

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Bench Mark : Chiseled "□" above bridge name plate on SNO25-0077 (IL 32/33 overflow structure) Elev. 543.66
Existing Structure : SN 025-3161, built in 1982 as TR-160 SEC. 80-03109-00-BR at Sta. 50+12.
Single span precast reinforced concrete deck beam bridge abutments on steel H-piling. 80'-0" back to back of abutments. 25'-0" overall width. The existing structure shall remain open to traffic until the proposed structure and relocated road are open to traffic; the existing structure and roadway shall then be removed.
No staging is required.
Proposed Structure: Three span PPC Deck Beam Structure on pile bent abutments and pile bent piers.
Salvage : Deck beams and railing to be salvaged and delivered to a location (within 15 miles travel distance) designated by the Douglas Township Commissioner, Mr. Clem Kaufman Maintenance Building: (217) 347-5734 Cell Phone: (217) 254-5734

ROUTE NO.	SECTION	COUNTY	SHEET	DATE	SHEET NO. 1
FAP 774	107B-2	EFFINGHAM	344	3/22	8 SHEETS
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT-					

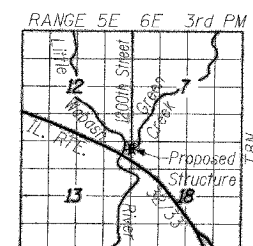
CONTRACT NO. 94827
GENERAL NOTES

- The Contractor shall drive 2 HP12 test piles, as specified, in a permanent location, one at the North Abutment and one at Pier #1, as directed by the Engineer before ordering the remaining piles.
- Class SI Concrete shall be used throughout except in the deck beams.
- Layout of the slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.
- The embankment configuration shown shall be the minimum embankment that must be constructed prior to construction of abutments.
- All construction joints shall be bonded.

STATION 204+33.91
BUILT 200 BY
STATE OF ILLINOIS
TR 160
SECTION 107B-2
LOADING HS20
STR. NO. 025-3309

NAME PLATE

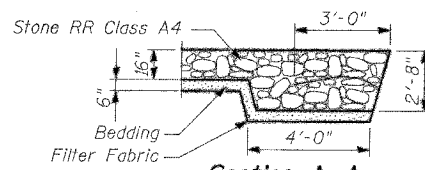
Locate Name Plate at Southeast Corner of Bridge (See Std. CN)



LOCATION SKETCH



PROPOSED PROFILE GRADE
(ALONG & ROADWAY)



Section A-A

WATERWAY INFORMATION

(Without Little Wabash River Backwater Effects)

Drainage Area = 41.80 Sq. Miles		Existing Low Grade Elev. = 529.70 ft. @ Sta. 147+82 (Existing 1200th Street)		Proposed Low Grade Elev. = 531.00 ft. @ Sta. 208+50 (Realigned 1200th Street)			
Flood	Freq. Yr.	Discharge C.F.S.	Opening Sq. Ft. Ex. Prop.	Ex. Nat. H.W.E.	Pr. Nat. H.W.E.	Head - Ft. Ex. Prop.	Headwater El. Ex. Prop.
Design	10	3748	492 703	526.9	529.7	0.4 0.3	527.3 528.3
Base	50	5636	625 845	528.7	529.7	0.1 0.7	528.8 530.4
Ex. Overtop	100	6428	688 904	529.6	530.4	0.2 0.7	529.8 531.1
Pr. Overtop	5+	3000	431	525.9	-	0.3	526.2
	5+	3050	624	527.0	-	0.0	527.0

10 Year Velocity through Existing Bridge = 7.62fps
10 Year Velocity through Proposed Bridge = 5.33fps

TOTAL BILL OF MATERIAL

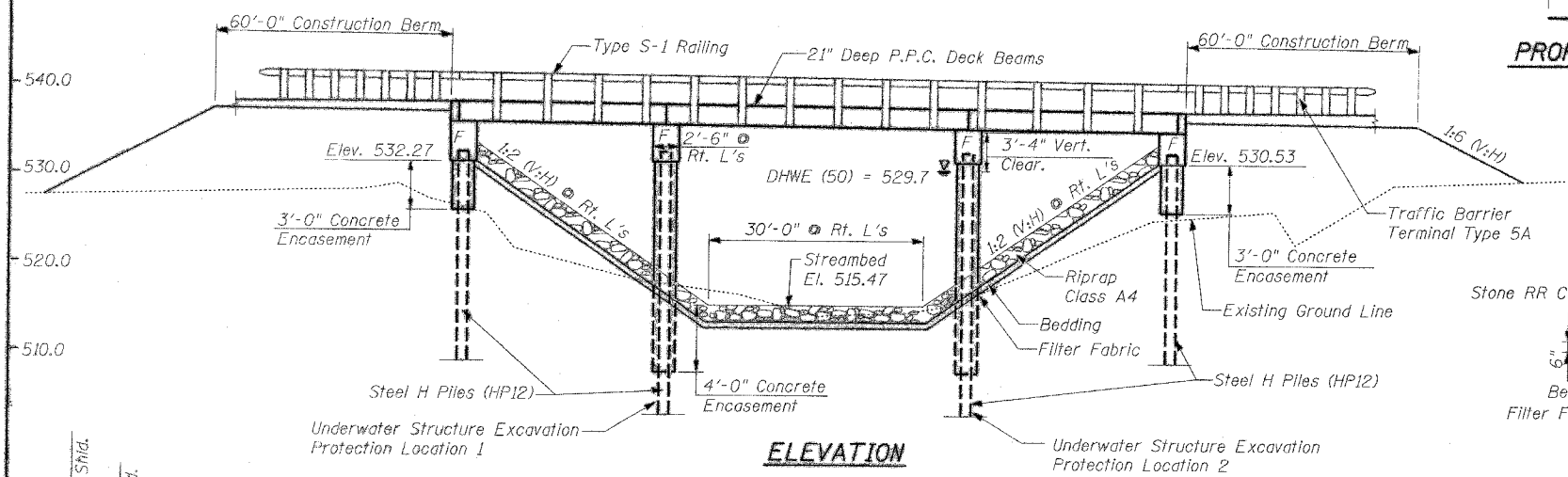
Item	Unit	Super	Sub.		Total
			Piers	Abuts.	
Removal of Existing Structures	Each	--	--	--	1
Concrete Structures	Cu. Yd.	--	15.4	22.0	37.4
Precast Prestressed Concrete Deck Beams (21" Depth)	Sq. Ft.	3101.0	--	--	3101
Steel Railing, Type S1	Foot	222	--	--	222
Reinforcement Bars, Epoxy Coated	Pound	--	1784	2762	4546
Furnishing Steel Piles HP12x53	Foot	--	374	306	680
Driving Steel Piles	Foot	--	374	306	680
Test Pile Steel HP12x53	Each	--	1	1	2
Name Plates	Each	--	--	--	1
Concrete Encasement	Cu. Yd.	--	27.9	3.5	31.4
Stone Riprap, Class A4	Sq. Yd.	--	--	--	1088
Filter Fabric For Use With Riprap	Sq. Yd.	--	--	--	1088
Structure Excavation	Cu. Yd.	--	--	71	71
Porous Granular Embankment	Cu. Yd.	--	--	53	53
Underwater Structure Excavation Protection Location 1	Each	--	1	--	1
Underwater Structure Excavation Protection Location 2	Each	--	1	--	1

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

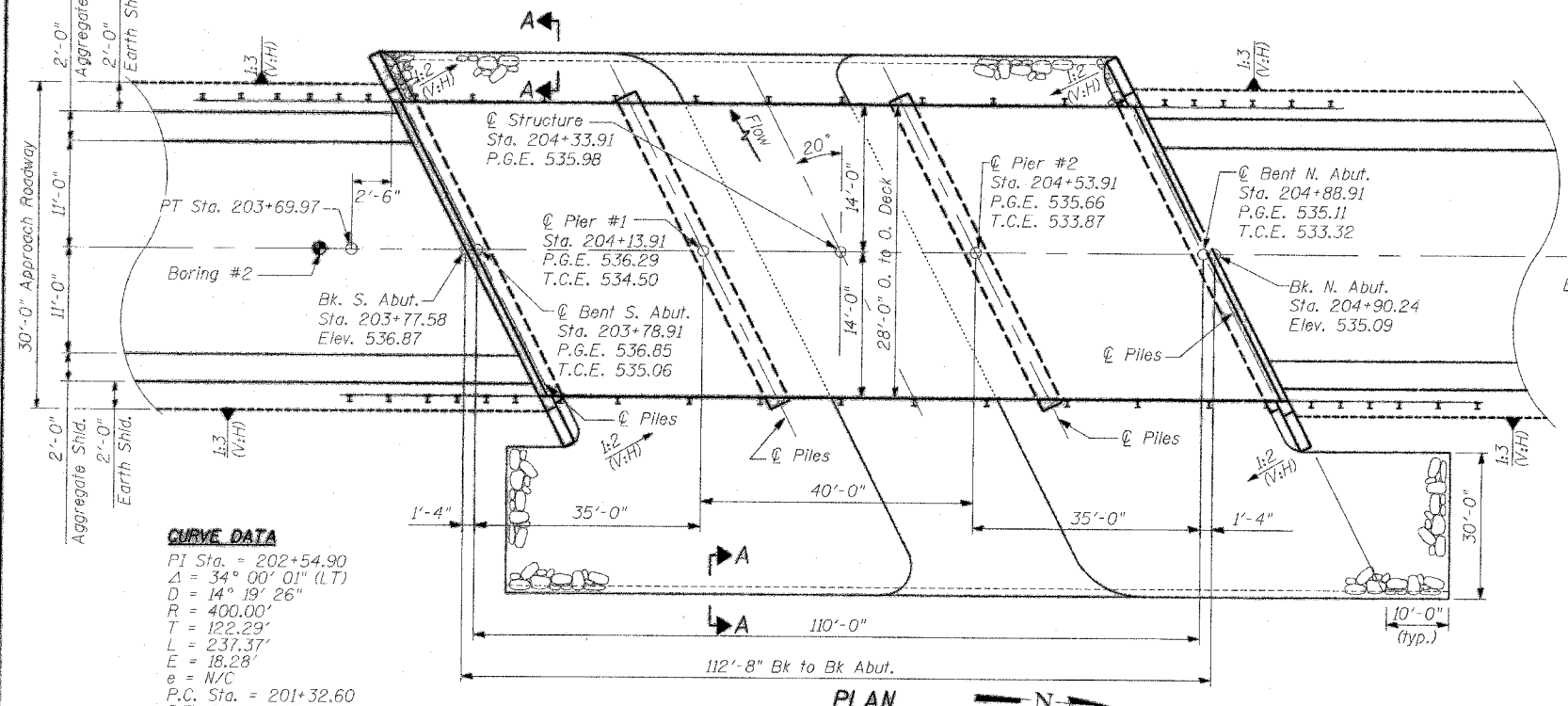


Toni M. McDonough 9-12-03
Date
Toni M. McDonough
Licensed Structural Engineer
State of Illinois No. 81-5025
License Expires 11/30/04

GENERAL PLAN & ELEVATION
1200th STREET OVER GREEN CREEK
FAP RTE. 774, SECTION 107B-2
EFFINGHAM COUNTY
STATION 204+33.91
S.N. 025-3309



ELEVATION



PLAN

CURVE DATA
PI Sta. = 202+54.90
Δ = 34° 00' 01" (LT)
D = 14° 19' 26"
R = 400.00'
T = 122.29'
L = 237.37'
E = 18.28'
e = N/C
P.C. Sta. = 201+32.60
P.T. Sta. = 203+69.97

SEISMIC DATA

Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 0.070g
Site Coefficient (S) = 1.5

LOADING HS20-44

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

DESIGN SPECIFICATIONS

2002 AASHTO

DESIGN STRESSES

FIELD UNITS
f'c = 3,500 psi
f'ci = 4,000 psi
fy = 60,000 psi (reinforcement)

PRECAST PRESTRESSED UNITS

f'c = 5,000 psi
f'ci = 4,000 psi
fs = 270 ksi (1/2" Dia. stress relieved strands)
fsi = 189 ksi (1/2" Dia. stress relieved strands)

DESIGNED	TMM
CHECKED	KCM
DRAWN	CAR
CHECKED	TMM