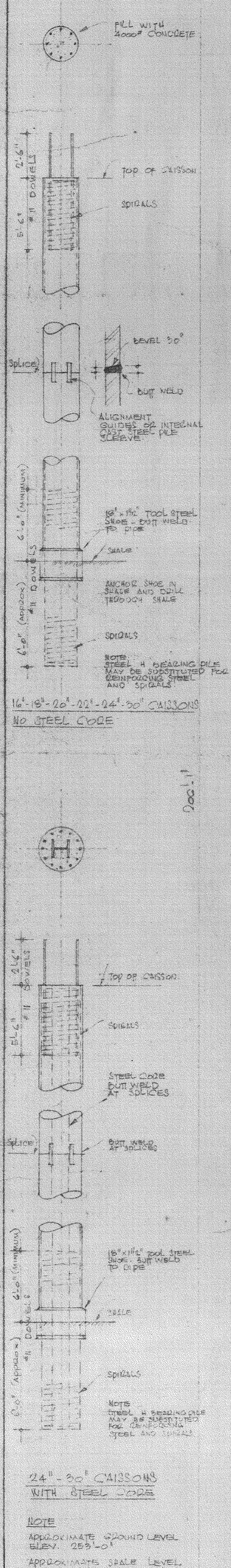
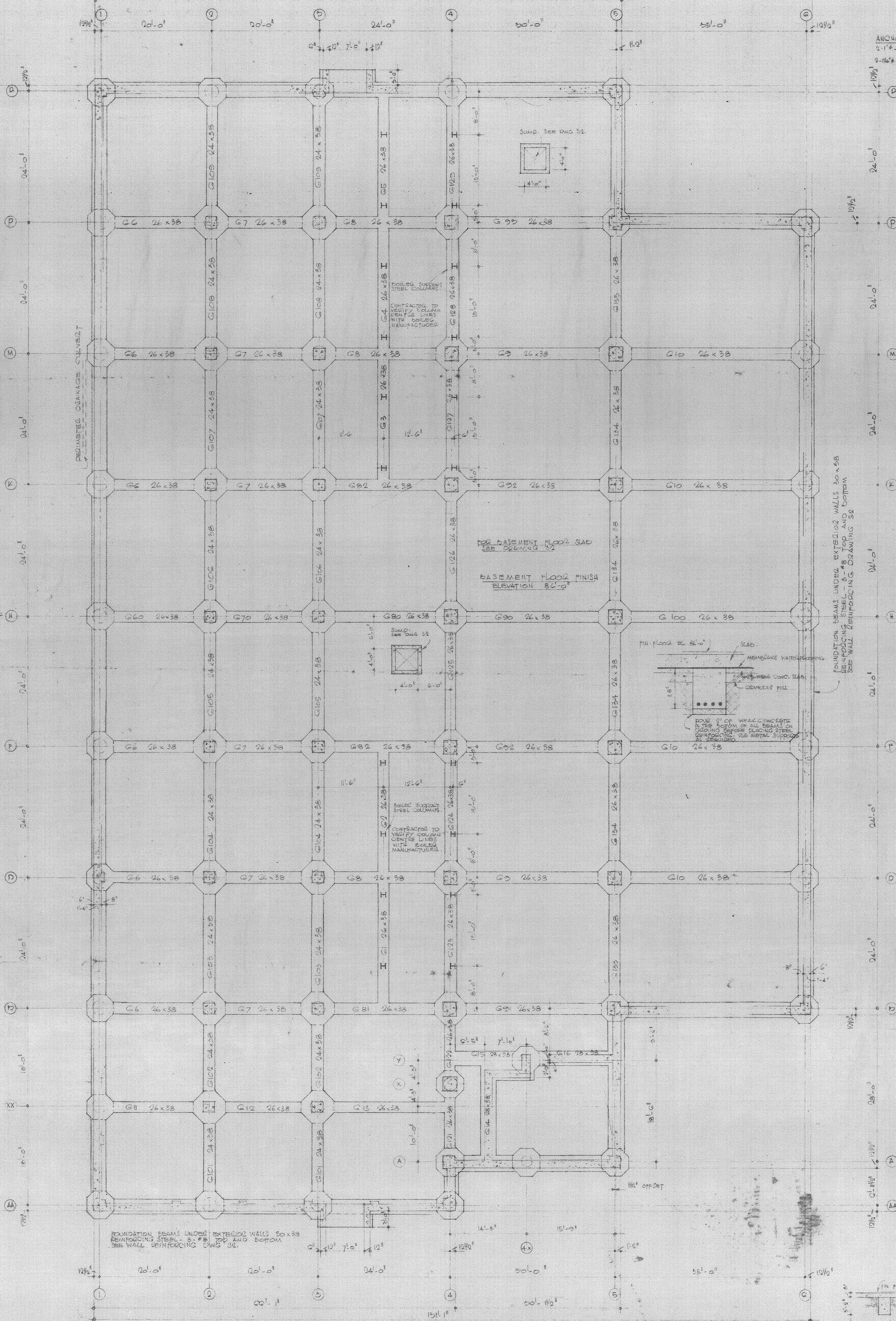




FOUNDATION STRUCTURE

SCALE - 1/8" = 1'-0"

CONCRETE - 3000#/SQ. INCH AT 28 DAYS
REINFORCING STEEL - 20000#/SQ. INCH DEFORMED (ASTM A305) INTERMEDIATE GRADE.
STEEL PILES. ASTM A252-46 GRADE 2

COLUMN SCHEDULE

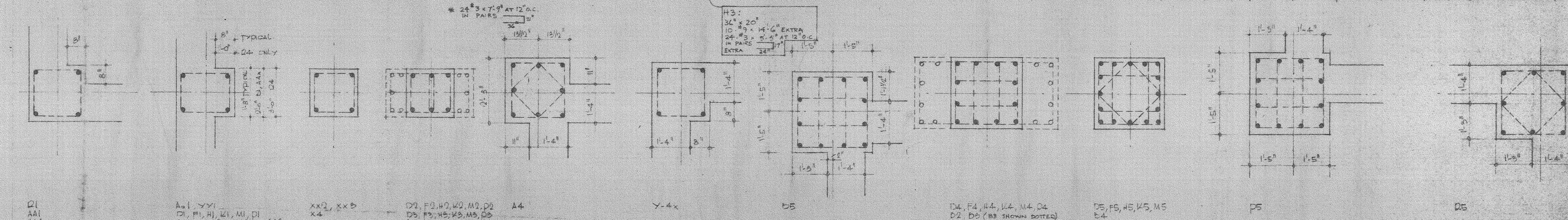
	AA1	AA-1x	AA-2x	AA-4	Ao-1	XX-2	B1	B2	B3	D1	K1	Q1
		AA-3x	AA-2xx		YY-1	XX-3				F1	M1	
										H1		
										P1		
	8 WF 40	8 WF 40	8 WF 40	8 WF 40	8 WF 40		12 WF 58	12 WF 79	12 WF 79	12 WF 58	12 WF 58	12 WF 58
	14×1¼×14	14×1¼×14	14×1¼×14	14×1¼×14	14×1¼×14		17×1½×17	20×1¾×20	20×1¾×20	15×1¼×15	15×1¼×15	15×1¼×15
ELEV 100'-0"												
	WALL	WALL	WALL	WALL	WALL		WALL			WALL	WALL	WALL
COLUMN	24×24	20×24	20×24	24×24	20×24	20×20	24×24	24×24	24×48	20×24	20×24	24×24
REINF	4-#8	4-#8	4-#8	4-#8	4-#8	4-#8	4-#8	12-#9	24-#11	4-#8	4-#8	4-#8
	×14'-0"	×14'-0"	×14'-0"	×14'-0"	×14'-0"	×14'-0"	×14'-0"	×14'-0"	×14'-6"	×14'-0"	×14'-0"	×14'-0"
TIES	#3@18"o/c	#3@18"o/c	#3@18"o/c	#3@18"o/c	#3@18"o/c	#3@18"o/c	#3@18"o/c	3-#3@18"o/c	3-#3@18"o/c	#3@18"o/c	#3@18"o/c	#3@18"o/c
ELEV 86'-0"	4-#8×5'-6"			4-#8×5'-6"		4-#8×8'-0"	4-#8×8'-0"	12-#9×8'-0"	* 12-#11×8'-0"	4-#8×5'-6"	4-#8×5'-6"	4-#8×5'-6"
TOP DOWELS	6-#11×8'-0"			6-#11×8'-0"		6-#11×8'-0"	8-#11×8'-0"	10-#11×8'-0"	10-#11×8'-0"	8-#11×8'-0"	8-#11×8'-0"	8-#11×8'-0"
SPIRALS	½"φ×2½"			½"φ×2½"		½"φ×2½"	½"φ×2½"	½"φ×2¾"	½"φ×2¾"	½"φ×2½"	½"φ×2½"	½"φ×2½"
CAISSON	18"φ			18"φ		16"φ	20"φ	24"φ	24"φ	20"φ	20"φ	20"φ
BOTTOM DOWELS	6-#11×12'-0"			6-#11×12'-0"		6-#11×12'-0"	8-#11×12'-0"	10-#11×12'-0"	10-#11×12'-0"	8-#11×12'-0"	8-#11×12'-0"	8-#11×12'-0"
SPIRALS	½"φ×2½"			½"φ×2½"		½"φ×2½"	½"φ×2½"	½"φ×2¾"	½"φ×2¾"	½"φ×2½"	½"φ×2½"	½"φ×2½"
CORE									8 BP 36			

	D2 F2	Q2	D3 F3	Q3	XX-1	AA-2	AA-3	A4	A-4x	A5	X4	Y-4x
	H2 K2		H3 K3									
	M2 P2		M3 P3									
	12 WF 79	12 WF 79	10 WF 49	10 WF 49				12 WF 85	12 WF 106	10 WF 72	12 WF 133	12 WF 72
	17×1¼×17	15×1¼×15	14×1¼×14	14×1¼×14				18×1½×18	20×2×20	20×2×20	21×2×21	18×1½×18
ELEV 100'-0"												
		WALL		WALL	WALL	WALL	WALL	WALL	WALL	WALL		WALL
COLUMN	20×20	20×24	20×20	24×24				27×27	24×24	24×24	27×27	24×24
REINF	6-#11	4-#8	6-#11	4-#8				8-#8	4-#8	4-#8	4-#11	4-#8
	×14'-0"	×14'-0"	×14'-0"	×14'-0"				×14'-0"	×14'-0"	×14'-0"	×14'-0"	×14'-0"
TIES	2-#3@18"o/c	#3@18"o/c	2-#3@18"o/c	#3@18"o/c				2-#3@18"o/c	#3@18"o/c	#3@18"o/c	#3@18"o/c	#3@18"o/c
ELEV 86'-0"	6-#11×8'-0"	4-#8×5'-6"	6-#11×8'-0"	4-#8×5'-6"				8-#8×5'-6"	4-#8×5'-6"	4-#8×5'-6"	4-#11×8'-0"	4-#8×5'-6"
TOP DOWELS	8-#11×8'-0"	8-#11×8'-0"	8-#11×8'-0"	8-#11×8'-0"	6-#11×8'-0"	6-#11×8'-0"	6-#11×8'-0"	6-#11×8'-0"	8-#11×8'-0"	6-#11×8'-0"	8-#11×8'-0"	6-#11×8'-0"
SPIRALS	½"φ×2½"	½"φ×2½"	½"φ×2¾"	½"φ×2½"	½"φ×2½"	½"φ×2½"	½"φ×2½"	½"φ×2½"	½"φ×2½"	½"φ×2½"	½"φ×2¾"	½"φ×2½"
CAISSON	20"φ	20"φ	22"φ	20"φ	16"φ	18"φ	18"φ	18"φ	20"φ	18"φ	22"φ	18"φ
BOTTOM DOWELS	8-#11×12'-0"	8-#11×12'-0"	8-#11×12'-0"	8-#11×12'-0"	6-#11×12'-0"	6-#11×12'-0"	6-#11×12'-0"	6-#11×12'-0"	8-#11×12'-0"	6-#11×12'-0"	8-#11×12'-0"	6-#11×12'-0"
SPIRALS	½"φ×2½"	½"φ×2½"	½"φ×2¾"	½"φ×2½"	½"φ×2½"	½"φ×2½"	½"φ×2½"	½"φ×2½"	½"φ×2½"	½"φ×2½"	½"φ×2¾"	½"φ×2½"
CORE												

	B4	B5	D4 F4	Q4	D5 F5	D5	Q5	B6	D6 F6	
			H4 K4		H5 K5			P6	H6 K6	
			M4 D4		M5				M6	
	14 WF 167	14 WF 167	14 WF 167	14 WF 167	14 WF 167	14 WF 167	14 WF 167	8 WF 24	8 WF 24	3φ PIPE
	30×3×30	26×2⅝×26	28×2¾×28	20×2⅝×30	28×2¾×28	27×2½×27	23×2¼×23	9×¾×10	9×¾×10	6×½×8
ELEV 100'-0"										
		WALL		WALL		WALL	WALL	WALL	WALL	WALL
COLUMN	34×34	34×34	30×30	30×30	34×34	34×34	31×31	24×24		
REINF	16-#11	12-#10	12-#11	8-#8	16-#11	12-#11	8-#11	4-#8		
	×14'-0"	×14'-0"	×14'-0"	×14'-0"	×14'-0"	×14'-0"	×14'-0"	×14'-0"		
TIES	4-#3@18"o/c	3-#3@18"o/c	3-#3@18"o/c	#3@18"o/c	4-#3@18"o/c	3-#3@18"o/c	2-#3@18"o/c	#3@18"o/c		
ELEV 86'-0"	16-#11×8'-0"	12-#10×8'-0"	12-#11×8'-0"	8-#8×5'-6"	16-#11×8'-0"	12-#11×8'-0"	8-#11×5'-6"	4-#8×5'-6"		
TOP DOWELS	16-#11×8'-0"	16-#11×8'-0"	16-#11×8'-0"	10-#11×8'-0"	16-#11×8'-0"	16-#11×8'-0"	10-#11×8'-0"	6-#11×8'-0"	8-#11×8'-0"	
SPIRALS	⅜"φ×3"	⅜"φ×3"	⅜"φ×3"	½"φ×2¾"	⅜"φ×3"	⅜"φ×3"	½"φ×2¾"	½"φ×2½"	½"φ×2½"	
CAISSON	30"φ	30"φ	30"φ	24"φ	30"φ	30"φ	24"φ	16"φ	20"φ	
BOTTOM DOWELS	16-#11×18'-0"	16-#11×18'-0"	16-#11×18'-0"	10-#11×16'-0"	16-#11×18'-0"	16-#11×18'-0"	10-#11×12'-0"	6-#11×12'-0"	8-#11×12'-0"	
SPIRALS	⅜"φ×3"	⅜"φ×3"	⅜"φ×3"	½"φ×2¾"	⅜"φ×3"	⅜"φ×3"	½"φ×2¾"	½"φ×2½"	½"φ×2½"	
CORE	12 BP 53			8 BP 36	12 BP 53	12 BP 53				

* 24-#3 × 7'-9" AT 12" O.C. IN PAIRS

H3: 36"×20" 10-#9×14'-6" EXTRA 24-#3×5'-5" AT 12" O.C. IN PAIRS EXTRA



NOTE - CHAMFER CORNERS 1½"

SLAB REINFORCING - BASEMENT FLOOR

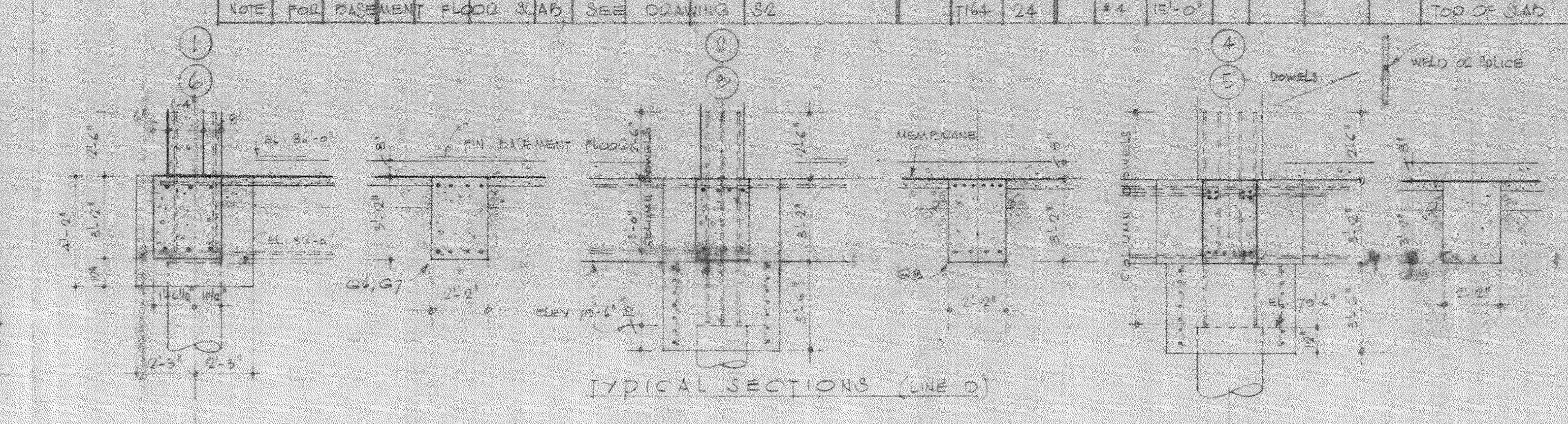
TYPE 1 TYPE 2 TYPE 3

BANDS			BOTTOM BARS			BENT BARS				REMARKS	BANDS			BOTTOM BARS			BENT BARS				REMARKS
Nº	MARK	SPACING	Nº	DIA	LENGTH	Nº	DIA	LENGTH	TYPE		Nº	MARK	SPACING	Nº	DIA	LENGTH	Nº	DIA	LENGTH	TYPE	
	M50	6		#5	23'-6"		#5	31'-0"	2			M150	6		#4	19'-6"		#5	26'-0"	2	
	M51	6		#4	24'-0"		#5	36'-0"	3			M151	6		#4	19'-6"		#4	26'-0"	2	
	M52	6		#4	18'-0"		#5	28'-0"	3			M152	6		#5	19'-6"		#5	26'-0"	2	
	M53	6		#4	17'-6"		#5	23'-0"	2			M153	6		#4	20'-0"		#4	30'-0"	3	
	M54	6		#5	17'-6"		#5	23'-0"	2			M154	6		#4	20'-0"		#5	30'-0"	3	
	M55	6		#5	18'-0"		#5	28'-0"	3			M155	6		#5	20'-0"		#6	30'-0"	3	
	M56	6		#6	23'-6"		#7	31'-0"	2			M156	6		#4	24'-0"		#5	30'-0"	2	
	M57	6		#5	24'-0"		#6	36'-0"	3			M157	6		#4	24'-0"		#5	30'-0"	2	
	M58	6		#6	24'-0"		#6	36'-0"	3			M158	6		#5	24'-0"		#5	36'-0"	3	
	M59	6		#6	23'-6"		#6	31'-0"	2			M159	6		#5	30'-0"		#6	42'-0"	3	
	M60	6		#6	24'-0"		#6	36'-0"	3			M160	6		#5	30'-0"		#5	42'-0"	3	
												M161	6		#6	23'-6"		#6	38'-0"	2	
	C50	9		#5	23'-6"		#5	31'-0"	2			M162	6		#5	34'-6"		#6	44'-0"	2	
	C51	9		#4	24'-0"		#5	36'-0"	3			M163	6		#5	34'-6"		#5	44'-0"	2	
	C52	9		#4	18'-0"		#5	28'-0"	3												
	C53	9		#4	17'-6"		#5	23'-0"	2			C150	9		#4	19'-6"		#5	26'-0"	2	
	C54	9		#5	17'-6"		#5	23'-0"	2			C151	9		#4	19'-6"		#4	26'-0"	2	
	C55	9		#5	18'-0"		#5	28'-0"	3			C152	9		#5	19'-6"		#5	26'-0"	2	
	C56	9		#6	23'-6"		#7	31'-0"	2			C153	9		#4	20'-0"		#4	30'-0"	3	
	C57	9		#5	24'-0"		#6	36'-0"	3			C154	9		#4	20'-0"		#5	30'-0"	3	
	C58	9		#6	24'-0"		#6	36'-0"	3			C155	9		#5	20'-0"		#6	30'-0"	3	
	C59	9		#6	23'-6"		#6	31'-0"	2			C156	9		#4	24'-0"		#5	30'-0"	2	
	C60	9		#6	24'-0"		#6	36'-0"	3			C157	9		#4	24'-0"		#5	30'-0"	2	
												C158	9		#5	24'-0"		#5	36'-0"	3	
	T50	24		#4	10'-0"					TOP OF SLAB		C159	9		#5	30'-0"		#6	42'-0"	3	
	T54	12		#4	8'-0"					TOP OF SLAB		C160	9		#5	30'-0"		#5	42'-0"	3	
	T56	24		#4	10'-0"					TOP OF SLAB		C161	9		#4	23'-6"		#6	38'-0"	2	
	T58	18		#4	10'-0"					TOP OF SLAB		C162	9		#5	34'-6"		#6	44'-0"	2	
	T60	12		#4	10'-0"					TOP OF SLAB		C163	9		#5	34'-6"		#5	44'-0"	2	
												T150	12		#4	8'-0"					TOP OF SLAB
												T151	24		#4	8'-0"					TOP OF SLAB
												T152	24		#4	8'-0"					TOP OF SLAB
												T158	18		#4	10'-0"					TOP OF SLAB
												T160	24		#4	10'-0"					TOP OF SLAB
												* T163	12		#4	15'-0"					TOP OF SLAB
NOTE	FOR BASEMENT FLOOR SLAB SEE DRAWING S2											T164	24		#4	15'-0"					TOP OF SLAB

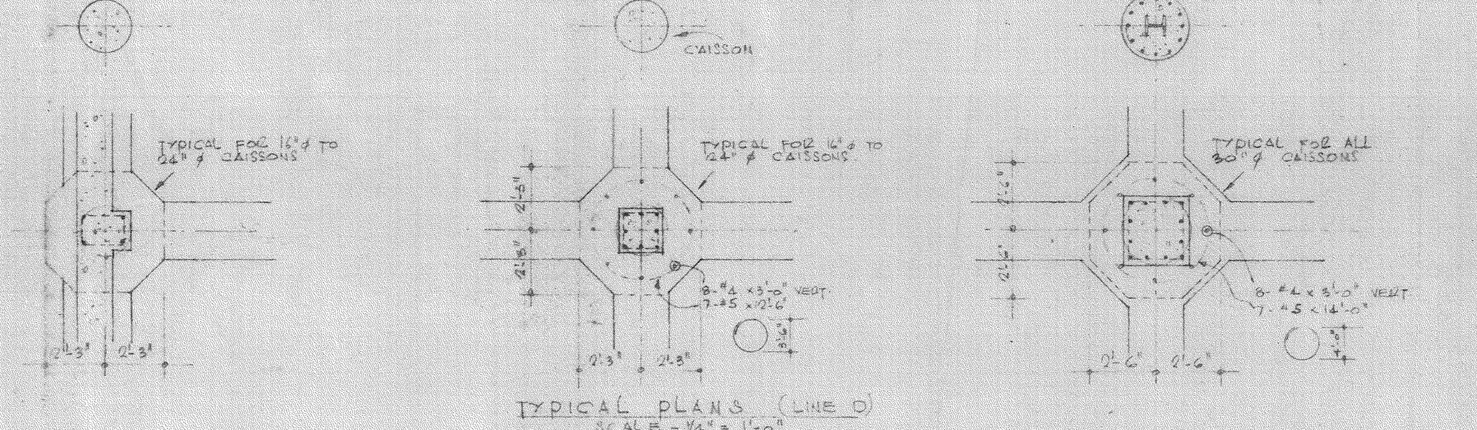
BEAM SCHEDULE BASEMENT FLOOR

TYPE 1 TYPE 2 TYPE 3

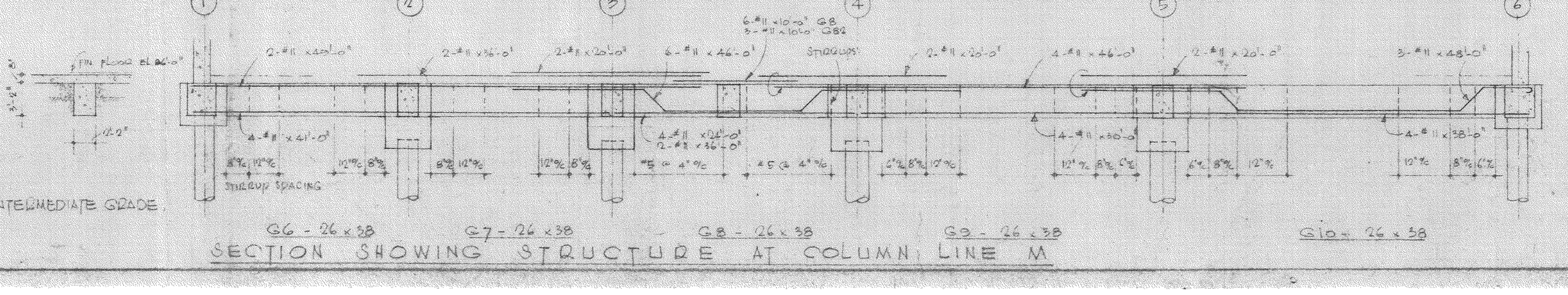
BEAM		BOTTOM BARS			BENT BARS				TOP BARS				STIRRUPS				
MARK	SIZE	Nº	DIA	LENGTH	Nº	DIA	LENGTH	TYPE	Nº	DIA	LENGTH	REMARKS	Nº	DIA	LENGTH	TYPE	SPACING FROM EACH END
G1	26×38	2	#11	43'-6"	2	#11	36'-0"	2	2	#11	40'-6"	COL. LINE B TO F		#5		2	8@3, 15@4
G2	26×38	6	#11	G1	2	#11	36'-0"	2	2	#11	16'-0"	COL. LINE D		#5		2	8@3, 15@4
G3	26×38	3	#11	48'-6"	2	#11	36'-0"	2	2	#11	38'-0"	COL. LINE K TO M		#5		2	8@3, 15@4
		3	#11	24'-6"					2	#11	16'-0"	COL. LINE M					
G4	26×38	6	#11	G3, G5	2	#11	42'-0"	3						#5		2	8@3, 15@4
G5	26×38	3	#11	48'-6"	2	#11	36'-0"	2	2	#11	38'-0"	COL. LINE R TO P		#5		2	8@3, 15@4
		3	#11	24'-6"					2	#11	16'-0"	COL. LINE P					
G6	26×38	4	#11	41'-0"					2	#11	43'-0"	COL. LINE 1 TO 3(?)		#4		2	3@8, 3@12
G7	26×38	4	#11	G6					2	#11	36'-0"	COL. LINE 2 TO 3		#4		2	3@8, 3@12
G8	26×38	4	#11	24'-0"	6	#11	46'-0"	3	2	#11	20'-0"	COL. LINE 3		#5		2	24@4
		2	#11	36'-0"					2	#11	20'-0"	COL. LINE 4					
G9	26×38	4	#11	30'-0"					4	#11	46'-0"	COL. LINE 4 TO 5		#4		2	4@6, 3@8, 4@12
G10	26×38	4	#11	36'-0"	3	#11	48'-0"	2	2	#11	20'-0"	COL. LINE 5		#4		2	4@6, 4@8, 5@12
G11	26×38	2	#9	22'-0"	1	#9	30'-0"	2						#4		2	3@8, 3@12
G12	26×38	2	#7	22'-0"	1	#7	33'-0"	3	2	#10	32'-0"	COL. LINE 2 TO 3		#4		2	3@8, 3@12
G13	26×38	2	#8	26'-0"	2	#10	33'-0"	2						#4		2	3@8, 3@12
G14	28×38	2	#11	21'-0"	1	#10	25'-0"	1									
G15	28×38	3	#10	32'-0"					2	#10	32'-0"	COL. LINE 4 TO 5					
G16	28×38	3	#10	G15					2	#11	12'-0"	COL. LINE 4x					
G60	26×38	3	#10	41'-0"					2	#10	54'-0"	COL. LINE 1 TO 3		#4		2	3@8, 3@12
G70	26×38	3	#10	G60					1	#10	12'-0"	COL. LINE 2		#4		2	3@8, 3@12
G80	26×38	2	#9	24'-0"	2	#9	46'-0"	3	1	#10	12'-0"	COL. LINE 3		#4		2	4@6, 3@8, 3@12
									1	#10	16'-0"	COL. LINE 4					
G90	26×38	3	#9	30'-0"	2	#10	48'-0"	3	2	#10	54'-0"	COL. LINE 4 TO 5		#4		2	4@6, 3@8, 4@12
G100	26×38	4	#11	36'-0"	3	#11	48'-0"	2	3	#10	18'-0"	COL. LINE 5		#4		2	4@6, 4@8, 5@12
G81	26×38	5	#10	24'-0"	4	#10	41'-0"	3	2	#10	14'-0"	COL. LINE 3		#4		2	24@4
									2	#11	16'-0"	COL. LINE 4					
G82	26×38	4	#11	24'-0"	3	#11	46'-0"	3	2	#11	20'-0"	COL. LINE 3		#4		2	24@4
		2	#11	36'-0"					2	#11	20'-0"	COL. LINE 4					
G91	26×38	3	#10	30'-0"	2	#11	48'-0"	3	2	#10	46'-0"	COL. LINE 4 TO 5		#4		2	4@6, 3@8, 4@12
									2	#11	16'-0"	COL. LINE 4					
G92	26×38	4	#11	30'-0"					2	#11	46'-0"	COL. LINE 4 TO 5		#4		2	4@6, 3@8, 4@12
									2	#11	20'-0"	COL. LINE 5					
G93	26×38	6	#11	30'-0"					4	#11	46'-0"	COL. LINE 4 TO 5		#4		2	4@6, 3@8, 4@12
G101	24×38	2	#10	39'-0"					2	#10	44'-0"	COL. LINE AA TO D		#4		1	3@12
G102	24×38	2	#10	G101					1	#10	12'-0"	COL. LINE XX		#4		1	3@12
G103	24×38	2	#10	26'-0"	1	#10	39'-0"	3	1	#10	14'-0"	COL. LINE B		#4		1	5@12
G104	24×38	2	#10	26'-0"	1	#10	39'-0"	3	2	#11	14'-0"	COL. LINE D		#4		1	5@12
G105	24×38	2	#10	26'-0"	1	#10	39'-0"	3	2	#11	14'-0"	COL. LINE F		#4		1	5@12
G106	24×38	2	#10	26'-0"	1	#10	39'-0"	3	2	#11	14'-0"	COL. LINE H		#4		1	5@12
G107	24×38	2	#10	26'-0"	1	#10	39'-0"	3	2	#11	14'-0"	COL. LINE K		#4		1	5@12
G108	24×38	2	#10	26'-0"	1	#10	39'-0"	3	2	#11	14'-0"	COL. LINE M		#4		1	5@12
G109	24×38	2	#10	26'-0"	2	#10	36'-0"	2	2	#10	14'-0"	COL. LINE P		#4		1	5@12
G121	26×38	3	#10	39'-0"					2	#10	[illegible]	COL. LINE AA TO B		#4		2	12" o/c
G122	26×38	3	#10	G121					2	#11	26'-0"	COL. LINE XX TO B		#4		2	12" o/c
G123	26×38	3	#11	26'-0"	2	#11	39'-0"	3						#4		2	6@3, 4@4, 6@6
G124	26×38	3	#11	26'-0"	2	#11	39'-0"	3	2	#11	14'-0"	COL. LINE D		#4		2	6@3, 4@4, 6@6
									2	#10	26'-0"	COL. LINE D					
G125	26×38	2	#11	26'-0"	1	#11	39'-0"	3	2	#11	14'-0"	COL. LINE F		#4		2	3@8, 3@12
									2	#10	50'-0"	COL. LINE F TO H					
G126	26×38	2	#11	26'-0"	1	#11	39'-0"	3	1	#11	14'-0"	COL. LINE H		#4		2	3@8, 3@12
G127	26×38	3	#11	26'-0"	2	#11	39'-0"	3	2	#11	14'-0"	COL. LINE K		#4		2	6@3, 4@4, 6@6
									2	#10	50'-0"	COL. LINE K TO M					
G128	26×38	3	#11	26'-0"	2	#11	39'-0"	3	2	#11	14'-0"	COL. LINE M		#4		2	6@3, 4@4, 6@6
G129	26×38	3	#11	26'-0"	2	#11	36'-0"	2	3	#11	14'-0"	COL. LINE P		#4		2	6@3, 4@4, 6@6
									2	#10	39'-0"	COL. LINE R TO P					
G133	26×38	3	#11	26'-0"	2	#10	39'-0"	3	3	#11	14'-0"	COL. LINE D, M		#4		2	4@6, 3@8, 3@12
G134	26×38	2	#10	26'-0"	2	#10	39'-0"	3	2	#11	14'-0"	COL. LINE F, H, K		#4		2	4@6, 3@8, 3@12
WALL	30×38	3	#8						3	#8		SEE DWG. S2		#4		4	36" o/c TIES
WALL	30×38											SEE DWG. S2		#5		5	12" o/c DOWELS



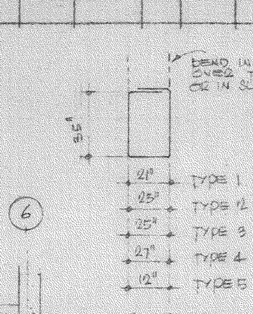
TYPICAL SECTIONS (LINE D)



TYPICAL PLANS (LINE D)
SCALE - 1/4" = 1'-0"



SECTION SHOWING STRUCTURE AT COLUMN LINE M



STIRRUPS

REGISTERED PROFESSIONAL ENGINEER R. C. GAUTHIER PROVINCE OF ONTARIO

STRUCTURAL	FOUNDATION STRUCTURE DRILLED IN CAISSONS
OCT. 13/61 "AS BUILT"	DEPARTMENT OF PUBLIC WORKS OF CANADA
	BUILDING CONSTRUCTION BRANCH
	CENTRAL HEATING PLANT. RIVERSIDE DRIVE, OTTAWA ONT.
	DRAWN BY J.D.S. FEB 1958 · CHECKED BY R.C.G. · APPROVED BY M.J.L. MAR. 12/58 · SCALE 1/8" = 1'-0" · DWG. NO. S1
	JOB NO. CA 36-8-22 · PLAN FILE NO. 403
	ARCHITECTS: HAZELGROVE, LITHWICK & LAMBERT, OTTAWA
	CONSULTING ENGINEER: J. KLASSEN, P. ENG. OTTAWA
	CONSULTING ENGINEER: RAYMOND C. GAUTHIER, P.ENG. OTTAWA STRUCTURAL