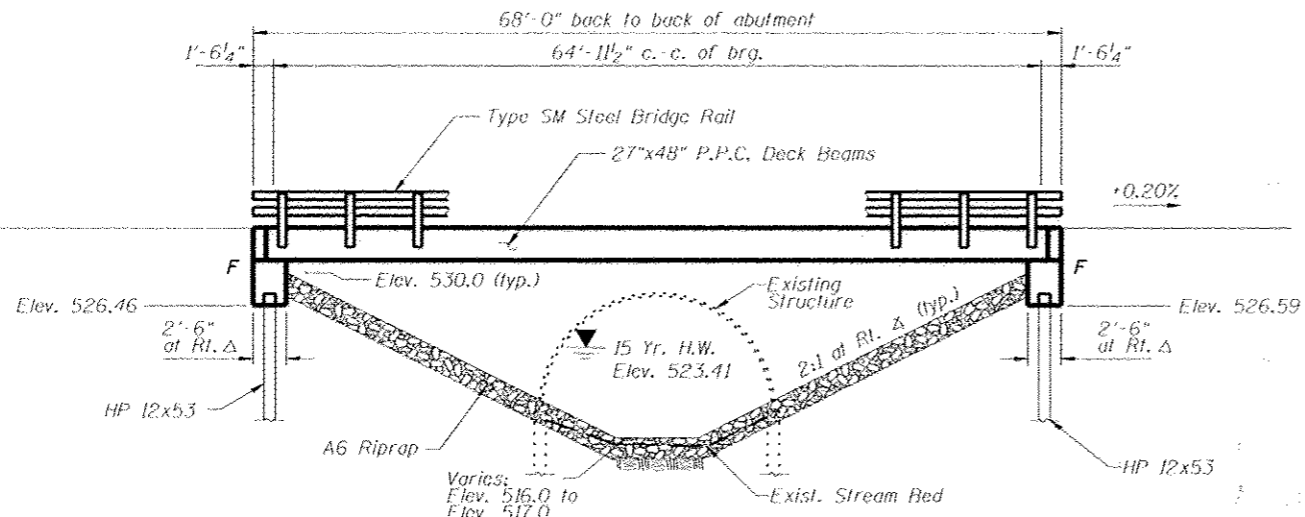


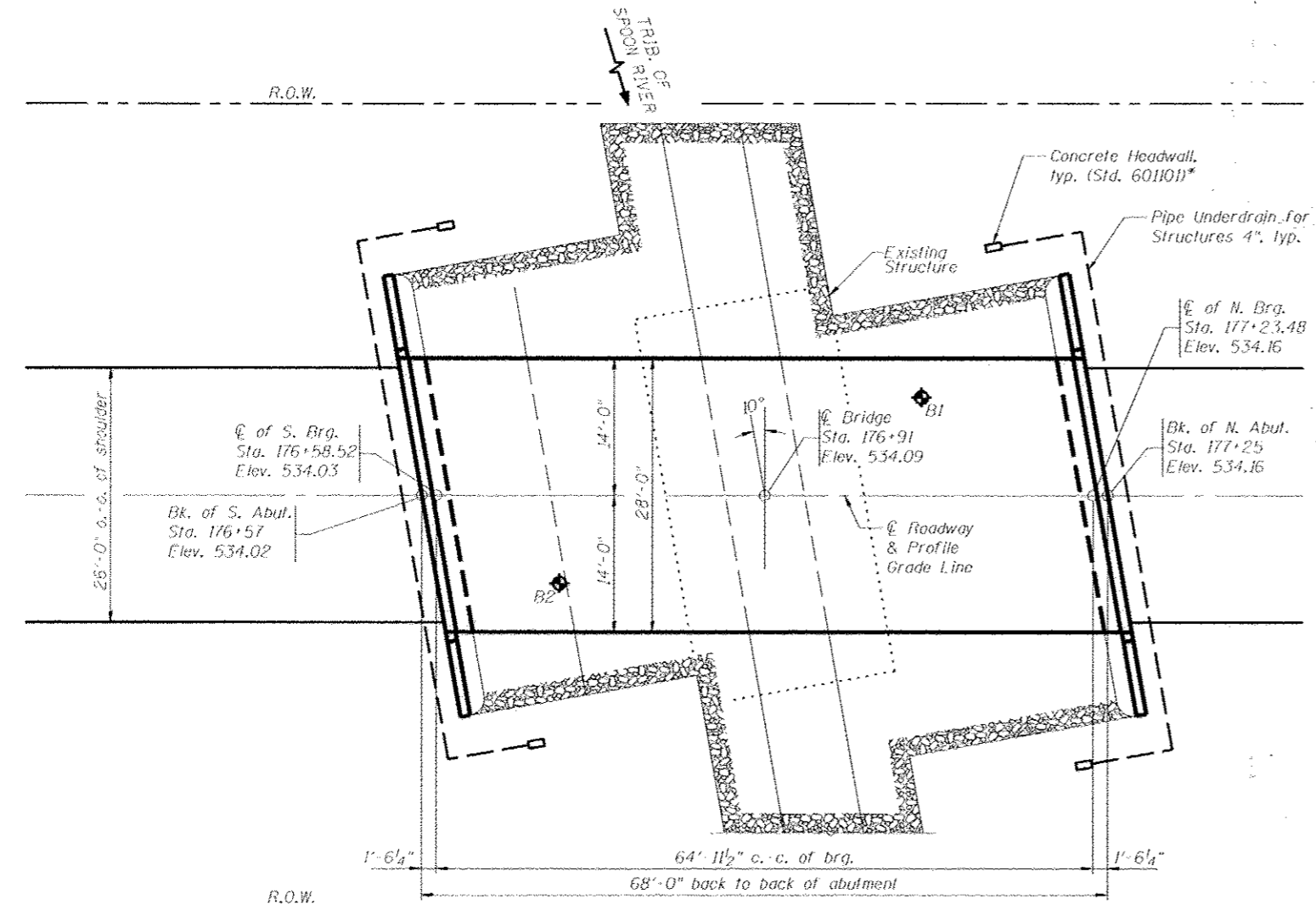
B.M. - Railroad spike in power pole southeast of bridge, Sta. 175+97.09, 36.86' Rt., Elev. 532.66

Existing Structure - Structure No. 029-3040 was constructed in 1953 as Section 45 MFT and consists of a semi-circular, corrugated metal arch culvert on concrete foundation walls. The culvert width is approximately 21 feet, face-to-face of walls. The length of the culvert is approximately 40 feet, end-to-end.

Salvage - None



ELEVATION



PLAN

* Cost of Concrete Headwall included in the cost of Pipe Underdrains for Structures 4".

TRIB. OF SPOON RIVER
BUILT 20... BY
FULTON COUNTY
SEC. 11-00143-00-BR
CH 26 STATION 176+91
STR. NO. 029-3240 LOADING HL-93

LETTERING FOR NAME PLATE

Locate Name Plate at Northwest Corner of Bridge (See Std. 515001)

DESIGN SCOUR ELEVATION TABLE

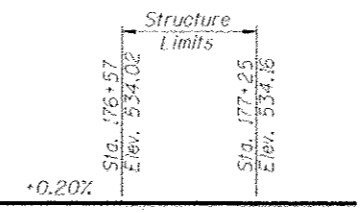
Design Scour Elevation (ft.)	N. Abut.	S. Abut.
	526.59	526.46

WATERWAY INFORMATION

Drainage Area - 2.2 Sq. Mi.		Low Grade Elev. = 534.1'					
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.	Nat. H.W.E.	Head Fl.	Headwater El.	
Design	15	1010	92	121	523.41	0.78	524.19
Base	100	1690	159	186	525.38	1.70	527.08

TOTAL BILL OF MATERIAL

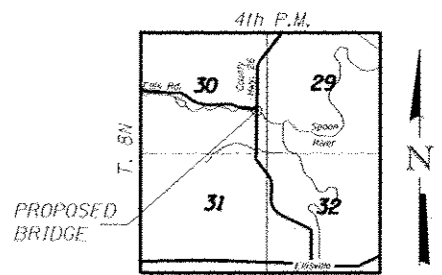
Item	Unit	Super	Sub.	Total
Stone Riprap, Class A6	Tons	---	12.39	12.39
Filter Fabric	Sq. Yd.	---	598	598
Structure Excavation	Cu. Yd.	---	284	284
Concrete Structures	Cu. Yd.	---	39.0	39.0
Protective Coat	Sq. Yd.	321	---	321
Precast Prestressed Concrete Deck Beams (27" Depth)	Sq. Ft.	1852	---	1852
Reinforcement Bars, Epoxy Coated	Pound	---	4820	4820
Steel Bridge Rail, Type SM	Foot	136	---	136
Furnishing Steel Pile HP12x53	Foot	---	456	456
Driving Piles	Foot	---	456	456
Test Pile, Steel HP12x53	Each	---	2	2
Pile Shoes	Each	---	10	10
Name Plates	Each	1	---	1
Geocomposite Wall Drain	Sq. Yd.	---	47	47
Granular Backfill for Structures	Cu. Yd.	---	138	138
Pipe Underdrains for Structures 4"	Foot	---	170	170



PROFILE GRADE
(Along E. Roadway)

STUART M. KEMP
081-004897
Professional Engineer
State of Illinois
Signature: Stuart M. Kemp
Date: 3/22/2013
Lic. Exp. Date: 11/30/2014

"I certify that to the best of my knowledge, information and belief, this bridge design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the current 'AASHTO Standard Specifications for Highway Bridges.'"



LOCATION SKETCH

DESIGN SPECIFICATIONS

2012 AASHTO LRFD Bridge Design Specifications - 6th edition

LOADING HL-93

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

DESIGN STRESSES

Super: f'c = 6,000 p.s.i. (P.P.C. Deck Beams)
f'ci = 5,000 p.s.i.
f's = 270,000 p.s.i. (1/2" φ Strand)
f'si = 201,960 p.s.i. (1/2" φ Strand)
fy = 60,000 p.s.i.
Sub: f'c = 3,500 p.s.i.
fy = 60,000 p.s.i.

SEISMIC DATA

Seismic Performance Zone (SPZ) = 2
Design Spectral Acceleration at 1.0 sec (SD1) = 0.159
Design Spectral Acceleration at 0.2 sec (SD2) = 0.259
Soil Site Class = E

INDEX OF SHEETS

1. General Plan & Elevation
2. General Notes and Riprap Details
3. P.P.C. Deck Beam Superstructure
4. 24"x48" P.P.C. Deck Beam
5. 24"x48" P.P.C. Deck Beam Details
6. Steel Railing, Type SM
7. Abutments
8. HP Pile Details
9. Boring Logs

**GENERAL PLAN AND ELEVATION
STRUCTURE NUMBER 029-3240**

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101.0137
3/22/13

SHEET NO. 1
9 SHEETS

CH	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
26	11-00143-00-BR	Fulton	25	10

CONTRACT NO. 89597
FED. ROAD DIST. NO. 2 ILLINOIS FED. AID PROJECT

03/27/2013
 C:\Users\jcamp\Documents\029-3240-89597-5001-098.E.dgn

DATE	BY
1/26/13	SMK
2/22/13	MMW
3/22/13	SMK