

Bench Mark: BM110 - Chiseled Square on Northeast Wingwall of Rte 267 Bridge over Piassa Creek, 59 ft. Rt. Sta. 319+53.00 Elev. 475.07

Existing Structure: SN 042-0002, Built in 1938, and widened in 1971 under Section 259-BR. Three span continuous steel wide flange on pile bent Abutment & Piers. The structure length is 217'-0" back-to-back of abutments along the local tangent and width is 42'-0".

A New Southbound Structure will be constructed in Stage I, and the Existing Structure is to be removed and a New Northbound Structure is to be constructed in Stage II.

No Salvage

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation	S.N	South Abutment	Pier 1	Pier 2	North Abutment
042-0026 (S.B.)		474.33	451.13	451.13	474.81
042-0027 (N.B.)		474.21	451.13	451.13	474.68

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	60-16-1, 42-1	JERSEY	481	185

Sheet 1 of 35 Sheets
CONTRACT NO. 76318

DESIGN SPECIFICATIONS

1996 AASHTO with 1997, 1998, 1999, 2000 and 2002 Interims

LOADING HS20-44

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

SEISMIC DATA

Seismic Performance Category (SPC) - A
Bedrock Acceleration Coefficient (A) - 0.07
Site Coefficient (S) - 1.2

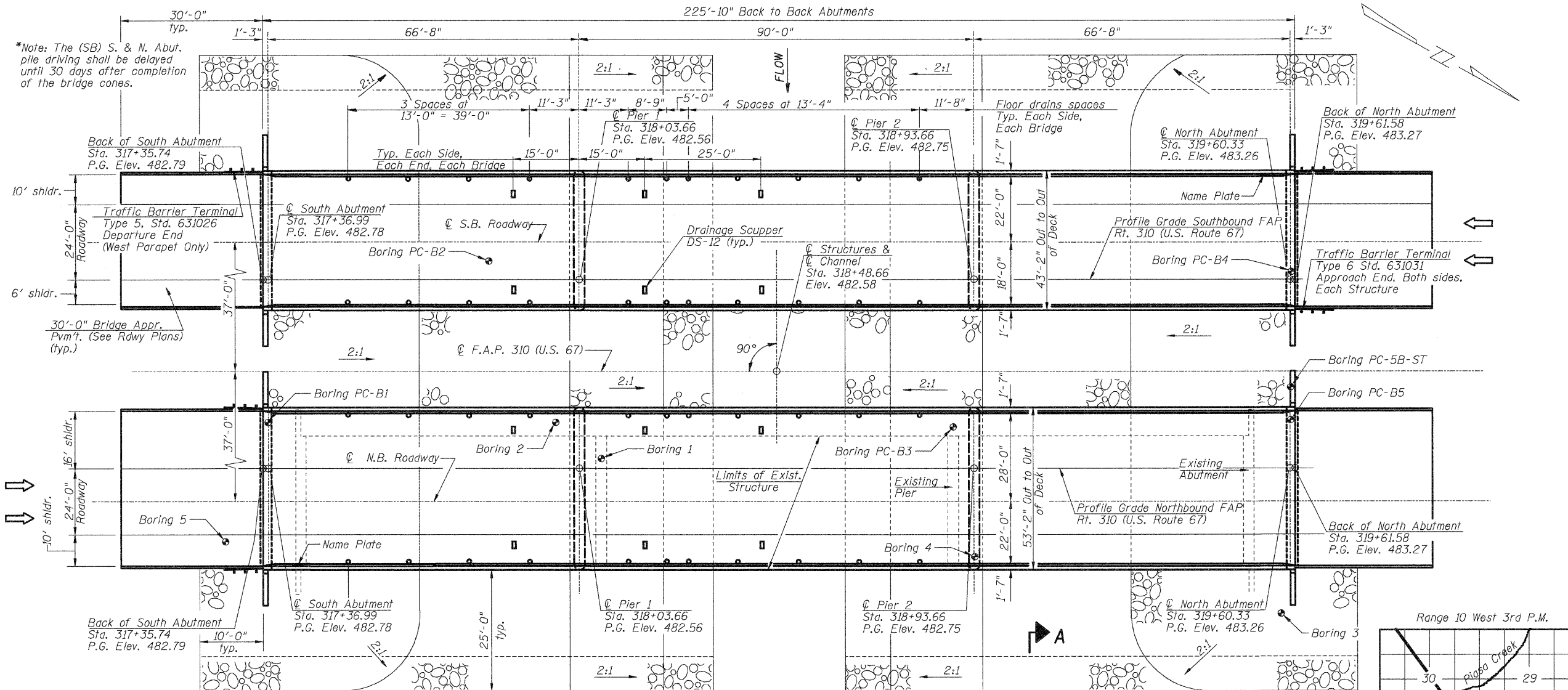
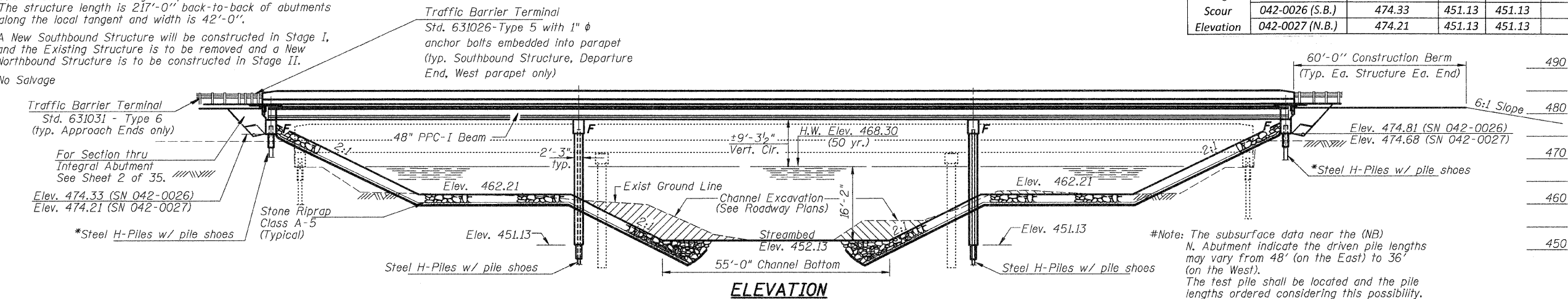
DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi
fy = 60,000 psi (Reinf.)
fy = 36,000 psi (Structural M270 Grade 36)

PRECAST PRESTRESSED UNITS

f'c = 6,000 psi
f'ci = 5,000 psi
fs = 270,000 psi (1/2" ϕ low lax. strands)
fsi = 201,960 psi (1/2" ϕ low lax. strands)



WATERWAY INFORMATION

Drainage Area = 43.8 sq. mi. Low Grade Elev. 482.55 @ Sta. 318+18.48 Max. Rec. H.W.E. = N/A

Flood	Freq.	Q	Opening Sq. Ft.		Nat. H.W.E.	Head-Ft.		Headwater El.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
Design	50	9440	1616	1657	468.3	0.3	0.2	468.6	468.5
Base	100	10,800	1713	1754	468.8	0.4	0.3	469.2	469.1
Overtopping	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Max. Calc.	500	14,300	1937	1970	469.9	0.6	0.6	470.5	470.5

DESIGNED	M.E.B.
CHECKED	R.K.M.
DRAWN	P.W.S.
CHECKED	M.E.B.-R.K.M.

PLAN

APPROVED
FOR STRUCTURAL ADEQUACY ONLY



Ravi K. Mathur (PE)
ENGINEER OF BRIDGES AND STRUCTURES

ILLINOIS STRUCTURAL NO. 081-004354 EXPIRES 11/30/2010

PROFILE GRADE

(Along Median Edge of Roadway)

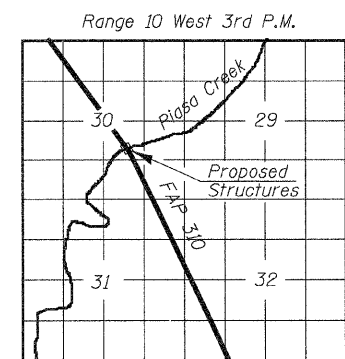
STATION 318+48.66
BUILT 200_ BY
STATE OF ILLINOIS
F.A.P. RT. 310 SEC. 60-16-1, 42-1
LOADING HS20
STR. NO. 042-0026

STATION 318+48.66
BUILT 200_ BY
STATE OF ILLINOIS
F.A.P. RT. 310 SEC. 60-16-1, 42-1
LOADING HS20
STR. NO. 042-0027

NAME PLATES

See Std. 515001

GENERAL PLAN
FAP-310 OVER PIASSA CREEK
SECTION 60-16-1, 42-1
JERSEY COUNTY
STATION 318+48.66
STRUCTURE NO. 042-0026 (S.B.)
& 042-0027 (N.B.)



LOCATION SKETCH



Work this sheet with sheet 2 of 35.