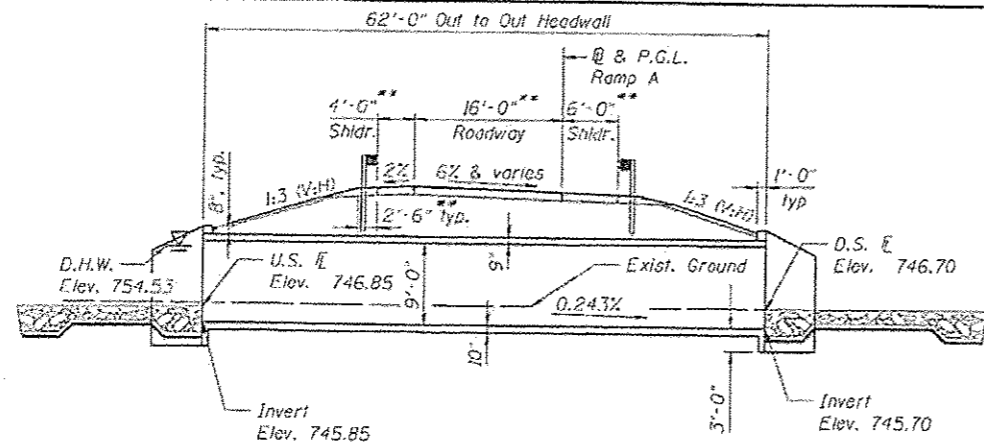


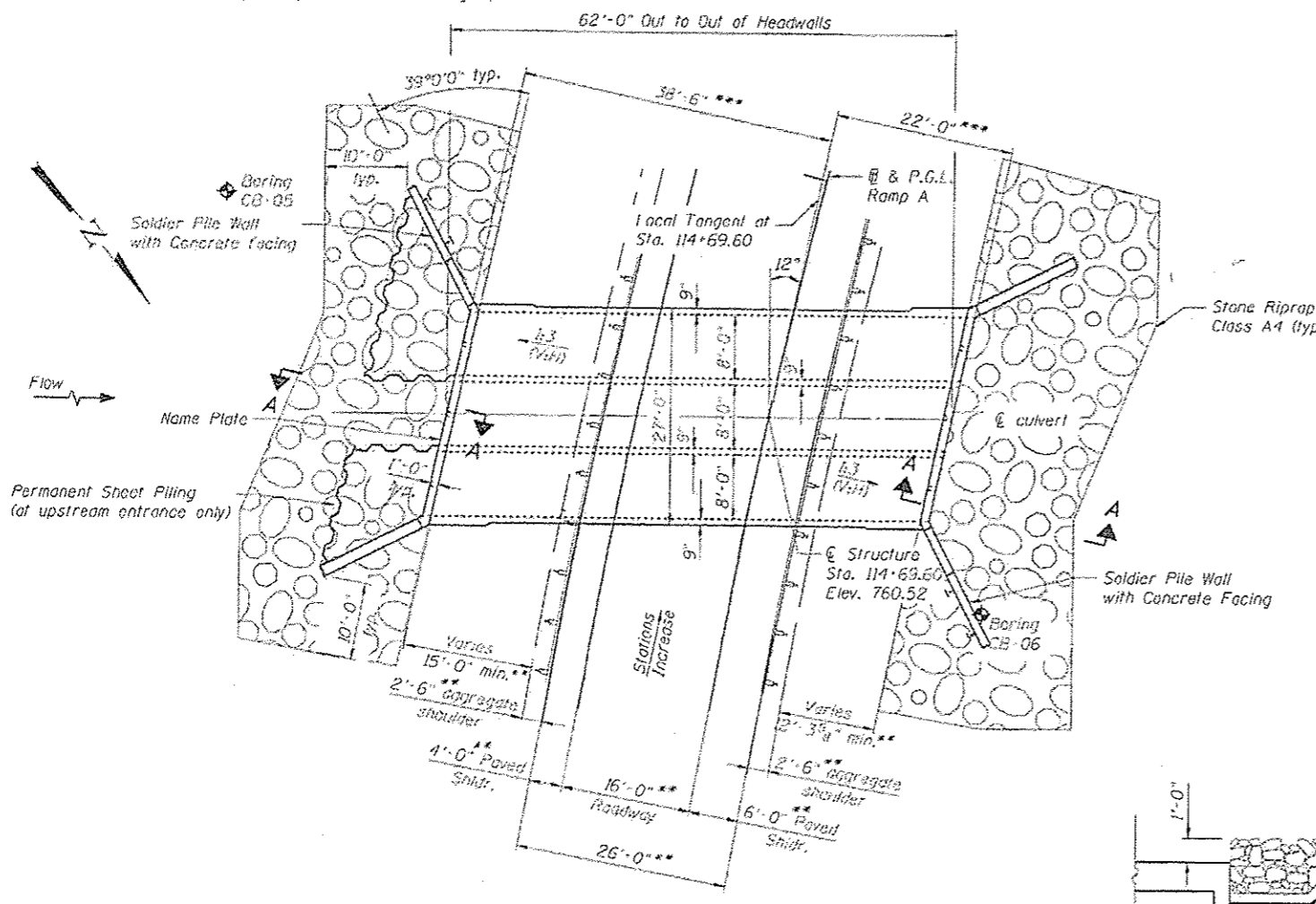
Benchmark:
 Cut square on SE corner of 100T
 light control panel foundation @
 SW corner of I-57 & Stuenkel Rd.
 Elev. = 759.00

Existing Structure: None.

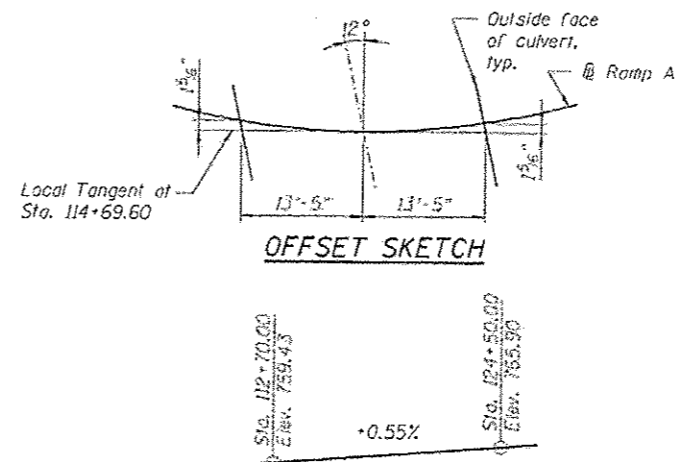


LONGITUDINAL SECTION
 (Looking South)

** Dimensions radial to @ Ramp A
 *** Measured at Right Angles from Local Tangent



PLAN



OFFSET SKETCH

PROPOSED PROFILE GRADE RAMP A

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	D.S. Invert	U.S. Invert
	742.70	742.85

WATERWAY INFORMATION

Drainage Area = 2.85 Sq.Mi. Low Grade El. 759.31 ft. @ Sta. 112+25.86

Flood Yr.	Freq.	C.F.S.	Opening Sta. Ft.		Head - Ft.		Headwater El.	
			Exisl.	Prop.	H.W.E. Exisl.	Prop.	Exisl.	Prop.
0	4.34		156.9E	754.06		-0.67	753.39	
Design	50	670	174.96	754.53		-0.39	754.14	
Base	100	852	186.96	754.80		-0.16	754.64	
Overtopping								
Max. Calc.	500	1117	192.00	755.14		0.17	755.31	

10 year outlet velocity for the proposed structure = 1.6 ft./sec.

DESIGN SPECIFICATIONS
 2012 AASHTO LRFD Bridge Design Specifications,
 6th Edition, with 2013 Interims

LOADING HL-93

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

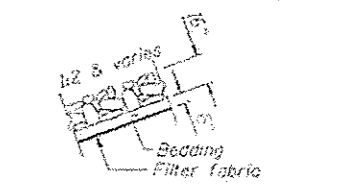
DESIGN STRESSES

FIELD UNITS

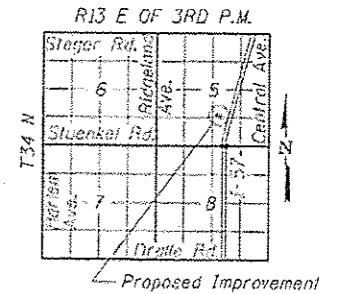
f'c = 3,500 psi
 fy = 50,000 psi (Structural Steel)
 fy = 60,000 psi (Reinforcement)

CURVE DATA

P.I. Sta. = 112+81.94
 $\Delta = 35^{\circ}01'31"$ (RT)
 D = 6°51'42"
 R = 835.00'
 T = 263.48'
 L = 510.44'
 E = 40.58'
 e = 6%
 T.R. = -
 S.E. Run = 144'
 P.C. Sta. = 110+18.16
 P.T. Sta. = 115+28.91



RIPRAP SLOPE LAYOUT



LOCATION SKETCH

**RAMP A OVER EAST BRANCH
 HICKORY CREEK
 F.A.I. 57 - SEC. 99-1HB-R1
 WILL COUNTY
 STATION 114+69.60**



SP
 Spiros Pantazis, S.E., Ill. Lic. No. 091-006448
 Expires 11-30-2014
 Date 1/3/14

APPROVED
 For Construction Adequacy Only

De Carol Ruyter
 Director of Bridges & Structures

FILE NAME TYLIN INTERNATIONAL	USER NAME *	DESIGNED - SP	REVISED Δ 1/6/2014 S.P.	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL PLAN AND ELEVATION STRUCTURE NO. 099-0609	F.A.I. No.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE *	CHECKED - TCO	REVISED			ST	99-1HB-R1	WILL	678	383
PLOT DATE *	DRAWN - SP/TCG	REVISED	REVISED	SHEET NO. SD-1 OF SD-7 SHEETS		099-0609		CONTRACT NO. 60L69		ILLINOISIFIED, A10 PROJECT
	CHECKED - RH	REVISED	REVISED							