

B.M.: Chisled "X" on Fire Hydrant
N.E. Flange Bolt
Sta. 16+63, 41' Lt
Elev. 721.25

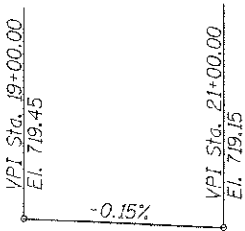
B.M.: RR Spike in Power Pole
Sta. 22+98, 32' Rt
Elev. 721.82

Existing Structure:
Single span reinforced concrete slab superstructure on concrete closed abutments. The structure is ±26'-0" back to back of abutments, ±28'-6" out to out of deck, and is not skewed. Str. No. 050-3028

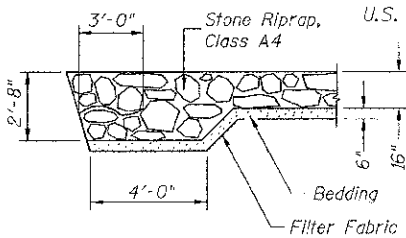
Salvage: None

Road to be closed to traffic during construction.

* Unsuitable Material Removal and Replacement with P.G.E. Limits are 2' outside the bottom slab and extends the length of the barrel.



PROFILE GRADE



SECTION A-A

FIRST CREEK
BUILT 201 BY
LASALLE COUNTY
SEC. 13-00727-00-BR
C.H. 19 STATION 19+96.00
F.A. PROJ. BRS-0270(102)
STR. NO. 050-3599 LOADING HL-93

NAME PLATE
Locate Name Plate at South Headwall
S.W. Corner of Culvert (See Std. 515001)

WATERWAY INFORMATION

Drainage Area = 2.63 Sq. Mi.		Low Grade Elev. = 719.15 @ Sta. 21+00.00							
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.	Nat. Head - Ft.	Headwater El.	Nat. Head - Ft.	Headwater El.	Nat. Head - Ft.	Headwater El.
Design	20	1,051	149	216	717.27	0.47	0.11	717.74	717.38
Base	100	1,590	149	216	717.82	1.80	0.74	719.62	718.56

DESIGN SPECIFICATIONS

2012 AASHTO LRFD Bridge Design Specifications

DESIGN STRESSES

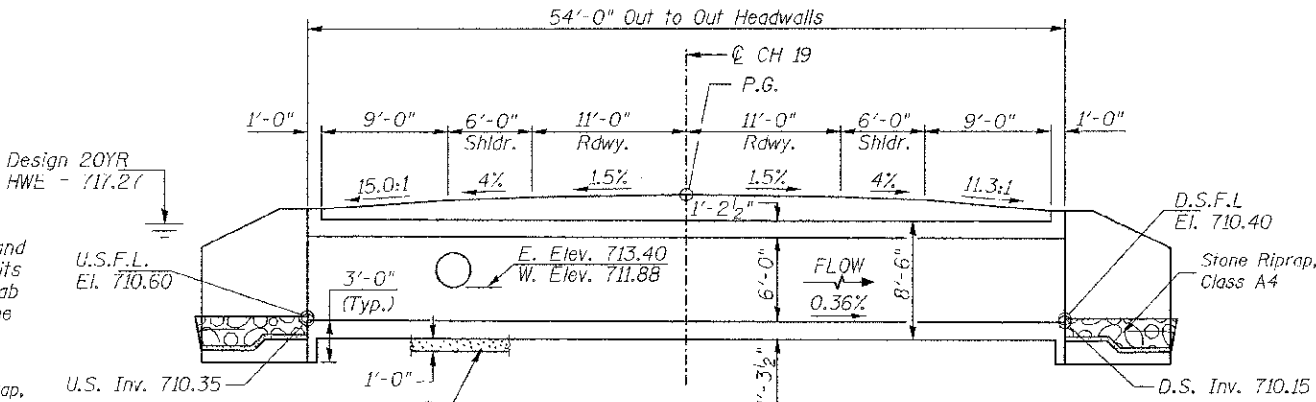
FIELD UNITS

$f'_c = 3,500$ psi
 $f_y = 60,000$ psi (Reinforcement)

LOADING HL-93

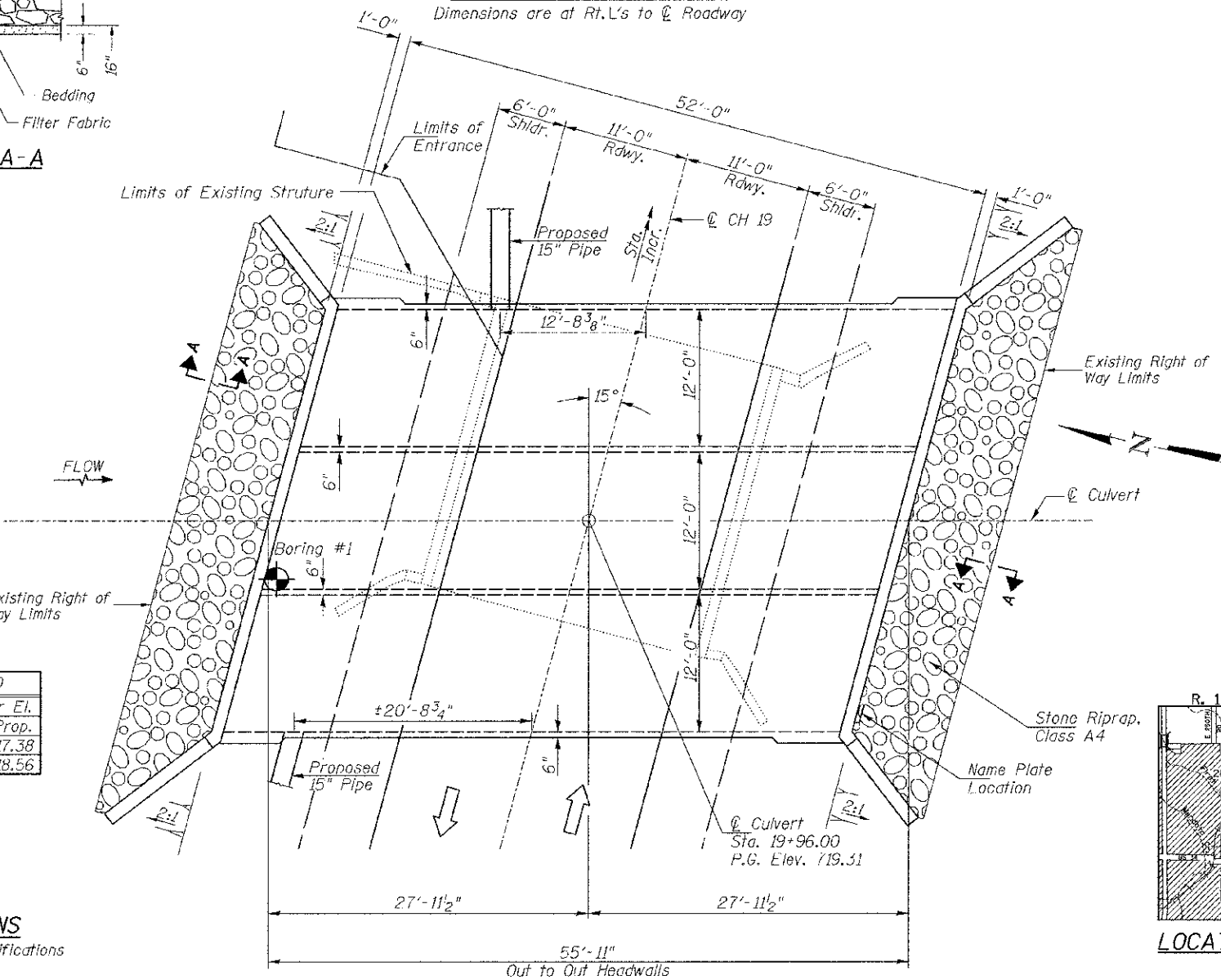
Allow 50#/sq. ft. for future wearing surface.

DESIGNED	NPH
CHECKED	CTM
DRAWN	RMD
CHECKED	NPH/CTM



LONGITUDINAL SECTION

Dimensions are at Rt. L's to C Roadway



PLAN

GENERAL NOTES
Reinforcement Bars shall conform to the requirements of ASTM A 706 Grade 60.
For backfilling and embankment see Standard Specifications.
All construction joints shall be bonded.
Exposed concrete edges shall have a 3/4" chamfer unless otherwise noted.
Precast culvert option will not be allowed.
Layout of stone riprap may be varied in the field to suit ground conditions as directed by the Engineer.
Excavation behind existing abutment walls shall be performed to balance front and back soil pressure before removing the existing superstructure.
A distance of half the length of the wingwall, but not less than 6 feet of the barrel shall be poured monolithically with the wingwall.
All excavation required for construction of the culvert in accordance with the Standard Specifications shall be included in the cost of Concrete Box Culverts.
Areas of excavation required for removal of the existing structure or construction of the new culvert shall be backfilled with Porous Granular Embankment up to the top of slab elevation. See Special Provisions for more detailed information.

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Concrete Box Culverts	CU YD	240.9
Reinforcement Bars	POUND	35,140
① Removal of Existing Structures	EACH	1
Name Plates	EACH	1
Stone Riprap, Class A4	SQ YD	85
Filter Fabric	SQ YD	85
Removal & Disposal of Unsuitable Material	CU YD	90
① Porous Granular Embankment	CU YD	315

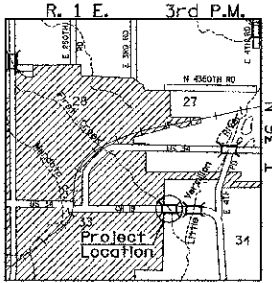
① See Special Provisions

DESIGN SCOUR TABLE

Location	Upstream	Downstream
Design Scour Elevation	710.35	710.15

I certify that to the best of my knowledge, information and belief, this bridge design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the current AASHTO Standard Specification for Highway Bridges.
This design complies with all requirements of the current AASHTO Guide Specifications for Seismic Design of highway bridges.

[Signature] 3/25/2013
Illinois Structural No. 6440
Expires 11/30/2014



LOCATION SKETCH

GENERAL PLAN & ELEVATION

SHEET NO. 1	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
4 SHEETS	270	13-00727-00-BR	LASALLE	13	7
S.N. 050-3599			CONTRACT NO. 87556		
FED. ROAD DIST. NO. 7 ILLINOIS			FED. AID PROJECT BRS-0270(102)		