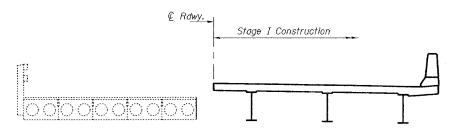
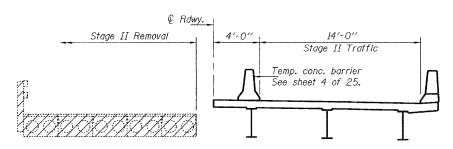


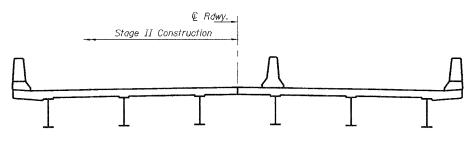
STAGE I REMOVAL



STAGE I CONSTRUCTION



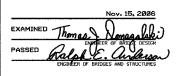
STAGE II REMOVAL



STAGE II CONSTRUCTION

Hatched areas indicate removal of existing structures. For quantity of temporary concrete barrier, see roadway plans. All cross sections are looking east.

| DESIGNED | Curt M. Evoy | | |
|----------|-----------------|--|--|
| CHECKED | Nick R. Barnett | | |
| DRAWN | h.t. duong | | |
| CHECKED | CME/NRB | | |



STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

TOTAL BILL OF MATERIAL

| ITEM | UNIT | SUPER | SUB | TOTAL |
|--|---------|--------|---------------|--------|
| Porous Granular Embankment (Special) | Cu. Yd. | | 136 | 136 |
| Stone Riprap, Class A5 | Sg. Yd. | | 3668 | 3668 |
| Filter Fabric | Sq. Yd. | | 3668 | 3668 |
| Removal of Existing Structures | Each | | | 1 |
| Structure Excavation | Cu. Yd. | | 477 | 477 |
| Driving Piles | Foot | | 1182 | 1182 |
| Floor Drains | Each | 46 | | 46 |
| Concrete Structures | Cu. Yd. | | 226.0 | 226.0 |
| Concrete Superstructure | Cu. Yd. | 474.9 | | 474.9 |
| Bridge Deck Grooving | Sq. Yd. | 1466 | | 1466 |
| Protective Coat | Sq. Yd. | 1876 | | 1876 |
| Furnishing and Erecting Structural Steel | L. Sum | 1 | | 1 |
| Stud Shear Connectors | Each | 5976 | | 5976 |
| Reinforcement Bars, Epoxy Coated | Pound | 116170 | 23890 | 140060 |
| Furnishing Steel Piles HP12x74 | Foot | | 634 | 634 |
| Furnishing Steel Piles HP10x57 | Foot | | 962 | 962 |
| Test Pile Steel HP12x74 | Each | | 1 | 1 |
| Test Pile Steel HP10x57 | Each | | <u>1</u> 3 | 3 |
| Temporary Sheet Piling | Sq. Ft. | | 328 | 328 |
| Temporary Soil Retention System | Sq. Ft. | | 648 | 648 |
| Name Plates | Each | 1 | | 1 |
| Bar Splicers | Each | 1175 | 167 | 1342 |
| Underwater Structure Excavation Protection Location 1 | Each | | 1 | 1 |
| Underwater Structure Excavation Protection Location 2 | Each | | 1 | 1 |
| Composite Bridge Approach Pavement | Sq. Yd. | 249 | | 249 |
| Pipe Underdrains for Structures, 4" | Foot | | 154 | 154 |
| Geocomposite Wall Drain | Sq. Yd. | | 75 | 75 |
| Setting Piles in Rock | Each | | 12 | 12 |
| Concrete Encasement | Cu. Yd. | | 13.9 | 13.9 |
| Anchor Bolts 1" | Each | | 72 | 72 |
| Asbestos Bearing Pad Removal | Each | | 88 | 88 |

Backfill with uncompacted Porous Granular Embankment (Special) by Bridge Contractor after superstructure is in place. Const. joint -Approach pavement Excavation for placing Porous Granular Embankment (Special) is Geocomposite paid for as Structure Excavation. wall drain *Geotechnical Fabric for French Drains *Drainage Aggregate Bk. of Abut. *4'' ¢ Perforated pipe drain * Included in the cost of Pipe Underdrains for Structures, 4".

SECTION THRU INTEGRAL ABUTMENT (Horiz. dim. @ Rt. L's)

All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend until intersecting with the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).

| ROUTE NO. | SECTION | COUNTY | | TOTAL SHEETS | SHEET NO. | SHEET NO. |
|----------------|---------|-----------------------|--|-----------------------|--------------|-----------|
| FAP 789 | 54BR-1 | MADISON | | 62 | 26 | 25 SHEETS |
| FED. ROAD DIST | . NO. 7 | ILLINOIS FED. AID PRO | | DIS FED. AID PROJECT- | | 1 |

NO. 2

Contract #76864

GENERAL NOTES

Fasteners shall be AASHTO MI64 Type 3 bolts. Bolts $^{7}8''$ ϕ , open holes $^{15}16''$ ϕ , unless otherwise noted.

Calculated weight of Structural Steel = 405220 lbs.

All structural steel shall be AASHTO M 270 Grade 50W.

No field welding is permitted except as specified in contract documents,

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

Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.

The embankment configuration shown shall be the minimum that must be placed and compacted prior to construction of the abutments.

Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of ${}^{l}_{8}$ in. (0.01 ft.). Adjustment shall be made either by grinding the surface or by shimming the bearings.

The Contractor shall drive test piles to 110% of the nominal required bearing specified in permanent locations at substructures specified or approved by the Engineer before ordering the remainder of piles.

In addition to all other requirements of section 512 of the Standard Specifications, splices for HP12x74 and HP10x57 piles shall develop the full capacity of the steel's cross sectional area of the pile for tension, shear and bending forces. One approved method of achieving this requirement is full penetration butt welding of the entire cross section. Other types of splices meeting the full capacity requirement may be allowed subject to the approval of the Engineer. Any proposal by the Contractor to use an alternate splice method must include adequate documentation demonstrating that the full tension, shear and bending capacities will be met. Appropriate welder qualifications will be required for the positions and processes used in splicing all piles. Nondestructive testing of completed welds will be limited to visual inspection.

Structural steel shall only be painted for a distance equal to the depth of embedment into the concrete cap plus 3 inches. Those areas shall be primed in the shop with a Department approved zinc rich primer. No field painting shall be required. All structural steel shall be cleaned as specified in the special provision for "Surface Preparation and Painting Requirements for Weathering Steel".

Reinforcement bars designated (E) shall be epoxy coated. All construction joints shall be bonded.

> GENERAL DATA & STAGE CONSTRUCTION DETAILS F.A.P. RTE. 789 - SEC. 54BR-1 MADISON COUNTY STATION 280+73 STRUCTURE NO. 060-0340