Benchmark: Rail Road Spike in power pole Sta. 1115+74.96, 35.60' Lt. Elev. = 792.14

Existing Structures: SN 050-2544 Built in 1924 as a single 9' x 6' R.C. box culvert. 41'-0" face to face of curb with culvert length of 42'-10¾", 17° Lt fwd skew. Traffic will be maintained utilizing detour.

No salvage.

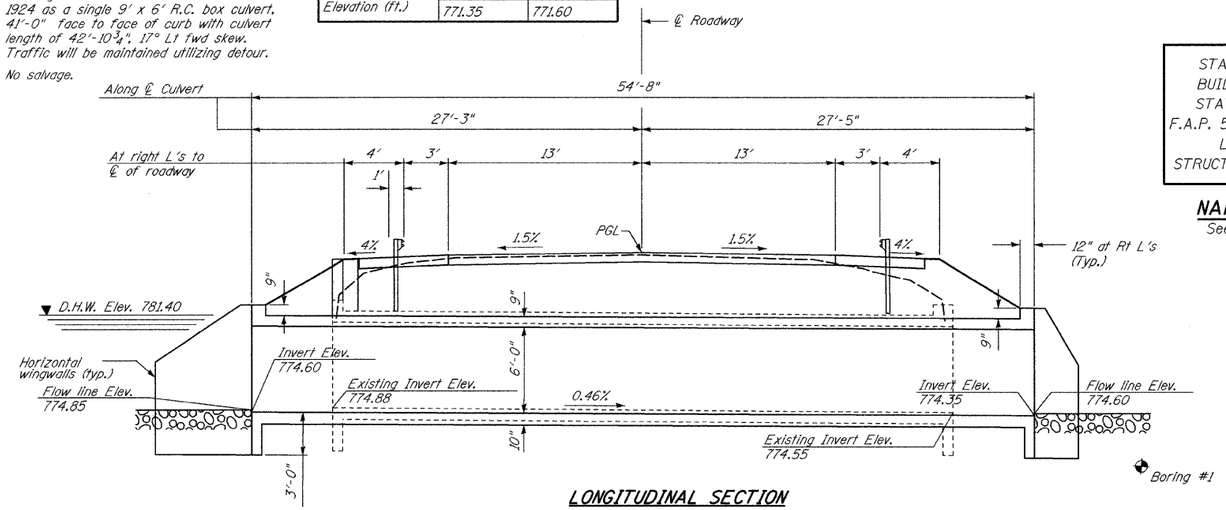
DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	D.S. Invert	U.S. Invert
	771.35	771.60

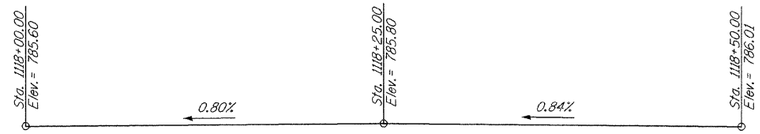
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STATION 1118+15.00
BUILT 20____ BY
STATE OF ILLINOIS
F.A.P. 587 SEC.(22)I & I-1
LOADING HS20
STRUCTURE NO. 050-2051

NAME PLATE
See Std. 515001



LONGITUDINAL SECTION



PROFILE GRADE
(along ℄ roadway)

WATERWAY INFORMATION

Drainage Area= 0.77 Sq. Mi. Exisit. Low Grade El. 785.41 @ Sta. 1118+00 Prop. Low Grade El. 785.60 @ Sta. 1118+00

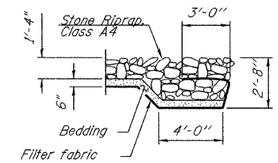
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.**	Opening Sq. Ft. Prop.**	NAT. H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
	10	411	48	89	780.2	1.1	0.0	781.3	780.2
Design	50	713	54	96	781.4	4.0	0.0	785.4	781.4
Base	100	855	54	96	781.7	4.4	0.4	786.2	782.1
Overtopping	-	-	-	-	-	-	-	-	-
Max. Calc.	500	1213	54	96	782.2	4.7	2.2	786.9	784.4

10-year velocity through exist. struct. = 10.0 fps
** Gross opening = 54 sq. ft.(exist.) 96 sq. ft.(prop.)

10-year velocity through prop. struct. = 5.4 fps

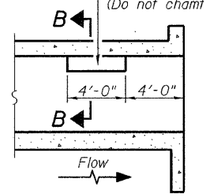
TOTAL BILL OF MATERIALS

Description	Unit	Total
Stone Riprap Class A4	Sq. Yd.	57
Filter Fabric	Sq. Yd.	57
Removal of Existing Structures No. 1	Each	1
Reinforcement Bars	Pound	12700
Name Plates	Each	1
Concrete Box Culverts	Cu. Yd.	84.0

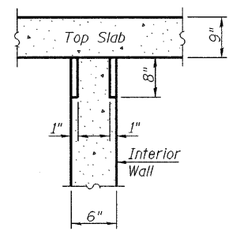


SECTION A-A

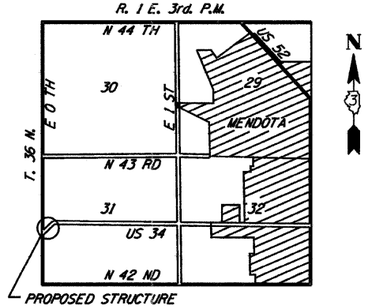
Notch formed by rough finished board attached to and removed with form work, each interior wall. (Do not chamfer).



LONGITUDINAL SECTION



SECTION B-B



LOCATION SKETCH

INDEX OF CULVERT PLANS

1. General Plan & Elevation
2. Culvert Details
3. Soil Borings

GENERAL NOTES

1. Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions.
2. Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
3. Precast alternate is not allowed.
4. The contractor is advised that the existing box culvert is in a deteriorated condition with reduced load carrying capacity. It is the contractor's responsibility to account for the condition of the culvert when developing construction procedures for the removal and replacement of the culvert.

LOADING HS20-44

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

DESIGN SPECIFICATIONS

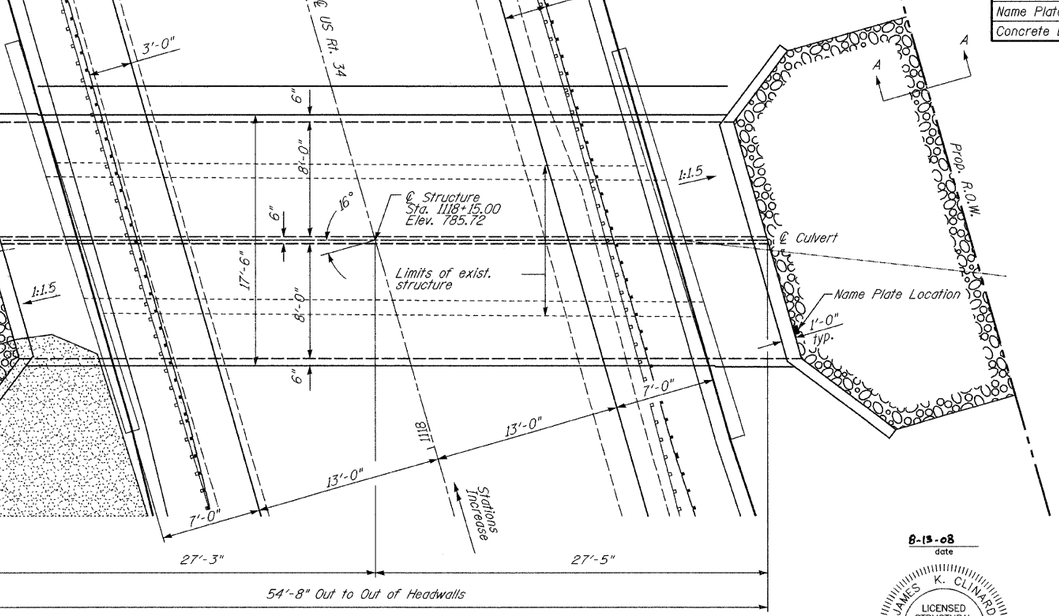
2002 AASHTO

DESIGN STRESSES

FIELD UNITS

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

PHOEBE NESTING SITE DETAILS
(Downstream End Only)



PLAN

Boring #2

DESIGNED	JKC
CHECKED	JLS
DRAWN	NV
CHECKED	JKC

8-13-08
date

JAMES K. CLINARD
LICENSED STRUCTURAL ENGINEER NO. 081-004655
STATE OF ILLINOIS
expires 11-30-2008
signature
PROFESSIONAL DESIGN FIRM LICENSE NO. 184-001717

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

CHAMLIN & ASSOCIATES
PERU ILLINOIS MORRIS

GENERAL PLAN & ELEVATION
US 34 OVER
TRIBUTARY TO SPRING CREEK
FAP 587 - SECTION (22) I & I-1
LASALLE COUNTY
STA. 1118+15.00
SN 050-2051

SHEET NO. 1	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3 SHEETS	587	(22) I & I-1	LASALLE	31	15
	SN 050-2051		CONTRACT NO. 66835		
	FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		