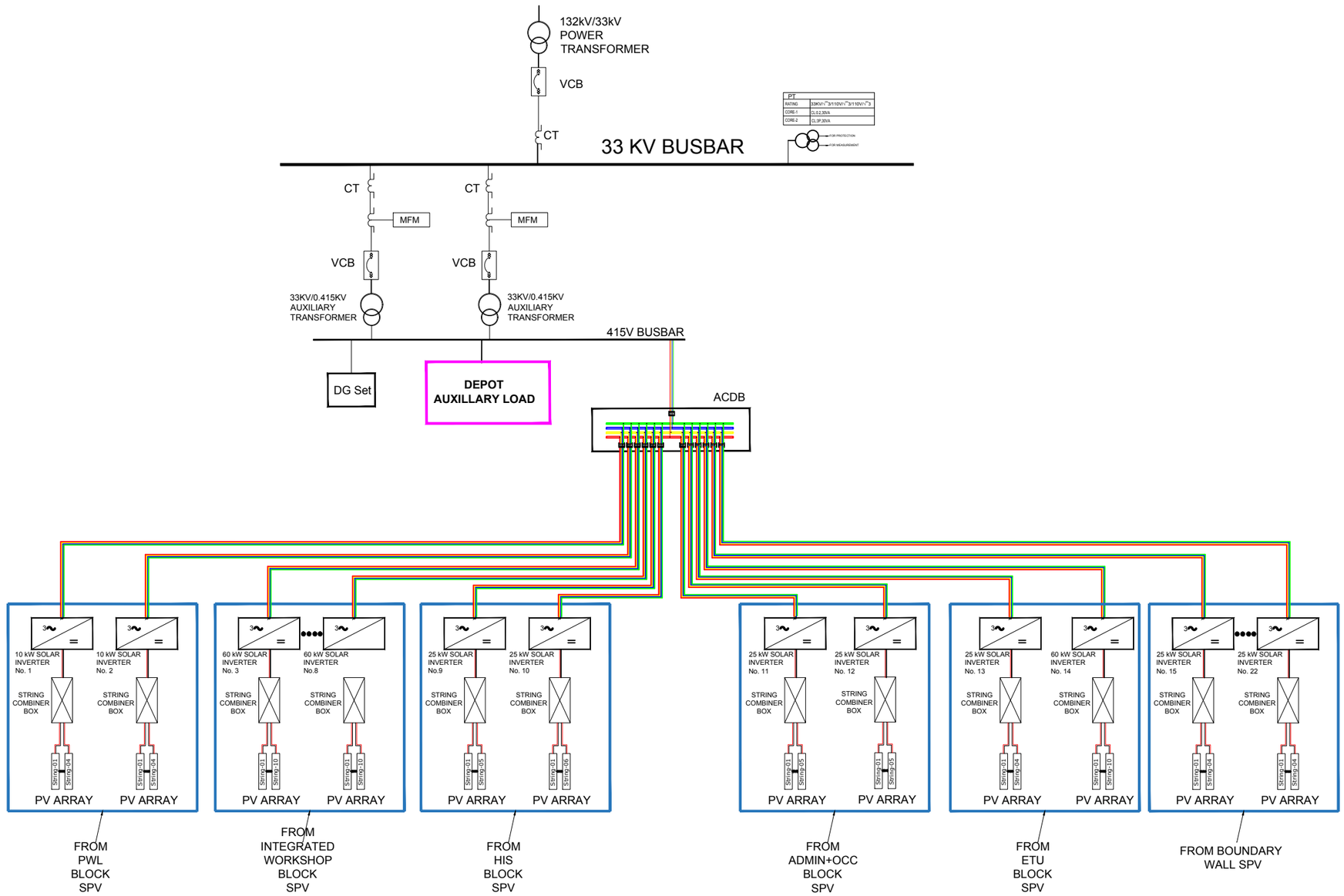
RANGE HILL DEPOT



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NO.	DATE	REMARKS	DRAWN
01	24/08/2018	For Approval	AR
00	22/03/2018	For Approval	PP

PROJECT TITLE:

Solar PV Rooftop Project for Pune Metro

CLIENT:

Maharashtra Metro Rail Corporation Limited

CONSULTANT :

Arbutus Consultants
Grey Matter to Green Solutions

DRAWING TITLE:

Single Line Diagram_Range Hill Depot

DRAWING NO :

ARB_2017046_SLD_RANGE HILL DEPOT_R00_20180824

DRAWN	AR	SCALE	NTS
CHECKED	MK	SHEET NO	01
APPROVED	CA	PAPER SIZE	A3
DATE	24/08/2018	REV NO.	01

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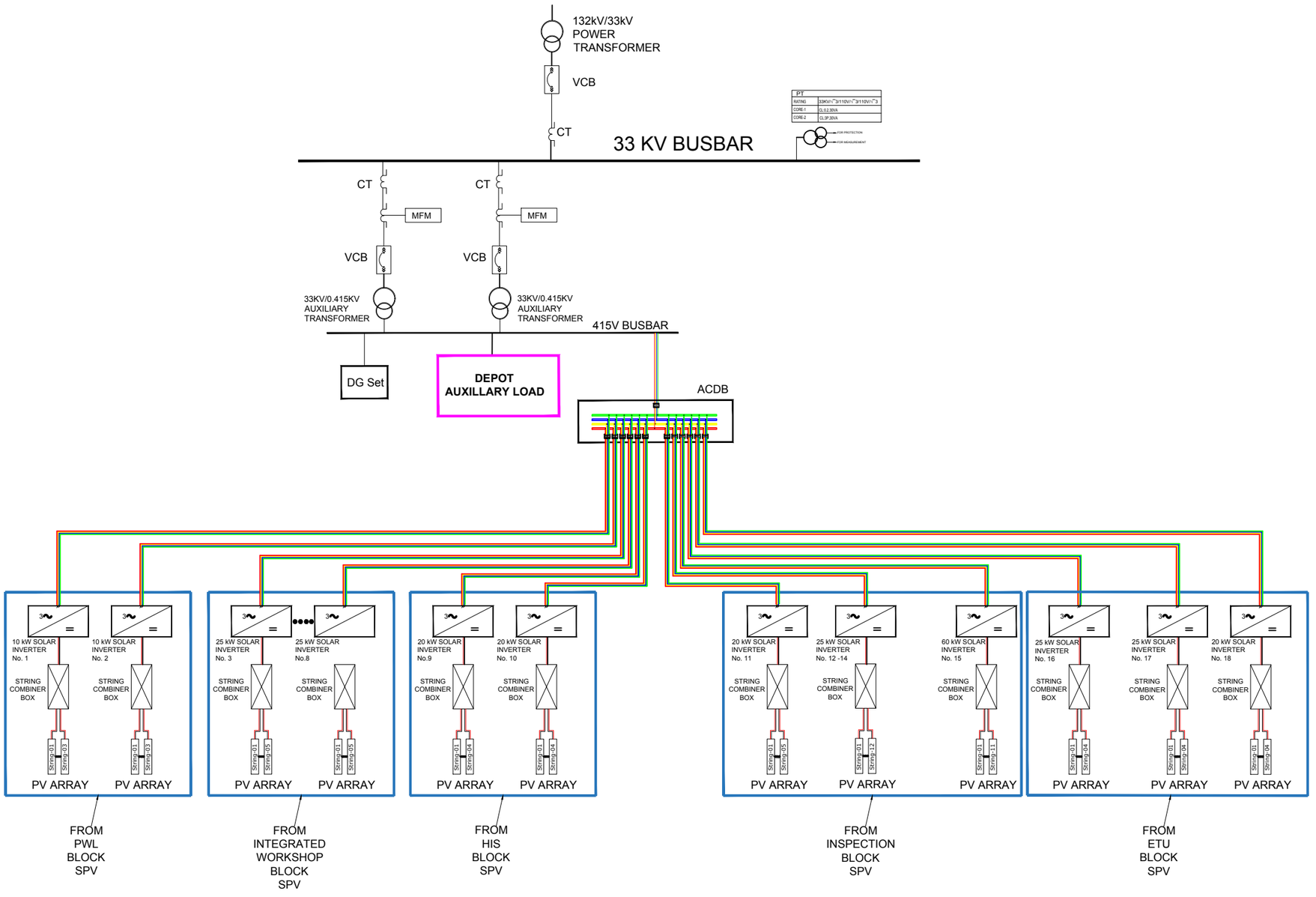
VANAZ DEPOT



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PROJECT TITLE:

Solar PV Rooftop Project for Pune Metro

CLIENT:

Maharashtra Metro Rail Corporation Limited

CONSULTANT :

Arbutus Consultants
Grey Matter to Green Solutions

DRAWING TITLE:

Single Line Diagram_Vanaz Depot

DRAWING NO :

ARB_2017046_SLD_VANAZ DEPOT_R00_20180824

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CHECKED	MK	SHEET NO	01
APPROVED	CA	PAPER SIZE	A3
DATE	24/08/2018	REV NO.	01

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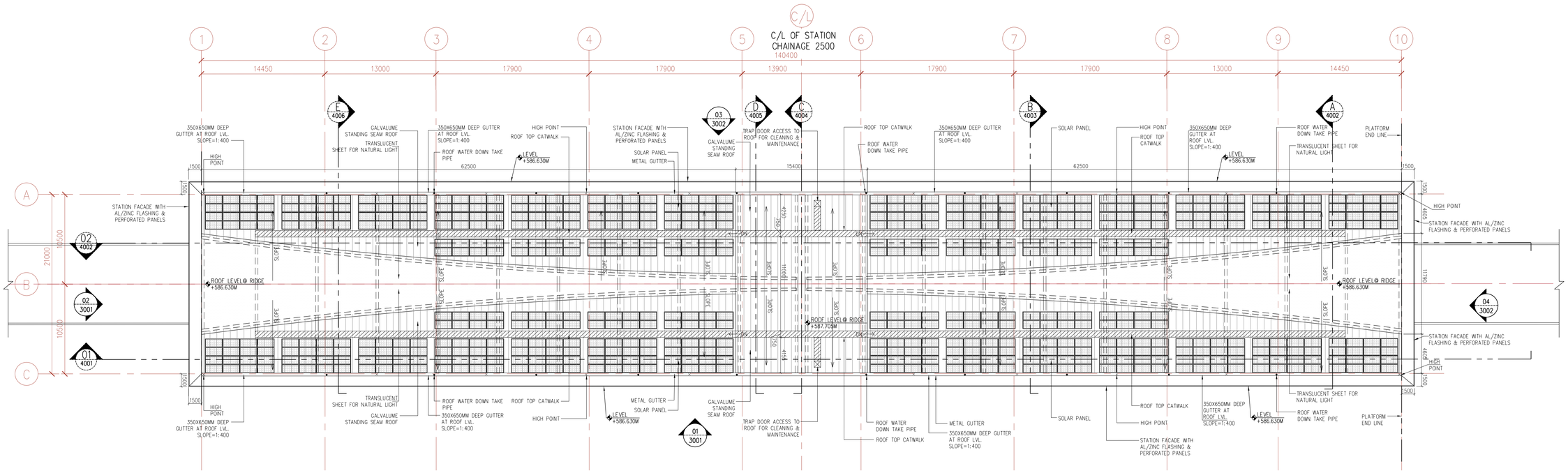
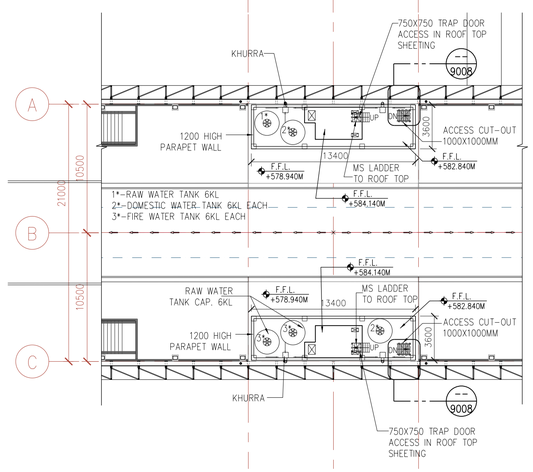
TOWARDS PCMC STATION

TOWARDS RANGE HILL STATION



2 ROOF LEVEL PLAN

Scale: 1:250



1 WATER TANK LEVEL PLAN

Scale: 1:250

ABBREVIATIONS	
TVM	TICKET VENDING MACHINE
AFC	AUTOMATIC FARE COLLECTION
FOB	FOOT OVER BRIDGE
ECP	ESCALATOR PANEL
RWP	RAIN WATER PIPE
ODU	OUT DOOR UNIT
IMS	INTERMEIDIATE SUPPORT
FHC	FIRE HOSE CABINET
ESP	EMERGENCY STOP PLUNGER
PSP	PLATFORM SUPERVISOR PANEL
LDB	LIGHT DISTRIBUTION BOARD
M.H.	MAN HOLE
FD	FLOOR DRAIN

REFERENCE DRAWINGS	
S. NO.	DRAWING NOS.
1	P1D01-AYE-EL-PRM-BHO-DRP-2031
2	P1D01-AYE-ME-PRM-BHO-DRP-2031
3	P1D01-AYE-PL-PRM-BHO-DRP-2031
4	P1D01-AYE-FP-PRM-BHO-DRP-2031
5	P1D01-AYE-CV-PRM-BHO-DRP-2031

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Architectural Expert	Structural Expert	PHE Expert	Electrical Expert	Mechanical Expert

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B01	15/01/19	FIRST ISSUE	

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SIGN:	SIGN:	SIGN:	SIGN:	SIGN:
DATE: 14/01/19	DATE: 14/01/19	DATE: 14/01/19	DATE: 14/01/19	DATE:
NAME: SWATANTAR	NAME: ANUP	NAME: ABHINANDAN	NAME: MONIKA	NAME:
DRAWN BY	DESIGN BY	CHECKED BY	APPROVED BY	ACCEPTED BY

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Gurugram - 122002 (Haryana)

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	SIGN:
	DATE:
---	NAME: ---
REVIEWED BY (STRUCT. ENGG.)	APPROVED BY (TEAM LEADER)

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☐ Issued As Good For Construction.

SIGN:		SIGN:	
DATE:		DATE:	
NAME:	---	NAME:	---
REVIEWED BY		APPROVED BY	

SYSTRA-AECOM-EGIS-RITES
(GENERAL CONSULTANT TO PUNE METRO RAIL PROJECT)

COUNTER SIGNED BY MAHARASHTRA METRO RAIL CORPORATION LTD.

DY. HOD

HOD

PROJECT: PUNE METRO RAIL PROJECT
The Orion Building, 1st Floor, Opposite Don Bosco Center, Near Saint Mira's Girls College, Koregaon Park, Pune - 411001, MH, India

CLIENT: MAHARASHTRA METRO RAIL CORPORATION LTD.

LOCATION: Bhosari

TITLE: Roof Level Plan

SCALE: AS SHOWN | DATE: 15/01/19 | STATUS: Good for Construction

DRG NO: P1D01-AYE-AR-PRM-BHO-DRP-2031

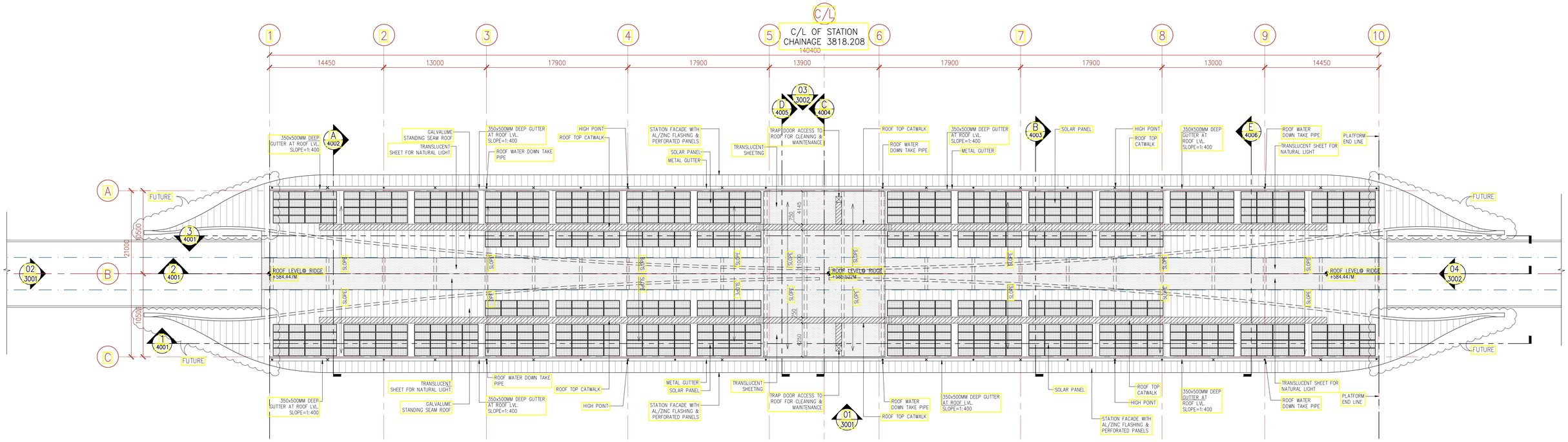
REVISION NO: B01

ARCHITECTURE

TBA

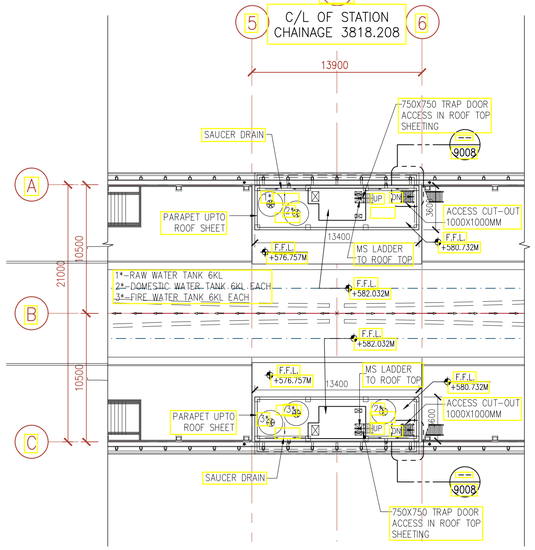
TOWARDS PCMC STATION

TOWARDS RANGE HILL STATION



2 ROOF LEVEL PLAN

Scale: 1:250



1 WATER TANK LEVEL PLAN

Scale: 1:250

GENERAL NOTES:-

1. ALL EXTERNAL WALLS SHALL HAVE PLASTER BEFORE FIXING ANY CLADDING OR OTHER ARCHITECTURAL FINISHING.
2. THE EXPANSION JOINT IN THE STATION SHALL BE STRIP SEAL JOINT.

NOTE:-THIS ROOF LEVEL PLAN IS APPLICABLE FOR KASARWADI, DAPODI, BOPODI STATION.

REFERENCE DRAWINGS	
S. NO.	DRAWING NOS.
1	P1D01-AYE-EL-PRM-KWA-DRP-2031
2	P1D01-AYE-ME-PRM-KWA-DRP-2031
3	P1D01-AYE-PL-PRM-KWA-DRP-2031
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FD	FLOOR DRAIN

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☐ REVISION AND RESUBMISSION REQUIRED SUBJECT TO THE COMMENTS AS NOTED

Chief Integration Expert	Chief MEP Expert	Chief Telecom Expert	Chief Signalling Expert	Chief PS/Traction Expert
Architectural Expert	Structural Expert	PHE Expert	Electrical Expert	Mechanical Expert

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5. ALL DOOR/WINDOW CILL & LINTEL LEVELS ARE MEASURED FROM MAIN FLOOR FINISHED LEVELS.
6. ALL PEB TO BE PU PAINTED

REV NO	DATE	DESCRIPTION	SIGN
B01	27/04/18	FIRST ISSUE	
B02	06/09/18	UPDATED AS /GC COMMENTS	
B03	13/03/20	UPDATED AS PEB DRAWINGS	
B04	22/05/20	POLYCARBONATE SHEET UPDATED AS /GC COMMENTS	

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DDC				CONTRACTOR
SIGN:	SIGN:	SIGN:	SIGN:	SIGN:
DATE: 22/05/20	DATE: 22/05/20	DATE: 22/05/20	DATE: 22/05/20	DATE:
NAME: VIKRAM	NAME: ADNAN	NAME: ANUP	NAME: MONIKA	NAME:
DRAWN BY	DESIGN BY	CHECKED BY	APPROVED BY	ACCE[illegible]Y

NOT APPLICABLE

DETAIL DESIGN CONSULTANT :

ayesa Engineering. Information. Imagination.

56, Indo-Asia House, Institutional Area, sector-44 Gurugram - 122002 (Haryana)

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SIGN:	SIGN:
	DATE:
---	NA[illegible]
REVIEWED BY (STRUCT. ENGG.)	[illegible]OVED BY (TEAM LEADER)

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☐ Proof checked & Approved by GC

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DATE:		DATE:	
NAME:	---	NAME:	---
REVIEWED BY		APPROVED BY	

SYSTRA-AECOM-EGIS-RITES

(GENERAL CONSULTANT TO PUNE METRO RAIL PROJECT)

COUNTER SIGNED BY MAHARASHTRA METRO RAIL CORPORATION LTD.

DY. HOD

HOD

PROJECT: PUNE METRO RAIL PROJECT

The Orion Building, 1st Floor, Opposite Don Bosco Center, Near Saint Mira's Girls College, Koregaon Park, Pune - 411001, MH, India

CLIENT: MAHARASHTRA METRO RAIL CORPORATION LTD.

LOCATION: KASARWADI STATION

TITLE: ROOF LEVEL PLAN

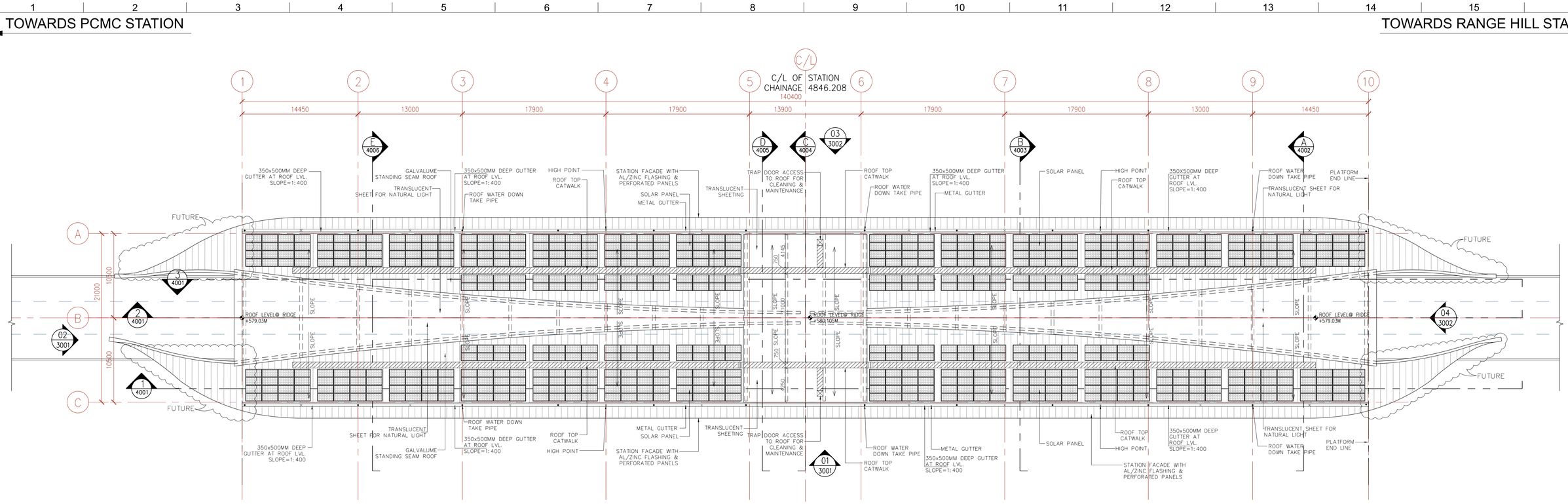
SCALE: 1:250 | DATE: 22/05/2020 | STATUS: GFC

DRG NO: P1D01-AYE-AR-PRM-KWA-DRP-2031

REVISION NO: B04

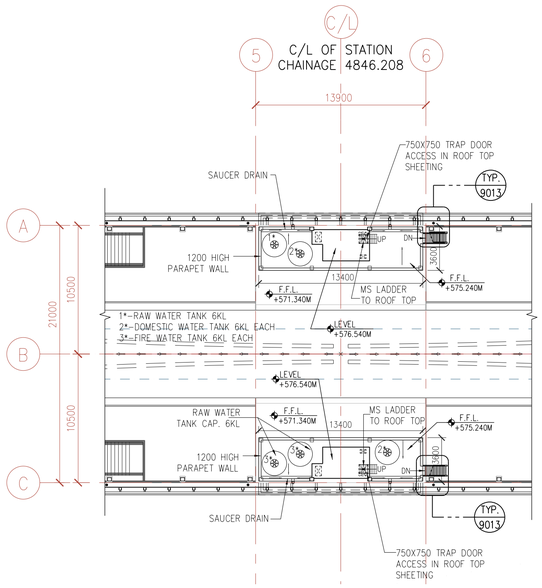
ARCHITECTURE

TBA



2 ROOF LEVEL PLAN

Scale: 1:250



1 WATER TANK LEVEL PLAN

Scale: 1:250

GENERAL NOTES:-
1. ALL EXTERNAL WALLS SHALL HAVE PLASTER BEFORE FIXING ANY CLADDING OR OTHER ARCHITECTURAL FINISHING.
2. THE EXPANSION JOINT IN THE STATION SHALL BE STRIP SEAL JOINT.

ABBREVIATIONS	
TVM	TICKET VENDING MACHINE
AFC	AUTOMATIC FARE COLLECTION
FOB	FOOT OVER BRIDGE
ECP	ESCALATOR PANEL
RWP	RAIN WATER PIPE
ODU	OUT DOOR UNIT
IMS	INTERMEIDIATE SUPPORT
FHC	FIRE HOSE CABINET
ESP	EMERGENCY STOP PLUNGER
PSP	PLATFORM SUPERVISOR PANEL
LDB	LIGHT DISTRIBUTION BOARD
RCTM	RECHARGE CAR TERMINAL MACHINE
M.H.	MAN HOLE
FD	FLOOR DRAIN

REFERENCE DRAWINGS	
S. NO.	DRAWING NOS.
1	P1D01-AYE-EL-PRM-PGD-DRP-2031
2	P1D01-AYE-ME-PRM-PGD-DRP-2031
3	P1D01-AYE-PL-PRM-PGD-DRP-2031
4	P1D01-AYE-FP-PRM-PGD-DRP-2031
5	P1D01-AYE-CV-PRM-PGD-DRP-2032 TO 35

SYSTRA-AECOM-EGIS-RITES

THE DESIGN AND DRAWING AS CERTIFIED AND SUBMITTED BY THE DETAILED DESIGNER CONSULTANT HAVE BEEN PROOF CHECKED BY GENERAL ENGINEERING CONSULTANTS AND IS RECOMMENDED TO MAHAMETRO FOR APPROVAL:

☐ NO OBJECTION ☐ NO OBJECTION SUBJECT TO THE COMMENTS AS NOTED

☐ REVISION AND RESUBMISSION REQUIRED SUBJECT TO THE COMMENTS AS NOTED

Chief Integration Expert	Chief MEP Expert	Chief Telecom Expert	Chief Signalling Expert	Chief PS/Traction Expert
Architectural Expert	Structural Expert	PHE Expert	Electrical Expert	Mechanical Expert

NOTES:
1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS MENTIONED.
2. ALL DIMENSIONS ARE TO BE READ AND NOT MEASURED.
3. ANY DISCREPANCY MUST BE BROUGHT TO THE NOTICE OF THE PMRP BEFORE EXECUTION OF WORK AT SITE.
4. THIS DRAWING MUST BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTURAL, STRUCTURAL, PLUMBING & FIRE FIGHTING, ELECTRICAL AND TRAFFIC MANAGEMENT DRAWINGS.
5. ALL DOOR/WINDOW CILL & LINTEL LEVELS ARE MEASURED FROM MAIN FLOOR FINISHED LEVELS.
6. ALL PEB TO BE PU PAINTED

REV NO	DATE	DESCRIPTION	SIGN
B01	03/05/18	FIRST ISSUE	
B02	31/08/18	UPDATED AS/GC COMMENTS	
B03	09/08/19	UPDATED AS/STRUCTURE	
B04	10/10/19	UPDATED AS/GC COMMENTS	
B05	03/03/20	UPDATED AS/GC COMMENTS	

THE RESPONSIBILITY OF CONTROL, CHECK & VERIFICATION OF ACCURACY, CORRECTNESS, COMPLETENESS, INTEGRATION & FULL COMPLIANCE OF THE CONTRACT PROVISIONS IN RESPECT OF DESIGN, ANALYSIS AND DRAWINGS RESTS WITH THE DETAILED DESIGN CONSULTANT / DETAILED DESIGN CONSULTANT & CONTRACTOR.
IT IS CERTIFIED THAT THERE IS NO CHANGE IN THIS GFCD FROM THE ALREADY APPROVED CR DWG NO. "……REV……" APPROVED ON DATE ……

DDC				CONTRACTOR
SIGN:	SIGN:	SIGN:	SIGN:	SIGN:
DATE: 03/03/20	DATE: 03/03/20	DATE: 03/03/20	DATE: 03/03/20	DATE:
NAME: VIKRAM	NAME: ADNAN	NAME: ANUP	NAME: MONIKA	NAME:
DRAWN BY	DESIGN BY	CHECKED BY	APPROVED BY	ACCEPTED BY

NOT APPLICABLE

DETAIL DESIGN CONSULTANT :

ayesa Engineering. Information. Imagination.
56, Indo-Asia House, Institutional Area, sector-44 Gurugram - 122002 (Haryana)

THIS DRAWING INCLUDING ITS DESIGN AND DETAILING HAS BEEN **PROOF CHECKED** INDEPENDENTLY AND FOUND SUITABLE FOR THE EXECUTION PURPOSE AND IS RECOMMENDED FOR GFC / NO OBJECTION'.

PROOF CONSULTANT	
	SIGN:
	DATE:
---	NAME:
REVIEWED BY (STRUCT. ENGG.)	APPROVED BY (TEAM LEADER)

NOT APPLICABLE

☐ Proof checked & Approved by GC

☐ Being Given No Objection

☐ Issued As Good For Construction.

SIGN:		SIGN:	
DATE:		DATE:	
NAME:	---	NAME:	---
REVIEWED BY		APPROVED BY	

SYSTRA-AECOM-EGIS-RITES
(GENERAL CONSULTANT TO PUNE METRO RAIL PROJECT)

COUNTER SIGNED BY MAHARASHTRA METRO RAIL CORPORATION LTD.

DY. HOD

HOD

PROJECT: PUNE METRO RAIL PROJECT
The Orion Building, 1st Floor, Opposite Don Bosco Center, Near Saint Mira's Girls College, Koregaon Park, Pune - 411001, MH, India

CLIENT: MAHARASHTRA METRO RAIL CORPORATION LTD.

LOCATION: Phugewadi

TITLE: ROOF LEVEL PLAN

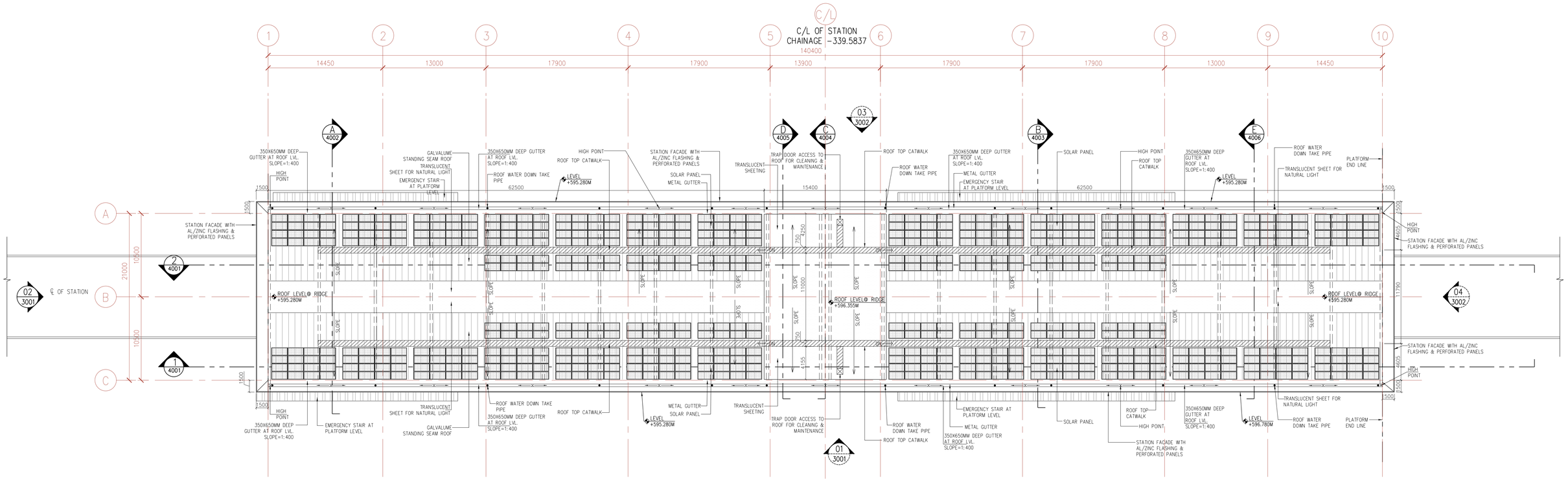
SCALE: 1:250 | DATE: 03/03/20 | STATUS: Good for Construction

DRG NO: P1D01-AYE-AR-PRM-PGD-DRP-2031

REVISION NO: B05

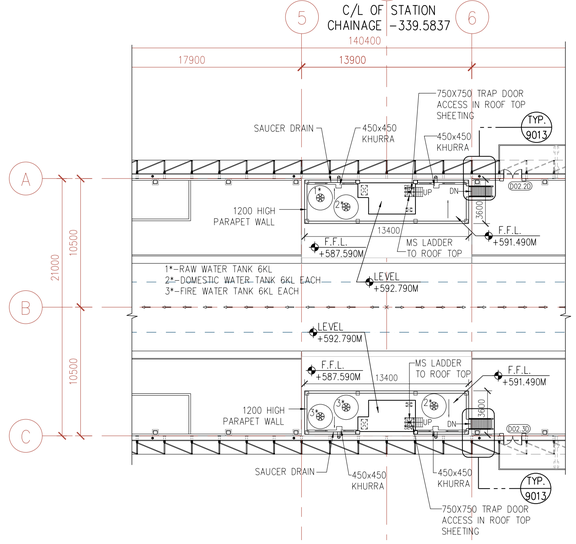
ARCHITECTURE

TBA



1 ROOF LEVEL PLAN

Scale: 1:250



2 WATER TANK LEVEL PLAN

Scale: 1:250

GENERAL NOTES:-

1. ALL EXTERNAL WALLS SHALL HAVE PLASTER BEFORE FIXING ANY CLADDING OR OTHER ARCHITECTURAL FINISHING.
2. THE EXPANSION JOINT IN THE STATION SHALL BE STRIP SEAL JOINT.

REFERENCE DRAWINGS	
S. NO.	DRAWING NOS.
1	P1D01-AYE-EL-PRM-PIM-DRP-2031
2	P1D01-AYE-ME-PRM-PIM-DRP-2031
3	P1D01-AYE-PL-PRM-PIM-DRP-2031
4	P1D01-AYE-FP-PRM-PIM-DRP-2031
5	P1D01-AYE-CV-PRM-PIM-DRP-2032 TO 35

ABBREVIATIONS	
TVM	TICKET VENDING MACHINE
AFC	AUTOMATIC FARE COLLECTION
FOB	FOOT OVER BRIDGE
ECP	ESCALATOR PANEL
RWP	RAIN WATER PIPE
ODU	OUT DOOR UNIT
IMS	INTERMEIDIATE SUPPORT
FHC	FIRE HOSE CABINET
ESP	EMERGENCY STOP PLUNGER
PSP	PLATFORM SUPERVISOR PANEL
LDB	LIGHT DISTRIBUTION BOARD
RCTM	RECHARGE CAR TERMINAL MACHINE
M.H.	MAN HOLE
FD	FLOOR DRAIN

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☐ REVISION AND RESUBMISSION REQUIRED SUBJECT TO THE COMMENTS AS NOTED

SYSTRA-AECOM-EGIS-RITES

Chief System Expert	Chief MEP Expert	Chief Telecom Expert	Chief PHE Expert	Chief Lift/Escalator Expert

ayesa Engineering. Information. Imagination.

Architectural Expert	Structural Expert	PHE Expert	Electrical Expert	Mechanical Expert

NOTES:
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5. ALL DOOR/WINDOW CILL & LINTEL LEVELS ARE MEASURED FROM MAIN FLOOR FINISHED LEVELS.

REV NO	DATE	DESCRIPTION	SIGN
B03	07/07/18	REVISED ALIGNMENT UPDATED AS/ GC COMMENTS	
B04	11/09/18	UPDATED AS PER GC COMMENTS	
B05	23/10/19	UPDATED AS / STEEL STRUCTURE & GC COMMENTS	
B06	20/02/20	REVISED ROOM LAYOUT & ENTRY-3 AS PER GC/MAHAMETRO	
B07	24/07/2020	REVISED AS PER GC COMMENTS	

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DDC				CONTRACTOR
SIGN:	SIGN:	SIGN:	SIGN:	SIGN:
DATE: 30/06/20	DATE: 30/06/20	DATE: 30/06/20	DATE: 30/06/20	DATE:
NAME: VIKRAM	NAME: ADNAN	NAME: ANUP	NAME: MONIKA	NAME:
DRAWN BY	DESIGN BY	CHECKED BY	APPROVED BY	ACCEPTED BY

NOT APPLICABLE

DETAIL DESIGN CONSULTANT :

ayesa Engineering. Information. Imagination.
56, Indo-Asia House, Institutional Area, sector-44
Gurugram - 122002 (Haryana)

THIS DRAWING INCLUDING ITS DESIGN AND DETAILING HAS BEEN **PROOF CHECKED** INDEPENDENTLY AND FOUND SUITABLE FOR THE EXECUTION PURPOSE AND IS RECOMMENDED FOR GFC / NO OBJECTION'.

PROOF CONSULTANT		
	SIGN:	
	DATE:	
--	NAME: --	
REVIEWED BY (STRUCT. ENGG.)	APPROVED BY (TEAM LEADER)	

NOT APPLICABLE

☐ Proof checked & Approved by GC

☐ Being Given No Objection

☐ Issued As Good For Construction.

SIGN:		SIGN:	
DATE:		DATE:	
NAME:	---	NAME:	---
REVIEWED BY		APPROVED BY	

SYSTRA-AECOM-EGIS-RITES
(GENERAL CONSULTANT TO PUNE METRO RAIL PROJECT)

COUNTER SIGNED BY MAHARASHTRA METRO RAIL CORPORATION LTD.

DY. HOD

HOD

PROJECT: PUNE METRO RAIL PROJECT
The Orion Building, 1st Floor, Opposite Don Bosco Center, Near Saint Mira's Girls College, Koregaon Park, Pune - 411001, MH, India

CLIENT: MAHARASHTRA METRO RAIL CORPORATION LTD.

LOCATION: PCMC

TITLE: ROOF LEVEL PLAN

SCALE: 1:250 DATE: 24/07/2020 STATUS: Good for Construction

DRG NO: P1D01-AYE-AR-PRM-PIM-DRP-2031

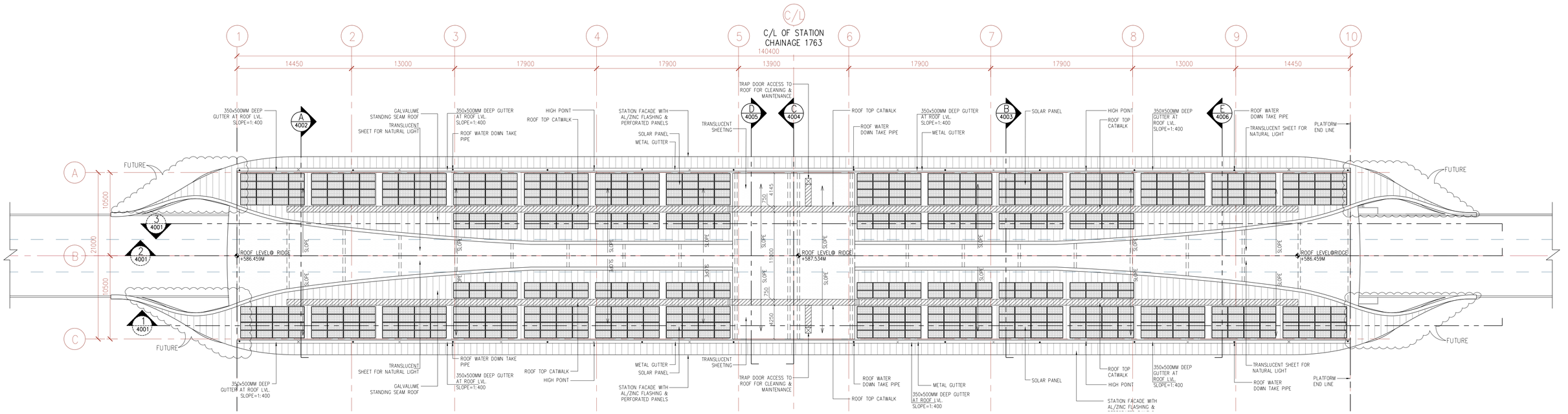
REVISION NO: B07

ARCHITECTURE

TBA

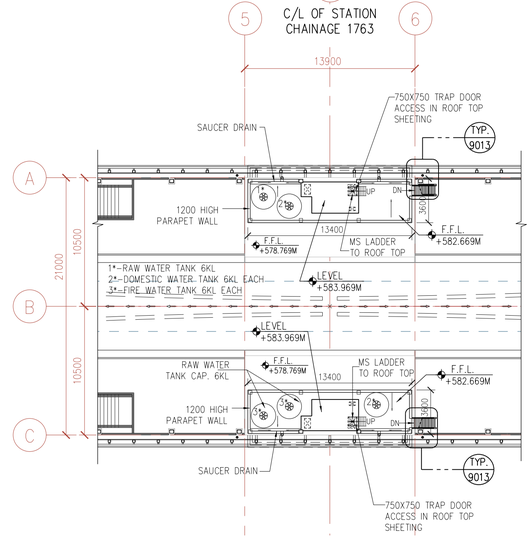
TOWARDS PCMC STATION

TOWARDS RANGE HILL STATION



2 ROOF LEVEL PLAN

Scale: 1:250



1 WATER TANK LEVEL PLAN

Scale: 1:250

GENERAL NOTES:-

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2. THE EXPANSION JOINT IN THE STATION SHALL BE STRIP SEAL JOINT.

REFERENCE DRAWINGS	
S. NO.	DRAWING NOS.
1	P1D01-AYE-EL-PRM-STG-DRP-2031
2	P1D01-AYE-ME-PRM-STG-DRP-2031
3	P1D01-AYE-PL-PRM-STG-DRP-2031
4	P1D01-AYE-FP-PRM-STG-DRP-2031
5	P1D01-AYE-CV-PRM-STG-DRP-2032 TO 35

ABBREVIATIONS	
TVM	TICKET VENDING MACHINE
AFC	AUTOMATIC FARE COLLECTION
FOB	FOOT OVER BRIDGE
ECP	ESCALATOR PANEL
RWP	RAIN WATER PIPE
ODU	OUT DOOR UNIT
IMS	INTERMEDIATE SUPPORT
FHC	FIRE HOSE CABINET
ESP	EMERGENCY STOP PLUNGER
PSP	PLATFORM SUPERVISOR PANEL
LDB	LIGHT DISTRIBUTION BOARD
RCTM	RECHARGE CAR TERMINAL MACHINE
M.H.	MAN HOLE
FD	FLOOR DRAIN

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SYSTRA-AECOM-EGIS-RITES

Chief Integration Expert	Chief MEP Expert	Chief Telecom Expert	Chief Signalling Expert	Chief PS/Traction Expert

ayesa Engineering. Information. Imagination.

Architectural Expert	Structural Expert	PHE Expert	Electrical Expert	Mechanical Expert

NOTES:
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6. ALL PEB TO BE PU PAINTED

REV NO	DATE	DESCRIPTION	SIGN
B01	23/03/18	FIRST ISSUE	
B02	16/04/18	UPDATED AS/GC COMMENTS	
B03	13/07/18	UPDATED AS/GC COMMENTS	
B04	06/08/19	UPDATED AS/GC COMMENTS	
B05	04/10/19	UPDATED AS/GC COMMENTS	

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DDC				CONTRACTOR
SIGN:	SIGN:	SIGN:	SIGN:	SIGN:
DATE: 04/10/19	DATE: 04/10/19	DATE: 04/10/19	DATE: 04/10/19	DATE:
NAME: VIKRAM	NAME: ANUP	NAME: ABHINANDAN	NAME: MONIKA	NAME:
DRAWN BY	DESIGN BY	CHECKED BY	APPROVED BY	ACCEPTED BY

NOT APPLICABLE

DETAIL DESIGN CONSULTANT :

ayesa Engineering. Information. Imagination.
56, Indo-Asia House, Institutional Area, sector-44
Gurugram - 122002 (Haryana)

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PROOF CONSULTANT		
	SIGN:	
	DATE:	
---	NAME:	---
REVIEWED BY (STRUCT. ENGG.)	APPROVED BY (TEAM LEADER)	

NOT APPLICABLE

☐ Proof checked & Approved by GC

☐ Being Given No Objection

☐ Issued As Good For Construction.

SIGN:		SIGN:	
DATE:		DATE:	
NAME:	---	NAME:	---
REVIEWED BY		APPROVED BY	

SYSTRA-AECOM-EGIS-RITES
(GENERAL CONSULTANT TO PUNE METRO RAIL PROJECT)

COUNTER SIGNED BY MAHARASHTRA METRO RAIL CORPORATION LTD.

DY. HOD

HOD

PROJECT: PUNE METRO RAIL PROJECT
The Orion Building, 1st Floor, Opposite Don Bosco Center, Near Saint Mira's Girls College, Koregaon Park, Pune - 411001, MH, India

CLIENT: MAHARASHTRA METRO RAIL CORPORATION LTD.

LOCATION: Sant Tukaram Nagar

TITLE: Roof Level Plan

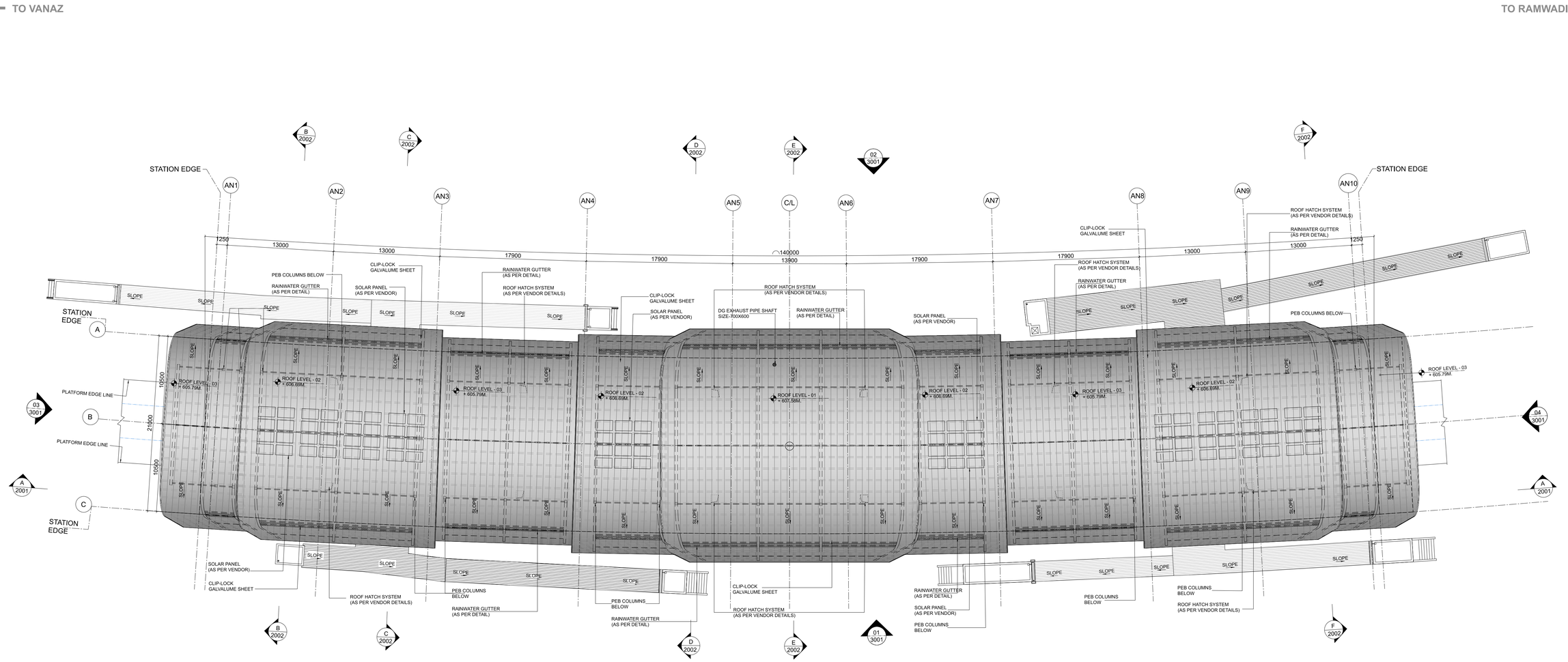
SCALE: 1:250 | DATE: 04/10/19 | STATUS: Good for Construction

DRG NO: P1D01-AYE-AR-PRM-STG-DRP-2031

REVISION NO: B05

ARCHITECTURE

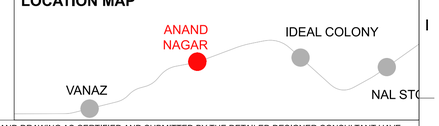
TBA



REFERENCE DRAWING SCHEDULE		
S.NO.	DESCRIPTION	REFERENCE DRAWING NO.
01.	ROOF DETAIL DRAWING	P2D01-LHA-AR-PRM-AND-DDT-9105/06/07
02.	EE-01 DETAILS (STAIRCASE, ESCALATOR,LIFT)	P2D01-LHA-AR-PRM-AND-DDT-4601/4602/ 4603/4604/4605
03.	EE-02 DETAILS (STAIRCASE, ESCALATOR,LIFT)	P2D01-LHA-AR-PRM-AND-DDT-4606/4607/ 4608/4609/4610
04.	EE-03 DETAILS (STAIRCASE, ESCALATOR,LIFT)	P2D01-LHA-AR-PRM-AND-DDT-4611/4612/ 4613/4614/4615
05.	EE-04 DETAILS (STAIRCASE, ESCALATOR,LIFT)	P2D01-LHA-AR-PRM-AND-DDT-4616/4617/ 4618/4619/4620

NOTE:
1. FOR ENTRY - EXIT, PLEASE REFER RESPECTIVE ENTRY - EXIT DETAIL DRAWINGS.

LOCATION MAP



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☐ REVISION AND RESUBMISSION REQUIRED SUBJECT TO THE COMMENTS AS NOTED

SYSTRA-AECOM-EGIS-RITES (GENERAL CONSULTANT TO PUNE METRO RAIL PROJECT)					
	Chief Integration Expert	Chief MEP Expert	Chief Telecom Expert	Chief Signalling Expert	Chief PS/Traction Expert
Architect Hafeez Contractor	R.B.	H.S.	S.B	AJAY	W.S
	Architectural Expert	Structural Expert	PHE Expert	Electrical Expert	Mechanical Expert

NOTES:
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5. ALL DOOR/WINDOW CILL & LINTEL LEVELS ARE MEASURED FROM MAIN FLOOR FINISHED LEVELS.

REV NO	DATE	DESCRIPTION	SIGN
B01	27/07/2018	GAD Submission	
B02	15/02/2019	Submission of GFC Drawings	
B03	22/07/2019	Revised GFC as per change in Station Roof as per GC/MMRCL Requirement	
B04	10/09/2019	Submission of Revised GA Drawings with changes in dry wall system as per GC/PMRP Instructions.	
B05	30/10/19	Submission of Revised GFC Drawing	

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DDC / CONTRACTOR				CONTRACTOR
SIGN:	SIGN:	SIGN:	SIGN:	SIGN:
DATE: 30/10/2019	DATE: 30/10/2019	DATE: 30/10/2019	DATE: 30/10/2019	DATE:
NAME: A.A.	NAME: P.N.	NAME: A.P.	NAME: L.K.T.	NAME:
DRAWN BY	DESIGN BY	CHECKED BY	APPROVED BY	ACCEPTED BY

NOT APPLICABLE

Architect Hafeez Contractor

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PROOF CONSULTANT	
SIGN:	SIGN:
DATE:	DATE:
NAME: ---	NAME: ---
REVIEWED BY (STRUCT. ENGG.)	APPROVED BY (TEAM LEADER)

☐ Proof checked & Approved by GC

☐ Being Given No Objection

☐ Issued As Good For Construction.

SIGN:		SIGN:	
DATE:		DATE:	
NAME:	---	NAME:	---
REVIEWED BY		APPROVED BY	

SYSTRA-AECOM-EGIS-RITES
(GENERAL CONSULTANT TO PUNE METRO RAIL PROJECT)

NORTH N

COUNTER SIGNED BY MAHARASHTRA METRO RAIL CORPORATION LTD.

DY. HOD

HOD

PROJECT: PUNE METRO RAIL PROJECT
The Orion Building, 1st Floor, Opposite Don Bosco Center, Near Saint Mira's Girls College, Koregaon Park, Pune - 411001, MH, India

CLIENT: MAHARASHTRA METRO RAIL CORPORATION LTD.

LOCATION: Anand Nagar

TITLE: ROOF LEVEL PLAN

SCALE: 1:250 | DATE: 30/10/19 | STATUS: Good for Construction

DRG NO: P2D01-LHA-AR-PRM-AND-DRP-1004

REVISION NO: B05

ARCHITECTURE

TBA

plot scale 50mm

TO VANAZ

TO RAMWADI

STATION EDGE

GW1 GW2 GW3 GW4 GW5 C/L GW6 GW7 GW8 GW9 GW10

STATION EDGE

1250 13000 13000 17900 17900 13900 17900 17900 13000 13000 1250

140000

10500 21000 10500

KLIP-LOK GALVALUME ROOFING SHEET

RAINWATER GUTTER (AS PER VENDOR)

SOLAR PANEL (AS PER VENDOR)

ROOF HATCH SYSTEM (AS PER VENDOR)

PROVISION FOR RADIO TOWER

SOLAR PANEL (AS PER VENDOR)

ROOF HATCH SYSTEM (AS PER VENDOR DETAILS)

ENTRY EXT EE-01

MS PEB COLUMN BELOW (AS PER STRUCTURE)

DG EXHAUST

RAFTERS BELOW (AS PER STRUCTURE)

PURLINS BELOW (AS PER STRUCTURE)

ROOF HATCH SYSTEM (AS PER VENDOR)

RAINWATER GUTTER (AS PER VENDOR)

ROOF HATCH SYSTEM (AS PER VENDOR)

ROOF HATCH SYSTEM (AS PER VENDOR)

ENTRY EXT EE-02

SLOPE

ROOF IN SLOPE

PLATFORM EDGE LINE

ROOF LEVEL 03 + 578.49 M.

ROOF LEVEL 02 + 579.39 M.

ROOF LEVEL 03 + 578.49 M.

ROOF LEVEL 02 + 579.39 M.

ROOF LEVEL 01 + 580.26 M.

ROOF LEVEL 02 + 579.39 M.

ROOF LEVEL 03 + 578.49 M.

ROOF LEVEL 02 + 579.39 M.

ROOF LEVEL 03 + 578.49 M.

ROOF EDGE

FACIA

ROOF HATCH SYSTEM (AS PER VENDOR DETAILS)

RAINWATER GUTTER (AS PER VENDOR)

ROOF HATCH SYSTEM (AS PER VENDOR)

KLIP-LOK GALVALUME ROOFING SHEET

ENTRY EXT EE-04 (FUTURE)

ROOF HATCH SYSTEM (AS PER VENDOR)

MS PEB COLUMN BELOW (AS PER STRUCTURE)

RAIN WATER GUTTER (AS PER VENDOR)

RAIN WATER GUTTER (AS PER VENDOR)

ROOF HATCH SYSTEM (AS PER VENDOR)

ENTRY EXT EE-03

PROVISION FOR RADIO TOWER

ROOF HATCH SYSTEM (AS PER VENDOR)

FACIA

MS PEB COLUMN BELOW (AS PER STRUCTURE)

PROVISION FOR RADIO TOWER

ENTRY EXT EE-04 (FUTURE)

REFERENCE DRAWING SCHEDULE		
S.NO.	DESCRIPTION	REFERENCE DRAWING NO.
01.	ROOF DETAIL DRAWING	P2D01-LHA-AR-PRM-GWC-DDT-9105/06/07
02.	EE-01 DETAILS (STAIRCASE, ESCALATOR,LIFT)	P2D01-LHA-AR-PRM-GWC-DDT-4601/4602/ 4603/4604/4605
03.	EE-02 DETAILS (STAIRCASE, ESCALATOR,LIFT)	P2D01-LHA-AR-PRM-GWC-DDT-4606/4607/ 4608/4609/4610
04.	EE-03 DETAILS (STAIRCASE, ESCALATOR,LIFT)	P2D01-LHA-AR-PRM-GWC-DDT-4611/4612/ 4613/4614/4615
05.	EE-04 DETAILS (STAIRCASE, ESCALATOR,LIFT)	P2D01-LHA-AR-PRM-GWC-DDT-4616/4617/ 4618/4619/4620

NOTE:

1. FOR ENTRY - EXIT, PLEASE REFER RESPECTIVE ENTRY - EXIT DETAIL DRAWINGS.
2. CHANGE IN STATION ROOF AS INSTRUCTED BY GC/MMRCL.
3. ALL THE STEEL GIRDER DRAWINGS AT PLATFORM AND CONCOURSE LEVEL ARE AS PER STRUCTURE FOR FURTHER CHANGES AND MODIFICATION, PLEASE REFER STRUCTURE DRAWINGS.

ANAND NAGAR · IDEAL COLONY · GARWARE · NAL STOP · DECCAN · SAMBHAJI · PMC

LOCATION MAP

THE DESIGN AND DRAWING AS CERTIFIED AND SUBMITTED BY THE DETAILED DESIGNER CONSULTANT HAVE BEEN PROOF CHECKED BY GENERAL ENGINEERING CONSULTANTS AND IS RECOMMENDED TO MAHAMETRO FOR APPROVAL:

☐ NO OBJECTION ☐ NO OBJECTION SUBJECT TO THE COMMENTS AS NOTED

☐ REVISION AND RESUBMISSION REQUIRED SUBJECT TO THE COMMENTS AS NOTED

SYSTRA-AECOM-EGIS-RITES (GENERAL CONSULTANT TO PUNE METRO RAIL PROJECT)

Chief Integration Expert	Chief MEP Expert	Chief Telecom Expert	Chief Signalling Expert	Chief PS/Traction Expert

Architect Hafeez Contractor

R.B.	H.S.	S.B	AJAY	W.S
Architectural Expert	Structural Expert	PHE Expert	Electrical Expert	Mechanical Expert

NOTES:
1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS MENTIONED.
2. ALL DIMENSIONS ARE TO BE READ AND NOT MEASURED.
3. ANY DISCREPANCY MUST BE BROUGHT TO THE NOTICE OF THE PMRP BEFORE EXECUTION OF WORK AT SITE.
4. THIS DRAWING MUST BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTURAL, STRUCTURAL, PLUMBING & FIRE FIGHTING, ELECTRICAL AND TRAFFIC MANAGEMENT DRAWINGS.
5. ALL DOOR/WINDOW CILL & LINTEL LEVELS ARE MEASURED FROM MAIN FLOOR FINISHED LEVELS.

REV NO	DATE	DESCRIPTION	SIGN
B01	27/07/2018	GAD Submission	
B02	23/01/2019	Submission of GFC Drawings	
B03	25/03/2019	Submission of revised GFC due to change in interlocking station, as confirmed by GC/Maha Metro	
B04	28/06/2019	Revised GFC as per GC/MMRCL comments for continuous Diagrid Roof.	
B05	08/08/2019	Revised GFC as per change in station roof and change in steel girders at platform and concourse level.	
B06	14/10/2019	Submission of Revised GFC Drawings with changes in dry wall system as per GC/PMRP instructions.	
B07	20/12/19	Submission of Revised GFC Drawings with changes as per GC/PMRP instructions.	

THE RESPONSIBILITY OF CONTROL, CHECK & VERIFICATION OF ACCURACY, CORRECTNESS, COMPLETENESS, INTEGRATION & FULL COMPLIANCE OF THE CONTRACT PROVISIONS IN RESPECT OF DESIGN, ANALYSIS AND DRAWINGS RESTS WITH THE DETAILED DESIGN CONSULTANT / DETAILED DESIGN CONSULTANT & CONTRACTOR.
IT IS CERTIFIED THAT THERE IS NO CHANGE IN THIS GFCD FROM THE ALREADY APPROVED CR DWG NO. "..... REV....." APPROVED ON DATE .....

DDC / CONTRACTOR				CONTRACTOR
SIGN:	SIGN:	SIGN:	SIGN:	SIGN:
DATE: 20/12/2019	DATE: 20/12/2019	DATE: 20/12/2019	DATE: 20/12/2019	DATE:
NAME: U.G.	NAME: P.N.	NAME: A.P.	NAME: L.K.T.	NAME:
DRAWN BY	DESIGN BY	CHECKED BY	APPROVED BY	ACCEPTED BY

NOT APPLICABLE

Architect Hafeez Contractor

LKT - AHC
63/12A, IInd floor, Main Rama road, Najafgargh road, industrial area, opposite Kirti nagar Metro Station, New Delhi-110015, Phone:+ 011-4 5 5 6 5 8 1 4 - 1 8
i n f o @ l k t e n g i n e e r i n g . c o m

THIS DRAWING INCLUDING ITS DESIGN AND DETAILING HAS BEEN **PROOF CHECKED** INDEPENDENTLY AND FOUND SUITABLE FOR THE EXECUTION PURPOSE AND IS RECOMMENDED FOR GFC / NO OBJECTION'.

PROOF CONSULTANT	
SIGN:	SIGN:
DATE:	DATE:
NAME: ---	NAME: ---
REVIEWED BY (STRUCT. ENGG.)	APPROVED BY (TEAM LEADER)

SYSTRA-AECOM-EGIS-RITES
(GENERAL CONSULTANT TO PUNE METRO RAIL PROJECT)

☐ Proof checked & Approved by GC

☐ Being Given No Objection

☐ Issued As Good For Construction.

SIGN:		SIGN:	
DATE:		DATE:	
NAME:	---	NAME:	---
REVIEWED BY		APPROVED BY	

NORTH

COUNTER SIGNED BY MAHARASHTRA METRO RAIL CORPORATION LTD.

DY. HOD

HOD

PROJECT: PUNE METRO RAIL PROJECT
The Orion Building, 1st Floor, Opposite Don Bosco Center, Near Saint Mira's Girls College, Koregaon Park, Pune - 411001, MH, India

CLIENT: MAHARASHTRA METRO RAIL CORPORATION LTD.

LOCATION: Garware College

TITLE: ROOF LEVEL PLAN

SCALE: 1:250 | DATE: 20/12/19 | STATUS: Good for Construction

DRG NO: P2D01-LHA-AR-PRM-GWC-DRP-1004

REVISION NO: B07

ARCHITECTURE

plot scale 50mm

TBA

TO VANAZ

TO RAMWADI

STATION BOX EDGE

IC1 | IC2 | IC3 | IC4 | IC5 | C/L | IC6 | IC7 | IC8 | IC9 | IC10

1250 | 13000 | 13000 | 17900 | 17900 | 13900 | 17900 | 17900 | 13000 | 13000 | 1250

140000

B 2002 | C 2002 | D 2002 | E 2002 | 02 3001 | F 2002

SOLAR PANEL (AS PER VENDOR)
ROOF HATCH SYSTEM (AS PER VENDOR DETAILS)
ENTRY EXT EE-01 (FUTURE)
KLIP-LOK GALVALUME ROOFING IN SLOPE (AS PER VENDOR DETAILS)
ROOF HATCH SYSTEM (AS PER VENDOR DETAILS)
KLIP -LOK GALVALUME ROOFING IN SLOPE (AS PER VENDOR DETAILS)
ROOF HATCH SYSTEM (AS PER VENDOR DETAILS)
SOLAR PANEL (AS PER VENDOR)
WALKWAY FOR ACCESSING ROOF/ SOLAR PANEL
DG EXHAUST
PROVISION FOR RADIO TOWER
WALKWAY FOR ACCESSING ROOF/ SOLAR PANEL
ENTRY EXT EE-02
ROOF HATCH SYSTEM (AS PER VENDOR DETAILS)
SOLAR PANEL (AS PER VENDOR)
KLIP-LOK GALVALUME ROOFING IN SLOPE (AS PER VENDOR DETAILS)
ROOF HATCH SYSTEM (AS PER VENDOR DETAILS)

SLOPE

ROOF IN SLOPE

ROOF LEVEL -03 + 599.39 M | ROOF LEVEL - 02 + 600.19 M | ROOF LEVEL - 03 + 599.39 M | ROOF LEVEL - 01 + 600.98 M | ROOF LEVEL - 03 + 599.39 M | ROOF LEVEL - 02 + 600.19 M | ROOF LEVEL - 03 + 599.39 M

A | B | C

10500 | 21000 | 10500

03 3001 | 04 3001

A 2001

PLATFORM EDGE LINE

STATION BOX EDGE

SOLAR PANEL (AS PER VENDOR)
KLIP-LOK GALVALUME ROOFING IN SLOPE (AS PER VENDOR DETAILS)
ROOF HATCH SYSTEM (AS PER VENDOR DETAILS)
ROOF HATCH SYSTEM (AS PER VENDOR DETAILS)
PEB COLUMNS BELOW
WALKWAY FOR ACCESSING ROOF/ SOLAR PANEL
PROVISION FOR RADIO TOWER
ENTRY EXT EE-04
KLIP-LOCK GALVALUME ROOFING IN SLOPE (AS PER VENDOR DETAILS)
ROOF HATCH SYSTEM (AS PER VENDOR DETAILS)
GUTTER(AS PER VENDOR)
SOLAR PANEL (AS PER VENDOR)
PEB COLUMNS BELOW
ROOF HATCH SYSTEM (AS PER VENDOR DETAILS)
WALKWAY FOR ACCESSING ROOF/ SOLAR PANEL
ENTRY EXT EE-03
ROOF HATCH SYSTEM (AS PER VENDOR DETAILS)
GUTTER (AS PER DETAIL)

B 2002 | C 2002 | D 2002 | E 2002 | 01 3001 | F 2002

REFERENCE DRAWING SCHEDULE		
S.NO.	DESCRIPTION	REFERENCE DRAWING NO.
01.	ROOF AND ROOF GUTTER DETAIL DRAWING	P2D01-LHA-AR-PRM-ICY-DDT-9105/06/07/08/09
02.	EE-01 DETAILS (STAIRCASE, ESCALATOR,LIFT)	P2D01-LHA-AR-PRM-ICY-DDT-4601/4602/ 4603/4604/4605
03.	EE-02 DETAILS (STAIRCASE, ESCALATOR,LIFT)	P2D01-LHA-AR-PRM-ICY-DDT-4606/4607/ 4608/4609/4610
04.	EE-03 DETAILS (STAIRCASE, ESCALATOR,LIFT)	P2D01-LHA-AR-PRM-ICY-DDT-4611/4612/ 4613/4614/4615
05.	EE-04 DETAILS (STAIRCASE, ESCALATOR,LIFT)	P2D01-LHA-AR-PRM-ICY-DDT-4616/4617/ 4618/4619/4620

NOTE:

1. FOR ENTRY - EXIT & STAION LAYOUT, PLEASE REFER RESPECTIVE ENTRY - EXIT DETAIL DRAWINGS.
2. ALL THE STEEL GIRDER DRAWINGS AT PLATFORM AND CONCOURSE LEVEL ARE AS PER STRUCTURE FOR FURTHER CHANGES AND MODIFICATION, PLEASE REFER STRUCTURE DRAWINGS.
3. ALL STRUCTURAL MEMBERS VIZ. RAFTERS, PURLINS, COLUMNS, TIE MEMBERS ETC. ALONG WITH FIXING ARRANGEMENT REFER STRUCTURAL DRAWINGS AS WELL AS SHOP DRAWINGS.
4. ACCESS HATCH DETAILS, WALKWAY DETAILS, SOLAR PANEL FIXING DETAILS WILL BE PROVIDED AFTER FINALIZATION OF VENDORS.

NOTES:
1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS MENTIONED.
2. ALL DIMENSIONS ARE TO BE READ AND NOT MEASURED.
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5. ALL DOOR/WINDOW CILL & LINTEL LEVELS ARE MEASURED FROM MAIN FLOOR FINISHED LEVELS.

REV NO	DATE	DESCRIPTION	SIGN
B00	01/06/2018	GAD	
B00	15/06/2018	Revised GAD	
B01	02/07/2018	GFC	
B02	17/10/2018	Revised GFC	
B03	28/01/2019	Optimized room sizes, change in loading deck, Rolling Shutter location in ASS room, change of pier and pier arm	
B04	25/09/2019	Submission of Revised GFC Drawings with change in dry wall system, room layouts and station roof etc, as per GC/ MMRCL comments.	
B05	22/11/2019	Submission of Revised GFC Drawings with change in Steel girders as per GC/ MMRCL comments.	
B06	15/09/2020	GFC Drawings with change in Station typology to Non Interlocking by GC/PMRP.	

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☐ Proof checked & Approved by GC
☐ Being Given No Objection
☐ Issued As Good For Construction.

COUNTER SIGNED BY MAHARASHTRA METRO RAIL CORPORATION LTD.

DDC / CONTRACTOR				CONTRACTOR	PROOF CONSULTANT				DY. HOD
SIGN:	SIGN:	SIGN:	SIGN:	SIGN:	SIGN:	SIGN:	SIGN:	SIGN:	
DATE: 09/07/2020	DATE: 09/07/2020	DATE: 09/07/2020	DATE: 09/07/2020	DATE:	DATE:	DATE:	DATE:	DATE:	
NAME: Y.A	NAME: P.N.	NAME: A.P.	NAME: L.K.T.	NAME:	NAME: ---	NAME: ---	NAME: ---	NAME: ---	
DRAWN BY	DESIGN BY	CHECKED BY	APPROVED BY	ACCEPTED BY	REVIEWED BY (STRUCT. ENGG.)	APPROVED BY (TEAM LEADER)	REVIEWED BY	APPROVED BY	

HOT APPLICABLE

Architect Hafeez Contractor

LKT - AHC
63/12A, IInd floor, Main Rama road, Najafgarh road, industrial area, opposite Kirti nagar Metro Station, New Delhi-110015, Phone:+ 011-45565814-18
info@lktengineering.com

SYSTRA-AECOM-EGIS-RITES
(GENERAL CONSULTANT TO PUNE METRO RAIL PROJECT)

HOD

THE DESIGN AND DRAWING AS CERTIFIED AND SUBMITTED BY THE DETAILED DESIGNER CONSULTANT HAVE BEEN PROOF CHECKED BY GENERAL ENGINEERING CONSULTANTS AND IS RECOMMENDED TO MAHAMETRO FOR APPROVAL:

☐ NO OBJECTION ☐ NO OBJECTION SUBJECT TO THE COMMENTS AS NOTED
☐ REVISION AND RESUBMISSION REQUIRED SUBJECT TO THE COMMENTS AS NOTED

SYSTRA-AECOM-EGIS-RITES (GENERAL CONSULTANT TO PUNE METRO RAIL PROJECT)	Chief Integration Expert	Chief MEP Expert	Chief Telecom Expert	Chief Signalling Expert	Chief PS/Traction Expert

Architect Hafeez Contractor	R.B.	H.S.	S.B	AJAY	W.S
	Architectural Expert	Structural Expert	PHE Expert	Electrical Expert	Mechanical Expert

PROJECT: PUNE METRO RAIL PROJECT
The Orion Building, 1st Floor, Opposite Don Bosco Center, Near Saint Mira's College, Koregaon Park, Pune - 411001, MH, India

CLIENT: MAHARASHTRA METRO RAIL CORPORATION LTD.

LOCATION: Ideal Colony

TITLE: Roof Level Plan

SCALE: 1:250 | DATE: 15/09/2020 | STATUS: Good for Construction

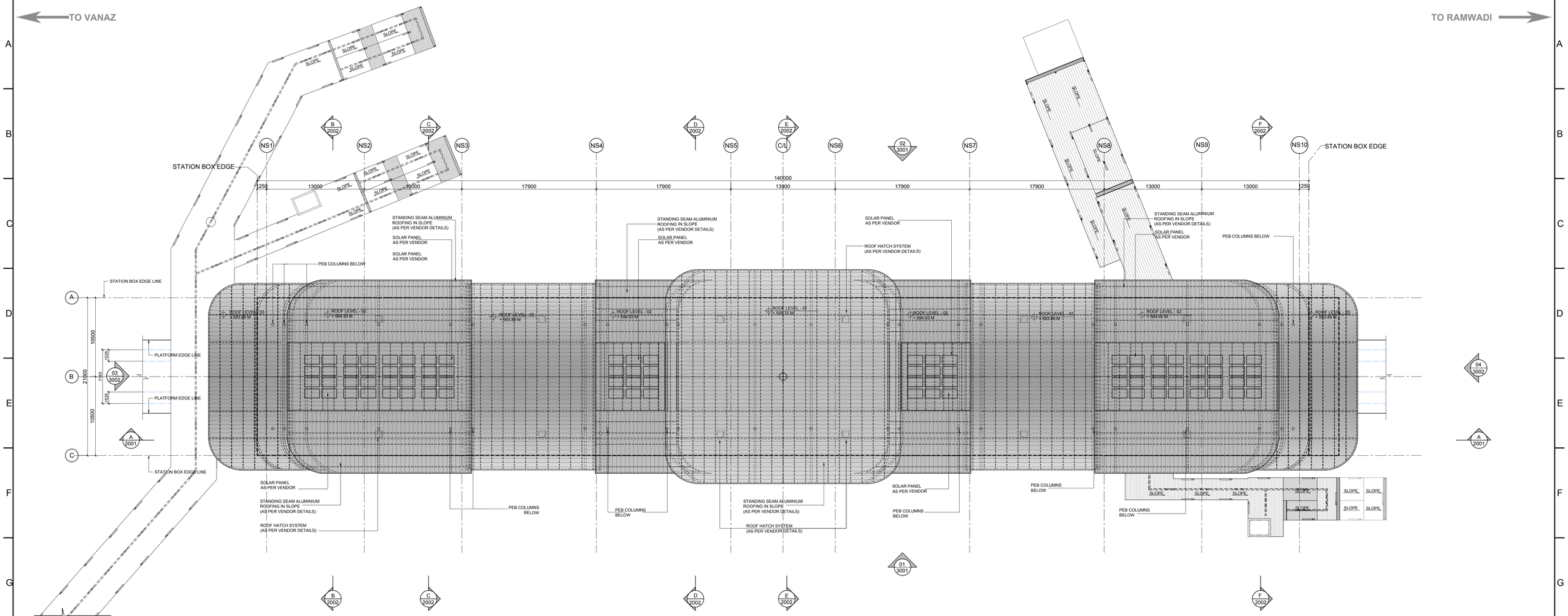
DRG NO: P2D01-LHA-AR-PRM-ICY-DRP-1004

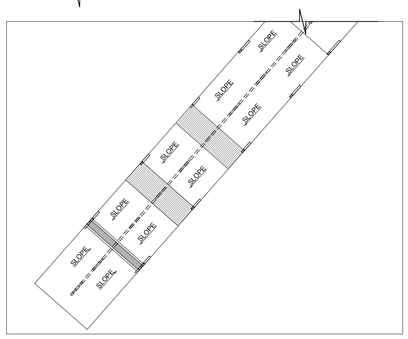
REVISION NO: B06

ARCHITECTURE

plot scale 50mm

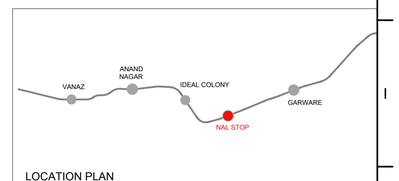
TBA





REFERENCE DRAWING SCHEDULE		
S.NO.	DESCRIPTION	REFERENCE DRAWING NO.
1.	GUTTER DETAILS	P2D01-LHA-AR-PRM-NST-DDT-9039
2.	SOLAR PANEL DETAIL	P2D01-LHA-AR-PRM-NST-DDT-9041/9042/ 9043/9044
3.	STATION ROOF DETAIL	P2D01-LHA-AR-PRM-NST-DDT-9105/9106 9107/9108/9109

NOTE:
1.STATION ROOF PEB COLUMNS (ROOF SUPPORTING SYSTEM) UNDER COORDIATION WITH STRUCTURE AND ROOF VENDOR.
2.FOR ANY FUTURE MODIFICATION IN ENTRY - EXIT, PLEASE REFER RESPECTIVE ENTRY - EXIT DETAIL DRAWINGS.



LOCATION PLAN

NOTES:
1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS MENTIONED.
2. ALL DIMENSIONS ARE TO BE READ AND NOT MEASURED.
3. ANY DISCREPANCY MUST BE BROUGHT TO THE NOTICE OF THE PMRP BEFORE EXECUTION OF WORK AT SITE.
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5. ALL DOOR/WINDOW CILL & LINTEL LEVELS ARE MEASURED FROM MAIN FLOOR FINISHED LEVELS.

REV NO	DATE	DESCRIPTION	SIGN
B01	02/08/2018	GAD Submission	
B02	12/03/2019	Submission of GFC Drawings	

THE RESPONSIBILITY OF CONTROL, CHECK & VERIFICATION OF ACCURACY, CORRECTNESS, COMPLETENESS, INTEGRATION & FULL COMPLIANCE OF THE CONTRACT PROVISIONS IN RESPECT OF DESIGN, ANALYSIS AND DRAWINGS RESTS WITH THE DETAILED DESIGN CONSULTANT / DETAILED DESIGN CONSULTANT & CONTRACTOR.
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DDC / CONTRACTOR				CONTRACTOR
SIGN:	SIGN:	SIGN:	SIGN:	SIGN:
DATE: 12/03/2019	DATE: 12/03/2019	DATE: 12/03/2019	DATE: 12/03/2019	DATE:
NAME: R.W.	NAME: P.N.	NAME: A.P.	NAME: L.K.T	NAME:
DRAWN BY	DESIGN BY	CHECKED BY	APPROVED BY	ACCEPTED BY

NOT APPLICABLE

Architect Hafeez Contractor

LKT - AHC
63/12A, IInd floor, Main Rama road, Najafgargh road, industrial area, opposite Kirti nagar Metro Station, New Delhi-110015, Phone:+ 011-4 5 5 6 5 8 1 4 - 1 8
i n f o @ l k t e n g i n e e r i n g . c o m

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PROOF CONSULTANT	
SIGN:	SIGN:
DATE:	DATE:
NAME: ---	NAME: ---
REVIEWED BY (STRUCT. ENGG.)	APPROVED BY (TEAM LEADER)

☐ Proof checked & Approved by GC
☐ Being Given No Objection
☐ Issued As Good For Construction.

N

SIGN:		SIGN:	
DATE:		DATE:	
NAME:	---	NAME:	---
REVIEWED BY		APPROVED BY	

SYSTRA-AECOM-EGIS-RITES
(GENERAL CONSULTANT TO PUNE METRO RAIL PROJECT)

COUNTER SIGNED BY MAHARASHTRA METRO RAIL CORPORATION LTD.

DY. HOD

HOD

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☐ REVISION AND RESUBMISSION REQUIRED SUBJECT TO THE COMMENTS AS NOTED

SYSTRA-AECOM-EGIS-RITES (GENERAL CONSULTANT TO PUNE METRO RAIL PROJECT)

Chief Integration Expert	Chief MEP Expert	Chief Telecom Expert	Chief Signalling Expert	Chief PS/Traction Expert

Architect Hafeez Contractor

Architectural Expert	Structural Expert	PHE Expert	Electrical Expert	Mechanical Expert
P.D.	H.S.	S.B	AJAY	W.S

PROJECT: PUNE METRO RAIL PROJECT
The Orion Building, 1st Floor, Opposite Don Bosco Center, Near Saint Mira's Girls College, Koregaon Park, Pune - 411001, MH, India

CLIENT: MAHARASHTRA METRO RAIL CORPORATION LTD.

LOCATION: NAL STOP METRO STATION

TITLE: ROOF LEVEL PLAN

SCALE: 1 : 250 | DATE: 12/03/2019 | STATUS: Good for Construction

DRG NO: P2D01-LHA-AR-PRM-NST-DRP-1004

REVISION NO: B02

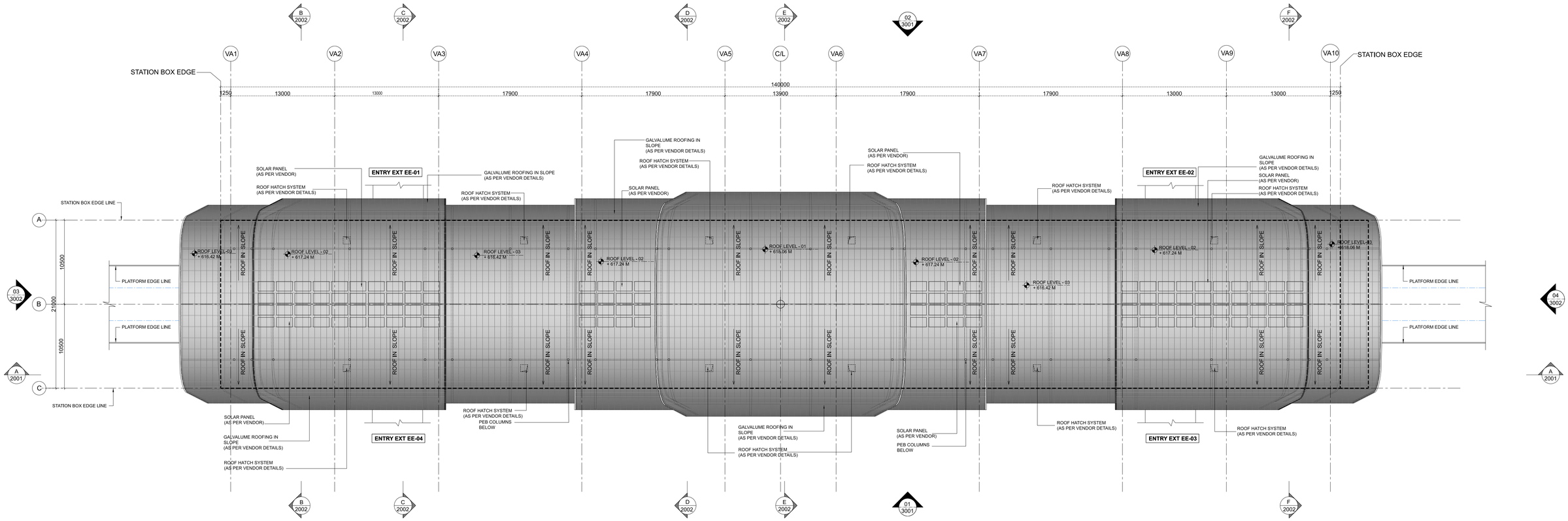
ARCHITECTURE

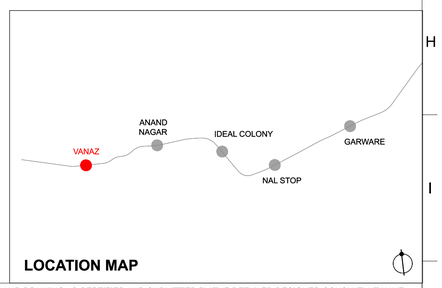
plot scale 50mm

TBA

TO VANAZ

TO RAMWADI





LOCATION MAP

REFERENCE DRAWING SCHEDULE		
S.NO.	DESCRIPTION	REFERENCE DRAWING NO.
01.	ROOF DETAIL DRAWING	P2D01-LHA-AR-PRM-VNZ-DDT-9105/06/07

NOTE:

1. FOR ENTRY - EXIT, PLEASE REFER RESPECTIVE ENTRY - EXIT DETAIL DRAWINGS.

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☐ NO OBJECTION ☐ NO OBJECTION SUBJECT TO THE COMMENTS AS NOTED ☐ REVISION AND RESUBMISSION REQUIRED SUBJECT TO THE COMMENTS AS NOTED

SYSTRA-AECOM-EGIS-RITES (GENERAL CONSULTANT TO PUNE METRO RAIL PROJECT)										
	Chief Integration Expert		Chief MEP Expert		Chief Telecom Expert		Chief Signalling Expert		Chief PS/Traction Expert	
Architect Hafeez Contractor	R.B.		H.S.		S.B		AJAY		W.S	
	Architectural Expert		Structural Expert		PHE Expert		Electrical Expert		Mechanical Expert	

NOTES:
1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS MENTIONED.
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☐ Proof checked & Approved by GC
☐ Being Given No Objection
☐ Issued As Good For Construction.

NORTH N

COUNTER SIGNED BY MAHARASHTRA METRO RAIL CORPORATION LTD.

DDC / CONTRACTOR				CONTRACTOR	PROOF CONSULTANT				DY. HOD
SIGN:	SIGN:	SIGN:	SIGN:	SIGN:	SIGN:	SIGN:	SIGN:		
DATE: 25/09/2019	DATE: 25/09/2019	DATE: 25/09/2019	DATE: 25/09/2019	DATE:	DATE:	DATE:	DATE:		
NAME: S.L.	NAME: P.N.	NAME: A.P.	NAME: L.K.T.	NAME:	NAME: ---	NAME: ---	NAME:	---	NAME: ---
DRAWN BY	DESIGN BY	CHECKED BY	APPROVED BY	ACCEPTED BY	REVIEWED BY (STRUCT. ENGG.)	APPROVED BY (TEAM LEADER)	REVIEWED BY	APPROVED BY	HOD

HOT APPLICABLE

REV NO	DATE	DESCRIPTION	SIGN
B01	27/07/2018	GAD Submission	
B02	21/01/2019	Submission of GFC Drawings	
B03	25/09/19	Revised GFC with changes in dry wall, room layouts as per GC/PMRP instructions.	

Architect Hafeez Contractor

LKT - AHC
63/12A, IInd floor, Main Rama road, Najafgargh road, industrial area, opposite Kirti nagar Metro Station, New Delhi-110015, Phone:+ 011-4 5 5 6 5 8 1 4 - 1 8
i n f o @ l k t e n g i n e e r i n g . c o m

SYSTRA-AECOM-EGIS-RITES
(GENERAL CONSULTANT TO PUNE METRO RAIL PROJECT)

PROJECT: PUNE METRO RAIL PROJECT
The Orion Building, 1st Floor, Opposite Don Bosco Center, Near Saint Mira's Girls College, Koregaon Park, Pune - 411001, MH, India

CLIENT: MAHARASHTRA METRO RAIL CORPORATION LTD.

LOCATION: Vanaz Station

TITLE: ROOF LEVEL PLAN

SCALE: 1:250 | DATE: 25/09/19 | STATUS: Good for Construction

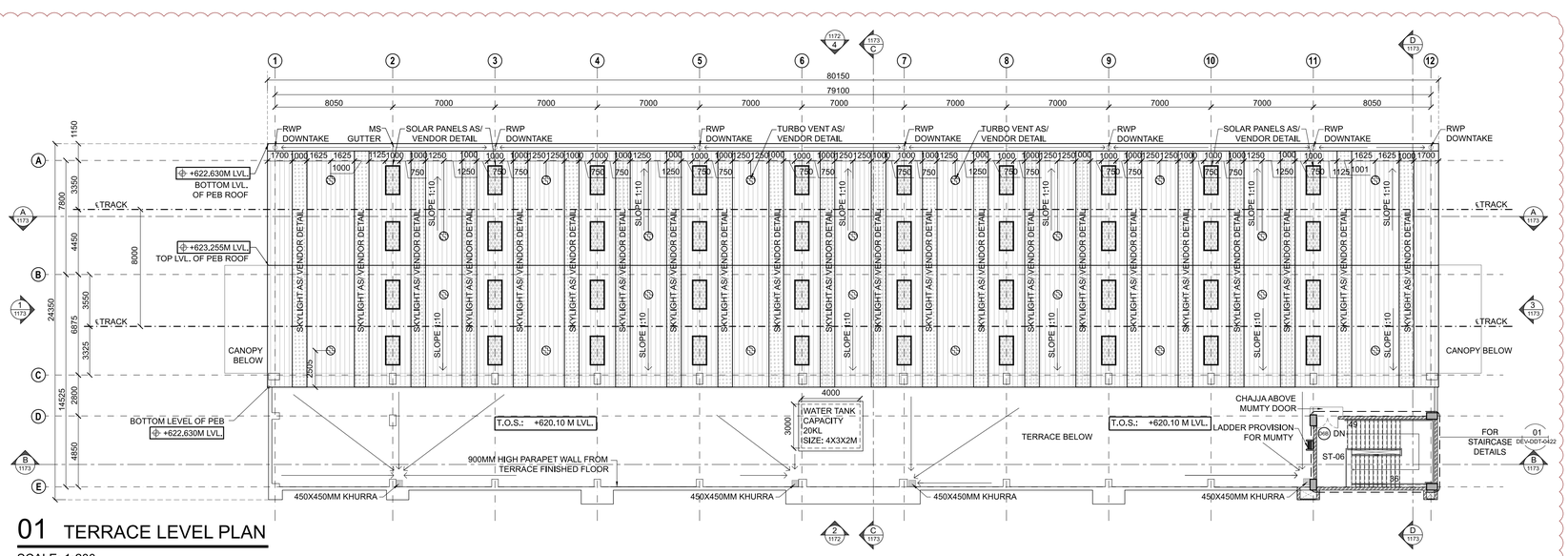
DRG NO: P2D01-LHA-AR-PRM-VNZ-DRP-1004

REVISION NO: B03

ARCHITECTURE

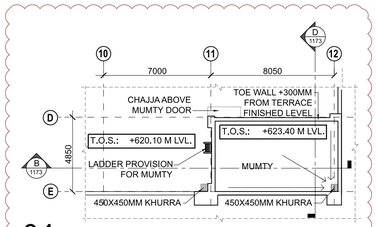
plot scale 50mm

TBA



01 TERRACE LEVEL PLAN

SCALE: 1:200



04 MUMTY LEVEL PLAN

SCALE: 1:200

VANAZ DEPOT: ETU + HIC BUILDING							
SHAFT CODE	SHAFT NAME	BOTTOM LEVEL	TOP LEVEL	LENGTH (in m)	WIDTH (in m)	AREA (in m²)	REMARKS
PLUMBING SHAFTS							
PL.01	Plumbing Shaft 01	GROUND LVL	ROOF LVL	1.12	0.45	0.50	Cutout for RWP
PL.02	Plumbing Shaft 02	GROUND LVL	ROOF LVL	0.65	0.75	0.49	Cutout for RWP
PL.03	Plumbing Shaft 03	GROUND LVL	ROOF LVL	7.05	0.75	5.29	Shaft for Plumbing Services
PL.04	Plumbing Shaft 04	GROUND LVL	ROOF LVL	0.65	0.75	0.49	Cutout for RWP
PL.05	Plumbing Shaft 05	GROUND LVL	ROOF LVL	1.12	0.45	0.50	Cutout for RWP
PL.06	Plumbing Shaft 06	GROUND LVL	MUMTY LVL	0.55	0.45	0.25	Cutout for RWP
FIRE SHAFTS							
FH.01	FHC 1	GROUND LVL	FIRST LVL	1.20	0.55	0.66	FHC and Sprinkler Riser Cutout
FH.02	FHC 2	GROUND LVL	FIRST LVL	1.20	0.55	0.66	FHC and Sprinkler Riser Cutout
ELECTRICAL SHAFTS							
EL.01	Electrical Shaft	GROUND LVL	FIRST LVL	0.75	0.45	0.34	Cutout for Electrical services
MECHANICAL SHAFTS							
SI.01	S&T Shaft 01	GROUND LVL	FIRST LVL	1.80	0.45	0.81	Cutout for S&T Cables
SI.02	S&T Shaft 01	GROUND LVL	FIRST LVL	1.80	0.45	0.81	Cutout for S&T Cables

DOOR, WINDOW & ROLLER SHUTTER SCHEDULE

S. NO.	TAG	TYPE	WIDTH	CILL	LINTEL	HEIGHT
DOORS						
1	D1A	ALUMINIUM DOOR	600	600	2450	1850
2	D4B	GI METAL DOOR	1000	0	2450	2450
3	D6B	GI METAL DOOR	1500	0	2450	2450
4	TD4B	GI METAL DOOR WITH GRILL	1000	0	2450	2450
5	VD4B	GI METAL DOOR WITH VISION PANEL	1000	0	2450	2450
6	VD6B	GI METAL DOOR WITH VISION PANEL	1500	0	2450	2450
7	GD4B	GLASS DOOR	1000	0	2450	2450
8	GD6B	GLASS DOOR	1800	0	2450	2450
WINDOW & VENTILATOR						
1	W2B	ALUMINIUM WINDOW	1200	900	2450	1550
2	V5C	ALUMINIUM WINDOW/VENTILATOR	600	1250	2450	1200
GLAZING						
1	GL1A	ALUMINIUM GLAZING	3600	100	2450	2350
2	GL3A	ALUMINIUM GLAZING	4500	100	2450	2350
ROLLER SHUTTER						
1	RS6D	ROLLING SHUTTER	5000	0	5000	5000

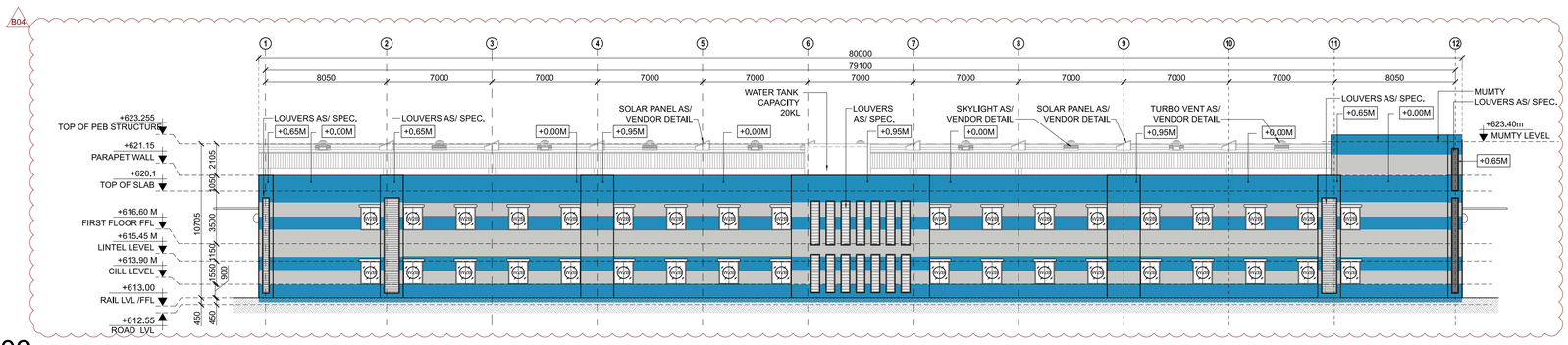
ABBREVIATIONS:
TOC. : TOP OF CONCRETE
FFL. : FLOOR FINISH LEVEL
RCC: REINFORCED CEMENT CONCRETE
ESC: ESCALATOR
LF: LIFT
ST: STAIRCASE

LEGEND:-
R.C.C COLUMNS
BLOCKWORK AS/ BOQ.

NOTE: POSITION & SIZE OF SOLAR PANELS ARE TENTATIVE.

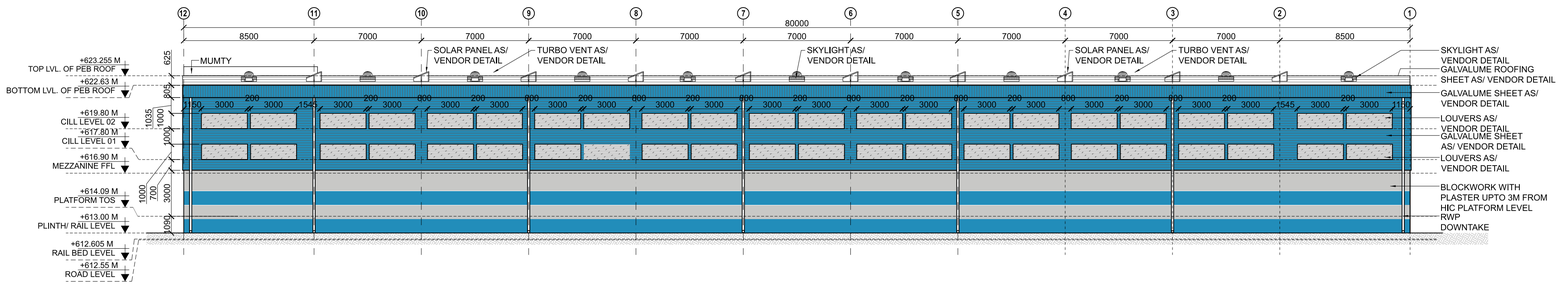
REFERENCE DRAWINGS:-

DRAWING NO.	DRAWING TITLE
DED01-ENI-AR-PRM-DEV-DRP-1001	SITE MASTER PLAN
DED01-ENI-AR-PRM-DEV-DRP-1004	SITE MARKING PLAN
DED01-ENI-AR-PRM-DEV-DRP-1101	INTEGRATED BUILDING
DED01-ENI-AR-PRM-DEV-DRP-1111	DECK STRUCTURE
DED01-ENI-AR-PRM-DEV-DRP-1705	PIT WHEEL LATHE
DED01-ENI-TR-PRM-DEV-DRP-8501	GAD FOR TRACK
DED01-ENI-TR-PRM-DEV-DRP-8502	GAD FOR TRACK



02 ELEVATION-2

SCALE: 1:200



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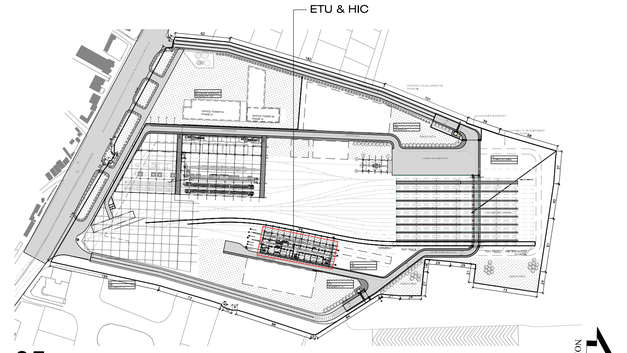
SCALE: 1:200



05 KEY PLAN | VANAZ DEPOT

SCALE: 1:NTS

NOTES:
1. ALL DIMENSIONS ARE IN M
2. ALL LEVELS IN METERS FROM MEAN SEA LEVEL UNLESS OTHERWISE MENTIONED
3. DIMENSIONS ARE NOT TO BE SCALED. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED
4. GRID DIMENSIONS FROM CENTER TO CENTER OF COLUMN. UNLESS NOTED OTHERWISE.
5. ALL R.C.C. AND STEEL MEMBER DIMENSIONS ARE INDICATIVE AND SUBJECT TO STRUCTURAL DESIGN.
6. FOR ARCHITECTURAL FINISHES, REFER SEPARATE FINISHES SCHEDULE.
7. FOR RAILING DETAILS, REFER SEPARATE DRAWINGS.
8. ANY DISCREPANCIES TO BE BROUGHT TO THE NOTICE OF THE ARCHITECT.

REV NO	DATE	DESCRIPTION	SIGN
B03	09/08/2019	REVISED AS PER GC COMMENTS	
B04	14/07/2020	REVISED AS PER GC COMMENTS	

THE RESPONSIBILITY OF CONTROL, CHECK & VERIFICATION OF ACCURACY, CORRECTNESS, COMPLETENESS, INTEGRATION & FULL COMPLIANCE OF THE CONTRACT PROVISIONS IN RESPECT OF DESIGN, ANALYSIS AND DRAWINGS RESTS WITH THE DETAILED DESIGN CONSULTANT / DETAILED DESIGN CONSULTANT & CONTRACTOR.
IT IS CERTIFIED THAT THERE IS NO CHANGE IN THIS GFCD FROM THE ALREADY APPROVED CR DWG NO. "..... REV....." APPROVED ON DATE .....

THIS DRAWING INCLUDING ITS DESIGN AND DETAILING HAS BEEN **PROOF CHECKED** INDEPENDENTLY AND FOUND SUITABLE FOR THE EXECUTION PURPOSE AND IS RECOMMENDED FOR GFC / NO OBJECTION'.

☐ Proof checked & Approved by GC
☐ Being Given No Objection
☐ Issued As Good For Construction.

COUNTER SIGNED BY MAHARASHTRA METRO RAIL CORPORATION LTD.

DDC / CONTRACTOR				CONTRACTOR	PROOF CONSULTANT					
SIGN:	SIGN:	SIGN:	SIGN:	SIGN:	SIGN:	SIGN:	SIGN:		SIGN:	
DATE: 14.07.2020	DATE: 14.07.2020	DATE: 14.07.2020	DATE: 14.07.2020	DATE:	DATE:	DATE:	DATE:		DATE:	
NAME: SN	NAME: VS	NAME: KK	NAME: SM	NAME:	NAME: ---	NAME: ---	NAME:	---	NAME:	---
DRAWN BY	DESIGN BY	CHECKED BY	APPROVED BY	ACCEPTED BY	REVIEWED BY (STRUCT. ENGG.)	APPROVED BY (TEAM LEADER)	REVIEWED BY		APPROVED BY	

NOT APPLICABLE

Consultant- Enia

KG-1/265, Vikaspuri,
New Delhi, India
Tel.: +91 9971 691803 / +91 9818 629588
s.manchanda@enia.in / a.joshi@enia.in
www.enia.in

SUB CONSULTANT:-
ANALYST CONSULTANTS
AEON CONSULTANTS

SYSTRA-AECOM-EGIS-RITES
(GENERAL CONSULTANT TO PUNE METRO RAIL PROJECT)

DY. HOD
HOD

PROJECT: PUNE METRO RAIL PROJECT
The Orion Building, 1st Floor, Opposite Don Bosco Center, Near Saint Mira's Girls College, Koregaon Park, Pune - 411001, MH, India

CLIENT: MAHARASHTRA METRO RAIL CORPORATION LTD.

LOCATION: Depot for Vanaz

TITLE: ETU & HIC BUILDING
ROOF PLAN, ELEVATIONS

SCALE: AS SHOWN | DATE: 14/07/2020 | STATUS: Good for Detailed Design

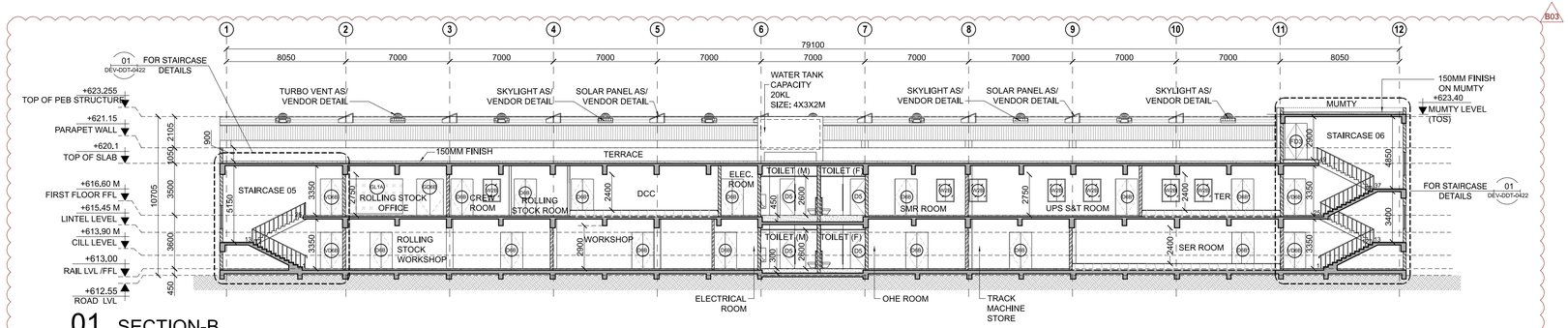
DRG NO: DED01-ENI-AR-PRM-DEV-DRC-1172

REVISION NO: B04

ARCHITECTURE

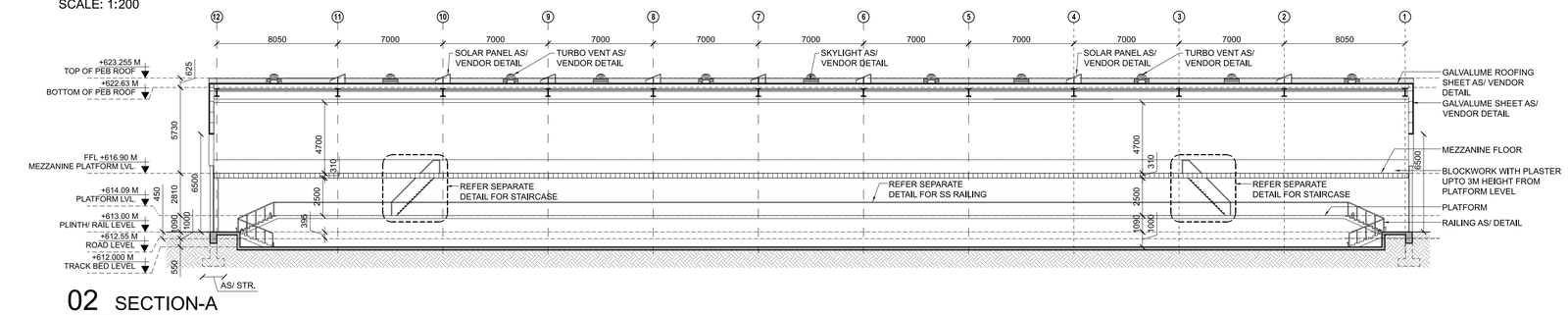
TBA

plot scale 50mm



01 SECTION-B

SCALE: 1:200



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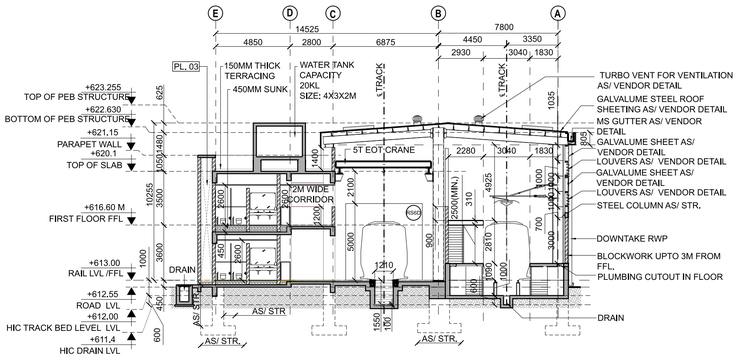

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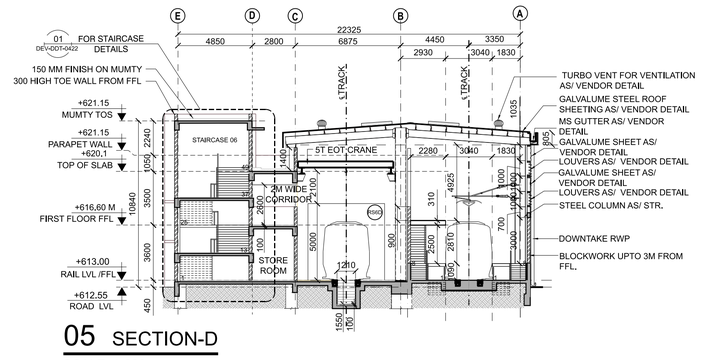

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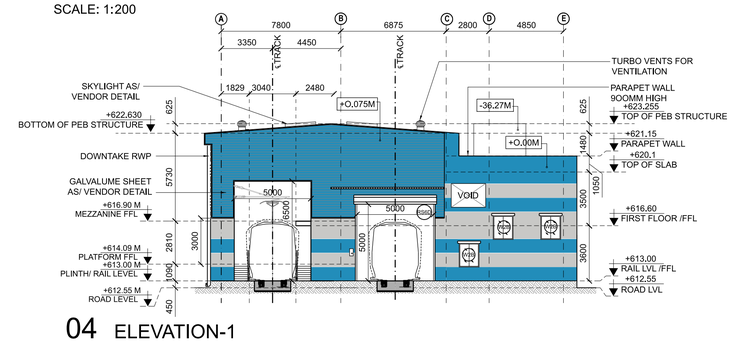

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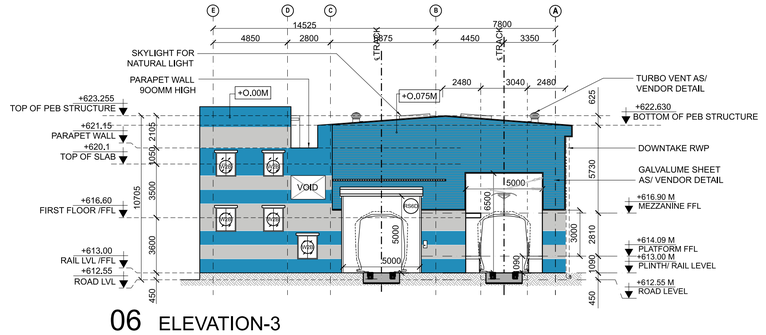
SCALE: 1:200



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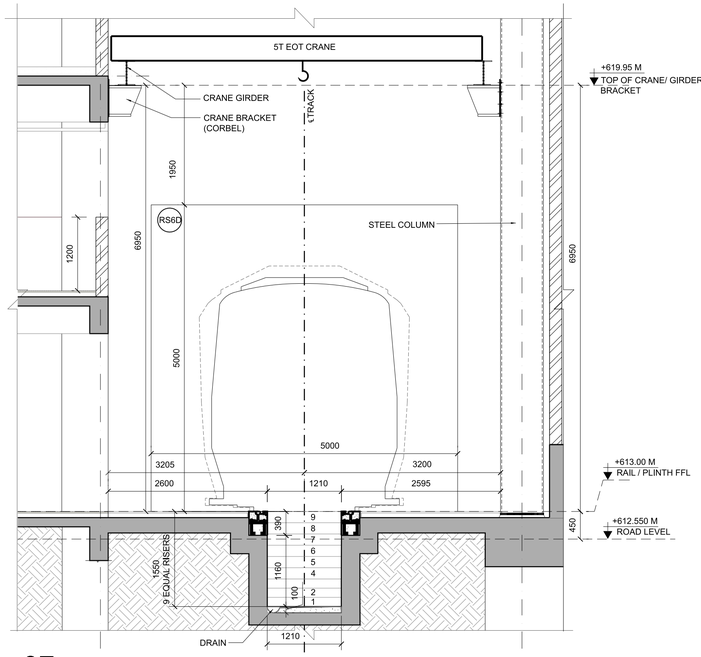
SCALE: 1:200



07 ETU PIT DETAIL

SCALE: 1:50

DOOR, WINDOW & ROLLER SHUTTER SCHEDULE

S. NO.	TAG	TYPE	WIDTH	CILL	LINTEL	HEIGHT
DOORS						
1	D1A	ALUMINIUM DOOR	600	600	2450	1850
2	D4B	GI METAL DOOR	1000	0	2450	2450
3	D6B	GI METAL DOOR	1500	0	2450	2450
4	TD4B	GI METAL DOOR WITH GRILL	1000	0	2450	2450
5	VD4B	GI METAL DOOR WITH VISION PANEL	1000	0	2450	2450
6	VD6B	GI METAL DOOR WITH VISION PANEL	1500	0	2450	2450
7	GD4B	GLASS DOOR	1000	0	2450	2450
8	GD6B	GLASS DOOR	1800	0	2450	2450
WINDOW & VENTILATOR						
1	W2B	ALUMINIUM WINDOW	1200	900	2450	1550
2	V5C	ALUMINIUM WINDOW/VENTILATOR	600	1250	2450	1200
GLAZING						
1	GL1A	ALUMINIUM GLAZING	3600	100	2450	2350
2	GL3A	ALUMINIUM GLAZING	4500	100	2450	2350
ROLLER SHUTTER						
1	RS6D	ROLLING SHUTTER	5000	0	5000	5000

REFERENCE DRAWINGS:-

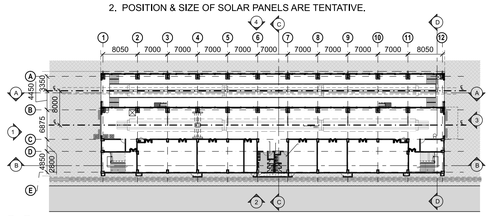
DRAWING NO.	DRAWING TITLE
DED01-ENI-AR-PRM-DEV-DRP-1001	SITE MASTER PLAN
DED01-ENI-AR-PRM-DEV-DRP-1004	SITE MARKING PLAN
DED01-ENI-AR-PRM-DEV-DRP-1101	INTEGRATED BUILDING
DED01-ENI-AR-PRM-DEV-DRP-1111	DECK STRUCTURE
DED01-ENI-AR-PRM-DEV-DRP-1705	PIT WHEEL LATHE
DED01-ENI-TR-PRM-DEV-DRP-8501	GAD FOR TRACK
DED01-ENI-TR-PRM-DEV-DRP-8502	GAD FOR TRACK

LEGEND:-
- R.C.C COLUMNS
- BLOCKWORK AS/ BOQ

VANAZ DEPOT: ETU + HIC BUILDING

SHAFT CODE	SHAFT NAME	BOTTOM LEVEL	TOP LEVEL	LENGTH (in m)	WIDTH (in m)	AREA (in m²)	REMARKS
PLUMBING SHAFTS							
PL.01	Plumbing Shaft 01	GROUND LVL	ROOF LVL	1.12	0.45	0.50	Cutout for RWP
PL.02	Plumbing Shaft 02	GROUND LVL	ROOF LVL	0.65	0.75	0.49	Cutout for RWP
PL.03	Plumbing Shaft 03	GROUND LVL	ROOF LVL	7.05	0.75	5.29	Shaft for Plumbing Services
PL.04	Plumbing Shaft 04	GROUND LVL	ROOF LVL	0.65	0.75	0.49	Cutout for RWP
PL.05	Plumbing Shaft 05	GROUND LVL	ROOF LVL	1.12	0.45	0.50	Cutout for RWP
PL.06	Plumbing Shaft 06	GROUND LVL	MUMTY LVL	0.55	0.45	0.25	Cutout for RWP
FIRE SHAFTS							
FH.01	FHC 1	GROUND LVL	FIRST LVL	1.20	0.55	0.66	FHC and Sprinkler Riser Cutout
FH.02	FHC 2	GROUND LVL	FIRST LVL	1.20	0.55	0.66	FHC and Sprinkler Riser Cutout
ELECTRICAL SHAFTS							
EL.01	Electrical Shaft	GROUND LVL	FIRST LVL	0.75	0.45	0.34	Cutout for Electrical services
MECHANICAL SHAFTS							
SI.01	S&T Shaft 01	GROUND LVL	FIRST LVL	1.80	0.45	0.81	Cutout for S&T Cables
SI.02	S&T Shaft 01	GROUND LVL	FIRST LVL	1.80	0.45	0.81	Cutout for S&T Cables

NOTE:
1. TYPE OF DOOR HAVING " * " (FIRE RATED/ NON FIRE RATED) WILL BE DECIDED BY GC/MAHA METRO.
2. POSITION & SIZE OF SOLAR PANELS ARE TENTATIVE.



08 KEY PLAN | ETU+HIC

SCALE: 1:NTS

NOTES:
1. ALL DIMENSIONS ARE IN M
2. ALL LEVELS IN METERS FROM MEAN SEA LEVEL UNLESS OTHERWISE MENTIONED
3. DIMENSIONS ARE NOT TO BE SCALED. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED
4. GRID DIMENSIONS FROM CENTER TO CENTER OF COLUMN. UNLESS NOTED OTHERWISE.
5. ALL R.C.C. AND STEEL MEMBER DIMENSIONS ARE INDICATIVE AND SUBJECT TO STRUCTURAL DESIGN.
6. FOR ARCHITECTURAL FINISHES, REFER SEPARATE FINISHES SCHEDULE.
7. FOR RAILING DETAILS, REFER SEPARATE DRAWINGS.
8. ANY DISCREPANCIES TO BE BROUGHT TO THE NOTICE OF THE ARCHITECT.

REV NO	DATE	DESCRIPTION	SIGN
B02	09/08/2019	REVISED AS PER GC COMMENTS	
B03	14/07/2020	REVISED AS PER GC COMMENTS	

THE RESPONSIBILITY OF CONTROL, CHECK & VERIFICATION OF ACCURACY, CORRECTNESS, COMPLETENESS, INTEGRATION & FULL COMPLIANCE OF THE CONTRACT PROVISIONS IN RESPECT OF DESIGN, ANALYSIS AND DRAWINGS RESTS WITH THE DETAILED DESIGN CONSULTANT / DETAILED DESIGN CONSULTANT & CONTRACTOR.
IT IS CERTIFIED THAT THERE IS NO CHANGE IN THIS GFCD FROM THE ALREADY APPROVED CR DWG NO. "..... REV....." APPROVED ON DATE .....

DDC / CONTRACTOR				CONTRACTOR
SIGN:	SIGN:	SIGN:	SIGN:	SIGN:
DATE: 14.07.2020	DATE: 14.07.2020	DATE: 14.07.2020	DATE: 14.07.2020	DATE:
NAME: SN	NAME: VS	NAME: KK	NAME: SM	NAME:
DRAWN BY	DESIGN BY	CHECKED BY	APPROVED BY	ACCEPTED BY

NOT APPLICABLE

PROOF CONSULTANT	
SIGN:	SIGN:
DATE:	DATE:
NAME: ---	NAME: ---
REVIEWED BY (STRUCT. ENGG.)	APPROVED BY (TEAM LEADER)

THIS DRAWING INCLUDING ITS DESIGN AND DETAILING HAS BEEN **PROOF CHECKED** INDEPENDENTLY AND FOUND SUITABLE FOR THE EXECUTION PURPOSE AND IS RECOMMENDED FOR GFC / NO OBJECTION'.

☐ Proof checked & Approved by GC
☐ Being Given No Objection
☐ Issued As Good For Construction.

SIGN:		SIGN:	
DATE:		DATE:	
NAME:	---	NAME:	---
REVIEWED BY		APPROVED BY	

COUNTER SIGNED BY MAHARASHTRA METRO RAIL CORPORATION LTD.

DY. HOD

HOD

Consultant- Enia

KG-1/265, Vikaspuri, New Delhi, India
Tel.: +91 9971 691803 / +91 9818 629588
s.manchanda@enia.in / a.joshi@enia.in
www.enia.in

SUB CONSULTANT:-
ANALYST CONSULTANTS
AEON CONSULTANTS

SYSTRA-AECOM-EGIS-RITES
(GENERAL CONSULTANT TO PUNE METRO RAIL PROJECT)

PROJECT: PUNE METRO RAIL PROJECT
The Orion Building, 1st Floor, Opposite Don Bosco Center, Near Saint Mira's Girls College, Koregaon Park, Pune - 411001, MH, India

CLIENT: MAHARASHTRA METRO RAIL CORPORATION LTD.

LOCATION: Depot for Vanaz

TITLE: ETU & HIC BUILDING SECTIONS & ELEVATIONS

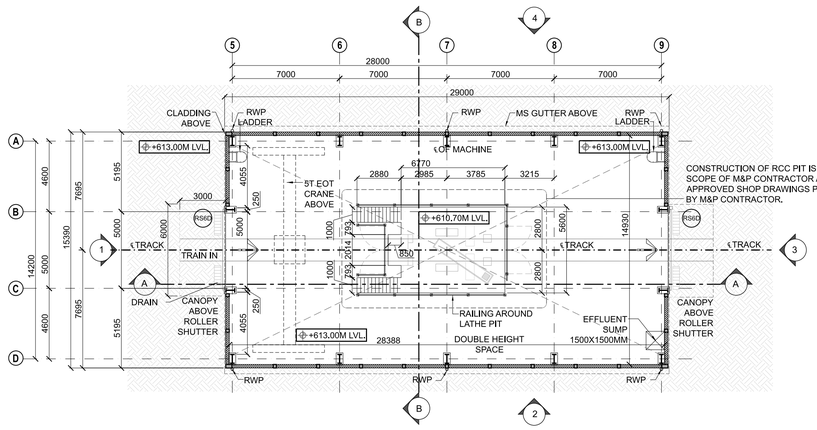
SCALE: AS SHOWN | DATE: 14/07/2020 | STATUS: Good for Construction | REVISION NO: B03

DRG NO: DED01-ENI-AR-PRM-DEV-DRC-1173

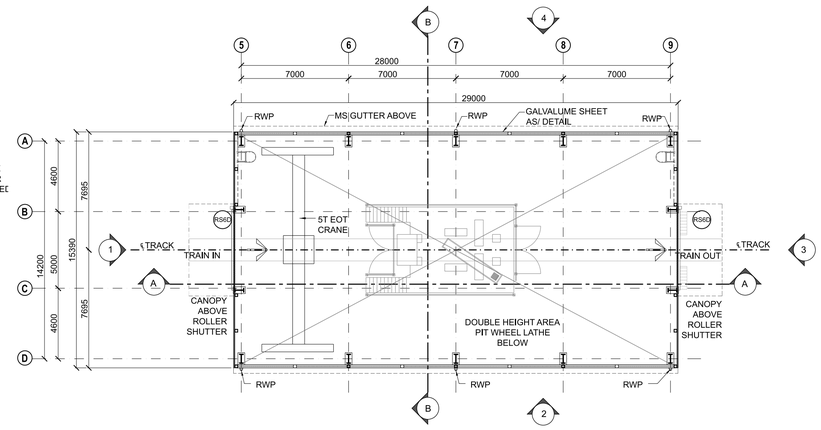
ARCHITECTURE

TBA

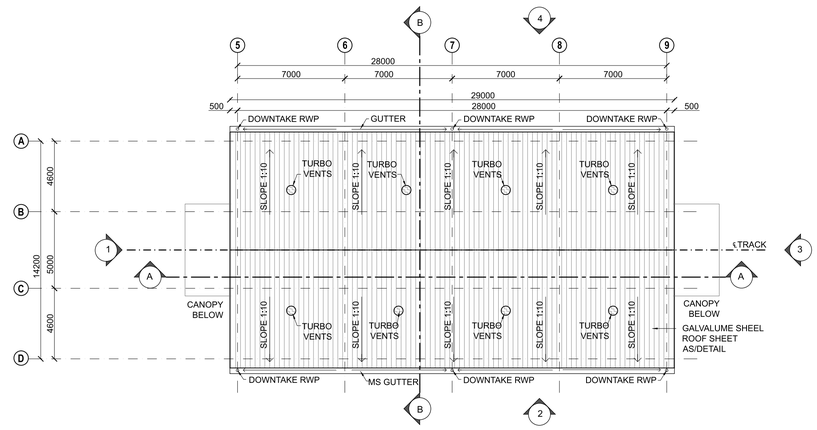
plot scale 50mm



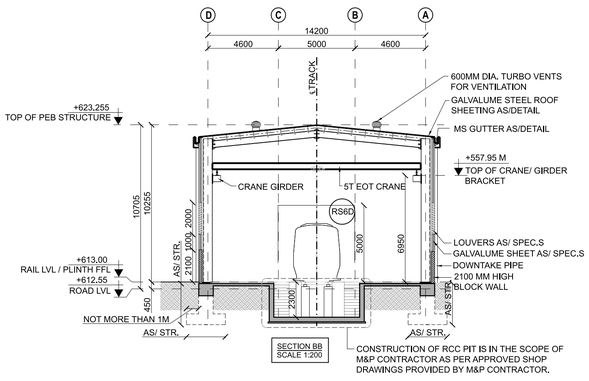
GROUND FLOOR PLAN
SCALE 1:200



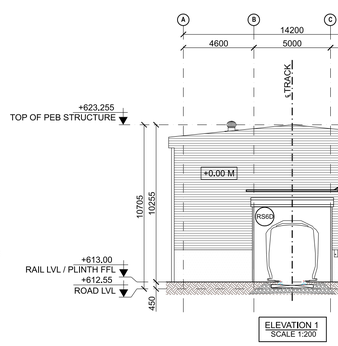
MID-LEVEL PLAN
SCALE 1:200



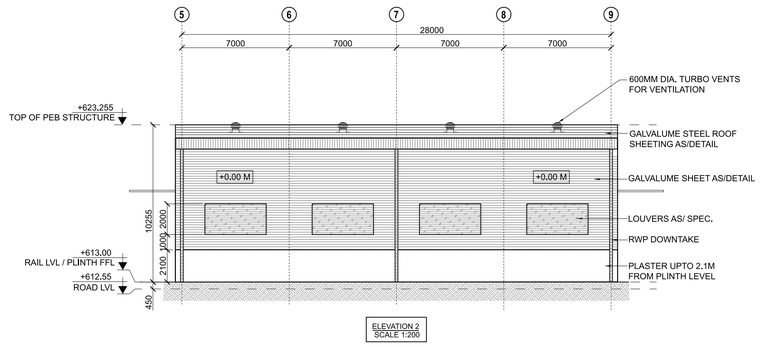
ROOF LEVEL PLAN
SCALE 1:200



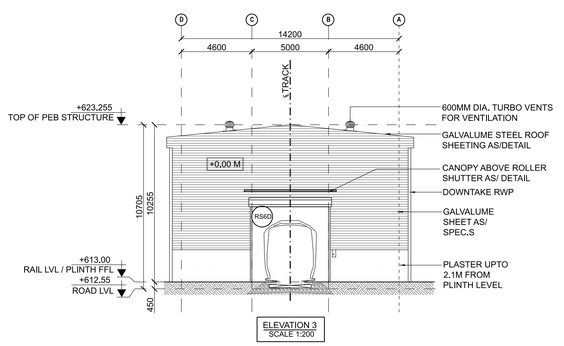
SECTION BB
SCALE 1:200



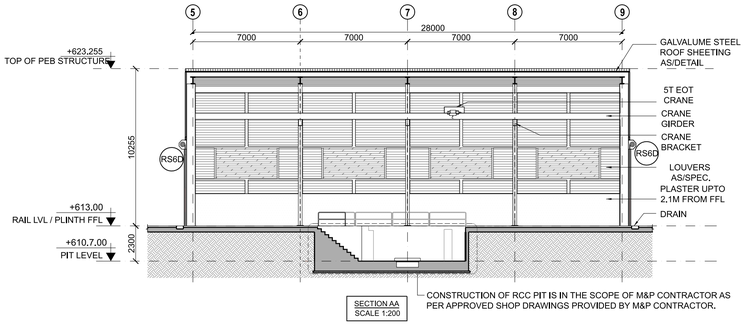
ELEVATION 1
SCALE 1:200



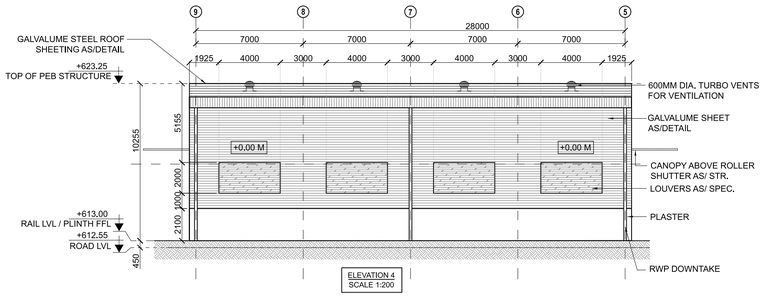
ELEVATION 2
SCALE 1:200



ELEVATION 3
SCALE 1:200

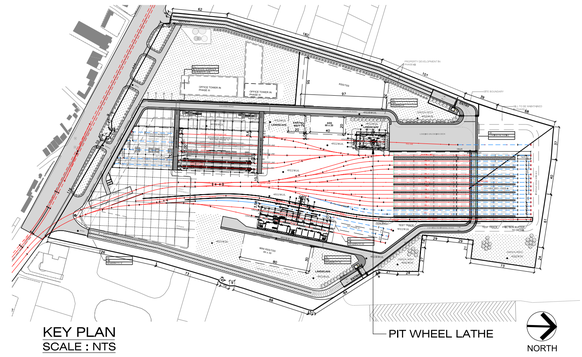


SECTION AA
SCALE 1:200



ELEVATION 4
SCALE 1:200

REFERENCE DRAWINGS:-	
DRAWING NO.	DRAWING TITLE
DED01-ENI-AR-PRM-DEV-DRP-1001	SITE MASTER PLAN
DED01-ENI-AR-PRM-DEV-DRP-1004	SITE MARKING PLAN
DED01-ENI-AR-PRM-DEV-DRP-1101	INTEGRATED BUILDING
DED01-ENI-AR-PRM-DEV-DRP-1111	ADMIN CUM OCC BUILDING
DED01-ENI-AR-PRM-DEV-DRP-1151	HIC
DED01-ENI-AR-PRM-DEV-DRP-1171	ETU
DED01-ENI-TR-PRM-DEV-DRP-8501	GAD FOR TRACK
DED01-ENI-TR-PRM-DEV-DRP-8502	GAD FOR TRACK



KEY PLAN
SCALE : NTS

VANAZ DEPOT: PIT WHEEL LATHE						
ROLLER SHUTTER SCHEDULE						
S NO.	NAME	WIDTH (M)	HEIGHT	CILL	LINTEL	REMARKS
1	RS6D	5000	5000	-	5000	ROLLING SHUTTER AS PER VENDOR SPECIFICATION

NOTES:-

- IN ABSENCE OF M&P CONTRACTOR, IT WAS INSTRUCTED BY GC/MM TO FOLLOW M&P SHOP DRAWINGS/ INPUTS OF NAGPUR METRO,
- NAGPUR METRO M&P SHOP DRAWINGS WERE PROVIDED BY GC ON 21.01.2020
- BASED ON THE ABOVE SHOP DRAWINGS, THESE GFC DRAWINGS ARE UPDATED.
- EOT CRANE DETAILS ARE AS PER DETAIL DRAWING SHARED BY URC WITH LETTER DATED 04.07.2019
- **NO CASTING TO BE DONE ON SITE WITHOUT APPROVED SHOP DRAWINGS OF M&P.**

CIVIL LEGENDS:		
SYMBOL	DESCRIPTION	BOQ. NO./ REFERENCE DWG. NO.
	COLUMN,PIER AND STRUCTURE HATCH IN PLAN AND SECTION	-
	LIGHT WEIGHT CONCRETE BLOCKWORK [EXTERNAL WALL]	SCHEDULE B1/1/1.4
	200 X 230 MULLION	DED01-ENI-CV-PRM-DEV-DDE-2421
	400 X 230 MULLION	DED01-ENI-CV-PRM-DEV-DDE-2421

NOTES:
1. ALL DIMENSIONS ARE IN MM
2. ALL LEVELS IN METERS FROM MEAN SEA LEVEL UNLESS OTHERWISE MENTIONED
3. DIMENSIONS ARE NOT TO BE SCALED. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED
4. ALL DIMENSIONS ARE INDICATIVE AND ARE SUBJECTED TO CHANGE DURING DETAILED DESIGN.
5. GRID DIMENSIONS FROM CENTER TO CENTER OF COLUMN.
6. ALL R.C.C. AND STEEL MEMBER DIMENSIONS ARE INDICATIVE AND SUBJECT TO STRUCTURAL DESIGN.
7. FOR ARCHITECTURAL FINISHES, REFER SEPARATE FINISHES SCHEDULE.
8. FOR RAILING DETAILS, REFER SEPARATE DRAWINGS.
9. ANY DISCREPANCIES TO BE BROUGHT TO THE NOTICE OF THE ARCHITECT.

REV NO	DATE	DESCRIPTION	SIGN
B01	17/01/2019	REVISED AS PER GC COMMENTS	
B02	10/04/2020	REVISED AS PER M&P INPUTS	

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IT IS CERTIFIED THAT THERE IS NO CHANGE IN THIS GFCD FROM THE ALREADY APPROVED CR DWG NO. "..... REV....." APPROVED ON DATE .....

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☐ Proof checked & Approved by GC
☐ Being Given No Objection
☐ Issued As Good For Construction.

COUNTER SIGNED BY MAHARASHTRA METRO RAIL CORPORATION LTD.

DDC / CONTRACTOR				CONTRACTOR	PROOF CONSULTANT				DY. HOD
SIGN:	SIGN:	SIGN:	SIGN:	SIGN:	SIGN:	SIGN:	SIGN:	SIGN:	
DATE: 10.04.2020	DATE: 10.04.2020	DATE: 10.04.2020	DATE: 10.04.2020	DATE:	DATE:	DATE:	DATE:	DATE:	
NAME: SN	NAME: VS	NAME: KK	NAME: SM	NAME:	NAME: ---	NAME: ---	NAME:	NAME: ---	
DRAWN BY	DESIGN BY	CHECKED BY	APPROVED BY	ACCEPTED BY	REVIEWED BY (STRUCT. ENGG.)	APPROVED BY (TEAM LEADER)	REVIEWED BY	APPROVED BY	

NOT APPLICABLE

Consultant- Enia

KG-1/265, Vikaspuri,
New Delhi, India
Tel.: +91 9971 691803 / +91 9818 629588
s.manchanda@enia.in / a.joshi@enia.in
www.enia.in

SUB CONSULTANT:-

ANALYST CONSULTANTS
AEON CONSULTANTS

SYSTRA-AECOM-EGIS-RITES
(GENERAL CONSULTANT TO PUNE METRO RAIL PROJECT)

HOD

PROJECT: PUNE METRO RAIL PROJECT
The Orion Building, 1st Floor, Opposite Don Bosco Center, Near Saint Mira's Girls College, Koregaon Park, Pune - 411001, MH, India

CLIENT: MAHARASHTRA METRO RAIL CORPORATION LTD.

LOCATION: Depot for Vanaz

TITLE: PIT WHEEL LATHE
PLANS, SECTIONS & ELEVATIONS

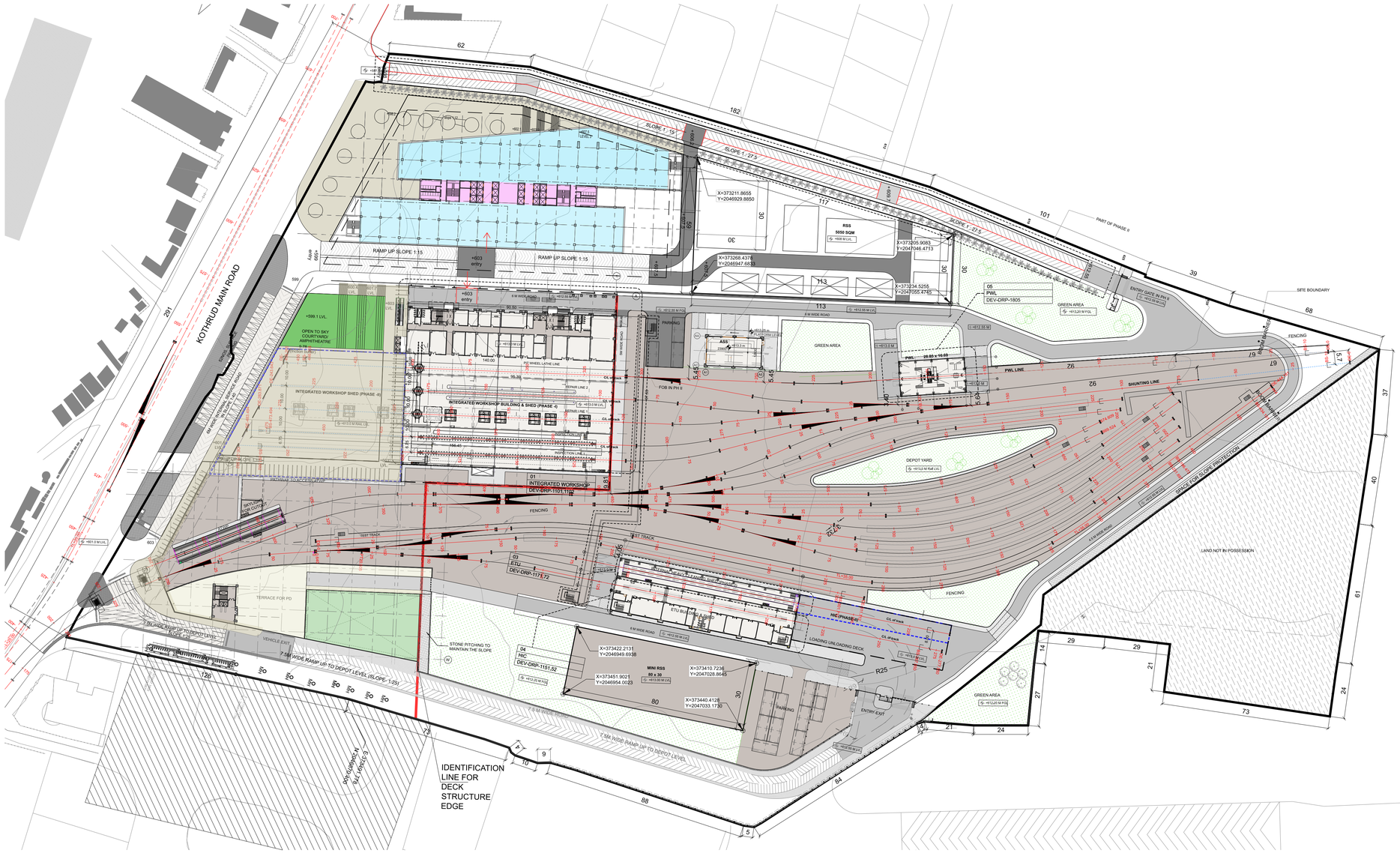
SCALE: AS SHOWN | DATE: 10/04/2020 | STATUS: Good for Construction | REVISION NO: B02

DRG NO: DED01-ENI-AR-PRM-DEV-DRC-1705

ARCHITECTURE

TBA

plot scale 50mm



MASTER PLAN

SCALE - 1:1000

SUMMARY OF FACILITIES / BUILDINGS

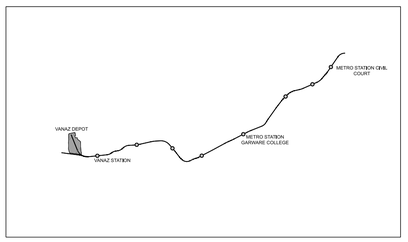
S.NO.	FACILITIES / LINES	MASTER PLAN	AT END OF PHASE-1	ADDITIONAL IN PH-2
1	Integrated Workshop Building			
	RCC Shop Floors + Admin offices on side of repair/inspection bays	90,50 x 20m RCC Bldg G+2 Floors Total BUA = 5400 sqm	90 x 20m RCC Building G+2 Floors Total BUA = 5400 sqm	
	Workshop Repair Lines	2 repair lines x 6 car long Covered by Pre-Fab Shed 150(min) x 31,20m Shed Total BUA = 4634,72 sqm	2 repair lines x 3 car long Covered by Pre-Fab Shed 90,50 x 31,20m Shed Total BUA = 2823,60 sqm	extension of lines to 6 car length extn. of shed over deck
	Inspection Lines	2 insp lines x 6 car long Covered by Pre-Fab Shed 156,45(min)x16,35m Shed Total BUA = 2623,36 sqm	2 repair lines x 3 car long Covered by Pre-Fab Shed 90,50 x 16,35m Shed Total BUA = 1479,38 sqm	extension of lines to 6 car length extn. of shed over deck
2	Stabling Lines	10 Stabling lines x 6 car long	10 Stabling lines x 6 car long	
3	ETU Building & Shed	80m x 8m RCC Building G+1 RCC Building 80m x 7m Pre-Fab Shed	80m x 8m RCC Building G+1 RCC Building 80m x 7m Pre-Fab Shed	-
4	Pit Wheel Lathe (PWL)	28,85m x 15,4m PreFab Shed with RCC Pit by M&P	28,85m x 15,4m PreFab Shed with RCC Pit by M&P	-
5	Automatic Train Wash Plant (ATWP)	50m long Wash Plant with control room & recyling	50m long Wash Plant with control room & recyling	-
6	Heavy Internal Cleaning Shed (HIC)	160m x 8m for 6 car with prefab shed	80m x 8m for 3 car with prefab shed	extension of lines to 6 car length extn. of shed
7	Auxilliary Substation (ASS)	40 x 20m / 800 sqm	40 x 20m / 800 sqm	-
8	Receiving Substation (RSS)	97 x 30m (min) / 4000 sqm	97 x 30m (min) 4000 sqm	-
9	Mini Receiving Substation (Mini RSS) for priority section	80 x 30M / 2400 sqm	80 x 30M / 2400 sqm	-
10	Test Track	408m long incl buffers	408m long incl buffers	-
11	Loadlng-Unloading Deck	70 x 20m (min) permanent loading-unloading deck	70 x 20m (min) permanent loading-unloading deck	-
12	Other Misc. Facilities	Road Network, Security Time Office, Main Gates Car Parking Sheds, UGWT ETP/STP (Biodigestor) as per design,	Road Network, Security Time Office, Main Gates Car Parking Sheds, UGWT ETP/STP (Biodigestor) as per design,	-

LEGEND

S.NO.	DESCRIPTION	SYMBOL
1	TREE	
2	BOOM BARRIER	
3	COLUMN IN PHASE I	
4	COLUMN IN PHASE II	
5	TRACK IN PHASE I	
6	TRACK IN PHASE II	
7	PATHWAY/PLATFORM FOR STABLING LINES PHASE I	
8	PATHWAY/PLATFORM FOR STABLING LINES PHASE II	
9	BUFFER STOP	
10	DEAD END	

REFERENCE DRAWINGS:-

DRAWING NO.	DRAWING TITLE
-DED01-ENI-AR-PRM-DEV-DRP-1001	SITE MASTER PLAN
-DED01-ENI-AR-PRM-DEV-DRP-1002	SURVEY PLAN WITH DEPOT BOUNDARY
-DED01-ENI-AR-PRM-DEV-DRP-1004	SITE MARKING PLAN
-DED01-ENI-AR-PRM-DEV-DRP-1101	INTEGRATED WORKSHOP BUILDING
-DED01-ENI-AR-PRM-DEV-DRP-1111	DECK STRUCTURE
-DED01-ENI-AR-PRM-DEV-DRP-1151	HIC
-DED01-ENI-AR-PRM-DEV-DRP-1171	ETU & SHED
-DED01-ENI-AR-PRM-DEV-DRP-1705	PIT WHEEL LATHE
-DED01-ENI-TR-PRM-DEV-DRP-8501	GAD FOR TRACK
-DED01-ENI-TR-PRM-DEV-DRP-8502	GAD FOR TRACK



KEY PLAN

NOTES:

THE RESPONSIBILITY OF CONTROL, CHECK & VERIFICATION OF ACCURACY, CORRECTNESS, COMPLETENESS, INTEGRATION & FULL COMPLIANCE OF THE CONTRACT PROVISIONS IN RESPECT OF DESIGN, ANALYSIS AND DRAWINGS RESTS WITH THE DETAILED DESIGN CONSULTANT / DETAILED DESIGN CONSULTANT & CONTRACTOR.
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☐ Proof checked & Approved by GC
☐ Being Given No Objection
☐ Issued As Good For Construction.

COUNTER SIGNED BY MAHARASHTRA METRO RAIL CORPORATION LTD.

DDC / CONTRACTOR				CONTRACTOR	PROOF CONSULTANT					
SIGN:	SIGN:	SIGN:	SIGN:	SIGN:	SIGN:	SIGN:	SIGN:		SIGN:	
DATE: 02.07.2020	DATE: 02.07.2020	DATE: 02.07.2020	DATE: 02.07.2020	DATE:	DATE:	DATE:	DATE:		DATE:	
NAME: VS	NAME: VS	NAME: SM	NAME: SM	NAME:	NAME: ---	NAME: ---	NAME:	---	NAME:	---
DRAWN BY	DESIGN BY	CHECKED BY	APPROVED BY	ACCEPTED BY	REVIEWED BY (STRUCT. ENGG.)	APPROVED BY (TEAM LEADEV)	REVIEWED BY		APPROVED BY	

DY. HOD

HOD

REV NO	DATE	DESCRIPTION	SIGN
A01	15.03.2018	FIRST ISSUE	
A02	27.06.2018	REVISED AS PER GC COMMENTS	
A03	03.08.2018	REVISED AS PER GC COMMENTS	
B01	07.01.2018	REVISED AS PER MOM DATED 07.12.2018	
B02	17.01.2019	REVISED AS PER GC COMMENTS	
B03	20/07/2020	REVISED AS LAND AVAILABILTY	

Consultant- Enia

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s.manchanda@enia.in / a.joshi@enia.in
www.enia.in

SUB CONSULTANT:-

ANALYST CONSULTANTS
AEON CONSULTANTS

NOT APPLICABLE

SYSTRA-AECOM-EGIS-RITES
(GENERAL CONSULTANT TO PUNE METRO RAIL PROJECT)

PROJECT: PUNE METRO RAIL PROJECT
The Orion Building, 1st Floor, Opposite Don Bosco Center, Near Saint Mira's Girls College, Koregaon Park, Pune - 411001, MH, India

CLIENT: MAHARASHTRA METRO RAIL CORPORATION LTD.

LOCATION: Depot for Vanaz

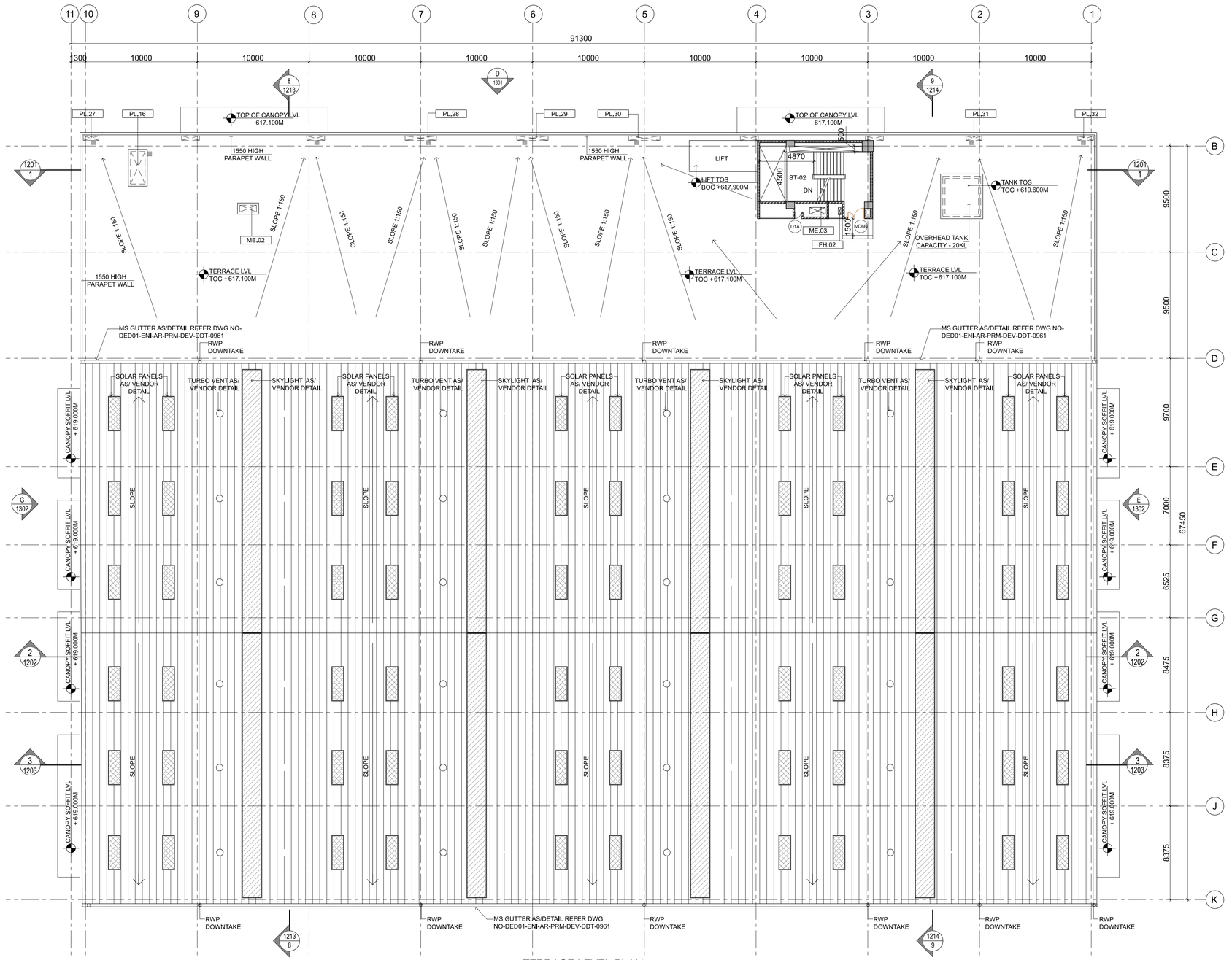
TITLE: MASTER PLAN (REVISED) DECK LEVEL (613 MSL)

SCALE: AS SHOWN | DATE: 20/07/2020 | STATUS: Good for Construction | REVISION NO: B03

DRG NO: DED01-ENI-AR-PRM-DEV-DRP-1001

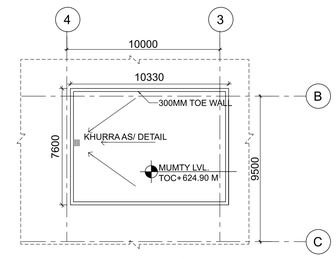
plot scale 50mm

TBA



TERRACE LEVEL PLAN

SCALE : 1:200



MUMTY LEVEL PLAN

SCALE : 1:200

VANAZ DEPOT | WB | DECK & DECK+1 LEVEL | OPENING SCHEDULE

TYPE	SNO	TAG	DESCRIPTION	WIDTH	CILL	LINTEL	HEIGHT
DOORS	1	VD6B	GI METAL DOOR WITH VISION PANEL	1500	0	2450	2450

VANAZ DEPOT - DECK STRUCTURE_PART-03 SHAFTS SCHEDULE

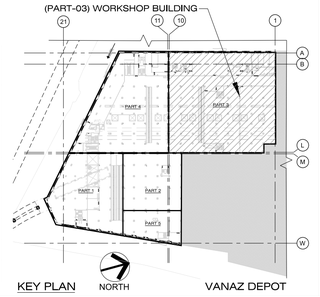
SHAFT CODE	SHAFT NAME	BOTTOM LEVEL	TOP LEVEL	LENGTH (in m)	WIDTH (in m)	AREA (in m²)	REMARKS
PLUMBING SHAFTS							
PL.16	PLUMBING SHAFT 16	L2	TERRACE	3.38	1.30	4.388	SHAFT FOR PLUMBING SERVICES
PL.17	PLUMBING SHAFT 17	L2	DECK	0.60	0.25	0.15	CUTOUT FOR RWP
PL.18	PLUMBING SHAFT 18	L2	DECK	0.60	0.25	0.15	CUTOUT FOR RWP
PL.19	PLUMBING SHAFT 19	L2	DECK	0.60	0.25	0.15	CUTOUT FOR RWP
PL.20	PLUMBING SHAFT 20	L2	DECK	0.60	0.25	0.15	CUTOUT FOR RWP
PL.21	PLUMBING SHAFT 21	L2	DECK	0.60	0.25	0.15	CUTOUT FOR RWP
PL.22	PLUMBING SHAFT 22	L2	DECK	0.60	0.25	0.15	CUTOUT FOR RWP
PL.23	PLUMBING SHAFT 23	L3	TERRACE	0.60	0.25	0.15	CUTOUT FOR RWP
PL.24	PLUMBING SHAFT 24	L3	TERRACE	0.60	0.25	0.15	CUTOUT FOR RWP
PL.25	PLUMBING SHAFT 25	L3	TERRACE	0.60	0.25	0.15	CUTOUT FOR RWP
PL.27	PLUMBING SHAFT 27	DECK	TERRACE LEVEL	1.50	0.40	0.6	CUTOUT FOR RWP
PL.28	PLUMBING SHAFT 28	DECK	TERRACE LEVEL	2.60	0.40	1.04	CUTOUT FOR RWP
PL.29	PLUMBING SHAFT 29	DECK	TERRACE LEVEL	2.60	0.40	1.04	CUTOUT FOR RWP
PL.30	PLUMBING SHAFT 30	DECK	TERRACE LEVEL	2.60	0.40	1.04	CUTOUT FOR RWP
PL.31	PLUMBING SHAFT 31	DECK	TERRACE LEVEL	1.50	0.40	0.6	CUTOUT FOR RWP
PL.32	PLUMBING SHAFT 31	DECK	TERRACE LEVEL	1.50	0.40	0.6	CUTOUT FOR RWP
ELECTRICAL SHAFTS							
EL.03	ELECTRICAL SHAFT 03	DECK	TERRACE	0.70	2.24	1.568	SHAFT FOR ELECTRICAL SERVICES
MECHANICAL SHAFTS							
ME.01	MECHANICAL SHAFT 01	L2	DECK	2.75	1.50	4.125	SHAFT FOR HVAC SERVICES
ME.02	MECHANICAL SHAFT 02	L3	TERRACE	1.60	0.60	0.96	SHAFT FOR HVAC SERVICES
ME.03	MECHANICAL SHAFT 03	L3	TERRACE	1.40	0.60	0.84	SHAFT FOR HVAC SERVICES
SIGNALLING & TELECOM SHAFTS							
ST.01	S&T SHAFT 01	DECK	TERRACE	1.50	2.75	4.125	SHAFT FOR S&T SERVICES

NOTES:
- ALL WALL ARE 200MM THICK UNLESS MENTIONED.
- FOR OPENING & FINISHES SCHEDULE, REFER DWG.NO, DED01-ENI-AR-PRM-DEV-DSC-0011 TO 0015.
- FOR STAIRCASE's DETAIL, REFER DWG.NO, DED01-ENI-AR-PRM-DEV-DDT-0401 to 450.
- FOR LIFT's DETAIL, REFER DWG.NO, DED01-ENI-AR-PRM-DEV-DDT-0451 to 0470.
- FOR RAMP's DETAIL, REFER DWG.NO, DED01-ENI-AR-PRM-DEV-DDT-0471 to 0490.
- FOR RAILING DETAIL, REFER SEPARATE DWG, DED01-ENI-AR-PRM-DEV-DDT-0751 to 0780.
- FOR TOILET DETAIL, REFER SEPARATE DWG, DED01-ENI-AR-PRM-DEV-DDT-0781 to 0800.
- FOR TOILET DETAIL, REFER SEPARATE DWG, DED01-ENI-AR-PRM-DEV-DDT-0781 to 0800.
- FOR TECHNICAL ROOM DETAILS, REFER SEPARATE DWG, DED01-ENI-AR-PRM-DEV-DDT-0801 to 0870.
- FOR ROOF CRD's DETAIL, REFER SEPARATE DWG, DED01-ENI-AR-PRM-DEV-DDT-1451 to 1500.
- FOR EXTERNAL DEVELOPMENT, INTERNAL VEHICULAR CIRCULATION, TYPICAL PAVEMENT DETAILS, REFER SEPARATE DWG, DED01-ENI-AR-PRM-DEV-DDT-0901 TO 0920, 0951 TO 1000.
- FOR SIGNAGES & ADVERTISEMENT DETAIL, REFER SEPARATE DWG, DED01-ENI-AR-PRM-DEV-DDT-0921 TO 0950.
- FOR FHC, REFER SEPARATE TYPICAL FHC DETAIL DWG.
- FOR DB SIZE, THE BLOCK TO BE DONE ONLY AFTER THE DB SIZE CONFIRMATION FROM MEP.
- FOR CUTOUTS AND WALL OPENINGS THIS DRAWING SHALL BE READ WITH SEPARATE CSD's, WOD's AND SEM's DRAWINGS.
- PLUMBING SERVICES ARE TENTATIVE AND SEPARATE PLUMBING DRAWINGS ARE TO BE REFERRED.

ABBREVIATIONS:
TOC. : TOP OF CONCRETE
FFL : FLOOR FINISH LEVEL
RCC: REINFORCED CEMENT CONCRETE
ESC: ESCALATOR
LF: LIFT
ST: STAIRCASE

CIVIL LEGENDS:

SYMBOL	DESCRIPTION	BOQ. NO./ REFERENCE DWG. NO.
	COLUMN,PIER AND STRUCTURE HATCH IN PLAN AND SECTION	-
	LIGHT WEIGHT CONCRETE BLOCKWORK	SCHEDULE B1/1/1.4
	LIGHT WEIGHT CONCRETE BLOCKWORK [EXTERNAL WALL]	SCHEDULE B1/1/1.4
	BRICK WORK	SCHEDULE B1/1/1.1
	200 X 200 MULLION	DED01-ENI-CV-PRM-DEV-DRE-2111
	200 X 400 MULLION	DED01-ENI-CV-PRM-DEV-DRE-2111
	PRESSURIZED ZONE	-



1. ALL DIMENSIONS ARE IN MM
2. ALL LEVELS IN METERS FROM MEAN SEA LEVEL UNLESS OTHERWISE MENTIONED
3. DIMENSIONS ARE NOT TO BE SCALED. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED
4. ALL DIMENSIONS ARE INDICATIVE AND ARE SUBJECTED TO CHANGE DURING DETAILED DESIGN.
5. GRID DIMENSIONS FROM CENTER TO CENTER OF COLUMN.
6. ALL R.C.C. AND STEEL MEMBER DIMENSIONS ARE INDICATIVE AND SUBJECT TO STRUCTURAL DESIGN.
7. FOR ARCHITECTURAL FINISHES, REFER SEPARATE FINISHES SCHEDULE.
8. FOR RAILING DETAILS, REFER SEPARATE DRAWINGS.
9. ANY DISCREPANCIES TO BE BROUGHT TO THE NOTICE OF THE ARCHITECT.

REV NO	DATE	DESCRIPTION	SIGN
B04	25.07.19	REVISED AS PER GC COMMENTS	
B05	11/03/20	REVISED AS PER GC COMMENTS	

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IT IS CERTIFIED THAT THERE IS NO CHANGE IN THIS GFCD FROM THE ALREADY APPROVED CR DWG NO. "……REV……" APPROVED ON DATE ……

DDC / CONTRACTOR				CONTRACTOR
SIGN:	SIGN:	SIGN:	SIGN:	SIGN:
DATE: 11.03.20	DATE: 11.03.20	DATE: 11.03.20	DATE: 11.03.20	DATE:
NAME: DS	NAME: DS	NAME: KK	NAME: SM	NAME:
DRAWN BY	DESIGN BY	CHECKED BY	APPROVED BY	ACCEPTED BY

NOT APPLICABLE

Consultant- Enia

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SUB CONSULTANT:-

ANALYST CONSULTANTS
AEON CONSULTANTS

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PROOF CONSULTANT	
SIGN:	SIGN:
DATE:	DATE:
NAME: ---	NAME: ---
REVIEWED BY (STRUCT. ENGG.)	APPROVED BY (TEAM LEADER)

☐ Proof checked & Approved by GC
☐ Being Given No Objection
☐ Issued As Good For Construction.

SIGN:		SIGN:	
DATE:		DATE:	
NAME:	---	NAME:	---
REVIEWED BY		APPROVED BY	

SYSTRA-AECOM-EGIS-RITES
(GENERAL CONSULTANT TO PUNE METRO RAIL PROJECT)

COUNTER SIGNED BY MAHARASHTRA METRO RAIL CORPORATION LTD.

DY. HOD

HOD

PROJECT: PUNE METRO RAIL PROJECT
The Orion Building, 1st Floor, Opposite Don Bosco Center, Near Saint Mira's Girls College, Koregaon Park, Pune - 411001, MH, India

CLIENT: MAHARASHTRA METRO RAIL CORPORATION LTD.

LOCATION: Depot for Vanaz

TITLE: DECK STRUCTURE + INTEGRATED WORKSHOP PART 3 - TERRACE LEVEL PLAN (WORKSHOP)

SCALE: AS SHOWN | DATE: 11/03/20 | STATUS: Good for Construction

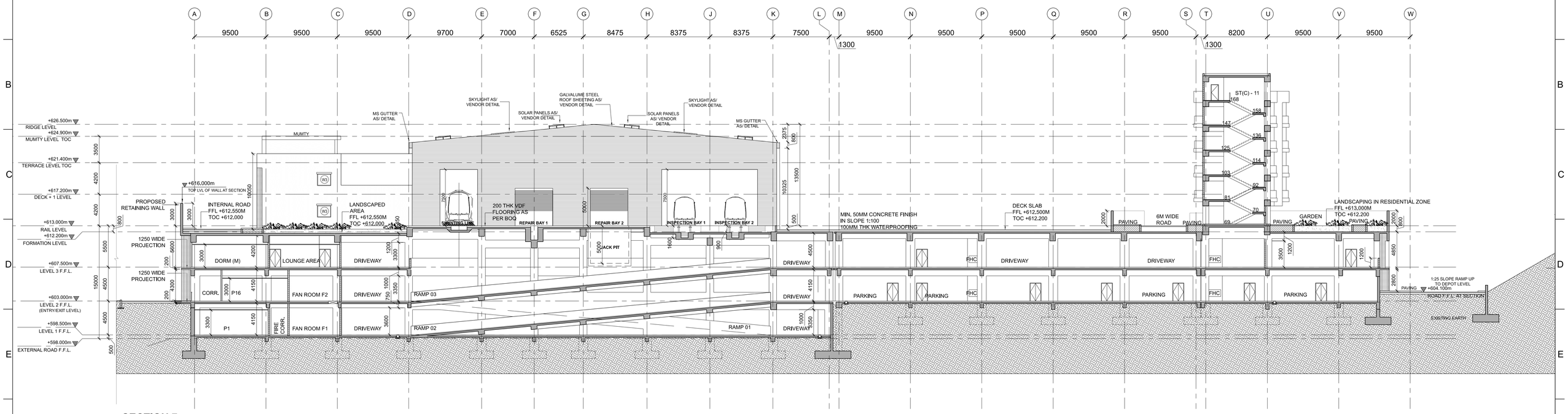
DRG NO: DED01-ENI-AR-PRM-DEV-DRP-1103

REVISION NO: B05

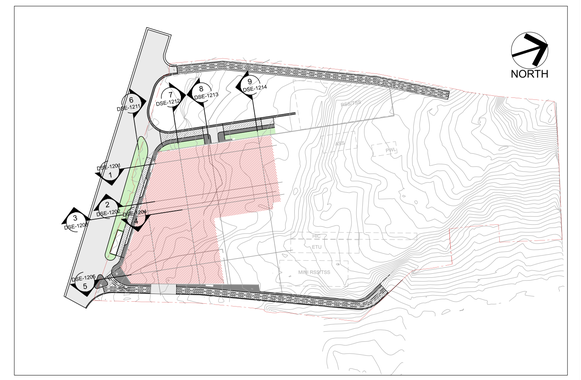
ARCHITECTURE

TBA

plot scale 50mm



SECTION 7
SCALE 1:250 @ A1



KEY PLAN FOR SECTIONS
SCALE : NTS @ A1

NOTES:

1. ALL DIMENSIONS ARE IN MM
2. ALL LEVELS IN METERS FROM MEAN SEA LEVEL UNLESS OTHERWISE MENTIONED
3. DIMENSIONS ARE NOT TO BE SCALED, ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED
4. ALL DIMENSIONS ARE INDICATIVE AND ARE SUBJECTED TO CHANGE DURING DETAILED DESIGN.
5. GRID DIMENSIONS FROM CENTER TO CENTER OF COLUMN

REV NO	DATE	DESCRIPTION	SIGN
B01	08/02/19	FIRST ISSUE	
B02	16/03/19	REVISED AS PER GC COMMENTS	
B04	06/08/19	REVISED AS PER GC COMMENTS	

THE RESPONSIBILITY OF CONTROL, CHECK & VERIFICATION OF ACCURACY, CORRECTNESS, COMPLETENESS, INTEGRATION & FULL COMPLIANCE OF THE CONTRACT PROVISIONS IN RESPECT OF DESIGN, ANALYSIS AND DRAWINGS RESTS WITH THE DETAILED DESIGN CONSULTANT / DETAILED DESIGN CONSULTANT & CONTRACTOR.
IT IS CERTIFIED THAT THERE IS NO CHANGE IN THIS GFCD FROM THE ALREADY APPROVED CR DWG NO. "..... ,REV,....." APPROVED ON DATE .....

DDC / CONTRACTOR				CONTRACTOR
SIGN:	SIGN:	SIGN:	SIGN:	SIGN:
DATE: 26/05/19	DATE: 26/05/19	DATE: 26/05/19	DATE: 26/05/19	DATE:
NAME: NS	NAME: NS	NAME: VS	NAME: SM	NAME:
DRAWN BY	DESIGN BY	CHECKED BY	APPROVED BY	ACCEPTED BY

NOT APPLICABLE

Consultant- Enia

KG-1/265, Vikaspuri,
New Delhi, India
Tel.: +91 9971 691803 / +91 9818 629588
s.manchanda@enia.in / a.joshi@enia.in
www.enia.in

SUB CONSULTANT:-

ROARK CONSULTANTS
ANALYST CONSULTANTS
AEON CONSULTANTS

THIS DRAWING INCLUDING ITS DESIGN AND DETAILING HAS BEEN **PROOF CHECKED** INDEPENDENTLY AND FOUND SUITABLE FOR THE EXECUTION PURPOSE AND IS RECOMMENDED FOR GFC / NO OBJECTION'.

PROOF CONSULTANT	
SIGN:	SIGN:
DATE:	DATE:
NAME: ---	NAME: ---
REVIEWED BY (STRUCT. ENGG.)	APPROVED BY (TEAM LEADER)

☐ Proof checked & Approved by GC
☐ Being Given No Objection
☐ Issued As Good For Construction.

SIGN:		SIGN:	
DATE:		DATE:	
NAME:	---	NAME:	---
REVIEWED BY		APPROVED BY	

SYSTRA-AECOM-EGIS-RITES
(GENERAL CONSULTANT TO PUNE METRO RAIL PROJECT)

COUNTER SIGNED BY MAHARASHTRA METRO RAIL CORPORATION LTD.

DY. HOD

HOD

PROJECT: PUNE METRO RAIL PROJECT
The Orion Building, 1st Floor, Opposite Don Bosco Center, Near Saint Mira's Girls College, Koregaon Park, Pune - 411001, MH, India

CLIENT: MAHARASHTRA METRO RAIL CORPORATION LTD.

LOCATION: Depot for Vanaz

TITLE: DECK STRUCTURE + INTEGRATED WORKSHOP SECTION 7

SCALE: AS SHOWN | DATE: 06/08/19 | STATUS: Good for Construction

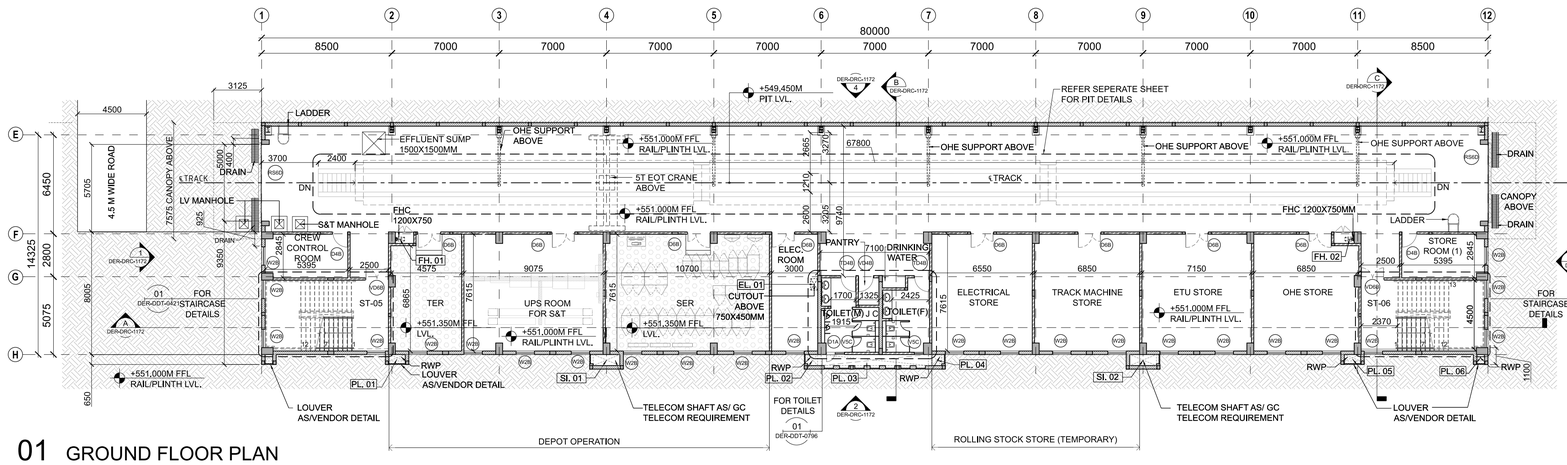
DRG NO: DED01-ENI-AR-PRM-DEV-DSE-1212

REVISION NO: B04

ARCHITECTURE

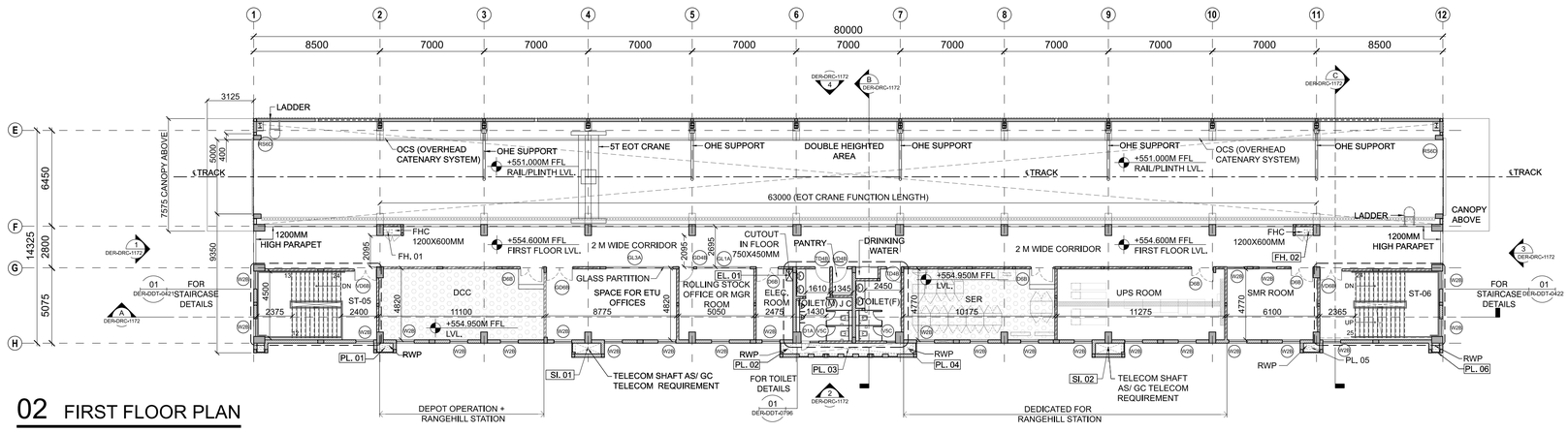
TBA

plot scale 50mm



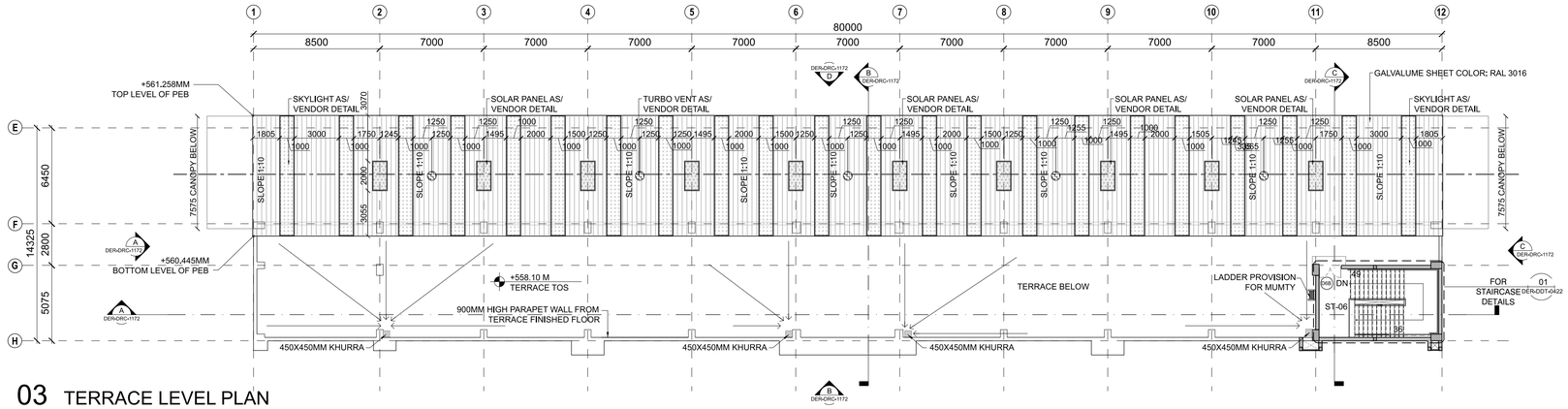
01 GROUND FLOOR PLAN

SCALE: 1:200



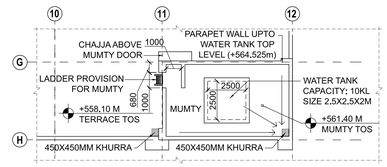
02 FIRST FLOOR PLAN

SCALE: 1:200



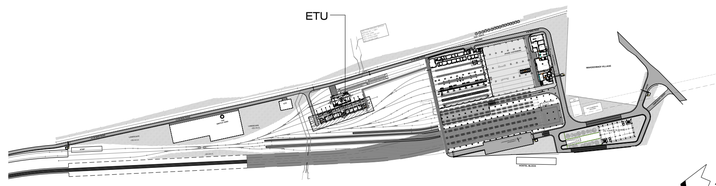
03 TERRACE LEVEL PLAN

SCALE: 1:200



04 MUMTY LEVEL PLAN

SCALE: 1:200



09 KEY PLAN | RANGEHILL DEPOT | ETU BUILDING

SCALE: 1:NTS

REFERENCE DRAWINGS:-

DRAWING NO.	DRAWING TITLE
DED01-ENI-AR-PRM-DER-DRP-1001	SITE MASTER PLAN
DED01-ENI-AR-PRM-DER-DRP-1004	SITE MARKING PLAN
DED01-ENI-AR-PRM-DER-DRP-1101	INTEGRATED BUILDING
DED01-ENI-AR-PRM-DER-DRP-1111	ADMIN CUM OCC BUILDING
DED01-ENI-AR-PRM-DER-DRP-1151	HIC
DED01-ENI-AR-PRM-DER-DRP-1705	PIT WHEEL LATHE
DED01-ENI-TR-PRM-DER-DRP-8501	GAD FOR TRACK
DED01-ENI-TR-PRM-DER-DRP-8502	GAD FOR TRACK

NOTES:
- ALL WALL ARE 200MM THICK UNLESS MENTIONED.
- FOR OPENING & FINISHES SCHEDULE, REFER DWG.NO. DED01-ENI-AR-PRM-DER-DSC-0011 TO 0015.
- FOR STAIRCASE'S DETAIL, REFER DWG.NO. DED01-ENI-AR-PRM-DER-DDT-0401 to 450.
- FOR RAILING DETAIL REFER SEPARATE DWG, DED01-ENI-AR-PRM-DER-DDT-0751 to 0780.
- FOR TOILET DETAIL REFER SEPARATE DWG, DED01-ENI-AR-PRM-DER-DDT-0781 to 0800.
- FOR TYPICAL LINTEL AND MULLION DETAIL , REFER STRUCTURAL DWG : DED01-ENI-CV-PRM-DER-DRE-2111
- FOR FHC, REFER SEPARATE TYPICAL FHC DETAIL DWG.
- FOR DB SIZE, THE BLOCK TO BE DONE ONLY AFTER THE DB SIZE CONFIRMATION FROM MEP.
- THIS DRAWING SHALL BE READ ONLY FOR MULLIONS(SIZES & LOCATION) & OTHER CIVIL ARRANGEMENT UPTO 2450MM FROM FFL. AMENDMENTS/ADDITIONS IN THIS SHALL BE MADE FOR WALL OPENINGS POST APPROVALS OF CSD's/WOD's
- FOR CUTOUTS AND WALL OPENINGS THIS DRAWING SHALL BE READ WITH SEPARATE CSD's, WOD's AND SEM's DRAWINGS.

CIVIL LEGENDS:

SYMBOL	DESCRIPTION	BOQ. NO./ REFERENCE DWG. NO.
	COLUMN,PIER AND STRUCTURE HATCH IN PLAN AND SECTION	-
	LIGHT WEIGHT CONCRETE BLOCKWORK	SCHEDULE B1/1/1.4
	LIGHT WEIGHT CONCRETE BLOCKWORK [EXTERNAL WALL]	SCHEDULE B1/1/1.4
	BRICK WORK	SCHEDULE B1/1/1.1
	RAISED FLOOR	SCHEDULE B1/5/5.15
	200 X 230 MULLION	DED01-ENI-CV-PRM-DEV-DDE-2421
	400 X 230 MULLION	DED01-ENI-CV-PRM-DEV-DDE-2421
	200 X 150 MULLION	DED01-ENI-CV-PRM-DEV-DDE-2421
	400 X 150 MULLION	DED01-ENI-CV-PRM-DEV-DDE-2421

NOTE: POSITION & SIZE OF SOLAR PANELS ARE TENTATIVE.

PEB SHED RAL'S

1	**Galvulume Sheet**			
	- Standing Seam Roofing Sheet	RAL 3016 (Coral Red)	RAL 3016	Coral red
	- Cladding Sheet & Louver	RAL 9002	RAL 9002	Grey white
2	**PEB Structure**			
	- Columns + Rafter + Gantry Girder	RAL 7024	RAL 7024	Graphite grey
	- Cross Bracings + Purlins	RAL 9002	RAL 9002	Grey white
	- Over Head Walkway & Railing	RAL 7024	RAL 7024	Graphite grey

EXTERNAL WALL COLOUR RAL's

RAL 8003 (Clay Brown) RAL 9002 (Grey White)	RAL 8003	Clay brown
	RAL 9002	Grey white

RANGEHILL DEPOT: ETU

SHAFT CODE	SHAFT NAME	BOTTOM LEVEL	TOP LEVEL	LENGTH (IN M)	WIDTH (IN M)	AREA (IN M^2)	REMARKS
PLUMBING SHAFTS							
PL.01	PLUMBING SHAFT 01	GROUND LVL	ROOF LVL	1.07	0.42	0.45	CUTOUT FOR RWP
PL.02	PLUMBING SHAFT 02	GROUND LVL	ROOF LVL	0.65	0.72	0.46	CUTOUT FOR RWP
PL.03	PLUMBING SHAFT 03	GROUND LVL	ROOF LVL	6.99	0.72	5.03	SHAFT FOR PLUMBING SERVICES
PL.04	PLUMBING SHAFT 04	GROUND LVL	ROOF LVL	0.65	0.72	0.46	CUTOUT FOR RWP
PL.05	PLUMBING SHAFT 05	GROUND LVL	ROOF LVL	1.07	0.42	0.45	CUTOUT FOR RWP
PL.06	PLUMBING SHAFT 06	GROUND LVL	MUMT Y LVL	0.49	0.42	0.21	CUTOUT FOR RWP
FIRE SHAFTS							
FH.01	FHC 1	GROUND LVL	FIRST LVL	1.2	0.75	0.9	FHC AND SPRINKLER RISER CUTOUT
FH.02	FHC 2	GROUND LVL	FIRST LVL	1.2	0.75	0.9	FHC AND SPRINKLER RISER CUTOUT
ELECTRICAL SHAFTS							
EL.01	ELECTRICAL SHAFT	GROUND LVL	FIRST LVL	0.45	0.75	0.34	CUTOUT FOR ELECTRICAL SERVICES
MECHANICAL SHAFTS							
SI.01	S&T SHAFT 01	GROUND LVL	FIRST LVL	1.74	0.72	1.253	CUTOUT FOR S&T CABLES
SI.02	S&T SHAFT 01	GROUND LVL	FIRST LVL	1.74	0.72	1.253	CUTOUT FOR S&T CABLES

RANGEHILL DEPOT: ETU BUILDING

FLOOR	SL NO.	ROOM NAME	LENGTH (M)	WIDTH (M)	AREA(SQM)
GROUND FLOOR	1	CREW CONTROL ROOM	5.40	2.85	15.35
	2	TELECOM EQUIPMENT ROOM (TER)	4.58	7.62	34.84
	3	UPS ROOM FOR SIGNALLING & TELECOM	9.08	7.62	69.11
	4	SINGALLING EQUIPMENT ROOM (SER)	10.70	7.62	81.48
	4	ELECTRICAL ROOM	3.00	7.62	22.85
	5	TOILET M	VARIES	VARIES	15.18
	6	TOILET F	VARIES	VARIES	13.37
	7	PANTRY	1.35	1.78	2.39
	8	ELECTRICAL STORE	6.55	7.62	49.88
	9	TRACK MACHINE STORE	6.85	7.62	52.16
	10	ETU STORE	7.15	7.62	54.45
	11	OHE STORE	6.85	7.62	52.16
	12	STORE ROOM 1	5.40	2.85	15.35
FIRST FLOOR	1	DEPOT CONTROL CENTRE (DCC)	11.10	4.82	53.50
	2	SPACE FOR ETU OFFICES	8.83	4.82	42.54
	3	ROLLING STOCK OFFICE OR MGR ROOM	5.05	4.82	24.34
	4	TOILET M	VARIES	VARIES	15.18
	5	TOILET F	VARIES	VARIES	13.37
	6	PANTRY	1.35	1.78	2.39
	7	ELECTRICAL ROOM	2.48	4.77	11.81
	8	SINGALLING EQUIPMENT ROOM (SER)	10.18	4.77	48.53
	9	UPS ROOM	11.28	4.77	53.78
	10	SMR ROOM	6.10	4.77	29.10

DOOR, WINDOW & ROLLER SHUTTER SCHEDULE

S. NO.	TAG	TYPE	WIDTH	CILL	LINTEL	HEIGHT
DOORS						
1	D1A	ALUMINIUM DOOR	600	600	2450	1850
2	D4B	GI METAL DOOR	1000	0	2450	2450
3	D6B	GI METAL DOOR	1500	0	2450	2450
4	TD4B	GI METAL DOOR WITH GRILL	1000	0	2450	2450
5	VD4B	GI METAL DOOR WITH VISION PANEL	1000	0	2450	2450
6	VD6B	GI METAL DOOR WITH VISION PANEL	1500	0	2450	2450
7	GD4B	GLASS DOOR	1000	0	2450	2450
8	GD6B	GLASS DOOR	1800	0	2450	2450
WINDOW & VENTILATOR						
1	W2B	ALUMINIUM WINDOW	1200	900	2450	1550
2	V5C	ALUMINIUM WINDOW/VENTILATOR	600	1250	2450	1200
GLAZING						
1	GL1A	ALUMINIUM GLAZING	3600	100	2450	2350
2	GL2A	ALUMINIUM GLAZING	4200	100	2450	2350
3	GL3A	ALUMINIUM GLAZING	4500	100	2450	2350
4	GL12A	ALUMINIUM GLAZING	4350	450	2450	2000
ROLLER SHUTTER						
1	RS6D	ROLLING SHUTTER	5000	0	5000	5000

ABBREVIATIONS:
TOC. : TOP OF CONCRETE
FFL. : FLOOR FINISH LEVEL
RCC: REINFORCED CEMENT CONCRETE
ESC: ESCALATOR
LF: LIFT
ST: STAIRCASE

NOTES:
1. ALL DIMENSIONS ARE IN M
2. ALL LEVELS IN METERS FROM MEAN SEA LEVEL UNLESS OTHERWISE MENTIONED
3. DIMENSIONS ARE NOT TO BE SCALED. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED
4. GRID DIMENSIONS FROM CENTER TO CENTER OF COLUMN. UNLESS NOTED OTHERWISE.
5. ALL R.C.C. AND STEEL MEMBER DIMENSIONS ARE INDICATIVE AND SUBJECT TO STRUCTURAL DESIGN.
6. FOR ARCHITECTURAL FINISHES, REFER SEPARATE FINISHES SCHEDULE.
7. FOR RAILING DETAILS, REFER SEPARATE DRAWINGS.
8. ANY DISCREPANCIES TO BE BROUGHT TO THE NOTICE OF THE ARCHITECT.

REV NO	DATE	DESCRIPTION	SIGN
B04	09/07/2020	REVISED AS PER GC COMMENTS	
B05	20/07/2020	COLOUR INFORMATION ADDED	

THE RESPONSIBILITY OF CONTROL, CHECK & VERIFICATION OF ACCURACY, CORRECTNESS, COMPLETENESS, INTEGRATION & FULL COMPLIANCE OF THE CONTRACT PROVISIONS IN RESPECT OF DESIGN, ANALYSIS AND DRAWINGS RESTS WITH THE DETAILED DESIGN CONSULTANT / DETAILED DESIGN CONSULTANT & CONTRACTOR.
IT IS CERTIFIED THAT THERE IS NO CHANGE IN THIS GFCD FROM THE ALREADY APPROVED CR DWG NO. "..... REV..... " APPROVED ON DATE .....

DDC / CONTRACTOR				CONTRACTOR
SIGN:	SIGN:	SIGN:	SIGN:	SIGN:
DATE: 20.07.2020	DATE: 20.07.2020	DATE: 20.07.2020	DATE: 20.07.2020	DATE:
NAME: SN	NAME: VS	NAME: KK	NAME: SM	NAME:
DRAWN BY	DESIGN BY	CHECKED BY	APPROVED BY	ACCEPTED BY

NOT APPLICABLE

Consultant- Enia

KG-1/265, Vikaspuri,
New Delhi, India
Tel.: +91 9971 691803 / +91 9818 629588
s.manchanda@enia.in / a.joshi@enia.in
www.enia.in

SUB CONSULTANT:-

ANALYST CONSULTANTS
AEON CONSULTANTS

THIS DRAWING INCLUDING ITS DESIGN AND DETAILING HAS BEEN **PROOF CHECKED** INDEPENDENTLY AND FOUND SUITABLE FOR THE EXECUTION PURPOSE AND IS RECOMMENDED FOR GFC / NO OBJECTION'.

PROOF CONSULTANT	
SIGN:	SIGN:
DATE:	DATE:
NAME: ---	NAME: ---
REVIEWED BY (STRUCT. ENGG.)	APPROVED BY (TEAM LEADER)

☐ Proof checked & Approved by GC
☐ Being Given No Objection
☐ Issued As Good For Construction.

SIGN:		SIGN:	
DATE:		DATE:	
NAME:	---	NAME:	---
REVIEWED BY		APPROVED BY	

SYSTRA-AECOM-EGIS-RITES
(GENERAL CONSULTANT TO PUNE METRO RAIL PROJECT)

COUNTER SIGNED BY MAHARASHTRA METRO RAIL CORPORATION LTD.

DY. HOD

HOD

PROJECT: PUNE METRO RAIL PROJECT
The Orion Building, 1st Floor, Opposite Don Bosco Center, Near Saint Mira's Girls College, Koregaon Park, Pune - 411001, MH, India

CLIENT: MAHARASHTRA METRO RAIL CORPORATION LTD.

LOCATION: Depot for Range Hill

TITLE: ETU BUILDING & SHED FLOOR PLANS

SCALE: AS SHOWN | DATE: 20/07/2020 | STATUS: Good for Construction

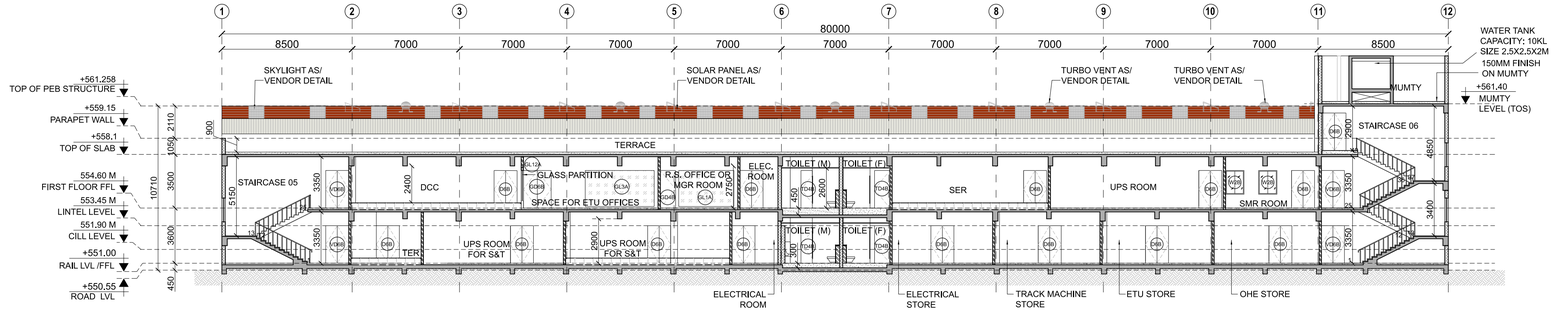
DRG NO: DED01-ENI-AR-PRM-DER-DRC-1171

REVISION NO: B05

ARCHITECTURE

TBA

plot scale 50mm



01 SECTION-A

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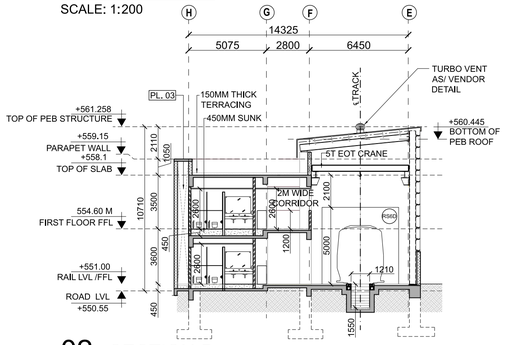
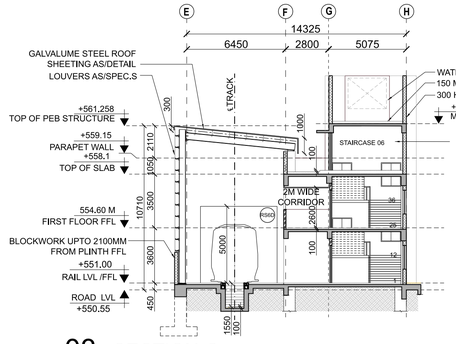


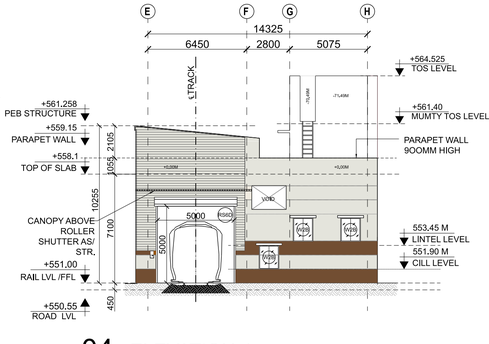
02 SECTION-B

SCALE: 1:200



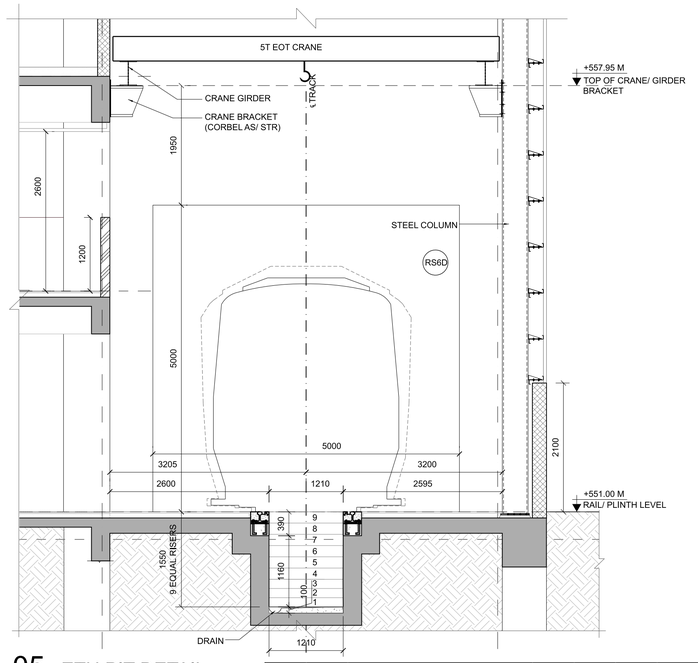
03 SECTION-C

SCALE: 1:200



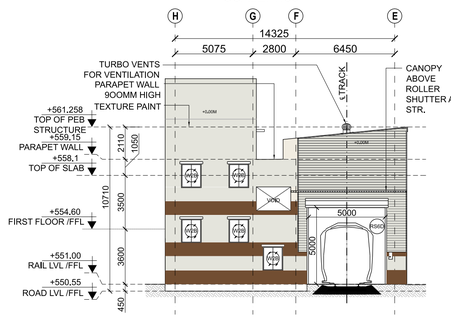
04 ELEVATION-1

SCALE: 1:200



05 ETU PIT DETAIL

SCALE: 1:50



07 ELEVATION-3

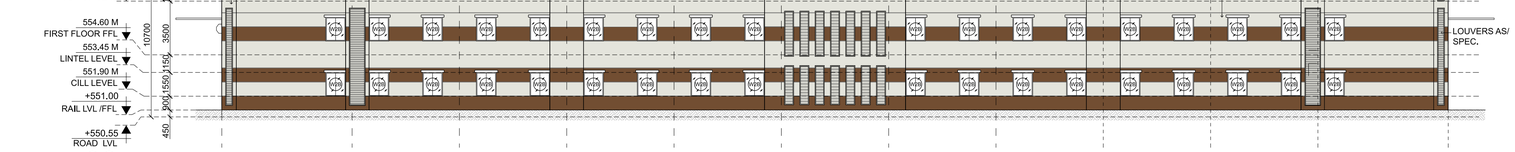
SCALE: 1:200

DOOR, WINDOW & ROLLER SHUTTER SCHEDULE

S. NO.	TAG	TYPE	WIDTH	CILL	LINTEL	HEIGHT
DOORS						
1	D1A	ALUMINIUM DOOR	600	600	2450	1850
2	D4B	GI METAL DOOR	1000	0	2450	2450
3	D6B	GI METAL DOOR	1500	0	2450	2450
4	TD4B	GI METAL DOOR WITH GRILL	1000	0	2450	2450
5	VD4B	GI METAL DOOR WITH VISION PANEL	1000	0	2450	2450
6	VD6B	GI METAL DOOR WITH VISION PANEL	1500	0	2450	2450
7	GD4B	GLASS DOOR	1000	0	2450	2450
8	GD6B	GLASS DOOR	1800	0	2450	2450
WINDOW & VENTILATOR						
1	W2B	ALUMINIUM WINDOW	1200	900	2450	1550
2	V5C	ALUMINIUM WINDOW/VENTILATOR	600	1250	2450	1200
GLAZING						
1	GL1A	ALUMINIUM GLAZING	3600	100	2450	2350
2	GL2A	ALUMINIUM GLAZING	4200	100	2450	2350
3	GL3A	ALUMINIUM GLAZING	4500	100	2450	2350
4	GL12A	ALUMINIUM GLAZING	4350	450	2450	2000
ROLLER SHUTTER						
1	RS6D	ROLLING SHUTTER	5000	0	5000	5000

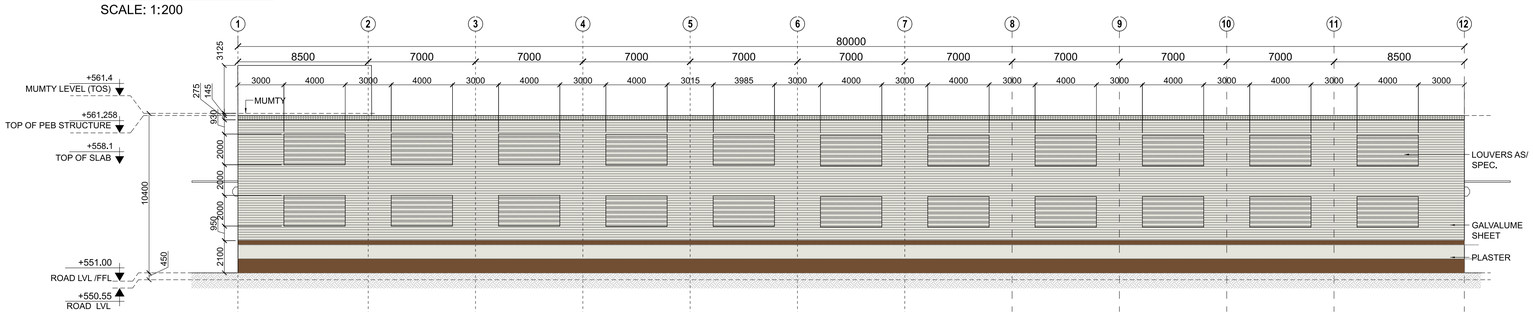
REFERENCE DRAWINGS:-

DRAWING NO.	DRAWING TITLE
DED01-ENI-AR-PRM-DER-DRP-1001	SITE MASTER PLAN
DED01-ENI-AR-PRM-DER-DRP-1101	INTEGRATED BUILDING
DED01-ENI-AR-PRM-DER-DRP-1111	ADMIN CUM OCC BUILDING
DED01-ENI-AR-PRM-DER-DRP-1151	HIC
DED01-ENI-AR-PRM-DER-DRP-1705	PIT WHEEL LATHE
DED01-ENI-TR-PRM-DER-DRP-8501	GAD FOR TRACK
DED01-ENI-TR-PRM-DER-DRP-8502	GAD FOR TRACK



06 ELEVATION-2

SCALE: 1:200



08 ELEVATION-4

SCALE: 1:200

CIVIL LEGENDS:

SYMBOL	DESCRIPTION	BOQ. NO./ REFERENCE DWG. NO.
	COLUMN,PIER AND STRUCTURE HATCH IN PLAN AND SECTION	-
	LIGHT WEIGHT CONCRETE BLOCKWORK	SCHEDULE B1/1/1.4
	LIGHT WEIGHT CONCRETE BLOCKWORK (EXTERNAL WALL)	SCHEDULE B1/1/1.4
	BRICK WORK	SCHEDULE B1/1/1.1
	200 X 230 MULLION	DED01-ENI-CV-PRM-DEV-DDE-2421
	400 X 230 MULLION	DED01-ENI-CV-PRM-DEV-DDE-2421
	200 X 150 MULLION	DED01-ENI-CV-PRM-DEV-DDE-2421
	400 X 150 MULLION	DED01-ENI-CV-PRM-DEV-DDE-2421

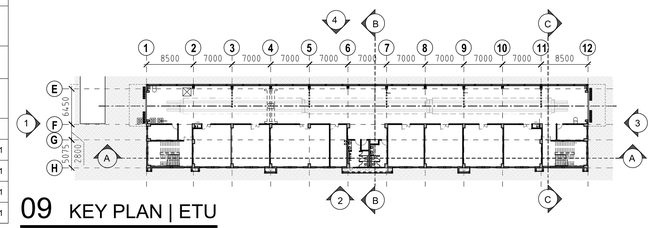
PEB SHED RAL'S

1	**Galvulume Sheet**			
	- Standing Seam Roofing Sheet	RAL 3016 (Coral Red)	RAL 3016	Coral red
	- Cladding Sheet & Louver	RAL 9002	RAL 9002	Grey white
2	**PEB Structure**			
	- Columns + Rafter + Gantry Girder	RAL 7024	RAL 7024	Graphite grey
	- Cross Bracings + Purlins	RAL 9002	RAL 9002	Grey white
	- Over Head Walkway & Railing	RAL 7024	RAL 7024	Graphite grey

NOTE: POSITION & SIZE OF SOLAR PANELS ARE TENTATIVE.

EXTERNAL WALL COLOUR RAL's

RAL 8003 (Clay Brown) / RAL 9002 (Grey White)	RAL 8003	Clay brown
	RAL 9002	Grey white



09 KEY PLAN | ETU

SCALE: 1:NTS

NOTES:
1. ALL DIMENSIONS ARE IN M
2. ALL LEVELS IN METERS FROM MEAN SEA LEVEL UNLESS OTHERWISE MENTIONED
3. DIMENSIONS ARE NOT TO BE SCALED. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED
4. GRID DIMENSIONS FROM CENTER TO CENTER OF COLUMN. UNLESS NOTED OTHERWISE.
5. ALL R.C.C. AND STEEL MEMBER DIMENSIONS ARE INDICATIVE AND SUBJECT TO STRUCTURAL DESIGN.
6. FOR ARCHITECTURAL FINISHES, REFER SEPARATE FINISHES SCHEDULE.
7. FOR RAILING DETAILS, REFER SEPARATE DRAWINGS.
8. ANY DISCREPANCIES TO BE BROUGHT TO THE NOTICE OF THE ARCHITECT.

REV NO	DATE	DESCRIPTION	SIGN
B04	09/07/2020	REVISED AS PER GC COMMENTS	
B05	20/07/2020	COLOUR INFORMATION ADDED	

THE RESPONSIBILITY OF CONTROL, CHECK & VERIFICATION OF ACCURACY, CORRECTNESS, COMPLETENESS, INTEGRATION & FULL COMPLIANCE OF THE CONTRACT PROVISIONS IN RESPECT OF DESIGN, ANALYSIS AND DRAWINGS RESTS WITH THE DETAILED DESIGN CONSULTANT / DETAILED DESIGN CONSULTANT & CONTRACTOR.
IT IS CERTIFIED THAT THERE IS NO CHANGE IN THIS GFCD FROM THE ALREADY APPROVED CR DWG NO. "..... REV..... " APPROVED ON DATE .....

DDC / CONTRACTOR				CONTRACTOR
SIGN:	SIGN:	SIGN:	SIGN:	SIGN:
DATE: 20.07.2020	DATE: 20.07.2020	DATE: 20.07.2020	DATE: 20.07.2020	DATE:
NAME: SN	NAME: VS	NAME: KK	NAME: SM	NAME:
DRAWN BY	DESIGN BY	CHECKED BY	APPROVED BY	ACCEPTED BY

NOT APPLICABLE

Consultant- Enia

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Tel.: +91 9971 691803 / +91 9818 629588
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www.enia.in

SUB CONSULTANT:-

ANALYST CONSULTANTS
AEON CONSULTANTS

THIS DRAWING INCLUDING ITS DESIGN AND DETAILING HAS BEEN **PROOF CHECKED** INDEPENDENTLY AND FOUND SUITABLE FOR THE EXECUTION PURPOSE AND IS RECOMMENDED FOR GFC / NO OBJECTION'.

PROOF CONSULTANT	
SIGN:	SIGN:
DATE:	DATE:
NAME: ---	NAME: ---
REVIEWED BY (STRUCT. ENGG.)	APPROVED BY (TEAM LEADER)

☐ Proof checked & Approved by GC
☐ Being Given No Objection
☐ Issued As Good For Construction.

SIGN:		SIGN:	
DATE:		DATE:	
NAME:	---	NAME:	---
REVIEWED BY		APPROVED BY	

SYSTRA-AECOM-EGIS-RITES
(GENERAL CONSULTANT TO PUNE METRO RAIL PROJECT)

COUNTER SIGNED BY MAHARASHTRA METRO RAIL CORPORATION LTD.

DY. HOD

HOD

PROJECT: PUNE METRO RAIL PROJECT
The Orion Building, 1st Floor, Opposite Don Bosco Center, Near Saint Mira's Girls College, Koregaon Park, Pune - 411001, MH, India

CLIENT: MAHARASHTRA METRO RAIL CORPORATION LTD.

LOCATION: Depot for Range Hill

TITLE: ETU BUILDING & SHED SECTIONS & ELEVATIONS

SCALE: AS SHOWN | DATE: 20/07/2020 | STATUS: Good for Construction

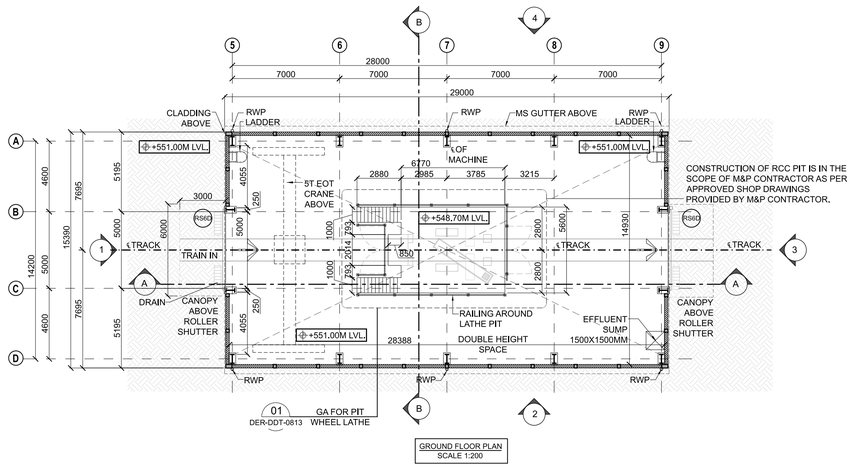
DRG NO: DED01-ENI-AR-PRM-DER-DRC-1172

REVISION NO: B05

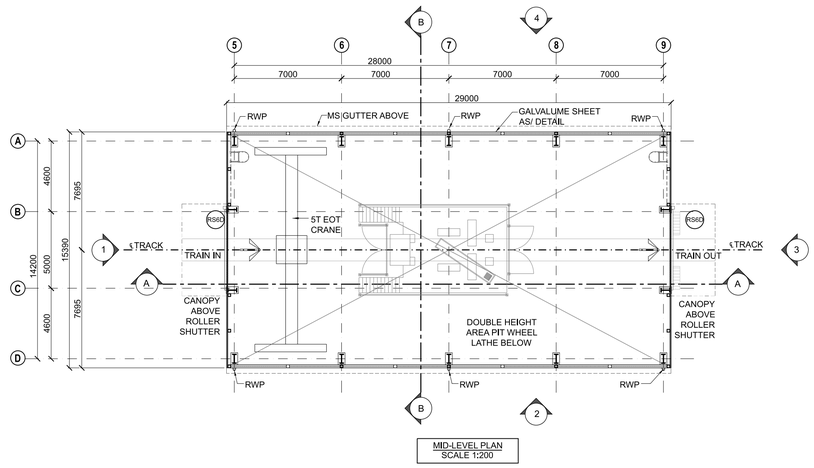
ARCHITECTURE

TBA

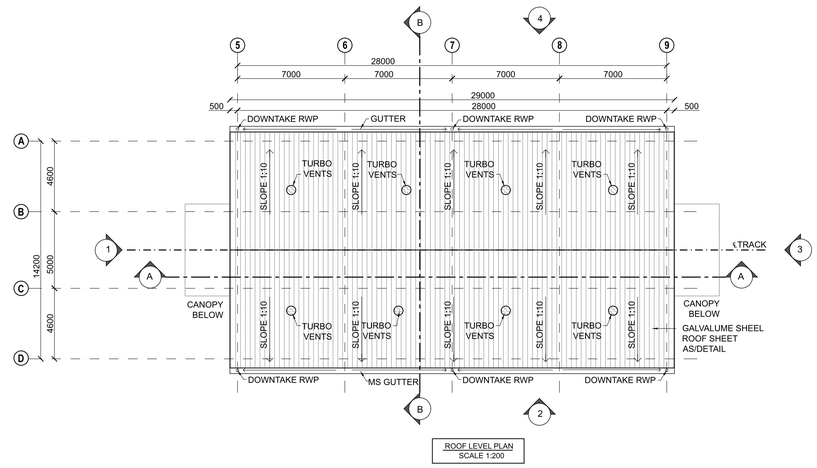
plot scale 50mm



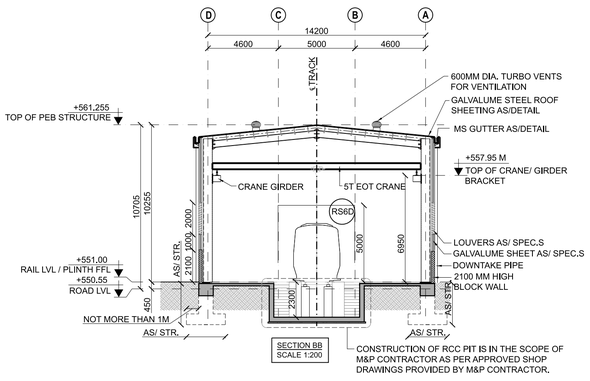
GROUND FLOOR PLAN
SCALE 1:200



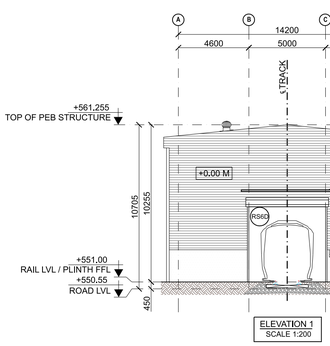
MID-LEVEL PLAN
SCALE 1:200



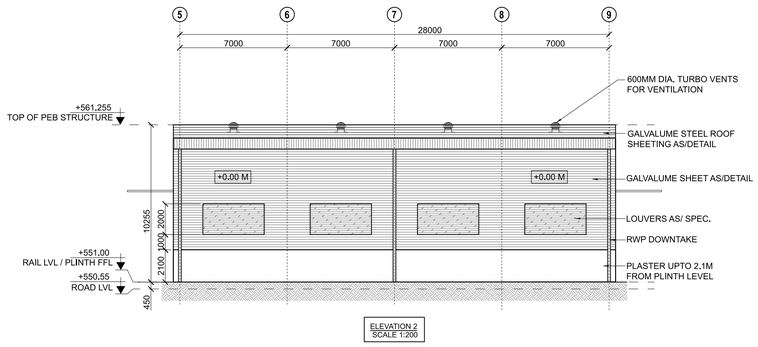
ROOF LEVEL PLAN
SCALE 1:200



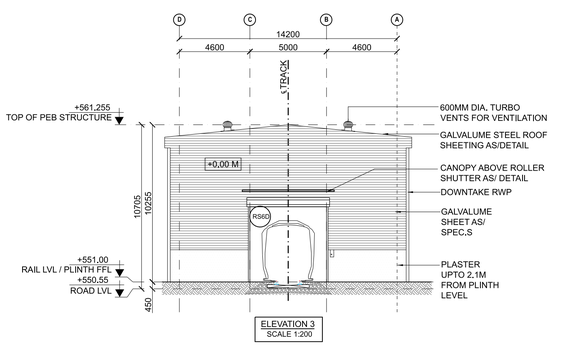
SECTION BB
SCALE 1:200



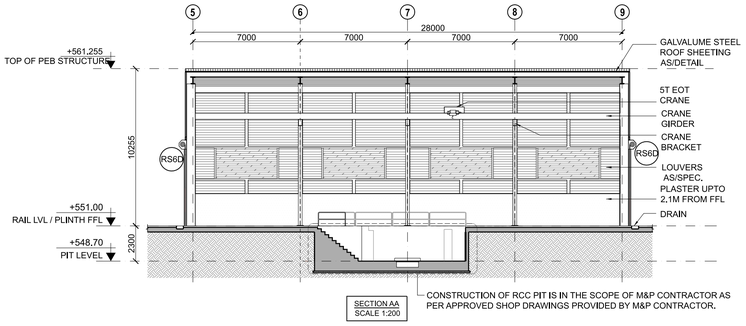
ELEVATION 1
SCALE 1:200



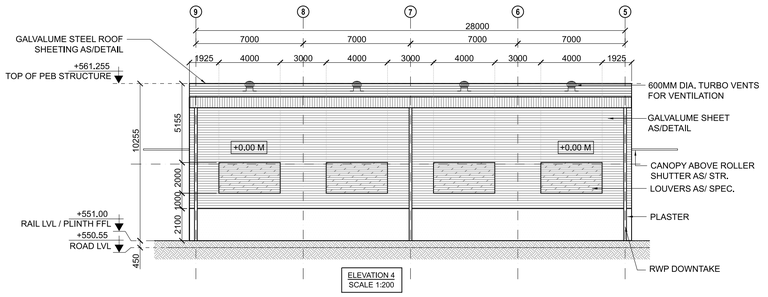
ELEVATION 2
SCALE 1:200



ELEVATION 3
SCALE 1:200



SECTION AA
SCALE 1:200



ELEVATION 4
SCALE 1:200

NOTES:-

- IN ABSENCE OF M&P CONTRACTOR, IT WAS INSTRUCTED BY GC/MM TO FOLLOW M&P SHOP DRAWINGS/ INPUTS OF NAGPUR METRO,
- NAGPUR METRO M&P SHOP DRAWINGS WERE PROVIDED BY GC ON 21.01.2020
- BASED ON THE ABOVE SHOP DRAWINGS, THESE GFC DRAWINGS ARE UPDATED.
- EOT CRANE DETAILS ARE AS PER DETAIL DRAWING SHARED BY URC WITH LETTER DATED 04.07.2019
- **NO CASTING TO BE DONE ON SITE WITHOUT APPROVED SHOP DRAWINGS OF M&P.**

RANGEHILL DEPOT: PIT WHEEL LATHE

ROLLER SHUTTER SCHEDULE

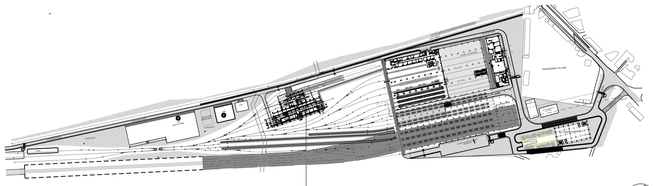
S NO.	NAME	WIDTH (M)	HEIGHT	CILL	LINTEL	REMARKS
1	RS6D	5000	5000	-	5000	ROLLING SHUTTER AS PER VENDOR SPECIFICATION

CIVIL LEGENDS:

SYMBOL	DESCRIPTION	BOQ. NO./ REFERENCE DWG. NO.
	COLUMN,PIER AND STRUCTURE HATCH IN PLAN AND SECTION	-
	LIGHT WEIGHT CONCRETE BLOCKWORK [EXTERNAL WALL]	SCHEDULE B1/1/1.4
	200 X 230 MULLION	DED01-ENI-CV-PRM-DER-DDE-2421
	400 X 230 MULLION	DED01-ENI-CV-PRM-DER-DDE-2421

REFERENCE DRAWINGS:-

DRAWING NO.	DRAWING TITLE
DED01-ENI-AR-PRM-DER-DRP-1001	SITE MASTER PLAN
DED01-ENI-AR-PRM-DER-DRP-1004	SITE MARKING PLAN
DED01-ENI-AR-PRM-DER-DRP-1101	INTEGRATED BUILDING
DED01-ENI-AR-PRM-DER-DRP-1111	ADMIN CUM OCC BUILDING
DED01-ENI-AR-PRM-DER-DRP-1151	HIC
DED01-ENI-AR-PRM-DER-DRP-1171	ETU
DED01-ENI-TR-PRM-DER-DRP-8501	GAD FOR TRACK
DED01-ENI-TR-PRM-DER-DRP-8502	GAD FOR TRACK



KEY PLAN
SCALE : NTS

PIT WHEEL LATHE | RANGEHILL DEPOT

NORTH

NOTES:
1. ALL DIMENSIONS ARE IN MM
2. ALL LEVELS IN METERS FROM MEAN SEA LEVEL UNLESS OTHERWISE MENTIONED
3. DIMENSIONS ARE NOT TO BE SCALED. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED
4. ALL DIMENSIONS ARE INDICATIVE AND ARE SUBJECTED TO CHANGE DURING DETAILED DESIGN.
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8. FOR RAILING DETAILS, REFER SEPARATE DRAWINGS.
9. ANY DISCREPANCIES TO BE BROUGHT TO THE NOTICE OF THE ARCHITECT.

REV NO	DATE	DESCRIPTION	SIGN
B01	18/01/2019	REVISED AS PER GC COMMENTS	
B02	27/05/2020	REVISED AS PER M&P INPUTS	

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☐ Proof checked & Approved by GC
☐ Being Given No Objection
☐ Issued As Good For Construction.

COUNTER SIGNED BY MAHARASHTRA METRO RAIL CORPORATION LTD.

DDC / CONTRACTOR				CONTRACTOR	PROOF CONSULTANT				DY. HOD
SIGN:	SIGN:	SIGN:	SIGN:	SIGN:	SIGN:	SIGN:	SIGN:	SIGN:	
DATE: 27.05.2020	DATE: 27.05.2020	DATE: 27.05.2020	DATE: 27.05.2020	DATE:	DATE:	DATE:	DATE:	DATE:	
NAME: SN	NAME: VS	NAME: KK	NAME: SM	NAME:	NAME: ---	NAME: ---	NAME:	NAME:	
DRAWN BY	DESIGN BY	CHECKED BY	APPROVED BY	ACCEPTED BY	REVIEWED BY (STRUCT. ENGG.)	APPROVED BY (TEAM LEADER)	REVIEWED BY	APPROVED BY	

NOT APPLICABLE

Consultant- Enia

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New Delhi, India
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s.manchanda@enia.in / a.joshi@enia.in
www.enia.in

SUB CONSULTANT:-

ANALYST CONSULTANTS
AEON CONSULTANTS

SYSTRA-AECOM-EGIS-RITES
(GENERAL CONSULTANT TO PUNE METRO RAIL PROJECT)

HOD

PROJECT: PUNE METRO RAIL PROJECT
The Orion Building, 1st Floor, Opposite Don Bosco Center, Near Saint Mira's Girls College, Koregaon Park, Pune - 411001, MH, India

CLIENT: MAHARASHTRA METRO RAIL CORPORATION LTD.

LOCATION: Depot for Range Hill

TITLE: PIT WHEEL LATHE
PLANS, SECTIONS & ELEVATIONS

SCALE: AS SHOWN | DATE: 27/05/2020 | STATUS: Good for Construction

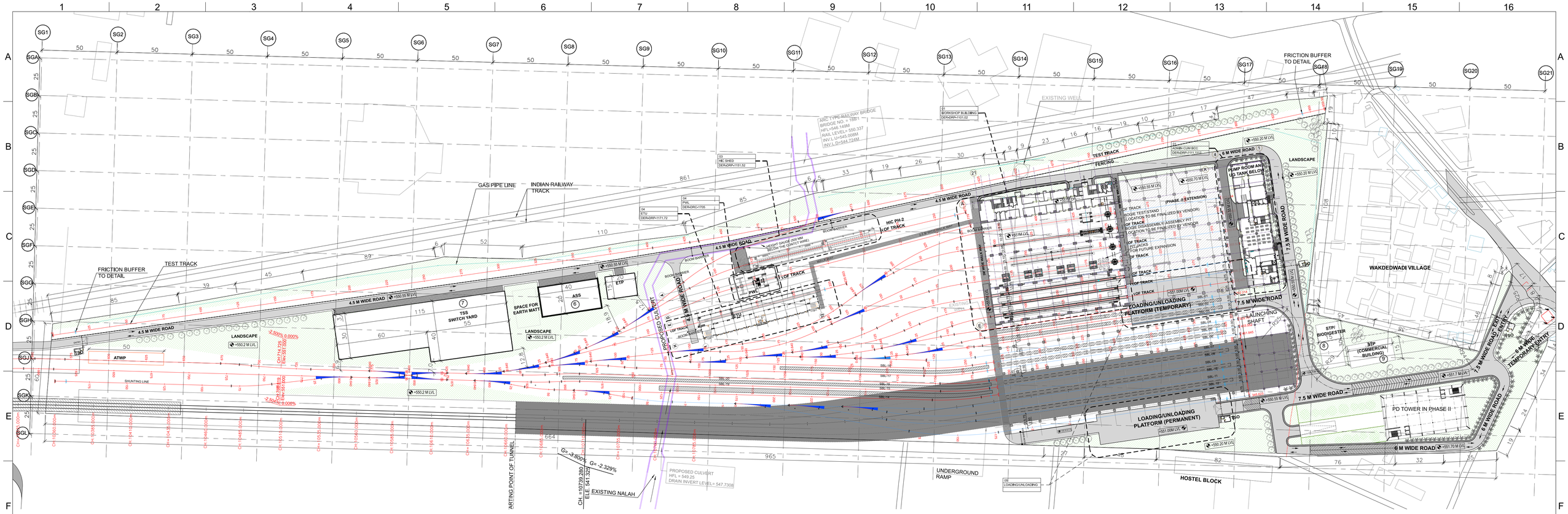
DRG NO: DED01-ENI-AR-PRM-DER-DRC-1705

REVISION NO: B02

ARCHITECTURE

TBA

plot scale 50mm



MASTER PLAN

SCALE 1:1250@A1

LEGEND

S.NO.	DISCRIPTION	SYMBOL
1	EXISTING WELL TO BE CLOSED / SHIFTED TO AGRICULTURE COLLEGE	
2	PROPOSED NALAH	
3	TREE	
4	BOOM BARRIER	
5	COLUMN IN PHASE I	
6	COLUMN IN PHASE II	
7	TRACK IN PHASE I	
8	TRACK IN PHASE II	
9	PATHWAY/PLATFORM FOR STABLING LINES PHASE I	
10	PATHWAY/PLATFORM FOR STABLING LINES PHASE II	
11	BUFFER STOP	
12	DEAD END	

REFERENCE DRAWINGS:-

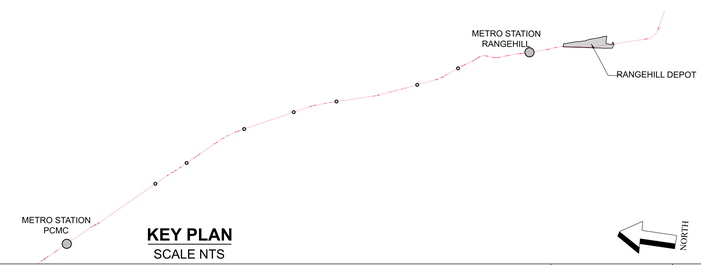
DRAWING NO.	DRAWING TITLE
-DED01-ENI-AR-PRM-DER-DRP-1001	SITE MASTER PLAN
-DED01-ENI-AR-PRM-DER-DRP-1002	SURVEY PLAN WITH DEPOT BOUNDARY
-DED01-ENI-AR-PRM-DER-DRP-1004	SITE MARKING PLAN
-DED01-ENI-AR-PRM-DER-DRP-1101	INTEGRATED WORKSHOP BUILDING
-DED01-ENI-AR-PRM-DER-DRP-1111	ADMIN-BCC BUILDING
-DED01-ENI-AR-PRM-DER-DRP-1151	HIC
-DED01-ENI-AR-PRM-DER-DRP-1171	ETU & SHED
-DED01-ENI-AR-PRM-DER-DRP-1705	PIT WHEEL LATHE
-DED01-ENI-TR-PRM-DER-DRP-8501	GAD FOR TRACK
-DED01-ENI-TR-PRM-DER-DRP-8502	GAD FOR TRACK

RANGEHILL DEPOT - BUILDING WISE AREAS

S.No.	Description	Area (in Sqm) Basement Floor	Ground Floor	Mezzanine/ First floor	Service Floor	Deck Level & Upper Floor	Total
1	**Integrated Workshop cum Admin Building**						
	Inspection and reapir lines (covered workshop)		6100				6100
	Shop Floor/offices on side		1330	1330			2660
2	**Admin + OCC Building**	1900	1750	2400	2400	2400	10850
3	**Heavy Internal Cleaning Shed**		760				760
4	**ETU Building / Repair Shed**						
	ETU Shed		540				540
	ETU RCC Building on Side		720				720
	PIT WHEEL LATHE		450				450
5	**Loading/unloading Platform**		1600				1600
6	**ASS Building**		750				750
7	**RSS/TSS Building + Yard**		4000	750			4750
8	**STP/ETP/Biodigestors (Depot)**	750					750
9	STP/ETP/Biodigestors (PD All Phases)	1000					1000
	ATWP Treatment Plant/Pump Room	450					450
	subtotal	***4100***	***18000***	***4480***	***2400***	***2400***	***31380***

SUMMARY OF FACILITIES / BUILDINGS

S.NO.	FACILITIES / LINES	MASTER PLAN	AT END OF PHASE-1	ADDITIONAL IN PH-2
1	Integrated Workshop Building			
	RCC Shop Floors on side of repair/Inspection bays	160 x 15m RCC Bldg G+1 Floors Total BUA = 4800 sqm	90 x 15m RCC Bldg G+1 Floors Total BUA = 2700 sqm	extension of building to 160m long
	Workshop Repair Lines	4 repair lines x 6 car long Covered by RCC Roof 160 x 44 m Total BUA = 7040 sqm	4 repair lines x 3 car long Covered by RCC Roof 90 x 44 m Total BUA = 3960 sqm	extension of lines to 6 car length extn. of RCC Building
	Inspection Lines	3 insp lines x 6 car long Covered by RCC Roof 160 x 24m Total BUA = 3840 sqm	3 insp lines x 3 car long Covered by RCC Roof 90 x 24m Total BUA = 2160 sqm	extension of lines to 6 car length extn. of RCC Building
2	Stabling Lines	20 repair lines x 6 car long	18 repair lines x 3 car long	Extension of lines from 3 car to 6 cars.
3	ETU Building & Shed	80m x 8m RCC Building G+1 RCC Building 80m x 7m Pre-Fab Shed	80m x 8m RCC Building G+1 RCC Building 80m x 7m Pre-Fab Shed	-
4	Pit Wheel Lathe (PWL)	28,85m x 15,4m PreFab Shed with RCC Pit by M&P	28,85m x 15,4m PreFab Shed with RCC Pit by M&P	-
5	Automatic Train Wash Plant (ATWP)	50m long Wash Plant with control room & recyling	50m long Wash Plant with control room & recyling	-
6	Heavy Internal Cleaning Shed (HIC)	160m x 8m for 6 car with prefab shed	80m x 8m for 3 car with prefab shed	extension of lines to 6 car length extn. of shed
7	Auxilliary Substation (ASS)	40 x 20m / 800 sqm	40 x 20m / 800 sqm	-
8	Receiving Substation (RSS)	(60 x 30)+(55 x 40) 4000 sqm	(60 x 30)+(55 x 40) 4000 sqm	-
9	Test Track	858m long incl buffers	858m long incl buffers	-
10	Loading-Unloading Deck	80 x 20m (min) permanent loading-unloading deck	70 x 20m (min) Temporary loading-unloading deck	Permanent deck to be constructed after handing over the space by UG contractor
11	Other Misc. Facilities	Road Network, Security Time Office, Main Gates Car Parking Sheds, UGWT ETP/STP (Biodigestor) as per design.	Road Network, Security Time Office, Main Gates Car Parking Sheds, UGWT ETP/STP (Biodigestor) as per design.	-



KEY PLAN

SCALE NTS

NOTES:

THE RESPONSIBILITY OF CONTROL, CHECK & VERIFICATION OF ACCURACY, CORRECTNESS, COMPLETENESS, INTEGRATION & FULL COMPLIANCE OF THE CONTRACT PROVISIONS IN RESPECT OF DESIGN, ANALYSIS AND DRAWINGS RESTS WITH THE DETAILED DESIGN CONSULTANT / DETAILED DESIGN CONSULTANT & CONTRACTOR.
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☐ Proof checked & Approved by GC
☐ Being Given No Objection
☐ Issued As Good For Construction.

COUNTER SIGNED BY MAHARASHTRA METRO RAIL CORPORATION LTD.

	DDC / CONTRACTOR				CONTRACTOR	PROOF CONSULTANT				DY. HOD
SIGN:		SIGN:		SIGN:		SIGN:	SIGN:	SIGN:		
DATE:	17.01.2019	DATE:	17.01.2019	DATE:	17.01.2019	DATE:	DATE:	DATE:		
NAME:	VS	NAME:	VS	NAME:	SM	NAME:	NAME: ---	NAME: ---	NAME: ---	NAME: ---
	DRAWN BY		DESIGN BY		CHECKED BY	APPROVED BY	REVIEWED BY (STRUCT. ENGG.)	APPROVED BY (TEAM LEADER)	REVIEWED BY	APPROVED BY

HOT APPLICABLE

REV NO	DATE	DESCRIPTION	SIGN
A01	19.03.18	FIRST ISSUE	
A02	15.06.18	REVISED AS PER GC COMMENTS	
A03	27.07.18	REVISED AS PER GC COMMENTS	
B01	27.12.18	REVISED AS PER GC COMMENTS	
B02	09.01.19	REVISED AS PER MOM DATED 07.12.2018	
B03	17/01/19	REVISED AS PER GC COMMENTS	

Consultant- Enia

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SUB CONSULTANT:-

ROARK CONSULTANTS
ANALYST CONSULTANTS
AEON CONSULTANTS

SYSTRA-AECOM-EGIS-RITES
(GENERAL CONSULTANT TO PUNE METRO RAIL PROJECT)

HOD

PROJECT: PUNE METRO RAIL PROJECT
The Orion Building, 1st Floor, Opposite Don Bosco Center, Near Saint Mira's Girls College, Koregaon Park, Pune - 411001, MH, India

CLIENT: MAHARASHTRA METRO RAIL CORPORATION LTD.

LOCATION: Depot for Range Hill

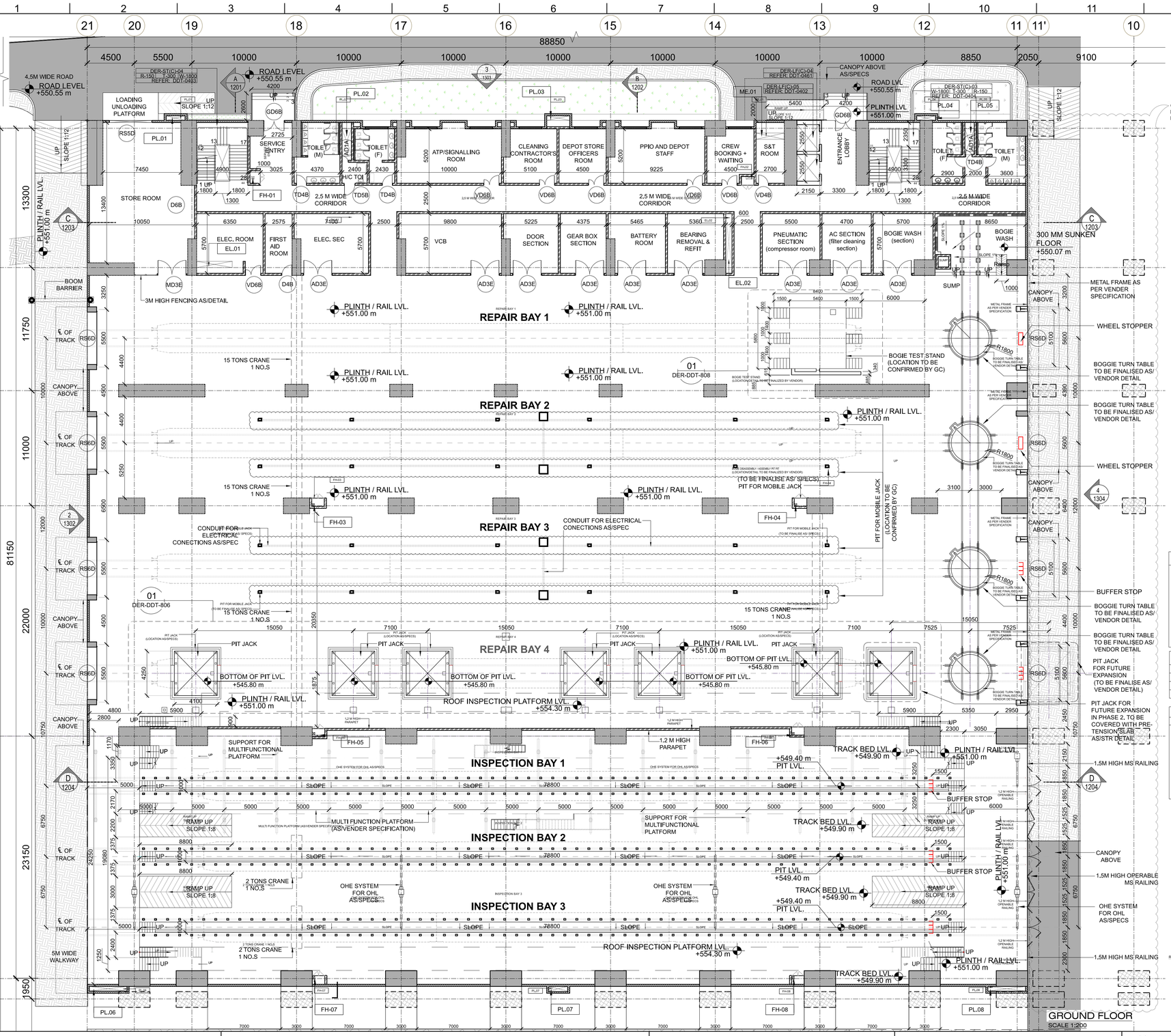
TITLE: MASTER SITE PLAN

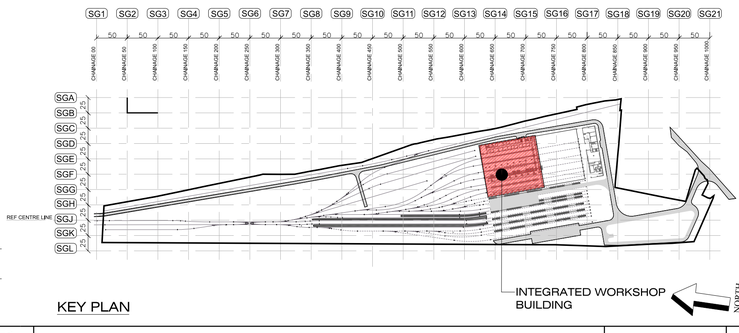
SCALE: AS SHOWN | DATE: 17/01/19 | STATUS: Good for Construction | REVISION NO: B03

DRG NO: DED01-ENI-AR-PRM-DER-DRP-1001

plot scale 50mm

TBA





KEY PLAN

RANGEHILL DEPOT: INTEGRATED WORKSHOP BUILDING _ DOOR SCHEDULE

	SNO.	TAG	DISCRIPTION	WIDTH	CILL	LINTEL	HEIGHT
DOORS	1	AD1A	ALUMINIUM DOOR WITH LOUVERS	600	600	2450	1850
	2	D4B	GI METAL DOOR	1000	0	2450	2450
	3	D6B	GI METAL DOOR	1500	0	2450	2450
	4	TD4B	GI METAL DOOR WITH GRILL	1000	0	2450	2450
	5	TD5B	GI METAL DOOR WITH GRILL	1050	0	2450	2450
	6	VD4B	GI METAL DOOR WITH VISION PANEL	1000	0	2450	2450
	7	VD6B	GI METAL DOOR WITH VISION PANEL	1500	0	2450	2450
	8	GD4B	GLASS DOOR	1000	0	2450	2450
	8	AD3E	ALUMINIUM DOOR	3000	0	2450	2450
	8	MD3E	GI METAL DOOR WITH GRILL	3000	0	2450	2450
	9	GD6B	GLASS DOOR	1800	0	2450	2450
ROLLER SHUTTER	1	RS6D	ROLLING SHUTTER	4000	0	5000	5000
	2	RS6D	ROLLING SHUTTER	5000	0	5000	5000

DISCRIPTION	SCALE	DRAWING REFERENCE
MASTER PLAN	1:1000	DED01-ENI-AR-PRM-DER-DRP-1001
GROUND FLOOR PLAN	1:200	DED01-ENI-AR-PRM-DER-DRP-1101
FIRST FLOOR PLAN	1:200	DED01-ENI-AR-PRM-DER-DRP-1102
SECOND FLOOR PLAN	1:200	DED01-ENI-AR-PRM-DER-DRP-1103
TERRACE/TRANFER FLOOR LEVEL PLAN	1:200	DED01-ENI-AR-PRM-DER-DRP-1104
DECK LEVEL PLAN	1:500	DED01-ENI-AR-PRM-DER-DRP-1105
PD LEVEL(TYPICAL) FLOOR PLAN	1:500	DED01-ENI-AR-PRM-DER-DRP-1106
SITE PLAN (COMBINED SCHEME)	1:500	DED01-ENI-AR-PRM-DER-DRP-1107
SECTION AA (CROSS SECTION)	1:200	DED01-ENI-AR-PRM-DER-DSE-1201
SECTION BB (CROSS SECTION)	1:200	DED01-ENI-AR-PRM-DER-DSE-1202
SECTION CC (LONG SECTION)	1:200	DED01-ENI-AR-PRM-DER-DSE-1203
SECTION DD (LONG SECTION)	1:200	DED01-ENI-AR-PRM-DER-DSE-1204
ELEVATION 1	1:200	DED01-ENI-AR-PRM-DER-DDE-1301
ELEVATION 2	1:200	DED01-ENI-AR-PRM-DER-DDE-1302
ELEVATION 3	1:200	DED01-ENI-AR-PRM-DER-DDE-1303

RANGEHILL DEPOT: INTEGRATED WORKSHOP BUILDING AREA SCHEDULE

	SL NO.	ROOM NAME	LENGTH	WIDTH	AREA
GROUND FLOOR	1	VCB	10	5.2	49.7041
	2	TOILET (M)	5.2	4.37	22.8147
	3	BOGIE WASH SECTION	5.7	5.7	30.7526
	4	PPIO AND DEPOT STAFF	9.225	5.2	48.2761
	5	TOILET (F)	2.4	5.2	18.9702
	6	TOILET (H)	2	2.4	5.01
	7	BATTERY ROOM	5.7	4.815	29.608
	8	BEARING REMOVAL & REFIT	5.7	5.36	28.8134
	9	DOOR SECTION	5.7	5.225	28.2555
	10	AC SECTION (FILTER CLEANING)	5.7	4.7	28.3511
	11	PNEUMATIC SECTION(COMPRESSOR ROOM)	5.7	5.5	30.6519
	12	GEAR BOX SECTION	5.7	4.375	25.5393
	13	CREW BOOKING AND WAITING ROOM	4.95	4.5	22.8667
	14	ELEC. ROOM	6.35	5.7	36.2705
	15	ATP SIGNALLING ROOM	9.8	5.7	54.3111
	16	STORE ROOM	14.4	10.05	122.9752
	17	BOGGIE WASH	8.65	5.7	48.3319
	18	ELEC. SECTION	7.1	5.7	38.9363
	19	FIRST AID ROOM	5.7	2.575	14.8611
	20	S&T ROOM	5.2	2.6	15.921
	21	DEPOT STORE OFFICER'S ROOM	5.2	4.475	23.7853
	22	CLEANING CONTRACTOR'S ROOM	5.2	5.125	25.1959
	23	TOILET (H) R	-	-	-
	24	TOILET (M) R	5.2	3.6	21.5767
	25	TOILET (F) R	5.2	2.9	20.489

RANGEHILL DEPOT: INTEGRATED WORKSHOP BUILDING _ SHAFT SCHEDULE

	SHAFT CODE	SHAFT NAME	BOTTOM LEVEL	TOP LEVEL	LENGTH (in m)	WIDTH (in m)	AREA (in m^2)	REMARKS
PLUMBING	PL.01	Plumbing Shaft 01	GROUND LVL	ROOF LVL	0.45	1.80	0.81	Cutout for RWP
	PL.02	Plumbing Shaft 02	GROUND LVL	ROOF LVL	2.80	0.90	2.52	Shaft for Plumbing Services
	PL.03	Plumbing Shaft 03	GROUND LVL	ROOF LVL	0.45	1.80	0.81	Cutout for RWP
	PL.04	Plumbing Shaft 04	GROUND LVL	ROOF LVL	0.45	1.80	0.81	Cutout for RWP
	PL.05	Plumbing Shaft 05	GROUND LVL	ROOF LVL	2.48	0.90	2.23	Shaft for Plumbing Services
	PL.06	Plumbing Shaft 06	GROUND LVL	ROOF LVL	0.45	3.60	1.62	Cutout for RWP
	PL.07	Plumbing Shaft 07	GROUND LVL	ROOF LVL	0.45	1.80	0.81	Cutout for RWP
	PL.08	Plumbing Shaft 08	GROUND LVL	ROOF LVL	0.45	3.60	1.62	Cutout for RWP
ELECT.	EL.01	Electrical Shaft 01	GROUND LVL	FIRST FLOOR LVL	5.30	0.60	3.18	Cutout for Electrical Cables
	EL.02	Electrical Shaft 02	GROUND LVL	FIRST FLOOR LVL	5.70	0.60	3.42	Cutout for Electrical Cables
FIRE	FH.01	FHC 1	GROUND LVL	ROOF LVL	0.25	0.25	0.06	FHC and Sprinkler
	FH.02	FHC 2	GROUND LVL	ROOF LVL	0.60	0.25	0.15	FHC and Sprinkler
	FH.03	FHC 3	GROUND LVL	-	0.25	0.25	0.06	FHC and Sprinkler
	FH.04	FHC 4	GROUND LVL	-	0.25	0.25	0.06	FHC and Sprinkler
	FH.05	FHC 5	GROUND LVL	-	0.25	0.25	0.06	FHC and Sprinkler
	FH.06	FHC 6	GROUND LVL	-	0.25	0.25	0.06	FHC and Sprinkler
	FH.07	FHC 7	GROUND LVL	-	0.25	0.25	0.06	FHC and Sprinkler
	FH.08	FHC 8	GROUND LVL	-	0.25	0.25	0.06	FHC and Sprinkler
MECH.	ME.01	S&T Shaft 01	GROUND LVL	FIRST FLOOR LVL	2.20	0.60	1.32	Cutout for S&T Cables

NOTES:-

- IN ABSENCE OF M&P CONTRACTOR, IT WAS INSTRUCTED BY GC/MM TO FOLLOW M&P SHOP DRAWINGS/ INPUTS OF NAGPUR METRO,
- NAGPUR METRO M&P SHOP DRAWINGS WERE PROVIDED BY GC ON 21.01.2020
- BASED ON THE ABOVE SHOP DRAWINGS, THESE GFC DRAWINGS ARE UPDATED,
- EOT CRANE DETAILS ARE AS PER DETAIL DRAWING SHARED BY URC WITH LETTER DATED 04.07.2019
- **NO CASTING TO BE DONE ON SITE WITHOUT APPROVED SHOP DRAWINGS OF M&P.**

LEGEND:-

- -COLUMNS FOR FUTURE EXPANSION
- -R.C.C COLUMNS
- - BRICK WALL AS/BOQ
- -BRICK WALL FOR FUTURE EXPANSION

REFERENCE DRAWINGS:-

DRAWING NO.	DRAWING TITLE
-DED01-ENI-AR-PRM-DER-DRP-1001	SITE MASTER PLAN
-DED01-ENI-AR-PRM-DER-DRP-1002	SURVEY PLAN WITH DEPOT BOUNDARY
-DED01-ENI-AR-PRM-DER-DRP-1004	SITE MARKING PLAN
-DED01-ENI-AR-PRM-DER-DRP-1111	ADMIN-BCC BUILDING
-DED01-ENI-AR-PRM-DER-DRP-1151	HIC
-DED01-ENI-AR-PRM-DER-DRP-1171	ETU & SHED
-DED01-ENI-AR-PRM-DER-DRP-1705	PIT WHEEL LATHE
-DED01-ENI-TR-PRM-DER-DRP-8501	GAD FOR TRACK
-DED01-ENI-TR-PRM-DER-DRP-8502	GAD FOR TRACK

NOTES:

THE RESPONSIBILITY OF CONTROL, CHECK & VERIFICATION OF ACCURACY, CORRECTNESS, COMPLETENESS, INTEGRATION & FULL COMPLIANCE OF THE CONTRACT PROVISIONS IN RESPECT OF DESIGN, ANALYSIS AND DRAWINGS RESTS WITH THE DETAILED DESIGN CONSULTANT / DETAILED DESIGN CONSULTANT & CONTRACTOR. IT IS CERTIFIED THAT THERE IS NO CHANGE IN THIS GFCD FROM THE ALREADY APPROVED CR DWG NO. "..... REV....." APPROVED ON DATE .....

THIS DRAWING INCLUDING ITS DESIGN AND DETAILING HAS BEEN **PROOF CHECKED** INDEPENDENTLY AND FOUND SUITABLE FOR THE EXECUTION PURPOSE AND IS RECOMMENDED FOR GFC / NO OBJECTION'.

☐ Proof checked & Approved by GC
☐ Being Given No Objection
☐ Issued As Good For Construction.

DDC / CONTRACTOR				CONTRACTOR	PROOF CONSULTANT				COUNTER SIGNED BY MAHARASHTRA METRO RAIL CORPORATION LTD.
SIGN:	SIGN:	SIGN:	SIGN:	SIGN:	SIGN:	SIGN:	SIGN:	SIGN:	DY. HOD
DATE: 14,03,2020	DATE: 14,03,2020	DATE: 14,03,2020	DATE: 14,03,2020	DATE:	DATE:	DATE:	DATE:	DATE:	
NAME: AK	NAME: VS	NAME: KK	NAME: SM	NAME:	NAME: ---	NAME: ---	NAME: ---	NAME: ---	
DRAWN BY	DESIGN BY	CHECKED BY	APPROVED BY	ACCEPTED BY	REVIEWED BY (STRUCT. ENGG.)	APPROVED BY (TEAM LEADER)	REVIEWED BY	APPROVED BY	HOD

NOT APPLICABLE

Consultant- Enia

KG-1/265, Vikaspuri, New Delhi, India
Tel.: +91 9971 691803 / +91 9818 629588
s.manchanda@enia.in / a.joshi@enia.in
www.enia.in

SUB CONSULTANT:-

ANALYST CONSULTANTS
AEON CONSULTANTS

SYSTRA-AECOM-EGIS-RITES
(GENERAL CONSULTANT TO PUNE METRO RAIL PROJECT)

REV NO	DATE	DESCRIPTION	SIGN
B04	05/04/19	REVISED AS PER GC COMMENTS	
B05	14/03/20	REVISED AS PER GC COMMENTS	

PROJECT: PUNE METRO RAIL PROJECT
The Orion Building, 1st Floor, Opposite Don Bosco Center, Near Saint Mira's Girls College, Koregaon Park, Pune - 411001, MH, India

CLIENT: MAHARASHTRA METRO RAIL CORPORATION LTD.

LOCATION: Depot for Range Hill

TITLE: INTEGRATED WORKSHOP BUILDING GROUND FLOOR PLAN

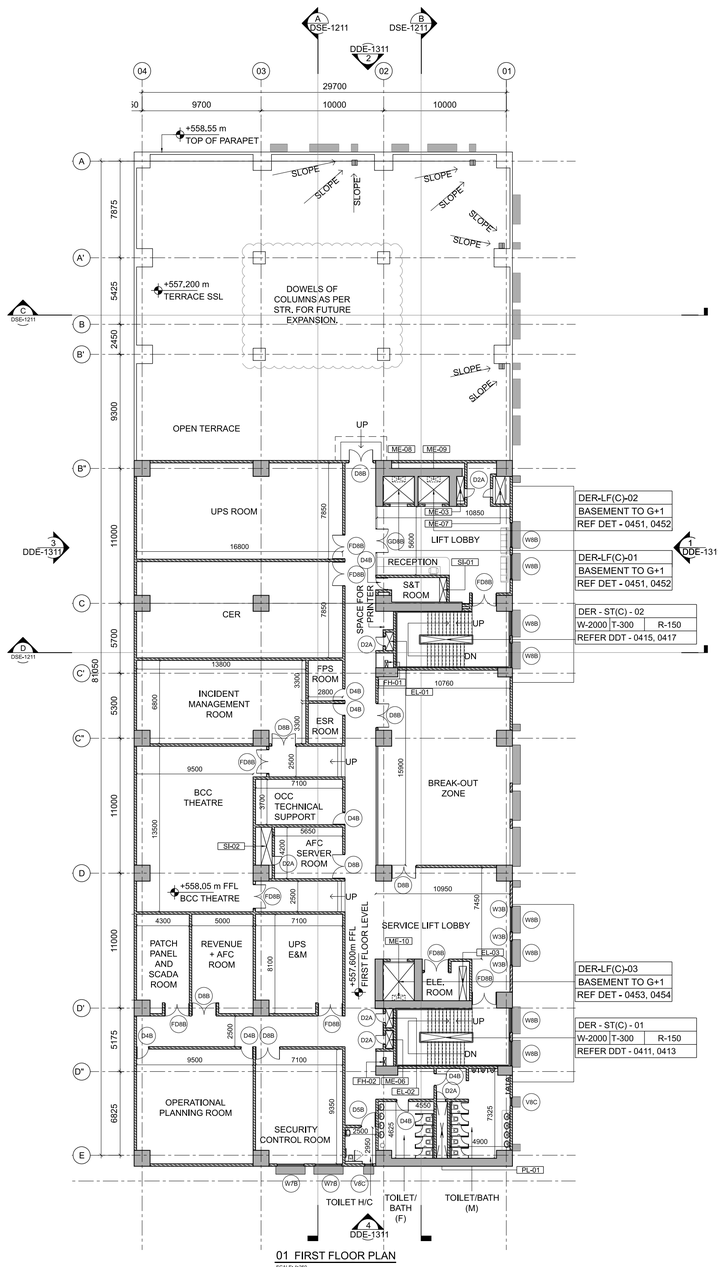
SCALE: AS SHOWN | DATE: 14/03/20 | STATUS: Good for Construction | REVISION NO: B05

DRG NO: DED01-ENI-AR-PRM-DER-DRP-1101

ARCHITECTURE

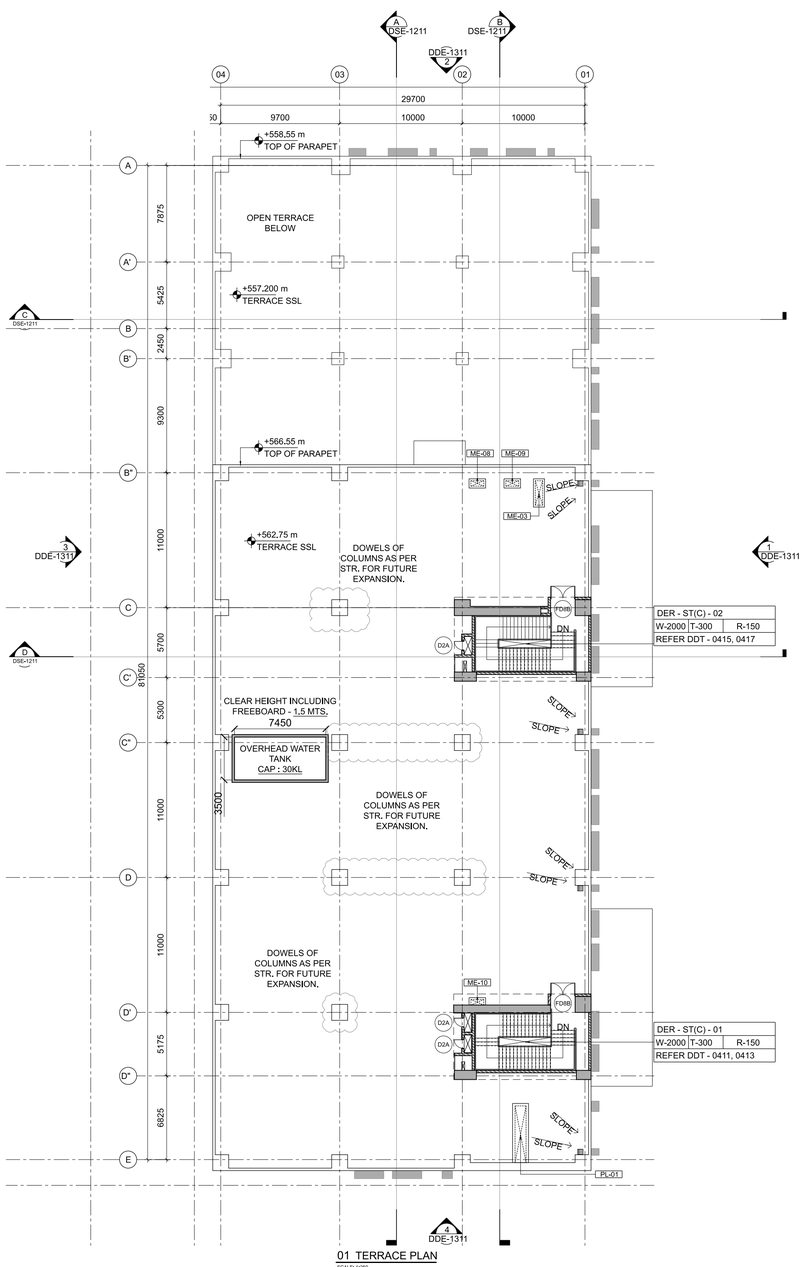
plot scale 50mm

TBA



01 FIRST FLOOR PLAN

SCALE: 1:250



01 TERRACE PLAN

SCALE: 1:250

RANGEHILL DEPOT - ADMIN CUM BCC BUILDING

FIRST FLOOR LEVEL

S.NO.	ROOM NAME	LENGTH (in M)	WIDTH (in M)	AREA (in SqM)
1	PATCH PANEL AND SCADA ROOM	4.3	7	31.69
2	REVENUE+AFC ROOM	5	7	38.57
3	AFC SERVER ROOM	5.65	4.2	23.31
4	OCC TECHNICAL SUPPORT ROOM	7.1	3.7	26.27
5	UPS ROOM	16.8	7.85	129.23
6	UPS (E&M)	7.1	8.1	54.36
7	CER	16.8	7.85	130.45
8	ESR ROOM	2.8	3.3	9.24
9	FPS ROOM	2.8	3.3	9.24
10	INCIDENT MANAGEMENT ROOM	13.8	6.8	91.19
11	BCC THEATRE	9.5	13.5	129.57
12	LIFT LOBBY	VARIES	VARIES	69.77
13	S&T ROOM	4.5	2	9
14	SECURITY CONTROL ROOM	7.1	9.35	65.17
15	OPERATIONAL PLANNING ROOM	9.5	9.35	87.66
16	BREAK-OUT ZONE	10.76	15.9	166.63
17	SERVICE LIFT LOBBY	10.95	7.45	87.56
18	ELECTRICAL ROOM	VARIES	VARIES	10.1
19	TOILET / BATH (M)	4.9	7.32	36.87
20	TOILET / BATH (F)	4.55	4.62	20.32
21	TOILET H/C	2.5	2.95	7.37

RANGEHILL DEPOT: ADMIN/ BCC BUILDING

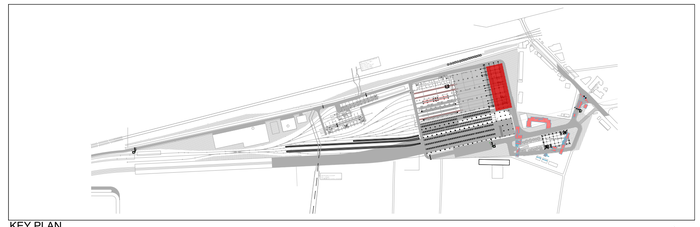
SHAFT CODE	SHAFT NAME	BOTTOM LEVEL	TOP LEVEL	CUTOUT LENGTH (in m)	CUTOUT WIDTH (in m)	AREA (in m^2)	REMARKS
ELECTRICAL SHAFTS							
EL.01	Electrical Shaft 01	BASEMENT LVL.	FIRST FLOOR	1.45	0.55	0.80	Cutout for LT Cables
EL.02	Electrical Shaft 02	BASEMENT LVL.	FIRST FLOOR	1.60	0.60	0.96	Cutout for DG Exhaust Pipes
EL.03	Electrical Shaft 03	BASEMENT LVL.	FIRST FLOOR	2.80	0.60	1.68	Cutout for LT Cables
PLUMBING SHAFTS							
PL.01	Plumbing Shaft 01	GROUND LVL	TERRACE	4.62	0.90	4.16	Shaft for Plumbing Services
FIRE SHAFTS							
FH.01	FHC 1	BASEMENT LVL	TERRACE	0.25	0.60	0.15	FHC and Sprinkler Riser Cutout
FH.02	FHC 2	BASEMENT LVL	TERRACE	0.25	0.70	0.18	FHC and Sprinkler Riser Cutout
MECHANICAL SHAFTS							
ME.01	HVAC Shaft 01	BASEMENT LVL	GROUND LVL	1.20	0.65	0.78	Shaft for Fresh Air Supply to Spare Room & Pump room
ME.02	HVAC Shaft 02	BASEMENT LVL	GROUND LVL	1.20	0.65	0.78	Shaft for Exhaust Air from Spare room & Pump Room
ME.03	HVAC Shaft 03	BASEMENT LVL	TERRACE	2.00	0.60	1.20	Shaft for Lift Lobby Pressurisation
ME.04	HVAC Shaft 04	BASEMENT LVL	GROUND LVL	3.00	0.80	2.40	Shaft for Fresh Air Supply to ASS Room
ME.05	HVAC Shaft 05	BASEMENT LVL	GROUND LVL	2.60	0.80	2.08	Shaft for Exhaust Air from ASS Room & DG room
ME.06	HVAC Shaft 06	BASEMENT LVL	TERRACE	1.43	0.60	0.86	Shaft of Air Washer for DG Set
ME.07	HVAC Shaft 07	BASEMENT LVL	TERRACE	1.80	0.85	1.53	Chill Water Pipe Shaft
ME.08	HVAC Shaft 08	TERRACE	TERRACE	1.05	0.45	0.47	Cut-out for Lift Well Pressurization
ME.09	HVAC Shaft 09	TERRACE	TERRACE	1.05	0.45	0.47	Cut-out for Lift Well Pressurization
ME.10	HVAC Shaft 10	TERRACE	TERRACE	1.05	0.45	0.47	Cut-out for Lift Well Pressurization
SIGNALLING & TELECOM SHAFT							
SI.01	S&T Shaft 01	BASEMENT LVL	FIRST FLOOR LVL	2.00	0.60	1.20	Shaft for Signalling & Telecom cables
SI.02	S&T Shaft 02	BASEMENT LVL	FIRST FLOOR LVL	3.10	0.90	2.79	Shaft for Signalling & Telecom cables

NOTES:

- FOR OPENING & FINISHES SCHEDULE, REFER DWG.NO. ***DED01-ENI-AR-PRM-DER-DSC-0013.***
- FOR STAIRCASE's DETAIL, REFER DWG.NO., ***DED01-ENI-AR-PRM-DER-DDT-0411, 0412, 0413, 0415, 0416, 0417.***
- FOR LIFT's DETAIL, REFER DWG.NO. ***DED01-ENI-AR-PRM-DER-DDT-0451 to 0454.***
- FOR RAILING DETAIL, REFER SEPARATE DWG, ***DED01-ENI-AR-PRM-DER-DDT-0751 to 0755.***
- FOR TOILET DETAIL, REFER SEPARATE DWG. ***DED01-ENI-AR-PRM-DER-DDT-0789 to 0792.***
- FOR EXTERNAL DEVELOPMENT, INTERNAL VEHICULAR CIRCULATION, TYPICAL PAVEMENT DETAILS, REFER SEPARATE DWG, ***DED01-ENI-AR-PRM-DER-DDT-1014 TO 1019, 0901 TO 0913.***
- FOR SIGNAGES & ADVERTISEMENT DETAIL, REFER SEPARATE DWG, ***DED01-ENI-AR-PRM-DER-DDT-0931 TO 0933.***
- FOR FHC, REFER SEPARATE TYPICAL FHC DETAIL DWG.
- FOR DB SIZE, THE BLOCK TO BE DONE ONLY AFTER THE DB SIZE CONFIRMATION FROM MEP.
- FOR CUTOUTS AND WALL OPENINGS THIS DRAWING SHALL BE READ WITH SEPARATE CSD's, WOD's AND SEM's DRAWINGS.
- PLUMBING SERVICES ARE TENTATIVE AND SEPARATE PLUMBING DRAWINGS ARE TO BE REFERRED.

ADMIN BCC BUILDING - DOOR, WINDOW & ROLLER SHUTTER SCHEDULE

S NO.	TAG	TYPE	WIDTH (M)	HEIGHT	CILL	LINTEL	NUMBERS
DOORS & ROLLING SHUTTER							
1	D2A	GI METAL DOOR WITH LOUVRES	750	2150	300	2450	24
2	D4B	GI METAL DOOR	1000	2450	-	2450	21
3	D8B	GI METAL DOOR	2000	2450	-	2450	20
4	D5B	GI METAL DOOR	1200	2450	-	2450	2
5	FD8B	2HR.S FIRE RESISTANT DOUBLE PANEL METAL DOOR WITH VISION PANEL	2000	2450	-	2450	16
6	GD8B	GLASS DOOR	2000	2450	-	2450	3
7	RS2D	ROLLING SHUTTER	2500	3000	-	3000	1
8	RS3D	ROLLING SHUTTER	3000	3000	-	3000	1
9	RS5D	ROLLING SHUTTER	4000	3000	-	3000	1
10	RS6D	ROLLING SHUTTER	5000	5000	-	5000	1
WINDOWS & VENTILATORS							
1	W7B	ALUMINIUM WINDOW	2200	1550	900	2450	20
2	V7B	ALUMINIUM VENTILATOR	2200	850	4250	5100	20
3	V8B	ALUMINIUM VENTILATOR	2000	850	4250	5100	8
4	V6C	ALUMINIUM VENTILATOR	650	1550	900	2450	4
5	W8B	ALUMINIUM WINDOW	2000	1550	900	2450	9



KEY PLAN

SCALE: TALT.S.

NORTH

REFERENCE DRAWINGS:-	
DRAWING NO.	DRAWING TITLE
DED01-ENI-AR-PRM-DER-DRP-1001	SITE MASTER PLAN
DED01-ENI-AR-PRM-DER-DRP-1002	SURVEY PLAN WITH DEPOT BOUNDARY
DED01-ENI-AR-PRM-DER-DRP-1004	SITE MARKING PLAN
DED01-ENI-AR-PRM-DER-DRP-1101	INTEGRATED BUILDING
DED01-ENI-AR-PRM-DER-DRP-1151	HIC
DED01-ENI-AR-PRM-DER-DRP-1171	ETU
DED01-ENI-AR-PRM-DER-DRP-1705	PIT WHEEL LATHE
DED01-ENI-TR-PRM-DER-DRP-8501	GAD FOR TRACK
DED01-ENI-TR-PRM-DER-DRP-8502	GAD FOR TRACK

LEGEND:-

- R.C.C COLUMN
- 200MM THK BLOCKWORK

NOTES:

1. ALL DIMENSIONS ARE IN MM
2. ALL LEVELS IN METERS FROM MEAN SEA LEVEL UNLESS OTHERWISE MENTIONED
3. DIMENSIONS ARE NOT TO BE SCALED, ONLY WRITTEN DIMENSIONS TO BE FOLLOWED.
4. ALL RCC AND STEEL MEMBER DIMENSIONS ARE INDICATIVE AND SUBJECT TO MODIFICATIONS DURING STRUCTURAL DESIGN.
5. FOR ARCHITECTURAL FINISHES, REFER SEPARATE FINISHES SCHEDULE,
6. FOR MICRO DETAILS, REFER SEPARATE DRAWINGS.
7. ANY DISCREPANCIES TO BE BROUGHT TO THE NOTICE OF THE ARCHITECT.

REV NO	DATE	DESCRIPTION	SIGN
B01	20/12/2018	REVISED AS PER GC COMMENTS	
B02	11/02/2019	REVISED AS PER GC COMMENTS	
B03	16/03/2019	REVISED AS PER GC COMMENTS	
B04	09/11/2019	REVISED AS PER GC COMMENTS	
B05	18/05/2020	REVISED DESIGN AS PER GC	

THE RESPONSIBILITY OF CONTROL, CHECK & VERIFICATION OF ACCURACY, CORRECTNESS, COMPLETENESS, INTEGRATION & FULL COMPLIANCE OF THE CONTRACT PROVISIONS IN RESPECT OF DESIGN, ANALYSIS AND DRAWINGS RESTS WITH THE DETAILED DESIGN CONSULTANT / DETAILED DESIGN CONSULTANT & CONTRACTOR.
IT IS CERTIFIED THAT THERE IS NO CHANGE IN THIS GFCD FROM THE ALREADY APPROVED CR DWG NO. "..... REV..... " APPROVED ON DATE .....

THIS DRAWING INCLUDING ITS DESIGN AND DETAILING HAS BEEN **PROOF CHECKED** INDEPENDENTLY AND FOUND SUITABLE FOR THE EXECUTION PURPOSE AND IS RECOMMENDED FOR GFC / NO OBJECTION'.

☐ Proof checked & Approved by GC
☐ Being Given No Objection
☐ Issued As Good For Construction.

COUNTER SIGNED BY MAHARASHTRA METRO RAIL CORPORATION LTD.

DDC / CONTRACTOR				CONTRACTOR	PROOF CONSULTANT					
SIGN:	SIGN:	SIGN:	SIGN:	SIGN:	SIGN:	SIGN:	SIGN:		SIGN:	
DATE: 18.05.20	DATE: 18.05.20	DATE: 18.05.20	DATE: 18.05.20	DATE:	DATE:	DATE:	DATE:		DATE:	
NAME: SB	NAME: VS	NAME: KK	NAME: SM	NAME:	NAME: ---	NAME: ---	NAME:	---	NAME:	---
DRAWN BY	DESIGN BY	CHECKED BY	APPROVED BY	ACCEPTED BY	REVIEWED BY (STRUCT. ENGG.)	APPROVED BY (TEAM LEADER)	REVIEWED BY		APPROVED BY	

HOT APPLICABLE

DY. HOD

HOD

Consultant- Enia

KG-1/265, Vikaspuri, New Delhi, India
Tel.: +91 9971 691803 / +91 9818 629588
s.manchanda@enia.in / a.joshi@enia.in
www.enia.in

SUB CONSULTANT:-

ANALYST CONSULTANTS
AEON CONSULTANTS

SYSTRA-AECOM-EGIS-RITES
(GENERAL CONSULTANT TO PUNE METRO RAIL PROJECT)

PROJECT: PUNE METRO RAIL PROJECT
The Orion Building, 1st Floor, Opposite Don Bosco Center, Near Saint Mira's Girls College, Koregaon Park, Pune - 411001, MH, India

CLIENT: MAHARASHTRA METRO RAIL CORPORATION LTD.

LOCATION: Depot for Range Hill

TITLE: ADMIN - BCC BUILDING
FIRST & TERRACE FLOOR PLAN

SCALE: AS SHOWN | DATE: 18/05/2020 | STATUS: Good for Construction

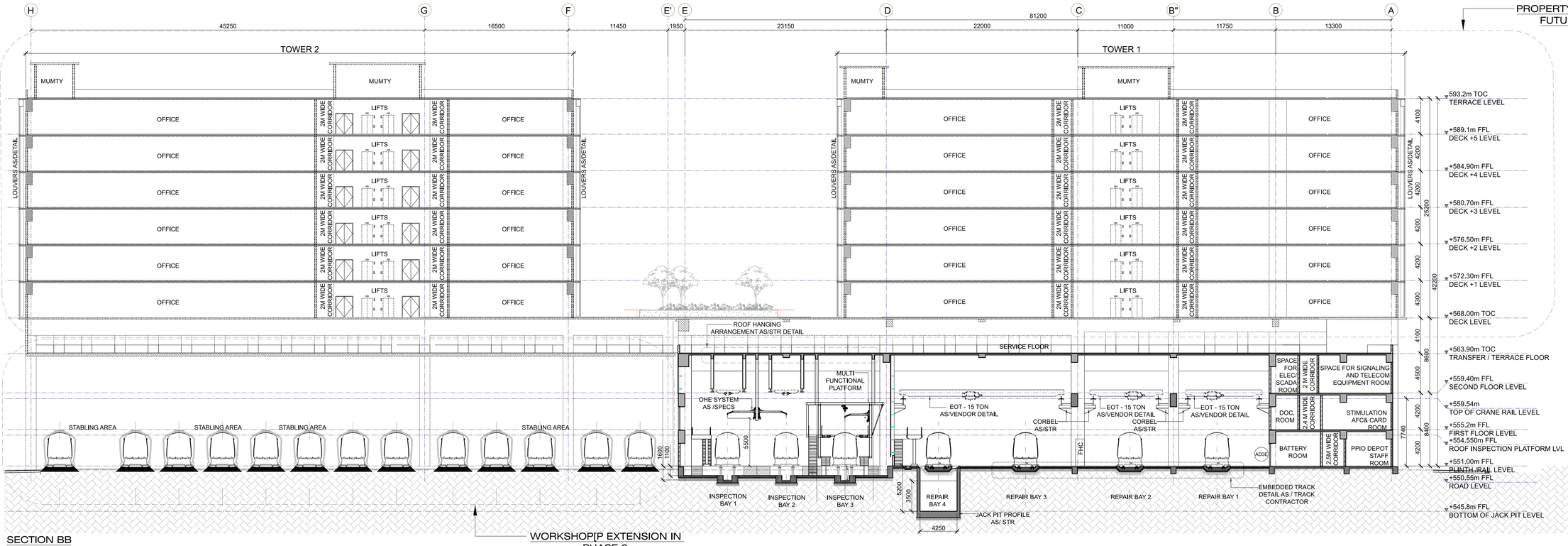
DRG NO: DED01-ENI-AR-PRM-DER-DRP-1112

REVISION NO: B05

ARCHITECTURE

TBA

plot scale 50mm



SECTION BB
SCALE 1:250

NOTES:-

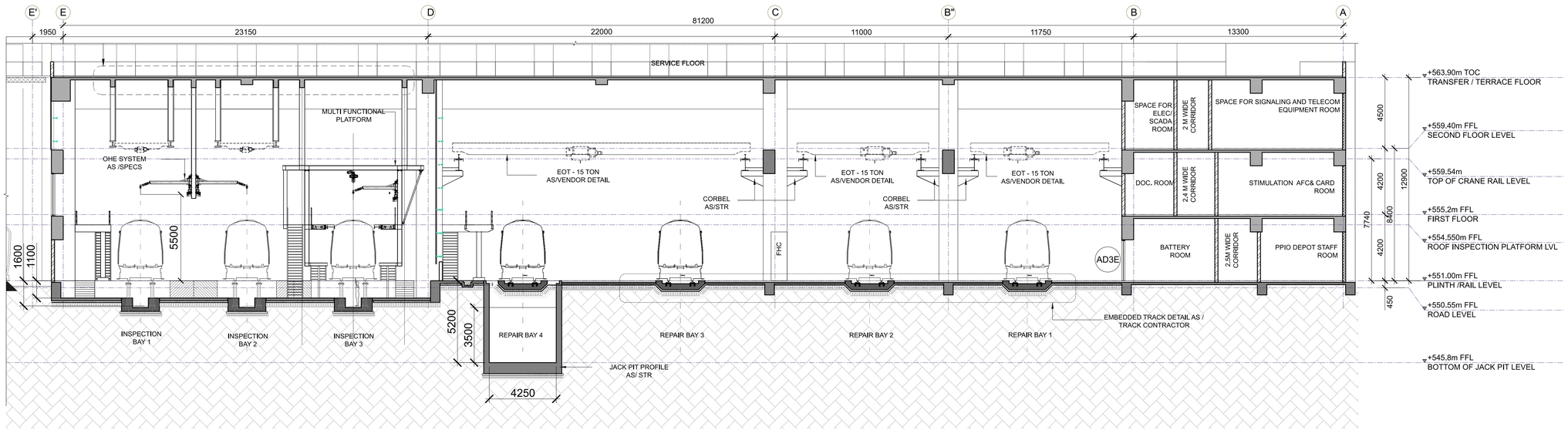
- IN ABSENCE OF M&P CONTRACTOR, IT WAS INSTRUCTED BY GC/MM TO FOLLOW M&P SHOP DRAWINGS/ INPUTS OF NAGPUR METRO.
- NAGPUR METRO M&P SHOP DRAWINGS WERE PROVIDED BY GC ON 21.01.2020
- BASED ON THE ABOVE SHOP DRAWINGS, THESE GFC DRAWINGS ARE UPDATED.
- EOT CRANE DETAILS ARE AS PER DETAIL DRAWING SHARED BY URC WITH LETTER DATED 04.07.2019
- **NO CASTING TO BE DONE ON SITE WITHOUT APPROVED SHOP DRAWINGS OF M&P.**

LEGEND:-

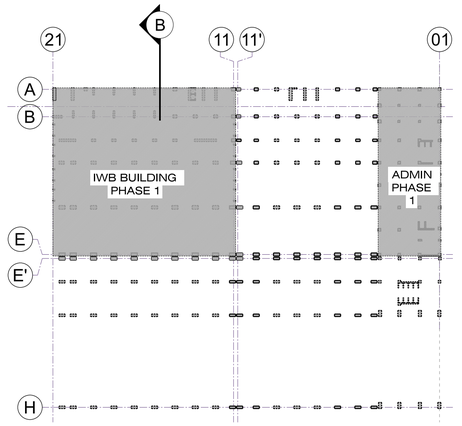
	-COLUMNS FOR FUTURE EXPANSION
	-R.C.C COLUMNS
	- BRICK WALL AS/BOQ
	-BRICK WALL FOR FUTURE EXPANSION

REFERENCE DRAWINGS:-

DRAWING NO.	DRAWING TITLE
-DED01-ENI-AR-PRM-DER-DRP-1001	SITE MASTER PLAN
-DED01-ENI-AR-PRM-DER-DRP-1002	SURVEY PLAN WITH DEPOT BOUNDARY
-DED01-ENI-AR-PRM-DER-DRP-1004	SITE MARKING PLAN
-DED01-ENI-AR-PRM-DER-DRP-1111	ADMIN-BCC BUILDING
-DED01-ENI-AR-PRM-DER-DRP-1151	HIC
-DED01-ENI-AR-PRM-DER-DRP-1171	ETU & SHED
-DED01-ENI-AR-PRM-DER-DRP-1705	PIT WHEEL LATHE
-DED01-ENI-TR-PRM-DER-DRP-8501	GAD FOR TRACK
-DED01-ENI-TR-PRM-DER-DRP-8502	GAD FOR TRACK



SECTION BB (PHASE 1)
SCALE 1:150



NOTES:

THE RESPONSIBILITY OF CONTROL, CHECK & VERIFICATION OF ACCURACY, CORRECTNESS, COMPLETENESS, INTEGRATION & FULL COMPLIANCE OF THE CONTRACT PROVISIONS IN RESPECT OF DESIGN, ANALYSIS AND DRAWINGS RESTS WITH THE DETAILED DESIGN CONSULTANT / DETAILED DESIGN CONSULTANT & CONTRACTOR.
IT IS CERTIFIED THAT THERE IS NO CHANGE IN THIS GFCD FROM THE ALREADY APPROVED CR DWG NO. "..... REV....." APPROVED ON DATE .....

THIS DRAWING INCLUDING ITS DESIGN AND DETAILING HAS BEEN **PROOF CHECKED** INDEPENDENTLY AND FOUND SUITABLE FOR THE EXECUTION PURPOSE AND IS RECOMMENDED FOR GFC / NO OBJECTION'.

☐ Proof checked & Approved by GC
☐ Being Given No Objection
☐ Issued As Good For Construction.

COUNTER SIGNED BY MAHARASHTRA METRO RAIL CORPORATION LTD.

DDC / CONTRACTOR				CONTRACTOR	PROOF CONSULTANT					
SIGN:	SIGN:	SIGN:	SIGN:	SIGN:	SIGN:	SIGN:	SIGN:		SIGN:	
DATE: 14.03.2020	DATE: 14.03.2020	DATE: 14.03.2020	DATE: 14.03.2020	DATE:	DATE:	DATE:	DATE:		DATE:	
NAME: AK	NAME: VS	NAME: KK	NAME: SM	NAME:	NAME: ---	NAME: ---	NAME:	---	NAME:	---
DRAWN BY	DESIGN BY	CHECKED BY	APPROVED BY	ACCEPTED BY	REVIEWED BY (STRUCT. ENGG.)	APPROVED BY (TEAM LEADER)	REVIEWED BY		APPROVED BY	

NOT APPLICABLE

DY. HOD

HOD

Consultant- Enia

KG-1/265, Vikaspuri,
New Delhi, India
Tel.: +91 9971 691803 / +91 9818 629588
s.manchanda@enia.in / a.joshi@enia.in
www.enia.in

SUB CONSULTANT:-

ANALYST CONSULTANTS
AEON CONSULTANTS

SYSTRA-AECOM-EGIS-RITES
(GENERAL CONSULTANT TO PUNE METRO RAIL PROJECT)

REV NO	DATE	DESCRIPTION	SIGN
B01	23.01.19	FIRST ISSUE	
B02	14/03/20	REVISED AS PER GC COMMENTS	

PROJECT: PUNE METRO RAIL PROJECT
The Orion Building, 1st Floor, Opposite Don Bosco Center, Near Saint Mira's Girls College, Koregaon Park, Pune - 411001, MH, India

CLIENT: MAHARASHTRA METRO RAIL CORPORATION LTD.

LOCATION: Depot for Range Hill

TITLE: INTEGRATED WORKSHOP BUILDING SECTION BB

SCALE: AS SHOWN | DATE: 14/03/20 | STATUS: Good for Construction

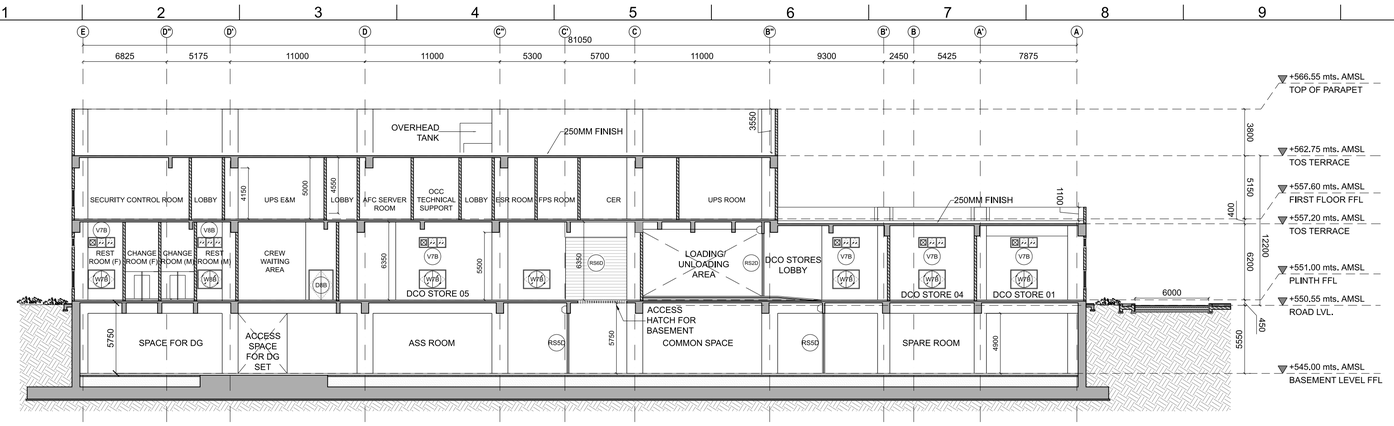
DRG NO: DED01-ENI-AR-PRM-DER-DSE-1202

REVISION NO: B02

ARCHITECTURE

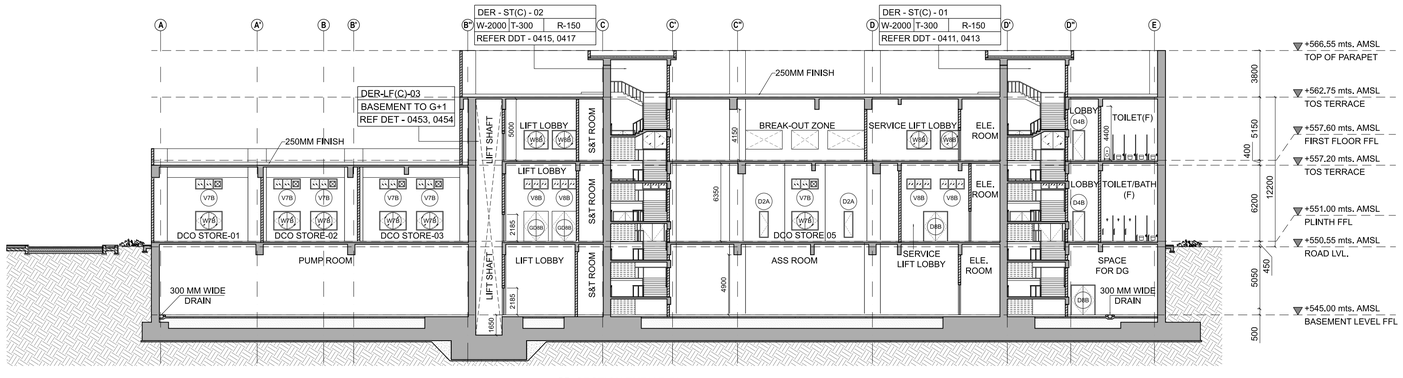
TBA

plot scale 50mm



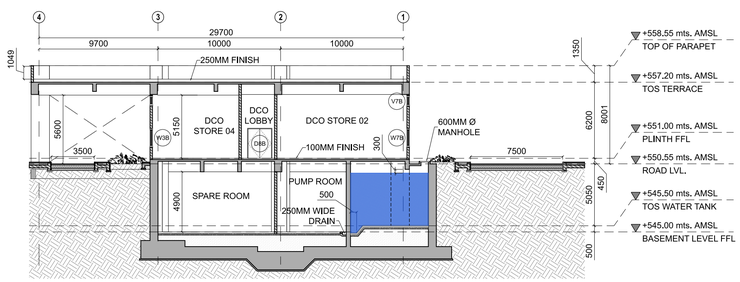
01 SECTION THRU A-A'

SCALE: 1:250



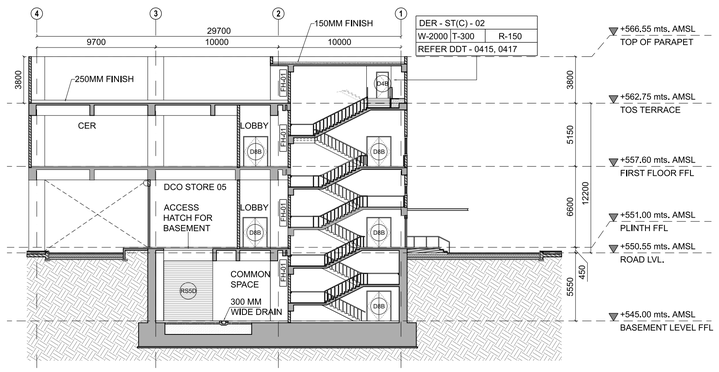
02 SECTION THRU B-B'

SCALE: 1:250



03 SECTION THRU C-C'

SCALE: 1:250



04 SECTION THRU D-D'

SCALE: 1:250

RANGEHILL DEPOT: ADMIN/ BCC BUILDING

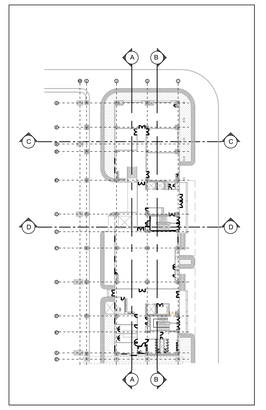
SHAFT CODE	SHAFT NAME	BOTTOM LEVEL	TOP LEVEL	CUTOUT LENGTH (in m)	CUTOUT WIDTH (in m)	AREA (in m^2)	REMARKS
ELECTRICAL SHAFTS							
EL.01	Electrical Shaft 01	BASEMENT LVL.	FIRST FLOOR	1.45	0.55	0.80	Cutout for LT Cables
EL.02	Electrical Shaft 02	BASEMENT LVL.	FIRST FLOOR	1.60	0.60	0.96	Cutout for DG Exhaust Pipes
EL.03	Electrical Shaft 03	BASEMENT LVL.	FIRST FLOOR	2.80	0.60	1.68	Cutout for LT Cables
PLUMBING SHAFTS							
PL.01	Plumbing Shaft 01	GROUND LVL	TERRACE	4.62	0.90	4.16	Shaft for Plumbing Services
FIRE SHAFTS							
FH.01	FHC 1	BASEMENT LVL	TERRACE	0.25	0.60	0.15	FHC and Sprinkler Riser Cutout
FH.02	FHC 2	BASEMENT LVL	TERRACE	0.25	0.70	0.18	FHC and Sprinkler Riser Cutout
MECHANICAL SHAFTS							
ME.01	HVAC Shaft 01	BASEMENT LVL	GROUND LVL	1.20	0.65	0.78	Shaft for Fresh Air Supply to Spare Room & Pump room
ME.02	HVAC Shaft 02	BASEMENT LVL	GROUND LVL	1.20	0.65	0.78	Shaft for Exhaust Air from Spare room & Pump Room
ME.03	HVAC Shaft 03	BASEMENT LVL	TERRACE	2.00	0.60	1.20	Shaft for Lift Lobby Pressurisation
ME.04	HVAC Shaft 04	BASEMENT LVL	GROUND LVL	3.00	0.80	2.40	Shaft for Fresh Air Supply to ASS Room
ME.05	HVAC Shaft 05	BASEMENT LVL	GROUND LVL	2.60	0.80	2.08	Shaft for Exhaust Air from ASS Room & DG room
ME.06	HVAC Shaft 06	BASEMENT LVL	TERRACE	1.43	0.60	0.86	Shaft of Air Washer for DG Set
ME.07	HVAC Shaft 07	BASEMENT LVL	TERRACE	1.80	0.85	1.53	Chill Water Pipe Shaft
ME.08	HVAC Shaft 08	TERRACE	TERRACE	1.05	0.45	0.47	Cut-out for Lift Well Pressurization
ME.09	HVAC Shaft 09	TERRACE	TERRACE	1.05	0.45	0.47	Cut-out for Lift Well Pressurization
ME.10	HVAC Shaft 10	TERRACE	TERRACE	1.05	0.45	0.47	Cut-out for Lift Well Pressurization
SIGNALLING & TELECOM SHAFT							
SI.01	S&T Shaft 01	BASEMENT LVL.	FIRST FLOOR LVL	2.00	0.60	1.20	Shaft for Signalling & Telecom cables
SI.02	S&T Shaft 02	BASEMENT LVL.	FIRST FLOOR LVL	3.10	0.90	2.79	Shaft for Signalling & Telecom cables

ADMIN BCC BUILDING - DOOR, WINDOW & ROLLER SHUTTER SCHEDULE

S NO.	TAG	TYPE	WIDTH (M)	HEIGHT	CILL	LINTEL	NUMBERS
DOORS & ROLLING SHUTTER							
1	D2A	GI METAL DOOR WITH LOUVRES	750	2150	300	2450	24
2	D4B	GI METAL DOOR	1000	2450	-	2450	21
3	D8B	GI METAL DOOR	2000	2450	-	2450	20
4	D5B	GI METAL DOOR	1200	2450	-	2450	2
5	FD8B	2HR.S FIRE RESISTANT DOUBLE PANEL METAL DOOR WITH VISION PANEL	2000	2450	-	2450	16
6	GD8B	GLASS DOOR	2000	2450	-	2450	3
7	RS2D	ROLLING SHUTTER	2500	3000	-	3000	1
8	RS3D	ROLLING SHUTTER	3000	3000	-	3000	1
9	RS5D	ROLLING SHUTTER	4000	3000	-	3000	1
10	RS6D	ROLLING SHUTTER	5000	5000	-	5000	1
WINDOWS & VENTILATORS							
1	W7B	ALUMINIUM WINDOW	2200	1550	900	2450	20
2	V7B	ALUMINIUM VENTILATOR	2200	850	4250	5100	20
3	V8B	ALUMINIUM VENTILATOR	2000	850	4250	5100	8
4	V8C	ALUMINIUM VENTILATOR	650	1550	900	2450	4
5	W8B	ALUMINIUM WINDOW	2000	1550	900	2450	9

REFERENCE DRAWINGS:-	
DRAWING NO.	DRAWING TITLE
DED01-ENI-AR-PRM-DER-DRP-1001	SITE MASTER PLAN
DED01-ENI-AR-PRM-DER-DRP-1002	SURVEY PLAN WITH DEPOT BOUNDARY
DED01-ENI-AR-PRM-DER-DRP-1004	SITE MARKING PLAN
DED01-ENI-AR-PRM-DER-DRP-1101	INTEGRATED BUILDING
DED01-ENI-AR-PRM-DER-DRP-1151	HIC
DED01-ENI-AR-PRM-DER-DRP-1171	ETU
DED01-ENI-AR-PRM-DER-DRP-1705	PIT WHEEL LATHE
DED01-ENI-TR-PRM-DER-DRP-8501	GAD FOR TRACK
DED01-ENI-TR-PRM-DER-DRP-8502	GAD FOR TRACK

LEGEND:-
R.C.C COLUMN
200MM THK BLOCKWORK
WELL COMPACTED EARTH
PCC BED (M15)



KEY PLAN
SCALE: NTS

NOTES:
1. ALL DIMENSIONS ARE IN MM
2. ALL LEVELS IN METERS FROM MEAN SEA LEVEL UNLESS OTHERWISE MENTIONED
3. DIMENSIONS ARE NOT TO BE SCALED, ONLY WRITTEN DIMENSIONS TO BE FOLLOWED.
4. ALL RCC AND STEEL MEMBER DIMENSIONS ARE INDICATIVE AND SUBJECT TO MODIFICATIONS DURING STRUCTURAL DESIGN.
5. FOR ARCHITECTURAL FINISHES, REFER SEPARATE FINISHES SCHEDULE,
6. FOR MICRO DETAILS, REFER SEPARATE DRAWINGS,
7. ANY DISCREPANCIES TO BE BROUGHT TO THE NOTICE OF THE ARCHITECT.

REV NO	DATE	DESCRIPTION	SIGN
B01	20/12/2018	REVISED AS PER GC COMMENTS	
B02	11/02/2019	REVISED AS PER GC COMMENTS	
B03	16/03/2019	REVISED AS PER GC COMMENTS	
B04	18/05/2020	REVISED DESIGN AS PER GC	

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IT IS CERTIFIED THAT THERE IS NO CHANGE IN THIS GFCD FROM THE ALREADY APPROVED CR DWG NO. '.....REV.....' APPROVED ON DATE .....

DDC / CONTRACTOR				CONTRACTOR
SIGN:	SIGN:	SIGN:	SIGN:	SIGN:
DATE: 18.05.20	DATE: 18.05.20	DATE: 18.05.20	DATE: 18.05.20	DATE:
NAME: SB	NAME: VS	NAME: KK	NAME: SM	NAME:
DRAWN BY	DESIGN BY	CHECKED BY	APPROVED BY	ACCEPTED BY

NOT APPLICABLE

Consultant- Enia

KG-1/265, Vikaspuri,
New Delhi, India
Tel.: +91 9971 691803 / +91 9818 629588
s.manchanda@enia.in / a.joshi@enia.in
www.enia.in

SUB CONSULTANT:-

ANALYST CONSULTANTS
AEON CONSULTANTS

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PROOF CONSULTANT

SIGN:	SIGN:
DATE:	DATE:
NAME: ---	NAME: ---
REVIEWED BY (STRUCT. ENGG.)	APPROVED BY (TEAM LEADER)

☐ Proof checked & Approved by GC
☐ Being Given No Objection
☐ Issued As Good For Construction.

SIGN:		SIGN:	
DATE:		DATE:	
NAME: ---		NAME: ---	
REVIEWED BY		APPROVED BY	

SYSTRA-AECOM-EGIS-RITES
(GENERAL CONSULTANT TO PUNE METRO RAIL PROJECT)

COUNTER SIGNED BY MAHARASHTRA METRO RAIL CORPORATION LTD.

DY. HOD

HOD

PROJECT: PUNE METRO RAIL PROJECT
The Orion Building, 1st Floor, Opposite Don Bosco Center, Near Saint Mira's Girls College, Koregaon Park, Pune - 411001, MH, India

CLIENT: MAHARASHTRA METRO RAIL CORPORATION LTD.

LOCATION: Depot for Range Hill

TITLE: ADMIN CUM BCC BUILDING- PH-1 DEVELOPMENT SECTION AA', BB', CC' & SECTION DD

SCALE: AS SHOWN | DATE: 18/05/2020 | STATUS: Good for Construction

DRG NO: DED01-ENI-AR-PRM-DER-DSE-1211

REVISION NO: B04

ARCHITECTURE

TBA

plot scale 50mm

MAHARASHTRA METRO RAIL CORPORATION LIMITED

Pune Metro Rail Project

Date: 5th April 2021

CORRIGENDUM – I

Name of Work : Design, Engineering, Manufacture, Supply, Storage, Civil work, Erection, Testing & Commissioning of the Rooftop and Boundary Walls mounted Solar PV projects under RESCO model including Operation and Comprehensive Maintenance (O&M) of 5.0 MWp Solar PV project for a period of 25 years after commissioning of 10 Nos. of Elevated Stations and 2 Nos. of Depots for Pune Metro Rail Project.

Tender No. : P1EG-02R/2021

Event	As per NIT	Revised
Pre-bid Meeting	On 06.04.2021 at 11.00 Hours in the Office of Maha-Metro, 101, 'The Orion', Opposite Don Bosco Youth Centre, Koregaon Park, Pune- 411001.	On 06.04.2021 at 14.00 Hrs to 15.00 Hrs through online meeting link: https://meet.google.com/hnv-herb-jcu

ED (Procurement & Contracts),
Maharashtra Metro Rail Corporation Limited,
Pune Metro Rail Project

MAHARASHTRA METRO RAIL CORPORATION LIMITED
Pune Metro Rail Project

Date: 22 Apr 2021

CORRIGENDUM-III

Tender No.: P1EG-02R/2021 dated 23 Mar 2021

Name of Work: Design, Engineering, Manufacture, Supply, Storage, Civil work, Erection, Testing & Commissioning of the Rooftop and Boundary Walls mounted Solar PV projects under RESCO Model including Operation and Comprehensive Maintenance (O&M) of 5.0 MWp Solar PV project for a period of 25 years after commissioning of 10 Nos. of Elevated Stations and 2 Nos. of Depots for Pune Metro Rail Project.

Reference: Further to **Tender Documents** dated 23 Mar 2021, **Corrigendum I** dated 05 Apr 2021, **Corrigendum II** dated 17 Apr 2021.

A) Extension of bid submission date and opening date as under:

Activity (Event)	As per NIT	Revised Dates
Last date of Submission of Bids	22 Apr 2021 at 16:00 Hrs	06 May 2021 at 16:00 Hrs
Date of Opening of Bids	22 Apr 2021 at 16:30 Hrs	06 May 2021 at 16:30 Hrs

DGM (Procurement & Contracts)
Pune Metro Rail Project,
Maharashtra Metro Rail Corporation Limited

महा मेट्रो
PUNE METRO

MAHARASHTRA METRO RAIL CORPORATION LIMITED

Pune Metro Rail Project

Joint Venture of Govt. of India & Govt. of Maharashtra

CIN: U60100MH2015SGC262054

Date: 06 May 2021

CORRIGENDUM-IV

Tender No.: P1EG-02R/2021 dated 23 Mar 2021

Name of Work: Design, Engineering, Manufacture, Supply, Storage, Civil Work, Erection, Testing & Commissioning of the Rooftop and Boundary Walls mounted Solar PV projects under RESCO model including Operation and Comprehensive Maintenance (O&M) of 5.0 MWp Solar PV project for a period of 25 years after commissioning of 10 Nos. of Elevated Stations and 2 Nos. of Depots for Pune Metro Rail Project.

Reference: Further to **Tender Documents** dated 23 Mar 2021, **Corrigendum-I** dated 05 Apr 2021, **Corrigendum-II** dated 17 Apr 2021, **Corrigendum-III** dated 22 Apr 2021

Extension of Date of Submission and Date of Opening of Tender is as follows:

Activity (Event)	As per Corrigendum-III	Revised Dates
Last Date of Submission of Bids	06 May 2021 at 16:00 hrs.	25 May 2021 at 16:00 hrs.
Date of Opening of Bids	06 May 2021 at 16:30 Hrs.	25 May 2021 at 16:30 Hrs.

Maha Metro Rail Pune

6/5/21

DGM (Procurement)
Pune Metro Rail Project,
Maharashtra Metro Rail Corporation Limited

MAHARASHTRA METRO RAIL CORPORATION LIMITED
Pune Metro Rail Project

Date: 17 Apr 2021

CORRIGENDUM-II

Tender No.: P1EG-02R/2021 dated 23 Mar 2021

Name of Work: Design, Engineering, Manufacture, Supply, Storage, Civil work, Erection, Testing & Commissioning of the Rooftop and Boundary Walls mounted Solar PV projects under RESCO Model including Operation and Comprehensive Maintenance (O&M) of 5.0 MWp Solar PV project for a period of 25 years after commissioning of 10 Nos. of Elevated Stations and 2 Nos. of Depots for Pune Metro Rail Project.

Reference: Further to **Tender Documents** dated 23 Mar 2021, **Corrigendum I** dated 05 Apr 2021.

A) Following documents shall be part of Corrigendum II dated 17 Apr 2021:

1. Response to Pre-Bid Queries: One (01) page
2. Addendum-1 to Corrigendum II: One (01) page

DGM (Procurement & Contracts)
Pune Metro Rail Project,
Maharashtra Metro Rail Corporation Limited

Corrigendum-II Pre-Bid queries response

Name of Work: Design, Engineering, Manufacture, Supply, Storage, Civil work, Erection, Testing & Commissioning of the Rooftop and Boundary Walls mounted Solar PV projects under RESCO model including Operation and Comprehensive Maintenance (O&M) of 5.0 MWp Solar PV project for a period of 25 years after commissioning of 10 Nos. of Elevated Stations and 2 Nos. of Depots for Pune Metro Rail Project.

Tender No.: P1EG-02R/2021

Sr. No.	Volume No.	Clause No.	Bid Condition	Bidder's queries	Maha-Metro's Response
1	Section-II	3.4.3 (b)	Profitability: Profit before tax should be positive in at least 1 (one) year out of the last 3 audited financial years viz., 2017-18, 2018-19 and 2019-2020 for individual bidder and for every substantial partner in case of JV/CONSORTIUM.	Profit before tax should be positive in at least 1 (one) years out of the last 3 audited financial years viz., FY -, 2017-18, 2018-19 and 2019-2020 for individual bidder. **Justification:** We request you to kindly remove this financial requirement. As developers we invest into the project in the 1st year and get our returns over the period of 25 years hence invariably our books are negative in the 1st few years. AMP has been operational since 2016 and have developed more than 50 MW of rooftop & 250 MW of ground mounted project in this duration and will be expecting returns on these projects in future Also, other metro tenders of DMRC or KMRL or Mumbai metro did not have such eligibility condition.	Bidder to refer Addendum-1.
2	Section-II	3.4.2 (g)	The above experience shall be only for works executed for Central/State/Semi-Govt./Govt. PSU/Urban Local Bodies/ Listed Companies under the stock exchange of India organisations only)	The above experience shall be only for works executed for Centre /State/ Semi govt/ Govt PSU/Urban bodies/**Private Organization** Listed companies under stock exchange of Indian organization only Justification: Companies who have required financial criteria & have done projects with private organization will qualify to get more response for the tender.	Tender Condition Prevails.

Corrigendum-II: Addendum-1				
Name of Work	Name of Work: Design, Engineering, Manufacture, Supply, Storage, Civil work, Erection, Testing & Commissioning of the Rooftop and Boundary Walls mounted Solar PV projects under RESCO model including Operation and Comprehensive Maintenance (O&M) of 5.0 MWp Solar PV project for a period of 25 years after commissioning of 10 Nos. of Elevated Stations and 2 Nos. of Depots for Pune Metro Rail Project.			
Tender No.	P1EG-02R/2021			
Pre-bid Query No.	**Section ref.**	**Clause No.**	**Existing Description**	**Revised Description**
1	Section-II	3.4.3 (b)	**Profitability:** Profit before tax should be positive in at least 1 (one) year out of the last 3 audited financial years viz., 2017-18, 2018-19 and 2019-2020 for individual bidder and for every substantial partner in case of JV/CONSORTIUM.	**Profitability:** Profit before **interest** & tax should be positive in at least 1 (one) year out of the last 3 audited financial years viz., 2017-18, 2018-19 and 2019-2020 for individual bidder and for every substantial partner in case of JV/CONSORTIUM.