

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	2021.1B-R	COOK	101	065
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT	
CONTRACT NO. 62532				

BENCHMARK
Chiseled "X" on north flange bolt of fire hydrant, El. 619.37 located at the SE corner of 111th St. and Hamlet.

EXISTING STRUCTURE
Dan Ryan Expressway - West Leg at 111th Street. No. 016-0989, Built in 1965 as Part of F.A.I. Route 57. The superstructure consists of three span simply supported steel beams supporting a 7" composite concrete deck with a 4" concrete overlay. Piers are 2'-6" solid concrete wall. Bridge will be closed during construction.

SALVAGE
None.

DESIGN SPECIFICATIONS:
AASHTO Standard Specifications for Highway Bridges 17th Edition, 2002. Load Factor Design

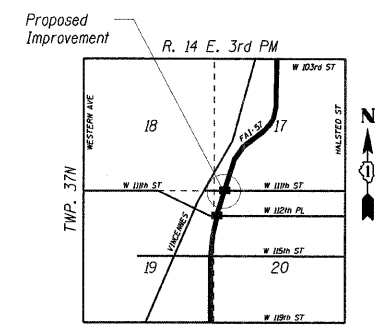
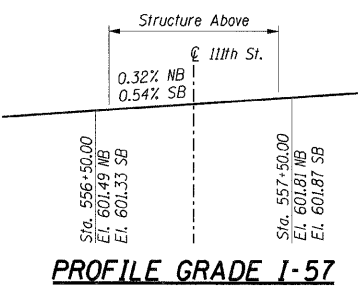
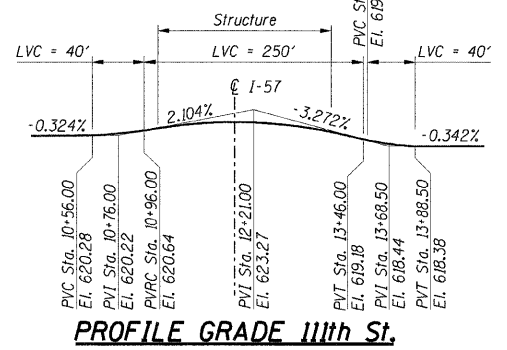
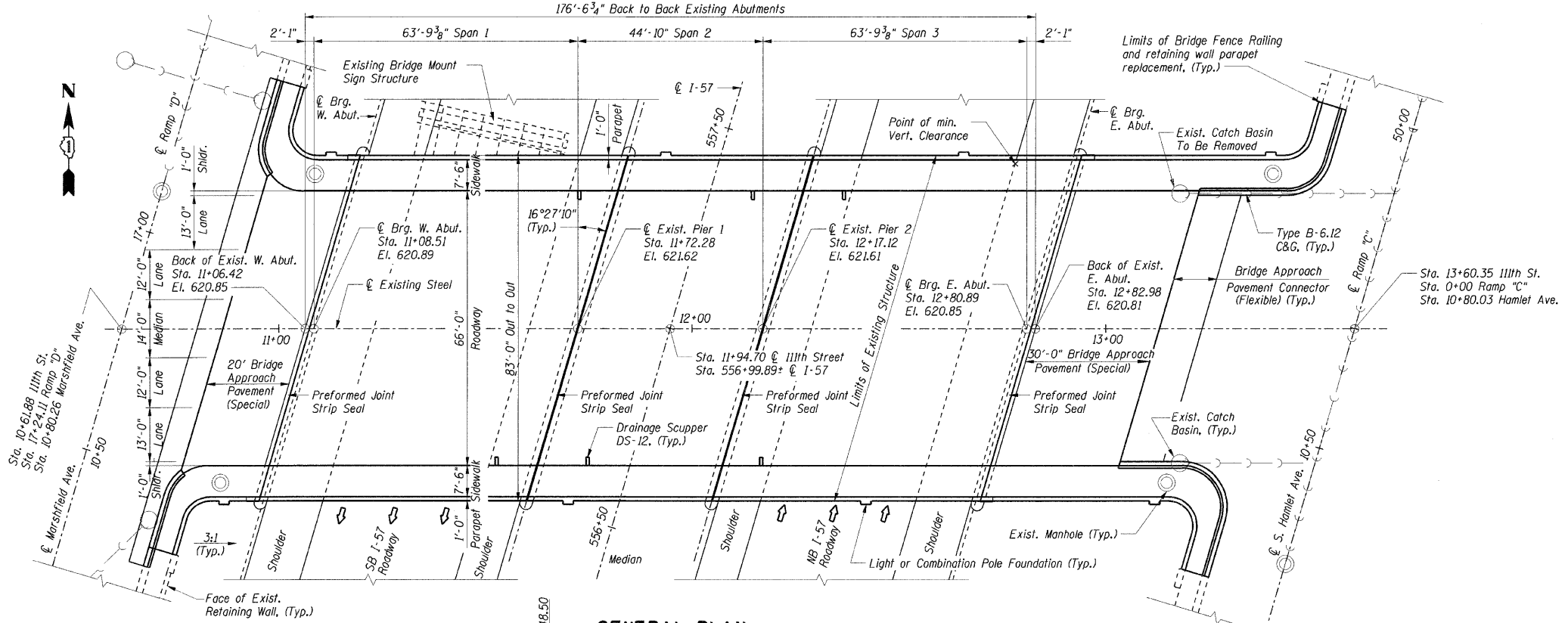
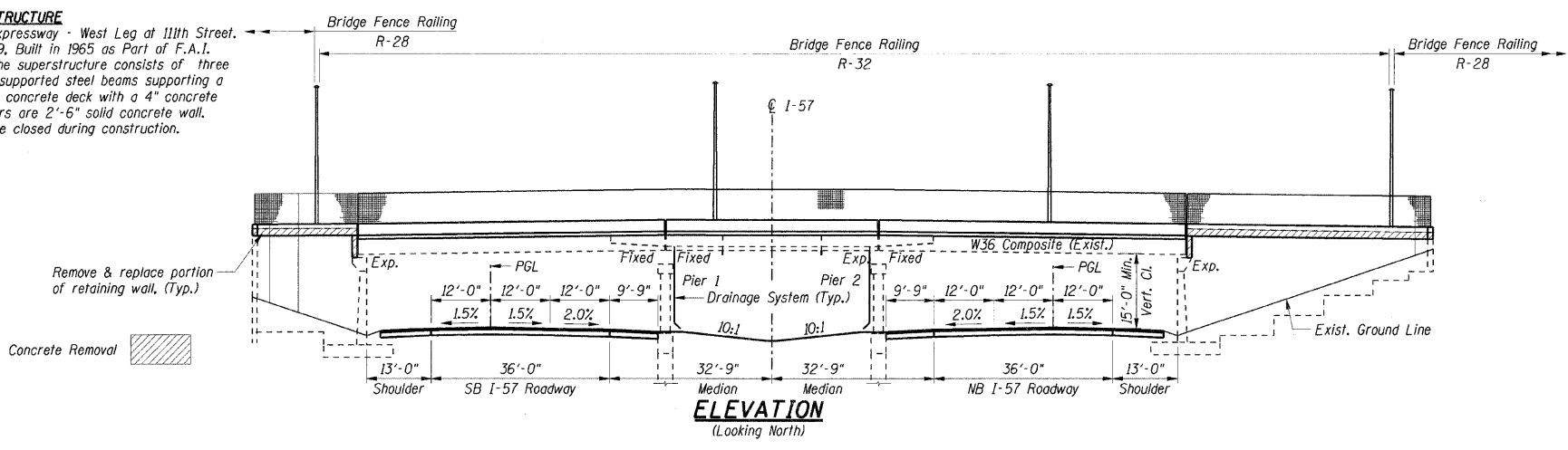
DESIGN LOADING:
Roadway Live Load: HS20-44
Future Wearing Surface = 50 psf

DESIGN STRESSES:
New Construction:
Class B5 Concrete, $f'_c = 4,000$ psi
Class S1 Concrete, $f'_c = 3,500$ psi
Reinforcement, $f_y = 60,000$ psi
Structural Steel, $f_y = 36,000$ psi
 $f_y = 50,000$ psi (Bearing Plates and Extensions)

Existing Construction:
Concrete, $f_c = 1,400$ psi
Reinforcement, $f_y = 40,000$ psi
Structural Steel, $f_y = 36,000$ psi

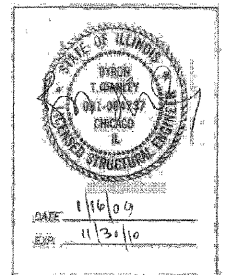
SEISMIC DATA:
Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 0.04g
Site Coefficient (S) = 1.0

Alignment Notes:
The alignments for I-57 and 111th Street shown on Shts. S-001 thru S-024 are based on record plan information. The alignments for I-57 and 111th Street shown on Sht. 015 are based on best fit alignments.



APPROVED
FOR STRUCTURAL ADEQUACY ONLY

Relph E Anderson
ENGINEER OF BRIDGES AND STRUCTURES



SHT. S-001

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 57 (INTERSTATE 57)
111TH STREET BRIDGE DECK REPLACEMENT
111TH STREET OVER I-57
SN 016-0989 STA. 556+99.89
COOK COUNTY

GENERAL PLAN AND ELEVATION

DATE: 01/16/09
DRAWN BY: TMH
CHECKED BY: JLR

TENG
TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
225 N. MICHIGAN AVE., CHICAGO, IL 60601
TELEPHONE 312.543.0000

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