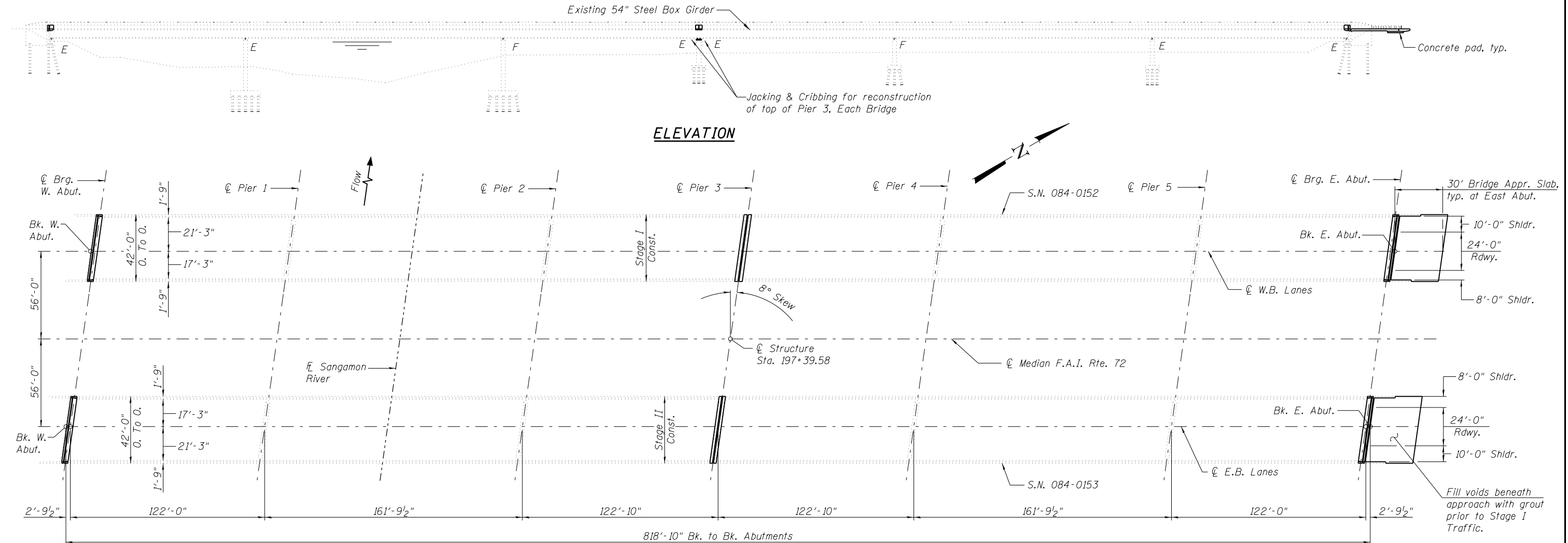


Benchmark:
Chiseled "□" on top of south wingwall of west abutment of S.N. 084-0152, Elev. 548.408 (NAVD88)

Existing Structures:
Structure Nos. 084-0152 and 084-0153, constructed in 1974 as F.A.I. Rte. 72, Section 84-10-1B-2, are dual six span continuous steel box girder superstructures with a 7½" reinforced concrete deck supported by solid wall piers and stub abutments. In 1995, the decks were patched, overlay was placed, the expansion joints at abutments and pier 3 were reconstructed, the west backwalls and approaches were replaced, half at the floor drains were plugged, and the bearing plates were replaced. The structures are 818'-10" bk. to bk. abutments, 42'-0" out to out and have a left ahead skew angle of 8°. A crossover shall be utilized to maintain one lane of traffic in each direction during construction.



ELEVATION

PLAN

DESIGN SPECIFICATIONS

(New Construction)
2002 AASHTO "Standard Specifications for Highway Bridges"

LOADING HS20-44 & ALT.

(Original Construction)

DESIGN STRESSES

FIELD UNITS

New Construction

$f'_c = 3,500$ psi
 $f_y = 60,000$ psi (Reinforcement)
 $f_y = 36,000$ psi (M270, Gr. 36, Structural Steel)

Existing Construction

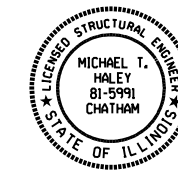
$f_c = 1,200$ psi (Deck Slab)
 $f_c = 1,400$ psi (Parapet, Curb & Sub.)
 $f_s = 20,000$ psi (Reinforcement)
 $f_s = 20,000$ psi (A-36) (Structural Steel)
 $f_s = 27,000$ psi (A-572) (Structural Steel)

SCOPE OF WORK

1. Remove and replace backwall and approach slab at east abutments.
2. Repair steel at girder ends.
3. Jack and remove existing expansion bearings and replace with elastomeric bearings at Pier 3 and abutments.
4. Reconstruct top of Pier 3 and replace bearings utilizing Jacking and Cribbing and perform Structural Repair of Concrete at Pier 3.
5. Remove and replace concrete deck and parapets adjacent to expansion joints at abutments and pier 3 in order to install preformed joint strip seal expansion joints.
6. Remove existing overlay by scarifying deck 2¼".
7. Repair deck slab.
8. Place 2½" latex concrete overlay on bridge deck and diamond grind ¼".
9. Apply Protective Coat to top of new deck and top and inside faces of parapet concrete at joints and on top of new approach slab.
10. Perform Bridge Deck Grooving to top of bridge deck overlay and new concrete at joints and on new approach slab.
11. Provide scour protection upstream of Pier 2 (S.N. 084-0153).

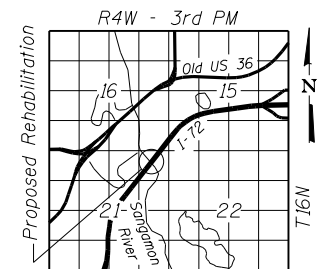
INDEX OF SHEETS

1. General Plan and Elevation
2. General Data
3. Stage Construction Details
4. Temporary Concrete Barrier for Stage Construction
- 5-6. Deck Repair
7. Joint Replacement Details at West Abutments
8. Joint Replacement Details at East Abutments
9. Joint Replacement Details at Pier 3
10. Preformed Joint Strip Seal
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12. Bearing Details at Pier 3
13. Bearing Details
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- 15-16. East Bridge Approach Slab Details
17. Scour Protection Details
18. Bar Splicer Assembly and Mechanical Splicer Details
- 19-20. Existing Steel Support Details



Michael T. Haley
Licensed Structural Engineer
State of Illinois No. 81-5991
Expires 11/30/2012

Date



LOCATION SKETCH

GENERAL PLAN AND ELEVATION
I-72/US 36 OVER SANGAMON RIVER
FAI RTE 72 - SECTION (84-10-1,2)RS-3
SANGAMON COUNTY
STATION 197+39.58
STRUCTURES NOS. 084-0152 & 084-0153

LE LIN ENGINEERING, LTD. Consulting Engineers Springfield, Illinois	USER NAME =	DESIGNED - ESH	REVISED -
	FILE NAME =	CHECKED - MTH	REVISED -
	PLOT SCALE =	DRAWN - ESH	REVISED -
	PLOT DATE =	CHECKED - MTH	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION
STRUCTURE NOS. 084-0152 & 084-0153

SHEET NO. 1 OF 20 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(84-10-1)BDR	SANGAMON	15	15
CONTRACT NO. 72F01				
ILLINOIS FED. AID PROJECT				