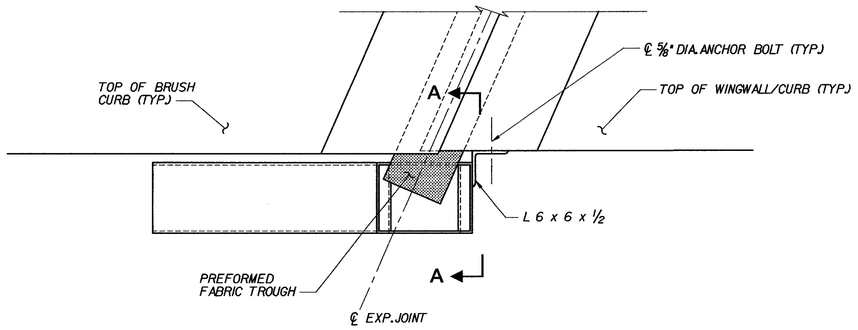
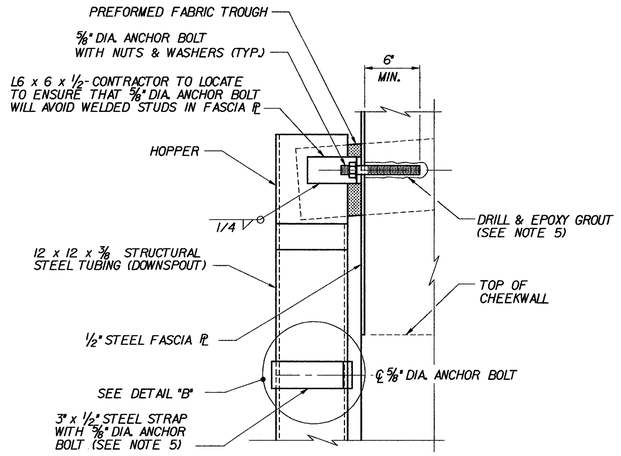


(HOPPER AT BR 48S SHOWN, HOPPER AT BR 48N SIMILAR)

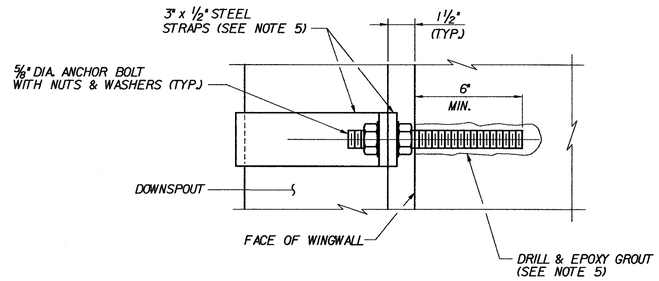
HOPPER LOCATION PLAN

NOT TO SCALE



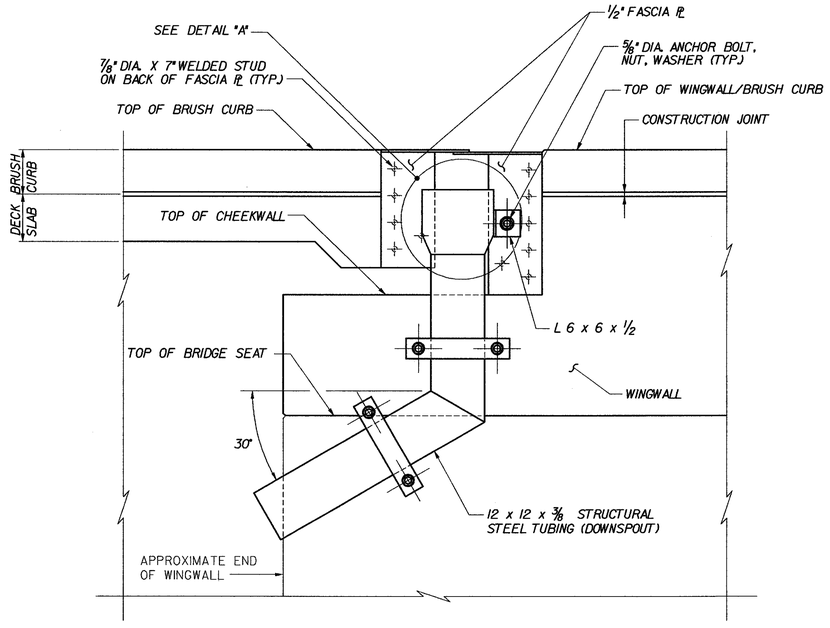
SECTION A–A

NOT TO SCALE



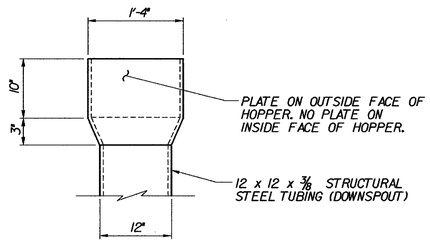
DETAIL "B"

NOT TO SCALE



ELEVATION

NOT TO SCALE



DETAIL "A"

NOT TO SCALE

NOTES:

1. HOPPERS AND ALL COMPONENTS SHALL BE AASHTO M270 GRADE 36 STEEL. STRUCTURAL TUBING (DOWNSPOUT) SHALL BE ASTM A-500 OR A-501 STEEL. ALL STEEL SHALL BE GALVANIZED OR METALIZED IN ACCORDANCE WITH SECTION 506.15 OF THE SPECIFICATIONS. ALL HOPPER AND DOWNSPOUT WORK SHALL BE PAID FOR UNDER ITEM 506.60, "STRUCTURAL STEEL".

2. HOPPERS SHALL BE FABRICATED FROM 3/8" STEEL PLATE. THE FABRICATION WELDS SHALL BE 1/4" FILLET WELDS ON THE INSIDE OF THE HOPPER AND SHALL BE FULL LENGTH TO ENSURE A WATERTIGHT CONTAINER.

3. ANCHOR BOLTS, NUTS AND WASHERS SHALL CONFORM TO SUBSECTION 714.08 OF THE SPECIFICATIONS, AND BE GALVANIZED IN ACCORDANCE WITH SUBSECTION 506.15. ANCHOR BOLTS SHALL BE DRILLED AND EPOXY GROUTED 6" MINIMUM INTO THE CONCRETE. DRILL AND EPOXY GROUT SYSTEM SHALL BE:
   - DAYTON SUPERIOR SURE-ANCHOR J-51 SYSTEM
   - HILTI, INC. HIT HY-150 SYSTEM
   - UNITEX PRO-POXY 300 FAST SYSTEM

   OR EQUIVALENT APPROVED BY VAOT MATERIALS SECTION. ALL COSTS FOR DRILLING AND EPOXY GROUTING ANCHOR BOLTS SHALL BE SUBSIDIARY TO ITEM 506.60, "STRUCTURAL STEEL".

4. THE HOPPERS SHALL BE PLACED AS SHOWN ON THIS SHEET. THIS WILL REQUIRE THAT THE HOPPER BE FORCED AS FAR AS POSSIBLE UP UNDER THE TROUGH. THE TROUGH SHOULD BE ENCLOSED AS MUCH AS POSSIBLE BY THE HOPPER BUT SHOULD NOT BE BENT OR BUCKLED TO RESTRICT THE FLOW OF WATER.

5. STRAPS SHALL NOT BE BENT IN THE FIELD.

STATE OF VERMONT
AGENCY OF TRANSPORTATION

Town Of MIDDLESEX-BOLTON	Bridge No.
Highway No. I-89	Log Sta.
	Surv. Sta.

FINGER JOINT DETAILS (3 OF 3)

Designed By K.L. JAMES	Drawn By N.J. HOYT
Checked By M.H. GALLO Date 10/99	Bridge Design Supervisor J.P. HALSTEAD Date 10/99
PROJECT MIDDLESEX-BOLTON	PROJECT NO. IM-089-2(26)
TVGA CAD Drawing No. 127fj4.dgn	Date 10/99
Bridge Sheet No. C-38	Sheet 38 of 307

Hayashi Corporation
Consulting Engineers