

THE M.P. STATE AGRO INDUSTRIES DEVELOPMENT CORPORATION LIMITED PANCHANAN, 3rd FLOOR, MALVIYA NAGAR, BHOPAL PHONE - 0755-2551652, 2551756, 2761392 FAX 0755-2557305, EMAIL: mpagrohobpl@gmail.com WEBSITE: www.mpagro.org

ONLINE RCO DOCUMENT

FOR SUPPLY OF PRE-FABRICATED
STEEL STRUCTURE (YATRIPRITIKSHALAYA) AND
SWAGAT DWAR FOR THE
YEAR 2023-24 & ONWARD

DUE ON 12-03-2024

RCO DOCUMENT FEES

Rs. 10000 + 1800 (18%GST) = 11800

(Eleven Thousand Eight Hundred Only) Shall be paid online.

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"PANCHANAN" 3rd FLOOR, MALVIYA NAGAR, BHOPAL Phone (0755) - 2551652, 2551756, 2551807, Fax: 0755-2557305

LIST OF ANNEXURE OF RATE CONTRACT BID DOCUMENT

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"PANCHANAN" 3rd FLOOR, MALAVIYA NAGAR, BHOPAL Phone (0755)- 2551652, 2551756, 2761392, Fax: 0755-2557305

HO: MKTG/YATRI-PRITIK.SWAGAT DWAR/2023-24/

Dated:	
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E - RCO NOTICE FOR SUPPLY AND INSTALLATION OF PRE-FABRICATED STEEL STRUCTURE (YATRI-PRITIKSHALAYA) AND SWAGAT DWAR

Online RCO are invited for supply & Installation of PRE-FABRICATED STEEL STRUCTURE (YATRI-PRITIKSHALAYA) AND SWAGAT DWAR for the year 2023-24 onwards.

Manufacturer of these items may participate in the RCO on the basis of Eligibility Criteria mentioned in the documents.

Rate Contract Offer documents can be purchased by paying a non-refundable fee of Rs. 11800 (Eleven thousand eight hundred only) online upto 12/03/2024 (12.00 Noon). Earnest Money Deposit (EMD) of Rs.1,00,000/- (One lakhs only) shall be deposited by the due date along with the offers.

Last date of on line submission of RCO is 12-03-2024 up to 4.00 PM
The detailed RCO and other information can be seen at Corporation's website www.mpagro.org and www.mptender.gov.in. Amendments, if any, will be published only on above websites. No further notification will be made in the newspapers.

MANAGER (MKTG)

प्रवंधक (अ



"PANCHANAN" 3rd FLOOR, MALAVIYA NAGAR, BHOPAL Phone (0755)- 2551652, 2551756, 2761392, Fax: 0755-2557305

DISCLAIMER & ABBREVIATIONS, DEFINITIONS AND INTERPRETATION

A. DISCLAIMER:

- The information contained in this RCO Document has been prepared solely for the purpose of providing information to the interested parties, and is not in any way binding on MP AGRO.
- By accessing this RCO Document, Prospective Bidder agrees that MP AGRO will not be liable for any direct or indirect loss arising from the use of the information and the material contained in this RCO Document.
- Prospective Bidder's access to it does not imply a license to reproduce and / or distribute information contained therein and Bidder not allowed to any such act without the prior approval of MP AGRO.
- 4. In case any Prospective Bidder finds any discrepancy or omission in the any part of the RCO Document/or he has any doubt to their meaning, he should notify the MP AGRO minimum 5 days prior to RCO opening date. MP AGRO may clarify and send instruction to all bidders for correction through portal / Website, if necessary. It however, does not entitle the bidder to seek any extension of RCO opening date.
- 5. It shall be understood that every endeavor has been made to avoid any error which can materially affect the basis of the RCO and All bidder shall take upon himself and provide for the risk of any error which may subsequently be discovered and shall make no subsequent claim on account thereof.
- The submission of the RCO will be deemed to imply that the Bidder fully understands the scope of work involved and has read and understood all conditions of the RCO document and his liabilities and responsibilities in respect of the RCO.
- 7. Information received against any discrepancy (up to due date and time as mentioned above) will be examined and, if any amendments required same will be uploaded as Corrigendum with RCO document. If no amendments are required the Bidder will have no right to raise objection.
- The Corporation reserves the right to reject any or all of the RCO submitted in response to this RCO at any stage without assigning any reasons whatsoever.
- The Corporation reserves the right to change any or all of the provisions of this RCO.
 Such changes would be intimated to prospective bidders on portal.



B. ABBREVIATIONS, DEFINITIONS AND INTERPRETATION

- 01.The Corporation/MP AGRO means M.P. State Agro Industries Development Corporation Ltd.
- 02. Beneficiary/Consignee means the person/department wish to purchase the items through this Corporation.
- 03.Application forms/the document means Application forms and all other relevant annexure/documents
- 04.Applicant/Bidder/firm means the manufacturer who submits RCO agreeing all the terms and conditions of the RCO for supply and installation of Items as per document and the supply order.
- 05.EMD means Earnest Money Deposit
- 06.Managing Director means Managing Director of MP State Agro Industries Development Corporation Ltd Bhopal.
- 07.RCO means Rate Contract Offer
- 08.DOH means Director of Horticulture, Govt. of MP
- 09. "Contract" means and includes the invitation to RCO, instructions to Bidder, RCO, acceptance of RCO, Conditions to Contract, particulars and the other conditions specified in the acceptance of RCO and includes repeated orders which have been accepted or acted upon by the/ for the Supplier and a formal agreement, if executed;
- 10.The "Suppliers" means the person, firm or company with whom the order for the supply is placed and shall be deemed to include the suppliers' successors (approved by MP AGRO) representatives, heirs, executors and administrators, as the case may be, unless excluded by the terms of the contract;
- 11. "The Inspecting Agency' means an Agency to Inspect materials or services authorized by QCI approved third party inspection Agency, Govt. Agency such as DGS&D / RITES / CIPET /EIL / IRS (IRclass) / PDIL etc. as per consent of the Corporation.
- 12. "The Purchaser" means the MP STATE AGRO INDUSTRIES DEVELOPMENT CORPORATION LIMITED, (MP AGRO) or the Government agency intend to purchase the items.
- 13. "Materials" means the goods specified in the contract which the Supplier has agreed to supply under the contract;
- 14. "Test" means such test as is prescribed by the particulars or considered necessary by the MP AGRO performed or made by the inspecting agency acting under an order issued by MP AGRO.
- 15. Contract shall be governed by the Laws of India for time being in force.
- 16. Words importing the singular shall include the plural and vice versa, words importing any gender shall include all other genders, words importing persons shall

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include bodies corporate, unincorporated associations and partnerships and vice versa. References to whole shall include the part and vice versa.

- 17. The Courts of the place from where the acceptance of the RCO has been issued shall alone have jurisdiction to decide any dispute arising out of or in respect of the contract.
- 18.A person signing the RCO or any other document in respect of the Contract on behalf of the supplier without disclosing his authority to do so shall be deemed to warrant that he has authority to bind the Supplier. If it is discovered at any time that the person so signing has no authority to do so, MP AGRO may, without prejudice to any other right or remedy of MP AGRO, cancel the contract and make or authorize making of a purchase of the materials at the risk and cost of such person, and hold such person liable to MP AGRO for all costs and damages arising from the cancellation of the contract including any loss which MP AGRO may sustain on account of such purchase.
- 19. For all purposes of the contract, including arbitration there under, the address of the Supplier mentioned in the RCO shall be address to which all communications addressed to the Supplier shall be sent, unless the Supplier has notified change by a separate letter containing no other communication and sent by registered post acknowledgment due to MP AGRO. The Supplier shall be solely responsible for the consequence of an omission to notify a change of address in the manner aforesaid.

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TITLE, TIME SCHEDULE, RCO FEE & EMD

(A) TITLE:

PRE-FABRICATED STEEL STRUCTURE (YATRI-PRITIKSHALAYA) AND SWAGAT DWAR for the year 2023-24 onward.

(B) TIME SCHEDULE:

Stages of Bidding	Scheduled time	Scheduled Date
Purchase of RCO	upto 12.00 PM	12.03.2024
PRE BID MEETING	At 01.00 PM	29.02.2024
Date of Including the Sugggestions of PRE bid Meeting in RCO	upto 02.00 PM	29.02.2024
Last date of submission	upto 04.00 PM	12.03.2024
Opening of technical bid	upto 03.00 PM	13.03.2024

Financial Bid of the successful bidders will be opened on the date decided by corporation which will be intimated to bidders & published on website in due course of time.

Each stage will take place on the date and time mentioned against them. However if the date and time is changed/ postponed information in this regard will be published on corporation website www.mptender.gov.in

(C) RCO FEE & EMD:

The RCO invited under e-RCO system and bidding process will have following steps:

RCO	Rs. 10000 + 1800 (18%GST) = 11800 (Eleven Thousand
FEE	EightHundred Only) Shall be paid online. (Non Refundable)
EMD	Rs 1,00,000/- (One Lakh Only) Shall be paid online.

Note: If RCO is cancelled or RCO of any Bidder is rejected. EMD amount so deposited will be refunded online. No interest shall be paid on EMD amount.

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ELIGIBILITY OF BIDDER & TECHNICAL SPECIFICATION OF ITEM (A) ELIGIBILITY:

S.N.	ELIGIBILITY	DOCUMENT TO BE
1	RCO documents (Page 1 to 65)	DOCUMENT TO BE UPLOADED
0		RCO documents duly signed on each page with office seal affixed.
2	Bidder should be manufacturer for the RCO item	Certificate from Industry department / District Industrial Center (DIC)/ Single Point Registration Certificate of NSIC/UDYAM Registration Certificate issued by Ministry of Micro Medium &
3	Bidder should have valid feasibility Report for Manufacturing of RCO items	Valid feasibility report for manufacturing of RCO items by those Government Agency which approved Quality Council of India /N.A.B.C.B. of any Government Engineering College or any
4	The Total Cumulative Turnover of the Bidder for the Last Three financial Years i.e. (2020-21 ,2021-22, 2022-23) should not less than be 4 (four) corer in Fabrication work.	A certificate issued by Chartered Accountant Showing Turnover for the Last Three financial Years with UDIN Number.
5	Other necessary requirements for eligibility shall be as mentioned in Rate Contract BID document (RCO)	 Application form duly filled as par Annexure - VI Valid proof of authority to signing the document in case of Partnership Firm and Limited Firm GST Registration certificate Affidavit from the Bidder that their firm has never ever been blacklisted by anyGovt. organization, semi Govt. organization or any corporation till date Anex - X Letter of Undertaking & Declaration Anex - VIII

PROVISION FOR SCHEDULED CASTE/TRIBE AND WOMEN ENTERPRENEURS:

To avail benefits related to Section No. 23.1 of the Store Purchase Rules 2015 (as amended in 2022), it is mandatory for Scheduled Castes, Scheduled Tribes, women-owned entrepreneurs to submit all related documents/ documentary evidence duly self attested.

NON-ELIGIBILITY TO PARTICIPATE IN THE RCO DUE TO PENDING COURT CASE/DISPUTE

The offers of such bidders shall not be accepted with whom any court case and/or dispute are pending with the Corporation, other Government department or any other organization/agency. Offers of such bidders shall also not be accepted with whom any criminal case is also pending.

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(B) TECHNICAL SPECIFICATION OF ITEM Following items have been included.

YATRI-PRITIKSHALAYA -

- (i) PRE FABRICATED BUS SELTER <u>MODEL 1</u> WITHOUT SOLAR LIGHT (Drawing & Specification attached).
- (ii) PRE FABRICATED BUS SELTER MODEL 2 WITH TWO 16 WATT LED SOLAR LIGHT (Drawing & Specification attached).
- (iii) PRE FABRICATED BUS SELTER MODEL 3 WITH TWO 16 WATT LED SOLAR LIGHT (Drawing & Specification attached).
- (iv) PRE FABRICATED BUS SELTER MODEL 4 WITH TWO 16 WATT LED SOLAR LIGHT (Drawing & Specification attached).
- (v) PRE FABRICATED BUS SELTER MODEL 5 WITH TWO 16 WATT LED SOLAR LIGHT (Drawing & Specification attached).
- (vi) PRE FABRICATED BUS SELTER MODEL 6 WITH TWO 16 WATT LED SOLAR LIGHT (Drawing & Specification attached).

SWAGAT DWAR -

- (i) SIMPLY SUPPORTED TYPE SWAGAT DWAR MODEL 1 WITHOUT SOLAR LIGHT (Drawing & Specification attached).
- (ii) SIMPLY SUPPORTED ACP SHEET FITTED SWAGAT DWAR MODEL 2 WITHOUT SOLAR LIGHT (Drawing & Specification attached).
- (iii) SIMPLY SUPPORTED TYPE SWAGAT DWAR **MODEL 3** WITH SOLAR LIGHT (Drawing & Specification attached).

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ANNEXURE - V

MANDATORY DOCUMENTS TO BE UPLOADED

- RCO documents duly signed on each page with office seal affixed. (Page 1 to
- O2. Copy of Manufacturing Certificate issued by District Industries Centre (DIC) /Single Point Registration with NSIC for the tendered items in particular/ UDYAM Registration Certificate issued by Ministry of Micro Medium & Small Enterprises.
- 03. Valid feasibility report for manufacturing of RCO items by those Government Agency which are approved by Quality Council of India /N.A.B.C.B. or any Government Engineering College or any Government Agency.
- 04. Application form duly filled as par Annexure VI
- Valid proof of authority to signing the document in case of Partnership Firm and Limited company.
- GST Registration certificate.
- Affidavit from the Bidder that their firm has never ever been blacklisted by any Govt. organization, semi Govt. organization or any corporation till date.

 Annexure - X
- 08. Letter of Undertaking & Declaration Annexure VIII
- 09. Financial Bid as per schedule Annexure IX
- 10. Declaration of Blacklisted. Annexure X
- In Case of Scheduled Castes, Scheduled Tribes, Women owned entrepreneurs are required to submit evidence online in support of eligibility.
- A certificate issued by Chartered Accountant Showing Turnover for the Last Two financial Years with UDIN Number.

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APPLICATION FORM

To

Managing Director M P State agro Industries Development Corporation Ltd 3rd Floor, Panchanan Bhawan Malviya Nagar Bhopal

Sub :- RCO Document for supply of PRE-FABRICATED STEEL STRUCTURE (YATRI-PRITIKSHALAYA) AND SWAGAT DWAR for the year 2023-24 onward.

Dear Sir,

Kindly accept our application for RCO Document for supply of PRE-FABRICATED STEEL STRUCTURE (YATRI-PRITIKSHALAYA) AND SWAGAT DWAR for the year 2023-24 onward in the state of Madhya Pradesh. I am submitting application and details as under.

1	Name & Address of the Applicant Firm		
	If Proprietorship		
	a) Name of Proprietor		
	b) Full Address		
	c) PAN number /GSTN No		
	If Partnership		
	a) Name of partners and their address	1. 2	. 3.
	b) Is partnership deed registered If yes then date of registration (attach copy of deed)	Yes / No Date	V 42 1 1 1 1 1 1 1 1
	If Limited or Pvt. Limited Company under Indian Companies Act 1956. Limited or Private Limited		
	Registered Office Address	ELS ITEM	
-	Date of Certificate of in Corporation If LLP		
2			
	a) Name & Address of Partners		
	b) Certificate of registration		
3	Location of Production units		
4	Year of Establishment of the units.		
5	Name, Designation & Mobile Number of Contact Person,		
6.	Name of Person Singing the RCO		
	(In Case Of Authorized Person Specific		
	Power of Attorney has to be submitted)		
7	Details of Turnover for last Two financial	Year	Total TurnOver
	years for item quoted (Rs in Lakhs)	2021-22	
		2022-23	

I here by confirm that all the above information is true to the best of my knowledge & belief. All the documents as required in the documents as enclose. Date

Note:

Separate sheet may be used if necessary.

Strike out whatever not applicable.

Seal & Signature of the Bidder or their authorized Representative



CONDITIONS OF RATE CONTRACT

1. PROCEDURE FOR RCO:

- 1.1 The Corporation invites RCO for supply of Material mentioned in Annexure - III.
- 1.2 Only one RCO will be accepted from one Applicant / Firm. If any individual participating in the BID, representing more than one firm in one or different names and it comes to MP AGRO'S knowledge at any point of time, all such BID will not be entertained and shall be liable for rejection.

1.3 RCO documents can be purchased online.

1.4 It is the discretion of the Managing Director of the corporation to accept/rejectthe application without assigning any reason thereof.

1.5 Bidder should have to submit the hard copy of documents as per corporation requirement or at the time of Agreement.

1.6 The M.P. State Agro-Industries Development Corporation Ltd, will not beresponsible delay in receipt of Bid on any account whatsoever. If BID is received after specific date and time, even if the delay is caused in postal transit, or any other reason whatsoever, the same shall not be considered and the BID will be rejected.

1.7 Telegraphic/Fax BID, or BID received over fax, e-mail etc. shall not be considered.

1.8 M.P. Agro hereby disclaims all liabilities of third party prospective purchasers with respect to quality, service and defect in the items to be supplied by the bidder shall be solely responsible to provide efficient service and to fulfil all defect and quality standards of the items to be supplied.

2. SUBMISSION OF RCO:

- 2.1 Corporation Invites RCO for supply of material as mentioned in (Annexure IV).
- 2.2 Self attested copies of all Mandatory Documents and RCO fees details (cost of documents) and EMD can be submit online. before last date and time of submission of BID.

3. OPENING OF TECHNICAL BID:

Document received in the RCO online will be opened on due date and time asmentioned in (Annexure III)

4. DELAY IN SUBMISSION:

The Corporation will not be responsible for any delay on any account in receipt of RCO. If the BID is received after the specific date and time, even if the delay in receipt was caused in postal transit or any other reason, what so ever.

5. CHANGE IN OPENING SCHEDULE:

RCO will be opened on due date and time as mentioned in (Annexure-III) point B in the presence of the representative of firms who wishes to be present. However if the date and time of opening of Technical Bid is changed due to any unforeseen reason the revised date and time of opening will be displayed on Portal/website of the corporation.

6. MODUS OPERANDI FOR THE PURCHASE & SALES OF THE ITEMS & OUOATING RATES BY BIDDER:

- MP AGRO will buy material for onward sale to various Govt. Deptt. as perdemand/requirement.
- (ii) Bidders are required to quote their selling rate to MP AGRO with the intention that MP AGRO will load its own margin (5% + GST) to the prices quoted by Bidders.
- (iii) Bidders are required to upload their rates in the format prescribed for it. Shown in the financial Bid.
- (iv) Rate list to be uploaded will be rates with GST & rate without GST. MP AGRO margin & GST their on not to be included in this format.
- (v) Rates offered to MP AGRO should not be treated as rates to end user. Instead MP AGRO will work as dealer of the manufacturer. Manufacturer will be free to appoint their Sales Representative, other Dealer for after sales service & stocking purposes etc. Manufacturer can also incur expenses for sales promotion etc. as per their own policy.
- (vi) On the several occasions manufacturers do not quote lower rate to MP AGRO due to Price fall Clause executed by them with other organization. Difference between price quoted to MP AGRO & price quoted to other organization (for ultimate consumer) must be differentiated clearly that rate quoted to MP AGRO is the dealer rate.
- (vii) MP AGRO will be at full liberty to reduce or increase its margin at any time without consent from bidder. Managing Director Decision will be final & binding for all parties.

ACCPTANCE OF OFFER FOR RATE CONTRACT:

The Corporation will Accept the Rate Contract from only those eligible offerers whose offer rate are within the Limit of L-1+15%.

8. EXECUTION OF AGREEMENT:

(a) The Corporation will intimate the successful Bidder regarding acceptance and request him to execute the agreement in given time limit. In case the Bidder fails to execute agreement within the prescribed time limit, the EMD submitted along with the RCO shall stand for feited.

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Annexure-XI with the Corporation on non-judicial stamp paper of Rs. 1000/- (to be purchase by the Bidder)

EARNEST MONEY DEPOSIT:

- (i) RCO should accompany EMD as per clause C (Annexure-III)
 - (ii) Earnest Money of all unsuccessful Bidders will be returned .
 - (iii) No interest is payable on the amount of Earnest Money at the time of refund.

B. Earnest Money shall be forfeited if:-

- (i) Deposit (EMD) is liable to be forfeited if the bidder withdraws or amends or impairs or derogates from the bid in any respect within the validity of the bid or is open for acceptance whether originally fixedor extended.
- (ii) No interest shall be payable by the Purchaser on the Earnest Money/Bid Guarantee to the Bidder.
- (iii) The Earnest Money shall remain deposited with the Purchaser during the validity period as mentioned, from the date of opening of RCO. If the validity of the offer is extended, EMD validity period deemed extended.
- (iv) Earnest money of successful Bidder will be adjusted as Security Deposit (SD) on execution of the agreement. (such Bidder will became supplier).

10. SECURITY DEPOSIT:

- (i) The SD will remain with the corporation during the currency of the contract and till successful execution of all the order placed during the currency of the contract and will be refunded to the supplier without interest in case of no dispute and after getting clearance/NOC from District Managers of the Corporation /purchasing officer.
- (ii) Security deposit will be forfeited in case of failure of supply of the material as mentioned in the purchase order, in time and as per the approved specifications, or for any breach of terms and condition of the agreement and RCO document.

11. MINIMUM TECHNICAL SPECIFICATIONS OF ITEMS

Minimum Technical specifications of the items covered in this RCO are the same asthey are defined in (Annexure - IV).

12. PLACEMENT OF ORDER

Head Office / Regional Manager / Branch Manager of the Corporation shall placepurchase order to the approved supplier.

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SCHEDULE AND MODE OF SUPPLY / DELIVERY

- (a) The Bidder has to supply and deliver the ordered quantity within time period as mentioned in the order. Failure on the part of the Supplier for timely supply, shall lead to forfeiture of Security Deposit and the RCO shall stand cancelled and agreement shall be terminated. Corporation can also claim lossof goodwill as deemed fit and the same shall be payable by the Bidder. MP Agro shall not be liable toward the first manufacturer. In case the manufacturer is unable to supply or refuses to supply the equipment as per the work order issued by MP Agro, then in such a case the enduser shall be free to select any other manufacturer available on the portal. MP Agro shall not be liable towards the first manufacturer in anycase.
- (b) If the indenting authority suffers any loss due to inordinate delay in effecting supply/ dispatch or arrival of the material at the destination, the same shall be the responsibility of the Bidder who shall make good the entire loss suffered by the indenting authority. The Managing Director will assess and intimate the Bidder the extent of loss, and the same will be acceptable to the Bidder. The supplier shall ensure that the ordered material being supplied by him reach the consignee at destination in good condition. As such it will be the sole responsibility of the supplier to ensure desired quality and standard of the material.
- (c) The ordered item as specified in order shall be in conformity with approved size and quality specifications mentioned in **Annexure-IV**, of the RCO and elsewhere in the RCO documents. Material shall be supplied in batches in any or all the sizes and in quantities as per delivery schedule ordered by the ordering authority of the Corporation. The delivery schedule may however be revised by the ordering authority, if warranted by exigency of the work of the Corporation. The successful Bidder shall be bound to effect deliveries in accordance with the changed supply schedule without claiming revision in rates. The dates of supply shall be the date on which the consignment reaches the required destination.
- (d) Ordered item may required to be supplied to the consignee through District Manager office of the corporation as per dispatch order to be given by the Regional Manager of the Corporation, securely packed so as to withstand rough handling and protection from vagaries of nature during transit.
- (e) Relevant Delivery Challan shall be sent free and direct to the consignee (s) freight paid. The order No. of Corporation should be mentioned in the bill, against which the material is supplied.
- (f) The M.P. State Agro-Industries Development Corporation Limited shall not be responsible for damages, losses, thefts, pilferage, fire, accidents and demurrages etc. if any, incurred to the consignment during transit and these shall be borne by the supplier.
- (g) The dispatch of consignment shall be immediately communicated to the indenting Regional Manager/Distt. Manager of Corporation and consignee with the relevant details of Challan and Bill Nos.
- (h) <u>Transit Insurance</u>: The Supplier will arrange for Transit Insurance and Material supplied should be covered under Transit insurance for Road Risk,

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Theft, Pilferage, and Non Delivery Risk (RRTPND).

- (i) Compliance of statutory conditions/regulations: The manufacturer shall be bound to follow the statutory conditions/obligations/ regulations as issued by the State Government/Central Government or the appropriate authority in the execution of work allotted under this Rate Contract Offer.
- (j) Rates Disparity Clause: If at any stage during the validity of the rate contract/during the term of the agreement, M.P. State Agro-Industries Development Corporation Limited receives the lowest supply rate offer from any other manufacturer (other than the manufacturer who is already supplying the items), then the corporation shall provide an opportunity to the manufacturer already supplying the materials to supply the items at the lowest rate offered by other manufacturer. If the manufacturer already supplying items refuse to supply on the said lowest rate, then the corporation shall be at liberty to take supply from the supplier who quoted lowest rates.

(k) Margin Enhancement Clause: The corporation reserves its right at any time during the validity of the agreement / Rate Contract to make amendments in the 5% margin of the corporation in the financial interest of the corporation.

14. WARRANTEE:

The Bidder has to declare minimum 1 (one) year's warrantee for the items supplied against any manufacturing defect from the date of Supply and Installation. In case of complaint / defect the supplier shall have to arrange repair /replacement within 10 days from the date of receipt of intimation. The Corporation shall have right to recover the cost or expenditure of loss whatsoever, on this account from the future bills of the supplier or from the security deposit or from any other amount due to the supplier or out of the security or any deposit made by the supplier in other Government Organization.

15. TRAINING:

If required the supplier will impart training to the selected nominated person of purchaser and the concerned person/staff/officers of the Corporation for proper operation and maintenance of Items Supplied.

16. AFTER SALE SERVICE:

- The company must provide after sales service during warranty period.
- Supplier shall also ensure that proper after sales services are available to the customers.
- c. The supplier shall also make arrangements for repair and after sale service required on continuous basis after expiry of the warranty period and shall ensure that the repairs/maintenance cost incurred by the purchaser are minimum.

17. RIGHT TO REFUSE/REJECT THE SUPPLIES:

- (a) Ordered item shall conform to the quantities and specifications (as per Annexure-IV) mentioned in supply order. The Corporation reserves the right to refuse to accept the supplied item, if found:-
 - (i) Inferior in quality & not in proper packing/design or not conforming to the specifications mentioned in Annexure- IV.

- (ii) Other than specified and ordered by the Corporation, OR
- (iii) For any other sufficient reason at it's discretion.
- (b) In case the supply of item is rejected / the supply not accepted, the items so supplied, shall be lifted by the supplier at his own cost within the period granted by the M. P. State Agro-Industries Development Corporation Limited and in no case Corporation shall be liable for the supply not accepted.
- (c) If the material fails in the testing.

18. DEFECTIVE SUPPLIES:

The supplier shall replace the defective material or any other part found defective or prematurely worn out within 7 days within warranty period from the date of sale to the consumer, free of cost. If it is proved that Bidder has intentionally supplied machine/equipments of improper quality or not ready to replace or had not replaced defective machines / equipments during the specified period or in a genuine time period as required minimum, corporation shall be free to black list the Bidder and Bidder shall be bound to refund the amount received in lieu of such defective supplies made by the Bidder.

19. PAYMENT:

The Corporation will make the payment normally within 15 days on payment after payment condition to the supplier only after receipt of bills along with copy of received challan, GPS (GEO TAG) photo graph and Third party inspection report duly signed by the consignee / beneficiary.

20. PRICE ESCALLATION CLAUSE:

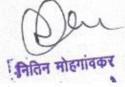
The variation in price is allowed if any variation is occurred in GST slab & any levies/taxes by Regulatory authority. Bidder may revise rates accordingly underintimation to corporation.

21. RANDOM TESTING OF COMPONENTS:

Corporation may select sample by random checking of any or all components of System received at the destination / site and send it to any recognized institute for testing. The cost of such testing including cost of material shall be borne by the supplier.

22. BRAND NAME:

The Bidder is entitled to claim only one brand name for the purpose of this contract. Regarding brand name, certificate of brand name, if any, issued by competent authority for this purpose should be made available, however the Corporation will not be liable for any dispute on account of brand name or of any kind.



23. SUBMISSION OF REQUIRED DOCUMENT:

It is obligatory for the Bidder to submit all the necessary documents as mentioned in **Annexure-V** and mentioned elsewhere in RCO document. All formats should be filled in completely. **All the necessary documents should be enclosed duly self-attested.**

24. ACCEPTANCE/REJECTION OF RCO:

The Managing Director of the Corporation reserves the right to accept or reject any or all the RCO without assigning any reason whatsoever at any time prior to the award of the contract, without incurring any liability to the affected Bidder and any obligation to inform the affected Bidder of the grounds.

All the offers shall be examined on the basis of bid and supporting documents submitted online and in case, any of the documents is not in readable/printable form, the offer may be rejected without intimation to the offerer/bidder. Please ensure to uploaded clear, proper and complete documents while submitting the bid.

25. FORCE MAJEURE CLAUSE:

FMC will applicable in the following circumstances -

- (a) Natural phenomenon including but not limited to weather condition, floods,draught, earthquake and epidemics.
- (b) Acts of government authority domestic or foreign including but not limited towar declared or properties, quarantine restriction.
- (c) Accidents or distraction including but not limited to fire, explosion break downs at essential machinery equipment and power shortage.

26. PURCHASE PREFERENCE:

The following rules are applicable only on those items & product which will be approved by committee constituted by M.P. Govt. store purchase rule 2015 (revised 2022) against rule 31 as per store purchase rule.

(a) In case lowest rate received from the Bidder situated out of Madhya Pradesh. As per the provision made in State Purchase rule 25 to 50 percent (according to the production capacity) will be placed with bidder/bidders whose Production unit situated in Madhya Pradesh (Micro/ Small Industries) and who quoted Rates in bend of L-1+15% (First three bidders of Madhya Pradesh), only if, they are agreeable to supply the material in time and on lowest rate so received. Price preference of any kind will not be allowed (This clause will be applicable to only those Manufacturers of Madhya Pradesh if the place of Manufacturing is situated in Madhya Pradesh)

- (b) As per the policy of the State Government in respect of purchase of items through Micro / Small Industries purchase preference, minimum to the extent of 4% out of 25% of the required quantity shall be given to those manufacturing units of M.P belonging to the SC/ST entrepreneurs. A self-certified copy of certificate issued by the District Trade Industries Center (D.T.I.C) in this regard should be attached at the time of submission of tender. Price preference of any kind will not be allowed.
- (c) As per the policy of the State Government in respect of purchase preference, minimum to the extent of 3% out of 25% of the required quantity shall be given to those manufacturing units of M.P belonging to Female entrepreneurs (Ownership). Preference will be given to Micro / Small Industries run female Self Help Group A self-certified copy of certificate issued by the District Trade Industries Center (D.T.I.C) in this regard should be attached at the time of submission of tender. Price preference of any kind will not be allowed.

27. TO IMPOSE PENALTIES:

In case the supplier does not produce the ordered material within

the specified time limit the penalty will be imposed as under

no	WEEKS	Rate of penalty imposed	
1	1 st to 2 nd week	0.25% per week	
2	3 rd to 4th week	0.50% per week	
3	5 th to 6 th week	0.75% per week	
4	7 th to 8 th week	1.00 % per week	
5	9 th to 10 th week	1.25 % per week or the order will be cancelled	
6	11 th to 12 th week	1.50 % per week or the order will be cancelled	
7	in Case the supplier refuse to supply the ordered material	Cancelling the supply order and 21% penalty will be imposed and recovered from the EMD or from the Payment to be paid from the other District of the corporation	

28. CORPORATION AS DEALER:

Corporation shall become Authorized Dealer of the company after execution of agreement with the company during the currency of Rate Contract.

29. ARBITRATION:

As far possible, all dispute arising out of this agreement will be settled by the mutual discussion and decision taken by the Dy. Manager of the corporation will be final and binding on both the parties.

In case dispute is not settle as above then the same shall be referred to the arbitration. Arbitration and conciliation Act, 1996 shall apply to the proceedings before the Managing Director of the Corporation who shall be sole arbitrator. The decision of the arbitrator shall be final and binding on the parties. Venue of Arbitration shall be Bhopal and shall be governed by Arbitration and Conciliation act, 1996.

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30. RCO EVALUATION:

During RCO evaluation, MP AGRO may, at its discretion, ask the Bidder for a clarification of its RCO and the documents attached thereto. The request for clarification and response shall be in writing only.

31. VALIDITY OF RCO RATES:

The rates finalized against this RCO shall be valid for a period of 3 (three) months from the date of issue of first circular for approved rates. The MP Agro have rights to cancel the approved rates and/or RCO even before completion of its validity period. It will also be at the sole discretion of MP AGRO to extend validity period of prevailing rates until new rates are circulated.

32. MINOR MISTAKES IN RCO:

M.P. AGRO may waive any minor nonconformity, or irregularity in a RCO document that does not constitute a material deviation, provided such waiver does not prejudice or affect the relative ranking of any bidder. Right to waive mistake shall remain with Managing Director of MP AGRO.

33. TRANSFERABILITY:

RCOs are not transferable.

34. RIGHT TO ACCEPT OR REJECT RATE CONTRACT OFFER:

MP AGRO reserves the right to reject or accept any rate contract in whole or in part on account of credentials, technical capability, past performance or any other evaluation criteria to ensure uninterrupted supply of material. The decision of MP AGRO in this regard will be final and MP AGRO is not liable to assign any reasonsfor the decision.

35. PARALLEL RATE CONTRACT:

MP AGRO reserves the right (a) to enter into parallel rate contract(s) simultaneously or at any time during the period of the rate contract with more Bidders as MP AGRO may think fit, and (b) to place ad-hoc contract or contracts simultaneously at any time during the period of this contract with more supplier(s)/Bidder(s) for such quantity and such item as the competent authority of MP AGRO (whose decision shall be final) may determine.

36. INSPECTION FOR QUALITY:

(i) Third party inspection of RCO items by those Government Agency which approved by Quality Council of India /N.A.B.C.B. such as DGS&D (under Department of commerce & industries Govt of India), RITES (Enterprises of Department of Railways Govt of India), PDIL (Organization under Department of Chemical and fertilizer Govt of India), ICAR - CIAE (Institute under the Department of Agriculture Govt of India), EIC (under Department of commerce & industries Govt of India), CIPET (under Department of Chemical and fertilizer Govt of India), EIL (Public

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Enterprises under petroleum & Natural gas Department Govt of India), or any Government Engineering College or any Government Agency at factory address given by the offrer in annexure VI, before dispatch of the material and the location where the material installed. The inspection cost shall be borne by the supplier.

- (ii) To certify any materials or part thereof submitted for inspection that they are not in accordance with the contract owing to the adoption of any unsatisfactory method of manufacture; MP State Agro may discretionally exercise the power to constitute a committee consisting of external subject matter experts for the purposes of inspection of materials supplied by the manufacturer.
- (iii) To reject any materials submitted as not being in accordance with the particulars/ terms and conditions of the RCO and supply order.
- (iv) To reject the whole of the installment, if after inspection of such portion thereof as it may in its discretion thinks fit, it is satisfied that the same is unsatisfactory.
- (v) The Inspecting Officer's decision as regards the rejection shall be final and binding on the Supplier.
- (vi) MP AGRO reserves the right to inspect the materials to be dispatched / in Transit / already delivered at any time and at any where. MP AGRO also have rights to inspect the raw materials used for manufacturing, process of manufacturing, quality policy fixed and testing facilities for the product to be supplied by the supplier at the supplier's premises.
- (vii) Cost of Test: The supplier is liable to pay for any Test done on the product
- (viii) supplied for conformity on quality.

37. RISK PURCHASE CLAUSE:

MP AGRO reserves the right to make emergent purchase in case of failure of supply/rejected supply either in part or full as per demand placed by the MP AGRO and amount paid of such purchases should be adjusted from the supplier's Bill and may take following punitive actions..

a) The occurrence of such events 3 times during the contract period will lead to cancellation of contract by MP AGRO at any time after serving warning on each such event. The cancellation of contract will automatically come into effect from the last working hour of a scheduled delivery date after serving the last warning. On such event of cancellation the supplier will be black listed and will not be allowed to participate in any RCO / supply contract for a period of one year. On event of cancellation of contract the security deposit available with MP AGRO for the contract will be forfeited.

38. WITHHOLDING AND LIEN IN RESPECT OF SUMSCLAIMED:

Whenever any claim or claims for payment of a sum of money arises out of or under the contract against the Contractor, MP AGRO shall be entitled to withhold and also have a lien to retain such sum or sums in whole or in part

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from security, if any, deposited by the Contractor and for the purpose aforesaid, MP AGRO shall be entitled to withhold the said cash security deposit or the security, if any, furnished as the case may be and also have a lien over the same pending finalization or adjudication of any such claims. In the event of the security being insufficient to cover the claimed amount or amounts or if no security has been taken from the Contractor, MP AGRO, shall be entitled to withhold and have lien to retain to the extent of the such claimed amount or amounts, from any sum or sums found payable or which at any time thereafter may become payable to the contractor under the same contract or any other contract with MP AGRO pending finalization or adjudication of any such claim.

39. CORRUPT PRACTICES:

Supplier is expected to observe the highest standard of ethics during the execution of this RCO. If the supplier has engaged in corrupt or fraudulent practices, in competing for or in executing the contract, MP AGRO may, after giving 14 days notice to the supplier, terminate the Contract. In pursuit of this policy, MP AGRO:-

- a. Defines, for the purposes of this provision, the terms set forth below asfollows:
 - "Corrupt practice" means the offering, giving, receiving or soliciting of anything of value to influence the action in the procurement process orin Contract execution; and
 - (ii) "Fraudulent practice" means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of MP AGRO and includes collusive practices among bidders (prior to or after bid submission) designed to get itself short listed for participating in the bidding process, to establish bid prices at artificial, non-competitive levels and to deprive MP AGRO of the benefits of free and open competition;
 - b. Will reject a proposal for award if it determines that the Bidder being considered for award has engaged in corrupt or fraudulent practices in competing for the Contract.
 - c. In the same manner as above, if bidder observes any corrupt practices or "fraudulent practice" in MP AGRO, he should report to Managing Directoronly.

40. BREACH OF CONTRACT:

Any breach of the terms & conditions mentioned in this RCO document by the Supplier, or any one employed by him or acting on his behalf (whether with or without the knowledge of the Supplier) or the committing of any offence by the Supplier or by any one employed by him or acting on his behalf under Chapter IX of the Indian Penal Code, 1860 or the Prevention of Corruption Act, 1988 or any other act enacted for the prevention of corruption by public servants shall entitle MP AGRO to cancel the contract and all or any other contracts with the Supplier and to recover from the Supplier the amount of any loss arising from such cancellation.

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41. TERMINATION OF CONTRACT AND BLACK LIST OF SUPPLIER:

MP AGRO may terminate of Contract or Black list of supplier in the following event of default:

- Breach of any of the terms or conditions or obligation of Contract on part of Supplier / his employees /agents.
- (ii) Any major material alteration in the agreed upon specification (if any) of the product to be supplied without the authorization of MP AGRO and / or competent authority.
- (iii) MP AGRO at their discretion may call for any record to satisfy them regarding supply of material to catering units. The supplier shall extend every possible help and provide document related to the subject, to MP AGRO, failing which it may amount to breach of agreed terms and conditions of the contract.
- (iv) The Supplier being adjudged bankrupt/ insolvent or a trustee/ receiver being appointed on the Supplier.
- (v) Repudiation of agreement by Supplier or otherwise evidence of intention not to be bound by the agreement.
- (vi) MP AGRO at their discretion may call for any record to satisfy them regarding the supply and Supplier will provide every help failing which it may amount to breach of condition of the Contract.

42. AMENDMENTS TO BID INVITATION:

The MP AGRO reserves the right, to make revisions or amendments to the bid documents, when deemed necessary, prior to the closing date of the bid, through proper notification or web-site. The bidders must watch MP AGRO web site for any such amendments. The MP AGRO shall be at liberty to consider extending the date set for the bid opening by such a number of days as in the opinion of the MP AGRO will enable the bidder's to revise their bids.

43. NEGOTIATIONS:

it is clarified that normally the Corporation will make no negotiation on the RCO and therefore the Bidders should quote their lowest prices only. However the Managing Director of the Corporation may decide to give counter offer on the lowest rate to other bidders as decided by him.

44. AUTHORITY TO SIGN BID DOCUMENTS:

A person signing the RCO or any other document in respect of the Contract on behalf of the supplier without disclosing his authority to do so shall be deemed to warrant that he has authority to bind the Supplier. If it is discovered at any time that the person so signing has no authority to do so, MP AGRO may, without prejudice to any other right or remedy of MP AGRO, cancel the contract and make or authorize making of a purchase of the materials at the risk and cost of such person, and hold such person liable to MP AGRO for all costs and damages arising from the cancellation of the contract including any loss which MP AGRO may sustain on account of such purchase.

45. Only Bhopal Court shall have jurisdiction.

MANAGER MARKTING

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ANNEXURE - VIII

THE MADHYA PRADESH STATE AGRO INDUSTRIES DEVELOPMENT CORPORATION LIMITED

LETTER OF UNDERTAKING AND DECLARATION
We hereby submit RCO for the
RCO. conforming to the Specifications as mentioned in
We undertake to supply such quantities of material as per Specification as mentionedin RCO, as we may be called upon to supply and install under the conditions here-to enclosed during the allotted period from the date of execution of the agreement on the rates agreed upon, at the places to be specified by the M.P. State Agro Industries Development Corporation Limited within the specified delivery period.
We undertake that our firm has neither been Blacklisted/Debarred by any Government / Government Undertaking /Bank nor penalized on the same ground. We also undertake that no legal proceeding is pending in any Courts on the same grounds.
We hereby agree to abide by and fulfill all the terms and conditions of contract annexed hereto and in default thereof to forfeit and pay to the M.P. State Agro Industries Development Corporation Limited, the penalties or sum of money mentioned in the said conditions.
The sum of Rs. 1,00,000.00 (One Lac only) in the form of Demand draft or any of the form specified in the Rate Contract RCO Documents is herewith forwarded as Earnest Money which shall be retained by The MP State Agro Industries Development Corporation Limited, on account of Security Deposit as specified in the clause 9 of the said conditions of contract, should this RCO be accepted.
"I have read and fully understood the terms and conditions of supplies etc. mentionedin the documents.
Name :
Designation:
(Signature with Office Seal)

Witness:

1.

2.

श्वंचक (______)

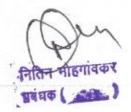


"PANCHANAN" 3rd FLOOR, MALAVIYA NAGAR, BHOPAL Phone (0755)- 2551652, 2551756, 2761392, Fax: 0755-2557305

FINANCIAL BID FORMAT

ITEM DESCRIPTION	UNIT	HSN CODE	BASIC RATE	GST Amount	GST %	PURCHASE PRICE TO MP AGRO
YATRI-PRITIKSHALAYA						
PRE FABRICATED BUS SELTER MODEL 1 WITHOUT SOLAR LIGHT	Each	730890			-	
PRE FABRICATED BUS SELTER MODEL 2 WITH TWO 16 WATT LED SOLAR LIGHT	Each	730890				
PRE FABRICATED BUS SELTER MODEL 3 WITH TWO 16 WATT LED SOLAR LIGHT	Each	730890				
PRE FABRICATED BUS SHELTER MODEL 4 WITH TWO 16 WATT LED SOLAR LIGHT	Each	730890				
PRE FABRICATED BUS SHELTER MODEL 5 WITH TWO 16 WATT LED SOLAR LIGHT	Each	730890		140		
PRE FABRICATED BUS SHELTER MODEL 6 WITH TWO 16 WATT LED SOLAR LIGHT	Each	730890				
SIMPLY SUPPORTED TYPE SWAGAT DWAR MODEL 1 WITHOUT SOLAR LIGHT	Each	730890				
SIMPLY SUPPORTED ACP SHEET FITTED SWAGAT DWAR MODEL 2 WITHOUT SOLAR LIGHT	Each	730890				
SIMPLY SUPPORTED TYPE SWAGAT DWAR MODEL 3 WITH SOLAR LIGHT	Each	730890				

Seal & signature of the Bidder



ANNEXURE - X

DECLARATION OF BLACKLISTING

It is understood that if this Declaration is found to be false, MP AGRO shall have the right to reject my/our proposal, and if the proposal has resulted in an investment, the investment agreement is liable to be terminated without prejudice to any other right or remedy (including Black list / Debar/Penalized) available to MP AGRO.

Place:

Date:

Seal & Signature of the Bidderor their authorized Representative

NOTE: This declaration should be furnished on company's "Letter Head"

नितिन माहगावकर प्रबंधक (क्रिकेट)

ANNEXURE - XI

DRAFT AGREEMENT

(THIS AGREEMENT TO BE FURNISHED AFTER THE BID ISACCEPTED ON NON JUDICIAL STAMP RS. 1000/-)

	1000/-)
This agreement made at Bhopal this day State	of, between The Madhya Pradesh
Agro-Industries Development Corporati	on, having registered office at 'Panchanan, 3rd Floor,
Malviya Nagar, Bhopal, M.P. hereinafte	er referred to as 'Corporation' which expression shall
unless repugnant to the context or mean	ing there of include its successors and assigns on the
one part.	
	AND
M/s.	having its office at
acting through its	(hereinafter referred to as the
which expression unless repugnant to the	he context and meaning there of includes its assigns,
successors and administrations on the ot	her part.
for the year 2023-24	Rate Contract Offer for supply ofand onwards on the terms and conditions envisaged Rate Contract RCO Document and purchased by the
AND WHEREAS the supplier has acce	epted each and every term and condition contained in
the Rate Contract RCO Document, wh	nile submitting his RCO. The supplier has agreed to
supply of quality materials and equipme	ents on consignment basis on the terms and conditions
of this agreement to the Corporation.	
AND WHEREAS the Corporation acce	pted the RCO submitted by the supplier vide its letter
of acceptance no dated	in consideration of the mutual premises
and undertakings hereinafter specified	and for other good and valuable consideration this
agreement witness and is hereby agree	ed on the conditions of the RCO and the following
documents shall form and be constructe	d a part of the Agreement Deed: -

- a) The terms & conditions of the Rate Contract Document
- b) Specifications of material

M.N

- c) The letter of acceptance dated -----
- d) The RCO submitted by the supplier.
- e] The rates mentioned in annexure to agreement.

The aforesaid documents shall be taken as complementary and mutually explanatory of one another but in case of discrepancies and ambiguities shall take precedence in the order set out above. In this regard the decision of Managing Director, M.P. State Agro-Industries Development Corporation Limited shall be final.

For Supplier	For
	M.P. STATE AGRO INDUSTRIES
	DEVELOPMENT CORPORATION LTD
Signature with Office Seal	MANAGER MARKETING

Witnesses

1.

2.



FORMAT FOR C.A. CERTIFICATE FOR TURN OVER

M/sverification and as per the inform	of accounts and other relevant records o Based on my nation and explanation given to us, we ration Items of M/s
Year	Turnover Rs In Lakhs
Financial Year 2020-21	
Financial Year 2021-22	
Financial Year 2022-23	
Total	

For Charted Accountant Seal and Signature UDIN No.

Place :

Date:

(to be submitted on CA's letter head)

भितिन मोहगांवकर प्रवंचक (ंक्र)

FORMAT FOR SIGNING AUTHORITY ON THE FIRMS LETTER HEAD

To,
The Manager,
M.P.S.A.I.D.C, IIIrd Floor,
Panchanan Bhavan, Malviyia Nagar,
Bhopal.

Sub: Regarding signing authority.

I/W	e				u	nders	igned i	n the co	nacit
of	Proprietor/	Partner/	Board	of	Director	of	the	firm	M/s
•••••									
hav	ing office at					he	ereby a	authoris	e 0117
emp	loyee named	Shri				. hole	ding th	e positi	ion of
	t	o sign in the	RCO and	relate	ed documen	t on b	ehalf o	f the fir	m.

Signing person on the document Name: Designation and Seal.

Attested and authorised by :-

Proprietor/ Partner/ Board of Director. Name:-Designation and Seal

Seal of the Firm

नितिन मोहगांवकर प्राधिक (अप)

PART OF ANNEXURE- IV

DETAIL TECHNICAL SPECIFICATION & TECHNICAL DRAWINGS OF YATRI-PRITIKSHALAYA AND SWAGAT DWAR

- PRE FABRICATED BUS SELTER MODEL 1 WITHOUT SOLAR LIGHT (Drawing & Specification attached).
- (ii) PRE FABRICATED BUS SELTER MODEL 2 WITH TWO 16 WATT LED SOLAR LIGHT (Drawing & Specification attached).
- (iii) PRE FABRICATED BUS SELTER MODEL 3 WITH TWO 16 WATT LED SOLAR LIGHT (Drawing & Specification attached).
- (iv) PRE FABRICATED BUS SELTER **MODEL 4** WITH TWO 16 WATT LED SOLAR LIGHT (Drawing & Specification attached).
- (v) PRE FABRICATED BUS SELTER MODEL 5 WITH TWO 16 WATT LED SOLAR LIGHT (Drawing & Specification attached).
- (vi) PRE FABRICATED BUS SELTER **MODEL 6** WITH TWO 16 WATT LED SOLAR LIGHT (Drawing & Specification attached).
- (vii) SIMPLY SUPPORTED TYPE SWAGAT DWAR MODEL 1 WITHOUT SOLAR LIGHT (Drawing & Specification attached).
- (viii) SIMPLY SUPPORTED ACP SHEET FITTED SWAGAT DWAR MODEL 2 WITHOUT SOLAR LIGHT (Drawing & Specification attached).
- (ix) SIMPLY SUPPORTED TYPE SWAGAT DWAR MODEL 3 WITH SOLAR LIGHT (Drawing & Specification attached).

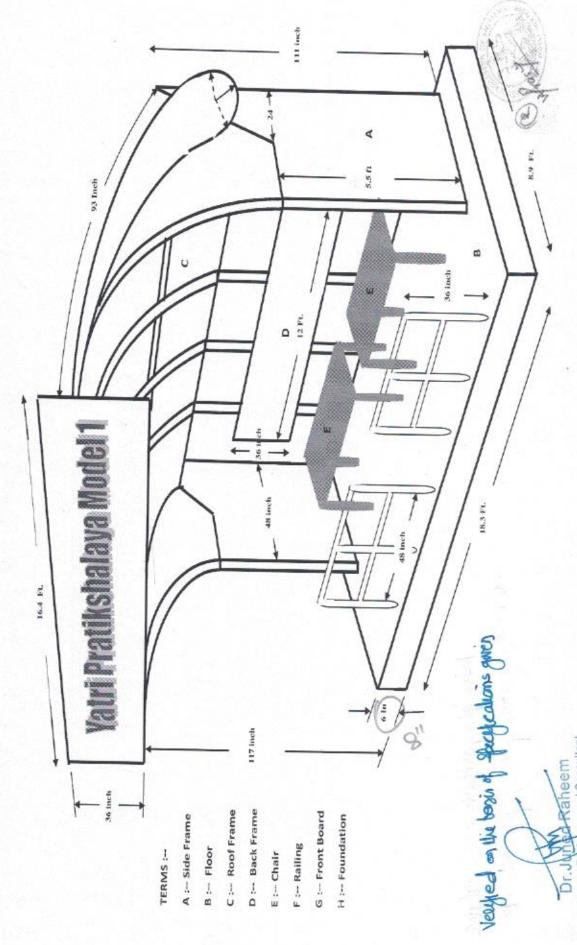
निविन मोहगांवकर प्रावंवक (

Specifications Of Yatri Pratikshalay (Sthai Bus Stop Shade)Model 1

- A Side Frame: Side frame shall be made of 65 x 65x 3 mm, square hollow section and 1.0 mm. MS sheet with two coat enamel painting fixed by welding or riveting on the both side of the frame as per standard practice size as shown in the drawing.
- B Floor- Floor of the shelter shall be made of RCC With 12 mm, TMT Bar & M-15 grade of concrete up to 200 mm height with in build frame of shuttering followed by flower paint over it after curing.
- 3. Roof Frame- Roof frame shall be made of 50 x 50 x 2 mm. square M.S. section followed by 1 mm thick G.I. sheet is fitted for roof with two coat enamel coating/painting as per consignee instructions.
- 4. D Back frame- Back frame shall be made of hollow pallet Section 65 x 65 x 1.6 mm over it 1 mm. G.1. sheet is fitted and fastened with back frame pipe made of 50 x 50 x 1 mm. hollow square M.S. pipe.
- 5. E Chair- Chair 2 No. as per requirement is fixed in concrete base shall be made of main frame made of 50 x 50 x 2 mm. Round M.S. pipe of standard practice with G.I. shown in drawing attached
- F Railing 2 Nos of railing shall be made of 40 mm diameter G.1. pipe without colour or M.S. pipe with two coat of enamel colour over it as per consignee instructions as shown in drawing attached.
- 7. G Front Sign Board- Front sign board shall be made of main frame by hollow pipe/pallet Section 50 x 50 x 1.6 mm. and 1.0 mm. G.1. Sheet fitted over it or board fully made of 1.0 mm. Sheet this board is placed over the top of the shade.
- 8. H Foundation Four number of column (Anchor Bolt type) shall be made of 4 no. of 12mm.TMT bar with 8 mm Base plate for each Column shall be M15. The foundation shall be properly designed as per the strata of the location and standard codes.
- 9. Curing Whole concrete shall be cured for at least 14 days as per IS 456.
- 10.Floor Painting- Floor of the Yatri pratikshalaya shall be painted by two coat enamel paint after two coat primer.
- 11. Finishing- Whole structure shall be painted by two coat enamel paint after two coat primer.
- 12.Sign Board Printing -Sign board shall be printed with Scheme Name & year of Sanction, work start date, Work Completion date, Gram Panchayat name as per Consignee & Scheme instructions.
- 13. Structure- the structure shall be properly designed as per prevailing code of Practice before installation at particular location.

Dr. Juned Raheem

Schematic Drawing of Yatri Pratikshalaya (Sthayi Bus stop Shade) Model 1



Assistant Professor and Consultant
Department Scivil Engineering

Specifications of Yatri Pratishalaya (Sthayi Bus stop Shade) Model-2 (With Solar Light)

- A Side Frame: Side frame shall be made of 65 x 65x 3 mm square hollow section and 1.0 mm. GI sheet with two coat enamel painting fixed by welding or riveting on the both side of the frame as per standard practice size as shown in the drawing attached.
- B Floor- Floor of the shelter shall be made of RCC With 12 mm TMT Bar & M 15 grade of concrete up to 200 mm height with in build frame of shuttering followed by flower paint over it after curing.
- 3. C Roof Frame -Roof frame shall be made of 50 x 50 x 2 mm square M.S. section followed by 1 mm thick G.I. sheet is fitted for roof with two coat enamel coating/painting as per consignee instructions.
- 4. D Back frame- Back frame shall be made of square tube 50 x 50 x 2 mm M.S. Square Pipe or Pallet Section of Standard Practice, over it 1 mm. G.I sheet is fitted and fastened with back frame.
- 5. E Chair- Chair 2 No, as per requirement is fixed in concrete base shall be made of main frame made of 50 mm. Square /round pipe and support frame 25 x 25 mm square pipe with M.S. sheet with two coat of enamel colour over it as per consignee instructions as shown in drawing attached.
- 6. F Railing-2 No. of railing shall be made of 40 mm. diameter G.I. pipe without colour or M.S. pipe with two coat of enamel colour over it as per consignee instructions as shown in drawing attached.
- G Front Sign Board- Front sign board shall be made of 50x50x3 mm. frame by hollow Square Pipe/Pallet of standard Practice and 1.0 mm G.I. sheet panel fitted over it.
- 8. H Foundation- Four number of column (Anchor Bolt type) shall be made of 4 no. of 12mm. TMT bar with 8 mm Base plate for each Column shell be M15. The foundation shall be properly designed as per the strata of the location and standard codes.
- 9. Curing: Whole concrete shall be cured for at least 14 days as per IS 456.
- Floor Painting:-- Floor of the Yatri pratichalaya shall be painted by two coat enamel paint after two coat primer.
- 11. Finishing: Whole structure shall be painted by two coat enamel paint after two coat primer.
- 12. Sign Board Printing:- Sign board shall be printed with Scheme Name & year of Sanction, work start date, Work Completion date, Gram Panchayat name as per Consignee & Scheme instructions.
- 13. Structure:-- The structure shall be, properly designed as per prevailing code of Practice before installation of Location.

14. Solar Light-2 No. 16 watt each solar light shall be fitted in the shelter.

Dr. Juned Raheem
Assistant Professor and Consultant

SPECIFICATIONS OF 16 WATT SOLAR LIGHT FOR MODEL 2

White Light Emitting Diode (W-LED) is a solid state device which emits light when forward electric current passes through it. A LED based solar street lighting system consists of a PV Module, control electronics, battery, and W-LED based Luminaries, all suitably mounted on a Pole. The battery is charged by electricity generated through the PV module during day time and the luminary provides light from dusk to dawn.

Light Source	White Light Emitting Diode (W-LED) LED				
Light Out put	White colour (colour temperature 55000 -65000 K) minimum 15 LUX when measured at the periphery of 4 meter diameter from a height of 4 meter. The illumination should be uniform without dark bands or abrupt variations, and soothing to the eye. Higher light output will be preferred.				
Mounting of light	2 to 4 meter mounted				
PV Module	40 Wp under STC, measured at 16.4 V at load. Module of minimum of 21V- (For 16W Model)				
Battery	12 V- 40 AH @ C/10, Max DoD 75%. Tubular OR 12 V- 40 AH @ C/10, Max DoD 75%. Tubular Lead Acid Floated (For 16W Model) 12 V- 60 AH @ C/10, Max DoD 75%. Tubular OR 12 V- 60 AH @ C/10, Max DoD 75%. Tubular Lead Acid Floated				
Electronics Efficiency	Min 85% total				
Duty Cycle	Dusk to dawn				
Autonomy	3 days or Minimum 42 operating hours per permissible discharge				

OTHER DETAILS

DUTY CYCLE

The W-LED solar street lighting system should be designed to operate from dusk to dawn, under average daily insolation of 5.5 kWh /sq.m. on a horizontal surface.

LIGHT SOURCE

- The light source will be a white LED type.
- 2. The colour temperature of white LED used in the system should be in the range of 55000 K-65000
- W-LEDs should not emit ultraviolet light. K.
- 4. The light output from the white LED light source should be constant throughout the duty cycle.
- The lamps should be housed in an assembly suitable for outdoor use.
- 6. The temperature of heat sink should not increase more than 20oC above ambient temperature during the dusk to dawn operation.

- 12V, 45Ah and 12V, 60Ah lead Acid, Tubular Positive Plate flooded electrolyte.
- The battery will have a minimum rating of 12V, 45Ah and 12V 60Ah at C/10 discharge rate.
- 75 % of the rated capacity of the battery should be between fully charged and load cut off conditions.

ELECTRONICS

MODEL 2

- 1. The total electronic efficiency should be at least 85%.
- Electronics should operate at 12 V and should have temperature compensation for proper charging of the battery throughout the year.
- 3. No Load current consumption should be less than 20 mA.
- The PV module itself should be used to sense the ambient light level for switching ON and OFF the lamp.
- The PCB containing the electronics should be capable of solder free installation and replacement.
- Necessary lengths of wires/cables, switches suitable for DC use and fuses should be provided.

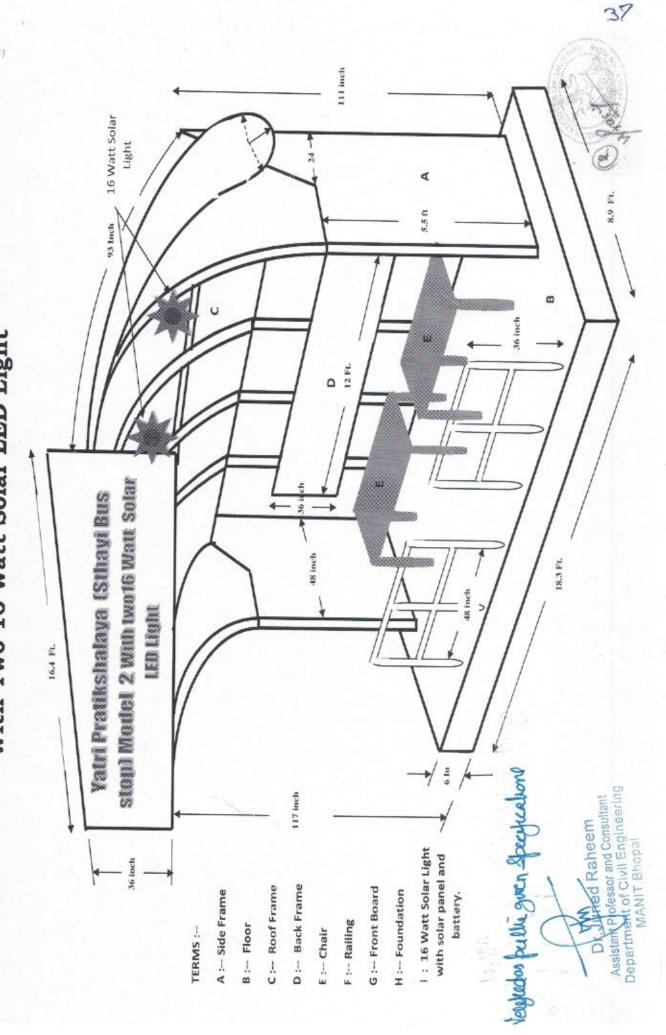
PV MODULE

- 1. Indigenously manufactured PV module should be used.
- 2. The PV module should have crystalline silicon solar cells.
- 3. The power output of the module(s) under STC should be a minimum of 40 Wp at a load voltage* of $16.4 \pm 0.2 \text{ V}$.
- Open circuit voltage* of the PV modules under STC should be at least 21.0 Volts.
- 5. The module efficiency should not be less than 12 %.
- The terminal box on the module should have a provision for opening for replacing the cable, if required.
- 7. Identification and Traceability Each PV module used in any solar power project must use a RF 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.)
 - 1. Name of the Manufacturer of PV module
 - 2. Name of the manufacturer of Solar Cells.
 - Month and year of the manufacture (separately for solar cells and module).
 - 4. Country of origin (separately for solar cells and module).

ELECTRONIC PROTECTIONS

- Adequate protection is to be incorporated under "No Load" conditions e.g. when the lamp is removed and the system is switched ON.
- The system should have protection against battery overcharge and deep discharge conditions.
- Fuse should be provided to protect against short circuit conditions.
- Protection for reverse flow of current through the PV module(s) should be provided.
- 5. Electronics should have temperature compensation for proper charging of the battery throughout the year.
- Adequate protection should be provided against battery reverse polarity. vii. Load reconnect should be provided at 80% of the battery capacity status.

Schematic Drawing of Yatri Pratikshalaya (Sthayi Bus stop Shade) Model 2 With Two 16 Watt Solar LED Light



DETAIL SPECIFICATIONS OF YATRI PRATIKSHALAYA(STHAYI BUS STAND SHADE) MODEL 3 WITH TWO 16 WATT SOLAR LED LIGHT

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Solar light 2 No. (Auto Cut Off)	Structure	Floor	Foundation of Structure	Dasplay Board	Structure for Railing	Seating Arrangement	Structure of Root Frame and sheets	Structure of Back Frame and Panels	Structure of Side frame and Panels
4.3 2.	-	2.1	-	F		F	2.	2.	1. 2.
Providing and fixing of 2 No. White-Led (W-Led) based Solar street lighting system 16 Watt. Dr. Juned Rahle Colour Light Output White colour (Colour temperature 55000-65000 k) minimum 15 LUX when measured and Professor and Colour temperature 55000-65000 k) minimum 15 LUX when measured and Professor and Colour temperature 55000-65000 k) minimum 15 LUX when measured and Professor and Colour temperature 55000-65000 k) minimum 15 LUX when measured and Professor and Colour temperature 55000-65000 k) minimum 15 LUX when measured and Professor and Colour temperature 55000-65000 k) minimum 15 LUX when measured and Professor and Colour temperature 55000-65000 k) minimum 15 LUX when measured and Professor and Colour temperature 55000-65000 k) minimum 15 LUX when measured and Professor and Colour temperature 55000-65000 k) minimum 15 LUX when measured and Professor and Colour temperature 55000-65000 k) minimum 15 LUX when measured and Professor and Colour temperature 55000-65000 k) minimum 15 LUX when measured and Professor and Colour temperature 55000-65000 k) minimum 15 LUX when measured and Professor and Colour temperature 55000-65000 k) minimum 15 LUX when measured and Professor and Colour temperature 55000-65000 k) minimum 15 LUX when measured and Professor and Colour temperature 55000-65000 k) minimum 15 LUX when measured and Professor and Colour temperature 55000-65000 k) minimum 15 LUX when measured and Professor and Colour temperature 55000-65000 k) minimum 15 LUX when measured and Professor and Colour temperature 55000-65000 k) minimum 15 LUX when measured and Professor and Colour temperature 55000-65000 k) minimum 15 LUX when measured and Professor and Colour temperature 55000-65000 k) minimum 15 LUX when measured and Professor and Colour temperature 55000-65000 k) minimum 15 LUX when measured and Professor and Colour temperature 55000-65000 k) minimum 15 LUX when measured and Professor and Colour temperature 55000-65000 k) minimum 15 LUX when measured and Professor and Professor and Professor and Professor an	installation	Excavation up to 2 ft then proper dressing & compaction of the floor by hard moorum (15 x 20)ft. Floor of the structure shall be made of 203 mm brick lining masonry or fixed permanent shuttering on the all side of the structure filled with lean base of concrete followed by concrete pavers/vitrified tiles or solid concrete base as per 1:3:6 cc m20 grade floor as per consignee instructions.	Main structure i.e Side frame shall be fixed with Column footing / foundation bolts having at least 10 mm Anchor bolt as per standard practice. The foundation shall be properly designed as per the strata of the location and standard codes.	Front sign board shall be made of main frame by hollow Rectangular tube 25 x 25 x 1 mm square pipe, Display Board shall be made of 1.0 mm thick M.S pressed steel sheet, sides of the frame should be flanged to give strength on the corners, in size as shown in the Drawing attached.	1. G.I Railing shall be made of round G.I Pipe 40 mm diameter as per shown in the drawing attached	Seating arrangement for bus stop shade shall be made of 1.0mm. M.S hollow square pipe having 50×25 mm. with combination of 25×25 mm. square hollow pipe throughout the width of the structure as shown in the drawing attached.	Structure Frame of 50 x 50 x 1.6 mm square hollow M.S. Pipe. And 25 x 25 x 1 mm hollow square pipe in combination as a purlins. Colour coated profile corrugated sheet having thickness 0.5 mm shall have with structural frame in size by J hooks and bitumen washers as shown in the Drawing Attached.	the same of the	Structure of Frame 150 x 1 50 x 1.6 mm square hollow MS. Pipe. 1.0 mm thick Colour Coated Aluminum Composite Panel Sheet/GP Sheet fixed with horizontal support of hollow square pipe 50 x 50 mm as shown in the Drawing attached
Dr. Juned Rahbe asubodant Professor and Con Department of Civil Eng MANIT, Bhopai		160 SQ.FT.	4 NOS.	I NO.	2 NOS	2 NOS.	I NO.	I NO.	2 NOS.

SPECIFICATIONS OF 16 WATT SOLAR LIGHT FOR MODEL 3

White Light Emitting Diode (W-LED) is a solid state device which emits light when forward electric current passes through the solar street lighting system consists of a PV Module, control electronics, battery, and W-LED based Luminaries, all suitab mounted on a Pole. The battery is charged by electricity generated through the PV module during day time and the luminary provides lig

THER DETAILS			Efficiency		Battery	ule	f light		
og transcom violential	3 days or Minimum 42 operating hours per permissible discharge	Dusk to dawn	Min 85% total	OR 12 V- 40 AH @ C/10, Max DoD 75%. Tubular Lead Acid Floated (For 16W Model) 12 V- 60 AH @ C/10, Max DoD 75%. Tubular OR 12 V- 60 AH @ C/10, Max DoD 75%. Tubular	12 V- 40 AH @ C/10, Max DoD 75%. Tubular	40 Wp under STC, measured at 16.4 V at load Module of minimum of STU /	2 to 4 meter mounted	White colour (colour temperature 55000 -65000 K) minimum 15 LUX when measured at the periphery of 4 meter diameter from a height of 4 meter. The illumination should be uniform without dark bands or abrupt variations, and soothing to the eye. Higher light output will be professed.	White Light Emitting Diode (W-LED) LED

DUTY CYCLE

The W-LED solar street lighting system should be designed to operate from dusk to dawn, under average daily insolation of 5.5 kWh /sq.m.

LIGHT SOURCE

- The light source will be a white LED type.
- The colour temperature of white LED used in the system should be in the range of 55000 K-65000
- W-LEDs should not emit ultraviolet light. K.
- The light output from the white LED light source should be constant throughout the duty cycle
- The lamps should be housed in an assembly suitable for outdoor use
- The temperature of heat sink should not increase more than 20oC above ambient temperature during the dusk to dawn operation.

12V, 45Ah and 12V, 60Ah lead Acid, Tubular Positive Plate flooded electrolyte

- The battery will have a minimum rating of 12V, 45Ah and 12V 60Ah at C/10 discharge rate
- 75 % of the rated capacity of the battery should be between fully charged and load cut off conditions.
- Battery should conform to the standard make.

ELECTRONICS

- The total electronic efficiency should be at least 85%.
- Electronics should operate at 12 V and should have temperature compensation for proper charging of the battery throughout the yea
- No Load current consumption should be less than 20 mA.
- The PV module itself should be used to sense the ambient light level for switching ON and OFF the lamp.
- The PCB containing the electronics should be capable of solder free installation and replacement.
- Necessary lengths of wires/cables, switches suitable for DC use and fuses should be provided

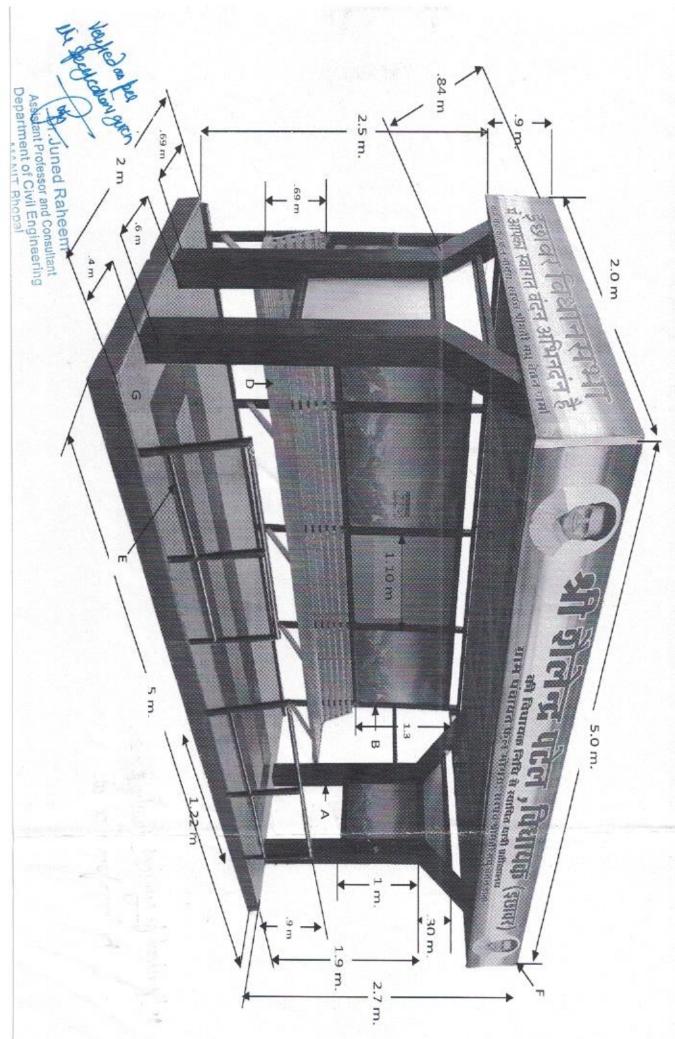
PV MODULE

- Indigenously manufactured PV module should be used.
- The PV module should have crystalline silicon solar cells.
- The power output of the module(s) under STC should be a minimum of 40 Wp at a load voltage* of 16.4 ± 0.2 V.
- 4 Open circuit voltage* of the PV modules under STC should be at least 21.0 Volts
- The module efficiency should not be less than 12 %.
- 9 The terminal box on the module should have a provision for opening for replacing the cable, if required
- withstand harsh environmental conditions. Identification and Traceability Each PV module used in any solar power project must use a RF identification tag. The followir information must be mentioned in the RFID used on each module (This can be inside or outside the laminate, but must be able
- Name of the Manufacturer of PV module
- Name of the manufacturer of Solar Cells.
- Month and year of the manufacture (separately for solar cells and module).
- Country of origin (separately for solar cells and module).

ELECTRONIC PROTECTIONS

- Adequate protection is to be incorporated under "No Load" conditions e.g. when the lamp is removed and the system is switched ON
- The system should have protection against battery overcharge and deep discharge conditions
- Fuse should be provided to protect against short circuit conditions.
- 4 Protection for reverse flow of current through the PV module(s) should be provided
- ĊЛ Electronics should have temperature compensation for proper charging of the battery throughout the year
- Adequate protection should be provided against battery reverse polarity. vii. Load reconnect should be provided at 80% of the batter;
- capacity status.

SCHEMATIC DIAGRAM OF YATRI PRATIKSHALAYA (STHAYI BUS STANDE) MODEL 3 WITH TWO 16 WATT SOLAR LED LIGHT



Detailed Specifications of Yatri Pratik-shalaya (Sthayi Bus Stop Shade) Model 4 With 16 W Solar LED Light

1. Side Frame – Side frame shall be made of (75 mm dia 3mm thick) round hollow section curved at 50 degree by pipe rolling machine and 1.25mm M.S. sheet with two coal colour enamel painting fixed by press moulding, welding or riveting on the both side of the frame as per standard practice size as shown in the drawing attached 4x4 feel free space available for Information & communication of Govt. schemes with the help of flex/painting as per consignee instructions.

2 Covering Sheet- Covering Sheet shall be made up of M.S. sheet of 01 mm thickness around 4 sides of shade, size of panel shall be of 200x50 & moulding by

hydraulic press.

3 Floor: - Floor of the shelter shall be made of of 8 inches Brick lining masonry filled with lean base of concrete followed by pavers or concrete base as per consignee instructions.

4 Roof Frame:-Roof frame shall be made up of 50x25x1 mm square M.S. pipe section followed by 0.5mm G.1. profile sheet powered coated fitted for roof at

40degree bending by hydraulic press.

5 Back Frame:-Back frame shall be made up of 25x25x1 mm 1.25 mm M.S. sheet fixed & fastened by moulding & welding into back frame supporting pipe of 75x3 mm round pipe. There is 36 Square feet free space available for Information & communication of Govt. Schemes with the help of Flex/painting as per consignee instructions.

6 Chair:-Sitting arrangement of at least 8 people should be made. Chairs with back rest of stainless steel mounting, grounding & fixing over the S.S. frame as shown

in drawing.

7 Front Railing:-Two nos, of stainless steel front railing (outer pipe 50 mm dia in combination: with 30 mm dia inner pipes) shall be there to restrict entrance of stray animals inside shade. Size of each front railing shall be 1800 mm in length & 900 mm above the ground. Open Space of 1200 mm between railings should be provided to enter in shade.

8 Side Railing:-Two nos of stainless steel side railing (outer pipe 50 mm dia in combination with 30 mm dia inner pipes) shall be there to restrict entrance of stray animals inside shade. Size of each side railing shall be 900 mm in length & 900

mm above the ground.

9 Front Sign Board:-Front sign Board shall be made of frame 50 x 25 x 1 mm. M.S. pipe & 1.25 mm M.S. sheet fitted & fixed by welding or riveting. Board shall be of 12 x 2 feet for Information & communication of Govt. schemes.

10 Lighting Arrangement:-Shelter should have proper lighting arrangement by Solar lamp of light output (16 watt with minimum lumen of 90 lumen/watt. Lithium ion battery capacity should be of 3.6 volt/8amp & solar panel should be of 10 Wp.

11 Structure:-The structure shall be properly designed as per prevailing code of

practice before installation at particular location.

12 Foundation:-The foundation shall be properly designed as per strata of the location and standard codes.

SPECIFICATIONS OF 16 WATT SOLAR LIGHT FOR MODEL 4

White Light Emitting Diode (W-LED) is a solid state device which emits light when forward electric current passes through it. A LED based solar street lighting system consists of a PV Module, control electronics, battery, and W-LED based Luminaries, all suitably mounted on a Pole. The battery is charged by electricity generated through the PV module during day time and the luminary provides light from dusk to dawn.

Light Source	White Light Emitting Diode (W-LED) LED
Light Out put	White colour (colour temperature 55000 -65000 K) minimum 15 LUX when measured at the periphery of 4 meter diameter from a height of 4 meter. The illumination should be uniform without dark bands or abrupt variations, and soothing to the eye. Higher light output will be preferred.
Mounting of light	2 to 4 meter mounted
PV Module	40 Wp under STC, measured at 16.4 V at load. Module of minimum of 21V- (For 16W Model)
Battery	12 V- 40 AH @ C/10, Max DoD 75%. Tubular OR 12 V- 40 AH @ C/10, Max DoD 75%. Tubular Lead Acid Floated (For 16W Model) 12 V- 60 AH @ C/10, Max DoD 75%. Tubular OR 12 V- 60 AH @ C/10, Max DoD 75%. Tubular Lead Acid Floated
Electronics Efficiency	Min 85% total
Duty Cycle	Dusk to dawn
Autonomy	3 days or Minimum 42 operating hours per permissible discharge

OTHER DETAILS

DUTY CYCLE

The W-LED solar street lighting system should be designed to operate from dusk to dawn, under average daily insolation of 5.5 kWh /sq.m. on a horizontal surface.

LIGHT SOURCE

- 7. The light source will be a white LED type.
- The colour temperature of white LED used in the system should be in the range of 55000 K-65000
- 9. W-LEDs should not emit ultraviolet light. K.
- 10. The light output from the white LED light source should be constant throughout the duty cycle.
- 11. The lamps should be housed in an assembly suitable for outdoor use.
- 12. The temperature of heat sink should not increase more than 20oC above ambient temperature during the dusk to dawn operation.

BATTERY

- 5. 12V, 45Ah and 12V, 60Ah lead Acid, Tubular Positive Plate flooded electrolyte.
- 6. The battery will have a minimum rating of 12V, 45Ah and 12V 60Ah at C/10 discharge rate.
- 75 % of the rated capacity of the battery should be between fully charged and load cut off conditions.
- 8. Battery should conform to the standard make.

MODEL 4

ELECTRONICS

- 7. The total electronic efficiency should be at least 85%.
- Electronics should operate at 12 V and should have temperature compensation for proper charging of the battery throughout the year.
- 9. No Load current consumption should be less than 20 mA.
- The PV module itself should be used to sense the ambient light level for switching ON and OFF the lamp.
- 11. The PCB containing the electronics should be capable of solder free installation and replacement.
- 12. Necessary lengths of wires/cables, switches suitable for DC use and fuses should be provided.

13.

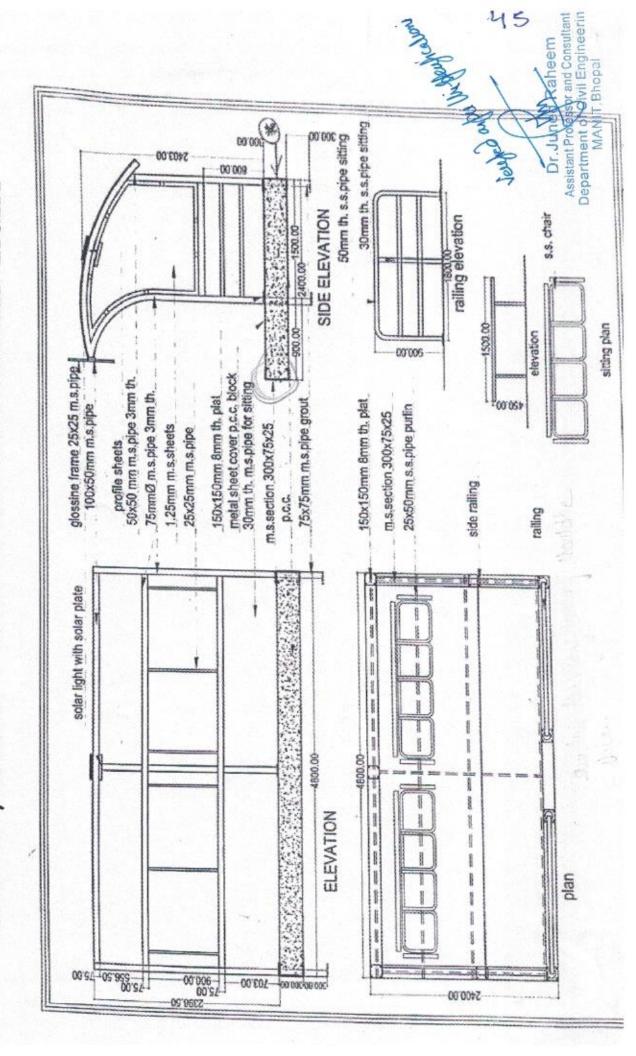
PV MODULE

- 8. Indigenously manufactured PV module should be used.
- 9. The PV module should have crystalline silicon solar cells.
- 10. The power output of the module(s) under STC should be a minimum of 40 Wp at a load voltage* of 16.4 ± 0.2 V.
- 11. Open circuit voltage* of the PV modules under STC should be at least 21.0 Volts.
- 12. The module efficiency should not be less than 12 %.
- The terminal box on the module should have a provision for opening for replacing the cable, if required.
- 14.Identification and Traceability Each PV module used in any solar power project must use a RF 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.)
 - 5. Name of the Manufacturer of PV module
 - 6. Name of the manufacturer of Solar Cells.
 - 7. Month and year of the manufacture (separately for solar cells and module).
 - Country of origin (separately for solar cells and module).

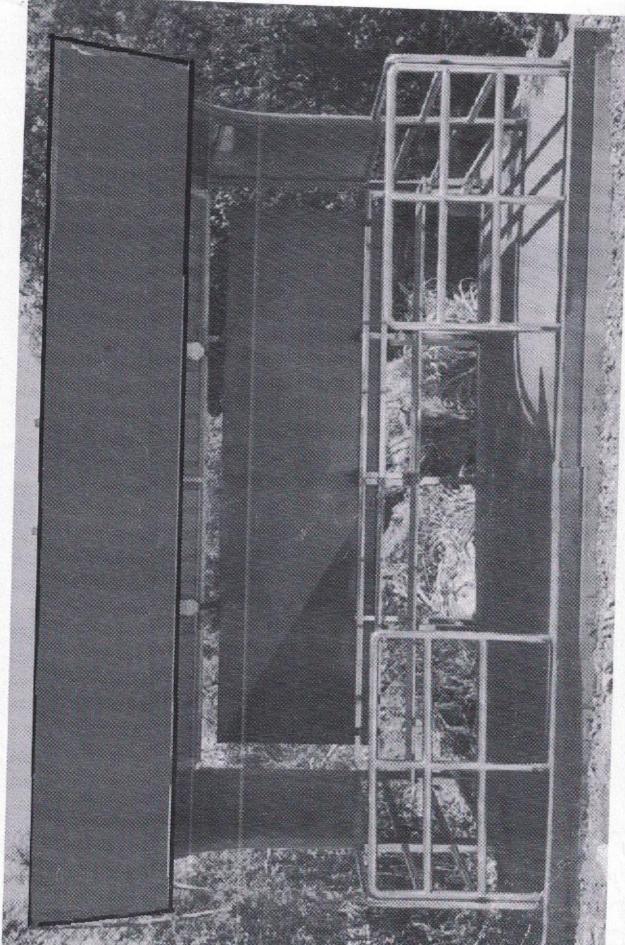
ELECTRONIC PROTECTIONS

- Adequate protection is to be incorporated under "No Load" conditions e.g. when the lamp is removed and the system is switched ON.
- 9. The system should have protection against battery overcharge and deep discharge conditions
- 10. Fuse should be provided to protect against short circuit conditions.
- 11. Protection for reverse flow of current through the PV module(s) should be provided.
- 12. Electronics should have temperature compensation for proper charging of the battery throughout the year.
- 13.Adequate protection should be provided against battery reverse polarity. vii. Load reconnect should be provided at 80% of the battery capacity status.

SCHEMATIC DIAGRAM OF YATRI PRATIKSHALAYA (STHAYI BUS STANDE) MODEL 4 WITH 16 WATT SOLAR LED LIGHT



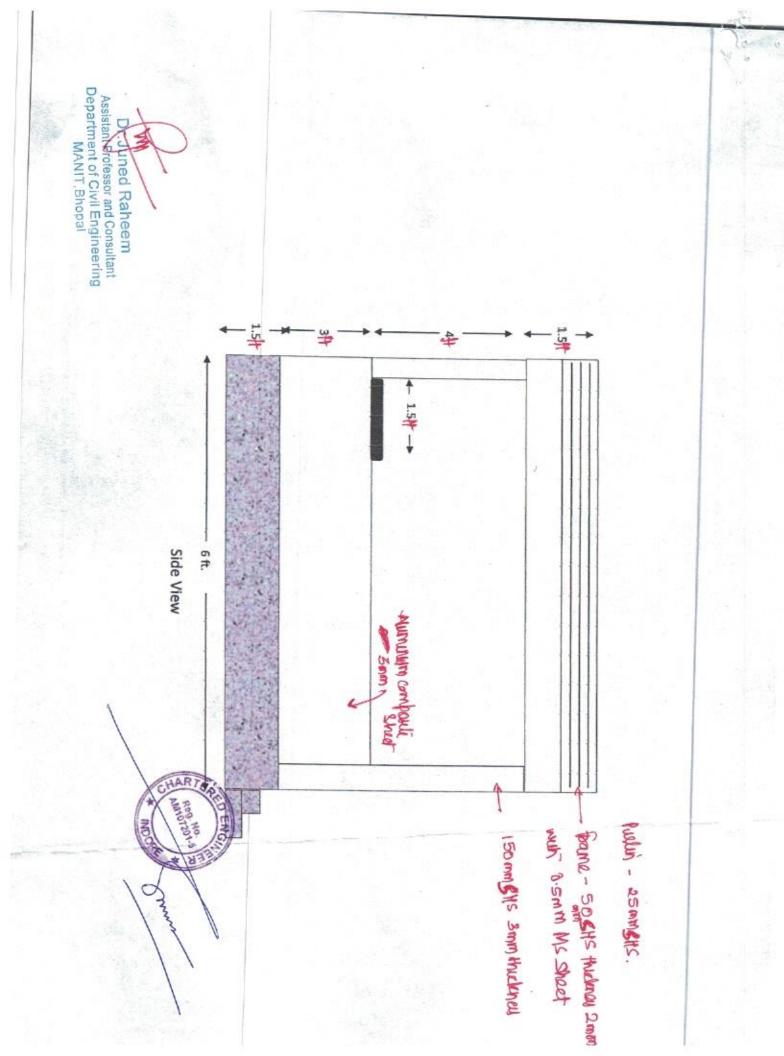
PHOTOGRAPH OF YATRI PRATIKSHALAYA (STHAYI BUS STANDE) MODEL 4 WITH 16 WATT SOLAR LED LIGHT



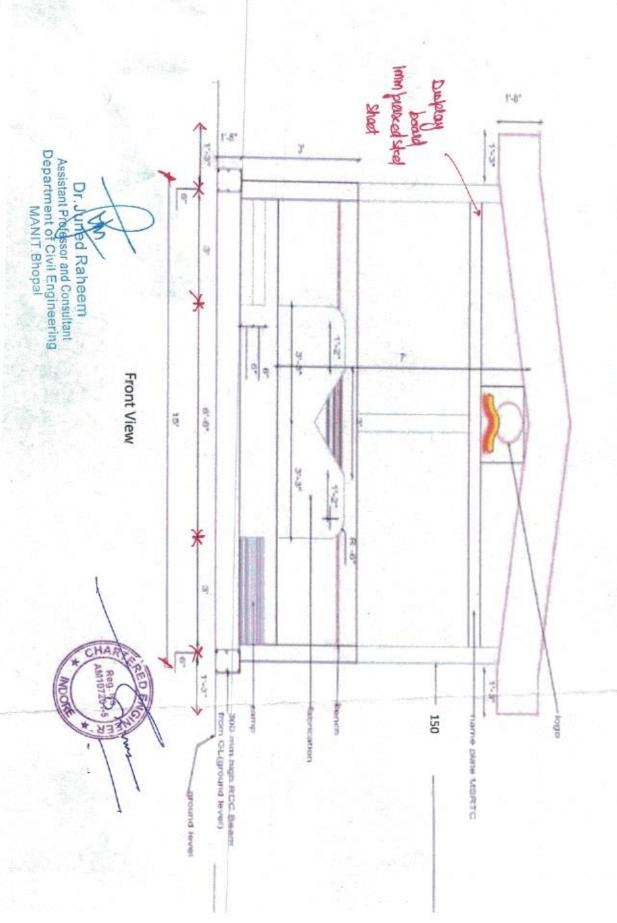
Detailed Specifications of Sthayi Bus stop Mode-5

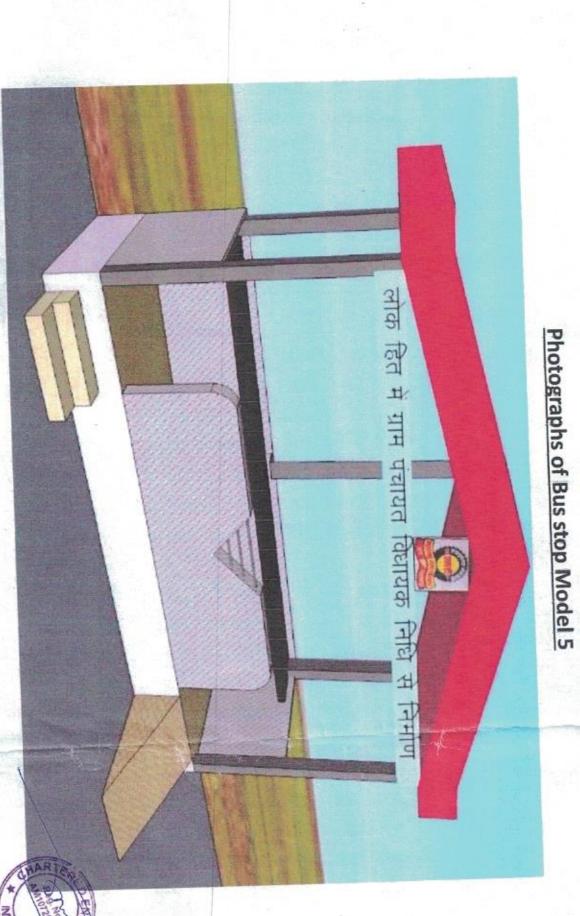
- Vertical column shall be made of 150 mm. square perforated pipe 3mm. thickness.
- Structure of Frame :- 50 x 50 x 2 mm. square hollow M.S. Pipe.
- as shown in the Drawing 3.0 mm. thick Colour Coated Aluminum Composite Panel Sheet fixed with horizontal support of hollow square pipe 50 x 50 mm.
- Structure of Frame :- 50 x 50 square hollow M.S. Pipe. And 25 x 25 mm. hollow square pipe in combination as a purlins
- M.S. sheet having thickness 0.5 mm. shall have with structural frame in size by welding or riveting as shown in the Drawing
- Seating arrangement for bus stop shade shall be made of 1 mm. M.S. hollow square Pipe having 50 x 25 mm. with combination of 25 x 25 mm. square hollow pipe throughout the width of the structure. as shown in the Drawing.
- M.S. Railing shall be made of round M.S. Pipe 40 mm. diameter as per shown in the drawing.
- Display Board shall be made of 1 mm. thick M.S. pressed steel sheet, sides of the frame should be flanged to give strength on the corners, in size as shown in the Drawing
- Main structure i.e. Side frame shall be fixed with Column footing / foundation bolts having at least 102mm. Anchor bolt as per standard practice
- 10. Excavation up to 2 ft then proper dressing & compaction of the floor by hard moorum (15 x 10 ft.).
- 11. Floor of the structure shall ne made of 203 mm. brick lining masonry or fixed permanent shuttering on the all side of the structure as per consignee instructions filled with lean base of concrete followed by concrete pavers / Vitrified tiles or solid concrete base as per 1:3:6 Cc M20 grade floor
- 12. The structure shall be, properly designed as per prevailing code of Practice before installation of Location.
- The foundation shall be properly designed as per strata of the location and standard codes.

Department of Civil Engineering MANIT, Bhopal Assistant Professor and Consultant Dr.JuNad Raheem



Drawing & Design of Bus stop Model 5







Specifications of Sthayi Type Bus Stop Model-6

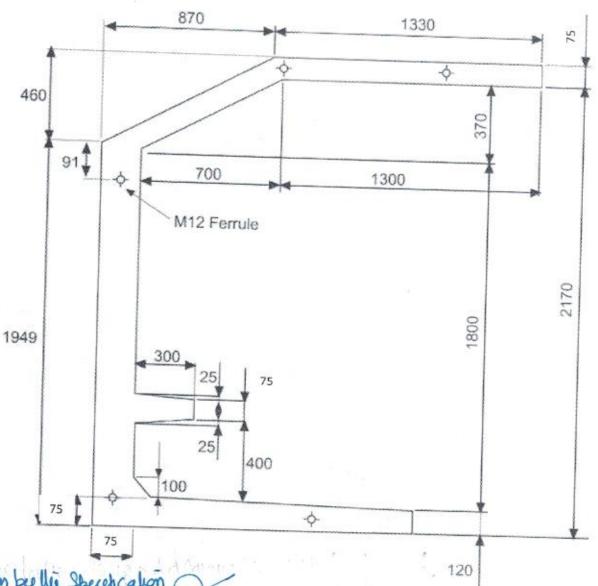
S	Work	Description	Qty	
1	Surface Dressing	Description Surface dressing for precast structure Size 7 m x 3.2 m up to 50 c. m. deep. (Surface dressing of the ground including removing vegetation and in equalities not exceeding 15 cm deep and disposal of rubbish, lead up to 50 m and lift up to 1.5 m. in all kinds of soil.)		
2	Moorum Filling	Hard moorum and Hard Copra filling on the dressing area up to 50 c. m. hight: 7 x 3.2 x 5 m (With hard moorum having CBR >12 % at under floors including watering, ramming and compacting (minimum compaction 95% of MDD) in layers not exceeding 20cm in thickness and dressing complete. (Note: maximum thickness of this layer to be provided shall be 30cm)	11.2 cu. m.	
3	P.C.C. C.C. up to plinth level	Plain cement concrete shall be done on the moorum filled area 7 x 3.2 x 100 Providing and laying in position cement concrete of specified grade excluding the cost of centring and shuttering - All work up to plinth level:	2.24 cu. m.	
	Cantering & Shuttering	Cantering and shuttering including strutting, propping etc. and removal of form for drawing as shown in drawing.	35 sq. m.	
4	R.C.C	M 15 Concrete for the structure as shown in drawing 1.1 Cu. m. for each section, Total section 3 (Reinforced cement concrete work (with 20 mm nominal size graded stone aggregate)in beams, suspended floors, roofs having slope of any degree landings, balconies, shelves, chajjas, lintels, bands, plain window sills, staircases and spiral stair cases above plinth level and up to floor two level excluding the cost of centring, shuttering, finishing and reinforcement in concrete grade.)	3.3 cu. m.	
5	Reinforcement for R.C.C	Reinforcement of 12 mm. TMT bar 150 mm, spacing through out the structure and 4 No. 12 mm. TMT bar extra as a lintel beam.	960 kg.	
6	Foundation	The foundation shall be properly designed as per strata of the location and standard codes.		
7	Structure	The structure shall be, properly designed as per prevailing code of Practice before installation of Location.		
8	Join by studs	8 No. of steel studs having 16 mm. diameter is used to join all three pieces as shown in drawing.	70 sq. m.	
9	Paint	Two code enamel / Plastic paint over whole concrete structure.	35 sq. m.	

Note:- 1. Curing shall be properly done at least 14 days as per IS 456.

Shuttering for cement casting shall be open after 7 days as per standard practice.

Dr. June Raheem
Assistant Professor and Consultant
Department of Civil Engineering
MANIT, Bhopal

Pre Cast Bus stand Model 6





Specifications :--

All casting shall be done with Cement, sand, and Metal Mixture as per standard Practice .

Casting shall be cured at least 7 days.

Proper reinforcement shall be their for strength.

Two coat colour with primer shall be done.

Simply Supported Type Swagat Dwar Without Solar LED Light

A. Sign Board with frame and bottom mounting plate

- 1). Horizontal frame members 75 mm dia and 1.5mm thickness MS pipe
- 2). Cross frame members 25mm dia and 1.5 mm thickness MS pipe
- 3). Board 1 mm thikness MS sheet
- 4). 600mm x 600mm x 25mm Mounting MS Plates-2 Nos

B. Vertivcal column with top, bottom mounting plates & stiffner plates

- 1). 300mm dia and 4mm thickness pipe, 6175mm length
- 2). 600mm x 600mm x 25mm bottom Mounting MS Plate
- 3). 600mm x 600mm x 25mm top Mounting MS Plate
 - 4). 25mm thick MS stiffner plates- 8 Nos

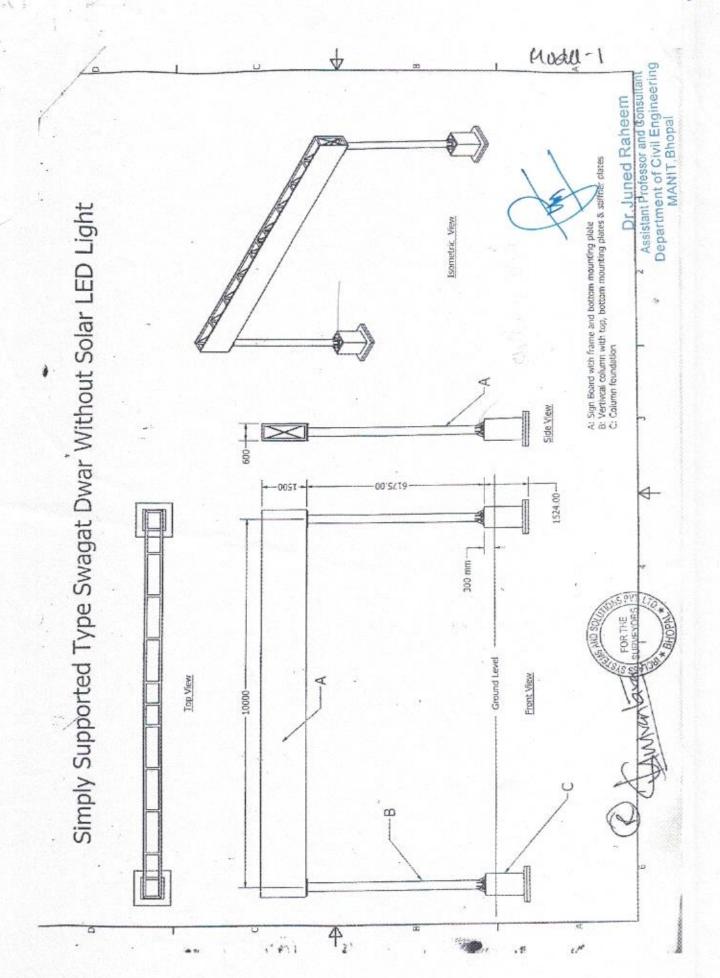
C. Column foundation

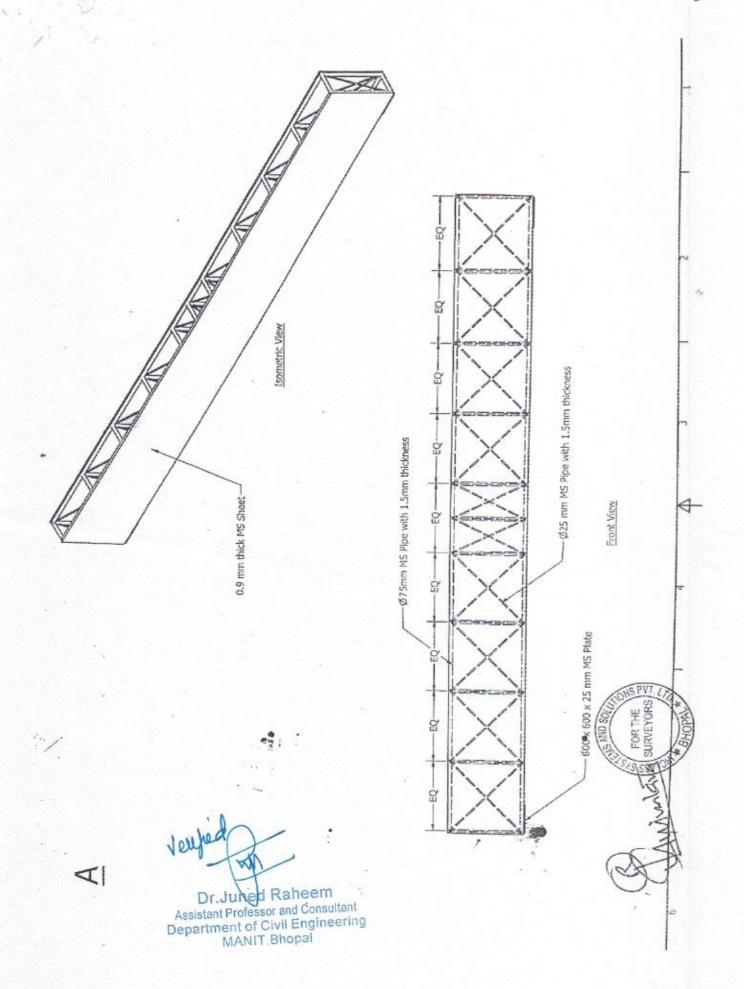
- 1). Ø25mm L- Shape MS bolts- 8 Nos
- 2). Ø10 mm Circular stirrups 8 Nos
- 3). 762mm x 762mm x 1320mm concrete column
- 4). 1220mm x 1220 mm x 100mm Concrete slab
- 4). 1220mm x 1220 mm x 100mm Concrete base

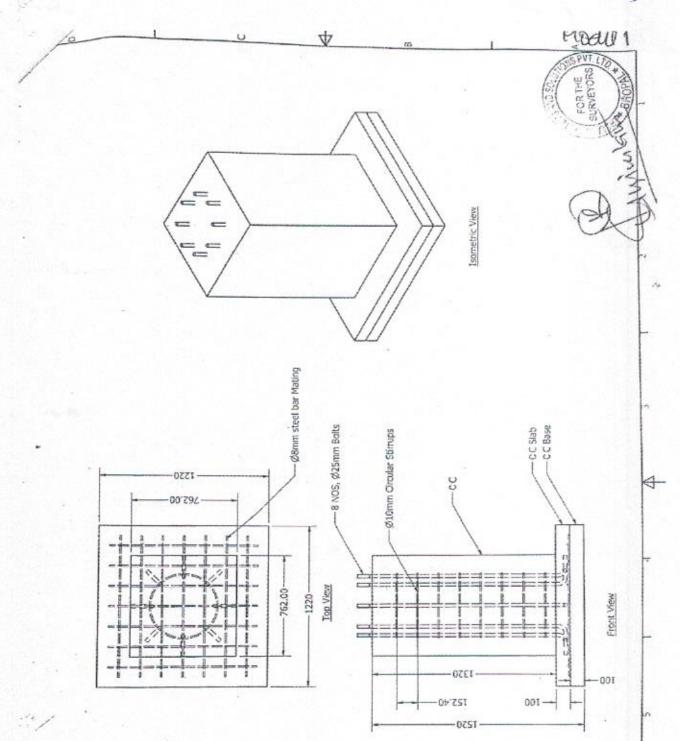
- Foundation should be dangered as per the Sate condition

Dr. Juned Raheem
Assistant Professor and Consultant
Department of Civil Engineering
MANIT. Bhopal

FOR THE SURVEYORS







1. location of boils need to be specified.
2 feeling star be properly despiced as per the condition of Italia at locations

Dr. Juned Raheem
Assistant Professor and Consultant
Department of Civil Engineering
MANIT, Bhopal

Model-2

ACP SHEET FITTED SWAGAT DWAR

Technical Specification

A. Colum Foundation:-

- Ø20 mm L-Shape MS foundation Bolt, 8 Nos.
- Ø10 mm Circular stirrups, 8 Nos.
- 750mm×750mm×1000mm concrete Column
- 1200mm×1200mm×100mm concrete slab
- 1200mm×1200mm×100mm concrete base

B. Vertical Column with top, bottom, mounting plate & stiffener plate

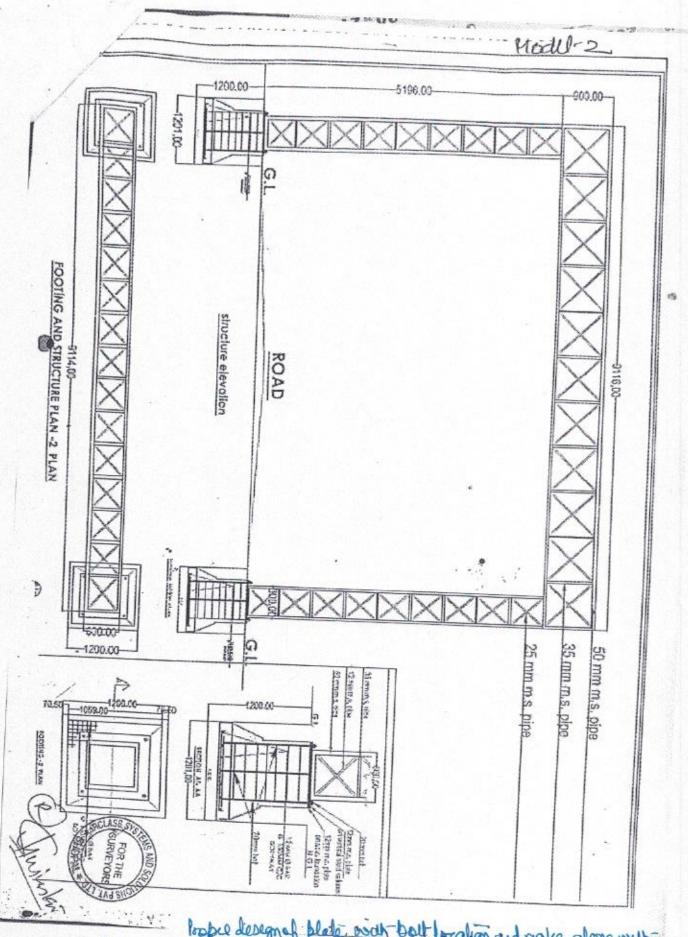
- 600mm×600mm vertical column length 5196mm
- 50mm×50mm square M.S. vertical pipe, 4 nos.
- 35mm×35mm square M.S. supporting pipe as per design
- 25mm×25mm square M.S. truss cross pipe as per design
- 600mm×600mm×12mm top mounting M.S. plate
- 600mm×600mm×12mm bottom mounting M.S. plate
- 12mm thick stiffener plate, 8 nos.
- 136 square feet ACP sheet over the vertical columns front & rare side

C. ACP Sign Board with Frame & bottom mounting Plate

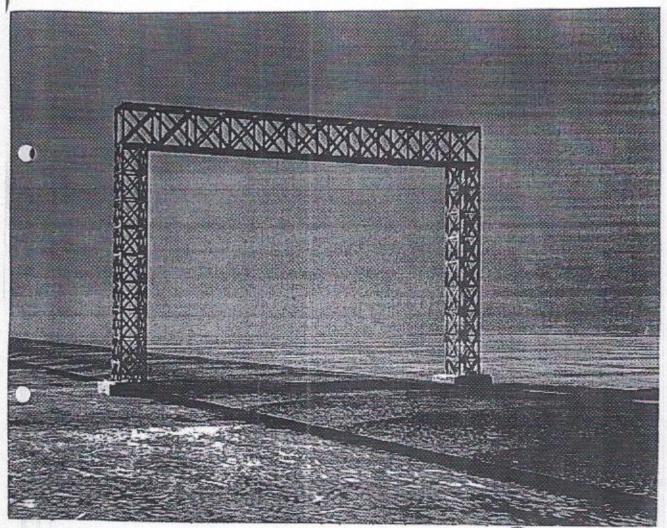
- Horizontal frame assembly 50mm×50mm of 2 mm thickness M.S. pipe
- Cross frame assembly 25mm×25mm of 2 mm thickness M.S. pipe
- 600mm×600mm×12mm mounting M.S. plate, 2 nos.
- 180 square feet ACP sheet fitted over the front & rare side of frame

location need to be done

Dr. Juned Raheem Assistant Professor and Consultant

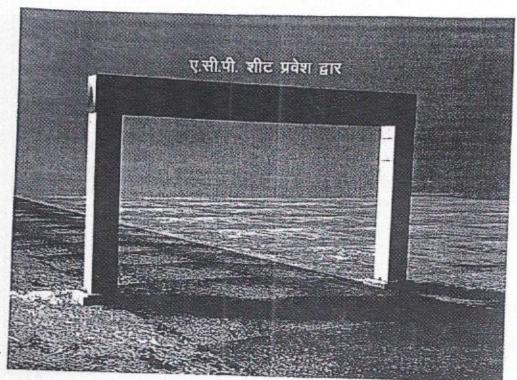


brooke designed plate was both to cation and nake along with



FOR THE SOURCE SURVEYORS Y

Model-2





moth 3

Simply Supported Type Swagat Dwar With Solar LED Light

A. Sign Board with frame and bottom mounting plate

- 1). Horzantal frame incribers 35mm X 35mm X 5mm Angle
- 2). Crass frame members 25 mm X 25 mm X 3mm Angle
- 3). Board 1 mm thisness M5 sheet
- 4). 600 mm x 600 mm x 12 mm Mounting M5 Plates-2 Nos

B. Vertivcal column with top, bottom mounting plates & stiffner plates

- 1). 300mm dia and 3mm thickness pipe, G175mm length
- 2). 660mm x 600mm x 12mm bottom Mounting MS Plate
- 3). 600mm x 500mm x 12mm top Mounting MS Plate
- 4). 12 mm thick MS stiffner plates- 8 Nes

C. Column foundation

- 1), Ø25mm L- Shape MS bo'ls- E Nos
- 2). Ø10 mm Circular stirrups 8 Nos
- 762mm x 762mm x 1320mm concrete column
- 4). 1220mm x 1220 mm x 100mm Concrete slab
- 4). 1220mm x 1220 mm x 100mm Concrete base

beper design of tooling should as per the condition of strate of the location

Dr. Juned Raheem
Assistant Professor and Consultant
Department of Civil Engineering
MANIT, Bhopal

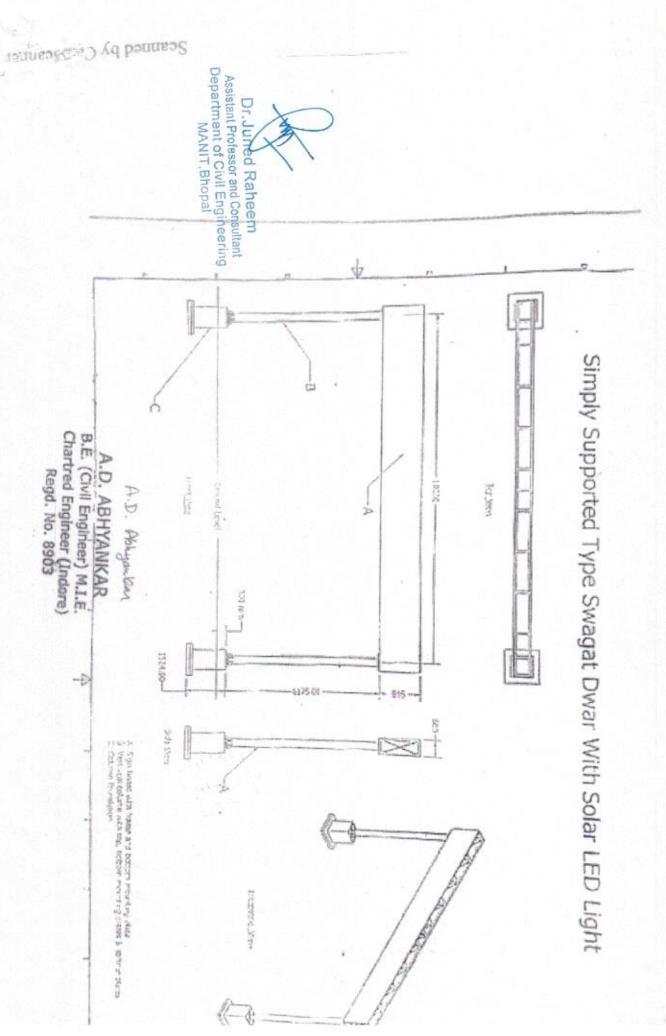
A.D. Ashgailan

A.D. ABHYANKAR

B.E. (Civil Engineer) M.I.E.

Thartred Engineer (Indore)

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A.D. ABHYANKAR

B.E. (Civil Engineer) M.LE.

Chartred Engineer (Indore)

Regd. No. 8903

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Dr. Juned Raheem

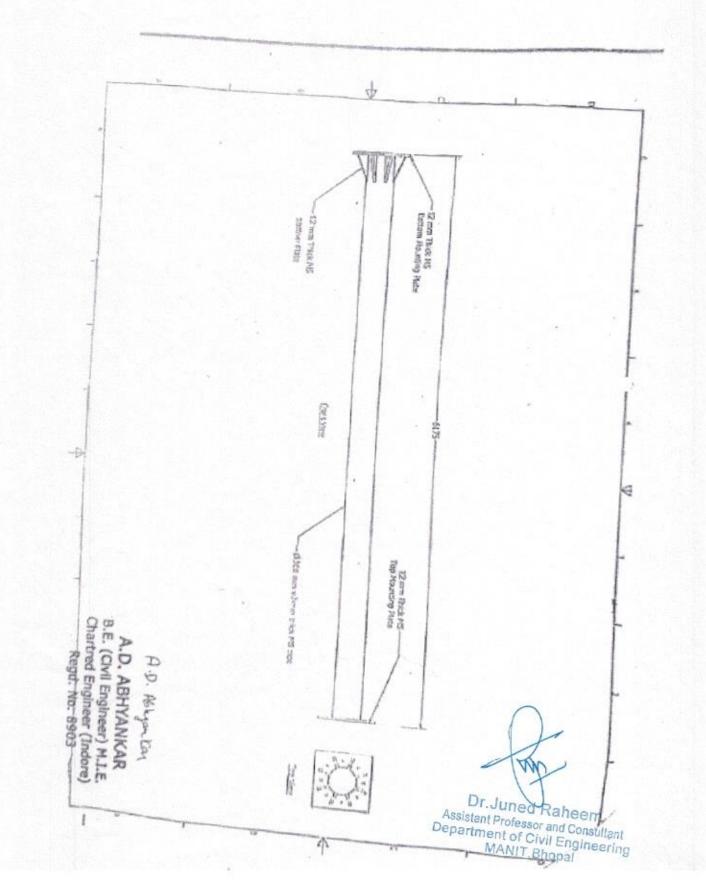
Assistant Professor and Consultant

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Department of Civil Engineering

MANIT, Bhopal

MANIT, Bhopal



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Regd. No. 8903 B.E. (Civil Engineer) M.LE. A.D. ABHYANKAR A.D. Buyanta