

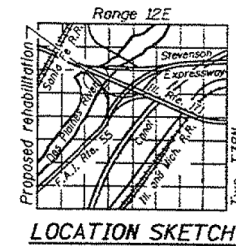
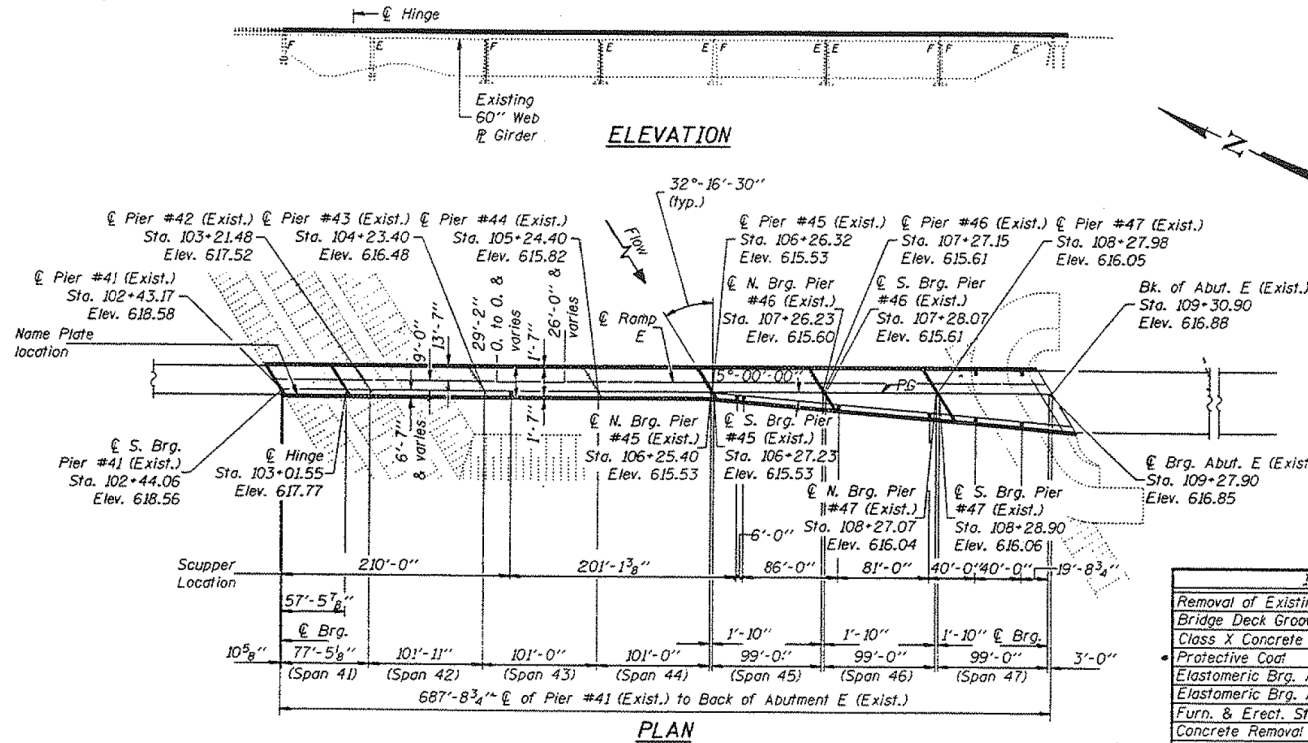
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET	SHEET NO. 1
F.A.I. RT. 171 S. BD. TO F.A.I. RT. 55 E. BD. RAMP E. SEC. 0707-614B	2013-038B-R	COOK	323	348	24 SHEETS
PROJECT NAME	DATE	DESIGNER	DATE	PROJECT NO.	

Bench Mark: Chiseled "□" cut on curb of parapet Ramp E at Sta. 100+00 (T.B.M. #1) 625.11

Existing Structure: Il. Rte. 171 S. Bd. to F.A.I. Rte. 55 E. Bd. Ramp E. Sec. 0707-614B. Sta. 106+26.32, Str. No. 016-1026. Built in 1964 as a seven span multi beam/girder, four continuous spans with a hinge and four simple spans. The substructure consists of two straight, multi column spread footing piers, five solid wall spread footing piers and a pile bent abutment. Traffic will be detoured utilizing alternate routes during rehabilitation.

No Salvage.



GENERAL NOTES

Reinforcement bars shall conform to the requirements of AASHTO M-31, M-42 or M-53 Grade 60.
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.
Field welding of construction accessories will not be permitted to the bottom flange of girders nor to the top flange for a distance equal to one-fourth the span length each way from the pier supports. Field welding in other areas will be permitted only when approved by the Engineer.

The Inorganic Zinc-Silicate/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/B.
Cleaning and painting of the existing structural steel shall be specified in the Special Provision for "Cleaning and Painting Existing Steel Structures". All existing structural steel within 5 feet of either side of expansion joints shall be cleaned and painted by Method 1. All remaining existing structural steel shall be cleaned by Method 2. The Lead and Chromate Free Alkyd Paint System shall be used for painting of existing structural steel. The prime and intermediate coats shall be applied as specified in the special provision, followed by a spot final finish coat over all newly primed steel surfaces. The color of the final finish coat shall be Interstate Green, Munsell No. 7.5G 4/B.

The estimated area to be cleaned by Method 1 is 6,570 sq. ft.
The Contractor will be required to mark, on top of the concrete deck, the locations of the top flange of all the steel girders, prior to any removal of the bridge concrete deck. Saw cutting directly over the top of the girder flanges is not permitted.

Contractor should exercise extreme care so as not to damage existing shear studs.
Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of 1/8 inch. Adjustment shall be made either by grinding the surface or by shimming the bearing. Two 1/8" adjusting shims, of the dimension 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 of the dimensions of the top plate shall be provided as detailed).

Asbestos material is on waterproofing membrane.

SCOPE OF WORK

- Rehabilitation consists of removal and replacement of existing concrete deck.
- Replacement of all expansion joints.
- Removal and replacement of expansion bearings.
- Repair of cracks and spalls on substructure.
- Removal and replacement of section of abutment.

For Light Post locations see sheets 6 & 8 of 24.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Removal of Existing Concrete Deck	Each	1		1
Bridge Deck Grooving	Sq. Yd.	2340		2340
Class X Concrete Superstructure	Cu. Yd.	771.8		771.8
Protective Coat	Sq. Yd.	569		569
Elastomeric Brg. Assembly, Type I	Each	18		18
Elastomeric Brg. Assembly, Type II	Each	4		4
Furn. & Erect. Structural Steel	Pound	9050		9050
Concrete Removal	Cu. Yd.	7.8		7.8
Cleaning and Painting Steel Bridge	L.S.	0.32		0.32
Reinforcement Bars, Epoxy Coated	Pound	200,760		200,760
Name Plates	Each	1		1
Jack & Remove Existing Bearings	Each	22		22
Epoxy Crack Sealing	Lin. Ft.		15	15
Drainage Scuppers	Each	9		9
Stud Shear Connectors	Each	2480		2480
Bar Splicers	Each	20		20
Neoprene Expansion Joint 2"	Lin. Ft.	31		31
Neoprene Expansion Joint 2 1/2"	Lin. Ft.	31		31
Neoprene Expansion Joint 4"	Lin. Ft.	76		76
Preformed Joint Seal 1 1/2"	Lin. Ft.	58		58
Preformed Joint Seal 4"	Lin. Ft.	69		69
Formed Concrete Repair Depth ≤ 5"	Sq. Ft.		189	189
Power Tool Cleaning Residue Containment and Disposal	L.S.	0.32		0.32
Blasting Residue Containment and Disposal	L.S.	0.32		0.32
Giluminous Conc. Surface Removal (Asb.)	Sq. Yd.	1704		1704

* Quantity is for top and inside surfaces of Parapets.

LOADING HS20-44 (New Construction)

DESIGN SPECIFICATIONS

1992 AASHTO & 1993 Interim

DESIGN STRESSES

Proposed $f_c = 3,500$ ps
 $f_y = 60,000$ psi (reinforcement)
Existing $f_c = 20,000$ psi (struct.)
 $f_y = 36,000$ psi (M270 Gr.36)

SEISMIC DATA

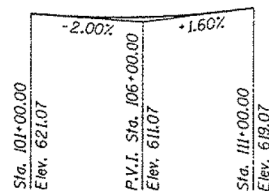
Seismic Performance Category (SPC) = A
Acceleration Coefficient (A) = 0.038g
Site Coefficient (S) = 1.2

STATION 106+26.32
REBUILT 199 BY
STATE OF ILLINOIS
F.A.I. RT. 55 SEC. 0707-614B
F.A. PROJ.
LOADING HS20
STR. NO. 016-1026

NAME PLATE

See Sta. 2113
Clean and relocate existing name plate adjacent to new name plate. Cost incidental to new Name Plate.

PROFILE GRADE



S.E. = 0.02'/'
S.E. Transition
Sta. 101+00.00, 0.08'/E to
Sta. 103+00.00, 0.023'/E to
Sta. 103+25.00, 0.02'/E
East of Profile Grade Line
Sta. 107+50.00, 0.02'/E to
Sta. 108+50.00, 0.00'/E to
Sta. 111+00.00, 0.08'/W
West of Profile Grade Line
Sta. 103+50.00
S.E. = 0.02'/E

DESIGNED **Victor H. Veltz**
CHECKED **Nicholas J. Smith**
DRAWN **r.b. carbonell**
CHECKED **VHV UJS**

EXAMINED **Greg D. Koop**
PASSED **Ralph L. Anderson**



Rev.

GENERAL PLAN
ILLINOIS ROUTE 171 S. BD. TO
F.A.I. ROUTE 55 E. BD.
RAMP E
OVER DES PLAINES RIVER
F.A.I. ROUTE 55 - SEC. 0707-614B
COOK COUNTY
STATION 106+26.32
STRUCTURE NO. 016-1026

FILE NAME =	USER NAME = tjenicke	DESIGNED - FSM	REVISIONS -
0161026_60J16_X16_existplan16.dgn		CHECKED - RMM	REVISIONS -
		DRAWN - FSM	REVISIONS -
		CHECKED - RMM	REVISIONS -
			REVISIONS -

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
372	2013-038B-R	COOK	821	576
CONTRACT NO. 60J16				
ILLINOIS FED. AID PROJECT				