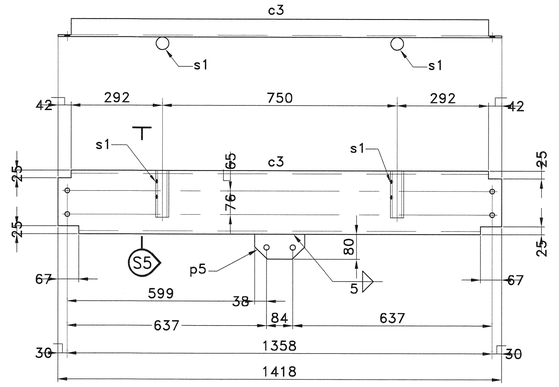


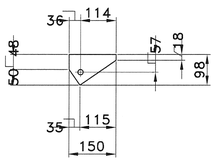
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SCALE: 1:10



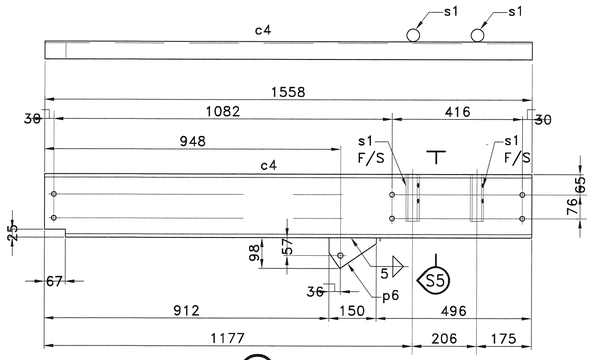
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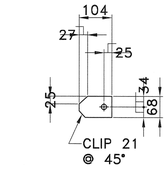
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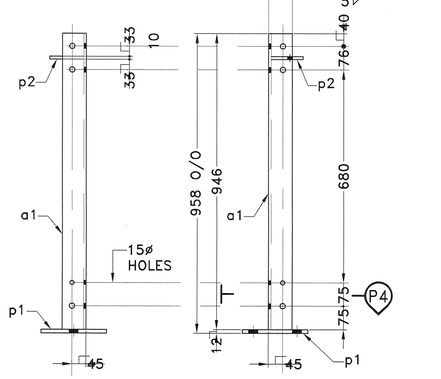


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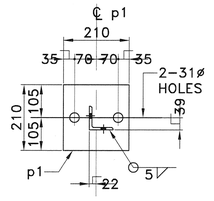
p2



1 AS SHOWN & AS NOTED

2 OPP' HAND & AS NOTED

} WELDED ASS'Y



P4

SCALE: 1:10

BILL OF MATERIAL

MARK	No. REQ'D	DESCRIPTION	REMARKS	WT. kgs
⑬	1	C200 X 17 X 1418 LG.		24.1
⑭	1	L76 X 76 X 7.9 X 126 LG.		1.1
⑮	1	1-a4-L76 X 76 X 7.9 X 126 LG.	WELDED ASS'Y	1.7
		1-p2-PL 10 X 68 X 104 LG.		
⑯	1	1-h4-NPS 1¼" SCH. 40 STD PIPE X 2850 LG.	WELDED ASS'Y	29.2
		2-h3-NPS 1¼" SCH. 40 STD PIPE X 1099 LG.		
		1-h5-NPS 1¼" SCH. 40 STD PIPE X 750 LG.		
		2-h6-NPS 1" SCH. 80 XS PIPE X 200 LG.		
		1-p7-PL 6 X 125 X 1402 LG.		
⑰	1	1-h7-NPS 1¼" SCH. 40 STD PIPE X 2940 LG.	WELDED ASS'Y	30.3
		2-h3-NPS 1¼" SCH. 40 STD PIPE X 1099 LG.		
		1-h8-NPS 1¼" SCH. 40 STD PIPE X 840 LG.		
		2-h6-NPS 1" SCH. 80 XS PIPE X 200 LG.		
		1-p8-PL 6 X 125 X 1492 LG.		
⑱	1	1-h9-NPS 1¼" SCH. 40 STD PIPE X 2090 LG.	WELDED ASS'Y	15.0
		1-h10-NPS 1¼" SCH. 40 STD PIPE X 206 LG.		
		1-h3-NPS 1¼" SCH. 40 STD PIPE X 1099 LG.		
		1-h6-NPS 1" SCH. 80 XS PIPE X 200 LG.		
		1-p9-PL 6 X 125 X 392 LG.		
	4	HILTI ANCHOR HSL M20/30 W/MIN. EMBEDMENT 130mm		
	2	⅝"ø BOLTS X 2" LG. C/W HEX. NUTS		
	26	⅝"ø BOLTS X 1¾" LG. C/W HEX. NUTS		
	28	LOCK WASHERS FOR ⅝"ø BOLTS		
	12	M12x1.75 BOLTS X 25LG. C/W HEX NUTS		
	2	⅝"ø KWIK BOLT 3 EXP. HILTI ANCH. SET W/MIN. EMB. 102mm		
	12	⅜"ø BOLTS X 1½" LG. C/W HEX. NUTS		
	12	LOCK WASHERS FOR ⅜"ø BOLTS		
		EST. WT. OF STEEL INCL. 3.5 % GALV.		= 105 kg

ALL BOLTS SHALL BE SUPPLIED BY STEEL MANUFACTURER

GENERAL NOTES:

REFER TO DWG. F1731664-200-S005

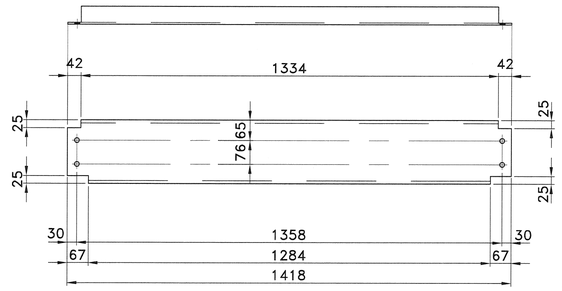
REFERENCE DRAWINGS:

1. 115/13.8kV STATION
   STEEL KEY PLAN
   STRUCTURE F1731664-200-S001
2. 115/13.8kV STATION
   ELEVATIONS
   ELECTRICAL ARRANGEMENT F1731664-300-EA009
3. 115/13.8kV STATION
   MAIN GROUNDING GRID
   PLAN & DETAILS
   ELECTRICAL ARRANGEMENT F1731664-300-EA014

THIS DRAWING MUST BE READ IN CONJUNCTION WITH:
- F1731664-200-S007
- F1731664-200-S008

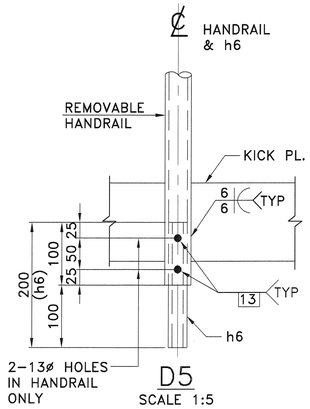
LEGEND:

T.O.C.: TOP OF CONCRETE
T.O.S.: TOP OF STEEL
L.L.V.: LONG LEG VERTICAL
INSUL.: INSULATOR



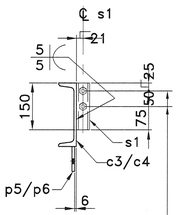
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SCALE 1:10



D5

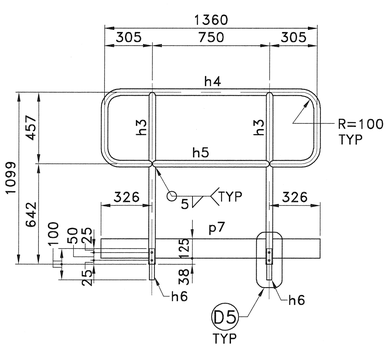
SCALE 1:5



2-15ø HOLES
IN s1-N/S ONLY
WELDED 12mmø HEX
NUTS OVER HOLES
FOR M12X1.75X25
5.8 SOCKET HEAD
SET SCREW

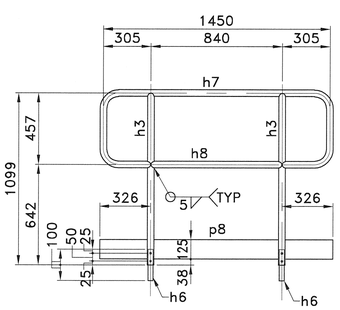
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SCALE: 1:10



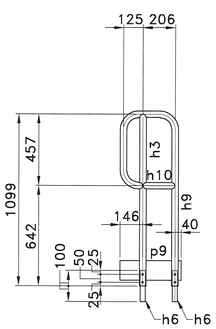
16

SCALE 1:20



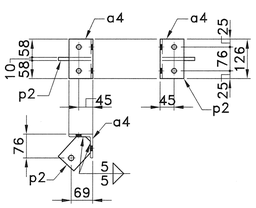
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SCALE 1:20



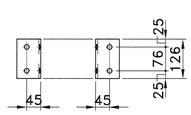
18

SCALE 1:20



15

SCALE 1:10



14

SCALE 1:10

N°	DATE	TRANSMISSION	BY ENG
00	2018/09/27	RELEASED FOR CONSTRUCTION	SYW

SMi THE S.M. GROUP INTERNATIONAL INC.
6205B Airport rd, Suite 205, Mississauga (Ontario) L4V 1E3
Tel. : 905 677.9009 / Fax. : 905 677.9014
www.groupesm.com

STAMP :

LICENSED PROFESSIONAL ENGINEER
S.Y. WANG
100139367
2018/09/27
PROVINCE OF ONTARIO

CLIENT :

PROJECT :

MCMASTER UNIVERSITY-NF91

TITLE :

115/13.8kV AREA
STEEL STAIRS & PLATF. AT PERSONAL DR FOR E-HOUSE BLDG (1.0m ABOVE GRADE)
STEEL DETAILS, STRUCTURE

PREPARED BY : S.Y. WANG	DATE : 2018/09/27
DRAWN BY : D. LECONTE-CHEVALIER	SCALE : AS SHOWN
VERIFIED BY : Z.WANG	DISCIPLINE : STRUCTURE
APPROVED BY : S.Y.WANG	CAD FILE NAME : F1731664-200-S009.dwg

PROJECT No:	LOT:	DWG. #	REV:	PAGE :
F1731664	200	S009	00	

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