

ROUTE Various	SECTION 2004-089 I	COUNTY COOK	TOTAL SHEETS 27	SHEET NUMBER 22
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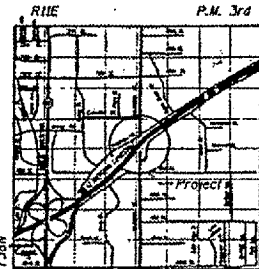
CONTRACT 62833

Bench Mark
Top of existing Northeast Wingwall El. 734.38

Existing Structure: S.N. 022-0003 is a three span simple P.P.C. 1-beam structure with a total length of 171'-11" and a total out to out width of 134' 7". The structure was constructed in 1959, rehabilitated and widened in 1978, under section 22110-1

The road will be kept open at all times by utilizing staged construction. (See cross-section for staging and deck removal. No salvage.

STATION 1023+92.08
REBUILD 199
STATE OF ILLINOIS
F.A.I. RT. 55 SEC. 22-110-1
F.A. PROJECT NO.
LOADING HS20 & ALT.
STR. NO. 022-0003
NAME PLATE
See Std. 2113



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WORK TO BE PERFORMED

The existing concrete deck is to be removed and replaced with a new concrete deck widened 10' on each side. The structure is to be raised to provide 14'-6" minimum vertical clearance over Madison Street. The existing bearings are to be replaced with elastomeric type bearings and the simple span beams to be made continuous. Remove existing wing walls and replace as shown. Existing beams and diaphragms and substructure to be repaired and re-used except the beams added for the 1978 widening will be replaced. Concrete slope walls are to be repaired. Traffic to be maintained using staged construction.

DESIGN SPECIFICATIONS

1992 AASHTO, 1993 & 1994 Interims
LOADING HS20-44 & ALT.
Allow 25' / sq. ft. for future wearing surface
DESIGN STRESSES

FIELD UNITS
f'c = 5,000 psi
f'y = 60,000 psi (AISC)
f'y = 36,000 psi (ASTM Grade 50)

EXISTING PPC UNITS

CONCRETE
f'c = 5,000 psi
f'ci = 4,000 psi

PRESTRESSING STEEL
f'pu = 248,000 psi (1959 Constr.)
f'sl = 173,600 psi (1959 Constr.)
Strands = # 4

NEW P.P.C. UNITS

CONCRETE
f'c = 5,000 psi
f'ci = 4,000 psi

PRESTRESSING STEEL
f'pu = 270,000 psi
f'sl = 201,960 psi (Low Relaxation)
strands = # 4

SEISMIC DATA

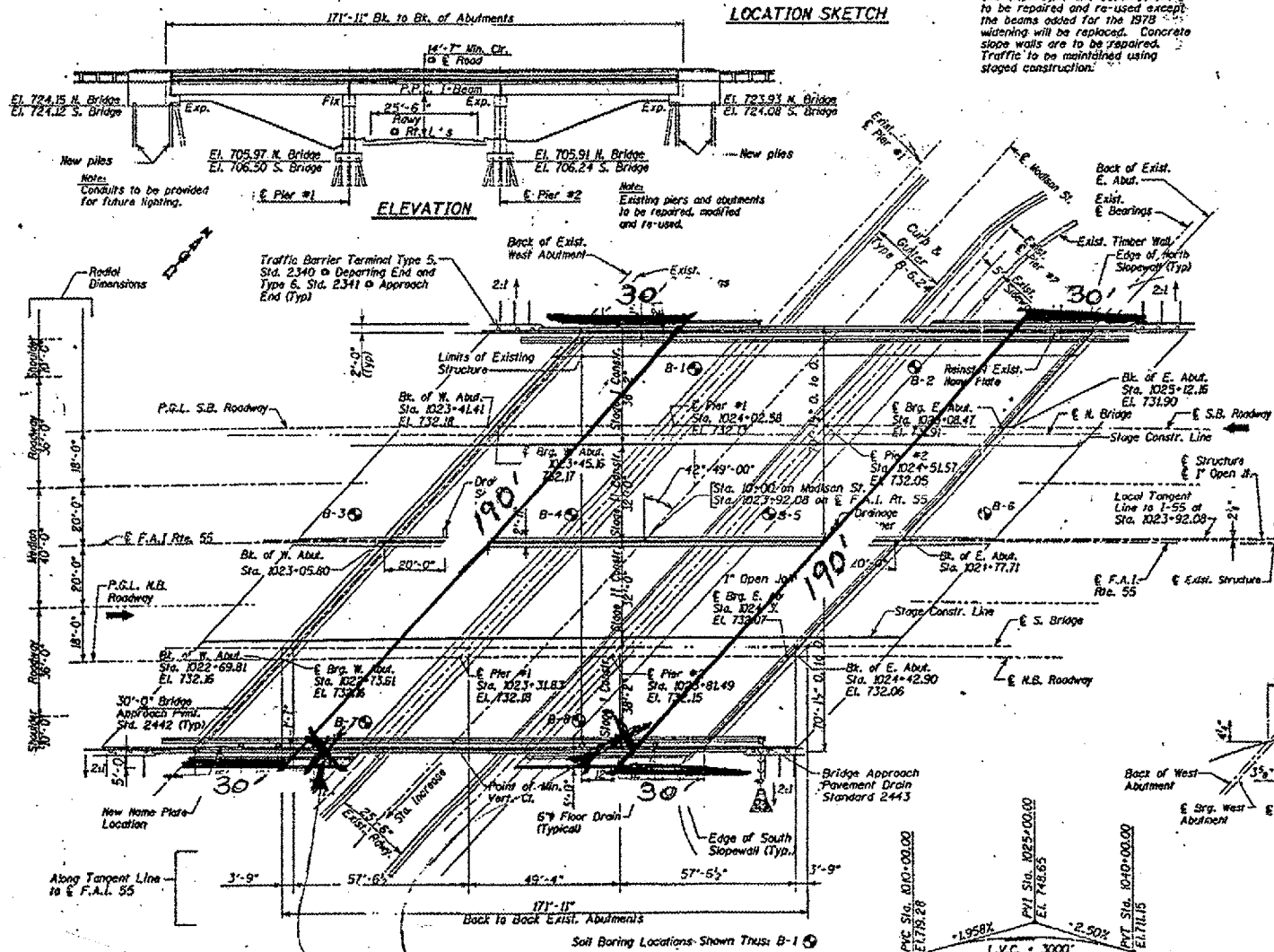
Seismic Performance Category (SPC) = II
Bedrock Acceleration Coefficient (A) = (1.04g)
Site Coefficient (S) = 1.0

CURVE DATA

F.A.I. ROUTE 55
Δ = 17°-17'-00"
D = 0°-33'-00"
R = 10417.45'
T = 15831.25'
E = 108.27'
L = 3142.42'
SE = 0.015'/ft.
P.L. Sta. 1034+34.03

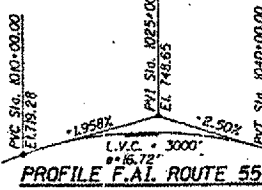
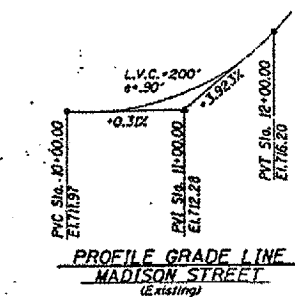
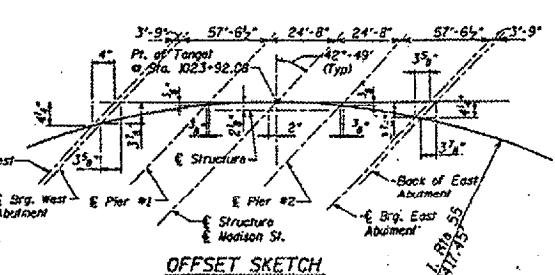
LOCATION NO. 14

X - GATES 2EA
FENCE 500 LIN.FT.



APPROVED
FOR STRUCTURAL ADEQUACY ONLY
Paul E. Osterman
Engineer of Structures and Structures

10-20-95
DATE EXAMINED
11-30-96
BY LICENSED ENGINEER
Brian C. Osterman
SEAL



GATE LOCATIONS

REVISIONS	DATE

SHEET 1 OF 32
ILLINOIS DEPARTMENT OF TRANSPORTATION
GENERAL PLAN AND ELEVATION
F.A.I. ROUTE 55 OVER MADISON STREET
DUPAGE COUNTY
SECTION 22-110-1
STA. 1023+92.08 STRUCTURE NO. 022-0003
SCALE: VERT. DATE: 11/22/96