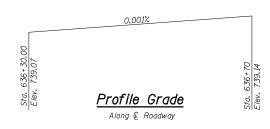
EXISTING STRUCTURE: THE EXISTING BOX CULVERT
WAS BUILT IN THE 1930'S AT STA. 636+50 AS A
4'x2' CAST-IN-PLACE BOX CULVERT ON A O DEGREE
SKEW WITH CONCRETE HEAD WALLS. THE EXISTING
STRUCTURE IS TO BE REMOVED AND REPLACED WITH
PRECAST 4'X2' BOX CULVERT WITH PRECAST END SECTIONS.
STAGE CONSTRUCTION WILL BE UTILIZED.



# **INDEX OF SHEETS**

1. General Plan and Elevation

# **DESIGN SPECIFICATIONS**

2002 AASHTO

#### LOADING HS20-44

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

### **DESIGN STRESSES**

<u>FIELD UNITS</u>

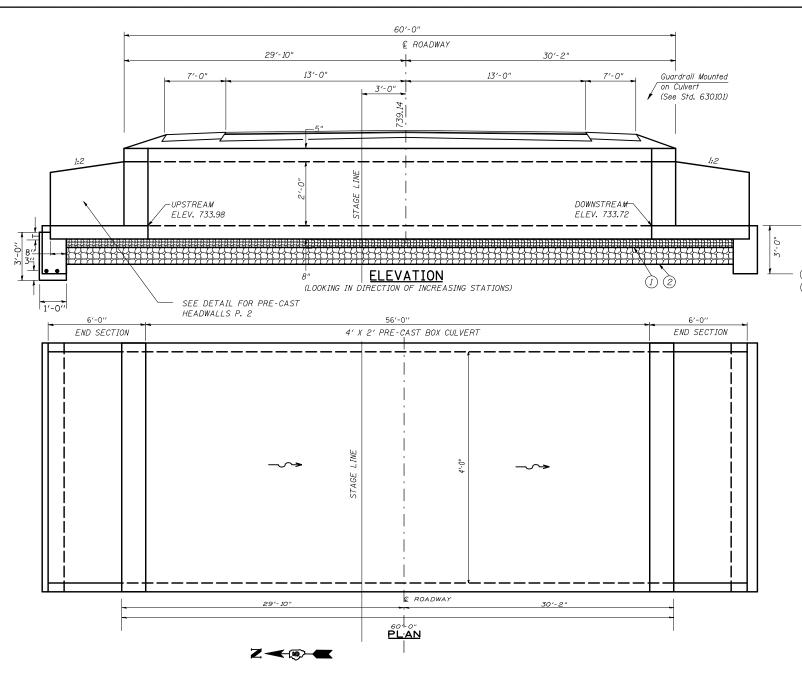
f'c = 3,500 psi

fy = 60,000 psi (reinforcement)

fy = 65,000 psi (welded wire fabric)

<u>PRECAST UNITS</u>

f'c = 5,000 psify = 65,000 psi (welded wire fabric)



## <u>General Notes</u>

Build tops of headwalls parallel to the grade lines.

All construction joints shall be bonded according to Article 503.09 of the Standard Specifications.

Reinforcement bars shall conform to the requirements of ASTM A706 Gr. (IL Modified). See Special Provisions.

End Sections will be paid for at the contract unit price per each for BOX CULVERT END SECTIONS, as outlined in Section 540 of the Standard Specifications.

The design fill height for this box greater than 2 feet, but less than 3 feet. The Precast Concrete Box Culvert Sections shall conform to the requirements of AASHTO M 259.

The joints between precast box sections shall be sealed, all voids filled with a mastic joint sealer. In addition, the joints shall be externally sealed on all four sides with a 13 inch wide external sealing band. The seal shall be centered over the joint, secured in place and protected during the backfilling process.

① Six inches of bedding beneath the box culvert are included in the cost of the Box Culvert.
② The additional 12 inches of undercut is paid for seperately as STONE RIPRAP.
CLASS A-1 (TON) (1.8 TONS/CU.YD.), which price shall include the removal and disposal of unsuitable material.

All dimensions are in FEET (') - INCHES (") unless otherwise noted. Drawings not to scale.

# TOTAL BILL OF MATERIAL

Item	Unit	Total
Precast Concrete Box Culverts 4'x2'	Foot	48
Box Culvert End Sections, Culvert No. 5	Each	2
Stone Riprap, Class A-1	Ton	42.2
Porous Granular Embankment	CuYd	103.1
Box Culvert Removal	Each	1
•		

\*(101,102X)R,RS-2 & 55RS-PRK LN

GENERAL PLAN AND ELEVATION

4'x2' PRECAST BOX CULVERT

F.A.P. ROUTE 315 - SECTION (101, 102X)R,RS-2

MCLEAN COUNTY, STATION 636+50

CULVERT NO. 14

Ī	FILE NAME =	USER NAME = bucklesjj	DESIGNED -	REVISED -			GENERAL PLAN AND ELEVATION	F.A.P. SECTION	COUNTY TOTAL SHEET
	c:\pw_work\pwidot\bucklesjj\d0170848\D57	0507-sht-details.dgn	DRAWN -	REVISED -	STATE OF ILLINOIS	CULVERT #14		315 *	MCLEAN 115 63
		PLOT SCALE = 40.00000 '/ IN.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION			*(101,102X,RS-2 & 55RS-PRK LN	CONTRACT NO. 70507
		PLOT DATE = 12/9/2009	DATE -	REVISED -		SCALE:	SHEET NO. OF SHEETS STA. TO STA.	ILLINOIS FED. AI	