F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	*	COOK	907	671
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

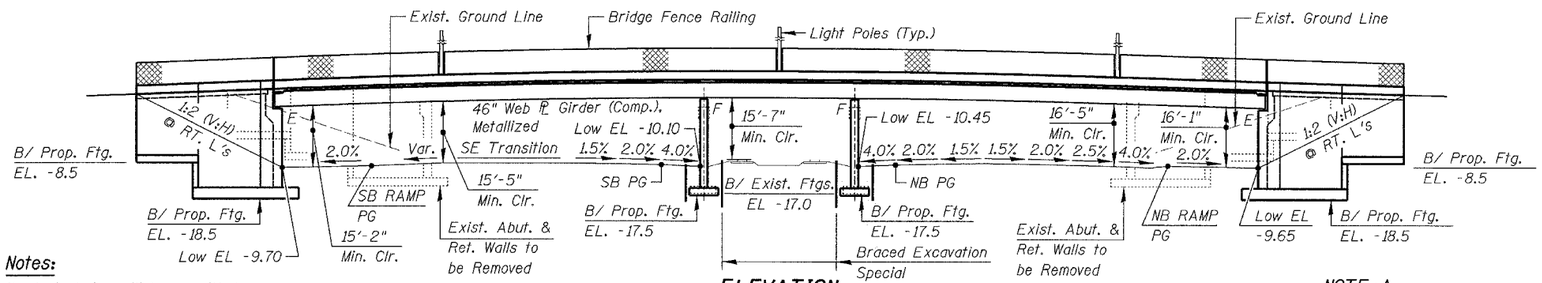
* (1516.1, 1717 & 1818) R-9

62695

Bench Mark: Set "X" on South bolt of fire hydrant at Northwest corner of South Perry Avenue and West 76th Street. Elevation 8.69.

Existing Structure: SN 016-0890 built over FAI Route 4, Section 066-1818.4-15D in 1958. Existing Structure is a 3-simple span (74'-6¼" x 41'-6" x 74'-6¼") with 193'-0½" Bk. To Bk. Abuts. The existing abutments are high closed abutments with counterfort wingwalls supported on spread footings. The existing piers are solid wall type supported on spread footings. The existing superstructure consists of a reinforced concrete deck, 7" thick and 83'-0" out to out width, supported by 16-48" simple span PPC I-Beams. The entire structure is to be removed. No Salvage

Construction Staging: Not required. 76th Street will be closed during the reconstruction of the bridge.



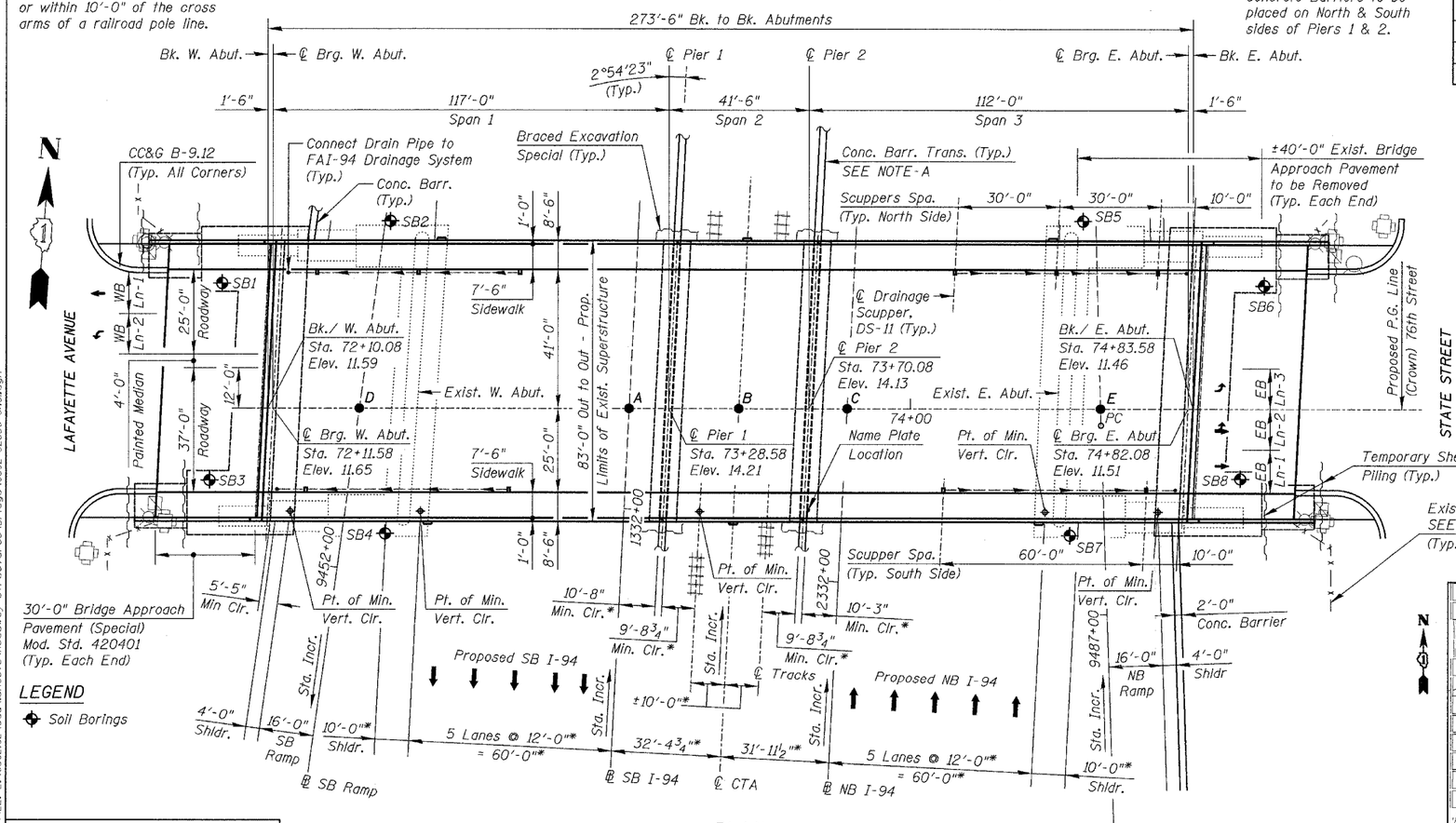
ELEVATION

Notes:

No deck drains will be permitted in the span over the CTA tracks or within 10'-0" of the cross arms of a railroad pole line.

NOTE-A

Concrete Barriers to be placed on North & South sides of Piers 1 & 2.



LEGEND

Soil Borings

PLAN

* Dimensions Perpendicular to ℄ FAI 94

LOADING HS20-44

Allow 50#/sq. ft. for future wearing surface.

DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications for Highway Bridges

DESIGN STRESSES

FIELD UNITS

f'_c = 3,500 psi
f_y = 60,000 psi (reinforcement)
f_y = 50,000 psi (Structural Steel) (M270 Grade 50)
f_y = 36,000 psi (Structural Steel) (M270 Grade 36)

SEISMIC DATA

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

STATION EQUATIONS & SKEW ANGLES

Points	Stations along P.G. 76th Street	Stations	Alignments	Skew/Tangent Angles
A	73+16.89	1332+29.71	℄ SB I-94	2° 54' 55"
B	73+49.33	159+51.32	℄ CTA	2° 54' 23"
C	73+81.34	2332+51.16	℄ NB I-94	2° 55' 32"
D	72+37.16	9451+52.52	℄ SB Ramp	7° 54' 55"
E	74+56.26	9487+60.80	℄ NB Ramp	1° 50' 26"

CURVE DATA

℄ NB RAMP
Curve 7976B-1
Δ = 2° 10' 40" (RT)
D = 1° 08' 32"
R = 5016.00'
T = 95.34'
L = 190.65'
E = 0.91'
PC Sta. 9487+55.87
PT Sta. 9489+46.51
PI Sta. 9488+51.20

INDEX OF DRAWINGS

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S-05	Top of Slab Elevations
S-06	Top of Slab Elevations
S-07	Top of Slab Elevations
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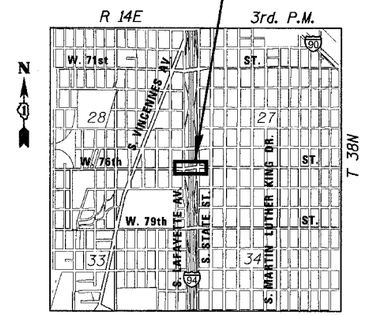
APPROVED
FOR STRUCTURAL ADEQUACY ONLY
Ralph E. Anderson (TJD)
ENGINEER OF BRIDGES AND STRUCTURES

STATE OF ILLINOIS
WILLIAM P. MURPHY
081-004491
CHICAGO IL
LICENSED STRUCTURAL ENGINEER
William P. Murphy 3/25/05
Exp. 11/30/06



LOCATION MAP

Notes:

SEE DWG. S-02 for General Notes & Total Bill of Material.

SEE DWG. S-02 for all Profile Grade Lines.

Elevations shown are based on City of Chicago Datum.
USGS Elevation = City of Chicago Elevation + 579.19

DWG. S-01 of 42

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
GENERAL PLAN & ELEVATION
76TH STREET OVER FAI-94
FAP ROUTE 1541 SECTION 1818 R-9
COOK COUNTY
STATION 73+49.33
STRUCTURE NUMBER 016-2850

SCALE: NONE DESIGNED BY: WPM DRAWN BY: TB
DATE: March 25, 2005 CHECKED BY: TB CHECKED BY: WPM

KNIGHT
Engineers & Architects

FILE: L:\6592.02\Cad\Sheets\Roadway Structures\Bridge\6592-52850-GN01.dgn