



Republic of the Philippines  
 DEPARTMENT OF EDUCATION  
 Cordillera Administrative Region  
 Division Of Baguio City  
 # 82 Military Cut- Off, Baguio City  
 Tel. No. : (074) 442 - 7819



**PROGRAM OF WORK  
 BILL OF QUANTITIES**  
 ELEC 2020 - CAR - Baguio City - 02

<b>School</b> : QUEZON HILL ELEMENTARY SCHOOL	<b>Date:</b>
<b>School I.D</b> : 136387	<b>Budget Allocation:</b>
<b>Region</b> : CAR	<b>Engineering and Administrative Overhead:</b>
<b>Division</b> : BAGUIO CITY	<b>Approved Budget for the Contract:</b>
<b>Project Title</b> :	<b>Completion Period:</b> 120 calendar days
	<b>Minimum Required Manpower:</b>
	Electrical Engineer Welder Carpenter
	Master Electrician Construction Foreman
<b>Location</b> : BAGUIO CITY	<b>Minimum Required Equipment:</b>
	Hand Tools Jackhammer Dump Truck/Cargo Truck
	Electrical Tools Concrete Cutter Knockout Puncher
	Crimping Tools Heat Gun/Torch Various Power Tools
	Megger Tester

ITEM NO.	Item Description	% of Total	Unit	Quantity	Total Cost	Remarks
	<b>I. DIRECT COST</b>					
	GENERAL REQUIREMENTS		lot	1.00		
	<b>SERVICE LINE</b>					
	ELECTRICAL WORK		lot	1.00		
	CIVILWORKS		lot	1.00		
	MANHOLE		lot	1.00		
	IMPROVEMENT OF COVERED COURT		lot	1.00		
	METERING REQUIREMENT		lot	1.00		
	POWERHOUSE		lot	1.00		
	GENERATOR		lot	1.00		
	<b>Sub-total</b>					
	<b>II. INDIRECT COST</b> ___% of (I)					
	Overhead Expenses (___%)					
	Contingencies (___%)					
	Miscellaneous (___%)					
	Contractor's Profit (___%)					
	<b>Sub-Total</b>					
	<b>III. TAX 5% of (I+II)</b>					
	<b>Sub-Total</b>					
	<b>IV. TOTAL CONSTRUCTION COST (I + II + III)</b>					

Prepared by:



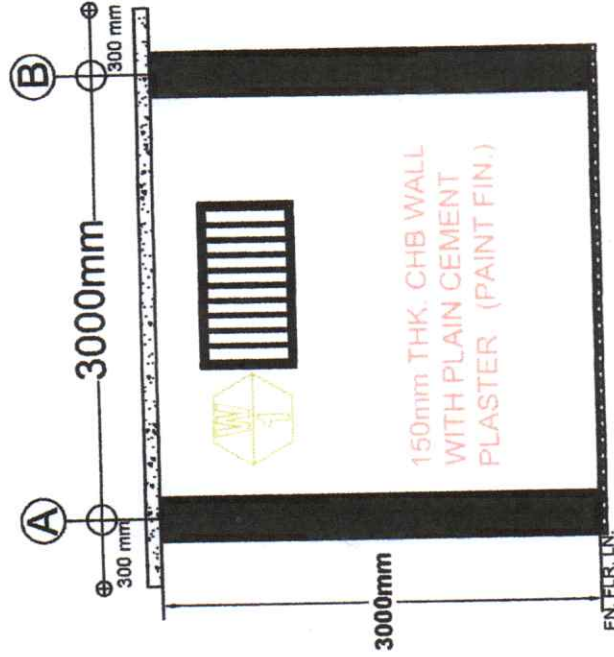
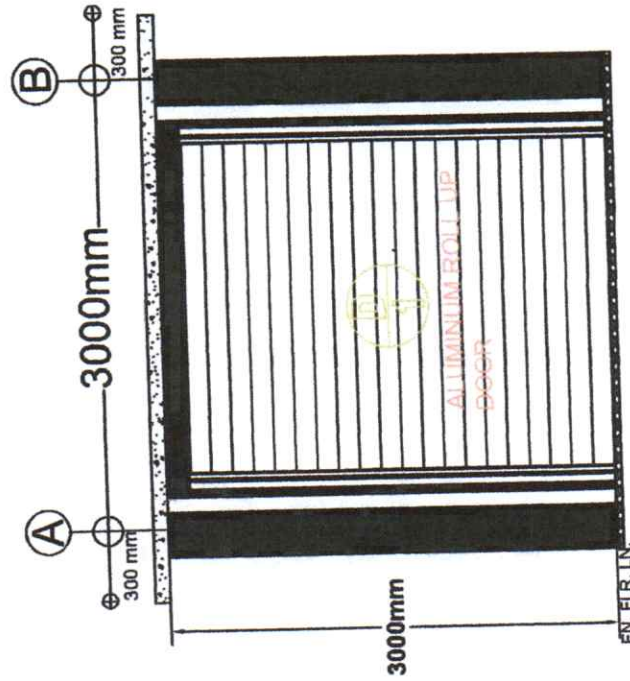
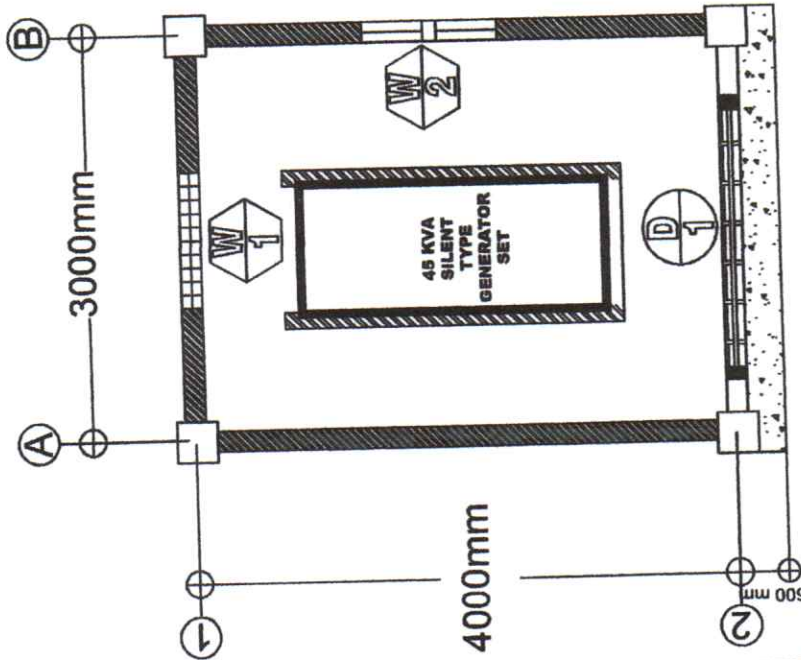
**PROGRAM OF WORK  
DETAILED COST ESTIMATE**

PROJECT : UPGRADING OF ELECTRICAL SYSTEM  
SCHOOL : QUEZON HILL ELEMENTARY SCHOOL  
LOCATION : BAGUIO CITY  
OWNER : DEPARTMENT OF EDUCATION

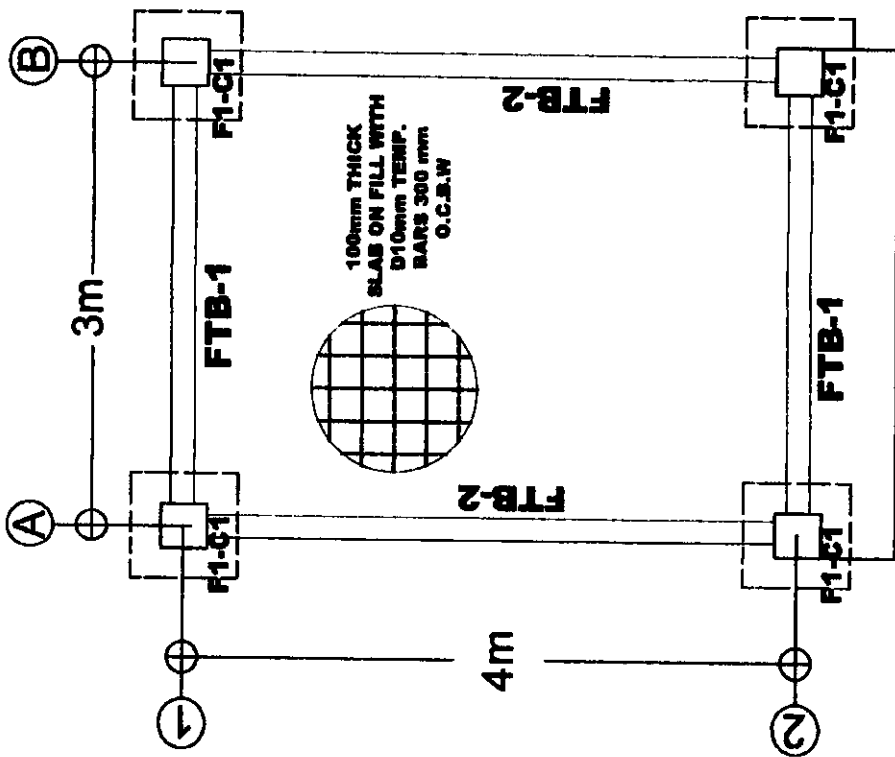
ITEM NO.	DESCRIPTION	UNIT	QTY	UNIT COST		TOTAL COST		GRAND TOTAL
				MATERIAL	LABOR	MATERIAL	LABOR	
GENERAL REQUIREMENTS								
	Mobilization/Temporary Structures, Utilities and Services/Demobilization	lot	1.00					
	Safety and Health	lot	1.00					
	Project Billboard	lot	1.00					
	Fire Safety Inspection Certificate (FSIC)	lot	1.00					
	Preparation of Electrical Plans and Master Electrical Layout to be Signed and Sealed by PEE.	lot	1.00					
	Insulation Testing	lot	1.00					
	Hauling cost	lot	1.00					
	Sub-total							
SERVICE LINE								
ELECTRICAL WORK								
	Steel Pullbox, 6"x 6"x 4", with complete accs.	sets	15.00					
	THHN # 6	m	2,230.00					
	THHN # 1/0	m	100.00					
	Electrical Conduit uPVC, 50mmØ	pcs	590.00					
	Electrical Conduit uPVC, 25mmØ	pcs	30.00					
	Adhesive Marker(color coded & properly labeled)	set	15.00					
	4"wide Underground Warning Tape	m	1,000.00					
	RSC Pipe Conduit, 50mmØ	pc	15.00					
	RSC Pipe Coupling, 50mmØ	pc	15.00					
	Heavy Duty Main Distribution Panel Box Center Main, 6 Branches with Grounding and Neutral Busbar	pc	4.00					
	150A, 2P, Bolt On Industrial Type Circuit Breaker	pc	4.00					
	60A, , Bolt On Industrial Type Circuit Breaker	pc	20.00					
	Manual Transfer Switch	lot	4.00					
	Solderless Connector	pc	30.00					
	Liquid Tight Conduit, 50mmØ	m	100.00					
	Terminal Lugs # 6	pc	28.00					
	Terminal Lugs #1/0	pc	2.00					
	Misc. (Clamps, PVC Elbow, PVC Cement, etc)	lot	1.00					
	Sub-total							
CIVILWORKS								
	Removal of Concrete Structures/Obstructions	cu.m.	52.16					
	Excavation	cu.m.	208.64					
	Backfilling & Compaction	cu.m.	26.08					
	Portland Cement	bags	350.00					
	Crushed Gravel, 3/4	cu.m.	64.97					
	Crushed Sand	cu.m.	19.62					
	12mm Diam. RSB	kgs	2,058.15					
	#16 G.I. Tie Wire	kg	30.00					
	Equipments/Tools (10% of labor cost)	lot	1.00					
	Sub-total							
MANHOLE								
	Removal of Concrete Structures/Obstructions	cu.m.	1.20					
	Excavation	cu.m.	6.60					
	Portland Cement	bags	60.00					
	Crushed Gravel, 3/4	cu.m.	12.00					
	Crushed Sand	cu.m.	6.00					
	12mm Diam. RSB	kgs	122.16					
	#16 G.I. Tie Wire	kg	6.00					
	Rough Lumber	bd.f.t	480.00					
	Plywood, Ordinary 1/4"x 4'x 8	pcs	24.00					
	CWN	kg	18.00					
	Sub-total							

ITEM NO.	DESCRIPTION	UNIT	QTY	UNIT COST		TOTAL COST		GRAND TOTAL
				MATERIAL	LABOR	MATERIAL	LABOR	
	<b>IMPROVEMENT OF COVERED COURT</b>							
	150W HIGH BAY LED LIGHT	set	8.00					
	Prefabricated Anchoring for HIGH BAY LED LIGHT	Assembly	8.00					
	6 Branches Panel Board with 40AT Centermain Circuit Breaker and 6 sets - 15 AT Circuit breaker, NEMA 3R Enclosure for covered court.	Assembly	1.00					
	Electrical Conduit uPVC, 25mmØ	pcs	16.00					
	RSC Pipe Conduit, 25mmØ	pcs	8.00					
	RSC Pipe Coupling, 25mmØ	pcs	8.00					
	3.5mm2 THHN Copper Wire Stranded	mtrs.	400.00					
	Scaffolding rentals	lot	1.00					
	<b>Sub-total</b>							
	<b>METERING REQUIREMENT</b>							
	KWHM, 1P, 2W, CL200, 240V, Form1S	set	4.00					
	Meter seal, plastic	pc	8.00					
	Equipments/Tools (10% of labor cost)	lot	1.00					
	<b>Sub-total</b>							
	<b>POWERHOUSE</b>							
	<b>EARTHWORKS</b>							
	<b>STRUCTURE EXCAVATION</b>	cu.m	4					
	<b>CONCRETING WORKS</b>	cu.m.	12.872					
	Portland Cement	bag	116					
	Crushed Gravel 3/4"	cu.m	13					
	Washed Sand	cu.m	7					
	<b>REBAR WORKS</b>							
	Deformed Round Bars, Grade 40	kg	176.93					
	G.I. Tie Wire	kg	4					
	<b>FORM WORKS</b>							
	Coco Lumber	bd.ft	128					
	Plywood Ordinary, 1/2"x4'x8'	pc	5					
	CWN, Assorted	kg	4					
	<b>MASONRY WORKS</b>	sq.m	44.2					
	CHB 4" thk	pcs	553					
	Portland Cement	cu.m	23					
	Washed Sand	cu.m	2					
	10mm x 6m RSB	kg	59					
	G.I. Tie Wire	kg	2					
	<b>PLASTERING</b>	cu.m.	88.4					
	Portland Cement	bag	30					
	Washed Sand	cu.m	3					
	<b>DOORS AND WINDOWS</b>							
	Aluminum Roll Up Door (2.5mx2.7m)	set	1					
	W-1 Aluminum Louver Type (1.5m x 0.5m)	set	1					
	W-2 Awning Window with grilles (1m x 0.5m)	set	1					
	<b>ELECTRICAL WORKS</b>							
	2 x 18 Watts LED lamp with luminaire surface type	set	3					
	2 - Gang Convenience Outlet wide series	set	2					
	3.5mm2 THHN Copper Wire	mtrs	100					
	Breaker 1 - 15AT, 2P CB, 1 - 20AT, 2P CB	assembly	1					
	1/2" PVC Pipe	pcs.	7					
	Octagonal Junction Box	pcs.	5					
	Utility Box	pcs.	3					
	1 - Gang Switch with LED indicator	pcs.	2					
	Miscellaneous	lot	1					
	<b>PAINTING WORKS</b>	sq.m.	104					
	Latex, Flat	gal	6.00					
	Masonry Putty	gal	2.00					
	Latex, Semi Gloss	gal	11.00					
	Acrl Color	gal	5.00					
	<b>OTHERS</b>							
	Water Proofing (Cement) 5kgs/bag	bags	30					
	Rubberized Floor paint	gallons	4					
	<b>Sub-total</b>							
	<b>GENERATOR</b>							
	45 KVA Silent Type Generator Set with complete accs., (specs is for approval of agency engineer	set	1.00					
	<b>Sub-total</b>							
	<b>DIRECT COST</b>							
	<b>INDIRECT COST</b> % of (I)							
	<b>TAX 5% of (I + II)</b>							
	<b>TOTAL CONSTRUCTION COST (I + II + III)</b>							

Prepared by:

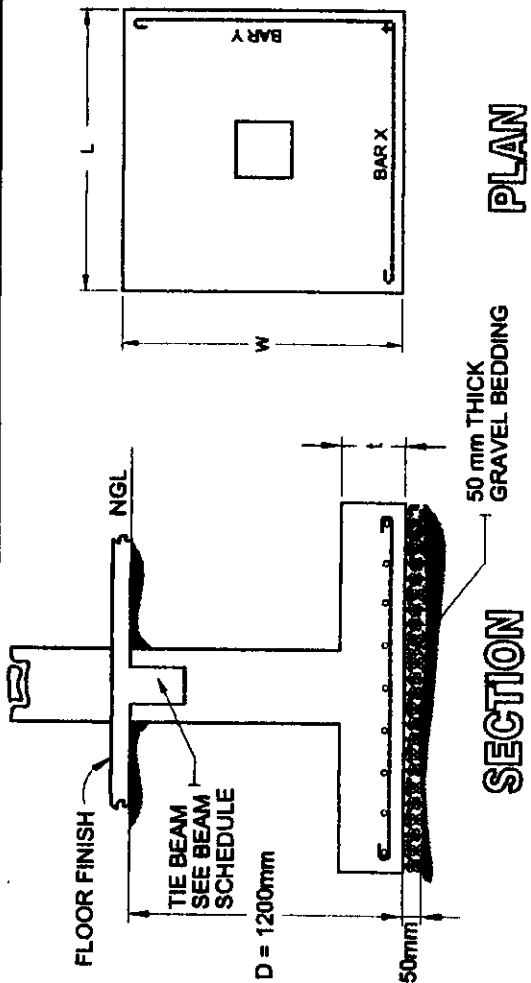


DRAWN



# 1 FOUNDATION PLAN

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S 1  
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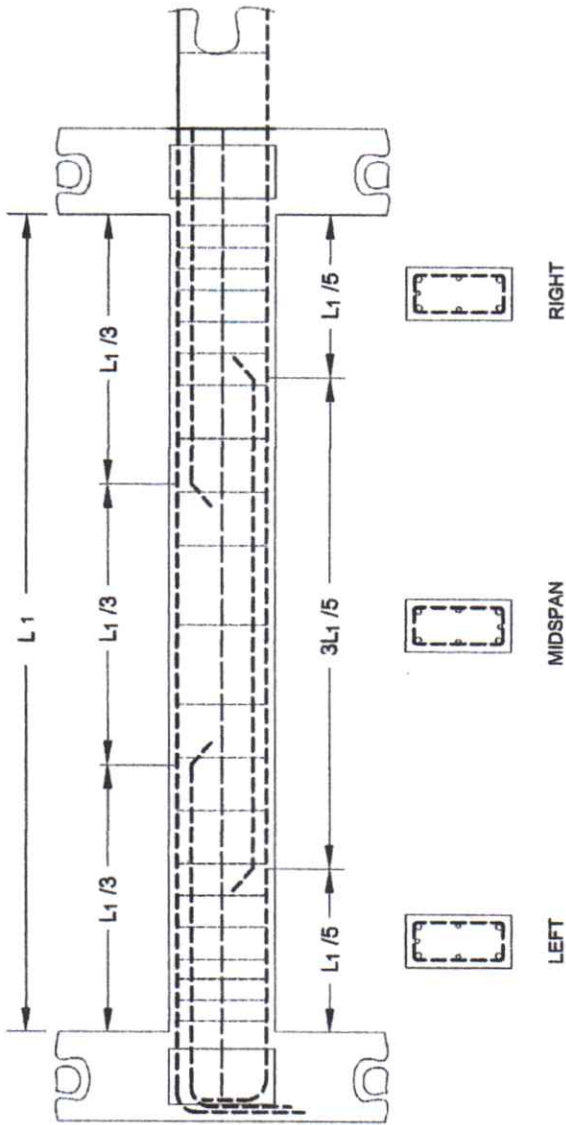


FOOTING SCHEDULE							
FOOTING MARK	FOOTING DIMENSIONS (mm)				REINFORCEMENT		REMARKS
	LENGTH (L)	WIDTH (W)	thickness (t)	DEPTH (D)	BAR X	BAR Y	
F-1	1000	1000	300	1200	8 - D18mm	8 - D18mm	SQUARE FOOTING

# 2 FOOTING DETAIL

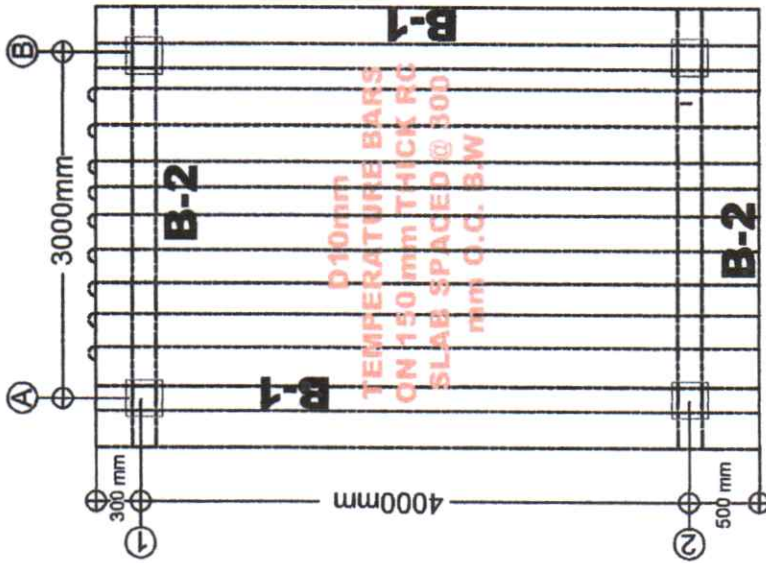
2  
S 1  
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REPUBLIC OF THE PHILIPPINES <b>DepEd</b> DEPARTMENT OF EDUCATION EDUCATION FACILITIES DIVISION 4th MILITARY C.I.T. - 487, BAGUIO CITY	PREPARED BY:  <b>JESTER SETH B. CALIXTO</b> SENIOR TECHNICAL ASSISTANT I	RECOMMENDING APPROVAL:  <b>SONAY T. PACILIO</b> UIC - CHIEF, SAUD	APPROVED BY:  <b>MARIE CAROLYN B. VERANO, CEO V</b> HEAD OF PROVIDING ENTITY	PROJECT TITLE: <b>UPGRADING OF ELECTRICAL SYSTEM</b>	OWNER: <b>DEPARTMENT OF EDUCATION - DIVISION OF BAGUIO</b> SHEET CONTENT: <b>FOUNDATION PLAN - FOOTING DETAIL PLAN</b>	SHEET NO.: <b>S1</b> <b>3</b>
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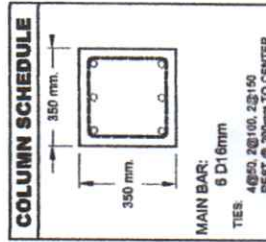


## BEAM SCHEDULE

BEAM MARK	BEAM DIMENSIONS		STEEL REINFORCEMENT								STIRRUPS D10 mm  (UNLESS NOTED OTHERWISE)
	WIDTH (b,mm)	DEPTH (h,mm)	REBAR DIAMETER (mm)	LEFT		MIDSPAN		RIGHT			
				TOP	BOTT.	TOP	BOTT.	TOP	BOTT.		
B1	300	350	12	3	2	2	3	3	2	3@50, 4@100, 4@150 REST @200 TO CENTER	
B2	300	350	12	3	2	2	3	3	2		
TB	200	350	12	3	3	2	2	3	3		



**2 SLAB DETAIL**  
DRAWN NOT TO SCALE



**1 BEAM SCHEDULE**  
DRAWN NOT TO SCALE



REPUBLIC OF THE PHILIPPINES  
**DepEd**  
DEPARTMENT OF EDUCATION  
EDUCATION FACILITIES DIVISION  
402 MILITARY CITE. OFF. BAGUIO CITY

PREPARED BY:  
**JESTER SETH B. CALIXTO**  
SENIOR TECHNICAL ASSISTANT I

RECOMMENDING APPROVAL:  
**SONAZA T. FACULO**  
JIC - CHIEF, SUCD

APPROVED BY:  
**MARIE CAROLYN B. VERANO, CESO V**  
HEAD OF PROCURING ENTITY

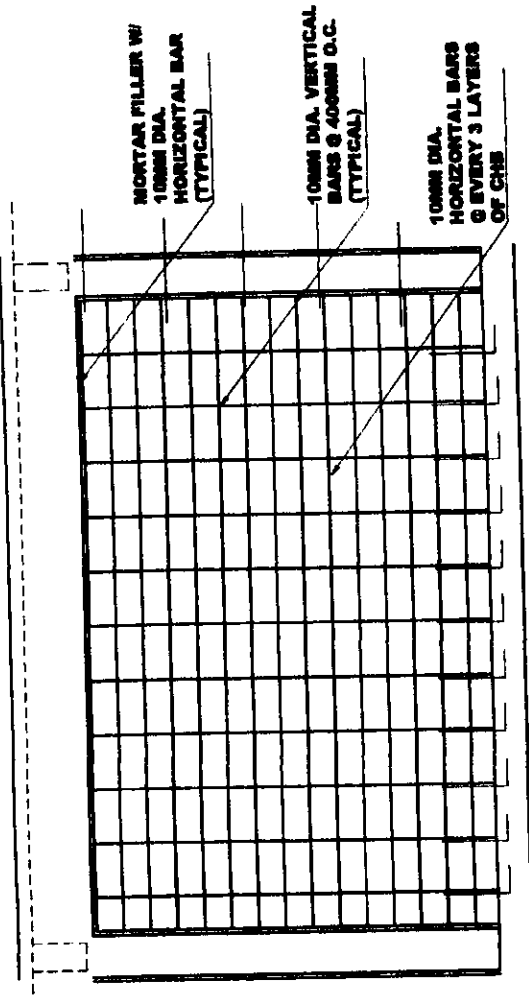
PROJECT TITLE:  
**UPGRADING OF ELECTRICAL SYSTEM**

OWNER:  
**DEPARTMENT OF EDUCATION - DIVISION OF BAGUIO**

SHEET NO.:  
**S2 3**





SHEET CONTENT:  
• BEAM SCHEDULE  
• SLAB DETAIL  
• COLUMN DETAIL

# TOP OF SLAB



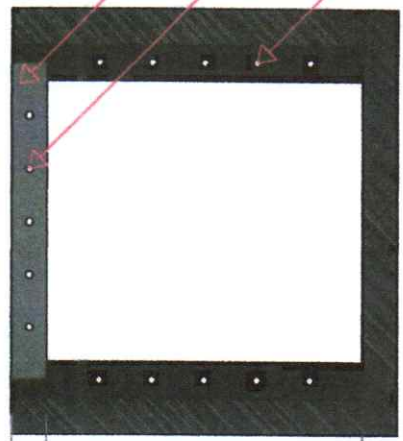
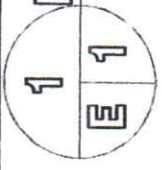
1 TYPICAL MASONRY ELEVATION  
NOT TO SCALE

1  
S 3  
DRAWN

 REPUBLIC OF THE PHILIPPINES DEPARTMENT OF EDUCATION EDUCATION FACILITIES DIVISION 43 MILITARY CUIT. CRT. BANGOR CITY		PREPARED BY:  <b>JESTER SETH B. CALIXTO</b> SENIOR TECHNICAL ASSISTANT I	RECOMMENDING APPROVAL:  <b>SONAYA T. JACULO</b> OIC - CHIEF, SDO	APPROVED BY:  <b>MARIE CAROLYN B. VERANO, CESO V</b> HEAD OF PROCUREMENT ENTITY	PROJECT TITLE: <b>UPGRADING OF ELECTRICAL SYSTEM</b>	OWNER: <b>DEPARTMENT OF EDUCATION - DIVISION OF BAGOIO</b> SHEET CONTENT: <b>TYPICAL MASONRY ELEVATION</b>	SHEET NO.: <div style="border: 1px solid black; border-radius: 50%; padding: 5px; display: inline-block;"> <b>S 3</b>  <b>3</b> </div>
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# MANHOLE DETAILS

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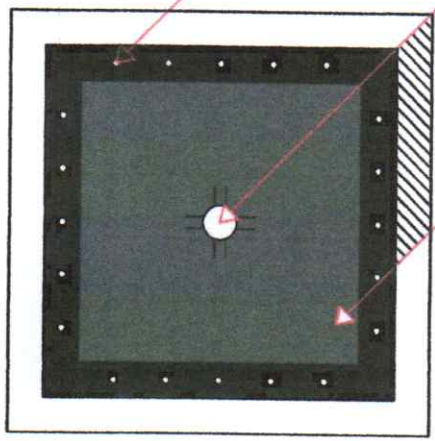


MANHOLE COVER

D 12 mm space @ 150 mm  
O.C both ways

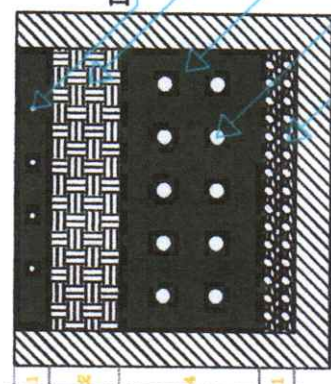
D 12 mm space @ 150 mm  
O.C both ways

D 12 mm space @ 150 mm  
O.C Both ways



D 12 mm space @ 150 mm  
O.C Both ways

MANHOLE COVER



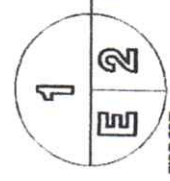
D 12 mm space @ 150 mm O.C Both ways

0.2m Backfill

Pipe Reinforce Concrete

Electrical Conduit space @ 100 mm O.C

0.1m GRAVEL BEDDING



# TRENCH DETAILS

DRAWN NOT TO SCALE