B.M. - B.M. #1, Chisled "X" on 15" RCP Culvert, 17.5' RT., STA. 48+11.1, EL. 540.74
T.B.M. #1, Temporary Bench Mark - R.R. Spike in 40" Tree, 12.1' LT., STA. 50+48.3, EL. 545.13

Existing Structure - Two span precast concrete channel beams on timber caps with timber piling

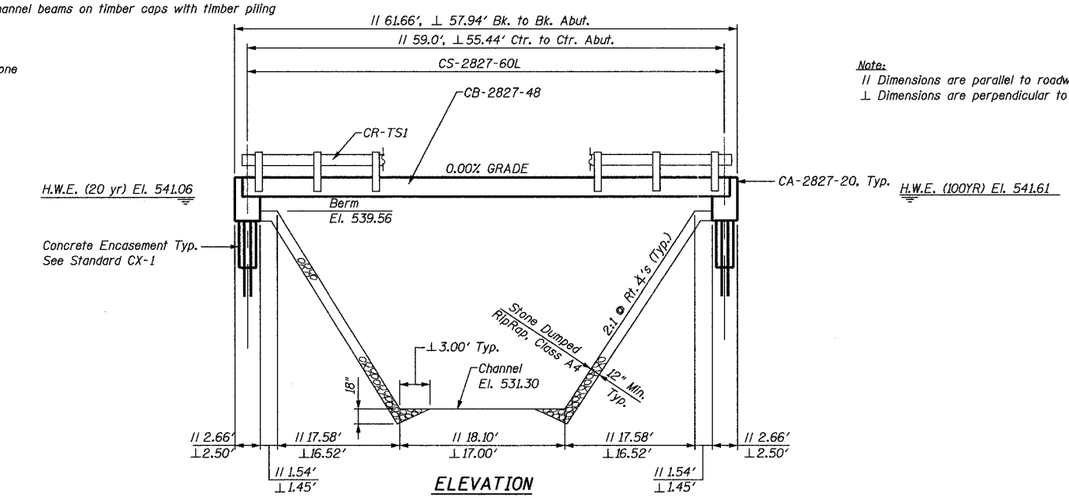
Salvage - None

Existing Known Utilities - Overhead electric, Telephone

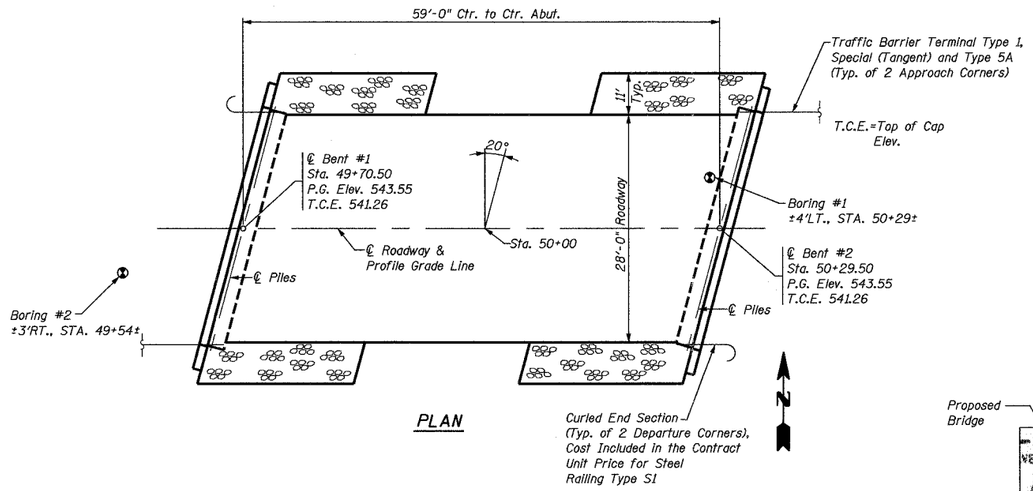
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 20	05-00124-00-BR	MARION	12	4
FEDERAL AID PROJECT		ILLINOIS		

CONTRACT NO. 97321



ELEVATION



PLAN

Note:
// Dimensions are parallel to roadway
⊥ Dimensions are perpendicular to channel

GENERAL NOTES

1. The contractor shall drive test piles to 110% of the nominal required bearing specified in production locations at the substructures specified or approved by the Engineer before ordering the remainder of the piles.
2. See Special Provisions for boring logs.
3. A Corrosion Inhibitor shall be used in the concrete for precast, prestressed concrete deck beams, according to Article 1020.05 (b) (12) of the Standard Specifications.
4. The Waterproofing Membrane System and Bituminous Concrete Surface Course Shown on the Standards Shall Not be Provided.
5. Reinforcement bars shall conform to the requirements of ASTM A706 Grade 60 (IL Modified). See special provisions. This note supersedes notes on Abutment and Pier Sheets.

TOTAL BILL OF MATERIAL

Item	Unit	Super	Sub. Piers	Sub. Abuts.	Total
Removal of Existing Structures	Each				1
Concrete Structures	Cu. Yd.			22.2	22.2
Precast Prestressed Concrete Deck Beams (27" Depth)	Sq. Ft.	1680			1680
Steel Railing, Type S1	Foot	120			120
Reinforcement Bars	Pound			2680	2680
Furnishing Steel Piles HP 10x42	Foot			432	432
Driving Piles	Foot			432	432
Test Pile Steel HP 10x42	Each			1	1
Name Plates	Each			1	1
Concrete Encasement	Cu. Yd.			2.6	2.6
Pile Shoes	Each			10	10

The standard detail sheets for this structure were assembled by me or persons under my direct supervision.

MICHAEL R. QUANDT 062-042893 LICENSED PROFESSIONAL ENGINEER OF ILLINOIS

Date: 9/12/07

Date of License Expiration: 11/30/07

Signature: Michael R Quandt

I certify these Standard Bridge Plans for foundation treatment only.

WILLIAM D. LUEKING 4341 REGISTERED STRUCTURAL ENGINEER OF ILLINOIS

Date: 9/12/07

Date of License Expiration: 11/30/08

Signature: William D Lueking

INDEX OF SHEETS

4. General Plan & Elevation
5. Standard CS-2827-60L
6. Standard CB-2827-48
7. Standard CA-2827-20
8. Standard CR-TS1
9. Standard CN
10. Standard CX-1

DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications - 17th ed.

LOADING HS 20-44

Allow 25# / Sq. Ft. for Future Wearing Surface.

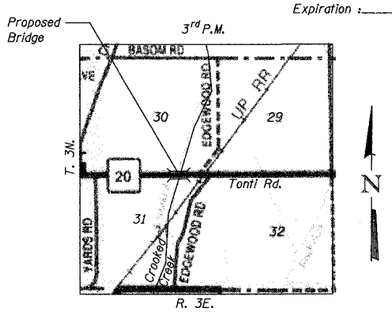
PILE DATA (2-ABUTS.)

Pile Type and Size:	Steel Piles, HP10x42
Nominal Required Bearing:	222 kips
Allowable Resistance Available:	74 kips
Estimated Pile Length:	48 Feet
Number of Production Piles:	9 (Provide Pile Shoes)
Number of Test Piles:	1 (located in Bent #2) (Provide Pile Shoes)

STATION 50+00
CROOKED CREEK
SEC. 05-00124-00-BR BUILT 20__
PROJECT NO. BROS-0121(045)
MARION COUNTY
LOADING HS20
STR. NO. 061-3303

LETTERING FOR NAME PLATE

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



LOCATION SKETCH

WATERWAY INFORMATION

Drainage Area = 9.25 Sq. Mi. Low Grade Elev. 541.12 ℄ Sta. 48+72

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Nat. H.W.E. Ft.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater Elev. - Ft. Exist.	Headwater Elev. - Ft. Prop.
Design	20	1955	168	356	541.06	N/A	0.24	N/A	541.30
Base	100	2892	178	356	541.61	N/A	0.56	N/A	542.17
Overtopping									
Max. Calc.	500								

Date: SEPTEMBER 12, 2007

GENERAL PLAN & ELEVATION
COUNTY HIGHWAY 20 (TONTI ROAD) OVER CROOKED CREEK
SECTION 05-00124-00-BR
MARION COUNTY
STATION 50+00

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