


A TESDA INNOVATION CENTER - ASSAT
BRISE SOLEIL & GLASS WALL PANEL DETAIL
SCALE 1:50 MTS

A TESDA INNOVATION CENTER - ASSAT
STAIR LADDER TO ROOF SLAB DETAIL
SCALE 1:50 MTS

A TESDA INNOVATION CENTER - ASSAT
ARCHITECTURAL DETAILS - 03
SCALE 1:50 MTS


**FOR APPROVAL PLANS OF
REGIONAL TVET INNOVATION
CENTERS (RTICs) 2023**


PROJECT OWNER:
 **TECHNICAL EDUCATION
AND
SKILLS DEVELOPMENT
AUTHORITY**
MAIN OFFICE ADDRESS: TESDA COMPLEX, East Service Road SLEX, Taguig City.

PROJECT TITLE:
**PROPOSED TESDA ASSAT
INNOVATION CENTER**
LOCATION: ASSAT GDOP, Government Center Prosperidad, Agusan Del Sur

ARCHITECT:

AR/RUNIE A. MENDOZA
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ENGINEERING SECTION

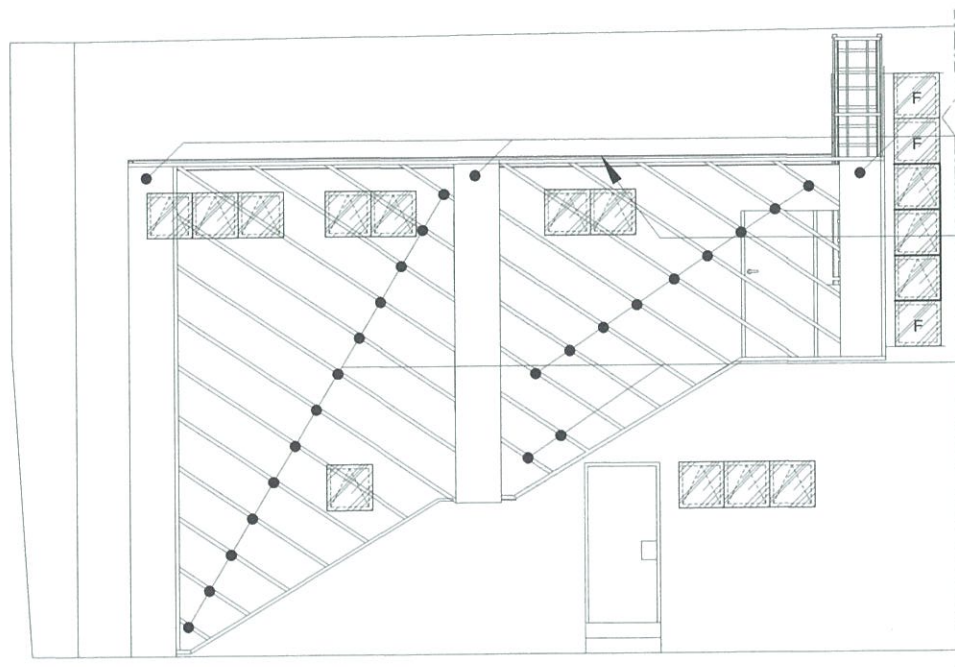
PROJECT MANAGER:

DIR. ENRICO C. BANARIO
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PROJECT DIRECTOR:

SEC. SUHARTO T. MANGUDADATU, Ph.D.
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SHEET CONTENTS:
ARCHITECTURAL DETAILS - 03

SHEET NO.

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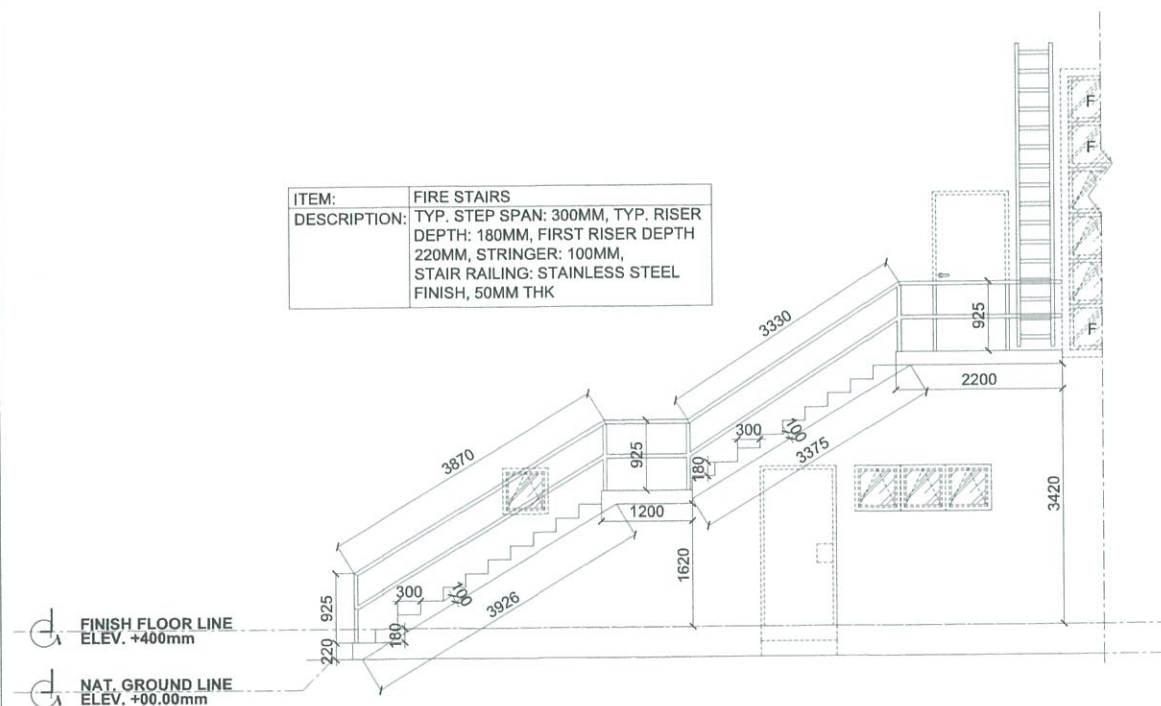


ALUMINUM PERFORATED SHEET : 1.2MM THK, 4'x8', CONTRACTOR SHOULD SUBMIT DESIGN OF PANEL BEFORE INSTALLATION FOR APPROVAL

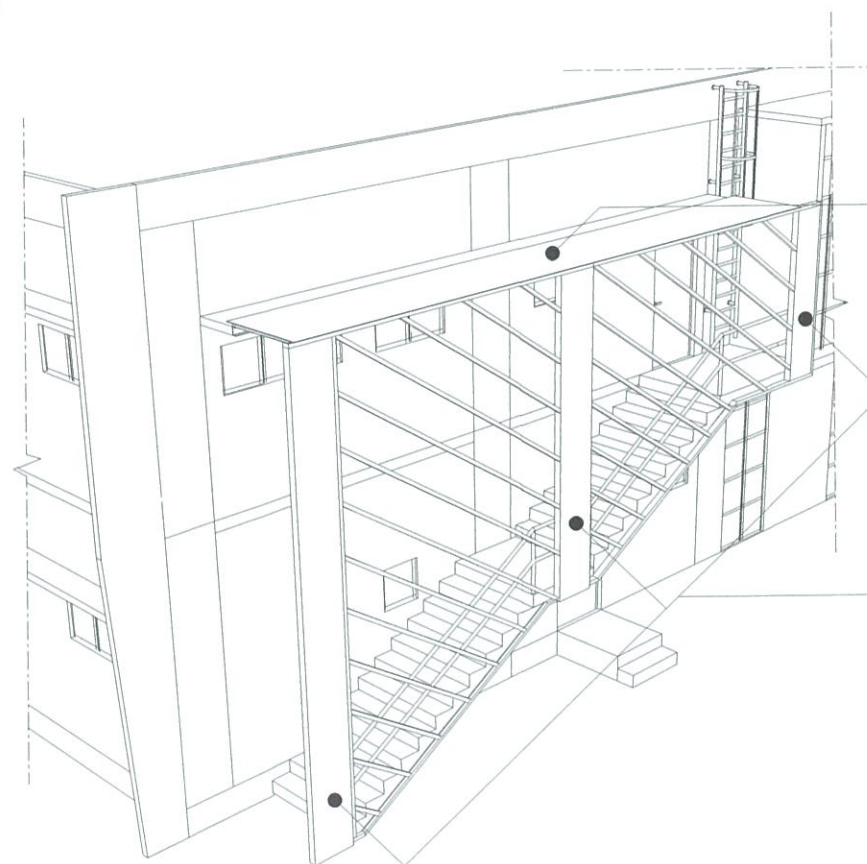
POLYCARBONATE SHEET: 1/4"MM THK, 4'x8', COLOR: *LIGHT BLUE*, INSTALLED ON METAL FRAME, SCREWED & WELDED, ALSO CONTRACTOR SHALL SUBMIT SAMPLE FOR APPROVAL UPON INSTALLATION AND DETAILED CONNECTION DETAILS

BRISE SOLEIL/SUN BREAKERS: 2"x2" PRE-PAINTED TUBULAR PIPE SPACED AT 500MM, ALTERNATE IN BLACK AND WHITE COLOR UPON INSTALLATION

ITEM: FIRE STAIRS
DESCRIPTION: TYP. STEP SPAN: 300MM, TYP. RISER DEPTH: 180MM, FIRST RISER DEPTH 220MM, STRINGER: 100MM, STAIR RAILING: STAINLESS STEEL FINISH, 50MM THK



TESDA INNOVATION CENTER - ASSAT
FIRE EXIT STAIR SECTION & DETAILS
SCALE 1:100 MTS



POLYCARBONATE SHEET:
COLOR: *LIGHT BLUE*
CONTRACTOR SHALL SUBMIT SAMPLE FOR APPROVAL UPON INSTALLATION AND DETAILED CONNECTION DETAILS

ALUMINUM PERFORATED SHEET : 1.2MM THK, 4'x8', CONTRACTOR SHOULD SUBMIT DESIGN OF PANEL BEFORE INSTALLATION FOR APPROVAL

TESDA INNOVATION CENTER - ASSAT
FIRE EXIT STAIR ISOMETRIC DETAILS
SCALE 1:300 MTS

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PROJECT TITLE:
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INNOVATION CENTER**

LOCATION: ASSAT GDOP, Government Center Prosperidad, Aguas Del Sur

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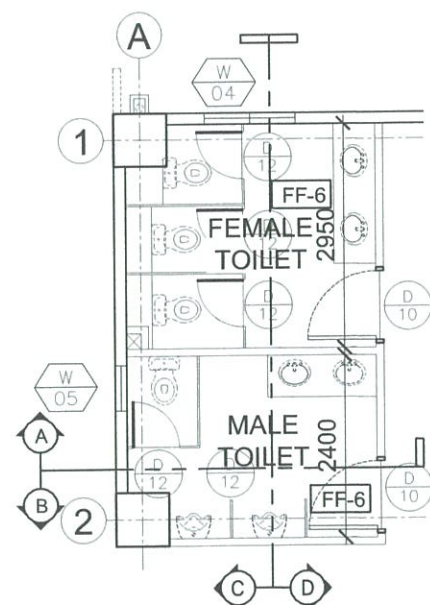
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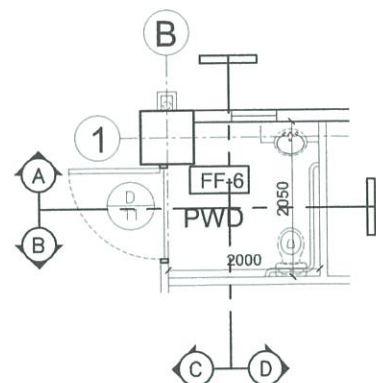
SHEET CONTENTS:
COMPOSITE STAIR PLAN & DETAILS
FIRE EXIT STAIR DETAILS

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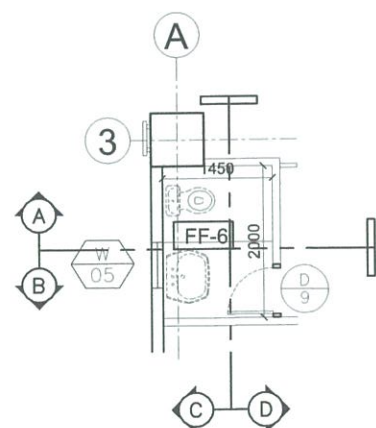
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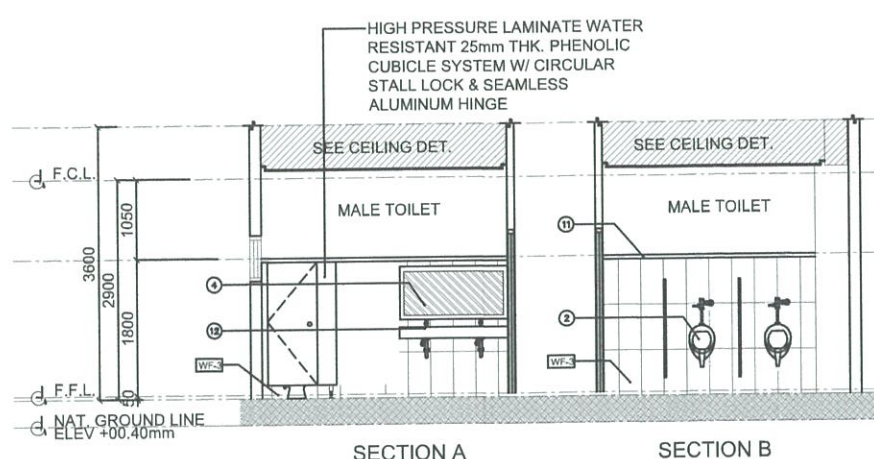
MALE & FEMALE TOILET BLOW-UP PLAN



PWD TOILET BLOW-UP PLAN

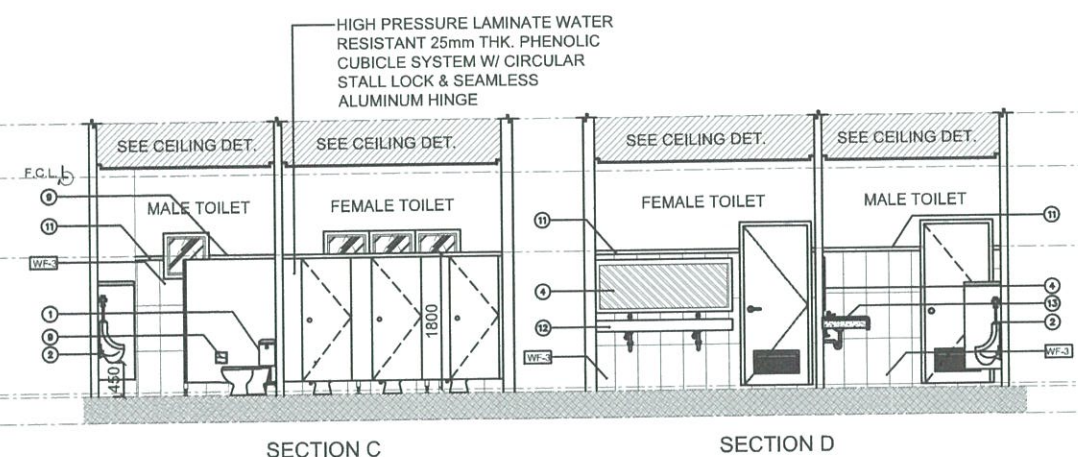


POWDER ROOM BLOW-UP PLAN



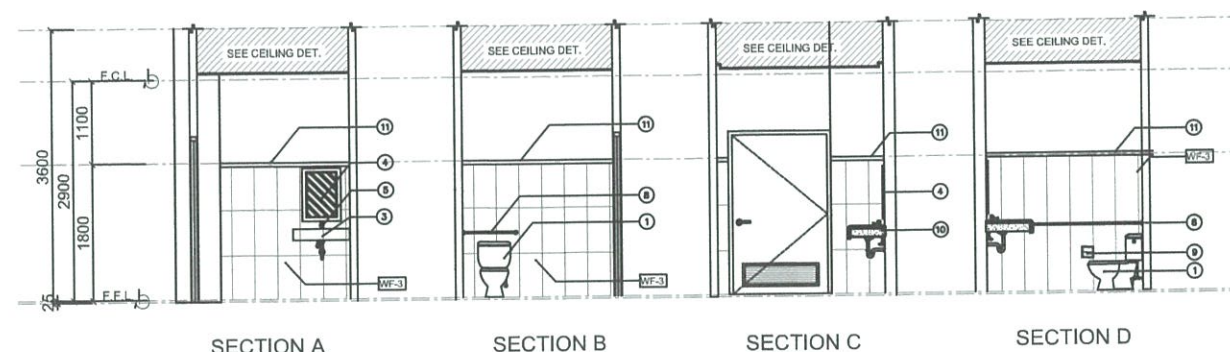
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SECTION B



SECTION C

SECTION D

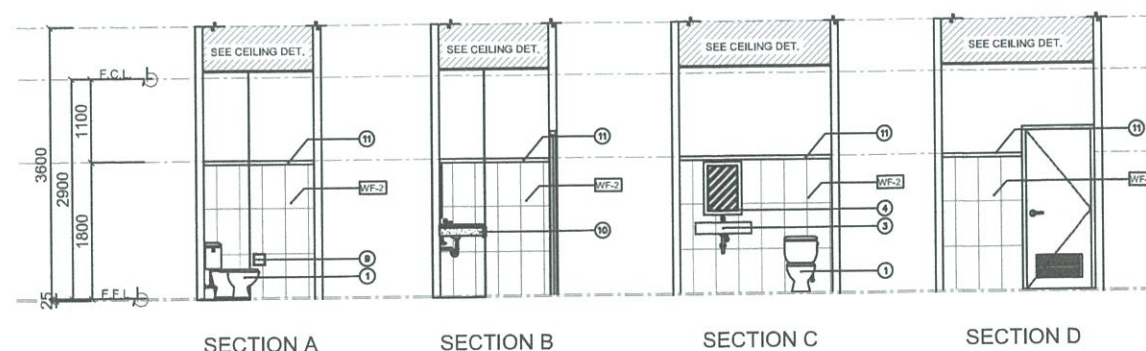


SECTION A

SECTION B

SECTION C

SECTION D



SECTION A

SECTION B

SECTION C

SECTION D

TOILET LEGENDS:

- ① TANK TYPE WATER CLOSET
- ② URINAL
- ③ LAVATORY
- ④ MIRROR
- ⑤ FAUCET
- ⑥ HPL PHENOLIC (COLOR: BROWN)
- ⑦ TISSUE HOLDER
- ⑧ GRAB BAR

TOILET LEGENDS:

- ⑨ CONTINUOUS HEADER FRAME, HPL PHENOLIC (COLOR: BROWN)
- ⑩ SYNTHETIC GRANITE COUNTER TOP
- ⑪ TILE STRIP EDGING
- FF-6 — 300MM X 300MM UNGLAZED TILES (COLOR AND DESIGN AS PER APPROVED)
- WF-3 — 300MM X 600MM GLAZED WALL TILES (HEIGHT 1.80 M)



TESDA INNOVATION CENTER - ASSAT ALL COMFORT ROOMS PLANS & DETAILS

SCALE

1:100 MTS

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LOCATION: ASSAT QDOP, Government Center Prosperidad, Agusan Del Sur

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PROJECT DIRECTOR:

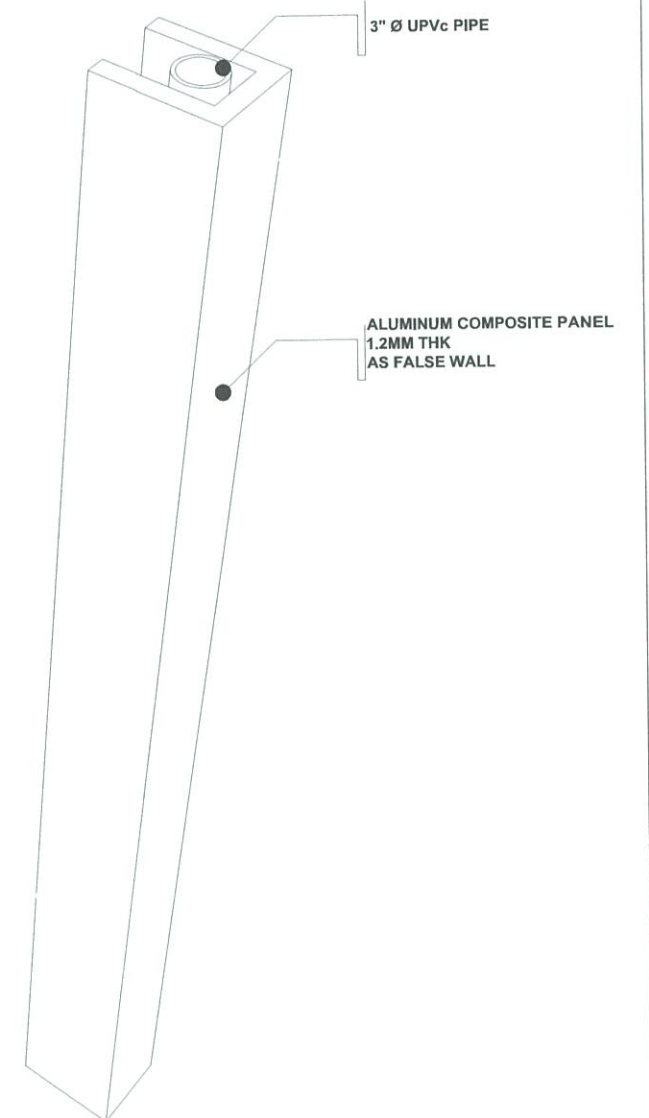
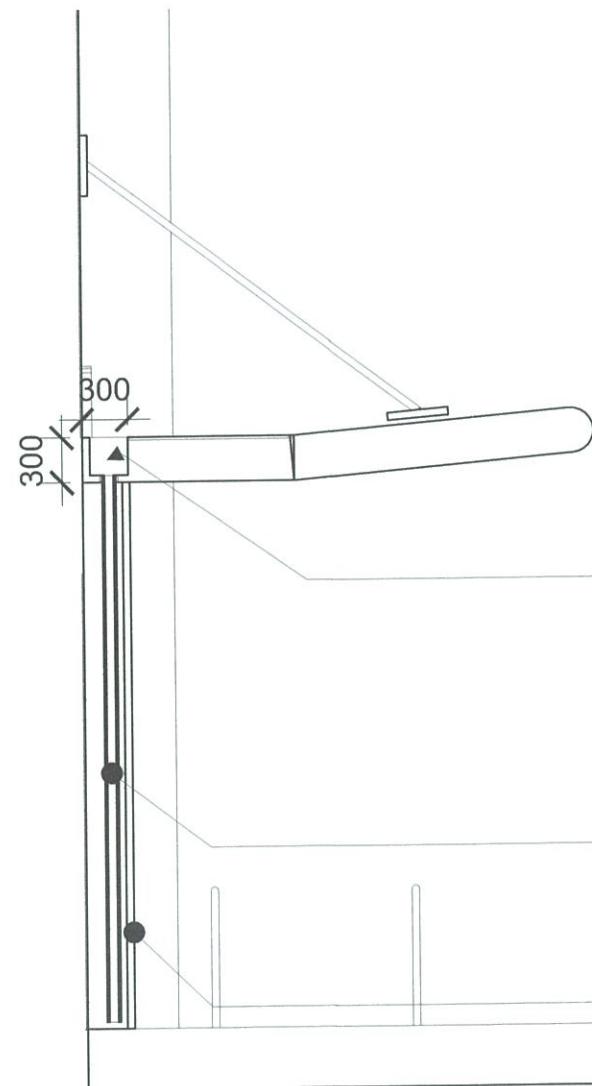
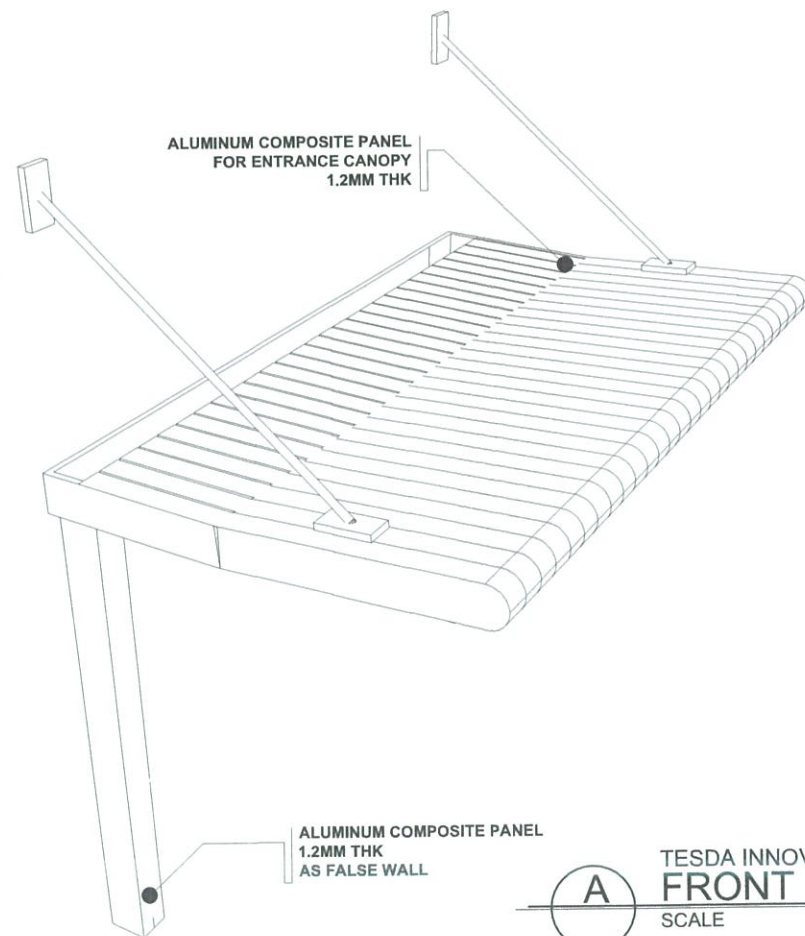
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SHEET CONTENTS:

ALL COMFORT ROOMS PLANS &
DETAILS

SHEET NO.


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A TESDA INNOVATION CENTER - ASSAT
FRONT ENTRANCE CANOPY DETAILS
SCALE 1:50 MTS


A TESDA INNOVATION CENTER - ASSAT
STORM DRAINAGE PIPE FALSE ACP COVER
SCALE 1:50 MTS


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REGIONAL TVET INNOVATION
CENTERS (RTICs) 2023

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INNOVATION CENTER
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SHEET CONTENTS:
FRONT ENTRANCE CANOPY DETAILS
STORM DRAINAGE PIPE FALSE ACP
COVER

SHEET NO.
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STRUCTURAL DESIGN NOTES, STANDARD DRAWINGS & SPECIFICATIONS

A. GENERAL NOTES:

1. THE STRUCTURAL DRAWING SHALL BE USED IN CONJUNCTION WITH THE DRAWINGS WITH ALL OTHER DISCIPLINES AND THE SPECIFICATIONS. THE CONTRACTOR SHALL VERIFY THE REQUIREMENTS OF OTHER TRADES AS TO SLEEVES, CHASES, HANGERS, ANCHORS, HOLES AND OTHER ITEMS TO BE PLACED OR SET IN THE STRUCTURAL WORKS.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH ALL SAFETY PRECAUTIONS AND REGULATIONS DURING THE WORK. THE ENGINEER WILL NOT ADVISE ON NOR ISSUE DIRECTIONS AS TO PLAN AND PROGRAMS.
3. THE STRUCTURAL DRAWINGS HEREIN REPRESENT THE FINISHED STRUCTURE. THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY BRACINGS REQUIRED TO ERECT AND HOLD THE STRUCTURE IN PROPER ALIGNMENT UNTIL ALL STRUCTURAL WORKS AND CONNECTIONS HAVE BEEN COMPLETED. THE INVESTIGATION DESIGN, SAFETY, ADEQUACY AND INSPECTION OF ERECTION BRACING, SHORING, TEMPORARY SUPPORTS ETC. IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
4. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR THE METHODS, TECHNIQUES, AND SEQUENCES OF THE CONTRACTOR.
5. DRAWINGS INDICATE GENERAL AND TYPICAL DETAILS OF CONSTRUCTION. WHERE CONDITIONS ARE NOT SPECIFICALLY SHOWN, SIMILAR DETAILS OF CONSTRUCTION SHALL BE USED, SUBJECT TO THE APPROVAL OF THE ENGINEER.
6. ALL STRUCTURAL SYSTEMS WHICH ARE TO BE COMPOSED OF COMPONENTS TO BE FIELD ERECTED SHALL BE SUPERVISED BY THE SUPPLIER DURING MANUFACTURING, DELIVERY, HANDLING, STORAGE AND ERECTION IN ACCORDANCE WITH THE SUPPLIER'S INSTRUCTIONS AND REQUIREMENTS.
7. LOADING APPLIED TO THE STRUCTURE DURING THE PROCESS OF CONSTRUCTION SHALL NOT EXCEED THE SAFE LOAD-CARRYING CAPACITY OF THE STRUCTURAL MEMBERS. THE LIVE LOADINGS USED IN THE DESIGN OF THIS STRUCTURE ARE INDICATED IN THE "DESIGN CRITERIA NOTES". DO NOT APPLY ANY CONSTRUCTION LOADS UNTIL STRUCTURAL FRAMING IS PROPERLY CONNECTED TOGETHER AND UNTIL ALL TEMPORARY BRACINGS ARE IN PLACE.
8. SHOP DRAWINGS AND OTHER ITEMS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW PRIOR TO FABRICATION. ALL SHOP DRAWINGS SHALL BE REVIEWED BY THE GENERAL CONTRACTOR BEFORE SUBMITTAL. THE ENGINEER'S REVIEW IS TO BE CONFORMANCE WITH THE DESIGN CONCEPT AND GENERAL COMPLIANCE WITH THE RELEVANT CONTRACT DOCUMENTS. THE ENGINEER'S REVIEW DOES NOT RELIEVE THE CONTRACTOR OF THE SOLE RESPONSIBILITY TO REVIEW, CHECK AND COORDINATE THE SHOP DRAWING PRIOR TO SUBMISSION. THE CONTRACTOR REMAINS SOLELY RESPONSIBLE FOR ERRORS AND OMISSIONS ASSOCIATED WITH THE PREPARATION OF THE SHOP DRAWINGS AS THEY PERTAIN TO MEMBER SIZES, DETAILS, DIMENSIONS, ETC..
9. SUBMIT SHOP DRAWINGS IN THE FORM OF TWO BLUELINE PRINTS. IN NO CASE SHALL REPRODUCTION OF THE CONTRACT DRAWINGS BE USED AS SHOP DRAWINGS. AS A MINIMUM, SUBMIT THE FOLLOWING ITEMS FOR REVIEW:
 - A. REINFORCING STEEL SHOP DRAWINGS.
 - B. STRUCTURAL STEEL SHOP DRAWINGS.OTHER SUBMITTALS MAY BE REQUIRED IN ACCORDANCE WITH THE "SCHEDULE OF SPECIAL INSPECTIONS" OR THE SEPARATE NOTES CONTAINED HEREIN.
10. IN THE INTERPRETATION OF THESE DRAWINGS, INDICATED DIMENSIONS SHALL GOVERN AND DISTANCES OR SIZES SHALL NOT BE SCALED FOR CONSTRUCTION PURPOSES.
11. ALL REINFORCED CONCRETE WORK SHALL BE DONE IN ACCORDANCE WITH THE ACI-318-08 BUILDING CODE, AND ALL STRUCTURAL STEEL WORK SHALL BE DONE IN ACCORDANCE WITH AISC SPECIFICATIONS (LATEST EDITION) IN SO FAR AS THEY DO NOT CONFLICT WITH THE LOCAL BUILDING CODE REQUIREMENTS.
12. ALL SLABS, BEAMS, GIRDERS AND OTHER STRUCTURAL ELEMENTS WHICH ARE NOT INDICATED, DETAILED, DESIGNATED OR INADVERTENTLY OMITTED BUT ARE NECESSARY TO BE COORDINATED WITH ARCHITECTURAL AND OTHER ALLIED ENGINEERING PLANS AS WELL AS TO COMPLETE THE STRUCTURAL WORKS IN ACCORDANCE WITH THE INTENT OF THE PLANS AND SPECIFICATIONS SHALL BE BROUGHT UP DURING PRE-BID/MEETINGS/NEGOTIATIONS. IT IS UNDERSTOOD THAT THE CONTRACTOR HAS PROVIDED AND INCLUDED ALL THESE ITEMS IN THEIR BID.

B. NOTES ON CONCRETE MIXES AND PLACING

1. CONCRETE SHALL BE DEPOSITED IN ITS FINAL POSITION WITHOUT SEGREGATION, RE-HANDLING OR FLOWING. PLACING SHALL BE DONE PREFERABLY WITH BUGGIES, BUCKETS OR WHEEL BARROWS. NO CHUTES WILL BE ALLOWED EXCEPT TO TRANSFER CONCRETE FROM HOPPERS TO BUGGIES WHEEL BORROWS OR BUCKETS, IN WHICH CASE, THEY SHALL NOT EXCEED SIX THOUSAND (6000mm) IN AGGREGATE LENGTH.
2. NO DEPOSITING OF CONCRETE SHALL BE ALLOWED WITHOUT THE USE OF VIBRATORS UNLESS AUTHORIZED IN WRITING BY THE STRUCTURAL ENGINEER AND ONLY FOR UNUSUAL CONDITIONS WHERE VIBRATION IS EXTREMELY DIFFICULT TO ACCOMPLISH.

C. NOTES ON STRUCTURAL STEEL

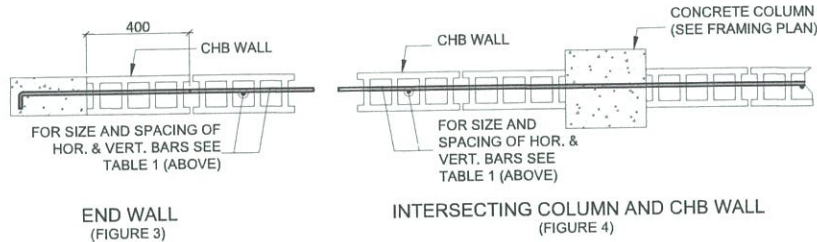
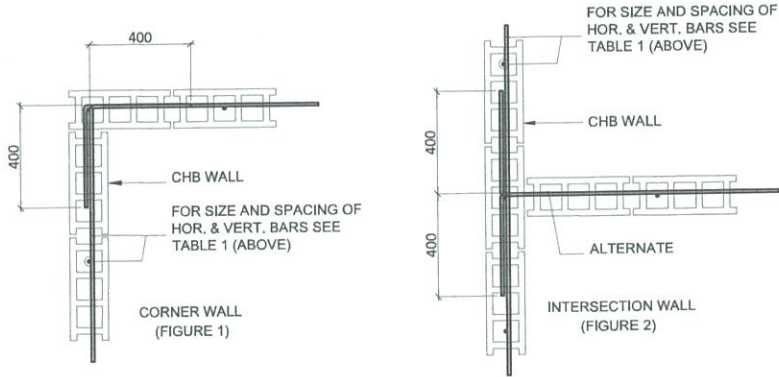
1. ALL STRUCTURAL STEEL SHALL CONFORM TO THE 2005 13TH EDITION OF "MANUAL OF STEEL CONSTRUCTION" & "AISC 360-10 SPECIFICATION OF STRUCTURAL STEEL BUILDINGS" OF THE AISC.
2. ALL WELDING SHALL BE IN ACCORDANCE WITH AWS D1.1 USING E70XX ELECTRODES. UNLESS OTHERWISE NOTED, PROVIDE CONT. MIN. SIZED FILLET WELDS PER AISC REQUIREMENTS. ALL FILLER MATERIAL SHALL HAVE A MINIMUM YIELD STRENGTH OF 70 KSI.
3. UNLESS OTHERWISE NOTED, ALL STRUCTURAL STEEL PERMANENTLY EXPOSED TO VIEW SHALL BE SHOP PAINTED WITH TWO COAT OF RED OXIDE PAINT.
4. THE STRUCTURAL STEEL ERECTOR SHALL PROVIDE ALL TEMPORARY GUYING AND BRACING (SEE GENERAL STRUCTURAL NOTES).

D. NOTES ON MASONRY WALLS

1. ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE APPLICABLE STANDARDS AND SPECIFICATIONS OF THE NATIONAL CONCRETE MASONRY ASSOCIATION AND UNIFORM BUILDING CODE.
2. CONCRETE MASONRY UNITS SHALL CONFORM TO ASTM C90 GRADE N.
3. MORTAR AND GROUT FOR ALL REINFORCED MASONRY SHALL CONFORM TO ASTM 270-TYPE M AND SHALL HAVE A MINIMUM 28-DAYS STANDARD CYLINDER COMPRESSIVE STRENGTH OF 21 MPa (3000 PSI).
4. ALL MASONRY WALLS SHALL BE REINFORCED ACCORDING TO THE FOLLOWING SCHEDULE OF CONCRETE HOLLOW BLOCK REINFORCEMENT UNLESS OTHERWISE INDICATED IN THE PLANS.
5. ALL CELLS CONTAINING REINFORCING BARS OR INSERTS SHALL BE SOLIDLY FILLED WITH CONCRETE GROUT.
6. FOR TYPICAL CONNECTION DETAILS ON MASONRY UNITS, REFER TABLE-1 & FIGURES 1,2,3 & 4.

TABLE - 1 : SCHEDULE OF CONCRETE HOLLOW BLOCK REINFORCEMENT

THICKNESS mm	REINFORCEMENT		NOTES
	HORIZONTAL	VERTICAL	
100	10mmØ @ 600mm O.C.	10mmØ @ 600mm O.C.	A. MINIMUM LAP SLICES = 40Ø B. PROVIDE 1-12mmØ VERTICAL BAR @ CORNERS, INTERSECTIONS, END OF WALLS, AND EACH SIDE OF OPENING.
150	12mmØ @ 600mm O.C.	12mmØ @ 600mm O.C.	C. WHERE CHB WALLS ADJOIN COLUMNS RC BEAMS & WALLS, DOWELS WITH THE SAME SIZE AS VERTICAL OR HORIZONTAL REINFORCEMENT SHALL BE PROVIDED. D. LINTEL BEAMS SHALL BEAR AT LEAST 16 INCHES (400 mm) ON EACH SIDE OF MASONRY WALL OPENING.



TYPICAL CONNECTION DETAILS OF CONCRETE MASONRY UNITS AT COLUMN AND/OR WALLS

E. NOTES ON SLAB-ON-GRADE

1. THE SOIL SUBGRADE AND FILL LAYERS BELOW ALL SLAB ON GRADE, PAVING AND PIT SHALL BE MECHANICALLY COMPACTED IN LAYERS, TO THE MIN. OF 95% OF THE MODIFIED UNIFORM BUILDING CODE.
2. ALL SLABS-ON-GRADE SHALL BE PROVIDED WITH A MIN. OF 75mm THK. GRAVEL BEDDING OR UNLESS NOTED.
3. UNLESS OTHERWISE NOTED, ALL BEDDED SLABS SHALL BE REINFORCED WITH 12mm BARS AT 400mm O.C. EACHWAY AT THE CENTER OF SLAB.
4. IN ORDER TO AVOID CONCRETE SHRINKAGE CRACKING, PLACE SLAB IN ALTERNATING LANE (OR CHECKBOARD) PATTERN. THE MAX. LENGTH OF SLAB CAST IN ANY ONE CONTINUOUS POUR IS RECOMMENDED TO BE LESS THAN 100 FEET. THE MAX. SPACING OF JOINTS SHALL BE 25' (7.8m).
5. SEE THE ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS OF DEPRESSED SLAB AREAS AND DRAINS, SLOPE SLAB TO DRAINS WHERE SHOWN.

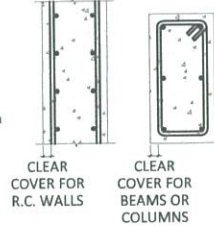
F. NOTES ON FOUNDATIONS

1. ALL FOUNDATION CONCRETE SHALL OBTAIN A 28 DAYS COMPRESSIVE STRENGTH. ALL CONCRETE TO BE PERMANENTLY EXPOSED TO WEATHER SHALL BE AIR ENTRAINED TO 5% (+ 1%) WITH AN ADMIXTURE THAT CONFORMS TO ASTM C-260.
2. ALL REINFORCING STEEL SHALL CONFORM TO ASTM A-615, GRADE 60.
3. UNBALANCED BACKFILLING SHALL BE DONE AGAINST FOUNDATION WALLS ARE SECURELY BRACED AGAINST OVERTURNING, EITHER BY TEMPORARY BRACING OR BY PERMANENT CONSTRUCTION.
4. PRIOR TO COMMENCING ANY FOUNDATION WORK, COORDINATE WORK WITH ANY EXISTING UTILITIES. FOUNDATIONS SHALL BE LOWERED WHERE REQUIRED TO AVOID UTILITIES.
5. UNLESS OTHERWISE NOTED, THE CENTERLINES OF COLUMN FOUNDATIONS SHALL BE LOCATED ON COLUMN CENTERLINES.
6. ALL RETAINING WALLS SHALL HAVE AT LEAST 12" OF FREE-DRAINING GRANULAR BACKFILL, AT FULL HEIGHT OF WALL. PROVIDE CONTROL JOINTS IN RETAINING WALLS AT APPROXIMATELY EQUAL INTERVALS NOT TO EXCEED 25 FT. NOR 3 TIMES THE WALL HEIGHT. PROVIDE EXPANSION JOINTS AT EVERY FOURTH CONTROL JOINT, UNLESS OTHERWISE INDICATED.
7. ALLOWABLE SOIL BEARING CAPACITY AS PER BY DEVELOPER.

G. CONCRETE PROTECTION COVER FOR REINFORCEMENT

CONCRETE COVER FOR REINFORCEMENT SHALL BE MEASURED FROM THE CONCRETE SURFACE TO THE OUTERMOST SURFACE OF THE STEEL SURFACE OF THE STEEL, i.e. TO THE OUTER EDGE OF STIRRUPS, TIES OR SPIRALS ENCLOSING MAIN BAR TO THE OUTERMOST LAYER OF BARS IF MORE THAN ONE LAYER IS USED WITHOUT STIRRUPS OR TIES. THE FF. MIN. CONCRETE COVER SHALL BE PROVIDED FOR REINFORCEMENT.


	MIN. COVER IN mm
a) PERMANENTLY EXPOSED TO EARTH : CONCRETE IN CONTACT WITH EARTH INCLUDING PROTECTED WITH WATERPROOFING.	75
b) MEMBRANE OR BITUMASTIC COATING : 16mmØ AND SMALLER OTHER BARS COLUMNS TIES GRADE BEAMS SLAB ON GRADE (FROM TOP SURFACE)	40 50 50 50 50
c) CONCRETE NOT IN CONTACT WITH GROUND : SLABS SHEAR WALLS BEAMS AND COLUMNS OTHER BARS	20 40 40 20

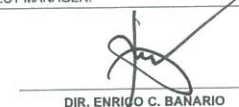



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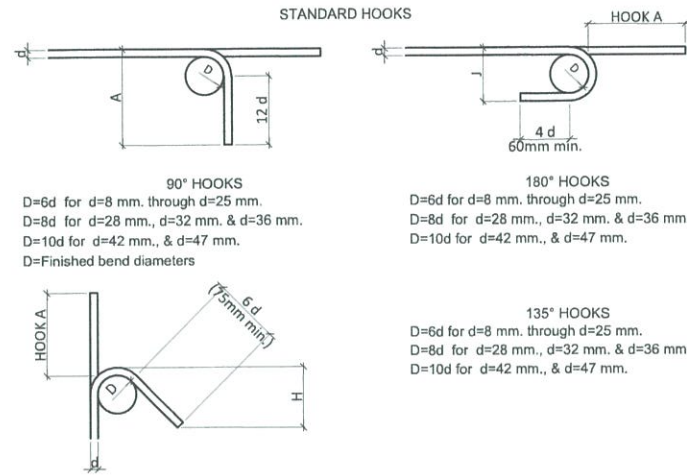
SHEET CONTENTS:
GENERAL NOTES

SHEET NO.

S-1

STRUCTURAL DESIGN NOTES, STANDARD DRAWINGS & SPECIFICATIONS

H. STANDARD REINFORCEMENT DETAILS



STANDARD END HOOK DIMENSIONS

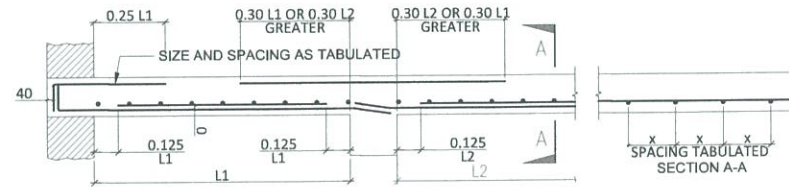
BAR SIZE (mm)	D(mm.)	180° HOOKS		90° HOOKS	135° HOOKS	
		A (mm.)	J (mm.)	A (mm.)	A (mm.)	H (mm.)
8	50	105	65	130		
10	60	125	80	155	110	65
12	80	155	100	200	115	80
16	95	180	130	250	140	95
20	120	220	165	325	205	115
25	155	275	205	425	270	155
28	240	375	300	475		
32	275	425	335	550		

BASIC DEVELOPMENT LENGTH, L_{db}

MINIMUM DEVELOPMENT AND SPLICE LENGTHS (mm)									
BAR SIZE (mm)	DEV'T LENGTH L _{db}	TENSION						COMPRESSION	
		HOOK DEV'T LENGTH L _{dh}	CLASS A SPLICE	CLASS B SPLICE	TOP BAR (MIN. OF 300mm CONCRETE CAST BELOW)			DEV'T LENGTH	COMPRESSION SPLICE
					DEV'T. LENGTH	CLASS A SPLICE	CLASS B SPLICE		
Ø10	350	200	300	375	500	375	500	200	375
Ø12	400	225	350	450	575	450	575	250	450
Ø16	550	300	475	600	775	600	775	300	600
Ø20	675	375	675	900	1200	900	1200	400	720
Ø25	1170	475	1170	1375	1375	1375	1775	500	900
Ø28	1350	525	1350	1700	1700	1700	2225	550	1000
Ø32	1750	600	1750	1950	1950	1950	2600	625	1150
SKETCH									
REMARKS	<p>1. TOP BAR IS DEFINED AS HORIZONTAL REINFORCEMENT SO PLACED THAT MORE THAN 300 mm FRESH CONCRETE IS CAST IN THE MEMBER BELOW THE REINFORCEMENT.</p> <p>2. FOR EPOXY-COATED BAR, THE TENSILE DEVELOPMENT LENGTH AND LAP SPLICE LENGTH SHOWN IN THE TABLE SHALL BE INCREASED BY 20%.</p>								

NOTES:

1. WELDED WIRE FABRIC MESH SHOULD BE LAPPED OVER ADJACENT SHEETS BY 300 MM.
2. BARS SHALL BE SPLICED ONLY WHERE INDICATED, EXCEPT THAT BARS INDICATED CONTINUOUS MAY BE SPLICED AT CONTRACTOR CONVENIENCE. WHERE SPLICE LOCATIONS FOR CONTINUOUS BARS, ARE NOTED, THOSE BARS SHALL BE TENSION SPLICED.



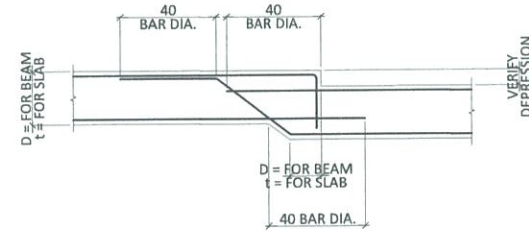
REINFORCEMENT OF ONE-WAY SLABS WITH THREE OR MORE SPANS

3. USE COMPRESS LAP SPLICE FOR COLUMN TO ISOLATED FOOTING JUNCTION NOT CONNECTED WITH GRADE BEAMS. FOR COLUMN TO ISOLATED FOOTING, WALL FOOTINGS, SHEAR JUNCTION CONNECTED WITH GRADE BEAMS, COMBINED FOOTINGS, RETAINING WALL FOOTINGS AND MAT FOUNDATIONS, TENSION LAP SPLICE SHALL BE USED.

4. ALL REINFORCING STEEL SHALL BE SECURELY HELD IN PROPER POSITION WHILE POURING CONCRETE CHAIRS, TIES, SPACERS, ADDITIONAL BARS AND STIRRUPS SHALL BE PROVIDED BY THE CONTRACTOR TO FURNISH SUPPORT FOR ALL REINFORCING STEEL.

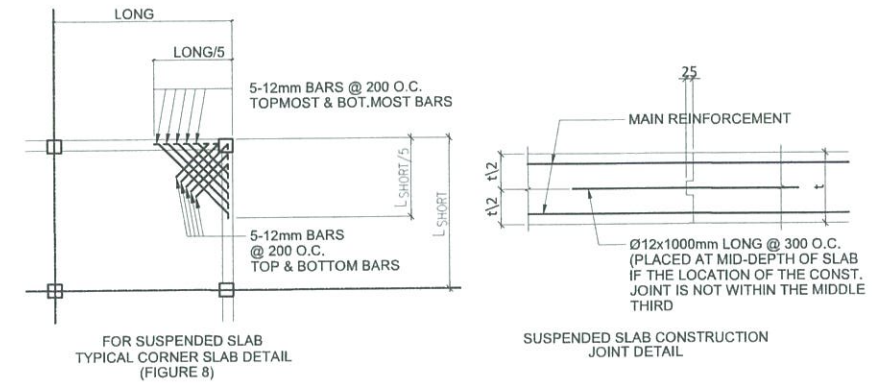
I. NOTES ON CONCRETE SLABS

1. ALL SLAB REINFORCEMENTS SHALL HAVE A MINIMUM CLEAR DISTANCE OF 20mm FROM THE BOTTOM AND FROM THE TOP OF SLABS.
2. UNLESS OTHERWISE DETAILED, FOR CONTINUOUS SLABS WITH THE MAIN REINFORCEMENT RUNNING IN ONE DIRECTION, REINFORCING BARS SHALL BE UP, EXTENDED OR CUT AS FOLLOWS:
3. IF SLABS ARE REINFORCED BOTHWAYS, BARS ALONG THE SHORTER SPAN SHALL BE PLACED BELOW THOSE ALONG THE LONG SPAN AT THE CENTER OF THE SLAB AND BE PLACED OVER THE LONGER SPAN BARS ON AREAS NEAR THE SUPPORTS. THE SPACING OF THE BARS AT THE COLUMN STRIPS SHALL BE APPROXIMATELY ONE AND ONE-HALF (1-1/2) TIMES THAT IN THE MIDDLE STRIPS BUT NO CASE GREATER THAN TWO AND ONE-HALF (2-1/2) TIMES THE SLAB THICKNESS OR 450mm.
4. TEMPERATURE BARS FOR SLABS SHALL BE GENERALLY PLACED NEAR THE FACE IN TENSION AND SHALL NOT BE LESS THAN .0025 BxT.
5. UNLESS OTHERWISE NOTED, DROP SLABS SHALL BE PROVIDED WITH ADDITIONAL REINFORCEMENT AT THE LOCATION OF DROP AS SHOWN IN FIGURE 7.



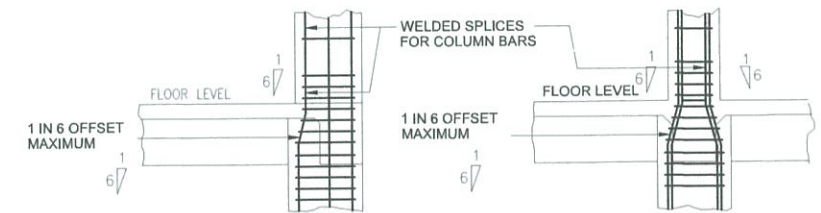
TYPICAL BEAM/SLAB CHANGE SOFFIT DETAIL (FIGURE 7)

6. PROVIDE EXTRA REINFORCEMENT FOR CORNER SLAB (TWO ADJACENT DISCONTINUOUS EDGES) AS SHOWN BELOW AND AT ENDS AND CORNERS OF SHEAR WALL (SEE FIG. 8)
7. SEE MECHANICAL, PLUMBING, ELECTRICAL AND FIRE PROTECTION DRAWINGS FOR ALL SUSPENDED AND EMBEDDED PIPING, CONDUITS, DUCTWORKS, EQUIPMENT, ETC.
8. UNLESS OTHERWISE NOTED, EMBEDDED CONDUITS SHALL BE RUN GENERALLY AT MID-BAY AND PARALLEL CONDUITS SHALL BE AT THREE DIAMETERS ON CENTER. CONDUIT SIZE NOT EXCEED 1/4 OF THE SLAB THICKNESS AND SHALL BE LOCATED AT MID THICKNESS OF THE SLAB.



J. NOTES ON COLUMNS

1. WHERE COLUMNS CHANGE IN SIZE, VERTICAL REINFORCEMENTS SHALL BE OFFSET AT A SLOPE NOT MORE THAN 1 IN 6. PROVIDE TRANSVERSE REINFORCEMENT AS PER ITEM E BELOW FOR JOINTS WITH BAR OFFSETS. (AS SHOWN FIGURE 9)



TYPICAL SPLICE & OFFSET DETAIL OF COLUMN BARS (FIGURE 9)

2. LAP SPLICES, WHEN REQUIRED, ARE PERMITTED ONLY WITHIN THE CENTER HALF OF THE COLUMN LENGTH AND SHALL BE PROPORTIONED AS TENSION SPLICES. IN NO CASE SHALL THE LAP SPLICE BE LOCATED CLOSER THAN A DISTANCE EQUAL TO THE MAXIMUM COLUMN DIMENSION FROM THE FACE OF THE BEAM-COLUMN JOINT. PROVIDE EXTRA TRANSVERSE REINFORCEMENT OF THE SAME SIZE AND ARRANGEMENT INDICATED IN THE COLUMN SCHEDULE SPACED AT MOST ONE-FOURTH THE MIN. COLUMN SECTION DIMENSION THROUGHOUT THE LENGTH OF THE SPLICE OR 100 mm.
3. FOR ALL TIED COLUMNS, PROVIDE TRANSVERSE REINFORCEMENT OF THE SAME SIZE AND ARRANGEMENT INDICATED IN THE COLUMN SECTION SCHEDULE AND SPACED NO GREATER THAN ONE-QUARTER THE MINIMUM COLUMN SECTION DIMENSION NOR 100mm, OVER A DISTANCE FROM EACH JOINT FACE OF NOT LESS THAN THE LARGER OF THE MAX. COLUMN SECTION DIMENSION, OR ONE-SIXTH OF THE CLEAR HEIGHT OF THE COLUMN OR 450mm.
4. BEAM-COLUMN JOINTS SHALL BE PROVIDED WITH TRANSVERSE REINFORCEMENT SPACED AT TWICE THAT REQUIRED BY ITEM 3 WHEN THERE ARE BEAMS HAVING WIDTHS AT LEAST ONE-HALF THE COLUMN WIDTH AND DEPTHS NOT LESS THAN THREE-QUARTERS OF THE DEEPEST BEAM THAT FRAME DEEPEST BEAM THAT FRAME INTO FOUR SIDES OF THE COLUMN. FOR ALL OTHER CONDITIONS PROVIDE SAME AS REQUIRED IN ITEM 5.

FOR APPROVAL PLANS OF
REGIONAL TVET INNOVATION
CENTERS (RTICs) 2023



MAIN OFFICE ADDRESS: TESDA COMPLEX, East Service Road SLUX, Taguig City

PROJECT TITLE:
PROPOSED TESDA ASSAT INNOVATION
CENTER

LOCATION: ASSAT GDCP, Government Prossperidad, Agusan Del Sur

CIVIL ENGINEER:

ENGR. ENRIQUE G. DELA TORRE
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SECRETARY, TESDA

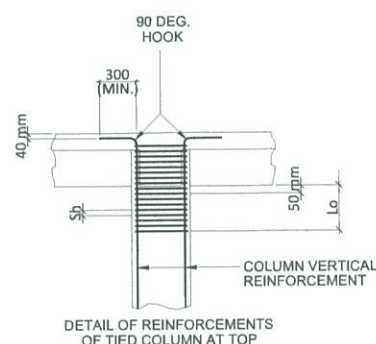
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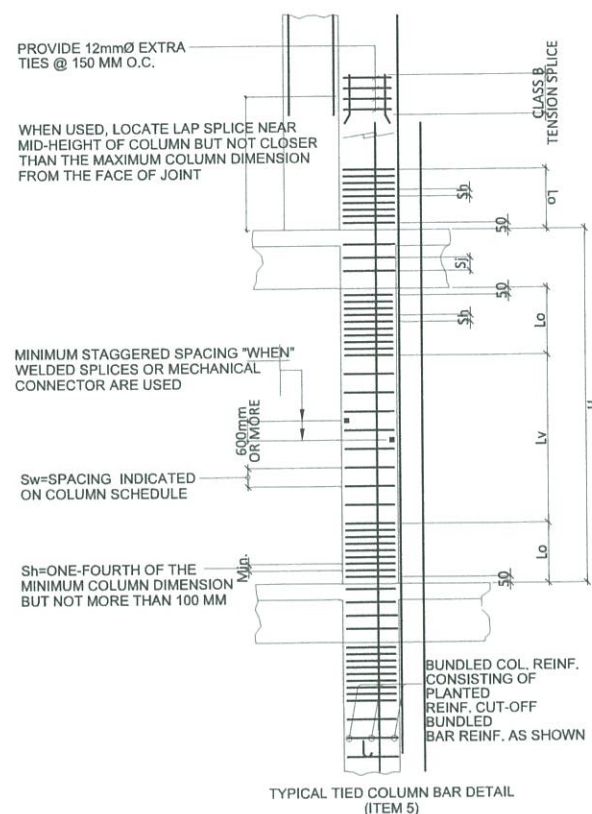
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STRUCTURAL DESIGN NOTES, STANDARD DRAWINGS & SPECIFICATIONS

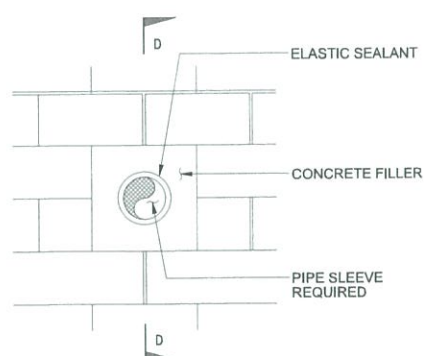
LEGEND: (ITEM 3)
Sj=100 mm O.C.
Sh=100 mm O.C.
(SEE APPLICABLE ONLY FOR Sj AND Sh)
Sv=150 mm O.C.
(USE Ø12mm TIES)
H=FLOOR TO FLOOR HEIGHT OF COLUMN
Lv = H/2 = PART OF COLUMN BEYOND
CONFINEMENT REGION
Lo = H/3 = CONFINEMENT REGION
t = THICKNESS



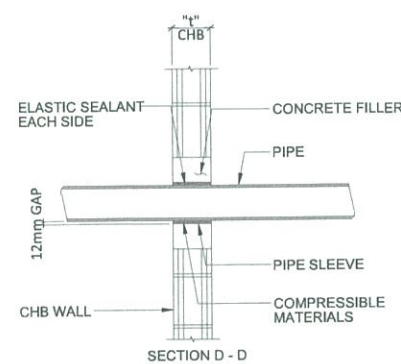
TYPICAL RECTANGULAR TIED COLUMN REINFORCEMENT DETAIL



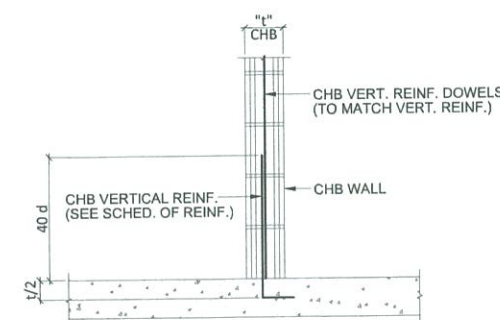
(FIGURE 10)



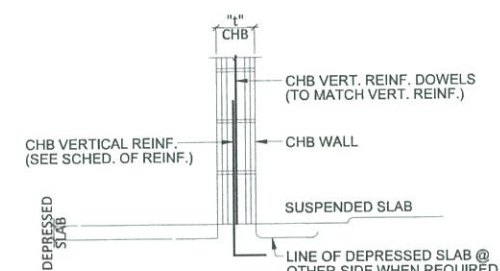
PIPE SLEEVE THRU WALL



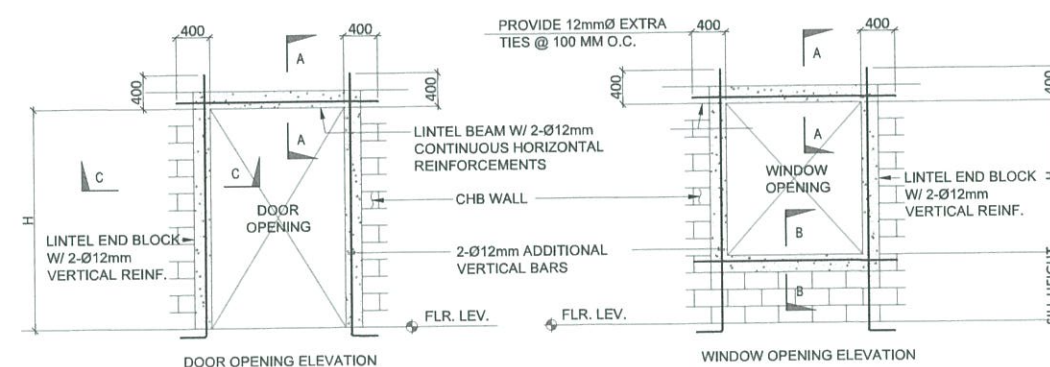
SECTION D - D



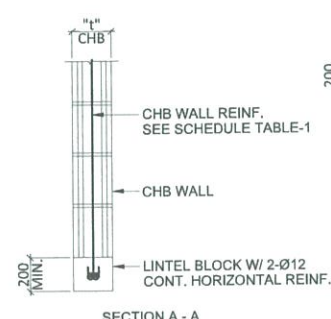
WALL BASE REINFORCING AT FLAT FLOOR



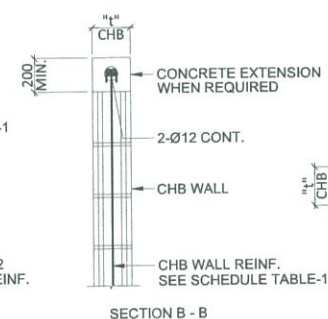
WALL BASE REINFORCING AT FLOOR W/ DEPRESSION



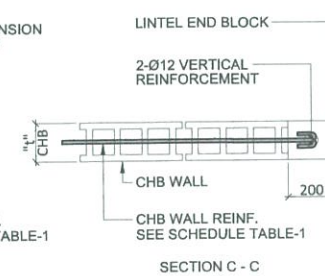
NOTE: OMIT EXTRA REINF. FOR OPENING LESS THAN 200MM VERT & 400MM HOR.



SECTION A - A




SECTION B - B



SECTION C - C

OTHER MASONRY DETAILS


FOR APPROVAL PLANS OF
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PROJECT OWNER:

TECHNICAL EDUCATION
AND
SKILLS DEVELOPMENT
AUTHORITY
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PROJECT TITLE:
PROPOSED TESDA ASSAT INNOVATION
CENTER
LOCATION: ASSAT GOCP, Government Proclamation, Agusan Del Sur

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PMU-SIPTVETS
SECRETARY, TESDA

SHEET CONTENTS:
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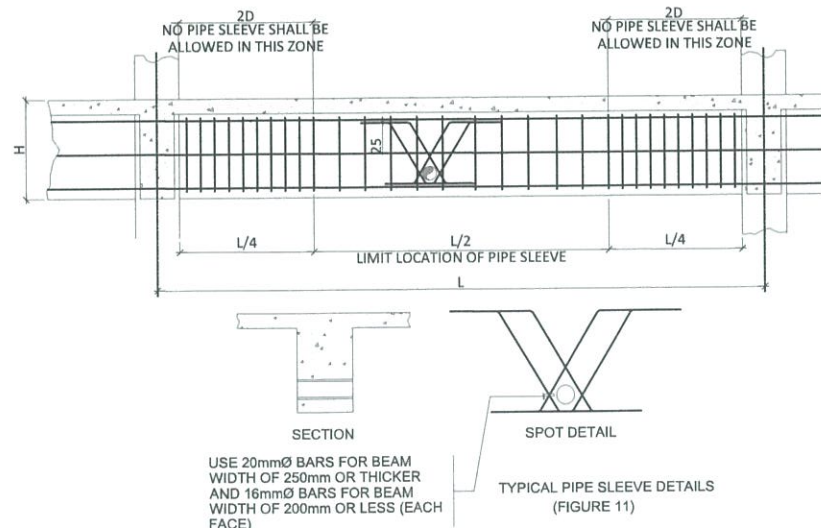
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STRUCTURAL DESIGN NOTES, STANDARD DRAWINGS & SPECIFICATIONS

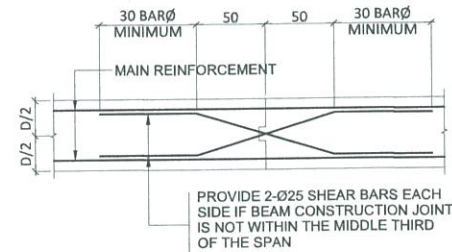
K. NOTES ON BEAMS AND GIRDERS

- UNLESS OTHERWISE NOTED IN PLANS OR SPECIFICATIONS, CAMBER ALL BEAMS AT LEAST 6mm FOR EVERY 4500mm OF SPAN EXCEPT FOR CANTILEVERS FOR WHICH THE CAMBER SHALL BE AS NOTED IN THE PLANS OR AS ORDERED BY THE STRUCTURAL ENGINEERS BUT IN NO CASE LESS THAN 19mm FOR EVERY 3000mm OF FREE SPAN.
- IF THERE ARE TWO OR MORE LAYERS OF LONGITUDINAL REINFORCING BARS IN A BEAM OR GIRDER, USE SEPARATORS OF A SIZE NOT LESS THAN 25mm BARS SPACED ABOUT 900mm ON CENTER, IN NO CASE SHALL THERE BE LESS THAN TWO (2) SEPARATORS BETWEEN LAYERS OF BARS.
- LONGITUDINAL REINFORCING BARS SHALL BE PLACED SYMMETRICALLY ABOUT THE VERTICAL CENTER LINE OF THE BEAM OR GIRDER SECTION WHERE POSSIBLE WITH UPPER LAYER BARS PLACED DIRECTLY ABOVE THOSE IN THE BOTTOM LAYER.
- BEAM REINFORCING BARS BOTH TOP AND BOTTOM, TERMINATING IN A WALL, SHALL EXTEND AT THE MOST 50mm FROM THE FAR FACE OF THE WALL AND SHALL TERMINATE IN A STANDARD 90° HOOK.
- LONGITUDINAL REINFORCEMENT OF GIRDERS, BOTH TOP AND BOTTOM, TERMINATED IN A COLUMN SHALL BE EXTENDED TO THE FAR FACE OF THE CONFINED CONCRETE CORE OF THE COLUMN AND TERMINATED BY A STANDARD 90° HOOK.
- GENERALLY, NO LAP SPLICE SHALL BE PERMITTED ON BEAMS AND GIRDERS AT POINT WHERE CRITICAL BENDING STRESSES OCCUR. IN ADDITION, FOR GIRDERS, NO LAP SPLICE SHALL BE LOCATED WITHIN THE JOINTS OR WITHIN A DISTANCE EQUAL TO TWICE THE MEMBER DEPTH FROM THE FACE OF THE JOINT.
- PROVIDE LAP SPLICES IN GIRDERS WITH HOOP REINFORCEMENT OVER THE LENGTH OF THE LAPPED BARS SPACED NO FARTHER THAN ONE-FOURTH THE NOMINAL DEPTH, OR 100mm.
- SEE MECHANICAL, PLUMBING, ELECTRICAL AND FIRE PROTECTION DRAWINGS FOR ALL SUSPENDED AND EMBEDDED PIPING, CONDUITS, DUCTWORKS, EQUIPMENTS, ETC.
- PIPE AND DUCT SLEEVES SHALL BE LOCATED WITHIN THE REGION BOUNDED BY ONE-FOURTH OF CLEAR SPAN LENGTH FROM THE SUPPORTS. (SEE FIGURE 11)

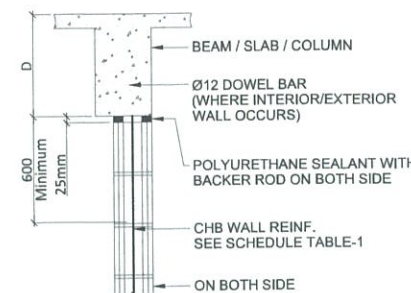


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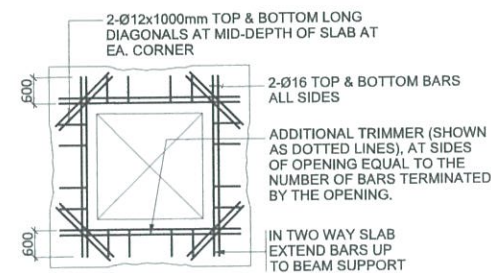
- SEEK STRUCT'L ENGINEER'S APPROVAL FOR PIPE SLEEVES W/ DIAMETERS BIGGER THAN THE MAXIMUM STIPULATED.
- PIPE SLEEVES SHALL BE LOCATED WITHIN TENSION ZONES OF BEAM.



BEAM CONSTRUCTION JOINT DETAIL



WALL SUPPORT AT BOTTOM OF BEAM/SLAB/COLUMN



SLAB OPENING DETAIL

NOTE:

- PROVIDE THESE ADDITIONAL BARS FOR ALL OPENINGS PLUS BARS (SHOWN AS DOTTED LINES) PARALLEL TO SIDE OF OPENING EQUAL TO THE NUMBER OF INTERRUPTED BARS BY THE OPENING.
- SEE ARCHITECTURAL & MECHANICAL PLANS FOR SLAB OPENING LOCATION.
- OMIT TRIMMER BARS WHERE OPENING IS FRAMED

L. DESIGN CRITERIA

DESIGN LOADS

1. DEAD LOADS

a. CEILING	0.10 kPa
b. CONCRETE	0.023 kPa/mm
c. FLOOR FINISH	1.53 kPa
d. INTERIOR PARTITIONS	1.0 kPa
e. UTILITIES	0.25 kPa

2. LIVE LOADS

a. CORRIDORS	4.80 kPa
b. REST ROOMS	4.80 kPa
c. LIGHT STORAGE	6.00 kPa
d. STAIRWAYS	4.80 kPa
e. ROODECK	4.80 kPa
f. ROOMS	2.40 kPa

3. SEISMIC LOADS

SEISMIC PROBABILITY FOR ZONE IV
V = ZIW/RT BASED ON 2015 NSCP

4. DESIGN STRESSES

a. CONCRETE

1. UNLESS OTHERWISE INDICATED IN PLANS OR NOTED IN THE SPECIFICATIONS THE MINIMUM 28-DAYS CYLINDER COMPRESSIVE STRENGTH OF CONCRETE f_c , SHALL BE AS FOLLOWS:

1.1 FOR COLUMN/BEAMS	27.60 Mpa (4,000 psi)
1.2 FOR SUSPENDED SLAB	27.60 Mpa (4,000 psi)
1.3 FOR FOOTINGS	27.60 Mpa (4,000 psi)
1.4 FOR WALL FOOTINGS	27.60 Mpa (4,000 psi)
1.5 FOR SLAB-ON-GRADE/FILL, PARAPET WALLS, GUTTERS AND OTHER STRUCTURAL ELEMENTS	27.60 Mpa (4,000 psi)
1.6 f'm - MASONRY	5.18 MPa (750 psi)

b. REINFORCING STEEL BARS

1. ALL REINFORCING STEEL BARS SHALL BE NEW BILLET, HOT ROLLED, WELDABLE, DEFORMED BARS CONFORMING TO THE SPECIFICATIONS OF PNS 49: 1986 (ASTM 615) WHOSE GRADE IS SHOWN ON TABLE 2.

2. THE SUPPLEMENTARY REQUIREMENTS OF WELDABLE DEFORMED REINFORCING BARS SHALL BE AS FOLLOWS:
2.1 THE MAXIMUM YIELD STRENGTH OF WELDABLE BARS = 540 MPa.
2.2 THE TENSILE STRENGTH SHALL NOT BE LESS THAN 1.25 TIMES THE ACTUAL YIELD STRENGTH.

c. STRUCTURAL STEEL


1. UNLESS OTHERWISE NOTED, ALL MATERIALS SHALL BE IN ACCORDANCE WITH THE FOLLOWING ASTM SPECIFICATIONS.

MEMBER	ASTM	MIN. STRENGTH
STRUCTURAL TUBING	A 500 (GRADE B)	36 KSI
STEEL PIPE	A 53 (TYPE E, GR. B)	36 KSI
OTHER ROLLED PLATES/SHAPES	A 36	36 KSI
CONNECTION BOLTS	A 325	105 KSI
ANCHOR BOLTS	A 325	105 KSI
THREADED RODS	A 36	36 KSI
NONSHRINK GROUT	C 1107	8000 PSI


STRUCTURAL ELEMENT DESIGNATION

ALT.	— ALTERNATE	CS	— COLUMN STRIP
B.W.	— BOTH WAYS	CU. M.	— CUBIC METER
2B-1	— BEAM MARK	d_b	— BAR DIAMETER
BB / B	— BOTTOM BAR	DIA. or Ø	— DIAMETER
BM	— BOTTOM MOST BAR	E.F.	— EACH FACE
C-1	— COLUMN MARK	E.W.	— EACH WAY
CB-1	— CANTILEVER BEAM/CORBEL	E.A	— EACH
CHB	— CONCRETE HOLLOW BLOCK	EQ.	— EQUAL
C.O.C.	— CENTER ON CENTER	ISO. JT.	— ISOLATION JOINT
COL.	— COLUMN	kN	— KILONEWTON
CONC.	— CONCRETE	kPa	— KILOPASCAL
CONT.	— CONTINUOUS	Ksi	— KIPS PER SQUARE INCH

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AUTHORITY**
MAIN OFFICE ADDRESS: TESDA COMPLEX, East Service Road SLEX, Taguig City.

PROJECT TITLE:
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CENTER**
LOCATION: ASSAT GOCP, Government Propperidad, Agusan Del Sur

CIVIL ENGINEER:

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M. STRIPPING OF FORMS

NOTE:

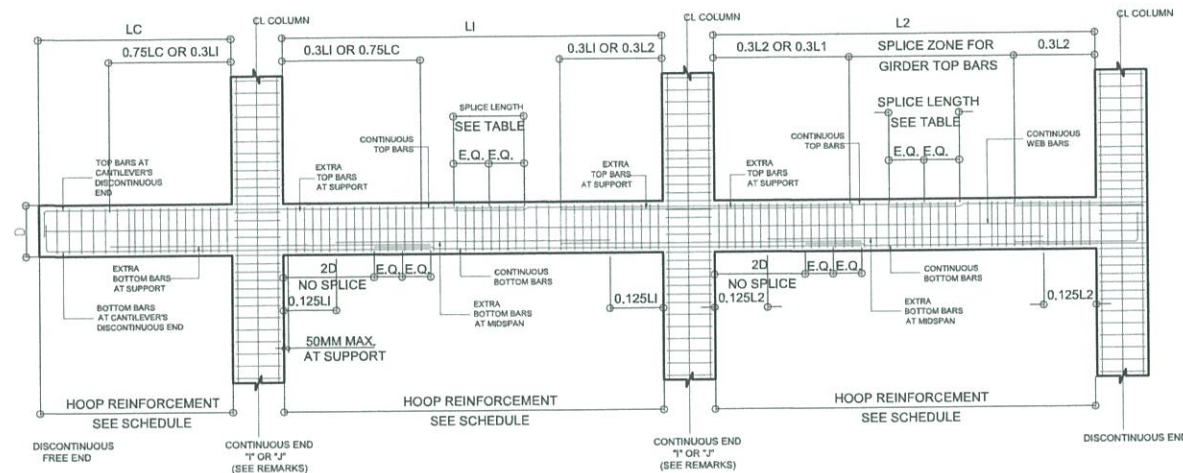
1. FORMS SHALL RESULT IN FINAL STRUCTURE THAT CONFORMS TO SHAPES, LINES AND DIMENSIONS OF THE MEMBERS AS REQUIRED BY THE DESIGN DRAWINGS AND SPECIFICATIONS.
2. FORMS SHALL BE REMOVED IN SUCH A MANNER AS NOT TO IMPAIR SAFETY AND SERVICEABILITY OF THE STRUCTURE.

STRUCTURAL ELEMENT	PERIOD
1. BEAM/GIRDER	14 DAYS
2. SUSPENDED SLAB	8 DAYS
3. COLUMN/SHEARWALL	2 DAYS
4. RETAINING WALL	18 HOURS
5. FOUNDATION	24 HOURS

N. REMOVAL OF SHORES AND SHORING

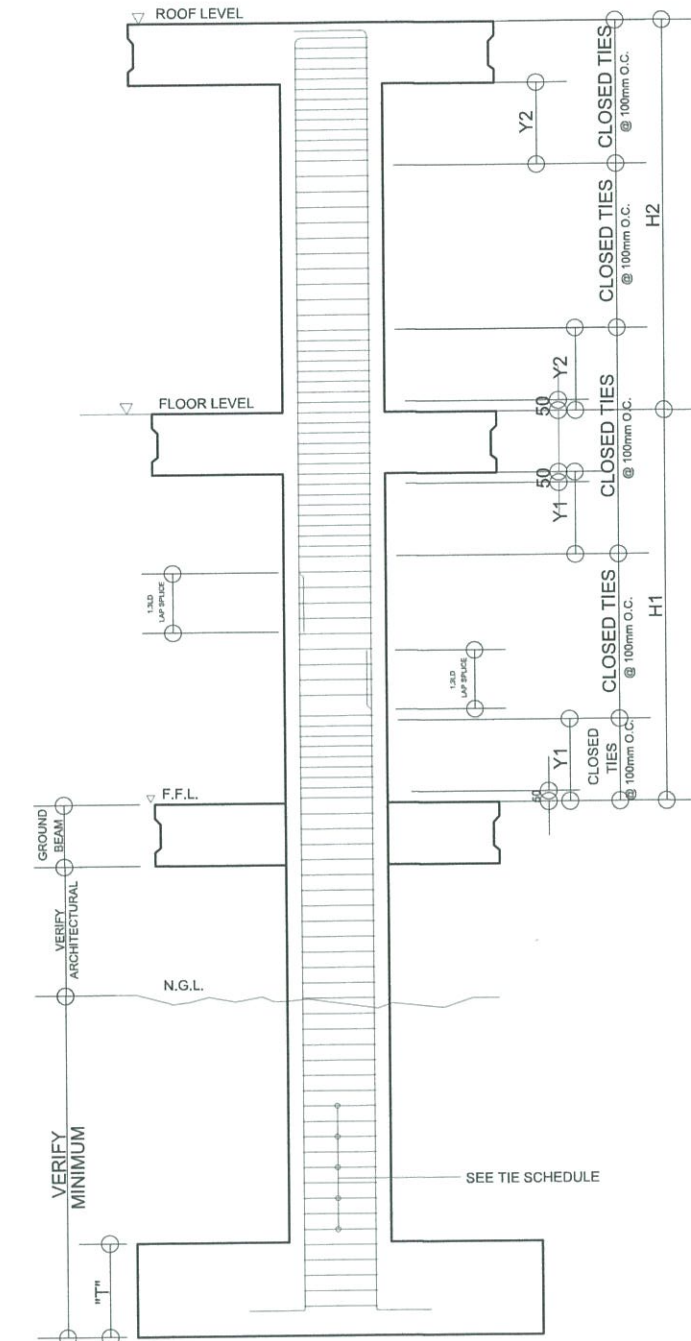
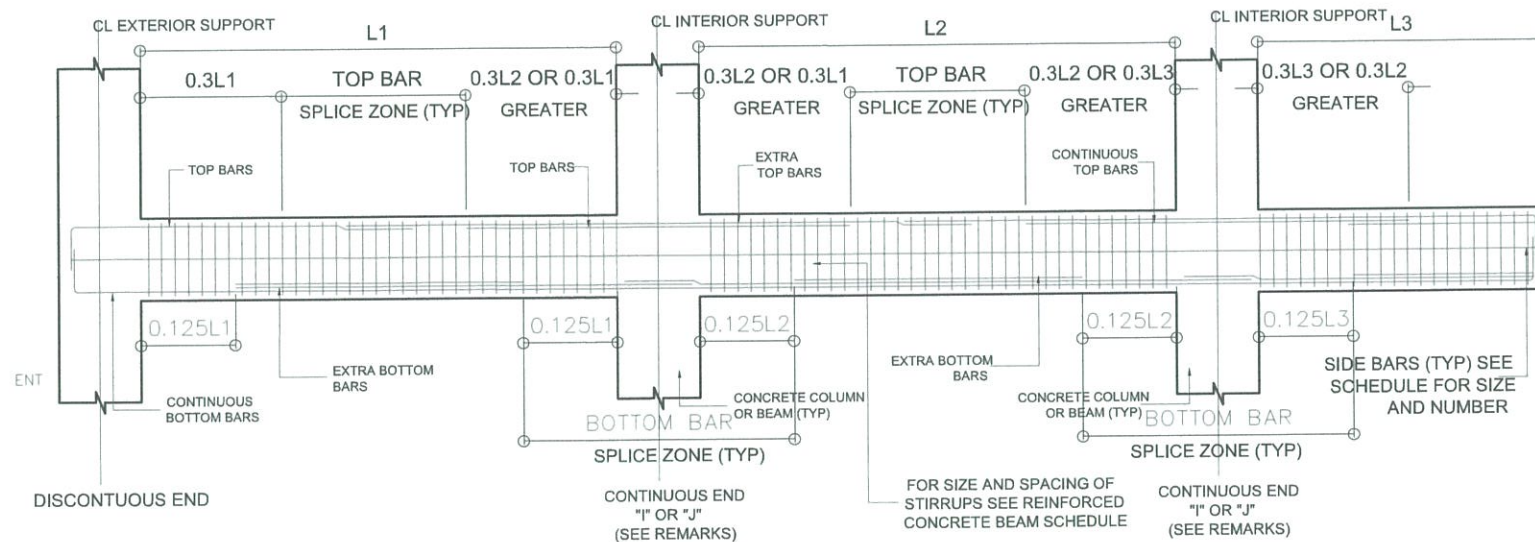
1. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE ADEQUATE SHORING AND BRACING OF THE STRUCTURE FOR ALL LOADS THAT MAYBE IMPOSED UNDER CONSTRUCTION.
2. STRUCTURAL ELEMENT MUST ATTAINED SUFFICIENT STRENGTH OR DEVELOPED DESIGN PROPERTIES REQUIRED TO SUPPORT ALL LOADS, LIMIT DEFLECTIONS AND CRACKING BEFORE REMOVAL OF SHORES.
3. REMOVAL OF SHORES ARE NOT ALLOWED WITHIN THE GIVEN CURING PERIOD WHEN ADDITIONAL LOADS ARE IMPOSED, UNLESS ANALYSIS INDICATES ADEQUATE STRENGTH TO SUPPORT SUCH ADDITIONAL LOADS.
4. INSTALLATION OF RESHORES IS NECESSARY FROM ANY PART OF STRUCTURE UNDER CONSTRUCTION.

TYPICAL GIRDER DETAILS




- STRUCTURAL NOTES:
1. SEE TABLE OF LAP SPICE & ANCHORAGE LENGTHS SHOWN ON SHEET.
 2. LAP SPICE SHALL BE LOCATED ONLY WITHIN THE LAP SPICE ZONE.
 3. TOP & BOTTOM BARS MAY BE LAP SPICED ONLY ON ONE LOCATION FOR EACH STRING OF BEAMS.
 4. 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.
 5. SPACING OF STIRRUPS ON LAP SPICE SHALL BE SPACED @ 100MM O.C. MAXIMUM.
 6. AT INTERIOR SUPPORT (CONTINUOUS END) PROVIDE LARGER SIZE AND NUMBER OF TOP AND BOTTOM BARS FROM ADJACENT SPANS.
 7. NO SPICE SHALL BE ALLOWED 2D FROM THE FACE OF THE SUPPORT.

TYPICAL GRAVITY BEAM DETAILS



- 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 SPICE 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

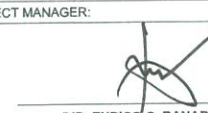
**FOR APPROVAL PLANS OF
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PROJECT OWNER:
**TECHNICAL EDUCATION
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SKILLS DEVELOPMENT
AUTHORITY**
MAIN OFFICE ADDRESS: TESDA COMPLEX, East Service Road SLEX, Taguig City

PROJECT TITLE:
**PROPOSED TESDA ASSAT INNOVATION
CENTER**
LOCATION: ASSAT GOOP, Government Proclamation, Agusan Del Sur

CIVIL ENGINEER:

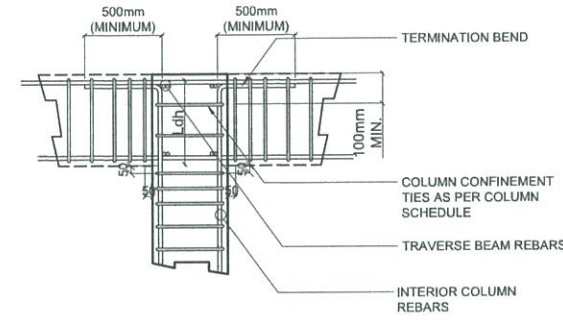
ENGR. ENRIQUE G. DELA TORRE
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ENGINEERING SECTION

PROJECT MANAGER:

DIR. ENRIQUE C. BANARIO
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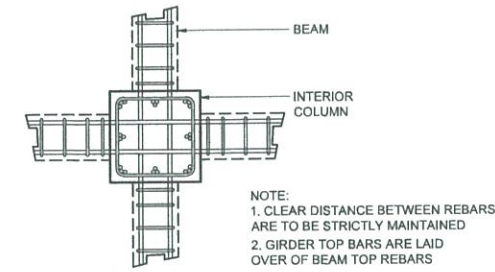
PROJECT DIRECTOR:

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SECRETARY, TESDA

SHEET CONTENTS:
GENERAL NOTES
TYPICAL GIRDER DETAILS
TYPICAL GRAVITY BEAM DETAILS

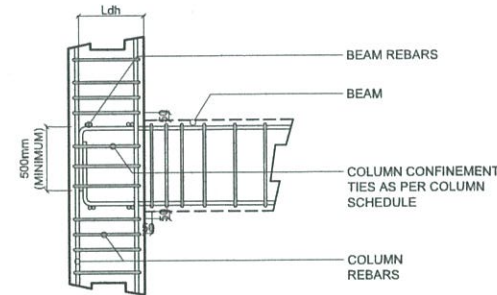
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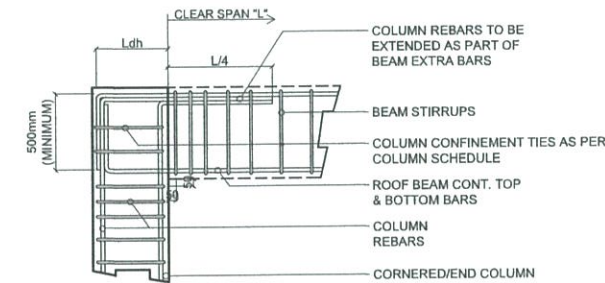
INTERIOR COLUMN TERMINATION BEND
SCALE: NTS



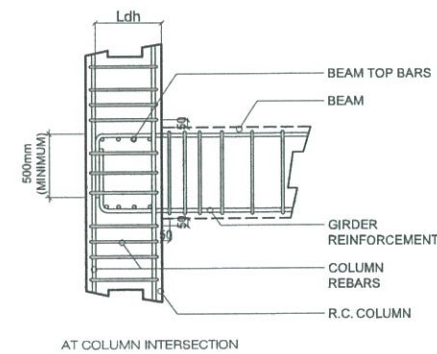
TYPICAL PLAN OF BEAM GIRDER COLUMN JOINT
SCALE: NTS



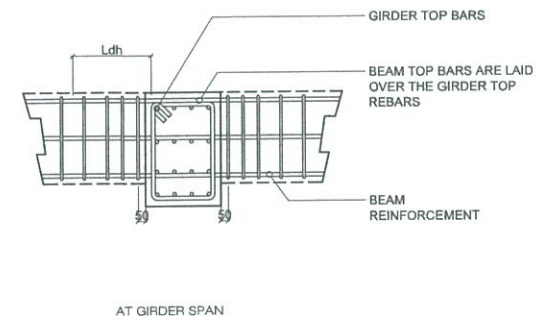
BEAM REBAR TERMINATION BEND
SCALE: NTS




CORNER / EXTERIOR TERMINATION END
SCALE: NTS




TYPICAL BEAM AND GIRDER REBAR LAY-OUT
SCALE: NTS





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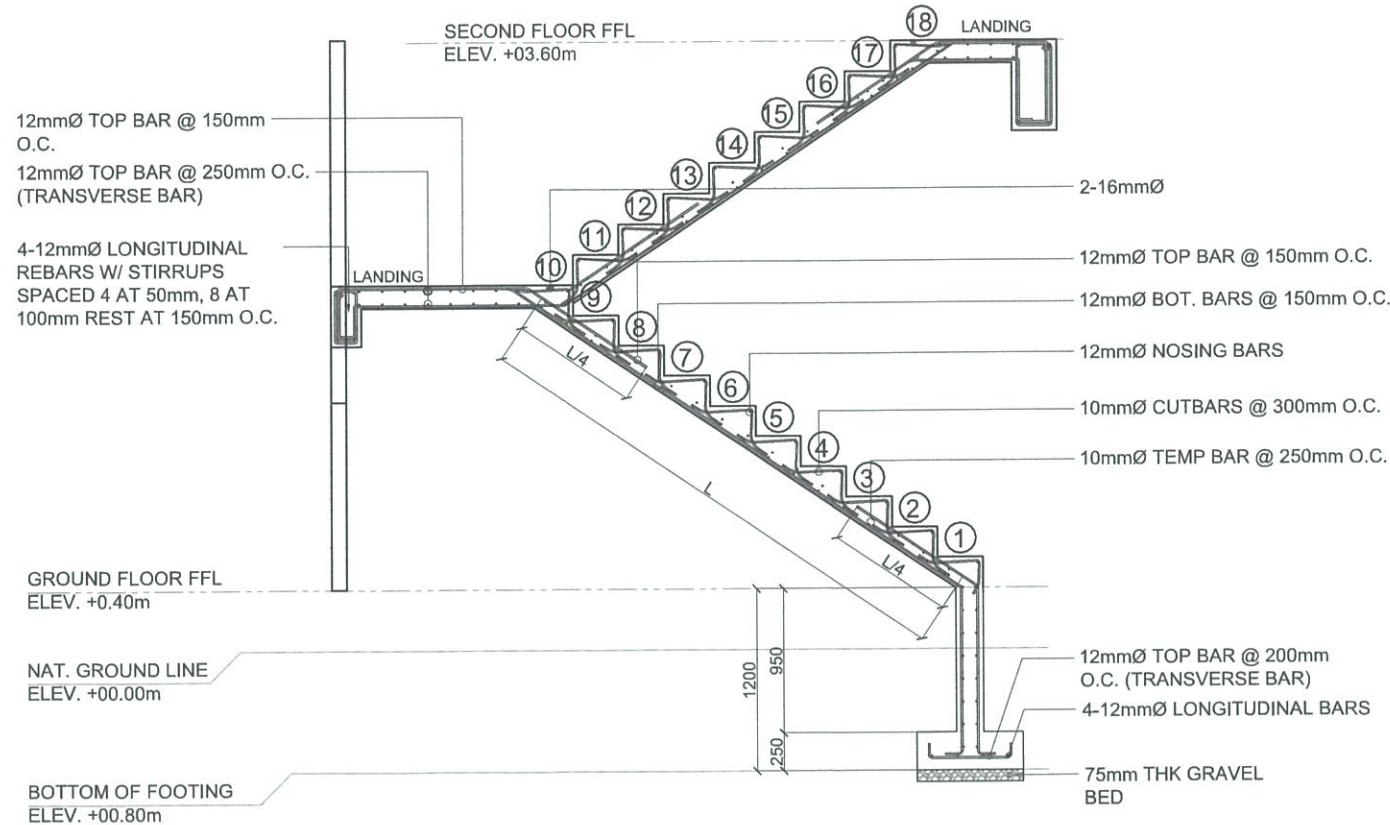
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PMU-SIPTVETS

PROJECT DIRECTOR:

SEC. SUHARTO T. MANGUDADATU, Ph.D.
PMU-SIPTVETS
SECRETARY, TESDA

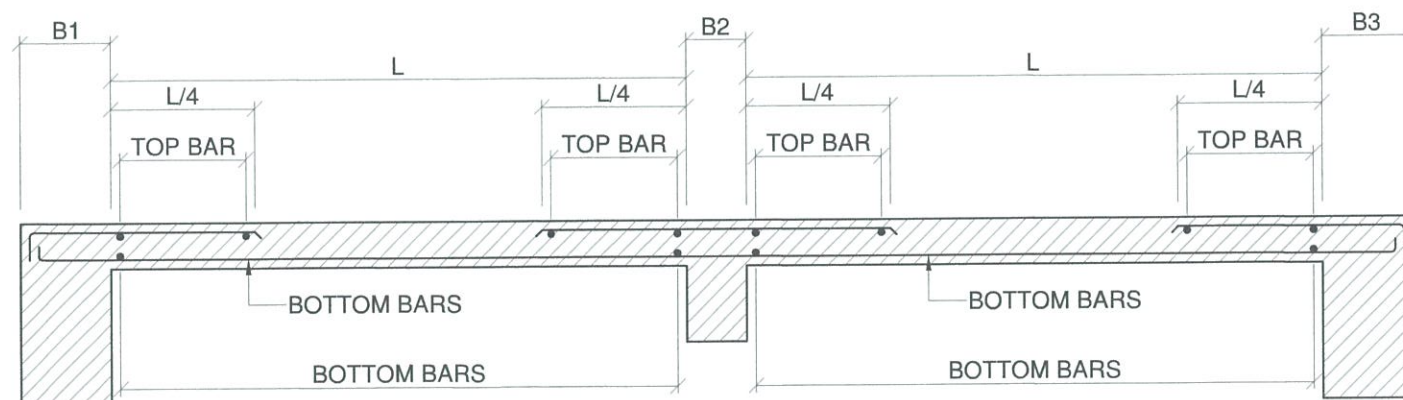
SHEET CONTENTS:
INTERIOR COLUMN
TERMINATION BEND
TYPICAL PLAN OF BEAM GIRDER
COLUMN JOINT
BEAM REBAR TERMINATION BEND
TYPICAL BEAM AND GIRDER REBAR
LAY-OUT
CORNER / EXTERIOR TERMINATION
END

SHEET NO.
S-6



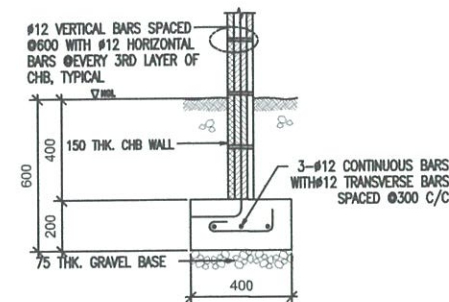
TYPICAL STAIR DETAIL

SCALE: 1:50



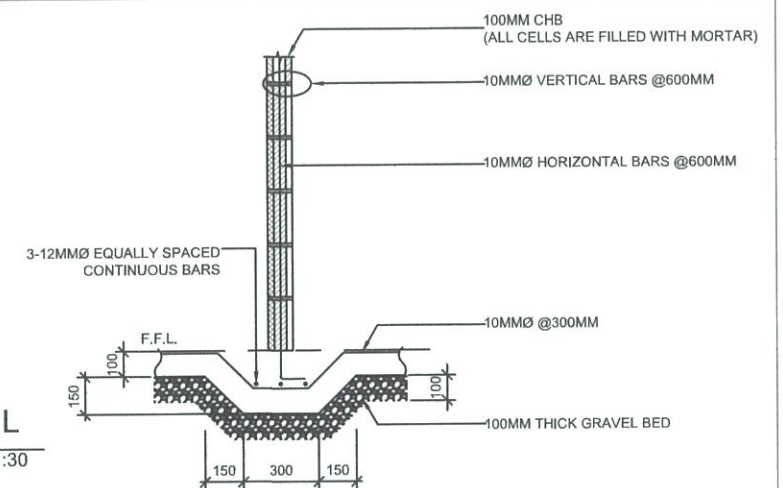
TYPICAL SLAB SECTION DETAIL

SCALE: NTS



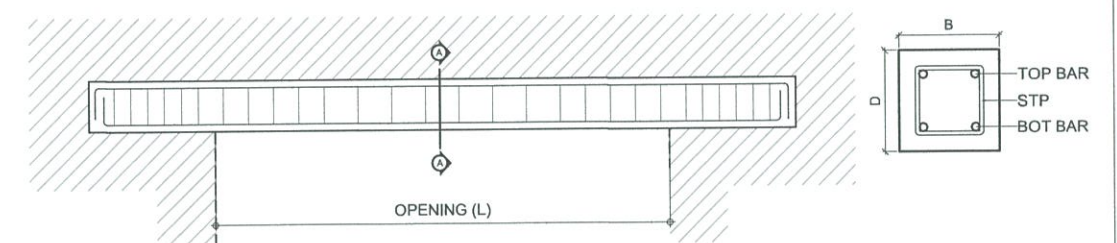
EXTERIOR WALL FOOTING DETAIL

SCALE: 1:30



TYPICAL WALL FOOTING DETAIL

SCALE: 1:30



TYPICAL SLAB SECTION DETAIL

SCALE: NTS

OPENING (L)	DIMENSION	REINFORCEMENT		
		TOP	BOTTOM	STIRRUPS
UP TO 1200 mm		2-10mm	2-10mm	8mmØ @ 180mm O.C.
UP TO 1200 mm (115mm THK WALL)		2-10mm	2-10mm	8mmØ @ 150mm O.C.
1300 mm TO 1650mm		2-10mm	3-10mm	8mmØ @ 180mm O.C.
1800 mm TO 2100mm		2-10mm	3-12mm	8mmØ @ 180mm O.C.
2250 mm TO 2700mm		2-10mm	2-16mm	8mmØ @ 200mm O.C.
MAIN CANOPY LB-1	SEE LB-1 AT BEAM SCHEDULE (2F)			

FOR APPROVAL PLANS OF
REGIONAL TVET INNOVATION
CENTERS (RTICs) 2023

PROJECT OWNER:

TECHNICAL EDUCATION
AND
SKILLS DEVELOPMENT
AUTHORITY
MAIN OFFICE ADDRESS: TESDA COMPLEX, East Service Road SLEX, Taguig City

PROJECT TITLE:
PROPOSED TESDA ASSAT INNOVATION
CENTER
LOCATION: ASSAT GOOP, Government Properland, Agusan Del Sur

CIVIL ENGINEER:

ENGR. ENRIQUE G. DELA TORRE
PMU/SIPTVETS
ENGINEERING SECTION

PROJECT MANAGER:

DIR. ENRICO C. BANARIO
PMU-SIPTVETS

PROJECT DIRECTOR:

SEC. SUHARTO T. MANGUDADATU, Ph.D.
PMU-SIPTVETS
SECRETARY, TESDA

SHEET CONTENTS:
TYPICAL STAIR DETAIL
TYPICAL SLAB SECTION DETAIL
LINTEL BEAM DETAIL

SHEET NO.
S-7