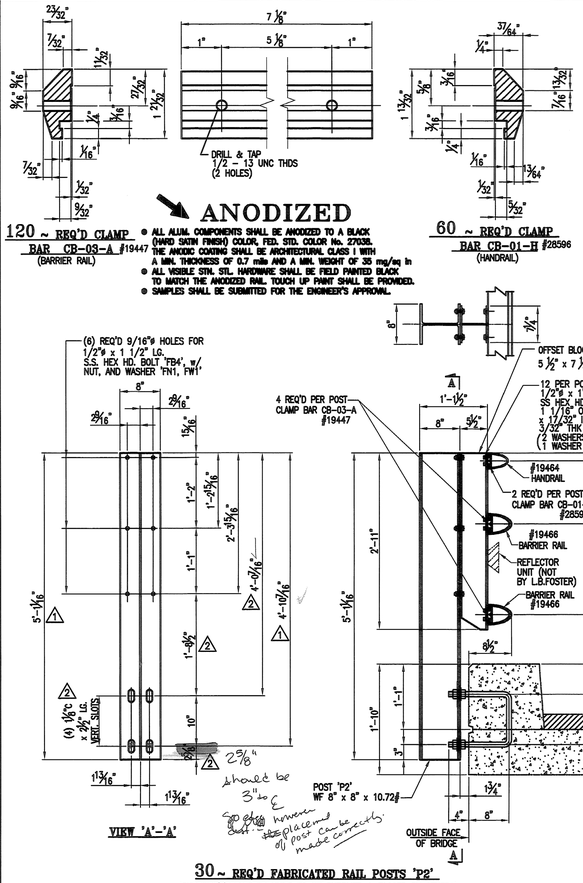
23/32"
7/32"
11/32"
9/16" 9/16"
27/32"
1 23/32"
1/4"
1/16"
7/32"
1/16"
1/32"
9/32"
7 1/8"
1"
5 1/8"
1"
DRILL & TAP
1/2 - 13 UNC THDS
(2 HOLES)
37/64"
1/4"
1 13/32"
5/16"
3/16"
3/16"
1/2"
1/16"
1/32"
7/16" 13/32"
13/64"
3/32"
ANODIZED
120 ~ REQ'D CLAMP BAR CB-03-A #19447
(BARRIER RAIL)
60 ~ REQ'D CLAMP BAR CB-01-H #28596
(HANDRAIL)
ALL ALUM. COMPONENTS SHALL BE ANODIZED TO A BLACK (HARD SATIN FINISH) COLOR, FED. STD. COLOR No. 27038. THE ANODIC COATING SHALL BE ARCHITECTURAL CLASS 1 WITH A MIN. THICKNESS OF 0.7 mils AND A MIN. WEIGHT OF 35 mg/sq in
ALL VISIBLE STN. STL. HARDWARE SHALL BE FIELD PAINTED BLACK TO MATCH THE ANODIZED RAIL. TOUCH UP PAINT SHALL BE PROVIDED.
SAMPLES SHALL BE SUBMITTED FOR THE ENGINEER'S APPROVAL.
8"
7/32"
(6) REQ'D 9/16"ø HOLES FOR 1/2"ø x 1 1/2" LG. S.S. HEX HD. BOLT 'FB4', w/ NUT, AND WASHER 'FN1, FW1'
2 9/16"
2 9/16"
15/16"
1'-2"
1'-3 15/16"
2'-3 15/16"
1'-1"
1'-3 7/16"
4'-10 7/16"
5'-1 1/16"
1'-8"
(4) 13/16" LG. x 3/4" WIDE VERT. SLOTS
10"
2 3/8"
1 13/16"
1 13/16"
VIEW 'A'-'A'
4 REQ'D PER POST CLAMP BAR CB-03-A #19447
1'-1 1/2"
8"
5 1/2"
OFFSET BLOCK H-SECTION 5 1/2" x 7 1/4" x 2'-11" LG.
12 PER POST 1/2"ø x 1" LG. 'FB1' SS HEX HD BOLT w/ 1 1/16" OD x 17/32" ID x 3/32" THK ALUM WASHER (2 WASHERS FOR H.R.) (1 WASHER FOR B.R.)
#19464 HANDRAIL
2 REQ'D PER POST CLAMP BAR CB-01-H #28596
#19466 BARRIER RAIL
REFLECTOR UNIT (NOT BY L.B.FOSTER)
BARRIER RAIL #19466
2'-11"
3'-4 1/2"
3'-9 9/16"
2'-4"
10"
6 1/2"
1'-1"
1'-10"
3"
6"
10"
10"
POST 'P2' WF 8" x 8" x 10.72#
1 3/4"
4"
8"
OUTSIDE FACE OF BRIDGE
should be 3" to ℄
So glad however all post can be made correctly
30 ~ REQ'D FABRICATED RAIL POSTS 'P2'
(CURBSIDE)(REFLECTOR UNITS TO BE SUPPLIED & PLACED BY OTHERS)
12 REQ'D PER POST 9/16" x 1 3/16" SLOTS
1 1/16"
5 1/8"
1 1/16"
5 1/2"
2 9/16"
2 9/16"
15/16"
1 1/2"
11 1/32"
1 1/16"
1'-4 3/16"
1 1/16"
2 3/32"
1 1/2"
2 1/2"
6 REQ'D PER POST 9/16"ø HOLES
1'-2"
1'-1"
7 1/16"
2'-11"
7 1/4"
30 ~ REQ'D OFFSET BLOCK 'OB' H-SECTION DETAIL
OFFSET BLOCK H-SECTION 5 1/2" x 7 1/4" x 2'-11" LG.
1"
2"
1/4" THK
1 1/4"ø HOLE
3"
2 1/2"
120 ~ REQ'D ALUM. PLATE WASHER 'PW1'
5/16"
MINOR AXIS 3/16"
SEMI-ELLIPSE
3/4"
4"
5/16"
1/8"
1/16"R
MAJOR AXIS
5/16"
1/16"R
1/2"
1/8"
1/4"
3 13/32"
15/32"
4 3/4"
TYPICAL SECTION (BARRIER RAIL) #19466
4"
3/8"
1/2"
1/8"
9/16"
1/8"
3/8"
1"
1 9/16"
1/2"
3/32"
1/16"
TYPICAL SECTION (HANDRAIL) #19464
GENERAL NOTES
ALL MATERIAL AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH VERMONT AGENCY OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION DATED 2006 AND ITS LATEST REVISIONS.
DESCRIPTION | ASTM | ALLOY/GR. | REMARKS
RAILS, POSTS, SPLICES, CLAMP BARS, PINS & OFFSET BLOCKS | B221 | 6061-T6 OR 6351-T5 | MIN. YIELD STRENGTH Fy = 35,000 psi.
STAINLESS STEEL BOLTS | A193 | GRADE B8 |
ANCHOR U-BOLTS | A449 | | GALV. A153
STEEL HEX. NUTS | A563 | GRADE DH | GALV. A153
STEEL WASHERS | F436 | | GALV. A153
PLATE WASHERS | B209 | 2024-T3 | ALCLAD
ALUMINUM WASHERS | B209 | 6061-T6 |
ELECTRODES FOR WELDING | AWS A5.10 ER5356
POSTS TO BE NORMAL TO GRADE AND RAILS SHALL BE PARALLEL TO GRADE. RAILS TO BE ATTACHED TO A MINIMUM OF THREE POSTS WHEN POSSIBLE.
ALL RAILS AND WELDS TO BE FREE FROM ALL BURRS AND ROUGH EDGES. ENDS OF TUBE SECTIONS SHALL BE SAWED OR MILLED. GRIND ALL CUT EDGES SMOOTH.
ALL THREADS TO BE UNC CLASS 2A/2B.
ALL EXTRUSION TOLERANCES NOT SHOWN SHALL BE IN ACCORDANCE WITH ASTM B221.
IF CUT THREADS ARE USED, BOLT DIAMETER SHALL NOT BE LESS THAN NOMINAL DIAMETER. IF ROLLED THREADS ARE USED, BOLT DIAMETER SHALL NOT BE LESS THAN THE ROOT DIAMETER OF THREADS
THE SPLICE BAR SHALL BE ATTACHED TO THE RAIL ELEMENT AS FOLLOWS: THE RAIL SPLICE AT THE BRIDGE EXPANSION JOINT SHALL BE FASTENED ON BOTH SIDES OF THE RAIL SPLICE USING THE FULLY THREADED WASHER FACED BOLTS, TIGHTENED SECURELY TO THE END OF THREADS, AND LEAVING A 1/8" GAP. THIS ALLOWS EXPANSION ON BOTH SIDES OF THE JOINT.
ALL NUTS SHALL COMPLY WITH AMERICAN HEXAGON ANSI SPECIFICATIONS B18.2
STEEL WASHER 'AW1'
ALUM PLATE WASHER 'PW1' THIS SIDE TOP
1" STEEL HEX NUT 'AN1' (4 PER BOLT)
BRD TOP
ALUM PLATE WASHER 'PW1' THIS SIDE BOTTOM
10" C/C
1"ø STEEL U BOLT x 5'-6 1/4" LG. 'AB1' (GALV - 2 PER POST)
4" PROJ.
1'-0"
60 ~ REQ'D ANCHOR BOLTS AB1
PROJECT No. BRZ 1441(19) C/2
ITEM No: 900.640
APPROVED:
REC'D APPROVAL
DRAWING
L.B. FOSTER COMPANY
1016 GREENTREE ROAD
PITTSBURGH, PENNSYLVANIA 15220
FOR: A. D. ROSSI CORPORATION
VERMONT AGENCY OF TRANSPORTATION
TOWN OF POWNAL, COUNTY OF BENNINGTON
BRIDGE RAILING FOR BRIDGE #41, TH 24, CL3 (LOCAL)
3L ALUM BRIDGE RAILING ~ GENERAL NOTES & TYP. DETAILS
REV. | DESCRIPTION | BY | DATE
2 | REVISED DIMENSIONS PER SHOP ERROR | CMS | 09 10 08
1 | REVISED DIMENSIONS | CMS | 09 04 08
MADE CMS DATE 05/25/08 JOB No. AR0495 CUST. No.
CHECK BJJ DATE 06/18/08 DRAWING LBS REV. No. 2