GENERAL CONSTRUCTION NOTES

TABLE 'A'
TENSION BARS
TABLE OF LAP SPLICE & ANCHORAGE LENGTH (mm)

BAR SIZES (DEFORMED bar)	fc'= 20.7MPa(300psi)		fc'= 27.5 MPa (4000psi)	
	EMBEDMENT	LAPPED	EMBEDMENT	LAPPED
Ø10	300	300	300	300
Ø12	300	300	300	300
Ø16	300	400	300	400
Ø20	400	650	350	500
Ø25	800	800	550	750
Ø28	750	1000	650	850
Ø32	950	1300	850	1100

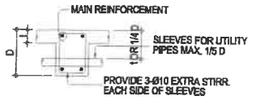
NOTES:
1. TOP PLAIN BARS, MULTIPLY VALUE BY 2
2. NOT MORE THAN 33% OF THE BARS SHALL BE SPLICED WITHIN THE REQUIRED LAP LENGTH

TABLE 'B'
COMPRESSION BARS
TABLE OF LAP SPLICE & ANCHORAGE LENGTH (mm)

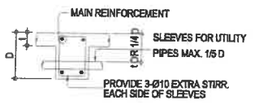
BAR SIZES (DEFORMED bar)	fc'= 20.7MPa(300psi)		fc'= 27.5 MPa (4000psi)	
	EMBEDMENT	LAPPED	EMBEDMENT	LAPPED
Ø10	225	300	200	300
Ø12	275	300	250	300
Ø16	350	400	325	400
Ø20	450	500	475	600
Ø25	550	625	550	625
Ø28	625	875	625	875
Ø32	700	775	700	775

NOTES:
1. TOP PLAIN BARS, MULTIPLY VALUE BY 2
2. NOT MORE THAN 33% OF THE BARS SHALL BE SPLICED WITHIN THE REQUIRED LAP LENGTH
3. VALUES GIVEN ABOVE CAN ALSO BE USED FOR COLUMNS

3. IF THE BEAM REINFORCING BARS END IN A WALL, THE CLEAR DISTANCE FROM THE BAR TO THE FARTHER FACE OF THE WALL IS NOT LESS THAN 25mm. EMBEDMENT LENGTH SHALL BE SHOWN IN A TABLE 'A' FOR TENSION BARS AND TABLE 'B' FOR COMPRESSION BARS UNLESS UNLESS SPECIFIED IN PLAN. TOP BARS AND SHALL NOT BE SPLICED WITHIN THE COLUMN OR TWO STIRRUPS SHALL BE PROVED AT ALL SPLICES.
4. IF THERE ARE TWO OR MORE LAYERS OF REINFORCING BARS, USED 25mm BAR SEPARATORS SPACED AT 1.0M ON ON CENTER ON NO CASE SHALL THERE BE THAN TWO (2) SEPARATORS BETWEEN LAYERS OF BARS
5. MINIMUM CONCRETE PROTECTION FOR REINFORCING BARS OR STEEL SHAPES SHALL BE AS SHOWN IN FIGURE B-2 UNLESS ELSEWHERE.



TYP. DET. FOR SLEEVES THRU CONCRETE BEAM
FIG. B-2



TYP. DET. FOR SLEEVES THRU CONCRETE BEAM
FIG. B-3

6. WHEN A BEAM CROSSES A GIRDER , REST BEAM ON TOP OF GIRDER BARS, BEAM REINFORCING BARS SHALL BE SYMMETRICAL ABOUT THE CENTER LINE WHENEVER POSSIBLE.
7. GENERALLY, NO SPLICES SHALL BE PERMITTED AT POINTS WHERE CRITICAL BENDING STRESSES OCCUR, SPLICES WHERE SO PERMITTED SHALL BE INDICATED IN TABLE 'A' AND 'B'. WELDED SPLICES SHALL DEVELOP IN TENSION AT LEAST 125% OF THE SPLICED YIELD STRENGTH OF THE BAR NOT MORE THAN 50% OF THE BARS AT ANY ONE SECTION IS ALLOWED TO BE SPLICED THEREIN.

NOTES ON CONCRETE HOLLOW BLOCKS WALLS

1. UNLESS OTHERWISE SHOWN IN PLANS ALL CONCRETE HOLLOW BLOCKS AND CERAMIC BLOCKS SHALL BE REINFORCED AS SHOWN IN THE SCHEDULE OF CONCRETE HOLLOW BLOCKS AND CERAMIC BLOCK REINFORCEMENT.
2. PROVIDE 150mm x 300mm STIFFENER COLUMN REINFORCED WITH 4-12mm WITH 10mm Ø TIES AT 150mm ON CENTER WHERE CONCRETE HOLLOW BLOCK TERMINATES AND AT EVERY 3.0M LENGTH OF CONCRETE HOLLOW BLOCK WALLS UNLESS NOTED IN STRUCTURAL PLANS.

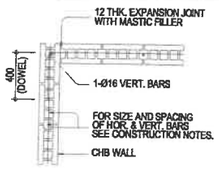
NOTES ON CONCRETE HOLLOW BLOCKS WALLS REINFORCEMENTS

BLOCK THICKNESS	REINFORCEMENT		NOTES
	HORIZONTAL	LAPPED	
75 mm	10mm Ø EVERY 3RD LEVEL	10mm Ø @ 600mm O.C.	A. MINIMUM LAPS AT SPLICE= 0.25 M
125 mm	10mm Ø EVERY 3RD LEVEL	10mm Ø @ 600mm O.C.	B. PROVIDE RIGHT ANGLED REINFORCEMENT AT CORNERS 0.82 m LONG
150mm	10mm Ø EVERY 3RD LEVEL	10mm Ø @ 600mm O.C.	C.WHERE CHB OR CER. BLK. WALL DOWELS WITH THE SAME SIZE AS VER. OR HOR. REINFORCEMENT SHALL BE PROVIDED
200 mm	12mm Ø EVERY 3RD LEVEL	10mm Ø @ 600mm O.C.	

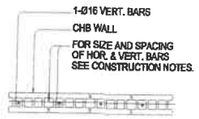
REINFORCING CONCRETE LINTEL BEAMS IN CONCRETE BLOCK WALLS

LINTELS IN BLOCK WALLS

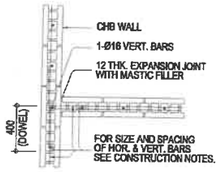
CLEAR SPAN (L)	TOTAL LENGTH (L+0.40M)	MIN. fc' (MPa)	HEIGHT OF LINTEL (mm)	REINFORCEMENT		
				BOTTOM	TOP	STIRRUPS
1.20 M	1.60 M	14.0	200	1-Ø10	1-Ø10	Ø6 mm @ 200mm
1.50 M	1.90 M		200	1-Ø10	1-Ø10	Ø6 mm @ 200mm
1.80 M	2.20 M		200	1-Ø12	1-Ø10	Ø6 mm @ 200mm
2.10 M	2.50 M	17.0	250	1-Ø12	1-Ø10	Ø6 mm @ 200mm
2.40 M	2.90 M		250	1-Ø12	1-Ø10	Ø6 mm @ 200mm
2.70 M	3.10 M		250	1-Ø16	1-Ø12	Ø10mm @ 200mm
3.00 M	3.40 M	20.0	300	1-Ø16	1-Ø12	Ø10mm @ 200mm
3.30 M	3.70 M		300	1-Ø16	1-Ø12	Ø10mm @ 200mm
3.60 M	4.00 M		300	1-Ø20	1-Ø12	Ø10mm @ 200mm



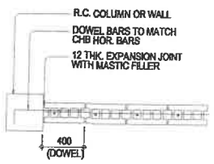
CORNER WALL



OPENING OR END WALL

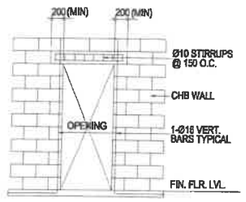


INTERSECTION WALL

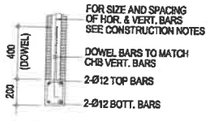


INTERSECTING R.C. COLUMN OR WALL

TYPICAL CONNECTION DETAIL OF MASONRY WALL

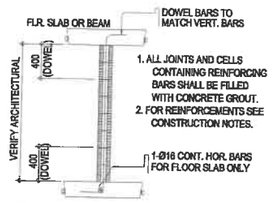


ELEVATION

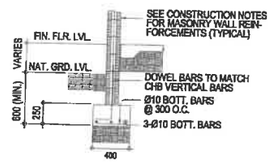


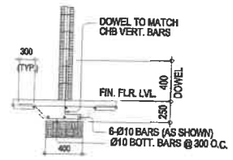
SECTION

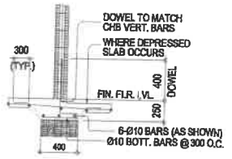
TYP. DET. OF LINTEL BEAM AT CHB WALL OPENING



TYP. SECTION OF MASONRY PARTITION REINFORCEMENTS

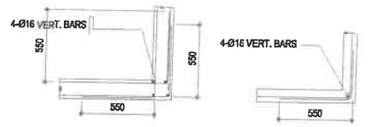






TYPICAL CHB FOOTING DETAILS
(WHERE APPLICABLE)

TYPICAL DETAIL FOR BEAM OR SLAB CHANGE SOFFIT



TYPICAL CONNECTION DETAIL OF R.C. WALL AT CORNERS

NOTES ON WELDS

1. USE E60xx ELECTRODES FOR ALL MEMBERS WELDED.
2. WELDS SHALL DEVELOP THE FULL STRENGTH OF MEMBERS JOINED UNLESS OTHERWISE SHOWN OR DETAILED IN THE DRAWINGS.

NOTES ON STRUCTURAL STEEL

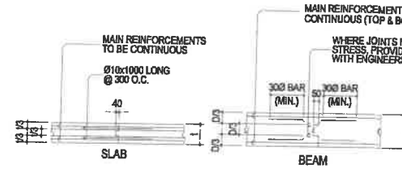
1. STRUCTURAL STEEL TO BE USED FOR FABRICATION AND ERECTION OF THIS STRUCTURE SHALL COMPLY WITH ALL THE PERTINENT PROVISION OF AISC SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDING LATEST EDITION.
2. ALL STRUCTURAL STEEL SHAPES SHALL CONFORM TO ASTM A36 STRUCTURAL STEEL UNLESS OTHERWISE INDICATED.
3. ALL WELDED CONNECTIONS SHALL DEVELOP THE FULL STRENGTH OF THE MEMBERS CONNECTED.
4. UNLESS OTHERWISE SPECIFIED ALL WELDING RODS SHALL CONFORM WITH E60 ELECTRODES.
5. ALL BOLTS USED UNLESS OTHERWISE SPECIFIED SHALL BE ASTM A 307 BOLTS.

NOTES ON EMBBED PIPES

1. ALL EMBEDED PIPES FOR UTILITIES ETC. THAT PASS THRU BEAMS SHALL NOT EXCEED 100mm IN DIAMETER OR 1/3 BEAM DETPH WHICHEVER IS LESS, UNLESS OTHERWISE APPROVED IN WRITING BY THE STRUCTURAL ENGINEER.
2. NO PIPES SHALL BE ALLOWED TO PASS THRU BEAMS VERTICALLY.
3. NO PIPES SHALL BE EMBEDDED IN COLUMNS.

NOTES ON CONSTRUCTION JOINTS IN CONCRETE

1. WHERE A CONSTRUCTION JOINT IS TO BE MADE, THE SURFACE OF CONCRETE SHALL BE CLEANED AND ALL LAITANCE AND STANDING WATER REMOVED SHEAR KEY SHALL BE PROVIDE AT THE JOINT.



TYPICAL SLAB & BEAM CONSTRUCTION JOINT DET.

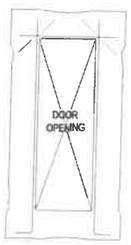
NOTES ON CONCRETE WALLS

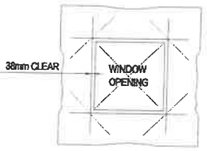
1. ALL WALLS SHALL BE REINFORCED ACCORDING TO THE FOLLOWING SCHEDULE OF WALL REINFORCEMENT UNLESS OTHERWISE INDICATED IN THE PLANS.

WALL THICKNESS	REINFORCEMENT		REMARKS	VERTICAL SECTION
	HORIZONTAL	VERTICAL		
100mm	Ø10mm @ 250mm O.C.	Ø10mm @ 300mm O.C.	HORIZONTAL BARS AT CENTERS VERTICAL BARS STAGGED OUT	VER. BARS / HOR. BARS
125mm	Ø10mm @ 200mm O.C.	Ø10mm @ 250mm O.C.		
150mm	Ø12mm @ 250mm O.C.	Ø12mm @ 300mm O.C.		

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

2. CARRY VERTICAL BARS AT LEAST 60mm ABOVE FLOOR LEVEL TO PROVIDE FOR SPLICES WHEN NECESSARY STOP AT 50mm BELOW TOP SLAB OR SOLID BAND WHERE THE WALL ENDS VERTICAL AND HORIZONTAL BARS SHALL BE SPLICED BY LAPPING A DISTANCE EQUAL TO 30 DIAMETERS AND WIRED SECURELY WITH 16 G.I. WIRE PROVIDED THAT SPLICES IN ADJACENT BARS ARE STAGGERED AT LEAST 1.50M O.C.
3. UNLESS OTHERWISE NOTED IN THE PLANS, ALL OPENINGS IN WALLS 250mm OR THICKER SHALL BE REINFORCED AROUND WITH 2-20mmØ BARS. FOR 225mm, 200mm, 175mm, 150mm THICK WALLS, USE 2-16mmØ. FOR 125mm AND 100mm THICK WALLS, USE 2-12mmØ BARS. ALL WALLS SPANNING SHALL HAVE VERTICAL REINFORCEMENT BENT A U-FORM LIKE STIRRUPS AND SPACED ACCORDING TO THE SCHEDULE UNLESS OTHERWISE NOTED.

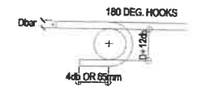


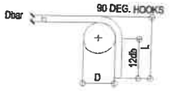


TYP. EXTERIOR WDW. & DOOR OPENING

NOTES ON STIRUPS

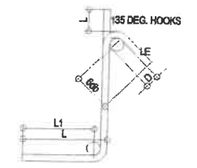
1. ALL REINFORCEMENT SHALL BE BENT COLD UNLESS OTHERWISE PERMITTED BY THE STRUCTURAL ENGINEER.
2. AS SHOWN IN THE DESIGN DRAWINGS OR PERMITTED BY THE STRUCTURAL ENGINEER.
3. TIES & CLOSE STIRRUPS MUST BE AT 135.





MAIN BAR END HOOKS (ALL GRADES)

BAR SIZE (DEFORMED)	DIAMETER (mm)	180° HOOK		90° HOOK
		D+2db	L	L
10 mm Ø	60	75	125	150
12 mm Ø	75	100	150	200
16 mm Ø	95	125	175	250
20 mm Ø	115	150	200	300
25 mm Ø	150	200	230	450
28 mm Ø	240	300	350	550
32 mm Ø	300	336	450	600



STIRRUP AND TIE HOOKS (ALL GRADES)

BAR SIZE (DEFORMED)	DIAMETER (mm)	180° HOOK		90° HOOK
		D+2db	L	L
10 mm Ø	40	125	65	100
12 mm Ø	50	165	115	115
16 mm Ø	65	200	140	150
20 mm Ø	115	300	165	300
32 mm Ø	150	336	230	405

NOTE:
PROVIDE THESE ADDITIONAL BARS FOR ALL OPENINGS PLUS BARS (NOT SHOWN) PARALLEL TO SIDE OF OPENING EQUAL TO THE NUMBER OF TERMINATED BARS AT OPENING

SEE ARCHITECTURAL & MECHANICAL PLANS FOR SLAB OPENING LOCATION.

Republic of the Philippines
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
REGIONAL OFFICE No. VIII
NORTHERN SAMAR FIRST DISTRICT ENGINEERING OFFICE
Catarman, Northern Samar

PROJECT NAME & LOCATION:	SHEET CONTENTS:	PREPARED:	REVIEWED:	SUBMITTED:	RECOMMENDED:	APPROVED:	SET No.	SHEET No.
CONSTRUCTION (COMPLETION) OF MULTI-PURPOSE BUILDING, UNIVERSITY OF EASTERN PHILIPPINES, CATARMAN, NORTHERN SAMAR UNIVERSITY OF EASTERN PHILIPPINES, CATARMAN N. SAMAR	GENERAL NOTES	BURT ERNEST T. LUCINARIO ARCHITECT II DESIGNED: JEFF TUPE LOLA ENGINEER II	MAR DIONALD N. EIMAN ASST. CHIEF, PLANNING & DESIGN SECTION Date:	ANDY S. ERENO CHIEF, PLANNING & DESIGN SECTION Date:	VIVIAN V. BIACO ASST. DISTRICT ENGINEER Date:	ALVIN A. IGNACIO DISTRICT ENGINEER Date:	S-2	29 / 84

GENERAL NOTES:

SURVEY DATA:

DATE OF SURVEY : MARCH 3, 2025

EQUIPMENT USED : RTK-ROVER(Z35180902035), RTK-BASE(Z35180904039),
GEODESIGN REMOTE (10664273)

CALIBRATION EXPIRY DATE: FEBRUARY 2, 2024

BENCH MARK REFERENCE				
REF	COORDINATES		ELEVATION	REMARKS
	LATITUDE	LONGITUDE		
REF-1	12°30'30.671"N	124°40'14.8115"E	61.604 m	BM

COORDINATE REFERENCE SYSTEM :	PRS92 / PHILIPPINE ZONE V
PROJECTION :	TRANSVERSE MERCATOR (TM) ZONE OF 2° NETWIDE
DATUM :	PHILIPPINE REFERENCE SYSTEM 1992
EPSG CODE :	3125

REFERENCE BENCHMARK DETAILS

1. THE POSITION OF PROJECT CONTROL POINTS SHALL BE DEFINED AND MARKED ON THE MONUMENTS OF PERMANENT NATURE.
2. CRITERIA FOR LOCATION OF MUNUMENTS:
   - ACCESSIBILITY
   - GROUND STABILITY
   - SECURITY FROM POSSIBLE ACTS OF DISTIRBANCE
3. INTERVAL MONNUMENTS
   - PRIMARY GPS CONTROL (GPS): 3 KM INTERVAL
   - PRIMARY PROJECT CONTROL (BM) : 300 M INTERVAL
   - INTERMEDIATE CONTROL (IBM) : EVERY 250 M INTERVAL IN BETWEEN BMS

DESIGN SPECIFICATION:

- DPWH DESIGN GUIDELINE, CRITERIA, & STANDARD, 2015 EDITION
- DPWH STANDARD SPECIFICATIONS FOR HIGHWAYS, BRIDGES AND AIRPORT, VOLUME II, 2015 EDITION
- DPWH STANDARD SPECIFICATIONS FOR BUILDINGS, PORTS AND HARBORS, FLOOD CONTROL, DRAINAGE STRUCTURES AND WATER SUPPLY SYSTEM, VOLUME III, 2019 EDITION
- DPWH DESIGN GUIDELINE, CRITERIA, & STANDARD VOLUME 3: WATER PROJECT, 2015 EDITION

DESIGN CRITERIA:

A. Structural Concrete CLASS "A"
   ULTIMATE COMPRESSIVE STRENGTH AT 28 DAYS, Fc'=20.70 Mpa (3,000 Psi) MODULAR RATIO, n=Es/Ec=10
B. REINFORCING STEEL
   GRADE 40; fy=275.80,Mpa (40,000psi)
C. STRUCTURAL STEEL
   A36; fy= 248.30 MPa (36,000psi)

CONSTRUCTION REQUIREMENTS:

1.1 DIMENSIONS

a. STATIONS ARE GIVEN IN KILOMETERS WITH OR WITHOUT DECIMALS.
b. RADII, ELEVATIONS, FLOOD LEVELS, ETC. ARE GIVEN IN METERS WITH OR WITHOUT DECIMALS.
c. UNLESS OTHERWISE SHOWN, ALL DISTANCES ARE IN METERS.

1.2 STATIONINGS

a. THE ROAD STATIONS AND ELEMENTS OF CURVES ARE RELATIVE TO THE CENTERLINE OF THE ROAD.
b. ALL STATIONS ALONG ROAD CENTERLINE ARE RECKONED FROM NATIONAL ROAD.

1.3 ELEVATIONS AND GRADES

a. ELEVATIONS GIVEN IN THE COLUMN "FINISHED GRADE ELEVATION" REFER TO THE GRADE AS SHOWN IN THE TYPICAL ROADWAY SECTION.
b. GROUND LEVEL AND FINISHED ROAD LEVEL OF THE ROAD REFER TO THE GROUND PROFILE FOR THE ROAD CENTERLINE.

1.4 REMOVAL OF STRUCTURE AND OBSTRUCTION

CONSIST OF THE REMOVAL WHOLLY OR IN PART, AND SATISFACTORY DISPOSAL OF ALL BUILDINGS, FENCES, STRUCTURES, OLD PAVEMENTS, ABANDONED PIPE LINES, AND ANY OTHER OBSTRUCTIONS WHICH ARE NOT DESIGNATED OR PERMITTED TO REMAIN, EXCEPT FOR THE OBSTRUCTIONS TO BE REMOVED AND DISPOSED OFF UNDER OTHER ITEMS IN THE CONTRACT. IT SHALL ALSO INCLUDE THE SALVAGING OF DESIGNATED MATERIALS AND BACKFILLING THE RESULTING TRENCHES, HOLES, AND PITS.

1. REMOVAL OF EXISTING BRIDGES, CULVERTS, AND OTHER DRAINAGE STRUCTURES IT SHALL BE IN ACCORDANCE WITH ALL THE REQUIREMENTS OF SUBSECTION 101.2.2, REMOVAL OF EXISTING BRIDGES, CULVERTS, AND OTHER DRAINAGE STRUCTURES.
2. REMOVAL OF PIPES OTHER THAN PIPE CULVERTS
   UNLESS OTHERWISE PROVIDED, ALL PIPES SHALL BE CAREFULLY REMOVED AND EVERY PRE-CAUTION TAKEN TO AVOID BREAKAGE OR DAMAGED. PIPES TO BE RELAID SHALL BE REMOVED AND STORED WHEN NECESSARY SO THAT THERE WILL BE NO LOSS OF DAMAGE BEFORE RE-LAYING. THE CONTRACTOR SHALL REPLACE SECTIONS LOST FROM STORAGE OR DAMAGE BY NEGLIGENCE, AT HIS OWN EXPENSE.
3. REMOVAL OF EXISTING PAVEMENT, SIDEWALKS, CURBS, ETC.

ALL Structural Concrete PAVEMENT, BASE COURSE, SIDEWALKS, CURBS, GUTTERS, ETC., DESIGNATED FOR REMOVAL, SHALL BE:

1. BROKEN INTO PIECES AND USED FOR RIPRAP ON THE PROJECT, OR
2. BROKEN INTO PIECES, THE SIZE OF WHICH SHALL NOT EXCEED 300MM (12 INCHES) IN ANY DIMENSION AND
3. STOCKPILED AT DESIGNATED LOCATIONS ON THE PROJECT FOR USE BY THEGOVERNMENT, OR OTHERWISE DEMOLISHED AND DISPOSED OFF AS DIRECTED BY THE ENGINEER. WHEN SPECIFIED, BALLAST, GRAVEL, BITUMINOUS MATERIALS OR OTHER SURFACING OR PAVEMENT MATERIALS SHALL BE REMOVED AND STOCKPILED AS REQUIRED IN SUBSECTION 101.2.1, OTHERWISE SUCH MATERIALS SHALL BE DISPOSED OFF AS DIRECTED.

1.6 REINFORCING STEEL

1.11.1 ALL REINFORCEMENT STEEL BARS SHALL BE DEFORMED BARS WITH DEFORMATION CONFORMING TO ASTM A615 AND OF INTERMEDIATE (GRADE 40(WITH MINIMUM YIELD STRENGTH fy=275MPa (40,00 psi)
1.11.2 REINFORCING BARS SHALL BE COLD BENT.
1.11.3 REINFORCING BARS SHALL HAVE 75mm COVERING

1.7 STRUCTURAL CONCRETE

STRUCTURE CONCRETE SHALL CONSIST OF A MIXTURE OF PORTLAND CEMENT, FINE AGGREGATE, COARSE AGGREGATE, ADMIXTURE WHEN SPECIFIED, AND WATER MIXED IN THE PROPORTIONS SPECIFIED OR APPROVED BY THE ENGINEER.

THE CLASSES OF Structural Concrete WILL GENERALLY BE USED AS FOLLOWS:

CLASS A - ALL SUPERSTRUCTURES AND HEAVILY REINFORCED SUBSTRUCTURES. THE IMPORTANT PARTS OF THE STRUCTURE INCLUDED ARE SLABS, BEAMS, GIRDERS, COLUMNS, ARCH RIBS, BOX CULVERTS, REINFORCED ABUTMENTS, RETAINING WALLS, AND REINFORCED FOOTINGS.

CLASS B - FOOTINGS, PEDESTALS, MASSIVE PIER SHAFTS, PIPE BEDDING, AND GRAVITY WALLS, UNREINFORCED OR WITH ONLY A SMALL AMOUNT OF REINFORCEMENT.

CLASS C - THIN REINFORCED SECTIONS, RAILINGS, PRECAST R.C. PILES AND CRIBBING AND FOR FILLER IN STEEL GRID FLOORS.

CLASS P - PRESTRESSED Structural Concrete STRUCTURES AND MEMBERS.

SEAL - Structural Concrete DEPOSITED IN WATER.

Class of Structura	Minimum Cement Content Per m^3 40kg/ (bag**)	DESIGNimum Water/ Cement Ratio kg/kg	Consistency Range in Slump mm	Designated Size of Coarse Aggregate Square Opening Std. mm	Minimum Compresive Strength of 150x300mm Structural Concrete Cylinder Specimen at 28 days, MN/m^2
A	364 (9.1 bags)	0.53	50–100	37.5 – 4.75 (1-1/2" - No. 4)	20.7
B	320 (8 bags)	0.58	50–100	50 – 4.75 (2" - No. 4)	16.5
C	380 (9.5 bags)	0.55	50–100	12.5 – 4.75 (1/2" - No. 4)	20.7
P	440 (11 bags)	0.49	100 DESIGN	19.0 – 4.75 (3/4" - No. 4)	37.7
Seal	380 (9.5 bags)	0.58	100–200	25 – 4.75 (1" - No. 4)	20.7

* The measured cement content shall be within plus or minus 2 mass percent of the design cement content.

** Based on 40kg/bag

1.10 HAND-LAID ROCK EMBANKMENT

- THE STONE SHALL BE CLEAN, HARD AND DURABLE AND FURNISHED IN A WELL-BALANCED RANGED OF SIZES MEETING THE CONSTRUCTION REQUIREMNETS.
- SUFFICIENT EXCAVATION SHALL BE MADE TO EXPOSE A FOUNDATION BED THAT IS SATISFACTORY TO THE ENGINEER. THE STONES SHALL BE FOUNDED ON THIS BED AND LAID TO THE LINES AND DIMENSIONS REQUIRED. STONES SHALL BE LAID FLAT AND SECURELY PLACED WITH BROKEN JOINT LINES. THE LARGER STONES SHALL GENERALLY BE LOCATED IN THE LOWER PART OF THE STRUCTURE AND VOIDS SHALL BE ELIMINATED TO THE EXTENT POSSIBLE. SPALLS SMALLER THAN THE MINIMUM STONE SIZE SPECIFIED IN SECTION 506.2, MATERIAL REQUIREMENTS, SHALL BE USED TO CHECK THE LARGER STONES SOLIDLY IN POSITION AND TO SUBSTANTIALLY FILL VOIDS BETWEEN THE MAJOR STONES AS LAID IN THE EMBANKMENT. THE EXPOSED FACE OF THE ROCK MASS SHALL BE REASONABLY UNIFORM, WITH NO PROJECTIONS OF MORE THAN 150 MM, BEYOND THE NEAT LINES SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

2.0 THIS PLAN WILL SERVE ONLY AS A GUIDE IN THE IMPLEMENTATION PARTICULARLY IN THE CONSTRUCTION STAGE. IT MUST ALSO BE SUBJECTED TO AN AS-STAKED SURVEY TO BE CONDUCTED JOINTLY BY THE DIRECT IMPLEMENTING OFFICE AND THE CONTRACTOR AND SUBSEQUENT PLANS WILL BE PREPARED AND SUBMITTED FOR APPROVAL.

1.) FLOOD CONTROL STRUCTURE

ITEMS	DESIGN REQUIREMENTS
1. PERFORMANCE PERIOD	20 YEARS
2. MEAN SEA LEVEL	56.03 m
3. HIGHEST OBSERVE SEA ELEVATION	61.03 m
4. SIGNIFICANT WAVE HEIGHT	0.50 m
5. COEFFICIENT OF ARMOR ROUGHNESS	0.55
6. DIMENSIONLESS BREAKER PARAMETER	2.5
7. WAVE RUN UP ELEVATION	62.13 m

Republic of the Philippines
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NORTHERN SAMAR FIRST DISTRICT ENGINEERING OFFICE
Catarman, Northern Samar

PROJECT NAME & LOCATION: CONSTRUCTION (COMPLETION) OF MULTI-PURPOSE BUILDING, UNIVERSITY OF EASTERN PHILIPPINES, CATARMAN, NORTHERN SAMAR
UNIVERSITY OF EASTERN PHILIPPINES, CATARMAN N. SAMAR

SHEET CONTENTS: GENERAL NOTES

PREPARED: BURT [illegible] F. LUCINARIO, Engineer II
DESIGNED: JEFF F. PEDROLA, ENGINEER II

REVIEWED: MAR DIONALD N. EIMAN, ASST. CHIEF, PLANNING & DESIGN SECTION, Date:

SUBMITTED: ANDY S. BREÑO, CHIEF, PLANNING & DESIGN SECTION, Date:

RECOMMENDED: VIVIAN O. BIACO, ASST. DISTRICT ENGINEER, Date:

APPROVED: ALVIN A. IGNACIO, DISTRICT ENGINEER, Date:

SET No. S-3

SHEET No. 30 / 84

L E G E N D

1.1 EXISTING TOPOGRAPHIC FEATURES

EXISTING ROAD	
PROJECT ROAD	
EXISTING PIPE CULVERT	
ELECTRIC POST	
CONRETE HOUSE	
WOODEN HOUSE	
BAMBOO NIPA HOUSE	
BENCH MARK & REFERENCE	BM REF.
RIVER / CREEK	
NORTH ARROW	
CONTROL STATION	
COCONUT TREES	(TOP VIEW)
RICE FIELD	
CANAL	
CONTOUR	
T R E E S	

1.2 NEW DESIGN FEATURES

A. PLAN	
PIPE CULVERT	
POINT OF INTERSECTION	PI-1
ROAD CENTERLINE	
CUT	
EMBANKMENT	
LEVEL CUT OR FILL	
B. PROFILE	
PIPE CULVERTS	EXISTING NEW
LENGTH OF VERTICAL CURVE	
VERTICAL POINT OF INTERSECTION	
WATER LEVEL	
RCPC	PROFILE PLAN
RCBC	PROFILE PLAN
STAIRS AND LANDING	

ABBREVIATIONS

AH	AHEAD STATIONING	EQ	EQUATION	O.G.	ORIGINAL GROUND
AZIM	AZIMUTH	g	GRADE IN PERCENT	OWL	ORDINARY WATER LEVEL
BH	BORE HOLE	Δ	INTERSECTION ANGLE	PCCP	PORTLAND CEMENT Structural Concrete PAVEMENT
BK	BACK STATIONING	KPH	KILOMETER PER HOUR	PI	HORIZONTAL POINT OF INTERSECTION
BM	BENCH MARK	Lc	LENGTH OF HORIZONTAL CURVE	POT	POINT OF TANGENT
℄	CENTERLINE	MEFL	DESIGNIMUM EXPERIECED FLOOD LEVEL	R	RADIUS
cm	CENTIMETER	M^3	CUBIC METER	RCP	REINFORCED Structural Concrete PIPE
CS	CONTROL STATION	M	METER	STA.	STATION
DIST.	DISTANCE	mm	MILLIMETER	T	TANGENT
E	EASTING/EXTERNAL DISTANCE	MO	MIDDLE ORDINATE	VC	LENGTH OF VERTICAL CURVE
ef	FULL SUPERELEVATION	N	NORTHING	VPI	VERTICAL POINT OF INTERSECTION
EL./ELEV.	ELEVATION	NC	NORMAL CROWN	DFL	DESIGN FLOOD LEVEL

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CONSTRUCTION (COMPLETION) OF MULTI-PURPOSE BUILDING, UNIVERSITY OF EASTERN PHILIPPINES, CATARMAN, NORTHERN SAMAR
UNIVERSITY OF EASTERN PHILIPPINES, CATARMAN N. SAMAR

SHEET CONTENTS:
LEGENDS & ABBREVIATIONS

PREPARED:
BURT B. F.-LUCINARIO
ARCHITECT II

DESIGNED:
JEFF R. PEDROLA
ENGINEER II

REVIEWED:
MAR DIONALD N. EIMAN
ASST. CHIEF, PLANNING & DESIGN SECTION
Date:

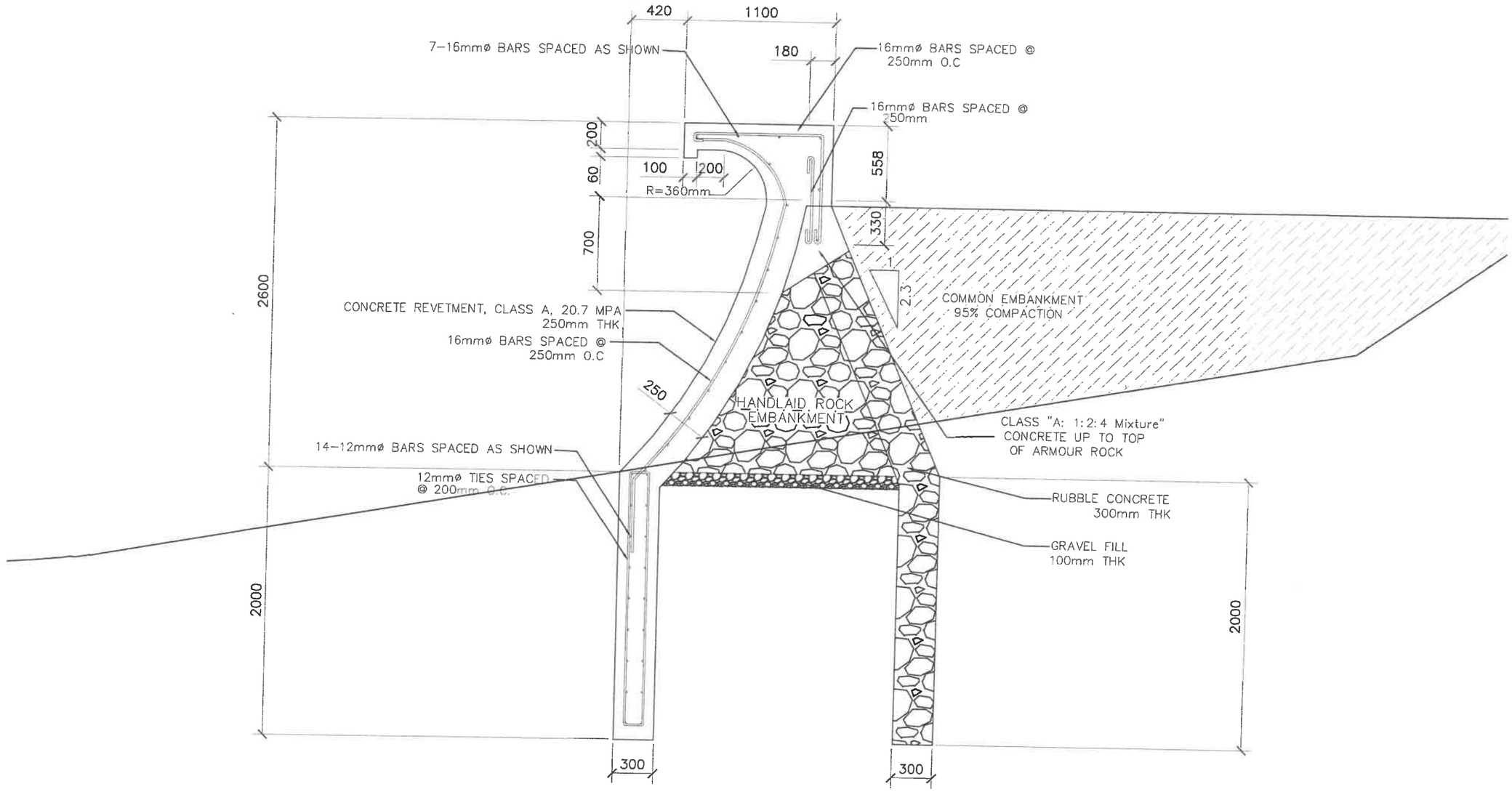
SUBMITTED:
ANDY S. ERENO
CHIEF, PLANNING & DESIGN SECTION
Date:

RECOMMENDED:
VIVIANO B. BIACO
ASST. DISTRICT ENGINEER
Date:

APPROVED:
ALVIN A. IGNACIO
DISTRICT ENGINEER
Date:

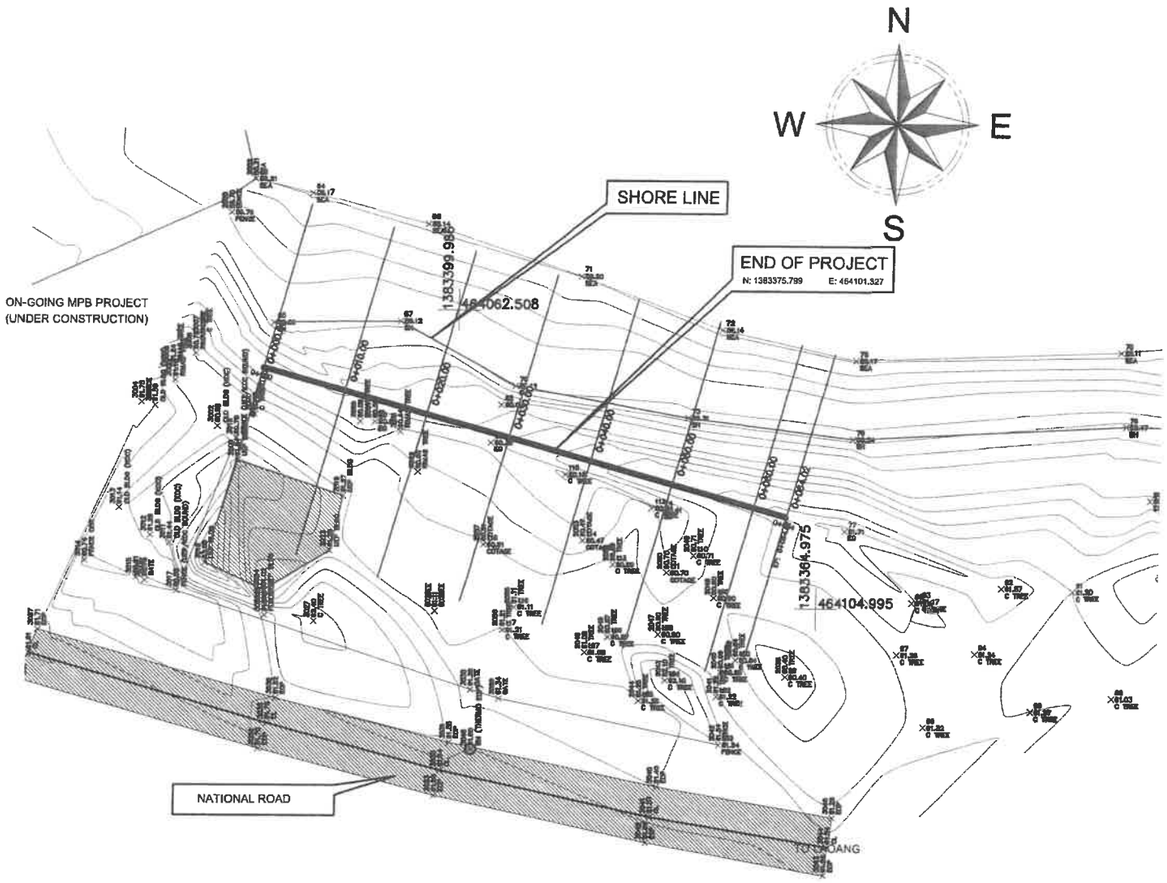
SET No. S-4

SHEET No. 31 / 84



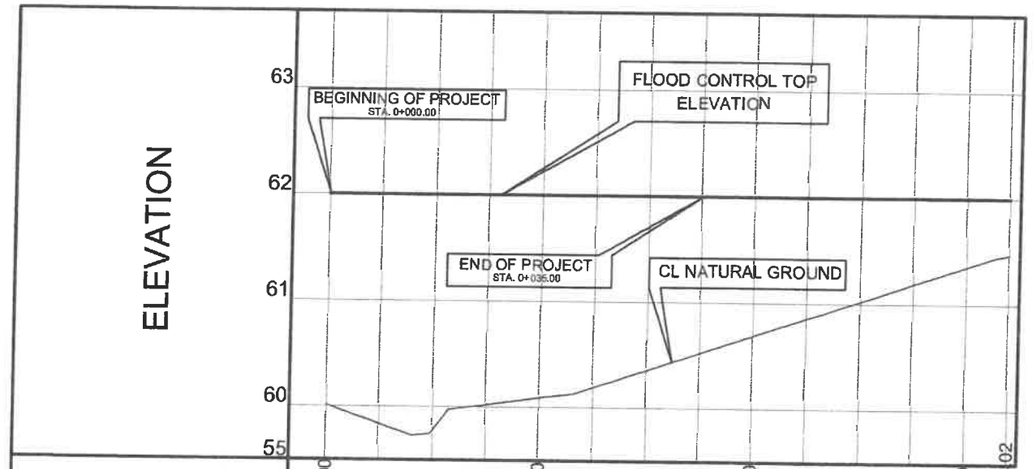
TYPICAL SLOPE PROTECTION

Republic of the Philippines **DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS** REGIONAL OFFICE No. VIII NORTHERN SAMAR FIRST DISTRICT ENGINEERING OFFICE Catarman, Northern Samar	PROJECT NAME & LOCATION: CONSTRUCTION (COMPLETION) OF MULTI-PURPOSE BUILDING, UNIVERSITY OF EASTERN PHILIPPINES, CATARMAN, NORTHERN SAMAR UNIVERSITY OF EASTERN PHILIPPINES, CATARMAN N. SAMAR	SHEET CONTENT: CROSS - SECTION TYPICAL DETAILS END - LOCK TYPICAL DETAILS	CAD: GILBERT R. BANGA ENGINEERING ASSISTANT DESIGNED BY: JEFF P. PEDROLA ENGINEER II	REVIEWED: MAR DIONALD N. EIMAN ASST. CHIEF, PLANNING AND DESIGN SECTION Date:	SUBMMITTED: ANDY S. EREÑO CHIEF, PLANNING AND DESIGN SECTION Date:	RECOMMENDED: VIVIAN G. BIACO OIC, ASSISTANT DISTRICT ENGINEER Date:	APPROVED: ALVIN A. IGNACIO DISTRICT ENGINEER Date:	SET NO. S-5	SHEET NO. 32 84



PLAN
SCALE: 1:500 METERS

REFERENCE				
POINT	N	E	ELEVATION	REMARKS
1	1383348.188	464064.709	61.604	BM



STATION	0+000			0+020			0+040					0+060	0+064.02
TOP OF FLOOD CONTROL STRUCTURE	62.00	62.00	62.00	62.00	62.00	62.00	62.00	62.00	62.00	62.00	62.00	62.00	62.00
NATURAL GROUND ELEVATION	60.02	55.33	55.27	60.02	60.09	60.19	60.35	60.52	60.69	60.85	61.02	61.19	61.36	61.36

PROFILE
SCALE: 1:400 METERS

Republic of the Philippines
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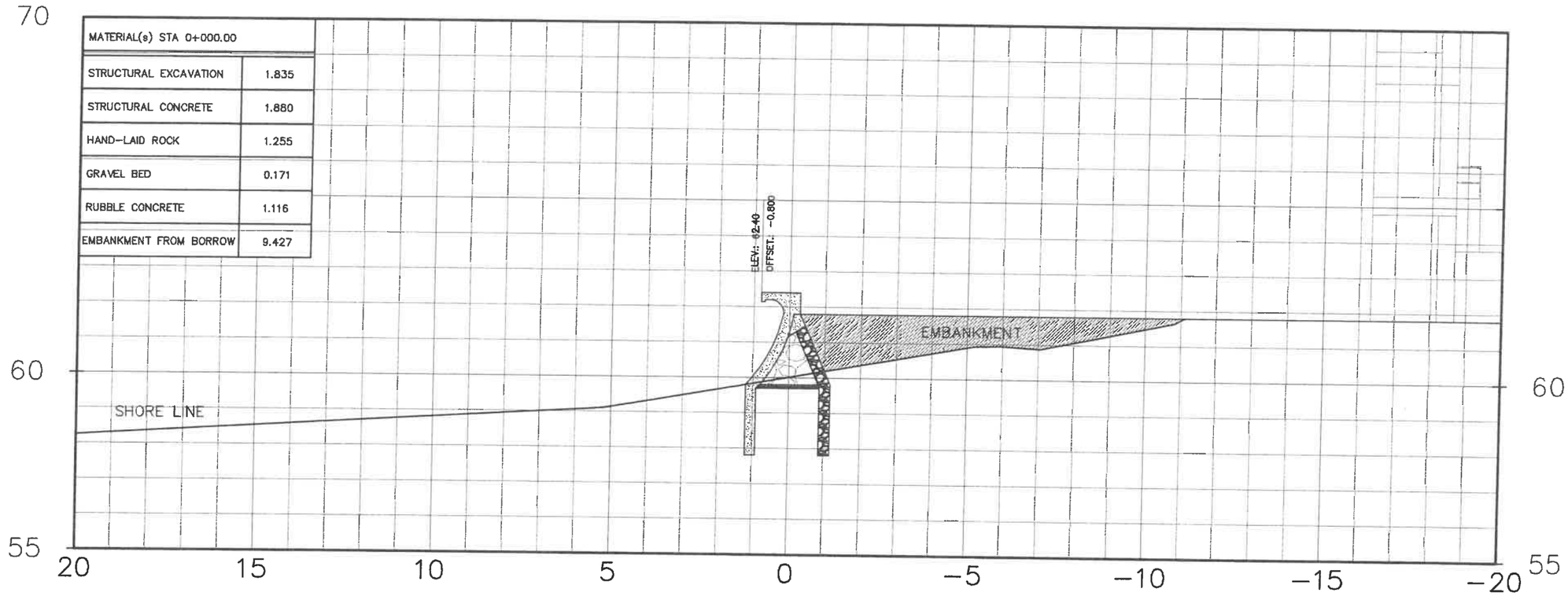
Catarman, Northern Samar

PROJECT NAME & LOCATION:	SHEET CONTENT:	CAD: / DESIGNED BY:	REVIEWED:	SUBMMITTED:	RECOMMENDED:	APPROVED:	SET NO.	SHEET NO.
CONSTRUCTION (COMPLETION) OF MULTI-PURPOSE BUILDING, UNIVERSITY OF EASTERN PHILIPPINES, CATARMAN, NORTHERN SAMAR UNIVERSITY OF EASTERN PHILIPPINES, CATARMAN N. SAMAR	PLAN AND PROFILE	GILBERT R. SANGA ENGINEERING ASSISTANT JEFF N PEDROLA ENGINEER II	MAR DIONALD N. EIMAN ASST. CHIEF, PLANNING AND DESIGN SECTION Date:	ANDY S. EREÑO CHIEF, PLANNING AND DESIGN SECTION Date:	VIVIANO. BIACO OIC, ASSISTANT DISTRICT ENGINEER Date:	ALVIN A. IGNACIO DISTRICT ENGINEER Date:	S-6	33 84

MATERIAL(s) STA 0+000.00	
STRUCTURAL EXCAVATION	1.835
STRUCTURAL CONCRETE	1.880
HAND-LAID ROCK	1.255
GRAVEL BED	0.171
RUBBLE CONCRETE	1.116
EMBANKMENT FROM BORROW	9.427



0+000.00

Republic of the Philippines
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NORTHERN SAMAR FIRST
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Catarman, Northern Samar

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CONSTRUCTION (COMPLETION) OF MULTI-PURPOSE BUILDING, UNIVERSITY OF EASTERN PHILIPPINES, CATARMAN, NORTHERN SAMAR
UNIVERSITY OF EASTERN PHILIPPINES, CATARMAN N. SAMAR

SHEET CONTENT:
CROSS - SECTION

CAD:
GILBERT E. BANGA
ENGINEERING ASSISTANT

DESIGNED BY:
JEFF N. PEDROLA
ENGINEER II

REVIEWED:
MAR DIONALD N. EIMAN
ASST. CHIEF, PLANNING AND DESIGN SECTION
Date:

SUBMMITTED:
ANDY S. EREÑO
CHIEF, PLANNING AND DESIGN SECTION
Date:

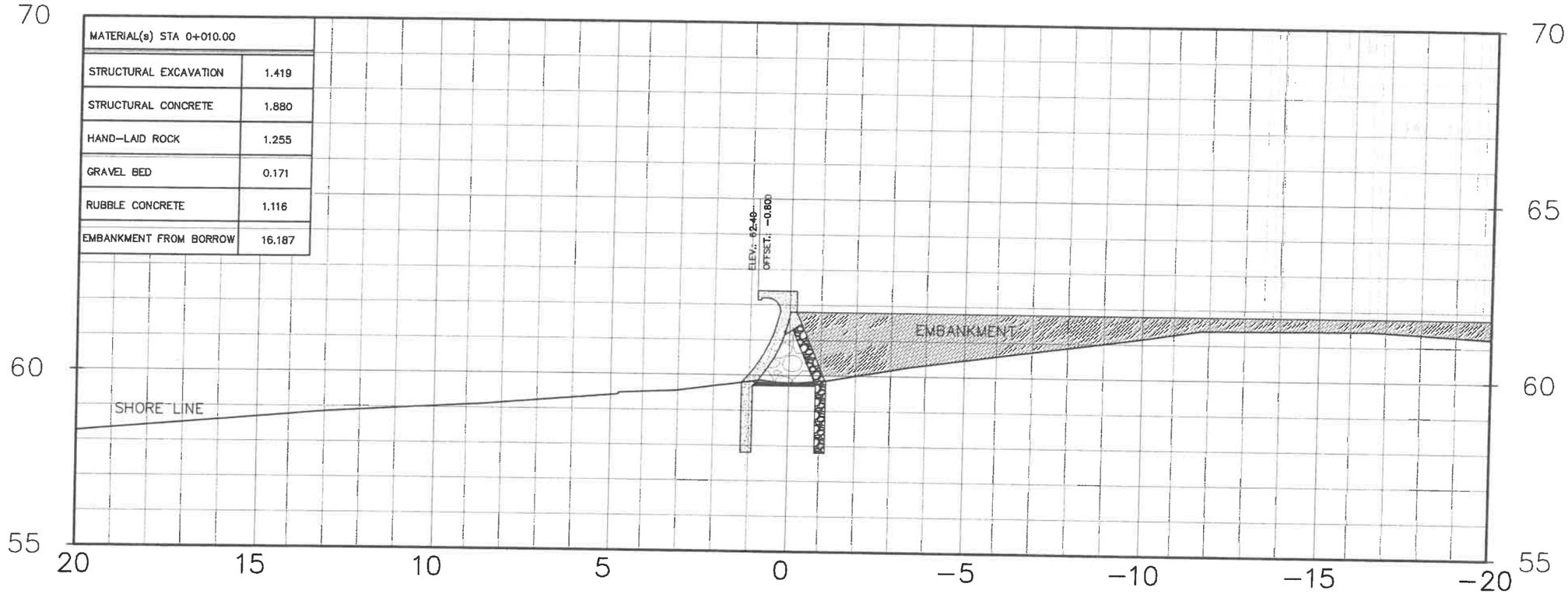
RECOMMENDED:
VIVIAN G. BIACO
OIC, ASSISTANT DISTRICT ENGINEER
Date:

APPROVED:
ALVIN A. IGNACIO
DISTRICT ENGINEER
Date:

SET NO.: S-7

SHEET NO.: 34 / 84

MATERIAL(s) STA 0+010.00	
STRUCTURAL EXCAVATION	1.419
STRUCTURAL CONCRETE	1.880
HAND–LAID ROCK	1.255
GRAVEL BED	0.171
RUBBLE CONCRETE	1.116
EMBANKMENT FROM BORROW	16.187



0+010.00

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UNIVERSITY OF EASTERN PHILIPPINES, CATARMAN N. SAMAR

SHEET CONTENT:
CROSS - SECTION

CAD:
GILBERT R. BANGA
ENGINEER I / ASSISTANT

DESIGNED BY:
JEFF L. PEDROLA
ENGINEER II

REVIEWED:
MARDIONALD N. EIMAN
ASST. CHIEF, PLANNING AND DESIGN SECTION
Date:

SUBMITTED:
ANDY S. EREÑO
CHIEF, PLANNING AND DESIGN SECTION
Date:

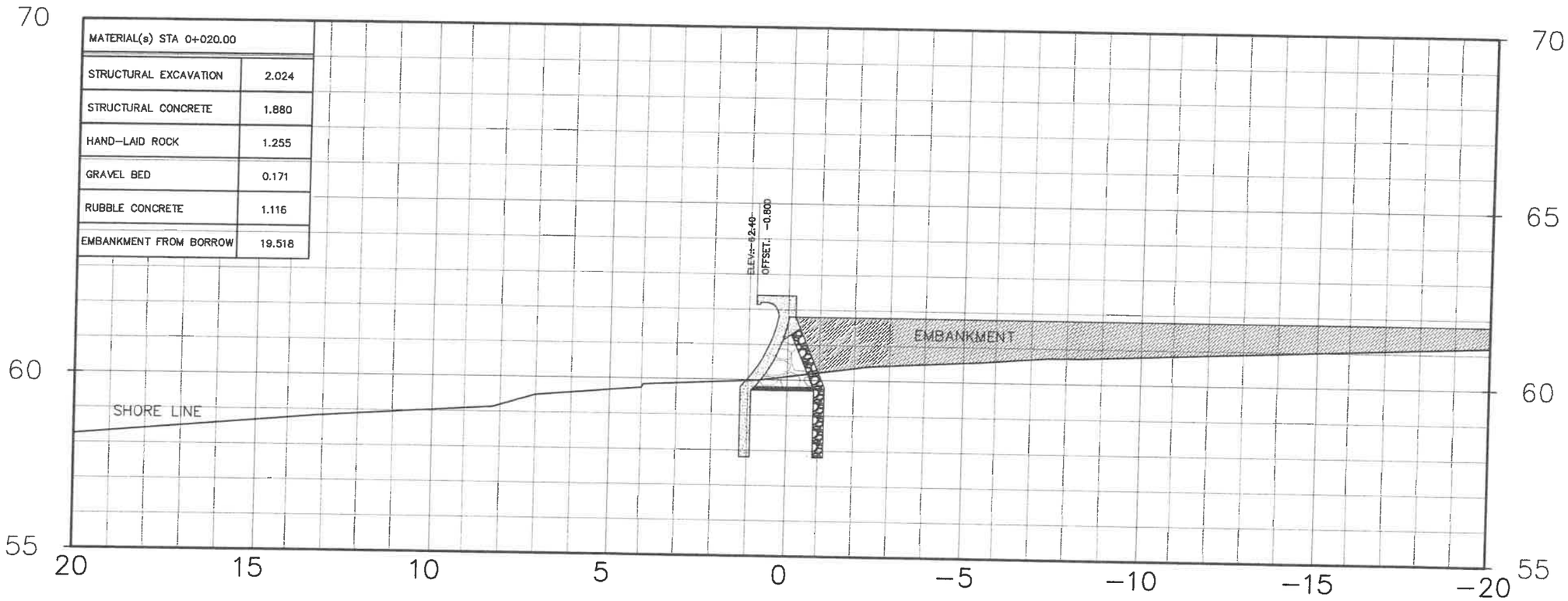
RECOMMENDED:
VIVIANO B. BIACO
OIC-ASSISTANT DISTRICT ENGINEER
Date:

APPROVED:
ALVIN A. IGNACIO
DISTRICT ENGINEER
Date:

SET NO.: S-8

SHEET NO.: 35 / 84

MATERIAL(s) STA 0+020.00	
STRUCTURAL EXCAVATION	2.024
STRUCTURAL CONCRETE	1.880
HAND–LAID ROCK	1.255
GRAVEL BED	0.171
RUBBLE CONCRETE	1.116
EMBANKMENT FROM BORROW	19.518



0+020.00

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UNIVERSITY OF EASTERN PHILIPPINES, CATARMAN N, SAMAR

SHEET CONTENT:
CROSS - SECTION

CAD:
GILBERT L. BANGA
ENGINEERING ASSISTANT

DESIGNED BY:
JEFF F. PEDROLA
ENGINEER II

REVIEWED:
MAR DIONALD N. EIMAN
ASST. CHIEF, PLANNING AND DESIGN SECTION
Date:

SUBMITTED:
ANDY S. ERENO
CHIEF, PLANNING AND DESIGN SECTION
Date:

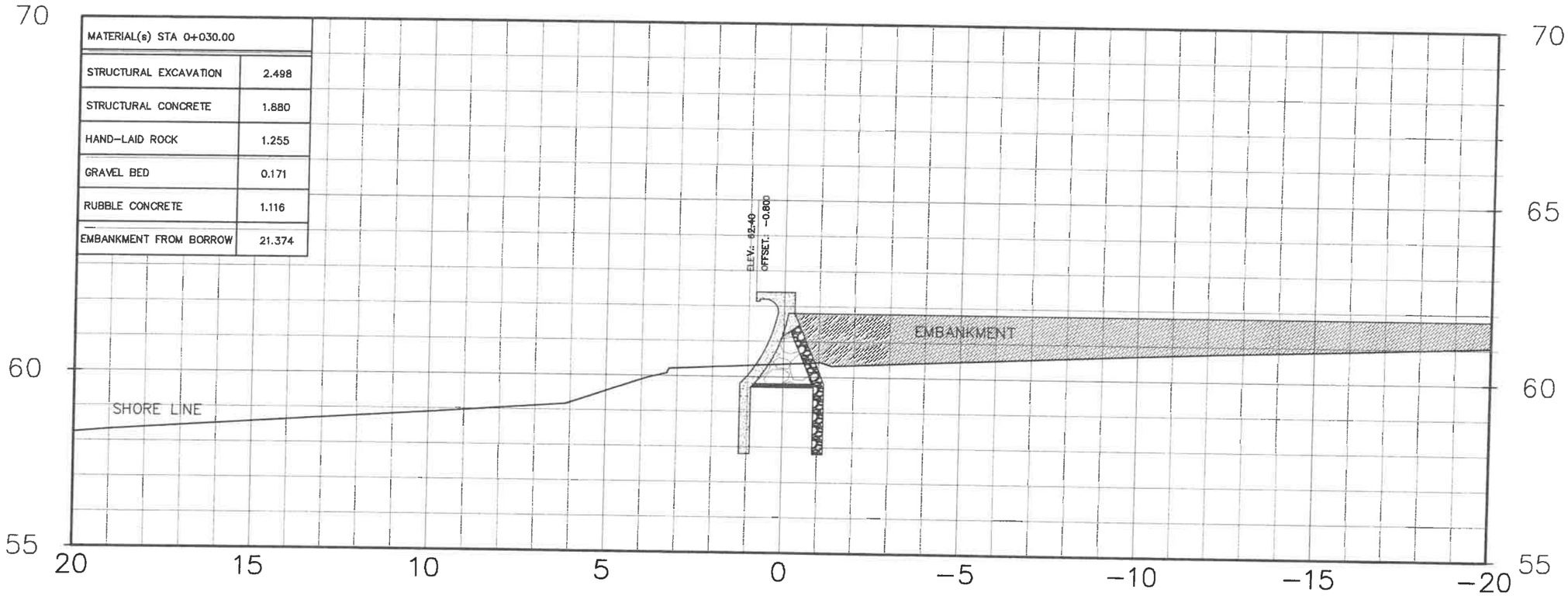
RECOMMENDED:
VIVIAN G. BIACO
OIC-ASSISTANT DISTRICT ENGINEER
Date:

APPROVED:
ALVIN A. IGNACIO
DISTRICT ENGINEER
Date:

SET NO.: S-9

SHEET NO.: 36 / 84

MATERIAL(s) STA 0+030.00	
STRUCTURAL EXCAVATION	2.498
STRUCTURAL CONCRETE	1.880
HAND-LAID ROCK	1.255
GRAVEL BED	0.171
RUBBLE CONCRETE	1.116
EMBANKMENT FROM BORROW	21.374



0+030.00

Republic of the Philippines
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REGIONAL OFFICE No. VIII
NORTHERN SAMAR FIRST
DISTRICT ENGINEERING OFFICE
Catarman, Northern Samar

PROJECT NAME & LOCATION:
CONSTRUCTION (COMPLETION) OF MULTI-PURPOSE BUILDING, UNIVERSITY OF EASTERN PHILIPPINES, CATARMAN, NORTHERN SAMAR
UNIVERSITY OF EASTERN PHILIPPINES, CATARMAN N. SAMAR

SHEET CONTENT:
CROSS - SECTION

CAD:
GILBERT R. BANGA
ENGINEERING ASSISTANT

DESIGNED BY:
JEFF F. PEDROLA
ENGINEER II

REVIEWED:
MAR DIONALD N. EIMAN
ASST. CHIEF, PLANNING AND DESIGN SECTION
Date:

SUBMMITTED:
ANDY S. ERENO
CHIEF, PLANNING AND DESIGN SECTION
Date:

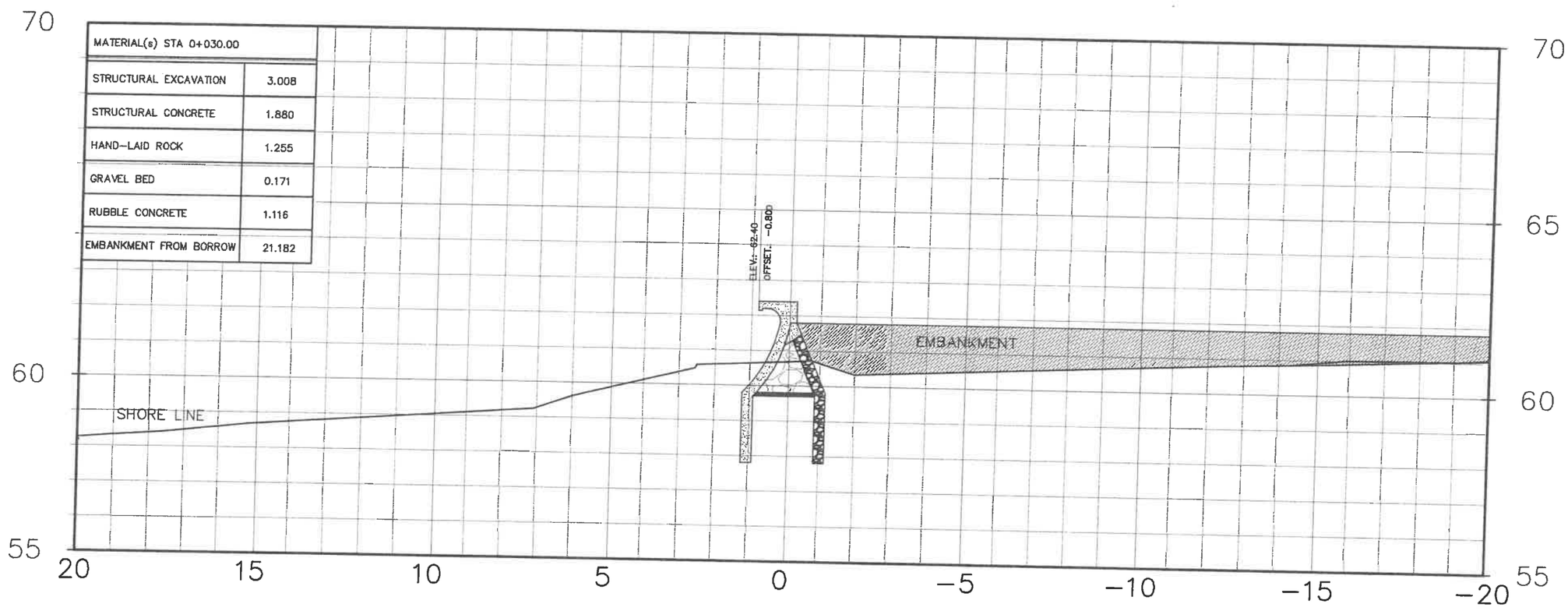
RECOMMENDED:
VIVIAN S. BIACO
OIC ASSITANT DISTRICT ENGINEER
Date:

APPROVED:
ALVIN A. IGNACIO
DISTRICT ENGINEER
Date:

SET NO.: S-10

SHEET NO.: 37 / 84

MATERIAL(s) STA 0+030.00	
STRUCTURAL EXCAVATION	3.008
STRUCTURAL CONCRETE	1.880
HAND-LAID ROCK	1.255
GRAVEL BED	0.171
RUBBLE CONCRETE	1.116
EMBANKMENT FROM BORROW	21.182



0+035.00

Republic of the Philippines
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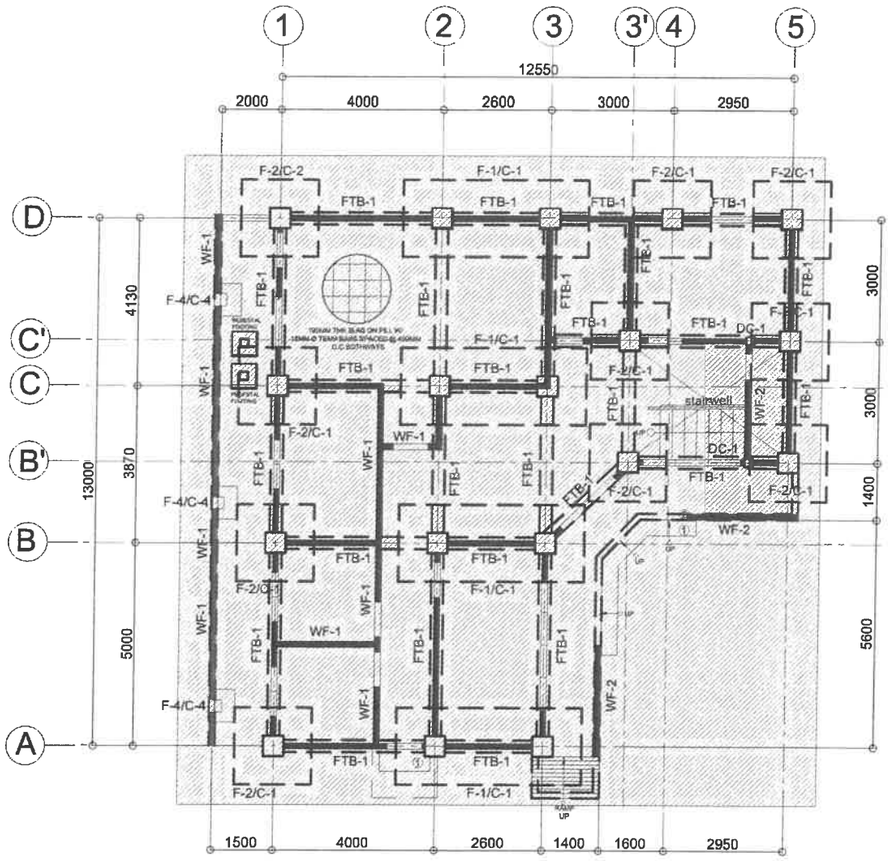
CONSTRUCTION (COMPLETION) OF MULTI-PURPOSE BUILDING, UNIVERSITY OF EASTERN PHILIPPINES, CATARMAN, NORTHERN SAMAR UNIVERSITY OF EASTERN PHILIPPINES, CATARMAN N. SAMAR	CROSS - SECTION	GILBERT V. BANGA ENGINEERING ASSISTANT DESIGNED BY: JEFF F. PEDROLA ENGINEER II	MAR DIONALD N. EIMAN ASST. CHIEF, PLANNING AND DESIGN SECTION Date:	ANDY S. EREÑO CHIEF, PLANNING AND DESIGN SECTION Date:	VIVIAN M. BIACO OIC, ASSISTANT DISTRICT ENGINEER Date:	ALVIN A. IGNACIO DISTRICT ENGINEER Date:	S-11	38 84

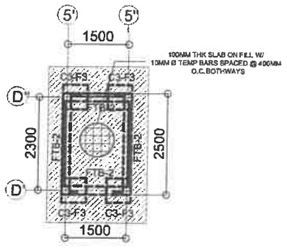


1 S-12 FOUNDATION PLAN

SCALE: 1:100M

LEGEND:

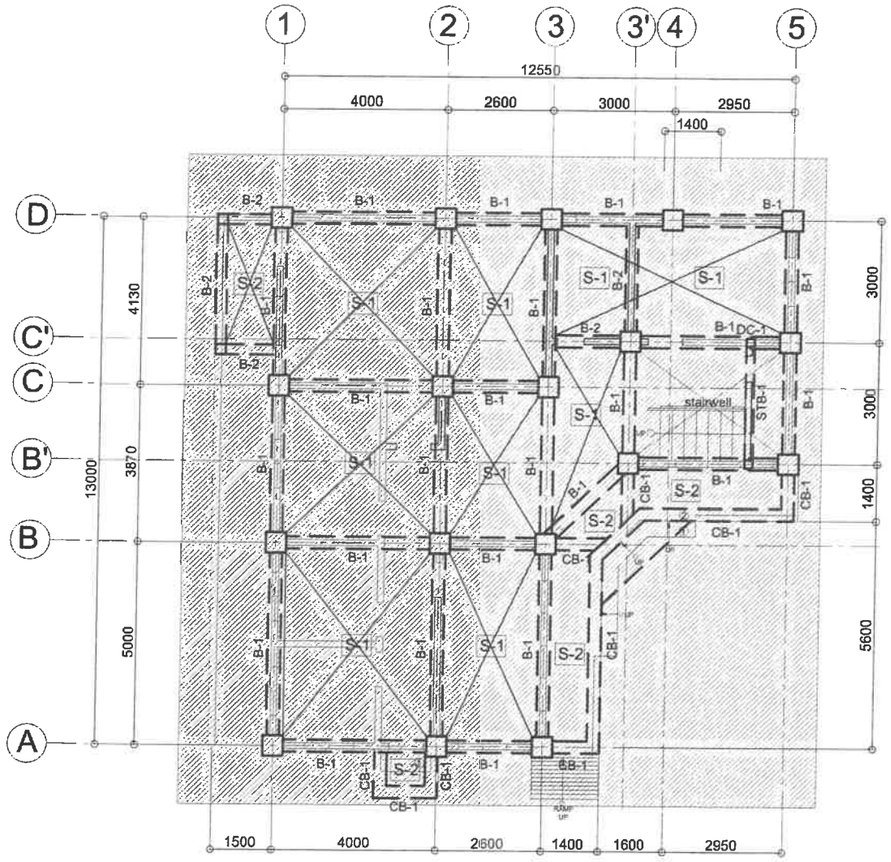
NOT INCLUDED IN PHASE II (STRUCTURAL DETAILS)



POWER HOUSE

3 S-12 FOUNDATION PLAN

SCALE: 1:100M



2 S-12 GROUND FLOOR BEAM FRAMING PLAN

SCALE: 1:100M

Republic of the Philippines
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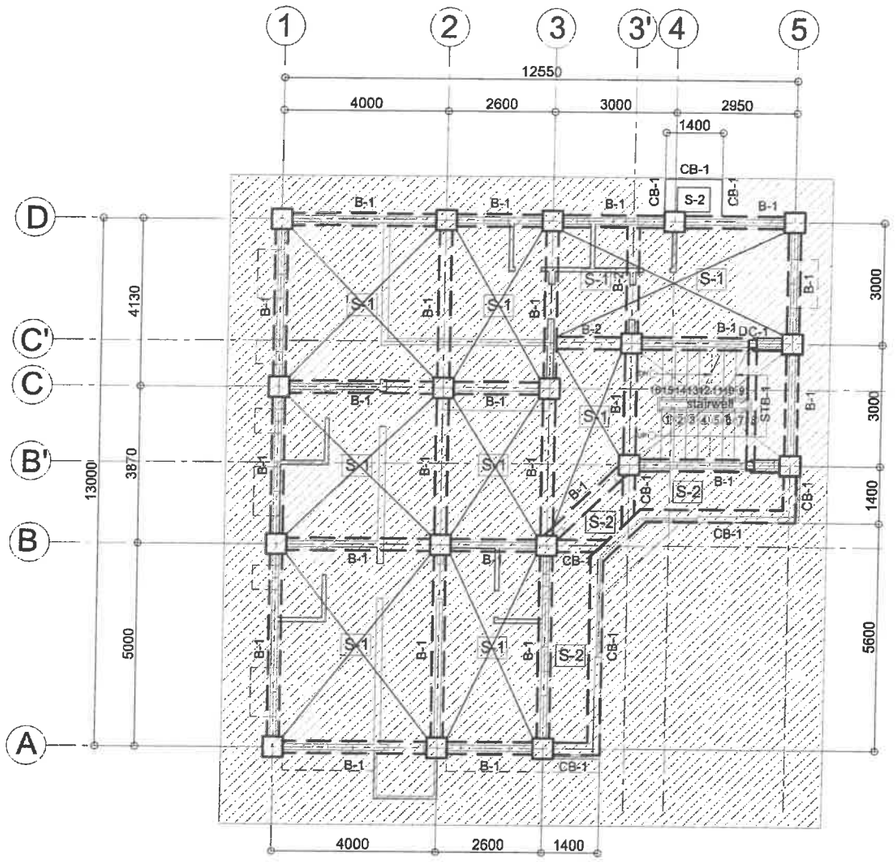
NORTHERN SAMAR FIRST DISTRICT ENGINEERING OFFICE
Catarman, Northern Samar

PROJECT NAME & LOCATION:	SHEET CONTENTS:	PREPARED:	REVIEWED:	SUBMITTED:	RECOMMENDED:	APPROVED:	SET No.	SHEET No.
CONSTRUCTION (COMPLETION) OF MULTI-PURPOSE BUILDING, UNIVERSITY OF EASTERN PHILIPPINES, CATARMAN, NORTHERN SAMAR UNIVERSITY OF EASTERN PHILIPPINES, CATARMAN N. SAMAR	FOUNDATION PLAN/MAIN BUILDING FOUNDATION PLAN/POWER HOUSE GROUND FLOOR BEAM FRAMING PLAN	BURT DUNCAN CINCHARIO ARCHITECT II DESIGNED: JEFF PEDROLA ENGINEER II	MAR DIONALD N. EIMAN ASST. CHIEF, PLANNING & DESIGN SECTION Date:	ANDY S. BREÑO CHIEF, PLANNING & DESIGN SECTION Date:	VIVIAN M. BIACO ASST. DISTRICT ENGINEER Date:	ALVIN A. IGNACIO DISTRICT ENGINEER Date:	S-12	39 / 84

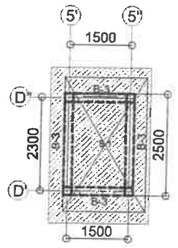


1 S-13 SECOND FLOOR BEAM FRAMING PLAN

SCALE: 1:100M

LEGEND:

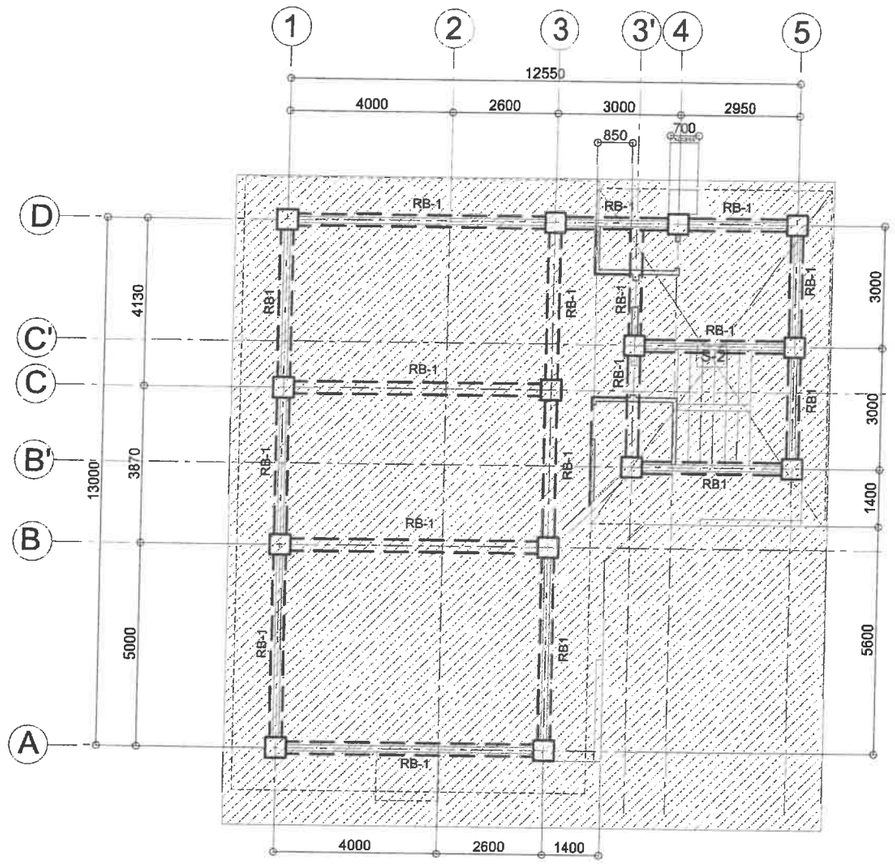
NOT INCLUDED IN PHASE II (STRUCTURAL DETAILS)



POWER HOUSE

3 S-13 ROOF BEAM FRAMING

SCALE: 1:100M



2 S-13 ROOF DECK FRAMING PLAN

SCALE: 1:100M

Republic of the Philippines
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NORTHERN SAMAR FIRST
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CONSTRUCTION (COMPLETION) OF MULTI-PURPOSE BUILDING, UNIVERSITY OF EASTERN PHILIPPINES, CATARMAN, NORTHERN SAMAR UNIVERSITY OF EASTERN PHILIPPINES, CATARMAN N. SAMAR	SECOND FLOOR BEAM FRAMING PLAN ROOF DECK FRAMING PLAN ROOF BEAM FRAMING PLAN/POWER HOUSE	BURT BRIDGET LUCINARIO ARCHITECT II DESIGNED: JEFF F. NEGROLA ENGINEER II	MAR DIONALD N. EIMAN ASST. CHIEF, PLANNING & DESIGN SECTION Date:	ANDY S. EREÑO CHIEF, PLANNING & DESIGN SECTION Date:	VIVIAN G. BIACO ASST. DISTRICT ENGINEER Date:	ALVIN A. IGNACIO DISTRICT ENGINEER Date:	S-13	40 84

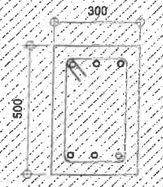
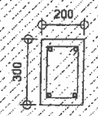
SCHEDULE TIE BEAM

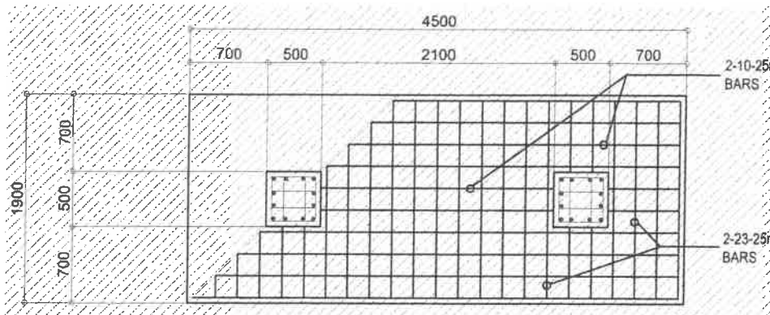
FLOOR LEVEL	BEAM MARK	BEAM DIMENSION (in / mm)		STEEL REINFORCEMENT							STIRRUPS (10mm Ø UNLESS NOTED OTHERWISE)	
				REBAR (mm Ø)	LEFT		MID SPAN		RIGHT		EXTRA BARS	SPACING	TYPE
FOUNDATION LEVEL		B	D		TOP	BOTTOM	TOP	BOTTOM	TOP	BOTTOM			
	FTB-1	300	500	20mm	3	3	3	3	3	3	-	5 @ 50mm, 8 @ 100mm, rest 150mm	A
	FTB-2	200	300	16mm	2	2	2	2	2	2	-	5 @ 50mm, 8 @ 100mm, rest 150mm	A

SCHEDULE OF FOOTING

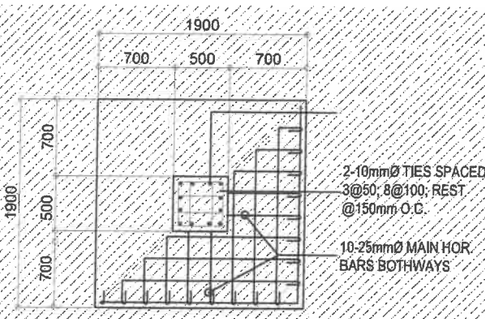
FOOTING MARK	FOOTING DIMENSION (mm)				REINFORCEMENT				REMARKS
	LENGTH (mm)	WIDTH (m)	Thickness (mm)	Founding depth (mm)	BAR X		BAR Y		
					TOP	BOTTOM	TOP	BOTTOM	
C4/F4	800	800	300	800	-	4 @ 180mm	-	4 @ 180mm	PERIMETER POST
C5/F5	800	800	300	800	-	4 @ 180mm	-	4 @ 180mm	LAMP POST PEDESTAL

FOOTING TIE BEAM SCHEDULE

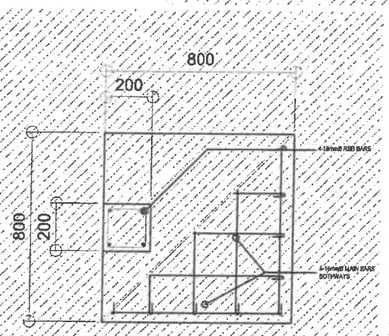
LEVEL	FTB-1	FTB-2
FOUNDATION LEVEL		
	MAIN BARS: 6-20mm Ø TIES: 10mm Ø 5 @ 50, 8 @ 100, REST @ 150mm TO CENTER	MAIN BARS: 4-16mm Ø TIES: 10mm Ø 5 @ 50mm, 8 @ 100mm, REST @ 150mm TO CENTER



1 DETAIL PLAN OF C1-F1
S-14 SCALE: 1:50 NTS

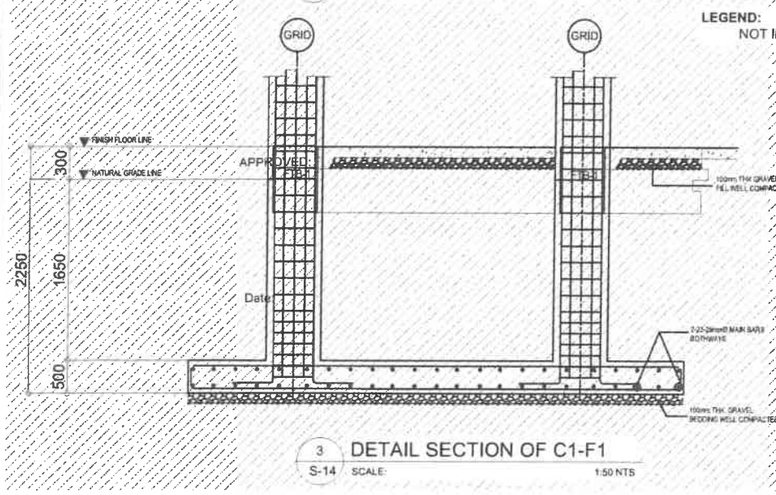


2 DETAIL PLAN OF C1-F2
S-14 SCALE: 1:50 NTS

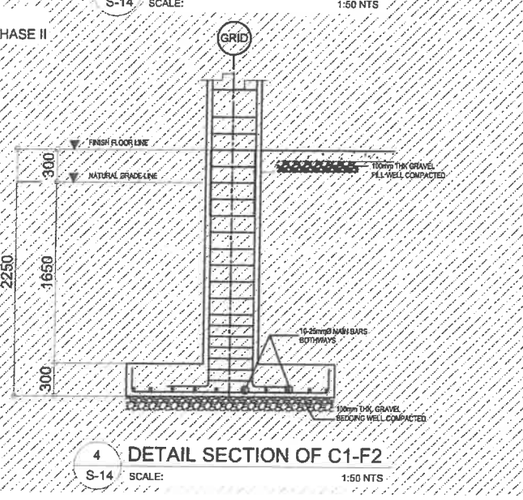


5 DETAIL PLAN OF C3-F3
S-14 SCALE: 1:40 NTS

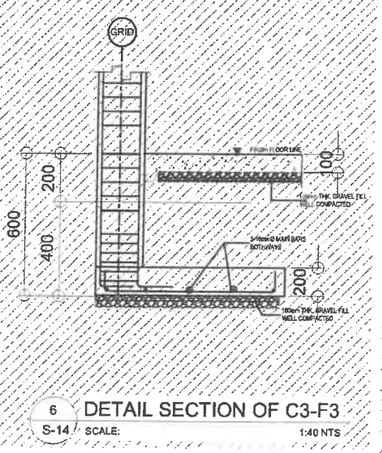
LEGEND:
NOT INCLUDED IN PHASE II



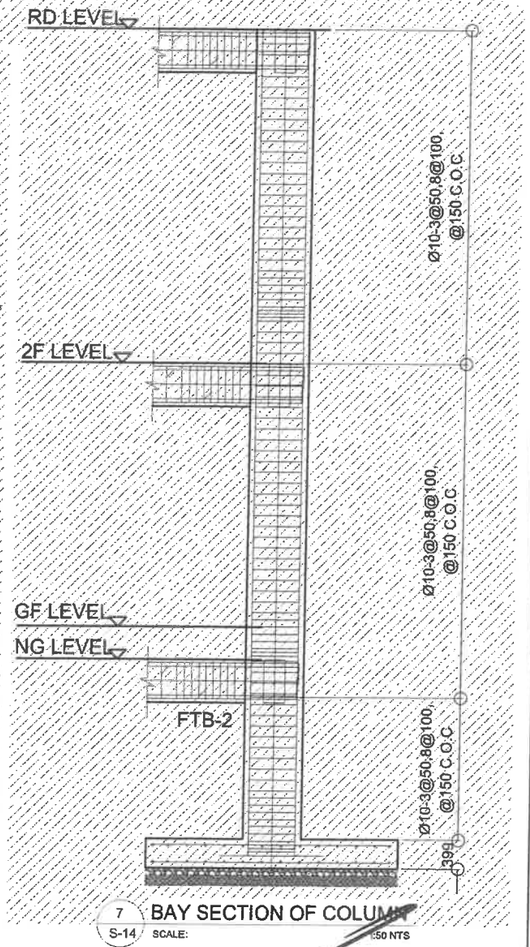
3 DETAIL SECTION OF C1-F1
S-14 SCALE: 1:50 NTS



4 DETAIL SECTION OF C1-F2
S-14 SCALE: 1:50 NTS



6 DETAIL SECTION OF C3-F3
S-14 SCALE: 1:40 NTS



7 BAY SECTION OF COLUMN
S-14 SCALE: 1:50 NTS

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Catarman, Northern Samar

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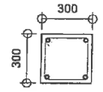
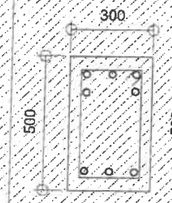
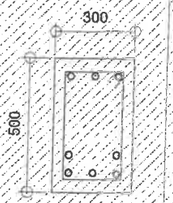
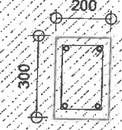
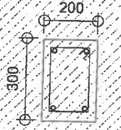
CONSTRUCTION (COMPLETION) OF MULTI-PURPOSE BUILDING, UNIVERSITY OF EASTERN PHILIPPINES, CATARMAN, NORTHERN SAMAR UNIVERSITY OF EASTERN PHILIPPINES, CATARMAN N. SAMAR	SCHEDULE OF TIE BEAM SCHEDULE OF FOOTING DETAIL PLAN OF C1-C2-F1 SECTION OF C1-C2-F1 DETAIL PLAN C2-F2 SECTION OF C2-F2 DETAIL PLAN C3-F3 SECTION OF C3-F3 BAY SECTION OF COLUMN	BURT EMBOY T. LUCINARIO ENGINEER II DESIGNED: JEFF F. PEDROLA ENGINEER II	MAR DIDNALD N. EIMAN ASST. CHIEF, PLANNING & DESIGN SECTION Date:	ANDY S. ERENO CHIEF, PLANNING & DESIGN SECTION Date:	VIVIAN C. BIACO ASST. DISTRICT ENGINEER Date:	ALVIN A. IGNACIO DISTRICT ENGINEER Date:	S-14	41 84

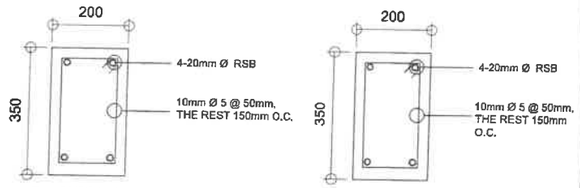
COLUMN SCHEDULE

LEVEL	FOUNDATION LEVEL TO ROOF DECK FLOOR LEVEL	ROOF DECK LEVEL TO ROOF BEAM LEVEL
C-4		
	MAIN BARS: 4-16mm Ø MAIN TIES: 10mmØ 1-50mm, 8-10mm, THE REST 150mm O.C.	
C-5		
	MAIN BARS: 4-16mm Ø MAIN TIES: 10mmØ 1-50mm, 8-10mm, THE REST 150mm O.C.	

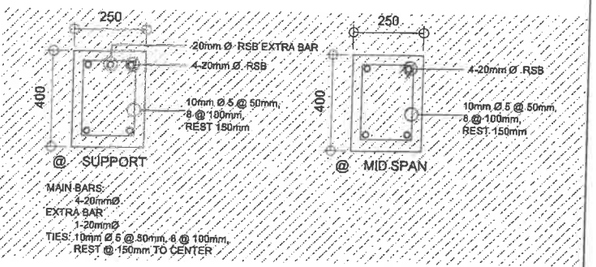
SCHEDULE OF MAIN BEAM

LEVEL	B-1		B-2	
	@ SUPPORT	@ MID SPAN	@ SUPPORT	@ MID SPAN
GRND. FLR. TO ROOF BEAM LEVEL				
	MAIN BARS: 8-20mmØ TIES: 10mm Ø 5 @ 50mm, 6 @ 100mm, REST @ 150mm TO CENTER		MAIN BARS: 4-12mm Ø TIES: 10mm Ø 5 @ 50mm, 8 @ 100mm, REST @ 150mm TO CENTER	

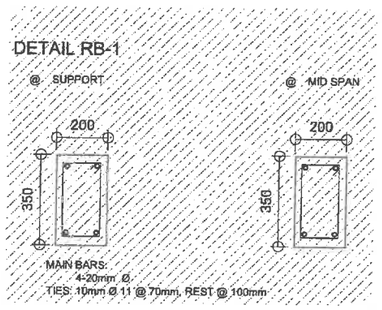
LEGEND:
NOT INCLUDED IN PHASE II



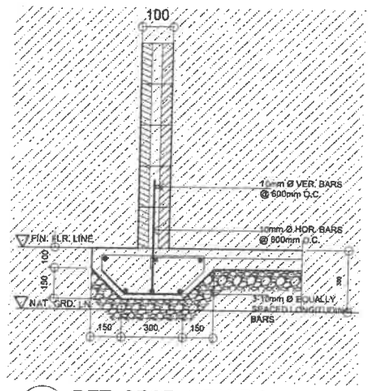
8 / S-15 DET. PLAN OF CB-1
SCALE: NTS



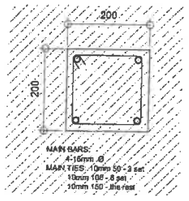
7 / S-15 DET. PLAN OF STB-1
SCALE: NTS



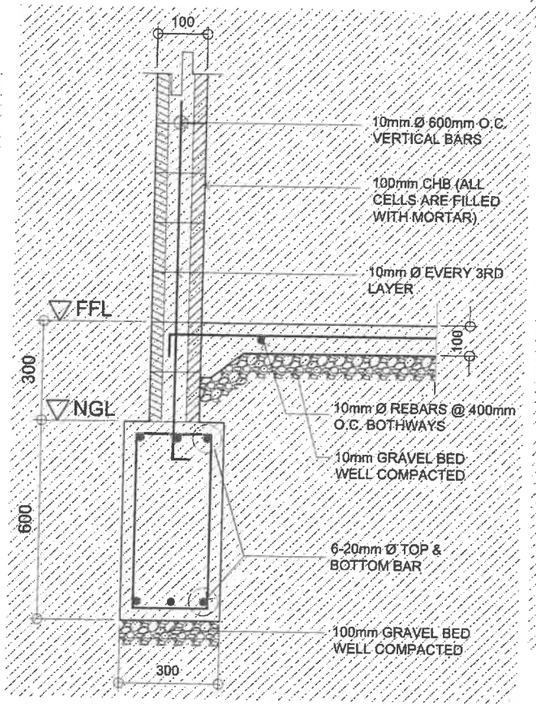
9 / S-15 DET. PLAN OF RB-1
SCALE: NTS



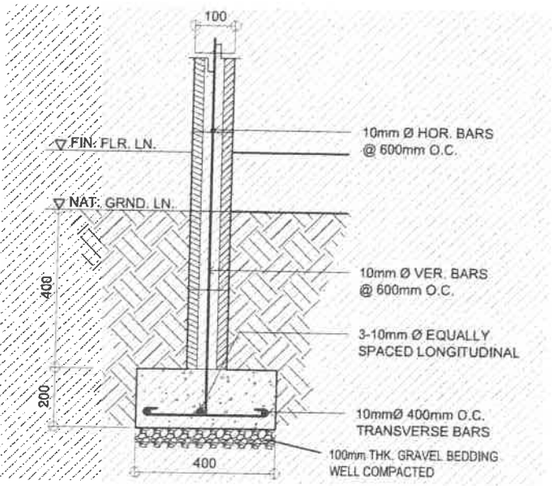
5 / S-15 DET. SECT. OF WF-2
SCALE: 1:20 NTS



6 / S-15 DET. PLAN OF DC-1
SCALE: 1:20 NTS



3 / S-15 DET. SECT. OF FTB-1
SCALE: 1:20 NTS



4 / S-15 DET. SECT. OF WF-1
SCALE: 1:20 NTS

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