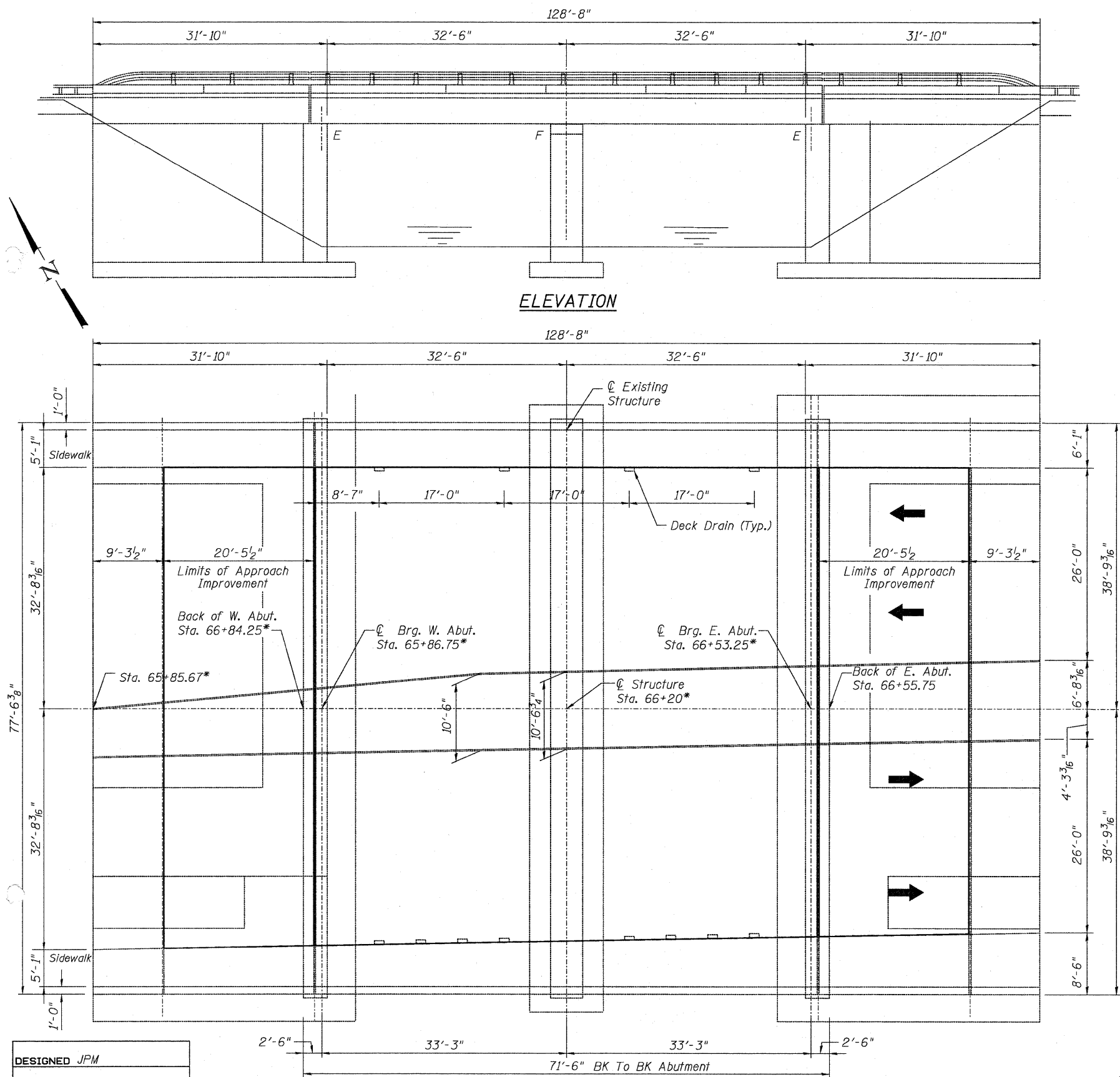


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Existing Structure: SN 016-0928, original bridge built as two lanes on two span structure in 1935 as Caldwell Ave. over North Branch Chicago River and widened to 4 lanes plus walks in 1965. In 1981 the bridge superstructure was replaced with Reinforced Concrete deck and raised sidewalks on steel beams and the existing Prestressed Deck Beams on the Southeast Bound direction were reused. Substructures were modified and reconstructed. The structure measures 77'-6³/₈" Out to Out Deck and 71'-6" Bk. to Bk. Abutments. The substructures consists of Reinforced Concrete closed abutments and a wall type pier. Traffic is to be maintained utilizing staged construction. One lane for both directions will be provided during construction.



SCOPE OF WORK

1. Remove existing HMA overlay.
2. Full depth slab repairs.
3. Hydroscarify 1/2 inch deck slab surface.
4. Reconstruct all transverse expansion joints to Strip Seal.
5. Place 2 1/4 inch latex concrete overlay.
6. Remove & replace overlay on approaches.
7. Clean deck drains.
8. Diaphragm replacement.
9. Replace bearings under expansion joints with elastomeric bearings.
10. Structural repairs of concrete to substructures.

GENERAL NOTES

Plan dimensions and details relative to existing plans are subject to nominal construction 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 at the unit price bid for the work.

Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions.

Reinforcement bars designated (E) shall be epoxy coated. Fastener shall be high strength bolts. Bolts 3/4" in. ϕ , open holes 13/16" in. ϕ , unless noted.

The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.

Existing structural steel that will be in contact with new structural steel shall be cleaned and painted prior to erection as required by the Special Provision "Cleaning and Painting Contact Surface Areas of Existing Steel Structures".

All structural steel shall be shop painted with the inorganic zinc rich primer per AASHTO M300, Type 1. Cost included with Furnishing and Erecting Structural Steel.

Prior to pouring the new concrete deck, all heavy or loose rust, loose mill scale, and other loose or potentially detrimental foreign material shall be removed from the surfaces in contact with concrete. Tightly adhered paint may remain unless otherwise noted. Removal shall be accomplished by methods that will not damage the steel and the cost will be included in the pay item covering removal of the existing concrete.

As directed by the Engineer, existing construction accessories welded to the top flange of beams and girders shall be removed. The weld areas shall be ground flush and inspected for cracks using magnetic particle testing (MT) or dye penetrant testing (PT) by qualified personnel approved by the Engineer. Any cracks that can not be removed by grinding 1/4" in. deep shall be identified and reported to the Bureau of Bridges and Structures for further disposition. The cost of removing welded accessories, grinding and inspecting weld area and grinding cracks will be paid for according to the Article 109.04 of the Standard Specifications.

INDEX OF SHEETS

- S1 - General Plan & Elevation
- S2 - Stage Construction Details
- S3 - Temporary Concrete Barrier
- S4 - Bridge Deck Patching & Expansion Joint Reconstruction Details
- S5 - Deck Details
- S6 - Framing Plan & Diaphragm Details
- S7 - Substructure Repair Details
- S8 - Bridge Deck & Approach Improvement Plan
- S9 - Preformed Joint Strip Seal
- S10 - Elastomeric Bearing Details
- S11 - Bar Splicer Assembly & Mechanical Splicer Details

DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications, 17th Edition.

DESIGN STRESSES

FIELD UNITS

$f'_c = 3,500$ psi
 $f_y = 60,000$ psi
 $f_y = 36,000$ psi (Diaphragms, Side Retainers & Extensions)
 $f_y = 50,000$ psi (Bearing Plates)

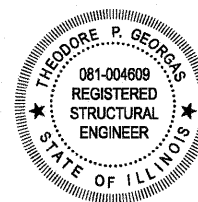
LAST DELAMINATION SURVEY

October 2009

TOTAL BILL OF MATERIAL

| ITEM | UNIT | SUPER | SUB | TOTAL |
|---|---------|-------|-----|-------|
| Bar Splicer | Each | 32 | - | 32 |
| Bridge Deck Grooving | Sq. Yd. | 401 | - | 401 |
| Bridge Deck Hydro-scarification 1/2" | Sq. Yd. | 405 | - | 405 |
| Bridge Deck Latex Concrete Overlay, 2 1/2" | Sq. Yd. | 405 | - | 405 |
| Concrete Removal | Cu. Yd. | 22 | - | 22 |
| Concrete Superstructure | Cu. Yd. | 25 | - | 25 |
| Elastomeric Bearing Assembly, Type I | Each | 16 | - | 16 |
| Furnishing and Erecting Structural Steel | Pounds | 5,080 | - | 5,080 |
| Hot-Mix Asphalt Surface Course, Mix "D", N-70, 2" | Tons | 29 | - | 29 |
| Hot-Mix Asphalt Surface Removal (Deck) | Sq. Yd. | 405 | - | 405 |
| Hot-Mix Asphalt Surface Removal, 2" | Sq. Yd. | 248 | - | 248 |
| Jack and Remove Existing Bearings | Each | 16 | - | 16 |
| Protective Coat | Sq. Yd. | 434 | - | 434 |
| Preformed Joint Strip Seal | Foot | 157 | - | 157 |
| Reinforcement Bars, Epoxy Coated | Pounds | 2,280 | - | 2,280 |
| Structural Repair of Concrete (Depth equal to or less 5 inches) | Sq. Ft. | - | 13 | 13 |
| Structural Repair of Concrete (Depth greater than 5 inches) | Sq. Ft. | - | 45 | 45 |
| Deck Slab Repair (Full Depth Type II) | Sq. Yd. | 51 | - | 51 |
| Anchor Bolts 1" | Each | 32 | - | 32 |
| Structural Steel Removal | Pounds | 660 | - | 660 |

GENERAL PLAN AND ELEVATION
 FAP 376/US 14 (CALDWELL AVE) OVER
 NORTH BRANCH CHICAGO RIVER
 COOK COUNTY
 STATION 66+20.00
 STRUCTURE NO. 016-0928



Theodore P. Georgas 3-1-10
 Theodore P. Georgas Date
 Licensed Structural Engineer
 State of Illinois 081-4609
 Expires 11/30/2010

| | |
|----------|---------|
| DESIGNED | JPM |
| CHECKED | TG |
| DRAWN | MPS |
| CHECKED | JPM, TG |



PLAN
 * Information taken from 1981 plans.

| | | | | | |
|--------------|--------------------|-----------|--------|---------------------------|-----------|
| SHEET NO. S1 | F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| | 376 | 2009-1161 | COOK | 23 | 8 |
| S11 SHEETS | CONTRACT NO. 60J41 | | | ILLINOIS FED. AID PROJECT | |