

EXISTING STRUCTURE: S.N. 071-3304

A Four Span (4@53') Precast Prestressed Concrete Deck Beams on Solid Stem Encased Pile Bent Piers and Pile Bent Abutments At Sta. 41+00, Skewed 0°. To Be Rehabilitated.
Section 89-15118-00-BR (Ogle County)
Section 89-02121-00-BR (Winnebago County)

Bench Mark: Railroad Spike in Power Pole

Lt. Sta. 35+90
Elev. 743.48

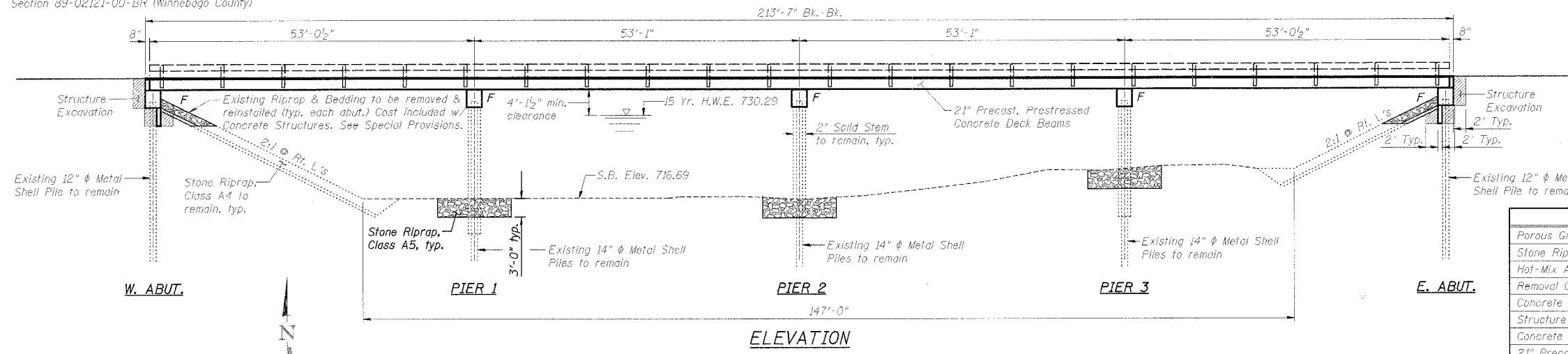
Bench Mark: Top of Disk #0C-264

Northeast Wingwall
Elev. 736.31

Bench Mark: Top of 3/4" I.P.

24' Lt. Sta. 46+00
Elev. 738.50

| PROJECT | SECTION | COUNTY | DISTRICT | SHEET |
|-----------------------|----------------|-----------|----------|---------------------------------|
| TR 61A | 06-15118-01-BR | OGLE | 14 | 5 |
| | 06-02121-01-BR | WINNEBAGO | | |
| FED. ROAD DIST. NO. 7 | | ILLINOIS | | FED. AID PROJECT: BHOS-141(6.4) |



SOUTH BRANCH KISHWAUKEE RIVER
REHABILITATION 2007 BY
SECTION 06-15118-01-BR (OGLE CO.)
SECTION 06-02121-01-BR (WINNEBAGO CO.)
TR 61A STA. 41+00
F.A. PROJ. BHOS-141(6.4)
STR. NO. 071-3304 LOADING HS20

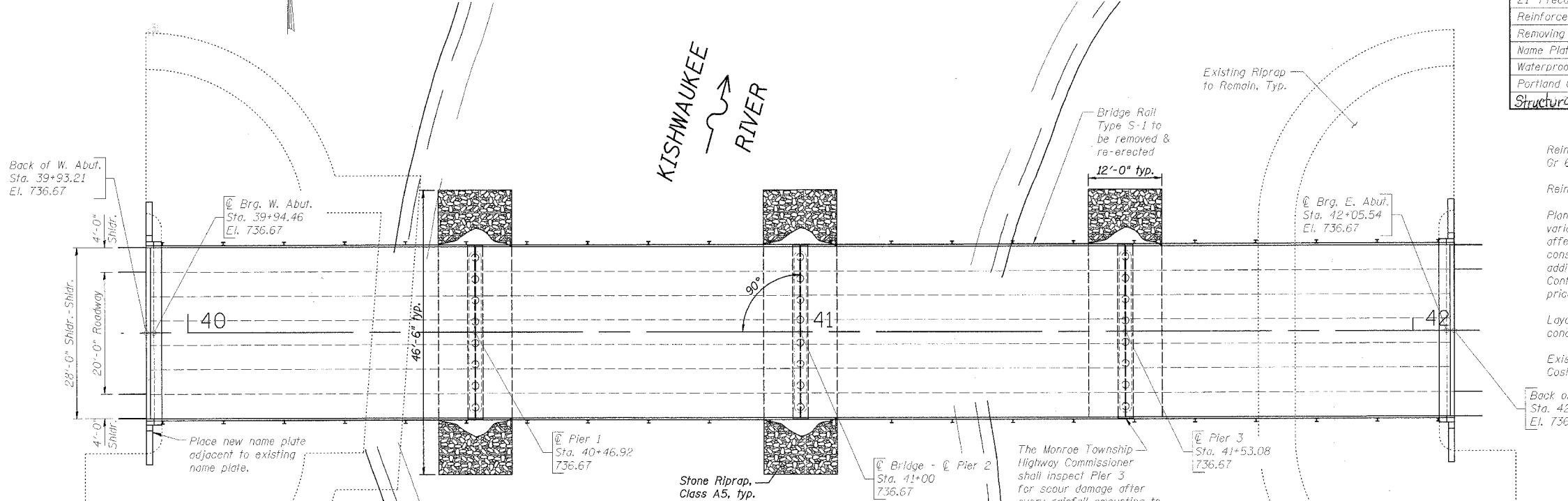
NAME PLATE LETTERING
REFER TO STD. 515001

BILL OF MATERIALS - BRIDGE

| Item | Unit | Sub. | Super. | Total |
|--|---------|-------|--------|-------|
| Porous Granular Embankment | Cu. Yd. | 16 | — | 16 |
| Stone Riprap, Class A5 | Sq. Yd. | 156 | — | 156 |
| Hot-Mix Asphalt Surface Course, Mix "D", #50 | Ton | — | 100 | 100 |
| Removal Of Existing Superstructures | Each | — | 1 | 1 |
| Concrete Removal | Cu. Yd. | 43.7 | — | 43.7 |
| Structure Excavation | Cu. Yd. | 62 | — | 62 |
| Concrete Structures | Cu. Yd. | 50.2 | — | 50.2 |
| 21" Precast, Prestressed Concrete Deck Beams | Sq. Ft. | — | 5,936 | 5,936 |
| Reinforcement Bars, Epoxy Coated | Pound | 6,400 | — | 6,400 |
| Removing and Re-Erecting Existing Rail | Foot | — | 425 | 425 |
| Name Plates | Each | 1 | — | 1 |
| Waterproofing Membrane System | Sq. Yd. | — | 665 | 665 |
| Portland Cement Mortar Fairing Course | Foot | — | 1,272 | 1,272 |
| Structural Repairs of Concrete = 1/4" | Sq. Ft. | 2.75 | — | 2.75 |

GENERAL NOTES:

- Reinforcement bars shall conform to the requirements of ASTM A 706 Or 60 (LL Modified). See Special Provisions.
- Reinforcement bars designated (E) shall be epoxy coated.
- Plan dimensions and details relative to existing plans are subject to routine variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished based upon the unit price bid for the work.
- Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.
- Existing name plate shall be salvaged & placed adjacent to new name plate. Cost incidental to the contract unit price per Each for Name Plates.



WATERWAY INFORMATION

| | |
|----------------------------|---------------|
| DRAINAGE AREA | 414 Sq. Mi. |
| DESIGN DISCHARGE (15 YR.) | 9,500 C.F.S. |
| EXISTING OPENING | 1,400 Sq. Ft. |
| REQUIRED OPENING | 1,870 Sq. Ft. |
| PROPOSED OPENING | 1,870 Sq. Ft. |
| CREATED HEAD (15 YR.) | < 0.5' |
| 100 YR. DISCHARGE | 15,300 C.F.S. |
| CREATED HEAD (100 YR.) | < 1.0' |
| HIGH WATER ELEV. (100 YR.) | 733.09 Ft. |

DESIGN SPECIFICATIONS

Design In Accordance With 2002 A.A.S.H.T.O. Standard Specifications - 17th Edition

LOADING HS20-44

Allow 25#/Sq. Ft. for Future Wearing Surface.

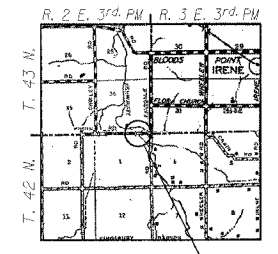
DESIGN STRESSES

FIELD UNITS
 $f'_c = 3,500$ psi
 $f_y = 60,000$ psi (Reinforcement)
PRECAST PRESTRESSED UNITS
 $f'_c = 5,000$ psi
 $f'_c = 4,000$ psi
 $f'_s = 270,000$ psi (1/2" φ Low Lax Strands)
 $f'_s = 201,960$ psi (1/2" φ Low Lax Strands)



Brian K. Converse
DATE: 10/21/2007
EXPIRES 11/30/08

"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 STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES."



**GENERAL PLAN AND ELEVATION
EDSON ROAD (TR 61A) OVER
SOUTH BRANCH KISHWAUKEE RIVER
STA. 41+00 (S.N. 071-3304)
SECTION 06-15118-01-BR
MONROE ROAD DISTRICT
OGLE COUNTY
SECTION 06-02121-01-BR
CHERRY VALLEY ROAD DISTRICT
WINNEBAGO COUNTY**

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Designed By: M. A. Small
Date: 4/07
Checked By: B. K. Converse
Date: 4/07
Drawn By: F. D. Lachat
Date: 4/07

WHA # 1092D06