

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				

**BENCH MARK**  
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

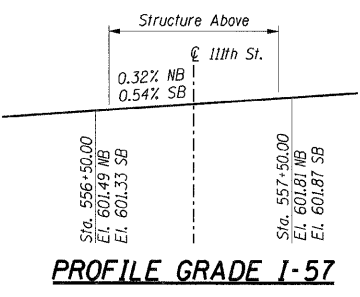
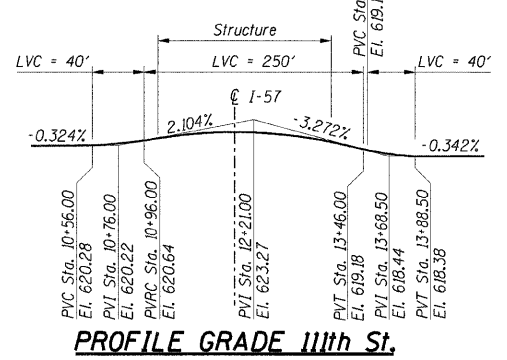
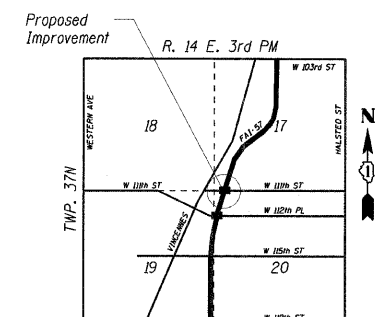
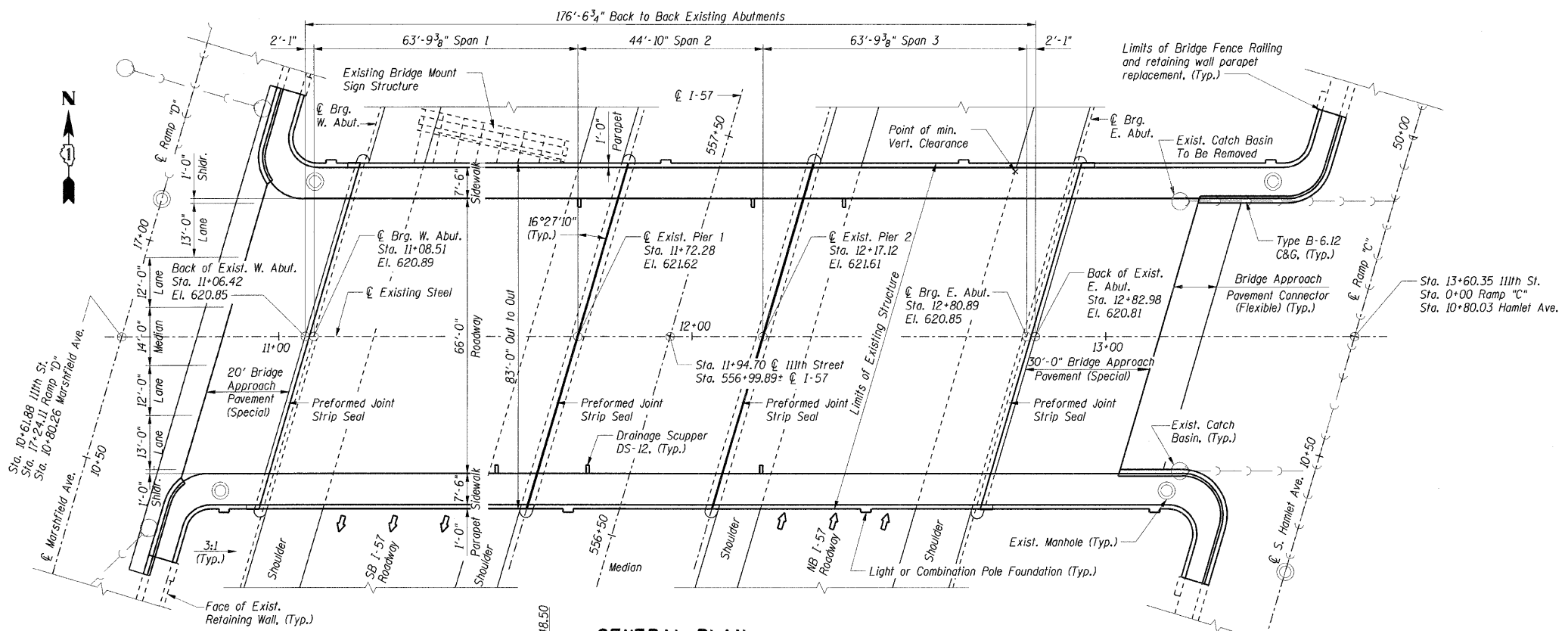
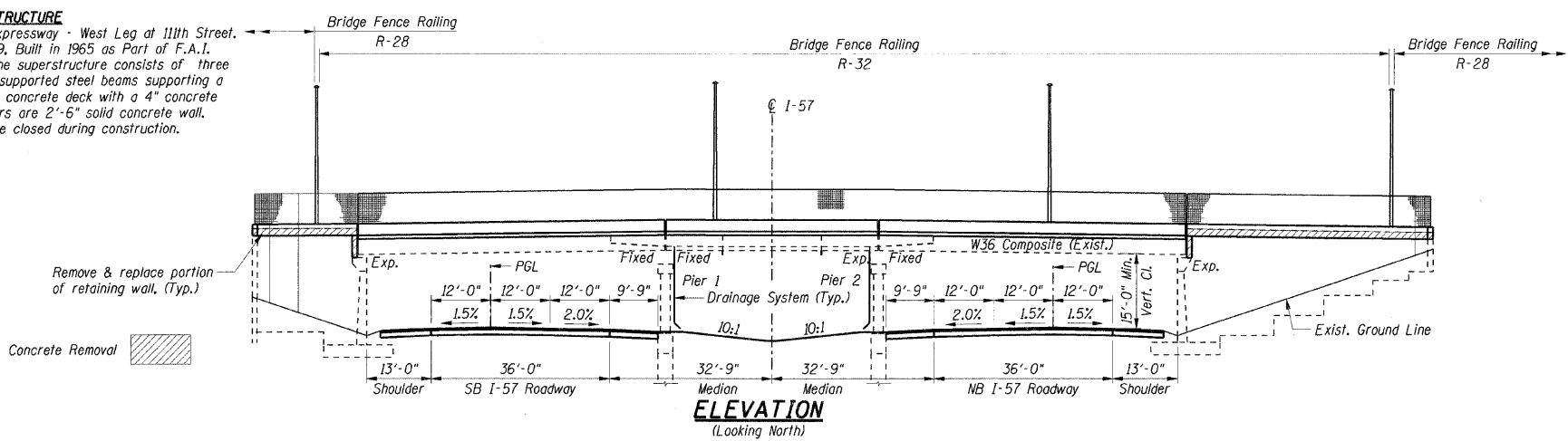
**DESIGN LOADING:**  
Roadway Live Load: HS20-44  
Future Wearing Surface = 50 psf

**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

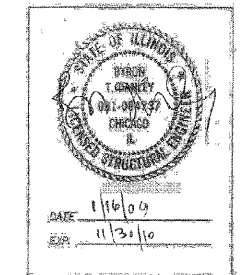
**SEISMIC DATA:**  
Seismic Performance Category (SPC) = A  
Bedrock Acceleration Coefficient (A) = 0.04g  
Site Coefficient (S) = 1.0

**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**  
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TELEPHONE: 312.536.0000

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