



WEARING SURFACE: MONOLITHIC CONCRETE  
ALIGNMENT: TANGENT  
CROWN: 3/6"/FT.  
BRIDGE COORDINATES: 41°-26'-52" LAT., 84°-44'-20" LONG.

20'-0" APPR. SLAB  
SPAN 1 = 61'-0" C/C BRG.  
SPAN 2 = 95'-0" C/C BRG.  
SPAN 3 = 61'-0" C/C BRG.  
219.08' BRIDGE LIMITS  
1'-0 1/2"  
1'-0 1/2"  
20'-0" APPR. SLAB

STA. 186+20.00 ELEV. 833.74  
+0.76%  
STA. 186+90.04 ELEV. 834.27  
STA. 187+00.00 ELEV. 834.35  
STA. 187+10.00 ELEV. 834.54  
STA. 187+20.00 ELEV. 834.73  
STA. 187+30.00 ELEV. 834.92  
STA. 187+40.00 ELEV. 835.11  
STA. 187+50.00 ELEV. 835.30  
STA. 187+60.00 ELEV. 835.49  
STA. 187+70.00 ELEV. 835.68  
STA. 187+80.00 ELEV. 835.87  
STA. 187+90.04 ELEV. 835.94  
STA. 189+09.12 ELEV. 836.06  
STA. 189+81.00 ELEV. 836.48

10" PVC W  
4" GAS RT.  
12" CMP LT.  
12" C.I.P. CONCRETE PILES (TYP.)  
T/S ELEV. 828.52  
ELEV. 823.44  
MIN. UNDERCLEAR ELEV. 830.02  
25 YR. H.W. ELEV. 824.6  
100 YR. H.W. ELEV. 826.2  
RECORD H.W. ELEV. 823.0  
ORDINARY HIGH WATER ELEV. 811.3  
NORMAL WATER ELEV. 807.3  
ROCK CHANNEL PROTECTION TYPE C, 2'-0" THICK WITH FABRIC FILTER (TYP.)  
12" C.I.P. CONCRETE PILES (TYP.)  
ELEV. 799.25 (TYP.)  
ELEV. 834.29  
ELEV. 834.85  
ELEV. 835.27  
ELEV. 835.78  
ELEV. 836.22  
ELEV. 836.65  
ELEV. 837.22  
ELEV. 837.65

EXISTING PROFILE  
PROPOSED PROFILE GRADE ON C SURVEY  
8" GAS RT.  
18" CMP RT.  
8" PVC LT.  
10" PVC W  
8" PVC LT. (SAN.)

PROFILE ALONG C SURVEY & CONSTRUCTION U.S. 6

| HYDRAULIC DATA              |                  |                     |                    |                 |                 |                    |                 |                 |
|-----------------------------|------------------|---------------------|--------------------|-----------------|-----------------|--------------------|-----------------|-----------------|
| DRAINAGE AREA = 527 SQ. MI. |                  |                     | EXISTING STRUCTURE |                 |                 | PROPOSED STRUCTURE |                 |                 |
| FLOOD FREQUENCY (YEARS)     | DISCHARGE C.F.S. | WATER SURFACE ELEV. | VELOCITY F.P.S.    | BACKWATER ELEV. | WATER AREA S.F. | VELOCITY F.P.S.    | BACKWATER ELEV. | WATER AREA S.F. |
| 25 DESIGN                   | 9700             | 824.4               | 3.8                | 824.6           | 2534            | 3.8                | 824.6           | 2533            |
| 50                          | 11000            | 825.2               | 4.1                | 825.4           | 2702            | 4.1                | 825.4           | 2701            |
| 100                         | 12300            | 826.0               | 4.3                | 826.2           | 2859            | 4.3                | 826.2           | 2858            |

EARTHWORK: LIMITS SHOWN ARE APPROXIMATE.  
ACTUAL SLOPES SHALL CONFORM TO PLAN CROSS-SECTIONS.

THE LOWEST ELEVATION OF THE BOTTOM OF THE SUPERSTRUCTURE  
CLEARS THE 25 YEAR DISCHARGE WATER SURFACE ELEVATION  
BY 5.4 FEET.

⊕ INDICATES SOIL BORING LOCATION.

EXISTING BRIDGE DATA (TO BE REMOVED)

WL-6-3.54 OVER SAINT JOSEPH RIVER  
TYPE: CONTINUOUS STEEL BEAM WITH REINFORCED CONCRETE DECK  
ON REINFORCED CONCRETE SUB ABUTMENTS AND WALL-TYPE  
PIERS.  
SPANS: 68'-85'-68' CENTER/CENTER BEARINGS  
ROADWAY: 28' FACE/FACE CURBS + TWO 3' SIDEWALKS  
SKEW: 15° R.F.  
LOADING: CF=130 (1957)  
YEAR BUILT: 1940  
STRUCTURE FILE NO.: 8600333  
APPROACH SLABS: 15'-0" (AS-1-54)  
WEARING SURFACE: ASPHALT CONCRETE ON MONOLITHIC CONCRETE  
UNDERCLEARANCE ELEV. 769.2

TRAFFIC DATA

CURRENT ADT (2000) = 6750 V.P.D.  
DESIGN YEAR ADT (2020) = 8285 V.P.D.  
DESIGN YEAR ADTT (2020) = 2072 V.P.D.

### PROPOSED BRIDGE DATA

TYPE: CONTINUOUS ASTM A572 STEEL BEAM BRIDGE WITH COMPOSITE  
REINFORCED CONCRETE DECK ON REINFORCED CONCRETE  
INTEGRAL ABUTMENTS AND CAP AND COLUMN PIERS  
SPANS: 61'-95'-61' CENTER/CENTER BEARINGS  
ROADWAY: 48' TOE/TOE BARRIER  
SKEW: 15° R.F.  
LOADING: HS20-44 (CASE II) & ALTERNATE MILITARY  
APPROACH SLABS: AS-1-81 (20' LONG)  
WEARING SURFACE: MONOLITHIC CONCRETE  
ALIGNMENT: TANGENT  
CROWN:  $\frac{3}{16}$ "/FT.  
BRIDGE COORDINATES: 41°-26'-52" LAT., 84°-44'-20" LONG.