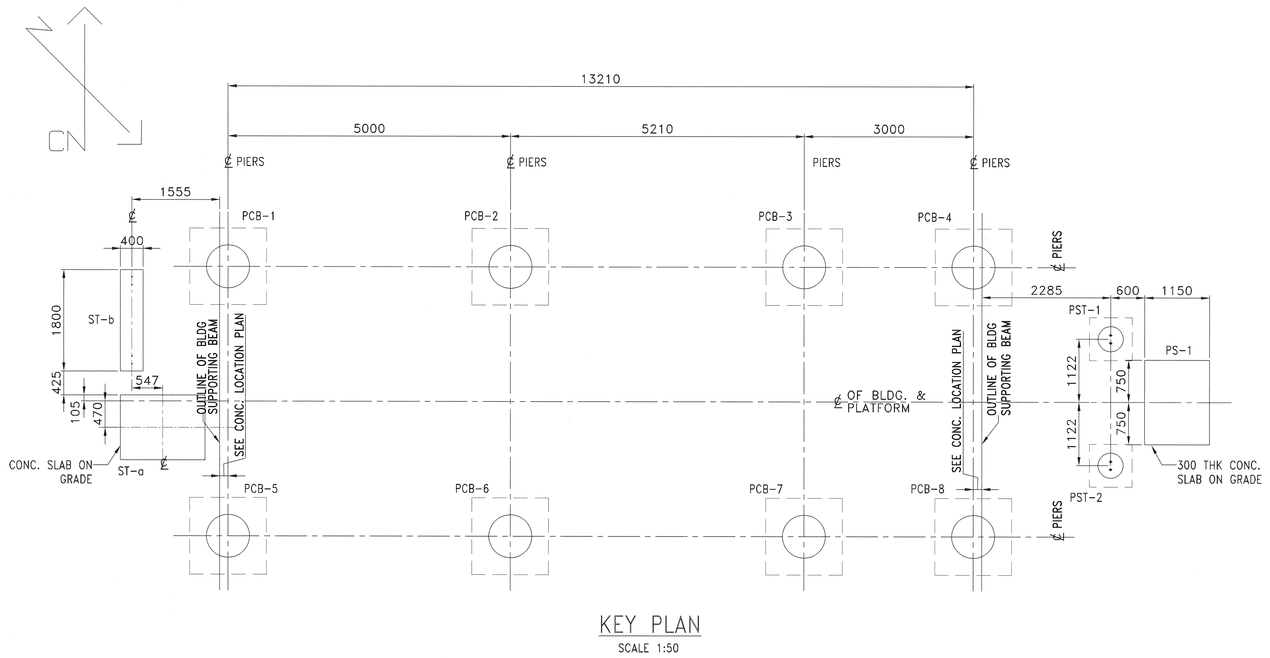


KEY PLAN
SCALE 1:50

TOTAL VOL. OF CONC (m³)	REINFORCING STEEL FOR FORMED TYPE(1 PIER)													
	ITEM NAME	'H'	MARK	QTY	SIZE	LGTH	TYPE	DIMENSIONS						
								A	B	C	D	E	F	G
0.43	PST-1 & 2	1825	MV5	4	20M	1090	17		780	310				
			MV7	4	20M	1485	–							
	(TOTAL=2)		MH3	6	15M	610	–							
			MT1	6	10M	1500	T3						470	327

2 FOUNDATIONS REQUIRED. (PST-1 & 2)

TOTAL VOL. OF CONC (m³)	REINFORCING STEEL FOR SLAB ON GRADE												
	ITEM NAME	MARK	QTY	SIZE	LGTH	TYPE	DIMENSIONS						
							A	B	C	D	E	G	O
0.64	PS-1 & ST-a	MH1	10	10M	1300	17		150	1000	150			
		MH2	8	10M	1650	17		150	1350	150			
	(TOTAL=2)												

2 FOUNDATIONS REQUIRED. (PS-1 & ST-a)

TOTAL VOL. OF CONC (m³)	REINFORCING STEEL FOR FORMED TYPE(1 PIER)													
	ITEM NAME	'H'	MARK	QTY	SIZE	LGTH	TYPE	DIMENSIONS						
								A	B	C	D	E	F	G
0.3	ST-b	408	H3	12	15M	766	17		258	250	258			
	(TOTAL=1)		H4	4	15M	2166	17		258	1650	258			

1 FOUNDATION REQUIRED. (ST-b)

BILL OF MATERIAL FOR BOLTS FOR ONE FOUNDATION

MARK	QUANT	DESCRIPTION	MATERIAL	LENGTH (mm)	WEIGHT (kg)	REMARK
b1	2	HEAVY DUTY EXP. HILTI ANCHOR HSL-3 M20/30 EMBEDMENT: 125mm	HAS-E RODS STD ISO 898 CLASS 5.8	183	–	GALV.

1 FOUNDATION REQUIRED. (ST-b)

REINF. STEEL FOR ONE PIER – FORMED TYPE (TOTAL 7 REQ'D)
STANDARD BENDING DETAILS – R.S.I.O. METRIC SUPPLEMENT (1992)
ALL BARS SHALL BE IN ACCORDANCE WITH CSA SPEC. G30-18-1992
(DEFORMED) EXCEPT AS NOTED GRADE OF STEEL : 400 MPa

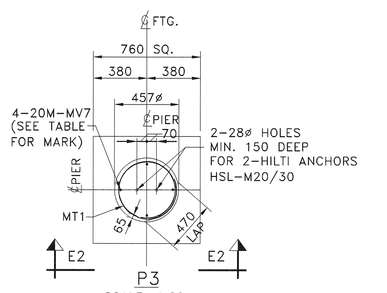
VOL. OF CONC.(M³)	'H'	MARK	REQ'D	SIZE	LENGTH	TYPE	DIMENSIONS					
							A	B	C	D	G	O
1.56	2300	V1	6	25M	1810	–						
		DW	6	25M	1385	2	300	1085				
		T1	7	10M	2395	T3					470	612
		H1	20	20M	1770	17		280	1210	280		

7 FOUNDATIONS REQUIRED. (PCB-1 TO 7)

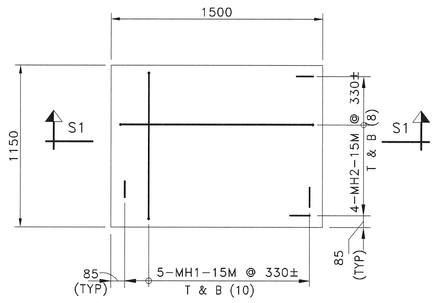
REINF. STEEL FOR ONE PIER – FORMED TYPE (TOTAL 1 REQ'D)
STANDARD BENDING DETAILS – R.S.I.O. METRIC SUPPLEMENT (1992)
ALL BARS SHALL BE IN ACCORDANCE WITH CSA SPEC. G30-18-1992
(DEFORMED) EXCEPT AS NOTED GRADE OF STEEL : 400 MPa

VOL. OF CONC.(M³)	'H'	MARK	REQ'D	SIZE	LENGTH	TYPE	DIMENSIONS					
							A	B	C	D	G	O
2.02	3050	V1	6	25M	2560	–						
		DW	6	25M	1385	2	300	1085				
		T1	10	10M	2395	T3					470	612
		H1	20	20M	1770	17		280	1210	280		

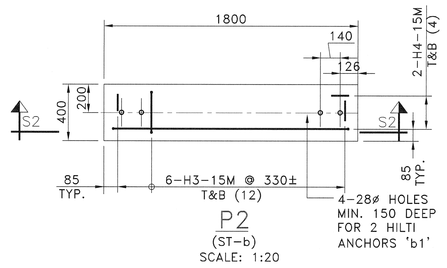
1 FOUNDATION REQUIRED. (PCB-8)
ALL BOM FOR REFERENCE ONLY



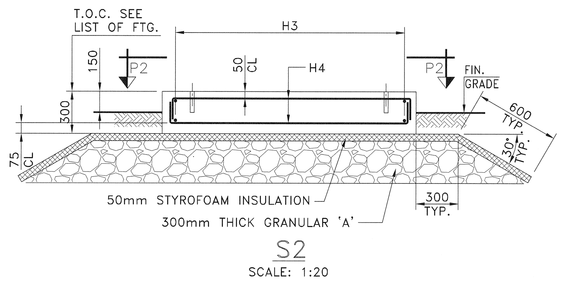
P3
SCALE: 1:20



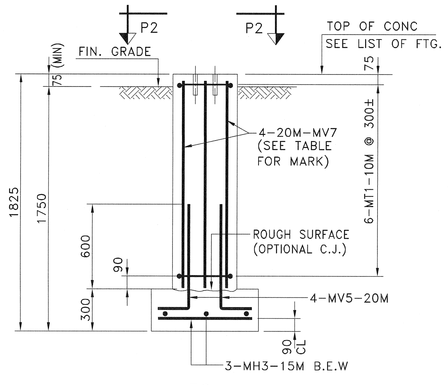
P1
SCALE: 1:20



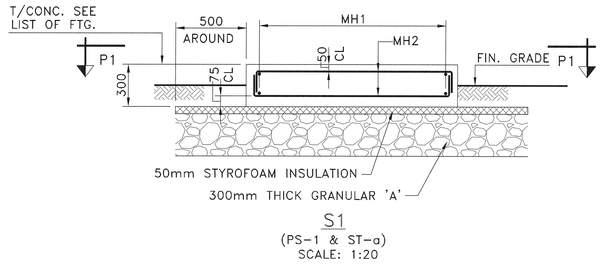
P2
(ST-b)
SCALE: 1:20



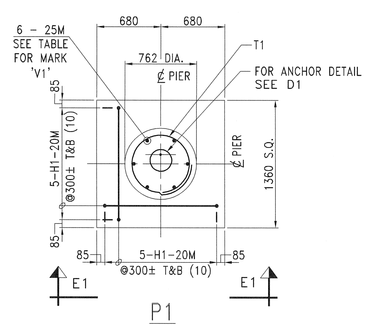
S2
SCALE: 1:20



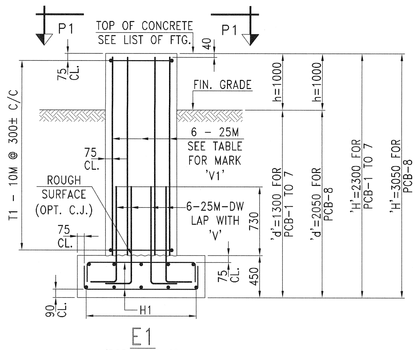
E2
(FORMED TYPE)
(PST-1 & 2)
SCALE: 1:20



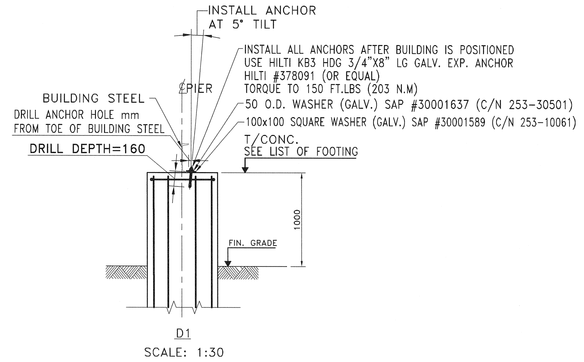
S1
(PS-1 & ST-a)
SCALE: 1:20



P1
SCALE: 1:30



E1
(PCB-1 TO 8)
SCALE: 1:30



D1
SCALE: 1:30

GENERAL NOTES:

REFER TO DWG. F1731664-100-F003

REFERENCE DRAWINGS:

1. 115/13.8kV AREA CONCRETE FOOTINGS KEY PLAN & LIST FOUNDATION F1731664-100-F001
2. 115/13.8kV AREA BASIC LAYOUT ELECTRICAL ARRANG. F1731664-300-EA001
3. 115/13.8kV AREA ELEVATIONS ELECTRICAL ARRANG. F1731664-300-EA009

LEGEND:

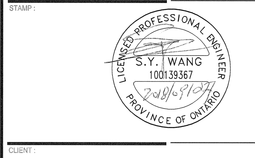
1. T.O.C: TOP OF CONCRETE

PROFESSIONALS

N°	DATE	TRANSMISSION	BY/PAR
00	2018/09/27	RELEASE FOR CONSTRUCTION	S.Y.W.

SMi THE S.M. GROUP INTERNATIONAL INC.
62068 Airport rd, Suite 205, Mississauga (Ontario) L4V 1E3
Tel. : 905 677.9009 / Fax : 905 677.3014
www.groupsmi.com

STAMP:



CLIENT :

PROJECT :
MCMASTER UNIVERSITY–NF91

TITLE :
115/13.8kV STATION
E-HOUSE BLDG. FOOTINGS
CONC. & REINF. DETAILS
FOUNDATION

PREPARED BY : Z. WANG	DATE : 2018-09-14
DRAWN BY : G. TUCILA	SCALE : AS SHOWN
VERIFIED BY : Z. WANG	DISCIPLINE : FOUNDATION
APPROVED BY : S.Y. WANG	CAD FILE NAME : F1731664-100-F002.dwg

PROJECT NO.	LOT	DRWG #	REV.	PAGE :
F1731664	100	F002	00	

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