

BENCHMARK: Spike nail in fence post. 21' Rt., Sta. 6+09, Elev. 477.48

EXISTING STRUCTURE NO. 041-9910: A seven span beam bridge with timber deck on timber abutments, wingwalls and piers. 116.2' fc.-fc. abuts.; 16.1' o.-o. deck. Structure closed to traffic.

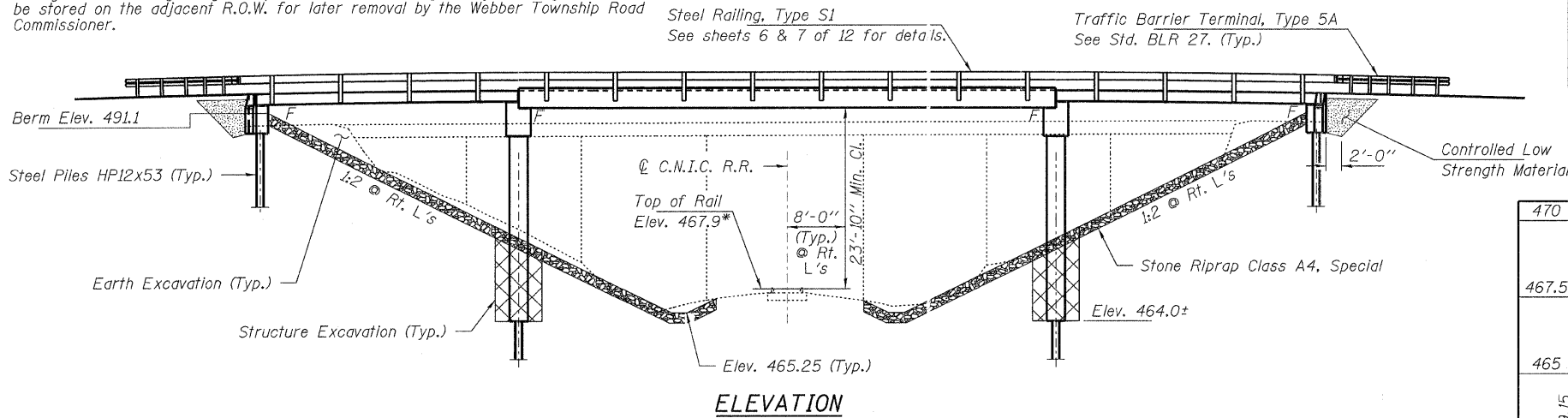
Salvage: All existing bridge components deemed salvagable by the Engineer shall be stored on the adjacent R.O.W. for later removal by the Webber Township Road Commissioner.

C.N./I.C. RAILROAD
BUILT 20__ BY
JEFFERSON COUNTY
SEC. 05-16113-00-BR
WEBBER ROAD DISTRICT
STR. NO. 041-9932
LOADING HL-93

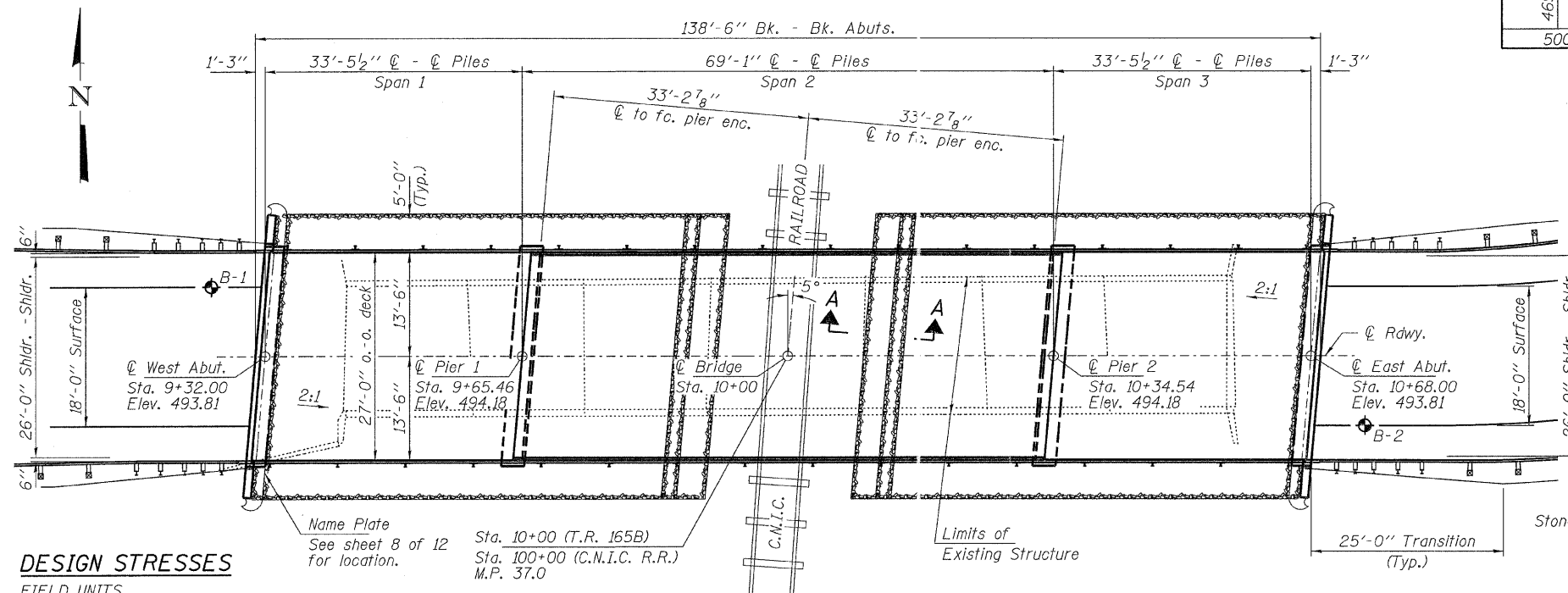
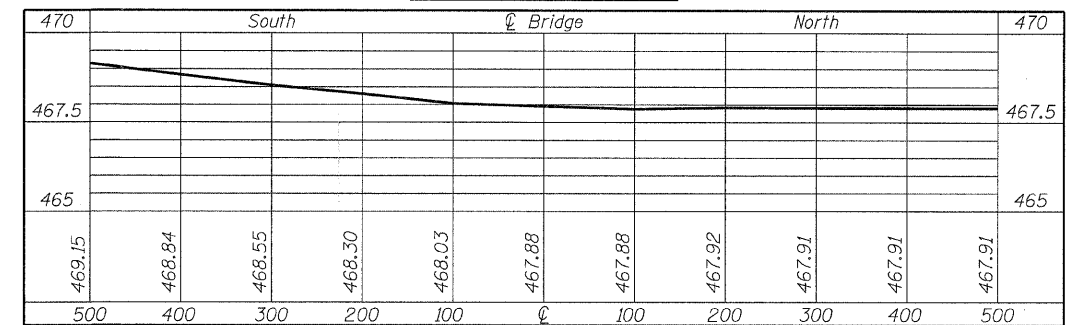
INDEX OF STRUCTURE SHEETS

1. General Plan & Elevation
2. Superstructure - Spans 1 & 3
3. Superstructure Details - Spans 1 & 3
4. Superstructure - Span 2
5. Superstructure Details - Span 2
6. Superstructure Details
7. Steel Railing, Type S-1
8. Abutments
9. Pier 1
10. Pier 2
11. HP Pile Details
12. Borings

NAME PLATE
See Std. 515001

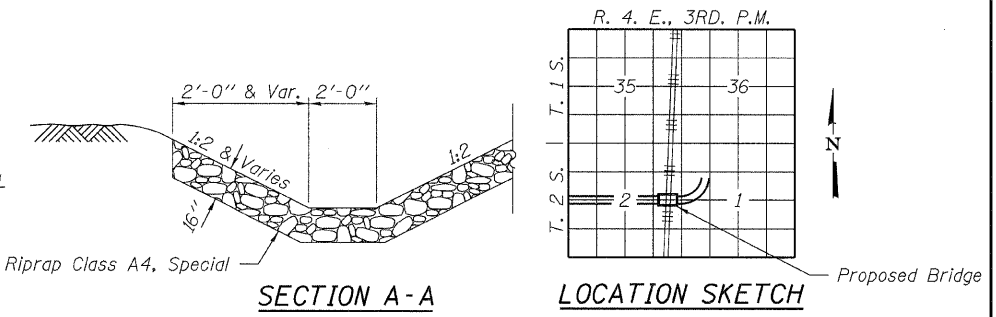


HIGH RAIL PROFILE



GENERAL NOTES

Layout of riprap may be varied in the field to suit ground conditions as directed by the Engineer.
Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60 (IL Modified). See Special Provisions.
Excavation required to construct the Abutments shall be included in the cost of Concrete Structures. No additional compensation will be allowed for Structure Excavation.



DESIGN STRESSES

FIELD UNITS

$f'_c = 3,500$ psi
 $f_y = 60,000$ psi (Reinf.)

PRECAST PRESTRESSED UNITS

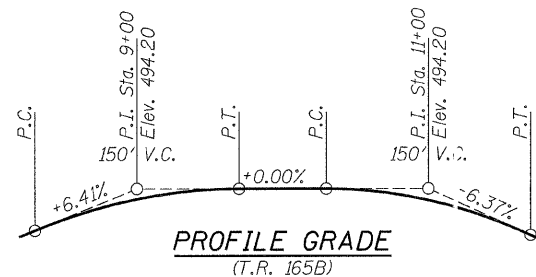
$f'_c = 6,000$ psi
 $f'_{ci} = 5,000$ psi
 $f_{pu} = 270,000$ psi ($\frac{1}{2}$ " ϕ low lax. strands)
 $f_{pbt} = 201,960$ psi ($\frac{1}{2}$ " ϕ low lax. strands)
 $f_y = 60,000$ psi (Reinf.)

LOADING HL-93

Design Specifications: 2007 AASHTO LRFD with all applicable interims.
50#/Sq. Ft. included in dead load for future wearing surface.

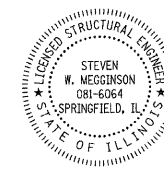
SEISMIC DATA

Seismic Performance Zone (SPZ) = 2
Design Spectral Acceleration at 1.0 sec. (S_{D1}) = 0.289g
Design Spectral Acceleration at 0.2 sec. (S_{D5}) = 0.688g
Soil Site Class = D



I certify that to the best of my knowledge, information and belief, this bridge design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the current "AASHTO LRFD Specifications."

Steven W. Meigs 2/4/2011
ILLINOIS STRUCTURAL NO. 081-6064



Expires 11-30-2012

TOTAL BILL OF MATERIAL

| ITEM | UNIT | SUPER | SUB | TOTAL |
|---|---------|-------|--------|--------|
| Stone Riprap Class A4, Special | Ton | | 400 | 400 |
| Removal of Existing Structures | Each | | | 1 |
| Structure Excavation | Cu. Yd. | | | 162 |
| Concrete Structures | Cu. Yd. | | 163.0 | 163.0 |
| Precast Prestressed Concrete Deck Beams (17" Depth) | Sq. Ft. | 1,836 | | 1,836 |
| Precast Prestressed Concrete Deck Beams (27" Depth) | Sq. Ft. | 1,863 | | 1,863 |
| Reinforcement Bars | Pound | | 12,550 | 12,550 |
| Steel Railing, Type S1 | Foot | 283 | | 283 |
| Furnishing Steel Piles HP12x53 | Foot | | 900 | 900 |
| Driving Piles | Foot | | 900 | 900 |
| Name Plates | Each | | 1 | 1 |
| Controlled Low Strength Material | Cu. Yd. | | 50 | 50 |

DENKER ROAD OVER CN/IC RAILROAD AT M.P. 37.0

| | | | | | | | | | | |
|--|--------------|-------------------|--------------------|--|--|----------------------|----------------|---------------------------|--------------|-----------|
| FILE NAME = 290172-shv-bridge.dgn | USER NAME = | DESIGNED - A.S.L. | REVISED - 05/26/10 | STATE OF ILLINOIS JEFFERSON COUNTY HIGHWAY DEPARTMENT | GENERAL PLAN AND ELEVATION STRUCTURE NO. 041-9932 SHEET NO. 1 OF 12 SHEETS | T.R. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| HAMPTON, LENZINI AND RENWICK, INC. | | CHECKED - S.W.M. | REVISED - 07/13/10 | | | 165B | 05-16113-00-BR | JEFFERSON | 34 | 23 |
| 3035 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 | PLOT SCALE = | DRAWN - D.A.B. | REVISED - | | | WEBBER ROAD DISTRICT | | | | |
| ILLINOIS PROFESSIONAL DESIGN FIRM L3 / PE / SE CORP. 184-000899 | PLOT DATE = | CHECKED - S.W.M. | REVISED - | | | CONTRACT NO. 99440 | | ILLINOIS FED. AID PROJECT | | |