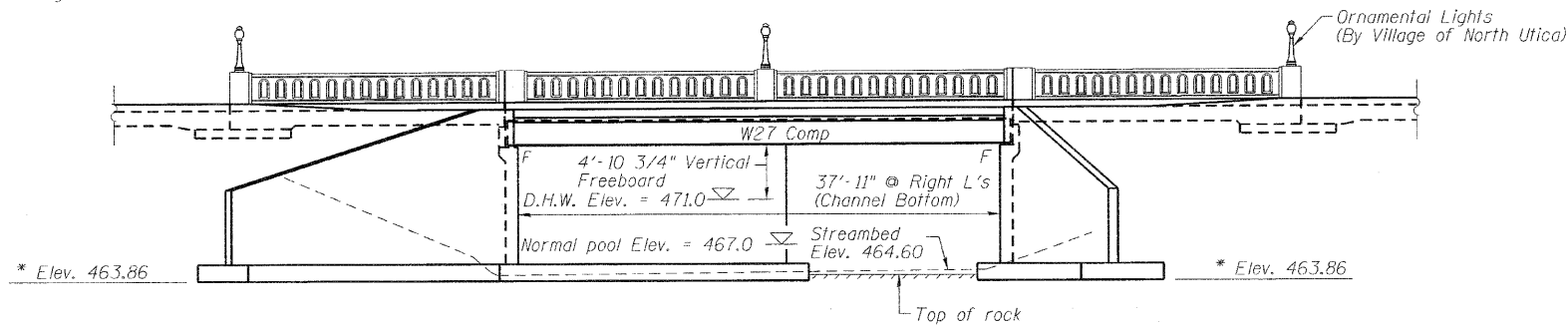


Bench Mark:  
Chiseled "X" on west bolt of fire hydrant at west side of IL Route 178, south side of Canal Bridge Elev. 480.15

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

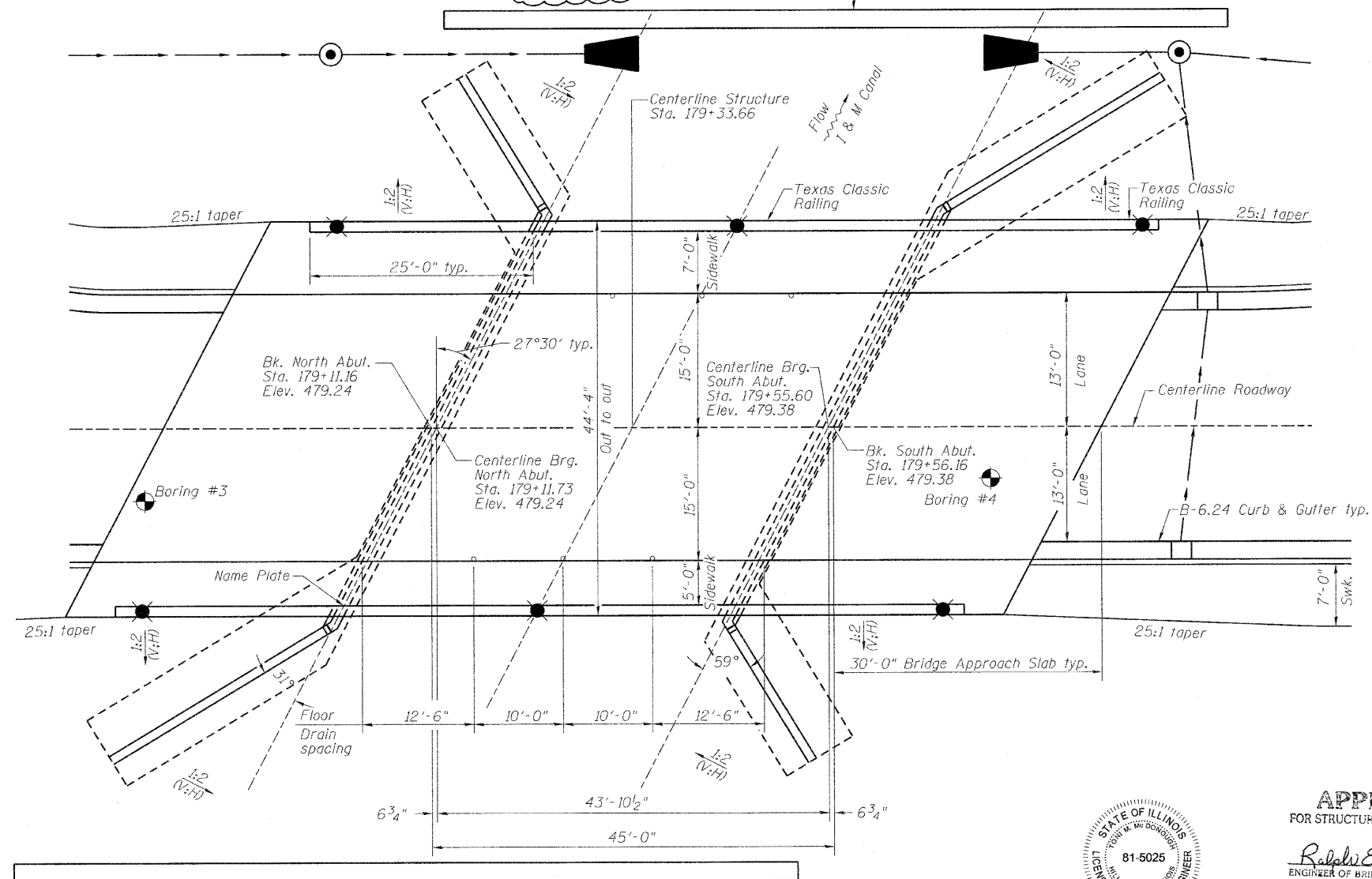
Existing Structure: None



\* Footing to be placed at the elevation shown or 6" into rock, whichever is deeper.

ELEVATION

LIMITS OF Dewatering Structure typ.



PLAN

DESIGNED	CMF
CHECKED	TMM
DRAWN	RNH
CHECKED	TMM

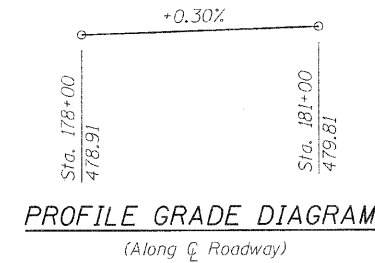


*Toni M. McDonough* 8-5-2010 Date  
Toni M. McDonough  
Licensed Structural Engineer  
State of Illinois No. 81-5025  
License Expires 11/30/10



APPROVED  
FOR STRUCTURAL ADEQUACY ONLY

*Ralph E. Anderson (TD)*  
ENGINEER OF BRIDGES AND STRUCTURES



PROFILE GRADE DIAGRAM

(Along C Roadway)

INDEX OF SHEETS

- 1 General Plan & Elevation
- 2 General Notes & Bill of Material
- 3-4 Top of Slab Elevations
- 5 Top of North Approach Slab Elevations
- 6 Top of South Approach Slab Elevations
- 7 Superstructure
- 8-9 Concrete Bridge Railing, Sidewalk Mounted
- 10-11 Bridge Approach Slab Details
- 12 Framing Plan
- 13 Beam Details
- 14 North Abutment
- 15 South Abutment
- 16 Abutment Details
- 17 Cantilever Forming Brackets for Superstructures With W27 Beams and Smaller
- 18 Bar Splicer Assembly Details
- 19 Boring Logs
- 20 Rock Core Logs

WATERWAY INFORMATION					
DRAINAGE AREA= 34.7 mi. <sup>2</sup> LOW GRADE ELEV.= 478.9 @ STA. 178+00					
FLOOD	0	OPENING ft. <sup>2</sup>	NAT.	HEAD - ft.	HEADWATER EL. - ft.
	C.F.S.	PROP.	H.W.E.	PROP.	PROP.
DESIGN	**	242	471.0	0.0	471.0

- \* Headwater Elev. = water surface Elev. @ upstream face of proposed structure.
- \*\* Regular waterway analysis does not apply in this case.

DESIGN SPECIFICATIONS

2007 AASHTO LRFD  
Bridge Design Specifications  
With 2008 Interims

LOADING HL-93

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

DESIGN STRESSES

Field Units

$f'_c = 3,500$  psi  
 $f_y = 60,000$  psi (reinforcement)  
 $f_y = 50,000$  psi (Struct. Steel) (M270 Grade 50)  
 $f_y = 36,000$  psi (Struct. Steel) (M270 Grade 36)

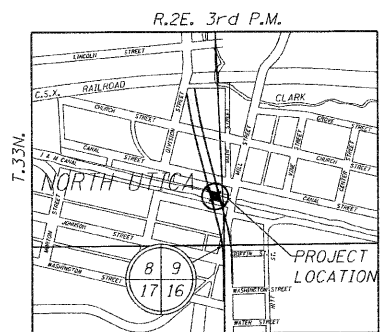
Allowable Bearing Pressure = 6000 psf

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1  
Design Spectral Acceleration at 1.0 sec.  $S_{d1} = 0.04g$   
Design Spectral Acceleration at 0.2 sec.  $S_{d0.2} = 0.11g$   
Soil Site Class = B

DESIGN SCOUR ELEVATION TABLE

DESIGN SCOUR ELEVATION (ft)	N. ABUTMENT	S. ABUTMENT
	464.40	464.40



LOCATION SKETCH

GENERAL PLAN & ELEVATION  
IL ROUTE 178 RELOCATED OVER I & M CANAL  
PUBLIC WATER

F.A.S. ROUTE 1279 SECTION 6R, B  
LASALLE COUNTY  
STATION 179+33.66  
STRUCTURE NO. 050-0250

McDonough-Whitlow, P.C.  
Consulting Engineers & Land Surveyors  
138 East Wood Street  
Hillsboro, IL 62049  
Phone: 217.532.9233  
Fax: 217.532.6300  
PROFESSIONAL DESIGN NO. 184-02754

SHEET NO. 1  
20 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1279	6R, B	LASALLE	190	103
CONTRACT NO.			66547	
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT				

REVISED 10/20/10