



BILL OF MATERIALS, NE & SW CORNERS, PER EACH CORNER

ITEM #	QTY.	COMPONENT #	DESCRIPTION	MATERIAL (ASTM)
1	3	0013.57021	3' I-POST, PUNCH 8" W/SPD @ 63' LG	ASTM A572 Gr. 50
2	1	0013.57025	3' I-POST W/SPD @ 63', PUNCH 8", & 20"	ASTM A572 Gr. 50
3	3	0013.57060	3' I-END POST W/SPD @ 3'-8" LG	ASTM A572 Gr. 50
4	4	-	W6X9 POST @ 7' W/SPD & Ø9/16" HOLES @ VARIOUS	ASTM A572 Gr. 50
5A	4	-	3' I-POST, PUNCH 8" & VARIOUS, W/8X32" SPADE @ 7'	ASTM A572 Gr. 50
6	2	-	3' I-POST, PUNCH 8" & VARIOUS, W/8X32" SPADE @ 6'3"	ASTM A572 Gr. 50
7	1	0033.00640	HSS 5X5 TUBE SPLICE @ 27' LG W/ 1/4" SHIMS	A500 Gr. B / A572 Gr. 50
10	20	0054.00050	REG BB SHELF ANGLES @ 4-1/2"	ASTM A36
12	1	0054.00074	HSS 5X5 DBL BEND TUBE SPL @ 26 3/4" LG - 25° ANGLE	A500 Gr. B / A572 Gr. 50
13	8	0054.00563	6X8' TRANS. TUBE B/D @ 6' LG	A500 Gr. B
15	1	0054.09000	6X6' BB @ 9'-0" KICKBACK, W/ CAP	A500 Gr. B / A36
16	1	-	6X6' BB @ 13'-3 9/16", DRILL 3' CC W/ TURNDOWN	A500 Gr. B
17A	1	-	6X6' BB TOP TRANS @ 24'-9 1/4" LG (FOR NE CORNER) W/5'-0" CONVEX RAD.	A500 Gr. B
17B	1	-	6X6' BB TOP TRANS @ 24'-9 1/4" LG (FOR SW CORNER) W/15'-0" CONVEX RAD.	A500 Gr. B
18A	1	-	6X6' BB BTM TRANS @ 25'-5 1/4" LG (FOR NE CORNER) W/ 5'-0" CONVEX RAD.	A500 Gr. B
18B	1	-	6X6' BB BTM TRANS @ 25'-5 1/4" LG (FOR SW CORNER) W/15'-0" CONVEX RAD.	A500 Gr. B
19	18	0080.03355	3/8" X 7 1/2" BOLT, NUT, & 2 FW	A307, A563, F844
20	16	0080.04100	1/2" X 1-1/2" BOLT, NUT, & FW	A307, A563, F844
21	16	0080.04120	1/2" X 1-1/2" BOLT, NUT, 2 FW & LW	A307, A563, F844
23	10	0080.06340	3/4" X 7-1/2" BOLT, NUT, 2 FW	A325, A563, F436
23	10	0080.16920	3/4" LOCK WASHER	ASME B18.21.1
24	8	0080.06370	3/4" X 8" CARR BOLT, NUT, FW & LW	A307, A563, F844
25	1	-	3/4" X 7" HEX BOLT, NUT, & FW	A307, A563, F844
26	-	-	PARAPET WALL CONNECTION (APPROACH)	INCLUDED W/PAY ITEM #900.640

HARDWARE NOTES

ITEM #	FUNCTION
19	BOLT RAIL TO SHELF ANGLE (ITEM #10)
20	BOLT SHELF ANGLE (ITEM #10) TO POST
21	BOLT BLOCK-OUTS (ITEM #13) TO HEAVY POST (ITEM #4)
23	SPLICE TUBING (ITEM #'S 7 & 12), & (4) PER PARAPET WALL CONNECTION
24	BOLT RAIL (ITEMS #'S 17, & 18) TO BLOCK-OUTS (ITEM #13)
25	BOLT SHELF ANGLE (ITEM #11) TO RAIL

Vermont Agency of Transportation
RECEIVED
CK'D BY VHB OK'D BY TAS
March 14, 2017
RESUBMIT APPROVED YES
BY T Sumner DATE 3/16/17

SHOP DRAWING REVIEW

REVIEWED AS REQUIRED BY THE CONSTRUCTION CONTRACT DOCUMENTS AND APPROVED, BUT ONLY FOR CONFORMANCE TO THE DESIGN CONCEPT OF THE WORK, AND SUBJECT TO FURTHER LIMITATIONS AND REQUIREMENTS CONTAINED IN THE CONSTRUCTION CONTRACT DOCUMENTS.

REJECTED REVISE AND RESUBMIT FURNISH AS CORRECTED

CORRECTIONS OR COMMENTS MADE ON THE SHOP DRAWINGS DURING THIS REVIEW DO NOT RELIEVE CONTRACTOR FROM COMPLIANCE WITH REQUIREMENTS OF THE DRAWINGS AND SPECIFICATIONS. THIS CHECK IS ONLY FOR REVIEW OF GENERAL CONFORMANCE WITH THE DESIGN CONCEPT OF THE PROJECT AND GENERAL COMPLIANCE WITH THE INFORMATION GIVEN IN THE CONTRACT DOCUMENTS. THE CONTRACTOR IS RESPONSIBLE FOR: CONFIRMING AND CORRELATING ALL QUANTITIES AND DIMENSIONS; SELECTING FABRICATION PROCESSES AND TECHNIQUES OF CONSTRUCTION; COORDINATING HIS WORK WITH THAT OF ALL OTHER TRADES; AND PERFORMING HIS WORK IN A SAFE AND SATISFACTORY MANNER.

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Job Number: BRF 025-1(42)
Reviewed By: E.F. LAWES
Date: MARCH 15, 2017

ITEM #: 900.620 SHEET 2 OF 9

STRUCTURAL STEEL TO COMPLY W/ ASTM A6

SPECIAL PROVISION, GUIDERAIL APPROACH SYSTEM, GALVANIZED 2 RAIL BB
PROJECT 111 BRF 025-1(42), T.H. 1 (V.T. 103) CLASS 1 (PRINCIPAL ARTERIAL) F.A.S. 025-1, BRIDGE #25
TOWN OF LUDLOW, WINDSOR COUNTY

R NO.	DATE	DESCRIPTION	BY	R NO.	DATE	DESCRIPTION	BY
E 1	3/1/17	REVISED PER 2/23/17 MARK-UP	D.K. E				
V 2	3/14/17	REVISED PER 3/10/17 MARK-UP	D.K. V				

TOLERANCE UNLESS OTHERWISE NOTED:
FRACTIONS = ± 1/16"
ANGLES = ± 1/2"
DIAMETERS = ± 1/32"

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DRAWN: D.K. 1/3/17
CHECKED: E.P. 1/3/17
APPROVED: D.L. 1/3/17
SCALE: SCHEMATIC
DRAWING NO. FR LaFayette LUDLOW-T