

Bench Mark:

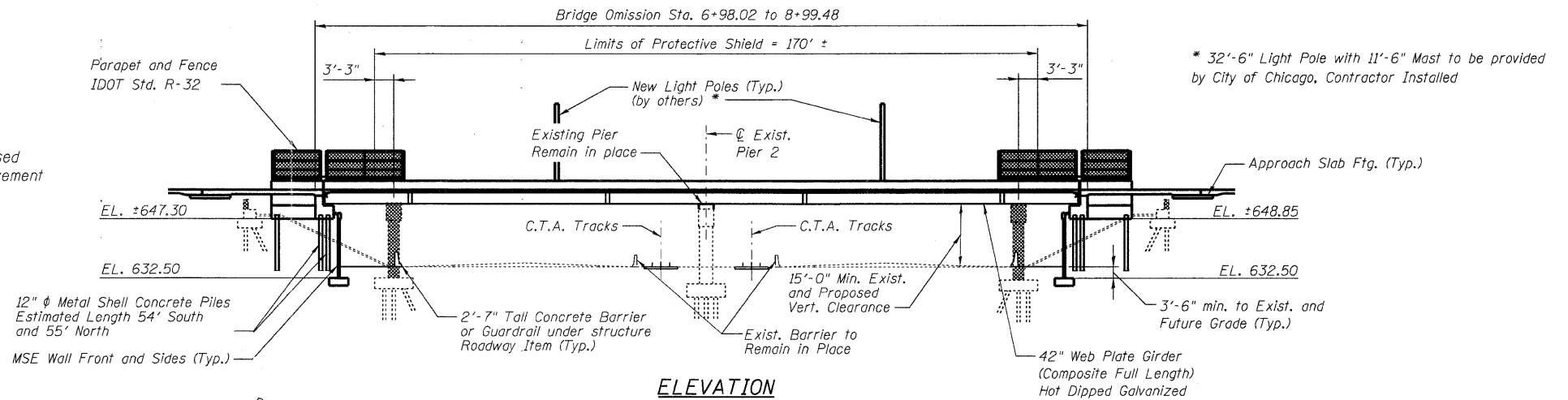
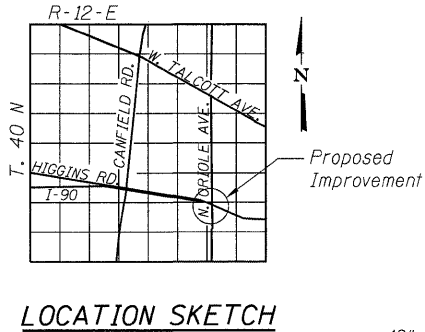
BM-10R Top of Chain Bolt of Fire Hydrant at SW Corner of Higgins and Oriole
 El. 655.73

Salvage:

Metal Railing

Existing Bridge Description:

Structure No. 016-1101 was built in 1958 as the N. Oriole Avenue Grade Separation. The Superstructure consists of a four span simple, Precast, Pretensioned Concrete Beam system, with a 7" thick reinforced concrete deck and a 2" concrete wearing surface. The span lengths from north to south are 39'-3⁵/₈", 81'-6", 81'-6" and 36'-0⁵/₈". Total length, back to back of abutments is 238'-4¹/₄". The beam spacing is 6'-6" except for the two center stringers which have spacing of 4'-0". The substructure consists of two reinforced concrete pile bent abutments with wing walls and three reinforced concrete piers. Both abutments and all three piers are founded on reinforced concrete pile caps and metal shell cast-in-place concrete piles. The deck out-to-out dimension is 61'-0" and varies at ends. The deck cross section consists of two 11'-0" traffic lanes in each direction and a 8'-6" sidewalk on each side. There are aluminum railings on either side of the deck. The abutment bearings and the bearing at pier 2 are fixed. Piers 1 and 3 provide expansion for all spans through sliding plate bearings. Bridge will be closed to traffic during construction. All adjacent streets and highways to remain open.



STATION 8+00.00
 REBUILT 201 BY
 STATE OF ILLINOIS
 SECTION 1515.1-B
 LOADING HL-93
 STR. NO. 016-1101

NAME PLATE

Std. 515001

The existing name plate if available is to be cleaned and attached adjacent to the new name plate. Cost is included with Pay Item "Name Plates".

Seismic Data

Soil Site Class: = D
 LRFD Seismic Performance Zone (SPZ) = 1
 Design Spectral Acceleration at 1.0 sec.
 (S_{D1}) = .084g for Site Class D
 Design Spectral Acceleration at 0.2 sec.
 (S_{D5}) = .0144g for Site Class D

Design Specification

2010 AASHTO LRFD
 Bridge Design Specifications with 2010 Interims
Loading HL-93
 Allow 50 psf for future wearing surface

Design Stresses

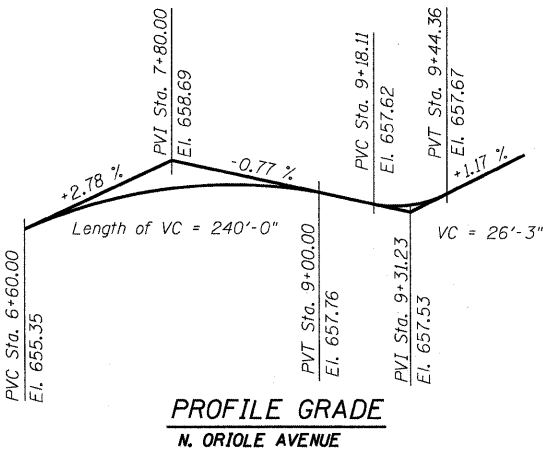
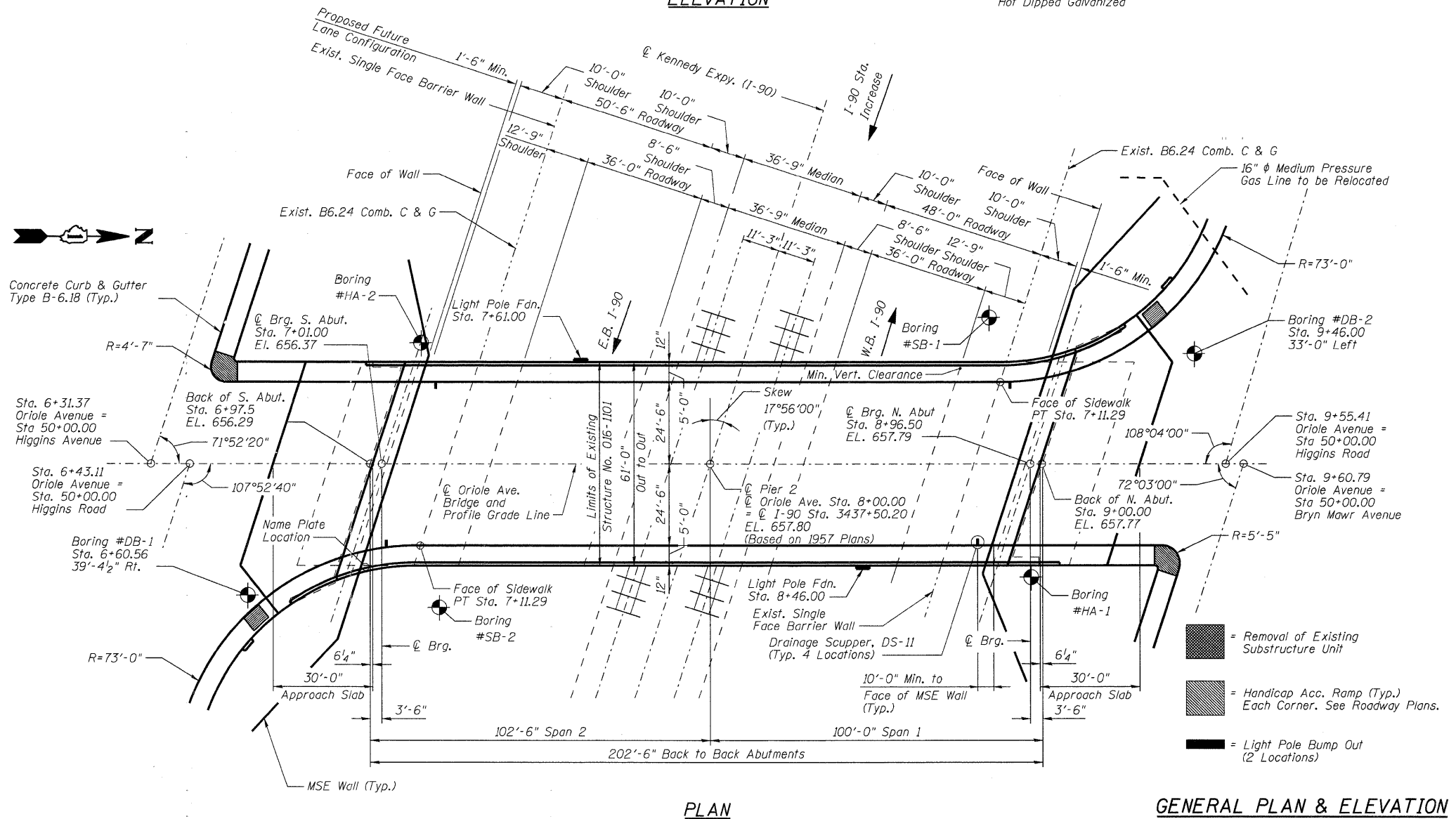
New Construction Concrete
 f'_c = 3,500 psi
 f_y = 60 ksi

Steel

f_y = 50 ksi (M270 Grade 50)
 f_y = 36 ksi (M270 Grade 36)

Existing Construction

f'_c = 3,000 psi
 f_s = 40 ksi (Reinf.)



APPROVED
 FOR STRUCTURAL ADEQUACY
 J. Carl Pappas (P.E.)
 ENGINEER OF BRIDGES AND STRUCTURES

GENERAL PLAN & ELEVATION
ORIOLE AVE. OVER
KENNEDY EXPY. FAI-90
SEC. 1515.1-B
COOK COUNTY
STATION 8+00.00
STRUCTURE NO. 016-1101

ABNA
 DESIGN FIRM REG. 184.002117
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 Chicago, IL 60643
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 F: 773.239.3728

DESIGNED - SEA	REVISD -
CHECKED - R.J.L.	REVISD -
DRAWN - JUE / SCS	REVISD -
CHECKED - SEA	REVISD -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION
STRUCTURE NO. 016-1101
 SHEET NO. 1 OF 36 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	1515.1-B	COOK	101	44
STA. TO STA.	CONTRACT NO.		60M79	
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			