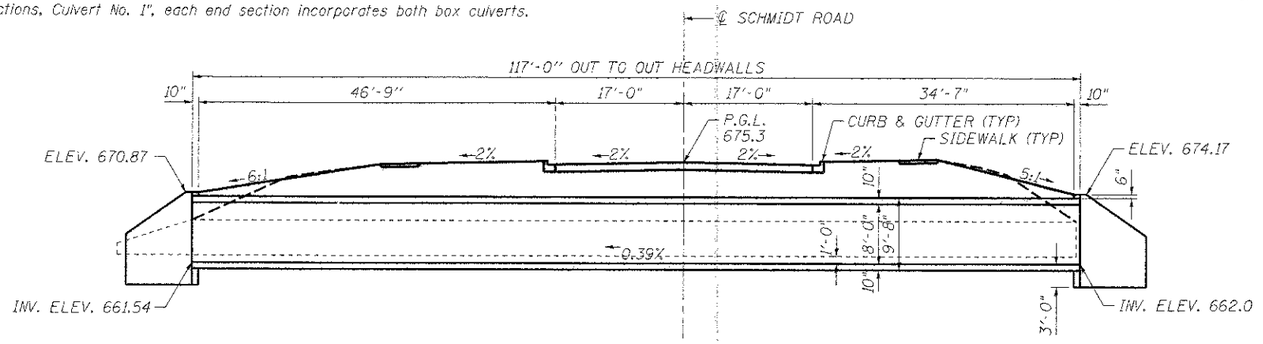
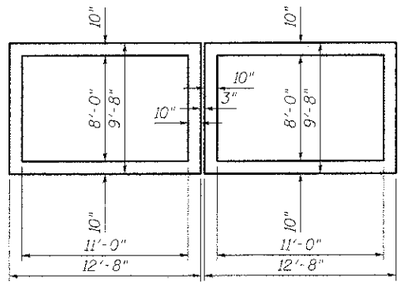
Existing Structure: S.N. 099-6055 built as F.A.U. Route 2571. Structure consists of four (4) 7' x 4'-6" elliptical corrugate metal pipe culverts, 127' in length. Structure to be removed and replaced using road closure.
"Removal of Existing Structures" shall include all 4 existing culverts.
"Box Culvert End Sections, Culvert No. 1", each end section incorporates both box culverts.

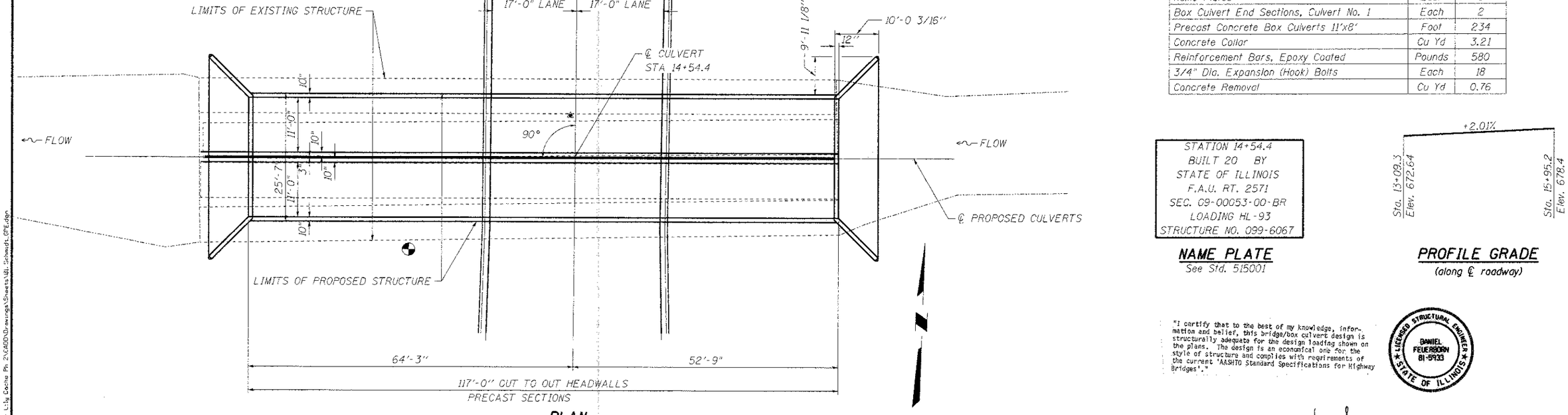
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



LONGITUDINAL SECTION
(LOOKING NORTH)



SECTION THROUGH PRECAST BARRELS
(LOOKING WEST)



PLAN

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Removal of Existing Structures	Each	1
Structure Excavation	Cu Yd	1125
Name Plates	Each	1
Box Culvert End Sections, Culvert No. 1	Each	2
Precast Concrete Box Culverts 11'x8'	Foot	234
Concrete Collar	Cu Yd	3.21
Reinforcement Bars, Epoxy Coated	Pounds	580
3/4" Dia. Expansion (Hook) Bolts	Each	18
Concrete Removal	Cu Yd	0.76

WATERWAY INFORMATION

Drainage Area = 7.33 mi²
Exist. Overtopping Elev. 674.8 @ Sta. 13+09.3
Prop. Overtopping Elev. 674.8 @ Sta. 13+09.3

Flood	Freq.	Q	Opening Sq. Ft.		Nat.	Head - Ft.		Headwater El.	
	Yr.	C.F.S.	Exist.	Prop.	H.W.E.	Exist.	Prop.	Exist.	Prop.
	10	535	92.9	108.5	667.69	1.10	0.24	668.79	667.93
Design	50	820	92.9	134.6	668.68	2.64	0.44	671.32	669.12
Base	100	970	92.9	147.6	669.02	2.93	0.69	671.95	669.71
Max. Calc.	500	1350	92.9	154.0	669.67	3.15	1.31	672.82	670.98

10 year velocity through existing bridge = 5.9 fps
10 year velocity through prop. bridge = 4.8 fps

HIGHWAY CLASSIFICATION

Schmidt Road - F.A.U. Rte. 2571
Functional Class: Collector (Urban)
ADT: 6,200 (8000)
ADTT: 1%
DHV: 800
Design Speed: 30 m.p.h.
Posted Speed: 30 m.p.h.

LOADING HL-93

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

DESIGN SPECIFICATIONS

2010 AASHTO LRFD BRIDGE SPECIFICATIONS
WITH 2010 AND 2012 INTERIMS

DESIGN STRESSES

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

STATION 14+54.4
BUILT 20 BY
STATE OF ILLINOIS
F.A.U. RT. 2571
SEC. 09-00053-00-BR
LOADING HL-93
STRUCTURE NO. 099-6067

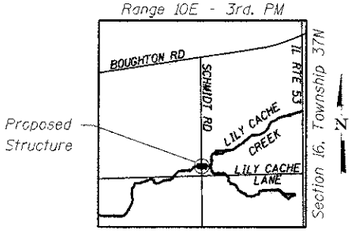
NAME PLATE
See Std. 515001

PROFILE GRADE
(along ℄ roadway)

"I certify that to the best of my knowledge, information and belief, this bridge/box culvert 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 Specifications for Highway Bridges'."

LICENSED STRUCTURAL ENGINEER
DANIEL FEUERBORN
81-5933
STATE OF ILLINOIS

Daniel Feuerborn — 2.1.2013
License Expires 11-30-2014 — Date



LOCATION SKETCH

ILLINOIS DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION
SCHMIDT ROAD OVER LILY CACHE CREEK
F.A.U RT. 2571 - SEC. 09-00053-00-BR
WILL COUNTY
STATION 14+54.4
STRUCTURE NO. 099-6067

PRINTED DATE: 1/31/2013
FILE NAME: N:\Projects\WillingBrook\Schmidt Road Culvert\Schmidt Rd over Lily Cache Ph 2\CADD\Drawings\Sheets\GI_Schmidt_OPE.dgn

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USER NAME = $USER$	DESIGNED - DF	REVISED -	
	CHECKED - JEH	REVISED -	
PLOT SCALE = 10.0000 ' / in.	DRAWN - JEH	REVISED -	
PLOT DATE = 1/31/2013	CHECKED - DF	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION

SHEET NO 1 OF 2 SHEETS

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2571	09-00053-00-BR	WILL	25	15
		CONTRACT NO. 63797		
		ILLINOIS FED. AID PROJECT		