



Republic of the Philippines
DEPARTMENT OF INTERIOR AND LOCAL GOVERNMENT

BUREAU OF JAIL MANAGEMENT AND PENOLOGY
REGIONAL OFFICE - CARAGA
UPPER DOONGAN, BUTUAN CITY

CY 2023 PROJECT
DETAILED ENGINEERING DESIGN PLAN FOR
CONSTRUCTION OF ADMINISTRATION BUILDING (PHASE-1)
AND INSTALLATION OF MAIN ELECTRICAL LINE
Cabadbaran City District Jail New Facility, Brgy. La Union, Cabadbaran City

TOTAL GROUND AREA: 270 SQ.M.


DRAFTED:


Carlo S Ricaforte, RCE
Jail Officer 1
Staff, Logistics Division

PREPARED:


Gerardo G Baloyos, RCE
Jail Officer 2
Staff, Logistics Division


SUBMITTED:

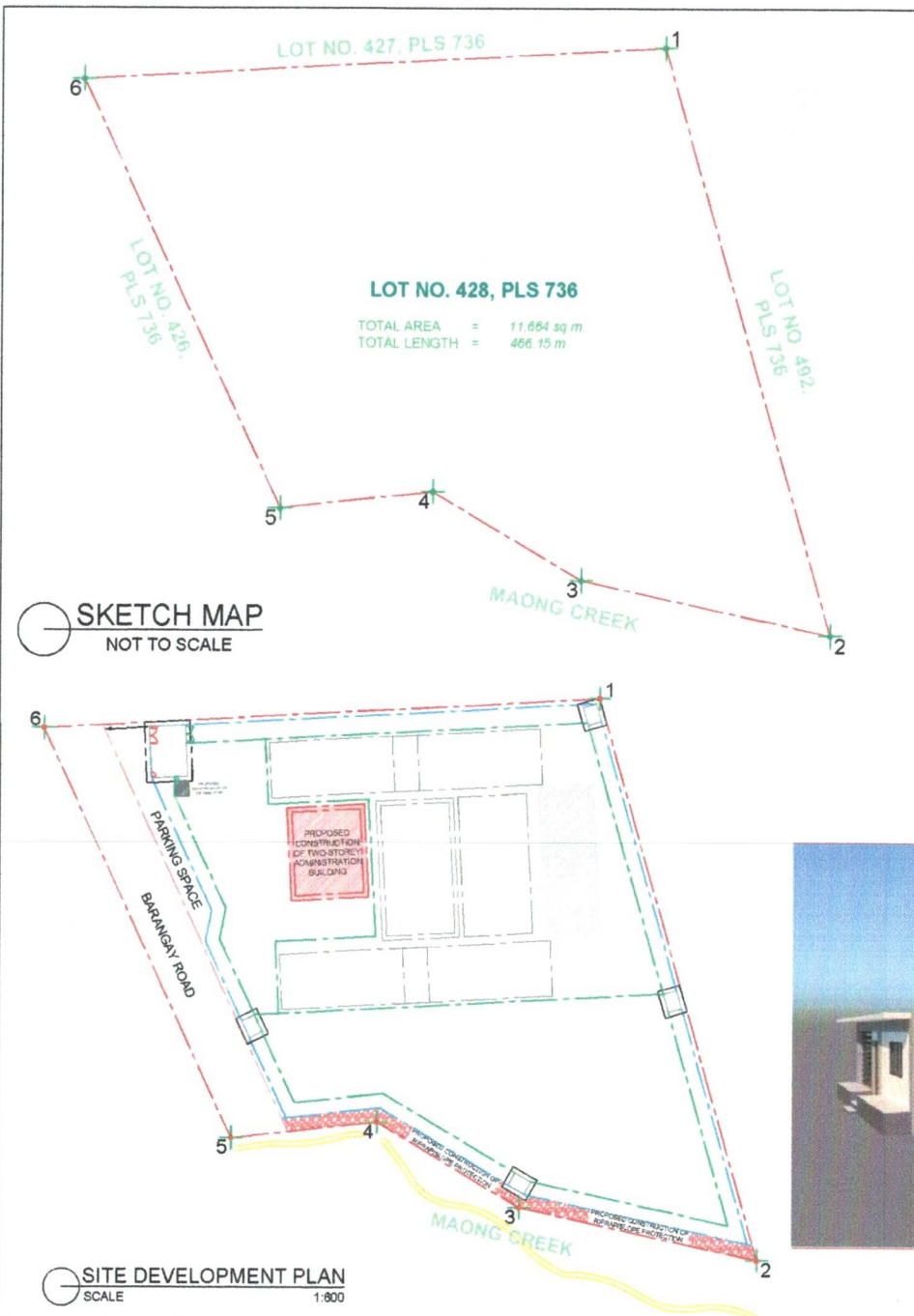

MARICAR C GONZALES, RCE
Jail Senior Inspector
Regional Engineer

RECOMMENDING APPROVAL:


ARTURO R ESPOS JR
Jail Senior Inspector
Chief, Logistics Division

APPROVAL:


MARIA IRENE A ESQUINAS
Jail Chief Superintendent
Regional Director of the Jail Bureau



TECHNICAL DESCRIPTION		
TCT NO. 158-2021000524		
WITHIN LOT NO. 428, PLS 736		
LINE	BEARING	DISTANCE
1'-2'	S 16° 12' E	120.72 m
2'-3'	N 77° 51' W	50.10 m
3'-4'	N 59° 47' W	36.66 m
4'-5'	S 83° 49' W	20.67 m
5'-6'	N 25° 12' W	41.88 m
6'-7'	N 10° 58' E	6.78 m
7'-8'	N 25° 12' W	31.29 m
8'-9'	N 03° 06' W	11.00 m
9'-1'	N 86° 54' E	98.14 m

The Line from BLLM No. 1, PLS 736 to Corner "1"
S 32° 38' E 4533.07 m

TECHNICAL DESCRIPTION		
TCT NO. 158-2021000524		
LOT NO. 428, PLS 736		
LINE	BEARING	DISTANCE
1-2	S 16° 12' E	125.46 m
2-3	N 77° 51' W	53.33 m
3-4	N 59° 47' W	36.15 m
4-5	S 83° 49' W	32.14 m
5-6	N 25° 12' W	97.18 m
6-1	N 86° 54' E	121.89 m

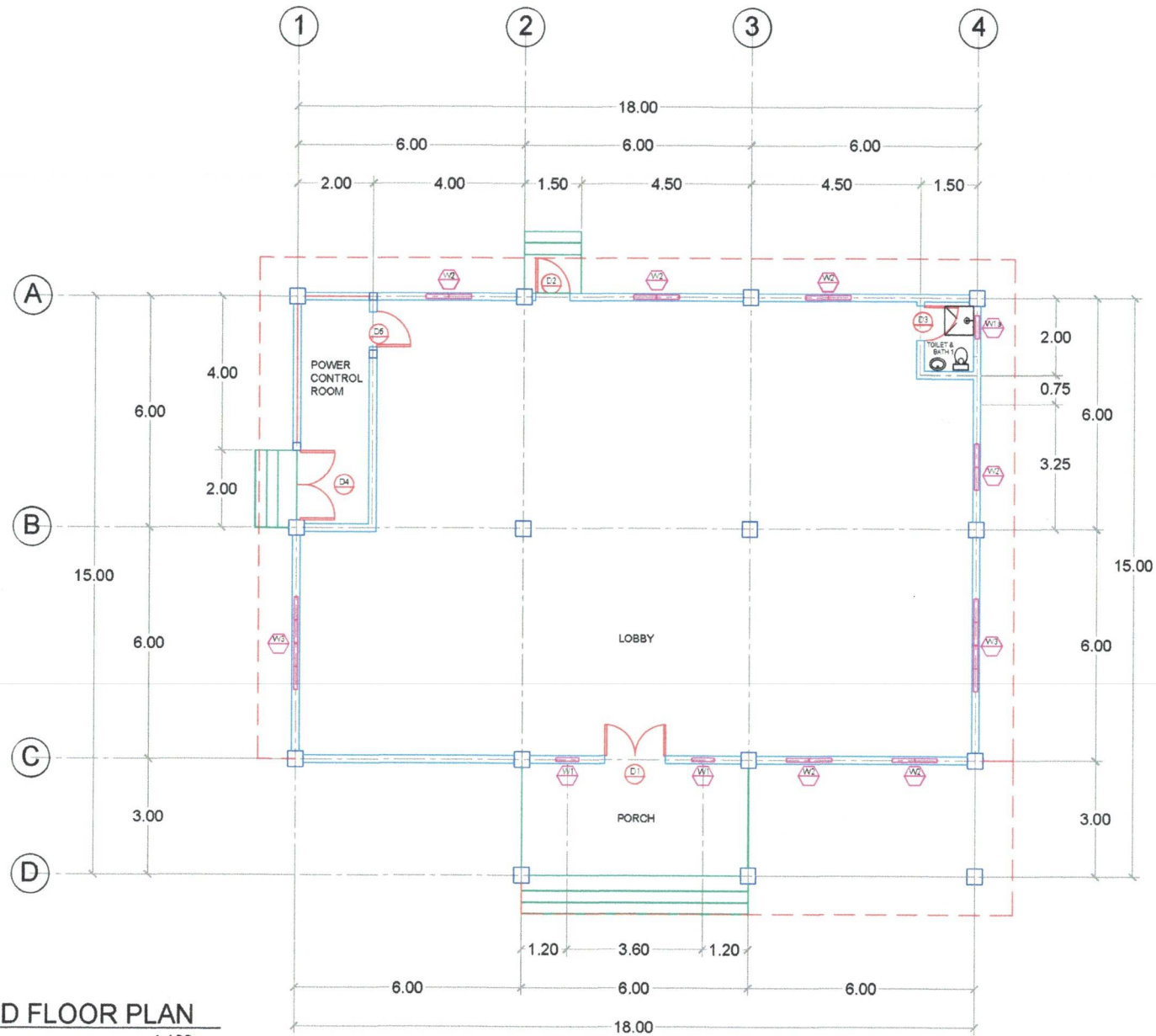
VICINITY MAP
NOT TO SCALE



PERSPECTIVE

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		APPROVED

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DEPARTMENT OF PUBLIC WORKS & HIGHWAYS
OFFICE OF THE BUILDING OFFICIAL
SURIGAO CITY

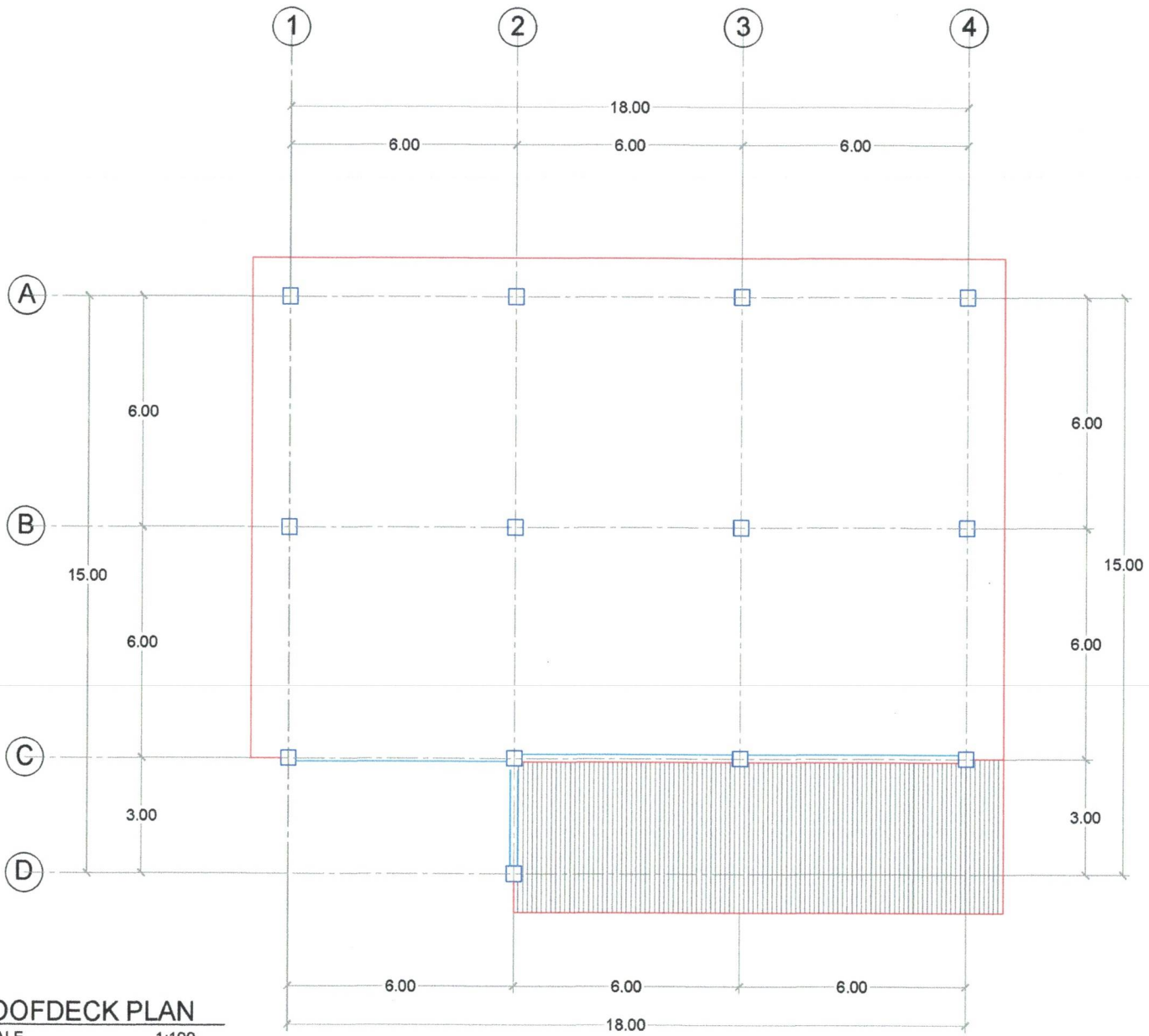


GROUND FLOOR PLAN
SCALE 1:100



REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF INTERIOR AND LOCAL GOVERNMENT
BUREAU OF JAIL MANAGEMENT AND PENOLOGY
UPPER DOONGAN, BUTUAN CITY

PROJECT TITLE: CONSTRUCTION OF ADMINISTRATION BUILDING (PHASE-1) AND INSTALLATION OF MAIN ELECTRICAL LINE	DRAFTED BY: Carlo S Ricaforte (RCE) Staff, Logistics Division	PREPARED BY: Gerard G Balovos (RCE) Staff, Logistics Division	CHECKED BY: MARICAR C GONZALES SINSP Regional Engineer	RECOMMENDING APPROVAL: ARTURO CRISTOS JR SINSP Chief, Logistics Division	APPROVED BY: MARIA IRENE A ESQUINAS CSUPT Regional Director of the Jail Bureau	SHEET CONTENT: AS SHOWN	SHEET NO.: A - 2 2 22
PROJECT ADDRESS: New Cababaran City District Jail, Brgy. La Union, Cababaran City							



ROOFDECK PLAN
SCALE 1:100

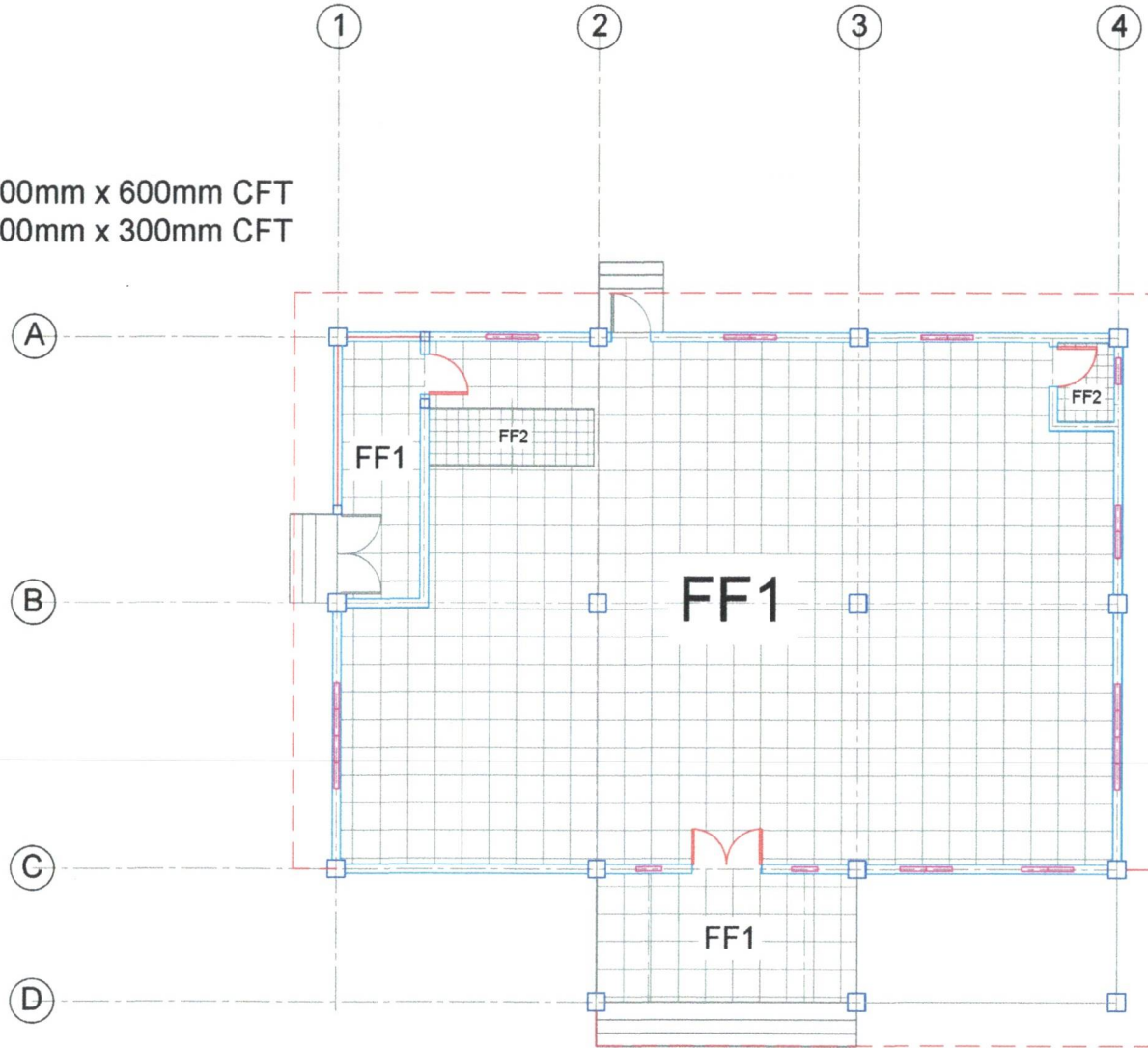


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PROJECT ADDRESS: New Cabadbaran City District Jail, Brgy. La Union, Cabadbaran City							3 22

LEGEND:

FF1 : 600mm x 600mm CFT
 FF2 : 300mm x 300mm CFT



GROUND FLOOR
FLOOR FINISH PLAN
 SCALE: 1:100



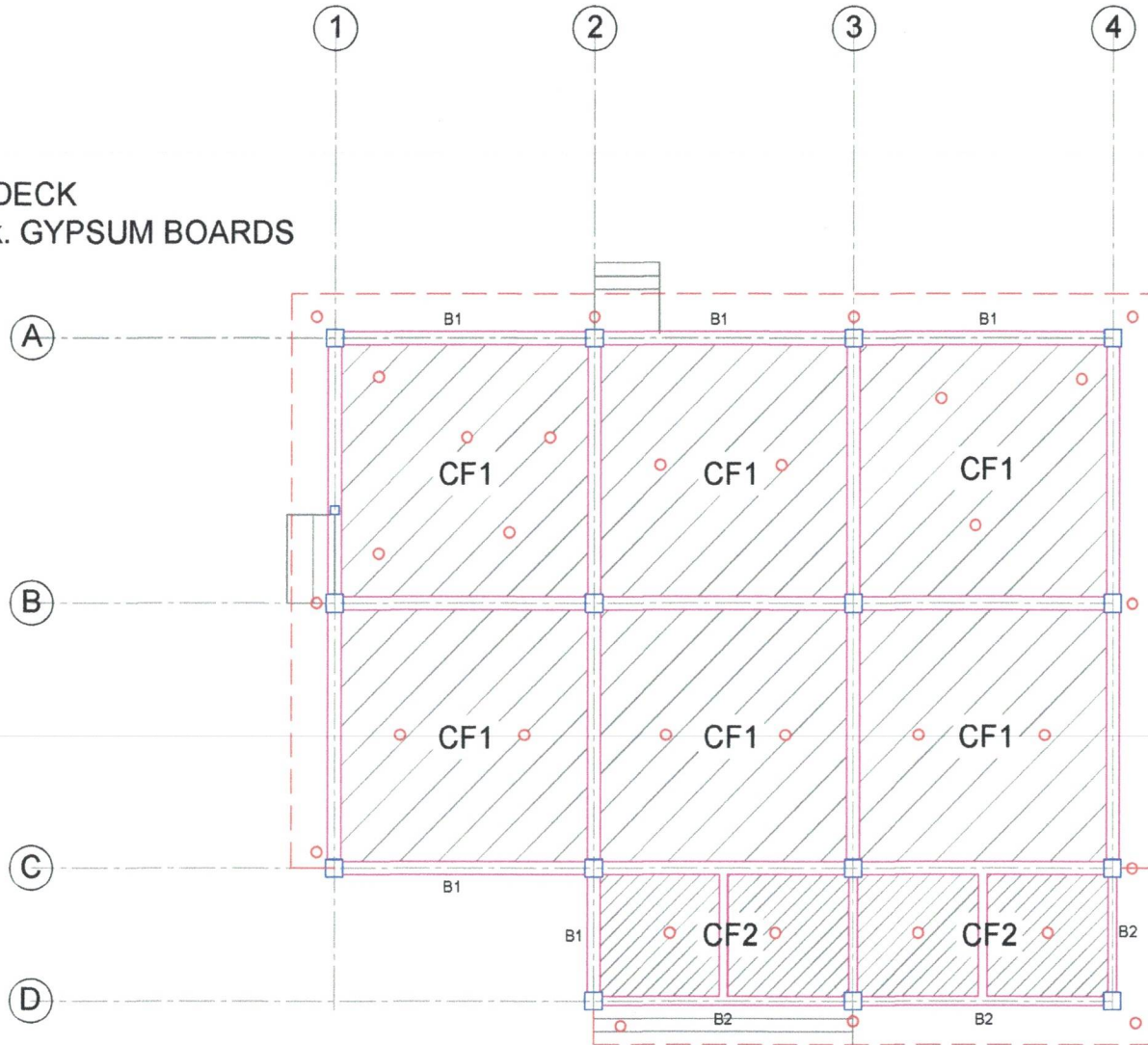
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PROJECT ADDRESS:							4 22
New Cabadbaran City District Jail, Brgy. La Union, Cabadbaran City							

LEGEND:

CF1 : STEEL DECK

CF2 : 9mm thk. GYPSUM BOARDS

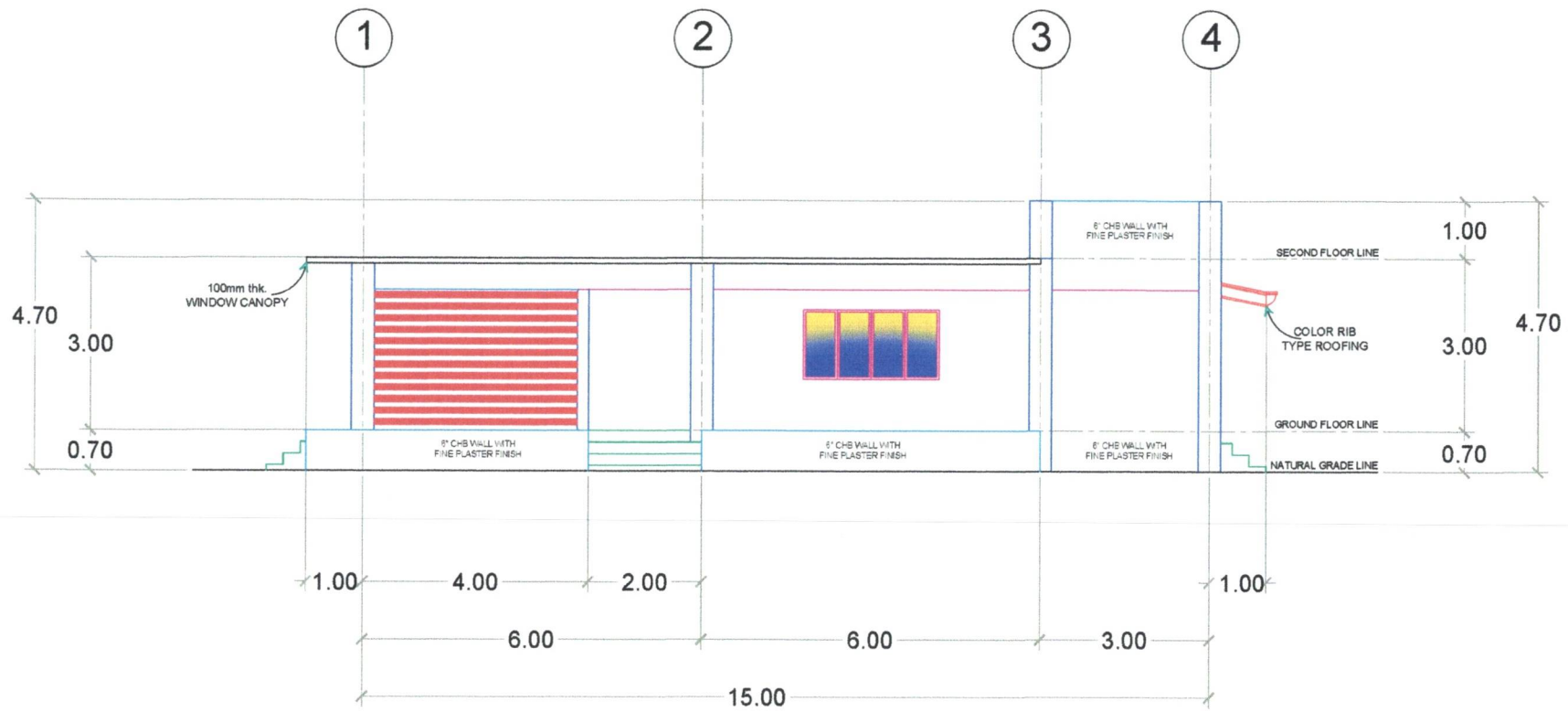


GROUND FLOOR
CEILING PLAN
 SCALE: 1:100



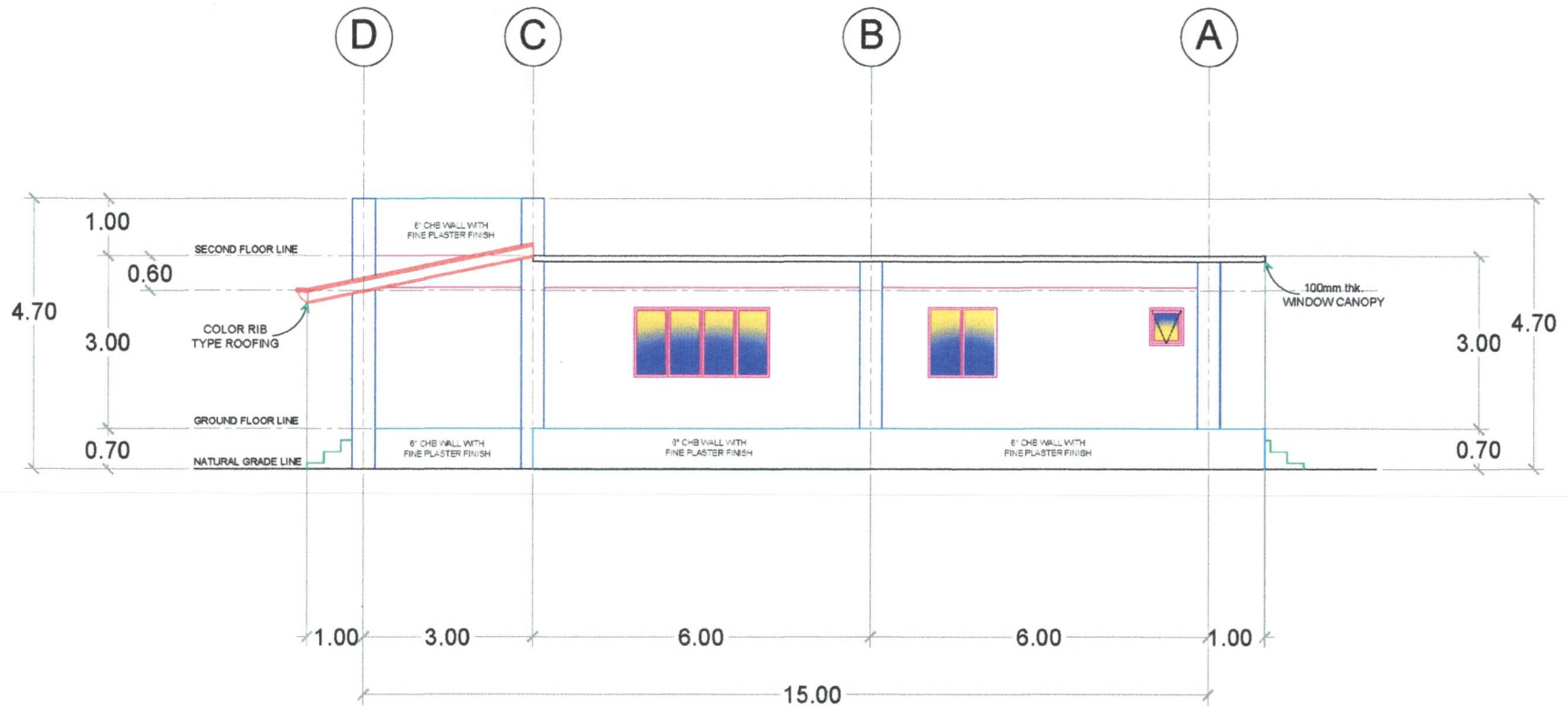
REPUBLIC OF THE PHILIPPINES
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PROJECT ADDRESS:	New Cababaran City District Jail, Bngy. La Union, Cababaran City						5	22



LEFT ELEVATION PLAN
 SCALE: 1:100

	REPUBLIC OF THE PHILIPPINES DEPARTMENT OF INTERIOR AND LOCAL GOVERNMENT BUREAU OF JAIL MANAGEMENT AND PENOLOGY UPPER DOONGAN, BUTUAN CITY	PROJECT TITLE: CONSTRUCTION OF ADMINISTRATION BUILDING (PHASE-1) AND INSTALLATION OF MAIN ELECTRICAL LINE	DRAFTED BY: Carlo S. Ricaforte JO1 (RCE) Staff, Logistics Division	PREPARED BY: Gerardo S. Balovos JO1 (RCE) Staff, Logistics Division	CHECKED BY: MARICARIC GONZALES SINSP (RCE) Regional Engineer	RECOMMENDING APPROVAL: ARTURO PESPOS JR SINSP JMP Chief, Logistics Division	APPROVED BY: MARIA IRENE A. ESQUINAS CSUPT DSC Regional Director of the Jail Bureau	SHEET CONTENT: AS SHOWN	SHEET NO.: A-7 7 22
	PROJECT ADDRESS: New Cabasaran City District Jail, Brgy. La Union, Cabasaran City								

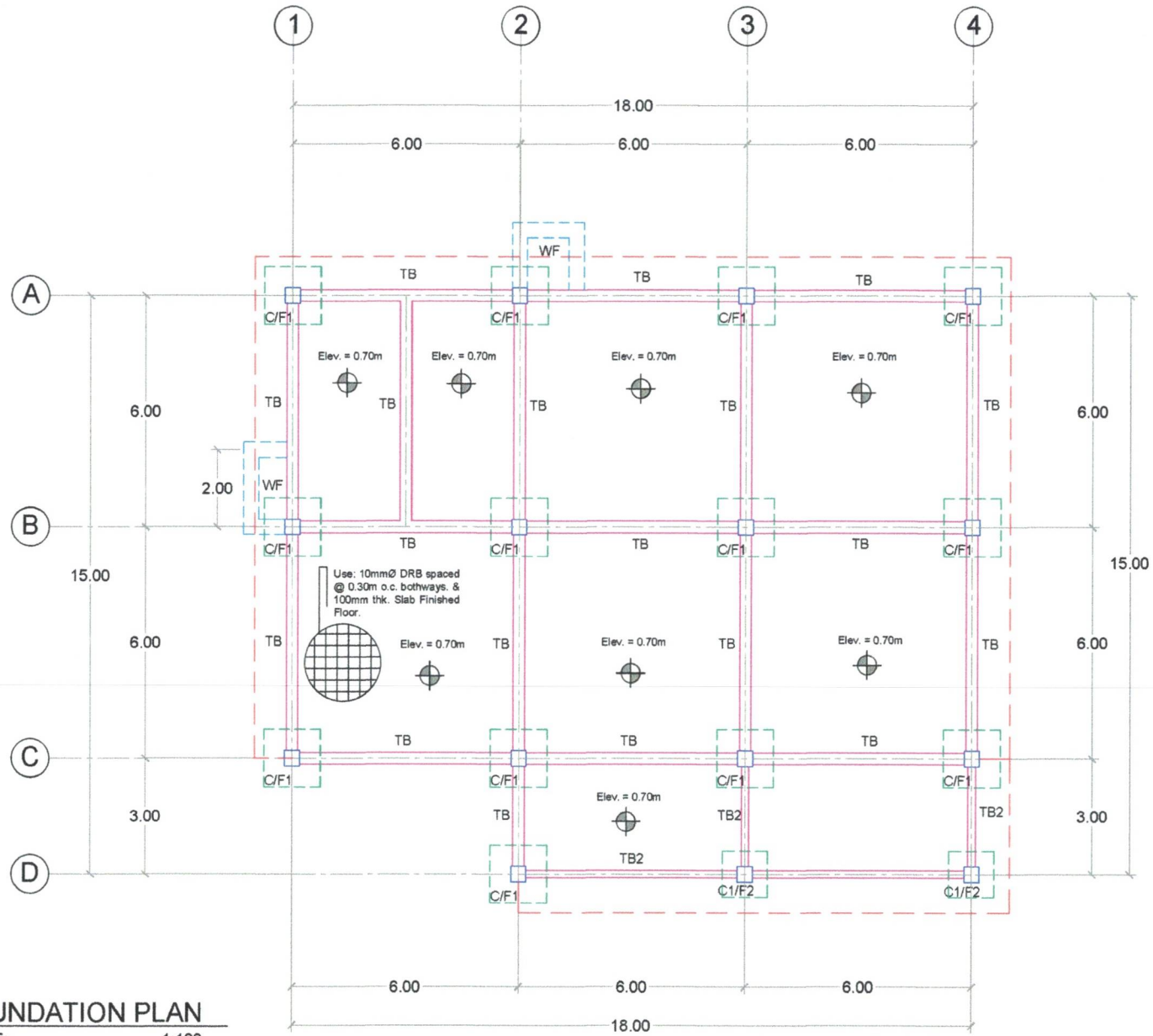


RIGHT ELEVATION PLAN
 SCALE: 1:100



REPUBLIC OF THE PHILIPPINES
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PROJECT ADDRESS:	New Cabadbaran City District Jail, Brgy. La Union, Cabadbaran City						
							9 22

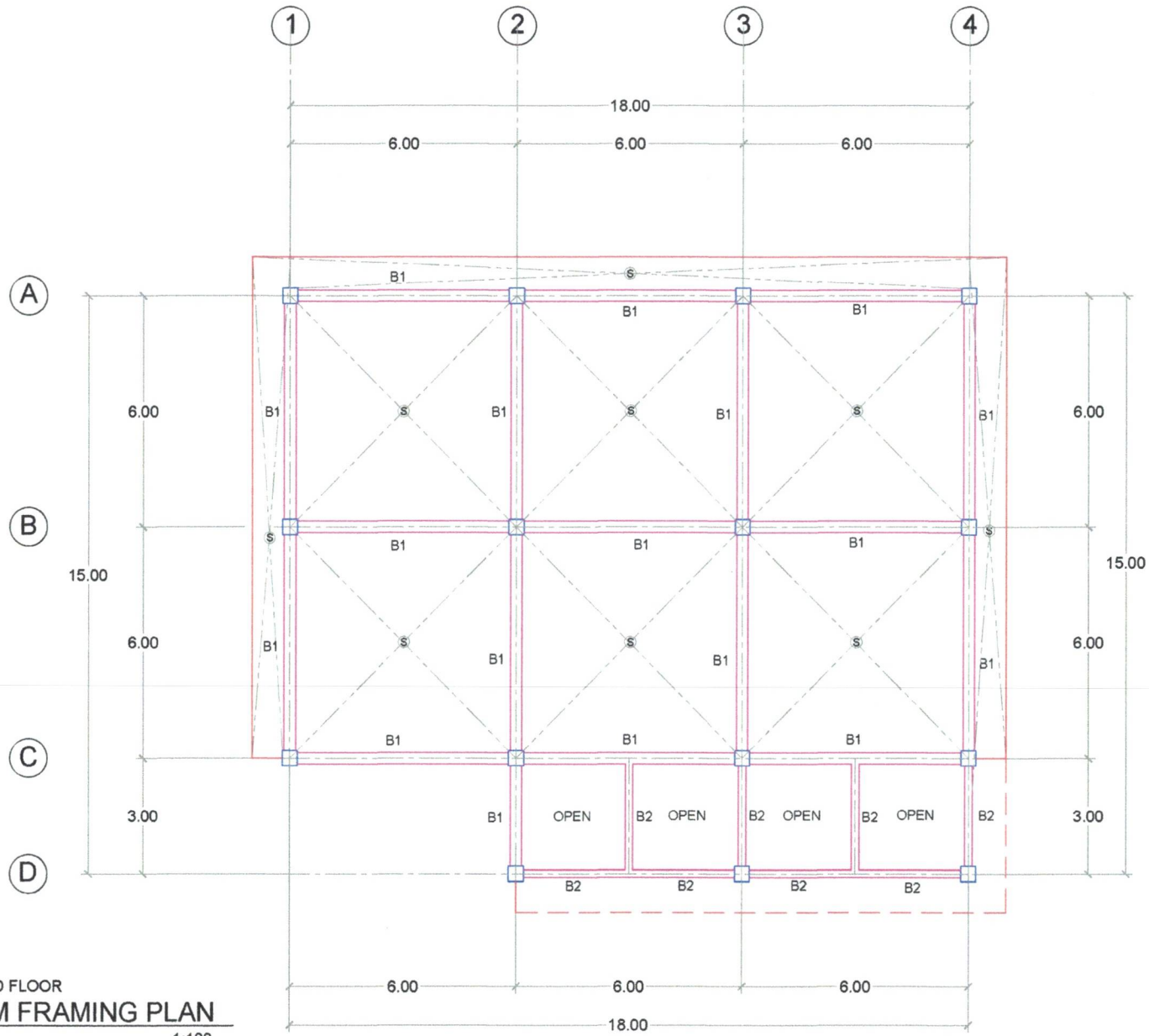


FOUNDATION PLAN
SCALE: 1:100



REPUBLIC OF THE PHILIPPINES
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SECOND FLOOR
BEAM FRAMING PLAN
 SCALE: 1:100



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PROJECT ADDRESS:	New Cabasaran City District Jail, Brgy. La Union, Cabasaran City						12	22

STRUCTURAL SPECIFICATION AND GENERAL CONDITIONS

GENERAL NOTES:

THIS GENERAL NOTES AND REQUIREMENT ARE SUPPLEMENTAL TO AND FORM PART OF THE PLAN, DRAWINGS AND SPECIFICATIONS WHERE DETAILS OR REQUIREMENTS ARE NOT COVERED BY THE PLANS AND SPECIFICATIONS. THIS GENERAL CONSTRUCTION SHALL BE USED IN SO FAR AS THEY ARE APPLICABLE TO SATISFY THE REQUIREMENTS OF GOOD CONSTRUCTION PRACTICE. IN CASE OF QUESTIONS ARISING FROM THE INTERPRETATION OF OR CONFLICT WITH OTHER DOCUMENTS, THE ATTENTION OF THE OWNER/ENGINEERS MUST BE IN WRITING.

NOTES:

A. ALL REINFORCING BARS SHALL BE OF INTERMEDIATE GRADE WITH A MINIMUM YIELD STRENGTH OF $F_y=276$ MPa (40,000 psi) AND A MINIMUM TENSILE STRENGTH OF 483 MPa (70,000 psi).

B. ALL REINFORCING BAR SIZE 12mm OR BIGGER SHALL BE DEFORMED IN ACCORDANCE WITH ASTM-A615 BARS SMALLER THAN 12mm MAY BE PLAIN BARS.

C. BARS OF REINFORCED CONCRETE EXPOSED TO THE WEATHER SHALL PREFERABLY AT LEAST 35.7mm AND IN NO CASE LESS THAN 25mm CONCRETE COVER. THIS PROVISION MAY BE WAIVED WHEN ADEQUATE WATERPROOFING IS PROVIDED BUT SHALL IN NO CASE BE LESS THAN 20mm.

D. IN THE INTERPRETATION TO OTHER DRAWINGS, INDICATED DIMENSIONS SHALL GOVERN AND DISTANCES AND SIZES SHALL NOT BE SCALED FOR CONSTRUCTION PURPOSES.

E. IN REFERENCE TO OTHER DRAWINGS, SEE ARCHITECTURAL DRAWINGS FOR DEPRESSIONS IN FLOOR SLABS, OPENINGS, IN WALLS AND SLABS INTERIOR PARTITIONS, LOCATION OF DRAINS, ETC.

F. IN CASE OF DISCREPANCIES AS TO BE LAYOUT DIMENSIONS AND ELEVATIONS BETWEEN THE STRUCTURAL PLANS AND OTHER DRAWINGS, THE CONTRACTOR SHALL NOTIFY BOTH THE STRUCTURAL ENGINEERS AND THE OWNERS REPRESENTATIVE OR SITE ENGINEER IN WRITING BEFORE PROCEEDING WITH THE AFFECTED WORK.

NOTES ON CONCRETE MIXES AND PLACING:

A. THE CONTRACTOR SHALL SUBMIT THE SCHEDULE OF POURING AND LOCATION OF CONSTRUCTION JOINTS TO THE FIELD ENGINEER AT LEAST FOUR (4) DAYS PRIOR TO THE POURING FOR APPROVAL.

B. WET CURING OF CONCRETE SHALL BE CONTINUOUS FOR MINIMUM PERIOD OF TEN (10) DAYS IMMEDIATELY AFTER POURING USING LIQUID POURING MEMBRANE.

C. THE CONTRACTOR SHALL FURNISH AND MAINTAIN ADEQUATE FORMS FOR SHORINGS UNTIL THE CONCRETE HAVE ATTAINED THEIR SUFFICIENT STRENGTH FOR THE WORKING CONDITIONS ANTICIPATED.

D. ALL CONCRETE WORKS SHALL BE DONE IN ACCORDANCE WITH THE ACI 318-77 BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE AND ALL STRUCTURAL STEEL WORKS IN ACCORDANCE WITH THE LATEST EDITION OF THE AISC SPECIFICATIONS IN SO FAR AS THEY DO NOT CONFLICT WITH THE REQUIREMENTS OF THE NATIONAL STRUCTURAL CODES FOR BUILDINGS LOCAL CODES.

E. A.C.11 REFERS TO THE AMERICAN CONCRETE INSTITUTE A.I.S.C. TO THE AMERICAN INSTITUTE FOR STEEL CONSTRUCTION AND A.S.T.M. FOR AMERICAN FOR TESTING MATERIALS.

F. UNLESS OTHERWISE INDICATED IN PLANS OR NOTED IN THE SPECIFICATIONS, MINIMUM 28TH DAY CYLINDER COMPREHENSIVE STRENGTH OF CONCRETE SHALL BE AS FOLLOWS:

1. FOOTINGS, FOOTING BEAMS AND GIRDERS, AND BASEMENT WALLS:
 $f_c = 20.7$ mpa (3,000 psi)

2. COLUMN AND BEARING WALLS:
 $f_c = 20.7$ mpa (3,000 psi)

3. FLOOR AND ROOF SLABS, BEAMS AND GIRDERS:
 $f_c = 20.7$ mpa (3,000 psi)

4. NON-LOAD BEARING WALL PARTITION, CATCH BASINS, SIDEWALKS:
 $f_c = 17.2$ mpa (2,500 psi)

G. 1. CONCRETE SHALL BE DEPOSITED IN ITS FINAL POSITION WITHOUT SEGREGATION, REHANDLING OR FLOWING PLACING SHALL BE DONE PREFERABLY WITH BUGGIES, BUCKETS OR WHEEL BORROWS NO CHUTE WILL BE ALLOWED EXCEPT TO TRANSFER CONCRETE FROM HOPPERS TO BUGGIES, WHEEL BORROWS OR BUCKET IN WHICH CASE THEY SHALL NOT EXCEED SIX (6) METERS IN AGGREGATE LENGTH.

2. NO DEPOSITION OF CONCRETE SHALL BE ALLOWED WITHOUT THE USE OF VIBRATORS UNLESS AUTHORIZED IN WRITING BY THE DESIGNER AND ONLY FOR UNUSUAL CONDITIONS WHICH VIBRATION IS EXTREMELY DIFFICULT TO ACCOMPLISH.

3. SAMPLING FOR COMPREHENSIVE STRENGTH TESTS SHALL BE MADE IN ACCORDANCE WITH THE SPECIFICATIONS BUT SHALL NOT BE LESS THAN ONE (1) SET FOR EACH DAY OF POUR.

NOTES ON CONCRETE SLABS:

A. ALL SLABS REINFORCEMENT SHALL BE 19.05mm CLEAR MINIMUM BOTTOM AND FROM THE TOP OF SLAB.

B. UNLESS OTHERWISE DETAILED IN CONTINUOUS SLAB HAVING SAME REINFORCEMENT RUNNING IN ONE DIRECTION, REINFORCING BARS SHALL BE BENT-UP EXTENDED CUT AS FOLLOWS.

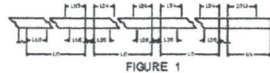


FIGURE 1

C. IF SLABS ARE REINFORCED BOTHWAYS, BARS AND SHORTER SPAN SHALL BE PLACED BELOW THOSE ALONG THE LONG SPAN AT THE CENTER AND LOWER AT THE SUPPORTS FOR REINFORCING BARS NEAR THE SUPPORTS. THE SPACING OF THE BARS AT THE COLUMN STRIPS SHALL BE APPROXIMATELY ONE AND A HALF (1 1/2) THAT IN THE MIDDLE STRIP BUT IN NO CASE SHALL BE GREATER THAN TWO AND ONE HALF (2 1/2) TIMES THE SLAB THICKNESS NOR 45 CENTIMETERS.

D. TEMPERATURE BARS FOR SLABS SHALL BE GENERALLY PLACED NEAR THE TENSION AND SHALL NOT BE LESS THAN 0.002 BT. (SEE SCHEDULE BELOW).

SCHEDULE OF MINIMUM SLAB REINFORCEMENT	
THICKNESS	MINIMUM TEMPERATURE BARS
100mm	10mm @ 275mm EACHWAY
112.5mm	10mm @ 236mm EACHWAY
125mm	10mm @ 212mm EACHWAY
137.5mm	10mm @ 188mm EACHWAY
150mm	10mm @ 175mm EACHWAY

E. UNLESS OTHERWISE NOTED IN THE PLANS, ALL BEDDED SLABS SHALL BE REINFORCED WITH 10mm @ REBARS AT 0.25m O.C. EACHWAY AT CENTER OF SLAB, AND CONSTRUCTION JOINTS FOR SAME SHALL NOT BE MORE THAN 6.00m APART.

F. PROVIDE EXTRA REINFORCEMENT FOR CORNER SLAB (TWO ADJACENT DISCONTINUOUS EDGES AS SHOWN BELOW).

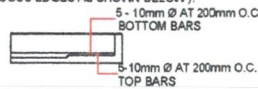


FIGURE 2

NOTES ON FOOTINGS:

A. CONTRACTOR SHALL REPORT TO THE ENGINEER ACTUAL UNUSUAL SOIL CONDITIONS UNCOVERED AND CONFIRM ACTUAL BEARING CAPACITY IN WRITINGS BEFORE DEPOSITING CONCRETE.

B. FOOTINGS SHALL REST AT LEAST 1.50 meter BELOW FINISHED GRADE LINES UNLESS OTHERWISE INDICATED.

C. UNLESS OTHERWISE SPECIFIED, ALL FOOTINGS SHALL REST ON DENSE SAND OR VERY HARD CLAY. THIS MAY SOMETIMES REQUIRE OVER EXCAVATION OF ABOUT 1.00 meters FROM PRESCRIBED BOUNDARY LEVEL SUCH EXCAVATION SHALL BE REPLACED WITH WELL COMPACTED CRUSHED ROCK BACKFILL. COMPACTION SHALL BE 95% OF MUD BASED ON ASTM D698.

D. MINIMUM CONCRETE PROTECTION FOR REINFORCEMENT SHALL BE 0.075 meter CLEAR FOR CONCRETE DEPOSITED AGAINST THE GROUND AND 0.05 meter FOR CONCRETE DEPOSITED AGAINST FRAMEWORK.

MASONRY UNITS:

SCHEDULE OF CHB AND CERAMIC			BLOCK REINFORCEMENT
BLOCK THICKNESS	REINFORCEMENT		NOTES:
	HORIZONTAL	VERTICAL	
75mm 100mm	10mm EVERY 3 LAYERS	10mm @ 0.60m o.c. 10mm @ 0.60m o.c.	A. MINIMUM LAPS SPlice = 0.25m B. PROVIDE RIGHT ANGLED REINFORCEMENT AT CORNERS 0.92m LONG
150mm 200mm	10mm EVERY 3 LAYERS	12mm @ 0.60m o.c. 12mm @ 0.60m o.c.	C. WHERE CHB OR CERAMIC BLOCK WALLS ADJOIN COLUMN, RC BEAMS AND WALLS, DOWELS WITH THE SAME SIZE AS VERTICAL OR HORIZONTAL REINFORCEMENT SHALL BE PROVIDED.

NOTES ON CONCRETE WALLS:

A. ALL WALLS SHALL BE REINFORCED ACCORDING TO THE FOLLOWING SCHEDULE OF WALL REINFORCEMENT UNLESS OTHERWISE INDICATED IN THE PLANS.

BLOCK THICKNESS	REINFORCEMENTS		REMARKS	VERTICAL SECTION
	HORIZONTAL	VERTICAL		
100mm 125mm 150mm 175mm 200mm 225mm 250mm	10mm @ 0.25m o.c. 10mm @ 0.20m o.c. 12mm @ 0.25m o.c. 10mm @ 0.25m o.c. e.f. 10mm @ 0.20m o.c. e.f. 12mm @ 0.20m o.c. e.f.	10mm @ 0.30m o.c. 10mm @ 0.25m o.c. 12mm @ 0.30m o.c. 10mm @ 0.25m o.c. 10mm @ 0.25m o.c. e.f. 10mm @ 0.25m o.c. e.f.	HORIZONTAL BARS AT CENTER VERT BARS STAG. OUTSIDE BOTH FACES FOR BARS SHALL BE OUTSIDE	VERT. SLAB BARS HOR. BARS VERT. BARS HOR. BARS

REINFORCING BARS SHALL HAVE 25mm MINIMUM CONCRETE CLEAR COVER FROM FACE OF WALL EXCEPT FOR WALLS IN CONTACT WITH THE GROUND WHERE A MINIMUM OF 62.5mm SHALL BE PROVIDED, AND FOR EXPOSED FACES OF FORMED WALLS WHERE THE MINIMUM SHALL BE 50mm CLEAR

A. CARRY VERTICAL BARS AT LEAST 600mm ABOVE FLOOR LEVEL TO PROVIDE FOR SPLICES WHEN NECESSARY STOP AT 500mm TOP SLAB OR SOLID SAND WHERE THE WALLS ENDS.

VERTICAL AND HORIZONTAL BARS SHALL BE SPLICED BY LAPPING A DISTANCE EQUAL TO 40 BAR DIAMETER SAND WIRED SURELY WITH NO. 16 THE WIRE PROVIDED THAT SPLICES OF ADJACENT BARS ARE STAGGERED AT LEAST 1.6m o.c.

DESIGN CRITERIA:

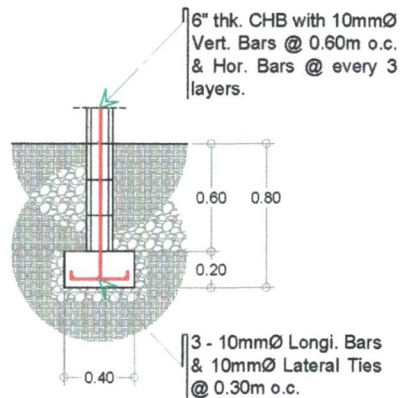
- POSTENSION
 - $f_s = 175,000$ PSI (7 WIRE STRAND)
 - $f_c = 4,000$ PSI CONCRETE AT 28 DAYS
- CONVENTIONAL
 - $f_s = 18,000$ PSI STRUCTURAL STEEL (10, 12, 16, 18, 20mm)
 - $f_c = 20,000$ PSI INTERMEDIATE STEEL (25mm @ UP)
- WEIGHT OF RC = 150 PCF
- SLAB FORM USE, CONDECK AS DUCKING SLAB
- USE WIDE FLANGE OR I-BEAM ASTM A-7 TO 160
 - DECK = 100 PSF
 - RESIDENCE = 40 PSF
 - OFFICE = 80 PSF
 - PUBLIC = 100 PSF
 - DRIVEWAY = 120 PSF
- SOIL BEARING (ASSUMED) Q. W. = 5,000 PSF
- SEISMICS.
 - $E = 0.1(DL + 0.5LL)$
 - PORTAL METHOD
- $f_{ai} = 500$ PSI- COLUMNS
- CHB - USE JACKBUILT 700 PSI
- TENDON - USSE FRESCON, SSI, PSSI

C. UNLESS OTHERWISE NOTED IN THE PLAN, ALL OPENINGS IN WALLS 250mm OR LARGER SHALL BE REINFORCED AROUND WITH 2-20mm BARS FOR 225mm, 175mm, 150mm WALLS. USE 2-18mm @ BARS FOR 125mm AND 100mm WALLS, USE 12mm @ BARS ALL WALLS SPANNING OPENINGS SHALL HAVE VERTICAL REINFORCEMENTS SENT TO "U" FORM LIKE STIRRUPS AND SPACED ACCORDING TO THE SCHEDULE UNLESS OTHERWISE NOTED.

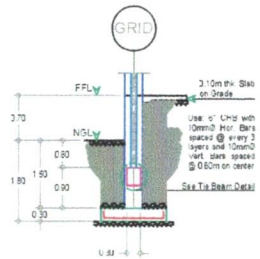


FIGURE 5

	PROJECT TITLE:	DRAFTED BY:	PREPARED BY:	CHECKED BY:	RECOMMENDING APPROVAL:	APPROVED BY:	SHEET CONTENT:	SHEET NO.:
	CONSTRUCTION OF ADMINISTRATION BUILDING (PHASE-1) AND INSTALLATION OF MAIN ELECTRICAL LINE	Carlo S. Ricafort JOL (RCE) Staff, Logistics Division	Gerald G. Baloyos JOL (RCE) Staff, Logistics Division	MARICAR C. GONZALES SINSP (RCE) Regional Engineer	ARTURO R. SPOS JR SINSP JMP Chief, Logistics Division	MARIA IRENE A. ESQUINAS CSUPT DSC Regional Director of the Jail Bureau	AS SHOWN	S - 4
	PROJECT ADDRESS: New Cababaran City District Jail, Brgy. La Union, Cababaran City							14 22



WALL FOOTING DETAIL
NOT TO SCALE



TIE BEAM DETAIL
NOT TO SCALE

SCHEDULE OF FOOTINGS

MARK	THK. (mm)	SIZE (m)		BOTTOM BARS		DEPTH OF EXCAVATION	REMARKS
		WIDTH	LENGTH	BAR 'S'	BAR 'L'		
F1	300	1.50	1.50	8 - 20mmØ	8 - 20mmØ	1.80m from NGL	ISOLATED FOOTING
F2	300	1.20	1.20	6 - 20mmØ	6 - 20mmØ	1.50m from NGL	ISOLATED FOOTING

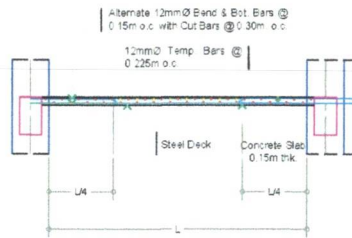
VERIFY FOUNDATION PLAN

SCHEDULE OF COLUMNS

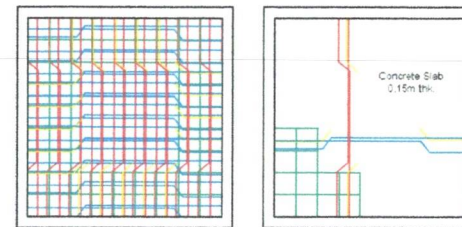
VERIFY STRUCTURAL PLAN	C1	C2
	SIZE: 400 mm x 400 mm	SIZE: 200 mm x 200 mm
	VERT. BARS: 14 - 20mmØ	VERT. BARS: 4 - 16mmØ
	TIES: 3 - 10mmØ / SETS	TIES: 1 - 10mmØ / SETS
	5 @ 50mm., 5 @ 100mm., REST @ 150mm. o.c.	5 @ 50mm., 5 @ 100mm., REST @ 150mm. o.c.

SCHEDULE OF BEAMS

VERIFY STRUCTURAL PLAN	TB/B1	B2
	SIZE: 300 mm x 400 mm	SIZE: 200 mm x 300 mm
	HOR. BARS: 9 - 20mmØ	HOR. BARS: 7 - 20mmØ
	TIES: 1 - 10mmØ / SETS	TIES: 1 - 10mmØ / SETS
	5 @ 50mm., 5 @ 100mm., REST @ 150mm. o.c.	5 @ 50mm., 5 @ 100mm., REST @ 150mm. o.c.



TWO WAY SLAB DETAIL
NOT TO SCALE

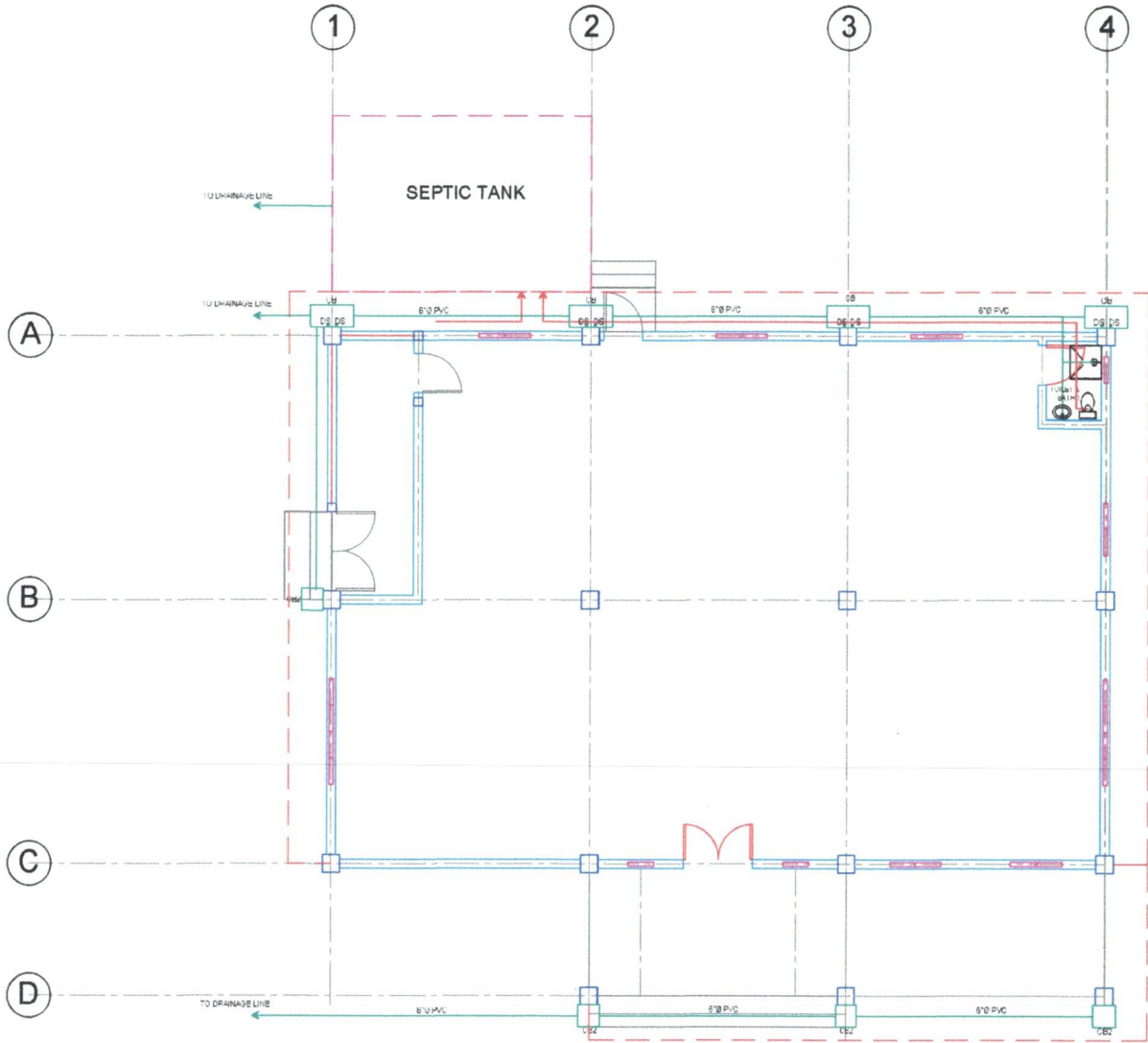


TWO WAY SLAB DETAIL
NOT TO SCALE



REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF INTERIOR AND LOCAL GOVERNMENT
BUREAU OF JAIL MANAGEMENT AND PENOLOGY
UPPER DOONGAN, BUTUAN CITY

PROJECT TITLE: CONSTRUCTION OF ADMINISTRATION BUILDING (PHASE-1) AND INSTALLATION OF MAIN ELECTRICAL LINE	DRAFTED BY: Carlo S. Ricaforte JO1 (RCE) Staff, Logistics Division	PREPARED BY: Gerald G. Baluyos JO2 (RCE) Staff, Logistics Division	CHECKED BY: MARI CARLO GONZALES SINSP (RCE) Regional Engineer	RECOMMENDING APPROVAL: ARTURO R. ESPOS JR SINSP JMP Chief, Logistics Division	APPROVED BY: MARIA IRENE A. ESQUINAS CSUPT DSC Regional Director of the Jail Bureau	SHEET CONTENT: AS SHOWN	SHEET NO.: S - 5 15 22
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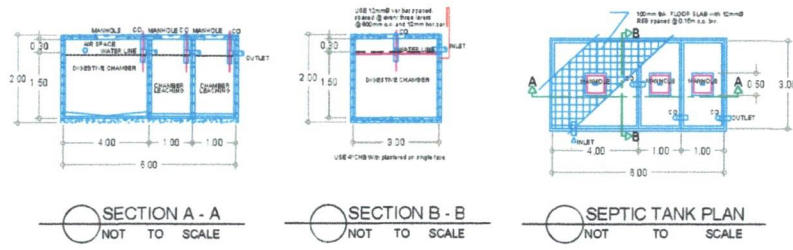
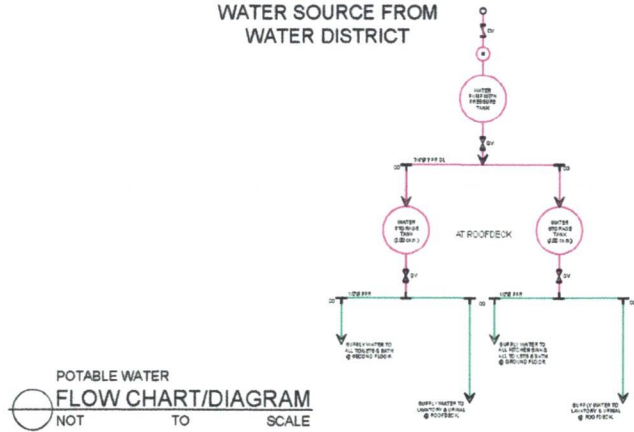
GROUND FLOOR
PLUMBING LAYOUT
 SCALE: 1:85



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PROJECT ADDRESS:	New Cababaran City District Jail, Brig. La Union, Cababaran City						

WATER SOURCE FROM WATER DISTRICT

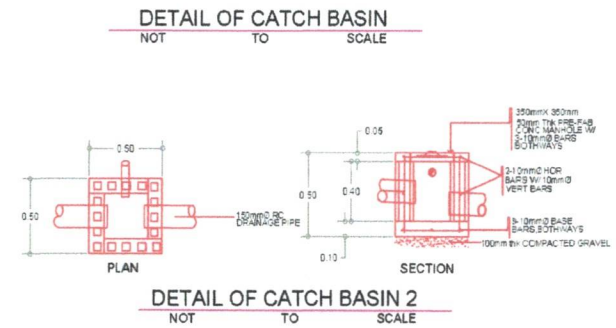
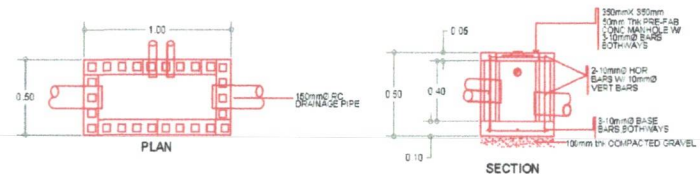
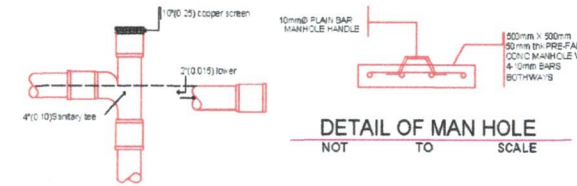


SPECIFICATION:

1. ALL PLUMBING WORKS SHALL BE DONE IN ACCORDANCE WITH THE LATEST PROVISIONS OF THE NATIONAL BUILDING CODE.
2. WASTE PIPE LINES MUST BE INSTALLED AT 2% OR 20mm DEGREE PER METER RUN.
3. ALL PIPES TO BE USED MUST 4" Ø uPVC PIPE FOR WASTE WATER & DOWNSPOUT, 3" Ø FOR VENT LINE.
4. ALL PLUMBING INSTALLATIONS SHALL BE DONE UNDER THE DIRECT SUPERVISION OF A MASTER PLUMBER OR SANITARY ENGINEER.

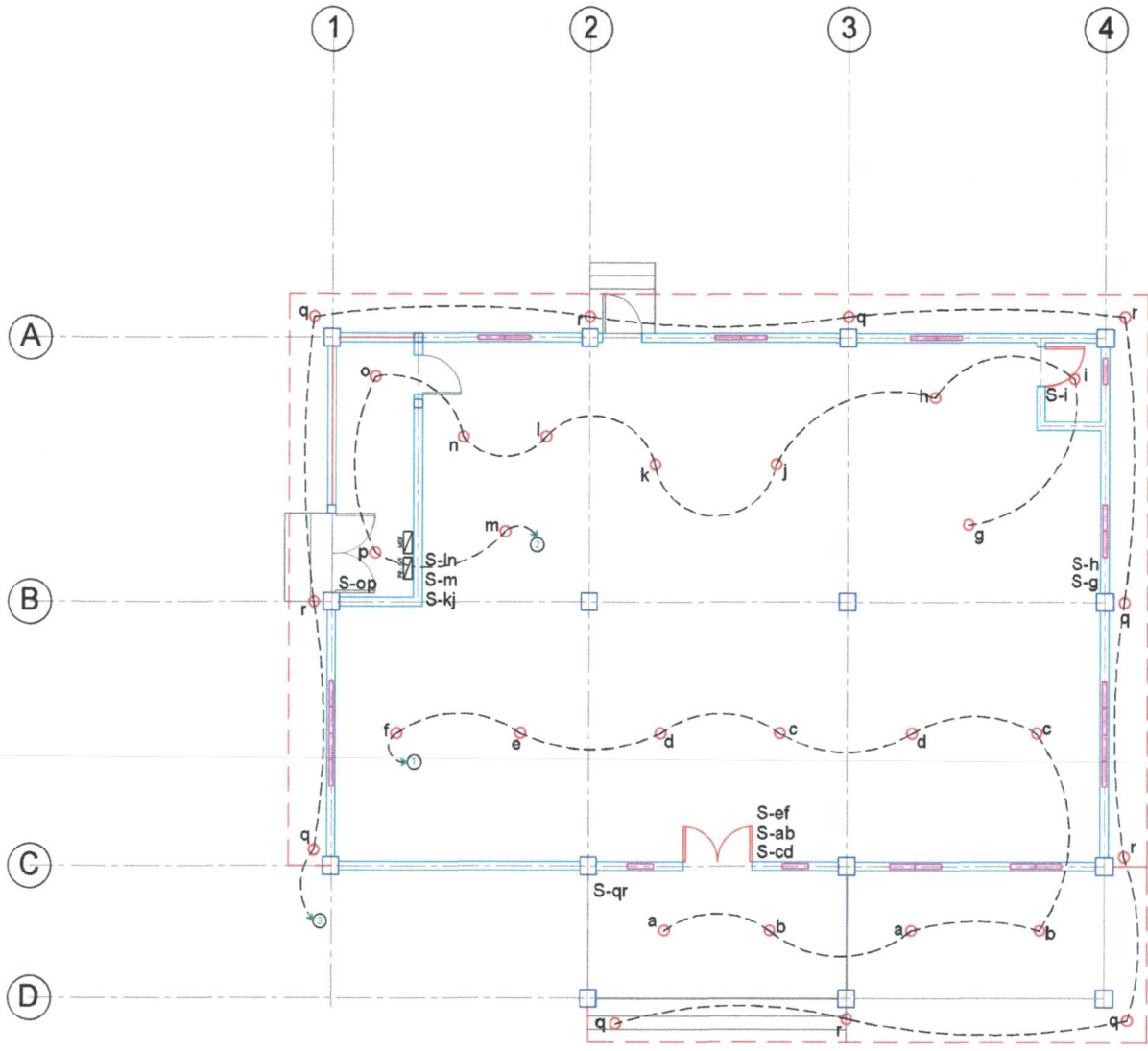
PLUMBING LEGEND:

-----	WASTE PIPE	CB	CATCH BASIN
-----	DRAIN PIPE	CO	CLEAN OUT
-----	6" C RC DRAINAGE PIPE	CV	CHECK VALVE
WC	WATER CLOSET	GV	GATE VALVE
LAV	LAVATORY	WM	WATER METER
SH	SHOWER	CP	CLEARWATER PIPE
KS	KITCHEN SINK	WP	WASTE PIPE
F	FAUCET	DP	DRAINAGE PIPE
FD	FLOOR DRAIN	RCP	REINFORCED CONCRETE PIPE
VTR	VENT STACK THRU ROOF		



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CONSTRUCTION OF ADMINISTRATION BUILDING (PHASE-1) AND INSTALLATION OF MAIN ELECTRICAL LINE	Carlo S. Ricaforte (RCE) Staff, Logistics Division	Gerald G. Baloyos (RCE) Staff, Logistics Division	MARICARLO GONZALES (RCE) SINSP Regional Engineer	ARTURO ESTEBOS JR (RCE) SINSP Chief, Logistics Division	MARIA IRENE A. ESQUINAS CSUPT DSC Regional Director of the Jail Bureau	AS SHOWN	P - 4
PROJECT ADDRESS:							19 22
New Cababaran City District Jail, Brgy. La Union, Cababaran City							

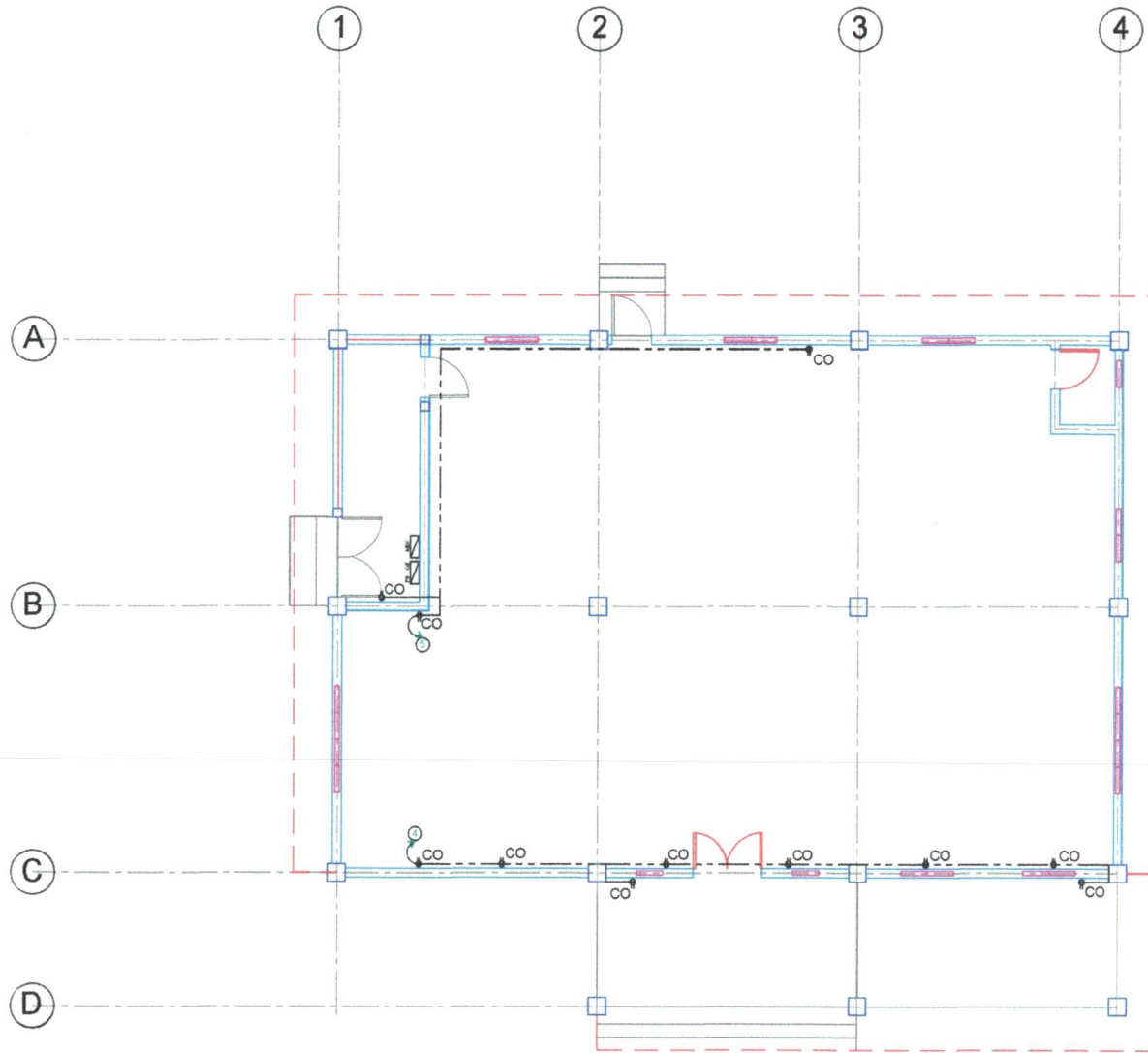


GROUND FLOOR
LIGHTING LAYOUT
 SCALE: 1:85



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PROJECT ADDRESS: New Cababaran City District Jail, Brgy. La Union, Cababaran City							




**GROUND FLOOR
POWER LAYOUT**
 SCALE: 1:85



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PROJECT ADDRESS: New Cabadbaran City District Jail, Brgy. La Union, Cabadbaran City							

GENERAL NOTES:

All works must be done in accordance with this Plan and Specification and shall be conformity with the latest edition of the Philippine Electrical Code (PEC) requirements of the enforcing authorities and requirements of the local power company.

A duly Licensed electrical Engineer or Master Electrician shall be in charge of the Installation during construction.

- All parts of electric equipment shall be properly and effectively grounded.
- Service voltage to the building shall be 230V, PH 1,2w,60H.
- Minimum size of wire and conduit shall be 2.0mm TW copper and 15mmØ (I.D.) respectively.
- For each spare circuiting the panel board provide empty 20mm inside Ø pvc terminating in a 100mm octagon box above ceiling.
- No revision in the design shall be done without written consent of the signing professional Electrical Engineer, only revision done without such approval shall cause responsibility of the pee to cease as a whole.
- Mounting heights (from horizontal centerline) shall be.

Panel Board	=	1370mm (4'-0")
Switches	=	1370mm (4'-0")
Outlet	=	460mm (18")
KWHM	=	1520mm (5'-0")
- All materials shall be new and approved type circuit breakers General Electric "GE".
- PVC and uPVC shall be moldex or equivalent approved quality.
- Panel board shall be approved type, with copper busbar.
- Wiring devices (switches and outlets) shall be toshiba or equivalent.
- Wires and cables shall be duraflex phillflex Columbia or approved equivalent.

LEGENDS:

- | | | | |
|--|---------------------------------|--|--------------------------------|
| | Pin light | | S _{abc} 3-GANG SWITCH |
| | CEILING MOUNTED LIGHTING OUTLET | | S _{ab} 2-GANG SWITCH |
| | CONVENIENCE OUTLET | | AIRCON OUTLET |
| | FLOURESCENT LAMP | | S _{3w} 3- way Switch |
| | REFRIGERATOR OUT LET | | S ₁ Single Switch |
| | RANGE OUTLET | | switch contour |
| | PANEL BOX | | Tel Telephone Outlet |
| | CIRCUIT HOMERUN | | fan line |
| | SERVICE ENTRANCE | | power line |
| | CIRCUITRY RUN THRU CEILING | | circuit number |
| | CIRCUITRY RUN THRU WALL | | switch line |
| | CIRCUIT BREAKER | | ceiling fan |
| | | | SF switch for fan |

SCHEDULE OF LOADS

PB G/F
LOCATION: GROUND FLOOR

CKT. NO.	DESCRIPTION	No. of OUTLET	WATTS	VOLTS	AMPS	CB	SIZE OF WIRE & CONDUIT
PANEL BOX							
1	LIGHTING OUTLET	10	1000	230	4.35	20AT	2 - 3.5mm ² THHN +2.0TW gnd, 20mmØ PVC
2	LIGHTING OUTLET	10	1000		4.35	20AT	
3	LIGHTING OUTLET	11	1100		4.78	20AT	
4	CONVENIENCE OUTLET	8	1440		6.26	20AT	
5	CONVENIENCE OUTLET	3	540		2.35	20AT	
6	S P A R E	1	2000			20AT	
7	S P A R E	1	2000			20AT	
TOTAL			9,080	230	22.09		
P = VI I = 9080 / 230 I = 39.48 (1.25) I = 49.35 A				Use: 100 CB AT Single Phase FEEDER WIRE 2 - 38.0 sqmm THHN + 1-14.0 sqmm in 32 mm Ø IMC			

SCHEDULE OF LOADS

BLDG MDP
LOCATION: GROUND FLOOR

CKT. NO.	DESCRIPTION	WATTS	VOLTS	AMPS	CB	SIZE OF WIRE & CONDUIT
PANEL BOX						
	PB - G/F	9080	230	39.48	100AT	2 - 30mm ² THHN + 1 - 14mm ² in 32 mm Ø IMC
	S P A R E	4000			100AT	
TOTAL		13,080	230	39.48		
P = VI I = 13080 / (230*0.8) I = 71.09 A				Use: 200 CB AT Single Phase FEEDER WIRE 2 - 80 sqmm THHN + 1 - 30.0 sqmm TW 50 mm Ø IMC		



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