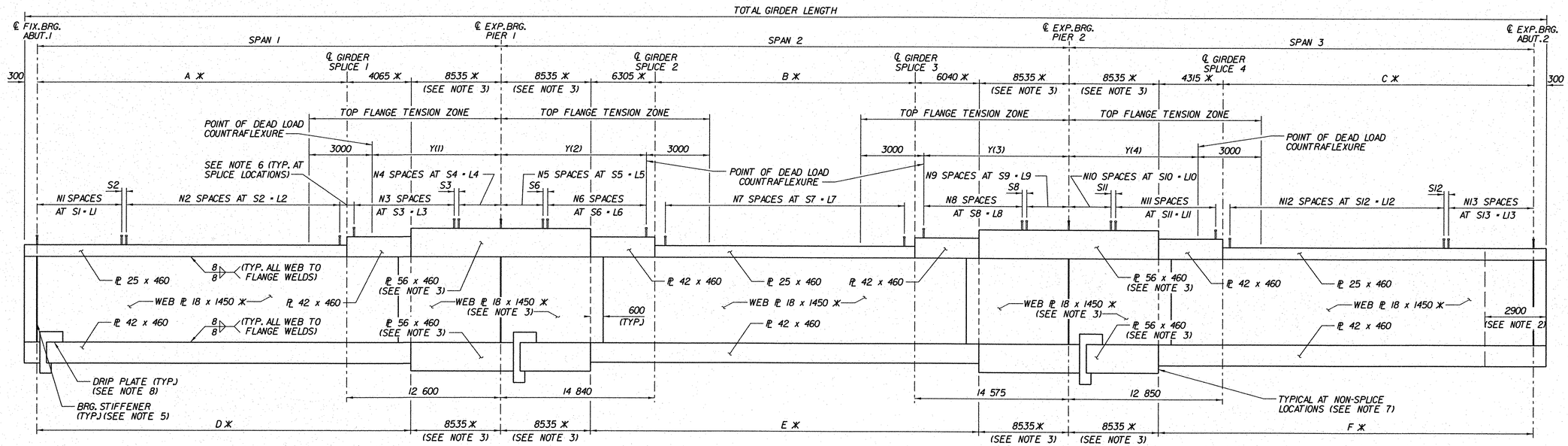


## GIRDER ELEVATION

NOT TO SCALE

* MEMBERS INDICATED SHALL BE CHARPY V-NOTCH TESTED IN ACCORDANCE WITH SECTION 714.01 OF THE SPECIFICATIONS.

### SHEAR STUD TABLE

| | STUD LOCATION 1 | | | STUD LOCATION 2 | | | STUD LOCATION 3 | | | STUD LOCATION 4 | | | STUD LOCATION 5 | | | STUD LOCATION 6 | | | STUD LOCATION 7 | | | STUD LOCATION 8 | | | STUD LOCATION 9 | | | STUD LOCATION 10 | | | STUD LOCATION 11 | | | STUD LOCATION 12 | | | STUD LOCATION 13 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GIRDER | SPACES N1 | SPACING (mm) S1 | LENGTH (m) L1 | SPACES N2 | SPACING (mm) S2 | LENGTH (m) L2 | SPACES N3 | SPACING (mm) S3 | LENGTH (m) L3 | SPACES N4 | SPACING (mm) S4 | LENGTH (m) L4 | SPACES N5 | SPACING (mm) S5 | LENGTH (m) L5 | SPACES N6 | SPACING (mm) S6 | LENGTH (m) L6 | SPACES N7 | SPACING (mm) S7 | LENGTH (m) L7 | SPACES N8 | SPACING (mm) S8 | LENGTH (m) L8 | SPACES N9 | SPACING (mm) S9 | LENGTH (m) L9 | SPACES N10 | SPACING (mm) S10 | LENGTH (m) L10 | SPACES N11 | SPACING (mm) S11 | LENGTH (m) L11 | SPACES N12 | SPACING (mm) S12 | LENGTH (m) L12 | SPACES N13 | SPACING (mm) S13 | LENGTH (m) L13 | TOTAL STUDS |
| G1 | 25 | 380 | 9.50 | 51 | 425 | 21.68 | 5 | 425 | 2.13 | 26 | 350 | 9.10 | 31 | 350 | 10.85 | 6 | 425 | 2.55 | 55 | 425 | 23.38 | 6 | 425 | 2.55 | 31 | 350 | 10.85 | 26 | 350 | 9.10 | 6 | 425 | 2.55 | 51 | 425 | 21.68 | 25 | 380 | 9.50 | 1065 |
| G2 | 13 | 380 | 4.94 | 62 | 425 | 26.35 | 16 | 425 | 6.80 | 14 | 330 | 4.62 | 17 | 330 | 5.61 | 19 | 425 | 8.08 | 55 | 425 | 23.38 | 19 | 425 | 8.08 | 17 | 330 | 5.61 | 14 | 330 | 4.62 | 16 | 425 | 6.80 | 62 | 425 | 26.35 | 13 | 380 | 4.94 | 1044 |
| G3 | 13 | 380 | 4.94 | 62 | 425 | 26.35 | 13 | 425 | 5.53 | 15 | 350 | 5.25 | 17 | 350 | 5.95 | 18 | 425 | 7.65 | 55 | 425 | 23.38 | 17 | 425 | 7.23 | 17 | 350 | 5.95 | 15 | 350 | 5.25 | 15 | 425 | 6.38 | 63 | 425 | 26.78 | 15 | 380 | 5.70 | 1038 |
| G4 | 25 | 350 | 8.75 | 55 | 410 | 22.55 | 6 | 410 | 2.46 | 28 | 340 | 9.52 | 32 | 340 | 10.88 | 5 | 410 | 2.05 | 59 | 410 | 24.19 | 4 | 410 | 1.64 | 32 | 340 | 10.88 | 27 | 340 | 9.18 | 6 | 410 | 2.46 | 55 | 410 | 22.55 | 27 | 350 | 9.45 | 1116 |

### GIRDER SCHEDULE

| | POINT OF DEAD LOAD CONTRAFLEXURE (m) | | | |
|---|---|---|---|---|
| GIRDER | Y(1) | Y(2) | Y(3) | Y(4) |
| G1 | 12.348 | 13.632 | 13.721 | 12.419 |
| G2 | 12.315 | 13.715 | 13.793 | 12.407 |
| G3 | 12.272 | 13.778 | 13.855 | 12.365 |
| G4 | 12.250 | 13.900 | 13.968 | 12.352 |

### GIRDER SCHEDULE

| | TOP FLANGE (m) | | | BOTTOM FLANGE (m) | | |
|---|---|---|---|---|---|---|
| GIRDER | A | B | C | D | E | F |
| G1 | 32.558 | 24.858 | 32.664 | 36.623 | 37.203 | 36.979 |
| G2 | 32.555 | 24.853 | 32.659 | 36.620 | 37.198 | 36.974 |
| G3 | 32.552 | 24.848 | 32.654 | 36.617 | 37.193 | 36.969 |
| G4 | 32.550 | 24.843 | 32.648 | 36.615 | 37.188 | 36.963 |

### SPAN LENGTHS (m)

| GIRDER | CURVE RADII | SPAN 1 | SPAN 2 | SPAN 3 | TOTAL |
|---|---|---|---|---|---|
| G1 | 1368.925 | 45.158 | 54.273 | 45.514 | 145.545 |
| G2 | 1371.375 | 45.155 | 54.268 | 45.509 | 145.532 |
| G3 | 1373.825 | 45.152 | 54.263 | 45.504 | 145.519 |
| G4 | 1376.275 | 45.150 | 54.258 | 45.498 | 145.506 |

### NOTES:

1. FOR FIELD SPLICE DETAILS, SEE SPLICE DETAILS (RAMPS A AND D), BRIDGE SHEET BR268.
2. ALL STRUCTURAL STEEL WITHIN 2.90 m OF END OF THE GIRDER AT EXPANSION ENDS SHALL BE COATED WITH A PROTECTIVE PAINT SYSTEM, WITH THE FINAL COAT TO BE A DARK BROWN (COLOR CHIP #20059) TO BLEND WITH THE WEATHERING STEEL. AFTER THE FINAL COAT OF PAINT HAS CURED, A COAT OF GREASE RUSTPROOFING COMPOUND SHALL BE APPLIED TO ALL PAINTED SURFACES CONFORMING TO SECTION 513 OF THE SPECIFICATIONS. THE COST OF PAINT AND GREASE RUSTPROOFING SHALL BE PAID FOR UNDER ITEM 513.25. "STRUCTURAL PAINTING, SHOP APPLIED".
3. GIRDER FLANGES AND WEBS OVER PIER LOCATIONS SHALL BE AASHTO M270M/M270, GR485W STEEL.
4. UNLESS OTHERWISE NOTED, ALL STEEL IS AASHTO M270M/M270, GR345W.
5. FOR BEARING STIFFENER AND CONNECTION PLATE DETAILS, SEE STEEL DETAILS (SHEET 1 OF 2) (RAMPS A AND D), BRIDGE SHEET BR269.
6. NO STUDS SHALL BE INSTALLED ON OR WITHIN 75 OF GIRDER SPLICE PLATES.
7. FOR FLANGE TRANSITION DETAILS, SEE STEEL DETAILS (SHEET 1 OF 2) (RAMPS A AND D), BRIDGE SHEET BR269.
8. FOR DRIP PLATE DETAILS, SEE STEEL DETAILS (SHEET 1 OF 2) (RAMPS A AND D), BRIDGE SHEET BR269.

TVGA CONSULTANTS

# STATE OF VERMONT
## AGENCY OF TRANSPORTATION

| | |
|---|---|
| Town Of BENNINGTON | Bridge No. B15N |
| Highway No. VT RTE 279 | Log Sta. / Surv. Sta. |

VT ROUTE 279 & RAMPS OVER ROARING BRANCH OF WALLOOMSAC RIVER

**GIRDER ELEVATION (RAMP D)**

| | |
|---|---|
| Designed By J.J. MANUSE | Drawn By L.R. DELL |
| Checked By B.J. CARLSON Date 06/08 | Bridge Design Supervisor K.M. WOJTKOWSKI Date 06/08 |
| PROJECT BENNINGTON | PROJECT NO. AC NH 019-1(51) |
| TVGA CAD Drawing No. RmpDGrd.dgn | Date 02/02/2009 |
| Bridge Sheet No. BR287 | Sheet 274 of 367 |