Fasteners shall be High Strength Bolts. Bolts M20, open holes 24 mm Dia. unless otherwise noted.

Calculated mass of Structural Steel = 182,800 Kg (M 270M, Grade 345)

Field Welding of construction accessories will not be permitted to the bottom flange of beams nor to the top flange for a distance equal to one-forth the span length each way from the Pier Supports. Field Welding in other areas will

be permitted only when approved by the Engineer. Anchor Bolts shall be set before bolting diaphragms over supports.

The main load carrying member components subject to Tensile Stress shall conform to the Supplemental Requirements for Notch Toughness Zone 2. These components are the Wide Flange Beams and all Splice Plate material, except Fill Plates.

Reinforcement Bars shall conform to the requirements of AASHTO M-31M. M-42M or M-53M Grade 400.

The Structural Steel Bearing Plates of the Elastomeric Bearing Assembly anali conform to the requirements of Adultu Merun drade 198.

Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field and make necessary approved adjustments prior to construction or ordering of materiais. Such variations shall not be cause for additional compensation for a change in the scope of the work, however, the Contractor will be paid for the quantity actually furnished at the Unit Price Bid for the work.

Bearing Seat Surface shall be constructed or adjusted to the designated elevations within a tolerance of 3mm. Adjustment shall be made either by grinding the surface or by shimming the Bearing. Two 3mm Adjusting Shims, of the dimensions of the bottom Bearing Plate, shall be provided for each Bearing in addition to all other Plates or Shims. For Type I Elastomeric Bearings, shims or dimensions of Top Plates shall be provided and placed as detailed.

Bridge Seat Sealer shall be applied to the seat area of Piers 10 & 15.

When the Deck Pour is stopped for the day at one or more of the Transverse Bonded Construction Joints in the Deck Pouring Sequence as shown, the next pour shall not be made until both of the following requirements are met.

1. At least 72 hours shall have elapsed from the end of the previous pour.

2. The concrete strength shall have attained a minimum modulus of rupture of 4.5 MPa or a minimum compressive strength of 24 MPa.

All dimensions are in millimeters (mm), except as noted.

The Contractor shall drive one (1) Steel Test Pile in a permanent location at each Piers 10 thru 15 as directed by the Engineer before ordering the remainder of Piles.

The existing Structural Steel Coating contains lead. The Contractor should take appropriate precautions to deal with the presence of lead on this project.

Detailed Demolition Plans for work performed on or over the Railroad R.O.W. shall be submitted to the railroad and the Engineer for review and approval. The Demolition Plan shall comply with CSX Transporation Method (A) and shall include detailed plans for the Protective Shield System prepaired by a licensed Structural Engineer in Illinois. Refer to the Special Provision "Removal of Existing Structure" for additional requirements.

Stope Wall between Piers 13 & 14 as shown on Sheet SI shall be reinforced with Weided Wire Fabric, 152x152-MW 25.8xMW 25.8 with a weight at 2.91 kg/m.

The Contractor shall make allowance for the deflection of forms, shrinkage and settlement of falsework, in addition to allowance for dead load deflection.

During the removal - the existing structure or the construction of the proposed pier adjacent to a railroad, falsework or sheeting is required. The work shall be according to the applicable portion of Articles 105.02 and 107.12 of the Standard Specifications.

If the Contractor chooses to alter the Temporary Sheet Piling design requirements shown on the plans for lesser design requirements, then full design submittals with the required seals will be expected by the Department, for review and approval.

For Bonded Construction Joints, see Special Provisions.

Temporary Sheet Piling shall comply with CSX Transportation Criteria for Overhead Bridges-Section IV-Structural Excavation And Shoring.

The Inorganic Zinc Rich Primer/Acrylic/Acrylic Paint System shall be used for painting of new Structural Steel except where otherwise noted. The entire Paint System shall be applied in the shop.

The prime coat shall have a minimum resistance rating of 4 per the Standard Test Method for Measuring MEK Resistance of Ethyl Silicate (Inorganic) Zink-Rich Primers by Solvent Rub per ASTM D 4752-87 before the intermediate coat of Acrylic Paint is applied.

The color of the final finish coat for all interior steel surfaces shall be gray. Munsell No. 5B 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be reddish brown, Munsell No. 2.5 YR 3/4 See Special Provision for "Cleaning and Painting New Metal Structures". Field touch up of damaged shop paint shall be required.



See elevation on Sht. S1 for location.

| SHEET SA 80 of SA110 | | | | | |
|-------------------------------|----------------|-----------------|-------------------|-----------------|--------------|
| SHEET <u>S2</u> OF <u>S32</u> | F.A RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| | 3578 | 15VB-1-R | COOK | 243 | 176 |
| | STA. 4+665.229 | | TO STA. 4+777.600 | | |
| | FED. R | OAD DIST. NO. 7 | ILLINOIS FE | D. AID PROJ | ECT |

TOTAL BILL OF MATERIAL

| ITEM | UNIT | SUPER. | SUB. | TOTAL |
|---|----------------|--------|---------------|----------|
| Concrete Superstructure | m3 | 581.0 | - | 581.0 |
| Concrete Structures | mЗ | - | 771.6 | 771.6 |
| Drainage Scuppers | Each | 8 | - | 8 |
| Protective Coat** | m2 | 2.206 | | 2.206 |
| Reinforcement Bars, Epoxy Coated | kg | 85,030 | 76.350 | 161.380 |
| Removal Of Existing Structures | L.Sum | 1 | - | 1 |
| Neoprene Expansion Joint 65 mm | m | 36.8 | • | 36.8 |
| Preformed Joint Seal 64 mm | m | 31.8 | • | 31.8 |
| Elastomeric Bearing Assembly, Type I | Each | 32 | - | 32 |
| Bridge Deck Grooving | m2 | 1.662 | | 1.662 |
| Bridge Seat Sealer | m2 | | 16.6 | 16.6 |
| Eurniahing Staal Plies HP340#79 Driving Staal Plies | til. | 1 | 16.6 1.843 | T.C.A.A. |
| | m | | 1.053 | 1,053 |
| Furnishing And Erecting Structural Steel | L.Sum | 1 | - | 1 |
| Name Plates | Each | 1 | - | 1 |
| Structure Excavation | m ³ | - | 955 | 955 |
| Test Pile Steel HP310x79 | Each | - | 6 | 6 |
| Stud Shear Connectors | Each | 11,296 | - | 11.296 |
| Aluminum Railing, Type L | m | 113 | - | 113 |
| Protective Shield | m2 | 407 | - | 407 |
| Temporary Sheet Piling | m2 | - 1 | 90 | 90 |
| Epoxy Crack Sealing | m | | 60 | 60 |
| | 1 | | 1 | |
| Concrete Removal | m3 | 0.3 | | 0.3 |
| Slope Wall Removal | m2 | | 98 | 98 |
| Metal Shoes | Each | - | 110 | 110 |
| Slope Wall 100 mm | m2 | - | 148 | 148 |
| High Performance Enhanced Shotcrete | m2 | | 45.2 | 45.2 |
| Polymer Modified Portland Cement Mortar | m3 | | 1.2 | 1.2 |
| Formed Concrete Repair (Depth equal or less than 125 mm) | m ² | - | 0.1 | 0.1 |
| | | | | |
| | | 1 | | |
| | | | 1 | |

Quantity includes Bridge Deck Surface, top & inside face of Parapets, Curb and top of Sidewalk.

> STATION 4+716.497 REBUILT 19 BY STATE OF ILLINOIS F.A.U. RT. 3578 SEC. 15VB-1-R F.A. PROJ. BHM- 7003 (615) LOADING MS 18 STR. NO. 016-0463

> > NAME PLATE See Std. 515001

<u>NOTE:</u> See Sht. S1 for location of Name Plate.

