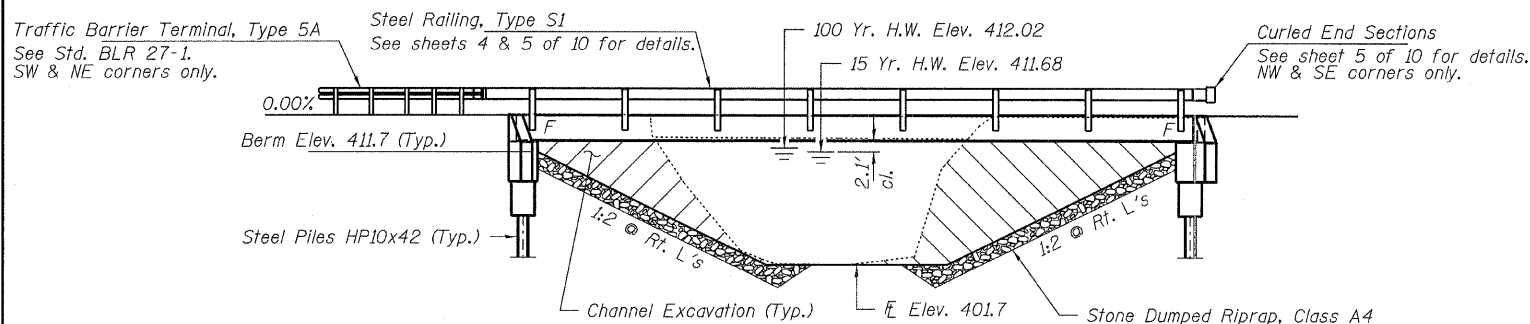


BENCHMARK:

EXISTING STRUCTURE: Single span concrete deck bridge on timber abutments and wingwalls, 28' fc-fc. abuts.; 21.0' o-o. deck; Str. No. 097-3098
Structure closed to traffic during construction.

No Salvage



BEAR CREEK
BUILT 201 BY
WHITE COUNTY
SEC. 09-08140-00-BR
INDIAN CREEK ROAD DISTRICT
STR. NO. 097-3275
LOADING HL-93

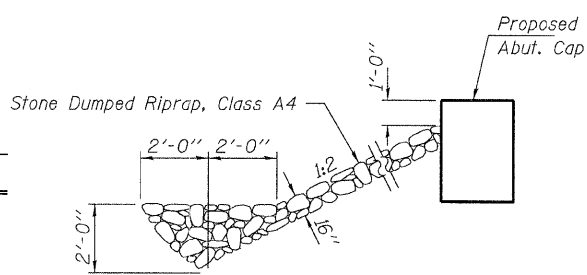
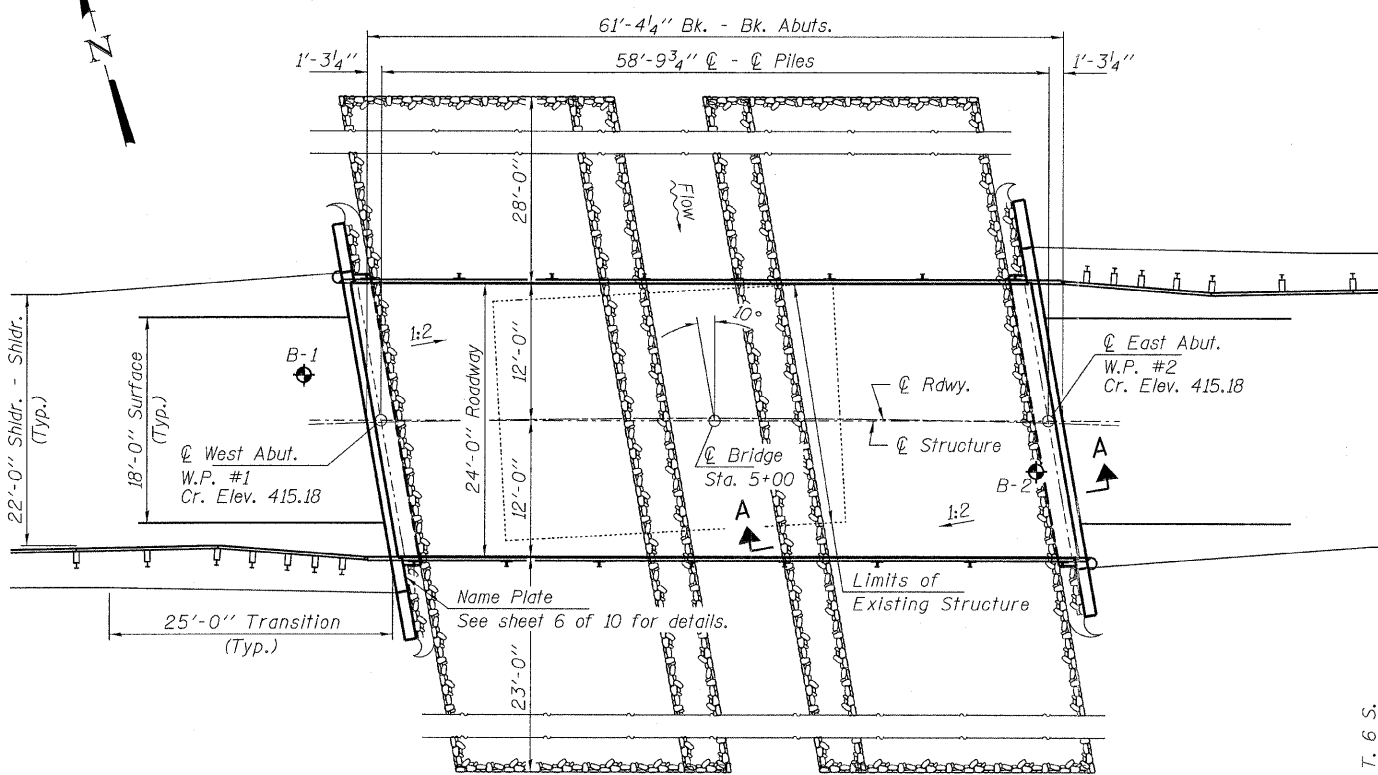
NAME PLATE
See Std. 515001

GENERAL NOTES

Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. 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.
All proposed construction activities shall be in accordance with Nationwide Permit number 14 of the Department of the Army authorized under Section 404 of the Clean Water Act.
The IEPA has issued Section 401 Water Quality Certification for this activity. See Special Provisions for conditions.

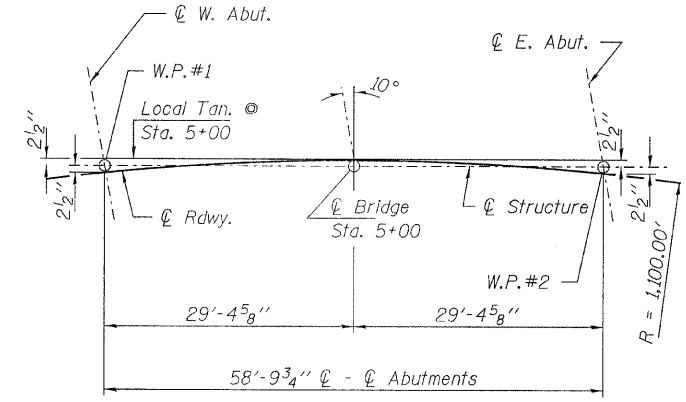
INDEX OF STRUCTURE SHEETS

1. General Plan & Elevation
2. 27"x48" PPC Deck Beam
3. 27"x48" PPC Deck Beam Details
4. Superstructure Details
5. Steel Railing, Type S1
6. West Abutment
7. East Abutment
8. HP Pile Details
- 9-10. Boring

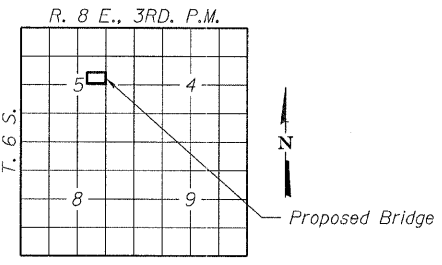


SECTION A-A

Note: See Special Provisions for Stone Dumped Riprap, Class A4.



OFFSET SKETCH



LOCATION SKETCH

DESIGN SCOUR ELEVATION TABLE

| Design Scour Elevation (ft.) | S. Abut. | N. Abut. |
|------------------------------|----------|----------|
| | 409.1 | 409.1 |

DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi
fy = 60,000 psi (Reinf.)

PRECAST PRESTRESSED UNITS

f'c = 6,000 psi
f'cl = 5,000 psi
fpu = 270,000 psi (1/2" low lax. strands)
fpbt = 201,960 psi (1/2" low lax. strands)
fy = 60,000 psi (Reinf.)

LOADING HL-93

Design Specifications: 2010 AASHTO LRFD with all applicable Interims.
50#/Sq. Ft. included in dead load for future wearing surface.

SEISMIC DATA

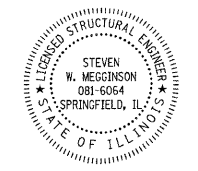
Seismic Performance Zone (SPZ) = 3
Design Spectral Acceleration at 1.0 sec. (S_{D1}) = 0.309g
Design Spectral Acceleration at 0.2 sec. (S_{D5}) = 0.733g
Soil Site Class = D

WATERWAY INFORMATION

| Flood | Freq. Yr. | Q C.F.S. | Opening Sq. Ft. | | Natural Head - Ft. | | Headwater El. | |
|------------|-----------|----------|-----------------|-------|--------------------|-------|---------------|-------|
| | | | Exist. | Prop. | H.W.E. Exist. | Prop. | Exist. | Prop. |
| Design | 15 | 1467 | 236 | 344 | 411.68 | - | - | - |
| Base | 100 | 2580 | 246 | 363 | 412.02 | 2.28 | 0.33 | 414.3 |
| Max. Calc. | 500 | | | | | | | 415.3 |

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 Megginson 2/10/2012
ILLINOIS STRUCTURAL NO. 081-6064



Expires 11-30-2012

TOTAL BILL OF MATERIAL

| ITEM | UNIT | SUPER | SUB | TOTAL |
|---|---------|-------|-------|-------|
| Channel Excavation | Cu. Yd. | | | 377 |
| Stone Dumped Riprap, Class A4 | Ton | | | 360 |
| Removal of Existing Structures | Each | | | 1 |
| Concrete Structures | Cu. Yd. | | 26.2 | 26.2 |
| Concrete Encasement | Cu. Yd. | | 2.8 | 2.8 |
| Precast Prestressed Concrete Deck Beams (27" Depth) | Sq. Ft. | 1,440 | | 1,440 |
| Reinforcement Bars | Pound | | 2,680 | 2,680 |
| Steel Railing, Type S1 | Foot | 125 | | 125 |
| Furnishing Steel Piles HP10x42 | Foot | | 440 | 440 |
| Driving Piles | Foot | | 440 | 440 |
| Name Plates | Each | | | 1 |