Illinois Department of Transportation
Division of Highways
CH2M HILL

SOIL BORING LOG

Date 9/29/07

ROUTE I-74 DESCRIPTION New I-74 Bridge Over Mississippi River - Illinois Approach LOGGED BY KB

SECTION I-74 Bridge over Mississippi River LOCATION (N=562651.568, E=2459761.977), SEC. 32, TWP. 18N, RNG. 1W, 4th PM

COUNTY Rock Island DRILLING METHOD HSA, CME 55 HAMMER TYPE CME AUTOMATIC

STRUCT. NO. _____
Station _____

BORING NO. ILR0504
Station 52+07.50
Offset 54' Left
Ground Surface Elev. 598.28 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter _____ ft
Upon Completion _____ ft
After _____ Hrs. _____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Silt (ML) yellowish brown, moist, trace fine to coarse sand, loose			
	3		
	3 4	2.0 P	
	2		
-5	3 3	2.0 P	
591.28			
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, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
CH2M HILL

SOIL BORING LOG

Date 9/27/07

ROUTE I-74 DESCRIPTION New I-74 Bridge Over Mississippi River - Illinois Approach LOGGED BY Yse, Kaustav/SCO

SECTION I-74 Bridge over Mississippi River LOCATION (N=562552.708, E=2459768.225), SEC. 32, TWP. 18N, RNG. 1W, 4th PM

COUNTY Rock Island DRILLING METHOD HSA, CME 55 HAMMER TYPE CME AUTOMATIC

STRUCT. NO. _____
Station _____

BORING NO. ILR0505
Station 53+04.83
Offset 53' Left
Ground Surface Elev. 603.80 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter 581.8 ft ▼
Upon Completion _____ ft
After _____ Hrs. _____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Lean Clay (CL) Little sand, grayish brown, moist, loose, trace coarse sand Sample 1: Atterberg limits (LL=25, PI=11) test performed	3		
	3 4	3.0 P	
Rimac: Pu = 61 lbs	2		
-5	2 3	1.1	
597.80			
Lean Clay (CL) gray, moist, very stiff, trace fine sand, trace gravel Sample 5: Atterberg limits (LL=31, PI=17) test performed	3		
	3 6	2.0 P	
		2.5 P	
-10			
	3		
	3 6	3.0 P	
	4		
	5 5	3.0 P	
Sample 7: grain size analysis performed	3		
-15	5		
Sample 8: Atterberg limits (LL=24, PI=13) test performed	6		
Sample 9: Atterberg limits (LL=29, PI=14) test performed			
585.55			
Fine to Medium Sand (SP) grayish brown, moist, very dense, trace silt	22		
-20	30 34		

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Fine to Medium Sand (SP) grayish brown, moist, very dense, trace silt *(continued)* ▼			
580.80			
Silt (ML) gray, moist, hard, trace fine sand, medium dense	10		
	13 19	3.0	
-25			
575.80			
Silty Fine to Medium Sand (SP) gray, wet, medium dense, trace fine gravel	3		
	4 10		
-30			
	10		
	11 11		
-35			
565.80			
Shale gray, hard 565.47	13		
	20 23		
-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)

Illinois Department of Transportation
Division of Highways
CH2M HILL

SOIL BORING LOG

Date 9/27/07

ROUTE I-74 DESCRIPTION New I-74 Bridge Over Mississippi River - Illinois Approach LOGGED BY Yse, Kaustav/SCO

SECTION I-74 Bridge over Mississippi River LOCATION (N=562552.708, E=2459768.225), SEC. 32, TWP. 18N, RNG. 1W, 4th PM

COUNTY Rock Island DRILLING METHOD HSA, CME 55 HAMMER TYPE CME AUTOMATIC

STRUCT. NO. _____
Station _____

BORING NO. ILR0505
Station 53+04.83
Offset 53' Left
Ground Surface Elev. 603.80 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter 581.8 ft ▼
Upon Completion _____ ft
After _____ Hrs. _____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Sandy Clay (poss. Weathered Shale) (CL) gray, wet, hard, fine grained, moderate plasticity Sample 12: Atterberg limits (LL=27, PI=13) test performed *(continued)*			
560.80			
End of Boring			
-45			
-50			
-55			
-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)

MODJESKI and MASTERS
Experience great bridges.

USER NAME =	DESIGNED - YSS	REVISED
	CHECKED - JMH	REVISED
PLOT SCALE =	DRAWN - MLA	REVISED
PLOT DATE = 03/23/2017	CHECKED - YSS	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS 2
I-74 (EB) & (WB) RETAINING WALL 05
STRUCTURE NO. 081-6014
SHEET NO. 18 OF 25 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1	ROCK ISLAND	2042	1301
		CONTRACT NO. 64E26		
	ILLINOIS FED. AID PROJECT			

Illinois Department of Transportation
Division of Highways
CH2M HILL

SOIL BORING LOG

Date 9/24/07

ROUTE I-74 DESCRIPTION New I-74 Bridge Over Mississippi River - Illinois Approach LOGGED BY KB

SECTION I-74 Bridge over Mississippi River LOCATION (N=562453.163, E=2459768.622), SEC. 32, TWP. 18N, RNG. 1W, 4th PM

COUNTY Rock Island DRILLING METHOD HSA, CME 55 HAMMER TYPE CME AUTOMATIC

STRUCT. NO. _____
Station _____

BORING NO. ILR0506
Station 54+02.65
Offset 50' Left
Ground Surface Elev. 609.17 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter 568.2 ft ▼
Upon Completion _____ ft
After _____ Hrs. _____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Silty Fine to Coarse Sand (SM) grayish brown, moist, loose				**Lean Clay (CL)** dark gray, moist, stiff to hard, trace fine to medium sand *(continued)*			
	4						
	5						
605.17	5				3		
Silt (ML) grayish brown, moist, medium dense	3				6	1.3	
-5	5	1.5			8		
	6	P		-25			
603.17							
Lean Clay (CL) dark gray, moist, stiff to hard, trace fine to medium sand	5						
	6	1.8					
	6						
Rimac: Pu = 94 lbs	3				5		
	5	3.0			7	3.0	
	6	P			9	P	
-10				-30			
	4			Sample 4: Atterberg limits (LL=34, PI=21) test performed			
	5	3.0					
	7	P					
Sample 3: Atterberg limits (LL=31, PI=16) test performed	3						
	5	1.5		Sample 5: Atterberg limits (LL=38, PI=22) test performed	10		
	8	P			50/5"	4.5	
-15				-35		P	
					4		
					7		
-20				-40	10		

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)

Illinois Department of Transportation
Division of Highways
CH2M HILL

SOIL BORING LOG

Date 9/24/07

ROUTE I-74 DESCRIPTION New I-74 Bridge Over Mississippi River - Illinois Approach LOGGED BY KB

SECTION I-74 Bridge over Mississippi River LOCATION (N=562453.163, E=2459768.622), SEC. 32, TWP. 18N, RNG. 1W, 4th PM

COUNTY Rock Island DRILLING METHOD HSA, CME 55 HAMMER TYPE CME AUTOMATIC

STRUCT. NO. _____
Station _____

BORING NO. ILR0506
Station 54+02.65
Offset 50' Left
Ground Surface Elev. 609.17 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter 568.2 ft ▼
Upon Completion _____ ft
After _____ Hrs. _____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Top: Same as above, very stiff Bottom: Clayey sand (SL) grey, medium dense, fine to medium sand, low plasticity fines			
568.17 ▼			
Clayey Sand (SC) dark gray, wet, hard, fine to medium grained, low plasticity	15		
	16		
	13		
564.17 -45			
561.17			
Shale Gray, wet, very hard	16		
	50/5		
559.17 -50			
End of Boring			
-55			
-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)

Illinois Department of Transportation
Division of Highways
CH2M HILL

SOIL BORING LOG

Date 9/20/07

ROUTE I-74 DESCRIPTION New I-74 Bridge Over Mississippi River - Illinois Approach LOGGED BY Wise, Kaustav/SCO

SECTION I-74 Bridge over Mississippi River LOCATION (N=562296.289, E=2459771.026), SEC. 32, TWP. 18N, RNG. 1W, 4th PM

COUNTY Rock Island DRILLING METHOD HSA, CME 55 HAMMER TYPE CME AUTOMATIC

STRUCT. NO. _____
Station _____

BORING NO. ILR0507
Station 55+57.49
Offset 52' Left
Ground Surface Elev. 617.19 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter 570.2 ft ▼
Upon Completion _____ ft
After _____ Hrs. _____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Lean Clay (CL) brown, moist, little to some fine to medium sand				**Sandy Lean Clay (CL)** dark brown, moist, stiff			
Sample 1: Atterberg limits (LL=25, PI=11) test performed, grain size analysis performed	3			Sample 9: Atterberg limits (LL=31, PI=15) test performed			
	4				4		
	5				7	1.7	
	2				10		
-5	3			592.19 -25			
	4			**Lean Clay (CL)** gray, moist, stiff to very stiff Rimac: Pu = 91 lbs			
611.19							
Lean Clay (CL) gray, moist, stiff to hard, little fine sand	0			Sample 10: Atterberg limits (LL=35, PI=17) test performed			
Sample 3: grain size analysis performed	4	4.0			7		
Sample 4: Atterberg limits (LL=30, PI=15) test performed	5	P			10	1.3	
Sample 5: Atterberg limits (LL=34, PI=19) test performed	3				10		
Sample 7: Atterberg limits (LL=30, PI=17) test performed	5	3.0		-30			
-10	5	P					
	3						
	4	1.7					
	4						
	4						
	4	1.3					
	5				7		
	3				10	1.3	
	7	2.0			11		
-15	10	P		-35			
600.19							
Silt and Fine to Coarse Sand (ML, SM) Trace gravel, gray, medium dense Sample 8: grain size analysis performed	4				10		
	5				10	2.0	
	7				11	P	
597.19 -20				-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)

Illinois Department of Transportation
Division of Highways
CH2M HILL

SOIL BORING LOG

Date 9/20/07

ROUTE I-74 DESCRIPTION New I-74 Bridge Over Mississippi River - Illinois Approach LOGGED BY Kase, Kaustav/SCO

SECTION I-74 Bridge over Mississippi River LOCATION (N=562296.289, E=2459771.026), SEC. 32, TWP. 18N, RNG. 1W, 4th PM

COUNTY Rock Island DRILLING METHOD HSA, CME 55 HAMMER TYPE CME AUTOMATIC

STRUCT. NO. _____
Station _____

BORING NO. ILR0507
Station 55+57.49
Offset 52' Left
Ground Surface Elev. 617.19 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter 570.2 ft ▼
Upon Completion _____ ft
After _____ Hrs. _____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Lean Clay (CL) gray, moist, stiff to very stiff Rimac: Pu = 91 lbs			
Sample 10: Atterberg limits (LL=35, PI=17) test performed *(continued)*	12		
	20		
572.19 -45	37		
Clayey Fine to Medium Sand (SC) gray, wet, very dense ▼			
569.19	10		
Silty Fine to Medium Sand (SM) gray, wet, medium dense	10		
567.19 -50	10		
End of Boring			
-55			
-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)

Illinois Department of Transportation
Division of Highways
CH2M HILL

SOIL BORING LOG

Date 9/21/07

ROUTE I-74 DESCRIPTION New I-74 Bridge Over Mississippi River - Illinois Approach LOGGED BY KB

SECTION I-74 Bridge over Mississippi River LOCATION (N=562195.058, E=2459775.498), SEC. 32, TWP. 18N, RNG. 1W, 4th PM

COUNTY Rock Island DRILLING METHOD HSA, CME 55 HAMMER TYPE CME AUTOMATIC

STRUCT. NO. _____
Station _____

BORING NO. ILR0508
Station 56+58.62
Offset 58' Left
Ground Surface Elev. 621.93 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter _____ ft
Upon Completion _____ ft
After _____ Hrs. _____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Silt and Fine to Coarse Sand (ML, SM) brownish gray, moist, trace fine to coarse sand, medium dense	4		
	4		
	6		
Sample 1: grain size analysis performed	3		
-5	6		
	5		
	0		
	0		
	2		
613.93			
Lean Clay (CL) gray, moist, stiff to hard, trace to little fine to coarse sand	3		
	3		
	6		
Sample 4: grain size analysis performed -10	7		
	10	3.5	
Sample 5: Atterberg limits (LL=27, PI=14) test performed	12	P	
	4		
Sample 7: Atterberg limits (LL=30, PI=17) test performed	7	2.4	
	10		
	7		
Sample 8: Atterberg limits (LL=30, PI=17) test performed -15	7	3.0	
	11	P	
	7		
	10	2.1	
-20	15		

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Lean Clay (CL) gray, moist, stiff to hard, trace to little fine to coarse sand			
Sample 4: grain size analysis performed			
Sample 5: Atterberg limits (LL=27, PI=14) test performed	4		
	8	3.5	
Sample 7: Atterberg limits (LL=30, PI=17) test performed	10	P	
-25			
Sample 8: Atterberg limits (LL=30, PI=17) test performed *(continued)*			
	5		
	10	1.2	
	13		
-30			
	10		
	15	4.3	
	17	P	
-35			
	10		
	12	2.5	
	13	P	
-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)

Illinois Department of Transportation
Division of Highways
CH2M HILL

SOIL BORING LOG

Date 9/21/07

ROUTE I-74 DESCRIPTION New I-74 Bridge Over Mississippi River - Illinois Approach LOGGED BY KB

SECTION I-74 Bridge over Mississippi River LOCATION (N=562195.058, E=2459775.498), SEC. 32, TWP. 18N, RNG. 1W, 4th PM

COUNTY Rock Island DRILLING METHOD HSA, CME 55 HAMMER TYPE CME AUTOMATIC

STRUCT. NO. _____
Station _____

BORING NO. ILR0508
Station 56+58.62
Offset 58' Left
Ground Surface Elev. 621.93 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter _____ ft
Upon Completion _____ ft
After _____ Hrs. _____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Lean Clay (CL) gray, moist, stiff to hard, trace to little fine to coarse sand			
Sample 4: grain size analysis performed			
Sample 5: Atterberg limits (LL=27, PI=14) test performed	5		
	10	3.0	
Sample 7: Atterberg limits (LL=30, PI=17) test performed	15	P	
-45			
Sample 8: Atterberg limits (LL=30, PI=17) test performed *(continued)*			
	9		
	15	2.1	
	19		
571.93 -50			
End of Boring			
-55			
-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)

MODJESKI and MASTERS
Experience great bridges.

USER NAME =	DESIGNED - YSS	REVISED
	CHECKED - JMH	REVISED
PLOT SCALE =	DRAWN - MLA	REVISED
PLOT DATE = 03/23/2017	CHECKED - YSS	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS 4
I-74 (EB) & (WB) RETAINING WALL 05
STRUCTURE NO. 081-6014
SHEET NO. 20 OF 25 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1	ROCK ISLAND	2042	1303
		CONTRACT NO. 64E26		
	ILLINOIS FED. AID PROJECT			

CH2MHILL

PROJECT NUMBER:	BORING NUMBER:	
158835.AA.GS.01	ILR1801	SHEET 1 OF 2

SOIL BORING LOG

PROJECT : I-74 Bridge over Mississippi River, Quad Cities IA/IL — LOCATION : Retaining wall 4/5 (562865.8 N, 2459614.2 E) — Station: 49+75.82

ELEVATION : 587.7 ft MSL — DRILLING CONTRACTOR : Terracon — Offset: 66' Right

DRILLING EQUIPMENT AND METHOD : CME 550 Truck Mounted Rig, 140 lb Auto Hammer, SS SPT — ORIENTATION : Vertical

WATER LEVELS : --- — START : 10/4/07 15:45 — END : 10/4/07 18:45 — LOGGER : F. Abreu

DEPTH BELOW EXISTING GRADE (ft)	INTERVAL (ft)	RECOVERY (in)	#TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	SYMBOLIC LOG	PP (TSF)	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION
587.7					**Grass Matter** followed by brown silty clay with sand, topsoil embedded with root matter			
	1.0							
	3.0	21.0	S-1SS	4-6-6-5 (12)	**Silty Clay With Sand (CL-ML)** uniform brown, dry, stiff, non plastic, little to few medium to fine sands, trace coarse sands, strong cementation, crumbly, possible native soil		4.5	
5		16.0	S-2SS	2-3-2-3 (5)	**Sandy Lean Clay (CL)** olive gray with orange brown stains, dry to moist, non plastic, medium stiff, slightly oxidized, occasional soft root matter at bottom of sample, possible transition soil, few coarse to fine sands, occasional sand seams		2	
582.7	5.0							
	6.0	17.0	S-3SS	1-2-2-3 (4)	same as above, crumbly, slightly oxidized, few coarse to fine sands, medium stiff, occasional sand seams, possible gumbotil		1.5	Rimac: Pu = 19 lbs
	8.0	1.0	S-4SS	push	same as above, some coarse to fine sands, moist, non plastic, very sandy at bottom of tube			Tried to push ST from 8.0'-10.0' recorded in bag sample but soil was too sandy at 9.0' bgs
10	10.0							
577.7								
	11.0	23.0	S-5SS	0-0-2-1 (2)	**Silty Clay (CL-ML)** gray with little light brown with dark gray streaks, moist to wet, medium plasticity, soft, slightly oxidized, trace fine sands, slow dilatancy, occasional sand lenses, very sundry at top 1" of sample		1.75	Rimac: Pu = 11 lbs
	13.0	4.0	T-1ST	push	Bottom of Tube: uniform gray, moist, medium plasticity, soft, unweathered, possible loess		<1	Water encountered at 14'6" bgs while sampling
15	15.0							
572.7		16.0	S-6SS	push	**Lean Clay (CL)** uniform gray, very wet, medium plasticity, soft, unweathered, trace fine sands, few silt			Tried to obtain ST from 15.0'-17.0' but sample fell out of tube during extraction, pushed tube to obtain sample
	17.0				**Well Graded Sand With Silt (SW-SM)** uniform gray with light gray coarse sands, coarse to fine sands, trace silt, possible old alluvial deposits			
	18.0	20.0	S-7SS	2-5-6-5 (11)	**Poorly Graded Sand With Silt (SP-SM)** olive gray with gray, wet, medium dense, medium to fine sands with few silt and trace coarse rounded sands scattered clay strands, possible old alluvium submerged in water table			
20	20.0							
567.7								
	21.0	24.0	S-8SS	2-4-5-20 (9)	loose, medium dense, medium sands with trace fine and coarse sands, possible old alluvium		1.75	
	23.0				**Silty Clay (CL-ML)** uniform dark gray, medium stiff to stiff, moist, low plasticity, trace fine sands, moderate to strong cementation, slightly crumbly, possible transition zone		4.5	Weathered rock zone at 23.0'-24.0'
	23.8	7.0	S-9SS	4-50/3 (50/3")	**Clayey Sand With Gravel (SC)** dark gray, dry to moist, crumbly, coarse to fine sands with little clay and silt and little fine gravels, possible residual soil			Top of rock at 24.0'
25					**Sandy Lean Clay With Gravel (poss. Weathered Rock) (CL)** gray at top to light gray to white at bottom, moist to wet, strong cementation, hard, harder as depth increases, clay and sand (50%), coarse to fine angular to subangular sands, trace fine gravels, possible residual soil to completely weathered rock			
562.7								
30								

CH2MHILL

PROJECT NUMBER:	BORING NUMBER:	
158835.AA.GS.01	ILR1801	SHEET 2 OF 2

ROCK CORE LOG

PROJECT : I-74 Bridge over Mississippi River, Quad Cities IA/IL — LOCATION : Retaining wall 4/5 (562865.8 N, 2459614.2 E) — Station: 49+75.82

ELEVATION : 587.7 ft MSL — DRILLING CONTRACTOR : Terracon — Offset: 66' Right

CORING EQUIPMENT AND METHOD : CME 550 Truck Mounted Rig, Double tube, 10 ft core barrel, NQ wireline, diamond bit — ORIENTATION : Vertical

WATER LEVELS : --- — START : 10/4/07 15:45 — END : 10/4/07 18:45 — LOGGER : F. Abreu

DEPTH AND ELEVATION (ft) BELOW EXISTING SURFACE	CORE RUN, LENGTH, AND RECOVERY (%)	DISCONTINUITIES: R Q D (%)	DISCONTINUITIES: FRACTURES PER FOOT	DISCONTINUITIES: DESCRIPTION — DEPTH, TYPE, ORIENTATION, ROUGHNESS, PLANARITY, INFILLING MATERIAL AND THICKNESS, SURFACE STAINING, AND TIGHTNESS	SYMBOLIC LOG	LITHOLOGY: ROCK TYPE, COLOR, MINERALOGY, TEXTURE, WEATHERING, HARDNESS, AND ROCK MASS CHARACTERISTICS	COMMENTS: SIZE AND DEPTH OF CASING, FLUID LOSS, CORING RATE AND SMOOTHNESS, CAVING ROD DROPS, TEST RESULTS, ETC.
		10+		25.8' - sound to moderately fractured, extremely fractured at crushed zones, rough adn irregular discontinuous fracture surfaces, moderate to close discontinuities. 45° from 54" from top, and 60° discontinuities at 66" and 71" from top, no rock wall contact at 90% of fractures due to crushed rock thick enough to prevent contact, little or no greenish gray clay infilling at fractures, surfaces stained dark gray to greenish gray, possibly due to little infilling, tightly healed at 73" from top		**Limestone** light gray, medium to fine grained, vuggy appearance indicating water action, moderately weathered at top 16", remainder slightly weathered to unweathered, medium strong to strong or very strong, crushed rock zones at 7" to 13", 20" to 23" and from top 74" to 77"	Occasional jamming of core barrel Jammed barrel at 39"-52" Extracted sample and continued run
		5+					
		4+					
30		1					
557.7		3+					
		0					
		10+					Top of rock at 33.0'-87"
35		3+					
552.7		0				Bottom of Boring at 35.6 ft bgs on 10/4/07 18:45	End of Boring at 35.6' bgs at 18:45
40							
547.7							
45							
542.7							
50							
537.7							
55							
532.7							

PRELIMINARY

Note:
The Rock Core Log designated as "Preliminary" is the final Rock Core Log.

HANSON

SOIL BORING LOG

Page 1 of 1

Date 6/24/10

ROUTE F.A.I. 74 — DESCRIPTION I-74 Over Mississippi River — LOGGED BY JMB

SECTION 81-1-2 — LOCATION SE¼ of SEC. 32, TWP. 18N, RNG. 1W, 4th P.M.

COUNTY Rock Island — DRILLING METHOD Hollow Stem Auger — HAMMER TYPE Auto

STRUCT. NO. 081-6014
Station
BORING NO. RW 05-1
Station 49+20.24
Offset 30' Lt.
Ground Surface Elev. 585.6 ft

Surface Water Elev.
Stream Bed Elev.
Groundwater Elev.:
First Encounter 577.1 ft
Upon Completion 581.1 ft
After Hrs. ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	
				FILL - Dark brown, moist, soft, clayey SILT
584.10				
	4		12	FILL - Brown, moist, loose, silty, medium-grained SAND with silty clay
2	5			
	4			
			22	
562.10				
				Hard drilling, augered to 5.0 ft and continued sampling
4 581.10 ▽				
				FILL - Brown, moist, medium, silty CLAY with trace sand and gravel
	7		25	
579.10	3			
6	4			Brownish gray, moist, soft, sandy SILT with clay
8 ▼				
		0.75P	22	
10				
	2	0.50P	21	
12	2			
	2			
			24	
572.10		1.18S	25	
		0.85S	23	Gray, wet, soft, clayey, fine-grained SAND
14				
570.10				
				Brown, wet, soft, sandy CLAY
16				
			23	
568.10				
				Gray, wet, fine- to coarse-grained SAND with gravel
18				
566.60				
	12		14	
	18			
	25			
20				

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	
				Brown, wet, dense, silty, fine- to coarse-grained SAND with trace gravel *(continued from previous page)*
22				
562.10				
24	50/5"	4.00P	8	Gray, slightly moist, hard, WEATHERED SILTSTONE
560.60				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)

MODJESKI and MASTERS
Experience great bridges.

USER NAME =	DESIGNED - YSS	REVISED	
	CHECKED - JMH	REVISED	
PLOT SCALE =	DRAWN - MLA	REVISED	
PLOT DATE = 03/23/2017	CHECKED - YSS	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS 5
I-74 (EB) & (WB) RETAINING WALL 05
STRUCTURE NO. 081-6014
SHEET NO. 21 OF 25 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1	ROCK ISLAND	2042	1304
		CONTRACT NO. 64E26		
	ILLINOIS	FED. AID PROJECT		

HANSON

SOIL BORING LOG

Page 1 of 1

Date 6/24/10

ROUTE F.A.I. 74 DESCRIPTION I-74 Over Mississippi River LOGGED BY JMB

SECTION 81-1-2 LOCATION NE¼ of SEC. 32, TWP. 18N, RNG. 1W, 4th P.M.

COUNTY Rock Island DRILLING METHOD Hollow Stem Auger HAMMER TYPE Auto

STRUCT. NO. 081-6014
Station
BORING NO. RW 05-2
Station 51+21
Offset 51' Lt.
Ground Surface Elev. 593.5 ft

Surface Water Elev.
Stream Bed Elev.

Groundwater Elev.:
First Encounter ft
Upon Completion 584.5 ft ▽
After Hrs. ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
FILL - Brown, moist, stiff, silty CLAY with trace sand			
2	woh 5 7	2.07B	14
		3.00P	17
4			15
588.00			
Brown, wet, stiff, very fine- to medium-grained sandy SILT with clay	4 7 7	1.04B	21
585.50			
Gray, moist, soft to very stiff, very fine- to fine-grained sandy SILT with trace clay ▽	5 16 12	0.46S	13
10			
581.70		2.64B	13
		2.98B	21
Dark gray, moist, very stiff, silty CLAY 12			
14	7 12 12	2.82B	19
578.50			
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)

HANSON

SOIL BORING LOG

Page 1 of 1

Date 6/24/10

ROUTE F.A.I. 74 DESCRIPTION I-74 Over Mississippi River LOGGED BY JMB

SECTION 81-1-2 LOCATION SW¼ of SEC. 33, TWP. 18N, RNG. 1W, 4th P.M.

COUNTY Rock Island DRILLING METHOD Hollow Stem Auger HAMMER TYPE Auto

STRUCT. NO. 081-6014
Station
BORING NO. RW 05-3
Station 57+40
Offset 57' Lt.
Ground Surface Elev. 625.6 ft

Surface Water Elev.
Stream Bed Elev.

Groundwater Elev.:
First Encounter NE ft
Upon Completion ft
After Hrs. ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
FILL - Brownish gray, moist, silty CLAY with fine-grained sand			
		2.25B	17
2		2.42B	13
622.60			
Gray with brown mottles, moist, stiff, silty CLAY with sand and trace gravel	5 6 7	3.80P	13
6			12
618.10		2.33B	14
Gray, moist, stiff, silty CLAY with sand and trace gravel 8	5 6 7	1.88B	14
615.60			
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)

CH2MHILL

PROJECT NUMBER: 158835.AA.GS.01
BORING NUMBER: RW403 SHEET 1 OF 3

SOIL BORING LOG

PROJECT : I-74 Bridge over Mississippi River, Quad Cities IA/IL LOCATION : VIADUCT, MAINLINE (562804.7 N, 2459633.2 E) Station: 50+41.14
ELEVATION : 590.2 ft MSL DRILLING CONTRACTOR : Terracon Offset: 56' Right
DRILLING EQUIPMENT AND METHOD : CME-550, HOLLOW STEM AUGER ORIENTATION : VERTICAL
WATER LEVELS : 22.0 ft bgs START : 11/11/05 09:53 END : 11/11/05 14:43 LOGGER : L. Hunt

DEPTH BELOW EXISTING GRADE (ft)	INTERVAL (ft)	RECOVERY (in)	#/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	SYMBOLIC LOG	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION
590.2	0.0				**Clay (CL)** Clay, trace gravel, brown and dark brown, dry to moist, hard, blocky to homogeneous.		PP: 4.5+ tsf
	2.0	20.0	B1SS	3-5-5-6 (10)			
					Clay, brown, mottled dark brown to dark brown, moist, stiff to hard, blocky.		PP: 4.5+ tsf
	4.0	20.0	B2SS	3-5-5-5 (10)			
5 585.2	6.0	18.0	B3SS	3-3-4-4 (7)	**Sandy Clay (CL)** Sandy Clay, trace gravel, dark gray brown, moist soft to medium stiff, homogeneous.		PP: 1.0 tsf
	8.0	21.0	B4ST	push			Wc=14%; UW=115 pcf PP: 4.5+ tsf, LL: 20, PL: 17
10 580.2	10.0	20.0	B5SS	3-4-7-7 (11)	**Clay (CL)** Clay, brown, mottled dark brown, gray brown, and orange brown, dry to moist, very stiff, homogeneous.		B-5: 2" of sand, gravel, and clay at top of sample. PP: 4.4 tsf
	12.0	20.0	B6SS	4-7-7-6 (14)	Clay, orange brown, gray brown, mottled dark brown, moist to dry, stiff to very stiff, homogeneous.		PP: 4.5 tsf
	14.0	24.0	B7SS	3-4-7-8 (11)	Clay, dark brown to black, moist, stiff to very stiff, lensed and homogeneous.		PP: 3.6 tsf
15 575.2	16.0	24.0	B8SS	3-5-8-8 (13)	Clay, dark gray brown, moist, stiff to very stiff, homogeneous.		B-7: 1" of sand at about 13.5' (19" from top of split spoon). PP: 2.6 tsf
20 570.2	20.0 22.0	24.0	B9SS	4-7-7-6 (14)	Clay, dark gray brown, moist to wet, very stiff, homogeneous.		B-9: 4" of sand at 21.67' (bottom 4" of sample) PP: 1.6 tsf Water at 22' while drilling
25 565.2	25.0 27.0	18.0	B10SS	6-6-7-8 (13)	**Sandy Clay (CL)** Sandy Clay, dark gray brown, wet, medium stiff to stiff, homogeneous to lensed.		B-10: Silt to Shale for 4" at bottom of sample. PP: 1.5 tsf
30							

MODJESKI and MASTERS
Experience great bridges.

USER NAME =	DESIGNED - YSS	REVISED	
	CHECKED - JMH	REVISED	
PLOT SCALE =	DRAWN - MLA	REVISED	
PLOT DATE = 03/23/2017	CHECKED - YSS	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS 6
I-74 (EB) & (WB) RETAINING WALL 05
STRUCTURE NO. 081-6014
SHEET NO. 22 OF 25 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1	ROCK ISLAND	2042	1305
		CONTRACT NO. 64E26		
	ILLINOIS FED. AID PROJECT			

CH2MHILL

PROJECT NUMBER:	BORING NUMBER:
158835.AA.GS.01	RW403 SHEET 2 OF 3

SOIL BORING LOG

PROJECT : I-74 Bridge over Mississippi River, Quad Cities IA/IL — LOCATION : VIADUCT, MAINLINE (562804.7 N, 2459633.2 E) — Station: 50+41.14 Offset: 56' Right

ELEVATION : 590.2 ft MSL — DRILLING CONTRACTOR : Terracon

DRILLING EQUIPMENT AND METHOD : CME-550, HOLLOW STEM AUGER — ORIENTATION : VERTICAL

WATER LEVELS : 22.0 ft bgs — START : 11/11/05 09:53 — END : 11/11/05 14:43 — LOGGER : L. Hunt

DEPTH BELOW EXISTING GRADE (ft)	INTERVAL (ft)	RECOVERY (in)	#TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	SYMBOLIC LOG	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION
560.2	30.0	0.0	B11SS	50/3 (50/3")	No Sample.		
	31.0				Begin Rock Coring at 31.0 ft bgs See the next sheet for the rock core log		
35 555.2							
40 550.2							
45 545.2							
50 540.2							
55 535.2							
60							

CH2MHILL

PROJECT NUMBER:	BORING NUMBER:
158835.AA.GS.01	RW403 SHEET 3 OF 3

ROCK CORE LOG

PROJECT : I-74 Bridge over Mississippi River, Quad Cities IA/IL — LOCATION : VIADUCT, MAINLINE (562804.7 N, 2459633.2 E) — Station: 50+41.14 Offset: 56' Right

ELEVATION : 590.2 ft MSL — DRILLING CONTRACTOR : Terracon

CORING EQUIPMENT AND METHOD : CME-550, NQ DOUBLE BARREL DIAMOND TIP — ORIENTATION : VERTICAL

WATER LEVELS : 22.0 ft bgs — START : 11/11/05 09:53 — END : 11/11/05 14:43 — LOGGER : L. Hunt

DEPTH AND ELEVATION OF CORE RUN SURFACE (ft)	CORE RUN, LENGTH, AND RECOVERY (%)	R Q D (%)	DISCONTINUITIES: FRACTURES PER FOOT	DISCONTINUITIES: DESCRIPTION — DEPTH, TYPE, ORIENTATION, ROUGHNESS, PLANARITY, INFILLING MATERIAL AND THICKNESS, SURFACE STAINING, AND TIGHTNESS	SYMBOLIC LOG	LITHOLOGY: ROCK TYPE, COLOR, MINERALOGY, TEXTURE, WEATHERING, HARDNESS, AND ROCK MASS CHARACTERISTICS	COMMENTS: SIZE AND DEPTH OF CASING, FLUID LOSS, CORING RATE AND SMOOTHNESS, CAVING ROD DROPS, TEST RESULTS, ETC.
31.0	R1NQ 2.5 ft 47%	23	10+	31' - Horizontal fractures, extremely fractured to slightly fractured, extremely close to close discontinuity, rough (undulating and planar) joints, stiff to very stiff clay mineral coatings with >1/4" thick rock wall separation.		**Limestone** Limestone, dark gray, fine grained, highly weathered, weak to medium strength, laminated to thin beds.	Auger refusal at 31'; begin rock coring at 31' at 11:04 Coring rate slow and smooth; no rod drops. At 33' coring water started running darker.
			10+				
33.5			NR				
	R2NQ 1.5 ft 28%	0	10+	33.5' - Horizontal fractures, extremely fractured to moderately fractured, extremely close to very close discontinuity, rough (undulating) joints, very stiff clay mineral coatings with >1/4" thick rock wall separation.		Limestone, gray, fine grained, highly weathered, strong rock, laminated to very thin beds, vugs present (1/8" to 1/4" in diameter).	
35 555.2 35.0			NR			Limestone, gray, fine grained, highly weathered, medium to very weak rock, laminated to thin beds.	
	R3NQ 4.5 ft 100%	35	10+	35' - Horizontal fractures, extremely fractured to slightly fractured, extremely close to close discontinuity, rough to smooth (undulating and planar) joints, tightly healed to crushed rock and very stiff clay mineral coatings with >1/4" thick rock wall separation; at 37.08' vertical fractures; first 8" of rock core-shale and crushed rock.			R-1 to R-3: Coring bit keeps getting clogged as a result of clay/shale content in limestone. No coring water loss during entire coring process.
			10+				
			10+				
39.5			10+				
40 550.2			10+	39.5' - Horizontal fractures, extremely fractured to sound, extremely close to moderate discontinuity, rouh (undulating) to smooth (planar) joints, tightly healed (<3/4" thick) to soft clay mineral and sandy coatings with <1/4" thick rock wall separation.		Limestone, light gray, fine grained, slightly to moderately weathered, medium strength, laminated to medium beds, vugs present (not many--<1/2" in diameter).	
	R4NQ 5 ft 100%	50	10+				
			10+				
44.5			10+				
45 545.2			2	44.5' - Horizontal fractures, extremely fractured to sound, extremely close to moderate discontinuity, smooth (planar) joints, tightly healed (<1/2" thick) to sandy/gravelly mixture in fractures no significant rock wall separation; at 46.5' black clay and gravel in fractures for 2-3".		Limestone, light gray, fine grained, slightly to moderately weathered, very strong rock, laminated to thin beds, very few vugs present (<1/4" in diameter).	
	R5NQ 4 ft 96%	54	10+				
			10+				
48.5			10+				
	R6NQ 2 ft 100%	42	10+	48.5' - Horizontal fractures, extremely fractured to sound, extremely close to moderate discontinuity, smooth (planar) joints, tightly healed (<1/2" thick) to sandy/gravelly mixture in fractures no significant rock wall separation.		Limestone, light gray, fine grained, slightly to moderately weathered, medium strength, laminated to thin beds, very few vugs present (<1/4" in diameter).	
50 540.2 50.5			10+			Bottom of Boring at 50.5 ft bgs on 11/11/05 14:43	End of core run at 50.5'.
55 535.2							
60 530.2							

Illinois Department of Transportation
Division of Highways
JCI

SOIL BORING LOG

Page 1 of 3

Date 9/13/07

ROUTE I-74 — DESCRIPTION New I-74 Bridge Over Mississippi River - Illinois Approach — LOGGED BY SL

SECTION — LOCATION (N=562983.081, E=2459718.225), SEC. 32, TWP. 18N, RNG. 1W, 4th PM

COUNTY Rock Island — DRILLING METHOD HSA, CME 550X — HAMMER TYPE CME AUTOMATIC

STRUCT. NO. —
Station 48+91
BORING NO. VIAIL-125
Station 48+79.09
Offset 58' Left
Ground Surface Elev. 585.80 ft

Surface Water Elev. ft
Stream Bed Elev. ft
Groundwater Elev.:
First Encounter 573.8 ft ▼
Upon Completion ft
After Hrs. ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
CONCRETE + Base Course				
584.80				
CLAY - black to dark brown, some silt, slightly to medium plastic, medium stiff to very stiff, moist		4		
		3	0.9	
		2	B	
		2		
		2	0.7	
	-5	2	B	
- brownish orange to greenish gray, with a black clay seam at 8.5'		2		
		2	0.7	
		3	B	
558.30				
		2		
		2	0.7	
	-10	2	B	
		1		
- orange brown fine grained sand interbed in a silt and clay matrix, saturated at 12.3'		2	0.7	
		2	B	
- slightly plastic				
			0.8	35.1
	-15		P	
		0		
		2	0.4	
		1	B	
		1		
- maroon, little silt, medium plastic 566.60		5	0.5	
	-20	7	B	

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SAND - maroon to bright greenish yellow, fine to medium grained, conglomeratic with fine gravel. *(continued)*		13		
564.50				
- olive, fine grained sand, moist at 21'		25		
		13		
WEATHERED SHALE - medium gray, clay-like to soft rock-like, severely weathered.		13		
		11		
	-25	13		
		15		
		18		
558.30		50/5"		
Borehole continued with rock coring.				
	-30			
	-35			
	-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)

MODJESKI and MASTERS
Experience great bridges.

USER NAME =	DESIGNED - YSS	REVISED	
	CHECKED - JMH	REVISED	
PLOT SCALE =	DRAWN - MLA	REVISED	
PLOT DATE = 03/23/2017	CHECKED - YSS	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS 7
I-74 (EB) & (WB) RETAINING WALL 05
STRUCTURE NO. 081-6014
SHEET NO. 23 OF 25 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1	ROCK ISLAND	2042	1306
		CONTRACT NO. 64E26		
	ILLINOIS	FED. AID PROJECT		

Illinois Department of Transportation
Division of Highways
JCI

ROCK CORE LOG

Date 9/13/07

ROUTE I-74 DESCRIPTION New I-74 Bridge Over Mississippi River - Illinois Approach LOGGED BY SL

SECTION LOCATION (N=562983.081, E=2459718.225), SEC. 32, TWP. 18N, RNG. 1W, 4th PM

COUNTY Rock Island CORING METHOD NQ Core

STRUCT. NO.
Station 48+91

CORING BARREL TYPE & SIZE NQ Wireline
Core Diameter 1.8 in
Top of Rock Elev. 564.50 ft
Begin Core Elev. 558.30 ft

BORING NO. VIAIL-125
Station 48+79.09
Offset 58' Left
Ground Surface Elev. 585.80 ft

	DEPTH (ft)	CORE (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
LIMESTONE - medium to light brownish gray, occasional pitting and locally vuggy, with partings, seams, and clasts of green clay-like shale, hard to moderately hard, thin to medium bedded, primarily horizontal to very low angle fractures with localized high angle fractures, fracture surfaces are planar to irregular and slightly rough to rough, fresh to slightly weathered.	558.30	Run 1	100	41	1.5	
	-30					
- clay-like shale interbed at 30.9'-31.7'		Run 2	98	40	1.2	933.4
- mixed shale and limestone layer with high angle to vertical fractures at 31.9' - 33.4'						
- light to medium gray, locally pitted and vuggy at 33.3', clay-like to soft rock-like green shale partings and inclusions in irregular patterns at 45° to vertical at 36.4' -36.9'	-35					
		Run 3	100	98	1.2	
- light gray, stylolitic	-40					
- very light gray, fine grained, fresh, very minor pitting and occasional stylolites		Run 4	100	75	1.2	
- very thin bedded, occasional shale partings, moderate pitting and vuggy at 44.3'-45.9'	-45					
		Run 5	100	88	0.8	

Color pictures of the cores Yes
Cores will be stored for examination until
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

BBS, form 138 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
JCI

ROCK CORE LOG

Date 9/13/07

ROUTE I-74 DESCRIPTION New I-74 Bridge Over Mississippi River - Illinois Approach LOGGED BY SL

SECTION LOCATION (N=562983.081, E=2459718.225), SEC. 32, TWP. 18N, RNG. 1W, 4th PM

COUNTY Rock Island CORING METHOD NQ Core

STRUCT. NO.
Station 48+91

CORING BARREL TYPE & SIZE NQ Wireline
Core Diameter 1.8 in
Top of Rock Elev. 564.50 ft
Begin Core Elev. 558.30 ft

BORING NO. VIAIL-125
Station 48+79.09
Offset 58' Left
Ground Surface Elev. 585.80 ft

	DEPTH (ft)	CORE (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
	537.60					
LIMESTONE - medium gray, fine to medium, pitted, "birdseye" texture, occasional shale partings, medium bedded, fractures range from medium (45°) to high (80°) angled, fresh to slightly weathered. Pitting and "birdseye" texture diminish with depth.	-50					
		Run 6	100	100	0.8	
	-55					
	529.90					
End of Boring	-60					
	-65					

Color pictures of the cores Yes
Cores will be stored for examination until
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

BBS, form 138 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
JCI

SOIL BORING LOG

Date 9/12/07

ROUTE I-74 DESCRIPTION New I-74 Bridge Over Mississippi River - Illinois Approach LOGGED BY SL

SECTION LOCATION (N=562900.26, E=2459617.358, SEC. 32, TWP. 18N, RNG. 1W, 4th PM

COUNTY Rock Island DRILLING METHOD HSA, CME 550X HAMMER TYPE CME AUTOMATIC

STRUCT. NO.
Station 48+91

BORING NO. VIAIL-126
Station 49+41.71
Offset 57' Right
Ground Surface Elev. 586.40 ft

Surface Water Elev. ft
Stream Bed Elev. ft
Groundwater Elev.:
First Encounter 572.4 ft ▼
Upon Completion ft
After Hrs. ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SILT - dark gray, some clay, non to slightly plastic, stiff, slightly moist.		5		
		6	1.5	
		6	B	
- slightly to medium plastic	582.60	3		
CLAY - greenish gray to orange brown, some silt, sand seams, slightly to medium plastic, stiff to medium stiff, moist.		3	1.3	19.3
	-5	3	B	
- slightly plastic		2		
		3	0.5	19.9
		3	B	
		2		
		2	0.7	20.0
	-10	2	B	
[Upon completion of boring, offset 10' south, augered to 11' depth, and took Shebly tube sample at 11'-13']		1		
		1	0.8	22.3
- medium gray, medium to highly plastic, with brown fine grained sand seams at 9.2', 11.3' and 13.7		2	P	
▼		1		
- some silt, saturated		1	0.8	26.0
	-15	1	B	
[Note: attempted Shelby tube sample at 16'-18"; no recovery; followed-up with SPT sample]		0		
		1	0.5	24.6
		1	B	
- vertical fracture at 47.3'-47.9'		1		
- red brown to maroon, medium to highly plastic	567.10	2	0.6	
	-20	4	B	

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SAND - medium gray, fine grained, trace to little silt, trace fine to medium coarse gravel (1/2 inch minus), loose, saturated. *(continued)*		31		
		48		
		50/4"		
	562.90			
WEATHERED SHALE - light gray, clay-like to soft rock-like, severely weathered.				
	-25	50/1"		
	560.40			
Borehole continued with rock coring.	-30			
	-35			
	-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)

Illinois Department of Transportation
Division of Highways
JCI

ROCK CORE LOG

Date 9/12/07

ROUTE I-74 DESCRIPTION New I-74 Bridge Over Mississippi River - Illinois Approach LOGGED BY SL

SECTION LOCATION (N=562900.26, E=2459617.358, SEC. 32, TWP. 18N, RNG. 1W, 4th PM

COUNTY Rock Island CORING METHOD NQ Core

STRUCT. NO.
Station 48+91

CORING BARREL TYPE & SIZE NQ Wireline
Core Diameter 1.8 in
Top of Rock Elev. 562.90 ft
Begin Core Elev. 560.40 ft

BORING NO. VIAIL-126
Station 49+41.71
Offset 57' Right
Ground Surface Elev. 586.40 ft

		DEPTH (ft)	CORE (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
LIMESTONE - medium to light brown gray, fine to medium grained, hard, thin to medium bedding, occasional pitting, fractures are primarily horizontal, planar to slightly irregular, smooth to slightly rough, fresh to very slightly weathered except at vugs.	560.40		Run 1	100	76	1.4	
- occasional pitting at 26'-27.5'; vuggy at 27.6'-28.3' with pits to 2" length		-30					
-from 31' to 45': occasionally vuggy with clay-like shale fillings in voids, occasional stylolites, pitting, very thin to thin bedded		-35	Run 2	98	92	1	350.2
			Run 3	100	91	1	
		-40					
			Run 4	100	92	0.8	
		-45					
	540.40						

Color pictures of the cores Yes
Cores will be stored for examination until
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)
BBS, form 138 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
JCI

ROCK CORE LOG

Date 9/12/07

ROUTE I-74 DESCRIPTION New I-74 Bridge Over Mississippi River - Illinois Approach LOGGED BY SL

SECTION LOCATION (N=562900.26, E=2459617.358, SEC. 32, TWP. 18N, RNG. 1W, 4th PM

COUNTY Rock Island CORING METHOD NQ Core

STRUCT. NO.
Station 48+91

CORING BARREL TYPE & SIZE NQ Wireline
Core Diameter 1.8 in
Top of Rock Elev. 562.90 ft
Begin Core Elev. 560.40 ft

BORING NO. VIAIL-126
Station 49+41.71
Offset 57' Right
Ground Surface Elev. 586.40 ft

		DEPTH (ft)	CORE (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
LIMESTONE - medium brownish gray, fine to medium grained, pitted, "birdseye" texture, moderately hard, horizontal and slightly irregular, rough fracture.			Run 5	100	100	1	
- vertical fracture at 47.3'-47.9' with 1/2 "birdseye" texture and 1/2 gray fine limestone		-50					
	535.40						
End of Boring		-55					
		-60					
		-65					

Color pictures of the cores Yes
Cores will be stored for examination until
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)
BBS, form 138 (Rev. 8-99)

MODJESKI and MASTERS
Experience great bridges.

USER NAME =	DESIGNED - YSS	REVISED
	CHECKED - JMH	REVISED
PLOT SCALE =	DRAWN - MLA	REVISED
PLOT DATE = 03/23/2017	CHECKED - YSS	REVISED

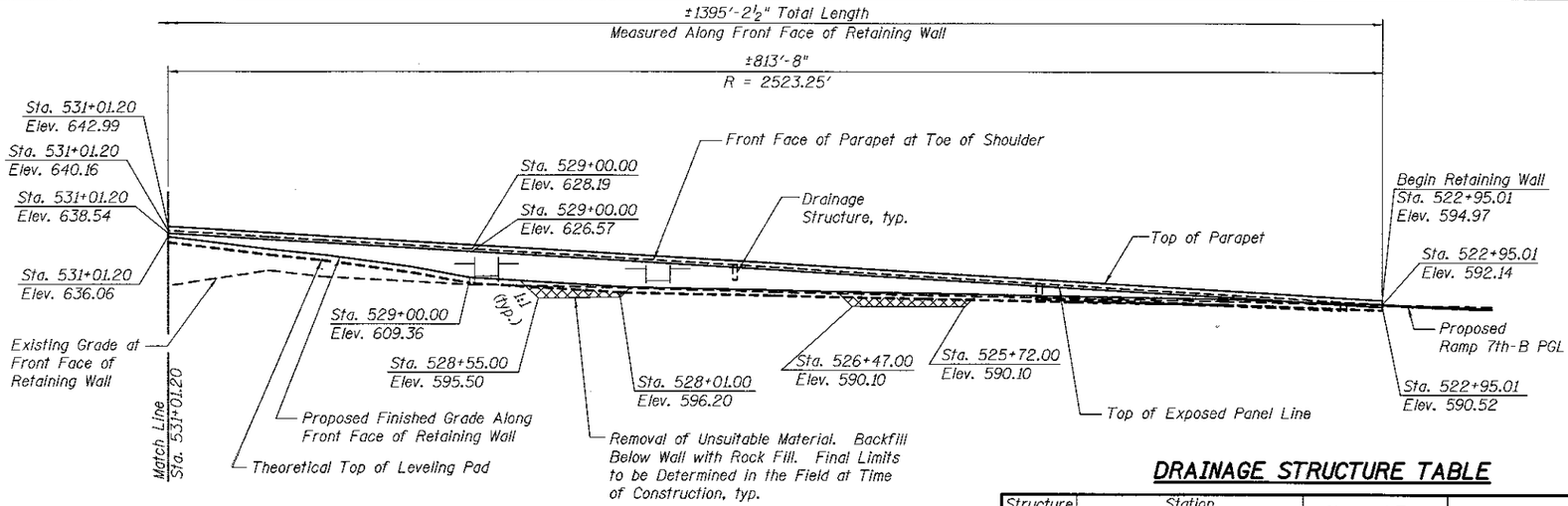
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS 9
I-74 (EB) & (WB) RETAINING WALL 05
STRUCTURE NO. 081-6014
SHEET NO. 25 OF 25 SHEETS

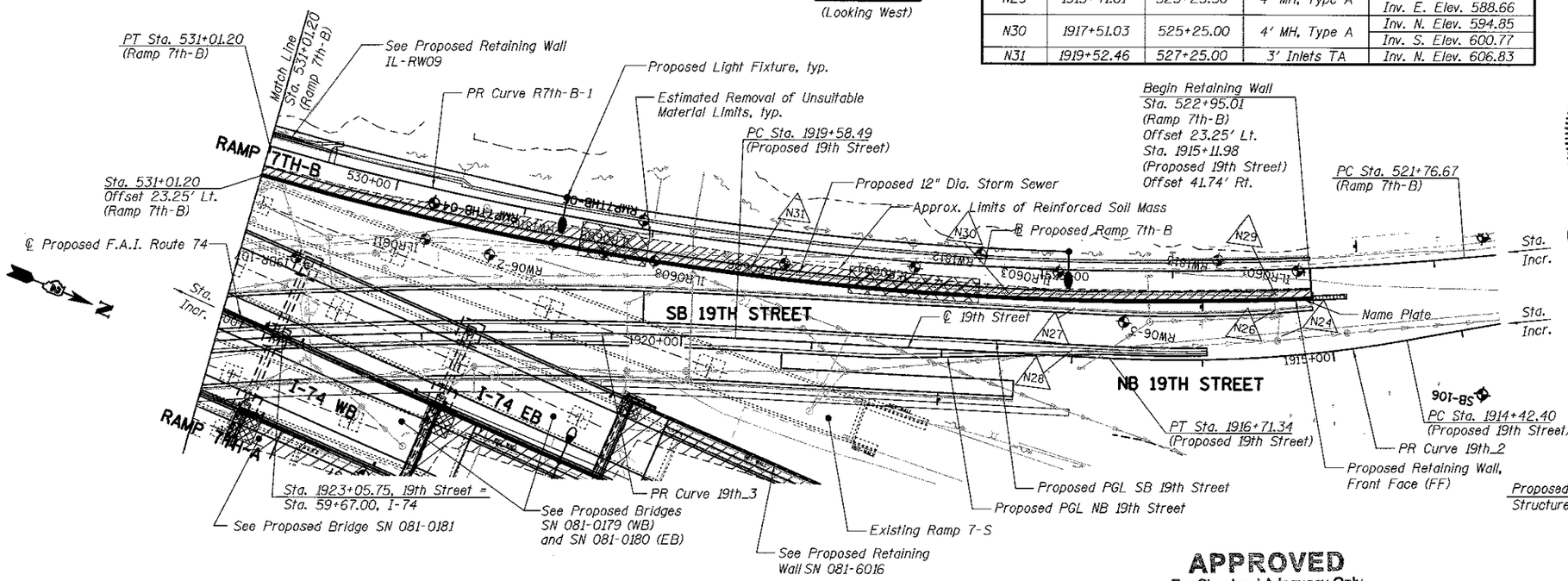
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1	ROCK ISLAND	2042	1308
		CONTRACT NO. 64E26		
	ILLINOIS	FED. AID PROJECT		

Benchmark No. 586:
Cut "X" on Northerly Bolt of
Existing Ramp 7th-A Pier Foundation
Elevation NAVD 88 = 614.214

Existing Structure:
The existing structures were built in 1973 as F.A.I. Route 74, S.N. 081-0099 (SB I-74), S.N. 081-0100 (NB I-74), S.N. 081-0116 (Ramp S-7) and S.N. 081-0115 (Ramp 7-S). The existing structures consist of 6 spans (S.N. 081-0099, S.N. 081-0116, and S.N. 081-0115) and 7 spans (S.N. 081-0100) of reinforced concrete deck on multiple steel plate girders. The existing structures are to be removed and replaced during the Stage 2 and Stage 3 Construction. No salvage.



ELEVATION
(Looking West)



PLAN

DESIGN SPECIFICATIONS
2002 AASHTO
Standard Specifications for Highway Bridges

DESIGN STRESSES

FIELD UNITS
f'_c = 3,500 psi
f_y = 60,000 psi (Reinforcement)

PRECAST UNITS
f'_c = 4,500 psi (Precast Face Panels)

INDEX OF SHEETS

DRAINAGE STRUCTURE TABLE

Structure No.	Station 19th St.	Station Ramp 7th-B	Size and Type	Invert
N29	1915+41.61	523+23.30	4' MH, Type A	Inv. S. Elev. 588.76 Inv. E. Elev. 588.66
N30	1917+51.03	525+25.00	4' MH, Type A	Inv. N. Elev. 594.85 Inv. S. Elev. 600.77
N31	1919+52.46	527+25.00	3' Inlets TA	Inv. N. Elev. 606.83

LEGEND

- Unsuitable Material
- Reinforced Soil Mass
- MSE Wall Panels
- Soil Borings
- Nxx — Drainage Structure

CURVE DATA

PR CURVE 19TH_2
PI STA = 1915+57.37
Δ = 13° 07' 03" (RT)
D = 5° 43' 46"
R = 1,000.00'
T = 114.97'
L = 228.94'
E = 6.59'
e = N.C. (2.0%)
T.R. - N/A
S.E. RUN = N/A
PC STA = 1914+42.40
PT STA = 1916+71.34

PR CURVE 19TH_3
PI STA = 1923+30.58
Δ = 12° 08' 13" (LT)
D = 1° 38' 13"
R = 3,500.00'
T = 372.09'
L = 741.40'
E = 19.72'
e = N.C. (2.0%)
T.R. - N/A
S.E. RUN = N/A
PC STA = 1919+58.49
PT STA = 1926+99.89

PR CURVE R7TH-B-1
PI Sta. = 526+44.28
Δ = 21° 11' 19" (RT)
D = 2° 17' 31"
R = 2,500.00'
T = 467.61'
L = 924.53'
E = 43.36'
e = 3.3%
T.R. - N/A
S.E. RUN = 154.97' (I)
PC Sta. = 521+76.67
PT Sta. = 531+01.20

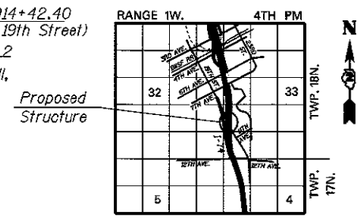
APPROVED
For Structural Adequacy Only
Engineer of Bridges & Structures

Notes:
Existing utilities shown will be relocated to avoid any conflicts during construction. Existing 72" Storm Sewer to be relocated. (See Utility Plans.)
See Drainage and Utilities Plans for inlet and manhole details.
See Electrical Plans for lighting and conduit details.
See MSE Wall Aesthetic Plans for required form liner finish.

JERILYN M. HASSARD
081-006521
LICENSED STRUCTURAL ENGINEER OF ILLINOIS

03-23-17

JERILYN M. HASSARD
EDWARDSVILLE, ILLINOIS
ILLINOIS LICENSED STRUCTURAL ENGINEER NO. 081-006521
EXPIRES 11/30/2018



LOCATION SKETCH

GENERAL PLAN AND ELEVATION
F.A.I. ROUTE 74 SEC. (81-1)R-1
ROCK ISLAND COUNTY
RAMP 7TH-B Sta. 522+95.01 to
RAMP 7TH-A Sta. 626+52.05
STRUCTURE NO. 081-6015 (RETAINING WALL 06)

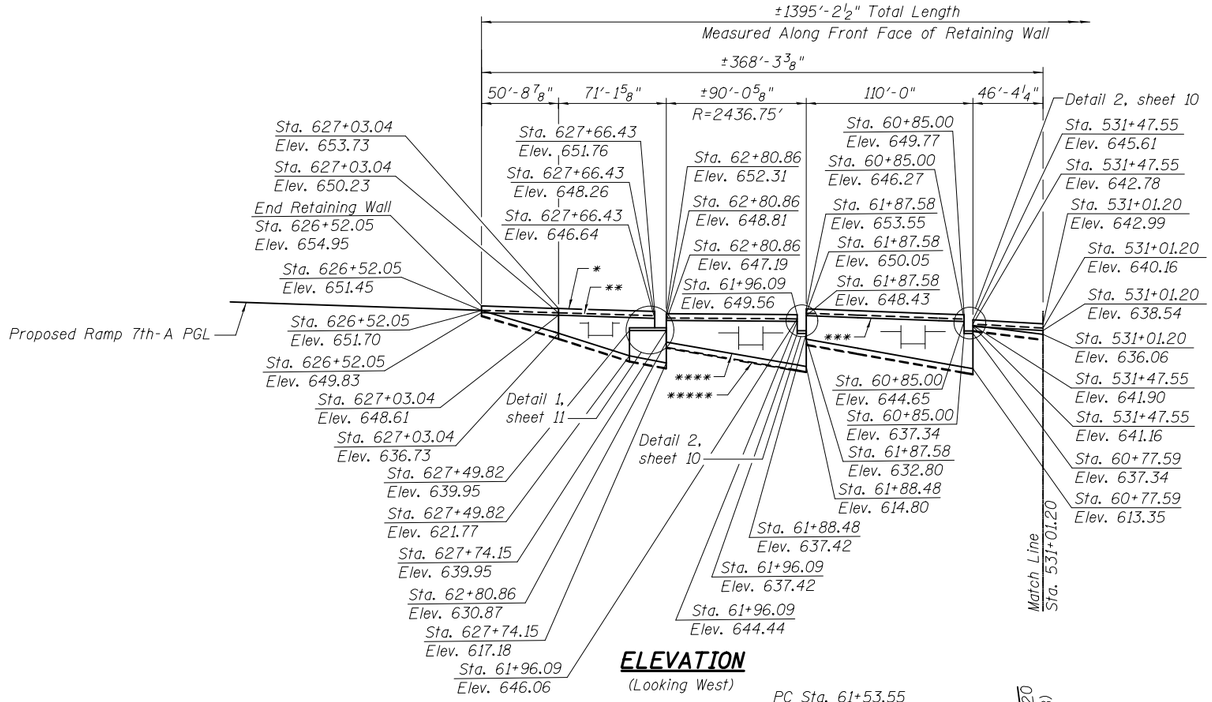
MODJESKI and MASTERS
Experience great bridges.

USER NAME =	DESIGNED - ZJB	REVISED	
	CHECKED - ACK	REVISED	
PLOT SCALE =	DRAWN - AEC	REVISED	
PLOT DATE = 03/23/2017	CHECKED - JMH	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION - 1
RAMP 7TH-B / I-74 / RAMP 7TH-A RETAINING WALL 06
STRUCTURE NO. 081-6015
SHEET NO. 1 OF 34 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1	ROCK ISLAND	2042	1309
		CONTRACT NO. 64E26		
	ILLINOIS FED. AID PROJECT			



ELEVATION

(Looking West)

* Top of Parapet
** Front Face of Parapet at Toe of Shoulder
*** Top of Exposed Panel Line
**** Proposed Finish Grade Along Front Face of Retaining Wall
***** Theoretical Top of Leveling Pad (TTLP)

CURVE DATA

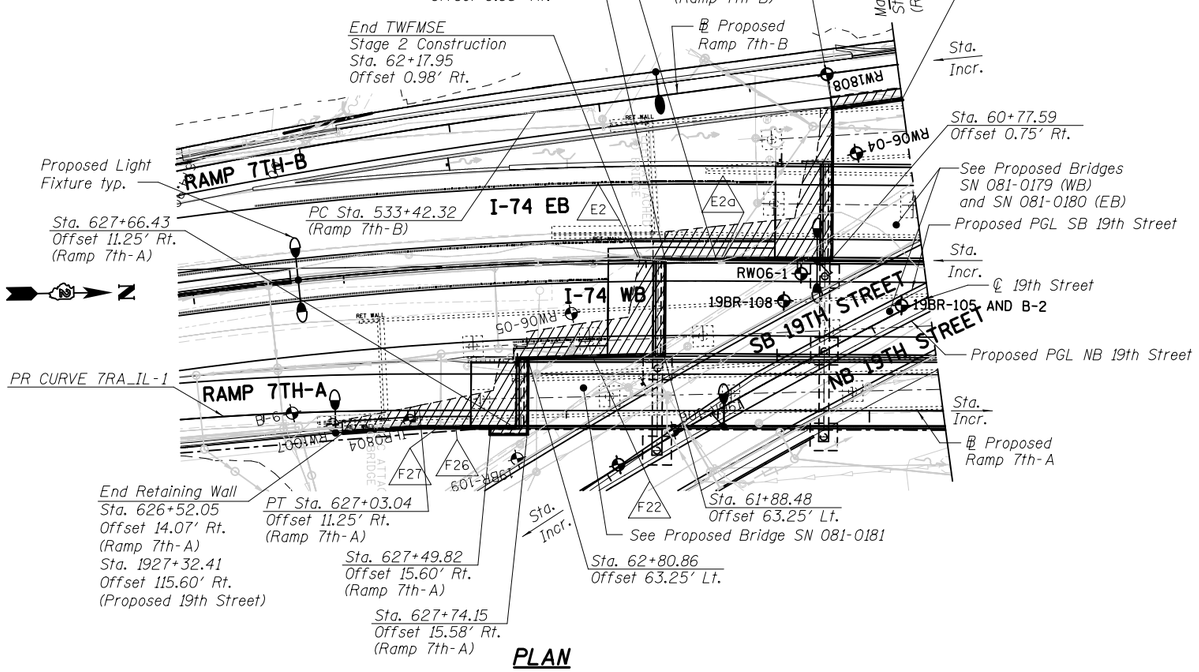
PR CURVE 7RA_IL-1
PI STA = 623+55.18
Δ = 20° 08' 26" (RT)
D = 2° 51' 53"
R = 2,000.00'
T = 355.18'
L = 703.04'
E = 31.29'
e = 5.4%
T.R. - N/A
S.E. RUN = 63' (I), 156' (O)
PC STA = 620+00.00
PT STA = 627+03.04

CURVE DATA

PR CURVE ML100CL3
PI STA = 66+05.62
Δ = 20° 30' 00" (LT)
D = 2° 17' 31"
R = 2,500.00'
T = 452.07'
L = 894.48'
E = 40.55'
e = 4.9%
T.R. - N/A
S.E. RUN = 422.89' (I), 410.49' (O)
PC STA = 61+53.55
PT STA = 70+48.03

LEGEND

- Reinforced Soil Mass
- MSE Wall Panels
- Soil Borings
- Drainage Structure (Nxx)



PLAN

Stations and offsets are measured from the centerline of Proposed F.A.I. Route I-74 unless otherwise noted.

DRAINAGE STRUCTURE TABLE

Structure No.	Station I-74	Station Ramp 7th-A	Size and Type	Invert
E2a	61+24.84	-	3' Inlets TB	Inv. S. Elev. 642.50
E2	62+05.32	-	4' MH, Type A	Inv. N. Elev. 642.10 Inv. S. Elev. 642.10
F22	62+36.92	-	3' Inlets TB	Inv. S. Elev. 643.30
F27	-	627+16.94	4' MH, Type A	Inv. N. Elev. 644.90 Inv. W. Elev. 644.90
F26	-	627+26.94	3' Inlets TB	Inv. S. Elev. 645.00

Notes:
Existing utilities shown will be relocated to avoid any conflicts during construction. Existing 72" Storm Sewer to be relocated. (See Utility Plans.)
See Drainage and Utilities Plans for inlet and manhole details.
See Electrical Plans for lighting and conduit details.
See MSE Wall Aesthetic Plans for required form liner finish.
Temporary Wire Faced MSE Wall (TWFMSE) required for stage construction shall remain in place and shall be paid for as "Temporary Mechanically Stabilized Earth Retaining Wall".

GENERAL PLAN AND ELEVATION
F.A.I. ROUTE 74 SEC. (81-1)R-1
ROCK ISLAND COUNTY
RAMP 7TH-B Sta. 522+95.01 to
RAMP 7TH-A Sta. 626+52.05
STRUCTURE NO. 081-6015 (RETAINING WALL 06)

MODJESKI and MASTERS
Experience great bridges.

USER NAME =	DESIGNED - ZJB	REVISED	
	CHECKED - ACK	REVISED	
PLOT SCALE =	DRAWN - AEC	REVISED	
PLOT DATE = 03/23/2017	CHECKED - JMH	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION – 2
RAMP 7TH-B / I-74 / RAMP 7TH-A RETAINING WALL 06
STRUCTURE NO. 081-6015
SHEET NO. 2 OF 34 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1	ROCK ISLAND	2042	1310
		CONTRACT NO. 64E26		
	ILLINOIS	FED. AID PROJECT		

GENERAL NOTES

1. Reinforcement bars designated (E) shall be epoxy coated.
2. Wall stations and offsets are given to the front face (FF) of the wall and are measured from the centerline of Proposed I-74 except as noted. FF of the wall is to be considered edge of panel or form liner.
3. See Special Provision for Mechanically Stabilized Earth Retaining Walls, Aggregate Column Ground Improvement, and Temporary Mechanically Stabilized Earth Retaining Walls for design and construction requirements.
4. For existing soils laboratory data, see Geotechnical Investigation Laboratory Data Special Provision.
5. The piles for SN 081-0179, SN 081-0180, and SN 081-0181 are located within the reinforced soil mass and will be driven prior to placement of the reinforced soil mass. See SN 081-0179, SN 081-0180, and SN 081-0181 plans for additional pile requirements.
6. Wall system supplier shall coordinate proposed wall configuration with Aggregate Column Ground Improvement subcontractor.
7. Wall construction shall not begin until after Aggregate Column Ground Improvement and removal and replacement of the unsuitable material has been completed in the area of the new wall.
8. In areas where ground improvements are not required, the native soils shall be inspected when excavation reaches the base of the proposed wall. Any soft or otherwise unsuitable material should be removed and replaced with compacted rock fill. Removals shall be paid for as Removal and Disposal of Unsuitable Material for Structures. Rock fill shall be paid for as Rock Fill.
9. See SN 081-0181 plans for maskwall details.

TOTAL BILL OF MATERIAL

	ITEM	UNIT	TOTAL
	Structure Excavation	Cu. Yd.	1,936
	Removal and Disposal of Unsuitable Material for Structures	Cu. Yd.	432
	Concrete Superstructure	Cu. Yd.	532.8
	Protective Coat	Sq. Yd.	1,205
	Reinforcement Bars, Epoxy Coated	Pound	84,580
	Name Plates	Each	1
	Temporary Mechanically Stabilized Earth Retaining Wall	Sq. Ft.	258
*	Aggregate Column Ground Improvement	L. Sum	0.25
	Mechanically Stabilized Earth Retaining Wall	Sq. Ft.	22,489
	Rock Fill	Cu. Yd.	1,919

* See additional retaining walls within this contract for remainder of L. Sum quantity.

MSE WALL SETTLEMENT

1. The Top of Exposed Panel Elevations shown on these plans are final elevations after any settlement.
2. For MSE Wall on top of the aggregate columns, the wall settlement will be determined by the ground improvement design. The wall system supplier shall coordinate with the Aggregate Column Ground Improvement subcontractor to accommodate this settlement in the wall design.
3. For MSE wall outside the ground improvement limits, 2.5 inches of settlement are anticipated from Ramp 7th-B Sta. 522+95.01 to Sta. 531+47.55. 2.25 inches, 2.75 inches, and 0.625 inches of settlement are anticipated along the I-74 EB, I-74 WB, and Ramp 7th-A abutments, respectively. The wall system supplier shall take appropriate measures to accommodate this settlement in the wall design. Total settlement measured on the pavement shall not exceed 1.0 inch.

STATION 522+95.01
BUILT 201_ BY
STATE OF ILLINOIS
F.A.I. RT. 74 SEC. (81-1)R-1
LOADING HS-20
STR. NO. 081-6015

NAME PLATE

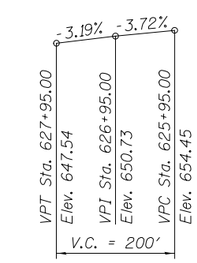
See Std. 515001

GROUND IMPROVEMENT PERFORMANCE REQUIREMENTS

1. Minimum factor of safety for global slope stability shall be 1.5 for both permanent and temporary conditions.
2. Allowable bearing pressure (with F.S.) shall be equal to or greater than the equivalent uniform service bearing pressure as shown on Sheet 5. Intermediate values may be defined by interpolating between the values shown.

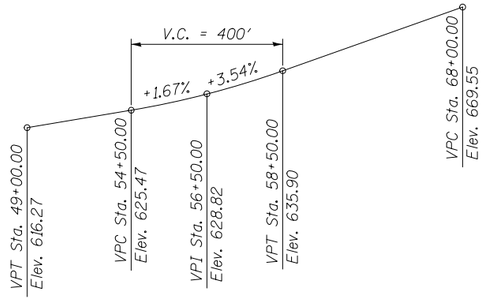
   Minimum factor of safety against equivalent uniform service bearing pressure shall be 2.0 if a load test is performed.

   Minimum factor of safety against equivalent uniform service bearing pressure shall be 2.5 if a load test is not performed.
3. Total settlement measured at the theoretical top of leveling pad shall not exceed 4.0 inches.
4. Total settlement measured on the pavement shall not exceed 1.0 inch.
5. Differential settlement measured along the theoretical top of leveling pad shall not exceed 1/100.
6. The assumed structure life for settlement computations shall be 75 years.
7. Contractor's verification program shall include monitoring points or other instrumentation to demonstrate compliance with the stated performance requirements.
8. The Shop Drawings and construction procedures submittal shall indicate the sequence of construction within the limits of Aggregate Column Ground Improvement. The aggregate column installation shall be coordinated with utility removal, structure removals, proposed utility installation, and bridge pile driving.
9. Aggregate columns shall be installed before the bridge piles are driven; however, the piles shall not be driven through the aggregate of an installed column. The aggregate column layout shall provide clearance for the bridge piles.



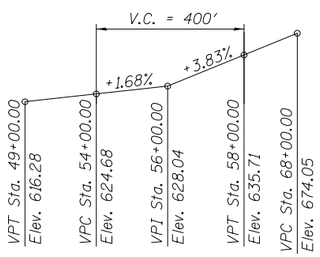
PROFILE GRADE

(Along PGL - Ramp 7th-A)



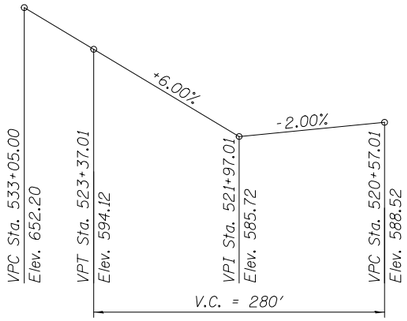
PROFILE GRADE

(Along WB PGL-F.A.I Route 74)



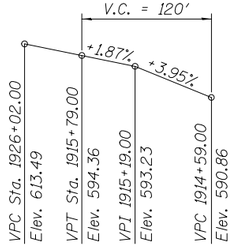
PROFILE GRADE

(Along EB PGL - F.A.I. Route 74)



PROFILE GRADE

(Along PGL - Ramp 7th-B)



PROFILE GRADE

(Along SB PGL - 19th Street)

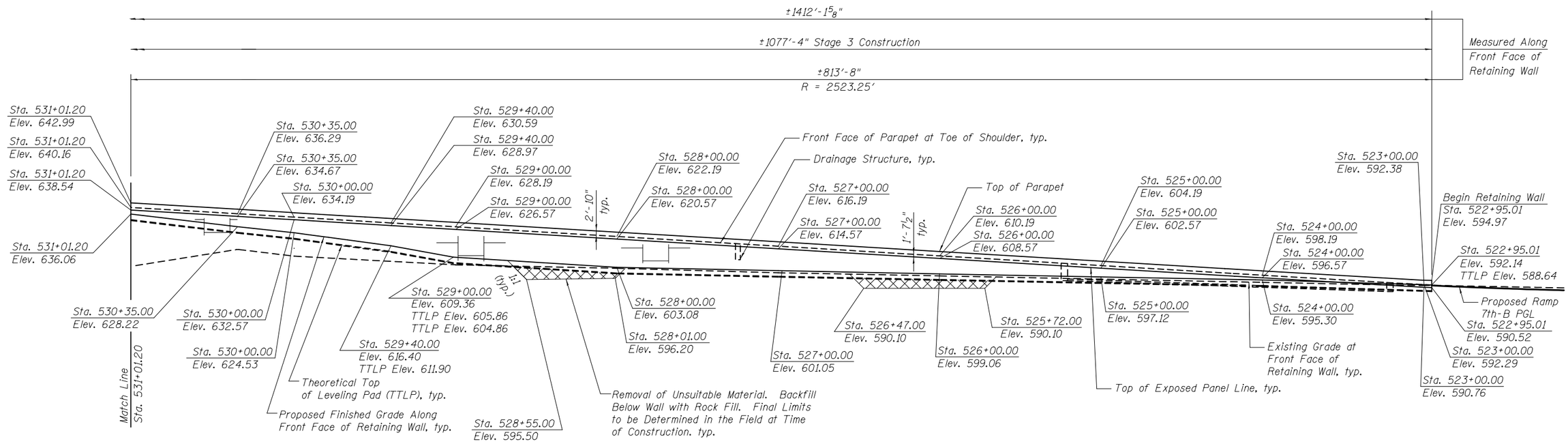
MODJESKI and MASTERS
Experience great bridges.

USER NAME =	DESIGNED - ZJB	REVISED
	CHECKED - ACK	REVISED
PLOT SCALE =	DRAWN - AEC	REVISED
PLOT DATE = 03/23/2017	CHECKED - JMH	REVISED

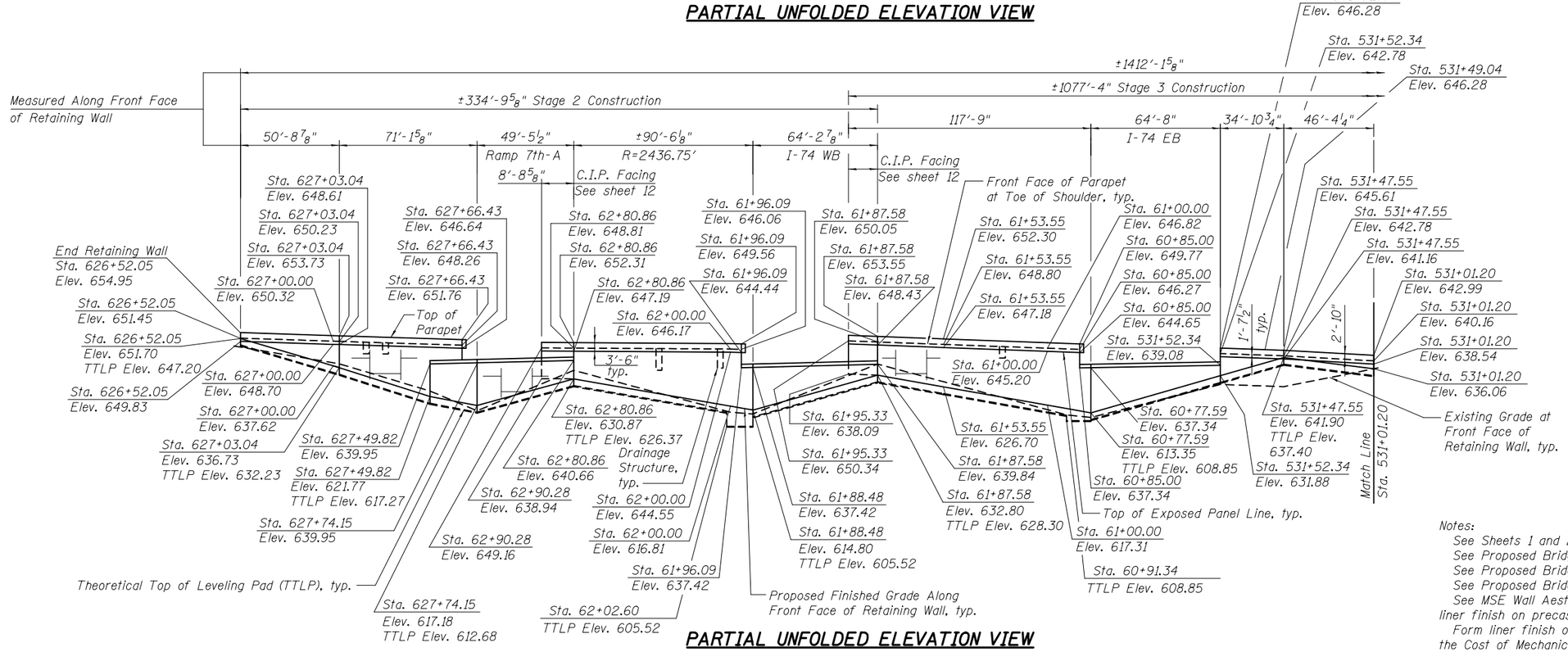
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES
RAMP 7TH-B /I-74 /RAMP 7TH-A RETAINING WALL 06
STRUCTURE NO. 081-6015
SHEET NO. 3 OF 34 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1	ROCK ISLAND	2042	1311
		CONTRACT NO. 64E26		
	ILLINOIS FED. AID PROJECT			



PARTIAL UNFOLDED ELEVATION VIEW



PARTIAL UNFOLDED ELEVATION VIEW

Notes:
- See Sheets 1 and 2 for Drainage Structure Tables.
- See Proposed Bridge SN 081-0179 for I-74 WB.
- See Proposed Bridge SN 081-0180 for I-74 EB.
- See Proposed Bridge SN 081-0181 for Ramp 7th-A.
- See MSE Wall Aesthetic Plans for required form liner finish on precast panels.
- Form liner finish on Precast Panels is included in the Cost of Mechanically Stabilized Earth Retaining wall.

MODJESKI and MASTERS
Experience great bridges.

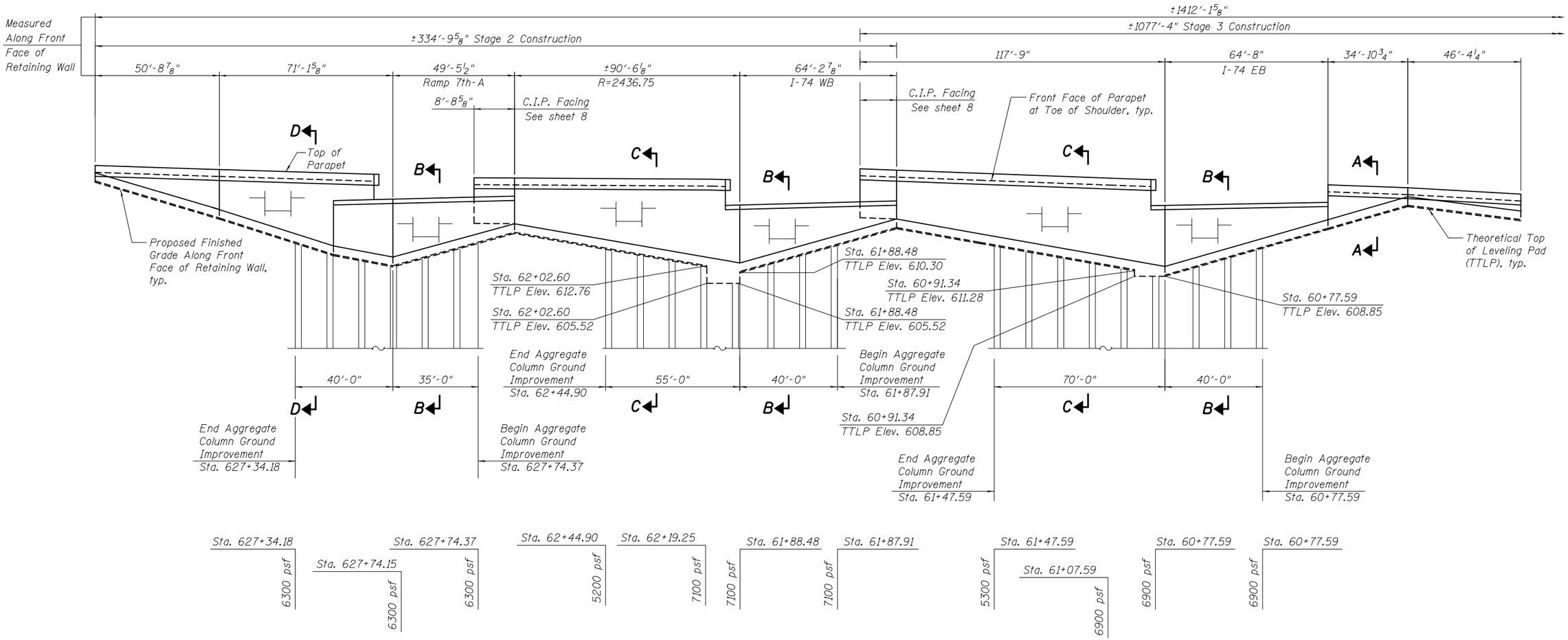
USER NAME =	DESIGNED - ZJB	REVISED
	CHECKED - ACK	REVISED
PLOT SCALE =	DRAWN - AEC	REVISED
PLOT DATE = 03/23/2017	CHECKED - JMH	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

UNFOLDED WALL ELEVATION
RAMP 7TH-B / I-74 /RAMP 7TH-A RETAINING WALL 06
STRUCTURE NO. 081-6015
SHEET NO. 4 OF 34 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1	ROCK ISLAND	2042	1312

CONTRACT NO. 64E26
ILLINOIS FED. AID PROJECT



PARTIAL UNFOLDED ELEVATION VIEW

LEGEND:

5000 psf — Equivalent Uniform Service Bearing Pressure

Notes:
See Sheet 8 for Section A-A.
See Sheet 10 for Section B-B.
See Sheet 9 for Sections C-C and D-D.
See Sheet 3 for Ground Improvement Performance Requirements.

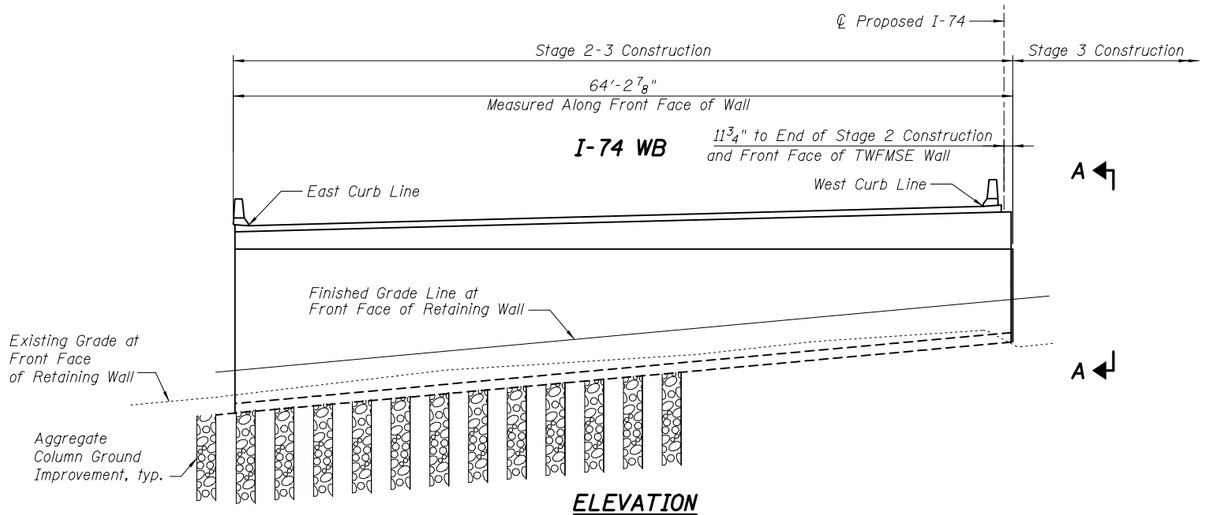
MODJESKI and MASTERS
Experience great bridges.

USER NAME =	DESIGNED - ZJB	REVISED
	CHECKED - ACK	REVISED
PLOT SCALE =	DRAWN - AEC	REVISED
PLOT DATE = 03/23/2017	CHECKED - JMH	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

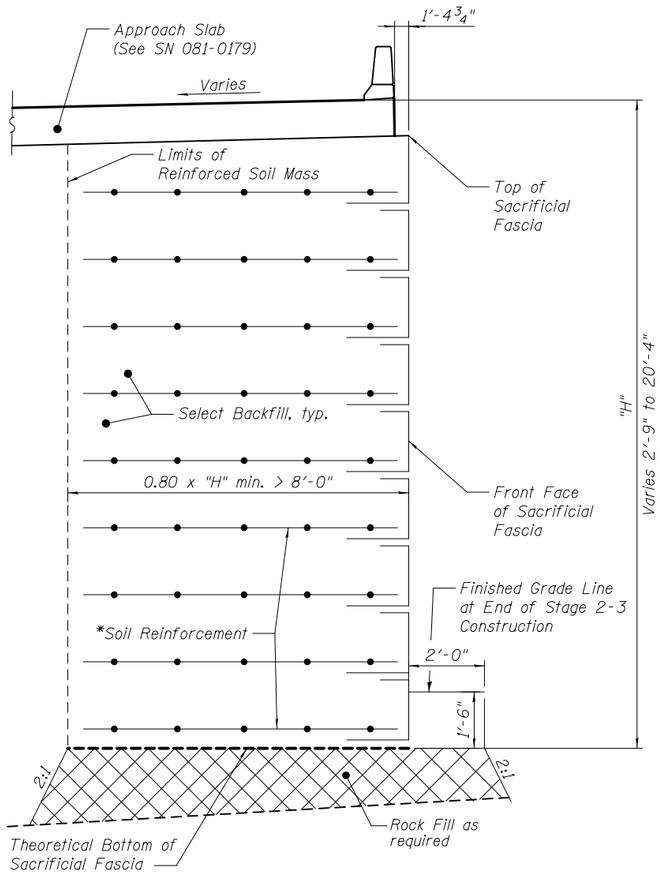
GROUND IMPROVEMENT LIMITS
RAMP 7TH-B / I-74 /RAMP 7TH-A RETAINING WALL 06
STRUCTURE NO. 081-6015
SHEET NO. 5 OF 34 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1	ROCK ISLAND	2042	1313
		CONTRACT NO. 64E26		
	ILLINOIS	FED. AID PROJECT		

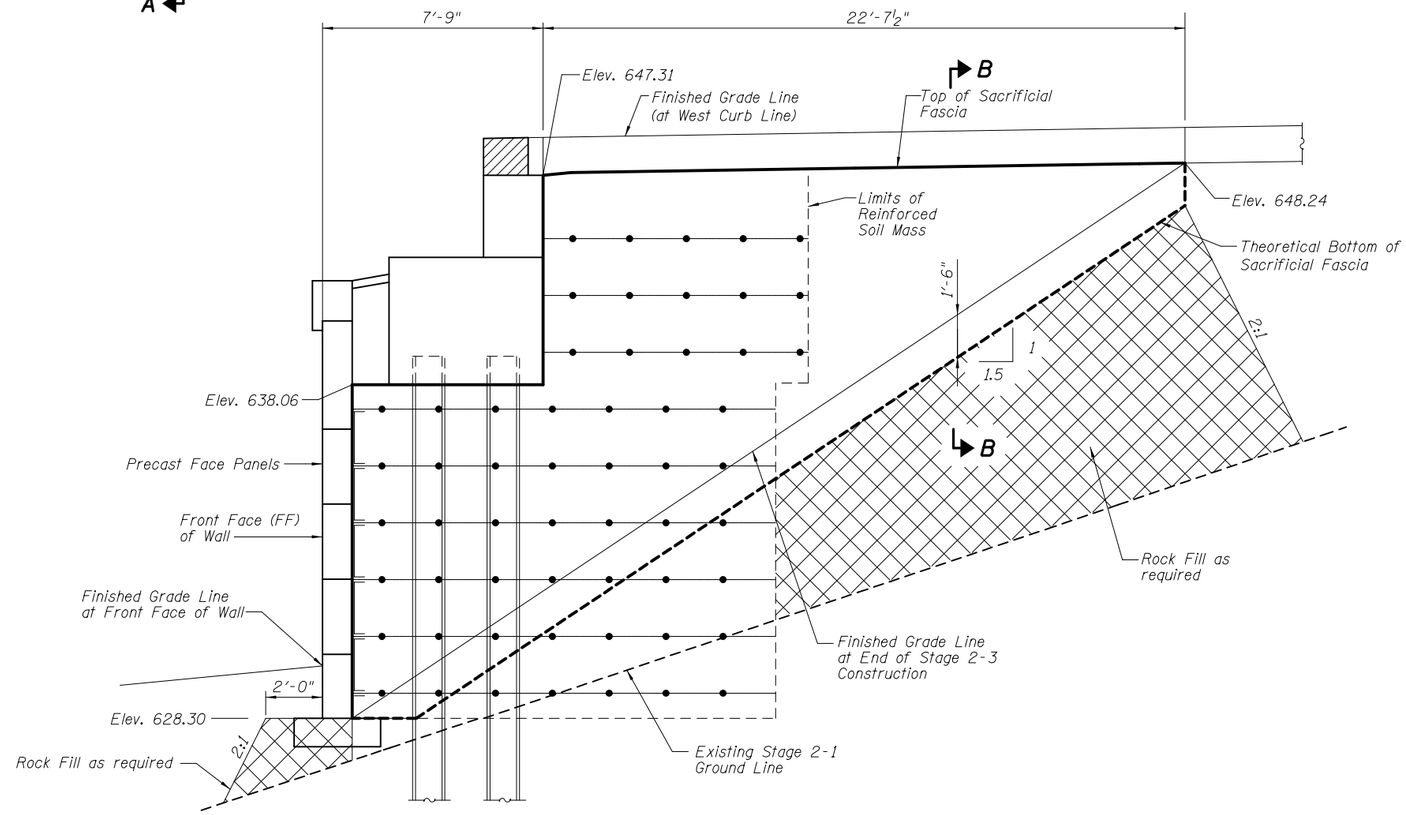


ELEVATION

Front Face of Abutment at End of Stage 2 Construction
(Horizontal dimensions at Rt. L's to ℄ Proposed I-74, except as noted.)



SECTION B-B



VIEW A-A

(Horizontal dimensions parallel to ℄ Proposed I-74)

* The M.S.E. wall supplier's internal stability design shall account for the slab's bearing pressure surcharge of 1.0 ksf and horizontal sliding force of 0.5 kips/ft. of wall.

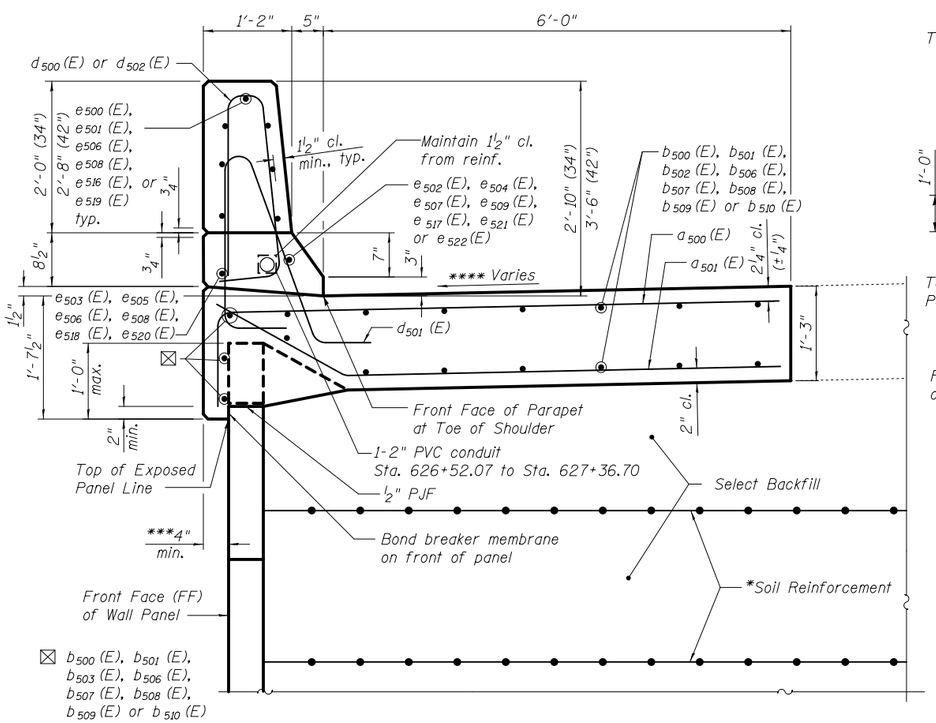
Note:
Limits of TWFMSE Wall shown are based on theoretical limits of the portion of the permanent wall constructed during Stage 2 and excavation limits required for the portion of the permanent wall constructed during Stage 3. Adjustments may be required if actual field conditions vary from the configuration shown.

MODJESKI and MASTERS Experience great bridges.	USER NAME =	DESIGNED - ZJB	REVISED
		CHECKED - ACK	REVISED
	PLOT SCALE =	DRAWN - CMM	REVISED
	PLOT DATE = 03/23/2017	CHECKED - JMH	REVISED

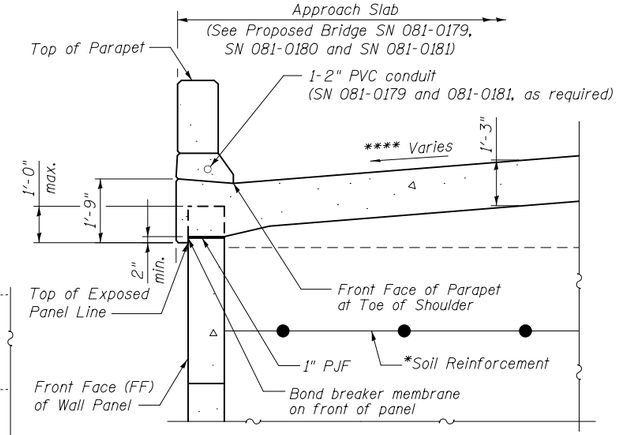
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGED CONSTRUCTION
RAMP 7TH-B /I-74 /RAMP 7TH-A RETAINING WALL 06
STRUCTURE NO. 081-6015
SHEET NO. 6 OF 34 SHEETS

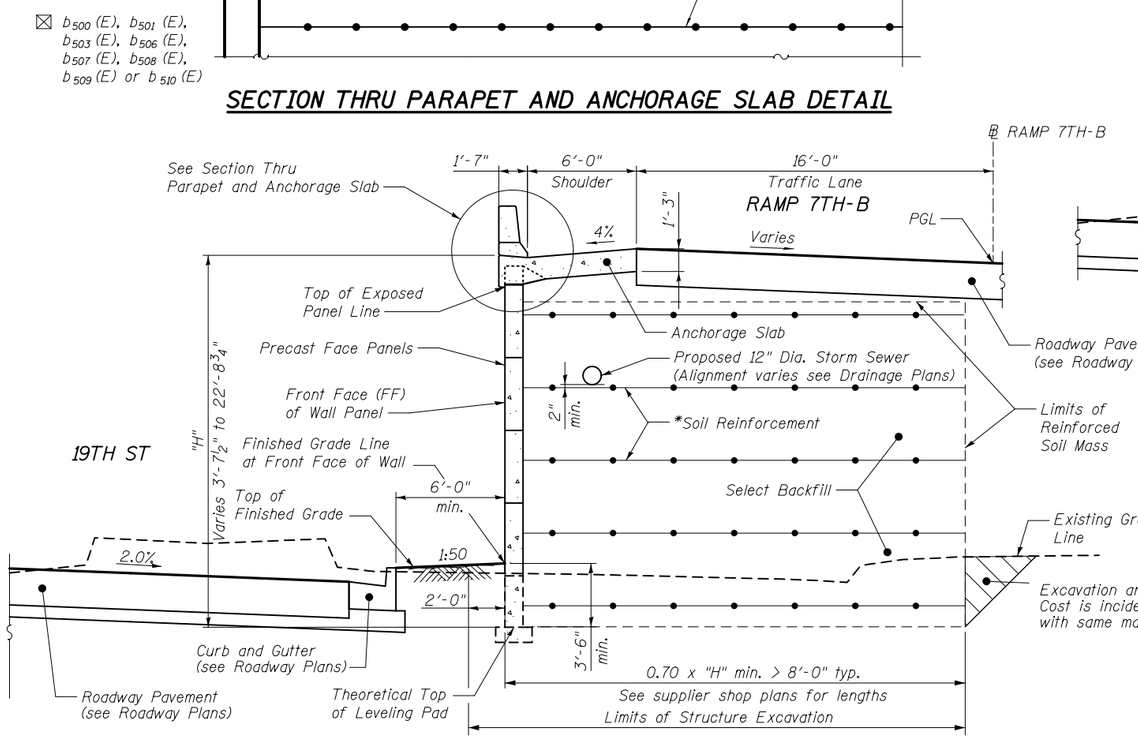
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1	ROCK ISLAND	2042	1314
		CONTRACT NO. 64E26		
	ILLINOIS	FED. AID PROJECT		



SECTION THRU PARAPET AND ANCHORAGE SLAB DETAIL

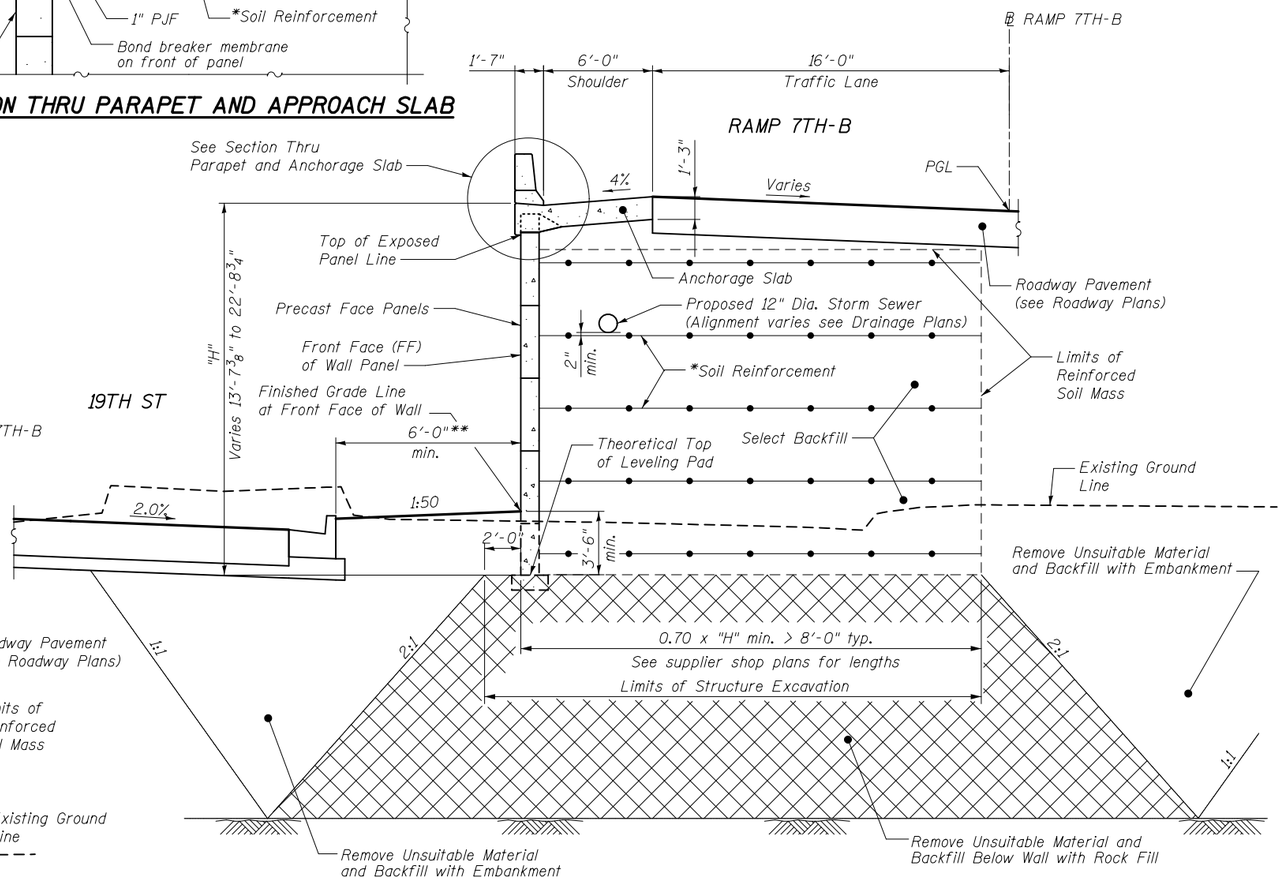


SECTION THRU PARAPET AND APPROACH SLAB



TYPICAL WALL SECTION

Sta. 522+95.01 to Sta. 525+72.00
Sta. 526+47.00 to Sta. 528+01.00
Sta. 528+55.00 to Sta. 529+00.00



TYPICAL WALL SECTION

Sta. 525+72.00 to Sta. 526+47.00
Sta. 528+01.00 to Sta. 528+55.00

* The M.S.E. wall supplier's internal stability design shall account for the anchorage slab's bearing pressure surcharge of 1.0 ksf and horizontal sliding force of 0.5 kips/ft. of wall.

** 6'-0" dimension shown corresponds to the permanent lane. During wall construction, the SB traffic lane on 19th Street will be shifted so that there will be adequate clearance for the removal of unsuitable material without undermining the traveled way on 19th Street. See Staging Plans for details.

*** Contractor shall detail overhang width along wall radius to provide minimum dimension required.

**** Cross slope varies throughout retaining wall limits. See Roadway Plans for details.

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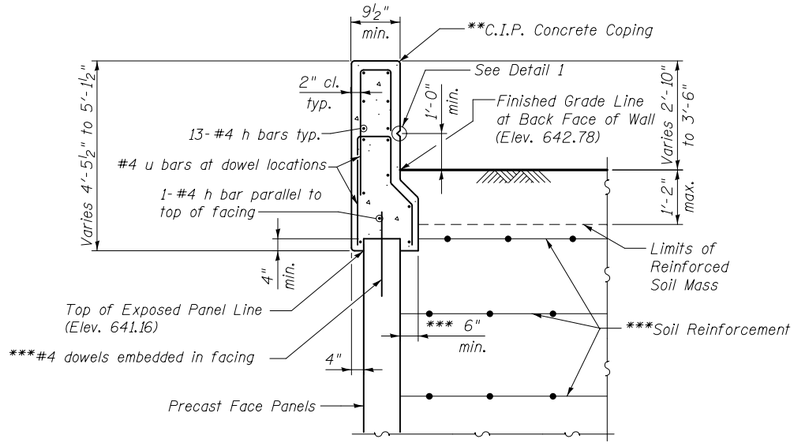
	CHECKED - ACK	REVISED
PLOT SCALE =	DRAWN - JAB	REVISED
PLOT DATE = 03/23/2017	CHECKED - JMH	REVISED

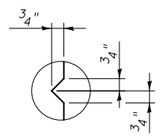
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MSE DETAILS 1
RAMP 7TH-B /I-74 /RAMP 7TH-A RETAINING WALL 06
STRUCTURE NO. 081-6015
SHEET NO. 7 OF 34 SHEETS

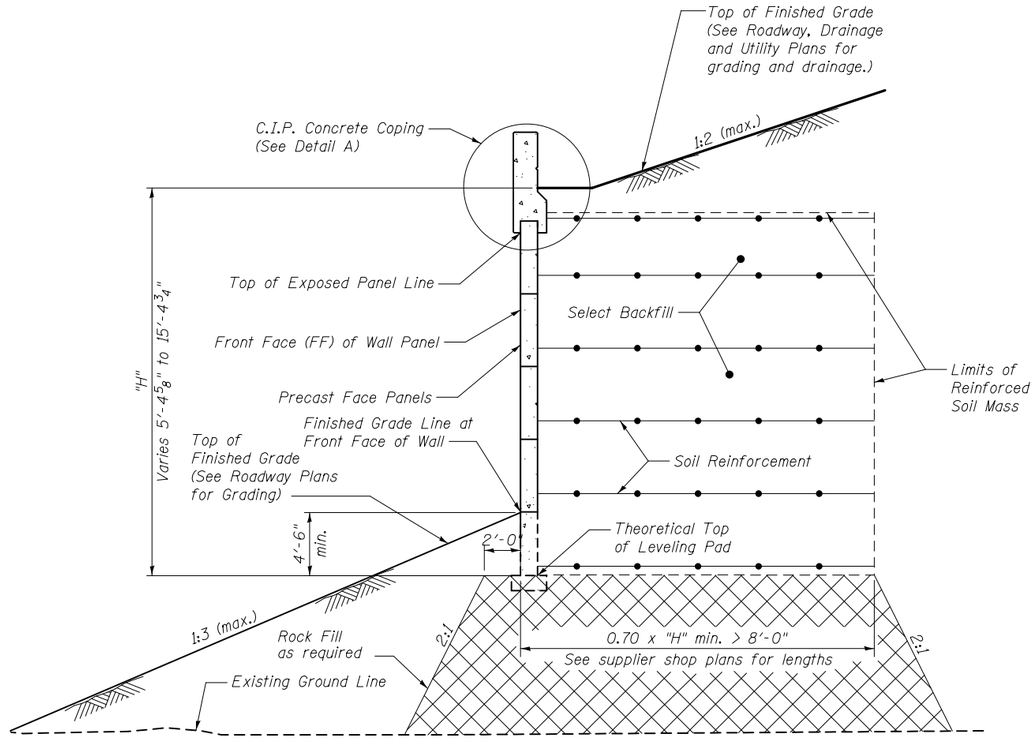
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1	ROCK ISLAND	2042	1315
		CONTRACT NO. 64E26		
	ILLINOIS FED. AID PROJECT			



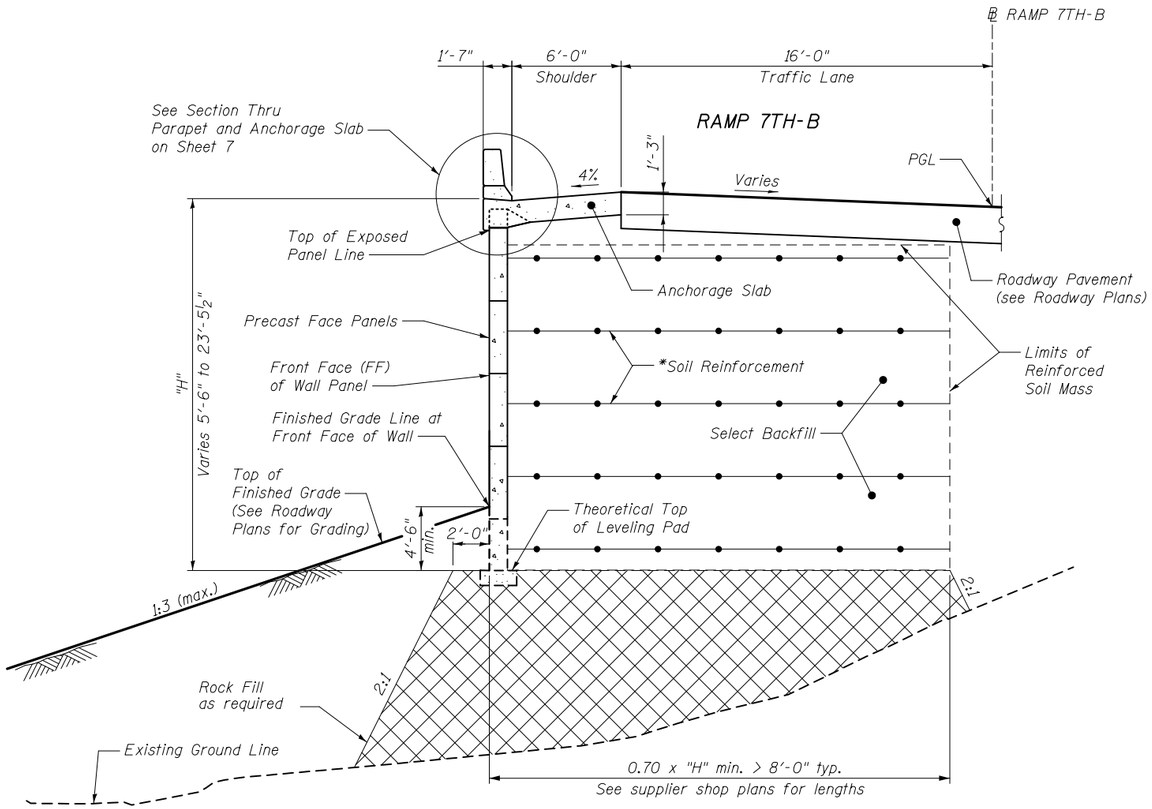
DETAIL A
C.I.P. CONCRETE COPING



DETAIL 1



TYPICAL WALL SECTION
(Section A-A)



TYPICAL WALL SECTION
Sta. 529+00.00 to Sta. 531+47.55

* The M.S.E. wall supplier's internal stability design shall account for the anchorage slab's bearing pressure surcharge of 1.0 ksf and horizontal sliding force of 0.5 kips/ft of wall.

** Concrete and reinforcing steel for C.I.P. Concrete Coping are included in the cost of Mechanically Stabilized Earth Retaining Wall.

*** The M.S.E. wall suppliers design of the spacing and embedment of the #4 dowel bars, the thickness of the back leg of the coping, and the location and spacing of the strips on the back leg of the coping, shall account for a pedestrian live load of 0.25 kips/ft applied at the top of the coping.

Note:
For location of Section A-A, see Sheet 5.

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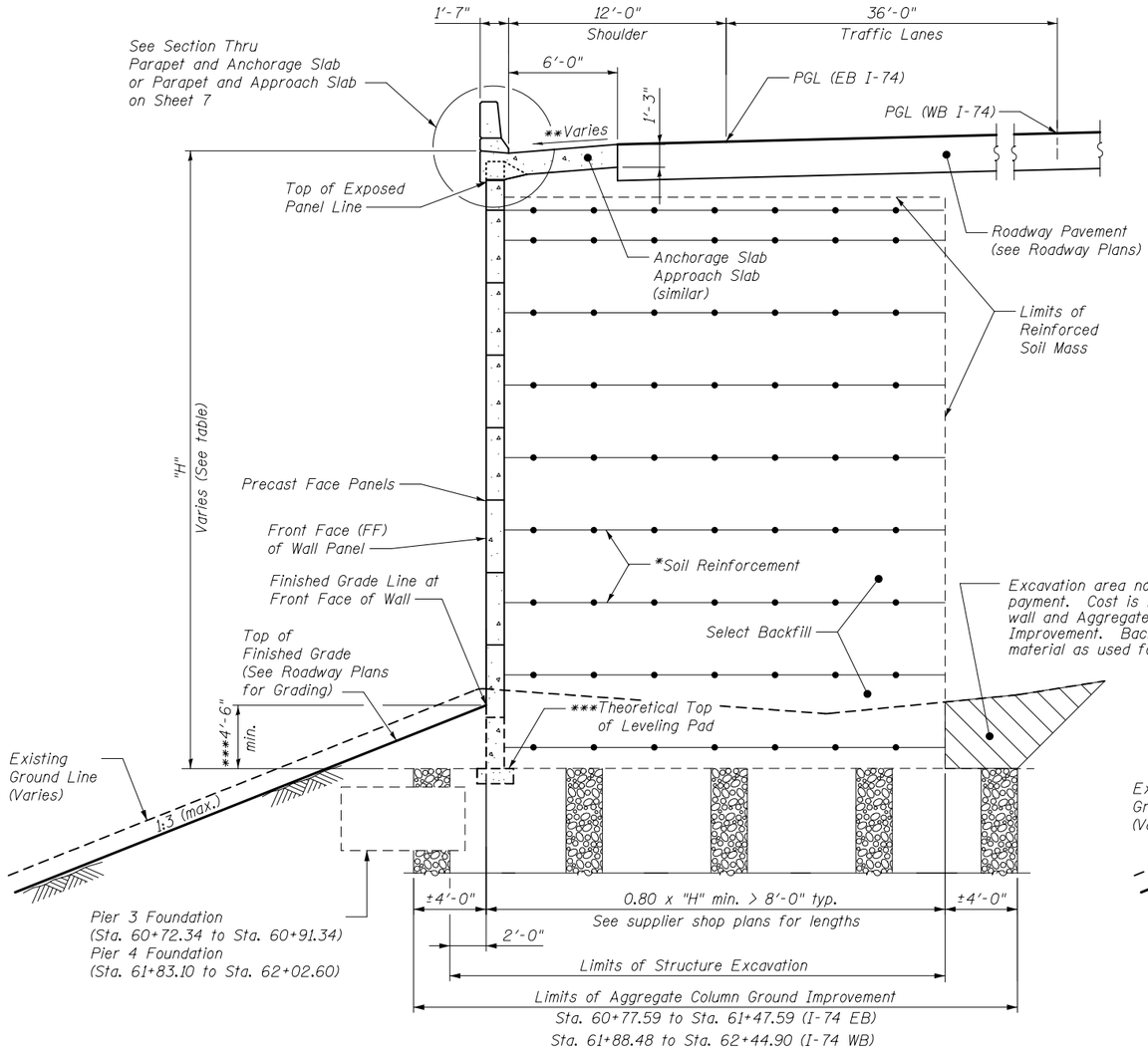
	CHECKED - ACK	REVISED
PLOT SCALE =	DRAWN - JAB	REVISED
PLOT DATE = 03/23/2017	CHECKED - JMH	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

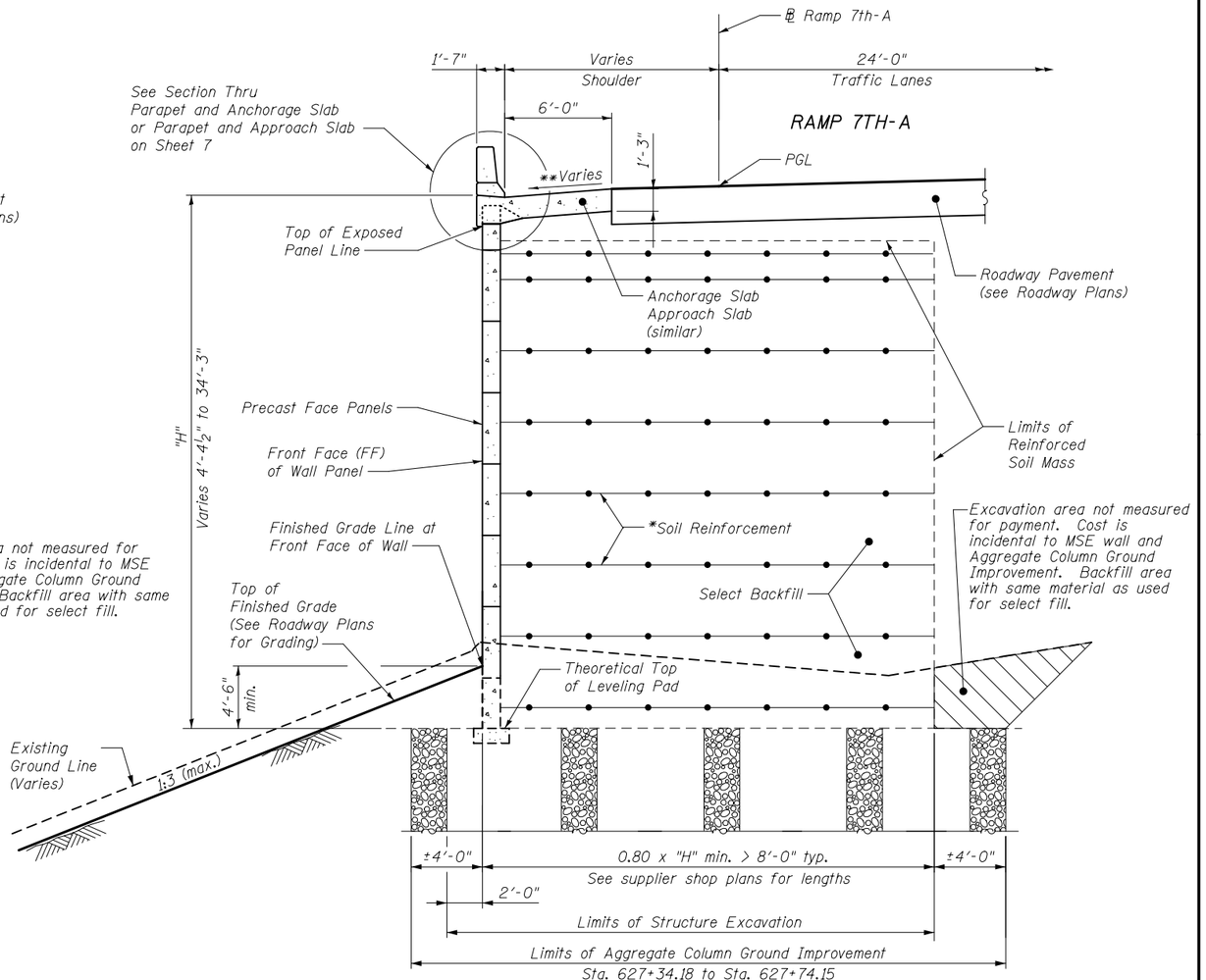
MSE DETAILS 2
RAMP 7TH-B /I-74 /RAMP 7TH-A RETAINING WALL 06
STRUCTURE NO. 081-6015
SHEET NO. 8 OF 34 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1	ROCK ISLAND	2042	1316
		CONTRACT NO. 64E26		
	ILLINOIS FED. AID PROJECT			



TYPICAL WALL SECTION

(Section C-C)



TYPICAL WALL SECTION

(Section D-D)

Retaining Wall	"H" Varies		
I-74 EB	21'-10½"	to	37'-9⅜"
I-74 WB	22'-6¾"	to	40'-10¼"

* The M.S.E. wall supplier's internal stability design shall account for the anchorage slab's bearing pressure surcharge of 1.0 ksf and horizontal sliding force of 0.5 kips/ft of wall.

** Cross slope varies throughout retaining wall limits. See Roadway Plans for details.

*** Between Stations 60+77.59 and 60+91.34 the top of leveling pad shall be held at elevation 608.85. Between Stations 61+88.48 and 62+02.60 the top of leveling pad shall be held at elevation 605.52.

Notes:
For location of Sections C-C and D-D, see Sheet 5.
For Pier 3 and Pier 4 Foundation details, see SN081-0179 and SN081-181 plans.

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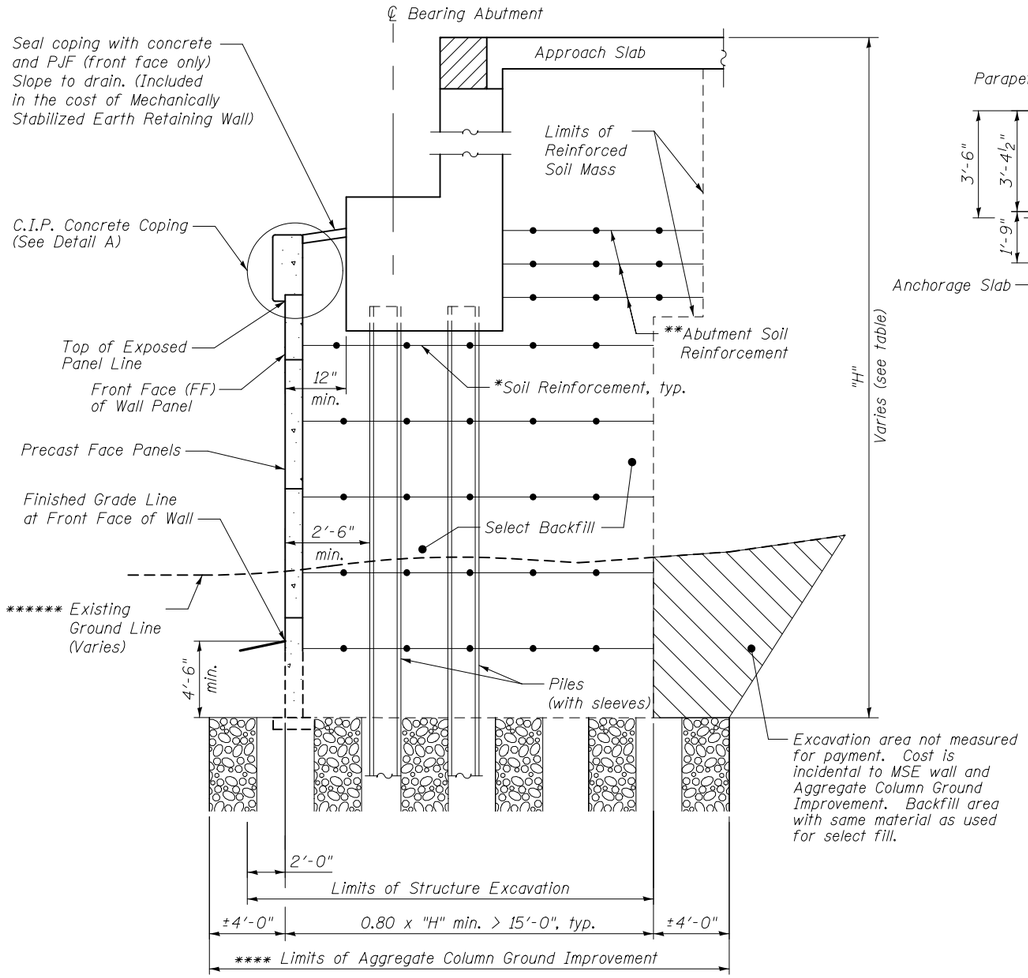
PLOT SCALE =	DRAWN - JAB	REVISED
PLOT DATE = 03/23/2017	CHECKED - JMH	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MSE DETAILS 3
RAMP 7TH-B /I-74 /RAMP 7TH-A RETAINING WALL 06
STRUCTURE NO. 081-6015
SHEET NO. 9 OF 34 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1	ROCK ISLAND	2042	1317
		CONTRACT NO. 64E26		
	ILLINOIS FED. AID PROJECT			

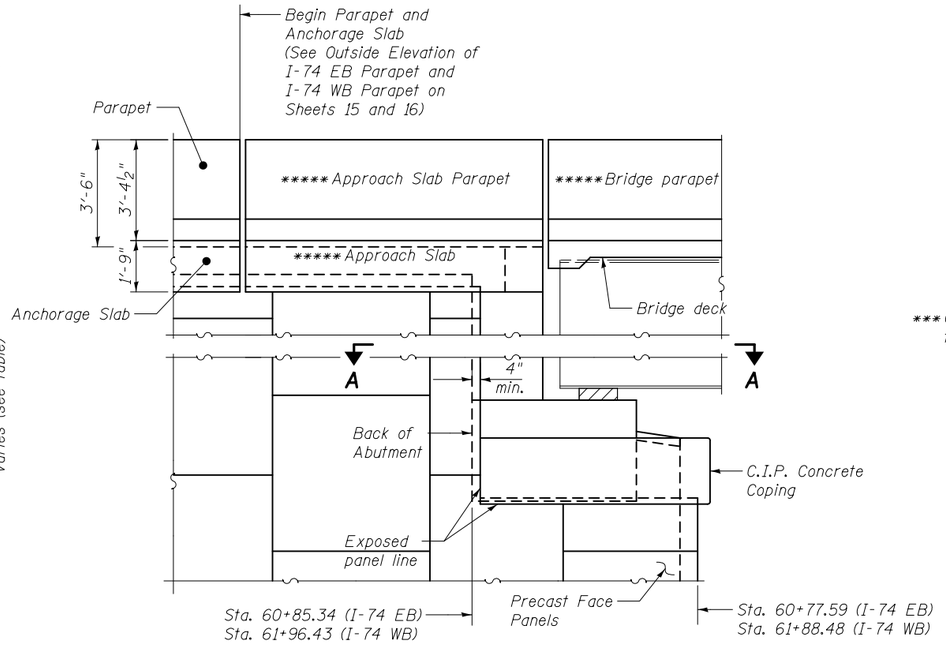


TYPICAL WALL SECTION THRU ABUTMENT

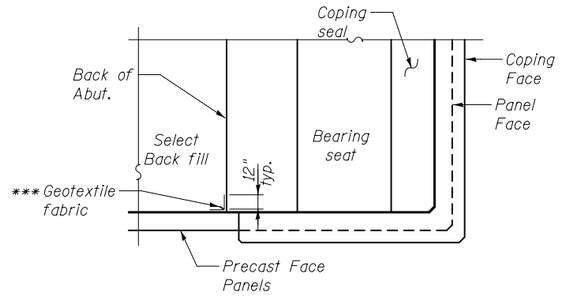
(Section B-B)

Abutment	"H" Varies		
I-74 EB	20'-10½"	to	37'-6½"
I-74 WB	20'-5⅝"	to	35'-10½"
Ramp 7th-A	22'-10"	to	35'-8⅜"

ABUTMENT WALL HEIGHT TABLE



DETAIL 2



SECTION A-A

* The M.S.E. wall supplier's internal stability design shall account for the anchorage slab's bearing pressure surcharge of 1.0 ksf and horizontal sliding force of 0.5 kips/ft. of wall.

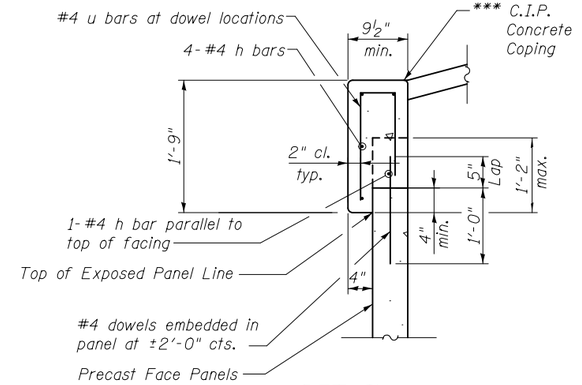
** The M.S.E wall supplier shall design the abutment soil reinforcement to resist a horizontal force of 2.90 kips/ft, 3.29 kips/ft, and 2.49 kips/ft of abutment for the I-74 EB, I-74 WB, and Ramp 7th-A abutments, respectively. Cost shall be included with the cost of "Mechanically Stabilized Earth Retaining Wall"

*** Concrete, geotextile fabric, and reinforcing steel for C.I.P. Concrete Coping are included in the cost of "Mechanically Stabilized Earth Retaining Wall".

**** For limits of Aggregate Column Ground Improvement as measured along the front face of the abutment, see Sheet 5.

***** See Proposed Bridge SN 081-0179 (WB) and SN 081-0180 (EB)

****** Rock Fill required along portions of I-74 EB abutment. See Typical Wall Section A-A on Sheet 8 for limits of Rock Fill.



DETAIL A
C.I.P. CONCRETE COPING

Notes:
See SN 081-0179 (WB) and SN 081-0180 (EB) and SN 081-0181 (Ramp 7th-A) plans for abutment and approach slab details.
For location of Detail 2, see Sheet 2.
For location of Section B-B, see Sheet 5.

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MSE DETAILS 4
RAMP 7TH-B /I-74 /RAMP 7TH-A RETAINING WALL 06
STRUCTURE NO. 081-6015
SHEET NO. 10 OF 34 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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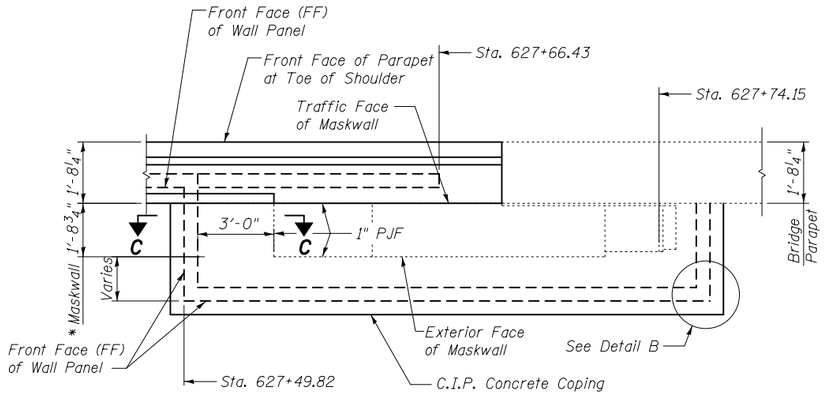
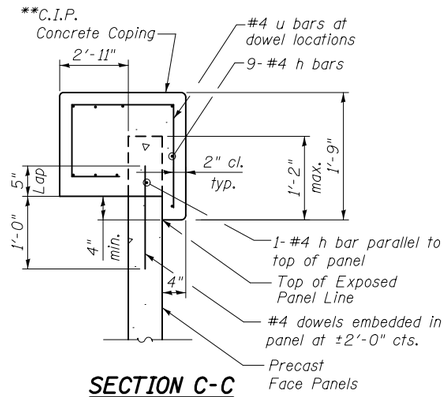
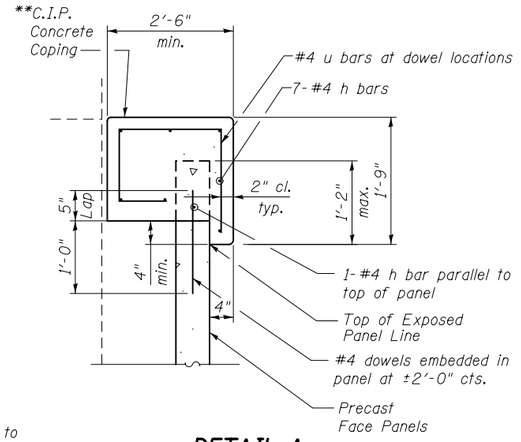
		CONTRACT NO. 64E26		
	ILLINOIS	FED. AID PROJECT		



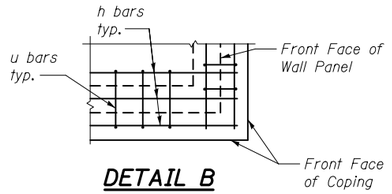
SECTION A-A



SECTION C-C

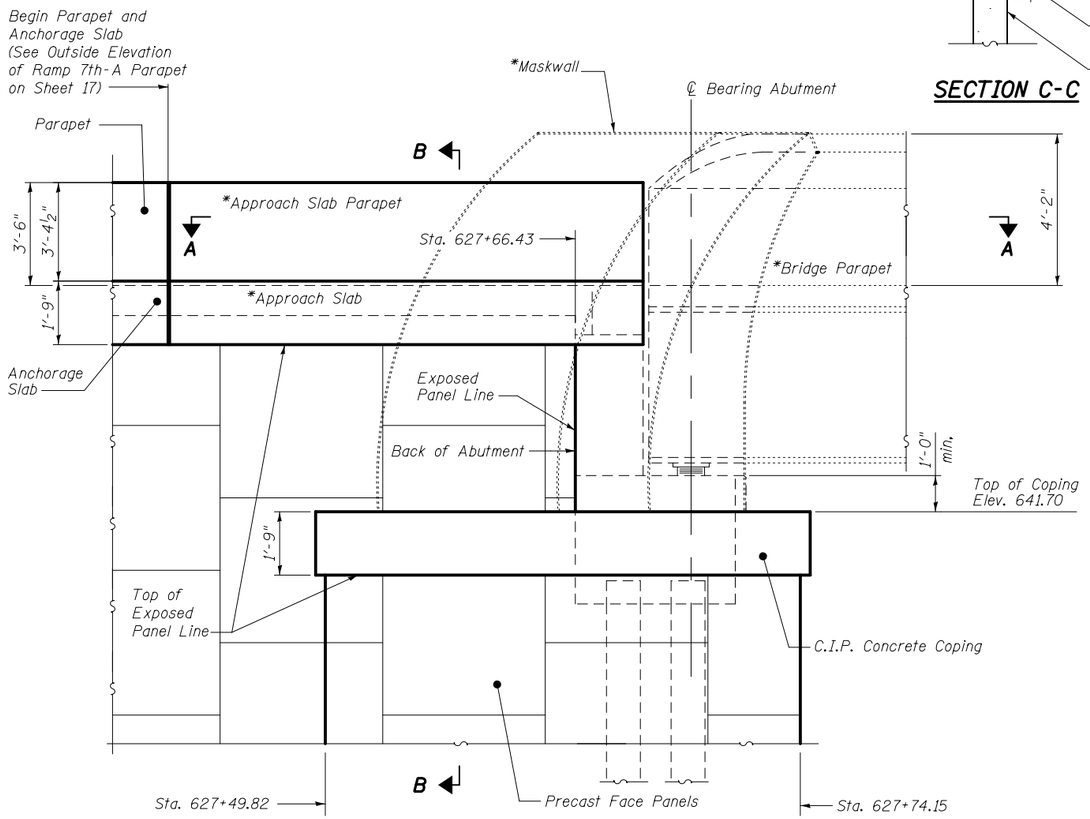


DETAIL A



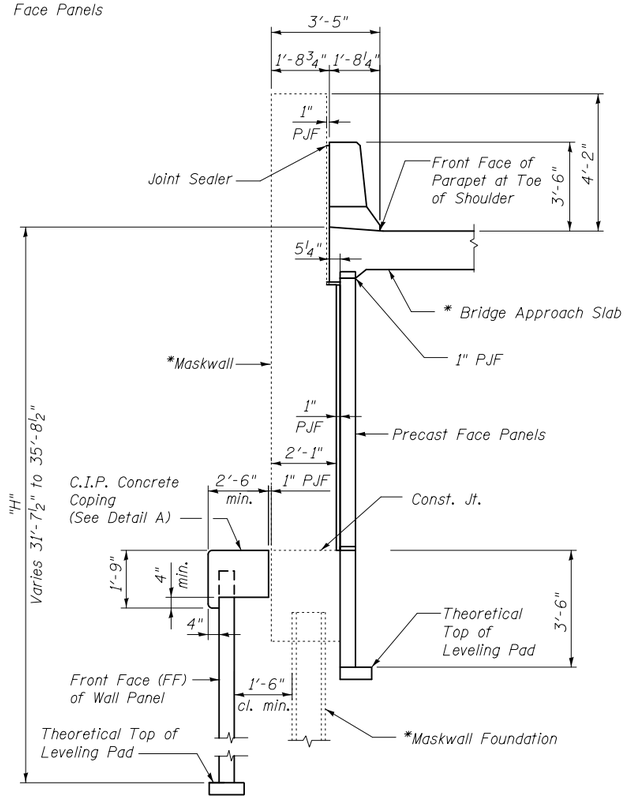
DETAIL B

(Bottom reinforcement not shown for clarity.)
(Other corners similar.)



DETAIL 1

(Looking West)



SECTION B-B

* See Proposed Bridge SN 081-0181

** Concrete and reinforcing steel for C.I.P. Concrete Coping are included in the cost of Mechanically Stabilized Earth Retaining Wall.

Notes:

The soil reinforcement limits for the upper and lower MSE walls shall meet the design requirements provided within the Typical Sections. The width of the lower wall soil reinforcement shall be designed based on "H" as dimensioned in Section B-B. The width of the upper wall soil reinforcement shall be designed based on the height from the upper wall Theoretical Top of Leveling Pad to the Toe of Shoulder and shall be equal to or greater than the limit of soil reinforcement required for the lower MSE wall.

For location of Detail 1, see Sheet 2.

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USER NAME =	DESIGNED - ZJB	REVISED
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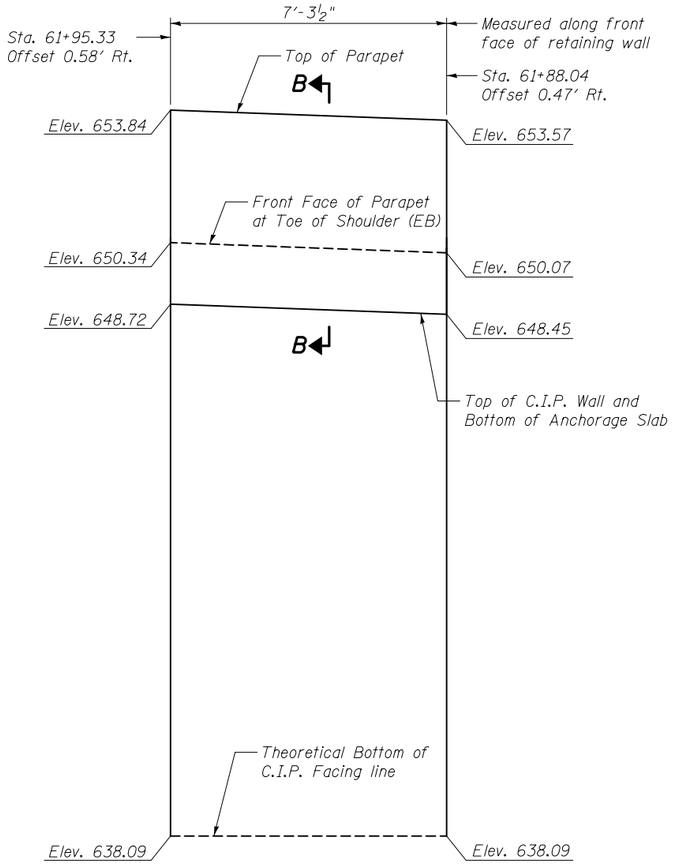
PLOT SCALE =	DRAWN - CMM	REVISED
PLOT DATE = 03/23/2017	CHECKED - JMH	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MSE DETAILS 5
RAMP 7TH-B /I-74 /RAMP 7TH-A RETAINING WALL 06
STRUCTURE NO. 081-6015
SHEET NO. 11 OF 34 SHEETS

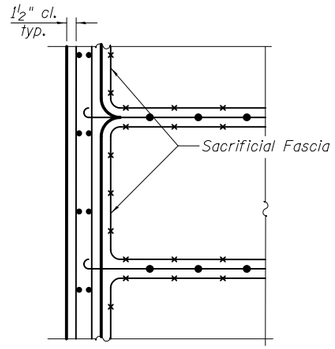
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1	ROCK ISLAND	2042	1319
		CONTRACT NO. 64E26		
	ILLINOIS	FED. AID PROJECT		



ELEVATION VIEW OF C.I.P. FACING ALONG I-74 EB

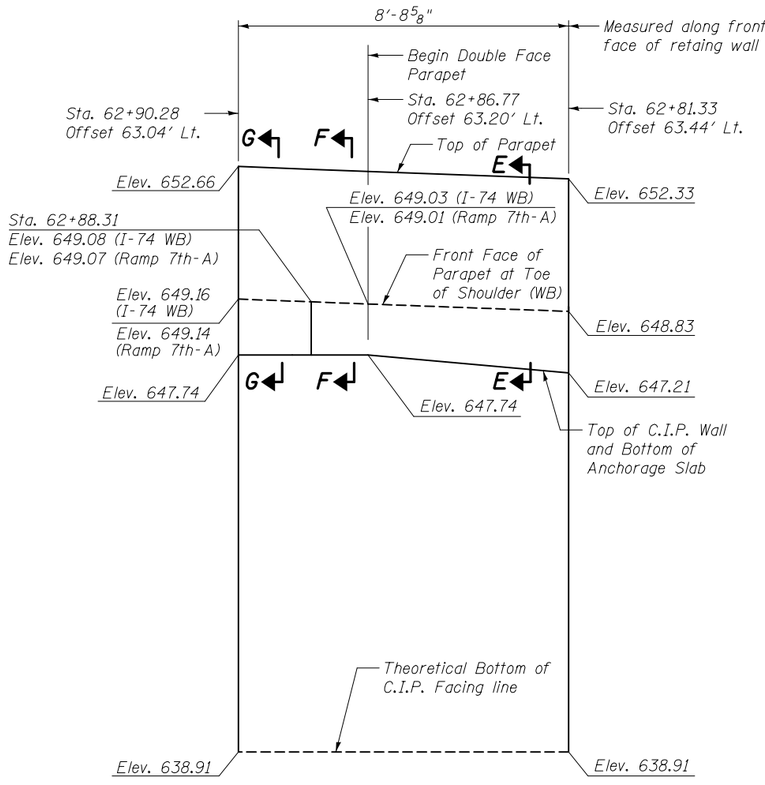
(Looking West)

(I-74 WB Abutment and WB Parapet not shown for clarity)



C.I.P. FACING TYPICAL SECTION

Concrete and reinforcing steel for C.I.P. Facing are included in the cost of Mechanically Stabilized Earth Retaining Wall.

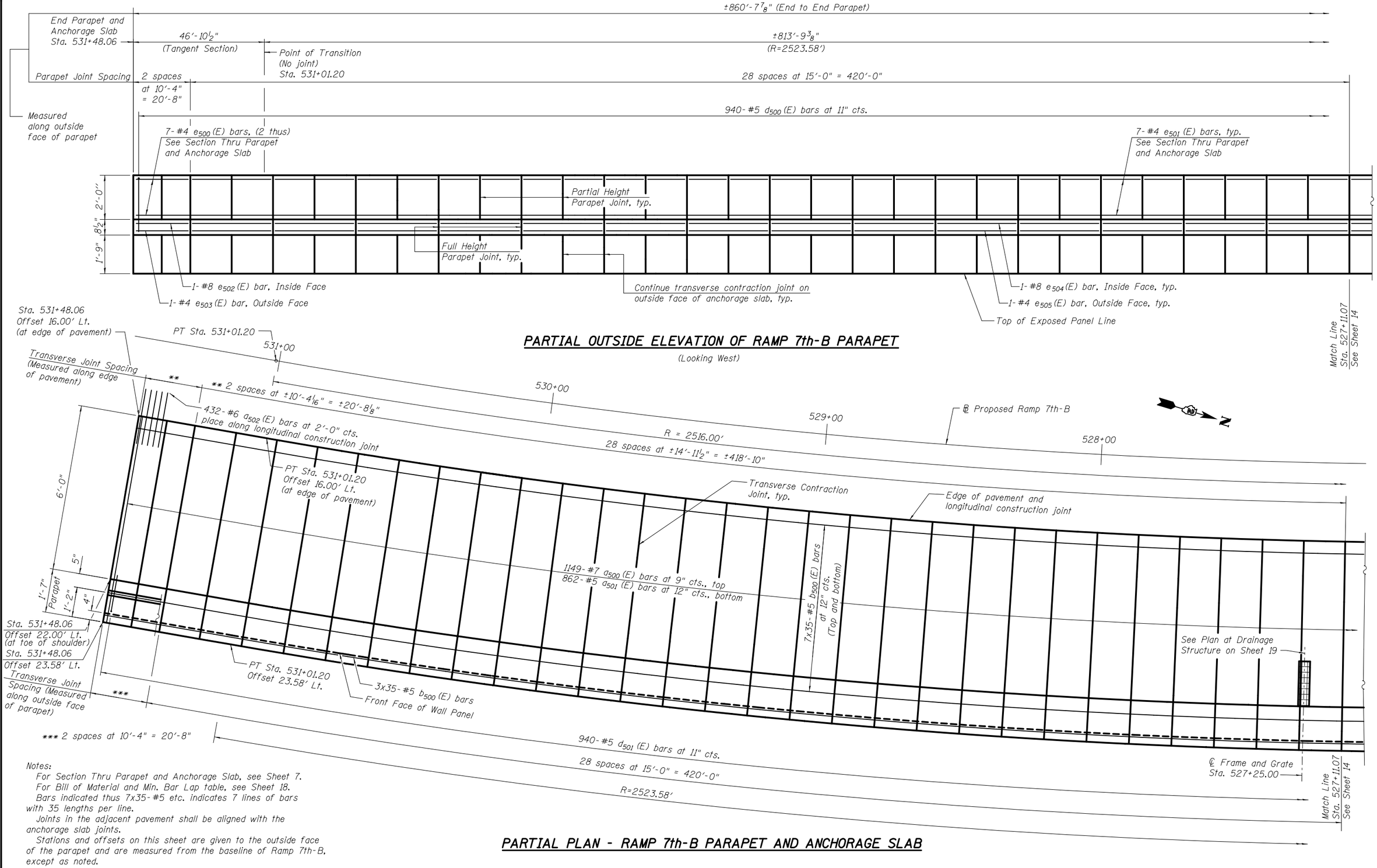


ELEVATION VIEW OF C.I.P. FACING ALONG I-74 WB

(Looking West)

(Ramp 7th-A Abutment and 7th-A Parapet not shown for clarity)

Note:
See Sheet 18 for Sections B-B, E-E, F-F and G-G.



PARTIAL OUTSIDE ELEVATION OF RAMP 7th-B PARAPET

(Looking West)

PARTIAL PLAN - RAMP 7th-B PARAPET AND ANCHORAGE SLAB

Notes:

For Section Thru Parapet and Anchorage Slab, see Sheet 7.

For Bill of Material and Min. Bar Lap table, see Sheet 18.

Bars indicated thus 7x35-#5 etc. indicates 7 lines of bars with 35 lengths per line.

Joints in the adjacent pavement shall be aligned with the anchorage slab joints.

Stations and offsets on this sheet are given to the outside face of the parapet and are measured from the baseline of Ramp 7th-B, except as noted.

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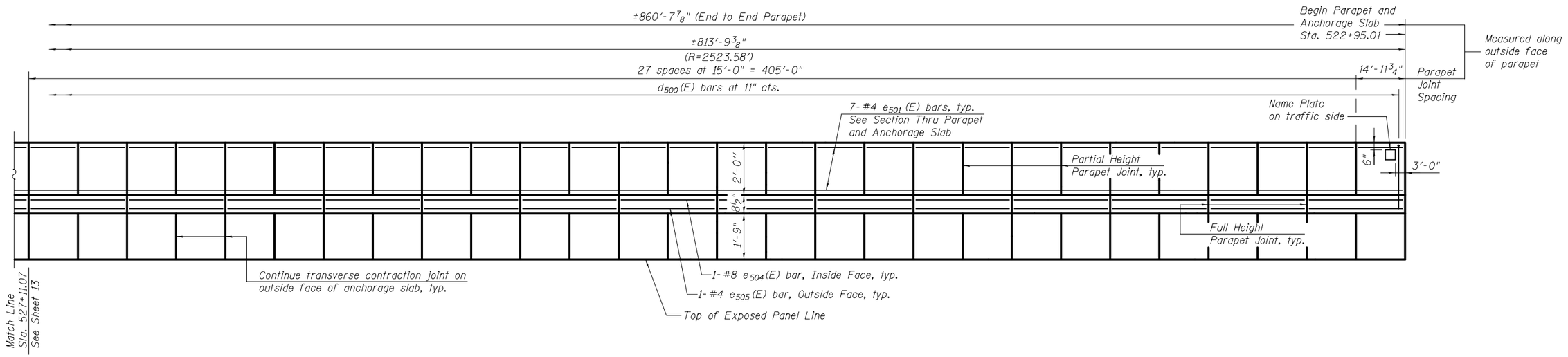
	CHECKED - ACK	REVISED
PLOT SCALE =	DRAWN - CMM	REVISED
PLOT DATE = 03/23/2017	CHECKED - JMH	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

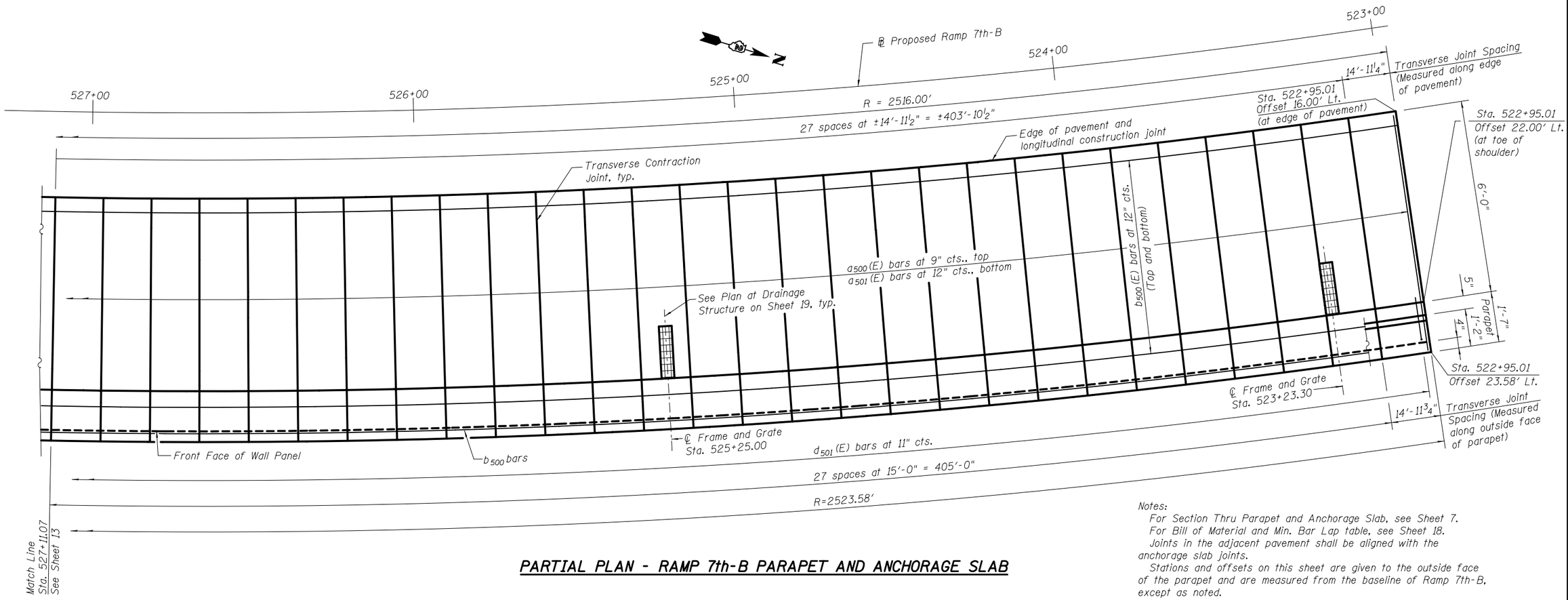
PARAPET AND ANCHORAGE SLAB 1
RAMP 7TH-B /I-74 /RAMP 7TH-A RETAINING WALL 06
STRUCTURE NO. 081-6015
SHEET NO. 13 OF 34 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1	ROCK ISLAND	2042	1321
		CONTRACT NO. 64E26		
	ILLINOIS FED. AID PROJECT			



PARTIAL OUTSIDE ELEVATION OF RAMP 7th-B PARAPET

(Looking West)



PARTIAL PLAN - RAMP 7th-B PARAPET AND ANCHORAGE SLAB

Notes:

For Section Thru Parapet and Anchorage Slab, see Sheet 7.

For Bill of Material and Min. Bar Lap table, see Sheet 18.

Joints in the adjacent pavement shall be aligned with the anchorage slab joints.

Stations and offsets on this sheet are given to the outside face of the parapet and are measured from the baseline of Ramp 7th-B, except as noted.

MODJESKI and MASTERS
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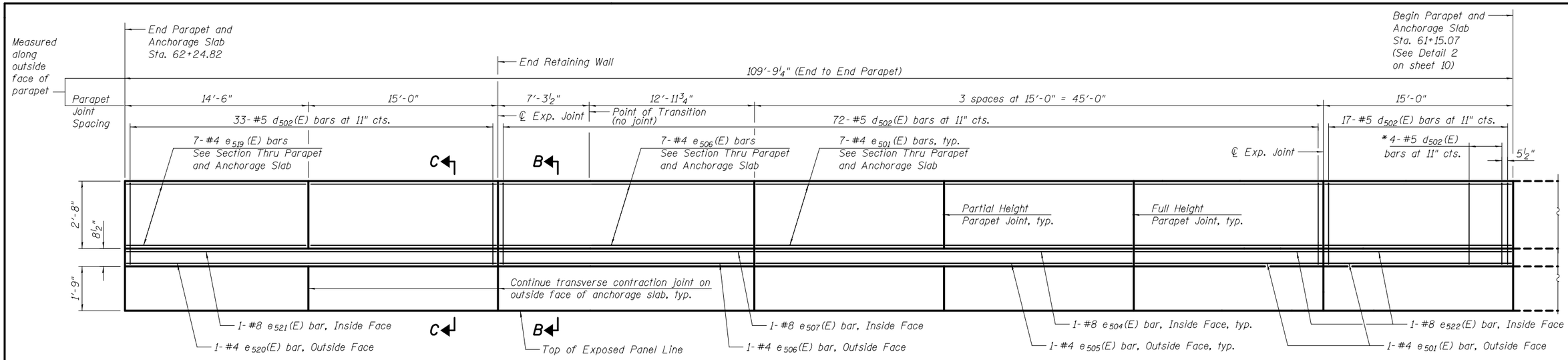
USER NAME =	DESIGNED - ZJB	REVISED
	CHECKED - ACK	REVISED
PLOT SCALE =	DRAWN - JAB	REVISED
PLOT DATE = 03/23/2017	CHECKED - JMH	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PARAPET AND ANCHORAGE SLAB 2
RAMP 7TH-B /I-74 /RAMP 7TH-A RETAINING WALL 06
STRUCTURE NO. 081-6015
SHEET NO. 14 OF 34 SHEETS

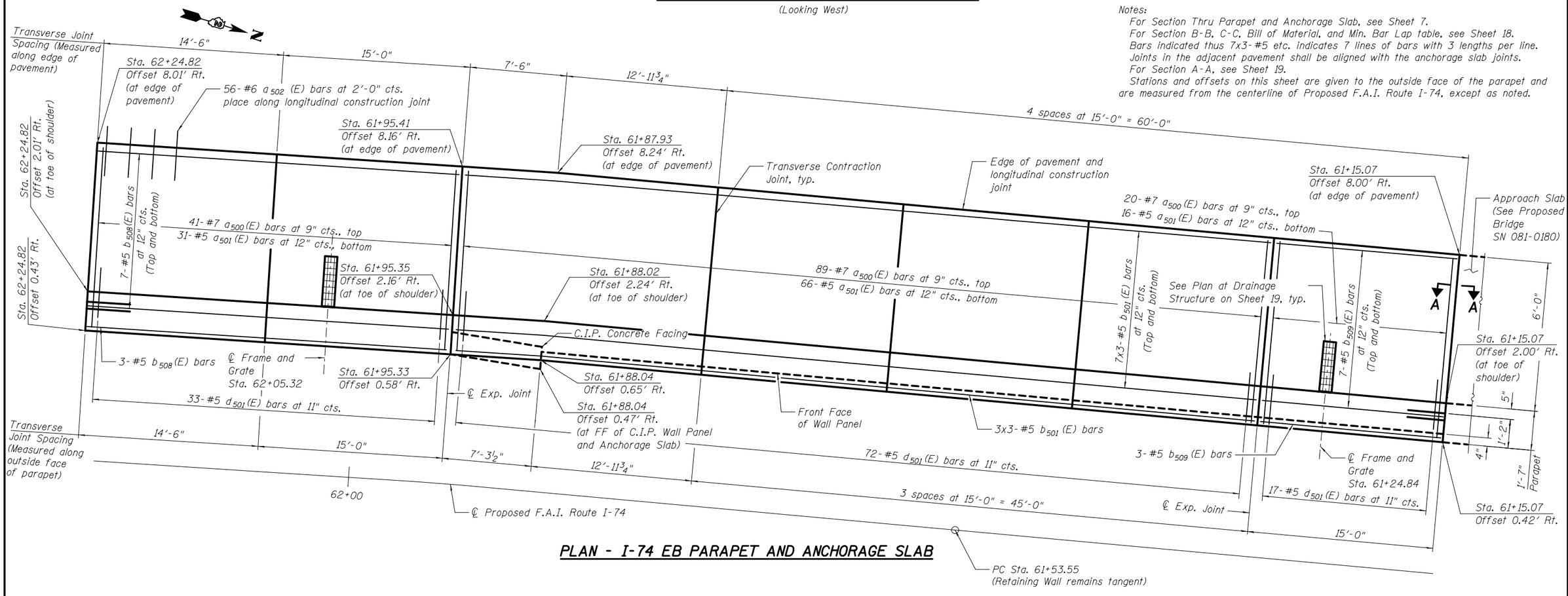
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1	ROCK ISLAND	2042	1322
		CONTRACT NO. 64E26		
	ILLINOIS FED. AID PROJECT			



OUTSIDE ELEVATION OF I-74 EB PARAPET

(Looking West)

Notes:
For Section Thru Parapet and Anchorage Slab, see Sheet 7.
For Section B-B, C-C, Bill of Material, and Min. Bar Lap table, see Sheet 18.
Bars indicated thus 7x3-#5 etc. indicates 7 lines of bars with 3 lengths per line.
Joints in the adjacent pavement shall be aligned with the anchorage slab joints.
For Section A-A, see Sheet 19.
Stations and offsets on this sheet are given to the outside face of the parapet and are measured from the centerline of Proposed F.A.I. Route I-74, except as noted.



PLAN - I-74 EB PARAPET AND ANCHORAGE SLAB

USER NAME =	DESIGNED - ZJB	REVISED	
	CHECKED - ACK	REVISED	
PLOT SCALE =	DRAWN - CMM	REVISED	
PLOT DATE = 03/23/2017	CHECKED - JMH	REVISED	

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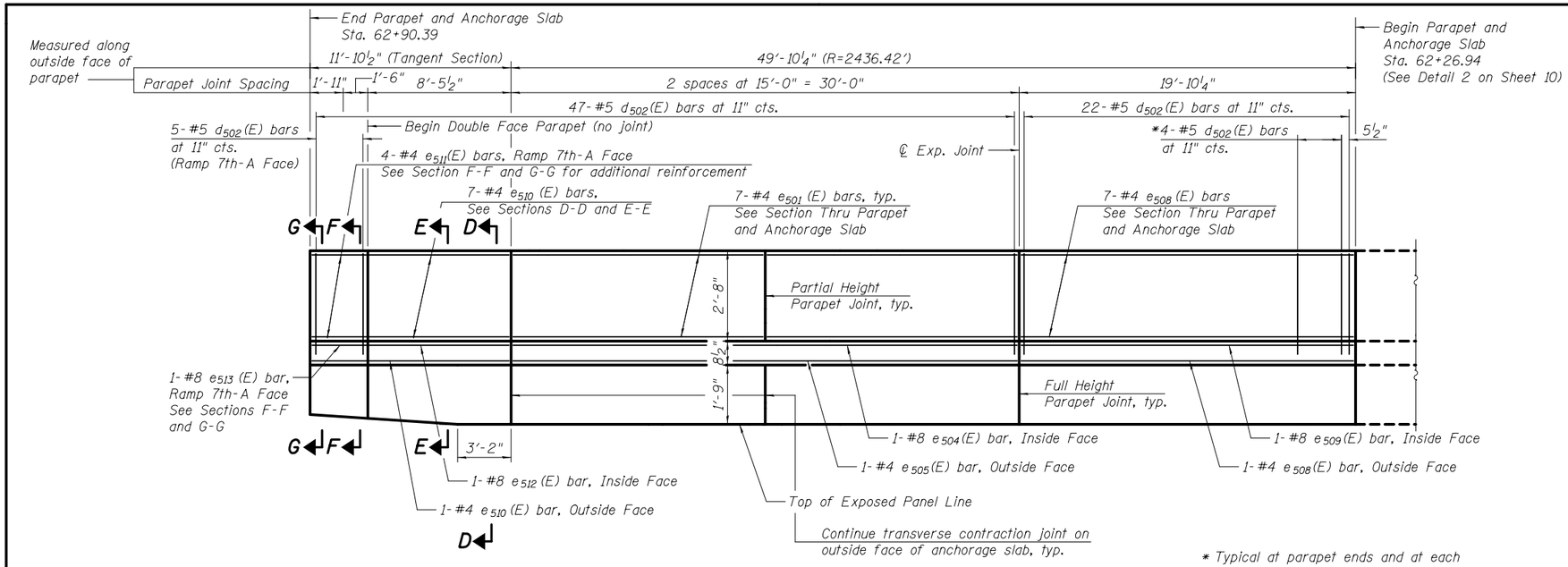
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PARAPET AND ANCHORAGE SLAB 3
RAMP 7TH-B /I-74 /RAMP 7TH-A RETAINING WALL 06
STRUCTURE NO. 081-6015
SHEET NO. 15 OF 34 SHEETS

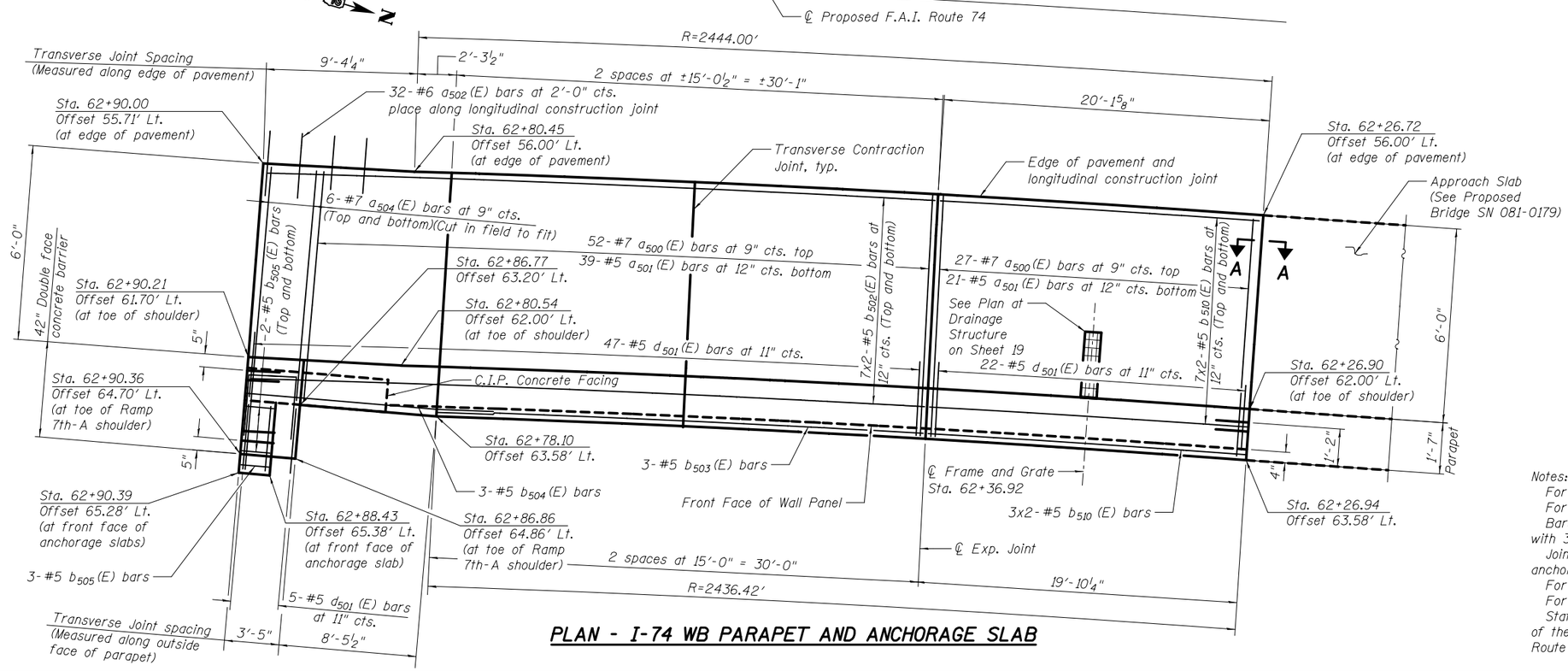
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1	ROCK ISLAND	2042	1323
		CONTRACT NO. 64E26		
	ILLINOIS FED. AID PROJECT			



* Typical at parapet ends and at each side of full height parapet joints

OUTSIDE ELEVATION OF I-74 WB PARAPET

(Looking West)



PLAN - I-74 WB PARAPET AND ANCHORAGE SLAB

Notes:

For Section Thru Parapet and Anchorage Slab, see Sheet 7.

For Bill of Material and Min. Bar Lap table, see Sheet 18.

Bars indicated thus 7x3-#5 etc. indicates 7 lines of bars with 3 lengths per line.

Joints in the adjacent pavement shall be aligned with the anchorage slab joints.

For Section A-A, see Sheet 19.

For Sections D-D, E-E, F-F, and G-G, see Sheet 18.

Stations and offsets on this sheet are given to the outside face of the parapet and are measured from the centerline of Proposed F.A.I. Route 74, except as noted.

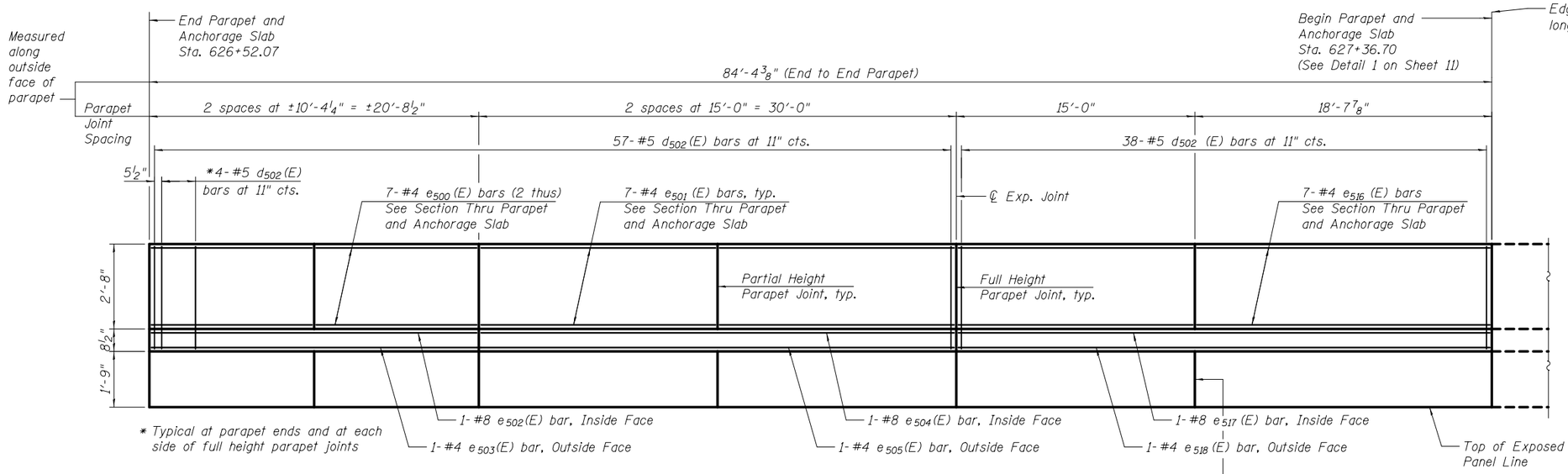
MODJESKI and MASTERS
Experience great bridges.

USER NAME =	DESIGNED - ZJB	REVISED
	CHECKED - ACK	REVISED
PLOT SCALE =	DRAWN - CMM	REVISED
PLOT DATE = 03/23/2017	CHECKED - JMH	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

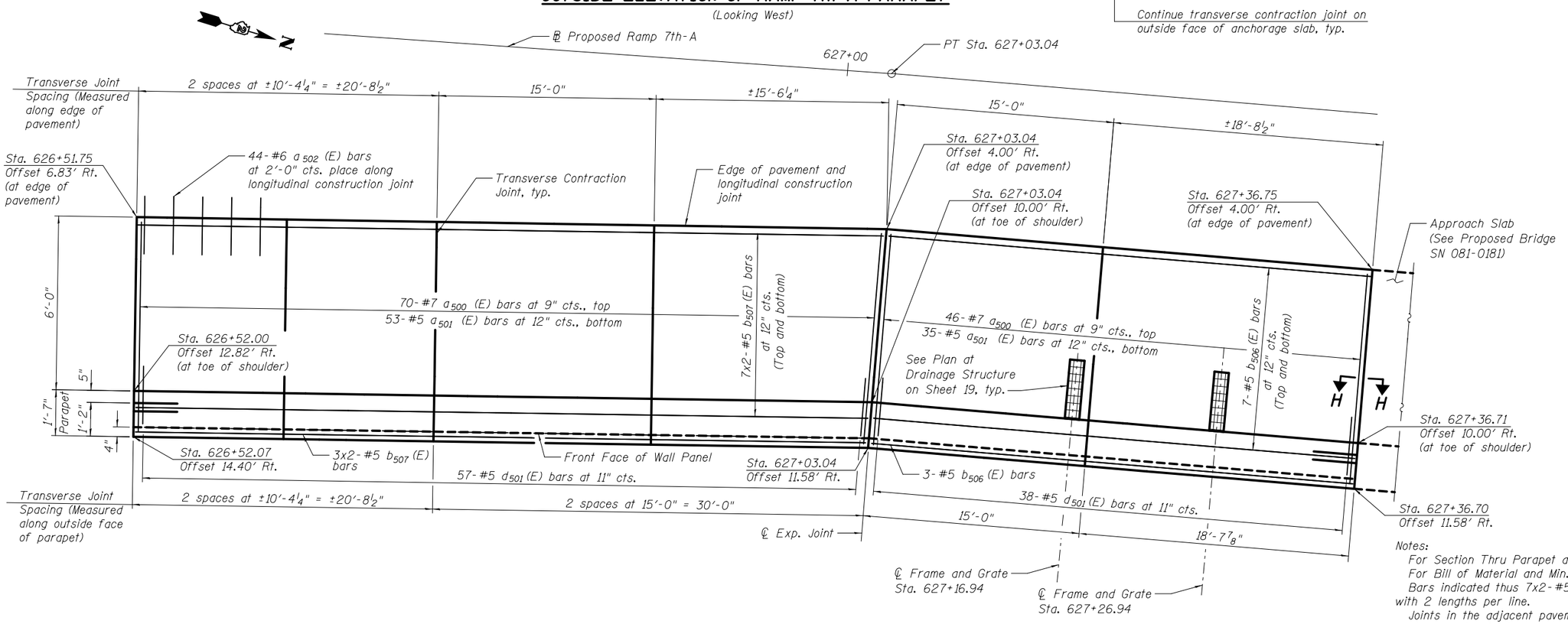
PARAPET AND ANCHORAGE SLAB 4
RAMP 7TH-B /I-74 /RAMP 7TH-A RETAINING WALL 06
STRUCTURE NO. 081-6015
SHEET NO. 16 OF 34 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1	ROCK ISLAND	2042	1324
		CONTRACT NO. 64E26		
	ILLINOIS FED. AID PROJECT			



OUTSIDE ELEVATION OF RAMP 7th-A PARAPET

(Looking West)



PLAN - RAMP 7th-A PARAPET AND ANCHORAGE SLAB

Notes:

For Section Thru Parapet and Anchorage Slab, see Sheet 7.

For Bill of Material and Min. Bar Lap table, see Sheet 18.

Bars indicated thus 7x2-#5 etc. indicates 7 lines of bars with 2 lengths per line.

Joints in the adjacent pavement shall be aligned with the anchorage slab joints.

For Section H-H, see Sheet 19.

Stations and offsets on this sheet are given to the outside face of the parapet and are measured from the baseline of Ramp 7th-A, except as noted.

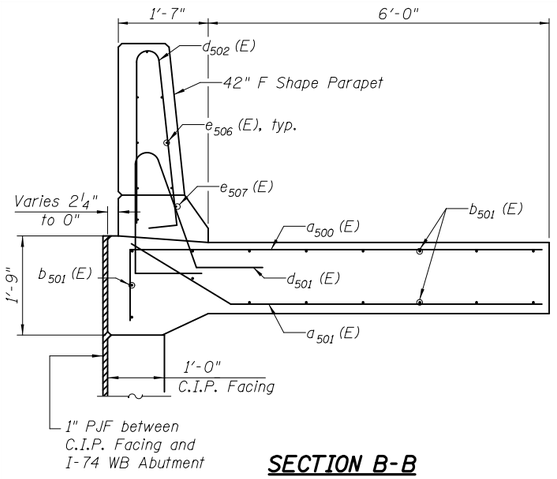
MODJESKI and MASTERS
Experience great bridges.

USER NAME =	DESIGNED - ZJB	REVISED	
	CHECKED - ACK	REVISED	
PLOT SCALE =	DRAWN - CMM	REVISED	
PLOT DATE = 03/23/2017	CHECKED - JMH	REVISED	

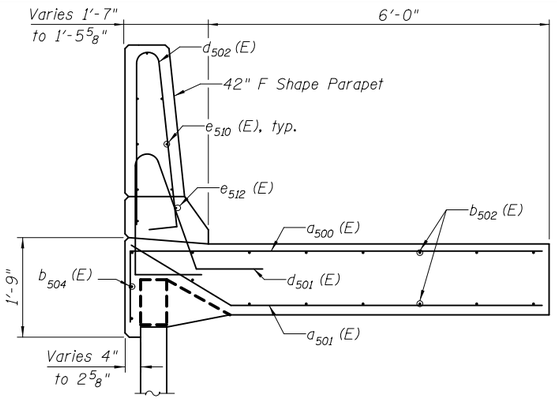
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PARAPET AND ANCHORAGE SLAB 5
RAMP 7TH-B / I-74 / RAMP 7TH-A RETAINING WALL 06
STRUCTURE NO. 081-6015
SHEET NO. 17 OF 34 SHEETS

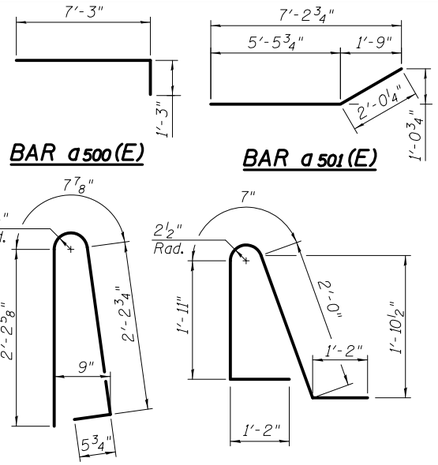
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1	ROCK ISLAND	2042	1325
		CONTRACT NO. 64E26		
ILLINOIS FED. AID PROJECT				



SECTION B-B



SECTION D-D

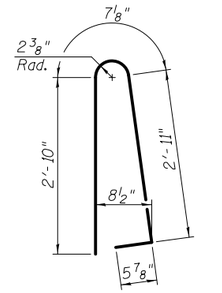


BAR a_{500} (E)

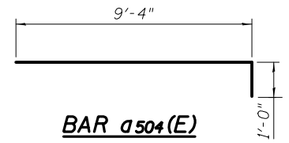
BAR a_{501} (E)

BAR d_{500} (E)

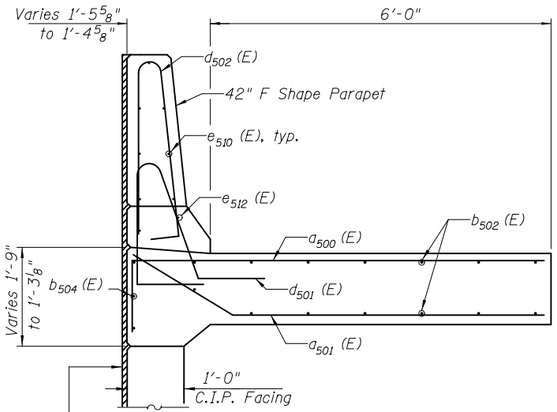
BAR d_{501} (E)



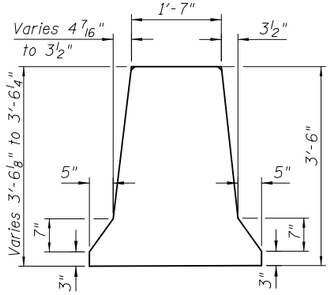
BAR d_{502} (E)

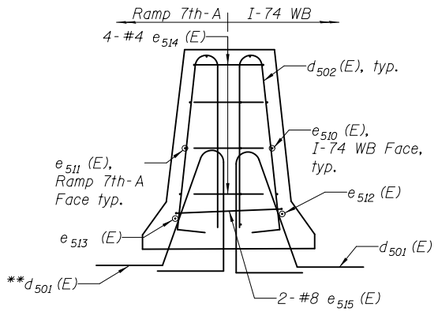


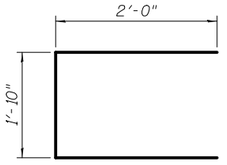
BAR a_{504} (E)



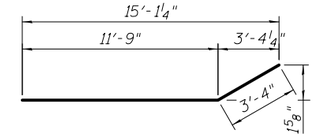
SECTION E-E



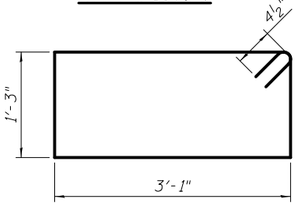




BAR e_{515} (E)



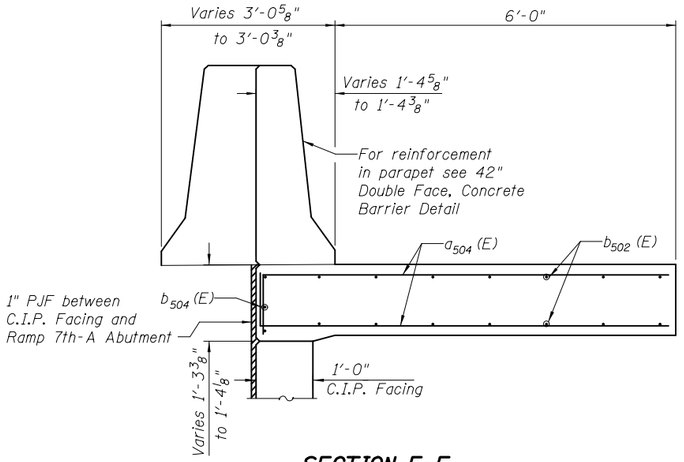
BAR b_{504} (E)



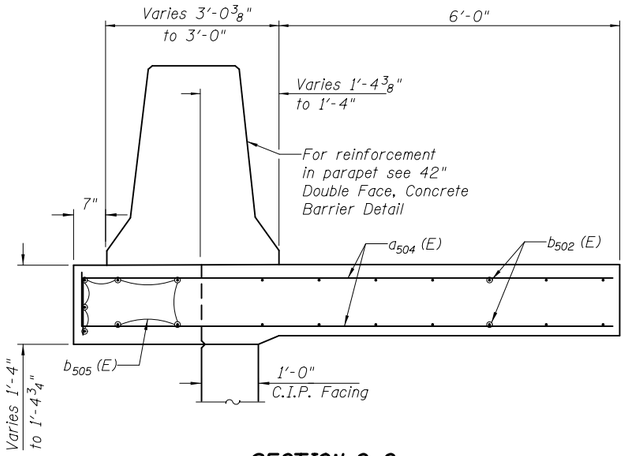
BAR e_{514} (E)

42" DOUBLE FACE, CONCRETE BARRIER DETAIL

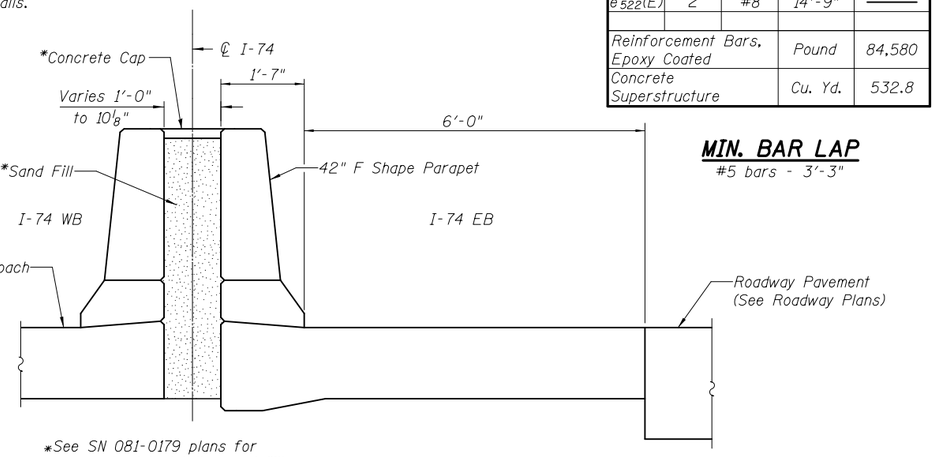
**d_{501} (E) bars on Ramp 7th-A face of Parapet will extend into the Ramp 7th-A abutment cap and anchorage slab. See SN 081-0181 for abutment cap and anchorage slab details.



SECTION F-F



SECTION G-G



*See SN 081-0179 plans for approach slab details, sand fill, and concrete cap.

SECTION C-C

MIN. BAR LAP

#5 bars - 3'-3"

Notes:
For Section locations, see Sheets 15 and 16.
For typical anchorage slab reinforcement, see Section Thru Parapet and Anchorage Slab on Sheet 7.

RETAINING WALL 06 BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a_{500} (E)	1494	#7	8'-6"	
a_{501} (E)	1123	#5	7'-6"	
a_{502} (E)	564	#6	2'-0"	
a_{503} (E)	64	#5	2'-0"	
a_{504} (E)	12	#7	10'-4"	
b_{500} (E)	595	#5	27'-9"	
b_{501} (E)	51	#5	24'-0"	
b_{502} (E)	28	#5	22'-6"	
b_{503} (E)	3	#5	29'-9"	
b_{504} (E)	3	#5	15'-1"	
b_{505} (E)	7	#5	1'-8"	
b_{506} (E)	17	#5	33'-5"	
b_{507} (E)	34	#5	27'-3"	
b_{508} (E)	17	#5	29'-3"	
b_{509} (E)	17	#5	14'-9"	
b_{510} (E)	34	#5	11'-6"	
d_{500} (E)	940	#5	5'-7"	
d_{501} (E)	1231	#5	6'-10"	
d_{502} (E)	367	#5	6'-10"	
e_{500} (E)	28	#4	10'-1"	
e_{501} (E)	457	#4	14'-9"	
e_{502} (E)	2	#8	20'-5"	
e_{503} (E)	2	#4	20'-5"	
e_{504} (E)	31	#8	29'-9"	
e_{505} (E)	31	#4	29'-9"	
e_{506} (E)	8	#4	20'-0"	
e_{507} (E)	1	#8	20'-0"	
e_{508} (E)	8	#4	19'-7"	
e_{509} (E)	1	#8	19'-7"	
e_{510} (E)	8	#4	11'-7"	
e_{511} (E)	4	#4	3'-2"	
e_{512} (E)	1	#8	11'-7"	
e_{513} (E)	1	#8	3'-2"	
e_{514} (E)	4	#4	9'-5"	
e_{515} (E)	2	#8	5'-10"	
e_{516} (E)	7	#4	18'-5"	
e_{517} (E)	1	#8	33'-5"	
e_{518} (E)	1	#4	33'-5"	
e_{519} (E)	7	#4	14'-3"	
e_{520} (E)	1	#4	29'-3"	
e_{521} (E)	1	#8	29'-3"	
e_{522} (E)	2	#8	14'-9"	
Reinforcement Bars, Epoxy Coated			Pound	84,580
Concrete Superstructure			Cu. Yd.	532.8

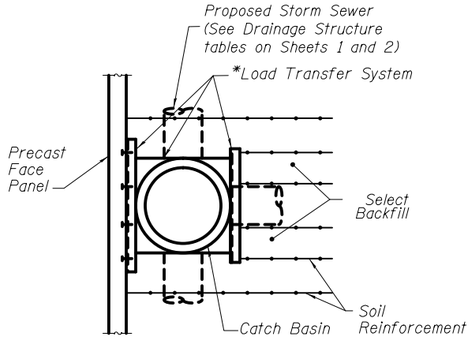
MODJESKI and MASTERS
Experience great bridges.

USER NAME =	DESIGNED - ZJB	REVISED
	CHECKED - ACK	REVISED
PLOT SCALE =	DRAWN - JAB	REVISED
PLOT DATE = 03/23/2017	CHECKED - JMH	REVISED

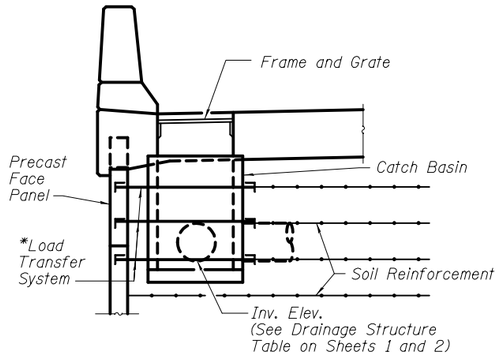
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PARAPET AND ANCHORAGE SLAB 6
RAMP 7TH-B / I-74 / RAMP 7TH-A RETAINING WALL 06
STRUCTURE NO. 081-6015
SHEET NO. 18 OF 34 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1	ROCK ISLAND	2042	1326
		CONTRACT NO. 64E26		
		ILLINOIS FED. AID PROJECT		

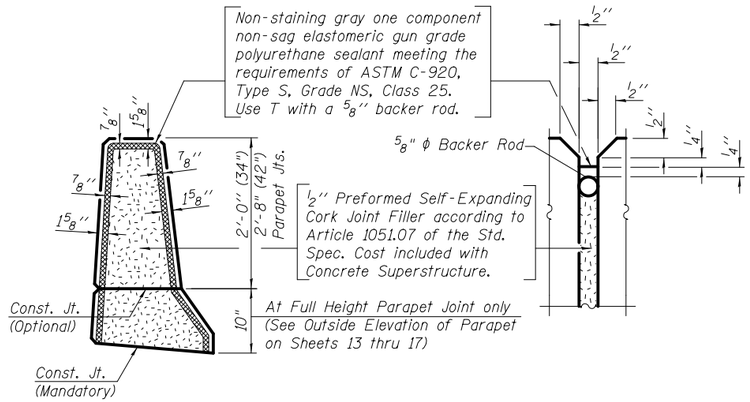


ANCHORAGE SLAB INLET PLAN

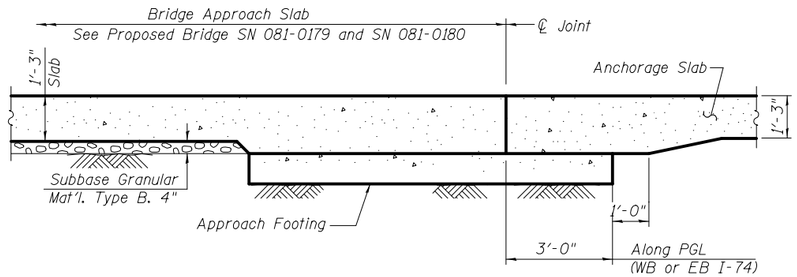


ANCHORAGE SLAB INLET SECTION

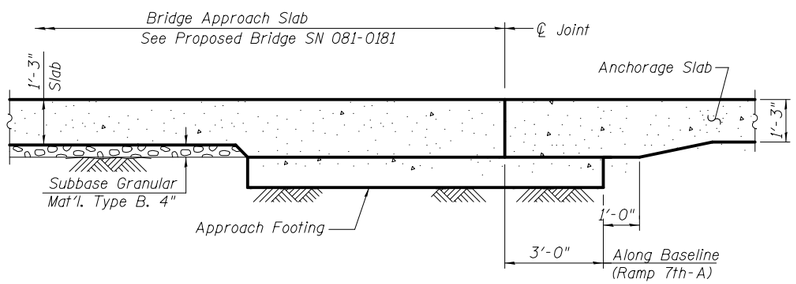
*M.S.E. supplier to design load transfer system to accommodate concrete pipe and catch basin.
(See Drainage and Utilities Plans for inlet details.)



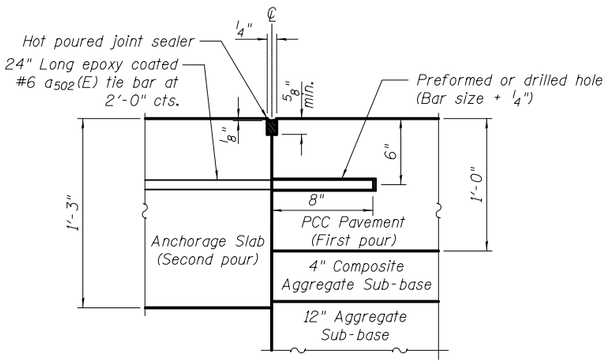
PARAPET JOINT DETAILS



SECTION A-A



SECTION H-H

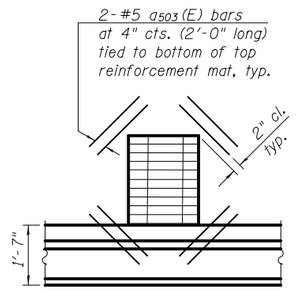


Notes:

The Contractor may substitute at his option, formed in place tie bars provided the bar length is increased to 30" and the tie bar is centered across the joint.

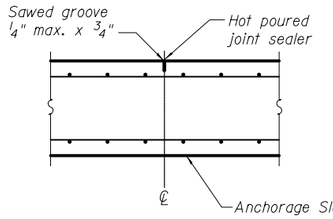
Preformed or drilled hole shall be in the first pour.

LONGITUDINAL CONSTRUCTION JOINT GROUTED-IN-PLACE TIE BAR



PLAN AT DRAINAGE STRUCTURE

(Cut longitudinal reinforcement to clear drainage structure.)



TRANSVERSE CONTRACTION JOINT

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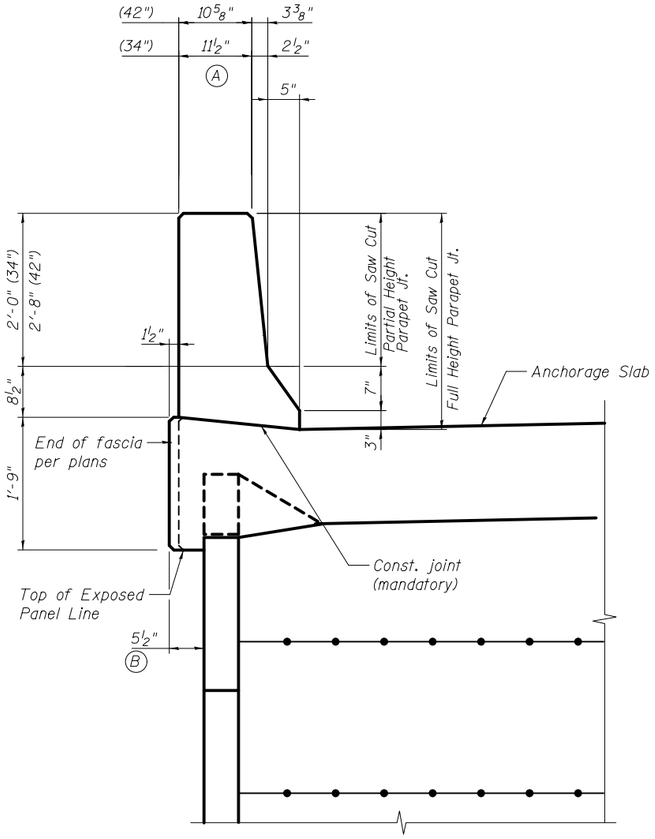
USER NAME =	DESIGNED - ZJB	REVISED
	CHECKED - ACK	REVISED
PLOT SCALE =	DRAWN - JAB	REVISED
PLOT DATE = 03/23/2017	CHECKED - JMH	REVISED

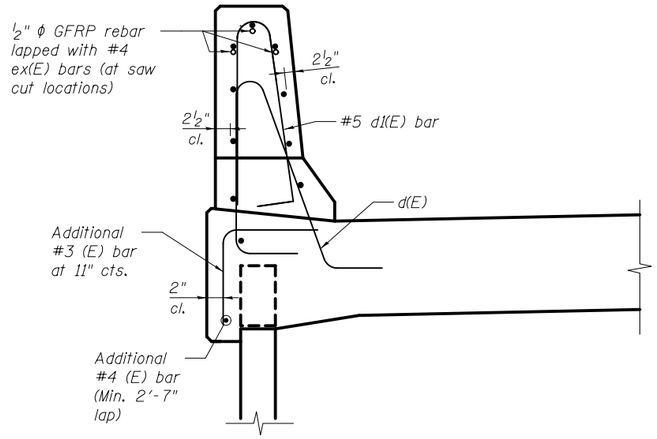
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MISCELLANEOUS DETAILS
RAMP 7TH-B /I-74 /RAMP 7TH-A RETAINING WALL 06
STRUCTURE NO. 081-6015
SHEET NO. 19 OF 34 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1	ROCK ISLAND	2042	1327
		CONTRACT NO. 64E26		
	ILLINOIS FED. AID PROJECT			

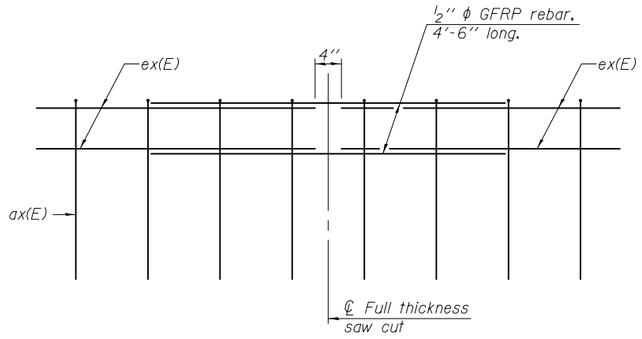


SECTION THRU PARAPET AND ANCHORAGE SLAB



SECTION

(Showing reinforcement clearances for slip forming and additional reinforcement)



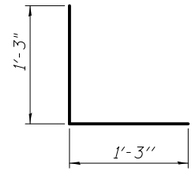
GFRP REBAR STIFFENING DETAIL

(Place as shown in parapet section at each parapet joint location.)

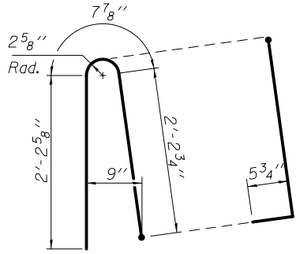
GENERAL NOTES

All dimensions shall remain the same as shown on superstructure details, except dimensions A and B which are to be revised as shown to provide additional clearance. Additional concrete needed to revise dimension A equals 0.016 cu. yds./ft.

Full thickness saw cut at all joint locations in lieu of cork joint filler.

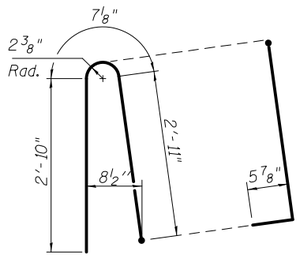


#3 (E) BAR



ALTERNATE BAR #5-d1(E) FOR 34" F-SHAPE

(When conduit is present)



ALTERNATE BAR #5-d1(E) FOR 42" F-SHAPE

(When conduit is present)

benesch
engineers · scientists · planners
Alfred Benesch & Company
205 North Michigan Avenue, Suite 2400
Chicago, Illinois 60601
312-565-0450

USER NAME =	DESIGNED - KMP	REVISED
	CHECKED - SLD	REVISED
PLOT SCALE =	DRAWN - KMP	REVISED
PLOT DATE = 03/23/2017	CHECKED - SLD	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RETAINING WALL PARAPET SLIPFORMING OPTION
RAMP 7TH-B /I-74 /RAMP 7TH-A RETAINING WALL 06
STRUCTURE NO. 081-6015
SHEET NO. 20 OF 34 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1	ROCK ISLAND	2040	1328
		CONTRACT NO. 64E26		
	ILLINOIS FED. AID PROJECT			

Illinois Department of Transportation
Division of Highways
JCI

SOIL BORING LOG

Date 9/10/07

ROUTE I-74 DESCRIPTION New I-74 Bridge Over Mississippi River - Illinois Approach LOGGED BY KJB

SECTION LOCATION (N=561873.84, E=2459651.753), SEC. 32, TWP. 18N, RNG. 1W, 4th PM

COUNTY Rock Island DRILLING METHOD HSA, CME 55 HAMMER TYPE CME AUTOMATIC

STRUCT. NO.
Station

BORING NO. 19BR-107
Station 59+82
Offset 60' Rt.
Ground Surface Elev. 609.10 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter ft
Upon Completion ft
After Hrs. ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
CONCRETE SIDEWALK - concrete (4-1/2" thick) + base course.	608.60			
		3		
CLAY - brown to yellowish brown, some silt, trace gravel, medium plastic, stiff, slightly moist.		4	1.4	13.5
		3	B	
	605.60			
SILT - dark brown, little to some clay, trace gravel, crumbly, slight to medium plastic, stiff, moist.		4		
		5	1.5	15.9
	-5	5	B	
		2		
		4	1.3	15.6
		6	B	
- little clay.			1.8	24.3
	-10		P	
	598.10			
CLAY TILL - dark brown (to 12.5 ft) to brown, to gray and tan, trace medium to coarse sand, trace fine gravel, stiff, moist (GLACIAL TILL).		2		
		2	0.5	14.4
		3	P	
- sandy till at 11.0'-12.5'.				
		3		
		4	2.0	14.1
	-15	5	B	
			3.3	14.4
			B	
-[Dry unit weight = 119.8 pcf]	590.60			
		4		
		6	2.3	14.1
	-20	8	B	

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
CLAY TILL - greenish brown to gray, trace medium to coarse sand, trace fine gravel, hard, moist to dry (GLACIAL TILL). *(continued)*				
		5		
		9	2.6	13.8
		11	B	
		5		
		8	2.8	14.5
	-25	10	B	
		6		
		7	2.7	13.1
		9	B	
		5		
		5	3.2	13.9
	-30	9	B	
		4		
		5	3.0	12.7
	-35	9	P	
		6		
CLAY SHALE - greenish gray to brown, clayey, hard, slightly to moderately weathered, slightly	570.60			
		17	>4.5	14.9
	-40	28	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, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
JCI

SOIL BORING LOG

Date 9/10/07

ROUTE I-74 DESCRIPTION New I-74 Bridge Over Mississippi River - Illinois Approach LOGGED BY KJB

SECTION LOCATION (N=561873.84, E=2459651.753), SEC. 32, TWP. 18N, RNG. 1W, 4th PM

COUNTY Rock Island DRILLING METHOD HSA, CME 55 HAMMER TYPE CME AUTOMATIC

STRUCT. NO.
Station

BORING NO. 19BR-107
Station 59+82
Offset 60' Rt.
Ground Surface Elev. 609.10 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter ft
Upon Completion ft
After Hrs. ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
moist to dry. CLAY SHALE - greenish gray to brown, clayey, hard, slightly to moderately weathered, slightly moist to dry. *(continued)*				
	565.60			
CLAY SHALE - black to dark gray, feint to no laminations, hard, slightly moist to dry.		16		
		29	>4.5	13.5
	-45	57	P	
		19		
		58	>4.5	10.9
		55/3"	P	
		20		
		50/5"	>4.5	10.3
	-50		P	
- [Note: driller added water to hole to be able to turn augers below 50' depth]				
		33		
- soft, laminated, clayey, sticky; falls apart and readily crumbles when moist; becomes sticky clay when wet.		50/2"	>4.5	12.8
	-55		P	
- light and dark gray shale cuttings.	550.50	50/5"		7.9
End of Boring				
	-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)

Illinois Department of Transportation
Division of Highways
CH2M HILL

SOIL BORING LOG

Date 9/27/07

ROUTE I-74 DESCRIPTION New I-74 Bridge Over Mississippi River - Illinois Approach LOGGED BY KB

SECTION I-74 Bridge over Mississippi River LOCATION (N=562585.063, E=2459363.329), SEC. 32, TWP. 18N, RNG. 1W, 4th PM

COUNTY Rock Island DRILLING METHOD HSA, CME 55 HAMMER TYPE CME AUTOMATIC

STRUCT. NO.
Station

BORING NO. ILR0601
Station 523+05
Offset 2' Lt.
Ground Surface Elev. 592.08 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter 569.1 ft ▼
Upon Completion ft
After Hrs. ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Silt (ML) gray transitioning to grayish brown, moist, trace of fine to medium grained sand, loose		2		
		2		
		2		
		2		
	-5	2	0.5	
		2	P	
	586.08			
Gravelly Silt (ML) yellowish brown, moist, low plasticity, loose		3		
		4		
		4		
	584.08			
Gravelly Sand (SP) yellowish brown, moist, medium dense		4		
		5		
		6		
	582.08	-10		
Silt With Trace Of Sand (ML) yellowish brown, moist, firm, with trace of sands, loose Rimac: Pu = 107 lbs		2		
		3	2.0	
		4		
	580.08			
Clay (CL) gray, moist, stiff, low plasticity, trace of fine sand		3		
		5	3.0	
		5	P	
		3		
	-15	4	3.5	
		5	P	
	576.08			
Sandy Silt (ML) gray, moist, stiff to very stiff		3		
		3	2.5	
		3	P	
	-20			

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Sandy Silt (ML) gray, moist, stiff to very stiff *(continued)*				
	▼	3		
		7	1.4	
		7		
	-25			
	565.08			
End of Boring				
	-30			
	-35			
	-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)

MODJESKI and MASTERS
Experience great bridges.

USER NAME =	DESIGNED - ZJB	REVISED	
	CHECKED - YSS	REVISED	
PLOT SCALE =	DRAWN - JAB	REVISED	
PLOT DATE = 03/23/2017	CHECKED - JMH	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS 1
RAMP 7TH-B /I-74 /RAMP 7TH-A RETAINING WALL 06
STRUCTURE NO. 081-6015
SHEET NO. 21 OF 34 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1	ROCK ISLAND	2042	1329
		CONTRACT NO. 64E26		
		ILLINOIS FED. AID PROJECT		

Illinois Department of Transportation
Division of Highways
CH2M HILL

SOIL BORING LOG

Page 1 of 1

Date 9/28/07

ROUTE I-74 DESCRIPTION New I-74 Bridge Over Mississippi River - Illinois Approach LOGGED BY KB

SECTION I-74 Bridge over Mississippi River LOCATION (N=562416.936, E=2459435.425), SEC. 32, TWP. 18N, RNG. 1W, 4th PM

COUNTY Rock Island DRILLING METHOD HSA, CME 55 HAMMER TYPE CME AUTOMATIC

STRUCT. NO. _____
Station _____

BORING NO. ILR0603
Station 524 + 88
Offset 2' Lt.
Ground Surface Elev. 595.87 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter _____ ft
Upon Completion _____ ft
After ____ Hrs. _____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Material Description
				Fill 8" Of Asphalt
593.87				
	2			**Fill**Sample drove a stone
	3			
	4			
591.87				
	2			**Fill**sample drove a piece of brick
-5	4			
	5			
589.87				
	2			**Silt With Fine to Coarse Sand (ML)**
	4	2.0		yellowish brown, moist, medium dense
	6	P		
	3			
	5	2.5		
	6	P		
585.87 -10				
	4			**Clay (CL)**
	6	2.5		gray, moist, very stiff, trace fine to medium grained sand
	6	P		
581.87				
	3			**Clay With Trace Of Sand (CL)**
-15	3	2.0		gray, moist, very firm, trace fine to medium sand
	5	P		
	3			rounded gravel;<½ inches in 18.5' sample
	5	2.5		
	6	P		
-20				

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Material Description
				Clay With Trace Of Sand (CL) gray, moist, very firm, trace fine to medium sand *(continued)*
	3			
	5	1.5		
	8	P		
-25				
567.87				
				End of Boring
-30				
-35				
-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)

Illinois Department of Transportation
Division of Highways
CH2M HILL

SOIL BORING LOG

Page 1 of 1

Date 10/1/07

ROUTE I-74 DESCRIPTION New I-74 Bridge Over Mississippi River - Illinois Approach LOGGED BY KB

SECTION I-74 Bridge over Mississippi River LOCATION (N=562314.209, E=2459474.823), SEC. 32, TWP. 18N, RNG. 1W, 4th PM

COUNTY Rock Island DRILLING METHOD HSA, CME 55 HAMMER TYPE CME AUTOMATIC

STRUCT. NO. _____
Station _____

BORING NO. ILR0604
Station 525 + 97
Offset 5' Lt.
Ground Surface Elev. 598.11 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter 578.1 ft ▼
Upon Completion _____ ft
After ____ Hrs. _____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Material Description
				8" Of Asphalt
596.11				
	6			**Sandy Clay (CL)**
	50/6"			grayish brown, moist, soft to firm
	2			
-5	3			
	2			
	2			
	1	0.6		
	1			
590.11				
	2			**Silt (ML)**
	3	3.5		yellowish brown, moist, trace of fine sand, loose to medium dense
	5	P		
-10				
	4			
	5	3.0		
	10			
586.11				
	1			**Clay (CL)**
	4	3.0		dark gray, moist, very stiff to hard, trace medium to coarse sand
	5	P		
	3			very stiff, trace of fine gravel; size <¾".
-15	5	4.8		
	8			
	3			
	5	3.0		
	8	P		
-20 ▼				

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Material Description
				Clay (CL) dark gray, moist, very stiff to hard, trace medium to coarse sand *(continued)*
				very stiff
	3			
	6	3.0		
	9	P		
-25				
570.11				
	6			**Sandy Clay With Gravel (CL)**
	8			dark gray, wet, very stiff, trace of fine gravel
	9			
568.11 -30				
				End of Boring
-35				
-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)

Illinois Department of Transportation
Division of Highways
CH2M HILL

SOIL BORING LOG

Page 1 of 1

Date 10/1/07

ROUTE I-74 DESCRIPTION New I-74 Bridge Over Mississippi River - Illinois Approach LOGGED BY KB

SECTION I-74 Bridge over Mississippi River LOCATION (N=562221.098, E=2459510.977), SEC. 32, TWP. 18N, RNG. 1W, 4th PM

COUNTY Rock Island DRILLING METHOD HSA, CME 55 HAMMER TYPE CME AUTOMATIC

STRUCT. NO. _____
Station _____

BORING NO. ILR0606
Station 526 + 97
Offset 11' Lt.
Ground Surface Elev. 600.09 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter _____ ft
Upon Completion _____ ft
After ____ Hrs. _____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Material Description
				Fill8" Of Asphalt
598.09				
	5			**Medium to Coarse Sand (SW)**
	10			yellowish brown, moist, loose to medium dense, trace of silt and clay
	13			
	1			
-5	3			
	3			
594.09				
	4			**Silty Fine to Coarse Sand (SM)**
	3			grayish brown, moist, loose, trace of fine gravel; size <¾".
	3			
592.09				
				Silt (ML)
				yellowish brown, moist, loose, trace fine sand
-10	2			
	4	2.4		
	5			
588.09				
	2			**Clay (CL)**
	3	2.1		gray, moist, very stiff, trace fine to medium
	6			RIMAC: 35lbs
	3			
-15	4	2.5		
	8	P		
	3			
	6	2.5		
	9	P		
-20				

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Material Description
				Clay (CL) gray, moist, very stiff, trace fine to medium RIMAC: 35lbs *(continued)*
	5			
	8	2.7		
	9			
-25				
	5			
	7	3.5		
	11	P		
-30				
	19			**Shale**
	50/5"			gray, dry, hard, laminated
567.09				
565.09 -35				
				End of Boring
-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)

MODJESKI and MASTERS
Experience great bridges.

USER NAME =	DESIGNED - ZJB	REVISED
	CHECKED - YSS	REVISED
PLOT SCALE =	DRAWN - JAB	REVISED
PLOT DATE = 03/23/2017	CHECKED - JMH	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS 2
RAMP 7TH-B /I-74 /RAMP 7TH-A RETAINING WALL 06
STRUCTURE NO. 081-6015
SHEET NO. 22 OF 34 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1	ROCK ISLAND	2042	1330
		CONTRACT NO. 64E26		
	ILLINOIS	FED. AID PROJECT		

Illinois Department of Transportation
Division of Highways
CH2M HILL

SOIL BORING LOG

Date 9/28/07

ROUTE I-74 DESCRIPTION New I-74 Bridge Over Mississippi River - Illinois Approach LOGGED BY KB

SECTION I-74 Bridge over Mississippi River LOCATION (N=562128.284, E=2459547.702), SEC. 32, TWP. 18N, RNG. 1W, 4th PM

COUNTY Rock Island DRILLING METHOD HSA, CME 55 HAMMER TYPE CME AUTOMATIC

STRUCT. NO. _____
Station _____

BORING NO. ILR0608
Station 527 + 95
Offset 23' Lt.
Ground Surface Elev. 602.39 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter _____ ft
Upon Completion _____ ft
After ____ Hrs. _____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Material
				Silt (ML) yellowish brown, moist, loose, trace fine to coarse sand
	2			
	3			
598.39	5			
	8			**Sandy Silt (ML)** brown to dark brown, moist, very loose to medium dense
-5	10			
	10			
	3			
	4			
	4			
	3			
	3			
592.39	4			
-10				**Fine to Coarse Sand (SP)** yellowish brown, moist, trace of fine to medium gravel
590.39				
	3			**Silt (ML)** yellowish brown, moist, firm, trace fine to medium sand
	3			
	5			
	3			
-15	4			
	4			
	7			
	8			
582.39	10			
-20				

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Material
				Clay (CL) dark gray, moist, stiff to very stiff, trace fine sand
	20			
	5			
	5			
-25				
	3			
	4			
	7			
-30				
	6			
	6			
	10			
-35				
	50/5"			
562.39				
-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)

Illinois Department of Transportation
Division of Highways
CH2M HILL

SOIL BORING LOG

Date 9/28/07

ROUTE I-74 DESCRIPTION New I-74 Bridge Over Mississippi River - Illinois Approach LOGGED BY KB

SECTION I-74 Bridge over Mississippi River LOCATION (N=562128.284, E=2459547.702), SEC. 32, TWP. 18N, RNG. 1W, 4th PM

COUNTY Rock Island DRILLING METHOD HSA, CME 55 HAMMER TYPE CME AUTOMATIC

STRUCT. NO. _____
Station _____

BORING NO. ILR0608
Station 527 + 95
Offset 23' Lt.
Ground Surface Elev. 602.39 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter _____ ft
Upon Completion _____ ft
After ____ Hrs. _____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Material
				End of Boring
-45				
-50				
-55				
-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)

Illinois Department of Transportation
Division of Highways
CH2M HILL

SOIL BORING LOG

Date 10/2/07

ROUTE I-74 DESCRIPTION New I-74 Bridge Over Mississippi River - Illinois Approach LOGGED BY KB

SECTION I-74 Bridge over Mississippi River LOCATION (N=562089.377, E=2459557.006), SEC. 32, TWP. 18N, RNG. 1W, 4th PM

COUNTY Rock Island DRILLING METHOD HSA, CME 55 HAMMER TYPE CME AUTOMATIC

STRUCT. NO. _____
Station _____

BORING NO. ILR0609
Station 528 + 35
Offset 23' Lt.
Ground Surface Elev. 603.53 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter _____ ft
Upon Completion _____ ft
After ____ Hrs. _____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Material
				Silty Fine to Coarse Sand (SM) grayish brown, moist, medium dense
	3			
	7			
599.53	9			
	3			**Well Graded Sand (SW)** yellowish brown, slightly moist, loose
-5	4			
	4			
597.53				**Clay (CH)** dark brown, moist, soft
		0.5		
595.53				**Sandy Silt (ML)** yellowish brown, moist, loose
-10				
	2			
	2	2.0		
	3			
	4			
	5			
	7			
589.53				
	3			**Silt (ML)** yellowish brown, moist, medium dense, trace coarse sand
-15	5	5.4		
	9	S		
	3			
	5	3.0		
	7	P		
583.53				
-20				

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Material
				Clay (CL) gray, moist, very stiff to hard
	3			
	5	4.2		
	8	B		
-25				
	3			
	5	2.0		
	9	P		
-30				
	3			
	5	4.0		
	11	P		
-35				
	21			
	44			
	50/3"			
-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)

MODJESKI and MASTERS
Experience great bridges.

USER NAME =	DESIGNED - ZJB	REVISED	
	CHECKED - YSS	REVISED	
PLOT SCALE =	DRAWN - JAB	REVISED	
PLOT DATE = 03/23/2017	CHECKED - JMH	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS 3
RAMP 7TH-B /I-74 /RAMP 7TH-A RETAINING WALL 06
STRUCTURE NO. 081-6015
SHEET NO. 23 OF 34 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1	ROCK ISLAND	2042	1331
		CONTRACT NO. 64E26		
	ILLINOIS FED. AID PROJECT			

Illinois Department of Transportation
Division of Highways
CH2M HILL

SOIL BORING LOG

Date 10/2/07

ROUTE I-74 DESCRIPTION New I-74 Bridge Over Mississippi River - Illinois Approach LOGGED BY KB

SECTION I-74 Bridge over Mississippi River LOCATION (N=562089.377, E=2459557.006), SEC. 32, TWP. 18N, RNG. 1W, 4th PM

COUNTY Rock Island DRILLING METHOD HSA, CME 55 HAMMER TYPE CME AUTOMATIC

STRUCT. NO. _____
Station _____

BORING NO. ILR0609
Station 528 + 35
Offset 23' Lt.
Ground Surface Elev. 603.53 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter _____ ft
Upon Completion _____ ft
After ____ Hrs. _____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Clay (CL) gray, moist, very stiff to hard *(continued)* — 562.53			
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)

Illinois Department of Transportation
Division of Highways
CH2M HILL

SOIL BORING LOG

Date 10/4/07

ROUTE I-74 DESCRIPTION New I-74 Bridge Over Mississippi River - Illinois Approach LOGGED BY KB

SECTION I-74 Bridge over Mississippi River LOCATION (N=561958.925, E=2459600.489), SEC. 32, TWP. 18N, RNG. 1W, 4th PM

COUNTY Rock Island DRILLING METHOD HSA, CME 55 HAMMER TYPE CME AUTOMATIC

STRUCT. NO. _____
Station _____

BORING NO. ILR0611
Station 529 + 70
Offset 39' Lt.
Ground Surface Elev. 607.51 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter _____ ft
Upon Completion _____ ft
After ____ Hrs. _____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Fill-4-Inches Of Concrete			
605.51	4		
Silt (ML) moist, trace fine to medium sand, medium dense	5 6		
	8		
-5	6 6		
601.51	3		
Silt With Fine to Medium Sand (ML) gray, slightly moist, loose to medium dense RIMAC: Pu =20lb	2 2	1.2 S	
	4		
	6 6		
597.51 -10			
Silty Fine to Medium Sand (SM) gray, moist, loose	2 2		
595.51	2		
Silty Sand (SM) gray, moist, medium dense, trace of angular gravel; size <¾".	3 8		
	8		
	1		
-15	5 4		
589.51	3		
Clay (CL) gray, moist, very stiff to hard, trace fine to medium sand	4 7	4.2 S	
-20			

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Clay (CL) gray, moist, very stiff to hard, trace fine to medium sand *(continued)*			
	3		
	5 7	2.0 P	
-25			
	4		
	6 12	4.0 P	
-30			
	6		
	9 14	3.0 P	
-35			
569.51	10		
Shale gray, hard, laminated	27 50		
567.51 -40			
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)

HANSON

SOIL BORING LOG

Date 6/21/10

ROUTE F.A.I. 74 DESCRIPTION I-74 Over Mississippi River LOGGED BY JMB

SECTION 81B LOCATION SE¼ of SEC. 32, TWP. 18N, RNG. 1W, 4th P.M.

COUNTY Rock Island DRILLING METHOD Hollow Stem Auger HAMMER TYPE Auto

STRUCT. NO. _____
Station _____
BORING NO. RMP 7th B-04
Station 529+69
Offset 11' Lt.
Ground Surface Elev. 610.7 ft

Surface Water Elev. _____
Stream Bed Elev. _____

Groundwater Elev.:
First Encounter NE ft
Upon Completion _____ ft
After ____ Hrs. _____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
TOPSOIL — 610.30			
FILL - Brown, moist, stiff, lean CLAY with trace very fine- to fine-grained sand	4 6 7	4.50P	11
2 — 607.70			
FILL - Dark brown, moist, medium, SILT with trace fine-grained sand	5 4 4	1.15B	18
4 — 605.20			
FILL - Dark brown, moist, stiff, clayey SILT with trace gravel	3 6 6	1.80P	23
8			
	4 6 6	2.09B	10
600.70 — 10			
Light brown, moist, very stiff, lean CLAY with trace fine-grained sand and gravel	5 8 9	1.50P	15
598.70 — 12 — 598.20			
Brown, wet, medium dense, silty, clayey SAND with trace gravel			
Gray, moist, stiff, lean CLAY with trace gravel	5 6 9	1.56B	14
14 — 595.70			
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)

MODJESKI and MASTERS
Experience great bridges.

USER NAME =	DESIGNED - ZJB	REVISED
	CHECKED - YSS	REVISED
PLOT SCALE =	DRAWN - JAB	REVISED
PLOT DATE = 03/23/2017	CHECKED - JMH	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS 4
RAMP 7TH-B /I-74 /RAMP 7TH-A RETAINING WALL 06
STRUCTURE NO. 081-6015
SHEET NO. 24 OF 34 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1	ROCK ISLAND	2042	1332
		CONTRACT NO. 64E26		
	ILLINOIS	FED. AID PROJECT		

SOIL BORING LOG

Page 1 of 1

Date 6/21/10

ROUTE F.A.I. 74 DESCRIPTION I-74 Over Mississippi River LOGGED BY JMB

SECTION 81B LOCATION SE¼ of SEC. 32, TWP. 18N, RNG. 1W, 4th P.M.

COUNTY Rock Island DRILLING METHOD Hollow Stem Auger HAMMER TYPE Auto

STRUCT. NO. _____
Station _____
BORING NO. RMP 7th B-05
Station 528+08
Offset 7' Rt.
Ground Surface Elev. 602.2 ft

Surface Water Elev. _____
Stream Bed Elev. _____

Groundwater Elev.:
First Encounter NE ft
Upon Completion _____ ft
After ____ Hrs. _____ ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
TOPSOIL 601.90				
FILL - Dark brown, moist, medium, CLAY with trace silt	2	5 4 4	2.80P	30
599.20				
FILL - Dark gray, moist, medium, clayey SILT	4	2 2 3	0.25B	24
596.20				
FILL - Gray, moist, loose, silty, Fine-grained SAND	6	2 2 3	0.80P	18
594.20				
FILL - Dark grayish brown, moist, stiff, silty CLAY with fine-grained sand	8	6 6 4		18
591.70	10			
Brown, moist, stiff, lean CLAY with trace silt	12	3 5 6	1.50P	17
588.20	14	5 6 8	1.36B	15
Gray, moist, stiff, lean CLAY with very fine-grained sand and gravel 587.20				
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)

SOIL BORING LOG

Page 1 of 1

Date 6/21/10

ROUTE F.A.I. 74 DESCRIPTION I-74 Over Mississippi River LOGGED BY JMB

SECTION 81-1-2 LOCATION NE¼ of SEC. 32, TWP. 18N, RNG. 1W, 4th P.M.

COUNTY Rock Island DRILLING METHOD Hollow Stem Auger HAMMER TYPE Auto

STRUCT. NO. 081-6015
Station _____
BORING NO. RW 06-2
Station 529+20
Offset 41' Lt.
Ground Surface Elev. 605.6 ft

Surface Water Elev. _____
Stream Bed Elev. _____

Groundwater Elev.:
First Encounter _____ ft
Upon Completion 590.6 ft ▽
After ____ Hrs. _____ ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
TOPSOIL 605.35				
FILL - Brown with gray mottles, moist, SILT with trace fine-grained sand	2		3.35S	15
602.60				
FILL - Dark brown, moist, stiff, SILT with trace sand and gravel	4		2.32S	16
		26 11		8
599.60	6			
FILL - Dark brown, moist, stiff, SILT with trace sand and gravel, rock fragments		15 8 3		12
	8		0.55S	18
				18
595.60	10			9
Grayish brown, wet, medium dense, silty, clayey, medium- to coarse-grained SAND with gravel	12	8 6 6	2.00P	14
592.60				
Gray, moist, very stiff, silty CLAY with trace sand and gravel	14	6 7 8	1.56B	16
	▽			
	16		3.49B	14
			5.20D	13
			3.25P	12
587.60	18			
Brown, wet, dense, silty, fine- to coarse-grained SAND with trace gravel		11 18 22		13
585.60	20			
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)

SOIL BORING LOG

Page 1 of 1

Date 6/21/10

ROUTE F.A.I. 74 DESCRIPTION I-74 Over Mississippi River LOGGED BY JMB

SECTION 81-1-2 LOCATION SE¼ of SEC. 32, TWP. 18N, RNG. 1W, 4th P.M.

COUNTY Rock Island DRILLING METHOD Hollow Stem Auger HAMMER TYPE Auto

STRUCT. NO. 081-6015
Station _____
BORING NO. RW 06-3
Station 524+37
Offset 39' Lt.
Ground Surface Elev. 595.2 ft

Surface Water Elev. _____
Stream Bed Elev. _____

Groundwater Elev.:
First Encounter NE ft
Upon Completion _____ ft
After ____ Hrs. _____ ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
CONCRETE 594.95				
FILL - Brown, moist, stiff, fine-grained sandy CLAY		4		16
593.70	2	5 6		
FILL - Brown, moist, medium dense, clayey, fine- to medium-grained SAND with trace gravel				9
	4			
	6	5 10 12		10
587.20				
Gray, moist, stiff, silty CLAY with trace sand	8	7 7 7		14
	10			
	12	6 7 9	1.77B	15
	14	6 7 9	1.02S	14
580.20				
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)

MODJESKI and MASTERS
Experience great bridges.

USER NAME =	DESIGNED - ZJB	REVISED
	CHECKED - YSS	REVISED
PLOT SCALE =	DRAWN - JAB	REVISED
PLOT DATE = 03/23/2017	CHECKED - JMH	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS 5
RAMP 7TH-B /I-74 /RAMP 7TH-A RETAINING WALL 06
STRUCTURE NO. 081-6015
SHEET NO. 25 OF 34 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1	ROCK ISLAND	2042	1333
		CONTRACT NO. 64E26		
	ILLINOIS FED. AID PROJECT			

Illinois Department of Transportation
Division of Highways
CH2M HILL

SOIL BORING LOG

Date 11/17/05

ROUTE I-74 DESCRIPTION New I-74 Bridge Over Mississippi River - Illinois Approach LOGGED BY L. Hunt

SECTION I-74 Bridge over Mississippi River LOCATION (N=562051.32, E=2459565.966), SEC. 32, TWP. 18N, RNG. 1W, 4th PM

COUNTY Rock Island DRILLING METHOD HSA, CME 55 HAMMER TYPE CME AUTOMATIC

STRUCT. NO. _____
Station _____

BORING NO. RW1810
Station 528 + 74
Offset 23' Lt.
Ground Surface Elev. 604.24 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter _____ ft
Upon Completion _____ ft
After ____ Hrs. _____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Soil Description
	6			**Silt (MH)** Silt, trace gravel, light brown to brown, dry to moist, medium dense, stratified
	9			
	8			
	11			
602.24				
	7			Silt to clay, trace gravel and organics, light brown to brown, dry to moist, hard, stratified, till
	14	4.5 P		
	11			
	11			
600.24				
	6			**Clay (CL)** Clay, trace gravel, trace organics, light brown to brown, mottled orange brown and gray brown, very stiff to hard
-5	7			
	5			
	6			
	6			
	7	4.5 P		
	8			
	10			
	5			
	5			
	5			
-10	4			Fill to 12'-14'
	5			
	5	4.5 P		
	5			
	7			
	7			
	5	4.5 P		
	5			
	6			
	7			
-15	6	3.2 P		
	6			
	8			
	9			
-20				

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Soil Description
	3			**Clay (CL)** Clay, trace gravel, trace organics, light brown to brown, mottled orange brown and gray brown, very stiff to hard *(continued)*
	6	2.5 P		
	8			
	10			
	6			
-25	9	2.2 P		
	11			
	14			
-30	5			
	6	2.6 P		
	10			
	11			
	3			1"-thick sandy clay seam in 34.0' sample
-35	6	2.3 P		
	9			
	12			
-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)

Illinois Department of Transportation
Division of Highways
CH2M HILL

SOIL BORING LOG

Date 11/17/05

ROUTE I-74 DESCRIPTION New I-74 Bridge Over Mississippi River - Illinois Approach LOGGED BY L. Hunt

SECTION I-74 Bridge over Mississippi River LOCATION (N=562051.32, E=2459565.966), SEC. 32, TWP. 18N, RNG. 1W, 4th PM

COUNTY Rock Island DRILLING METHOD HSA, CME 55 HAMMER TYPE CME AUTOMATIC

STRUCT. NO. _____
Station _____

BORING NO. RW1810
Station 528 + 74
Offset 23' Lt.
Ground Surface Elev. 604.24 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter _____ ft
Upon Completion _____ ft
After ____ Hrs. _____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Soil Description
	5			**Clay (CL)**, trace gravel, little sand, gray brown, wet, very stiff
	7	2.1 P		
	9			
	12			
562.24				
				Shale Clayey Sand (2") to shale, gray brown, wet to moist, loose to hard, stratified
	23			
-45	50/5			
	50/6			Shale, dark gray, moist, hard, homogenous Let split spoon fall from 50.0' (50/6" = free fall)
	50/4			
554.24	-50			
				End of Boring
-55				
-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)

CH2MHILL

PROJECT NUMBER: 158835.AA.GS.01
BORING NUMBER: RW1812 SHEET 1 OF 1

SOIL BORING LOG

PROJECT : I-74 Bridge over Mississippi River, Quad Cities IA/IL LOCATION : I-74 Ramp 7th-B (562357.1 N, 2459445.8 E)

ELEVATION : 599.0 ft MSL DRILLING CONTRACTOR : Terracon

DRILLING METHOD AND EQUIPMENT : CME 550, Hollow Stem Auger Station 525 + 47 Offset 9' Rt.

WATER LEVELS : --- START : 11/15/05 14:27 END : 11/15/05 15:34 LOGGER : L. Hunt

DEPTH BELOW EXISTING GRADE (ft)	INTERVAL (ft)	RECOVERY (in)	#TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	SYMBOLIC LOG	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION
599.0	0.0				**Clay (CL)**		
	2.0	16.0	B-1-SS	3-6-6-6 (12)	Clay, little gravel, dark brown, dry to moist, very hard, blocky		PP: 4.5+tsf
	4.0	12.0	B-2-SS	6-9-13-6 (22)	Clay, little gravel, few brick, dark brown, dry to moist, very stiff, blocky		
5 594.0	6.0	10.0	B-3-SS	3-2-1-2 (3)	Silty Clay, trace gravel, dark brown, dry to moist, very stiff, blocky		2" of sand at bottom of sample Wc=13% LL: 27, PL: 16
	8.0	0.0	B-4-SS	2-4-8-9 (12)			
10 589.0	10.0		B-5-SS	7-6-7-10 (13)	Clay, trace gravel, gray brown, moist, hard, homogenous, till		PP: 4.5+tsf
	12.0	24.0	B-6-SS	6-6-7-8 (13)	Clay, trace gravel, gray brown, moist, hard, homogenous, till		PP: 4.5+tsf
	14.0	24.0	B-7-SS	4-4-5-7 (9)	Clay, trace gravel, gray brown, moist, hard, homogenous, till		PP: 2.1tsf
15 584.0	16.0	24.0	B-8-SS	4-7-8-10 (15)	Clay, trace gravel, gray brown, moist, hard, homogenous, till		PP: 2.0tsf
	19.0						
20 579.0	21.0	24.0	B-9-SS	3-4-6-8 (10)	Clay, trace gravel, gray brown, moist, hard, homogenous, till		PP: 2.0tsf
	24.0						
25 574.0	26.0	24.0	B-10-SS	4-7-8-9 (15)	Clay, trace gravel, gray brown, moist, hard, homogenous, till		PP: 2.1tsf
	29.0						
30 569.0	31.0	13.0	B-11-SS		Clay, trace gravel, gray brown, moist, hard, homogenous, till to shale, (CL-S")		
					Shale Light gray, moist, hard, stratified Bottom of Boring at 31.0 ft below ground surface on 11/15/05 15:34		Bottom of borehole at 31.0'; auger apparatus broke down, spitting ball bearing as it turned
35							

MODJESKI and MASTERS
Experience great bridges.

USER NAME =	DESIGNED - ZJB	REVISED	
	CHECKED - YSS	REVISED	
PLOT SCALE =	DRAWN - JAB	REVISED	
PLOT DATE = 03/23/2017	CHECKED - JMH	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS 6
RAMP 7TH-B /I-74 /RAMP 7TH-A RETAINING WALL 06
STRUCTURE NO. 081-6015
SHEET NO. 26 OF 34 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1	ROCK ISLAND	2042	1334
		CONTRACT NO. 64E26		
	ILLINOIS	FED. AID PROJECT		

Illinois Department of Transportation
Division of Highways
CH2M HILL

SOIL BORING LOG

Date 11/14/05

ROUTE I-74 DESCRIPTION New I-74 Bridge Over Mississippi River - Illinois Approach LOGGED BY L. Hunt

SECTION I-74 Bridge over Mississippi River LOCATION (N=562526.163, E=2459379.709), SEC. 32, TWP. 18N, RNG. 1W, 4th PM

COUNTY Rock Island DRILLING METHOD HSA, CME 55 HAMMER TYPE CME AUTOMATIC

STRUCT. NO. _____
Station _____

BORING NO. RW1813
Station 523 + 65
Offset 8' Rt.
Ground Surface Elev. 593.90 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter _____ ft
Upon Completion _____ ft
After _____ Hrs. _____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Silty Clay (CL) Silty clay, little gravel, brown, dry to moist, hard, homogeneous.	7		
	10 9 8	4.5 P	
591.90			
Clay (CL) Clay, trace to little gravel, brown, dry to moist, very stiff to hard, homogeneous and blocky, poss. weathered till	5		
	6 7 8	4.5 P	
	7		
-5	8 8 8	4.5 P	
	5		
	10 12 12	4.5 P	
	7		
	11 13 15	4.3 P	
-10			
B-6: Becomes gray brown at 11', unweathered till	5 6 7 9	4.2 P	
	4 5 6 6	2.8 P	
-15	3 5 7 10	3.8 P	
B-9: Sand lense at about 19.5' for 3 - 4", sand is wet	5		
-20	5	3.2	

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Clay (CL) Clay, trace to little gravel, brown, dry to moist, very stiff to hard, homogeneous and blocky, poss. weathered till *(continued)*	8 12	P	
-25	8 11 15	3.5 P	
567.40			
End of Boring			
-30			
-35			
-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)

Illinois Department of Transportation
Division of Highways
JCI

SOIL BORING LOG

Date 9/11/07

ROUTE I-74 DESCRIPTION New I-74 Bridge Over Mississippi River - Illinois Approach LOGGED BY KJB

SECTION _____ LOCATION (N=561728.148, E=2459730.629), SEC. 32, TWP. 18N, RNG. 1W, 4th PM

COUNTY Rock Island DRILLING METHOD HSA, CME 55 HAMMER TYPE CME AUTOMATIC

STRUCT. NO. _____
Station _____

BORING NO. 19BR-108
Station 61 + 26
Offset 22' Lt.
Ground Surface Elev. 611.60 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter _____ ft
Upon Completion _____ ft
After _____ Hrs. _____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
CONCRETE SIDEWALK - 4.5" thick concrete plus base course. 611.00			
CLAY - olive brown and gray, some to and silt, trace to little medium to coarse sand, trace fine gravel, very stiff, moist (GLACIAL TILL - FILL?).	4		
	2 4	1.6 B	13.8
	2		
-5	5 7	3.0 B	18.2
605.60			
SILT - dark brown, little to some clay, trace gravel, trace organics, slightly to medium plastic, medium stiff to stiff, moist	4		
	5 5	0.8 B	18.4
	2		
	2 3	0.9 B	24.2
-10			
600.60			
CLAY - brown, little silt, trace sand, with gravel, to SILT and clay, with gravel or cobble, slightly to medium plastic, medium stiff, moist.	WOH		
	2 3	0.7 B	24.1
	3		
- cobble at 14.5'-15.0'.	5 12		13.9
-15			
595.60			
CLAY TILL - greenish brown to gray, trace to little medium to coarse sand, trace fine gravel, hard, moist to dry (GLACIAL TILL). **-[Dry unit weight = 116.7 pcf]**		2.5 B	14.2
	5		
-20	5 8	3.4 B	13.9

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
CLAY TILL - greenish brown to gray, trace to little medium to coarse sand, trace fine gravel, hard, moist to dry (GLACIAL TILL). *(continued)*	5		
	7 9	3.1 B	14.4
-25		2.8 P	
	4		
	6 8	2.9 B	14.8
	30		
- greenish gray and red silty clay till, crumbly, moist.	50/3"	2.5 P	17.3
581.80			
-30			
CLAY - red, silty, shaly, crumbly, dry to slightly moist (TILL or CLAY SHALE?).			
578.10			
CLAY SHALE - greenish gray, clayey, hard, laminated, slightly to moderately weathered, slightly moist to dry.	18		
	31 60	3.5 P	14.8
-35			
- [Groundwater not observed in soils and shale during drilling operations] 573.90			
Borehole continued with rock coring.			
-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)

Illinois Department of Transportation
Division of Highways
JCI

ROCK CORE LOG

Date 9/11/07

ROUTE I-74 DESCRIPTION New I-74 Bridge Over Mississippi River - Illinois Approach LOGGED BY KJB

SECTION _____ LOCATION (N=561728.148, E=2459730.629), SEC. 32, TWP. 18N, RNG. 1W, 4th PM

COUNTY Rock Island CORING METHOD NQ Core

STRUCT. NO. _____
Station _____

CORING BARREL TYPE & SIZE NQ Wireline
Core Diameter 1.8 in
Top of Rock Elev. 573.90 ft
Begin Core Elev. 573.90 ft

BORING NO. 19BR-108
Station 61 + 26
Offset 22' Lt.
Ground Surface Elev. 611.60 ft

DEPTH (ft)	CORE (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
LIMESTONE - gray, fine grained, dense, hard, very thin to thin bedded, horizontal to subhorizontal slightly rough fractures with some high angle (60° to 90°) fractures, slightly weathered with faint iron stains on some fractures, occasional stylolites. 573.90					
	Run 1	77	0	3.4	
-40					
	Run 2	93	23	4	503.4
-45					
	Run 3	100	45	3.5	
End of Boring 563.70					
-50					
-55					

Color pictures of the cores Yes
Cores will be stored for examination until _____
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

BBS, form 138 (Rev. 8-99)

MODJESKI and MASTERS
Experience great bridges.

USER NAME =	DESIGNED - ZJB	REVISED
	CHECKED - YSS	REVISED
PLOT SCALE =	DRAWN - JAB	REVISED
PLOT DATE = 03/23/2017	CHECKED - JMH	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS 7
RAMP 7TH-B /I-74 /RAMP 7TH-A RETAINING WALL 06
STRUCTURE NO. 081-6015
SHEET NO. 27 OF 34 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1	ROCK ISLAND	2042	1335
		CONTRACT NO. 64E26		
	ILLINOIS FED. AID PROJECT			

Illinois Department of Transportation
Division of Highways
JCI

SOIL BORING LOG

Date 9/12/07

ROUTE I-74 DESCRIPTION New I-74 Bridge Over Mississippi River - Illinois Approach LOGGED BY KJB

SECTION LOCATION (N=561568.395, E=2459838.396), SEC. 32, TWP. 18N, RNG. 1W, 4th PM

COUNTY Rock Island DRILLING METHOD HSA, CME 55 HAMMER TYPE CME AUTOMATIC

STRUCT. NO.
Station
BORING NO. 19BR-109
Station 627 + 68
Offset 32' Rt.
Ground Surface Elev. 614.30 ft

Surface Water Elev. ft
Stream Bed Elev. ft
Groundwater Elev.:
First Encounter 595.8 ft ▼
Upon Completion ft
After Hrs. ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
614.10 TOPSOIL - (roots) 1" to 2" thick.			
SILT - brown, tan and orange mottled, little clay, slightly to medium plastic, stiff to crumbly, moist.	2		
	4	2.3	12.8
	5	S	
610.80 CLAY - greenish gray and brown, little silt, waxy, medium plastic, stiff, moist.	3		
-5	5	1.9	20.4
	6	B	
608.30 CLAY - brown and tan, some to and silt, trace sand, medium plastic, medium stiff, moist.	2		
	2	0.8	16.0
	2	B	
605.80 SILT - dark brown to brown, little to some clay, trace fine sand, slightly to medium plastic, medium stiff to stiff, moist.	2		
	3	0.8	16.7
-10	4	S	
	1		
602.30 CLAY - gray and brown mottled, some silt, medium plastic, stiff, moist.	3	1.0	16.6
	3	B	
600.80 CLAY - brown and red brown, sandy, grading from clayey silt with fine to coarse sand, trace gravel to very soft wet sandy clay.	3		
	3	0.7	14.2
-15	7	B	
	WOH		
	2	0.5	18.4
	2	B	
595.80 ▼ GRAVEL - brown to reddish brown, clayey, angular, saturated.	2		
	4		13.9
-20	4		

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
GRAVEL - brown to reddish brown, clayey, angular, saturated. *(continued)* 593.30			
CLAY - greenish gray, little to some silt, medium to highly plastic, stiff to very stiff, moist.	2		
	4	3.2	9.7
	7	B	
-[Dry unit weight = 120.7 pcf]		2.9	14.9
-25 - trace sand at bottom of shelby tube.		B	
587.80 CLAY SHALE - bluish to greenish gray, clayey, hard, no laminations, slightly weathered, slightly moist to dry.	7		
	48		15.4
	50/4"		
	48		
	55/3"	>4.5	10.7
-30		P	
583.80 Borehole continued with rock coring.			
-35			
-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)

Illinois Department of Transportation
Division of Highways
JCI

ROCK CORE LOG

Date 9/12/07

ROUTE I-74 DESCRIPTION New I-74 Bridge Over Mississippi River - Illinois Approach LOGGED BY KJB

SECTION LOCATION (N=561568.395, E=2459838.396), SEC. 32, TWP. 18N, RNG. 1W, 4th PM

COUNTY Rock Island CORING METHOD NQ Core

STRUCT. NO.
Station
CORING BARREL TYPE & SIZE NQ Wireline
BORING NO. 19BR-109
Station 627 + 68
Offset 32' Rt.
Ground Surface Elev. 614.30 ft

Core Diameter 1.8 in
Top of Rock Elev. 583.80 ft
Begin Core Elev. 583.80 ft

DEPTH (ft)	CORE (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
CLAY SHALE - bluish to greenish gray, clayey, hard, no laminations, slightly weathered. 583.80	Run 1	86	60	3.3	690.7
- intermixed sandy shale and limestone at 30.5'-32.2'. 582.10					
LIMESTONE - gray with yellowish brown and iron-staining along fractures in the upper 6 ft, fine grained, occasional stylolites, dense, hard, sound, thin bedded, primarily uneven horizontal to subhorizontal fractures with occasional high angle fractures, slightly weathered to fresh. - iron stained fractures at 32.8', 36.0', 36.2', 36.5', 36.8', 38.2'.					
-35					
- vertical fracture at 35.4'-35.6'; 80° to 60° curvilinear fracture at 36.6'-36.8'; 60° jagged brown-stained fracture at 36.4'.	Run 2	91	74	2.8	
- fresh rock below 38.2'.					
-40 - [Note: RQD shown for Run 1 is based on length of recovered rock, not on length of run. RQD= 40% for entire length of run (including material washed away from augers and ground up during the drilling operations).]					
572.00 End of Boring					
-45					
-50					

Color pictures of the cores Yes
Cores will be stored for examination until
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

BBS, form 138 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
CH2M HILL

SOIL BORING LOG

Date 10/9/07

ROUTE I-74 DESCRIPTION New I-74 Bridge Over Mississippi River - Illinois Approach LOGGED BY Yse, Kaustav/SCO

SECTION I-74 Bridge over Mississippi River LOCATION (N=561497.653, E=2459812.286), SEC. 32, TWP. 18N, RNG. 1W, 4th PM

COUNTY Rock Island DRILLING METHOD HSA, CME 55 HAMMER TYPE CME AUTOMATIC

STRUCT. NO.
Station
BORING NO. ILR0804
Station 626 + 96
Offset 7' Rt.
Ground Surface Elev. 641.39 ft

Surface Water Elev. ft
Stream Bed Elev. ft
Groundwater Elev.:
First Encounter ft
Upon Completion ft
After Hrs. ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Clay (CL) gray, moist, very stiff to hard, trace sand and fine angular gravel			
	1		
	2	4.1	
	5	S	
	2		
-5	7	2.5	
	9	P	
635.39 **Clay (CL)** gray to greenish gray, moist, trace fine to coarse grained sand, stiff to hard	1		
	2		
	2		
RIMAC: Pu = 31lbs (Bulging)	2		
	2	1.9	
	4	B	
-15			
RIMAC: Pu = 68lbs (bulging)	2		
	4	4.1	
	6	B	
-20			

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Clay (CL) gray to greenish gray, moist, trace fine to coarse grained sand, stiff to hard *(continued)*			
	3		
	4	3.0	
	9	P	
-25			
	3		
	6	4.5	
	8	P	
-30			
shale in tip	4		
	10	4.5	
	26	P	
606.39 End of Boring -35			
-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)

MODJESKI and MASTERS
Experience great bridges.

USER NAME =	DESIGNED - ZJB	REVISED
	CHECKED - YSS	REVISED
PLOT SCALE =	DRAWN - CMM	REVISED
PLOT DATE = 03/23/2017	CHECKED - JMH	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS 8
RAMP 7TH-B /I-74 /RAMP 7TH-A RETAINING WALL 06
STRUCTURE NO. 081-6015
SHEET NO. 28 OF 34 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1	ROCK ISLAND	2042	1336
		CONTRACT NO. 64E26		
		ILLINOIS FED. AID PROJECT		

HANSON

SOIL BORING LOG

Page 1 of 1

Date 6/22/10

ROUTE F.A.I. 74 DESCRIPTION I-74 Over Mississippi River LOGGED BY JMB

SECTION 81-1-2 LOCATION SE¼ of SEC. 32, TWP. 18N, RNG. 1W, 4th P.M.

COUNTY Rock Island DRILLING METHOD Hollow Stem Auger HAMMER TYPE Auto

STRUCT. NO. 081-6015
Station
BORING NO. RW 06-1
Station 61+02
Offset 7' Lt.
Ground Surface Elev. 611.3 ft

Surface Water Elev.
Stream Bed Elev.
Groundwater Elev.:
First Encounter 593.8 ft ▼
Upon Completion ft
After Hrs. ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
CONCRETE 610.80				
FILL - Light gray, slightly moist, SILT			2.50P	14
	2			14
				17
608.30				
FILL - Very dark brown, moist, clayey SILT with trace gravel			1.80P	13
605.30	4			
FILL - Gray, moist, medium dense, silty, medium-grained SAND with trace gravel, wood, brick and rock fragments	6	5 6 11	2.00P	15
	8			
		11 23 50/4"		12
600.30	10			
Dark brown, moist, stiff, sandy SILT with trace gravel				20
	12		1.65S	17
		11 4 4		16
596.30	14			
Dark brown, moist, sandy, clayey SILT with trace gravel				
595.30	16			
Dark brown, wet, dense, silty SAND with trace gravel			0.50P	12
593.30 ▼	18			
Gray and brown, moist, medium stiff, silty CLAY with sand and trace gravel		3 3 5	0.54B	18
	20			

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Gray and brown, moist, medium stiff, silty CLAY with sand and trace gravel *(continued from previous page)*				
588.80	22			
Gray and brown, moist, very stiff, silty CLAY with sand and gravel				
	24	8 10 11	2.61B	14
586.30				
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)

Illinois Department of Transportation
Division of Highways
CH2M HILL

SOIL BORING LOG

Page 1 of 3

Date 12/13/05

ROUTE I-74 DESCRIPTION New I-74 Bridge Over Mississippi River - Illinois Approach LOGGED BY B. Karnik

SECTION I-74 Bridge over Mississippi River LOCATION (N=561446.84, E=2459814.4701), SEC. 32, TWP. 18N, RNG. 1W, 4th PM

COUNTY Rock Island DRILLING METHOD HSA, CME 55 HAMMER TYPE CME AUTOMATIC

STRUCT. NO.
Station
BORING NO. RW1007
Station 626+45
Offset 9' Rt.
Ground Surface Elev. 649.91 ft

Surface Water Elev. ft
Stream Bed Elev. ft
Groundwater Elev.:
First Encounter ft
Upon Completion ft
After Hrs. ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Fill Asphalt Concrete 2" thick asphalt overlying 1' thick reinforced concrete slab. Hole offset 5' north 648.91		7		
Fill Silty Clay (CL-ML) Gray brown, moist, hard, trace to little gravel		4 5 6		
		4		
		4 4 5	4.0 P	
644.91	-5			
Fill Sandy Lean Clay Trace Gravel (CL) Reddish to grayish brown, moist, very stiff, trace fine to medium		3 4 5 6	3.75-2.0 P	
		4 4 4 5	2.5 P	
640.91				
Fill Silty Clay (CL) Gray brown, moist, stiff to very stiff, with fine to coarse gravel, and some wood pieces and brick pieces throughout, fill	-10	3 4 6 7	1.5 P	
		3 4 5 7	2.0 P	
	-15	5 5 6 6	2.0 P	
	-20			

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Fill Silty Clay (CL) Gray brown, moist, stiff to very stiff, with fine to coarse gravel, and some wood pieces and brick pieces throughout, fill *(continued)*		5		
		7 10 10	3.0 P	
	-25	4		
		8 15 13	2.0 P	
	-30	6		
		7 12 13	4.5 P	
	-35	5		
		6 7 8	4.5 P	
	-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)

Illinois Department of Transportation
Division of Highways
CH2M HILL

SOIL BORING LOG

Page 2 of 3

Date 12/13/05

ROUTE I-74 DESCRIPTION New I-74 Bridge Over Mississippi River - Illinois Approach LOGGED BY B. Karnik

SECTION I-74 Bridge over Mississippi River LOCATION (N=561446.84, E=2459814.4701), SEC. 32, TWP. 18N, RNG. 1W, 4th PM

COUNTY Rock Island DRILLING METHOD HSA, CME 55 HAMMER TYPE CME AUTOMATIC

STRUCT. NO.
Station
BORING NO. RW1007
Station 626+45
Offset 9' Rt.
Ground Surface Elev. 649.91 ft

Surface Water Elev. ft
Stream Bed Elev. ft
Groundwater Elev.:
First Encounter ft
Upon Completion ft
After Hrs. ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Fill Silty Clay (CL) Gray brown, moist, stiff to very stiff, with fine to coarse gravel, and some wood pieces and brick pieces throughout, fill *(continued)*		5		
		6 6 6	3.0 P	
605.91				
Sandy Lean Clay Trace Gravel (CL) Gray brown with gray vertical seams, moist, low to medium plasticity, very stiff, fossilized rootlets, trace fine to coarse, weathered till or gumbotil	-45	5		
		7 11 13	3.0 P	
	-50	4		
		6 8 10	2.5 P	
	-55	5		
		6 10 13	2.5 P	
	-60			

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Sandy Lean Clay Trace Gravel (CL) Gray brown with gray vertical seams, moist, low to medium plasticity, very stiff, fossilized rootlets, trace fine to coarse, weathered till or gumbotil *(continued)*				
	-65	5		
		9 12 14	2.5 P	
	-70			
574.91	-75	23		
Fine to Medium Sand With Silt (SP-SM) Gray, wet. very dense, estimated 5%-12% fines		29 33 34		
572.91				
Sandy Lean Clay (CL) Gray, moist, stiff, trace fine to coarse gravel, till				
	-80			

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)

MODJESKI and MASTERS
Experience great bridges.

USER NAME =	DESIGNED - ZJB	REVISED	
	CHECKED - YSS	REVISED	
PLOT SCALE =	DRAWN - CMM	REVISED	
PLOT DATE = 03/23/2017	CHECKED - JMH	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS 9
RAMP 7TH-B /I-74 /RAMP 7TH-A RETAINING WALL 06
STRUCTURE NO. 081-6015
SHEET NO. 29 OF 34 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1	ROCK ISLAND	2042	1337
		CONTRACT NO. 64E26		
		ILLINOIS FED. AID PROJECT		

Illinois Department of Transportation
Division of Highways
CH2M HILL

SOIL BORING LOG

Page 3 of 3

Date 12/13/05

ROUTE I-74 DESCRIPTION New I-74 Bridge Over Mississippi River - Illinois Approach LOGGED BY B. Karnik

SECTION I-74 Bridge over Mississippi River LOCATION (N=561446.84, E=2459814.4701), SEC. 32, TWP. 18N, RNG. 1W, 4th PM

COUNTY Rock Island DRILLING METHOD HSA, CME 55 HAMMER TYPE CME AUTOMATIC

STRUCT. NO. _____
Station _____

BORING NO. RW1007
Station 626 + 45
Offset 9' Rt.
Ground Surface Elev. 649.91 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter _____ ft
Upon Completion _____ ft
After ____ Hrs. _____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Sandy Lean Clay (CL) Gray, moist, stiff, trace fine to coarse gravel, till *(continued)*			
-85	10		
	15	4.0	
	20	P	
	22		
559.81 -90	50/0		
No recovery, possibly boulder or rock Gravel/cobbles at 90' auger and spoon refusal End of Boring			
-95			
-100			

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)

Illinois Department of Transportation
Division of Highways
CH2M HILL

SOIL BORING LOG

Page 1 of 2

Date 11/18/05

ROUTE I-74 DESCRIPTION New I-74 Bridge Over Mississippi River - Illinois Approach LOGGED BY L. Hunt

SECTION I-74 Bridge over Mississippi River LOCATION (N=561781.073, E=2459588.053), SEC. 32, TWP. 18N, RNG. 1W, 4th PM

COUNTY Rock Island DRILLING METHOD HSA, CME 55 HAMMER TYPE CME AUTOMATIC

STRUCT. NO. _____
Station _____

BORING NO. RW1808
Station 531 + 42
Offset 2' Rt.
Ground Surface Elev. 634.51 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter _____ ft
Upon Completion _____ ft
After ____ Hrs. _____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Clay (CL) Clay, few sand, trace gravel, red brown and brown, dry to moist, stiff, blocky	2		
	4	3.0	
	5	P	
	6		
Clay, trace gravel and sand, brown mottled orange brown and gray brown, dry to moist, stiff, blocky	5		
	5	4.5	
	6	P	
	6		
Silty Clay, trace gravel, brown to red brown, dry to moist, stiff, blocky	5		
-5	5	4.5	
	6	P	
628.51	7		
Clayey Silt(MH) Clayey Silt, trace gravel, gray brown, mottled orange brown, dry to moist, medium dense, blocky	5		
	6	4.5	
	6	P	
	5		
Clayey Silt, trace gravel, gray brown, mottled orange brown, dry to moist, medium dense, blocky Gray with no mottling for 1" at 12" from top of sample	4		
	8	3.6	
	10	S	
-10	10		
Clayey Silt to Silty Clay, trace gravel and organics, gray brown, mottled orange brown, medium stiff, stratified	4		
	7	2.9	
	8	P	
	10		
Clayey Silt to Clay, trace gravel, little sand, light brown and gray brown, medium stiff to stiff, stratified (gray brown - 11"; light brown - 8")	7		
	8	4.5	
	10	P	
620.51	12		
Silty Clay(CL-ML) Silty Clay, little sand, trace gravel, light brown, dry to moist, stiff, homogenous	6	3.8	
-15	7	P	
	8		
	9		
-20			

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Silty Clay(CL-ML) Silty Clay, little sand, trace gravel, light brown, dry to moist, stiff, homogenous *(continued)* Silty Clay, little sand, trace gravel, mottled gray brown, dry to moist, stiff, homogenous	4		
	7	3.2	
	10	P	
	11		
609.51 -25	3		
Clay (CL) Clay, trace gravel, little sand, light brown mottled gray brown and orange brown, dry to moist, stiff, homogenous	5	2.0	
	10	P	
	11		
Clay, little sand, trace gravel, gray brown, moist, stiff, homogenous Till - unweathered			
-30	4		
	6	2.5	
	8	P	
	10		
-35	4		
Clay, little sand, trace gravel, gray brown, moist, stiff, homogenous	6	2.5	
	9	P	
	10		
-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)

Illinois Department of Transportation
Division of Highways
CH2M HILL

SOIL BORING LOG

Page 2 of 2

Date 11/18/05

ROUTE I-74 DESCRIPTION New I-74 Bridge Over Mississippi River - Illinois Approach LOGGED BY L. Hunt

SECTION I-74 Bridge over Mississippi River LOCATION (N=561781.073, E=2459588.053), SEC. 32, TWP. 18N, RNG. 1W, 4th PM

COUNTY Rock Island DRILLING METHOD HSA, CME 55 HAMMER TYPE CME AUTOMATIC

STRUCT. NO. _____
Station _____

BORING NO. RW1808
Station 531 + 42
Offset 2' Rt.
Ground Surface Elev. 634.51 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter _____ ft
Upon Completion _____ ft
After ____ Hrs. _____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Clay (CL) Clay, trace gravel, little sand, light brown mottled gray brown and orange brown, dry to moist, stiff, homogenous *(continued)* Clay, little sand, trace gravel, gray brown, moist, stiff, homogenous	5		
	8	2.4	
	9	P	
	11		
-45	5		
Clay, little sand, trace gravel, gray brown, moist, stiff, homogenous	9	3.3	
	11	P	
	13		
Clay, little sand, trace gravel, gray brown, moist, stiff, homogenous	5		
	8	3.2	
	10	P	
584.51 -50	13		
End of Boring			
-55			
-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)

MODJESKI and MASTERS
Experience great bridges.

USER NAME =	DESIGNED - ZJB	REVISED	
	CHECKED - YSS	REVISED	
PLOT SCALE =	DRAWN - CMM	REVISED	
PLOT DATE = 03/23/2017	CHECKED - JMH	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS 10
RAMP 7TH-B /I-74 /RAMP 7TH-A RETAINING WALL 06
STRUCTURE NO. 081-6015
SHEET NO. 30 OF 34 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1	ROCK ISLAND	2042	1338
		CONTRACT NO. 64E26		
	ILLINOIS	FED. AID PROJECT		

Illinois Department of Transportation
Division of Highways
JCI

SOIL BORING LOG

Date 9/14/07

ROUTE I-74 DESCRIPTION New I-74 Bridge Over Mississippi River - Illinois Approach LOGGED BY KJB

SECTION LOCATION (N=561828.313, E=2459724.286), SEC. 32, TWP. 18N, RNG. 1W, 4th PM

COUNTY Rock Island DRILLING METHOD HSA, CME 55 HAMMER TYPE CME AUTOMATIC

STRUCT. NO.
Station
BORING NO. 19BR-105
Station 60+26
Offset 13' Lt.
Ground Surface Elev. 609.30 ft

Surface Water Elev. ft
Stream Bed Elev. ft
Groundwater Elev.:
First Encounter 580.3 ft
Upon Completion ft
After Hrs. ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
CONCRETE - 3" thick concrete plus base course. 608.80			
SILT - light brown and dark brown, some clay, trace to little gravel, medium plastic, stiff, moist (FILL?).	2		
	5	1.5	12.8
	5	P	
	6		
604.80	10	0.8	12.6
SILT - light brown and gray mottled, little clay, crumbly, slightly to medium plastic, medium stiff, slightly moist to dry.	7	S	
	3		
	2	0.6	27.4
	2	B	
600.80			
SILT - dark brown, little to some clay, crumbly, slight to medium plastic, medium stiff, moist.	2		
	2	0.6	18.2
	3	S	
598.30			
SILT - dark brown, trace to little clay, little fine sand, slight binder, slightly plastic, soft to medium stiff, moist.	2		
	2	0.4	16.2
	2	S	
595.30	3		
SAND - brown, fine to coarse, clayey, and gravel, loose, moist.	7		4.3
	12		
	5		
	2		5.5
	2		
590.80			
	1		
	3	1.4	14.4
	3	B	

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
CLAY TILL - greenish gray, sandy to silty, trace medium to coarse sand, trace fine gravel, slightly to medium plastic, hard, moist (GLACIAL TILL). *(continued)*			
-[Dry unit weight = 118 pcf]		1.9	14.3
		B	
	4		
	5	3.1	13.8
	7	B	
	6		
- contains thin layers of wet/saturated fine sand. ▼	4		
	7	3.3	15.4
	7	B	
	21		
	50/1"		23.9
- greenish gray to bluish gray with limestone fragments, hard. 574.00			
Borehole continued with rock coring.			

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)

Illinois Department of Transportation
Division of Highways
JCI

ROCK CORE LOG

Date 9/14/07

ROUTE I-74 DESCRIPTION New I-74 Bridge Over Mississippi River - Illinois Approach LOGGED BY KJB

SECTION LOCATION (N=561828.313, E=2459724.286), SEC. 32, TWP. 18N, RNG. 1W, 4th PM

COUNTY Rock Island CORING METHOD NQ Core

STRUCT. NO.
Station
BORING NO. 19BR-105
Station 60+26
Offset 13' Lt.
Ground Surface Elev. 609.30 ft

CORING BARREL TYPE & SIZE NQ Wireline
Core Diameter 1.8 in
Top of Rock Elev. 574.80 ft
Begin Core Elev. 574.00 ft

DEPTH (ft)	CORE (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
LIMESTONE - gray, fine grained, hard, dense, very thin to thin bedded, closely to very closely fractured with possible shale and/or clay seams which were not recovered between 35.3' and 40.7', occasional iron-stains at fractures, slightly weathered, poor quality rock but hard where recovered. 574.00	Run 1	46	8	2.8	
[Note: driller repeatedly lifted the core barrel while drilling to keep it from jamming. Observation of core pieces suggest numerous near-vertical fractures were encountered, causing core pieces to get stuck in the core catcher and possibly grinding up subsequent rock encountered while drilling.]	Run 2	81	0		
	Run 3	43	0	1.7	488.6
- 11" thick layer of very soft green-gray, sandy, gravelly clay at 45.8' to 46.7'.	Run 4	77	35	4.4	
- 13" layer of medium gray "birdseye" texture limestone with vertical fractures at 47.5' to 48.6'.					
558.50					
End of Boring					

Color pictures of the cores Yes
Cores will be stored for examination until
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

BBS, form 138 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 2/19/11

ROUTE FAI 74 DESCRIPTION 081-0099, 0100 P92-032-01 I-74 over 19th Street, north of 12th Avenue LOGGED BY M. Jacoby

SECTION 81-1HB LOCATION Moline Twp. - 32SE, SEC. , TWP. 18N, RNG. 1W

COUNTY Rock Island DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME-45 Automatic

STRUCT. NO. 081-0099, 0100
Station
BORING NO. B-2
Station 601+31
Offset 6' Lt.
Ground Surface Elev. 610.26 ft

Surface Water Elev. ft
Stream Bed Elev. ft
Groundwater Elev.:
First Encounter Dry ft
Upon Completion Dry ft
After 24 Hrs. 590.8 ft ▽

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
STIFF gray SILTY CLAY LOAM			
		1.8	14
		P	
608.26			
VERY STIFF gray/brown SILTY CLAY LOAM	5		
	7	2.7	15
	9	S	
606.76			
STIFF brown SILTY CLAY LOAM	2		
	4	1.2	15
	14	B	
604.26			
VERY STIFF dark brown SILTY CLAY LOAM	4		
	5	2.3	21
	5	P	
601.76			
STIFF dark brown SILTY CLAY LOAM	0		
	3	1.0	16
	3	B	
599.26			
STIFF brown SANDY LOAM with GRAVEL	4		
	6	1.5	
	7	P	
596.26			
No recovery, rock blocking sampler	12		
	15		
594.26	7		
No recovery	2		
	4		
591.26	7		
▽	4		

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
VERY STIFF gray CLAY LOAM TILL *(continued)*	7	3.0	13
589.26	8	B	
VERY STIFF gray CLAY LOAM TILL	3		
	6	2.7	13
586.76	10	B	
VERY STIFF gray CLAY LOAM TILL	2		
	6	2.7	13
584.26	9	B	
VERY STIFF gray CLAY LOAM TILL	2		
	6	2.2	14
581.76	10	B	
VERY STIFF gray CLAY LOAM TILL	4		
	12	2.3	17
579.26	25	S	
STIFF gray CLAY TILL with DOLOMITE lenses	15		
	15	1.3	27
576.76	6	P	
STIFF gray CLAY TILL	100/6"		52
575.26			
Borehole continued with rock coring.			

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)

MODJESKI and MASTERS
Experience great bridges.

USER NAME =	DESIGNED - ZJB	REVISED
	CHECKED - YSS	REVISED
PLOT SCALE =	DRAWN - CMM	REVISED
PLOT DATE = 03/23/2017	CHECKED - JMH	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS 11
RAMP 7TH-B /I-74 /RAMP 7TH-A RETAINING WALL 06
STRUCTURE NO. 081-6015
SHEET NO. 31 OF 34 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1	ROCK ISLAND	2042	1339
		CONTRACT NO. 64E26		
	ILLINOIS	FED. AID PROJECT		

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

ROCK CORE LOG

Date 2/19/11

ROUTE FAI 74 DESCRIPTION 081-0099, 0100 P92-032-01 I-74 over 19th Street, north of 12th Avenue LOGGED BY M. Jacoby

SECTION 81-1HB LOCATION Moline Twp. - 32SE, SEC. , TWP. 18N, RNG. 1W

COUNTY Rock Island CORING METHOD

STRUCT. NO. 081-0099, 0100
Station

CORING BARREL TYPE & SIZE

BORING NO. B-2
Station 601+31
Offset 6' Lt.
Ground Surface Elev. 610.26 ft

Core Diameter 2 in
Top of Rock Elev. 575.26 ft
Begin Core Elev. 575.26 ft

	DEPTH (ft)	CORE (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
Dolomite: gray-buff, aphanitic, dense, pitted and mostly fractured with voids evident. t.s.f.: 572.9 to 572.5	575.26	1	85	15	2.2	228
	-40					
Dolomite: as above, pitted, fractured with macro-voiding apparent throughout.	570.26	2	30	0	2	
	565.26 -45					
End of Boring						
	-50					
	-55					

Color pictures of the cores _____
Cores will be stored for examination until _____
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

BBS, form 138 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 3/23/11

ROUTE FAI 74 DESCRIPTION 081-0099, 0100 P92-032-01 I-74 over 19th Street, north of 12th Avenue LOGGED BY W. Garza

SECTION 81-1HB LOCATION Moline Twp. - 32SE, SEC. , TWP. 18N, RNG. 1W

COUNTY Rock Island DRILLING METHOD Hollow Stem Auger HAMMER TYPE B-53 Diedrich Automatic

STRUCT. NO. 081-0099, 0100
Station

BORING NO. B-6
Station 626+16
Offset 2' Lt.
Ground Surface Elev. 653.98 ft

Surface Water Elev. ft
Stream Bed Elev. ft
Groundwater Elev.:
First Encounter 621.5 ft
Upon Completion ft
After 24 Hrs. 609.0 ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
STIFF gray CLAY LOAM			2.0 P	13
	651.48			
VERY STIFF gray/tan SILTY CLAY LOAM		4 5 5	3.1 B	14
	649.98 -5			
STIFF gray SILTY CLAY LOAM		5 6 11	1.7 B	26
	647.48			
VERY STIFF tan SILTY CLAY LOAM		3 5 6	2.5 B	19
	644.98 -10			
VERY STIFF gray SILTY CLAY LOAM		3 3 4	2.1 B	15
	642.48			
STIFF gray SILTY CLAY LOAM		5 5 9	1.7 B	20
	639.48 -15			
VERY STIFF tan SILTY CLAY LOAM TILL		6 7 12	3.3 B	13
	637.48			
VERY STIFF tan CLAY LOAM TILL		4 6 9	3.3 B	17
	634.98 -20			

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
VERY STIFF dark gray LOAM		8 13 15	2.8 P	17
	632.48			
VERY STIFF dark gray SILTY LOAM		6 6 13	3.5 S	16
	629.98 -25			
STIFF tan/gray SILTY LOAM		7 9 13	2.0 P	18
	627.48			
STIFF gray SILT with FILL		14 10 15	1.5 P	13
	624.98 -30			
VERY STIFF gray SILTY LOAM		8 12 13	3.6 P	19
	622.48			
VERY STIFF tan SILTY LOAM with CLAY lens		3 5 9	2.8 P	21
	619.48 -35			
VERY STIFF tan CLAY LOAM TILL		5 8 12	3.7 B	14
	617.48			
VERY STIFF gray/tan CLAY LOAM TILL		2 5 9	2.1 B	15
	614.98 -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)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 3/23/11

ROUTE FAI 74 DESCRIPTION 081-0099, 0100 P92-032-01 I-74 over 19th Street, north of 12th Avenue LOGGED BY W. Garza

SECTION 81-1HB LOCATION Moline Twp. - 32SE, SEC. , TWP. 18N, RNG. 1W

COUNTY Rock Island DRILLING METHOD Hollow Stem Auger HAMMER TYPE B-53 Diedrich Automatic

STRUCT. NO. 081-0099, 0100
Station

BORING NO. B-6
Station 626+16
Offset 2' Lt.
Ground Surface Elev. 653.98 ft

Surface Water Elev. ft
Stream Bed Elev. ft
Groundwater Elev.:
First Encounter 621.5 ft
Upon Completion ft
After 24 Hrs. 609.0 ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
VERY STIFF tan CLAY LOAM TILL		6 10 16	3.7 B	13
	612.48			
VERY STIFF tan CLAY LOAM TILL		6 7 12	3.3 B	14
	609.98 ▽45			
VERY STIFF tan CLAY LOAM TILL		5 8 13	2.3 S	15
	607.48			
VERY STIFF gray CLAY LOAM TILL		5 8 12	2.9 B	14
	604.98 -50			
VERY STIFF gray CLAY LOAM TILL		7 9 16	3.5 B	14
	602.48			
VERY STIFF gray CLAY LOAM TILL		5 7 12	3.1 B	14
	599.98 -55			
VERY STIFF gray CLAY LOAM TILL		1 3 7	2.3 B	15
	597.48			
HARD gray/tan CLAY LOAM TILL		5 11 18	5.6 B	13
	594.98 -60			

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
HARD tan CLAY LOAM TILL		10 17 25	5.0 B	13
	592.48			
VERY STIFF gray CLAY LOAM TILL		5 9 13	3.1 B	14
	589.98 -65			
VERY STIFF gray CLAY LOAM TILL		4 9 15	2.9 B	14
	587.48			
3/24/11 HARD gray CLAY LOAM TILL		12 22 28	8.2 B	14
	584.98 -70			
VERY STIFF gray CLAY LOAM TILL		9 13 17	2.5 B	15
	582.48			
HARD gray CLAY LOAM TILL with fine SAND lens		6 12 23	5.0 B	14
	579.98 -75			
VERY STIFF gray CLAY LOAM TILL		6 10 15	3.9 B	15
	577.48			
VERY STIFF gray CLAY LOAM TILL		4 8 14	3.3 B	16
	574.98 -80			

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)

MODJESKI and MASTERS
Experience great bridges.

USER NAME =	DESIGNED - ZJB	REVISED	
	CHECKED - YSS	REVISED	
PLOT SCALE =	DRAWN - CMM	REVISED	
PLOT DATE = 03/23/2017	CHECKED - JMH	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS 12
RAMP 7TH-B /I-74 /RAMP 7TH-A RETAINING WALL 06
STRUCTURE NO. 081-6015
SHEET NO. 32 OF 34 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1	ROCK ISLAND	2042	1340
		CONTRACT NO. 64E26		
	ILLINOIS FED. AID PROJECT			

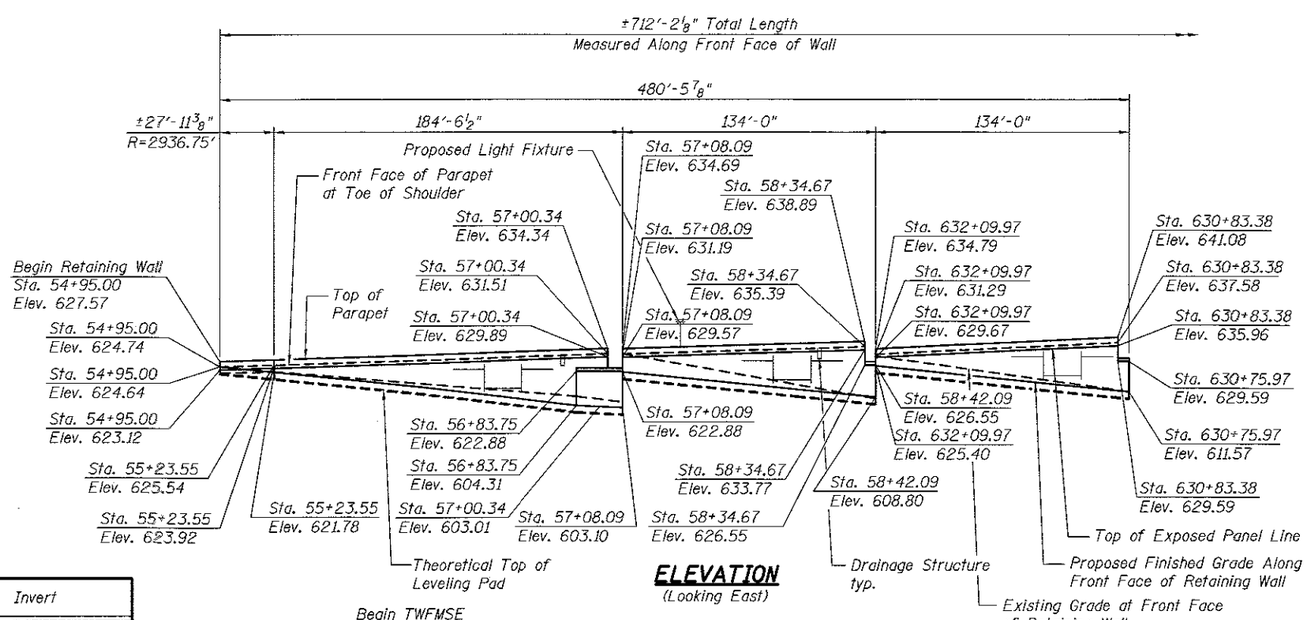
Benchmark No. 586:
Cut "X" on Northerly Bolt of
Existing Ramp 7th-A Pier Foundation
Elevation NAVD 88 = 614.214

Existing Structure:

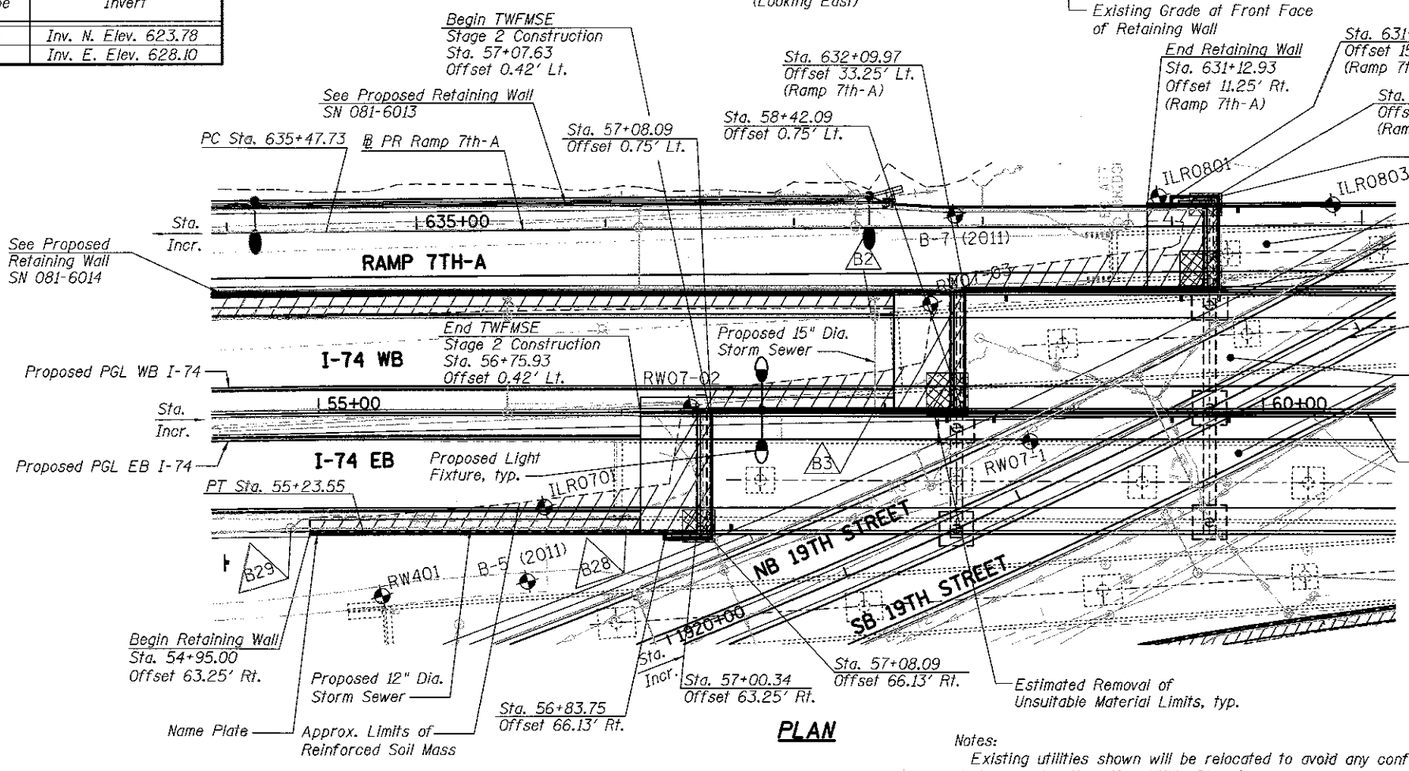
The existing structures were built in 1973 as F.A.I. Route 74, S.N. 081-0099 (SB I-74), S.N. 081-0100 (NB I-74), and S.N. 081-0116 (Ramp S-7). The existing structures consist of 6 spans (S.N. 081-0099 and S.N. 081-0116) and 7 spans (S.N. 081-0100) of reinforced concrete deck on multiple steel plate girders. The existing structures are to be removed and replaced during the Stage 2 and Stage 3 Construction.
No salvage.

DRAINAGE STRUCTURE TABLE

Structure No.	Station I-74	Size and Type	Invert
B28	56+60.84	3' Inlet TB	Inv. N. Elev. 623.78
B3	57+94.84	3' Inlet TB	Inv. E. Elev. 628.10



ELEVATION
(Looking East)



PLAN

CURVE DATA

PR CURVE ML100CL2
PI STA = 51+84.67
Δ = 13° 00' 00" (RT)
D = 1° 54' 35"
R = 3,000.00'
T = 341.81'
L = 680.68'
E = 19.41'
e = 4.3%
PC STA = 48+42.87
PT STA = 55+23.55
S.E. RUN= 231' (I), 371.11' (O)

LEGEND

- Unsuitable Material
- Reinforced Soil Mass
- MSE Wall Panels
- Soil Borings
- Bxx Drainage Structure

DESIGN SPECIFICATIONS

2002 AASHTO
Standard Specifications for Highway Bridges

DESIGN STRESSES

FIELD UNITS
f'_c = 3,500 psi
f_y = 60,000 psi (Reinforcement)

PRECAST UNITS
f'_c = 4,500 psi (Precast Face Panels)

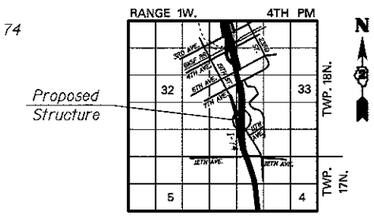
INDEX OF SHEETS

APPROVED
For Structural Adequacy Only
Engineer of Bridges & Structures

JERILYN M. HASSARD
081-006521
LICENSED STRUCTURAL ENGINEER OF ILLINOIS

03-23-17

JERILYN M. HASSARD
EDWARDSVILLE, ILLINOIS
ILLINOIS LICENSED STRUCTURAL
ENGINEER NO. 081-006521
EXPIRES 11/30/2018



LOCATION SKETCH

Notes:
Existing utilities shown will be relocated to avoid any conflicts during construction. (See Utility Plans.)
See Drainage and Utilities Plans for inlet and manhole details.
See Electrical Plans for lighting and conduit details.
See MSE Wall Aesthetic Plans for required form liner finish.
Temporary Wire Faced MSE Walls (TWFMSE) required for stage construction shall remain in place and shall be paid for as "Temporary Mechanically Stabilized Earth Retaining Wall."

GENERAL PLAN AND ELEVATION
F.A.I. ROUTE 74 SEC. (81-1)R-1
ROCK ISLAND COUNTY
PROPOSED I-74 Sta. 54+95.00 to
RAMP 7TH-A Sta. 631+12.93
STRUCTURE NO. 081-6016 (RETAINING WALL 07)

MODJESKI and MASTERS
Experience great bridges.

USER NAME =	DESIGNED - ZJB	REVISED
	CHECKED - ACK	REVISED
PLOT SCALE =	DRAWN - AEC	REVISED
PLOT DATE = 03/23/2017	CHECKED - JMH	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION
I-74 (EB)/(WB) & RAMP 7TH-A RETAINING WALL 07
STRUCTURE NO. 081-6016
SHEET NO. 1 OF 20 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1	ROCK ISLAND	2042	1341
		CONTRACT NO. 64E26		
	ILLINOIS FED. AID PROJECT			

HANSON SOIL BORING LOG

Date 6/25/14

ROUTE F.A.I. 74 DESCRIPTION I-74 Over Mississippi River LOGGED BY RPD

SECTION 81-1-2 LOCATION SW¼ of SEC. 33, TWP. 18N, RNG. 1W, 4th P.M.

COUNTY Rock Island DRILLING METHOD Continuous Flight Auger HAMMER TYPE Auto

STRUCT. NO. 081-6015
Station
BORING NO. RW 06-05
Station 62+58
Offset 22' Rt.
Ground Surface Elev. 644.6 ft

Surface Water Elev.
Stream Bed Elev.

Groundwater Elev.:
First Encounter NE ft
Upon Completion ft
After ____ Hrs. ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
FILL - Gray clayey SILT, little sand, trace gravel, with red brick fragments. *(continued from previous page)*			
42			
44	5 7 9		10
46			
597.60 Gray moist, very stiff, silty lean CLAY, with trace sand and trace gravel.			
48			
	5 7 10	3.30S	15
50			
52			
	6 11 15	6.01B	12
54			
56			
58			
	7 11 15	3.69B	15
584.60 60 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)

Benchmark No. 586:
Cut "X" on Northerly Bolt of
Existing Ramp 7th-A Pier Foundation
Elevation NAVD 88 = 614.214

Existing Structure:

The existing structures were built in 1973 as F.A.I. Route 74, S.N. 081-0099 (SB I-74), S.N. 081-0100 (NB I-74), and S.N. 081-0116 (Ramp S-7). The existing structures consist of 6 spans (S.N. 081-0099 and S.N. 081-0116) and 7 spans (S.N. 081-0100) of reinforced concrete deck on multiple steel plate girders. The existing structures are to be removed and replaced during the Stage 2 and Stage 3 Construction.
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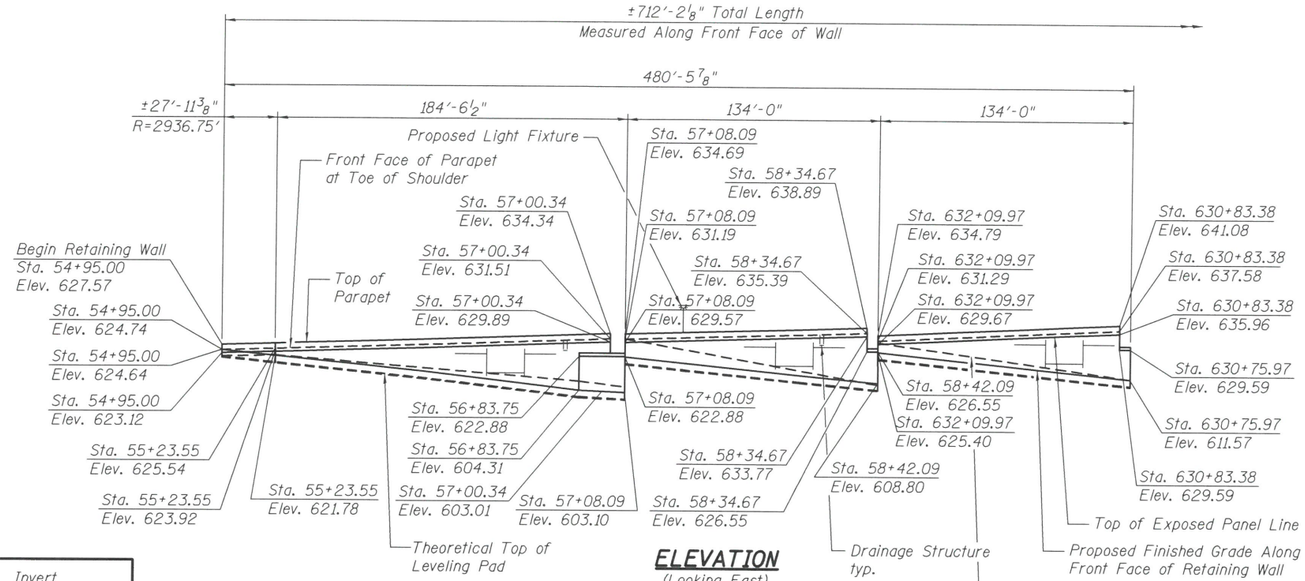
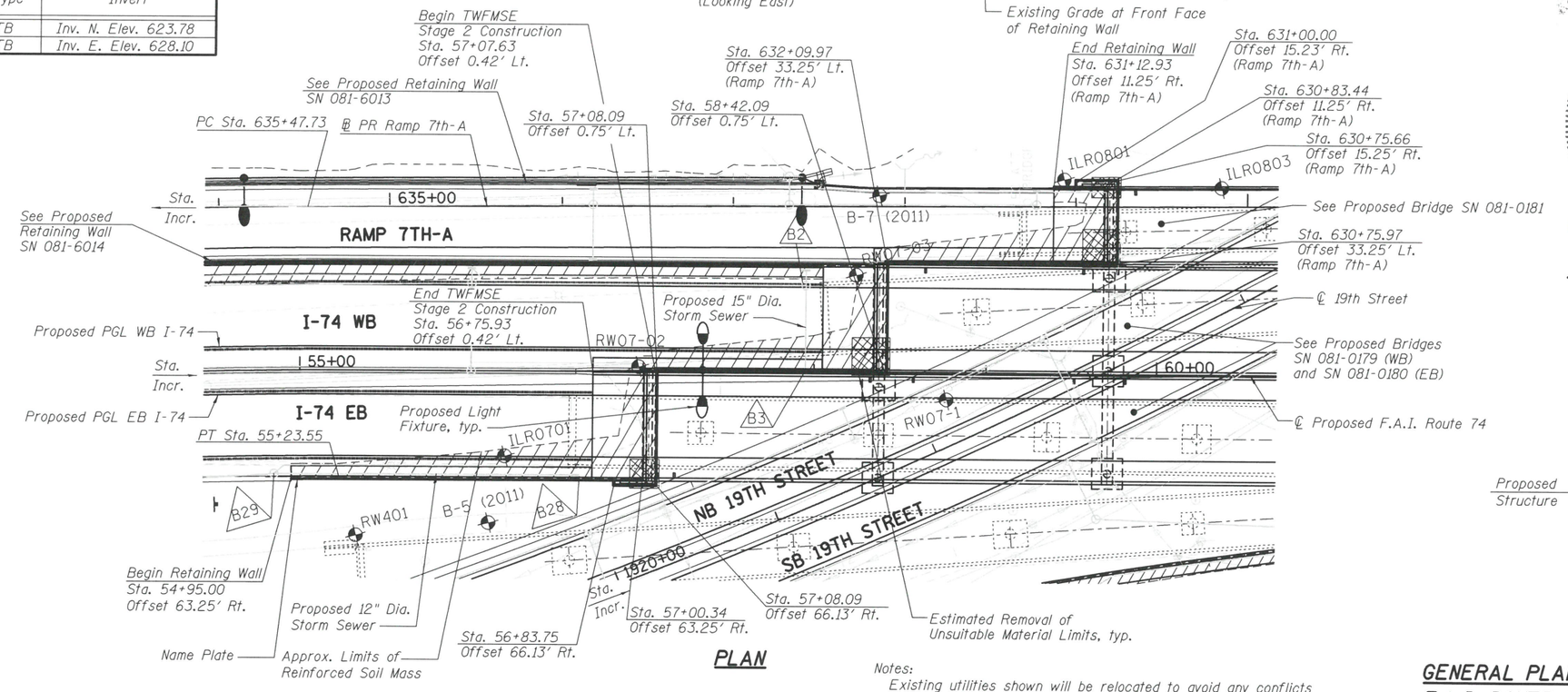


ELEVATION
(Looking East)



PLAN

CURVE DATA

PR CURVE ML100CL2
PI STA = 51+84.67
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L = 680.68'
E = 19.41'
e = 4.3%
PC STA = 48+42.87
PT STA = 55+23.55
S.E. RUN= 231' (I), 371.11' (O)

LEGEND

- Unsuitable Material
- Reinforced Soil Mass
- MSE Wall Panels
- Soil Borings
- Bxx — Drainage Structure

Notes:
Existing utilities shown will be relocated to avoid any conflicts during construction. (See Utility Plans.)
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PRECAST UNITS

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INDEX OF SHEETS

JERILYN M. HASSARD
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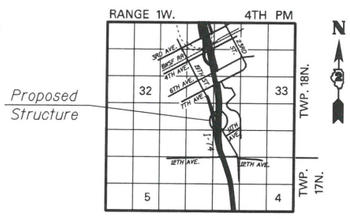
LICENSED STRUCTURAL ENGINEER OF ILLINOIS
Jerilyn M. Hassard
3-23-17

JERILYN M. HASSARD
EDWARDSVILLE, ILLINOIS
ILLINOIS LICENSED STRUCTURAL
ENGINEER NO. 081-006521
EXPIRES 11/30/2018



LOCATION SKETCH

GENERAL PLAN AND ELEVATION
F.A.I. ROUTE 74 SEC. (81-1)R-1
ROCK ISLAND COUNTY
PROPOSED I-74 Sta. 54+95.00 to
RAMP 7TH-A Sta. 631+12.93
STRUCTURE NO. 081-6016 (RETAINING WALL 07)

MODJESKI and MASTERS Experience great bridges.	USER NAME =	DESIGNED - ZJB	REVISED
		CHECKED - ACK	REVISED
	PLOT SCALE =	DRAWN - AEC	REVISED
	PLOT DATE = 03/23/2017	CHECKED - JMH	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION
I-74 (EB)/(WB) & RAMP 7TH-A RETAINING WALL 07
STRUCTURE NO. 081-6016
SHEET NO. 1 OF 20 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1	ROCK ISLAND	2042	1343
		CONTRACT NO. 64E26		
		ILLINOIS FED. AID PROJECT		

GENERAL NOTES

1. Reinforcement bars designated (E) shall be epoxy coated.
2. Wall stations and offsets are given to the front face (FF) of the wall and are measured from the centerline of Proposed I-74 except as noted. FF of the wall is to be considered edge of panel or form liner.
3. See Special Provision for Mechanically Stabilized Earth Retaining Walls and Temporary Mechanically Stabilized Earth Retaining Walls for design and construction requirements.
4. The piles for SN 081-0179, SN 081-0180, and SN 081-0181 are located within the reinforced soil mass and will be driven prior to placement of the reinforced soil mass. See SN 081-0179, SN 081-0180, and SN 081-0181 plans for additional pile requirements.
5. Wall construction shall not begin until after removal and replacement of the unsuitable material has been completed in the area of the new wall.
6. During construction, a test pit shall be started at the outside corner of the wall at each of the four suspected unsuitable locations. The adjacent footing excavations may be used as the test pits at WB I-74 and Ramp 7th-A. Each test pit shall be expanded as required to remove any unsuitable materials encountered to the maximum limits shown in the typical wall sections.
7. In areas where ground improvement is not required, the native soils shall be inspected when excavation reaches the base of the proposed wall. Any soft or otherwise unsuitable material should be removed and replaced with compacted rock fill. Removals shall be paid for as Removal and Disposal of Unsuitable Material for Structures. Rock fill shall be paid for as Rock Fill.
8. See SN 081-0180 and SN 081-0181 plans for maskwall details.

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Structure Excavation	Cu. Yd.	4,766
Removal and Disposal of Unsuitable Material for Structures	Cu. Yd.	638
Concrete Superstructure	Cu. Yd.	215.5
Protective Coat	Sq. Yd.	491
Reinforcement Bars, Epoxy Coated	Pound	33,090
Name Plates	Each	1
Temporary Mechanically Stabilized Earth Retaining Wall	Sq. Ft.	282
Mechanically Stabilized Earth Retaining Wall	Sq. Ft.	12,021
Rock Fill	Cu. Yd.	663

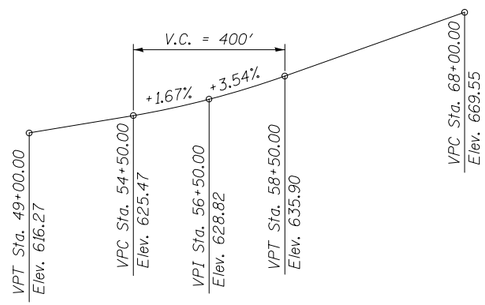
STATION 54+95.00
BUILT 201_ BY
STATE OF ILLINOIS
F.A.I. RT. 74 SEC. (81-1)R-1
LOADING HS-20
STR. NO. 081-6016

NAME PLATE

See Std. 515001

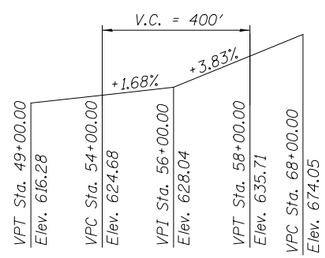
MSE WALL SETTLEMENT

1. The Top of Exposed Panel Elevations shown on these plans are final elevations after any settlement. The MSE wall supplier is alerted to the fact that up to 0.75 inches of settlement are anticipated along the length of the wall. The MSE wall supplier shall take appropriate measures to accommodate this settlement in the wall design.



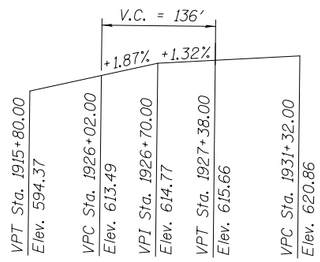
PROFILE GRADE

(Along WB PGL-F.A.I Route 74)



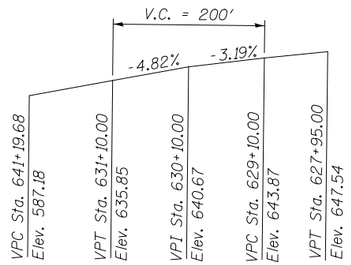
PROFILE GRADE

(Along EB PGL - F.A.I. Route 74)



PROFILE GRADE

(Along NB PGL 19th Street)



PROFILE GRADE

(Along PGL Ramp 7TH-A)

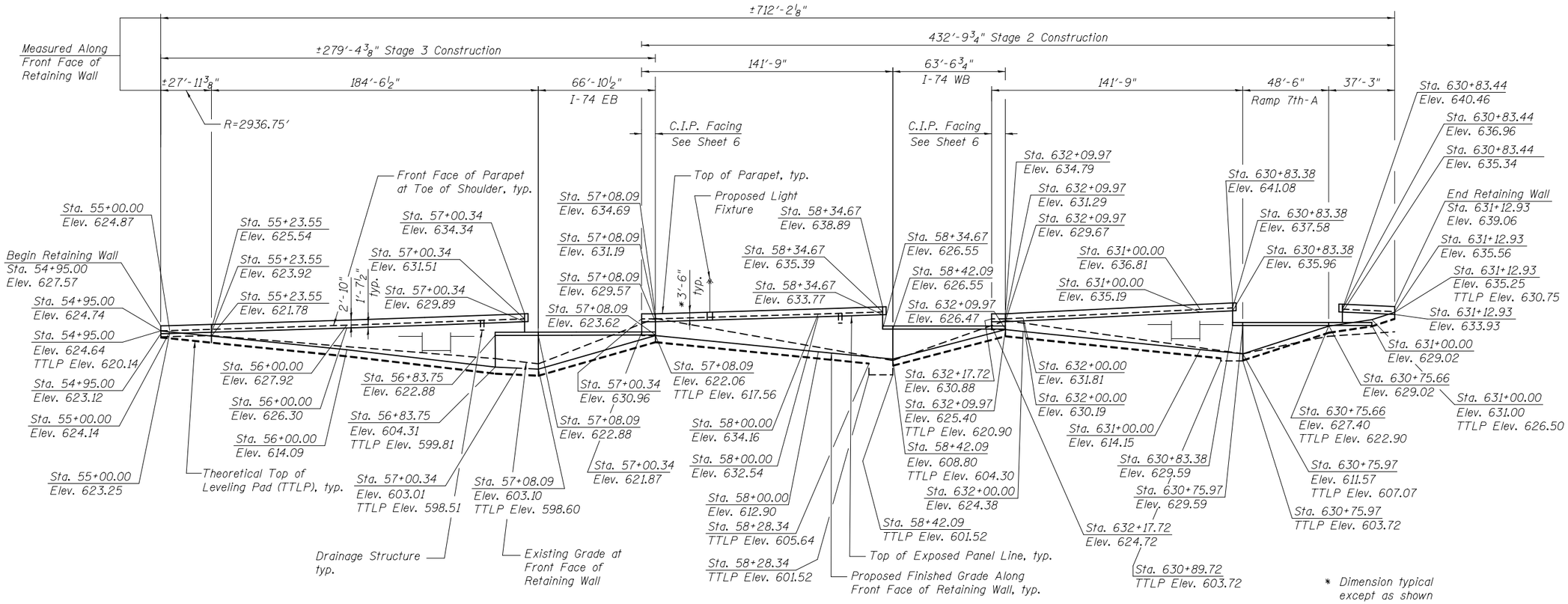
MODJESKI and MASTERS
Experience great bridges.

USER NAME =	DESIGNED - ZJB	REVISED
	CHECKED - ACK	REVISED
PLOT SCALE =	DRAWN - AEC	REVISED
PLOT DATE = 03/23/2017	CHECKED - JMH	REVISED

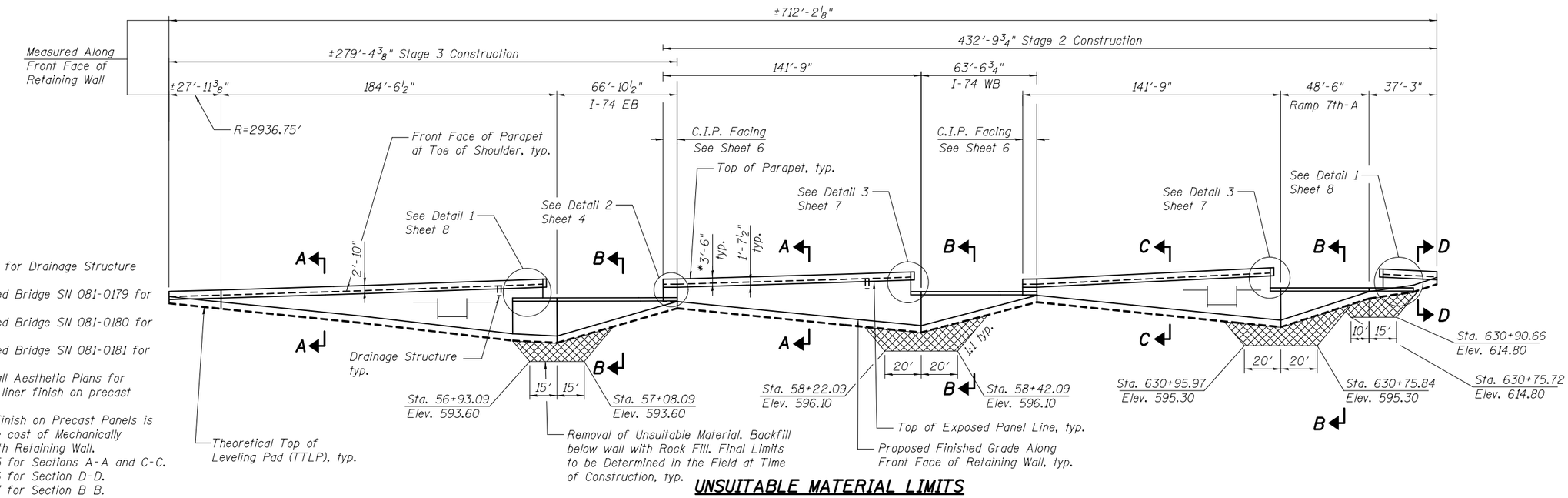
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES
I-74 (EB)/(WB) & RAMP 7TH-A RETAINING WALL 07
STRUCTURE NO. 081-6016
SHEET NO. 2 OF 20 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1	ROCK ISLAND	2042	1344
		CONTRACT NO. 64E26		
	ILLINOIS	FED. AID PROJECT		



UNFOLDED ELEVATION VIEW



UNSUITABLE MATERIAL LIMITS

Notes:
- See Sheet 1 for Drainage Structure Table.
- See Proposed Bridge SN 081-0179 for I-74 WB.
- See Proposed Bridge SN 081-0180 for I-74 EB.
- See Proposed Bridge SN 081-0181 for Ramp 7th-A.
- See MSE Wall Aesthetic Plans for required form liner finish on precast panels.
- Form liner finish on Precast Panels is included in the cost of Mechanically Stabilized Earth Retaining Wall.
- See Sheet 5 for Sections A-A and C-C.
- See Sheet 6 for Section D-D.
- See Sheet 7 for Section B-B.

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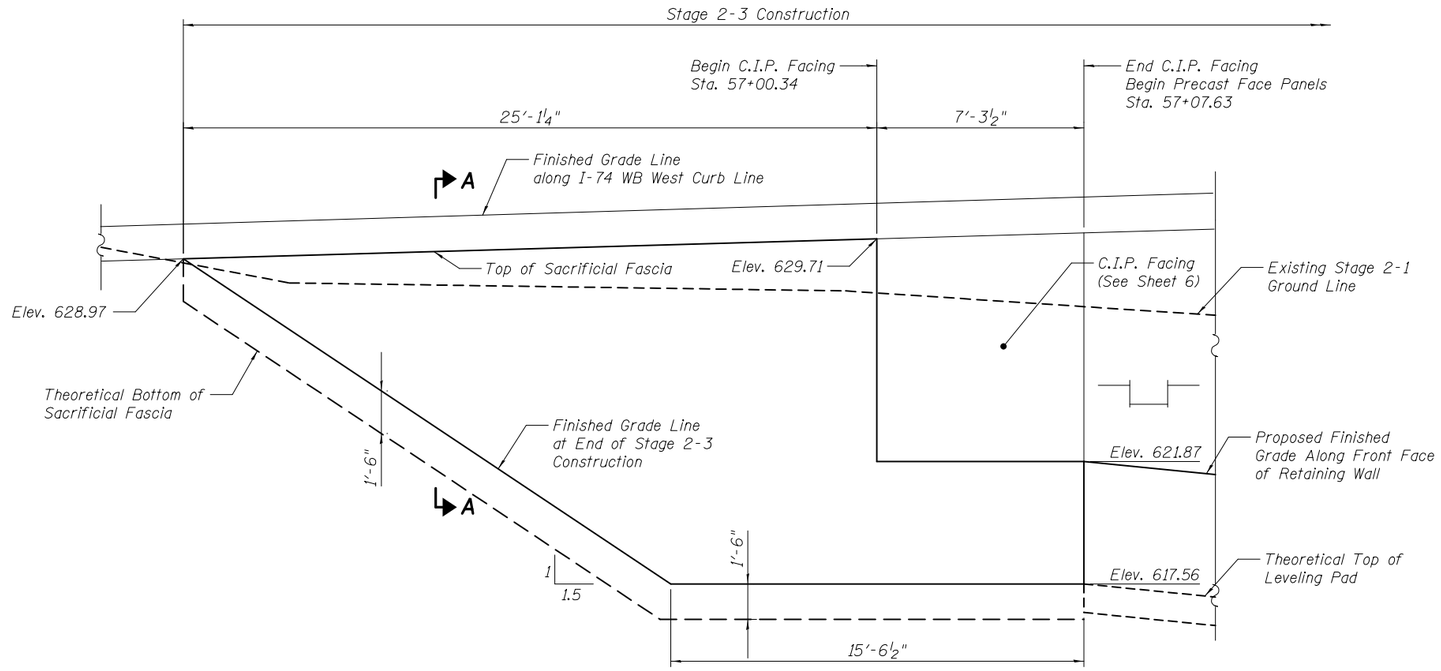
	CHECKED - ACK	REVISED
PLOT SCALE =	DRAWN - AEC	REVISED
PLOT DATE = 03/23/2017	CHECKED - JMH	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

UNFOLDED WALL ELEVATION
I-74 (EB)/(WB) & RAMP 7TH-A RETAINING WALL 07
STRUCTURE NO. 081-6016
SHEET NO. 3 OF 20 SHEETS

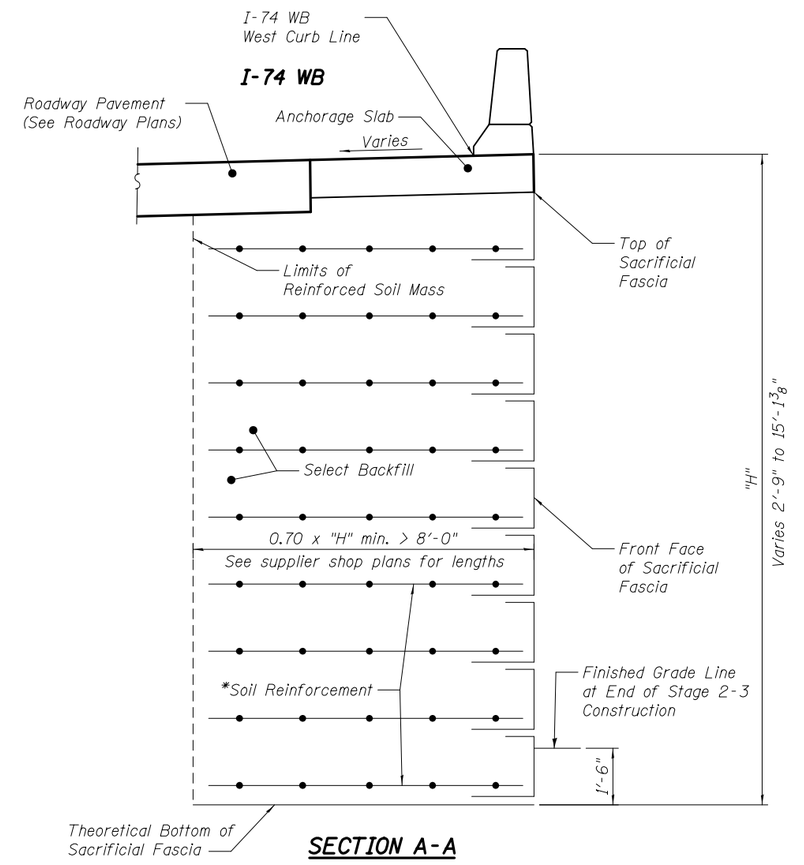
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1	ROCK ISLAND	2042	1345
		CONTRACT NO. 64E26		
ILLINOIS	FED. AID PROJECT			



DETAIL 2

(Looking East)

(Horizontal dimensions parallel to ℄ Proposed I-74)



SECTION A-A

* *The M.S.E. wall supplier's internal stability design shall account for the slab's bearing pressure surcharge of 1.0 ksf and horizontal sliding force of 0.5 kips/ft. of wall.*

Notes:

For location of Detail 2, see Sheet 3.

Limits of TWFMSE Wall shown are based on theorectical limits of the portion of the permanent wall constructed during Stage 2 and excavation limits required for the portion of the permanent wall constructed during Stage 3. Adjustments may be required if actual field conditions vary from the configuration shown.

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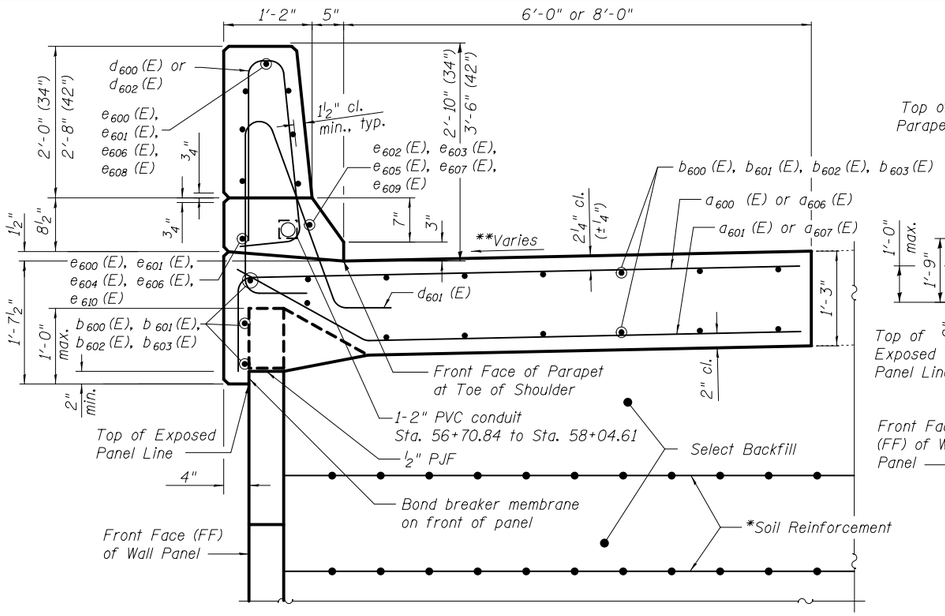
PLOT SCALE =	DRAWN - JAB	REVISED
PLOT DATE = 03/23/2017	CHECKED - JMH	REVISED

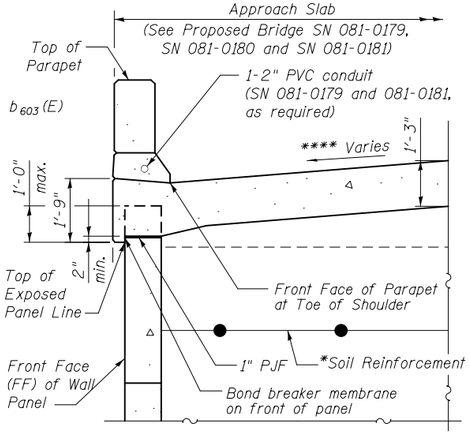
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGED CONSTRUCTION
I-74 (EB)/(WB) & RAMP 7TH-A RETAINING WALL 07
STRUCTURE NO. 081-6016
SHEET NO. 4 OF 20 SHEETS

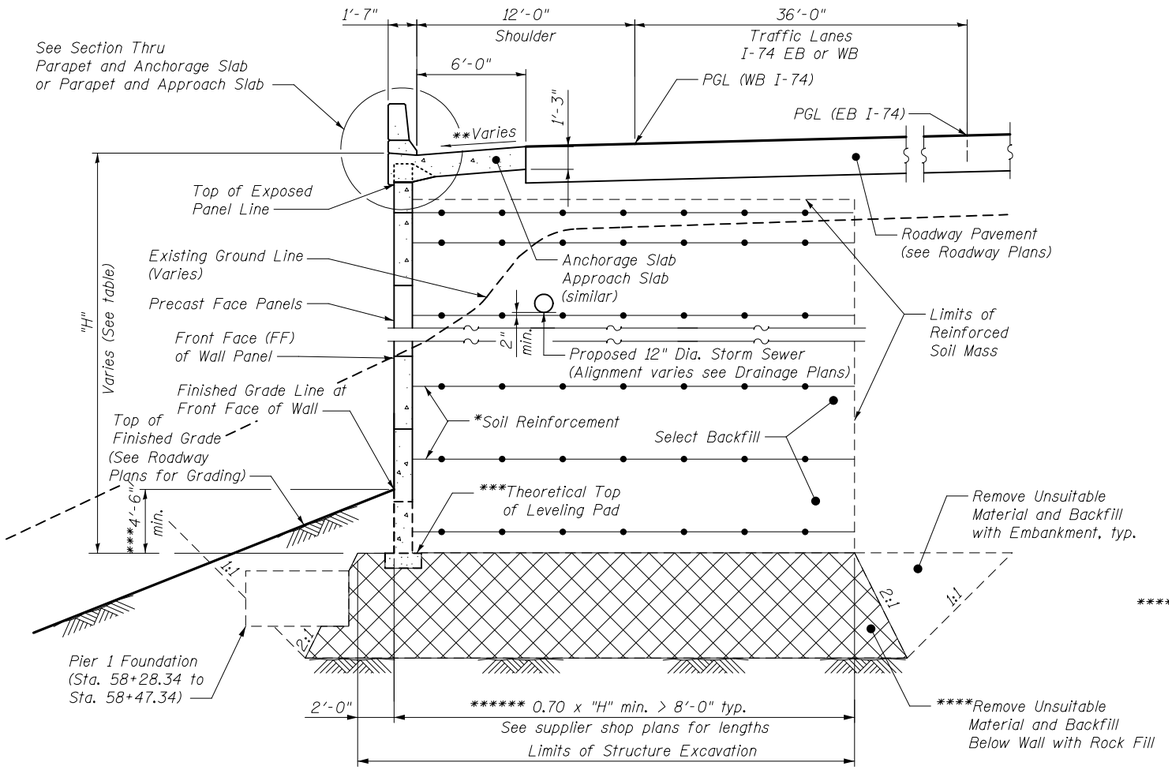
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1	ROCK ISLAND	2042	1346
		CONTRACT NO. 64E26		
	ILLINOIS FED. AID PROJECT			



SECTION THRU PARAPET AND ANCHORAGE SLAB DETAIL

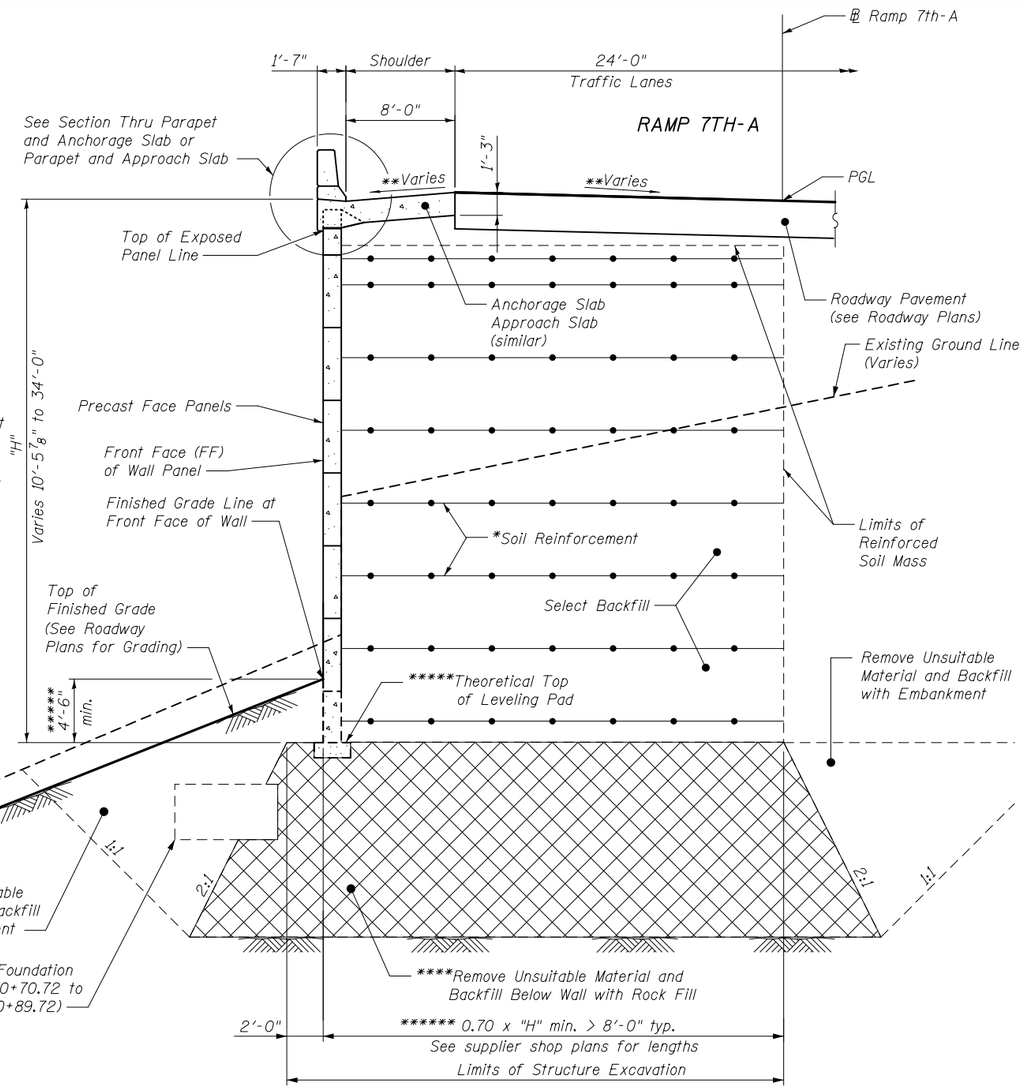


SECTION THRU PARAPET AND APPROACH SLAB



TYPICAL WALL SECTION

(Section A-A)



TYPICAL WALL SECTION

(Section C-C)

Retaining Wall	"H" Varies		
I-74 EB	4'-8¾"	to	33'-1½"
I-74 WB	13'-9"	to	34'-0"

****** 0.80 x "H" min. > 8'-0" shall be used when "H" is greater than or equal to 21'-6" for the retaining wall along I-74 EB, 23'-0" for the retaining wall along I-74 WB, and 22'-0" along Ramp 7th-A (Section C-C).

* The M.S.E. wall supplier's internal stability design shall account for the anchorage slab's bearing pressure surcharge of 1.0 ksf and horizontal sliding force of 0.5 kips/ft of wall for the 6 foot anchorage slab and 0.7 kips/ft of wall for the 8 foot anchorage slab.

** Cross slope varies throughout retaining wall limits. See Roadway Plans for details.

*** Between Sta. 58+28.34 and Sta. 58+42.09 the top of Leveling Pad shall be held at Elev. 601.52.

**** For limits of Unsuitable Material as measured along the front face of wall, see Sheet 3.

***** Between Sta. 630+75.97 and Sta. 630+89.72 (Ramp 7th-A) the top of leveling pad shall be held at Elev. 603.72.

Note:
For locations of sections A-A and C-C, see Sheet 3.
For Pier 1 and Pier 2 Foundation details, see SN 081-0180 and SN 081-0179.

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	CHECKED - ACK	REVISED
PLOT SCALE =	DRAWN - JAB	REVISED
PLOT DATE = 03/23/2017	CHECKED - JMH	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MSE DETAILS 1
I-74 (EB)/(WB) & RAMP 7TH-A RETAINING WALL 07
STRUCTURE NO. 081-6016
SHEET NO. 5 OF 20 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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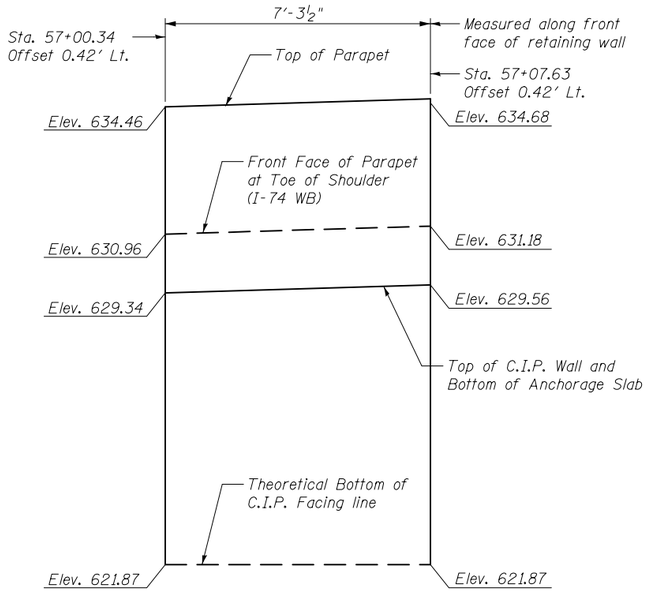
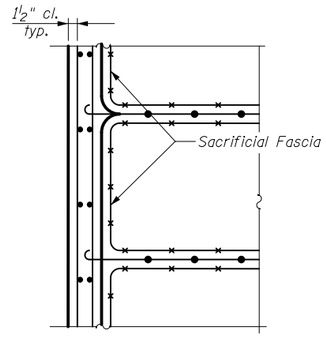
		CONTRACT NO. 64E26		
	ILLINOIS	FED. AID PROJECT		



ELEVATION VIEW OF C.I.P. FACING ALONG I-74 WB

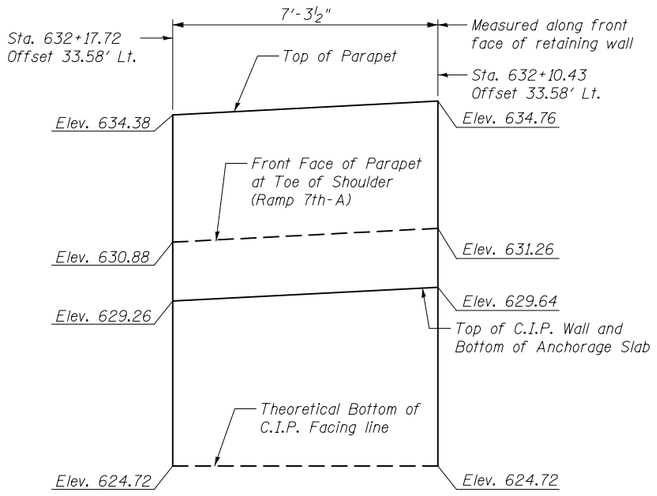
(Looking East)

(I-74 EB Abutment and EB Parapet not shown for clarity)



C.I.P. FACING TYPICAL SECTION

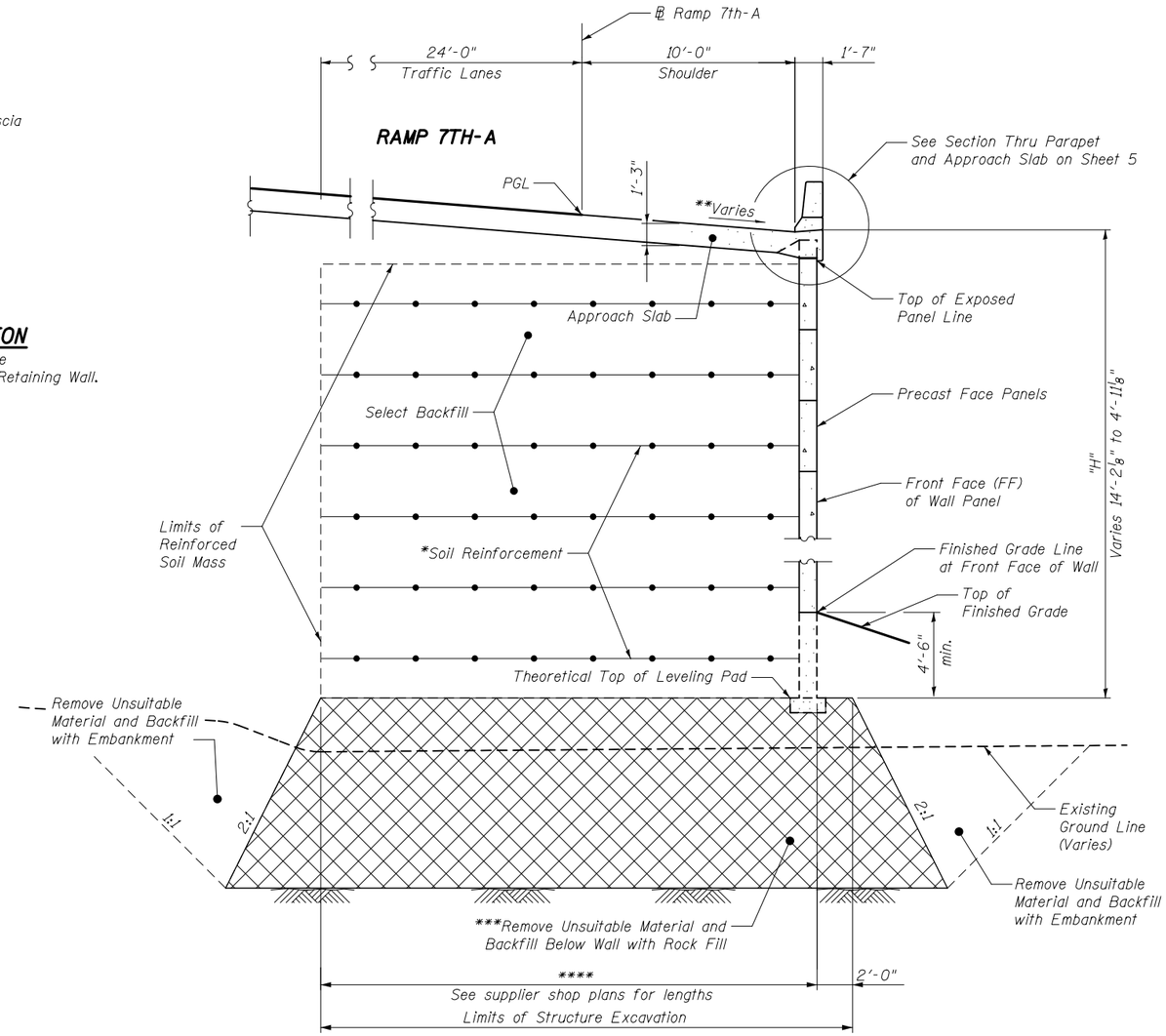
Concrete and reinforcing steel for C.I.P. Facing are included in the cost of Mechanically Stabilized Earth Retaining Wall.



ELEVATION VIEW OF C.I.P. FACING ALONG RAMP 7th-A

(Looking East)

(I-74 WB Abutment and WB Parapet not shown for clarity)



TYPICAL WALL SECTION

(Section D-D)

* The M.S.E. wall suppliers internal stability design shall account for the approach slabs bearing pressure surcharge of 1.0 ksf and horizontal sliding force of 0.5 kips/ft of wall.

** Cross Slope varies throughout retaining wall limits. See Roadway Plans for details.

*** For limits of Unsuitable Material as measured along front face of wall, see Sheet 3.

**** 0.70 x "H" min. > 8′-0" from Sta. 631+12.93 to Sta. 631+00.00
0.70 x "H" min. > 12′-0" from Sta. 631+00.00 to Sta. 630+75.66

Note:
For location of Section D-D, see Sheet 3.

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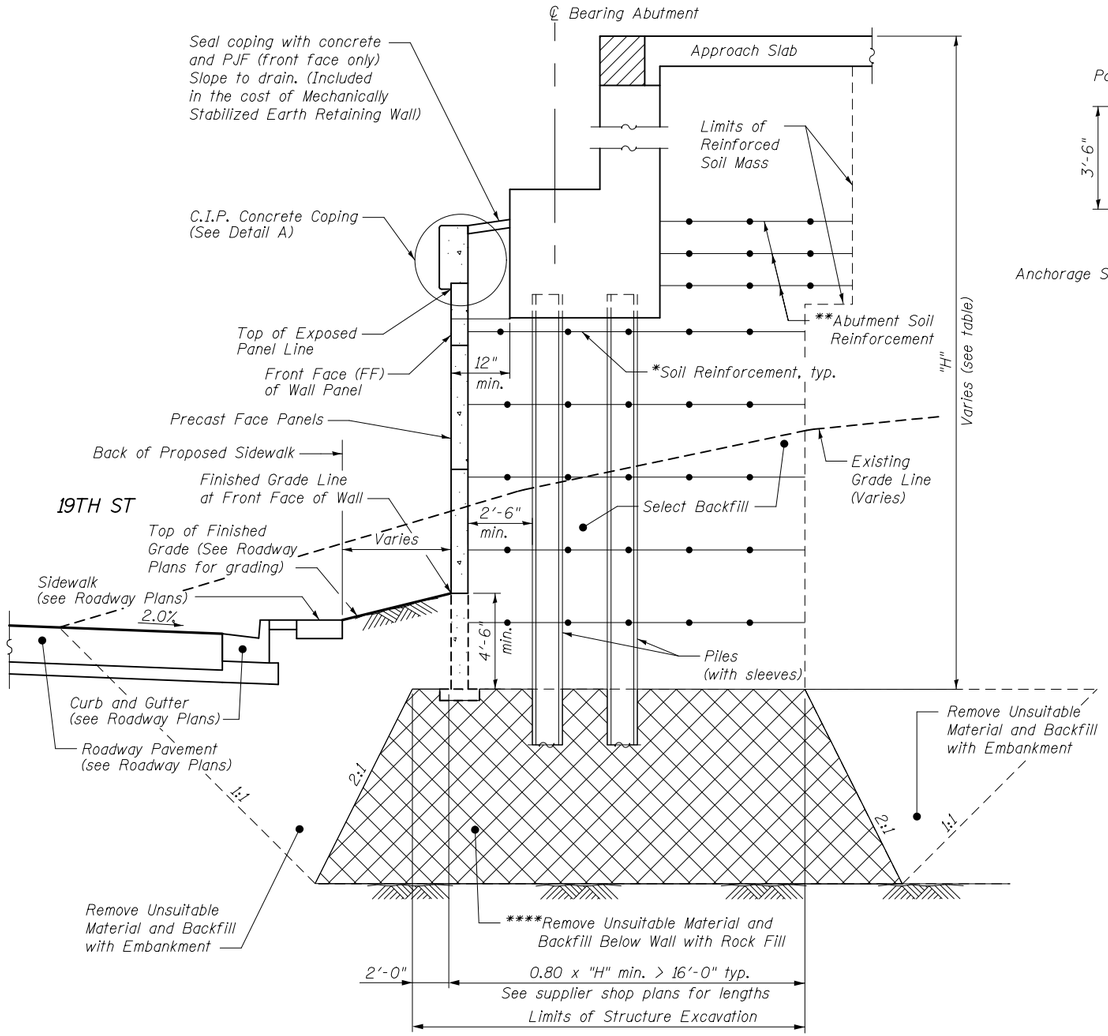
PLOT SCALE =	DRAWN - JAB	REVISED	
PLOT DATE = 03/23/2017	CHECKED - JMH	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MSE DETAILS 2
I-74 (EB)/(WB) & RAMP 7TH-A RETAINING WALL 07
STRUCTURE NO. 081-6016
SHEET NO. 6 OF 20 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1	ROCK ISLAND	2042	1348
		CONTRACT NO. 64E26		
	ILLINOIS	FED. AID PROJECT		

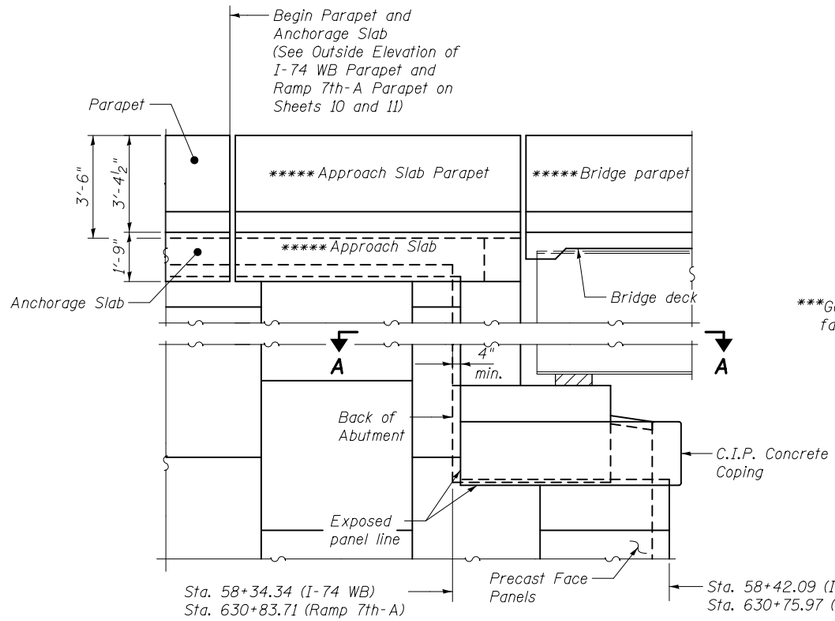


TYPICAL WALL SECTION THRU ABUTMENT

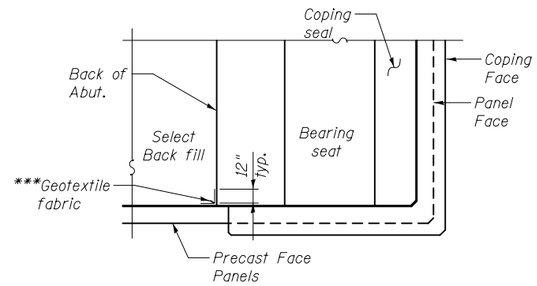
(Section B-B)

Abutment	"H" Varies		
I-74 EB	14'-10 3/4"	to	33'-0 1/2"
I-74 WB	14'-5 7/8"	to	31'-2 5/8"
Ramp 7th-A	14'-2 1/8"	to	30'-7 3/4"

ABUTMENT WALL HEIGHT TABLE



DETAIL 3



SECTION A-A

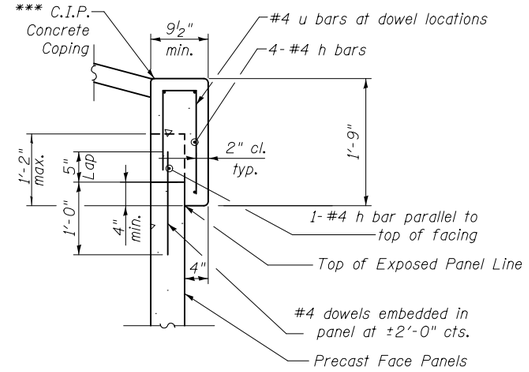
* The M.S.E. wall supplier's internal stability design shall account for the anchorage slab's bearing pressure surcharge of 1.0 ksf and horizontal sliding force of 0.5 kips/ft. of wall.

** The M.S.E wall supplier shall design the abutment soil reinforcement to resist a horizontal force of 3.18 kips/ft, 2.54 kips/ft, and 2.65 kips/ft of abutment for the I-74 EB, I-74 WB, and Ramp 7th-A abutments, respectively. Cost shall be included with the cost of "Mechanically Stabilized Earth Retaining Wall"

*** Concrete, geotextile fabric, and reinforcing steel for C.I.P. Concrete Coping are included in the cost of "Mechanically Stabilized Earth Retaining Wall".

**** For limits of Unsuitable Material as measured along the front face of the abutment, see Sheet 3.

***** See Proposed Bridge SN 081-0179 (I-74 WB) and SN 081-0181 (Ramp 7th-A)



DETAIL A
C.I.P. CONCRETE COPING

Notes:
See SN 081-0179 (WB) and SN 081-0180 (EB) and SN 081-0181 (Ramp 7th-A) plans for abutment and approach slab details.
For location of Detail 3, see Sheet 3.
For location of Section B-B, see Sheet 3.

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PLOT SCALE =	DRAWN - JAB	REVISED
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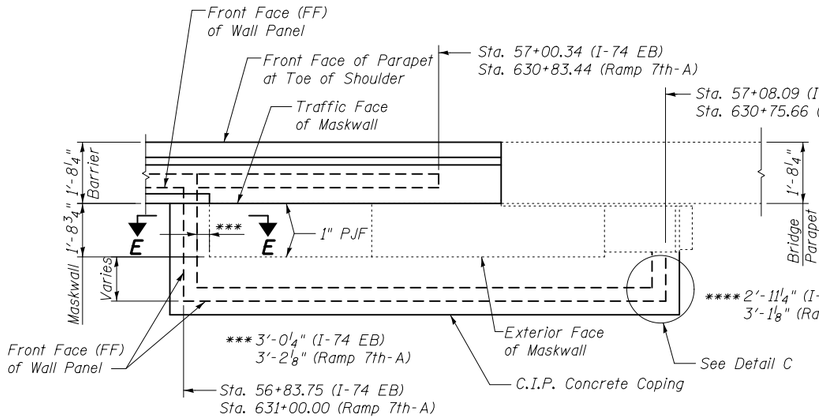
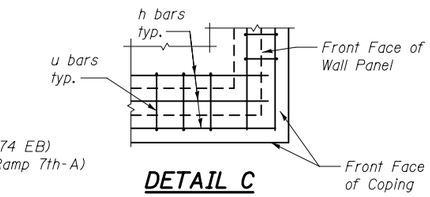
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MSE DETAILS 3
I-74 (EB)/(WB) & RAMP 7TH-A RETAINING WALL 07
STRUCTURE NO. 081-6016
SHEET NO. 7 OF 20 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1	ROCK ISLAND	2042	1349
		CONTRACT NO. 64E26		
	ILLINOIS FED. AID PROJECT			

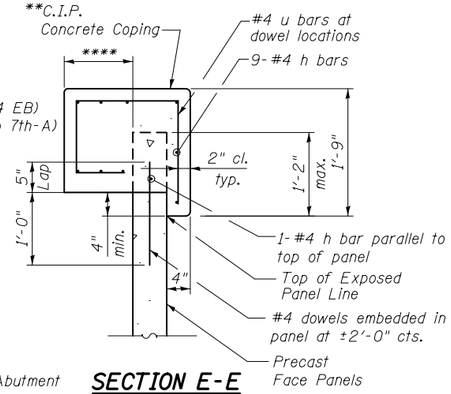


SECTION A-A

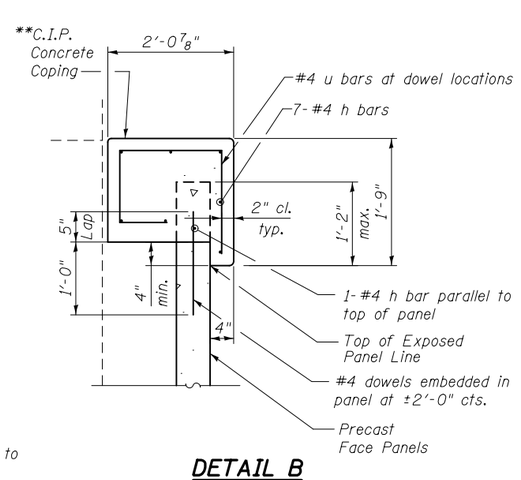


DETAIL C

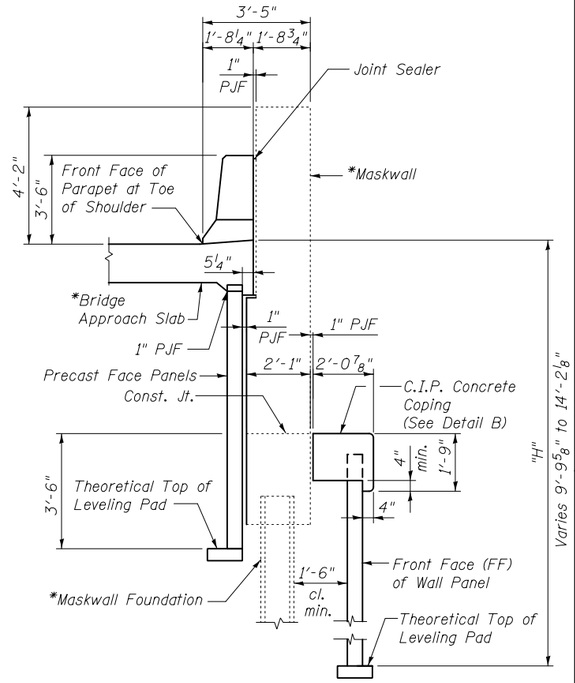
(Bottom reinforcement not shown for clarity.)
(Other corners similar.)



SECTION E-E

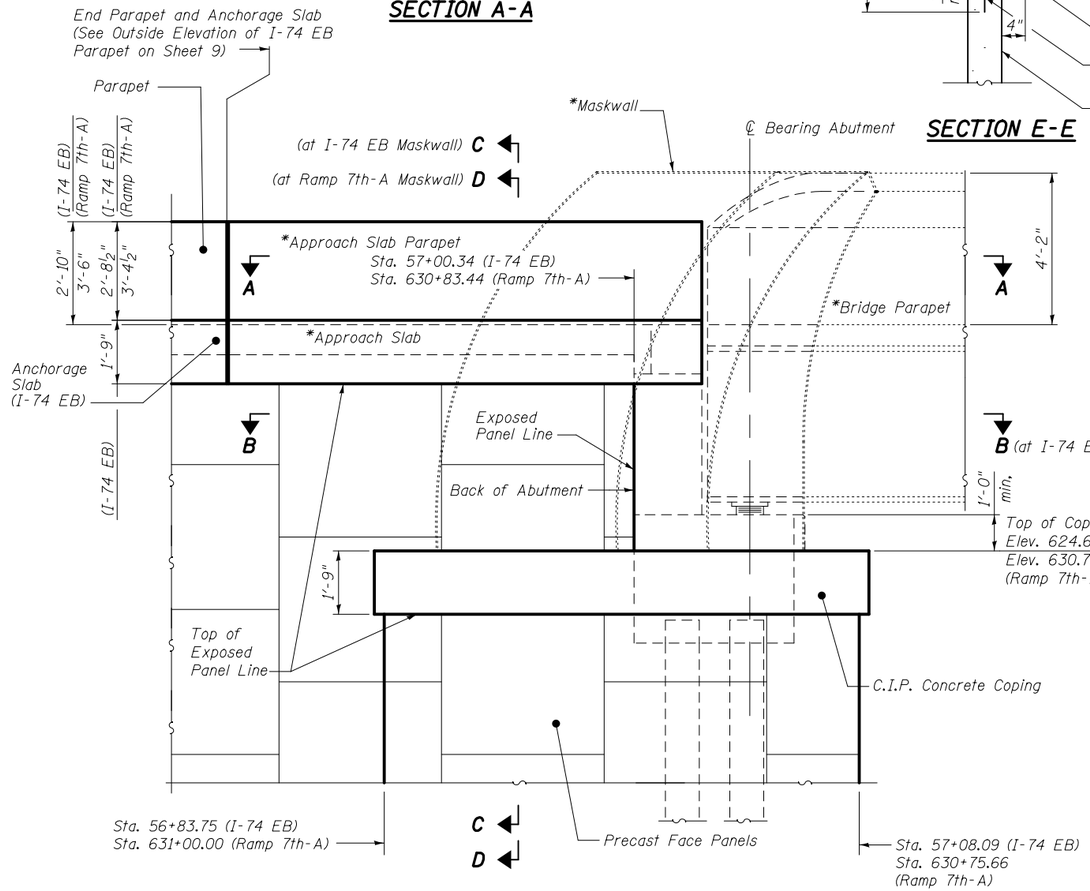


DETAIL B



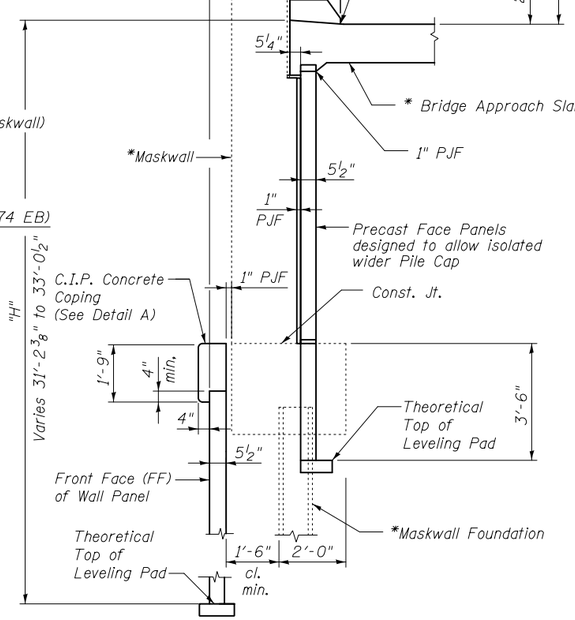
SECTION D-D

(at Ramp 7th-A Maskwall)



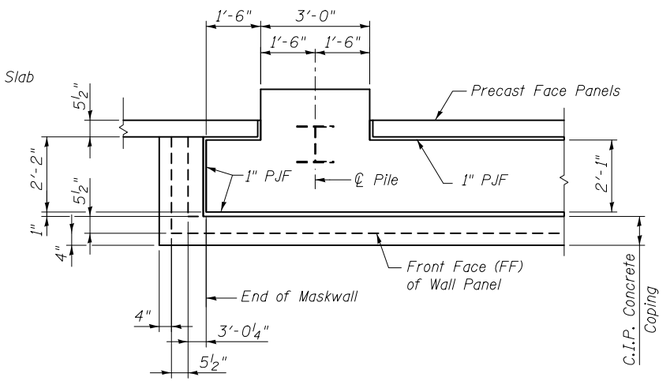
DETAIL 1

(I-74 EB shown, Ramp 7th-A opposite hand.)
(Maskwall foundation not shown for clarity.)



SECTION C-C

(at I-74 EB Maskwall)



SECTION B-B

(at I-74 EB Maskwall)

* See Proposed Bridge SN 081-0180 and SN 081-0181

** Concrete and reinforcing steel for C.I.P. Concrete Coping are included in the cost of Mechanically Stabilized Earth Retaining Wall.

Notes:

The soil reinforcement limits for the upper and lower MSE walls shall meet the design requirements provided within the Typical Sections. The width of the lower wall soil reinforcement shall be designed based on "H" as dimensioned in Section C-C and D-D respectively. The width of the upper wall soil reinforcement shall be designed based on the height from the upper wall Theoretical Top of Leveling Pad to the Toe of Shoulder and shall be equal to or greater than the limit of soil reinforcement required for the lower MSE wall.

For Detail A, see Sheet 7.

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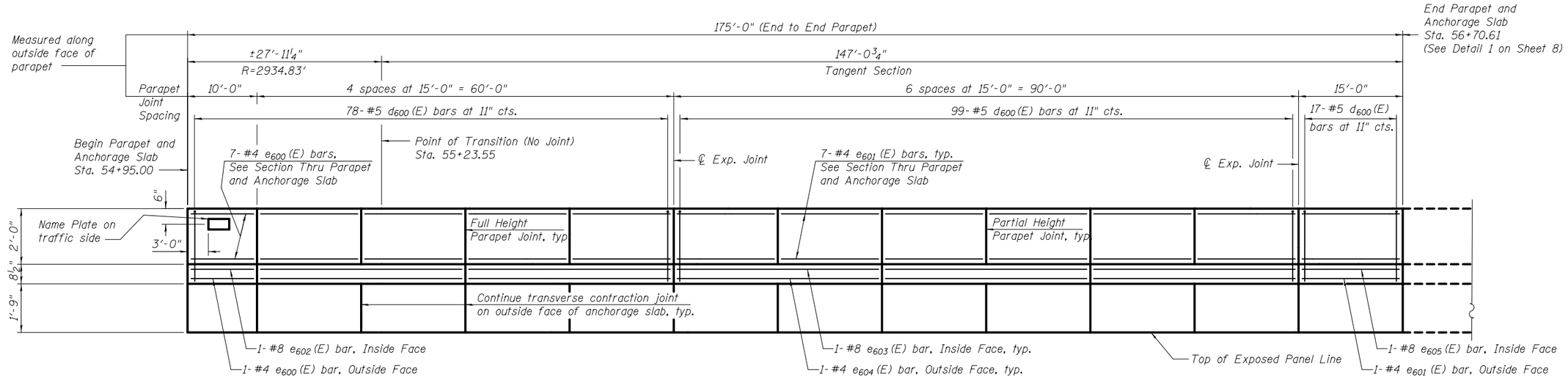
PLOT SCALE =	DRAWN - JAB	REVISED
PLOT DATE = 03/23/2017	CHECKED - JMH	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

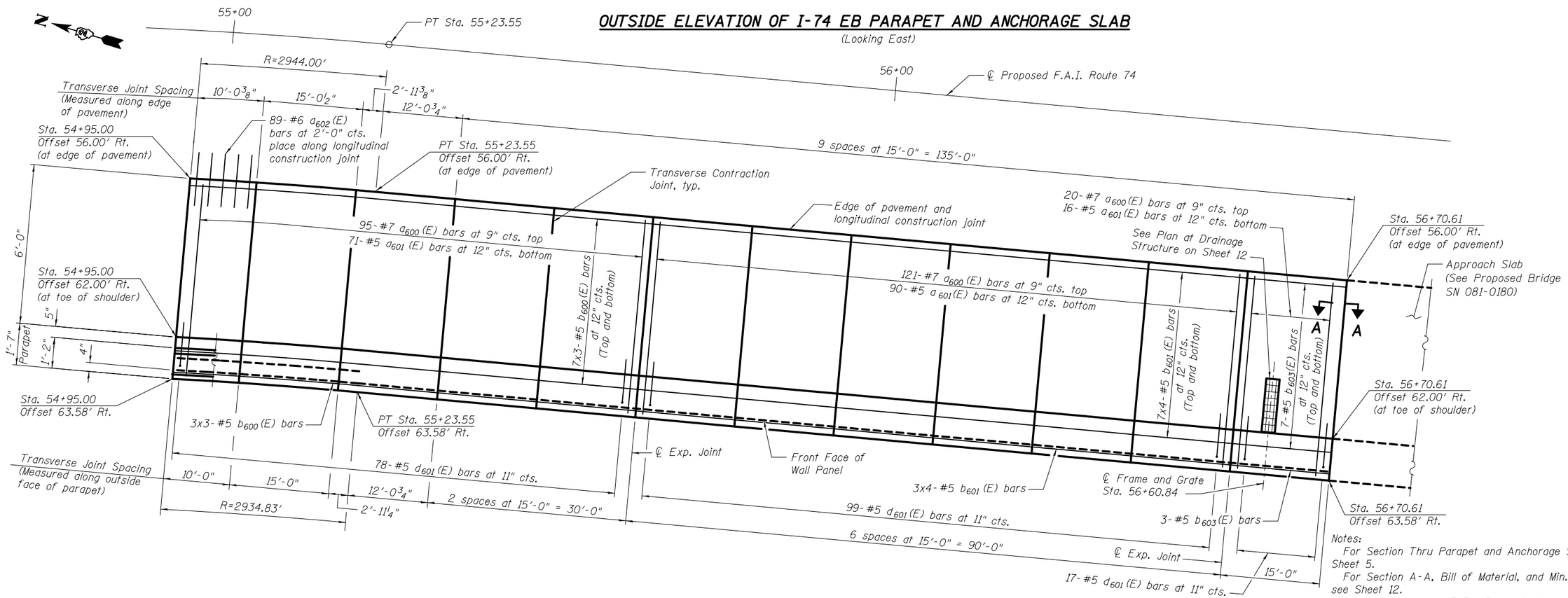
MSE DETAILS 4
I-74 (EB)/(WB) & RAMP 7TH-A RETAINING WALL 07
STRUCTURE NO. 081-6016
SHEET NO. 8 OF 20 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1	ROCK ISLAND	2042	1350
		CONTRACT NO. 64E26		
	ILLINOIS	FED. AID PROJECT		



OUTSIDE ELEVATION OF I-74 EB PARAPET AND ANCHORAGE SLAB

(Looking East)



PLAN - I-74 EB PARAPET AND ANCHORAGE SLAB

Notes:

For Section Thru Parapet and Anchorage Slab, see Sheet 5.

For Section A-A, Bill of Material, and Min. Bar Lap table, see Sheet 12.

Bars indicated thus 7x3-#5 etc. indicates 7 lines of bars with 3 lengths per line.

Joints in the adjacent pavement shall be aligned with the anchorage slab joints.

Stations and offsets on this sheet are given to the outside face of the parapet and are measured from the centerline of proposed F.A.I. Route 74, except as noted.

MODJESKI and MASTERS
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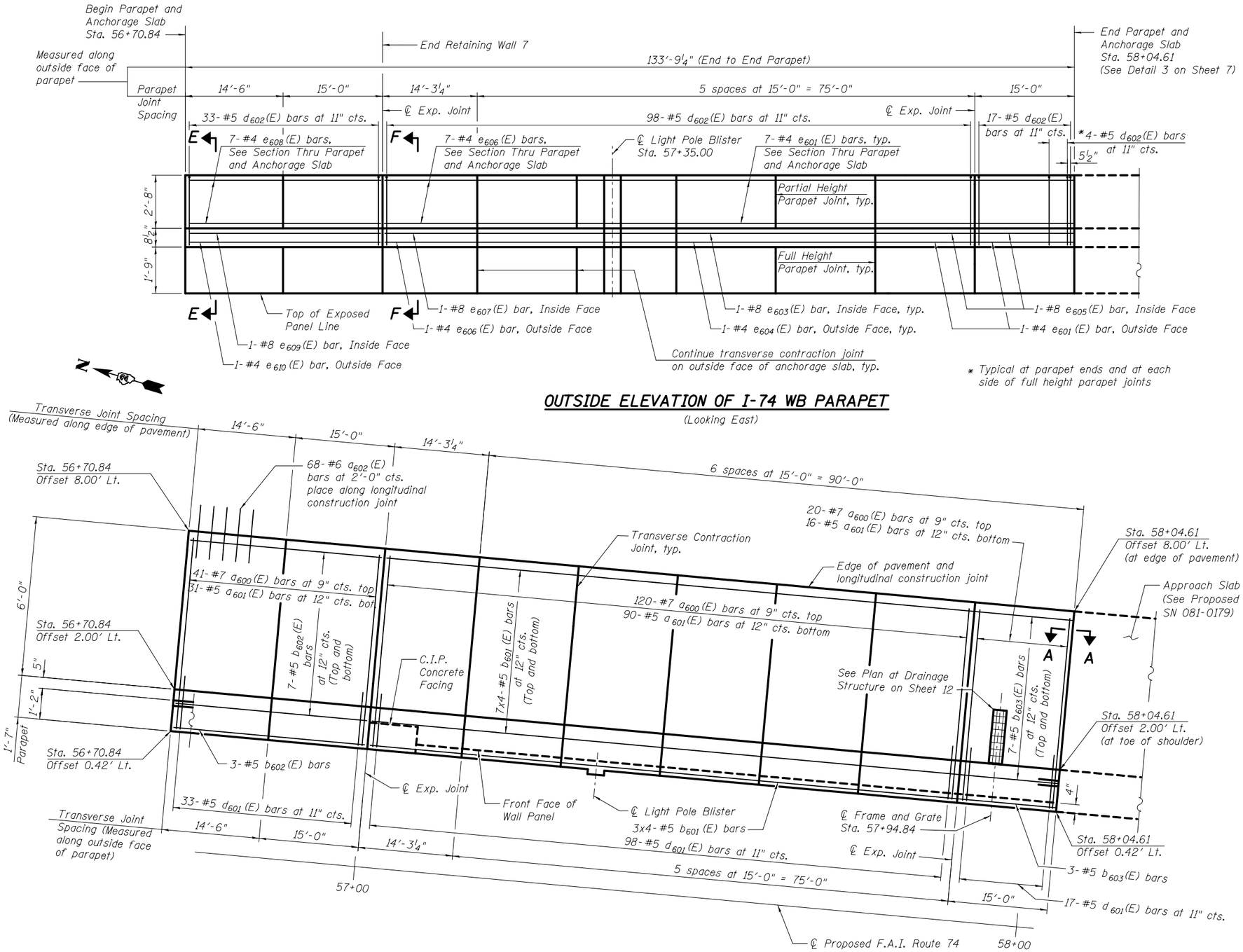
USER NAME =	DESIGNED - ZJB	REVISED
	CHECKED - ACK	REVISED
PLOT SCALE =	DRAWN - CMM	REVISED
PLOT DATE = 03/23/2017	CHECKED - JMH	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PARAPET AND ANCHORAGE SLAB 1
I-74 (EB)/(WB) & RAMP 7TH-A RETAINING WALL 07
STRUCTURE NO. 081-6016
SHEET NO. 9 OF 20 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1	ROCK ISLAND	2042	1351
		CONTRACT NO. 64E26		
	ILLINOIS FED. AID PROJECT			



OUTSIDE ELEVATION OF I-74 WB PARAPET

(Looking East)

PLAN - I-74 WB PARAPET AND ANCHORAGE SLAB

Notes:

For Section Thru Parapet and Anchorage Slab, see Sheet 5.

For Section A-A, Bill of Material, and Min. Bar Lap table, see Sheet 12.

For Sections E-E and F-F, see Sheet 12.

Bars indicated thus 7x4-#5 etc. indicates 7 lines of bars with 4 lengths per line.

Joints in the adjacent pavement shall be aligned with the anchorage slab joints.

Stations and offsets on this sheet are given to the outside face of the parapet and are measured from the centerline of proposed F.A.I. Route 74, except as noted.

See Sheet 13 for Light Pole Blister reinforcement.

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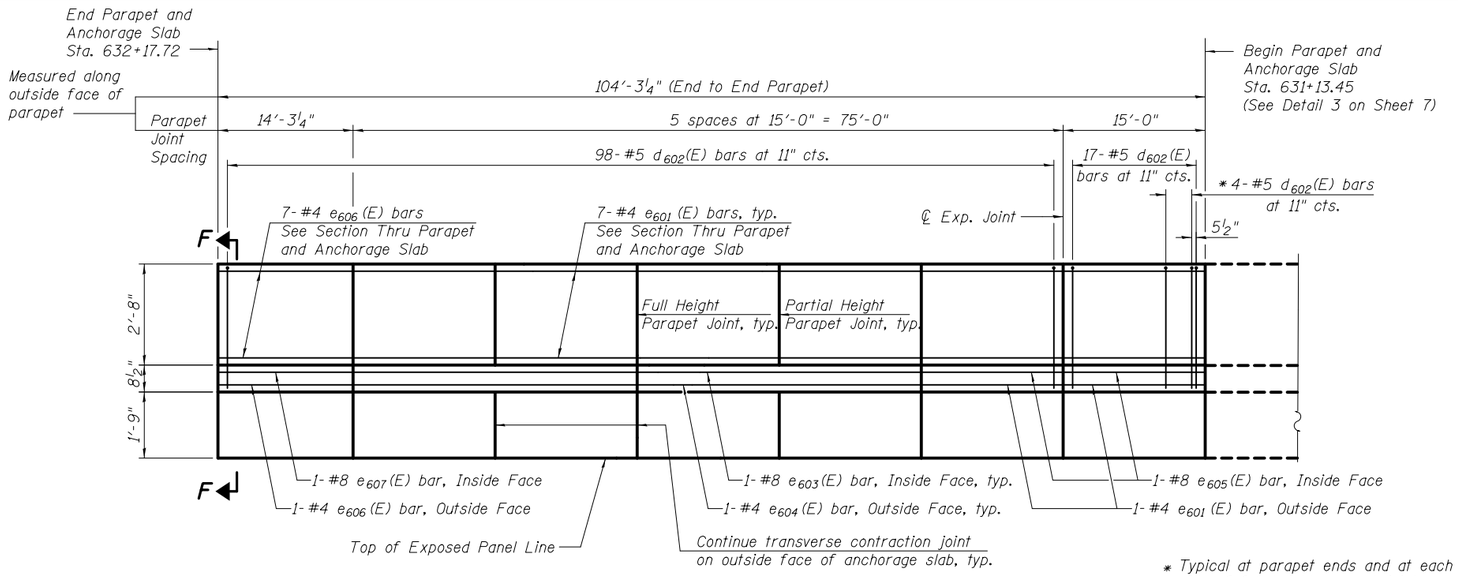
USER NAME =	DESIGNED - ZJB	REVISED	
	CHECKED - ACK	REVISED	
PLOT SCALE =	DRAWN - CMM	REVISED	
PLOT DATE = 03/23/2017	CHECKED - JMH	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PARAPET AND ANCHORAGE SLAB 2
I-74 (EB)/(WB) & RAMP 7TH-A RETAINING WALL 07
STRUCTURE NO. 081-6016
SHEET NO. 10 OF 20 SHEETS

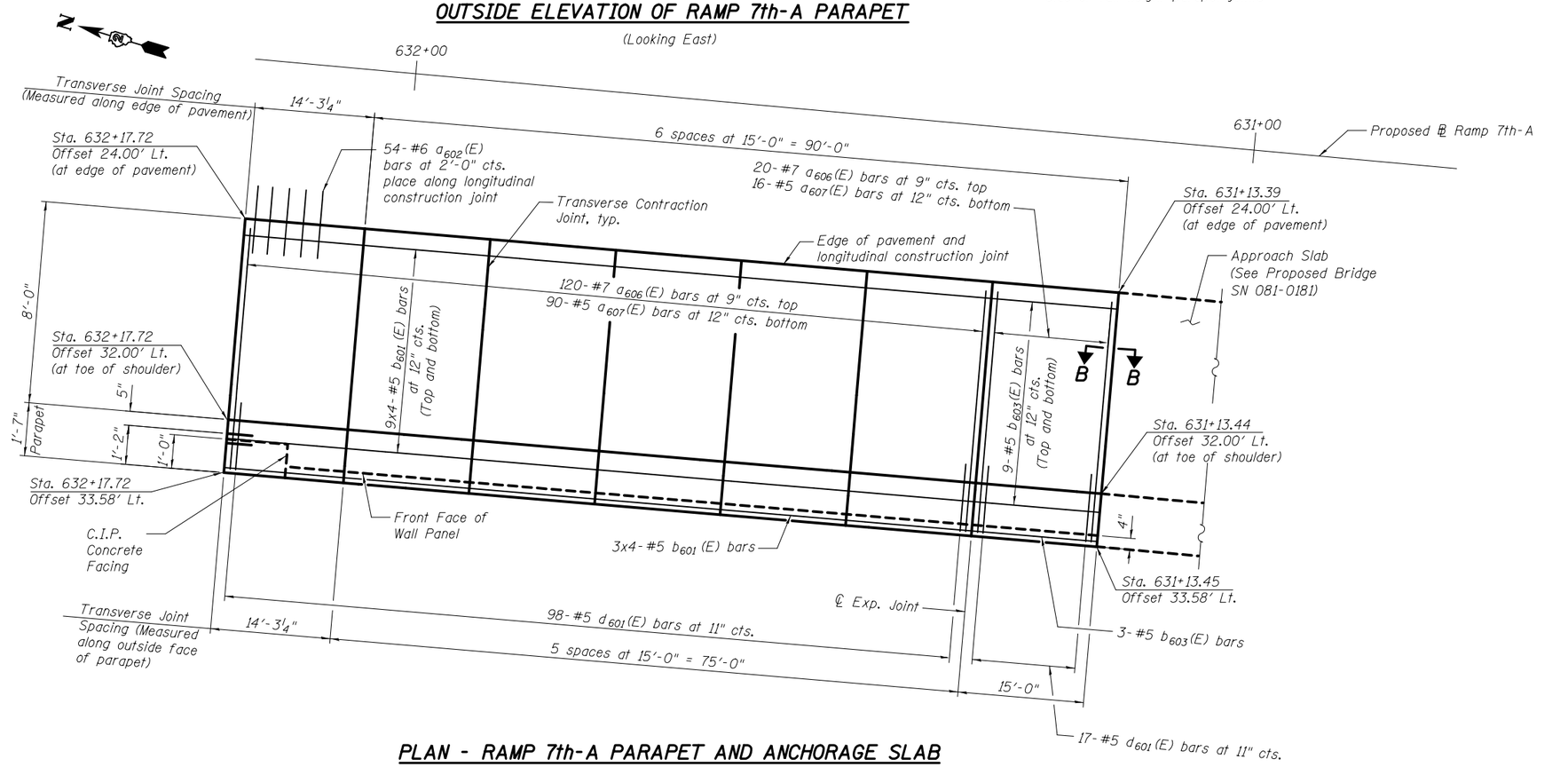
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1	ROCK ISLAND	2042	1352
		CONTRACT NO. 64E26		
	ILLINOIS FED. AID PROJECT			



* Typical at parapet ends and at each side of full height parapet joints

OUTSIDE ELEVATION OF RAMP 7th-A PARAPET

(Looking East)



PLAN - RAMP 7th-A PARAPET AND ANCHORAGE SLAB

Notes:

For Section Thru Parapet and Anchorage Slab, see Sheet 5.

For Sections B-B, F-F, Bill of Material, and Min. Bar Lap table, see Sheet 12.

Bars indicated thus 9x4-#5 etc. indicates 9 lines of bars with 4 lengths per line.

Joints in the adjacent pavement shall be aligned with the anchorage slab joints.

Stations and offsets on this sheet are given to the outside face of the parapet and are measured from the baseline of Proposed Ramp 7th-A, except as noted.

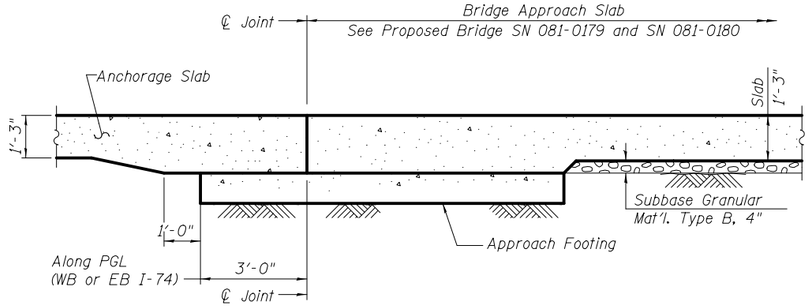
MODJESKI and MASTERS
Experience great bridges.

USER NAME =	DESIGNED - ZJB	REVISED
	CHECKED - ACK	REVISED
PLOT SCALE =	DRAWN - JAB	REVISED
PLOT DATE = 03/23/2017	CHECKED - JMH	REVISED

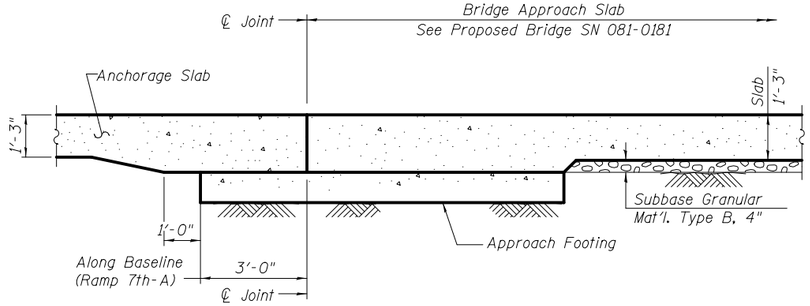
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PARAPET AND ANCHORAGE SLAB 3
I-74 (EB)/(WB) & RAMP 7TH-A RETAINING WALL 07
STRUCTURE NO. 081-6016
SHEET NO. 11 OF 20 SHEETS

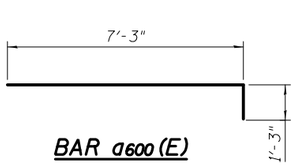
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1	ROCK ISLAND	2042	1353
		CONTRACT NO. 64E26		
	ILLINOIS FED. AID PROJECT			



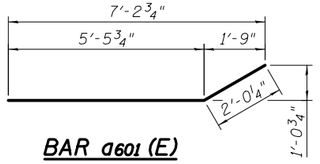
SECTION A-A



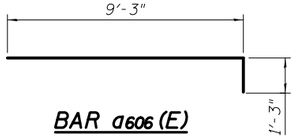
SECTION B-B



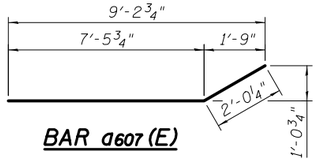
BAR a_{600} (E)



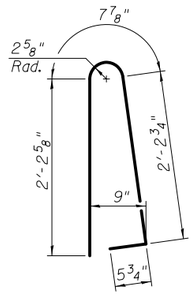
BAR a_{601} (E)



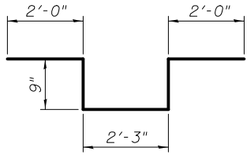
BAR a_{606} (E)



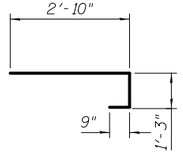
BAR a_{607} (E)



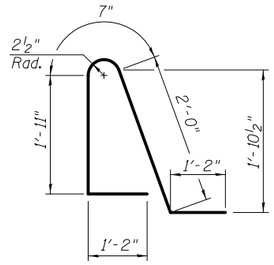
BAR d_{600}(E)



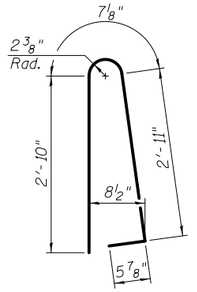
BAR a_{604} (E)



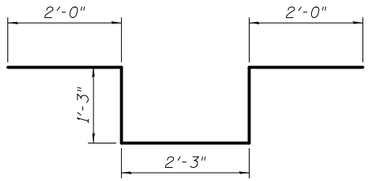
BAR a_{605} (E)



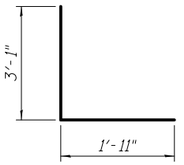
BAR d_{601} (E)



BAR d_{602}(E)



BAR d_{604} (E)

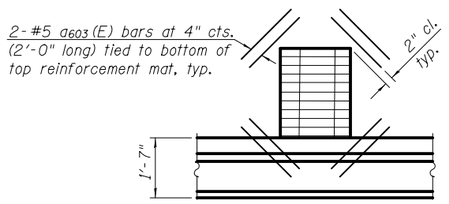


BAR d_{603}(E)

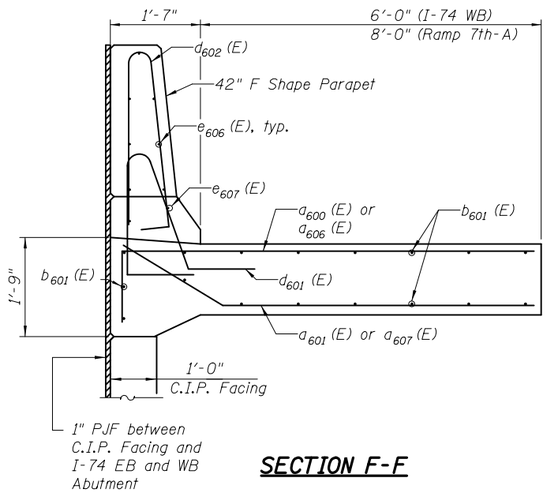
RETAINING WALL 07
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a_{600}(E)	417	#7	8'-6"	
a_{601}(E)	314	#5	7'-6"	
a_{602}(E)	211	#6	2'-0"	
a_{603}(E)	16	#5	2'-0"	
a_{604}(E)	3	#6	7'-9"	
a_{605}(E)	3	#6	4'-10"	
a_{606}(E)	140	#7	10'-6"	
a_{607}(E)	106	#5	9'-6"	
b_{600}(E)	51	#5	25'-9"	
b_{601}(E)	220	#5	25'-0"	
b_{602}(E)	17	#5	29'-3"	
b_{603}(E)	55	#5	14'-9"	
d_{600}(E)	194	#5	5'-7"	
d_{601}(E)	457	#5	6'-10"	
d_{602}(E)	335	#5	6'-10"	
d_{603}(E)	3	#6	5'-0"	
d_{604}(E)	6	#6	8'-9"	
e_{600}(E)	8	#4	9'-9"	
e_{601}(E)	173	#4	14'-9"	
e_{602}(E)	1	#8	9'-9"	
e_{603}(E)	9	#8	29'-9"	
e_{604}(E)	9	#4	29'-9"	
e_{605}(E)	5	#8	14'-9"	
e_{606}(E)	16	#4	14'-0"	
e_{607}(E)	2	#8	14'-0"	
e_{608}(E)	7	#4	14'-3"	
e_{609}(E)	1	#8	29'-3"	
e_{610}(E)	1	#4	29'-3"	
Reinforcement Bars, Epoxy Coated			Pound	33,090
Concrete Superstructure			Cu. Yd.	216

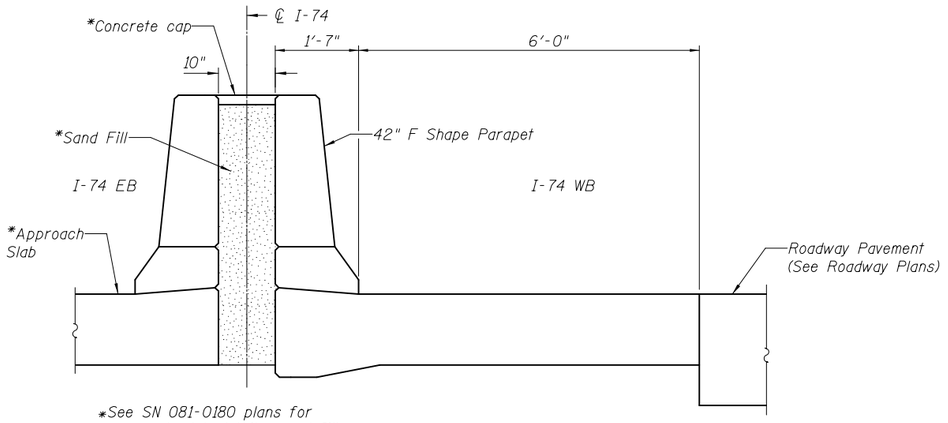
MIN. BAR LAP
#5 bars - 3'-3"



PLAN AT DRAINAGE STRUCTURE
(Cut longitudinal reinforcement to clear drainage structure.)



SECTION F-F



*See SN 081-0180 plans for approach slab details, sand fill, and concrete cap.

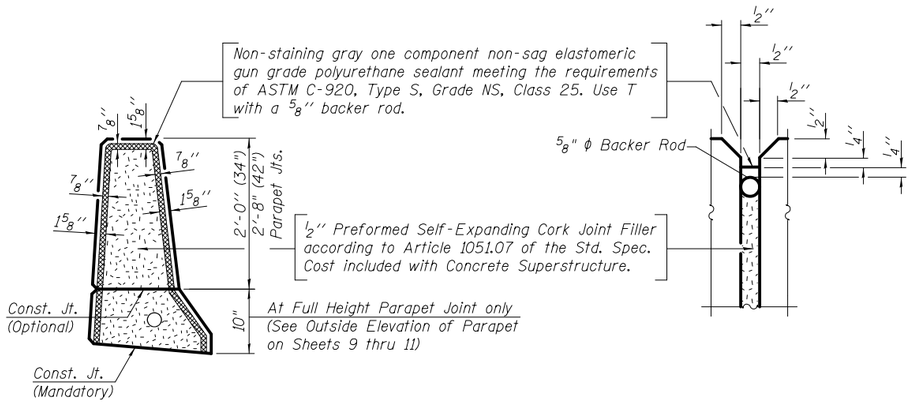
SECTION E-E

MODJESKI and MASTERS Experience great bridges.	USER NAME =	DESIGNED - ZJB	REVISED
		CHECKED - YSS	REVISED
	PLOT SCALE =	DRAWN - JAB	REVISED
	PLOT DATE = 03/23/2017	CHECKED - JMH	REVISED

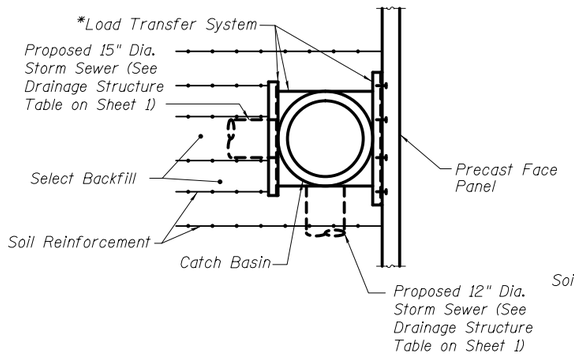
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PARAPET AND ANCHORAGE SLAB 4
I-74 (EB)/(WB) & RAMP 7TH-A RETAINING WALL 07
STRUCTURE NO. 081-6016
SHEET NO. 12 OF 20 SHEETS

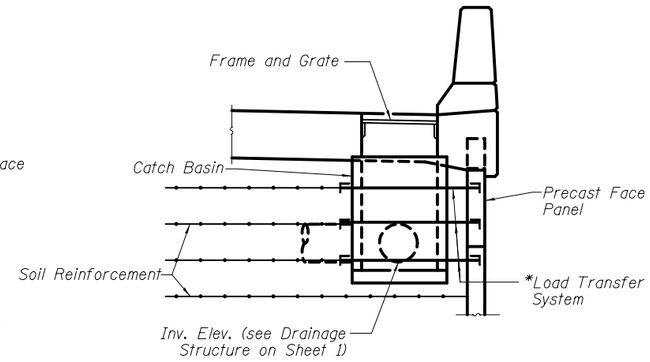
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1	ROCK ISLAND	2042	1354
		CONTRACT NO. 64E26		
	ILLINOIS	FED. AID PROJECT		



PARAPET JOINT DETAILS

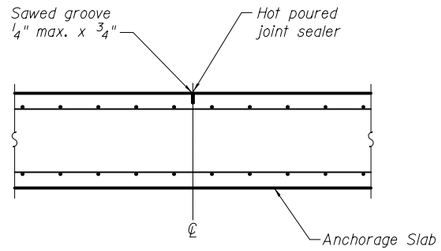


ANCHORAGE SLAB INLET PLAN

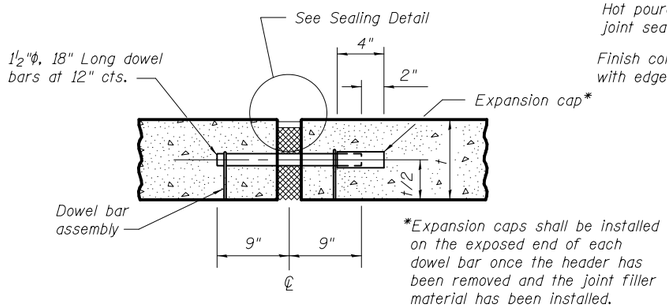


ANCHORAGE SLAB INLET SECTION

*M.S.E. supplier to design load transfer system to accommodate concrete pipe and catch basin. (See Drainage and Utilities Plans for inlet details.)

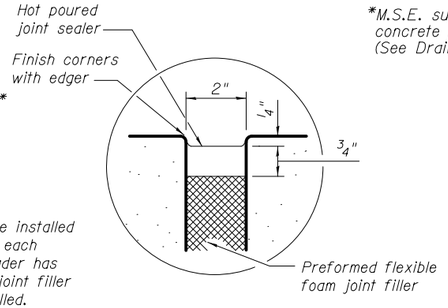


TRANSVERSE CONTRACTION JOINT

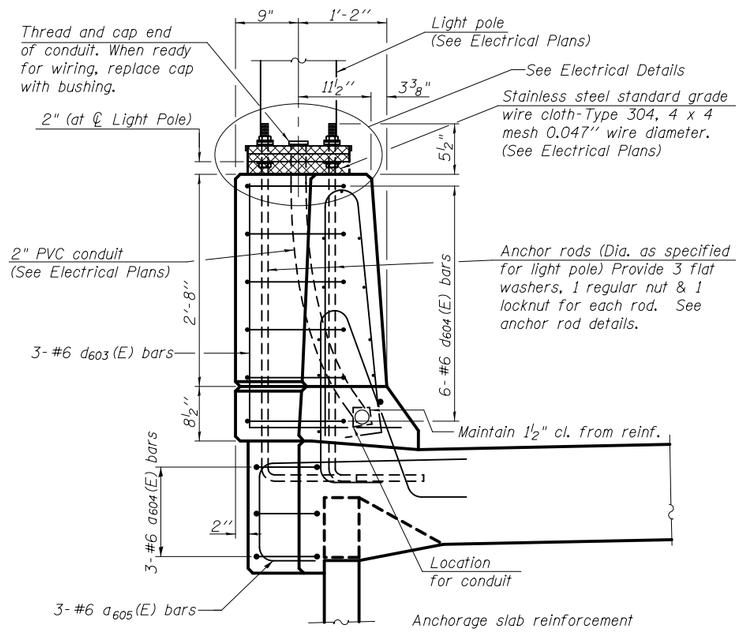


ANCHORAGE SLAB EXPANSION JOINT

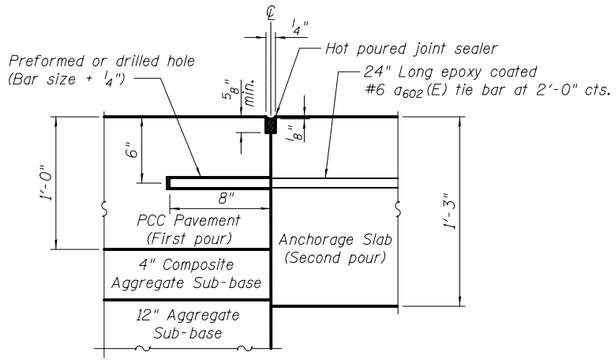
Expansion joint and dowel bars included in the cost of Concrete Superstructure.



SEALING DETAIL

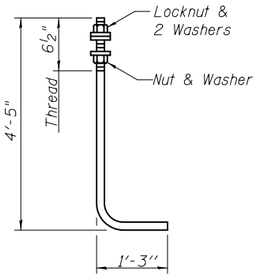


SECTION A-A



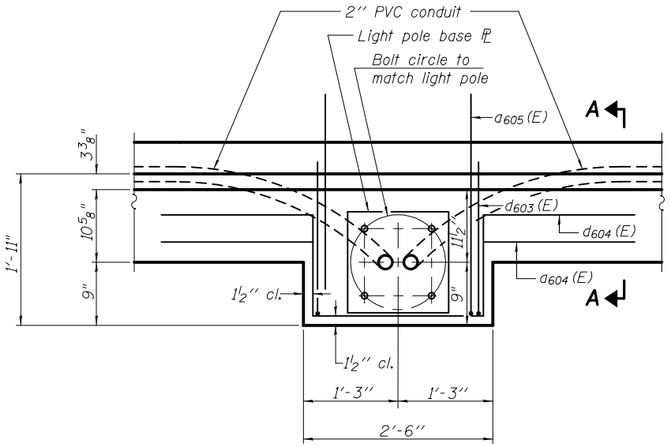
Notes:
The Contractor may substitute at his option, formed in place tie bars provided the bar length is increased to 30" and the tie bar is centered across the joint.
Preformed or drilled hole shall be in the first pour.

LONGITUDINAL CONSTRUCTION JOINT GROUTED-IN-PLACE TIE BAR



ANCHOR ROD

Diameter as specified for light poles (ASTM F 1554 Grade 105). Full length hot dipped galvanized.



Note:
Cost of anchor rods is included with Concrete Superstructure.

PLAN

LIGHT POLE BLISTER DETAILS

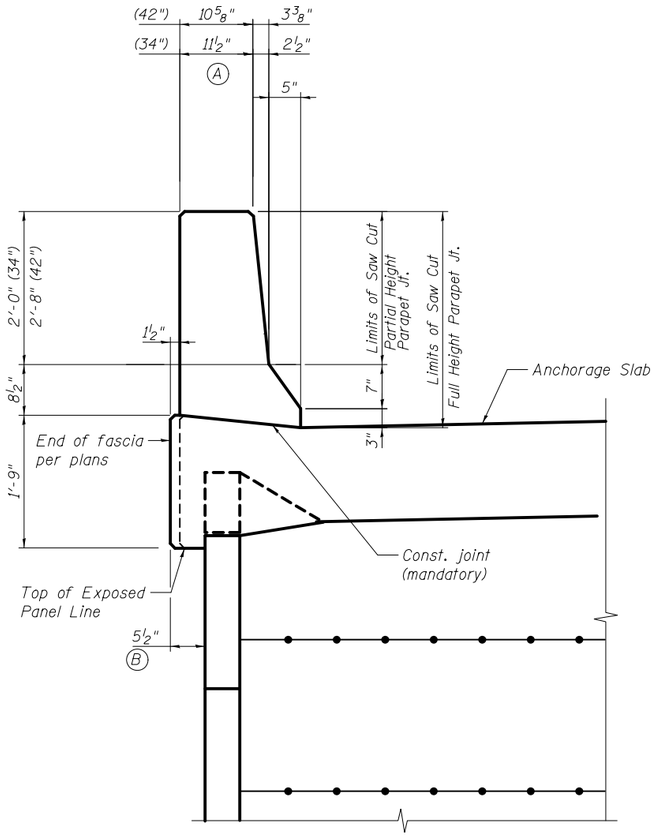
USER NAME =	DESIGNED - ZJB	REVISED	
	CHECKED - ACK	REVISED	
PLOT SCALE =	DRAWN - JAB	REVISED	
PLOT DATE = 03/23/2017	CHECKED - JMH	REVISED	

MODJESKI and MASTERS Experience great bridges.

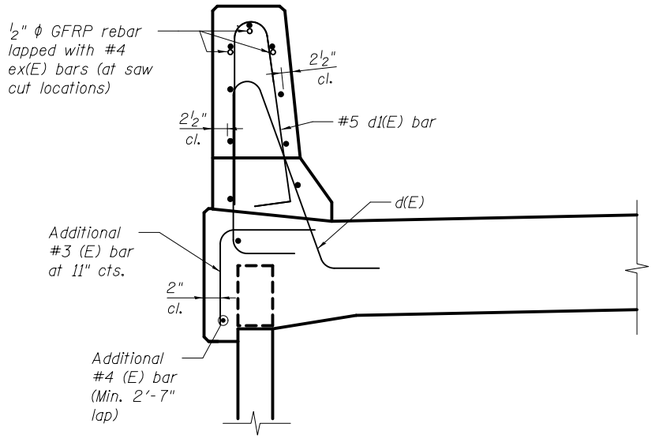
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MISCELLANEOUS DETAILS
I-74 (EB)/(WB) & RAMP 7TH-A RETAINING WALL 07
STRUCTURE NO. 081-6016
SHEET NO. 13 OF 20 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1	ROCK ISLAND	2042	1355
		CONTRACT NO. 64E26		
	ILLINOIS	FED. AID PROJECT		



SECTION THRU PARAPET AND ANCHORAGE SLAB



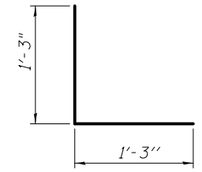
SECTION

(Showing reinforcement clearances for slip forming and additional reinforcement)

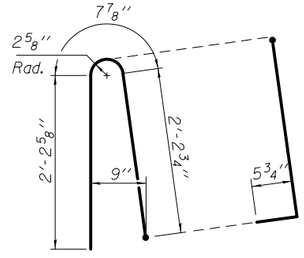
GENERAL NOTES

All dimensions shall remain the same as shown on superstructure details, except dimensions A and B which are to be revised as shown to provide additional clearance. Additional concrete needed to revise dimension A equals 0.016 cu. yds./ft.

Full thickness saw cut at all joint locations in lieu of cork joint filler.

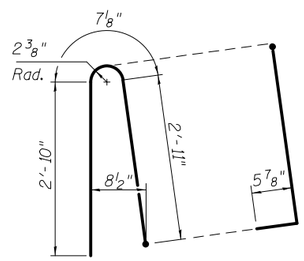


#3 (E) BAR



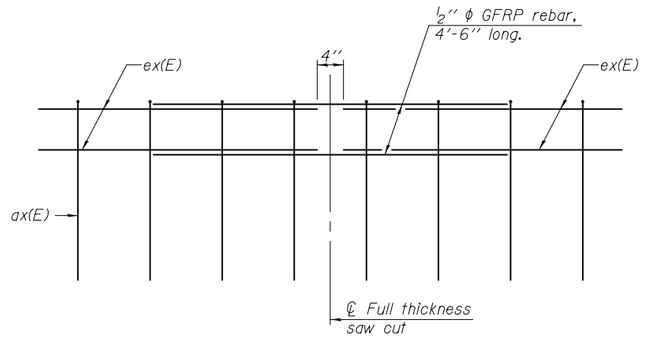
ALTERNATE BAR #5-dl(E) FOR 34" F-SHAPE

(When conduit is present)



ALTERNATE BAR #5-dl(E) FOR 42" F-SHAPE

(When conduit is present)



GFRP REBAR STIFFENING DETAIL

(Place as shown in parapet section at each parapet joint location.)

benesch
engineers · scientists · planners
Alfred Benesch & Company
205 North Michigan Avenue, Suite 2400
Chicago, Illinois 60601
312-565-0450

USER NAME =	DESIGNED - KMP	REVISED
	CHECKED - SLD	REVISED
PLOT SCALE =	DRAWN - KMP	REVISED
PLOT DATE = 03/23/2017	CHECKED - SLD	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RETAINING WALL PARAPET SLIPFORMING OPTION
I-74 (EB)/(WB) & RAMP 7TH-A RETAINING WALL 07
STRUCTURE NO. 081-6016
SHEET NO. 14 OF 20 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1	ROCK ISLAND	2042	1356
		CONTRACT NO. 64E26		
	ILLINOIS FED. AID PROJECT			

Illinois Department of Transportation
Division of Highways
CH2M HILL

SOIL BORING LOG

Date 3/28/08

ROUTE I-74 DESCRIPTION I-74 SB Near 7th Avenue LOGGED BY B. Karnik

SECTION I-74 Bridge over Mississippi River LOCATION (N=562235.7741, E=2459668.0033), SEC. 32, TWP. 18N, RNG. 1W

COUNTY Rock Island DRILLING METHOD HSA, CME 55 HAMMER TYPE CME AUTOMATIC

STRUCT. NO.
Station

BORING NO. ILR0701
Station 56 + 20
Offset 50' Rt.
Ground Surface Elev. 629.30 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter 581.3 ft ▼
Upon Completion ft
After Hrs. ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
7" Thick ACC followed by gravel subbase to 1.0'	628.70			
Silty Sandy Clay with Gravel, greenish brown, moist, low plasticity, stiff, with subangular to subrounded gravel embedded throughout, fill/subbase	625.30	2 2 10 4		
Sandy Clay Trace Gravel, dark gray, frozen, stiff, with subangular to subrounded fine to coarse gravel embedded throughout, fill	-5	5 4 5 3		
	621.30	5 6 6 2	3.0 to 4.0 P	
Silty Clay with Gravel, gray, moist, soft to medium stiff, high plasticity, trace gravel, possible fill	-10	2 3 3	2.0 P	15.5
	615.80		1.5 P	
Sandy Lean Clay Trace Gravel, gray, moist, stiff, medium plasticity, fill or disturbed till	-15	3 2 3	2.0 P	16.0
Same As Above, turning grayish brown at bottom 3", piece of wood embedded, possible fill	610.80	3 4 7		
Same As Above, turning grayish brown at bottom 3", piece of wood embedded, possible fill *(continued)*	-20			
Sandy Lean Clay Trave Gravel, brown, moist, stiff, low plasticity, possible weathered till	605.80	5 6 6	3.0 P	
Same as Above, gray, then brown, split in almost vertical with reddish brown surface, weathered till	-25 600.80	6 7 8	2.5 to 3.5 P	15.0
Sandy Lean Clay Trace Gravel, gray, moist, stiff, low plasticity, unweathered till	-30 595.80	4 6 6	2.5 to 3.0 P	
	-35			
	-40	5 6 9	2.5 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, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
CH2M HILL

SOIL BORING LOG

Date 3/28/08

ROUTE I-74 DESCRIPTION I-74 SB Near 7th Avenue LOGGED BY B. Karnik

SECTION I-74 Bridge over Mississippi River LOCATION (N=562235.7741, E=2459668.0033), SEC. 32, TWP. 18N, RNG. 1W

COUNTY Rock Island DRILLING METHOD HSA, CME 55 HAMMER TYPE CME AUTOMATIC

STRUCT. NO.
Station

BORING NO. ILR0701
Station 56 + 20
Offset 50' Rt.
Ground Surface Elev. 629.30 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter 581.3 ft ▼
Upon Completion ft
After Hrs. ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Sandy Lean Clay Trace Gravel, gray, moist, stiff, low plasticity, unweathered till *(continued)*	-45			
	580.80 ▼			
Top 3" is same as above Bottom 12" is Poorly Graded Sand, gray, wet, medium dense, fine to medium sand seam followed by 3" of gray sandy lean clay, trace gravel, till	579.30	12 16 12		
End of Boring	-50			
	-55			
	-60			
	-65			
	-70			
	-75			
	-80			

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)

Illinois Department of Transportation
Division of Highways
CH2M HILL

SOIL BORING LOG

Date 10/9/07

ROUTE I-74 DESCRIPTION New I-74 Bridge Over Mississippi River - Illinois Approach LOGGED BY Kase, Kaustav/SCO

SECTION I-74 Bridge over Mississippi River LOCATION (N=561816.075, E=2459820.033), SEC. 32, TWP. 18N, RNG. 1W, 4th PM

COUNTY Rock Island DRILLING METHOD HSA, CME 55 HAMMER TYPE CME AUTOMATIC

STRUCT. NO.
Station

BORING NO. ILR0803
Station 630 + 15
Offset 11' Rt.
Ground Surface Elev. 614.67 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter ft
Upon Completion ft
After Hrs. ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Silt With Trace Sand(ML) yellowish brown, slightly moist, medium stiff, fine to coarse grained, low plasticity		2 4 4	6.7 S	
very stiff		2 10 19	4.0 P	
End of Boring	608.67			
	-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, from 137 (Rev. 8-99)

CH2MHILL

PROJECT NUMBER:	BORING NUMBER:
158835.AA.GS.01	RW401 SHEET 1 OF 3

SOIL BORING LOG

PROJECT : I-74 Bridge over Mississippi River, Quad Cities IA/IL LOCATION : (562322.6 N, 2459622.9 E)

ELEVATION : 609.5 ft MSL DRILLING CONTRACTOR : Terracon

DRILLING METHOD AND EQUIPMENT : CME-550, 6" power auger, HSA, SPT with automatic hammer CME-50 Sta. 55+34 96' Rt.

WATER LEVELS : --- START : 12/16/05 09:45 END : 12/16/05 15:00 LOGGER : B. Karnik

DEPTH BELOW EXISTING GRADE (ft)	INTERVAL (ft)	RECOVERY (in)	#/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	SYMBOLLIC LOG Frozen	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION
609.5	0.0						
	2.0	14.0	S-1-SS	3-7-9-8 (16)	**Sandy Clay (CL)** Brown, dry, very stiff, with angular-subangular gravel pieces, fill		Hole offset to gps #50 adjacent to ramp abutment
	4.0	10.0	S-2-SS	9-13-15-50/1 (28)	**Sandy Clay, Trace Gravel (CL)** Brown, dry, very hard, subrounded-subangular gravel, fine to coarse, fill		
5 604.5	6.0	1.0	S-3-SS	50/5 (50/5")	**Fill** Concrete rubble pieces		Ground frozen to approximately 4' deep
	8.0	6.0	S-4-SS	7-5-4-3 (9)	**Silty Clay (CL)** Brown gray, moist, soft, low plasticity, fill		
10 599.5	10.0	6.0	S-5-SS	3-2-3-5 (5)	Dark brown, moist, soft, low plasticity, rounded-subrounded, fine to medium gravel throughout, fill		
	12.0		S-6-SS	4-13-11-6 (24)	No recovery possibly due to piece of coarse gravel stuck in shoe		
	14.0	18.0	S-7-SS	4-3-4-4 (7)	Dark brown, stiff, low plasticity		
15 594.5	16.0	19.0	S-8-SS	3-5-7-8 (12)	Similar to above with fine to medium, rounded-subrounded gravel, fill		
	20.0				**Sandy Clay (CL)** Light brown, moist, stiff, with clay seams, fine to medium, rounded-subrounded gravel embedded throughout, possible gumbotil		
20 589.5	22.0	21.0	S-9-SS	3-4-7-10 (11)			
25 584.5	25.0	22.0	S-10-SS	4-7-8-10 (15)	Similar to above, dark reddish brown		
	27.0				**Sandy Lean Clay Trace Gravel (CL)** Gray, moist, stiff, fine to medium rounded-subrounded gravel embedded throughout, glacial clay		
	29.0						Start mud rotary at 29' after sampling
30				4-7-8-9			

CH2MHILL

PROJECT NUMBER:	BORING NUMBER:
158835.AA.GS.01	RW401 SHEET 2 OF 3

SOIL BORING LOG

PROJECT : I-74 Bridge over Mississippi River, Quad Cities IA/IL LOCATION : (562322.6 N, 2459622.9 E)

ELEVATION : 609.5 ft MSL DRILLING CONTRACTOR : Terracon

DRILLING METHOD AND EQUIPMENT : CME-550, 6" power auger, HSA, SPT with automatic hammer CME-50 Sta. 55+34 96' Rt.

WATER LEVELS : --- START : 12/16/05 09:45 END : 12/16/05 15:00 LOGGER : B. Karnik

DEPTH BELOW EXISTING GRADE (ft)	INTERVAL (ft)	RECOVERY (in)	#/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	SOIL DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	SYMBOLLIC LOG Frozen	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION
579.5	31.0	23.0	S-11-SS	(15)			
35 574.5	40.0						
40 569.5	42.0	24.0	S-12-SS	5-8-10-12 (18)			
45 564.5	50.0						
50 559.5	52.0	12.0	S-13-SS	9-16-50/6 (66/12")	**Sandy Shale** Dark gray, dry, hard, weathered shale with coal and sand seams		Spoon refusal at 51' end drilling at 11:50 am, start rock coring at 52' at 1:37 pm
55 554.5					Begin Rock Coring at 52.0 ft below ground surface See the next sheet for the rock core log		
60							

CH2MHILL

PROJECT NUMBER:	BORING NUMBER:
158835.AA.GS.01	RW401 SHEET 3 OF 3

ROCK CORE LOG

PROJECT : I-74 Bridge over Mississippi River, Quad Cities IA/IL LOCATION : (562322.6 N, 2459622.9 E)

ELEVATION : 609.5 ft MSL DRILLING CONTRACTOR : Terracon

CORING METHOD AND EQUIPMENT : CME-550, NQ DOUBLE BARREL DIAMOND TIP Sta. 55+34 96' Rt. ORIENTATION : VERTICAL

WATER LEVELS : --- START : 12/16/05 09:45 END : 12/16/05 15:00 LOGGER : B. Karnik

DEPTH BELOW SURFACE (ft)	CORE RUN, LOSS AND RECOVERY (%)	R Q D (%)	FRACTURES PER FOOT	DISCONTINUITIES DESCRIPTION: DEPTH, TYPE, ORIENTATION, ROUGHNESS, PLANARITY, INFILLING MATERIAL AND THICKNESS, SURFACE STAINING, AND TIGHTNESS	SYMBOLLIC LOG	LITHOLOGY: ROCK TYPE, COLOR, MINERALOGY, TEXTURE, WEATHERING, HARDNESS, AND ROCK MASS CHARACTERISTICS	COMMENTS: SIZE AND DEPTH OF CASING, FLUID LOSS, CORING RATE AND SMOOTHNESS, CAVING ROD DROPS, TEST RESULTS, ETC.
52.0			1	Shale: horizontal joints, possibly caused during core retrieval, no staining, smooth, planar joint surfaces, 2" thick soft, silty infilling at shale sandstone interface Limestone: horizontal joints, black staining, rough, undulating surfaces, very close to close spaced discontinuities, joints are open		**Shale** Gray, very fine grain, soft, slightly weathered, very weak, sound rock, very sandy **Limestone** Dark gray, fine to coarse grained, appearance is a mixture of fine sand and gravel, rutted texture, moderately weathered, weak to medium strong, moderately fractured to extremely fractured **Sandstone??** No recovery, possibly sandstone, brown, fine grained sandstone piece in bit	
55 554.5	R-1-NQ 5 ft 45%	23	5				Rate of coring: 5 minutes for 5', very poor recovery
57.0			20				
60 549.5	R-2-NQ 5 ft 0%	0					Rate of coring: 6 minutes for 5', rock piece stuck in bit plugged up barrel
62.0							
65 544.5	R-3-NQ 5 ft 0%	0					
67.0						Bottom of Boring at 67.0 ft below ground surface on 12/16/05 15:00	No recovery between 62' to 67' driller could not figure out what was wrong, abandoned drilling at 67' at 3:00pm, coring rate 7 minutes for 5'
70 539.5							
75 534.5							
80 529.5							

MODJESKI and MASTERS Experience great bridges.

USER NAME =	DESIGNED - ZJB	REVISED	
	CHECKED - YSS	REVISED	
PLOT SCALE =	DRAWN - JAB	REVISED	
PLOT DATE = 03/23/2017	CHECKED - JMH	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS 2
I-74 (EB)/(WB) & RAMP 7TH-A RETAINING WALL 07
STRUCTURE NO. 081-6016
SHEET NO. 16 OF 20 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1	ROCK ISLAND	2042	1358
		CONTRACT NO. 64E26		
	ILLINOIS FED. AID PROJECT			

SOIL BORING LOG

Page 1 of 1

Date 6/22/10

ROUTE F.A.I. 74 DESCRIPTION I-74 Over Mississippi River LOGGED BY JMB

SECTION 81-1-2 LOCATION SW¼ of SEC. 33, TWP. 18N, RNG. 1W, 4th P.M.

COUNTY Rock Island DRILLING METHOD Hollow Stem Auger HAMMER TYPE Auto

STRUCT. NO. 081-6016
Station
BORING NO. RW 07-1
Station 58+77
Offset 15' Rt.
Ground Surface Elev. 605.1 ft

Surface Water Elev.
Stream Bed Elev.

Groundwater Elev.:
First Encounter ft
Upon Completion 599.1 ft ▽
After Hrs. ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
CONCRETE 604.70				
FILL - Brown, moist, very stiff, clayey SILT with trace sand		4 8 7		14
	2			
			1.67S	13
			0.90B	20
	4		1.95S	13
600.10				
Brown, wet, silty, clayey, fine-grained SAND with trace gravel 599.10 ▽		2 2 3	0.42B	21
Dark brown, moist, soft to stiff, clayey SILT	8		1.25P	19
596.10				16
Brown, wet, silty, clayey, fine-grained SAND with gravel	10			
594.10		5 15 7	2.30P	13
Brown, moist, very stiff, clayey SILT with trace sand and gravel	12			
591.60			3.11B	16
Gray, moist, very stiff, silty CLAY with trace sand and gravel	14		3.04B	15
	16	6 8 11	2.19B	14
	18		2.93B	13
			4.43B	13
			3.50P	13
585.10	20			
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)

SOIL BORING LOG

Page 1 of 2

Date 6/23/14

ROUTE F.A.I. 74 DESCRIPTION I-74 Over Mississippi River LOGGED BY RPD

SECTION 81-1-2 LOCATION SE¼ of SEC. 32, TWP. 18N, RNG. 1W, 4th P.M.

COUNTY Rock Island DRILLING METHOD Continuous Flight Auger HAMMER TYPE Auto

STRUCT. NO. 081-6016
Station
BORING NO. RW 07-02
Station 56+98
Offset 3' Lt.
Ground Surface Elev. 631.2 ft

Surface Water Elev.
Stream Bed Elev.

Groundwater Elev.:
First Encounter NE ft
Upon Completion ft
After Hrs. ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
6" ASPHALT. 630.70				
FILL - Brown to light brown clayey SILT, trace gravel, trace sand.		1 2 3	0.50P	15
	2			
		5 6 8	4.50P	10
	4			
- sand seam @ 7.0'.	6			
		6 8 15		14
622.20	8			
Brown and gray silty lean CLAY, trace sand, trace gravel.		4 5 7	3.00P	13
	10			
			1.75B	14
			3.88B	13
	12		1.84B	14
		3 5 9	2.70P	14
615.20	14			
Gray moist, very stiff, silty lean CLAY, with trace sand and gravel.		5 7 12	4.30P	14
	16			
	18			
		3 5	3.30P	15
	20			

Gray moist, very stiff, silty lean CLAY, with trace sand and gravel. *(continued from previous page)*

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
		12		
	22			
	24	3 6 9	2.70P	15
	26			
	28			
		4 6 9	3.00P	14
	30			
	32			
		3 5 7	1.70P	16
	34			
	36			
	38	3 6 9	2.20P	16
	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)

SOIL BORING LOG

Page 2 of 2

Date 6/23/14

ROUTE F.A.I. 74 DESCRIPTION I-74 Over Mississippi River LOGGED BY RPD

SECTION 81-1-2 LOCATION SE¼ of SEC. 32, TWP. 18N, RNG. 1W, 4th P.M.

COUNTY Rock Island DRILLING METHOD Continuous Flight Auger HAMMER TYPE Auto

STRUCT. NO. 081-6016
Station
BORING NO. RW 07-02
Station 56+98
Offset 3' Lt.
Ground Surface Elev. 631.2 ft

Surface Water Elev.
Stream Bed Elev.

Groundwater Elev.:
First Encounter NE ft
Upon Completion ft
After Hrs. ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Gray moist, very stiff, silty lean CLAY, with trace sand and gravel. *(continued from previous page)*				
	42			
	44	6 7 12	2.30P	15
	46			
	48			
		5 8 12	3.30P	14
	50			
	52			
	54	6 8 11	2.70P	14
	56			
	58			
		6 11 17	2.30P	14
	60			

Gray moist, very stiff, silty lean CLAY, with trace sand and gravel. *(continued from previous page)*

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
	62			
	64	14 22 32	3.30P	19
- coarse sand seam @ 64.3 to 65.0'.	66			
563.70				
Gray SHALE.	68			
		24 50/5"	4.50P	14
561.20	70			
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)

MODJESKI and MASTERS
Experience great bridges.

USER NAME =	DESIGNED - ZJB	REVISED
	CHECKED - YSS	REVISED
PLOT SCALE =	DRAWN - JAB	REVISED
PLOT DATE = 03/23/2017	CHECKED - JMH	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS 3
I-74 (EB)/(WB) & RAMP 7TH-A RETAINING WALL 07
STRUCTURE NO. 081-6016
SHEET NO. 17 OF 20 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1	ROCK ISLAND	2042	1359
		CONTRACT NO. 64E26		
	ILLINOIS FED. AID PROJECT			

HANSON SOIL BORING LOG

Page 1 of 1

Date 6/23/14

ROUTE F.A.I. 74 DESCRIPTION I-74 Over Mississippi River LOGGED BY RPD

SECTION 81-1-2 LOCATION SW¼ of SEC. 33, TWP. 18N, RNG. 1W, 4th P.M.

COUNTY Rock Island DRILLING METHOD Continuous Flight Auger HAMMER TYPE Auto

STRUCT. NO. 081-6016
Station
BORING NO. RW 07-03
Station 58 + 24
Offset 57' Lt.
Ground Surface Elev. 629.1 ft

Surface Water Elev.
Stream Bed Elev.
Groundwater Elev.:
First Encounter NE ft
Upon Completion ft
After Hrs. ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
3.0" TOPSOIL. 628.85			
FILL - Brown silty lean CLAY, trace sand, trace gravel, with limestone fragments.			
2	4 6 7	4.50P	12
4	4 4 7	3.70P	11
6	3 5 8		
8 620.60			
Brown silty lean CLAY, little sand, trace small gravel.		1.75B	14
10		1.90B	14
12	2 2 3	3.70P	13
14			18
		1.90B	17
16	4 7 11	4.65S	13
18			
20	4 6	3.69B	12
Brown silty lean CLAY, little sand, trace small gravel. (continued from previous page)			
22			
24	4 6 10	3.10B	14
603.10 26			
Gray, moist, very stiff, silty lean CLAY, with trace sand and trace gravel.			
28			
	4 6 10	4.07B	14
30			
32			
	6 8 11	3.88B	13
594.10 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)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Page 1 of 2

Date 3/22/11

ROUTE FAI 74 DESCRIPTION 081-0099, 0100 P92-032-01 I-74 over 19th Street, north of 12th Avenue LOGGED BY W. Garza

SECTION 81-1HB LOCATION Moline Twp. - 32SE, SEC. , TWP. 18N, RNG. 1W

COUNTY Rock Island DRILLING METHOD Hollow Stem Auger HAMMER TYPE B-53 Diedrich Automatic

STRUCT. NO. 081-0099, 0100
Station
BORING NO. B-5
Station 56 + 11
Offset 89' Rt.
Ground Surface Elev. 613.1 ft

Surface Water Elev. ft
Stream Bed Elev. ft
Groundwater Elev.:
First Encounter 568.1 ft ▼
Upon Completion Wash ft
After Hrs. ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
MEDIUM light brown SILTY CLAY LOAM			
610.60	2 4 4	0.5 P	13
MEDIUM light brown SILTY CLAY LOAM			
-5 609.10	2 3 4	1.2 B	17
STIFF gray/brown SILTY CLAY LOAM			
606.60	2 2 3	0.6 P	20
MEDIUM gray SILTY CLAY LOAM			
-10 604.10	7 6 7	5.4 B	12
HARD tan CLAY LOAM			
601.60	2 4 5	1.1 S	15
STIFF gray SILTY LOAM			
-15 599.10	3 5 7	2.0 B	20
STIFF brown SILTY CLAY LOAM			
596.60	3 3 5	0.8 P	21
MEDIUM gray SILTY CLAY LOAM			
-20 593.60			
VERY STIFF tan CLAY LOAM TILL			
591.60	3 6 7	2.7 B	16
VERY STIFF tan CLAY LOAM TILL			
-25 589.10	5 6 9	2.5 B	15
VERY STIFF tan/gray CLAY LOAM TILL			
586.60	3 5 9	2.7 B	15
VERY STIFF gray CLAY LOAM TILL			
-30 584.10	4 6 9	2.5 B	15
VERY STIFF gray CLAY LOAM TILL			
581.60	4 6 9	2.5 B	15
VERY STIFF gray CLAY LOAM TILL			
-35 579.10	4 6 10	2.1 B	15
VERY STIFF gray CLAY LOAM TILL			
576.60	4 5 9	2.5 B	16
HARD gray CLAY LOAM TILL			
574.10	5 11 15	5.4 B	18
-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)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Page 2 of 2

Date 3/22/11

ROUTE FAI 74 DESCRIPTION 081-0099, 0100 P92-032-01 I-74 over 19th Street, north of 12th Avenue LOGGED BY W. Garza

SECTION 81-1HB LOCATION Moline Twp. - 32SE, SEC. , TWP. 18N, RNG. 1W

COUNTY Rock Island DRILLING METHOD Hollow Stem Auger HAMMER TYPE B-53 Diedrich Automatic

STRUCT. NO. 081-0099, 0100
Station
BORING NO. B-5
Station 56 + 11
Offset 89' Rt.
Ground Surface Elev. 613.1 ft

Surface Water Elev. ft
Stream Bed Elev. ft
Groundwater Elev.:
First Encounter 568.1 ft ▼
Upon Completion Wash ft
After Hrs. ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
HARD gray CLAY LOAM TILL			
571.60	6 9 14	5.7 B	18
VERY STIFF gray CLAY LOAM TILL with SILTY SAND lens			
569.10	4 8 13	3.1 B	18
▼-45 MEDIUM gray clean medium coarse SAND			
566.10	0 5 7		
MEDIUM gray clean medium coarse SAND with CLAY lens			
563.60	3 5 11	4.0 P	12
-50 VERY DENSE gray weathered SHALE with COAL lens			
561.60	40 100/8"		
560.60			
Wash	100/1"		
VERY DENSE olive-green SANDSTONE with DOLOMITE fragments			
Auger Refusal @ 52.5'			
-55 End of Boring			
-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)

MODJESKI and MASTERS
Experience great bridges.

USER NAME =	DESIGNED - ZJB	REVISED
	CHECKED - YSS	REVISED
PLOT SCALE =	DRAWN - JAB	REVISED
PLOT DATE = 03/23/2017	CHECKED - JMH	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS 4
I-74 (EB)/(WB) & RAMP 7TH-A RETAINING WALL 07
STRUCTURE NO. 081-6016
SHEET NO. 18 OF 20 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1	ROCK ISLAND	2042	1360
		CONTRACT NO. 64E26		
	ILLINOIS FED. AID PROJECT			

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 3/29/11

ROUTE FAI 74 DESCRIPTION 081-0099, 0100 P92-032-01 I-74 over 19th Street, north of 12th Avenue LOGGED BY W. Garza

SECTION 81-1HB LOCATION Moline Twp. - 32SE, SEC. , TWP. 18N, RNG. 1W

COUNTY Rock Island DRILLING METHOD Hollow Stem Auger HAMMER TYPE B-53 Diedrich Automatic

STRUCT. NO. 081-0099, 0100
Station
BORING NO. B-7
Station 58 + 37
Offset 104' Lt.
Ground Surface Elev. 629.5 ft

Surface Water Elev. ft
Stream Bed Elev. ft
Groundwater Elev.:
First Encounter ft
Upon Completion ft
After Hrs. ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
STIFF tan LOAM			
		1.6 P	13
627.00			
VERY STIFF tan LOAM	5		
	8	2.5 B	12
	11		
625.50			
-5			
VERY STIFF light gray SILT	3		
	6	2.3 P	17
	9		
623.00			
VERY STIFF tan LOAM	3		
	7	3.5 B	14
	10		
620.50			
-10			
VERY STIFF tan LOAM	4		
	7	2.7 S	14
	10		
617.50			
VERY STIFF gray/tan LOAM/CLAY LOAM TILL	4		
	7	3.3 B	15
	10		
615.50			
-15			
VERY STIFF tan CLAY LOAM TILL	3		
	7	2.3 B	15
	8		
613.00			
VERY STIFF light gray CLAY LOAM TILL	3		
	5	2.3 B	15
	8		
610.50			
-20			
VERY STIFF gray CLAY LOAM TILL with COAL fragments	4		
	6	2.1 B	15
	9		
608.00			
VERY STIFF gray CLAY LOAM TILL	6		
	7	2.7 B	15
	10		
605.50			
-25			
VERY STIFF gray CLAY LOAM TILL	3		
	6	2.5 B	15
	8		
603.00			
VERY STIFF gray CLAY LOAM TILL	3		
	5	2.7 B	15
	7		
600.50			
-30			
VERY STIFF gray CLAY LOAM TILL	3		
	6	3.1 B	14
	10		
598.00			
VERY STIFF gray CLAY LOAM TILL	5		
	8	3.3 B	15
	11		
595.50			
-35			
VERY STIFF gray CLAY LOAM TILL	5		
	10	3.7 B	14
	13		
593.00			
VERY STIFF gray CLAY LOAM TILL	5		
	8	3.9 B	14
	14		
590.50			
-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)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 3/29/11

ROUTE FAI 74 DESCRIPTION 081-0099, 0100 P92-032-01 I-74 over 19th Street, north of 12th Avenue LOGGED BY W. Garza

SECTION 81-1HB LOCATION Moline Twp. - 32SE, SEC. , TWP. 18N, RNG. 1W

COUNTY Rock Island DRILLING METHOD Hollow Stem Auger HAMMER TYPE B-53 Diedrich Automatic

STRUCT. NO. 081-0099, 0100
Station
BORING NO. B-7
Station 58 + 37
Offset 104' Lt.
Ground Surface Elev. 629.5 ft

Surface Water Elev. ft
Stream Bed Elev. ft
Groundwater Elev.:
First Encounter ft
Upon Completion ft
After Hrs. ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
VERY STIFF gray CLAY LOAM TILL	4		
	8	3.1 B	14
	11		
588.00			
VERY STIFF gray CLAY LOAM TILL	2		
	7	3.5 B	14
	10		
585.50			
-45			
HARD gray CLAY LOAM TILL with moist SAND lens	13		
	15	5.4 B	14
	17		
583.00			
HARD gray CLAY TILL	6		
	11	5.9 S	24
	13		
580.50			
-50			
HARD gray CLAY LOAM TILL	8		
	18	4.5 S	18
	28		
577.50			
VERY DENSE tan/gray SHALEY CLAY	30		
	29		18
	24		
575.50			
-55			
VERY DENSE gray SHALE	7		
	18		
	45		
573.00			
VERY DENSE gray SHALE	100/11"		
570.50			
-50			
VERY DENSE gray SHALE	16		
	100/9"		
563.00			
End of Boring			
-65			
-70			
-75			
-80			

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)

Illinois Department of Transportation
Division of Highways
CH2M HILL

SOIL BORING LOG

Date 10/5/07

ROUTE I-74 DESCRIPTION New I-74 Bridge Over Mississippi River - Illinois Approach LOGGED BY F. Abreu

SECTION I-74 Bridge over Mississippi River LOCATION (N=561907.847, E=2459825.874), SEC. 32, TWP. 18N, RNG. 1W, 4th PM

COUNTY Rock Island DRILLING METHOD HSA, CME 55 HAMMER TYPE CME AUTOMATIC

STRUCT. NO.
Station
BORING NO. ILR0801
Station 631 + 07
Offset 16' Rt.
Ground Surface Elev. 623.02 ft

Surface Water Elev. ft
Stream Bed Elev. ft
Groundwater Elev.:
First Encounter ft
Upon Completion ft
After Hrs. ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Grass Matter followed by silty clay with sands and topsoil			
622.02			
Silty Clay With Sand(CL-ML) dark brown with brown, dry to moist, non plastic, little to few coarse to fine sands, strong cementation, occasional reddish brick fragments, possible fill	4		
620.02	4		
	5		
	5		
	3		
Lean Clay With Sand(CL) medium brown, dry to moist, low plasticity, medium stiff, little to few coarse to fine sands, dark brown silty pocket at top of sample, possible fill	3		
-5	3		
617.02	1		
Sandy Lean Clay(CL) olive gray with medium brown and gray, dry to moist, medium stiff, few coarse to fine sands, trace fine subangular to subrounded gravels, dark gray with occasional root matter at bottom of sample	3	3.75-4.0 P	
615.02	5		
	6		
	3		
	4	1.3	
	5		
-10	6		
Sandy Lean Clay With Gravel (CL) medium brown with gray, dry, strongly cemented, stiff, crumbly, few coarse to fine sands, little to trace of medium to fine gravels, occasional medium to fine sand seams scattered throughout, dark gray with heavy matter at top 2" of sample, possible old topsoil followed by native soil Rimac: Pu = 68 lbs same as above, medium brown, dry to moist, stiff, strongly cemented, glacial till same as above, medium brown to brown, stiff, strongly cemented, dry, glacial till	2		
	3	4.3 P	
	5		
	7		
605.02			
	3		
	4	4.5 P	
	5		
-15	6		
	3		
	5	4.0-4.5 P	
	7		
-20	10		
Sandy Lean Clay(CL) medium brown with orange brown, dry, non plastic, stiff, few coarse to fine sands, frequent sand seams, approximately 1/8"-1/4" thick at center and bottom of sample, sand seams of medium to fine sands, oxidized, possible weathered till with scattered sand seams *(continued)* medium brown with gray, mottled with orange brown, dry, stiff, few coarse to fine sands, very oxidized, small pockets of dark gray to black coal like deposits in middle of sample, possible weathered glacial till Rimac: Pu = 100 lbs			
	3		
	5	1.9 B	
	7		
-25	10		
olive gray with light brown, dry to moist, slightly oxidized at top, stiff, possible unweathered glacial till	3		
	5	3.8 P	
	6		
-30	9		
590.02			
Lean Clay With Sand(CL) uniform gray, dry to moist, stiff, little to few coarse to fine sands, scattered sand pockets, possible unweathered glacial till Rimac: Pu = 70 lbs	3		
	5	1.3	
	7		
-35	9		
uniform gray, dry to moist, stiff, little to few coarse to fine sands, scattered sand pockets, possible unweathered glacial till	2		
583.52	4		
583.02 -40	8		
	12		

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)

MODJESKI and MASTERS
Experience great bridges.

USER NAME =	DESIGNED - ZJB	REVISED
	CHECKED - YSS	REVISED
PLOT SCALE =	DRAWN - JAB	REVISED
PLOT DATE = 03/23/2017	CHECKED - JMH	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS 5
I-74 (EB)/(WB) & RAMP 7TH-A RETAINING WALL 07
STRUCTURE NO. 081-6016
SHEET NO. 19 OF 20 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1	ROCK ISLAND	2042	1361
		CONTRACT NO. 64E26		
	ILLINOIS FED. AID PROJECT			

Illinois Department of Transportation
Division of Highways
CH2M HILL

SOIL BORING LOG

Date 10/5/07

ROUTE I-74 DESCRIPTION New I-74 Bridge Over Mississippi River - Illinois Approach LOGGED BY F. Abreu

SECTION I-74 Bridge over Mississippi River LOCATION (N=561907.847, E=2459825.874), SEC. 32, TWP. 18N, RNG. 1W, 4th PM

COUNTY Rock Island DRILLING METHOD HSA, CME 55 HAMMER TYPE CME AUTOMATIC

STRUCT. NO. _____
Station _____

BORING NO. ILR0801
Station 631+07
Offset 16' Rt.
Ground Surface Elev. 623.02 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter _____ ft
Upon Completion _____ ft
After ____ Hrs. _____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Clayey Sand With Silt(SC) gray, moist to wet, medium dense, clay with medium to fine sands, possible residual soil			
End of Boring			
-45			
-50			
-55			
-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)

MODJESKI and MASTERS
Experience great bridges.

USER NAME =	DESIGNED - ZJB	REVISED
	CHECKED - YSS	REVISED
PLOT SCALE =	DRAWN - JAB	REVISED
PLOT DATE = 03/23/2017	CHECKED - JMH	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

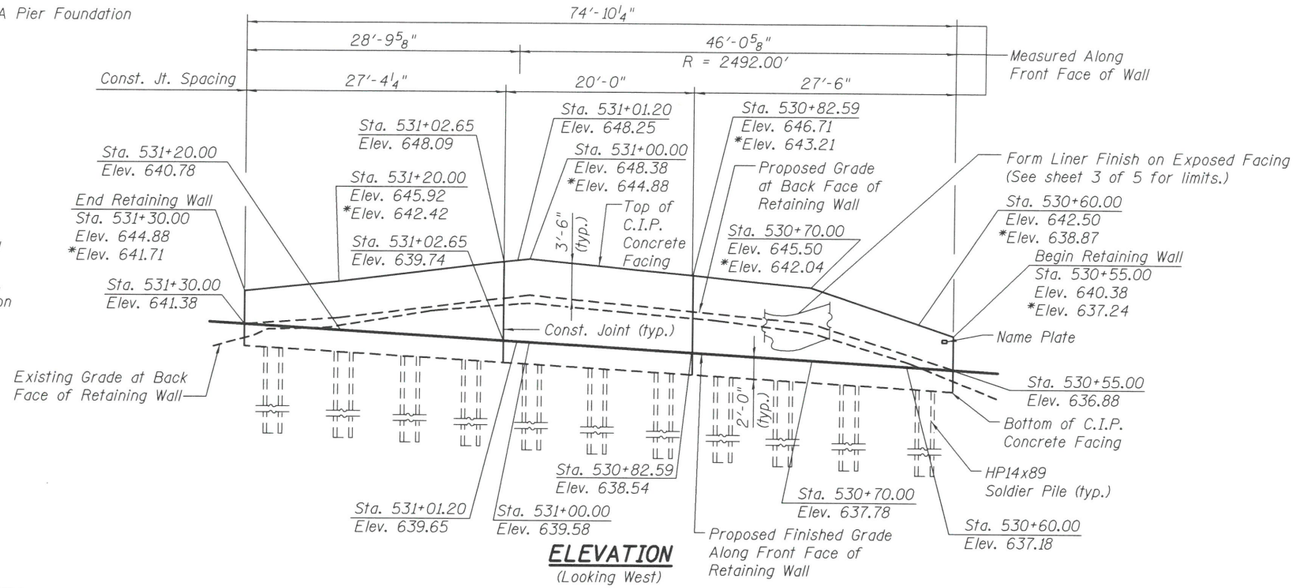
BORING LOGS 6
I-74 (EB)/(WB) & RAMP 7TH-A RETAINING WALL 07
STRUCTURE NO. 081-6016
SHEET NO. 20 OF 20 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1	ROCK ISLAND	2042	1362
		CONTRACT NO. 64E26		
	ILLINOIS	FED. AID PROJECT		

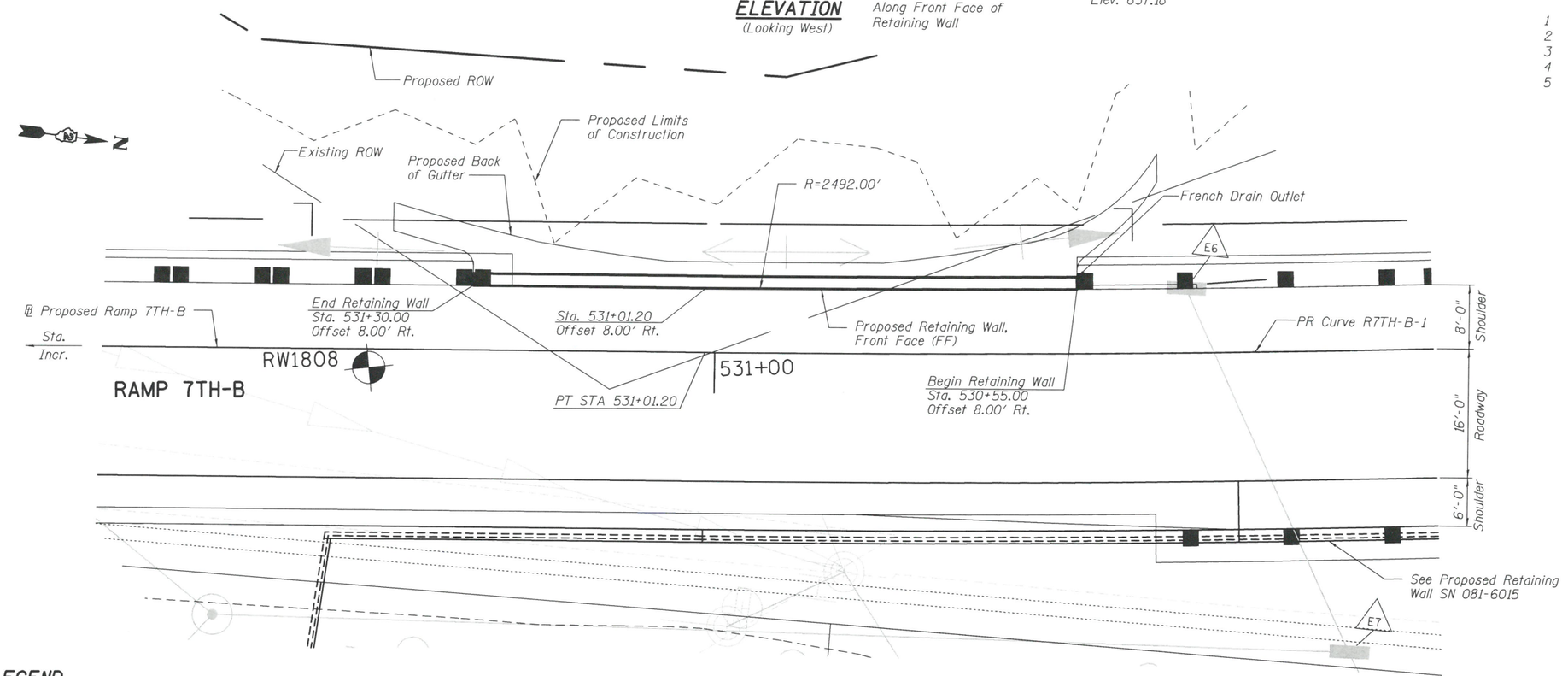
Benchmark No. 586:
Cut "X" on Northerly Bolt of Existing Ramp 7th-A Pier Foundation
Elevation NAVD 88 = 614.214

Existing Structure:
None

*Elevation given corresponds to the proposed grade elevation at back face of retaining wall and is the maximum fill height elevation. The Contractor shall not exceed this elevation when placing fill.



ELEVATION
(Looking West)



PLAN

LEGEND

Soil Borings

E7 Drainage Structure

Note:
See Drainage and Utilities Plans for french drain outlet, inlet, and gutter detail and payment.

DESIGN SPECIFICATIONS

2012 AASHTO LRFD
Bridge Design Specifications,
6th Edition

DESIGN STRESSES

FIELD UNITS

f'_c = 3,500 psi
f_y = 60,000 psi (Reinforcement)
f_y = 36,000 psi (Structural Steel AASHTO M270 GR 36)

CURVE DATA

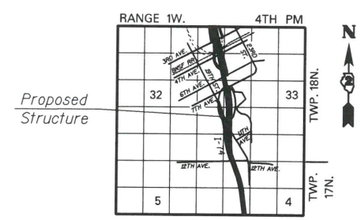
PR CURVE R7TH-B-1
PI STA = 526+44.28
Δ = 21° 11' 19" (RT)
D = 2° 17' 31"
R = 2500.00'
T = 467.61'
L = 924.53'
E = 43.36'
e = 3.3%
T.R. = N/A
S.E. RUN = 154.97' (I), 151.56' (O)
PC STA = 521+76.67
PT STA = 531+01.20

INDEX OF SHEETS

JERILYN M. HASSARD
081-006521
LICENSED STRUCTURAL ENGINEER OF ILLINOIS

Jerilyn M. Hassard
3-23-17

JERILYN M. HASSARD
EDWARDSVILLE, ILLINOIS
ILLINOIS LICENSED STRUCTURAL
ENGINEER NO. 081-006521
EXPIRES 11/30/2018



LOCATION SKETCH

GENERAL PLAN AND ELEVATION
F.A.I. ROUTE 74 SEC. (81-1)R-1
ROCK ISLAND COUNTY
RAMP 7TH-B STA. 530+55.00 TO STA. 531+30.00
RETAINING WALL 09

MODJESKI and MASTERS
Experience great bridges.

USER NAME =	DESIGNED - DAK/ZJB	REVISED	
	CHECKED - TER/YSS	REVISED	
PLOT SCALE =	DRAWN - AEC	REVISED	
PLOT DATE = 03/23/2017	CHECKED - JMH	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION
RAMP 7TH-B RETAINING WALL 09
SHEET NO. 1 OF 5 SHEETS

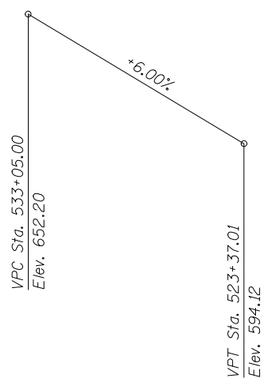
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1	ISLAND ROCK	2042	1363
		CONTRACT NO. 64E26		
	ILLINOIS FED. AID PROJECT			

GENERAL NOTES

1. Wall stations and offsets are given to the front face (FF) of the wall and are measured from the Ramp 7th-B baseline except as noted.
2. Reinforcement bars designated (E) shall be epoxy coated.
3. The Contractor is responsible for the design and performance of the timber lagging using no less than a 3 in. nominal rough-sawn thickness and timber with a minimum allowable bending stress of 1000 psi.
4. Fill placed within 5 feet of the back of the facing shall be granular material and shall be covered with a 1'-6" layer of cohesive backfill to reduce infiltration of surface runoff. Cost included with Drilling and Setting Soldier Piles (In Soil).
5. All concrete for the C.I.P. facing with a form liner textured surface shall be self-consolidating concrete meeting the requirements of Section 1020 of the Standard Specifications. This work shall be included in the cost of the concrete used and no additional compensation will be allowed.

SUGGESTED SEQUENCE OF CONSTRUCTION

1. Complete Structure Excavation to the top of Soldier Piles.
2. Drill shaft excavations for Soldier Piles to specified bottom elevations maintaining required tolerances and hole stability.
3. Remove loose material and excess water from excavated shafts. Place Soldier Piles in holes and properly locate and brace.
4. Place Class DS Concrete in the holes to the level of the base of the proposed Concrete Facing, then place Controlled Low Strength Material (CLSM) to the existing ground surface.
5. After all concrete has attained the required design strength, excavate the soil in front of the wall to proposed grade with simultaneous removal of CLSM at the face of the Soldier Piles and place lagging as specified.
6. Construct wall drainage features at the base of the wall.
7. Place shear studs on Soldier Piles and construct Concrete Facing.
8. Complete final grading at the base and top of the wall.



PROFILE GRADE
(Along PGL - Ramp 7th-B)

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Structure Excavation	Cu. Yd.	33
Concrete Structures	Cu. Yd.	26.7
Form Liner Textured Surface	Sq. Ft.	255
Stud Shear Connectors	Each	108
Reinforcement Bars, Epoxy Coated	Pound	7490
Name Plates	Each	1
Geocomposite Wall Drain	Sq. Yd.	17
Furnishing Soldier Piles (HP Section)	Ft.	181
Drilling and Setting Soldier Piles (In Soil)	Cu. Ft.	590
Untreated Timber Lagging	Sq. Ft.	229
Pipe Underdrains for Structures 4"	Ft.	76

STATION 530+55.00
BUILT 201_ BY
STATE OF ILLINOIS
F.A.I. RT. 74 SEC. (81-1)R-1
LOADING HL-93

NAME PLATE
See Std. 515001

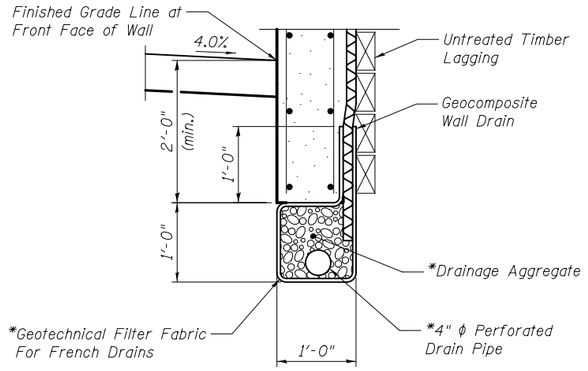
MODJESKI and MASTERS Experience great bridges.	USER NAME =	DESIGNED - DAK/ZJB	REVISED
		CHECKED - TER/YSS	REVISED
	PLOT SCALE =	DRAWN - AEC	REVISED
	PLOT DATE = 03/23/2017	CHECKED - JMH	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES
RAMP 7TH-B RETAINING WALL 09

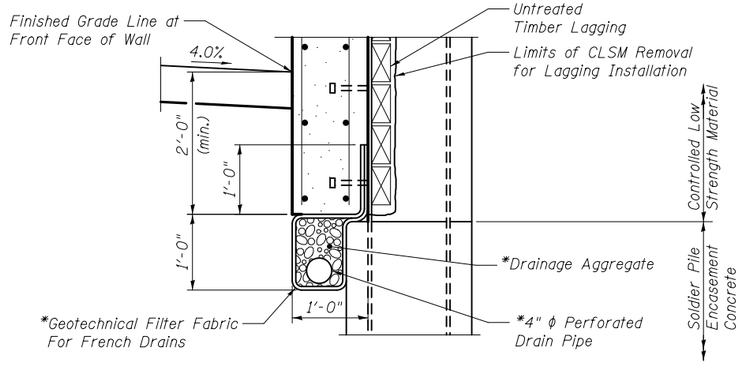
SHEET NO. 2 OF 5 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1	ISLAND ROCK	2042	1364
		CONTRACT NO. 64E26		
	ILLINOIS FED. AID PROJECT			



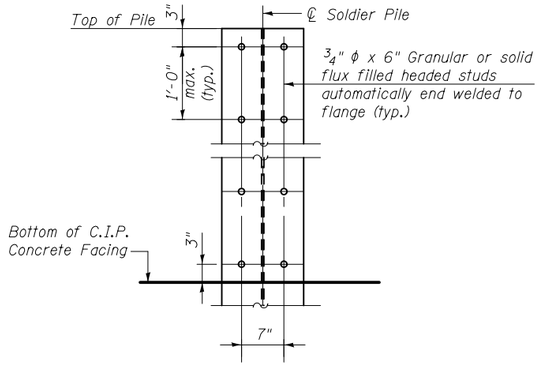
PIPE UNDERDRAIN DETAILS BETWEEN SOLDIER PILES

* Included in the cost of Pipe Underdrains for Structures

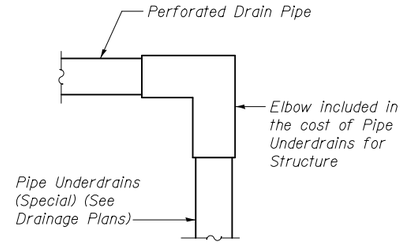


PIPE UNDERDRAIN DETAILS AT SOLDIER PILES

* Included in the cost of Pipe Underdrains for Structures

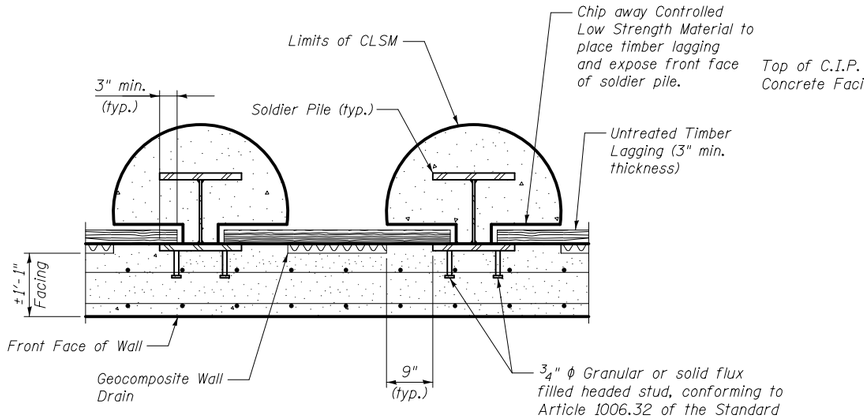


SHEAR STUD CONNECTORS LAYOUT

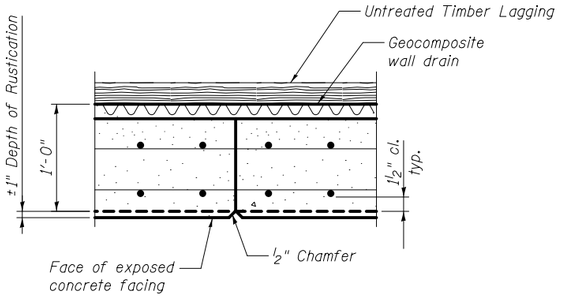


FRENCH DRAIN OUTLET

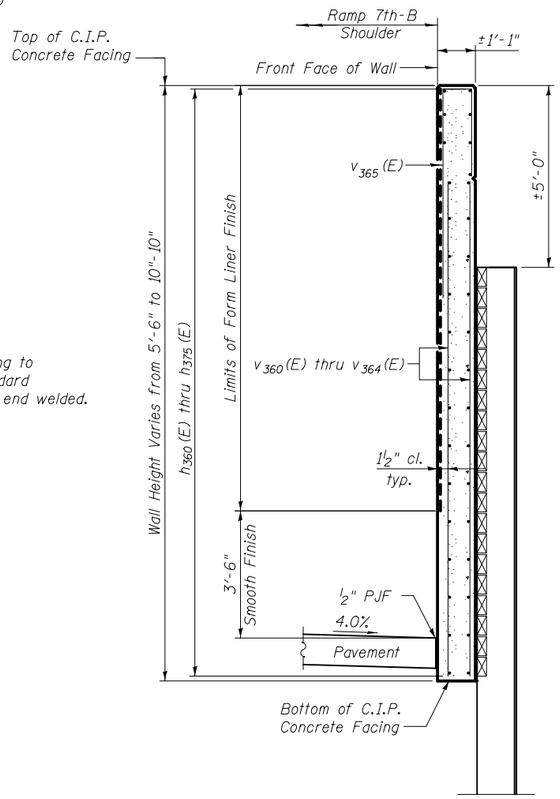
(See Sheet 1 of 5 for Location)



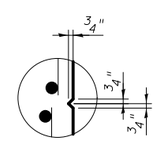
TYPICAL SECTION THRU WALL



CONSTRUCTION JOINT



SECTION THRU CONCRETE FACING



DETAIL 1

RAMP 7TH-B

TYPICAL WALL SECTION

(Looking Southeast)
(See Section thru Concrete Facing for Details.)

**See Drainage Plans for details and payment.

Note:
Cost of Controlled Low Strength Material included in Drilling and Setting Soldier Piles (In Soil).

MODJESKI and MASTERS
Experience great bridges.

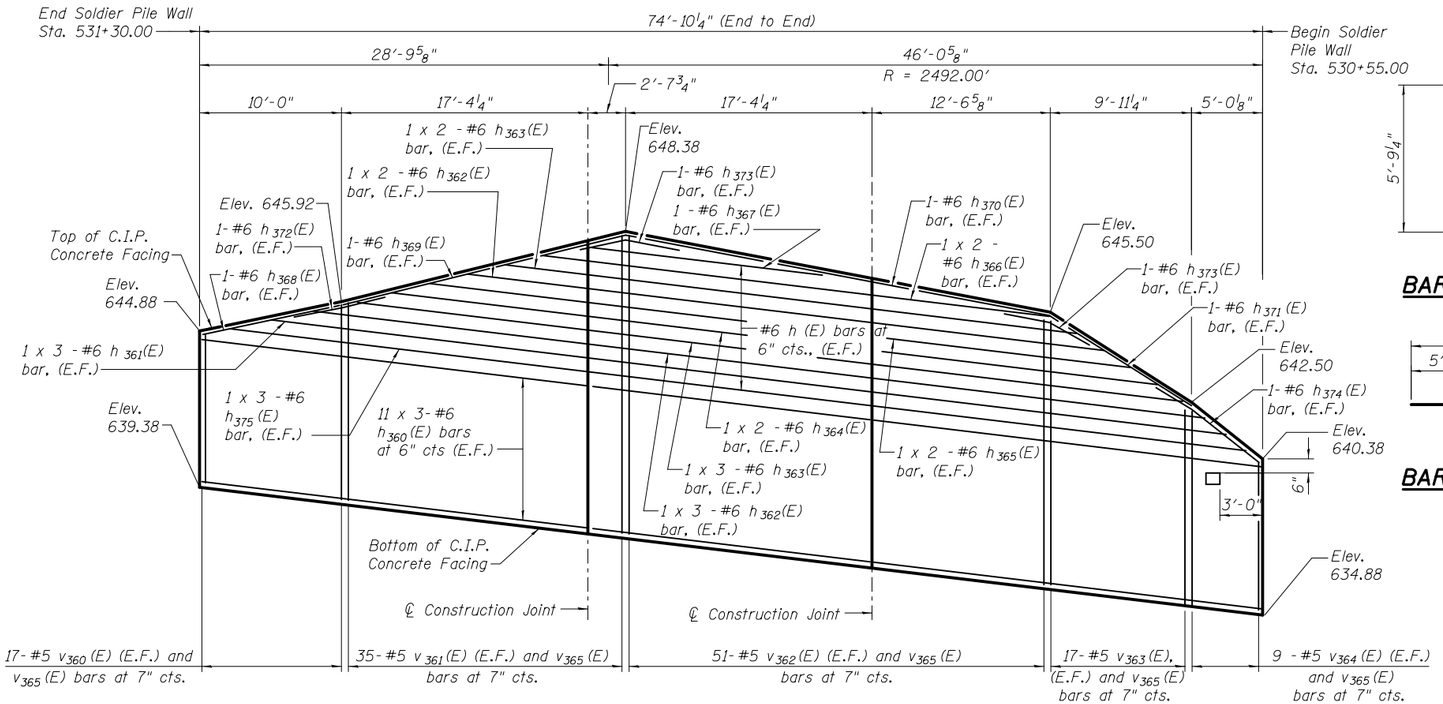
USER NAME =	DESIGNED - DAK/ZJB	REVISED
	CHECKED - TER/YSS	REVISED
PLOT SCALE =	DRAWN - AEC	REVISED
PLOT DATE = 03/23/2017	CHECKED - JMH	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

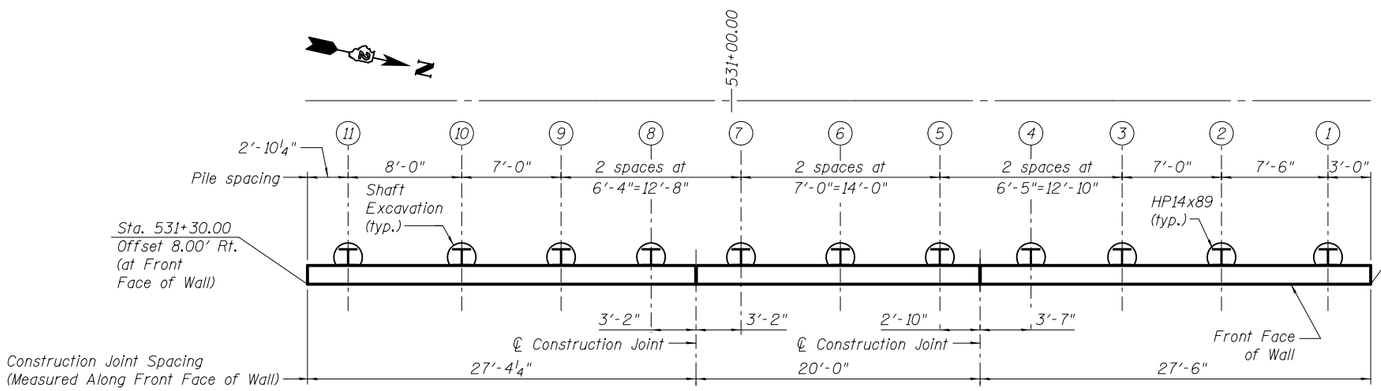
WALL SECTIONS AND DETAILS
RAMP 7TH-B RETAINING WALL 09

SHEET NO. 3 OF 5 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1	ISLAND ROCK	2042	1365
		CONTRACT NO. 64E26		
	ILLINOIS FED. AID PROJECT			

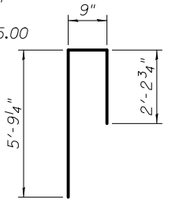


OUTSIDE ELEVATION OF SOLDIER PILE WALL

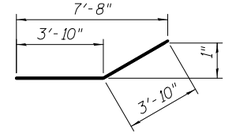


PLAN - SOLDIER PILE WALL AND LAYOUT

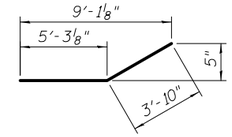
Note:
Bars indicated thus 11 x 3 -#6 etc. indicates 11 lines of bars with 3 lengths per line.



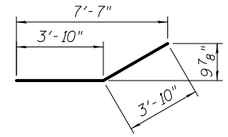
BAR v365(E)



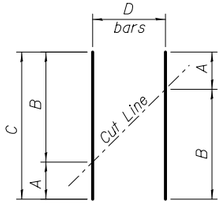
BAR h372(E)



BAR h374(E)



BAR h373(E)



BAR CUTTING DIAGRAM

Order bars full length. Cut as shown and use remainder of bars in opposite face.

Bar	A	B	C	D
v360(E)	2'-9"	4'-4"	7'-1"	17
v361(E)	4'-5"	8'-0"	12'-5"	35
v362(E)	8'-0"	7'-0"	15'-0"	51
v363(E)	6'-11"	4'-6"	11'-5"	17
v364(E)	4'-6"	2'-9"	7'-3"	9

STEEL PILE TABLE

Pile Number	Station	Pile Size	Length (ft)	Tip Elevation (ft)	Top Elevation (ft)	Number of Studs
1	530+58.00	HP14x89	14.00	622.72	636.72	6
2	530+65.53	HP14x89	16.00	623.12	639.12	10
3	530+72.55	HP14x89	17.00	623.76	640.76	12
4	530+79.00	HP14x89	18.00	623.36	641.36	12
5	530+85.43	HP14x89	18.00	623.98	641.98	12
6	530+92.45	HP14x89	18.00	624.66	642.66	12
7	530+99.47	HP14x89	18.00	625.33	643.33	12
8	531+05.81	HP14x89	17.00	625.75	642.75	12
9	531+12.15	HP14x89	16.00	626.00	642.00	10
10	531+19.15	HP14x89	15.00	626.03	641.03	6
11	531+27.15	HP14x89	14.00	626.41	640.41	4

RETAINING WALL 09
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h360(E)	66	#6	27'-6"	
h361(E)	6	#6	25'-0"	
h362(E)	10	#6	23'-10"	
h363(E)	10	#6	22'-0"	
h364(E)	4	#6	28'-6"	
h365(E)	4	#6	26'-3"	
h366(E)	4	#6	17'-6"	
h367(E)	2	#6	14'-0"	
h368(E)	2	#6	9'-11"	
h369(E)	2	#6	20'-2"	
h370(E)	2	#6	30'-0"	
h371(E)	2	#6	10'-5"	
h372(E)	2	#6	7'-8"	
h373(E)	4	#6	7'-8"	
h374(E)	2	#6	9'-2"	
h375(E)	6	#6	26'-6"	
v360(E)	17	#5	7'-1"	
v361(E)	35	#5	12'-5"	
v362(E)	51	#5	15'-0"	
v363(E)	17	#5	11'-5"	
v364(E)	9	#5	7'-3"	
v365(E)	129	#5	8'-9"	
Structure Excavation		Cu. Yd.	33	
Concrete Structures		Cu. Yd.	26.7	
Form Liner Textured Surface		Sq. Ft.	255	
Stud Shear Connectors		Each	108	
Reinforcement Bars, Epoxy Coated		Pound	7490	
Furnishing Soldier Piles (HP 14X89)		Ft.	181	
Drilling and Setting Soldier Piles (In Soil)		Cu. Ft.	590	
Untreated Timber Lagging		Sq. Ft.	229	

MIN. BAR LAP

#5 bars - 3'-3"
#6 bars - 3'-10"

LEGEND

E.F. Each Face

MODJESKI and MASTERS
Experience great bridges.

USER NAME =	DESIGNED - DAK/ZJB	REVISED
	CHECKED - TER/YSS	REVISED
PLOT SCALE =	DRAWN - MLA	REVISED
PLOT DATE = 03/23/2017	CHECKED - JMH	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOLDIER PILE WALL LAYOUT PLAN
RAMP 7TH-B RETAINING WALL 09
SHEET NO. 4 OF 5 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1	ISLAND ROCK	2042	1366
		CONTRACT NO. 64E26		
	ILLINOIS FED. AID PROJECT			

Illinois Department of Transportation
Division of Highways
CH2M HILL

SOIL BORING LOG

Date 11/18/05

ROUTE I-74 DESCRIPTION New I-74 Bridge Over Mississippi River - Illinois Approach LOGGED BY L. Hunt

SECTION I-74 Bridge over Mississippi River LOCATION (N=561781.073, E=2459588.053), SEC. 32, TWP. 18N, RNG. 1W, 4th PM

COUNTY Rock Island DRILLING METHOD HSA, CME 55 HAMMER TYPE CME AUTOMATIC

STRUCT. NO. _____
Station _____

BORING NO. RW1808
Station 531+43
Offset 2' Lt.
Ground Surface Elev. 634.51 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter _____ ft
Upon Completion _____ ft
After ____ Hrs. _____ ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Clay (CL) Clay, few sand, trace gravel, red brown and brown, dry to moist, stiff, blocky		2 4 5 6	 3.0 P	
Clay, trace gravel and sand, brown mottled orange brown and gray brown, dry to moist, stiff, blocky		5 5 6 6	 4.5 P	
Silty Clay, trace gravel, brown to red brown, dry to moist, stiff, blocky	-5	5 5 6 7	 4.5 P	
Clayey Silt(MH) Clayey Silt, trace gravel, gray brown, mottled orange brown, dry to moist, medium dense, blocky	628.51	5 6 6 5	 4.5 P	
Clayey Silt, trace gravel, gray brown, mottled orange brown, dry to moist, medium dense, blocky Gray with no mottling for 1" at 12" from top of sample		4 8 10 10	 3.6 S	
Clayey Silt to Silty Clay, trace gravel and organics, gray brown, mottled orange brown, medium stiff, stratified	-10	4 7 8 10	 2.9 P	
Clayey Silt to Clay, trace gravel, little sand, light brown and gray brown, medium stiff to stiff, stratified (gray brown - 11"; light brown - 8")		7 8 10 12	 4.5 P	
Silty Clay(CL-ML) Silty Clay, little sand, trace gravel, light brown, dry to moist, stiff, homogenous	620.51 -15	6 7 8 9	 3.8 P	
	-20			

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Silty Clay(CL-ML) Silty Clay, little sand, trace gravel, light brown, dry to moist, stiff, homogenous *(continued)* Silty Clay, little sand, trace gravel, mottled gray brown, dry to moist, stiff, homogenous		4 7 10 11	 3.2 P	
Clay (CL) Clay, trace gravel, little sand, light brown mottled gray brown and orange brown, dry to moist, stiff, homogenous	609.51 -25	3 5 10 11	 2.0 P	
Clay, little sand, trace gravel, gray brown, moist, stiff, homogenous Till - unweathered	-30	4 6 8 10	 2.5 P	
Clay, little sand, trace gravel, gray brown, moist, stiff, homogenous	-35	4 6 9 10	 2.5 P	
	-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)

Illinois Department of Transportation
Division of Highways
CH2M HILL

SOIL BORING LOG

Date 11/18/05

ROUTE I-74 DESCRIPTION New I-74 Bridge Over Mississippi River - Illinois Approach LOGGED BY L. Hunt

SECTION I-74 Bridge over Mississippi River LOCATION (N=561781.073, E=2459588.053), SEC. 32, TWP. 18N, RNG. 1W, 4th PM

COUNTY Rock Island DRILLING METHOD HSA, CME 55 HAMMER TYPE CME AUTOMATIC

STRUCT. NO. _____
Station _____

BORING NO. RW1808
Station 531+43
Offset 2' Lt.
Ground Surface Elev. 634.51 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter _____ ft
Upon Completion _____ ft
After ____ Hrs. _____ ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Clay (CL) Clay, trace gravel, little sand, light brown mottled gray brown and orange brown, dry to moist, stiff, homogenous *(continued)* Clay, little sand, trace gravel, gray brown, moist, stiff, homogenous		5 8 9 11	 2.4 P	
Clay, little sand, trace gravel, gray brown, moist, stiff, homogenous	-45	5 9 11 13	 3.3 P	
Clay, little sand, trace gravel, gray brown, moist, stiff, homogenous	584.51 -50	5 8 10 13	 3.2 P	
End of Boring	-55			
	-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)

MODJESKI and MASTERS
Experience great bridges.

USER NAME =	DESIGNED - YSS	REVISED
	CHECKED - JMH	REVISED
PLOT SCALE =	DRAWN - MLA	REVISED
PLOT DATE = 03/23/2017	CHECKED - YSS	REVISED

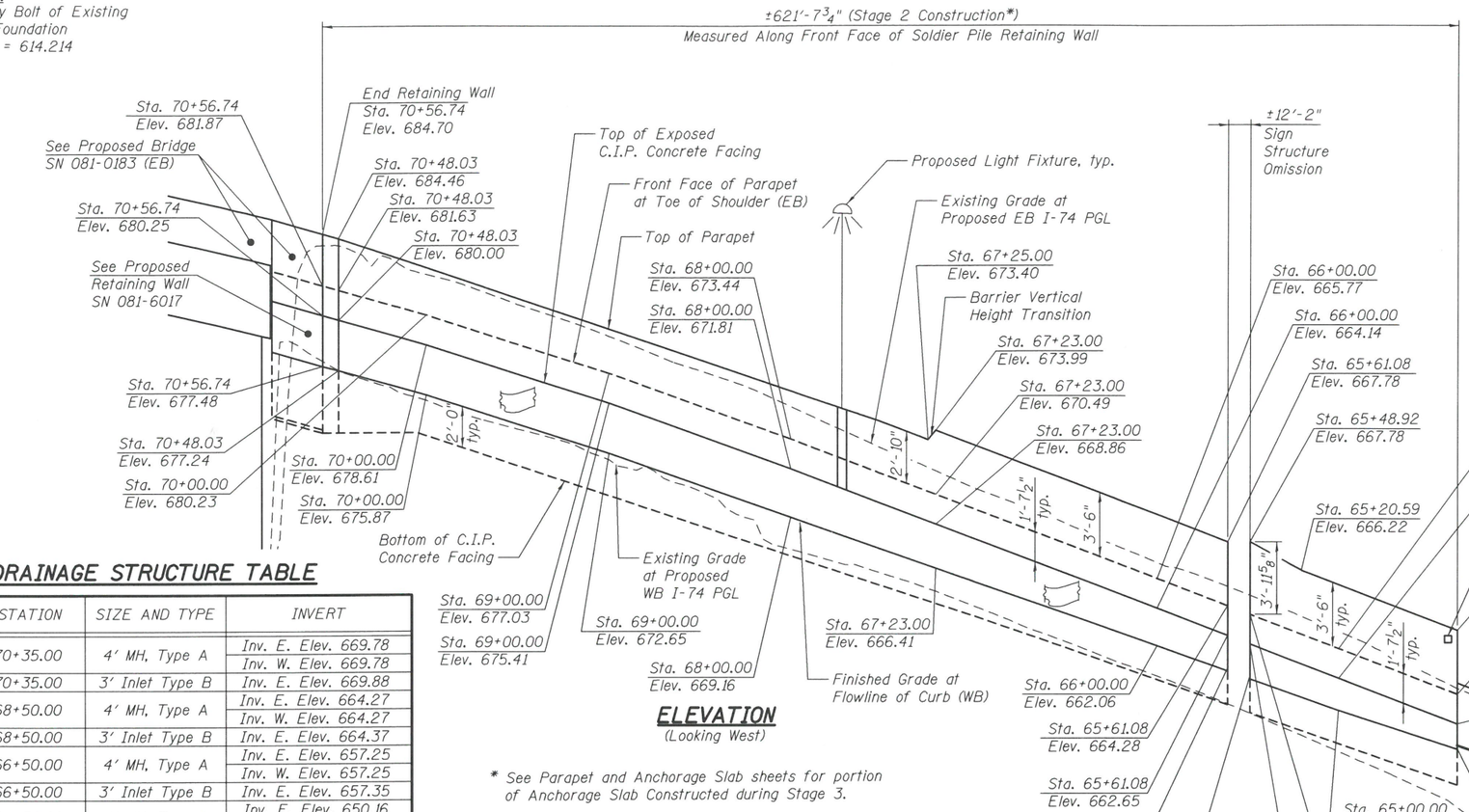
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS
RAMP 7TH-B RETAINING WALL 09
SHEET NO. 5 OF 5 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1	ISLAND ROCK	2042	1367
		CONTRACT NO. 64E26		
	ILLINOIS	FED. AID PROJECT		

Benchmark No. 586:
Cut "X" on Northerly Bolt of Existing
Ramp 7th-A Pier Foundation
Elevation NAVD 88 = 614.214

Existing Structure:
None



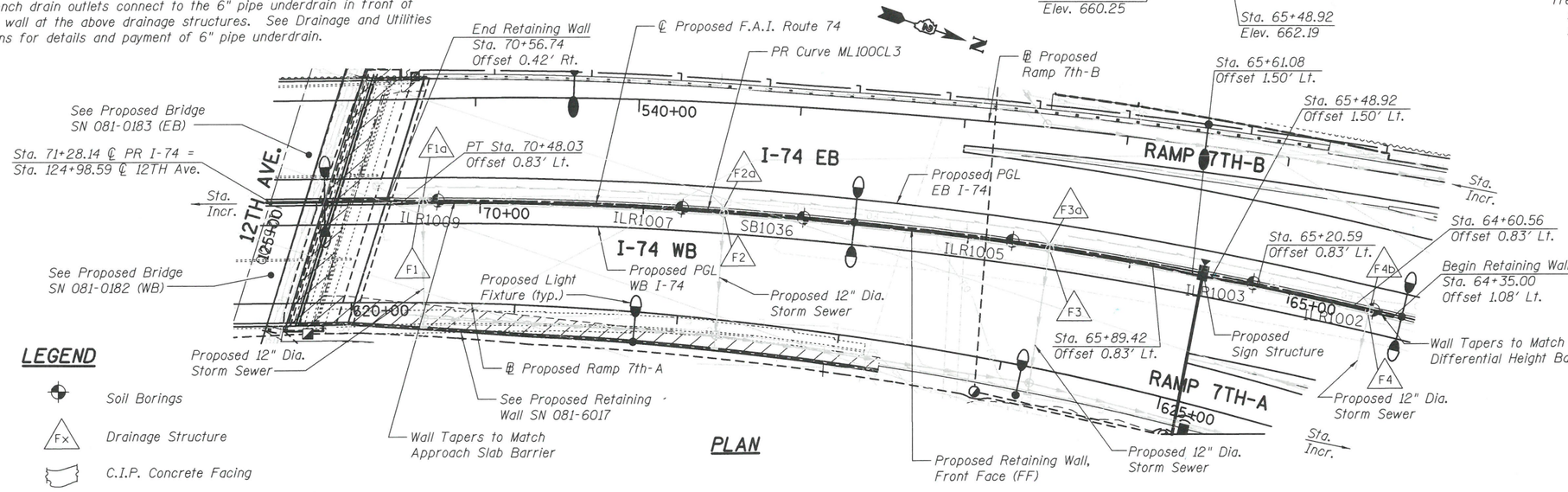
ELEVATION
(Looking West)

* See Parapet and Anchorage Slab sheets for portion of Anchorage Slab Constructed during Stage 3.

DRAINAGE STRUCTURE TABLE

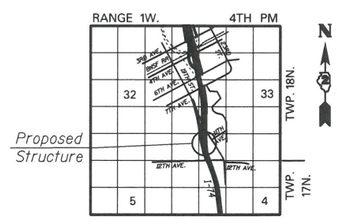
STRUCTURE	STATION	SIZE AND TYPE	INVERT
STR F1	70+35.00	4' MH, Type A	Inv. E. Elev. 669.78 Inv. W. Elev. 669.78
STR F1a	70+35.00	3' Inlet Type B	Inv. E. Elev. 669.88
STR F2	68+50.00	4' MH, Type A	Inv. E. Elev. 664.27 Inv. W. Elev. 664.27
STR F2a	68+50.00	3' Inlet Type B	Inv. E. Elev. 664.37
STR F3	66+50.00	4' MH, Type A	Inv. E. Elev. 657.25 Inv. W. Elev. 657.25
STR F3a	66+50.00	3' Inlet Type B	Inv. E. Elev. 657.35
STR F4	64+50.00	4' MH, Type A	Inv. E. Elev. 650.16 Inv. W. Elev. 650.16
STR F4b	64+50.00	3' Inlet Type B	Inv. E. Elev. 650.26

Note:
French drain outlets connect to the 6" pipe underdrain in front of the wall at the above drainage structures. See Drainage and Utilities Plans for details and payment of 6" pipe underdrain.



PLAN

LEGEND
- Soil Borings
- Fx — Drainage Structure
- C.I.P. Concrete Facing



LOCATION SKETCH

JERILYN M. HASSARD
081-006521
LICENSED
STRUCTURAL
ENGINEER
OF
ILLINOIS

Jerilyn M. Hassard
3-23-17

JERILYN M. HASSARD
EDWARDSVILLE, ILLINOIS
ILLINOIS LICENSED STRUCTURAL
ENGINEER NO. 081-006521
EXPIRES 11/30/2018

DESIGN SPECIFICATIONS
2012 AASHTO LRFD
Bridge Design Specifications,
6th Edition

DESIGN STRESSES
FIELD UNITS
f'_c = 3,500 psi
f_y = 60,000 psi (Reinforcement)
f_y = 50,000 psi (Structural Steel)

INDEX OF SHEETS

CURVE DATA
PR Curve ML100CL3
PI STA = 66+05.62
Δ = 20° 30' 00" (LT)
D = 2° 17' 31"
R = 2,500.00'
T = 452.07'
L = 894.48'
E = 40.55'
e = 4.9%
T.R. = N/A
S.E. RUN = 422.89'(I), 410.49'(O)
PC STA = 61+53.55
PT STA = 70+48.03

Notes:
Existing utilities shown will be relocated by others to avoid any conflicts during construction (see Utility Plans).
See Drainage and Utilities Plans for inlet details and french drain outlet.
See Electrical Plans for lighting and conduit details.
See Sign Structure Plans for sign structure details.

GENERAL PLAN AND ELEVATION
F.A.I. ROUTE 74 SEC. (81-1)R-1
ROCK ISLAND COUNTY
I-74 Sta. 64+35.00 to Sta. 70+56.74
RETAINING WALL 10

MODJESKI and MASTERS
Experience great bridges.

USER NAME =	DESIGNED - ZJB	REVISED	
	CHECKED - ACK	REVISED	
PLOT SCALE =	DRAWN - AEC	REVISED	
PLOT DATE = 03/23/2017	CHECKED - JMH	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION
I-74 (EB)/(WB) RETAINING WALL 10
SHEET NO. 1 OF 21 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1	ROCK ISLAND	2042	1368
		CONTRACT NO. 64E26		
	ILLINOIS FED. AID PROJECT			

GENERAL NOTES

1. Wall stations and offsets are given to the front face (FF) of the wall and are measured from the proposed centerline of F.A.I. Route 74 except as noted.

2. Reinforcement bars designated (E) shall be epoxy coated.

3. The Contractor is responsible for the design and performance of the timber lagging using no less than a 3 in. nominal rough-sawn thickness and timber with a minimum allowable bending stress of 1000 psi.

4. Fill placed within 5 feet of the back of the facing shall be granular material. Cost included with Drilling and Setting Soldier Piles (In Soil).

5. Special attention shall be paid to the subsurface and surface drainage conditions during Stage 2 and Stage 3 Construction. Water should be diverted away from areas where it may surcharge the wall drainage system.

6. Drainage structures shall be installed prior to retaining wall construction. The retaining wall is not designed or configured to support the drainage installation loading.

7. Slipforming of the parapet is not allowed.

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Structure Excavation	Cu. Yd.	393
Concrete Structures	Cu. Yd.	119.3
Concrete Superstructure	Cu. Yd.	333.5
Protective Coat	Sq. Yd.	685
Stud Shear Connectors	Each	612
Reinforcement Bars, Epoxy Coated	Pound	70,360
Name Plates	Each	1
Geocomposite Wall Drain	Sq. Yd.	199
Furnishing Soldier Piles (HP Section)	Ft.	1,141
Furnishing Soldier Piles (W Section)	Ft.	184
Drilling and Setting Soldier Piles (In Soil)	Cu. Ft.	4,163
Untreated Timber Lagging	Sq. Ft.	1,824
Pipe Underdrains for Structures 4"	Ft.	614

STATION 64+35.00
BUILT 201_ BY
STATE OF ILLINOIS
F.A.I. RT. 74 SEC. (81-1)R-1
LOADING HL-93

NAME PLATE

See Std. 515001

SUGGESTED SEQUENCE OF CONSTRUCTION

1. Install drainage structures prior to retaining wall construction. (See Drainage and Utilities Plans.)

2. Complete Structure Excavation to the top of Soldier Piles.

3. Drill shaft excavations for Soldier Piles to specified bottom elevations maintaining required tolerances and hole stability.

4. Remove loose material and excess water from excavated shafts. Place Soldier Piles in holes and properly locate and brace.

5. Place Class DS Concrete in the holes to the level of the base of the proposed Concrete Facing, then place Controlled Low Strength Material (C.L.S.M.) to the existing ground surface.

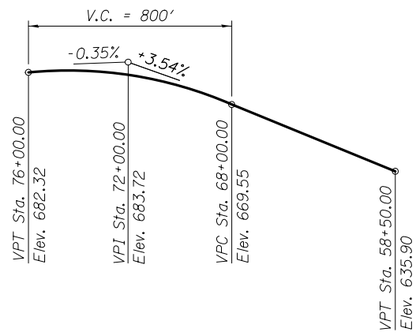
6. After all concrete has attained the required design strength, excavate the soil in front of the wall to proposed grade with simultaneous removal of C.L.S.M. at the face of the Soldier Piles and place lagging as specified.

7. Place and compact any required fill behind the wall. Hand operated equipment such as a jumping jack or plate compactor shall be used to compact the fill within 5 feet of the back of the wall.

8. Construct wall drainage features at the base of the wall.

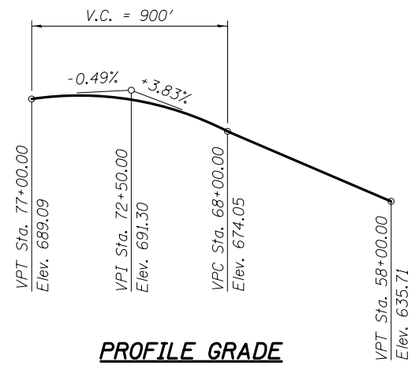
9. Place shear studs on Soldier Piles and construct Concrete Facing.

10. Complete final grading and pavement at the base and top of the wall.



PROFILE GRADE

(Along WB PGL - F.A.I. Route 74)



PROFILE GRADE

(Along EB PGL - F.A.I. Route 74)

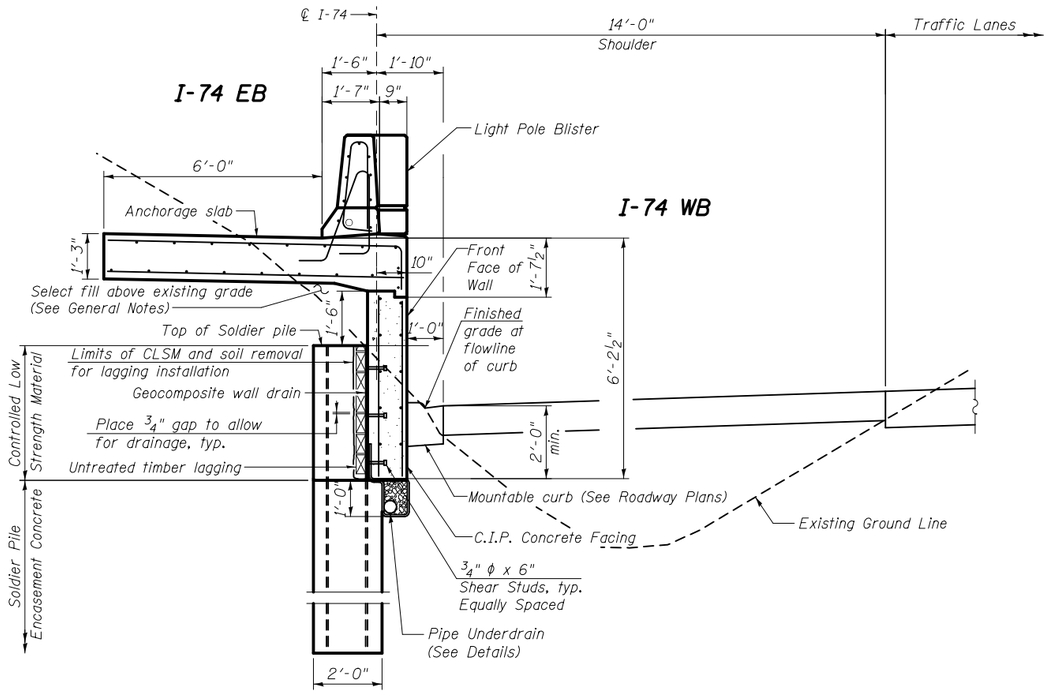
MODJESKI and MASTERS
Experience great bridges.

USER NAME =	DESIGNED - ZAC	REVISED
	CHECKED - ACK	REVISED
PLOT SCALE =	DRAWN - AEC	REVISED
PLOT DATE = 03/23/2017	CHECKED - JMH	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES
I-74 (EB)/(WB) RETAINING WALL 10
SHEET NO. 2 OF 21 SHEETS

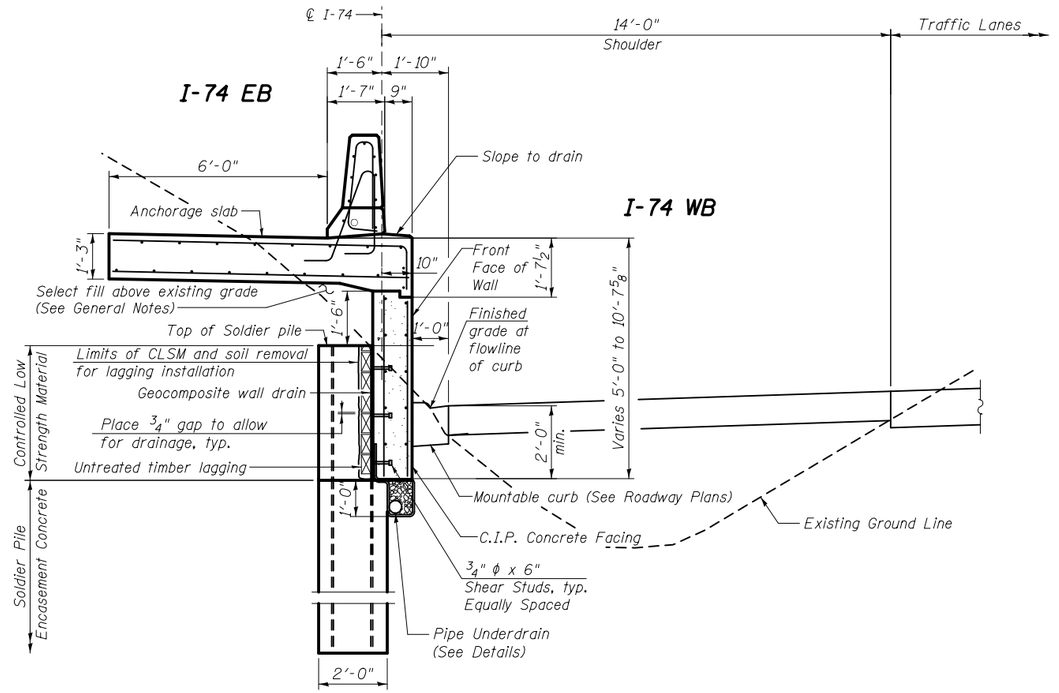
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1	ROCK ISLAND	2042	1369
		CONTRACT NO. 64E26		
	ILLINOIS	FED. AID PROJECT		



TYPICAL WALL SECTION AT LIGHT POLE

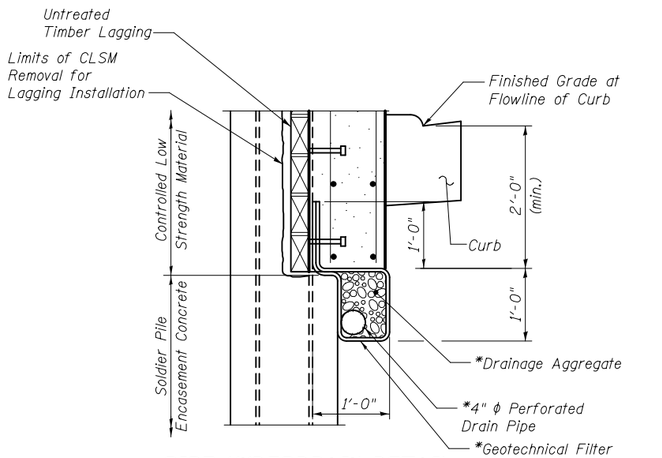
(Looking North)

(Barrier tapered at 20:1 for light pole blister.)



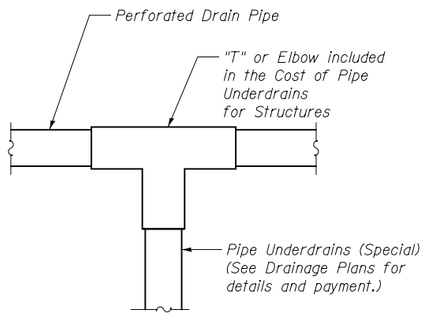
TYPICAL WALL SECTION

(Looking North)



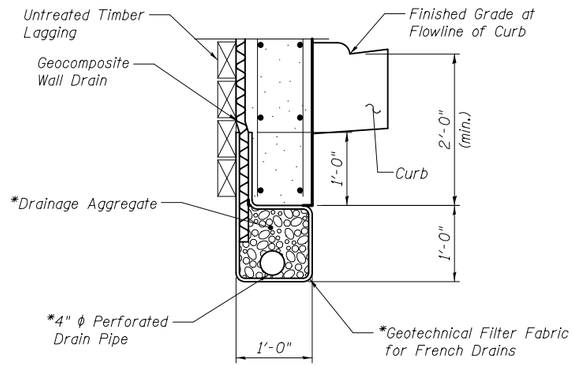
PIPE UNDERDRAIN DETAIL AT SOLDIER PILES

*Included in the cost of Pipe Underdrains for Structures



FRENCH DRAIN OUTLET

(See sheet 1 for locations.)



PIPE UNDERDRAIN DETAIL BETWEEN SOLDIER PILES

*Included in the cost of Pipe Underdrains for Structures

Note:
Cost of Controlled Low Strength Material included in Drilling and Setting Soldier Piles (In Soil).

USER NAME =	DESIGNED - ZJB	REVISED	
	CHECKED - ACK	REVISED	
PLOT SCALE =	DRAWN - AEC	REVISED	
PLOT DATE = 03/23/2017	CHECKED - ZJB	REVISED	

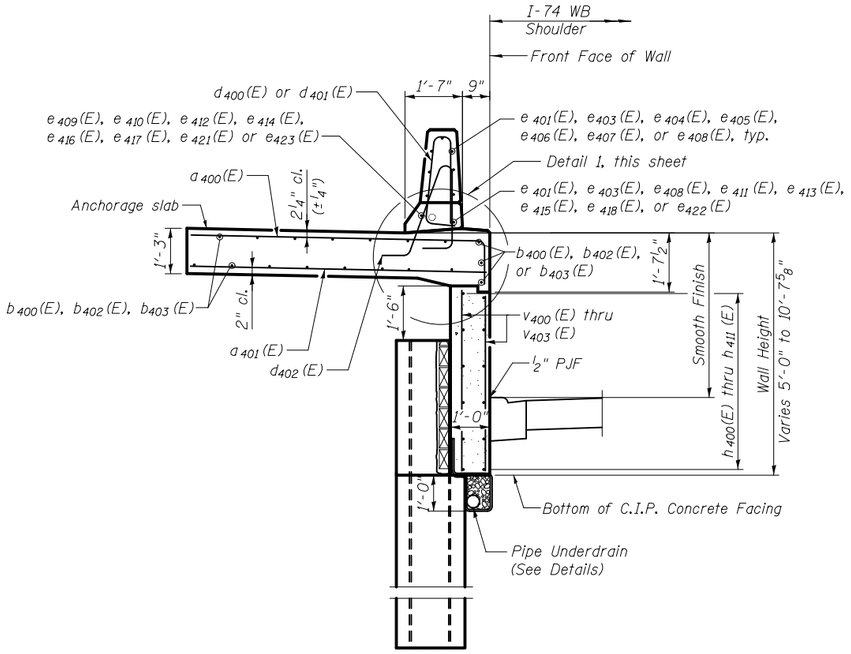
MODJESKI and MASTERS
Experience great bridges.

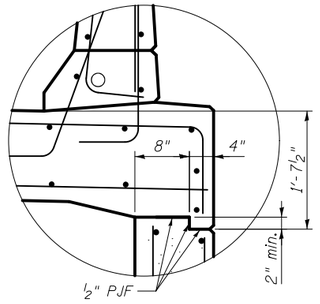
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WALL SECTIONS AND DETAILS – 1
I-74 (EB)/(WB) RETAINING WALL 10

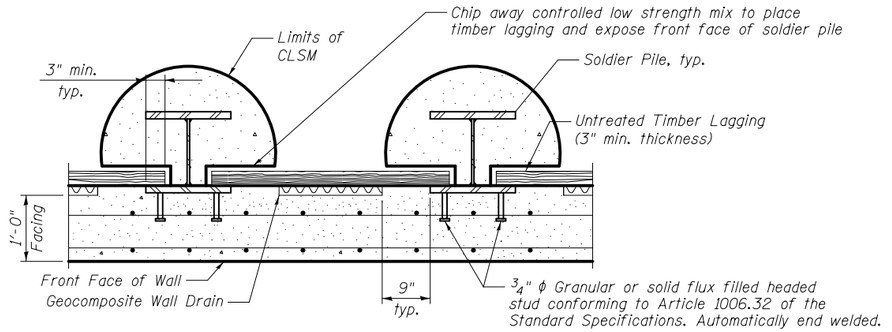
SHEET NO. 3 OF 21 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1	ROCK ISLAND	2042	1370
		CONTRACT NO. 64E26		
	ILLINOIS	FED. AID PROJECT		



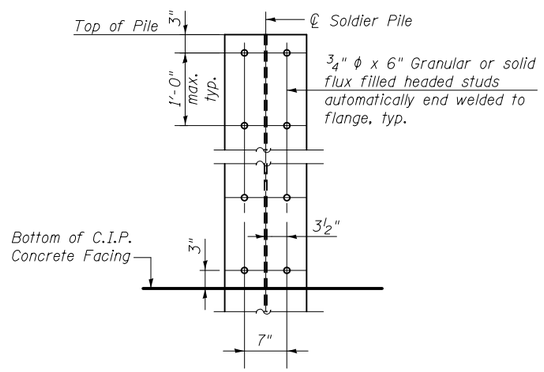


DETAIL 1

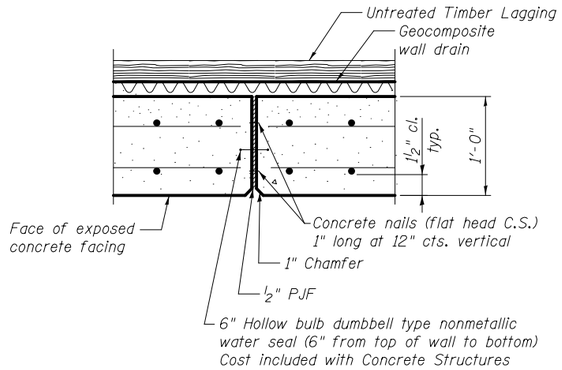


TYPICAL SECTION THRU WALL

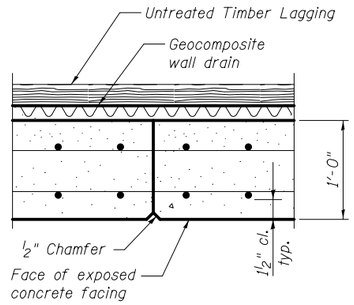
SECTION THRU PARAPET, ANCHORAGE SLAB AND CONCRETE FACING



SHEAR STUD CONNECTORS LAYOUT



EXPANSION JOINT



CONSTRUCTION JOINT

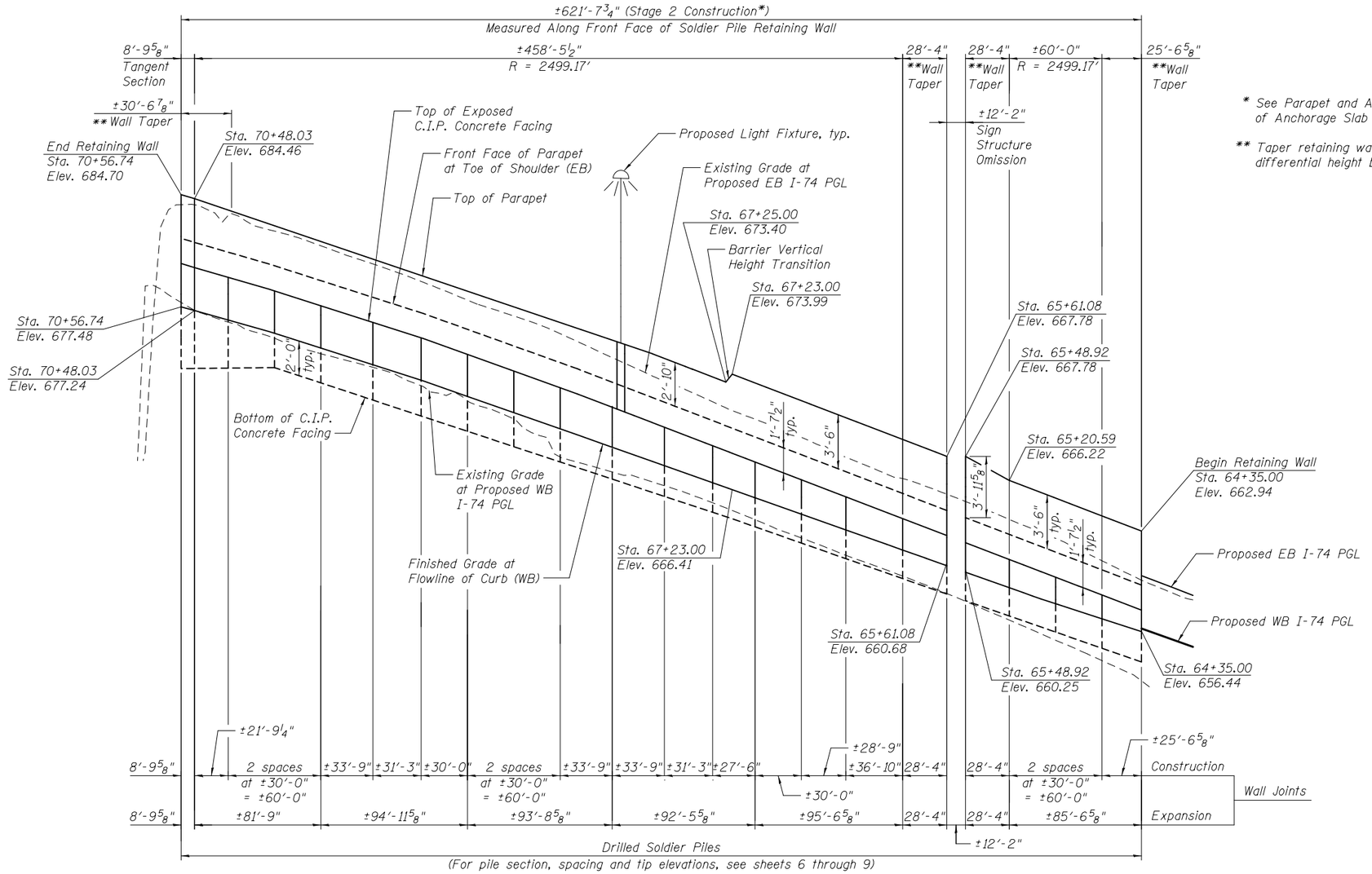
Note:
Cost of Controlled Low Strength Material included in Drilling and Setting Soldier Piles (In Soil).

MODJESKI and MASTERS Experience great bridges.	USER NAME =	DESIGNED - ZJB	REVISED
		CHECKED - ACK	REVISED
	PLOT SCALE =	DRAWN - AEC	REVISED
	PLOT DATE = 03/23/2017	CHECKED - JMH	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WALL SECTIONS AND DETAILS – 2
I-74 (EB)/(WB) RETAINING WALL 10
SHEET NO. 4 OF 21 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1	ROCK ISLAND	2042	1371
		CONTRACT NO. 64E26		
	ILLINOIS	FED. AID PROJECT		



* See Parapet and Anchorage Slab sheets for portion of Anchorage Slab constructed during Stage 3.

** Taper retaining wall to match sign structure foundation, differential height barrier and parapet along I-74 WB.

ELEVATION

Soldier pile retaining wall joint spacing shown. Parapet joint spacing not shown for clarity.

Notes:
See Drainage and Utilities Plans for inlet details.
See Electrical Plans for lighting and conduit details.
See Sign Structure Plans for sign structure details.

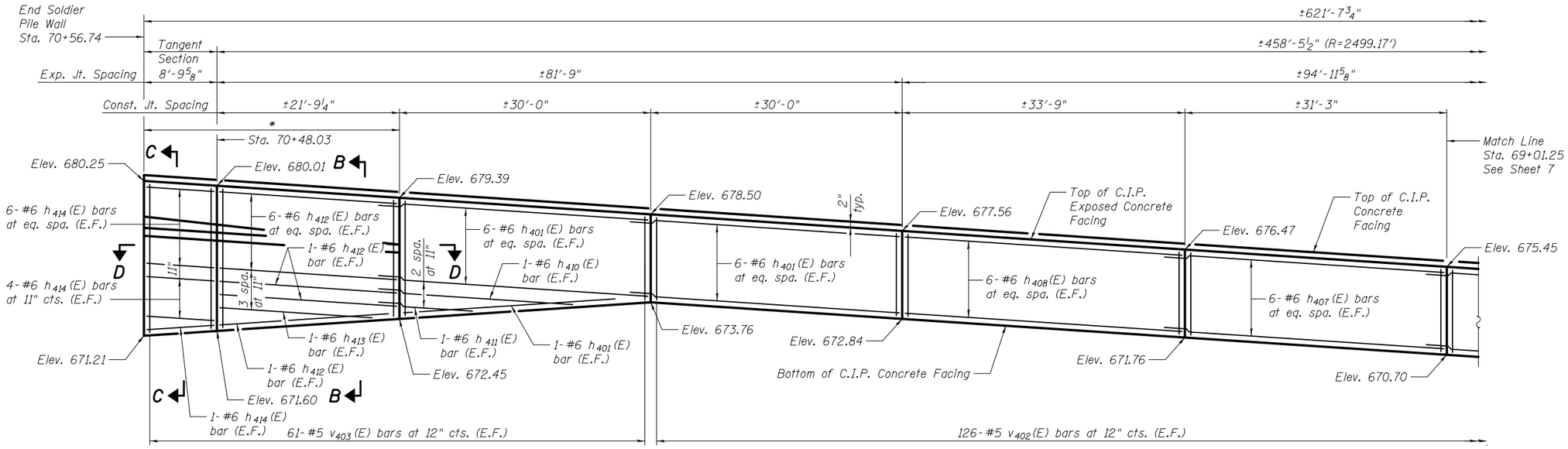
MODJESKI and MASTERS
Experience great bridges.

USER NAME =	DESIGNED - ZJB	REVISED
	CHECKED - ACK	REVISED
PLOT SCALE =	DRAWN - AEC	REVISED
PLOT DATE = 03/23/2017	CHECKED - JMH	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WALL ELEVATION
I-74 (EB)/(WB) RETAINING WALL 10
SHEET NO. 5 OF 21 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1	ROCK ISLAND	2042	1372
		CONTRACT NO. 64E26		
	ILLINOIS	FED. AID PROJECT		

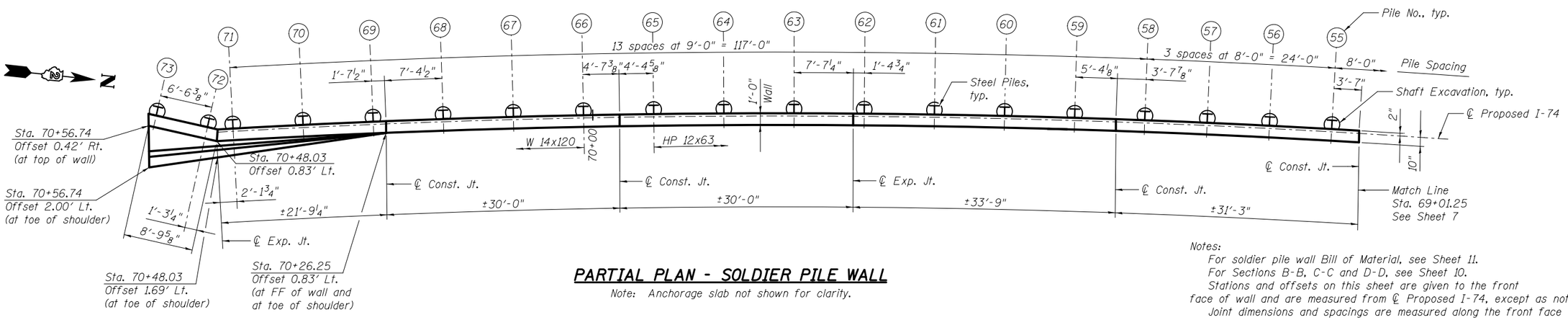


* See Sections for additional reinforcement

PARTIAL ELEVATION - SOLDIER PILE WALL

Pile Number	Station	Pile Size	Length (ft)	Tip Elevation (ft)	Top Elevation (ft)	Number of Studs
64	69+82.86	HP 12x63	18	658.75	676.75	8
65	69+91.87	HP 12x63	18	659.03	677.03	8
66	70+00.87	W 14x120	23	654.30	677.30	10
67	70+09.87	W 14x120	23	654.57	677.57	10
68	70+18.88	W 14x120	23	654.84	677.84	12
69	70+27.88	W 14x120	23	655.10	678.10	14
70	70+36.88	W 14x120	23	655.36	678.36	14
71	70+45.88	W 14x120	23	655.61	678.61	16
72	70+49.15	W 14x120	23	655.70	678.70	16
73	70+55.61	W 14x120	23	655.88	678.88	18

Pile Number	Station	Pile Size	Length (ft)	Tip Elevation (ft)	Top Elevation (ft)	Number of Studs
55	69+04.84	HP 12x63	18	656.23	674.23	8
56	69+12.84	HP 12x63	18	656.50	674.50	8
57	69+20.84	HP 12x63	18	656.76	674.76	8
58	69+28.85	HP 12x63	18	657.02	675.02	8
59	69+37.85	HP 12x63	18	657.31	675.31	8
60	69+46.85	HP 12x63	18	657.60	675.60	8
61	69+55.86	HP 12x63	18	657.89	675.89	8
62	69+64.86	HP 12x63	18	658.18	676.18	8
63	69+73.86	HP 12x63	18	658.47	676.47	8



PARTIAL PLAN - SOLDIER PILE WALL

Note: Anchorage slab not shown for clarity.

Notes:
For soldier pile wall Bill of Material, see Sheet 11.
For Sections B-B, C-C and D-D, see Sheet 10.
Stations and offsets on this sheet are given to the front face of wall and are measured from ℄ Proposed I-74, except as noted.
Joint dimensions and spacings are measured along the front face of the wall.
Pile dimensions and spacings are measured along the back face of the wall.

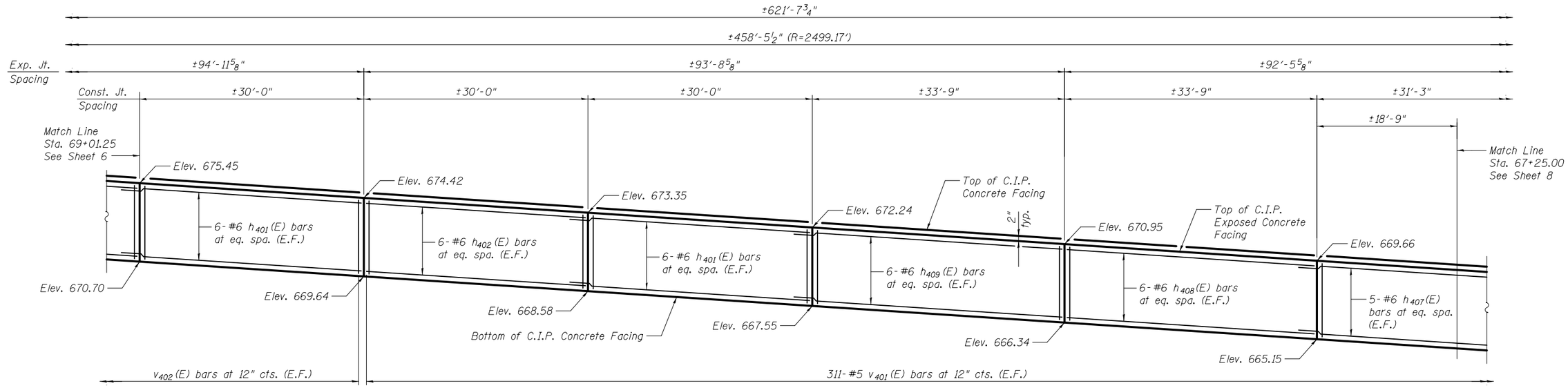
MODJESKI and MASTERS
Experience great bridges.

USER NAME =	DESIGNED - ACK/ZJB	REVISED
	CHECKED - ZJB/ACK	REVISED
PLOT SCALE =	DRAWN - PRC	REVISED
PLOT DATE = 03/23/2017	CHECKED - ACK	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOLDIER PILE WALL LAYOUT PLAN 1
I-74 (EB)/(WB) RETAINING WALL 10
SHEET NO. 6 OF 21 SHEETS

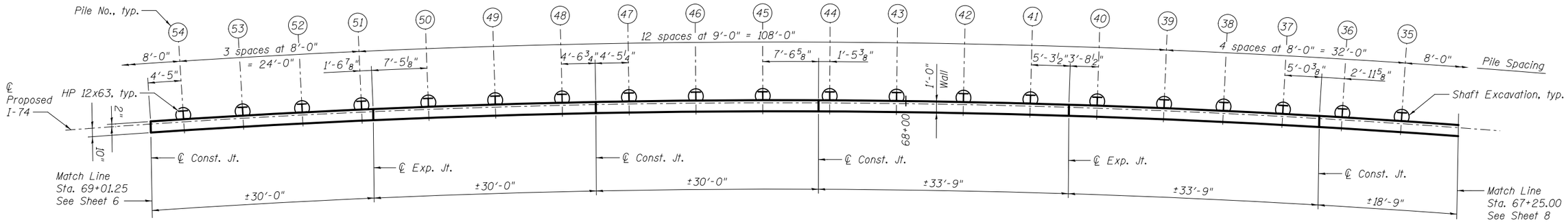
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1	ROCK ISLAND	2042	1373
		CONTRACT NO. 64E26		
	ILLINOIS FED. AID PROJECT			



PARTIAL ELEVATION - SOLDIER PILE WALL

Pile Number	Station	Pile Size	Length (ft)	Tip Elevation (ft)	Top Elevation (ft)	Number of Studs
45	68+18.81	HP 12x63	18	653.19	671.19	8
46	68+27.81	HP 12x63	18	653.53	671.53	8
47	68+36.81	HP 12x63	18	653.86	671.86	8
48	68+45.82	HP 12x63	18	654.19	672.19	8
49	68+54.82	HP 12x63	18	654.51	672.51	8
50	68+63.82	HP 12x63	18	654.83	672.83	8
51	68+72.83	HP 12x63	18	655.14	673.14	8
52	68+80.83	HP 12x63	18	655.42	673.42	8
53	68+88.83	HP 12x63	18	655.69	673.69	8
54	68+96.84	HP 12x63	18	655.97	673.97	8

Pile Number	Station	Pile Size	Length (ft)	Tip Elevation (ft)	Top Elevation (ft)	Number of Studs
35	67+32.78	HP 12x63	18	649.90	667.90	8
36	67+40.78	HP 12x63	18	650.21	668.21	8
37	67+48.78	HP 12x63	18	650.52	668.52	8
38	67+56.79	HP 12x63	18	650.82	668.82	8
39	67+64.79	HP 12x63	18	651.13	669.13	8
40	67+73.79	HP 12x63	18	651.47	669.47	8
41	67+82.80	HP 12x63	18	651.82	669.82	8
42	67+91.80	HP 12x63	18	652.16	670.16	8
43	68+00.80	HP 12x63	18	652.51	670.51	8
44	68+09.81	HP 12x63	18	652.85	670.85	8



PARTIAL PLAN - SOLDIER PILE WALL

Note: Anchorage slab not shown for clarity.

Notes:

For soldier pile wall Bill of Material, see Sheet 11.

Stations and offsets on this sheet are given to the front face of wall and are measured from ℄ Proposed I-74.

Joint dimensions and spacings are measured along the front face of the wall.

Pile dimensions and spacings are measured along the back face of the wall.

MODJESKI and MASTERS
Experience great bridges.

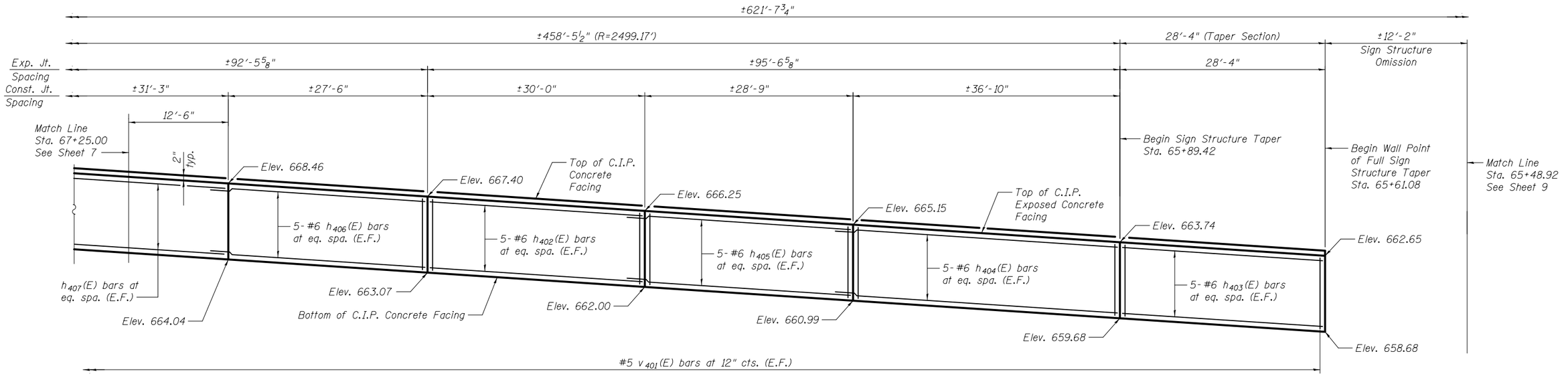
USER NAME =	DESIGNED - ACK/ZJB	REVISED	
	CHECKED - ZJB/ACK	REVISED	
PLOT SCALE =	DRAWN - PRC	REVISED	
PLOT DATE = 03/23/2017	CHECKED - ACK	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOLDIER PILE WALL LAYOUT PLAN 2
I-74 (EB)/(WB) RETAINING WALL 10

SHEET NO. 7 OF 21 SHEETS

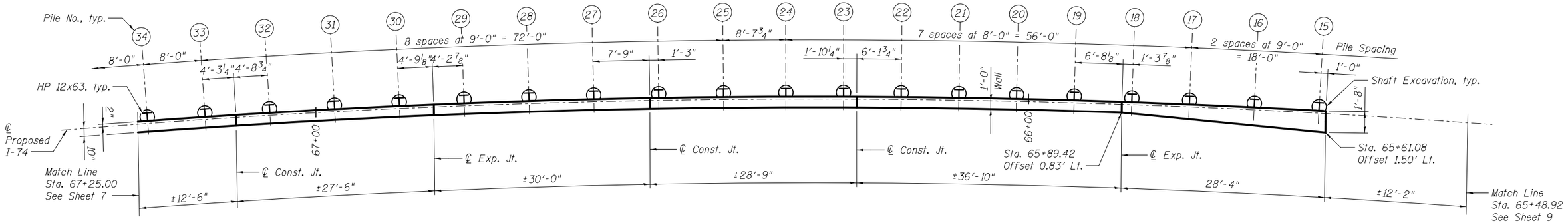
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1	ROCK ISLAND	2042	1374
		CONTRACT NO. 64E26		
	ILLINOIS FED. AID PROJECT			



PARTIAL ELEVATION - SOLDIER PILE WALL

Pile Number	Station	Pile Size	Length (ft)	Tip Elevation (ft)	Top Elevation (ft)	Number of Studs
25	66+44.75	HP 12x63	17	647.53	664.53	8
26	66+53.75	HP 12x63	17	647.87	664.87	8
27	66+62.76	HP 12x63	17	648.22	665.22	8
28	66+71.76	HP 12x63	17	648.56	665.56	8
29	66+80.76	HP 12x63	17	648.91	665.91	8
30	66+89.76	HP 12x63	18	648.25	666.25	8
31	66+98.77	HP 12x63	18	648.60	666.60	8
32	67+07.77	HP 12x63	18	648.94	666.94	8
33	67+16.77	HP 12x63	18	649.29	667.29	8
34	67+24.78	HP 12x63	18	649.60	667.60	8

Pile Number	Station	Pile Size	Length (ft)	Tip Elevation (ft)	Top Elevation (ft)	Number of Studs
15	65+62.08	HP 12x63	17	644.36	661.36	8
16	65+71.09	HP 12x63	17	644.70	661.70	8
17	65+80.09	HP 12x63	17	645.05	662.05	8
18	65+88.09	HP 12x63	17	645.35	662.35	8
19	65+96.09	HP 12x63	17	645.66	662.66	8
20	66+04.09	HP 12x63	17	645.97	662.97	8
21	66+12.10	HP 12x63	17	646.27	663.27	8
22	66+20.10	HP 12x63	17	646.58	663.58	8
23	66+28.10	HP 12x63	17	646.89	663.89	8
24	66+36.10	HP 12x63	17	647.20	664.20	8



PARTIAL PLAN - SOLDIER PILE WALL

Note: Anchorage slab not shown for clarity.

Notes:

For soldier pile wall Bill of Material, see Sheet 11.

Stations and offsets on this sheet are given to the front face of wall and are measured from ℄ Proposed I-74.

Joint dimensions and spacings are measured along the front face of the wall.

Pile dimensions and spacings are measured along the back face of the wall.

MODJESKI and MASTERS
Experience great bridges.

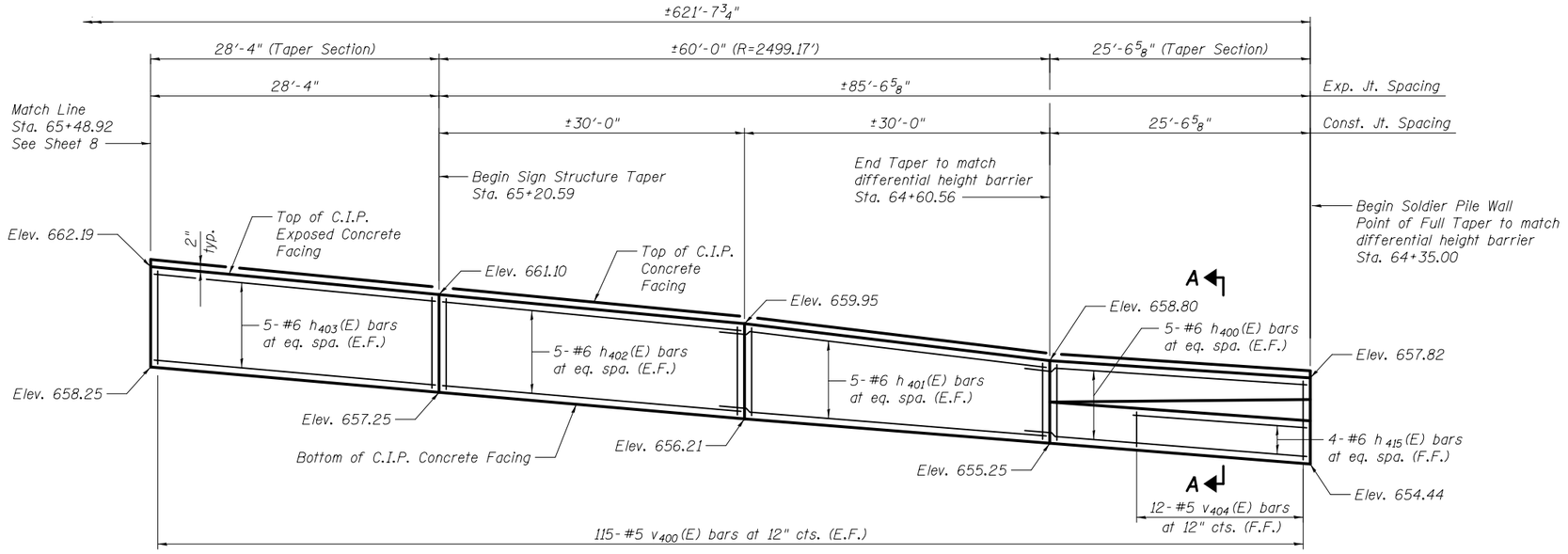
USER NAME =	DESIGNED - ACK/ZJB	REVISED	
	CHECKED - ZJB/ACK	REVISED	
PLOT SCALE =	DRAWN - PRC	REVISED	
PLOT DATE = 03/23/2017	CHECKED - ACK	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOLDIER PILE WALL LAYOUT PLAN 3
I-74 (EB)/(WB) RETAINING WALL 10

SHEET NO. 8 OF 21 SHEETS

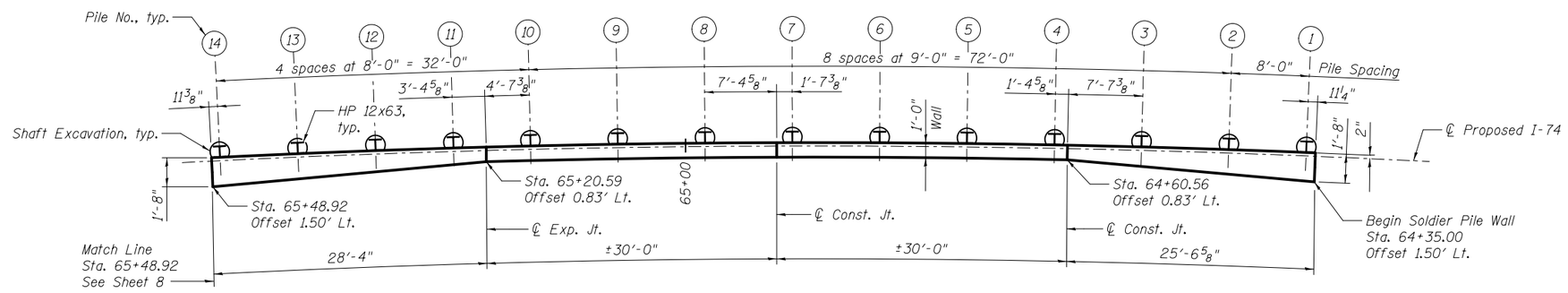
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1	ROCK ISLAND	2042	1375
		CONTRACT NO. 64E26		
		ILLINOIS	FED. AID PROJECT	



PARTIAL ELEVATION - SOLDIER PILE WALL

Pile Number	Station	Pile Size	Length (ft)	Tip Elevation (ft)	Top Elevation (ft)	Number of Studs
8	64+97.96	HP 12x63	17	641.90	658.90	6
9	65+06.97	HP 12x63	17	642.24	659.24	6
10	65+15.97	HP 12x63	17	642.59	659.59	8
11	65+23.97	HP 12x63	17	642.90	659.90	8
12	65+31.97	HP 12x63	17	643.20	660.20	8
13	65+39.97	HP 12x63	17	643.51	660.51	8
14	65+47.98	HP 12x63	17	643.82	660.82	8

Pile Number	Station	Pile Size	Length (ft)	Tip Elevation (ft)	Top Elevation (ft)	Number of Studs
1	64+35.94	HP 12x63	17	639.52	656.52	6
2	64+43.95	HP 12x63	17	639.83	656.83	6
3	64+52.95	HP 12x63	17	640.17	657.17	6
4	64+61.95	HP 12x63	17	640.52	657.52	6
5	64+70.96	HP 12x63	17	640.86	657.86	6
6	64+79.96	HP 12x63	17	641.21	658.21	6
7	64+88.96	HP 12x63	17	641.55	658.55	6



PARTIAL PLAN - SOLDIER PILE WALL

Note: Anchorage slab not shown for clarity.

Notes:

For soldier pile wall Bill of Material, see Sheet 11.

For Section A-A, see Sheet 10.

Stations and offsets on this sheet are given to the front face of wall and are measured from ℄ Proposed I-74.

Joint dimensions and spacings are measured along the front face of the wall.

Pile dimensions and spacings are measured along the back face of the wall.

MODJESKI and MASTERS
Experience great bridges.

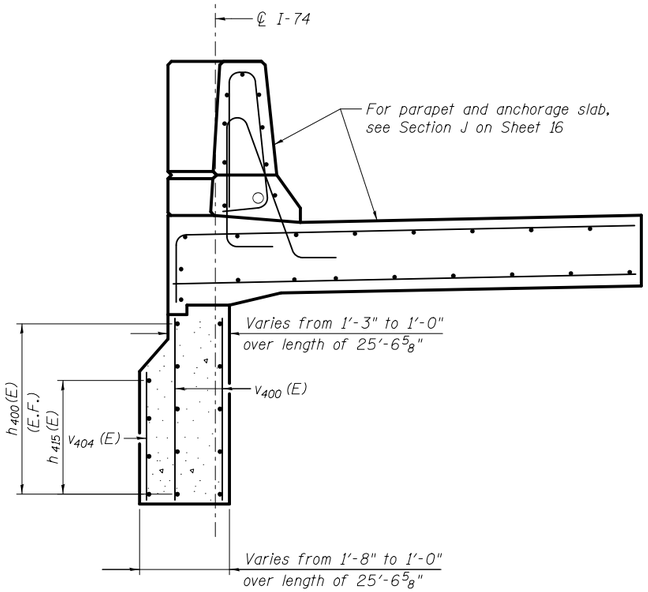
USER NAME =	DESIGNED - ACK/ZJB	REVISED
	CHECKED - ZJB/ACK	REVISED
PLOT SCALE =	DRAWN - PRC	REVISED
PLOT DATE = 03/23/2017	CHECKED - ACK	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOLDIER PILE WALL LAYOUT PLAN 4
I-74 (EB)/(WB) RETAINING WALL 10

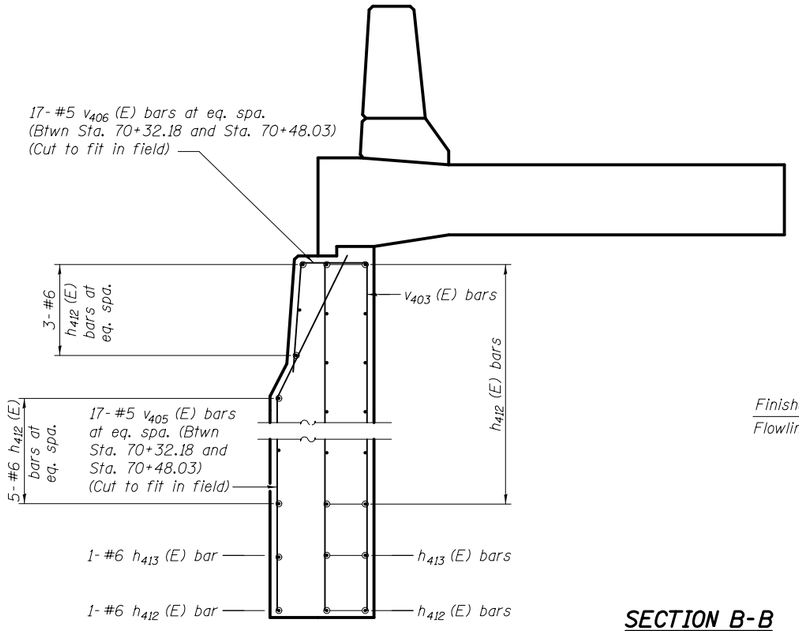
SHEET NO. 9 OF 21 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1	ROCK ISLAND	2042	1376
		CONTRACT NO. 64E26		
	ILLINOIS FED. AID PROJECT			



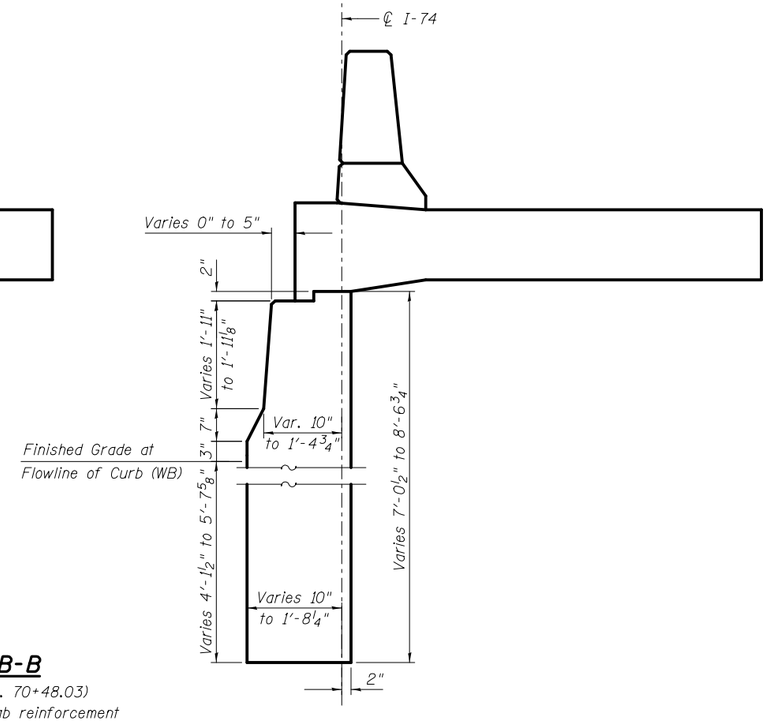
SECTION A-A

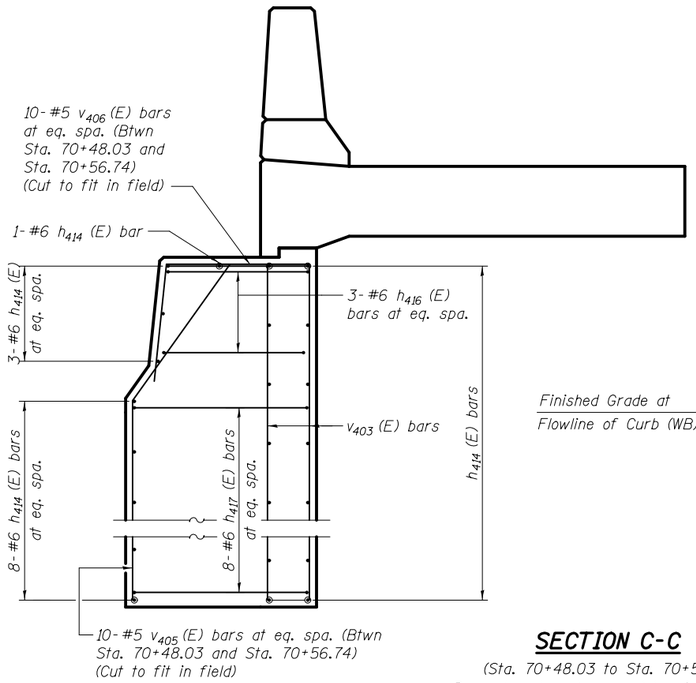
For location see Sheet 9

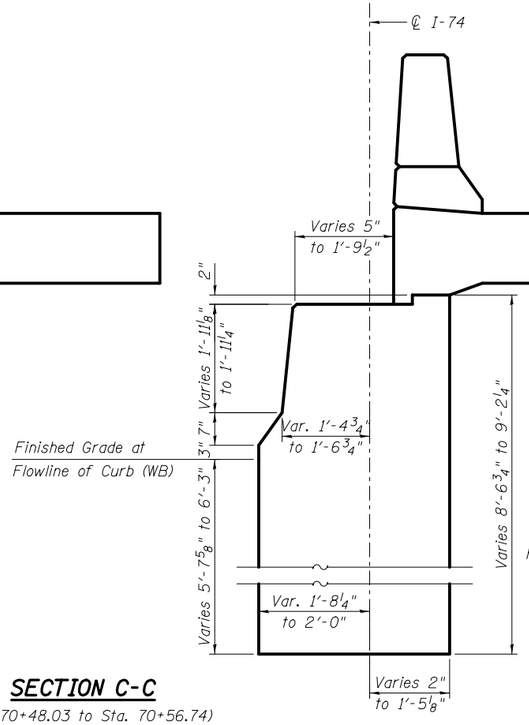


SECTION B-B

(Sta. 70+26.25 to Sta. 70+48.03)
Parapet and anchorage slab reinforcement not shown for clarity



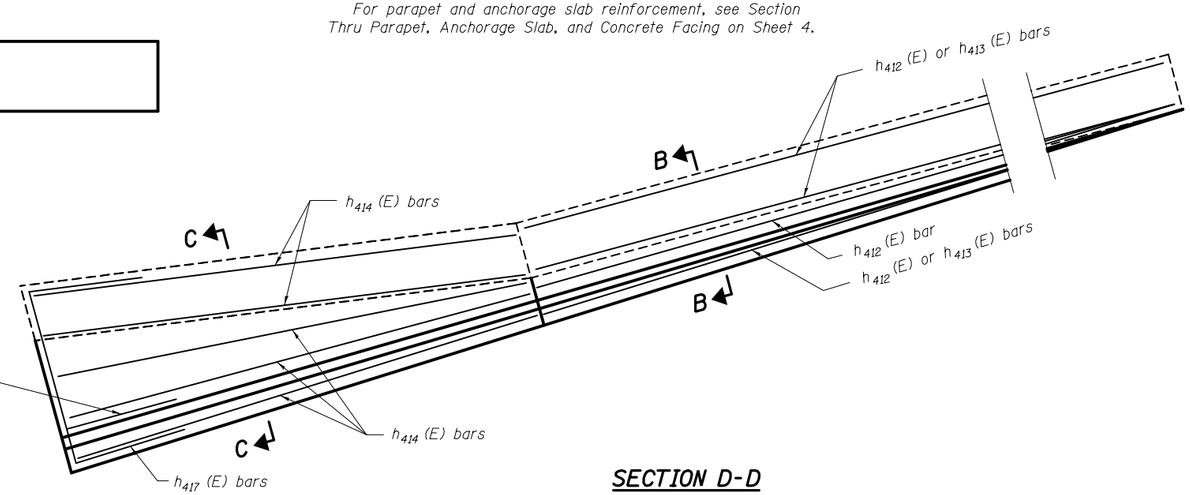




SECTION C-C

(Sta. 70+48.03 to Sta. 70+56.74)
Parapet and anchorage slab reinforcement not shown for clarity

Notes:
For soldier pile wall Bill of Material, see Sheet 11.
For soldier pile wall layouts, see Sheets 6 thru 9.
For location of Sections B-B, C-C, and D-D, see Sheet 6.
For location of Section A-A, see Sheet 9.
For parapet and anchorage slab reinforcement, see Section Thru Parapet, Anchorage Slab, and Concrete Facing on Sheet 4.



SECTION D-D

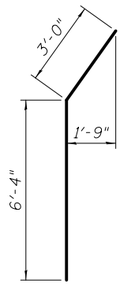
Vertical reinforcement not shown for clarity

MODJESKI and MASTERS Experience great bridges.	USER NAME =	DESIGNED - ACK/ZJB	REVISED
		CHECKED - ZJB/ACK	REVISED
	PLOT SCALE =	DRAWN - PRC	REVISED
	PLOT DATE = 03/23/2017	CHECKED - ACK	REVISED

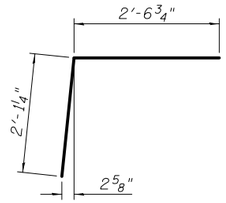
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOLDIER PILE WALL LAYOUT PLAN 5
I-74 (EB)/(WB) RETAINING WALL 10
SHEET NO. 10 OF 21 SHEETS

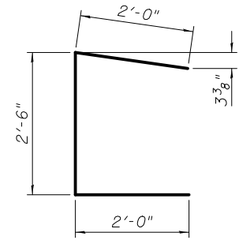
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1	ROCK ISLAND	2042	1377
		CONTRACT NO. 64E26		
	ILLINOIS	FED. AID PROJECT		



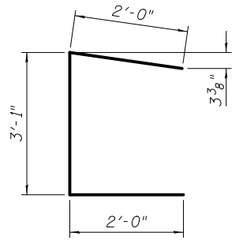
BAR v405(E)



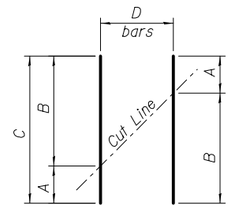
BAR v406(E)



BAR h416(E)



BAR h417(E)



BAR CUTTING DIAGRAM

Order bars full length. Cut as shown and use remainder of bars in opposite face.

Bar	A	B	C	D
v400(E)	3'-2"	3'-8"	6'-10"	115
v401(E)	3'-9"	4'-6"	8'-3"	311
v402(E)	4'-6"	4'-6"	9'-0"	126
v403(E)	4'-6"	8'-9"	13'-3"	61
v404(E)	2'-0"	2'-1"	4'-1"	12

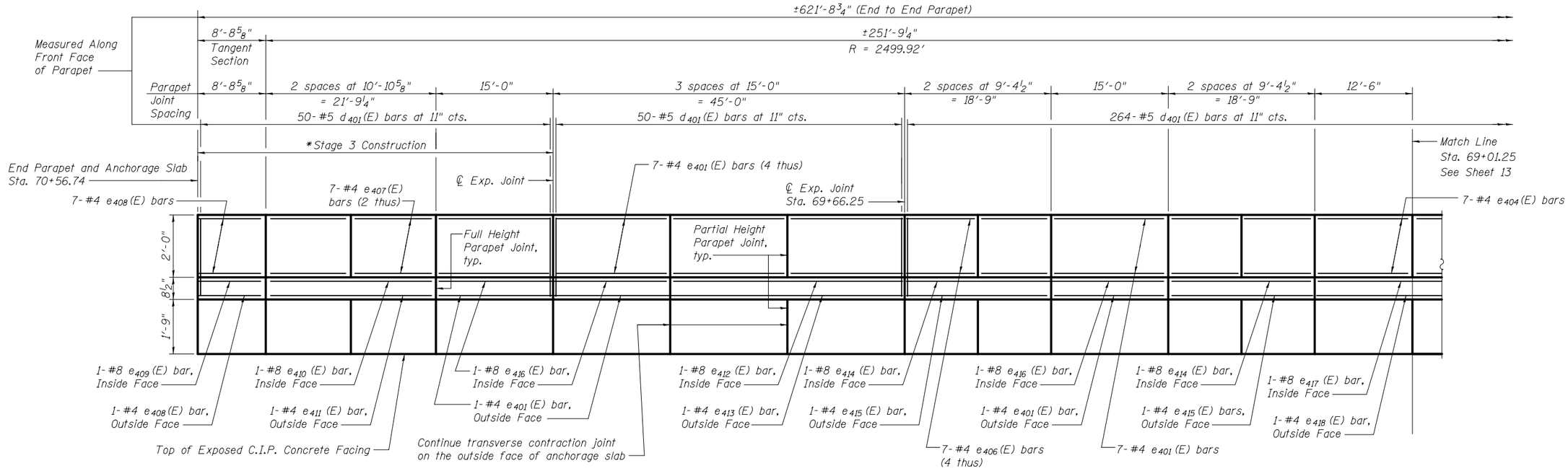
SOLDIER PILE WALL BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h400(E)	10	#6	29'-6"	———
h401(E)	60	#6	33'-10"	———
h402(E)	32	#6	29'-9"	———
h403(E)	20	#6	28'-1"	———
h404(E)	10	#6	40'-8"	———
h405(E)	10	#6	32'-6"	———
h406(E)	10	#6	31'-4"	———
h407(E)	22	#6	35'-0"	———
h408(E)	24	#6	33'-6"	———
h409(E)	12	#6	37'-7"	———
h410(E)	2	#6	21'-3"	———
h411(E)	2	#6	8'-8"	———
h412(E)	27	#6	21'-6"	———
h413(E)	3	#6	13'-6"	———
h414(E)	34	#6	8'-6"	———
h415(E)	4	#6	12'-8"	———
h416(E)	3	#6	6'-6"	⊏
h417(E)	8	#6	7'-1"	⊏
v400(E)	115	#5	6'-10"	———
v401(E)	311	#5	8'-3"	———
v402(E)	126	#5	9'-0"	———
v403(E)	61	#5	13'-3"	———
v404(E)	12	#5	4'-1"	———
v405(E)	27	#5	9'-4"	⟍
v406(E)	27	#5	4'-8"	⌐
Structure Excavation			Cu. Yd.	393
Concrete Structures			Cu. Yd.	119.3
Stud Shear Connectors			Each	612
Reinforcement Bars, Epoxy Coated			Pound	18,000
Furnishing Soldier Piles (HP Section)			Ft.	1,141
Furnishing Soldier Piles (W Section)			Ft.	184
Drilling and Setting Soldier Piles (In Soil)			Cu. Ft.	4,163
Untreated Timber Lagging			Sq. Ft.	1,824

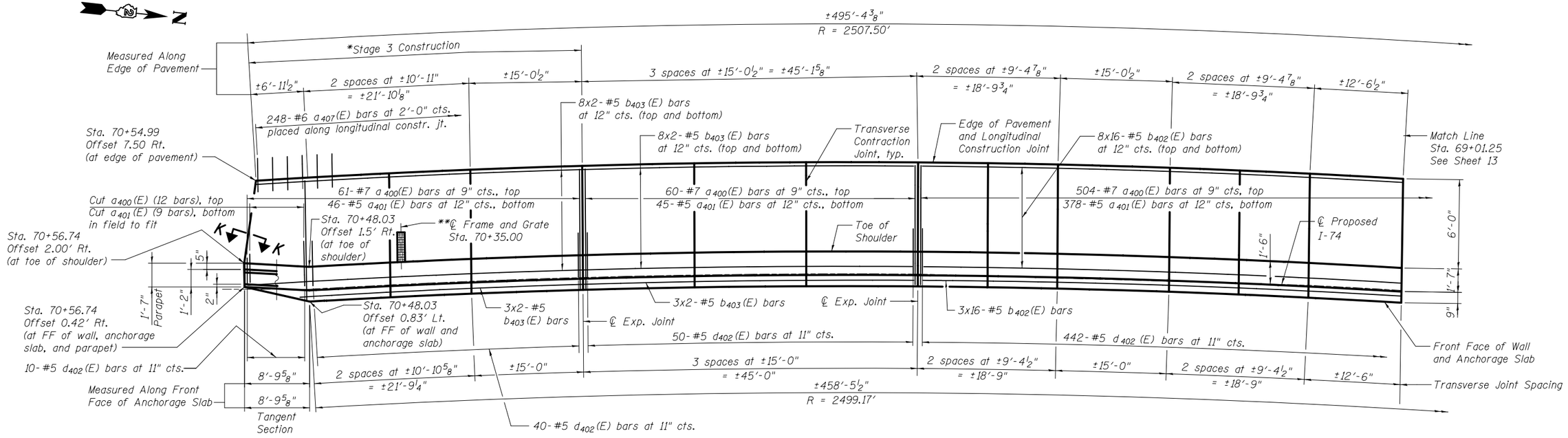
MIN. BAR LAP

#6 bars - 3'-10"

Note:
For Soldier Pile Wall Layouts, see Sheets 6 thru 9.



PARTIAL OUTSIDE ELEVATION



PARTIAL PLAN - PARAPET AND ANCHORAGE SLAB

* The entire retaining wall will be constructed during Stage 2 except for a portion of the parapet and anchorage slab which will be constructed during Stage 3 to accommodate construction of SN 081-0183.

** See Plan at Drainage Structure on Sheet 17.

Notes:
For Section K-K and Bill of Material, see Sheet 17.
Bars indicated thus 8x4-#5 etc. indicates 8 lines of bars with 4 lengths per line.
Stations and offsets on this sheet are given to the front face of wall and are measured from the ℄ Proposed I-74, except as noted.
For typical reinforcement see Section Thru Parapet, Anchorage Slab and Concrete Facing on Sheet 4.
Joints in the adjacent pavement shall be aligned with the anchorage slab joints.

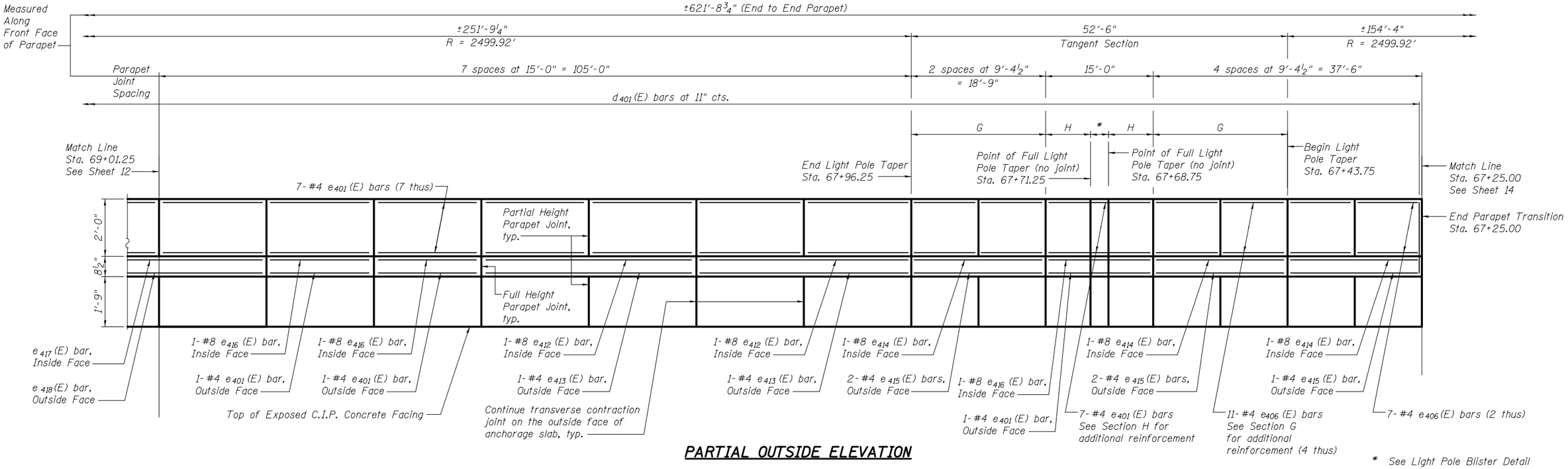
MODJESKI and MASTERS Experience great bridges.

USER NAME =	DESIGNED - ZJB	REVISED
	CHECKED - ACK	REVISED
PLOT SCALE =	DRAWN - AEC	REVISED
PLOT DATE = 03/23/2017	CHECKED - JMH	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PARAPET AND ANCHORAGE SLAB 1
I-74 (EB)/(WB) RETAINING WALL 10
SHEET NO. 12 OF 21 SHEETS

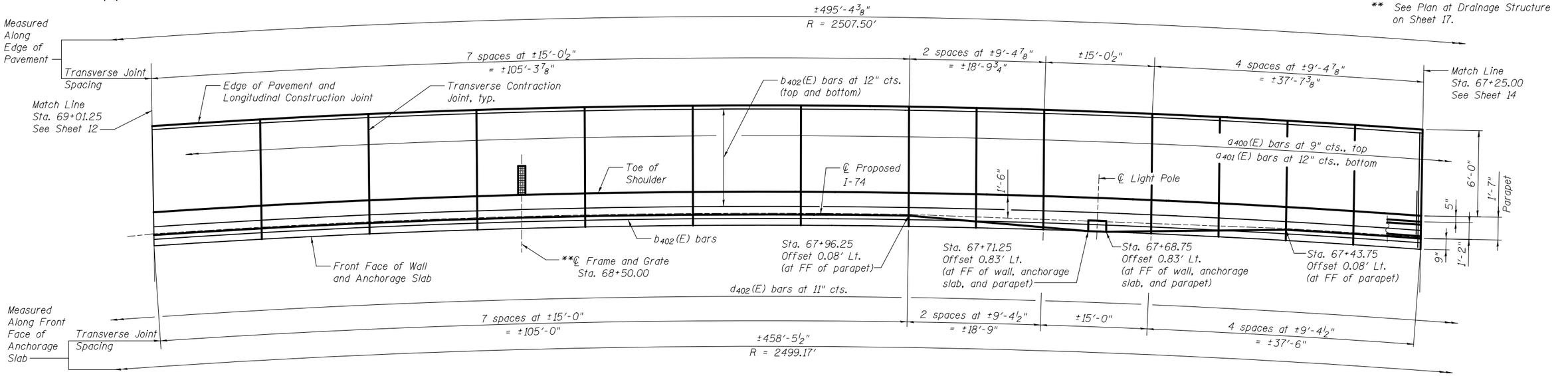
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1	ROCK ISLAND	2042	1379
		CONTRACT NO. 64E26		
	ILLINOIS FED. AID PROJECT			



PARTIAL OUTSIDE ELEVATION

* See Light Pole Blister Detail for additional reinforcement

** See Plan at Drainage Structure on Sheet 17.



PARTIAL PLAN - PARAPET AND ANCHORAGE SLAB

Notes:

For Bill of Material, see Sheet 17.

Stations and offsets on this sheet are given to the front face of wall and are measured from the ℄ Proposed I-74, except as noted.

For typical reinforcement see Section Thru Parapet, Anchorage Slab and Concrete Facing on Sheet 4.

For Sections G and H see Sheet 16.

For Light Pole Blister Detail, see Sheet 18.

Joints in the adjacent pavement shall be aligned with the anchorage slab joints.

MODJESKI and MASTERS
Experience great bridges.

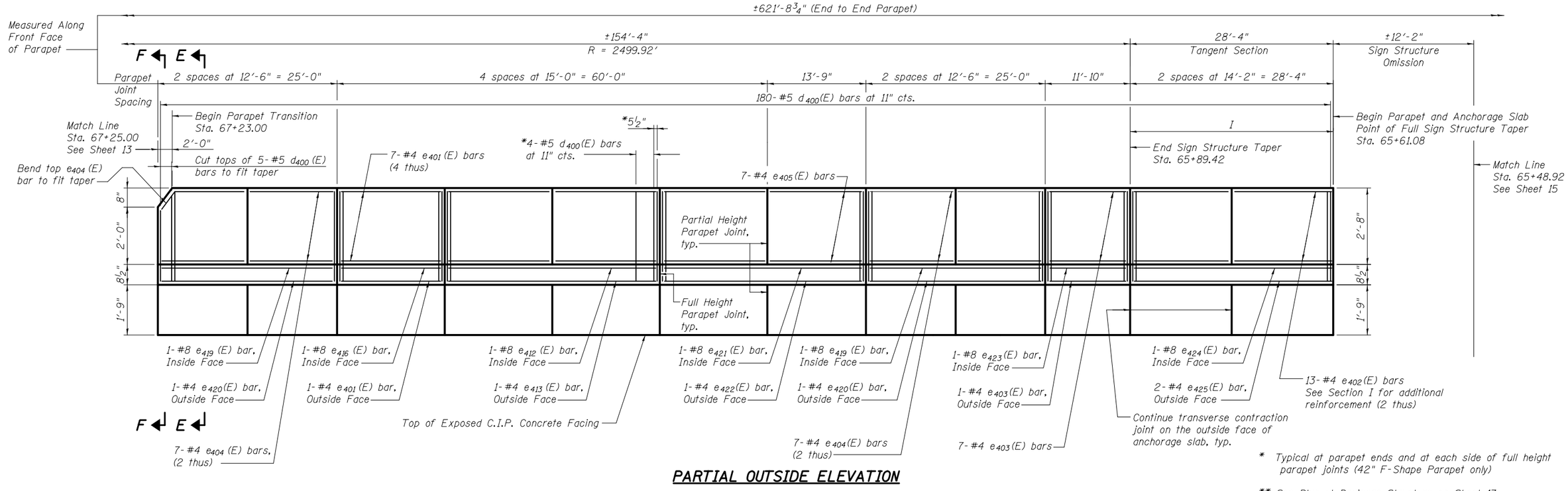
USER NAME =	DESIGNED - ZJB	REVISED
	CHECKED - ACK	REVISED
PLOT SCALE =	DRAWN - AEC	REVISED
PLOT DATE = 03/23/2017	CHECKED - JMH	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PARAPET AND ANCHORAGE SLAB 2
I-74 (EB)/(WB) RETAINING WALL 10

SHEET NO. 13 OF 21 SHEETS

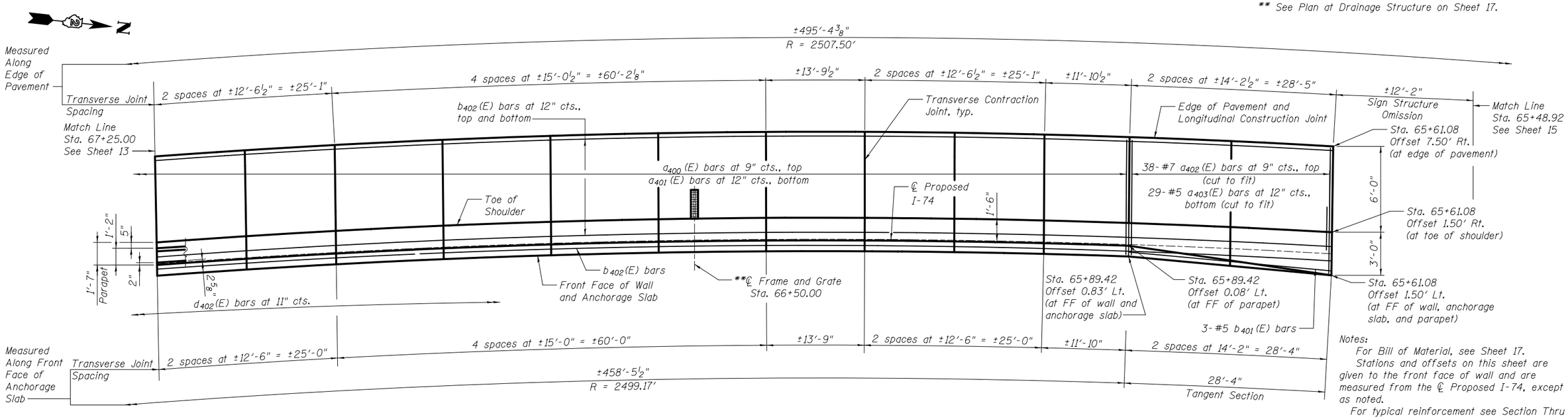
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1	ROCK ISLAND	2042	1380
		CONTRACT NO. 64E26		
	ILLINOIS FED. AID PROJECT			



PARTIAL OUTSIDE ELEVATION

* Typical at parapet ends and at each side of full height parapet joints (42" F-Shape Parapet only)

** See Plan at Drainage Structure on Sheet 17.



PARTIAL PLAN - PARAPET AND ANCHORAGE SLAB

Notes:

For Bill of Material, see Sheet 17.

Stations and offsets on this sheet are given to the front face of wall and are measured from the ℄ Proposed I-74, except as noted.

For typical reinforcement see Section Thru Parapet, Anchorage Slab and Concrete Facing on Sheet 4.

For Sections E-E, F-F, and I, see Sheet 16.

Joints in the adjacent pavement shall be aligned with the anchorage slab joints.

MODJESKI and MASTERS
Experience great bridges.

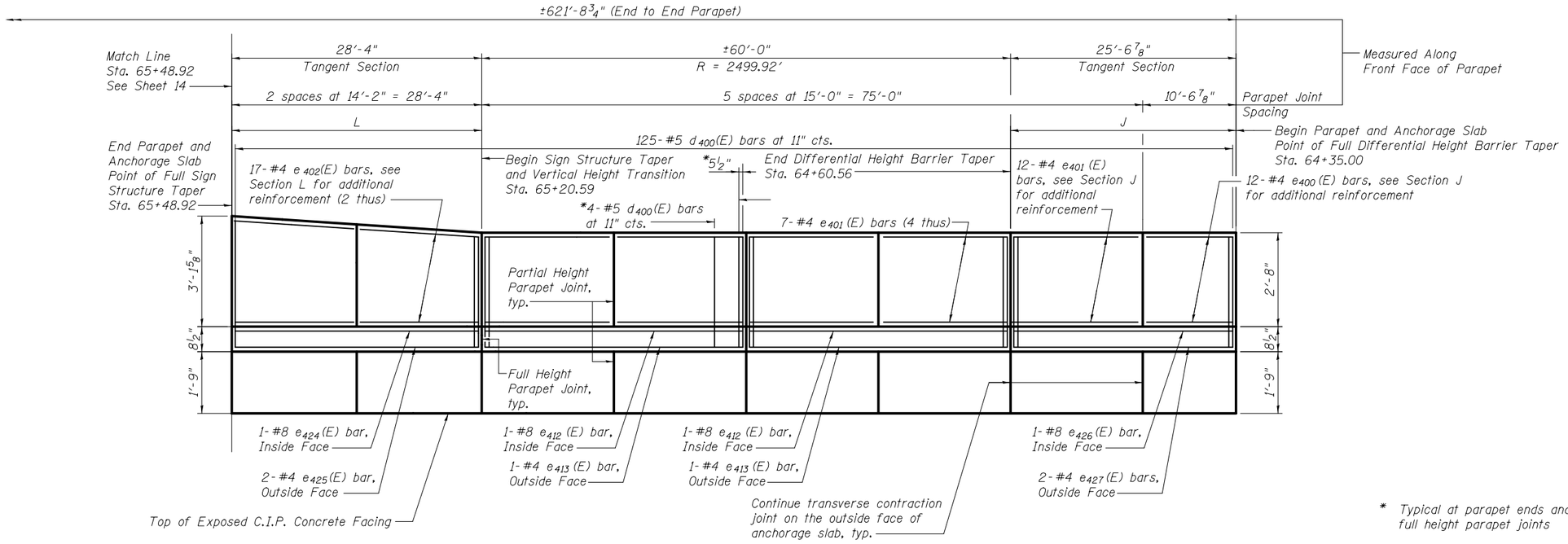
USER NAME =	DESIGNED - ZJB	REVISED
	CHECKED - ACK	REVISED
PLOT SCALE =	DRAWN - AEC	REVISED
PLOT DATE = 03/23/2017	CHECKED - JMH	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PARAPET AND ANCHORAGE SLAB 3
I-74 (EB)/(WB) RETAINING WALL 10

SHEET NO. 14 OF 21 SHEETS

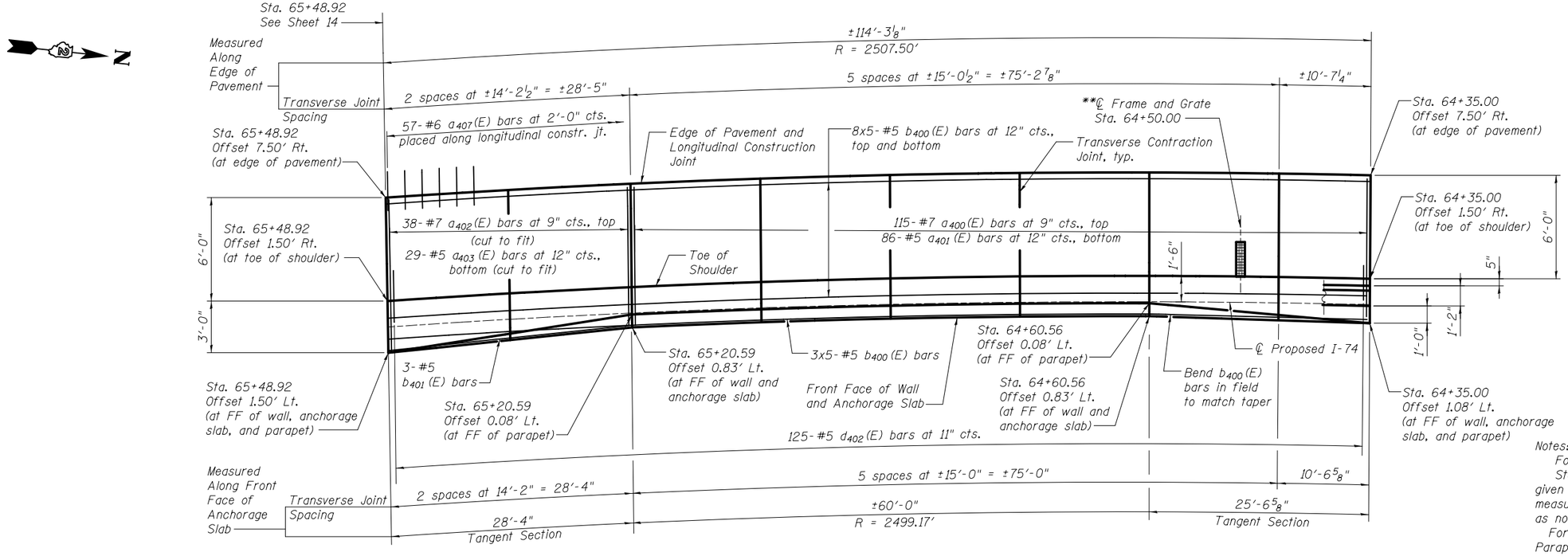
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1	ROCK ISLAND	2042	1381
		CONTRACT NO. 64E26		
	ILLINOIS FED. AID PROJECT			



PARTIAL OUTSIDE ELEVATION

* Typical at parapet ends and at each side of full height parapet joints

** See Plan at Drainage Structure on Sheet 17.



PARTIAL PLAN - PARAPET AND ANCHORAGE SLAB

Notes:

For Bill of Material, see Sheet 17.

Stations and offsets on this sheet are given to the front face of wall and are measured from the ℄ Proposed I-74, except as noted.

For typical reinforcement see Section Thru Parapet, Anchorage Slab and Concrete Facing on Sheet 4.

For Section L and J, see Sheet 16.

Joints in the adjacent pavement shall be aligned with the anchorage slab joints.

MODJESKI and MASTERS
Experience great bridges.

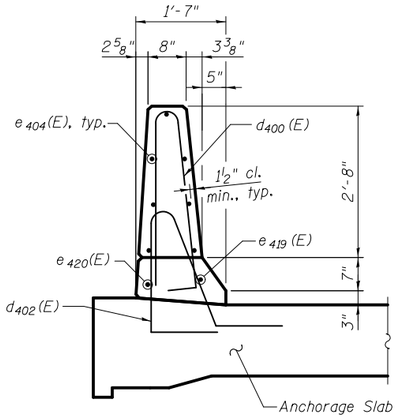
USER NAME =	DESIGNED - ZJB	REVISED
	CHECKED - ACK	REVISED
PLOT SCALE =	DRAWN - AEC	REVISED
PLOT DATE = 03/23/2017	CHECKED - JMH	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PARAPET AND ANCHORAGE SLAB 4
I-74 (EB)/(WB) RETAINING WALL 10

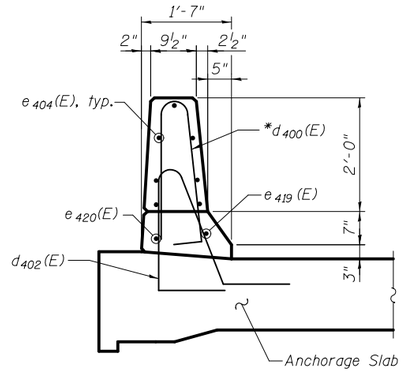
SHEET NO. 15 OF 21 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1	ROCK ISLAND	2042	1382
		CONTRACT NO. 64E26		
	ILLINOIS FED. AID PROJECT			



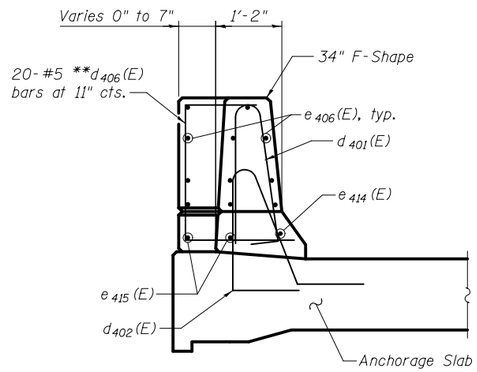
SECTION E-E

Anchorage slab reinforcement not shown for clarity.
Dimensions typical for 42" F-Shape parapet.



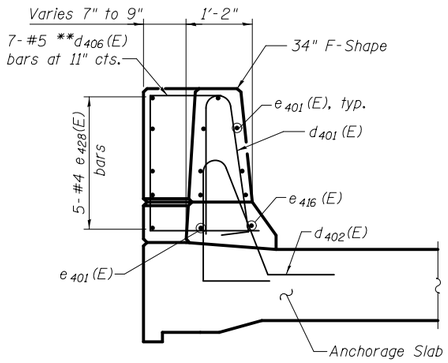
SECTION F-F

Anchorage slab reinforcement not shown for clarity.
Dimensions typical for 34" F-Shape parapet.



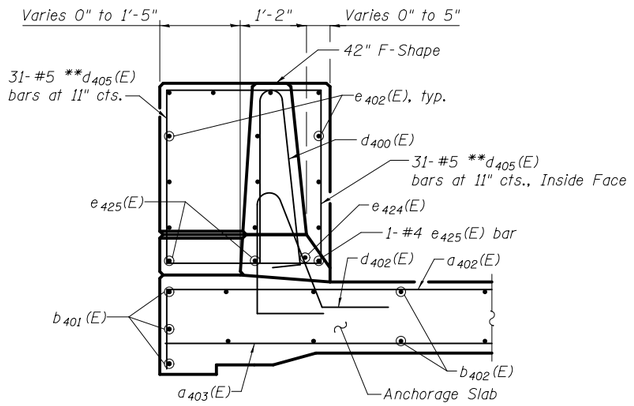
SECTION G

Anchorage slab reinforcement not shown for clarity.

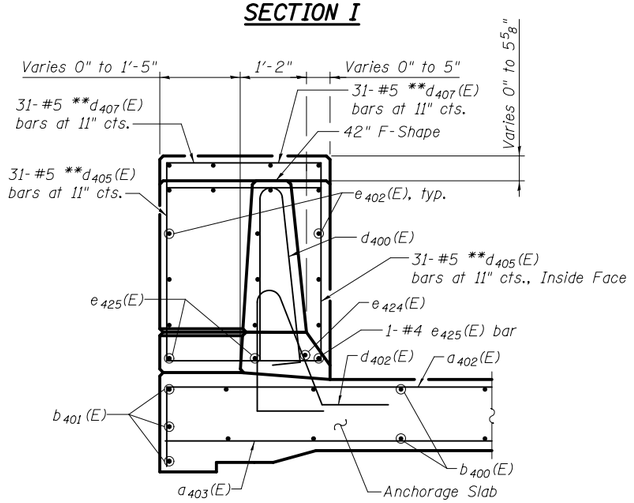


SECTION H

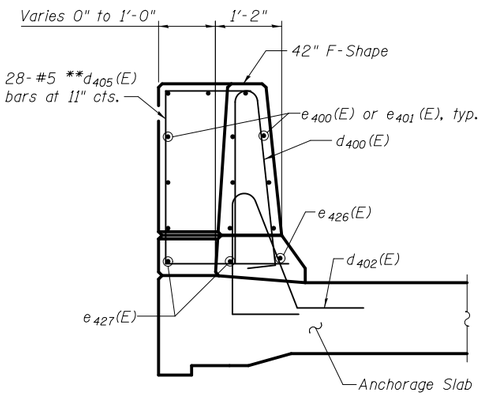
Anchorage slab reinforcement not shown for clarity.



SECTION I



SECTION L



SECTION J

Anchorage slab reinforcement not shown for clarity.

* Cut to Fit in Field 2" Vertical Clr.
** Cut to Fit in Field

Notes:
For Bill of Material, see Sheet 17.
For Section locations see Sheets 13-15.
For typical anchorage slab reinforcement, see Section Thru Parapet, Anchorage Slab and Concrete Facing on Sheet 4.

MODJESKI and MASTERS
Experience great bridges.

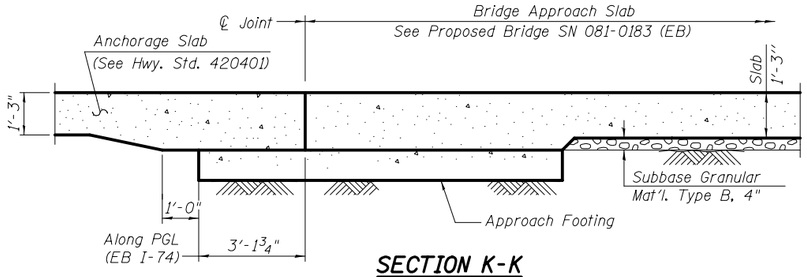
USER NAME =	DESIGNED - ZJB	REVISED
	CHECKED - ACK	REVISED
PLOT SCALE =	DRAWN - AEC	REVISED
PLOT DATE = 03/23/2017	CHECKED - JMH	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

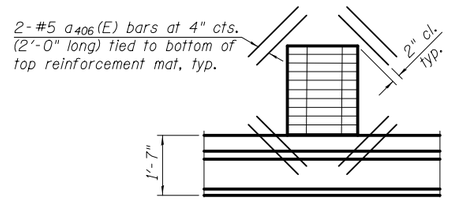
PARAPET AND ANCHORAGE SLAB 5
I-74 (EB)/(WB) RETAINING WALL 10

SHEET NO. 16 OF 21 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1	ROCK ISLAND	2042	1383
		CONTRACT NO. 64E26		
	ILLINOIS	FED. AID PROJECT		



SECTION K-K

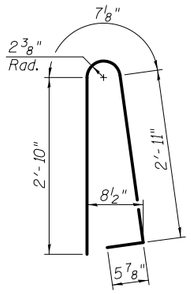


PLAN AT DRAINAGE STRUCTURE

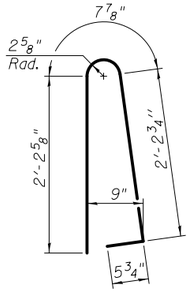
(Cut longitudinal reinforcement to clear drainage structure.)

BAR a400 (E)

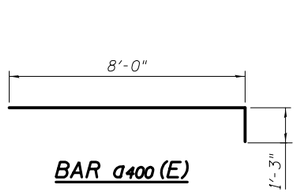
BAR a402 (E)



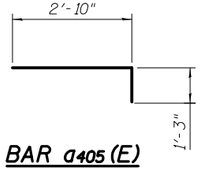
BAR d400 (E)



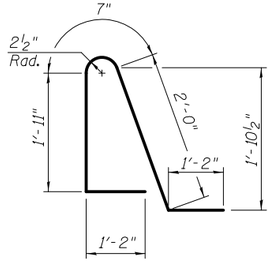
BAR d401 (E)



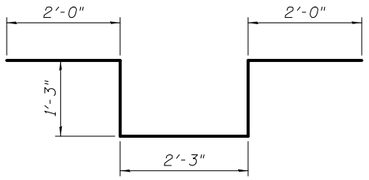
BAR a404 (E)



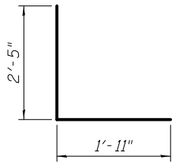
BAR a405 (E)



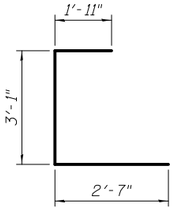
BAR d402 (E)



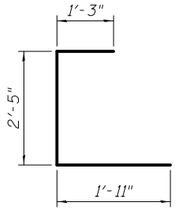
BAR d403 (E)



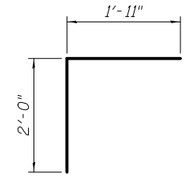
BAR d404 (E)



BAR d405 (E)



BAR d406 (E)



BAR d407 (E)

PARAPET AND ANCHORAGE SLAB
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a400 (E)	740	#7	9'-3"	
a401 (E)	555	#5	8'-0"	
a402 (E)	76	#7	10'-0"	
a403 (E)	58	#5	8'-9"	
a404 (E)	3	#6	7'-9"	
a405 (E)	3	#6	4'-1"	
a406 (E)	32	#5	2'-0"	
a407 (E)	305	#6	2'-0"	
b400 (E)	95	#5	25'-6"	
b401 (E)	6	#5	28'-0"	
b402 (E)	304	#5	28'-6"	
b403 (E)	76	#5	24'-0"	
d400 (E)	393	#5	6'-10"	
d401 (E)	364	#5	5'-7"	
d402 (E)	667	#5	6'-10"	
d403 (E)	5	#6	8'-9"	
d404 (E)	3	#6	4'-4"	
d405 (E)	152	#5	7'-7"	
d406 (E)	54	#5	5'-7"	
d407 (E)	62	#5	3'-11"	
e400 (E)	12	#4	10'-4"	
e401 (E)	166	#4	14'-9"	
e402 (E)	52	#4	13'-10"	
e403 (E)	8	#4	11'-7"	
e404 (E)	35	#4	12'-3"	
e405 (E)	7	#4	13'-6"	
e406 (E)	86	#4	9'-2"	
e407 (E)	14	#4	10'-7"	
e408 (E)	8	#4	8'-6"	
e409 (E)	1	#8	8'-6"	
e410 (E)	1	#8	21'-6"	
e411 (E)	1	#4	21'-6"	
e412 (E)	6	#8	29'-9"	
e413 (E)	6	#4	29'-9"	
e414 (E)	5	#8	18'-6"	
e415 (E)	7	#4	18'-6"	
e416 (E)	7	#8	14'-9"	
e417 (E)	1	#8	27'-3"	
e418 (E)	1	#4	27'-3"	
e419 (E)	2	#8	24'-9"	
e420 (E)	2	#4	24'-9"	
e421 (E)	1	#8	28'-6"	
e422 (E)	1	#4	28'-6"	
e423 (E)	1	#8	11'-7"	
e424 (E)	2	#8	28'-0"	
e425 (E)	6	#4	28'-0"	
e426 (E)	1	#8	25'-4"	
e427 (E)	2	#4	25'-4"	
e428 (E)	10	#4	6'-0"	
Reinforcement Bars, Epoxy Coated		Pound	52,360	
Concrete Superstructure		Cu. Yd.	333.5	

MIN. BAR LAP

#5 bars - 3'-3"

Notes:
For location of Section K-K, see Sheet 12.
For Light Pole Blister reinforcement, see Sheet 18.

MODJESKI and MASTERS
Experience great bridges.

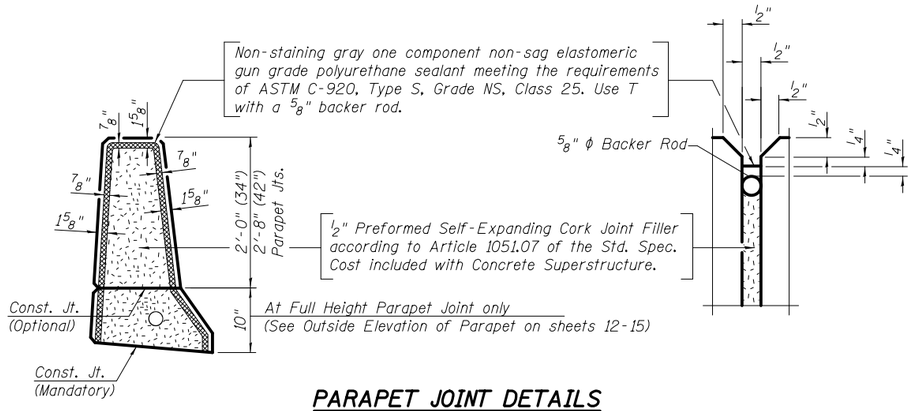
USER NAME =	DESIGNED - ZJB	REVISED
	CHECKED - ACK	REVISED
PLOT SCALE =	DRAWN - AEC	REVISED
PLOT DATE = 03/23/2017	CHECKED - JMH	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

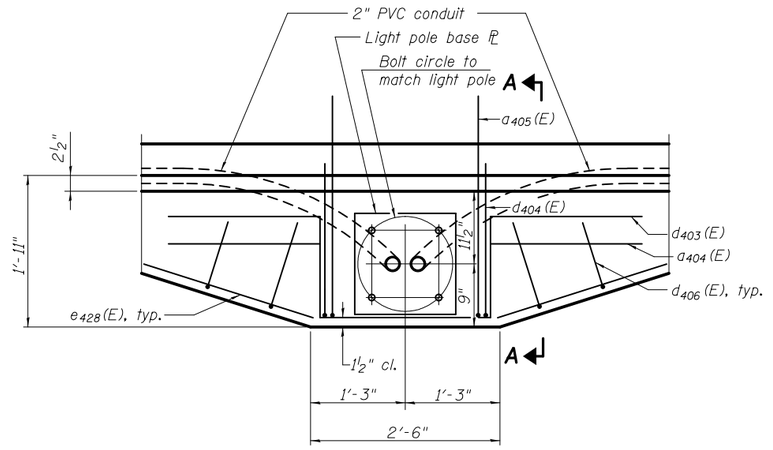
PARAPET AND ANCHORAGE SLAB 6
I-74 (EB)/(WB) RETAINING WALL 10

SHEET NO. 17 OF 21 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1	ROCK ISLAND	2042	1384
		CONTRACT NO. 64E26		
	ILLINOIS FED. AID PROJECT			

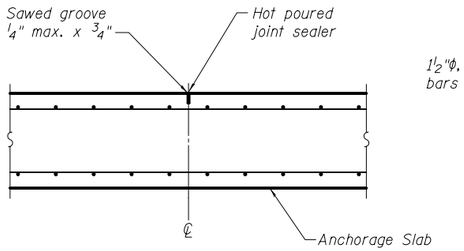


PARAPET JOINT DETAILS

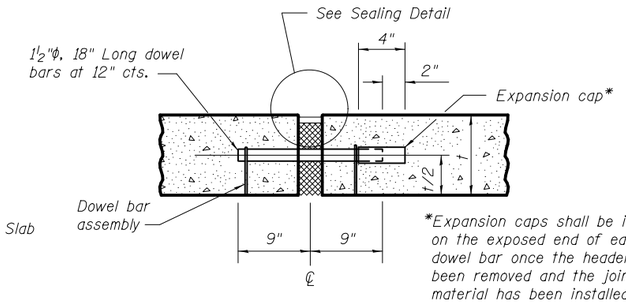


Note:
Cost of anchor rods is included with Concrete Superstructure.

PLAN

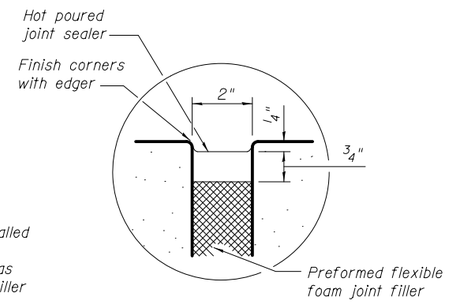


TRANSVERSE CONTRACTION JOINT

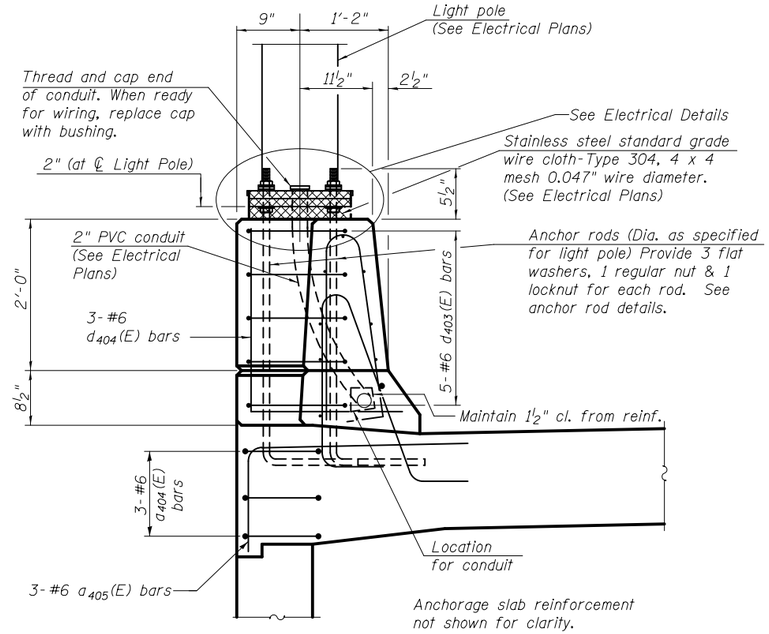


ANCHORAGE SLAB EXPANSION JOINT

Expansion joint and dowel bars included in the cost of Concrete Superstructure.

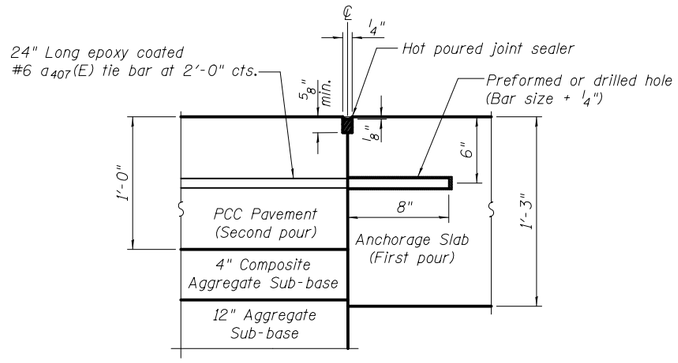


SEALING DETAIL



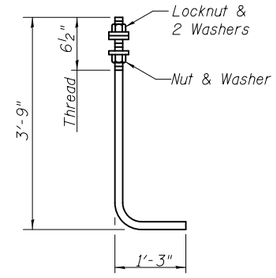
SECTION A-A

LIGHT POLE BLISTER DETAILS



Notes:
The Contractor may substitute at his option, formed in place tie bars provided the bar length is increased to 30" and the tie bar is centered across the joint.
Preformed or drilled hole shall be in the first pour.

LONGITUDINAL CONSTRUCTION JOINT GROUTED-IN-PLACE TIE BAR



ANCHOR ROD

Diameter as specified for light poles (ASTM F 1554 Grade 105). Full length hot dipped galvanized.

MODJESKI and MASTERS Experience great bridges.	USER NAME =	DESIGNED - ZJB	REVISED
		CHECKED - ACK	REVISED
	PLOT SCALE =	DRAWN - AEC	REVISED
	PLOT DATE = 03/23/2017	CHECKED - JMH	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MISCELLANEOUS DETAILS
I-74 (EB)/(WB) RETAINING WALL 10
SHEET NO. 18 OF 21 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1	ROCK ISLAND	2042	1385
		CONTRACT NO. 64E26		
	ILLINOIS FED. AID PROJECT			

Illinois Department of Transportation
Division of Highways
CH2M HILL

SOIL BORING LOG

Page 1 of 1

Date 10/4/07

ROUTE I-74 DESCRIPTION New I-74 Bridge Over Mississippi River - Illinois Approach LOGGED BY F. Abreu

SECTION I-74 Bridge over Mississippi River LOCATION (N=561407.201, E=2459720.599), SEC. 32, TWP. 18N, RNG. 1W, 4th PM

COUNTY Rock Island DRILLING METHOD HSA, CME 55 HAMMER TYPE CME AUTOMATIC

STRUCT. NO. _____
Station _____

BORING NO. ILR1002
Station 64+48
Offset 0' Lt.
Ground Surface Elev. 656.90 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter _____ ft
Upon Completion _____ ft
After ____ Hrs. _____ ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Concrete followed by silty clay Hole offset 13.0' east of proposed boring due to steepness of median boring	655.90			
		5		
Silty Clay (CL-ML) light gray with orange brown stain, dry, non plastic, stiff, crumbly, oxidized, trace medium to fine sand, moderate to weak cementation, possible loess-gumbotil	653.90	5	2.0	
		3	P	
		3		
		2		
Clay With Sand(CL) light gray with orange brown stains, medium stiff, dry to moist, low plasticity, oxidized, moderate cementation, possible transition zone, gumbotil, native soil, trace to little medium to fine sands, trace fine gravels		3	1.2	
		3		
	648.90	5		
orange brown with little olive gray, medium stiff, dry to moist, little coarse to fine sands, very oxidized, moderate to strong cementation, possible gumbotil		3		
		3	3.3	
		4	P	
	-10	4		
Sandy Lean Clay With Gravel (CL) medium brown, dry, medium stiff, few coarse to fine sands, trace coarse to fine subangular to subrounded gravel, slightly oxidized, possible weathered glacial till Partial samples, coarse gravel prevented from obtaining full sample		2		
		4	4.5	
		5	P	
		6		
		3		
		3	1.7	
		6	B	
same as above, stiff, strong cementation, slightly oxidized, glacial till	-15	9		
same as above, olive gray with little orange brown stain and small scattered dark gray pockets, stiff, dry to moist, slightly oxidized, glacial till with strong cementation, trace coarse to fine subangular to subrounded gravels		3		
same as above, uniform olive gray, stiff, dry to moist, unweathered, glacial till		5	4.5	
		7	P	
	-20	8		

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Driller noted rough drilling throughout				
Sandy Lean Clay With Gravel (CL) medium brown, dry, medium stiff, few coarse to fine sands, trace coarse to fine subangular to subrounded gravel, slightly oxidized, possible weathered glacial till Partial samples, coarse gravel prevented from obtaining full sample *(continued)*				
same as above, uniform gray, strongly cemented, stiff, unweathered, glacial till, slight orange brown stains at center of sample	-25	5	2.1	
		7		
		9		
		6		
same as above, very stiff, unweathered, trace to little coarse to fine subangular to subrounded gravels, glacial till	-35	7	3.5-4.0	
		8	P	
Coarse gravel at top prevented from obtaining full sample	620.90	9		
End of Boring				
	-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)

Illinois Department of Transportation
Division of Highways
CH2M HILL

SOIL BORING LOG

Page 1 of 1

Date 10/4/07

ROUTE I-74 DESCRIPTION New I-74 Bridge Over Mississippi River - Illinois Approach LOGGED BY F. Abreu

SECTION I-74 Bridge over Mississippi River LOCATION (N=561332.703, E=2459729.229), SEC. 32, TWP. 18N, RNG. 1W, 4th PM

COUNTY Rock Island DRILLING METHOD HSA, CME 55 HAMMER TYPE CME AUTOMATIC

STRUCT. NO. _____
Station _____

BORING NO. ILR1003
Station 65+23
Offset 0' Lt.
Ground Surface Elev. 660.74 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter _____ ft
Upon Completion _____ ft
After ____ Hrs. _____ ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Concrete followed by silty clay Hole offset 16.0' east of proposed boring location	660.24			
		6		
Silty Clay (CL-ML) gray mottled with orange brown, dry at top to moist at bottom, non plastic, crumbly, oxidized, stiff, trace medium to fine sands at bottom of sample, possible fill, cementation weakens as depth increases		8	4.0-1.5	
		5	P	
		4		
	-5	5		
light brown with gray, moist, low plasticity, medium stiff, oxidized, trace coarse to fine sands, pcssible native soil	654.74	2		
Lean Clay With Sand(CL) olive gray with orange brown veins, dry to moist, low to medium plasticity, medium stiff, oxidized, moderate to strong cementation, little to few coarse to fine sands, pcssible transitional zone, gumbotil		3	0.5	
		4	B	
		4		
		3		
		5	4.5	
		7	P	
	-10	8		
orange brown with gray, dry, stiff, little coarse to fine sands, trace medium to fine subangular to subrounded gravels, very oxidized, strong cementation, possible weathered glacial till		2		
		4	1.2	
		6		
		8		
same as above, olive gray with orange brown, dry to moist, few coarse to fine sands, pockets of dark brown sandy silt towards bottom of sample, possible weathered glacial till, slightly oxidized, trace medium to fine gravels		3		
		5	4.0	
		7	P	
	-15	9		
same as above, uniform olive gray with little orange brown, slightly oxidized, stiff, dry to moist, weathered glacial till				
		3		
same as above, uniform olive gray, dry to moist, stiff, unweathered, strongly cemented glacial till		5	1.6	
		7		
	-20	8		

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
	637.74			
Sandy Lean Clay(CL) unform gray, dry to moist, stiff, few coarse to fine sands, trace medium to fine subangular to subrounded gravel, scattered pockets of sand and gravel, unweathered glacial till		3		
		5	2.8	10.0
		7	P	
	-25	10		
same as above, occasional small yellowish orange and dark gray silty pockets, possible unweathered till		3		
		6	2.0	
		7	B	
		10		
	-30			
same as above, uniform olive gray, strongly cemented, stiff, unweathered glacial till		3		
		6	3.8	
		8	P	
	620.74	9		
End of Boring	-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)

Illinois Department of Transportation
Division of Highways
CH2M HILL

SOIL BORING LOG

Page 1 of 1

Date 10/3/07

ROUTE I-74 DESCRIPTION New I-74 Bridge Over Mississippi River - Illinois Approach LOGGED BY F. Abreu

SECTION I-74 Bridge over Mississippi River LOCATION (N=561184.648, E=2459753.172), SEC. 32, TWP. 18N, RNG. 1W, 4th PM

COUNTY Rock Island DRILLING METHOD HSA, CME 55 HAMMER TYPE CME AUTOMATIC

STRUCT. NO. _____
Station _____

BORING NO. ILR1005
Station 66+73
Offset 0' Lt.
Ground Surface Elev. 666.85 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter _____ ft
Upon Completion _____ ft
After ____ Hrs. _____ ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Concrete followed by medium brown silty clay Boring offset 22.0' east of proposed boring location due to steepness of median slope	666.35			
		3		
No Recovery	663.85	6		
		6		
		8		
Silty Clay With Sand(CL-ML) medium brown, dry, non plastic, medium stiff, mottled with dark gray and orange brown, little to few coarse to fine sands, possible fill Driller notes very rough drilling and heavy chattering, possible concrete structure		3		
		50/5		
	-5			
dark greenish gray with dark gray, dry to moist, non plastic, crumbly, very stiff, little to few coarse to fine sands, possible miscellaneous fill		5		
		9	3.0	
		12	P	
		6		
Coarse to fine gravels at top of sample, possible concrete fragments	638.85	5		
same as above, few coarse to fine sands, mottled, dark gray with dark greenish gray, stiff, coarse to fine gravel and sand sized brick fragments at very top and bottom 1" of sample, possible miscellaneous fill, crumbly Reddish brick fragments at bottom of sample		4	2.8	17.0
		5	P	
	-10	10		
	655.85	3		
		50/4	2.0	
			P	
Silty Clay (CL-ML) dark greenish gray with dark gray mottled, reddish brick fragments at top of sample, trace medium to fine sands, possible miscellaneous fill, dry to moist, non plastic, crumbly Reddish brick fragments at top of sample, possible coarse gravel to fine cobble at 11'10" at spoon refusal	653.85	3		
		4	2.0-4.0	
		5	P	
	-15	7		
Silty Clay With Sand(CL-ML) dark greenish gray mottled with dark gray, dry, non plastic, stiff, crumbly, few coarse to fine sands throughout, occasional wood matter and reddish gravel sized	648.85	4		
		5	0.3	31.0
		3	B	
	-20	3		

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
brick fragments, trace medium to fine angular gravels, possible miscellaneous fill				
Silty Clay (CL-ML) dark olive gray, moist to wet, medium plasticity, stiff, occasional sand lenses throughout, medium to fine sands, occasional root matter, little medium to fine sand throughout, possible transition to native soil or old topsoil *(continued)*		2		
		3	1.8	23.0
		3	P	
	-25	3		
olive gray with medium brown, moist at top to dry at bottom, medium stiff, low to medium plasticity, weakly cemented at top to moderately cemented at bottom, occasional root strands, trace medium to fine sands and medium to fine gravels, possible fill				
	638.85	5		
Auger deflected too much to obtain shelby tube		9	3.0	11.0
		10	B	
Sandy Lean Clay With Gravel (CL) medium brown with orange brown pockets, dry to moist, non plastic, few coarse to fine sands, little coarse to fine subrounded gravels, slightly oxidized, possible glacial till, strong cementation	-30	13		
same as above, uniform olive gray, dry to moist, very stiff, unweathered glacial till, very strong cementation		5		
		8	2.4	
		10	B	
	631.85	15		
	-35			
End of Boring				
	-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)

MODJESKI and MASTERS
Experience great bridges.

USER NAME =	DESIGNED - ZJB	REVISED
	CHECKED - ACK	REVISED
PLOT SCALE =	DRAWN - AEC	REVISED
PLOT DATE = 03/23/2017	CHECKED - JMH	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS 1
I-74 (EB)/(WB) RETAINING WALL 10

SHEET NO. 19 OF 21 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1	ROCK ISLAND	2042	1386
		CONTRACT NO. 64E26		
	ILLINOIS FED. AID PROJECT			

Illinois Department of Transportation
Division of Highways
CH2M HILL

SOIL BORING LOG

Date 11/21/05

ROUTE I-74 DESCRIPTION New I-74 Bridge Over Mississippi River - Illinois Approach LOGGED BY L. Hunt

SECTION I-74 Bridge over Mississippi River LOCATION (N=561059.76, E=2459780.972), SEC. 32, TWP. 18N, RNG. 1W, 4th PM

COUNTY Rock Island DRILLING METHOD HSA, CME 55 HAMMER TYPE CME AUTOMATIC

STRUCT. NO.
Station

BORING NO. SB1036
Station 68+01
Offset 1' Lt.
Ground Surface Elev. 671.93 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter ft
Upon Completion ft
After Hrs. ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Silty Clay (CL)	3		
Silty Clay, trace organics, gray brown and brown, dry to moist, soft, homogenous	5	1.1	
669.93	7	P	
Silt (ML)	6		
Silt (elastic), trace clay, gray brown and brown, dry to moist, loose to medium dense, homogenous	8	0.8	
	9	S	
	7		
Silt (elastic), trace clay, gray brown and brown, dry to moist, loose to medium dense, homogenous	5		
-5	7	0.6	
	8	S	
	8		
Silt (elastic), trace clay, light gray brown, mottled light brown, moist, loose to medium dense, homogenous	4		
	6	0.8	
	7	S	
663.93	6		
Silty Clay (CL-ML)	4		
Silt (elastic), trace clay, gray brown and brown, dry to moist, loose to medium dense, homogenous	4	0.7	
	5	P	
-10	5		
		2.7	21.6
		P	
	2		
Silt (elastic), trace clay, gray brown and brown, dry to moist, loose to medium dense, homogenous	2	0.8	
	2	P	
	2		
-15		0.9	
		P	
-20			

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Silty Clay (CL-ML)	2		
Silt (elastic), trace clay, gray brown and brown, dry to moist, loose to medium dense, homogenous *(continued)*	3	2.9	
	4	P	
Silty Clay, trace sand, gray brown, mottled orange brown, moist, stiff, homogenous	5		
646.93 -25			
Clay (CL)	3		
Clay, trace sand and gravel, gray brown, moist, stiff, homogenous, till	3	0.9	
	4	P	
	5		
	5		
	3		
	5	1.8	
	7	P	
	7		
-35	5		
	9	2.0	
	8	P	
	9		
-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)

Illinois Department of Transportation
Division of Highways
CH2M HILL

SOIL BORING LOG

Date 11/21/05

ROUTE I-74 DESCRIPTION New I-74 Bridge Over Mississippi River - Illinois Approach LOGGED BY L. Hunt

SECTION I-74 Bridge over Mississippi River LOCATION (N=561059.76, E=2459780.972), SEC. 32, TWP. 18N, RNG. 1W, 4th PM

COUNTY Rock Island DRILLING METHOD HSA, CME 55 HAMMER TYPE CME AUTOMATIC

STRUCT. NO.
Station

BORING NO. SB1036
Station 68+01
Offset 1' Lt.
Ground Surface Elev. 671.93 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter ft
Upon Completion ft
After Hrs. ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Clay (CL)	3		
Clay, trace sand and gravel, gray brown, moist, stiff, homogenous, till *(continued)*	5	1.8	
	9	P	
	8		
-45			
	5		
	7	4.5	
	11	P	
	12		
	5		
	7	3.3	
	9	P	
621.93 -50	10		
End of Boring			
-55			
-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)

Illinois Department of Transportation
Division of Highways
CH2M HILL

SOIL BORING LOG

Date 10/3/07

ROUTE I-74 DESCRIPTION New I-74 Bridge Over Mississippi River - Illinois Approach LOGGED BY F. Abreu

SECTION I-74 Bridge over Mississippi River LOCATION (N=560987.084, E=2459799.624), SEC. 32, TWP. 18N, RNG. 1W, 4th PM

COUNTY Rock Island DRILLING METHOD HSA, CME 55 HAMMER TYPE CME AUTOMATIC

STRUCT. NO.
Station

BORING NO. ILR1007
Station 68+76
Offset 0' Lt.
Ground Surface Elev. 674.77 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter ft
Upon Completion ft
After Hrs. ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Grass Matter			
followed by brown silty clay topsoil 673.77			
Silty Clay (CL-ML)	3		
light gray with orange brown stains, dry, non plastic, stiff, crumbly, very oxidized, possible native soil, loess	4	2.3	
	4	P	
	5		
light olive gray with gray, moist to wet, medium stiff, low to medium plasticity, possible native soil, loess, slow dilatancy 651.57	1		
	2	0.3	
	3		
-5	3		
light gray with light brown, dry to moist, slow to medium dilatancy, medium stiff, orange brown veins, oxidized, trace fine sands at bottom of sample (possible sand lense), possible native soil, loess	1		
	3	0.4	24.0
	4		
	5		
Rimac: 2.625" 2.125", Qu = 24 lbs, vertical cracks		2.0	
uniform yellowish orange, dry to moist, non plastic, crumbly, bottom 2" of tube fell out while extracting tube	-10		
gray to dark gray, moist to dry at bottom, medium stiff, crumbly at center of sample, low to medium plasticity at top, non plastic as depth increased, possible transition zone, possible loess	1		
	2	0.9	31.0
	3		
	4		
660.77			
Lean Clay With Sand (CL)	2		
uniform gray, dry to moist, low plasticity, medium stiff, trace medium to fine sands throughout, unweathered, possible gumbotil	-15 3	0.6	
	4		
uniform light bluish gray, dry, little to few medium to fine sands, unweathered glacial till		2.3	
		P	
light bluish gray with olive gray, moist to wet, medium plasticity, little medium to fine sands, trace coarse sands, occasional 655.57	1		
	2	0.6	
	6	B	
-20	6		

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
scattered sand lenses and sand pockets			
Water encountered at 18.0' bgs while sampling			
Clayey Sand (SC)			
uniform olive gray, wet, medium dense to loose, medium to fine sands with clay and silt, trace coarse sands, possible sand layer in till carrying the water table *(continued)*	5		
	10	1.4	
	4	B	
-25	4		
Sandy Lean Clay (CL)			
uniform light gray, moist to wet, stiff, medium plasticity, some silty at middle of sample, soil stiffens as depth increases, possible transition zone, glacial till, unweathered with scattered sand seams			
uniform gray, moist, stiff, unweathered, stiffness increases as depth increases, possible unweathered glacial till	4		
	5	1.3	
	8		
-30	9		
uniform olive gray, dry to moist, stiff, few coarse to fine sands, trace medium to fine subangular to subrounded gravel, unweathered, glacial till			
	3		
	5	3.0	
	7	P	
-35	11		
same as above, uniform olive gray to gray, unweathered glacial till	4		
	5	1.9	
	9	B	
634.77 -40	10		
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)

MODJESKI and MASTERS
Experience great bridges.

USER NAME =	DESIGNED - ZJB	REVISED
	CHECKED - ACK	REVISED
PLOT SCALE =	DRAWN - AEC	REVISED
PLOT DATE = 03/23/2017	CHECKED - JMH	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS 2
I-74 (EB)/(WB) RETAINING WALL 10
SHEET NO. 20 OF 21 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1	ROCK ISLAND	2042	1387
		CONTRACT NO. 64E26		
	ILLINOIS FED. AID PROJECT			

Illinois Department of Transportation
Division of Highways
CH2M HILL

SOIL BORING LOG

Date 10/3/07

ROUTE I-74 DESCRIPTION New I-74 Bridge Over Mississippi River - Illinois Approach LOGGED BY F. Abreu

SECTION I-74 Bridge over Mississippi River LOCATION (N=560843.866, E=2459844.167), SEC. 32, TWP. 18N, RNG. 1W, 4th PM

COUNTY Rock Island DRILLING METHOD HSA, CME 55 HAMMER TYPE CME AUTOMATIC

STRUCT. NO.
Station
BORING NO. ILR1009
Station 70+26
Offset 0' Lt.
Ground Surface Elev. 680.19 ft

Surface Water Elev. ft
Stream Bed Elev. ft
Groundwater Elev.:
First Encounter ft
Upon Completion ft
After Hrs. ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Description
679.19				**Grass Matter** followed by brown silty clay topsoil Hole offset 25.0' east of proposed boring location due to steepness of median slope
	3			
	5	4.0		**Sandy Silty Clay(CL)**
	6	P		olive gray mottled with brown and
	7			dark gray, dry to moist, stiff, few
	2			coarse to fine sands, strong
	3	3.8		cementation, possible fill, trace
	5	P		coarse to fine subangular to
-5	5			subrounded gravels Bag Sample B1: 1.0'-4.0'
				olive gray with yellowish orange
	3			stains, dry to moist, stiff, few
	4	0.8		coarse to fine sands, possible fill
	6			same as above, very crumbly, dry,
	9			silty clay at bottom 2" of sample,
672.19				occasional root strands, possible old topsoil with fill
	2			**Silty Clay(CL-ML)**
	3	0.4		gray with light brown streaks,
	3			moist to wet, medium plasticity,
-10	4			medium stiff, slightly oxidized, medium dilatancy, possible native soil, loess
				same as above, low to medium
		1.0		plasticity, slightly oxidized,
		P		possible loess
	1			same as above, light brown with
	2	0.4		gray, moist to wet, medium to
	3	B		rapid dilatancy, medium stiff,
-15	3			slightly oxidized, mottled with dark brown, possible loess
				bottom of tube, brown, dry to
				moist, non plastic, crumbly, trace
				fine sands, possible transition zone
662.19				Bottom 2" of sample fell out of shelby tube
	3			
	4	0.8		
	5			
-20	7			
				Lean Clay With Sand(CL) uniform olive gray with orange brown veins, dry to moist, stiff, moderate to strong cementation, little to trace coarse to fine sands, possible gumbotil *(continued)*
657.19				
	5			**Sandy Lean Clay Trace Gravel (CL)**
	9	1.1		light to medium brown, with orange
	10			brown stains, dry to moist, very
-25	14			stiff, little to few coarse to fine sands, trace medium to fine subangular to subrounded gravel, weathered, glacial till, scattered sand lenses
	5			light gray with olive gray, dry to
	8	4.5		moist, very stiff, strong
	10	P		cementation, unweathered glacial
-30	13			till, fine sand lense at bottom of sample
	4			no recovery
	6			
	9			
-35	11			
	3			uniform olive gray, dry to moist,
	5	1.6		stiff, few coarse to fine sands, 1/4"
	8	B		sand pocket in center of sample,
640.19 -40	10			unweathered, possible glacial till

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)

Illinois Department of Transportation
Division of Highways
CH2M HILL

SOIL BORING LOG

Date 10/3/07

ROUTE I-74 DESCRIPTION New I-74 Bridge Over Mississippi River - Illinois Approach LOGGED BY F. Abreu

SECTION I-74 Bridge over Mississippi River LOCATION (N=560843.866, E=2459844.167), SEC. 32, TWP. 18N, RNG. 1W, 4th PM

COUNTY Rock Island DRILLING METHOD HSA, CME 55 HAMMER TYPE CME AUTOMATIC

STRUCT. NO.
Station
BORING NO. ILR1009
Station 70+26
Offset 0' Lt.
Ground Surface Elev. 680.19 ft

Surface Water Elev. ft
Stream Bed Elev. ft
Groundwater Elev.:
First Encounter ft
Upon Completion ft
After Hrs. ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Description
				with sand seams/pockets
				End of Boring
-45				
-50				
-55				
-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)

MODJESKI and MASTERS
Experience great bridges.

USER NAME =	DESIGNED - ZJB	REVISED	
	CHECKED - ACK	REVISED	
PLOT SCALE =	DRAWN - AEC	REVISED	
PLOT DATE = 03/23/2017	CHECKED - JMH	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS 3
I-74 (EB)/(WB) RETAINING WALL 10

SHEET NO. 21 OF 21 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1	ROCK ISLAND	2042	1388

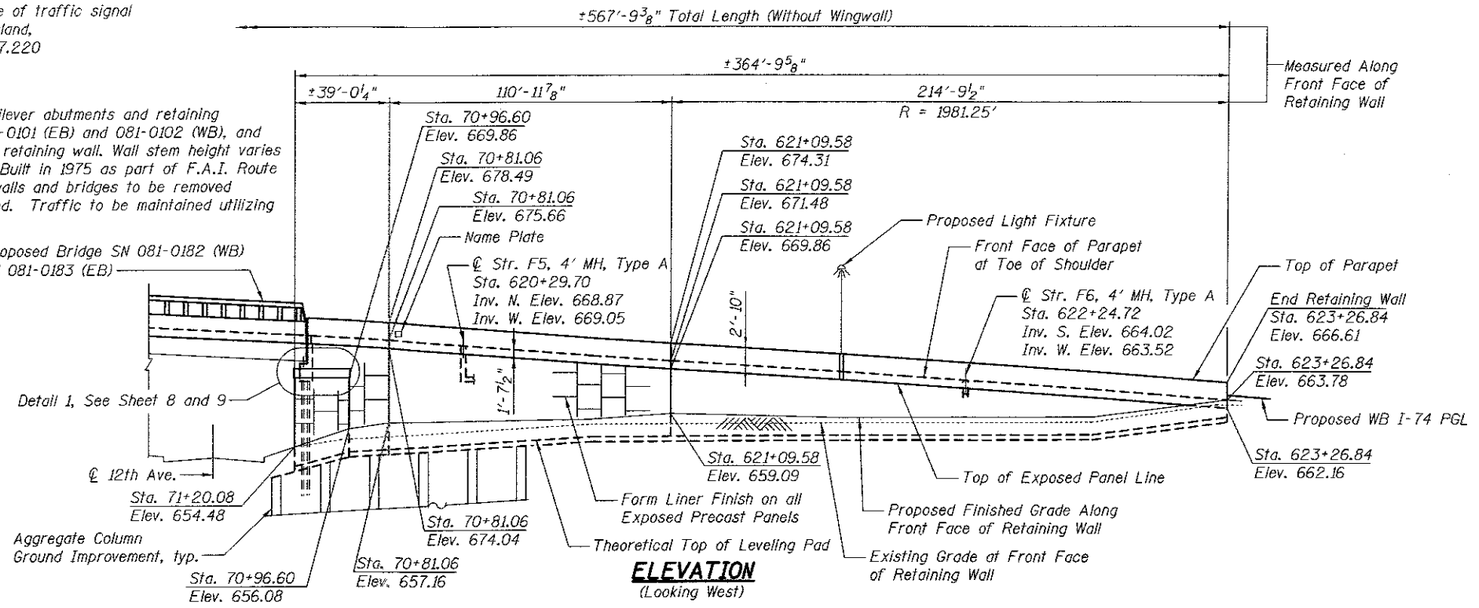
CONTRACT NO. 64E26

ILLINOIS FED. AID PROJECT

Benchmark No. 587:
Chiseled "X" on West side of traffic signal foundation in concrete island.
Elevation NAVD 88 = 627.220

Existing Structure:
Pile supported, CIP cantilever abutments and retaining wall, Structure No.'s 081-0101 (EB) and 081-0102 (WB), and pile supported, CIP N.E. retaining wall. Wall stem height varies from 14'-8" to 21'-2". Built in 1975 as part of F.A.I. Route 74. Existing retaining walls and bridges to be removed (as required) and replaced. Traffic to be maintained utilizing stage construction.

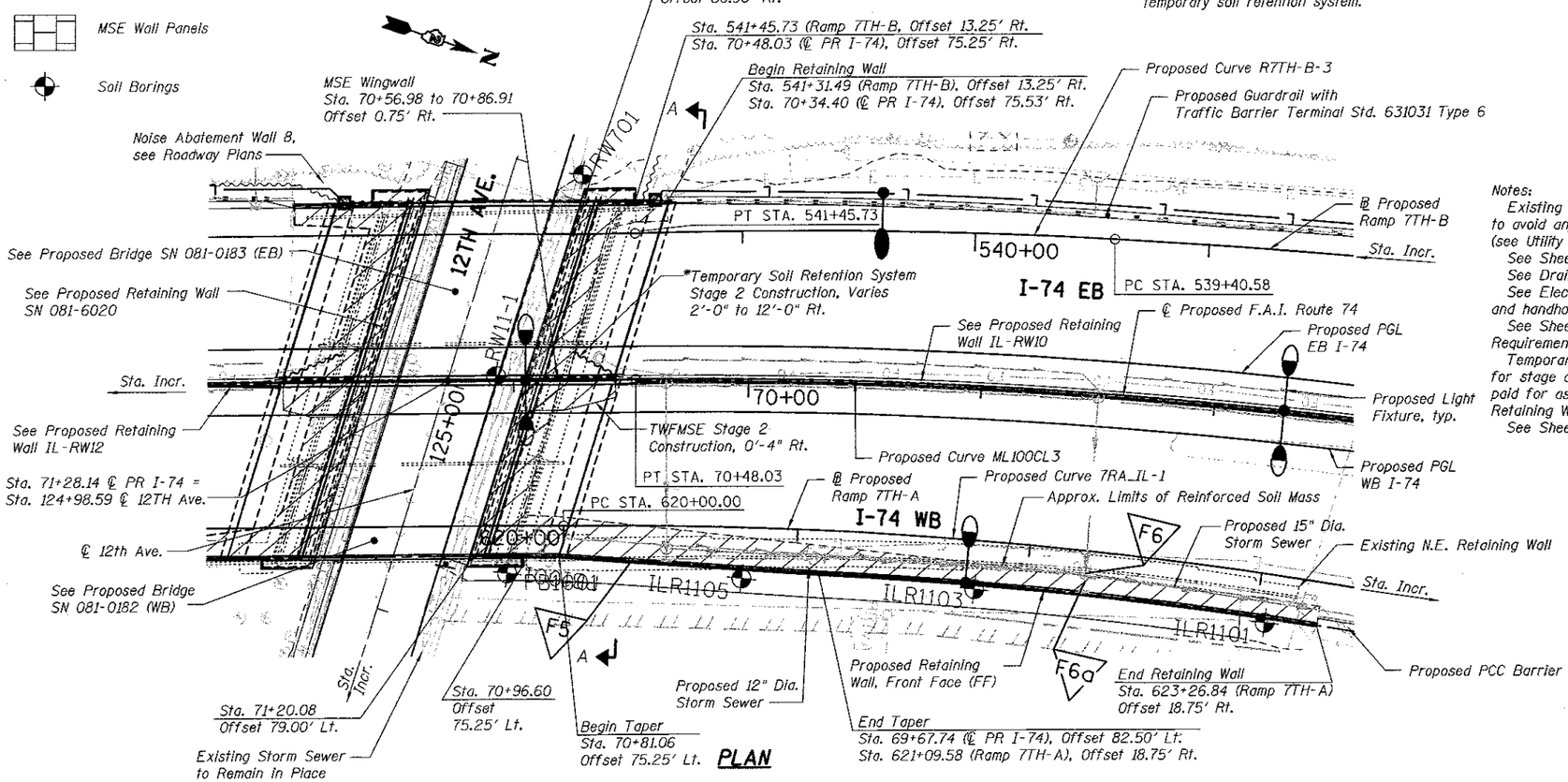
No Salvage.



ELEVATION
(Looking West)

LEGEND

- Reinforced Soil Mass
- MSE Wall Panels
- Soil Borings



PLAN

* See SN 081-0182 and SN 081-0183 for temporary soil retention system.

CURVE DATA

PR Curve ML100CL3
PI STA = 66+05.62
Δ = 20° 30' 00" (LT)
D = 2° 17' 31"
R = 2,500.00'
T = 452.07'
L = 894.48'
E = 40.55'
e = 4.9%
T.R. = N/A
S.E. RUN = 422.89'(I), 410.49'(O)
PC STA = 61+53.55
PT STA = 70+48.03

PR Curve 7RA_IL-1
PI STA = 623+55.18
Δ = 20° 08' 26" (RT)
D = 2° 51' 53"
R = 2,000.00'
T = 355.18'
L = 703.04'
E = 31.29'
e = 5.4%
T.R. = N/A
S.E. RUN = 63'(I), 156'(O)
PC STA = 620+00.00
PT STA = 627+03.04

PR Curve R7TH-B-3
PI STA = 540+43.21
Δ = 4° 34' 58" (LT)
D = 2° 14' 02"
R = 2,564.81'
T = 102.63'
L = 205.15'
E = 2.05'
e = 4.9%
T.R. = N/A
S.E. RUN = 57'
PC STA = 539+40.58
PT STA = 541+45.73

DESIGN SPECIFICATIONS

2002 AASHTO
Standard Specifications for Highway Bridges

DESIGN STRESSES

FIELD UNITS
f'_c = 3,500 psi
f_y = 60,000 psi (Reinforcement)

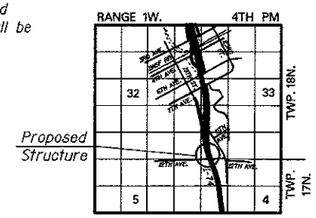
PRECAST UNITS
f'_c = 4,500 psi (Precast Face Panels)

INDEX OF SHEETS

JERILYN M. HASSARD
081-006521
LICENSED STRUCTURAL ENGINEER OF
ILLINOIS
Jerilyn M. Hassard
03-23-17
JERILYN M. HASSARD
EDWARDSVILLE, ILLINOIS
ILLINOIS LICENSED STRUCTURAL ENGINEER NO. 081-006521
EXPIRES 11/30/2018

Notes:
Existing utilities shown will be relocated by others to avoid any conflicts during construction except as noted (see Utility Plans).
See Sheet 5 for Section A-A.
See Drainage and Utilities Plans for inlet details.
See Electrical Plans for lighting, conduit, junction box, and handhole details.
See Sheet 2 for Ground Improvement Performance Requirements.
Temporary Wire Faced MSE Wall (TWFMSE) required for stage construction shall remain in place and shall be paid for as Temporary Mechanically Stabilized Earth Retaining Wall.
See Sheet 7 for MSE Wingwall.

APPROVED
For Structural Adequacy Only
Engineer of Bridges & Structures



LOCATION SKETCH

GENERAL PLAN AND ELEVATION
F.A.I. ROUTE 74 SEC. (81-1)R-1
ROCK ISLAND COUNTY
I-74 Sta. 70+34.40 (EB) to RAMP 7TH-A Sta. 623+26.84
STRUCTURE NO. 081-6017 (RETAINING WALL 11)

MODJESKI and MASTERS Experience great bridges.	USER NAME =	DESIGNED - YSS	REVISED
		CHECKED - JMH	REVISED
	PLOT SCALE =	DRAWN - AEC	REVISED
	PLOT DATE = 03/23/2017	CHECKED - JMH	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION
I-74 (EB)/(WB) & RAMP 7TH-A RETAINING WALL 11
STRUCTURE NO. 081-6017
SHEET NO. 1 OF 18 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1	ROCK ISLAND	2042	1389
		CONTRACT NO. 64E26		
	ILLINOIS FED. AID PROJECT			

GENERAL NOTES

1. Reinforcement bars designated (E) shall be epoxy coated.
2. Wall stations and offsets are given to the front face (FF) of the wall and are measured from baseline of Ramp 7TH-A and centerline of F.A.I. Route 74, except as noted. FF of the wall is to be considered edge of panel, form liner or C.I.P. facing.
3. See Special Provision for Mechanically Stabilized Earth Retaining Walls, Aggregate Column Ground Improvement, and Temporary Mechanically Stabilized Earth Retaining Walls for design and construction requirements.
4. For existing soils laboratory data, see Geotechnical Investigation Laboratory Data Special Provision.
5. In areas where ground improvements are not required, the native soils should be inspected when the excavation reaches the base of the proposed wall. Any soft or otherwise unsuitable material should be removed and replaced with rock fill, as determined by the Engineer. Removals shall be paid for as Removal and Disposal of Unsuitable Material for Structures. Rock fill shall be paid for as Rock Fill.
6. Removal of the existing N.E. retaining wall shall be paid for as Concrete Removal.
7. The piles for SN 081-0182 and SN 081-0183 are located within the reinforced soil mass. Coordination is required for the installation of pile sleeves within the reinforced soil mass. See SN 081-0182 and SN 081-0183 plans for additional pile requirements.
8. Wall system supplier shall coordinate proposed wall configuration with Aggregate Column Ground Improvement subcontractor.
9. Wall construction shall not begin until after Aggregate Column Ground Improvement has been completed in the area of the new wall.
10. See SN 081-0182 and SN 081-0183 plans for maskwall details.
11. All concrete for the C.I.P. facing with a form liner textured surface shall be self-consolidating concrete meeting the requirements of Section 1020 of the Standard Specifications. This work shall be included in the cost of the concrete used and no additional compensation will be allowed.

MSE WALL SETTLEMENT

1. The Top of Exposed Panel Elevations shown on these plans are final elevations after any settlement.
2. For MSE wall on top of the aggregate columns, the wall settlement will be determined by the ground improvement design. The wall system supplier shall coordinate with Aggregate Column Ground Improvement subcontractor to accommodate this settlement in the wall design.
3. For MSE wall outside the ground improvement limits, 1.5 inches of settlement are anticipated from I-74 Sta. 70+50.00 (WB) to Ramp 7TH-A Sta. 623+26.84. The wall system supplier shall take appropriate measures to accommodate this settlement in the wall design.

DRAINAGE STRUCTURE TABLE

STRUCTURE	STATION	SIZE AND TYPE	INVERT
STR F5a	620+44.40	3' Inlet Type B	Inv. W. Elev. 668.50
STR F5	620+44.40		Inv. N. Elev. 667.80
			Inv. W. Elev. 667.80
			Inv. E. Elev. 668.40
STR F6a	622+24.72	3' Inlet Type B	Inv. W. Elev. 659.40
STR F6	622+24.72	4' MH Type A	Inv. N. Elev. 659.30
			Inv. S. Elev. 662.80
			Inv. W. Elev. 659.30
			Inv. E. Elev. 659.30

TOTAL BILL OF MATERIAL

	ITEM	UNIT	TOTAL
	Concrete Removal	Cu. Yd.	606
	Structure Excavation	Cu. Yd.	2,882
	Concrete Superstructure	Cu. Yd.	156.1
	Form Liner Textured Surface	Sq. Ft.	1,831
	Protective Coat	Sq. Yd.	353
	Reinforcement Bars, Epoxy Coated	Pound	24,440
	Name Plates	Each	1
	Temporary Mechanically Stabilized Earth Retaining Wall	Sq. Ft.	479
*	Aggregate Column Ground Improvement	L. Sum	0.25
	Mechanically Stabilized Earth Retaining Wall	Sq. Ft.	7,841

* See additional retaining walls within this contract for remainder of L. Sum quantity.

GROUND IMPROVEMENT PERFORMANCE REQUIREMENTS

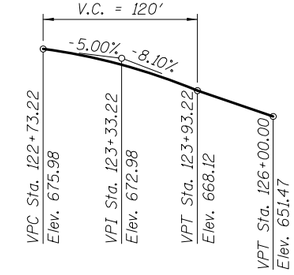
1. Minimum factor of safety for global slope stability shall be 1.5 for both the permanent and temporary condition.
2. Allowable bearing pressure (with F.S.) shall be equal to or greater than the equivalent uniform service bearing pressure as shown on Sheet 3. Intermediate values may be defined by interpolating between the values shown.

   Minimum factor of safety against equivalent uniform service bearing pressure shall be 2.0 if a load test is performed.

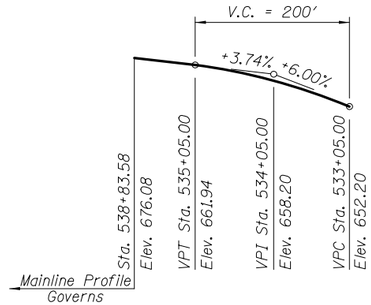
   Minimum factor of safety against equivalent uniform service bearing pressure shall be 2.5 if a load test is not performed.
3. Total settlement measured at the theoretical top of leveling pad shall not exceed 4.0 inches.
4. Total settlement measured on the pavement shall not exceed 1.0 inch.
5. Differential settlement measured along the theoretical top of leveling pad shall not exceed 1/100.
6. The assumed structure life for settlement computations shall be 75 years.
7. Contractor's verification program shall include monitoring points or other instrumentation to demonstrate compliance with the stated performance requirements.
8. The Shop Drawings and construction procedures submittal shall indicate the sequence of construction within the limits of Aggregate Column Ground Improvement. The aggregate column installation shall be coordinated with utility removal, structure removals, proposed utility installation, and bridge pile driving.
9. If the existing bridge piles interfere with the aggregate columns or new bridge piles, they will be completely removed. Cost of removal is included with Removal of Existing Structures for SN 081-0182 and SN 081-0183. If the existing N.E. retaining wall piles interfere with the aggregate columns, they will be completely removed. Cost of removal is included with Concrete Removal. Existing piles to remain in place shall be cut off at least one foot below the base of the wall. The hole shall be backfilled with compacted native soil.
10. Aggregate columns shall be installed before the bridge piles are driven; however, the piles shall not be driven through the aggregate of an installed column. The aggregate column layout shall provide clearance for the bridge piles.
11. Primary consolidation of the soil within the depth of the ACGI to be at least 90 percent complete when the bridge piles are to be driven. Any required waiting periods shall be coordinated with the bridge construction schedule.

STATION 70+34.40
BUILT 201_ BY
STATE OF ILLINOIS
F.A.I. RT. 74 SEC. (81-1)R-1
LOADING HS-20
STR. NO. 081-6017

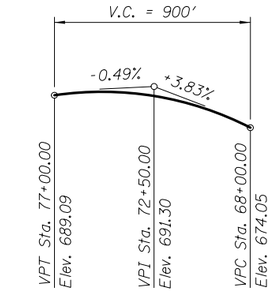
NAME PLATE
See Std. 515001



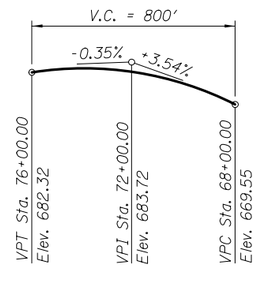
PROFILE GRADE
(Along ℄ 12TH Avenue)



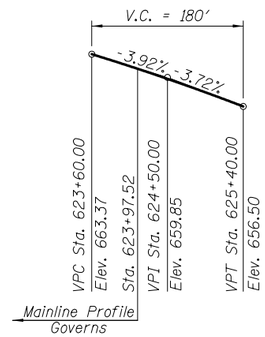
PROFILE GRADE
(Along ℄ RAMP 7TH-B)



PROFILE GRADE
(Along EB PGL - F.A.I. Route 74)



PROFILE GRADE
(Along WB PGL - F.A.I. Route 74)



PROFILE GRADE
(Along ℄ Ramp 7TH-A)

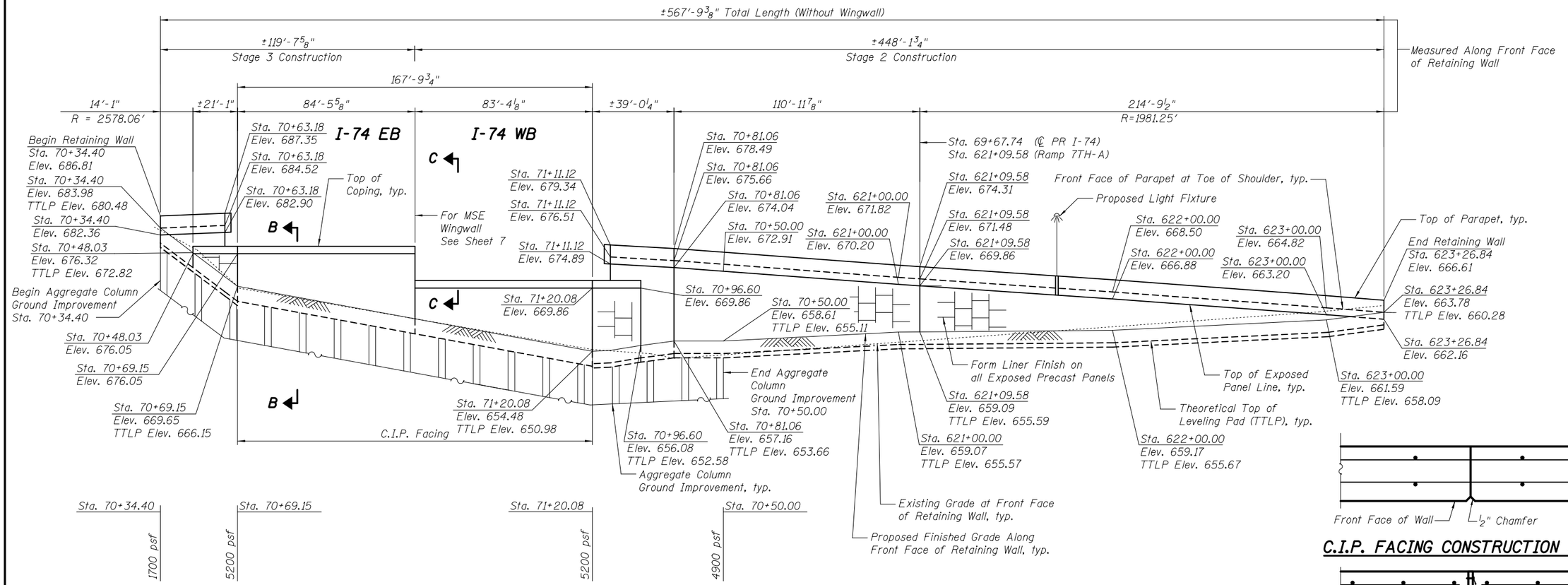
MODJESKI and MASTERS
Experience great bridges.

USER NAME =	DESIGNED - YSS	REVISED
	CHECKED - JMH	REVISED
PLOT SCALE =	DRAWN - MLA	REVISED
PLOT DATE = 03/23/2017	CHECKED - YSS	REVISED

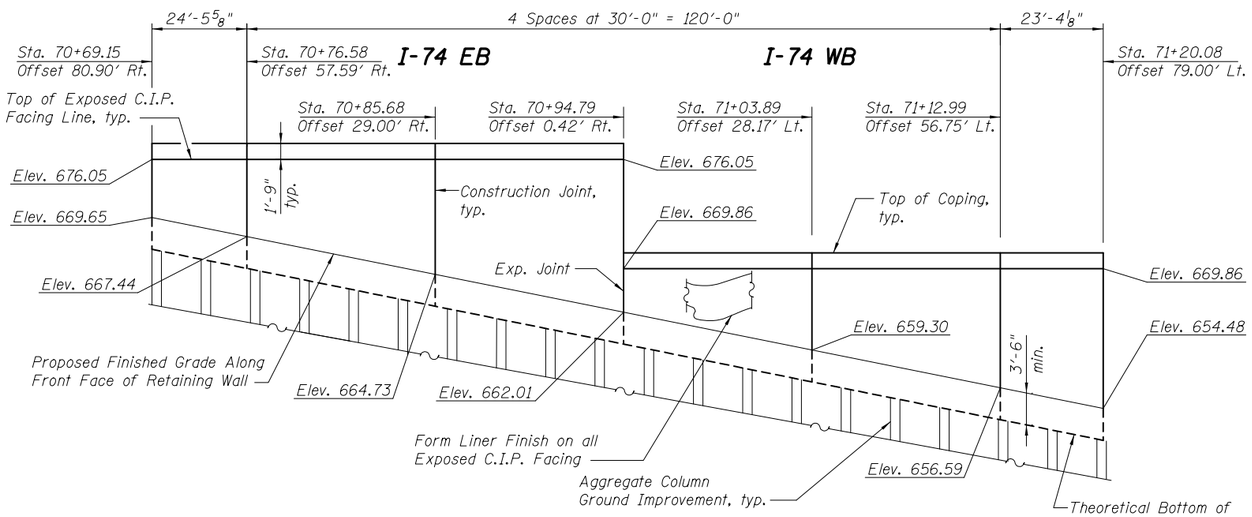
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES
I-74 (EB)/(WB) & RAMP 7TH-A RETAINING WALL 11
STRUCTURE NO. 081-6017
SHEET NO. 2 OF 18 SHEETS

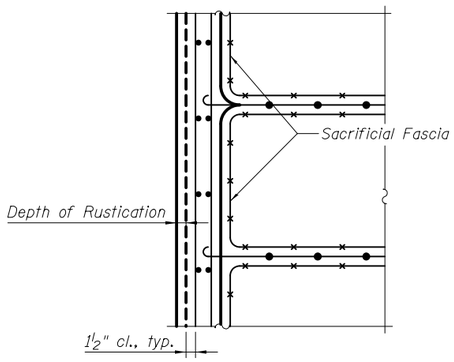
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1	ROCK ISLAND	2042	1390
		CONTRACT NO. 64E26		
	ILLINOIS FED. AID PROJECT			



UNFOLDED ELEVATION VIEW



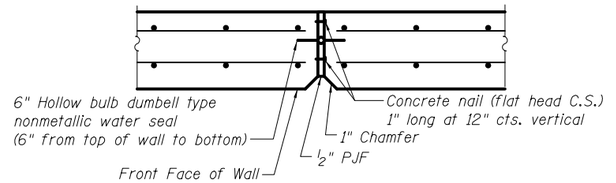
ELEVATION VIEW OF C.I.P. FACING



C.I.P. FACING TYPICAL SECTION

Concrete and reinforcing steel for C.I.P. Facing are included in the cost of Mechanically Stabilized Earth Retaining Wall.

C.I.P. FACING CONSTRUCTION JOINT



C.I.P. FACING EXPANSION JOINT

Expansion joint materials are included in the cost of Mechanically Stabilized Earth Retaining Wall.

LEGEND:

5100 psf — Equivalent Uniform Service Bearing Pressure

Notes:

See Sheet 6 for Sections B-B and C-C.

See Sheet 2 for Ground Improvement Performance Requirements.

See C.I.P. Retaining Wall Aesthetic Plans for required form liner finish and rustication on C.I.P. Facing.

See MSE Wall Aesthetic Plans for required form liner finish on Precast Panels.

Form liner finish on C.I.P. Facing shall be paid for as Form Liner Textured Surface.

Form liner finish on Precast Panels is included in the Cost of Mechanically Stabilzed Earth Retaining Wall.

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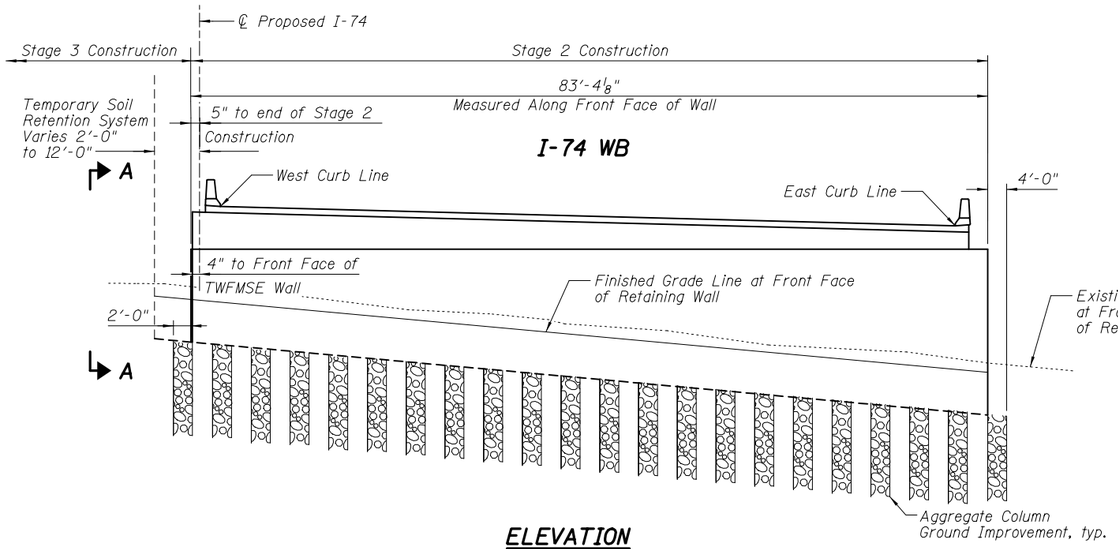
	CHECKED - JMH	REVISED
PLOT SCALE =	DRAWN - AEC	REVISED
PLOT DATE = 03/23/2017	CHECKED - JMH	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

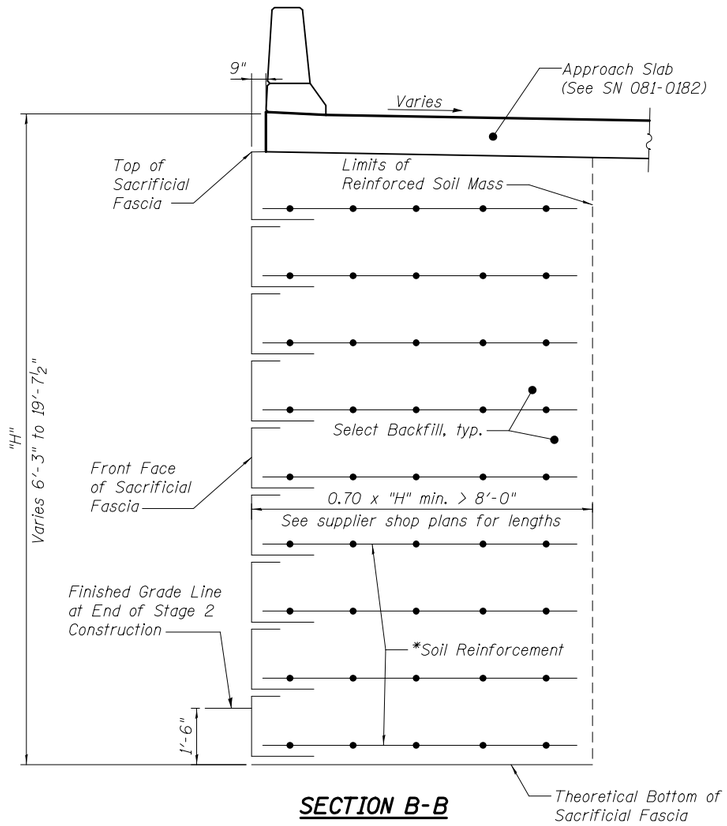
UNFOLDED WALL ELEVATION
I-74 (EB)/(WB) & RAMP 7TH-A RETAINING WALL 11
STRUCTURE NO. 081-6017
SHEET NO. 3 OF 18 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1	ROCK ISLAND	2042	1391
		CONTRACT NO. 64E26		
	ILLINOIS	FED. AID PROJECT		

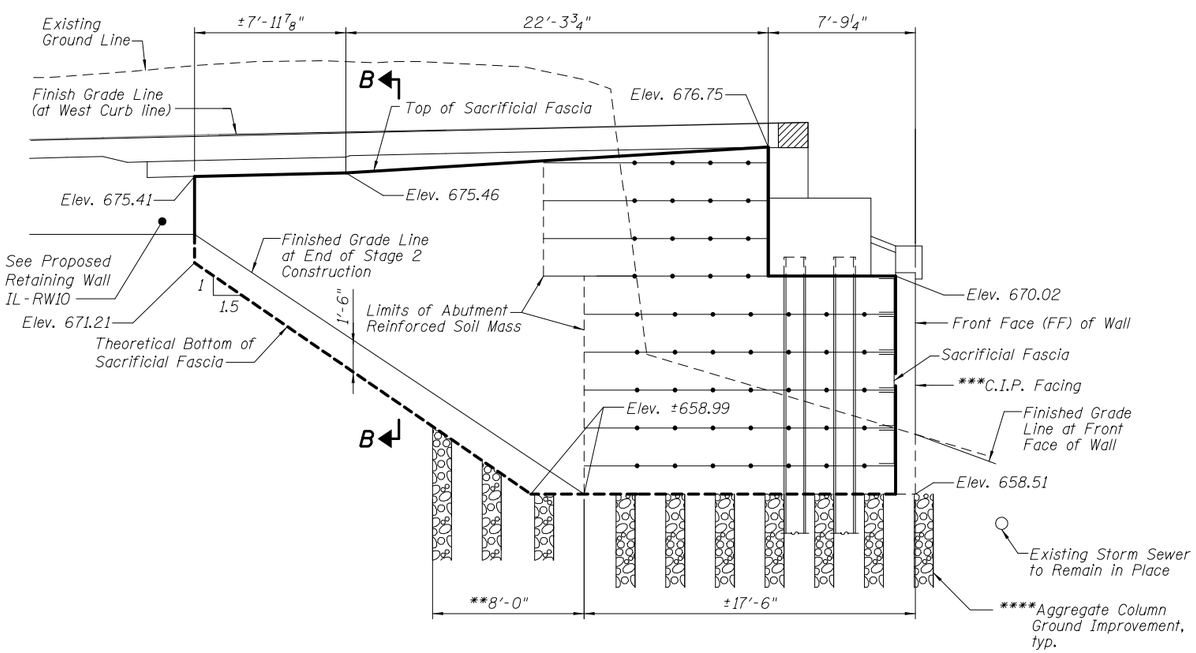


ELEVATION

Front Face of Abutment at End of Stage 2 Construction
(Horizontal dimensions at Rt. L's to ℄ Proposed I-74 except as noted.)



SECTION B-B



VIEW A-A

(Horizontal dimensions parallel to ℄ Proposed I-74)

* The M.S.E. wall supplier's internal stability design shall account for the slab's bearing pressure surcharge of 1.0 kips/ft and horizontal sliding force of 0.5 kips/ft of wall.

** Max "H" beyond limits of Aggregate Columns shall be less than or equal to 15'-0"

*** C.I.P. Facing shall be placed during Stage 3 Construction after completion of the permanent wall.

**** The equivalent uniform service bearing pressure for the TWFMSE wall ground improvement shall be 5200 psf.

Notes:
Limits of TWFMSE Wall shown are based on theoretical limits of permanent wall. Adjustments may be required if actual field conditions vary from the configuration shown.
See SN 081-0182 and SN 081-0183 plans for Temporary Soil Retention System details.

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PLOT SCALE =	DRAWN - AEC	REVISED
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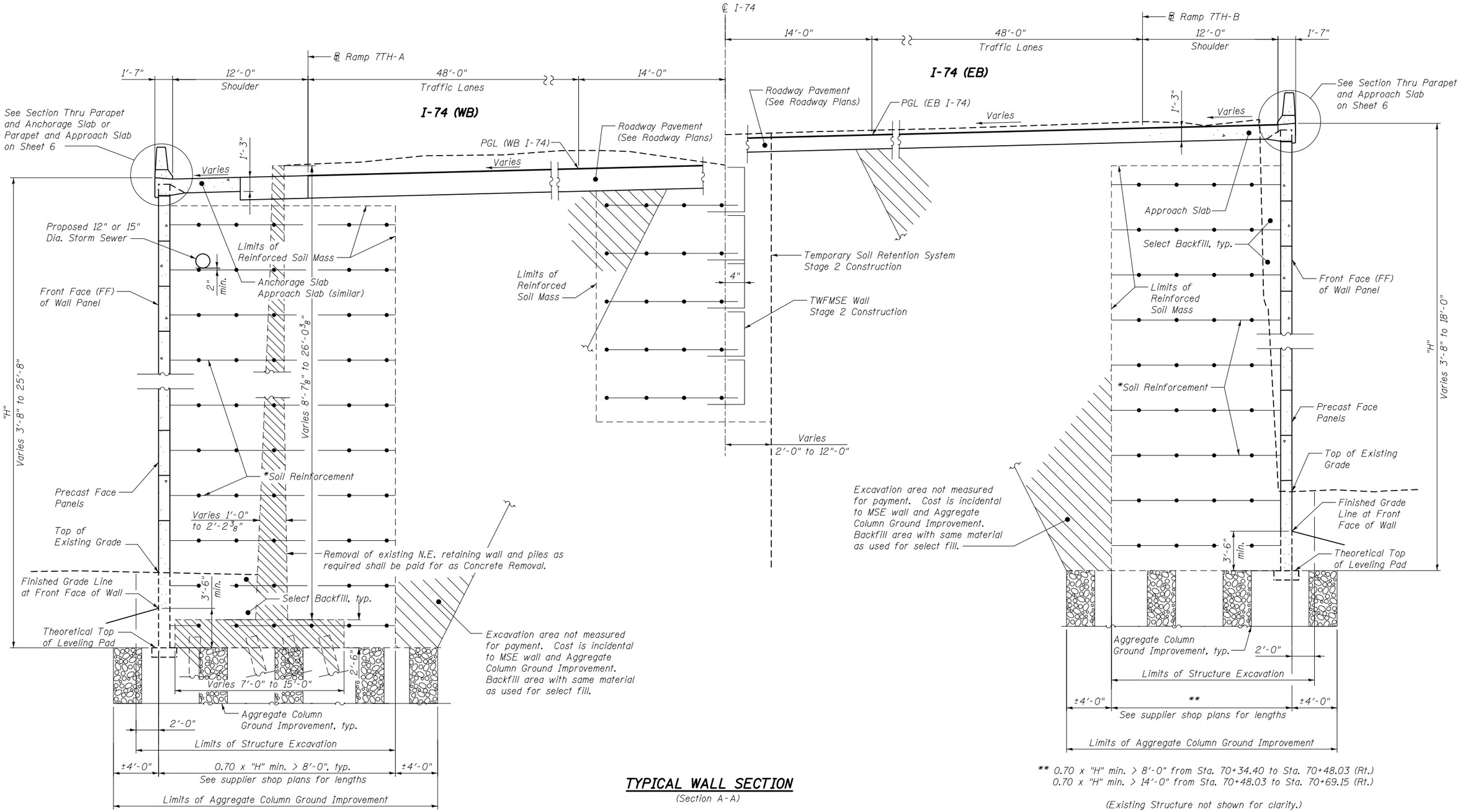
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGED CONSTRUCTION
I-74 (EB)/(WB) & RAMP 7TH-A RETAINING WALL 11
STRUCTURE NO. 081-6017
SHEET NO. 4 OF 18 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1	ROCK ISLAND	2042	1392
		CONTRACT NO. 64E26		
ILLINOIS	FED. AID PROJECT			



TYPICAL WALL SECTION

(Section A-A)

* The M.S.E. wall supplier's internal stability design shall account for the anchorage slab's bearing pressure surcharge of 1.0 ksf and horizontal sliding force of 0.5 kips/ft. of wall.

** 0.70 x "H" min. > 8'-0" from Sta. 70+34.40 to Sta. 70+48.03 (Rt.)
0.70 x "H" min. > 14'-0" from Sta. 70+48.03 to Sta. 70+69.15 (Rt.)

(Existing Structure not shown for clarity.)

Notes:
For location of Section A-A, see Sheet 1.
See Sheet 4 for TWFMSE Wall details.
See SN 081-0182 and 081-0183 plans for Temporary Soil Retention System details.

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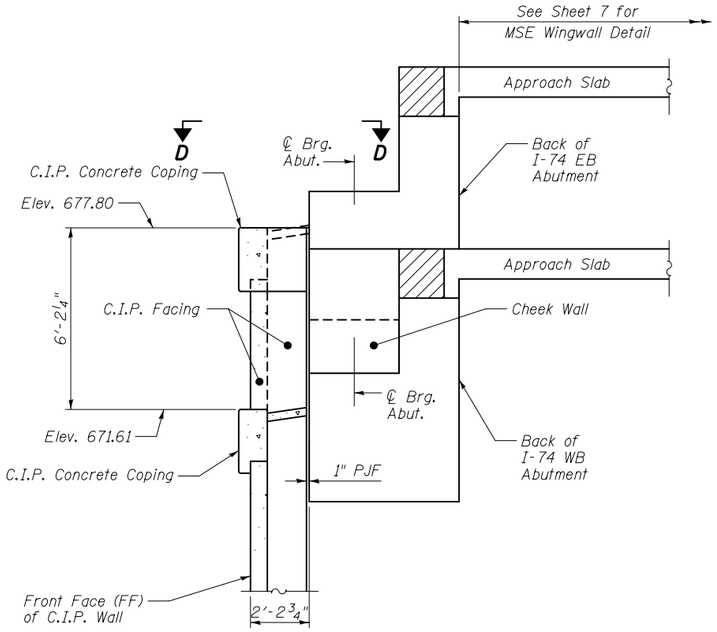
USER NAME =	DESIGNED - YSS	REVISED
	CHECKED - JMH	REVISED
PLOT SCALE =	DRAWN - AEC	REVISED
PLOT DATE = 03/23/2017	CHECKED - JMH	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

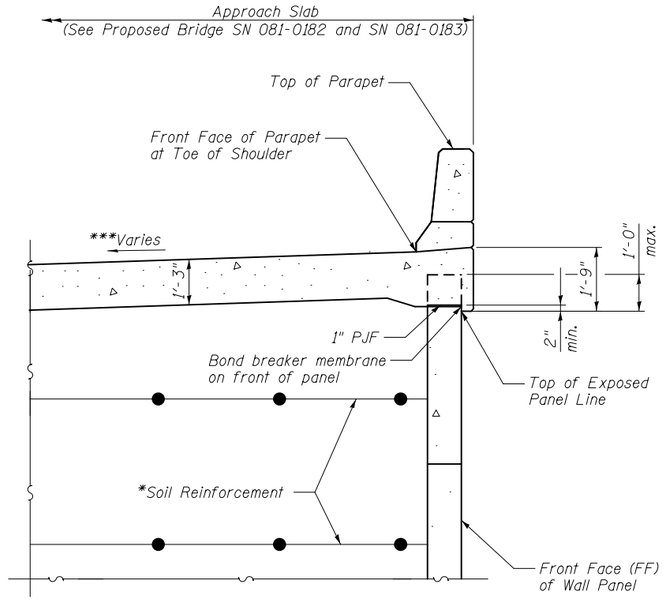
MSE DETAILS 1
I-74 (EB)/(WB) & RAMP 7TH-A RETAINING WALL 11
STRUCTURE NO. 081-6017
SHEET NO. 5 OF 18 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1	ROCK ISLAND	2042	1393
		CONTRACT NO. 64E26		
	ILLINOIS	FED. AID PROJECT		

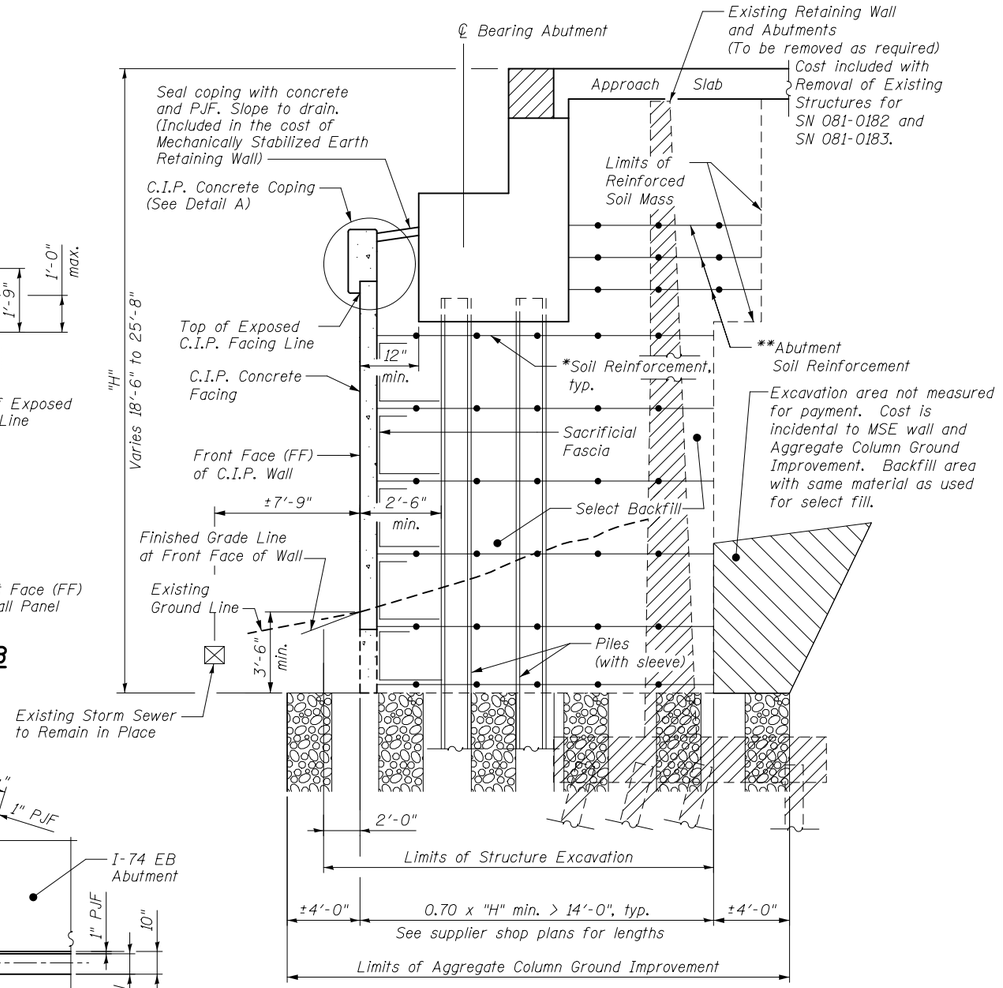


SECTION C-C

(MSE Wingwall not shown for clarity.)

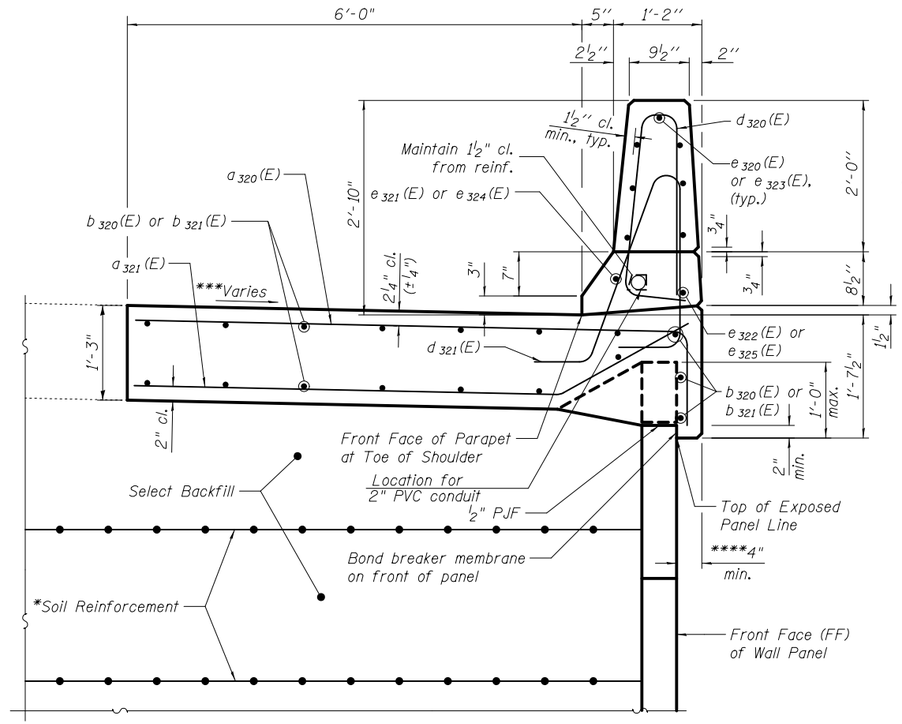


SECTION THRU PARAPET AND APPROACH SLAB

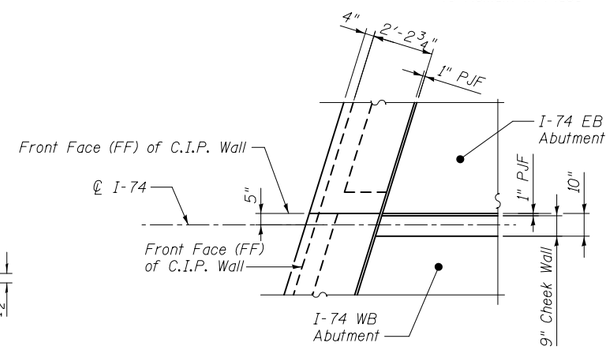


TYPICAL WALL SECTION THRU ABUTMENT

(Section B-B)



SECTION THRU PARAPET AND ANCHORAGE SLAB



VIEW D-D

* The M.S.E. wall supplier's internal stability design shall account for the slab's bearing pressure surcharge of 1.0 ksf and horizontal sliding force of 0.5 kips/ft of wall.

** The M.S.E. wall supplier shall design the abutment soil reinforcement to resist a horizontal force of 3.5 kips/ft of abutment. Cost shall be included with the cost of "Mechanically Stabilized Earth Retaining Wall".

*** Cross slope transition varies throughout retaining wall limits. See Roadway Plans for details.

**** Contractor shall detail overhang width along wall radius to provide minimum dimension required.

Notes:
See SN 081-0182 and SN 081-0183 plans for abutment, approach slab and cheek wall details.
See Sheet 8 for Detail A.
For location of Section B-B and C-C, see Sheet 3.

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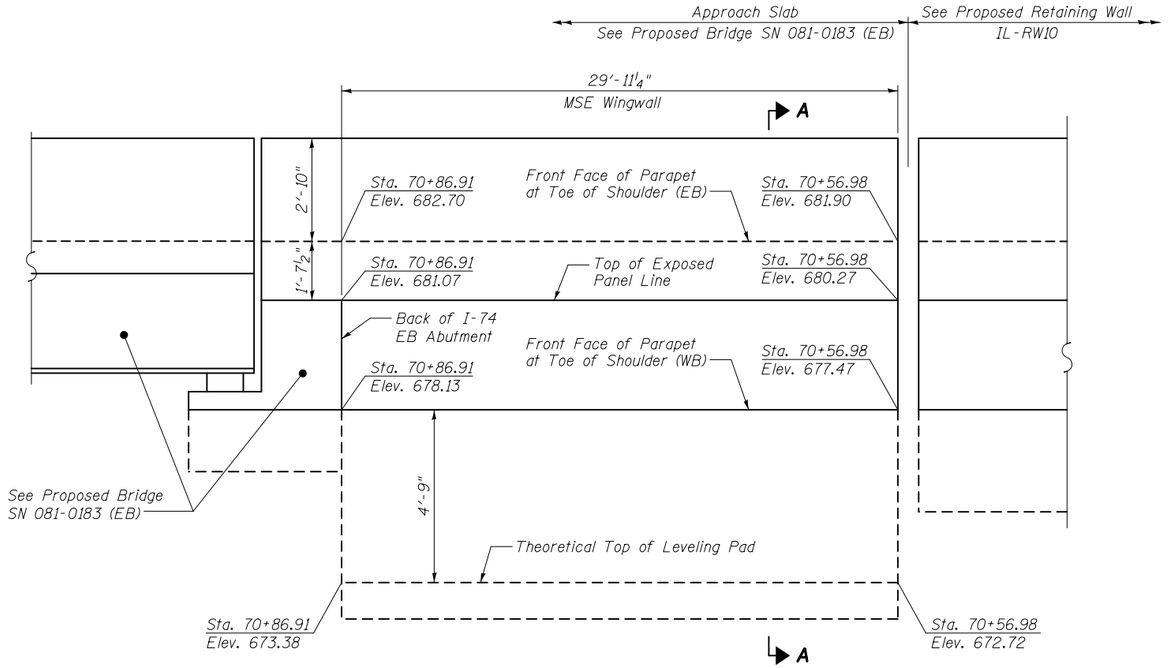
USER NAME =	DESIGNED - YSS	REVISED
	CHECKED - JMH	REVISED
PLOT SCALE =	DRAWN - AEC	REVISED
PLOT DATE = 03/23/2017	CHECKED - JMH	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

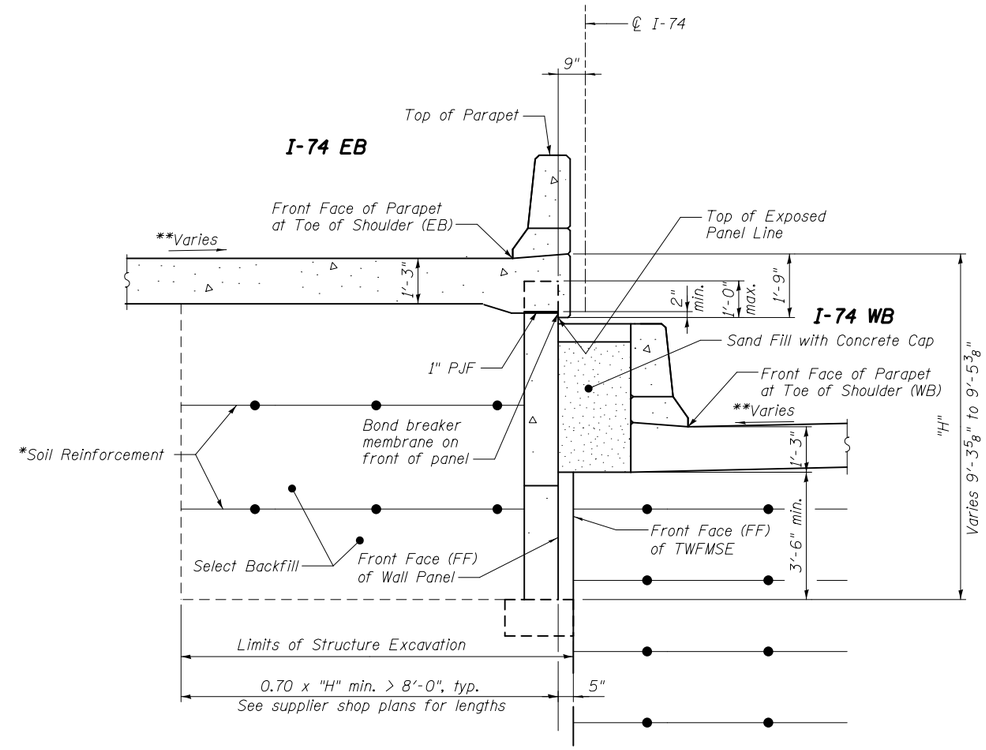
MSE DETAILS 2
I-74 (EB)/(WB) & RAMP 7TH-A RETAINING WALL 11
STRUCTURE NO. 081-6017
SHEET NO. 6 OF 18 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1	ROCK ISLAND	2042	1394
		CONTRACT NO. 64E26		
	ILLINOIS FED. AID PROJECT			



MSE WINGWALL ELEVATION

(Looking West)
(I-74 WB Abutment and WB Parapet not shown for clarity.)



SECTION A-A

(Looking North)

* The M.S.E. wall supplier's internal stability design shall account for the approach slab's bearing pressure surcharge of 1.0 ksf and horizontal sliding force of 0.5 kips/ft of wall.

** Cross slope transition varies throughout retaining wall limits. See Roadway Plans for details.

Notes:
See SN 081-0182 and SN 081-0183 plans for abutment, approach slab details, sand fill, and concrete cap.
See Sheet 4 for TWFMSE Wall details.

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		CHECKED - YSS	REVISED
	PLOT SCALE =	DRAWN - AEC	REVISED
	PLOT DATE = 03/23/2017	CHECKED - JMH	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MSE DETAILS 3
I-74 (EB)/(WB) & RAMP 7TH-A RETAINING WALL 11
STRUCTURE NO. 081-6017
SHEET NO. 7 OF 18 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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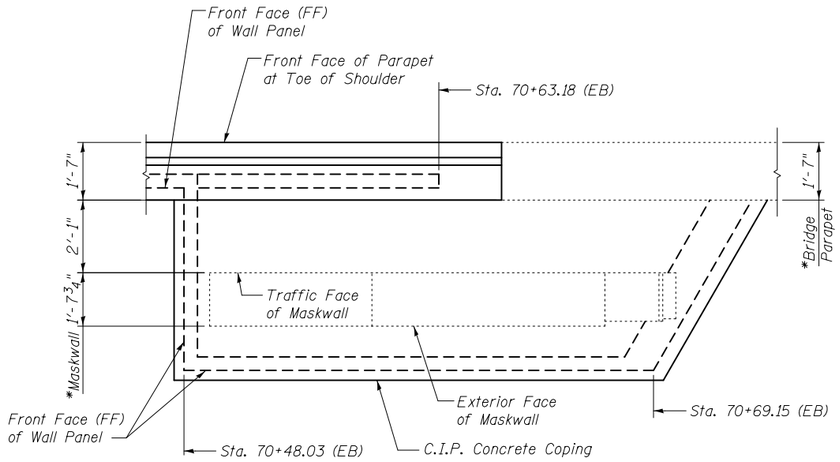
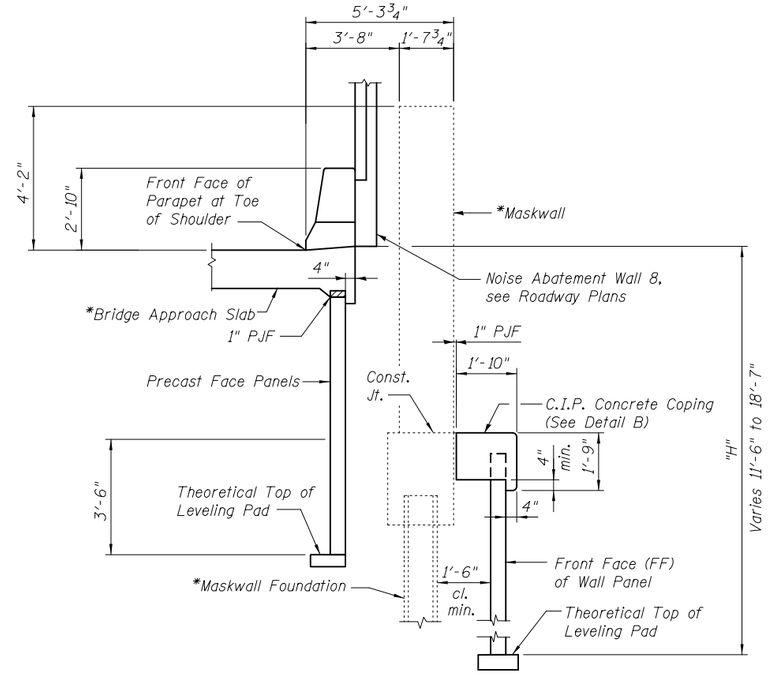
		CONTRACT NO. 64E26		
	ILLINOIS	FED. AID PROJECT		

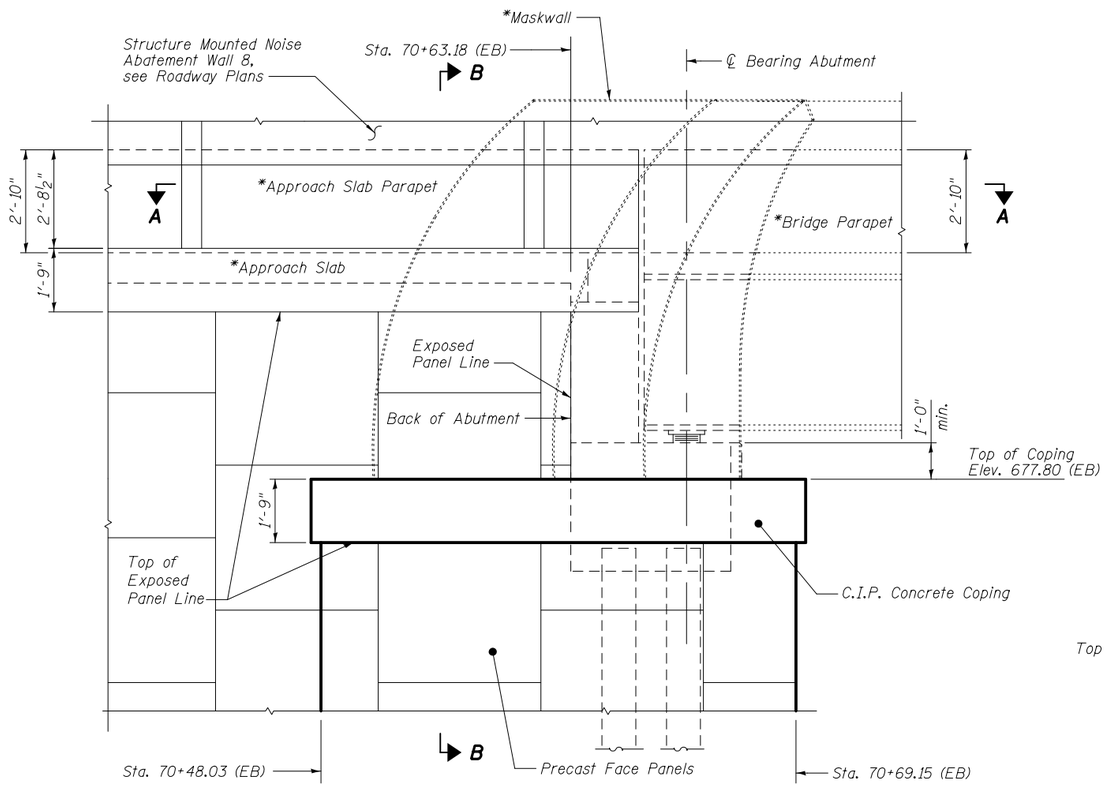


SECTION A-A



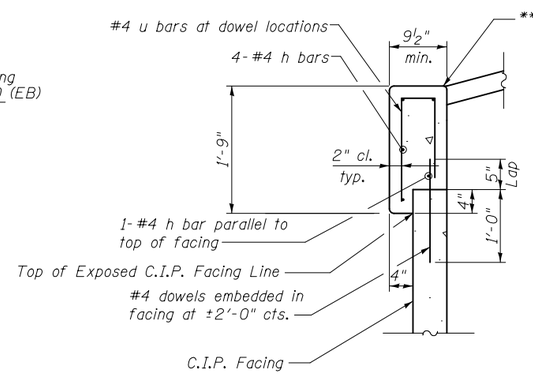
SECTION B-B

* See Proposed Bridge SN 081-0183

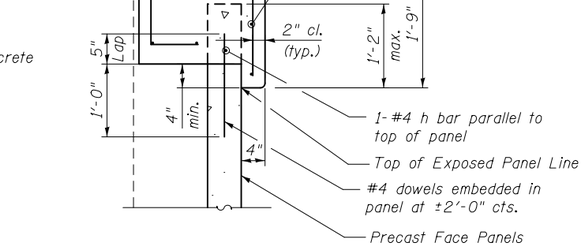


DETAIL 1

(Maskwall foundation not shown for clarity.)
EB Maskwall shown



DETAIL A
C.I.P. CONCRETE COPING



DETAIL B
C.I.P. CONCRETE COPING

** Concrete and reinforcing steel for C.I.P. Concrete Coping are included in the cost of Mechanically Stabilized Earth Retaining Wall.

Notes:

The soil reinforcement limits for the upper and lower MSE walls shall meet the design requirements provided within the Typical Sections. The width of the lower wall soil reinforcement shall be designed based on "H" as dimensioned in Section B-B. The width of the upper wall soil reinforcement shall be designed based on the height from the upper wall Theoretical Top of Leveling Pad to the Toe of Shoulder and shall be equal to or greater than the limit of soil reinforcement required for the lower MSE wall.

For location of Detail 1, see Sheet 1.
For location of Detail A, see Sheet 6.
For WB Maskwall, see Sheet 9.

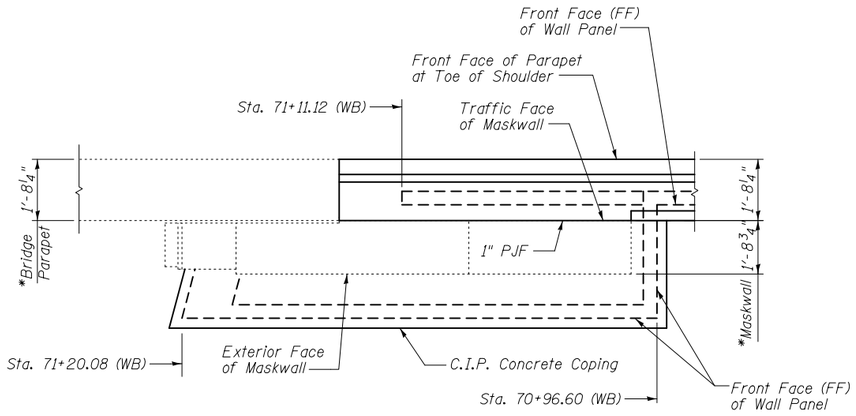
MODJESKI and MASTERS
Experience great bridges.

USER NAME =	DESIGNED - YSS	REVISED
	CHECKED - JMH	REVISED
PLOT SCALE =	DRAWN - AEC	REVISED
PLOT DATE = 03/23/2017	CHECKED - JMH	REVISED

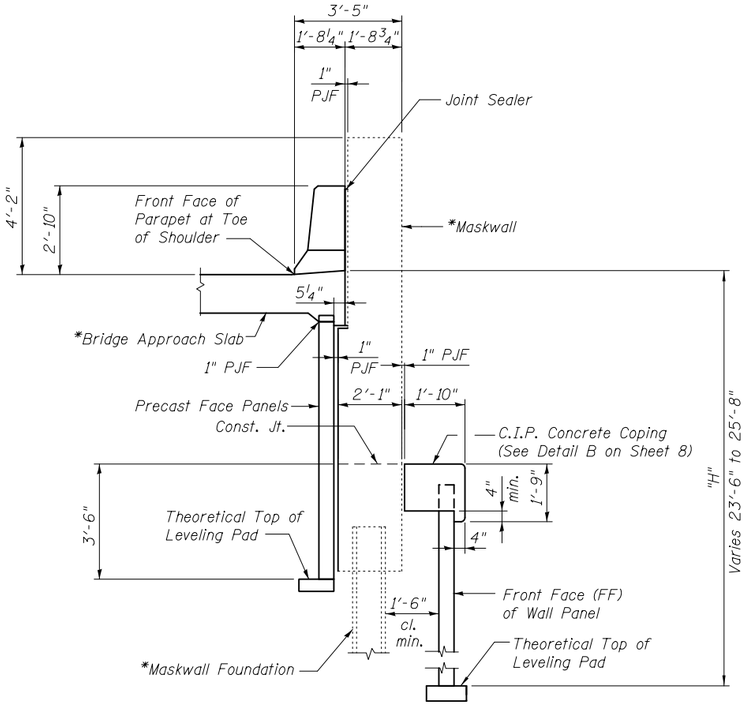
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MSE DETAILS 4
I-74 (EB)/(WB) & RAMP 7TH-A RETAINING WALL 11
STRUCTURE NO. 081-6017
SHEET NO. 8 OF 18 SHEETS

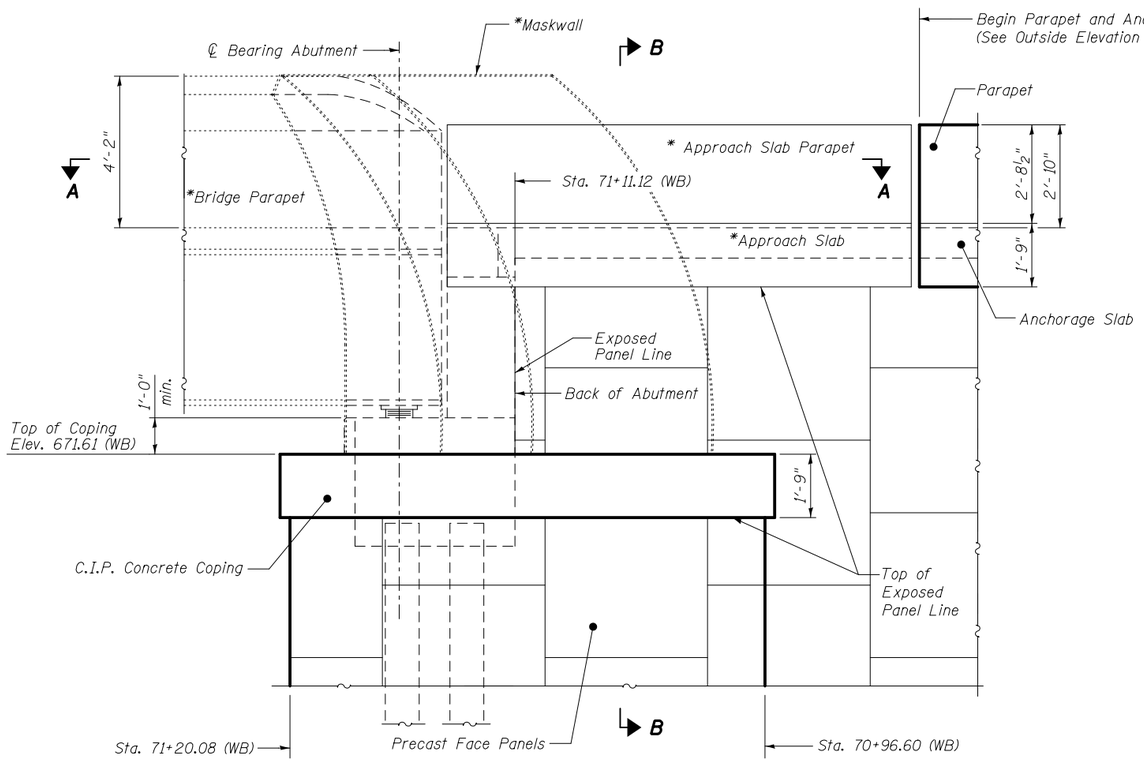
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1	ROCK ISLAND	2042	1396
		CONTRACT NO. 64E26		
	ILLINOIS FED. AID PROJECT			



SECTION A-A



SECTION B-B



DETAIL 1

(Maskwall foundation not shown for clarity.)
WB Maskwall shown

* See Proposed Bridge SN 081-0182

Notes:

The soil reinforcement limits for the upper and lower MSE walls shall meet the design requirements provided within the Typical Sections. The width of the lower wall soil reinforcement shall be designed based on "H" as dimensioned in Section B-B. The width of the upper wall soil reinforcement shall be designed based on the height from the upper wall Theoretical Top of Leveling Pad to the Toe of Shoulder and shall be equal to or greater than the limit of soil reinforcement required for the lower MSE wall.

For location of Detail 1, see Sheet 1.

For EB Maskwall, see Sheet 8.

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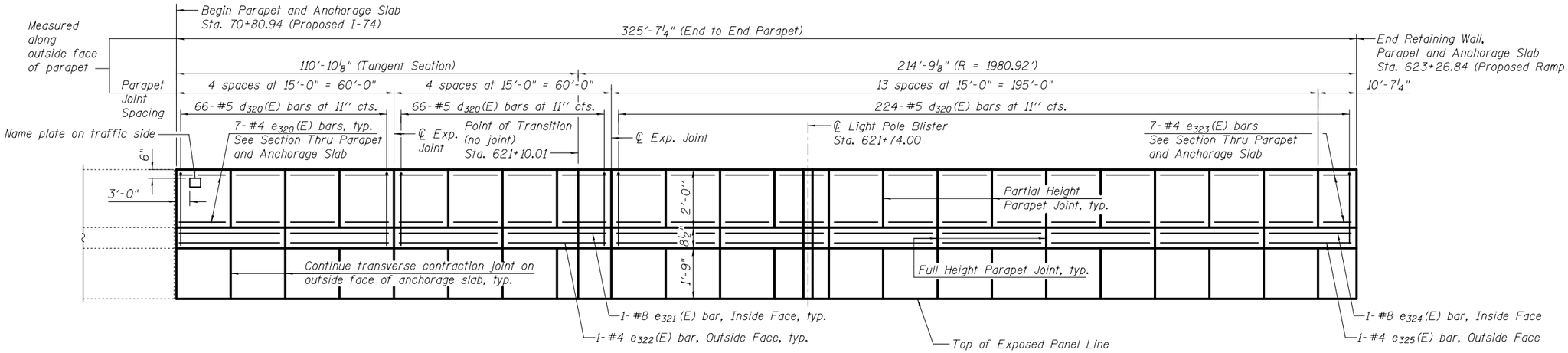
USER NAME =	DESIGNED - YSS	REVISED
	CHECKED - JMH	REVISED
PLOT SCALE =	DRAWN - AEC	REVISED
PLOT DATE = 03/23/2017	CHECKED - JMH	REVISED

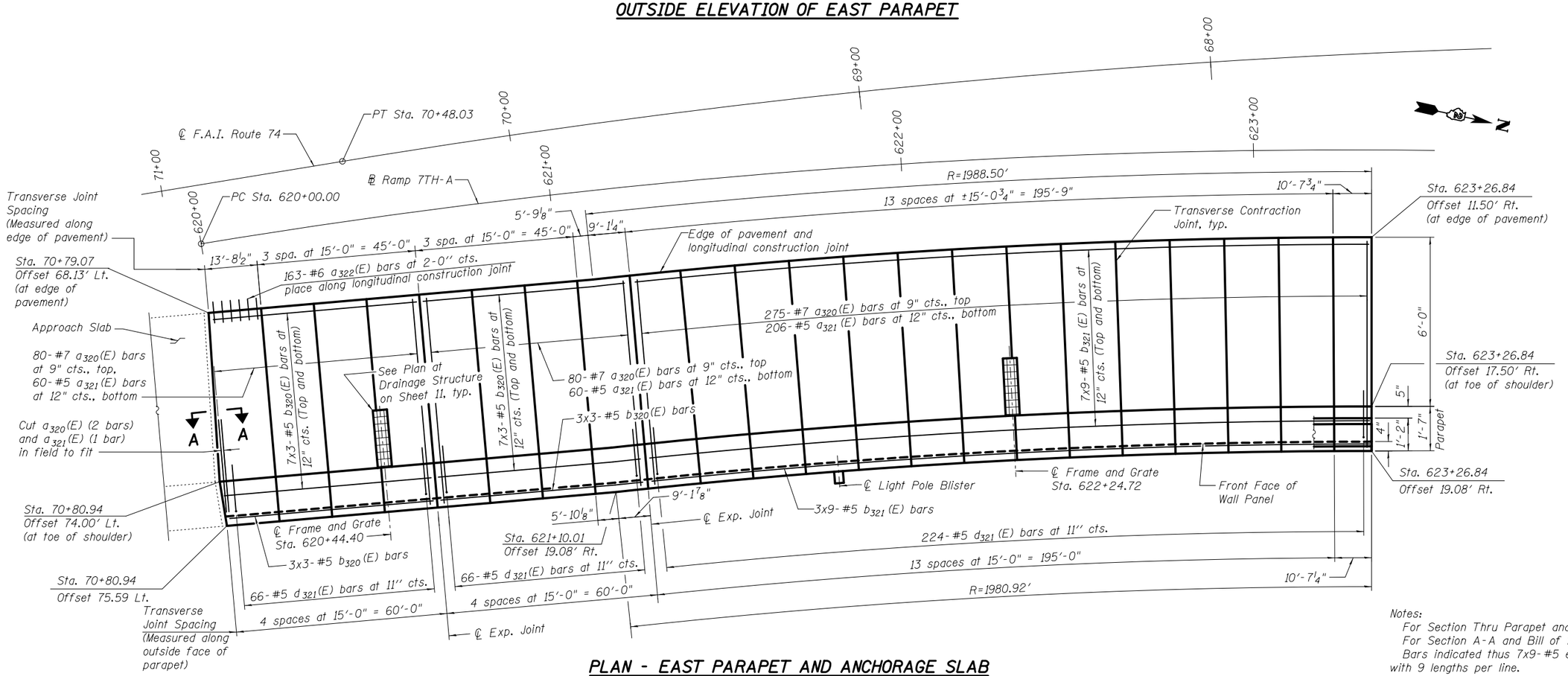
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MSE DETAILS 5
I-74 (EB)/(WB) & RAMP 7TH-A RETAINING WALL 11
STRUCTURE NO. 081-6017
SHEET NO. 9 OF 18 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1	ROCK ISLAND	2042	1397
		CONTRACT NO. 64E26		
ILLINOIS FED. AID PROJECT				



OUTSIDE ELEVATION OF EAST PARAPET



PLAN - EAST PARAPET AND ANCHORAGE SLAB

Notes:

For Section Thru Parapet and Anchorage Slab, see Sheet 6.

For Section A-A and Bill of Material, see Sheet 11.

Bars indicated thus 7x9-#5 etc. indicates 7 lines of bars with 9 lengths per line.

Joints in the adjacent pavement shall be aligned with the anchorage slab joints.

Stations and offsets on this sheet are given to the outside face of the parapet and are measured from the centerline of F.A.I. Route 74 and Ramp 7TH-A baseline, except as noted.

See Sheet 12 for Light Pole Blister reinforcement.

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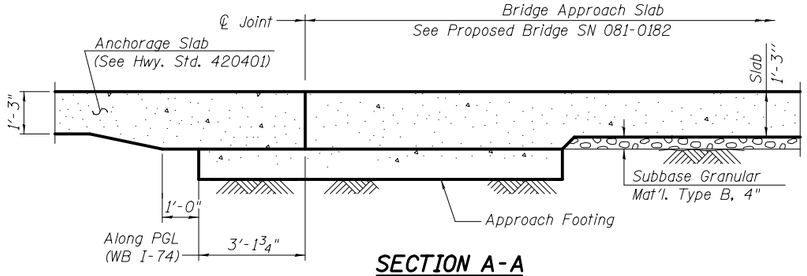
USER NAME =	DESIGNED - YSS	REVISED
	CHECKED - ZJB	REVISED
PLOT SCALE =	DRAWN - MLA	REVISED
PLOT DATE = 03/23/2017	CHECKED - ZJB	REVISED

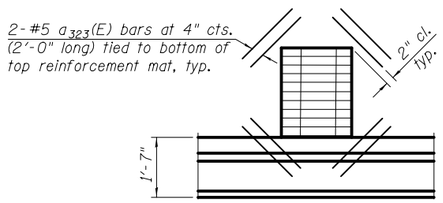
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PARAPET AND ANCHORAGE SLAB 1
I-74 (EB)/(WB) & RAMP 7TH-A RETAINING WALL 11
STRUCTURE NO. 081-6017
SHEET NO. 10 OF 18 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1	ROCK ISLAND	2042	1398
		CONTRACT NO. 64E26		
	ILLINOIS	FED. AID PROJECT		

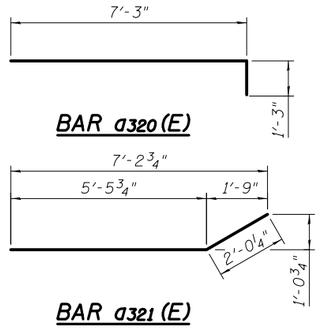


SECTION A-A



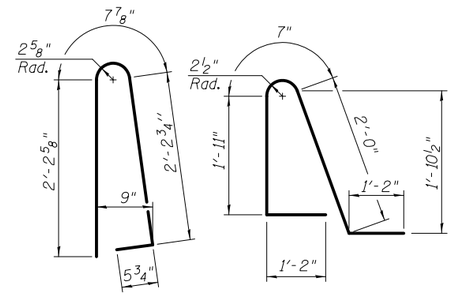
PLAN AT DRAINAGE STRUCTURE

(Cut longitudinal reinforcement to clear drainage structure.)



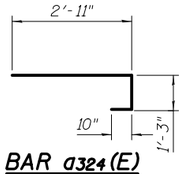
BAR a320(E)

BAR a321(E)

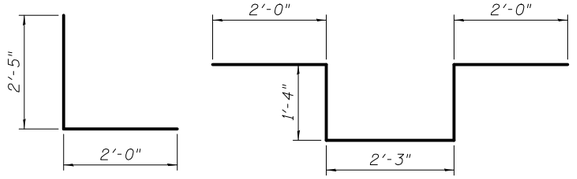


BAR d320(E)

BAR d321(E)

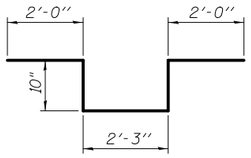


BAR a324(E)



BAR d322(E)

BAR d323(E)



BAR a325(E)

RETAINING WALL 11
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a_{320}(E)	435	#7	8'-6"	
a_{321}(E)	326	#5	7'-6"	
a_{322}(E)	163	#6	2'-0"	
a_{323}(E)	16	#5	2'-0"	
a_{324}(E)	3	#6	5'-0"	
a_{325}(E)	3	#6	7'-11"	
b_{320}(E)	102	#5	22'-3"	
b_{321}(E)	153	#5	25'-9"	
d_{320}(E)	356	#5	5'-7"	
d_{321}(E)	356	#5	6'-10"	
d_{322}(E)	3	#6	4'-5"	
d_{323}(E)	5	#6	8'-11"	
e_{320}(E)	147	#4	14'-9"	
e_{321}(E)	10	#8	29'-9"	
e_{322}(E)	10	#4	29'-9"	
e_{323}(E)	7	#4	10'-4"	
e_{324}(E)	1	#8	25'-4"	
e_{325}(E)	1	#4	25'-4"	
Reinforcement Bars, Epoxy Coated			Pound	24,440
Concrete Superstructure			Cu. Yd.	156.1

MIN. BAR LAP

#5 bars - 3'-3"

Notes:
For location of Section A-A, see Sheet 10.
See Sheet 12 for Light Pole Blister reinforcement.

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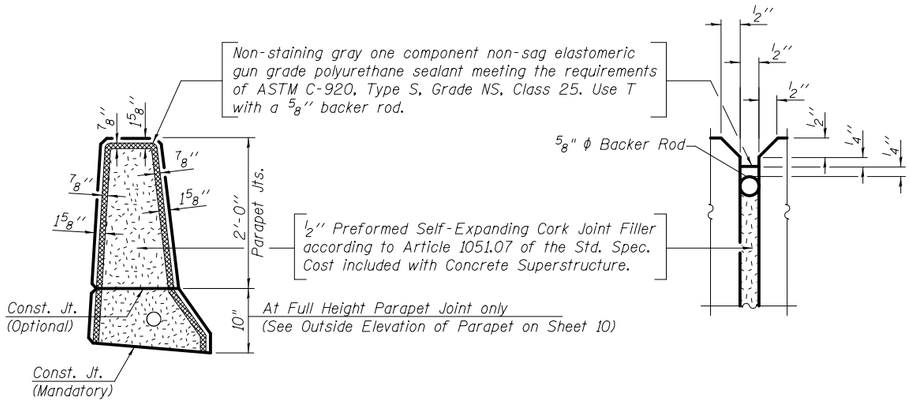
USER NAME =	DESIGNED - YSS	REVISED
	CHECKED - ZJB	REVISED
PLOT SCALE =	DRAWN - MLA	REVISED
PLOT DATE = 03/23/2017	CHECKED - ZJB	REVISED

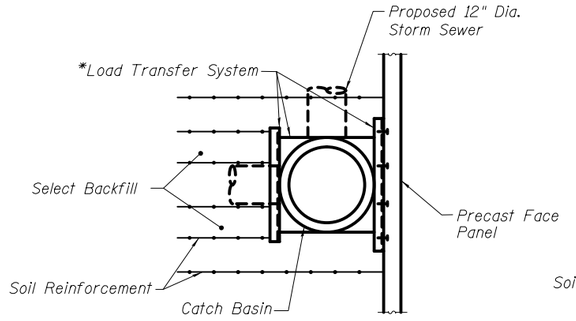
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PARAPET AND ANCHORAGE SLAB 2
I-74 (EB)/(WB) & RAMP 7TH-A RETAINING WALL 11
STRUCTURE NO. 081-6017
SHEET NO. 11 OF 18 SHEETS

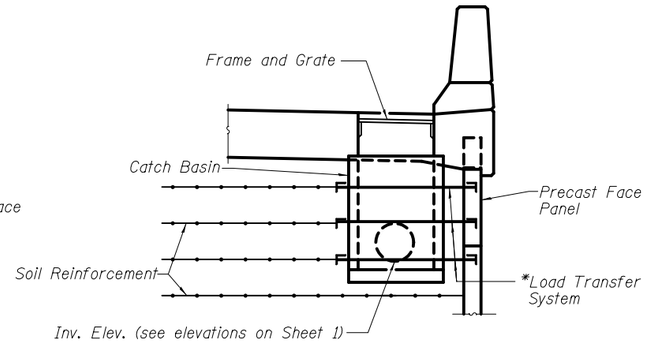
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1	ROCK ISLAND	2042	1399
		CONTRACT NO. 64E26		
	ILLINOIS FED. AID PROJECT			



PARAPET JOINT DETAILS

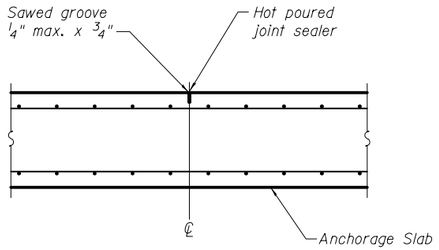


ANCHORAGE SLAB INLET PLAN

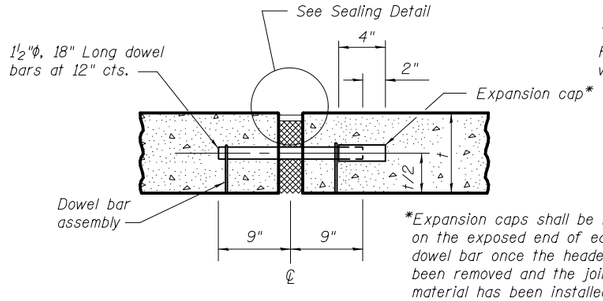


ANCHORAGE SLAB INLET SECTION

*M.S.E. supplier to design load transfer system to accommodate concrete pipe and catch basin.
(See Drainage and Utilities Plans for inlet details.)



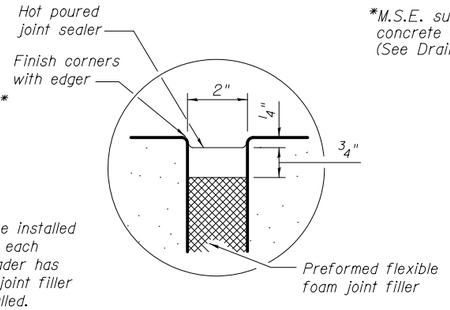
TRANSVERSE CONTRACTION JOINT



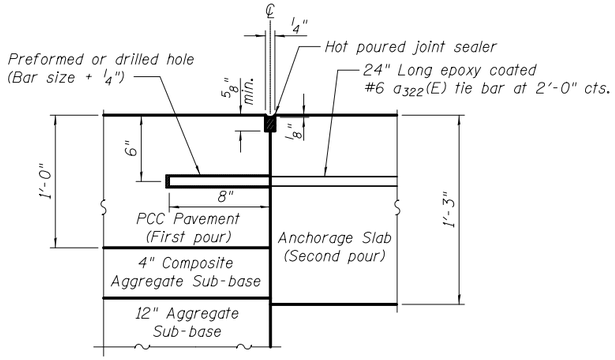
*Expansion caps shall be installed on the exposed end of each dowel bar once the header has been removed and the joint filler material has been installed.

ANCHORAGE SLAB EXPANSION JOINT

Expansion joint and dowel bars included in the cost of Concrete Superstructure.

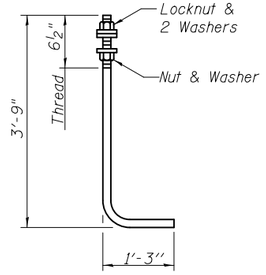


SEALING DETAIL



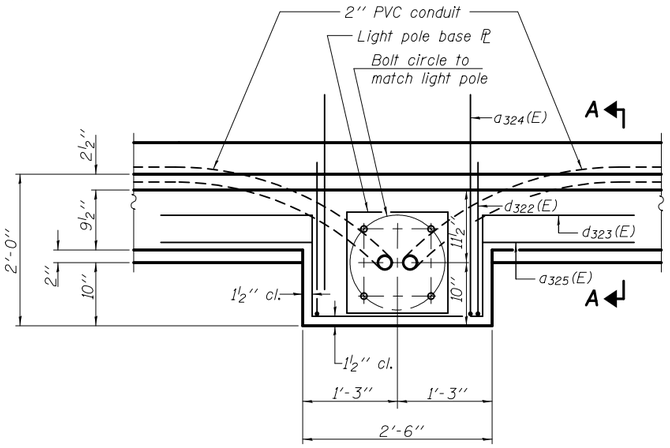
Notes:
The Contractor may substitute at his option, formed in place tie bars provided the bar length is increased to 30" and the tie bar is centered across the joint.
Preformed or drilled hole shall be in the first pour.

LONGITUDINAL CONSTRUCTION JOINT GROUTED-IN-PLACE TIE BAR



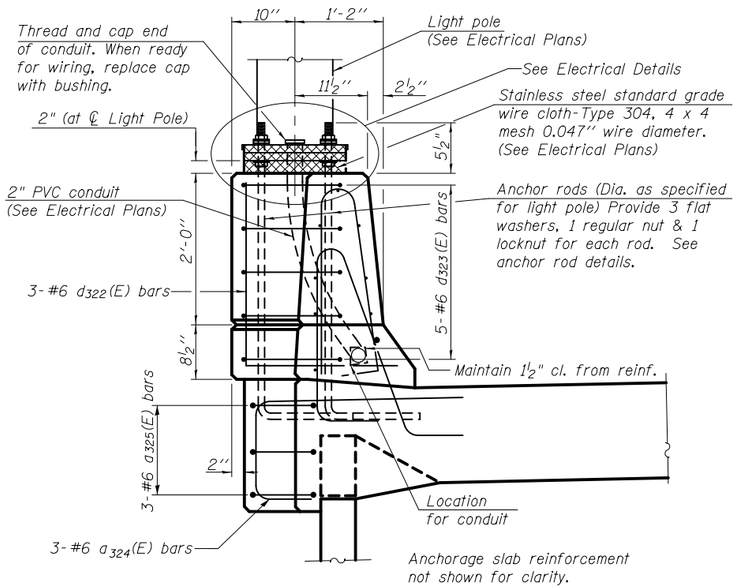
ANCHOR ROD

Diameter as specified for light poles (ASTM F 1554 Grade 105). Full length hot dipped galvanized.



Note:
Cost of anchor rods is included with Concrete Superstructure.

PLAN



SECTION A-A

LIGHT POLE BLISTER DETAILS

USER NAME =	DESIGNED - YSS	REVISED	
	CHECKED - JMH	REVISED	
PLOT SCALE =	DRAWN - MLA	REVISED	
PLOT DATE = 03/23/2017	CHECKED - YSS	REVISED	

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DEPARTMENT OF TRANSPORTATION

MISCELLANEOUS DETAILS
I-74 (EB)/(WB) & RAMP 7TH-A RETAINING WALL 11
STRUCTURE NO. 081-6017
SHEET NO. 12 OF 18 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(81-1)R-1	ROCK ISLAND	2042	1400
		CONTRACT NO. 64E26		
	ILLINOIS	FED. AID PROJECT		