

Government of Meghalaya SHILLONG MUNICIPAL BOARD



Notice Inviting Tender

DEVELOPMENT/ IMPROVEMENT/ REJUVENATION OF 3 (THREE) NOS. OF PARKS/ GREEN SPACES

Package no.	Name of Park	Total Estimated Cost (INR)
110.	CHILDREN'S PARK CUM PLAYFIELD, AT MYNSAIN, UPPER	Cost (IIVK)
1	LUMPARING	Rs 26,44,090.00/-
2	DHOBITALA CHILDREN PARK AT JHALUPARA	Rs 29,38,600.00/-
3	GREEN SPACE AND PARK FOR CHILDREN'S AT MADAN LABAN	Rs 55,34,960.00/-

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TENDER DOCUMENT

ITEM RATE TENDER FOR

DEVELOPMENT/ IMPROVEMENT/ REJUVENATION OF3 (TWO) NOS. OF PARKS/ GREENSPACES AT 3 DIFFERENT LOCATIONS OF SHILLONG

NIT Number and Date	:
Name of Work	: Development/ Improvement/ Rejuvenation of 3(Three) nos. of Parks/ Green Spaces at different locations of Shillong
Probable Amount of	Contract
(Rs. In Figure)	: 1,11,17,650/-
(Rs. In Words)	: (Rupees One Crore Eleven LakhsSeventeen Thousand Six Hundred Fifty) Only
Name of the Contractor	:
Agreement Number and Date	:
Contract Amount (Rs. In Figure) (Rs. In Words)	:
Stipulated Period of Completion	: 12 (Twelve) months including rainy season
Issued to:	
Issued by	on (Date):

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Detail Notice Inviting Tenders

NIT No.SMB/PW/217/2020-21/1

Dated Shillong, the 25th September 2020

Item rate Bids in Single Stage - Two Envelope for the following works under "AMRUT" are invited by the Chief Executive Officer, Shillong Municipal Board, Shillong from eligible contractors with valid registration under Shillong Municipal Board of appropriate categories of appropriate categories:

Package .No.	Name of Work	Probable amount of contract (In Rupees)	Earnest Money Deposit (EMD) (In Rupees)	Cost of Bid Document (In Rupees)	Category of Contractor	Time of Completion	
1	CHILDREN'S PARK CUM PLAYFIELD, AT MYNSAIN, UPPER LUMPARING	Rs 26,44,090.00/-	Rs.52,800.00/-	Rs 2,000/- (Non- refundable)	valid registration under Shillong Municipal Board of appropriate categories of appropriate categories	registration under Shillong Municipal Board of appropriate categories of appropriate	
2	DHOBITALA CHILDREN PARK AT JHALUPARA	Rs 29,38,600.00/-	Rs 58,700.00/-	Rs 2,000/- (Non- refundable)			12 months including rainy season.
3	GREEN SPACE AND PARK FOR CHILDREN'S AT MADAN LABAN	Rs 55,34,960.00/-	Rs 1,10,700.00/-	Rs 2,000/- (Non- refundable)			

- All details relating to the Bid Document(s) can be viewed and downloaded free of cost from the website
 mentioned in NIT. However, the payment against the same may be made by DD in favour of the Chief
 Executive Officer, Shillong Municipal Board, Shillong payable at Shillong drawn from any
 Nationalized / Scheduled Commercial Bank which should be submitted along with the Complete Bid
 documents in Envelops 'A' and 'B'.
- 2. At the time of submission of the Bid the eligible bidder shall be required to:
 - a. Pay the cost of Bid Document in the form of DD in case it is downloaded from website
 - b. Deposit the Earnest Money in the form of DD
 - c. Submit a check list; (As required in Clause 12 of Bid Data Sheet)
 - d. Submit an affidavit duly Notarized as per Annexure B
 - e. Copy of contractor's registration (Valid) certificate '
 - f. List of technical personnel for the key positions (if specified in the BDS)
 - g. List of tools / equipments / machines for construction work (if specified in the BDS)

- 3. Eligibilty for bidders:
 - a. At the time of submission of the bid, the bidder should have valid registration under Shillong Municipal Board of appropriate categories:
 - b. Failure to sign the contract by the selected bidder, for whatsoever reason, shall result in forfeiture of the Earnest Money Deposit (EMD).
- 4. All details relating to the Bid Document(s) can be viewed and downloaded free of cost from the website mentioned in NIT
- 6. The Bid Document can be purchased from office of the Chief Executive Officer, Shillong Municipal Board, Shillong, Dist-East Khasi Hills, Meghalaya from 10:30 Hrs 30.09.2020 to 16:30 Hrs., 26.10.2020.
- 5. The bid document is also available online and can be downloaded free of cost. However, the bidder is required to submit a non-refundable fee in the form of demand draft of Rupees 2,000/- (Rs. Two Thousand only) towards Bid processing fee drawn from any nationalized or scheduled Commercial bank in favor of CEO, Shillong Municipal Board payable at Shillong
- 6. Amendment to NIT, if any, would be published on website only, and not in Newspaper.
- 7. The initial period of 1(One) year after completion shall be treated as Defect Liability Period (DLP).

CHIEF EXECUTIVE OFFICER SHILLONG MUNICIPAL BOARD, SHILLONG

SECTION 2

Instructions to BIDDERS (ITB)

A. GENERAL

1. Scope of bid

The detailed scope of work, hereinafter referred to as "Work" DEVELOPMENT/ IMPROVEMENT/ REJUVENATION OF 3 (THREE) NOS. OF PARKS/ GREEN SPACES AT DIFFERENT LOCATIONS OF SHILLONG. The initial period of 1 (One) year after completion shall be treated as Defect Liability Period (DLP). The scope shall also include the following,

Background

To develop/improve/ rejuvenate open and green spaces for better living environment for residents of Shillong Municipal Board area as identified, the following parks/green & open spaces are to be developed under AMRUT.

Package no.	Name of Park	Area (In Sq. M.)	Amount (INR)
1	CHILDREN'S PARK CUM PLAYFIELD, AT MYNSAIN, UPPER LUMPARING	580.00	Rs 26,44,090.00/-
2	DHOBITALA CHILDREN PARK AT JHALUPARA	431.00	Rs 29,38,600.00/-
3	GREEN SPACE AND PARK FOR CHILDREN'S AT MADAN LABAN	5174.00	Rs 55,34,960.00/-

(Note: Areas do not represent proportionate work values)

All the parks are surrounded by residential/commercial area and are well connected with road, electricity & water supply arrangement.

Project

Shillong Municipal Board, Govt. of Meghalaya wants to develop / improve / rejuvenate 3(Three) Nos. of parks/Green Spaces at Shillong city/township i.e. Children's Park Cum Playfield at Mynsain-Upper Lumparing, Dhobitala Children Park at Jhalupara and Green Space and Park for Children's at Madan Laban. The available parks/open spaces are to be developed /improved/ rejuvenated also converted in to Green Space for creating clean and healthy environment. The project report prepared by the employer envisage,

- Boundary Wall/fencing & Gates
- Horticulture
- Pathway, Paving & Signage
- Water Supply Arrangement
- External Electrification (illumination)
- Concrete/CI/RFP benches for senior citizens etc.
- Earth work
- Children's Play Elements
- Staircase

The tender hereby is invited for the execution of development/ improvement / rejuvenation of above mentioned 3 (Three) nos. of parks. The essence of the project is:

a. To convert the available open space in to improved Parks/Green Space for creating clean and healthy environment.

b. The developed parks will provide leisure outdoor spaces for the residents/visitors, play field for the children and recreation for senior citizens.

The work of development / improvement / rejuvenation of green spaces and parks as per drawing and direction of the engineer-in-charge is to be completed in all respects including providing labour, tools-tackles and materials complete.

The initial period of 1 (One) year after completion shall be treated as Defect Liability Period (DLP). Therefore strict adherence to the quality construction and timely implementation is most important

2. General Quality of Work:

The work of development/ improvement / rejuvenation of parks as per approved drawing & direction of Engineer-in-charge is to be completed in all respects including labour, tools-tackles and materials, technical specifications specified in the Bid Data Sheet/Contract Data. The work shall have to meet high standard of workmanship, safety and security of workmen and works.

3. Procedure for Participation in Tendering process

The procedure for participation in tendering is given in the Bid Data Sheet.

4. One bid per bidder

- 4.1 The bidder can be an individual entity or a joint venture (if permitted as per Bid Data sheet). In case the J.V. is permitted, the requirement of joint venture shall be as per the Bid Data Sheet.
- 4.2 No bidder shall be entitled to submit more than one bid whether jointly or severally. If he does so, all bids wherein the bidder has participated shall stand disqualified.
- 4.3 In case of Bid submitted by the Joint Venture (Consortium of Bidders) all the members should be essentially be registered under State Governments / Central government departments / PSUs under state /central govt. of appropriate categories

5. Cost of Bidding

The bidder shall bear all costs associated with the preparation and submission of his/her/their bid, and no claim whatsoever for the same shall lie on the Department.

6. Site Visit and Examination of Site of Works

The bidder is advised to visit and examine the Site of Works and its surroundings and obtain for itself on its own responsibility all information that may be necessary for preparing the bid and entering into a contract for construction of the work. All costs shall have to be borne by the bidder.

B. BID DOCUMENTS

7. Content of Bid Documents

The Bid Document comprises the following documents:

- i. NIT with all amendments.
- ii. Instructions to Bidders, Bid Data Sheet with all the Annexures.
- iii. Conditions of Contract:
 - a. Part I General Conditions of Contract (GCC) and Contract Data; and
 - b. Part II Special Conditions of Contract (SCC)
- iv. Specifications
- v. Drawings,
- vi. Un-Priced Bill of Quantities/ Financial Bid
- vii. Letter of Acceptance
- viii. Agreement and

- ix. Any other document(s), as specified.
- **8.** The bidder is expected to examine carefully all Instructions, Conditions of Contract, the Contract Data, Bid Data, Terms and Specifications, items in the un-priced Bill of Quantities (to be priced by the Bidder), forms and drawings in the Bid Document. Bidder shall be solely responsible for his failure to do so.

9. Amendment of Bid Documents

- 9.1 Before the deadline for submission of bids, the Employer may amend or modify the Bid Documents by publication of the same on the website.
- 9.2 All amendments shall form part of the Bid Document.
- 9.3 The Employer may, at its discretion, extend the last date for submission of bids by publication of the same on the website.

C. PREPARATION OF BID

10. The bidders have to prepare their Bid Data in the Bid Forms and submit their Bid Sealed as mentioned in separate envelopes. All the envelopes and documents related to the Bid are required to be submitted as per the time schedule mentioned in the key dates of the Notice Inviting Tenders after signing of the same by the bidder/tenderer.

11. Documents comprising the bid

The bid submitted by the bidder shall be in the following parts:

Envelope A / **Part 1** – This shall be known as Envelope A and would apply for all bids. Envelop A shall contain the following as per details given in the Bid Data Sheet (BDS):

- i. Organizational details in format mentioned in the Bid Data sheet.
- ii. Payment of the cost of Bid Document in the form of DD.
- iii. Earnest Money in the form of DD or as specified in the BDS
- iv. An affidavit duly notarized.
- v. Copy of contractor's registration (Valid) certificate '

Envelope B / **Part II** – This shall be known as Envelope B and would apply to all bids. Envelop B shall contain financial offer (priced BOQ) in the format prescribed & enclosed with the Bid Data Sheet.

12. Language

The bid as well as all correspondence and documents relating to the bid exchanged by the Bidder and the Employer shall be in English. Supporting documents and printed literature that are part of the Bid may be in another language provided they are accompanied by an accurate translation of the relevant passages in English. In such case, for the purposes of interpretation of the bid, such translation shall govern.

13. Financial bid

- i. The bidder shall have to quote rates in format referred in Bid Data sheet, on item rate basis.
- ii. Item rates offer shall be quoted in figures as well as in words. If any difference in figures and words found, lower of the two shall be taken as valid and correct.
- iii. The bidder shall have to quote rates inclusive of **all duties**, **GST**, **royalties and other levies**; and the Employer shall not be liable for the same.

14. Period of Validity of Bids

The bids shall remain valid for a period specified in Bid Data Sheet after the date of "close for biding" as prescribed by the Employer. The validity of the bid can be extended by mutual consent in writing.

15. Earnest Money Deposit (EMD)

- 15.1 The Bidder shall furnish, as part of the Bid, Earnest Money Deposit (EMD), of the amount specified in the Bid Data Sheet.
- 15.2 The EMD shall be in the form Demand Draft (DD) drawn from a Nationalized / scheduled commercial bank, issued in favor of the name given in the Bid Data Sheet. However, other form(s) of EMD may be allowed by the employer by mentioning it in the Bid Data sheet.
- 15.3 Bid not accompanied by EMD shall be liable for rejection as non-responsive.
- 15.4 EMD of bidders whose bids are not accepted will be returned within fifteen working days of the decision on the bid.
- 15.5 EMD of the successful Bidder will be discharged/released when the Bidder has signed the Agreement and furnished the FD/DD/Bank Guarantee of required value for Performance Security.
- 15.6 Failure to sign the contract by the selected bidder, for whatsoever reason, shall result in forfeiture of the earnest money deposit.

D. SUBMISSION OF BID

16. The bidder is required to submit duly completed documents as mentioned above under the caption **Documents comprising the bid** in sealed envelope marked as "A" also inscribing as "Eligibility documents as per BDS" and name of the WORK. Financial/Price Bid in 2nd envelope marked "B" also inscribing as Financial Bid and name of the WORK. Both envelopes "A" & "B" in physical form to be put in a third envelope sealed and inscribing the name of the work only on or before due date & time of opening at the place prescribed in the Bid Data Sheet.

E. OPENING AND EVALUATION OF BID

17. Procedure

- 17.1 Envelope 'A' shall be opened first at the time and date notified and its contents shall be checked. In cases where Envelop 'A' does not contain all requisite documents as prescribed in the Bid Data Sheet, such bid shall be treated as non-responsive, and Envelop B of such bid shall not be opened.
- 17.2 Envelope 'B' (Financial Bid) of the qualified bidders shall be opened at the time and date notified. The bidder shall have freedom to witness opening of the Envelop 'B'
- 17.3 After opening Envelop 'B' all responsive bids shall be compared to determine the lowest evaluated bid.
- 17.4 The Employer reserves the right to accept or reject any bid, and to annul the biding process and reject all the bids at any time prior to contract award, without incurring any liability. In all such cases reasons shall be recorded.
- 17.5 The Employer reserves the right of accepting the bid for the whole work or for a distinct part of it.

18. Confidentiality

- 18.1 Information relating to examination, evaluation, comparison and recommendation of contract award shall not be disclosed to bidders or any other person not officially concerned with such process until final decision on the bid.
- 18.2 Any attempt by a bidder to influence the Employer in the evaluation of the bids or contract award decisions may result in the rejection of its bid.

F. AWARD OF CONTRACT

19. Award of Contract

The Employer shall notify the successful bidder by issuing a 'Letter of Acceptance' that his bid has been accepted.

20. Performance Security

- 20.1 Prior to signing of the Contract the bidder to whom LOA has been issued shall have to furnish performance security and Additional Performance Security of the amount, form and duration, etc. as specified in the Bid Data Sheet.
- 20.2 If the Bid, which results in the lowest evaluated Bid price, is seriously unbalanced or front loaded in the opinion of the employer, the employer after evaluation, taking in to consideration the schedule of the estimated contract price may require Additional Performance Security from the successful bidder for such unbalanced Bid price.

21. Signing of Contract Agreement

- 21.1 The successful bidder shall have to furnish Performance security & Additional Performance Security and sign the contract agreement within 14 days of issue of LOA.
- 21.2 The signing of contract agreement shall be reckoned as intimation to commence the work within 14 days of the signing of contract. No separate work order shall be issued by the Employer to the contractor for commencement of work.
- 21.3 In the event of failure of the successful bidder to submit Performance Security and additional performance security if any or sign the Contract Agreement, his EMD shall stand forfeited without prejudice to the right of the employer for taking action against the bidder.

22. Corrupt Practices

The Employer requires that bidders observe the highest standard of ethics during the procurement and execution of contracts. In pursuance of this policy, the Employer:

- may reject the bid for award if it determines that the bidder recommended for award has, directly or through an agent, engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract; and
- ii. may debar the bidder if he is being blacklisted by any Department of State Government or GOI for non-performance / sub-standard execution or any other reason what so ever in similar type of works.
- iii. may debar the bidder declaring ineligible, either indefinitely or for a stated period of time, to participate in bids, if it at any time determines that the bidder has, directly or through an agent, engaged in corrupt, fraudulent, collusive, or coercive practices in competing for, or in executing, a contract.

For the purposes of this provision, the terms set forth above are defined as follows:

- a. "corrupt practice" means the offering, giving, receiving, or soliciting, directly or indirectly, anything of value to influence improperly the actions of another party;
- b. "fraudulent practice" means any act or omission, including a misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain a financial or other benefit or to avoid an obligation;
- c. "coercive practice" means impairing or harming, or threatening to impair or harm, directly
 or indirectly, any party or the property of the party to influence improperly the actions of a
 party;
- d. "collusive practice" means an arrangement between two or more parties designed to achieve an improper purpose, including influencing improperly the actions of another party.

Bid Data Sheet

General

Sl.No.	Particulars	Data			
1	Office inviting Tender	O/O Chief Executive Officer, Shil	long Municipal Board,		
1	Office mytting Tender	Shillong			
2	NIT No	NIT No.SMB/PW/217/2020-21/1			
3	Date of NIT	25.09.2020			
	Bid document download /	From	То		
4	purchase – Available from date	10:30 Hrs of 30.09.2020	16:30 Hrs.26.10.2020		
	& time	10.30 1118 01 30.09.2020	10.30 HIS.20.10.2020		
5	Website link	http://www.smb.gov.in or http://meghalaya.gov.in			

For Section 1 – NIT

Sl.No.	Particulars	Data	
	Cost of bid document (in the form of	Rs.2,000.00 (per Package)	
	Demand Draft)		
	Cost of bid document	SHILLONG	
1	payable at	SHILLONG	
		CHIEF EXECUTIVE OFFICER,	
	Cost of bid document payable in favour of	SHILLONG MUNICIPAL BOARD,	
		SHILLONG	
2	Affidavit	Annexure B	
3	Pre-qualifications required	No	
4	Special Eligibility required	No	
5	Key Dates	Annexure A	

For Section 2 - ITB

Sl.No.	Particulars	Data
		Package wise Development of 3(three) nos. Parks/Green Spaces at Shillong
1	Name of work: Package wise Development/ improvement/ rejuvenation of 3(three) nos. of parks/ green spaces at different locations of Shillong	Package 1: Children's Park Cum Playfield at Mynsain-Upper Lumparing, Package 2: Dhobitala Children Park at Jhalupara Package 3: Green Space and Park For Children's At Madan Laban
2	Specifications	Annexure - C
3	Procedure for participation in tendering	Annexure - D
4	Whether Joint-venture is allowed	No
5	Pre bid meeting to be held	No
6	 Envelope –A containing: Details of Registration and organizational details as per Annexure 'E' Cost of Bid Document (in the form of DD) EMD (in the form of DD) An affidavit duly notarized as per Annexure –B Copy of contractor's registration 	Should reach in physical form: - At the office of the Shillong Municipal board, Shillong Before -13:00 hrs (28.10.2020)

	(Valid) certificate '			
7	Envelope-B Financial Bid	Annexure – F - Should reach in physical: - At the office of the Shillong municipal board, Shillong. Before 14:00 hrs ((28.10.2020)		
	Materials to be issued by the department	No.		
8	Period of Validity of Bid	180 Days		
		Package 1	Rs 52,800.00/-	
	Earnest Money Deposit	Package 2	Rs 58,700.00/-	
		Package 3	Rs 1,10,700.00/-	
9	Forms of Earnest Money Deposit	i. Demand Draftii. Other forms if notified by employer in due course		
	EMD valid for a period of	Not less than 180 days from the date of submission of Bid.		
	DD(Demand Draft) must be drawn in	Chief Executive Officer, Shillong Municipal		
	favour of	Board, Shillong		
10	Letter of Acceptance (LoA)	Annexure – G		
	Amount of Performance Security	5 % of the accepted c	ost	
	Additional Performance Security, if any	As per provision of c	lause 22.2 of ITB	
11	Performance Security & Additional Performance Security in the format	Annexure– H		
11	Performance Security & Additional	Chief Executive Office	cer, Shillong Municipal	
	Performance Security in favour of	Board, Shillong		
	Performance security& Additional Performance Security valid up to	Valid contract period plus 3 months		

Annexure – A (See clause 1, 7 of Section 1 NIT)

Key Dates

Sl. No	Employer's stage	Bidder's Stage	Start		Start		Exp	piry	Envelopes
			Date	Time	Date	Time			
1	Date of publicity in National Daily & Local Daily and also in the website								
2		Purchase of Bid/Tender document	30/09 /2020	10:30	26/10/ 2020	16:30			
3		Bid /Tender Submission	30/09 /2020	10:30	28/10/ 2020	13:00	Envelope A & B duly completed		
4	Open (Envelope -A)		28/10 /2020	14:00	28/10/ 2020		Envelope A		
5	Financial Bid Open (Envelope B)		28/10 /2020	14.00	28/10/ 2020		Envelope B		

|| AFFIDAVIT ||

(To be contained in Envelope A) (On Non Judicial Stamp Paper of Rs. 50.00)

l/we			who is/ are
	(status in the firm/ compa	- ·	
	M/S(contractor)		
	ally satisfied for the correctness of the certi-		
informatio	n in bid documents which are being su	-	_
	for		issued by the Chief
Executive	Officer, Shillong Municipal Board, Shillong	·.	
I/we are f	fully responsible for the correctness of for:	ollowing self certified inf	formation/ documents and
1. 2.	That the self-certified information given in That:	the bid document is fully	true and authentic.
	 Demand Draft deposited as earnest mo other relevant documents provided by t 	•	cost of bid document and
	b. Information regarding financial qua applicable)	lification and annual tu	rn-over is correct. (Not
	c. Information regarding various physical	_	
3.	No close relative of the undersigned and o	ur firm/company is working	g in the department.
	O	R	
Following	close relatives are working in the departmen	nt:	
Name	Post	Present Posting	
		Signature with Seal	of the Deponent (bidder)
I/ We	above deponent do h	ereby certify that the facts	mentioned in above para 1
	rrect to the best of my knowledge and belief		mentioned in doove para 1
Verified to	day (dated) at	(place).	
		Signature with Seal	of the Deponent (bidder)

Specifications

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Specifications of Urban Affairs/ PWD, Govt. of Meghalaya in four parts namely (1) Water Supply, Sewerage and Tube Well Works (2) Building Water Supply, Drainage and Sanitary Installation (3) Roads & Bridge (4) Electrical Works shall form part of the technical specifications of this work & is available at Website (http://www.smb.gov.in or http://meghalaya.gov.in)

1. LIST OF IS CODES

Sl. No.	BIS/BS/ISO CODE	Title				
	No. (YEAR)					
1	IS 5 (2007)	Colour for Ready Mixed Paints and Enamels				
2	IS 269 (1989)	Specification for Ordinary Portland Cement (33 Grade)				
3	IS 383 (1970)	Specification for Coarse and Fine Aggregates From Natural Sources For Concrete				
4	IS 432-1 (1982)	Mild Steel and Medium Tensile steel bars and hard steel wire for concrete Reinforcement part-01 Mild Steel And Medium Tensile Steel Bars				
5	IS 432-2 (1982)	Mild Steel and Medium Tensile Steel Bars and Hard Drawn Steel Wire for Concrete Reinforcement part-02 Hard Drawn Steel Wire				
6	IS 456 (2000)	Plain and Reinforced Concrete				
7	IS 516 (1959)	Method Of Tests For Strength OF Concrete				
	IS 1200 Pt-1 (1992)	Method of measurement of earth work				
	IS1200 Pt-27(1992)	Method of measurement of earth work (by Mechanical Appliances				
8	IS 1489-1 (1991)	specification for Portland -Pozzolona Cement				
9	IS 1489-2 (1991)	specification for Portland Pozzolona Cement, Part 2 (Calcined Clay Based)				
10	IS 1786 (2008)	High strength deformed steel bars and wires for concrete				
11	IS 2386-1 (1963)	Methods of test for aggregates for concrete				
12	IS 2386-2 (1963)	Methods of test for aggregates for concrete				
13	IS 2386-3 (1963)	Methods of test for aggregates for concrete				
14	IS 2386-4 (1963)	Methods of test for aggregates for concrete Part 4 (Mechanical properties)				
15	IS 2720-1 (1983)	Method Of Tests For Soils, Part 1(Preparation of Dry soil samples for various test)				
16	IS 2720-7 (1980)	Method Of Tests For Soils, Part 7 (Determination of Water Content- Dry density relation using light compaction)				
17	IS 2720-8 (1983)	Method Of Tests For Soils, Part 8 (Determination of Water Content- Dry density relation using heavy compaction)				
18	IS 2720-15 (1965)	Method Of Tests For Soils, Part 15 (Determination of Consolidation Properties)				
	IS 4081 (1986)	Safety code for Blasting and related drilling operation				
19	IS 4926 (2003)	Code of Practice – Ready Mixed Concrete				
20	IS 8112 (1989)	Specification for 43 grade ordinary Portland cement				

21	IS 15658 (2006)	Precast Concrete Blocks for Paving
22	IRC SP-63 (2004)	Guidelines For The Use of Interlocking Concrete Block Pavement

The specifications for the various materials to be used for the project shall conform to BIS standards with up to date amendments as mentioned above.

Note: - Any other BIS standard as may be required will also be applicable. Quality Assurance Program of the manufacturer shall have to be followed.

Disclaimer: - Any specification not covered above shall be as per best Engineering practice or as directed by the Engineer-In-Charge. In the event of any disparity between the written specification and BIS provisions the provisions in BIS shall prevail.

2. GENERAL NOTES: -

- 1. Rate for completed items include the cost of followings: -
 - 1.1 All material, Labor, workmanship, templates, tools, hire and running charges of plant and machinery required to complete the work, unless specified otherwise.
 - 1.2 All lead and lift of materials required for execution of work are inclusive of charges like duties, Tax, royalty etc.
 - 1.3 Provision for erection, removal of centering form works, scaffolding, benching ladders and all other applications etc, required for execution of the work, unless otherwise specified.
 - 1.4 Provision for necessary covering to protect the work/ structure from inclement weather etc. and damage arising from falling of material or rains, fire etc. shall be the responsibility of the contractor.
 - 1.5 Curing wherever required including arrangement of water and also including its lead or lift whatsoever
- 2. The mode of measurement shall be as per provision contained in the relevant chapters and in specifications/ relevant IS codes.
- 3. All materials shall confirm to the relevant and prevailing Indian Standard Specifications. All material before use in works shall require approval of the Engineer in change, who will get them sampled, tested as per relevant IS code at contractor's cost and samples so approved shall be taken and kept in the office of the concerned Engineer- in change till finalization of the work.
- 4. Material obtained from excavation shall be the property of the Employer.
- 5. Hard Rock available from excavation shall be used for conversion into coarse aggregates or other construction material and shall be issued to the contractor on the rate as decided by competent authority.

6. Cement:

- 6.1 Where contract provided for cement to be supplied by the contractor himself, only I.S.I. Marked Cement as per IS for 33 grade cement, IS 269 for 43 grade cement, IS 8112 for 53 grade cement, IS 12269 for Portland pozzolana cement, IS 1489 part I & II specification shall be allowed to be used in the work subject to the prescribed tests.
- 6.2 Make of cement shall be got approved by the Engineer- in change. The engineer in change shall get cement tested as per relevant IS codes, at the cost of the contractor, before use in work.
- 6.3 Pozzolona cement is now being widely produced all over the country this may be used in structures as per provisions of IS code.
- 6.4 When the strength of concrete required upto M-30 then O.P.C 33 grade conforming to IS 269-1989 or P.P.C. conforming to IS 1489-1991 may be used.
- 6.5 When the strength of concrete required is more than M-30, the O.P.C. 43 grade conforming to IS 8112-1989 shall be used.
- 6.6 For prestressed concrete works where the strength of concrete required is more than M-30. Than O.P.C. 53 grade cement conforming to IS:12269-1987 shall be used.
- 6.7 In specific cases required higher grade of strength, use of Ordinary Portland cement (OPC) should be invariably ensured.
- 6.8 The arrangement for necessary equipment and testing shall have to be made by the contractor himself at site, as decided by the Engineer in charge. All expenses shall be borne by the contractor.
- 6.9 Any lot of cement brought to site by the contractor, would be permitted to be in the work only after the satisfactory results of the tests, under the supervision of the Engineer- in charge or his authorized representative. The record of the test result shall be maintained in register mentioned in subsequent para.

- 6.10 A duplicate register as prescribed by the competent authority of technical authority shall be maintained at the site of the work. Extract certified copies of the entries for each month shall be submitted to the Engineer- in- charge by the contractor
- 6.11 The original register shall also be submitted to the Engineer- in- charge on completion of the work by the contractor.
- 7. Nominal mix would be adopted be for cement concrete M-7.5, M-15 and M-20. Design mix shall have to be adopted for concrete of higher strengths as per IS 456-2008 Steel: -
 - 7.1 Steel used for reinforcement shall conform as per under:
 - a. Mild steel and medium tensile steel bars conform to IS: 432 (part-I)
 - b. Hot rolled deformed bars shall conform to IS:1139,
 - c. Cold twisted bars shall conform to IS: 1786,
 - d. Rolled steel made from structural steel shall conform to IS: 226
 - 7.2 All reinforcement shall be free from loose mill scales, loose rust and coats of paints, oil mud or other coatings which may destroy or reduce bond.
 - 7.3 Only such steel obtained from main producers of steel i.e. SAIL, IISCO, TISCO or such steel rolling mills as having license from the B.I.S. to manufacture such steel for reinforcements shall be allowed to be used in the work. The make of the steel shall be approved by Engineer-In-Charge.
 - 7.4 The contractor shall have to produce test certificate in the proforma prescribed approved by B.I.S. from the manufacture for every batch of steel brought to the site of work.
 - 7.5 Before commencement of use of steel from any batch brought to site of the work by the contractor. The Engineer shall arrange to get samples tested for nominal mass tensile strength. Bend test and rebend test from any Laboratory of his choice at the cost of contractor. The selection of test specimens and frequency shall be as per relevant IS specification of the steel used.
- 8. If any item of work is found not up to the prescribed standard but the Engineer- in charge is of the opinion that same is structurally adequate and accepted at a reduced rate. Than in such case, that Engineer-in –charge shall submit proposal for the same, supported by an analysis in justification thereof, through proper channel to the higher authorities his approval expeditiously (ordinarily within 15 days). The approved analysis along with orders of competent authority should be appended to the final bill of the contractor.
- **9.** In case of any contradiction in the provision of the specification and his schedule of rates, the decision of Engineer-In-Charge will be of precedence.
- 10. (a) Rates of items would apply for work order/ piece work system also.
 - (b) Rates payable for any work to be completed departmentally then rates should be reduced by 10.434% [(contractor profit Item 10% + T&P charge 2%) i.c. 100 x 12/115= 10.434%]
- 11. Interpretation: The Chief Engineer shall be the deciding Authority as to the meaning, interpretation and implication of various provisions in schedule of rates. His decision shall be final and binding on all concerned.
- 12. Safety: The contractor shall be wholly and solely responsible for making all the safety arrangements pertaining to the work. The contractor shall be fully responsible and liable in all respects for any accident and subsequent legal action initiated by any party including the department.
- 13. Latest IS codes with up to date amendment shall be applicable.

3. HORTICULTURE AND LANDSCAPE

CONTENTS

Note: -

- 1. In case where unsuitable soil is met with, it shall be either removed or replaced with good Earth.
- 2. Generally, the Depth of trenching is 30cm for Grassing & 60cm for Re-grassing in Good Soil.
- 3. The trenched ground shall, after rough dress, be flooded with water by making small embankments/'bunds'(kiaries) to enable the soil to settle down.
- **4.** Weeds or other vegetation which appear on the ground, are then uprooted, removed and disposed off as directed.
- 5. Trenching shall consist of the Following operations
 - (i) The Whole plot shall Be Divided into Narrow rectangular strips of about 1.5m width.
 - (ii) These Strips shall be Sub-Divided length wise into about 1m long sections.
 - (iii) Such sections shall be excavated serially and excavated soil deposited in the adjacent section preceding it.
 - (iv) While excavating and depositing, care shall be taken that the top soil with all previous plant growth including grass roots get buried in the bottom layer of trenched area, the dead plants so buried incidentally turn into humus.
 - (v) The excavated soil shall be straight away dumped into the adjoining sections so that double handling otherwise involved in dumping the excavated stuff outside and in back filling in the trenches whereby leads are practically eliminated.

6. Measurement of Trenching

Length and breadth of the plot shall be taken correct to 0.1m and depths correct to cm. Cubical contents shall be calculated in cubic meters, Correct to two places of decimal. No deduction shall be made nor extra paid for removing stones, Brick bats and other foreign matter met with during excavation up to Initial Lead of 50m and Stacking the Same.

7. Grassing

- i. The area from where the grass roots are to be obtained, the soil shall be suitably moistened and the operation of planting grass shall be commenced. The grass shall be dibbled at 10 Cm,7.5cm and 5cm apart in Any direction or other spacing as described in the item.
- ii. Dead Grass and weed shall not be planted.
- iii. Watering of the lawn shall be done for 30 days. Planting shall be done in both directions at spacings of 15cm/ 10cm in the case of large open spaces. At 7.5cm spacing in residential lawn and at 5cm spacing for Tennis court and Sports Ground Lawn.

8. Measurement of Lawn

Length, Breadth of the lawn grassed shall be measured correct to 0.1meter and the area shall Be Calculated in Sqm. Correct to two places of decimal.

9. Renovation of Lawns

The area shall be first weeded out of all undesirable growth. The entire grass shall be scrapped (Cheeled) without damaging root and level of the grounds. Slight irregularities in surface shall be leveled off and the area shall then be forked so as to aerate the roots of the grass in the area without, however up-Rooting them.

10. Digging holes for Planting trees

In Ordinary soil, including refilling earth After mixing with oil Cake, Manure and watering.

Holes of circular shape in ordinary soil shall be excavated to the dimensions described in the item and excavated soil broken to clods of size not exceeding 75mm in any direction, shall be stacked outside the hole, Stones, Brickbats, Unsuitable earth and other rubbish. All roots and other undesirable growth met with during excavation shall be separated out and unserviceable material removed from the site as directed. Useful material, if any, shall be stacked properly and separately. Good earth in quantities as required to replace such discarded stuff shall be brought and stacked at site by the contractor which shall be paid for separately.

The tree holes shall be manured with powdered neem/Castor oil cake at the specified rate along with farmyard manure over sludge shall be uniformly mixed with the excavated soil after the manure has been broken down to powder, (Size of particle not be exceeded 6mm in any direction) in the specified proportion. The mixture shall be filled in to the hole up to the level of adjoining ground and then profusely watered and enable the soil to subside there in the filled soil which shall then be dressed evenly with its surface about 50 to 75 mm below the adjoining ground Level.

Where holes are dug in (A) Hard soil (B) Ordinary rock or (C) Hard rock, the above soils occurring independently over in conjunction with each other and/ or ordinary soil in any hole, the different excavated soil shall be stacked separately. Excavation in hard rock shall be carried out by chiseling only.

Sufficient quantity of good be arranged soil to replace the solid volume of stones, brickbats, unsuitable earth and other rubbish, all roots and other undesirable growth, ordinary and hard soils/rocks shall be brought and stacked at site but the supply and stacking of such shall be paid for separately.

The ordinary soil excavated from the hole and the earth brought from outside shall then be mixed with manure screened through sieve of is designation 1.6mm In the proportion specified in the description of the item and filled with the pit and the same watered and finally dressed.

The stack measurement of ordinary rock and hard rock shall be reduced by 50% And of soil by 20% To arrive at the excavated volume. This excavation shall be paid for as extra over the rate For Holes Dug in ordinary soil above, at rate appropriate to particular soil concerned.

Specification: -

1. Horticulture Work

Horticultural operations shall be stated on ground previously leveled and dressed to required formation levels and slopes.

In case where unsuitable soil is met with, it shall be either removed or, replaced or it shall be covered over to a thickness decided by the Engineer-in -charge with good earth.

In the course of excavation or trenching during horticultural operations, any walls, foundations etc. met with shall not be dismantled without pre-measurement and prior to the written permission of the Engineer-in-charge.

2. Trenching in Ordinary Soil

- i. Trenching is done order to loosen the soil, turn over the top layer containing weeds etc. and to bring up to the lower layer of good earth to form a proper medium for grassing, re-grassing, hedging and shrubbery.
- ii. Trenching shall be done to the depth ordered by the Engineer-in-charge. The depth is generally 30 cm for grassing and 60 cm for re-grassing in good soil.
- iii. The trenched ground shall, after rough dress, be flooded with water by making small embankment to enable the soil to settle down. Any local depression unevenness etc. shall be made good by dressing and/or filling with good soil.

iv. Weeds or other vegetation which on the ground are then uprooted and removed and disposed off and paid.

v. Trenching

Trenching shall consist of the following operations.

- a. The Whole plot shall be divided into narrow rectangular strips of about 1.5 m width or as directed by the Engineer-in-charge.
- b. These strips shall be sub-divided lengthwise into about 1 m long section. Such section shall be excavated serially and excavated soil deposited in the adjacent section preceding it.
- c. In excavation and depositing care shall be taken that the top soil with all previous plant growth including roots, get buried in the bottom layer of trenched area, the dead plants so buried incidentally being formed into humus.
- d. The excavated soil shall be straight away dumped into the adjoining sections so that double handling otherwise involved in dumping the excavated stuff outside and in back filling in the trenches with leads is practically eliminated.

vi. Measurements

Length and breadth of the plot shall be taken correct to 0.1 m and depths correct to cm. Cubical contents shall be calculated in cubic meters, correct to two places of decimal. No deduction shall be made **nor extra payment made for removing stones**, **brick bats and other foreign matter met** during excavation up to initial lead of 50 m and stacking the same.

vii. Rate

The rate shall include the cost of all labour and material involved in the operations described above, including cost of all precautionary measures to be taken for protections and supporting all service etc. met with during trenching. It does not include the cost of mixing of earth, sludge/manure.

3. Good Earth

- i. The Earth shall be stacked at site in stacks not less than 50 cm high and of volume not less than 3.0 cum.
- ii. Measurements:
 - Length, breadth and height of stacks shall be measured correct to a cm. The volume of the stacks shall be **reduced by 20%** for voids before payment, unless otherwise described.
- iii. Rate: The rate shall include the cost of excavating the earth from areas lying at distance not exceeding one Km. from the site, transporting the same at site breaking of clods and stacking at places indicated. The rate shall also include royalty if payable.

4. Oil Cake

- i. Neem/castor: The cake shall be free grit and any other foreign matter. It should be un decorticated and pulverized. The material shall be packed in old serviceable gunny bags of 50 kgs capacity approximately. The weight of gunny bag shall be **deducted** @1kg per bag and payment shall be made for net quantity. The quality of cake should be got approved by the Engineer-in-charge before supply.
- ii. Measurements
- iii. The arrangement for weighing shall be made at site of work by the department. The gunny bags shall be the property of the Department.
- iv. The rate shall include the cost of labour and material involved in all operations described above, including carriage up to site of work with all lead and lifts, weighing etc.

5. Supply and Stacking of Sludge

i. It shall be transported to the site in lorries with efficient arrangement to prevent spilling en route. It shall be stacked at site. Each stack not be less than 50 cm height and volume not less than 3 cu.m.

ii. Measurements

Length, breadth and depth of stacks shall be measured correct to a cm. The volume of the stack shall be **reduced by 8%** for looseness in stacking and to arrive at the net quantity for payment.

iii. Rate

The rate shall include the cost of labour, tools, tackles, machinery and material involved in all operations described above including carriage up to one km. The rate shall also include royalty if payable.

6. Supply and Stacking of Manure

- i. Farmyard Manure: It shall be transported to the site in lorries with efficient arrangement to prevent spilling enroute. It shall be stacked at site. Each stack not be less than 50 cm height and volume not less than 3 cum.
- ii. Measurements: Length, breadth and depth of stacks shall be measured correct to a cm. The volume of the stack shall be **reduced by 8%** for looseness in stacking and to arrive at the net quantity for payment.
- iii. Rate: The rate shall include the cost of labour, tools, tackles, machinery and material involved in all operations described above including carriage up to one km. The rate shall also include royalty if payable.

7. Rough Dressing of the Trenched Ground

- i. Rough dressing of the area shall include making embankments for flooding.
- ii. The trenched ground shall be levelled and rough dressed and if there are any hollows and depressions resulting from subsidence which cannot be so levelled, these shall be filled properly with earth brought from outside to bring the depressed surface to the level of the adjoining land and to remove discontinuity of slope and then rough dressed again. The supply and spreading of soil in such depressions is payable separately. In rough dressing, the soil at the surface and for 75 mm depth below shall be broken down to particle size not more than 10 mm in any direction.
- iii. Measurements

Length, breadth of superficial area shall be measured correct to 0.1 meter. The area shall be calculated in m² correct to two places of decimal.

iv. Rate

The rate shall include the cost of all the labour and material involved in all the operations described above.

8. Uprooting Weeds from Trenched Areas

- i. After 10 days and within 15 days of flooding the rough dressed trenched ground with water, the weeds appearing on the ground shall be rooted out carefully and the rubbish disposed off as directed by the Engineer-in-charge.
- ii. Measurements

Length, breadth of superficial area shall be measured correct to 0.1 meters. Superficial area of the weeded ground shall be measured for purpose of payments.

iii. Rate

The rate shall include the cost of all the labour and material involved in all the operations described above.

9. Fine Dressing the Ground

i. Slight unevenness, ups and downs and shallow depressions resulting from the settlement of the flooded ground, in drying and from the subsequent deweeding operations, shall be removed by fine dressing the surface to the formation levels of the adjoining land as directed by the Engineer-in-charge, and by adding suitable quantities of good earth brought from outside, if

necessary.

ii. Measurements

Length, breadth and depth of stacks shall be measured correct to a cm. The area shall be calculated in sq. m. correct to two places of decimal.

iii. Rate

The rate shall include the cost of all the labour and material involved in all the operations described above.

10. Spreading Good Earth

- i. Good earth shall be removed from stacks by head load and spread evenly over the surface to the thickness ordered by the Engineer-in-charge. It shall be spread with a twisting motion to avoid segregation and to ensure that spreading is uniform over the entire area.
- ii. Measurements: The quantity of good earth spread shall be determined by the difference in the volume of good earth in stacks before and after spreading duly **reduced** for looseness in stacking by 20% of good earth.
- iii. Rate: The rate shall include of all the labour, tools, tackles, machinery and material involved in all the operations described above, but does not include the cost of the good earth which shall be paid for separately unless specifically described in the item.

11. Spreading Sludge/Manure

i. Good earth shall be thoroughly mixed with sludge or manure in specified proportion as described in the item or as directed by the Engineer-in-charge. The mixing shall be spread as specified to the thickness or as directed by the Engineer-in-Charge.

ii. Measurements

The quantity of good earth and sludge or manure mixed shall be determined by the difference in the volume of good earth and sludge or manure in stack, before and after spreading duly accounted for voids and looseness in stack.

iii. Rate

The rate shall include of all the labour, tools, tackles, machinery and materials involved in all the operations described above, but does not include the cost of good earth sludge or manure which shall be paid for separately, unless otherwise described in the item.

12. Grassing with Select Grass No. 1

- i. The area from where the grass roots are to be obtained shall be specified by the Engineer-in-Charge at the time of execution of the work and no royalty shall be charged on this account from the contractor. **Grass is to be arranged by contractor (cost of grass is inclusive)**
- ii. The soil shall be suitably moistened and then the operation of planting grass shall be commenced. The grass shall be dibbled at 10 cm, 7.5 cm, 5 cm apart in any direction or other spacing as described in the item. Dead grass and weeded shall not be planted. The contractor shall be responsible for watering and maintenance of levels and the lawn for 30 days or till the grass forms a thick lawn free from weeds and fit for moving whichever is later. Generally planting in other direction at 15 cm, 10 cm, spacing is done in the case of large open spaces, at 7.5 cm spacing in residential lawn and at 5 cm spacing for Tennis Court and sports ground lawn. Rates are including cost of labour and material (cost of grass is inclusive)
- iii. During the maintenance period, any irregularities arising in ground levels due to watering or due to trampling by labour, or due to cattle straying thereon, shall be constantly made up to the proper levels with earth as available or brought from outside as necessary. Constant watch shall be maintained to ensure that dead patches are replanted and weeds are removed.

iv. Measurements

Length, breadth of the lawn grassed shall be measured correct to 0.1 meter and the area shall be calculated in sq. m. correct to two places of decimal.

v. Rate

The rate shall include of all the labour and material involved in all the operations described above, excluding supply of the requisite quantity of good earth and grass so needed for properly maintaining the levels of the lawns. (Payment of grass inclusive)

13. Renovation of Lawns

i. The area shall be first weeded out of all undesirable growth. The entire grass shall be scrapped (chipped) without damaging roots and level of the grounds. Slight irregularities in surface shall be levelled off and area shall than be forked so as to aerate the roots of the grass without, however up-rooting them.

Specified quantity of sludge or manure shall than be spread uniformly with wooden straight edge as directed by the Engineer-in-charge. The area shall then be slightly sprinkled with water so as to facilitate proper integration of the manure or sludge with the soil and later flooded. The contractor shall be responsible for watering, proper maintenance and tending of the lawn for 30 days to till the grass forms a lawn fit for mowing, whichever is late.

During the above operation, all undesirable growths shall be constantly weeded out and all rubbish removed and disposed of as directed by the Engineer-in-Charge.

ii. Measurements

Length, breadth of the lawn renovated shall be measured correct to 0.1 meter and the area shall be calculated in sq. m correct to two places of decimal.

iii. Rate

The rate shall include all the labour and T&P (excluding RH pipe) involved in all the operations described above, excluding the supply of the requisite quantity of good earth if so needed for proper maintenance of the levels of the lawns. The cost of the sludge or manure shall be measured and paid for separately, unless its supply is specifically included in the description of the item.

14. Uprooting Rank Vegetation and Weeds and Preparing the Ground for Planting 'Select Grass No.1'

Initially the area shall be dug up to depth of 30 cm. then weeds and rank vegetation with roots removed thereon by repeated forking. The whole area then shall be retrenched to a depth of 60 cm in the same manner as specified. Clods of excavated earth shall then be broken up to the size not more than 75 mm in any direction. The area shall then be flooded with water and after 10 days and within 15 days of flooding, weeds shall be uprooted carefully. The rubbish arising from the above operations shall be removed and disposed off in a manner directed by the Engineer-in-charge, away from the site. The earth shall then be rough dressed and fine dressed as specified or as directed by the Engineer – in – Charge.

15. Excavation and Trenching for Preparation of Beds for Hedge and Shrubbery

- i. Beds for hedges and shrubbery are generally prepared to width of 60 cm. to 125 cm. and 2 to 4 meters in length respectively.
- ii. Beds for hedges and shrubbery shall be prepared in the following manner. The beds shall first be excavated to a depth of 60 cm. and the excavated soil shall be stacked on the sides of the beds. The surface of the excavated bed shall then be trenched to a further depth of 30 cm, in order to loosen the soil, in the manner described in 1.1. No flooding will be done at this stage but the top surface shall be rough dressed and levelled. The excavated soil from the top 60 cm depth of the bed stacked at the site shall then be thoroughly mixed with sludge over mannure in the proportion 8:1 by ratio or other proportion described in the item. The mixed earth and manure shall be refilled over the trenched bed, levelled neatly and profusely flooded so that the water reaches even the bottom most layers of the trenched depth of the bed. The surface after full subsidence shall again be refilled with the earth and manure mixture, watered and allowed to settle and finally fine dressed to the level of 50 mm to 75 mm below the adjoining ground or

- as directed by the Engineer-in-Charge. Surplus earth if any, shall be disposed off as directed by the Engineer-in-charge. Any surplus earth if removed beyond initially lead shall be paid separately. Stones, bricks bats and other foreign matter if met with during excavation or
- iii. Trenching shall be removed and stacked within initially lead & lift. Such material if declared unserviceable by the Engineer-in-Charge shall be disposed by spreading and levelling at places ordered by him. If disposed outside the initial lead & lift, then the transport for the extra leads will be paid for separately. If a large proportion of material unsuitable for the hedging and shrubbery operations is met with and earth from outsides is required to be brought in for mixing with manure and filling, the supply and stacking of such earth will be paid for separately.

iv. Measurements

Length, breadth and depth of the pit excavated and trenched shall be measured correct to a cm. The cubical contents shall be calculated in cubic meter correct to two places of decimal.

v. Rate

The rate shall include the cost of all the labour and materials involved in all the operations described above. The rate shall not include the cost of supply & stacking of the manure unless the same is specifically included in the description of the item.

16. Digging Holes for Planting Trees

- i. In ordinary soil, including refilling earth after mixing with oil cake, manure and watering.
- ii. Holes of circular shape in ordinary soil shall be excavated to the dimensions described in the items and excavate soil broken to clods of size not exceeding 75 mm in any direction, shall be stacked outside the hole. Stones, brick, bats, unsuitable earth and other rubbish, all roots and other undesirable growth met with during excavation shall be separated out and unserviceable material removed from the site as directed. Useful material, if any, shall be stacked properly and separately. Good earth in quantities as required to replace such discarded stuff shall be brought and stacked at site by the contractor which shall be paid for separately.
- iii. The tree holes shall be manured with powdered Neem/castor oil cake at the specified rate along with farm yard manure over sludge shall be uniformly mixed with the excavated soil after the manure has been broken down to powder, (size of particle not be exceeded 6 mm in any direction) in the specified proportion. The mixture shall be filled in to the hole up to the level of adjoining ground and then profusely watered and enable the soil to subside. The refilled soil shall then be dressed evenly with its surface about 50 to 75 mm below adjoining ground level or as directed by the Engineer-in-charge.
- iv. Measurements: Holes shall be enumerated.
- v. Rate: The rate shall include the cost of all the labour and material involved in all the operations described above, excluding the cost of supply and stacking the requisite quantity of manure/sludge and oil cake.

17. In soil other than ordinary Soil

- i. Where holes are dug in (a) Hard soil (b) Ordinary rock or (c) Hard rock, the above soils occurring independently over in conjunction with each other and /or/ordinary soil in any hole, the different excavated soil shall be stacked separately. Excavation in hard rock shall be carried out by chiseling only.
- ii. The stack measurement of ordinary rock and hard rock shall be reduced by 50 % and of soil by 20% to arrive at the excavated volume. This excavation shall be paid for as extra over the rate for holes dug in ordinary soil above, at rate appropriate to arrive at the excavated volume.
- iii. The excavation shall be paid for as extra over the rate for holes dug in ordinary soil above, at rate appropriate to particular soil concerned.
- iv. Sufficient quantity of good soil to replace the solid volume of stones, brick bats, unsuitable earth, rubbish, all roots and other undesirable growth, be brought and stacked at site. The supply and stacking of such good soil shall be paid for separately.
- v. The useless excavated stuff shall be disposed off by spreading at places as ordered by the

- Engineer-in-charge. If such places are outside initial leads, carriage for the extra lead shall be paid for separately.
- vi. The ordinary soil excavated from the hole and the earth brought from outside shall then be mixed with manure screened through sieve of IS designation 16 mm in the proportion specified in the description of the item and filled in the pit and the same watered and finally dressed.
- vii. **Measurements:** The pit shall be enumerated. The volume of excavation in soil and other than a ordinary soil shall be determined by reducing the stack volume of the relevant soil with respective Item for voids specified in 1.15.2.2.
- viii. Rate: The rate shall include the cost of all the labour and material involved in all the operations described above, including mixing refilling, watering, dressing etc. but shall not include (a) cost of manure over sludge (b) cost of carriage beyond initial lead for disposing off useless materials. The excavation other than that of ordinary soil shall be paid extra over and above the rate if excavation is carried out in ordinary soil.

18. Filling Mixture of Earth & Sludge Over Manure.17.0

The separately specified earth and sludge shall be broken down to particles of size not exceeding 6 mm in any directions before mixing. Good earth shall be thoroughly mixed with sludge over manure in specified proportions as directed by Officer-in-change. During the process of preparing the mixture as above, trenches shall be flooded with water and leveled.

i. Measurements

Measurement shall be made in (Length, breadth and height of stacks) cubic mater. The cubical contents shall be worked out to the nearest two places of decimal in cubic meter.

ii. Rate

The rate shall include the cost of all the labour, tools, tackles, machinery and material involved in all the operations described above, but do not include the good earth, sludge or manure which will be paid separately.

19. Excavation of Dumped Stone or debris (Malba)

i. Excavation operations shall include excavation and bailing out water if required. During the excavation stone, brick bats and other foreign material if met shall be removed and stacked within 50 meter leads and lifts. Such material as is declared unserviceable by the Engineer-in-Charge shall be disposed within 50m. The excavated surface shall be neatly dressed and leveled.

ii. Rate

The rate shall include the cost of all the labour, tools, tackles, machinery and material involve in all the operations described above.

20. Excavation of Water Bound Macadam (WBM)

i. All excavated operations shall be included excavation, stacking of serviceable and unserviceable material. Excavation shall be straight and uniform in width. Soling stone and aggregate obtained from excavation of W.B.M. shall be stacked separately and unserviceable material disposed off with all lead and lift and neatly dressed.

ii. Measurements

Measurement shall be made in (Length, breadth and height of stacks) cubic meter. The cubical contents shall be worked out to the nearest two places of decimal in cubic meter. The box cutting for WBM shall be inclusive in the item of WBM.

iii. Rate

The rate shall include the cost of all the labour, tools, tackles, machinery and material involved in all the operations described above. The box cutting for WBM shall be inclusive in the item of WBM.

21. Flooding the Ground with Water and Making Kiaries

The water for flooding shall be of soft water and free from chemical and good for growing the trees and shrubs etc. Before flooding the kiaries shall be made in required size and shape as per directions of Officer-in-charge. After uprooting weeds from trenched area and vegetation. Small embankments/'bunds' (kiaries) shall be dismantled.

4. PATHWAY WITH SAND BEDDING AND PRECAST INTERLOCKING BLOCKS

SPECIFICATION FOR PRECAST INTERLOCKING BLOCKS FOR PAVING

Specification as prescribed in IRC: SP:63-2004 and IS 15658:2006 published by the Indian Roads Congress, New Delhi and Bureau of Indian Standards, New Delhi.

Salient features are as follows:

Cement: - Cement should in perfectly dry & water tight shed. Wooden platforms about 15 to 20 cm above the floor should preferably be provided and cement bags stacked 300 mm away from the wall and not **more than 8 bags high**

However, the bags should be placed close together to reduce circulation of air.

Cement more than 3-4 months old should invariably be tested for acceptability.

Requirement. Cement older six (6) months to be discarded O.P.C (Ordinary Portland cement) 43/53 Grade as per I.S 8112/12269 only to be used in the works.

AGGREGATES: - these should confirm for IS: 383. For cement concrete tests for conformity are listed in IS:2586.

60-100mm blocks (Tolerance limit + 3mm in Thickness and + 2 to 3mm, in L& B,

20-40mm sand bedding

Thickness of Base: - A layer thickness of 20mm to 40mm is found to be satisfactory. Too thick would be difficult to control the surface level of the blocks.

Joints between the block are filled by **fine sand** by brooming it from top.

Joint thicknesses are normally 2 to 4mm wide.

Salient Mix Design Aspects (No Honey Comb Pieces)

Salient Mix Design Aspects				
Water/ Cement Ratio	3.34-0.38			
Water Content of the Mix	5-7% of total mix			
Aggregate sand (6to 12 mm)	40:60			
Quantity of Cement in mix	380kg/m3 [^]			
Aggregate/ Cement Ratio	3:1-6:1			

Minimum compressive strength of single block should be above 30 MPA (Mega Pascal)

Colour Pigment: 5-9% of cement (Inorganic Pigment preferred.) Pigment should be finer than cement **for high Early Strength**:

Super- plasticizer at around 4% cement by weight may be added for high early strength

Water Absorption not more than 5%

Bedding sand & joint Filling sand: (joint filling sand should be dry. If not dry, it will only create difficulty to fill the joints. Sand for filling should preferably be washed to remove soluble salts.)

Maximum moisture content shall be about 4% by weight.

Sub- Base Material: (As per IRC 37- 2001)

Laying of Blocks- From lowest point and up to crown on a continuous basis.

Desired Output: 50 to 70 sq.m. per day (considering 1 paver, who is a skilled workmen+ 1 assistant and the Weight should preferably be less than 4 kg per block)

Bedding sand Layer & joint Filling sand						
Sl. No	Is Sieve	Item Passing in percentage				
Size		Bedding Sand	Joint Filling Sand			
1	9.52mm	100	-			
2	4.15mm	95-100	-			
3	2.36mm	80-100	100			
4	1.18mm	50-95	90-100			
5	600micron	25-60	60-90			
6	300micron	10-30	30-60			
7	150 micron	0-15	15-30			
8	75 micron	0-10	0-10			

Surface Tolerance: ± 10mm from the designed level

Surface Tolerance: for Base: 0 to +10 mm from the nominated level & 10mm deviation from 3 meter straight edge

Surface Tolerance for sub- base: Within 2 to 20 mm of the nominated level

Procedure for participation in Tendering

1 Key Dates:

The bidders are strictly advised to follow the time schedule (Key dates as mentioned in Annexure - A) of the bid of their side for tasks and responsibilities to participate in the bid, as all the stages of each bid are locked before the start time and date and after the end time and date for the relevant stage if the bid as set by the Department.

2 Preparation and Submission of Bids

The bidders have to prepare their bids manually, fill in their bid data in the Bid forms and submit Bid of all the envelopes and documents related to the Bid required to be submitted as per the time schedule mentioned in the key dates of the notice inviting Tenders after singing of each page of the same by authorized signatory/signatories.

3 Purchase of Bid Document

For purchasing of the bid document, bidders have to pay Bid processing fee which is Rs. 2,000/-Cost of Bid document is separately mentioned in the detailed NIT. The Bid Document shall be available for purchase to concerned eligible bidders immediately after advertisement in the newspaper and publication in the website of the bids and up to scheduled time and date as set in the key dates. The payment for the cost of bid document shall be made in the form of demand draft of Indian Rupees 2,000/- (Rupees Two Thousand Only) towards Bid processing fee drawn from any nationalized or scheduled commercial bank in favor of Shillong Municipal Board payable at Shillong.

4 Withdrawal, Substitution and Modification of Bids

Bidder can withdraw and modify the bid before submission end date.

ORGANIZATIONAL DETAILS (To be contained in Envelope - A)

Sl.No.	Particulars	Details
1.	Contractor's Registration No. issued by State	(Copy of proof of registration to be enclosed)
	Governments / Central government	
	departments / PSUs under state /central govt.	
	of appropriate categories:	
2.	Name of Organization/ Individual/ Proprietary	
	Firm/ Partnership Firm Registered under	
	Partnership Act)/ Limited Company	
	(Registered under the Companies Act-1956)/	
	Corporation.	
3.	Entity of Organization	
	Individual/ Proprietary Firm/ Partnership Firm	
	(Registered under Partnership Act)/ Limited	
	Company (Registered under the Companies	
	Act–1956)/ Corporation.	
4.	Address of Communication	
5.	Telephone Number with STD Code	
6.	Fax Number with STD Code	
7.	Mobile Number	
8.	E-mail Address for all communications	
Details	of Authorized Representative	
9.	Name	
10.	Designation	
11.	Postal Address with pin code	
12.	Telephone Number with STD Code	
13.	Fax Number with STD Code	
14.	Mobile Number	
15.	E-mail Address	

Note: In case of partnership firm and limited company certified copy of partnership deed/ Articles of Association and Memorandum of Association along with registration certificate of the company shall have to be enclosed.

shall have to be enclos	ed.		
		Signature of Bidder	with Seal
		Date:	

Financial Bid (To be contained in Envelope B)

TENDER FOR ITEM RATE CONTRACT:

NAME OF WORK: PACKAGE WISE DEVELOPMENT/ IMPROVEMENT/ REJUVENATION OF 3(THREE) NOS. OF PARKS/ GREEN SPACES AT DIFFERENT LOCATIONS OF SHILLONG NAMELY –

Package 1: Children's Park Cum Playfield at Mynsain-Upper Lumparing,

Package 2: Dhobitala Children Park at Jhalupara

Package 3: Green Space and Park for Children's at Madan Laban

I/We do hereby bid for the execution of the above work within the time specified at the rate both in figures and in words in the table attached below based on the un-priced bill of quantities and item wise rates given therein in all respects and in accordance with the specifications, designs, drawings and instructions in writing in all respects in accordance with such conditions so far as applicable. I/We have visited the site of work and am/are fully aware of all the difficulties and conditions likely to affect carrying out the work. I/We have fully acquainted myself/ourselves about the conditions in regard to accessibility of site and quarries/kilns, nature and the extent of ground, working conditions including stacking of materials, installation of tools and plant conditions effecting accommodation and movement of labour etc. required for the satisfactory execution of contract.

Un-priced Bill of Quantities (BOQ)

PACKAGE WISE DEVELOPMENT/ IMPROVEMENT/ REJUVENATION OF 3(THREE) NOS. OF PARKS/ GREEN SPACES AT DIFFERENT LOCATIONS OF SHILLONG, NAMELY. –

Package no.	Name of Park		
1	CHILDREN'S PARK CUM PLAYFIELD, AT MYNSAIN, UPPER LUMPARING		
2	DHOBITALA CHILDREN PARK AT JHALUPARA		
3	GREEN SPACE AND PARK FOR CHILDREN'S AT MADAN LABAN		

PACKAGE NO 1. CHILDREN'S PARK CUM PLAYFIELD AT MYNSAIN-UPPER LUMPARING

A. Urinal Block

Sl	Item No/ SOR	Description of works in brief	Unit	Qty	Rate (INR) in		<u>, , , , , , , , , , , , , , , , , , , </u>
No					Figure	Words	Amount
	Ch 1/ Me- PWD (B)2015- 16	EARTH WORK					
1	1.1/ Me-PWD (B)2015-16	Earthwork in excavation upto a depth of 2m below the existing ground level for foundation trenches of foundations, footings of column/ walls, retaining walls, septic tank etc. including bailing out water where necessary and removal of surplus earth with all lead and lifts as directed and specified for the following classification of soils.				RupeesOnly	
	(c)	In soft or laminated rock or medium shale	Cum	3.983			
	1.4/ Me-PWD (B)2015-16	Earthwork in filling including necessary carriage, watering, ramming etc. complete as directed and specified.					
2	1.4.1	Earth/ Sand filling in plinth in layers not exceeding 150mm thick					
	(b)	With available excavated earth including breaking of clods, consolidating each layer by ramming and watering with all lead and lifts.	Cum	2.214			
	Ch 4, I / Me- PWD (B)2015- 16	SOLING & BRICKWORK					
3	4.1/ Me-PWD (B)2015-16	Providing brick soling in foundation and under floor with stone/ best quality picked jhama brick, sand packed and laid to level and in panel after preparing the subgrade as directed including all labour and materials and if necessary dewatering, complete.					
	(a)	Brick on flat soling.	Sqm	9.970			
	Ch 2, I / Me- PWD (B)2015- 16	PLAIN CEMENT WORKS					
4	2.1	Plain cement concrete works with coarse aggregate of sizes 13mm to 32mm in foundation bed for footing steps, walls, brick works					
22		•		•			

		etc. as directed and specified				
		-				
		including dewatering if necessary,				
		and curing complete (shuttering				
		where necessary shall be measured				
		and paid separately).				
		In prop. 1:3: 6 (1 cement:3 coarse	_			
	(a)	sand :6 coarse agg. by volume	Cum	0.495		
		(using mixture machine)				
	Ch 2, II / Me-					
	PWD (B)2015-	REINFORCED CEMENT CONC	RETE	WORKS		
	16					
		Providing and laying Concrete in				
		Reinforced Cement Concrete				
		Works using Concrete Mixture				
		Machine with coarse sand & 20mm				
		downgraded stone aggregate				
	2.5	including dewatering if necessary,				
	2.3	and curing complete but excluding				
		cost of form work and				
		reinforcement for reinforced				
		cement concrete work (form work				
		and reinforcement will be				
		measured and paid separately)				
		In Foundation and sub - structure				
		including footing, columns with				
		base, tie and plinth beam, pile cap,				
		raft slab, base slab, RCC walls,				
		retaining walls, walls of septic				
	2.5.1	tank, inspection pit and the like and				
_		other works not less than 100mm				
5		thick up to Plinth Level.				
	4)	(Without using admixture,				
		plasticiser)				
		· - · · · · · · · · · · · · · · · · · ·	C	1 104		
	(b)	M20 or Prop. 1:11/2:3	Cum	1.194		
		In Columns, pillars, posts, struts,				
		suspended floor, roof, landing,				
		shelf and support, balcony, lintel,				
	2.5.3	sill band, beam, girder, bressumer,				
		cantilever, staircase etc. above				
		plinth level upto 1st floor level.				
		(Without using admixture,				
		plasticiser)				
	(b)	M20 or Prop. 1:1.5:3	Cum	3.060		
		Vertical and horizontal fins				
		(thickness not more than 100mm)				
	2.5.4	individually or forming box louvre				
		and projected band above plinth				
		level upto 1st floor level.				
		(Without using admixture,				
		plasticiser)				
	(b)	M20 grade concrete or prop 1:1.5:3	Cum	0.240		
6	Ch 2, IV/ Me-	SHUTTERING/ FORMWORK	I .	1	L	<u> </u>
	,	~ TOTTE THE TOTAL OR THE TOTAL				

	PWD (B)2015-					
	16					
	10	Providing form work of ordinary			<u> </u>	
		timber planking of thickness not				
		less than 25mm and removal of the				
		same for concrete members so as				
		to give a rough finish including				
		centering, shuttering, strutting and				
	2.10	propping etc., for height of				
		propping and centering of				
		supporting floor to the soffit of the				
		concrete member not exceeding 4.0M as specified for the following				
		·				
		items:				
	(-)	Foundation, footings, bases of	C	4.250		
	(a)	columns, pile cap, raft and mass	Sqm	4.250		
		concrete works etc.				
		Sides of tie beams, grade beams				
	(b)	etc. at or below ground level	Sqm	2.420		
	. ,	requiring formwork				
	()	at sides only.				
	(c)	Columns, Pillars, Posts & Strut				
	40	Square, Rectangular, polygonal in	_	40.4-6		
	(i)	plan or any shape like Tee/L etc.	Sqm	10.176		
		having plane vertical face				
		Sides and Soffits of Beams, beam				
	(d)	haunchings, cantilever girders,				
		bressumers, lintels and horizontal				
		ties.				
	(i)	For depth not exceeding 1.0M.	Sqm	5.434		
		Flat Surfaces such as soffits of				
	(e)	suspended floors, roofs, landings,				
	(6)	cantilever slabs, chajjas, balconies				
		and the like.				
	(i)	Thickness of floors/ slab upto	Sqm	7.785		
	(1)	200mm	Sqiii	7.705		
		Vertical surface such as walls (any				
		thickness), parapet walls,				
	(g)	partitions, walls of septic tank,	Sqm	11.826		
	(6)	inspection pit etc. including	Sqiii	11.020		
		attached pilasters, buttresses, plinth				
		and string courses and the like.				
	Ch 2, III/ Me-				 	
	PWD (B)2015-	REINFORCEMENT				
	16		ı		_	T
		Supplying, fitting and fixing in				
7		position reinforcement bars upto				
/		1st floor level, conforming to				
	2.8	relevant I.S. Code for R.C.C. work/				
		R.B. walling including				
		straightening, cleaning, cutting and				
		bending to proper shapes and				
<u></u>			<u> </u>			

		,		,	•		,
		length as per details, supplying and					
		binding with 20G annealed black					
		wire and placing in position with					
		proper blocks, supports, chairs,					
		spacers etc. complete. (Rates					
		inclusive of all wastage, lappage,					
		hooks, chairs, anchorage etc. and					
		no measurements for the same is					
		required)					
		Other ISI approved TMT					
		reinforcement bar (of SAI/					
	(b)	· ·	Qntl	5.820			
	. ,	BISCON/ XTECH/ THERMAX					
		make or equivalent)					
	Ch 4, III/ Me-						
	PWD (B)2015-	STONE MASONRY WORK					
	16						
		Stone masonry work in retaining					
		I -					
		wall, wing wall, abutment,					
		foundation, steps, plinth etc. in					
		cement mortar in prop 1:6 with					
		levelling course of 1:6:12 with					
	4.11	unsize stone / Mawthup both faces					
8	4.11	hammer dressed including					
		bonding, providing face stone,					
		through stone and centering					
		-					
		including racking of joints, curing					
		and supplying and all carriage of					
		stone as directed.					
	(b)	Coursed Rubble Masonry					
		In Super-structure above Plinth					
	(ii)	Level	Cum	0.935			
	Ch 2, I/ Me-	Dever	1				
	ŕ	DI AIN CEMENT WODIG					
	PWD (B)2015-	PLAIN CEMENT WORKS					
	16		T	1	•	T	
		Providing and laying 25mm thick					
		damp proof course with cement					
		concrete in prop					
9		1:1.5:3 with graded stone					
		aggregate of 10mm down nominal					
	2.30	size including providing approved	Sqm	1.540			
		damp proof admixture in					
		proportion as recommended by the					
		manufacturer including curing etc.					
		complete as directed.					
	Ch 4, III/ Me-	-		1	1	1	
	PWD (B)2015-	AUTOCLAVE AERATED CONC	BETE	RI OCK			
	16	ACTOCIAVE AERATED CONC	XE LE	PLOCK			
	10	150	1	I	1		
		150mm thick wall using Autoclave					
10		Aerated Concrete Block (AAC					
	4.18	block) conforming to IS-2185	Sam	8.585			
	4.10	(Part-III) in cement mortar in prop	Sqm	0.505			
		1:5 (1 cement : 5 sand) including					
		racking out joints and curing					
		i racking our joints and curing	1	Ī	1	1	i l

						1	
		complete as per specification and					
		as directed in super structure above					
		plinth up to 1st floor level					
		(protruding rod is to be provided at					
		every 3 course interval and will be					
		measured and paid separately).					
	Ch 9, I/ Me-						
	PWD (B)2015-	WINDOWS AND VENTILATOR	S				
	16			1		1	1
		Providing, fitting and fixing					
		anodised aluminium windows and					
		ventilators of standard sections					
		without horizontal glazing bars					
		joints mitred and welded					
		(manufactured to relevant IS					
ı		specifications) fitted with 6mm x					
		3.15mm lugs 100mm long					
11	0.10	embedded in CC blocks 150mm x					
11	9.10	100mm x 100mm in 1:3:6 mix					
		including providing and fixing					
		handles, frictions stays, joining					
		cleat, bolting device, locking					
		arrangement, spring catch as					
		required complete as specified and					
		directed for all levels. (Glass panes					
		included, Cement concrete to be					
		measured and paid separately).					
		Side hung and Top hung openable					
	(a)	windows and ventilators					
	(iii)	5mm frosted glass	Sqm	0.750			
	Ch 10, I/ Me-		1				
	PWD (B)2015-	PVC DOORS & DOOR FRAMES	(CHO	WKHAT)		
	16	TVE BOOKS & BOOK TRANIES	(CHO	** 1211/21	,		
		Providing, fitting and fixing 40mm					
		x 48mm wood reinforced PVC					
		chowkat fixed to the columns /					
	10.1	stiffeners / walls with necessary	R.m.	10.500			
		holdfast / sleeves etc. as specified					
		and directed at all levels.					
12		Providing, fitting and fixing					
		24mm/ 29mm thick polymer					
		reinforced moulded PVC door					
		shutters fixed to the chowkat with					
	10.2	necessary hinges, screws, bolts etc.					
		as specified and directed at all					
		levels (Door fixtures and fittings to					
		be measured and paid separately.)					
	(a)	24mm thick	Sqm	3.200			
	Ch 5, I/ Me-		~ 1	12.200		<u> </u>	<u> </u>
13	PWD (B)2015-	CEMENT PLASTERING					
13	16	CEMENTILASTEMINO					
	10						

			ı		ı	T
		20 mm thick Cement plaster on				
		rough side in two coats (backing				
		coat 15 mm and finishing coat				
		5mm thick) on single or half brick				
		walls for interior plastering up to				
	5 A	1st floor level including arises,				
	5.4	internal rounded angles, chamfers				
		and / or rounded angles not				
		exceeding 80mm in girth and				
		finished even and smooth				
		including curing complete as				
		directed.				
	(h)	In cement mortar 1:4	Cam	11.531		
	(b)		Sqm	11.331		
		20 mm thick Cement plaster on fair				
		side in two coats (backing coat				
		10mm and finishing coat 10mm				
		thick) on single or half brick walls				
		for interior plastering up to 1st				
	5.5	floor level including arises, internal				
		rounded angles, chamfers and / or				
		rounded angles not exceeding				
		80mm in girth and finished even				
		and smooth including curing				
		complete as directed.				
	(b)	In cement mortar 1:4	Sqm	26.036		
		Extra over item no 5.1 to 5.6 for				
		plastering on celling and soffits of				
	5.7	stairs up to 1 st floor level (instead	Sqm	8.897		
		of plastering on walls) including				
		curing complete as directed.				
	Ch 19/ Me-		I		I	
	PWD (B)2015-	PLINTH PROTECTION & DRAI	NS			
	16		- 1.0			
		Plinth Protection by providing				
		Brick flat laid in cement mortar in				
		prop 1:4 (1cement : 4coarse sand)				
		with a layer of 15mm thick cement				
	19.2	plaster in prop 1:2 and finishing	Sqm	13.890		
	-	with a floating coat of neat cement	1			
		including necessary levelling and				
		preparing the subgrade complete as				
14		directed.				
		Providing CC/ Brick/ Stone Open				
		Surface Drain with 15mm thick				
		cement plastering in prop. 1:3				
		finished with a floating coat of				
		cement slurry as directed with				
	19.4	I				
		necessary shuttering for sides and earth work in excavation of				
		foundation trenches and refilling				
1		the sides after completion of work	Ì	Ì	Ī	1
		etc. as specified.				

		With cement concrete (1:3:6)				
		1				
	(a)	having 100mm thick sides and				
	, ,	100mm thick bed laid over brick				
		flat soling.				
	(i)	300mm wide and average 150mm	R.m.	8.350		
		deep	Ttilli.	0.550		
	Ch 22, I / Me-					
	PWD (B)2015-	WATER PROOFING				
	16					
		Providing, supplying, mixing and				
		chamfering the edges along joint of				
		wall/ parapet wall and raft/ roof				
		slab having chamfered dimension				
		of 150mm x 150mm with cement				
		sand mortar (prop.1:4) mixed with				
		Master Proof IWP-1 of Choksey				
		Chemicals /Dr. Sealkit No. 1 of				
		(Asian Chemicals)/ RHEOMAC				
15		707 of BASF@ 0.2% by weight of				
	22.4	cement over a primer coat on the	Sam	10.600		
	22.4	area to be chamfered with a	Sqm	10.000		
		combination of 100% acrylic				
		Polymer Master Crete M-81/Dr.				
		Sealkit Sealcrete (Asian				
		Chemicals) / RHEOMAC 115 of				
		BASF of Choksey Chemicals and				
		cement in the ratio 1:2 to be				
		applied by brush as specified &				
		directed by the Department				
		complete.				
	Ch3, VIII /					
	Me-PWD	VITRIFIED TILES				
	(B)2015-16					
		Providing polished VITRIFIED				
		wall tiles of Somany/ Orient/				
		Nitco/ Qutone make or equivalent				
		of approved quality, size, shape				
		and thickness not less than 8mm on				
		walls and skirting over cement				
		mortar bed 10 mm thick in prop.				
16		1:3 (1 cement : 3 coarse sand)				
	3.28	including cutting where necessary				
		finished with flush pointing with				
		Fix-A-Tile (Choksey / Sika /				
		Pidilite / Rouf) or white cement				
		slurry mixed with approved				
		pigment to match shade of tiles				
		complete at all levels as specified				
		and directed. (Cement plastering to				
		be measured and paid separately).				
	(2)		C ~	9.708		
	(a)	Regular range	Sqm	9.708		

	Г		1	T	П	1	Γ
		Providing VITRIFIED floor tiles					
		of Somany/ Orient/ Nitco/ Qutone					
		make or equivalent of approved					
		quality of specified size, shape and					
		thickness not less than 18mm on					
		floors, skirting, risers and treads of					
		steps over 15 mm thick base of					
		cement mortar in prop. 1:3 (1					
		cement: 3 coarse sand) including					
		cutting where necessary finished					
		with flush pointing with Fix-A-Tile					
	3.27	(Choksey/Sika/Pidilite/Rouf) /					
		white cement slurry mixed with					
		approved pigment to match shade					
		of tiles, mixed with approved					
		pigment to match the shade of the					
		tiles, complete at all levels as					
		specified and directed. (Cement					
		plastering to be measured and paid					
		separately). (Coloured pigment					
		should be in conformity with					
		_					
		colour of tiles and as approved and					
		directed by the Department)	C	5 152			
	(a)	Regular range	Sqm	5.153			
	Ch15, V / Me-						
	PWD (B)2015-	CEMENT PAINT & PRIMER					
	16			ı	T	<u> </u>	
		Finishing wall with water proofing					
		cement paint of approved brand					
		and manufacture and of required					
	15.30	shade on old wall surface (one	Sqm	37.567			
17		coats) to give an even shade after	1				
		thoroughly brooming the surfaces					
		to remove all dirt and remains of					
		loose or softened paint.					
		Extra over item no. 15.29 and					
		15.30 above for every subsequent					
	15.31	coat of water proofing cement	Sqm	37.567			
		paint of approved brand and					
		manufactured.					
	Ch38, II / Me-						
	PWD (B)2015-	PIPING					
	16						
					I	1	
		Supplying fitting and fixing UPVC					
Ì		Pipes with all necessary fittings					
		Pipes with all necessary fittings (Using uPVC high pressure pipes					
18		Pipes with all necessary fittings					
18	38.8	Pipes with all necessary fittings (Using uPVC high pressure pipes					
18	38.8	Pipes with all necessary fittings (Using uPVC high pressure pipes & fittings of SUPREME/ PRINCE/					
18	38.8	Pipes with all necessary fittings (Using uPVC high pressure pipes & fittings of SUPREME/ PRINCE/ SFMC/ FUSION brand or					
18	38.8	Pipes with all necessary fittings (Using uPVC high pressure pipes & fittings of SUPREME/ PRINCE/ SFMC/ FUSION brand or equivalent) in exposed or					
18	38.8	Pipes with all necessary fittings (Using uPVC high pressure pipes & fittings of SUPREME/ PRINCE/ SFMC/ FUSION brand or equivalent) in exposed or intrenches including trenching and					
18	38.8 (i)	Pipes with all necessary fittings (Using uPVC high pressure pipes & fittings of SUPREME/ PRINCE/ SFMC/ FUSION brand or equivalent) in exposed or intrenches including trenching and refilling the same etc. complete as	R.m.	3.8			

			1		ı	
		Supplying fitting and fixing UPVC				
		Pipes with all necessary fittings				
		(Using uPVC high pressure pipes				
		& fittings of SUPREME/ PRINCE/				
	38.8	SFMC/ FUSION brand or				
		equivalent) in exposed or in				
19		trenches including trenching and				
1)		refilling the same etc. complete as				
		directed				
		20mm diameter				
	(b)	(Drawing water pipe line from supply pipe line to the Urinal	R.m.	35		
	Ch38, I / Me-	Block)				
	·	W/A (DED (DANIE)				
	PWD (B)2015- 16	WATER TANK				
	10		I		T	<u> </u>
		Supplying and placing plastic				
		cylindrical vertical closed top				
20		(PCVC) tank of Sintex / Polycon /				
	38.2	Patton make over the staging with				
		manhole cover with locking and				
		cleaning arrangement including				
		providing pads of size as required				
		for inlet and outlet pipes				
	(d)	500 litre capacity	Each	1		
	Ch34, IX/					
	Me-PWD	WASH BASIN				
	MIC-I WD					
21	(B)2015-16					
21		Basin (Without Pedestal)				
21	(B)2015-16					
21	(B)2015-16 34.13.2	Basin (Without Pedestal)	Each	1		
21	(B)2015-16 34.13.2 (a) (ii)	Basin (Without Pedestal) White	Each	1		
21	(B)2015-16 34.13.2 (a)	Basin (Without Pedestal) White Medium	Each	1		
21	(B)2015-16 34.13.2 (a) (ii) Ch34, VI/	Basin (Without Pedestal) White	Each	1		
21	(B)2015-16 34.13.2 (a) (ii) Ch34, VI/ Me-PWD	Basin (Without Pedestal) White Medium	Each	1		
21	(B)2015-16 34.13.2 (a) (ii) Ch34, VI/ Me-PWD	Basin (Without Pedestal) White Medium URINAL Providing fitting and fixing	Each	1		
21	(B)2015-16 34.13.2 (a) (ii) Ch34, VI/ Me-PWD	Basin (Without Pedestal) White Medium URINAL Providing fitting and fixing vitreous china flat back type lipped	Each	1		
21	(B)2015-16 34.13.2 (a) (ii) Ch34, VI/ Me-PWD	Basin (Without Pedestal) White Medium URINAL Providing fitting and fixing vitreous china flat back type lipped front urinal basin with standard	Each	1		
	(B)2015-16 34.13.2 (a) (ii) Ch34, VI / Me-PWD (B)2015-16	Basin (Without Pedestal) White Medium URINAL Providing fitting and fixing vitreous china flat back type lipped front urinal basin with standard flush pipe and CP brass spreader	Each	1		
21	(B)2015-16 34.13.2 (a) (ii) Ch34, VI/ Me-PWD	Basin (Without Pedestal) White Medium URINAL Providing fitting and fixing vitreous china flat back type lipped front urinal basin with standard flush pipe and CP brass spreader and brass unions, etc. complete	Each	1		
	(B)2015-16 34.13.2 (a) (ii) Ch34, VI / Me-PWD (B)2015-16	Basin (Without Pedestal) White Medium URINAL Providing fitting and fixing vitreous china flat back type lipped front urinal basin with standard flush pipe and CP brass spreader and brass unions, etc. complete including painting of fittings and	Each	1		
	(B)2015-16 34.13.2 (a) (ii) Ch34, VI / Me-PWD (B)2015-16	Basin (Without Pedestal) White Medium URINAL Providing fitting and fixing vitreous china flat back type lipped front urinal basin with standard flush pipe and CP brass spreader and brass unions, etc. complete including painting of fittings and brackets, cutting and making good	Each	1		
	(B)2015-16 34.13.2 (a) (ii) Ch34, VI / Me-PWD (B)2015-16	Basin (Without Pedestal) White Medium URINAL Providing fitting and fixing vitreous china flat back type lipped front urinal basin with standard flush pipe and CP brass spreader and brass unions, etc. complete including painting of fittings and brackets, cutting and making good the walls & floors wherever	Each	1		
	(B)2015-16 34.13.2 (a) (ii) Ch34, VI / Me-PWD (B)2015-16	Basin (Without Pedestal) White Medium URINAL Providing fitting and fixing vitreous china flat back type lipped front urinal basin with standard flush pipe and CP brass spreader and brass unions, etc. complete including painting of fittings and brackets, cutting and making good the walls & floors wherever required.	Each	1		
	(B)2015-16 34.13.2 (a) (ii) Ch34, VI / Me-PWD (B)2015-16	Basin (Without Pedestal) White Medium URINAL Providing fitting and fixing vitreous china flat back type lipped front urinal basin with standard flush pipe and CP brass spreader and brass unions, etc. complete including painting of fittings and brackets, cutting and making good the walls & floors wherever required. White	Each	1		
	(B)2015-16 34.13.2 (a) (ii) Ch34, VI / Me-PWD (B)2015-16	Basin (Without Pedestal) White Medium URINAL Providing fitting and fixing vitreous china flat back type lipped front urinal basin with standard flush pipe and CP brass spreader and brass unions, etc. complete including painting of fittings and brackets, cutting and making good the walls & floors wherever required. White Medium	Each	2		
	(B)2015-16 34.13.2 (a) (ii) Ch34, VI/ Me-PWD (B)2015-16 34.9 (a) (ii)	Basin (Without Pedestal) White Medium URINAL Providing fitting and fixing vitreous china flat back type lipped front urinal basin with standard flush pipe and CP brass spreader and brass unions, etc. complete including painting of fittings and brackets, cutting and making good the walls & floors wherever required. White				
22	(B)2015-16 34.13.2 (a) (ii) Ch34, VI / Me-PWD (B)2015-16 34.9 (a) (ii) Ch36, II/ Me-	Basin (Without Pedestal) White Medium URINAL Providing fitting and fixing vitreous china flat back type lipped front urinal basin with standard flush pipe and CP brass spreader and brass unions, etc. complete including painting of fittings and brackets, cutting and making good the walls & floors wherever required. White Medium (including both Gents and Ladies)				
	(B)2015-16 34.13.2 (a) (ii) Ch34, VI/ Me-PWD (B)2015-16 34.9 (a) (ii)	Basin (Without Pedestal) White Medium URINAL Providing fitting and fixing vitreous china flat back type lipped front urinal basin with standard flush pipe and CP brass spreader and brass unions, etc. complete including painting of fittings and brackets, cutting and making good the walls & floors wherever required. White Medium				

	approved uPVC Pipes of				
36.2	SUPREME/ PRINCE/ SFMC BRAND or other equivalent ISI approved brand (High pressure pipe Sch- 40), of following sizes, with all necessary 'R' brand or similar approved P.V.C. Fittings such as bend, tee, elbow, reducer, nipple, plug, long screw fitting, clamps etc. and fixing the pipe with clamps at 1.00m spacing/ cutting chases and making good the damages, testing of joints				
	complete as directed.				
(a)	Exposed or in trenches				
(iv)	25 mm dia	R.m.	1		
	Sub To	otal (1)	Sub Total (1)		
Adding 10	0% for W/S and electrification on Sub To	otal (1)	Sub Total (2)		
	Grand Total [Sub To	otal (1)	and (2)]		
				Total	

B. Park Develompent and Children's Playing Kits

Sl	Item No/		**	0.1	Rate (I	NR) in	
No	SOR	Description of works in brief	Unit	Qty	Figures	Words	Amount
	Ch-23 / Me- PWD(B) 2015-16	DISMANTLING AND DEMOLISI	HING V	VORKS			
1	23.2	Demolishing plain cement concrete including disposal of debris as directed for all levels				Rupees	
	(a)	Prop (1:4:8) or leaner mix	Cum	36			
	Ch-5, I/ Me- PWD (B) 2015-16	CEMENT PLASTERING					
2	5.2	15 mm thick Cement plaster in single coat on rough side of single or half brick wall for interior plastering up to 1st floor level including arises, internal rounded angles, not exceeding 80mm girth and finished even and smooth including curing complete as directed.					
	(b)	In cement mortar 1:4	Sqm	60.00			
	Ch-15, XII/ Me-PWD (B) 2015-16	SPECIAL WEATHER PROOF CO	OLOUR	RING			
3	15.8	Finishing old / new wall with water proofing weather coat smooth antifungal exterior painting of approved make of required shade after cleaning and clearing the surface etc. including scaffolding complete as directed at all levels (two coats)	Sqm	170.00			
	Ch-15, X/ Me-PWD (B) 2015-16	PAINTING ON STEEL AND OTH	ER MI	ETAL SU	RFACE		
4	15.67	Applying primary coat over new steel and other metal surface over 100mm in width or girth with ready mixed "red-lead/ red oxide" primer after preparing the surface by thoroughly cleaning oil, grease, dirt and other foreign matter and scoured with wire brushes, fine steels, wood scrapers and sand paper.	Sqm	36.00			
5	Ch-14, I/ Me- PWD (B) 2015-16	M.S. GRILLS					

		Danviding Etting and Eving M.C.				
	14.2	Providing, fitting and fixing M.S. grill of required pattern for windows/ clerestory windows/ opening/ railing with M.S. flats at required spacing in frame all round, square or round M.S. bars with round headed bolts and nuts or screws.				
	(a)	Plain grill				
	(iii)	Fixed to Brickwork/ P.C.C/ R.C.C.	Kg	70.00		
	. ,	Construction of Broken wall at		70.00		
6	Non SOR	South East Side	LS			
	Ch-3, XVIII/	South Bust Side				
	Me-PWD (B) 2015-16	INTERLOCKING PAVER BLOCI	K			
7	3.54/ Me- PWD (B) 2015-16	Providing and laying of inter locking concrete block for pavement with cement concrete paver blocks as per IS 15658-2006 of thickness 80mm and 28 days compressive strength not less than 30 N/m over a layer of bedding sand of compacted thickness 30mm, laid either in stretcher/ running/ herringbone pattern of bonds as directed by the engineer and in proper level and grade and compacted with appropriate equipment such as plat vibrator along with spreading of a thin layer of joint filling sand to fill up the gaps between blocks complete. (Concrete color paver block)	Sqm	132.00		
	Ch-20, V/ Me-PWD (B)	HEDGE PLANTING / EXTERNAL	L HED	GE		
	2015-16		ı	r	1	1
8	20.8/ Me- PWD (B) 2015-16	Supplying and planting of suitable plant materials for preparation protective / external hedge (50 cm wide) including the preparation of the ground by mixing organic manure and fertilizers as per specification and necessary maintenance for a period of one year from the date of planting complete as specified and directed.				
	(a)	Adopting single row planting				
		method				
	(ii)	Thuja / Ixora	Each	410.00		
9	Ch-20, I/ Me- PWD (B) 2015-16	LAWN MAKING BY DIBBLING				

	20.1/ Me- PWD (B) 2015-16	Supplying and dibbling of selected lawn grass after preparing the land by ploughing/ working to a depth of 40-45 cm, removing of all unwanted debris (rubbles, pebbles, plant roots etc.), mixing of organic manure (10-15kg/sq.m), levelling the surface and initial maintenance by proper and periodic rolling, mowing and irrigation etc. (as specified) including the application of recommended dose of fertilizers (N:P:K) mixture as specified and directed by the department.				
	(b)	Carpet grass (Axonopus affinis)	Sqm	108.00		
10	Non SOR	Designer Street Light Pole with Solar LED	LS	6		

C. Children's Play Kits

CI	T. N.				Rate (I	NR) in	
Sl No	Item No/ SOR	Description of works in brief	Unit	Qty			Amount
110	SOK				Figure	Words	
1	Non SOR	Scrambler	No.	2			
2	Non SOR	Spring Ridder Duck	No	2			
3	Non SOR	Merry Go Round	No.	2			
4	Non SOR	See Saw (Standard)	No	2			
5	Non SOR	Spiral Slide (3 Metre)	No.	2			
6	Non SOR	Toddler Swing	No.	2			
7	Non SOR	Frog Bin	No.	4			
8	Non SOR	Cast Iron Garden Bench	No.	5			
9	Non SOR	Transportation Charges	LS				
Tota	ıl		•		•	•	

Abstract of Cost:

No	Green Spaces & Parks	Area (sq.m.)	Amount					
A	Urinal Block							
В	Childrens Park development	580						
C	Children's Play Kits							
	Children's Park Cum Playfield, at Mynsain, Upper Lumparing (Total)							
	Rupees Only							

PACKAGE NO 2. DHOBITALA CHILDREN'S PARK AT JHALUPARA

A. Childrens Park development

					Rate	(INR)	
Sl	Item No/	Description of works in brief	Unit	Qty		in	Amou
No	SOR	Description of works in ories		203	Fig	Wor	nt
		DICMANITAL INC. 6 DICROSAL OL	E DEDD	NIC.	ure	ds	
	Ch-23, Me-	DISMANTALING & DISPOSAL O	r DEBR	(15			
	PWD (B) 2015-16	DISMANTLING AND DEMOLISHING WO	ORKS				
1	23.22	Dismantling Barbed wire/ chain-link fencing including making rolls and stacking the materials as directed by the department.	Qntl.	2.20		RupeesOnly	
		(Existing Chailink Fencing)					
	T	DEVELOPMENT OF LAND- PLOT	Γ(1) &	(2)			
	Ch-1, Me- PWD (B) 2015-16	EARTHWORK					
2	1.1	Earthwork in excavation upto a depth of 2m below the existing ground level for foundation trenches of foundations, footings of column/walls, retaining walls, septic tank etc. including bailing out water where necessary and removal of surplus earth with all lead and lifts as directed and specified for the following classification of soils.					
	(a)	In ordinary soil	cu.m.	178.0 0			
	1.4	Earthwork in filling including necessary carriage, watering, ramming etc. complete as directed and specified.					
	1.4.1	Earth/ Sand filling in plinth in layers not exceeding 150mm thick					
	(a)	With earth/stone dust obtained by carriage upto 8 km	cu.m.	332.6 4			
	Ch-4, III, Me-PWD (B) 2015- 16	STONE MASONRY WORK			1		
3	4.11	Stone masonry work in retaining wall, wing wall, abutment, foundation, steps, plinth etc. in cement mortar in prop 1:6 with levelling course of 1:6:12 with unsize stone / Mawthup both faces hammer dressed including bonding, providing face stone, through stone and centering including racking of joints, curing and supplying and all carriage of stone as directed.					

	(a)	Random Rubble Masonry				
	(i)	In Sub-structure upto Plinth Level	cu.m.	182.0 0		
	Ch-5, I, Me-PWD (B) 2015- 16	CEMENT PLASTERING	,			
4	5.2	15 mm thick Cement plaster in single coat on rough side of single or half brick wall for interior plastering up to 1st floor level including arises, internal rounded angles, not exceeding 80mm girth and finished even and smooth including curing complete as directed.				
	(b)	In cement mortar 1:4 (Exposed wall)	sq.m.	27.4		
		DEVELOPMENT OF LAND- PLOT (3)- BA	DMINT	ON ARI	E A	
	Ch-1, Me- PWD (B) 2015-16	EARTHWORK				
5	1.1	Earthwork in excavation upto a depth of 2m below the existing ground level for foundation trenches of foundations, footings of column/walls, retaining walls, septic tank etc. including bailing out water where necessary and removal of surplus earth with all lead and lifts as directed and specified for the following classification of soils.				
	(a)	In ordinary soil	cu.m.	24.12		
	Ch-4, III, Me-PWD (B) 2015- 16	STONE MASONRY WORK				
6	4.11	Stone masonry work in retaining wall, wing wall, abutment, foundation, steps, plinth etc. in cement mortar in prop 1:6 with levelling course of 1:6:12 with unsize stone / Mawthup both faces hammer dressed including bonding, providing face stone, through stone and centering including racking of joints, curing and supplying and all carriage of stone as directed.				
	(a)	Random Rubble Masonry				
	(i)	In Sub-structure upto Plinth Level	cu.m.	28.81		
7	(II) Ch-4, I, Me-PWD (B) 2015- 16	In Super-structure above Plinth Level SOLING & BRICKWORK	cu.m.	30.82	<u> </u>	
7	4.1	Providing brick soling in foundation and under floor with stone/ best quality picked jhama brick, sand packed and laid to level and in panel after preparing the subgrade as				

		directed including all labour and materials and				
		if necessary dewatering, complete.				
		,				
	(a)	Brick on flat soling.	sq.m.	49.68		
	Ch-3, I,	Drick on that soring.	sq.m.	47.00		
	Me-PWD					
		CEMENT CONCRETE FLOORING				
	(B) 2015- 16					
	10	(5 41:1 4 C : ::				
		65 mm thick cement concrete floor consisting				
		of 50 mm under layer of cement concrete in				
		prop. 1:3:6 (1 cement: 3 coarse sand: 6 coarse				
8		aggregate of 25mm and down) and 15 mm				
		thick wearing layer in cement concrete in				
	3.4	prop. 1:1:2 (1 cement: 1 coarse sand: 2 coarse	sq.m.	33.12		
		aggregate of size 10mm down) laid in panels				
		and finished with a floating coat of neat				
		cement finish (using cement slurry for bond				
		@ 2.75 kg. per square metre of floor area)				
		including curing etc. complete as directed.				
	Ch-4, II,					
	Me-PWD	BRICK MASONRY				
	(B) 2015-					
	16			,		T
		Brick nogged wall with 1st class brick in				
		cement mortar including racking out joints				
9		and curing complete as directed in super				
	4.6	structure above plinth up to 1st floor level				
		(protruding M.S rod/Tor steel of column to be				
		embedded in cement mortar and will be				
		measured and paid separately)				
	(a)	Half Brick (~112 mm) thick 1st class brick				
	` ′	nogged wall				
	(II)	In proportion 1:4 (1 cement : 4 sand)	sq.m.	1.35		
	Ch-5, I,					
	Me-PWD	CEMENT PLASTERING				
	(B) 2015-					
	16	15 41.1.0		1		
10		15 mm thick Cement plaster in single coat on				
10		rough side of single or half brick wall for				
	5.2	interior plastering up to 1st floor level				
		including arises, internal rounded angles, not				
		exceeding 80mm girth and finished even and				
	(1-)	smooth including curing complete as directed.		10.60	-	
	(b)	In cement mortar 1:4	sq.m.	48.68		
	Ch 10 W	IRON GATE (3 Nos.)				
	Ch-18, V, Me-PWD					
11		HEAVY DUTY IRON GATE				
	(B) 2015- 16					
	10					

					1		
		Supplying, fitting and fixing double leaf heavy duty iron gate, frame made from 50mm					
		x 50 mm x 6mm M.S. flat iron with another					
		horizontal flat at the middle, 20mm dia M.S					
		bars at 200mm apart from bottom flat to top					
		flat and 20 mm dia M.S. bars at 200mm apart					
		I -					
		from bottom flat to middle flat including					
		drilling, welding etc. complete. All vertical					
	18.9	bars are to be protruded at least 100mm above the middle and top flat is to be flattened and	Qntl.	4.3			
	10.9	pointed as directed. Necessary locking	Qiii.	4.3			
		arrangement on both faces, arrangement for					
		temporary closing the gate and 2 nos. (
		minimum) strong iron hinges of M.S bars and					
		flat of same sizes on each leaf to be embedded					
		in C.C brick pillars as necessary including a					
		red oxide painting to all iron works as directed					
		and specified. (Separate payment will be					
		made for posts).					
		$\{Size \ of \ the \ gate \ (LXH)=(1.1X1.2) \}$					
		RCC STAIR					
	Ch-1, Me-						
	PWD (B)	EARTHWORK					
	2015-16						
		Earthwork in excavation upto a depth of 2m					
	1.1	below the existing ground level for foundation					
12		trenches of foundations, footings of column/					
12		walls, retaining walls, septic tank etc.					
		including bailing out water where necessary					
		and removal of surplus earth with all lead and					
		lifts as directed and specified for the					
		following classification of soils.					
	(a)	In ordinary soil	cu.m.	7.90			
	Ch-4, I,						
	Me-PWD	SOLING & BRICKWORK					
	(B) 2015-	SOLING & BRICKWORK					
	16		1		,	1	T
		Providing brick soling in foundation and					
13		under floor with stone/ best quality picked					
	4.1	jhama brick, sand packed and laid to level and					
		in panel after preparing the subgrade as					
		directed including all labour and materials and					
		if necessary dewatering, complete.		1.10			
	(a)	Brick on flat soling.	sq.m.	1.48			
	Ch-2, II,						
14	Me-PWD	REINFORCED CEMENT CONCRETE WO	ORKS				
	(B) 2015- 16						
	10						

					1	1	ı
		Providing and laying Concrete in Reinforced Cement Concrete Works using Concrete					
		Mixture Machine with coarse sand & 20mm					
		down graded stone aggregate including					
	2.5	dewatering if necessary, and curing complete					
		but excluding cost of form work and					
		reinforcement for reinforced cement concrete					
		work (form work and reinforcement will be					
		measured and paid separately)					
-		In Foundation and sub - structure including					
		footing, columns with base, tie and plinth					
		beam, pile cap, raft slab, base slab, RCC					
	2.5.1	walls, retaining walls, walls of septic tank,					
		inspection pit and the like and other works not					
		less than 100mm thick up to Plinth Level.					
		(Without using admixture, plasticiser)					
	(b)	M20 or Prop. 1:11/2:3	cu.m.	3.754			
	Ch-2, III,	1	i	1	<u> </u>	<u> </u>	I
	Me-PWD						
	(B) 2015-	REINFORCEMENT					
	16						
-		Supplying, fitting and fixing in position					
		reinforcement bars upto 1st floor level,					
		conforming to relevant I.S. Code for R.C.C.					
		work/ R.B. walling including straightening,					
		cleaning, cutting and bending to proper shapes					
	• •	and length as per details, supplying and					
15	2.8	binding with 20G annealed black wire and					
		placing in position with proper blocks,					
		supports, chairs, spacers etc. complete. (Rates					
		inclusive of all wastage, lappage, hooks,					
		chairs, anchorage etc. and no measurements					
		for the same is required)					
-		From Primary Sources like TATA/ SAIL/					
	(a)	ESSAR/ JINDAL/ SHYAM/ RINL					
-	(*)	TMT Corrosion resistant steel (CRS)	0 1				
	(i)	reinforcement bar	Qntl.	2			
	Ch-5, I,			1	•	•	
	Me-PWD	CEMENT DI ACTEDINO					
	(B) 2015-	CEMENT PLASTERING					
	16						
		15 mm thick Cement plaster in single coat on]			
16		rough side of single or half brick wall for					
	5.1	interior plastering up to 1st floor level					
	J.1	including arises, internal rounded angles, not					
		exceeding 80mm girth and finished even and					
		smooth including curing complete as directed.					
	(b)	In cement mortar 1:4	sq.m.	12.16			
	Ch-4, IV,						
17	Me-PWD	SHUTTERING/ FORMWORK					
	(B) 2015-						
	16						

		Providing form work of ordinary timber				
		1				
		planking of thickness not less than 25mm and removal of the same for concrete members so				
		as to give a rough finish including centering,				
	2.10	shuttering, strutting and propping etc., for				
		height of propping and centering of				
		supporting floor to the soffit of the concrete				
		member not exceeding 4.0M as specified for				
		the following items:				
	(a)	Foundation, footings, bases of columns, pile	ga m	4.3		
	(a)	cap, raft and mass concrete works etc.	sq.m.	4.3		
	(c)	Columns, Pillars, Posts & Strut				
		Square, Rectangular, polygonal in plan or any				
	(i)	shape like Tee/L etc. having plane vertical	sq.m.	1.8		
		face				
	Ch-17, IV,		1	1	I	1
	Me-PWD					
	(B) 2015-	STRUCTURAL STEEL & ALLIED WORK	S			
	16					
		Providing and fixing stainless steel (Grade				
		304) railing made of Hollow tubes, channels,				
		plates etc., including welding, grinding,				
		buffing, polishing and making curvature				
		(wherever required) and fitting the same with				
		necessary stainless steel nuts and bolts				
18		complete, i/c fixing the railing with necessary				
		accessories & stainless steel dash fasteners,	kg.	46.35		
	17.7	· ·	kg.	40.55		
		stainless steel bolts etc., of required size, on				
		the top of the floor or the side of waist slab				
		with suitable arrangement as per approval of				
		Engineer in-charge, (for payment purpose				
		only weight of stainless steel members shall				
		be considered excluding fixing accessories				
		such as nuts, bolts, fasteners etc.).				
		(10mm = 22.05 kg, 32mm = 24.30kg)	<u> </u>			
ļ		ENTRANCE (APPROACH RO	OAD)			
	Ch-3, X,					
19	Me-PWD	PAVERS TILES				
	(B) 2015-	THY ENGINEES				
	16		_		Π	1
		Providing polished tiles of approved quality,				
		size, shape of specified thickness on pavers				
		over a base of 100mm compacted sand gravel				
		including cutting where necessary finished				
	3.30	with flush pointing with Fix-A-Tile (Choksey				
		/ Sika / Pidilite / Rouf) /white cement slurry				
		mixed with approved pigment to match shade				
		of tiles complete at all levels as specified and				
		directed.				<u> </u>
	(d)	40 mm thick Silicon paver	sq.m.	11.9		
		LANDSCAPING				

	Ch-20, I,					
	Me-PWD	LAWN MAKING BY DIBBLING				
	(B) 2015-	ENTITION OF DIBBERTS				
	16					
20	20.1	Supplying and dibbling of selected lawn grass after preparing the land by ploughing/ working to a depth of 40-45 cm, removing of all unwanted debris (rubbles, pebbles, plant roots etc.), mixing of organic manure (10-15kg/sq.m), levelling the surface and initial maintenance by proper and periodic rolling, mowing and irrigation etc. (as specified) including the application of recommended dose of fertilizers (N:P:K) mixture as specified and directed by the department.				
	(b)	Carpet grass (Axonopus affinis)	sq.m.	176.0 0		
	Ch-20, III, Me-PWD (B) 2015- 16	POTTED PLANTS				
21	20.6	Supplying and planting of seasonal flower in required size of pot including filling the pot to the top surface with appropriate soil media made of garden soil, river sand, cow-dung, leaf mould, fertilizer, pesticides as per specification and necessary maintenance for a period of 4 months from the date of planting complete as specified and directed. (Mixing of different ingredients of soil media to be made in presence of Deptt. official / Specialist concerned)				
	(a)	Using earthen pot of 30 cm dia.	Each	30		
	Ch-20, V,	5 p		1	1	<u> </u>
	Me-PWD (B) 2015-	HEDGE PLANTING / EXTERNAL HEDGE	E			
22	20.8	Supplying and planting of suitable plant materials for preparation protective / external hedge (50 cm wide) including the preparation of the ground by mixing organic manure and fertilizers as per specification and necessary maintenance for a period of one year from the date of planting complete as specified and directed.				
	(a)	Adopting single row planting method				
	(i)	Chinese Bamboo	Each	50		<u> </u>
	Ch-3,	Chinese Builtoo	Lacii	1 20		<u> </u>
23	XVIII/ Me-PWD (B)2015-16	INTERLOCKING PAVER BLOCK				

	3.54/ Me- PWD (B)2015-16	Providing and laying of inter locking concrete block for pavement with cement concrete paver blocks as per IS 15658- 2006 of thickness 80mm and 28 days compressive strength not less than 30 N/m over a layer of bedding sand of compacted thickness 30mm, laid either in stretcher/ running/ herringbone pattern of bonds as directed by the engineer and in proper level and grade and compacted with appropriate equipment such as plat vibrator along with spreading of a thin layer of joint filling sand to fill up the gaps between blocks complete.	Sqm	182.2		
		(Concrete color paver block)				
i.		BADMINTON COURT		•		
	Ch-39, Me- PWD (B) 2015-16	Skilled Labourers				
24	15	Skilled labour	Man day	3		
	16	Semi skilled labour	Man day	6		
25	Indiamart	Material				
23	manamart	Badminton Fixed MS Pole with Net	1	1		
					Total	

B. Chainlink Fencing

						Rate	(Rs)	
Sl.	Item No./	Description of works in brid	ef	Unit	Quantit		Word	Amoun
No	SOR	-			y	e	S	t
	Ch-2, II, Me-			I		I		
	PWD (B)	REINFORCED CEMENT CONCRI	ETE WOR	KS				
	2015-16							
		Providing and laying Concrete in Rein					:	
		Cement Concrete Works using Concrete					 Only	
		Machine with coarse sand & 20mm do	_				: 0	
	2.5	stone aggregate including dewatering i						
	2.5	necessary, and curing complete but exc cost of form work and reinforcement for	_					
		reinforced cement concrete work (form						
1		reinforcement will be measured and pa					ees.	
1		separately)					Rupees	
		In Foundation and sub - structure inclu	ding				I	
		footing, columns with base, tie and plin	_					
		pile cap, raft slab, base slab, RCC wall						
	2.5.1	walls, walls of septic tank, inspection p	oit and the					
		like and other works not less than 100r						
		up to Plinth Level. (Without using adm	ixture,					
		plasticiser)						
	(b)	M20 or Prop. 1:1.5:3						
	. ,	Taking 10m length of Fencing		Cum	0.6			
		M.S. bar (ISI Approved)						
	Ch-40, 3/ Me-PWD (B) 2015-16	10 m length of Fencing						
2			2.56 qtl	Qntl	2.75			
			0.19 qtl					
			2.75 qtl					
	G1 40 G1	Iron Angle Post						
	Ch-40, Sl.	(50mmx50mmx5mm) weight/m	0.029 at1					
3	No.9/ Me- PWD (B)	_	0.038 qtl 0.114					
	2015-16	lFor 3 nost ner 10m length	0.11 4 qtl/m					
	2013 10	Angle, Tee, Channel etc.	917111	Ontl	0.114			
	Ch-18, IV/	ringle, ree, chamerete.		Qiiti	0.111			
	· ·	CHAINLINK FENCING (for 10m L	ength)					
	2015-16		· e · /					
		Supplying, fitting and fixing chain link	fencing of					
		10 S.W.G, G.I. Wire 50mmx50mm me	sh fitted to					
		M.S angle iron post at 2000mm apart o	of					
4		specification detailed below including						
		fitting and fixing hooks, eye bolts with						
	18.8	staples and bolts including three horizon						
		of G.I wire 10 S.W.G at top, middle an						
		and with one vertical line to each fenci						
		keeping the fencing tight and erect con including one coat of primer painting to	-					
		angle iron post in P.C.C base etc. with						
		ungle from post in 1.c.c base etc. with	ronowing.]				

	(a)	Corner and end posts with M.S angle of size 50mmx50mmx 5mm and length not less than 1800mm only duly slotted and bottom torqued with two numbers as stay posts.	Sq.m	10				
	Ch-15, IV/							
	` ′	PAINTING WORKS						
	2015-16							
5	15.69	Painting two coats (excluding priming coat) on new steel and other metal surface with enamel paint of approved brand and manufacture(Asian paint/ Berger paint/ ICI paint/ J & N paint/ Nerolac) to give an even shade including cleaning the surface of all dirt, dust and other foreign matter.	,					
	(a)	Surfaces over 100mm in width or girth.						
	(i)	General purpose (Asian paint/ Berger paint/ ICI paint/ J & N paint/ Nerolac).	Sq.m	12.48				
				F	or 10 m	n length		
For 1.00 m length								
				For 14	5.00 m	Length		
	Total							

C. Children's Play Kits

SI	Item No/	Description of works in	Unit	Qty	Rate (IN	Rate (INR) in		
No	SOR	brief			Figure	Words		
1	Non SOR	Scrambler	No.	1		RupeesOnly		
2	Non SOR	Spring Ridder Duck	No	2				
3	Non SOR	Spring Ridder swan	No	2				
4	Non SOR	See Saw (Standard)	No	2				
5	Non SOR	Frog Bin	No.	3				
6	Non SOR	Cast Iron Garden Bench	No.	4				
7	Non SOR	Transportation Charges	LS					
	Total							

Abstract of Cost:

No	Green Spaces & Parks	Area (sq.m.)	Amount				
A	Childrens Park development						
В	Chainlink Fencing	431.00					
C	Children's Play Kits						
	Development of Dhobitala Children Park At Jhalupara (T	otal)					
	Rupees Only						

PACKAGE NO 3. GREEN SPACE AND PARK FOR CHILDREN'S AT MADAN LABAN

A. Gazebo

	I4 N-/				Ra	te	A
Sl. No.	Item No/ SOR	Description of works in brief	Unit	Quantity	Figu re	Wo rds	Amou nt
1	Ch 1/ Me- PWD (B) 2015-16	EARTH WORK					
	1.8	Earth work in Excavation by mechanical means over areas (exceeding 30cm in depth, 1.5m in width as well as 10Sq.m. on plan) including disposal of excavated earth, lead upto 50m and lift upto 1.5m, disposed earth to be levelled and nearly dressed.				RupeesOnly	
2	a Ch 4, I/ Me-PWD (B) 2015- 16	In Ordinary Soil SOLING & BRICKWORK	Cu.m.	6.4			
	4.1	Providing brick soling in foundation and under floor with stone/ best quality picked jhama brick, sand packed and laid to level and in panel after preparing the subgrade as directed including all labour and materials and if necessary dewatering, complete.					
	(a)	Brick on flat soling.	Sq.m.	7.8			
3	Ch 4, I/ Me-PWD (B) 2015- 16	SOLING & BRICKWORK					
	4.3	Brick work in cement mortar with 1st class brick including racking out joints and curing complete in sub-structure upto plinth level including dewatering if necessary as directed.					
	c	In proportion 1:4 (1 cement : 4 sand)	Cu.m.	3.4			
4	Ch 4/ Me- PWD (B) 2015-16	EARTH WORK	•	•	•	•	
	1.4	Earthwork in filling including necessary carriage, watering, ramming etc. complete as directed and specified.					
	1.4.1	Earth/ Sand filling in plinth in layers not exceeding 150mm thick					
	ь	With available excavated earth including breaking of clods, consolidating each layer by ramming and watering with all lead and lifts.	Cu.m.	11.2			
5	Ch 3, XI/ Me-PWD (B) 2015- 16	KOTA STONE SLAB / SAND STONI	E FLOO	RING			

	T	T=	1	ı			
		Fine dressed and rubbed stone slab flooring over 18 mm thick base of					
		cement mortar 1:5 (1cement : 5 coarse					
		sand) with joints 3 mm wide, sides					
	3.33	buttered with cement mortar 1:2 (1					
		cement : 2 stone dust) admixed with					
		pigments to match the shade of stone					
		and pointing with the same mortar.					
	a	25mm thick Red Sand Stone	Sq.m.	31			
	Ch 5, I/			•		- U	
6	Me-PWD	CEMENT PLASTERING					
0	(B) 2015-	CEMENTILASTERING					
	16		ı				
		15 mm thick Cement plaster in single					
		coat on rough side of single or half					
	5.0	brick wall for interior plastering up to					
	5.2	1st floor level including arises, internal					
		rounded angles, not exceeding 80mm girth and finished even and smooth					
		including curing complete as directed.					
	ь	In cement mortar 1:4	Sq.m.	12.6			
	Ch 15, V/	in comont mortal 1.7	54.III.	12.0	<u> </u>		
_	Me-PWD						
7	(B) 2015-	CEMENT PAINT & PRIMER					
	16						
		Finishing wall with water proofing					
		cement paint of approved brand and					
		manufacture and of required shade on					
	15.29	new wall surface (two coats) to give an	Sq.m.	12.6			
		even shade after thoroughly brooming					
		the surfaces to remove all dirt and					
	Ch 17, I/	remains of loose powdered materials.					
	Me-PWD						
8	(B) 2015-	STRUCTURAL STEELWORKS, BEA	AMS AN	D JOISTS			
	16						
		Steel work welded in built up sections,					
		framed work including cutting,					
		hoisting and fixing in positions and					
	17.3	applying priming coat of red-lead paint					
		including drilling holes, supplying,					
		fitting and fixing with bolts and nuts or					
		welding, if necessary as directed. In trusses and trussed purlins up to					
	b	25m span and 15m overall height.	Qntl	7			
		{Total 5 Nos (50mm) Of Trusses and					
		5 Nos, of 100mm Dia MS Pipe Pole					
		and 32mm MS Pipe Purlin}					
	Ch 15, X/	,		•			
9	Me-PWD	PAINTING ON STEEL AND OTHER	META	LCHDEAC	E		
9	(B) 2015-	FAINTING ON STEEL AND OTHER	WIE I A	L SUKFAC	L		
	16		Γ		 	1	
		Painting two coats (excluding priming					
		coat) on new steel and other metal					
		surface with enamel paint of approved					
	15.69	brand and manufacture(Asian paint/					
		Berger paint/ ICI paint/ J & N paint/					
		Nerolac) to give an even shade including cleaning the surface of all					
		dirt, dust and other foreign matter.					
1		and duct into the following in induct.	l				

		Surfaces over 100mm in width or				
	a	girth.				
	i	General purpose (Asian paint/ Berger paint/ ICI paint/ J & N paint/ Nerolac).	Sq.m.	22.4		
10	Ch 7, VIII/ Me- PWD (B) 2015-16	PREPAINTED GALVANISED IRON	SHEET	ROOFING	ł	
	7.35	Providing Pre Painted Galvanized Iron Sheet Roofing (PPGI) (Dyna roof / Sathyam/ Durakolor/ Century Wells/Prestar/Wonder Roof make or equivalent) at all levels including supplying, fitting and fixing with self drilling, self tapping screws complete. (Roof trusses, purlins etc. to be measured and paid separately.)				
	c	0.50 mm thick	Sq.m.	32		
	7.36	Providing Pre Painted Galvanized Iron Sheet (PPGI) accessories like Ridges / Valley / Gutter / Flashing (Dyna roof / Sathyam/ Durakolor/ Century Wells/ Prestar/ Wonder Roof make or equivalent) at all levels including fitting and fixing self drilling, self tapping screws complete.				
	С	0.50 mm thick	m	21		
			l	Total		
		Say (I	For 1 no	of Gazebo)		
		• •		of Gazebo)		

B. Chainlink Fencing

						Rate	(Rs)	
Sl.	Item No./	Description of works in brid	ef	Unit	Quantit		Word	Amoun
No	SOR	•			y	e	S	t
	Ch-2, II, Me-			I		I		
	PWD (B)	REINFORCED CEMENT CONCRI	ETE WOR	KS				
	2015-16							
		Providing and laying Concrete in Rein					:	
		Cement Concrete Works using Concrete					 Only	
		Machine with coarse sand & 20mm do	_				: 0	
	2.5	stone aggregate including dewatering i						
	2.5	necessary, and curing complete but exc cost of form work and reinforcement for	_					
		reinforced cement concrete work (form						
1		reinforcement will be measured and pa					ees.	
1		separately)					Rupees	
	In Foundation and sub - structure including footing, columns with base, tie and plinth beam, pile cap, raft slab, base slab, RCC walls, retaining					I		
			_					
	2.5.1	walls, walls of septic tank, inspection p	oit and the					
		like and other works not less than 100r						
		up to Plinth Level. (Without using adm	ixture,					
		plasticiser)						
	(b)	M20 or Prop. 1:1.5:3						
	. ,	Taking 10m length of Fencing		Cum	0.6			
		M.S. bar (ISI Approved)						
	Ch-40, 3/	10 m length of Fencing						
2	Me-PWD (B)		2.56 qtl	Qntl	2.75			
	2015-16		0.19 qtl					
			2.75 qtl					
	G1 40 G1	Iron Angle Post						
	Ch-40, Sl.	(50mmx50mmx5mm) weight/m	0.029 at1					
3	No.9/ Me- PWD (B)	_	0.038 qtl 0.114					
	2015-16	lFor 3 nost ner 10m length	0.11 4 qtl/m					
	2013 10	Angle, Tee, Channel etc.	917111	Ontl	0.114			
	Ch-18, IV/	ringle, ree, chamerete.		Qiiti	0.111			
	· ·	CHAINLINK FENCING (for 10m L	ength)					
	2015-16		· e · /					
		Supplying, fitting and fixing chain link	fencing of					
		10 S.W.G, G.I. Wire 50mmx50mm me	sh fitted to					
		M.S angle iron post at 2000mm apart o	of					
4		specification detailed below including						
		fitting and fixing hooks, eye bolts with						
	18.8	staples and bolts including three horizon						
		of G.I wire 10 S.W.G at top, middle an						
		and with one vertical line to each fenci						
		keeping the fencing tight and erect con including one coat of primer painting to	-					
		angle iron post in P.C.C base etc. with						
		ungle from post in 1.c.c base etc. with	ronowing.]				

	(a)	Corner and end posts with M.S angle of size 50mmx50mmx 5mm and length not less than 1800mm only duly slotted and bottom torqued with two numbers as stay posts.	Sq.m	10			
	Ch-15, IV/ Me-PWD (B) 2015-16	PAINTING WORKS					
5	15.69	Painting two coats (excluding priming coat) on new steel and other metal surface with enamel paint of approved brand and manufacture(Asian paint/ Berger paint/ ICI paint/ J & N paint/ Nerolac) to give an even shade including cleaning the surface of all dirt, dust and other foreign matter.	,				
	(a)	Surfaces over 100mm in width or girth.					
	(i)	General purpose (Asian paint/ Berger paint/ ICI paint/ J & N paint/ Nerolac).	Sq.m	12.48		_	
				F	or 10 m	n length	
				For	r 1.00 m	n length	
				For 22	20.00 m		
						Total	

C. Urinal Block

Sl					Data (I	NR) in	
No	Item No/ SOR	Description of works in brief	Unit	Qty	Figure	Words	Amount
110	Ch 1/ Me- PWD (B)2015- 16	EARTH WORK			rigure	Words	
1	1.1/ Me-PWD (B)2015-16	Earthwork in excavation upto a depth of 2m below the existing ground level for foundation trenches of foundations, footings of column/ walls, retaining walls, septic tank etc. including bailing out water where necessary and removal of surplus earth with all lead and lifts as directed and specified for the following classification of soils.				RupeesOnly	
	(c)	In soft or laminated rock or medium shale	Cum	3.983			
	1.4/ Me-PWD (B)2015-16	Earthwork in filling including necessary carriage, watering, ramming etc. complete as directed and specified.					
2	1.4.1	Earth/ Sand filling in plinth in layers not exceeding 150mm thick					
	(b)	With available excavated earth including breaking of clods, consolidating each layer by ramming and watering with all lead and lifts.	Cum	2.214			
	Ch 4, I / Me- PWD (B)2015- 16	SOLING & BRICKWORK					
3	4.1/ Me-PWD (B)2015-16	Providing brick soling in foundation and under floor with stone/ best quality picked jhama brick, sand packed and laid to level and in panel after preparing the subgrade as directed including all labour and materials and if necessary dewatering, complete.					
	(a) Ch 2, I / Me- PWD (B)2015- 16	Brick on flat soling. PLAIN CEMENT WORKS	Sqm	9.970			
4	2.1	Plain cement concrete works with coarse aggregate of sizes 13mm to 32mm in foundation bed for footing steps, walls, brick works etc. as directed and specified including dewatering if necessary, and curing complete (shuttering					

		where necessary shall be measured	I	1	1	
		_				
		and paid separately).				
		In prop. 1:3: 6 (1 cement:3 coarse				
	(a)	sand :6 coarse agg. by volume	Cum	0.495		
	()	(using mixture machine)				
	Ch 2, II / Me-	(weing immedia immedia)				
	PWD (B)2015-	REINFORCED CEMENT CONC	DETE	WODKS		
	16	REINFORCED CEMENT CONC.	KEIE	WORKS		
	10	D :1: 11 : C :	I		1	1
		Providing and laying Concrete in				
		Reinforced Cement Concrete				
		Works using Concrete Mixture				
		Machine with coarse sand & 20mm				
		down graded stone aggregate				
	2.5	including dewatering if necessary,				
	2.3	and curing complete but excluding				
		cost of form work and				
		reinforcement for reinforced				
		cement concrete work (form work				
		and reinforcement will be				
		measured and paid separately)				
		In Foundation and sub - structure				
		including footing, columns with				
		base, tie and plinth beam, pile cap,				
		raft slab, base slab, RCC walls,				
	2.5.1	retaining walls, walls of septic				
		tank, inspection pit and the like and				
5		other works not less than 100mm				
		thick up to Plinth Level.				
		(Without using admixture,				
		plasticiser)				
	(b)	M20 or Prop. 1:11/2:3	Cum	1.194		
	· · · · · · · · · · · · · · · · · · ·	In Columns, pillars, posts, struts,				
		suspended floor, roof, landing,				
		shelf and support, balcony, lintel,				
		sill band, beam, girder, bressumer,				
	2.5.3					
		cantilever, staircase etc. above				
		plinth level upto 1st floor level.				
		(Without using admixture,				
		plasticiser)				
	(b)	M20 or Prop. 1:1.5:3	Cum	3.060		
		Vertical and horizontal fins				
		(thickness not more than 100mm)				
		individually or forming box louvre				
	2.5.4	and projected band above plinth				
		level upto 1st floor level.				
		(Without using admixture,				
		plasticiser)				
	(1-)	· - · · · · · · · · · · · · · · · · · ·	C	0.240		
	(b)	M20 grade concrete or prop 1:1.5:3	Cum	0.240		
6	Ch 2, IV/ Me-	SHUTTERING/ FORMWORK				
	PWD (B)2015-					

	16					
		Providing form work of ordinary				
		timber planking of thickness not				
		less than 25mm and removal of the				
		same for concrete members so as				
		to give a rough finish including				
		centering, shuttering, strutting and				
	2.10	propping etc., for height of				
		propping and centering of				
		supporting floor to the soffit of the				
		concrete member not exceeding				
		4.0M as specified for the following				
		items:				
		Foundation, footings, bases of				
	(a)	columns, pile cap, raft and mass	Sqm	4.250		
	, ,	concrete works etc.	-			
		Sides of tie beams, grade beams				
	(1-)	etc. at or below ground level	Com	2.420		
	(b)	requiring formwork	Sqm	2.420		
		at sides only.				
	(c)	Columns, Pillars, Posts & Strut				
		Square, Rectangular, polygonal in				
	(i)	plan or any shape like Tee/L etc.	Sqm	10.176		
		having plane vertical face				
		Sides and Soffits of Beams, beam				
	(d)	haunchings, cantilever girders,				
	(4)	bressumers, lintels and horizontal				
		ties.				
	(i)	For depth not exceeding 1.0M.	Sqm	5.434		
		Flat Surfaces such as soffits of				
	(e)	suspended floors, roofs, landings,				
		cantilever slabs, chajjas, balconies				
		and the like.				
	(i)	Thickness of floors/ slab upto	Sqm	7.785		
		200mm Vertical surface such as walls (any			1	
		thickness), parapet walls,				
		partitions, walls of septic tank,				
	(g)	inspection pit etc. including	Sqm	11.826		
		attached pilasters, buttresses, plinth				
		and string courses and the like.				
	Ch 2, III/ Me-	5	<u> </u>		1	<u> </u>
	PWD (B)2015-	REINFORCEMENT				
	16					
		Supplying, fitting and fixing in				
		position reinforcement bars upto				
7		1st floor level, conforming to				
	2.8	relevant I.S. Code for R.C.C. work/				
	2.0	R.B. walling including				
		straightening, cleaning, cutting and				
		bending to proper shapes and				
		length as per details, supplying and				

		11: 1: 11 000	1	1	ı	1	ı
		binding with 20G annealed black					
		wire and placing in position with					
		proper blocks, supports, chairs,					
		spacers etc. complete. (Rates					
		inclusive of all wastage, lappage,					
		hooks, chairs, anchorage etc. and					
		no measurements for the same is					
		required)					
		Other ISI approved TMT					
		reinforcement bar (of SAI/					
	(b)	BISCON/ XTECH/ THERMAX	Qntl	5.820			
		make or equivalent)					
	Ch 4, III/ Me-	inimis or equivalent					
	PWD (B)2015-	STONE MASONRY WORK					
	16	STONE WASONNE WORK					
	10	Stone masonry work in retaining					
		wall, wing wall, abutment,					
		foundation, steps, plinth etc. in					
		cement mortar in prop 1:6 with					
		levelling course of 1:6:12 with					
		unsize stone / Mawthup both faces					
8	4.11	hammer dressed including					
		bonding, providing face stone,					
		through stone and centering					
		including racking of joints, curing					
		and supplying and all carriage of					
	(1)	stone as directed.					
	(b)	Coursed Rubble Masonry					
	(ii)	In Super-structure above Plinth Level	Cum	0.935			
	Ch 2, I/ Me-	Level					
	PWD (B)2015-	NA ANA CEMENTE WORKS					
	16	PLAIN CEMENT WORKS					
	10	D :1: 11 : 25 41:1	1	1	I	1	1
		Providing and laying 25mm thick					
		damp proof course with cement					
		concrete in prop					
9		1:1.5:3 with graded stone					
	2.30	aggregate of 10mm down nominal	Sqm	1.540			
		size including providing approved					
		damp proof admixture in					
		proportion as recommended by the					
		manufacturer including curing etc.					
	C1 4 777/24	complete as directed.					
	Ch 4, III/ Me-			DY 0 =:=			
	PWD (B)2015-	AUTOCLAVE AERATED CONC	CRETE	BLOCK			
	16			1	I	ı	
		150mm thick wall using Autoclave					
10		Aerated Concrete Block (AAC					
		block) conforming to IS-2185		0.50-			
	4.18	(Part-III) in cement mortar in prop	Sqm	8.585			
		1:5 (1 cement : 5 sand) including					
		racking out joints and curing					
		complete as per specification and					

(a) (iii) Ch 10, I/ Me-WD (B)2015-16 10.1	required complete as specified and directed for all levels. (Glass panes included, Cement concrete to be measured and paid separately). Side hung and Top hung openable windows and ventilators 5mm frosted glass PVC DOORS & DOOR FRAMES Providing, fitting and fixing 40mm x 48mm wood reinforced PVC chowkat fixed to the columns / stiffeners / walls with necessary holdfast / sleeves etc. as specified and directed at all levels. Providing, fitting and fixing 24mm/ 29mm thick polymer reinforced moulded PVC door shutters fixed to the chowkat with necessary hinges, screws, bolts etc. as specified and directed at all levels (Door fixtures and fittings to	Sqm (CHO	0.750 WKHAT)		
(iii) Ch 10, I/ Me- WD (B)2015- 16	directed for all levels. (Glass panes included, Cement concrete to be measured and paid separately). Side hung and Top hung openable windows and ventilators 5mm frosted glass PVC DOORS & DOOR FRAMES Providing, fitting and fixing 40mm x 48mm wood reinforced PVC chowkat fixed to the columns / stiffeners / walls with necessary holdfast / sleeves etc. as specified and directed at all levels.	(СНО	WKHAT)		
(iii) Ch 10, I/ Me- WD (B)2015-	directed for all levels. (Glass panes included, Cement concrete to be measured and paid separately). Side hung and Top hung openable windows and ventilators 5mm frosted glass)		
	directed for all levels. (Glass panes included, Cement concrete to be measured and paid separately). Side hung and Top hung openable windows and ventilators	Sqm	0.750			
(a)	directed for all levels. (Glass panes included, Cement concrete to be measured and paid separately). Side hung and Top hung openable					
	directed for all levels. (Glass panes included, Cement concrete to be					
WD (B)2015- 16	Providing, fitting and fixing anodised aluminium windows and ventilators of standard sections without horizontal glazing bars joints mitred and welded (manufactured to relevant IS specifications) fitted with 6mm x 3.15mm lugs 100mm long embedded in CC blocks 150mm x 100mm x 100mm in 1:3:6 mix including providing and fixing handles, frictions stays, joining cleat, bolting device, locking arrangement, spring catch as	S				
Ch 9, I/ Me-		~				
	•					
	plinth up to 1st floor level (protruding rod is to be provided at					
	VD (B)2015- 16	every 3 course interval and will be measured and paid separately). Ch 9, I/ Me-VD (B)2015- 16 Providing, fitting and fixing anodised aluminium windows and ventilators of standard sections without horizontal glazing bars joints mitred and welded (manufactured to relevant IS specifications) fitted with 6mm x 3.15mm lugs 100mm long embedded in CC blocks 150mm x 100mm x 100mm in 1:3:6 mix including providing and fixing handles, frictions stays, joining	plinth up to 1st floor level (protruding rod is to be provided at every 3 course interval and will be measured and paid separately). Ch 9, I/ Me- WD (B)2015- 16 Providing, fitting and fixing anodised aluminium windows and ventilators of standard sections without horizontal glazing bars joints mitred and welded (manufactured to relevant IS specifications) fitted with 6mm x 3.15mm lugs 100mm long embedded in CC blocks 150mm x 100mm x 100mm in 1:3:6 mix including providing and fixing handles, frictions stays, joining	plinth up to 1st floor level (protruding rod is to be provided at every 3 course interval and will be measured and paid separately). WINDOWS AND VENTILATORS Broviding, fitting and fixing anodised aluminium windows and ventilators of standard sections without horizontal glazing bars joints mitred and welded (manufactured to relevant IS specifications) fitted with 6mm x 3.15mm lugs 100mm long embedded in CC blocks 150mm x 100mm x 100mm in 1:3:6 mix including providing and fixing handles, frictions stays, joining	plinth up to 1st floor level (protruding rod is to be provided at every 3 course interval and will be measured and paid separately). WINDOWS AND VENTILATORS WINDOWS AND VENTILATORS Providing, fitting and fixing anodised aluminium windows and ventilators of standard sections without horizontal glazing bars joints mitred and welded (manufactured to relevant IS specifications) fitted with 6mm x 3.15mm lugs 100mm long embedded in CC blocks 150mm x 100mm x 100mm in 1:3:6 mix including providing and fixing handles, frictions stays, joining	plinth up to 1st floor level (protruding rod is to be provided at every 3 course interval and will be measured and paid separately). Ch 9, I/ Me- WD (B)2015- 16 Providing, fitting and fixing anodised aluminium windows and ventilators of standard sections without horizontal glazing bars joints mitred and welded (manufactured to relevant IS specifications) fitted with 6mm x 3.15mm lugs 100mm long embedded in CC blocks 150mm x 100mm x 100mm in 1:3:6 mix including providing and fixing handles, frictions stays, joining

			ı		ı	T
		20 mm thick Cement plaster on				
		rough side in two coats (backing				
		coat 15 mm and finishing coat				
		5mm thick) on single or half brick				
		walls for interior plastering up to				
	5 A	1st floor level including arises,				
	5.4	internal rounded angles, chamfers				
		and / or rounded angles not				
		exceeding 80mm in girth and				
		finished even and smooth				
		including curing complete as				
		directed.				
	(h)	In cement mortar 1:4	Cam	11.531		
	(b)		Sqm	11.331		
		20 mm thick Cement plaster on fair				
		side in two coats (backing coat				
		10mm and finishing coat 10mm				
		thick) on single or half brick walls				
		for interior plastering up to 1st				
	5.5	floor level including arises, internal				
		rounded angles, chamfers and / or				
		rounded angles not exceeding				
		80mm in girth and finished even				
		and smooth including curing				
		complete as directed.				
	(b)	In cement mortar 1:4	Sqm	26.036		
		Extra over item no 5.1 to 5.6 for				
		plastering on celling and soffits of				
	5.7	stairs up to 1 st floor level (instead	Sqm	8.897		
		of plastering on walls) including				
		curing complete as directed.				
	Ch 19/ Me-		I		I	
	PWD (B)2015-	PLINTH PROTECTION & DRAI	NS			
	16		- 1.0			
		Plinth Protection by providing				
		Brick flat laid in cement mortar in				
		prop 1:4 (1cement : 4coarse sand)				
		with a layer of 15mm thick cement				
	19.2	plaster in prop 1:2 and finishing	Sqm	13.890		
	-	with a floating coat of neat cement	1			
		including necessary levelling and				
		preparing the subgrade complete as				
14		directed.				
		Providing CC/ Brick/ Stone Open				
		Surface Drain with 15mm thick				
		cement plastering in prop. 1:3				
		finished with a floating coat of				
		cement slurry as directed with				
	19.4	I				
		necessary shuttering for sides and earth work in excavation of				
		foundation trenches and refilling				
1		the sides after completion of work	Ì	Ì	Ī	1
		etc. as specified.				

		With cement concrete (1:3:6)	I				
		1					
	(a)	having 100mm thick sides and					
	. ,	100mm thick bed laid over brick					
		flat soling.					
	(i)	300mm wide and average 150mm	R.m.	8.350			
		deep	Ttilli.	0.550			
	Ch 22, I / Me-						
	PWD (B)2015-	WATER PROOFING					
	16						
		Providing, supplying, mixing and					
		chamfering the edges along joint of					
		wall/ parapet wall and raft/ roof					
		slab having chamfered dimension					
		of 150mm x 150mm with cement					
		sand mortar (prop.1:4) mixed with					
		Master Proof IWP-1 of Choksey					
		Chemicals /Dr. Sealkit No. 1 of					
		(Asian Chemicals)/ RHEOMAC					
15		707 of BASF@ 0.2% by weight of					
	22.4	cement over a primer coat on the	Sqm	10.600			
	22.4	area to be chamfered with a	Sqiii	10.000			
		combination of 100% acrylic					
		Polymer Master Crete M-81/Dr.					
		Sealkit Sealcrete (Asian					
		Chemicals) / RHEOMAC 115 of					
		BASF of Choksey Chemicals and					
		cement in the ratio 1:2 to be					
		applied by brush as specified &					
		directed by the Department					
		complete.					
	Ch3, VIII /						
	Me-PWD	VITRIFIED TILES					
	(B)2015-16						
	3.28	Providing polished VITRIFIED					
		wall tiles of Somany/ Orient/					
		Nitco/ Qutone make or equivalent					
		of approved quality, size, shape					
		and thickness not less than 8mm on					
		walls and skirting over cement					
		mortar bed 10 mm thick in prop.					
16		1:3 (1 cement : 3 coarse sand)					
		including cutting where necessary					
		finished with flush pointing with					
		Fix-A-Tile (Choksey / Sika /					
		Pidilite / Rouf) or white cement					
		slurry mixed with approved					
		pigment to match shade of tiles					
		complete at all levels as specified					
		and directed. (Cement plastering to					
		be measured and paid separately).					
	(a)	Regular range	Sqm	9.708			
	(/	υ υ ⁻	-1	1	<u> </u>	<u> </u>	<u> </u>

			T	T	T	ı	Г
		Providing VITRIFIED floor tiles					
		of Somany/ Orient/ Nitco/ Qutone					
		make or equivalent of approved					
		quality of specified size, shape and					
		thickness not less than 18mm on					
		floors, skirting, risers and treads of					
		steps over 15 mm thick base of					
		cement mortar in prop. 1:3 (1					
		cement: 3 coarse sand) including					
		cutting where necessary finished					
		with flush pointing with Fix-A-Tile					
	3.27	(Choksey/Sika/Pidilite/Rouf) /					
		white cement slurry mixed with					
		approved pigment to match shade					
		of tiles, mixed with approved					
		pigment to match the shade of the					
		tiles, complete at all levels as					
		specified and directed. (Cement					
		plastering to be measured and paid					
		separately). (Coloured pigment					
		should be in conformity with					
		colour of tiles and as approved and					
		directed by the Department)					
	(0)	Regular range	Sam	5.153			
	(a)	Regular range	Sqm	3.133			
	Ch15, V/Me-	CENTENT DANIE A DOMEST					
	PWD (B)2015-	CEMENT PAINT & PRIMER					
	16	T: 11 11 11 1	<u> </u>	I	I		
		Finishing wall with water proofing					
	15.30	cement paint of approved brand					
		and manufacture and of required					
		shade on old wall surface (one	Sqm	37.567			
17		coats) to give an even shade after	1				
		thoroughly brooming the surfaces					
		to remove all dirt and remains of					
		loose or softened paint.					
		Extra over item no. 15.29 and					
	15.31	15.30 above for every subsequent		37.567			
		coat of water proofing cement	Sqm				
		paint of approved brand and					
		manufactured.					
	Ch38, II / Me-						
	PWD (B)2015-	PIPING					
	16		ı	ı	ı	1	T
		Supplying fitting and fixing UPVC					
		Pipes with all necessary fittings					
		(Using uPVC high pressure pipes					
18		& fittings of SUPREME/ PRINCE/					
	38.8	SFMC/ FUSION brand or					
		equivalent) in exposed or					
		intrenches including trenching and					
		refilling the same etc. complete as					
	(i)	refilling the same etc. complete as	R.m.	3.8			

Supplying fitting and fixing UPVC Pipes with all necessary fittings (Using uPVC high pressure pipes & fittings of SUPREME/ PRINCE/ SFMC/ FUSION brand or equivalent) in exposed or in trenches including trenching and refilling the same etc. complete as directed 20mm diameter (Drawing water pipe line from supply pipe line to the Urinal Block) Ch38, I/Me- PWD (B)2015- 16 Supplying and placing plastic
(Using uPVC high pressure pipes & fittings of SUPREME/ PRINCE/ 38.8 SFMC/ FUSION brand or equivalent) in exposed or in trenches including trenching and refilling the same etc. complete as directed 20mm diameter (Drawing water pipe line from supply pipe line to the Urinal Block) Ch38, I / Me- PWD (B)2015- 16 WATER TANK
8 fittings of SUPREME/ PRINCE/ SFMC/ FUSION brand or equivalent) in exposed or in trenches including trenching and refilling the same etc. complete as directed 20mm diameter (Drawing water pipe line from supply pipe line to the Urinal Block) Ch38, I / Me- PWD (B)2015- 16 WATER TANK
38.8 SFMC/ FUSION brand or equivalent) in exposed or in trenches including trenching and refilling the same etc. complete as directed (b) 20mm diameter (Drawing water pipe line from supply pipe line to the Urinal Block) Ch38, I / Me-PWD (B)2015-16 WATER TANK
equivalent) in exposed or in trenches including trenching and refilling the same etc. complete as directed 20mm diameter (Drawing water pipe line from supply pipe line to the Urinal Block) Ch38, I / Me-PWD (B)2015-16 WATER TANK
trenches including trenching and refilling the same etc. complete as directed 20mm diameter (Drawing water pipe line from supply pipe line to the Urinal Block) Ch38, I / Me-PWD (B)2015-16 WATER TANK
trenches including trenching and refilling the same etc. complete as directed 20mm diameter (Drawing water pipe line from supply pipe line to the Urinal Block) Ch38, I / Me-PWD (B)2015-16 WATER TANK
refilling the same etc. complete as directed 20mm diameter (Drawing water pipe line from supply pipe line to the Urinal Block) Ch38, I / Me-PWD (B)2015-16 WATER TANK
directed 20mm diameter (Drawing water pipe line from supply pipe line to the Urinal Block) Ch38, I / Me-PWD (B)2015-16 WATER TANK
(b) (Drawing water pipe line from supply pipe line to the Urinal Block) Ch38, I / Me-PWD (B)2015-16 WATER TANK
(b) (Drawing water pipe line from supply pipe line to the Urinal Block) Ch38, I / Me-PWD (B)2015-16 WATER TANK
Supply pipe line to the Urinal Block) Ch38, I / Me-PWD (B)2015- WATER TANK 16
Ch38 , I / Me- PWD (B)2015- 16 WATER TANK
Ch38, I / Me- PWD (B)2015- 16 WATER TANK
PWD (B)2015- WATER TANK 16
16
Supplying and placing plastic
cylindrical vertical closed top
(PCVC) tank of Sintex / Polycon /
Patton make over the staging with
manhole cover with locking and
cleaning arrangement including
providing pads of size as required
for inlet and outlet pipes
(d) 500 litre capacity Each 1
Ch34, IX/
Me-PWD WASH BASIN (B)2015-16
21 (B)2013-16 (B)2013-
(ii) Medium Each 1
(ii) Medium Each 1 Ch34, VI /
(ii) Medium Each 1 Ch34 , VI / Me-PWD URINAL
(ii) Medium Each 1 Ch34 , VI / Me-PWD URINAL (B)2015-16
(ii) Medium Each 1 Ch34 , VI / Me-PWD URINAL (B)2015-16 Providing fitting and fixing
(ii) Medium Each 1 Ch34 , VI / Me-PWD URINAL (B)2015-16 Providing fitting and fixing vitreous china flat back type lipped
(ii) Medium Each 1 Ch34 , VI / Me-PWD URINAL (B)2015-16 Providing fitting and fixing vitreous china flat back type lipped front urinal basin with standard
(ii) Medium Each 1 Ch34 , VI / Me-PWD URINAL (B)2015-16 Providing fitting and fixing vitreous china flat back type lipped front urinal basin with standard flush pipe and CP brass spreader
(ii) Medium Each 1 Ch34, VI / Me-PWD URINAL Providing fitting and fixing vitreous china flat back type lipped front urinal basin with standard flush pipe and CP brass spreader and brass unions, etc. complete
(ii) Medium Each 1 Ch34, VI / Me-PWD URINAL Providing fitting and fixing vitreous china flat back type lipped front urinal basin with standard flush pipe and CP brass spreader and brass unions, etc. complete including painting of fittings and
(ii) Medium Each 1 Ch34, VI / Me-PWD URINAL Providing fitting and fixing vitreous china flat back type lipped front urinal basin with standard flush pipe and CP brass spreader and brass unions, etc. complete including painting of fittings and brackets, cutting and making good
(ii) Medium Each 1 Ch34 , VI / Me-PWD (B)2015-16 Providing fitting and fixing vitreous china flat back type lipped front urinal basin with standard flush pipe and CP brass spreader and brass unions, etc. complete including painting of fittings and brackets, cutting and making good the walls & floors wherever
(ii) Medium Each 1 Ch34, VI / Me-PWD (B)2015-16 Providing fitting and fixing vitreous china flat back type lipped front urinal basin with standard flush pipe and CP brass spreader and brass unions, etc. complete including painting of fittings and brackets, cutting and making good the walls & floors wherever required.
(ii) Medium Each 1 Ch34, VI / Me-PWD (B)2015-16 Providing fitting and fixing vitreous china flat back type lipped front urinal basin with standard flush pipe and CP brass spreader and brass unions, etc. complete including painting of fittings and brackets, cutting and making good the walls & floors wherever required. (a) White
(ii) Medium Each 1 Ch34, VI / Me-PWD (B)2015-16 Providing fitting and fixing vitreous china flat back type lipped front urinal basin with standard flush pipe and CP brass spreader and brass unions, etc. complete including painting of fittings and brackets, cutting and making good the walls & floors wherever required. (a) White Medium
(ii) Medium Each 1 Ch34 , VI / Me-PWD (B)2015-16 Providing fitting and fixing vitreous china flat back type lipped front urinal basin with standard flush pipe and CP brass spreader and brass unions, etc. complete including painting of fittings and brackets, cutting and making good the walls & floors wherever required. (a) White (ii) Medium (iii) Each 1 Leach 2 Leach 1 Leach 2 Leach 1 Le
(ii) Medium Each 1 Ch34 , VI / Me-PWD (B)2015-16 Providing fitting and fixing vitreous china flat back type lipped front urinal basin with standard flush pipe and CP brass spreader and brass unions, etc. complete including painting of fittings and brackets, cutting and making good the walls & floors wherever required. (a) White (ii) Medium (iii) Each 1 LEach 1 LEach 1 LEach 2 Each 2
(ii) Medium Each 1 Ch34 , VI / Me-PWD (B)2015-16 Providing fitting and fixing vitreous china flat back type lipped front urinal basin with standard flush pipe and CP brass spreader and brass unions, etc. complete including painting of fittings and brackets, cutting and making good the walls & floors wherever required. (a) White (ii) Medium (iii) Each 1 Leach 2 Leach 1 Leach 2 Leach 1 Le

	approved uPVC Pipes of				
36.2	SUPREME/ PRINCE/ SFMC BRAND or other equivalent ISI approved brand (High pressure pipe Sch- 40), of following sizes, with all necessary 'R' brand or similar approved P.V.C. Fittings such as bend, tee, elbow, reducer, nipple, plug, long screw fitting, clamps etc. and fixing the pipe with clamps at 1.00m spacing/ cutting chases and making good the damages, testing of joints				
	complete as directed.				
(a)	Exposed or in trenches				
(iv)	25 mm dia	R.m.	1		
Sub Total (1)					
Adding 10% for W/S and electrification on Sub Total (1)			Sub Total (2)		
Grand Total [Sub Total (1) and (2					
				Total	

D. Approach Road

GI.	T. N.				Ra	ate	
Sl No	Item No/ SOR	Description of works in brief	Unit	Qty	Figu re	Wor ds	Amou nt
	Ch-11, Me- PWD (R) 2015-16	FOUNDATION (Boulder)					
1	11.22	Boring 150/100/50 mm diameter bore through soil/clay/sandy strata consisting of silt, sand, clay and gravel upto 25 mm size till refusal and collection of samples at the change strata or at 2.00 m interval whichever is earlier				Rupees	
	3	Boring 50 mm diameter bore through Hard Rock.					
	I	Upto 5.00 m depth	Rm	6.00			
2	Ch-11, Me- PWD (R) 2015-16	BASIC RATE OF MATERIALS					
	74	Mild Steel Bars (20mm dia)	Kg	88.92			
	Ch-32,V/ Me-PWD (B) 2015- 16	INJECTION GROUTING					
3	32.5	Drilling 12mm dia x 100mm hole into the concrete surface using concrete hammer drill machine. Providing 10mm PGMS nozzles in a grid of 0.25m both and injecting with high strength cementitous grout- Cebex 100 /Sika Intraplast EP or equivalent product till completion and refusal of grout complete as per manufacturer's specifications. The nozzles are to be sealed off after grouting using Renderoc Plug/Sika -2 mortar or equivalent products injecting with high strength cementitious grout- Cebex 100 /Sika Intraplast EP or equivalent product of Fosroc complete as per the specifications of the manufacturer.	Per hole	20.00			
	Ch-4, III/ Me-PWD (B) 2015- 16	STONE MASONRY WORK					
4	4.11	Stone masonry work in retaining wall, wing wall, abutment, foundation, steps, plinth etc. in cement mortar in prop 1:6 with levelling course of 1:6:12 with unsize stone / Mawthup both faces hammer dressed including bonding, providing face stone, through stone and centering including racking of joints, curing and					

		supplying and all carriage of stone as directed.					
	(a)	Random Rubble Masonry					
	(ii)	In Super-structure above Plinth Level	cu.m.	18.00			
	Ch-2, II/ Me-PWD (B) 2015- 16	REINFORCED CEMENT CONCRETE V					
5	2.5	Providing and laying Concrete in Reinforced Cement Concrete Works using Concrete Mixture Machine with coarse sand & 20mm down graded stone aggregate including dewatering if necessary, and curing complete but excluding cost of form work and reinforcement for reinforced cement concrete work (form work and reinforcement will be measured and paid separately)					
	2.5.1	In Foundation and sub - structure including footing, columns with base, tie and plinth beam, pile cap, raft slab, base slab, RCC walls, retaining walls, walls of septic tank, inspection pit and the like and other works not less than 100mm thick up to Plinth Level. (Without using admixture, plasticiser)					
	(b)	M20 or Prop. 1:11/2:3	cu.m.	2.70			
	Ch-2, III/ Me-PWD (B) 2015- 16	REINFORCEMENT					
6	2.8 (a)	Supplying, fitting and fixing in position reinforcement bars upto 1st floor level, conforming to relevant I.S. Code for R.C.C. work/ R.B. walling including straightening, cleaning, cutting and bending to proper shapes and length as per details, supplying and binding with 20G annealed black wire and placing in position with proper blocks, supports, chairs, spacers etc. complete. (Rates inclusive of all wastage, lappage, hooks, chairs, anchorage etc. and no measurements for the same is required) From Primary Sources like TATA/ SAIL/ ESSAR/ JINDAL/ SHYAM/ RINL					
	(i)	TMT Corrosion resistant steel (CRS) reinforcement bar	Qntl.	1.20			
7	Ch-17, I/ Me-PWD	STRUCTURAL STEELWORKS, BEAMS	S AND J	OISTS	ı	ı	

	(B) 2015-					
	16					
	17.1	Structural steel work in single sections including cutting, hoisting, fixing in position and applying a priming coat of red lead paint (up to 4.6m height) from plinth level including drilling holes, supplying, fitting and fixing with bolts and nuts or welding, if necessary as directed.				
	(b)	In flat up to 25mm thickness	Qntl.	2.55		
	(0)	(Size of nuts & bolts: 16mm dai x 140 mm long, 256 nos.) Steel work riveted and/ or bolted/ riveted	QIIII.	2.33		
	17.2	in built up sections, frame work including cutting, hoisting, fixing in position and applying a priming coat of red-lead paint up to 4.6m height above plinth including drilling holes, supplying, fitting and fixing with bolts and nuts or welding, if necessary as directed.				
	(a)	In beams and joists with connecting plates/ angle cleats	Qntl.	26.31		
		RS Joist (150mmx75mmx5mm)				
		i) For Column (Quantity)= 8.37 qntl				
		ii) For Step Girder (Quantity)= 8.85 qntl				
		iii) MS Angle (50mm x 50mm x 5mm) bracing and belting on RS Joist Post (Quantity): 3.63 qntl				
		iv) (25mm x 25mm x 5mm) angle of Steps on RS Joist step girder (Quantity): 5.46 qntl				
	Indiamart	v) aluminum checkered plate in Steps (Quantity)= 516.38 kg	Kg	516.38		
	Ch-17, IV, Me-PWD (B) 2015- 16	STRUCTURAL STEEL & ALLIED WOR	RKS			
8	17.8	Providing and fixing M.S. tube hand rail of approved size by welding etc. to steel ladder railing, balcony railing, staircase railing and similar works, including applying priming coat of approved steel primer.	kg.	518.08		
		MS round Tube: (32mm dia.= 378.60 kg ,10mm dia.= 101.68kg)				
	o1 1 =	MS Black Flat: 37.80 kg				
9	Ch-15, X, Me-PWD (B) 2015- 16	PAINTING ON STEEL AND OTHER MI	ETAL SU	URFACE	 	

	Painting two coats (excluding priming				
	coat) on new steel and other metal surface				
	with enamel paint of approved brand and				
15.69	manufacture (Asian paint/ Berger paint/				
	ICI paint/ J & N paint/ Nerolac) to give an				
	even shade including cleaning the surface				
	of all dirt, dust and other foreign matter.				
(a)	Surfaces over 100mm in width or girth.				
(i)	General purpose (Asian paint/ Berger	gam	259.38		
(i)	paint/ ICI paint/ J & N paint/ Nerolac).	sqm	239.30		
•				Total	

E. Children's Park Development

~-					Ra	nte	
Sl No	Item No/ SOR	Description of works in brief	Unit	Qty	Figu	Wor	Amou
110	SUK				re	ds	nt
		DISMANTALING & DISPOSAL	OF DEI	BRIS			
	Ch-23, Me-						
	PWD (B)	DISMANTLING AND DEMOLISHING	WORKS				
	2015-16	2 W/ H			T		
	23.7	i) Wall					
		Demolishing brickwork including stacking of serviceable materials and disposal of				ees	
		unserviceable materials as directed for all	cu.m. 9.68	o			
		levels		cu.m. 9.68		Ruj	
		(Also filling up of low land wherever	1				
		necessary)					
1	23.3	ii) Existing Toilet Block including Septic					
	23.3	Tank Slab					
		Demolishing RCC work including stacking					
		of steel bars and disposal of unserviceable	cu.m.	26.50			
		material as directed for all levels					
	23.12	iii) At Entry Point					
		Dismantling all types of corrugated/					
		trapezoidal sheet roofing including ridges,		0.50			
		hips, valleys and gutters etc. and stacking	sq.m.	8.50			
		the materials as directed by the department					
		for all levels STONE RETAINING W	ATT				
	Ch-4, III/	STONE RETAINING W	ALL				
	Me-PWD						
	(B) 2015-	STONE MASONRY WORK					
	16						
		Stone masonry work in retaining wall,					
		wing wall, abutment, foundation, steps,					
		plinth etc. in cement mortar in prop 1:6					
		with levelling course of 1:6:12 with unsize					
	4.11	stone / Mawthup both faces hammer					
		dressed including bonding, providing face					
		stone, through stone and centering					
2		including racking of joints, curing and					
		supplying and all carriage of stone as					
		directed. Random Rubble Masonry (<i>refer the</i>					
	(a)	proposed diagram)					
	(ii)	In Super-structure above Plinth Level					
	(11)	A. (For the length of 29m and 1.8m					
		height)	cu.m.	35.67			
		B. (For the length of 7m and 1.5m height)	cu.m.	6.45			
		C. (For the length of 7m and 1.2m height)	cu.m.	4.55			1
		D. (For the length of 35m and 0.8 m					1
		height)	cu.m.	12.25			
	i	E. (For the length of 20m and 0.8 m	cu.m.	7.00			

		height)				
		EARTH FILLING	1	1 1	1	1
3	Ch-1, 1.4/ Me-PWD (B) 2015- 16	Raising low site around the building with approved soil obtained from outside by truck carriage upto 8 km including breaking clods, dressing etc. complete as directed by Engineer-in-charge	cu.m.	250.0		
		FOOTHPATH & STE	PS		•	•
	Ch-26, II/ Me-PWD (B) 2015- 16	JUNGLE CLEARING & TREE CUTTIN	G			
4	26.3	Jungle clearing including cutting bamboo and trees below 500 mm girth and removing the same outside the limit as directed.				
	(b)	Medium Jungle	Sqm	329.0		
	26.5	Surface dressing of ground including removing vegetation and/ or undulation of ground not exceeding 150 mm deep and disposal of rubbish outside the periphery and lift up to 1800mm in all kinds of soil.	Sqm	329.0 0		
	Ch-3, XVIII/ Me-PWD (B) 2015- 16	INTERLOCKING PAVER BLOCK				
5	3.54	Providing and laying of inter locking concrete block for pavement with cement concrete paver blocks as per IS 15658-2006 of thickness 80mm and 28 days compressive strength not less than 30 N/m over a layer of bedding sand of compacted thickness 30mm, laid either in stretcher/running/herringbone pattern of bonds as directed by the engineer and in proper level and grade and compacted with appropriate equipment such as plat vibrator along with spreading of a thin layer of joint filling sand to fill up the gaps between blocks complete.	Sqm	550.0		
		(Concrete color paver block)				
	Ch-1/ Me- PWD (B) 2015-16	EARTH WORK				
6	1.1	Earthwork in excavation upto a depth of 2m below the existing ground level for foundation trenches of foundations, footings of column/ walls, retaining walls, septic tank etc. including bailing out water where necessary and removal of surplus				

		earth with all lead and lifts as directed and					
		specified for the following classification of					
		soils.					
		30113.					
	()	Y 1' '1		4.02			
	(a)	In ordinary soil	cu.m.	4.83			
	Ch-4, III/						
	Me-PWD	STONE MASONRY WORK					
	(B) 2015-						
	16	C4	1	1	1	1	I
		Stone masonry work in retaining wall,					
		wing wall, abutment, foundation, steps,					
		plinth etc. in cement mortar in prop 1:6					
7		with levelling course of 1:6:12 with unsize					
	4.11	stone / Mawthup both faces hammer					
		dressed including bonding, providing face					
		stone, through stone and centering					
		including racking of joints, curing and					
		supplying and all carriage of stone as directed.					
	(a)	Random Rubble Masonry					
	(a) (ii)	In Super-structure above Plinth Level	011 100	7.48			
	(11)	DRAINS (alongside Toi	cu.m.	7.40			
	Ch-19, I/	DRAINS (alongside 10)	let)	1	1	1	1
	Me-PWD						
	(B) 2015-	PLINTH PROTECTION & DRAINS					
	(в) 2013- 16						
	10	Providing CC/ Brick/ Stone Open Surface					
		Drain with 15mm thick cement plastering					
		in prop. 1:3 finished with a floating coat of					
		cement slurry as directed with necessary					
8	19.4	shuttering for sides and earth work in					
0		excavation of foundation trenches and					
		refilling the sides after completion of work					
		etc. as specified.					
		With Stone masonry work in cement					
		mortar in proportion 1:6 with 100mm thick					
	(c)	side walls and base and 100 mm thick					
		C.C.(1:3:6) base					
	(ii)	300mm wide and average 250mm deep	R.m.	11.50			
	(**)	BRIDGE	1	11.00	j	j	<u> </u>
		(Drain Cover on Approach Road & n	ear Toile	et Block)			
	Ch-2, II/	(
	Me-PWD						
	(B) 2015-	REINFORCED CEMENT CONCRETE V	WURKS				
	16						
0		Providing and laying Concrete in					
9		Reinforced Cement Concrete Works using					
	2.5	Concrete Mixture Machine with coarse					
	2.5	sand & 20mm down graded stone					
		aggregate including dewatering if					
		necessary, and curing complete but					
					1	i .	

		excluding cost of form work and	1	1	I	1
		reinforcement for reinforced cement				
		concrete work (form work and				
		reinforcement will be measured and paid				
		separately)				
		In Columns, pillars, posts, struts,				
		suspended floor, roof, landing, shelf and				
		support, balcony, lintel, sill band, beam,				
	2.5.3	girder, bressumer, cantilever, staircase etc.				
		above plinth level upto 1st floor level.				
		(Without using admixture, plasticiser)				
		M15 or Prop. 1:2:4 (For Non-structural				
	(a)	Works)	cu.m.	1.29		
	Ch 2 III/	Works)				
	Ch-2, III/ Me-PWD					
		REINFORCEMENT				
	(B) 2015-					
	16			1	ı	ı
		Supplying, fitting and fixing in position				
		reinforcement bars upto 1st floor level,				
		conforming to relevant I.S. Code for				
		R.C.C. work/ R.B. walling including				
		straightening, cleaning, cutting and				
		bending to proper shapes and length as per				
	2.8	details, supplying and binding with 20G				
		annealed black wire and placing in position				
		with proper blocks, supports, chairs,				
		spacers etc. complete. (Rates inclusive of				
		all wastage, lappage, hooks, chairs,				
		anchorage etc. and no measurements for				
		the same is required)				
		From Primary Sources like TATA/ SAIL/				
	(a)	ESSAR/ JINDAL/ SHYAM/ RINL				
		TMT Corrosion resistant steel (CRS)				
	(i)	reinforcement bar	Qntl.	0.692		
	Ch 2 IV/	Termoreement oar				
	Ch-2, IV/					
	Me-PWD	SHUTTERING/ FORMWORK				
	(B) 2015-					
	16	D :1: 6 1 010	1		ı	ı
		Providing form work of 12mm thick				
		Plywood Board and removal of the same				
		for concrete members so as to give a rough				
		finish including centering, shuttering,				
	2.11	strutting and propping etc., for height of				
		propping and centering of supporting floor				
		to the soffit of the concrete member not				
		exceeding 4.0M as specified for the				
		following items:				
		Columns, Pillars, Posts & Strut of square/				
		rectangular/ polygonal in plan or any		0.000		
	(a)	shape like Tee/L etc. having plane vertical	Sqm	9.000		
		face				
1			I.		i .	
		GATE				

	C1 10 X//					
	Ch-18, V/					
	Me-PWD	HEAVY DUTY IRON GATE				
	(B) 2015-	ILLIVI DOTT INOT GITTE				
	16					
10	18.9	Supplying, fitting and fixing double leaf heavy duty iron gate, frame made from 50mm x 50 mm x 6mm M.S. flat iron with another horizontal flat at the middle, 20mm dia M.S bars at 200mm apart from bottom flat to top flat and 20 mm dia M.S. bars at 200mm apart from bottom flat to middle flat including drilling, welding etc. complete. All vertical bars are to be protruded at least 100mm above the middle and top flat is to be flattened and pointed as directed. Necessary locking arrangement on both faces, arrangement for temporary closing the gate and 2 nos. (minimum) strong iron hinges of M.S bars and flat of same sizes on each leaf to be embedded in	Qntl.	1.45		
		C.C brick pillars as necessary including a red oxide painting to all iron works as directed and specified. (Separate payment will be made for posts).				
		SITE DEVELOPMEN	T			
	Ch-20, I/					
	Me-PWD	LAWN MAKING BY DIBBLING				
	(B)2015-16					
11	20.1/ Me- PWD (B)2015-16	Supplying and dibbling of selected lawn grass after preparing the land by ploughing/ working to a depth of 40-45 cm, removing of all unwanted debris (rubbles, pebbles, plant roots etc.), mixing of organic manure (10- 15 kg/sq.m), levelling the surface and initial maintenance by proper and periodic rolling, mowing and irrigation etc. (as specified) including the application of recommended dose of fertilizers (N:P:K)				
		mixture as specified and directed by the				
		department.				
	(b)	Carpet grass (Axonopus affinis)	Sqm	80		
	Ch-20, V/ Me-PWD (B) 2015-	HEDGE PLANTING / EXTERNAL HED	GE			
12	20.8	Supplying and planting of suitable plant materials for preparation protective / external hedge (50 cm wide) including the preparation of the ground by mixing organic manure and fertilizers as per specification and necessary maintenance for a period of one year from the date of				

		planting complete as specified and directed					
	(a)	Adopting single row planting method					
	(ii)	Thuja / Ixora	Each	150.0 0			
	Ch-20, IV/ Me-PWD (B) 2015- 16	BED PLANTING		<u> </u>			
13	20.7	Supplying and planting of Dahlia / Chrysanthemum / Gladiolus on the ground (bed planting, bed size 45 cm x 45 cm x 45 cm) including the preparation of the soil, providing organic manure and fertilizer, pesticides as per specification and necessary maintenance for a period of 4 months from the date of planting complete as specified and directed.	Each	120.0			
	Ch-20, III/ Me-PWD (B) 2015- 16	POTTED PLANTS					
14	20.3	Supplying and planting of terrestrial orchids with required size of pot including filling the pot to the top surface with appropriate soil media made of garden soil, river sand, cowdung, leaf mould, fertilizer, pesticides as per specification and necessary maintenance for a period of 4 months from the date of planting complete as specified and directed. (Mixing of different ingredients of soil media to be made in presence of Deptt. official / Specialist concerned)					
	(a)	With Aerides					
	(i)	Using earthen pot of 30 cm dia.	Each	80.00			
15	Non SOR	Carrying and handling charges of Plantaion items	LS				
16	India Mart	Designer Street Light Pole with Solar LED	Each	12			
					· .	Γotal	

F. Children's Play Kits

Sl	Item No/	Description of works in	Unit	Otr	Ra	ite	Amount
No	SOR	brief	Omt	Qty	Figure	Words	Amount
1	Non SOR	Scrambler	No.	1		Rupees Only	

2	Non SOR	Spring Ridder Duck	No	2		
3	Non SOR	Spring Ridder swan	No	2		
4	Non SOR	See Saw (Standard)	No	2		
5	Non SOR	Spiral Slide (3 Metre)	No.	1		
7	Non SOR	Frog Bin	No.	5		
8	Non SOR	Cast Iron Garden Bench	No.	8		
9	Non SOR	Transportation Charges	LS			

Abstract of Cost

No	Green Spaces & Parks	Area (sq.m.)	Amount
A	Gazebo		
В	Chainlink Fencing		
C	Urinal Block		
D	Approach Road	5174.00	
E	Children's Park development		
F	Children's Play Kits		
Development of Green Spaces and Children Park at Madan Laban (Total)			
Rupees Only			

Should this bid be accepted, I/We hereby agree to abide by and fulfill all the terms and provisions of the said conditions of contract annexed hereto so far as applicable, or in default thereof to forfeit and pay to the Chief Executive Officer, Shillong Municipal Board, Shillong or his successors in office the sums of money mentioned in the said conditions.

Note:

- i. Only one rate against each item above or below or at-in the un-priced Bill of Quantities and item wise blank spaces given therein shall be quoted.
- ii. Item shall be quoted in figures as well as in words. If any difference in figures and words is found, lower of the two shall be taken as valid and correct rate. If the bidder is not ready to accept such valid and correct rate and declines to furnish performance security and sign the agreement his earnest money deposit shall be forfeited.
- iii. In case the Item "above" or "below" or at par is not given by a bidder, his bid shall be treated as non-responsive.
- iv. All duties, taxes, and other levies payable by the bidder shall be included in the Item quoted by the bidder.
- v. As per clause 21 of GCC if any order for change of scope is issued, the contractor shall be liable to execute quantities more than the above quantities, if required as per site conditions and payment for such excess work shall also be made on the agreement rates. Such excess quantities shall however remain within the 10% of the agreement cost of the total work.
- vi. Successful Bidder shall employ Registered Electrical Contractor for electrical works.

			Signature of Bidder Name of Bidder
The above	bid is hereby	accepted by me on behalf of the	Shillong Municipal Board, Shillong dated the
	day of	20	

WITNESS

(Signature of Officer by whom accepted)

SHILLONG MUNICIPAL BOARD, SHILLONG

1

2

Letter of Acceptance (LOA)

No	Dated:
To,	
M/	s
(Na	ame and address of the contractor)
Subject:	
(Na	ame of the work as appearing in the bid for the work)
Dear Sir (s)),
	For the work mentioned above has been accepted on behalf of the SHILLONG MUNICIPAL tryour bidded Item rates in the un-priced bill of quantities and item wise blank spaces given
You are rec	quested to submit the following within 15 (Fifteen) days from the date of issue of this letter:
	The performance security/ performance guarantee of Rs (in figures) (Rupees in words) only (In prescribed Format as per Annexure – H) being 5% of the accepted quoted cost. The performance security shall be in the shape of Demand Draft (DD) /Bank Guarantee of any nationalized / schedule commercial bank valid up to Contract Period Plus three months. The Additional Performance Security/ Additional Performance Guarantee of Rs (in figures) (Rupees in words) only. (In prescribed Format as per Annexure – H) The Additional Performance Security shall be in the shape of Term Deposit Receipt/DD/ Bank Guarantee of any nationalized / schedule commercial bank valid up to Valid Contract Period Plus three months. Duly signed Contract Agreement in Agreement Form as prescribed in Section - 5
	e that the time allowed for carrying out the work as entered in the bid is months xcluding rainy season, shall be reckoned from after 14day of the date of signing of the Contract.
	e contract agreement shall be reckoned as intimation to commencement of work and no separate ommencement of work is required.
	after signing of the agreement, you are directed to contact Engineer-in-charge within 14days for possession of site and necessary instructions to start the work.
	Yours faithfully,

CHIEF EXECUTIVE OFFICER SHILLONG MUNICIPAL BOARD, SHILLONG

Performance Security

To
[Name of Employer]
[Address of Employer]
WHEREAS
[name and Address of Contractor]
(Hereinafter called "the Contractor") has undertaken, in pursuance of Letter of Acceptance to execute
Name of Contract and brief
AND WHEREAS it has been stipulated by you in the said Contract that the contractor shall furnish you with a Bank Guarantee by a recognized bank for the sum specified therein as security for compliance with his obligation in accordance with the contract; AND WHREREAS we have agreed to give the Contractor such a Bank Guarantee: NOW THEREFORE we hereby affirm that we are the Guarantor and responsible to you on behalf of the Contractor, up to a total of
Guarantee]* (in words), such sum being payable in the types and proportions of currencies in
which the contract price is payable, and we undertake to pay you, upon your first written demand and without cavil or argument, any sum or sums within the limits of [amount of Guarantee] as aforesaid without your needing to prove or to show grounds or reasons for your demand for the sum specified therein. We hereby waive the necessity of your demanding the said debt from the contractor before presenting us with the demand. We further agree that no change or addition to or other modification of the terms of the Contract of the Works to be performed there under or of any of the Contract documents which may be made between you and the Contractor shall in any way release us from any liability under this Guarantee, and we hereby waive notice of any such change, addition or modification. This Guarantee shall be valid until 3(three) months from the date of expiry of the Contract Period.
Signature, Name and Seal of the Guarantor
Name of Bank
AddressPhone No., Fax No., E-mail Address, of Signing Authority
Date

^{*} An amount shall be inserted by the Guarantor, representing the Item the Contract Price specified in the Contract including additional security for unbalanced Bids, if any and denominated in Indian Rupees.

SECTION 3

Conditions of Contract Part – I General Conditions of Contract [GCC]

Table of Clauses of GCC

Clause	Particulars	Clause	Particulars	
no.	1 at ticulars	no.		
	A. General	21	Payments for Variations and / or Extra	
	A. General	21	Quantities	
1	Definitions	22	No compensation for alterations in or	
1	Definitions	22	restriction of work to be carried out.	
2	Interpretations and Documents	23	No Interest payable	
3	Language and Law	24	Recovery from Contractors	
4	Communications	25	Tax	
5	Subcontracting	26	Check Measurements	
6	Personnel	27	Termination by Engineer in charge	
7	Force Majeure	28	Payment upon Termination	
8	Contractor's Risks	29	Performance Security	
9	Liability For Accidents To Person	30	Security Deposit	
10	Contractor to Construct the Works	31	Price Adjustment (deleted)	
11	Discoveries	32	Mobilization and Construction Machinery	
11			Advance (deleted)	
12	Dispute Resolution System	33	Secured Advance (deleted)	
	B. Time Control	34	Payment certificates	
13	Programme		E. Finishing the Contract	
14	Extension of Time	35	Completion of Certificate	
15	Compensation for Delay	36	Final Account	
16	Contractor's quoted Item		F. Other Conditions of Contract	
	C. Quality Control	37	Currencies	
17	Tests	38	Labour	
18	Correction of Defects noticed during the	39	Compliance with Labour Regulations&	
10	Defect Liability Period	39	Construction Safety	
	D. Cost Control	40	Audit and Technical Examination	
19	Variations - Change in original	41	Death and Permanent Invalidity of	
17	Specifications, Designs, Drawings etc.	71	Contractor	
20	Extra Items	42	Jurisdiction	
		43	Monthly RA bills	

A. General

1. **DEFINITIONS**

- **1.1 Bill of Quantities**: means the priced and completed Bill of Quantities forming part of the Bid
- 1.2 Chief Executive Officer: means Chief Executive Officer, Shillong Municipal Board
- **1.3 Chief Engineer:** means Chief Engineer of Shillong Municipal Board/ Meghalaya Urban Development Authority/ PMDC
- **1.4 Completion**: means completion of the work as certified by the Engineer-in-Charge, in accordance with provisions of agreement.
- **1.5 Contract:** means the Contract between the Employer and the Contractor to execute, complete and/or maintain the work. Agreement is synonym of Contract and carry the same meaning wherever used.
- **1.6 Contract Data Sheet**: means the documents and other information which comprise of the Contract.
- **1.7 Contractor**: means a person or legal entity whose bid to carry out the work has been accepted by the Employer.
- **1.8 Contractor's bid**: means the completed bid document submitted by the Contractor to the Employer.
- 1.9 Contract amount: means the amount of contract worked out on the basis of accepted bid.
- **1.10** Completion of work: means completion of the entire contracted work. Exhaustion of quantity of any particular item mentioned in the bid document shall not imply completion of work or any component thereof.
- **1.11 Day**: means the calendar day.
- **1.12 Defect**: means any part of the work not completed in accordance with the specifications included in the contract.
- **1.13 Department:** means Urban Development Authority, Govt. of Meghalaya/ Shillong Municipal Board, as the case may be.
- **1.14 Drawings**: means drawings including calculations and other information provided or approved by the Engineer-in-Charge.
- **1.15 Employer**: means the party as defined in the Contract Data, who employs the Contractor to carry out the work. The employer may delegate any or all functions to a person or body nominated by him for specified functions. The word Employer/Government/Department wherever used denote the Employer
- **1.16** Engineer: means Assistant Resident Engineer of PDMC AMRUT.
- 1.17 Engineer in Charge: means Resident Engineer of SMB/MUDA/ PDMC AMRUT
- **1.18 Equipment**: means the Contractor's machinery and vehicles brought temporarily to the Site for execution of work.
- **1.19 Government**: means Government of Meghalaya.
- **1.20 In Writing**: means communicated in written form and delivered against receipt.

- **1.21 Material**: means all supplies, including consumables, used by the Contractor for incorporation in the work.
- **1.23 Schedule of Rates**: means, Schedule of Rates (SOR) of PWD, Government of Meghalaya w.e.f. Aug 2015 to 2016 with upto date amendments.
- **1.24 Superintending Engineer:** means Superintending Engineer of the Concerned circle of SMB/MUDA/UA, Govt. of Meghalaya, as the case may be
- **1.25 Stipulated date of completion**: means the date on which the Contractor is required to complete the work. The stipulated date/period is specified in the Contract Data.
- **1.26 Specification**: means the specification of the work included in the Contract and any modification or addition made or approved by the Engineer-in-Charge.
- 1.27 Start Date: means the 14 days after the signing of agreement for the work.
- **Sub-Contractor**: means a person or corporate body who has a Contract (duly authorized by the Employer) with the Contractor to carry out a part of the construction work under the Contract.
- **1.29 Temporary Work**: means work designed, constructed, installed, and removed by the Contractor that are needed for construction or installation of the work.
- **1.30** Tender / Bid, Tenderer /Bidder: are the synonyms and carry the same meaning where ever used.
- **1.31** UA: URBAN AFFAIRS
- **1.32 Variation**: means any change in the work which is instructed or approved as variation under this contract.
- 1.33 Work: the expression "work" or "works" where used in these conditions shall unless there be something either in the subject or context repugnant to such construction, be construed and taken to mean the work by virtue of contract, contracted to be executed, whether temporary or permanent and whether original, altered, substituted or additional.

2. Interpretations and Documents

2.1 Interpretations

- i. In the contract, except where the context requires otherwise:
- ii. Words indicating one gender include all genders;
- iii. Words indicating the singular also include the plural and vice versa.
- iv. provisions including the word "agree", "agreed" or "agreement" require the agreement to be recorded in writing;
- v. written" or "in writing" means hand-written, type-written, printed or electronically made, and resulting in a permanent record;

2.2 Documents Forming Part of Contract:

- i. NIT with all amendments.
- ii. Instructions to Bidders
- iii. Conditions of Contract:
 - a. Part I: General Conditions of Contract and Contract Data; with all Annexures
 - b. Part II: Special Conditions of Contract.
- iv. Specifications
- v. Drawings
- vi. Priced Bill of Quantities/Financial / Bid
- vii. Agreement
- viii. Any other document (s), as specified.

3. Language and Law

The language of the Contract and the law governing the Contract are stated in the Contract Data.

4. Communications

All certificates, notice or instruction to be given to the Contractor by Employer/Engineer shall be sent on the address or contact details given by the Contractor in [Annexure E for Organizational Details]. The address and contract details for communication with the Employer/Engineer shall be as per the details given in Contract Data Sheet. Communication between parties that are referred to in the conditions shall be in writing. The notice sent by facsimile (fax) or other electronic means (email) shall also be effective on confirmation of the transmission. The notice sent by registered post or speed post shall be effective on delivery or at the expiry of the normal delivery period as undertaken by the postal service. In case of any change in address for communication, the same shall be immediately notified to Engineer-in-Charge

5. Subcontracting

Subcontracting shall be permitted for contracts value more than amount specified in the Contract Data with following conditions.

- a. The Contractor may subcontract up to 25 percent of the contract price, only with and after the approval of the Employer in writing, but will not assign the Contract. Subcontracting shall not alter the Contractor's obligations.
- b. The following shall not form part of the sub-contracting:
 - i. hiring of labour through a labour contractor,
 - ii. the purchase of Materials to be incorporated in the works,
 - iii. hiring of plant & machinery
- c. The sub-contractor will have to be registered in the appropriate category under MUDA/SMB/State Governments / Central government departments / PSUs under state /central govt.

6. Personnel

- **6.1** The Contractor shall employ for the construction work and routine maintenance the technical personnel as provided in the Bid Data sheet, if applicable. If the Contractor fails to deploy required number of technical staff, recovery as specified in the Contract Data will be made from the Contractor.
- **6.2** If the Engineer asks the Contractor to remove a person who is a member of the Contractor's staff or work force, stating the reasons, the Contractor shall ensure that the person leaves the Site within three days and has no further connection with the Works in the Contract.

7. Force Majeure

- 7.1 The term "Force Majeure" means an exceptional event or circumstance:
- i. Which is beyond a party's control,
- ii. Which such party could not reasonably have provided against before entering into the contract,
- iii. Which, having arisen, such party could not reasonably have avoided or overcome, and
- iv. Which is not substantially attributed to the other Party

Force Majeure may include, but is not limited to, exceptional events or circumstances of the kind listed below, so long as conditions (a) to (d) above are satisfied:

- a. War, hostilities (whether war be declared or not), invasion, act of foreign enemies),
- b. Rebellion, terrorism, sabotage by persons other than he contractor's Personnel, revolution, insurrection, military or usurped power, or civil war,
- c. Riot, commotion, disorder, strike or lockout by persons other than the Contractor's Personnel,
- d. Munitions of war, explosive materials, ionising radiation or contamination by radio activity, except ass may be attributed to the Contractor's use of such munitions, explosives, radiation or radio activity, and
- e. Natural catastrophes such as earthquake, hurricane, typhoon or volcanic activity,
- 7.2 In the event of either party being rendered unable by force majeure to perform any duty or discharge any responsibility arising out of the contract, the relative obligation of the party affected by such force majeure shall upon notification to the other party be suspended for the period during which force majeure event lasts. The cost and loss sustained by either party shall be borne by respective parties.
- **7.3** For the period of extension granted to the Contractor due to Force Majeure the price adjustment clause shall apply but the penalty clause shall not apply. It is clarified that this sub clause shall not give eligibility for price adjustment to contracts which are otherwise not subject to the benefit of Price adjustment clause.
- **7.4** The time for performance of the relative obligation suspended by the force majeure shall stand extended by the period for which such cause lasts. Should the delay caused by force majeure exceed twelve months, the parties to the contract shall be at liberty to foreclose the contract after holding mutual discussions.

8. Contractor's Risks

- **8.1** All risks of loss of or damage to physical property and of personal injury and death which arise during and in consequence of the performance of the Contract are the responsibility of the Contractor.
- **8.2** All risks and consequences arising from the inaccuracies or falseness of the documents and/or information submitted by the contractor shall be the responsibility of the Contractor alone, notwithstanding the fact that designs/drawings or other documents have been approved by the department.

9. Liability for Accidents to Person

The contractor shall be deemed to have indemnified and saved harmless the Government and/or the employer, against all action, suits, claims, demands, costs etc. arising in connection with injuries suffered by any persons employed by the contractor or his subcontractor for the works whether under the General law or under workman's compensation Act, or any other statute in force at the time of dealing with the question of the liability of employees for the injuries suffered by employees and to have taken steps properly to ensure against any claim there under.

10. Contractor to Construct the Works

- **10.1** The Contractor shall construct, install, fix, test, commission the Works in accordance with the Specifications and Drawings as specified in the Contract Data
- 10.2 In the case of any class of work for which there is no such specification as is mentioned in contract Data, such work shall be carried out as per best Engineering practice or as directed by Engineer in Charge. In the event of any disparity between the written specifications and BIS provisions, the provisions in BIS shall prevail.
- 10.3 The contractor shall supply and take upon himself the entire responsibility of the sufficiency of the scaffolding, timbering, Machinery, tools implements and generally of all means used for the fulfilment of this contract whether such means may or may not approved of or recommended by the Engineer.

11. Discoveries

Anything of historical or other interest or of significant value unexpectedly discovered on the Site shall be the property of the Employer. The Contractor shall notify the Engineer of such discoveries and carry out the Engineer's instructions for dealing with them.

12. Dispute Resolution System

- 12.1 No dispute can be raised except before the Competent Authority as defined in Contract data in writing giving full description and grounds of Dispute. It is clarified that merely recording protest while accepting measurement and/or payment shall not be taken as raising a dispute.
- 12.2 No issue of dispute can be raised after 45 days of its occurrence. Any dispute raised after expiry of 45 days of its first occurrence shall not be entertained and the Employer shall not be liable for claims arising out of such disputes.
- **12.3** The **Competent Authority** shall decide the matter within 45 days.
- **12.4** Appeal against the order of the Competent Authority can be referred within 30 days to the Appellate Authority as defined in the Contract data. The Appellate Authority shall decide the dispute within 45 days.
- 12.5 The parties shall make efforts to agree on a Sole Arbitrator and only if such an attempt does not succeed, then the disputes shall be referred to Arbitration as mentioned in clause 12.6 below
- 12.6 In case of Dispute or difference arising between the Employer and a Contractor relating to any matter arising out of or connected with this agreement, such disputes or difference shall be settled in accordance with the Arbitration and Conciliation Act, 1996, and details mentioned in the Special Conditions of Contract.
- **12.7** The contractor shall have to continue execution of the works with due diligence notwithstanding pendency of a dispute before any authority or forum.

B. Time Control

13. Programme

- **13.1** Within the time stated in the Contract Data, the Contractor shall submit to the Engineer for approval a Programme showing the general methods, arrangements, order, and timing for all the activities in the Works for the construction of works.
- 13.2 The program shall be supported with all the details regarding key personnel, equipment and machinery proposed to be deployed on the works for its execution. The contractor shall submit the list of equipment and machinery being brought to site, the list of key personnel being deployed, along with the Programme
- **13.3** An update of the Programme shall be a programme showing the actual progress achieved on each activity and the effect of the progress achieved on the timing of the remaining Works, including any changes to the sequence of the activities.
- 13.4 The Contractor shall submit to the Engineer for approval an updated Programme at intervals no longer than the period stated in the Contract Data. If the Contractor does not submit an

updated Programme within this period, the Engineer may withhold the amount stated in the **Contract Data** from the next payment certificate and continue to withhold this amount until the next payment after the date on which the overdue Programme has been submitted.

13.5 The Engineer's approval of the Programme shall not alter the Contractor's obligations

14. Extension of Time

- 14.1 If the Contractor desires an extension of time for completion of the work on the ground of his having been unavoidably hindered in its execution or on any other grounds, he shall apply, in writing, to the Engineer-in-charge, on account of which he desires such extension. Engineer-in-charge shall forward the aforesaid application to the competent authority as prescribed.
- 14.2 The competent authority shall grant such extension at each such occasion within a period of 30 days of receipt of application from contractor and shall not wait for finality of work. Such extensions shall be granted in accordance with provisions under clause -7or clause- 15 of this agreement.
- 14.3 In case of the work already in progress, the contractor shall proceed with the execution of the works, including maintenance thereof, pending receipt of the decision of the competent authority as aforesaid with all due diligence.

15. Compensation for delay

- **15.1** The time allowed for carrying out the work, as entered in the agreement, shall be strictly observed by the Contractor.
- **15.2** The time allowed for execution of the contract shall commence from the date of signing of the agreement. It is clarified that the need for issue of work order is dispensed with.
- **15.3** In the event milestones are laid down in the Contract Data for execution of the works, the contractor shall have to ensure strict adherence to the same.
- **15.4** Failure of the Contractor to adhere to the timelines and/or milestones shall attract such liquidated damages as is laid down in the Contract Data
- 15.5 In the event of delay in execution of the works as per the timelines mentioned in the contract data the Engineer-in- charge shall retain from the bills of the Contractor Amount equal to the liquidated damages to be levied until the contractor makes such delays good. However, the Engineer-in-charge shall accept bankable security in lieu of retaining such amount.
- **15.6** If the contractor is given extension of time after liquidated damages have been paid, the engineer in charge shall correct any over payment of liquidated damages by the Contractor in the next payment certificate.
- 15.7 In the event the contractor fails to make good the delay until completion of the stipulated contract period (including extension of time) the sum so retained shall be adjusted against liquidated damages levied.

16. Contractor's quoted Item:

The contractor's quoted Item rate referred to in the "Bid for works" will be deducted/ added from/to the net amount of the bill after deducting the cost of material supplied by the department.

C. Quality Control

17. Tests

17.1 The Contractor shall be responsible for:

Carrying out the tests prescribed in specifications shall be got carried out through Laboratories accredited by National Accreditation Board of Laboratories (NABL) or any national test house /PWD/Govt. Engineering college as approved by the Engineer-In –Charge at the cost

of the Contractor or such testing charges will be borne by the employer and will be recovered/deducted from the payments due to the Contractor.

18. Correction of Defects noticed during the Defect Liability Period

- 18.1 The defect liability period of work in the contract shall be as specified in the Contract Data
- **18.2** The Contractor shall promptly rectify all defects pointed out by the Engineer well before the end of the Defect Liability Period. The Defect Liability Period shall automatically stand extended until the defect is rectified.
- 18.3 If the Contractor has not corrected a Defect pertaining to the Defect Liability Period to the satisfaction of the Engineer, within the time specified by the Engineer, the Engineer will assess the cost of having the Defect corrected, and the cost of correction of the Defect shall be recovered from the Performance Security or any amount due or that may become due to the contractor and other available securities.

D. Cost Control

19. Variations - Change in original Specifications, Designs, Drawings etc.

- 19.1 The Engineer in charge shall have power to make any alterations, omissions or additions to or substitutions for the original specifications, drawings, designs and instructions, that may appear to him to be necessary during the progress of the work and the contractor shall carry out the work in accordance with any instructions which may be given to him in writing signed by the Employer, and such alterations, omission, additions or substitutions shall not invalidate the contract and any altered, additional or substituted work, which the contractor may be directed to do in the manner above specified, as part of the work, shall be carried out by the contractor on the same conditions in all respects on which he agree to do the main work.
- 19.2 The time for the completion of the work shall be extended in the proportion that the altered, additional or substituted work bears to the original contract work and the certificate of the Engineer in charge shall be conclusive as to such proportion.

20. Extra items

All such items which are not in the priced BOQ shall be treated as extra items.

21. Payments for Variations and / or Extra Quantities

The rates for the additional (Extra Quantities), altered or substituted work/ extra items under this clause shall be worked out in accordance with the following provisions in their respective order:-

- i. The contractor is bound to carry out the additional (Extra quantity), work at **the same rates** as are specified in the contract for the work.
- ii. If the item is not in the priced BOQ and is included in the SOR of the department, the rate shall be arrived at by applying the quoted tender Item on the SOR rate.
- iii. If the rates of the altered or substituted work are not provided in applicable SOR-such rates will be derived from the rates for a similar class (type) of work as is provided in the contract (priced BOQ) for the work.
- iv. If the rates are for the altered, substituted work cannot be determined in the manner specified in the sub clause (c) above-then the rates for such composite work item shall be worked out on the basis of the concerned schedule of rates minus/plus the Item quoted by the contractor.
- v. If the rates of a particular part or parts of the item is not in the schedule of rates and the rates for the altered, or substituted work item cannot be determined in the manner specified in sub clause (b) to (d) above, the rate for such part or parts will be determined by the Competent Authority

- as defined in the Contract data on the basis of the rate analysis derived out of prevailing market rates when the work was done.
- vi. But under no circumstances, the contractor shall suspend the work on the plea of non-acceptability of rates on items falling under sub clause (a) to (e). In case the contractor does not accept the rate approved by Engineer in charge for a particular item, the contractor shall continue to carry out the item at the rates determined by the Competent Authority. The decision on the final rates payable shall be arrived at through the dispute settlement procedure.

22. No compensation for alterations in or restriction of work to be carried out.

- **22.1** If at any time after the commencement of the work, the Government, for any reason whatsoever, not require the whole or any part of the work as specified in the bid to be carried out, the Engineer in charge shall give notice in writing of the fact to the Contractor and withdraw that whole or any part of the work.
- 22.2 The Contractor shall have no claim to any payments or compensation whatsoever, on account of any profit or advantage which he might have derived from the execution of work in full or on account of any loss incurred for idle men and machinery due to any alteration or restriction of work for whatsoever reason.
- 22.3 The Engineer in charge may supplement the work by engaging another agency to execute such portion of the work, without prejudice to his rights.

23. No Interest Payable

No interest shall be payable to the Contractor on any payment due or awarded by any authority.

24. Recovery from Contractors

Whenever any claim against the Contractor for the payment arises under the contract, the Department shall be entitled to recover such sum by:

- i. Appropriating, in part or whole of the Performance Security and additional Performance Security, if any; and/or Security deposit and/or any sums payable under the contract to the contractor.
- ii. If the amount recovered in accordance with (a) above is not sufficient, the balance sum may be recovered from any payment due to the contractor under any other contract of the department, including the securities which become due for release.
- iii. The department shall, further have an additional right to effect recoveries as arrears of land revenue under the Meghalaya Land Revenue Code.

25. Tax

- **25.1** The rates quoted by the Contractor shall be deemed to be inclusive of all duties, GST, royalties and other levies;
- **25.2** Any Changes in the taxes due to change in legislation or for any other reason shall not be payable to the contractor.

26. Check Measurements

- **26.1** The department reserves to itself the right to prescribe a scale of check measurement of work in general or specific scale for specific works or by other special orders.
- **26.2** Checking of measurement by superior officer shall supersede measurements by subordinate officer(s), and the former will become the basis of the payment.
- 26.3 Any over/excess payments detected, as a result of such check measurement or otherwise at any stage up to the date of completion of the defect liability period specified in this contract, shall be recoverable from the Contractor, as per clause 24 above.

27. Termination by Engineer in Charge

- **27.1** If the contractor fails to carry out any obligation under the Contract, the Engineer in charge may by notice require the Contractor to make good the failure and to remedy it within a specified reasonable time.
- 27.2 The Engineer in charge shall be entitled to terminate the contract if the Contractor
 - a. Abandons the works or otherwise plainly demonstrates the intention not to continue performance of his obligations under the contract;
 - b. the Contractor is declared as bankrupt or goes into liquidation other than for approved reconstruction or amalgamation;
 - c. without reasonable excuse fails to comply with the notice to correct a particular defect within a reasonable period of time;
 - d. the Contractor does not maintain a valid instrument of financial Security, as prescribed;
 - e. the Contractor has delayed the completion of the Works by such duration for which the maximum amount of liquidated damages is recoverable;
 - f. If the Contractor fails to deploy machinery and equipment or personnel or set up a field laboratory as specified in the Contract Data.
 - g. if the Contractor, in judgmental of the engineer in charge has engaged in corrupt or fraudulent practices in competing for or in executing the contract;
 - h. Any other fundamental breaches as specified in the Contract Data.
- 27.3 In any of these events or circumstances, the engineer in charge may, upon giving 14 days' notice to the contractor, terminate the contract and expel the Contractor from the site. However, in the case of sub paragraph (b) or (g) of clause 27.2, the Engineer in charge may terminate the contract immediately.
- **27.4** Notwithstanding the above, the Engineer in charge may terminate the contract for convenience by giving notice to the contractor.

28. Payment upon Termination

- **28.1** If the contract is terminated under **clause 27.3**, the Engineer shall issue a certificate for value of the work accepted on final measurements, less advance payments and penalty as indicated in the Contract Data. The amount so arrived at shall be determined by the Engineer-in-Charge and shall be final and binding on both the parties.
- 28.2 payment on termination under clause 27.4 above, the Engineer shall issue a certificate for the value of the work done, the reasonable cost of removal of Equipment, repatriation of the contractor's personnel employed solely on the works, and the contractor's costs of protecting and securing the works and less advance payments received up to the date of the certificate, less other recoveries due in terms of the contract and less taxes due to be deducted at source as per applicable law.
- **28.3** If the total amount due to the Employer exceeds any payment due to the Contractor, the difference shall be recovered as per **clause 24** above.

29. Performance Security

The Contractor shall have to submit performance security and additional performance security, if any, as specified in Bid data sheet at the time of signing of the contract. The contractor shall have to ensure that such performance security and Additional performance, if an, security remains valid for the period as specified in the Contract data.

30. Security Deposit

30.1 Security deposit shall be deducted from the each running bill at the rate as specified in the contract data. The total amount of security deposit so deducted shall not exceed the Item of

- contract price specified in the Contract data.
- **30.2** The Security may be replaced by equivalent amount of bank guarantee or fixed deposit receipt assigned to the Employer, with validity up to 3(three) months beyond the completion of defect Liability period/ extended Defect Liability.
- **30.3** The Security deposit shall be refunded on completion of defect liability period.

31. Price Adjustment (deleted)

32. Mobilization and Construction Machinery Advance (deleted)

33. Secured Advance (deleted)

34. Payment Certificates

The payment to the contractor will be as follows for construction work:

- a. The contractor shall submit to the engineer monthly statement of the value of the work executed less the cumulative amount certified previously, supported with detailed measurement of the items of work executed as per the Billing Break-up in section 6.
- b. The engineer shall check the Contractor's monthly statement and certify the amount to be paid to the contractor.
- c. The value of work executed shall be determined, based on the measurements approved by the Engineer/Engineer in charge.
- d. The value of work executed shall comprise the value of the quantities of the items in the Billing Breakup given in Section 6.
- e. The value of work executed shall also include the valuation of variations and compensation events.
- f. All payments shall be adjusted for deductions for advance payment, security deposit, other recoveries in terms of contract and taxes at source as applicable under the law.
- g. The Engineer may exclude any item certified in a previous certificate or reduce the proportion of any item previously certified in any certificate in the light of later information.
- h. Payment of intermediate certificate shall be regarded as payments by way of advance against the final payment and not as payments for work actually done and completed.
- Intermediate payment shall not preclude the requiring of bad, unsound and imperfect or unskilled work to be removed and taken away and reconstructed or be considered as an admission of the due performance of the contractor any part thereof, in any respect or the occurring of any claim.
- j. The payment of final bill shall be governed by the provisions of clause 36 of GCC.

E. Finishing the Contract

35. Completion Certificate

- **35.1** A completion certificate in the prescribed format in Contract data shall be issued by the Engineer in charge after physical completion of the work.
- **35.2** After final payment to the contractor, a final completion certificate in the prescribed format in the **contract data** shall be issued by the Engineer in charge.

36. Final Account

36.1 The Contractor shall supply the Engineer with a detailed account of the total amount that the Contractor considers payable for works under the Contract within 21 days of issue of certificate of physical completion of works. The Engineer shall issue a Defects Liability Certificate and certify any payment that is due to the Contractor within 45 days of receiving the Contractor's account if it is correct and complete. If the account is not correct or complete, the Engineer shall issue within 45 days a schedule that states the scope of the

- corrections or additions that are necessary. If the Account is still unsatisfactory after it has been resubmitted, the matter shall be referred to the Competent Authority as defined in the Contract Data, who shall decide on the amount payable to the Contractor after hearing the Contractor and the Engineer in Charge.
- **36.2** In case the account is not received within 21 days of issue of Certificate of Completion as provided in clause 35.1 above, the Engineer shall proceed to finalize the account and issue a payment certificate within 28 days.

F. Other Conditions of Contract

37. Currencies

All payments will be made in Indian Rupees.

38. Labour

- **38.1** The Contractor shall, unless otherwise provided in the Contract, make his own arrangements for the engagement of all staff and labour, local or other, and for their payment, housing, feeding and transport.
- **38.2** The Contractor shall, if required by the Engineer, deliver to the Engineer a return in detail, in such form and at such intervals as the Engineer may prescribe, showing the staff and the numbers of the several classes of labour from time to time employed by the Contractor on the Site and such other information as the Engineer may require.

39. Compliance with Labour Regulations and Construction Safety

39.1 During continuance of the Contract, the Contractor and his sub-Contractors shall abide at all times by all existing labour enactments and rules made there under, regulations, notifications and bye laws of the State or Central Government or local authority and any other labour law (including rules), regulations, bye laws that may be passed or notification that may be issued under any labour law in future either by the State or the Central Government or the local authority. Salient features of some of the major labour laws that are applicable to construction industry are given in the Contract data. The Contractor shall keep the Employer indemnified in case any action is taken against the Employer by the competent authority on account of contravention of any of the provisions of any Act or rules made there under, regulations or notifications including amendments. If the Employer is caused to pay or reimburse, such amounts as may be necessary to cause or observe, or for non-observance of the provisions stipulated in the notifications/byelaws/Acts/Rules/ regulations including amendments, if any, on the part of the Contractor, the Engineer/Employer shall have the right to deduct any money due to the Contractor including his amount of performance security. The Employer/Engineer shall also have right to recover from the Contractor any sum required or estimated to be required for making good the loss or damage suffered by the Employer. The employees of the Contractor and the Sub-Contractor in no case shall be treated as the employees of the Employer at any point of time.

39.2 Construction Safety

The contractor should be well conversant with technical as well as administrative and legal aspects of safety and judicial pronouncement. The contractor shall all times take all reasonable precautions and safety measures to maintain safety of personnel and property. The contractor shall, at his own expenses and throughout the period of the contract ensure appropriate and suitable arrangements for health, safety and hygiene requirements for the surroundings. The State and Central Government prevailing all Statues in this regard must be complied in letter and spirit throughout the period of contract.

40. Audit and Technical examination

Government shall have the right to cause an audit and technical examination of the works and the final bill of the contract including all supporting vouchers, abstract etc. To be made after payment of the final bill and if as a result of such audit and technical examination nay sum is found to have been overpaid in respect of any work done by the contractor under the contract or nay work claimed by him to have been done under the contract and found not to, have been executed, the contractor shall be liable to refund the amount of overpayment and it shall be lawful for government to recover the same from him in the manner prescribed in clause 24 above and if it is found that the contractor was paid less than what was due to him, under the contract in respect of any work executed by him under it, the amount of such under payment shall be duly paid by government to the Contractor.

41. Death or permanent invalidity of contractor

Without prejudice to any of the rights or remedies under this contract if the contractor dies or suffers permanent disability (in case of individual contractor), the (Head of the impementation Unit of the AMRUT project of SMB/Urban Affairs, Govt. of Meghalaya) shall have the option of terminating the contract without compensation to the contractor after the affidavit of his/ their legal heir /heirs that they are not going to be in this contract in future.

42. Jurisdiction

This contract has been entered into the State of Meghalaya and its validity, construction, interpretation and legal effect shall be subjected to the exclusive jurisdiction of the courts in Shillong or of the courts at the place where this agreement is entered into. No other jurisdiction shall be applicable.

43. Monthly RA Bills

The payment certificates shall be regulated as per the provisions of clause 34 of the contract.

- **43.1** Upon the signing of agreement the Engineer shall decide the date of submission of monthly statement (RA Bills).
- **43.2** The Engineer shall check the Contractor's monthly statement (RA Bills) and certify the amount to be paid to the contractor within 20 days of submission of monthly statement (RA Bills).
- **43.3** The employer shall ensure the payment to the Contractor within 20 days of submission of monthly statement (RA Bills).

[End of GCC]

Contract Data

Part – I	<u> </u>		
,GCC – Clause reference	Particulars	Data	
1.15	Employer	Shillong Municipal Board, Shillong	
1.16	Engineer	Executive Engineer, SMB / Engineer of Project Development and Management Consultants (PDMC)	
1.17	Engineer in charge	Resident Engineer / site Engineer of Department or Project Development and Management Consultants (PDMC)	
1.26	Stipulated period of completion	12 months including rainy season	
3	Language & Law of Contract	English & Indian Contract Act 1872	
4	Address & contact details of the Contractor	As per Annexure E	
	Address & contact details of the Employer/Engineer-phone, Fax, Email.	Chief Executive Officer, Shillong Municipal Board, Bishop Cotton Road, Shillong – 793001, Meghalaya, Phone No., +91-364-2224702; Fax No., +91-364- 2224850. Email: smb-meg@nic.in	
5	Subcontracting permitted for contract value	The Contractor may subcontract with the approval of the Project Manager, but may not assign the Contract without the approval of the Employer in writing. Subcontracting shall not alter the Contractor's obligations.	
6	Technical Personnel to be provided by the contractor – Requirement & Deployment Committed	Not applicable	
10	Specifications	Annexure C	
	Drawings	As per Annexure -I	
	Competent Authority for deciding dispute under Dispute Resolution System	Executive Engineer/Project Officer/Chief Engineler, or as delegated by the Department	
12	Appellate Authority for deciding dispute under Dispute Resolution System	Arbitration and Conciliation Act, 1996 in accordance with clause12 "Dispute Resolution System" of SECTION 3, Conditions of Contract, Part – I, General Conditions of Contract [GCC]	
13	Period of submission of updated construction program	30 days upon signing the Agreement	
	Amount to be withheld for not submitting construction program in the prescribed period	0.02% of the Contract Amount	
14	Competent Authority for granting Time Extension	Appropriate authority within the Urban Local Body /CEO, SMB after scrutiny and recommendation by /PMDC/Executive Engineer, SMB /Chief Engineer, SMB	
Milestones laid down for the VFS		YES	
15 contract TES			
	If Yes, details of milestones	As per Annexure - J	
	Compensation for Delay	As per Annexure - K	
18	Defect Liability Period	12 Months after physical completion of work	

21	Competent authority for determining the rates against clause 21 under Section 3 of GCC determining the rate	Shillong Municipal Board
27	Any other conditions for breach of contract	NIL
28	Penalty	Penalty shall include (a)Security deposit as per clause 30 of General conditions of contract and (b)Liquidated damages imposed as per clause 15 or performance security (Guarantee) including additional performance security (Guarantee), if any, as per clause 29 of General conditions of contract, whichever is higher.
29	Performance Guarantee (security) shall be valid up to	As mentioned in Bid Data Sheet (Valid contract period plus 3 months)
30	Security deposit to be deducted from each running bill	At the rate of 5 %
	Maximum limit of deduction of security deposit	Up to 5 % of Final contract amount, Security Deposit will be returned after successful completion of Defect Liability Period (DLP).
31	Price adjustment formula and procedure to calculate	(Not applicable)
31.1(1)	Price adjustment shall be applicable	(No)
32	32.1 Mobilization Advance applicable	(No)
35	Completion certificate- After physical completion of the work	As per Annexure - L
	Final Completion Certificate – after final payment on completion of the work	As per Annexure - M
36	Competent Authority	Chief Engineer/Engineer-in-Chief, SMB / MUDA/PDMC
39	39.1 Salient features of some of the major labour laws that are applicable	As per Annexure - N
	39.2 Salient features of some Construction Safety laws that are applicable	As per Annexure – O
41	Competent Authority	Appropriate authority within the Department.

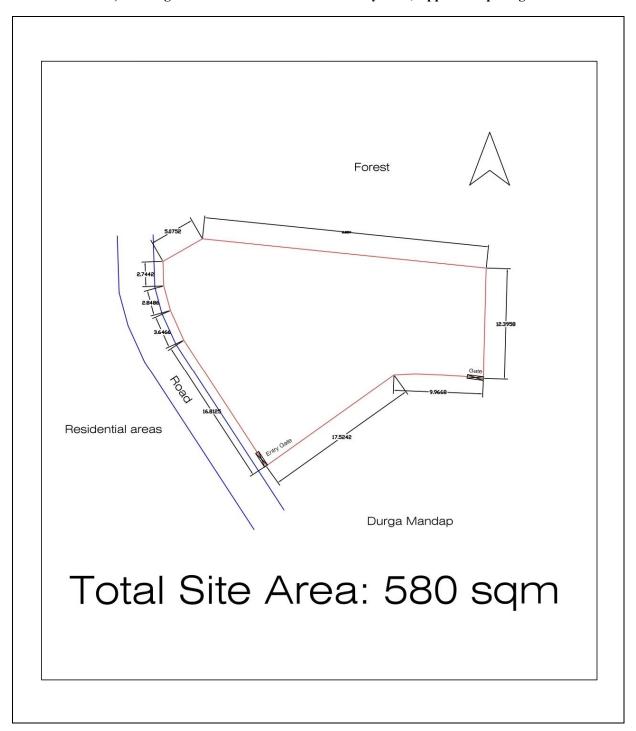
PACKAGE WISE DRAWINGS FOR DEVELOPMENT OF 3 (THREE) NOS. OF PARKS & GREEN SPACE AT, SHILLONG (MEGHALAYA)

Package No.	Name of Drawing	Proposed Drawing No.
1	Chiildren's Park Cum Playfield at Mynsain, Upper Lumparing	A
2	Green Space & Children Park, Dhobitala at Jhalupara	В
3	Children's park Near Madan Sport & Cultural Club, Madan Laban	С

Note: Sketches of Play elements and benches etc are attached in this document.

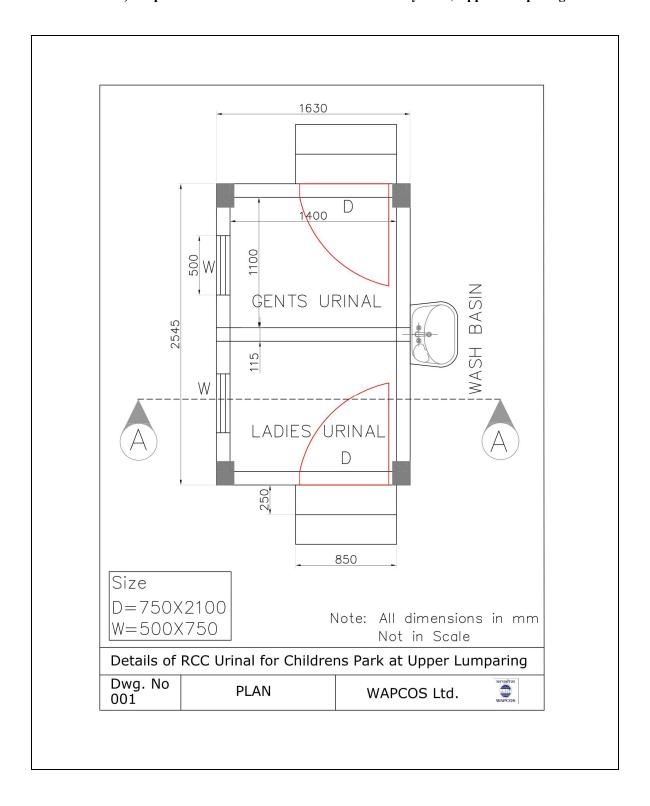
Proposed Drawing No A

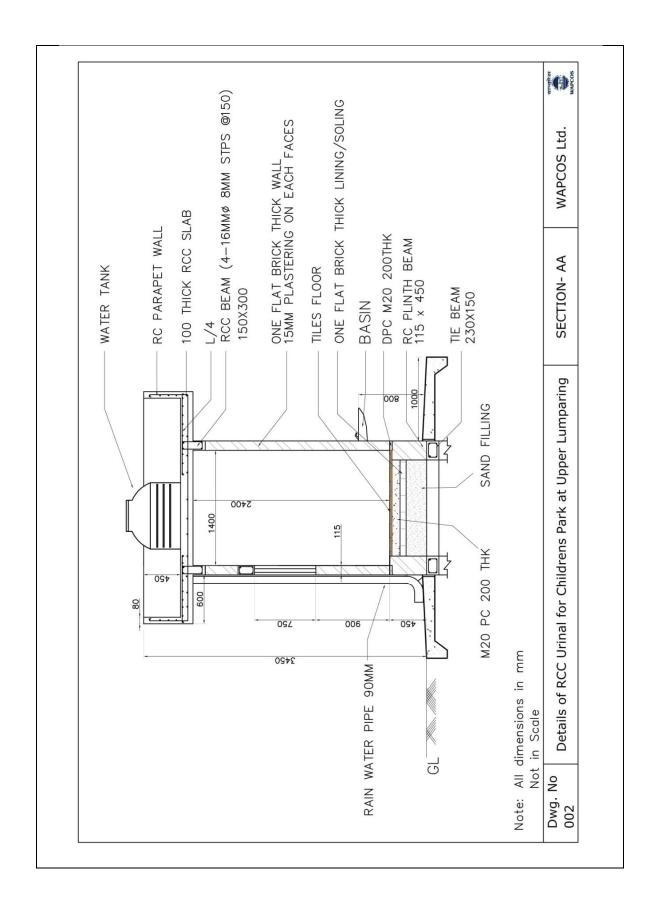
i) Existing Site Plan of Children's Park at Mynsain, Upper Lumparing

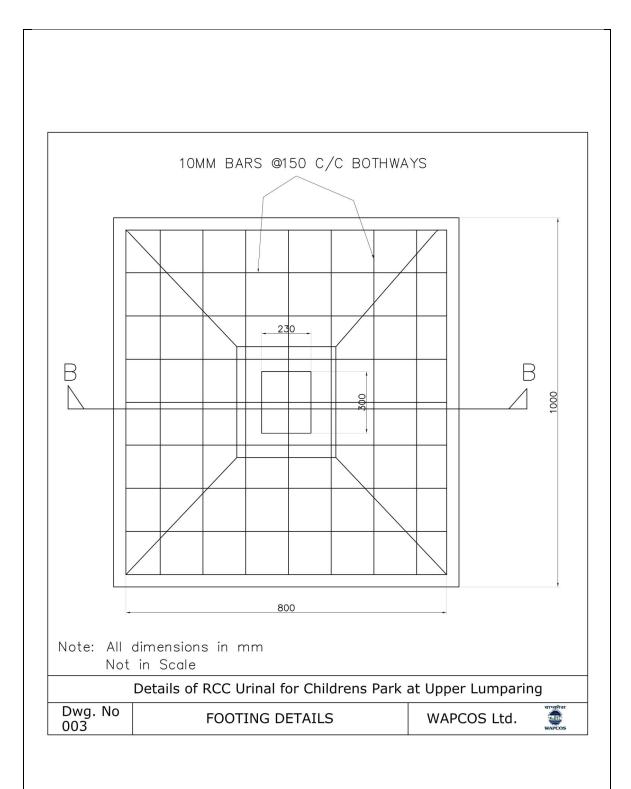


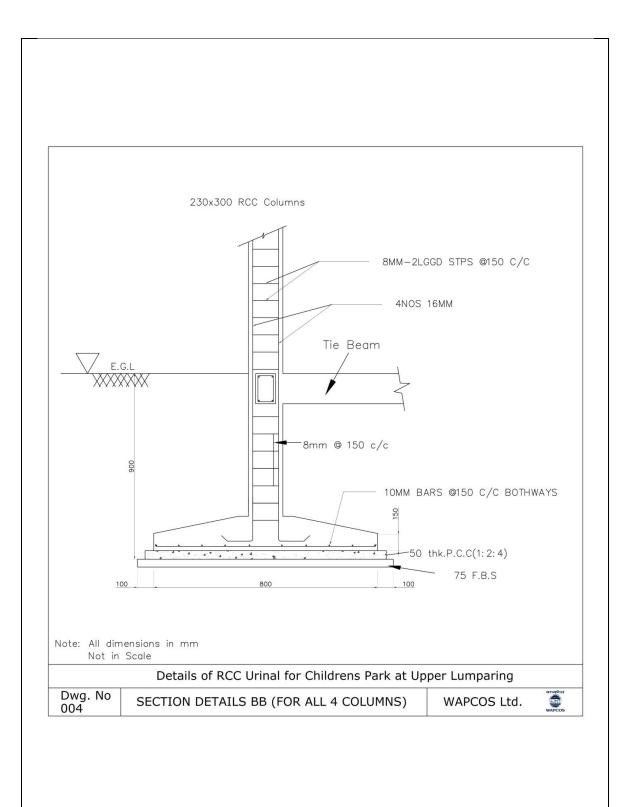


ii) Proposed Urinal Block of Children's Park at Mynsain, Upper Lumparing



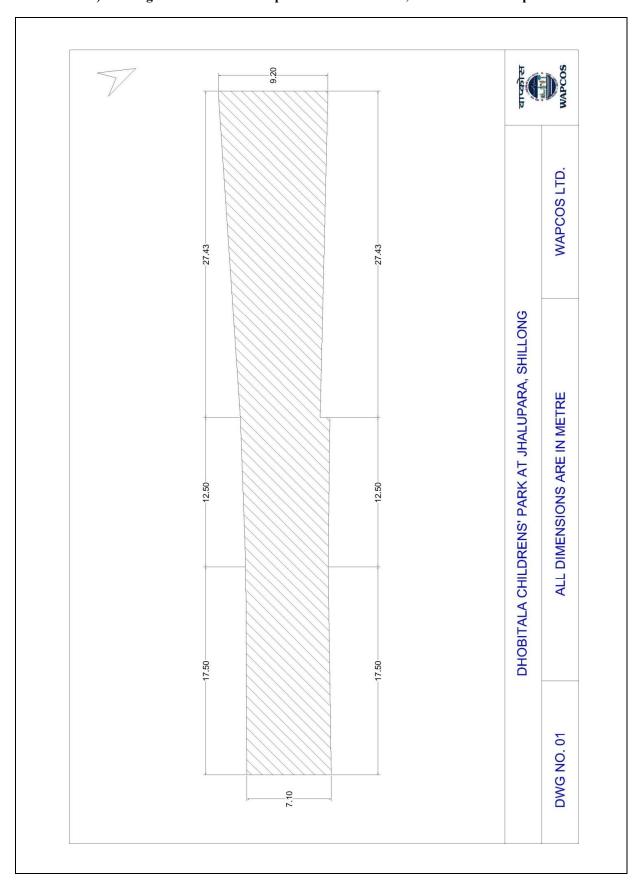


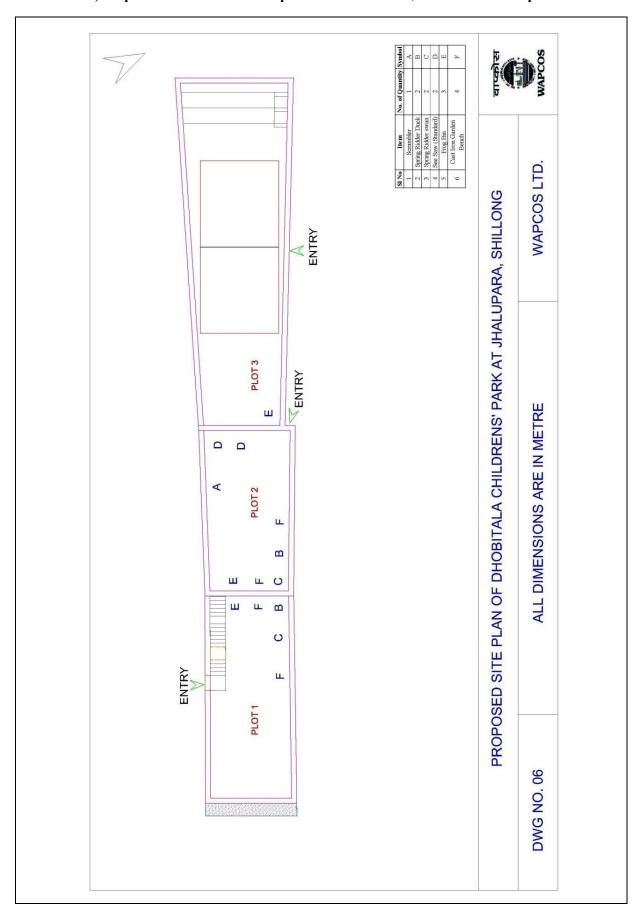


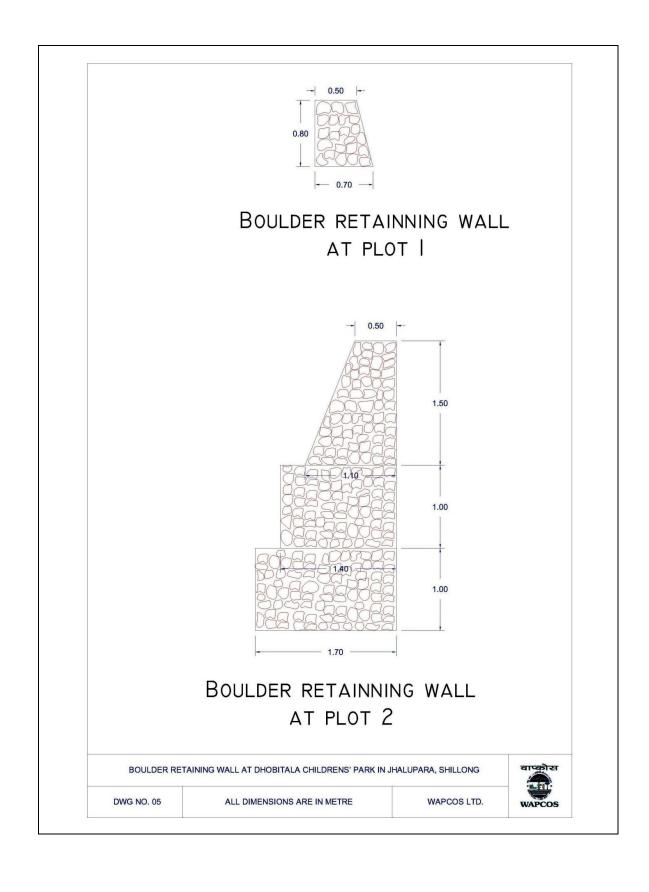


Proposed Drawing No B

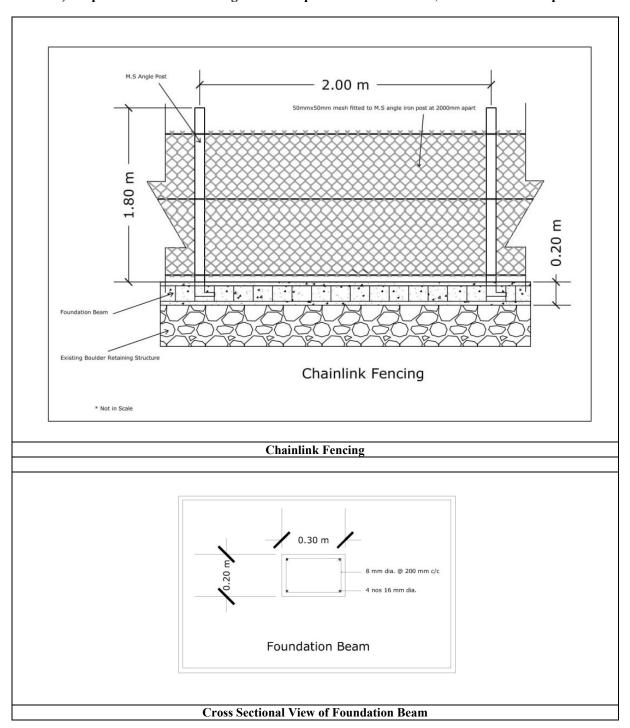
i) Existing Site Plan of Green Space & Children Park, Dhobitala at Jhalupara



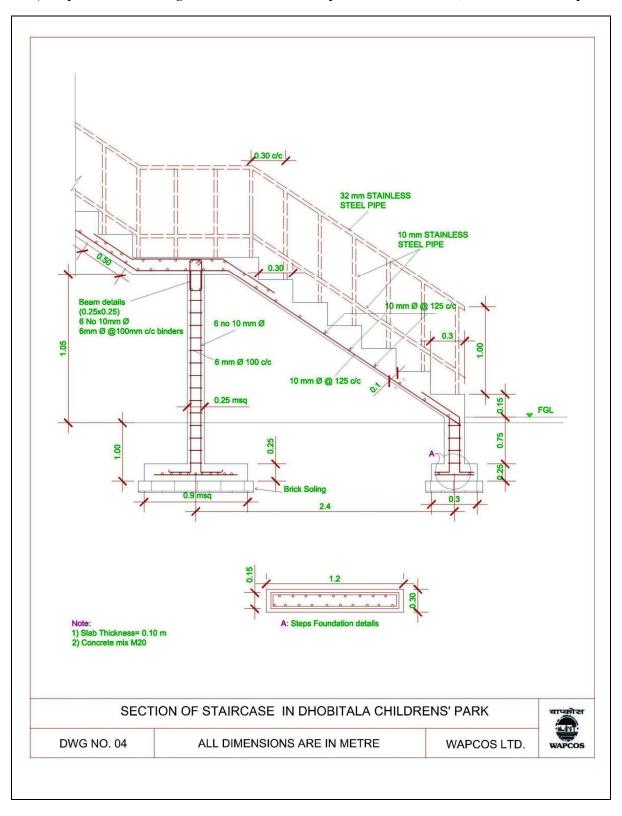




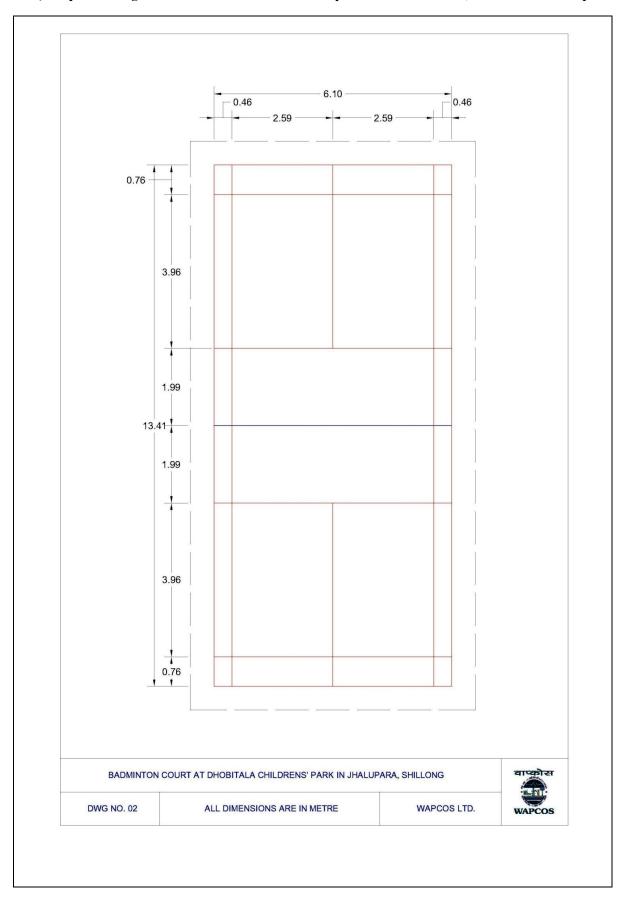
iv) Proposed Chainlink Fencing of Green Space & Children Park, Dhobitala at Jhalupara

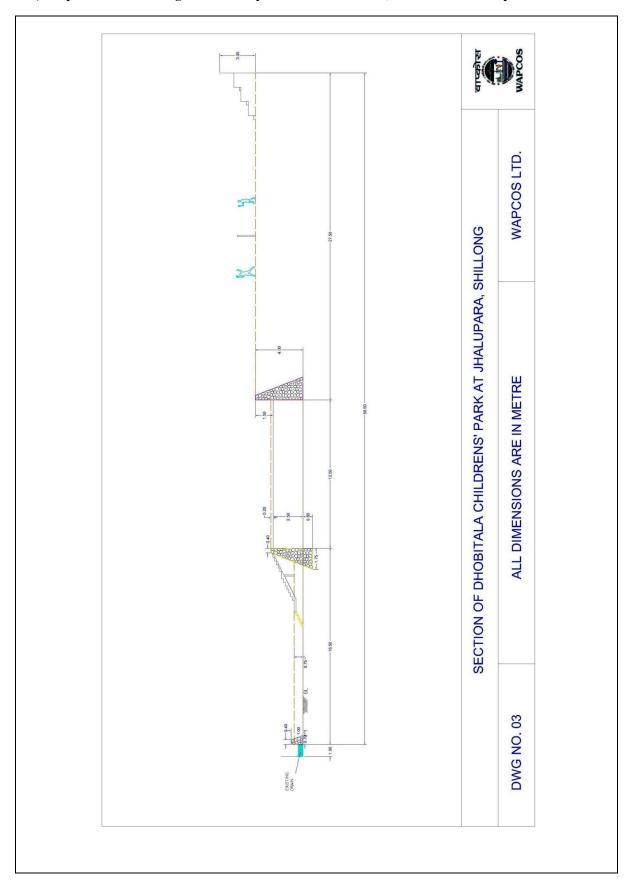


v) Proposed Section Design of Staircase of Green Space & Children Park, Dhobitala at Jhalupara



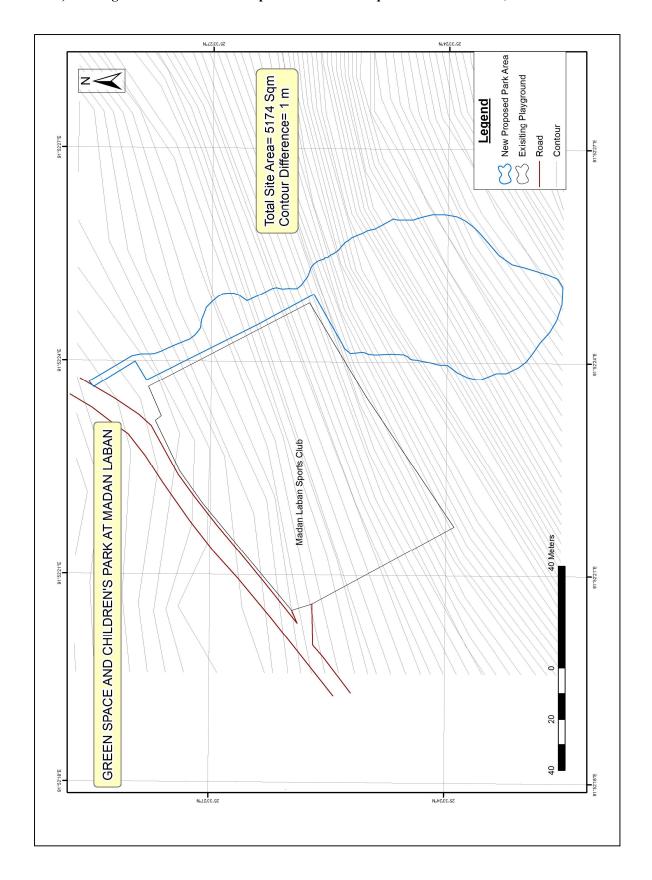
vi) Proposed Design of Badminton Court of Green Space & Children Park, Dhobitala at Jhalupara



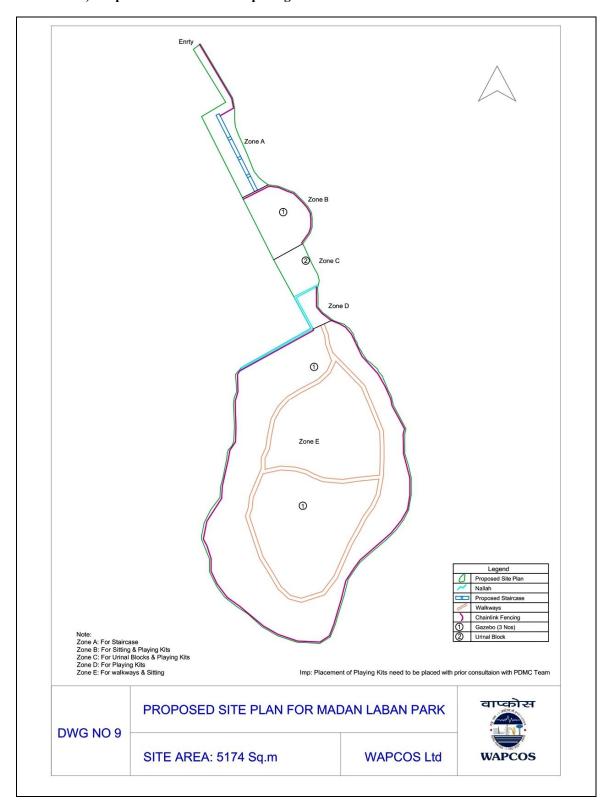


Proposed Drawing No C

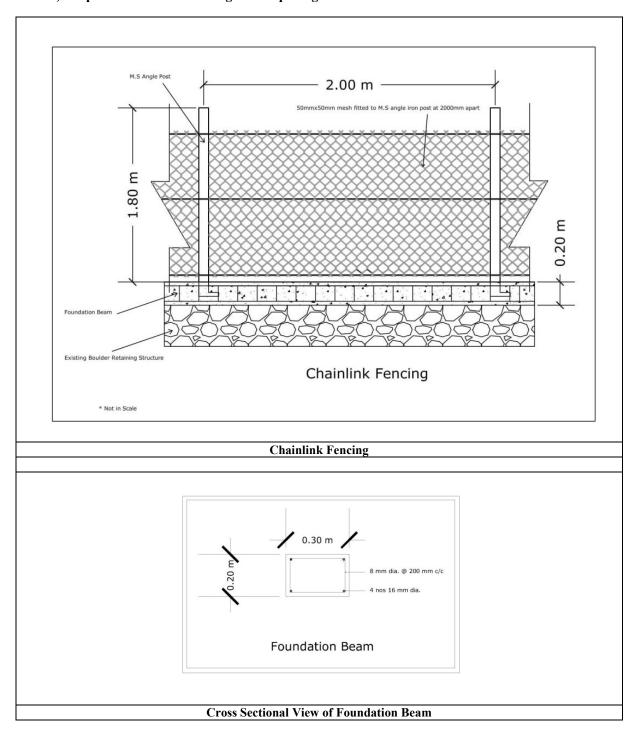
i) Existing Site Plan of Children's park Near Madan Sport & Cultural Club, Madan Laban



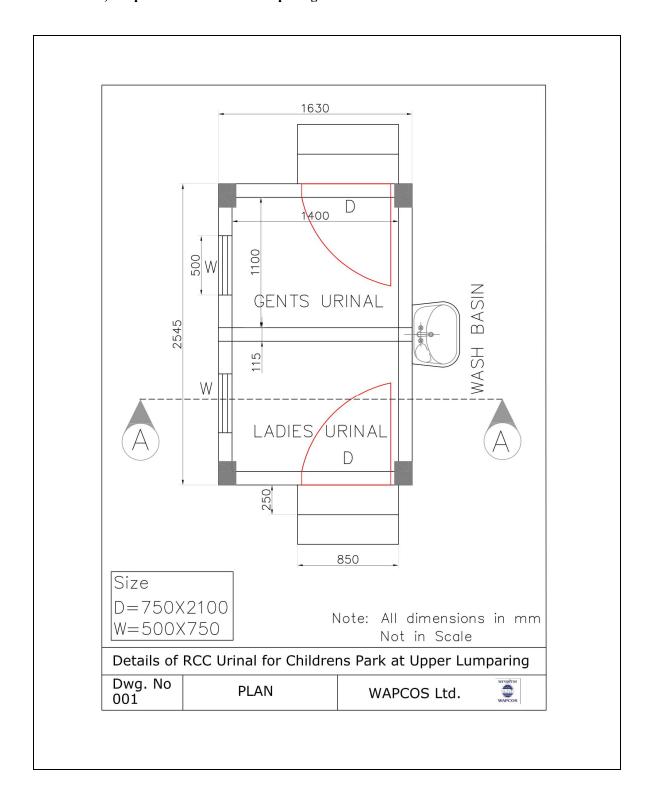
ii) Proposed Site Plan of Lumparing Social & Cultural Club Park at Madan Laban

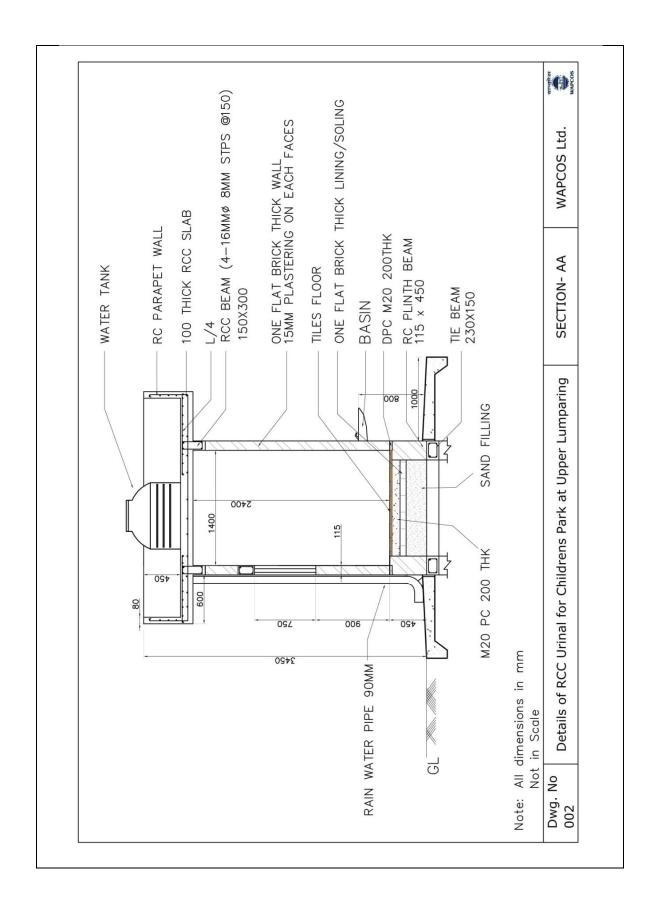


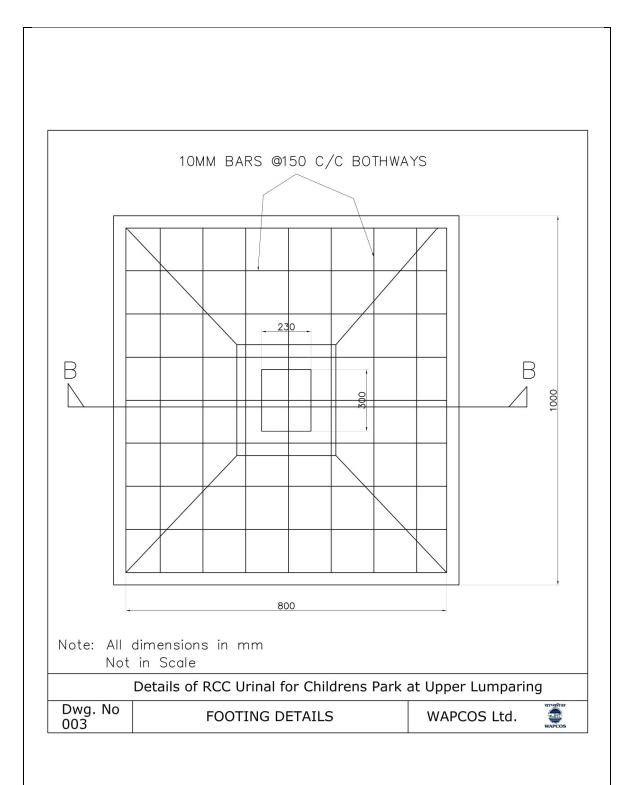
iii) Proposed Chainlink Fencing of Lumparing Social & Cultural Club Park at Madan Laban

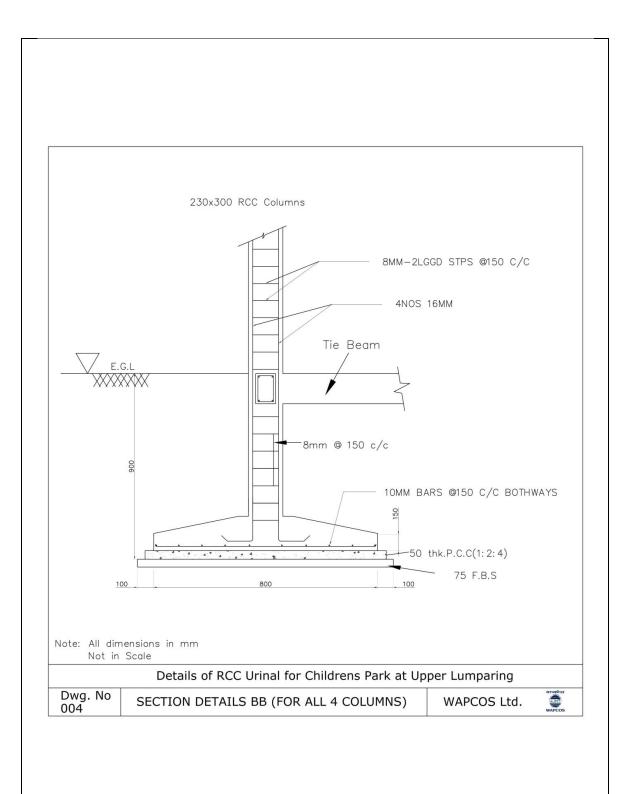


iv) Proposed Urinal Block Lumparing Social & Cultural Club Park at Madan Laban

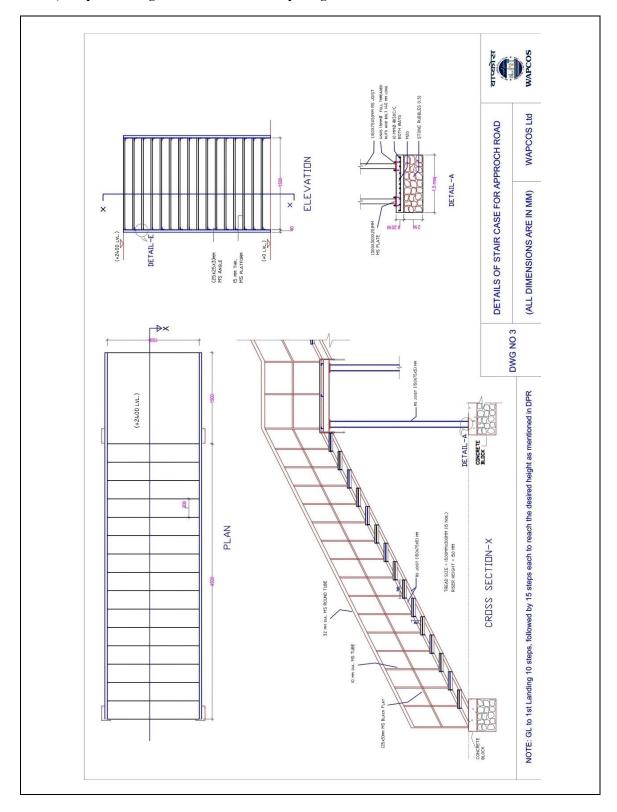


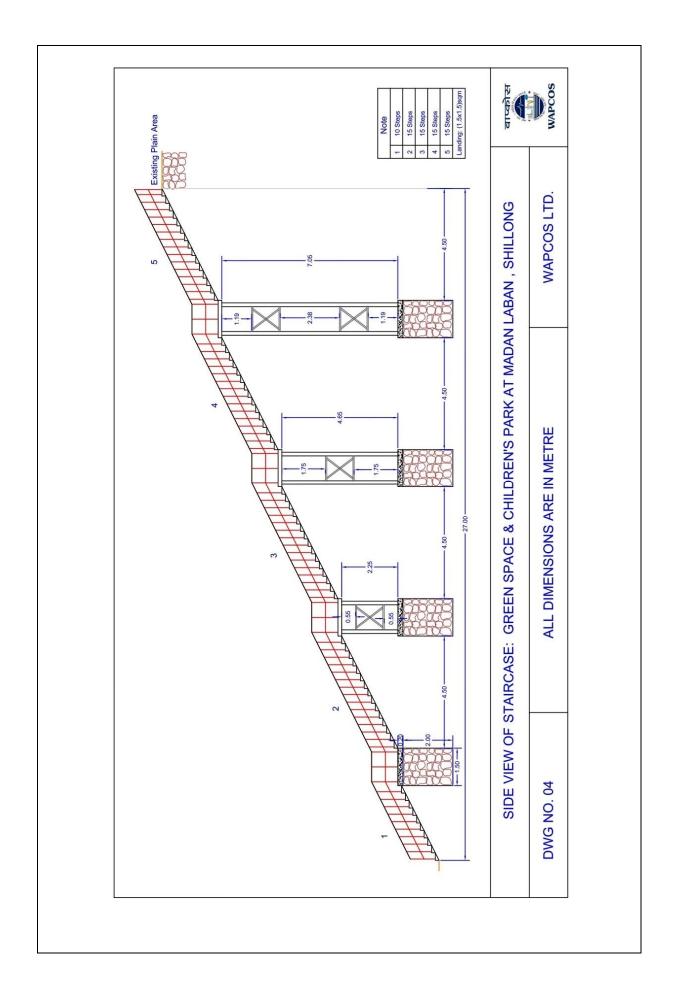


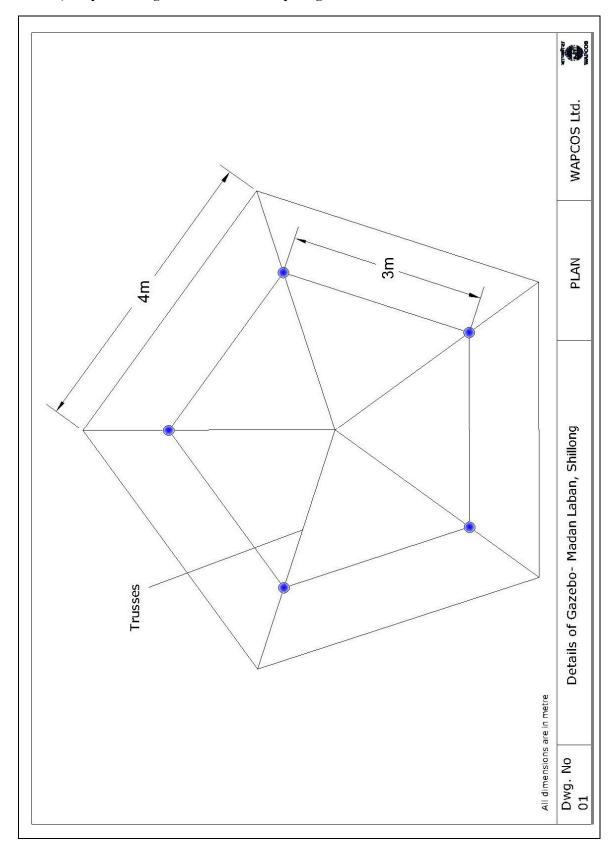


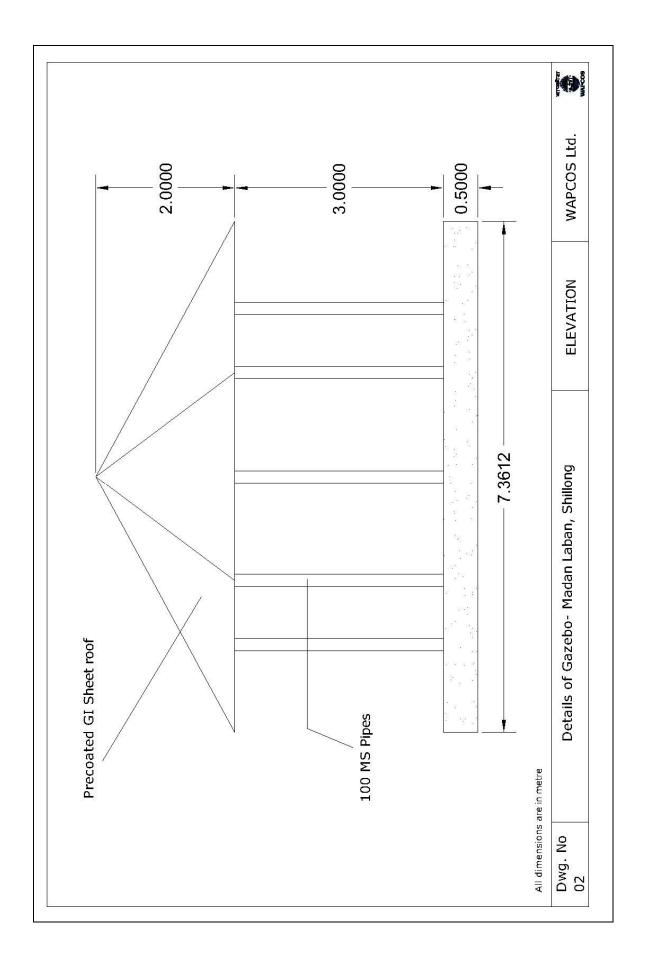


v) Proposed Design of Staircase for Lumparing Social & Cultural Club Park at Madan Laban









Details of Milestones

The time allowed for carrying out the work, as entered in the tender form shall be strictly observed by the contractor and shall be deemed to be essence of the contract and shall be reckoned immediately from the date of issue of the order to commence the work issued to the contractor.

The work shall throughout the stipulated period of contract be proceeded with all due diligence keeping in view that time is the essence of the contract. The contractor shall be bound in all cases, to complete

- 1/8th of the whole work before 1/4th of the whole time allowed under the contract has elapsed,
- 3/8th of the work before 1/2 of such time has elapsed
- 3/4th of the work before 3/4 of such time has elapsed.

Compensation for Delay

If the contractor fails to achieve the milestones, and the delay in execution of work is attributable to the contractor, the Employer shall retain an amount from the sums payable and due to the contractor as per following scale –

- i. Slippage up to 25% in financial target during the milestone under consideration -2.5% of the work remained unexecuted in the related time span.
- ii. Slippage exceeding 25% but up to 50% in financial target during the milestone under consideration -5% of the work remained unexecuted in the related time span.
- iii. Slippage exceeding 50% but up to 75% in financial target during the milestone under construction -7.5% of the work remained unexecuted in the related time span.
- iv. Slippage exceeding 75% in financial target during the milestone under consideration 10% of the work remained unexecuted in the related time span.

Note: For arriving at the dates of completion of time span related to different milestones, delays which are not attributable to the Contractor shall be considered. If the slippage on any milestone is made good in subsequent milestones or at the time of stipulated period of completion, the amount retained as above shall be refunded. In case the work is not completed within the stipulated period of completion along with all such extensions which are granted to the Contractor for either Employer's default or Force Majeure, the compensation shall be levied on the contractor at the rate of 0.05% per day of delay limited to maximum of 10% of contract price.

The decision of appropriate authority within the Department after scrutiny and recommendation by Executive Engineer/Project Officer of the Department shall be final and binding upon both the parties.

Physical Completion Certificate

Name of Work:	
Agreement NoDate	
Amount of Contract Rs	
Name of Agency:	
Used MB No.:	
Last measurement recorded	
a. Page No. & MB No.:	
b. Date:	
Certified that the above mentioned work was physically on (Date) and that I have satisfied myself to properly.	•
Date of issue	Engineer-in-charge

Final Completion Certificate

Name of Work:	
Agreement No	Date:
Name of Agency:	
Used MB No	
Last Measurement recorded	
a. Page No. & MB No.	_
b. Date	_
Certified that the above mentioned work was physical	ally completed on (date)
And taken over on(date).	
Agreement amount Rs	
Final amount paid to contractor Rs	
Incumbency of officers for the work	
I have satisfied myself to best of my ability that the	vork has been done properly.
Date of Issue	Engineer-in-charge

Salient Features of Some Major Labour Laws Applicable

- a. Workmen Compensation Act 1923: The Act provides for compensation in case of injury by accident arising out of and during the course of employment.
- b. Payment of Gratuity Act 1972: Gratuity is payable to an employee under the Act on satisfaction of certain conditions on separation if an employee has completed the prescribed minimum years (say, five years) of service or more or on death the rate of prescribed minimum days'(say, 15 days) wages for every completed year of service. The Act is applicable to all establishments employing the prescribed minimum number (say, 10) or more employees.
- c. Employees P.F. and Miscellaneous Provision Act 1952: The Act Provides for monthly contributions by the Employer plus workers at the rate prescribed (say, 10% or 8.33%). The benefits payable under the Act are:
 - i. Pension or family pension on retirement or death as the case may be. '
 - ii. Deposit linked insurance on the death in harness of the worker.
 - iii. Payment of P.F. accumulation on retirement/death etc.
- d. Maternity Benefit Act 1951: The Act provides for leave and some other benefits to women employees in case of confinement or miscarriage etc.
- e. Contract Labour (Regulation & Abolition) Act 1970: The Act provides for certain welfare measures to be provided by the Contractor to contract labour and in case the Contractor fails to provide, the same are required to be provided, by the Principal Employer by Law. The principal Employer is required to take Certificate of Registration and the Contractor is, required to take license from the designated Officer. The Act is applicable to the establishments or Contractor of Principal Employer if they employ prescribed minimum (say 20) or more contract labour.
- f. Minimum Wages Act 1948: The Employer is to pay not less than the Minimum Wages fixed by appropriate Government as per provisions of the Act if the employment is a scheduled employment. Construction of buildings, roads, runways is scheduled employment.
- g. Payment of Wages Act 1936: It lays down as to by what date the wages are to be paid, when it will be paid and what deductions can be made from the wages of the workers.
- h. Equal Remuneration Act 1979: The Act provides for payment of equal wages for work of equal nature to male and female workers and for not making discrimination against female employees in the matters of transfers, training and promotions etc.
- i. Payment of Bonus Act 1965: The Act is applicable to all establishments employing prescribed minimum (say, 20) or more workmen. The Act provides for payments of annual bonus 'within the prescribed range of Item of wages to employees drawing up to the prescribed amount of wages, calculated in the prescribed manner. The Act does not apply to certain establishments. The newly set-up establishments are exempted for five years in certain circumstances. States may have different number of employment size.
- j. Industrial Disputes Act 1947: The Act lays down the machinery and procedure for resolution of industrial disputes, in what situations a strike or lock-out becomes illegal and what are the requirements for laying off or retrenching the employees or closing down the establishment.
- k. Industrial Employment (Standing Orders) Act 1946: It is applicable to all establishments employing prescribed minimum (say, 100, or 50). The Act provides for laying down rules governing the conditions

- of employment by the Employer on matters provided in the Act and gets these certified by the designated Authority.
- Trade Unions Act 1926: The Act lays down the procedure for registration of trade unions of workmen and Employers. The Trade Unions registered under the Act have been given certain immunities from civil and criminal liabilities.
- m. Child Labour (Prohibition & Regulation) Act 1986: The Act prohibits employment of children below 14 years of age in certain occupations and processes and provides for regulations of employment of children in all other occupations and processes. Employment of child labour is prohibited in building and construction industry.
- n. Inter-State Migrant Workmen's (Regulation of Employment & Conditions of Service) Act 1979: The Act is applicable to an establishment which employs prescribed minimum (say, five) or more inter-state migrant workmen through an intermediary (who has recruited workmen in one state for employment in the establishment situated in another state). The inter-State migrant workmen, in an establishment to which this Act becomes applicable, are required to be provided certain facilities such as Housing, Medical-Aid, Travelling expenses from home up to the establishment and back etc.
- o. The Building and Other Construction workers (Regulation of Employment and Conditions of Service) Act 1996 and the Cess Act of 1996: All the establishments who carry on any building or other construction work and employs the prescribed minimum (say, 10) or more workers are covered under this Act. All such establishments are required to pay cess at the rate not exceeding 2% of the cost of construction as. may be modified by the Government., The Employer of the establishment- is required to provide safety measures at the building or construction work and other welfare measures, such as canteens, first-aid facilities, ambulance, housing accommodations for workers near the-work place etc. The Employer to whom the Act applies has to obtain a registration certificate from the Registering Officer appointed by the Government.
- p. Factories Act 1948: The Act lays down the procedure for approval of plans before setting up a factory, health and safety provisions, welfare provisions, working hours, annual earned leave and rendering information regarding accidents or dangerous occurrences to designated authorities. it is applicable to premises employing the prescribed minimum (say, 10) persons or more with aid of power or another prescribed minimum (say, 20) or more persons without the aid of power engaged in manufacturing process.

Construction Safety

- i. IS: 3696(Part-1, 2) Safety code for scaffolds and ladder
- ii. IS: 3764 Safety code for excavation work
- iii. IS: 7205 Safety code for erecting of structural steel work
- iv. SP: 70-2001 Handbook on Construction Safety Practices
- 1. On all excavation work, safety precautions for the protection of life and property are essential: While measures to avoid inconveniences to the public are desirable. Such measures and precautions include the erection and maintenance signs (to forewarn public), barricades, bridges, and detours: placing and maintenance of lights both for illumination and also as danger signals, provision of watchmen to exclude unauthorised persons particularly children, from trespassing on the work: and such other precautions as local conditions may dictate.
- 2. Suitable scaffolds should be provided for workmen for all works that cannot safely be done from the ground, or from solid construction except such short period work as can be done safely from ladders. When a ladder is used, an extra mazdoor shall be engaged for holding the ladder and if the ladder is used for carrying materials as well suitable footholds and hand-hold shall be provided on the ladder and the ladder shall be given an inclination not steeper than ½ to 1(¼ horizontal and 1 vertical.)
- 3. Scaffolding of staging more than 3.6 m (12ft.) above the ground or floor, swung or suspended from an overhead support or erected with stationary support shall have a guard rail properly attached or bolted, braced and otherwise secured at least 90 cm. (3ft.) high above the floor or platform of such scaffolding or staging and extending along the entire length of the outside and ends there of with only such opening as may be necessary for the delivery of materials. Such scaffolding or staging shall be so fastened as to prevent it from swaying from the building or structure.
- 4. Working platforms, gangways and stairways should be so constructed that they should not sag unduly or unequally, and if the height of the platform or the gangway or the stairway is more than 3.6 m (12ft.) above ground level or floor level, they should be closely boarded, should have adequate width and should be suitably fastened as described in (2) above.
- 5. Every opening in the floor of a building or in a working platform shall be provided with suitable means to prevent the fall of person or materials by providing suitable fencing or railing whose minimum height shall be 90 cm. (3ft.)
- 6. Safe means of access shall be provided to all working platforms and other working places. Every ladder shall be securely fixed. No portable single ladder shall be over 9m. (30ft.) in length while the width between side rails in rung ladder shall in no case be less than 29 cm. (11½") for ladder up to and including 3 m. (10 ft.) in length. For longer ladders, this width should be increased at least ¼" for each additional 30 cm. (1 foot) of length. Uniform step spacing of not more than 30 cm shall be kept. Adequate precautions shall be taken to prevent danger from electrical equipment. No materials on any of the sites or work shall be so stacked or placed as to cause danger or inconvenience to any person or the public. The contractor shall provide all necessary fencing and lights to protect the public from accident and shall be bound to bear the expenses of defense of every suit, action or other proceedings at law that may be brought by any person for injury sustained owing to neglect of the above precautions and to pay any damages and cost which may be awarded in any such suit; action or proceedings to any such person or which may, with the consent of the contractor, be paid to compensate any claim by any such person.

a. Excavation and Trenching - All trenches 1.2 m. (4ft.) or more in depth, shall at all times be supplied with at least one ladder for each 30 m. (100 ft.) in length or fraction thereof, Ladder shall extend from bottom of the trench to at least 90 cm. (3ft.) above the surface of the ground. The side of the trenches which are 1.5 m. (5ft.) or more in depth shall be stepped back to give suitable slope or securely held by timber bracing, so as to avoid the danger of sides collapsing. The excavated materials shall not be placed within 1.5 m. (5ft.) of the edges of the trench or half of the depth of the trench whichever is more. Cutting shall be done from top to bottom. Under no circumstances, undermining or undercutting shall be done.

b. Safety Measures for digging bore holes:-

- i. If the bore well is successful, it should be safely capped to avoid caving and collapse of the bore well. The failed and the abandoned ones should be completely refilled to avoid caving and collapse;
- ii. During drilling, Sign boards should be erected near the site with the address of the drilling contractor and the Engineer in-charge of the work.
- iii. Suitable fencing should be erected around the well during the drilling and after the installation of the rig on the point of drilling, flags shall be put 50m alround the point of drilling to avoid entry of people;
- iv. After drilling the bore well, a cement platform (0.50m x 0.50m x 1.20m) 0.60m above ground level and 0.60m below ground level should be constructed around the well casing;
- v. After the completion of the bore well, the contractor should cap the bore well properly by welding steel plate, cover the bore well with the drilled wet soil and fix thorny shrubs over the soil. This should be done even while repairing the pump;
- vi. After the bore well is drilled the entire site should be brought to the ground level.
- 8. Demolition before any demolition work is commenced and also during the progress of the work,
 - i. All roads and open areas adjacent to the work site shall either be closed or suitably protected.
 - ii. No electric cable or apparatus which is liable to be a source of danger or a cable or apparatus used by the operator shall remain electrically charged.
 - iii. All practical steps shall be taken to prevent danger to persons employed from risk of fire or explosion or flooding. No floor, roof or other part of the building shall be so overloaded with debris or materials as to render it unsafe.
- 9. All necessary personal safety equipment as considered adequate by the Engineer-in-Charge should be kept available for the use of the person employed on the site and maintained in a condition suitable for immediate use, and the contractor should take adequate steps to ensure proper use of equipment by those concerned. The following safety equipment shall invariably be provided:--.
 - i. Workers employed on mixing asphaltic materials, cement and lime mortars shall be provided with protective footwear and protective goggles
 - ii. Those engaged in white washing and mixing or stacking of cement bags or any material which is injurious to the eyes, shall be provided with protective goggles.
 - iii. Those engaged in welding works shall be provided with welder's protective eye shields.
 - iv. Stone breaker shall be provided with protective goggles and protective clothing and seated at sufficiently safe intervals.
 - v. When workers are employed in sewers and manholes, which are in active use, the contractors shall ensure that the manhole covers are opened and ventilated at least for an hour before the workers are allowed to get into the manholes, and the manholes so opened shall be cordoned off with suitable railing and provided with warning signals or boards to prevent accident to the public. In addition, the contractor shall ensure that the following safety measure are adhered to:-

- a. Entry for workers into the line shall not be allowed except under supervision of the JE or any other higher officer.
- b. At least 5 to 6 manholes upstream and downstream should be kept open for at least 2 to 3 hours before any man is allowed to enter into the manhole for working inside.
- c. Before entry, presence of Toxic gases should be tested by inserting wet lead acetate paper which changes colour in the presence of such gases and gives indication of their presence.
- d. Presence of Oxygen should be verified by lowering a detector lamp into the manhole. In case, no Oxygen is found inside the sewer line, workers should be sent only with Oxygen kit.
- e. Safety belt with rope should be provided to the workers. While working inside the manholes, such rope should be handled by two men standing outside to enable him to be pulled out during emergency.
- f. The area should be barricaded or cordoned off by suitable means to avoid mishaps of any kind. Proper warning signs should be displayed for the safety of the public whenever cleaning works are undertaken during night or day.
- g. No smoking or open flames shall be allowed near the blocked manhole being cleaned.
- h. The debris obtained on account of cleaning of blocked manholes and sewer lines should be immediately removed to avoid accidents on account of slippery nature of the debris
- i. Workers should not be allowed to work inside the manhole continuously. He should be given rest intermittently. The Engineer-in-Charge may decide the time up to which a worker may be allowed to work continuously inside the manhole.
- j. Gas masks with Oxygen Cylinder should be kept at site for use in emergency.
- k. Air-blowers should be used for flow of fresh air through the manholes. Whenever called for, portable air blowers are recommended for ventilating the manholes. The Motors for these shall be vapour proof and of totally enclosed type. Non sparking gas engines also could be used but they should be placed at least 2 meters away from the opening and on the leeward side protected from wind so that they will not be a source of friction on any inflammable gas that might be present.
- 1. The workers engaged for cleaning the manholes/sewers should be properly trained before allowing to work in the manhole.
- m. The workers shall be provided with Gumboots or non sparking shoes, bump helmets and gloves, non sparking tools, safety lights and gas masks and portable air blowers (when necessary). They must be supplied with barrier cream for anointing the limbs before working inside the sewer lines.
- n. Workmen descending a manhole shall try each ladder stop or rung carefully before putting his full weight on it to guard against insecure fastening due to corrosion of the rung fixed to manhole well.
- o. If a man has received a physical injury, he should be brought out of the sewer immediately and adequate medical aid should be provided to him.
- p. The extent to which these precautions are to be taken depend on individual situation but the decision of the Engineer-in-Charge regarding the steps to be taken in this regard in an individual case will be final.
- vi. The Contractor shall not employ men and women below the age of 18 years on the work of painting with products containing lead in any form. Wherever men above the age of 18 are employed on the work of lead painting, the following precaution should be taken:
 - a. No paint containing lead or lead products shall be used except in the form of paste or readymade paint.
 - b. Suitable face masks should be supplied for use by the workers when paint is applied in the form of spray or a surface having lead paint is dry rubbed and scrapped.
 - c. Overall shall be supplied by the contractors to the workmen and adequate facilities shall be provided to enable the working painters to wash during and on the cessation of work.

below the age of 18 on the work of painting with product containing lead in any form, wherever men above the age of 18 are employed on the work of lead painting, the following principles must be observed for such use:

- a. White lead, sulphate of lead or product containing these pigment, shall not be used in painting operation except in the form of pastes or paint ready for use.
- b. Measures shall be taken, wherever required in order to prevent danger arising from the application of a paint in the form of spray.
- c. Measures shall be taken, wherever practicable, to prevent danger arising out of from dust caused by dry rubbing down and scraping.
- d. Adequate facilities shall be provided to enable working painters to wash during and on cessation of work.
- e. Overall shall be worn by working painters during the whole of working period.
- f. Suitable arrangement shall be made to prevent clothing put off during working hours being spoiled by painting materials.
- g. Cases of lead poisoning and suspected lead poisoning shall be notified and shall be subsequently verified by medical man appointed by competent authority.
- h. The employer may require, when necessary medical examination of workers. (ix) Instructions with regard to special hygienic precautions to be taken in the painting trade shall be distributed to working painters.
- 11. When the work is done near any place where there is risk of drowning, all necessary equipments should be provided and kept ready for use and all necessary steps taken for prompt rescue of any person in danger and adequate provision, should be made for prompt first aid treatment of all injuries likely to be obtained during the course of the work.
- 12. Use of hoisting machines and tackle including their attachments, anchorage and supports shall conform to the following standards or conditions:
 - i. **a.** These shall be of good mechanical construction, sound materials and adequate strength and free from patent defects and shall be kept repaired and in good working order.
 - **b.** Every rope used in hoisting or lowering materials or as a means of suspension shall be of durable quality and adequate strength, and free from patent defects.
 - ii. Every crane driver or hoisting appliance operator shall be properly qualified and no person under the age of 21 years should be in charge of any hoisting machine including any scaffolding winch or give signals to operator.
 - iii. In case of every hoisting machine and of every chain ring hook, shackle swivel and pulley block used in hoisting or as means of suspension, the safe working load shall be ascertained by adequate means. Every hoisting machine and all gear referred to above shall be plainly marked with the safe working load. In case of a hoisting machine having a variable safe working load each safe working load and the condition under which it is applicable shall be clearly indicated. No part of any machine or any gear referred to above in this paragraph shall be loaded beyond the safe working load except for the purpose of testing.
 - iv. In case of departmental machines, the safe working load shall be notified by the Electrical Engineer-in-Charge. As regards contractor's machines the contractors shall notify the safe working load of the machine to the Engineer-in-Charge whenever he brings any machinery to site of work and get it verified by the Electrical Engineer concerned.
- 13. Motors, gearing, transmission, electric wiring and other dangerous parts of hoisting appliances should be provided with efficient safeguards. Hoisting appliances should be provided with such means as will reduce to the minimum the risk of accidental descent of the load. Adequate precautions should be taken to reduce to the minimum the risk of any part of a suspended load becoming accidentally displaced. When workers are employed on electrical installations which are already energized, insulating mats,

- wearing apparel, such as gloves, sleeves and boots as may be necessary should be provided. The worker should not wear any rings, watches and carry keys or other materials which are good conductors of electricity.
- 14. All scaffolds, ladders and other safety devices mentioned or described herein shall be maintained in safe condition and no scaffold, ladder or equipment shall be altered or removed while it is in use. Adequate washing facilities should be provided at or near places of work.
- 15. To ensure effective enforcement of the rules and regulations relating to safety precautions the arrangements made by the contractor shall be open to inspection by the Engineer-in-Charge or their representatives.
- 16. Notwithstanding the above clauses from (1) to (14), there is nothing in these to exempt the contractor from the operations of any other Act or Rule in force in the Republic of India.

Section 3

Conditions of Contract Part-II Special Conditions of Contract [SCC]

1. GENERAL:

The special conditions are supplementary conditions to the TENDER and shall form the part of the contract.

i. It shall be the responsibility of contractor to co-ordinate with traffic authority, Electricity Board, Telephone authority, various authorities including Public Health Engineering, Water resource Department for obtaining necessary permissions regarding crossing of road, shift of various types of public utilities like existing pipe line, sewer line, cable etc. as may be required for the due fulfillment of the obligations under this contract. Shillong Municipal Board shall deposit all charges including charges for Electric Connection, Road way etc. as may be necessary for seeking required permissions from different authorities but it shall be the primary responsibility of the contractor/firm to pursue with various authorities and obtain the permissions at the earliest. If as a result of excavation of trenches the underground services such as water main electric, telephones cable, sewer lines become naked and unsupported it shall be the responsibility of the contractor to make suitable and necessary arrangement as per direction of the Engineer-in-Charge for their protection and no extra payment on this account will be made to the contractor. Any damages caused to the above mentioned underground services due to negligence of the contractor or otherwise the same shall be made good by the contractor at his own cost.

2. Accuracy of Lines, Levels and Grades

- i. The various works shall be done true to line, level and grade. The periodical checking of these by the Engineer or Engineer's representative shall not absolve the Contractor of his responsibility regarding their accuracy. In case of any deviation or discrepancy in line, level or grade at the meeting faces, the contractor shall make good the discrepancy at his own cost and without any compensation for the additional work if any involved. Whenever such a discrepancy is found to arise at the junction of works being carried out by different Contractors the responsibility to set right their respective discrepancies shall be fixed by the Engineer whose decision shall be final and binding on the Contractors concerned. Engineer shall further have the unquestioned right if need be to rectify the discrepancies and recover the cost from the Contractor or Contractors according to proportions as he May consider reasonable.
- ii. The details of location and the nearest permanent bench marks. Reference Grid Marks shall be obtained by the Contractor in writing from the Engineer. Temporary bench mark for day to day use shall be fixed with reference to above permanent bench marks with double leveling. The Grid Co-ordinates and its references May be obtained from the Engineer.

3. Arrangements of Water and Electric Power

Arrangement for water and electric power required by the Contractor for the works shall be made by him at his own cost. Employer will however recommend to the State Electricity Board for giving the connection and power to the Contractor. However the Employer will bear no responsibility in this respect.

4. Measures for Prevention of Fire

- i. The Contractor shall not set fire to any standing Jungle, trees, brush wood or grass without a written permission from the Engineer.
- ii. When such permission is given and also in all cases when destroying out of dug trees, brush wood, grass etc. by fire, the Contractor shall take necessary measures to prevent such fire spreading to or otherwise damaging surrounding property.

- iii. Any damage caused by the spreading of such fire, whether in or beyond limits of the Employer's property, the amount of the damage shall be recovered by the Engineer from the Contractor's Bills as damages or deducted by any other duly authorized officer from any sums that May be due or become due from the Employer to the Contractor under the contractor otherwise.
- iv. The Contractor shall bear the expenses of defending any action or law proceedings that May be brought by any person by injury sustained owing to neglect of precautions to prevent the spread of fire and shall pay any damage and cost that May be awarded in consequence.

5. Site Order Book

A site order book shall be kept at the Employer's office on the site of the work. As far as possible all orders regarding the works are to be entered in this book. All entries therein shall be signed by the Engineer on his representative and the contractor or his authorized representative. In important cases the Engineer will countersign the entries which have been made. The site order book shall not be removed from the work site except with written permission of the Engineer and the Contractor or his representative shall be bound to take note of all instructions and directions meant for the Contractor as entered in the site order book without having to be called on separately to note them. The Engineer shall submit periodically copies of the remarks in the site order book to the Employer for record and to the contractor for submitting compliance report.

6. Foundations Depth/Levels.

The drawings indicate the general foundation levels to be adopted for the different conditions of the structures. During execution these levels May be modified to suit the site conditions. The Contractor shall not be liable to any compensation for any minor delays on this account. However this May be considered for granting suitable extension in the completion period if necessitated by such events.

7. Approach Road

Necessary approach roads for various construction of components of the work shall be satisfactorily constructed and maintained by the Contractor at his own cost.

8. Regulation and Bye-Laws

The contractor shall conform to the regulations, bye laws or any other statutory rules made by any local authorities or by the Government and shall protect and indemnify the Employer against any claims or liability arising from or based on the violations of any such laws, ordinance, regulations, orders and decrees etc.

9. Contractor to use Excavated Hard Rock

All useful materials like hard rock etc. excavated by the Contractor at site shall be the property of Employer and shall be issued to the Contractor at the issue rate of Rs. 200/- per cum. It shall be binding on the Contractor to use it as rubble, metal aggregate etc. after breaking into the required size for concrete work and as directed by the Engineer.

10. Income Tax

During the course of contract period, deductions of Income Tax shall be made at the prevailing rate of Department of Income Tax Government of India and as revised from time to time as per the advice of Income Tax authorities.

11. Supply and Arrangement of Materials

i. The contractor shall make his own arrangement for supply of materials including cement and steel. The contractor shall be responsible for all transportation and storage of the materials at

- site and shall bear all the related costs. The Engineer shall be entitled at any time to inspect or examine all such materials. The contractor shall provide reasonable assistance for such inspection or examination as May be required.
- ii. The contractor shall keep an accurate record of use of materials like cement and steel used in the works in a manner prescribed by the Engineers.

12. Cement

- a. The Contractor shall stock his requirement so as to ensure utilization of cement within 60 days but in no case later than 90 days Cement older than the period aforesaid shall not be used on any work except with the written permission of the Engineer, and after satisfactorily passing such lest as he May specify. The Contractor shall forthwith remove from the work such cement that Engineer has not allowed. The final disposal of such cement shall comply with the rules in force at the time and as the Engineer May approve
- b. Large stocks of cement shall not be kept at the works but only sufficient quantities shall be kept to assure continuity of the work. The Contractor shall provide and maintain efficient water proof storage sheds for cement at the site of work. It shall be stacked on the platform 30 cms. above the floor level and shall be covered with tarpaulin or any other impervious covering materials in order to protect the cement bags from moisture. The cement shall be neatly stacked in an orderly manner so as to allow an easy access and count. The arrangement of storage and utilization shall be such as to ensure the utilization of cement in the order of its arrival at the stores and the Contractor shall maintain satisfactory records which would at any time show the date of receipt and proposed utilization of cement lying in the stores at site.
- c. The Engineer shall at all time have access to the stores at sites of the Contractor. He shall have authority to check and examine the method of storage, record accounting and security provided by the Contractor. The Contractor shall comply with instructions that May be issued by the Engineer in this connection. The Contractor shall further at all times satisfy the Engineer on demand and by the production of records and books or submission of returns and proforma or by other proofs that May be demanded that the cement brought from the approved manufacturer with date of receipt & consumption etc. The Contractor shall at all times keep his records up to date to enable the Engineer to apply such checks as he May desire to impose.

The contractor shall provide a double locking arrangement to the store the key of one of the locks being with the Engineer or his representative at site. The Engineer or his authorized agent will have the authority to verify the stocks and check the consumption in any manner he thinks proper.

13. Special Condition Regarding Conditional TENDER

The BIDDER will have to give an undertaking for the Earnest Money to the effect that there are no conditions in the TENDER and if any conditions are found the same shall be ignored.

If such an undertaking is not found with the Earnest Money the TENDER will not be opened and not taken into consideration. However in case the contractor gives such an undertaking at the time of opening of TENDER the same May be considered.

14. Design and Drawings

- i. The Detailed project report prepared by the Employer will be basic data for guidance of Contractor. The contractor will not claim whatsoever on account of deficiency in the data of Detailed Project Report.
- ii. Bidder shall carryout detail survey and investigations (including soil test) as may be required for preparation of detail designs and drawings as necessary
- iii. The detailed design and drawing if necessary shall be prepared by Contractor and submitted to PDMC for examination through Employer and the observations made shall be duly

incorporated by Contractor without any claims what so ever in this regard. Thereafter the drawing duly vetted by appropriate authority shall be submitted to the Employer/PDMC for final approvals.

iv. The approved drawings shall remain in the sole custody of the Engineer. The Contractor shall obtain and make at his own expense any further copies required by him. At the completion of the contract the Contractor shall return to the Engineer all Drawings provided under the Contract.

v. One copy of the Drawings to be kept at Site.

One copy of the Drawings furnished to the Contractor as aforesaid, shall be kept by the Contractor at the site and the same shall at all reasonable times be available for inspection and use by the Engineer and the Engineer's Representative and by any other person authorized by the Engineer in writing.

vi. As- Built Drawings

The contractor shall submit to the Engineer-in-Charge within 21 days of Physical completion, "Completion" Drawings as detailed below. These drawings shall be accurate and correct in all respects and shall be shown to and approved by the Engineer-in-charge.

Completion drawings as below on two prints and one polyester copy shall be supplied by the contractor along with a soft copy in CD. These drawings shall be developed in latest version of Auto-CAD. Drawings shall be of standard as stated below.

- a. Site plan showing all features existing and as constructed under this contract with all external dimensions of clear spaces among those, diameter and materials of pipeline etc. complete.
- b. Architectural, Civil and Structural details of all components of the plant including plans at different levels, elevations from all sides as well as sectional etc. complete with all dimensions including Structural Thickness, Concrete Grade, Reinforcement details, finishing details, schedules of doors and windows, details of associated fittings and features complete.
- c. All piping, plumbing and electrical details with dimensions, diameters etc. complete at specific cases isometric views of piping may be necessary.
- d. Dimensioned details of all electrical, mechanical and instrumentation equipments including accessories along with arrangement inside the buildings or enclosures, connected piping and cabling layout etc. all complete.
- e. Dimensioned details of all control and measuring device lined weirs, V-notches, probes, valves, gates, consoles, panels, switch diagrams/Circuit diagrams shall be used wherever applicable.
- f. L-sections for pipelines laid externally, showing pipe profile, ground profile, soil condition, bedding, location of specials, valves and other accessories complete.
- g. Dimensioned details of all site development works such as roads, drainage, cables pipelines, landscaping etc. complete with layout, cross sections, levels etc. complete.

All drawings shall be prepared in appropriate scale and with adequate notes, legends, titles etc. for clarity.

vii. Disruption of Progress

The Contractor shall give written notice to the Engineer whenever planning or progress of the works is likely to be delayed or disrupted unless any further drawing or order, including a direction, instruction or approval is issued by the Engineer within a reasonable time. The notice shall include details of the drawing or order required and of why and by when it is required and of any delay or disruption likely to be suffered if it is late.

viii. Delay and Cost of delay of Drawings

If, by reason of any failure or inability of the Engineer to issue within a time reasonable in all the circumstances any drawing or order required by the Contractor in accordance with subclause (3) of this Clause, the Contractor suffers delay then the Engineer shall take such delay into account in determining any extension of time to which the Contractor is entitled under Clause 44 hereof. However the Contractor shall not be entitled to any compensation for such

delay, except extension of time.

ix. Further Drawings and instructions

The Engineer shall have full power and authority to supply to the Contractor from time to time during the progress of the Works such further drawings and instructions as shall be necessary for the purpose of the proper and adequate execution and maintenance of the Works The Contractor shall carry out and be bound by the same.

15. Sufficiency of Tender

The Contractor shall be deemed to have satisfied himself before tendering as to the correctness and sufficiency of his TENDER for the Works and of the rates and prices of various Quantities and the Schedule of Rates and Prices, if any, which TENDER rates and prices shall, except in so for as it is otherwise provide in the Contract, cover all his obligations under the Contract and all matters and things necessary for the proper execution and maintenance of the Works. If, however, during the execution of the Works the Contractor shall encounter physical conditions, other than climatic conditions on the Site, or artificial obstructions, which conditions or obstruction could, in his opinion, not have been reasonable foreseen by an experienced contractor the Contractor shall forthwith give written notice thereof to the Engineer's Representative and if in the opinion of the Engineer, such conditions or artificial obstructions could not have been reasonably foreseen by an experienced contractor, than the Engineer shall certify and the Employer shall pay the additional cost to which the Contractor shall have been put by reason of such conditions, including the proper and reasonable cost. However the Engineer in charge decision shall be final & binding.

CHIEF EXECUTIVE OFFICER
SHILLONG MUNICIPAL BOARD

SECTION 4

AGREEMENT FORM AGREEMENT

(On Non Judicial Stamp Paper of Rs. 1000.00)

This agreement, made on the day of	between (name and address of Employer)
(hereinafter called "the Employer) and	(name and address of contractor) hereinafter
called "the Contractor" of the other part.	
Bid by the Contractor for the execution and completenein, at a cost of Rs.	called "the Works") and the Employer has accepted the etion of such Works and the remedying of any defects
NOW THIS AGREEMENT WITNESSED as foll	ows:
	have the same meanings as are respectively assigned to ferred' to and they shall be deemed to form and be read
	e by the Employer to the Contractor as hereinafter in the Employer to execute and complete the Works and spects with the provisions of the contract.
of the Works and the remedying the defects who	ractor in consideration of the execution and completion erein Contract Price or such other sum as may become te times and in the manner prescribed by the Contract.
Agreement viz. i. Letter of Acceptance ii. Contractor's Eligibility documents as per BD iii. Condition of Contract: General and Special	o form and be ready and construed as part of this S (Envelope-A) & Financial Bid (Envelope-B)
 iv. Contract Data v. Bid Data vi. Drawings & Sketches vii. Priced Bill of Quantities and _ viii. Any other documents listed in the Contract I 	Data as forming part of the Contract.
In witnessed whereof the parties there to have cause before written.	d this Agreement to be executed the day and year first
The Common Seal of affixed in the presence of:	
Signed, Sealed and Delivered by the saidthe presence of:	in
Witness – 1	
Witness – 2	
Binding Signature of Employer	
Binding Signature of Contractor	

Proposed: Children Play Kits (4-12 Years) and Garden Decor, Shillong

Company: ARIHANT Playtime (Play Systems)

Slide (Spiral)

See Saw (Standard)





Code:PGSD01/SD02/03

Specification:

 Age
 : 4-12 yrs

 Area
 : 3.4m x 2.0m

 Safe Play Area
 : 4.4 m x 3.0m

 Platform Height
 : 3m/2.1m/1.5m

 Age : 4-12 yrs

Code:PGSS 01

Specification:

Age : 4-10 yrs Area : 0.3 m x 2.5m Safe Play Area : 1.3 m x 3.5m

Garden Decor (Deluxe Bench)

Climber (Scrambler)





Code: PGGD 05

Specification:

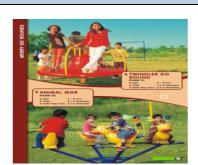
: 1.3 m x 0.9 m : 3 Adults Area Capacity

Code: PGSL 19

Specification:

: 4-12 yrs : 0.5 m x 1.7 m Safe Play Area : 1.0 m x 2.7 m Height : 2.1m Age

Toddler Swing



Merry Go Round

Code: PGSW 08

Specification:

Age : 3-8 yrs

Area : 1.3 m x 3.3 m Safe Play Area : 3.0 m x 4.3 m Platform Height : 2.4m

Code: PGMR 01

Specification:

: 5-12yrs : 1.5 Diameter Age Area : 3-12yrs

Area : 1.5 Diameter

Safe Play Area : 2.5 Diameter

Trunk Bin Frog Bin





Code: PGGD 23

Specification:

Height : 2.8' Dia. : 2.0' Code: PGGD 09

Specification:

Height : 2.25' Dia. : 1.25'

Note: This drawing is for the reference and purpose of illustration only.

Cast Iron Bench

Company: Global Corporation, Goregaon West, Mumbai, Maharashtra

Product Details:

(Approx. Price: Rs 12,000 / Piece)

Minimum Order	
Quantity	1 Piece
Length	37 inch
Height	33 inch
Width	12.5 inch
Sitting height	17 inch
Material	Iron
Bench Type	With Back
Seating Capacity	3 Seater
Appearance	Contemporary
	With Arm
Arm Rest	Rest
Colour	Brown



Play Ground Play Image



