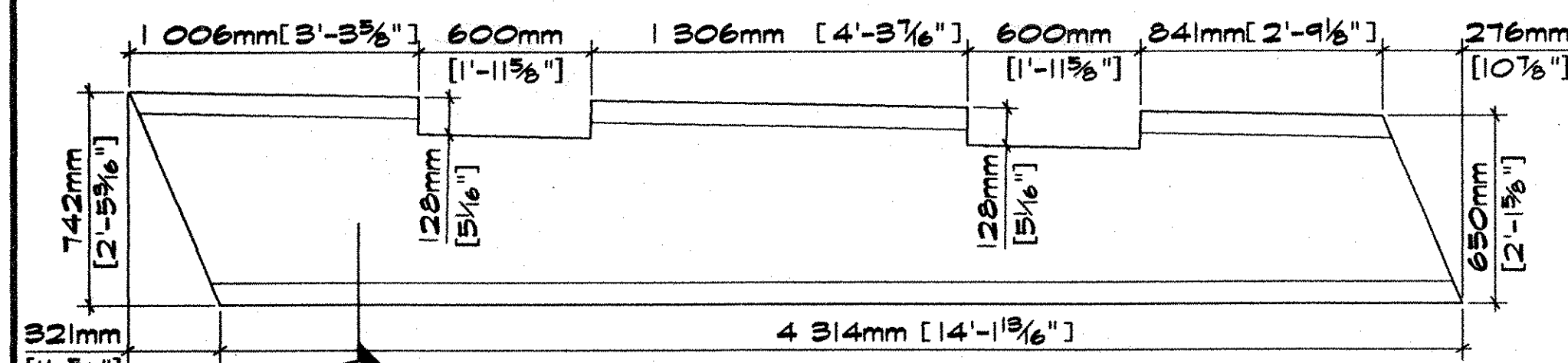
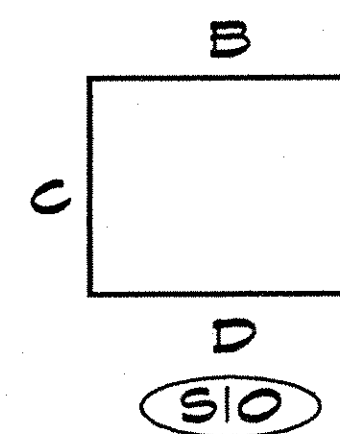


BENT BARS, TIES & STIRRUPS

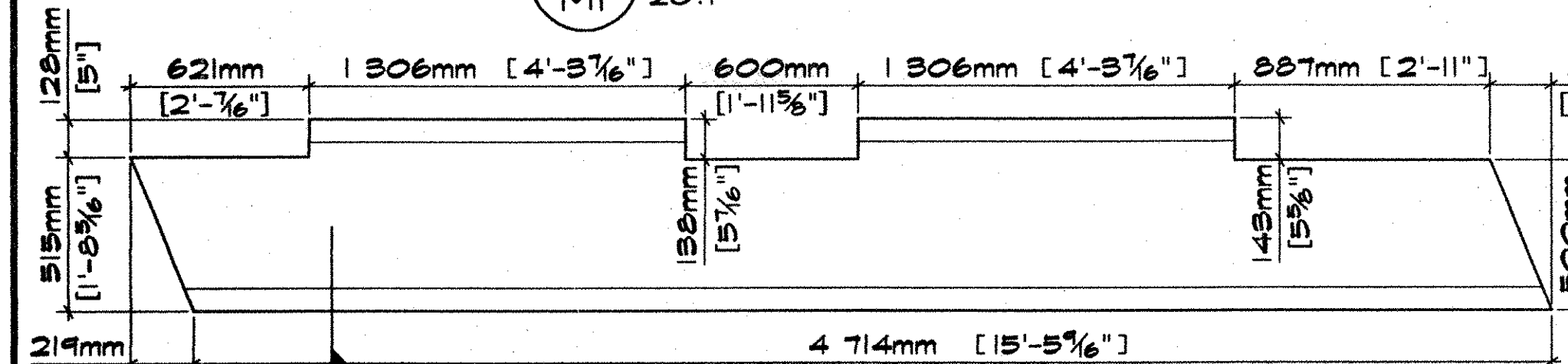
ITEM	MARK	QTY.	SIZE	LENGTH	TYPE	B	C	D	GRADE	REMARKS
1	1301E	12	#13 (#4)	1 470mm [4'-9 1/8"]	SIO	318mm [1'-1 1/2"]	225mm [2'-10 1/8"]	318mm [1'-1 1/2"]	420 [60]	EPOXY COATED
2	1302E	12	#13 (#4)	2 034mm [6'-8 1/8"]	SIO	600mm [1'-11 3/8"]	225mm [2'-10 1/8"]	600mm [1'-11 3/8"]	420 [60]	EPOXY COATED
3	1303E	34	#13 (#4)	1 423mm [4'-8 1/8"]	SIO	318mm [1'-1 1/2"]	238mm [2'-9"]	318mm [1'-1 1/2"]	420 [60]	EPOXY COATED
4	1304E	34	#13 (#4)	1 987mm [6'-6 1/4"]	SIO	600mm [1'-11 3/8"]	238mm [2'-9"]	600mm [1'-11 3/8"]	420 [60]	EPOXY COATED
5	1305E	16	#13 (#4)	1 576mm [5'-2 1/8"]	SIO	318mm [1'-1 1/2"]	491mm [3'-3"]	318mm [1'-1 1/2"]	420 [60]	EPOXY COATED
6	1306E	16	#13 (#4)	2 140mm [7'-1 1/4"]	SIO	600mm [1'-11 3/8"]	491mm [3'-3"]	600mm [1'-11 3/8"]	420 [60]	EPOXY COATED
7	1307E	24	#13 (#4)	2 200mm [7'-2 7/8"]	SIO	318mm [1'-1 1/2"]	235mm [9 1/4"]	318mm [1'-1 1/2"]	420 [60]	EPOXY COATED
8	1308E	24	#13 (#4)	1 384mm [4'-6 1/2"]	SIO	600mm [1'-11 3/8"]	235mm [9 1/4"]	600mm [1'-11 3/8"]	420 [60]	EPOXY COATED
9	1311E	4	#13 (#4)	1 535mm [5'-1 1/8"]	SIO	318mm [1'-1 1/2"]	450mm [3'-1 1/2"]	318mm [1'-1 1/2"]	420 [60]	EPOXY COATED
10	1312E	4	#13 (#4)	2 099mm [6'-10 5/8"]	SIO	600mm [1'-11 3/8"]	450mm [3'-1 1/2"]	600mm [1'-11 3/8"]	420 [60]	EPOXY COATED
11	1317E	64	#13 (#4)	1 795mm [5'-10 1/8"]	SIO	318mm [1'-1 1/2"]	1 210mm [3'-11 3/8"]	318mm [1'-1 1/2"]	420 [60]	EPOXY COATED
12	1318E	64	#13 (#4)	2 359mm [7'-9 1/8"]	SIO	600mm [1'-11 3/8"]	1 210mm [3'-11 3/8"]	600mm [1'-11 3/8"]	420 [60]	EPOXY COATED
13	1319E	8	#13 (#4)	1 733mm [5'-8 1/4"]	SIO	318mm [1'-1 1/2"]	1 148mm [3'-9 3/8"]	318mm [1'-1 1/2"]	420 [60]	EPOXY COATED
14	1320E	8	#13 (#4)	2 297mm [7'-6 7/8"]	SIO	600mm [1'-11 3/8"]	1 148mm [3'-9 3/8"]	600mm [1'-11 3/8"]	420 [60]	EPOXY COATED
15	1323E	192	#13 (#4)	1 712mm [5'-7 1/2"]	SIO	318mm [1'-1 1/2"]	1 127mm [3'-8 3/8"]	318mm [1'-1 1/2"]	420 [60]	EPOXY COATED
16	1324E	192	#13 (#4)	2 276mm [7'-5 3/8"]	SIO	600mm [1'-11 3/8"]	1 127mm [3'-8 3/8"]	600mm [1'-11 3/8"]	420 [60]	EPOXY COATED
17	1329E	9	#13 (#4)	1 645mm [5'-4 3/8"]	SIO	318mm [1'-1 1/2"]	1 060mm [3'-5 3/4"]	318mm [1'-1 1/2"]	420 [60]	EPOXY COATED
18	1330E	9	#13 (#4)	2 209mm [7'-3"]	SIO	600mm [1'-11 3/8"]	1 060mm [3'-5 3/4"]	600mm [1'-11 3/8"]	420 [60]	EPOXY COATED
19	1331E	23	#13 (#4)	1 590mm [5'-2 3/8"]	SIO	318mm [1'-1 1/2"]	1 005mm [3'-3 3/8"]	318mm [1'-1 1/2"]	420 [60]	EPOXY COATED
20	1332E	23	#13 (#4)	2 154mm [7'-1 1/8"]	SIO	600mm [1'-11 3/8"]	1 005mm [3'-3 3/8"]	600mm [1'-11 3/8"]	420 [60]	EPOXY COATED
21	1335E	17	#13 (#4)	1 634mm [5'-4 3/8"]	SIO	318mm [1'-1 1/2"]	1 049mm [3'-5 1/2"]	318mm [1'-1 1/2"]	420 [60]	EPOXY COATED
22	1334E	17	#13 (#4)	2 198mm [7'-2 3/8"]	SIO	600mm [1'-11 3/8"]	1 049mm [3'-5 1/2"]	600mm [1'-11 3/8"]	420 [60]	EPOXY COATED
23	1335E	8	#13 (#4)	1 541mm [5'-1 1/8"]	SIO	318mm [1'-1 1/2"]	956mm [3'-1 3/8"]	318mm [1'-1 1/2"]	420 [60]	EPOXY COATED
24	1336E	8	#13 (#4)	2 105mm [6'-10 3/8"]	SIO	600mm [1'-11 3/8"]	956mm [3'-1 3/8"]	600mm [1'-11 3/8"]	420 [60]	EPOXY COATED
25	1337E	9	#13 (#4)	1 565mm [5'-1 3/8"]	SIO	318mm [1'-1 1/2"]	980mm [3'-2 3/8"]	318mm [1'-1 1/2"]	420 [60]	EPOXY COATED
26	1338E	9	#13 (#4)	2 129mm [6'-11 3/8"]	SIO	600mm [1'-11 3/8"]	980mm [3'-2 3/8"]	600mm [1'-11 3/8"]	420 [60]	EPOXY COATED

MISCELLANEOUS MATERIALS

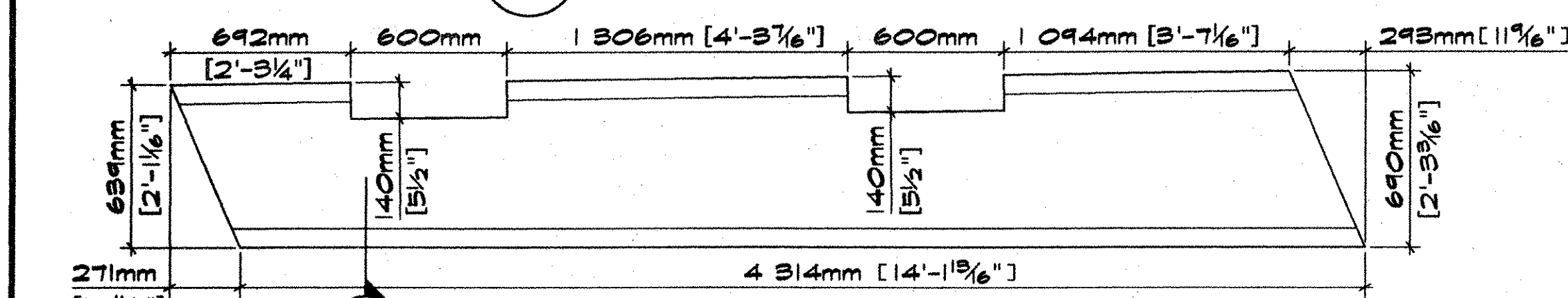
ITEM	MARK	QTY.	DESCRIPTION	
1	EM-1	8	19mm [3/4"] ϕ 127mm x 127mm [5"x5"] GALV. w/ 51mm [2"] ϕ HOLE	FOR ERECTION (SEE DET. THIS SHT.)
2		8	SINGLE USE STRESSING CHUCK	FOR ERECTION
3		4	13mm [1/2"] ϕ POLYSTRANDS x 8534mm [28'-0"]	FOR ERECTION
4		12	38mm [1 1/2"] ϕ x 1190mm [3'-10 3/8"] GALV. ANCHOR ROD	FOR ERECTION (SEE DET. THIS SHT.)
5		12	13mm [1/2"] ϕ 100mm x 100mm [3 15/16" x 3 15/16"] GALV. w/ 41mm [1 5/8"] ϕ HOLE	FOR ERECTION (SEE DET. THIS SHT.)
6		4	935mm [3'-1 1/8"] x 406mm [1'-4"] x 4714mm [15'-5 3/8"] BOX BEAM VOID w/ 397mm [1'-3 3/8"] END SKEW	
7		8	935mm [3'-1 1/8"] x 406mm [1'-4"] x 4314mm [14'-1 13/16"] BOX BEAM VOID w/ 397mm [1'-3 3/8"] END SKEW	
8		1	SPECIAL VOID 'A'	FOR CH-1 (SEE DET. THIS SHT.)
9		1	SPECIAL VOID 'B'	FOR CH-1 (SEE DET. THIS SHT.)
10		1	SPECIAL VOID 'C'	FOR CH-1 (SEE DET. THIS SHT.)
11		1	SPECIAL VOID 'D'	FOR CH-3 (SEE DET. THIS SHT.)
12		1	SPECIAL VOID 'E'	FOR CH-3 (SEE DET. THIS SHT.)
13		1	SPECIAL VOID 'F'	FOR CH-3 (SEE DET. THIS SHT.)
14		36	19mm [3/4"] ϕ x 140mm [5 1/2"] NON-FERROUS VOID DRAIN	
15		24	SET OF DBL 1/2" ϕ STRAND LIFTING LOOPS	
16		36	PRESET GUARDRAIL ANCHORS U-BOLTS	
17		72	48mm [1 7/8"] CLOSED THREADED FERRULE	
18		72	25mm [1"] x 127mm [5"] THREADED ROD	FOR GUARDRAIL ERECTION
19		72	6mm [1/4"] THICK x 51mm [2"] x 127mm [5"] ϕ WASHER w/ 32mm [1 1/4"] ϕ HOLE (GALV.)	FOR GUARDRAIL ERECTION
20		72	25mm [1"] ϕ STD WASHERS (GALV.)	FOR GUARDRAIL ERECTION
21		144	25mm [1"] ϕ HEAVY HEX NUTS (GALV.)	FOR GUARDRAIL ERECTION



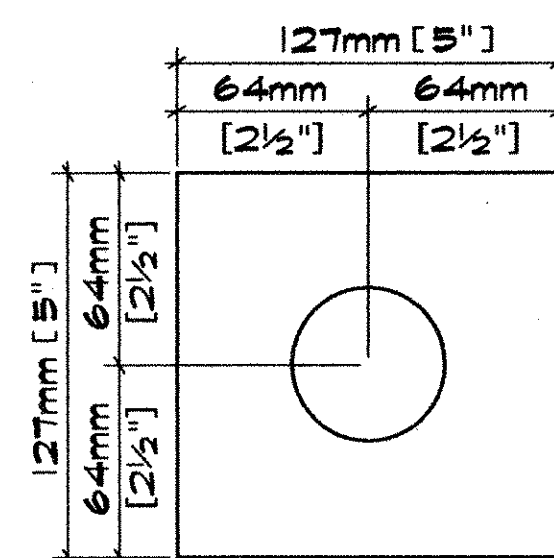
1 SPECIAL VOID A - PLAN
MI 20:1



2 SPECIAL VOID B - PLAN
MI 20:1



3 SPECIAL VOID C - PLAN
MI 20:1



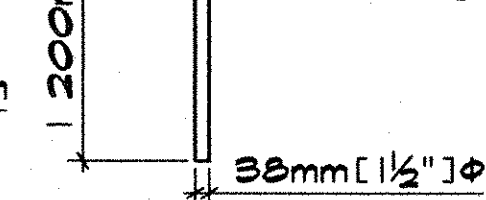
19mm [3/4"] THICK ϕ (ASTM A36) (GALV.) w/ (1) 51mm [2"] ϕ HOLE

EM-1

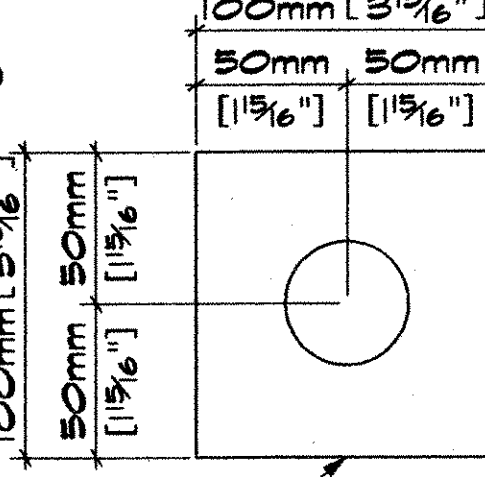
38mm [1 1/2"] ϕ HEAVY HEX NUT AASHTO M164M (GALV.)

100mm ϕ WASHER (GALV.) (SEE DET. THIS SHT.)

38mm [1 1/2"] ϕ x 1200 [3'-11 1/4"] ANCHOR ROD (AASHTO M164M) w/ 76mm [3"] THREADS (GALV.)

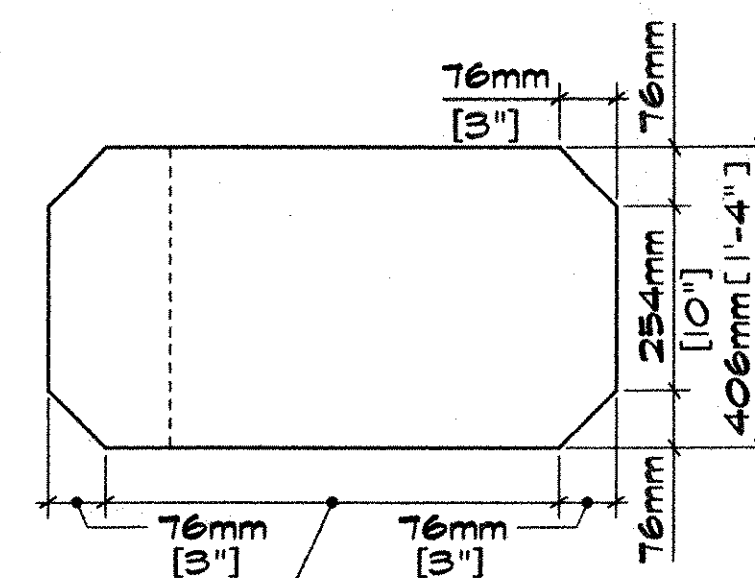


ANCHOR BOLT DETAIL
20:1

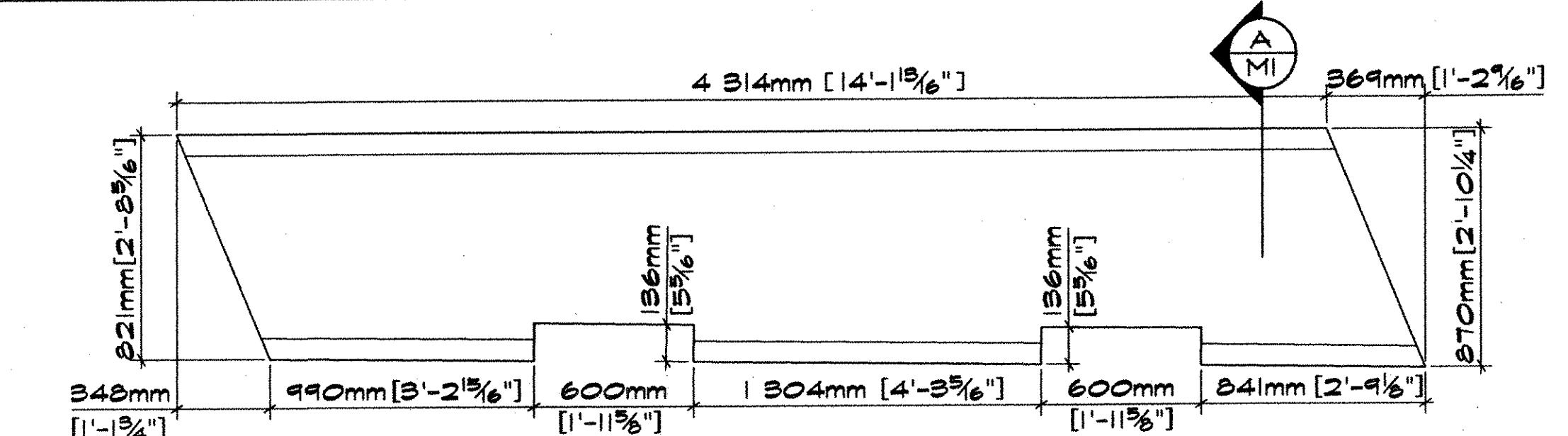


13mm [1/2"] THICK ϕ (AASHTO M103 GR. 345) (GALV.) w/ (1) 41mm [1 5/8"] ϕ HOLE

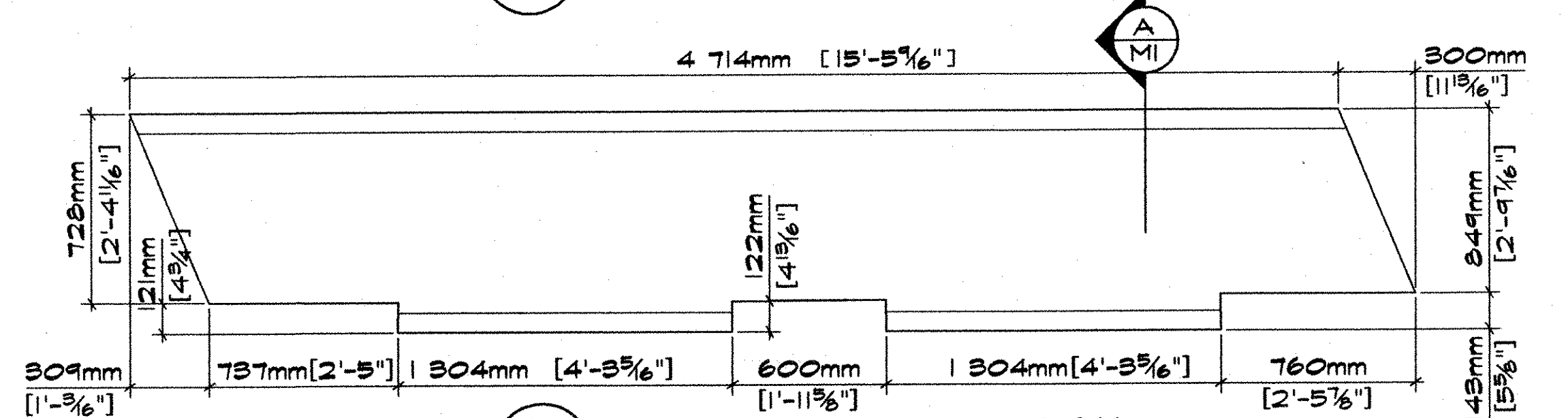
WASHER
2.5:1



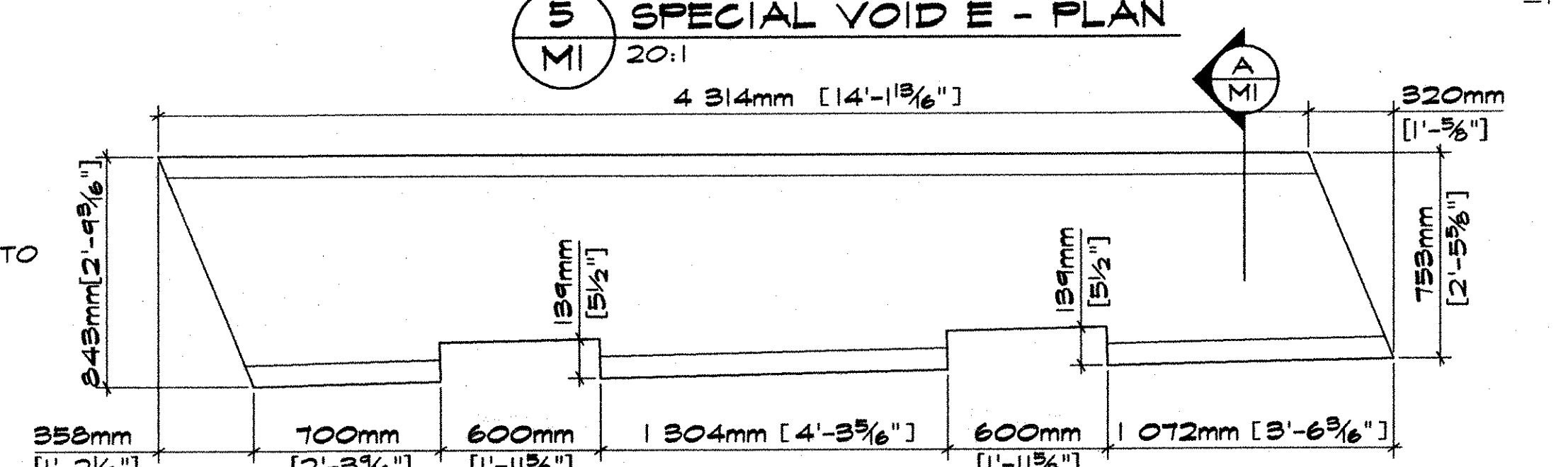
A SPECIAL VOID FOR TYP SECTION
10:1
VOIDS A,B,C,D,E,F



4 SPECIAL VOID D - PLAN
MI 20:1



5 SPECIAL VOID E - PLAN
MI 20:1



6 SPECIAL VOID F - PLAN
MI 20:1

<p>APPROVAL STAMP:</p> <p>RECEIVED</p> <p>CK'D BY: _____ CK'D BY: GWC</p> <p>AUG 04 2006</p> <p>RESUBMIT: _____ APPROVED: X</p> <p>BY: _____ DATE: AUG 10 2006</p>	<p>J.P. CARRARA & SONS INC. Precast & Prestress Manufacturer 1064 CASE STR., WOODBURY, VERMONT 05753 Phone: 802.338-6361 Fax: 802.338-9010</p>		<p>TREMBLAY CONSTRUCTION, LLC. CONTRACTOR WASHINGTON, VT.</p>
	<p>STATE OF VERMONT A.O.T. COUNTY OF ORLEANS</p>		<p>DATE: 7-16-06</p> <p>SCALE: NOTED</p>
	<p>TOWN OF CHARLESTON PROJECT NUMBER BRO-1449(22) TH41, CLASS 2 TOWN HIGHWAY, BRIDGE NO. 16</p>		<p>CHKD: _____ DFTM: ETC</p> <p>JOB NO: 23241-06</p>
	<p>MATERIAL LIST</p>		