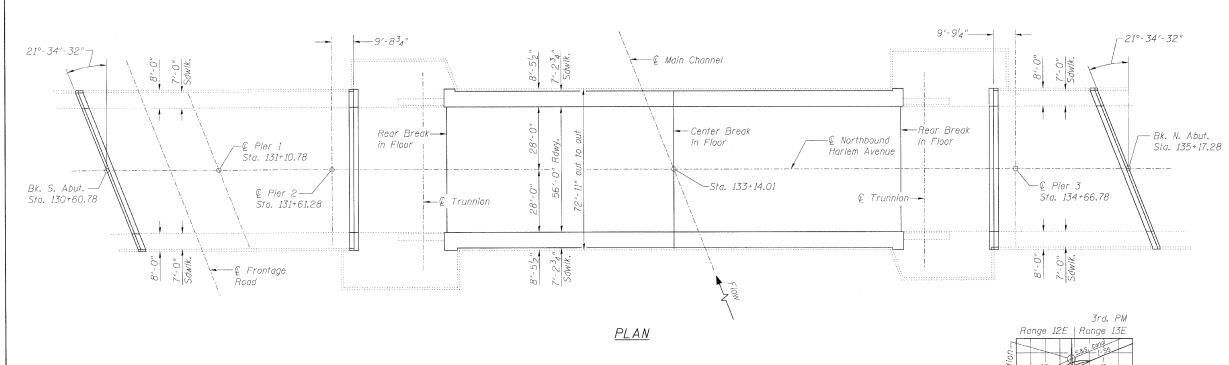
Existing Structure: S.N. 016-0315 built in 1931 as F.A.P. 42, Section 207-0708.08-CF. Existing structure is a double leaf steel bascule bridge. In 1970, the superstructure of the approach spans was replaced with steel stringers and a reinforced concrete deck. In 1990, the timber deck of the bascule spans was replaced with a $5\frac{4}{16}$ " welded steel grid deck, half-filled with concrete. The approach span decks were partially replaced and a 2" concrete overlay was placed. In 1999, the epoxy overlay on the bascule spans was removed and replaced with a $\frac{3}{8}$ " polymer concrete overlay. Approach spans have steel stringers and reinforced concrete deck. Bridge length is 456'-6" from back to back abutments. The abutments and piers are reinforced concrete. Piers consist of multiple columns with a continuous cap beam. The abutments are counterfort type. Stage Construction shall be utilized to maintain traffic during construction.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

456'-6" Back to Back Abutment 50'-6" 50'-6" 305'-6" 224'-0" 31'-0" € Pier 2 € Exp. - Back of N. **→**---@ Trunnion C Pier 3 & EXD. Back of S .-€ Pier 1 -*Abutment* Abutment 1 W36x150 (Typ) ├**-**£ Frontage ! Road

ELEVATION



DESIGN STRESSES FIELD UNITS

New Construction

f'c = 3,500 psi

fy = 60,000 psi (Reinforcement)

fy = 36,000 psi (Normal Steel) (M270 Gr. 36)

DESIGN SPECIFICATIONS

(New Construction) 2002 AASHTO "Standard Specifications for Highway Bridges", 17th Edition

LOADING HS 20-44

(Original Construction)

SCOPE OF WORK

- 1. Remove and replace polymer epoxy overlay within main bascule spans.
- 2. Reconstruct expansion joints at abutments and near Piers 2 and 3.
- Apply Concrete Sealer to top of concrete deck on approach spans and top and inside faces of parapets and sidewalk/curb.
- 4. Repair deteriorated concrete on piers, abutments and Tender Houses.
- 5. Jack and remove existing abutment bearings at beams 1, 2 9 & 10 and replace with elastomeric bearings.
- 6. Eliminate/Extend deck drains.
- 7. Clean Rear Break Gutters and flush drain.
- Power wash all steel and concrete surfaces in Tender Houses and remove debris.
- 9. Pump water and remove debris from pits.
- 10. Drill drain holes in truss member BTS1.

INDEX OF SHEETS

- 1. General Plan and Elevation
- 2. General Notes and Details
- 3. Temporary Concrete Barrier for Stage Construction
- 4. Deck Slab Details
- 5. Expansion Joint Concrete Removal at Abutments
- 6. Expansion Joint Concrete Removal at Tender House
- Expansion Joint Concrete Details at Abutments
- 8. Expansion Joint Concrete Details at Tender House
- 9. South Abutment Bearing Details
- 10. North Abutment Bearing Details
- 11. Miscellaneous Repair Details -
- 12. Miscellaneous Repair Details -
- 13. Substructure Repair Details -
- 14. Substructure Repair Details 2 15. Substructure Repair Details - 3
- 16. Preformed Joint Strip Seal
- 15. Preformed Joint Strip Sedi 17. Bar Splicer Assembly and Mechanical Splicer Details
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Michael T. Haley (

. Haley 0 Structural Engineer

5/5/10

Date

Licensed Structural Engineer State of Illinois No. 81-5991 Expires 11/30/2010

GENERAL PLAN AND ELEVATION

NB IL RTE 43 (HARLEM AVE) OVER

SANITARY & SHIP CANAL

F.A.P. RTE 348 - SECTION (0708.1&2323.5)B

<u>COOK COUNTY</u> <u>STATION 133+14.01</u> <u>STRUCTURE NO. 016-0315</u>



LOCATION SKETCH

		STITIOT ONE IN	0. 010 031	<u> </u>	
NO. 1	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	348	(0708.1&2323.5)B	COOK	47	12
TS			CONTRACT	NO. 6	OD69
	THE INDIS FED AID PROJECT				