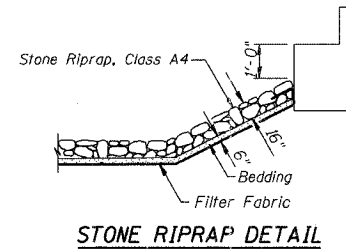
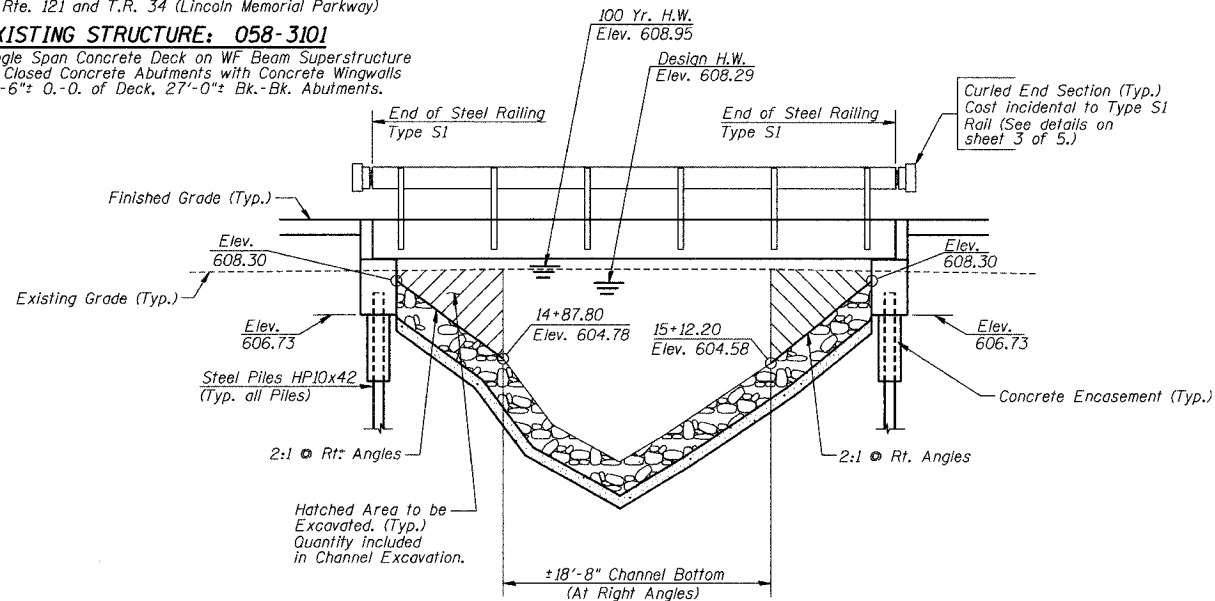


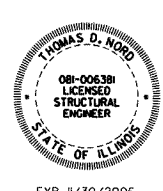
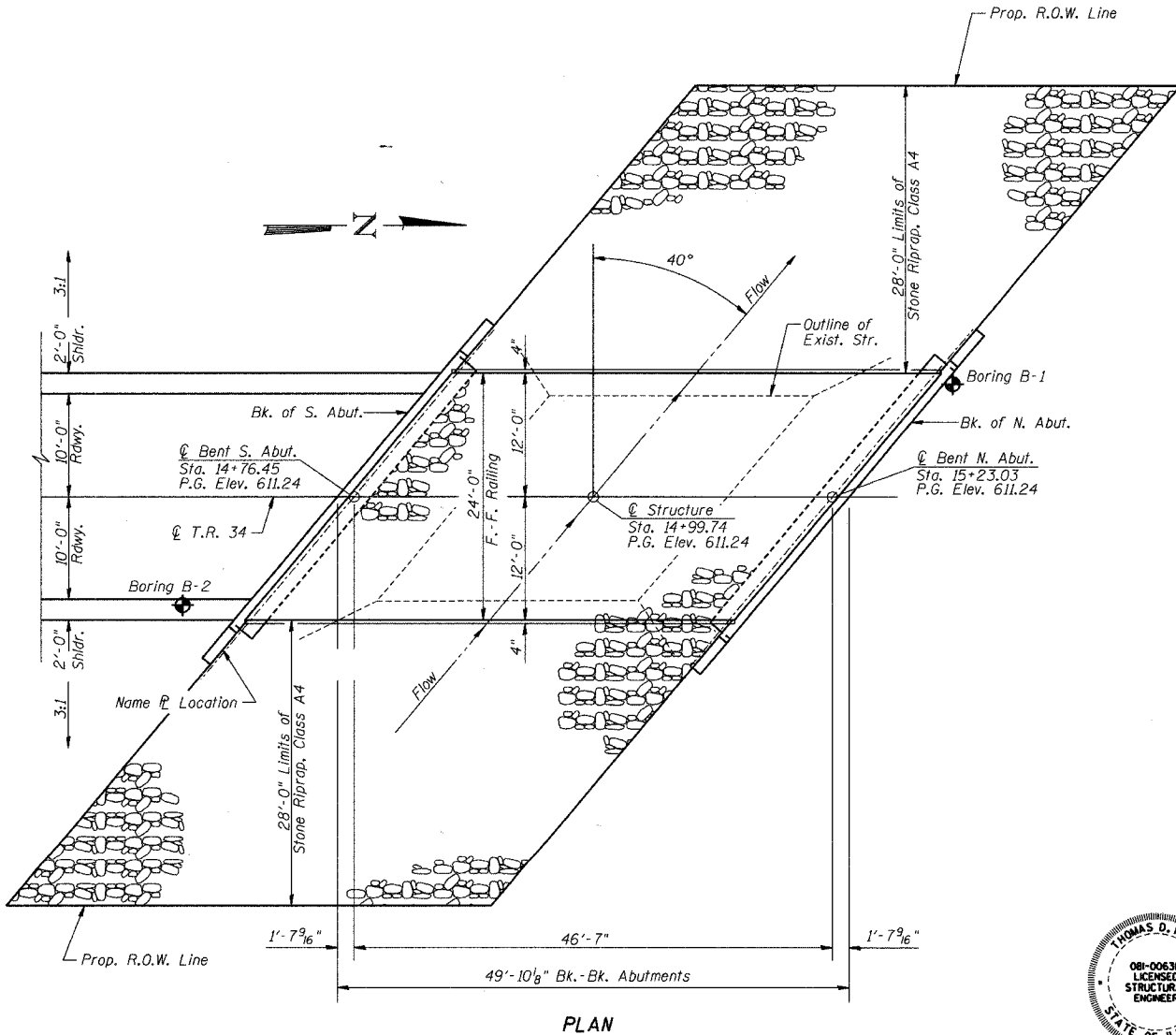
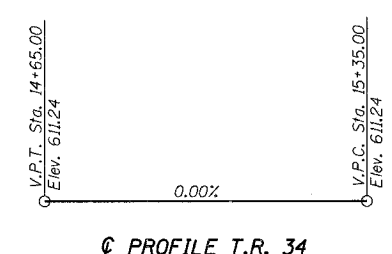
BENCHMARK:
 U.S.G.S. Marker (DE8883)
 ± 0.3 Mi. South of Exist. Str. at N.W. Corner of
 IL Rte. 121 and T.R. 34 (Lincoln Memorial Parkway)

EXISTING STRUCTURE: 058-3101
 Single Span Concrete Deck on WF Beam Superstructure
 on Closed Concrete Abutments with Concrete Wingwalls
 19'-6"± O.-O. of Deck, 27'-0"± Bk.-Bk. Abutments.



UNNAMED DRAINAGE DITCH
 BUILT 200., BY
 MACON COUNTY
 SECTION 05-07157-00-BR
 T.R. 34 STA. 14+99.74
 STR. NO. 058-3380 LOADING HS-20

NAME PLATE
 (See Std. 515001)



DATE: 10/18/2006
 Thomas D. Nord
 THOMAS D. NORD
 ILL. STRUCTURAL NO. 6381

"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."

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
T.R. 34	05-07157-00-BR	MACON	II	7
FED. ROAD DIST. NO.		ILLINOIS PROJECT: BROS-115(59)		

CONTRACT NO. 95494

GENERAL NOTES

Layout of Riprap Slopes may be varied in the field to suit ground conditions as directed by the Engineer.

See Proposal for Boring Data.

Reinforcement Bars shall conform to the requirements of AASHTO M-31, or M-322, Grade 60.

The Contractor shall drive one Steel Test Pile in a permanent location at the West end of the South Abutment, or as directed by the Engineer before ordering the remainder of piles.

The area between the bottom of the beams and the top of the caps shall be filled with non-shrink grout to prevent the beams from rocking.

Excavation required for Abutment Construction shall be included in Concrete Structures. No additional compensation will be provided for Structure Excavation.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Channel Excavation	Cu. Yd.		39	39
Stone Riprap, Class A4	Sq. Yd.		540	540
Filter Fabric	Sq. Yd.		540	540
Removal of Existing Structures	Each			1
Concrete Structures	Cu. Yd.		22.6	22.6
P.P.C. Deck Beams (21" Depth)	Sq. Ft.	1144		1144
Reinforcement Bars, Epoxy Coated	Pound		2940	2940
Steel Railing, Type S1	Foot	96		96
Furnishing Steel Piles HP10x42	Foot		261	261
Driving Piles	Foot		261	261
Test Pile Steel HP10x42	Each		1	1
Concrete Encasement	Cu. Yd.		3.4	3.4
Name Plates	Each		1	1

DESIGN SPECIFICATIONS
 2002 AASHTO

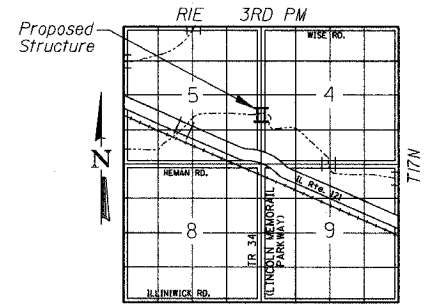
LOADING HS20-44

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

DESIGN STRESSES

FIELD UNITS
 f'c = 3,500 p.s.i.
 fy = 60,000 p.s.i.
 n = 9

PPC UNITS
 f'ci = 4,000 p.s.i.
 f'c = 5,000 p.s.i.
 f's = 270,000 p.s.i.
 f'si = 201,960 p.s.i.



WATERWAY INFORMATION

Drainage Area = 2.4 Sq. Mi. Existing Low Grade Elev. 608.17 @ Sta. 17+40.00
 Proposed Low Grade Elev. 608.17 @ Sta. 17+40.00

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Prop.	H.W.E. Exist.	Prop.	Headwater El. Exist.	Prop.
Design	15	593	96	147	608.29	0.23*	0.16*	608.52/608.45
Base	100	996	96	165	608.95	0.02*	0.05*	608.97/609.00
Overtopping								
Max. Calc.	500	1337	96	174	609.24	-0.02*	0.04*	609.23/609.28

Low Beam Elev. (Prop.) = 609.30

* Over-the-Road Flow Occurs

EXISTING
 15 Yr.: 111.3 Sq. Ft. over roadway
 100 Yr.: 321.6 Sq. Ft. over roadway
 500 Yr.: 495.2 Sq. Ft. over roadway

PROPOSED
 15 Yr.: 122.0 Sq. Ft. over roadway
 100 Yr.: 248.5 Sq. Ft. over roadway
 500 Yr.: 378.4 Sq. Ft. over roadway

GENERAL PLAN AND ELEVATION

Date	Designed MJP	T.R. 34 OVER UNNAMED DRAINAGE DITCH SECTION 05-07157-00-BR MACON COUNTY STA. 14+99.74 PROP. STR. NO. 058-3380	Sheet No.
Revisions	Drawn BKN		1
	Checked TDN		
	Approved TDN		
Prepared by:	URS 345 East Ash Avenue Decatur, IL 62526		of 5 URS Job No. 36431679