

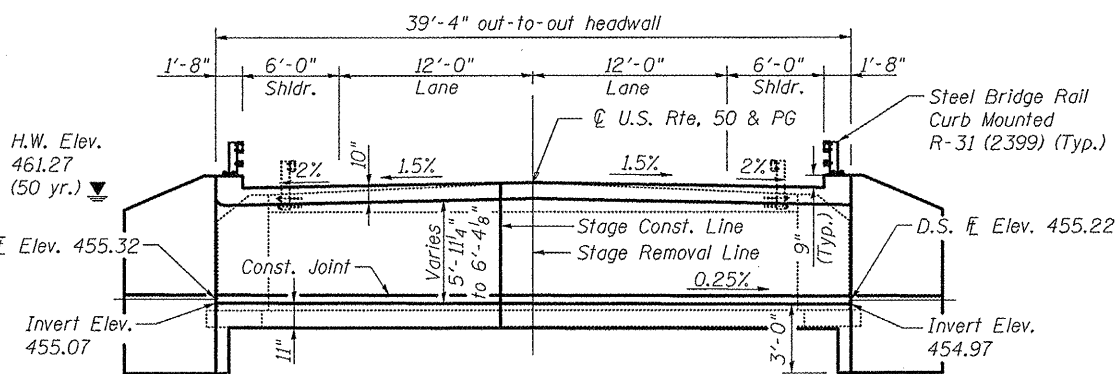
Bench Mark: Railroad Spike in Power Pole: Sta. 835+23.14, 34.37' Rt., Elev. 461.06

Existing Structure: S.N. 014-0410 originally constructed in 1922 as SBI Rte. 12, Section 20, with repairs in 2008 is a single span slab bridge that carries US Rte. 50 over an unnamed stream. The structure is on a 0 degree skew. The existing superstructure consists of an 11 1/2" thick concrete deck slab and a 10" reinforced concrete overlay. The span length is 16'-0" with a back-to-back abutment length of 18'-0". The out-to-out width is 32'-0" with a curb-to-curb width of 30'-0". The existing substructure consists of concrete abutments founded on spread footings. Traffic to be maintained utilizing stage construction with the use of signalized Traffic Lights.

No Salvage.

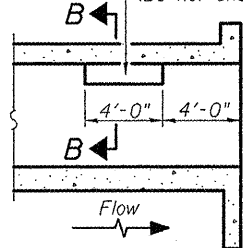
**GENERAL NOTES**

Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. Reinforcement bars designated (E) shall be epoxy coated. Precast alternative is not allowed. Excavation behind existing abutment walls shall be performed to balance front and back soil pressure before removing the existing superstructure. The Contractor shall sawcut the upper portion of the existing abutment at the stage removal line before Stage I removal to ensure the remaining portion will not be prematurely damaged.



**LONGITUDINAL SECTION**

Notch formed by rough finished board attached to and removed with form work, each interior wall. (Do not chamfer).



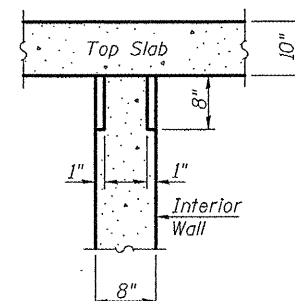
**LONGITUDINAL SECTION**

**INDEX OF SHEETS**

1. General Plan & Elevation
2. Stage Construction Details
3. Temporary Concrete Barrier for Stage Construction
4. Culvert Top Slab Elevations
5. Top of West Approach Slab Elevations
6. Top of East Approach Slab Elevations
- 7.-8. Bridge Approach Slab Details
9. Culvert Details-Top Slab
10. Culvert Details-Bottom Slab
11. Culvert Details
12. Steel Railing, Type 2399
13. Bar Splicer Details
- 14.-15. Soil Borings

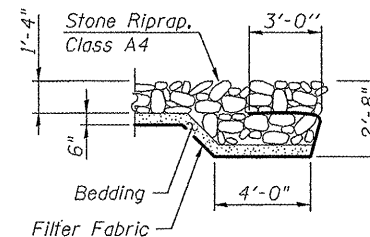
**TOTAL BILL OF MATERIAL**

ITEM	UNIT	TOTAL
Stone RipRap, Class A4	Sq. Yd.	123
Filter Fabric	Sq. Yd.	123
Removal of Existing Structures	Each	1
Concrete Structures	Cu. Yd.	22.8
Concrete Superstructure	Cu. Yd.	112.0
Bridge Deck Grooving	Sq. Yd.	324
Concrete Box Culverts	Cu. Yd.	110.5
Reinforcement Bars	Pound	15,910
Reinforcement Bars, Epoxy Coated	Pound	40,510
Temporary Sheet Piling	Sq. Ft.	332.4
Temporary Soil Retention System	Sq. Ft.	156.9
Bar Splicers	Each	350
Name Plates	Each	1
Steel Railing, Type 2399	Foot	54



**SECTION B-B**

**PHOEBE NESTING SITE DETAILS (Downstream End Only)**



**SECTION A-A**

**DESIGN SCOUR ELEVATION TABLE**

Design Scour Elevation (ft.)	U.S. Invert	D.S. Invert
	452.07	451.97

**WATERWAY INFORMATION**

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.*		Head - Ft.		Headwater El.	
			Exist.	Prop.	Exist.	Prop.	Exist.	Prop.
Ex. Overtopping	9	363	81.6	134.9	460.59	0.78	-	461.37
	10	381	81.6	136.3	460.65	0.85	0.00	461.50
Design	50	612	81.6	142.6	461.27	2.17	0.00	463.44
Pr. Overtopping	80	676	81.6	142.6	461.29	-	0.08	461.37
Base	100	715	81.6	142.6	461.49	2.21	0.01	463.70

\* Waterway opening is calculated at the downstream face of the culvert.

**DESIGN SPECIFICATIONS**  
2002 AASHTO Standard Specifications for Highway Bridges

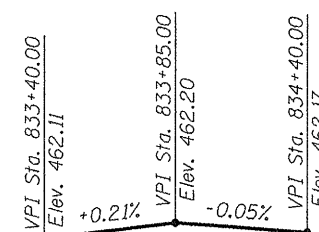
**LOADING HS 20-44**

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

**DESIGN STRESSES**

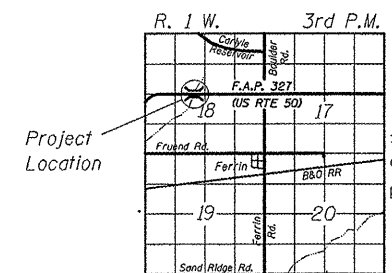
**FIELD UNITS**

f'c = 3,500 psi  
fy = 60,000 psi (Reinforcement)



**PROFILE GRADE**

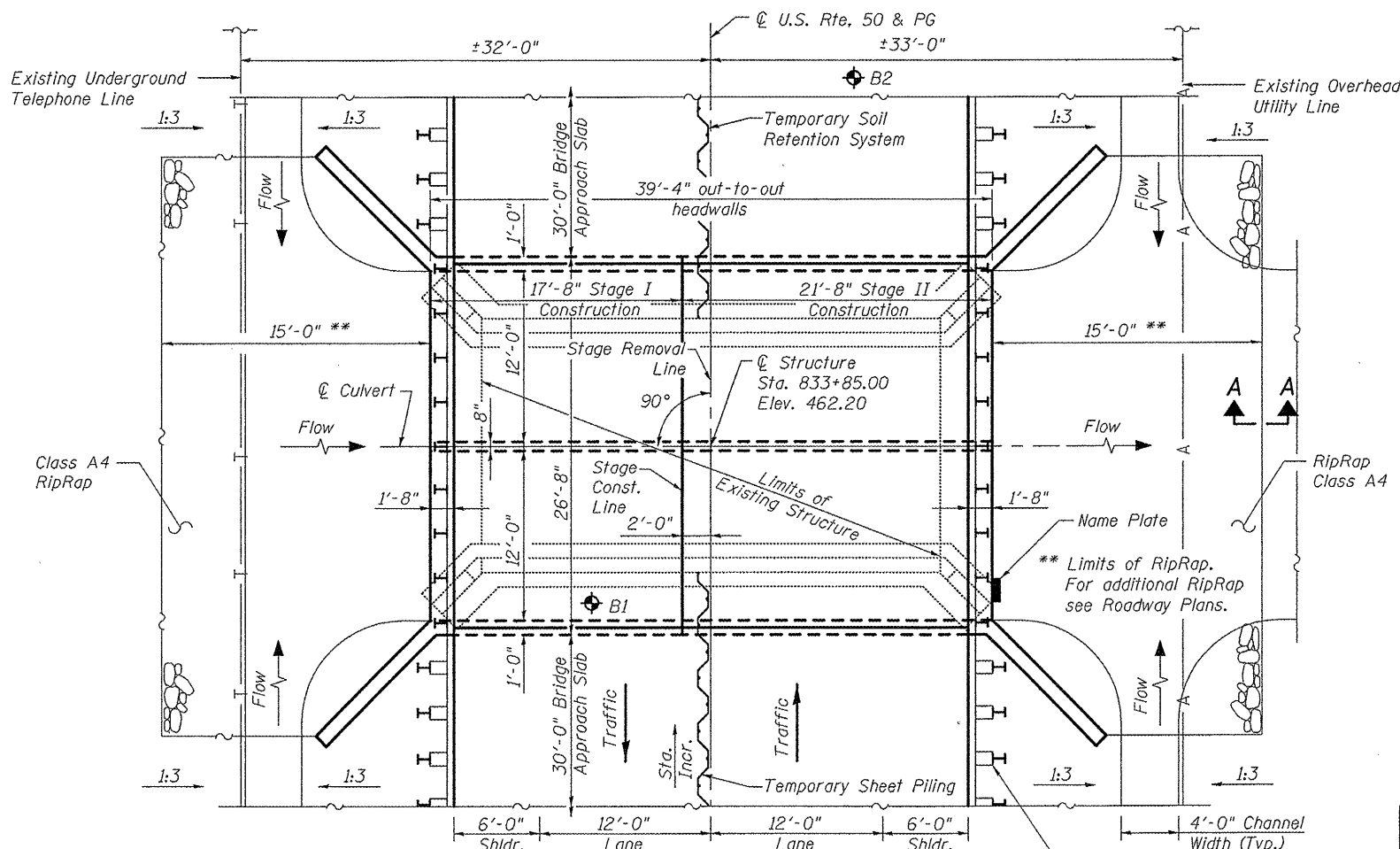
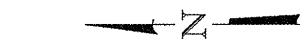
**GENERAL PLAN & ELEVATION**  
**U.S. ROUTE 50 OVER UNNAMED STREAM**  
**F.A.P. RTE. 327 - SEC. 20BR**  
**CLINTON COUNTY**  
**STATION 833+85.00**  
**STRUCTURE NUMBER 014-2024**



**LOCATION SKETCH**

STATION 833+85.00  
BUILT 20\_\_ BY  
STATE OF ILLINOIS  
F.A.P. RT. 327, SEC. 20BR  
LOADING HS 20-44  
STR. NO 014-2024

**NAME PLATE**  
(See Std. 515001)



**PLAN VIEW**



**APPROVED**  
For Structural Adequacy Only

*Chadwick J. Fuesting*  
**Engineer of Bridges & Structures**

FILE NAME = \D\42024-76B43-001-GPE.dgn  
DESIGNED - ACS  
CHECKED - BB  
DRAWN - JG  
CHECKED - CJF

USER NAME =  
Illinois Design Firm Number 184.001670  
PLOT SCALE =  
PLOT DATE = 12/46/37 PM 2/13/2011

DESIGNED - ACS  
CHECKED - BB  
DRAWN - JG  
CHECKED - CJF

REVISED -  
REVISED -  
REVISED -  
REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

SHEET NO. 1 OF 15 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
327	20BR	CLINTON	51	27

CONTRACT NO. 76B43