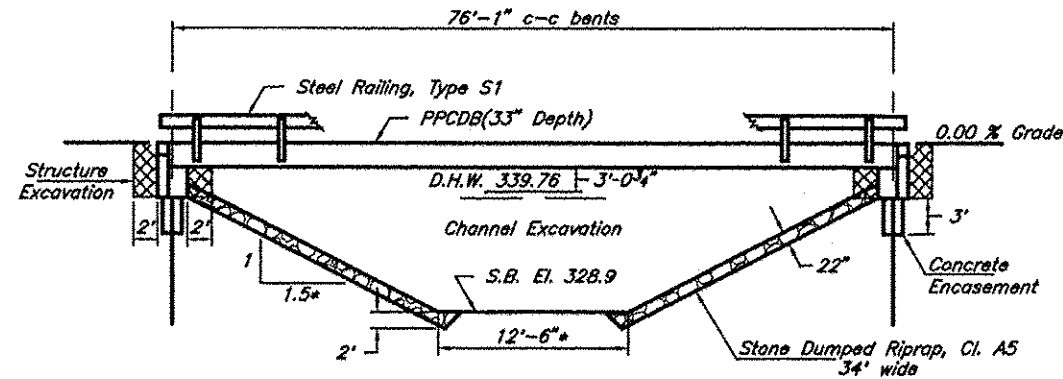


ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CH 1	10-00087-00-BR	MASSAC	11	3
PROJECT NO. BROS-127(21)			CONTRACT NO. 99518	

B.M.#1- Dbl. nail in Telephone Pole
49' Lt. Station 496+70
Elev. 343.73

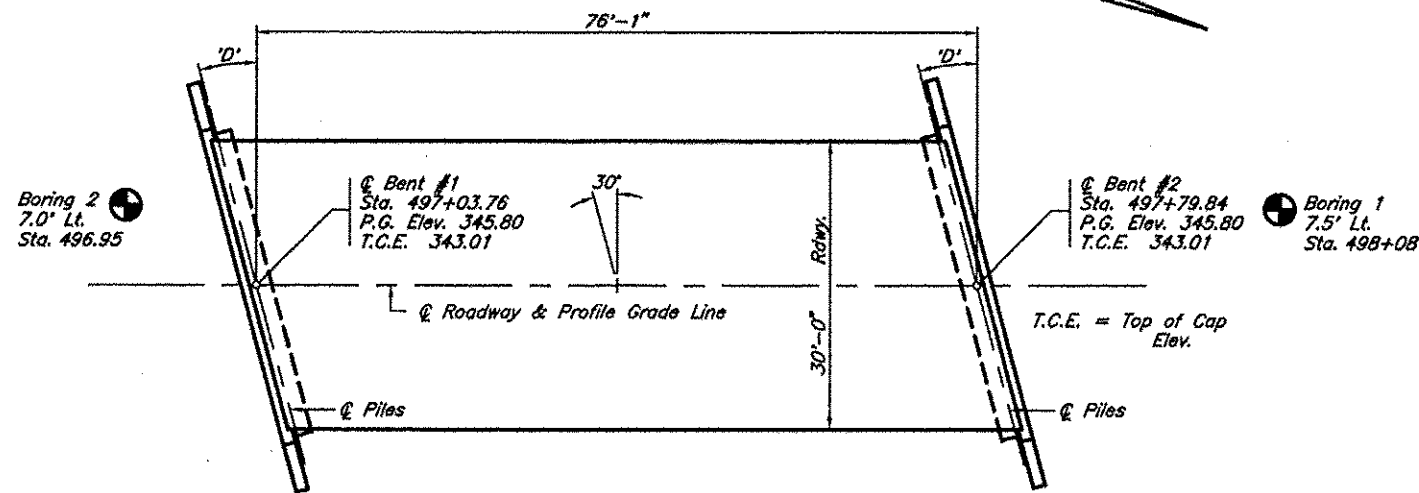
B.M.#2- Dbl. nail in Power Pole
57' Rt. Station 498+16
Elev. 345.33



* Normal to Channel

ELEVATION

Existing Structure - Two span precast reinforced concrete deck beams on closed timber pile bent abutments and open timber pile bent pier with concrete caps. 26.2' W x 58.0' L.



PLAN

Skew Angle "D" = 30° Right Forward

GENERAL NOTES

1. Metal Shell piles shall meet ASTM A 252 Grade 3 specifications.
2. Test Piles shall be driven to 110% of the Nominal Required Bearing indicated in the pile data.
3. The Contractor shall drive one test pile, as specified, in a permanent location as directed by the Engineer before ordering the remaining piles.
4. See special provisions for boring logs.
5. A Corrosion inhibitor, as covered in the Standard Specifications, shall be used in the precast prestressed concrete deck beams.

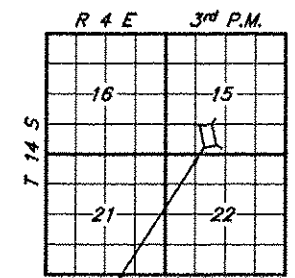
TOTAL BILL OF MATERIAL

Item	Unit	Super	Sub.		Total
			Piers	Abuts.	
Channel Excavation	Cu. Yds.			138	138
Stone Dumped Riprap, Cl. A5	Tons			364	364
Removal of Existing Structures	Each				1
Structure Excavation	Cu. Yds.			95	95
Concrete Structures	Cu. Yds.			32.0	32.0
Concrete Encasement	Cu. Yds.			3.1	3.1
P.P. Conc. Dk. Brn. 33" Dp.	Sq. Ft.	2,310			2,310
Reinforcement Bars	Pound			3,789	3,789
Steel Railing, Type S1	Foot	156			156
Furnishing Metal Shell Piles 12"x 0.250"	Foot			520	520
Driving Piles	Foot			520	520
Test Pile Metal Shells	Each			1	1
Name Plates	Each			1	1

STATION 497+41.8
NEW COLUMBIA DITCH
SEC. 10-00087-00-BR BUILT 20
COUNTY UNIT ROAD DISTRICT
MASSAC COUNTY
LOADING HL-93
STR. NO. 064-3146

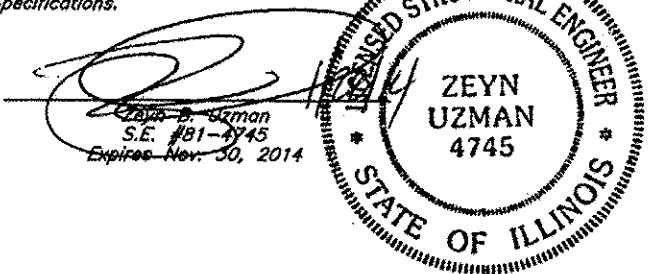
LETTERING FOR NAME PLATE

Locate Name Plate at southeast corner of Bridge (See Sheet 8)



LOCATION SKETCH

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 type of structure and comply with the requirements of the current AASHTO LRFD Specifications.



PILE DATA (2-ABUTS.)

Type & Size : Metal Shell 12"x 0.250"
Nominal Required Bearing : 269 kips
Factored Resistance Available : 148 kips
Estimated Length : 50 feet Bent #1, 45 feet Bent #2
Number Required : 12 (Includes 1 Test Pile located in Bent #1)

DESIGN SPECIFICATIONS

2007 AASHTO LRFD Bridge Design Specifications and all applicable interims.

LOADING HL-93

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

SEISMIC DATA

Soil Site Class = D
Design Spectral Acceleration at 0.2 sec. (S_{0.2}) = 1.139
Design Spectral Acceleration at 1.0 sec. (S_{1.0}) = 0.499
Seismic Performance Zone (SPZ) = 3

WATERWAY INFORMATION

Drainage Area = 15.41 Sq. Mi.		Low Grade Elev. = 345.22		At Sta. 502+00		
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist. Prop.	Natural H.W.E. Exist. Prop.	Cr. Head Ft. * Exist. Prop.	Headwater El. Exist. Prop.
Design	20	4,530	279.2 388.0	339.76 25.24 15.04	365.00 354.80	
Base	100	6,450	294.9 359.3	340.13 36.16 21.58	376.29 361.71	

* The calculated created heads shown are not typical of the actual created heads observed at the structure due to the effects of the over bank areas acting as impoundments, reducing the actual flow through the structure.

GENERAL PLAN & ELEVATION
COUNTY HIGHWAY 1 (NEW COLUMBIA ROAD)
NEW COLUMBIA DITCH
SECTION 10-00087-00-BR
MASSAC COUNTY
STRUCTURE NO. 064-3146