

Benchmark:
Chiseled "□" on top of N.E. Wingwall, Sta. 101+88, 30.7' Rt, Elev. 606.15

Existing Structure:
SN. 016-0421 Built in 1938 and rehabilitated in 1984 is a 3 span structure consisting of a 59'-2" steel beam North approach span, a 270'-0" steel Warren truss, and a 42'-0 1/2" steel beam south approach span. Total length = 378'-9" Bk to Bk. Abuts. The clear roadway width is 44'-0" with 5'-0" sidewalks on either side supported outside of the traffic rail. North and south abutments are reinforced concrete abutments on spread footing. Pier 1 and Pier 2 are reinforced concrete bearing on limestone.
A navigation improvement project completed in 1963 included construction of concrete towers for a future lift tower, construction of a pier protection system and installation of navigation lights.
Two lanes of traffic shall be maintained utilizing stage construction.

No Salvage

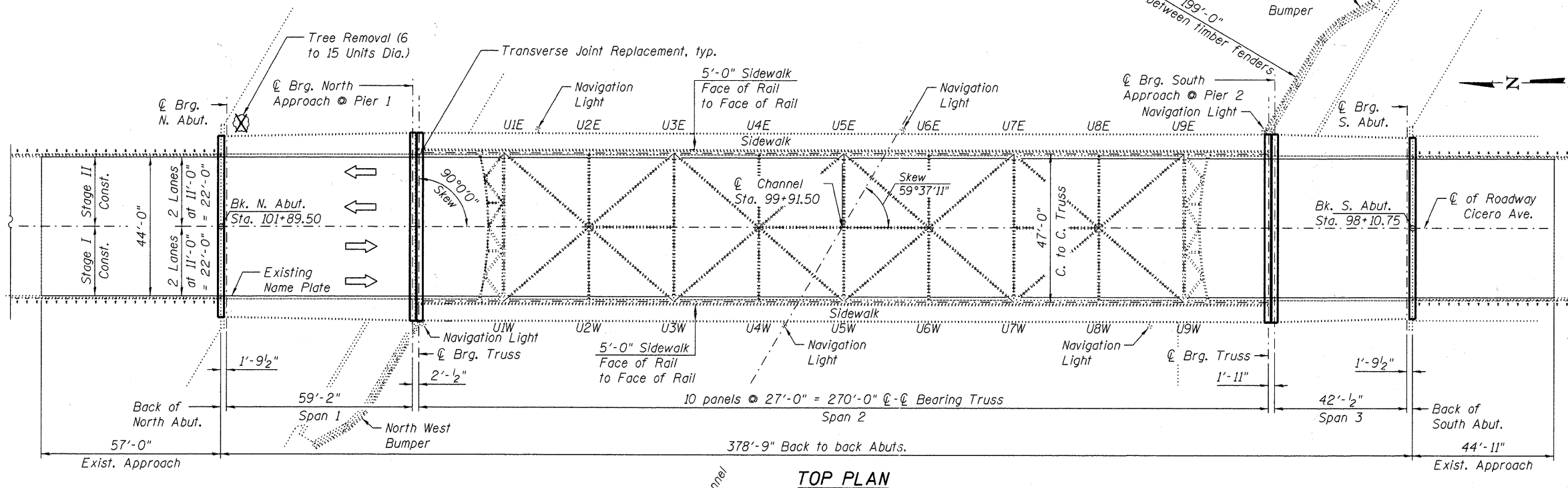
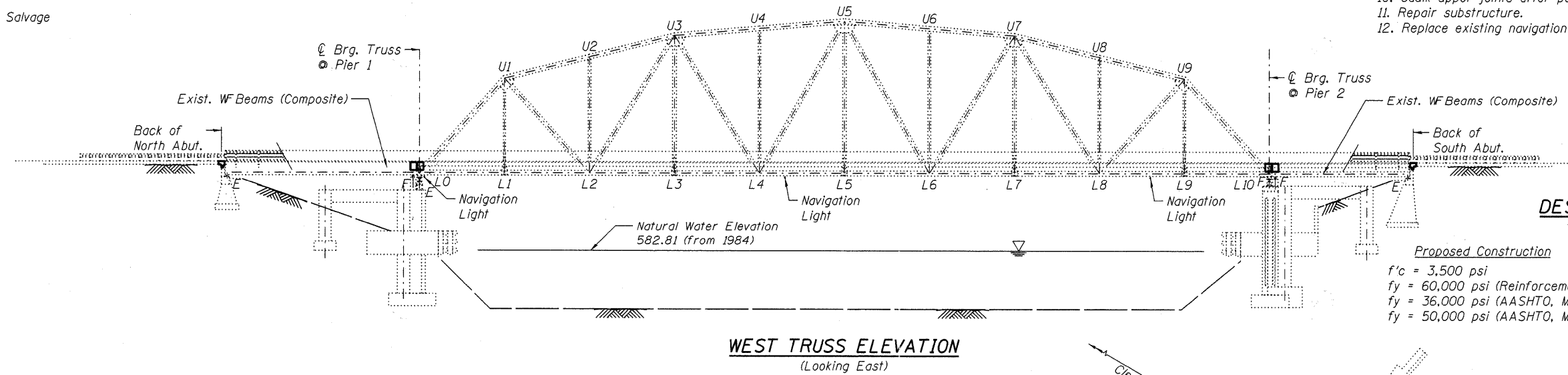
SCOPE OF WORK

1. Scarify and place 3/8" epoxy overlay on bridge deck and approach slab.
2. Partial depth patching of deck.
3. Plug deck drains within 10' of substructure, clean and extend remaining deck drains.
4. Replace transverse expansion joints.
5. Repair sidewalk railing and brackets.
6. Remove angle seats at stringer to floor beam connection points.
7. Replace stay plates and lattices on the bottom chords.
8. Repair bottom truss chord and panel point gusset plates.
9. Clean and paint all steel elements including bearings.
10. Caulk upper joints after painting.
11. Repair substructure.
12. Replace existing navigation lighting system.

DESIGN STRESSES

FIELD UNITS

| Proposed Construction | Existing Construction |
|---------------------------------------|---|
| f'c = 3,500 psi | f'c = 3,500 psi (Deck) |
| fy = 60,000 psi (Reinforcement) | Reinforcing Steel |
| fy = 36,000 psi (AASHTO, M270 Gr. 36) | fs = 20,000 psi (Original) |
| fy = 50,000 psi (AASHTO, M270 Gr. 50) | Structural Steel |
| | fs = 18,000 psi (Carbon Steel, Original) |
| | fs = 24,000 psi (Silicon Steel, Original) |
| | fy = 36,000 psi (1984 rehab) |



DESIGN SPECIFICATIONS

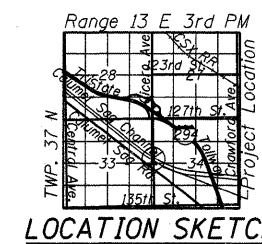
2002 AASHTO Standard Specifications for Highway Bridges

LOADING HS-20-44

No allowance for future wearing surface.

**GENERAL PLAN & ELEVATION
CICERO AVENUE (IL 50) OVER CAL-SAG CHANNEL**

PUBLIC WATERS
F.A.P. RTE 350 - SEC. 3068 A-B-R-1
COOK COUNTY
STATION 99+91.50
STRUCTURE NO. 016-0421



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| | | |
|------------------------------|----------------|-----------|
| USER NAME = akhan | DESIGNED - BWS | REVISED - |
| PLOT SCALE = 20:1 @ 1" / 10' | CHECKED - DL | REVISED - |
| PLOT DATE = 9/9/2011 | DRAWN - RD | REVISED - |
| | CHECKED - DL | REVISED - |

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**GENERAL PLAN & ELEVATION
STRUCTURE NO. 016-0421**
SHEET NO. S-1 OF S-27 SHEETS

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------------|--------------|--------|--------------|--------------------|
| 350 | 3068 A-B-R-1 | COOK | 57 | 24 |
| | | | | CONTRACT NO. 60N88 |
| ILLINOIS FED. AID PROJECT | | | | |