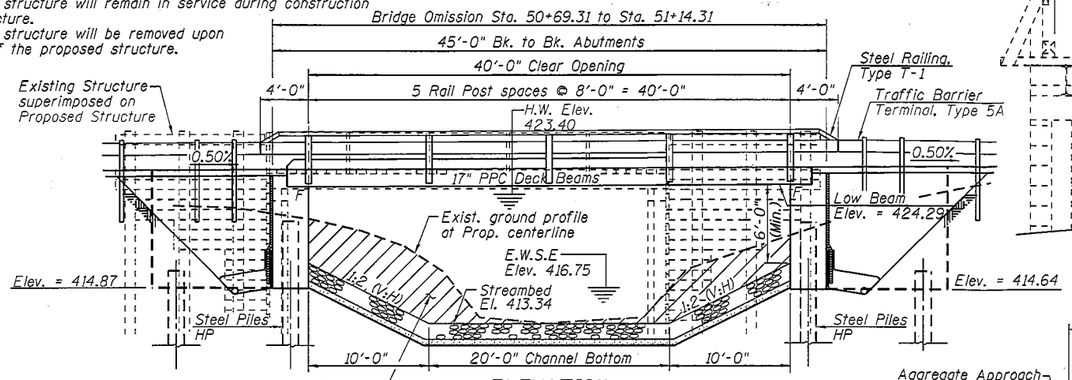
B.M. 2720 Saw-cut "□" on N...nwest wingwall of Structure No. 044-0001 at Sta. 839+60, 10' Rt. of ℄ US 45. Elev. 436.215

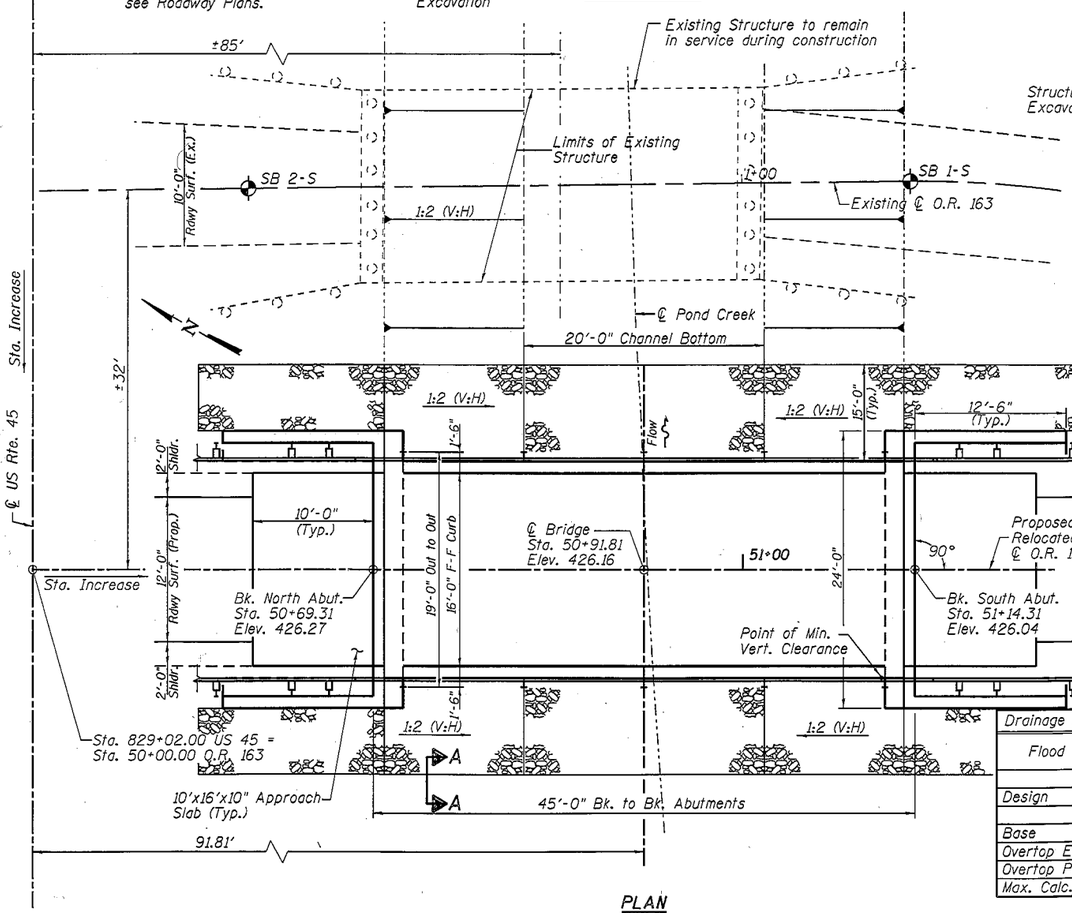
Existing Structure: S.N. 100-0058 built in 1956. The structure is built on timber piles. 33'-5" Bk. to Bk. of timber pile caps. 16'-0" out-to-out wooden railing and timber decking supported by steel beams.
The existing structure will remain in service during construction of new structure.
The existing structure will be removed upon completion of the proposed structure.

No Salvage

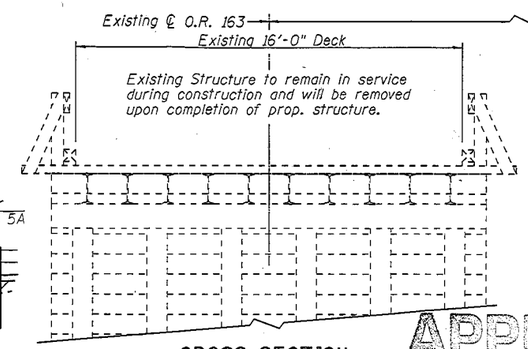


Note: For Channel Excavation see Roadway Plans.

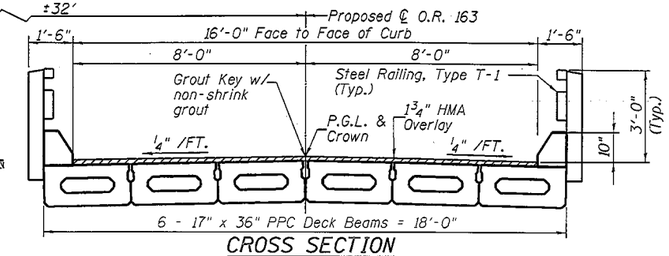
ELEVATION



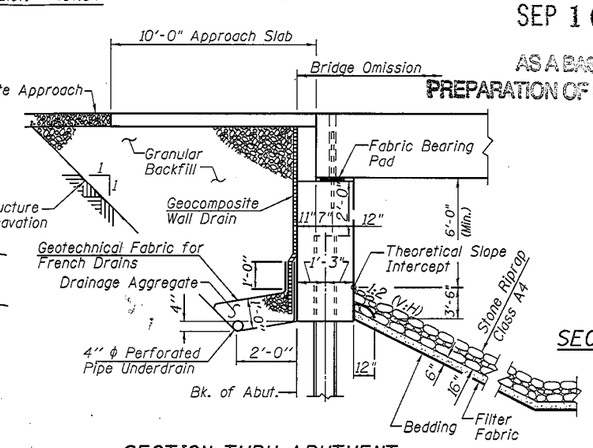
PLAN



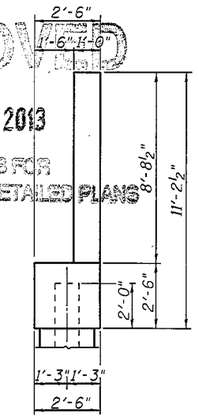
CROSS SECTION
(Existing)



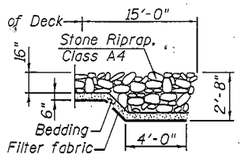
CROSS SECTION
(Proposed)



SECTION THRU ABUTMENT



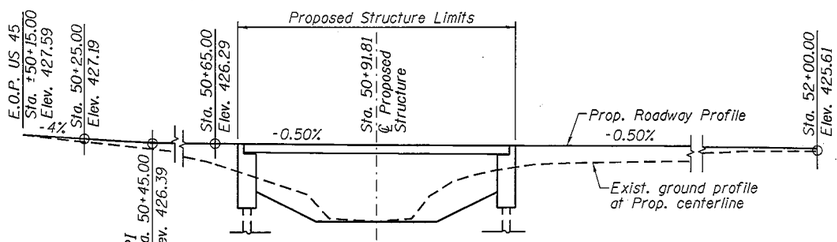
SECTION THRU WINGWALL



SECTION A-A

DESIGN SCOUR TABLE

	N. ABUT.	S. ABUT.
Q100	414.87	414.64
Q500	414.87	414.64



ROADWAY PROFILE

WATERWAY INFORMATION

Exist. Overtopping Elev. = 424.73 @ Sta. 1+56.95

Drainage Area = 2.37 Sq. Mi. Prop. Overtopping Elev. = 425.59 @ Sta. 52+09.16

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	1080	192.11	289.56	421.83	0.00	0.00	421.83	421.83
Design	30	1618	245.41	352.36	423.40	0.15	0.00	423.55	423.40
	50	1810	261.21	368.76	423.81	0.25	0.00	424.06	423.81
Base	100	2140	272.39	391.56	424.38	0.46	0.00	424.84	424.38
Overtop Exist.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Overtop Prop.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Max. Calc.	500	3000	272.39	405.85	425.30	1.24	0.00	426.54	425.30

10 Yr. Velocity through Exist. Bridge = 5.82 ft/s
10 Yr. Velocity through Prop. Bridge = 3.82 ft/s

APPROVED
SEP 10 2013
AS A BASIS FOR PREPARATION OF DETAILED PLANS

HIGHWAY CLASSIFICATION
Functional Class: Local Road (Non-Urban)
ADT: 10 (2014); 15 (2034)
ADTT: 0 (2014)
DHV: 2
Design speed: 25 MPH
Posted Speed: 25 MPH
Two Way Directional Dist.: 50/50

DESIGN SPECIFICATIONS
2012 AASHTO LRFD 6th Edition

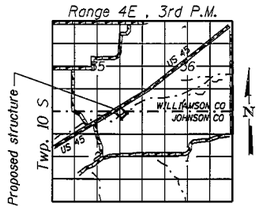
LOADING HL-93
Allow 50 psf for future wearing surface

DESIGN STRESSES

FIELD UNITS
f'c = 3,500 psi (Cast-in-Place)
fy = 60,000 psi (Reinforcement)

PRECAST PRESTRESSED UNITS
f'c = 6,000 psi (Prestressed Beams)
f'ci = 5,000 psi (Prestressed Beams)
f's = 270,000 psi (½" dia. low lax. strands)
f'si = 201,960 psi (½" dia. low lax. strands)

SEISMIC DATA
Seismic Performance Zone (SPZ) = 2
Design Spectral Acceleration at 1.0 sec (SD1) = 0.290g
Design Spectral Acceleration at 0.2 sec (SDS) = 0.792g
Soil Site Class = C



LOCATION SKETCH

GENERAL PLAN & ELEVATION
O.R. 163 OVER
POND CREEK
SECTION 34B-2
JOHNSON COUNTY
STATION 50+91.81
STRUCTURE NO. 044-0062

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USER NAME =	DESIGNED - BPD	REVISED -	
	CHECKED - WLB	REVISED -	
PLOT SCALE =	DRAWN - GLD	REVISED -	
PLOT DATE =	CHECKED - $SUBMITDATE$	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN
STRUCTURE NO. 044-0062
SHEET NO. 1 OF 1 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
163	34B-2	JOHNSON	1	1
		CONTRACT NO. 78276		
		ILLINOIS FED. AID PROJECT		

0806610/WO/D/S/D9-0058_TSL.dgn