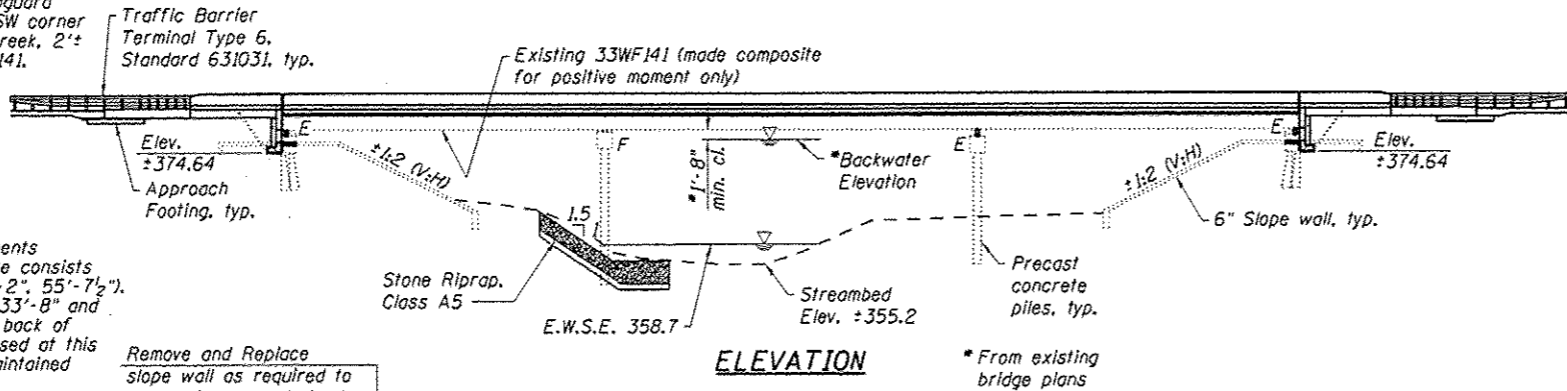


BENCHMARK:
Chiseled square on top of hubguard beside conc. barrier wall on SW corner of SN 097-0027 over Bear Creek, 2'± South of D7 BM 51 along IL 141. Sta. 47+74±, 14'± Rt. Elev. 382.75 (NAVD 88)

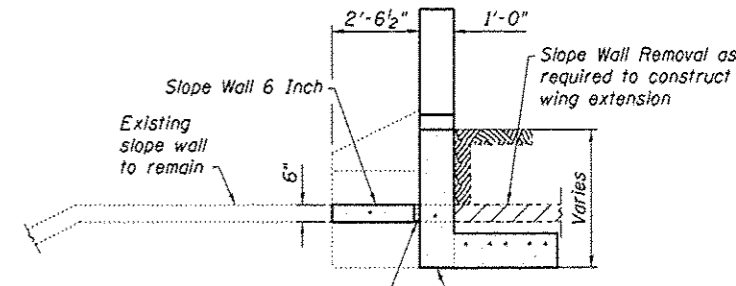
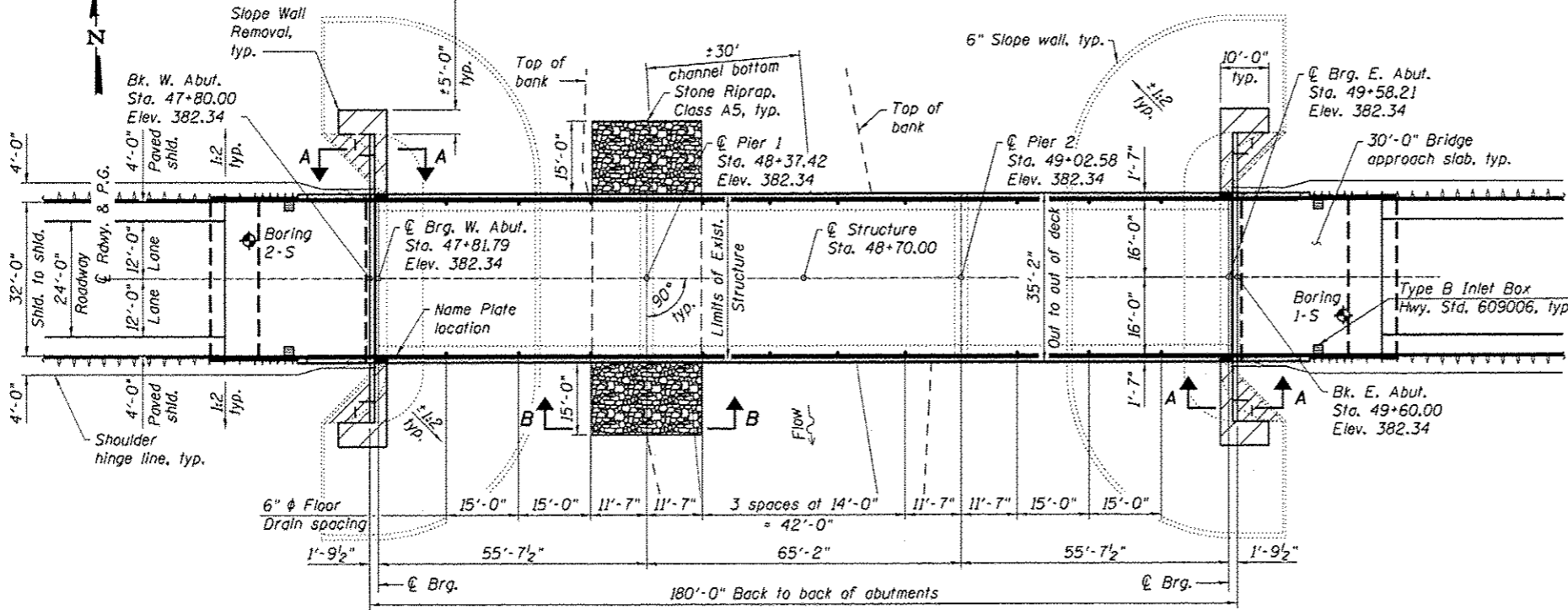
EXISTING STRUCTURE:
SN 097-0027 was originally built in 1957 as FA Rte. 113, Section 100-B. It is a non-composite steel beam superstructure on precast concrete pile supported abutments and piers. The superstructure consists of three spans (55'-7½", 65'-2", 55'-7½"). The out to out deck width is 33'-8" and the length is 180'-0" back to back of abutments. IL 141 will be closed at this location and traffic will be maintained using a detour route.

No salvage.



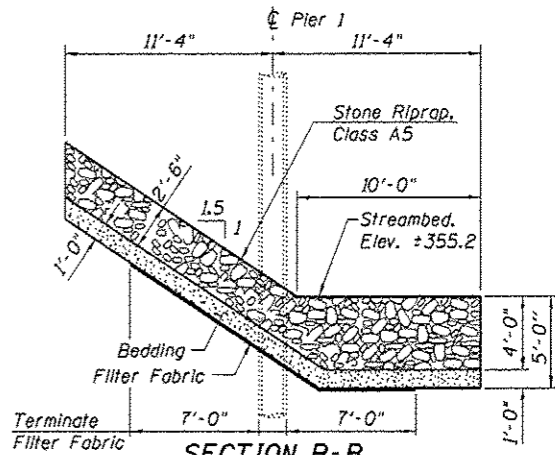
STRUCTURE INDEX OF SHEETS

General Plan & Elevation	Sheet No. 1 of 22
General Data	Sheet No. 2 of 22
Top of Slab Elevations	Sheet Nos. 3 & 4 of 22
Top of West Approach Slab Elevations	Sheet No. 5 of 22
Top of East Approach Slab Elevations	Sheet No. 6 of 22
Superstructure	Sheet No. 7 of 22
Superstructure Details	Sheet No. 8 of 22
Bridge Approach Slab Details	Sheet Nos. 9 & 10 of 22
Preformed Joint Strip Seal	Sheet No. 11 of 22
Steel Framing Plan	Sheet No. 12 of 22
Steel Details	Sheet No. 13 of 22
Bearing Details	Sheet Nos. 14 & 15 of 22
Abutment Removal and Repairs	Sheet No. 16 of 22
Abutment Details	Sheet Nos. 17 & 18 of 22
Piers 1 & 2	Sheet No. 19 of 22
Bar Splicer Assembly Details	Sheet No. 20 of 22
Boring Logs	Sheet Nos. 21 & 22 of 22

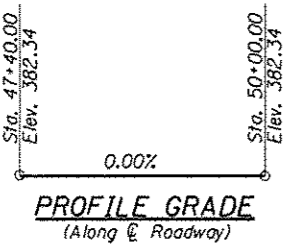


Notes:
Slope wall shall be reinforced with welded wire fabric, 6 in. x 6 in. - W4.0 x W4.0, weighing 58 lbs. per 100 sq. ft. Existing wire fabric shall be cleaned and incorporated into the new construction. Cost included with Slope Wall Removal.

SECTION A-A



SECTION B-B



STATION 48+70.00
RE-BUILT 201. BY
STATE OF ILLINOIS
F.A.P. RTE. 877 SEC. 100B-1
LOADING HS20-44
STR. NO. 097-0027

NAME PLATE
(See Hwy. Std. 515001)

Note:
Existing Name Plate shall be cleaned and relocated next to new Name Plate. Cost included with Name Plates.

SCOPE OF WORK

1. Remove existing concrete deck, approach slabs, portions of slope walls and abutment backwalls and wingwalls.
2. Repair substructure units with Epoxy Crack Injection.
3. Remove and replace expansion bearings at abutments and Pier 2.
4. Remove and replace end diaphragms.
5. Install scour countermeasures at Pier 1.
6. Construct new backwalls, wingwalls and wing extensions.
7. Repair existing concrete slope walls.
8. Install shear studs to make new deck composite in positive moment regions.
9. Construct new deck and approach slabs and install deck expansion joints.

DESIGN SPECIFICATIONS (New Const.)

2002 AASHTO Standard Specifications for Highway Bridges

LOADING HS20-44 (New Const.)

No allowance for future wearing surface.

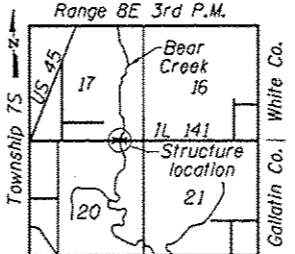
DESIGN STRESSES

FIELD UNITS (New Construction)
f'c = 3,500 psi
fy = 60,000 psi (reinforcement)
fs = 36,000 psi (M270 Grade 36)

FIELD UNITS (Exist. Construction)
fc = 1,400 psi (superstructure)
fc = 800 psi (substructure)
fs = 20,000 psi (reinforcement)
fs = 18,000 psi (structural steel)

SEISMIC DATA

Seismic Performance Category (SPC) = B
Horizontal Bedrock Acceleration Coefficient (A) = 0.098g
Site Coefficient (S) = 1.5



LOCATION SKETCH

APPROVED
For Structural Adequacy Only
Richard D. Perry
Engineer of Bridges & Structures



EXPIRES 11-30-14

Richard D. Perry
SIGNATURE

02-14-14
DATE

GENERAL PLAN & ELEVATION
IL 141 OVER BEAR CREEK
FAP ROUTE 877 - SECTION 100B-1
WHITE COUNTY
STATION 48+70.00
STRUCTURE NO. 097-0027

	USER NAME: iavender/be	DESIGNED - SHL 02/13	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SHEET NO. 1 OF 22 SHEETS
	ESCA PROJECT NO. 988.14	CHECKED - RDP 02/13	REVISED -		
	PLAT SCALE = 0:2 1/2" = 1"	DRAWN - DWH/HAS 02/13	REVISED -		
	PLAT DATE = 7/22/2014 11:39:45 PM	CHECKED - SHL 05/13	REVISED -		
F.A.P. RTE. 877 SECTION 100B-1 COUNTY WHITE TOTAL SHEETS 54 SHEET NO. 20		CONTRACT NO. 78231		ILLINOIS FED. AID PROJECT AID	