

Bench Mark 4647-33- Chiseled square on north headwall of the east side of IL 128, 0.2 miles south of Findlay Road; Elev. 652.70.

Existing Structure- S.N. 087-0017; Built in 1929 as S.B.I. 169 Section 115.

Original structure was a single-span concrete deck beam bridge supported by closed concrete abutments on untreated timber piling. The structure was reconstructed in 1980 as FA 770, Section 115BR-1.

The substructure was partially removed and widened and the superstructure was replaced and widened using PPC deck beams, 38'-0" bk. to bk. abutments, 33'-0" out to out of deck. Structure is to be removed and replaced with a single-span W30 steel I beam bridge on integral abutments.

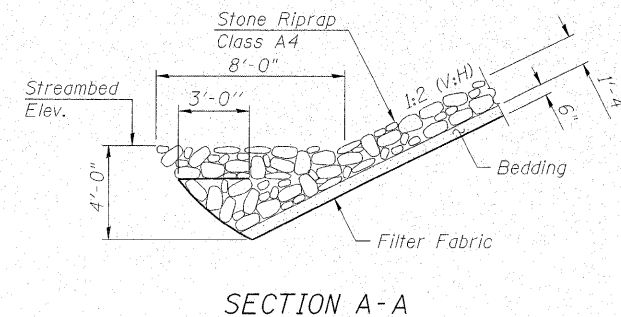
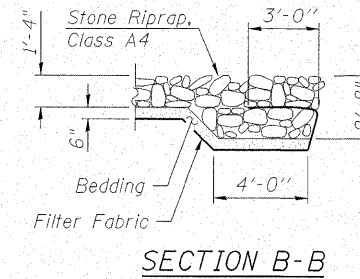
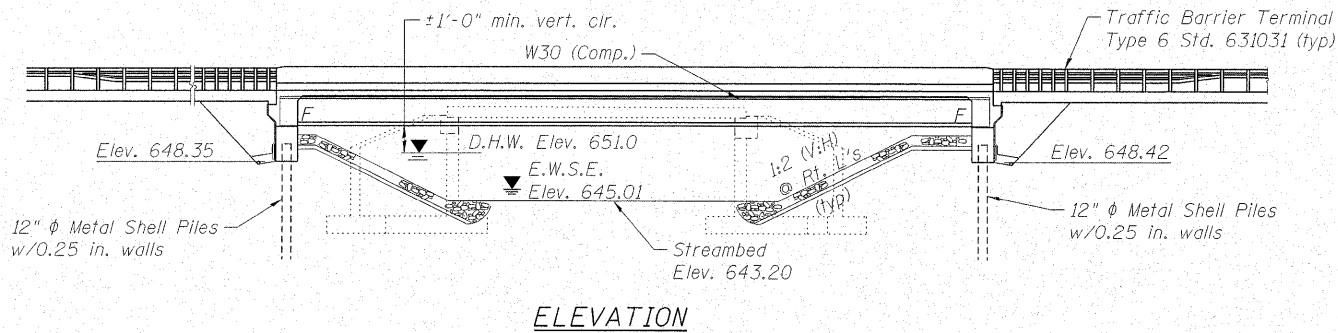
One lane traffic is to be maintained using stage construction.

No Salvage.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 1
FAP 770 IL 128	(115BR) B-1	SHELBY	39	18	19 SHEETS
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT			

Contract # 74233



INDEX OF SHEETS

- General Plan & Elevation
- General Notes, Total Bill of Material
- Staging Details
- Temporary Concrete Barrier
- 5-6 Top of Slab Elevations
- 7-8 Top of Approach Slab Elevations
- Superstructure
- Superstructure Details
- Diaphragm Details
- Structural Steel
- South Abutment
- North Abutment
- Metal Shell Pile Details
- Bar Splicer Assembly Details
- 17-19 Soil Borings

STATION 408+75.45
BUILT 200 BY
STATE OF ILLINOIS
F.A.P. RTE. 770 SEC. (115BR)B-1
LOADING HL93
STRUCTURE NO. 087-0031

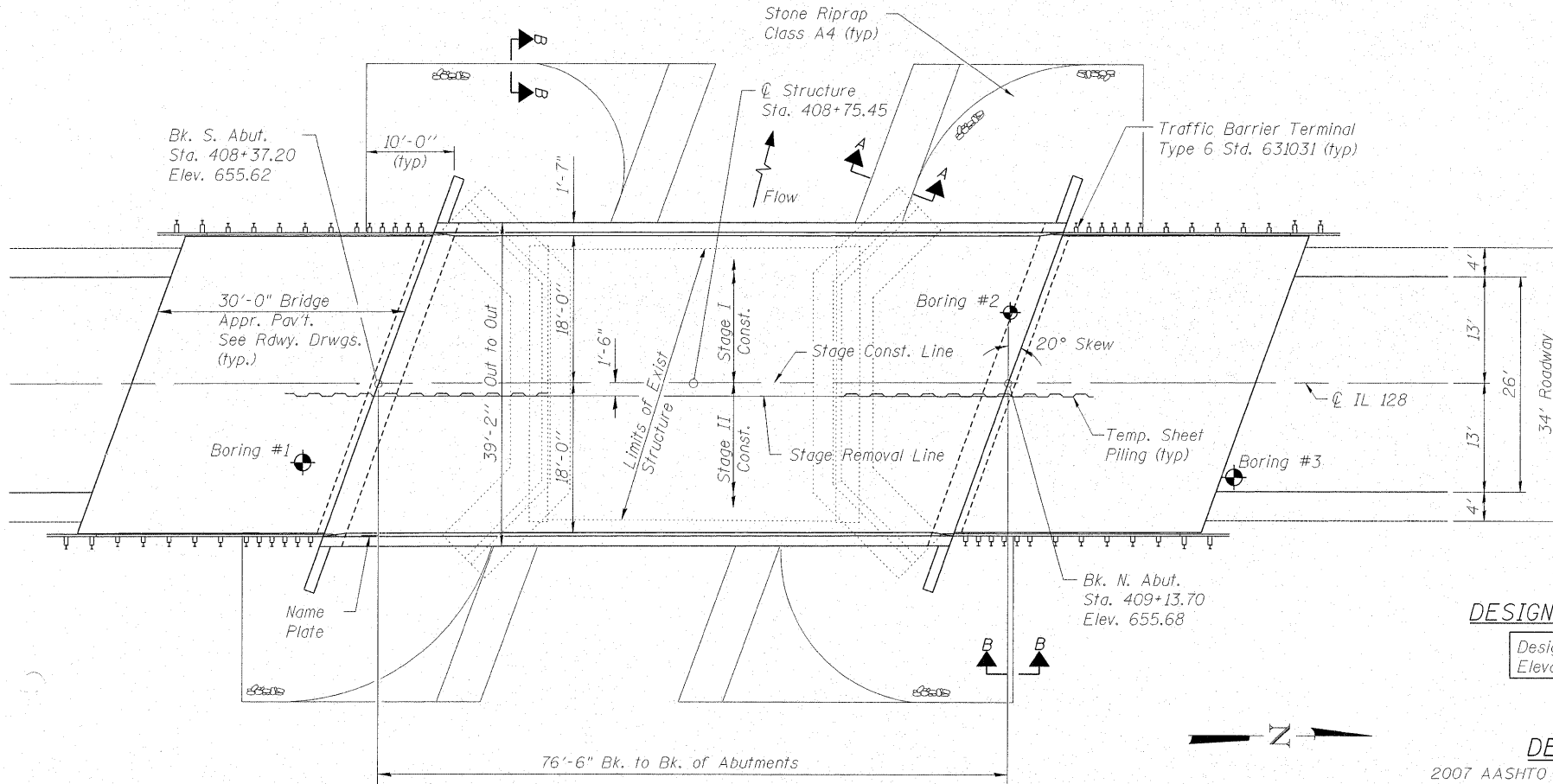
NAME PLATE
See Std. 515001

WATERWAY INFORMATION

Proposed Low Grade Elev. = 653.38 @ Sta. 414+00.00
Existing Low Grade Elev. = 653.38 @ Sta. 406+00.00
Drainage Area = 10.7 mi.²

Flood	Freq. Yr.	C.F.S.	Opening Sq. Ft.		Head - Ft.		Headwater El.		
			Exist.	Prop.	H.W.E. Exist.	Prop.	Exist.	Prop.	
Design	50	2247	235	340	651.0	2.4	1.0	653.4	652.0
Base	100	2616	245	358	651.3	2.1	1.2	653.4	652.5
Overtopping Exist.	50	2247	235		651.0	2.4		653.4	
Overtopping Prop.	500	3518		394	651.9		1.6		653.5
Max. Calc.	500	3518	253	394	651.9	1.8	1.6	653.7	653.5

10-Year Velocity through Existing Bridge = 6.7 fps
10-Year Velocity through Proposed Bridge = 4.7 fps



DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	S. Abut. 648.4	N. Abut. 648.4
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DESIGN SPECIFICATIONS

2007 AASHTO LRFD Bridge Design Specifications - 4th ed.

LOADING HL-93

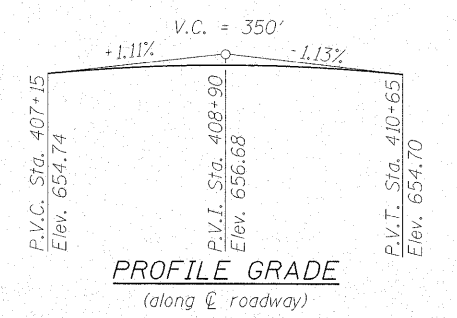
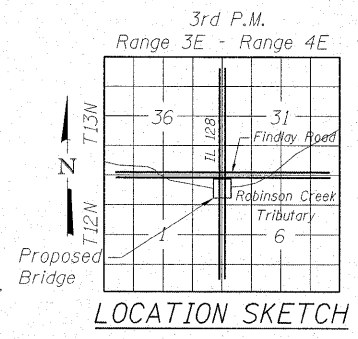
Allow 50#/sq. ft. for future wearing surface.

DESIGN STRESSES

- FIELD UNITS**
- $f_c = 3,500$ psi
 - $f_y = 60,000$ psi (reinforcement)
 - $f_y = 50,000$ psi (M270 Grade 50, primary members)
 - $f_y = 36,000$ psi (M270 Grade 36)

SEISMIC DATA

- Seismic Performance Zone (SPZ) = 1
- Bedrock Acceleration Coefficient (A) = 0.054g
- Site Coefficient (S) = 1.5



MAURER & STUTZ, INC.
ENGINEERS SURVEYORS

DESIGNED - BAS
CHECKED - KEF
DRAWN - LAD
CHECKED - RJA / KEF



Kristen E. Fields
Date Signed: 1-12-09
Exp. Date: 11-30-10

APPROVED
FOR STRUCTURAL ADEQUACY ONLY

Ralph E. Anderson, III
ENGINEER OF BRIDGES AND STRUCTURES

GENERAL PLAN & ELEVATION
IL ROUTE 128 OVER
ROBINSON CREEK TRIBUTARY
F.A.P. RTE. 770 - SECTION (115BR)B-1
SHELBY COUNTY
STATION 408+75.45
STRUCTURE NO. 087-0031