CONSTRUCTION NOTES

GENERAL NOTES:

1. GENERAL NOTES AND TYPICAL STRUCTURAL DETAILS SHALL APPLY TO ALL STRUCTURAL DRAWINGS UNLESS OTHERWISE SHOWN OR NOTED.
2. FEATURES OF CONSTRUCTION SHOWN ARE TYPICAL AND SHALL APPLY GENERALLY THROUGHOUT FOR SIMILAR CONDITIONS. MODIFY TYPICAL DETAILS AS REQUIRED TO MEET SPECIAL CONDITIONS.
3. THE CONTRACTOR SHALL EXAMINE THE DRAWINGS AND SHALL NOTIFY THE CONTRACTING OFFICER OF ANY DISCREPANCIES HE MAY FIND BEFORE PROCEEDING WITH THE WORK OR DURING CONSTRUCTION.
4. ALL MATERIALS AND WORKMANSHIP SHALL CONFORM WITH THE LATEST APPLICABLE STANDARDS OR SPECIFICATIONS. ALL WORKS SHALL CONFORM WITH THE BEST PRACTICE PREVAILING IN THE VARIOUS TRADES.
5. UNLESS SPECIFICALLY DETAILED ELSEWHERE, CONTRACTOR SHALL FOLLOW TYPICAL DETAILS AS SHOWN IN THESE DRAWINGS.
6. THE CONTRACTOR WILL BE RESPONSIBLE FOR COORDINATING THE WORK AMONG THE VARIOUS TRADES AS NECESSARY TO AVOID CONFLICTS AND TO INSURE THE INSTALLATION OF ALL WORK WITHIN THE AVAILABLE SPACE.
7. DO NOT SCALE DRAWINGS. CALLED-OUT DIMENSIONS AND STANDARD CODE REQUIREMENTS SHALL GOVERN OVER UNSCALED DRAWINGS.
8. ALL EQUIPMENT FOUNDATION, ANCHORS, SIZES AND LOCATIONS SHALL BE AS PER MANUFACTURER'S RECOMMENDATION.
9. ALL DRAWINGS SHALL BE READ IN CONJUNCTION WITH RELEVANT SPECIFICATIONS, CONDITIONS OF CONTRACT AND OTHER RELATED DRAWINGS. ANY DISCREPANCY FOUND THEREIN SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE REGISTERED STRUCTURAL ENGINEER IMMEDIATELY.

FOUNDATION NOTES:

1. EXCAVATION OF ALL FOOTINGS SHALL BE DONE IN ACCORDANCE WITH THE CONTOURS AND DIMENSIONS INDICATED HERE AND IN THE CIVIL WORKS DRAWINGS. BOTTOM OF EXCAVATIONS SHALL BE SLIGHTLY SLOPED TO PROVIDE PROPER SURFACE DRAINAGE AND TO AVOID SURFACE PONDING.
2. WHERE APPLICABLE, BASE COURSE SHOULD BE PLACED MAXIMUM 200mm THICK LOOSE LAYER AND COMPACTED TO A DRY DENSITY EQUIVALENT TO AT LEAST 95 PERCENT OF THE MAXIMUM ATTAINABLE BY THE ASTM D1557 METHOD OF COMPACTION.
3. FOOTING EXCAVATION AND RECOMPACTION SHALL BE INSPECTED BY THE SOIL ENGINEER TO VERIFY CONDITION OF SOIL BEARING PRIOR TO PLACEMENT OF FOUNDATION FORMS AND REINFORCEMENTS. WHERE UNSATISFACTORY SOILS ARE EXPOSED, THEY SHALL BE OVEREXCAVATED AND REPLACED WITH LEAN CONCRETE OR CEMENT GROUT OR AS OTHERWISE INSTRUCTED BY THE ENGINEER.
4. THE CONTRACTOR SHALL VERIFY ACTUAL CONDITION OF SOIL AT THE SITE AND SHALL NOTIFY THE STRUCTURAL ENGINEER IF ASSUMED SOIL BEARING CAPACITY IS NOT ATTAINABLE.

REINFORCED CONCRETE NOTES:

1. ALL CONCRETE SHALL DEVELOP A MINIMUM ULTIMATE COMPRESSIVE STRENGTH AT THE END OF 28 DAYS, AS INDICATED IN THE DRAWINGS.
2. ALL CONCRETE WORK SHALL CONFORM TO THE LATEST EDITION OF THE AMERICAN CONCRETE INSTITUTE (ACI 318) REFERENCED BY THE NATIONAL STRUCTURAL CODE OF THE PHILIPPINES (NSCP).
3. PIPES OR DUCTS EXCEEDING ONE THIRD THE SLAB OR WALL THICKNESS SHALL NOT BE PLACED IN STRUCTURAL CONCRETE UNLESS SPECIFICALLY DETAILED. PIPES MAY PASS THROUGH STRUCTURAL CONCRETE IN SLEEVES BUT SHALL NOT BE EMBEDDED THEREIN.
4. REINFORCING BARS, ANCHOR BOLTS, AND OTHER INSERTS SHALL BE SECURED IN PLACE BEFORE POURING CONCRETE, BAR PLACEMENT AND SUPPORTS SHALL BE IN ACCORDANCE WITH THE RECOMMENDED ACI PRACTICE.
5. ALL INSERTS, ANCHOR BOLTS, PLATES, ETC. TO BE EMBEDDED IN CONCRETE SHALL BE HOT DIP GALVANIZED UNLESS NOTED OTHERWISE.
6. IN GENERAL, THE LATEST EDITION OF "MANUAL OF STANDARD PRACTICE FOR DETAILING CONCRETE STRUCTURES" ACI 315, SHALL BE ADHERED TO, UNLESS SHOWN OTHERWISE.
7. USE OF ADMIXTURE IS PERMITTED TO PRODUCE PROPER SLUMP AND WORKABILITY BUT SUBJECT TO THE CONTRACTING OFFICER'S APPROVAL. ADDITION OF WATER TO CONCRETE AT JOBSITE IS NOT ALLOWED.
8. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE ADEQUATE SHORING AND BRACING TO ALL STRUCTURES AGAINST ALL LOADS THAT MAY BE IMPOSED DURING CONSTRUCTION.

REINFORCING STEEL:

1. U.O.S., ALL REINFORCING BARS SHALL CONFORM TO ASTM A706M GRADE 40 REQUIREMENTS.
2. REINFORCEMENTS SHALL BE SPLICED ONLY AS INDICATED ON THE DRAWINGS.
3. BARS NOTED AS "CONT." SHALL HAVE A MINIMUM LENGTH OF SPLICE AS INDICATED IN TABLE A.
4. PROVIDE DOWELS IN FOOTINGS AND/OR GRADE BEAMS THE SAME SIZE AND SPACING AS COLUMN AND WALL REINFORCING. UNLESS OTHERWISE NOTED.

MINIMUM CONCRETE COVER FOR REINFORCING BARS SHALL BE:

CONCRETE CAST AGAINST EARTH:	75mm
EXPOSED TO EXTERIOR OF WEATHER	50mm
FORMED SURFACE BELOW GRADE	50mm

REINFORCING STEEL (continuation):

SLAB ON GRADE	40mm
CONCRETE NOT EXPOSED TO WEATHER NOR IN CONTACT WITH THE GROUND:	
STRUCTURAL SLABS TOP & BOTTOM (U.O.S)	20mm
WALLS	25mm
COLUMNS & BEAMS	40mm

5. SPLICES SHALL BE SECURELY WIRED TOGETHER . STAGGER SPLICES AT LEAST 600mm WHENEVER POSSIBLE. SPLICING OF REINFORCEMENT SHALL BE MADE ONLY AS REQUIRED OR PERMITTED ON DESIGN DRAWINGS OR IN SPECIFICATION OR AS AUTHORIZED BY THE CONTRACTING OFFICER.
6. SHOP DRAWINGS: THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR REINFORCING STEEL PREPARED IN ACCORDANCE WITH ACI-315. INDICATE BENDING DIAGRAM, ASSEMBLY DIAGRAM, SPLICING AND LAPS OF RODS AND SHAPES DIMENSIONS AND DETAILS FOR REINFORCING BARS.

FORMWORK:

1. FORMS SHALL BE PROVIDED FOR ALL CONCRETE INDICATED UNLESS SPECIFIED OTHERWISE. FORMS SHALL BE SET TRUE TO LINE AND GRADE AND MAINTAINED SO AS TO INSURE COMPLETED WORK WITHIN THE ALLOWABLE TOLERANCES SPECIFIED AND SHALL BE MORTAR TIGHT.
2. FORMS AND THEIR SUPPORTS SHALL BE DESIGNED SO AS NOT TO DAMAGE PREVIOUSLY PLACED STRUCTURE.
3. NO CONSTRUCTION LOAD SHALL BE SUPPORTED ON, NOR ANY SHORING REMOVED FROM ANY PART OF STRUCTURE UNDER CONSTRUCTION EXCEPT WHEN THAT PORTION OF THE STRUCTURE IN COMBINATION WITH THE REMAINING FORMING AND SHORING SYSTEM HAS SUFFICIENT STRENGTH TO SUPPORT SAFELY ITS WEIGHT AND THE ADDITIONAL IMPOSED LOADS.
4. FORMS SHALL BE REMOVED IN SUCH MANNER AS NOT TO IMPAIR SAFETY AND SERVICEABILITY OF THE STRUCTURE.

FORMS AND SHORING	DAYS AFTER PLACING
FOUNDATION	1 DAY
WALLS, COLUMNS	2 DAYS
BEAMS	14 DAYS
SUSPENDED SLAB EXCEPT WHEN SUPPORTING ADDITIONAL LOADS	8 DAYS

CAMBER OF BEAMS AND SLABS

1. UNLESS OTHERWISE NOTED ON PLANS AND SPECIFICATIONS, SLABS SHALL HAVE A CAMBER OF 8mm FOR EVERY 3000mm OF SHORTER SPAN AND 14mm FOR EVERY 2000mm OF CANTILEVERED SPAN LENGTH.
2. UNLESS OTHERWISE NOTED ON PLANS AND SPECIFICATIONS, BEAMS SHALL HAVE A CAMBER OF 10mm FOR EVERY 4000mm OF CLEAR SPAN OR 50mm FOR EVERY 3000mm OF UNSUPPORTED CANTILEVERED SPAN LENGTH.

STRUCTURAL STEEL:

1. UNLESS OTHERWISE NOTED, ALL STRUCTURAL STEEL MEMBERS SHALL CONFORM TO ASTM SPECIFICATIONS FOR A36 STEEL WITH MINIMUM YIELD STRENGTH, fy, EQUAL TO 248 MPa (36 ksi).
2. UNLESS OTHERWISE NOTED, ALL LIGHT GAGE COLD-FORMED STRUCTURAL STEEL MEMBERS SHALL CONFORM TO JIS G3101 SS400 STEEL WITH MINIMUM YIELD STRENGTH, fy, EQUAL TO 170 MPa (25 ksi).
3. ALL STRUCTURAL STEEL WORKS, FABRICATION, AND WELDING SHALL BE IN ACCORDANCE WITH THE LATEST AISC (ASD), AWS, AND IBC STANDARDS.
4. UNLESS OTHERWISE NOTED, WELDED AND BOLTED CONNECTIONS MUST DEVELOP THE FULL STRENGTH OF THE MEMBERS.
5. USE ASTM A325 BOLTS AND AWS E70XX ELECTRODES FOR WELDING. UNLESS OTHERWISE SPECIFIED, WELDS SHALL BE CONTINUOUS FILLET WELDS OF MINIMUM REQUIRED THROAT THICKNESS BUT SHALL NOT BE LESS THAN 4mm.
6. UNLESS OTHERWISE NOTED, ALL STRUCTURAL STEEL SHAPES, PLATES, CONNECTORS, AND BOLTS SHALL BE HOT-DIPPED GALVANIZED IN ACCORDANCE WITH ASTM-123.
7. THE CONTRACTOR SHALL PREPARE FABRICATION (SHOP) DRAWINGS OF ALL STRUCTURAL STEEL MEMBERS BASED ON DESIGNS FOR THE APPROVAL OF THE STRUCTURAL ENGINEER PRIOR TO FABRICATION.
8. REFER TO THE TECHNICAL SPECIFICATIONS FOR STRUCTURAL WORKS FOR DETAILS OF PROTECTIVE PAINT.

MISCELLANEOUS METALS / STEEL WORK:

1. MISCELLANEOUS METALS SHALL BE DESIGNED BY THE CONTRACTOR / FABRICATOR PER REQUIREMENTS OF THE CONTRACT DRAWINGS AND THE DESIGN LOADS. SUBMIT SHOP DRAWINGS FOR THE ENGINEER FOR REVIEW BEFORE FABRICATION.
2. ALL MISCELLANEOUS METALS, EMBEDDED ELEMENTS, INCLUDING ANCHOR BOLTS AND HEADED STUDS, EXCEPT WHERE THEY ARE FULLY ENCASED IN CONCRETE, SHALL BE HOT-DIP GALVANIZED IN ACCORDANCE WITH ASTM A-123.

BASIC DESIGN CRITERIA / LOADS:

1. DEAD LOADS: SELF-WEIGHT AND ALL SUPERIMPOSED DEAD LOADS AS INDICATED IN THE FRAMING PLANS.
2. LIVE LOADS: ALL SUPERIMPOSED LIVE LOADS AS INDICATED IN THE DRAWINGS
3. SEISMIC LOADS: (BASED ON THE LATEST VERSION OF THE NATIONAL STRUCTURAL CODE OF THE PHILS.)

A. OCCUPANCY CATEGORY	–	CATEGORY IV, STANDARD OCCUPANCY
B. SEISMICITY	–	ZONE 4
C. SEISMIC ZONE FACTOR, Z	–	0.40
D. IMPORTANCE FACTOR, Ie	–	1.00
E. SOIL PROFILE TYPE	–	S_D*
F. SEISMIC SOURCE TYPE	–	A*
G. NEAR SOURCE FACTOR, Na	–	1.00*
H. NEAR SOURCE FACTOR, Nv	–	1.00*
I. TRACE DISTANCE TO SOURCE	–	>10 km*

4. WIND LOADS: (BASED ON THE LATEST VERSION OF THE NATIONAL STRUCTURAL CODE OF THE PHILS., NSCP)

A. OCCUPANCY CATEGORY	–	CATEGORY IV, STANDARD OCCUPANCY
B. WIND ZONE	–	ZONE II
C. EXPOSURE	–	D (TO BE VERIFIED)
D. IMPORTANCE FACTOR, Iw	–	1.00
E. WIND SPEED FOR MAIN WIND FORCE RESISTING SYSTEM	–	200 kph (55 m/s)

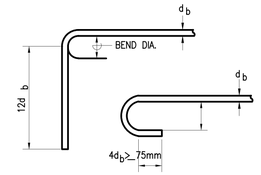
5. FOUNDATION (TO BE VERIFED)

A. NET SOIL BEARING CAPACITY	–	90 kPa*

6. DESIGN REFERENCES AND CODES

-AMERICAN CONCRETE INSTITUTE: ACI 318/ACI 318R/ACI 301 REFERENCED BY THE NSCP
-AMERICAN SOCIETY OF CIVIL ENGINEERS: ASCE 7 REFERENCED BY THE NSCP
-INTERNATIONAL BUILDING CODE (IBC) REFERENCED BY THE NSCP
-UNIFORM BUILDING CODE (UBC) REFERENCED BY THE NSCP
-ASSOCIATION OF STRUCTURAL ENGINEERS OF THE PHILIPPINES (ASEP) DESIGN MANUALS

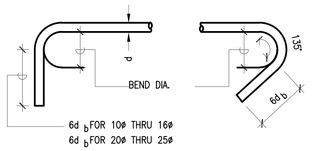
" * " – DENOTES VALUES THAT HAVE TO BE VERIFIED BY CONTRACTOR'S SOIL SPECIALIST



BAR DIA. mm	MIN. FINISHED BEND. DIA. (*)
10 ~ 25	$6d_b$
28 ~ 36	$8d_b$
40 & 56	$10d_b$

(*) MEASURED ON INSIDE OF BAR

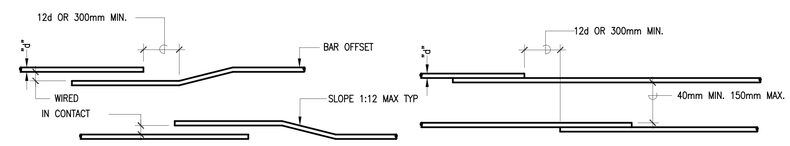
1 S-01 S-01 STD. HOOKS FOR PRIMARY REINF.
SCALE N.T.S.



BAR DIAMETER mm	MINIMUM FINISHED BEND.DIA. (**)
10~16	$4d_b$
20~25	$6d_b$

(**) MEASURED ON INSIDE OF BAR

2 S-01 S-01 STD. HOOKS FOR STIRRUPS/TIES
SCALE N.T.S.



3 S-01 S-01 LAP SPLICE DETAILS
SCALE N.T.S.

SCHEDULE OF DEVELOPMENT AND LAP SPLICE LENGTHS

A. IF AND WHEN REQUIRED, PROVIDE LAPS AND SPLICES ACCORDING TO TABLES "A", "B", & "C" THAT FOLLOW:

TABLE "A": STRAIGHT TENSION BARS

BAR SIZE	f'c = 27.6 MPa (4,000 psi)			
	DEVELOPMENT LENGTH, (mm)		LENGTH OF LAP SPLICE, (mm)	
	TOP BARS	OTHER BARS	TOP BARS	OTHER BARS
fy = 230 MPa				
10ø & SMALLER	300	260	430	340
fy = 275 MPa				
12ø	490	380	630	510
16ø	660	500	830	670
20ø	830	630	1050	830

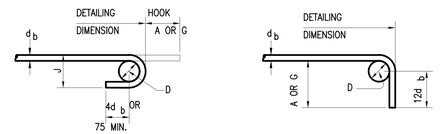
TABLE "B": COMPRESSION BARS

BAR SIZE	f'c = 27.6 MPa (4,000 psi)	
	DEVELOPMENT LENGTH, (mm)	LENGTH OF LAP SPLICE, (mm)
fy = 230 MPa		
10ø & SMALLER	130	170
fy = 275 MPa		
12ø	170	210
16ø	210	280
20ø	260	340

TABLE "C": TENSION BARS TERMINATING IN STD. HOOKS

BAR SIZE	f'c = 27.6 MPa
	DEVELOPMENT LENGTH (mm)
fy = 230 MPa	
10ø AND SMALLER	150
fy = 275 MPa	
12ø	160
16ø	210
20ø	260

4 S-01 S-01 DEVELOPMENT LENGTHS AND LAP SPLICES
SCALE N.T.S.



END HOOKS, ALL GRADES				
BAR DIA. mm	FINISHED BEND DIA. D, mm.	180° HOOKS		90° HOOKS
		A or G	J	A or G
10	60	125	75	150
12	75	150	100	200
16	95	175	125	250
20	115	200	150	300
22	135	250	175	350
25	150	275	200	400

5 S-01 S-01 STD. END HOOKS, ALL GRADES
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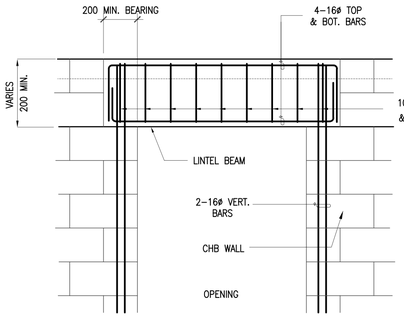
PROJECT TITLE AND LOCATION	SHEET CONTENT	DRAFTED:	REVIEWED:	SUBMITTED:	RECOMMENDED:	APPROVED:	SET NO.	SHEET NO
CONSTRUCTION OF MUNICIPAL SPORTS COMPLEX (GRANDSTAND) STA.CRUZ, OCCIDENTAL MINDORO	CONSTRUCTION NOTES (PART 1 OF 2)	ARCHITECT I PREPARED: ARCHITECT I	ENGINEER II DATE:	NELSON E. MABULAY CHIEF, PLANNING AND DESIGN SECTION DATE:	SHERYLL B. MULINGBAYAN OIC, ASSISTANT DISTRICT ENGINEER DATE:	NAPOLEON S. FAMADICO DISTRICT ENGINEER DATE:	S 01	- -



1 TYPICAL LINTEL BEAM DETAIL

S-02 | S-02 SCALE N.T.S.

SCHEDULE OF CHB REINFORCEMENT		
BLOCK THICKNESS mm	REINFORCEMENT	
	HORIZONTAL	VERTICAL
100	10ø @ 400mm O.C.	10ø @ 400mm O.C.
150	12ø @ 400mm O.C.	12ø @ 400mm O.C.
200	12ø @ 400mm O.C.	16ø @ 400mm O.C.

ADDITIONAL NOTES ON CHB

A. MINIMUM LAP AT SPLICES (OTHER THAN WITH DOWELS) = 300mm.

B. PROVIDE RIGHT ANGLED REINFORCEMENT (900 mm. LONG) AT CORNERS.

C. WHERE CHB WALLS ADJOIN COLUMNS, BEAMS, OR WALLS, DOWELS WITH THE SAME SIZE AS VERTICAL OR HORIZONTAL REINFORCEMENTS SHALL BE PROVIDED.

D. PROVIDE BEAM BLOCKS AT EVERY FOURTH COARSE AND POST AT 2.80m O.C.

E. PROVIDE LINTEL BEAMS AND POSTS FOR ALL OPENINGS THAT SPAN 2m OR MORE.

F. UNLESS AN ALTERNATIVE FINISHING/WATER-PROOF FINISH SYSTEM (E.G. EIFS) IS USED, CHB EXTERIOR PARTITIONS SHALL HAVE ALL THEIR CELLS FILLED WITH GROUT. FOR OTHER CHB PARTITIONS, ONLY CELLS WITH VERTICAL REINFORCEMENTS NEED BE GROUTED.

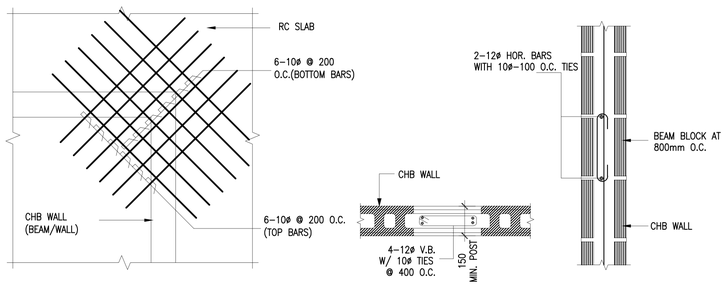


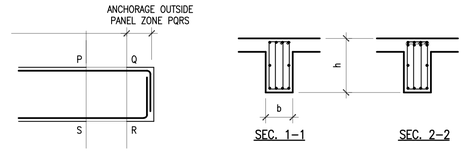
FIG. 1 - DET. @ CORNER SLABS AND ENTRANT CORNERS

DET. OF POST

DET. OF BEAM BLOCK

2 TYP. NOTES ON CONC. HOLLOW BLOCK (CHB) CONSTRUCTION

S-02 | S-02 SCALE N.T.S.



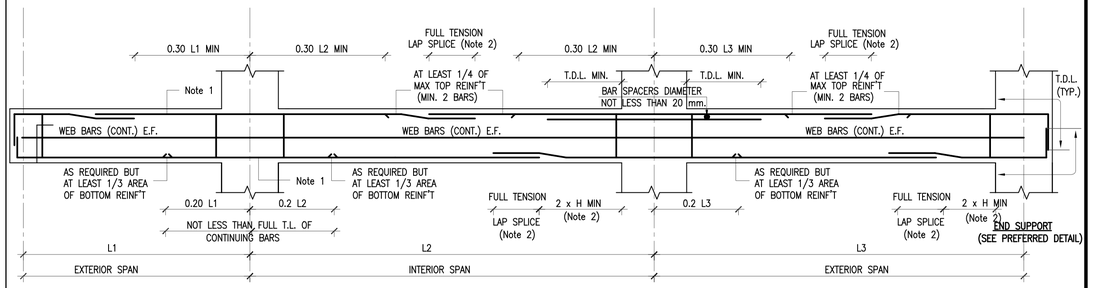
ALTERNATIVE PREFERRED END SUPPORT DETAIL

SEC. 1–1 SEC. 2–2

BEAMS FORMING PART OF A DUCTILE MOMENT RESISTING FRAMEWORK

NOTES:

1. THE AREA OF BOTTOM STEEL AT THE SUPPORTS SHALL BE AT LEAST HALF OF THE TOP STEEL AT THAT SECTION.
2. NO LAPS IN TOP AND BOTTOM STEEL TO OCCUR WITHIN A DISTANCE OF "2H" FROM FACE OF SUPPORT.
3. LOCATION OF LAP SPLICES OF TOP AND BOTTOM REBARS SHOULD NOT BE AT THE SAME SECTION.
4. LAP SPLICES SHALL BE CONFINED BY STIRRUPS SPACED AT S=100mm O.C.
5. LAPS IN MAIN WEB BARS ARE TO BE STAGGERED RELATIVE TO LAPS IN MAIN TOP AND BOTTOM BARS.
6. WEB BARS ARE TENSION BARS AND SHALL BE LAPPED ACCORDINGLY.
7. LAPS ARE TO BE KEPT TO A MINIMUM AND CRANKS, IF REQUIRED, ARE TO BE AS FOR COLUMNS.



TYPICAL BEAM DETAILS (U.O.S.)

4 TYPICAL DETAIL AND NOTES ON SUSPENDED BEAMS

S-02 | S-02 SCALE N.T.S.

NOTATIONS:

CS1 (150) – CANTILEVERED, ONE–WAY SLAB, 150mm THK.

– MAIN REINFORCEMENTS ARE IN THE DIRECTION OF THE TEXT OR ARROW

S5 (150) – ONE–WAY SLAB, 150mm THK.

– MAIN REINFORCEMENTS ARE IN THE DIRECTION OF THE TEXT OR ARROW

S2a (150) – TWO–WAY SLAB, 150mm THK.

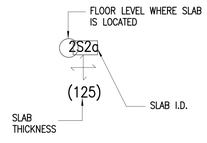
– MAIN REINFORCEMENTS ARE IN THE DIRECTION OF THE TEXT OR ARROW

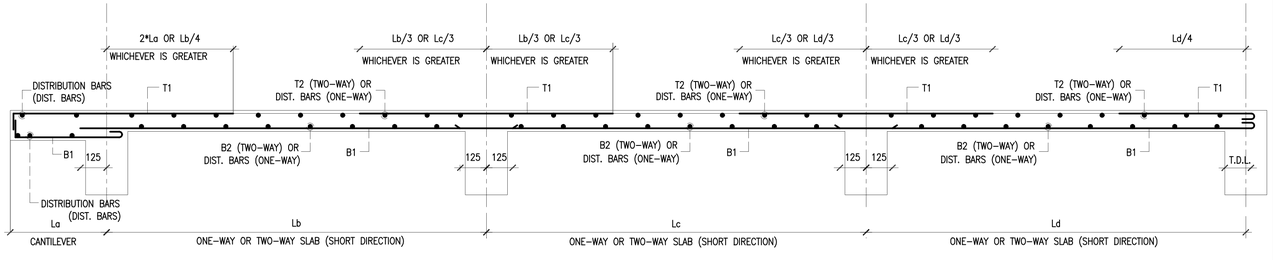
T1 – DENOTES TOP BARS LOCATED AT TOP–MOST LAYER

T2 – DENOTES TOP BARS LOCATED DIRECTLY BELOW AND IN PERPENDICULAR DIRECTION OF T1

B1 – DENOTES BOTTOM BARS LOCATED AT LOWEST LAYER

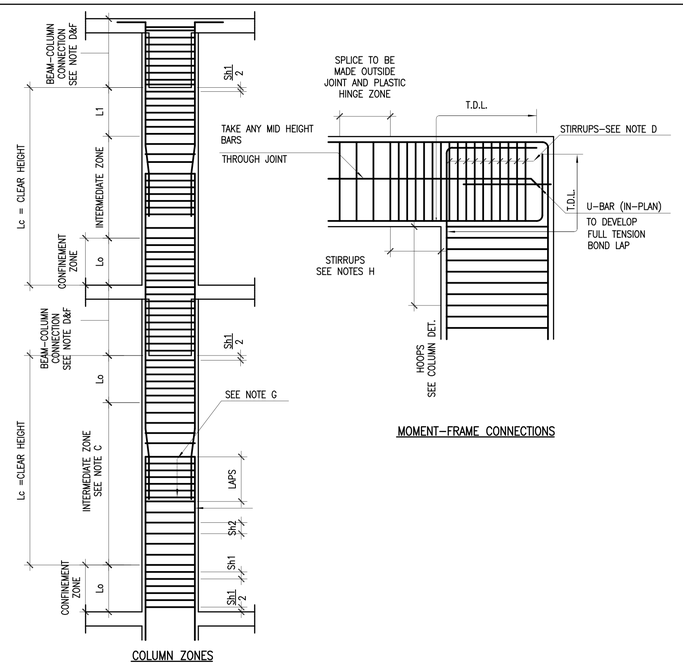
B2 – DENOTES BOTTOM BARS LOCATED DIRECTLY ABOVE AND IN PERPENDICULAR DIRECTION OF B1





3 TYPICAL DETAIL AND NOTES ON SUSPENDED SLAB

S-02 | S-02 SCALE N.T.S.



COLUMN ZONES

MOMENT–FRAME CONNECTIONS

NOTES ON COLUMN DETAIL–1

UNLESS OTHERWISE STATED/SHOWN ON THE DRAWINGS:

A. Lo=TO BE LARGEST AMONG:
   1) h (h>b; COLUMN DIMENSIONS)
   2) Lc/6 = 1/6 OF CLEAR HEIGHT
   3) 450mm.

B. FOR COLUMNS REQUIRING SPECIAL CONFINEMENT STEEL:
   a. Sh1=SPACING OF ALL CONFINEMENT HOOPS AND CROSS TIES IN CONFINEMENT ZONE= LEAST AMONG:
      1) 0.25*b (h>b)
      2) 100 + 0.33 [350–hx] ≤ 150mm.; NEED NOT < 100mm. (WHERE hx=HORIZONTAL SPACING OF CROSS–TIES ≤ 150mm)
      3) 6*øb (WHERE øb=DIAMETER OF LONGITUDINAL REINFORCEMENT)
   b. Sh2=SPACING OF ALL LINKS AND TIES IN INTERMEDIATE ZONE. SPACING TO BE LEAST AMONG:
      1) 6*øb (WHERE øb=DIAMETER OF LONGITUDINAL REINFORCEMENT)
      2) 150mm.

C. FOR COLUMNS NOT REQUIRING SPECIAL CONFINEMENT OR SHEAR HOOPS, PROVIDE MINIMUM HOOPS WITH SPACING TO BE THE LEAST OF:
   1) 12øb
   2) 350mm
   3) 0.4*b (h>b; COLUMN DIMENSIONS)

D. ALL HOOP ARRANGEMENTS MUST ALSO BE CAPABLE OF RESISTING THE APPLIED SHEARS THROUGHOUT THE WHOLE COLUMN LENGTH INCLUDING THE BEAM COLUMN CONNECTION ZONE. PROVIDE TIES WITH THE SAME NUMBER OF SETS AND SPACING AS IN THE CONFINEMENT ZONE.

E. SPLICES SHOULD BE MADE OUTSIDE OF PLASTIC HINGE ZONES AND ARE TO BE LARGER OF :
   1) CALCULATED BOND LENGTH
   2) AS LISTED IN "SCHEDULE OF DEVELOPMENT LENGTHS AND LAP LENGTHS" IN DWG S–01.

F. DIAMETER OF SUPPLEMENTARY TIES TO BE SAME DIAMETER AS HOOPS.

G. SPLICES TO BE CONFINED BY LINKS SPACED AT 100mm WITH THE TOPMOST LINK TO BE AT TOP OF LOWER SPLICE BAR.

H FOR STIRRUP DIAMETER AND SPACING, SEE BEAM SCHEDULES.

J. MAIN TOP STEEL IS TO EXTEND FROM COLUMN INTO BEAM AS FAR AS PRACTICABLE BEFORE LAPPING.

5 TYPICAL DETAILS AND NOTES ON COLUMNS

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CONSTRUCTION OF MUNICIPAL SPORTS COMPLEX (GRANDSTAND) STA.CRUZ, OCCIDENTAL MINDORO	CONSTRUCTION NOTES (PART 2 OF 2)	ARCHITECT I					S 02	- -
		PREPARED:		NELSON E. MABULAY	SHERYLL B. MULINGBAYAN	NAPOLEON S. FAMADICO		
		ARCHITECT I	ENGINEER II DATE:	CHIEF, PLANNING AND DESIGN SECTION DATE:	OIC, ASSISTANT DISTRICT ENGINEER DATE:	DISTRICT ENGINEER DATE:		