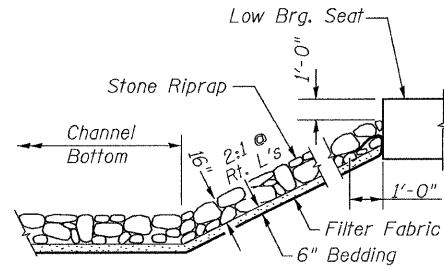


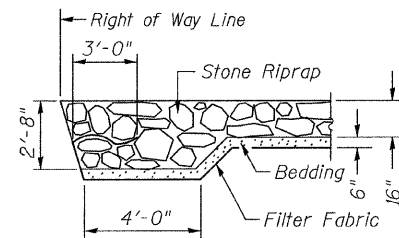
B.M.: Chisled "L" on N. Side of Grain Bin Concrete Base Sta. 18+16, 50' Rt. Elev. 631.63
 RR Spike in Power Pole Sta. 22+89, 26' Rt. Elev. 629.67

Existing Structure:
 Three span concrete deck on steel girders superstructure on concrete capped timber closed abutments and exposed timber pile concrete capped bent piers. The structure is +43'-9" back to back of abutments, +25' out to out deck, and is skewed 20°.

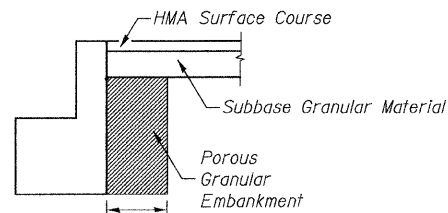
Salvage: None
 Road to be closed to traffic during construction.



STONE RIPRAP DETAIL

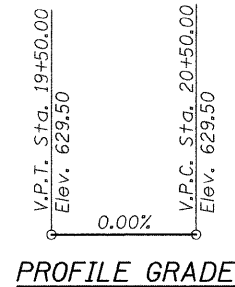


SECTION A-A

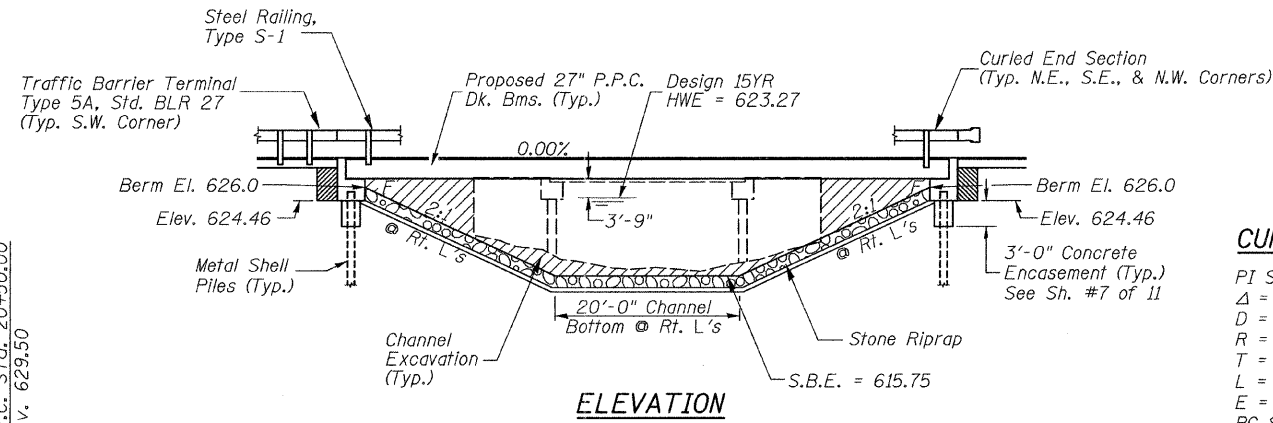


SECTION B-B

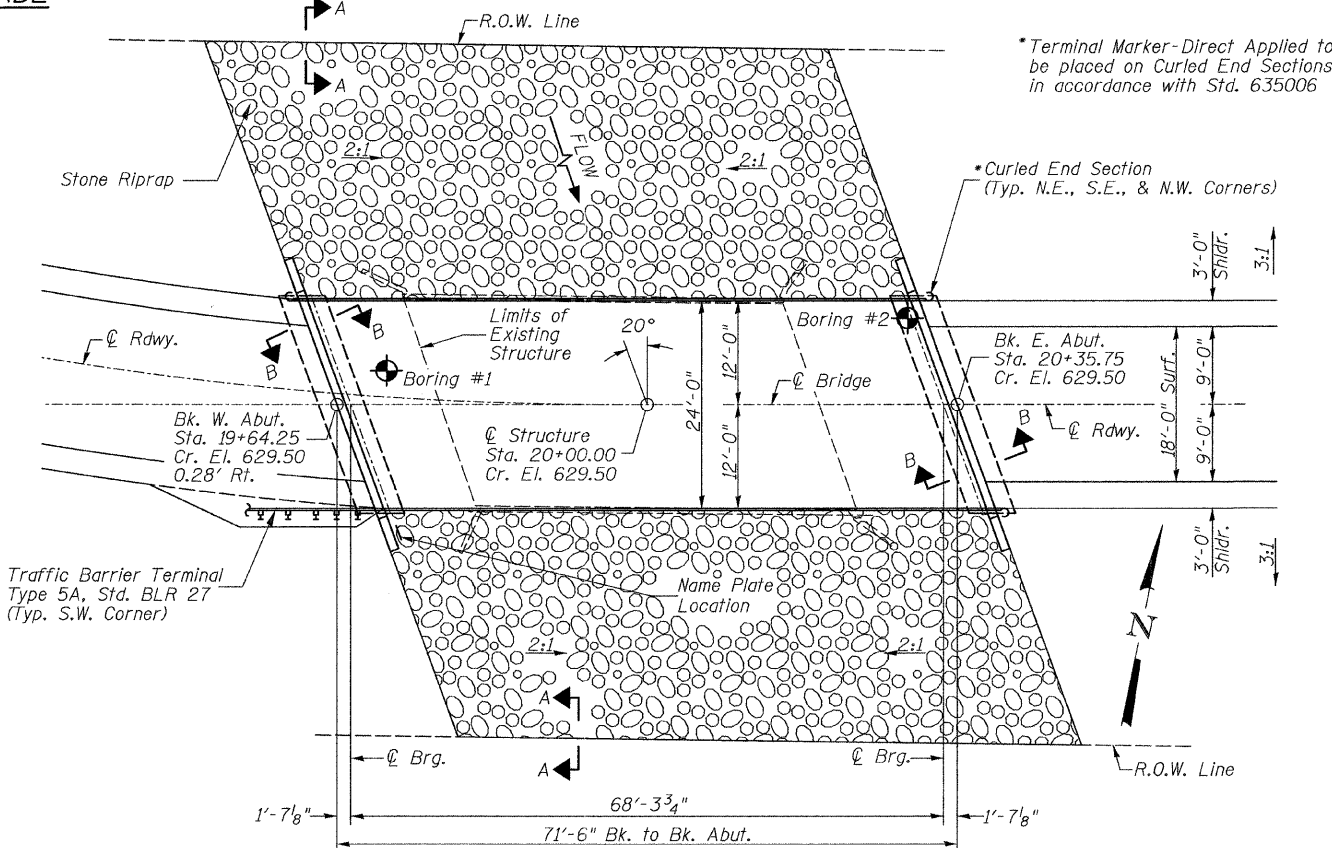
** Pay Limits of Porous Granular Embankment



PROFILE GRADE



ELEVATION



PLAN

DESIGN SCOUR TABLE

Location	W. Abut.	E. Abut.
Design Scour Elevation	624.46	624.46

WATERWAY INFORMATION

Drainage Area = 11.68 Sq. Mi.		Low Grade Elev. = 629.50 @ Sta. 20+00.00		Nat.		Head - Ft.		Headwater El.		
Flood Yr.	Q C.F.S.	Exist.	Prop.	H.W.E.	Exist.	Prop.	Exist.	Prop.	Exist.	Prop.
Design	15	414	195	264	623.27	0.01	0.00	623.28	623.27	623.27
Base	100	597	247	340	624.72	0.02	0.00	624.74	624.72	624.72

Construction of this project complies with IDNR, Office of Water Resources Statewide Permit No. 2

DESIGN SPECIFICATIONS

2010 AASHTO LRFD Bridge Design Specifications with Interims

DESIGN STRESSES

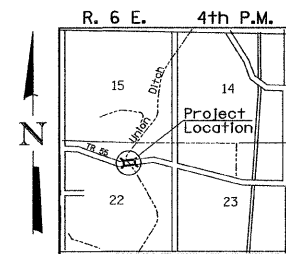
(FIELD UNITS) $f'_c = 3,500$ p.s.i. $f_y = 60,000$ p.s.i. (Rein.)
 (PRECAST PRESTRESSED UNITS) $f'_c = 6,000$ p.s.i. $f'_{ci} = 5,000$ p.s.i. $f'_s = 270,000$ p.s.i. ($\frac{1}{2}$ " Strands) $f'_{si} = 201,960$ p.s.i. ($\frac{1}{2}$ " Strands)

LOADING HL-93

Allow 75#/sq. ft. for future wearing surface.

CURVE DATA

PI STA = 18+87.99
 $\Delta = 07^\circ 13' 25''$ (LT)
 $D = 03^\circ 22' 13''$
 $R = 1,700.00'$
 $T = 107.31'$
 $L = 214.33'$
 $E = 3.38'$
 PC STA = 17+80.68
 PT STA = 19+95.01



LOCATION SKETCH

GENERAL NOTES

The Contractor shall drive test piles to 110% of the nominal required bearing specified in production locations at the substructures specified or approved by the Engineer before ordering the remainder of the piles.
 For Soil Boring Logs, See Sheets 8-11 of 11.
 A Corrosion Inhibitor shall be used in the concrete for Precast Prestressed Concrete Deck Beams according to Article 1020.05(b)(12) of the Standard Specifications.
 Reinforcement Bars shall conform to the requirements of ASTM A706 Grade 60. 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.
 Excavation behind existing abutment walls shall be done before removing existing Superstructure.
 The existing structural steel coating may contain lead. The Contractor should take appropriate precautions to deal with the presence of lead on this project.
 The top surface of the beams shall be finished according to the IDOT Manual for Fabrication of Precast Prestressed Concrete Products.

UNION DITCH
 BUILT 201 BY
 FAIRFIELD ROAD DISTRICT
 BUREAU COUNTY
 SEC. 11-07119-00-BR
 T.R. 55 STATION 20+00.00
 F.A. PROJ. BROS-0011(083)
 STR. NO. 006-4096 LOADING HL-93

NAME PLATE

Locate Name Plate at S.W. Wingwall Corner of Bridge (See Std. 515001)

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Channel Excavation	CU YD	—	230	230
① Porous Granular Embankment	CU YD	—	14.8	14.8
① Stone Riprap, Class A4 (Special)	TON	—	505	505
① Removal of Existing Structures	EACH	—	—	1
Concrete Structures	CU YD	—	22.3	22.3
① Precast Prestressed Concrete Deck Beams (27" Depth)	SQ FT	1,668	—	1,668
Reinforcement Bars	POUND	—	2,480	2,480
Steel Railing, Type S1	FOOT	143	—	143
Furnishing Metal Shell Piles 12"x0.250"	FOOT	—	504	504
Driving Piles	FOOT	—	504	504
Test Pile Metal Shells	EACH	—	2	2
Concrete Encasement	CU YD	—	2.6	2.6
Name Plates	EACH	—	1	1

① See Special Provisions

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 Specification for Highway Bridges.
 This design complies with all requirements of the current AASHTO Guide Specifications for Seismic Design of highway bridges.

[Signature] 2/10/2012
 Illinois Structural No. 6440
 Expires 11/30/2012
 License Expires 11/30/2012

GENERAL PLAN & ELEVATION
 BUREAU COUNTY
 SECTION 11-07119-00-BR
 T.R. 55 OVER UNION DITCH

DESIGNED	S.T.M.
CHECKED	J.E.H.
DRAWN	S.T.M.
CHECKED	J.E.H.

SHEET NO. 1	ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	TR 55	11-07119-00-BR	BUREAU	21	7
11 SHEETS	S.N. 006-4096		CONTRACT NO. 87499		
FED. ROAD DIST. NO. 7 ILLINOIS		FED. AID PROJECT BROS-0011(083)			