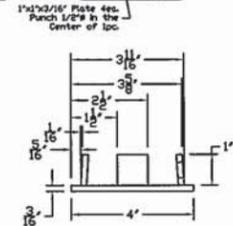
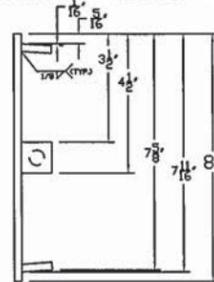
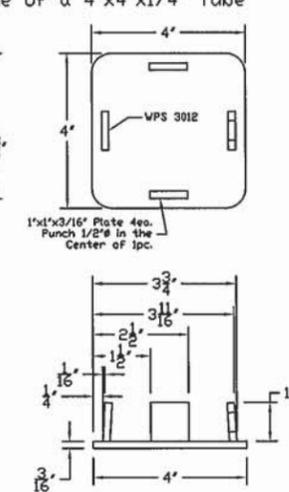
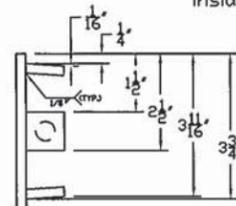


This Cap Needs to press fit inside of a 4"x8"x5/16" Tube

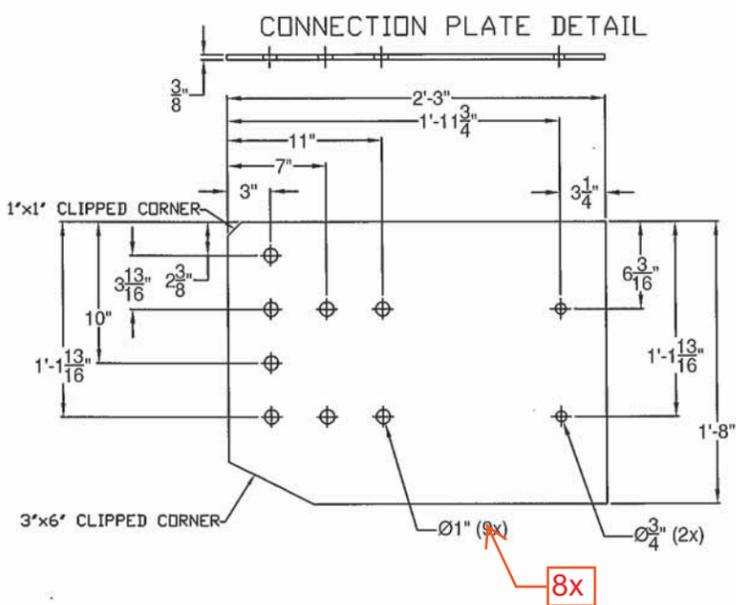


This Cap Needs to press fit inside of a 4"x4"x1/4" Tube

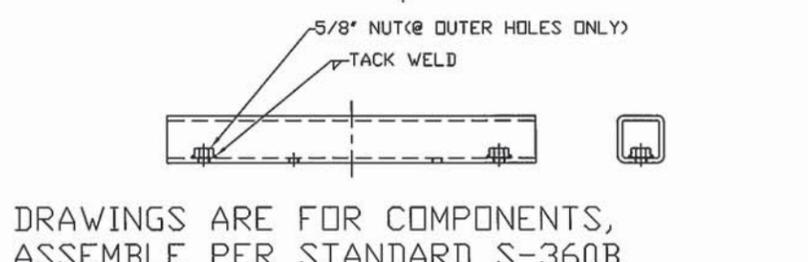
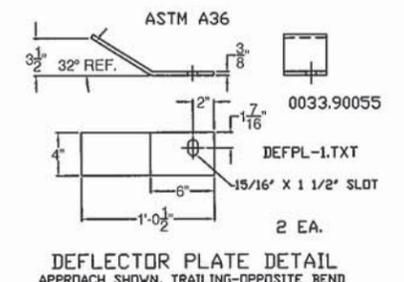
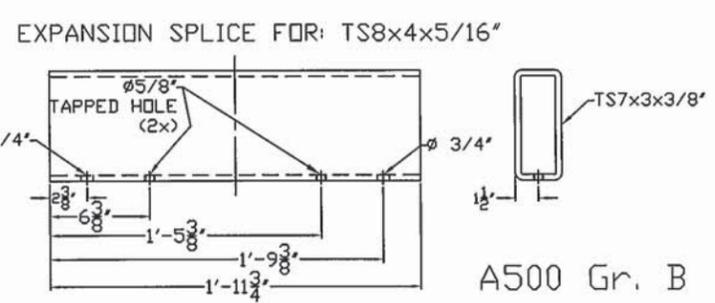
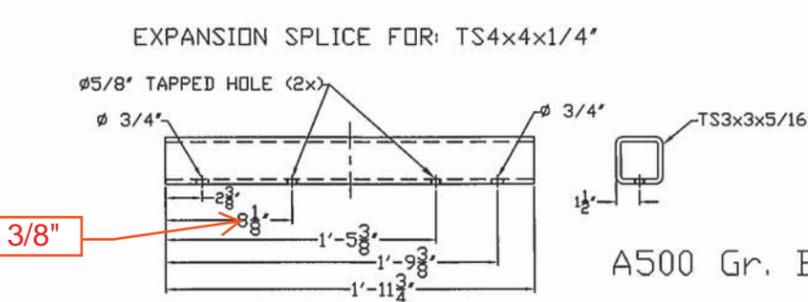
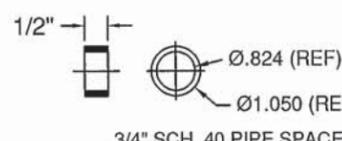
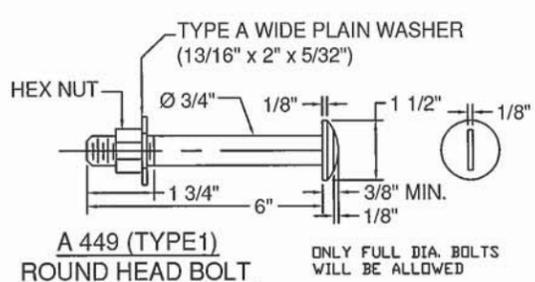
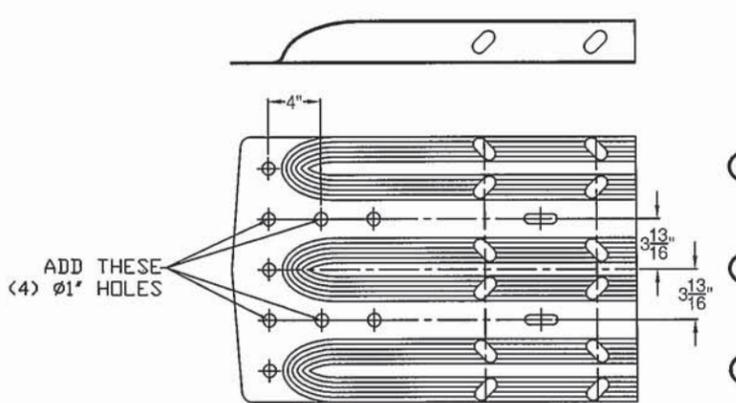


The expansion splice tubes and associated hardware are accounted for on both the bridge rail and approach rail drawings and material lists.

BILL OF MATERIAL (621.72) PER EACH CORNER		
QTY	DESCRIPTION	ASTM DESIGNATION
1	THRIE BEAM TERMINAL CONNECTION (10 Ga)	AASHTO M180
1	THRIE BEAM TRANSITION @ 7'-3 1/2" (10 Ga)	AASHTO M180
1	CONNECTION PLATE	A36
2	12' 6" THRIE BEAM (12Ga)	AASHTO M180
4	W6X25 POST @ 8'-0" (PUNCHING VARIES - POST 1~4)	A572 Gr. 50
1	DEFLECTOR PLATE (APPROACH OR TRAILING)	A36
1	8" X 4" X 5/16" RAIL @ 9'-4"	A500 Gr. B
1	4" X 4" X 1/4" RAIL @ 9'-4"	A500 Gr. B
1	8" X 4" X 1/4" END CAP	A36
1	4" X 4" X 1/4" END CAP	A36
1	7" X 3" X 3/8" SPLICE TUBE @ 1' 11 3/4"	A500 Gr. B
1	3" X 3" X 5/16" SPLICE TUBE @ 1' 11 3/4"	A500 Gr. B
8	Ø 3/4" SCH. 40 PIPE @ 1/2"	A53
8	Ø 5/8" X 1 3/4" HEX BOLTS	A307
8	Ø 5/8" FLAT WASHER, HARDENED, TYPE A, PLAIN WIDE	A307
7	Ø 3/4" X 6" CARRIAGE BOLT, & NUT	A307
1	Ø 3/4" X 2" CARRIAGE BOLT, & NUT	A307
19	Ø 5/8" X 1'-6" BUTTON HEAD POST BOLT, PLATE WASHER, F.W. & NUT	A307, A36, F844 or 307, & A563
32	Ø 5/8" X 1 1/4" BUTTON HEAD SPLICE BOLT, RECESSED NUT & F.W.	A307
19	3/16" SPEC. PLATE WASHER @ 1 3/4" X 3"	A36
16	Ø 3/4" X 6" ROUND HEAD BOLT, F.W., LOCK W. & NUT	A449, F436, ASME B18.21.1, & A563
10	6 X 8" WOOD POST @ 7'-0"	SUPPLIED BY OTHERS
9	6 X 8" WOOD BLOCKOUTS @ 1'-6"	SUPPLIED BY OTHERS
1	6 X 8" WOOD BLOCKOUTS @ 1'-2"	SUPPLIED BY OTHERS



HARDWARE APPLICATION			
QTY	DESCRIPTION	ASTM DESIGNATION	APPLICATION
A	8 Ø 5/8" X 1 3/4" HEX BOLTS	A307	USED IN SPLICE TUBES
B	8 Ø 5/8" FLAT WASHER, HARDENED, TYPE A, PLAIN WIDE	A307	FOR SPLICE TUBES,
C	7 Ø 3/4" X 6" CARRIAGE BOLT, & NUT	A307	TERM. CONN. & CONN. PLATE TO RAIL
D	1 Ø 3/4" X 2" CARRIAGE BOLT, & NUT	A307	DEFLECTOR PLATE TO CONN. PLATE
E	19 Ø 5/8" X 1'-6" BUTTON HEAD POST BOLT, PLATE WASHER, F.W. & NUT	A307, A36, F844 or 307, & A563	THRIE BEAM, TO OFFSET BLOCK, TO 6x8" POST
F	32 Ø 5/8" X 1 1/4" BUTTON HEAD SPLICE BOLT, RECESSED NUT & F.W.	A307	FASTEN PANEL COMPONENTS TOGETHER, (THRIE, TERMINAL CONNECTOR, TRANSITION SECTION)
G	19 3/16" (SPECIAL) PLATE WASHER @ 1 3/4" X 3"	A36	USED IN PANEL VALLEY, W/ 18" BOLT
H	16 Ø 3/4" X 6" ROUND HEAD BOLT, FL. WASHER, LOCK W. & NUT	A449, F436, ASME B18.21.1, & A563	FASTEN 4X4 & 4X8 RAIL TO RAIL POST 1~4



MODIFICATION TO P/N 5143.40056 TO CREATE P/N 5143.90056

ITEM #: 621.72

APPROVED BY: Vermont Agency of Transportation

RECEIVED

CK'D BY RK OK'D BY JS

April 29, 2014

RESUBMIT YES Rejected

BY KH DATE 5-21-2014

SHEET 1 OF 2

2 RAIL BRIDGE RAIL TO GUARDRAIL TRANSITION

PROJECT: MARLBORO BR 010-1 (43) VT 9 PRINCIPAL ARTERIAL-NHS, BRIDGE NO. 48

TOWN OF MARLBORO, WINDHAM COUNTY, VERMONT

R NO.	DATE	DESCRIPTION	BY	R NO.	DATE	DESCRIPTION	BY
E			E.P.				
V			V				

ELDERLEE, INC.

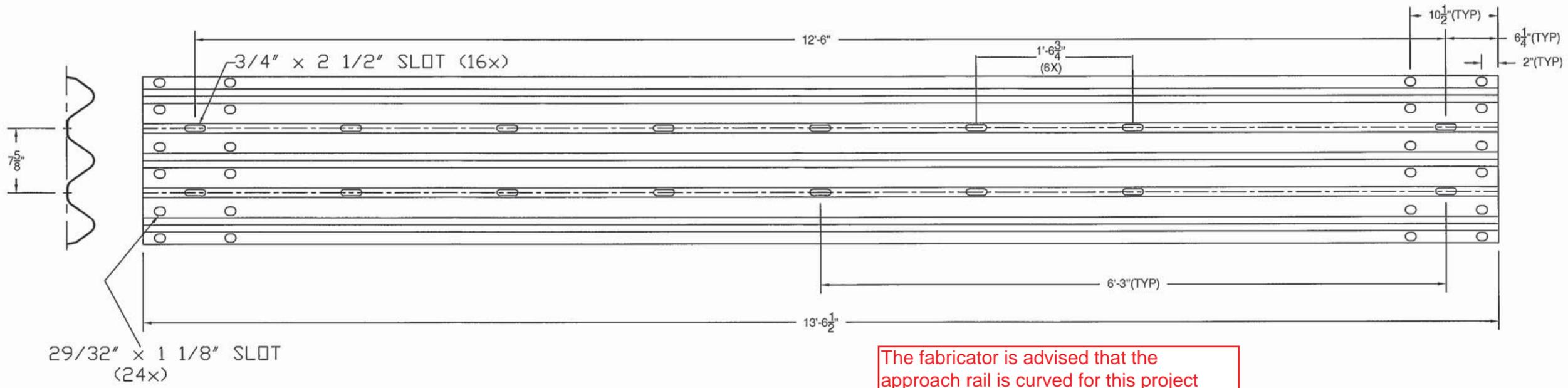
OAKS CORNERS, NEW YORK 14518

E-Mail: dlong@elderlee.com

Tel: 315-789-6670 Fax: 315-789-6615

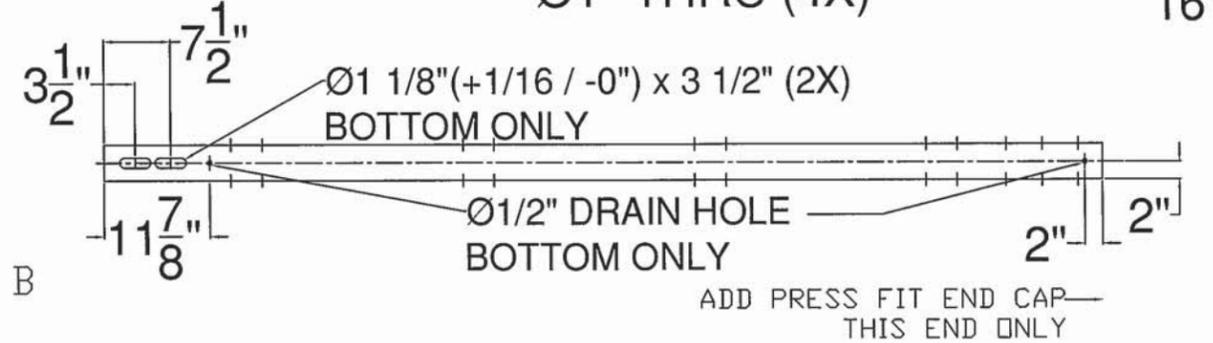
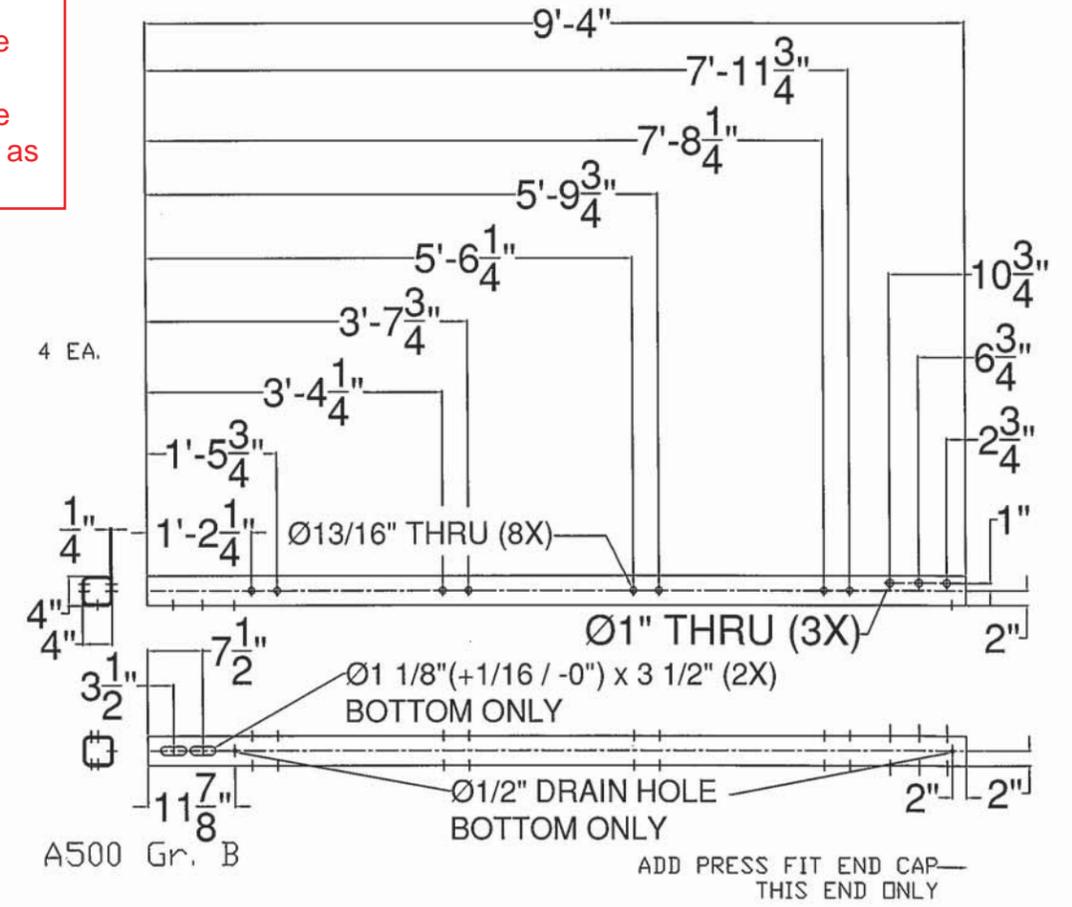
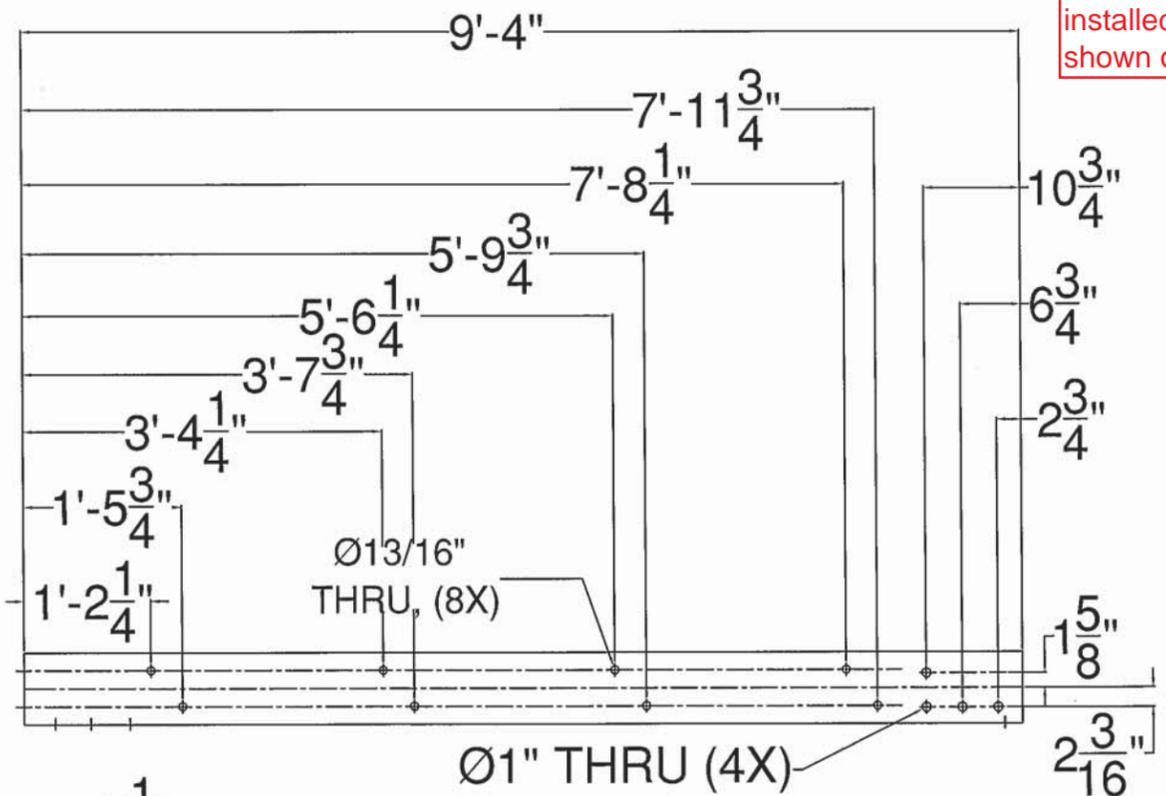
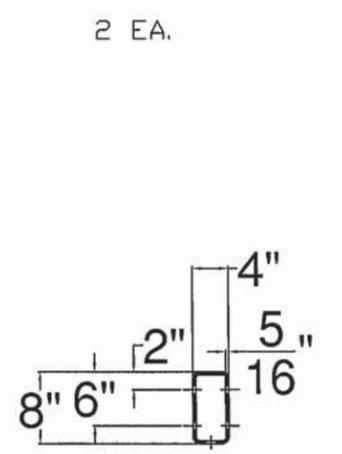
CERTIFIED FABRICATOR

DRAWN	E.P.	4/29/14
CHECKED	D.L.	4/29/14
APPROVED		
SCALE	SCHMATIC	
DRAWING NO.	F.R.L. MARLBORO-T	



The fabricator is advised that the approach rail is curved for this project (North rail radius = 1783', South rail radius = 1743'). If the rail sections are fabricated as straight sections, the installer shall verify that the rail can be installed so that the face of rail will be as shown on the plans.

APPROACH RAIL SHOWN TRAILING IS MIRRORED



ITEM #: 621.72

APPROVED BY:

Vermont Agency of Transportation
RECEIVED

CK'D BY RK OK'D BY JS

April 29, 2014

RESUBMIT YES Rejected
BY KH DATE 5-21-2014

SHEET 2 OF 2

2 RAIL BRIDGE RAIL TO GUARDRAIL TRANSITION

PROJECT: MARLBORO BR 010-1 (43) VT 9 PRINCIPAL ARTERIAL-NHS, BRIDGE NO. 48

TOWN OF MARLBORO, WINDHAM COUNTY, VERMONT

R NO.	DATE	DESCRIPTION	BY	R NO.	DATE	DESCRIPTION	BY

ELDERLEE, INC.
OAKS CORNERS, NEW YORK 14518
E-Mail: dlong@elderlee.com
Tel: 315-789-6670 Fax: 315-789-6615



DRAWN	E.P.	4/29/14
CHECKED	D.L.	4/29/14
APPROVED		
SCALE	SCHEMATIC	
DRAWING NO. F.R.L. MARLBORO-T		