

# COLUMN & WALL SCHEDULE (BELOW GROUND FLOOR)

COL. No.	Ax.Pa-Ax.Pb	C.Pa-C.Pb	A.PB-C.Pb	P1 Pb	P2 Pb	P3 Pb	P4 Pb	P5 Pb	P6 Pb	P7 Pb	P8 Pb	P9.Pa-P9.Pb	P11.Pa-P11.Pb	P12.Pa-P12.Pb	P13.Pa-P13.Pb	P.2-Q.2	P9.Pb-Q.Pb	C 6	P1 6	P2 6	P3 6	P4 6	P5 6	H 6	J.7-J.8	J.7-Kx.7	Kx.7-Kx.8	J-8	K-8	Kx-8	COL. No.	DATA	
GROUND FLOOR																																GROUND FLOOR	
P1 LEVEL	300 WALL 10820 HEF 108200 VEF	200 WALL 10840 HEF 108200 VEF	300 WALL 10820 HEF 108200 VEF	300x1000 12-35	300x1000 12-35	300x1000 12-35	300x1000 12-35	300x1000 12-35	300x1000 12-35	300x1000 12-35	300x1000 12-35	250 WALL 10830 HEF 108200 VEF	250 WALL 10830 HEF 108200 VEF	250 WALL 10830 HEF 108200 VEF	250 WALL 10830 HEF 108200 VEF	250 WALL 10830 HEF 108200 VEF	300 WALL 10820 HEF 108200 VEF	1000x300 12-35	300x1000 12-35	300x1000 12-35	300x1000 12-35	300x1000 12-35	300x1000 12-35	300x1000 12-35	300x1000 12-35	300 WALL 10820 HEF 108200 VEF	300 WALL 10820 HEF 108200 VEF	300 WALL 10820 HEF 108200 VEF	300 WALL 10820 HEF 108200 VEF	300 WALL 10820 HEF 108200 VEF	300 WALL 10820 HEF 108200 VEF	P1 LEVEL	
P2 LEVEL	300 WALL 10820 HEF 108200 VEF	200 WALL 10840 HEF 108200 VEF	300 WALL 10820 HEF 108200 VEF	300x1000 12-35	300x1000 12-35	300x1000 12-35	300x1000 12-35	300x1000 12-35	300x1000 12-35	300x1000 12-35	300x1000 12-35	250 WALL 10830 HEF 108200 VEF	250 WALL 10830 HEF 108200 VEF	250 WALL 10830 HEF 108200 VEF	250 WALL 10830 HEF 108200 VEF	250 WALL 10830 HEF 108200 VEF	300 WALL 10820 HEF 108200 VEF	1000x300 12-35	300x1000 12-35	300x1000 12-35	300x1000 12-35	300x1000 12-35	300x1000 12-35	300x1000 12-35	300 WALL 10820 HEF 108200 VEF	300 WALL 10820 HEF 108200 VEF	300 WALL 10820 HEF 108200 VEF	300 WALL 10820 HEF 108200 VEF	300 WALL 10820 HEF 108200 VEF	300 WALL 10820 HEF 108200 VEF	P2 LEVEL		
DATA	COL. No.	Ax.Pa-Ax.Pb	C.Pa-C.Pb	A.PB-C.Pb	P1 Pb	P2 Pb	P3 Pb	P4 Pb	P5 Pb	P6 Pb	P7 Pb	P8 Pb	P9.Pa-P9.Pb	P11.Pa-P11.Pb	P12.Pa-P12.Pb	P13.Pa-P13.Pb	P.2-Q.2	P9.Pb-Q.Pb	C 6	P1 6	P2 6	P3 6	P4 6	P5 6	H 6	J.7-J.8	J.7-Kx.7	Kx.7-Kx.8	J-8	K-8	Kx-8	COL. No.	DATA

COL. No.	Kx.7-Q.7	P.3x-P.7	C 10	D 10	D.10-Q.10	A/Ax.Pd-C.Pd	A/Ax.13-C.13	C.Pd-C.13	P1 Pd	P2 Pd	P3 Pd	P4 Pd	P5 Pd	P6 Pd	P7 Pd	P8 Pd	P8/P9-Pc X P8/P9-Pd	P8/P9-Pd-L.Pd	L.Pc-L.Pd	P10 Pd	P11 Pd	P12x Pd	C.15-C.16	COL. No.	DATA							
GROUND FLOOR																										GROUND FLOOR						
P1 LEVEL	300 WALL 10820 HEF 108200 VEF	250 WALL 10820 HEF 108200 VEF	1000x300 12-35	1000x300 12-35	300 WALL 10820 HEF 108200 VEF	200 WALL 10840 HEF 108500 VEF	200 WALL 10840 HEF 108500 VEF	200 WALL 10840 HEF 108500 VEF	300x1000 12-35	300x1000 12-35	300x1000 12-35	300x1000 12-35	300x1000 12-35	300x1000 12-35	300x1000 12-35	300x1000 12-35	250 WALL 10830 HEF 108200 VEF	250 WALL 10830 HEF 108200 VEF	250 WALL 10830 HEF 108200 VEF	300x1000 12-35	300x1000 12-35	1000x300 12-35	300 WALL	P1 LEVEL								
P2 LEVEL	300 WALL 10820 HEF 108200 VEF	250 WALL 10820 HEF 108200 VEF	1000x300 12-35	1000x300 12-35	300 WALL 10820 HEF 108200 VEF	200 WALL 10840 HEF 108500 VEF	200 WALL 10840 HEF 108500 VEF	200 WALL 10840 HEF 108500 VEF	300x1000 12-35	300x1000 12-35	300x1000 12-35	300x1000 12-35	300x1000 12-35	300x1000 12-35	300x1000 12-35	300x1000 12-35	250 WALL 10830 HEF 108200 VEF	250 WALL 10830 HEF 108200 VEF	250 WALL 10830 HEF 108200 VEF	300x1000 12-35	300x1000 12-35	1000x300 12-35	300 WALL	P2 LEVEL								
DATA	COL. No.	L 6	M 6	My/N 6	Ny/P 6	O 6	P.3x-P.7	C 10	D 10	D.10-N.10	Ny/P 6	O 6	A/Ax.Pd-C.Pd	A/Ax.13-C.13	C.Pd-C.13	P1 Pd	P2 Pd	P3 Pd	P4 Pd	P5 Pd	P6 Pd	P7 Pd	P8 Pd	P8/P9-Pc X P8/P9-Pd	P8/P9-Pd-L.Pd	L.Pc-L.Pd	P10 Pd	P11 Pd	P12x Pd	C.15-C.16	COL. No.	DATA

COL. No.	P1 15	P2 15	P3 15	P4 15	P5 15	P6 15	P7 15	P8 15	P9 15	P10 15	P11 15	P12x 15	COL. No.	DATA	
GROUND FLOOR														GROUND FLOOR	
P1 LEVEL	300x1000 12-35	300x1000 12-35	300x1000 12-35	300x1000 12-35	300x1000 12-35	300x1000 12-35	300x1000 12-35	300x1000 12-35	300x1000 12-35	300x1000 12-35	300x1000 12-35	300x1000 12-35	P1 LEVEL		
P2 LEVEL	300x1000 12-35	300x1000 12-35	300x1000 12-35	300x1000 12-35	300x1000 12-35	300x1000 12-35	300x1000 12-35	300x1000 12-35	300x1000 12-35	300x1000 12-35	300x1000 12-35	300x1000 12-35	P2 LEVEL		
DATA	COL. No.	P1 15	P2 15	P3 15	P4 15	P5 15	P6 15	P7 15	P8 15	P9 15	P10 15	P11 15	P12x 15	COL. No.	DATA

## COLUMN AND WALL SCHEDULE NOTES :

- COLUMN SIZE GIVEN FIRST IN THE SCHEDULE IS IN THE NORTH-SOUTH DIRECTION.
- COLUMN LOADS ARE GIVEN IN SPECIFIED KILONEWTONS.
- CONCRETE STRENGTH AT 28 DAYS SHALL BE AS SPECIFIED IN SCHEDULE.
- MINIMUM YIELD STRESS FOR REINFORCING STEEL SHALL BE 400 MPa.
- PROVIDE TENSION LAP SPUCE (CLASS 'B') FOR ALL VERTICAL BARS MARKED THUS "▲" IN SCHEDULE.
- PROVIDE COLUMN TIES IN WALLS THAT HAVE VERTICAL REINFORCING STEEL OF SIZE 20 OR GREATER.
- FOR ALL WALLS GREATER THAN 2000MM IN LENGTH PROVIDE SHEAR WALL REINFORCING AS PER TABLE 2, FOR ALL OTHER WALLS PROVIDE TEMPERATURE REINFORCING AS PER TABLE 1
- H.E.F. - DENOTES HORIZONTAL EACH FACE  
H.T.B.E.F. - DENOTES HORIZONTAL TOP&BOTTOM EACH FACE  
H.T.E.F. - DENOTES HORIZONTAL TOP EACH FACE  
V.E.A.S.T.E. - DENOTES VERTICAL EAST EACH END  
V.E.F. - DENOTES VERTICAL EACH FACE  
V.E.E. - DENOTES VERTICAL EACH END  
V.N.E. - DENOTES VERTICAL NORTH END  
V.S.E. - DENOTES VERTICAL SOUTH END  
V.W.E. - DENOTES VERTICAL WEST END
- REFER TO MECHANICAL DWGS. FOR MECHANICAL WALL OPENINGS.
- REFER TO ARCHITECTURAL DRAWINGS FOR WALL LENGTHS.
- REFER TO TYPICAL DETAILS ON DRAWINGS S-001 TO S-004.
- REFER TO GENERAL NOTES ON DRAWING S-001.
- UNLESS NOTED OTHERWISE, PROVIDE COLUMN OR WALL DOWELS TO MATCH VERTICAL REINFORCING GIVEN IN SCHEDULE.
- CONCRETE EXPOSED TO VEHICULAR TRAFFIC SHALL HAVE 6% TO 8% ENTRAINED AIR AND SHALL BE PROPORTIONED FOR C-1 EXPOSURE CONDITIONS.

COLUMN, WALL & FOOTING DOWEL SCHEDULE										
LAP SPUCE IN WALL OR COLUMN AND DEVELOPMENT LENGTH IN CAP OR FOOTING										
DATA	BAR SIZE	10	15	20	25	30	35			
400 < Fy < 450	TENSION	LAP SPUCE	490	740	980	1530	1830	2130		
	DEVELOPMENT LENGTH		380	570	750	1170	1410	1640		
300 < Fy < 400	COMPRESSION	LAP SPUCE	300	440	590	730	880	1030		
	DEVELOPMENT LENGTH		220	310	370	480	570	690		
400 < Fy < 450	TENSION	LAP SPUCE	450	670	890	1390	1670	1950		
	DEVELOPMENT LENGTH		350	520	690	1070	1290	1500		
300 < Fy < 400	COMPRESSION	LAP SPUCE	300	440	590	730	880	1030		
	DEVELOPMENT LENGTH		200	280	340	440	530	630		
400 < Fy < 450	TENSION	LAP SPUCE	420	620	830	1290	1550	1800		
	DEVELOPMENT LENGTH		320	480	640	990	1190	1390		
300 < Fy < 400	COMPRESSION	LAP SPUCE	300	440	590	730	880	1030		
	DEVELOPMENT LENGTH		200	280	340	440	530	630		
400 < Fy < 450	TENSION	LAP SPUCE	390	580	770	1210	1450	1690		
	DEVELOPMENT LENGTH		300	450	600	930	1110	1300		
300 < Fy < 400	COMPRESSION	LAP SPUCE	300	440	590	730	880	1030		
	DEVELOPMENT LENGTH		200	280	340	440	530	630		

TABLE 1 TEMPERATURE WALL REINFORCING				
WALL THICKNES	DIRECTION	WALL EXPOSED OR ENCLOSED BOTH SIDES	WALL EXPOSED ONE SIDE	
			EXPOSED SIDE	ENCLOSED SIDE
150mm	HORIZ.	10 @ 330 (1 LAYER)	10 @ 330 (1 LAYER)	
	VERT.	10 @ 450 (1 LAYER)	10 @ 450 (1 LAYER)	
200mm	HORIZ.	10 @ 450 EA. FACE	10 @ 420	10 @ 450
	VERT.	10 @ 450 EA. FACE	10 @ 450	10 @ 450
250mm	HORIZ.	10 @ 400 EA. FACE	10 @ 330	10 @ 450
	VERT.	10 @ 450 EA. FACE	10 @ 450	10 @ 450
300mm	HORIZ.	10 @ 330 EA. FACE	10 @ 250	10 @ 450
	VERT.	10 @ 440 EA. FACE	10 @ 400	10 @ 450
350mm	HORIZ.	10 @ 280 EA. FACE	10 @ 210	10 @ 430
	VERT.	10 @ 380 EA. FACE	10 @ 300	10 @ 450
400mm	HORIZ.	10 @ 250 EA. FACE	15 @ 380	10 @ 370
	VERT.	10 @ 330 EA. FACE	10 @ 250	10 @ 450

NOTE: SIZE AND SPACING OF DOWELS TO BE SAME AS VERTICAL REINF. IN WALL

TABLE 2 SHEAR WALL REINFORCING				
WALL THICKNES	DIRECTION	WALL EXPOSED OR ENCLOSED BOTH SIDES	WALL EXPOSED ONE SIDE	
			EXPOSED SIDE	ENCLOSED SIDE
150mm	HORIZ.	10 @ 270 (1 LAYER)	10 @ 270 (1 LAYER)	
	VERT.	10 @ 270 (1 LAYER)	10 @ 270 (1 LAYER)	
200mm	HORIZ.	10 @ 400 EA. FACE	10 @ 300	10 @ 450
	VERT.	10 @ 400 EA. FACE	10 @ 300	10 @ 450
250mm	HORIZ.	10 @ 320 EA. FACE	10 @ 240	10 @ 450
	VERT.	10 @ 320 EA. FACE	10 @ 240	10 @ 450
300mm	HORIZ.	10 @ 270 EA. FACE	10 @ 200	10 @ 400
	VERT.	10 @ 270 EA. FACE	10 @ 200	10 @ 400
350mm	HORIZ.	15 @ 450 EA. FACE	15 @ 340	15 @ 450
	VERT.	15 @ 450 EA. FACE	15 @ 340	15 @ 450
400mm	HORIZ.	15 @ 400 EA. FACE	15 @ 300	15 @ 450
	VERT.	15 @ 400 EA. FACE	15 @ 300	15 @ 450
450mm	HORIZ.	15 @ 350 EA. FACE	15 @ 260	15 @ 450
	VERT.	15 @ 350 EA. FACE	15 @ 260	15 @ 450

NOTE: SIZE AND SPACING OF DOWELS TO BE SAME AS VERTICAL REINF. IN WALL

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IMPERIAL SCALE DRAWING		
FIRST FLOOR ELEV. 93.60m		
NO.	ISSUED / REVISION	DATE
1	ISSUED FOR PERMIT	2014-03-28
2	REVISION FOR PERMIT	2014-03-28

ALEXANDRA PARK - BLOCK 11  
TORONTO, ONTARIO

project no: 13015  
scale: AS NOTED  
drawn by: H.W. HOLMAN  
reviewed by: MARCH 2014

COLUMN AND WALL SCHEDULE (BELOW GRD. FLOOR)