

B.M. #13-17: Set RR spike in p. pole at NE corner of IL13 & Fred Huth Rd., Elev. 456.02.

EXISTING STRUCTURE: SN 082-0283, built in 1924 as SBI Rte. 13 Section 23 at Sta. 674+45. In 1970 the superstructure was replaced and widened as SBI Rte. 13 Section 23BR-2. In 1995 the roadway was resurfaced and steel bridge railing replaced. Existing structure is a single span using precast concrete channel beams with HMA overlay, 20'-0" back-back abutments, 33'-9" out-to width, reinforced concrete closed abutments on spread footings.

Existing structure shall be removed and replaced using staged construction to maintain one lane of traffic.

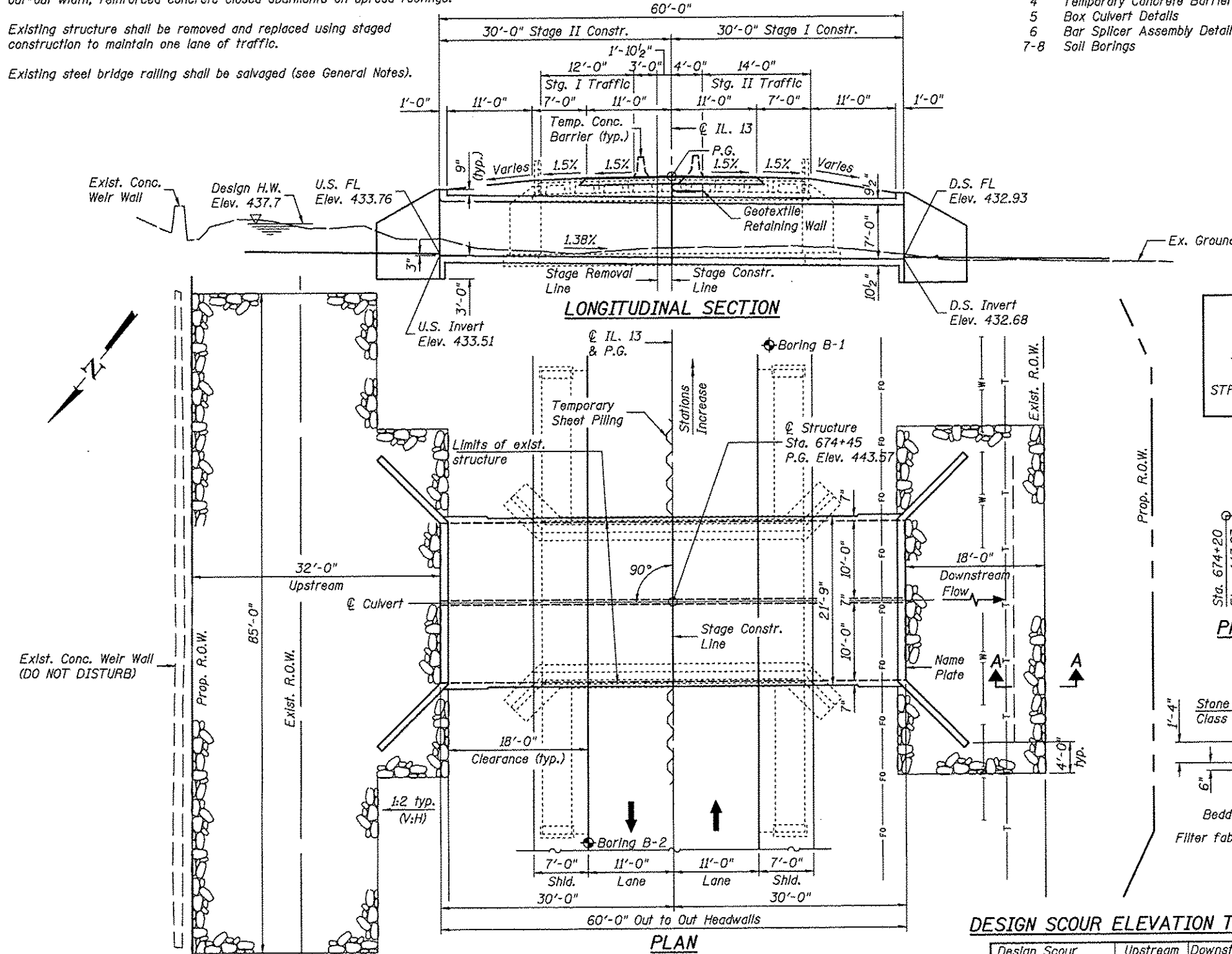
Existing steel bridge railing shall be salvaged (see General Notes).

INDEX OF SHEETS

- 1 Gen Plan, Gen Notes, Bill of Mat'l
- 2 Stage Construction / Temp Sheet Piling
- 3 Temporary Geotextile Retaining Wall
- 4 Temporary Concrete Barrier
- 5 Box Culvert Details
- 6 Bar Splicer Assembly Details
- 7-8 Soil Borings

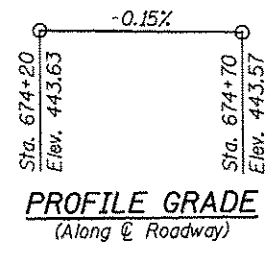
GENERAL NOTES

Precast culvert alternate is not allowed.
 Reinforcement bars designated (E) shall be epoxy coated.
 Layout of the slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.
 Broken Concrete from the removal of the existing structure may be used for all or part of the Stone Riprap. Materials and placement shall be according to the applicable provisions of Article 1005.01 and Section 281 of the Standard Specifications.
 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.
 Structure excavation for the box culvert will not be measured or paid for separately, and the cost shall be included in other related items according to Article 502.13 of the Standard Specifications.
 The Contractor shall salvage the existing steel bridge railing and deliver to the following location:
 IDOT Maintenance Yard
 12540 Sportsman Road
 Highland IL 62249
 Contact: Todd Reilson 618-654-5110
 This work shall be included in the cost of "Removal of Existing Structures".

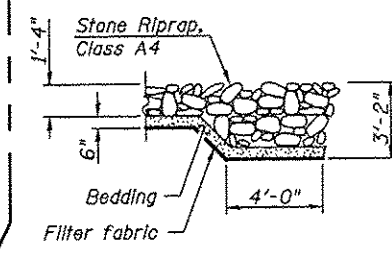


STATION 674+45
 BUILT 20__ BY
 STATE OF ILLINOIS
 LOADING HL-93
 STRUCTURE NO. 082-2046

NAME PLATE
 See Std. 515001



PROFILE GRADE
 (Along & Roadway)



SECTION A-A

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	Upstream	Downstream
	430.51	429.68

LOADING HL-93

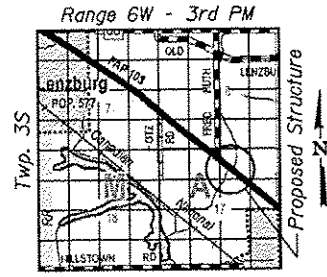
Allow 50#/sq. ft. for future wearing surface.

DESIGN SPECIFICATIONS

2012 AASHTO LRFD Bridge Design Specifications

DESIGN STRESSES

FIELD UNITS
 $f'_c = 3,500$ psi
 $f_y = 60,000$ psi (Reinforcement)



LOCATION SKETCH

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Stone Riprap, Class A4	Sq Yd	356
Filter Fabric	Sq Yd	356
Removal Of Existing Structures	Each	1
Reinforcement Bars, Epoxy Coated	Pound	25610
Bar Splicers	Each	97
Name Plates	Each	1
Concrete Box Culverts	Cu Yd	129.3
Temporary Sheet Piling	Sq Ft	374
Geotextile Retaining Wall	Sq Ft	47

APPROVED
 For Structural Adequacy Only

 Engineer of Bridges & Structures

GENERAL PLAN & ELEVATION
ILLINOIS 13 OVER UNNAMED CREEK
F.A.P. RTE. 103 SEC. 23BR-1
ST. CLAIR COUNTY
STATION 674+45
STRUCTURE NO. 082-2046



Signed: *David Depp*
 Date: 6-28-2013
 Lic. Expires: 11-30-2014

WATERWAY INFORMATION

Existing Low Grade Elevation: 443.5 @ Sta. 674+45
 Prop. Low Grade Elevation: 443.6 @ Sta. 674+45
 Drainage Area = 0.32 sq. mi.

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Nat. H.W.E.	Head - Ft.		Headwater El.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
10	290	46	58	436.7	0.9	0.0	437.6	436.7	
Design	50	498	65	79	437.7	1.1	0.3	438.8	438.0
Base	100	596	71	86	438.1	1.3	0.4	439.4	438.5
Overtopping	-	-	-	-	-	-	-	-	-
Max. Calc.	500	843	85	102	438.8	1.9	1.0	440.7	439.8

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN & ELEVATION
STRUCTURE NO. 082-2046
 SHEET NO. 1 OF 8 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	23BR-1	ST. CLAIR	38	20
STA. 674+45		CONTRACT NO. 76E21		

FILE: J:\0822046-16E21-00-gplan.dgn
 SAVE DATE: 6/29/2013
 USER: dcd
 PLOT SCALE: 1/8"=1'-0"
 PLOT DATE: 06/28/2013 16:56:21
 Johnson, Depp & O'Leary
 CONSULTING ENGINEERS
 Springfield, Illinois