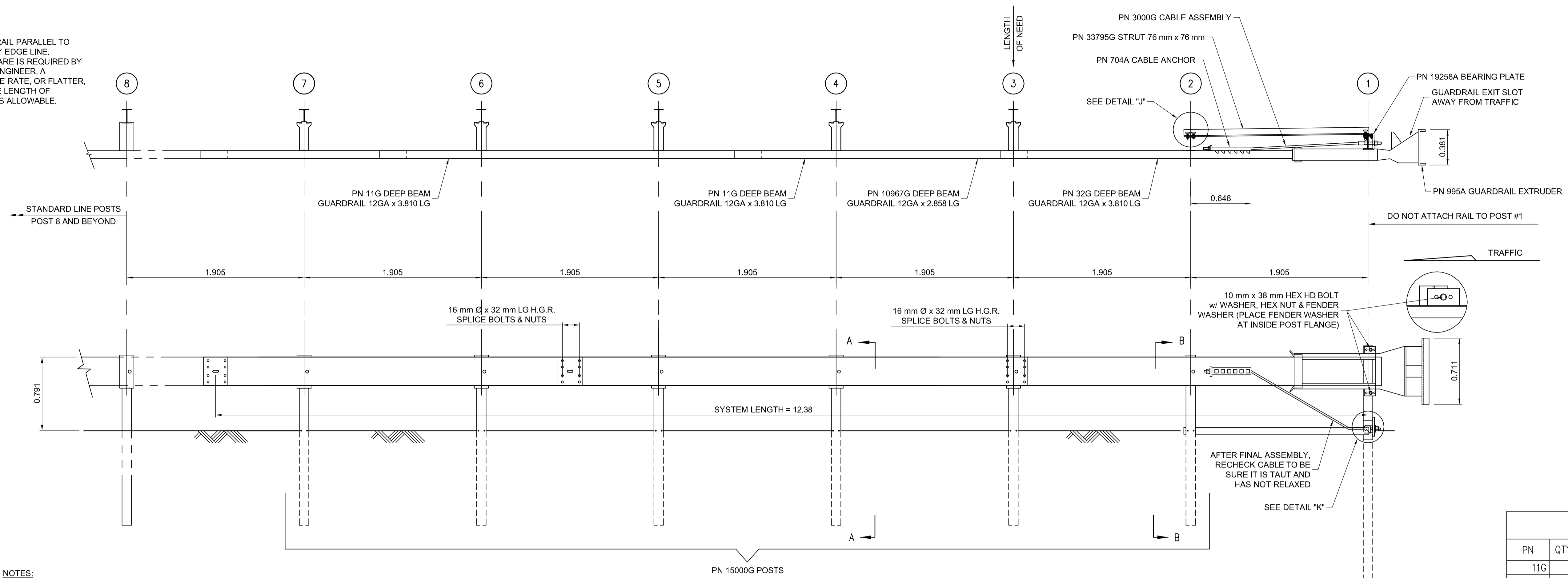


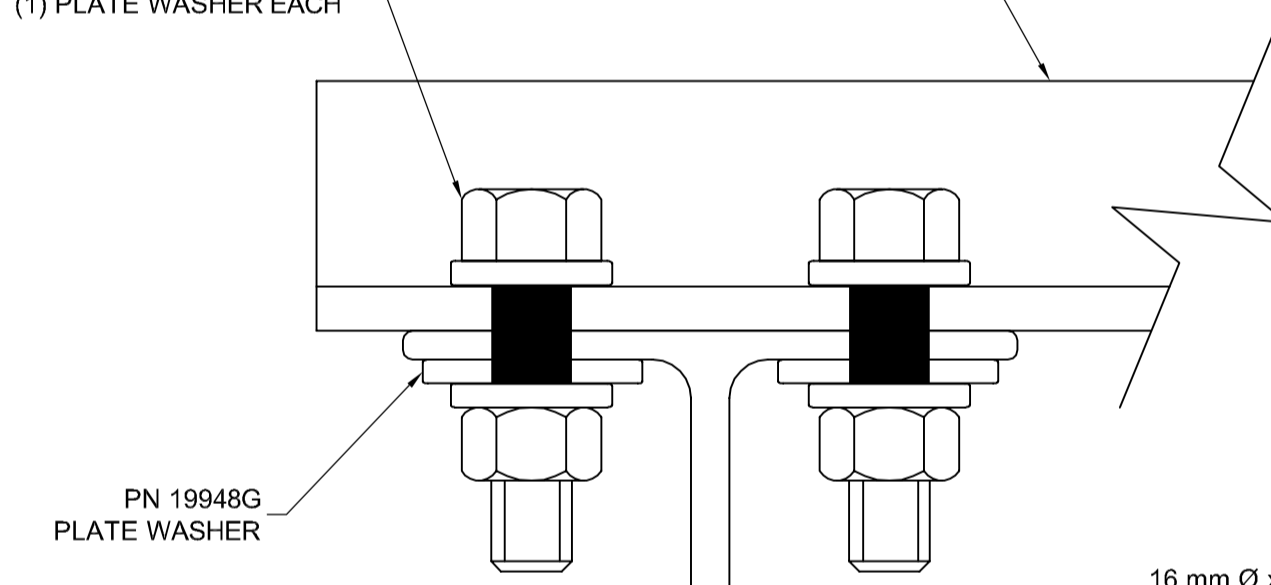
NOTE:  
INSTALL RAIL PARALLEL TO  
ROADWAY EDGE LINE.  
WHEN FLARE IS REQUIRED BY  
DESIGN ENGINEER, A  
25:1 FLARE RATE, OR FLATTER,  
OVER THE LENGTH OF  
SYSTEM IS ALLOWABLE.



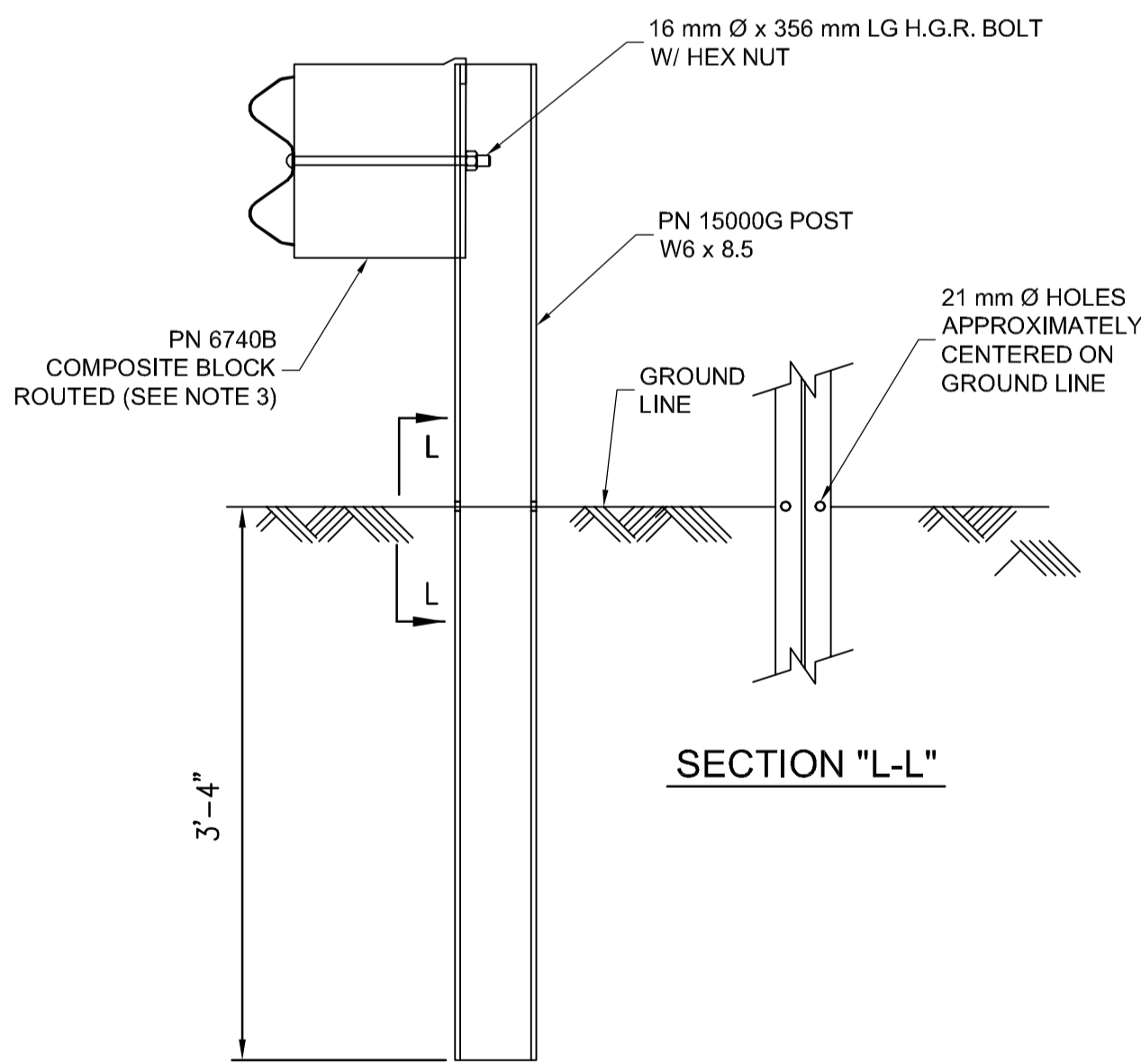
- NOTES:
- DO NOT ATTACH GUARDRAIL TO POST #1
  - MANUFACTURER SUGGESTS CUSTOMER TO PROVIDE REFLECTORIZATION OF TERMINAL
  - 305 mm DEEP WOOD OFFSET BLOCKS (ROUTED) ARE ACCEPTABLE ALTERNATES

11 mm Ø x 38 mm (2) HEX BOLTS  
W/ (1) FLAT WASHER UNDER  
BOLT HEAD OVER SLOT, (1) LOCK  
WASHER, (1) HEX NUT &  
(1) PLATE WASHER EACH

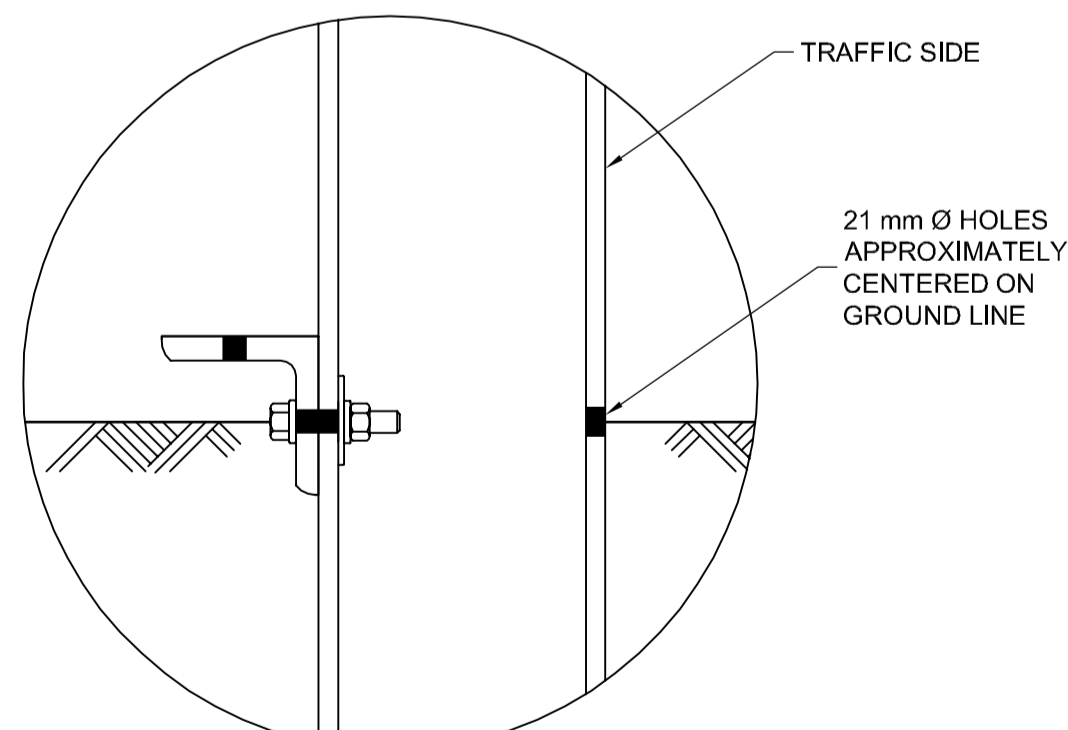
PN 33795G STRUT 76 mm x 76 mm



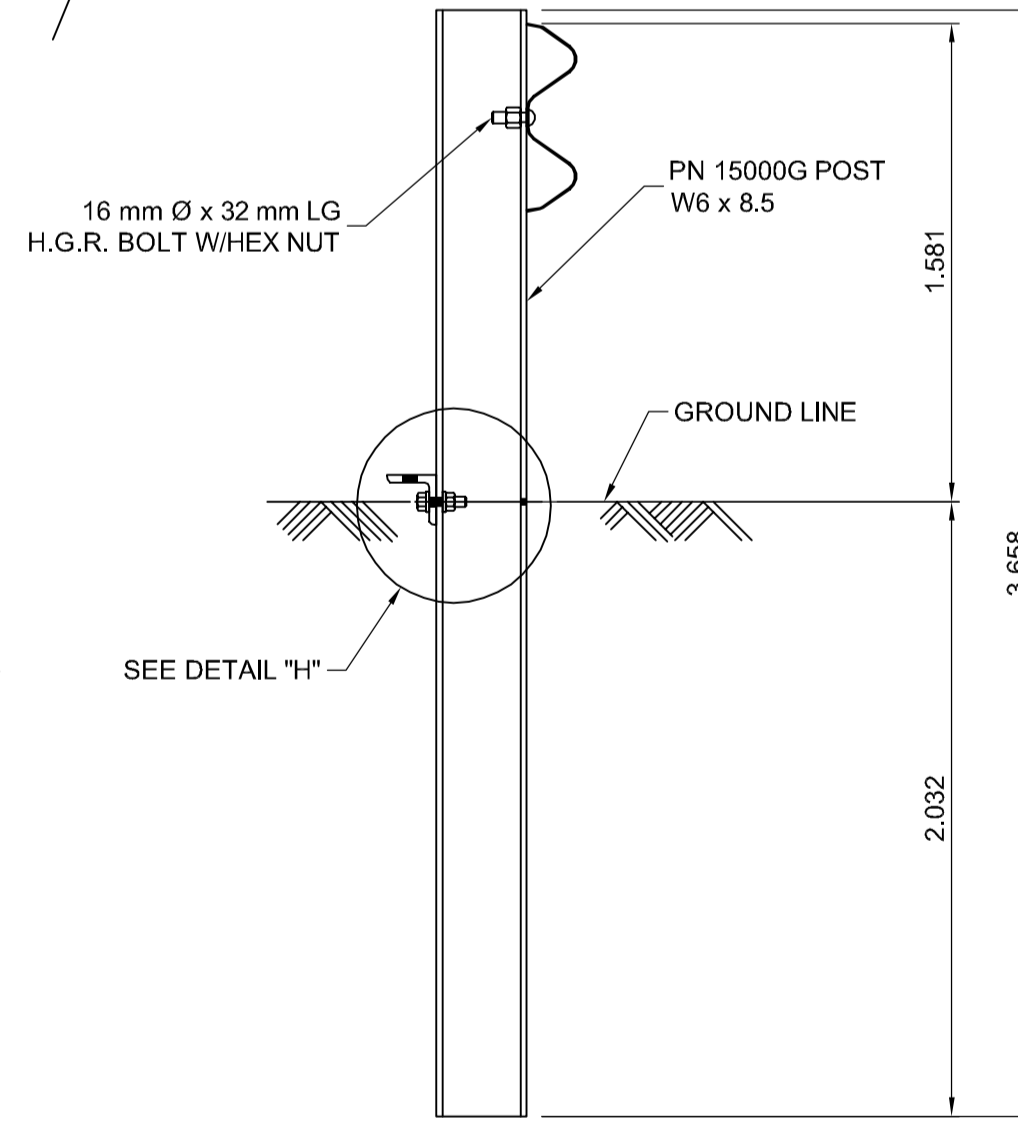
DETAIL 'J'



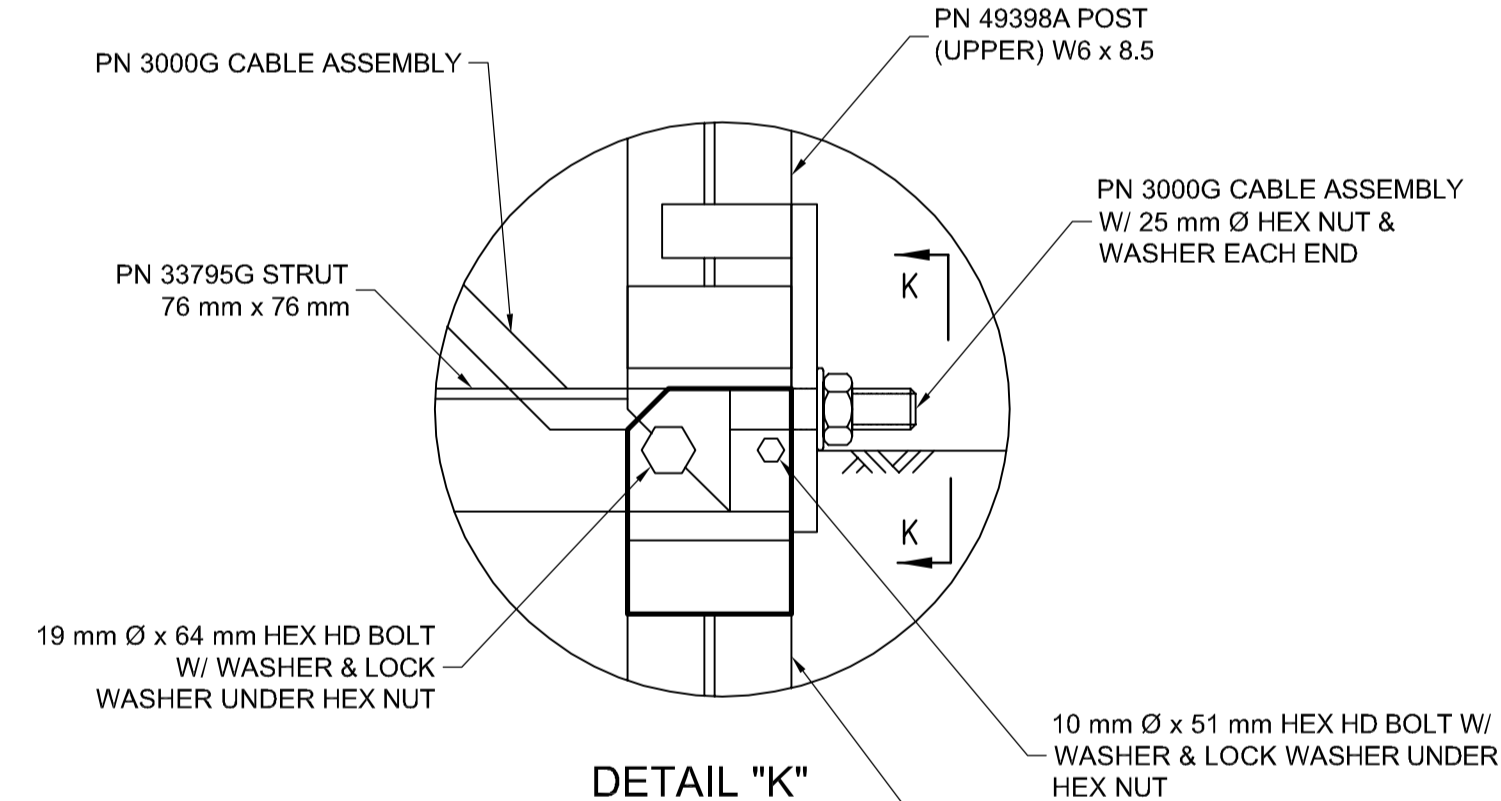
SECTION "A-A"  
TYPICAL @ POSTS #3 TO #8



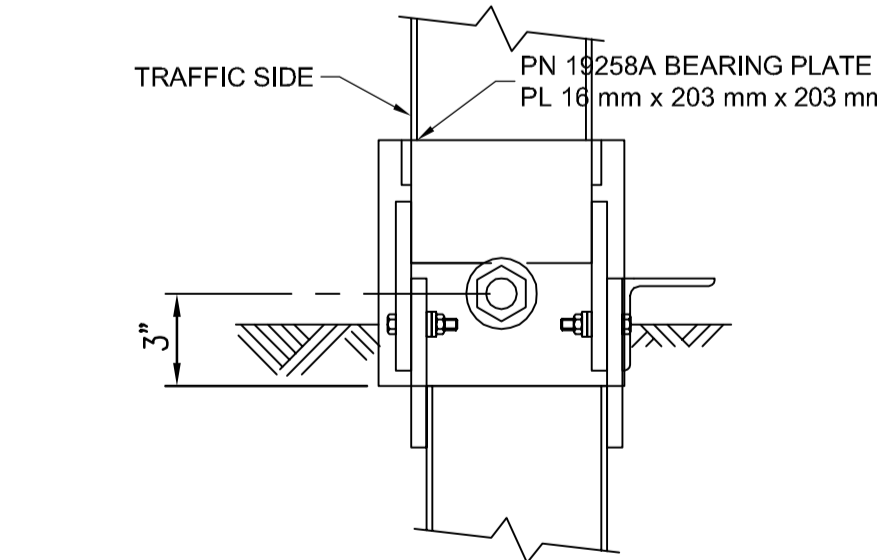
DETAIL "H"  
POST #2



SECTION "B-B"  
POST #2



DETAIL "K"  
POST #1



SECTION "K-K"

BILL OF MATERIAL		
PN	QTY	DESCRIPTION
11G	2	12/12'6"/3'1.5/S (GUARDRAIL)
32G	1	12/12'-6/6'3/S ANC (GUARDRAIL)
704A	1	CABLE ANCHOR BRACKET
995A	1	ET-PLUS EXTRUDER
3000G	1	CABLE 3/4 x 6'6"
3340G	39	5/8" HEX NUT
3360G	33	5/8"Ø x 1 1/4" SPLICE BOLT
3540G	6	5/8"Ø x 14" POST BOLT
3701G	2	3/4" FLAT WASHER
3704G	2	3/4" HEX NUT
3717G	2	3/4"Ø x 2 1/2" HEX HD BOLT(A-325)
3900G	2	1" FLAT WASHER
3910G	2	1" HEX NUT
4254G	4	3/8" FLAT WASHER
4255G	2	3/8" FENDER WASHER (1 1/2 OD)
4258G	2	3/8" LOCKWASHER
4261G	2	3/8"Ø x 1 1/2" HEX HD BOLT(GR-5)
4389G	2	7/16" FLAT WASHER
4390G	2	7/16"Ø x 1 1/2" HEX HD BOLT
4393G	2	7/16" LOCK WASHER
4396G	2	7/16" HEX NUT
6740B	6	COMPOSITE BLOCK x 14 LG
4699G	2	3/4" LOCK WASHER
6321G	2	3/8"Ø x 2" HEX HD BOLT(GR-5)
6405G	4	3/8" HEX NUT
10967G	1	12/9'4.5/3'1.5/S (GUARDRAIL)
15000G	7	POST SYT #2-#8
19258A	1	15/8" x 8" x 8" BEARING PLATE
19948G	2	PLATE WASHER
33795G	1	ANGLE STRUT (ET/SYTP/HBA)
33873A	1	POST ET PLUS HBA #1 BOTTOM
49398A	1	POST ET PLUS HBA #1 TOP

G:\CAD\163353\Technical\Workspc\Engineering\Drawings and Figures\Structures\Drawings and Figures\CON-C2-CS-085-S785-GUARDRAIL\_3.dwg



DESIGNED BY	TJH	CHECKED BY	RTP
DRAWN BY	TJH	APPROVED BY	DBW
HOR. SCALE	AS SHOWN	RELEASED FOR CONSTRUCTION	
VERTICAL	AS SHOWN	DATE	
NO.	REVISIONS	DATE	BY
0	ISSUED FOR TENDER	17/01/09	DBW

		ENGINEER'S SEAL	
DESIGNED BY	TJH	CHECKED BY	RTP
DRAWN BY	TJH	APPROVED BY	DBW
HOR. SCALE	AS SHOWN	RELEASED FOR CONSTRUCTION	
VERTICAL	AS SHOWN	DATE	

CONSULTANT PROJECT NUMBER	16-3353
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**THE CITY OF WINNIPEG**  
 PUBLIC WORKS DEPARTMENT

**WAVERLEY STREET UNDERPASS AT CN MILE 3.89 RIVERS SUB**  
 CONTRACT 2: UNDERPASS STRUCTURE, RAILWORKS,  
 ROADWORKS, LAND DRAINAGE SEWER, PUMPING STATION  
 AND LANDSCAPING WORKS

CITY DRAWING NUMBER: U-239-2016-C2-CS-084  
 SHEET 084 OF 085  
 CONSULTANT DRAWING NUMBER: C2-CS-084

S785 - ET-31 DETAILS