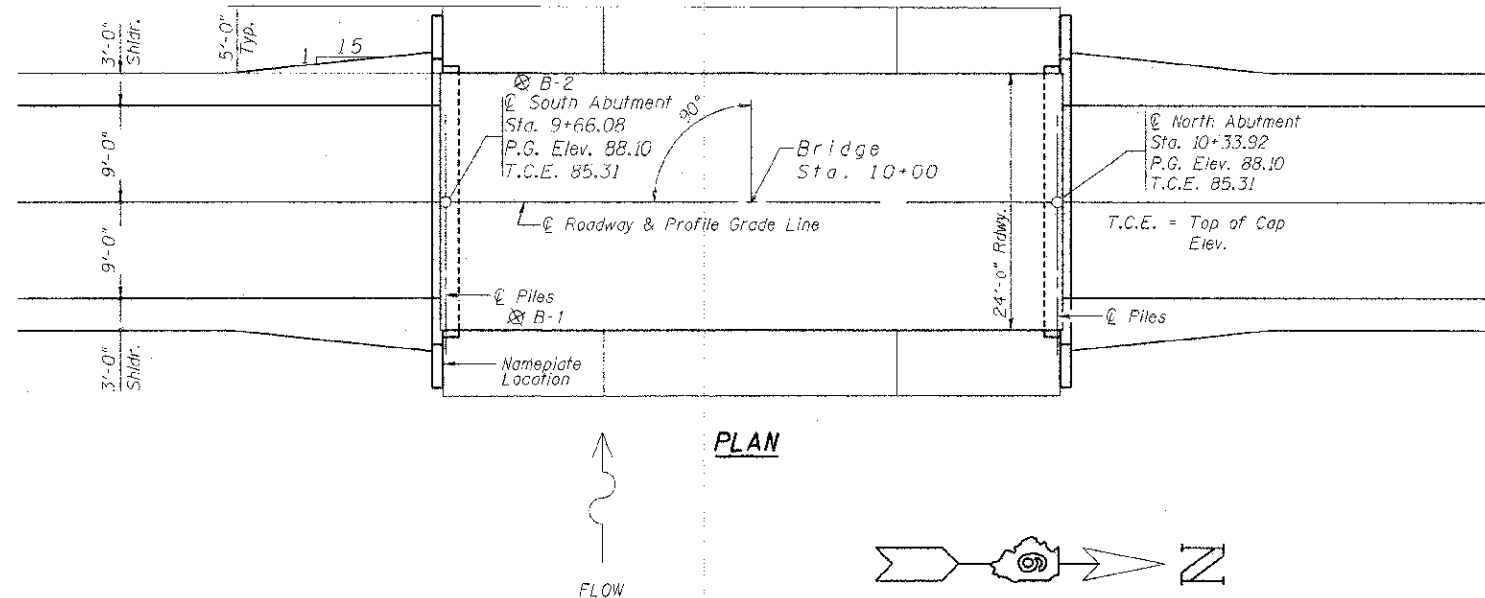


Existing Structure- Two Span I-Beam with a wood deck on concrete closed abutments. The structure is approximately 38' back to back of abutments. has a approximate 14' width. (SN 011-3162)



Design Scour	N. Abut.	S. Abut.
Elevation (ft.)	82.61	82.61

2012 AASHTO LRFD BRIDGE
DESIGN SPECIFICATIONS - 6TH EDITION

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

Peak Ground Acceleration (PGA) = 0.09
Design Spectral Acceleration at 1.0 sec. (S_1) = 0.07g
Design Spectral Acceleration at 0.2 sec. (S_s) = 0.20 g
Site Coefficient (S) = C

Type: STEEL HP16X42
Nominal Required Bearing: 333 kips
Factored Resistance Available: 166 kips
Estimated Length: 45 feet
Number of Piles: 10 (includes 1 test pile at North Abutment)

LETTERING FOR NAME PLATE

Locate Name Plate at SE
Corner of Bridge

LOCATION SKETCH

Drainage Area = 3.49 sq. ml. Low Grade Elev. = 88.10 @ Sta. 10+00									
Flood	Freq.	Q	Opening Sq. Ft.		Nat.	Hood - Ft.		Headwater E	
	Yr.	C.F.S.	Exist.	Prop.	H.W.E.	Exist.	Prop.	Exist.	Prop.
Design	15	976	279	371	83.73	0.53	0.38	84.26	84.11
Base	100	1374	279	404	84.28	1.08	0.55	85.36	84.8
Overtopping									
Max. Calc.	500								

1. The Contractor shall drive one steel test pile to 110% of the Nominal Required Bearings, as specified, in a permanent location as directed by the Engineer before ordering the remaining piles.
2. See Special Provisions for boring logs.

Item	Unit	Super	Sub.	Total
			Abuts.	
Removal of Existing Structures	Each			1
Channel Excavation	Cu. Yd.		540	540
Concrete Structures	Cu. Yd.		18.0	18.0
Precast Prestressed Concrete Deck Beams (33" Depth)	Sq. Ft.	1656		1656
Steel Railing, Type S1	Foot	138		138
Reinforcement Bars	Pound		2350	2350
Furnishing Steel Piles HP10X42	Foot		405	405
Driving Piles	Foot		405	405
Test Pile Steel HP10X42	Each		1	1
Name Plates	Each		1	1
Concrete Encasement	Cu. Yd.		3.4	3.4
Stone Riprap, Class A4	Ton		175	175
Filter Fabric	Sq. Yd.		265	265

"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'".

ILLINOIS STRUCTURAL NO. 4745

Expires 11/30/2014



FILE NAME = @7.1.E.9	USER NAME = \$USER\$	DESIGNED ~ _____	REVISED ~ _____	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL PLAN & ELEVATION TR 205 OVER TRIBUTARY TO LOCUST CREEK STA. 10+00	Project: 1-113 205-TRN, 1 St. (711) 686-0222, 65-Mile 129400104 (http://www.mtdot.com)		P.A. RTG. TR 205	SECTION 08-07115-00-BR	COUNTY CHRISTIAN	TOTAL SHEETS 12	SHEET NO. 4	
	PLOT SCALE = \$SCALE\$	DRAWN ~ _____	REVISED ~ _____			ILLINOIS FED. AID PROJECT							
	PLOT DATE = \$DATE\$	CHECKED ~ _____	REVISED ~ _____			SCALE: _____ SHEET NO. 1 OF 6 SHEETS STA. _____ TO STA. _____							