C O N S T R U C T I O N N O T E S

NOTES ON CONCRETE MIXES & PLACING

1. UNLESS OTHERWISE INDICATED IN THE PLANS OR NOTED ON THE SPECIFICATIONS, THE MINIMUM 28–DAY CYLINDER COMPRESSIVE STRENGTH OF CONCRETE SHALL BE AS FOLLOWS:
   - 1.1 FOOTING fc' 3000 psi 20.7 MPa
   - 1.2 COLUMNS / RC WALLS / PEDESTAL fc' 3000 psi 20.7 MPa
   - 1.3 R.C. FLOOR BEAMS AND GIRDERS, SUSPENDED SLABS AND STAIRS fc' 3000 psi 20.7 MPa
   - 1.4 PARAPETS AND CURTAIN WALLS, FILLER WALLS AND GUTTER fc' 3000 psi 20.7 MPa
   - 1.5 SLAB ON FILL/GRADE, BEDDED SLABS, PARTITIONS , SIDEWALKS AND PAVEMENTS. fc' 3000 psi 20.7 MPa
   - 1.6 RETAINING WALLS, UNDERGROUND, WATER TANK, SEPTIC TANK, SUMP TANK fc' 3000 psi 20.7 MPa
2. CONCRETE SHALL BE IN ITS FINAL POSITION WITHOUT FLOWING. PLACING SHALL BE DONE PREFERABLE WITH BUGGIES, BUCKETS OR WHEEL. NO CHUTES SHALL BE ALLOWED EXCEPT TO TRANSFER CONCRETE FROM HOPPERS TO BUGGIES, WHEEL BARROWS OR BUCKETS IN WHICH CASE THEY WILL NOT EXCEED 6100 mm IN AGGREGATE LENGTH.
3. NO DEPOSITING OF CONCRETE SHALL BE ALLOWED WITHOUT THE USE OF VIBRATORS UNLESS OTHERWISE IN WRITING BY THE DESIGNERS AND ONLY FOR UNUSUAL CONDITIONS WHERE VIBRATION IS EXTREMELY DIFFICULT TO ACCOMPLISH.
4. PORTLAND CEMENT SHALL CONFORM TO ASTM C–150, TYPE I OR TYPE II, LOW ALKALI.
5. AGGREGATE FOR HARDROCK CONCRETE – C–33. EXCEPTIONS MAY BE USED ONLY WITH PERMISSION OF THE STRUCTURAL ENGINEER.
6. FORMS FOR CONCRETE SHALL BE LAID OUT AND CONSTRUCTED TO PROVIDE THE SPECIFIED CAMBERS SHOWN ON THE DRAWINGS.
7. THE CONTRACTOR SHALL MAINTAIN A LOG OF STRUCTURAL SLAB ELEVATIONS BASED ON THE ARCHITECTURAL DRAWINGS PLUS THE ADDITION OF ANY CAMBERS INDICATED ON THE CONSTRUCTION DOCUMENTS. THIS LOG SHALL INDICATE SCREED ELEVATIONS PRIOR TO THE CONCRETE POUR, AND TOP OF CONCRETE SLAB PRIOR TO REMOVAL OF FORMS.
8. THE CONCRETE SLAB THICKNESS SHALL BE MAINTAINED UNLESS OTHERWISE SHOWN.
9. DRY PACK OR NON SHRINK GROUT UNDER BASEPLATES, SILL PLATES, ETC., SEE CONTRACT DOCUMENTS.
10. CONCRETE MIXING OPERATION, ETC., SHALL CONFORM TO C–94.
11. PLACEMENT OF CONCRETE SHALL CONFORM TO ACI 304 AND CONTRACT DOCUMENTS. SANDBLAST ALL CONCRETE SURFACES AGAINST WHICH CONCRETE IS TO BE PLACED.
12. ALL REINFORCING BARS, ANCHOR BOLTS AND OTHER CONCRETE INSERTS SHALL BE WELL SECURED IN POSITION PRIOR TO PLACING CONCRETE.
13. PROVIDE SLEEVES FOR PLUMBING AND ELECTRICAL OPENINGS IN CONCRETE BEFORE PLACING. DO NOT CUT ANY REINFORCING WHICH MAY CONFLICT. NOTIFY THE STRUCTURAL ENGINEER IN ADVANCE OF CONDITIONS NOT SHOWN ON THE DRAWINGS.
14. CONDUIT OR PIPE SIZE (O.D.) SHALL NOT EXCEED ONE THIRD OF SLAB THICKNESS AND SHALL BE PLACED BETWEEN THE TOP AND BOTTOM REINFORCING, UNLESS SPECIFICALLY DETAILED OTHERWISE. CONCENTRATIONS OF CONDUITS OR PIPES SHALL BE AVOIDED EXCEPT WHERE DETAILED OPENINGS ARE PROVIDED.
15. PROJECTING CORNERS OF BEAMS, WALLS, COLUMNS, ETC., SHALL BE FORMED WITH A 19MM CHAMFER, UNLESS OTHERWISE NOTED ON ARCHITECTURAL DRAWINGS.
16. CURING COMPOUNDS USED ON CONCRETE TO RECEIVE A FINISH SHALL BE APPROVED BY THE FINISH APPLICATOR BEFORE USE.

NOTES ON REINFORCING STEEL

1. UNLESS OTHERWISE SPECIFIED IN THE PLANS, THE MINIMUM YIELD STRENGTH OF REINFORCEMENT TO BE USED CORRESPONDING TO THE STRUCTURAL MEMBER SHALL BE AS ENUMERATED BELOW:

TABLE - 1

GRADE	BAR DIAMETER
GRADE 414 (fy=60 ksi)	16, 20, 25, 28, 32, MM DIA.
GRADE 276 (fy=40 ksi)	10, 12, MM DIA.
GRADE 230 (fy=33 ksi)	SMALLER THAN 10 MM DIA.

2. ALL REINFORCING STEEL SHALL BE DETAILED AND PLACED IN CONFORMANCE WITH THE 'BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE' (ACI–318), AND THE 'MANUAL OF STANDARD PRACTICE FOR REINFORCED CONCRETE CONSTRUCTION' BY THE C.R.S.I. AND THE W.C.R.S.I., OR AS MODIFIED BY THE CONSTRUCTION DOCUMENTS.
3. WELDING OF REINFORCEMENT SHALL BE WITH LOW HYDROGEN ELECTRODES IN CONFORMANCE WITH RECOMMENDED PRACTICES FOR WELDING REINFORCING STEEL ETC. AMERICAN WELDING SOCIETY, AWS–D14.
4. ALL REINFORCING BAR BENDS SHALL BE MADE COLD.
5. MINIMUM LAP OF WELDED WIRE FABRIC SHALL BE 152.4MM, OR ONE FULL MESH PLUS 50.8mm, WHICHEVER IS GREATER.
6. DOWELS BETWEEN FOOTINGS AND WALLS OR COLUMNS SHALL BE THE SAME GRADE, SIZE AND SPACING AS THE VERTICAL REINFORCING, RESPECTIVELY, UNLESS NOTED OTHERWISE.
7. ALL BARS SHALL BE MARKED SO THEIR IDENTIFICATION CAN BE MADE WHEN THE FINAL IN–PLACE INSPECTION IS MADE.

NOTES ON MASONRY

1. CONCRETE BLOCK SHALL BE HOLLOW LOAD–BEARING CONCRETE MASONRY UNITS CONFORMING TO C90 GRADE N, NORMAL WEIGHT. USE UNITS OPEN ONE END, AND BOND BEAM UNITS AT HORIZONTAL REINFORCING.
2. CEMENT SHALL BE AS SPECIFIED FOR CONCRETE.
3. MORTAR MIX SHALL CONFORM TO REQUIREMENTS FOR TYPE S AND PROJECT SPECIFICATIONS. MORTAR SHALL ATTAIN A COMPRESSIVE STRENGTH OF 12.4 MPA AT 28 DAYS. ADMIXTURE SHALL BE SIKA RED LABEL.
4. GROUT SHALL CONFORM TO REQUIREMENTS FOR COARSE GROUT. GROUT SHALL ATTAIN A COMPRESSIVE STRENGTH OF 13.8 MPA AT 28 DAYS. ADMIXTURE SHALL BE SIKA GROUT AID OR EQUAL.
5. ADMIXTURES SHALL BE ADDED TO MORTAR OR GROUT RESPECTIVELY PER MANUFACTURER'S RECOMMENDATIONS.
6. PROVIDE A MINIMUM OF ONE BAR DIAMETER (330 MM MINIMUM) GROUT BETWEEN MAIN REINFORCING AND MASONRY UNITS.
7. LOW–LIFT CONSTRUCTION; MAXIMUM GROUT POUR HEIGHT IS 1219 MM.
8. HIGH–LIFT GROUTED CONSTRUCTION MAY BE USED IN CONFORMANCE WITH CHAPTER 24 OF THE GOVERNING CODE.
9. ALL CELLS IN CONCRETE BLOCKS SHALL BE FILLED SOLID WITH GROUT, UNLESS NOTED OTHERWISE.
10. CELLS SHALL BE IN VERTICAL ALIGNMENT. DOWELS IN FOOTINGS SHALL BE SET TO ALIGN WITH CORES CONTAINING REINFORCING STEEL.
11. REFER TO ARCHITECTURAL DRAWING FOR SURFACE AND HEIGHT OF UNITS, LAYING PATTERN AND JOINT TYPE.
12. ASSUMED ULTIMATE COMPRESSIVE STRENGTH OF COMPLETED MASONRY WALL IS 10.34 MPA U.N.O.

NOTES ON STEEL

1. ALL STRUCTURAL STEEL SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH AISC SPECIFICATION FOR DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL BUILDINGS (1989 WITH LATEST REVISIONS).
2. ALL STRUCTURAL STEEL FOR SHAPE, PIPES, ANGLES, AND RODS SHALL CONFORM TO ASTM A36 (LATEST REVISION).
3. ALL BOLTED CONNECTIONS SHALL BE MADE USING HIGH STRENGTH BOLTS, NUTS AND WASHERS CONFORMING TO ASTM A325, TYPE "N" CONNECTIONS UNLESS APPROVED OTHERWISE. THE MINIMUM NUMBER OF BOLTS PER CONNECTION IS TWO.
4. BOLTED CONNECTIONS FOR BEAMS/PURLINS SHALL BE DESIGNED TO SUPPORT HALF OF THE TOTAL UNIFORM LOAD CAPACITY AS GIVEN BY THE AISC UNIFORM LOAD CAPACITY AS GIVEN BY THE AISC MANUAL OF STEEL CONSTRUCTION (13TH EDITION).
5. WELDED CONNECTIONS AT ENDS OF TENSIONS OR COMPRESSION MEMBERS SHALL BE DESIGNED TO DEVELOP THE FULL CAPACITY OF THE SECTION.
6. COMPRESSION MEMBERS OR PLATES TRANSMITTING COMPRESSION FORCES TO BEARING PLATES SHALL BE MILLED FOR FULL BEARING.
6. COMPRESSION MEMBERS OR PLATES TRANSMITTING COMPRESSION FORCES TO BEARING PLATES SHALL BE MILLED FOR FULL BEARING.
7. WELDING PROCEDURES AND MATERIALS SHALL BE IN ACCORDANCE WITH AWS D1.1 (LATEST REVISIONS) "STRUCTURAL WELDING CODE" WELDING ELECTRODES SHALL BE E 70xx.
8. WORK POINT DIMENSIONS SHALL BE LOCATED WITHIN ±1/4 INCH OF LOCATION SHOWN IN DRAWINGS, ANY CHANGE IN STRUCTURAL GEOMETRY RESULTING IN A MEMBER WHOSE LENGTH CHANGES BY MORE THAN 5 PERCENT SHALL REQUIRE APPROVAL BY THE ENGINEER.
9. ALL DIMENSIONS IN THE PLANS SHALL BE VERIFIED BY THE FABRICATOR IN THE FIELD IN COORDINATION WITH THE GENERAL CONTRACTOR.
10. ALL CONNECTION DETAILS SHOWN ARE CONCEPTUAL DESIGN AND OF CONNECTION DETAILS IS THE RESPONSIBILITY OF THE FABRICATOR
11. MATERIAL OR WORKMANSHIP NOT IN REASONABLE CONFORMANCE WITH PROVISIONS OF THIS SPECIFICATION MAY BE REJECTED AT ANY TIME DURING THE PROGRESS OF WORK.
12. SUBMIT SHOP DRAWINGS FOR REVIEW AND APPROVAL PRIOR TO FABRICATION WORKS. FABRICATION MUST NOT START UNLESS SHOP DRAWING HAVE BEEN APPROVED.
13. ALL STRUCTURAL STEEL MEMBERS SHALL BE APPLIED WITH RED LEAD PRIMER OR ANY EQUIVALENT BRAND. (2 COATS)

GENERAL NOTES:

1. Special tie (ACI Sec. 21.3.3.2) shall be a minimum of: d/4 , 8 x bar dia., 24 x tie dia. or 12"
2. Extent of special ties (ACI Sec. 21.4.4.4) above footing shall be a minimum of: 1/6 x (clear column height), depth of column dimension or 18" for zone 2. A minimum of: 8 x bar dia., 24 x tie dia., 1/2 minimum column dimension or 12" for frames in seismic zone 2. Column tie shall be continued in a joint where confinement is not provided. (ACI Sec. 21.3.3.2)
3. Extent of column ties (ACI Sec. 21.4.4.5) within footings shall be a minimum of 12".
4. Contractor shall check rebars arrangement at all members joints, inluding column footing joints, to ensure adequate clearances for placement of rebars and casting of concrete. This is very critical particularly when orthogonal beams and grade beams are present. Adjust rebars sizes, spacing and concrete dimensions as needed to facilitate proper construction.
5. ALL DETAILS SHALL CONFORM TO ACI 318–11, UBC 97 AND ACI 315.

TABLE 1

DEVELOPMENT LENGTH, Ld, IN TENSION FOR R.C. BEAMS & GIRDERS

(PRISMATIC & NON-PRISMATIC)

BAR SIZE (mm)	f'c = 21 MPa (3000 psi)		f'c = 28 MPa (4000 psi)	
	TOP BARS (mm)	BOT. BARS (mm)	TOP BARS (mm)	BOT. BARS (mm)
10Ø	380	300	300	300
12Ø	680	520	530	410
16Ø	910	700	700	540
20Ø	1140	870	880	680
25Ø	1780	1370	1370	1060
28Ø	1990	1530	1540	1180
32Ø	2270	1750	1760	1350
36Ø	2560	1970	1980	1520

TABLE-2 LENGTH OF LAP COMPRESSION SPLICES (mm)

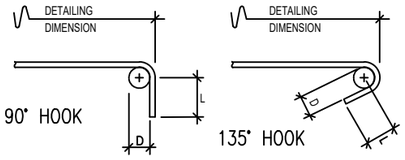
BAR SIZE (mm)	fc = 21 MPa (3000 psi)	fc = 28 MPa (4000 psi)
10Ø	300	300
12Ø	350	350
16Ø	460	460
20Ø	580	580
25Ø	720	720
28Ø	810	810
32Ø	930	930
36Ø	1040	1040

DEVELOPMENT OF BUNDLED BARS

1. Development length of individual bars within a bundle, in tension or compression, shall be that for the individual bar, increased 20% for three–bar bundle, and 33% for four–bar bundle.
2. Individual bar splices within a bundle shall not overlap.
3. Entire bundles shall not be lap spliced.
4. Bars spliced by noncontact lap splices in flexural members shall not be spaced transversely farther apart than one–fifth the required lap splice length nor 150mm.
5. Splices shall be staggered at least 600mm.

ABBREVIATIONS:

TB	–	TOP BARS
BB	–	BOTTOM BARS
EW	–	EACH WAY
EF	–	EACH FACE
CJ	–	CONSTRUCTION JOINT
EJ	–	EXPANSION JOINT
WWF	–	WELDED WIRE FABRIC
MH	–	MANHOLE
JT	–	JOINT
ELEV	–	ELEVATION
TOC	–	TOP OF CONCRETE
TOS	–	TOP OF STEEL
CLJ	–	CONTROL JOINT
PJF	–	PREMOULDED JOINT FILLER
TYP	–	TYPICAL
BW	–	BOTHWAYS
BF	–	BOTHFACE
CLR	–	CLEAR
OC	–	ON CENTER
℄	–	CENTERLINE
TC	–	TOP CHORD
BC	–	BOTTOM CHORD
WM	–	WEB MEMBER
IE	–	INVERT ELEVATION
RCP	–	REINFORCED CONCRETE PIPE
CB	–	CATCH BASIN
HP	–	HIGH POINT OF GRADE OR PAVING
FFL	–	FINISH FLOOR LINE
NGL	–	NATURAL GRADE LINE
BOF	–	BOTTOM OF FOOTING
VB	–	VERTICAL BARS
HB	–	HORIZONTAL BARS



BAR DIAMETER (mm)	D (mm)	L (mm)		
		TYPE I		TYPE II
		90° HOOK	135° HOOK	135° HOOK
10	40	60	60	75
12	48	72	72	75
16	64	96	96	96

NOTE: TYPE I FOR GENERAL USE

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Republic of the Philippines DEPARTMENT OF SCIENCE AND TECHNOLOGY Philippine Science High School MIMAROPA Region Campus Brgy. Rizal, Odiongan, Romblon 5505	**CONSTRUCTION OF DORMITORY BUILDING I**	PLANNING TEAM	Meriam F. Fallar FAD Chief	Edward C. Albaracin Campus Director	As Shown	S
	Location: Brgy. Rizal, Odiongan Romblon 5505	Date Prepared:	Date:	Date:		1 / 11

MINIMUM CLEAR SPACING BETWEEN REBARS "C"

BAR SIZE	SINGLE BAR	TWO BAR BUNDLE	THREE BAR BUNDLE
25mmø	25mm	36mm	44mm
32mmø	32mm	46mm	55mm
36mmø	36mm	50mm	62mm
	MINIMUM "C" SHALL BE 25mm		

* CONCRETE COVER SHALL BE 75mm IF CONCRETE IS CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH

REMOVAL OF FORMS & SHORINGS

STRUCTURAL ELEMENTS	CLEAR SPAN BETWEEN SUPPORTS	MINIMUM TIME PERIOD (DAYS)
WALLS, COLUMNS, BEAMS, GIRDER SIDES & SLAB ON GRADE	–	1
JOIST, BEAMS & GIRDER SOFFIT	UNDER 3.00 M.	7
	3.00 M. to 6.00 M.	14
	OVER 6.00 M.	21
ONE – WAY FLOOR SLABS	UNDER 3.00 M.	4
	3.00 M. to 6.00 M.	7
	OVER 6.00 M.	10

CONCRETE TOLERANCES

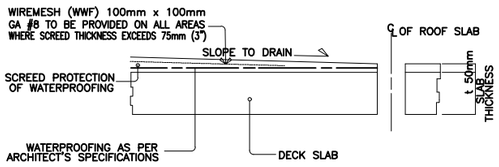
MAXIMUM TOLERANCES

1. CROSS SECTIONAL DIMENSIONS & LOCATION TO REINFORCEMENTS
   - DIMENSION LESS THAN 200mm = ± 6mm
   - 200mm to 600mm = ± 9mm
2. MEMBER LENGTH or HEIGHT
   - OVER 600mm = ± 12mm
   - = ± 12mm per 3.00 M.
3. DEVIATION FROM STRAIGHT MAXIMUM LIMITATION = ± 24mm
4. LOCATION OF BAR CUT–OFFS' (SWEEP AND / OR PLUMBNESS) OR BENDS = ± 12mm per 3.00 M.
   - = ± 50mm

CAMBER REQUIREMENT

ELEMENT	MINIMUM CAMBER
ELEMENT	MINIMUM CAMBER
R.C. BEAMS	6mm FOR EVERY 4.50M. SPAN
CANTILEVER R.C. BEAMS	18mm FOR EVERY 3.00M. SPAN
R.C. SLABS	3mm FOR EVERY 3.00M. SHORTER SPAN

1. ALL CONCRETE SHALL BE MOIST CURED FOR A PERIOD NOT LESS THAN SEVEN (7) CONSECUTIVE DAYS BY AN APPROVED METHOD OR COMBINATION APPLICABLE TO LOCAL CONDITIONS. THE CONTRACTOR SHALL HAVE ON HAND ALL EQUIPMENT NEEDED FOR ADEQUATE CURING AND PROTECTION OF CONCRETE AND SHALL BE READY TO START THE CURING PROCESS IMMEDIATELY FOLLOWING THE REMOVAL OF FORMS.
2. THE SURFACE OF THE CONCRETE SHALL BE KEPT CONTINUOUSLY WET BY COVERING WITH WATER, BY CONTINUOUS SPRAYING, OR BY COVERING WITH BURLAP OR OTHER APPROVED MATERIALS THOROUGHLY SATURATED WITH WATER AND KEEPING THE COVERING WET BY SPRAYING OR INTERMETTENT HOSING. WATER FOR CURING SHALL BE GENERALLY CLEAN & FREE FROM ANY ELEMENTS WHICH MIGHT CAUSE OBJECTIONABLE STAINING OR DISCOLORATION OF THE CONCRETE.
3. IN ANY CASE, A WET SUSPENDED FLOOR SHOULD BE CARRIED BY AT LEAST TWO–DRY SUSPENDED FLOOR BELOW .



NOTES :

1. ALTERNATIVE SCHEME OF WATERPROOFING MAY BE PRESENTED SUBJECT TO ARCHITECT'S & ENGINEER'S APPROVAL
2. WATER STOPS SHALL BE PROVIDED ON AREAS SPECIFIED BY THE ARCHITECT'S / ENGINEERS
3. ALL CONSTRUCTION JOINTS SHALL BE THOUROUGHLY CLEANED & ROUGHENED BEFORE PLACING FRESH CONCRETE

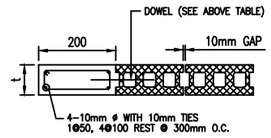
CONCRETE PROTECTION FOR REINFORCEMENT

CAST–IN–PLACE CONCRETE (NONPRESTRESSED)

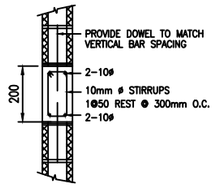
The following minimum concrete cover shall be provided for reinforcement:

	Minimum Cover (mm)
A. Concrete cast against and permanently exposed to earth	75
B. Concrete exposed to earth or weather:	
No. 19 through No. 56	50
No. 16 bar, W31 or D31 wire, and smaller	40
C. Concrete not exposed to weather or in contact with ground:	
Slabs, walls, joists:	
No. 44 and No. 56 bars	40
No. 36 bar and smaller	20
Beams, columns: Primary reinforcement, ties, stirrups, spirals	40
Shells, folded plate members:	
No. 19 bar and larger	20
No. 16 bar, W31 or D31 wire, and smaller	12

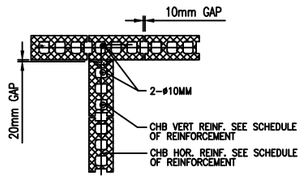
CHB STIFFENER DETAILS
– VERTICAL STIFFENERS SHOULD BE PROVIDED @ 3000mm O.C. MAXIMUM.
– HORIZONTAL STIFFENERS SHOULD BE PROVIDED @ 6000mm O.C. MAXIMUM.



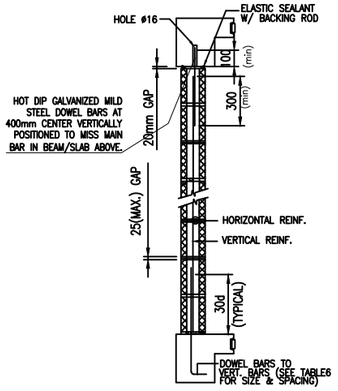
VERTICAL STIFFENER



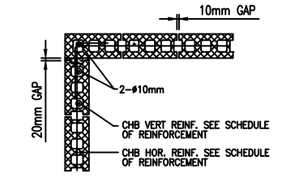
HORIZONTAL STIFFENER



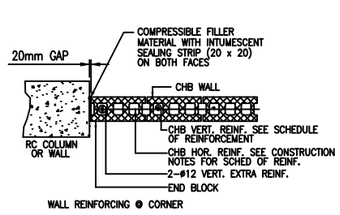
WALL REINFORCING @ INTERSECTION



CHB WALL REINFORCEMENT



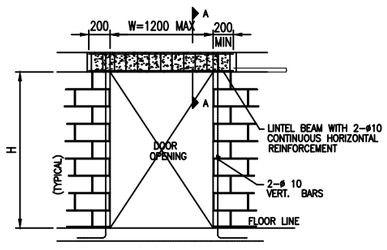
WALL REINFORCING @ CORNER



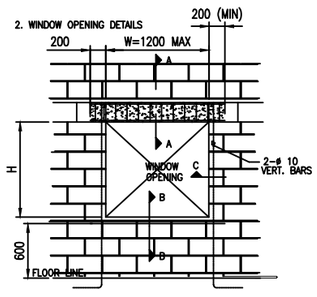
WALL REINFORCING @ CORNER

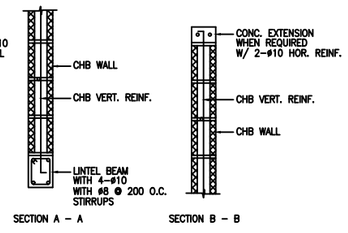
CHB WALL OPENING DETAILS

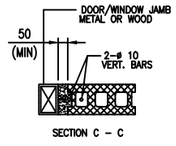
1. DOOR OPENING DETAILS



2. WINDOW OPENING DETAILS







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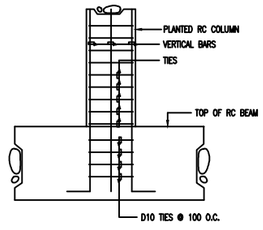
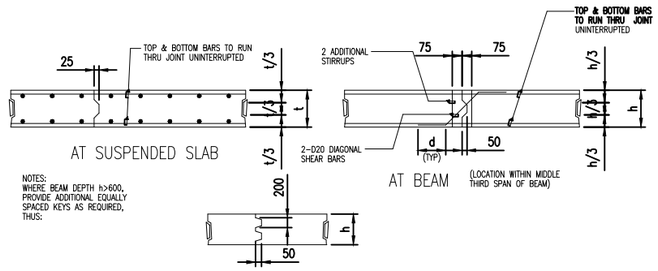


4 S2 TYPICAL PLANTED RC COLUMN DETAIL
SCALE NTS



1 S2 TYPICAL CONSTRUCTION JOINT DETAIL
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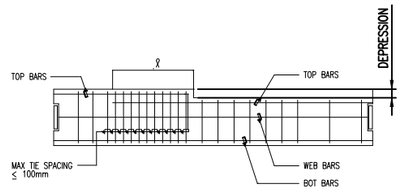

2 S2 TYPICAL BEAM DETAIL AT DEPRESSION
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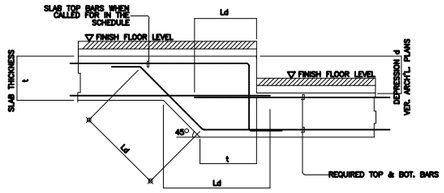

3 S2 TYPICAL SLAB DEPRESSION DETAIL
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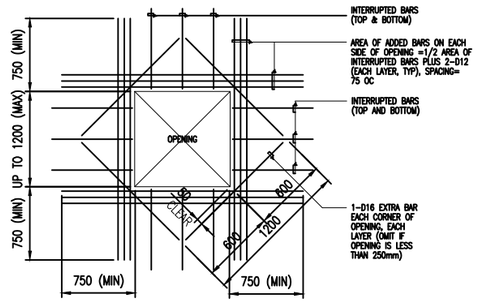

5 S2 DETAIL @ SLAB OPENINGS
SCALE NTS

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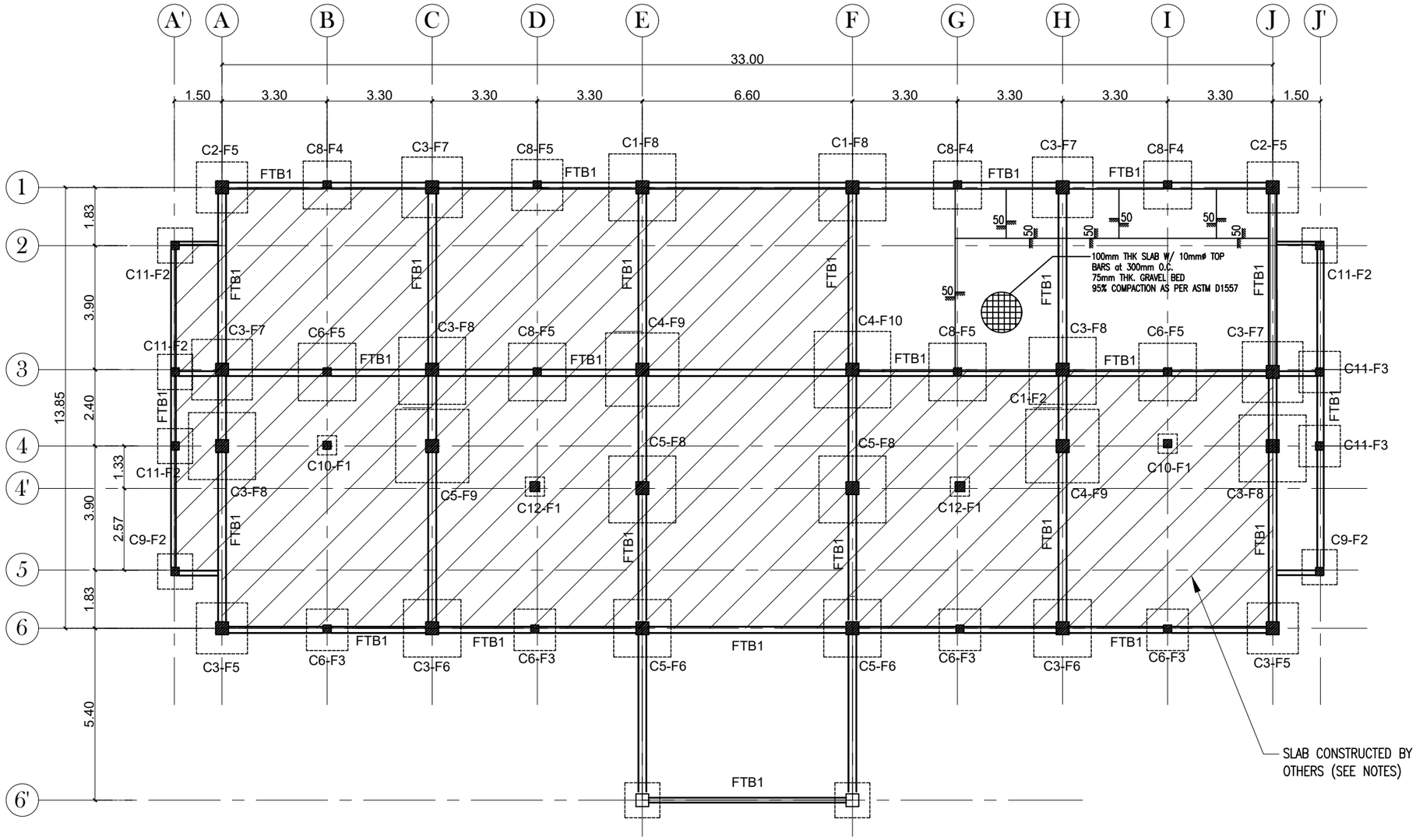
Republic of the Philippines DEPARTMENT OF SCIENCE AND TECHNOLOGY Philippine Science High School MIMAROPA Region Campus Brgy. Rizal, Odiongan, Romblon 5505	**CONSTRUCTION OF DORMITORY BUILDING I**	PLANNING TEAM	Meriam F. Fallar FAD Chief	Edward C. Albaracin Campus Director	As Shown	S 2 / 11
	Location: Brgy. Rizal, Odiongan Romblon 5505	Date Prepared:	Date:	Date:		



NOTES:
1. ALL FOUNDATION WERE CONSTRUCTED BY OTHERS AND TO BE EXCLUDED ON THE SCOPE OF WORK.
2. ALL FOOTING TIE BEAM AND GRADE BEAM WERE CONSTRUCTED BY OTHERS AND TO BE EXCLUDED ON THE SCOPE OF WORK.
3. ALL COLUMNS FROM FOUNDATION TO GROUND FLOOR WERE CONSTRUCTED BY OTHERS AND TO BE EXCLUDED ON THE SCOPE OF WORK.
4. SHADED AREA OF SLAB ON GRADE WERE CONSTRUCTED BY OTHERS AND TO BE EXCLUDED ON THE SCOPE OF WORK.

1 / S3

FOUNDATION PLAN

SCALE 1:150MTS

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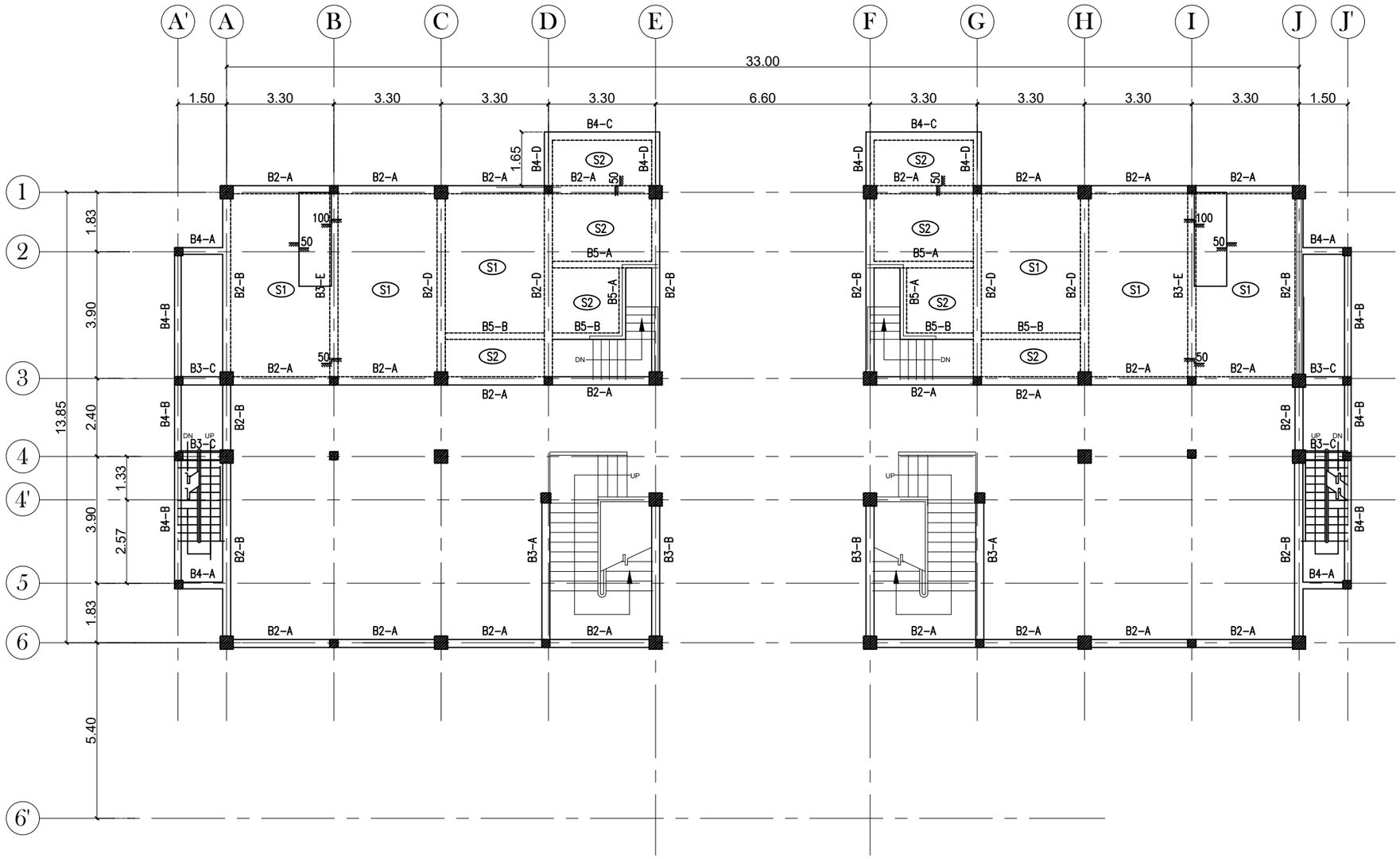
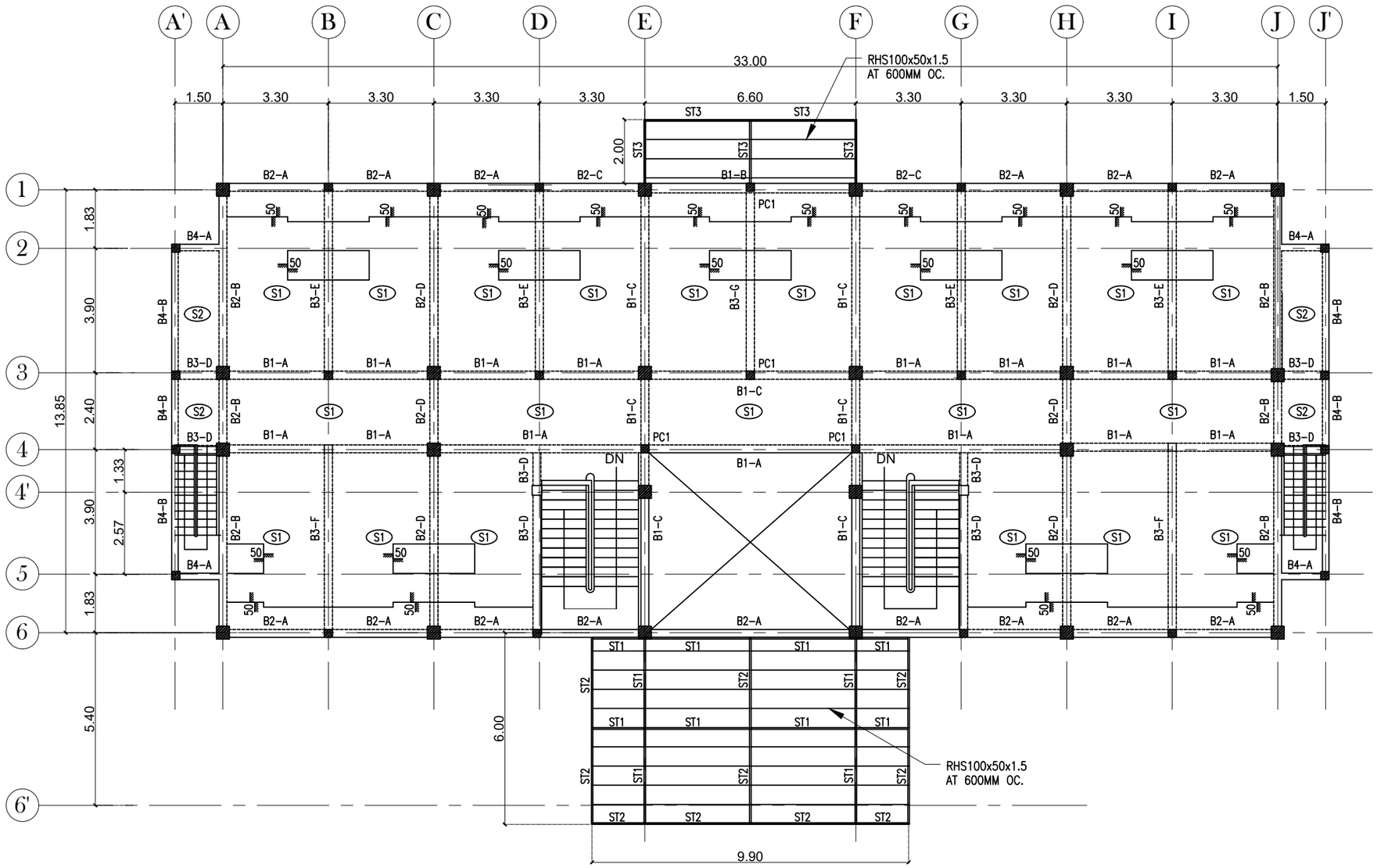
	Location: Brgy. Rizal, Odiongan Romblon 5505	Date Prepared:	Date:	Date:		



1 S4 MEZZANINE FRAMING PLAN

SCALE 1:150MTS

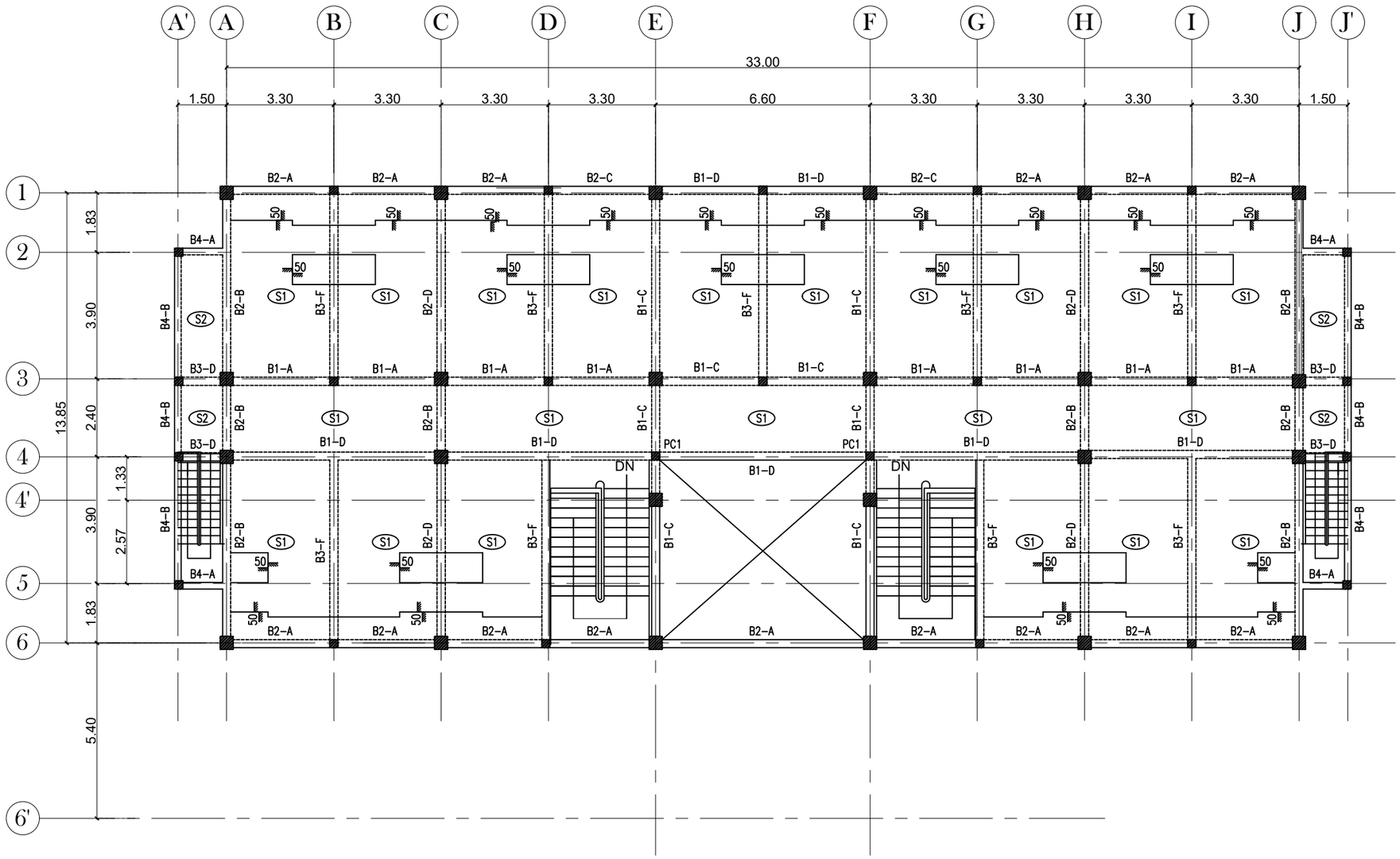
OWNER:	Project Title:	Prepared by:	Recommending approval by:	Approved by:	Sheet Content:	Sheet No.
Republic of the Philippines DEPARTMENT OF SCIENCE AND TECHNOLOGY Philippine Science High School MIMAROPA Region Campus Brgy. Rizal, Odiongan, Romblon 5505	**CONSTRUCTION OF DORMITORY BUILDING I**	PLANNING TEAM	Meriam F. Fallar FAD Chief	Edward C. Albaracin Campus Director	As Shown	S 4 / 11
	Location: Brgy. Rizal, Odiongan Romblon 5505	Date Prepared:	Date:	Date:		



1 / S5 SECOND FRAMING PLAN

SCALE 1:150MTS

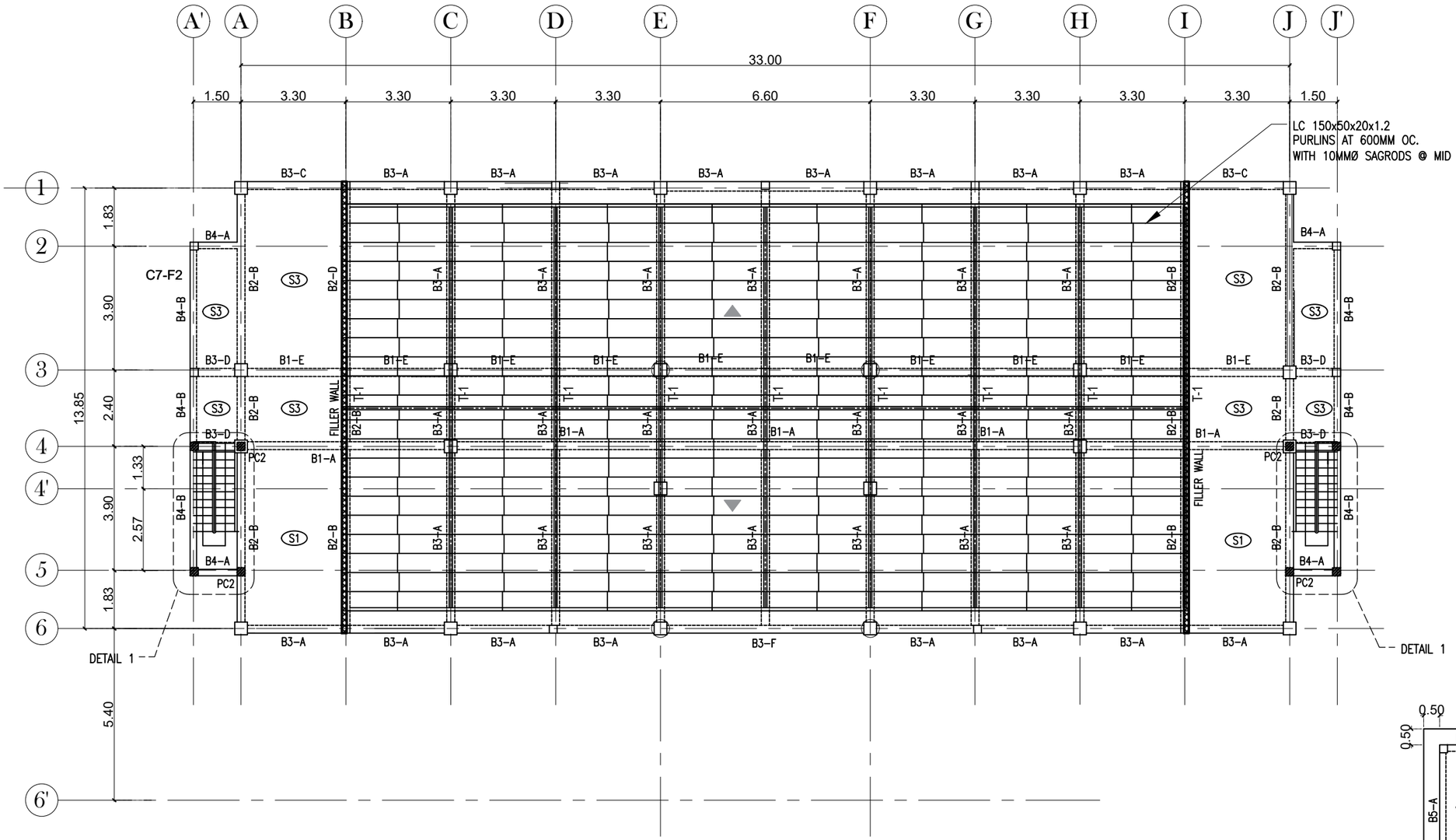
OWNER:	Project Title:	Prepared by:	Recommending approval by:	Approved by:	Sheet Content:	Sheet No.
Republic of the Philippines DEPARTMENT OF SCIENCE AND TECHNOLOGY Philippine Science High School MIMAROPA Region Campus Brgy. Rizal, Odiongan, Romblon 5505	**CONSTRUCTION OF DORMITORY BUILDING I** Location: Brgy. Rizal, Odiongan Romblon 5505	PLANNING TEAM Date Prepared:	Meriam F. Fallar FAD Chief Date:	Edward C. Albaracin Campus Director Date:	As Shown	S 5 / 11



1 / S6 THIRD FRAMING PLAN

SCALE 1:150MTS

OWNER:	Project Title:	Prepared by:	Recommending approval by:	Approved by:	Sheet Content:	Sheet No.
Republic of the Philippines DEPARTMENT OF SCIENCE AND TECHNOLOGY Philippine Science High School MIMAROPA Region Campus Brgy. Rizal, Odiongan, Romblon 5505	**CONSTRUCTION OF DORMITORY BUILDING I**	PLANNING TEAM	Meriam F. Fallar FAD Chief	Edward C. Albaracin Campus Director	As Shown	S 6 / 11
	Location: Brgy. Rizal, Odiongan Romblon 5505	Date Prepared:	Date:	Date:		



1 / S7 — **ROOF FRAMING PLAN**

SCALE 1:150MTS

2 / S7 — **DETAIL 1**

SCALE: 1:150MTS

OWNER:	Project Title:	Prepared by:	Recommending approval by:	Approved by:	Sheet Content:	Sheet No.
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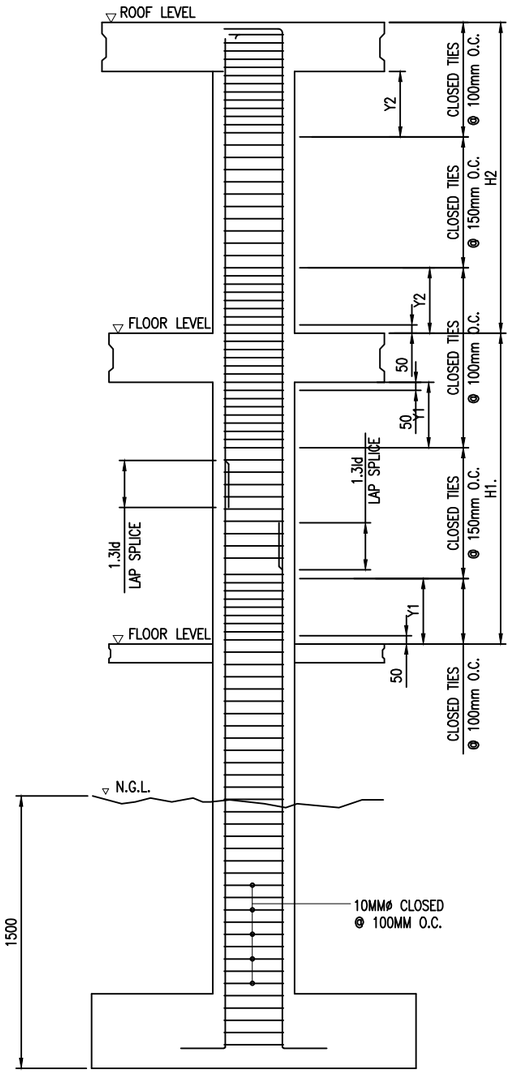
	Location: Brgy. Rizal, Odiongan Romblon 5505	Date Prepared:	Date:	Date:		



TYPICAL COLUMN ELEVATION

1 / S8 SCALE NTS

NOTES:

1. Y = MAX OF FF.
   a. H/6
   b. 450mm
   c. MAX COLUMN DIMENSION
2. SPLICES ARE PERMITTED ONLY WITHIN THE CENTER HALF OF COLUMN HEIGHT (H)
3. STAGGER BAR SPLICES BY 600mm OR MORE
4. PROVIDE TIES @ 100mm O.C. (MAX.) OVER THE FULL LAP SPLICE LENGTH
5. SPECIAL TIES @ THE BEAM COL. JOINT TO CONFORM TO THE SAME CONFIGURATION OF TIES AS INDICATED IN THE SCHEDULE OF COLUMNS
6. NO. OF SPLICES BARS AT ONE LEVEL SHALL NOT EXCEED ONE-THIRD (1/3) OF THE TOTAL NO. OF COLUMN VERTICAL BARS

SCHEDULE OF COLUMN

	C1	C2	C3	C4	C5	C6	C7	C8	C9
3RD FLOOR to ROOF	400mmx400mm 24–16mmø VERTICAL BARS 5 SETS 10mmø CLOSED TIES	400mmx400mm 20–16mmø VERTICAL BARS 3 SETS 10mmø CLOSED TIES	400mmx400mm 16–16mmø VERTICAL BARS 3 SETS 10mmø CLOSED TIES	400mmx400mm 12–16mmø VERTICAL BARS 3 SETS 10mmø CLOSED TIES	400mmx400mm 8–16mmø VERTICAL BARS 1 SETS 10mmø CLOSED TIES 2 SETS 10mmø SUPP. TIES	250mmx250mm 8–25mmø VERTICAL BARS 1 SETS 10mmø CLOSED TIES 2 SETS 10mmø SUPP. TIES		250mmx250mm 12–20mmø VERTICAL BARS 3 SETS 10mmø CLOSED TIES	250mmx250mm 4–20mmø VERTICAL BARS 1 SETS 10mmø CLOSED TIES
2ND FLOOR to 3RD FLOOR	400mmx400mm 24–16mmø VERTICAL BARS 5 SETS 10mmø CLOSED TIES	400mmx400mm 20–16mmø VERTICAL BARS 3 SETS 10mmø CLOSED TIES	400mmx400mm 16–16mmø VERTICAL BARS 3 SETS 10mmø CLOSED TIES	400mmx400mm 12–16mmø VERTICAL BARS 3 SETS 10mmø CLOSED TIES	400mmx400mm 8–16mmø VERTICAL BARS 1 SETS 10mmø CLOSED TIES 2 SETS 10mmø SUPP. TIES	250mmx250mm 8–25mmø VERTICAL BARS 1 SETS 10mmø CLOSED TIES 2 SETS 10mmø SUPP. TIES		250mmx250mm 12–20mmø VERTICAL BARS 3 SETS 10mmø CLOSED TIES	250mmx250mm 4–20mmø VERTICAL BARS 1 SETS 10mmø CLOSED TIES
FOUNDATION to 2ND FLOOR	400mmx400mm 24–16mmø VERTICAL BARS 5 SETS 10mmø CLOSED TIES	400mmx400mm 20–16mmø VERTICAL BARS 3 SETS 10mmø CLOSED TIES	400mmx400mm 16–16mmø VERTICAL BARS 3 SETS 10mmø CLOSED TIES	400mmx400mm 12–16mmø VERTICAL BARS 3 SETS 10mmø CLOSED TIES	400mmx400mm 8–16mmø VERTICAL BARS 1 SETS 10mmø CLOSED TIES 2 SETS 10mmø SUPP. TIES	250mmx250mm 8–25mmø VERTICAL BARS 1 SETS 10mmø CLOSED TIES 2 SETS 10mmø SUPP. TIES	400mmx400mm 12–16mmø VERTICAL BARS 3 SETS 10mmø CLOSED TIES	300mmx300mm 12–20mmø VERTICAL BARS 3 SETS 10mmø CLOSED TIES	250mmx250mm 4–20mmø VERTICAL BARS 1 SETS 10mmø CLOSED TIES

SCHEDULE OF COLUMN

	C10	C11	C12	PC1	PC2
3RD FLOOR to ROOF		250mmx250mm 4–16mmø VERTICAL BARS 1 SETS 10mmø CLOSED TIES		250mmx250mm 12–20mmø VERTICAL BARS 3 SETS 10mmø CLOSED TIES	ROOF DECK 250mmx250mm 8–16mmø VERTICAL BARS 1 SETS 10mmø CLOSED TIES 2 SETS 10mmø SUPP. TIES
2ND FLOOR to 3RD FLOOR		250mmx250mm 4–16mmø VERTICAL BARS 1 SETS 10mmø CLOSED TIES		250mmx250mm 12–20mmø VERTICAL BARS 3 SETS 10mmø CLOSED TIES	
FOUNDATION to 2ND FLOOR	250mmx250mm 12–16mmø VERTICAL BARS 3 SETS 10mmø CLOSED TIES	250mmx250mm 4–16mmø VERTICAL BARS 1 SETS 10mmø CLOSED TIES	250mmx250mm 8–16mmø VERTICAL BARS 1 SETS 10mmø CLOSED TIES 2 SETS 10mmø SUPP. TIES		

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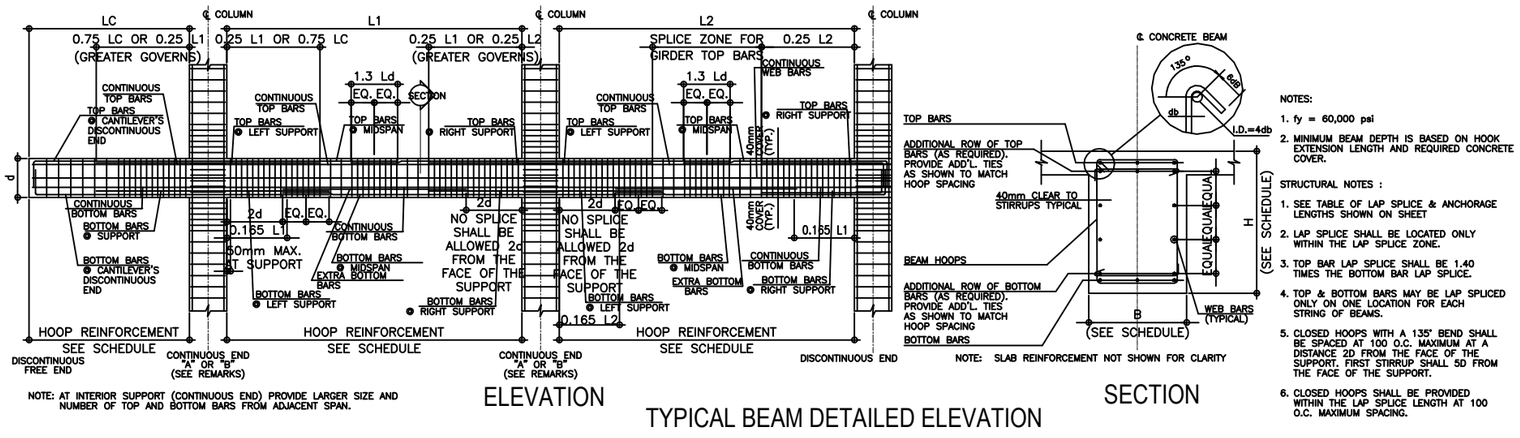
	Location: Brgy. Rizal, Odiongan Romblon 5505	Date Prepared:	Date:	Date:		8 / 11



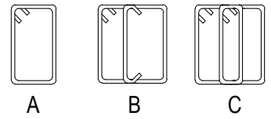
TYPICAL BEAM DETAILED ELEVATION

NOTES:

1. fy = 60,000 psi
2. MINIMUM BEAM DEPTH IS BASED ON HOOK EXTENSION LENGTH AND REQUIRED CONCRETE COVER.

STRUCTURAL NOTES :

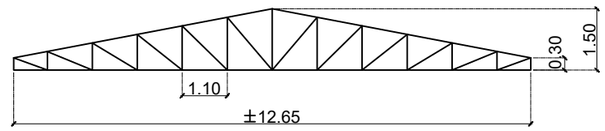
1. SEE TABLE OF LAP SPLICE & ANCHORAGE LENGTHS SHOWN ON SHEET
2. LAP SPLICE SHALL BE LOCATED ONLY WITHIN THE LAP SPLICE ZONE.
3. TOP BAR LAP SPLICE SHALL BE 1.40 TIMES THE BOTTOM BAR LAP SPLICE.
4. TOP & BOTTOM BARS MAY BE LAP SPLICED ONLY ON ONE LOCATION FOR EACH STRING OF BEAMS.
5. CLOSED HOOPS WITH A 135° BEND SHALL BE SPACED AT 100 O.C. MAXIMUM AT A DISTANCE 2D FROM THE FACE OF THE SUPPORT. FIRST STIRRUP SHALL 5D FROM THE FACE OF THE SUPPORT.
6. CLOSED HOOPS SHALL BE PROVIDED WITHIN THE LAP SPLICE LENGTH AT 100 O.C. MAXIMUM SPACING.



TYPE OF STIRRUPS

SCHEDULE OF R.C. BEAMS

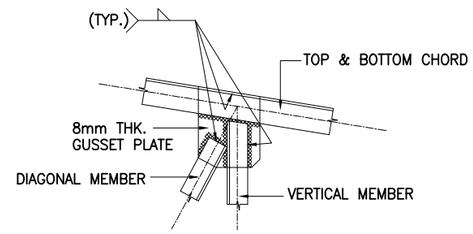
BEAM MARK	B (mm)	H (mm)	REBAR (mm)	STEEL REINFORCEMENT						WEB BARS (mmØ)	SIZE	STIRRUPS	REMARKS
				LEFT SUPPORT		MIDSPAN		RIGHT SUPPORT					
				TOP BARS	BOTTOM BARS	TOP BARS	BOTTOM BARS	TOP BARS	BOTTOM BARS			SPACING (START, 1 @ 50)	
B1-A	300	500	20ø	5	3	3	5	5	3	–	10ø	10 at 100, REST @ 200	A
B1-B	300	500	20ø	6	4	4	6	6	4	–	10ø	10 at 100, REST @ 150	A
B1-C	300	500	20ø	6	4	4	4	6	4	–	10ø	10 at 100, REST @ 200	C
B1-D	300	500	25ø	5	3	3	3	5	3	–	10ø	10 at 100, REST @ 200	A
B1-E	300	500	20ø	3	3	3	3	3	3	–	10ø	10 at 100, REST @ 200	A
B2-A	250	450	16ø	5	3	3	3	5	3	–	10ø	9 at 100, REST @ 200	A
B2-B	250	450	20ø	5	3	3	3	5	3	–	10ø	9 at 100, REST @ 200	A
B2-C	250	450	20ø	4	4	4	4	4	4	–	10ø	9 at 100, REST @ 200	A
B2-D	250	450	20ø	6	4	4	6	6	4	–	10ø	9 at 100, REST @ 200	B
B3-A	250	400	16ø	3	3	3	3	3	3	–	10ø	8 at 100, REST @ 200	A
B3-B	250	400	16ø	5	3	3	5	5	3	–	10ø	8 at 100, REST @ 200	A
B3-C	250	400	16ø	5	3	3	3	5	3	–	10ø	8 at 100, REST @ 200	B
B3-D	250	400	20ø	3	3	3	3	3	3	–	10ø	8 at 100, REST @ 200	B
B3-E	250	400	20ø	5	3	3	3	5	3	–	10ø	8 at 100, REST @ 200	A
B3-F	250	400	20ø	5	3	3	5	5	3	–	10ø	8 at 100, REST @ 200	A
B3-G	250	400	25ø	3	3	3	5	3	3	–	10ø	8 at 100, REST @ 200	A
B4-A	200	400	16ø	3	3	3	3	3	3	–	10ø	8 at 100, REST @ 200	A
B4-B	200	400	16ø	5	3	3	3	5	3	–	10ø	8 at 100, REST @ 200	A
B4-C	200	400	16ø	2	2	2	2	2	2	–	10ø	8 at 100, REST @ 200	A
B4-D	200	400	20ø	3	3	3	3	3	3	–	10ø	REST @ 100	A
B5-A	200	350	16ø	2	2	2	2	2	2	–	10ø	7 at 100, REST @ 200	A
B5-B	200	350	16ø	4	2	4	2	4	2	–	10ø	7 at 100, REST @ 200	A

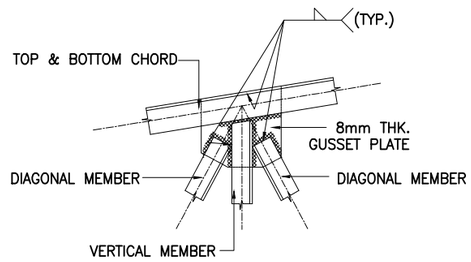


T-1

TOP CHORD: 2L– 50 x 50 x 6
BOT. CHORD: 2L– 50 x 50 x 6
WEB: 2L– 38 x 38 x 6

1 / S9 TRUSS DETAIL
SCALE N.T.S.





2 / S9 TYP. CONNECTION DETAIL
SCALE N.T.S.

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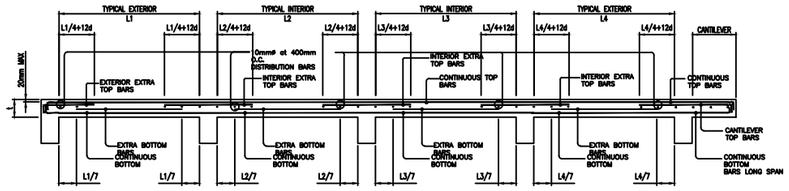
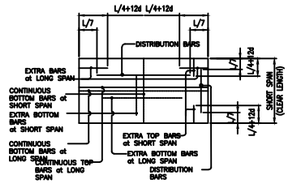
Republic of the Philippines DEPARTMENT OF SCIENCE AND TECHNOLOGY Philippine Science High School MIMAROPA Region Campus Brgy. Rizal, Odiongan, Romblon 5505	**CONSTRUCTION OF DORMITORY BUILDING I** Location: Brgy. Rizal, Odiongan Romblon 5505	PLANNING TEAM Date Prepared:	Meriam F. Fallar FAD Chief Date:	Edward C. Albaracin Campus Director Date:	As Shown	S 9 / 11



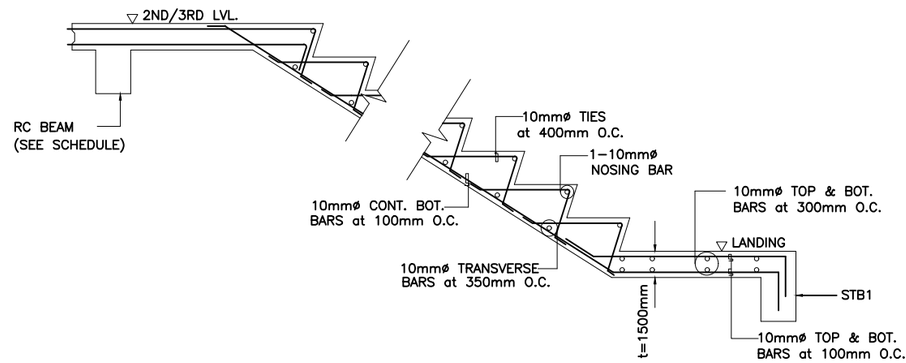
ELEVATION OF R.C. SLAB



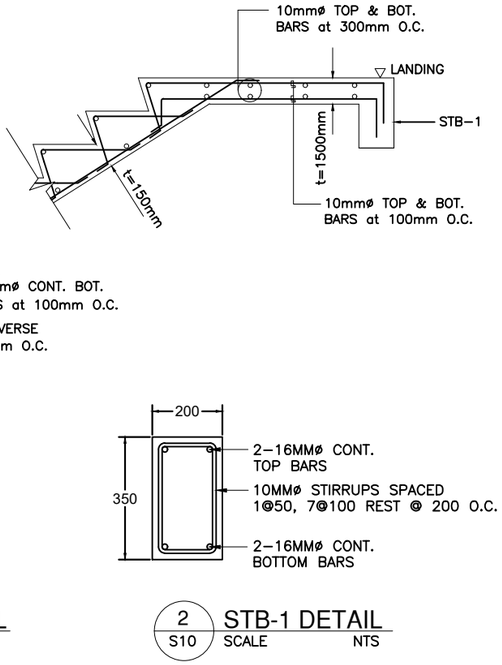
PLAN

SCHEDULE OF R.C. SLABS

SLAB MARK	t mm	SHORT SPAN					LONG SPAN					REMARKS
		BOTTOM BARS		TOP BARS			BOTTOM BARS		TOP BARS			
		CONTINUOUS	EXTRA	CONTINUOUS	EXTRA INTERIOR	EXTRA EXTERIOR	CONTINUOUS	EXTRA	CONTINUOUS	EXTRA INTERIOR	EXTRA EXTERIOR	
S1	125	10ø @ 300	1–10ø PER CONT.	10ø @ 300	1–10ø PER CONT.	1–10ø PER CONT.	10ø @ 300	–	10ø @ 300	1–10ø PER CONT.	1–10ø PER CONT.	2 WAY
S2	125	10ø @ 300	–	10ø @ 300	1–10ø PER CONT.	1–10ø PER CONT.	10ø @ 300	–	10ø @ 300	1–10ø PER CONT.	1–10ø PER CONT.	2 WAY
S3	150	10ø @ 200	1–10ø PER CONT.	10ø @ 200	1–10ø PER CONT.	1–10ø PER CONT.	10ø @ 200	1–10ø PER CONT.	10ø @ 200	1–10ø PER CONT.	1–10ø PER CONT.	2 WAY



1 S10 TYP. STAIR DETAIL
SCALE NTS



2 S10 STB-1 DETAIL
SCALE NTS

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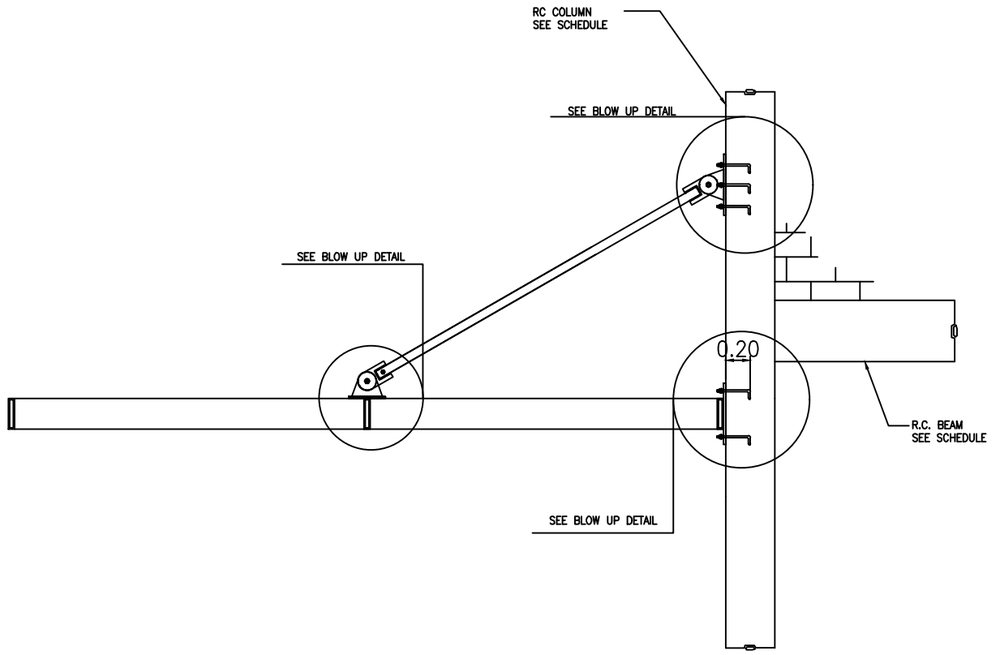
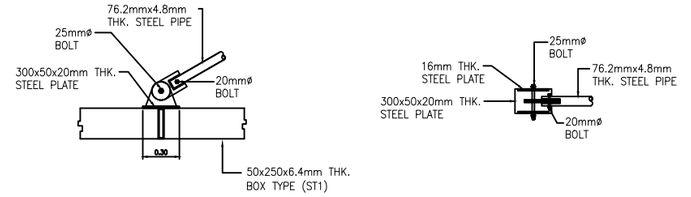
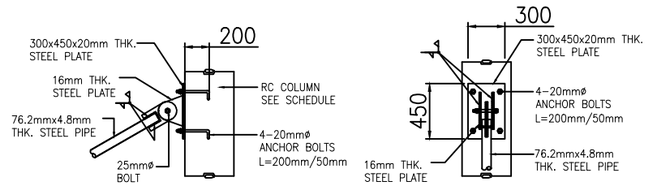


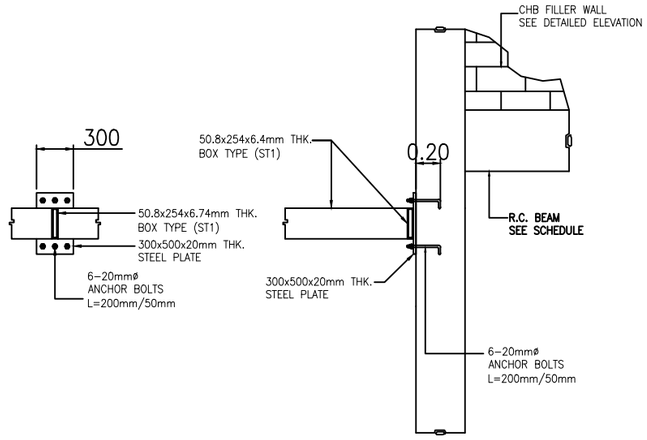
1 S10 OVERHANG CANOPY DETAIL
SCALE NTS



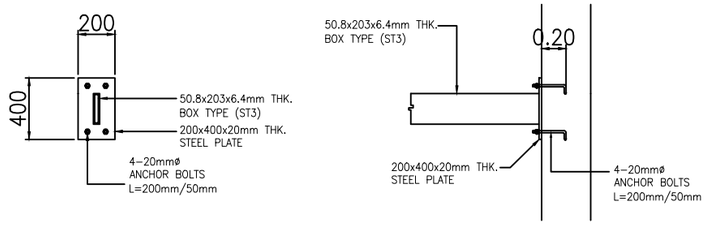
3 S10 (BLOWUP)
OVERHANG CANOPY DETAIL
SCALE NTS



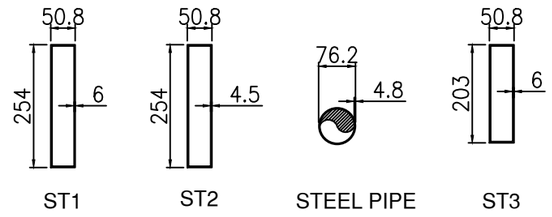
4 S10 (BLOWUP)
OVERHANG CANOPY DETAIL
SCALE NTS



2 S10 (BLOWUP)
OVERHANG CANOPY DETAIL
SCALE NTS



5 S10 (REAR ENTRANCE)
OVERHANG CANOPY DETAIL
SCALE NTS



6 S10 MEMBER DETAIL
OVERHANG CANOPY DETAIL
SCALE NTS

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	Location: Brgy. Rizal, Odiongan Romblon 5505	Date Prepared:	Date:	Date:		11 / 11