Benchmark: Chiseled "□" on the east step of the southeast wingwall of WB I-80. Elev. 624.41.

Existing Structures: S.N. 099-0066 carrying I-80 Eastbound and S.N. 099-0067 carrying I-80 Westbound over Rowell Avenue and WCL Railroad was originally constructed in 1965 as FAI Route 80, Section 99-4-IVB. The 8 span EB structure is approximately 559-ft bk to bk of abutment and consists of two continuous span units separated by a single span. Unit 1 consists of a three span continuous wide flange beam and reinforced concrete deck and the single span unit is similar. Unit 2 consists of a four span continuous plate girder and reinforced concrete deck. The 9 span WB structure is approximately 634-ft bk to bk of abutment and consists of two continuous span units separated by a single span. Unit 1 consists of a four span continuous wide flange beam and reinforced concrete deck and the single span unit is similar. Unit 2 consists of a four span continuous plate girder and reinforced concrete deck. The existing bridge decks are 36-ft out to out and consist of 6¼" reinforced concrete composite slab with 2¾" latex concrete overlay. The superstructures are supported on concrete stub abutments on piles and 2-column piers on spread footings and piles. The skew is 10°04'00" forward right Unit 1 and 34°05'00" forward left Unit 2. The decks were repaired in 1999 and 2011. The existing structure shall be removed.

Stage construction shall be utilized to maintain traffic during construction.

No salvage.

DESIGN SPECIFICATIONS

2012 AASHTO LRFD Bridge Design Specifications, 6th Edition, with 2013 Interims

DESIGN STRESSES

f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)
fy = 50,000 psi (M270 Grade 50)

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at 1.0 sec. (SD1) = 0.068
Design Spectral Acceleration at 0.2 sec. (SDS) = 0.125
Soil Site Class = C

HIGHWAY CLASSIFICATION

F.A.I. Rte. 80 EB
Functional Class: Interstate
ADT: 44,170 (2010); 57,050 (2030)
ADTT: 9,010 (2010); 11,640 (2030)
DHV: 3,540 (2010)
Design Speed: 60 m.p.h.
Posted Speed: 55 m.p.h.
One-Way Traffic

F.A.I. Rte. 80 WB
Functional Class: Interstate
ADT: 43,600 (2010); 57,120 (2030)
ADTT: 8,010 (2010); 10,280 (2030)
DHV: 3,560 (2010)
Design Speed: 60 m.p.h.
Posted Speed: 55 m.p.h.
One-Way Traffic

F.A.U. Rte. 357
Functional Class: Collector (Urban)
ADT: 2,250 (2008); 3,017 (2032)
ADTT: 135 (2008); 181 (2032)
DHV: 148 (2008)
Design Speed: 35 m.p.h.
Posted Speed: 30 m.p.h.
Two-Way Traffic
Directional Distribution: 50:50

LOADING HL-93

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

LEGEND

- Soil Boring
- Temp. Easement
- Permanent Easement
- Approximate Limits of Reinforced Soil Mass
- Exist. R.O.W.
- Prop. R.O.W.

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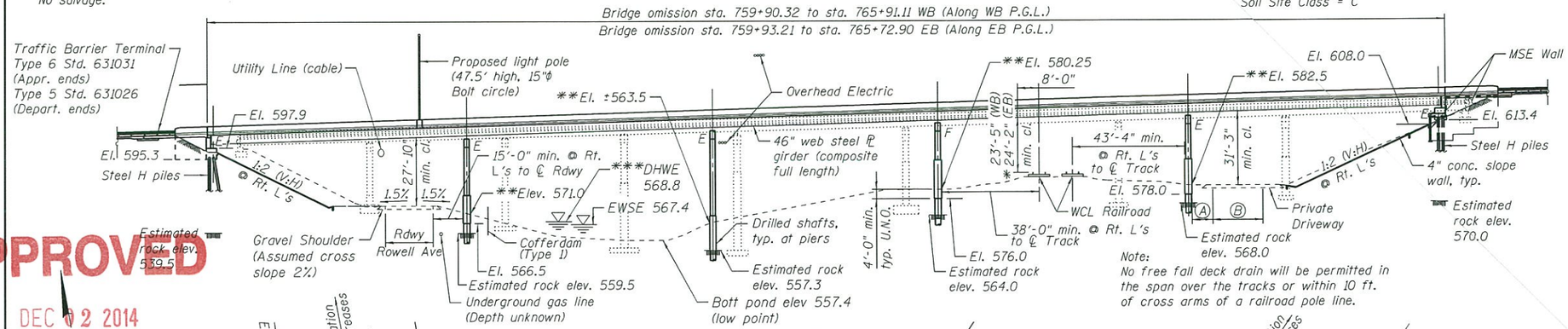
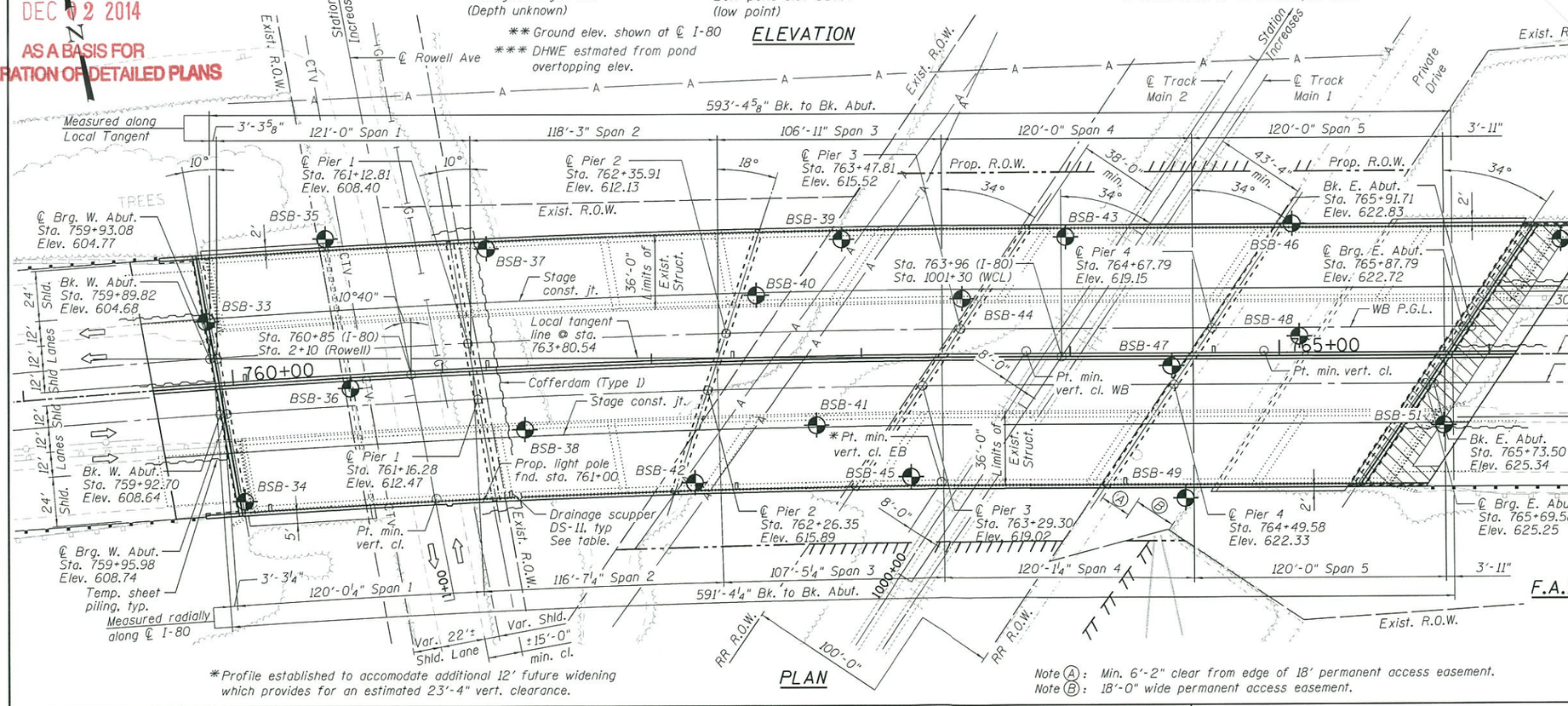
Bridge omission sta. 759+90.32 to sta. 765+91.11 WB (Along WB P.G.L.)
Bridge omission sta. 759+93.21 to sta. 765+72.90 EB (Along EB P.G.L.)



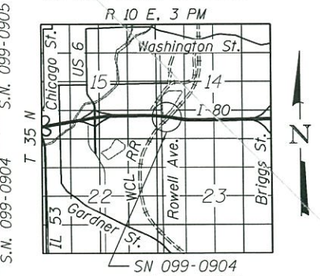


*Profile established to accomodate additional 12' future widening which provides for an estimated 23'-4" vert. clearance.

SCUPPER SPACING

Eastbound		Westbound	
Sta.	Outlet	Sta.	Outlet
760+15	Free Fall	760+09	Free Fall
761+29	Downspout	761+21	Downspout
762+38	Downspout	762+38	Downspout
764+25	Downspout	764+25	Downspout

Scupper offset along right curb line when looking up station.



SN 099-0904
SN 099-0905

LOCATION SKETCH

GENERAL PLAN
I-80 OVER ROWELL AVE. & WCL RR
F.A.I. RTE. 80 - SEC. 2013-008B & 2013-009B
WILL COUNTY
STA. 760+85.00
STRUCTURE NO. 099-0904 (EB)
STRUCTURE NO. 099-0905 (WB)

USER NAME = default	DESIGNED -	REVISED
	CHECKED -	REVISED
PLOT SCALE = $SCALE$	DRAWN -	REVISED
PLOT DATE = 11/7/2014	CHECKED -	REVISED

HBP Illinois Partners

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. 1 OF 5 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B & 2013-009B	WILL		

CONTRACT NO. 60W34 & 60W35
ILLINOIS FED. AID PROJECT

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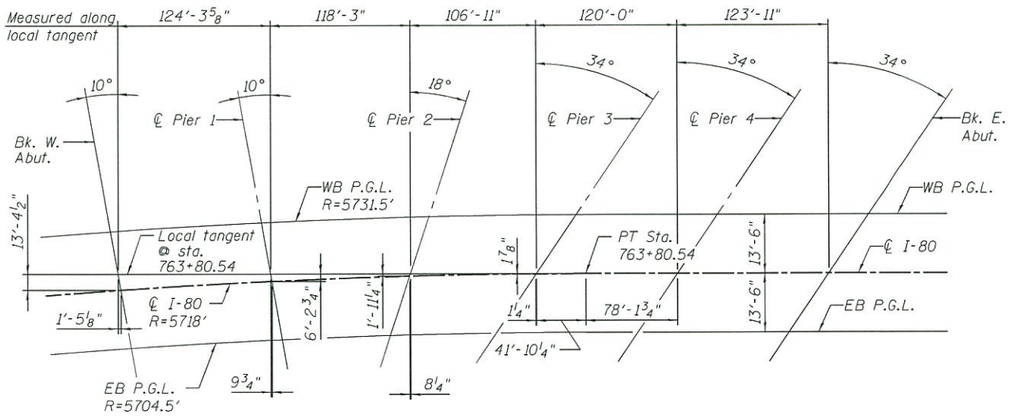
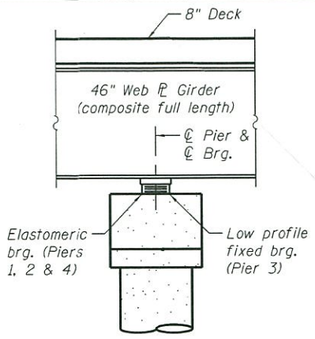
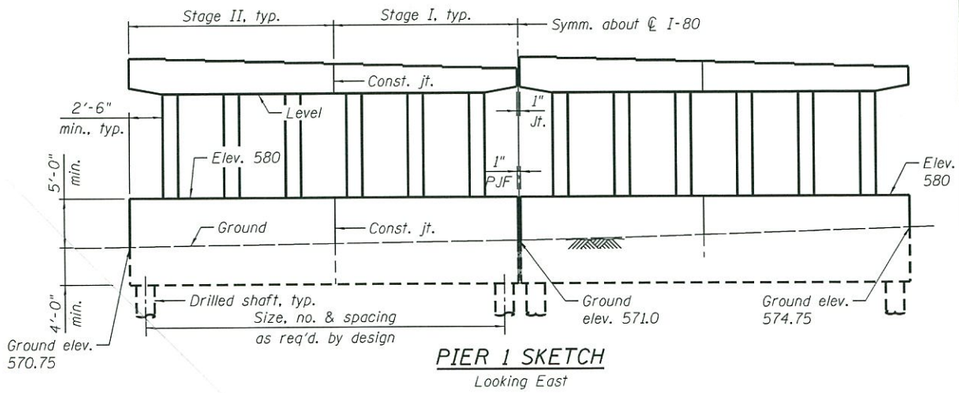


OFFSET SKETCH



SECTION THRU PIER

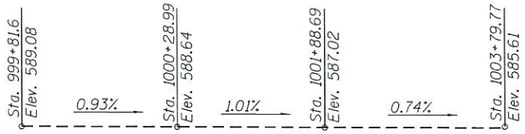


PIER 1 SKETCH

Looking East

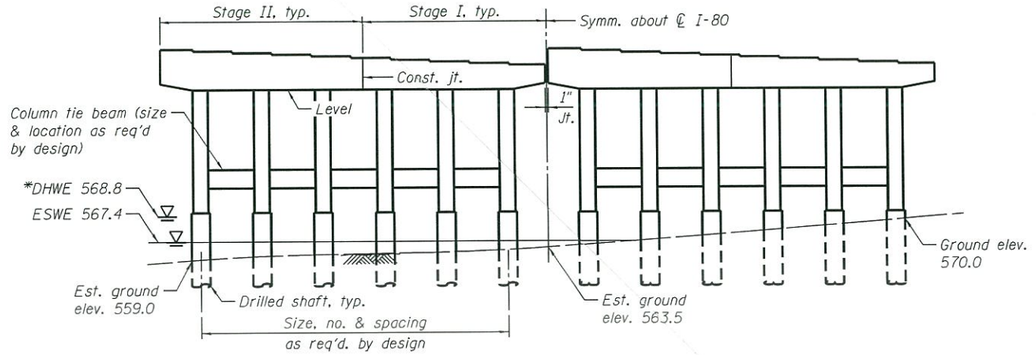
CURVE DATA (℄ I-80)

PI STA. = 758+81.58
△ = 10° 01' 30" (RT)
D = 1° 00' 07"
R = 5,718.00'
T = 501.52'
L = 1,000.48'
E = 21.95'
e = 3.3%
T.R. = 40'
S.E. RUN = 128'
P.C. STA = 753+80.06
P.T. STA = 763+80.54



PROFILE GRADE EXIST. WCL RR

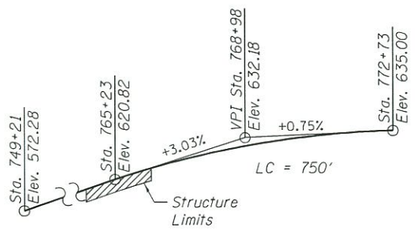
(Top of rail @ Track 2)



* Design High Water Elev estimated from pond overtopping elev.

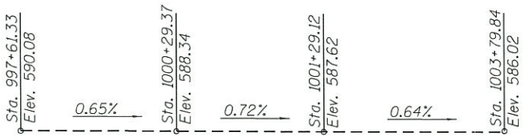
PIER 2 SKETCH

Looking East



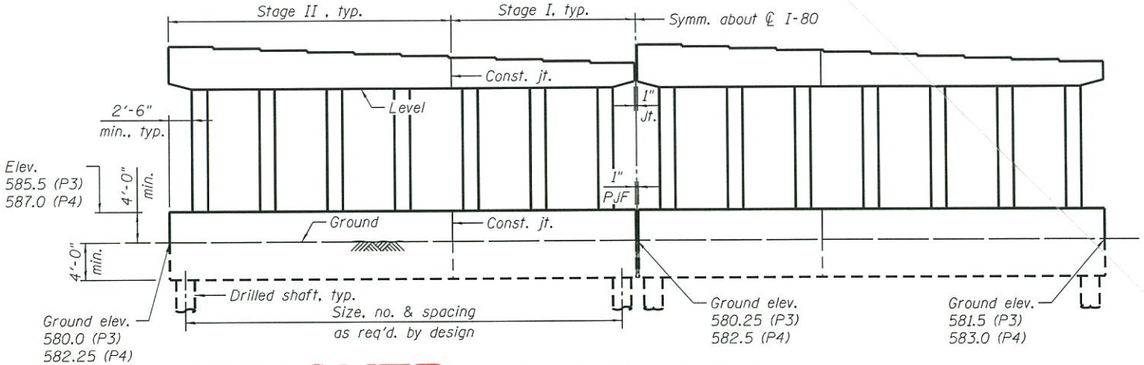
PROFILE GRADE PROP. I-80

(Along WB P.G.L.)



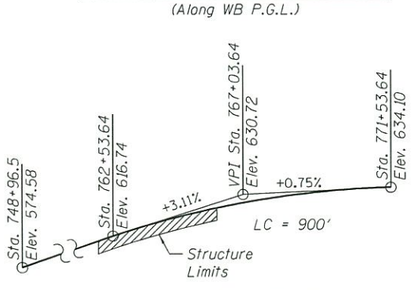
PROFILE GRADE EXIST. WCL RR

(Top of rail @ Track 1)



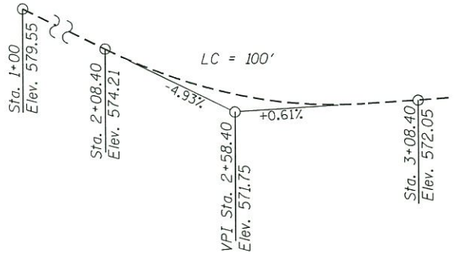
PIERS 3 & 4 SKETCH

Looking East



PROFILE GRADE PROP. I-80

(Along EB P.G.L.)



PROFILE GRADE EXIST. ROWELL AVE.

(Along ℄ Rdwy)

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AS A BASIS FOR PREPARATION OF DETAILED PLANS

DETAILS I

I-80 OVER ROWELL AVE. & WCL RR

F.A.I. RTE. 80 - SEC. 2013-008B & 2013-009B

WILL COUNTY

STA. 760+85.00

STRUCTURE NO. 099-0904 (EB)

STRUCTURE NO. 099-0905 (WB)

HBP Illinois Partners	USER NAME = default	DESIGNED -	REVISED
		CHECKED -	REVISED
	PLOT SCALE = $SCALE$	DRAWN -	REVISED
	PLOT DATE = 11/7/2014	CHECKED -	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. 2 OF 5 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B & 2013-009B	WILL		

CONTRACT NO. 60W34 & 60W35

ILLINOIS FED. AID PROJECT

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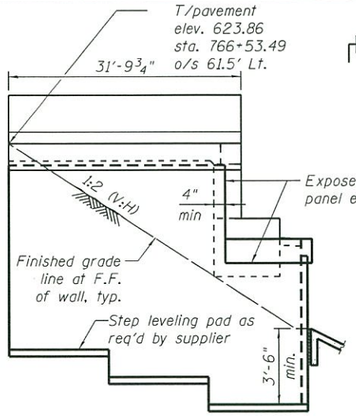
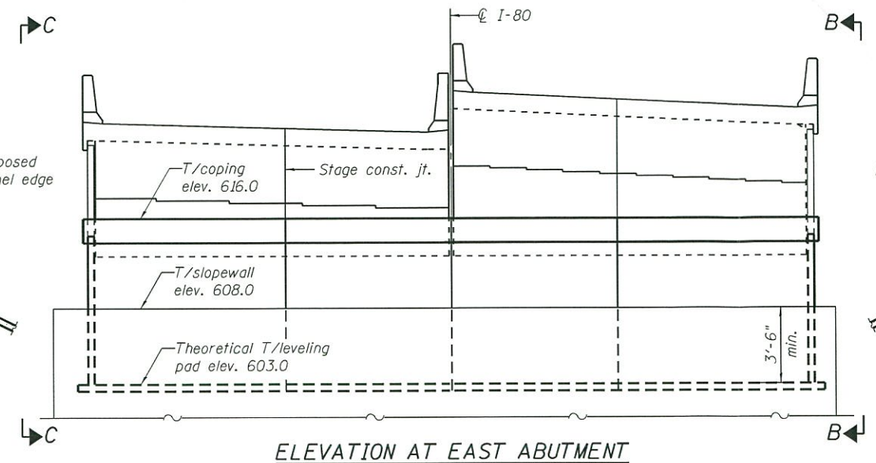
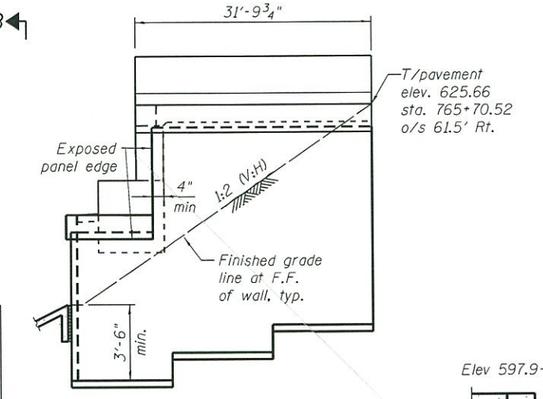


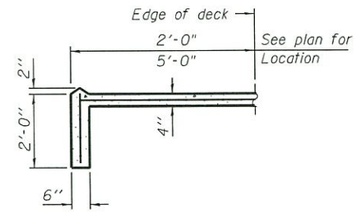
VIEW C-C
N.E. WINGWALL ELEVATION



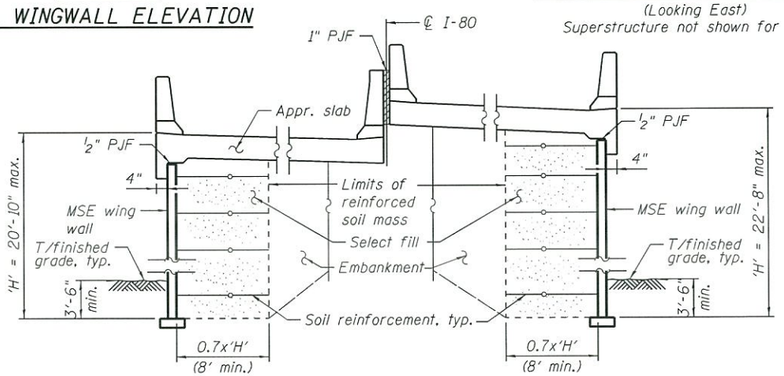
ELEVATION AT EAST ABUTMENT
(Looking East)
Superstructure not shown for clarity.



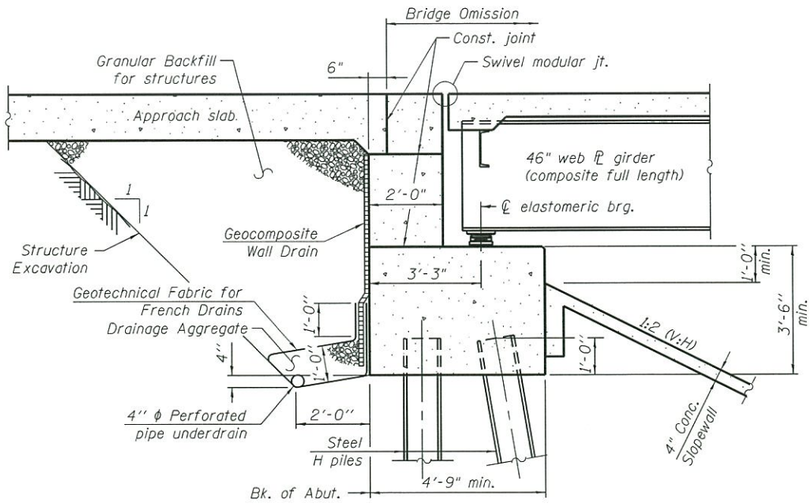
VIEW B-B
S.E. WINGWALL ELEVATION



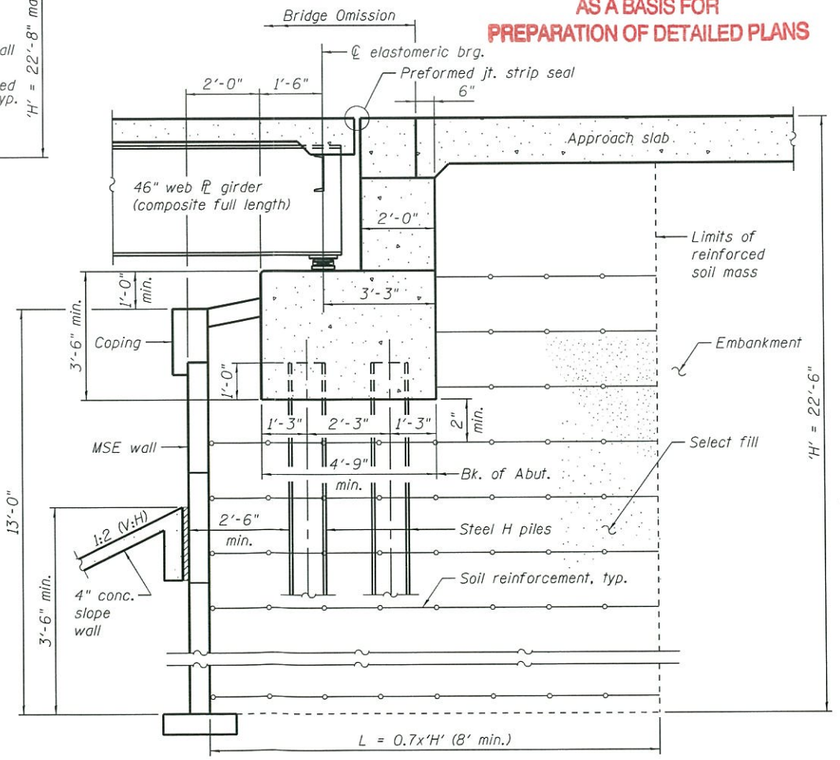
SECTION A-A



SECTION THRU EAST APPROACH SLAB



SECTION THRU WEST ABUTMENT
(Horiz. dim. ℄ Rt. L's)



SECTION THRU EAST ABUTMENT
(Horiz. dim. ℄ Rt. L's)

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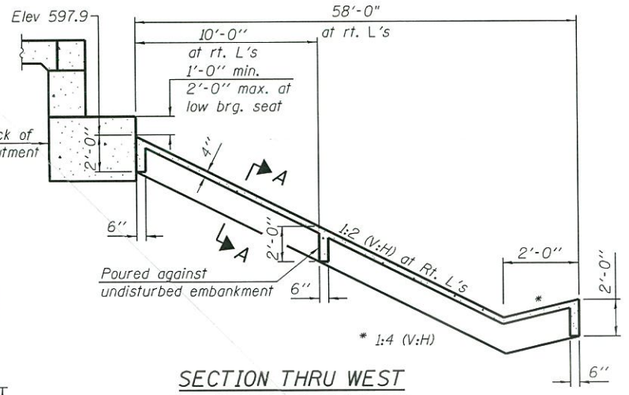
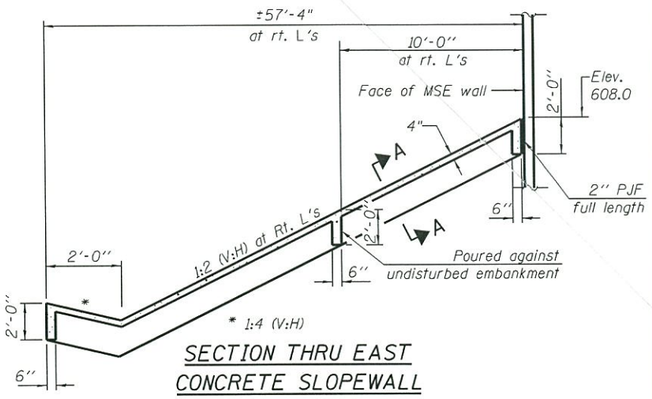


SECTION THRU WEST CONCRETE SLOPEWALL



SECTION THRU EAST CONCRETE SLOPEWALL

DETAILS II
I-80 OVER ROWELL AVE. & WCL RR
F.A.I. RTE. 80 - SEC. 2013-008B & 2013-009B
WILL COUNTY
STA. 760+85.00
STRUCTURE NO. 099-0904 (EB)
STRUCTURE NO. 099-0905 (WB)

HBP Illinois Partners

USER NAME = default	DESIGNED -	REVISED
	CHECKED -	REVISED
PLOT SCALE = $SCALE$	DRAWN -	REVISED
PLOT DATE = 11/7/2014	CHECKED -	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. 3 OF 5 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B & 2013-009B	WILL		

CONTRACT NO. 60W34 & 60W35
ILLINOIS FED. AID PROJECT

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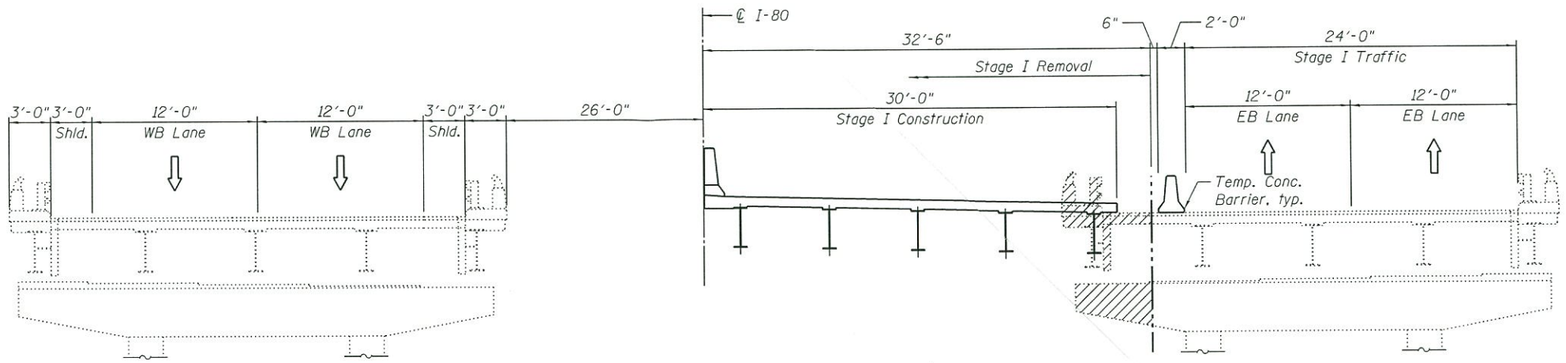
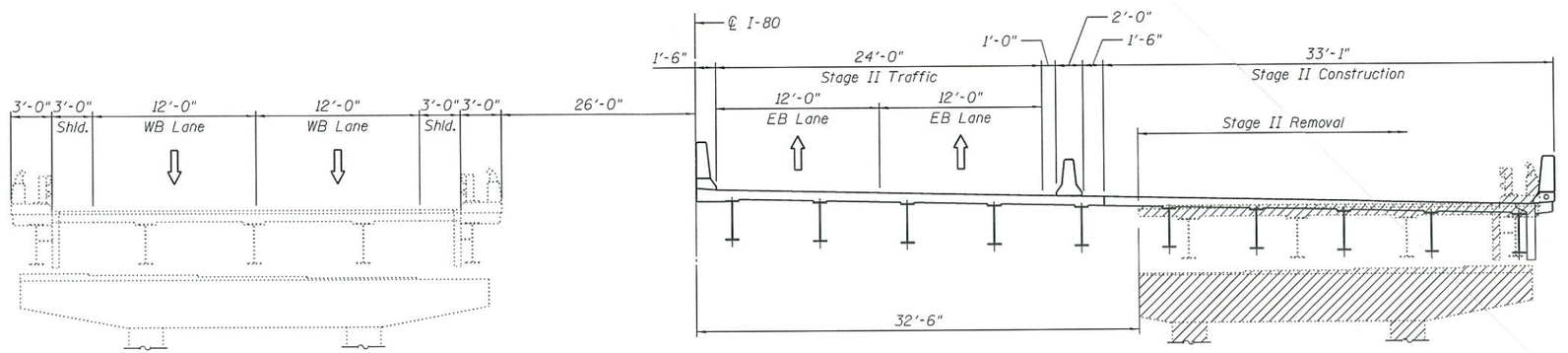


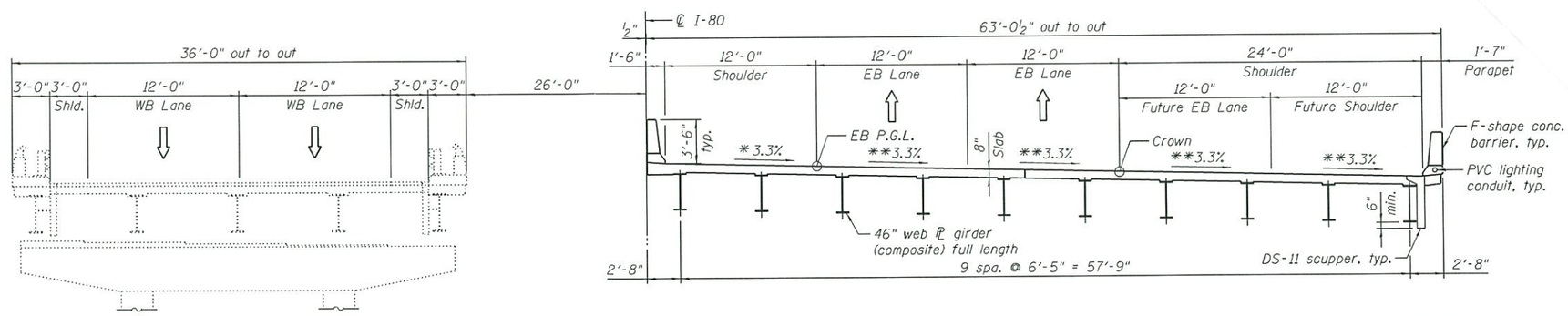
STAGE I REMOVAL AND CONSTRUCTION (E.B.)

(Looking East)



STAGE II REMOVAL AND CONSTRUCTION (E.B.)

(Looking East)



FINAL CONTRACT 60W34

(Looking East)

APPROVED

DEC 02 2014

AS A BASIS FOR
PREPARATION OF DETAILED PLANS

NOTES:

1. Hatched areas indicated Removal of Existing Structures.
2. Dimensions shown are at right L's to ℄ I-80, unless noted otherwise.
3. Negative cross slopes indicates downward right, positive indicates downward left.

* Slope varies due to superelevation transition from -3.3% at sta. 763+65.04 to +0.88% at sta. 766+15.24.

** Slope varies due to superelevation transition from -3.3% at sta. 763+65.04 to +3.3% at sta. 767+72.85.

STAGE CONSTRUCTION DETAILS I
I-80 OVER ROWELL AVE. & WCL RR
F.A.I. RTE. 80 - SEC. 2013-008B & 2013-009B
WILL COUNTY
STA. 760+85.00
STRUCTURE NO. 099-0904 (EB)
STRUCTURE NO. 099-0905 (WB)

HBP Illinois Partners	USER NAME = default	DESIGNED -	REVISED
		CHECKED -	REVISED
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. 4 OF 5 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B & 2013-009B	WILL		
CONTRACT NO. 60W34 & 60W35				
ILLINOIS	FED. AID PROJECT			

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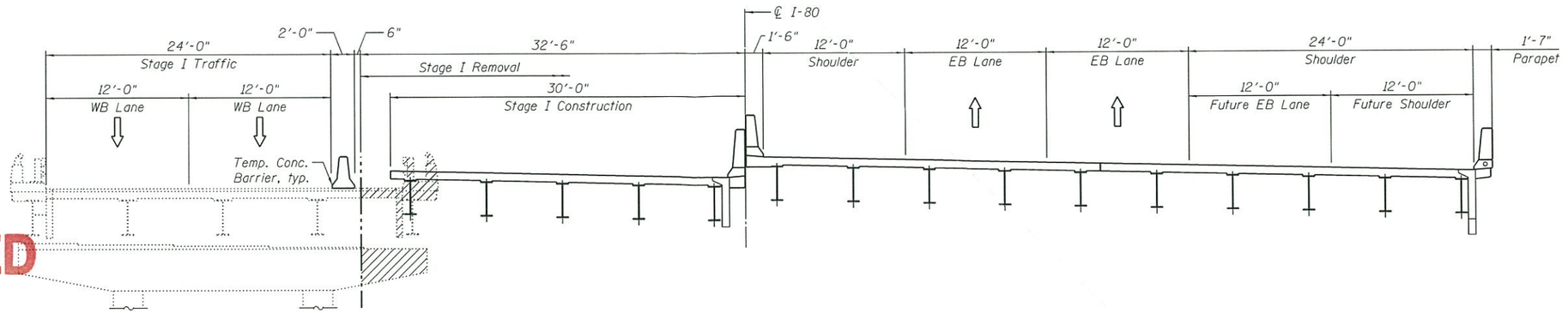
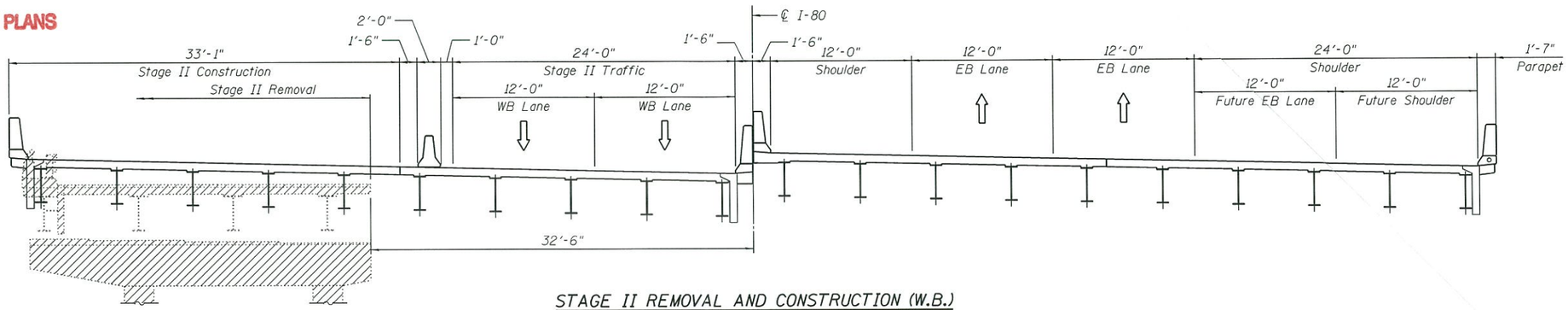


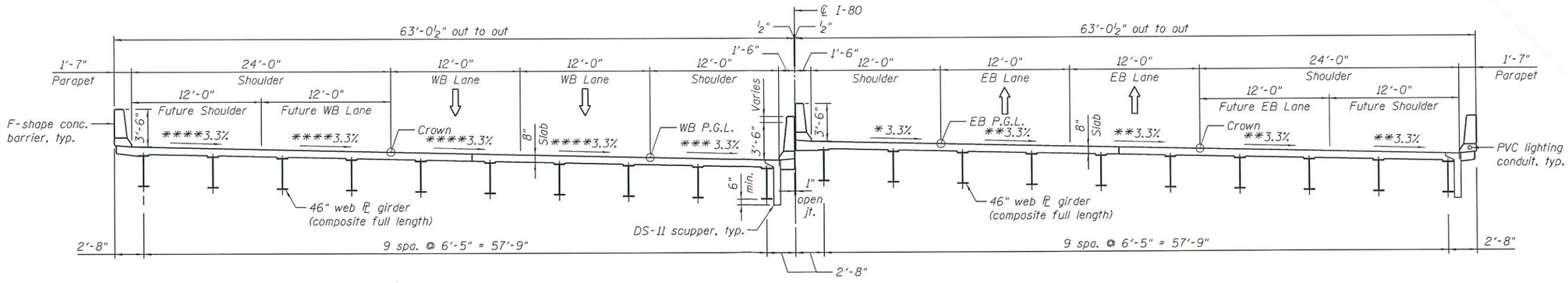
STAGE I REMOVAL AND CONSTRUCTION (W.B.)

(Looking East)



STAGE II REMOVAL AND CONSTRUCTION (W.B.)

(Looking East)



FINAL CONTRACT 60W35

(Looking East)

* Slope varies due to superelevation transition from -3.3% at sta. 763+65.04 to +0.88% at sta. 766+15.24.

** Slope varies due to superelevation transition from -3.3% at sta. 763+65.04 to +3.3% at sta. 767+72.85.

*** Slope varies due to superelevation transition from -3.3% at sta. 763+65.04 to +1.04% at sta. 766+33.51.

**** Slope varies due to superelevation transition from -3.3% at sta. 763+65.04 to +1.55% at sta. 766+57.51.

NOTES:

1. Hatched areas indicated Removal of Existing Structures.
2. Dimensions shown are at right L's to ℄ I-80, unless noted otherwise.
3. Negative cross slopes indicates downward right, positive indicates downward left.

STAGE CONSTRUCTION DETAILS II

I-80 OVER ROWELL AVE. & WCL RR

F.A.I. RTE. 80 - SEC. 2013-008B & 2013-009B

WILL COUNTY

STA. 760+85.00

STRUCTURE NO. 099-0904 (EB)

STRUCTURE NO. 099-0905 (WB)

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DEC 02 2014

AS A BASIS FOR PREPARATION OF DETAILED PLANS

HBP Illinois Partners

USER NAME = default	DESIGNED -	REVISED
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PLOT SCALE = $SCALE$	DRAWN -	REVISED
PLOT DATE = 11/7/2014	CHECKED -	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. 5 OF 5 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B & 2013-009B	WILL		
	CONTRACT NO. 60W34 & 60W35			
	ILLINOIS FED. AID PROJECT			

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