Benchmarks: Cut square, bottom step, SW wingwall; Sta. 239+26, 19.5' W. of IL 32, Elev. 634.277
Cut square, bottom step, NE wingwall; Sta. 232+61, 20.0' E. of IL 32, Elev. 636.534

Existing structure: S.N. 070-0015 built in 1967 as SBI 32, Section 2BR at Sta. 235+82.75. The existing structure consists of two four-span continuous steel WF36 superstructure units with composite reinforced concrete deck in the positive moment regions and bituminous wearing surface supported by concrete abutments founded on steel H-piles and concrete hammerhead piers founded on either spread footings or pile supported footings. The back-to-back abutment length is 648'-6" and the out-to-out deck width is 36'-0". The existing deck and bearings at the expansion joints are to be removed and replaced. Traffic is to be maintained using stage construction.

Salvage: None

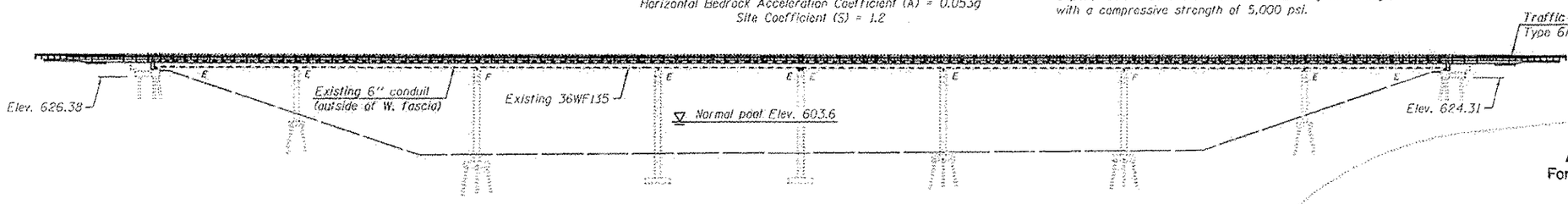
DESIGN SPECIFICATIONS
2002 AASHTO Standard Specifications

LOADING HS20-44
No future wearing surface.

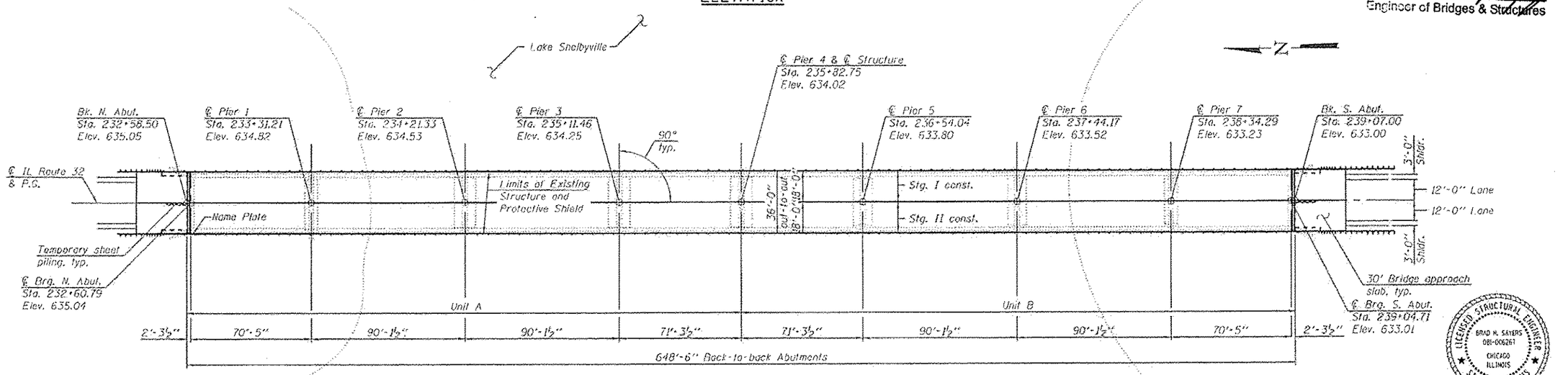
SEISMIC DATA
Seismic Performance Category (SPC) = A
Horizontal Bedrock Acceleration Coefficient (A) = 0.053g
Site Coefficient (S) = 1.2

DESIGN STRESSES
FIELD UNITS (New Construction)
f'c = 3,500 psi *
fy = 60,000 psi (Reinforcement)
FIELD UNITS (Existing Construction)
f'c = 3,500 psi
fy = 40,000 psi (Reinforcement)
fy = 36,000 psi (Structural steel)

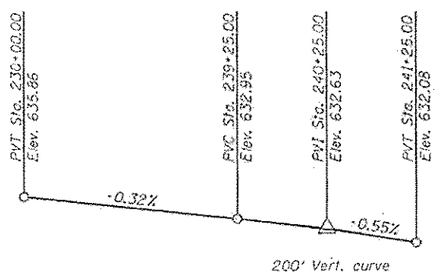
* Superstructure concrete shall have a 28-day mix design with a compressive strength of 5,000 psi.



ELEVATION



PLAN

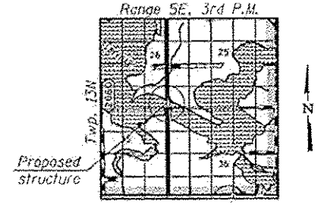


PROFILE GRADE
(Along ℄ IL Route 32)

SCOPE OF WORK

1. Remove and replace existing 7" concrete deck (composite in positive moment areas) with new 8" concrete deck (composite in positive moment areas).
2. Remove and replace the existing steel rocker bearings with elastomeric bearings at the Abutments and Pier 4 only.
3. Remove and replace the existing expansion joints. Replace the existing diaphragms at the expansion joints.
4. Beam end repairs shall be completed at locations specified by the District as provided in this plan set. Remaining beam end conditions shall be verified by the District during construction.
5. Remove and replace the existing backwalls and approach pavements. Existing abutment wingwalls shall be removed as required for construction of the new backwalls and approach pavements.
6. Structural Repair of Concrete at Pier 4.
7. Bridge will be painted on a separate paint only contract.

CURVE DATA
P.I. Sta. = 228+00.00
Δ = 0° 40' 08" Rt.
D = 0° 04' 27"
R = 77,109.25'
T = 450.05'
L = 900.09'
E = 1.31'
P.C. Sta. = 223+49.95
P.T. Sta. = 232+50.04



LOCATION SKETCH

APPROVED
For Structural Adequacy Only
Engineer of Bridges & Structures

LICENSED STRUCTURAL ENGINEER
BRAD H. SAYERS
081-006267
CHICAGO
ILLINOIS
STATE OF ILLINOIS

BRAD H. SAYERS, S.E.
IL. LIC. NO. 081-006267
EXP 11-30-2014
DATE 8-29-2014

GENERAL PLAN & ELEVATION
ILLINOIS ROUTE 32 OVER LAKE SHELBYVILLE
F.A.P. RTE. 762 - SEC. (2BR)BR-1
MOULTRIE COUNTY
STATION 235+82.75
STRUCTURE NO. 070-0015

USER NAME = bsayers	DESIGNED - JSR	REVISED -	
	CHECKED - BHS	REVISED -	
PLOT SCALE = N/A	DRAWN - MJB	REVISED -	
PLOT DATE = 8/29/2014	CHECKED - BPS	REVISED -	

Stantec

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN & ELEVATION
STRUCTURE NO. 070-0015
SHEET NO. 1 OF 28 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
762	(2BR)BR-1	MOULTRIE	48	21
		CONTRACT NO. 74357		
	ILLINOIS FED. AID PROJECT			

FILE NAME = s:\1375\active\1375620099_1501_il_32_over_LakeShelbyville\structure\sheeting\070015_74357_001_General Plan.dgn