Bench Mark: Chiseled "□" on NE WW Sta. 51+17.71
23.35 Lt. Elevation 645.40.

Existing Structure: S.N. 050-0037. Originally built in 1939 as Route 118A, Section 107B. The existing structure is a 39'-0" back-to-back abutments, 43'-10" out-to-out deck, reinforced concrete slab deck on closed abutments. The existing structure is to be removed and replaced. One lane of traffic to be maintained utilizing stage construction.

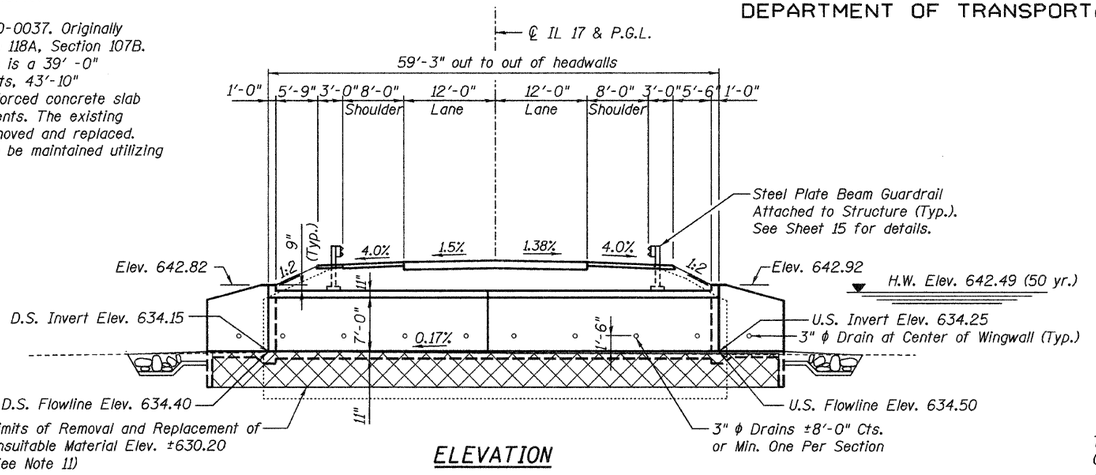
No salvage.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

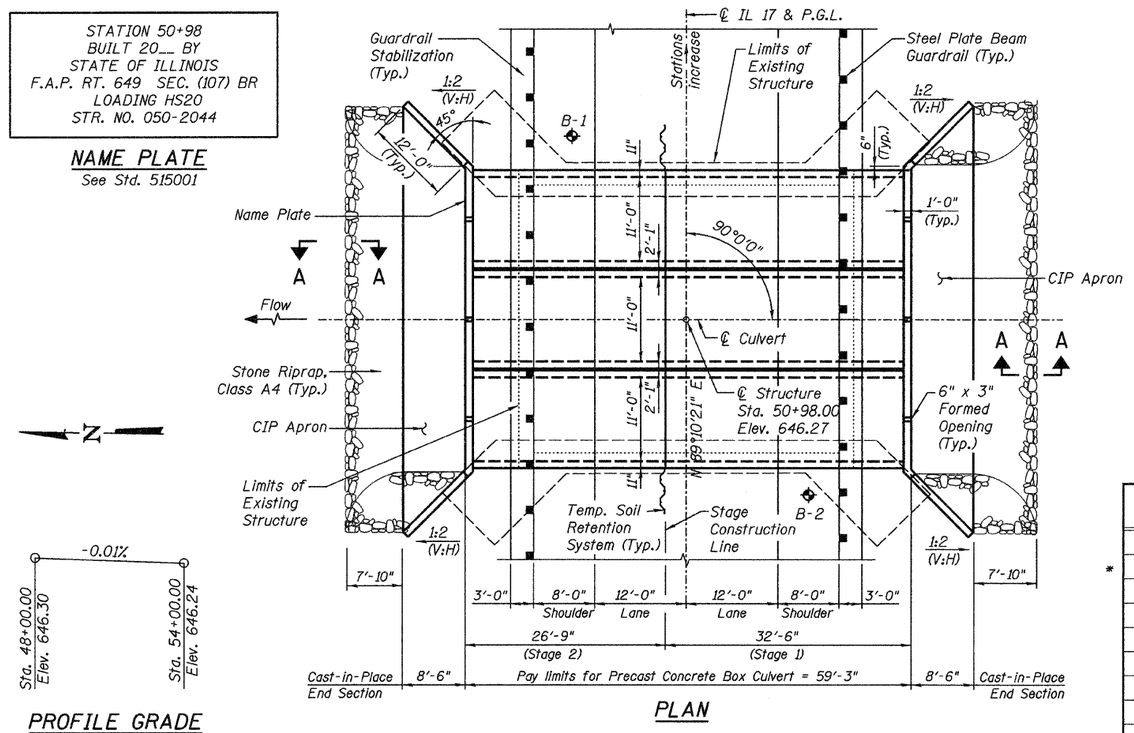
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 649	(107) BR	LASALLE	24	12
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. S1
S7 SHEETS

Contract # 66844



ELEVATION



PLAN

STATION 50+98
BUILT 20__ BY
STATE OF ILLINOIS
F.A.P. RT. 649 SEC. (107) BR
LOADING HS20
STR. NO. 050-2044

NAME PLATE
See Std. 515001

PROFILE GRADE
(along ℄ roadway)

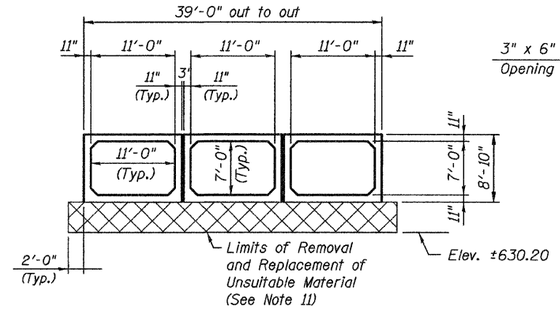
WATERWAY INFORMATION - DISTRICT APPROVED

Drainage Area = 7.5 mi²(P) & (E) Low Grade Elev. 644.80 ft. @ Sta. 56+00.00

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Nat. H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
	10	742	246	231	641.85	0.3	0.1	642.11	641.99
Design	50	1177	246	231	642.49	0.6	0.4	643.07	642.91
Base	100	1368	246	231	642.72	1.0	0.6	643.74	643.28
Overtopping									
Max. Calc.	500	1828	246	231	643.20	1.0	1.0	644.23	644.18

DESIGNED -	MRB
CHECKED -	HMA
DRAWN -	VH
CHECKED -	MRB

DESIGN SCOUR ELEV.	US	DS
	631.2	631.1



SECTION THRU BARREL

The limits and quantities of removal and replacement are based on the Structure Geotechnical Report and may be modified by the District Geotechnical Engineer and Field Engineers for variable subsurface encountered in the field.

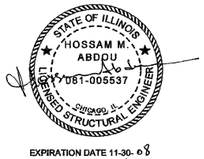
GENERAL NOTES

1. Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60 (IL Modified). See special provision.
2. Reinforcement bars designated (E) shall be epoxy coated.
3. Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
4. Precast Concrete Box Culvert sections shall conform to the requirements of Article 540.06 of the Standard Specifications and the applicable requirements of AASHTO M 259.
5. Lifting holes shall be filled with concrete plugs and mastic after box sections are in place.
6. Class SI Concrete shall be used for cast-in-place concrete.
7. Exposed edges shall be beveled $\frac{3}{4}$".
8. For backfilling and embankment see standard specifications.
9. 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.
10. Precast End Sections are not allowed.
11. The material used to replace the unsuitable material removed below the bottom of the proposed precast concrete box culvert and cast-in-place concrete aprons shall be cleaned crushed material CA-1 on the bottom 2'-6" layer and CA-7 on the top 6" layer and shall be paid for as "Porous Granular Embankment, Special".

TOTAL BILL OF MATERIAL

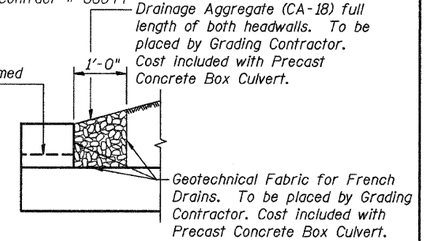
	Item	Unit	Total
	POROUS GRANULAR EMBANKMENT	CU YD	596
*	POROUS GRANULAR EMBANKMENT, SPECIAL	CU YD	398
	STONE RIPRAP, CLASS A4	SQ YD	115
	FILTER FABRIC	SQ YD	99
	REMOVAL OF EXISTING STRUCTURES	EACH	1
	STRUCTURE EXCAVATION	CU YD	428
	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL FOR STRUCTURES	CU YD	398
	NAME PLATES	EACH	1
	BOX CULVERT END SECTIONS	EACH	2
*	TEMPORARY SOIL RETENTION SYSTEM	SQ FT	327
*	PRECAST CONCRETE BOX CULVERT 11' X 7'	FOOT	178

* See Special Provision.

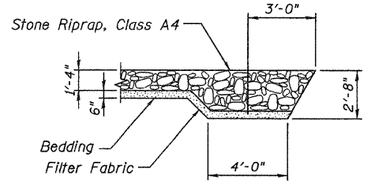


EXPIRATION DATE 11-30-08
DATE 8/7/08

benesch
alfred benesch & company
Engineers • Surveyors • Planners
205 North Michigan Avenue, Suite 2400
Chicago, Illinois 60601
312-565-0450
Job # 3938.01



DRAIN DETAIL



SECTION A-A

DESIGN SPECIFICATIONS
2002 AASHTO 17th Edition

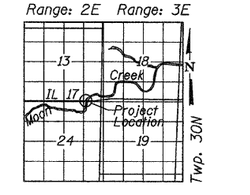
LOADING HS20-44
Allow 50#/sq. ft. for future wearing surface.

Design fill height = > 2 ft.

DESIGN STRESSES

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

PRECAST UNITS
f'_c = 5,000 psi
f_y = 65,000 psi (welded wire fabric)



LOCATION SKETCH

GENERAL PLAN AND ELEVATION
ILLINOIS 17 OVER SOUTH BRANCH OF MOON CREEK
F.A.P. ROUTE 649 SEC. NO. (107) BR
LASALLE COUNTY
STATION 50+98.00
STRUCTURE NO. 050-2044

...\Plans\50-2044-66844-12-GPE.dgn
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