

STANDARD BAR SPLICER ASSEMBLY

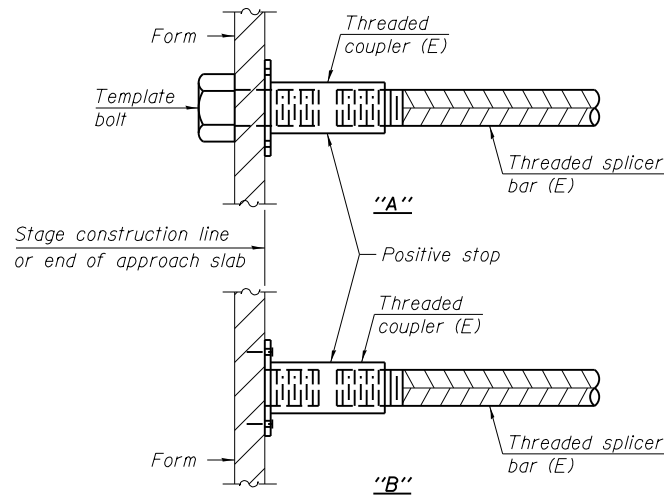
Minimum Lap Lengths						
Bar size to be spliced	Table 1	Table 2	Table 3	Table 4	Table 5	Table 6
3, 4	1'-5"	1'-11"	2'-1"	2'-4"	2'-7"	2'-11"
5	1'-9"	2'-5"	2'-7"	2'-11"	3'-3"	3'-8"
6	2'-1"	2'-11"	3'-1"	3'-6"	3'-10"	4'-5"
7	2'-9"	3'-10"	4'-2"	4'-8"	5'-2"	5'-10"
8	3'-8"	5'-1"	5'-5"	6'-2"	6'-9"	7'-8"
9	4'-7"	6'-5"	6'-10"	7'-9"	8'-7"	9'-8"

- Table 1: Black bar, 0.8 Class C
- Table 2: Black bar, Top bar lap, 0.8 Class C
- Table 3: Epoxy bar, 0.8 Class C
- Table 4: Epoxy bar, Top bar lap, 0.8 Class C
- Table 5: Epoxy bar, Class C
- Table 6: Epoxy bar, Top bar top, Class C

Threaded splicer bar length = min. lap length + 1 1/2" + thread length

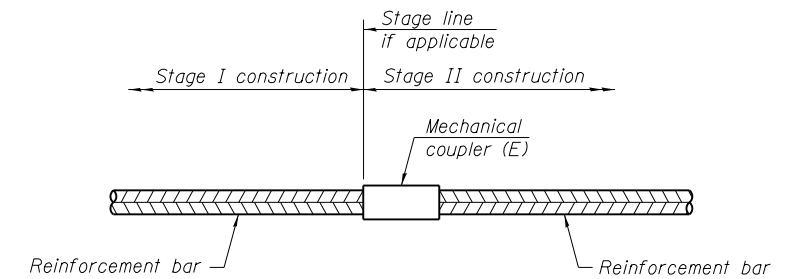
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length
N/A			



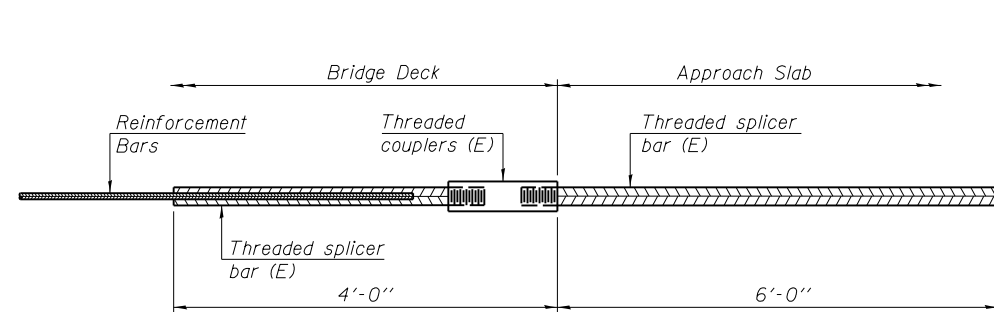
INSTALLATION AND SETTING METHODS

"A" : Set bar splicer assembly by means of a template bolt.
 "B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.
 (E) : Indicates epoxy coating.



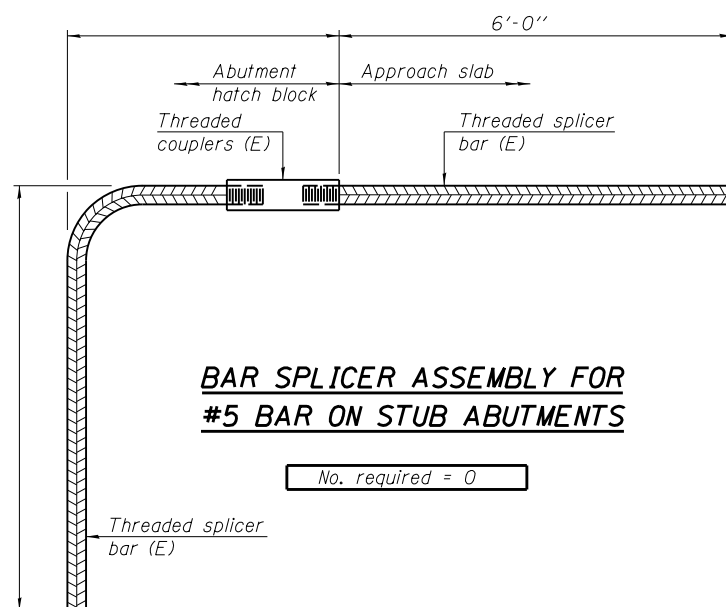
STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required
N/A		



BAR SPLICER ASSEMBLY FOR #5 BAR ON INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

No. required = 206



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required = 0

NOTES

Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.
 All reinforcement shall be lapped and tied to the splicer bars.
 Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.
 See approved list of bar splicer assemblies and mechanical splicers for alternatives.

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LAYOUT
 DRAWN
 REVIEWED

BSD-1

1-27-12



PROFESSIONAL DESIGN FIRM LICENSE #194-001094	USER NAME = hussu00411	DESIGNED - FLN	REVISED
		CHECKED - JKR	REVISED
		DRAWN - MGM	REVISED
		CHECKED - FLN	REVISED
PLOT SCALE =			
PLOT DATE = 12\02\2013			

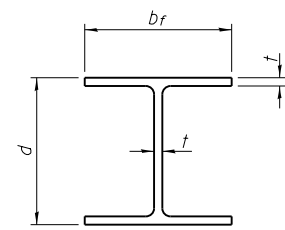
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY & MECHANICAL SPLICER DETAILS
 STRUCTURE NO. 046-0148

SHEET NO. 29 OF 44 SHEETS

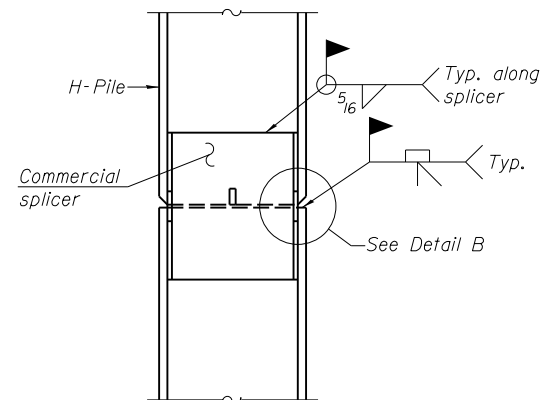
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(46-1)HBK-1	KANKAKEE	819	501
CONTRACT NO. 66982				

ILLINOIS FED. AID PROJECT

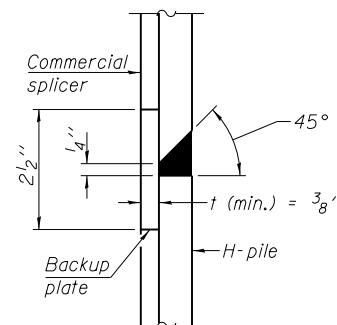


STEEL PILE TABLE

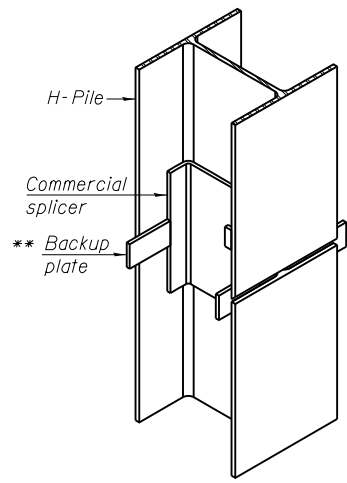
Designation	Depth d	Flange width br	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	1 3/16"	30"
x102	14"	14 3/4"	1/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	1/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 1/8"	1/2"	24"
x53	11 3/4"	12"	7/16"	24"
HP 10x57	10"	10 1/4"	9/16"	24"
x42	9 3/4"	10 1/8"	7/16"	24"
HP 8x36	8"	8 1/8"	7/16"	18"



ELEVATION

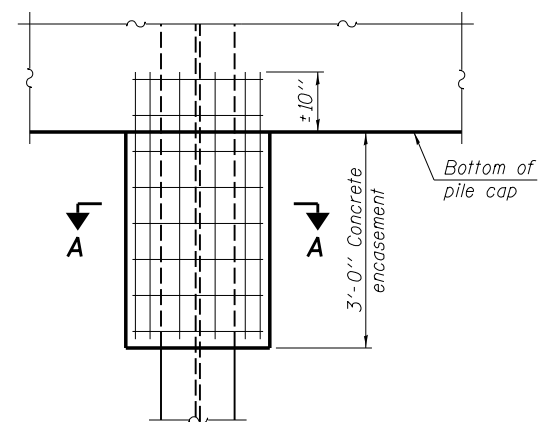


DETAIL "B"

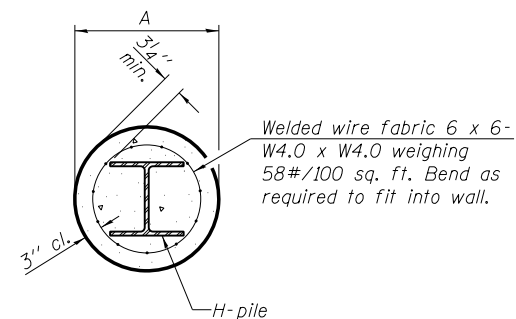


ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE

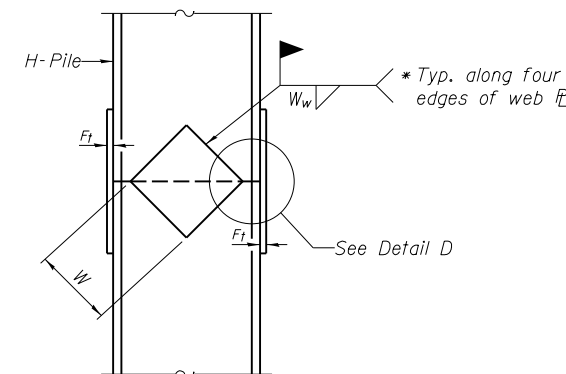


ELEVATION

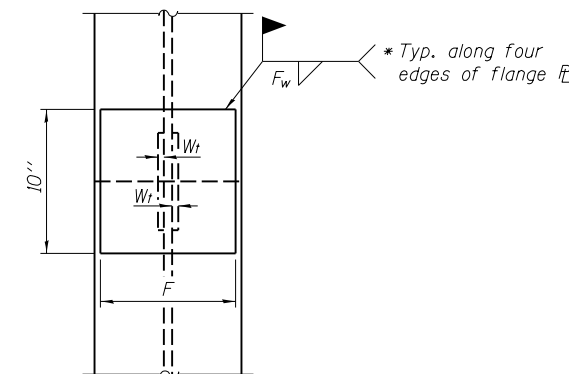


SECTION A-A

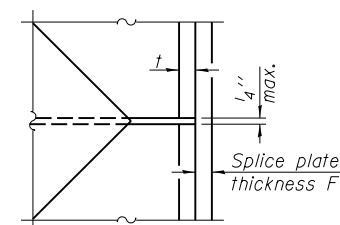
PILE ENCASEMENT



ELEVATION



END VIEW



DETAIL D

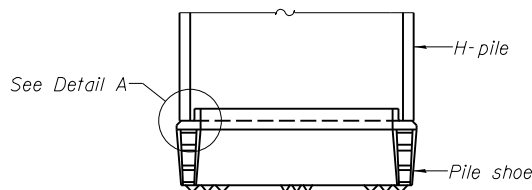
WELDED PLATE FIELD SPLICE

Designation	F	F _t	F _w	W	W _t	W _w
HP 14x117	12 1/2"	1"	7/8"	7 3/4"	5/8"	1/2"
x102	12 1/2"	7/8"	3/4"	7 3/4"	5/8"	1/2"
x89	12 1/2"	3/4"	1/16"	7 3/4"	5/8"	1/2"
x73	12 1/2"	5/8"	9/16"	7 3/4"	5/8"	1/2"
HP 12x84	10"	7/8"	1/16"	6 1/2"	5/8"	1/2"
x74	10"	7/8"	1/16"	6 1/2"	5/8"	1/2"
x63	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
x53	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
HP 10x57	8"	3/4"	9/16"	5 1/4"	1/2"	3/8"
x42	8"	5/8"	9/16"	5 1/4"	1/2"	3/8"
HP 8x36	7"	5/8"	7/16"	4 1/4"	1/2"	3/8"

WELDED COMMERCIAL SPLICE ALTERNATE

- * Interrupt welds 1/4" from end of web and/or each flange.
- ** Remove portions of backup plates that extend outside the flanges.
- *** Weld size per pile shoe manufacturer (5/16" min.).

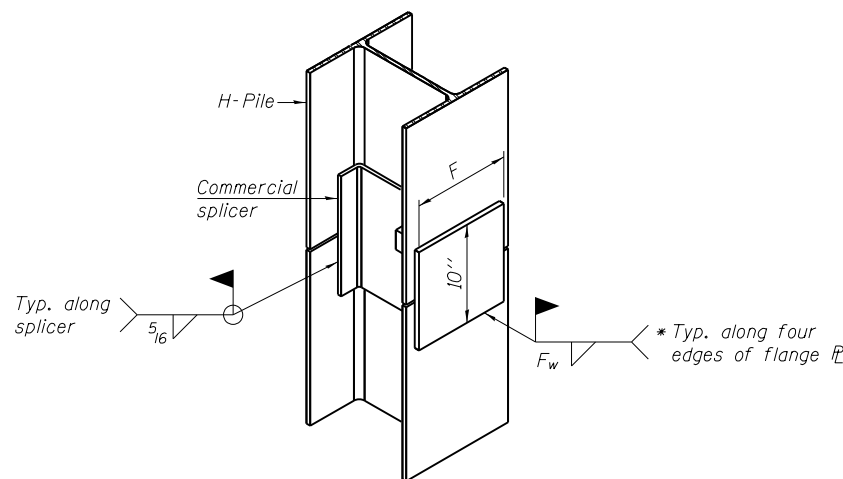
Note:
The steel H-piles shall be according to AASHTO M270 Grade 50.



ELEVATION

DETAIL A

H-PILE SHOE ATTACHMENT



ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE ALTERNATE

- * Interrupt welds 1/4" from end of web and/or each flange.
- ** Remove portions of backup plates that extend outside the flanges.
- *** Weld size per pile shoe manufacturer (5/16" min.).

Note:
The steel H-piles shall be according to AASHTO M270 Grade 50.

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LAYOUT	FLN	01.14.2013
DRAWN	MGM	07.09.2013
REVIEWED	FLN	10.17.2013

F-HP 1-27-12



PROFESSIONAL DESIGN FIRM LICENSE #194-001094	USER NAME = hussu00411	DESIGNED - FLN	REVISED
		CHECKED - JKR	REVISED
		DRAWN - MGM	REVISED
		CHECKED - FLN	REVISED
	PLOT DATE = 12\02\2013		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

HP PILE DETAILS
STRUCTURE NO. 046-0148

SHEET NO. 30 OF 44 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(46-1)HBK-1	KANKAKEE	819	502
CONTRACT NO.			66982	
ILLINOIS FED. AID PROJECT				

SOIL BORING LOG

ROUTE I-57 (FAI 57) DESCRIPTION I-57 & 6000N Proposed Interchange LOGGED BY Larry Myers

SECTION (46-1)HBK-1 LOCATION South 1/2, SEC. 32, TWP. 32N, RNG. 12E

COUNTY Kankakee DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO.	Station	D	B	U	M	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:	First Encounter	Upon Completion	After	Hrs.	ft	(ft)	(/6")	(tsf)	(%)	ft	(ft)	(/6")	(tsf)	(%)	
046-0086 (Existing)	474+73.50 (Existing)																						
1 (Center Pier)	475+14.5								658.0	662.0													
	Offset 19.00ft Lt.																						
	Ground Surface Elev. 669.97																						
Augered, Brown, Silty Clay Loam, Fill																							
	667.47																						
Stiff, Black, Silty Clay Loam, Topsoil																							
	665.47																						
Stiff, Gray/Brown, Silty Clay Loess																							
	662.97																						
Stiff to Very Stiff, Brown, Silty Clay Loam, Till																							
	657.97																						
Hard, Gray, Silty Clay Loam, Till																							
	649.97																						

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Stationing is along I-57

SOIL BORING LOG

ROUTE I-57 (FAI 57) DESCRIPTION I-57 & 6000N Proposed Interchange LOGGED BY Larry Myers

SECTION (46-1)HBK-1 LOCATION North 1/2, SEC. 5, TWP. 31N, RNG. 12E

COUNTY Kankakee DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO.	Station	D	B	U	M	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:	First Encounter	Upon Completion	After	Hrs.	ft	(ft)	(/6")	(tsf)	(%)	ft	(ft)	(/6")	(tsf)	(%)	
046-0086 (Existing)	474+73.50 (Existing)																						
2 (Center Pier)	474+48.5								651.2	664.2													
	Offset 17.00ft Lt.																						
	Ground Surface Elev. 670.17																						
Augered, Brown, Silty Clay Loam, Fill																							
	667.67																						
Stiff, Black, Silty Clay Loam, Topsoil																							
	666.17																						
Stiff, Brown/Gray, Silty Clay Loess																							
	663.17																						
Very Stiff to Hard, Brown, Silty Clay Loam, Till																							
	658.17																						
Very Stiff to Hard, Gray, Silty Clay Loam, Till																							
	651.17																						
Loose Black & Gray Fine to Course Sand with Free Water																							
	649.97																						

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

LAYOUT: FLN 01.14.2013
DRAWN: MGM 07.09.2013
REVIEWED: FLN 10.17.2013

PROFESSIONAL DESIGN FIRM LICENSE #194-001094
HANSON
Hanson Professional Services Inc.

USER NAME =	hussu00411
DESIGNED -	FLN
CHECKED -	JKR
DRAWN -	MGM
CHECKED -	FLN
PLOT SCALE =	
PLOT DATE =	12\02\2013

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOG (SHEET 1 OF 4)
STRUCTURE NO. 046-0148

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(46-1)HBK-1	KANKAKEE	819	503
CONTRACT NO.			66982	
ILLINOIS FED. AID PROJECT				

SOIL BORING LOG

ROUTE I-57 (FAI 57) DESCRIPTION I-57 & 6000N Proposed Interchange LOGGED BY Larry Myers

SECTION (46-1)HBK-1 LOCATION North 1/2, SEC. 5, TWP. 31N, RNG. 12E

COUNTY Kankakee DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO.	Station	BORING NO.	Station	Offset	Ground Surface Elev.	DEPTH	BLOWS	UCS	MOIST	Description	DEPTH	BLOWS	UCS	MOIST		
046-0086 (Existing)	474+73.50 (Existing)	3 (S.E. Quad.)	473+78.5	78.00ft Rt.	668.92 ft	(ft)	(/6")	(tsf)	(%)		(ft)	(/6")	(tsf)	(%)		
Augered, Black, Silty Clay Loam, Topsoil						Stiff, Gray, Clay, Silt, Sand Interbedded with Free Water (continued)						2				
666.42						646.42						2	1.0	25.4		
Very Stiff, Brown/Gray, Silty Clay Loess						Dense, Gray, Dolostone Gravel with Silt Matrix						4				
664.42												21		21.6		
Hard, Brown, Silty Clay Loam, Till						Dolostone Bedrock Surface, Auger Refusal @ 25.5' End of Boring						100/5'				
658.92																
												4	4.1	19.7		
												5				
												7	4.8	18.3		
												5				
												7	4.4	18.7		
												5	4.0	20.5		
												5				
												4				
												5	4.0	20.1		
												6	S			
649.42																

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Stationing is along I-57

SOIL BORING LOG

ROUTE I-57 (FAI 57) DESCRIPTION I-57 & 6000N Proposed Interchange LOGGED BY Larry Myers

SECTION (46-1)HBK-1 LOCATION South 1/2, SEC. 32, TWP. 32N, RNG. 12E

COUNTY Kankakee DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO.	Station	BORING NO.	Station	Offset	Ground Surface Elev.	DEPTH	BLOWS	UCS	MOIST	Description	DEPTH	BLOWS	UCS	MOIST		
046-0086 (Existing)	474+73.50 (Existing)	4 (N.W. Quad.)	475+81.5	72.00ft Lt.	668.57 ft	(ft)	(/6")	(tsf)	(%)		(ft)	(/6")	(tsf)	(%)		
Augered, Black, Silty Clay Loam, Topsoil						Hard to Very Stiff, Light Gray, Silty Loam/Loam with Heavy Gravel						9				
666.07												15	>4.5	10.9		
												15	P			
Very Stiff, Gray/Brown, Silty Clay Loess						Highly Fractured Dolostone						42				
664.07												100/1"		12.1		
Very Stiff to Hard, Brown, Silty Clay Loam, Till						Hard Dolostone Surface, Auger Refusal End of Boring						62				
658.57												100/2"		13.8		
												6				
												8	5.3	15.5		
												10	S			
												6				
												9	5.1	17.7		
												10	S			
												4				
												5	4.2	19.8		
												6	S			
												4				
												6				
												4				
												5	4.0	20.1		
												6	S			
648.57																

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

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LAYOUT
FLN 01.14.2013
DRAWN 07.09.2013
REVIEWED 10.17.2013



SOIL BORING LOG

Page 1 of 2
Date 2/25/10

ROUTE I-57 (FAI 57) DESCRIPTION I-57 & 6000N Proposed Interchange LOGGED BY Larry Myers
SECTION (46-1)HBK-1 LOCATION South 1/2, SEC. 32, TWP. 32N, RNG. 12E
COUNTY Kankakee DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. Station	BORING NO. Station Offset Ground Surface Elev.	DEPTH (ft)	BLOW S (/6")	UCS Qu (tsf)	MOIST T (%)	Surface Water Elev.		Stream Bed Elev.		DEPTH (ft)	BLOW S (/6")	UCS Qu (tsf)	MOIST T (%)					
						ft	ft	ft	ft									
046-0086 (Existing) 474+73.50 (Existing)	5 (East Abut.) 474+79.5 147.00ft Rt. 690.42	687.92	4	4.7	18.2	Hard, Brown/Gray, Silty Clay Loam Till, with Large Lime Stone Rocks @ 13', Fill (continued)				4								
								5	4.4	18.5								
								7	S									
								5										
								7	4.7	18.2								
								7	S									
								665.92			Hard, Black, Silty Clay Loam, Topsoil				-25	3		
								7	4.9	17.5					5	4.2	27.1	
								5	S						8	S		
								663.92			Stiff to Very Stiff, Brown, Gray, & Black, Silty Clay, Loess					2		
		5	4.5	18.6					3	2.0	28.0							
		7	S						4	P								
		660.92			Hard, Brown/Gray Silty Clay Loam, Till				-30	4								
		3	3.0	20.2					5	4.4	20.3							
		4	S						7	S								
		680.42			Very Stiff, Gray/Black, Silty Clay Loam/Silty Loam, Fill					4								
		3							5									
		678.42			Hard, Brown/Gray, Silty Clay Loam Till, with Large Lime Stone Rocks @ 13', Fill					4								
		6	6.1	18.2					5	4.4	25.0							
		9	S						7	S								
		655.92			Hard, Gray, Silty Clay Loam, Till				-35	5								
		4							6	5.1	17.9							
		5	4.7	18.3					10	S								
		6	S						5									
		678.42			Hard, Brown/Gray, Silty Clay Loam Till, with Large Lime Stone Rocks @ 13', Fill					7	5.0	17.9						
		4	4.1	16.1					10	S								
		6	S															
		650.42							-40									

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Stationing is along I-57



SOIL BORING LOG

Page 2 of 2
Date 2/25/10

ROUTE I-57 (FAI 57) DESCRIPTION I-57 & 6000N Proposed Interchange LOGGED BY Larry Myers
SECTION (46-1)HBK-1 LOCATION South 1/2, SEC. 32, TWP. 32N, RNG. 12E
COUNTY Kankakee DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. Station	BORING NO. Station Offset Ground Surface Elev.	DEPTH (ft)	BLOW S (/6")	UCS Qu (tsf)	MOIST T (%)	Surface Water Elev.		Stream Bed Elev.		DEPTH (ft)	BLOW S (/6")	UCS Qu (tsf)	MOIST T (%)					
						ft	ft	ft	ft									
046-0086 (Existing) 474+73.50 (Existing)	5 (East Abut.) 474+79.5 147.00ft Rt. 690.42	642.92	4	4.5	21.5	Hard to Very Stiff, Gray, Silty Clay, Silt & Fine Sand/Coarse Gravel Interbedded				4								
								5	4.5	21.5								
								7	P									
								4										
								2	2.5	24.0								
								4	P									
								642.92			Dense, Gray, Dolostone, Fractured at Surface, Auger Refusal @ 48.5'				100/1"			
								641.92			End of Boring							
								8.1										
								641.92							-50			
		5							7	2.0	22.8							
		4	P						4	P								
		642.92																
		641.92							-55									
		5							5									
		7	5.0	17.9					7	5.0	17.9							
		10	S						10	S								
		650.42							-60									

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

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LAYOUT
FLN 01.14.2013
DRAWN 07.09.2013
REVIEWED 10.17.2013



PROFESSIONAL DESIGN FIRM LICENSE #194-001094	USER NAME = hussu00411	DESIGNED - FLN	REVISED
		CHECKED - JKR	REVISED
	PLOT SCALE =	DRAWN - MGM	REVISED
	PLOT DATE = 12\02\2013	CHECKED - FLN	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOG (SHEET 3 OF 4)
STRUCTURE NO. 046-0148

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(46-1)HBK-1	KANKAKEE	819	505
CONTRACT NO.			66982	

SHEET NO. 33 OF 44 SHEETS

ILLINOIS FED. AID PROJECT

SOIL BORING LOG

ROUTE I-57 (FAI 57) DESCRIPTION I-57 & 6000N Proposed Interchange LOGGED BY Larry Myers

SECTION (46-1)HBK-1 LOCATION North 1/2, SEC. 5, TWP. 31N, RNG. 12E

COUNTY Kankakee DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. 046-0086 (Existing)
Station 474+73.50 (Existing)

BORING NO. 6 (West Abut.)
Station 474+67.5
Offset 138.00ft Lt.
Ground Surface Elev. 690.49 ft

D E P T H ft	B L O W S (ft)	U C S Qu (tsf)	M O I S T (%)	Surface Water Elev. _____ ft	D E P T H ft	B L O W S (ft)	U C S Qu (tsf)	M O I S T (%)	Stream Bed Elev. _____ ft
						4			
						5	4.5	11.7	
						21	P		
						668.49			
						4			
						5	3.4	26.0	
						6	B		
						665.99			
						4			
						6	4.3	23.3	
						7	S		
						660.99			
						5			
						6	4.5	17.1	
						8	S		
						660.99			
						5			
						7	9.8	16.6	
						14	S		
						▽			
						6			
						7	7.8	19.0	
						12	S		
						-35			
						5			
						6	5.4	19.2	
						9	S		
						-40			
						5			
						7	5.6	15.9	
						10	S		
						670.49			
						-20			

Augered, Bituminous Pavement, CA Fill, Brown & Gray, Silty Clay Loam, Till Fill

687.99

Hard to Very Stiff, Brown & Gray, Silty Clay Loam, Till Fill

-5

-10

-15

670.49

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

SOIL BORING LOG

ROUTE I-57 (FAI 57) DESCRIPTION I-57 & 6000N Proposed Interchange LOGGED BY Larry Myers

SECTION (46-1)HBK-1 LOCATION North 1/2, SEC. 5, TWP. 31N, RNG. 12E

COUNTY Kankakee DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. 046-0086 (Existing)
Station 474+73.50 (Existing)

BORING NO. 6 (West Abut.)
Station 474+67.5
Offset 138.00ft Lt.
Ground Surface Elev. 690.49 ft

D E P T H ft	B L O W S (ft)	U C S Qu (tsf)	M O I S T (%)	Surface Water Elev. _____ ft	D E P T H ft	B L O W S (ft)	U C S Qu (tsf)	M O I S T (%)	Stream Bed Elev. _____ ft
						5			
						7	4.5	13.5	
						8	P		
						668.49			
						4			
						6	3.5	15.0	
						7	P		
						665.99			
						4			
						5	3.0	21.6	
						7	P		
						641.49			
						5			
						7	3.0	10.5	
						8	P		
						641.49			
						14			
						27		13.0	
						21			
						638.49			
						-55			
						-60			

Hard to Very Stiff, Gray, Loam/Clay Loam, Till with Silt & Sand Layers

641.49

Dense, Fractured Dolostone with Silt Matrix (Auger Refusal @ 52')

638.49

Hard, Tan, Dolostone
End of Boring


The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Stationing is along I-57

12\02\2013 c:\p\se_work\vb_no_delete\dms56035\0460148\66982-034-BorInLog4.dgn

LAYOUT	FLN	01.14.2013
DRAWN	MGM	07.09.2013
REVIEWED	FLN	10.17.2013

PROFESSIONAL DESIGN FIRM LICENSE #194-001094	USER NAME = hussu00411	DESIGNED - FLN	REVISED
		CHECKED - JKR	REVISED
		DRAWN - MGM	REVISED
		CHECKED - FLN	REVISED

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**BORING LOG (SHEET 4 OF 4)
STRUCTURE NO. 046-0148**

SHEET NO. 34 OF 44 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(46-1)HBK-1	KANKAKEE	819	506
CONTRACT NO. 66982				

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FA 57	1	KANKAKEE	25	8
STA.	TO STA.			
FED ROAD DIST No 7 ILLINOIS FED AID PROJECT				

SHT. 1
OF 10

BILL OF MATERIAL				
ITEM		SUPER	SUB	TOTAL
Class X Concrete	Cu Yds	3677	1672	5349
Reinforcement Bars	Lbs	98,873	20,497	119,370
Structural Steel	Lbs	8,936	—	8,936
Metal Handrail	Lin Ft	480	—	480
Name Plates	Each	—	2	2
Slope Wall	Sq. Yds.	—	335	335
Class A Excavation for Structures	Cu Yds	—	120	120
Steel Piles, 10BP42	Lin Ft	—	1347	1347
Test Piles (Steel)	Each	—	2	2
PROTECTIVE COAT	sq yd	810	—	810

SHEET INDEX STRUCTURE	
SHEET NO.	TITLE
1	INDEX AND BILL OF MATERIAL
2	GENERAL PLAN AND ELEVATION
3	SUPERSTR X-SECTION, BRG DETAILS & GIRD ORD'S
4	SUPERSTR SLAB REINFORCING
5	SUPERSTR GIRDER DETAILS
6	METAL HANDRAIL
7	PIERS NO 1 & 3 (EXPANSION)
8	PIER NO 2 (FIXED)
9	ABUTMENTS
10	BORING DATA

GENERAL LEGEND

- ELEVATION MARKER
- SECTION MARKER - THE LETTER IDENTIFIES THE SECTION AND THE NUMBER REFERS TO THE SHEET ON WHICH THE SECTION IS DETAILED.
- DETAIL IDENTIFICATION SYMBOL - THE LETTER IDENTIFIES THE SECTION AND THE NUMBER REFERS TO THE SHEET ON WHICH THE SECTION IS LOCATED.
- GIRDER IDENTIFICATION SYMBOL

DESIGN NOTES

SPECIFICATIONS
DESIGN: STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES OF A.A.S.H.O. (1961)
CONSTRUCTION: STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION ADOPTED JANUARY 2, 1958, AND SUPPLEMENTAL SPECIFICATIONS, EFFECTIVE MARCH 2, 1964.

DESIGN STRESSES
f_c' = 3,500 psi
f_c = 1,400 psi - SUPER.
f_c = 1,000 psi - SUB. (WITH EARTH PRESSURE)
f_s = 20,000 psi - (REINFORCEMENT)
f_s = 27,000 psi - (STRUCTURAL STEEL ASTM A99)
v = 75 psi - PIER FOOTING
n = 10

LOADING
H15-S12-44
FUTURE WEARING SURFACE - 18 psf.

GENERAL NOTES

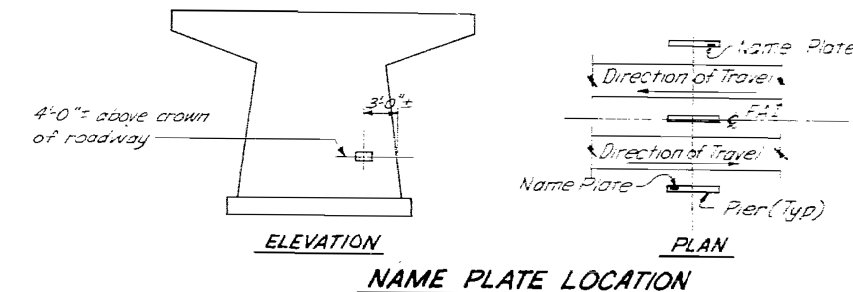
CLASS X CONCRETE SHALL BE USED THROUGHOUT.
THE CONCRETE FLOOR SLABS SHALL BE FINISHED IN ACCORDANCE WITH ARTICLE 51.19 OF THE STANDARD SPECIFICATION.
MINIMUM LAP FOR ALL BAR SPLICES SHALL BE 20 DIAMETERS UNLESS OTHERWISE NOTED.
SLOPE WALLS SHALL BE REINFORCED WITH WELDED WIRE FABRIC 6" x 6" MESH, NO. 4 WIRES, WEIGHING 58 LBS. PER 100 SQ. FT.

ALL ROCKERS, BEARING PLATES, LEAD PLATES, PINTLES AND ANCHOR BOLTS SHALL BE FABRICATED AND SET IN ACCORDANCE WITH ARTICLE 51.15 OF THE STANDARD SPECIFICATIONS AND ARE INCLUDED IN QUANTITY OF STRUCTURAL STEEL.

EXCEPT AS OTHERWISE PROVIDED ALL STRUCTURAL STEEL AND HANDRAILS SHALL RECEIVE ONE SHOP COAT OF RED LEAD PAINT AND TWO FIELD COATS OF ALUMINUM PAINT. THE 1/2" STUDS USED FOR ANCHORAGE OF TOP BEARING PLATES SHALL NOT BE PAINTED. SEE ARTICLES 56.1 TO 56.5 INCLUSIVE OF THE STANDARD SPECIFICATIONS.

THE CONTRACTOR SHALL DRIVE 2 TEST PILES IN PERMANENT LOCATIONS AS NOTED AND DIRECTED BY THE ENGINEER BEFORE ORDERING THE REMAINDER OF THE PILES. (ONE STEEL PILE AT EAST ABUTMENT AND 1 AT PIER #1)

THE FOLLOWING BRIDGE DRAWINGS ARE NOT TO SCALE AND SHOULD NOT BE USED FOR SCALING PURPOSES.



STATION 474+73.50
BUILT 196 BY
STATE OF ILLINOIS
F.A.I. RTE. 57 SEC 46-1 HB
LOADING H15-S12

LETTERING FOR NAME PLATE
See Standard 2113-1

FOR INFORMATION ONLY

EXISTING DRAWING
STRUCTURE NO. 046-0086

STANLEY ENGINEERING COMPANY
MUSCATINE IOWA CHICAGO, ILLINOIS

ILLINOIS DIVISION OF HIGHWAYS
STRUCTURES
INDEX AND BILL OF MATERIAL
F.A.I. RTE. 57 SEC. 46-1 HB
KANKAKEE COUNTY
STA. 474 + 73.50

Revision: 7-24-63 Protective Coat 74.5 to 810 Spd., Reinforcement 116,704 to 119,370, Change Structural Steel Designation to ASTM A-36, Removal of Timber Piles 120 Lin. Ft., Steel Piles from 1183 to 1347 Lin. Ft., S.F.M.

Rev. 5-1-64 Removed PROJECT No. from Name Plate.

12/02/2013
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LAYOUT
FLN 03.20.2013
DRAWN MGM 07.09.2013
REVIEWED FLN 10.17.2013

PROFESSIONAL DESIGN FIRM LICENSE #194-001084
HANSON
Hanson Professional Services Inc.

USER NAME = hussu00411
DESIGNED - FLN
CHECKED - JKR
PLOT SCALE =
DRAWN - MGM
CHECKED - FLN
PLOT DATE = 12/02/2013

DESIGNED - FLN
CHECKED - JKR
DRAWN - MGM
CHECKED - FLN
REVISED
REVISED
REVISED
REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE DRAWINGS
STRUCTURE NO. 046-0148

SHEET NO. 35 OF 44 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(46-1)HBK-1	KANKAKEE	819	507
CONTRACT NO.			66982	
ILLINOIS FED. AID PROJECT				

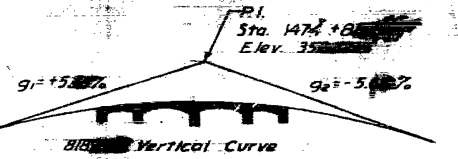
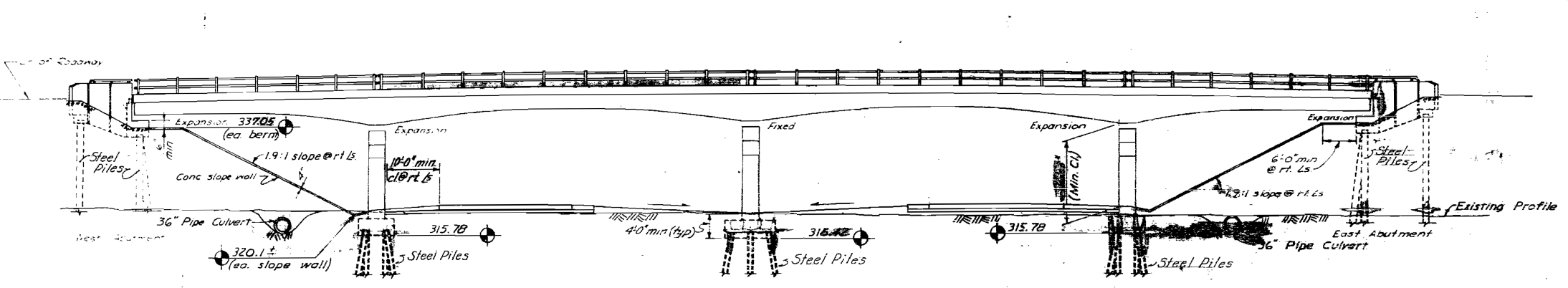
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROW	COUNTY	TOTAL SHEETS	SHEET NO.
44	KANKAKEE	25	9

SHT. 2
OF 10

12/02/2013
B.M. #14 - RR Spk. in W. side T.P.
453' Rt. & F.A.I.-57 Sta 474+44
Elev. 319.68

Existing structure



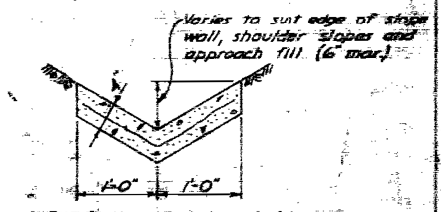
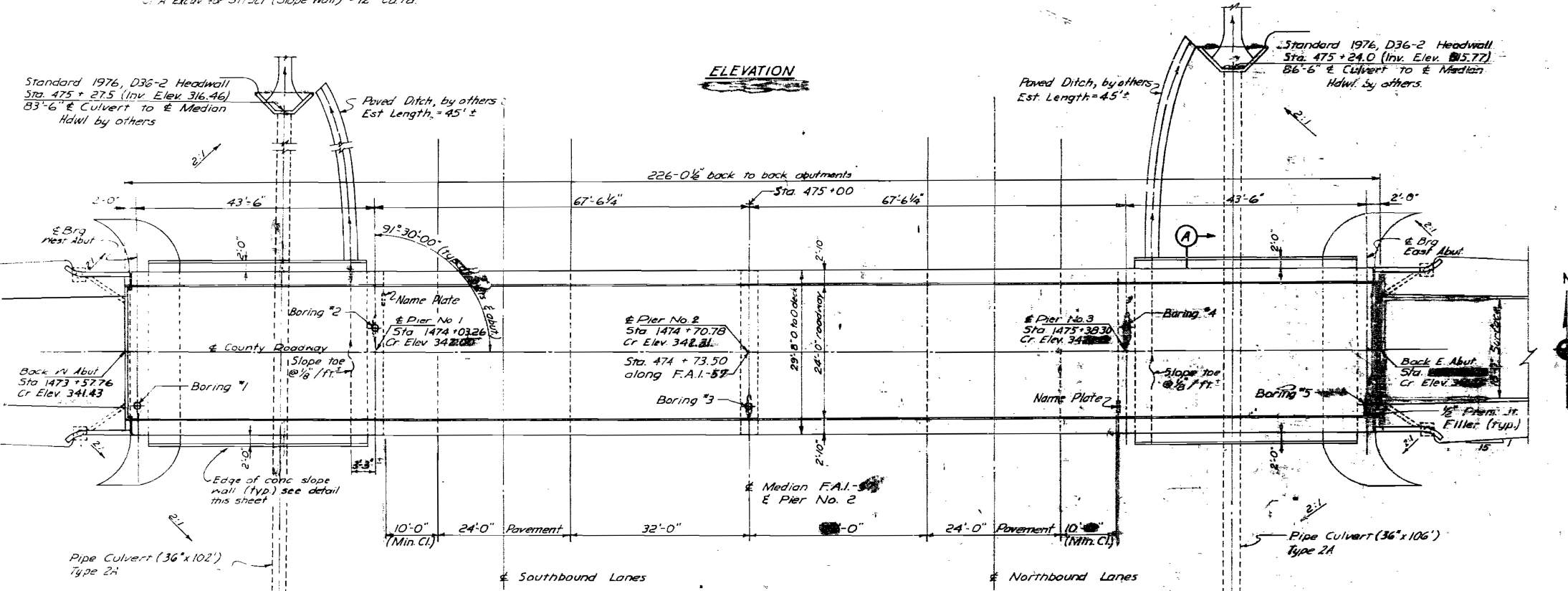
COUNTY ROADWAY
Classification "E-1", Modified

Sta. 474 + 73.50 Br. & Median. Elev. 321.30

g = -0.52%

F.A.I. (Same for both lanes)

GRADE PROFILES



BILL OF MATERIAL

Item	Unit	Quantity
Slope Wall	Sq. Yds.	275
Protective Coat	Sq. Yds.	210

FOR INFORMATION ONLY
EXISTING DRAWING
STRUCTURE NO. 046-0086

SECTION A

ILLINOIS DIVISION OF HIGHWAYS

GENERAL PLAN AND ELEVATION
F.A.I. RTE 57 SEC. 46-1HB

Sta. 474 + 73.50

DESIGNED	EXAMINED
LFB	ENGINEER OF BRIDGE AND TRAFFIC STRUCTURES
CHECKED L.J.L.	PASSED
DRAWN L.C.H.	ENGINEER OF DESIGN
CHECKED LFB, L.J.L.	APPROVED
	CHIEF HIGHWAY ENGINEER

Revision: T-24-63 Protective Coat Quantity Added 810 Sq Yds.

12/02/2013 c:\w\se_wor\k\d0_r01_d0\del\pms56035-0460148-66982-036-E.rst_LPB.E.dgn

ROUTE NO.	REC.	ABUTT.	TOTAL SHEETS	SHEET NO.
P.A.I. - 57		KANKAKEE	25	3
STA.	TO STA.			
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT				

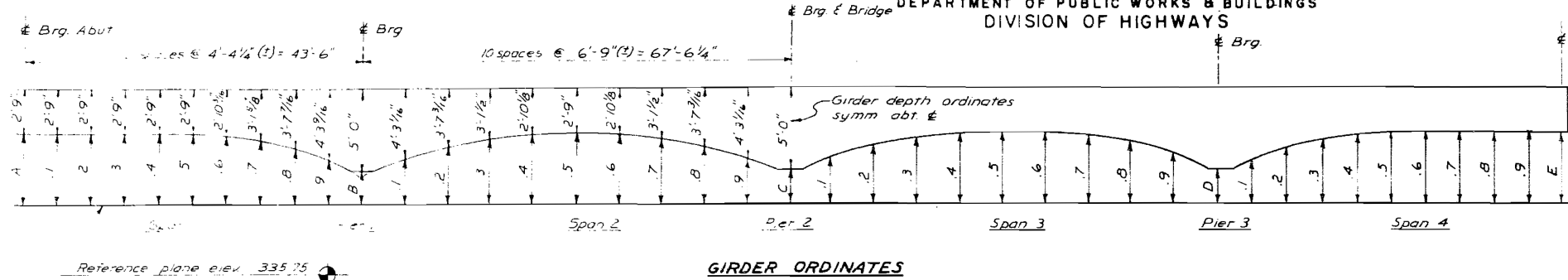
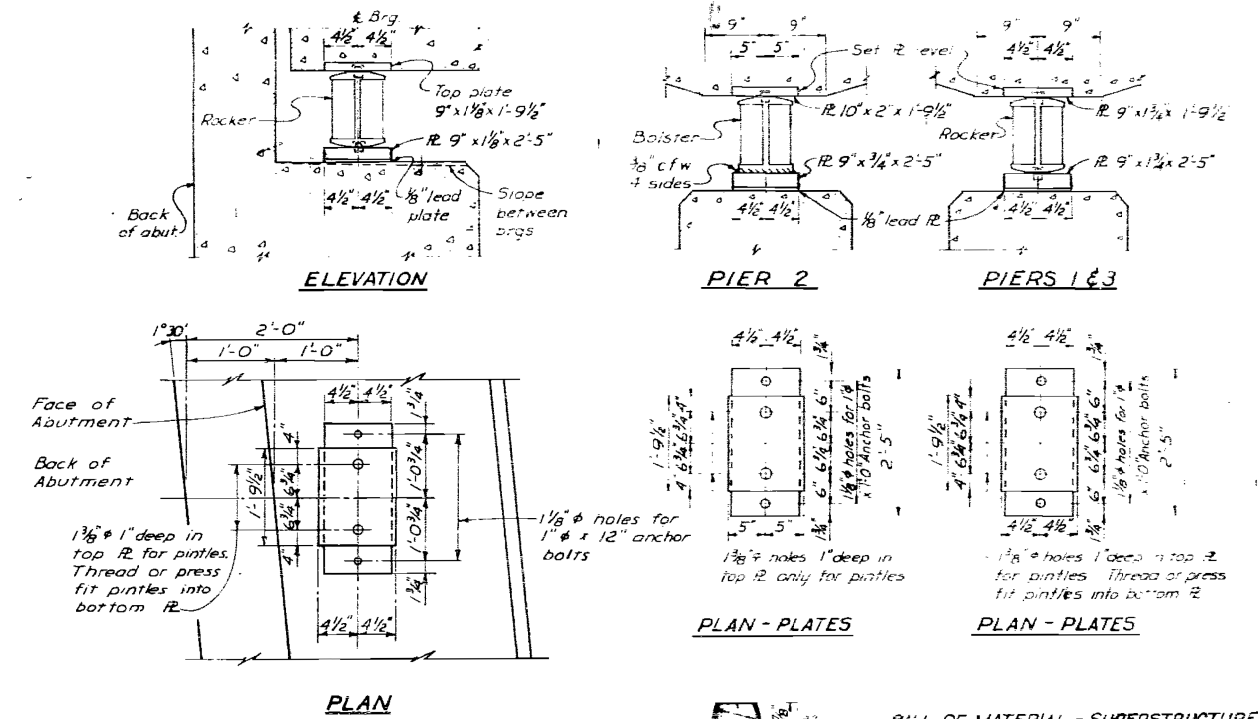
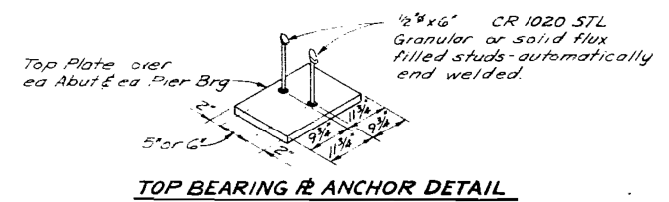
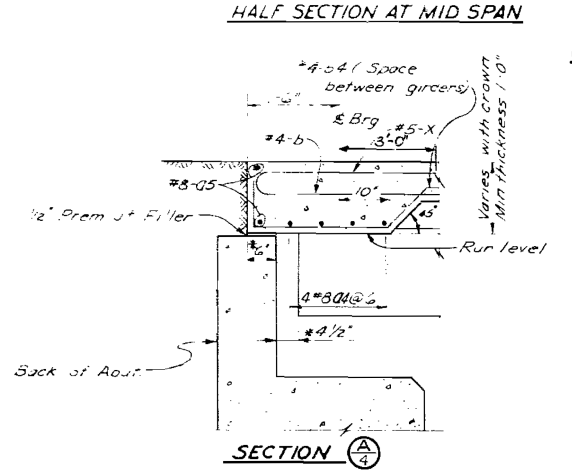
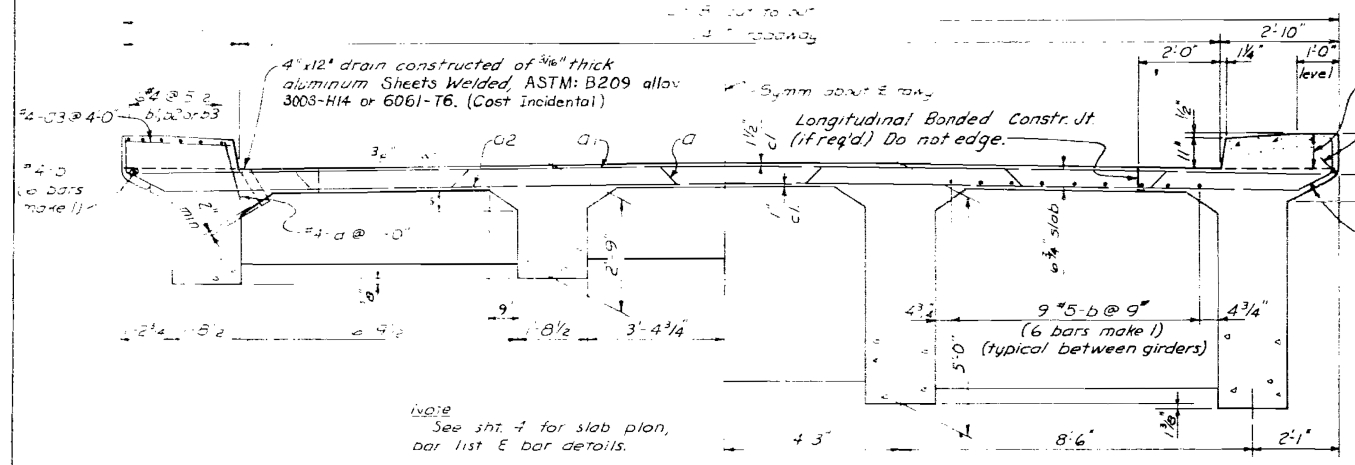


TABLE OF ORDINATES

GIRDER	POINT	1	2	3	4	5	6	7	8	9	POINT	
①	A	2'-10 1/2"	2'-0 1/2"	2'-11 1/2"	3'-0 1/2"	3'-1 1/2"	3'-1 1/2"	3'-1 1/2"	2'-10 1/2"	2'-4 1/2"	1'-9 1/2"	B
	B	1'-4 1/2"	1'-11 1/2"	2'-7 1/2"	3'-2 1/2"	3'-6 1/2"	3'-7 1/2"	3'-3 1/2"	2'-10 1/2"	2'-4 1/2"	2'-2 1/2"	C
	C	1'-5 1/2"	2'-2 1/2"	2'-10 1/2"	3'-3 1/2"	3'-7 1/2"	3'-7 1/2"	3'-6 1/2"	3'-2 1/2"	2'-7 1/2"	1'-11 1/2"	D
	D	1'-1 1/2"	1'-9 1/2"	2'-4 1/2"	2'-10 1/2"	3'-1 1/2"	3'-1 1/2"	3'-1 1/2"	3'-0 1/2"	2'-11 1/2"	2'-10 1/2"	E=2'-9 1/2"
②	A	2'-11 3/4"	3'-0 1/4"	3'-1 1/2"	3'-1 1/2"	3'-2 1/2"	3'-3 1/2"	3'-2 1/2"	2'-11 3/4"	2'-6 3/4"	1'-10 1/4"	B
	B	1'-2 1/2"	2'-0 1/2"	2'-9 1/4"	3'-3 1/4"	3'-7 3/4"	3'-9 3/4"	3'-8 3/4"	3'-5 1/2"	2'-11 1/2"	2'-3 1/2"	C
	C	1'-6 1/2"	2'-3 1/2"	2'-11 1/2"	3'-5 1/2"	3'-8 3/4"	3'-9 3/4"	3'-7 3/4"	3'-3 1/2"	2'-9 1/2"	2'-0 1/2"	D
	D	1'-2 3/4"	1'-10 1/4"	2'-6 1/4"	2'-11 1/4"	3'-2 1/4"	3'-3 1/4"	3'-2 1/4"	3'-1 1/4"	3'-0 1/4"	E=2'-11 3/4"	

Notes:
1. Ordinates include dead load deflection.
Contractor shall allow for settlement of forms and shrinkage.
2. Girders "4" and "3" are similar to girders "1" and "2" respectively by rotation thru 180°.



BILL OF MATERIAL - SUPERSTRUCTURE

Item	Unit	Quantity
Class X Concrete	Cu Yds.	367.7
Reinforcement Bars	LBS.	98,878
Struct. Steel	LBS.	8,936

NOTE:
Aluminum floor drains and aluminum sheets in curb joints are incidental to cost of Class X Concrete.

FOR INFORMATION ONLY
EXISTING DRAWING
STRUCTURE NO. 046-0086

DESIGNED	LFB	EXAMINED	
CHECKED	LJL	PASSED	
DRAWN	LCH	APPROVED	
CHECKED	LFB		

Revision: 7-23-63 Reinforcement 96,083 to 98,873, 4 b bars to 5 b bars, 5 X bars to 6 X bars, SEM.

12/02/2013 03:20:2013
FLN 03.20.2013
MGM 07.09.2013
FLN 10.17.2013
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LAYOUT
DRAWN
REVIEWED



PROFESSIONAL DESIGN FIRM LICENSE #194-001094	USER NAME = hussu00411	DESIGNED - FLN	REVISED
		CHECKED - JKR	REVISED
		DRAWN - MGM	REVISED
		CHECKED - FLN	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

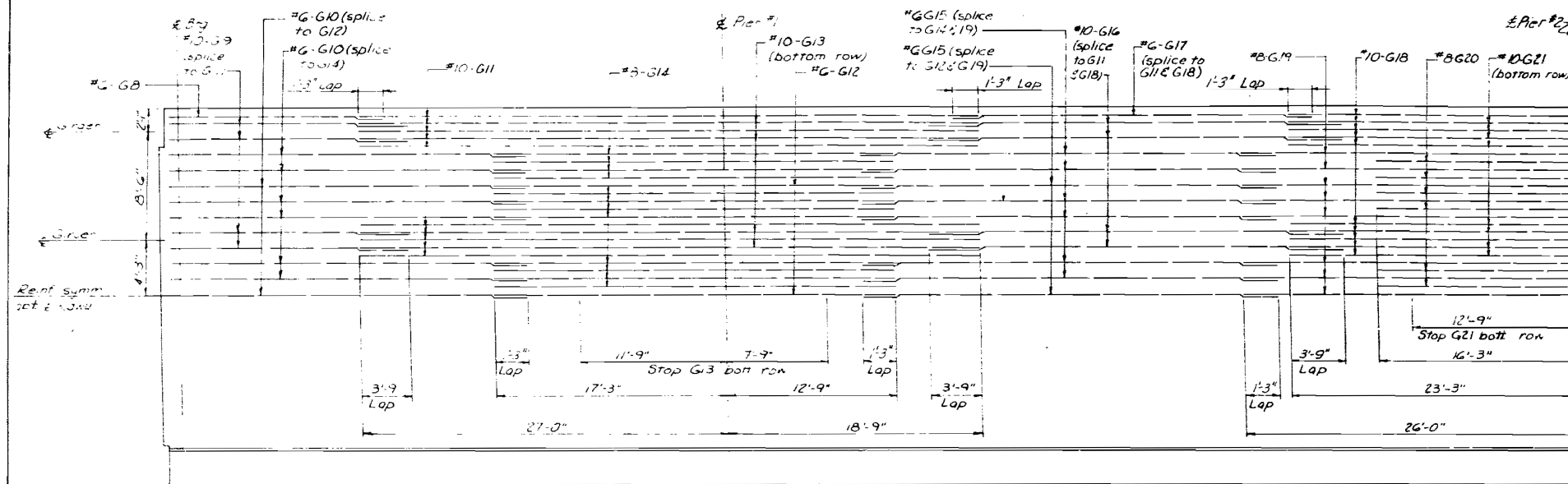
EXISTING BRIDGE DRAWINGS
STRUCTURE NO. 046-0148
SHEET NO. 37 OF 44 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(46-1)HBK-1	KANKAKEE	819	509
CONTRACT NO. 66982			ILLINOIS FED. AID PROJECT	

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

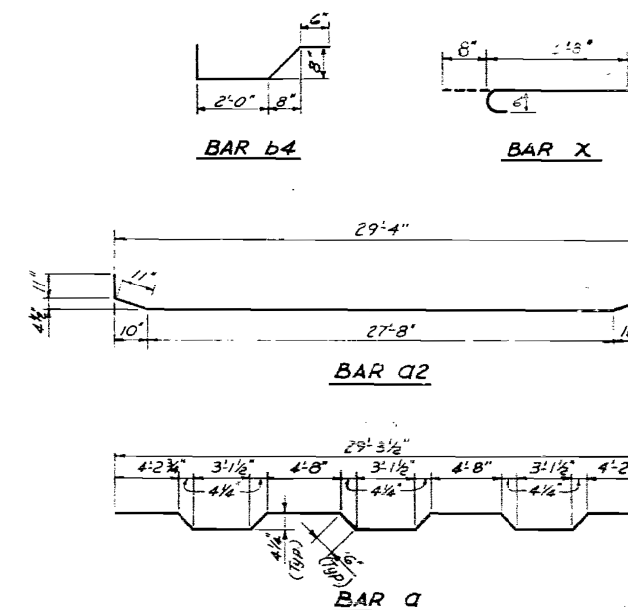
ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
46-1HB	57	KANKAKEE	25	25
STA.		TO STA.		
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT				

SHT. 4
OF 10



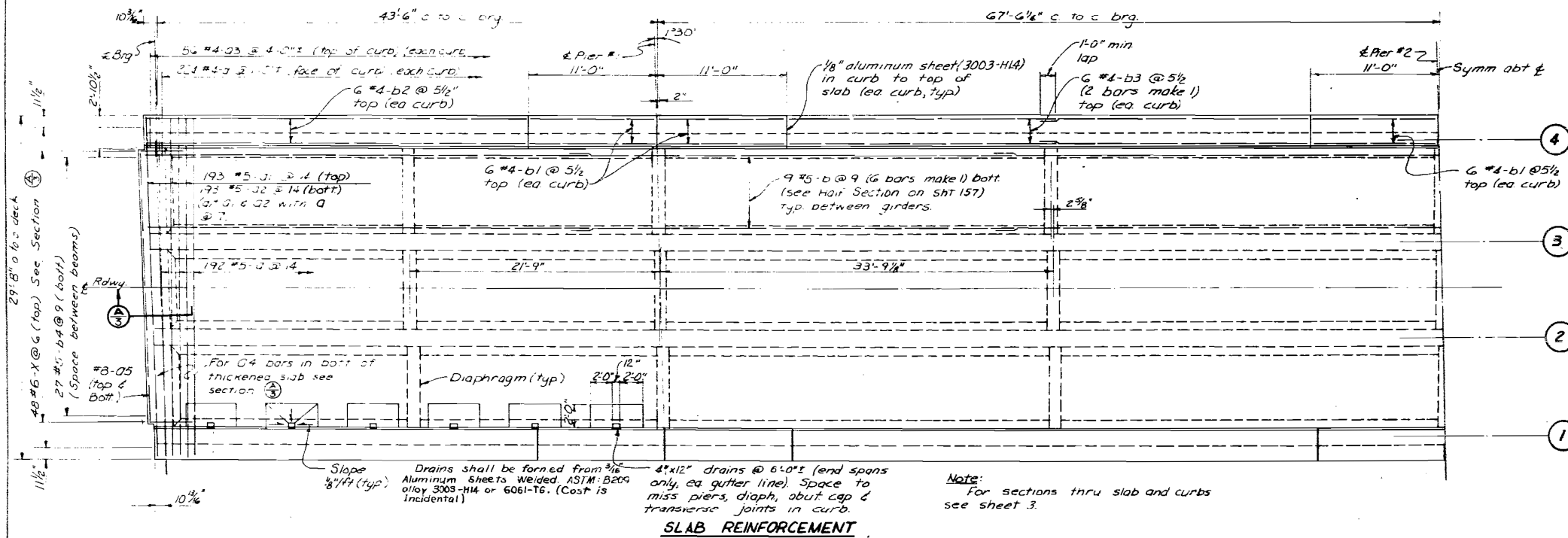
Note:
For girder elevation, sections and bar list see sheet 5

GIRDER REINFORCEMENT IN SLAB



BAR LIST - SLAB

Bar	No.	Size	Length	Shape
G	192	#5	33'-2"	~
G1	193	#5	29'-2"	~
G2	193	#5	34'-4"	~
G3	112	#4	2'-6"	~
G4	8	#8	26'-10"	~
G5	4	#8	23'-9"	~
b	174	#5	38'-3"	~
b1	72	#4	10'-9"	~
b2	24	#4	33'-0"	~
b3	48	#4	23'-2"	~
b4	54	#4	4'-7"	~
d	448	#4	1'-8"	~
X	96	#6	4'-11"	~



Note:
For sections thru slab and curbs see sheet 3.

SLAB REINFORCEMENT

DESIGNED	RD	EXAMINED	
CHECKED	KJH	PASSED	
DRAWN	L.L.S.	APPROVED	
CHECKED	RD L.J.L.		

FOR INFORMATION ONLY
EXISTING DRAWING
STRUCTURE NO. 046-0086

ILLINOIS DIVISION OF HIGHWAYS
SUPERSTRUCTURE
SLAB REINFORCING
F.A.I. RTE. 57 SEC. 46-1HB
KANKAKEE COUNTY
STA. 474 + 75.50

Revision: 7-23-63; 4x8 to 4x12 drains of 1/2" Aluminum Sheets Welded, Spacing of drains from 8'-0" to 6'-0", b bars from #4 to #5, X bars from #5 to #6, SEM.

12/02/2013
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LAYOUT	FLN	03.20.2013
DRAWN	MGM	07.09.2013
REVIEWED	FLN	10.17.2013



PROFESSIONAL DESIGN FIRM LICENSE #194-001094	USER NAME =	hussu00411
	DESIGNED -	FLN
	CHECKED -	JKR
	DRAWN -	MGM
	CHECKED -	FLN
	PLOT DATE =	12/02/2013

DESIGNED -	FLN	REVISED	
CHECKED -	JKR	REVISED	
DRAWN -	MGM	REVISED	
CHECKED -	FLN	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE DRAWINGS
STRUCTURE NO. 046-0148

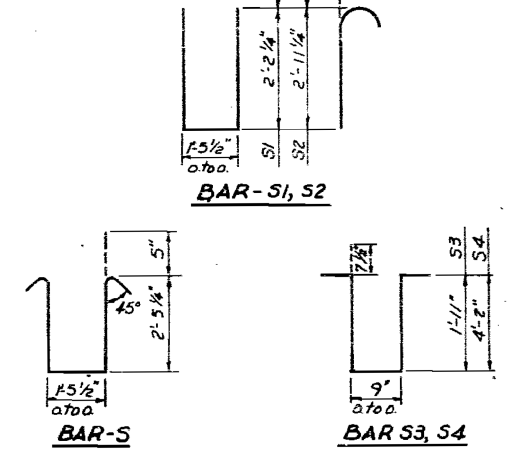
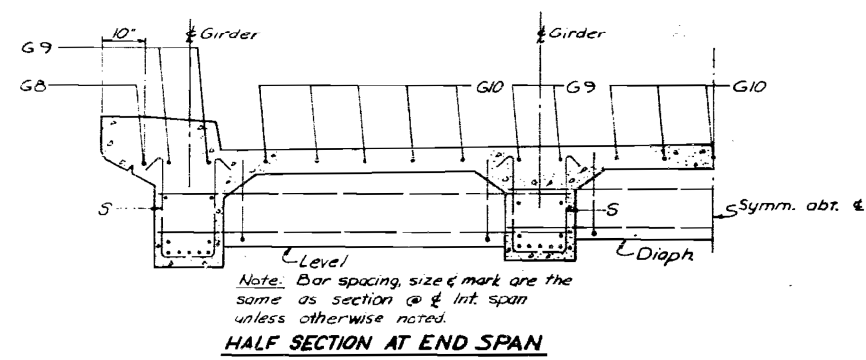
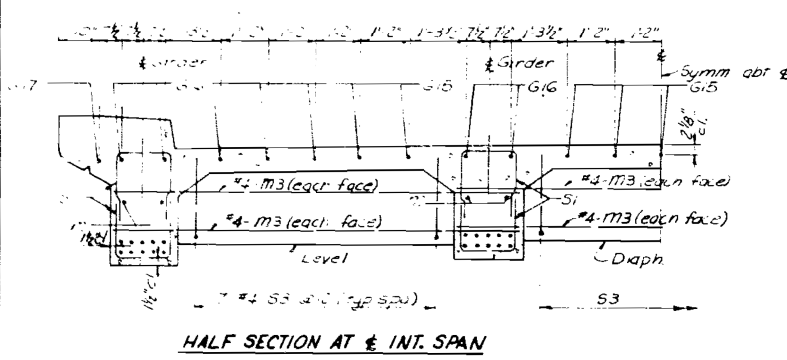
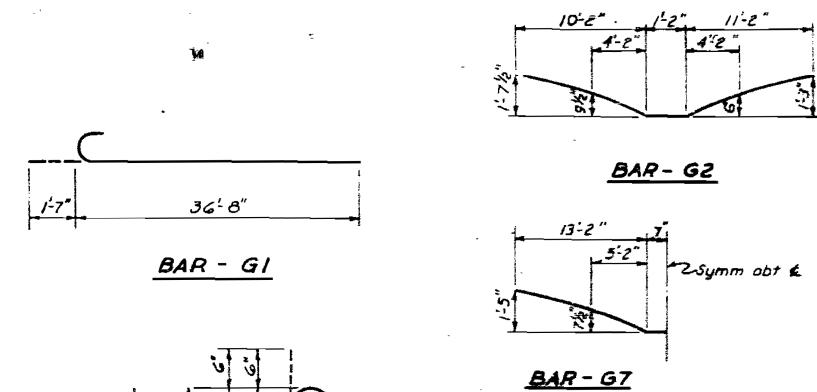
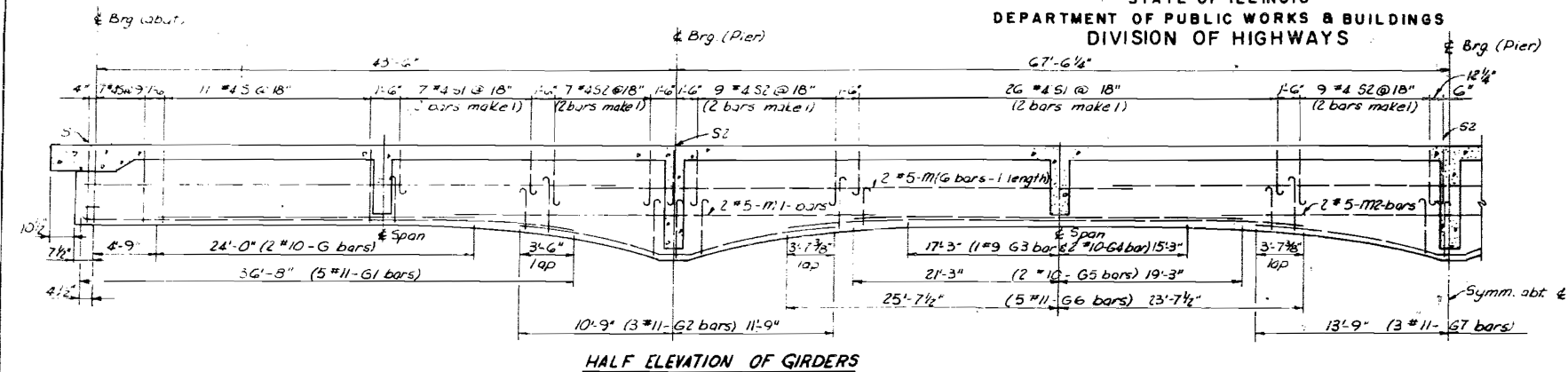
SHEET NO. 38 OF 44 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(46-1)HBK-1	KANKAKEE	819	510
				CONTRACT NO. 66982
ILLINOIS FED. AID PROJECT				

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

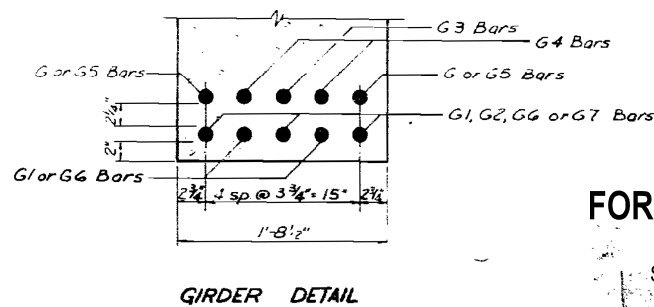
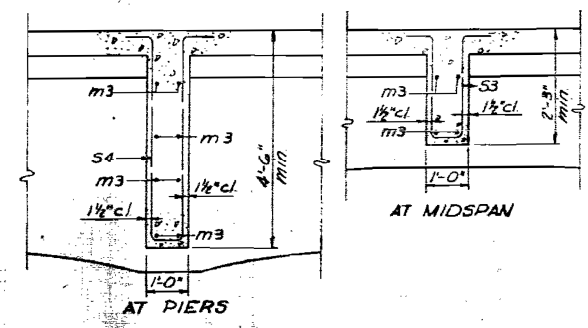
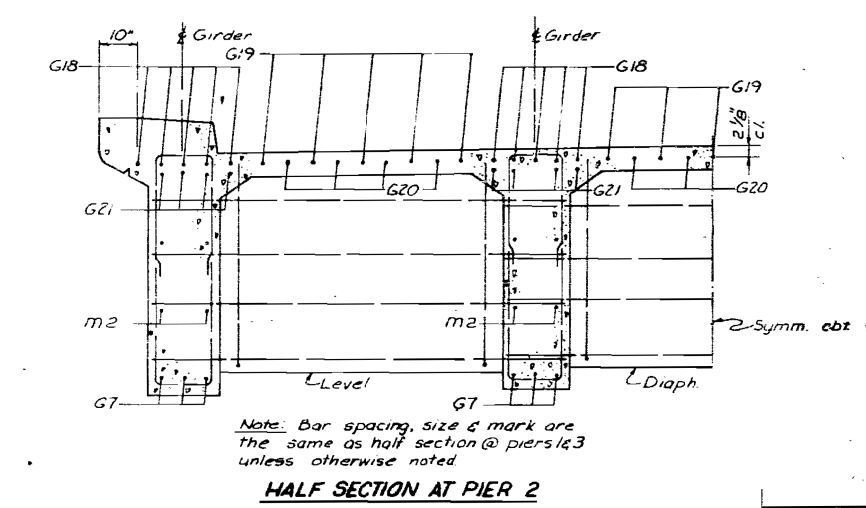
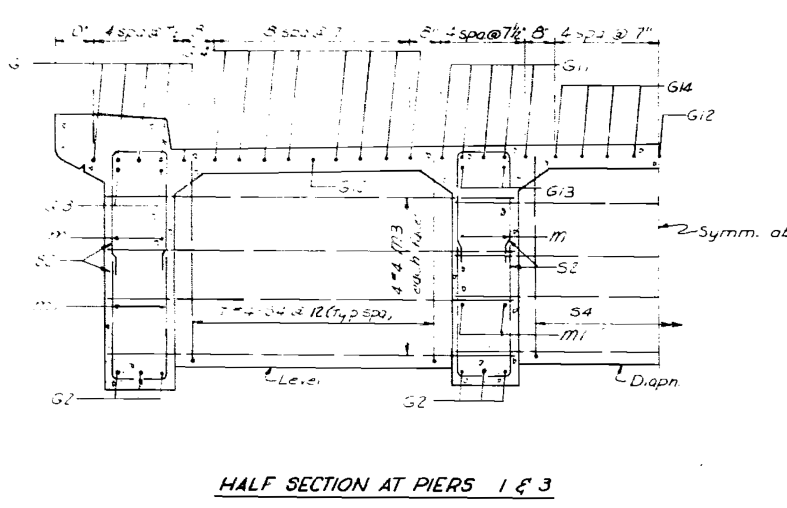
SHT 5
OF 10

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FAL-57		KANKAKEE	25	5
STA.	TO STA.			
FED. ROAD DIST. NO. 7	ILLINOIS FED. AID PROJECT			



BAR LIST - GIRDERS

Bar No.	Size	Length	Shape
G 16	#10	24'-0"	
G1 40	#11	38'-3"	C
G2 24	#11	22'-9"	
G3 8	#9	32'-6"	
G4 16	#10	32'-6"	
G5 16	#10	41'-6"	
G6 40	#11	49'-3"	
G7 12	#11	27'-9"	
G8 4	#6	18'-6"	
G9 16	#10	24'-0"	
G10 30	#6	28'-3"	
G11 40	#10	45'-9"	
G12 6	#6	30'-0"	
G13 16	#10	19'-6"	
G14 48	#8	30'-0"	
G15 30	#6	31'-3"	
G16 16	#10	33'-0"	
G17 4	#6	28'-0"	
G18 20	#10	44'-6"	
G19 15	#8	52'-0"	
G20 12	#8	32'-6"	
G21 16	#10	25'-6"	
S 152	#4	7'-2"	LF
S1 328	#4	6'-10"	LF
S2 432	#4	8'-4"	LF
S3 84	#4	5'-10"	LF
S4 63	#4	10'-4"	LF
M 48	#5	38'-6"	
M1 16	#5	30'-6"	
M2 8	#5	32'-3"	
M3 120	#4	9'-6"	



FOR INFORMATION ONLY
EXISTING DRAWING
STRUCTURE NO. 046-0086

NOTE: For Bill of Material - Superstructure, see sheet 3.

ILLINOIS DIVISION OF HIGHWAYS
SUPERSTRUCTURE
GIRDER DETAILS
FAL. RTE. 57 SEC. 46-1HS
KANKAKEE COUNTY
STA. 474 + 73.50

DESIGNED	RD	EXAMINED	
CHECKED	R.J.H.	PASSED	
DRAWN	L.J.L.	APPROVED	
CHECKED	RD		

12/02/2013 C:\pwwork\work\vol_rtd\del\del\ms56035\0460148\66982-039-E.rst-Girder.dgn

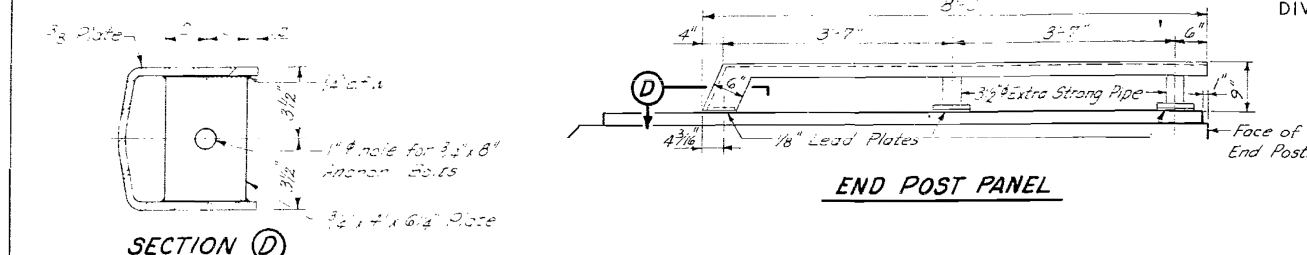
PROFESSIONAL DESIGN FIRM LICENSE #194-001094
HANSON
Hanson Professional Services Inc.

USER NAME =	hussu00411	DESIGNED -	FLN	REVISED	
PLOT SCALE =		CHECKED -	JKR	REVISED	
PLOT DATE =	12/02/2013	DRAWN -	MGM	REVISED	
		CHECKED -	FLN	REVISED	

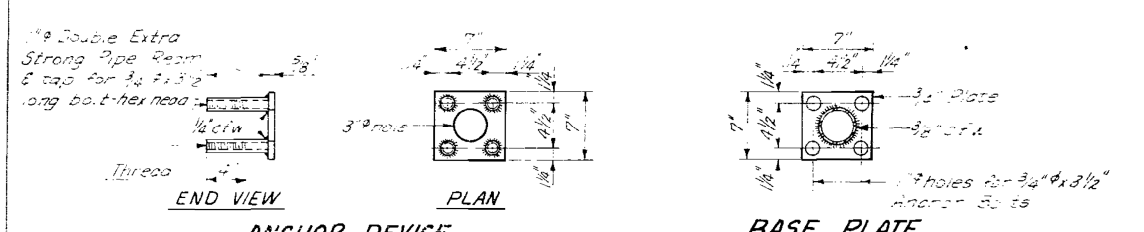
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE DRAWINGS
STRUCTURE NO. 046-0148
SHEET NO. 39 OF 44 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(46-1)HBK-1	KANKAKEE	819	511
CONTRACT NO.			66982	
ILLINOIS FED. AID PROJECT				



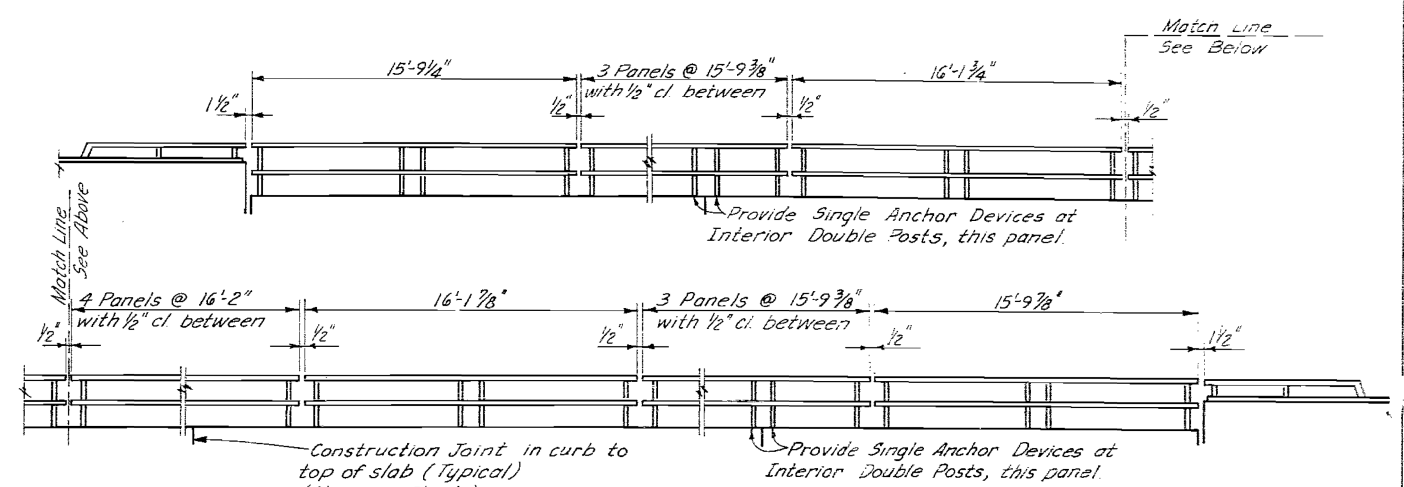
END POST PANEL



ANCHOR DEVICE

BASE PLATE

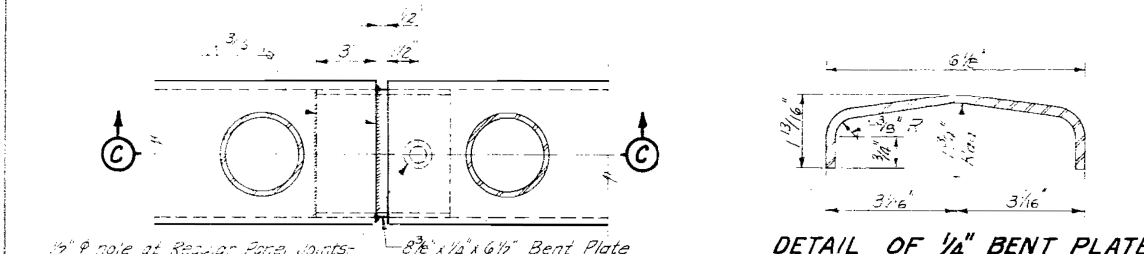
END POST PANEL DETAILS



ELEVATION

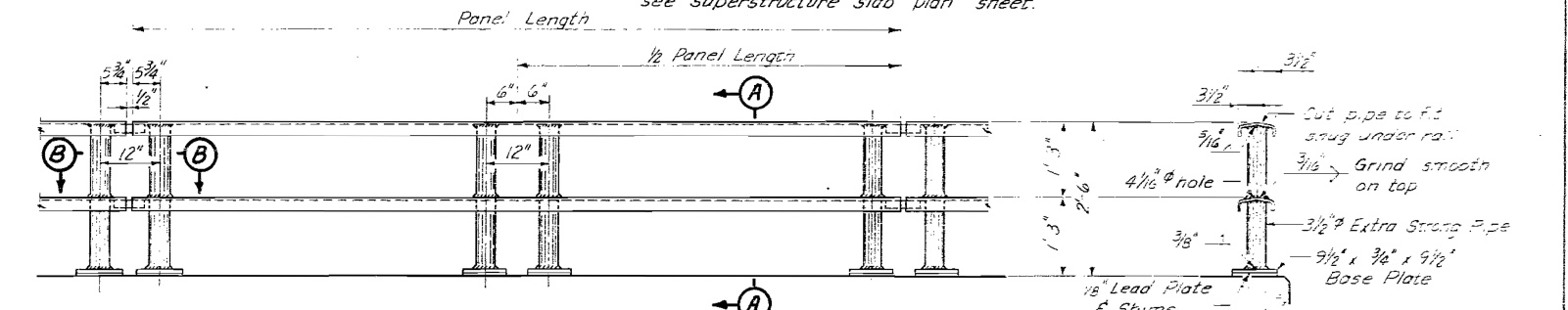
North Rails - West to East
South Rails - East to West

Note: For location of Aluminum Curb Joints see superstructure slab plan sheet.



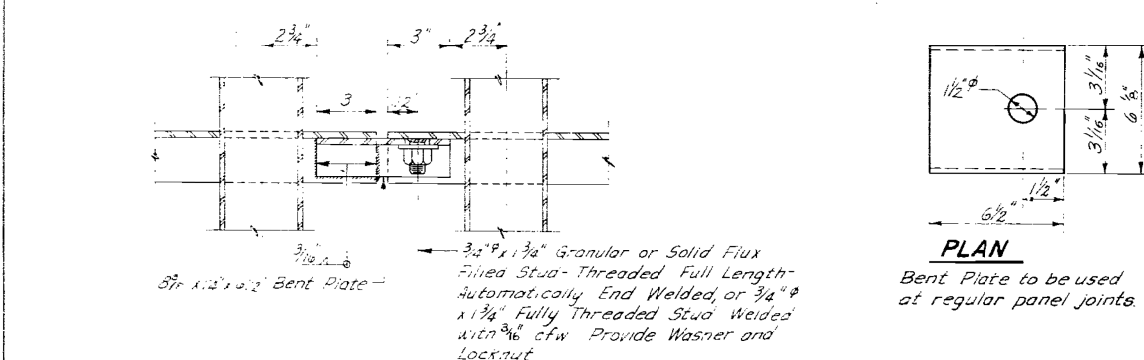
SECTION B

DETAIL OF 1/4" BENT PLATE



ELEVATION TYPICAL PANEL

SECTION A



SECTION C

PLAN

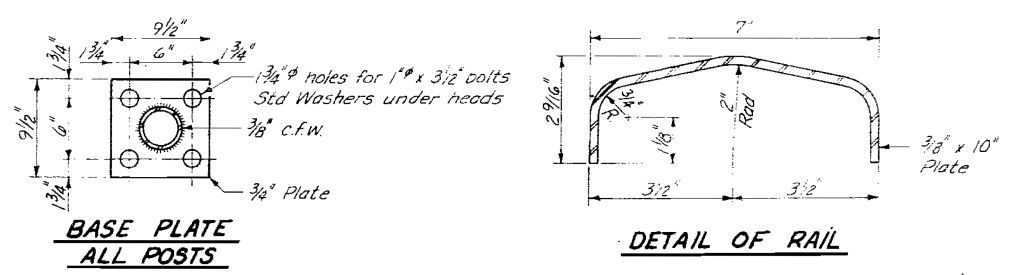
ANCHOR DEVICE

END VIEW

ANCHOR DEVICE

FOR INFORMATION ONLY

EXISTING DRAWING
STRUCTURE NO. 046-0086



BASE PLATE ALL POSTS

DETAIL OF RAIL

GENERAL NOTES

After erection all bolts and washers shall be spot painted with one coat of red lead and two coats of aluminum paint.
Provide 1-1/8" and 2-1/2" Shimms for 50% of the Posts

BILL OF MATERIAL

Item	Unit	Quantity
Metal Handrail	Lin Ft	480

* includes both the single plate and the double plate rail.

ILLINOIS DIVISION OF HIGHWAYS
METAL HANDRAIL
F.A.I. RTE. 57 SEC. 46-1HB
KANKAKEE COUNTY
STA. 474 + 73.50

DESIGNED	EXAMINED
CHECKED	ENGINEER IN CHARGE AND TRAFFIC SAFETY ENGINEER
DRAWN	PASSED
CHECKED	APPROVED
WRT	ENGINEER IN CHARGE
	ILLINOIS HIGHWAY ENGINEER

Revisions: 7-24-63 Dimensions changed to meet the New Standards, SEM

12/02/2013 03:20:2013
FLN 03.20.2013
MGM 07.09.2013
FLN 10.17.2013
LAYOUT
DRAWN
REVIEWED
c:\pwworkspace\delia\dms56035\0460148\66982-040-E.rst_Handrail.dgn

PROFESSIONAL DESIGN FIRM LICENSE #194-001094
HANSON
Hanson Professional Services, Inc.

USER NAME = hussu00411	DESIGNED - FLN	REVISED
PLOT SCALE =	CHECKED - JKR	REVISED
PLOT DATE = 12/02/2013	DRAWN - MGM	REVISED
	CHECKED - FLN	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE DRAWINGS
STRUCTURE NO. 046-0148

SHEET NO. 40 OF 44 SHEETS

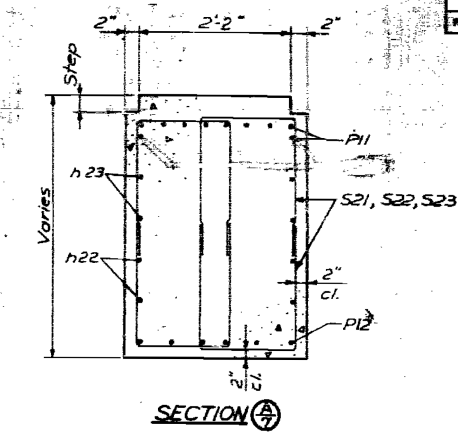
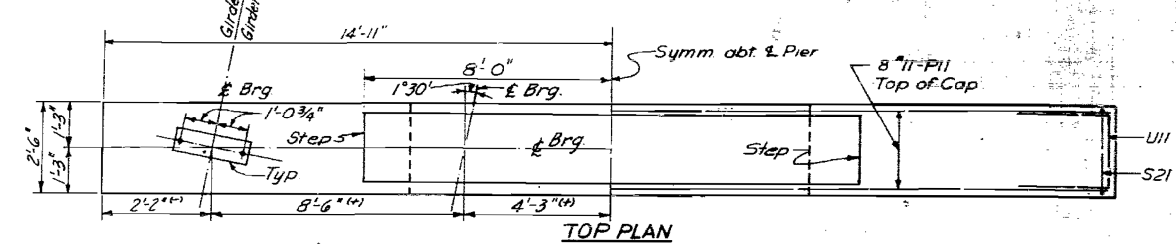
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(46-1)HBK-1	KANKAKEE	819	512
CONTRACT NO. 66982				
ILLINOIS FED. AID PROJECT				

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

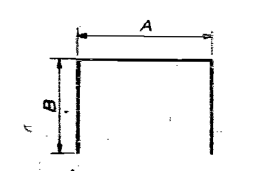
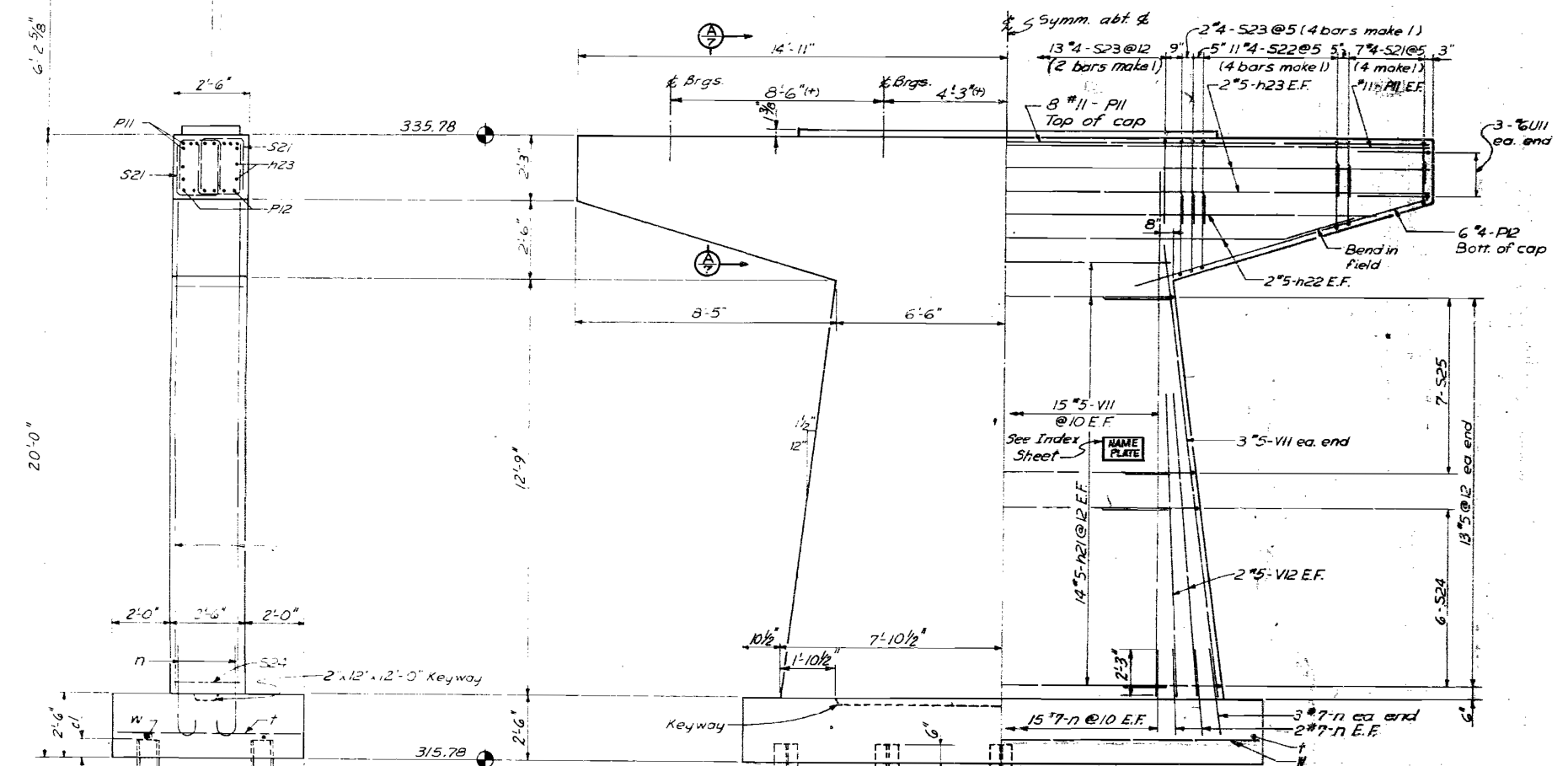
ROUTE NO.	NO.	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 57		KANKAKEE	25	7
STA.	TO STA.			
74+73.50	74+73.50			

SHT. 7 OF 10

Pier #1 Sta. 1474+03.26
Pier #3 Sta. 1475+38.30
Crown Elev. 342.00

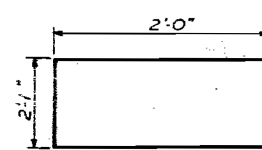


Note: All edges shall have standard 3/8" chamfers except footings



Bar	A	B
S21	1'-4"	2'-0"
S22	1'-4"	2'-8"
S23	1'-4"	2'-10"
S24	2'-2"	2'-11"
S25	2'-2"	2'-1"

S BARS



U11 BAR



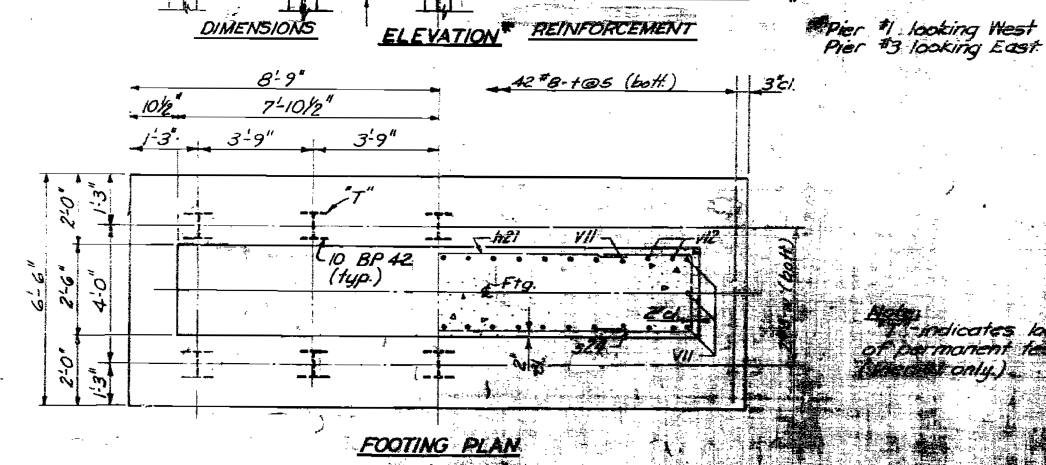
PIER I & 3
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h21	56	#5	12'-10"	
h22	8	#5	26'-0"	
h23	8	#5	29'-6"	
n	88	#3	5'-4"	
P11	20	#1	29'-6"	
P12	24	#4	10'-0"	
S21	112	#4	5'-4"	
S22	176	#4	6'-8"	
S23	84	#4	7'-0"	
S24	24	#5	8'-0"	
S25	24	#5	6'-4"	
t	84	#8	6'-0"	
U11	12	#6	6'-1"	
V11	72	#5	14'-6"	
V12	16	#5	8'-9"	
w	4	#4	17'-0"	

Class X Concrete Cu. Yds. 77.7
Reinforcement Bars lbs. 18,170
Steel Piles Lin. Ft. 493
Test Piles (Steel) Em. 1
C.M. Excav for Struct. Cu. Yds. 64.4

PILE DATA
Type - 10 BP 42
Capacity - 40 Tons
Est. length:
Pier #1 - 28'
Pier #3 - 24'
No. reatl. - 20
including 1 test pile
at Pier #1 only.

DESIGNED RD	EXAMINED
CHECKED KJH	PASSED
DRAWN BPP mof	APPROVED
CHECKED RD LJJ	



FOR INFORMATION ONLY
EXISTING DRAWING
STRUCTURE NO. 046-0086

ILLINOIS DIVISION OF HIGHWAYS
PIERS NO. I & 3
(EXPANSION)
F.A.I. RTE 57 SEC. 40-118
KANKAKEE COUNTY
STA. 74+73.50

12/02/2013 03:20:2013
FLN 03.20.2013
MGM 07.09.2013
FLN 10.17.2013

LAYOUT
DRAWN
REVIEWED

PROFESSIONAL DESIGN FIRM LICENSE #194-001094
HANSON
Hanson Professional Services Inc.

USER NAME = hussu00411	DESIGNED - FLN	REVISIONS
PLOT SCALE =	CHECKED - JKR	REVISIONS
PLOT DATE = 12/02/2013	DRAWN - MGM	REVISIONS
	CHECKED - FLN	REVISIONS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

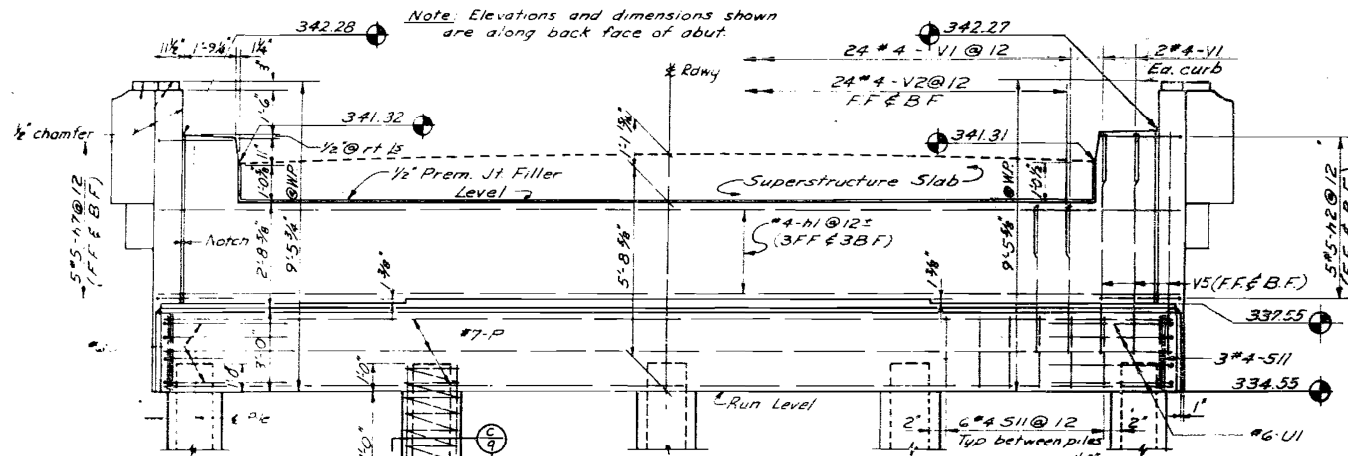
EXISTING BRIDGE DRAWINGS
STRUCTURE NO. 046-0148
SHEET NO. 41 OF 44 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(46-1)HBK-1	KANKAKEE	819	513
			CONTRACT NO.	66982

ILLINOIS FED. AID PROJECT

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

46-1HB		SHT. 9 OF 10		ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
				57		KANKAKEE	25	
				STA.	TO STA.			
				474	+ 73.50			
				FED. ROAD DIST. No. 7 ILLINOIS FED. AID PROJECT				



ELEVATION

At Right is to R. Rdwy

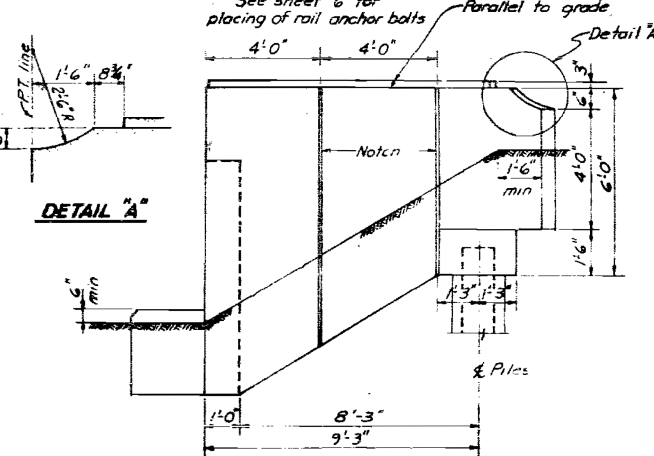
East Abutment Looking East
West Abutment Looking West

PILE DATA

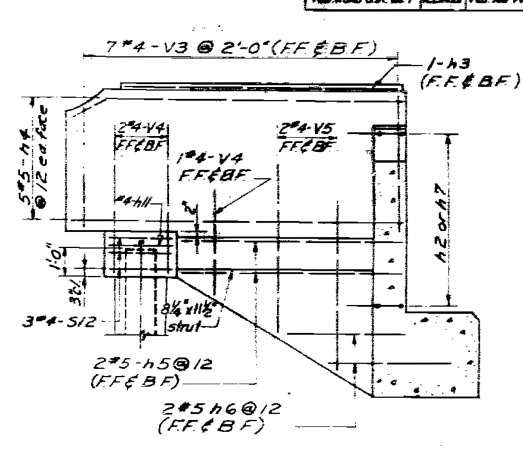
Type: 10 B.P. 42
Capacity: 40 Tons
Est. Length: 41 Ft.
No. Req'd: 14 (2 Abut., includes 1 test pile at East Abut. only.)

SECTION C

1 1/4" Dia. Spiral, #2 wire, 6 pitch, 2 extra turns top and bottom. 4 #4 Tie Bars. The cost of Class X Concrete Encasement and Reinforcement Bars is incidental to cost of furnishing piles.



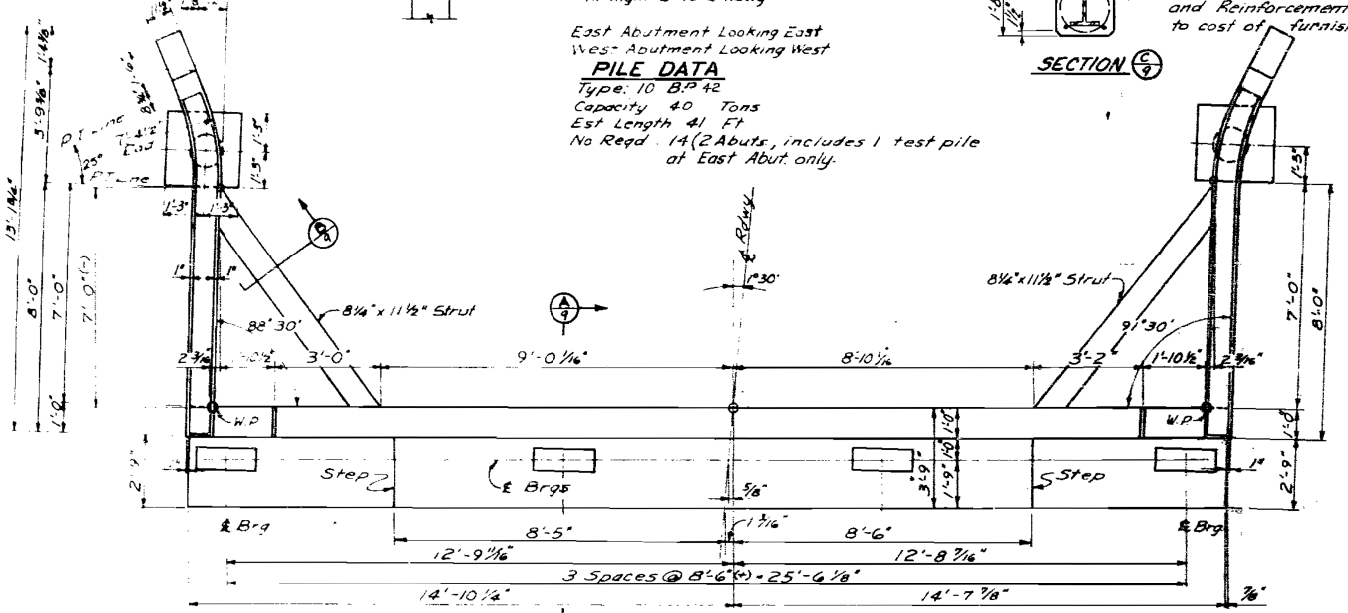
SIDE ELEVATION



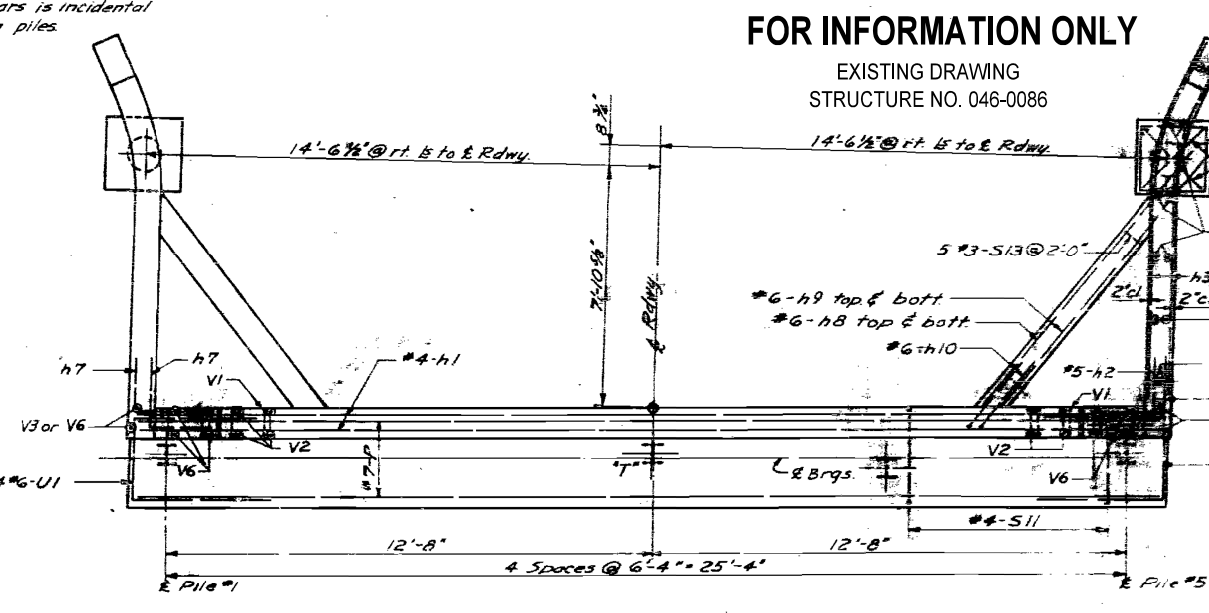
INSIDE ELEVATION OF BRACKET

FOR INFORMATION ONLY

EXISTING DRAWING
STRUCTURE NO. 046-0086

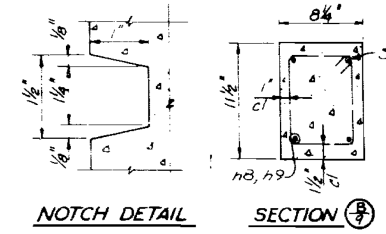


PLAN OF ABUTMENT DIMENSIONS

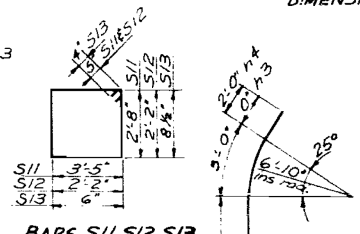


PLAN OF ABUTMENT REINFORCEMENT & PILE SPACING

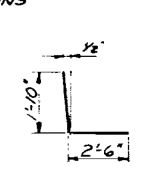
Note: 'T' indicates location of permanent test pile at East Abut. only.



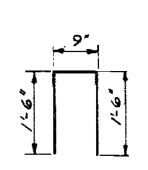
NOTCH DETAIL



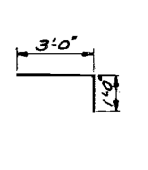
SECTION B BARS S11, S12, S13



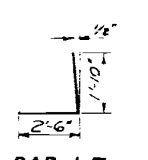
BAR h2



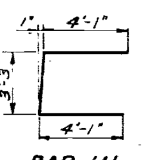
BAR v1



BAR h10



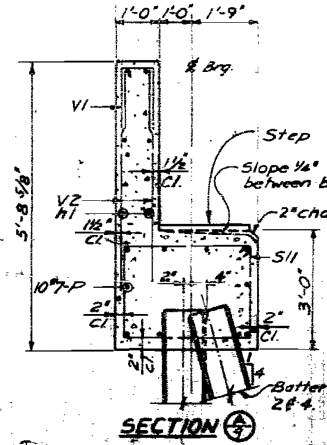
BAR h3



BAR h7



BAR u1



SECTION D

Bar No.	No.	Size	Length	Shops	Bar No.	No.	Size	Length	Shops
h1	12	#4	29'3"		S11	60	#4	13'0"	
h2	20	#5	4'4"		S12	12	#4	9'6"	
h3	8	#5	10'8"		S13	20	#3	3'1"	
h4	40	#5	12'8"						
h5	16	#5	7'0"						
h6	16	#5	5'6"						
h7	20	#5	4'4"		U1	16	#6	11'5"	
h8	8	#6	10'6"						
h9	8	#6	9'6"		V1	56	#4	3'9"	
h10	16	#6	4'0"		V2	96	#4	4'6"	
h11	8	#4	3'0"		V3	56	#4	4'3"	
					V4	24	#4	3'6"	
P	20	#7	29'3"		V5	16	#4	5'6"	
					V6	24	#4	5'9"	

Item	Unit	Quantity
Class X Concrete	Cu Yds.	446
Reinforcement Bars	Lbs.	4,479
Steel Piles	Lin. Ft.	538
Test Piles (Steel)	Each	1

DESIGNED: RD
CHECKED: KJH
DRAWN: L.S.
CHECKED: RD L.J.L.

EXAMINED: _____
ENGINEER OF BRIDGE AND TRAFFIC STRUCTURES

PASSED: _____
ENGINEER OF DESIGN

APPROVED: _____
CHIEF HIGHWAY ENGINEER

ILLINOIS DIVISION OF HIGHWAYS
ABUTMENTS
F.A.I. RTE. 57 SEC. 46-1HB
KANKAKEE COUNTY
STA. 474 + 73.50

12/02/2013 C:\nw\se_wor\k\d0_r0_d0\del\del\ms56035-046\046-66982-043-E.rst-Abut.dgn

LAYOUT: FLN 03.20.2013
DRAWN: MGM 07.09.2013
REVIEWED: FLN 10.17.2013



PROFESSIONAL DESIGN FIRM LICENSE #194-001094	USER NAME = hussu00411	DESIGNED - FLN	REVISOR
		CHECKED - JKR	REVISION
		DRAWN - MGM	REVISION
		CHECKED - FLN	REVISION
	PLOT DATE = 12/02/2013		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE DRAWINGS
STRUCTURE NO. 046-0148
SHEET NO. 43 OF 44 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(46-1)HBK-1	KANKAKEE	819	515
			CONTRACT NO. 66982	
ILLINOIS FED. AID PROJECT				

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.-57		KANKAKEE	25	7
STA.	TO STA.			
FED. ROAD DIST. OR T.	ILLINOIS	FED. AID PROJECT		

FOUNDATION BORINGS

Structure No. 6
Boring No. 1
Station 474+63.85 Date 3-17-58
Offset 111.0' RT
Surface Elev. 319.0'
Ground Water Elevations
Date Time Elevation
3-17 AB 317.0
3-18 24 Hrs. 308.0

BORINGS MADE BY SOIL TESTING SERVICES, INC.

Sample Number	Sample Elevation	N Elevation	Relative Moisture Content	Compressive Strength Tons/sq. ft.	Description
1	318.0	31	Moist	-	
2	316.0	24	Moist	-	Brown-Silty CLAY, trace of Sand
3	314.0	21	Moist	-	
4	312.0	11	Moist	1.1	
5	310.0	32	Moist	5.8	
6	308.0	43	Moist	-	Gray-CLAY & SILT, trace of Sand & Gravel
7	306.0	30	Moist	4.0	
8	304.0	30	Moist	3.3	
9	302.0	33	Wet	-	Gray-Silty CLAY, trace of Sand & Gravel
10	300.0	30	Moist	2.2	
11	298.0	24	Moist	-	Gray-Silty Gravelly fine to coarse SAND
12	296.0	13	Moist	-	
13	293.0	29	Moist	-	Gray-Sandy SILT, trace of Clay & Gravel
					End of Boring-Probable Bedrock

FOUNDATION BORINGS

Structure No. 6
Boring No. 4
Station 474+77.85 Date 3-17-58
Offset 67.5' RT
Surface Elev. 319.0'
Ground Water Elevations
Date Time Elevation
3-17 AB 315.0
3-18 24 Hrs. 306.0

BORINGS MADE BY SOIL TESTING SERVICES, INC.

Sample Number	Sample Elevation	N Elevation	Relative Moisture Content	Compressive Strength Tons/sq. ft.	Description
1	318.0	25	Moist	-	Dark Brown-Silty CLAY, trace of Sand & Organic
2	316.0	33	Moist	-	
3	314.0	21	Moist	-	Gray Brown-Silty CLAY, trace of Sand & Gravel
4	312.0	21	Moist	2.0	
5	310.0	27	Moist	2.5	
6	308.0	14	Moist	5.8	Gray-SILT & CLAY, trace of Sand & Gravel
7	306.0	21	Moist	5.7	
8	304.0	49	Moist	4.4	
9	302.0	54	Moist	-	Gray-Clayey SILT, trace of Sand & Gravel
10	300.0	27	Moist	-	Gray-Sandy SILT, trace of Clay
11	298.0	11	Wet	-	Gray-SILT & fine SAND, trace of Clay & Gravel
12	296.0	15	Wet	-	
13	293.0	27	Moist	-	Buff Yellow-Highly weathered LIMESTONE
					End of Boring-Bedrock

DESIGNED	
CHECKED	
DRAWN	L.S.
CHECKED	L.J.L.

EXAMINED	ENGINEER OF BRIDGE AND TRAFFIC STRUCTURES
PASSED	ENGINEER OF DESIGN
APPROVED	CHIEF HIGHWAY ENGINEER

FOUNDATION BORINGS

Structure No. 6
Boring No. 2
Station 474+77.85 Date 3-18-58
Offset 67.5' RT
Surface Elev. 319.0'
Ground Water Elevations
Date Time Elevation
3-18 AB 312.0
3-19 24 Hrs. 306.0

BORINGS MADE BY SOIL TESTING SERVICES, INC.

Sample Number	Sample Elevation	N Elevation	Relative Moisture Content	Compressive Strength Tons/sq. ft.	Description
1	318.0	24	Moist	-	Dark Brown-Silty CLAY, trace of Sand & Organic
2	316.0	33	Moist	-	
3	314.0	6	Moist	-	Brown-Silty CLAY, trace of Sand & Gravel
4	312.0	14	Moist	1.2	
5	310.0	27	Moist	2.8	
6	308.0	57	Moist	4.6	Gray-CLAY & SILT, trace of Sand & Gravel
7	306.0	31	Moist	4.4	
8	304.0	52	Moist	3.6	
9	302.0	28	Moist	-	Gray-Silty fine SAND, trace of Gravel
10	300.0	40	Moist	2.2	Gray-Silty CLAY, trace of Sand & Gravel
11	298.0	9	Moist	-	Gray-Sandy SILT, trace of Clay & Gravel
12	296.0	13	Moist	-	
13	293.0	43	Moist	-	Gray-Gravelly SAND, trace of Clay & Silt
14	291.0	33	Moist	-	
15	289.3	133	Moist	-	
					End of Boring-Probable Bedrock

FOUNDATION BORINGS

Structure No. 6
Boring No. 5
Station 474+63.85 Date 3-18-58
Offset 111.0' RT
Surface Elev. 319.0'
Ground Water Elevations
Date Time Elevation
3-18 AB 318.0
3-20 24 Hrs. 305.0

BORINGS MADE BY SOIL TESTING SERVICES, INC.

Sample Number	Sample Elevation	N Elevation	Relative Moisture Content	Compressive Strength Tons/sq. ft.	Description
1	318.0	40	Moist	-	Dark Brown-Silty CLAY, trace of Sand & Organic
2	316.0	24	Moist	-	
3	314.0	13	Moist	2.4	Brown-Silty CLAY, trace of Sand
4	312.0	35	Moist	3.6	
5	310.0	27	Moist	3.1	
6	308.0	36	Moist	4.4	Gray-CLAY & SILT, trace of Sand
7	306.0	35	Moist	4.5	
8	304.0	44	Moist	2.8	
9	302.0	301.0	Moist	-	Gray-Gravelly Silty fine to coarse SAND, trace Clay
10	300.0	22	Wet	-	Gray-Clayey Sandy SILT
11	298.0	18	Wet	-	
12	296.0	16	Wet	-	Gray-Silty fine to medium SAND, trace Gravel
13	294.0	102	Moist	-	
					End of Boring-Probable Bedrock

FOUNDATION BORINGS

Structure No. 6
Boring No. 3
Station 474+63.85 Date 11-27-57
Offset Centerline
Surface Elev. 318.0'
Ground Water Elevations
Date Time Elevation
11-27 WD 292.0
11-27 SC 316.0
11-27 AC 318.0
11-28 24 Hrs. 306.0

BORINGS MADE BY SOIL TESTING SERVICES, INC.

Sample Number	Sample Elevation	N Elevation	Relative Moisture Content	Compressive Strength Tons/sq. ft.	Description
1	318.0	30	Moist	-	Dark Brown-Clayey SILT, trace Sand, trace Organic
2	316.0	37	Moist	-	Gray Brown-Silty CLAY, trace of Sand
3	314.0	7	Moist	-	
4	312.0	25	Moist	1.7	
5	310.0	45	Moist	3.3	Gray Brown-SILT & CLAY, trace of Sand
6	308.0	42	Wet	-	Brown-Clayey SAND & SILT
7	306.0	41	Wet	-	
8	304.0	42	Moist	-	Gray-Gravelly Silty SAND, trace of Clay
9	302.0	30	Moist	-	Gray-SAND, trace of Silt
10	300.0	39	Moist	-	
11	298.0	40	Moist	-	Gray-Sandy SILT, trace of Clay
12	296.0	94	Moist	-	
13	294.0	102	Moist	-	Gray-Gravelly Sandy SILT, trace of Clay
14	292.5	100	Moist	-	
					Buff Yellow-LIMESTONE Top Core Recovery
					End of Boring

DEFINITIONS

- "f" = Relative Density - 20. of blow required to drive 1-3/8" ID x 2" OD sample spoon 12" with 140 lb. weight falling 30"
- WD = While Drilling
- BCR = Before Casing Removal
- DB = Diamond Bit
- AB = After Boring
- ACR = After Casing Removal

Note: For location of soil borings see General Plan and Elevation.

FOR INFORMATION ONLY

EXISTING DRAWING
STRUCTURE NO. 046-0086

ILLINOIS DIVISION OF HIGHWAYS
BORING DATA
F.A.I. RTE. 57 SEC. 46-1HB
KANKAKEE COUNTY
STA. 474 + 75.50

12/02/2013
FLN 03.20.2013
MGM 07.09.2013
FLN 10.17.2013

PROFESSIONAL DESIGN FIRM LICENSE #194-001084
USER NAME = hussu00411
DESIGNED - FLN
CHECKED - JKR
DRAWN - MGM
CHECKED - FLN
PLOT SCALE =
PLOT DATE = 12/02/2013

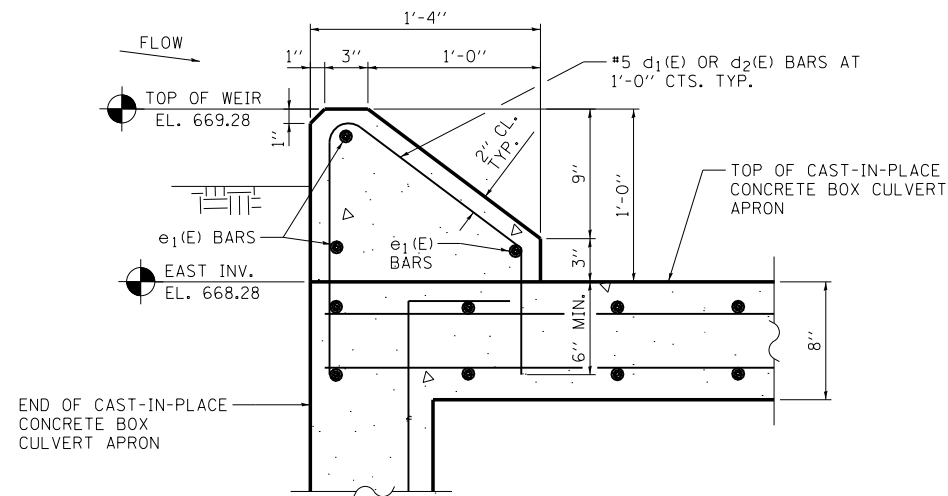
DESIGNED - FLN
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REVISED
REVISED
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REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

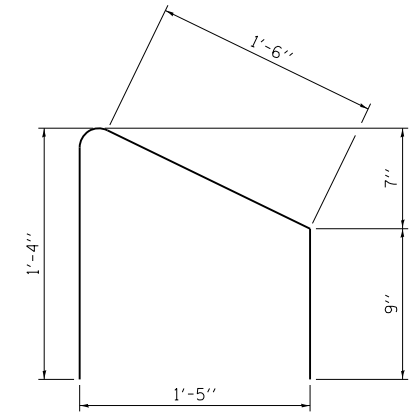
EXISTING BRIDGE DRAWINGS
STRUCTURE NO. 046-0148

SHEET NO. 44 OF 44 SHEETS

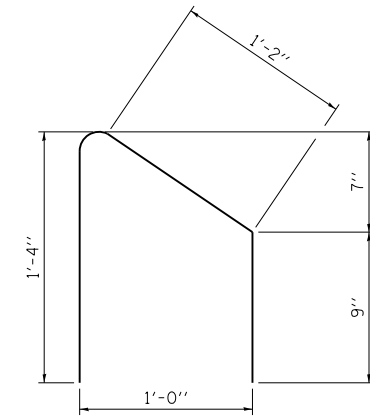
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(46-1)HBK-1	KANKAKEE	819	516
CONTRACT NO.			66982	
ILLINOIS FED. AID PROJECT				



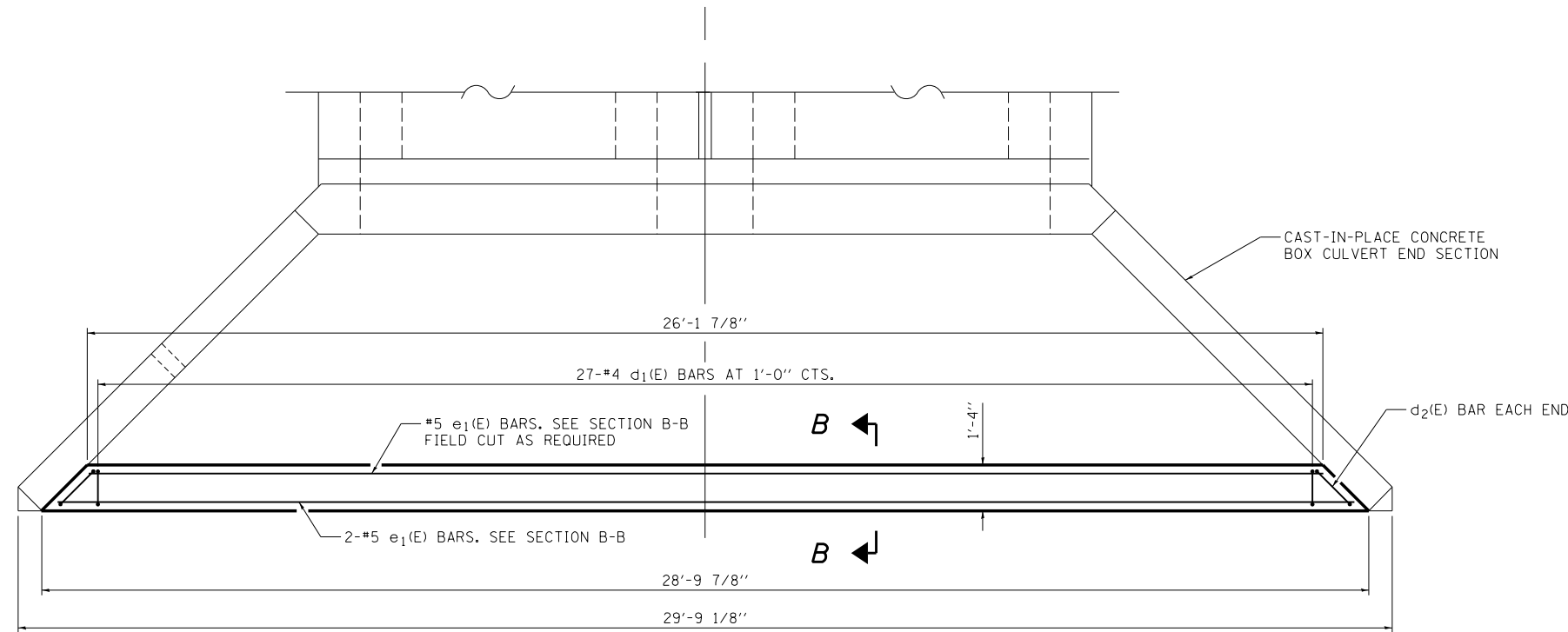
SECTION B-B
WEIR DETAIL
AT CULVERT NO. 2



BAR $d_2(E)$



BAR $d_1(E)$



WEIR PLAN
AT CULVERT NO. 2

NOTE: CONCRETE TOEWALL NOT SHOWN FOR CLARITY

**BILL OF MATERIAL
FOR THREE WEIRS**

Bar	No.	Size	Length	Shape
$d_1(E)$	56	#4	3'-3"	
$d_2(E)$	4	#4	3'-7"	
$e_1(E)$	3	#5	28'-2"	—
$e_3(E)$	3	#5	11'-8"	—
$e_4(E)$	3	#5	16'-5"	—
Concrete Box Culverts	Cu. Yd.		2.0	
Reinforcement Bars Epoxy Coated	Pound		310	

NOTES:
QUANTITIES OF CONCRETE AND REINFORCEMENT BARS SHOWN FOR INFORMATION ONLY. COST OF CONCRETE WEIR SHALL BE INCLUDED IN BOX CULVERT END SECTION, CULVERT NO. 2, OR CULVERT NO. 4, OR CULVERT NO. 6.

LAYOUT	JKR	01.10.2013
DRAWN	MGM	01.17.2013
REVIEWED	JKR	10.17.2013

FILE NAME = D309H0038-sht-details002
MODEL NAME = DET15

USER NAME = MWH
PLOT SCALE = AS SHOWN
DATE = 12.03.13

DESIGNED - JKR
DRAWN - MGM
CHECKED - JKR
DATE = 12.03.13

REVISED -
REVISED -
REVISED -
REVISED -

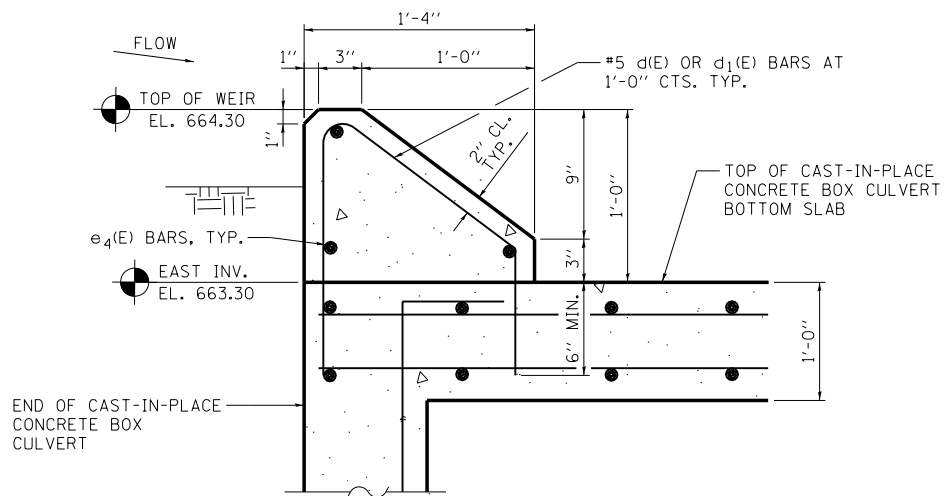
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CULVERT DETAILS
I-57 AND 6000N RD (BOURBONNAIS PARKWAY)
BOURBONNAIS, IL

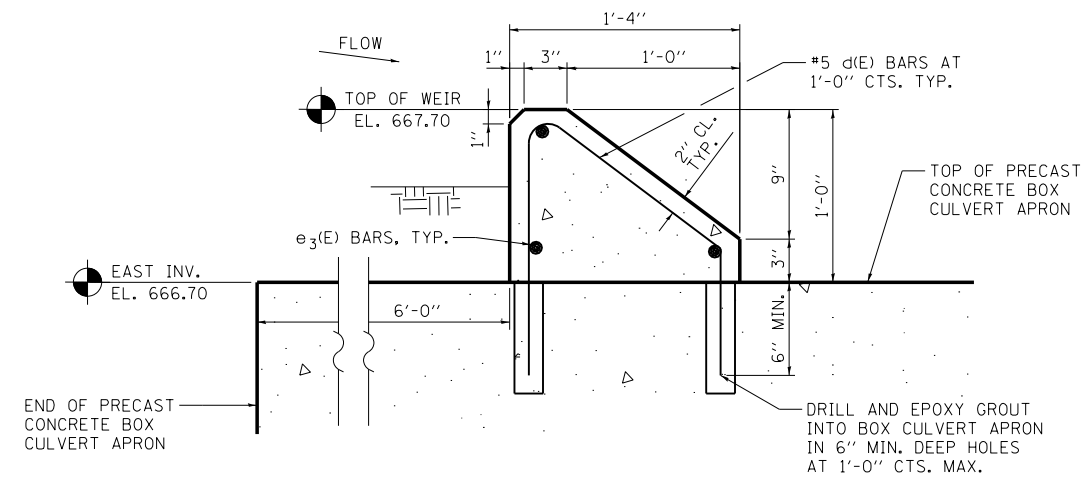
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(46-1)HBK-1	KANKAKEE	819	517
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	

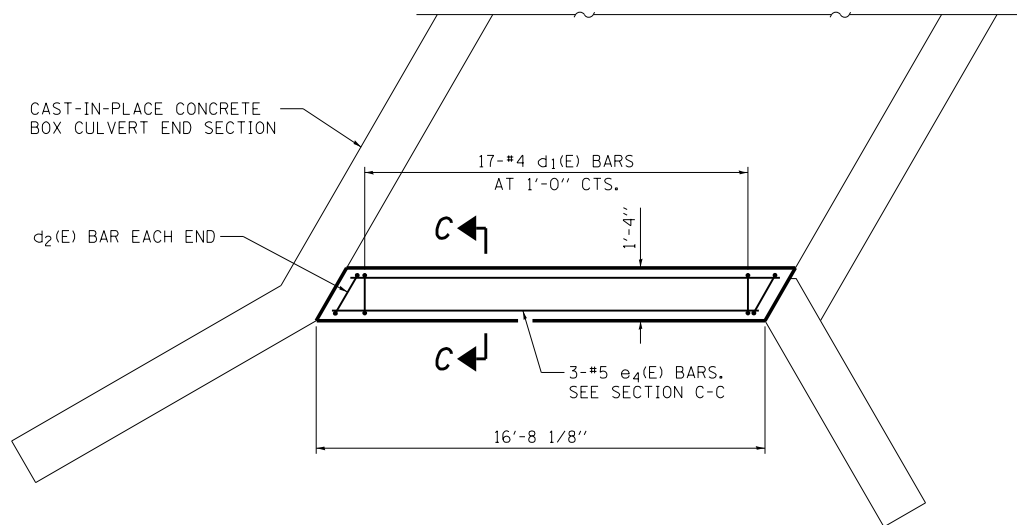
CONTRACT NO. 66982



SECTION C-C
WEIR DETAIL
AT CULVERT NO. 4
(DIMENSIONS AT RT. \perp TO LENGTH OF WEIR)

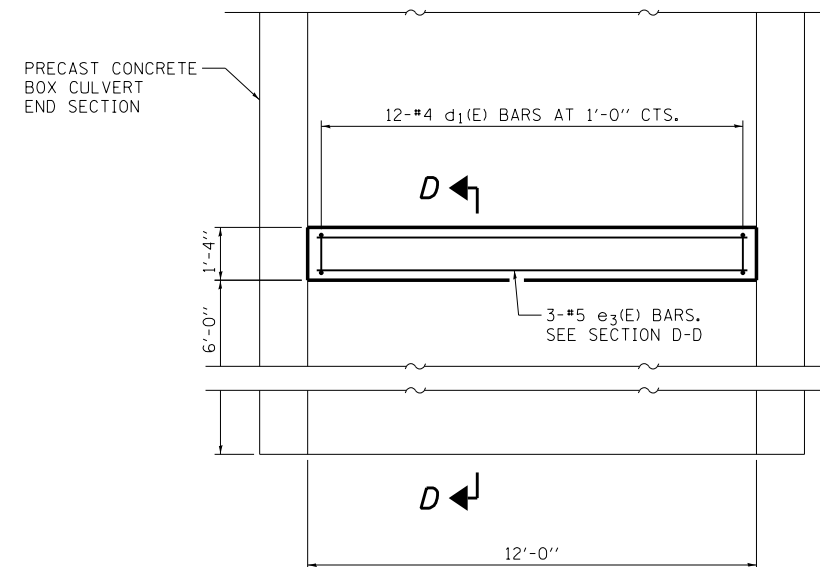


SECTION D-D
WEIR DETAIL
AT CULVERT NO. 6



WEIR PLAN
AT CULVERT NO. 4

NOTE: CONCRETE TOEWALL NOT SHOWN FOR CLARITY



WEIR PLAN
AT CULVERT NO. 6

NOTE: CONCRETE TOEWALL NOT SHOWN FOR CLARITY

LAYOUT	JKR	01.10.2013
DRAWN	MGM	01.17.2013
REVIEWED	JKR	10.17.2013

FILE NAME = D309H0038-sht-details002
MODEL NAME = DET16

USER NAME = MWH
PLOT SCALE = AS SHOWN
PLOT DATE = 12\02\2013

DESIGNED - JKR
DRAWN - MGM
CHECKED - JKR
DATE - 12.03.13

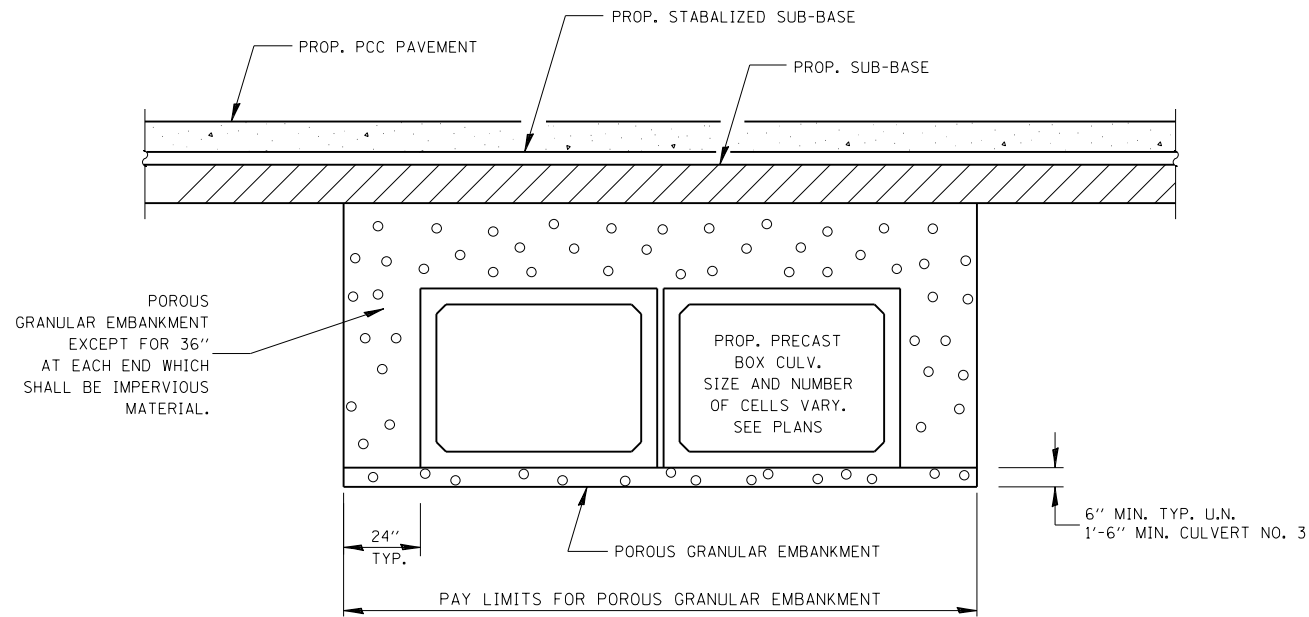
REVISED -
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

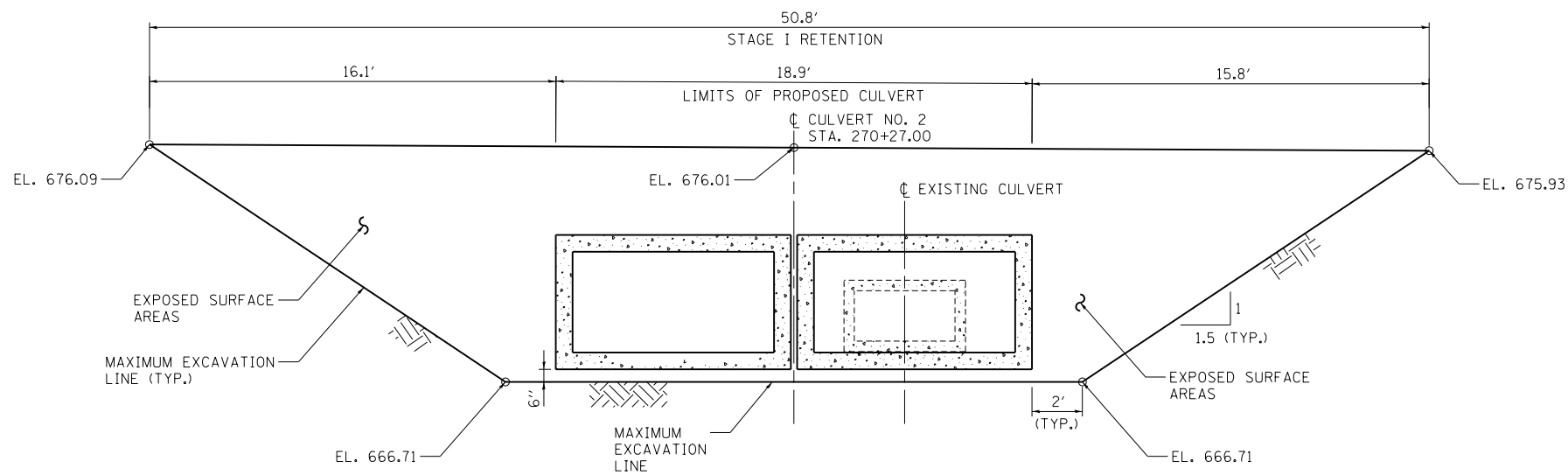
CULVERT DETAILS
I-57 AND 6000N RD (BOURBONNAIS PARKWAY)
BOURBONNAIS, IL

SCALE: AS SHOWN SHEET NO. OF SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(46-1)HBK-1	KANKAKEE	819	518
CONTRACT NO. 66982				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



SECTION THROUGH PRECAST BOX CULVERT
POROUS GRANULAR EMBANKMENT PAY LIMITS



TEMPORARY SOIL RETENTION SYSTEM
AT CULVERT NO. 2
LOOKING WEST
(DIMENSIONS ALONG ϕ OF ROADWAY)

NOTE

A CANTILEVERED SHEET PILING DESIGN DOES NOT APPEAR FEASIBLE AND ADDITIONAL MEMBERS OR OTHER RETENTION SYSTEMS MAY BE NECESSARY. THE CONTRACTOR SHALL SUBMIT A TEMPORARY SOIL RETENTION SYSTEM DESIGN INCLUDING PLAN DETAILS AND CALCULATIONS FOR REVIEW AND ACCEPTANCE BY THE ENGINEER.

LAYOUT	JKR	01.10.2013
DRAWN	MGM	01.17.2013
REVIEWED	BKR	10.17.2013

FILE NAME =	D309H0038-sht-details002
MODEL NAME =	DE113

USER NAME =	MWH
PLOT SCALE =	AS SHOWN
PLOT DATE =	12\02\2013

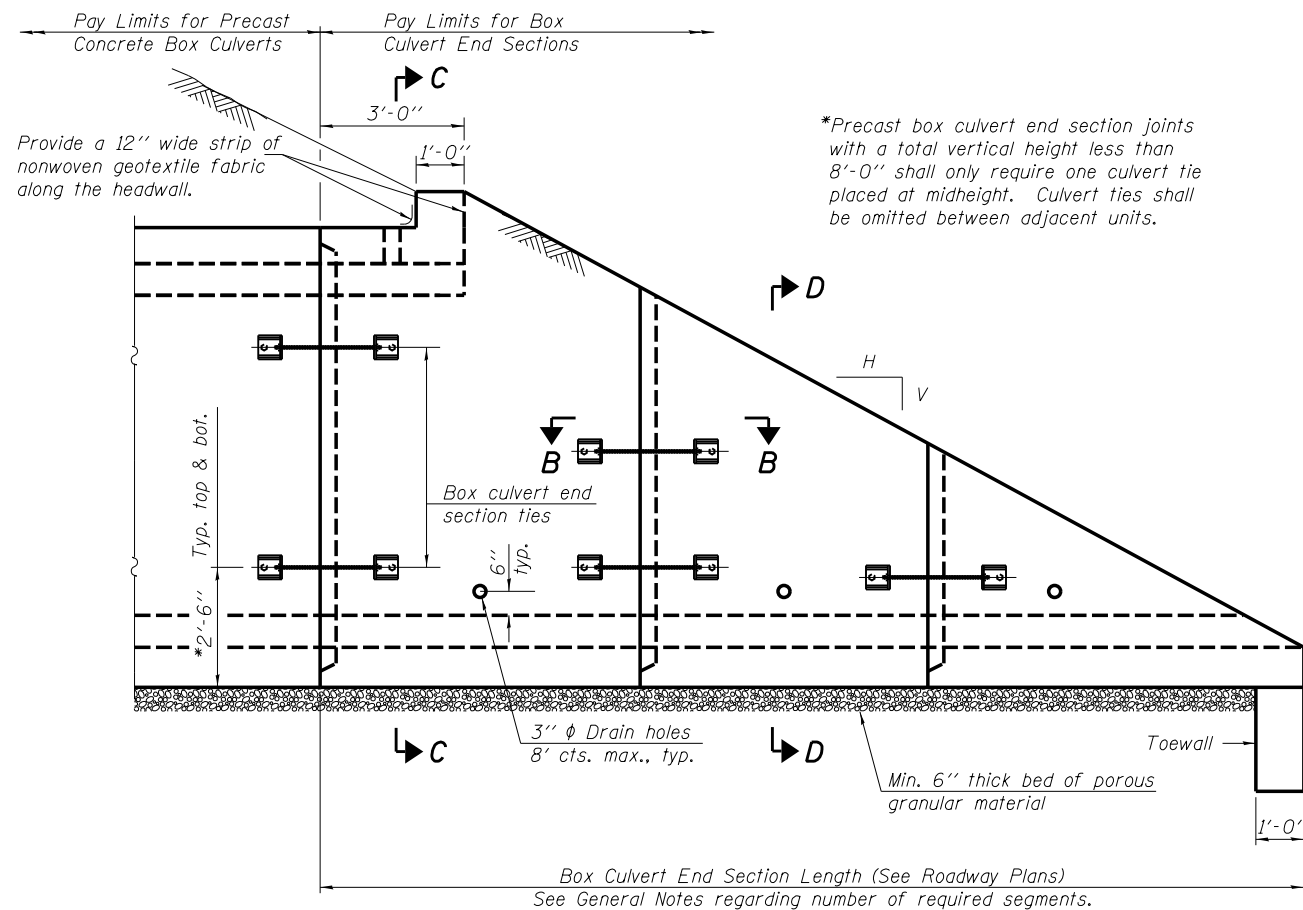
DESIGNED -	JKR
DRAWN -	MGM
CHECKED -	JKR
DATE -	12.03.13

REVISED -	
REVISED -	
REVISED -	
REVISED -	

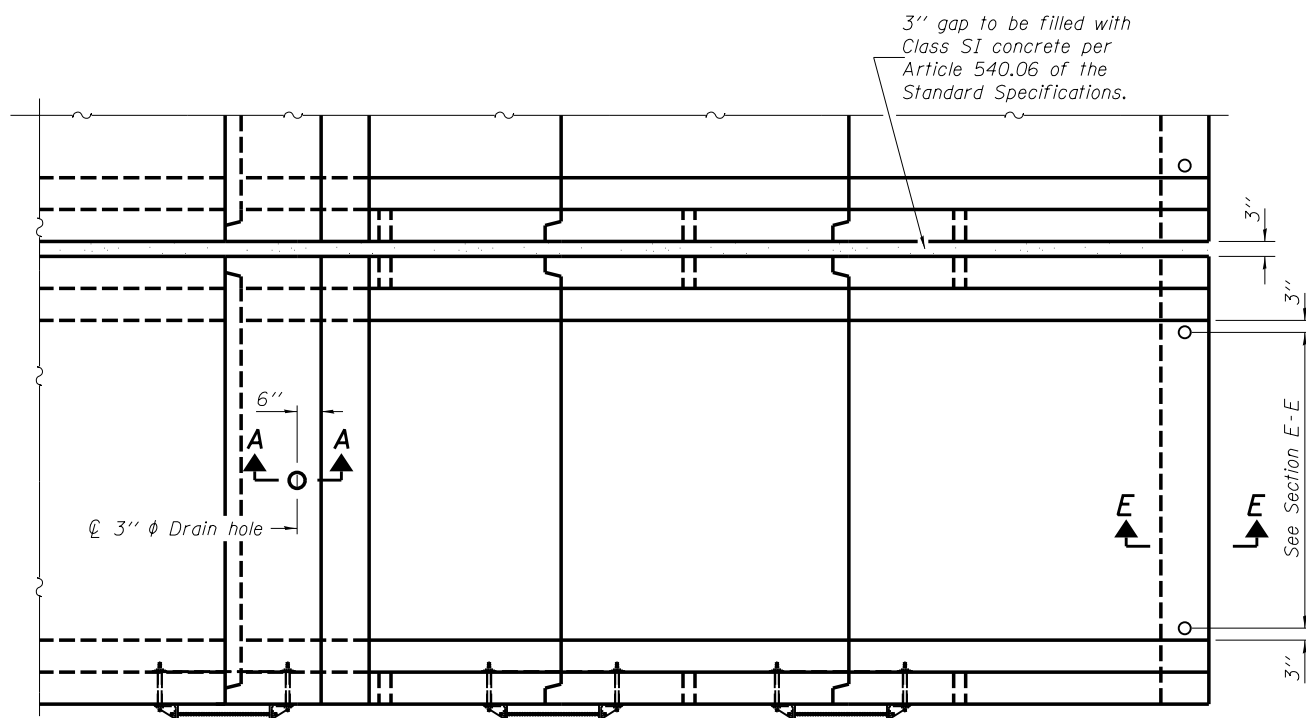
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

CULVERT DETAILS			
I-57 AND 6000N RD (BOURBONNAIS PARKWAY)			
BOURBONNAIS, IL			
SCALE: AS SHOWN	SHEET NO.	OF SHEETS	STA. TO STA.

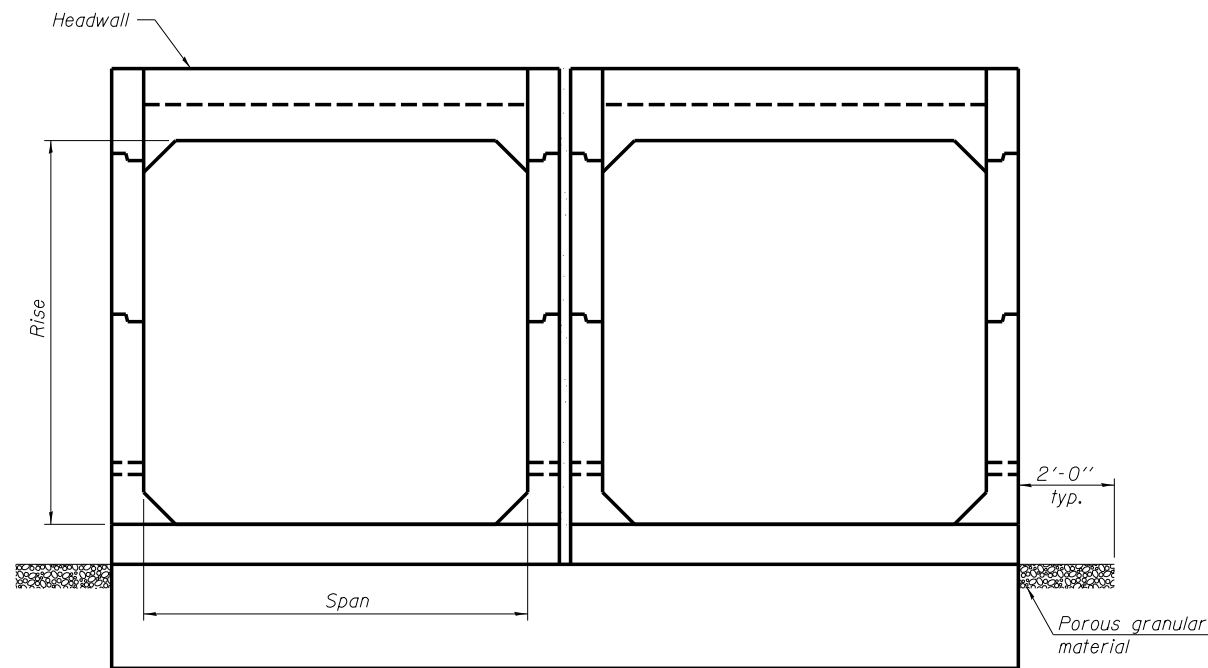
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(46-1)HBK-1	KANKAKEE	819	519
CONTRACT NO. 66982				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



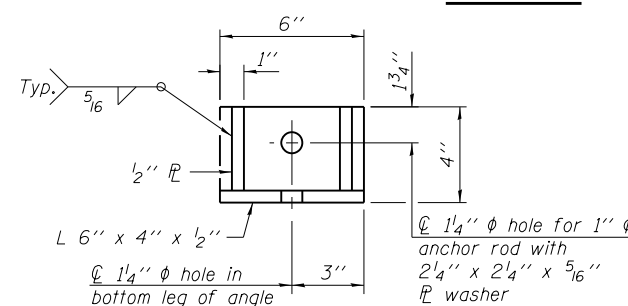
SIDE ELEVATION



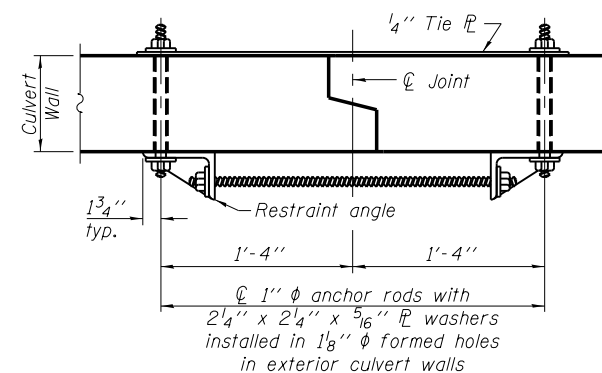
PLAN VIEW



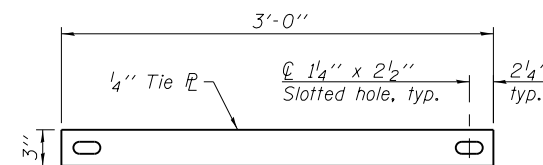
END VIEW



RESTRAINT ANGLE DETAIL



SECTION B-B
(Showing culvert tie details)



TIE PLATE DETAIL

GENERAL NOTES

The box culvert end section shall be constructed according to the requirements of Section 540 of the Standard Specifications except as modified herein. The end section will be paid for at the contract unit price per each for Box Culvert End Sections of the culvert number specified.

Typical box section dimensions, materials, and reinforcement details for the box culvert end section shall be according to the requirements of ASTM C 1577 as required for the design of the portion of the culvert within the limits of Precast Concrete Box Culverts except as modified herein.

Number of segments shown in Side Elevation is for example only. Length and number of precast box sections required to construct the box culvert end section shall be determined by the Contractor.

See roadway plans for embankment slope (V:H).

1" ϕ anchor rods for the culvert ties shall conform to the requirements of ASTM F 1554, Grade 105. Structural steel for tie plate and restraint angle shall conform to the requirements of Article 1006.04 of the Standard Specifications. All components of the culvert tie detail shall be galvanized according to the requirements of AASHTO M 111 or M 232 as applicable. 2 1/4" x 2 1/4" x 5/16" plate washers shall be provided under each nut required for the anchor rods. All anchor rods in a culvert tie assembly shall be snug tightened by a few impacts of an impact wrench or the full force of a worker using an ordinary spud wrench. Holes in the walls for the culvert tie assembly may be drilled using core bits in lieu of using formed holes.

Alternate culvert ties similar in strength and stiffness to the plan details may be provided by the Contractor. Alternate culvert ties shall be subject to approval of the Engineer.

All costs associated with furnishing and installing or constructing the geotextile fabric, toewall, and culvert ties will not be measured for payment but shall be included in the contract unit price for Box Culvert End Sections of the culvert number specified.

Reinforcement bars designated (E) shall be epoxy coated.

Reinforcement bars shall conform to the requirements of ASTM A 706 Gr. 60. Drain holes shall conform to the requirements of Article 503.11 of the Standard Specifications unless noted otherwise.

Nonwoven geotextile fabric shall conform to the requirements of Article 1080.01. The minimum weight of the fabric shall be 6 oz. / sq. yd.

For an end section with a traversable steel pipe system, see pipe detail sheet for required modifications.

(Sheet 1 of 2)

12/02/2013 c:\pwwork\work\do...delete\dms56035\Culvert\0910038-001-Culvert1.dgn

LAYOUT	JKR	07.10.2013
DRAWN	MGM	07.11.2013
REVIEWED	JKR	10.11.2013

12-14-11

FILE NAME =	USER NAME =	DESIGNED	JKR	REVISED	
Culvert-1-0910038-001-Culvert1	hussu00411	CHECKED	SMK	REVISED	
MODEL NAME =	PLOT SCALE =	DRAWN	MGM	REVISED	
End Section 1	PLOT DATE = 12/02/2013	CHECKED	JKR	REVISED	

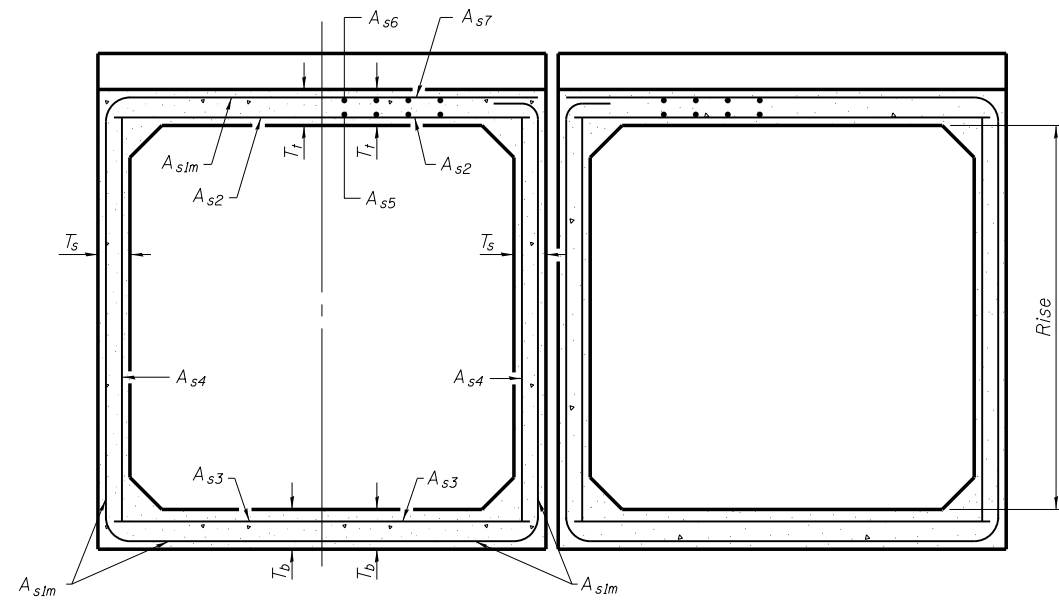
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PRECAST CONCRETE BOX CULVERT NO. 1
END SECTION DETAILS
I-57 AT 6000N, BOURBONNAIS, IL.**

SHEET NO. 1 OF 2 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(46-1)HBK-1	KANKAKEE	819	520
CONTRACT NO.			66982	

ILLINOIS FED. AID PROJECT



(Design Earth Cover < 2 ft.) (Design Earth Cover ≥ 2 ft.)

SECTION C-C

Rise (ft.)	Reinforcing Steel A_{s1m} (in. ² /ft.)											
	T(in.), T _s (in.)	2	3	4	5	6	7	8	9	10	11	12
4	0.19	0.17										
5	0.26	0.21	0.18									
6		0.26	0.23	0.22								
7		0.33	0.29	0.27	0.28							
8			0.43	0.39	0.36	0.34	0.40					
9				0.43	0.40	0.37	0.36	0.48				
10				0.47	0.44	0.41	0.38	0.42	0.56			
11			0.54	0.46	0.41	0.41	0.38	0.42	0.50	0.65		
12			0.58	0.50	0.45	0.45	0.46	0.46	0.46	0.75		

(A_{s1m} reinforcement based upon welded wire fabric conforming to AASHTO M 55 or M 221).

Notes:

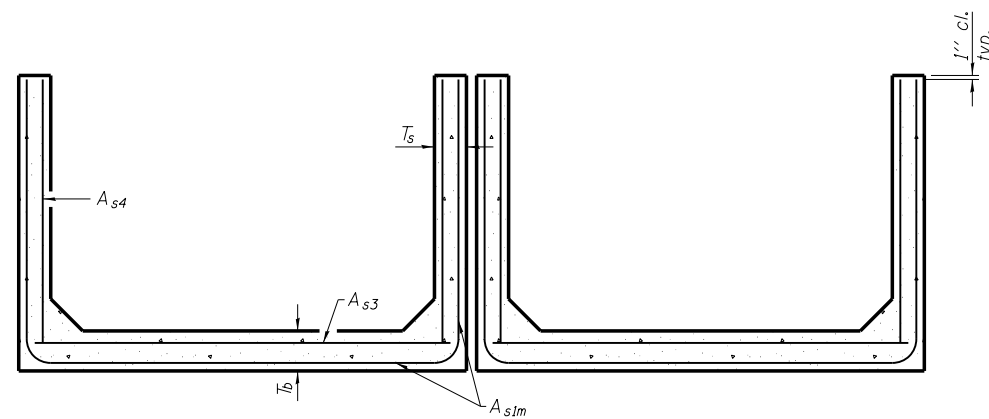
Alternate Section D-D is provided to allow the Contractor the option of casting the bottom slab of the end section first followed by construction of the sidewalls using conventional forming methods. Shop drawings that detail slab thickness and reinforcement layout shall be submitted to the Engineer for review and approval when using Alternate Section D-D.

The size and spacing of the $v_2(E)$ bars shall provide a minimum reinforcement area along each face of the walls (in.²/ft.) equal to $1.10 \cdot (A_{s1m})$. $v_2(E)$ bars may consist of #3 thru #6 size reinforcement bars and the longitudinal spacing shall not exceed the lesser of the wall thickness or 8 inches.

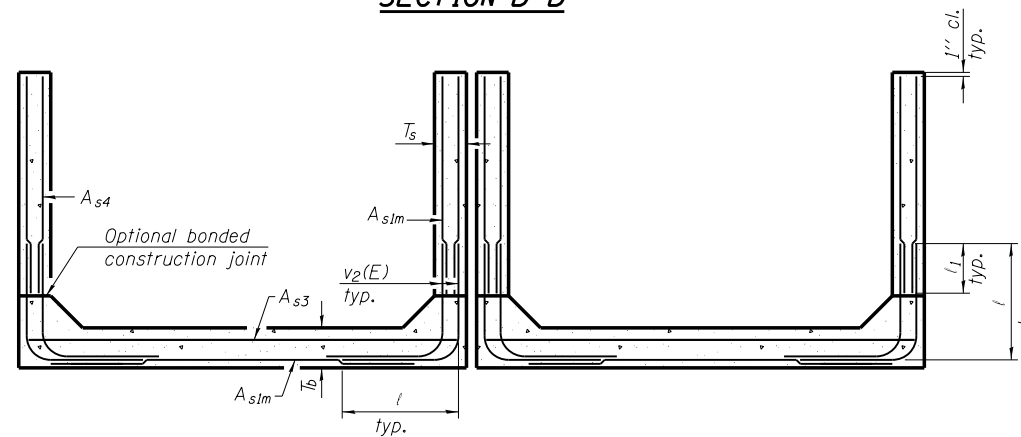
Bonded construction joints shall be prepared according to Article 503.09 of the Standard Specifications.

l₁ DIMENSION

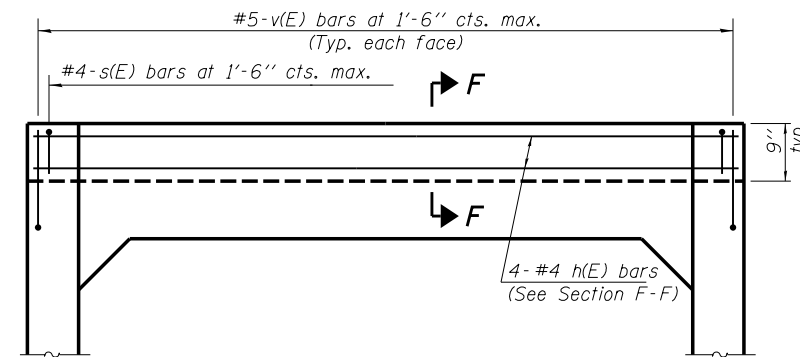
- #3 bar = 2'-0"
- #4 bar = 2'-8"
- #5 bar = 3'-4"
- #6 bar = 3'-11"



SECTION D-D

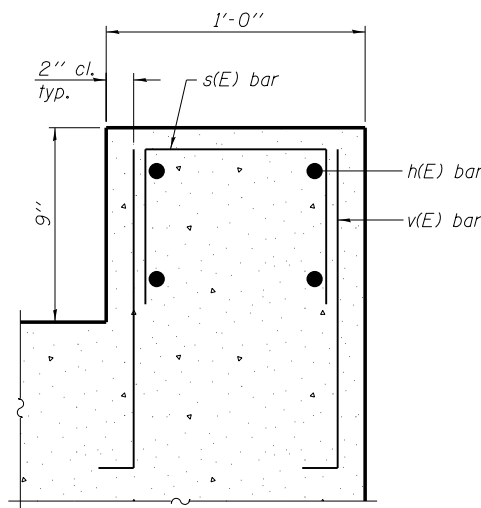


ALTERNATE SECTION D-D

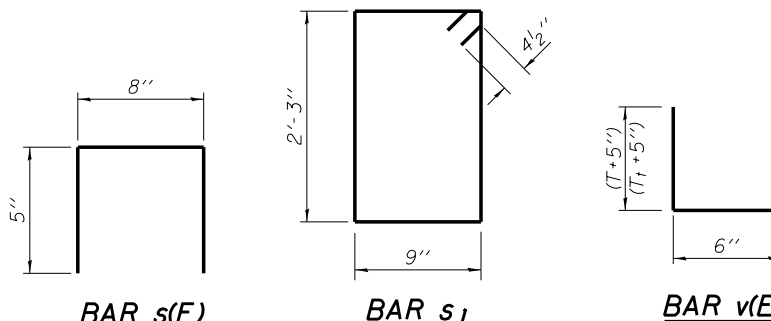


HEADWALL ELEVATION

(Showing details for headwalls cast monolithic with box sections.)
(Allow sidewall reinforcement to extend into end of headwall.)



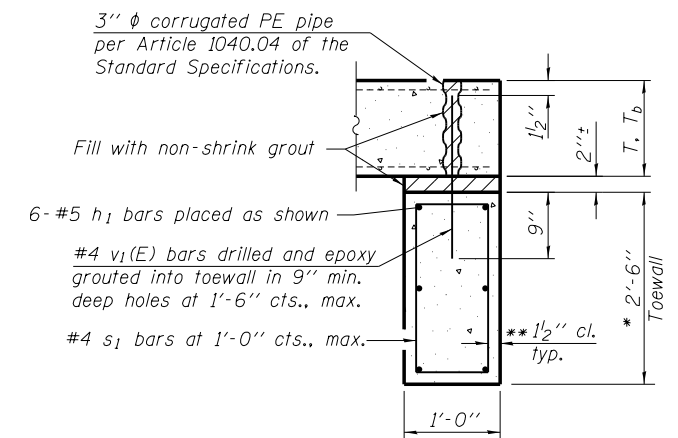
SECTION F-F



BAR s(E)

BAR s₁

BAR v(E)



SECTION E-E

TOEWALL CONSTRUCTION SEQUENCE

1. Perform excavation and construct toewall.
2. Backfill accordingly and place bedding for precast box culvert end sections.
3. Set precast box culvert end section.
4. Drill and epoxy grout reinforcement in toewall in accordance with Section 584 of the Standard Specifications.
5. Pressure grout voids using non-shrink grout conforming to Section 1024 of the Standard Specifications.

* The Contractor may furnish a precast or cast-in-place toewall. The Contractor shall be responsible for the strength and stability of the precast toewall during handling. Additional lifting points may be required depending upon the length of the toewall or the Contractor may need to modify the design of the toewall for the proposed handling method.

** If soil conditions permit, the sides of the toewall may be poured directly against the soil. The clear cover on the sides of the toewall shall be increased to 3" by increasing the thickness of the toewall.

12" x 12" block of CA5, CA7 or CA11 coarse aggregate placed over drain opening. Block of aggregate shall be completely wrapped in nonwoven geotextile fabric.

Provide a double layer of 12" x 12" nonwoven geotextile fabric centered over the drain hole. Fabric shall be sealed to the concrete with mastic.

3" φ PVC drain cast with the concrete (Adjust location to clear reinforcement).

1/2" Square foam blockout around PVC drain (to be removed with formwork)

SECTION A-A

(All costs associated with furnishing and constructing the above drain details will not be measured for payment but shall be included in the contract unit price for the end section.)

12-14-11

(Sheet 2 of 2)

LAYOUT	JKR	07.10.2013
DRAWN	MGM	07.17.2013
REVIEWED	JKR	10.17.2013

FILE NAME =	USER NAME = hussu00411	DESIGNED	JKR	REVISED	
Culvert-09H0038-002-Culvert-det		CHECKED	SMK	REVISED	
MODEL NAME =	PLOT SCALE =	DRAWN	MGM	REVISED	
End Section 2	PLOT DATE = 12\02\2013	CHECKED	JKR	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PRECAST CONCRETE BOX CULVERT NO. 1
END SECTION DETAILS
I-57 AT 6000N, BOURBONNAIS, IL.

F.A.I. RE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(46-1)HBK-1	KANKAKEE	819	521
CONTRACT NO.			66982	
ILLINOIS FED. AID PROJECT				

SHEET NO. 2 OF 2 SHEETS

GENERAL NOTES

Box Culvert End Sections shall be constructed according to the requirements of Section 540 of the Standard Specifications except as modified herein. End sections will be paid for at the contract unit price per each for Box Culvert End Sections.

Box section dimensions, materials, and reinforcement details for Box Culvert End Sections shall be according to the requirements for ASTM C 1577 as required for the design of the portion of the culvert within the limits of Precast Concrete Box Culverts except as modified herein.

Details for Double Cell Box Culvert shown. Details for Triple Cell Box Culvert similar.

The details contained herein are for constructing the end sections using cast-in-place (CIP) construction. The Contractor may propose to furnish the end sections using precast construction methods and the end sections may consist of multiple precast concrete segments. The Contractor shall be responsible for determining all details associated with the precast option including any strengthening or stiffening provisions necessary for handling the precast segments. Conceptual details followed by shop drawings and design calculations sealed by an Illinois Licensed Structural Engineer shall be submitted to the Engineer for review and approval. Elements of the precast option shall at a minimum result in the same wingwall geometry and not have a thickness less than that detailed herein. The option to construct the end sections using precast construction methods shall be at no additional charge.

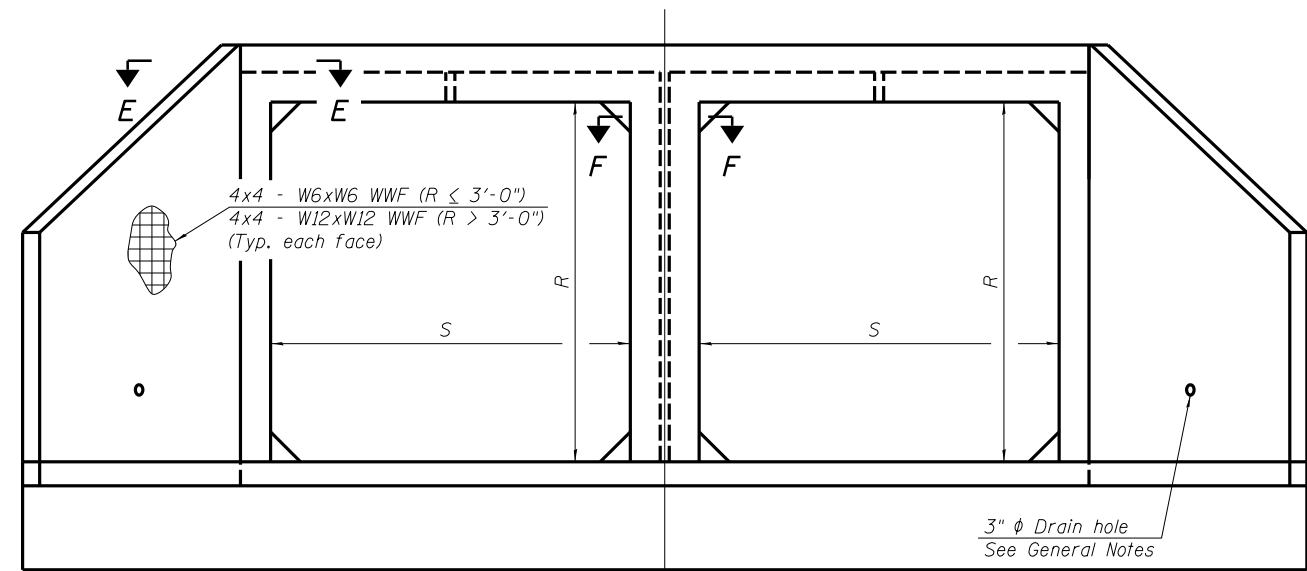
Shop drawings that detail slab thickness and reinforcement layout for the Box Culvert End Sections shall be provided to the Engineer for review and approval. Reinforcement bars not detailed herein shall be detailed with a clear distance at the end of the reinforcement not less than $\frac{1}{2}$ " nor more than 2".

The contractor may use reinforcement bars in lieu of welded wire fabric (WWF). Reinforcement bars shall be limited to the sizes of #3 through #5 bars, a maximum spacing of the lesser of 8" or the member thickness, and shall result in an area of reinforcement equal to or greater than that provided by the WWF. Minimum lap lengths detailed herein are applicable to WWF and reinforcement bars.

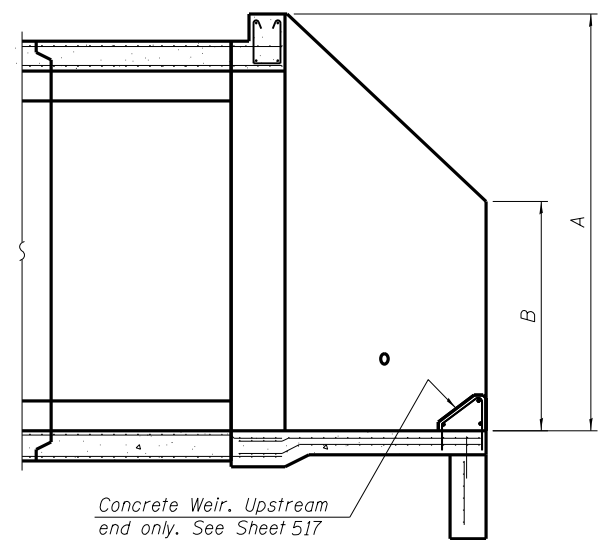
Reinforcement (circumferential and longitudinal) in the precast concrete box culvert segments immediately adjacent to the box culvert end sections that is being lapped with the end section reinforcement shall not be less than that required by ASTM C 1577 for the design fill height or the reinforcement detailed for the end section, whichever is greater.

Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. Reinforcement bars designated (E) shall be epoxy coated. Class SI concrete shall be used for construction of the end section. Bonded construction joints shall be prepared according to Article 503.09 of the Standard Specifications.

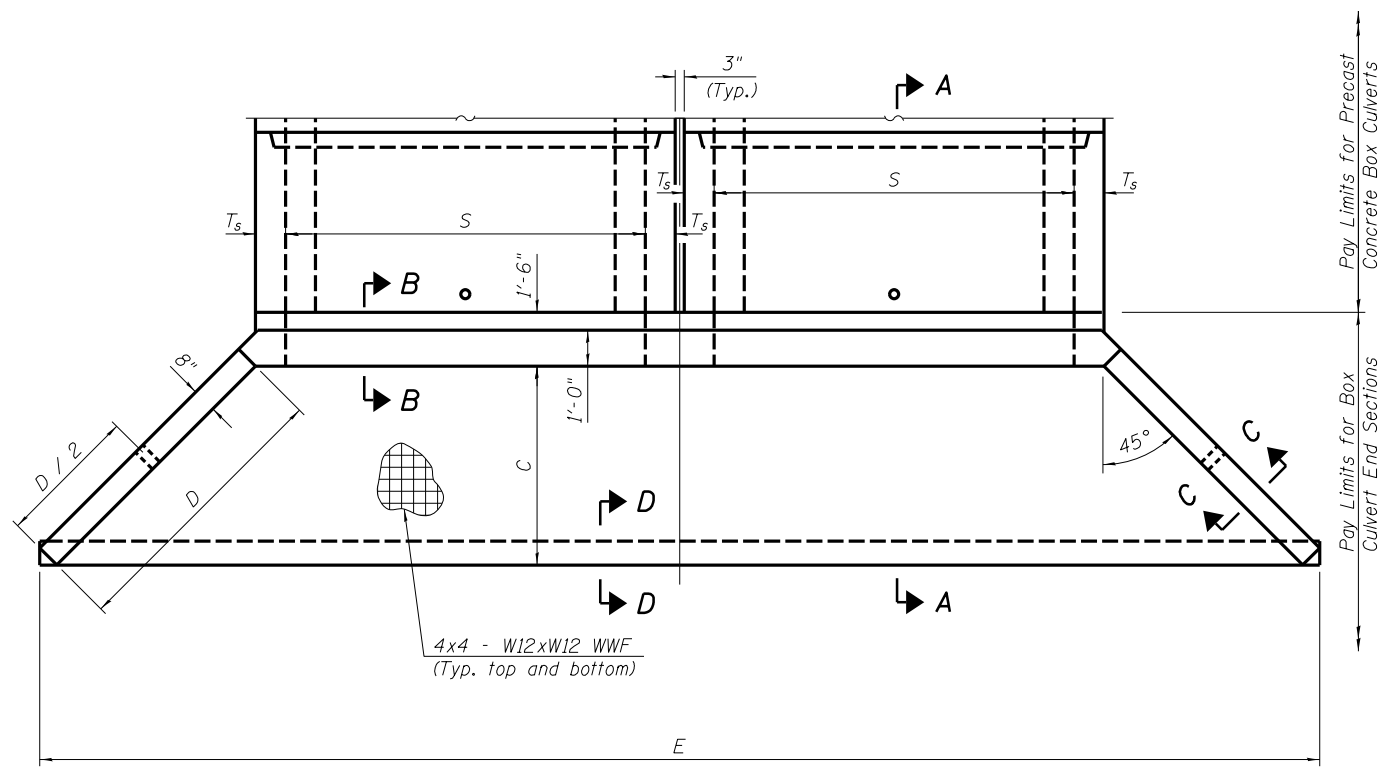
One drain hole shall be provided in each wingwall for end sections of box culverts having an opening with a clear rise greater than 3 ft. The drain hole shall be located within $\frac{1}{3}$ of the clear rise of the box culvert and shall conform to the requirements of Article 503.11 of the Standard Specifications.



END VIEW



SECTION A-A



PLAN

Note:
Concrete weir not shown for clarity. See sheet 517

APRON END SECTION DIMENSIONS

Span (S)	Rise (R)	T _t , T _b , & T _s	Double Cell					Triple Cell		
			A	B	C	D	E	Concrete Cu. Yd.	E	Concrete Cu. Yd.
7'-0"	4'-0"	8"	5'-5"	3'-3"	4'-11 ³ / ₈ "	7'-0"	27'-9 ¹ / ₈ "	9.5		
7'-0"	5'-0"	8"	6'-5"	3'-9"	5'-11 ³ / ₈ "	8'-5"	29'-9 ¹ / ₈ "	11.2		
7'-0"	6'-0"	8"	7'-5"	4'-3"	6'-11 ¹ / ₂ "	9'-10"	31'-9 ¹ / ₄ "	13.1		
8'-0"	2'-0"	8"	3'-5"	2'-3"	2'-11 ³ / ₈ "	4'-2"	25'-9"	7.1		
8'-0"	3'-0"	8"	4'-5"	2'-9"	3'-11 ³ / ₈ "	5'-7"	27'-9 ¹ / ₈ "	8.6		
8'-0"	4'-0"	8"	5'-5"	3'-3"	4'-11 ³ / ₈ "	7'-0"	29'-9 ¹ / ₈ "	10.2		
8'-0"	5'-0"	8"	6'-5"	3'-9"	5'-11 ³ / ₈ "	8'-5"	31'-9 ¹ / ₈ "	11.9		
8'-0"	6'-0"	8"	7'-5"	4'-3"	6'-11 ¹ / ₂ "	9'-10"	33'-9 ¹ / ₄ "	13.8		
9'-0"	5'-0"	9"	6'-6"	3'-9"	6'-0 ⁷ / ₈ "	8'-7"	34'-4"	13.2	45'-1"	17.6
9'-0"	6'-0"	9"	7'-6"	4'-3"	7'-0 ⁵ / ₈ "	9'-11"	36'-2 ⁵ / ₈ "	15.1	46'-11 ⁵ / ₈ "	19.8
10'-0"	2'-0"	10"	3'-7"	2'-4"	3'-1 ¹ / ₂ "	4'-5"	30'-9 ¹ / ₄ "	9.2	42'-8 ¹ / ₄ "	13.0
10'-0"	3'-0"	10"	4'-7"	2'-10"	4'-1 ¹ / ₂ "	5'-10"	32'-9 ¹ / ₄ "	10.8	44'-8 ¹ / ₄ "	15.0
10'-0"	5'-0"	10"	6'-7"	3'-10"	6'-1 ¹ / ₂ "	8'-8"	36'-9 ³ / ₈ "	14.5	48'-8 ³ / ₈ "	19.5
10'-0"	6'-0"	10"	7'-7"	4'-4"	7'-1 ¹ / ₂ "	10'-1"	38'-9 ³ / ₈ "	16.6	50'-8 ³ / ₈ "	22.0
11'-0"	4'-0"	11"	5'-8"	3'-4"	5'-2 ¹ / ₄ "	7'-4"	37'-2 ³ / ₄ "	13.9	50'-3 ³ / ₄ "	19.1
11'-0"	6'-0"	11"	7'-8"	4'-4"	7'-2 ¹ / ₄ "	10'-2"	41'-2 ⁷ / ₈ "	18.1	54'-3 ⁷ / ₈ "	24.2
12'-0"	2'-0"	12"	3'-9"	2'-5"	3'-3 ⁵ / ₈ "	4'-8"	35'-9 ¹ / ₂ "	11.6	50'-0 ¹ / ₂ "	16.5
12'-0"	3'-0"	12"	4'-9"	2'-11"	4'-3 ⁵ / ₈ "	6'-1"	37'-9 ¹ / ₂ "	13.4	52'-0 ¹ / ₂ "	18.8
12'-0"	4'-0"	12"	5'-9"	3'-5"	5'-3 ⁵ / ₈ "	7'-6"	39'-9 ⁵ / ₈ "	15.4	54'-0 ⁵ / ₈ "	21.2
12'-0"	6'-0"	12"	7'-9"	4'-5"	7'-3 ⁵ / ₈ "	10'-4"	43'-9 ⁵ / ₈ "	19.8	58'-0 ⁵ / ₈ "	26.6

12/03/2013 c:\pwworkspace\delaware\ms56035\Culvert2-0910038-001-Culvert2.dgn

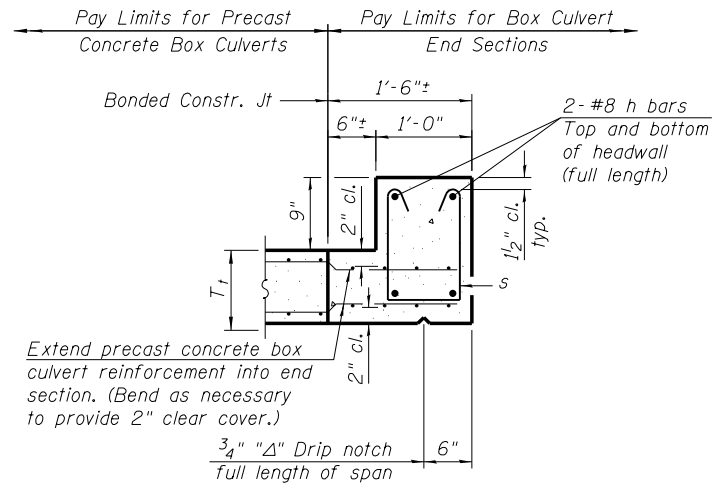
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DRAWN	MGM	07.17.2013
REVIEWED	JKR	10.17.2013

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		PLOT SCALE =		DRAWN -	MGM	REVISI	
		PLOT DATE =	12/03/2013	CHECKED -	JKR	REVISI	

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

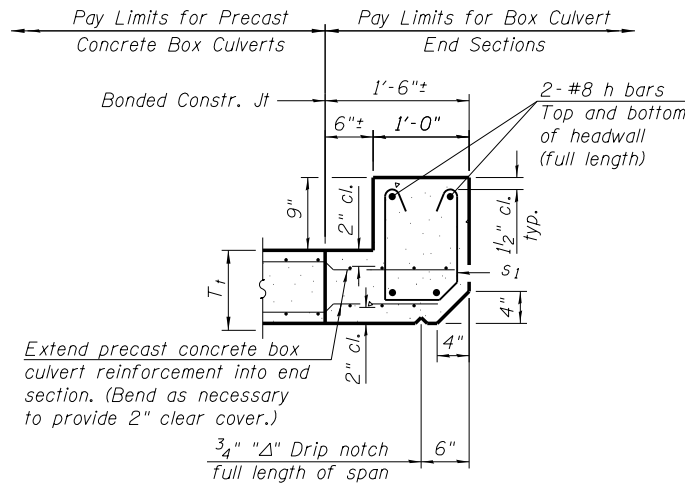
**PRECAST CONCRETE BOX CULVERT NO. 2
END SECTION DETAILS
I-57 AT 6000N, BOURBONNAIS, IL.**

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(46-1)HBK-1	KANKAKEE	819	522
SHEET NO. 1 OF 2 SHEETS			CONTRACT NO.	66982
ILLINOIS FED. AID PROJECT				



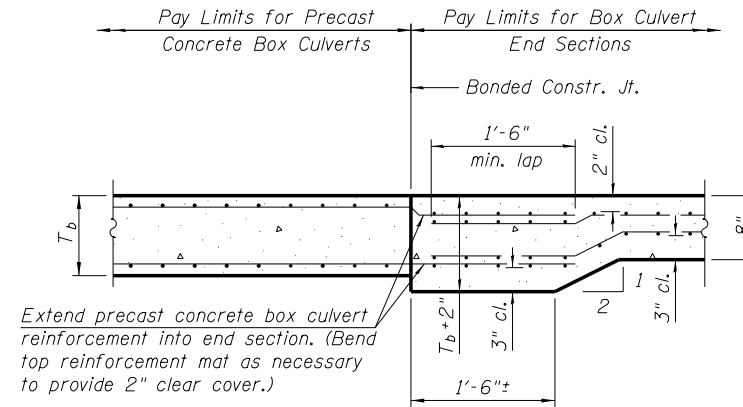
SECTION B-B

(Top slab at downstream end)



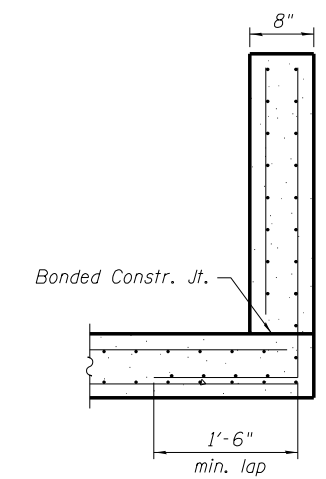
SECTION B-B

(Top slab at upstream end)

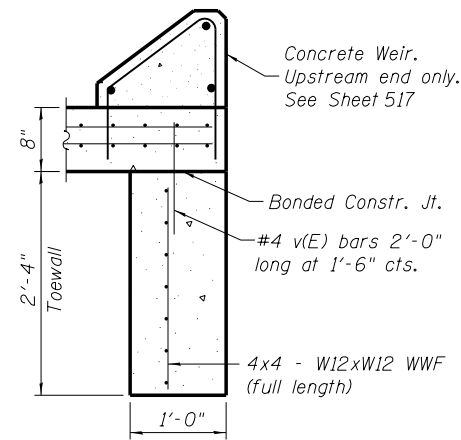


SECTION B-B

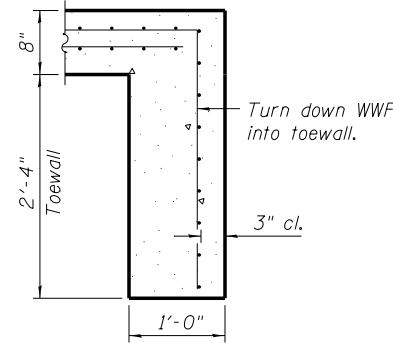
(Bottom slab)



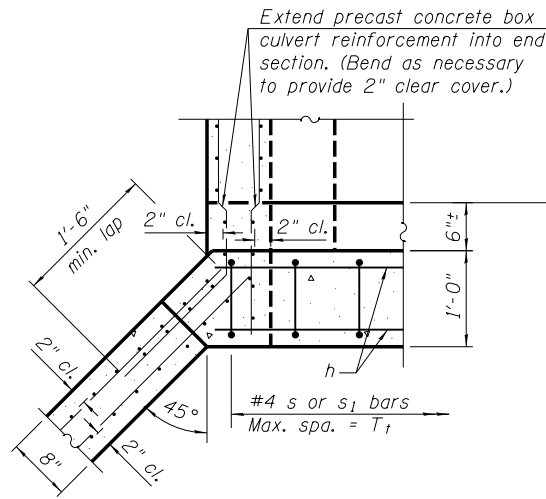
SECTION C-C



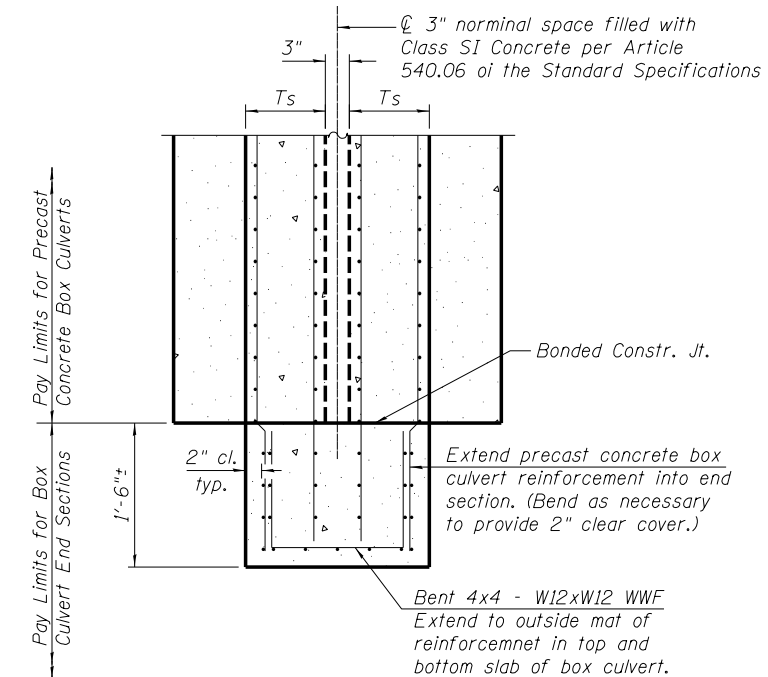
SECTION D-D



ALT. SECTION D-D



SECTION E-E



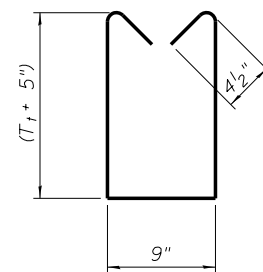
SECTION F-F

TOEWALL CONSTRUCTION SEQUENCE

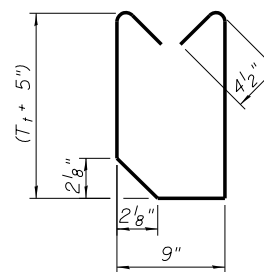
1. Perform excavation and construct toewall.
2. Backfill accordingly and prepare bedding for box culvert end sections.
3. Construct remainder of box culvert end section.

Note:

If soil conditions permit, the toewall may be poured monolithically with the bottom slab of the end section using Alt. Section D-D subject to approval from the Engineer.



BAR s



BAR s1

STATE OF ILLINOIS
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PRECAST CONCRETE BOX CULVERT NO. 2
END SECTION DETAILS
I-57 AT 6000N, BOURBONNAIS, IL.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(46-1)HBK-1	KANKAKEE	819	523
CONTRACT NO.			66982	

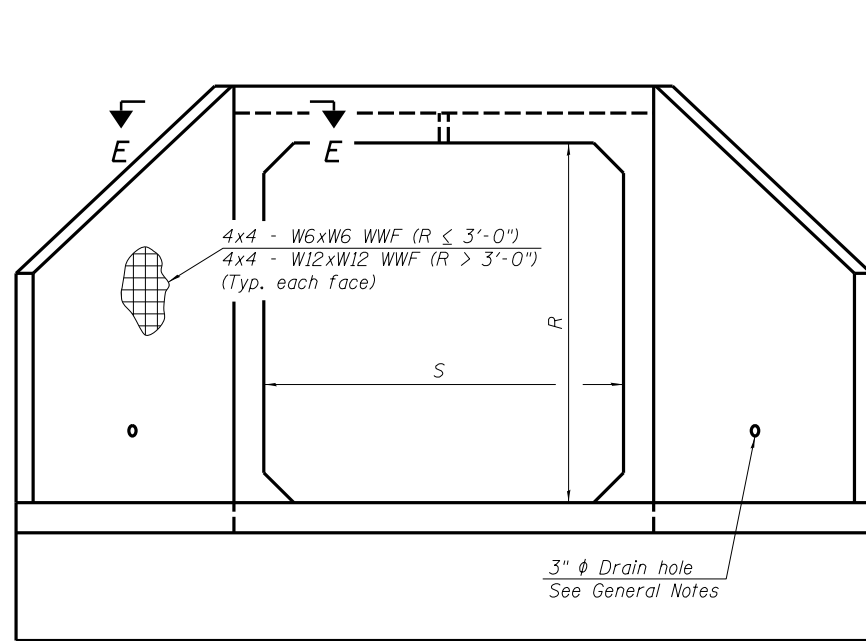
SHEET NO. 2 OF 2 SHEETS

ILLINOIS FED. AID PROJECT

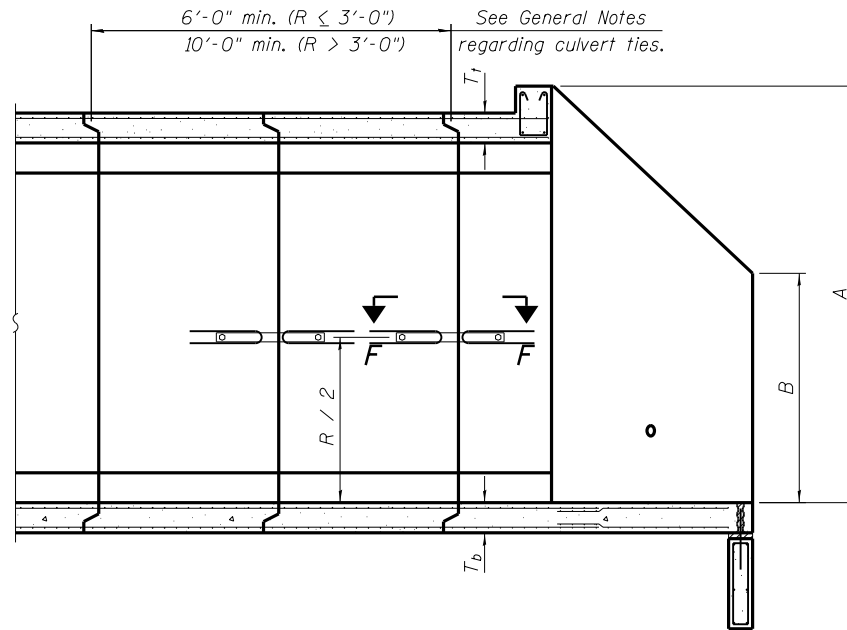
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LAYOUT	JKR	07.10.2013
DRAWN	MGM	07.11.2013
REVIEWED	JKR	10.11.2013

FILE NAME =	USER NAME = hussu00411	DESIGNED - JKR	REVISED -
Culvert2-0910038-002-Culvert2-det		CHECKED - SMK	REVISED -
MODEL NAME =	PLOT SCALE =	DRAWN - MGM	REVISED -
0000000-00000-002	PLOT DATE = 12\02\2013	CHECKED - JKR	REVISED -



END VIEW



SECTION A-A

GENERAL NOTES

Box Culvert End Sections shall be constructed according to the requirements of Section 540 of the Standard Specifications except as modified herein. End sections will be paid for at the contract unit price per each for Box Culvert End Sections.

The Contractor may furnish the end section as a single precast concrete piece or construct the end section in the field using cast-in-place (CIP) construction. For CIP construction, the bottom slab thickness shall be increased by 2" and the clear cover to the bottom mat of reinforcement shall be increased to 3".

Box section dimensions, materials, and reinforcement details for Box Culvert End Sections shall be according to the requirements for ASTM C 1577 as required for the design of the portion of the culvert within the limits of Precast Concrete Box Culverts except as modified herein.

The number of culvert ties shall be sufficient to engage the minimum length of culvert barrel shown within the pay limits for Precast Concrete Box Culverts and will be dependent upon the length of box culvert segments furnished by the Contractor. Culvert ties are not required for box culverts having a rise (R) less than or equal to 3 ft and a span (S) greater than or equal to 10 ft.

All costs associated with furnishing and installing or constructing the toewall and culvert ties will not be measured for payment but shall be included in the unit price for Box Culvert End Sections of the culvert number specified.

Shop drawings that detail slab thickness and reinforcement layout for the Box Culvert End Sections shall be provided to the Engineer for review and approval. Reinforcement bars not detailed herein shall be detailed with a clear distance at the end of the reinforcement not less than 1/2" nor more than 2". For the precast option, it shall be the Contractor's responsibility for determining a method of handling and a construction procedure shall be included on the shop drawings. The Contractor shall determine and detail in the shop drawings any necessary strengthening or stiffening provisions necessary to handle the precast segment. Any required modifications shall be at no extra charge.

The Contractor may use reinforcement bars in lieu of welded wire fabric (WWF). Reinforcement bars shall be limited to the sizes of #3 through #5 bars, a maximum spacing of the lesser of 8" or the member thickness, and shall result in area of reinforcement equal to or greater than that provided by the WWF. Minimum lap lengths detailed herein are applicable to WWF and reinforcement bars.

Reinforcement (circumferential and longitudinal) in the culvert barrel portion of the end section being lapped with reinforcement from the wingwalls or bottom slab of the end section shall not be less than that required by ASTM C 1577 for the design fill height or the reinforcement detailed for the end section, whichever is greater.

Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60.

Reinforcement bars designated (E) shall be epoxy coated.

Bonded construction joints shall be prepared according to Article 503.09 of the Standard Specifications.

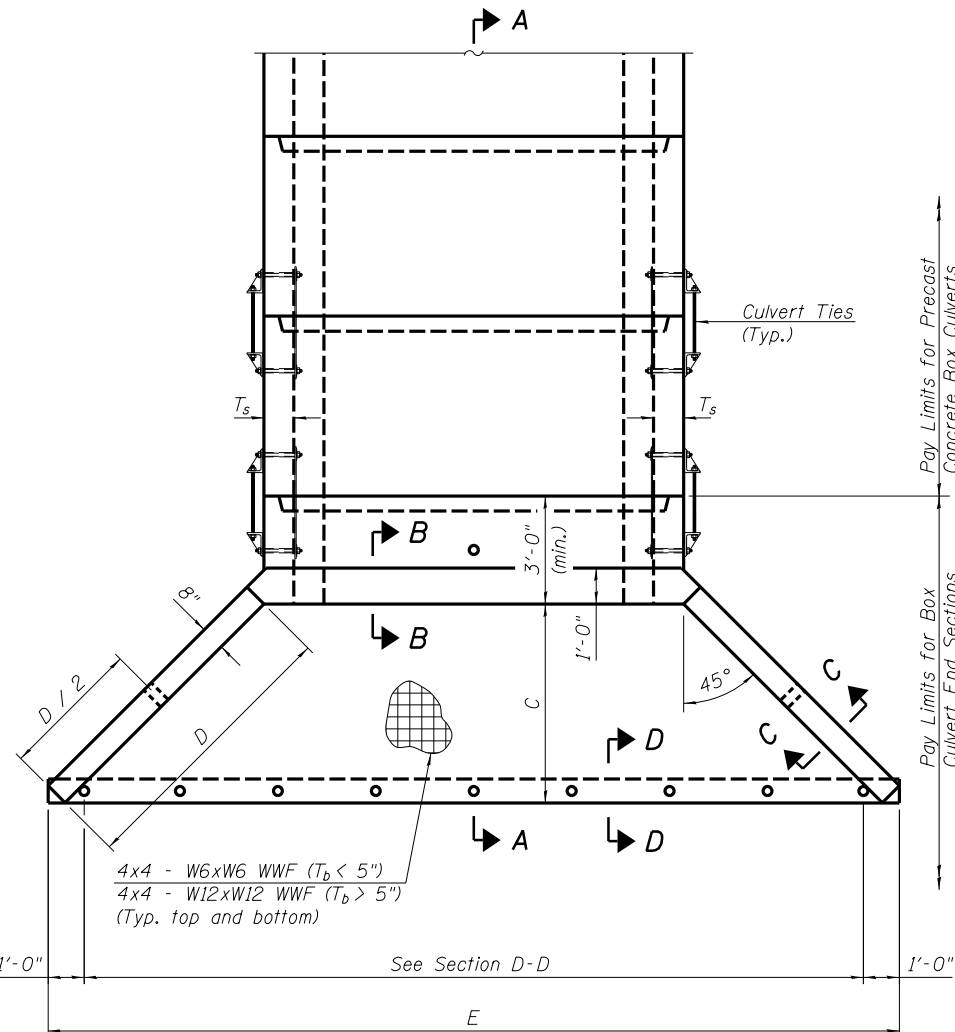
One drain hole shall be provided in each wingwall for end sections of box culverts having an opening with a clear rise greater than 3 ft. The drain hole shall be located within the lower 1/3 of the clear rise of the box culvert and shall conform to the requirements of Article 503.11 of the Standard Specifications.

APRON END SECTION DIMENSIONS

Span (S)	Rise (R)	T _t	T _b	T _s	A	B	C	D	E	Concrete Cu. Yd.	Culvert Ties Required
3'-0"	2'-0"	7"	6"	4"	3'-4"	2'-2"	2'-10 ⁵ / ₈ "	4'-1"	10'-4 ⁵ / ₈ "	2.8	Yes
3'-0"	2'-0"	4"	4"	4"	3'-1"	2'-1"	2'-7 ⁷ / ₈ "	3'-9"	9'-11"	2.3	Yes
3'-0"	3'-0"	7"	6"	4"	4'-4"	2'-8"	3'-10 ⁵ / ₈ "	5'-6"	12'-4 ⁵ / ₈ "	3.7	Yes
3'-0"	3'-0"	4"	4"	4"	4'-1"	2'-7"	3'-7 ⁷ / ₈ "	5'-2"	11'-11"	3.1	Yes
4'-0"	2'-0"	7.5"	6"	5"	3'-4 ¹ / ₂ "	2'-2 ¹ / ₂ "	2'-11 ³ / ₈ "	4'-2"	11'-8"	3.3	Yes
4'-0"	2'-0"	5"	5"	5"	3'-2"	2'-1"	2'-8 ¹ / ₂ "	3'-10"	11'-2 ³ / ₈ "	2.8	Yes
4'-0"	3'-0"	7.5"	6"	5"	4'-4 ¹ / ₂ "	2'-8 ¹ / ₂ "	3'-11 ³ / ₈ "	5'-7"	13'-8 ¹ / ₈ "	4.2	Yes
4'-0"	3'-0"	5"	5"	5"	4'-2"	2'-7"	3'-8 ¹ / ₂ "	5'-3"	13'-2 ³ / ₈ "	3.7	Yes
4'-0"	4'-0"	7.5"	6"	5"	5'-4 ¹ / ₂ "	3'-2 ¹ / ₂ "	4'-11 ³ / ₈ "	7'-0"	15'-8 ¹ / ₈ "	5.3	Yes
4'-0"	4'-0"	5"	5"	5"	5'-2"	3'-1"	4'-8 ⁵ / ₈ "	6'-8"	15'-2 ¹ / ₂ "	4.7	Yes
5'-0"	2'-0"	8"	7"	6"	3'-5"	2'-3"	2'-11 ³ / ₈ "	4'-2"	12'-10"	3.9	Yes
5'-0"	2'-0"	6"	6"	6"	3'-3"	2'-2"	2'-10"	4'-0"	12'-7 ¹ / ₄ "	3.5	Yes
5'-0"	3'-0"	8"	7"	6"	4'-5"	2'-9"	3'-11 ³ / ₈ "	5'-7"	14'-10 ¹ / ₈ "	4.9	Yes
5'-0"	3'-0"	6"	6"	6"	4'-3"	2'-8"	3'-10"	5'-5"	14'-7 ¹ / ₄ "	4.5	Yes
5'-0"	4'-0"	8"	7"	6"	5'-5"	3'-3"	4'-11 ³ / ₈ "	7'-0"	16'-10 ¹ / ₈ "	6.1	Yes
5'-0"	4'-0"	6"	6"	6"	5'-3"	3'-2"	4'-9 ¹ / ₄ "	6'-9"	16'-5 ⁷ / ₈ "	5.5	Yes
5'-0"	5'-0"	8"	7"	6"	6'-5"	3'-9"	5'-11 ³ / ₈ "	8'-5"	18'-10 ¹ / ₈ "	7.4	Yes
5'-0"	5'-0"	6"	6"	6"	6'-3"	3'-8"	5'-9 ¹ / ₄ "	8'-2"	18'-5 ⁷ / ₈ "	6.8	Yes
6'-0"	2'-0"	8"	7"	7"	3'-5"	2'-3"	2'-11 ³ / ₈ "	4'-2"	14'-0"	4.3	Yes
6'-0"	2'-0"	7"	7"	7"	3'-4"	2'-2"	2'-10 ⁵ / ₈ "	4'-1"	13'-10 ⁵ / ₈ "	4.2	Yes
6'-0"	3'-0"	8"	7"	7"	4'-5"	2'-9"	3'-11 ³ / ₈ "	5'-7"	16'-0 ¹ / ₈ "	5.4	Yes
6'-0"	3'-0"	7"	7"	7"	4'-4"	2'-8"	3'-10 ⁵ / ₈ "	5'-6"	15'-10 ⁵ / ₈ "	5.2	Yes
6'-0"	4'-0"	8"	7"	7"	5'-5"	3'-3"	4'-11 ³ / ₈ "	7'-0"	18'-0 ¹ / ₈ "	6.5	Yes
6'-0"	4'-0"	7"	7"	7"	5'-4"	3'-2"	4'-10 ³ / ₄ "	6'-11"	17'-10 ³ / ₄ "	6.5	Yes
6'-0"	5'-0"	8"	7"	7"	6'-5"	3'-9"	5'-11 ³ / ₈ "	8'-5"	20'-0 ¹ / ₈ "	8.0	Yes
6'-0"	5'-0"	7"	7"	7"	6'-4"	3'-8"	5'-10 ³ / ₄ "	8'-4"	19'-10 ³ / ₄ "	7.8	Yes
6'-0"	6'-0"	8"	7"	7"	7'-5"	4'-3"	6'-11 ¹ / ₂ "	9'-10"	22'-0 ¹ / ₄ "	9.5	Yes
6'-0"	6'-0"	7"	7"	7"	7'-4"	4'-2"	6'-10 ³ / ₄ "	9'-9"	21'-10 ³ / ₄ "	9.3	Yes
7'-0"	4'-0"	8"	8"	8"	5'-5"	3'-3"	4'-11 ³ / ₈ "	7'-0"	19'-2 ¹ / ₈ "	7.4	Yes
7'-0"	5'-0"	8"	8"	8"	6'-5"	3'-9"	5'-11 ³ / ₈ "	8'-5"	21'-2 ¹ / ₈ "	8.9	Yes
7'-0"	6'-0"	8"	8"	8"	7'-5"	4'-3"	6'-11 ¹ / ₂ "	9'-10"	23'-2 ¹ / ₄ "	10.6	Yes
8'-0"	2'-0"	8"	8"	8"	3'-5"	2'-3"	2'-11 ³ / ₈ "	4'-2"	16'-2"	5.3	Yes
8'-0"	3'-0"	8"	8"	8"	4'-5"	2'-9"	3'-11 ³ / ₈ "	5'-7"	18'-2 ¹ / ₈ "	6.5	Yes
8'-0"	4'-0"	8"	8"	8"	5'-5"	3'-3"	4'-11 ³ / ₈ "	7'-0"	20'-2 ¹ / ₈ "	7.8	Yes
8'-0"	5'-0"	8"	8"	8"	6'-5"	3'-9"	5'-11 ³ / ₈ "	8'-5"	22'-2 ¹ / ₈ "	9.3	Yes
8'-0"	6'-0"	8"	8"	8"	7'-5"	4'-3"	6'-11 ¹ / ₂ "	9'-10"	24'-2 ¹ / ₄ "	11.0	Yes
9'-0"	5'-0"	9"	9"	9"	6'-6"	3'-9"	6'-0 ⁷ / ₈ "	8'-7"	23'-7"	10.6	Yes
9'-0"	6'-0"	9"	9"	9"	7'-6"	4'-3"	7'-0 ¹ / ₈ "	9'-11"	25'-5 ⁵ / ₈ "	12.4	Yes
10'-0"	2'-0"	10"	10"	10"	3'-7"	2'-4"	3'-1 ¹ / ₂ "	4'-5"	18'-10 ¹ / ₄ "	7.1	No
10'-0"	3'-0"	10"	10"	10"	4'-7"	2'-10"	4'-1 ¹ / ₂ "	5'-10"	20'-10 ¹ / ₄ "	8.6	No
10'-0"	5'-0"	10"	10"	10"	6'-7"	3'-10"	6'-1 ¹ / ₂ "	8'-8"	24'-10 ³ / ₈ "	12.0	Yes
10'-0"	6'-0"	10"	10"	10"	7'-7"	4'-4"	7'-1 ¹ / ₂ "	10'-1"	26'-10 ³ / ₈ "	13.9	Yes
11'-0"	4'-0"	11"	11"	11"	5'-8"	3'-4"	5'-2 ¹ / ₄ "	7'-4"	24'-1 ³ / ₄ "	11.5	Yes
11'-0"	6'-0"	11"	11"	11"	7'-8"	4'-4"	7'-2 ¹ / ₄ "	10'-2"	28'-1 ⁷ / ₈ "	15.5	Yes
12'-0"	2'-0"	12"	12"	12"	3'-9"	2'-5"	3'-3 ⁵ / ₈ "	4'-8"	21'-6 ¹ / ₂ "	9.3	No
12'-0"	3'-0"	12"	12"	12"	4'-9"	2'-11"	4'-3 ⁵ / ₈ "	6'-1"	23'-6 ¹ / ₂ "	11.1	No
12'-0"	4'-0"	12"	12"	12"	5'-9"	3'-5"	5'-3 ⁵ / ₈ "	7'-6"	25'-6 ⁵ / ₈ "	13.0	Yes
12'-0"	6'-0"	12"	12"	12"	7'-9"	4'-5"	7'-3 ⁵ / ₈ "	10'-4"	29'-6 ⁵ / ₈ "	17.4	Yes

Note:

Two sets of apron end section dimensions are shown above for some box culvert sizes due to the top and bottom slabs having different thicknesses per ASTM C 1577 for design fill heights less than 2 ft.



PLAN

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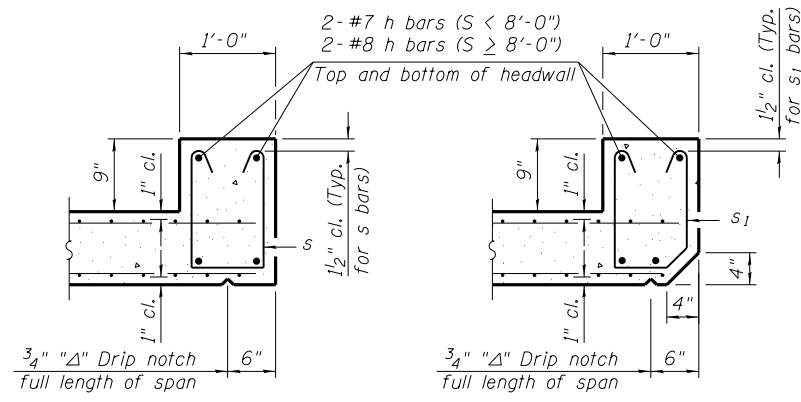
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DRAWN	MGM	07.11.2013
REVIEWED	JKR	10.11.2013

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

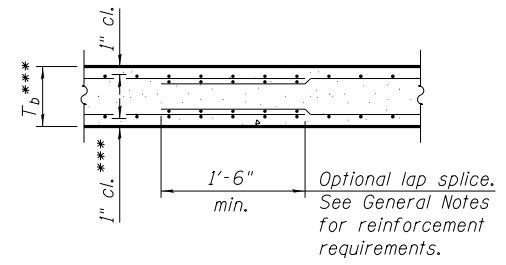
PRECAST CONCRETE BOX CULVERT NO. 3
END SECTION DETAILS
I-57 AT 6000N, BOURBONNAIS, IL.
SHEET NO. 1 OF 2 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(46-1)HBK-1	KANKAKEE	819	524
CONTRACT NO.			66982	
ILLINOIS FED. AID PROJECT				



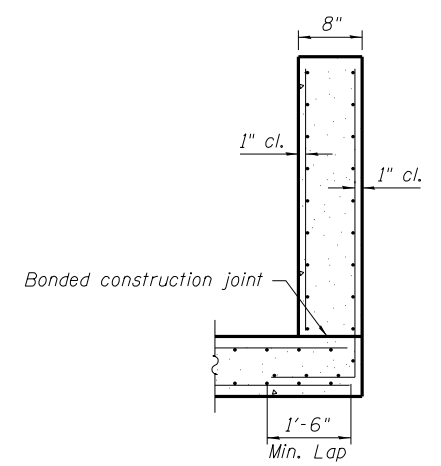
SECTION B-B
(Top slab at downstream end)

SECTION B-B
(Top slab at upstream end)

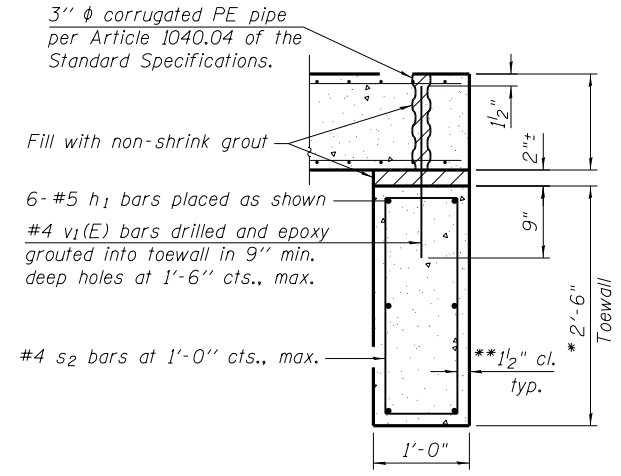


SECTION B-B
(Bottom Slab)

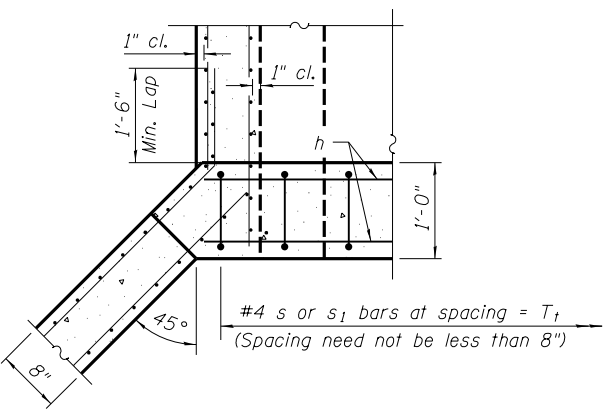
*** This dimension shall be increased by 2" for CIP construction.



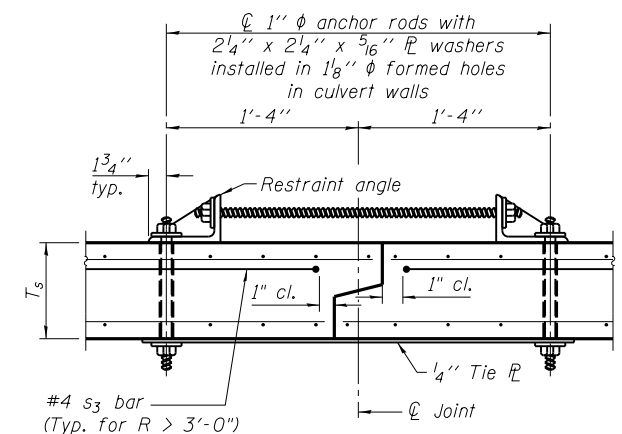
SECTION C-C



SECTION D-D



SECTION E-E



SECTION F-F
(Showing culvert tie details)

TOEWALL CONSTRUCTION SEQUENCE

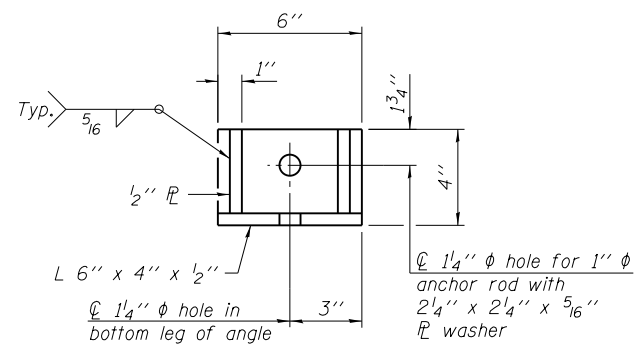
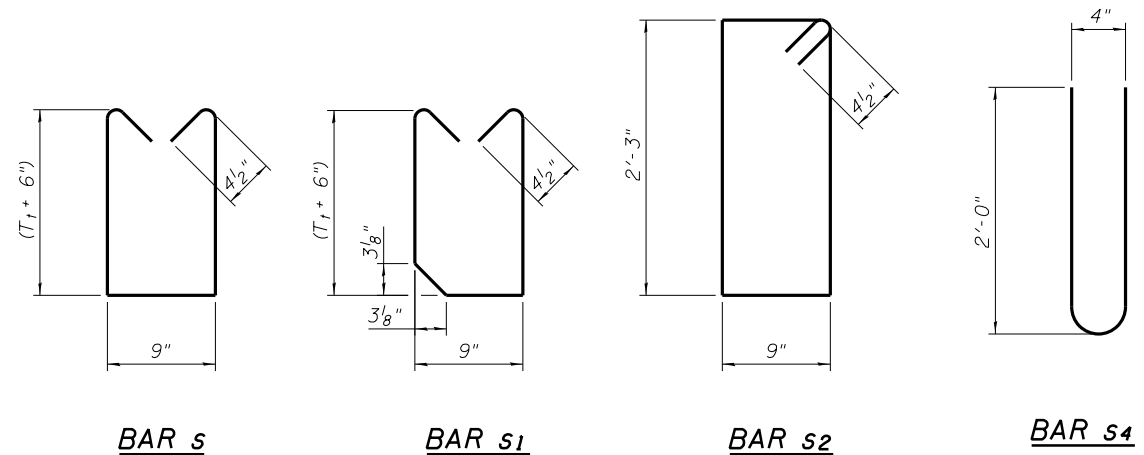
1. Perform excavation and construct toewall.
2. Backfill accordingly and place bedding for precast box culvert end sections.
3. Set precast box culvert end section.
4. Drill and epoxy grout reinforcement in toewall in accordance with Section 584 of the Standard Specifications.
5. Pressure grout voids using non-shrink grout conforming to Section 1024 of the Standard Specifications.

* The Contractor may furnish a precast or cast-in-place toewall. The Contractor shall be responsible for the strength and stability of the precast toewall during handling. Additional lifting points may be required depending upon the length of the toewall or the Contractor may need to modify the design of the toewall for the proposed handling method.

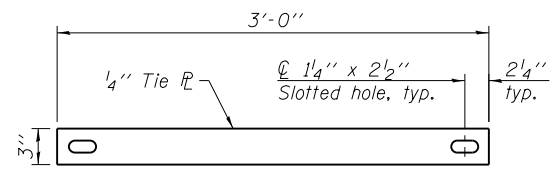
** If soil conditions permit, the sides of the toewall may be poured directly against the soil. The clear cover on the sides of the toewall shall be increased to 3" by increasing the thickness of the toewall.

Notes:

1" φ anchor rods for the culvert ties shall conform to the requirements of ASTM F1554, Grade 105. Structural steel for the tie plate and restraint angle shall conform to the requirements of Article 1006.04 of the Standard Specifications. All components of the culvert tie detail shall be galvanized according to the requirements of AASHTO M III or M 232 as applicable. 2 1/4"x2 1/4"x5/16" plate washers shall be provided under each nut required for the anchor rods. Anchor rods installed in the sidewalls of the culvert shall be tightened per Article 505.04(f)2(d) of the Standard Specifications. Holes in the walls for the culvert tie assembly may be drilled using core bits in lieu of using formed holes. Alternate culvert ties similar in strength and stiffness to the plan details may be provided by the Contractor. Alternate culvert ties shall be subject to the approval of the Engineer.



RESTRAINT ANGLE DETAIL



TIE PLATE DETAIL

12/03/2013
c:\pwwork\work\do_no_delete\dms56035\Culvert13-0910038-002-Culvert13-det.dgn

LAYOUT	JKR	07.10.2013
DRAWN	MGM	07.11.2013
REVIEWED	JKR	10.11.2013

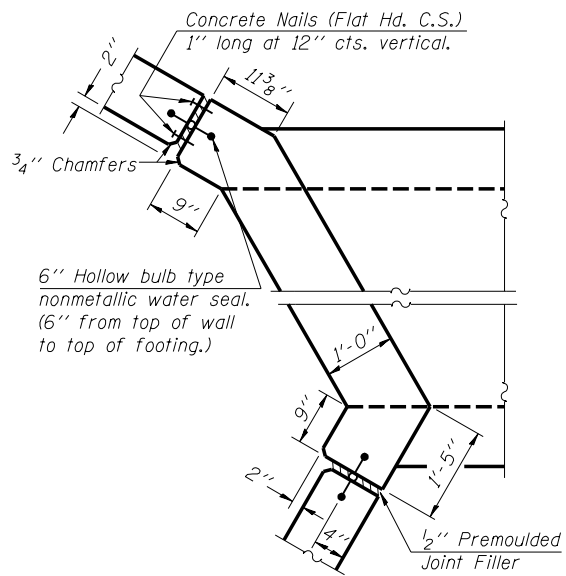
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				CHECKED -	JKR	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

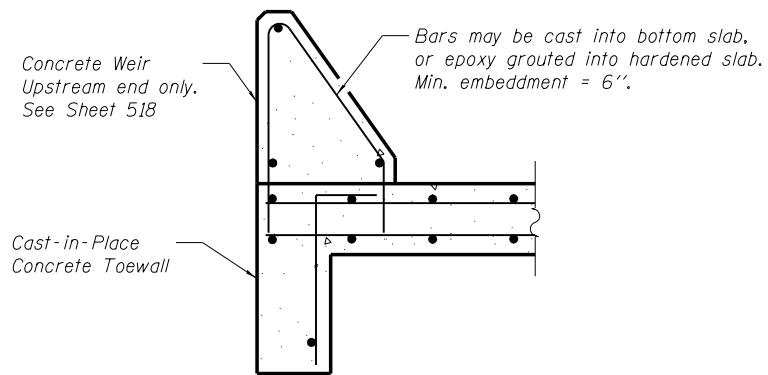
PRECAST CONCRETE BOX CULVERT NO. 3
END SECTION DETAILS
I-57 AT 6000N, BOURBONNAIS, IL.
SHEET NO. 2 OF 2 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(46-1)HBK-1	KANKAKEE	819	525
CONTRACT NO.			66982	

ILLINOIS FED. AID PROJECT



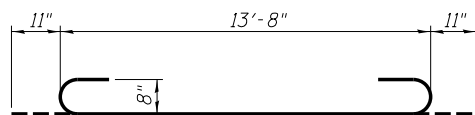
CORNER DETAIL



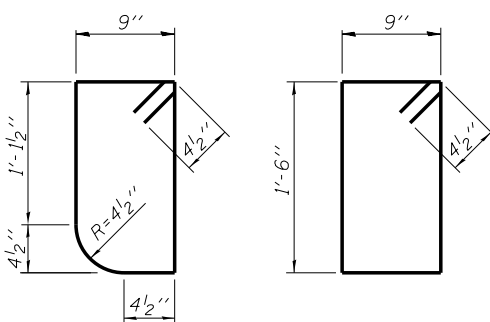
SECTION THRU TOEWALL

(Up Stream End Only)

Reinforcing bars and concrete for weir are not included in the Bill of Materials. The concrete weir is considered included with Box Culvert End Sections, Culvert No. 4.

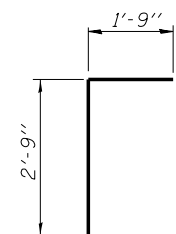


BAR a1

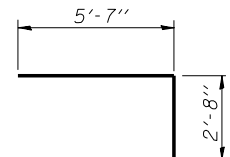


BAR s

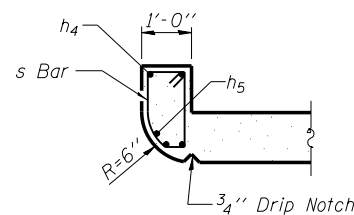
BAR s1



BAR d

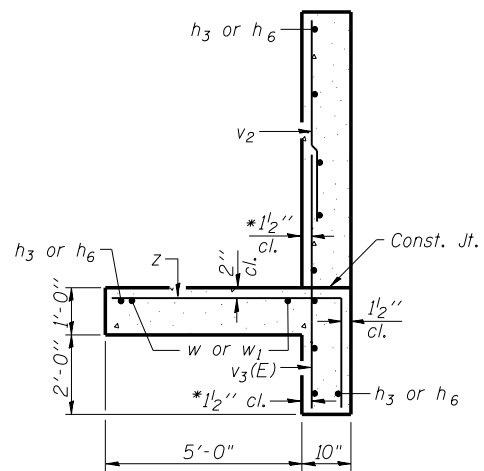


BAR z



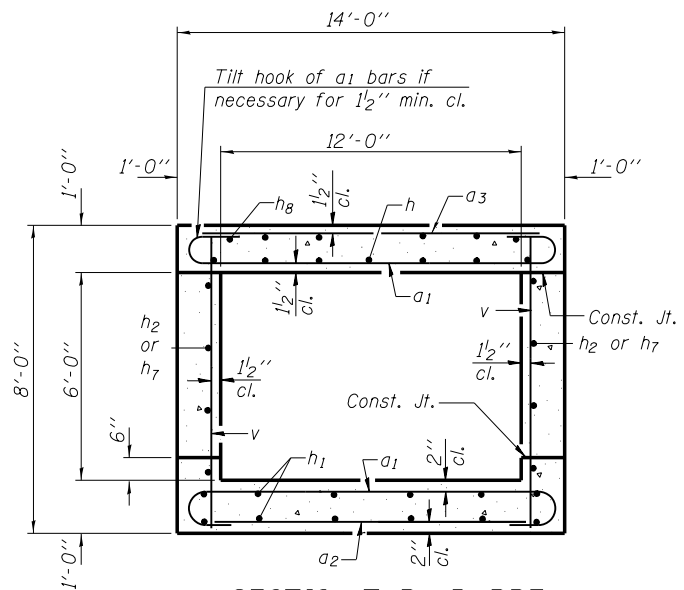
SECTION THRU HEADWALL

(Up Stream End Only)



SECTION A-A

* v bars shall not be placed more than 1/2 inch cl. from back face of wingwall.



SECTION THRU BARREL

BILL OF MATERIAL FOR TWO END SECTIONS

Bar	No.	Size	Length	Shape
a1	86	#8	15'-6"	U
a2	16	#4	13'-8"	—
a3	25	#5	13'-8"	—
d	26	#4	4'-6"	L
h	13	#7	29'-4"	—
h1	26	#5	29'-4"	—
h2	12	#7	20'-6"	—
h3	22	#4	17'-5"	—
h4	6	#6	17'-8"	—
h5	12	#10	17'-8"	—
h6	22	#4	7'-2"	—
h7	12	#7	8'-11"	—
h8	17	#4	29'-4"	—
s	23	#4	5'-1'	U
s1	23	#4	5'-3"	U
v	64	#4	7'-8"	—
v1	8	#4	10'-6"	—
v2	32	#4	11'-8"	—
v3 (E)	64	#4	5'-3"	—
w	14	#5	21'-6"	—
w1	14	#5	10'-6"	—
z	76	#6	8'-3"	L
* Concrete Box Culverts			Cu. Yd.	80
* Reinforcement Bars, Epoxy Coated			Pound	220
* Reinforcement Bars			Pound	10,400

* These items will not be paid for separately but shall be considered included with Box Culvert End Sections, Culvert No. 4

12/02/2013 c:\pwwork\work\do_no_delete\dms56035\Culvert4-0910038-002-Culvert4-def.dgn

LAYOUT	SMK	07.10.2013
DRAWN	MGM	07.11.2013
REVIEWED	SMK	10.11.2013

FILE NAME =	USER NAME = hussu00411	DESIGNED - SMK	REVISED -
Culvert4-0910038-002-Culvert4-det		CHECKED - JKR	REVISED -
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0000000-00000-002	PLOT DATE = 12\02\2013	CHECKED - SMK	REVISED -

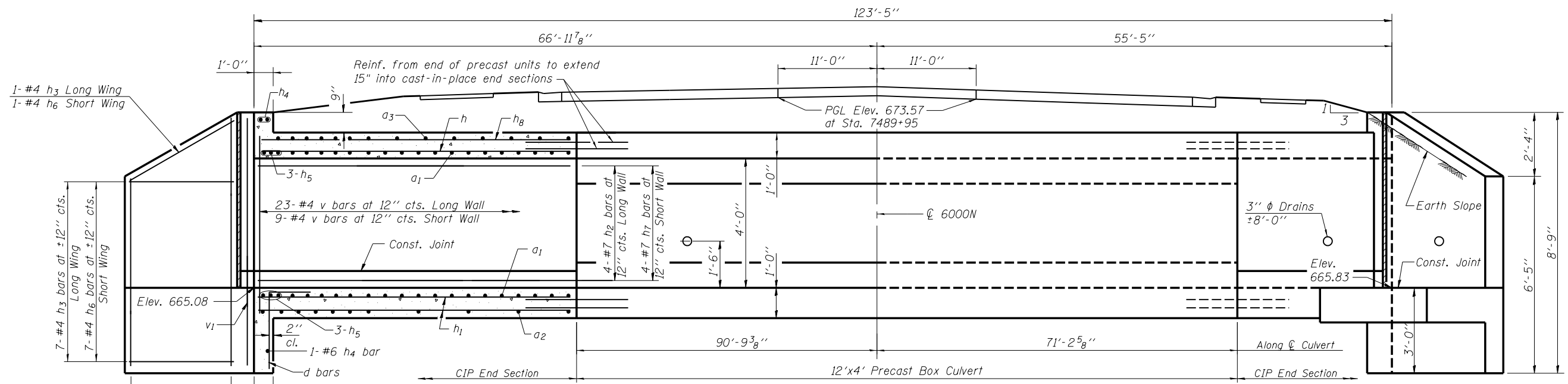
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PRECAST CONCRETE BOX CULVERT NO. 4
END SECTION DETAILS
I-57 AT 6000N, BOURBONNAIS, IL.**

SHEET NO. 2 OF 2 SHEETS

F.A.I. RE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(46-1)HBK-1	KANKAKEE	819	527
CONTRACT NO.			66982	

ILLINOIS FED. AID PROJECT



HALF LONG. SECT.

HALF ELEVATION

Dimensions at Rt. L's to \bar{C} Roadway unless noted.

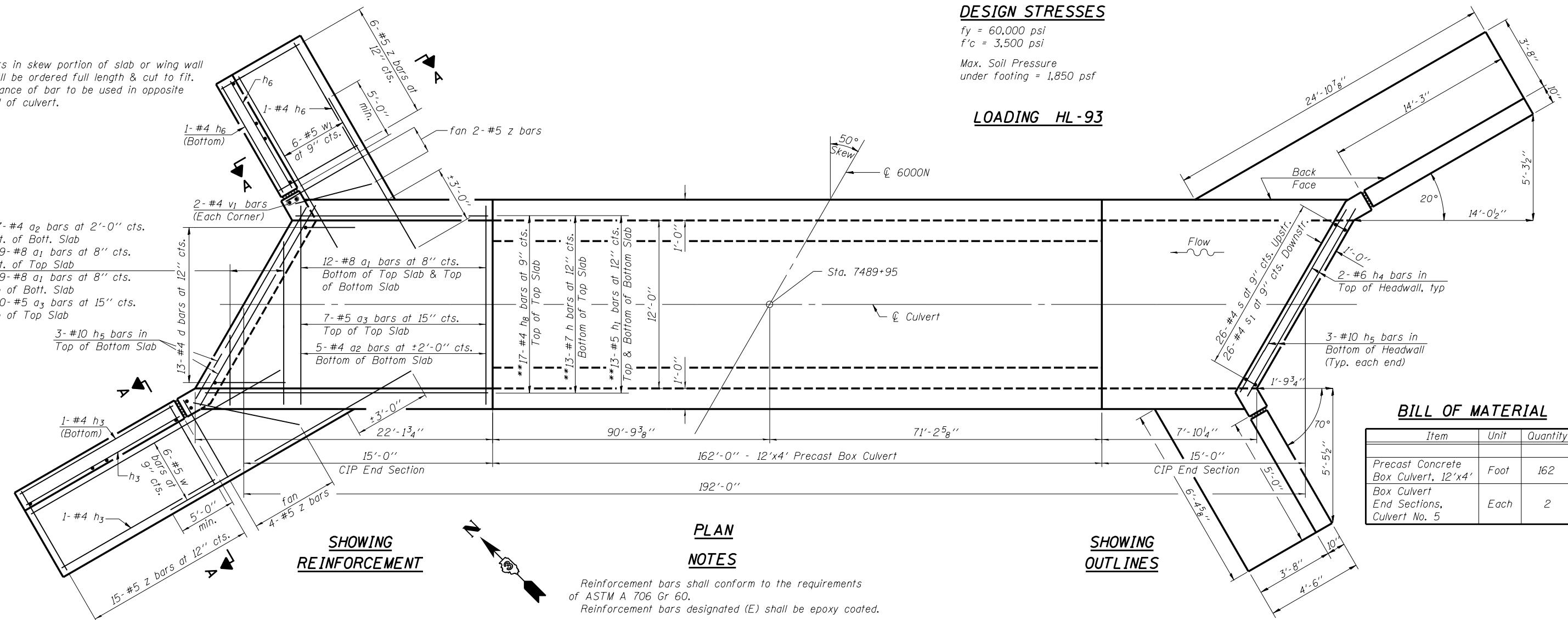
DESIGN STRESSES

$f_y = 60,000$ psi
 $f'_c = 3,500$ psi
 Max. Soil Pressure under footing = 1,850 psf

LOADING HL-93

** Bars in skew portion of slab or wing shall be ordered full length & cut to fit. Balance of bar to be used in opposite end of culvert.

**7-#4 a_2 bars at 2'-0" cts. Bott. of Bott. Slab
 **19-#8 a_1 bars at 8" cts. Bott. of Top Slab
 **19-#8 a_1 bars at 8" cts. Top of Bott. Slab
 **10-#5 a_3 bars at 15" cts. Top of Top Slab



SHOWING REINFORCEMENT

PLAN NOTES

SHOWING OUTLINES

Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60.
 Reinforcement bars designated (E) shall be epoxy coated.

BILL OF MATERIAL

Item	Unit	Quantity
Precast Concrete Box Culvert, 12'x4'	Foot	162
Box Culvert End Sections, Culvert No. 5	Each	2

12/02/2013 c:\pwise\work\do_no_delete\dms56035\Culvert15-0910038-001-Culvert15.dgn

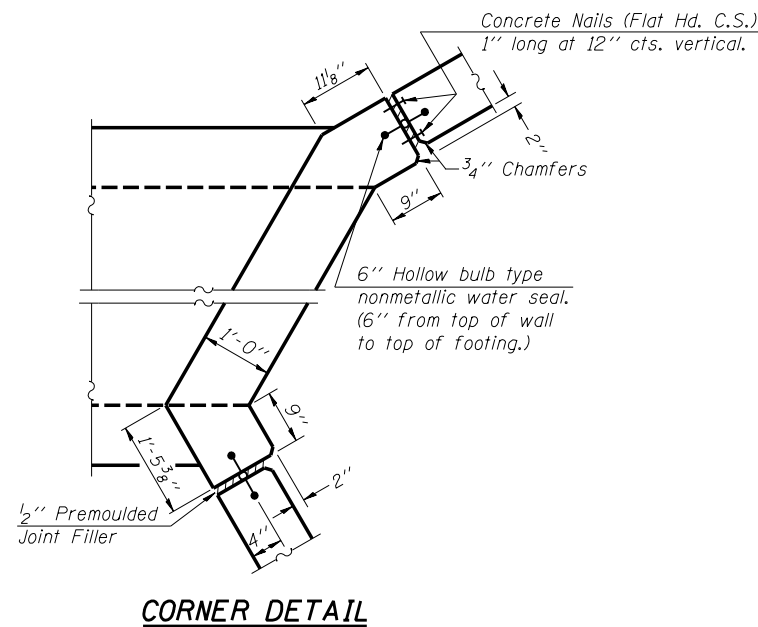
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DRAWN	MGM	07.17.2013
REVIEWED	SMK	10.17.2013

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		PLOT SCALE =			
		PLOT DATE =	12/02/2013		

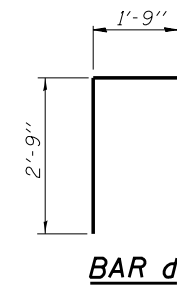
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PRECAST CONCRETE BOX CULVERT NO. 5
END SECTION DETAILS
I-57 AT 6000N, BOURBONNAIS, IL.
 SHEET NO. 1 OF 2 SHEETS

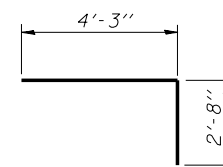
F.A.I. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(46-1)HBK-1	KANKAKEE	819	528
CONTRACT NO.			66982	
ILLINOIS FED. AID PROJECT				



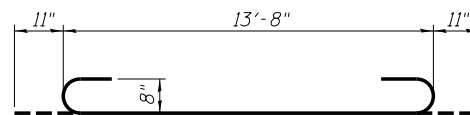
CORNER DETAIL



BAR d



BAR z



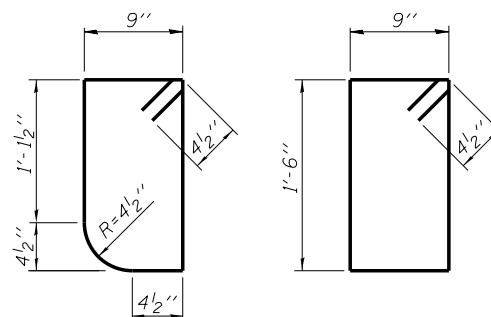
BAR a1

DESIGN STRESSES

$f_y = 60,000 \text{ psi}$
 $f'_c = 3,500 \text{ psi}$

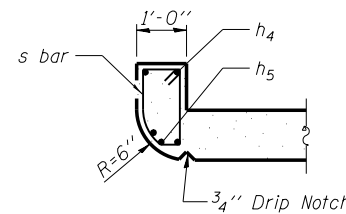
Max. Soil Pressure
 under footing = 1,850 psf

LOADING HS 20-44 & ALT.

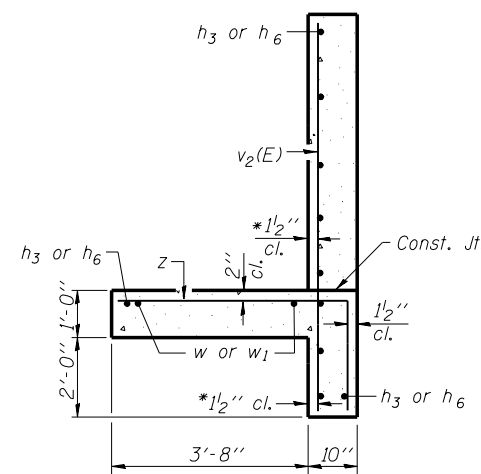


BAR s

BAR s1

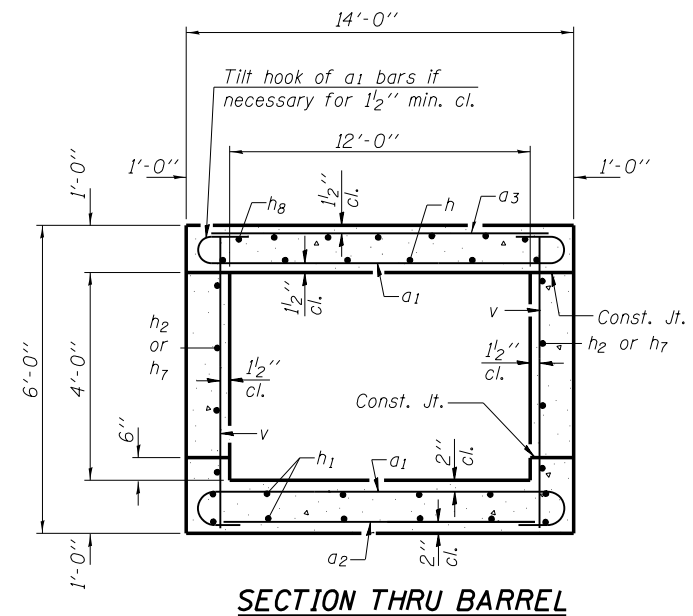


SECTION THRU HEADWALL
 (Up Stream End Only)



SECTION A-A

* $v_2(E)$ bars shall not be placed more than $1\frac{1}{2}$ " cl. from back face of wingwall.



SECTION THRU BARREL

BILL OF MATERIAL FOR TWO END SECTIONS

Bar	No.	Size	Length	Shape
a1	86	#8	15'-6"	
a2	17	#4	13'-8"	
a3	24	#5	13'-8"	
d	26	#4	4'-6"	
h	13	#7	29'-4"	
h1	26	#5	29'-4"	
h2	8	#7	21'-10"	
h3	20	#4	13'-11"	
h4	6	#6	19'-8"	
h5	12	#10	19'-8"	
h6	20	#4	4'-8"	
h7	8	#7	7'-6"	
h8	17	#4	29'-4"	
s	26	#4	5'-1'	
s1	26	#4	5'-3"	
v	64	#4	5'-8"	
v1	8	#4	8'-6"	
v2 (E)	21	#4	14'-8"	
w	12	#5	18'-4"	
w1	12	#5	9'-4"	
z	54	#5	6'-11"	
			Concrete Box Culverts	Cu. Yd. 60
			Reinforcement Bars, Epoxy Coated	Pound 210
			Reinforcement Bars	Pound 9,170

* These items will not be paid for separately but shall be considered included with Box Culvert End Sections, Culvert No. 5

12/02/2013 c:\pwwork\work\k\dob_nof_delete\dms56035\Culvert5-0910038-002-Culvert5-del.dgn

LAYOUT	SMK	07.10.2013
DRAWN	MGM	07.17.2013
REVIEWED	SMK	10.17.2013

FILE NAME =	USER NAME = hussu00411	DESIGNED - SMK	REVISED -
Culvert5-0910038-002-Culvert5-det		CHECKED - JKR	REVISED -
MODEL NAME =	PLOT SCALE =	DRAWN - MGM	REVISED -
0000000-00000-002	PLOT DATE = 12\02\2013	CHECKED - SMK	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**PRECAST CONCRETE BOX CULVERT NO. 5
 END SECTION DETAILS
 I-57 AT 6000N, BOURBONNAIS, IL.**

SHEET NO. 2 OF 2 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(46-1)HBK-1	KANKAKEE	819	529
			CONTRACT NO.	66982

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GENERAL NOTES

Box Culvert End Sections shall be constructed according to the requirements of Section 540 of the Standard Specifications except as modified herein. This work will be measured for payment as each, with each end of each culvert being one each. End sections will be paid for at the contract unit price per each for Box Culvert End Sections of the culvert number specified.

Typical box section dimensions, materials, and reinforcement details for Box Culvert End Sections shall be according to the requirements of ASTM C 1577 as required for the design of the portion of the culvert within the limits of Precast Concrete Box Culverts except as modified herein.

Number of segments shown in Side Elevation is for example only. Length and number of precast box sections required to construct Box Culvert End Sections shall be determined by the Contractor.

See roadway plans for embankment slope (V:H).

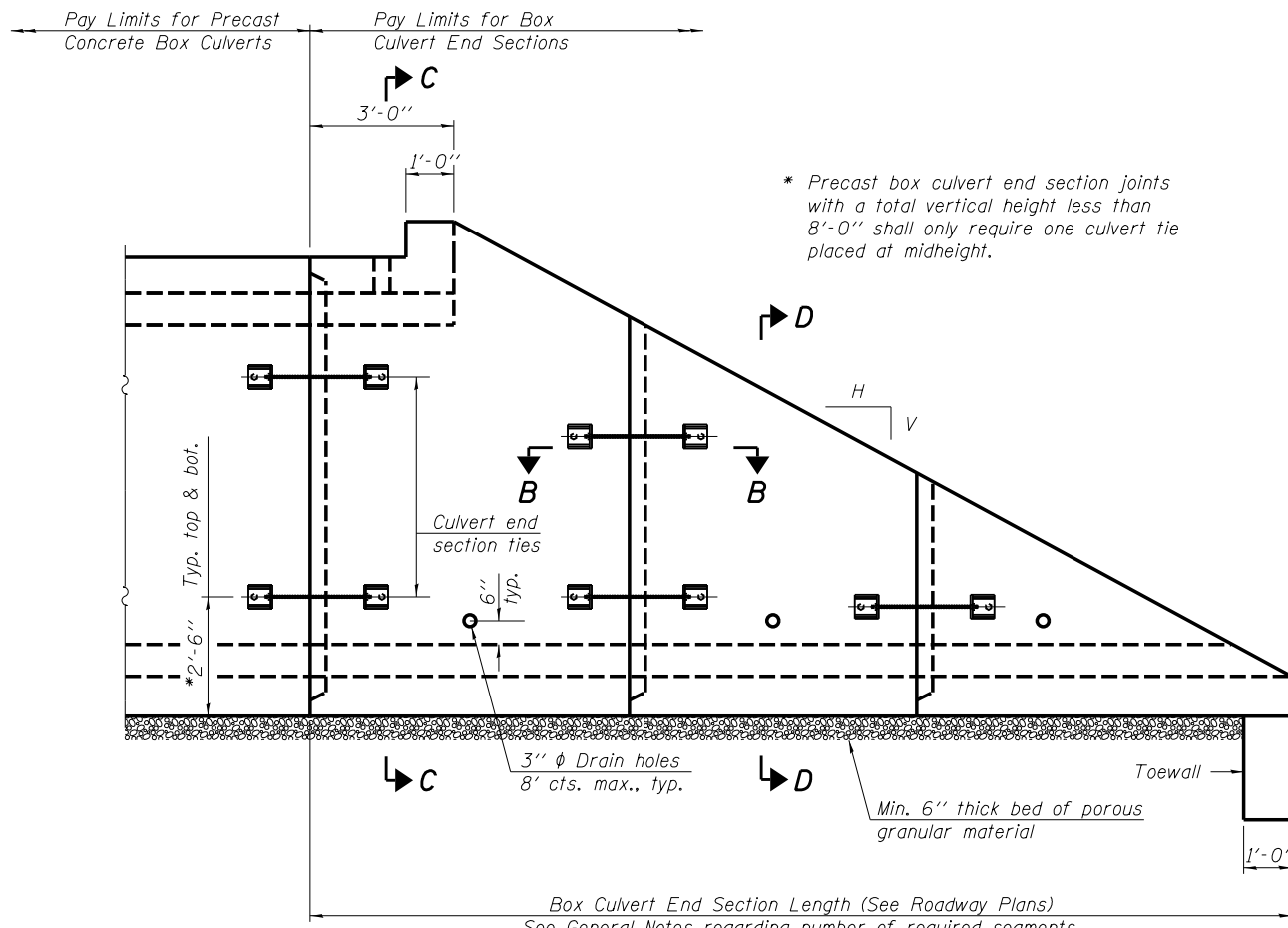
1" ϕ anchor rods for the culvert ties shall conform to the requirements of ASTM F1554, Grade 105. Structural steel for tie plate and restraint angle shall conform to the requirements of Article 1006.04 of the Standard Specifications. All components of the culvert tie detail shall be galvanized according to the requirements of AASHTO M 111 or M 232 as applicable. 2 1/4" x 2 1/4" x 5/16" plate washers shall be provided under each nut required for the anchor rods. Anchor rods connecting precast sections shall be brought to a snug tight condition followed by an additional 1/2 turn on one of the nuts. Match marks shall be provided on the bolt and nut to verify relative rotation between the bolt and the nut. Holes in the walls for the culvert tie assembly may be drilled using core bits in lieu of using formed holes.

All costs associated with furnishing and installing or constructing the geotextile fabric, toewall, and culvert ties will not be measured for payment but shall be included in the contract unit price for Box Culvert End Sections of the culvert number specified.

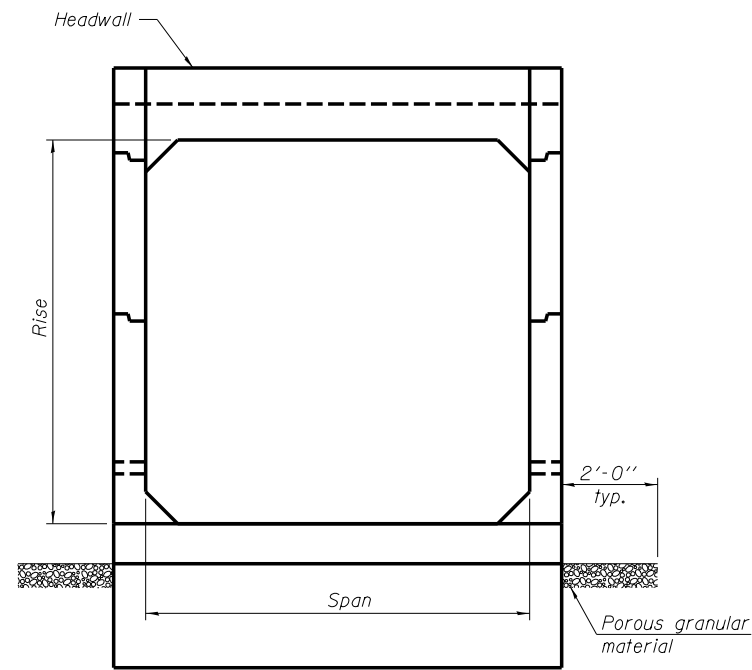
Reinforcement bars designated (E) shall be epoxy coated. Drain holes shall conform to the requirements of Article 503.11 of the Standard Specifications unless noted otherwise.

Nonwoven geotextile fabric shall conform to the requirements of Article 1080.01. The minimum weight of the fabric shall be 6 oz. / sq. yd.

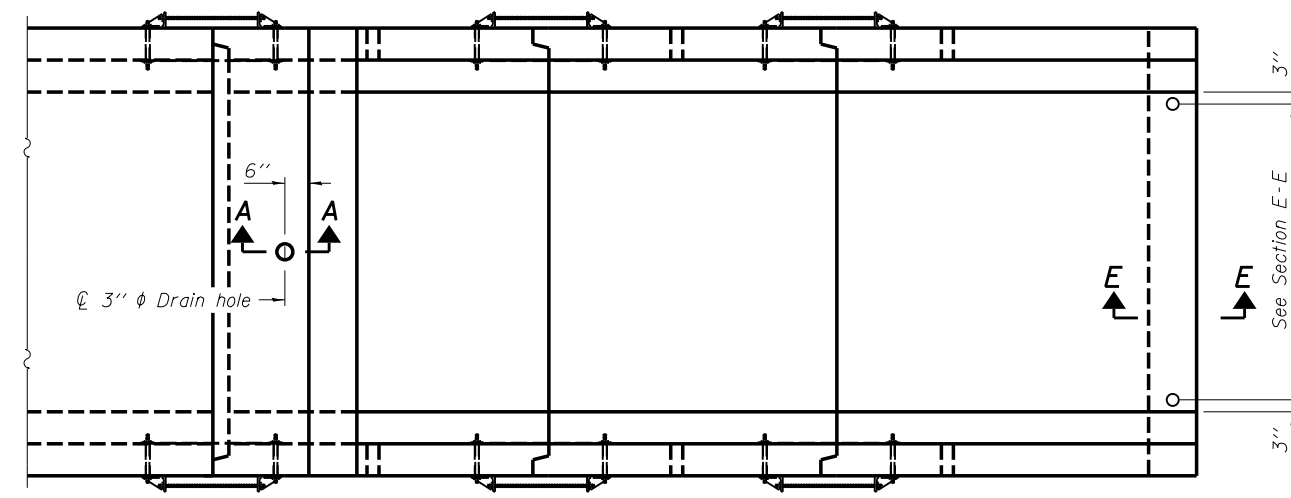
For end sections with traversable pipe grate systems, see grate detail sheet for required modifications.



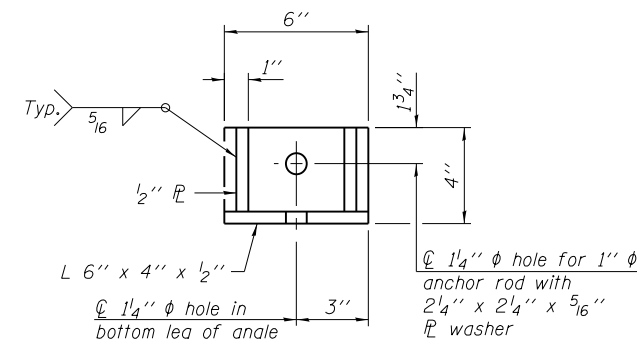
ELEVATION



END VIEW



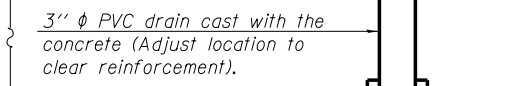
PLAN



RESTRAINT ANGLE DETAIL

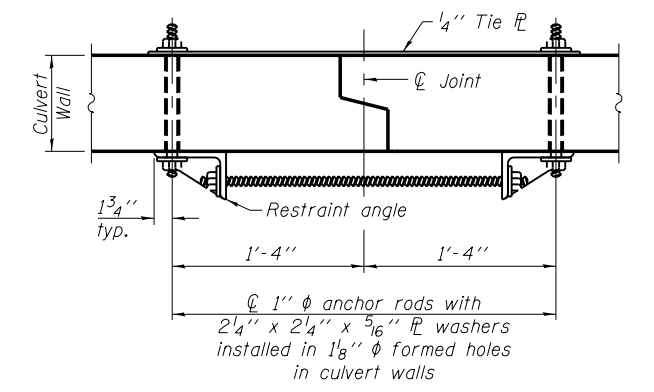
12" x 12" block of CA5, CA7, or CA11 coarse aggregate placed over drain opening. Block of aggregate shall be completely wrapped in nonwoven geotextile fabric.

Provide a double layer of 12" x 12" nonwoven geotextile fabric centered over the drain hole. Fabric shall be sealed to the concrete with mastic.



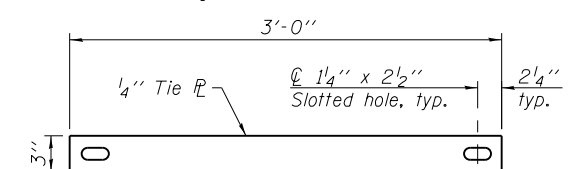
SECTION A-A

(All costs associated with furnishing and constructing the above drain details will not be measured for payment but shall be included in the contract unit price for the end section.)



SECTION B-B

(Showing end section tie details)



TIE PLATE DETAIL

(Sheet 1 of 2)

12/02/2013
c:\p\se-work\k\do_no_delete\dms56035\Culvert16_0910038-001-Culvert16.dgn

LAYOUT	JKR	07.10.2013
DRAWN	MGM	07.17.2013
REVIEWED	JKR	10.17.2013

10-16-12

FILE NAME =	hussu00411	DESIGNED -	JKR	REVISED -	
Culvert-t6-0910038-001-Culvert6		CHECKED -	SMK	REVISED -	
MODEL NAME =		DRAWN -	MGM	REVISED -	
End Section 1	12\02\2013	CHECKED -	JKR	REVISED -	

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PRECAST CONCRETE BOX CULVERT NO. 6
END SECTION DETAILS
I-57 AT 6000N, BOURBONNAIS, IL.**

SHEET NO. 1 OF 2 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(46-1)HBK-1	KANKAKEE	819	530
CONTRACT NO.			66982	

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T (in.), T _s (in.)	Reinforcing Steel A _{slm} (in. ² /ft.)										
	2	3	4	5	6	7	8	9	10	11	12
4	0.19	0.17									
5	0.26	0.21	0.18								
6		0.26	0.23	0.22							
7		0.33	0.59	0.27	0.28						
8			0.43	0.39	0.36	0.34	0.40				
9				0.43	0.40	0.37	0.36	0.48			
10				0.47	0.44	0.41	0.38	0.42	0.56		
11				0.54	0.46		0.41	0.50	0.65		
12				0.58	0.50		0.45		0.46	0.75	

(A_{slm} reinforcement based upon welded wire fabric conforming to AASHTO M 55 or M 221).

Notes:

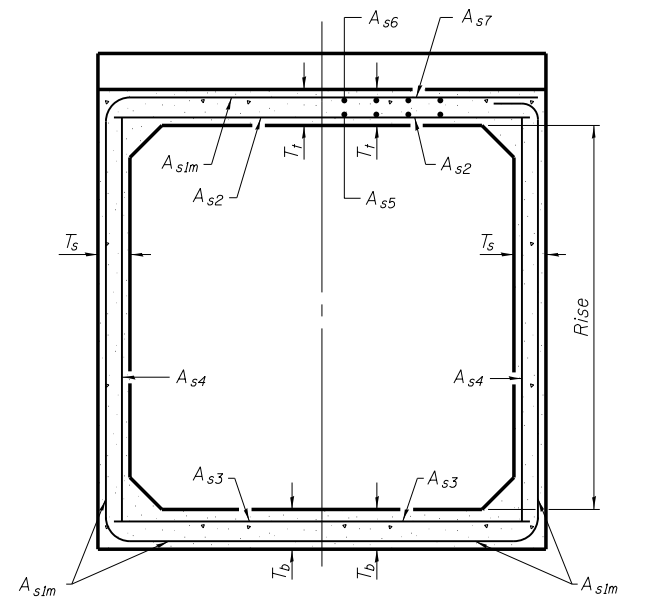
Alternate Section D-D is provided to allow the Contractor the option of casting the bottom slab of the end section first followed by construction of the sidewalls using conventional forming methods. Shop drawings that detail slab thickness and reinforcement layout shall be submitted to the Engineer for review and approval when using Alternate Section D-D.

The size and spacing of the v₂(E) bars shall provide a minimum reinforcement area along each face of the walls (in.²/ft.) equal to 1.10*(A_{slm}). v₂(E) bars may consist of #3 thru #6 size reinforcement bars and the longitudinal spacing shall not exceed the lesser of the wall thickness or 8 inches.

Bonded construction joints shall be prepared according to Article 503.09 of the Standard Specifications.

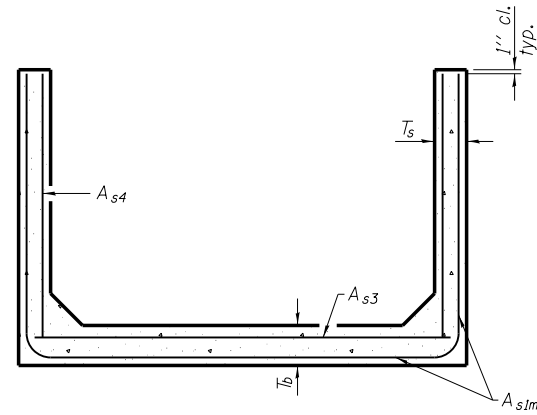
l₁ DIMENSION

- #3 bar = 2'-0"
- #4 bar = 2'-8"
- #5 bar = 3'-4"
- #6 bar = 3'-11"

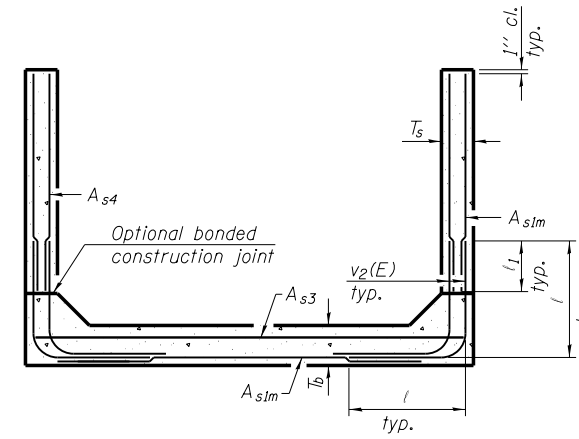


(Design Earth Cover < 2 ft.) (Design Earth Cover ≥ 2 ft.)

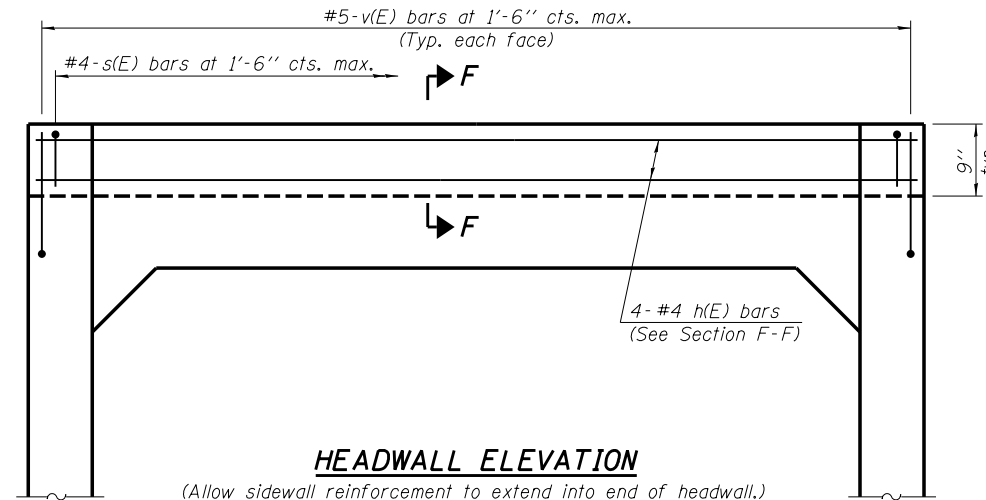
SECTION C-C



SECTION D-D

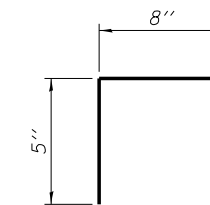


ALTERNATE SECTION D-D

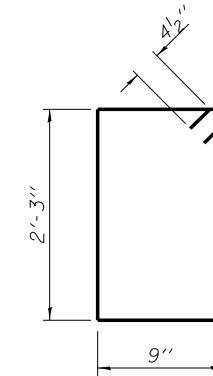


HEADWALL ELEVATION

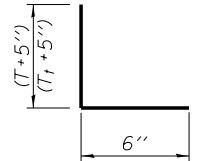
(Allow sidewall reinforcement to extend into end of headwall.)



BAR s(E)



BAR s₁



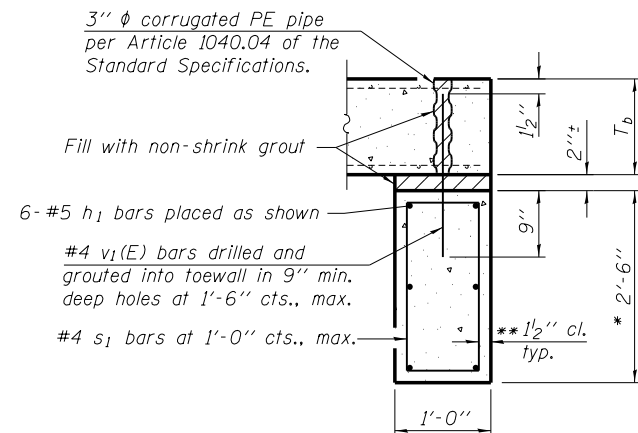
BAR v(E)

TOEWALL CONSTRUCTION SEQUENCE

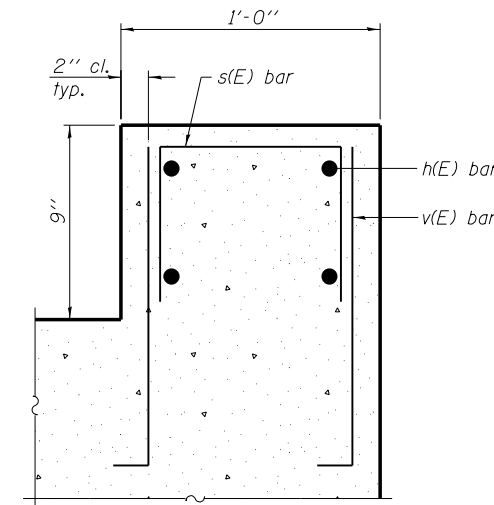
1. Perform excavation and construct toewall.
2. Backfill according to the applicable paragraphs of Article 502.10 of the Standard Specifications and place bedding for precast box culvert end sections.
3. Set precast box culvert end section.
4. Drill and grout reinforcement in toewall using approved chemical adhesive in accordance with Section 1027 of the Standard Specifications.
5. Pressure grout voids using non-shrink grout conforming to Section 1024 of the Standard Specifications.

* The Contractor may furnish a precast or cast-in-place toewall. The Contractor shall be responsible for the strength and stability of the precast toewall during handling. Additional lifting points may be required depending upon the length of the toewall or the Contractor may need to modify the design of the toewall for the proposed handling the method.

** If soil conditions permit, the sides of the toewall may be poured directly against the soil. The clear cover on the sides of the toewall shall be increased to 3" by increasing the thickness of the toewall.



SECTION E-E



SECTION F-F

(Sheet 2 of 2)

12/02/2013 c:\pwise\work\k\dob_no_delete\dms56035\Culvert6_0910038-002-Culvert6.dwg

LAYOUT JKR 07.10.2013
DRAWN MGM 07.11.2013
REVIEWED JKR 10.11.2013

10-16-12

FILE NAME = Culvert6-0910038-002-Culvert6.dwg	USER NAME = hussu00411	DESIGNED - JKR	REVISED - -
MODEL NAME = End Section 2	PLOT SCALE =	CHECKED - SMK	REVISED - -
	PLOT DATE = 12\02\2013	DRAWN - MGM	REVISED - -
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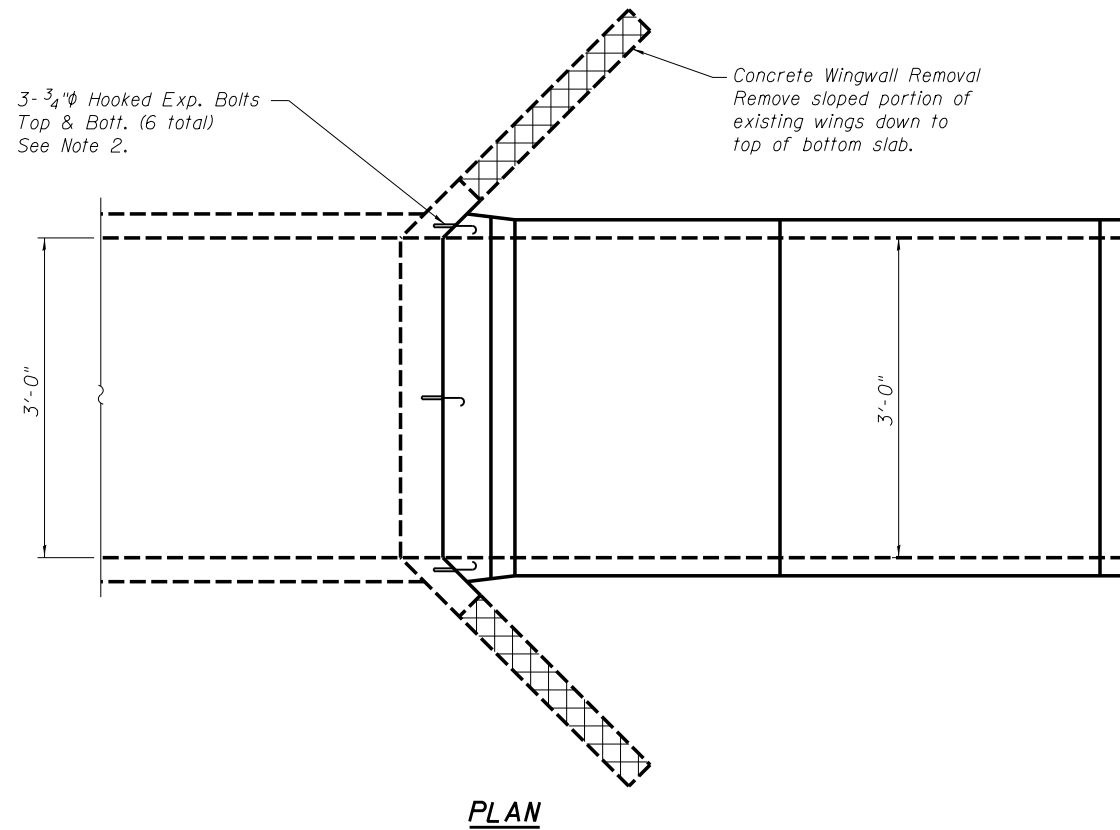
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PRECAST CONCRETE BOX CULVERT NO. 6
END SECTION DETAILS
I-57 AT 6000N, BOURBONNAIS, IL.**

SHEET NO. 2 OF 2 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(46-1)HBK-1	KANKAKEE	819	531
CONTRACT NO.			66982	

ILLINOIS FED. AID PROJECT

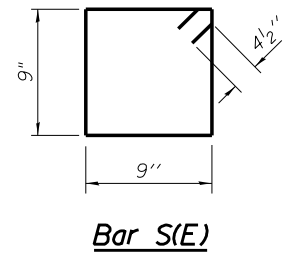


NOTES

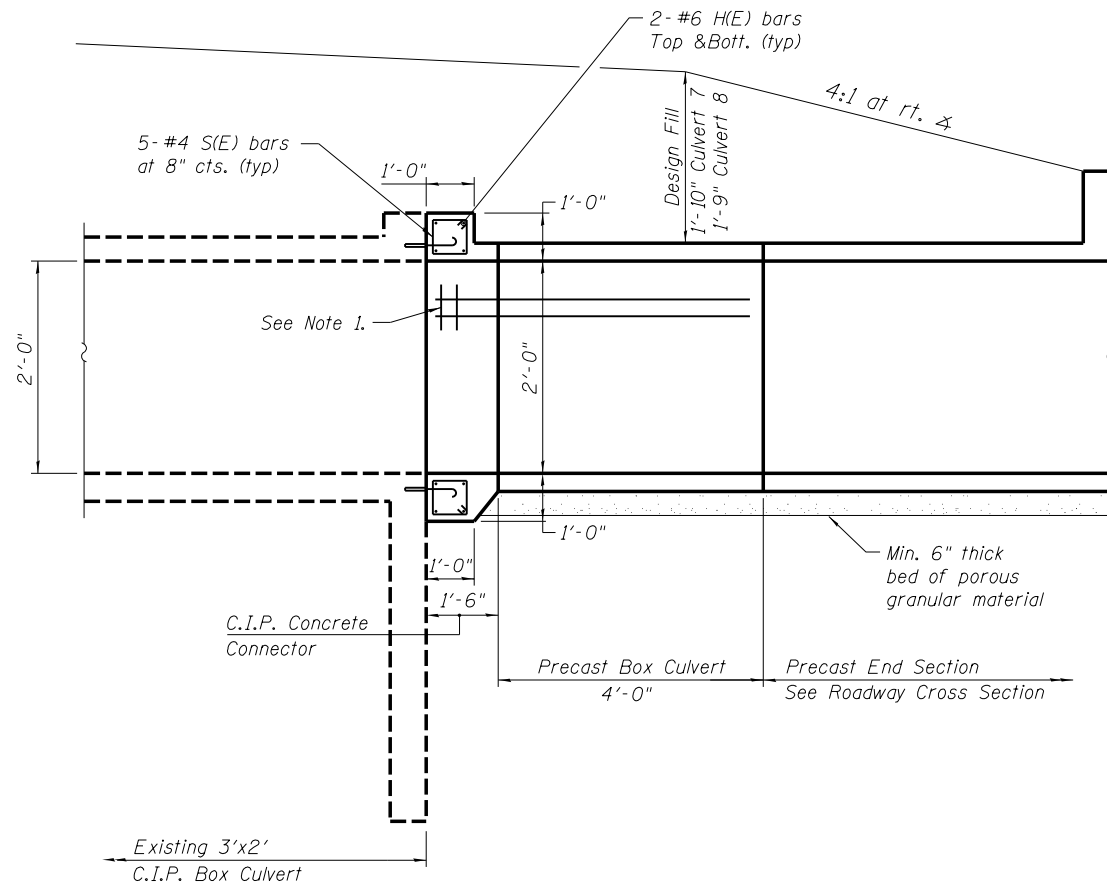
1. Reinforcement in the slabs and walls of the C.I.P. Concrete Connector shall match that provided in the precast concrete box. If WWF is used in the precast box, it shall extend 15" into the C.I.P. Concrete Connector.
2. Hooked expansion bolts shall be in accordance with Article 1006.09 of the Standard Specifications.
3. Reinforcement bars designated (E) shall be epoxy coated.
4. Reinforcement bars shall conform to ASTM A 706, Gr. 60.
5. Excavation, concrete and reinforcement required for the C.I.P. Concrete Connector will not be paid for separately, but shall be included in the contract unit price for Precast Concrete Box Culvert 3'x2'.
6. Porous granular material used for backfill and bedding, regardless of type and gradation, shall be considered Porous Granular Embankment.

**REINFORCEMENT FOR ONE
C.I.P. CONCRETE CONECTOR***

Bar	No.	Size	Length	Shape
H(E)	8	#6	3'-4"	—
S(E)	10	#4	3'-9"	⊠

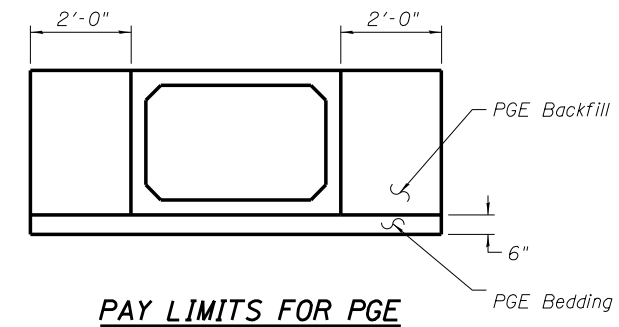


* Does not include wall or slab reinf. (See Note 1)



BILL OF MATERIALS

Description	Unit	Quantity		
		Culv. 7	Culv. 8	Total
Porous Granular Embankment	Cu. Yd.	5.3	5.3	10.6
Structure Excavation	Cu. Yd.	6.8	9.5	16.3
Box Culvert End Sections, Culvert No. 7	Each	1	-	1
Box Culvert End Sections, Culvert No. 8	Each	-	1	1
Expansion Bolts, $\frac{3}{4}$ "	Each	6	6	12
Precast Conc. Box Culvert 3'x2'	Foot	4'-0"	4'-0"	8'-0"
Concrete Wingwall Removal	Each	2	2	4



12/02/2013
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LAYOUT	JKR	07.10.2013
DRAWN	MGM	07.11.2013
REVIEWED	JKR	10.11.2013

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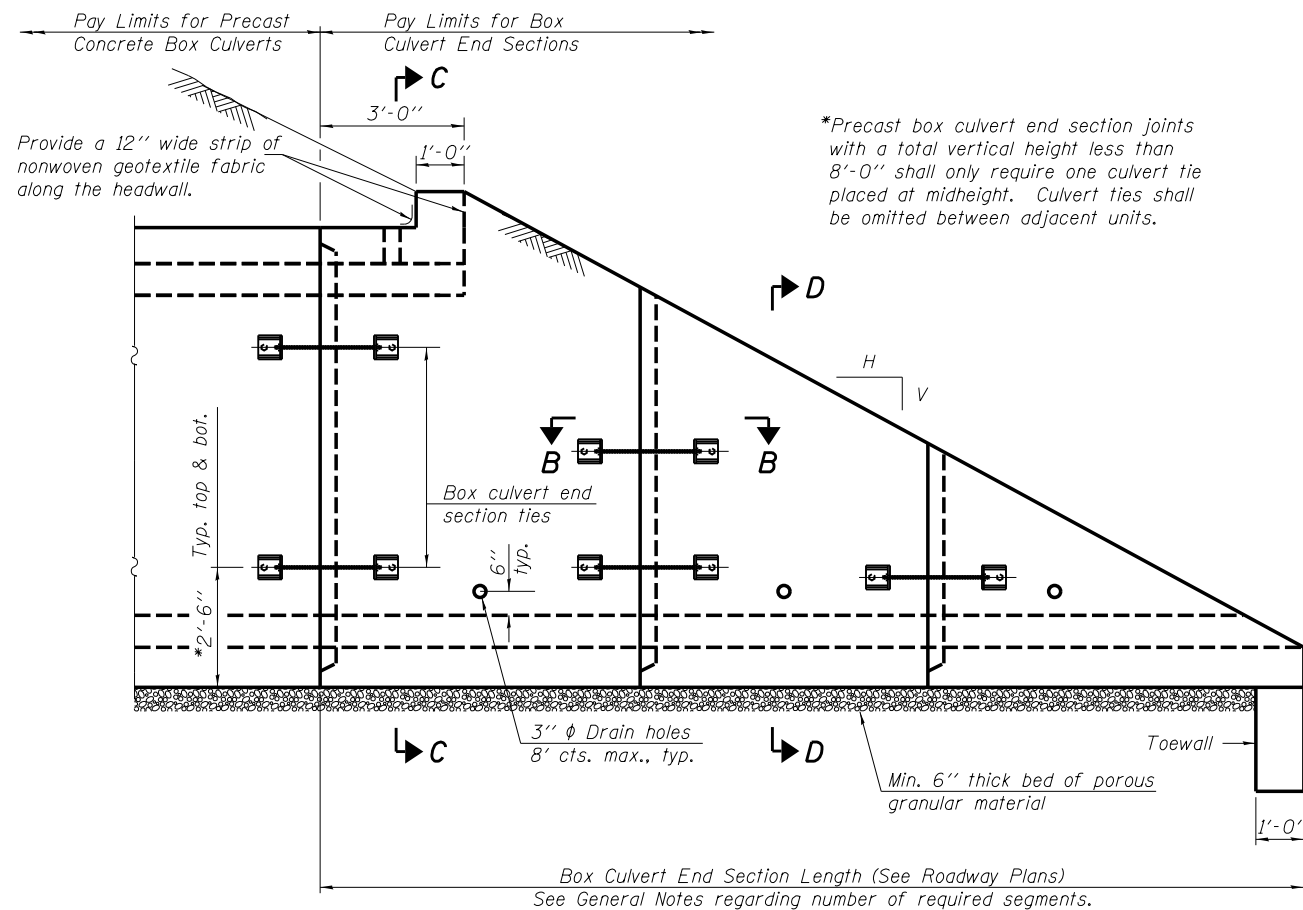
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**CONCRETE BOX CULVERT NO. 7 & 8
CULVERT EXTENSION DETAILS
I-57 AT 6000N, BOURBONNAIS, IL.**

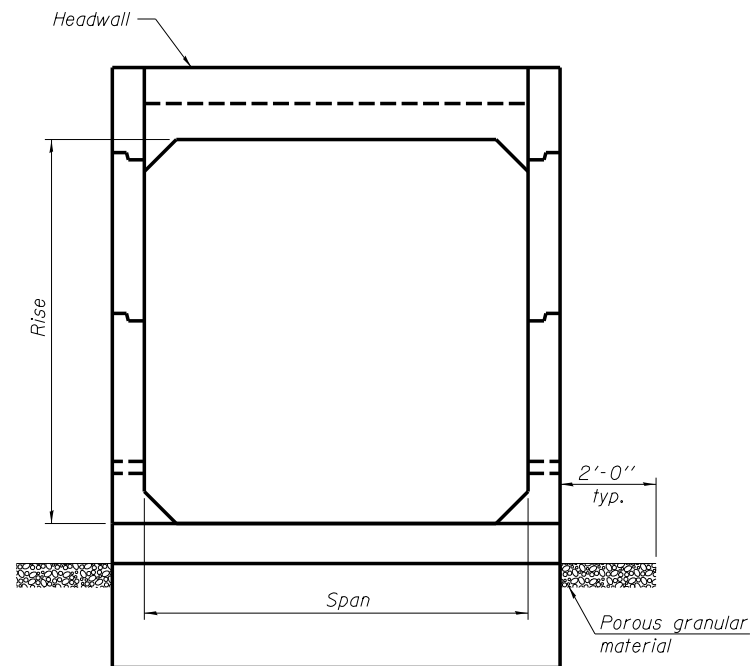
SHEET NO. 1 OF 2 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(46-1)HBK-1	KANKAKEE	819	532
CONTRACT NO.			66982	

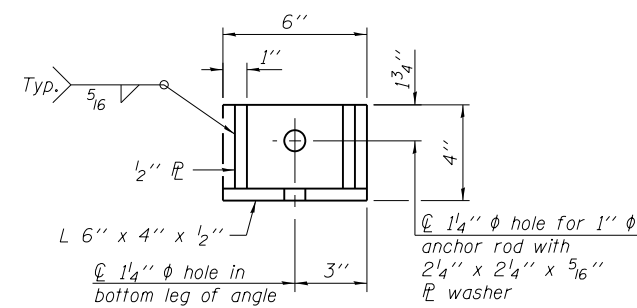
ILLINOIS FED. AID PROJECT



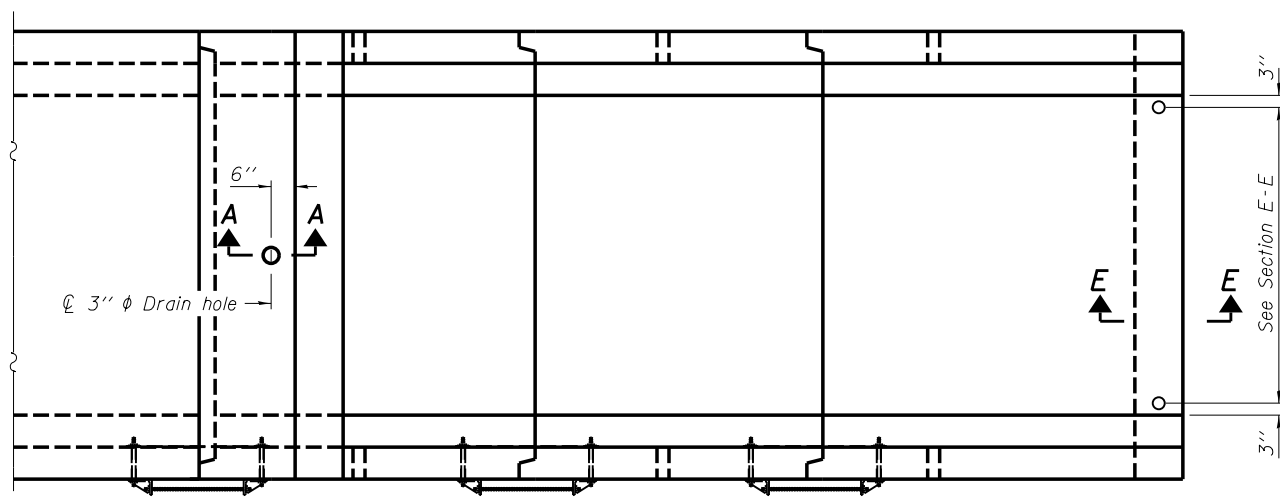
SIDE ELEVATION



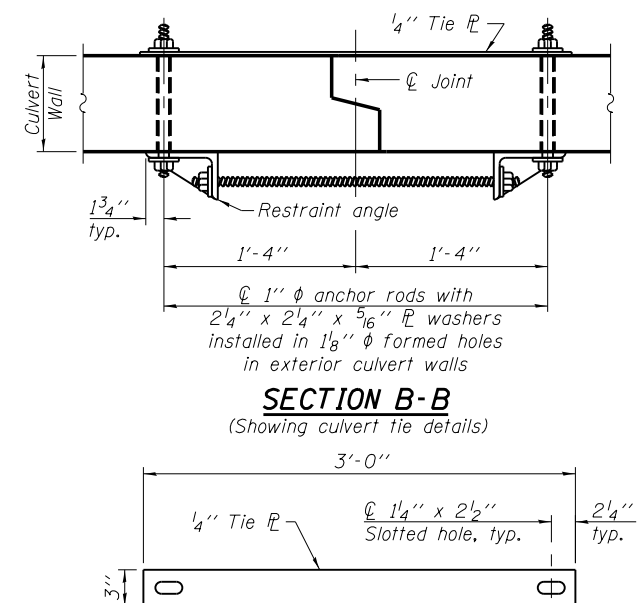
END VIEW



RESTRAINT ANGLE DETAIL



PLAN VIEW



TIE PLATE DETAIL

GENERAL NOTES

The box culvert end section shall be constructed according to the requirements of Section 540 of the Standard Specifications except as modified herein. The end section will be paid for at the contract unit price per each for Box Culvert End Sections of the culvert number specified.

Typical box section dimensions, materials, and reinforcement details for the box culvert end section shall be according to the requirements of ASTM C 1577 as required for the design of the portion of the culvert within the limits of Precast Concrete Box Culverts except as modified herein.

Number of segments shown in Side Elevation is for example only. Length and number of precast box sections required to construct the box culvert end section shall be determined by the Contractor.

See roadway plans for embankment slope (V:H).

1" ϕ anchor rods for the culvert ties shall conform to the requirements of ASTM F 1554, Grade 105. Structural steel for tie plate and restraint angle shall conform to the requirements of Article 1006.04 of the Standard Specifications. All components of the culvert tie detail shall be galvanized according to the requirements of AASHTO M 111 or M 232 as applicable. 2 1/4" x 2 1/4" x 5/16" plate washers shall be provided under each nut required for the anchor rods. All anchor rods in a culvert tie assembly shall be snug tightened by a few impacts of an impact wrench or the full force of a worker using an ordinary spud wrench. Holes in the walls for the culvert tie assembly may be drilled using core bits in lieu of using formed holes.

Alternate culvert ties similar in strength and stiffness to the plan details may be provided by the Contractor. Alternate culvert ties shall be subject to approval of the Engineer.

All costs associated with furnishing and installing or constructing the geotextile fabric, toewall, and culvert ties will not be measured for payment but shall be included in the contract unit price for Box Culvert End Sections of the culvert number specified.

Reinforcement bars designated (E) shall be epoxy coated.

Reinforcement bars shall conform to the requirements of ASTM A 706 Gr. 60. Drain holes shall conform to the requirements of Article 503.11 of the Standard Specifications unless noted otherwise.

Nonwoven geotextile fabric shall conform to the requirements of Article 1080.01. The minimum weight of the fabric shall be 6 oz. / sq. yd.

For an end section with a traversable steel pipe system, see pipe detail sheet for required modifications.

(Sheet 1 of 2)

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DRAWN	MGM	07.11.2013
REVIEWED	JKR	10.11.2013

12-14-11

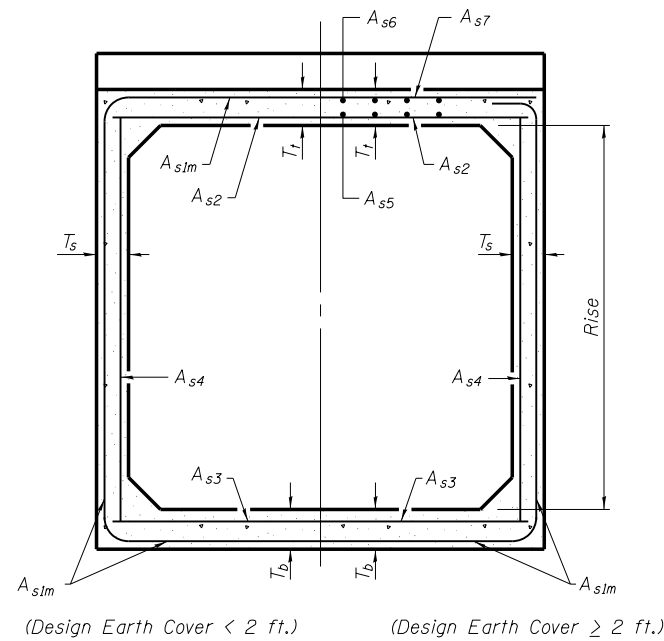
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

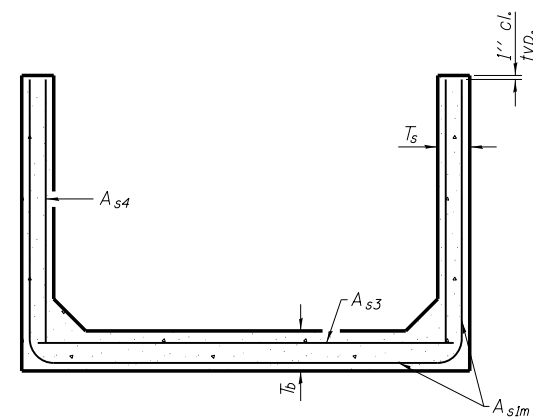
**PRECAST CONCRETE BOX CULVERT NO. 7 & 8
END SECTION DETAILS
I-57 AT 6000N, BOURBONNAIS, IL.**

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(46-1)HBK-1	KANKAKEE	819	533
CONTRACT NO.			66982	
ILLINOIS FED. AID PROJECT				

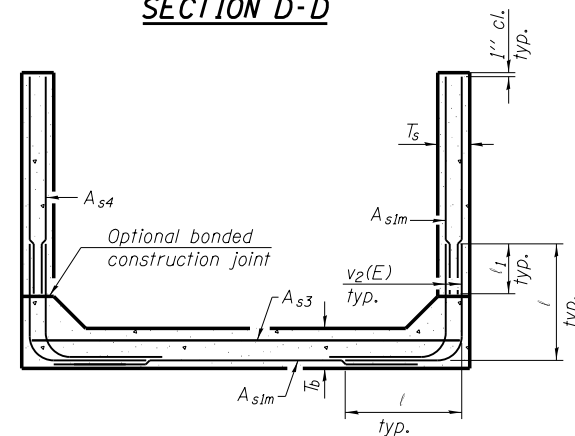
SHEET NO. 1 OF 2 SHEETS



SECTION C-C



SECTION D-D



ALTERNATE SECTION D-D

Rise (ft.) T(in.), T_s (in.)	Reinforcing Steel A _{s1m} (in. ² /ft.)										
	2	3	4	5	6	7	8	9	10	11	12
4	0.19	0.17									
5	0.26	0.21	0.18								
6		0.26	0.23	0.22							
7		0.33	0.59	0.27	0.28						
8			0.43	0.39	0.36	0.34	0.40				
9				0.43	0.40	0.37	0.36	0.48			
10				0.47	0.44	0.41	0.38	0.42	0.56		
11			0.54		0.46	0.41	0.38	0.42	0.50	0.65	
12			0.58		0.50	0.45		0.46	0.46	0.75	

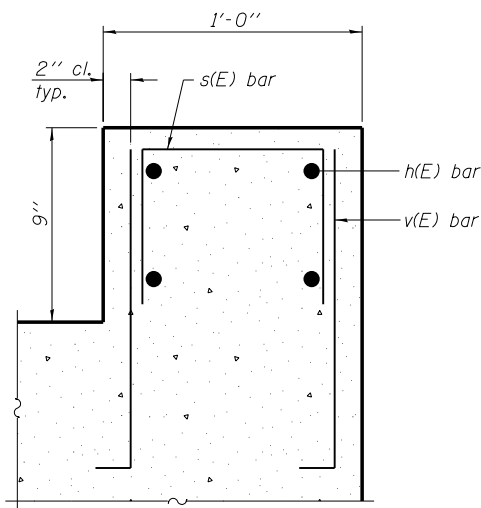
(A_{s1m} reinforcement based upon welded wire fabric conforming to AASHTO M 55 or M 221).

Notes:

Alternate Section D-D is provided to allow the Contractor the option of casting the bottom slab of the end section first followed by construction of the sidewalls using conventional forming methods. Shop drawings that detail slab thickness and reinforcement layout shall be submitted to the Engineer for review and approval when using Alternate Section D-D.

The size and spacing of the v₂(E) bars shall provide a minimum reinforcement area along each face of the walls (in.²/ft.) equal to 1.10*(A_{s1m}). v₂(E) bars may consist of #3 thru #6 size reinforcement bars and the longitudinal spacing shall not exceed the lesser of the wall thickness or 8 inches.

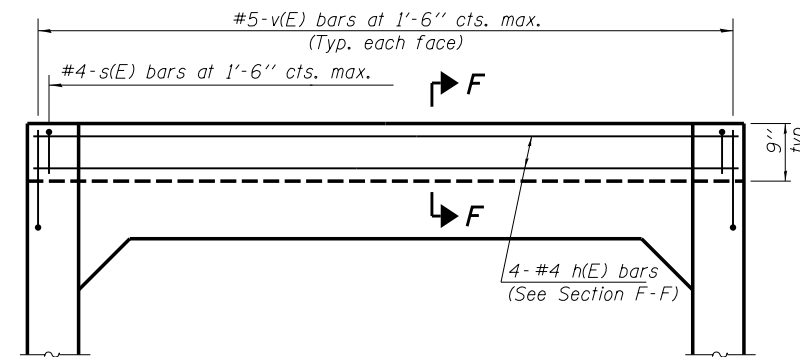
Bonded construction joints shall be prepared according to Article 503.09 of the Standard Specifications.



SECTION F-F

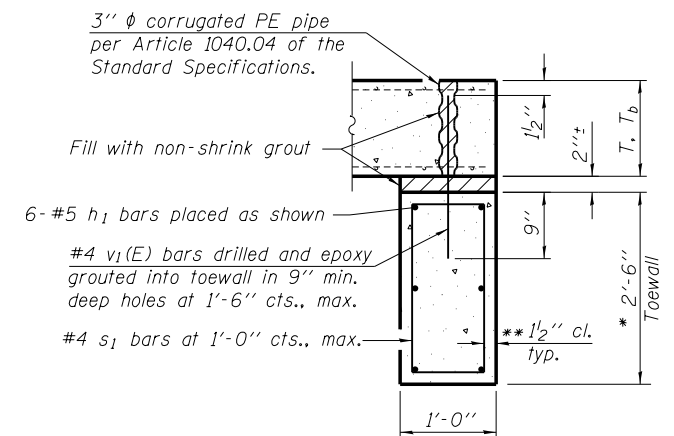
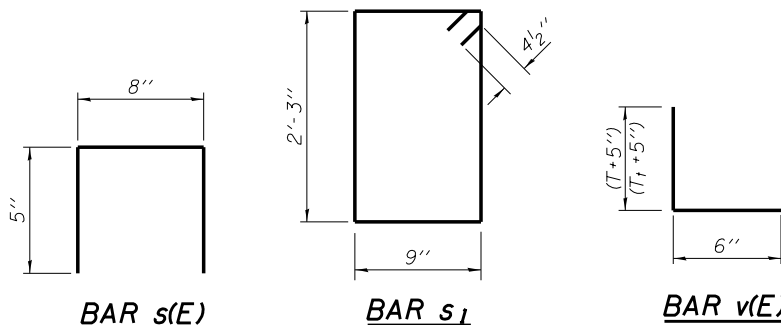
l₁ DIMENSION

- #3 bar = 2'-0"
- #4 bar = 2'-8"
- #5 bar = 3'-4"
- #6 bar = 3'-11"



HEADWALL ELEVATION

(Showing details for headwalls cast monolithic with box sections.)
(Allow sidewall reinforcement to extend into end of headwall.)



SECTION E-E

TOEWALL CONSTRUCTION SEQUENCE

1. Perform excavation and construct toewall.
2. Backfill accordingly and place bedding for precast box culvert end sections.
3. Set precast box culvert end section.
4. Drill and epoxy grout reinforcement in toewall in accordance with Section 584 of the Standard Specifications.
5. Pressure grout voids using non-shrink grout conforming to Section 1024 of the Standard Specifications.

* The Contractor may furnish a precast or cast-in-place toewall. The Contractor shall be responsible for the strength and stability of the precast toewall during handling. Additional lifting points may be required depending upon the length of the toewall or the Contractor may need to modify the design of the toewall for the proposed handling method.

** If soil conditions permit, the sides of the toewall may be poured directly against the soil. The clear cover on the sides of the toewall shall be increased to 3" by increasing the thickness of the toewall.

12" x 12" block of CA5, CA7 or CA11 coarse aggregate placed over drain opening. Block of aggregate shall be completely wrapped in nonwoven geotextile fabric.

Provide a double layer of 12" x 12" nonwoven geotextile fabric centered over the drain hole. Fabric shall be sealed to the concrete with mastic.

3" φ PVC drain cast with the concrete (Adjust location to clear reinforcement).

1/2" Square foam blockout around PVC drain (to be removed with formwork)

SECTION A-A

(All costs associated with furnishing and constructing the above drain details will not be measured for payment but shall be included in the contract unit price for the end section.)

12-14-11

(Sheet 2 of 2)

LAYOUT	JKR	07.10.2013
DRAWN	MGM	07.17.2013
REVIEWED	JKR	10.17.2013

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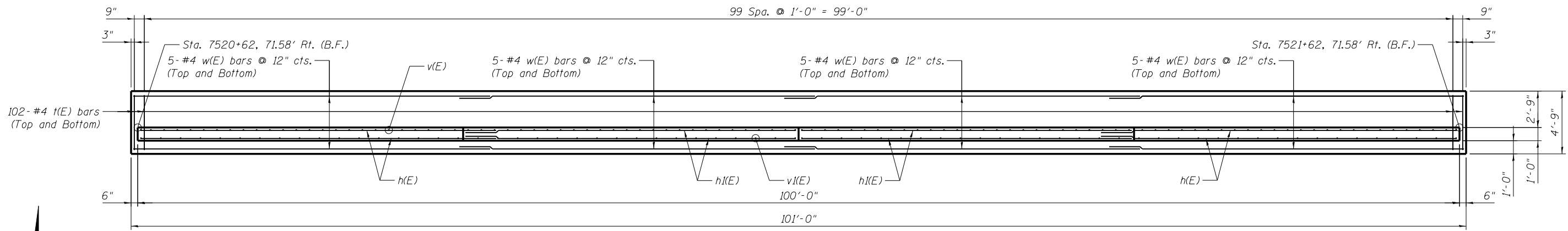
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PRECAST CONCRETE BOX CULVERT NO. 7 & 8
END SECTION DETAILS
I-57 AT 6000N, BOURBONNAIS, IL.**

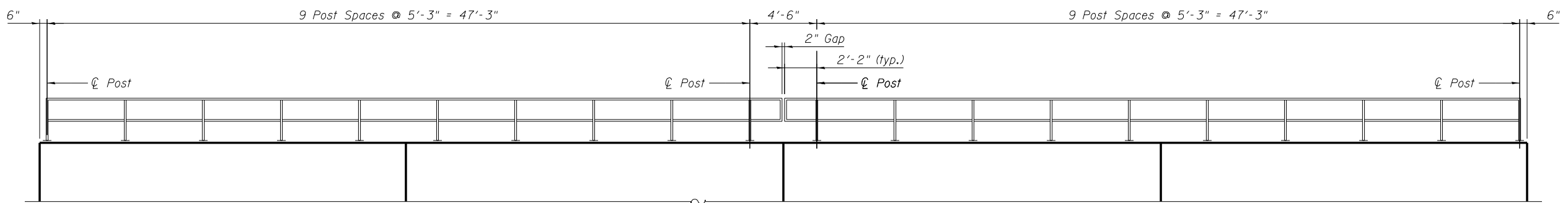
SHEET NO. 2 OF 2 SHEETS

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CONTRACT NO.			66982	

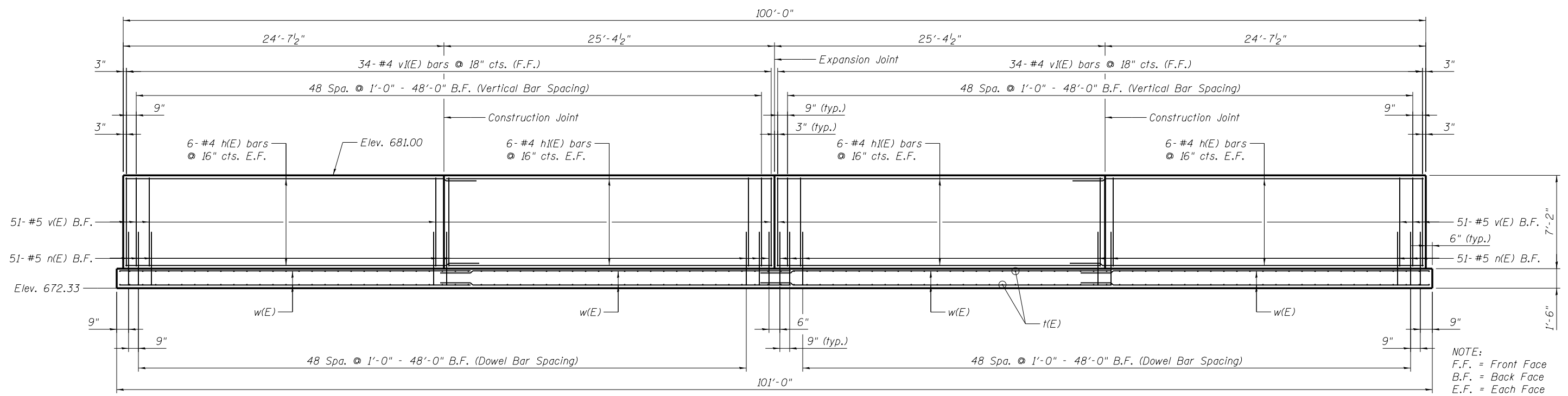
ILLINOIS FED. AID PROJECT



PLAN



RAILING ELEVATION



ELEVATION

MINIMUM BAR LAP
 #4 Bar = 2'-4"
 #5 Bar = 2'-7"

NOTE:
 F.F. = Front Face
 B.F. = Back Face
 E.F. = Each Face

12/02/2013
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LAYOUT
 DRAWN
 REVIEWED
 R/JZ
 ESC
 R/JZ
 07.23.2013
 07.23.2013
 10.17.2013

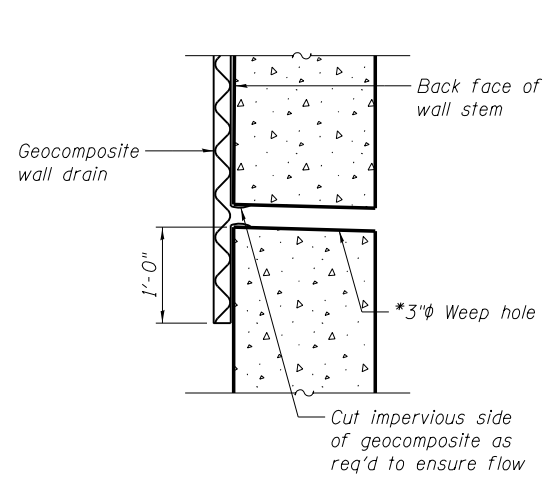
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RETAINING WALL DETAILS
I-57 AND 6000 RD (BOURBONNAIS PARKWAY)

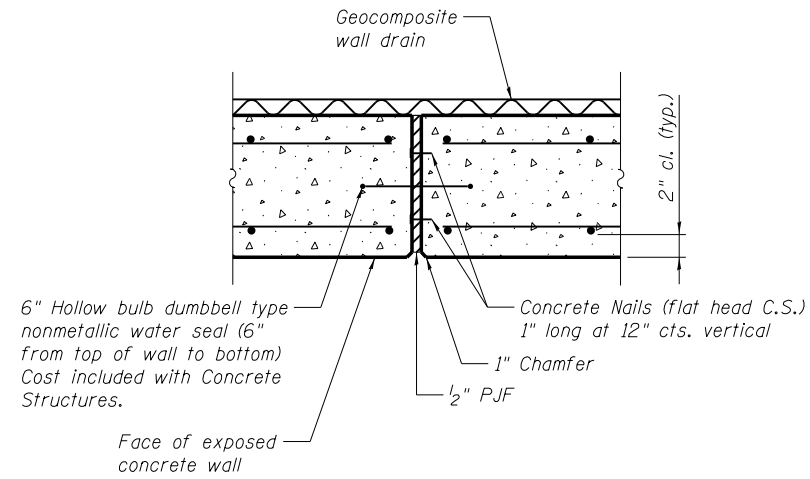
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57	(46-1)HBK-1	KANKAKEE	819	535
CONTRACT NO.			66982	
ILLINOIS FED. AID PROJECT				

SHEET NO. OF SHEETS

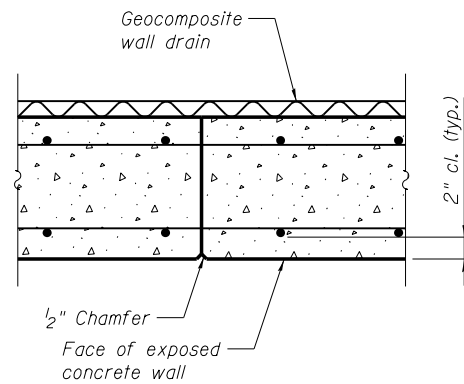


WEEP HOLE DRAIN DETAIL

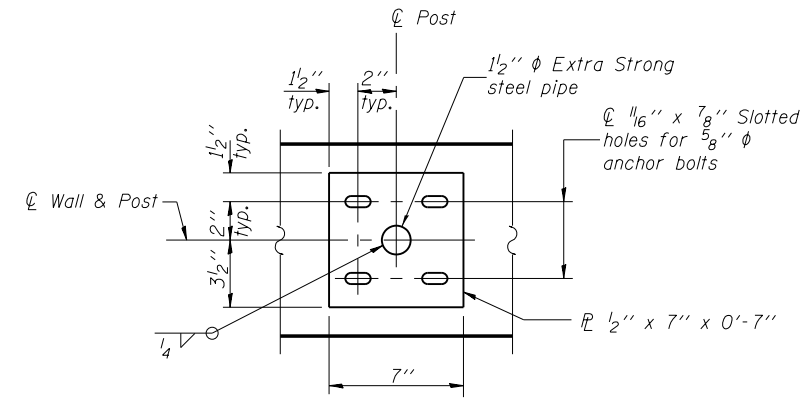
*Weep hole spacing shall be at ±8'-0" horizontally.



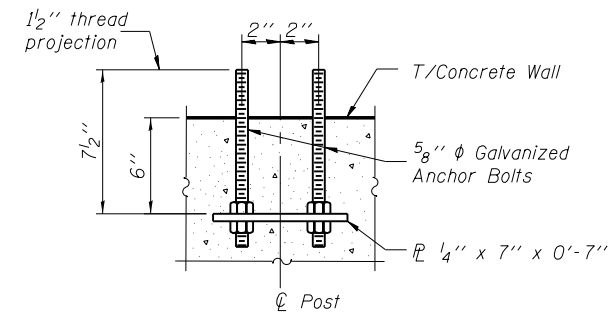
EXPANSION JOINT



CONSTRUCTION JOINT

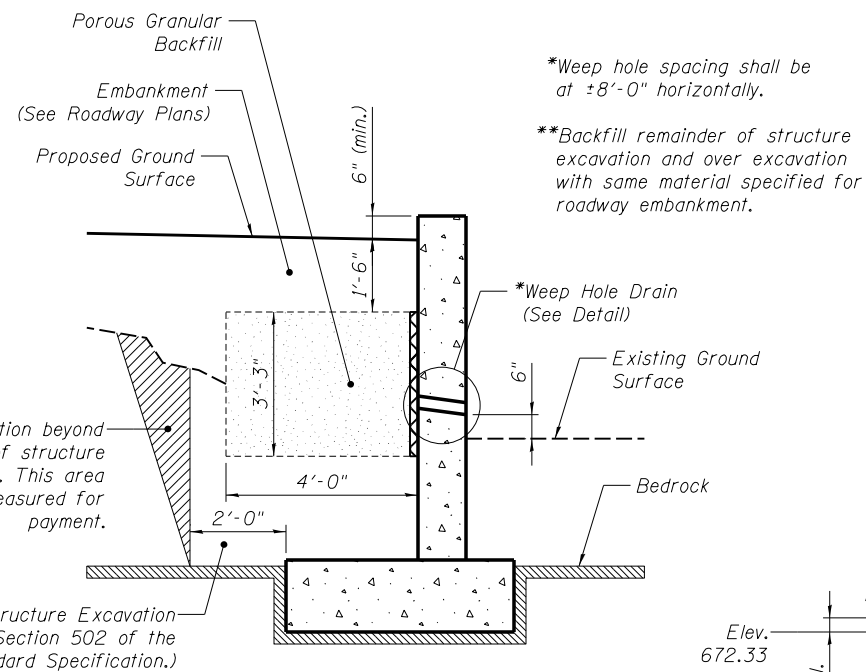


POST BASE P DETAIL



ANCHOR BOLT DETAIL

BILL OF MATERIAL				
Bar	No.	Size	Length	Shape
h(E)	24	#4	27'-0"	—
h(I(E))	24	#4	24'-11"	—
n(E)	102	#5	4'-8"	⌋
t(E)	204	#4	4'-3"	—
v(E)	102	#5	6'-10"	—
v(I(E))	68	#4	6'-10"	—
w(E)	40	#4	26'-11"	—
Concrete Structures			Cu. Yd.	53.2
Pipe Handrail			Foot	99.0
Reinforcement Bars, Epoxy Coated			Pound	3660
Porous Granular Fill			Cu. Yd.	48.1
Structure Excavation			Cu. Yd.	85.1
Rock Excavation for Structures			Cu. Yd.	24.9
Geocomposite Wall Drain			Sq. Yd.	36.0



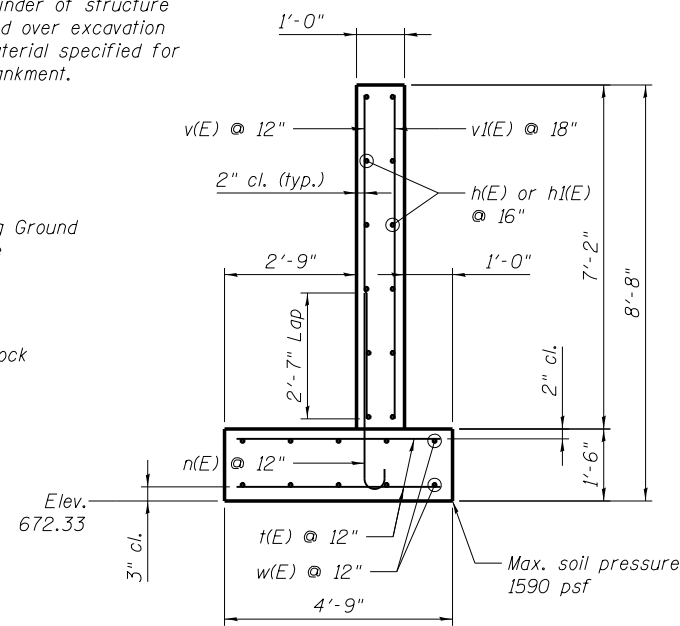
DRAINAGE DETAIL

*Weep hole spacing shall be at ±8'-0" horizontally.

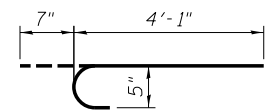
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**Over excavation beyond the limits of structure excavation. This area not measured for payment.

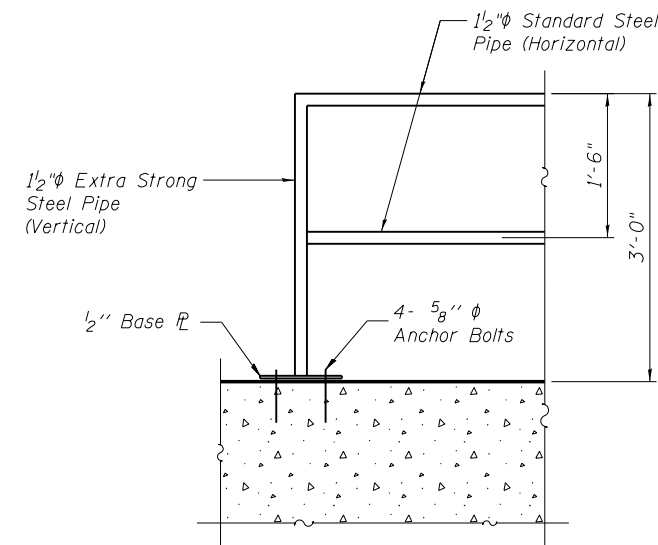
**Structure Excavation (See Section 502 of the Standard Specification.)



WALL SECTION



BAR n(E)



RAILING DETAIL

NOTES:
 Handrail shall conform to the requirements of Section 509 of the Standard Specifications.
 The Pipe Handrail shall be galvanized in accordance with Section 509 of the Standard Specifications.
 All steel pipe shall be ASTM A53.
 The unit cost per lineal foot for Pipe Handrail shall include furnishing and installing the posts, rails, base plates and anchor bolts.
 Ends of handrail shall be rounded.
 Concrete footing shall be poured directly against existing rock.

12/02/2013
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LAYOUT	RJZ	07.23.2013
DRAWN	ESC	07.23.2013
REVIEWED	RJZ	10.17.2013

PROFESSIONAL DESIGN FIRM LICENSE #194-001094
HANSON
 Hanson Professional Services Inc.

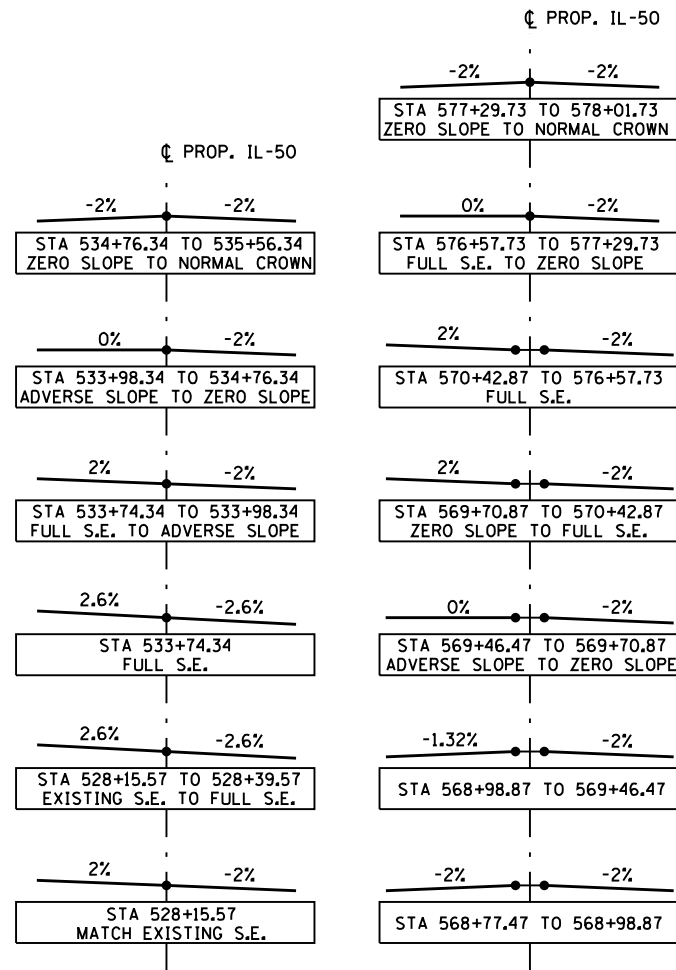
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STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

RETAINING WALL DETAILS
 I-57 AND 6000 RD (BOURBONNAIS PARKWAY)

SHEET NO. OF SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(46-1)HBK-1	KANKAKEE	819	536
CONTRACT NO.			66982	
ILLINOIS FED. AID PROJECT				



PROPOSED IL-50
SUPERELEVATION DETAIL

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DRAWN	MWH	12/12/2013
REVIEWED	FLN	12/12/2013

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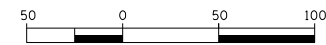
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STATE OF ILLINOIS	DEPARTMENT OF TRANSPORTATION
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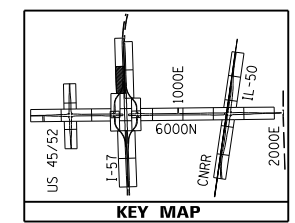
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I-57 AND 6000N RD (BOURBONNAIS PARKWAY)			
BOURBONNAIS, IL			
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 66982				

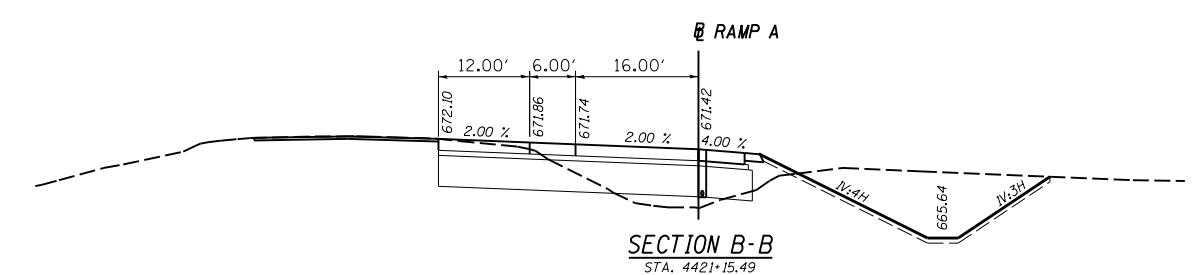
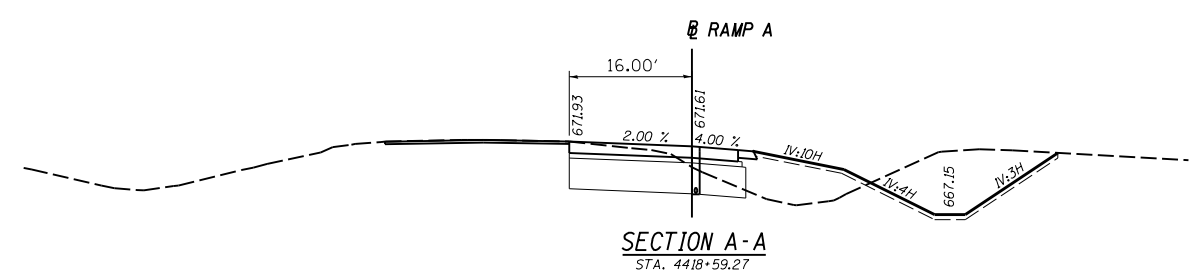
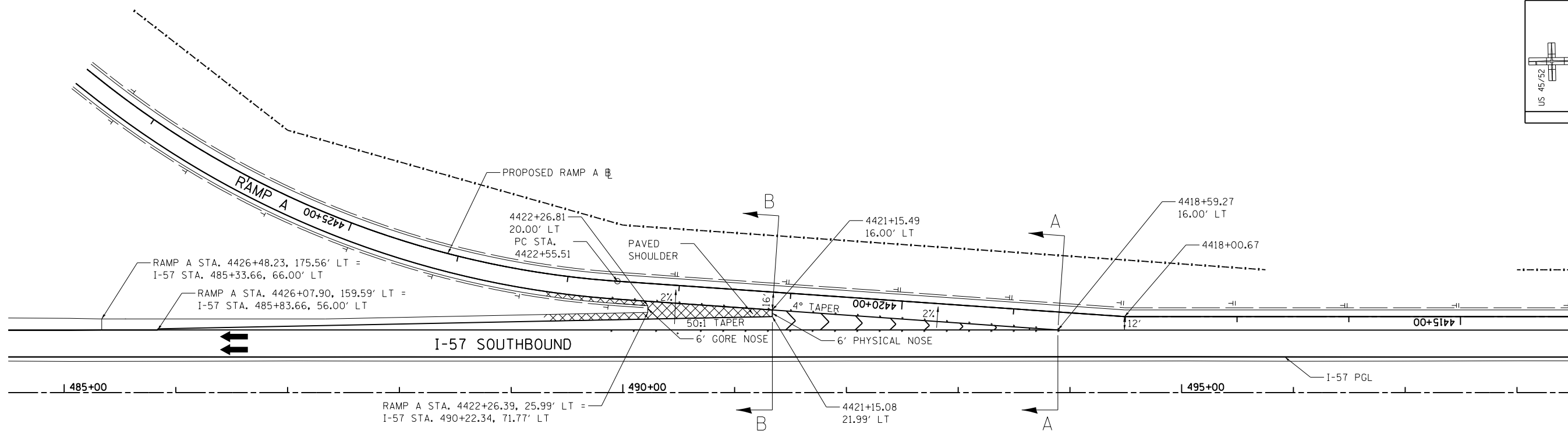
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT
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HORIZONTAL



KEY MAP



LAYOUT	DPA	01.06.2013
DRAWN	MWH	07.10.2013
REVIEWED	DPA	10.17.2013

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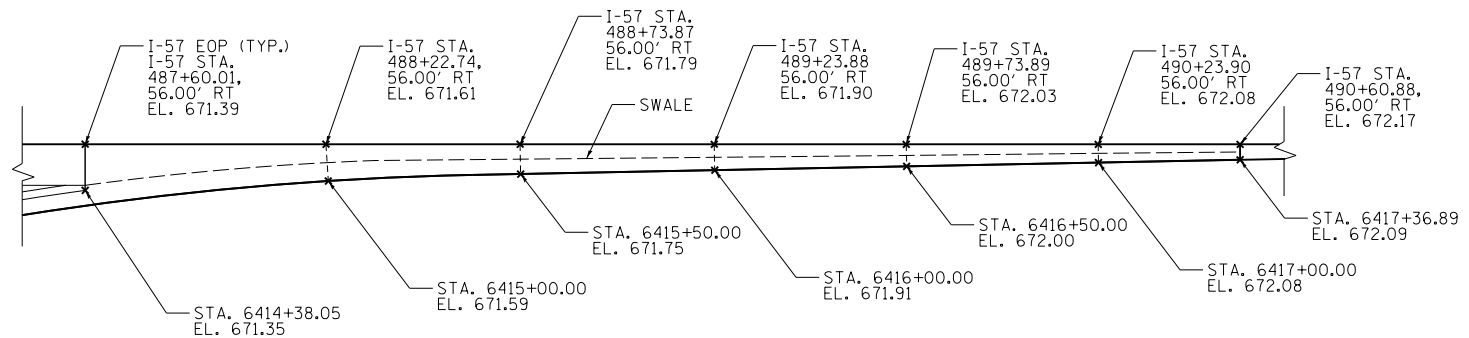
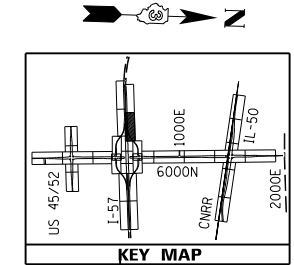
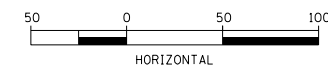
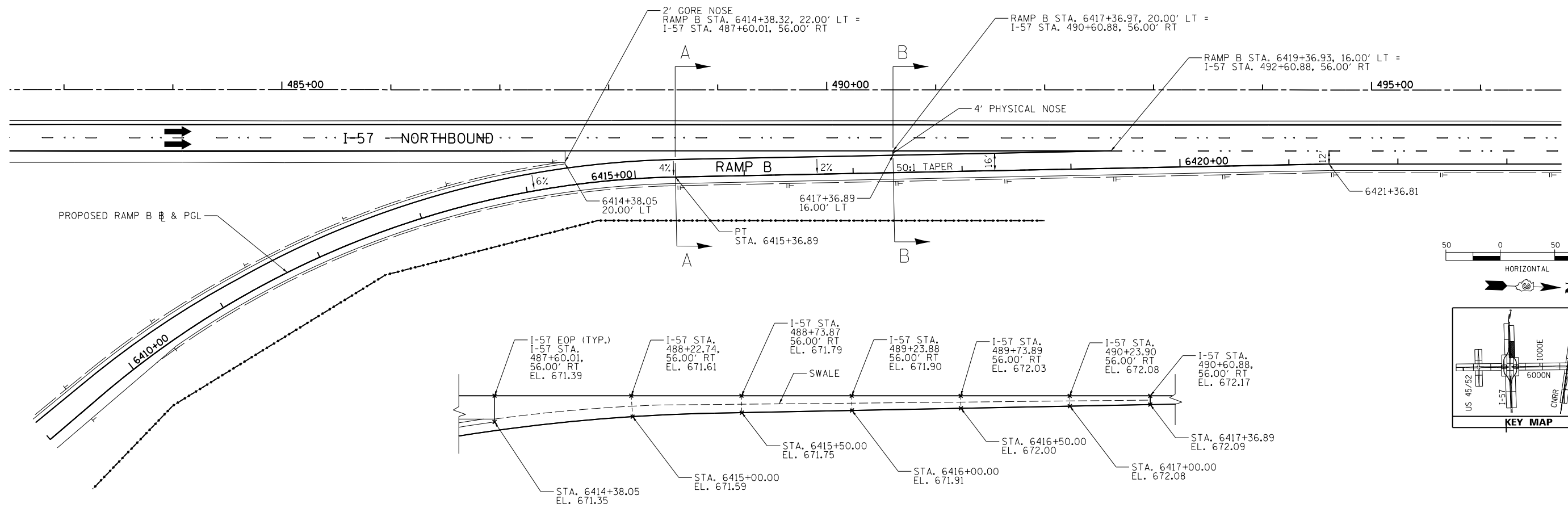
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DRAWN - MWH
CHECKED - DPA
DATE - 12.03.13

REVISED -
REVISED -
REVISED -
REVISED -

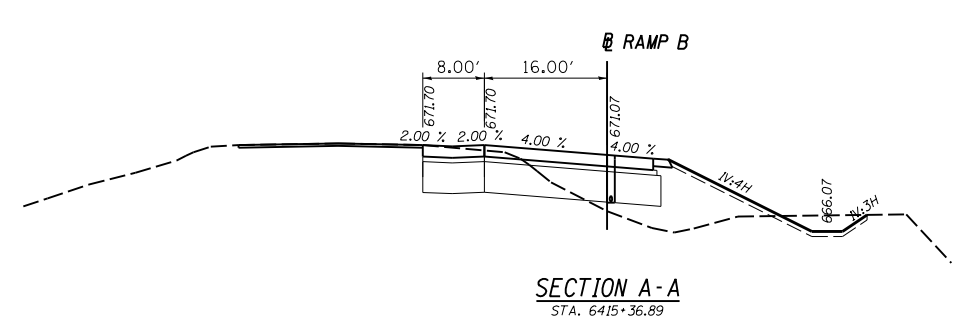
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GORE DETAIL - RAMP A
I-57 AND 6000N RD (BOURBONNAIS PARKWAY)
BOURBONNAIS, IL
SCALE: SHEET 16 OF 29 SHEETS STA. 4410+50 TO STA. 442+54.20

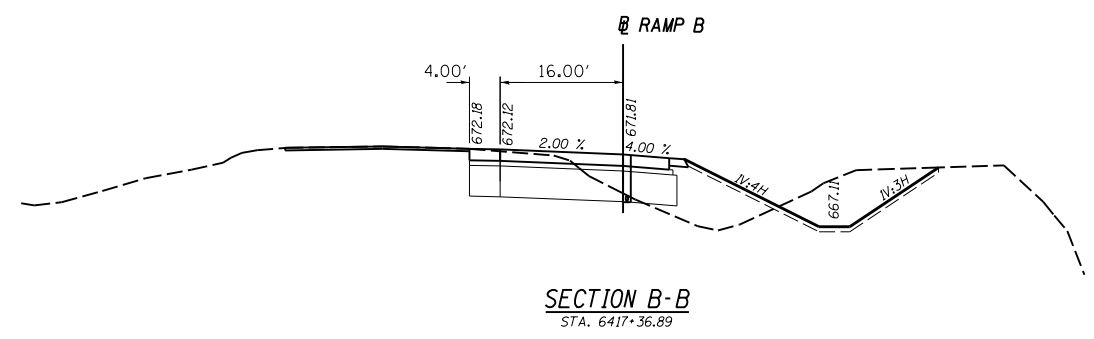
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(46-1)HBK-1	KANKAKEE	819	538
CONTRACT NO. 66982				
ILLINOIS FED. AID PROJECT				



GORE DETAIL
SCALE : 1" = 100'



SECTION A-A
STA. 6415+36.89



SECTION B-B
STA. 6417+36.89

LAYOUT	DPA	01.06.2013
DRAWN	MWH	07.10.2013
REVIEWED	DPA	10.17.2013

FILE NAME = D309H0038-sht-details006
MODEL NAME = Default
USER NAME = hussu00411

DESIGNED - DPA	REVISOR -
DRAWN - MWH	REVISION -
CHECKED - DPA	REVISION -
DATE - 12.03.13	REVISION -

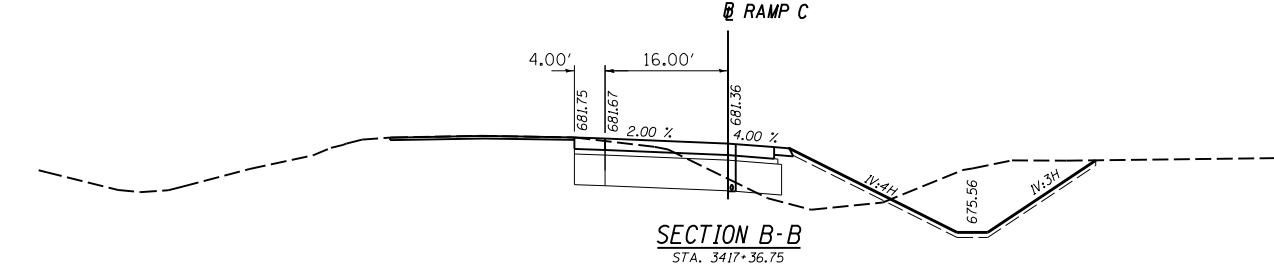
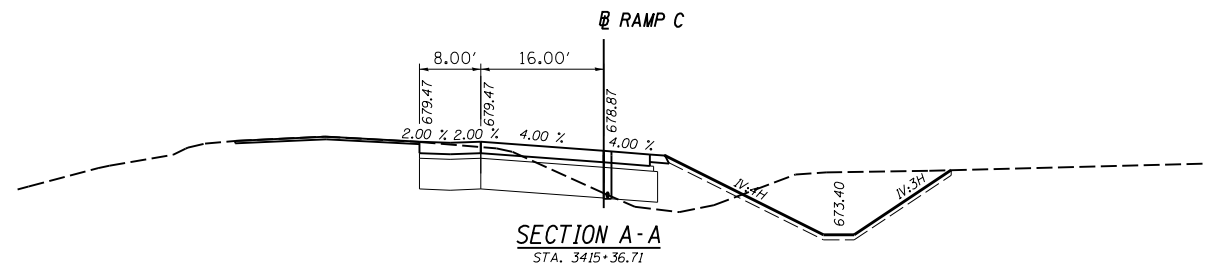
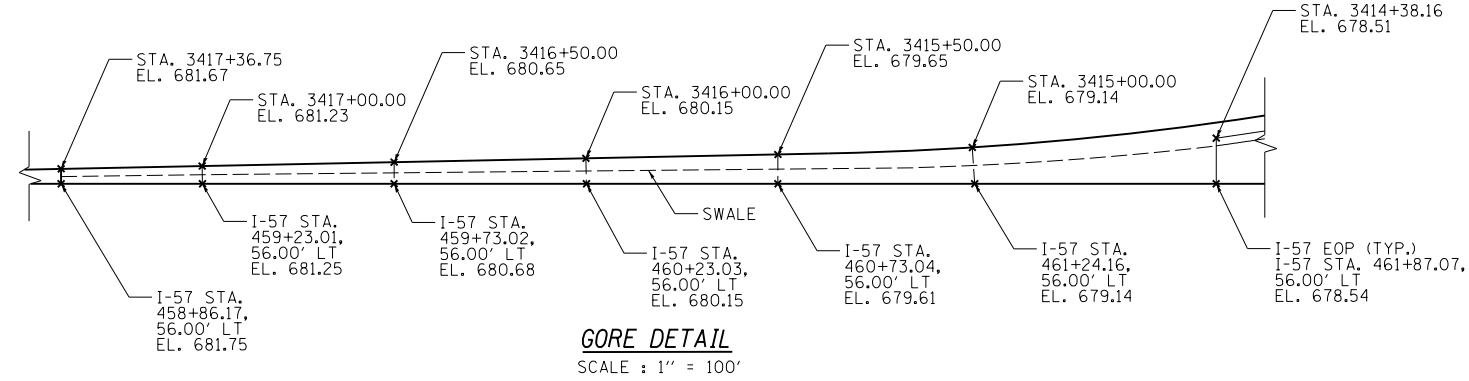
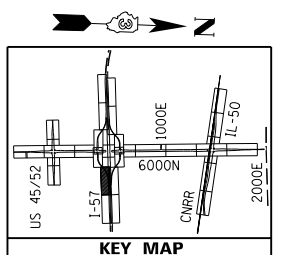
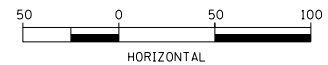
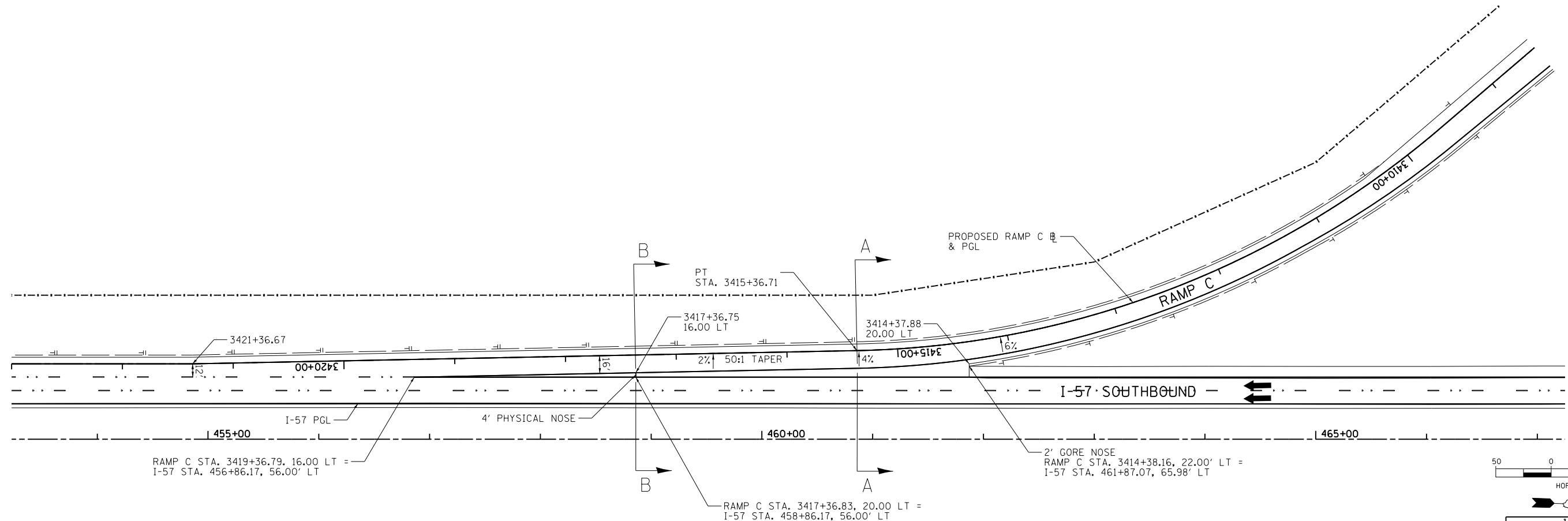
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GORE DETAIL - RAMP B
I-57 AND 6000N RD (BOURBONNAIS PARKWAY)
BOURBONNAIS, IL

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(46-1)HBK-1	KANKAKEE	819	539
CONTRACT NO. 66982				

SCALE: SHEET 19 OF 29 SHEETS STA. 6408+50 TO STA. 6419+50

ILLINOIS FED. AID PROJECT



LAYOUT	DPA	03.06.2013
DRAWN	MWH	07.10.2013
REVIEWED	DPA	10.17.2013

FILE NAME = 0309H0038-sht-details007
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 USER NAME = huss00411
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 DRAWN - MWH
 CHECKED - DPA
 DATE - 12.03.13

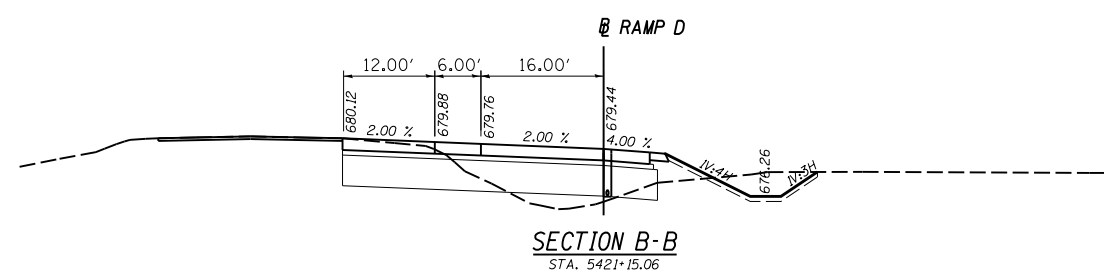
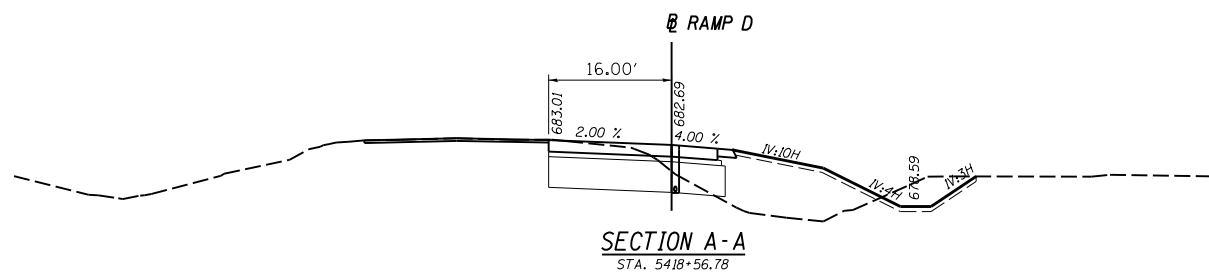
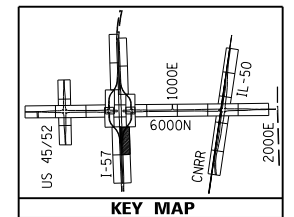
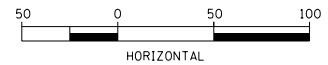
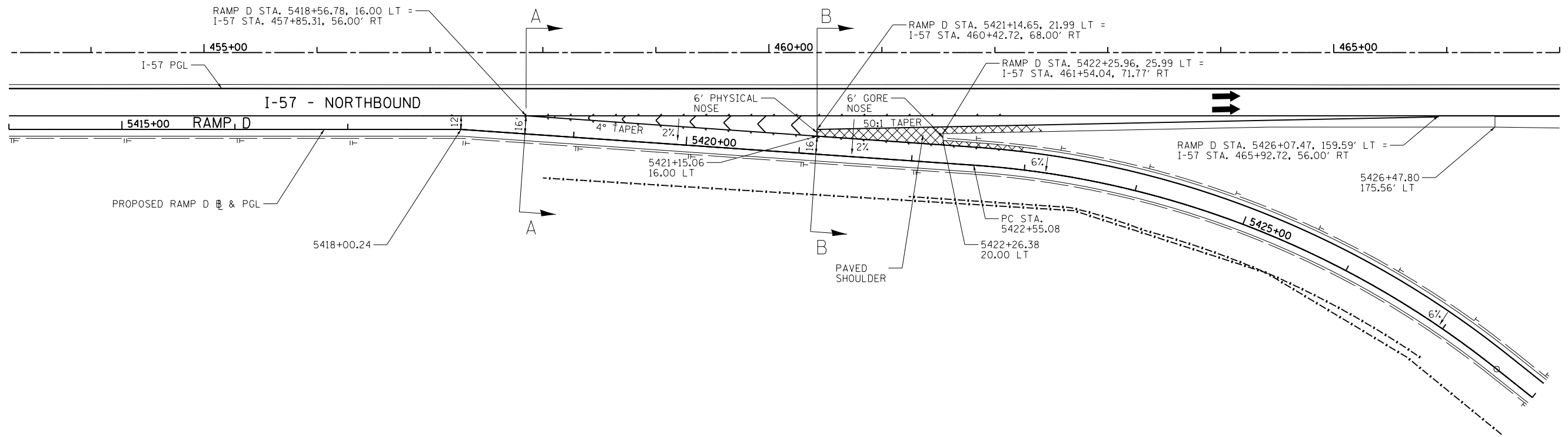
DESIGNED - DPA	REVISED -
DRAWN - MWH	REVISED -
CHECKED - DPA	REVISED -
DATE - 12.03.13	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

GORE DETAIL - RAMP C
I-57 AND 6000N RD (BOURBONNAIS PARKWAY)
BOURBONNAIS, IL

SCALE: SHEET 22 OF 29 SHEETS STA. 3418+50 TO STA. 3408+50

F.A.I. RTE. 57	SECTION (46-1)HBK-1	COUNTY KANKAKEE	TOTAL SHEETS 819	SHEET NO. 540
CONTRACT NO. 66982				
ILLINOIS FED. AID PROJECT				



LAYOUT	DPA	03.06.2013
DRAWN	MWH	07.10.2013
REVIEWED	DPA	10.17.2013

FILE NAME = D309H0038-sht-details008
MODEL NAME = Default

USER NAME = hussu00411
PLOT SCALE = 100.0002' / 1" = 12.03.13

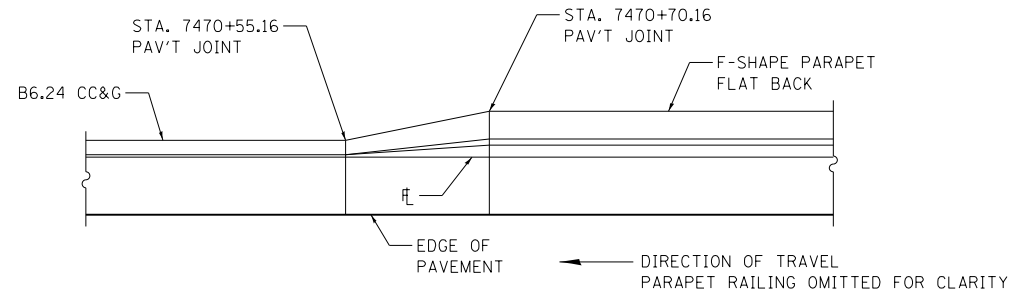
DESIGNED - DPA
DRAWN - MWH
CHECKED - DPA
DATE - 12.03.13

REVISED -
REVISED -
REVISED -
REVISED -

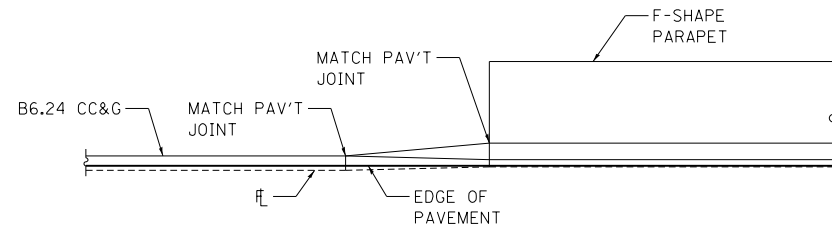
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GORE DETAIL - RAMP D
I-57 AND 6000N RD (BOURBONNAIS PARKWAY)
BOURBONNAIS, IL
SCALE: SHEET 25 OF 29 SHEETS STA. 5400+00 TO STA. 5413+50

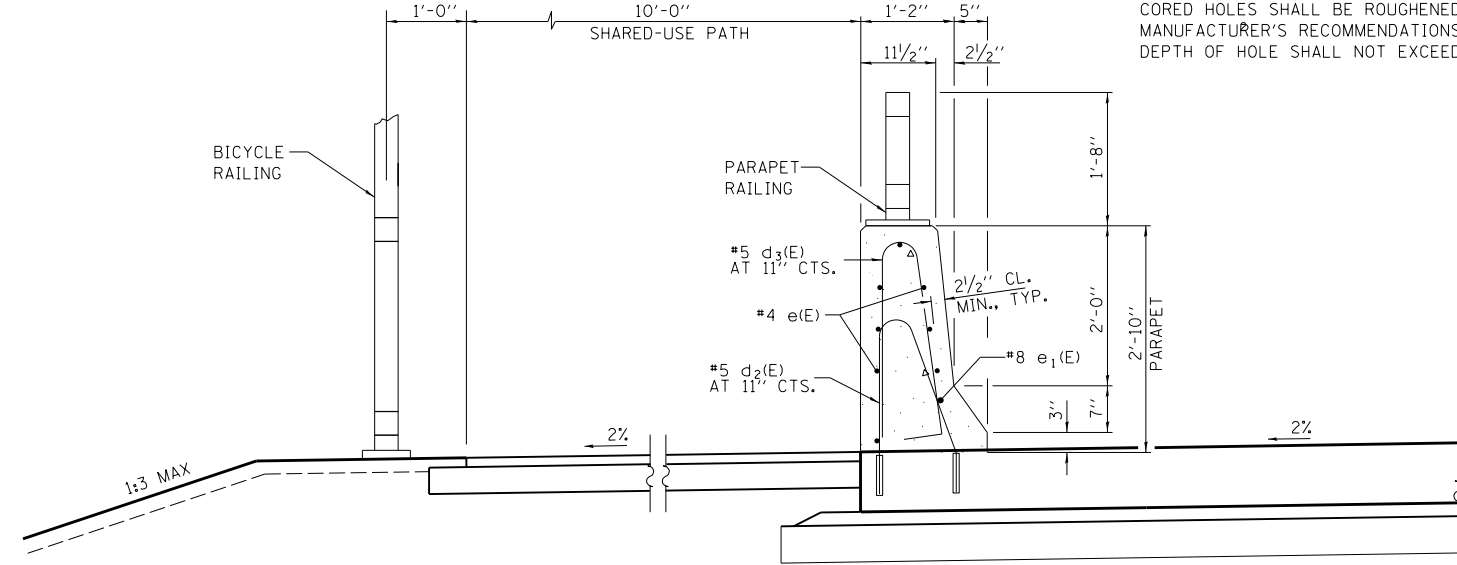
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(46-1)HBK-1	KANKAKEE	819	541
CONTRACT NO. 66982				
ILLINOIS FED. AID PROJECT				



PLAN VIEW

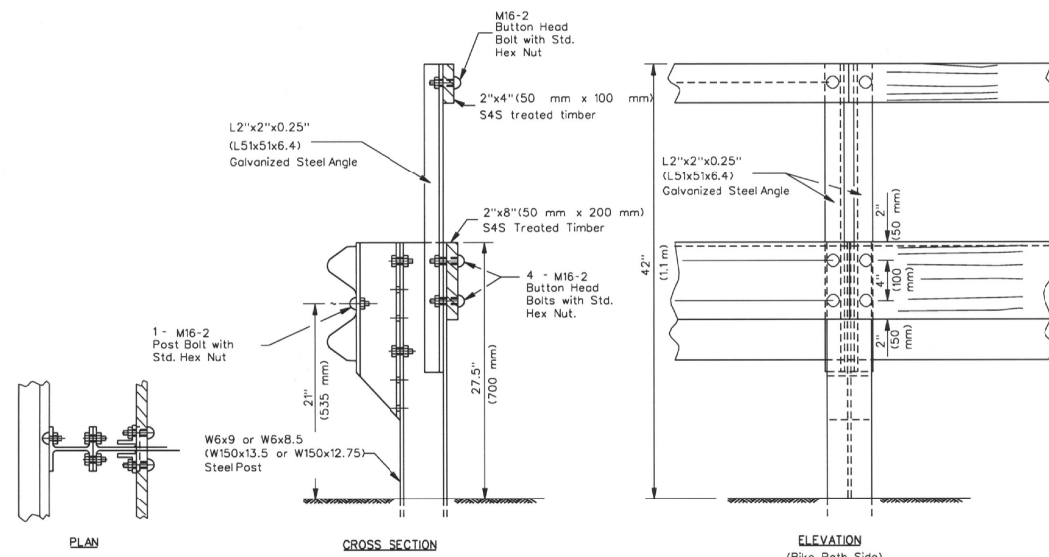


ELEVATION VIEW



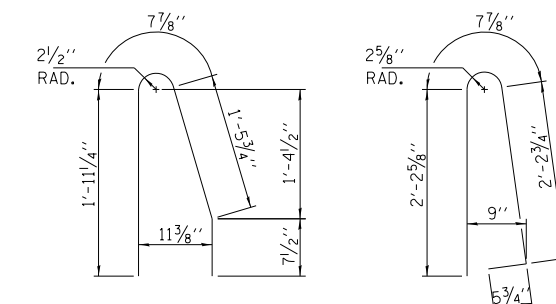
SECTION THRU WALL

•CORE AND SET #5 d (E) BAR ACCORDING TO ARTICLE 509.06 OF THE STANDARD SPECIFICATIONS. CORED HOLES SHALL BE ROUGHENED OR SCORED PER MANUFACTURER'S RECOMMENDATIONS. MAXIMUM DEPTH OF HOLE SHALL NOT EXCEED 6".



SHARED-USE PATH APPROACH GUARDRAIL ADJUSTMENT

STA. 7478+14.82 TO STA. 7479+17.70



BAR d₂(E)

(ADJUST BARS IN DECK TO AVOID CUTTING BARS)

LAYOUT	DPA	03.06.2013
DRAWN	MWH	07.10.2013
REVIEWED	DPA	10.17.2013
DET1		

FILE NAME = D389H0038-sht-details003
MODEL NAME =
DET1

USER NAME = MWH
PLOT SCALE = AS SHOWN
PLOT DATE = 12\02\2013

DESIGNED - DPA
DRAWN - MWH
CHECKED - DPA
DATE - 12.03.13

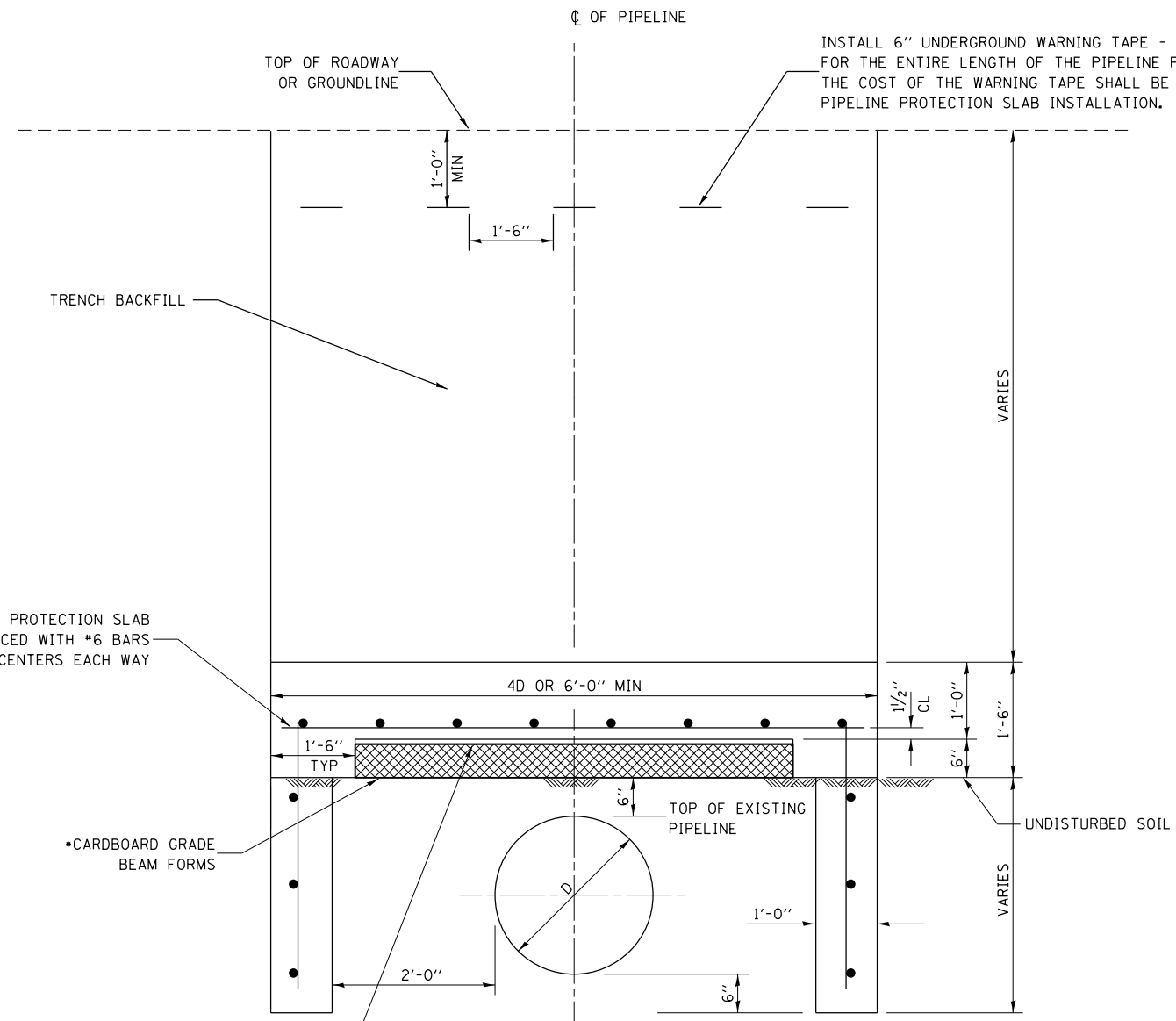
REVISED -
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MULTI-USE PATH BARRIER WALL DETAILS
I-57 AND 6000N RD (BOURBONNAIS PARKWAY)
BOURBONNAIS, IL

SCALE: AS SHOWN SHEET NO. OF SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(46-1)HBK-1	KANKAKEE	819	542
CONTRACT NO. 66982				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



INSTALL 6" UNDERGROUND WARNING TAPE - GAS (IDENTOLINE OR APPROVED EQUAL) FOR THE ENTIRE LENGTH OF THE PIPELINE PROTECTION SLAB CROSSING. THE COST OF THE WARNING TAPE SHALL BE INCLUDED IN THE COST OF THE PIPELINE PROTECTION SLAB INSTALLATION.

CONCRETE PROTECTION SLAB REINFORCED WITH #6 BARS ON 12" CENTERS EACH WAY

• CARDBOARD GRADE BEAM FORMS

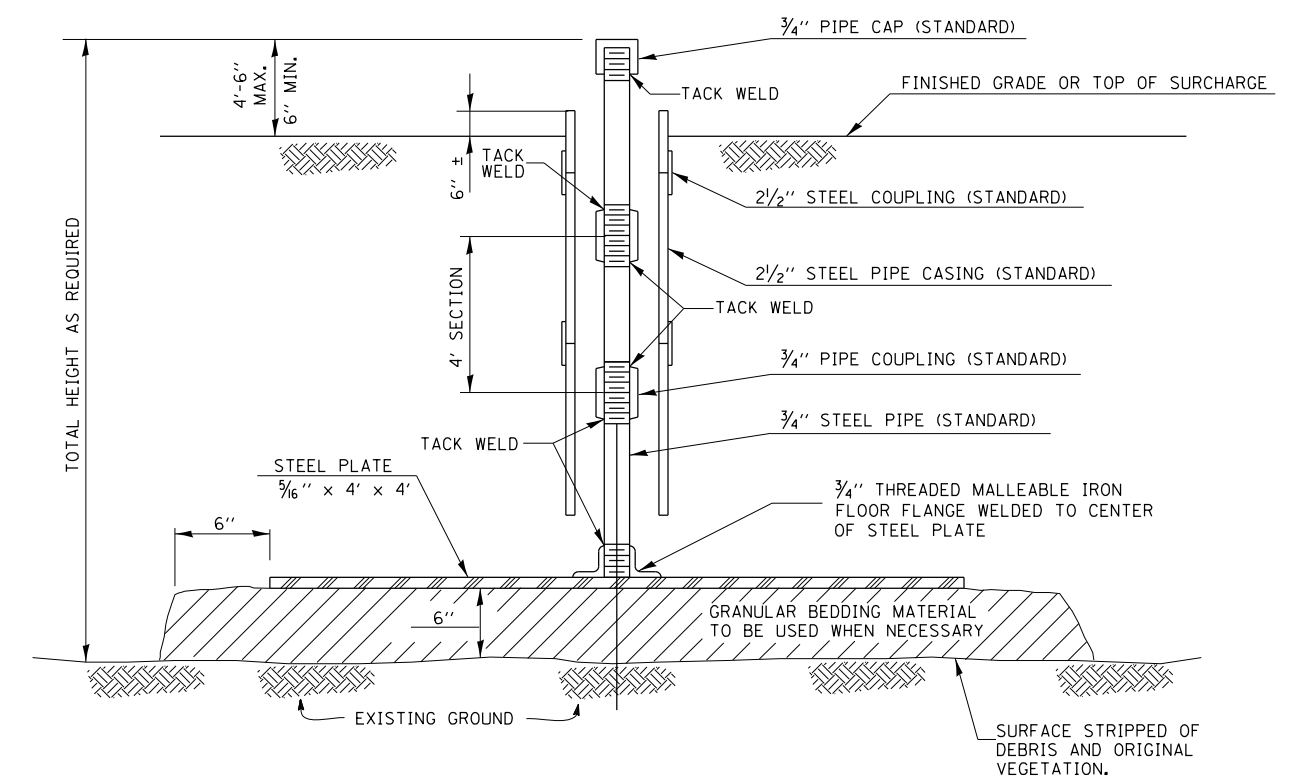
PROTECTIVE COVER BOARD OF HARDBOARD OR PLYWOOD SHOULD BE PLACED ON TOP OF SLAB VOID TO PREVENT PUNCTURE AND OTHER DAMAGE DURING CONCRETE PLACEMENT.

• SureVoid Products
SLAB VOID HEAVY DUTY STRENGTH
WORKING LOAD OF 1500 PSF.
END CAPS REQUIRED.

DIAMETER OF PIPE (D)	WIDTH OF SLAB (4D)
2" - 20"	6'-0"
24"	8'-0"
28"	9'-4"
36"	12'-0"
42"	14'-0"

DESIGNED IN ACCORDANCE WITH TITLE 49-PARTm192 MINIMUM FEDERAL SAFETY STANDARDS AND ASME GUIDE FOR GAS PIPING SYSTEMS, LATEST EDITION.

UTILITY PROTECTION PAD SCHEDULE					
PIPELINE	SIZE	STATION	SLAB SIZE	SQ YD	NOTE
US 45/52					
EXPLORER	24"	272±46	8' X 175'	156	
BUCKEYE	14"	272±72	6' X 175'	117	
6000 N RD					
EXPLORER	24"	7459±05	8' X 215'	192	
BUCKEYE	14"	7458±10	6' X 230'	154	
RAMP A					
EXPLORER	24"	4430±75	8' X 220'	196	
BUCKEYE	14"	4418±60			CRANE MAT ONLY
RAMP B					
EXPLORER	24"	6413±10			CRANE MAT ONLY
BUCKEYE	14"	6422±25			CRANE MAT ONLY
TOTAL				815	



SETTLEMENT PLATFORM DETAIL

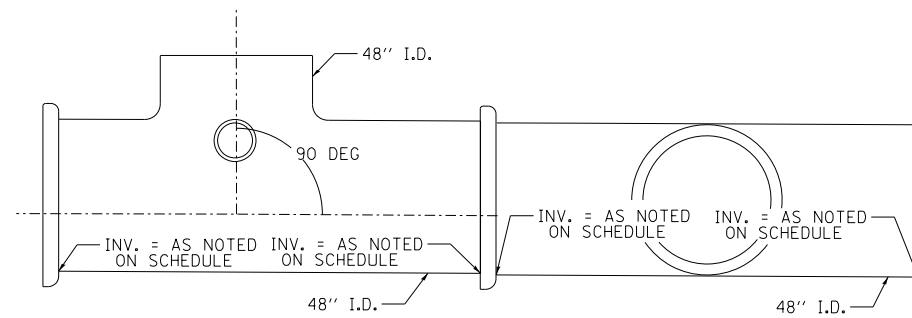
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DRAWN SIGDRW# SIGDATE#
REVISED SIGREV# SIGDATE#
*MODEL#

FILE NAME =	USER NAME = MWH	DESIGNED -	REVISED -
*FILES#		DRAWN -	REVISED -
MODEL NAME =	PLOT SCALE = AS SHOWN	CHECKED -	REVISED -
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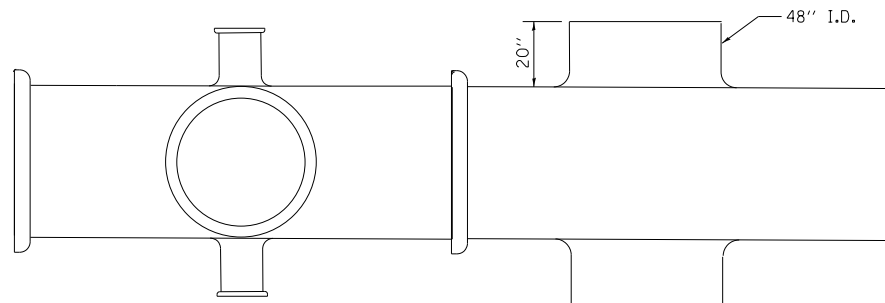
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

UTILITY PROTECTION PAD DETAIL			
I-57 AND 6000N RD (BOURBONNAIS PARKWAY)			
BOURBONNAIS, IL			
SCALE: AS SHOWN	SHEET NO.	OF SHEETS	STA. TO STA.

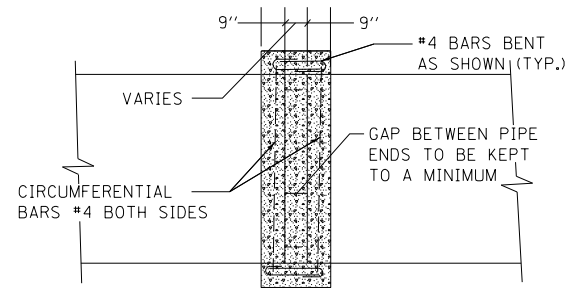
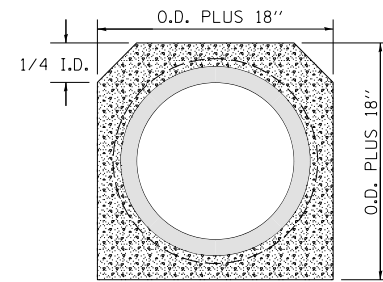
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(46-1)HBK-1	KANKAKEE	819	543
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	
			CONTRACT NO. 66982	



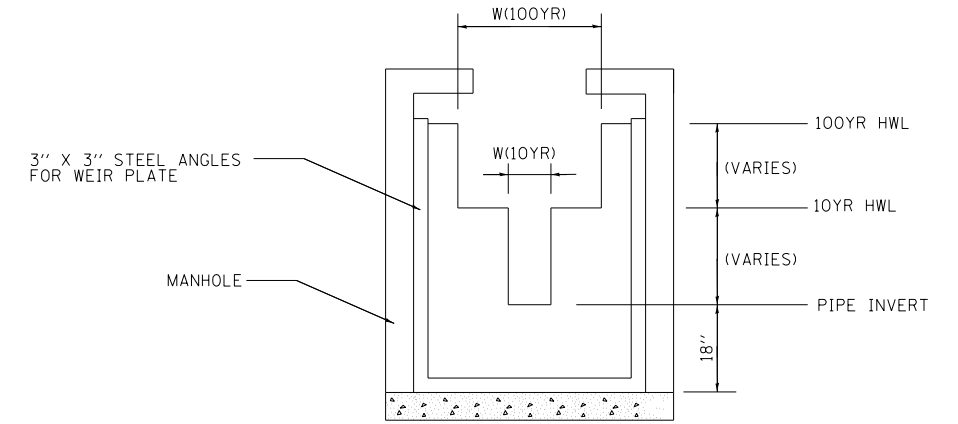
**MANHOLE, SPECIAL
(4'x4' JUNCTION) - ELEVATION -TYP.**
NOTE: CONTRACTOR MAY REVERSE ORDER



**MANHOLE, SPECIAL
(4'x4' JUNCTION) AERIAL VIEW -TYP.**
NOTE: CONTRACTOR MAY REVERSE ORDER



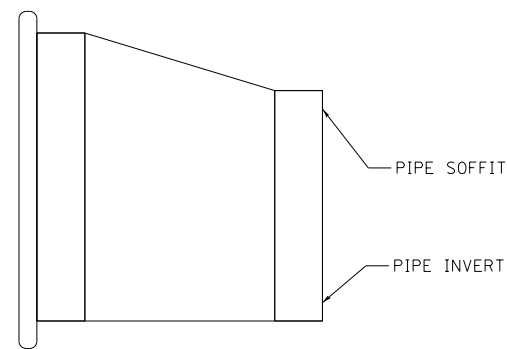
CONCRETE COLLAR FOR 48" I.D. PIPE



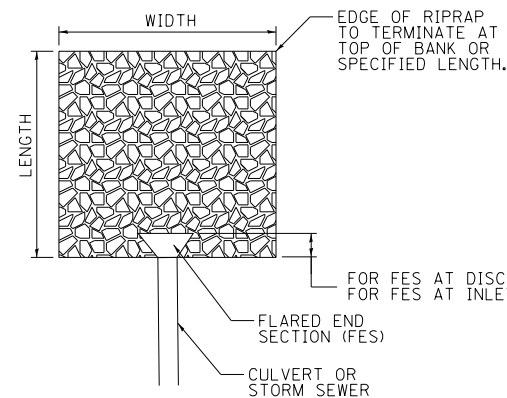
**RESTRICTOR DETAIL
FOR MANHOLES, WITH RESTRICTOR PLATE**

RESTRICTORS

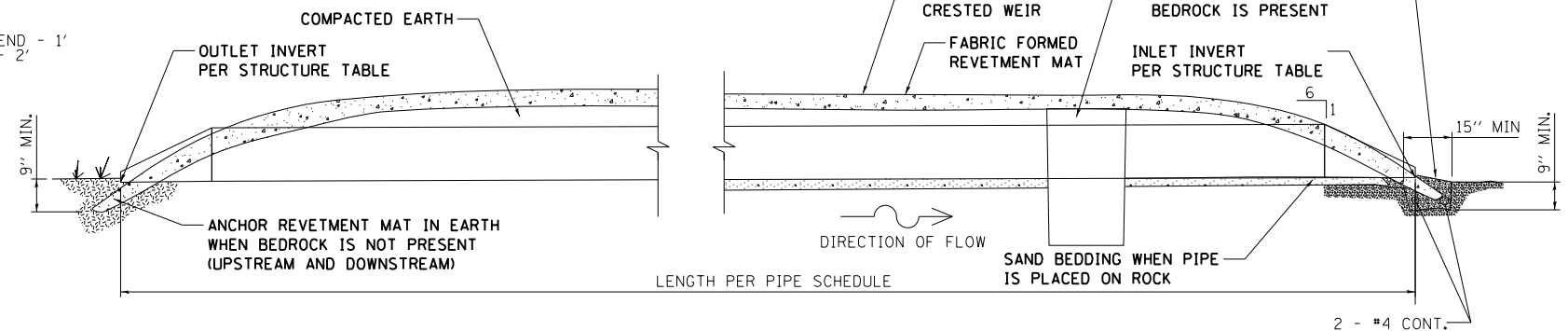
STR #	DIA (FT)	INV	10YR HWL	100YR HWL	W ₁₀ (FT)	W ₁₀₀ (FT)
74481	6	665.36	666.64	667.84	1.58	5.00
74671	7	668.53	671.47	673.27	0.35	5.00
74882	7	665.22	668.23	670.08	0.29	5.00
74893	6	665.23	668.86	669.74	0.29	5.00
75223	7	673.96	675.41	676.05	1.10	5.00



TYPICAL LARGE DIAMETER PIPE TRANSITION

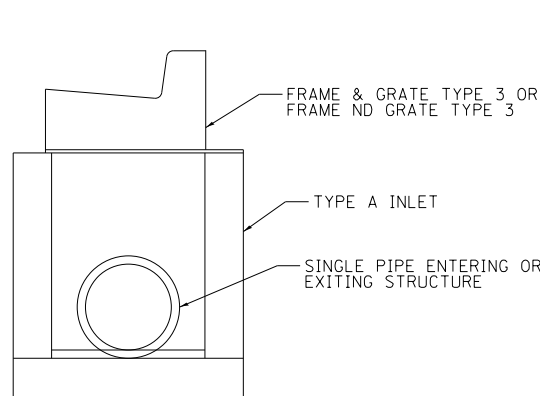


RIPRAP LAYOUT

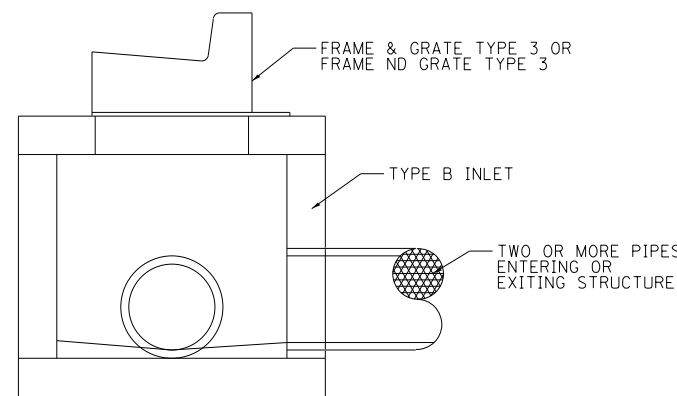


DISCHARGE CONTROL STRUCTURE FOR IL 50

OUTLET STRUCTURE NUMBER	MAX. ELEV. OF BROADCRESTED WEIR
5261	678.25
5418	681.00
5474	677.00
5518	672.80
5635	670.20
5656	670.50
5687	668.80



TYPE A INLET



TYPE B INLET

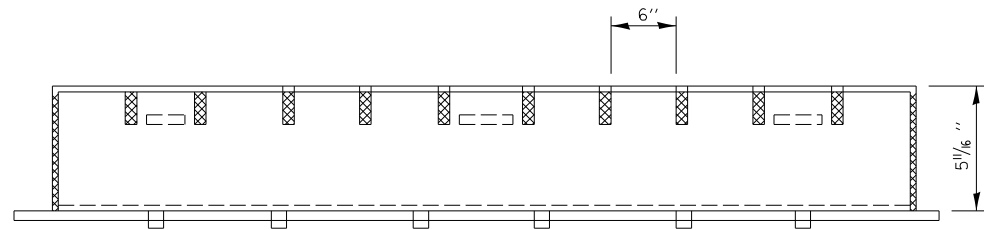
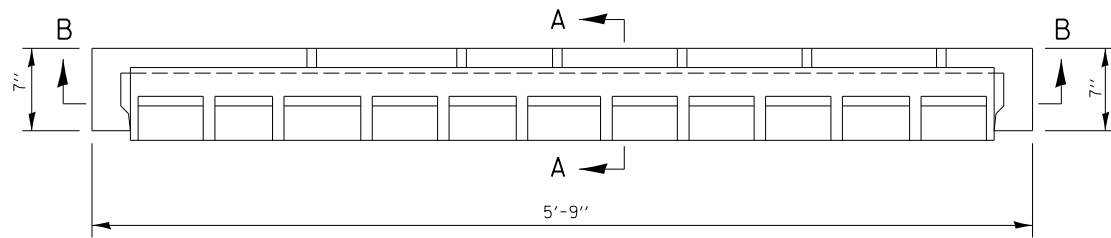
LAYOUT	CRC	03.06.2013
DRAWN	JDM	07.10.2013
REVIEWED	CRC	10.17.2013

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DET1		DATE - 12.03.13	REVISED -

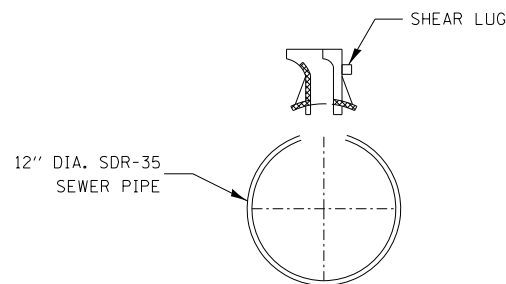
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

DRAINAGE DETAILS			
I-57 AND 600N RD (BOURBONNAIS PARKWAY)			
BOURBONNAIS, IL			
SCALE: AS SHOWN	SHEET NO.	OF SHEETS	STA. TO STA.

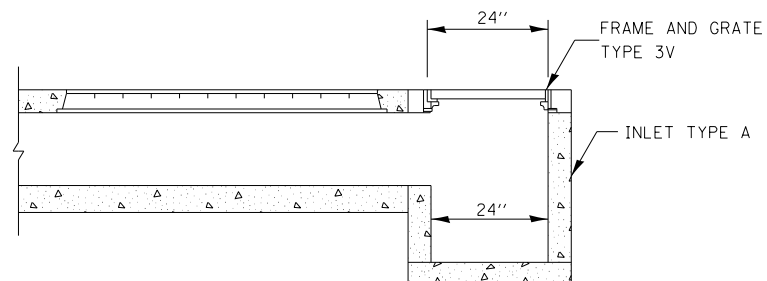
F.A.I. RE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(46-1)HBK-1	KANKAKEE	819	544
CONTRACT NO. 66982				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



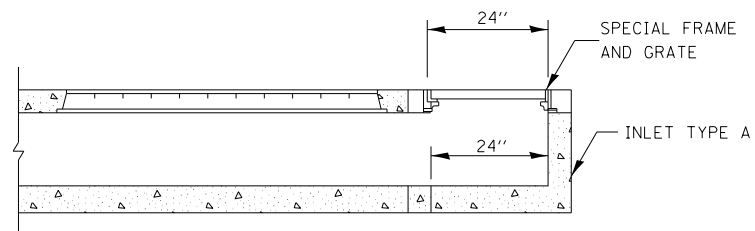
SECTION B-B



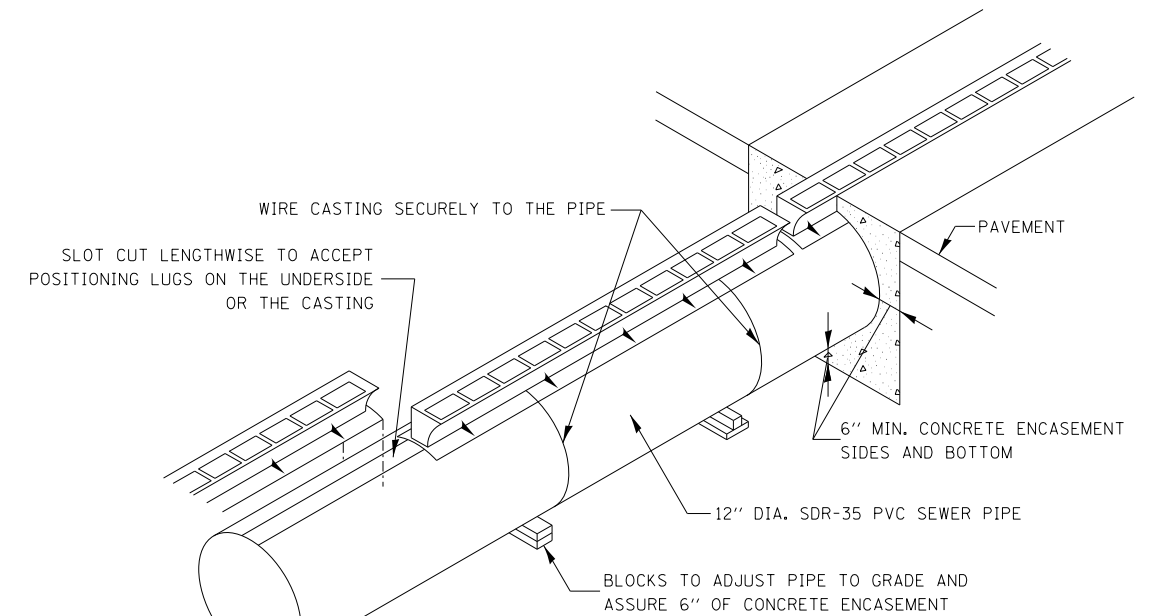
SECTION A-A



SIDE VIEW (DOWNSTREAM)



SIDE VIEW (UPSTREAM)



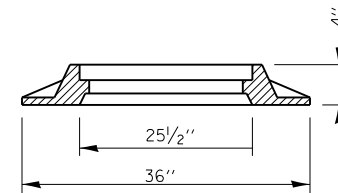
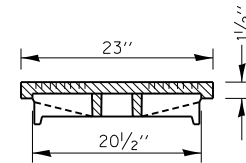
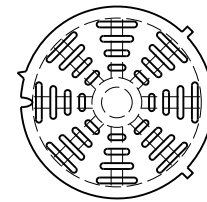
GENERAL NOTES:

CLASS SI CONCRETE SHALL BE USED THROUGHOUT.

THE CONTRACT UNIT PRICE PER FOOT FOR SLOTTED DRAIN 12" WITH 6" SLOT SHALL INCLUDE THE GRATE, CLASS SI CONCRETE, SDR-35 PVC 12" SEWER PIPE, BLOCKS, WIRE AND EXCAVATION.

THE INLET TYPE A TO BE IN ACCORDANCE WITH STANDARD 602301.

THE CONTRACT UNIT PRICE EACH FOR INLETS, TYPE A, WITH SPECIAL FRAME, OPEN LID SHALL INCLUDE A TYPE A INLET AND THE FRAME AND GRATE DETAILED ABOVE.



TOTAL WEIGHT 285 LBS.

SPECIAL FRAME AND GRATE

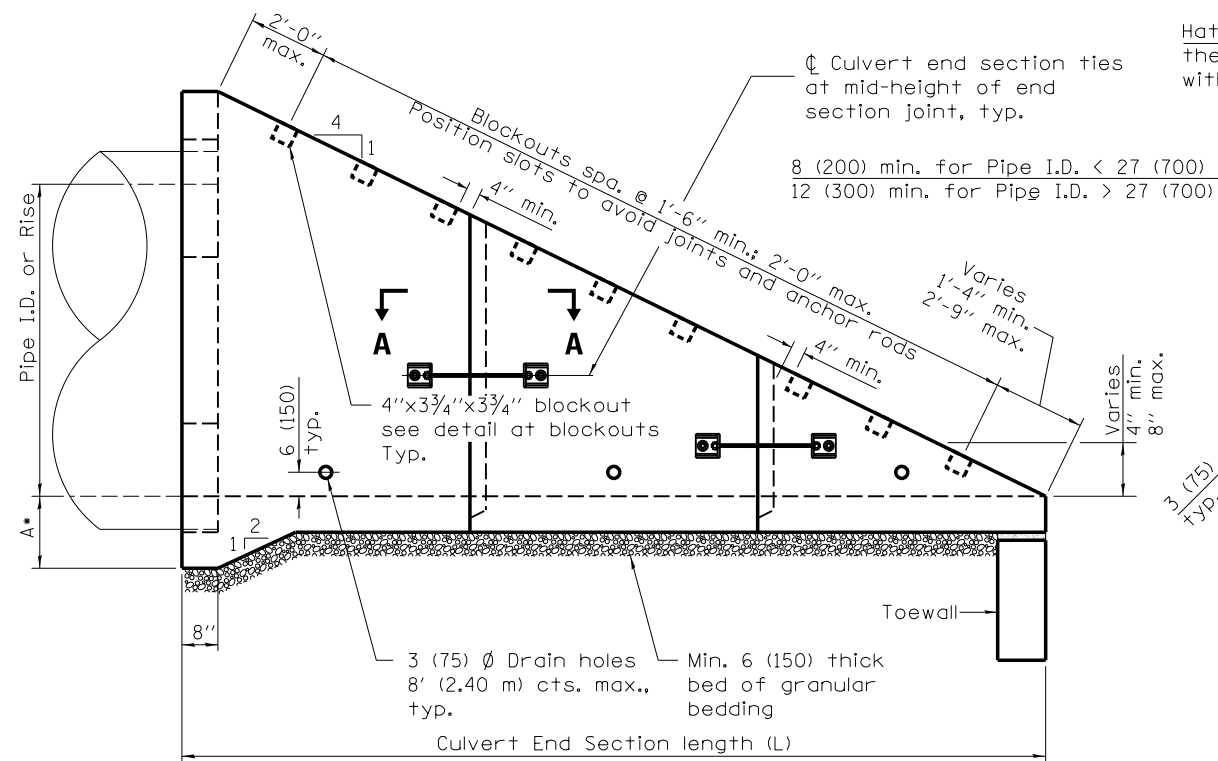
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DRAWN	JDM	07.10.2013
REVIEWED	CRC	10.17.2013
DET1		

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D309H0038-sht-details010		DRAWN - JDM	REVISED -
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

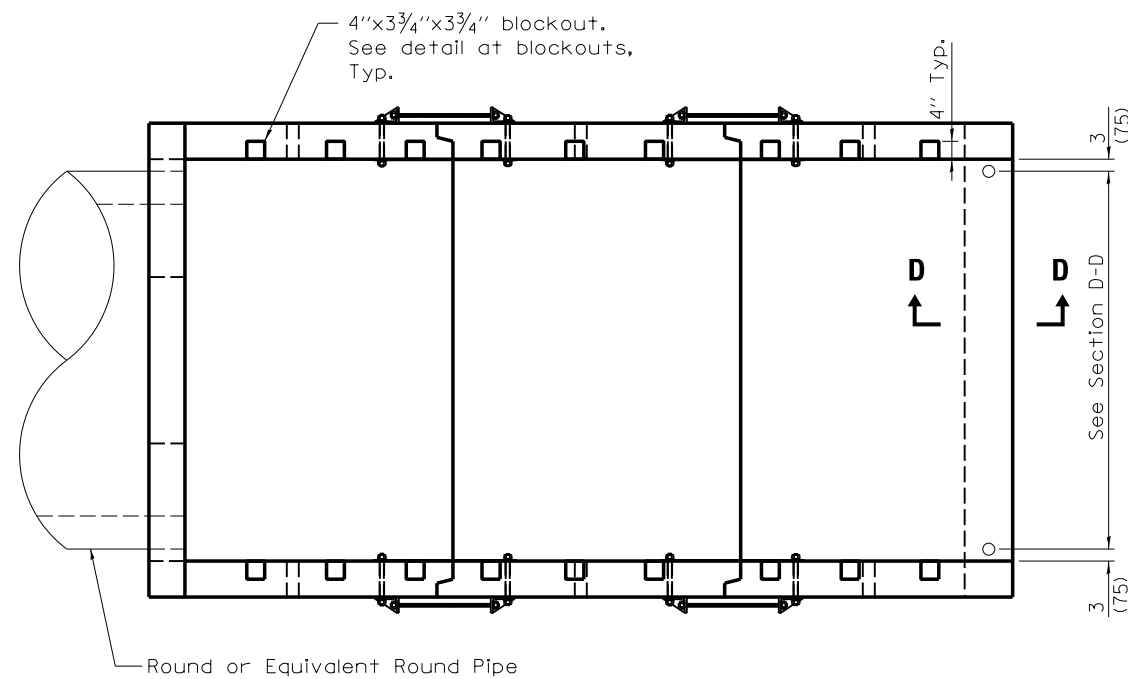
DETAIL OF SLOTTED VANE DRAIN			
I-57 AND 6000N RD (BOURBONNAIS PARKWAY)			
BOURBONNAIS, IL			
SCALE: AS SHOWN	SHEET NO.	OF SHEETS	STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(46-1)HBK-1	KANKAKEE	819	545
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	
			CONTRACT NO. 66982	

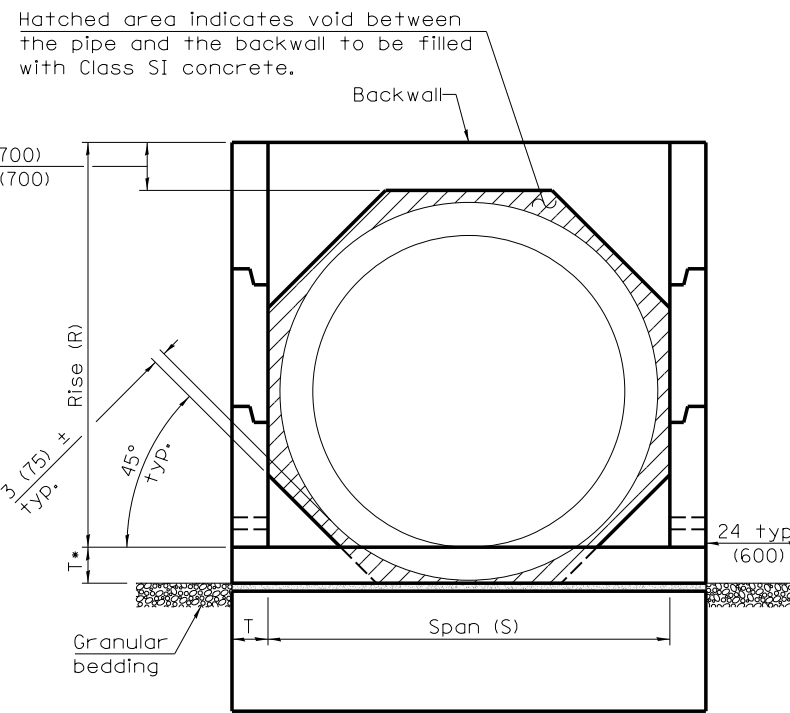


ELEVATION

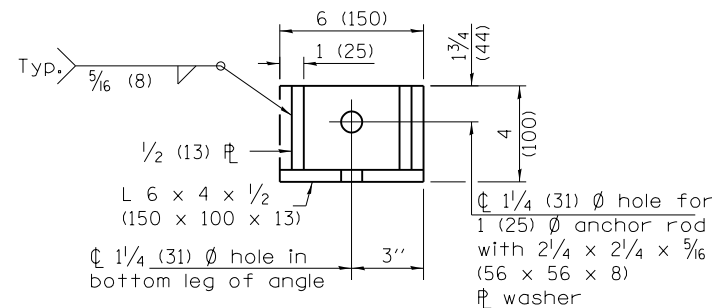
* This dimension shall be increased by 1/2 (38) for CIP field construction. See General Notes.



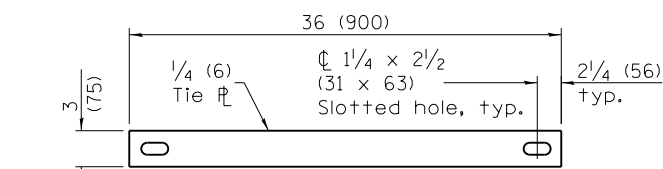
PLAN



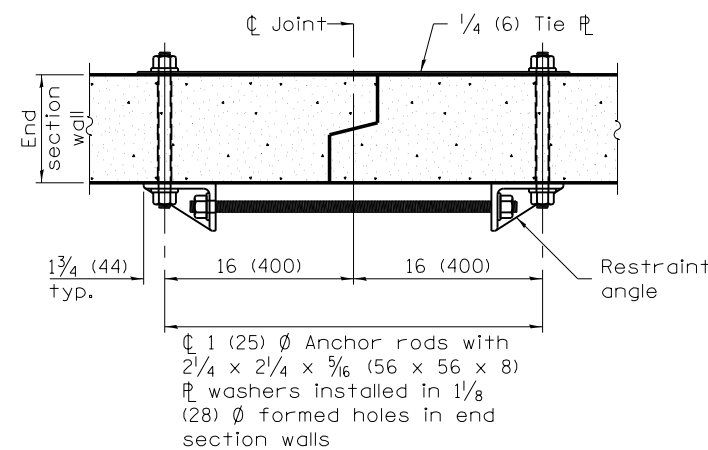
END VIEW - ROUND PIPE



RESTRAINT ANGLE DETAIL



TIE PLATE DETAIL



SECTION A-A

(Showing end section tie details)

PIPE CULVERT END SECTION DIMENSIONS

Pipe I.D.	A	R	S	T	L
					Slope of End Section
36" Round	16	4'-8"	4'-4"	8	19'-4"
36" EQRS	16	4'-1"	5'-0"	8	17'-0"

GENERAL NOTES

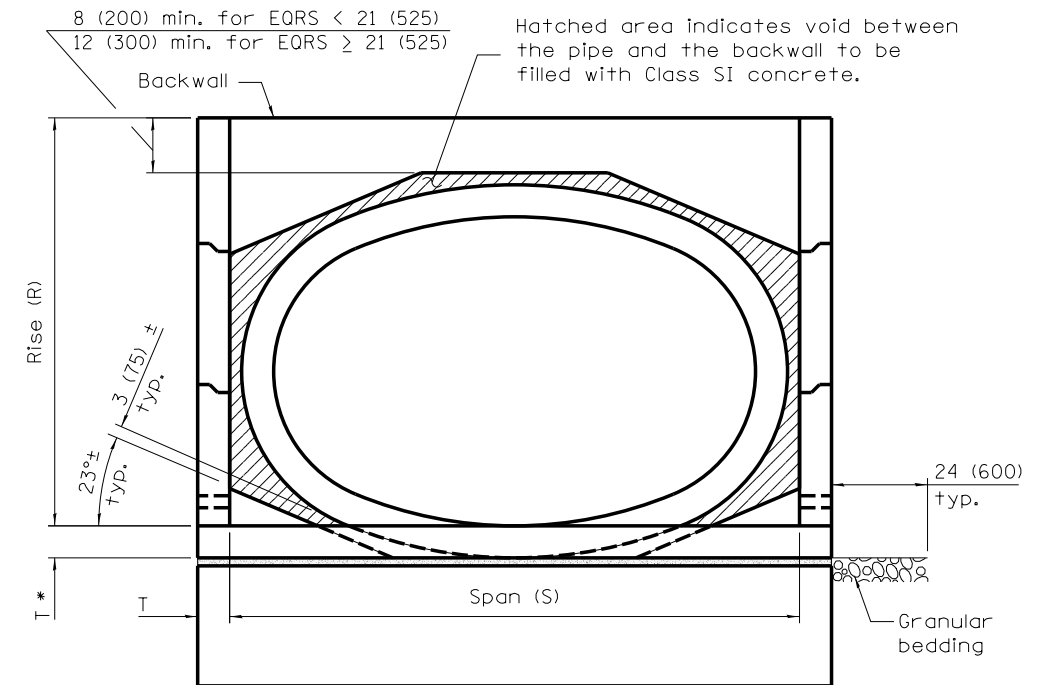
The number of segments shown in elevation is for example only. The length and number of precast sections required to construct the end section shall be determined by the Contractor.

See roadway plans for slope (V:H) and pipe inside diameter.

2 1/4 x 2 1/4 x 5/16 (56 x 56 x 8) plate washers shall be provided under each nut required for the anchor rods. Holes in the walls for the culvert tie assembly may be drilled using core bits in lieu of formed holes.

All slope ratios are expressed as units of vertical displacement to units of horizontal displacement (V:H).

All dimensions are in inches (millimeters) unless otherwise shown.



END VIEW - ELLIPTICAL PIPE

LAYOUT	CRC	03.06.2013
DRAWN	JDM	08.16.2013
REVIEWED	CRC	10.17.2013
DET1		

FILE NAME = D389H0038-shd-details017
MODEL NAME =
PLOT DATE = 12.02.2013

USER NAME = MWH
DESIGNED - CRC
DRAWN - JDM
CHECKED - CRC
DATE - 12.03.13

DESIGNED - CRC
DRAWN - JDM
CHECKED - CRC
DATE - 12.03.13

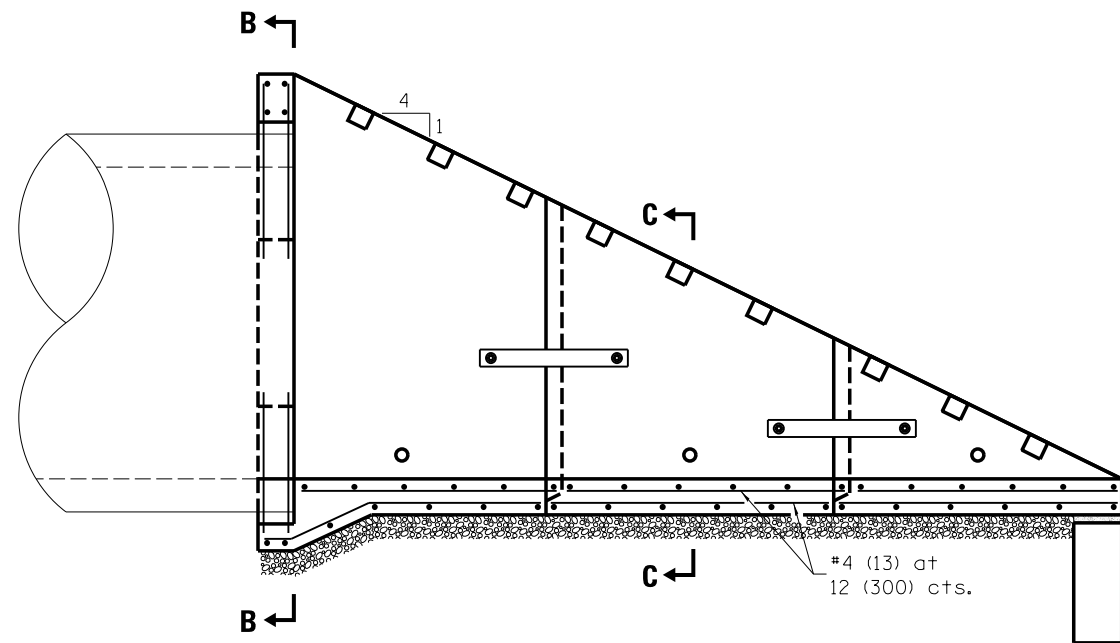
REVISED -
REVISED -
REVISED -
REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**CONCRETE END SECTION DETAILS
I-57 AND 6000N RD (BOURBONNAIS PARKWAY)
BOURBONNAIS, IL**

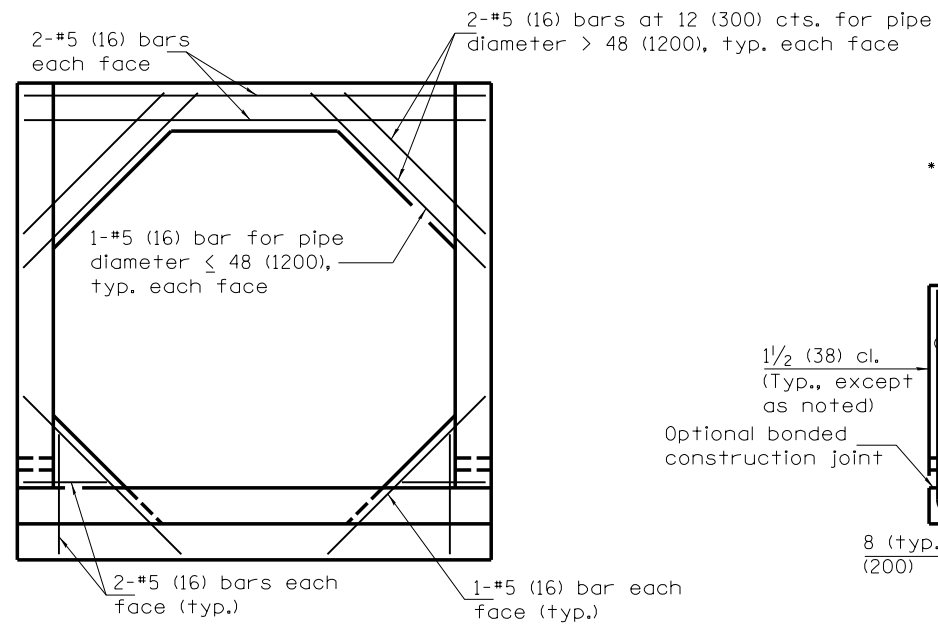
SCALE: AS SHOWN SHEET NO. OF SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(46-1)HBK-1	KANKAKEE	819	546
CONTRACT NO. 66982				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



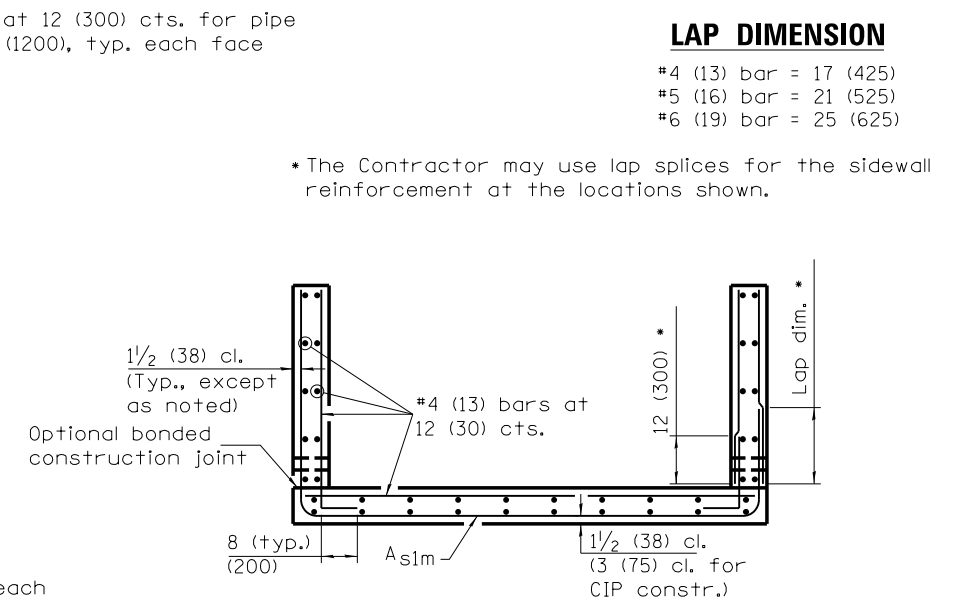
LONGITUDINAL SECTION

(Showing bottom slab and backwall reinforcement.)



SECTION B-B

(Showing backwall reinforcement only.)
(Pipe omitted for clarity.)

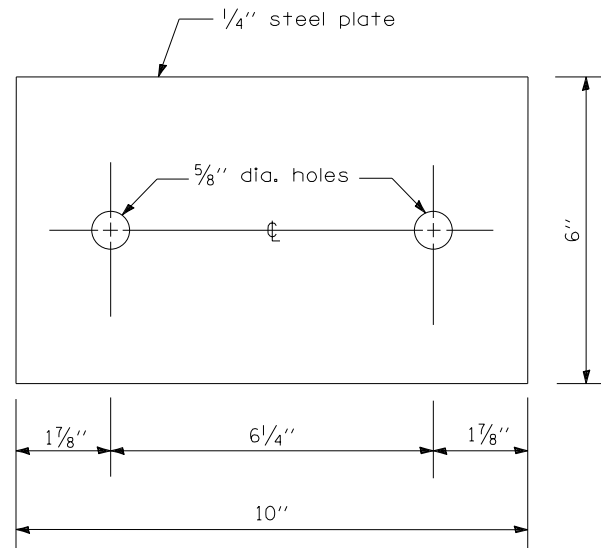


SECTION C-C

LAP DIMENSION

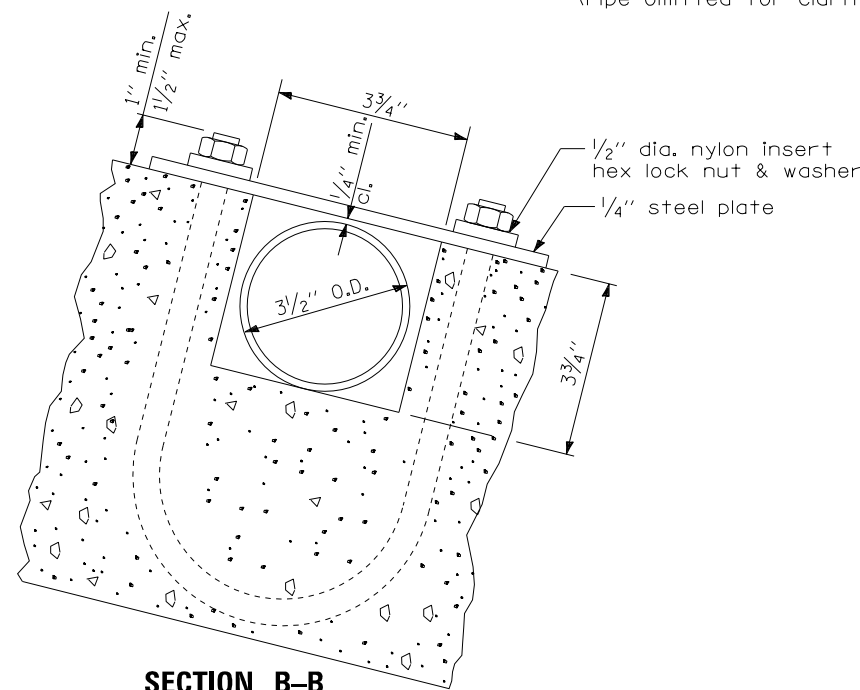
- #4 (13) bar = 17 (425)
- #5 (16) bar = 21 (525)
- #6 (19) bar = 25 (625)

*The Contractor may use lap splices for the sidewall reinforcement at the locations shown.

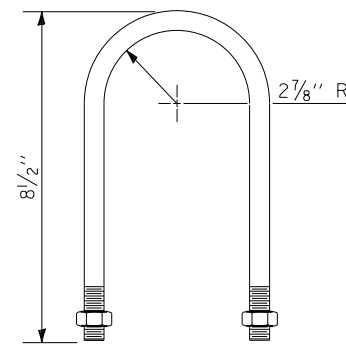


TOP ANCHOR PLATE

(1 - required)

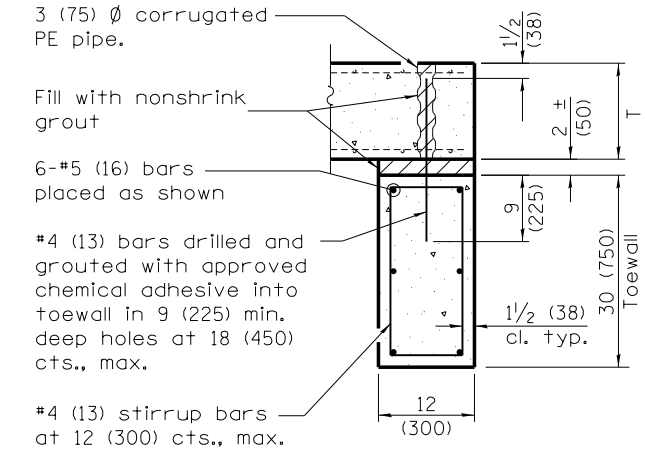


SECTION B-B



1/2" DIA. U BOLT

(2- required)



SECTION D-D

TRAVERSABLE PIPE GRATE SCHEDULE

EQRS Pipe I.D. or Round Pipe I.D.	Unit	Quantity
36 Round	Feet	44.3
36 EQRS	Feet	50.3

REINFORCEMENT SCHEDULE

EQRS Pipe I.D. or Round Pipe I.D.	Aslm	
	Bar Size	Bar Spacing
36	4	12

QUANTITIES

EQRS Pipe I.D. or Round Pipe I.D.	Concrete yd ³ ①	Reinforcement Without Lap lbs.	Reinforcement With Lap lbs.
	Slope of End Section	Slope of End Section	Slope of End Section
36 Round	1:4	1:4	1:4
36 EQRS	5.9	720	780
36 EQRS	5.4	690	740

① For cast-in-place construction, increase concrete volumes by approximately 12%.

LAYOUT	CRC	03.06.2013
DRAWN	JDM	08.16.2013
REVIEWED	CRC	10.17.2013
DET1		

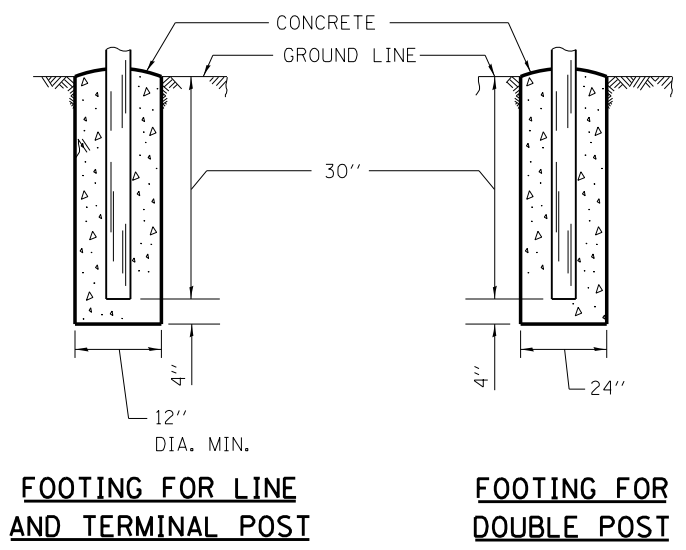
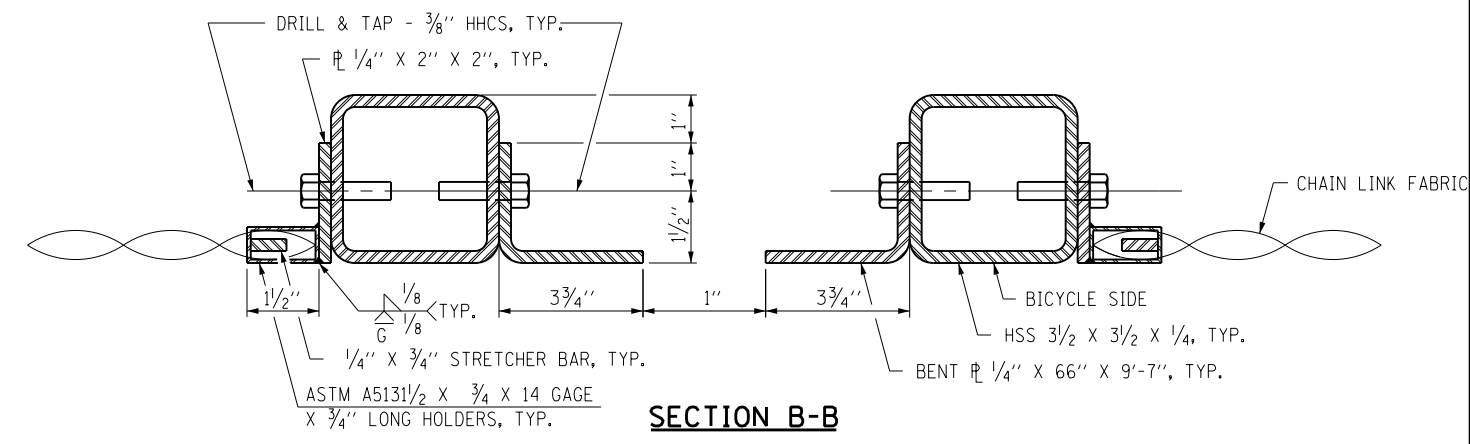
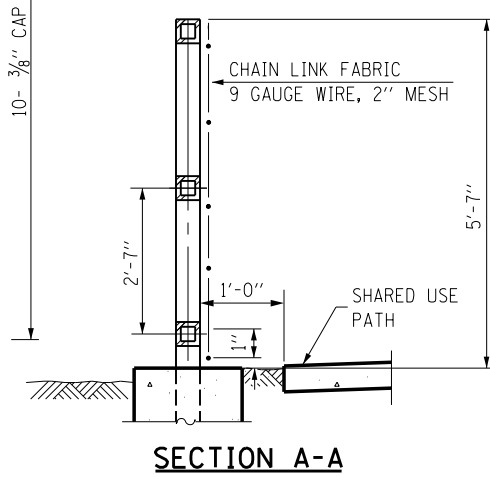
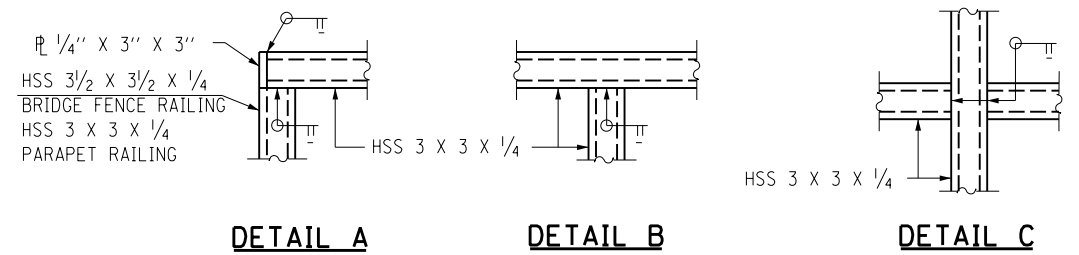
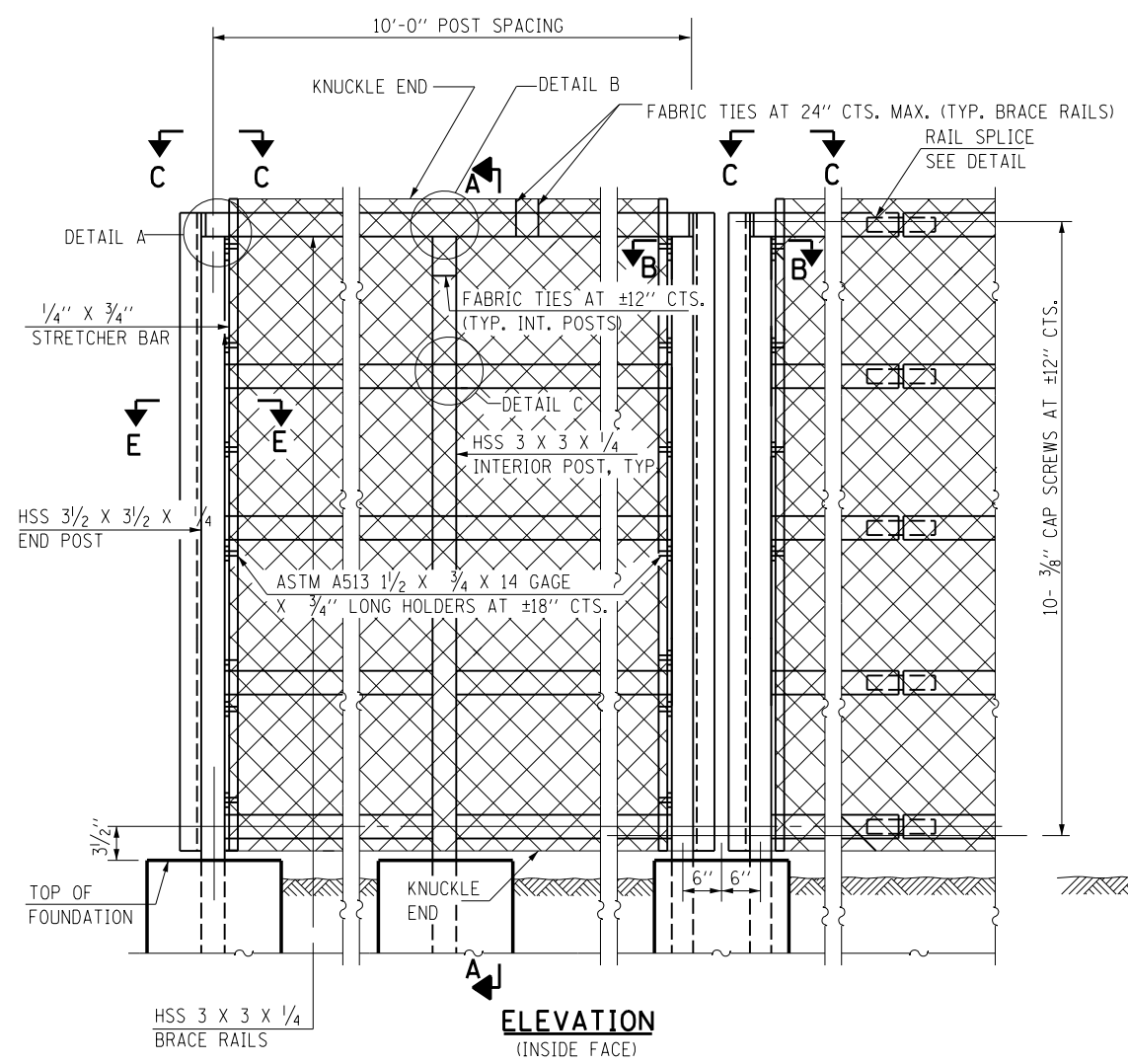
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MODEL NAME =	PLOT SCALE = AS SHOWN	DRAWN - JDM	REVISED -
DET1	PLOT DATE = 12\02\2013	CHECKED - CRC	REVISED -
		DATE - 12.03.13	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONCRETE END SECTION DETAILS			
I-57 AND 6000N RD (BOURBONNAIS PARKWAY)			
BOURBONNAIS, IL			
SCALE: AS SHOWN	SHEET NO.	OF SHEETS	STA. TO STA.

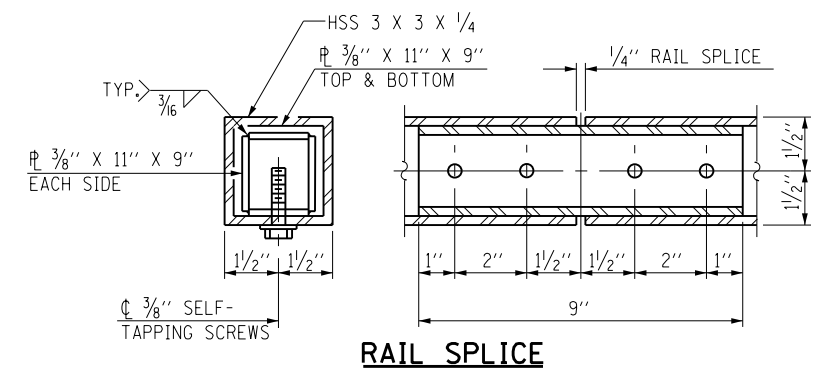
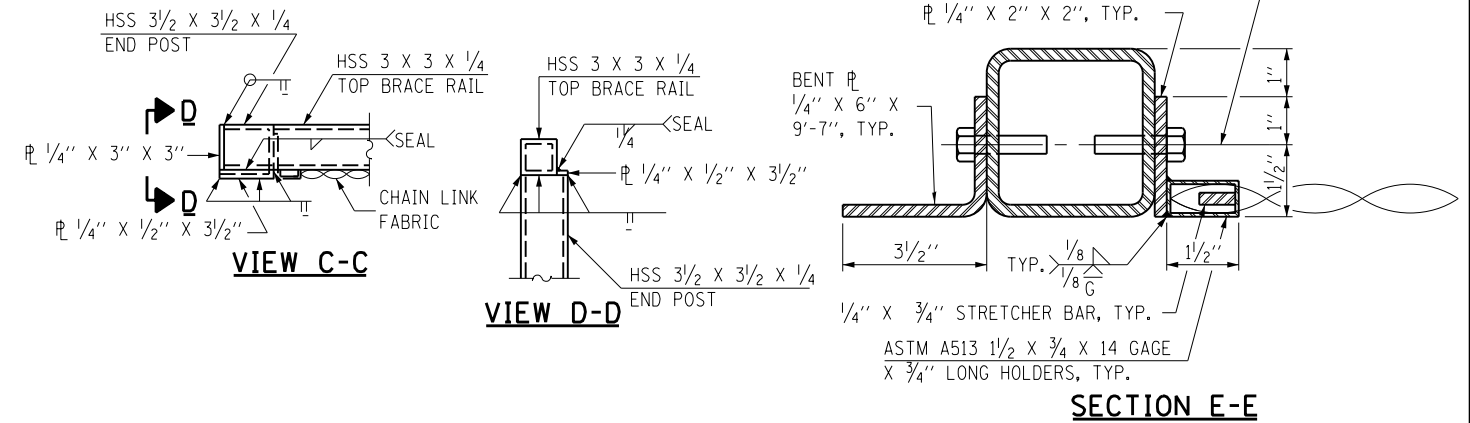
F.A.I. RTE. = 57	SECTION = (46-1)HBK-1	COUNTY = KANKAKEE	TOTAL SHEETS = 819	SHEET NO. = 547
CONTRACT NO. 66982				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

ALL STEEL RAIL ELEMENTS SHALL BE GALVANIZED ACCORDING TO ARTICLE 509.05 OF THE STANDARD SPECIFICATIONS.



CONCRETE SHALL BE IN ACCORDANCE WITH SECTION 664 OF THE STANDARD SPECIFICATIONS.

COST OF THE FOUNDATION SHALL BE CONSIDERED TO BE INCLUDED IN THE COST OF THE BICYCLE RAILING.



FOR ROADWAY PARAPET RAILING DETAILS SEE BRIDGE FENCE RAILING, SIDEWALK MOUNTED DETAIL IN STRUCTURE PLANS.

12/02/2013 c:\p\se_wor\k\dc_r\delete\dms56013\0309\0038-shf-details05.dgn

LAYOUT	IDOT	03.06.2013
DRAWN	MWH	07.10.2013
REVIEWED	DPA	10.17.2013

PROFESSIONAL DESIGN FIRM LICENSE #184-001084
HANSON
 Hanson Professional Services Inc.

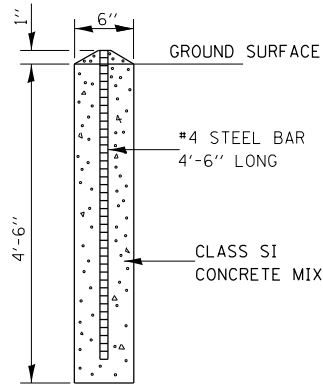
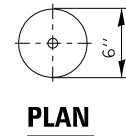
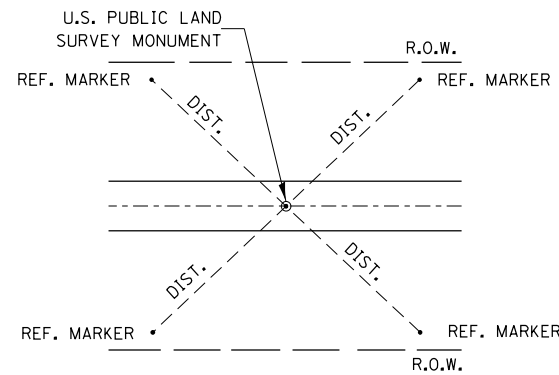
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CHECKED -	DPA	CHECKED -	DPA	REVISED	
PLOT SCALE =		DRAWN -	MWH	REVISED	
PLOT DATE =	12\02\2013	CHECKED -		REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BICYCLE RAILING DETAILS
I-57 AND 6000N RD (BOURBONNAIS PARKWAY)

F.A.I. RE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(46-1)HBK-1	KANKAKEE	819	548
CONTRACT NO.			66982	
ILLINOIS FED. AID PROJECT				

SHEET NO. OF SHEETS



SECTION
CONCRETE REFERENCE MARKER

LAND SECTION MARKERS

FOLDER		KANKAKEE COUNTY			
I-57 AT 6000 NORTH ROAD		CONTRACT NO. 66982			
INDEX NUMBER	DESCRIPTION	EXISTING MONUMENT TYPE	PROPOSED MONUMENT TYPE	MONUMENT RECORD TO BE RECORDED	RESPONSIBILITY
	US 45 STA. 265+05.72 P.C.	NONE	TYPE 1	NO	1
	US 45 STA. 266+69.36 P.I. 1.34' LT	NONE	TYPE 1	NO	1
	US 45 STA. 268+32.97 P.T.	NONE	TYPE 1	NO	1
	IL 50 STA. 528+05.57 P.C.C	NONE	TYPE 1	NO	1
	IL 50 STA. 531+08.42 P.I. 18.28' LT	NONE	TYPE 1	NO	1
	IL 50 STA. 534+08.34 P.T.	NONE	TYPE 1	NO	1
	IL 50 STA. 535+53.38 P.C.	NONE	TYPE 1	NO	1
	IL 50 STA. 539+11.11 P.I. 9.30' RT	NONE	TYPE 1	NO	1
	IL 50 STA. 542+68.25 P.T.	NONE	TYPE 1	NO	1
	IL 50 STA. 562+43.32 P.C.	NONE	TYPE 1	NO	1
	IL 50 STA. 565+49.28 P.I. 9.35' RT	NONE	TYPE 1	NO	1
	IL 50 STA. 568+54.47 P.T.	NONE	TYPE 1	NO	1
	IL 50 STA. 569+46.87 P.C.	NONE	TYPE 1	NO	1
	IL 50 STA. 573+14.76 P.I. 11.27' LT	NONE	TYPE 1	NO	1
	IL 50 STA. 576+81.73 P.T.	NONE	TYPE 1	NO	1
	6000N STA. 7435+00.00 P.I.	NONE	TYPE 1	NO	1
	6000N STA. 7447+09.15 0.02' RT SECTION CORNER	SURVEY NAIL	TYPE 1	YES	1
	6000N STA. 7447+53.06 2.01' RT SECTION CORNER	SURVEY NAIL	TYPE 1	YES	1
	6000N STA. 7463+52.57 P.I.	NONE	TYPE 1	NO	1
	6000N STA. 7474+00.13 2.87' RT SECTION CORNER	CUT CROSS	TYPE 1	YES	1
	6000N STA. 7474+08.59 2.85' RT SECTION CORNER	CUT CROSS	TYPE 1	YES	1
	6000N STA. 7485+76.93 P.I.	NONE	TYPE 1	NO	1
	6000N STA. 7500+63.97 2.17' RT SECTION CORNER	1/2" ROD	TYPE 1	YES	1
	6000N STA. 7500+81.03 2.11' RT SECTION CORNER	1/2" ROD	TYPE 1	YES	1
	6000N STA. 7527+46.93 6.11' LT SECTION CORNER	5/8" ROD	TYPE 1	YES	1
	6000N STA. 7527+64.03 6.10' LT SECTION CORNER	5/8" ROD	TYPE 1	YES	1
	6000N STA. 7525+73.44 P.I.	NONE	TYPE 1	YES	1
	6000N STA. 7544+00.00 P.I.	NONE	TYPE 1	NO	1

THIS NOTE TO BE INCLUDED IN PLANS:
 LISTED MONUMENT LOCATIONS HAVE BEEN RECORDED BY GPS. PRE CONSTRUCTION TIES BY THE R.E. ARE NOT REQUIRED.
 IF AN UNLISTED MONUMENT IS FOUND, IT MUST BE TIED BY THE R.E. AND BROUGHT TO THE ATTENTION OF THE PLATS AND PLANS MANAGER.
 AFTER RESURFACING, THE R.E. IS TO CONTACT THE PLATS AND PLANS MANAGER TO ESTABLISH LOCATIONS FOR PERMANENT SURVEY MARKER CORING.

RESPONSIBILITY:
 1) RESIDENT TO ESTABLISH OR RE-ESTABLISH MONUMENT (PAY ITEM REQUIRED. PERMANENT SURVEY MARKER, TYPE 1)
 2) PLATS AND PLANS TO RE-ESTABLISH MONUMENT
 3) PROFESSIONAL LAND SURVEYOR TO RE-ESTABLISH MONUMENT, RECORD NEW MONUMENT RECORD, AND PROVIDE COPY TO D-3PLATS AND PLANS (PAY ITEM REQUIRED - LAND SECTION MARKERS)

NOTES

THE REFERENCE MARKERS SHALL BE CONSTRUCTED BY POURING CLASS SI CONCRETE INTO HOLES PREPARED BY A POST HOLE DIGGER OR OTHER APPROVED METHODS. FORMS WILL NOT BE REQUIRED. PRECAST MARKERS OF THE SAME SIZE AND CONSTRUCTION MAY BE USED.

IN CULTIVATED FIELDS REFERENCE MARKERS SHALL BE PLACED TWO FEET BELOW THE GROUND SURFACE. IN FENCE LINES OR PROTECTED AREAS THE TOP SHALL BE PLACED AT GROUND LEVEL.

AFTER CONSTRUCTION OPERATIONS ARE COMPLETE, INSTALL A PERMANENT SURVEY MARKER OF THE TYPE SPECIFIED TO REPLACE THE U.S. PUBLIC LAND SURVEY MONUMENT THAT WAS DISPLACED OR COVERED DURING CONSTRUCTION. THE LETTERING REFERRING TO THE STATE OF ILLINOIS AND DIVISION OF HIGHWAYS SHALL BE OMITTED FROM THE PERMANENT SURVEY MARKER AND THE MARKER SHALL BE MARKED AS DIRECTED BY THE ENGINEER.

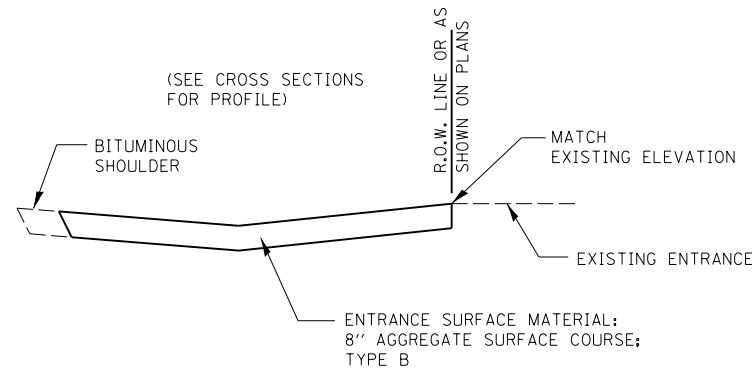
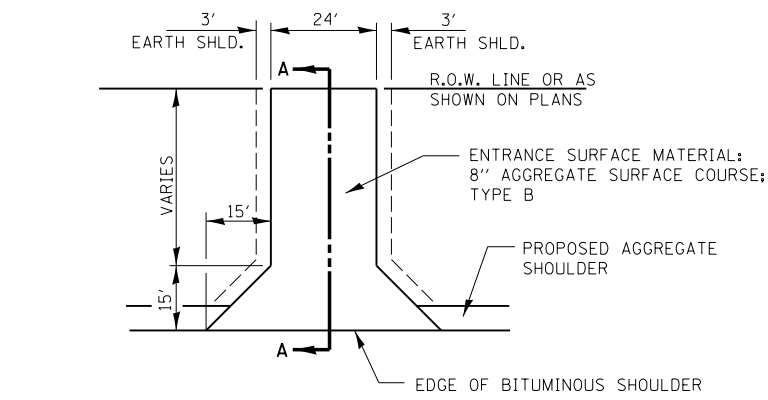
SET FOUR CONCRETE REFERENCE MARKERS FOR EACH U.S. PUBLIC LAND SURVEY MONUMENT.

PERMANENT SURVEY MARKERS, OF THE TYPE SPECIFIED
 SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE, EACH, WHICH WILL BE PAYMENT IN FULL FOR FURNISHING, INSTALLING AND MARKING SAID MARKERS.

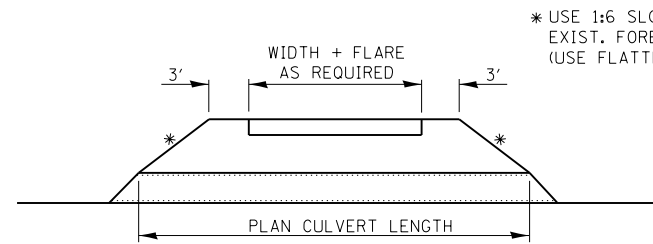
LAND SECTION MARKERS
 SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE, EACH, WHICH WILL BE PAYMENT IN FULL FOR SETTING TIE POINTS, SETTING FOUR CONCRETE REFERENCE MARKERS, PREPARING MONUMENT RECORDS, RECORDING AT COUNTY RECORDER'S OFFICE AND PROVIDING A COPY TO THE DISTRICT OFFICE.

computer/j
 5/28/2014
 87165

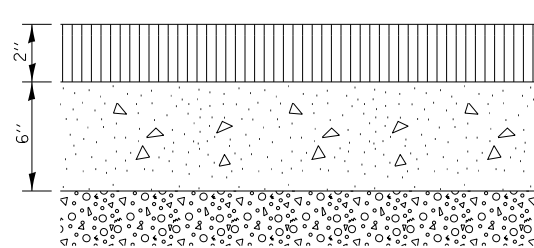
FILE NAME =	USER NAME = MWH	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DETAILS I-57 AND 6000N RD (BOURBONNAIS PARKWAY) BOURBONNAIS, IL			F.A.I. RTE. 57	SECTION (46-1)HBK-1	COUNTY KANKAKEE	TOTAL SHEETS 819	SHEET NO. 549
FILES	PLOT SCALE = AS SHOWN	DRAWN -	REVISED -		SCALE: AS SHOWN	SHEET NO.	OF SHEETS	STA.	TO STA.	CONTRACT NO. 66982		
MODEL NAME =	PLOT DATE = 5/28/2014	CHECKED -	REVISED -		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT							
MODEL	DATE -	DATE -	REVISED -									



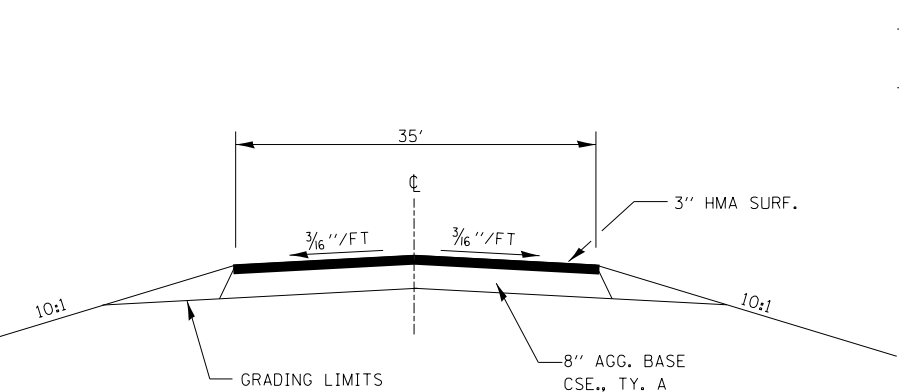
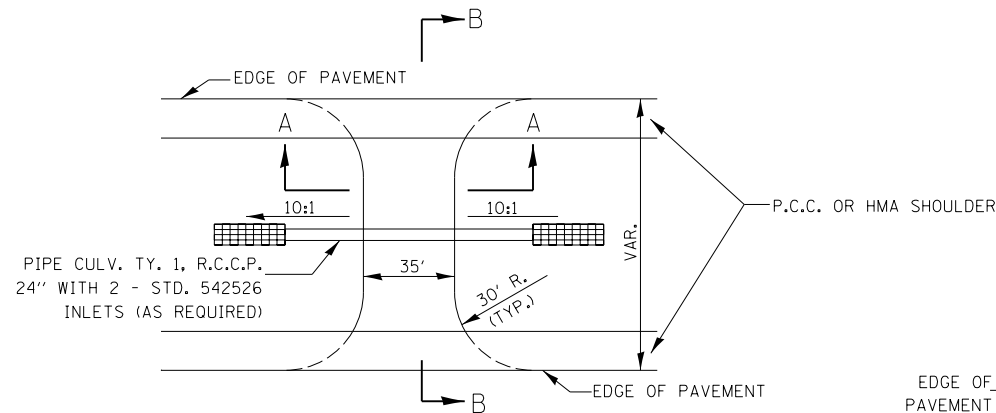
SECTION A-A



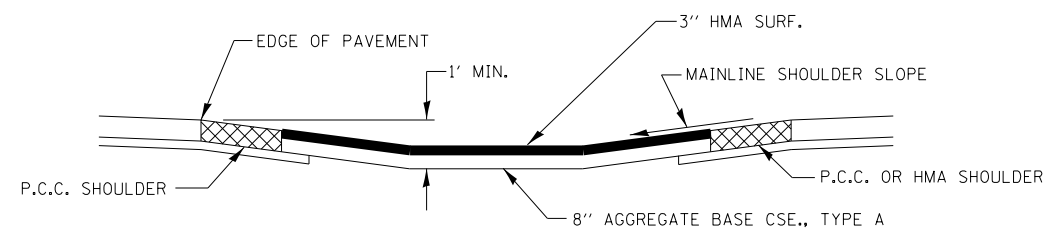
FIELD ENTRANCE DETAIL



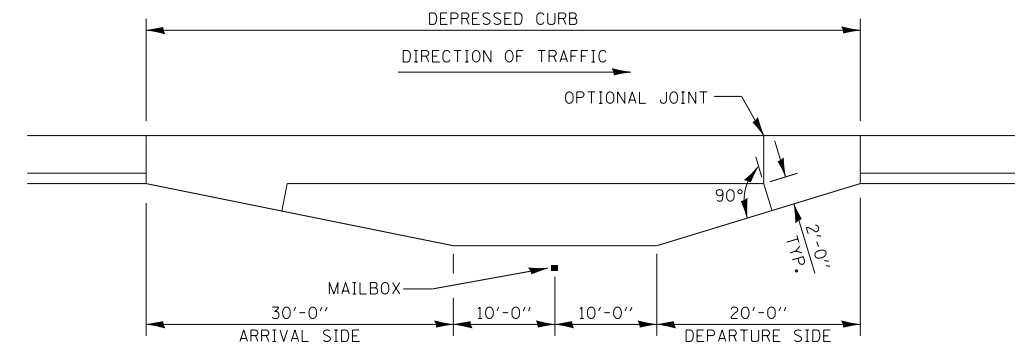
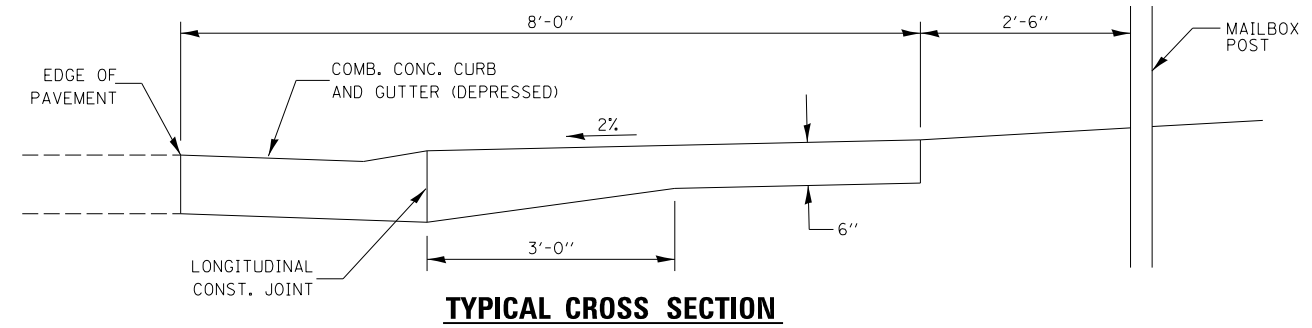
BICYCLE PATH OR SHARED-USE TRAIL CROSS SECTION



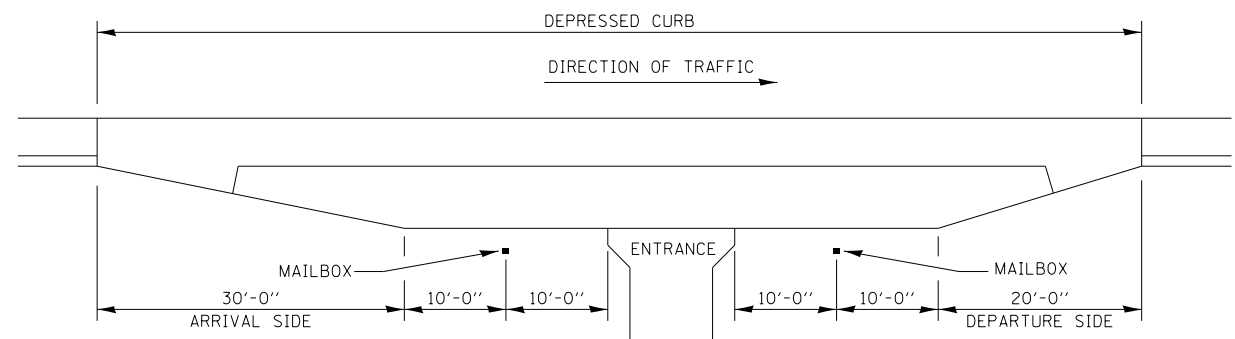
SECTION A-A



HMA MAINTENANCE CROSSOVER



DETAIL OF MAILBOX TURNOUT IN CURB AND GUTTER SECTION



TYPICAL INSTALLATION

GENERAL NOTES

1. THE LONGITUDINAL CONSTRUCTION JOINT SHALL CONFORM TO SECTION 420.05 OF THE STANDARD SPECIFICATIONS.
2. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD FOR P.C. CONCRETE DRIVEWAY PAVEMENT OF THE THICKNESS SPECIFIED ON THE PLANS WHICH PRICE SHALL INCLUDE THE LONGITUDINAL CONSTRUCTION JOINT, AND THE ADDITIONAL THICKNESS REQUIRED TO TRANSITION TO THE DEPRESSED COMBINATION CONCRETE CURB AND GUTTER.
3. MAINTAIN A MINIMUM 10' TANGENT SECTION FROM EACH SIDE OF MAILBOX.

MAILBOX TURNOUT WITH URBAN TYPICAL

LAYOUT	03.06.2013
DRAWN	MWH
REVIEWED	DPA
DATE	10.17.2013

FILE NAME = D389H0038-sht-details002
MODEL NAME = DET1

USER NAME = MWH

DESIGNED - IDOT
DRAWN - MWH
CHECKED - DPA
DATE - 12.03.13

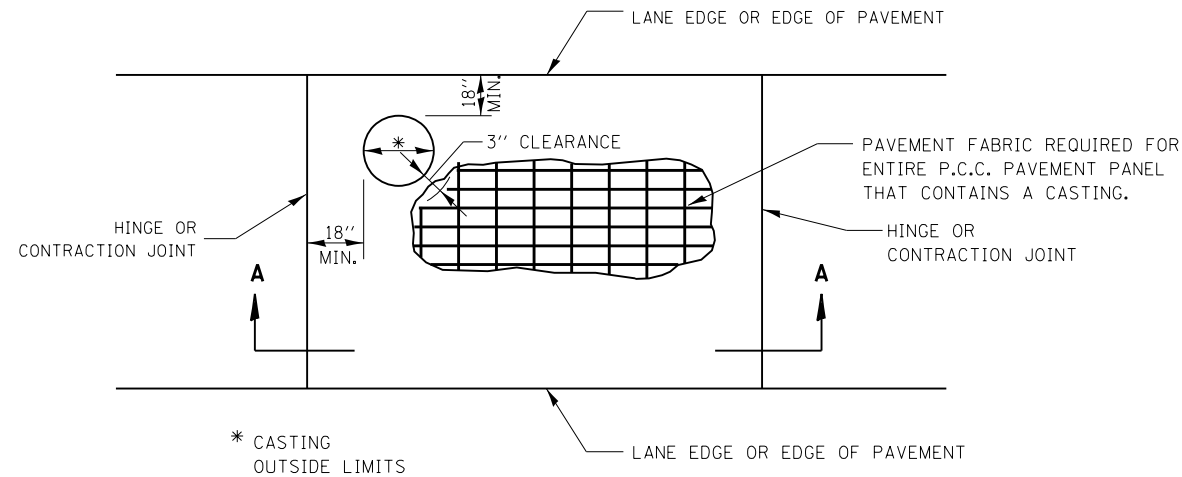
REVISED -
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

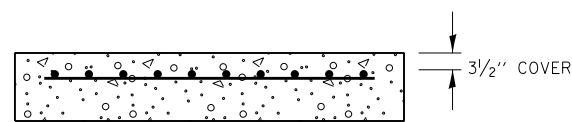
DETAILS
I-57 AND 6000N RD (BOURBONNAIS PARKWAY)
BOURBONNAIS, IL

SCALE: AS SHOWN SHEET NO. OF SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(46-1)HBK-1	KANKAKEE	819	550
CONTRACT NO. 66982				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



* CASTING OUTSIDE LIMITS



SECTION A-A

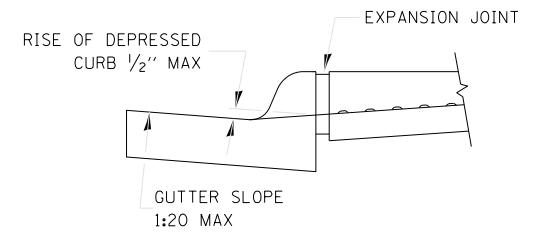
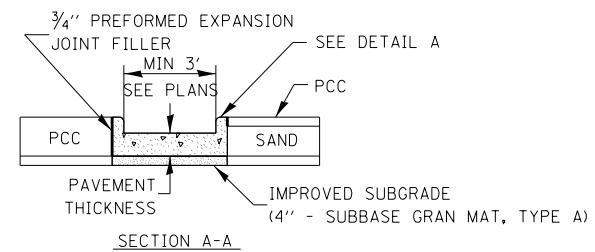
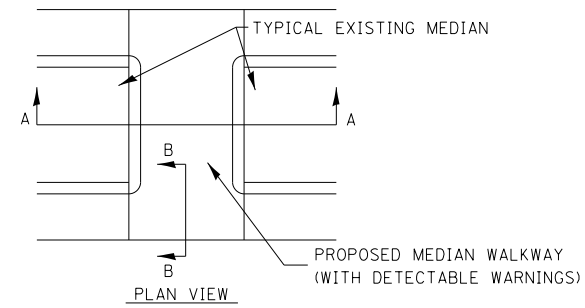
GENERAL NOTES

THE CASTING SHALL BE SET TO GRADE, ANCHORED, AND INCORPORATED INTO THE P.C.C. PAVEMENT CONSTRUCTION. SEPARATE PAVEMENT BLOCKOUTS WILL NOT BE ALLOWED.

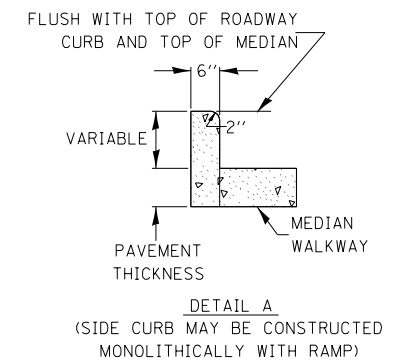
SEE STD. 420701 FOR ADDITIONAL PAVEMENT FABRIC DETAILS.

PAVEMENT FABRIC WILL BE PAID FOR SEPARATELY. THE QUANTITY OF PAVEMENT FABRIC WILL BE THE COMPUTED SURFACE AREA OF THE P.C.C. PAVEMENT PANEL IN WHICH THE PAVEMENT FABRIC IS INSTALLED. NO DEDUCTION WILL BE MADE FOR THE CASTING AREA.

CASTINGS IN P.C.C. PAVEMENT



SECTION B-B



DETAIL A

**ADA SIDEWALK ACCESSIBILITY RAMPS
CONCRETE MEDIAN DETAIL FOR SIDEWALK RAMP**

LAYOUT	IDOT	03.06.2013
DRAWN	MWH	07.10.2013
REVIEWED	DPA	10.17.2013

FILE NAME = D309H0038-sht-details002
MODEL NAME = DET2

USER NAME = MWH
PLOT SCALE = AS SHOWN
PLOT DATE = 12\02\2013

DESIGNED - IDOT
DRAWN - MWH
CHECKED - DPA
DATE - 12.03.13

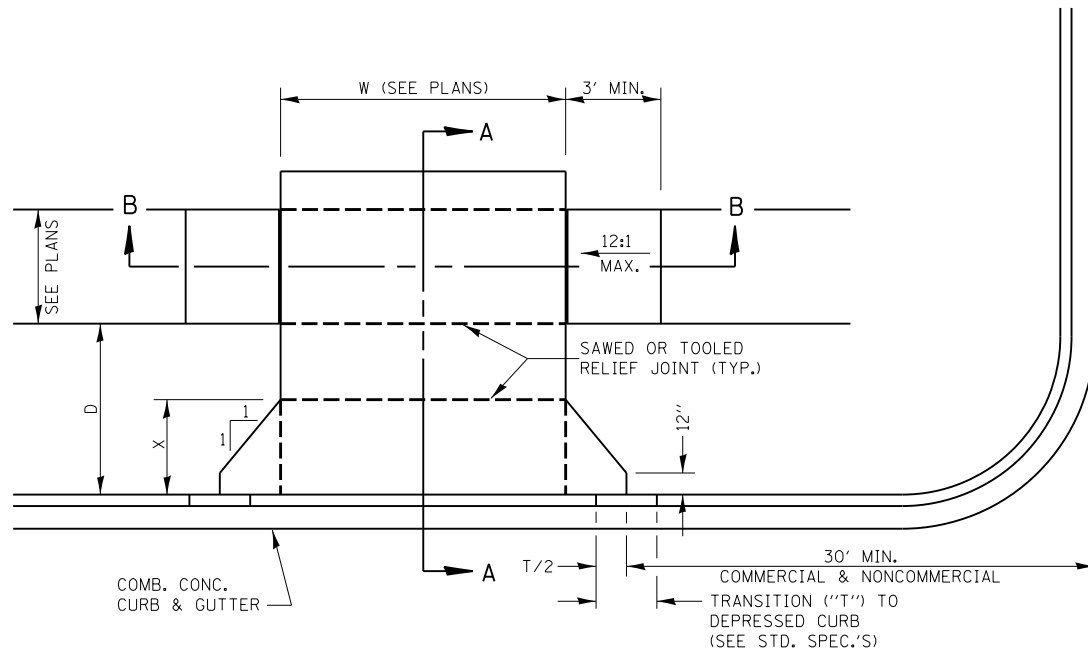
REVISED -
REVISED -
REVISED -
REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

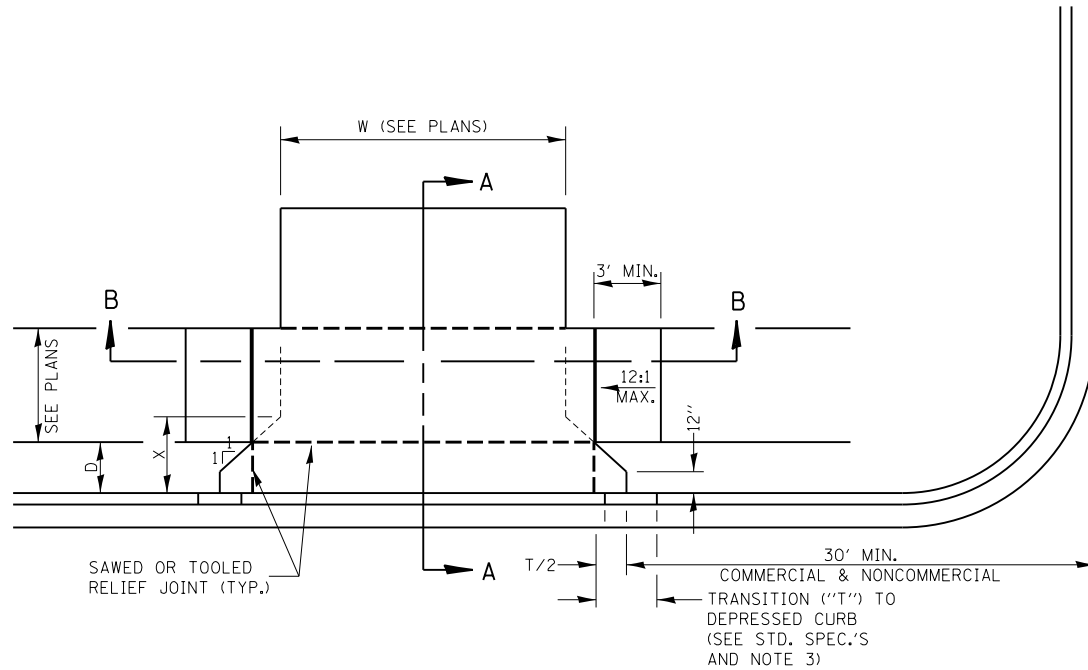
**DETAILS
I-57 AND 6000N RD (BOURBONNAIS PARKWAY)
BOURBONNAIS, IL**

SCALE: AS SHOWN SHEET NO. OF SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(46-1)HBK-1	KANKAKEE	819	551
CONTRACT NO. 66982				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



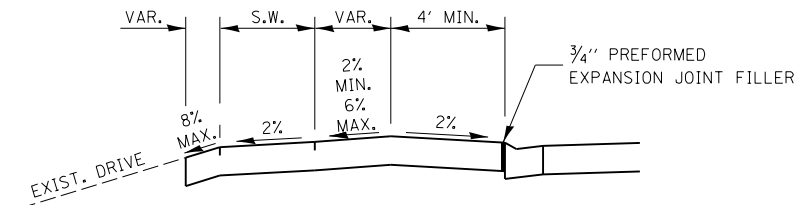
CASE I (D ≥ X)



CASE I (D < X)

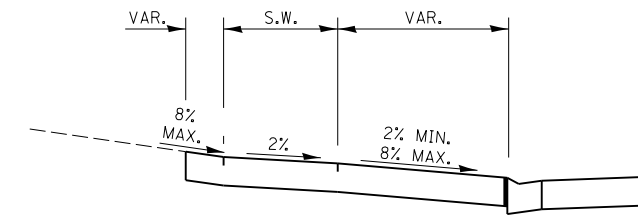
GENERAL NOTES:

- X = 7' (NON-COMMERCIAL) X = 15' (COMMERCIAL)
- COST OF EXPANSION JOINTS AND RELIEF JOINTS SHALL BE INCLUDED IN THE COST OF THE P.C.C. DRIVEWAY PAVEMENT.
- AS THE DIMENSION "D" APPROACHES ZERO, THE TRANSITION TO DEPRESSED CURB SHALL BE NO STEEPER THAN 12:1

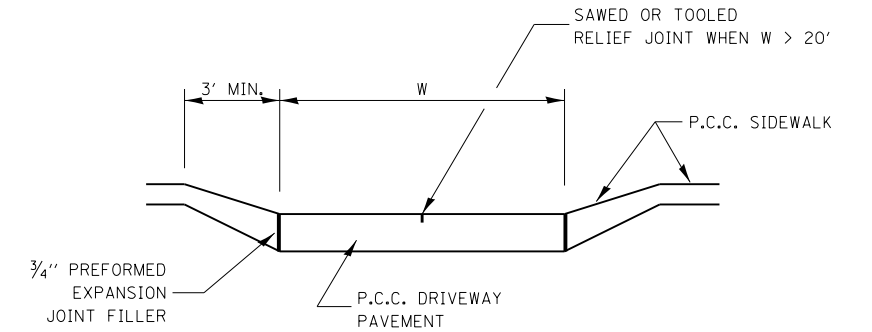


DEPRESSED ENTRANCE *
SECTION A-A

*(SEE X-SECTIONS FOR ENTRANCE PROFILE.)

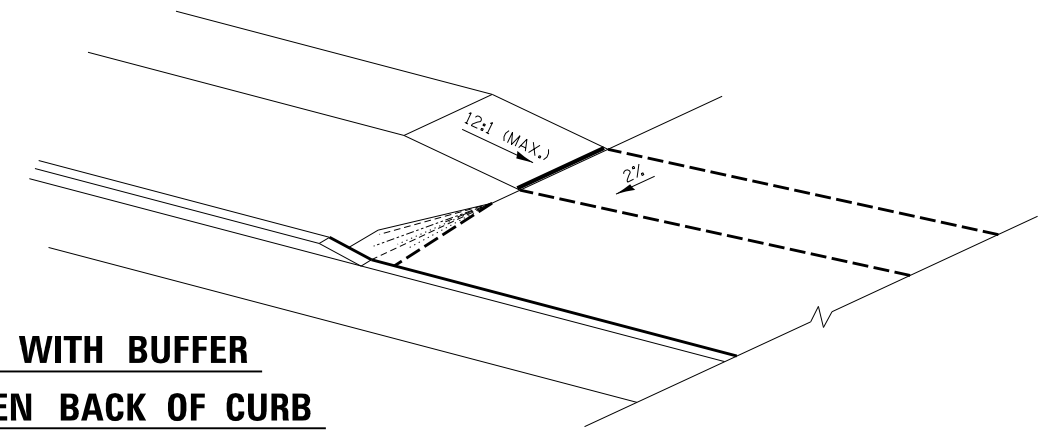


ELEVATED ENTRANCE *
SECTION A-A

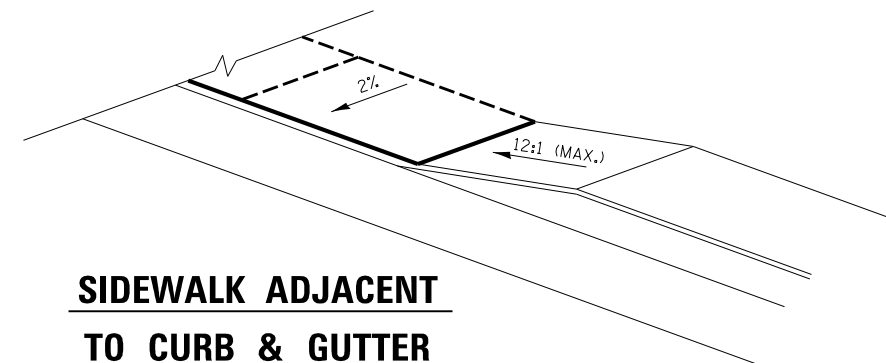


SECTION B-B

SIDEWALK WITH BUFFER
AREA BETWEEN BACK OF CURB



SIDEWALK ADJACENT
TO CURB & GUTTER



PCC URBAN ENTRANCES

LAYOUT	IDOT	03.06.2013
DRAWN	MWH	07.10.2013
REVIEWED	DPA	10.17.2013

FILE NAME = D309H0038-sht-details002
MODEL NAME = DET3

USER NAME = MWH

DESIGNED - IDOT
DRAWN - MWH
CHECKED - DPA
DATE - 12.03.13

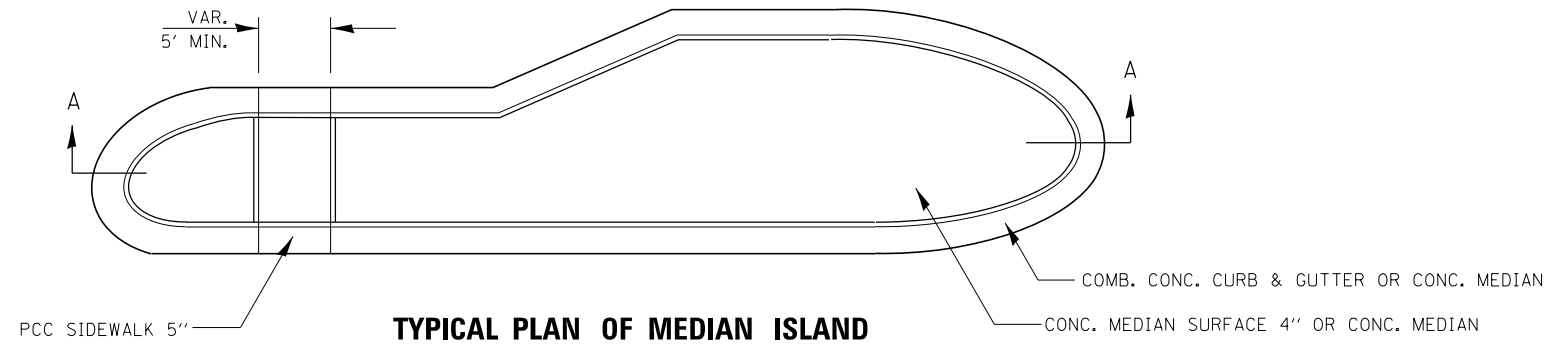
REVISED -
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

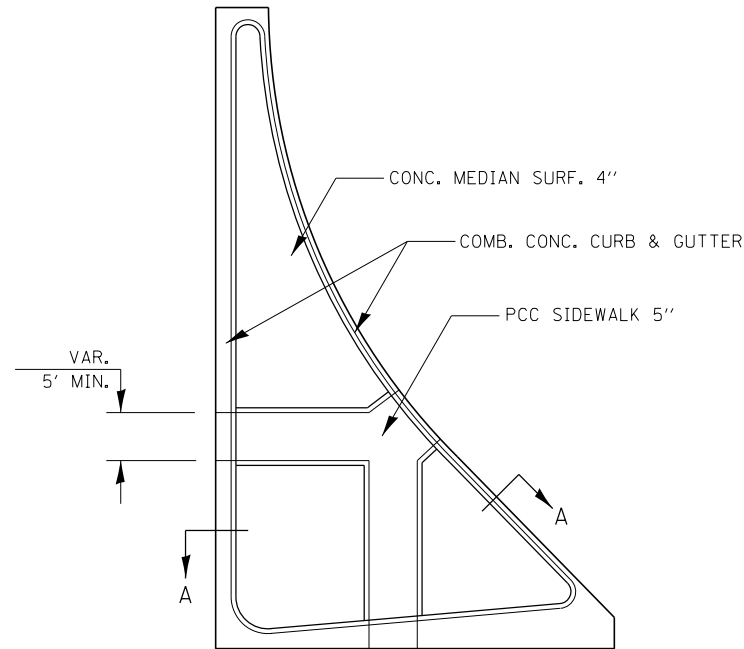
DETAILS
I-57 AND 6000N RD (BOURBONNAIS PARKWAY)
BOURBONNAIS, IL

SCALE: AS SHOWN SHEET NO. OF SHEETS STA. TO STA.

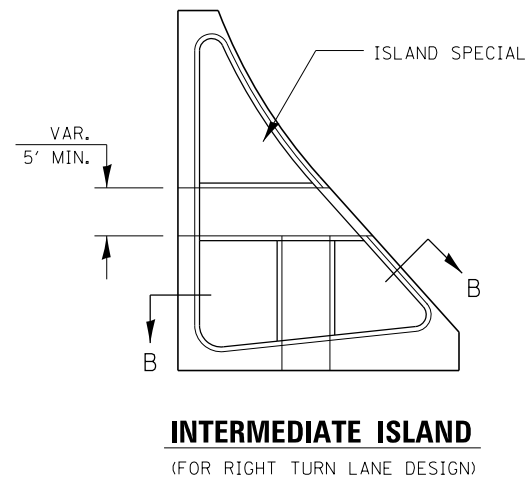
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(46-1)HBK-1	KANKAKEE	819	552
CONTRACT NO. 66982				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



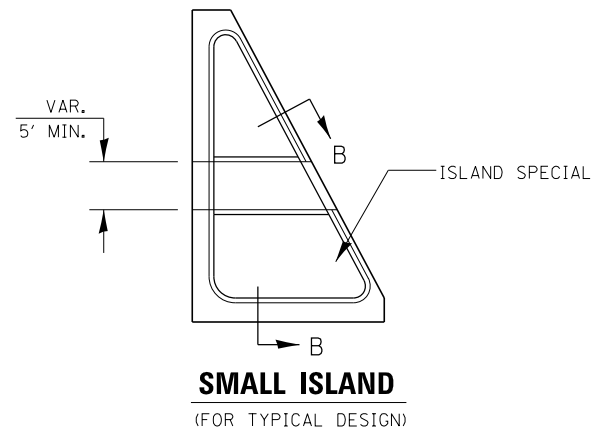
TYPICAL PLAN OF MEDIAN ISLAND



LARGE ISLAND
(FREE FLOW DESIGN)



INTERMEDIATE ISLAND
(FOR RIGHT TURN LANE DESIGN)



SMALL ISLAND
(FOR TYPICAL DESIGN)

GENERAL NOTES

SEE STANDARDS 606001, 606301, 424031, AND PLAN SHEETS FOR STATION, OFFSETS, RADII, DIMENSIONS, AND DETAILS NOT SHOWN.

THE SIDEWALK SHOULD DRAIN TO THE LOW SIDE OF THE ISLAND. IF NECESSARY THE SIDEWALK SHALL BE SLOPED TO DRAIN AT A MAXIMUM 2% GRADE.

SEE THE PLAN SHEETS FOR THE TYPE OF CURB & GUTTER TO BE USED ON ISLANDS.

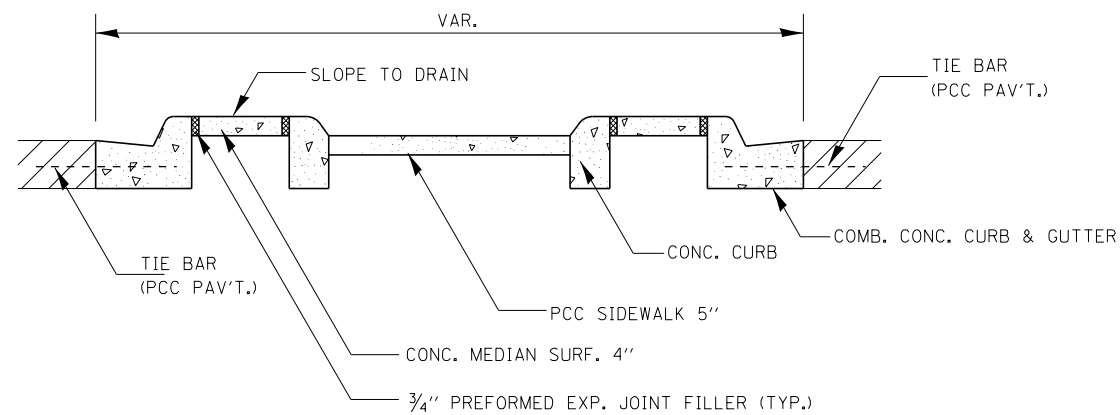
THE SIDEWALK SHOULD NOT BE CLOSER THAN 3' FROM THE CORNER OF THE ISLAND.

KEYED LONGITUDINAL CONSTRUCTION JOINTS SHALL BE CONSTRUCTED WITHOUT TIE BARS.

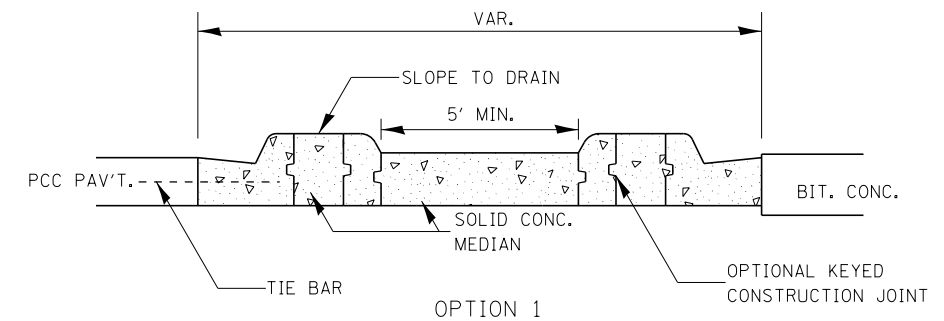
MEDIANS AND LARGE ISLANDS SHALL CONSIST OF PCC SIDEWALK 5", CONCRETE MEDIANS SURFACE 4", CONCRETE CURB, AND COMBINATION CONCRETE CURB & GUTTER, TYPE M OR B OR THE SIZE SPECIFIED. MEDIAN ISLAND CAN ALSO BE SOLID CONCRETE MEDIANS.

LOCATIONS, LAYOUTS, AND WIDTHS OF THE FLUSH SIDEWALK AREA, SHALL BE DETERMINED BY THE DESIGNER AND SHOWN ON THE PLANS.

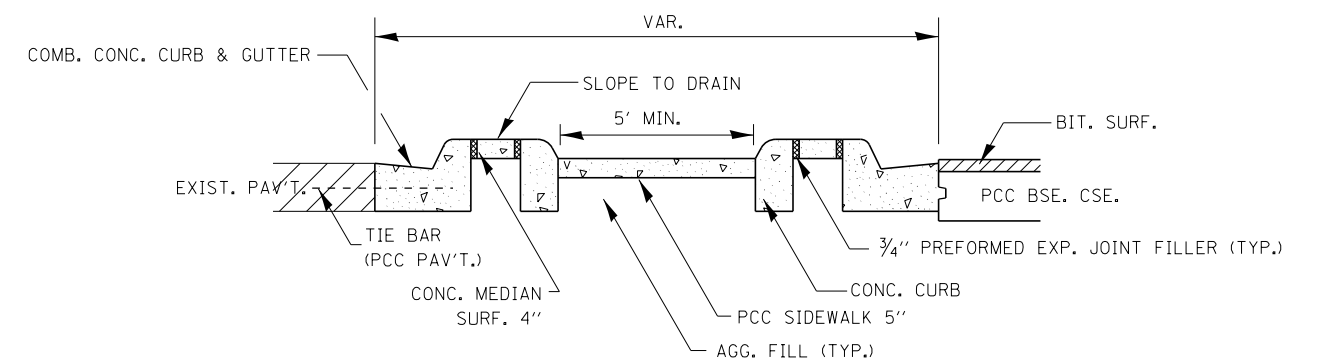
THE INTERMEDIATE AND SMALL ISLANDS WILL BE MEASURED FOR PAYMENT FROM E.O.P. TO E.O.P. USING EITHER OPTION 1 OR OPTION 2, AS DIRECTED BY THE ENGINEER, AND WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQ. FT. FOR CONCRETE MEDIAN (SPECIAL), WHICH SHALL INCLUDE THE CURB, COMBINATION CURB & GUTTER, SIDEWALK, AGGREGATE FILL, CONCRETE MEDIAN SURFACE, AND SOLID CONCRETE MEDIAN.



SECTION A-A



OPTION 1



OPTION 2

SECTION B-B

PCC ISLANDS AND MEDIANS ACCESSIBLE TO THE DISABLED

LAYOUT	
DRAWN	
REVIEWED	

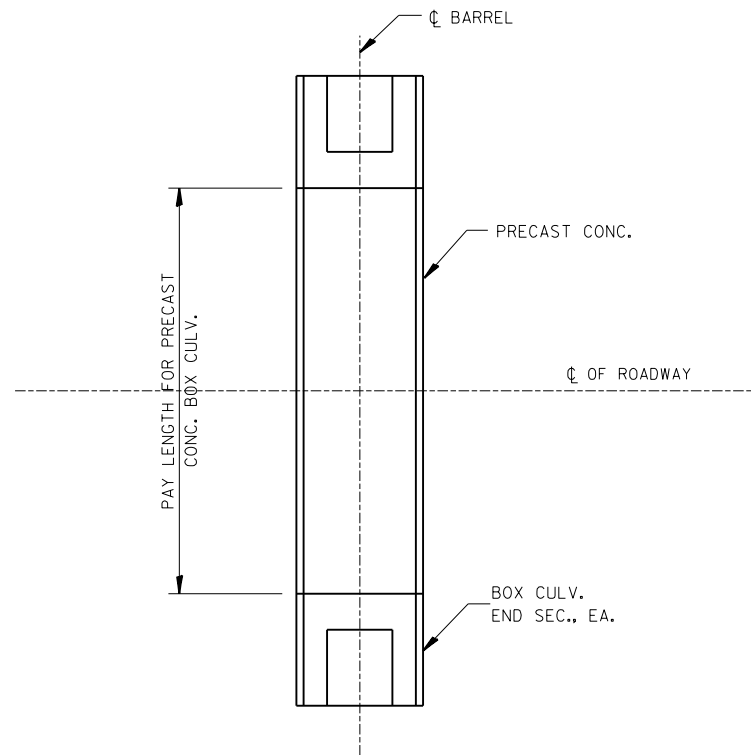
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MODEL NAME = DET 4	PLOT SCALE = AS SHOWN	DRAWN -	REVISED -
	PLOT DATE = 3/6/2014	CHECKED -	REVISED -
		DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DETAILS
I-57 AND 6000N RD (BOURBONNAIS PARKWAY)
BOURBONNAIS, IL

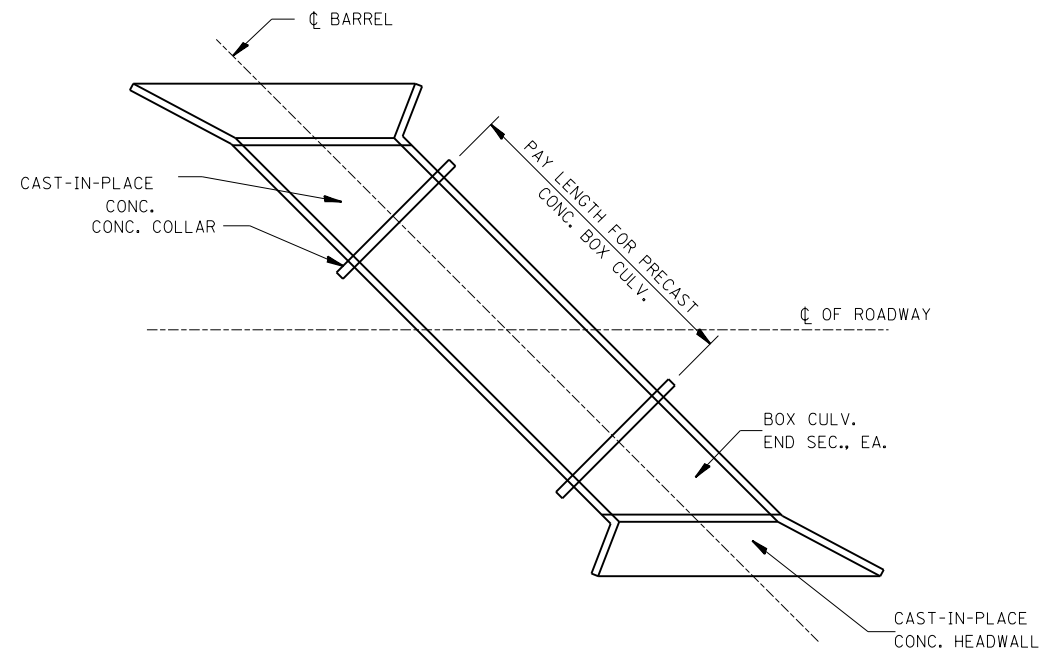
SCALE: AS SHOWN SHEET NO. OF SHEETS STA. TO STA.

F.A.I. RTE. 57	SECTION (46-1)HBK-1	COUNTY KANKAKEE	TOTAL SHEETS 819	SHEET NO. 553
				CONTRACT NO. 66982
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



**PAY LENGTH FOR PRECAST CONCRETE
BOX CULVERT AT RIGHT ANGLES WITH ROADWAY**

N.T.S.



**PAY LENGTH FOR PRECAST CONCRETE
BOX CULVERT SKEWED WITH ROADWAY**

N.T.S.

hanson04/12/13 3:55 PM

LAYOUT	IDOT	03.06.2013
DRAWN	MWH	07.10.2013
REVIEWED	DPA	10.17.2013

FILE NAME = D309H0038-sht-details002
MODEL NAME = DE117

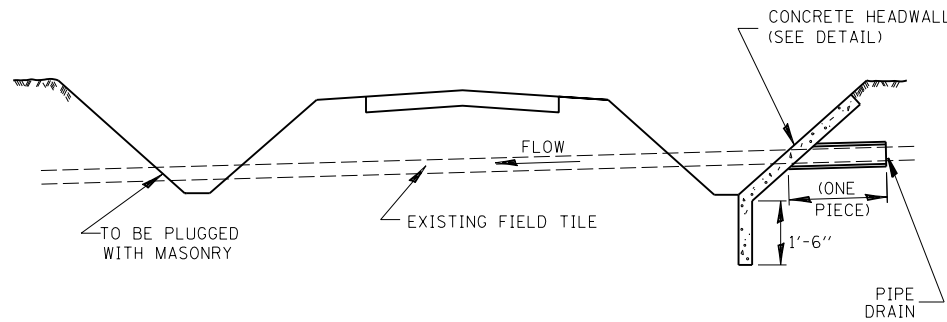
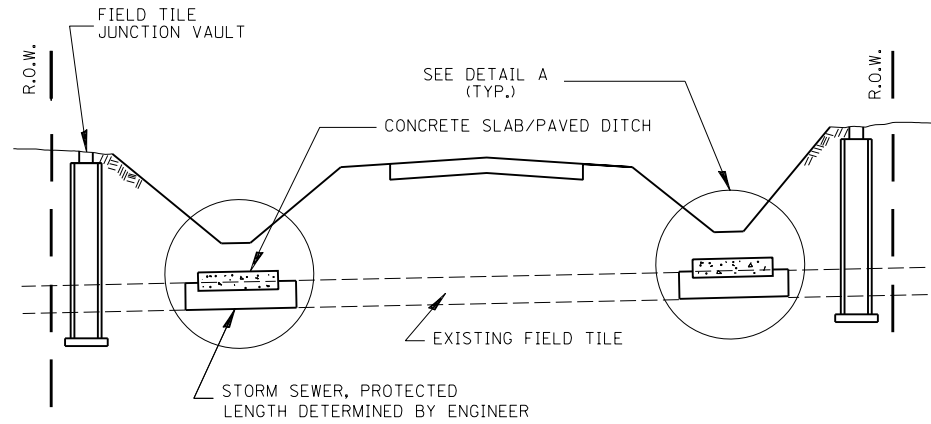
USER NAME = MWH	DESIGNED - IDOT	REVISED -
PLOT SCALE = AS SHOWN	DRAWN - MWH	REVISED -
PLOT DATE = 12\02\2013	CHECKED - DPA	REVISED -
	DATE - 12.03.13	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

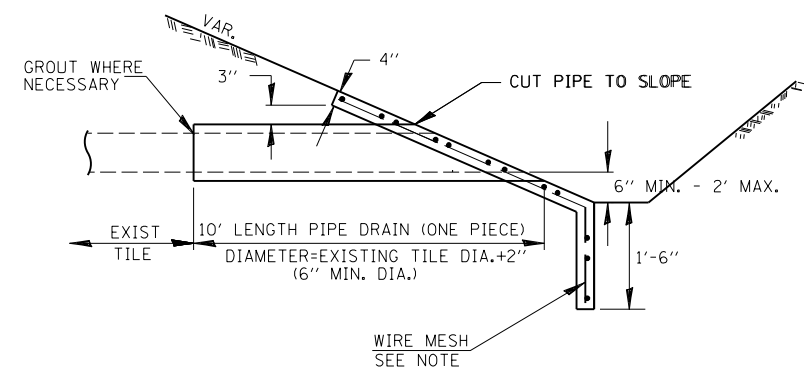
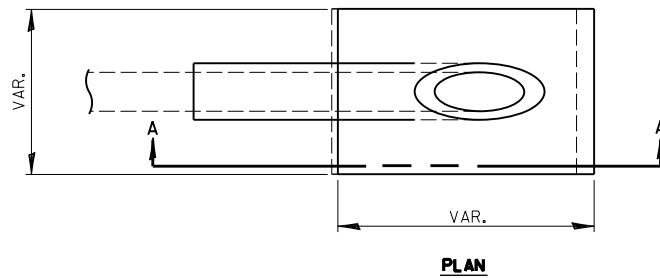
**DETAILS
I-57 AND 6000N RD (BOURBONNAIS PARKWAY)
BOURBONNAIS, IL**

SCALE: AS SHOWN SHEET NO. OF SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(46-1)HBK-1	KANKAKEE	819	554
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 66982	

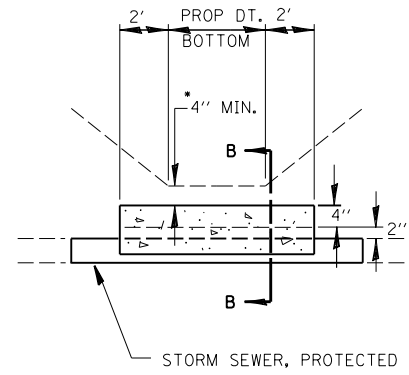


FIELD TILE REPLACEMENT



SECTION A-A

CLASS SI CONCRETE HEADWALLS



DETAIL A

NO SCALE

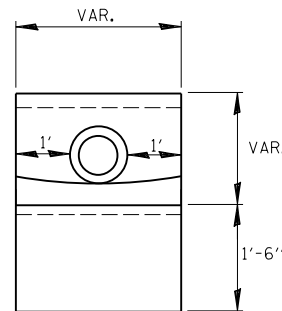
* IF A 4" COVER CAN NOT BE PROVIDED A PAVED DITCH SHALL BE CONSTRUCTED AS SHOWN IN DETAIL C.

NOTES

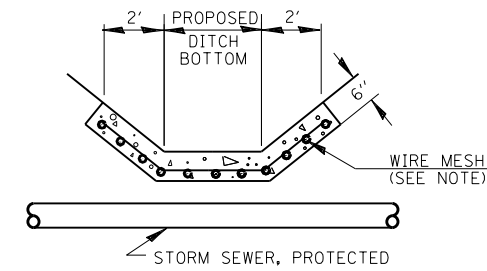
1. WIDTH OF CONCRETE SLAB SHALL BE THE SAME AS THE TRENCH WIDTH IN ACCORDANCE WITH SECTION 550 OF THE STD. SPECIFICATIONS, OR 3' MIN.
2. CONCRETE FOR SLAB, HEADWALL AND PAVED DITCH SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER CUBIC YARD FOR "MISCELLANEOUS CONCRETE."
3. COST OF FURNISHING AND INSTALLING WIRE MESH SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE PER CUBIC YARD FOR MISCELLANEOUS CONCRETE. WIRE MESH TO WEIGH NOT LESS THAN 58# PER 100 SQ. FT.

NOTES

1. ANY STORM SEWER OR FIELD TILE OUTLET INTO A DITCH SHALL HAVE A HEADWALL BUILT IN ACCORDANCE WITH THIS DETAIL.
2. COST OF FURNISHING AND INSTALLING WIRE MESH SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE PER CUBIC YARD FOR MISCELLANEOUS CONCRETE. WIRE MESH TO WEIGH NOT LESS THAN 58# PER 100 SQ. FT.

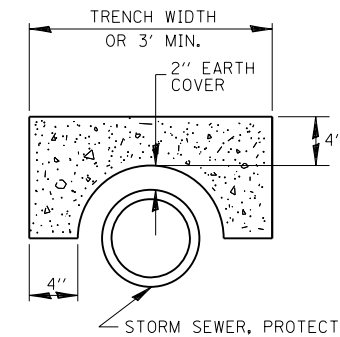


END VIEW

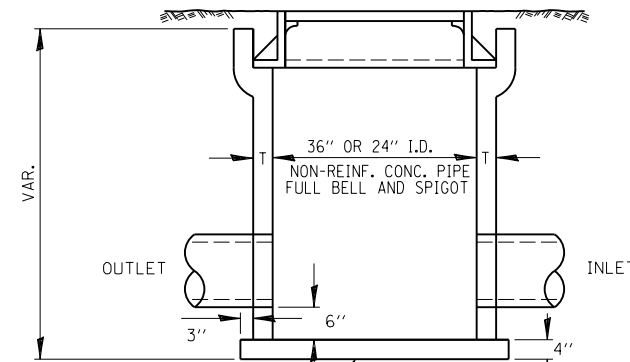


DETAIL C

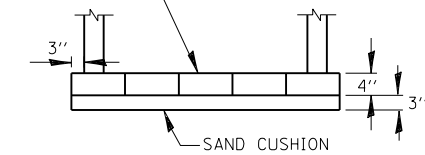
NO SCALE



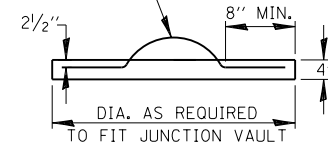
SECTION B-B



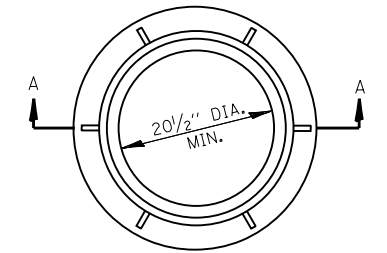
CLASS SI CONCRETE OR PRECAST REINFORCED CONCRETE SLABS NOT LESS THAN 12" WIDE



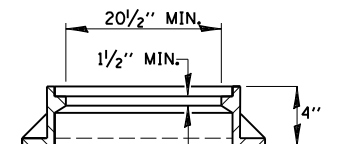
1 NO. 4 BAR LIFT LOOP



FIELD TILE JUNCTION VAULT



± 145#



SECTION A-A

ALTERNATE MATERIALS FOR WALLS	T
PRECAST REINFORCED CONCRETE RISERS	4"
CONCRETE MASONRY UNIT	5"
MONOLITHIC CONCRETE	6"
BUILDING BRICK, GRADE SW FROM CLAY OR SHALE	8"
CONCRETE BUILDING BRICK, GRADE A	8"

NOTES

1. THE CONTRACT UNIT PRICE FOR FIELD TILE JUNCTION VAULT SHALL INCLUDE THE COST OF FURNISHING AND PLACING THE FRAME AND GRATE OR PRECAST CONCRETE LID AND WHEN REQUIRED, THE SAND CUSHION.
2. ALL FIELD TILE JUNCTION VAULTS SHALL BE 2'-0" IN DIAMETER UNLESS OTHERWISE NOTED ON THE PLANS.

LAYOUT	IDOT	03.06.2013
DRAWN	MWH	07.10.2013
REVIEWED	DPA	10.17.2013
DETS		

FILE NAME = D389H0038-sht-details002
MODEL NAME =

USER NAME = MWH
PLOT SCALE = AS SHOWN
PLOT DATE = 12\02\2013

DESIGNED - IDOT
DRAWN - MWH
CHECKED - DPA
DATE - 12.03.13

REVISED -
REVISED -
REVISED -
REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

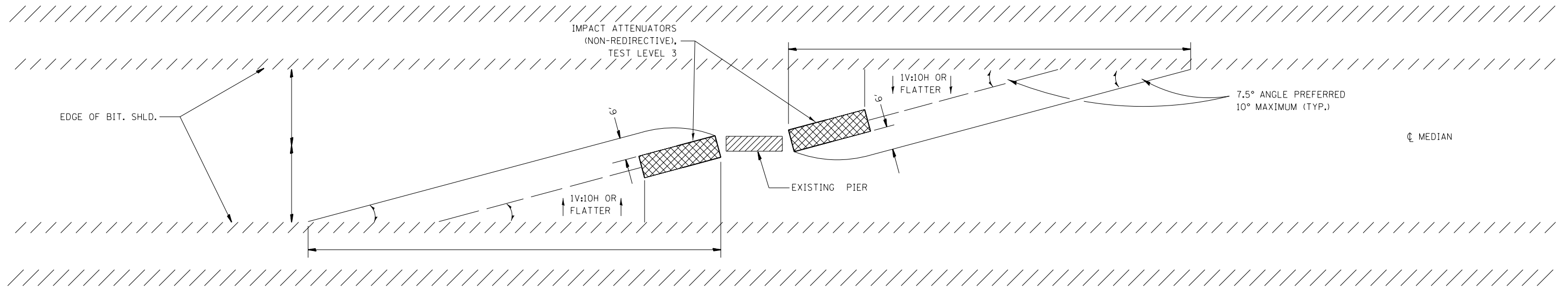
DETAILS
I-57 AND 6000N RD (BOURBONNAIS PARKWAY)
BOURBONNAIS, IL
SCALE: AS SHOWN SHEET NO. OF SHEETS STA. TO STA.

F.A.I. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(46-1)HBK-1	KANKAKEE	819	555
CONTRACT NO. 66982				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

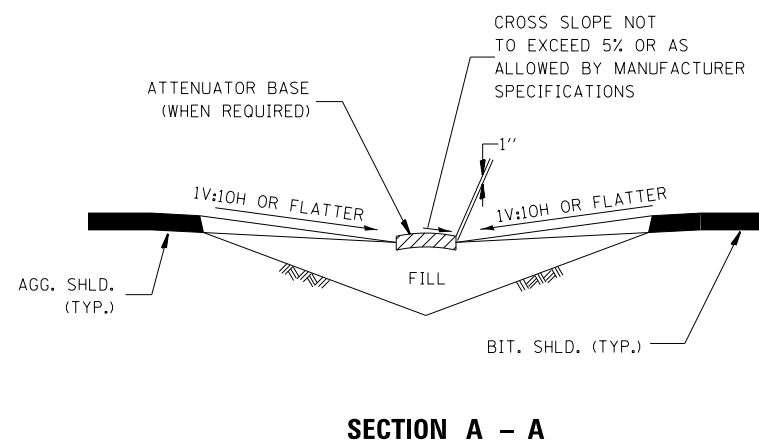


GENERAL NOTES

1. THE 10:1 SLOPE CONTROLS NOSE OF ATTENUATOR BASE ELEVATION.
2. ATTENUATOR BASE GRADE PARALLELS EDGE OF PAVEMENT GRADE.
3. SLOPE ADJACENT TO ATTENUATOR BASE SHALL BE 10:1 OR FLATTER.



IMPACT ATTENUATOR LAYOUT AND GRADING PLAN

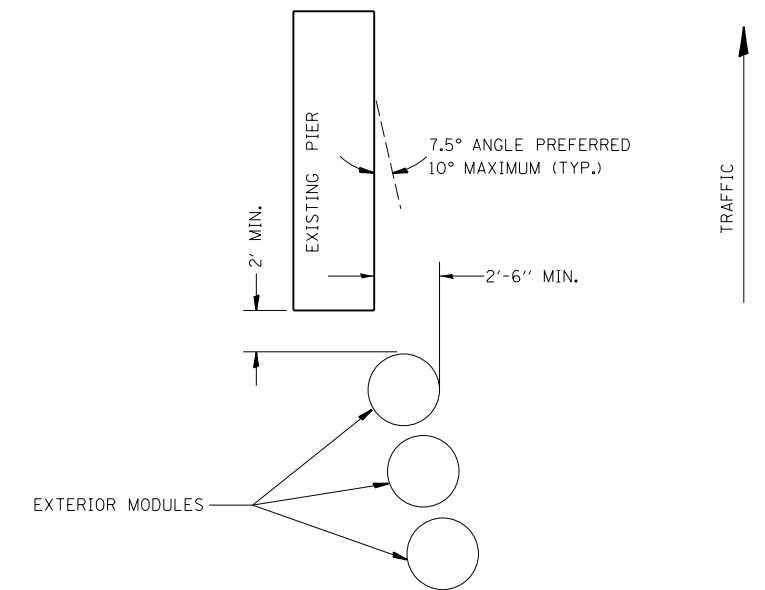


SECTION A - A

NOTE:

ATTENUATOR BASE SHALL BE PER MANUFACTURER SPECIFICATIONS EXCEPT SAND MODULE SYSTEMS SHALL HAVE THE FOLLOWING ADDITIONAL REQUIREMENTS:

1. ATTENUATOR BASE SHALL PROVIDE A 1' BUFFER ALONG THE SIDES AND FRONT OF THE ARRAY.
2. SAND MODULE SYSTEMS SHALL BE PLACED ON A HMA OR CONCRETE BASE.



TYPICAL EXTERIOR MODULE LAYOUT

IMPACT INSTALLATION DETAILS

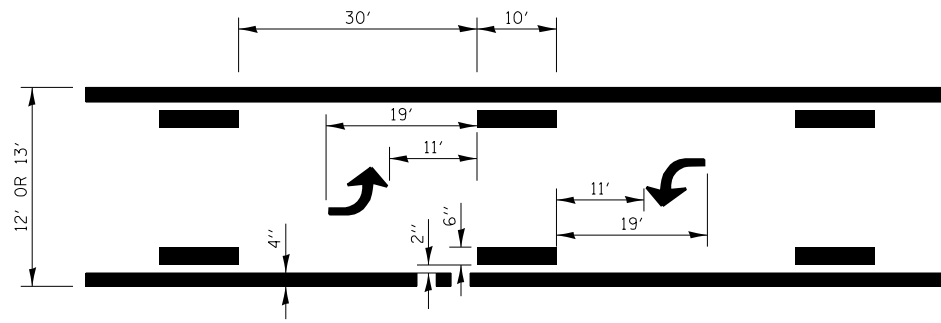
LAYOUT	IDOT	03.06.2013
DRAWN	MWH	07.10.2013
REVIEWED	DPA	10.17.2013

FILE NAME =	USER NAME = MWH	DESIGNED - IDOT	REVISED -
D309H0038-sht-details002		DRAWN - MWH	REVISED -
MODEL NAME =	PLOT SCALE = AS SHOWN	CHECKED - DPA	REVISED -
DET6	PLOT DATE = 12\02\2013	DATE - 12.03.13	REVISED -

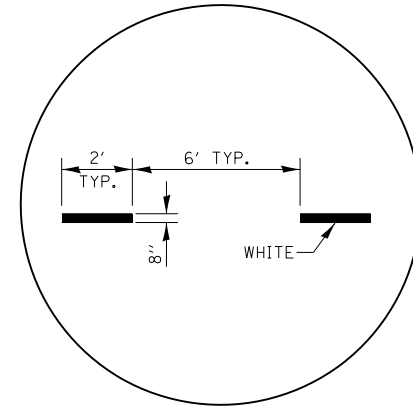
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

DETAILS			
I-57 AND 6000N RD (BOURBONNAIS PARKWAY)			
BOURBONNAIS, IL			
SCALE: AS SHOWN	SHEET NO.	OF SHEETS	STA. TO STA.

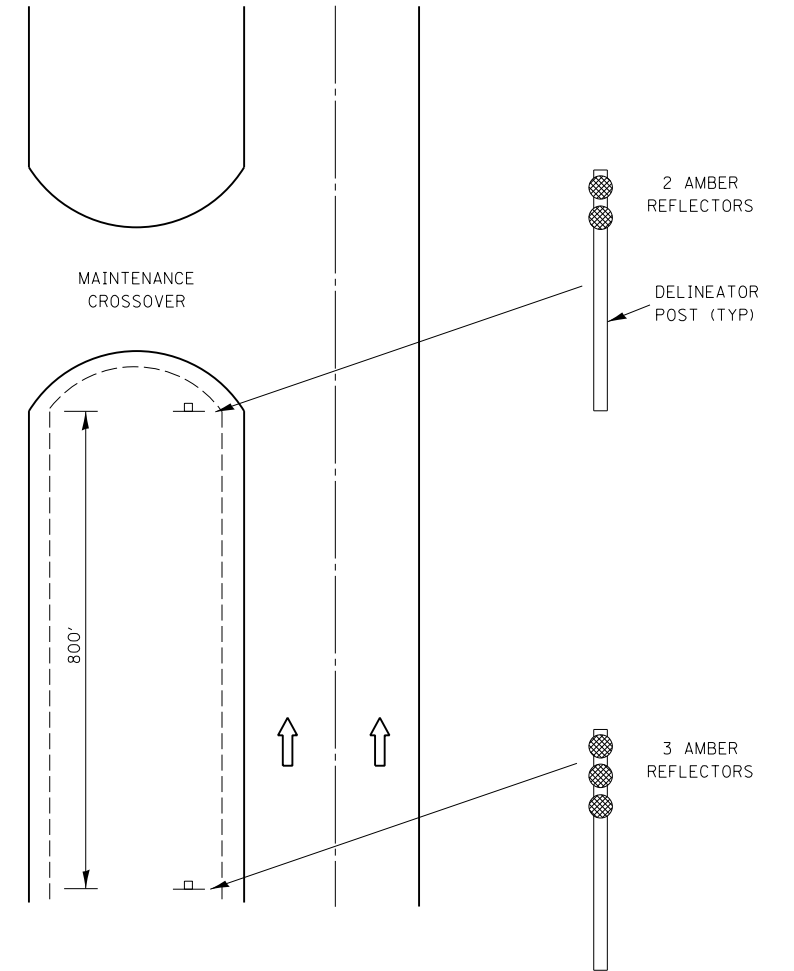
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(46-1)HBK-1	KANKAKEE	819	556
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	
			CONTRACT NO. 66982	



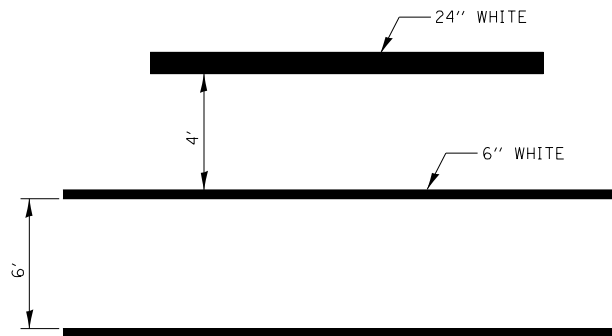
**TYPICAL APPLICATION
BI-DIRECTIONAL TURN LANE**



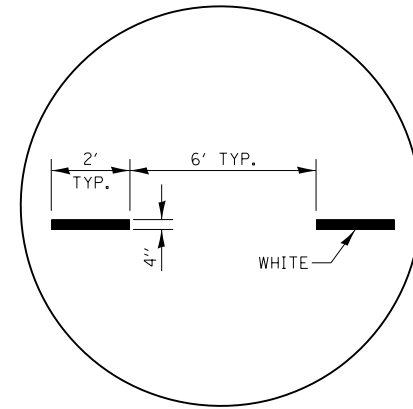
**ADVANCE AND INTERSECTION LANE
DIVIDER LINES**



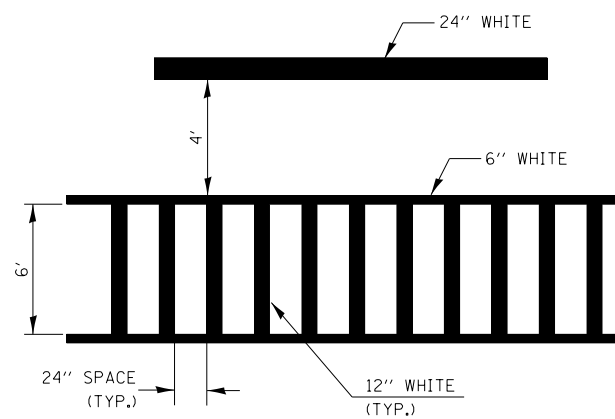
**DELINEATION
FOR MAINTENANCE
CROSSOVER
(TYPICAL FOR BOTH DIRECTIONS)**



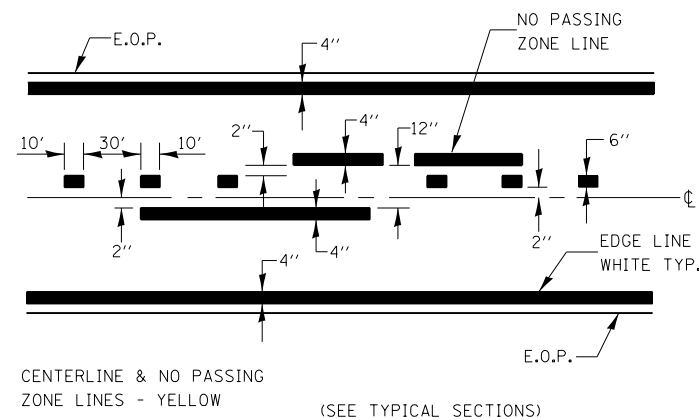
**TYPICAL SPACING DETAIL FOR
CROSSWALKS AND STOP BARS
OPTION 1**



INTERSTATE RAMP TRANSITION LINE



**TYPICAL SPACING DETAIL FOR
CROSSWALKS AND STOP BARS
OPTION 2**



PAVEMENT MARKING

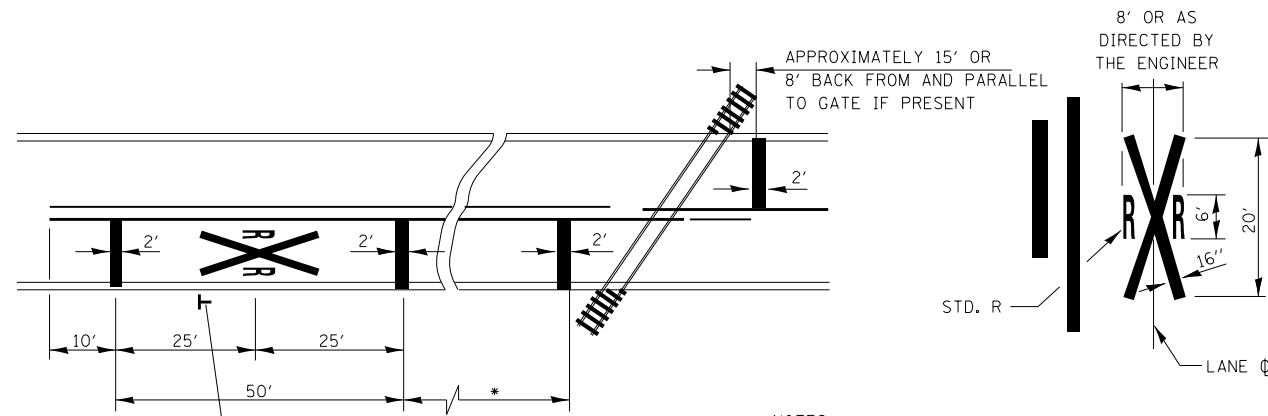
LAYOUT	IDOT	03.06.2013
DRAWN	MWH	07.10.2013
REVIEWED	DPA	10.17.2013
FILE NAME	D:\309H\038-sht-details\002	
MODEL NAME	DET9	
DATE	12.02.2013	

FILE NAME =	USER NAME = MWH	DESIGNED - IDOT	REVISED -
D309H0038-sht-details002		DRAWN - MWH	REVISED -
MODEL NAME =	PLOT SCALE = AS SHOWN	CHECKED - DPA	REVISED -
DET9	PLOT DATE = 12.02.2013	DATE - 12.03.13	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

DETAILS			
I-57 AND 6000N RD (BOURBONNAIS PARKWAY)			
BOURBONNAIS, IL			
SCALE: AS SHOWN	SHEET NO.	OF SHEETS	STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(46-1)HBK-1	KANKAKEE	819	557
CONTRACT NO. 66982				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



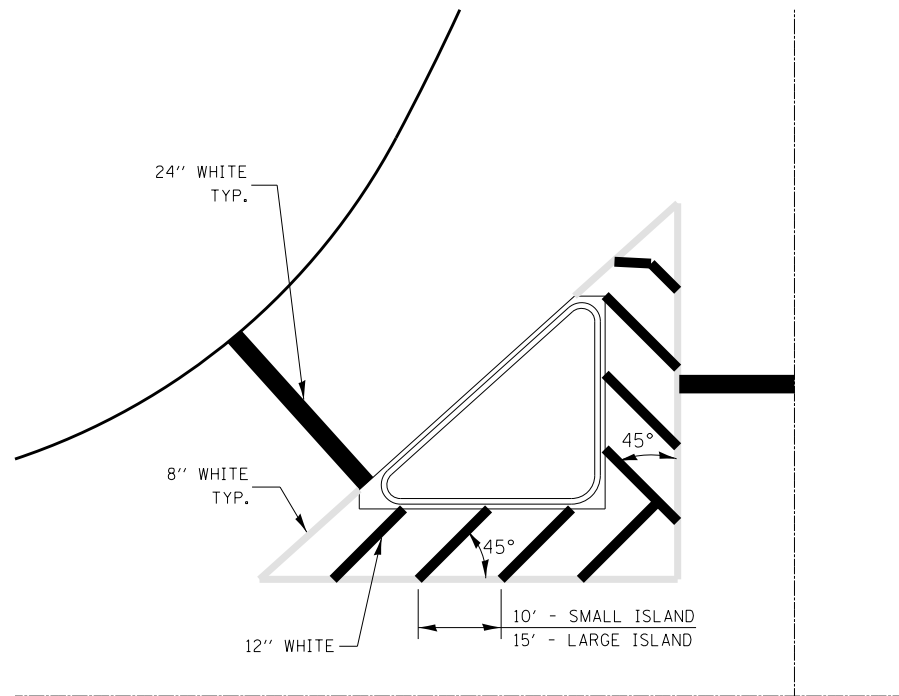
* MINIMUM DISTANCE
 400' FOR 55 MPH
 250' FOR 45 MPH
 100' FOR 35 MPH OR LESS

**PAVEMENT MARKINGS AT
 RAILROAD-HIGHWAY GRADE CROSSING**

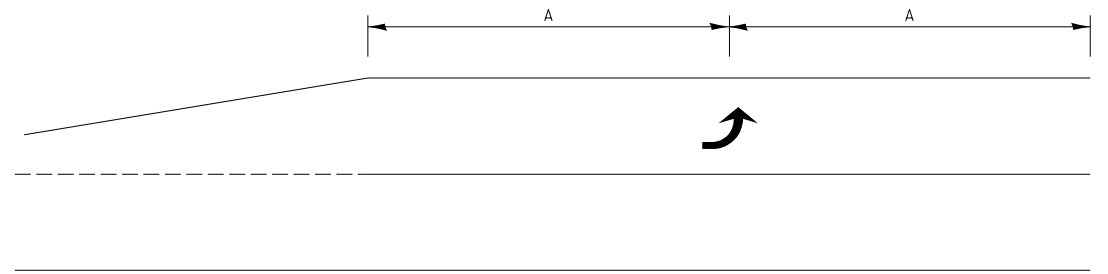
NOTES:
 THE TRANSVERSE SPREAD OF THE "X"
 MAY VARY ACCORDING TO LANE WIDTH.

ON MULTI-LANE ROADS, THE STOP LINES
 SHALL EXTEND ACROSS ALL APPROACH
 LANES AND SEPARATE RXR SYMBOLS SHALL
 BE PLACED ADJACENT TO EACH OTHER
 IN EACH LANE.

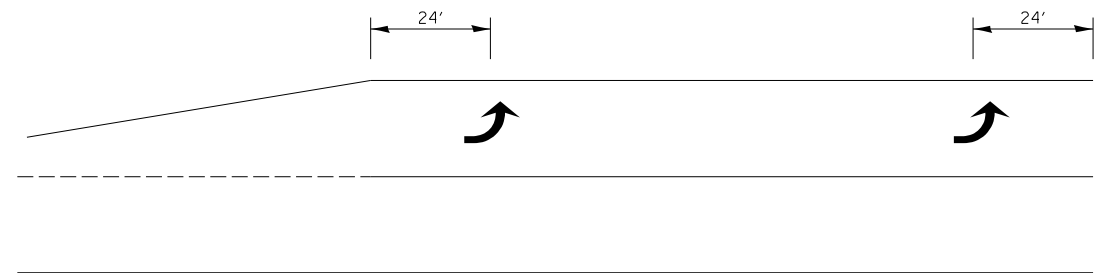
WHEN THE PAVEMENT MARKING SYMBOL
 IS USED, A PORTION OF THE SYMBOL
 SHOULD BE LOCATED DIRECTLY ADJACENT
 TO THE ADVANCE WARNING SIGN (W10-1).



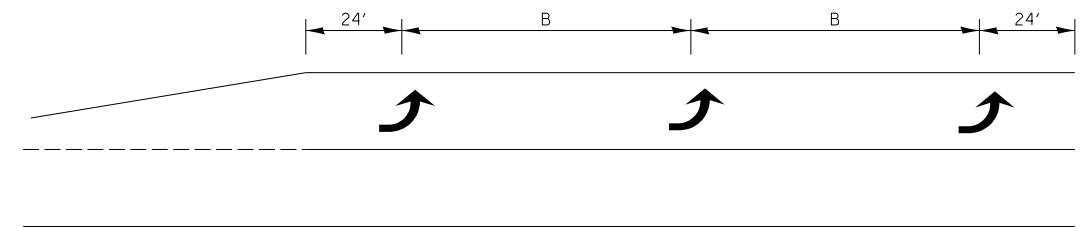
TYPICAL ISLAND



99' AND UNDER



100' TO 149'



150' AND LONGER

**TYPICAL PLACEMENT OF ARROWS
 IN TURN LANES**

LAYOUT	IDOT	03.06.2013
DRAWN	MWH	07.10.2013
REVIEWED	DPA	10.17.2013

FILE NAME =
 D309H0038-sht-details002
 MODEL NAME =
 DE110

USER NAME = MWH

DESIGNED - IDOT
 DRAWN - MWH
 CHECKED - DPA
 DATE - 12.03.13

REVISED -
 REVISED -
 REVISED -
 REVISED -

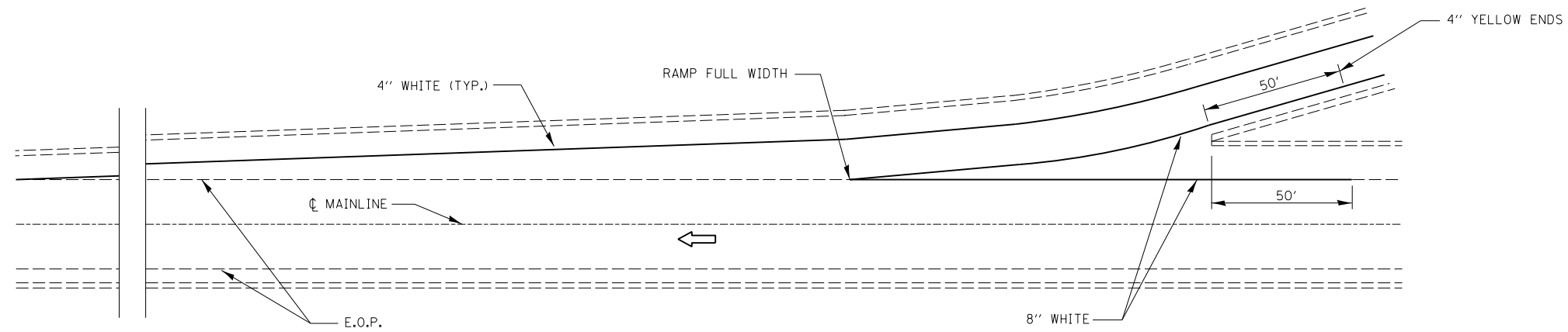
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**DETAILS
 I-57 AND 6000N RD (BOURBONNAIS PARKWAY)
 BOURBONNAIS, IL**

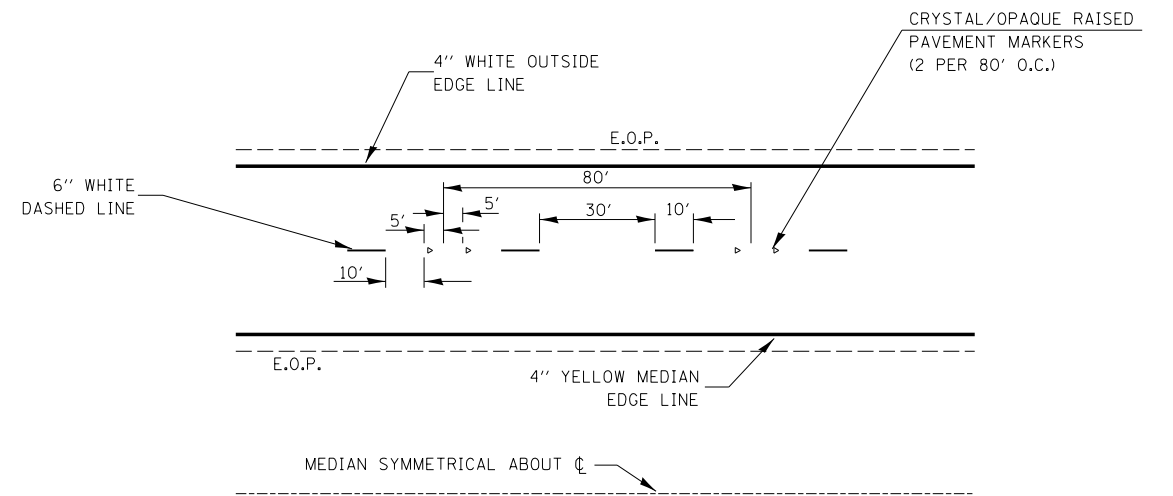
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(46-1)HBK-1	KANKAKEE	819	558
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	

CONTRACT NO. 66982

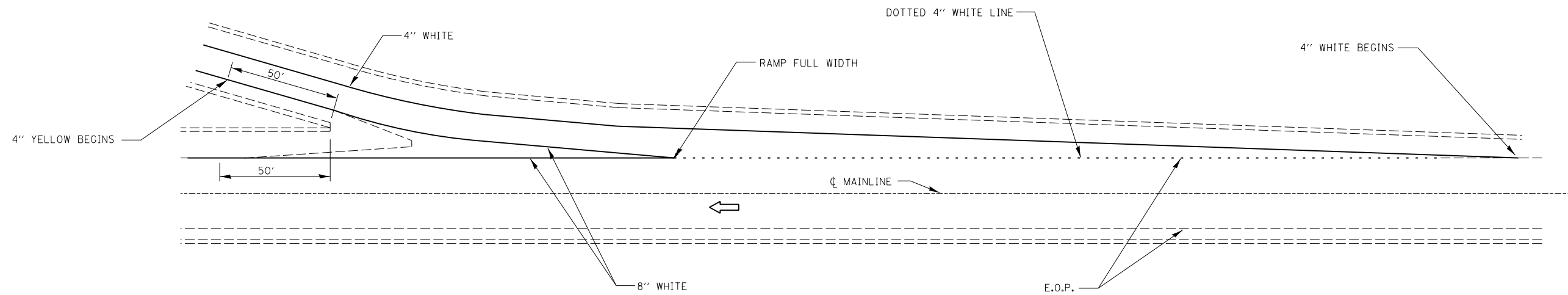
SCALE: AS SHOWN SHEET NO. OF SHEETS STA. TO STA.



TYPICAL PAVEMENT MARKING FOR ENTRANCE RAMP TERMINALS



TYPICAL PAVEMENT MARKINGS



TYPICAL PAVEMENT MARKINGS FOR EXIT RAMP TERMINALS

RAMP PAVEMENT MARKING

LAYOUT	IDOT	03.06.2013
DRAWN	MWH	07.10.2013
REVIEWED	DPA	10.17.2013

FILE NAME =	D309H0038-sht-details002
MODEL NAME =	DET11

USER NAME =	MWH
PLOT SCALE =	AS SHOWN
PLOT DATE =	12\02\2013

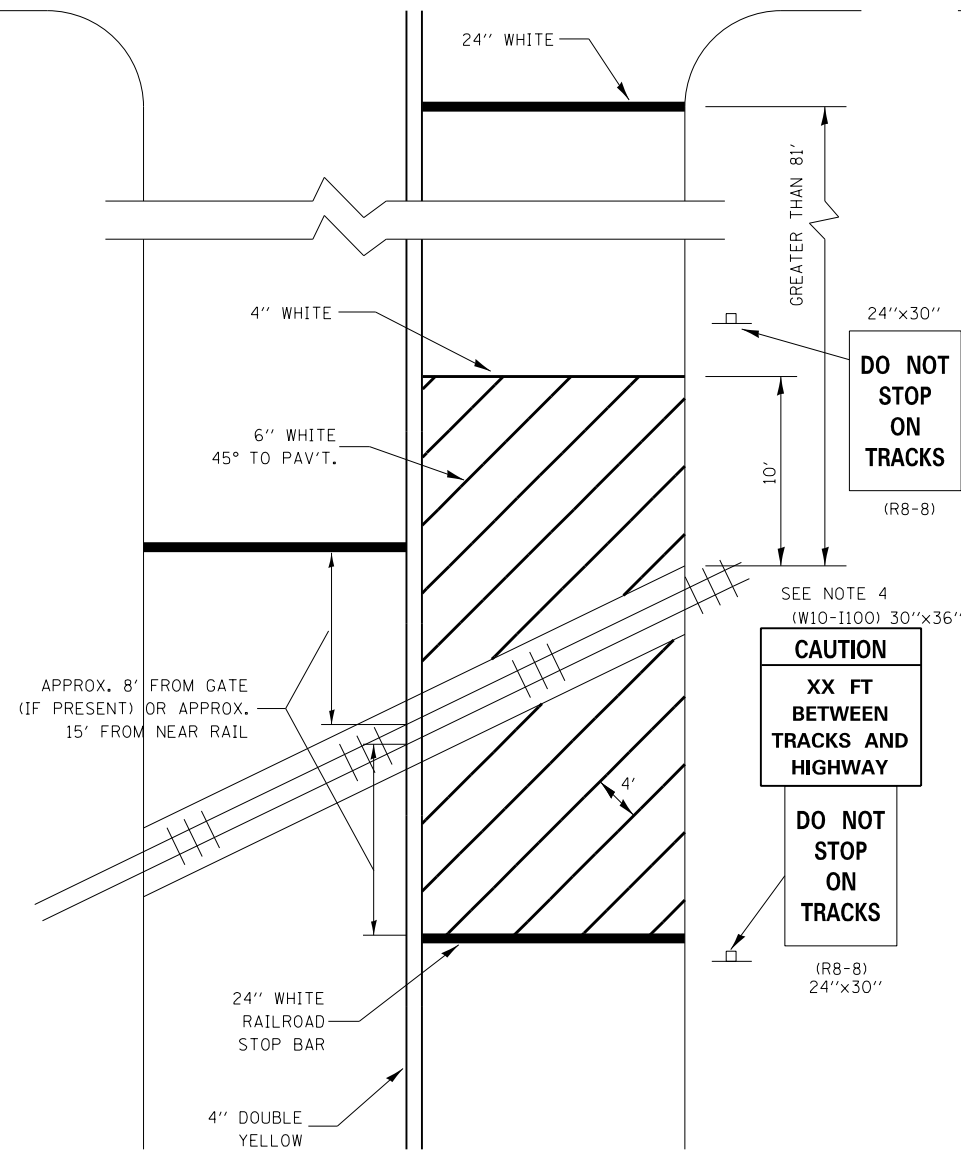
DESIGNED -	IDOT
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CHECKED -	DPA
DATE -	12.03.13

REVISED -	
REVISED -	
REVISED -	
REVISED -	

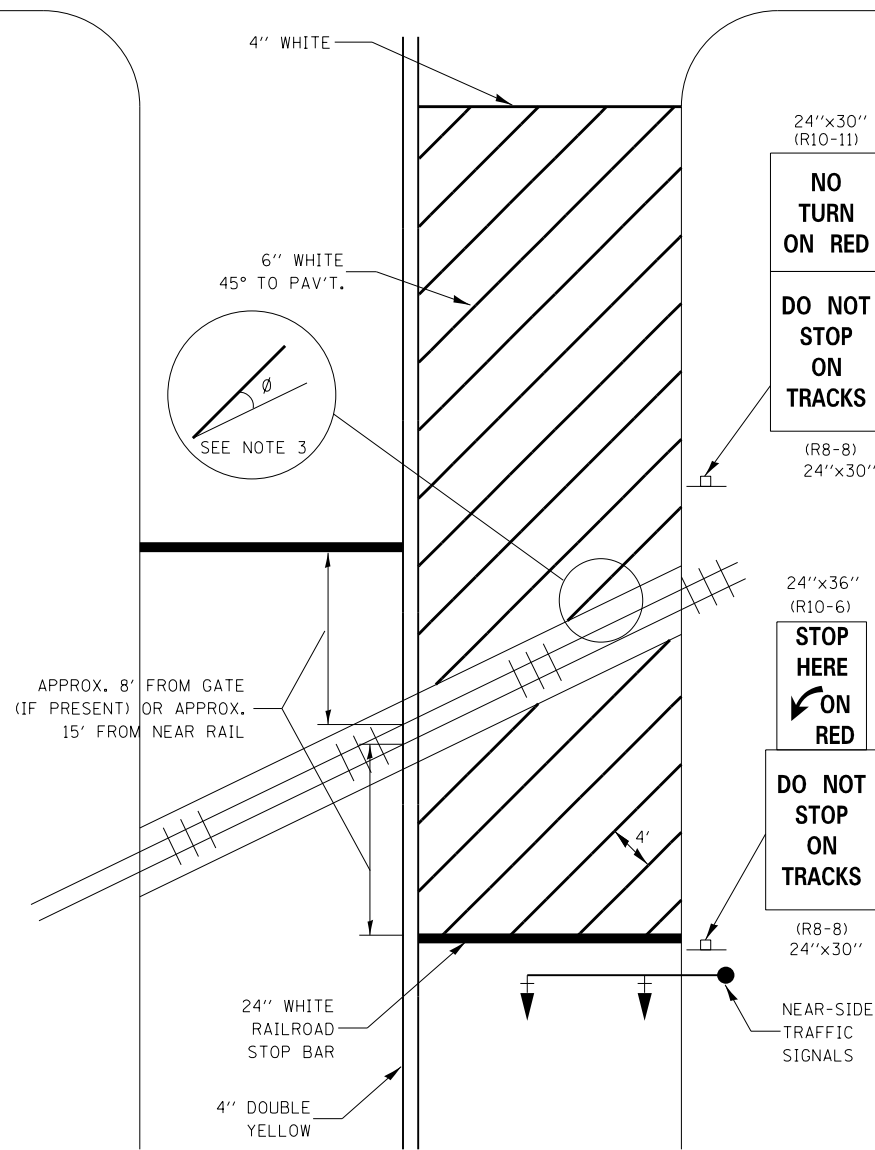
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

DETAILS			
I-57 AND 6000N RD (BOURBONNAIS PARKWAY)			
BOURBONNAIS, IL			
SCALE: AS SHOWN	SHEET NO.	OF SHEETS	STA. TO STA.

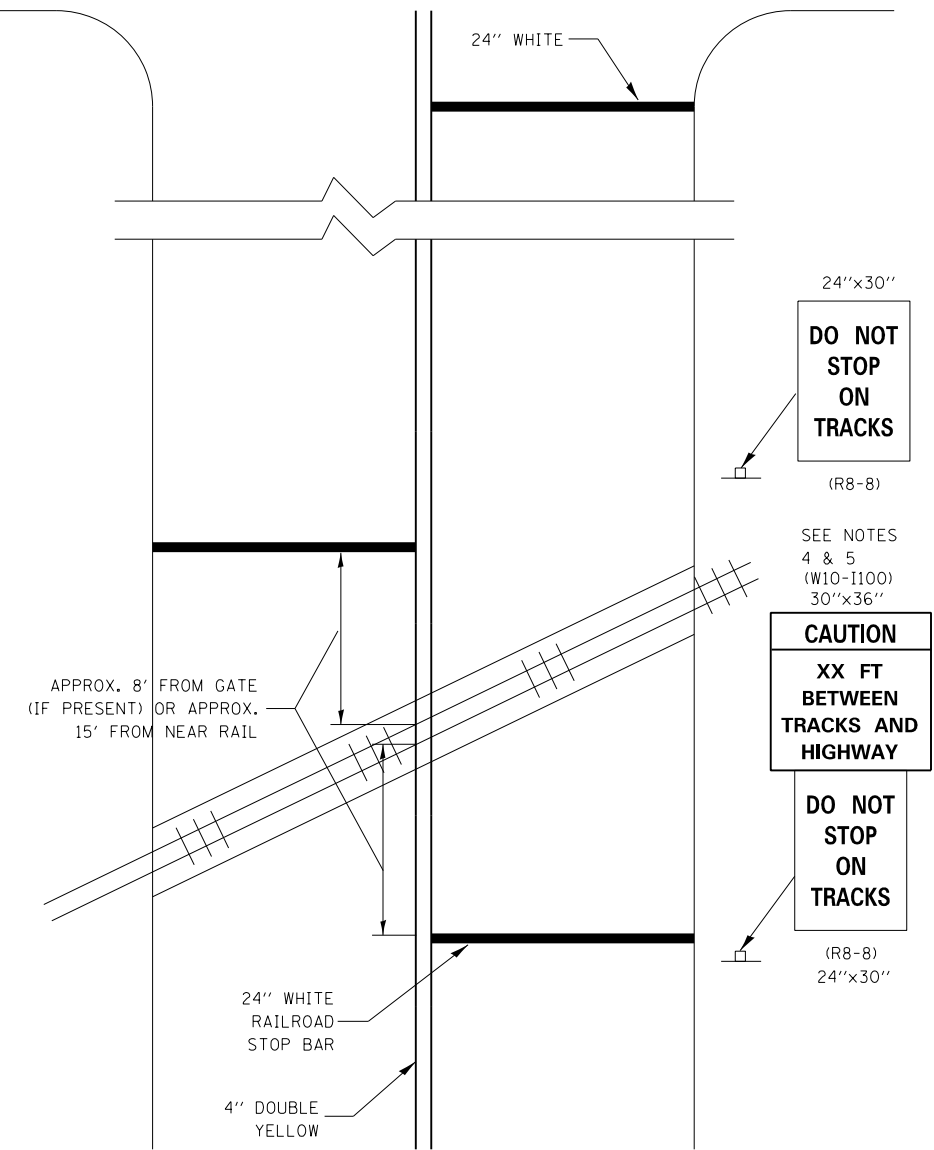
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(46-1)HBK-1	KANKAKEE	819	559
CONTRACT NO. 66982				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



WITH INTERSECTION TRAFFIC SIGNALS



WITH NEAR-SIDE TRAFFIC SIGNALS



WITH NONSIGNALIZED INTERSECTION

- NOTE:
1. PAVEMENT MARKINGS TO BE INSTALLED ONLY ON APPROACHES TO INTERSECTIONS CONTROLLED BY TRAFFIC SIGNALS WHICH ARE INTERCONNECTED WITH THE RAILROAD WARNING SIGNALS.
 2. WHERE NEAR-SIDE TRAFFIC SIGNALS ARE USED THE PAVEMENT MARKINGS EXTEND TO THE INTERSECTION.
 3. WHERE THE ANGLE BETWEEN THE DIAGONAL STRIPES AND THE TRACK (ϕ) WOULD BE LESS THAN APPROXIMATELY 20°, THE STRIPES SHOULD BE SLOPED IN THE OPPOSITE DIRECTION FROM THAT SHOWN.
 4. DISTANCE TO BE SHOWN ON SIGN MEASURED FROM A POINT 6 FEET FROM THE RAIL CLOSEST TO THE INTERSECTION TO THE STOP BAR OR CROSSWALK, WHICH EVER IS CLOSEST, ROUNDED DOWN TO NEAREST 5 FEET. WHERE THERE IS NO STOP LINE, MEASURE TO POINT WHERE DRIVER HAS A VIEW OF APPROACHING TRAFFIC.
 5. THE CLEARANCE SIGN IS ALSO TO BE USED AS AN INTERIM MEASURE AT LOCATIONS WITH INTERCONNECTED INTERSECTION TRAFFIC SIGNALS WHERE IT IS PLANNED TO CHANGE THEM TO NEAR-SIDE SIGNALS AT A FUTURE TIME. IN THIS CASE, THE DISTANCE TO BE SHOWN ON THE SIGN IS MEASURED FROM THE EDGE OF THE STRIPED-OUT AREA INSTEAD OF 6 FEET FROM THE RAIL. THE SIGN IS TO BE REMOVED WHEN THE NEAR-SIDE SIGNALS ARE INSTALLED AND THE PAVEMENT MARKINGS EXTENDED TO THE INTERSECTION.

TYPICAL SUPPLEMENTAL SIGNING AND PAVEMENT MARKING TREATMENT FOR RAILROAD CROSSINGS

LAYOUT	IDOT	03.06.2013
DRAWN	MWH	07.10.2013
REVIEWED	DPA	10.17.2013

FILE NAME = D309H0038-sht-details002
MODEL NAME = DET12

USER NAME = MWH
DESIGNED - IDOT
DRAWN - MWH
CHECKED - DPA
DATE - 12.03.13

REVISED -
REVISED -
REVISED -
REVISED -

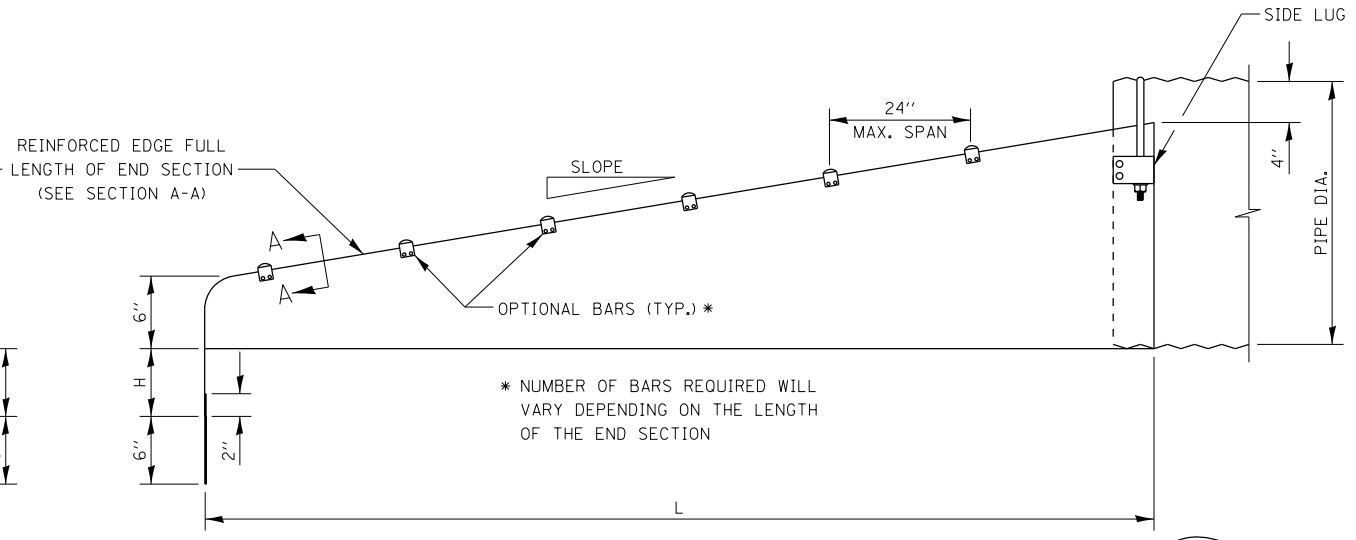
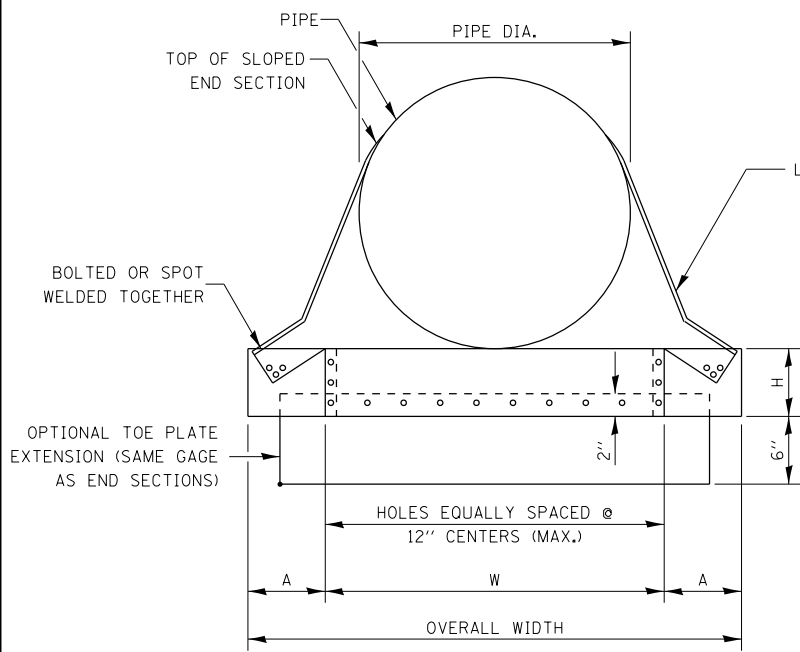
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**DETAILS
I-57 AND 6000N RD (BOURBONNAIS PARKWAY)
BOURBONNAIS, IL**

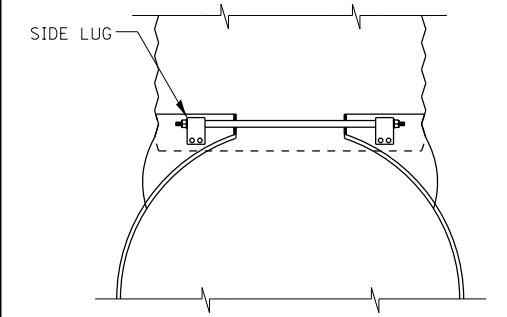
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(46-1)HBK-1	KANKAKEE	819	560
CONTRACT NO. 66982				

SCALE: AS SHOWN SHEET NO. OF SHEETS STA. TO STA.

FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT



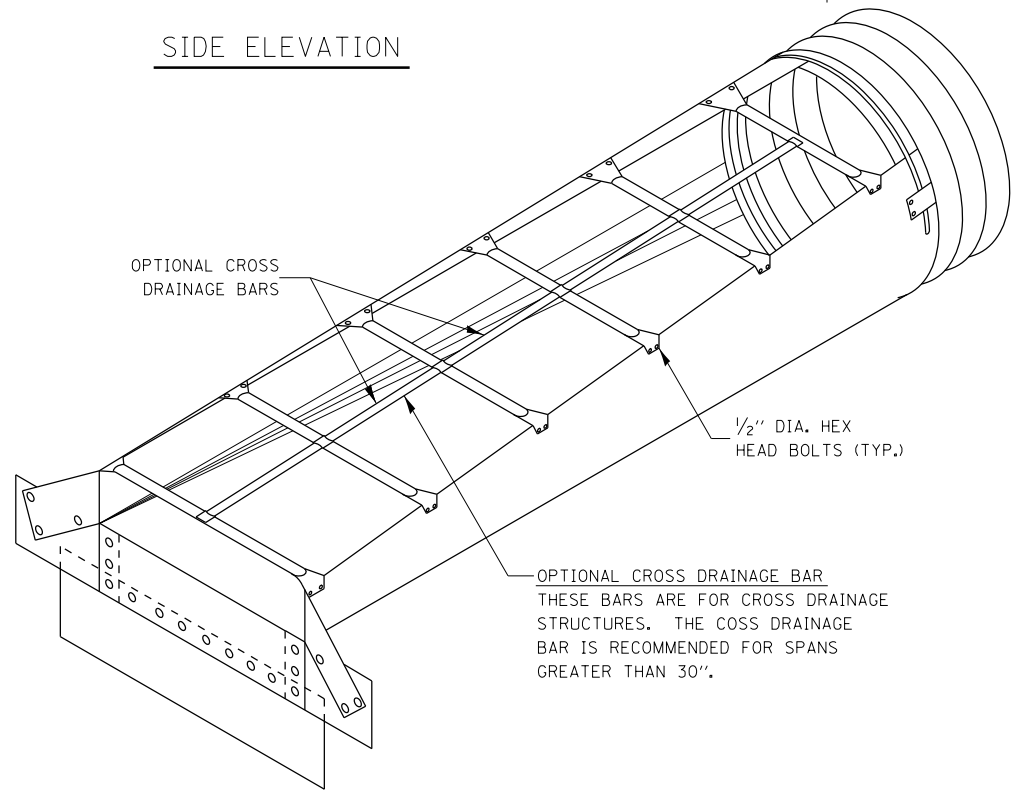
SIDE ELEVATION



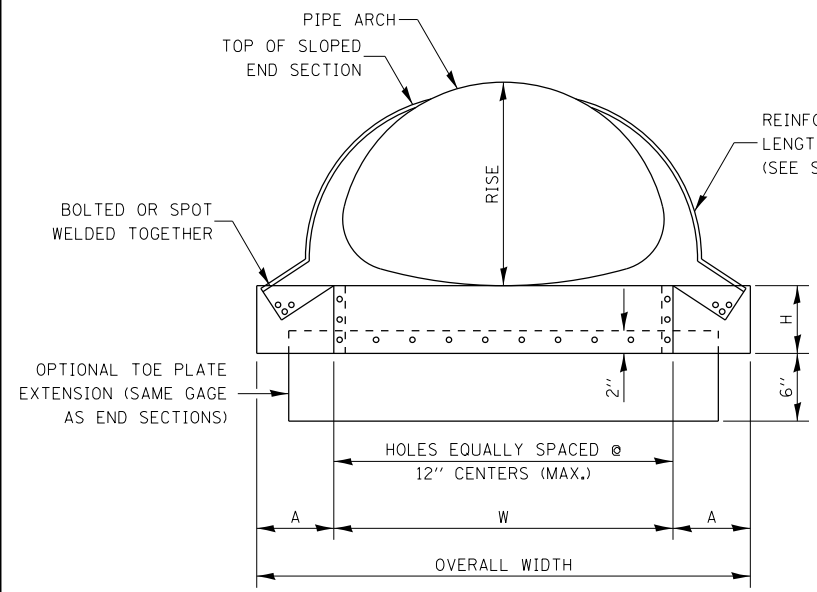
TYPE #2 CONNECTOR DETAIL

TYPE #1 CONNECTOR DETAILS
THRU 24"
GALVANIZED STRAP

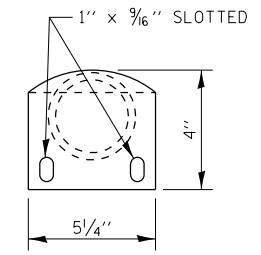
TYPE #2 CONNECTOR DETAILS (SHOWN)
FOR 30" AND LARGER
21" x 15" AND LARGER
1/2" THREADED ROD W/FLANGED
NUT AND SIDE LUG



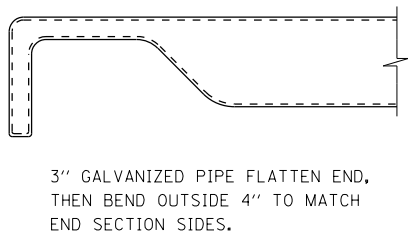
CIRCULAR PIPE ISOMETRIC VIEW



FRONT VIEW PIPE ARCH



DETAIL OF OPTIONAL BARS



EDGE OF SIDEWALL
ROLLED SNUGLY
AGAINST STEEL ROD

SECTION A-A

GENERAL NOTES

- CONNECTORS - ROUND SIZES THRU 24" ATTACH TO PIPE WITH TYPE #1 STRAPS, ALL OTHER SIZES ATTACH WITH TYPE #2 RODS AND LUGS.
- TOE PLATE EXTENSIONS - WHEN REQUIRED, TOE PLATE EXTENSIONS ARE TO BE THE SAME GAGE AS END SECTIONS. DIMENSIONS SHALL BE OVERALL WIDTH LESS 6 INCHES BY 8 INCHES HIGH.
- OPTIONAL BARS - BARS WHEN SPECIFIED, SHALL BE SCHEDULE 40 GALVANIZED STEEL PIPE.
- TYPICALLY PARALLEL BARS ARE PLACED ON 24" CENTERS.
- TYPICALLY THE CROSS BARS ARE USED ON CROSS DRAIN APPLICATIONS.
- HOLES FOR BAR ATTACHMENTS SHALL BE PROVIDED ON ALL END SECTIONS.
- DIMENSIONS ARE SUBJECT TO MANUFACTURING TOLERANCES.
- THESE END SECTIONS WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH FOR METAL END SECTION (SPECIAL) WITH GRATE OF THE DIAMETER SPECIFIED, WHICH SHALL INCLUDE FURNISHING AND INSTALLING THE END SECTION COMPLETE IN PLACE, INCLUDING THE TOE PLATE, EXCAVATING, BACKFILLING, CONNECTING TO THE PIPE, AND CROSS DRAINAGE BARS.

METAL END SECTIONS FOR ROUND PIPE										
PIPE DIA. (IN.)	MIN. THICK IN.	GAGE	DIMENSIONS (INCHES)			L DIMENSIONS				
			A	H	W	OVERALL WIDTH	SLOPE	LENGTH (IN.)	SLOPE	LENGTH (IN.)
15	.064	16	8	6	21	37	6:1	30	4:1	20
18	.064	16	8	6	24	40	6:1	48	4:1	32
21	.064	16	8	6	27	43	6:1	66	4:1	44
24	.064	16	8	6	30	46	6:1	84	4:1	56
30	.109	12	12	9	36	60	6:1	120	4:1	80
36	.109	12	12	9	42	66	4:1	104	6:1	156
42	.109	12	16	12	48	80	4:1	128	6:1	192
48	.109	12	16	12	54	86	4:1	152	6:1	228
54	.109	12	16	12	60	92	4:1	176	6:1	264
60	.109	12	16	12	66	98	4:1	200	6:1	300

METAL END SECTIONS FOR PIPE ARCH												
EQUIV. DIA. (IN.)	(INCHES)		MIN. THICK IN.	GAGE	DIMENSIONS (INCHES)			L DIMENSIONS				
	SPAN	RISE			A	H	W	OVERALL WIDTH	SLOPE	LENGTH (IN.)	SLOPE	LENGTH (IN.)
18	21	15	.064	16	8	6	27	43	6:1	30	4:1	20
21	24	18	.064	16	8	6	30	46	6:1	48	4:1	32
24	28	20	.064	16	8	6	34	50	6:1	60	4:1	40
30	36	24	.079	14	12	9	41	65	6:1	84	4:1	56
36	42	29	.109	12	12	9	48	72	6:1	114	4:1	76
42	49	33	.109	12	16	12	55	87	4:1	92	6:1	138
48	57	38	.109	12	16	12	63	95	4:1	112	6:1	168
54	64	43	.109	12	16	12	70	102	4:1	132	6:1	198
60	71	47	.109	12	16	12	77	109	4:1	148	6:1	222
72	83	57	.109	12	16	12	89	121	4:1	188	6:1	282

LAYOUT
DRAWN
REVIEWED

FILE NAME = d309h0038-sht-details002	USER NAME = MWH	DESIGNED -	REVISED -
MODEL NAME = DET8	PLOT SCALE = AS SHOWN	DRAWN -	REVISED -
PLOT DATE = 3/6/2014	DATE -	CHECKED -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DETAILS I-57 AND 6000N RD (BOURBONNAIS PARKWAY) BOURBONNAIS, IL			
SCALE: AS SHOWN	SHEET NO.	OF SHEETS	STA. TO STA.

F.A.I. RTE. 57	SECTION (46-1)HBK-1	COUNTY KANKAKEE	TOTAL SHEETS 819	SHEET NO. 561
CONTRACT NO. 66982			ILLINOIS FED. AID PROJECT	



SOIL BORING LOG

ROUTE I-57 (FAI 57) DESCRIPTION (Samples 55 & 56) LOGGED BY Larry Myers

SECTION (46-1)HBK-1 LOCATION NW 1/4, SEC. 5, TWP. 31N, RNG. 12E

COUNTY Kankakee DRILLING METHOD Push HAMMER TYPE CME Automatic

STRUCT. NO.	DEPTH	BLOWS	UCS	MOIST	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:	First Encounter	Upon Completion	After
Station	(ft)	(/6")	(tsf)	(%)	ft	ft	ft	Dry	ft	ft
	670.46									
			2.0	38.0						
			P							
	667.46									
			2.0	32.0						
			P							

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)



SOIL BORING LOG

ROUTE I-57 (FAI 57) DESCRIPTION (Samples 57, 58 & 59) LOGGED BY Larry Myers

SECTION (46-1)HBK-1 LOCATION NW 1/4, SEC. 5, TWP. 31N, RNG. 12E

COUNTY Kankakee DRILLING METHOD Push HAMMER TYPE CME Automatic

STRUCT. NO.	DEPTH	BLOWS	UCS	MOIST	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:	First Encounter	Upon Completion	After
Station	(ft)	(/6")	(tsf)	(%)	ft	ft	ft	Dry	ft	ft
	670.39		2.5	20.8						
			P							
	668.39		2.5	27.5						
			P							
	666.89		1.5	21.6						
			P							

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)



LAYOUT	DPA	07.30.2013
DRAWN	MGM	07.30.2013
REVIEWED	DPA	10.17.2013

FILE NAME =	USER NAME = MWH	DESIGNED - DPA	REVISED -
D389H0038-sht-biog001		DRAWN - MGM	REVISED -
MODEL NAME =	PLOT SCALE = AS SHOWN	CHECKED - DPA	REVISED -
Default	PLOT DATE = 12\02\2013	DATE - 12.03.13	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS (US 45/52)			
I-57 AND 6000N RD (BOURBONNAIS PARKWAY)			
BOURBONNAIS, IL			
SCALE: AS SHOWN	SHEET NO.	OF SHEETS	STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(46-1)HBK-1	KANKAKEE	819	562
CONTRACT NO. 66982				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



SOIL BORING LOG

ROUTE I-57 (FAI 57) DESCRIPTION (Samples 60 & 61) LOGGED BY Larry Myers

SECTION (46-1)HBK-1 LOCATION NW 1/4, SEC. 5, TWP. 31N, RNG. 12E

COUNTY Kankakee DRILLING METHOD Push HAMMER TYPE CME Automatic

STRUCT. NO.	DEPTH	BLOWS	UCS	MOIST	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:	First Encounter	Upon Completion	After
Station	(ft)	(/6")	(tsf)	(%)	ft	ft	ft	Dry	ft	ft
	669.74		4.0	19.4						
			P							
	-5									
	666.24		>4.5	17.4						
			P							
	-10									
	-15									
	-20									

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)



SOIL BORING LOG

ROUTE I-57 (FAI 57) DESCRIPTION LOGGED BY Larry Myers

SECTION (46-1)HBK-1 LOCATION NW 1/4, SEC. 5, TWP. 31N, RNG. 12E

COUNTY Kankakee DRILLING METHOD Push HAMMER TYPE CME Automatic

STRUCT. NO.	DEPTH	BLOWS	UCS	MOIST	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:	First Encounter	Upon Completion	After
Station	(ft)	(/6")	(tsf)	(%)	ft	ft	ft	Dry	ft	ft
	668.14		3.0	30.2						
			P							
	666.14		2.5	28.0						
			P							
	-5									
	665.14		4.0	29.8						
			P							
	-10									
	-15									
	-20									

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)



LAYOUT	DPA	07.30.2013
DRAWN	MGM	07.30.2013
REVIEWED	DPA	10.17.2013

FILE NAME =	USER NAME = MWH	DESIGNED - DPA	REVISED -
D389H0038-sht-biog002		DRAWN - MGM	REVISED -
MODEL NAME =	PLOT SCALE = AS SHOWN	CHECKED - DPA	REVISED -
Default	PLOT DATE = 12\02\2013	DATE - 12.03.13	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS (US 45/52)			
I-57 AND 6000N RD (BOURBONNAIS PARKWAY)			
BOURBONNAIS, IL			
SCALE: AS SHOWN	SHEET NO.	OF SHEETS	STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(46-1)HBK-1	KANKAKEE	819	563
CONTRACT NO. 66982				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



SOIL BORING LOG

ROUTE I-57 (FAI 57) DESCRIPTION (Sample 51) LOGGED BY Larry Myers

SECTION (46-1)HBK-1 LOCATION SW 1/4, SEC. 32, TWP. 32N, RNG. 12E

COUNTY Kankakee DRILLING METHOD Push HAMMER TYPE CME Automatic

STRUCT. NO.	DEPTH	BLOWS	UCS	MOIST	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:	First Encounter	Upon Completion	After
Station	(ft)	(/6")	(tsf)	(%)	ft	ft	ft	Dry	ft	ft
Black Silty Clay Loam Fill with Gravel	665.95									
Brown & Gray Silty Clay Loam/Silty Loam with Silt & Fine Sand Layers & Loamy Sand Layers			3.0 P	9.8						
End of Boring	660.95		3.0 P	14.7						

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)



SOIL BORING LOG

ROUTE I-57 (FAI 57) DESCRIPTION (Samples 52 & 53) LOGGED BY Larry Myers

SECTION (46-1)HBK-1 LOCATION SW 1/4, SEC. 32, TWP. 32N, RNG. 12E

COUNTY Kankakee DRILLING METHOD Push HAMMER TYPE CME Automatic

STRUCT. NO.	DEPTH	BLOWS	UCS	MOIST	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:	First Encounter	Upon Completion	After
Station	(ft)	(/6")	(tsf)	(%)	ft	ft	ft	Dry	ft	ft
Black Silty Clay Loam Fill with Gravel Pieces	664.11									
Brown & Gray Silty Clay Loam Till			3.0 P	22.2						
End of Boring	660.11		4.5 P	32.9						

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)



LAYOUT	DPA	07.30.2013
DRAWN	MGM	07.30.2013
REVIEWED	DPA	10.17.2013

FILE NAME =	USER NAME = MWH	DESIGNED - DPA	REVISED -
D389H0038-shr-biog004		DRAWN - MGM	REVISED -
MODEL NAME =		CHECKED - DPA	REVISED -
Default		DATE - 12.03.13	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS (US 45/52)			
I-57 AND 6000N RD (BOURBONNAIS PARKWAY)			
BOURBONNAIS, IL			
SCALE: AS SHOWN	SHEET NO.	OF SHEETS	STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(46-1)HBK-1	KANKAKEE	819	564
CONTRACT NO. 66982				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

SOIL BORING LOG

ROUTE I-57 (FAI 57) DESCRIPTION (Sample 54) LOGGED BY Larry Myers

SECTION (46-1)HBK-1 LOCATION SW 1/4, SEC. 32, TWP. 32N, RNG. 12E

COUNTY Kankakee DRILLING METHOD Push HAMMER TYPE CME Automatic

STRUCT. NO. Station	DEPTH ft	BLOWS (/6")	UCS Qu (tsf)	MOIST T (%)	Surface Water Elev. ft	Stream Bed Elev. ft	Groundwater Elev.: First Encounter Upon Completion After Hrs.
Black Silty Clay Loam Fill with Gravel Pieces 663.93							
Brown & Gray Silty Clay Loam Till			2.0 P	25.1			
			4.5 P	16.8			
End of Boring 658.93			>4.5 P	17.7			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrator)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)

SOIL BORING LOG

ROUTE I-57 (FAI 57) DESCRIPTION _____ LOGGED BY Larry Myers

SECTION (46-1)HBK-1 LOCATION NW 1/4, SEC. 5, TWP. 31N, RNG. 12E

COUNTY Kankakee DRILLING METHOD Push HAMMER TYPE CME Automatic

STRUCT. NO. Station	DEPTH ft	BLOWS (/6")	UCS Qu (tsf)	MOIST T (%)	Surface Water Elev. ft	Stream Bed Elev. ft	Groundwater Elev.: First Encounter Upon Completion After Hrs.
HMA 672.60							
Black & Brown Silty Clay & Silty Clay Loam with Large Concrete Debris Pieces - Concrete - probably old road bed 671.02			>4.5 P	13.3			
End of Boring							

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrator)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)



LAYOUT	DPA	07.30.2013
DRAWN	MGM	07.30.2013
REVIEWED	DPA	10.17.2013

FILE NAME = D389H0038-shr-biog005	USER NAME = MWH	DESIGNED - DPA	REVISED -
MODEL NAME = Default	PLOT SCALE = AS SHOWN	DRAWN - MGM	REVISED -
	PLOT DATE = 12\02\2013	CHECKED - DPA	REVISED -
		DATE - 12.03.13	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

BORING LOGS (US 45/52)			
I-57 AND 6000N RD (BOURBONNAIS PARKWAY)			
BOURBONNAIS, IL			
SCALE: AS SHOWN	SHEET NO.	OF SHEETS	STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(46-1)HBK-1	KANKAKEE	819	565
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	
			CONTRACT NO. 66982	



SOIL BORING LOG

ROUTE I-57 (FAI 57) DESCRIPTION (Sample 30) LOGGED BY Larry Myers

SECTION (46-1)HBK-1 LOCATION NE 1/4, SEC. 6, TWP. 31N, RNG. 12E

COUNTY Kankakee DRILLING METHOD Push HAMMER TYPE CME Automatic

STRUCT. NO.	DEPTH	BLOWS	UCS	MOIST	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:	First Encounter	Upon Completion	After
Station	(ft)	(/6")	(tsf)	(%)	ft	ft	ft	Dry	ft	ft
	662.03									
Brown & Gray Silty Clay Loess			2.0 P	30.2						
	660.53									
Brown & Gray Silty Clay Loam Till			2.5 P	26.1						
	658.03									
End of Boring			3.5 P	20.7						

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)



SOIL BORING LOG

ROUTE I-57 (FAI 57) DESCRIPTION (Sample 31) LOGGED BY Larry Myers

SECTION (46-1)HBK-1 LOCATION NE 1/4, SEC. 6, TWP. 31N, RNG. 12E

COUNTY Kankakee DRILLING METHOD Push HAMMER TYPE CME Automatic

STRUCT. NO.	DEPTH	BLOWS	UCS	MOIST	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:	First Encounter	Upon Completion	After
Station	(ft)	(/6")	(tsf)	(%)	ft	ft	ft	Dry	ft	ft
	664.09									
Brown, Gray & Black Silty Clay Loess			3.5 P	20.6						
	663.09									
Brown & Gray Silty Clay Loam Till			3.0 P	24.2						
	660.09									
End of Boring			4.0 P	17.8						

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)



LAYOUT	DPA	07.30.2013
DRAWN	MGM	07.30.2013
REVIEWED	DPA	10.17.2013

FILE NAME =	USER NAME = MWH	DESIGNED - DPA	REVISED -
D389H0038-shr-biog006		DRAWN - MGM	REVISED -
MODEL NAME =	PLOT SCALE = AS SHOWN	CHECKED - DPA	REVISED -
Default	PLOT DATE = 12\02\2013	DATE - 12.03.13	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS (6000N ROAD & 1000E ROAD) I-57 AND 6000N RD (BOURBONNAIS PARKWAY) BOURBONNAIS, IL			
SCALE: AS SHOWN	SHEET NO.	OF SHEETS	STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(46-1)HBK-1	KANKAKEE	819	566
CONTRACT NO. 66982				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



SOIL BORING LOG

ROUTE I-57 (FAI 57) DESCRIPTION (Samples 32, 33 & 34) LOGGED BY Larry Myers

SECTION (46-1)HBK-1 LOCATION NE 1/4, SEC. 6, TWP. 31N, RNG. 12E

COUNTY Kankakee DRILLING METHOD Push HAMMER TYPE CME Automatic

STRUCT. NO. Station	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST T (%)	Surface Water Elev. _____ ft		
					Stream Bed Elev. _____ ft	Groundwater Elev.:	
BORING NO. <u>12 (6000 N. Centerline)</u>					First Encounter _____ ft	Dry	
Station <u>7444+00</u>					Upon Completion _____ ft		
Offset <u>20.00ft Rt.</u>					After _____ Hrs. _____ ft		
Ground Surface Elev. <u>666.37</u>	ft	(ft)	(/6")	(tsf)	(%)		
Black Silty Clay Loam Topsoil							
	664.37						
Brown & Gray Silty Clay Loess			2.0 P	28.0			
	662.37						
Brown & Gray Silty Clay Loam Till with Silt Seams			2.5 P	19.7			
	660.37						
End of Boring			3.5 P	21.0			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)



SOIL BORING LOG

ROUTE I-57 (FAI 57) DESCRIPTION (Samples 47 & 48) LOGGED BY Larry Myers

SECTION (46-1)HBK-1 LOCATION NE 1/4, SEC. 6, TWP. 31N, RNG. 12E

COUNTY Kankakee DRILLING METHOD Push HAMMER TYPE CME Automatic

STRUCT. NO. Station	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST T (%)	Surface Water Elev. _____ ft		
					Stream Bed Elev. _____ ft	Groundwater Elev.:	
BORING NO. <u>13 (6000 N. Centerline)</u>					First Encounter _____ ft	Dry	
Station <u>7447+00</u>					Upon Completion _____ ft		
Offset <u>61.00ft Rt.</u>					After _____ Hrs. _____ ft		
Ground Surface Elev. <u>667.63</u>	ft	(ft)	(/6")	(tsf)	(%)		
Black Silty Clay Loam Topsoil Fill with Gravel Pieces							
	665.63						
Brown & Gray Silty Clay Loess			2.5 P	20.6			
	663.63						
Brown & Gray Silty Clay Loam Till with Silt Seams			3.0 P	20.3			
	661.63						
End of Boring			4.5 P	18.8			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)



LAYOUT	DPA	07.30.2013
DRAWN	MGM	07.30.2013
REVIEWED	DPA	10.17.2013

FILE NAME =	USER NAME = MWH	DESIGNED - DPA	REVISED -
D389H0038-sht-biog007		DRAWN - MGM	REVISED -
MODEL NAME =		CHECKED - DPA	REVISED -
Default		DATE - 12.03.13	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

BORING LOGS (6000N ROAD & 1000E ROAD) I-57 AND 6000N RD (BOURBONNAIS PARKWAY) BOURBONNAIS, IL			
SCALE: AS SHOWN	SHEET NO.	OF SHEETS	STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(46-1)HBK-1	KANKAKEE	819	567
CONTRACT NO. 66982				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



SOIL BORING LOG

ROUTE I-57 (FAI 57) DESCRIPTION (Samples 35, 36 & 37) LOGGED BY Larry Myers

SECTION (46-1)HBK-1 LOCATION NW 1/4, SEC. 5, TWP. 31N, RNG. 12E

COUNTY Kankakee DRILLING METHOD Push HAMMER TYPE CME Automatic

STRUCT. NO.	DEPTH	BLOWS	UCS	MOIST	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:	First Encounter	Upon Completion	After
Station	(ft)	(/6")	(tsf)	(%)	ft	ft	ft	Dry	ft	ft
	666.65									
			2.0	26.0						
	664.65									
			2.0	21.6						
	662.65									
			4.5	22.9						

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrator)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)



SOIL BORING LOG

ROUTE I-57 (FAI 57) DESCRIPTION (Sample 38) LOGGED BY Larry Myers

SECTION (46-1)HBK-1 LOCATION NW 1/4, SEC. 5, TWP. 31N, RNG. 12E

COUNTY Kankakee DRILLING METHOD Push HAMMER TYPE CME Automatic

STRUCT. NO.	DEPTH	BLOWS	UCS	MOIST	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:	First Encounter	Upon Completion	After
Station	(ft)	(/6")	(tsf)	(%)	ft	ft	ft	Dry	ft	ft
	668.57									
			2.0	24.0						
	664.57									
			4.5	14.1						

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrator)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)



LAYOUT	DPA	07.30.2013
DRAWN	MGM	07.30.2013
REVIEWED	DPA	10.17.2013

FILE NAME =	USER NAME = MWH	DESIGNED - DPA	REVISED -
D389H0038-sht-biog008		DRAWN - MGM	REVISED -
MODEL NAME =	PLOT SCALE = AS SHOWN	CHECKED - DPA	REVISED -
Default	PLOT DATE = 12\02\2013	DATE - 12.03.13	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS (6000N ROAD & 1000E ROAD) I-57 AND 6000N RD (BOURBONNAIS PARKWAY) BOURBONNAIS, IL			
SCALE: AS SHOWN	SHEET NO.	OF SHEETS	STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(46-1)HBK-1	KANKAKEE	819	568
CONTRACT NO. 66982			ILLINOIS FED. AID PROJECT	

SOIL BORING LOG

ROUTE I-57 (FAI 57) DESCRIPTION (Samples 39 & 40) LOGGED BY Larry Myers

SECTION (46-1)HBK-1 LOCATION NW 1/4, SEC. 5, TWP. 31N, RNG. 12E

COUNTY Kankakee DRILLING METHOD Push HAMMER TYPE CME Automatic

STRUCT. NO. Station	DEPTH H	BLOW S	UCS Qu	MOIST T	Surface Water Elev.		Stream Bed Elev.		Groundwater Elev.:	
					ft		ft		ft	
BORING NO. 16 (6000 N. Centerline) Station 7456+00 Offset 22.00ft Rt. Ground Surface Elev. 672.39 ft	(ft)	(/6")	(tsf)	(%)						
Black Silty Clay Loam Topsoil										
	670.39									
Brown & Gray Silty Clay Loam Till			2.0 P	24.5						
	-5									
			>4.5 P	15.8						
End of Boring	666.39									
	-10									
	-15									
	-20									

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)

SOIL BORING LOG

ROUTE I-57 (FAI 57) DESCRIPTION (Sample 41) LOGGED BY Larry Myers

SECTION (46-1)HBK-1 LOCATION NW 1/4, SEC. 5, TWP. 31N, RNG. 12E

COUNTY Kankakee DRILLING METHOD Push HAMMER TYPE CME Automatic

STRUCT. NO. Station	DEPTH H	BLOW S	UCS Qu	MOIST T	Surface Water Elev.		Stream Bed Elev.		Groundwater Elev.:	
					ft		ft		ft	
BORING NO. 18 (6000 N. Centerline) Station 7461+00 Offset 19.00ft Rt. Ground Surface Elev. 671.83 ft	(ft)	(/6")	(tsf)	(%)						
Black Silty Clay Loam Topsoil										
	670.83									
Brown Silty Clay Loess										
	669.83									
Brown & Gray Silty Clay Loam Till			3.0 P	13.7						
	-5									
			>4.5 P	17.2						
End of Boring	665.83									
	-10									
	-15									
	-20									

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)



7/30/2013
07/30/2013
10/17/2013
DPA
MGM
DPA
LAYOUT
DRAWN
REVIEWED
Default

FILE NAME =	USER NAME = MWH	DESIGNED - DPA	REVISED -
D389H0038-shr-biog009		DRAWN - MGM	REVISED -
MODEL NAME =		CHECKED - DPA	REVISED -
Default		DATE - 12.03.13	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

BORING LOGS (6000N ROAD & 1000E ROAD) I-57 AND 6000N RD (BOURBONNAIS PARKWAY) BOURBONNAIS, IL			
SCALE: AS SHOWN	SHEET NO.	OF SHEETS	STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(46-1)HBK-1	KANKAKEE	819	569
CONTRACT NO. 66982			ILLINOIS FED. AID PROJECT	



SOIL BORING LOG

Page 1 of 1

Date 12/29/10

ROUTE I-57 (FAI 57) DESCRIPTION (Sample 42) LOGGED BY Larry Myers

SECTION (46-1)HBK-1 LOCATION NW 1/4, SEC. 5, TWP. 31N, RNG. 12E

COUNTY Kankakee DRILLING METHOD Push HAMMER TYPE CME Automatic

STRUCT. NO.	DEPTH	BLOWS	UCS	MOIST	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:	First Encounter	Upon Completion	After
Station	(ft)	(/6")	(tsf)	(%)	ft	ft	ft	Dry	ft	ft
	669.89									
	668.89									
			2.0	25.0						
			P							
	-5									
	664.89									
			4.5	18.8						
			P							
	-10									
	-15									
	-20									

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)



SOIL BORING LOG

Page 1 of 1

Date 12/29/10

ROUTE I-57 (FAI 57) DESCRIPTION (Samples 43 & 44) LOGGED BY Larry Myers

SECTION (46-1)HBK-1 LOCATION NW 1/4, SEC. 5, TWP. 31N, RNG. 12E

COUNTY Kankakee DRILLING METHOD Push HAMMER TYPE CME Automatic

STRUCT. NO.	DEPTH	BLOWS	UCS	MOIST	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:	First Encounter	Upon Completion	After
Station	(ft)	(/6")	(tsf)	(%)	ft	ft	ft	Dry	ft	ft
	667.35									
	665.35									
			3.5	28.0						
			P							
	-5									
	664.35									
			4.5	29.9						
			P							
	-10									
	-15									
	-20									

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)



LAYOUT	DPA	07.30.2013
DRAWN	MGM	07.30.2013
REVIEWED	DPA	10.17.2013

FILE NAME =	USER NAME = MWH	DESIGNED - DPA	REVISED -
D309H0038-shr-biog010		DRAWN - MGM	REVISED -
MODEL NAME =	PLOT SCALE = AS SHOWN	CHECKED - DPA	REVISED -
Default	PLOT DATE = 12\02\2013	DATE - 12.03.13	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

BORING LOGS (6000N ROAD & 1000E ROAD) I-57 AND 6000N RD (BOURBONNAIS PARKWAY) BOURBONNAIS, IL			
SCALE: AS SHOWN	SHEET NO. OF SHEETS	STA. TO STA.	

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(46-1)HBK-1	KANKAKEE	819	570
CONTRACT NO. 66982				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



SOIL BORING LOG

Date 12/29/10

ROUTE I-57 (FAI 57) DESCRIPTION (Samples 45 & 46) LOGGED BY Larry Myers

SECTION (46-1)HBK-1 LOCATION NW 1/4, SEC. 5, TWP. 31N, RNG. 12E

COUNTY Kankakee DRILLING METHOD Push HAMMER TYPE CME Automatic

STRUCT. NO.	DEPTH	BLOWS	UCS	MOIST	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:	First Encounter	Upon Completion	After
Station	(ft)	(/6")	(tsf)	(%)	ft	ft	ft	Dry	ft	ft
Brown & Gray Silty Clay Loam, Silty Clay, Silty Loam Fill										
	673.42		3.5 P	20.0						
Brown & Gray Silty Clay Loess	672.42	-5								
Brown & Gray Silty Clay Loam Till			2.0 P	23.0						
	668.42		4.5 P	17.2						
End of Boring	-10									
	-15									
	-20									

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)



SOIL BORING LOG

Date 12/22/10

ROUTE I-57 (FAI 57) DESCRIPTION (Samples 27, 28 & 29) LOGGED BY Larry Myers

SECTION (46-1)HBK-1 LOCATION NE 1/4, SEC. 5, TWP. 31N, RNG. 12E

COUNTY Kankakee DRILLING METHOD Push HAMMER TYPE CME Automatic

STRUCT. NO.	DEPTH	BLOWS	UCS	MOIST	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:	First Encounter	Upon Completion	After
Station	(ft)	(/6")	(tsf)	(%)	ft	ft	ft	Dry	ft	ft
Black Silty Clay Loam Topsoil										
	666.50		2.5 P	25.5						
Brown & Gray Silty Clay Loam Till			3.5 P	21.4						
	-5									
			4.5 P	22.3						
	659.50									
Gray Silty Clay Loam Till			>4.5 P	18.5						
	-10									
			>4.5 P	18.1						
	653.50	-15								
Black & Gray Sand with Free Water & Fine to Coarse Sand			4.5 P	21.3						
	650.50									
End of Boring				20.6						
	-20									

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)



LAYOUT	DPA	07.30.2013
DRAWN	MGM	07.30.2013
REVIEWED	DPA	10.17.2013

FILE NAME =	USER NAME = MWH	DESIGNED - DPA	REVISED -
D389H0038-shr-biog01		DRAWN - MGM	REVISED -
MODEL NAME =		CHECKED - DPA	REVISED -
Default		DATE - 12.03.13	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS (6000N ROAD & 1000E ROAD) I-57 AND 6000N RD (BOURBONNAIS PARKWAY) BOURBONNAIS, IL			
SCALE: AS SHOWN	SHEET NO.	OF SHEETS	STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(46-1)HBK-1	KANKAKEE	819	571
CONTRACT NO. 66982			ILLINOIS FED. AID PROJECT	



SOIL BORING LOG

ROUTE I-57 (FAI 57) DESCRIPTION (Samples 25 & 26) LOGGED BY Larry Myers

SECTION (46-1)HBK-1 LOCATION NE 1/4, SEC. 5, TWP. 31N, RNG. 12E

COUNTY Kankakee DRILLING METHOD Push HAMMER TYPE CME Automatic

STRUCT. NO. Station	DEPTH H	BLOW S	UCS Qu	MOIST T	Surface Water Elev. Stream Bed Elev.
BORING NO. <u>24 (6000 N. Centerline)</u> Station <u>7480+00</u> Offset <u>30.00ft Rt.</u> Ground Surface Elev. <u>668.86</u>	(ft)	(/6")	(tsf)	(%)	ft ft
Black Silty Clay Loam Topsoil					
	666.86				
Brown & Gray Silty Clay Loess			2.0 P	25.2	
			2.0 P	26.1	
Brown Silt, Sand, Gravel					
	664.86				
Gray & Brown Silty Clay Loam Till					
	663.86	-5		19.1	
			3.5 P	19.8	
End of Boring			4.5 P	19.9	
	659.86				
	-10				
	-15				
	-20				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)



SOIL BORING LOG

ROUTE I-57 (FAI 57) DESCRIPTION (Samples 23 & 24) LOGGED BY Larry Myers

SECTION (46-1)HBK-1 LOCATION NE 1/4, SEC. 5, TWP. 31N, RNG. 12E

COUNTY Kankakee DRILLING METHOD Push HAMMER TYPE CME Automatic

STRUCT. NO. Station	DEPTH H	BLOW S	UCS Qu	MOIST T	Surface Water Elev. Stream Bed Elev.
BORING NO. <u>25 (6000 N. Centerline)</u> Station <u>7483+00</u> Offset <u>40.00ft Rt.</u> Ground Surface Elev. <u>669.40</u>	(ft)	(/6")	(tsf)	(%)	ft ft
Black Silty Clay Loam Topsoil					
	667.40				
Brown & Gray Silty Clay Loess			2.0 P	26.9	
	666.40				
Brown & Gray Silty Clay Loam Till			2.5 P	19.3	
	663.40	-5		41.2	
End of Boring					
	-10				
	-15				
	-20				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)



LAYOUT	DPA	07.30.2013
DRAWN	MGM	07.30.2013
REVIEWED	DPA	10.17.2013

FILE NAME =	USER NAME = MWH	DESIGNED - DPA	REVISED -
D389H0038-shr-biog012		DRAWN - MGM	REVISED -
MODEL NAME =		CHECKED - DPA	REVISED -
Default		DATE - 12.03.13	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

BORING LOGS (6000N ROAD & 1000E ROAD) I-57 AND 6000N RD (BOURBONNAIS PARKWAY) BOURBONNAIS, IL			
SCALE: AS SHOWN	SHEET NO.	OF SHEETS	STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(46-1)HBK-1	KANKAKEE	819	572
CONTRACT NO. 66982				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



SOIL BORING LOG

ROUTE I-57 (FAI 57) DESCRIPTION (Samples 21 & 22) LOGGED BY Larry Myers

SECTION (46-1)HBK-1 LOCATION NE 1/4, SEC. 5, TWP. 31N, RNG. 12E

COUNTY Kankakee DRILLING METHOD Push HAMMER TYPE CME Automatic

STRUCT. NO.	DEPTH	BLOWS	UCS	MOIST	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:	First Encounter	Upon Completion	After
Station	(ft)	(/6")	(tsf)	(%)	ft	ft	ft	Dry	ft	ft
	669.48									
	667.48		1.5 P	27.1						
	664.48		3.5 P	31.9						

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)



SOIL BORING LOG

ROUTE I-57 (FAI 57) DESCRIPTION (Sample 20) LOGGED BY Larry Myers

SECTION (46-1)HBK-1 LOCATION NE 1/4, SEC. 5, TWP. 31N, RNG. 12E

COUNTY Kankakee DRILLING METHOD Push HAMMER TYPE CME Automatic

STRUCT. NO.	DEPTH	BLOWS	UCS	MOIST	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:	First Encounter	Upon Completion	After
Station	(ft)	(/6")	(tsf)	(%)	ft	ft	ft	Dry	ft	ft
	669.05									
	668.55		2.0 P	22.5						
	665.55									
	664.05		>4.5 P	19.6						

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)



LAYOUT	DPA	07.30.2013
DRAWN	MGM	07.30.2013
REVIEWED	DPA	10.17.2013

FILE NAME =	USER NAME = MWH	DESIGNED - DPA	REVISED -
D389H0038-sht-biog013		DRAWN - MGM	REVISED -
MODEL NAME =		CHECKED - DPA	REVISED -
Default		DATE - 12.03.13	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS (6000N ROAD & 1000E ROAD) I-57 AND 6000N RD (BOURBONNAIS PARKWAY) BOURBONNAIS, IL			
SCALE: AS SHOWN	SHEET NO.	OF SHEETS	STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(46-1)HBK-1	KANKAKEE	819	573
CONTRACT NO. 66982				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



Illinois Department of Transportation

Division of Highways ILLINOIS DOT

SOIL BORING LOG

Date 12/22/10

ROUTE I-57 (FAI 57) DESCRIPTION (Sample 19) LOGGED BY Larry Myers

SECTION (46-1)HBK-1 LOCATION NE 1/4, SEC. 5, TWP. 31N, RNG. 12E

COUNTY Kankakee DRILLING METHOD Push HAMMER TYPE CME Automatic

Table with columns for Depth, Blows, UCS, Moist, and Soil Description. Includes groundwater elevation and SPT data.

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)



Illinois Department of Transportation

Division of Highways ILLINOIS DOT

SOIL BORING LOG

Date 12/22/10

ROUTE I-57 (FAI 57) DESCRIPTION (Sample 18) LOGGED BY Larry Myers

SECTION (46-1)HBK-1 LOCATION NE 1/4, SEC. 5, TWP. 31N, RNG. 12E

COUNTY Kankakee DRILLING METHOD Push HAMMER TYPE CME Automatic

Table with columns for Depth, Blows, UCS, Moist, and Soil Description. Includes groundwater elevation and SPT data.

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)



Vertical table with columns for LAYOUT, DRAWN, REVIEWED, DPA, MCM, DPA, DPA, DPA, DPA, DPA, DPA, DPA.

Table with columns for FILE NAME, USER NAME, DESIGNED, REVISED, DRAWN, CHECKED, PLOT DATE, DATE.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

Table with columns for BORING LOGS, SCALE, SHEET NO., OF SHEETS, STA., TO STA.

Table with columns for F.A.I. RTE., SECTION, COUNTY, TOTAL SHEETS, SHEET NO., CONTRACT NO.



SOIL BORING LOG

ROUTE I-57 (FAI 57) DESCRIPTION (Samples 16 & 17) LOGGED BY Larry Myers

SECTION (46-1)HBK-1 LOCATION NE 1/4, SEC. 5, TWP. 31N, RNG. 12E

COUNTY Kankakee DRILLING METHOD Push HAMMER TYPE CME Automatic

STRUCT. NO.	DEPTH	BLOWS	UCS	MOIST	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:	First Encounter	Upon Completion	After
Station	(ft)	(/6")	(tsf)	(%)	ft	ft	ft	Dry	ft	ft
	671.42									
	669.42		2.0	19.7						
	666.42		4.5	19.9						

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrator)
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)



SOIL BORING LOG

ROUTE I-57 (FAI 57) DESCRIPTION (Samples 12 & 13) LOGGED BY Larry Myers

SECTION (46-1)HBK-1 LOCATION SW 1/4, SEC. 33, TWP. 32N, RNG. 12E

COUNTY Kankakee DRILLING METHOD Push HAMMER TYPE CME Automatic

STRUCT. NO.	DEPTH	BLOWS	UCS	MOIST	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:	First Encounter	Upon Completion	After
Station	(ft)	(/6")	(tsf)	(%)	ft	ft	ft	Dry	ft	ft
	676.04									
	674.54		4.0	14.2						
	671.04		2.0	22.5						

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrator)
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)



LAYOUT	DPA	07.30.2013
DRAWN	MGM	07.30.2013
REVIEWED	DPA	10.17.2013

FILE NAME =	USER NAME = MWH	DESIGNED - DPA	REVISED -
D389H0038-sht-biog015		DRAWN - MGM	REVISED -
MODEL NAME =		CHECKED - DPA	REVISED -
Default		DATE - 12.03.13	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS (6000N ROAD & 1000E ROAD)			
I-57 AND 6000N RD (BOURBONNAIS PARKWAY)			
BOURBONNAIS, IL			
SCALE: AS SHOWN	SHEET NO.	OF SHEETS	STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(46-1)HBK-1	KANKAKEE	819	575
CONTRACT NO. 66982			ILLINOIS FED. AID PROJECT	

SOIL BORING LOG

ROUTE I-57 (FAI 57) DESCRIPTION (Sample 14) LOGGED BY Larry Myers

SECTION (46-1)HBK-1 LOCATION NW 1/4, SEC. 4, TWP. 31N, RNG. 12E

COUNTY Kankakee DRILLING METHOD Push HAMMER TYPE CME Automatic

STRUCT. NO. Station	DEPTH H	BLOW S	UCS Qu	MOIST T	Surface Water Elev.		Stream Bed Elev.	
					ft		ft	
BORING NO. <u>32 (6000 N. Centerline)</u> Station <u>7504+00</u> Offset <u>35.00ft Rt.</u> Ground Surface Elev. <u>680.10</u> ft	(ft)	(/6")	(tsf)	(%)	Groundwater Elev.:		First Encounter <u>Dry</u> ft	
					Upon Completion		ft	
					After		ft	
Black Silty Clay Loam Topsoil								
	679.10							
Brown & Gray Silty Clay Till								
			4.5	25.0				
			P					
	-5							
	674.10							
End of Boring								
			>4.5	17.5				
			P					
	-10							
	-15							
	-20							

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)

SOIL BORING LOG

ROUTE I-57 (FAI 57) DESCRIPTION (Sample 15) LOGGED BY Larry Myers

SECTION (46-1)HBK-1 LOCATION SW 1/4, SEC. 33, TWP. 32N, RNG. 12E

COUNTY Kankakee DRILLING METHOD Push HAMMER TYPE CME Automatic

STRUCT. NO. Station	DEPTH H	BLOW S	UCS Qu	MOIST T	Surface Water Elev.		Stream Bed Elev.	
					ft		ft	
BORING NO. <u>33 (6000 N. Centerline)</u> Station <u>7507+00</u> Offset <u>36.00ft Lt.</u> Ground Surface Elev. <u>680.02</u> ft	(ft)	(/6")	(tsf)	(%)	Groundwater Elev.:		First Encounter <u>Dry</u> ft	
					Upon Completion		ft	
					After		ft	
Black Silty Clay Loam Topsoil								
	679.52							
Brown & Gray Silty Clay Till								
			4.5	23.9				
			P					
	-5							
	674.02							
End of Boring								
			4.5	22.8				
			P					
	-10							
	-15							
	-20							

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)



FILE NAME = D:\309H0038-sht-biog016
MODEL NAME = Default
PLOT DATE = 12\02\2013

LAYOUT	DPA	07.30.2013	DESIGNED - DPA	REVISED -
DRAWN	MGM	07.30.2013	DRAWN - MGM	REVISED -
REVIEWED	DPA	10.17.2013	CHECKED - DPA	REVISED -
			DATE - 12.03.13	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**BORING LOGS (6000N ROAD & 1000E ROAD)
I-57 AND 6000N RD (BOURBONNAIS PARKWAY)
BOURBONNAIS, IL**

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(46-1)HBK-1	KANKAKEE	819	576
CONTRACT NO. 66982				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

SCALE: AS SHOWN SHEET NO. OF SHEETS STA. TO STA.

SOIL BORING LOG

ROUTE I-57 (FAI 57) DESCRIPTION (Sample 11) LOGGED BY Larry Myers

SECTION (46-1)HBK-1 LOCATION SW 1/4, SEC. 33, TWP. 32N, RNG. 12E

COUNTY Kankakee DRILLING METHOD Push HAMMER TYPE CME Automatic

STRUCT. NO.	DEPTH	BLOWS	UCS	MOIST	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:	First Encounter	Upon Completion	After
Station	(ft)	(/6")	(tsf)	(%)	ft	ft	ft	Dry	ft	ft
	679.10									
			1.5	25.0						
			P							
	677.60									
			2.0	14.1						
			P							
	674.60									
			2.5	19.9						
			P							

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)

SOIL BORING LOG

ROUTE I-57 (FAI 57) DESCRIPTION (Samples 8, 9 & 10) LOGGED BY Larry Myers

SECTION (46-1)HBK-1 LOCATION SW 1/4, SEC. 33, TWP. 32N, RNG. 12E

COUNTY Kankakee DRILLING METHOD Push HAMMER TYPE CME Automatic

STRUCT. NO.	DEPTH	BLOWS	UCS	MOIST	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:	First Encounter	Upon Completion	After
Station	(ft)	(/6")	(tsf)	(%)	ft	ft	ft	Dry	ft	ft
	679.64									
			2.0	27.0						
			P							
	678.14									
			2.5	25.0						
			P							
	675.14									
			>4.5	21.3						
			P							

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)



LAYOUT	DPA	07.30.2013
DRAWN	MGM	07.30.2013
REVIEWED	DPA	10.17.2013

FILE NAME =	USER NAME = MWH	DESIGNED - DPA	REVISED -
D389H0038-sht-blog017		DRAWN - MGM	REVISED -
MODEL NAME =		CHECKED - DPA	REVISED -
Default		DATE - 12.03.13	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

BORING LOGS (6000N ROAD & 1000E ROAD) I-57 AND 6000N RD (BOURBONNAIS PARKWAY) BOURBONNAIS, IL			
SCALE: AS SHOWN	SHEET NO.	OF SHEETS	STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(46-1)HBK-1	KANKAKEE	819	577
CONTRACT NO. 66982			ILLINOIS FED. AID PROJECT	



SOIL BORING LOG

ROUTE I-57 (FAI 57) DESCRIPTION (Sample 7) LOGGED BY Larry Myers

SECTION (46-1)HBK-1 LOCATION SW 1/4, SEC. 33, TWP. 32N, RNG. 12E

COUNTY Kankakee DRILLING METHOD Push HAMMER TYPE CME Automatic

STRUCT. NO.	D E P T H	B L O W S	U C S Qu	M O I S T	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:	First Encounter	Upon Completion	After
Station	(ft)	(/6")	(tsf)	(%)	ft	ft	ft	Dry	ft	ft
Dark Brown Silty Clay Loam Topsoil										
	676.52		1.5	24.2						
Light Brown Sandy Clay Loam/Sandy Loam with Sand Seams			P							
			1.5	16.8						
			P							
	-5									
End of Boring	672.02									
	-10									
	-15									
	-20									

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)



SOIL BORING LOG

ROUTE I-57 (FAI 57) DESCRIPTION (Sample 6) LOGGED BY Larry Myers

SECTION (46-1)HBK-1 LOCATION SW 1/4, SEC. 33, TWP. 32N, RNG. 12E

COUNTY Kankakee DRILLING METHOD Push HAMMER TYPE CME Automatic

STRUCT. NO.	D E P T H	B L O W S	U C S Qu	M O I S T	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:	First Encounter	Upon Completion	After
Station	(ft)	(/6")	(tsf)	(%)	ft	ft	ft	Dry	ft	ft
Brown Silty Loam/Silty Clay Loam Fill										
	676.52									
Brown Sand/Gravel Very Loamy			2.5	16.4						
			P							
Presumed Rock @ 3'										
	674.52									
End of Boring				14.4						
	-5									
	-10									
	-15									
	-20									

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)



DPA 07.30.2013
 MGM 07.30.2013
 DPA 10.17.2013
 FILED
 DPA 07.30.2013
 MGM 07.30.2013
 DPA 10.17.2013
 MODEL NAME =
 Default

FILE NAME =	USER NAME = MWH	DESIGNED - DPA	REVISED -
D389H0038-sht-blog018		DRAWN - MGM	REVISED -
MODEL NAME =	PLOT SCALE = AS SHOWN	CHECKED - DPA	REVISED -
Default	PLOT DATE = 12\02\2013	DATE - 12.03.13	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

BORING LOGS (6000N ROAD & 1000E ROAD) I-57 AND 6000N RD (BOURBONNAIS PARKWAY) BOURBONNAIS, IL			
SCALE: AS SHOWN	SHEET NO.	OF SHEETS	STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(46-1)HBK-1	KANKAKEE	819	578
CONTRACT NO. 66982				
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



Illinois Department of Transportation

Division of Highways ILLINOIS DOT

SOIL BORING LOG

Page 1 of 1

Date 12/20/10

ROUTE I-57 (FAI 57) DESCRIPTION (Sample 3) LOGGED BY Larry Myers

SECTION (46-1)HBK-1 LOCATION SE 1/4, SEC. 33, TWP. 32N, RNG. 12E

COUNTY Kankakee DRILLING METHOD Push HAMMER TYPE CME Automatic

Table with columns for DEPTH, BLOWS, UCS, MOIST, and elevations. Includes data for Brown Silty Clay Loam, Top 3" Fill and End of Boring.

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrator) The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)



Illinois Department of Transportation

Division of Highways ILLINOIS DOT

SOIL BORING LOG

Page 1 of 1

Date 12/20/10

ROUTE I-57 (FAI 57) DESCRIPTION (Sample 2) LOGGED BY Larry Myers

SECTION (46-1)HBK-1 LOCATION SE 1/4, SEC. 33, TWP. 32N, RNG. 12E

COUNTY Kankakee DRILLING METHOD Push HAMMER TYPE CME Automatic

Table with columns for DEPTH, BLOWS, UCS, MOIST, and elevations. Includes data for Brown Silty Clay Loam, Top 3" Fill and End of Boring.

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrator) The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)



Vertical table with columns for LAYOUT, DRAWN, REVIEWED, DPA, MGM, DPA and dates.

Table with columns for FILE NAME, USER NAME, DESIGNED, REVISED, DRAWN, CHECKED, PLOT DATE, DATE.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

Table with columns for BORING LOGS (6000N ROAD & 1000E ROAD), SCALE, SHEET NO., OF SHEETS, STA., TO STA.

Table with columns for F.A.I. RTE., SECTION, COUNTY, TOTAL SHEETS, SHEET NO., CONTRACT NO.



SOIL BORING LOG

ROUTE I-57 (FAI 57) DESCRIPTION (Sample 1) LOGGED BY Larry Myers

SECTION (46-1)HBK-1 LOCATION SE 1/4, SEC. 33, TWP. 32N, RNG. 12E

COUNTY Kankakee DRILLING METHOD Push HAMMER TYPE CME Automatic

STRUCT. NO.	DEPTH	BLOWS	UCS	MOIST	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:	First Encounter	Upon Completion	After
Station	(ft)	(/6")	(tsf)	(%)	ft	ft	ft	Dry	ft	ft
Brown Silty Clay Loam, Top 3" Fill										
	662.43									
Tan Dolomite-Reworked/Weathered Surface	661.93		2.5	35.6						
			P	10.0						
End of Boring										
	-5									
	-10									
	-15									
	-20									

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)



SOIL BORING LOG

ROUTE I-57 (FAI 57) DESCRIPTION (Sample 304) LOGGED BY Larry Myers

SECTION (46-1)HBK-1 LOCATION SE 1/4, SEC. 31, TWP. 32N, RNG. 12E

COUNTY Kankakee DRILLING METHOD Push HAMMER TYPE CME Automatic

STRUCT. NO.	DEPTH	BLOWS	UCS	MOIST	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:	First Encounter	Upon Completion	After
Station	(ft)	(/6")	(tsf)	(%)	ft	ft	ft	Dry	ft	ft
HMA										
	667.95									
White CA Sand/Gravel Fill										
	667.45									
Black Silty Clay Loam Topsoil - Compacted Top										
			>4.5	17.6						
			P							
Brown Silty Clay Loess										
	665.28									
			2.5	21.6						
			P							
End of Boring										
	663.28									
	-5									
	-10									
	-15									
	-20									

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)



LAYOUT	DPA	07.30.2013
DRAWN	MGM	07.30.2013
REVIEWED	DPA	10.17.2013

FILE NAME =	USER NAME = MWH	DESIGNED - DPA	REVISED -
D309H0038-sht-blog021		DRAWN - MGM	REVISED -
MODEL NAME =		CHECKED - DPA	REVISED -
Default		DATE - 12.03.13	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS (6000N ROAD & 1000E ROAD) I-57 AND 6000N RD (BOURBONNAIS PARKWAY) BOURBONNAIS, IL			
SCALE: AS SHOWN	SHEET NO.	OF SHEETS	STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(46-1)HBK-1	KANKAKEE	819	580
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	
			CONTRACT NO. 66982	



SOIL BORING LOG

ROUTE I-57 (FAI 57) DESCRIPTION _____ LOGGED BY Larry Myers

SECTION (46-1)HBK-1 LOCATION NE 1/4, SEC. 5, TWP. 31N, RNG. 12E

COUNTY Kankakee DRILLING METHOD Push HAMMER TYPE CME Automatic

STRUCT. NO.	DEPTH	BLOWS	UCS	MOIST	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:	First Encounter	Upon Completion	After
Station	(ft)	(/6")	(tsf)	(%)	ft	ft	ft	Dry	ft	ft
HMA	673.52									
White Sand & Gravel Fill with Brick Pieces	672.52									
Brown & Gray Silty Clay	671.52		3.5	24.7						
Brown & Gray Silty Clay Loam Till	670.02		P							
End of Boring	-5		>4.5	16.9						
	-10									
	-15									
	-20									

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)



SOIL BORING LOG

ROUTE I-57 (FAI 57) DESCRIPTION (Samples 305 & 306) LOGGED BY Larry Myers

SECTION (46-1)HBK-1 LOCATION NW 1/4, SEC. 4, TWP. 31N, RNG. 12E

COUNTY Kankakee DRILLING METHOD Push HAMMER TYPE CME Automatic

STRUCT. NO.	DEPTH	BLOWS	UCS	MOIST	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:	First Encounter	Upon Completion	After
Station	(ft)	(/6")	(tsf)	(%)	ft	ft	ft	Dry	ft	ft
HMA	678.26									
White Sand & Gravel & Black Silty Clay Loam with Gravel Pieces Fill	677.76									
Brown/Gray Silty Clay Tillish	676.26		3.5	21.0						
Brown Silty Clay Loam Till	673.76		P							
End of Boring	-5		>4.5	19.7						
	-10									
	-15									
	-20									

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)



LAYOUT	DPA	07.30.2013
DRAWN	MGM	07.30.2013
REVIEWED	DPA	10.17.2013

FILE NAME =	USER NAME = MWH	DESIGNED - DPA	REVISED -
D389H0038-shr-biog022		DRAWN - MGM	REVISED -
MODEL NAME =		CHECKED - DPA	REVISED -
Default		DATE - 12.03.13	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS (6000N ROAD & 1000E ROAD)			
I-57 AND 6000N RD (BOURBONNAIS PARKWAY)			
BOURBONNAIS, IL			
SCALE: AS SHOWN	SHEET NO.	OF SHEETS	STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(46-1)HBK-1	KANKAKEE	819	581
CONTRACT NO. 66982				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



SOIL BORING LOG

ROUTE I-57 (FAI 57) DESCRIPTION _____ LOGGED BY Larry Myers

SECTION (46-1)HBK-1 LOCATION NW 1/4, SEC. 4, TWP. 31N, RNG. 12E

COUNTY Kankakee DRILLING METHOD Push HAMMER TYPE CME Automatic

STRUCT. NO.	DEPTH	BLOW	UCS	MOIST	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:	First Encounter	Upon Completion	After
Station	(ft)	(/6")	(tsf)	(%)	ft	ft	ft	Dry	ft	ft
HMA	679.58									
White Sand & Gravel Fill	679.41									
Black Silty Clay Loam & Sand & Gravel, HMA Pieces, Loam Fill	678.41									
Brown & Gray Silty Clay	677.91		2.5	24.0						
Brown Silty Clay Loam with Sandy Loam Pockets			P							
End of Boring	675.91		2.5	17.2						
			P							

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)



SOIL BORING LOG

ROUTE I-57 (FAI 57) DESCRIPTION _____ LOGGED BY Larry Myers

SECTION (46-1)HBK-1 LOCATION SE 1/4, SEC. 33, TWP. 32N, RNG. 12E

COUNTY Kankakee DRILLING METHOD Push HAMMER TYPE CME Automatic

STRUCT. NO.	DEPTH	BLOW	UCS	MOIST	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:	First Encounter	Upon Completion	After
Station	(ft)	(/6")	(tsf)	(%)	ft	ft	ft	Dry	ft	ft
Oil/Chip Road Surface	674.58									
White Sand & Gravel Fill	673.75									
Black Silty Clay Loam Topsoil	672.75									
Brown Silty Loam with Heavy Dolomite Gravel - Highly Weathered & Reworked Dolomite Surface	670.75		1.5	22.3						
			P							
End of Boring				11.0						

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)



LAYOUT	DPA	07.30.2013
DRAWN	MGM	07.30.2013
REVIEWED	DPA	10.17.2013

FILE NAME =	USER NAME = MWH	DESIGNED - DPA	REVISED -
D389H0038-sht-blog023		DRAWN - MGM	REVISED -
MODEL NAME =		CHECKED - DPA	REVISED -
Default		DATE - 12.03.13	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS (6000N ROAD & 1000E ROAD) I-57 AND 6000N RD (BOURBONNAIS PARKWAY) BOURBONNAIS, IL			
SCALE: AS SHOWN	SHEET NO.	OF SHEETS	STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(46-1)HBK-1	KANKAKEE	819	582
CONTRACT NO. 66982				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



SOIL BORING LOG

ROUTE I-57 (FAI 57) DESCRIPTION LOGGED BY Larry Myers

SECTION (46-1)HBK-1 LOCATION NE 1/4, SEC. 5, TWP. 31N, RNG. 12E

COUNTY Kankakee DRILLING METHOD Push HAMMER TYPE CME Automatic

Table with columns: STRUCT. NO., Station, BORING NO., Station, Offset, Ground Surface Elev., DEPTH (ft), BLOWS (/6"), UCS (tsf), MOIST (%), Surface Water Elev., Stream Bed Elev., Groundwater Elev., First Encounter, Upon Completion, After Hrs.

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)



SOIL BORING LOG

ROUTE I-57 (FAI 57) DESCRIPTION LOGGED BY Larry Myers

SECTION (46-1)HBK-1 LOCATION SW 1/4, SEC. 33, TWP. 32N, RNG. 12E

COUNTY Kankakee DRILLING METHOD Push HAMMER TYPE CME Automatic

Table with columns: STRUCT. NO., Station, BORING NO., Station, Offset, Ground Surface Elev., DEPTH (ft), BLOWS (/6"), UCS (tsf), MOIST (%), Surface Water Elev., Stream Bed Elev., Groundwater Elev., First Encounter, Upon Completion, After Hrs.

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)



Vertical table with columns: LAYOUT, DRAWN, REVIEWED, DPA, MCM, DPA, 07.30.2013, 07.30.2013, 10.17.2013

Table with columns: FILE NAME, USER NAME, DESIGNED, REVISED, DRAWN, REVISED, CHECKED, REVISED, PLOT DATE, DATE

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

Table with columns: BORING LOGS (6000N ROAD & 1000E ROAD), I-57 AND 6000N RD (BOURBONNAIS PARKWAY), BOURBONNAIS, IL, SCALE, SHEET NO., OF SHEETS, STA. TO STA.

Table with columns: F.A.I. RTE., SECTION, COUNTY, TOTAL SHEETS, SHEET NO., CONTRACT NO., FED. ROAD DIST. NO., ILLINOIS FED. AID PROJECT



SOIL BORING LOG

ROUTE I-57 (FAI 57) DESCRIPTION (Samples 101 & 102) LOGGED BY Larry Myers

SECTION (46-1)HBK-1 LOCATION NW 1/4, SEC. 4, TWP. 31N, RNG. 12E

COUNTY Kankakee DRILLING METHOD Push HAMMER TYPE CME Automatic

STRUCT. NO.	DEPTH	BLOWS	UCS	MOIST	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:	First Encounter	Upon Completion	After
Station	(ft)	(/6")	(tsf)	(%)	ft	ft	ft	Dry	ft	ft
	680.80		2.0	27.1						
			P							
			3.5	22.0						
			P							
	676.30		>4.5	16.8						
			P							

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)



SOIL BORING LOG

ROUTE I-57 (FAI 57) DESCRIPTION (Sample 103) LOGGED BY Larry Myers

SECTION (46-1)HBK-1 LOCATION NW 1/4, SEC. 4, TWP. 31N, RNG. 12E

COUNTY Kankakee DRILLING METHOD Push HAMMER TYPE CME Automatic

STRUCT. NO.	DEPTH	BLOWS	UCS	MOIST	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:	First Encounter	Upon Completion	After
Station	(ft)	(/6")	(tsf)	(%)	ft	ft	ft	Dry	ft	ft
	680.78		2.0	39.7						
			P							
			4.0	17.6						
			P							
	676.28		>4.5	17.6						
			P							

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)



LAYOUT	DPA	07.30.2013
DRAWN	MGM	07.30.2013
REVIEWED	DPA	10.17.2013

FILE NAME =	USER NAME = MWH	DESIGNED - DPA	REVISED -
D389H0038-sht-biog025		DRAWN - MGM	REVISED -
MODEL NAME =	PLOT SCALE = AS SHOWN	CHECKED - DPA	REVISED -
Default	PLOT DATE = 12\02\2013	DATE - 12.03.13	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS (ILLINOIS 50)			
I-57 AND 6000N RD (BOURBONNAIS PARKWAY)			
BOURBONNAIS, IL			
SCALE: AS SHOWN	SHEET NO.	OF SHEETS	STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(46-1)HBK-1	KANKAKEE	819	584
CONTRACT NO. 66982				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



SOIL BORING LOG

Date 3/6/12

ROUTE I-57 (FAI 57) DESCRIPTION (Sample 104) LOGGED BY Larry Myers

SECTION (46-1)HBK-1 LOCATION NW 1/4, SEC. 4, TWP. 31N, RNG. 12E

COUNTY Kankakee DRILLING METHOD Push HAMMER TYPE CME Automatic

STRUCT. NO. Station	DEPTH ft	BLOW S (/6")	UCS Qu (tsf)	MOIST S (%)	Surface Water Elev.	Stream Bed Elev.
					ft	ft
BORING NO. 47 (IL 50 Centerline) Station 539+00 Offset 52.00ft Lt. Ground Surface Elev. 680.62 ft					Groundwater Elev.:	
					First Encounter	Dry ft
					Upon Completion	ft
					After	Hrs. ft
Brown/Gray Silty Clay Till						
			>4.5 P	13.4		
	-5					
	674.62					
End of Boring			>4.5 P	19.3		
	-10					
	-15					
	-20					

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)



SOIL BORING LOG

Date 3/6/12

ROUTE I-57 (FAI 57) DESCRIPTION (Samples 105 & 106) LOGGED BY Larry Myers

SECTION (46-1)HBK-1 LOCATION NW 1/4, SEC. 4, TWP. 31N, RNG. 12E

COUNTY Kankakee DRILLING METHOD Push HAMMER TYPE CME Automatic

STRUCT. NO. Station	DEPTH ft	BLOW S (/6")	UCS Qu (tsf)	MOIST S (%)	Surface Water Elev.	Stream Bed Elev.
					ft	ft
BORING NO. 48 (IL 50 Centerline) Station 542+00 Offset 62.00ft Lt. Ground Surface Elev. 679.50 ft					Groundwater Elev.:	
					First Encounter	Dry ft
					Upon Completion	ft
					After	Hrs. ft
Black Silty Clay Loam Topsoil						
	677.50		2.5 P	19.5		
Brown/Gray Silty Clay						
	-5					
	673.50					
End of Boring			4.0 P	31.9		
	-10					
	-15					
	-20					

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)



LAYOUT	DPA	07.30.2013
DRAWN	MGM	07.30.2013
REVIEWED	DPA	10.17.2013

FILE NAME =	USER NAME = MWH	DESIGNED - DPA	REVISED -
D389H0038-shr-biog026		DRAWN - MGM	REVISED -
MODEL NAME =		CHECKED - DPA	REVISED -
Default		DATE - 12.03.13	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS (ILLINOIS 50)			
I-57 AND 6000N RD (BOURBONNAIS PARKWAY)			
BOURBONNAIS, IL			
SCALE: AS SHOWN	SHEET NO.	OF SHEETS	STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(46-1)HBK-1	KANKAKEE	819	585
CONTRACT NO. 66982				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



SOIL BORING LOG

ROUTE I-57 (FAI 57) DESCRIPTION (Sample 107) LOGGED BY Larry Myers

SECTION (46-1)HBK-1 LOCATION NW 1/4, SEC. 4, TWP. 31N, RNG. 12E

COUNTY Kankakee DRILLING METHOD Push HAMMER TYPE CME Automatic

STRUCT. NO. Station	DEPTH H	BLOW S	UCS Qu	MOIST T	Surface Water Elev. Stream Bed Elev.
BORING NO. 49 (IL 50 Centerline) Station 545+00 Offset 66.00ft Lt. Ground Surface Elev. 677.53 ft	(ft)	(/6")	(tsf)	(%)	Groundwater Elev.: First Encounter Dry ft Upon Completion ft After Hrs. ft
Brown Silty Clay Loam Till					
			4.5 P	19.6	
Refusal on Rock at 5' End of Boring	672.53	-5	3.5 P	14.2	

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)



SOIL BORING LOG

ROUTE I-57 (FAI 57) DESCRIPTION (Sample 108) LOGGED BY Larry Myers

SECTION (46-1)HBK-1 LOCATION NW 1/4, SEC. 4, TWP. 31N, RNG. 12E

COUNTY Kankakee DRILLING METHOD Push HAMMER TYPE CME Automatic

STRUCT. NO. Station	DEPTH H	BLOW S	UCS Qu	MOIST T	Surface Water Elev. Stream Bed Elev.
BORING NO. 50 (IL 50 Centerline) Station 548+00 Offset 66.00ft Lt. Ground Surface Elev. 675.68 ft	(ft)	(/6")	(tsf)	(%)	Groundwater Elev.: First Encounter Dry ft Upon Completion ft After Hrs. ft
Black, Silty Clay Loam Topsoil Fill					
	673.68		3.0 P	23.8	
Rock - Buff Fine Grained Sandstone End of Boring	671.18	-5	2.5 P	58.1	

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)



LAYOUT	DPA	07.30.2013
DRAWN	MGM	07.30.2013
REVIEWED	DPA	10.17.2013

FILE NAME =	USER NAME = MWH	DESIGNED - DPA	REVISED -
D389H0038-shr-biog027		DRAWN - MGM	REVISED -
MODEL NAME =		CHECKED - DPA	REVISED -
Default		DATE - 12.03.13	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS (ILLINOIS 50)
I-57 AND 6000N RD (BOURBONNAIS PARKWAY)
BOURBONNAIS, IL

SCALE: AS SHOWN SHEET NO. OF SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(46-1)HBK-1	KANKAKEE	819	586
CONTRACT NO. 66982				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

SOIL BORING LOG

Date 3/6/12

ROUTE I-57 (FAI 57) DESCRIPTION (Sample 109) LOGGED BY Larry Myers
SECTION (46-1)HBK-1 LOCATION NW 1/4, SEC. 4, TWP. 31N, RNG. 12E
COUNTY Kankakee DRILLING METHOD Push HAMMER TYPE CME Automatic

STRUCT. NO.	DEPTH	BLOWS	UCS	MOIST	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:	First Encounter	Upon Completion	After	Hrs.
Station	(ft)	(/6")	(tsf)	(%)	ft	ft	ft	Dry ft	ft	ft	ft
51 (IL 50 Centerline)	551+00										
	Offset 66.00ft Lt.										
	Ground Surface Elev. 674.60 ft										
Black Silty Clay Loam Fill											
	673.10										
Brown Silty Clay											
			3.5	25.9							
			P								
	-5										
	668.60										
End of Boring			3.5	15.9							
			P								
	-10										
	-15										
	-20										

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)

SOIL BORING LOG

Date 3/6/12

ROUTE I-57 (FAI 57) DESCRIPTION _____ LOGGED BY Larry Myers
SECTION (46-1)HBK-1 LOCATION SW 1/4, SEC. 33, TWP. 32N, RNG. 12E
COUNTY Kankakee DRILLING METHOD Push HAMMER TYPE CME Automatic

STRUCT. NO.	DEPTH	BLOWS	UCS	MOIST	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:	First Encounter	Upon Completion	After	Hrs.
Station	(ft)	(/6")	(tsf)	(%)	ft	ft	ft	Dry ft	ft	ft	ft
54 (IL 50 Centerline)	560+00										
	Offset 24.00ft Rt.										
	Ground Surface Elev. 673.33 ft										
White CA 6 Fill											
				6.4							
	669.83										
Auger Refusal @ 3.5'											
End of Boring											
	-5										
	-10										
	-15										
	-20										

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)



hanso04/ll
1/26/2012 3:54 AM

LAYOUT	DPA	07.30.2013
DRAWN	MGM	07.30.2013
REVIEWED	DPA	10.17.2013

FILE NAME =
D309H0038-sht-biog028

USER NAME = MWH
DESIGNED - DPA
DRAWN - MGM
CHECKED - DPA
DATE - 12.03.13

REVISED -
REVISED -
REVISED -
REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

BORING LOGS (ILLINOIS 50)
I-57 AND 6000N RD (BOURBONNAIS PARKWAY)
BOURBONNAIS, IL
SCALE: AS SHOWN SHEET NO. OF SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(46-1)HBK-1	KANKAKEE	819	587
CONTRACT NO. 66982			ILLINOIS FED. AID PROJECT	



SOIL BORING LOG

ROUTE I-57 (FAI 57) DESCRIPTION (Sample 113) LOGGED BY Larry Myers

SECTION (46-1)HBK-1 LOCATION SW 1/4, SEC. 33, TWP. 32N, RNG. 12E

COUNTY Kankakee DRILLING METHOD Push HAMMER TYPE CME Automatic

STRUCT. NO. Station	D E P T H ft	B L O W S (ft)	U C S Qu (tsf)	M O I S T (%)	Surface Water Elev. _____ ft	Stream Bed Elev. _____ ft
					Groundwater Elev.: First Encounter _____ Dry ft	Upon Completion _____ ft
Buff CA type Gravel Fill						
667.34 End of Boring			4.2			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrator)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)



SOIL BORING LOG

ROUTE I-57 (FAI 57) DESCRIPTION LOGGED BY Larry Myers

SECTION (46-1)HBK-1 LOCATION SW 1/4, SEC. 33, TWP. 32N, RNG. 12E

COUNTY Kankakee DRILLING METHOD Push HAMMER TYPE CME Automatic

STRUCT. NO. Station	D E P T H ft	B L O W S (ft)	U C S Qu (tsf)	M O I S T (%)	Surface Water Elev. _____ ft	Stream Bed Elev. _____ ft
					Groundwater Elev.: First Encounter _____ Dry ft	Upon Completion _____ ft
Black Silty Clay Loam Fill with Gravel						
666.67 Brown Loam/Gravel Limestone Pieces - Weathered Rock Surface			2.0 P	22.6		
665.67 Auger Refusal @ 5' End of Boring				12.0		

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrator)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)



DPA 07.30.2013
MGM 07.30.2013
DPA 10.17.2013

FILE NAME = D389H0038-sht-biog029	USER NAME = MWH	DESIGNED - DPA	REVISED -
MODEL NAME = Default	PLOT SCALE = AS SHOWN	CHECKED - DPA	REVISED -
	PLOT DATE = 12\02\2013	DATE - 12.03.13	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS (ILLINOIS 50) I-57 AND 6000N RD (BOURBONNAIS PARKWAY) BOURBONNAIS, IL			
SCALE: AS SHOWN	SHEET NO. OF SHEETS	STA. TO STA.	

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(46-1)HBK-1	KANKAKEE	819	588
CONTRACT NO. 66982				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



SOIL BORING LOG

ROUTE I-57 (FAI 57) DESCRIPTION (Sample 110) LOGGED BY Larry Myers

SECTION (46-1)HBK-1 LOCATION SE 1/4, SEC. 33, TWP. 32N, RNG. 12E

COUNTY Kankakee DRILLING METHOD Push HAMMER TYPE CME Automatic

STRUCT. NO.	DEPTH	BLOWS	UCS	MOIST	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:	First Encounter	Upon Completion	After
Station	(ft)	(/6")	(tsf)	(%)	ft	ft	ft	Dry	ft	ft
Black Silty Clay Loam Fill with Heavy Gravel										
				19.1						
	666.91									
Brown Silty Clay Loam with Limestone Pieces										
	665.91									
Auger Refusal @ 4' End of Boring				12.8						
	-5									
	-10									
	-15									
	-20									

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)



SOIL BORING LOG

ROUTE I-57 (FAI 57) DESCRIPTION LOGGED BY Larry Myers

SECTION (46-1)HBK-1 LOCATION SE 1/4, SEC. 33, TWP. 32N, RNG. 12E

COUNTY Kankakee DRILLING METHOD Push HAMMER TYPE CME Automatic

STRUCT. NO.	DEPTH	BLOWS	UCS	MOIST	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:	First Encounter	Upon Completion	After
Station	(ft)	(/6")	(tsf)	(%)	ft	ft	ft	Dry	ft	ft
Black Silty Clay Loam Fill with Heavy Limestone Pieces										
				9.0						
	666.06									
Auger Refusal @ 3' End of Boring										
	-5									
	-10									
	-15									
	-20									

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)



LAYOUT	DPA	07.30.2013
DRAWN	MGM	07.30.2013
REVIEWED	DPA	10.17.2013

FILE NAME =	USER NAME = MWH	DESIGNED - DPA	REVISED -
D309H0038-sht-biog030		DRAWN - MGM	REVISED -
MODEL NAME =	PLOT SCALE = AS SHOWN	CHECKED - DPA	REVISED -
Default	PLOT DATE = 12\02\2013	DATE - 12.03.13	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS (ILLINOIS 50)			
I-57 AND 6000N RD (BOURBONNAIS PARKWAY)			
BOURBONNAIS, IL			
SCALE: AS SHOWN	SHEET NO.	OF SHEETS	STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(46-1)HBK-1	KANKAKEE	819	589
CONTRACT NO. 66982				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



SOIL BORING LOG

ROUTE I-57 (FAI 57) DESCRIPTION (Sample 111) LOGGED BY Larry Myers

SECTION (46-1)HBK-1 LOCATION SE 1/4, SEC. 33, TWP. 32N, RNG. 12E

COUNTY Kankakee DRILLING METHOD Push HAMMER TYPE CME Automatic

Table with columns for STRUCT. NO., BORING NO., DPTH, BLOW S, UCS Qu, MOIST, Surface Water Elev., Stream Bed Elev., Groundwater Elev., First Encounter, Upon Completion, After Hrs.



SOIL BORING LOG

ROUTE I-57 (FAI 57) DESCRIPTION (Sample 112) LOGGED BY Larry Myers

SECTION (46-1)HBK-1 LOCATION SE 1/4, SEC. 33, TWP. 32N, RNG. 12E

COUNTY Kankakee DRILLING METHOD Push HAMMER TYPE CME Automatic

Table with columns for STRUCT. NO., BORING NO., DPTH, BLOW S, UCS Qu, MOIST, Surface Water Elev., Stream Bed Elev., Groundwater Elev., First Encounter, Upon Completion, After Hrs.



The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)

Vertical table with dates and initials: 07.30.2013, 07.30.2013, 10.17.2013, DPA, MGM, DPA

Table with fields: FILE NAME, USER NAME, DESIGNED, REVISED, DRAWN, CHECKED, PLOT DATE, DATE

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

BORING LOGS (ILLINOIS 50) I-57 AND 6000N RD (BOURBONNAIS PARKWAY) BOURBONNAIS, IL

SCALE: AS SHOWN SHEET NO. OF SHEETS STA. TO STA.

Table with fields: F.A.I. RTE., SECTION, COUNTY, TOTAL SHEETS, SHEET NO., CONTRACT NO.



SOIL BORING LOG

ROUTE I-57 (FAI 57) DESCRIPTION (Samples 301 & 302) LOGGED BY Larry Myers

SECTION (46-1)HBK-1 LOCATION NW 1/4, SEC. 4, TWP. 31N, RNG. 12E

COUNTY Kankakee DRILLING METHOD Push HAMMER TYPE CME Automatic

Table with columns for Depth, Blow Count, UCS, Moisture, and Elevation. Includes soil descriptions like HMA/Concrete, Black Silty Clay Loam, and Brown Silty Clay Loess.

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)



SOIL BORING LOG

ROUTE I-57 (FAI 57) DESCRIPTION (Sample 303) LOGGED BY Larry Myers

SECTION (46-1)HBK-1 LOCATION NW 1/4, SEC. 4, TWP. 31N, RNG. 12E

COUNTY Kankakee DRILLING METHOD Push HAMMER TYPE CME Automatic

Table with columns for Depth, Blow Count, UCS, Moisture, and Elevation. Includes soil descriptions like HMA/Concrete, Black Silty Clay Loam, and Brown Silty Clay Loess.

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)



Vertical table with columns for LAYOUT, DRAWN, REVIEWED, DPA, and dates.

Table with columns for FILE NAME, USER NAME, DESIGNED, REVISED, DRAWN, CHECKED, PLOT DATE, and DATE.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

BORING LOGS (ILLINOIS 50) I-57 AND 6000 RD (BOURBONNAIS PARKWAY) BOURBONNAIS, IL

SCALE: AS SHOWN SHEET NO. OF SHEETS STA. TO STA.

Table with columns for F.A.I. RTE., SECTION, COUNTY, TOTAL SHEETS, SHEET NO., and CONTRACT NO.



SOIL BORING LOG

Date 3/20/12

ROUTE I-57 (FAI 57) DESCRIPTION (Samples 219, 220 & 221) LOGGED BY Larry Myers

SECTION (46-1)HBK-1 LOCATION SW 1/4, SEC. 32, TWP. 32N, RNG. 12E

COUNTY Kankakee DRILLING METHOD Push HAMMER TYPE CME Automatic

STRUCT. NO.	DEPTH	BLOWS	UCS	MOIST	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:	First Encounter	Upon Completion	After
Station	(ft)	(/6")	(tsf)	(%)	ft	ft	ft	Dry	ft	ft
	670.68		1.5	28.5						
	668.68		3.0	25.1						
	666.68		4.5	15.1						

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)



SOIL BORING LOG

Date 3/20/12

ROUTE I-57 (FAI 57) DESCRIPTION (Sample 222) LOGGED BY Larry Myers

SECTION (46-1)HBK-1 LOCATION SW 1/4, SEC. 32, TWP. 32N, RNG. 12E

COUNTY Kankakee DRILLING METHOD Push HAMMER TYPE CME Automatic

STRUCT. NO.	DEPTH	BLOWS	UCS	MOIST	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:	First Encounter	Upon Completion	After
Station	(ft)	(/6")	(tsf)	(%)	ft	ft	ft	Dry	ft	ft
	670.23									
	667.73		2.0	21.3						
	665.73		4.0	18.8						

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)



LAYOUT	DPA	07.30.2013
DRAWN	MGM	07.30.2013
REVIEWED	DPA	10.17.2013

FILE NAME =	USER NAME = MWH	DESIGNED - DPA	REVISED -
D389H0038-shr-biog033		DRAWN - MGM	REVISED -
MODEL NAME =	PLOT SCALE = AS SHOWN	CHECKED - DPA	REVISED -
Default	PLOT DATE = 12\02\2013	DATE - 12.03.13	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS (RAMP A)			
I-57 AND 6000N RD (BOURBONNAIS PARKWAY)			
BOURBONNAIS, IL			
SCALE: AS SHOWN	SHEET NO.	OF SHEETS	STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(46-1)HBK-1	KANKAKEE	819	592
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	
			CONTRACT NO. 66982	



SOIL BORING LOG

ROUTE I-57 (FAI 57) DESCRIPTION (Samples 223 & 224) LOGGED BY Larry Myers

SECTION (46-1)HBK-1 LOCATION SW 1/4, SEC. 32, TWP. 32N, RNG. 12E

COUNTY Kankakee DRILLING METHOD Push HAMMER TYPE CME Automatic

STRUCT. NO. Station	DEPTH (ft)	BLOWS (/6")	UCS (tsf)	MOIST (%)	Surface Water Elev. ft	Stream Bed Elev. ft	Groundwater Elev.: First Encounter Upon Completion After Hrs.
	669.28						
	667.78		1.5 P	25.2			
	664.78		2.0 P	14.0			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)



SOIL BORING LOG

ROUTE I-57 (FAI 57) DESCRIPTION (Sample 225) LOGGED BY Larry Myers

SECTION (46-1)HBK-1 LOCATION SW 1/4, SEC. 32, TWP. 32N, RNG. 12E

COUNTY Kankakee DRILLING METHOD Push HAMMER TYPE CME Automatic

STRUCT. NO. Station	DEPTH (ft)	BLOWS (/6")	UCS (tsf)	MOIST (%)	Surface Water Elev. ft	Stream Bed Elev. ft	Groundwater Elev.: First Encounter Upon Completion After Hrs.
	663.89						
			4.0 P	21.4			
	659.39		4.5 P	15.8			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)



LAYOUT	DPA	07.30.2013
DRAWN	MGM	07.30.2013
REVIEWED	DPA	10.17.2013

FILE NAME =	USER NAME = MWH	DESIGNED - DPA	REVISED -
D389H0038-sht-blog034		DRAWN - MGM	REVISED -
MODEL NAME =		CHECKED - DPA	REVISED -
Default		DATE - 12.03.13	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS (RAMP A)			
I-57 AND 6000N RD (BOURBONNAIS PARKWAY)			
BOURBONNAIS, IL			
SCALE: AS SHOWN	SHEET NO.	OF SHEETS	STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(46-1)HBK-1	KANKAKEE	819	593
CONTRACT NO. 66982				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



SOIL BORING LOG

ROUTE I-57 (FAI 57) DESCRIPTION (Sample 226) LOGGED BY Larry Myers

SECTION (46-1)HBK-1 LOCATION SW 1/4, SEC. 32, TWP. 32N, RNG. 12E

COUNTY Kankakee DRILLING METHOD Push HAMMER TYPE CME Automatic

STRUCT. NO.	DEPTH	BLOWS	UCS	MOIST	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:	First Encounter	Upon Completion	After
Station	(ft)	(/6")	(tsf)	(%)	ft	ft	ft	Dry	ft	ft
	665.78									
	664.78		2.5 P	21.7						
	660.78		4.5 P	18.5						

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrator)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)



SOIL BORING LOG

ROUTE I-57 (FAI 57) DESCRIPTION (Sample 227) LOGGED BY Larry Myers

SECTION (46-1)HBK-1 LOCATION SW 1/4, SEC. 32, TWP. 32N, RNG. 12E

COUNTY Kankakee DRILLING METHOD Push HAMMER TYPE CME Automatic

STRUCT. NO.	DEPTH	BLOWS	UCS	MOIST	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:	First Encounter	Upon Completion	After
Station	(ft)	(/6")	(tsf)	(%)	ft	ft	ft	Dry	ft	ft
	666.78									
	664.78		1.5 P	24.5						
	661.78		4.0 P	18.2						

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrator)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)



LAYOUT	DPA	07.30.2013
DRAWN	MGM	07.30.2013
REVIEWED	DPA	10.17.2013

FILE NAME =	USER NAME = MWH	DESIGNED - DPA	REVISED -
D389H0038-sht-biog035		DRAWN - MGM	REVISED -
MODEL NAME =		CHECKED - DPA	REVISED -
Default		DATE - 12.03.13	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS (RAMP A)			
I-57 AND 6000N RD (BOURBONNAIS PARKWAY)			
BOURBONNAIS, IL			
SCALE: AS SHOWN	SHEET NO.	OF SHEETS	STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(46-1)HBK-1	KANKAKEE	819	594
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	
			CONTRACT NO. 66982	



SOIL BORING LOG

ROUTE I-57 (FAI 57) DESCRIPTION (Samples 258 & 259) LOGGED BY Larry Myers

SECTION (46-1)HBK-1 LOCATION SW 1/4, SEC. 32, TWP. 32N, RNG. 12E

COUNTY Kankakee DRILLING METHOD Push HAMMER TYPE CME Automatic

STRUCT. NO. Station	DEPTH H	BLOW S	UCS Qu	MOIST T	Surface Water Elev.		Groundwater Elev.:			
					ft	ft		First Encounter		
BORING NO. <u>69 (Ramp A PGL)</u> Station <u>4418+00</u> Offset <u>0.00ft</u> Ground Surface Elev. <u>671.32</u> ft	(ft)	(/6")	(tsf)	(%)			Dry	ft	ft	ft
Black Silty Clay Loam Topsoil Fill	670.82									
Brown Silty Clay Loess										
	668.82									
Brown/Gray Silty Clay Loam Till			2.5 P	29.6						
	-5		4.5 P	18.6						
End of Boring	665.32									
	-10									
	-15									
	-20									

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)



SOIL BORING LOG

ROUTE I-57 (FAI 57) DESCRIPTION (Samples 258 & 259) LOGGED BY Larry Myers

SECTION (46-1)HBK-1 LOCATION SW 1/4, SEC. 32, TWP. 32N, RNG. 12E

COUNTY Kankakee DRILLING METHOD Push HAMMER TYPE CME Automatic

STRUCT. NO. Station	DEPTH H	BLOW S	UCS Qu	MOIST T	Surface Water Elev.		Groundwater Elev.:			
					ft	ft		First Encounter		
BORING NO. <u>70 (Ramp A PGL)</u> Station <u>4415+00</u> Offset <u>0.00ft</u> Ground Surface Elev. <u>670.29</u> ft	(ft)	(/6")	(tsf)	(%)			Dry	ft	ft	ft
Brown/Gray/Black Silty Clay Loam Fill										
	668.29									
Black Topsoil			2.5 P	24.0						
	666.79		2.0 P	25.9						
Brown Loess										
	-5									
End of Boring	664.29		1.5 P	20.9						
	-10									
	-15									
	-20									

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)



LAYOUT: DPA 07.30.2013
DRAWN: MGM 07.30.2013
REVIEWED: DPA 10.17.2013

FILE NAME =	USER NAME = MWH	DESIGNED - DPA	REVISED -
D389H0038-sht-blog036		DRAWN - MGM	REVISED -
MODEL NAME =	PLOT SCALE = AS SHOWN	CHECKED - DPA	REVISED -
Default	PLOT DATE = 12\02\2013	DATE - 12.03.13	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS (RAMP A)			
I-57 AND 6000N RD (BOURBONNAIS PARKWAY)			
BOURBONNAIS, IL			
SCALE: AS SHOWN	SHEET NO. OF SHEETS	STA. TO STA.	

F.A.I. RTE. 57	SECTION (46-1)HBK-1	COUNTY KANKAKEE	TOTAL SHEETS 819	SHEET NO. 595
CONTRACT NO. 66982				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



SOIL BORING LOG

Date 3/20/12

ROUTE I-57 (FAI 57) DESCRIPTION Ramp A Box Culvert LOGGED BY Larry Myers

SECTION (46-1)HBK-1 LOCATION SW 1/4, SEC. 32, TWP. 32N, RNG. 12E

COUNTY Kankakee DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. 046-2554 (Prop.)
 Station 4427+00 (Prop.)

BORING NO. 66-A (Left Wingwall)
 Station 4426+95
 Offset 60.00ft Lt.
 Ground Surface Elev. 662.91 ft

DEPTH (ft)	BLOW S (ft/6")	UCS (tsf)	MOIST (%)
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Surface Water Elev. _____ ft
 Stream Bed Elev. _____ ft

Groundwater Elev.:
 First Encounter 652.9 ft ▼
 Upon Completion 650.9 ft ▼
 After _____ Hrs. _____ ft

Augered Black Silty Clay Loam Topsoil, Brown Silty Clay Loess				
660.41				
Hard Brown Silty Clay Loam Till	3			
	4	4.1	20.1	
	5	S		
658.41				
Hard Brown to Gray Silty Clay Till	-5			
	3			
656.91				
Hard Gray Silty Clay Till	4	5.1	19.3	
	7	S		
	5			
	7	6.7	17.5	
	11	S		
652.91 ▼10				
Very Stiff Gray Silty Loam, Silt, Fine to Medium Sand	5			
	7	3.5	22.2	
	5	P		
649.91				
Dense Gray Limestone - Fractured & Weathered Surface	7			
649.41	100/3"		10.4	
Auger Refusal @ 13.5' End of Boring				
-15				
-20				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)



SOIL BORING LOG

Date 3/20/12

ROUTE I-57 (FAI 57) DESCRIPTION Ramp A Box Culvert LOGGED BY Larry Myers

SECTION (46-1)HBK-1 LOCATION SW 1/4, SEC. 32, TWP. 32N, RNG. 12E

COUNTY Kankakee DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. 046-2554 (Prop.)
 Station 4427+00 (Prop.)

BORING NO. 66-B (Middle of Box)
 Station 4427+05
 Offset 10.00ft Lt.
 Ground Surface Elev. 662.54 ft

DEPTH (ft)	BLOW S (ft/6")	UCS (tsf)	MOIST (%)
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Surface Water Elev. _____ ft
 Stream Bed Elev. _____ ft

Groundwater Elev.:
 First Encounter 651.5 ft ▼
 Upon Completion 660.5 ft ▼
 After _____ Hrs. _____ ft

Augered Black Silty Clay Loam Topsoil, Brown/Gray Silty Clay Loess				
660.04				
Very Stiff Brown Silty Clay Loam Till	3			
	3	3.0	18.5	
	3	P		
658.04				
Hard Brown & Gray Silty Clay Till	-5			
	4			
	6	4.1	18.8	
	8	S		
655.54				
Hard Gray Silty Clay Till	5			
	8	6.1	16.3	
	10	S		
-10				
	5			
651.54 ▼				
Gray Fine to Coarse Sand with Silt Layers	8	6.1	17.7	
	6	S		
649.54				
Dense Gray Limestone - Fractured & Weathered Surface	6			
649.21	100/4"		9.8	
End of Boring				
-15				
-20				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)



LAYOUT	DPA	07.30.2013
DRAWN	MGM	07.30.2013
REVIEWED	DPA	10.17.2013

FILE NAME =	USER NAME = MWH	DESIGNED - DPA	REVISED -
D389H0038-shr-blog037		DRAWN - MGM	REVISED -
MODEL NAME =		CHECKED - DPA	REVISED -
Default		DATE - 12.03.13	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS (RAMP A)			
I-57 AND 6000N RD (BOURBONNAIS PARKWAY)			
BOURBONNAIS, IL			
SCALE: AS SHOWN	SHEET NO.	OF SHEETS	STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(46-1)HBK-1	KANKAKEE	819	596
CONTRACT NO. 66982				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



SOIL BORING LOG

ROUTE I-57 (FAI 57) DESCRIPTION Ramp A Box Culvert LOGGED BY Larry Myers

SECTION (46-1)HBK-1 LOCATION SW 1/4, SEC. 32, TWP. 32N, RNG. 12E

COUNTY Kankakee DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. Station	BORING NO. Station Offset Ground Surface Elev.	DEPTH (ft)	BLOW S (/6")	UCS Qu (tsf)	MOIST S (%)	Surface Water Elev.		Groundwater Elev.:
						ft	ft	
	046-2554 (Prop.) 4427+00 (Prop.)							
	66-C (Right Wingwall) 4427+20 40.00ft Rt. 662.44 ft							
	Augered Black Silty Clay Loam Topsoil, Brown/Gray Silty Loam Loess							
	659.94							
	Very Stiff Brown & Gray Silty Clay Loam Till		2					
	657.94		3	2.0	20.1			
	Hard Brown & Gray Silty Clay Till		2	P				
	655.44							
	Hard Gray Silty Clay Till		5					
	650.94		7	5.7	18.8			
	Hard Gray Silty Clay Till		9	S				
	648.94							
	Dense Gray Limestone - Weathered & Reworked at Surface		7					
	648.44		9	7.3	16.9			
	Auger Refusal @ 14' End of Boring		11	S				
			6					
	Gray Fine to Coarse Sand		6	6.1	17.6			
			8	S				
			11					
			14		10.4			
			100/2"					

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)



SOIL BORING LOG

ROUTE I-57 (FAI 57) DESCRIPTION (Samples 256 & 257) LOGGED BY Larry Myers

SECTION (46-1)HBK-1 LOCATION NW 1/4, SEC. 32, TWP. 32N, RNG. 12E

COUNTY Kankakee DRILLING METHOD Push HAMMER TYPE CME Automatic

STRUCT. NO. Station	BORING NO. Station Offset Ground Surface Elev.	DEPTH (ft)	BLOW S (/6")	UCS Qu (tsf)	MOIST S (%)	Surface Water Elev.		Groundwater Elev.:
						ft	ft	
	72-A (Ramp A PGL) 4409+00 0.00ft 667.93 ft							
	Brown/Gray/Black Silty Clay Loam Fill							
	663.43							
	Black Silty Clay Loam Topsoil			3.0	18.9			
	661.93			P				
	End of Boring							
				2.0	24.2			
				P				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)



75000041
12/02/2013

LAYOUT	DPA	07.30.2013
DRAWN	MGM	07.30.2013
REVIEWED	DPA	10.17.2013

FILE NAME =
D389H0038-sht-biog038
MODEL NAME =
Default

USER NAME = MWH

DESIGNED - DPA
DRAWN - MGM
CHECKED - DPA
DATE - 12.03.13

REVISED -
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS (RAMP A)
I-57 AND 6000N RD (BOURBONNAIS PARKWAY)
BOURBONNAIS, IL

SCALE: AS SHOWN SHEET NO. OF SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(46-1)HBK-1	KANKAKEE	819	597
CONTRACT NO. 66982			ILLINOIS FED. AID PROJECT	



SOIL BORING LOG

ROUTE I-57 (FAI 57) DESCRIPTION (Samples 252 & 253) LOGGED BY Larry Myers

SECTION (46-1)HBK-1 LOCATION NW 1/4, SEC. 32, TWP. 32N, RNG. 12E

COUNTY Kankakee DRILLING METHOD Push HAMMER TYPE CME Automatic

STRUCT. NO. Station	DEPTH H	BLOW S	UCS Qu	MOIST T	Surface Water Elev. Stream Bed Elev.
BORING NO. 72-C (Ramp A PGL) Station 4403+00 Offset 0.00ft Ground Surface Elev. 666.67 ft	(ft)	(/6")	(tsf)	(%)	Groundwater Elev.: First Encounter Dry ft Upon Completion ft After Hrs. ft
Brown/Gray/Black Silty Clay Loam Fill	664.67				
Black Silty Clay Loam Topsoil	663.67		2.0 P	22.6	
Brown Silty Clay Loess	662.17		2.0 P	25.4	
Brown/Gray Silty Clay Loam Till	-5		1.5 P	23.6	
End of Boring	660.67		4.0 P	14.4	

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrator)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)



SOIL BORING LOG

ROUTE I-57 (FAI 57) DESCRIPTION LOGGED BY Larry Myers

SECTION (46-1)HBK-1 LOCATION NW 1/4, SEC. 32, TWP. 32N, RNG. 12E

COUNTY Kankakee DRILLING METHOD Push HAMMER TYPE CME Automatic

STRUCT. NO. Station	DEPTH H	BLOW S	UCS Qu	MOIST T	Surface Water Elev. Stream Bed Elev.
BORING NO. 72-D (Ramp A PGL) Station 4400+00 Offset 10.00ft Rt. Ground Surface Elev. 665.77 ft	(ft)	(/6")	(tsf)	(%)	Groundwater Elev.: First Encounter Dry ft Upon Completion ft After Hrs. ft
Brown/Gray/Black Silty Clay Loam Fill	662.77				
Brown Very Loamy Sand & Gravel	-5		2.5 P	29.9	
End of Boring	659.77			18.6	

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrator)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)



FILE NAME = D:\309H\0038-sht-biog039
MODEL NAME = Default
PLOT DATE = 12\02\2013

DESIGNED - DPA	REVISOR -
DRAWN - MGM	REVISIONS -
CHECKED - DPA	REVISIONS -
DATE - 12.03.13	REVISIONS -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS (RAMP A) I-57 AND 6000N RD (BOURBONNAIS PARKWAY) BOURBONNAIS, IL			
SCALE: AS SHOWN	SHEET NO. OF SHEETS	STA. TO STA.	

F.A.I. RTE. 57	SECTION (46-1)HBK-1	COUNTY KANKAKEE	TOTAL SHEETS 819	SHEET NO. 598
CONTRACT NO. 66982			ILLINOIS FED. AID PROJECT	

