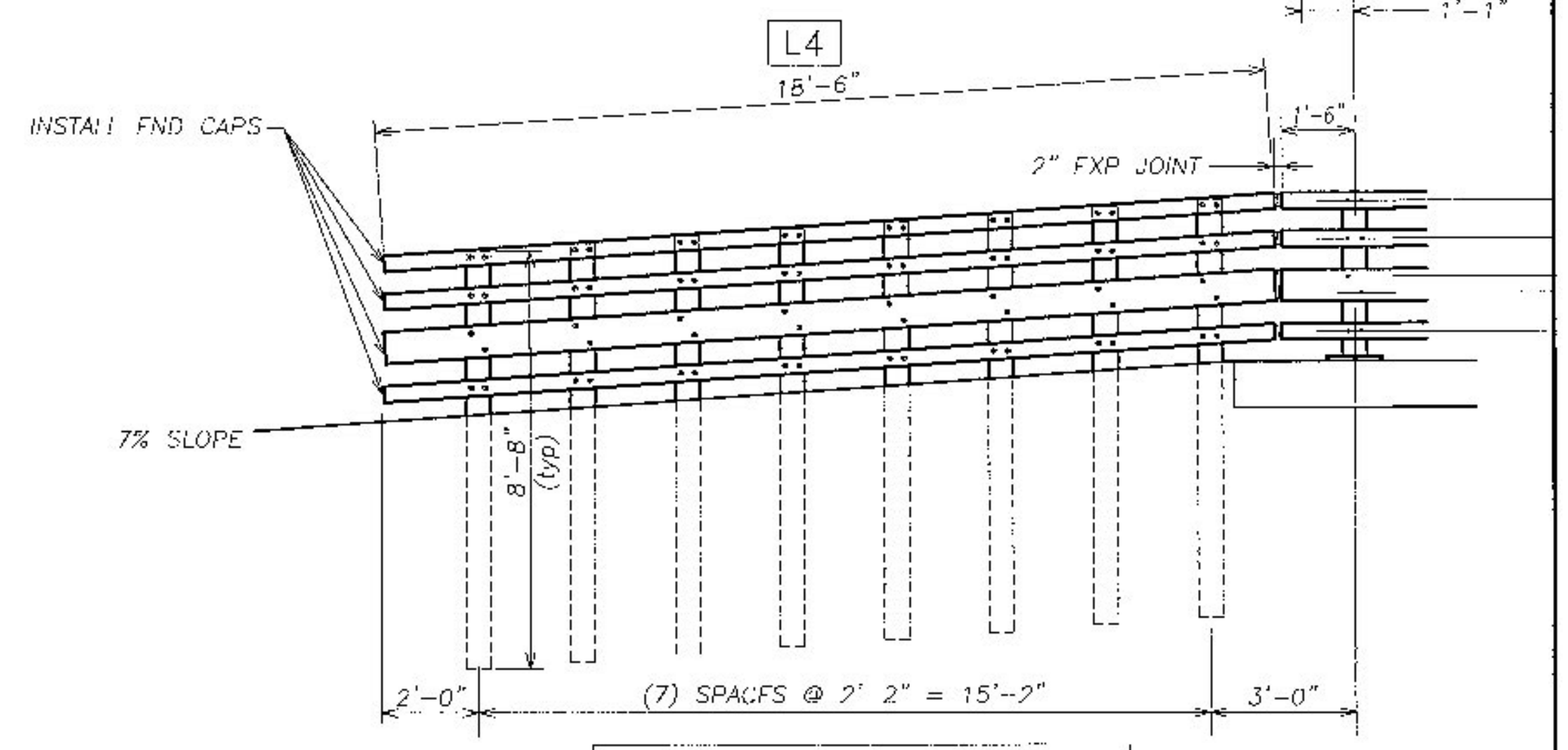
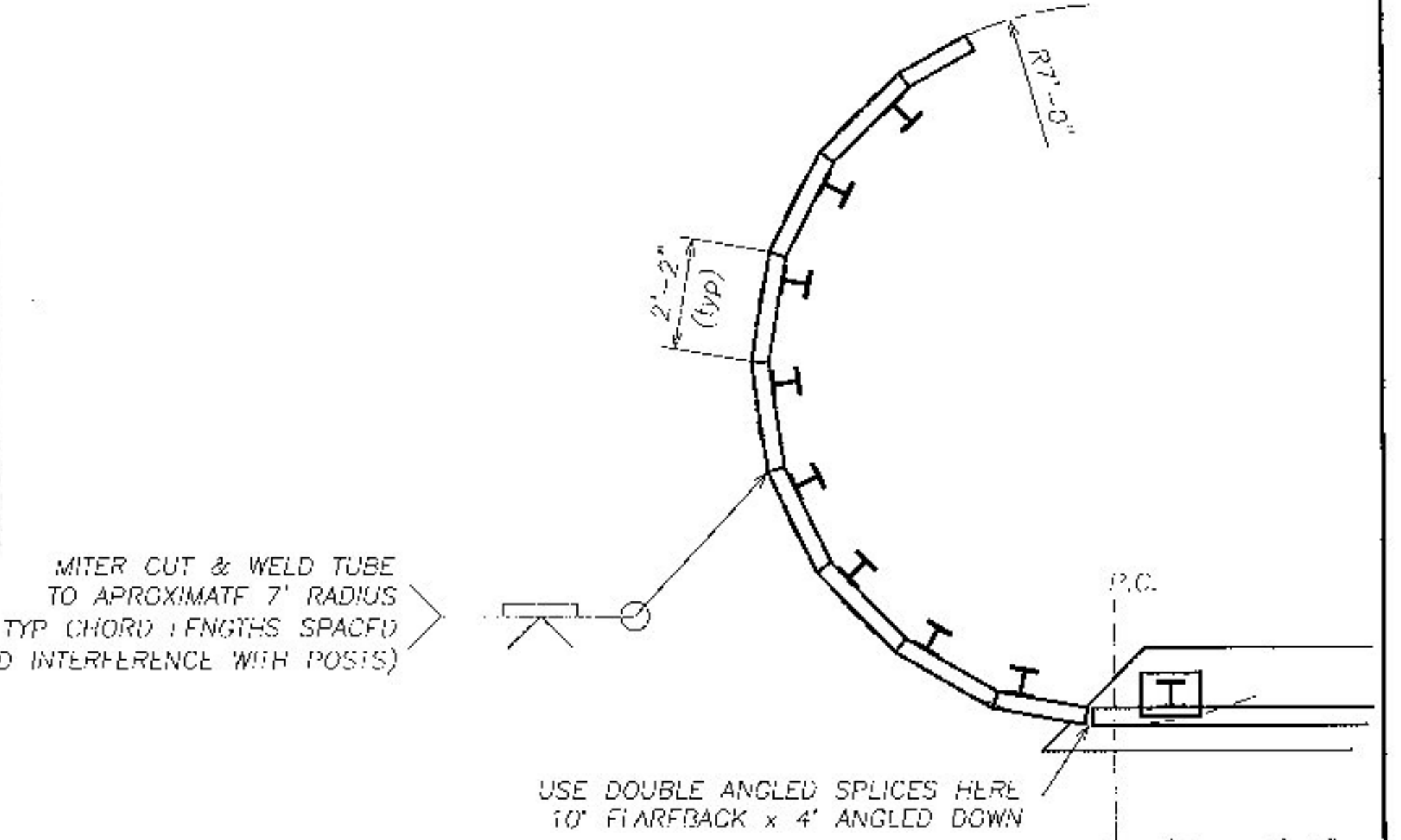


SUBMITTAL REVIEW
 Review is only for general conformity to the contract drawings and specifications and shall not relieve the contractor of his entire responsibility under the contract including, among other things, dimensions to be confirmed and correlated at the job site, and information that pertains to the fabrication processes or techniques of construction.

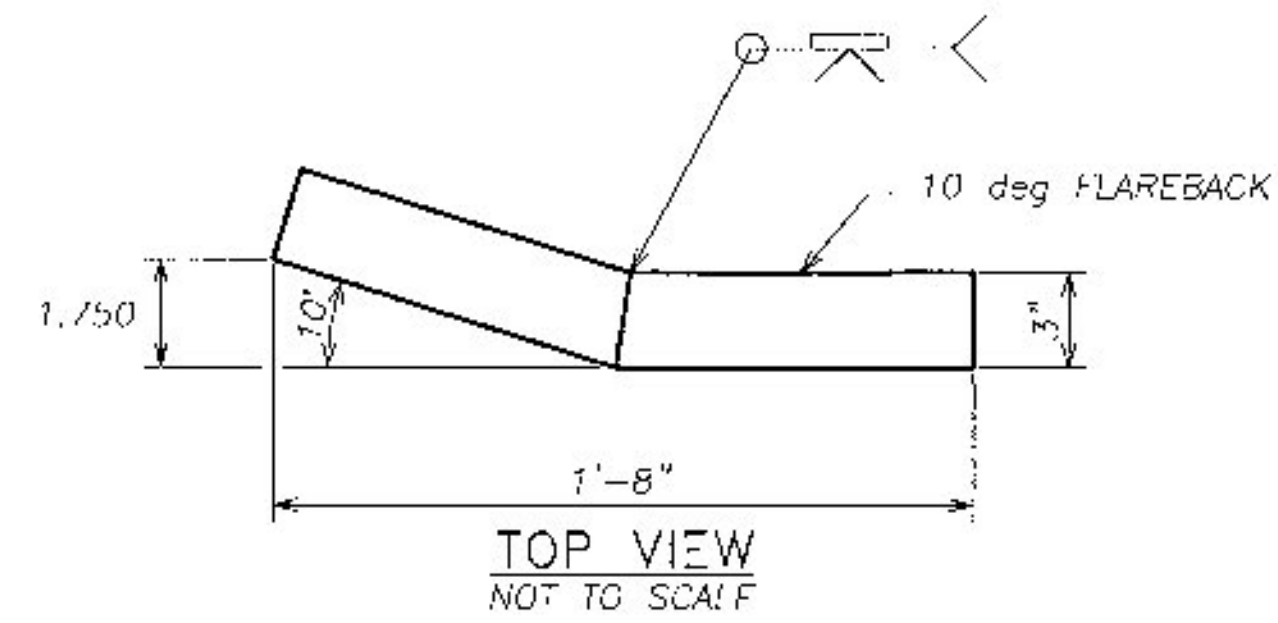
NO EXCEPTIONS TAKEN
 MAKE CORRECTIONS NOTED
 RESUBMITTAL NOT REQUIRED
 AMEND AND RESUBMIT
 REJECTED - SEE REMARKS

BY: *John M. Stead*
 DATE: 5/26/15

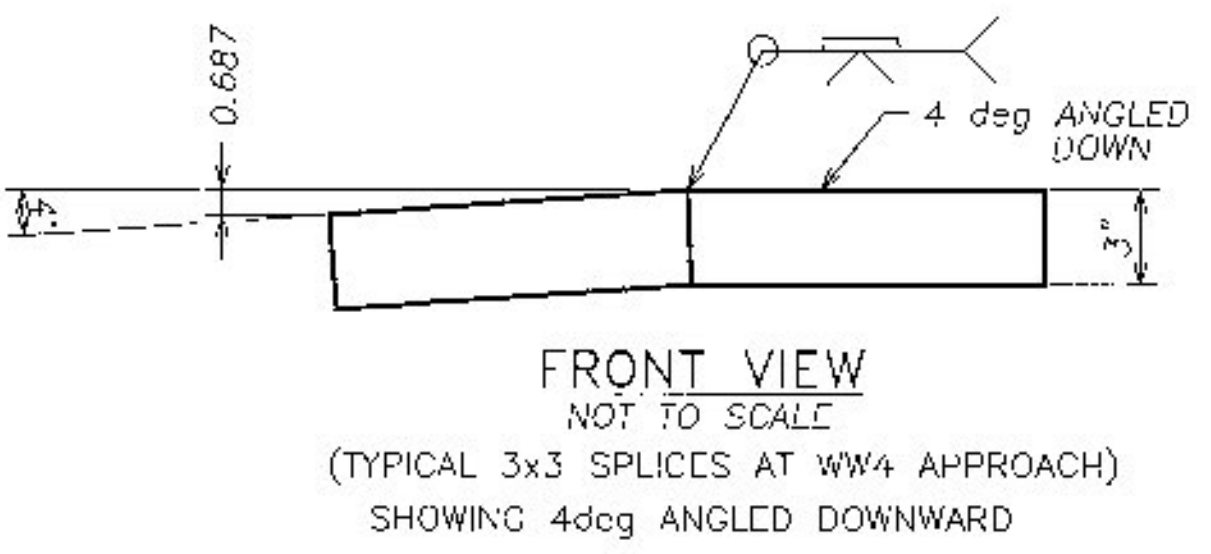


BILL OF MATERIAL
 ITEM 621.73 GUARDRAIL APPROACH SECTION GALVANIZED 4 RAIL BOX BEAM (3 EA)

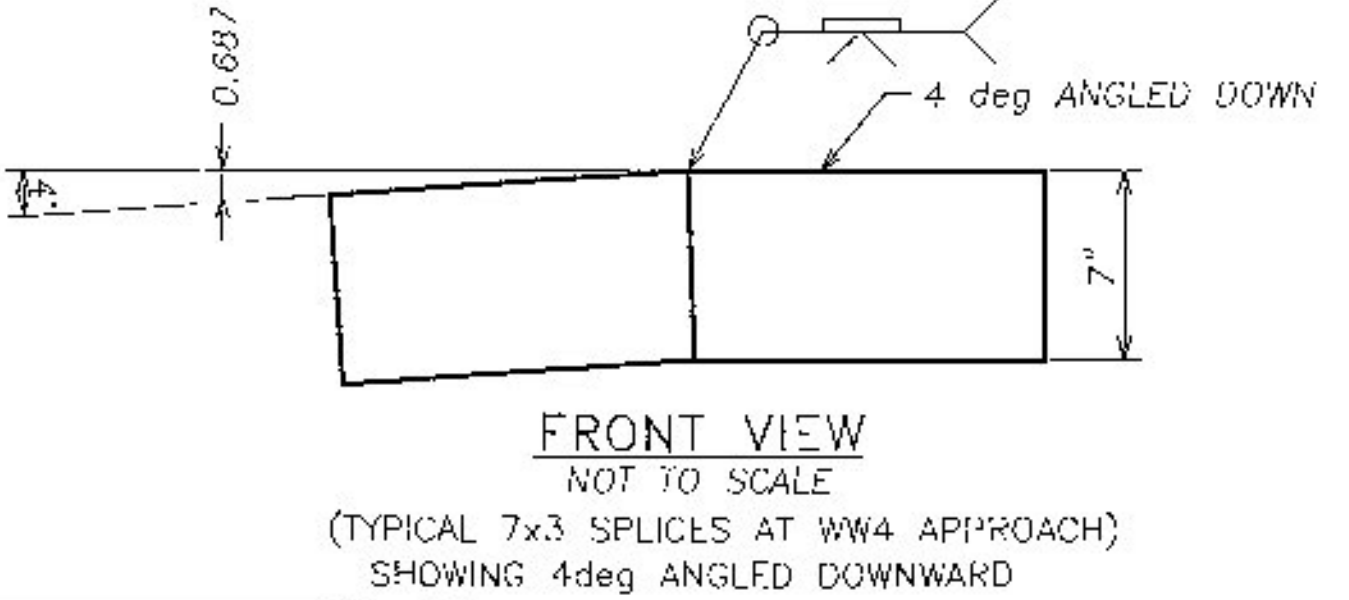
Qty	mk	Description	Spec.
3	P01	W6x25 APPROACH POST - #1 x 8'-8" OAL (GALV)	A709 gr 50
3	P02	W6x25 APPROACH POST - #2 x 8'-8" OAL (GALV)	A709 gr 50
3	P03	W6x25 APPROACH POST - #3 x 8'-8" OAL (GALV)	A709 gr 50
3	P04	W6x25 APPROACH POST - #4 x 8'-8" OAL (GALV)	A709 gr 50
3	L5	UPPER RAIL APPROACH TUBE TS 4 x 4 x 1/4" (GALV.) 9'-4.000" OAL	A500 Gr. B
3	L6	SECOND RAIL APPROACH TUBE TS 4 x 4 x 1/4" (GALV.) 9'-4.000" OAL	A500 Gr. B
3	L7	THIRD RAIL APPROACH TUBE TS 8 x 4 x 5/16" (GALV.) 9'-4.000" OAL	A500 Gr. B
3	L8	LOWER RAIL APPROACH TUBE TS 4 x 4 x 1/4" (GALV.) 8'-11.625" OAL	A500 Gr. B
2	L9R	RIGHT HAND FLAREBACK TS 4 x 4 x 1/4 (GLV) 27'-0.4375" OAL	A500 Gr. B
1	L9L	LEFT HAND FLAREBACK TS 4 x 4 x 1/4 (GLV) 27'-0.4375" OAL	A500 Gr. B
3		CONNECTION PLATE PL 0.375" x 20.000" x 27.000" (GALV)	A709 gr 36
3		END CAP FOR 8x4 TUBE 0.187 THICK PLATE 8.000 x 4.000 w/ WELDED TABS (GALV)	A709 gr 36
9		END CAP FOR 4x4 TUBE 0.187 THICK PLATE 4.000 x 4.000 w/ WELDED TABS (GALV)	A709 gr 36
3		top rail SPLICE TUBE HSS 3 x 3 x 5/16 x 1'-8.000" OAL w/ TAPPED HOLES & 2 WELDED NUTS (GLV) (angled down)	A500 gr B
3		2nd rail SPLICE TUBE HSS 3 x 3 x 5/16 x 1'-8.000" OAL w/ TAPPED HOLES & 2 WELDED NUTS (GLV) (angled down)	A500 gr B
3		3rd rail SPLICE TUBE (FOR 8x4 RAIL) HSS 7 x 3 x 3/8 x 1'-8.000" OAL w/ TAPPED HOLES & 2 WELDED NUTS (GLV) straight	A500 gr B
3		bottom rail SPLICE TUBE (FOR 4x4 RAIL) HSS 3 x 3 x 5/16 x 1'-8.000" OAL w/ TAPPED HOLES & 2 WELDED NUTS (GLV) straight	A500 gr B
24	4RR	WOOD POST 6 x 8 x 7'-0" (for thrie beam w/ rub rail hole)	TIMBER
24		WOOD BLOCKOUT 6 x 8 x 22.500	TIMBER
3	TRR	WOOD POST 6 x 8 x 7'-0" (for thrie transition w/ rub rail hole)	TIMBER
3		WOOD BLOCKOUT 6 x 8 x 18.000	TIMBER
3	R	WOOD POST 6 x 8 x 7'-0" (for w-beam rail w/ rub rail hole)	TIMBER
3		WOOD BLOCKOUT 6 x 8 x 14.000	TIMBER
30		WOOD BLOCKOUT 6 x 8 x 4.000 (for rubrail blockout)	TIMBER
3		THRIE FLAT LIP BRIDGE SHOE (MODIFIED) 10 GA. GALV	aashto M180 B2
3		THRIE TRANSITION PANEL 6'-3" / 3'-1 1/2" 10 GA. GALV.	aashto M180 B2
6		THRIE PANEL 12'-6" / 1'-6 3/4" 12 GA. GALV.	aashto M150 A2
120		ROUND HEAD POST BOLT slot or wrench head - no shoulder 3/4" DIA x 6" LG. FULL BODY (GLV)	A449 / A325
120		LOCK NUT 3/4" (GLV)	A563 DH
120		(3/4") PLAIN ROUND WASHER TYPE A (GALV) 0.750" DIA USS LARGE (HI-CARBON)	F844
48		(5/8") HEX HEAD BOLT (GALV) 0.625" DIA x 1.750" LG.	A325
48		(5/8") PLAIN ROUND WASHER (GALV) 0.625" USS LARGE	F844
48		3/4" SPACER PIPE 0.750" DIA. (SCH 40) x 1/2" LG.	A53 gr B
3		ROUND HEAD POST BOLT slot or wrench head - no shoulder 3/4" DIA x 2" LG. (GLV) w/ HEX NUT	A449
48		ROUND HEAD POST BOLT - oval shoulder 5/8" DIA x 1'-8" LG. (GALV) w/ DBL RECESS NUT, FLAT WASHER	A307
36		ROUND HEAD POST BOLT - oval shoulder 5/8" DIA x 1'-6" LG. (GALV) w/ DBL RECESS NUT, FLAT WASHER	A307
96		PANEL SPLICE BOLT 5/8 x 1-1/4" (GALV) w/ DOUBLE RECESSED NUT	A307
84		RECTANGULAR PLATE WASHER 0.187 x 1.750 x 3.000 (GALV)	A709 gr 36



SHOWING 10deg ANGLED FLAREBACK
 (TYPICAL ALL SPLICES AT WW1 APPROACH)
 SEE SHEET 2 FOR ADDITIONAL SPLICE DIMENSIONS



(TYPICAL 3x3 SPLICES AT WW4 APPROACH)
 SHOWING 4deg ANGLED DOWNWARD



(TYPICAL 7x3 SPLICES AT WW4 APPROACH)
 SHOWING 4deg ANGLED DOWNWARD

BILL OF MATERIAL
 ITEM 621.73 GUARDRAIL APPROACH SECTION GALVANIZED 4 RAIL BOX BEAM (1 FA @ WW 4)

Qty	mk	Description	Spec.
8	WW4	W6x25 APPROACH POST x 8'-8" OAL (GALV)	A709 gr 50
1		DBL ANGLE SPLICE (FOR 8x4 RAIL) HSS 7x3x3/8 x 1'-8.000" OAL w/ TAP HOLES & 2 WELD NUTS (GLV) (flareback 10 deg/angle 4 deg)	A500 gr B
3		DBL ANGLE SPLICE (FOR 4x4 RAIL) HSS 3x3x5/16 x 1'-8.000" OAL w/ TAP HOLES & 2 WELD NUTS (GLV) (flareback 10 deg/angle 4 deg)	A500 gr B
1	L4	RAIL TUBE 8 x 4 x 5/16 (GALV) 18'-6.000" LG miter cut & weld for 7' radius	A500 gr B
3	L4	RAIL TUBE 4 x 4 x 1/4 (GALV) 18'-6.000" LG miter cut & weld for 7' radius	A500 gr B
1		END CAP FOR 8x4 TUBE 0.187 THICK PLATE 8.000 x 4.000 w/ WELDED TABS (GALV)	A709 gr 36
3		END CAP FOR 4x4 TUBE 0.187 THICK PLATE 4.000 x 4.000 w/ WELDED TABS (GALV)	A709 gr 36
64		ROUND HEAD POST BOLT slot or wrench head - no shoulder 3/4" DIA x 6" LG. FULL BODY (GLV)	A449 / A325
64		LOCK NUT 3/4" (GLV)	A563 DH
64		(3/4") PLAIN ROUND WASHER TYPE A (GALV) 0.750" DIA USS LARGE (HI-CARBON)	F844
16		(5/8") HEX HEAD BOLT (GALV) 0.625" DIA x 1.750" LG.	A325
16		(5/8") PLAIN ROUND WASHER (GALV) 0.625" USS LARGE	F844
16		3/4" SPACER PIPE 0.750" DIA. (SCH 40) x 1/2" LG.	A53 gr B

Vermont Agency of Transportation
RECEIVED
 ON: **May 19, 2015**
 and Checked for
CONFORMANCE
 BY: Todd A. Sumner DATE: 05/27/2015

HIGHWAY SAFETY CORP
 GLASTONBURY, CT
 860-633-9445

ITEM 525.34 BRIDGE RAILING, GALVANIZED 4 RAIL BOX BEAM
 ITEM 621.73 GUARDRAIL APPROACH SECTION, GALVANIZED 4 RAIL BOX BEAM
 TH1 EAST RIVER ROAD BRIDGE #19
 TOWN OF LINCOLN, VT ADDISON COUNTY
 BRF 0188 (8)

GENERAL CONTRACTOR: LAFAYETTE
 SUB CONTRACTOR: LAFAYETTE

CERTIFIED FABRICATOR

PROJ. JOB NO. 2041
 SHEET NO. 3 of 4

DATE: 03-27-15 SCALE: NONE SIZE: D