

Benchmark: Chiseled "□" in SE corner of concrete traffic control box base located at the NE corner of Palatine Road and Schoenbeck Road. Elev. 675.59

Existing Structure: Structure No. 016-4006 built in 1960 by the Cook County Highway Department under Section 110-0913. Twin 10'x8'x192.5' cast-in-place box culvert. Traffic to be maintained using staged construction.

No Salvage.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Concrete Box Culverts	Cu Yd	481.3
Reinforcement Bars, Epoxy Coated	Pound	600
Reinforcement Bars	Pound	121,950
Removal of Existing Structures	Each	1
Temporary Sheet Piling	Sq. Ft.	1,338
Chain Link Fence, 4' Attached to Structure	Lin. Ft.	26
Name Plates	Each	1
Bar Splicers	Each	312

LOADING HS20-44

Allow 50 lbs./sq.ft. future wearing surface

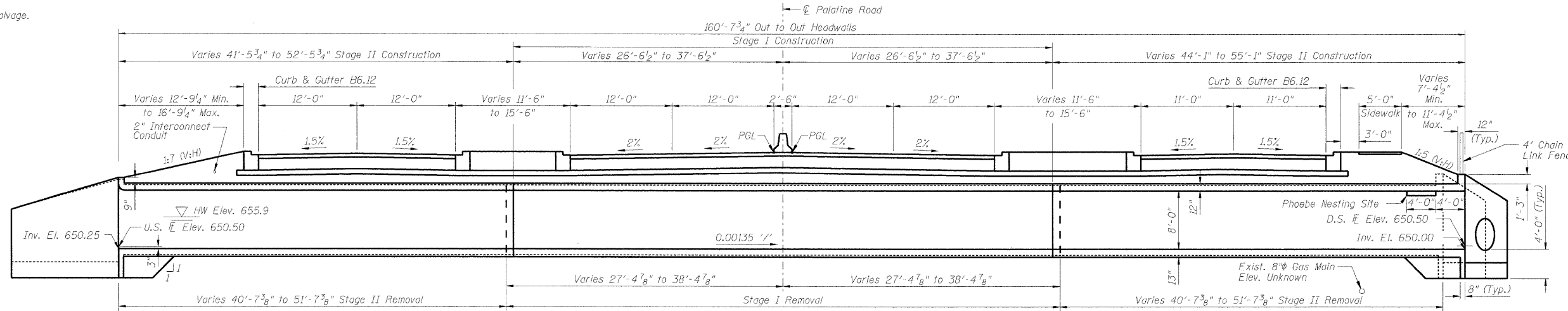
DESIGN SPECIFICATIONS

2002 AASHTO

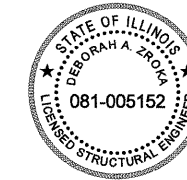
DESIGN STRESSES

FIELD UNITS

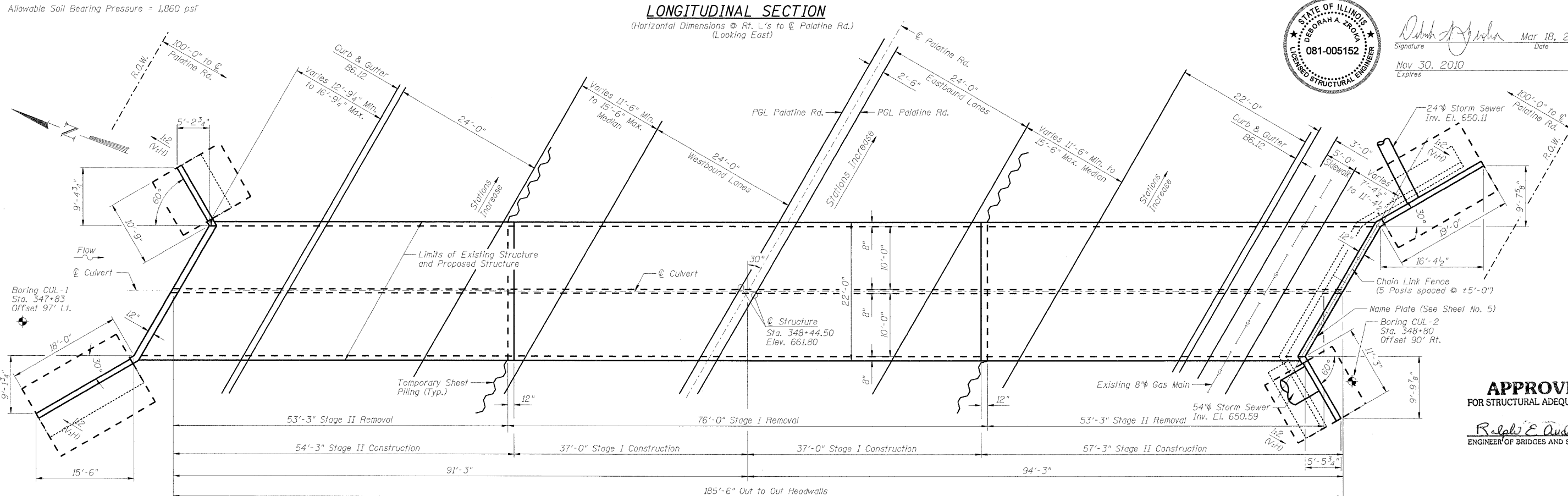
$f'_c = 3,500$ psi
 $f_y = 60,000$ psi (reinforcement)



Allowable Soil Bearing Pressure = 1,860 psf



Signature: *Deborah A. Zroka* Date: Mar 18, 2009
Expires: Nov 30, 2010



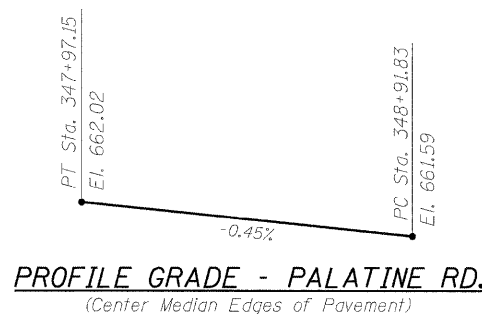
APPROVED
FOR STRUCTURAL ADEQUACY ONLY

Ralph E. Anderson, (P.E.)
ENGINEER OF BRIDGES AND STRUCTURES

GENERAL PLAN
PALATINE ROAD OVER McDONALD CREEK
SECTION 0913.1-T
COOK COUNTY
STA. 348+44.50
STRUCTURE NO. 016-7947

GENERAL NOTES

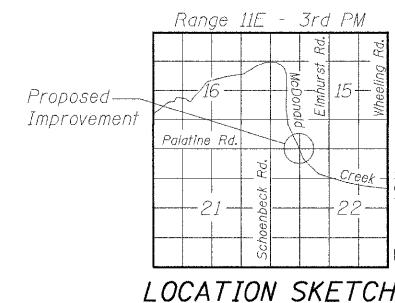
1. Reinforcement bars shall conform to the requirements of ASTM A 706 Gr. 60. See Special Provisions.
2. All construction joints shall be bonded.
3. Reinforcement bars designated (E) shall be epoxy coated.



WATERWAY INFORMATION TABLE

Drainage Area = 5.01 Sq. Miles Low Grade Elev. 661.5 Feet @ Sta. 348+40

Flood	Freq. Yr.	Q (CFS)	Opening Sq. Ft.		Nat. H.W.E.		Head - ft.		Headwater Elev.	
			Exist.	Prop.	Exist.	Prop.	Exist.	Prop.	Exist.	Prop.
Design	50	309	113.0	113.0	655.9	0.0	0.0	655.9	655.9	
Base	100	335	117.0	117.0	656.1	0.0	0.0	656.1	656.1	
Overtopping										
Max. Calc.	500	574	129.0	129.0	656.7	0.0	0.0	656.7	656.7	



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

Date: 02-20-09 Drawn By: SW Checked By: HT

SHEET NO. 1 OF 8 SHEETS	F.A.P. RTE. 305	SECTION 0913.1-T	COUNTY COOK	TOTAL SHEETS 39	SHEET NO. 26
	SN 016-7947		CONTRACT NO. 60E53		
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT					