BENCHMARK: BM #74, Chiseled "X" on headwall Sta. 400+07.55, 25.30' Rt., Elev. 633.68

EXISTING STRUCTURE: Structure number 047-2007 was originally constructed in 1992 as FAS 2312 (IL 126) Section 119 BR. It is a double 8'x9' cast-in-place concrete box culvert, 51'-0" out to out of headwalls.

Existing structure to be extended on both ends. Traffic to be maintained utilizing stage construction.

No salvage.

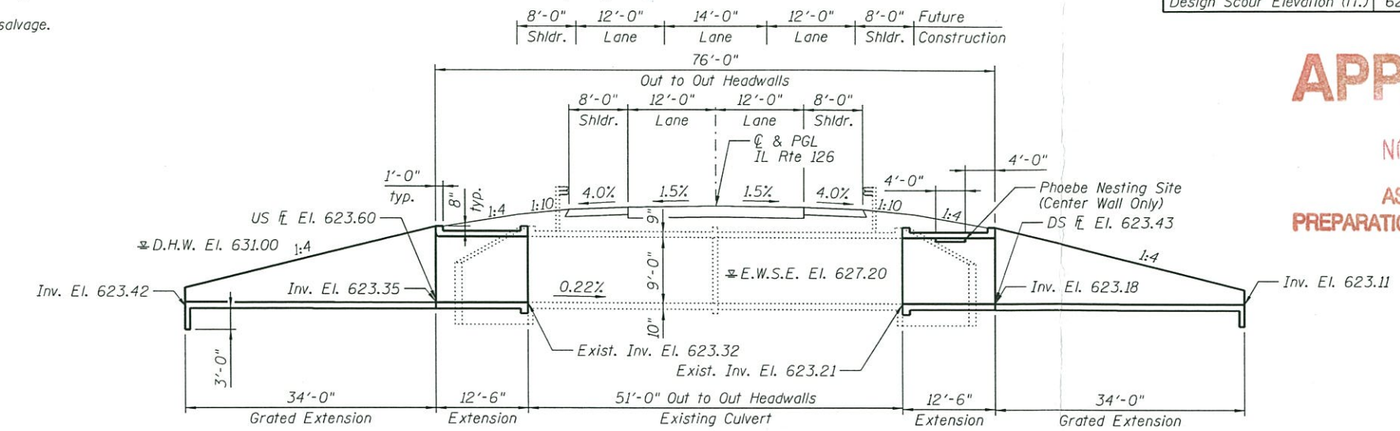
DESIGN SCOUR ELEVATION TABLE

	Upstream	Downstream
Design Scour Elevation (ft.)	620.42	620.11

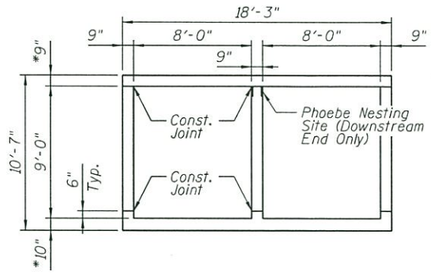
APPROVED

NOV 03 2014

AS A BASIS FOR PREPARATION OF DETAILED PLANS



LONGITUDINAL SECTION

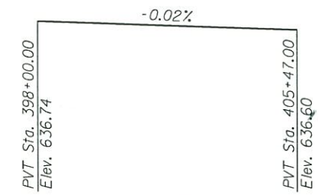


SECTION

*Slab thickness is subject to refinement during final design.

HIGHWAY CLASSIFICATION

Route: FAU 379 (IL Rte 126)
Functional Class: Minor Arterial
ADT: 6650 (2014), 15000 (2040)
DHV = 1845 (2040)
ADTT = 10%
Design Speed: 55 mph
Posted Speed: 55 mph
Directional Distribution: 50/50
Two Way Traffic



PROFILE GRADE

(along ℄ IL Route 126)

NOTES

1. The proposed grated end sections (headwalls and wingwalls) shall extend less than 4 inches (i.e. 3 inches typical) above the adjacent ground elevation until the last 10' of the grated extension. At that point the adjacent ground elevation shall be sloped to meet the invert elevation.
2. Precast alternate is not allowed.
3. There are AT&T and ComEd aerial lines in the project limits.

LOADING HS20-44

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

DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications for Highway Bridges 17th Edition

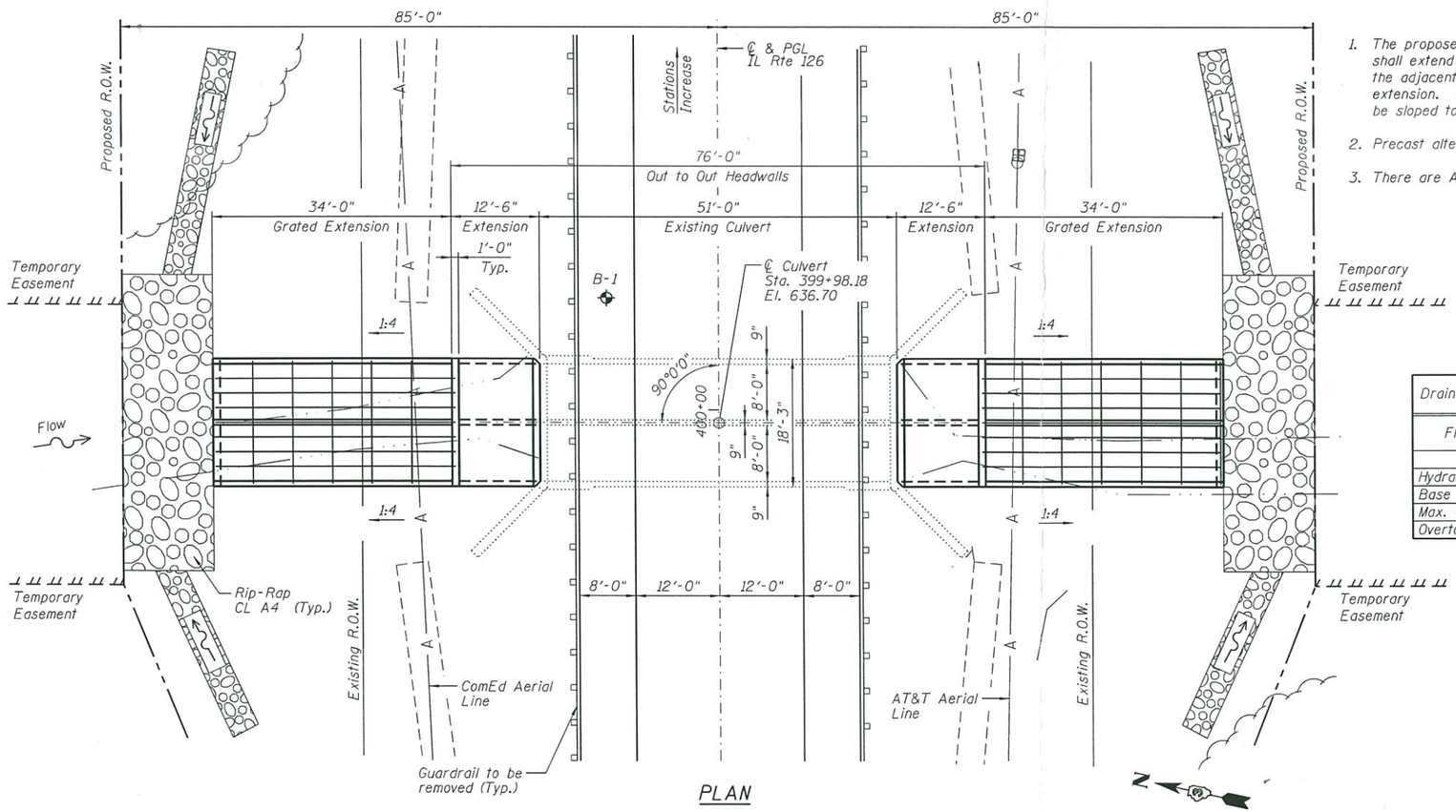
DESIGN STRESSES

FIELD UNITS (New Construction)

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

FIELD UNITS (Existing Construction)

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



PLAN

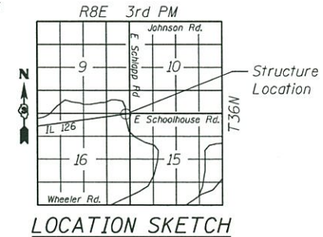
WATERWAY INFORMATION

Drainage Area = 2.73 sq. mi.

Exist. Low Grade Elev. = 636.41 @ Sta. 399+00
Prop. Low Grade Elev. = 636.41 @ Sta. 399+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	356	111	110	630.2	0.0	0.0	630.3	630.2
Hydraulic Design	50	540	123	123	631.0	0.3	0.2	631.3	631.2
Base	100	614	127	126	631.3	0.4	0.3	631.6	631.6
Max. Calc.	500	793	134	133	631.7	0.8	0.8	632.5	632.5
Overtopping	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

10-Year Velocity through Existing Bridge = 3.3 fps
10-Year Velocity through Proposed Bridge = 3.3 fps



LOCATION SKETCH

GENERAL PLAN
IL 126 OVER LITTLE SLOUGH CREEK
FAU 379 (IL 126) SECTION (118) N
KENDALL COUNTY
STA. 399+98.18
STRUCTURE NO. 047-2007

FILE NAME = ...\CADD\047-2007_66C33_TSL.dgn

ZROKA engineering
Zroka Engineering, P.C.
4216 North Hermitage
Chicago, IL 60613

USER NAME = SAW	DESIGNED - LAS	REVISED -	
	CHECKED - DAZ	REVISED -	
PLOT SCALE = 20.0000 ' / in.	DRAWN - SAW	REVISED -	
PLOT DATE = 10/21/2014	CHECKED - LAS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN
STRUCTURE NO. 047-2007
SHEET NO. 1 OF 1 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
379	(118) N	KENDALL		
		CONTRACT NO. 66C33		
		ILLINOIS FED. AID PROJECT		