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NO. F. CE/RD/MGNREGA (TECH)/16-17 Dt, 17-06-16
GOVERNMENT OF TRIPURA
RURAL DEVELOPMENT DEPARTMENT
OFFICE OF THE CHIEF ENGINEER
GURKHABASTI, AGARTALA

To
The Director
Agriculture Department
Government of Tripura.

See

Subject: - Approval for 2(two) nos estimates technically sanctioned by Chief Engineer, Agriculture Department in connection with construction of 100MT & 200MT storage godown with convergence programme of MGNREGA during 2016-17.

Reference: Your Letter No.F.21 (12) Agri (SS)/2015-16/870-71 dated 04.06.16

Sir,

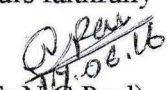
I am directed to inform you that RD Department has accepted the following 2nos estimates alongwith specification to be taken up the convergence programme under MGNREGA during the year 2016-17.

Sl No	Name of work	Estimated cost(Rs in lakh)
1	Construction of 1000MT storage Godown for post harvesting facility	120.00
2	Construction of 1000MT storage Godown for post harvesting facility	23.678

This is for your kind information and necessary action.

Encl: As stated.

Yours faithfully


(Er. N.G. Paul)
Executive Engineer-I
Office of the Chief Engineer (RD)
Agartala

Copy to the.

1. The Chief Engineer, Agriculture Department.


Executive Engineer-I

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No.F.21 (12)Agri(SS)/2015-16/ 870-71
Government of Tripura
Department of Agriculture

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Dated, Agartala, the 07, 06 . 2016.

To
The Chief Engineer
Rural Development Department
Government of Tripura
Gorkhabasti, Agartala.
Tripura West

Sub: - Approval for 2 (Two) Nos estimates in connection with construction of 1000 MT & 200 MT storage godowns with convergence programme of MGNREGA during 2016-17.

Sir,

In reference to above, enclosed please find here with 2 (two) numbers of estimates, which needs approval for taking up the convergence programme under MGNREGA during the year 2016-17. The estimates are namely :-

Sl No	Name of Work	Estimated cost per unit (Rs in lakhs)
1	Construction of 1000 MT Storage Godowns for post harvest facility.	120.00
2	Construction of 200 MT Storage Godowns for post harvest facility.	23.678

This is for favour of your kind information and doing the needful.

Encl: As stated.

Yours faithfully

(Signature)
27/6/16

(Dr. D.P.Sarkar)
Director of Agriculture
TRIPURA

Copy to :-

1. The Chief Engineer (Agri) for information .

AE (B. Subudho)
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HISTORY SHEET

Estimate No:- TS NO. 03 / CE / Agri / DA / MGNREGA / TS / 2016-17. dt. 02/06/2016

Name of Work:- Construction of 200MT storage go down in different Agri.
Sub-Division in Tripura

REPORT:- The estimate has been prepared as per approved Drawing & Design to meet up the probable expenditure of the above mentioned work . The estimate is prepared as per instruction of the Authority of the Department.

All necessary items have been included in the estimate based on R D Schedule and current approved rate of RD Department(HPC approved Rate). Besides that, L.S charge i.e Rs.35,000/- for internal & External electrification, L.S charge ,i.e Rs 77,683/- for Water supply arrangement, 3% contingency,1% Labour Cess and 0.50% Swachha Bharat Aviyaan are considered in the estimate.

Estimate cost:- Rs.23,67,800/- (Rupees Twenty three lac sixty seven thousand eight hundred) only.

Schedule of Rate:- As per RD Schedule (HPC approved rate).

Type of work:- MGNREGA

Method:- Departmental Execution.

Land:- Available

Total Plinth Area:- 161.18 sq.m

Rate per sq.m:- Rs.14,690.00/sq.m

Tentative completion time:- 1(One) Year

Specification of work

Design & Scope: RCC framed structure with partly flat roof & partly GCI sheet roofing.

Design specification:- M20 grade concrete, Fe 415.

Foundation:- RCC isolated foundation.

Bearing capacity:- 10 MT/ sq.m.

Plastering:- 1:4 cement mortar.

Painting:- Cement painting.

Flooring:- CC Flooring.

Roofing :- GCI sheet on steel tubular Truss.

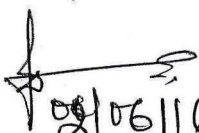
Note:- This is a model estimate. As per site condition, measurement of work will be taken into consideration for actual execution and accordingly, recorded in MB/Field book and wages component to be fixed for corresponding volume of work for generation of FTO and Estimate to be recast & Annexure -III is to be prepared as per approved rate of concern Block area before execution of the work.


(Er. Bhakta Das)

Junior Engineer (Civil), Gr-I
O/O The S E (Agri)
Department of Agriculture


(Er. S. C. Das)

Executive Engineer
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(Er. S. K. DAS)
Chief Engineer,
Department of Agriculture
Tripura.

Name of Work:- Construction of 200 MT storage go down in different Agri.
Sub-Division in Tripura

ANNEXURE -II

Sl. No	Description	Activity output to be measured	Requirements of Materials/Labour
1.	Earth work in excavation in Foundation trenches not exceeding 1.5m width or 10sqm. On plan including dressing bottom lift up to 1.5m including getting out the excavated soil and disposal of surplus excavated soil as directed, with in a lead of 50m. Ordinary Soil	For column- $2 \times 6 \times 1.65 \times 1.65 \times 1.5 = 49.005 \text{ Cum}$ $2 \times 2 \times 1.65 \times 1.65 \times 1.5 = 16.335 \text{ Cum}$ $5 \times 1.65 \times 1.65 \times 1.5 = 20.418 \text{ Cum}$ For Brick foundation – $2 \times 20.00 \times 0.762 \times 0.80 = 24.384 \text{ Cum}$ $3 \times 8.00 \times 0.762 \times 0.80 = 14.630 \text{ Cum}$ $2 \times 5.00 \times 0.762 \times 0.80 = 6.096 \text{ Cum}$ Deduct columns earth work from brick foundation $13 \times 1.65 \times 0.762 \times 0.80 = (-ve) 13.075 \text{ cum}$ $= 117.713 \text{ Cum}$	US = 63 Nos. Tukri = 10 Nos.
2.	Filling available excavated earth (excluding rock) in trenches ,plinth,sides of foundations etc in layer not exceeding 20cm in depth consolidating each deposited layer by ramming and watering lead upto 50m and lift upto 1.50m. a. Ordinary soil. i)Excavated earth	$2/3^{\text{rd}} \times \text{Vide item no. 1}$ $= 2/3 \times 117.793 \text{ cum} = 78.528 \text{ cum}$	US = 22 Nos.
3.	Filling in plinth with local sand under floors including, watering, ramming, consolidating and dressing complete.	For columns foundations – $2 \times 6 \times 1.65 \times 1.65 \times 0.1 = 3.267 \text{ Cum}$ $2 \times 2 \times 1.65 \times 1.65 \times 0.1 = 1.089 \text{ Cum}$ $5 \times 1.65 \times 1.65 \times 0.1 = 1.361 \text{ Cum}$ For Brick foundation – $2 \times 20.00 \times 0.762 \times 0.1 = 3.048 \text{ Cum}$ $3 \times 8.00 \times 0.762 \times 0.1 = 1.828 \text{ Cum}$ $2 \times 5.00 \times 0.762 \times 0.1 = 0.762 \text{ Cum}$ Deduction of columns sound from Brick Foundation $13 \times 1.65 \times 0.762 \times 0.1 = (-ve) 1.634$ For flooring $1 \times 20.00 \times 8.00 \times 0.1 = 16.00 \text{ cum}$ $= 25.721 \text{ Cum}$	Local Sand = 25.78 Cum Us = 7 Nos.
4.	First class brick work in the	For foundation-	

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	<p>foundation and plinth in cement mortar 1:6 (1 cement : 6 river sand)</p>	<p>Total length of brick work for foundations.</p> $2 \times 20.00 = 40.00$ $3 \times 8.000 = 24.00$ $2 \times 5.00 = 10.00$ $= 74.00$ <p>Deduct for 21 Nos. Columns.</p> $21 \times 0.30 = (-ve) 6.300$ $= 67.70 \text{ meters.}$ $1 \times 67.70 \times 0.635 \times 0.15 = 6.448 \text{ Cum}$ $1 \times 67.70 \times 0.508 \times 0.15 = 5.158 \text{ Cum}$ $1 \times 67.70 \times 0.381 \times 0.15 = 3.869 \text{ Cum}$ $1 \times 67.70 \times 0.254 \times 0.75 = 12.896 \text{ Cum}$ $= 28.371 \text{ Cum}$	<p>1st class bricks = 11065 Nos. Cement = 31 Bags. Sand = 6.383 Cum.</p> <p>HS = 11 Nos. SK = 11 Nos. US = 45 Nos.</p>
5.	<p>Providing and laying in foundations and plinth cement concrete 1:4:8 (1 cement : 4 river sand : 8jama brick aggregate 40mm nominal size) excluding the cost of centering and shuttering</p>	<p>1xVide item no. 3 = 25.721 Cum</p>	<p>Cement = 87 bags. Sand = 12.088 Cum. Brick aggre = 22.891 Cum. HS = 2 Nos. SK = 2 Nos. SS = 21 Nos. US = 47 Nos.</p>
6.	<p>Reinforced cement concrete work 1:1.5:3 (1 cement:1.5river sand : 3 brick aggregate 20mm nominal gauge) including finishing and plastering the exposed surface with cement mortar 1:3 (1 cement : river sand) of thickness not exceeding 6mm to give a smooth and even surface but excluding the cost of centering, shuttering and reinforcement in.</p> <p>a. Foundation, footing bases of column etc and mass concrete</p> <p>b. Lintels, beams, girders, bresummers and cantilivers up to floor two level</p>	<p>For columns (21) Nos. – For haunch – $21 \times 0.3(1.5 \times 1.5 + 0.3 \times 0.3 + V(1.5)^2(1.3)^2)$ = 5.851 Cum 3</p>	<p>Cement = 191 Bags Sand = 10.111 cum Brick aggregate = 19.987 Cum</p>

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		<p>Base – $21 \times 1.5 \times 1.5 \times 0.2 = 9.45 \text{ Cum}$</p> <p>Length – $21 \times 0.3 \times 0.3 \times (0.546 + 0.60 + 2.40 + .796) \cong$ <u>8.206</u> $= 23.515$</p> <p>For tie beam – $2 \times 20.00 \times 0.30 \times 0.254 = 8.048 \text{ Cum}$ $3 \times 8.00 \times 0.30 \times 0.254 = 1.828 \text{ Cum}$ $2 \times 5.00 \times 0.30 \times 0.254 = 0.762 \text{ Cum}$</p> <p>For Plinth beam – $2 \times 20.00 \times 0.30 \times 0.254 = 3.048 \text{ Cum}$ $3 \times 8.00 \times 0.30 \times 0.254 = 1.828 \text{ Cum}$ $2 \times 5.00 \times 0.30 \times 0.254 = 0.762 \text{ Cum}$</p> <p>For Lintel – $2 \times 15.00 \times 0.30 \times 0.15 = 1.35 \text{ Cum}$ $2 \times 8.00 \times 0.30 \times 0.15 = 1.219 \text{ Cum}$ $2 \times 5.00 \times 0.30 \times 0.15 = 0.45 \text{ Cum}$ $1 \times 4.00 \times 0.30 \times 0.15 = 0.18 \text{ Cum}$</p> <p>For Top beam – $2 \times 15.00 \times 0.30 \times 0.254 = 2.286 \text{ Cum}$ $1 \times 8.00 \times 0.30 \times 0.254 = 0.609 \text{ Cum}$ $1 \times 8.00 \times 0.30 \times 0.30 = 0.72 \text{ Cum}$ $2 \times 5.00 \times 0.30 \times 0.30 = 0.90 \text{ Cum}$ $1 \times 4.00 \times 0.30 \times 0.30 = \underline{0.36 \text{ Cum}}$ $= 19.350 \text{ Cum}$</p> <p>For roof slab of the office room – $1 \times 5.45 \times 4.90 \times 0.125 = \underline{3.338 \text{ Cum}}$ $= 22.688 \text{ Cum}$</p>	<p>HS = 2 Nos. SK = 4 Nos. SS = 21 Nos. US = 69 Nos.</p> <p>Cement = 184 Bags Sand = 9.755 Cum Brick agre = 19.284 Cum HS = 2 Nos. SK = 4 Nos. SS = 20 Nos. US = 66 Nos.</p>
<p>7.</p>	<p>Hiring charge for Centering, shuttering, propping (bamboo/steel/ballie) complete as per direction of Engineer in charge (Nails, dhari, polythene, binding wire, will be supplied by the Deptt.) Foundation, footing, bases of columns etc and Column, pillars, posts floor two level. Weather shade, chajjas, corbels etc, including edges. Lintels, beams, plinth beams, girders, bressumers and</p>	<p>For tie beam – $2 \times 2 \times 20.00 \times 0.254 = 20.32 \text{ Sqm}$ $2 \times 3 \times 8.00 \times 0.254 = 12.192 \text{ Sqm}$ $2 \times 2 \times 5.00 \times 0.254 = 5.08 \text{ Sqm}$</p> <p>For plinth beam – $2 \times 2 \times 20.00 \times 0.254 = 20.32 \text{ Sqm}$ $2 \times 3 \times 8.00 \times 0.254 = 12.192 \text{ Sqm}$ $2 \times 2 \times 5.00 \times 0.254 = 5.08 \text{ Sqm}$</p> <p>For lintel – $2 \times 2 \times 15.00 \times 0.15 = 9.00 \text{ Sqm}$ $2 \times 2 \times 8.00 \times 0.15 = 4.80 \text{ Sqm}$ $2 \times 2 \times 5.00 \times 0.15 = 3.00 \text{ Sqm}$ $1 \times 2 \times 4.00 \times 0.15 = 1.20 \text{ Sqm}$</p> <p>For top beam – $2 \times 2 \times 15.00 \times 0.254 = 15.24 \text{ Sqm}$ $1 \times 2 \times 8.00 \times 0.254 = 4.064 \text{ Sqm}$ $1 \times 2 \times 8.00 \times 0.30 = 4.80 \text{ Sqm}$ $2 \times 2 \times 5.00 \times 0.30 = 4.80 \text{ Sqm}$ $1 \times 2 \times 4.00 \times 0.30 = 2.400 \text{ Sqm}$</p> <p>For office room slab – $5.45 \times 4.90 = \underline{26.705 \text{ Sqm}}$ $= 152.393 \text{ Sqm}$</p>	<p>Centering & Shuttering = 152.393 Sqm</p>

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8.	Cold twisted steel reinforcement for RCC Work including bending/binding and placing in position complete.	Item no. 6 = (23.515 Cum + 22.688 Cum) = 46.203 Cum @ 140Kg x 46.206 = 6468 Kg	Tor steel = 6791 Kg HS = 88 Nos. US = 101 Nos.
9.	Extra for brick work in superstructure above plinth level up to floor five level.	Length of periphery wall – 2x15.00 = 30.00 m 2x8.00 = 16.00 m 2x5.00 = 10.00 m 1x4.00 = 4.00 m = 60.00 m 1x60.00x0.254x3.60 = 54.364 Cum Deduct for column 21x0.3x0.3x3.60 = (-ve) 6.804 Deduct for lintel 61.00x0.30x0.15 = (-ve) 2.745 Deduct for top band 61.00x0.30x0.254 = (-ve) 4.648 Deduct door for godown – 2.66x2.40x0.254 = (-ve) 1.621 Deduct door for office – 1.20x2.10x0.254 = (-ve) 0.640 Deduct windows for office 2x1.50x1.20x0.254 = (-ve) 0.914 Add : - for Gable wall – 2(1/2x8.00x2.10)x0.254 = 4.267 =41.759	1 st class bricks = 16286 Cement = 46 bags Sand = 9.39 cum HS = 20 Nos SK = 20 Nos US = 83 Nos
10.	12mm cement plaster 1:4 (1cement : 4river sand)	2x15.00x3.600= 108.00 sqm 2x8.00x3.600= 57.600 Sqm 2x5.00x3.600= 36.00 Sqm 1x4.00x3.600= 14.40 Sqm 2x1/2x8.00x2.100= 16.80 Sqm Deduct for godown door (for roofing shutter) 1x2.66x2.40 = (-ve) 6.384 Sqm Deduction for door for office godown 1x1.200x2.100= (-ve) 2.52 sqm Deduction for windows for office godown 2x15.00x1.200 = (-ve) 3.60 sqm =220.296 Sqm	Cement = 24 bags Sand = 3.304 cum SK = 28 Nos US = 48 Nos.
11.	15mm cement plaster 1:4(1cement : 4river sand)) on the rough side of brick wall.	1xVide item no. 10 = 220.296	Cement = 16 bags Sand = 3.965 cum SK = 34 Nos. US = 57 Nos.
12.	Cement concrete flooring 1:2:4 (1cement:2river sand:4jhama brick aggregate 20mm nominal size) finishing with a floating coat at neat cement. 40mm thick	For Godown - 1x15.00x8.00 = 120.00 Sqm For office 900m – 1x5.00x4.00 = 20.00 sqm For Entrance or corridor – 1x5.00x1.50 = 7.50 Sqm	Cement = 44 Bags Sand = 2.655 cum Brick Chips = 5.251 Cum SK = 22 Nos. US = 43 Nos.

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W. S. C. S. C.
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(E. S. C. S. C.)
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Gandhinagar, Aurangabad.

		=147.5	
		Sqm	
13.	Cement plaster skirting (upto 30cm height) with cement mortar 1:3 (1cement :3 river sand) finished with a floating coat of neat cement including of junction with floor. a) 18mm thick	$2 \times 15.00 \times 0.30 = 9.00 \text{ Sqm}$ $2 \times 8.00 \times 0.30 = 4.80 \text{ Sqm}$ $2 \times 5.00 \times 0.30 = 3.00 \text{ Sqm}$ $2 \times 4.00 \times 0.30 = 2.40 \text{ Sqm}$ Deduct for Godown rolling shutter – $1 \times 2.66 \times 0.30 = (-\text{Ve}) 0.798$ Sqm Deduct for office door – $1 \times 1.20 \times 0.30 = (-\text{Ve}) 0.360$ Sqm = 18.042 Sqm	Cement = 4 Bags Sand = 0.324 Cum SK = 2 Nos. US = 6 Nos.
14.	Neat cement punning	For outside of the godown and office – $2 \times 15.00 \times 0.60 = 18.00 \text{ Sqm}$ $1 \times 8.00 \times 0.60 = 4.80 \text{ Sqm}$ $1 \times 5.00 \times 0.60 = 30.00 \text{ Sqm}$ $1 \times 4.00 \times 0.60 = 24.00 \text{ Sqm}$ = 76.80 Sqm	Cement = 4 Bags SK = 3 Nos. US = 4 Nos.
15.	Supplying and fixing rolling shutters of approved make of 80x1.35mm, M.S laths interlocked together through their entire length and jointed together at the end by end lock mounted on specially designed pipe shaft with brackets side, guides and arrangements for inside and outside locking with push and pull operation complete but including the fixing of the top cover, ball bearing and spring.	For godown – $1 \times 2.66 \times 2.40 = 6.384 \text{ Sqm}$	Rolling shutter = 6.384 Sqm HS = 4 Nos. SS = 6 Nos.
16.	Providing and fixing MS round holding down bolt with nuts and washer plates complete.	$12 \times 4 \times 1.00 = 48 \text{ Kgs (H.D. Bolts)}$ $12 \times 2 \times 0.300 = 7.2 \text{ kg (Plates)}$	HD Bolts = 48 Kg Plates = 72 Kg SK = 1 Nos. Steel door = 1 Nos.
17.	Labour for providing and fixing prefabricated MS steel door including frame in cement concrete block (15x10x10cm) 1:3:6 mix of jhama aggt. 20mm n/s as per direction of Engineer – in Charge.	For office – 1x1 = 1Nos.	SK = 1 Nos. US = 1 Nos.
18.	Labour for providing and fixing prefabricated MS steel windows including frame in cement concrete block (15x10x10cm) 1:3:6 mix of jhama aggt. 20mm n/s as per direction of Engineer – in Charge.	2 Nos.	Steel windows (1.5m x 1.2m) = 2 Nos. SK = 1 Nos. US = 1 Nos.
19.	Labour charge for fitting fixing of tubular truss upto 9m span including fitting fixing of all	1x5Bags = 5 Bags	Tubular Truss = 5 Bags HS = 6 Nos. US = 10 Nos.

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	related members as per direction of Engineer-in-Charge. Two Gavel wall will be considered as one bay.		
20.	Providing G.C.Sheet roofing fixed with galvanized iron J or L hooks bolts & nuts 8 mm. dia with bitumen and G.L. limpet washers Complete ,excluding the cost of purlins ,rafters and trusses . a) 0.63 mm.thick sheet (10' Length)	Roof area/GCI sheet roofing 10.22x16.00 = 163.52 Sqm Assuming one GCI sheet = 1.755 Sqm Total Nos. of GCI sheet = 93 Nos.	GCI Sheet 0.63 mm – 10' = 1.230 MT J-hook = 716 Nos. HS = 3 Nos. SK = 32 Nos. US = 37 Nos. Bitumen Washer = 716 No GI washer = 716 Nos.
21.	Providing and fixing factory made P.V.C. door frame of size 50x75mm with a wall thickness of 5mm, made out of extruded 5mm rigid PVC foam sheet mitred at corners and joined with 2 Nos. of 150mm long brackets of 15x15mm M.S. square tube, the vertical door profiles to be reinforced with 19x19mm MS square tube of 19 gauge, EPDM rubber gasket weather seal to be provided through out the frame . The door frame to be fixed CB/CC/RCC work /pillars with lat iron hold fast 25mmx3mmx25mm (Hold fast on each side) embedded in 1:2:4 cc block. complete as per direction of Engineer-In-Charge.	1x1.00m = 1.00m 2x1.90m = 3.80m = 4.80 m	SK = 1 Nos. US = 1 Nos.
22.	Providing and fixing PVC solid plastic door/window shutter consisting of in fill PVC plastic section (SASH) in the dimension of 50x50mm and PVC plastic bead in the dimension 12x12 with over all thickness of 8mm solid pvc plastic sheet with arrangement for locking system aluminium hinges (3hinges on each side) complete as per direction of Engineer-In-Charge	0.9m x 1.90m = 1.71 Sqm	PVC door shutter = 1.71 Sqm HS = 1 Nos. US = 1 Nos.
23.	Making plinth protection 50mm thick of cement concrete 1:3:6 (Cement:3river sand:6jhama brick aggregate 40mm nominal	2x15.00x1.00x0.1 = 3.00 cum 1x8.00x1.00x0.1 = 0.80 cum 2x5.00x1.00x0.1 = 1.00 cum 1x4.00x1.00x0.1 = 0.40 cum	40 mm brick aggtt. = 0.39 cum Sand = 0.031 cum HS = 1 Nos.

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	size) over 75mm bed of dry brick ballast 40mm n/s well rammed and consolidated and grouted with river sand i/c finishing the top smooth.	$= 5.20 \text{ cum}$ C.C = 0.26 cum	US = 2 Nos. Cement = 1 Bag Sand = 0.122 cum Brick aggregate = 0.244 cum
24.	Reinforced cement concrete work 1:1.5:3 (1 cement:1.5river sand : 3 brick aggregate 20mm nominal gauge) including finishing and plastering the exposed surface with cement mortar 1:3 (1 cement : river sand) of thickness not exceeding 6mm to give a smooth and even surface but excluding the cost of centering, shuttering and reinforcement in.	Plinth beam for toilet – $1 \times 1.80 \times 0.254 \times 0.254 = 0.1161 \text{ cum}$ $1 \times 1.80 \times 0.254 \times 0.254 = 0.1161 \text{ cum}$ For lintel of toilet – $1 \times 1.80 \times 0.15 \times 0.15 = 0.0405 \text{ cum}$ $1 \times 1.80 \times 0.15 \times 0.15 = 0.0405 \text{ cum}$ $= 0.3132 \text{ Cum}$	Cement = 3 bags Sand = 0.134 cum Brick aggregate = 0.266 SS = 1 Nos US = 1 Nos
25.	Half brick masonry (1 st class) in cement mortar 1:4 (1 cement : 4 river sand) in superstructure above plinth level up to floor two level	For toilet – $1 \times 1.80 \times 3.60 = 6.48 \text{ Sqm}$ $1 \times 1.80 \times 3.60 = 6.48 \text{ Sqm}$ Deduct for door – $0.90 \text{m} \times 1.90 = (-\text{ve}) 1.71$ Deduct for lintel – $2 \times 1.80 \times 0.15 = (-\text{ve}) 0.54$ $= 10.71 \text{ Sqm}$	1 st class Bricks = 557 Nos Cement = 2 bags Sand = 0.353 cum HS = 3 Nos. US = 4 Nos.
26	12mm cement plaster 1:4 (1 cement : 4 river sand)	For toilet $2 \times \text{vide item no.25} = 21.42 \text{ sqm}$	Cement = 2 bags Sand = 0.321 cum SK = 3 Nos US = 5 Nos.
27	Filling in plinth with local sand under floors including, watering, ramming, consolidating and dressing complete.	For ramp – $2.50 \times 5.03 \times 0.40 = 5.03 \text{ cum}$	Local sand = 5.03 cum US = 1 Nos.
28	Providing and laying in foundations and plinth cement concrete 1:4:8 (1 cement : 4 river sand : 8jhama brick aggregate 40mm nominal size) excluding the cost of centering and shuttering	For ramp – $2.50 \times 5.03 \times 0.10 = 1.257 \text{ cum}$	

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29.	Providing hard drawn mesh below the floor of the Go down for rodent proofing the floors of 4mm Gause.	15.00x8.00 = 120 Sqm	Hard drawn mesh of 4 mm gauge = 120 Sqm HS = 3 Nos US = 15 Nos
30	Providing and laying in foundations and plinth cement concrete 1:4:8 (1 cement : 4 river sand : 8jhama brick aggregate 40mm nominal size) excluding the cost of centering and shuttering	Extra CC flooring box for rodent proofing with hard drawn mesh. 15.00x8.00x0.076 = 9.12 cum	Hard drawn mesh Cement = 31 bags Sand = 4.286 cum Brick aggre = 8.116 cum HS = 1 Nos SK = 1 Nos SSK = 7 Nos US = 17 Nos
31	Labour for breaking departmental jhama bats or jhama bricks (including bigger lumps up to & brick size) into metal or chips and stacking the same properly as per direction of Engineer-In-Charge	Jhama chips 40mm size = 31.39 cum Jhama chips 20+0.125mm size = 45.032 cum	Jhama = 22927 Nos S/Sk = 426 Nos
32.	White glazed tiles 6mm thick in flooring, skirting and dado in 12mm thick cement plaster 1:3 (1 cement : 3river sand) in base and jointed with white cement (Indian make of approved quality) slurry in joints excluding cost of angles coves, bending and comices	For toilet floor – 1.80x1.80 = 3.24 Sqm For toilet walls – 3x1.80x1.20 = 6.84 Sqm =9.72 Sqm	Glazed tiles – 15x15cm = 448 Nos White cement = 32 Kg HS = 9 Nos. US = 10 Nos.
33.	Applying one coat of cement primer of approved quality on wall surface.	1xvide item no. 10 = 220.296	Cement prime = 16 Nos. SK = 7 Nos. US = 8 Nos.
34.	Finishing wall with water proofing cement paint of approved quality and of required shade on new work one or more coats to give an even shade	1xvide item no. 10 = 220.296	Water proofing cement paint = 121.00 Kg SK = 19 Nos. US = 24 Nos. Paint brush = 2 Nos.

AS 26/05
2016
J.B.L.

Adish
(Er. S.C. Dasgupta)
Executive Engineer
P&I Division Engineering Wing
Deptt. of Agriculture,
Agartala, Tripura.

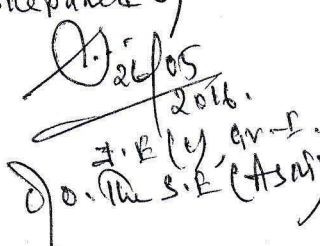
35.	Applying one coat of distemper primer of approved quality on wall surface.	1xvide item no. 10 = 220.296 sqm	Distemper Primer = 18 ltr SK = 07 Nos. US = 08 Nos.
36	Distempering with dry distemper of approved quality two or more coats and of required shade on new work including priming coat of whitening to give an even shade.	1xvide item no. 10 = 220.296 sqm	Distemper = 25 Kg SK = 17 Nos. US = 18 Nos.
37.	Applying priming coat with ready mixed primer of approved quality on steel work.	For rolling shutter $1 \times 2 \times 2.66 \times 2.40 = 12.768 \text{ Sqm}$ For office door $1 \times 2 \times 1.20 \times 2.10 = 5.04 \text{ Sqm}$ For office window $2 \times 2 \times 1.50 \times 1.20 = 7.20 \text{ Sqm}$ $= 25.008 \text{ Sqm}$	Steel primer = 1.375 ltr SK = 01 No US = 01 No
38.	Painting two or more coats(excluding priming coat) with superior ready mixed paint for steel work of approved quality in all shades on new work to give an even shade.	1xvide item no. 37 = 25.008 sqm	Steel paint = 2.25 ltr SK = 2 Nos. US = 2 Nos.
39	Providing ridges or hips 60 cm. over all in plain G.L Sheet fixed with galvanized iron J or L hooks and bolts and nuts 8 mm. dia ,G.L.limpet and bitumen washers Complete . a) 0.50 mm. thick Sheet	1x16.00 = 16.00 m	Ridge = 68.00 Kg G.L. plain wasger = 48 Nos Bitumen wahaer = 48 Nos. HS = 03 Nos. SK = 02 Nos. US = 05 Nos. Joint bolts = 48 Nos.

prepared by,

 2016.
 S. B. (C), Gen. I.
 J.O. in the S. B. (AS/14)


 (Er. S. B. Dadas)
 Executive Engineer
 2nd Section Engineering Wing
 Dept. of Agriculture,
 Agartala, Tripura.

Name of Work:- Construction of 200 MT storage go down in different Agri. Sub-Division in Tripura/S.H construction of approach road with Yard development.

Sl. No.	Description	Activity output to be measured	Requirements of Materials/Labour
1.	Preparation of sub grade excavating earth to an average of 22.5 cm depth dressing to chamber and consolidating with road roller including making good the undulation etc. And disposal of surplus earth lead up to 501 metre a. Ordinary Soil	Approach= 1x14.00x5.00m= 70.00 sqm Car parking = 1x48.00x10.00m= 480.00 sqm 1x10.00mx10.00m = <u>100.00 sqm</u> 650.00 sqm	US = 67 nos.
2.	Providing & Laying flat brick soiling & consolidation of binding materials moorum or earth etc. (payment to be made of only brick soiling used excluding binding materials	Approach= 1x14.00x5.00m= 70.00 sqm Car parking = 1x48.00x10.00m= 480.00 sqm 1x10.00mx10.00m = <u>100.00 sqm</u> 650.00 sqm	Bricks = 19,500 nos. S/SK= 37 nos.
3.	Providing & Laying brick on edge soiling & consolidation of binding materials moorum or earth etc. (payment to be made of only brick soiling used excluding binding materials	Approach= 1x14.00x5.00m= 70.00 sqm Car parking = 1x48.00x10.00m= 480.00 sqm 1x10.00mx10.00m = <u>100.00 sqm</u> 650.00 sqm	Bricks = 33,800 nos. S/SK= 61 nos.
4.	First class brick edging laid lengthwise with half brick depth on including excavation refilling and disposal of surplus earth leads up to 50 m	2x14.00 m = 28.00 mtr. 2x48.00 m = 96.00 mtr. 2x3x10.00 m = <u>60.00 mtr</u> 184.00mtr	Bricks= 810 nos. HS = 4 nos. SK = 3 nos. US = 10 nos.

prepared by

 26/05/2016
 J. B. (S.E. Agr.)
 J. B. (S.E. Agr.)

Aditya
 (Er. S. C. Dasgupta)
 Executive Engineer
 P&I Division Engineering Wing
 Deptt. of Agriculture,
 Agartala, Tripura.

NAME OF THE WORK: - Construction of 200 MT storage godown
in different Ash sub-station in Tripura.

ANNEXURE - III.

P/A

Sl. No.	Description	Unit	Requirement as per Annexure-II	Cost per unit as per R.D Scheduled	Cost of work as per R.D Scheduled (Col.4XCol.5)
1	2	3	4	5	6
A). Materials to be collected R.D.D. STORE: -					
1.	Cement	Bag	670	Rs. 332.00	Rs. 2,22,440.00
2.	Tor - steel				
A.	16m.m. dia	Kg.	2,375.00	Rs. 54.992	Rs. 1,30,606.00
B.	12m.m. dia	Kg.	712.00	Rs. 55.39	Rs. 39,438.00
C.	10m.m. dia	Kg.	490.00	Rs. 55.70	Rs. 27,332.00
D.	8m.m. dia	Kg.	2010.00	Rs. 56.319	Rs. 1,13,201.00
3.	G.C.I SHEET (0.630 mm thick X 3.00 m)	M.T.	1.230	Rs. 66,817.00	Rs. 82,185.00
4.	Black pipe				
a.	40 m.m. dia NB	Mt.	217.80	Rs. 174.00	Rs. 37,897.00
b.	32 m.m. dia NB	Mt.	54.45	Rs. 137.00	Rs. 7,460.00
c.	65 m.m. dia NB	Mt.	78.65	Rs. 310.0000	Rs. 24,382.00
d.	G.I. Ridge (45 cm)	Mts.	18	Rs. 47.00	Rs. 846.00
TOTAL OF (A)					Rs. 6,85,787.00
B). Materials to be collected from market as per R.D.D. approved rate: -					
1.	Fabrication of trusses	Kg.	1500.00	Rs. 8.79	Rs. 13,185.00
2.	Holding down bolt	Kg.	48.00	Rs. 72	Rs. 3,456.00
3.	M.S. flat	Kg.	7.20	Rs. 54.77	Rs. 394.00
4.	Nut bolt	Kg.	15.60	Rs. 70.00	Rs. 1,092.00
5.	J.Hook	No	716	Rs. 4.50	Rs. 3,222.00
6.	Base plate	Kg.	7.20	Rs. 65.00	Rs. 468.00
7.	Steel door (90 to 100 Kg.)	no	01	Rs. 7,500.00	Rs. 7,500.00
8.	Steel window (60 to 70 Kg.)	no	02	Rs. 5,500.00	Rs. 11,000.00
9.	Rolling Shutter	Sqm	6.384	Rs. 3,000.00	Rs. 19,152.00
10.	Hold fast	Kg.	3	Rs. 68.00	Rs. 204.00
11.	Joint bolt	no	5	Rs. 1.50	Rs. 8.00
Total of (B)					Rs. 59,681.00

Sl. No.	Description	Unit	Requirement as per Annexure- II	Cost per unit as per R.D Scheduled	Cost of work as per R.D Scheduled (Col.4XCol.5)
1	2	3	4	5	6
C). Materials to be collected from market as per R.D.D approved rate: -					
1.	1 st class brick	no	27908	Rs. 8.65	Rs. 2,41,404.00
2.	St. picket	no	76227	Rs. 8.65	Rs. 6,59,364.00
3.	Course sand	cum	73.00	Rs. 590.00	Rs. 43,070.00
4.	Black sand	Cum	35.20	Rs. 395.00	Rs. 13,904.00
5.	Bitumen washer	No	716	Rs. 0.50	Rs. 358.00
6.	G.I. washer	No	716	Rs. 1.00	Rs. 716.00
7.	Glazed tiles (300X300)	Sqm.	9.72	Rs. 460.00	Rs. 4,471.00
8.	Polythin	Kg.	50.00	Rs. 160.00	Rs. 8,000.00
9.	Nail	Kg.	25.00	Rs. 74.00	Rs. 1,850.00

A. S. 26/05
2016
J.B.L.

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10	Cement primer	Lit.	16.00	189.80	3037.00
11	Cement Paint	Kg	121.00	120.80	14,617.00
12	Distemper Primer	Lit.	18.00	90.00	1,620.00
13	Distemper	Kg	25.00	75.00	1,875.00
14	Steel Primer	Lit.	2.00	190.00	380.00
15	Steel Paint.	Lit.	2.50	315.00	788.00
16				Total of (C)	Rs. 9,95,454.00
D) Labour Component					
1	Highly Skilled(HS)	M.Days	163	290.00	Rs. 47,270.00
2	Skilled (SK)	M.Days	325	254.00	Rs. 82,550.00
3	Semi Skilled (SSK)	M.Days	502	218.00	Rs. 1,09,436.00
4	Un Skilled (US)	M.Days	915	189.00	Rs. 1,72,935.00
D). Labour wages :-					Rs. 4,12,191.00
Total of (A+B+C+D)= (Rs.6,85,787.00 + Rs.59,681.00 + Rs.9,95,454.00 + Rs.4,12,191.00) =					Rs. 21,53,113.00
Add :- L.S. for electrification					Rs. 35,000.00
Add :- L.S. for sanitary & water supply					Rs. 77,683.00
Total					Rs.22,65,796.00
Add 3% contingency					Rs.67,974.00
Add 1.00% for Labour Cess					Rs.22,658.00
Add 0.50% Swachh Bharat Aviyon					Rs.11,329.00
Grand Total					Rs. 23,67,757.00

Say Rs. 23,67,800/-

(Rupees Twenty three lac sixty seven thousand eight hundred seventy) only.

(En. Ghatak Das)
In. Engineer (Civil), Sr-I.
Op. In. S.E. (ASST)
 2016

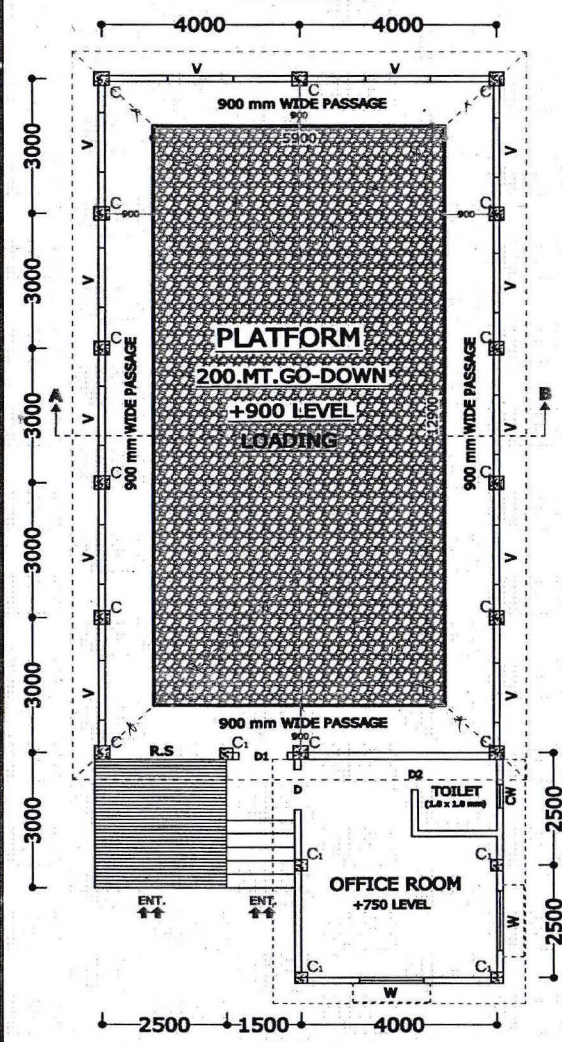
(Er. S. K. Datta)
 Executive Engineer
 P&I Division Engineering Wing
 Deptt. of Agriculture,
 Agartala, Tripura.

T/S NO. 05/CE/ASST DA/MANREGA/Ts/2016-17 dt. 02/06/2016.
 Technically approved for Rs. 23,67,800/- (Rupees Twenty Three lac sixty seven thousand eight hundred seventy) only.

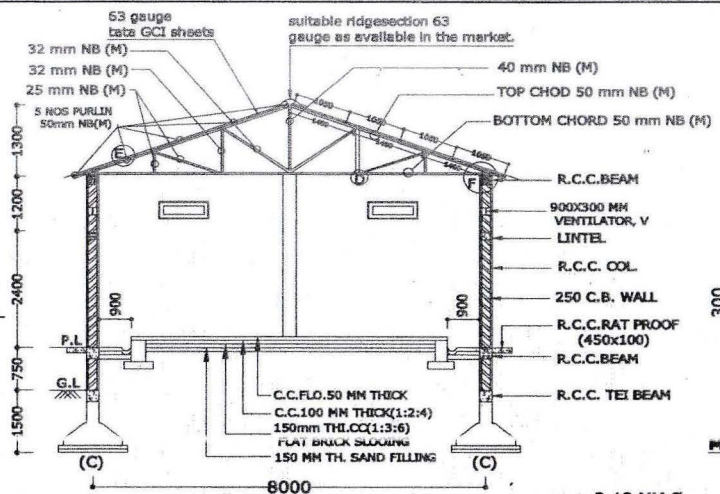
(Er. S. K. DAS)
 Chief Engineer,
 Department of Agriculture
 Tripura.



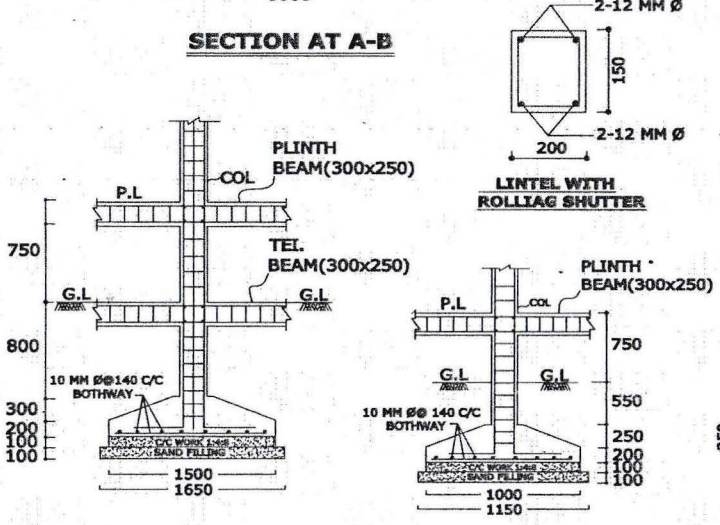
ELEVATION



PLAN
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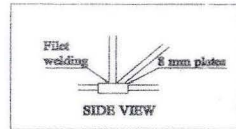


SECTION AT A-B

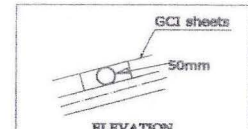


DETAILS OF COLUMN FOOTING (C)

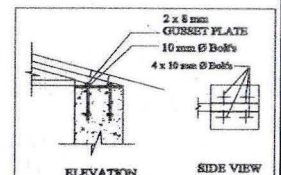
DETAILS OF COLUMN FOOTING (C1)



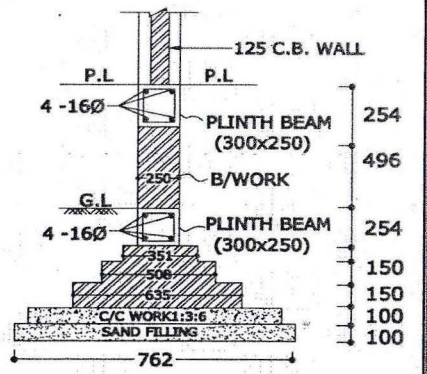
DETAILS - D



DETAILS - E



DETAILS - F



SEC. OF BRICK WALL

DOOR/WINDOWS SCHEDULE	
D	1200 X 2100
D1	1000 X 2100
D2	750 X 2100
W	1200 X 1200
R.S.	2200 X 2400
V.	900 X 300

PROJECT :-
CONSTRUCTION OF 200MT STORAGE GO-DOWN IN DIFFERENT
AGRI SUB DIVISION IN TRIPURA

DETAILS OF LAY-OUT PLAN AND SECTIONAL, ELEVATION WITH COLUMN, BEAM, ROOF SLAB, PLINTH BEAM etc.

SPECIFICATIONS :-

- All dimensions are in millimetre otherwise mentioned.
- Provide adequate cover as per IS-456-2000 :-
(a) Foundation = 50 mm
(b) Slab = 20 mm
(c) Column = 40 mm
(d) Tie beam = 30 mm
(e) Plinth beam = 50 mm
(f) Roof beam = 25 mm
- All Reinforcement in R.C.C. work shall be of grade Fe-500
Searing Capacity of Bolt Considered as 10 Ton/5mm (AISI)
- If there is any discrepancy found at this time of execution or later execution, it should immediately referred to the office of the chief engineer (Agr)
- The grade of concrete for all member shall be M-20. Plinth Area :- 148.14 Sqm.

DRG NO :-
/NO./...
JOS NO :-
/NO./...
SCALE
1 : 100
1 : 50

Debasis Deb
26/5/16
(Dr. Debasis Deb)
J.E. (Civil), G.O.
Planning & Investigation Division
Department of Agriculture
Agartala, Tripura.

Dr. S. C. Das
(Er. S. C. Das)
Executive Engineer
P&I Division Engineering Wing
Deptt. of Agriculture,
Agartala, Tripura.

(Er. S. K. DAS)
Chief Engineer,
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