G M Z M RAL CONSTRUCTION NOTES

GENERAL NOTES

- 1.0 STANDARDS AND REFERENCES
 THE FOLLOWING SHALL GOVERN THE DESIGN FABRICATION AND CONSTRUCTION OF THE PROJECT.
 1.1 NATIONAL STRUCTURAL CODE OF THE PHILIPPINES (N.S.C.P 2015) VOL. 1, SEVENTH EDITION.

2.0 DESIGN CRITERIA 2.1 LOADINGS

CORRIDORS ABOVE, STAIRS CORRIDORS ON GROUND	TOILETS	CLASSROOMS	ROOF	B. LIVE LOAD	100 mm THK, CHB WALL	150 mm THK. CHB WALL	STEEL	CONCRETE	A. DEAD LOAD
3.80 kPa 4.80 kPa					2.11 kPa	2.73 kPa	76.93 kN/m ³	23.56 kN/m ³	

BUILDING CATEGORY = 1 (ESSENTIAL FACILITIES)
EXPOSURE = D (FLAT, UNOBSTRUCTED AREAS AND WATER SURFACES) MAXIMUM WIND VELOCITY, V = 340 KPH

P = qh [(GCpf)-(GCpi)]

(DESIGN WIND PRESSURE)

C. WIND LOAD

- WHERE: qh = VELOCITY PRESSURE (kPa)
 GCpf = EXTERNAL PRESSURE COFFECIENT
 GCpf = INTERNAL PRESSURE COFFECIENT

D. SEISMIC LOAD V=<u>श</u>्रि ₩ (DESIGN BASE SHEAR)

Vmax = 2.50Cal W	2
Vmin = 0.11 CalW Vmin = 0.80 ZNVI R	
(ZONE 4)	

								WHERE	
Z = SEISMIC ZONE = 0.40 (ZONE 4)	NEAR SOURCE FACTOR (5 km) Nv = 1.6 Na = 1.2	SEISMIC COEFFICIENT Cv = 0.44 Nv Ca = 0.64 Nv	R = NUMERICAL FACTOR = 8.50	I = IMPORTANCE FACTOR = 1.50	h = BUILDING HEIGHT	WHERE: C = NUMERICAL COEFFICIENT	T = NATURAL PERIOD = Ct(h)	W = TOTAL DEAD LOAD	7

2.2 DESIGN STRESSES S = SOIL TYPE = D

G. STRUCTURAL BULTS ASTM: ASW	F. WELDS	NON - LOADING BEARING CHB WALLS	E. MASONRY UNIT (CHB)	COLD FORMED LIGHT	D. PURLINS	FOR TRUSSES, BRACINGS , & STRUTS	C. STRUCTURAL STEEL ASTM-A36	b. FOR BARS LESS THAN 16mm (STRUCTURAL GRADE DEFORMED BAR)	 a. FOR BARS 16mm AND GREATER (INTERMEDIATE GRADE DEFORMED BAR) 	B. REINFORCING STEEL BARS	b. SLAB ON FILL	a. FOOTINGS, COLUMNS, BEAMS AND SLABS	A. CONCRETE COMPRESSIVE STRENGTH @ 28 DAYS:
a. Ft = 90.00 mPa (14, 000 ps) b. Fv= 69.00 mPa (10, 000 psi)	E - 60XX ELECTRODE	fm' = 3.45 MPa (500 psi)		fy = 248 MPa (36,000 psi)		fy = 248 MPa (36,000 psi)		fy = 230 MPa (33,000 psi)	fy = 275 MPa (40,000 psi)		fc = 17.5 MPa (2,500 psi)	fc = 20.7 MPa (3,000 psi)	

- 3.0 IN THE INTERPRETATION OF THE DRAWING, INDICATED DIMENSIONS SHALL GOVERN. DISTANCES AND SIZES SHALL NOT BE SCALED FOR CONSTRUCTIONS PURPOSES
- 4.0 IN REFERENCES TO OTHER DRAWINGS, SEE ARCHITECTURAL DRAWINGS FOR DEPRESSIONS IN FLOOR SLABS, OPENINGS IN THE WALLS AND SLABS, INTERIOR PARTITIONS, LOCATIONS OF DRAINS ETC.
- 5.0 IN CASE OF DISCREPANCIES AS TO THE LAYOUT, DIMENSIONS AND ELEVATIONS BETWEEN THE STRUCTURAL ENGINEER AND ARCHITECTS. STRUCTURAL PLANS AND ARCHITECTURAL DRAWINGS, THE CONTRACTORS SHALL NOTIFY BOTH THE
- 6.0 ALL CONCRETE WORKS AND CONCRETE REINFORCEMENTS SHALL BE DONE IN ACCORDANCE WITH THE ACI.318-14M BUILDING CODE REQUIREMENT AND ALL STRUCTURAL STEEL WORKS ACCORDING WITH THE WITH THE AISC-05 IN SOFAR AS THEY DO NOT CONFLICT WITH THE LOCAL BUILDING CODE REQUIREMENT.
- 7.0 ACI REFERS TO AMERICAN CONCRETE INSTITUTE, AISC REFERS TO AMERICAN INSTITUTE OF STEEL CONSTRUCTION AND ASTM REFERS TO AMERICAN SOCIETY FOR TESTING MATERIALS.
- 8.0 CONSTURCTION NOTES AND TYPICAL DETAILS APPLY TO ALL DRAWINGS UNLESS OTHERWISE SHOWN OR NOTED. MODIFY TYPICAL DETAILS AS DIRECTED TO MEET SPECIAL CONDITIONS.
- 9.0 SHOP DRAWING WITH ERECTION AND PLACING DIAGRAMS OF ALL STRUCTURAL STEELS, MISCELLANEOUS IRON, PRE-CAST CONCRETE, ETC. SHALL BE SUBMITTED FOR ENGINEERS APPROVAL BEFORE FABRICATION. 10. CONTRACTOR SHALL NOTE AND PROVIDE ALL MISCELLANEUOS CURBS, SILLS, STOOLS EQUIPMENT AND MECHANICAL BASES THAT ARE REQUIRED BY THE ARCHITECTURAL, ELECTRICAL AND MECHANICAL DRAWINGS.
- 11. ALL RESULTS OF THE MATERIAL TESTING FOR CONCRETE, REINFORCING BARS & STRUCTURAL STEEL MUST BE NOTED & APPROVED BY THE MATERIALS ENGINEER/STRUCTURAL DESIGNER

NOTES ON CONCRETE MIXES & PLACING

1. ALL CONCRETE SHALL DEVELOP A MIN. COMPRESSIVE STRENGTH AT THE END OF TWENTY EIGHT

(28) DAYS W/ CORRESPONDING MAXIMUM SIZE AGGREGATE & SLUMP AS FOLLOWS.

2. MAINTAIN MINIMUM CONCRETE COVE SUSPENDED SLABS	ALL OTHERS, INCLUDING SUSPENDED SLABS COLUMNS BEAMS ,SLABS SLAB ON FILL	LOCATION
2. MAINTAIN MINIMUM CONCRETE COVER FOR REINFORCING STEEL AS FOLLOWS SUSPENDED SLABS	3000 PSI (20.7 MPa) 3000 PSI (20.7 MPa) 3000 PSI (20.7 MPa) 3000 PSI (17.5 MPa)	28 DAYS STRENGTH
NG STEEL AS FOLLOWS.	20 mm 20 mm 20 mm 20 mm	MAX. SIZE OF AGGREGATE
20mm 40mm 25mm 40mm 50mm	100mm 100mm 100mm 100mm	MAX SLUMP

- CONCRETE SHALL BE DEPOSITED IN ITS FINAL POSISITION WITHOUT SEGREGATION. RE-HANDLING OR PLACING SHALL BE DONE PREFERABLY WITH BUGGIES, BUCKETS OR WHEELBARROWS. IN AGGREGATE LENGTH. NO CHUTES WILL BE ALLOWED EXCEPT TO TRANSFER CONCRETE FROM HOPPERS TO BUIGGIES, WHEELBARROWS OR BUCKETS IN WHICH CASE THEY SHALL NOT EXCEED SIX (6) METERS
- 4. NO DEPOSITING OF CONCRETE SHALL BE ALLOWED WITHOUT THE USE OF VIBRATORS UNLESS AUTHORIZED IN WRITING DESIGNER AND ONLY FOR UNUSUAL CONDITIONS WHERE VIBRATIONS ARE EXTREMELY DIFFICULT TO ACCOMPLISH.
- 5. ALL ANCHOR BOLTS, DOWELS, AND OTHER INSERTS SHALL BE PROPERLY POSITIONED & SECURED IN PLACE PRIOR TO PLACING OF CONCRETE.
- 6. ALL CONCRETE SHALL BE KEPT MOST FOR A MINIMUM OF SEVEN CONSECUTIVE DAYS IMMEDIATELY AFTER POURING BY THE USE O WET BURLAP, FOG SPRAYING, CURING COMPOUNDS OR OTHER APPROVED METHODS.

	BEAMS	WALLS	ADDITIONAL LOADS ARE IMPOSED	SUSPENDED SLAB EXCEPT WHEN	FOUNDATION	STRIPPING OF FORMS AND SHORES:
31 0 00	14 DAYS	21 DAYS		8 DAYS	24 HOURS	

- 8. THE CONTRACTOR SHALL SUBMIT THE SCHEDULE OF POURING AND THE LOCATION OF THE CONSTRUCTION JOINTS TO THE STRUCTURAL ENGINEER AT LEAST (4) DAYS PRIOR TO THE POURING FOR APPROVAL.
- 9. THE CONTRACTOR SHALL FURNISH AND MAITAIN ADEQUATE FORMS AND SHORINGS UNTIL THE CONCRETE MEMBERS HAVE ATTAINED THEIR WORKING CONDITION AND STRENGTH.

NOTES ON FOOTINGS

- 1. FOOTINGS ARE DESIGNED FOR AN ALLOWANCE SOIL BEARING PRESSURE OF 96 KPa (2000psf). CONTRACTOR SHALL REPORT TO THE ENGINEER, IN WRITING, THE ACTUAL SOIL CONDITIONS UNCOVERED AND CONFIRM ACTUAL BEARING CAPACITY OF SOIL BEFORE DEPOSITING CONCRETE. 2. FOOTING SHALL REST AT LEAST 1500mm BELOW NATURAL GRADE LINE UNLESS OTHERWISE INDICATED IN PLANS. NO FOOTING SHALL REST ON FILL

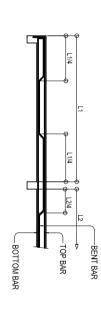
 3. MINIMUM CONCRETE PROTECTION FOR REINFORCEMENT SHALL BE 75mm CLEAR FOR CONCRETE DEPOSITED THE GROUND AND 50mm FOR CONCRETE DEPOSITED AGAINST A FORMWORK.

 4. IN CASES WHERE THE SOIL CONDITION IS SUCH THAT THE MINIMUM ALLOWABLE SOIL PRESSURE OF 96KPa (2000 psf) CAN NOT BE ATTAINED AT A PRACTICAL DEPTHS THE USE OF MICROPILES, BORED PILES, OR DRIVEN PILES MAY BE ADOPTED IN LIEU OF STANDARD ISOLATED FOOTINGS.

NOTES ON REINFORCEMENT

NOTES ON CONCRETE SLABS

1. ALL SLAB REINFORCEMENTS SHALL BE 20mm CLEAR MINIMUM FROM BOTTOM AND FROM THE TOP OF SLAB.
2. UNLESS OTHERWISE SHOWN, REINFORCEMENT IN CONTINUOUS ELEVETED SLAB SHALL BE CUT AS FOLLOWS:



- 3. IF SLABS AR E REINFORCED BOTHWAYS BARS ALONG THE SHORTER SPAN SHALL BE PLACED BELOW THOSE ALONE THE LONG SPAN AT THE CENTER AND OVER THE LONGER SPAN FOR REINFORCING BARS NEAR THE SUPPORTS. THE SPACING OF THE BARS AT THE COLUMN STRIPS SHALL NOT BE MORE THAN ONE AND A HALF (1 $\frac{1}{2}$) SLAB THICKNESS.
- TEMPERATURE BARS FOR SLAB SHALL BE GENERALLY PLACED NEAR THE FACE SHALL NOT BE LESS THAN 0.0025 X GROSS-SECTIONAL AREA (Ag) OF THE SLAB. (SEE SCHEDULE BELOW) N TENSION AND

CONF. REINF.

JONTHOOP SPACE @ "28" WHEN
THERE BRAINS HAVING WIDTH OF
AT LEAST ONE-HALF THE COLUMN
WIDTH & DEPTHS NOT LESS THAN
THREE QUARTERS OF THE DEEPEST
BEAM THAT FRANCE WITOFOUR
SIDES OF THE COLUMN. ALL OTHER
CONDITIONS USE HOOPS @ "SI" CENTERS.

SCHEDI	SCHEDOLE OF MINIMUM SLAB REINFORCEMENT
	MINIMUM TEMPERATURE BARS
100 mm	10mm Ø @ 250mm EACH WAY
125 mm	10mm Ø @ 250mm EACH WAY
150 mm	10mm Ø @ 250mm EACH WAY
175 mm	10mm Ø @ 250mm EACH WAY

5. UNLESS OTHERWISE NOTED IN THE PLANS ALL BEDDED SLABS SHALL BE REINFORCED WITH 10mm Ø AT 250mm O.C. EACH WAY TO CENTER OF SLAB AND CONSTRUCTION JOINTS FOR SAME SHALL NOT BE LESS THAN 3.65 METER APART.

CONF. REINF. CONF. REINF. CONF. REINF. CONF. REINF.

OF MIN. LAP SPLICES SEE TABLE
COLUMN REINFORCEMENT

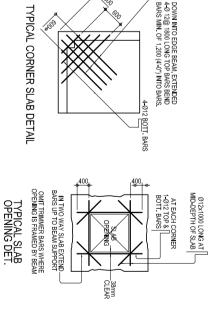
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NOTE:

ALL CONCRETE REINF, DETAIL SHOULD
BE DONE IN ACCORDANCE WITH ACI
DETAILING MANUAL (LATEST EDITION)

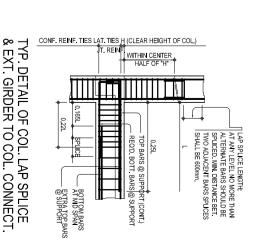
TYPICAL COLUMN ELEV. SHOWING DOWELS AND TIES SPACING

- 6. PROVIDE EXTRA REINFORCEMENTS FOR CORNER SLAB (TWO ADJACENT DISCONTINUOES EDGES) AS SHOWN BELOW.
- CONCRETE SLAB REINFORCEMENT BE PROPERLY SUPPORTED WITH 10mm STEEL CHAIR OR APPROVED EQUIVALENT SPACED AT 1.0 METER ON CENTER BOTHWAYS.



NOTES ON COLUMNS

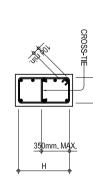
- PROVIDE EXTRA SETS OF TIES AT 100 O.C. FOR TIED COLUMN REINFORCEMENT ABOVE
 AND BELOW BEAM-COLUMN CONNECTIONS FOR A DISTANCE FROM FACE OF CONNECTION
 EQUAL TO GREATER OF THE OVERALL THICKNESS OF COLUMN, 1/6 THE CLEAR HEIGHT OF
 COLUMN OR 450mm.
- COLUMN TIES SHALL BE PROTECTED EVERYWHERE BY A COVERING OF CONCRETE CAST MONOLITHICALLY WIT HTHE CORE WITH A MINIMUM THICKNESS OF 40mm AND NOT LESS THAN 40 TIMES THE MAXIMUM SIZE OF COARSE AGGREGATE IN MILLIMETERS.
- 3. WHERE COLUMNS CHANGE IN SIZE. VERTICAL REINFORCEMENT SHALL BE OFFSET AT A SLOPE MONOLITHICALLY WITH THE CORE WITH MINIMUM THICKNESS OF 40mm AND NOT LESS THAN 40 TIMES THE MAXIMUM SIZE COARSE AGGREGATE IN MILLIMETERS 4. UNLESS OTHERWISE INDICATED IN THE PLANS; LAP SPLICES FOR VERTICAL COLUMN REINFORCEMENT SHALL BE MADE WITHIN THE CENTER HAJE OF COLUMN HEIGHT, AND THE SPLICE LENGTH SHALL BE LESS THAN 40 BAR DIAMETERS, WELDING OR APPROVED MECHANICAL DEVICES MAY BE USED PROVIDED THAT NOT MORE THAN ALTERNATE BARS ARE WELDED OR MECHANICALLY SPLICED AT ANY LEVEL AND THE VERTICAL DISTANCES BETWEEN THESE WELDS OR SPLICES OF ADJACENT BARS IS NOT LESS THAN 800mm.

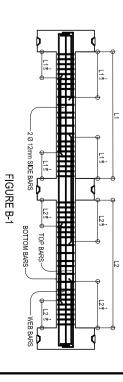


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NOTES ON BEAMS AND GIRDERS

- 1. UNLESS, OTHERWISE NOTED IN PLANS, CAMBER ALL BEAMS AND GIRDER AT LEAST 6mm0 FOR EVERY 4.50 M OF SPAN, EXCEPT CAUTILEVERS FOR WHICH THE CAMBER SHALL BE AS NOTED IN PLANS OR AS ORDERED BY THE ENGINEER BUT IN NO CASE LESS THAN 20 mm FOR EVERY 3.0 M OF FREE SPAN.
- 2. TYPICAL BARS BENDING AND CUTTING DETAILS FOR BEAMS SHALL BE AS SHOWN IN FIG. B-1









WILFREDO D. ALARCON STRUCTURAL ENGINEER EFD-DapED

ENGINEER

RECOMMENDING APPROVAL

LUIS G. PURISIMA, JR. ASST. CHIEF, EFD—AS DepED

recommending approval ANNABELIYE R. PÁNGAN CHIEF OFFICE OF THE CHIEF, EFD—AS Receboury

APPROVED BY :

PROJECT TITLE :

Undersecretary for administration ALAIN DEL B/ PASCUA

LOCATION MODIFIED STANDARD DEPED
ONE (1) STOREY, THREE (3) CLASSROOM
SCHOOL BUILDING
(WITH COMMON TOILETS @ ONE SIDE)

PROJECT CODE: DEPARTMENT OF E DepED

DESIGN CRITERIA
GENERAL CONSTRUCTION NOTES **EDUCATION** <u>S-1</u> ∞

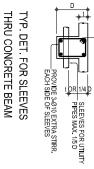
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a ENERAL CONSTRUCTION NOTES

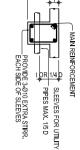
~		¥'''	Y VALUE BY 2 HE BARS SHALL BE QUIRED LAP LENGT	TES: 1. TOP PLAIN BARS, MULTIPLY VALUE BY 2 2. NOT MORE THAM 33% OF THE BARS SHALL BE SPLICED WITHIN THE REQUIRED LAP LENGTH	NOTES: 1. TOP PL 2. NOT MC SPLIC	
	1100	850	1300	950	Ø32	
	850	650	1000	750	Ø28	
	750	550	800	600	Ø25	
	500	350	550	400	Ø20	
	400	300	400	300	Ø16	
	300	300	300	300	Ø12	
	300	300	300	300	Ø10	
(DEF	LAPPED	EMBEDMENT	LAPPED	EMBEDMENT	(DEFORMED MM)	
BAI	'a (4000psl)	fc'= 27.6 MPa (4000psl)	fc'= 20.7MPa(300psl)	fc'= 20.7N	BAR SIZES	
	(mm)	TENSION BARS TABLE OF LAP SPLICE & ANCHORAGE LENGTH (mm)	TENSION BARS	TI OF LAP SPLICE	TABLE	
			I ABLE 'A'			

912 275 3 916 330 4 920 550 6 925 625 6	(DEF)	TABLE BAR SIZES (DEFORMED MM) Ø10	TABLE '8' COMPRESSION BARS TABLE OF LAP SPLICE & ANCHORAGE LENGTH (mm) TABLE OF LAP SPLICE & ANCHORAGE LENGTH (mm) 6: = 20.7 InFa;(300gs)	TABI PRES: DE & A (Pa(300	TABLE 'B' COMPRESSION BARS SPLICE & ANCHORAG 20.7MPa(300psi) ENT LAPPED EN 300
EMBEDMENT LAPPED 225 300 225 300 239 400 450 500 550 625 625 675 700 775	20	SIZES	fc'= 20.7N	fc'= 20.7MPa(300psl)	fc'= 27.6 MPa (4000psl)
225 275 390 490 590 590 700	(PF	ORMED MM)	EMBEDMENT	LAPPED	EMBEDMENT
275 350 450 550 625 700		Ø10	225	300	200
350 450 550 625 700		Ø12	275	300	250
450 550 625 700		Ø16	350	400	325
550 625 700		Ø20	450	500	475
625 700		Ø25	550	625	550
700		Ø28	625	675	625
		Ø32	700	775	

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



MAIN REINFORCEMENT



THRU CONCRETE BEAM TYP. DET. FOR SLEEVES

INTERSECTION WALL

FOR SIZE AND SPACING OF HOR. & VERT. BARS SEE CONSTRUCTION NOTES

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

Ø10 STIRRUPS @ 150 O.C. CHB WALL

1-016 VERT. BARS TYPICAL

FOR SIZE AND SPACING OF HOR. & VERT. BARS SEE CONSTRUCTION NOTES

FIN FLR LVL

NOTES ON CONCRETE HOLLOW BLOCKS WALLS

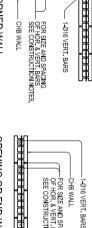
- 1. UNLESS OTHERWISE SHOWN IN PLANS ALL CONCRETE HOLLOW BLOCKS AND CERAMIC BLOCKS SHALL BE REINFORCED AS SHOWN IN THE SCHEDULE OF CONCRETE HOLLOW BLOCKS AND CERAMIC BLOCK REINFORCEMENT.

 2. PROVIDE 150mm x 300mm STIFFENER COLUMN REINFORCED WITH 4-12mm WITH 10mm Ø TIES AT 150mm ON CENTER WHERE CONCRETE HOLLOW BLOCK TERMINATES AND AT EVERY 3.0M LENGTH OF CONCRETE HOLLOW BLOCK WALLS UNLESS NOTED IN STRUCTURAL PLANS.

)mm Ø @ 600mm O.C	≐	12mm Ø EVERY 3RD LEVEL 10mm Ø @ 600mm O.C.	200 mm
REINFORCEMENT SHALL BE PROVIDED	10mm Ø @ 600mm O C	13mm & EVERY 3RD LEVEL	
WITH THE SAME SIZE AS VER OR HOR	10mm Ø @ 600mm O C	10mm 0 6 Man 0 C	
O WHERE CHROR CER BLK WALL DOWELS	10mm Ø @ 600mm O.C.	10mm Ø EVERY 3RD LEVEL 10mm Ø @ 600mm O.C.	
10mm Ø EVERY 3RD LEVEL 10mm Ø @ 600mm O.C. B. PROVIDE RIGHT ANGLED REINFORCEMENT	10mm Ø @ 600mm O.C.	10mm Ø EVERY 3RD LEVEL	
A. MINIMUM LAPS AT SPLICE= 0.25 M	LAPPED	HORIZONTAL	
NOTES	MENT	REINFORCEMENT	BLOCK THICKNESS
NOTES ON CONCRETE HOLLOW BLOCKS WALLS REINFORCEMENTS	HOLLOW BLOCKS V	TES ON CONCRETE H	NO.

REINFORCING CONCRETE LINTEL BEAMS IN CONCRETE BLOCK WALLS

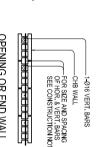
	_	INIEL	LIN LEFO IN DEOCV MAFFS	LOCK	WALL	
CLEAR	TATOT	NIN	HEIGHT OF		REINFOR	REINFORCEMENT
(L)	(L+0.40M)	(MPa)	(mm)	воттом	TOP	STIRRUPS
1.20 M	1.60 M		200	1-Ø10	1-Ø10	Ø6 mm @ 200mm
1.50 M	1.90 M	14.0	200	1-Ø10	1-Ø10	Ø6 mm @ 200mm
1.80 M	2.20 M		200	1-Ø12	1-Ø10	Ø6 mm @ 200mm
2.10 M	2.50 M		250	1-Ø12	1-010	Ø6 mm @ 200mm
2.40 M	2.90 M	17.0	250	1.012	1-Ø10	Ø6 mm @ 200mm
2.70 M	3.10 M		250	1-Ø16	1-012	Ø10mm @ 200mm
W 00 E	3.40 M		300	1-016	1.012	Ø10mm @ 200mm
3.30 M	3.70 M	20.0	300	1.016	1.012	Ø10mm @ 200mm
3.60 M	4.00 M		300	1-@20	1-Ø12	Ø10mm @ 200mm

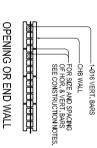


12 THK. EXPANSION JOINT WITH MASTIC FILLER

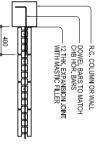
CORNER WALL

CHB WALL





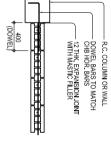


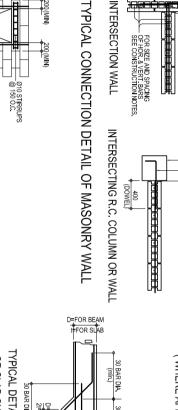


12 THK, EXPANSION JOINT WITH MASTIC FILLER

CHB WALL

1 Ø16 VERT BARS

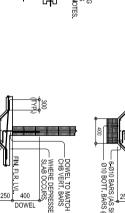




VERIFY DEPRESSION

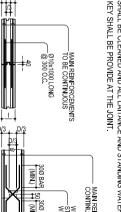
TYPICAL DETAIL FOR BEAM OR SLAB CHANGE SOFFIT

— DOWEL BARS TO MATCH CHB VERTICAL BARS — Ø10 BOTT, BARS @ 300 O.C. FIN FLR LVL 400 SEE CONSTRUCTION NOTES FOR MASONRY WALL REIN-FORCEMENTS (TYPICAL) DOWEL TO MATCH CHB VERT. BARS 010 BOTT. BARS 6-Ø10 BARS (ÅS SHOWN) - Ø10 BOTT. BARS @ 300 O.C



TYPICAL CHB FOOTING DETAILS (WHERE APPLICABLE)





CONSTRUCTION JOINT DET. TYPICAL SL AB & BEAM

NOTES ON CONCRETE WALLS

2-Ø12 TOP BARS DOWEL BARS TO MATCH CHB VERT. BARS

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

TYP. DET. OF LINTEL BEAM AT CHB WALL OPENING

ELEVATION

SECTION

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

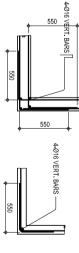
REINFORCING BARS SHALL HAVE 25mm CLEAR CONCRETE COVER FROM FACE OF WALL EXCEPT FOR WALLS IN CONTACT WITH THE GROUND WHERE A MINIMUM OF 60mm SHALL BE PROVIDED AND FOR EXPOSED FACES OF FORMED WALLS WHERE THE MINIMUM SHALL BE 50mm CLEAR.

1. ALL JOINTS AND CELLS
CONTAINING REINFORCING
BARS SHALL BE FILED
WITH CONCRETE GROUT.
2. FOR REINFORCEMENTS SEE
CONSTRUCTION NOTES.

DOWEL BARS TO MATCH VERT. BARS

1-016 CONT. HOR. BARS FOR FLOOR SLAB ONLY

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



NOTES ON STIRUPS

ALL REINFORCEMENT SHALL BE BENT COLD UNLESS OTHERWISE PERMITTED BY THE STRUCTURAL ENGINEER.

3. TIES & CLOSE STIRRUPS MUST BE AT 135. 2. AS SHOWN IN THE DESIGN DRAWINGS OR PERMITTED BY THE STRUCTURAL ENGINEER.

TYPICAL CONNECT OF R.C. WALL AT ION DETAIL CORNERS

NOTES ON WELDS

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

Dbar

NOTES ON STRUCTURAL STEE

1. STRUCTURAL STEEL TO BE USED FOR FABRICATION AND ERECTION OF THIS STRUCTURE SHALL COMPLY WITH ALL THE PERTINENT PROVISION OF AISC SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL SPECIFICATION FOR THE DESIGN, FABRI STEEL FOR BUILDING LATEST EDITION.

BAR SIZE (DEFORMED)

DIAMETER (mm)

- 2. ALL STRUCTURAL STEEL SHAPES SHALL CONFORM TO ASTM A36 STRUCTURAL STEEL UNLESS OTHERWISE INDICATED.
- 3. ALL WELDED CONNECTIONS SHALL DEVELOP THE FULL STRENGTH OF THE MEMBERS CONNECTED.
- 4. UNLESS OTHERWISE SPECIFIED ALL WELDING RODS SHALL CONFORM WITH E60 ELECTRODES.
 5. ALL BOLTS USED UNLESS OTHERWISE SPECIFIED SHALL BE ASTM A 307 BOLTS.

NOTES ON EMBBED PIPES

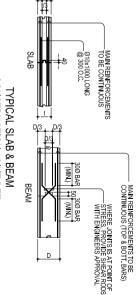
— 6-Ø10 BARS (AS SHOWN) Ø10 BOTT. BARS @ 300 O.C.

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

135 DEG. HOOKS

NOTES ON CONSTRUCTION JOINTS IN CONCRETE

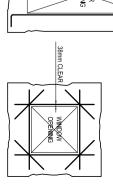
1. WHERE A CONSTRUCTION JOINT IS TO BE MADE, THE SURFACE OF CONCRETE SHALL BE CLEANED AND ALL LATTANCE AND STANDING WATER REMOVED SHEAR KEY SHALL BE PROVIDE AT THE JOINT.



32 mm Ø	20 mm Ø	16 mm Ø	12 mm Ø	10 mm Ø	(DEFORMED)	BAR SIZE	
150	115	g	50	46	(mm)	DIAMETER	(ALL
335	300	200	165	125	D+2db	180° HOOK	(ALL GRADES)
230	165	140	115	85	-	100K	
40	30	16	11	ž	_	90° F	

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

SEE ARCHITECTURAL & MECHANICAL PLANS FOR SLAB OPENING LOCATION



TYP. EXTERIOR WDW. & DOOR OPENING











PARTITION REINFORCEMENTS TYP. SECTION OF MASONRY

CHIEF OFFICE OF THE CHIEF, EFD—AS	ANNABELLE R. PANGA

ECOMMENDING APPROVAL

APPROVED BY

PROJECT TITLE :

CHEF FICE OF THE CHIEF, EFD—AS	WHERE R. PANGAN
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UNDERSECRETARY FOR ADM	ALAIN DEL B. PA

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	ONE (1) ST
	MODIFIED STANDARD DEPED TOREY, THREE (3) CL SCHOOL BUILDING H COMMON TOILETS @ ONE S
	MODIFIED STANDARD DEPED ONE (1) STOREY, THREE (3) CLASSROON SCHOOL BUILDING (MITH COMMON TOILETS @ ONE SIDE)
	SSROOI _{DE)}

ONE (1) STOREY, THREE (3) CLASSROOM SCHOOL BUILDING (WITH COMMON TOILETS @ ONE SIDE)	MODIFIED STANDARD DEPED
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