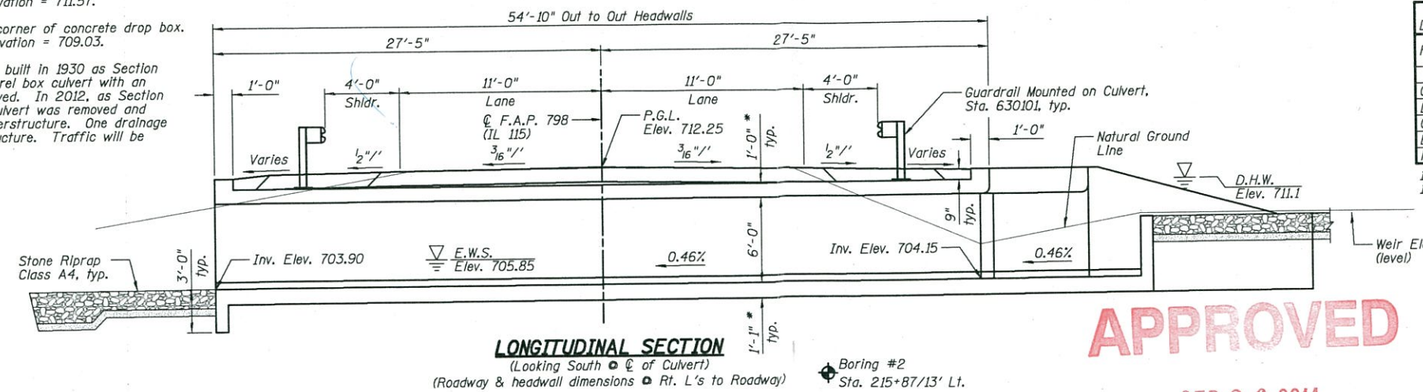
Benchmarks: BM #1 Railroad Spike in South side of power pole. Station 213+36.47, 32.08' RT., Elevation = 711.57.

BM #2 Chiseled "□" at Northwest corner of concrete drop box. Station 215+39.94, 22.92' RT., Elevation = 709.03.

Existing Structure: Structure No. 027-2506 was built in 1930 as Section 107 & 107B. The structure is a 6'x4' double barrel box culvert with an upstream drop structure. The culvert is not skewed. In 2012, as Section (107)I, the existing 7½" HMA pavement over the culvert was removed and replaced with a 7½" reinforced concrete slab superstructure. One drainage tile extends through the wall of the drop box structure. Traffic will be detoured during construction.

No Salvage.



LONGITUDINAL SECTION

(Looking South ◘ ℄ of Culvert)
(Roadway & headwall dimensions ◘ Rt. L's to Roadway)

Boring #2
Sta. 215+87/13' Lt.

WATERWAY INFORMATION

Drainage Area = 1.02 Sq. Mi.

Existing Low Grade Elev. 711.98 ◘ Sta. 214+06
Proposed Low Grade Elev. 711.98 ◘ Sta. 214+06

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	290	48	96	710.4	1.1	0.1	711.5	710.5
Overtopping (exist.)	18	363	48	96	710.6	1.7	0.2	712.4	710.8
Design	50	485	48	96	711.1	1.4	0.5	712.5	711.6
Overtopping (prop.)	88	567	48	96	711.4	1.3	0.9	712.7	712.3
Base	100	589	48	96	711.5	1.2	0.8	712.7	712.3
Max. Calc.	500	789	48	96	712.2	0.8	0.6	713.0	712.8

10 Yr. Velocity = 6.6 ft/sec. (Existing)
10 Yr. Velocity = 3.1 ft/sec. (Proposed)

APPROVED
SEP 26 2014
AS A BASIS FOR PREPARATION OF DETAILED PLANS

HIGHWAY CLASSIFICATION

F.A.P. Route 798 (IL 115)
Functional Class: Rural Minor Arterial
A.D.T.: 575 (2013), 1009 (2029)
D.H.V.: 41
A.D.T.T.: 13%
Design Speed: 55 M.P.H.
Posted Speed: 55 M.P.H.
Two Way Traffic
Directional Distribution: 50/50

DESIGN SPECIFICATIONS

AASHTO LRFD Bridge Design Specifications, customary U.S. Units, 6th Edition, with 2013 Interims

LOADING HL-93

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

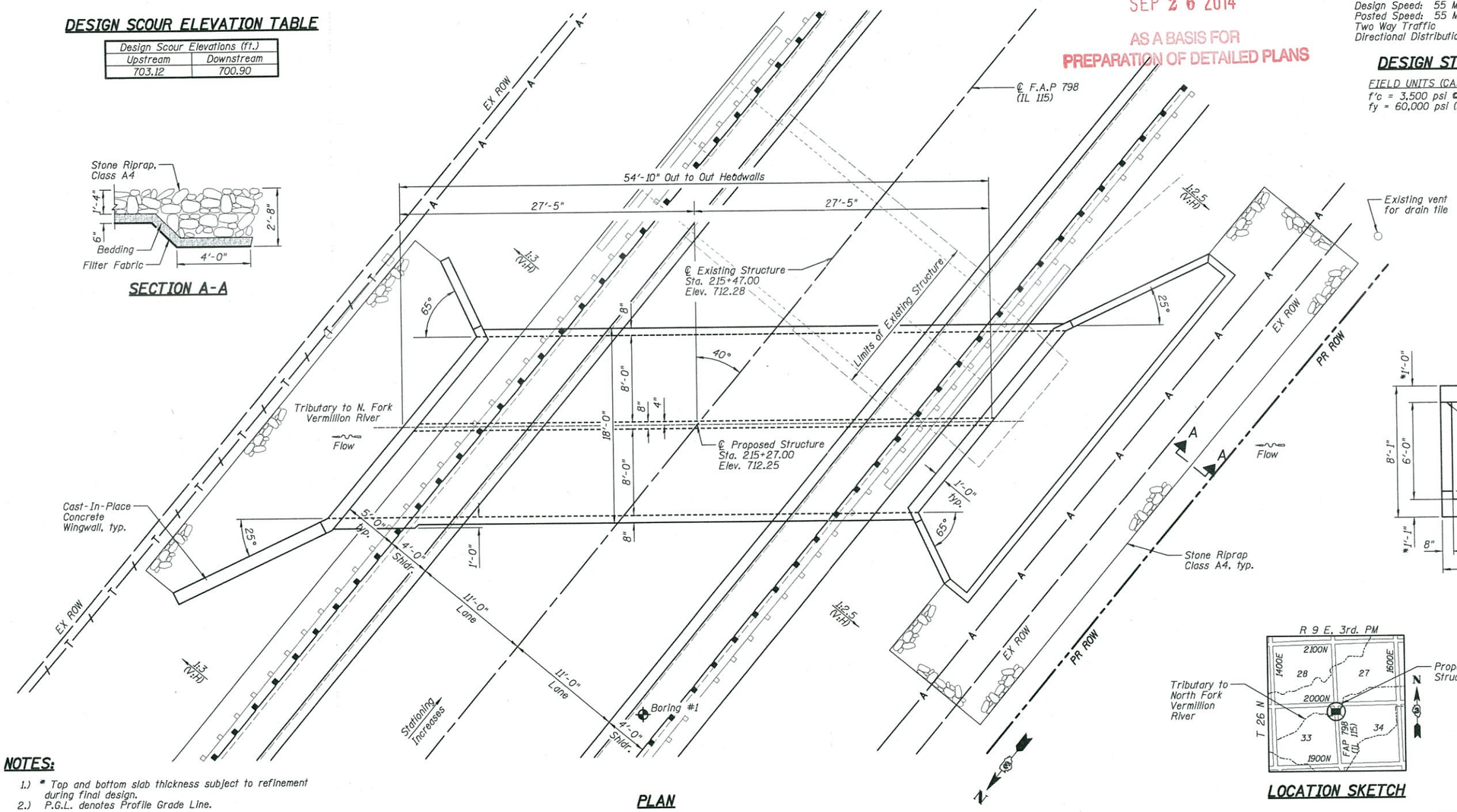
DESIGN STRESSES

FIELD UNITS (CAST-IN-PLACE)
f'c = 3,500 psi ◘ 28 days
fy = 60,000 psi (Reinforcement)

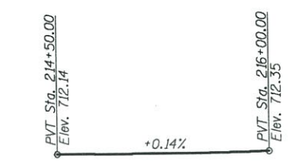
DESIGN SCOUR ELEVATION TABLE

Design Scour Elevations (ft.)	
Upstream	Downstream
703.12	700.90

SECTION A-A

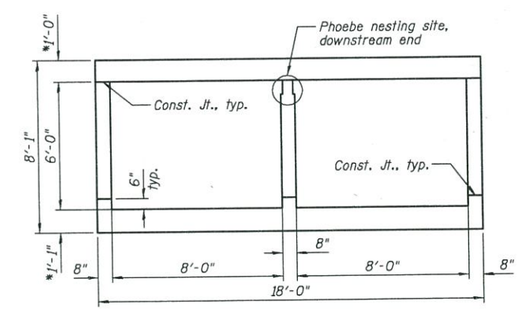


PLAN



PROFILE GRADE

(Along ℄ Roadway)



SECTION THRU BARRELS

LOCATION SKETCH

NOTES:

1.) * Top and bottom slab thickness subject to refinement during final design.
2.) P.G.L. denotes Profile Grade Line.

GENERAL PLAN
IL. ROUTE 115 OVER TRIBUTARY TO NORTH FORK VERMILLION RIVER
F.A.P. 798 - SECTION (107) CR-6
FORD COUNTY
STATION 215+27.00
STRUCTURE NO. 027-2019

Farnsworth GROUP, INC.
2709 McGraw Drive
Bloomington, Illinois 61704
309/663-8435, 309/663-1571 fax

DESIGNED - JCZ	REVISED - JCZ 09/03/14	
CHECKED - JML	REVISED	
DRAWN - JWK	REVISED	
DATE - 06/26/14	CHECKED - MSW	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN
STRUCTURE NO. 027-2019
SHEET NO. OF SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
798	(107) CR-6	FORD	1	1
		CONTRACT NO. 66C03		
		ILLINOIS FED. AID PROJECT		

24-8974