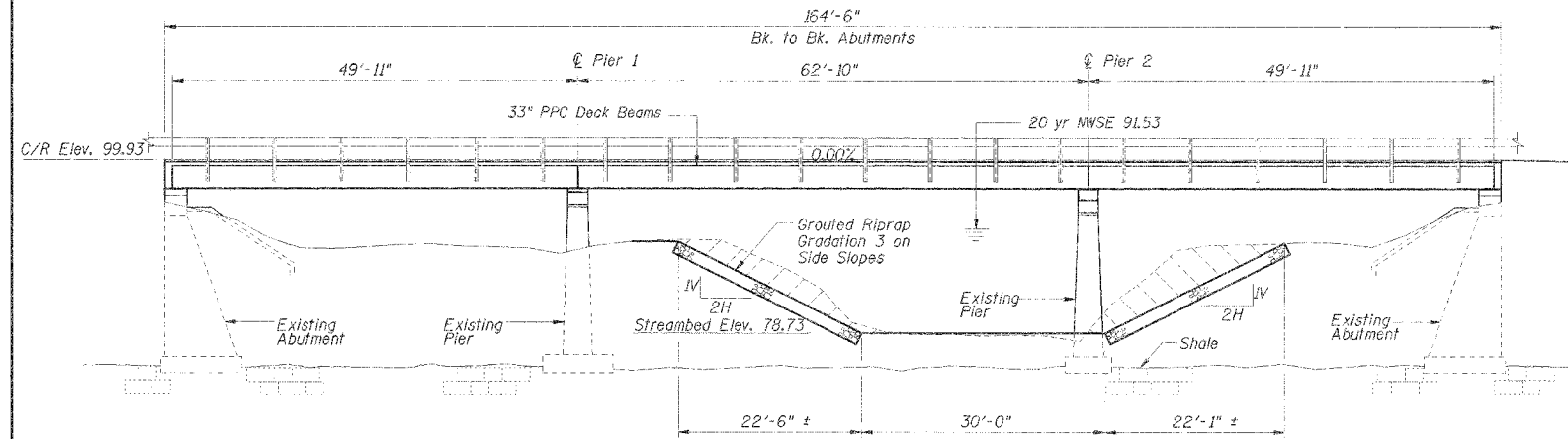


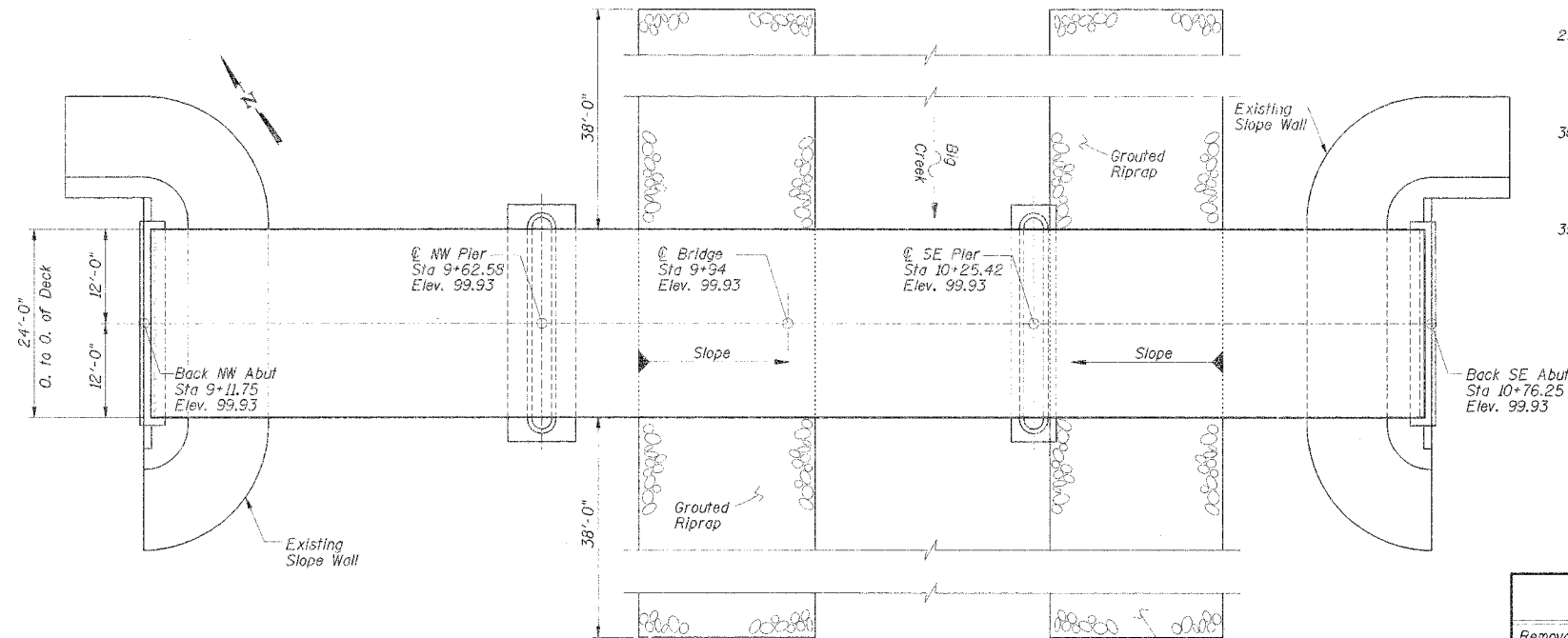
Existing Structure: Concrete Decking with Steel Beams and Concrete Piers.
3 spans of Steel Stringers and Girders.
162.5' Long and 24' Wide.

BM #1 - R.R. spike in P.P., Sta. 01+96, 32' right, Elev. 100.00
BM #2 - R.R. spike in P.P., Sta 10+91, 38' right, Elev. 91.49

ROUTE NO.	SUBSECTION	COUNTY	SHEET NO.	TOTAL SHEETS
FAS 406	*	Fulton	13	7
FAS. TRANS. DIST. NO.		ILLINOIS	FED. AID. PROJECT NO.	
			*05-00131-00-BR	



ELEVATION



PLAN

GENERAL NOTES

1. Reinforcement bars shall conform to the requirements of AASHTO M31, M42 or M53 Grade 60.
2. Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.
3. Boring Data is shown only as a guide to bidders in estimating soil conditions which may be encountered during construction.
4. Class SI or MS Concrete shall be used in the abutments.



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 the requirements of the current "AASHTO Standard Specifications for Highway Bridges."

John A. Frauenhoffer
JOHN A. FRAUENHOFFER
Illinois Licensed Structural Engineer Number 4192
License Expires 11/30/06

BORING B-1

Location: STA 8+90, 9' RT
Elev. 98.90

Water Levels
While Drilling: 19'
At Completion: 20'

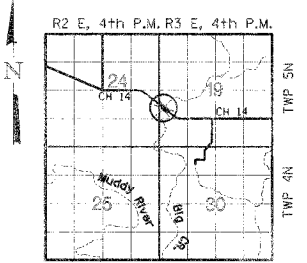
DEPTH (ft)	N	QU	W	DESCRIPTION
0				4" Oil & Chip 11" Sand & Gravel Base
6	1.53	V	15.8	Brown silty clay w/ fine sand
8	2.10	B	16.7	Dk. brown silty sandy clay
4	1.28	B	19.5	Dk. grayish brown silty clay
6	1.68	B	19.9	Dk. grayish brown silty clay w/ fine sand
4	1.42	B	19.6	Dk. gray wet silty clay
4	0.45	B	25.6	Dk. gray soft clay
6	0.30		13.8	Med. sand w/ sm. pebbles
3	--		19.3	Dk. Brown wet silty clay
107/5"	0.7	B	30.4	Lt. gray weathered shale
101/2"	--		9.3	Lt. gray weathered shale
37/6"	--		8.6	Dk. brown/black weathered shale
108/3"	--		6.1	Gray & brown weathered shale
105/2"	--		--	38.67'- End of Boring

BORING B-2

Location: STA 10+95, 8' RT
Elev. 99.20

Water Levels
While Drilling: 22.2'
At Completion: 23'

DEPTH (ft)	N	QU	W	DESCRIPTION
0				5 1/2" Oil & Chip 9" Sand & Gravel Base
7	1.2	B	15.4	Brown silty clay w/ sm. pebbles
5	1.26	B	15.7	Dk. grayish brown silty clay
5	1.58	B	19.4	Dk. grayish brown silty clay
4	1.98	B	21.7	Dk. grayish brown silty clay
4	1.15	B	26.3	Dk. grayish brown wet silty sandy clay
3	0.60	B	31.7	Dk. grayish brown wet silty sandy clay
4	0.65	B	32.0	Dk. grayish brown wet silty sandy clay
4	0.65	V, S, B	34.2	Med. to fine sand w/ pebbles
13	--		19.7	Lt. gray weathered shale
97/3"	--		4.5	Lt. gray weathered shale
101/2"	--		7.5	28.67'- End of Boring

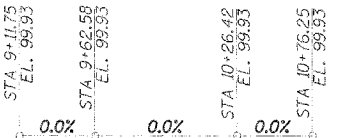


LOCATION SKETCH

STRUCTURE NO. 029-3224
SEC. 05-00131-00-BR BUILT 200
LEWISTOWN ROAD DISTRICT
FULTON COUNTY
LOADING HS-20-44

NAME PLATE

See Standard 515001



PROFILE GRADE

DESIGN SPECIFICATIONS

AASHTO 2002 and all applicable Interims

DESIGN LOADING

HS 20-44
25 P.S.F Future Wearing Surface

DESIGN STRESSES

- $f'_c = 3,500$ psi (Cast in Place Concrete)
- $f'_c = 5,000$ psi (P.P.C. Units)
- $f'_{ci} = 4,000$ psi (P.P.C. Units)
- $f_y = 60,000$ psi (Reinforcement)
- $f'_s = 270,000$ psi (1/2" ϕ Strands)
- $f'_{si} = 201,960$ psi (1/2" ϕ Strands)

WATERWAY DATA

Drainage Area	62.24	Sq. Mi.
Existing Opening	561.4	Sq. Ft.
Required Opening (20 Yr.)	708.7	Sq. Ft.
Proposed Opening (20 Yr.)	727.6	Sq. Ft.
Design Discharge (20 Yr.)	4625.6	C.F.S.
Computed Discharge (100 Yr.)	6855.7	C.F.S.
20 Yr. Head	0.34	Ft.
100 Yr. Head	0.89	Ft.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Removal of Existing Structures	Each			1
Structure Excavation	Cu. Yd.		29	29
Concrete Structures	Cu. Yd.		13.9	13.9
Concrete Superstructure	Cu. Yd.	77.0		77.0
Bridge Deck Grooving	Sq. Yd.	439		439
Protective Coat	Sq. Yd.	439		439
Precast Prestressed Concrete Deck Beams (33" Depth)	Sq. Ft.	3900		3900
Reinforcement Bars	Pound		1840	1840
Reinforcement Bars, Epoxy Coated	Pound	10410		10410
Steel Railing, Type S1	Foot	326		326
Name Plates	Each			1
Grouted Riprap (Gradation 3)	Sq. Yd.		555	555
Controlled Low-Strength Material	Cu. Yd.		23	23

DSGN	K.J. Hoffmann				
DR	K.J. Hoffmann				
CHK	J. Wolf				
APVD	J.A. Frauenhoffer	NO.	DATE	REVISION	BY

FRAUENHOFFER

Frauenhoffer and Associates, P.C. Consulting Engineers
3002 Crossing Court Champaign, Il. 61822 217-351-6268

GENERAL PLAN AND ELEVATION

COUNTY HIGHWAY 14
SECTION 05-00131-00-BR
FULTON COUNTY

SHEET	7
DWG NO.	047.gpr.dgn
DATE	AUG 2006
PROJ NO.	5047