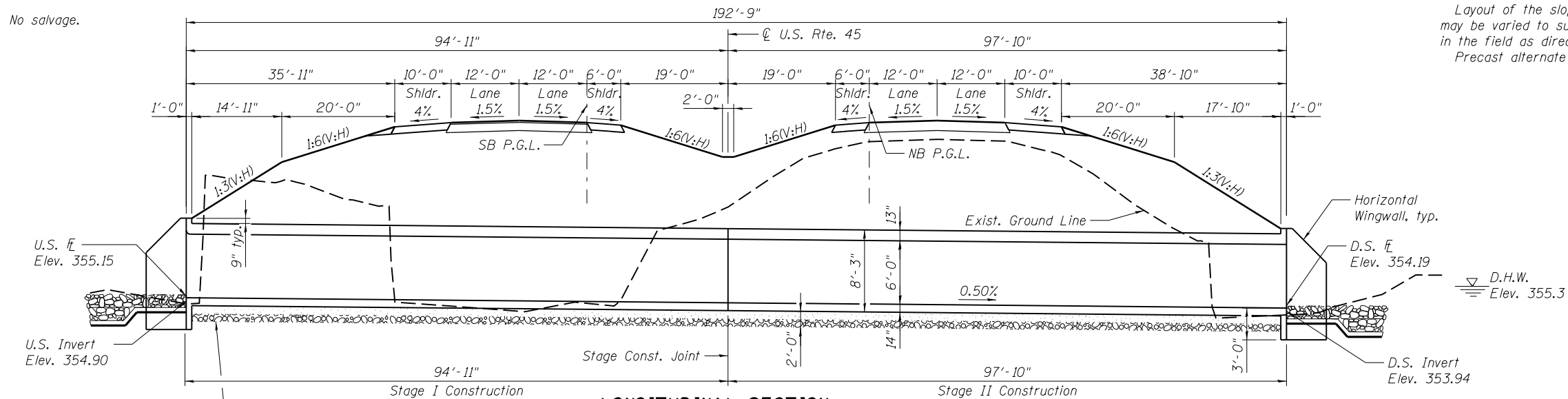


Bench Mark: Saw cut "a" on top center of East headwall of a 2'x2' concrete box culvert south of Texas City Rd. along Rte. 45. Sta. 674+09± and 23' Rt. Elev. 365.05.

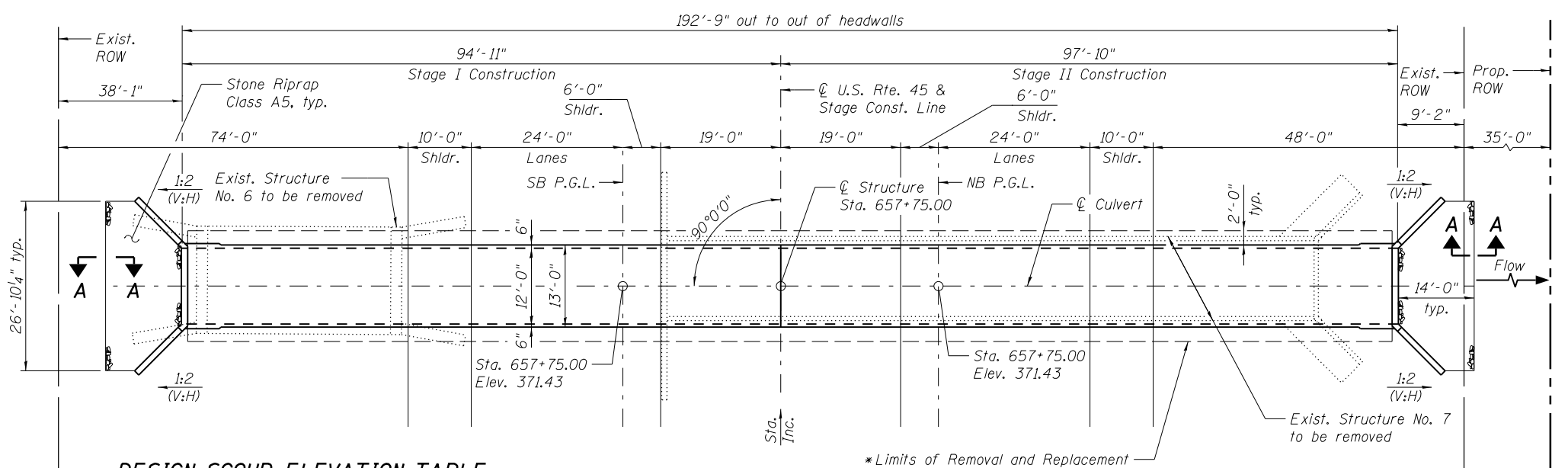
Existing Structure No. 6: The structure is a 12'x6' box culvert approximately 32'-6" long.

Existing Structure No. 7: SN 083-7062 built in 1950 under SB Route 1, Section (29,29X,30)RS. The structure is a single cell cast in place box culvert with 12' span, 6' rise, and 104' length. The structure is to be removed and replaced with a 12'x6' cast in place box culvert utilizing staged construction.

No salvage.



*Removal and replacement of unsuitable materials with Stone Riprap, Class A1 capped with 12" of PGE (CA6).



DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	Upstream	Downstream
	351.90	350.94

WATERWAY INFORMATION

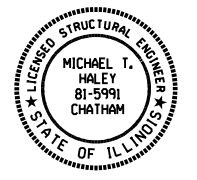
Flood		Q		Opening Sq. Ft.		Head - Ft.		Headwater El.	
Freq. Yr.	C.F.S.	Exist.	Prop.	Nat. H.W.E.	Exist.	Prop.	Exist.	Prop.	
10	388	22	0	354.9	3.6	5.4	358.5	360.3	
Design	50	632	26	4	355.3	5.5	7.6	360.8	
Base	100	742	28	5	355.4	6.9	9.2	362.3	
Overtopping(E)	>500	1249						370.0	
Overtopping(P)	>500	1083						370.0	
Max. Calc.	500	1020	32	9	355.7	10.2	13.1	365.9	

10-Year Outlet Velocity from Existing Structure = 12.0 fps
 10-Year Outlet Velocity from Proposed Structure = 12.4 fps

PLAN

TOTAL BILL OF MATERIAL

Item	Unit	Total
Porous Granular Embankment	Cu. Yd.	501
Stone Riprap, Class A1	Sq. Yd.	365
Stone Riprap, Class A5	Sq. Yd.	72
Filter Fabric	Sq. Yd.	72
Removal of Existing Structures No. 6	Each	1
Removal of Existing Structures No. 7	Each	1
Removal and Disposal of Unsuitable Material for Structures	Cu. Yd.	243
Reinforcement Bars	Pound	47500
Concrete Box Culverts	Cu. Yd.	268.6
Bar Splicers	Each	52



Michael T. Haley
 Licensed Structural Engineer
 State of Illinois No. 81-5991
 Expires 11/30/2014

*The limits and quantities of removal and replacement shown are based on the boring data and may be modified by the District Geotechnical and Field Engineers for variable subsurface conditions encountered in the field.

GENERAL NOTES

Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer. Precast alternate is not allowed.

INDEX OF SHEETS

1. General Plan and Elevation
2. Stage Construction Details
3. Temporary Concrete Barrier
4. Culvert Details
- 4A. Bar Splicer Assembly Details

DESIGN SPECIFICATIONS

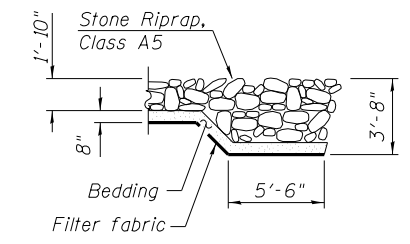
2012 AASHTO LRFD Bridge Design Specifications, 6th Edition w/ 2013 Interims

DESIGN STRESSES

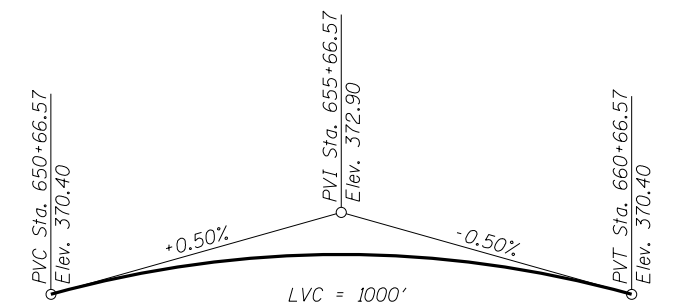
FIELD UNITS
 f'c = 3,500 psi
 fy = 60,000 psi (Reinforcement)

LOADING HL-93

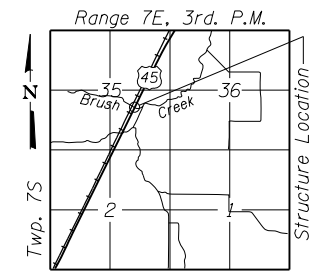
Allow 50#/sq. ft. for future wearing surface.



SECTION A-A



PROPOSED PROFILE GRADE
 (25' Lt./Rt. of C Roadway)



LOCATION SKETCH



USER NAME =	DESIGNED - JJA	REVISED
FILE NAME =	CHECKED - LMS	REVISED
PLOT SCALE =	DRAWN - AJF	REVISED
PLOT DATE	CHECKED - LMS	REVISED

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

GENERAL PLAN & ELEVATION
 SN 083-7093

SHEET NO. 1 OF 4 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	(29,30)R-1	SALINE	745	480

CONTRACT NO. 78077

ILLINOIS FED. AID PROJECT