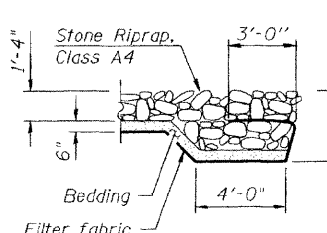
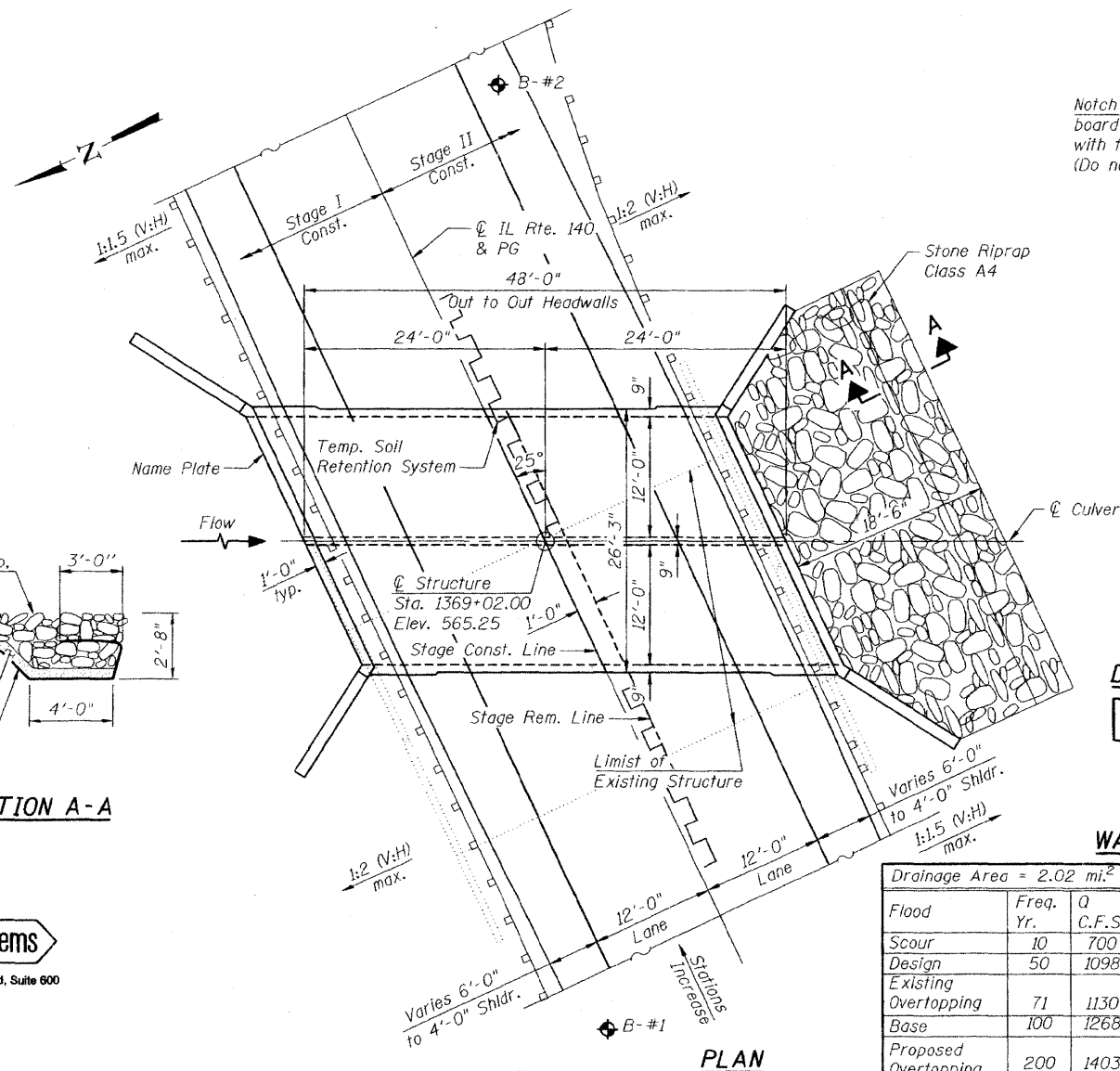
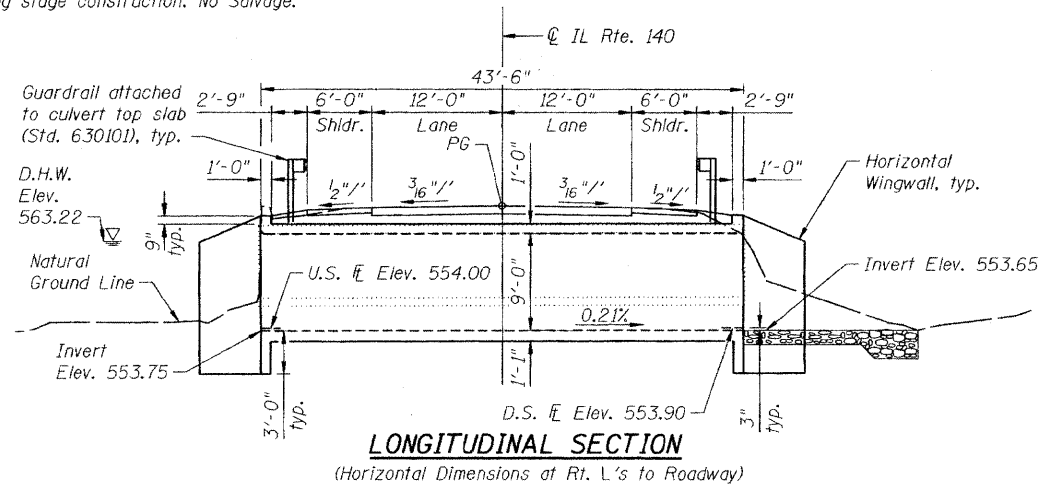


Bench Mark: Cut square on East end of North headwall of twin box culvert under IL Route 140 at the East Fork of Little Silver Creek. Elev. 565.11

Existing Structure: Structure No. 060-2008 was originally built in 1930 as a double 12' x 6' box culvert on a 0° skew. 26'-0" length along  $\bar{C}$  roadway and 41'-8" width out to out. Structure to be removed and replaced. Traffic to be maintained utilizing stage construction. No Salvage.



**GENERAL NOTES**

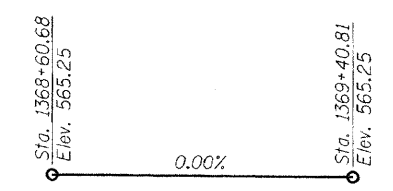
1. Reinforcement bars shall conform to the requirements of ASTM A 706 Gr. 60. See Special Provision.
2. Reinforcement bars designated (E) shall be epoxy coated.
3. A distance of half the length of the wingwall but not less than six feet of the barrel shall be poured monolithically with the wingwalls.
4. For backfilling and embankment, see Standard Specifications.
5. Exposed edges shall have standard 3/4" chamfer unless otherwise noted.
6. Layout of the slope protection may be varied to suit ground conditions in field as directed by the Engineer.

**TOTAL BILL OF MATERIAL**

Item	Unit	Total
Stone RipRap, Class A4	Sq. Yd.	93
Removal of Existing Structures	Each	1
Reinforcement Bars, Epoxy Coated	Pound	29,900
Concrete Box Culverts	Cu. Yd.	163.2
Name Plates	Each	1
Temporary Soil Retention System	Sq. Ft.	430
Bar Splicers	Each	159
Filter Fabric	Sq. Yd.	93

**INDEX OF SHEETS**

- 1 General Plan
- 2 Construction Staging
- 3 Temporary Concrete Barrier for Stage Construction
- 4 Culvert Plan
- 5 Culvert Sections and Details
- 6 Bar Splicer Assembly and Mechanical Splicer Details
- 7 Soil Boring Logs



**PROFILE GRADE**  
(Along  $\bar{C}$  IL Rte. 140)

STATION 1369+02.00  
BUILT 20 BY  
STATE OF ILLINOIS  
F.A.P. RT 785 SEC. 137-1BR  
LOADING HS20-44  
STRUCTURE NO. 060-2047

**NAME PLATE**  
See Std. 515001

**LOADING HS20-44**  
Allow 50#/sq. ft. for future wearing surface.

**DESIGN SPECIFICATIONS**  
2002 AASHTO Standard Specifications for  
Highway Bridges 17th Edition

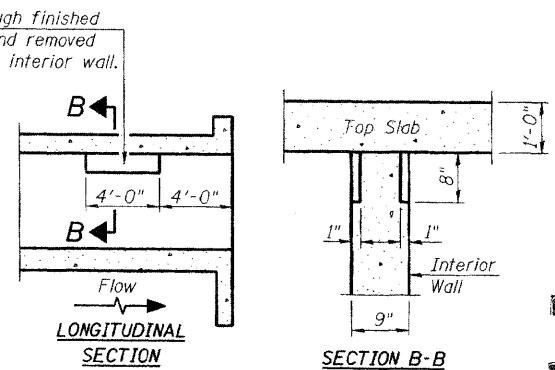
**DESIGN STRESSES**  
FIELD UNITS

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

**APPROVED**  
FOR STRUCTURAL ADEQUACY ONLY  
D. Carl Puzg (JSD)  
ENGINEER OF BRIDGES AND STRUCTURES



Sarah L. Czapliski 7/7/11  
SARAH L. CZAPLICKI, P.E., S.E.  
NO. 81-006191  
EXP. DATE 11/30/2012



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

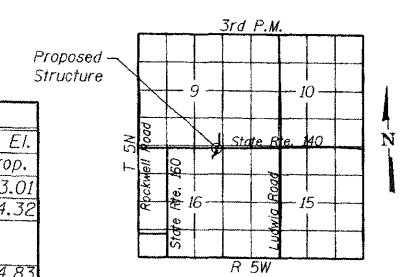
**DESIGN SCOUR ELEVATION TABLE**

Design Scour Elevation (ft.)	Upstream	Downstream
	550.75	550.65

**WATERWAY INFORMATION**

Drainage Area = 2.02 mi.<sup>2</sup> Low Grade Elev. 565.21 at Sta. 1368+94.50

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Head - Ft.		Headwater El.		
			Exist.	Prop.	Exist.	Prop.	Exist.	Prop.	
Scour	10	700	132	204	562.50	0.80	0.51	563.30	563.01
Design	50	1098	144	216	563.22	1.85	1.10	565.07	564.32
Existing			144						
Overtopping	71	1130	144		563.26	1.95		565.75	
Base	100	1268		216	563.44	2.31	1.39	565.21	564.83
Proposed Overtopping	200	1403		216	563.57		1.64		565.21



**LOCATION SKETCH**

**GENERAL PLAN**  
**IL ROUTE 140 OVER**  
**E. FORK LITTLE SILVER CREEK**  
**F.A.P. ROUTE 785 - SECTION 137-1BR**  
**MADISON COUNTY**  
**STATION 1369+02.00**  
**STRUCTURE NO. 060-2047**



1475 East Woodfield Road, Suite 600  
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FILE NAME = 0602047-76390-001-GPE.dgn	USER NAME = jmtobergte	DESIGNED - JMT	REVISD -
		CHECKED - SDG	REVISD -
		DRAWN - AJP	REVISD -
		CHECKED - SDG	REVISD -

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

SHEET NO. 1 OF 7 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
785	137-1BR	MADISON	21	14

CONTRACT NO. 76390  
ILLINOIS FED. AID PROJECT