

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET	SHEET NO. 1
		MADISON	11	5	5 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT:			

Contract Number: 76968

GENERAL NOTES

All structural steel shall conform to AASHTO Classification M-270 Gr. 36, unless otherwise noted.

Cost of removal and/or re-installation of all members necessary to complete the work as detailed on the plans and as specified in the Special Provisions shall be included in the cost of Furnishing and Erecting Structural Steel.

The inorganic zinc rich primer/acrylic/acrylic paint system shall be used for shop and field painting of new structural steel except where otherwise noted. The color of the acrylic finish coat shall be Interstate Green, Munsell No. 7.5G 4/8. See Special Provision "Cleaning and Painting New Metal Structures".

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".

The deck surface shall have its final finish tined according to Article 420.1(k)(1) of the Standard Specifications. Cost included with Concrete Superstructure.

The Contractor shall provide support and/or shoring systems for the slab and beam in the area of existing beam removal. See Special Provisions "Temporary Shoring and Cribbing".

After the new beam is in its final position and/or beam straightening operations have been completed, the Engineer in the field shall check to see that the top flange is tight against the slab. If not, the Contractor shall inject epoxy between the existing concrete deck and the top flange of the beam. See Special Provision "Epoxy Injection".

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

Field welding of construction accessories will not be permitted to beams. Reinforcement bars shall conform to the requirements of AASHTO M 31 or M 322 Grade 60.

Prior to pouring the new concrete deck, all loose rust, loose mill scale and other loose potentially detrimental foreign material shall be removed from the surfaces of the beams or girders in contact with concrete. The cost of this work will be included in the pay item covering removal of the existing concrete. All heavy rust and other tightly adhered potentially detrimental foreign matter shall also be removed from the surfaces of the beams or girders in contact with concrete. Tightly adhered paint may remain unless otherwise noted. This removal shall be accomplished by methods that will not damage the steel. The cost of this work will be paid for according to Article 109.04 of the Standard Specifications.

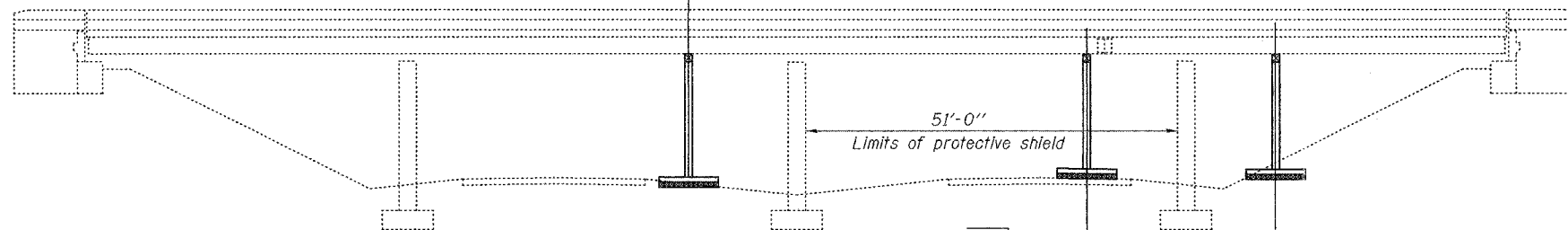
Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field and make necessary approved adjustments prior to construction or ordering of materials. 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.

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.

REACTION TABLE AT TEMPORARY SHORING

Q	(k)	17.0
L	(k)	25.2
Imp.	(k)	7.6
Total	(k)	49.8

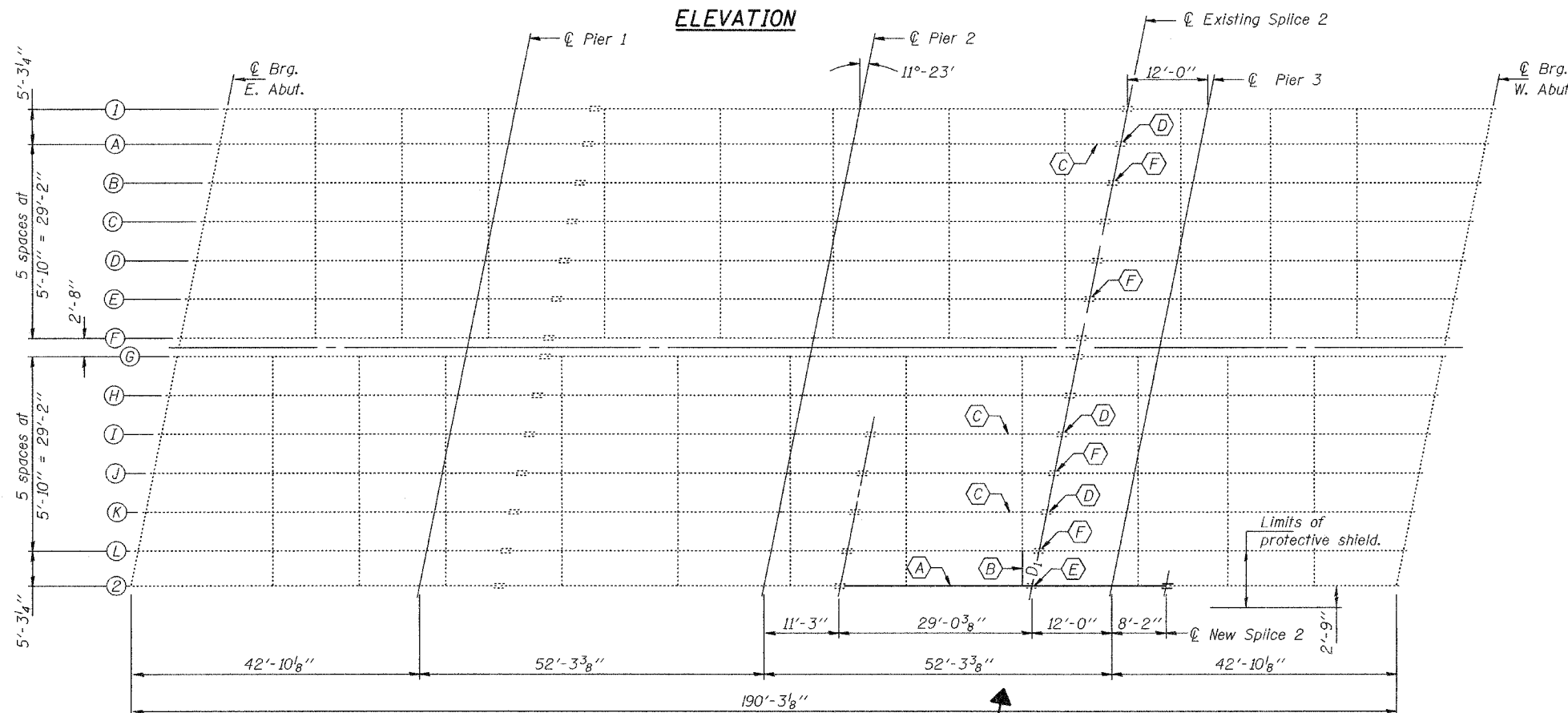
Temporary shoring may be required for Beam 2 to facilitate alignment of existing splice.



Temporary shoring is required for Beams A, I & K splice repairs, unless all traffic is moved at least one beam away from the repair site. Paid for as "Temporary Shoring and Cribbing". The shoring shall be removed as soon as possible after the splice has been completed to minimize traffic control in the South Bound Lanes.

Temporary shoring is required for Beam 2, to be paid for as "Temporary Shoring and Cribbing". Removal & replacement of slope wall, if required, shall be included with "Temporary Shoring and Cribbing"

ELEVATION



FRAMING PLAN

- A Replace existing W27x114 beam.
 - B Existing diaphragm and 4 clip angles each to be replaced.
 - C Existing beam to be straightened.
 - D Splice repair.
 - E Existing splice to be eliminated.
 - F Replace sheared off bolts in bottom flange splice.
- 8-7/8"φ bolts required.
1 at Beam B
2 at Beam E
1 at Beam J
4 at Beam L

DESIGNED	<i>Paul R. H. D.</i>
CHECKED	<i>Adrian T. Holloway</i>
DRAWN	<i>balva</i>
CHECKED	<i>S.T.B. / A.T.H.</i>

EXAMINED	<i>John A. Morris</i>	September 30, 2005
PASSED	<i>Ralph E. Anderson</i>	



EXPIRES 11-30-2006

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Concrete Superstructure	Cu. Yd.	11.6
Concrete Removal	Cu. Yd.	11.6
Reinforcement Bars, Epoxy Coated	Pound	2770
Furnishing and Erecting Structural Steel	Pound	6760
Stud Shear Connectors	Each	147
Beam Straightening	L.S.	1
Temporary Shoring and Cribbing	L.S.	1
Mechanical Splice	Each	188
Protective Shield	Sq. Yd.	45
Protective Coat	Sq. Yd.	36
Structural Steel Removal	Pound	6660

BRIDGE REPAIRS
ILL. RTE 162 OVER FAI RTE. 70
MADISON COUNTY
S.N. 060-0139