Bench Mark: BM#20 □ cut in SE corner of concrete base of traffic signal control box on NW corner of IL Route 59 and Caton Farm Road. Elev. 603.85

Existing Structure: SN 099-0143 built in 1933 as SBI Route 59, Section 114B. Superstructure and substructure widening in 1954 as SBI Route 59, Section 114BY. Superstructure replaced in 1977 as FA Route 108, Section 114BY-R. Structure consists of three span PPC deck beams on closed abutments and solid pile supported piers. 172'-9" back-to-back abutments. 33'-0" out-to-out deck. Structure to be removed and replaced using stage construction.

No Salvage

CONTRACT NO. 60D30

FAP RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
338	114 B-I	WILL	15	3
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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)

PRECAST PRESTRESSED UNITS

f'_c = 6,000 psi
f'_{ci} = 5,000 psi
f'_s = 270,000 psi ($\frac{1}{2}$"ϕ low lax strands)
f_{si} = 201,960 psi ($\frac{1}{2}$"ϕ low lax strands)

SEISMIC DATA

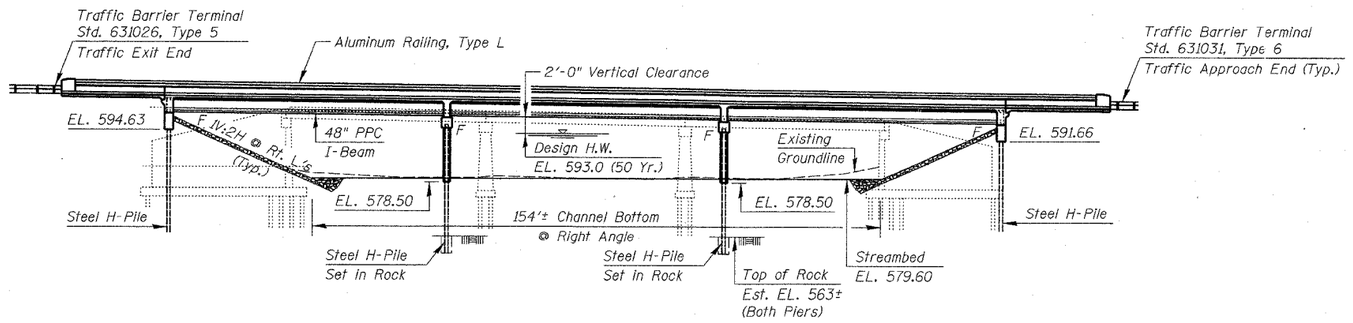
Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 0.04g
Site Coefficient (S) = 1.0

STATION 3209+85.00
BUILT 20 BY
STATE OF ILLINOIS
F.A.P. RT. 338 SEC. 114 BY-R-1
LOADING HS20
STR. NO. 099-0339

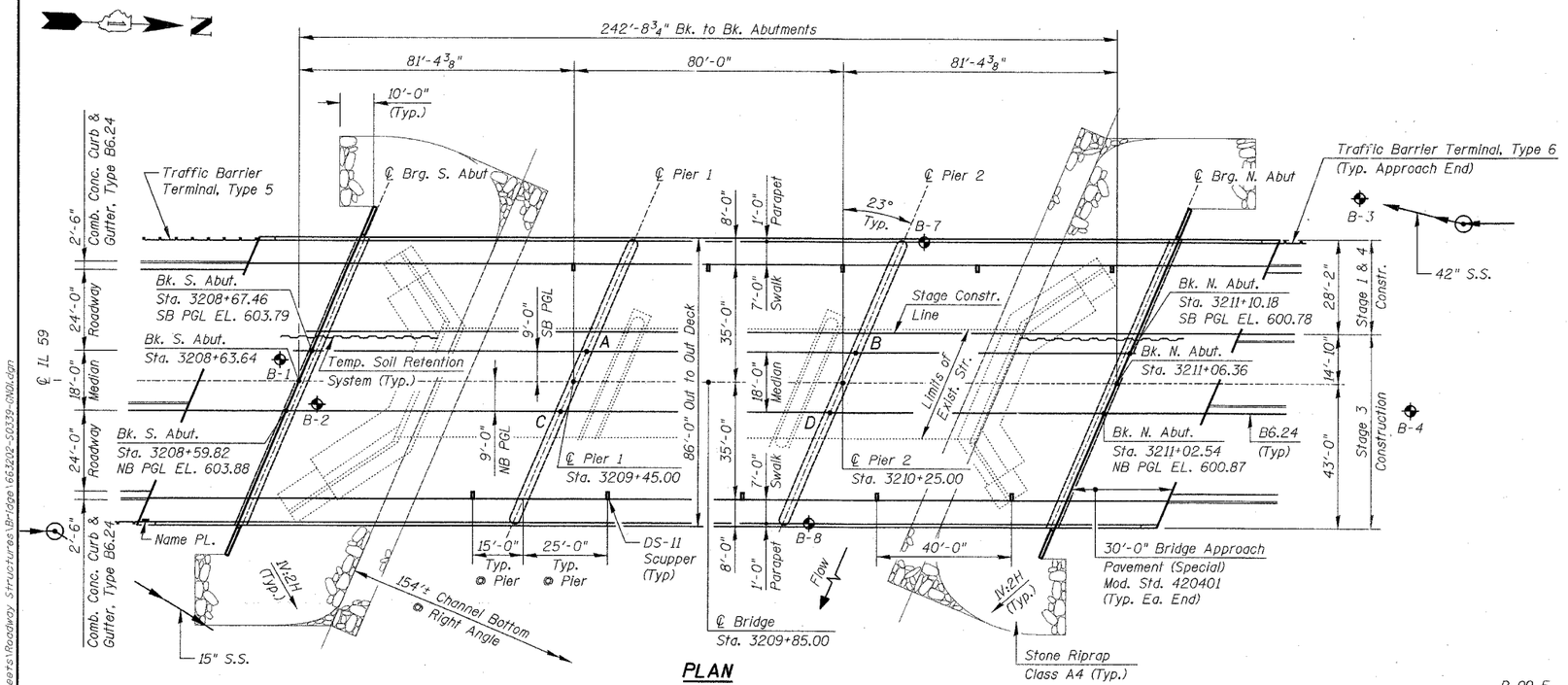
NAME PLATE

See Std. 515001

ELEVATION

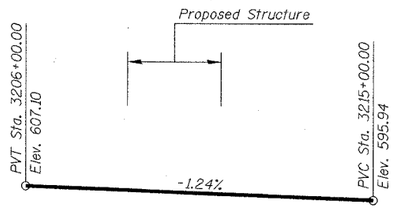


PLAN



BILL OF MATERIAL

ITEM	UNIT	TOTAL
Furnishing Precast Prestressed Concrete I-Beams, 48 IN.	Foot	2880



NB & SB PROPOSED PROFILE GRADE LINE

STATE OF ILLINOIS
WILLIAM P. MURPHY
081-004491
CHICAGO IL
LICENSED STRUCTURAL ENGINEER
Exp 11/30/08

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
ENGINEER OF BRIDGES AND STRUCTURES

Legend:
Soil Borings

WATERWAY INFORMATION

Drainage Area = 267 Sq. Miles — Low Grade Elev. 594.18 @ Sta. 3215+00

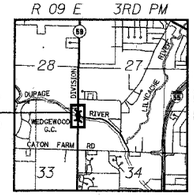
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Nat. H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
	10	8303	1670	1807	591.4	0.15′	0.13′	591.6	591.5
Design	50	11750	1904	2101	593.0	0.26′	0.25′	593.2	593.2
Base	100	13434	1993	2216	593.5	0.68′	0.32′	594.2	593.9
Overtopping (Exist.)	100	13434	1993	-	593.5	0.68′	-	594.2	-
Max. Calc.	500	17050	2170	2450	594.7	0.73′	0.48′	595.5	595.2

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	S. Abut.	Pier 1	Pier 2	N. Abut.
	591.6	572.6	572.6	588.7

PROFILE GRADE LINE ELEVATIONS

POINT	STATION	LOCATION	ELEVATION
A	3209+48.82	℄ Pier 1, SB PGL	602.78
B	3210+28.82	℄ Pier 2, SB PGL	601.78
C	3209+41.18	℄ Pier 1, NB PGL	602.87
D	3210+21.18	℄ Pier 2, NB PGL	601.88



LOCATION SKETCH

KNIGHT
Engineers & Architects

SHT. S-03 of 15

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
GENERAL PLAN & ELEVATION
ILLINOIS ROUTE 59 OVER DuPAGE RIVER
FAP ROUTE 338 SECTION 114 B-I
WILL COUNTY
STATION 3209+85.00
STRUCTURE NUMBER 099-0339

SCALE: NONE DESIGNED BY: TB DRAWN BY: TB
DATE: 06/29/07 CHECKED BY: WPM CHECKED BY: WPM

FILE: L:\1632.02\Cad\Sheets\Roadway Structures\Bridge\1632202-S0339-GNDR.dgn