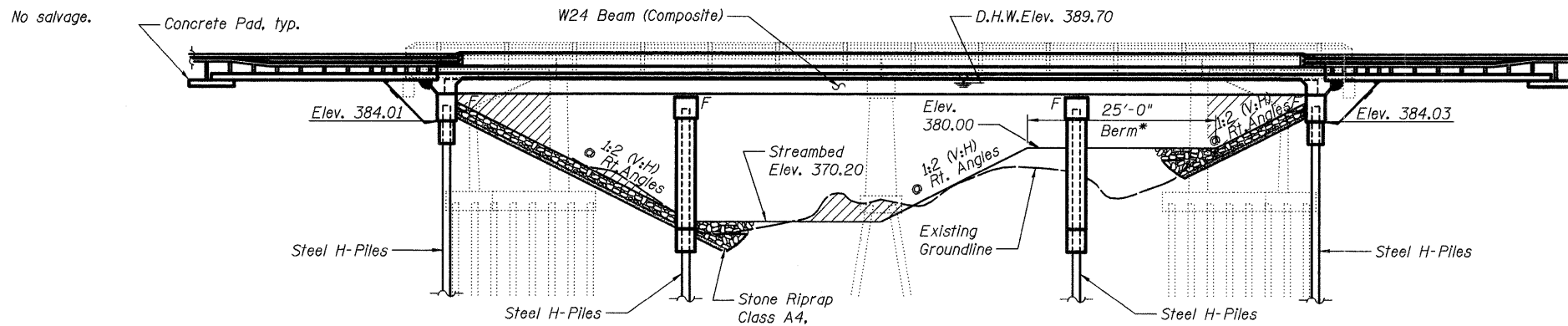


Bench Mark: BM 557 Chiseled square on top of wingwall of bridge SN 033-0046 on NE corner of bridge at Sta. +/- 463+53 Lt. 18.3'. (390.6736)

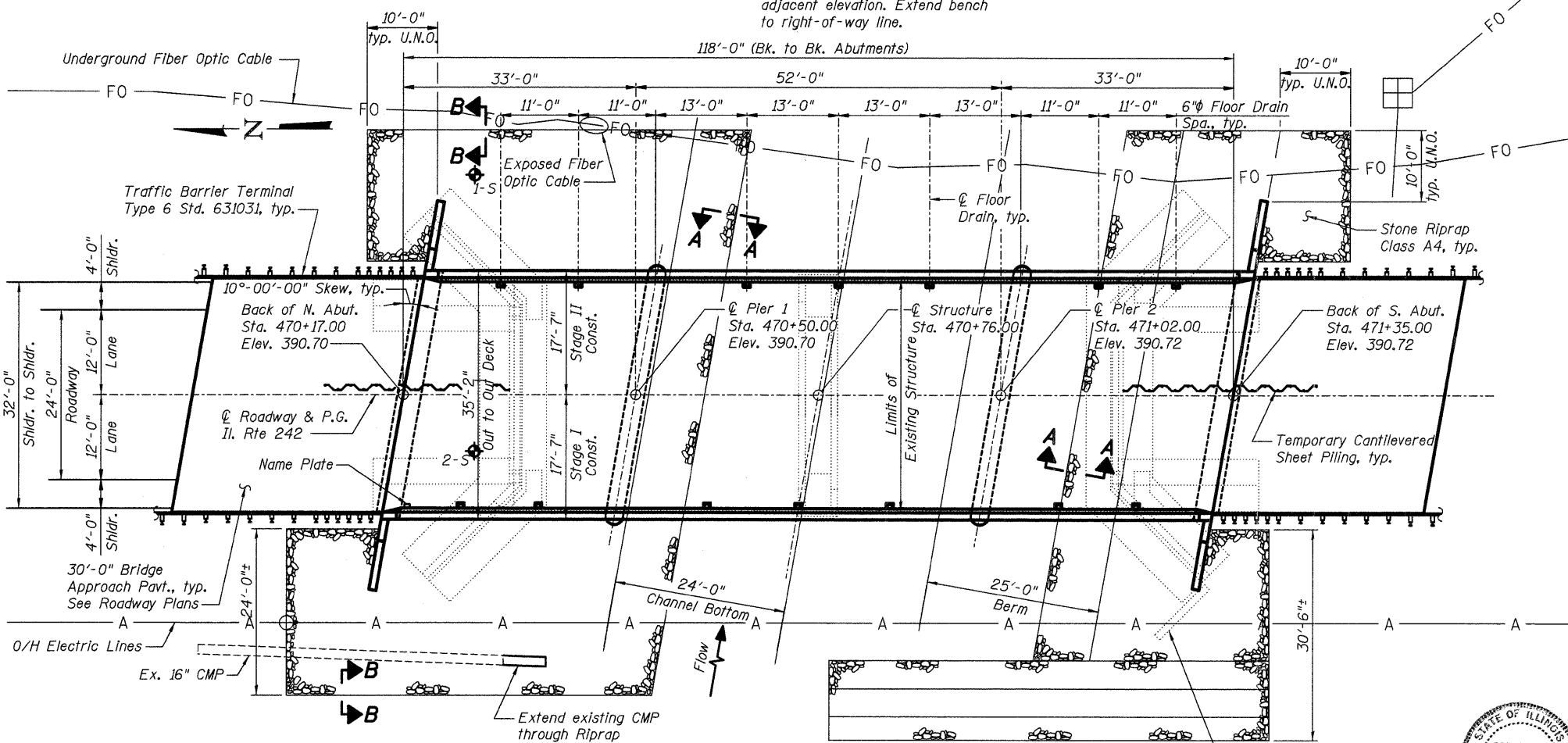
Existing Structure: SN 033-0026 was originally built in 1929. The superstructure and the substructure were widened in 1975. The structure consists of two simple span reinforced concrete T-beams widened with four PPC deck beams on closed abutments. The original abutments and intermediate pier rest on timber pile-supported spread footings. The widened pier elements are on concrete pile-supported spread footings. The structure is approximately 86' back to back abutments and 32'-8" out to out deck width. Existing structure is to be removed and replaced. One lane of traffic will be maintained utilizing stage construction.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



ELEVATION

* Flare bench to match top of adjacent elevation. Extend bench to right-of-way line.



PLAN

WATERWAY INFORMATION

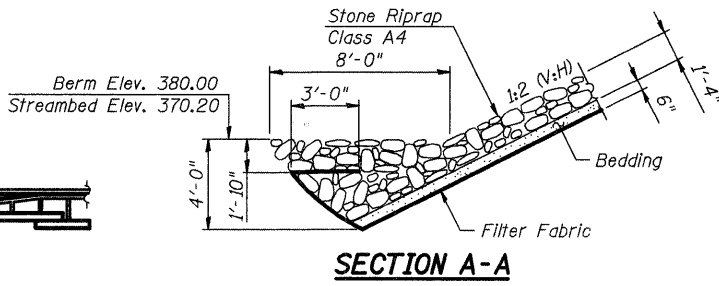
Drainage Area = 21.41 Sq Mi		Ex. Low Grade Elev. 389.86		Sta. 458+00			
		Pr. Low Grade Elev. 389.86		Sta. 458+00			
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist. Prop.	Nat. H.W.E. Exist. Prop.	Head - Ft. Exist. Prop.	Headwater El. Exist. Prop.	
Design	10	2415	982.0 1142.0	387.8 389.7	0.2 0.4	0.1 0.3	388.0 390.1
Overtopping Ex.	50	3750	982.0 1147.0	390.0 390.4	0.5 0.2		390.5 390.6
Overtopping Pr.		4250					

10 Year Velocity through Existing Bridge = 2.5 fps. 10 Year Velocity through Proposed Bridge = 2.1 fps.

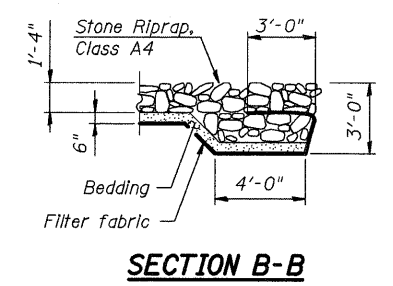
DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	N. Abut.	Pier 1	Pier 2	S. Abut.
	384.05	370.20	374.00	384.07

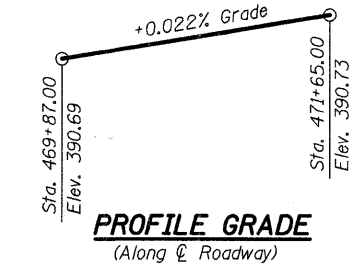
DESIGNED - CJW
CHECKED - DRS
DRAWN - JLR
CHECKED - CJW



SECTION A-A



SECTION B-B



PROFILE GRADE

(Along Centerline of Roadway)

LOADING HL-93

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

DESIGN SPECIFICATIONS

2007 AASHTO LRFD Bridge Design Specifications with 2008 Interims

DESIGN STRESSES

f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)
fy = 50,000 psi (M270 Grade 50 structural steel)

SEISMIC DATA

Seismic Performance Zone (SPZ) = 2
Design Spectral Acc. at 1.0 sec (SD1) = 0.23g
Design Spectral Acc. at 0.2 sec (SD5) = 0.63g
Bedrock Acceleration Coefficient (A) = 0.28g
Soil Site Class C

APPROVED

FOR STRUCTURAL ADEQUACY ONLY

Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES



ROBERT D. NIEMIETZ
COLUMBIA, ILLINOIS
ILLINOIS LICENSED STRUCTURAL
ENGINEER NO. 081-004527
EXPIRES NOV. 30, 2010



LOCATION SKETCH

INDEX OF SHEETS

- 1 General Plan and Elevation
- 2 General Structure Data
- 3 Foundation Layout
- 4 Stage Construction Details
- 5 Temporary Concrete Barrier For Stage Construction
- 6 Steel Railing (Temporary)
- 7-10 Top of Slab Elevations
- 11 Top of N. Approach Slab Elevations
- 12 Top of S. Approach Slab Elevations
- 13 Superstructure
- 14 Superstructure Details
- 15 Diaphragm Details
- 16 Framing Plan and Design Data
- 17 Beam Details
- 18 Bearing Details
- 19 North Abutment Details
- 20 South Abutment Details
- 21 Pier 1 Details
- 22 Pier 2 Details
- 23 Steel H-Pile Details
- 24 Bar Splicer Assembly Details
- 25-26 Boring Logs

STATION 470+76
BUILT 200_ BY _____
STATE OF ILLINOIS
F.A.P. ROUTE 776
SEC. (102) B-1
LOADING HL-93
STRUCTURE NO. 033-0053

NAME PLATE

See Std. 515001

LIMITS OF EXIST. BRIDGE REMOVAL

- Entire Superstructure
- Entire Intermediate Pier to 5' below finished streambed elevation
- Stems of abutment backwalls and wingwalls (footings and piles to remain)

**GENERAL PLAN AND ELEVATION
IL ROUTE 242 OVER
SHELTON CREEK
STATION 470+76**

SHEET NO. 1	F.A.P. RTE. 776	SECTION (102)B-1	COUNTY HAMILTON	TOTAL SHEETS 53	SHEET NO. 28
26 SHEETS	S.N. 033-0053		CONTRACT NO. 78016		
FED. ROAD DIST. NO. _ ILLINOIS FED. AID PROJECT					