

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOTAL BILL OF MATERIAL

GENERAL NOTES

- Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions.
- Reinforcement bars designated (E) shall be epoxy coated.
- 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 cannot be removed by grinding 1/4 inch 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 areas and grinding cracks will be paid for according to Article 109.04 of the Standard Specifications.
- 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.
- Concrete Sealer shall be applied to the existing bridge parapets, abutment seats and abutment backwalls. All surfaces to be sealed shall be cleaned thoroughly prior to sealer application. Cost included with Concrete Sealer.
- The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.
- If the contractor chooses to alter the temporary cantilevered sheet piling design requirements shown on the plans, a design submittal including plan details and calculations will be required for review and acceptance by the Engineer.
- The Contractor shall connect the first sheet to the existing abutment wall to ensure stability of sheets driven to the top of the existing footing. This connection shall be reviewed and accepted by the Engineer and included in the cost of Temporary Sheet Piling.
- Stage construction shall be utilized to maintain traffic during construction.
- The Contractor shall exercise care during removal of existing joints to ensure that the slab, beams and diaphragms integrity will not be detrimentally impacted. The Contractor shall repair any damage(s) to the slab, beams and diaphragms caused by his operation as directed by the Engineer at no additional cost to the Department.
- Protective Coat shall be applied to the new Latex Concrete Overlay and Concrete Superstructures.
- During visual inspection in June 2009, a gap was noted between the girder and non-composite deck at one isolated location. After reconstruction of the expansion joints, completion of all bridge deck patching, and placement of the Latex Concrete Overlay, the Engineer in the field shall check to see that the top flange of all beams are tight against the slab. If not, the Contractor shall inject epoxy between the concrete deck and the top flange of the beam. See Special Provision "Epoxy Injection". Cost included in Bridge Deck Latex Concrete Overlay, 2 1/4".
- Joint openings shall be adjusted according to Article 520.04 of the Std. Specs. when the deck is poured at an ambient temperature other than 50°F.

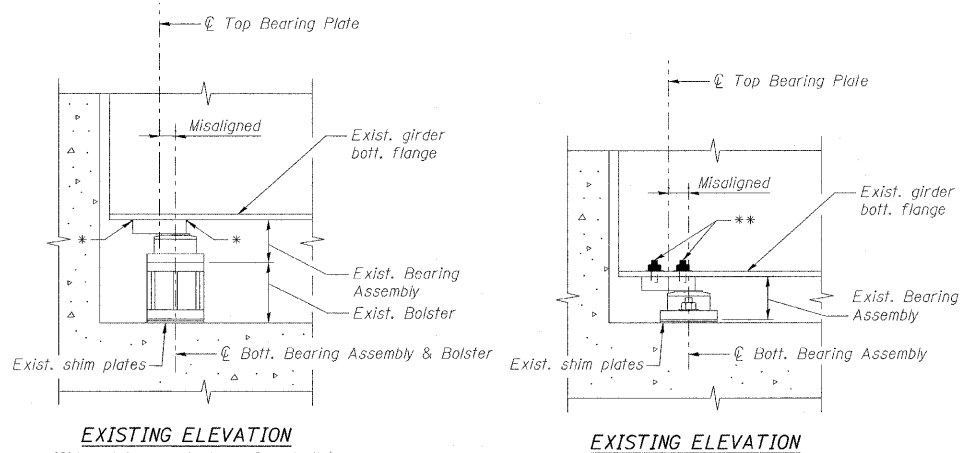
*Remove exist. welds and grind smooth. Reposition top bearing plate as shown and field weld in place.

** Remove nuts, washers and 3/4" dia. threaded studs and reposition top bearing plate as shown below. Weld 1/2" x 1 1/2" x 1 1/2" PL over holes in bottom flange and grind surfaces smooth.

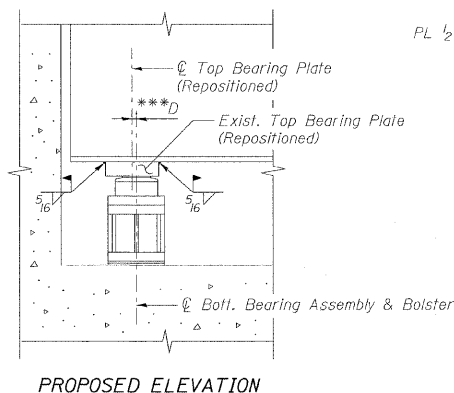
*** D = 1/8" per each 100 ft. of expansion for every 15° temp. change from normal temp. of 50°F. Orientation for temp. greater than 50°F is shown. "D" is on opposite side of ϕ Bott. Bearing Assembly for temp. less than 50°F.

INDEX OF SHEETS

- General Plan and Elevation
- General Notes, Bill of Material and Index of Sheets
- Stage Construction Details
- Temporary Concrete Barrier for Stage Construction
- Bridge Deck, Approach Slab and Parapet Repairs
- West Bridge Approach Slab Details (1 of 2)
- West Bridge Approach Slab Details (2 of 2)
- East Bridge Approach Slab Details (1 of 2)
- East Bridge Approach Slab Details (2 of 2)
- Expansion Joint Repairs (1 of 2)
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- Preformed Joint Strip Seal
- West Abutment Backwall Repairs
- East Abutment Backwall Repairs
- Substructure Repairs
- Abutment Stabilization Details
- Bar Splicer Assembly Details
- 18-25B. Existing Plan Information

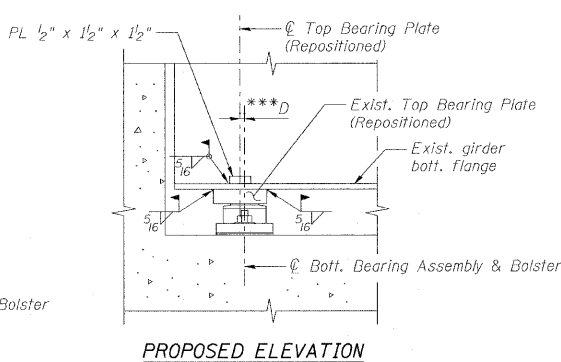


EXISTING ELEVATION
(Side retainers not shown for clarity)



BEARING REPAIR BEAMS 12-22

(Jack and Reposition Bearings - 11 thus)



BEARING REPAIR BEAMS 25-26

(Jack and Reposition Bearings - 2 thus)

ABUTMENT BEAM REACTIONS (KIPS)

DEAD LOAD	LIVE LOAD	IMPACT LOAD	TOTAL
14.6	34.3	10.3	59.2

ITEM	UNIT	SUPER	SUB	TOTAL
P.C. Concrete Bridge Approach Shoulder Pavement	Sq. Yd.	54		54
Approach Slab Removal	Sq. Yd.	584		584
Concrete Barrier Removal	Foot	56		56
Concrete Removal	Cu. Yd.	28.9	22.2	51.1
Protective Shield	Sq. Yd.	886		886
Structure Excavation	Cu. Yd.		530	530
Concrete Structures	Cu. Yd.		33.8	33.8
Concrete Superstructure	Cu. Yd.	265.4		265.4
Bridge Deck Grooving	Sq. Yd.	2,100		2,100
Protective Coat	Sq. Yd.	2,192		2,192
Jack and Reposition Bearings	Each	13		13
Reinforcement Bars, Epoxy Coated	Pound	61,250	4,940	66,190
Bar Splicers	Each	164	182	346
Temporary Sheet Piling	Sq. Ft.		312	312
Preformed Joint Strip Seal	Foot	184.5		184.5
End Sections 12"	Each	2		2
Concrete Sealer	Sq. Ft.	5,246	1,030	6,276
Geocomposite Wall Drain	Sq. Yd.		94	94
Pipe Drains 12"	Foot	40		40
Pipe Underdrains for Structures 4"	Foot		187	187
Removing Inlets	Each	2		2
Type D Inlet Box, Standard 609001	Each	2		2
Concrete Thrust Blocks	Each	2		2
Removal & Reinstallation of Existing Steel Plate Beam Guard Rail, Attached to Structures	Foot	70		70
Bridge Deck Latex Concrete Overlay, 2 1/4"	Sq. Yd.	1,540		1,540
Structural Repair of Concrete (Depth Equal to or Less than 5 Inches)	Sq. Ft.	9	221	230
Expanded Polystyrene Fill	Cu. Yd.		336	336
Bridge Deck Hydro-Scarification, 2 1/4"	Sq. Yd.	1,540		1,540
Deck Slab Repair (Full Depth, Type I)	Sq. Yd.	78.2		78.2
Deck Slab Repair (Full Depth, Type II)	Sq. Yd.	180.8		180.8
Temporary Shoring and Cribbing	Each		4	4
Clean and Reseal Relief Joint	Foot	128.0		128.0

All excavated materials shall be disposed of within IDOT right-of-way and within the project limits. See the General Notes sheet from the roadway plans for more information.

BEARING REPAIR NOTES

- Existing welds shall be ground smooth and prepared as necessary to perform field welding according to Article 505.04(q) of the Standard Specifications.
- Cost to jack bearings, disconnect the bearing plate from the bottom flange, prepare surfaces, position bearings, field weld and clean, seal and/or paint shall be included with Jack and Reposition Bearings. See Special Provision for "Jack and Reposition Bearings".
- The Contractor shall exercise extreme care not to damage the existing bearing assemblies, bolsters and beams. All damage to existing members that are to remain shall be repaired or the member replaced to the satisfaction of the Engineer. Repair or replacement of damaged members shall be at no additional cost to the Department.
- Prior to reinstallation of the top bearing plates, a primer coat shall be applied to the top (contact) surface of the bearing plates and the portions of the bottom flanges that will either be in contact with the bearing plates or was previously in contact with the bearing plates. Surface preparation and primer coat application shall be according to the special provision Cleaning and Painting Existing Steel Structures. Upon completion of welding operations, the affected areas shall be painted with an aluminum epoxy mastic primer followed by a finish coat to match the color of the existing beam or top bearing plate. Paint shall be applied per the requirements of Paint System 2, according to the Special Provision "Cleaning and Painting Existing Steel Structures".
- See existing plans for girder numbering.
- The tabulated beam reactions were taken from the existing construction plans. The Contractor shall verify that the equipment used to support the beams is sufficient to carry these loads in addition to any temporary construction loads.

GENERAL NOTES, BILL OF MATERIAL
AND INDEX OF SHEETS
STRUCTURE NO. 022-0005

DESIGNED -	MFB
CHECKED -	KWS
DRAWN -	RMG
CHECKED -	KWS

benesch

alfred benesch & company
Engineers - Surveyors - Planners
205 North Michigan Avenue, Suite 2400
Chicago, Illinois 60601
312-565-0450 Job No. 10050

SHEET NO. 2	F.A.I. RTE. 290	SECTION 2009-099 BR	COUNTY COOK/DUPAGE	TOTAL SHEETS 309	SHEET NO. 246
25 SHEETS	CONTRACT NO. 60157				
FED. ROAD DIST. NO.		ILLINOIS		FED. AID PROJECT	