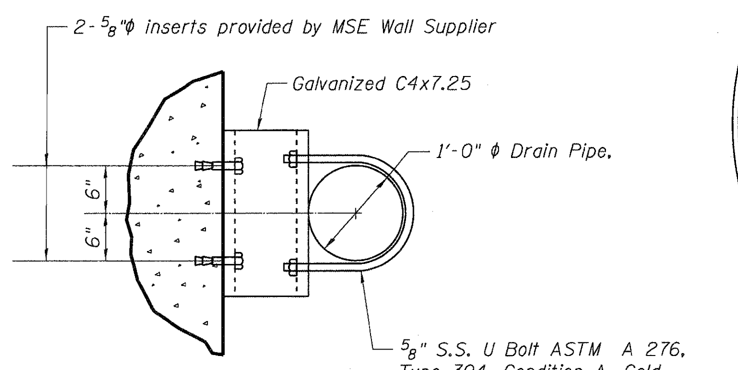
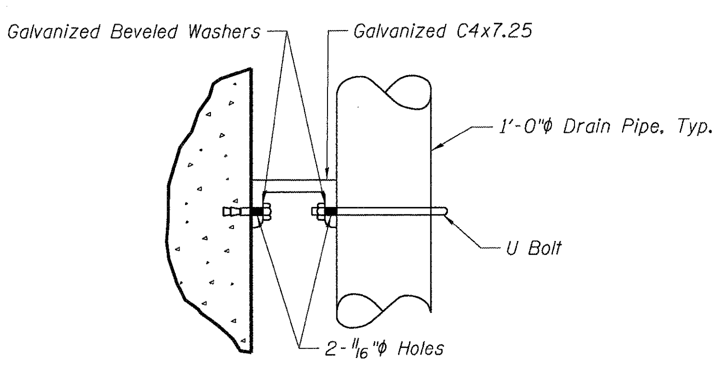


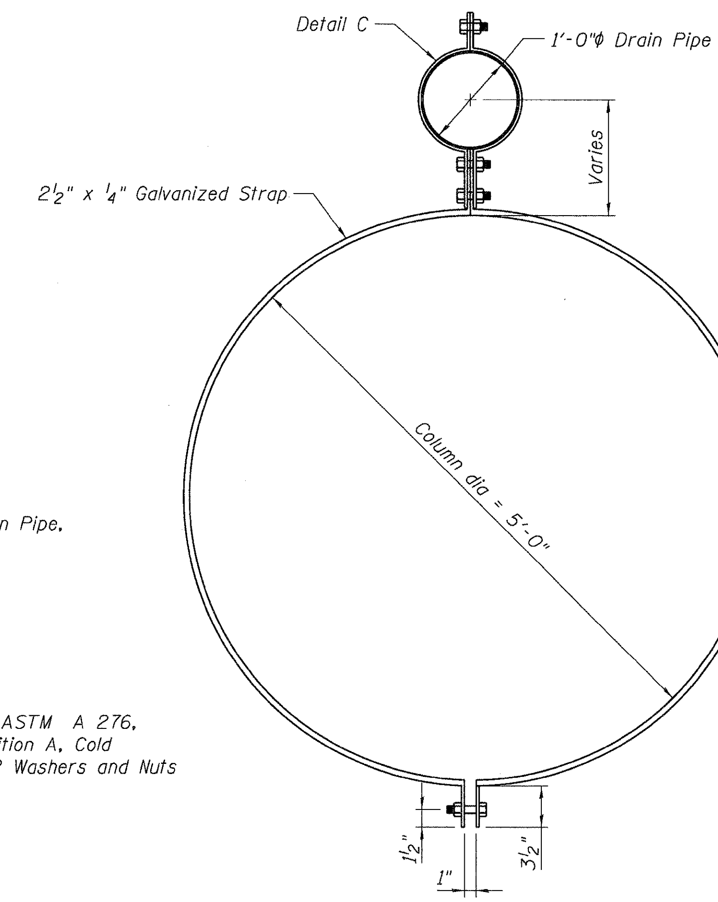
PLAN



ELEVATION

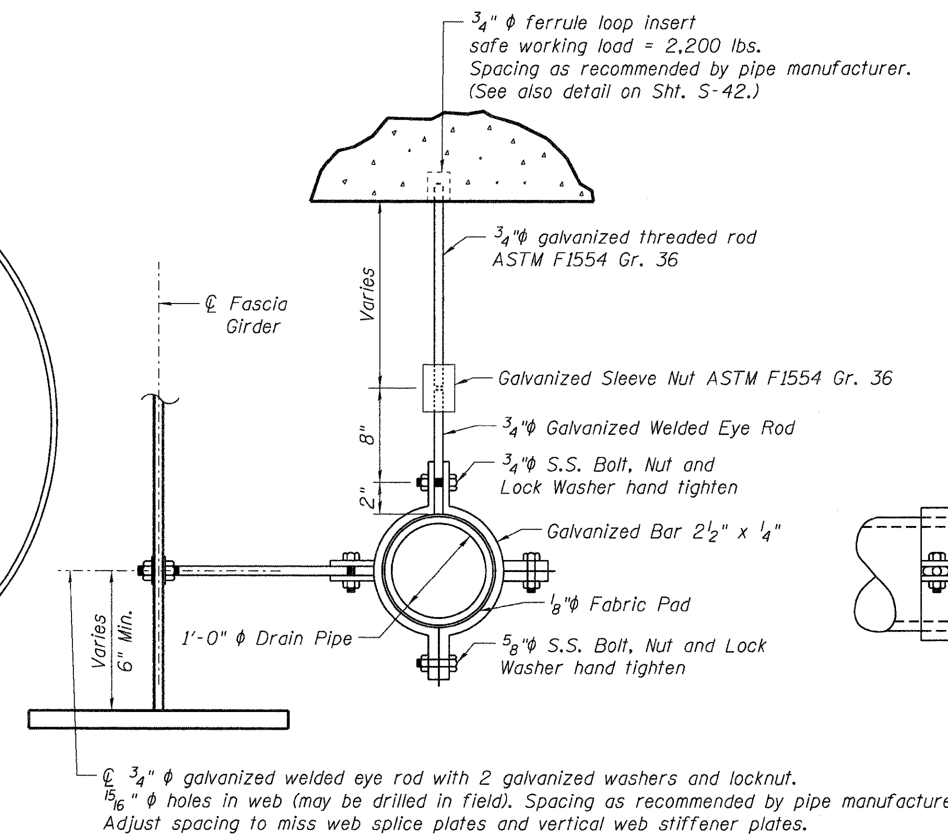
DETAIL A - PIPE CLAMP DETAIL

(Use to support horizontal pipe runs along pier cap and vertical pipe runs along existing pier wall and abutment face)

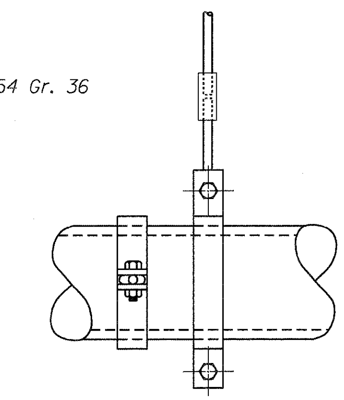


DETAIL B - PIPE SUPPORT DETAIL

(Use to support Vertical Pipe runs along Column Piers)



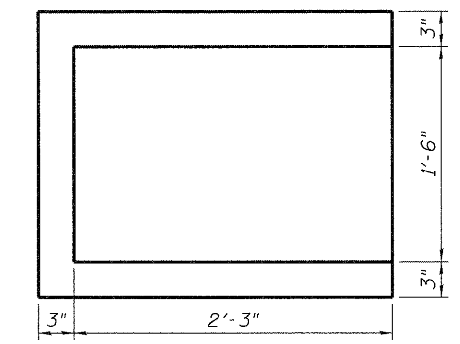
TYPICAL SECTION



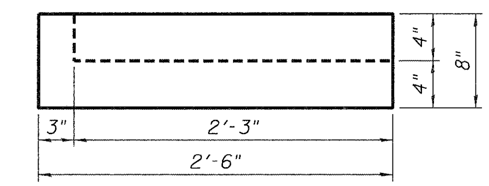
DETAIL D - PIPE HANGER DETAILS

(Use similar pipe clamp at horizontal supports.)

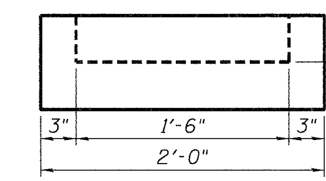
ELEVATION



PLAN

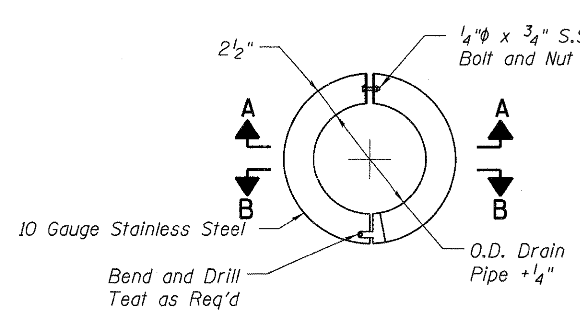


ELEVATION

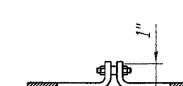


END VIEW

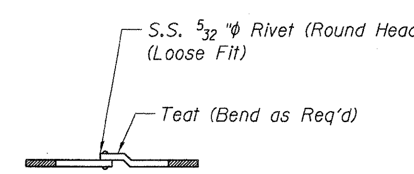
SPLASH BLOCK DETAIL



PLAN
(Looking Down)

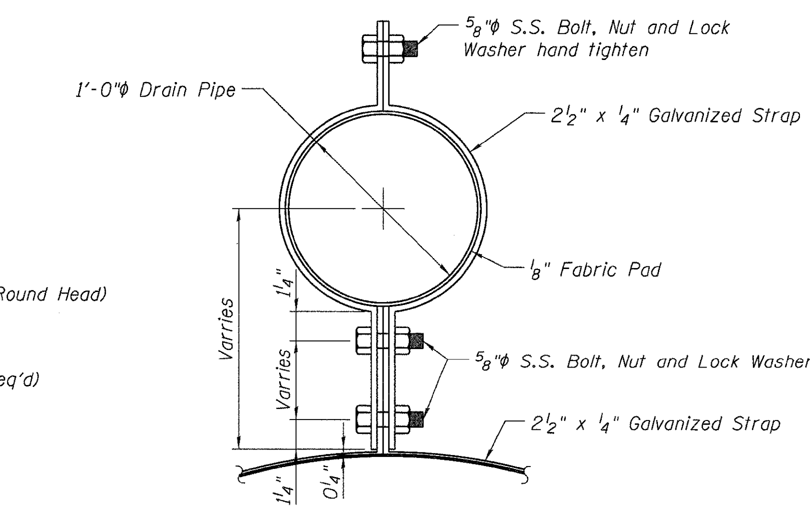


SECTION A-A



SECTION B-B

EXPANSION COLLAR DETAIL



DETAIL C

NOTE:

All pipe hangers, supports and hardware shall be hot-dipped galvanized in accordance with AASHTO M232 (ASTM A153) unless otherwise noted. All bolts, nuts and washers shall be stainless steel. Stainless steel bolts shall conform to the requirements of ASTM A 193M (A193), Class 1, ASTM F593, TYPE 304 Grade B8. Stainless steel nuts shall conform to the requirements of AASHTO M 292, ASTM F594, TYPE 304 Grade 8 or 8F, and the washers shall conform to ASTM A 240, Type 302 or 304.

FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED - TKL	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	BRIDGE DRAINAGE SYSTEM DETAILS	F.A.P. RTE. 998
		DRAWN - CPB	REVISED -	I-70 CONNECTION OVER NS, TRRA, MCT AND INDUSTRIAL DR.		SECTION 82-2-1HVB
TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS	PLOT SCALE = $SCALE$	CHECKED - TCU	REVISED -			COUNTY ST. CLAIR
	PLOT DATE = $DATE$	DATE - 06/04/10	REVISED -		SCALE:	TOTAL SHEETS 285
					SHEET NO. S-91 OF S-111	SHEET NO. 201
					STA. 134+22.00 TO STA.	SN 082-0318 (EB) & 0319 (WB) CONTRACT NO. 76C44
						FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

..\0820318-CONN-99-001-BD.DGN, ..\0820318-CONN-05-001-DN.DGN, ..\0820318-CONN-05-001-DN.DGN
6-03-2010, 10:51:18 BONDHUJD \\FS-2044\AM\VAULT\D-TRANS.07\2202\20868-001\STRUCT\CAD\01 DESIGN\0820318\SHEET\0820318-CONN-05-002-SHT-DN.DGN

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SOIL BORING LOG

PAGE 1 of 4
DATE 3/9-10/2009
LOGGED BY DR
GSI JOB No. 08201

ROUTE I-70 DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION 82-2-1HVB LOCATION I-70 Curved Approach Structures
COUNTY St. Clair DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. S.N. 082-0318
Station: 127+00 to 140+74
BORING NO. SB-01
Station: 130+04
Offset: 43.0' Left
Ground Surface Elev. 405.8

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter n/a
Upon Completion n/a
After 24 Hrs. n/a

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
6.0" TOPSOIL–black	405.3		AS	–	29
SILTY CLAY–dark brown & gray–medium stiff to stiff (A–7) Wet			2		*83*
			2		
			4	1.5B	33
			1		*80*
			2		
		–5	2	0.7B	41
			2		*82*
			2		
	397.8		5	1.2B	40
SAND–brown–loose to medium dense (A–3)			5		
			5		
		–10	6	NP	6
			3		
			4		
			5	NP	27
			6		
			5		
		–15	6	NP	28
			4		
			6		
			7	NP	25
			5		
			7		
		–20	7	NP	28

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SAND–brown–loose to medium dense (A–3)			5		
			6		
			6	NP	25
			7		
			11		
		–25	12	NP	23
			7		
			8		
			15	NP	15
			6		
			8		
	475.3	–30	10	NP	24
SAND–gray–loose to medium dense (A–3)			7		
			12		
			17	NP	24
			11		
			10		
		–35	9	NP	21
			5		
			7		
			11	NP	13
			10		
			11		
		–40	10	NP	16

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B–Bulge, S–Shear, P–Penetrometer) ST–Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR–No Recovery

SB-01

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SOIL BORING LOG

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ROUTE I-70 DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION 82-2-1HVB LOCATION I-70 Curved Approach Structures
COUNTY St. Clair DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. S.N. 082-0318
Station: 127+00 to 140+74
BORING NO. SB-01
Station: 130+04
Offset: 43.0' Left
Ground Surface Elev. 405.8

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter n/a
Upon Completion n/a
After 24 Hrs. n/a

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SAND–gray–loose to medium dense (A–3)			3		
			3		
			3	NP	17
			20		
			24		
		–45	25	NP	23
			3		
			6		
			9	NP	18
			14		
			15		
		–50	11	NP	18
			4		
			6		
			10	NP	15
			8		
			20		
		–55	18	NP	22
			21		
			26		
			27	NP	21
			5		
Trace organics from –58.5' to –60.0'.			4		
		–60	10	NP	27

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SAND–loose to medium dense (A–3)	345.3				
SAND & GRAVEL–gray–medium dense (A–1)			7		
			6		
	342.8		6	NP	15
			7		
			9		
		–65	11	NP	20
			10		
Trace organics from –66.0' to –67.5'.			12		
			14	NP	24
SAND–brown & gray–medium dense to dense (A–3)			6		
			10		
		–70	12	NP	25
			10		
			11		
			18	NP	19
			21		
			18		
		–75	15	NP	12
			18		
			27		
			28	NP	18
			14		
			18		
		–80	18	NP	17

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B–Bulge, S–Shear, P–Penetrometer) ST–Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR–No Recovery

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SOIL BORING LOG

PAGE 3 of 4
DATE 3/9-10/2009
LOGGED BY DR
GSI JOB No. 08201

ROUTE I-70 DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION 82-2-1HVB LOCATION I-70 Curved Approach Structures
COUNTY St. Clair DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. S.N. 082-0318
Station: 127+00 to 140+74
BORING NO. SB-01
Station: 130+04
Offset: 43.0' Left
Ground Surface Elev. 405.8

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter n/a
Upon Completion n/a
After 24 Hrs. n/a

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SAND–medium dense to dense (A–3)	325.3				
SAND with Gravel–brown & gray–medium dense to dense (A–1–b)			9		
			10		
			13	NP	15
			22		
			27		
		–85	28	NP	12
			16		
			26		
			25	NP	15
			32		
			34		
		–90	15	NP	16
			31		
	313.8		50/3"		
SAND & GRAVEL–gray–very dense (A–1)				NP	14
			50/6"		
		–95		NP	10
			39		
			50/5"		
	307.8			NP	8
SAND with Gravel–gray–very dense (A–1–b)			26		
			33		
		–100	50/5"	NP	15

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SAND with Gravel–very dense (A–1–b)	305.3				
SAND & GRAVEL–gray–very dense (A–1)			46		
			50/3"		
				NP	10
			16		
			50/3"		
		–105		NP	6
			50/5"		
	297.8			NP	9
Drillers Observation: Apparent Bedrock.	296.8				
RUN 1 (–109.0' to –119.0') Mississippian System, Valmeyeran Series Limestone		–110	RUN 1		
Light gray & fine grained with horizontal bedding becoming gray & coarser grained @ –113.45. Some chert replacement throughout. Horizontal fractures @ –109.3', –109.4', –109.5', –110.1', –110.2', –110.7', –111.1', –111.8', –112.0' & –112.2'. Tight horizontal fractures between –112.2' & –113.4'. Horizontal fractures @ –113.4', –114.5', –115.1', –116.3', –116.7', –117.0', –117.6' & –118.6'.		–115			
Recovery=97.0% R.Q.D.=71.8%	286.8				
RUN 2 (–119.0' to –124.0')		–120	RUN 2		

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B–Bulge, S–Shear, P–Penetrometer) ST–Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR–No Recovery

..\0820318-CONN-05-010-MS.DGN, ..\0820318-CONN-05-010-MS.DGN, ..\0820318-CONN-05-010-MS.DGN, ..\0820318-CONN-99-001-BO.DGN
6-02-2010, 18:02:38 BONDHUJO \\FS-0044\AM\VAULT,D-TRANS_07\2202\20868-001\STRUCT\CAD\01 DESIGN\0820318\SHEET\0820318-CONN-05-001-SHT-MS.DGN

FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SOIL BORING LOGS 1 OF 20	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS		DRAWN - SNB	REVISED -	I-70 CONNECTION OVER NS, TRRA, MCT AND INDUSTRIAL DR.		998	82-2-1HVB	ST. CLAIR	285	202
	PLOT SCALE = $SCALE$	CHECKED -	REVISED -		SCALE:	SN 082-0318 (EB) & 0319 (WB)		CONTRACT NO. 76C44		
	PLOT DATE = $DATE$	DATE - 06/04/10	REVISED -		SHEET NO. S-92 OF S-111 STA. 134+22.00 TO STA.	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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SOIL BORING LOG

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ROUTE I-70 | DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION 82-2-1HVB | LOCATION I-70 Curved Approach Structures
COUNTY St. Clair | DRILLING METHOD 3.25" Hollow Stem Auger | HAMMER TYPE CME Automatic

STRUCT. NO. S.N. 082-0318
Station: 127+00 to 140+74
BORING NO. SB-01
Station: 130+04
Offset: 43.0' Left
Ground Surface Elev. *405.8*

Surface Water Elev. *n/a*
Stream Bed Elev. *n/a*
Groundwater Elevation:
First Encounter *n/a*
Upon Completion *n/a*
After 24 Hrs. *n/a*

Description	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Gray with horizontal bedding. Fine grained with no chert replacement encountered. Horizontal fractures @ –119.5', –119.8', –120.2', –120.8', –121.2', –121.8', –121.9', –122.1', –122.3', –122.7', –113.3' & –113.7'. Recovery = 100.0% R.Q.D. = 76.5% *281.8*		RUN 2						
End Of Boring @ –124.0' Hollow Stem Augers To –10.0' Rotary Drilling To Completion CME Automatic Hammer 10' Of 4"* Casing Used 108' Of 3"* Casing Used	–125				–145			
	–130				–150			
	–135				–155			
	–140				–160			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B–Bulge, S–Shear, P–Penetrometer) ST–Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR–No Recovery

SB-01 Run-1

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ROCK CORE LOG

PAGE 1 of 2
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ROUTE I-70 | DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION 82-2-1HVB | LOCATION I-70 Curved Approach Structures
COUNTY St. Clair | CORING METHOD Rotary Wash

STRUCT. NO. S.N. 082-0318
Station: 127+00 to 140+74
BORING NO. SB-01
Station: 130+04
Offset: 43.0' Left
Ground Surface Elev. *405.8*

CORING BARREL TYPE & SIZE NX Double Swivel–10 ft
Core Diameter 2.0 in
Top of Rock Elev. *297.8*
Begin Core Elev. *296.8*

Description	DEPTH (ft)	CORE RUN (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
RUN 1 (–109.0' to –119.0') Mississippian System, Valmeyeran Series Limestone. Light gray & fine grained with horizontal bedding becoming gray & coarser grained @ –113.45. Some chert replacement throughout. Horizontal fractures @ –109.3', –109.4', –109.5', –110.1', –110.2', –110.7', –111.1', –111.8', –112.0' & –112.2'. Tight horizontal fractures between –112.2' & –113.4'. Horizontal fractures @ –113.4', –114.5', –115.1', –116.3', –116.7', –117.0', –117.6' & –118.6'. *296.8*		1	97.0	71.8	n/a	1018@ –109.7'
	–5					
	–10					

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

SB-01 Run-2

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ROCK CORE LOG

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ROUTE I-70 | DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION 82-2-1HVB | LOCATION I-70 Curved Approach Structures
COUNTY St. Clair | CORING METHOD Rotary Wash

STRUCT. NO. S.N. 082-0318
Station: 127+00 to 140+74
BORING NO. SB-01
Station: 130+04
Offset: 43.0' Left
Ground Surface Elev. *405.8*

CORING BARREL TYPE & SIZE NX Double Swivel–5 ft
Core Diameter 2.0 in
Top of Rock Elev. *297.8*
Begin Core Elev. *296.8*

Description	DEPTH (ft)	CORE RUN (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
RUN 2 (–119.0' to –124.0') Mississippian System, Valmeyeran Series Limestone. Gray with horizontal bedding. Fine grained with no chert replacement encountered. Horizontal fractures @ –119.5', –119.8', –120.2', –120.8', –121.2', –121.8', –121.9', –122.1', –122.3', –122.7', –113.3' & –113.7'. *286.8*		2	100.0	76.5	n/a	684@ –119.1'
	–5					
	–10					

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

SB-02

SOIL BORING LOG

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PAGE 1 of 4
DATE 3/11-12/2009
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GSI JOB No. 08201

ROUTE I-70 — DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION 82-2-1HVB — LOCATION I-70 Curved Approach Structures
COUNTY St. Clair — DRILLING METHOD 3.25" Hollow Stem Auger — HAMMER TYPE CME Automatic

STRUCT. NO. S.N. 082-0318
Station: 127+00 to 140+74
BORING NO. SB-02
Station: 130+04
Offset: 43.0' Right
Ground Surface Elev. 405.3

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter 395.3
Upon Completion n/a
After 24 Hrs. n/a

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
TOPSOIL–black	404.3		AS	–	35
CLAY–dark brown & gray–medium stiff to stiff (A-7) Wet			2		*77*
			3		
			3	1.2B	42
					80
		–5	ST	0.6B	40
Sand seams from –6.0' to –10.0'.			2		
			5		
			5	1.5P	36
			2		
			2		
	395.3	–10	2	0.25P	39
SAND–brown–loose to medium dense (A-3)			6		
			6		
			7	NP	26
			8		
			9		
		–15	7	NP	25
			5		
			5		
			4	NP	29
			6		
			7		
		–20	7	NP	29

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SAND–brown–loose to medium dense (A-3)			6		
			6		
			9	NP	23
			8		
			9		
		–25	8	NP	22
			3		
			5		
			6	NP	16
	377.3				
SAND–gray–medium dense (A-3)			8		
			12		
		–30	13	NP	24
			12		
			12		
			10	NP	25
Trace organics from –33.5' to –35.0'.			6		
			7		
		–35	9	NP	28
			8		
			11		
			9	NP	20
			13		
			14		
		–40	13	NP	16

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B–Bulge, S–Shear, P–Penetrometer) ST–Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR–No Recovery

SB-02

SOIL BORING LOG

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DATE 3/11-12/2009
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GSI JOB No. 08201

ROUTE I-70 — DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION 82-2-1HVB — LOCATION I-70 Curved Approach Structures
COUNTY St. Clair — DRILLING METHOD 3.25" Hollow Stem Auger — HAMMER TYPE CME Automatic

STRUCT. NO. S.N. 082-0318
Station: 127+00 to 140+74
BORING NO. SB-02
Station: 130+04
Offset: 43.0' Right
Ground Surface Elev. 405.3

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter 395.3
Upon Completion n/a
After 24 Hrs. n/a

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SAND–gray–medium dense to dense (A-3)			7		
			6		
			6	NP	17
Clay seams from –43.5' to –45.0'.			2		
			5		
		–45	6	NP	13
			12		
			16		
			20	NP	18
	357.3				
SAND with Clay Seams–gray–medium dense (A-2)			3		
			6		
		–50	11	<0.25P	34
	354.8				
SAND–gray–medium dense to dense (A-3)			10		
			16		
			25	NP	18
			14		
			26		
		–55	33	NP	21
	349.8				
SAND with Gravel–gray–medium dense (A-1-b)			10		
			13		
			14	NP	15
			8		
			11		
		–60	13	NP	17

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SAND with Gravel (A-1-b)	344.8				
SAND–gray–medium dense to dense (A-3)			10		
			15		
			17	NP	21
			10		
			11		
		–65	13	NP	22
			10		
			11		
			15	NP	24
			8		
			11		
		–70	12	NP	21
	334.8				
SAND & GRAVEL–gray–very dense (A-1)			27		
			28		
			50/5"	NP	6
			35		
			41		
		–75	27	NP	11
	329.8				
SAND–brown & gray–medium dense to very dense (A-3)			12		
			14		
			15	NP	12
			19		
			18		
		–80	22	NP	12

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B–Bulge, S–Shear, P–Penetrometer) ST–Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR–No Recovery

SB-02

SOIL BORING LOG

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(630) 355-2838

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DATE 3/11-12/2009
LOGGED BY DR
GSI JOB No. 08201

ROUTE I-70 — DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION 82-2-1HVB — LOCATION I-70 Curved Approach Structures
COUNTY St. Clair — DRILLING METHOD 3.25" Hollow Stem Auger — HAMMER TYPE CME Automatic

STRUCT. NO. S.N. 082-0318
Station: 127+00 to 140+74
BORING NO. SB-02
Station: 130+04
Offset: 43.0' Right
Ground Surface Elev. 405.3

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter 395.3
Upon Completion n/a
After 24 Hrs. n/a

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SAND–brown & gray–medium dense to very dense (A-3)			19		
			34		
			35	NP	14
			18		
			19		
		–85	19	NP	13
			20		
			18		
			27	NP	22
			17		
			21		
		–90	27	NP	14
			18		
			31		
			28	NP	13
	312.3				
SAND & GRAVEL–brown & gray–dense (A-1)			41		
			29		
		–95	28	NP	15
	309.8				
Silty SAND & GRAVEL–brown & gray–dense (A-2)			9		
			19		
			21	NP	14
	306.3		26		
COBBLES, BOULDERS & GRAVEL–gray–very dense (A-1)			50/3"		
		–100		NP	13

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
COBBLES, BOULDERS & GRAVEL–gray–very dense (A-1)			33		
			35		
			50	NP	11
			50/1"		
		–105			NR
	299.3				
Drillers Observation:Cobbles & Boulders	298.8				
RUN 1 (–106.5' to –107.0') Cobbles & Boulders RUN 1 (–107.0' to –116.5') Mississippian System, Valmeyeran Series Limestone Light gray & fine grained with horizontal bedding becoming gray & coarser grained @ –112.35'. No chert replacement encountered. Horizontal fractures @ –107.6', –107.7', –107.9', –108.1', –108.3', –108.5', –108.9', –109.3', –109.5', –109.8', –110.4', –110.6', –110.7', –111.3', –112.9', –113.2', –113.9' & –115.2'. Recovery=92.1% R.Q.D.=71.1%		–110 –115	RUN 1		
	288.5				
RUN 2 (–116.5' to –119.0') Gray with horizontal bedding. Fine grained with no chert encountered. Horizontal fractures @ –116.7', –117.0', –117.3', –117.9' & –118.3'. Recovery=100.0% R.Q.D.=40.0%	286.3		RUN 2		
RUN 3 (–119.0' to –121.5') Gray with horizontal bedding. Fine grained		–120	RUN 3		

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B–Bulge, S–Shear, P–Penetrometer) ST–Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR–No Recovery

6-02-2010, 18:02:53 BONDHUJD

FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION I-70 CONNECTION OVER NS, TRRA, MCT AND INDUSTRIAL DR.	SOIL BORING LOGS 3 OF 20	F.A.P. RTE. 998 — SECTION 82-2-1HVB — COUNTY ST. CLAIR — TOTAL SHEETS 285 — SHEET NO. 204
		DRAWN - SNB	REVISED -			SN 082-0318 (EB) & 0319 (WB) — CONTRACT NO. 76C44
TENG — TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS	PLOT SCALE = $SCALE$	CHECKED -	REVISED -		SCALE: — SHEET NO. S-94 OF S-111 — STA. 134+22.00 TO STA.	FED. ROAD DIST. NO. — ILLINOIS — FED. AID PROJECT
	PLOT DATE = $DATE$	DATE - 06/04/10	REVISED -			

SB-02

SOIL BORING LOG

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GSI JOB No. 08201

ROUTE I-70 DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION 82-2-1HVB LOCATION I-70 Curved Approach Structures
COUNTY St. Clair DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. S.N. 082-0318
Station: 127+00 to 140+74
BORING NO. SB-02
Station: 130+04
Offset: 43.0' Right
Ground Surface Elev. 405.3

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter 395.3
Upon Completion n/a
After 24 Hrs. n/a

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)		DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
with no chert encountered. Horizontal fractures @ -119.7' & -120.1'. Thin clay partings @ -120.8', -121.0' & -121.1'. 283.8		RUN 3							
End Of Boring @ -121.5' Hollow Stem Augers To -10.0' Rotary Drilling To Completion CME Automatic Hammer 10' Of 4"* Casing Used 108' Of 3"* Casing Used									
	-125					-145			
	-130					-150			
	-135					-155			
	-140					-160			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

SB-02 Run-1

ROCK CORE LOG

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GSI JOB No. 08201

ROUTE I-70 DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION 82-2-1HVB LOCATION I-70 Curved Approach Structures
COUNTY St. Clair CORING METHOD Rotary Wash

STRUCT. NO. S.N. 082-0318
Station: 127+00 to 140+74
BORING NO. SB-02
Station: 130+04
Offset: 43.0' Right
Ground Surface Elev. 405.3

CORING BARREL TYPE & SIZE NX Double Swivel-10 ft
Core Diameter 2.0 in
Top of Rock Elev. 298.3
Begin Core Elev. 298.8

Description	DEPTH (ft)	CORE RUN (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
RUN 1 (-106.5' to -107.0') Cobbles & Boulders 298.8 RUN 1 (-107.0' to -116.5') 298.3 Mississippian System, Valmeyeran Series Limestone Light gray & fine grained with horizontal bedding becoming gray & coarser grained @ -112.35'. No chert replacement encountered. Horizontal fractures @ -107.6', -107.7', -107.9', -108.1', -108.3', -108.5', -108.9', -109.3', -109.5', -109.8', -110.4', -110.6', -110.7', -111.3', -112.9', -113.2', -113.9' & -115.2'.		1	92.1	71.1	n/a	999@ -107.0'
	-5					
	-10					

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

SB-02 Run-2&3

ROCK CORE LOG

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PAGE 2 of 2
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GSI JOB No. 08201

ROUTE I-70 DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION 82-2-1HVB LOCATION I-70 Curved Approach Structures
COUNTY St. Clair CORING METHOD Rotary Wash

STRUCT. NO. S.N. 082-0318
Station: 127+00 to 140+74
BORING NO. SB-02
Station: 130+04
Offset: 43.0' Right
Ground Surface Elev. 405.3

CORING BARREL TYPE & SIZE NX Double Swivel-5 ft
Core Diameter 2.0 in
Top of Rock Elev. 298.3
Begin Core Elev. 298.8

Description	DEPTH (ft)	CORE RUN (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
RUN 2 (-116.5' to -119.0') 288.8 Mississippian System, Valmeyeran Series Limestone Gray with horizontal bedding. Fine grained with no chert encountered. Horizontal fractures @ -116.7', -117.0', -117.3', -117.9' & -118.3'.		2	100.0	40.0	n/a	n/a
RUN 3 (-119.0' to -121.5') 286.3 Mississippian System, Valmeyeran Series Limestone Gray with horizontal bedding. Fine grained with no chert encountered. Horizontal fractures @ -119.7' & -120.1'. Horizontal fractures with thin clay partings @ -120.8', -121.0' & -121.1'.	-5	3	100.0	86.0	n/a	991@ -119.2'
	-10					

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

..\0820318-CONN-05-010-MS.DGN, ..\0820318-CONN-05-010-MS.DGN, ..\0820318-CONN-05-010-MS.DGN, ..\0820318-CONN-99-001-BO.DGN
6-02-2010, 18:03:04 BONDHUJO \\FS-0044\AM\VAULT,D-TRANS_07\2202\20868-001\STRUCT\CAD\01 DESIGN\0820318\SHEET\0820318-CONN-05-004-SHT-MS.DGN

FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED -	REVISED -	STATE OF ILLINOIS	SOIL BORING LOGS
		DRAWN - SNB	REVISED -	DEPARTMENT OF TRANSPORTATION	4 OF 20
TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS	PLOT SCALE = $SCALE$	CHECKED -	REVISED -	I-70 CONNECTION OVER	SCALE:
	PLOT DATE = $DATE$	DATE - 06/04/10	REVISED -	NS, TRRA, MCT AND INDUSTRIAL DR.	SHEET NO. S-95 OF S-111 STA. 134+22.00 TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB	ST. CLAIR	285	205
SN 082-0318 (EB) & 0319 (WB)		CONTRACT NO. 76C44		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SB-03

SOIL BORING LOG

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PAGE 1 of 3
DATE 3/4-5/2009
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GSI JOB No. 08201

ROUTE I-70 | DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION 82-2-1HVB | LOCATION I-70 Curved Approach Structures
COUNTY St. Clair | DRILLING METHOD 3.25" Hollow Stem Auger | HAMMER TYPE CME Automatic

STRUCT. NO. S.N. 082-0318
Station: 127+00 to 140+74
BORING NO. SB-03
Station: 132+64
Offset: 43.0' Left
Ground Surface Elev. 404.4

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter n/a
Upon Completion n/a
After 24 Hrs. n/a

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
6.0" TOPSOIL–black	403.9		AS	–	45
SILTY CLAY–dark brown & gray–medium stiff to stiff (A-7) Wet			2		
			3		
			4	0.5P	37
			2		*79*
			3		
		–5	4	1.3B	38
	398.9				
SANDY LOAM–brown–medium dense (A-2)			ST	NP	11
			4		
			5		
		–10	5	NP	35
	393.9				
SAND–brown & gray–medium dense (A-3)			5		
			7		
			9	NP	25
			6		
			6		
		–15	4	NP	24
	388.9				
CLAY–dark gray–very soft (A-7) Wet			2		*60*
			1		
			1	0.2B	61
	386.4				
SAND–brown & gray–medium dense to dense (A-3)		–20	ST	NP	27

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SAND–brown & gray–medium dense to dense (A-3)			1		
			2		
			4	NP	24
			10		
			15		
		–25	14	NP	23
			16		
			13		
			13	NP	25
			4		
			4		
		–30	7	NP	18
			4		
			6		
			9	NP	17
			7		
			5		
		–35	9	NP	17
			6		
			8		
			11	NP	17
			9		
			15		
		–40	18	NP	22

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

SB-03

SOIL BORING LOG

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DATE 3/4-5/2009
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ROUTE I-70 | DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION 82-2-1HVB | LOCATION I-70 Curved Approach Structures
COUNTY St. Clair | DRILLING METHOD 3.25" Hollow Stem Auger | HAMMER TYPE CME Automatic

STRUCT. NO. S.N. 082-0318
Station: 127+00 to 140+74
BORING NO. SB-03
Station: 132+64
Offset: 43.0' Left
Ground Surface Elev. 404.4

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter n/a
Upon Completion n/a
After 24 Hrs. n/a

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SAND–brown & gray–medium dense to dense (A-3)			13		
			13		
			14	NP	23
			9		
			11		
		–45	17	NP	27
			4		
			9		
			12	NP	15
			6		
			9		
		–50	12	NP	16
			13		
			15		
			19	NP	17
			16		
			25		
		–55	28	NP	16
			12		
			12		
			11	NP	16
			7		
			10		
		–60	12	NP	13

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SAND–brown & gray–medium dense to dense (A-3)			9		
			7		
			11	NP	13
			14		
			11		
		–65	12	NP	13
			11		
			13		
			16	NP	13
			14		
			16		
		–70	14	NP	14
	333.9				
SAND with Gravel–brown & gray–medium dense to very dense (A-1-b)			8		
			30		
			50/1"	NP	9
			50/5"		
		–75		NP	3
			19		
			26		
			24	NP	9
			9		
			12		
		–80	13	NP	14

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

SB-03

SOIL BORING LOG

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Geotechnical, Environmental & Civil Engineering
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PAGE 3 of 3
DATE 3/4-5/2009
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GSI JOB No. 08201

ROUTE I-70 | DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION 82-2-1HVB | LOCATION I-70 Curved Approach Structures
COUNTY St. Clair | DRILLING METHOD 3.25" Hollow Stem Auger | HAMMER TYPE CME Automatic

STRUCT. NO. S.N. 082-0318
Station: 127+00 to 140+74
BORING NO. SB-03
Station: 132+64
Offset: 43.0' Left
Ground Surface Elev. 404.4

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter n/a
Upon Completion n/a
After 24 Hrs. n/a

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SAND with Gravel–brown & gray–medium dense to very dense (A-1-b)			9		
			11		
			12	NP	10
			12		
			26		
		–85	34	NP	10
	318.9				
SAND–brown & gray–dense (A-3)			19		
			22		
			30	NP	15
	316.4				
SAND & GRAVEL–brown & gray–very dense (A-1)			34		
			34		
		–90	39	NP	8
	313.9				
SAND–brown & gray–very dense (A-3)			22		
			50/5"		
				NP	17
			42		
			37		
		–95	42	NP	13
			24		
			32		
			37	NP	11
			26		
			50/5"		
		–100		NP	10

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SAND–very dense (A-3)	303.9				
GRAVEL–brown & gray–very dense (A-1)			50/3"		
				NP	6
	300.9				
Drillers Observation: Apparent Bedrock	299.9				
Mississippian System, Valmeyeran Series Limestone RUN 1 (–104.5' to –114.5') Light gray with horizontal bedding. Fine grained with numerous horizontal fractures throughout. Some chert replacement. Recovery=100.0% R.Q.D.=33.5%		–105	RUN 1		
		–110			
	289.9				
RUN 2 (–114.5' to –119.5') Light gray to gray with horizontal bedding. Fine grained with some chert replacement. Horizontal fractures @ –114.6', –115.0', –115.5', –116.9', –117.4' & –119.2'. Recovery=100.0% R.Q.D.=100.0% End Of Boring @ –119.5' Hollow Stem Augers To –10.0' Rotary Drilling To Completion		–115	RUN 2		
	284.9				
CME Automatic Hammer		–120			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED -	REVISED -
		DRAWN - SNB	REVISED -
TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS	PLOT SCALE = $SCALE$	CHECKED -	REVISED -
	PLOT DATE = $DATE$	DATE - 06/04/10	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
I-70 CONNECTION OVER
NS, TRRA, MCT AND INDUSTRIAL DR.

SOIL BORING LOGS
5 OF 20

SCALE: | SHEET NO. S-96 OF S-111 | STA. 134+22.00 TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB	ST. CLAIR	285	206
SN 082-0318 (EB) & 0319 (WB)		CONTRACT NO. 76C44		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SB-03 Run-1

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ROCK CORE LOG

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LOGGED BY DR
GSI JOB No. 08201

ROUTE I-70
DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION 82-2-1HVB
LOCATION I-70 Curved Approach Structures
COUNTY St. Clair
CORING METHOD Rotary Wash
STRUCT. NO. S.N. 082-0318
Station: 127+00 to 140+74
CORING BARREL TYPE & SIZE NX Double Swivel-10 ft
Core Diameter 2.0 in
Top of Rock Elev. 300.9
Begin Core Elev. 299.9
BORING NO. SB-03
Station: 132+64
Offset: 43.0' Left
Ground Surface Elev. 404.4

Description	Elev.	DEPTH (ft)	CORE RUN (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
MISSISSIPPIAN SYSTEM, VALMEYERAN SERIES LIMESTONE RUN 1 (-104.5' to -114.5') Light gray with horizontal bedding. Fine grained with numerous horizontal fractures throughout. Some chert replacement.	299.9		1	100.0	33.5	n/a	1012@ -110.5'
		-109.5					
		-114.5					

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

SB-03 Run-2

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ROCK CORE LOG

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GSI JOB No. 08201

ROUTE I-70
DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION 82-2-1HVB
LOCATION I-70 Curved Approach Structures
COUNTY St. Clair
CORING METHOD Rotary Wash
STRUCT. NO. S.N. 082-0318
Station: 127+00 to 140+74
CORING BARREL TYPE & SIZE NX Double Swivel-5 ft
Core Diameter 2.0 in
Top of Rock Elev. 300.9
Begin Core Elev. 299.9
BORING NO. SB-03
Station: 132+64
Offset: 43.0' Left
Ground Surface Elev. 404.4

Description	Elev.	DEPTH (ft)	CORE RUN (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
MISSISSIPPIAN SYSTEM, VALMEYERAN SERIES LIMESTONE RUN 2 (-114.5' to -119.5') Light gray to gray with horizontal bedding. Fine grained with some chert replacement. Horizontal fractures @ -114.6', -115.0', -115.5', -116.9', -117.4' & -119.2'.	289.9		2	100.0	100.0	n/a	897@ -116.4'
		-119.5					

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

SB-04

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SOIL BORING LOG

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ROUTE I-70
DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION 82-2-1HVB
LOCATION I-70 Curved Approach Structures
COUNTY St. Clair
DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE CME Automatic
STRUCT. NO. S.N. 082-0318
Station: 127+00 to 140+74
BORING NO. SB-04
Station: 132+64
Offset: 43.0' Right
Ground Surface Elev. 403.7

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter 396.2
Upon Completion n/a
After 24 Hrs. n/a

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
TOPSOIL-black	402.7		AS	-	40
SILTY CLAY-dark brown & gray-medium stiff to stiff (A-7) Wet			2		*78*
			2		
			3	0.9B	42
			1		
			2		
	398.2	-5	4	1.75P	39
SILTY LOAM to LOAM-brown & gray-loose (A-2/A-4)			3		
			3		
			2	NP	32
			2		
			3		
	393.2	-10	5	NP	30
SAND-brown-medium dense (A-3)			6		
			6		
	390.7		6	NP	25
CLAY-dark gray-very soft (A-7) Wet			0		
			3		
	388.2	-15	5	<0.25P	82
SAND-brown & gray-loose to dense (A-3)			4		
			4		
			4	NP	27
			7		
			8		
		-20	9	NP	26

Description	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SAND-brown & gray-loose to dense (A-3)		8		
		10		
		11	NP	24
		16		
		24		
	-25	26	NP	21
		4		
		4		
		8	NP	19
		6		
		10		
	-30	14	NP	15
		4		
		5		
		4	NP	17
		8		
		9		
	-35	10	NP	18
		9		
		11		
		14	NP	22
		10		
		14		
	-40	16	NP	22

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

SB-04

SOIL BORING LOG

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ROUTE I-70
DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION 82-2-1HVB
LOCATION I-70 Curved Approach Structures
COUNTY St. Clair
DRILLING METHOD 3.25" Hollow Stem Auger
HAMMER TYPE CME Automatic

STRUCT. NO. S.N. 082-0318
Station: 127+00 to 140+74
BORING NO. SB-04
Station: 132+64
Offset: 43.0' Right
Ground Surface Elev. 403.7

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter 396.2
Upon Completion n/a
After 24 Hrs. n/a

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SAND-brown & gray- loose to dense (A-3)			8, 10, 13	NP	25
		-45	10, 10, 10	NP	26
			5, 5, 7	NP	16
		-50	7, 11, 17	NP	16
			14, 18, 20	NP	18
		-55	18, 20, 16	NP	13
	348.2				
SAND with Gravel-brown & gray- medium dense (A-1-b)			8, 8, 10	NP	28
		-60	10, 12, 11	NP	14

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SAND with Gravel-brown & gray- medium dense (A-1-b)			6, 7, 13	NP	10
	340.7				
SAND-brown & gray- medium dense to dense (A-3)		-65	10, 14, 16	NP	11
			10, 12, 12	NP	12
		-70	12, 12, 13	NP	13
			14, 19, 50/4"	NP	12
	331.7				
SAND & GRAVEL-brown & gray- very dense (A-1)		-75	10, 42, 27	NP	8
			41, 50/3"	NP	9
	325.7				
SAND-brown & gray- medium dense to very dense (A-3)		-80	10, 11, 12	NP	10

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

SB-04

SOIL BORING LOG

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ROUTE I-70
DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION 82-2-1HVB
LOCATION I-70 Curved Approach Structures
COUNTY St. Clair
DRILLING METHOD 3.25" Hollow Stem Auger
HAMMER TYPE CME Automatic

STRUCT. NO. S.N. 082-0318
Station: 127+00 to 140+74
BORING NO. SB-04
Station: 132+64
Offset: 43.0' Right
Ground Surface Elev. 403.7

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter 396.2
Upon Completion n/a
After 24 Hrs. n/a

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SAND-brown & gray- medium dense to very dense (A-3)			10, 11, 11	NP	13
		-85	11, 9, 10	NP	11
			22, 34, 30	NP	14
		-90	12, 18, 21	NP	22
	313.2				
SAND with Gravel-brown & gray- very dense (A-1-b)			23, 40, 50	NP	7
		-95	15, 34, 50/6"	NP	14
			31, 35, 50	NP	10
		-100	33, 45, 50/5"	NP	9

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SAND with Gravel-brown & gray- very dense (A-1-b)			50/3"	NP	3
	301.2				
Drillers Observation: Apparent Bedrock					
	299.7				
Mississippian System, Valmeyeran Series Limestone RUN 1 (-104.0' to -114.0') Light gray with horizontal bedding. Fine grained with numerous horizontal fractures throughout. Recovery=100.0% R.Q.D.=57.0%		-105 -110	RUN 1		
	389.7				
RUN 2 (-114.0' to -119.0') Light gray & fine grained with horizontal bedding becoming gray & sandy @ -114.5'. Some tight vertical fractures & chert replacement throughout. Numerous horizontal fractures throughout. Recovery=100.0% R.Q.D.=59.0%		-115	RUN 2		
End Of Boring @ -119.0' Hollow Stem Augers To -10.0' Rotary Drilling To Completion CME Automatic Hammer	284.7	-120			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

SB-04 Run-1

ROCK CORE LOG

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ROUTE I-70
DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION 82-2-1HVB
LOCATION I-70 Curved Approach Structures
COUNTY St. Clair
CORING METHOD Rotary Wash

STRUCT. NO. S.N. 082-0318
Station: 127+00 to 140+74
BORING NO. SB-04
Station: 132+64
Offset: 43.0' Right
Ground Surface Elev. 403.7

CORING BARREL TYPE & SIZE NX Double Swivel-10 ft
Core Diameter 2.0 in
Top of Rock Elev. 301.2
Begin Core Elev. 299.7

Description	Elev.	DEPTH (ft)	CORE RUN (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
MISSISSIPPIAN SYSTEM, VALMEYERAN SERIES LIMESTONE RUN 1 (-104.0' to -114.0') Light gray with horizontal bedding. Fine grained with numerous horizontal fractures throughout.	299.7		1	100.0	57.0	n/a	890@ -106.2'
		-5					
		-10					

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

FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SOIL BORING LOGS 7 OF 20	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN - SNB	REVISED -	I-70 CONNECTION OVER		998	82-2-1HVB	ST. CLAIR	285	208
TENG TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS	PLOT SCALE = $SCALE$	CHECKED -	REVISED -	NS, TRRA, MCT AND INDUSTRIAL DR.	SCALE: SHEET NO. S-98 OF S-111 STA. 134+22.00 TO STA.	SN 082-0318 (EB) & 0319 (WB)		CONTRACT NO. 76C44		
	PLOT DATE = $DATE$	DATE - 06/04/10	REVISED -			FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

..\0820318-CONN-05-010-MS.DGN, ..\0820318-CONN-05-010-MS.DGN, ..\0820318-CONN-05-010-MS.DGN, ..\0820318-CONN-99-001-BD.DGN
6-02-2010, 18:03:54 BONDHUJO \\FS-2044\AMVAULT\D-TRANS.07\2202\20868-001\STRUCT\CAD\01 DESIGN\0820318\SHEET\0820318-CONN-05-007-SHT-MS.DGN

SB-04 Run-2

ROCK CORE LOG

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ROUTE I-70 | DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION 82-2-1HVB | LOCATION I-70 Curved Approach Structures
COUNTY St. Clair | CORING METHOD Rotary Wash
STRUCT. NO. S.N. 082-0318 | CORING BARREL TYPE & SIZE NX Double Swivel-5 ft
Station: 127+00 to 140+74 | Core Diameter 2.0 in
BORING NO. SB-04 | Top of Rock Elev. 301.2
Station: 132+64 | Begin Core Elev. 299.7
Offset: 43.0' Right
Ground Surface Elev. 403.7

Description	Elev.	DEPTH (ft)	CORE RUN (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
MISSISSIPPIAN SYSTEM, VALMEYERAN SERIES LIMESTONE RUN 2 (-114.0' to -119.0') Light gray & fine grained with horizontal bedding becoming gray & sandy @ -114.5'. Some tight vertical fractures & chert replacement throughout. Horizontal fractures @ -114.1', -114.5', -115.0', -115.2', -115.7', -116.3', -116.9', -117.1', -117.5', -117.6', -118.1', -118.3' & -118.8'.	289.7	-119.0	2	100.0	59.0	n/a	1002@ -116.5'

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

SB-05

SOIL BORING LOG

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ROUTE I-70 | DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION 82-2-1HVB | LOCATION I-70 Curved Approach Structures
COUNTY St. Clair | DRILLING METHOD 3.25" Hollow Stem Auger | HAMMER TYPE CME Automatic
STRUCT. NO. S.N. 082-0318
Station: 127+00 to 140+74
BORING NO. SB-05
Station: 135+64
Offset: 43.0' Left
Ground Surface Elev. 403.8

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter 395.3
Upon Completion n/a
Dry Cave In 395.3

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SANDY LOAM with Cinders-black (Fill)	402.8		AS	NP	32
TOPSOIL-black (A-7)			2		
			1		
	400.8		2	NP	50
LOAM-brown-loose (A-4)			1		
			2		
		-5	2	NP	28
			2		
			2		
	395.3		4	NP	21
SAND-brown-medium dense (A-3)			2		
			3		
		-10	3	NP	28
			6		
			4		
			3	NP	22
			4		
			4		
		-15	5	NP	29
			7		
			8		
			10	NP	26
			6		
			7		
		-20	8	NP	25
SAND-brown-medium dense (A-3)			8		
			10		
			12	NP	24
			6		
			11		
		-25	11	NP	25
			4		
			4		
	375.8		6	NP	30
SILTY LOAM-brown-very loose (A-4)			2		
			1		
		-30	2	NP	41
			2		
			1		
	370.8		2	NP	28
SAND-dark gray to gray-medium dense to dense (A-3)			6		
			7		
		-35	6	NP	26
			3		
			6		
			9	NP	29
			7		
			8		
		-40	7	NP	29

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

SB-05

SOIL BORING LOG

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ROUTE I-70 | DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION 82-2-1HVB | LOCATION I-70 Curved Approach Structures
COUNTY St. Clair | DRILLING METHOD 3.25" Hollow Stem Auger | HAMMER TYPE CME Automatic
STRUCT. NO. S.N. 082-0318
Station: 127+00 to 140+74
BORING NO. SB-05
Station: 135+64
Offset: 43.0' Left
Ground Surface Elev. 403.8

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter 395.3
Upon Completion n/a
Dry Cave In 395.3

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SAND-dark gray to gray-medium dense to dense (A-3)			8		
			8		
			8	NP	15
			7		
			7		
		-45	9	NP	18
Trace organics from -46.0' to -47.5'.			10		
			11		
			11	NP	21
			7		
			9		
		-50	12	NP	22
			9		
			15		
			17	NP	20
			11		
			12		
		-55	14	NP	21
			11		
			12		
			14	NP	20
			6		
			5		
		-60	5	NP	17
SAND-medium dense to dense (A-3)	343.3				
SAND with Gravel-brown & gray-loose to medium dense (A-1-b)			6		
			4		
			6	NP	15
			3		
			4		
	338.3	-65	3	NP	16
SAND-brown & gray-medium dense to very dense (A-3)			10		
			10		
			8	NP	16
			9		
			10		
		-70	11	NP	13
			12		
			19		
			22	NP	18
			17		
			25		
	328.3	-75	43	NP	16
SAND with Gravel-brown & gray-medium dense (A-1-b)			14		
			12		
			16	NP	11
			12		
			13		
		-80	14	NP	13

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

SB-05

SOIL BORING LOG

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ROUTE I-70 | DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION 82-2-1HVB | LOCATION I-70 Curved Approach Structures
COUNTY St. Clair | DRILLING METHOD 3.25" Hollow Stem Auger | HAMMER TYPE CME Automatic

STRUCT. NO. S.N. 082-0318
Station: 127+00 to 140+74
BORING NO. SB-05
Station: 135+64
Offset: 43.0' Left
Ground Surface Elev. 403.8

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter 395.3
Upon Completion n/a
Dry Cave In 395.3

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SAND with Gravel-(A-1-b)	323.3				
SAND-brown & gray-dense (A-3)			16		
			21		
			21	NP	12
			12		
			20		
		-85	21	NP	14
			13		
			21		
			18	NP	14
	315.3				
			16		
			15		
		-90	17	NP	13
			14		
			12		
			11	NP	13
	310.8				
GRAVEL-brown & gray-very dense (A-1-a)			50/5"		
		-95		NP	7
			50/3"		
				NP	4
			50/2"		
		-100			NR

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
GRAVEL-very dense (A-1-a)	303.3				
SAND & GRAVEL-brown & gray-very dense (A-1)			50/6"		
				NP	12
	300.8				
SAND with Gravel-brown & gray-very dense (A-1-b)			25		
			43		
		-105	43	NP	12
	297.8				
Drillers Observation: Boulder or Bedrock.	297.3				
RUN 1 (-106.5' to -116.5') Mississippian System, Valmeyeran Series Limestone Light gray with horizontal bedding. Fine grained with numerous horizontal fractures throughout & some thin clay partings. Recovery = 100.0% R.Q.D. = 19.8%		-110 -115	RUN 1		
	287.3				
RUN 2 (-116.5' to -121.5') Mississippian System, Valmeyeran Series Limestone Light gray with horizontal bedding. Fine grained with numerous horizontal fractures throughout & some thin clay partings becoming darker gray & weathered with some chert replacement.		-120	RUN 2		

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

SB-05

SOIL BORING LOG

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ROUTE I-70 | DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION 82-2-1HVB | LOCATION I-70 Curved Approach Structures
COUNTY St. Clair | DRILLING METHOD 3.25" Hollow Stem Auger | HAMMER TYPE CME Automatic

STRUCT. NO. S.N. 082-0318
Station: 127+00 to 140+74
BORING NO. SB-05
Station: 135+64
Offset: 43.0' Left
Ground Surface Elev. 403.8

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter 395.3
Upon Completion n/a
Dry Cave In 395.3

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Numerous horizontal fractures throughout. Recovery = 100.0% R.Q.D. = 8.0%	282.3		RUN 2		
End Of Boring @ -121.5' Hollow Stem Augers To -10.0' Rotary Drilling To Completion CME Automatic Hammer 10' Of 4"* Casing Used 108' Of 3"* Casing Used		-125			
		-130			
		-135			
		-140			

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
		-145			
		-150			
		-155			
		-160			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

SB-05 Run-1

ROCK CORE LOG

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ROUTE I-70 | DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION 82-2-1HVB | LOCATION I-70 Curved Approach Structures
COUNTY St. Clair | CORING METHOD Rotary Wash

STRUCT. NO. S.N. 082-0318
Station: 127+00 to 140+74
BORING NO. SB-05
Station: 135+64
Offset: 43.0' Left
Ground Surface Elev. 403.8

CORING BARREL TYPE & SIZE NX Double Swivel-5 ft
Core Diameter 2.0 in
Top of Rock Elev. 297.3
Begin Core Elev. 297.3

Description	Elev.	DEPTH (ft)	CORE RUN (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
RUN 1 (-106.5' to -116.5') Mississippian System, Valmeyeran Series Limestone Light gray with horizontal bedding. Fine grained with numerous horizontal fractures throughout & some thin clay partings.	297.3		1	100.0	19.8	n/a	973 @ -113.7'
		-5					
		-10					

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

FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED -	REVISED -
		DRAWN - SNB	REVISED -
TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS	PLOT SCALE = $SCALE$	CHECKED -	REVISED -
	PLOT DATE = $DATE$	DATE - 06/04/10	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
I-70 CONNECTION OVER
NS, TRRA, MCT AND INDUSTRIAL DR.

SOIL BORING LOGS
9 OF 20

SCALE: | SHEET NO. S-100 OF S-111 | STA. 134+22.00 TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB	ST. CLAIR	285	210
SN 082-0318 (EB) & 0319 (WB)		CONTRACT NO. 76C44		
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

SB-05 Run-2

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ROCK CORE LOG

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LOGGED BY DR
GSI JOB No. 08201

ROUTE I-70 — DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION 82-2-1HVB — LOCATION I-70 Curved Approach Structures
COUNTY St. Clair — CORING METHOD Rotary Wash
STRUCT. NO. S.N. 082-0318 — CORING BARREL TYPE & SIZE NX Double Swivel-5 ft
Station: 127+00 to 140+74 — Core Diameter 2.0 in
BORING NO. SB-05 — Top of Rock Elev. 297.3
Station: 135+64 — Begin Core Elev. 297.3
Offset: 43.0' Left
Ground Surface Elev. 403.8

Description	Elev.	DEPTH (ft)	CORE RUN (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
RUN 2 (-116.5' to -121.5') Mississippian System, Valmeyeran Series Limestone Light gray with horizontal bedding. Fine grained with numerous horizontal fractures throughout & some thin clay partings becoming darker gray & weathered with some chert replacement. Numerous horizontal fractures throughout.	287.3		2	100.0	8.0	n/a	n/a
		-5					
		-10					

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

SB-06

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SOIL BORING LOG

PAGE 1 of 4
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GSI JOB No. 08201

ROUTE I-70 — DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION 82-2-1HVB — LOCATION I-70 Curved Approach Structures
COUNTY St. Clair — DRILLING METHOD 3.25" Hollow Stem Auger — HAMMER TYPE CME Automatic
STRUCT. NO. S.N. 082-0318
Station: 127+00 to 140+74
BORING NO. SB-06
Station: 135+64
Offset: 43.0' Right
Ground Surface Elev. 411.1

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter n/a
Upon Completion n/a
Cave In 393.1

Description	Bottom Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SANDY LOAM with Cinders-black-very loose (A-2) Fill			AS	NP	21
			1		
			1		
	408.1		1	NP	38
SILTY LOAM-dark brown & black-very loose (A-4) Fill, Wet			1		
			1		
	405.6	-5	1	NP	30
CINDERS, SAND & BRICK-very loose (Fill)			1		
			1		
			0	NP	30
			1		
			1		
	400.6	-10	0	NP	23
SILTY CLAY-brown & gray-medium dense (A-7) Wet	398.1		ST	0.5P	41
SANDY LOAM-brown-medium dense (A-2)			2		
			3		
	395.6	-15	7	NP	26
SAND-brown-medium dense (A-3)			4		
			5		
			7	NP	25
			10		
			11		
		-20	11	NP	24
SAND-brown-medium dense (A-3)			7		
			10		
			10	NP	23
			9		
			8		
		-25	6	NP	23
			7		
			6		
			4	NP	28
			8		
			10		
		-30	7	NP	23
			6		
			8		
	378.1		5	NP	26
SAND-dark gray-medium dense (A-3)			7		
			7		
	375.6	-35	9	NP	26
SANDY LOAM with Organics-dark gray-loose (A-2)			3		
			3		
			4	NP	39
			2		
			5		
		-40	4	NP	52

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

SB-06

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SOIL BORING LOG

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GSI JOB No. 08201

ROUTE I-70 — DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION 82-2-1HVB — LOCATION I-70 Curved Approach Structures
COUNTY St. Clair — DRILLING METHOD 3.25" Hollow Stem Auger — HAMMER TYPE CME Automatic
STRUCT. NO. S.N. 082-0318
Station: 127+00 to 140+74
BORING NO. SB-06
Station: 135+64
Offset: 43.0' Right
Ground Surface Elev. 411.1

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter n/a
Upon Completion n/a
Cave In 393.1

Description	Bottom Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SANDY LOAM-dark gray-loose (A-2)	370.6				
SAND-gray-medium dense (A-3)			5		
			5		
	368.1		5	NP	28
SANDY LOAM with Organics-dark gray to black-loose to medium dense (A-2)			2		
			3		
		-45	3	NP	60
			2		
			4		
	363.1		9	NP	54
SAND-gray-medium dense to very dense (A-3)			8		
			10		
		-50	12	NP	25
			8		
			9		
			12	NP	21
Clay seams from -56.0' to -57.5'.			8		
			12		
		-55	17	NP	24
			8		
			10		
			16	NP	18
			13		
			17		
		-60	19	NP	23
SAND-gray-medium dense to very dense (A-3)			18		
			22		
			42	NP	22
			30		
			36		
		-65	37	NP	21
			14		
			22		
	343.1		44	NP	20
SAND with Gravel-brown & gray-medium dense (A-1-b)			7		
			7		
		-70	5	NP	19
			6		
			7		
	338.1		9	NP	16
SAND-gray-medium dense to dense (A-3)			9		
			14		
		-75	17	NP	19
			9		
			10		
			17	NP	18
			11		
			19		
		-80	26	NP	20

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

..\0820318-CONN-05-010-MS.DGN, ..\0820318-CONN-05-010-MS.DGN, ..\0820318-CONN-05-010-MS.DGN, ..\0820318-CONN-99-001-BO.DGN
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FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED -	REVISED -
		DRAWN - SNB	REVISED -
TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS	PLOT SCALE = $SCALE$	CHECKED -	REVISED -
	PLOT DATE = $DATE$	DATE - 06/04/10	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
I-70 CONNECTION OVER
NS, TRRA, MCT AND INDUSTRIAL DR.

SOIL BORING LOGS
10 OF 20

SCALE: | SHEET NO. S-101 OF S-111 | STA. 134+22.00 TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB	ST. CLAIR	285	211
SN 082-0318 (EB) & 0319 (WB)		CONTRACT NO. 76C44		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SB-06

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SOIL BORING LOG

PAGE 3 of 4
DATE [illegible]2009
LOGGED BY DR
GSI JOB No. 08201

ROUTE I-70 | DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION 82-2-1HVB | LOCATION I-70 Curved Approach Structures
COUNTY St. Clair | DRILLING METHOD 3.25" Hollow Stem Auger | HAMMER TYPE CME Automatic

STRUCT. NO. S.N. 082-0318
Station: 127+00 to 140+74
BORING NO. SB-06
Station: 135+64
Offset: 43.0' Right
Ground Surface Elev. 411.1

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter n/a
Upon Completion n/a
Cave In 393.1

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SAND-gray- medium dense to dense (A-3)			9		
			10		
	328.1		17	NP	18
SAND & GRAVEL-brown & gray- medium dense (A-1)			33		
			13		
	325.6	-85	15	NP	10
SAND with Gravel-brown & gray- medium dense to dense (A-1-b)			12		
			12		
			11	NP	10
			18		
			25		
	320.6	-90	18	NP	10
SAND-brown & gray-dense (A-3)			17		
			19		
			22	NP	19
			14		
			24		
	315.6	-95	23	NP	14
SAND with Gravel-brown & gray- medium dense to very dense (A-1-b)			12		
			11		
			10	NP	17
			14		
			22		
		-100	23	NP	14

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SAND with Gravel-brown & gray- medium dense to very dense (A-1-b)			25		
	307.6		50/3"	NP	13
SAND & GRAVEL-brown & gray- very dense (A-1)			50/3"		
		-105		NP	10
			46		
	303.1		50/3"	NP	9
GRAVEL-brown & gray- very dense (A-1-a)			50/3"		
		-110		NP	10
	299.1		50/1"		
Drillers Observation: Apparent Bedrock.	298.6				NR
RUN 1 (-112.5' to -122.5') Mississippian System, Valmeyeran Series Limestone Light gray with horizontal bedding. Fine grained with numerous horizontal fractures throughout & some thin clay partings. Recovery = 99.5% R.Q.D. = 32.5%		-115 -120	RUN 1		

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

SB-06

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SOIL BORING LOG

PAGE 4 of 4
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GSI JOB No. 08201

ROUTE I-70 | DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION 82-2-1HVB | LOCATION I-70 Curved Approach Structures
COUNTY St. Clair | DRILLING METHOD 3.25" Hollow Stem Auger | HAMMER TYPE CME Automatic

STRUCT. NO. S.N. 082-0318
Station: 127+00 to 140+74
BORING NO. SB-06
Station: 135+64
Offset: 43.0' Right
Ground Surface Elev. 411.1

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter n/a
Upon Completion n/a
Cave In 393.1

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
RUN 1 continued.	288.6		RUN 1		
RUN 2 (-122.5' to -127.5') Mississippian System, Valmeyeran Series Limestone Light gray with horizontal bedding. Fine grained with numerous horizontal fractures throughout & some thin clay partings becoming darker gray & weathered with some chert replacement. Numerous horizontal fractures throughout. Recovery = 100.0% R.Q.D. = 14.5%	283.6	-125	RUN 2		
End Of Boring @ -127.5' Hollow Stem Augers To -15.0' Rotary Drilling To Completion CME Automatic Hammer 15' Of 4"* Casing Used 114' Of 3"* Casing Used		-130 -135 -140			

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
-145			
-150			
-155			
-160			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

SB-06 Run-1

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ROCK CORE LOG

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GSI JOB No. 08201

ROUTE I-70 | DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION 82-2-1HVB | LOCATION I-70 Curved Approach Structures
COUNTY St. Clair | CORING METHOD Rotary Wash

STRUCT. NO. S.N. 082-0318
Station: 127+00 to 140+74
BORING NO. SB-06
Station: 135+64
Offset: 43.0' Right
Ground Surface Elev. 411.1

CORING BARREL TYPE & SIZE NX Double Swivel-5 ft
Core Diameter 2.0 in
Top of Rock Elev. 299.1
Begin Core Elev. 298.6

Description	Elev.	DEPTH (ft)	CORE RUN (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
RUN 1 (-112.5' to -122.5') Mississippian System, Valmeyeran Series Limestone Light gray with horizontal bedding. Fine grained with numerous horizontal fractures throughout & some thin clay partings.	298.6	-5 -10	1	99.5	32.5	n/a	972 @ -114.8'

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

FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED -	REVISED -
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TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS	PLOT SCALE = $SCALE$	CHECKED -	REVISED -
	PLOT DATE = $DATE$	DATE - 06/04/10	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
I-70 CONNECTION OVER
NS, TRRA, MCT AND INDUSTRIAL DR.

SOIL BORING LOGS
11 OF 20

SCALE: | SHEET NO. S-102 OF S-111 | STA. 134+22.00 TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB	ST. CLAIR	285	212
SN 082-0318 (EB) & 0319 (WB)		CONTRACT NO. 76C44		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

6-02-2010, 18:05:25 BONDHUJO

SB-06 Run-2

ROCK CORE LOG

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PAGE 2 of 2
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ROUTE I-70 | DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION 82-2-1HVB | LOCATION I-70 Curved Approach Structures
COUNTY St. Clair | CORING METHOD Rotary Wash
STRUCT. NO. S.N. 082-0318 | CORING BARREL TYPE & SIZE NX Double Swivel-5 ft
Station: 127+00 to 140+74 | Core Diameter 2.0 in
BORING NO. SB-06 | Top of Rock Elev. 299.1
Station: 135+64 | Begin Core Elev. 298.6
Offset: 43.0' Right
Ground Surface Elev. 411.1

Description	Elev.	DEPTH (ft)	CORE RUN (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
RUN 2 (-122.5' to -127.5') Mississippian System, Valmeyeran Series Limestone Light gray with horizontal bedding. Fine grained with numerous horizontal fractures throughout & some thin clay partings becoming darker gray & weathered with some chert replacement. Numerous horizontal fractures throughout.	288.6		2	100.0	14.5	n/a	817 @ -126.5'
		-5					
		-10					

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

SB-07

SOIL BORING LOG

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PAGE 1 of 4
DATE 3/24-25/2009
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GSI JOB No. 08201

ROUTE I-70 | DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION 82-2-1HVB | LOCATION I-70 Curved Approach Structures
COUNTY St. Clair | DRILLING METHOD 3.25" Hollow Stem Auger | HAMMER TYPE CME Automatic
STRUCT. NO. S.N. 082-0318
Station: 127+00 to 140+74
BORING NO. SB-07
Station: 138+44
Offset: 43.0' Left
Ground Surface Elev. 412.0

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter n/a
Upon Completion n/a
After 24 Hrs. n/a

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Miscellaneous Sand, Cinders & Brick-very loose to medium dense (Fill)			AS	NP	12
			3		
			4		
			6	NP	16
			2		
			2		
		-5	1	NP	22
Clay seams from -6.0' to -7.5'.			1		
			0		
	404.0		1	NP	31
SILTY CLAY-dark brown & gray-medium stiff to stiff (A-7) Wet			1		*74*
			2		
		-10	3	1.1B	43
			2		*80*
			2	1.4S@	
			3	11.3%	38
		-15		0.9S@	
	396.5		ST	9.0%	36
SAND-brown-medium dense (A-3)			4		
	395.0		5		
SANDY LOAM-gray-very loose (A-2)			7	NP	20
			2		
			0		
		-20	1	NP	28

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SANDY LOAM-gray-very loose (A-2)	391.5				
SAND-brown-loose (A-3)			4		
			4		
	389.0		5	NP	29
SILTY CLAY LOAM to SILTY LOAM-gray-very loose (A-4)			1		
			0		
		-25	1	<0.25P	40
			0		
			0		
			1	<0.25P	32
			1		
			0		
	381.5	-30	1	NP	30
SAND-gray-medium dense (A-3)			5		
			7		
	379.0		6	NP	27
SANDY LOAM-gray-very loose (A-2)			1		
			2		
	376.5	-35	6	NP	25
SAND-gray-medium dense to dense (A-3)			8		
			15		
			19	NP	23
			8		
			7		
		-40	9	NP	19

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

SB-07

SOIL BORING LOG

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GSI JOB No. 08201

ROUTE I-70 | DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION 82-2-1HVB | LOCATION I-70 Curved Approach Structures
COUNTY St. Clair | DRILLING METHOD 3.25" Hollow Stem Auger | HAMMER TYPE CME Automatic
STRUCT. NO. S.N. 082-0318
Station: 127+00 to 140+74
BORING NO. SB-07
Station: 138+44
Offset: 43.0' Left
Ground Surface Elev. 412.0

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter n/a
Upon Completion n/a
After 24 Hrs. n/a

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SAND-gray-medium dense to dense (A-3)			12		
			15		
			11	NP	18
			9		
			8		
		-45	8	NP	19
			9		
			13		
			12	NP	25
			6		
			11		
		-50	12	NP	18
			10		
			11		
			11	NP	25
			10		
			10		
		-55	15	NP	24
			15		
			14		
			16	NP	20
			7		
			12		
		-60	15	NP	16

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SAND-gray-medium dense to dense (A-3)			12		
			13		
			14	NP	19
			9		
			11		
		-65	21	NP	25
			20		
			24		
			23	NP	23
			10		
			22		
		-70	29	NP	22
			14		
			17		
			18	NP	19
			13		
			15		
	336.5	-75	15	NP	18
SAND & GRAVEL-brown & gray-medium dense to dense (A-1)			6		
			8		
			10	NP	14
			8		
			10		
		-80	14	NP	9

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

SB-07

SOIL BORING LOG

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
805 Amherst Court, Suite 204
Naperville, Illinois 60565
(630) 355-2838

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LOGGED BY DR
GSI JOB No. 08201

ROUTE I-70 — DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION 82-2-1HVB — LOCATION I-70 Curved Approach Structures
COUNTY St. Clair — DRILLING METHOD 3.25" Hollow Stem Auger — HAMMER TYPE CME Automatic

STRUCT. NO. S.N. 082-0318
Station: 127+00 to 140+74
BORING NO. SB-07
Station: 138+44
Offset: 43.0' Left
Ground Surface Elev. 412.0

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter n/a
Upon Completion n/a
After 24 Hrs. n/a

Description	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SAND & GRAVEL-brown & gray-medium dense to dense (A-1)		32		
		17		
		14	NP	13
329.0				
SAND-brown & gray-medium dense to dense (A-3)		13		
		12		
	-85	15	NP	11
		8		
		8		
		9	NP	16
		13		
		18		
	-90	14	NP	19
321.5				
SAND with Gravel-brown & gray-medium dense to dense (A-1-b)		12		
		15		
		18	NP	10
		18		
		19		
	-95	25	NP	9
316.5				
SAND-brown & gray-dense to very dense (A-3)		29		
		33		
		41	NP	14
		17		
		19		
	-100	22	NP	14

Description	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SAND-dense to very dense (A-3) 311.5				
SAND & GRAVEL-brown & gray-dense to very dense (A-1)		13		
		19		
		19	NP	12
		50/5"		
	-105		NP	13
		50/5"		
			NP	11
		50/5"		
	-110		NP	9
		50/4"		
300.0				
Drillers Observation: Bedrock or Boulder. 299.5			NP	15
RUN 1 (-112.5' to -122.5') Mississippian System, Valmeyeran Series Limestone Light gray with horizontal bedding. Fine grained with numerous horizontal fractures throughout. Some thin clay partings & chert replacement. Recovery = 100.0% R.Q.D. = 30.0%	-115	RUN 1		
	-120			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

SB-07

SOIL BORING LOG

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ROUTE I-70 — DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION 82-2-1HVB — LOCATION I-70 Curved Approach Structures
COUNTY St. Clair — DRILLING METHOD 3.25" Hollow Stem Auger — HAMMER TYPE CME Automatic

STRUCT. NO. S.N. 082-0318
Station: 127+00 to 140+74
BORING NO. SB-07
Station: 138+44
Offset: 43.0' Left
Ground Surface Elev. 412.0

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter n/a
Upon Completion n/a
After 24 Hrs. n/a

Description	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
RUN 1 (-112.5' to -122.5')		RUN 1		
289.5				
RUN 2 (-122.5' to -127.5') Mississippian System, Valmeyeran Series Limestone Light gray with horizontal bedding. Fine grained with numerous horizontal fractures throughout. Some chert replacement. Recovery = 100.0% R.Q.D. = 41.5%	-125	RUN 2		
284.5				
End Of Boring @ -127.5' Hollow Stem Augers To -15.0' Rotary Drilling To Completion CME Automatic Hammer 15' Of 4"* Casing Used 114' Of 3"* Casing Used	-130			
	-135			
	-140			

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
-145			
-150			
-155			
-160			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

SB-07 Run-1

ROCK CORE LOG

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GSI JOB No. 08201

ROUTE I-70 — DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION 82-2-1HVB — LOCATION I-70 Curved Approach Structures
COUNTY St. Clair — CORING METHOD Rotary Wash

STRUCT. NO. S.N. 082-0318
Station: 127+00 to 140+74
BORING NO. SB-07
Station: 138+44
Offset: 43.0' Left
Ground Surface Elev. 412.0

CORING BARREL TYPE & SIZE NX Double Swivel-10 ft
Core Diameter 2.0 in
Top of Rock Elev. 299.5
Begin Core Elev. 299.5

Description	DEPTH (ft)	CORE RUN (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
RUN 1 (-112.5' to -122.5') 299.5 Mississippian System, Valmeyeran Series Limestone Light gray with horizontal bedding. Fine grained with numerous horizontal fractures throughout. Some thin clay partings & chert replacement.		1	100.0	30.0	n/a	1261@ -120.3'
	-117.5					
	-122.5					

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

FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED -	REVISED -
		DRAWN - SNB	REVISED -
TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS	PLOT SCALE = $SCALE$	CHECKED -	REVISED -
	PLOT DATE = $DATE$	DATE - 06/04/10	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
I-70 CONNECTION OVER
NS, TRRA, MCT AND INDUSTRIAL DR.

SOIL BORING LOGS
13 OF 20

SCALE: | SHEET NO. S-104 OF S-111 | STA. 134+22.00 TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB	ST. CLAIR	285	214
SN 082-0318 (EB) & 0319 (WB)		CONTRACT NO. 76C44		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

..\0820318-CONN-05-010-MS.DGN, ..\0820318-CONN-05-010-MS.DGN, ..\0820318-CONN-05-010-MS.DGN, ..\0820318-CONN-99-001-BD.DGN
\\FS-2044\AMVAULT\D-TRANS\07\2202\20850-001\STRUCT\CAD\01 DESIGN\0820318\SHEET\0820318-CONN-05-014-SHT-MS.DGN
6-02-2010, 18:06:53 BONOHUJO

SB-07 Run-2

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ROCK CORE LOG

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LOGGED BY DR
GSI JOB No. 08201

ROUTE I-70
DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION 82-2-1HVB
LOCATION I-70 Curved Approach Structures
COUNTY St. Clair
CORING METHOD Rotary Wash
STRUCT. NO. S.N. 082-0318
Station: 127+00 to 140+74
CORING BARREL TYPE & SIZE NX Double Swivel-5 ft
Core Diameter 2.0 in
Top of Rock Elev. *299.5*
Begin Core Elev. *299.5*
BORING NO. SB-07
Station: 138+44
Offset: 43.0' Left
Ground Surface Elev. *412.0*

Description	DEPTH (ft)	CORE RUN (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
289.5 RUN 2 (-122.5' to -127.5') Mississippian System, Valmeyeran Series Limestone Light gray with horizontal bedding. Fine grained with numerous horizontal fractures throughout. Some chert replacement.		2	100.0	41.5	n/a	707 @ -122.8'
	-127.5					
	-132.5					

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

SB-08

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SOIL BORING LOG

PAGE 1 of 4
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GSI JOB No. 08201

ROUTE I-70
DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION 82-2-1HVB
LOCATION I-70 Curved Approach Structures
COUNTY St. Clair
DRILLING METHOD 3.25" Hollow Stem Auger
HAMMER TYPE CME Automatic
STRUCT. NO. S.N. 082-0318
Station: 127+00 to 140+74
BORING NO. SB-08
Station: 138+34
Offset: 43.0' Right
Ground Surface Elev. *404.3*
Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter n/a
Upon Completion n/a
After 24 Hrs. n/a

Description	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Silty SAND & STONE with Wood Chips- medium dense (Fill)		AS	NP	33
		1		
		2		
		2	NP	55
401.3				
SILTY CLAY LOAM-dark brown- very loose (A-4)		2		
		1		
	-5	2	0.5P	34
398.8				
SILTY CLAY-brown & gray- stiff (A-6/A-7) Wet				
396.3		ST	1.7B	37
SAND-brown- loose to medium dense (A-3)		3		
		6		
	-10	6	NP	15
		3		
		4		
		2	NP	17
		3		
		5		
	-15	7	NP	23
		4		
		3		
		3	NP	31
386.3				
SILTY CLAY to SILTY CLAY LOAM- gray-very soft to soft (A-4/A-6) Wet		1		*71*
		0		
	-20	1	0.1B	46

Description	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SILTY CLAY to SILTY CLAY LOAM- gray-very soft to soft (A-4/A-6) Wet		ST	0.4B	46
380.3		1		
SANDY LOAM to LOAM-gray- very loose (A-4)		0		
	-25	1	NP	33
		1		
		0		
		1	NP	32
		1		
		0		
	-30	2	<0.25P	39
373.8				
SAND-gray-loose to dense (A-3)		2		
		2		
		4	NP	26
		1		
		2		
	-35	4	NP	26
		5		
		6		
		5	NP	26
		5		
		5		
	-40	6	NP	21

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

SB-08

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SOIL BORING LOG

PAGE 2 of 4
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ROUTE I-70
DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION 82-2-1HVB
LOCATION I-70 Curved Approach Structures
COUNTY St. Clair
DRILLING METHOD 3.25" Hollow Stem Auger
HAMMER TYPE CME Automatic
STRUCT. NO. S.N. 082-0318
Station: 127+00 to 140+74
BORING NO. SB-08
Station: 138+34
Offset: 43.0' Right
Ground Surface Elev. *404.3*
Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter n/a
Upon Completion n/a
After 24 Hrs. n/a

Description	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
		9		
Coal chips from -41.0' to -42.5'.		11		
		10	NP	22
		10		
SAND-gray-loose to dense (A-3)		12		
	-45	13	NP	23
		10		
		12		
		14	NP	23
		11		
		11		
	-50	12	NP	15
		13		
		14		
		15	NP	17
		10		
		14		
	-55	21	NP	17
		9		
		11		
		16	NP	23
		9		
		29		
	-60	29	NP	21

Description	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
		12		
		16		
		24	NP	24
		14		
SAND-gray-loose to dense (A-3)		18		
	-65	28	NP	21
		15		
		20		
		24	NP	18
		8		
		8		
	-70	11	NP	17
333.8				
		6		
		6		
		9	NP	13
SAND & GRAVEL-brown & gray- medium dense to dense (A-1)		28		
		10		
	-75	9	NP	10
		14		
		30		
		18	NP	8
326.3				
SAND with Gravel-brown & gray- medium dense to dense (A-1-b)		16		
		20		
	-80	19	NP	14

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED -	REVISED -	STATE OF ILLINOIS	SOIL BORING LOGS	F.A.P. RTE. 998
TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS		DRAWN - SNB	REVISED -	DEPARTMENT OF TRANSPORTATION	14 OF 20	SECTION 82-2-1HVB
	PLOT SCALE = $SCALE$	CHECKED -	REVISED -	I-70 CONNECTION OVER		COUNTY ST. CLAIR
	PLOT DATE = $DATE$	DATE - 06/04/10	REVISED -	NS, TRRA, MCT AND INDUSTRIAL DR.	SCALE:	TOTAL SHEETS 285
					SHEET NO. S-105 OF S-111	SHEET NO. 215
					STA. 134+22.00 TO STA.	SN 082-0318 (EB) & 0319 (WB)
						CONTRACT NO. 76C44
						FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

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SOIL BORING LOG

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Naperville, Illinois 60565

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ROUTE I-70 — DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION 82-2-1HVB — LOCATION I-70 Curved Approach Structures
COUNTY St. Clair — DRILLING METHOD 3.25" Hollow Stem Auger — HAMMER TYPE CME Automatic

STRUCT. NO. S.N. 082-0318
Station: 127+00 to 140+74
BORING NO. SB-08
Station: 138+34
Offset: 43.0' Right
Ground Surface Elev. 404.3

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter n/a
Upon Completion n/a
After 24 Hrs. n/a

Description	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SAND with Gravel-brown & gray-medium dense to dense (A-1-b)		10		
		11		
		13	NP	12
		10		
		10		
	-85	11	NP	13
		10		
		11		
		13	NP	13
		15		
		19		
	-90	29	NP	10
		11		
		16		
		21	NP	16
		16		
		26		
308.8	-95	28	NP	12
SAND & GRAVEL & FRACTURED ROCK-gray-very dense (A-1)		50/3"		
				NR
		50/5"		
	-100		NP	7

Description	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SAND & GRAVEL-very dense (A-1) 303.8				
Silty SAND & GRAVEL & FRACTURED ROCK-gray-very dense (A-2)		38		
		50/5"	NP	15
300.8				
RUN 1 (-103.5' to -105.3') Cobbles & Gravel.		Run 1		
RUN 1 (-105.3' to -106.0') Mississippian System, Valmeyeran Series Limestone 299.0 / 298.3	-105			
RUN 2 (-106.0' to -107.0') Mississippian System, Valmeyeran Series Limestone 297.3		Run 2		
RUN 3 (-107.0' to -117.0') Mississippian System, Valmeyeran Series Limestone. Light gray with horizontal bedding. Fine grained with some chert replacement. Numerous horizontal fractures throughout with some thin clay partings. Recovery=100.0% R.Q.D.=34.5%	-110	Run 3		
	-115			
287.3				
RUN 3 (-117.0' to -122.0') Mississippian System, Valmeyeran Series Limestone. Light gray with horizontal bedding. Fine grained with some chert replacement.	-120	Run 4		

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

SB-08

SOIL BORING LOG

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ROUTE I-70 — DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION 82-2-1HVB — LOCATION I-70 Curved Approach Structures
COUNTY St. Clair — DRILLING METHOD 3.25" Hollow Stem Auger — HAMMER TYPE CME Automatic

STRUCT. NO. S.N. 082-0318
Station: 127+00 to 140+74
BORING NO. SB-08
Station: 138+34
Offset: 43.0' Right
Ground Surface Elev. 404.3

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter n/a
Upon Completion n/a
After 24 Hrs. n/a

Description	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Horizontal fractures @ -117.3', -117.4', -117.9', -118.8', -119.0', -120.4', -121.4' & -121.6'. Recovery=91.5% R.Q.D.=75.0% 282.3		RUN 4		
End Of Boring @ -122.0' Hollow Stem Augers To -10.0' Rotary Drilling To Completion CME Automatic Hammer 10' Of 4"* Casing Used 107' Of 3"* Casing Used	-125			
	-130			
	-135			
	-140			

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
-145			
-150			
-155			
-160			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

SB-08 Run-1&2

ROCK CORE LOG

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Naperville, Illinois 60565

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ROUTE I-70 — DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION 82-2-1HVB — LOCATION I-70 Curved Approach Structures
COUNTY St. Clair — CORING METHOD Rotary Wash

STRUCT. NO. S.N. 082-0318 — CORING BARREL TYPE & SIZE NX Double Swivel-10 ft
Station: 127+00 to 140+74 — Core Diameter 2.0 in
BORING NO. SB-08 — Top of Rock Elev. 299.0
Station: 138+34 — Begin Core Elev. 300.8
Offset: 43.0' Right
Ground Surface Elev. 404.3

Description	DEPTH (ft)	CORE RUN (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
RUN 1 (-103.5' to -105.3') Cobbles & Gravel 300.8		1	n/a	n/a	n/a	n/a
RUN 1 (-105.3' to -106.0') Mississippian System, Valmeyeran Series Limestone 299.0 / 298.3		1	100.0	0.0	n/a	n/a
RUN 2 (-106.0' to -107.0') Mississippian System, Valmeyeran Series Limestone		2	85.0	0.0	n/a	n/a
	-108.5					
	-113.5					

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

FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED -	REVISED -
		DRAWN - SNB	REVISED -
TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS	PLOT SCALE = $SCALE$	CHECKED -	REVISED -
	PLOT DATE = $DATE$	DATE - 06/04/10	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
I-70 CONNECTION OVER
NS, TRRA, MCT AND INDUSTRIAL DR.

SOIL BORING LOGS
15 OF 20

SCALE: — SHEET NO. S-106 OF S-111 — STA. 134+22.00 TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB	ST. CLAIR	285	216
SN 082-0318 (EB) & 0319 (WB)		CONTRACT NO. 76C44		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SB-08 Run-3

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ROCK CORE LOG

PAGE 2 of 3
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GSI JOB No. 08201

ROUTE I-70 — DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION 82-2-1HVB — LOCATION I-70 Curved Approach Structures
COUNTY St. Clair — CORING METHOD Rotary Wash
STRUCT. NO. S.N. 082-0318 — CORING BARREL TYPE & SIZE NX Double Swivel-10 ft
Station: 127+00 to 140+74 — Core Diameter 2.0 in
BORING NO. SB-08 — Top of Rock Elev. *299.0*
Station: 138+34 — Begin Core Elev. *300.8*
Offset: 43.0' Right
Ground Surface Elev. *404.3*

Description	Elev.	DEPTH (ft)	CORE RUN (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
RUN 3 (-107.0' to -117.0') Mississippian System, Valmeyeran Series Limestone Light gray with horizontal bedding. Fine grained with some chert replacement. Numerous horizontal fractures throughout with some thin clay partings.	*297.3*		3	100.0	34.5	n/a	1209@ -107.9'
		-112.0					
		-117.0					

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

SB-08 Run-4

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ROCK CORE LOG

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GSI JOB No. 08201

ROUTE I-70 — DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION 82-2-1HVB — LOCATION I-70 Curved Approach Structures
COUNTY St. Clair — CORING METHOD Rotary Wash
STRUCT. NO. S.N. 082-0318 — CORING BARREL TYPE & SIZE NX Double Swivel-5 ft
Station: 127+00 to 140+74 — Core Diameter 2.0 in
BORING NO. SB-08 — Top of Rock Elev. *299.0*
Station: 138+34 — Begin Core Elev. *300.8*
Offset: 43.0' Right
Ground Surface Elev. *404.3*

Description	Elev.	DEPTH (ft)	CORE RUN (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
RUN 3 (-117.0' to -122.0') Mississippian System, Valmeyeran Series Limestone Light gray with horizontal bedding. Fine grained with some chert replacement. Horizontal fractures @ -117.3', -117.4', -117.9', -118.8', -119.0', -120.4', -121.4' & -121.6'.	*287.3*		4	91.5	75.0	n/a	1053@ -118.2'
		-122.0					
		-127.0					

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

SB-09

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SOIL BORING LOG

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ROUTE I-70 — DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION 82-2-1HVB — LOCATION I-70 Curved Approach Structures
COUNTY St. Clair — DRILLING METHOD 3.25" Hollow Stem Auger — HAMMER TYPE CME Automatic
STRUCT. NO. S.N. 082-0318
Station: 127+00 to 140+74
BORING NO. SB-09
Station: 140+74
Offset: 43.0' Left
Ground Surface Elev. *406.1*

Surface Water Elev. *n/a*
Stream Bed Elev. *n/a*
Groundwater Elevation:
First Encounter *n/a*
Upon Completion *n/a*
After 24 Hrs. *n/a*

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
TOPSOIL-black	*405.1*		AS	–	39
SILTY CLAY-dark brown-stiff to very stiff (A-7) Wet			2		
			4		
			5	1.25P	40
			2		
			2		
		-5	2	2.0P	30
					84
			ST	1.2B	33
			2		
			2		
		-10	3	1.25P	31
			3		
			4		
			4	1.25P	28
SANDY LOAM-brown-very loose (A-2)	*393.1*		2		
			2		
		-15	1	NP	28
			1		
			0		
			3	NP	28
SAND-brown & gray-medium dense (A-3)	*388.1*		5		
			6		
		-20	10	NP	18

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SAND-brown & gray-medium dense (A-3)			6		
			9		
			11	NP	19
			6		
			8		
		-25	9	NP	22
Clay seams from -26.0' to -27.5'.			3		
			7		
			10	NP	23
			9		
			13		
		-30	16	NP	21
SAND-gray-medium dense to dense (A-3)	*375.6*		14		
			12		
			11	NP	17
			4		
			8		
		-35	11	NP	24
			7		
			8		
			10	NP	18
			10		
			16		
		-40	19	NP	23

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

SB-09

SOIL BORING LOG

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ROUTE I-70 DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION 82-2-1HVB LOCATION I-70 Curved Approach Structures
COUNTY St. Clair DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. S.N. 082-0318
Station: 127+00 to 140+74
BORING NO. SB-09
Station: 140+74
Offset: 43.0' Left
Ground Surface Elev. 406.1

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter n/a
Upon Completion n/a
After 24 Hrs. n/a

Description	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
		12		
		15		
		13	NP	20
		8		
		6		
SAND-gray- medium dense to dense (A-3)	-45	10	NP	22
		7		
		10		
		11	NP	24
		10		
		23		
	-50	31	NP	24
		9		
		9		
		11	NP	27
		5		
		6		
	-55	8	NP	15
		6		
Gravel seams from -26.0' to -27.5'.		6		
		9	NP	20
		8		
		12		
	-60	14	NP	24

Description	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
		8		
		12		
		17	NP	25
		8		
		8		
	-65	9	NP	24
SAND-gray- medium dense to dense (A-3)		7		
		11		
		18	NP	29
		9		
		13		
	-70	22	NP	26
		10		
		17		
		28	NP	24
		13		
		9		
	-75	10	NP	14
330.6				
		11		
		8		
SAND & GRAVEL-brown & gray- medium dense (A-1)		6	NP	12
		20		
		13		
	-80	10	NP	8

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

SB-09

SOIL BORING LOG

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ROUTE I-70 DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION 82-2-1HVB LOCATION I-70 Curved Approach Structures
COUNTY St. Clair DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. S.N. 082-0318
Station: 127+00 to 140+74
BORING NO. SB-09
Station: 140+74
Offset: 43.0' Left
Ground Surface Elev. 406.1

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter n/a
Upon Completion n/a
After 24 Hrs. n/a

Description	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SAND & GRAVEL medium dense (A-1)				
325.6				
		12		
		11		
		10	NP	14
SAND with Gravel-brown & gray- medium dense (A-1-b)		9		
		10		
	-85	9	NP	12
		8		
		11		
		14	NP	9
		8		
		10		
	-90	10	NP	13
315.6				
SAND-brown & gray- medium dense (A-3)		8		
		9		
		12	NP	12
313.1				
SAND with Gravel-brown & gray- dense (A-1-b)		12		
		17		
	-95	24	NP	18
302.6				
		38		
		40		
SAND & GRAVEL-brown & gray- very dense (A-1)		47	NP	4
		31		
		25		
	-100	39	NP	9

Description	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SAND & GRAVEL-brown & gray- very dense (A-1)		38		
		43		
		50	NP	8
303.1				
		31		*129*
SANDY CLAY LOAM-gray- very stiff to hard (A-6)		23		
	-105	45	8.0B	10
		50/4"		
299.1				
Drillers Observation: Apparent Bedrock			3.25P	13
298.1				
RUN 1 (-108.0' to -118.0') Mississippian System, Valmeyeran Series Limestone				
Light gray & fine grained with horizontal bedding becoming darker gray @ -115.6. Some chert replacement & numerous horizontal fractures throughout.	-110	RUN1		
Recovery = 100.0% R.Q.D. = 58.0%				
	-115			
288.1				
RUN 2 (-118.0' to -123.0') Mississippian System, Valmeyeran Series Limestone		RUN 2		
	-120			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

SB-09

SOIL BORING LOG

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ROUTE I-70 DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION 82-2-1HVB LOCATION I-70 Curved Approach Structures
COUNTY St. Clair DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. S.N. 082-0318
Station: 127+00 to 140+74
BORING NO. SB-09
Station: 140+74
Offset: 43.0' Left
Ground Surface Elev. 406.1

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter n/a
Upon Completion n/a
After 24 Hrs. n/a

Description	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Gray & fine grained with horizontal bedding. No chert replacement encountered. Horizontal fractures @ -118.6', -121.0', -121.6', -122.2', -122.3' & -122.5'. Recovery = 100.0% R.Q.D. = 93.0%		RUN 2		
283.1				
End Of Boring @ -123.0' Hollow Stem Augers To -12.5' Rotary Drilling To Completion CME Automatic Hammer 10' Of 4"* Casing Used 109' Of 3"* Casing Used	-125			
	-130			
	-135			
	-140			

Description	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
	-145			
	-150			
	-155			
	-160			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

SB-09 Run-1

ROCK CORE LOG

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ROUTE I-70
DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION 82-2-1HVB
LOCATION I-70 Curved Approach Structures
COUNTY St. Clair
CORING METHOD Rotary Wash
STRUCT. NO. S.N. 082-0318
Station: 127+00 to 140+74
CORING BARREL TYPE & SIZE NX Double Swivel-10 ft
Core Diameter 2.0 in
Top of Rock Elev. 299.1
Begin Core Elev. 298.1
BORING NO. SB-09
Station: 140+74
Offset: 43.0' Left
Ground Surface Elev. 406.1

Description	DEPTH (ft)	CORE (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
RUN 1 (-108.0' to -118.0') Mississippian System, Valmeyeran Series Limestone Light gray & fine grained with horizontal bedding becoming darker gray @ -115.6. Some chert replacement & numerous horizontal fractures throughout.	298.1	1	100.0	58.0	n/a	883@ -109.4'
	-113.0					
	-118.0					

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

SB-09 Run-2

ROCK CORE LOG

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ROUTE I-70
DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION 82-2-1HVB
LOCATION I-70 Curved Approach Structures
COUNTY St. Clair
CORING METHOD Rotary Wash
STRUCT. NO. S.N. 082-0318
Station: 127+00 to 140+74
CORING BARREL TYPE & SIZE NX Double Swivel-5 ft
Core Diameter 2.0 in
Top of Rock Elev. 299.1
Begin Core Elev. 298.1
BORING NO. SB-09
Station: 140+74
Offset: 43.0' Left
Ground Surface Elev. 406.1

Description	DEPTH (ft)	CORE (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
RUN 2 (-118.0' to -123.0') Mississippian System, Valmeyeran Series Limestone Gray & fine grained with horizontal bedding. No chert replacement encountered. Horizontal fractures @ -118.6', -121.0', -121.6', -122.2', -122.3' & -122.5'.	288.1	2	100.0	93.0	n/a	773@ -118.0'
	-123.0					
	-128.0					

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

SB-10

SOIL BORING LOG

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ROUTE I-70
DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION 82-2-1HVB
LOCATION I-70 Curved Approach Structures
COUNTY St. Clair
DRILLING METHOD 3.25" Hollow Stem Auger
HAMMER TYPE CME Automatic
STRUCT. NO. S.N. 082-0318
Station: 127+00 to 140+74
BORING NO. SB-10
Station: 140+74
Offset: 43.0' Right
Ground Surface Elev. 406.7
Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter n/a
Upon Completion n/a
After 24 Hrs. n/a

Description	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
TOPSOIL-black				
405.7		AS	-	34
SILTY CLAY-dark brown-stiff (A-6/A-7) Wet		2		94
		2		
		3	1.9B	28
		2		87
		1		
	-5	2	1.3B	35
401.2				
SILTY CLAY LOAM-brown & gray-medium stiff (A-4/A-6) Wet		2		
		2		
		3	0.5P	28
398.7				
SILTY LOAM to LOAM-brown & gray-loose (A-4)		3		
		3		
	-10	3	NP	26
396.2				
SAND-brown-loose to medium dense (A-3)		2		
		3		
		2	NP	24
		4		
		3		
	-15	4	NP	22
		5		
		6		
		7	NP	23
		3		
		3		
	-20	5	NP	25

Description	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SAND-brown-loose to medium dense (A-3)		9		
		9		
		10	NP	22
		9		
		11		
	-25	11	NP	22
		11		
		13		
		14	NP	22
		10		
		8		
	-30	9	NP	21
Trace organics from -31.0' to -32.5'.		7		
		7		
		12	NP	20
		6		
		7		
	-35	11	NP	21
		9		
		9		
		17	NP	24
		10		
		12		
	-40	14	NP	21

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SOIL BORING LOGS 18 OF 20	F.A.P. RTE. 998	SECTION 82-2-1HVB	COUNTY ST. CLAIR	TOTAL SHEETS 285	SHEET NO. 219
TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS	PLOT SCALE = $SCALE$	DRAWN - SNB	REVISED -	I-70 CONNECTION OVER NS, TRRA, MCT AND INDUSTRIAL DR.	SCALE: SHEET NO. S-109 OF S-111	SN 082-0318 (EB) & 0319 (WB)	CONTRACT NO. 76C44			
	PLOT DATE = $DATE$	CHECKED -	REVISED -		STA. 134+22.00 TO STA.	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
		DATE - 06/04/10	REVISED -							

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SOIL BORING LOG

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ROUTE I-70 | DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION 82-2-1HVB | LOCATION I-70 Curved Approach Structures
COUNTY St. Clair | DRILLING METHOD 3.25" Hollow Stem Auger | HAMMER TYPE CME Automatic

STRUCT. NO. S.N. 082-0318
Station: 127+00 to 140+74
BORING NO. SB-10
Station: 140+74
Offset: 43.0' Right
Ground Surface Elev. 406.7

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter n/a
Upon Completion n/a
After 24 Hrs. n/a

Description	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SAND-loose to medium dense (A-3) — 366.2				
SAND-gray- medium dense to very dense (A-3)		8 / 13 / 13	NP	21
	-45	9 / 19 / 19	NP	18
		11 / 23 / 28	NP	20
	-50	24 / 23 / 36	NP	23
		23 / 30 / 33	NP	19
	-55	10 / 10 / 13	NP	24
		8 / 9 / 11	NP	23
	-60	8 / 9 / 12	NP	23

Description	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SAND-gray- medium dense to very dense (A-3)		12 / 14 / 21	NP	23
	-65	10 / 12 / 12	NP	24
Trace organics from -66.0' to -67.5'.		7 / 13 / 14	NP	36
	-70	12 / 15 / 17	NP	21
333.7		12 / 20 / 28	NP	15
SAND with Gravel-gray- medium dense to dense (A-1-b)	-75	10 / 9 / 8	NP	12
		22 / 12 / 10		NR
	-80	15 / 17 / 23	NP	13

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

SB-10

SOIL BORING LOG

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ROUTE I-70 | DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION 82-2-1HVB | LOCATION I-70 Curved Approach Structures
COUNTY St. Clair | DRILLING METHOD 3.25" Hollow Stem Auger | HAMMER TYPE CME Automatic

STRUCT. NO. S.N. 082-0318
Station: 127+00 to 140+74
BORING NO. SB-10
Station: 140+74
Offset: 43.0' Right
Ground Surface Elev. 406.7

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter n/a
Upon Completion n/a
After 24 Hrs. n/a

Description	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SAND with Gravel-gray- medium dense to dense (A-1-b)		11 / 15 / 12	NP	13
	-85	13 / 15 / 13	NP	11
318.7		14 / 11 / 9	NP	10
SAND-brown & gray- dense to very dense (A-3)	-90	13 / 15 / 21	NP	18
		24 / 38 / 50	NP	13
	-95	22 / 23 / 29	NP	16
308.7		18 / 32 / 50	NP	15
SAND with Gravel-gray- very dense (A-1-b)	-100	50/5"	NP	16

Description	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SAND with Gravel-gray- very dense (A-1-b)		36 / 50/2"	NP	12
302.2	-105	45 / 39 / 24	NP	10
Drillers Observation: Cobbles & Boulders. 298.7		50/2"		NR
RUN 1 (-108.0' to -118.0') Mississippian System, Valmeyeran Series Limestone Light gray & fine grained with horizontal bedding, & some chert replacement. Numerous horizontal fractures throughout. Recovery=100.0% R.Q.D.=33.5%	-110	RUN1		
288.7	-115			
RUN 2 (-118.0' to -123.0') Mississippian System, Valmeyeran Series Limestone	-120	RUN 2		

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

SB-10

SOIL BORING LOG

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ROUTE I-70 | DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION 82-2-1HVB | LOCATION I-70 Curved Approach Structures
COUNTY St. Clair | DRILLING METHOD 3.25" Hollow Stem Auger | HAMMER TYPE CME Automatic

STRUCT. NO. S.N. 082-0318
Station: 127+00 to 140+74
BORING NO. SB-10
Station: 140+74
Offset: 43.0' Right
Ground Surface Elev. 406.7

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter n/a
Upon Completion n/a
After 24 Hrs. n/a

Description	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Light gray & fine grained with horizontal bedding, & some chert replacement. Numerous horizontal fractures throughout, with some thin clay partings. Recovery=100.0% R.Q.D.=52.0% 283.7		RUN 2		
End Of Boring @ -123.0' Hollow Stem Augers To -10.0' Rotary Drilling To Completion CME Automatic Hammer 10' Of 4"* Casing Used 109' Of 3"* Casing Used	-125			
	-130			
	-135			
	-140			

Description	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
	-145			
	-150			
	-155			
	-160			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

SB-10 Run-1

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
805 Amherst Court, Suite 204
Naperville, Illinois 60565
(630) 355-2838

ROCK CORE LOG

PAGE 1 of 2
DATE 3/18-20/2009
LOGGED BY DR
GSI JOB No. 08201

ROUTE I-70
DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION 82-2-1HVB
LOCATION I-70 Curved Approach Structures
COUNTY St. Clair
CORING METHOD Rotary Wash
STRUCT. NO. S.N. 082-0318
Station: 127+00 to 140+74
CORING BARREL TYPE & SIZE NX Double Swivel-10 ft
Core Diameter 2.0 in
Top of Rock Elev. 298.7
Begin Core Elev. 298.7
BORING NO. SB-10
Station: 140+74
Offset: 43.0' Right
Ground Surface Elev. 406.7

Description	Elev.	DEPTH (ft)	CORE (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
RUN 1 (-108.0' to -118.0') Mississippian System, Valmeyeran Series Limestone Light gray & fine grained with horizontal bedding, & some chert replacement. Numerous horizontal fractures throughout.	298.7		1	100.0	33.5	n/a	1161@ -110.4'
		-113.0					
		-118.0					

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

SB-10 Run-2

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
805 Amherst Court, Suite 204
Naperville, Illinois 60565
(630) 355-2838

ROCK CORE LOG

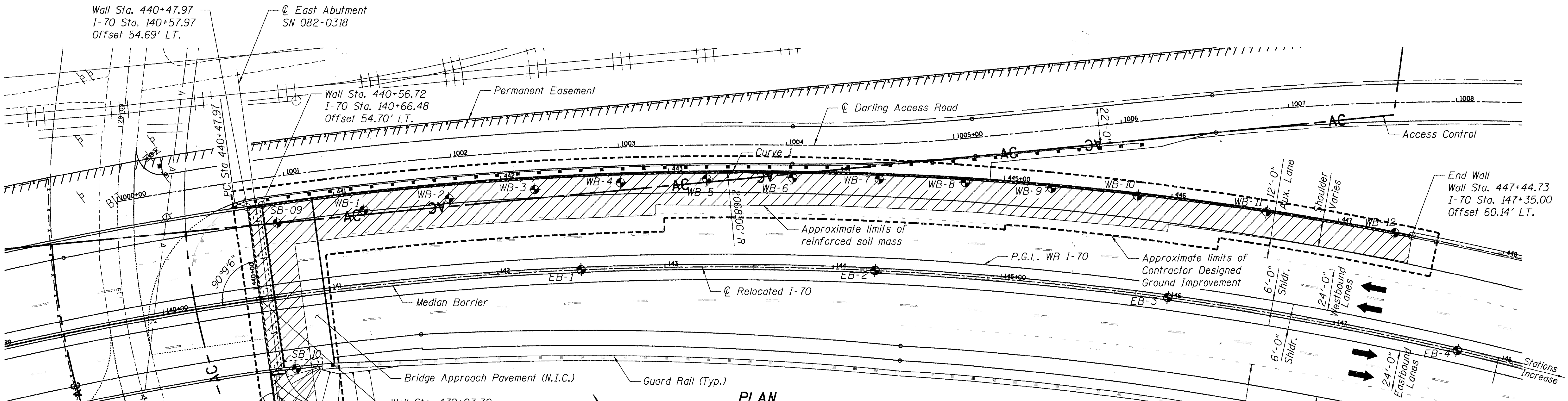
PAGE 2 of 2
DATE 3/18-20/2009
LOGGED BY DR
GSI JOB No. 08201

ROUTE I-70
DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION 82-2-1HVB
LOCATION I-70 Curved Approach Structures
COUNTY St. Clair
CORING METHOD Rotary Wash
STRUCT. NO. S.N. 082-0318
Station: 127+00 to 140+74
CORING BARREL TYPE & SIZE NX Double Swivel-5 ft
Core Diameter 2.0 in
Top of Rock Elev. 298.7
Begin Core Elev. 298.7
BORING NO. SB-10
Station: 140+74
Offset: 43.0' Right
Ground Surface Elev. 406.7

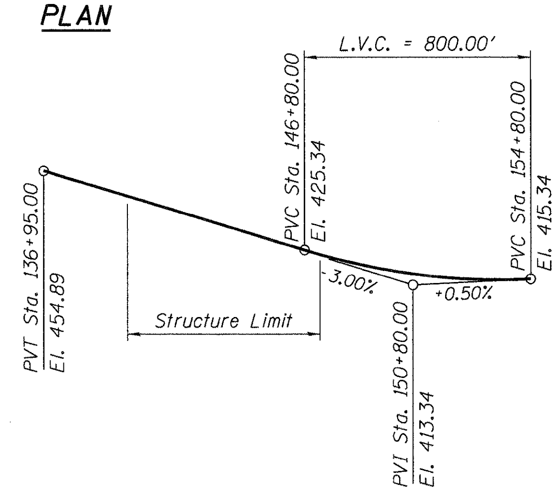
Description	Elev.	DEPTH (ft)	CORE (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
RUN 2 (-118.0' to -123.0') Mississippian System, Valmeyeran Series Limestone Light gray & fine grained with horizontal bedding, & some chert replacement. Numerous horizontal fractures throughout, with some thin clay partings.	288.7		2	100.0	52.0	n/a	1012@ -119.3'
		-123.0					
		-128.0					

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

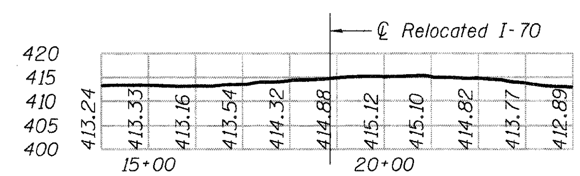
BENCH MARK:
Monument No. 11: Aluminum disk set in the back of a 4.5' concrete walk (end of walk), located on the west side of Illinois Route 3 approximately 0.3 miles south of Canal Street (Brooklyn). El. 414.02



PLAN



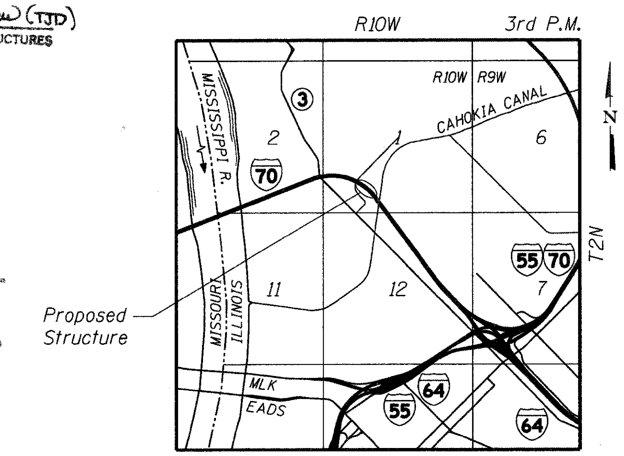
PROFILE GRADE RELOCATED I-70
(along ℄ Roadway)



INDUSTRIAL DR. PROFILE

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
ENGINEER OF BRIDGES AND STRUCTURES

STATE OF ILLINOIS
R. SHANKAR NAIR
81-3676
LICENSED STRUCTURAL ENGINEER



LOCATION SKETCH

DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications for Highway Bridges, 17th Edition

DESIGN STRESSES

FIELD UNITS

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

PRECAST UNITS

f'c = 4,500 psi (Precast Panels)

SEISMIC DATA *

Soil Site Class = D

Return Period, Tr [yrs]	1000	2500
Modified Peak Ground Acceleration, As [g]	0.20	0.26
Importance Category	Critical	Essential
Seismic Performance Zone	2	2

* Seismic Data based on site-specific analysis.

CURVE DATA - WALL CURVE 1

PI Sta. 444+33.90
Δ = 21°08'30" (RT)
D = 2°46'14"
R = 2,068.00'
L = 763.07'
T = 385.92'
E = 35.70'
SE = N/A
PC Sta. 440+47.97
PT Sta. 448+11.04

℄ RELOCATED I-70 CURVE I7003

PI Sta. = 138+29.72
Δ = 74°40'52" (RT)
D = 2°56'04"
R = 1,952.50'
T = 1,489.60'
L = 2,544.95'
E = 503.34'
SE = 5.40%
PC Sta. = 123+40.13
PT Sta. = 148+85.08

INDEX OF SHEETS

LEGEND:

Soil Boring
Ditch

BILL OF MATERIAL

Item	Unit	Total
MSE Wall	Sq. Ft.	18,598
Contractor Designed Ground Improvement	L. Sum	1

Notes:

1. Stations and offsets are measured from the ℄ Relocated I-70 to the front face of the MSE wall panels.
2. MSE Wall to be constructed in this Contract. Parapet, Moment Slab, Wall Coping, Approach Pavement and Roadway to be constructed in later Contract.
3. Design of the wall shall include consideration of seismic force effects. Under the 1000-year seismic demand, the performance objective is uninterrupted use of the supported roadway. Wall displacements shall thus be limited to effectively "undamaged" levels. Under the 2500-year seismic demand, the performance objective is availability of the supported roadway to emergency services vehicles (only). Large wall displacements and significant local damage is permissible, but large-scale collapse shall be prevented.

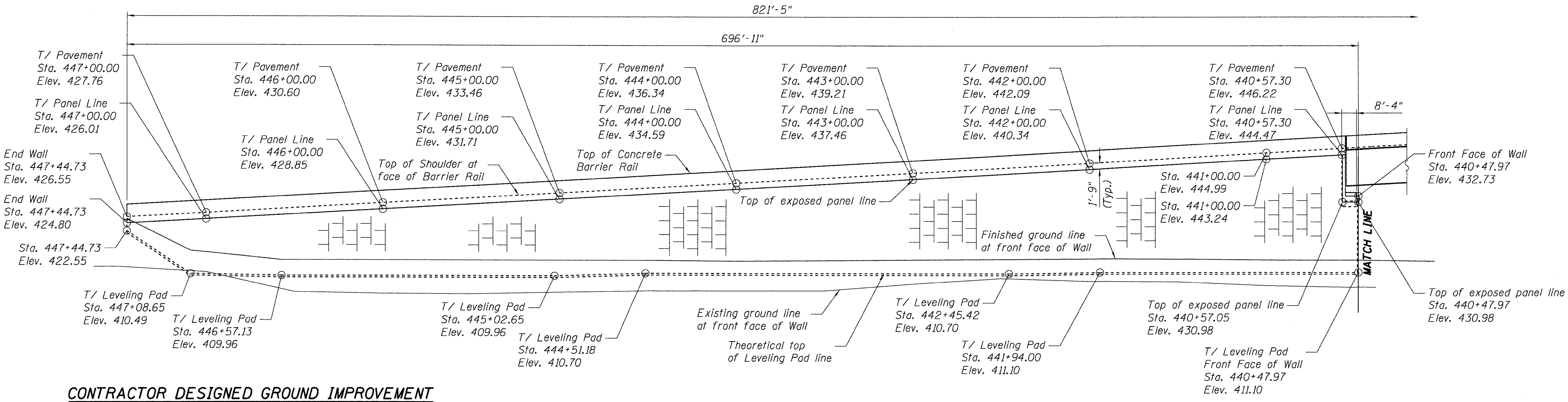
FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED - JLR	REVISED -
		DRAWN - HBJ	REVISED -
TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS	PLOT SCALE = $SCALE$	CHECKED - TCU	REVISED -
	PLOT DATE = $DATE$	DATE - 06/04/10	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
I-70 CONNECTION
RETAINING WALL

MSE WALL PLAN

SCALE: NTS | SHEET NO. W-1 OF W-14 | STA. 140+57.64 TO STA. 147+35.00

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB	ST. CLAIR	285	222
	SN 082-W234	CONTRACT NO. 76C44		
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			



ELEVATION
(Looking South)

CONTRACTOR DESIGNED GROUND IMPROVEMENT PERFORMANCE CRITERIA

MSE Wall Station	Bearing	Maximum Settlement		Stability - Static		Global Stability - Dynamic	
	Bearing Demand [ksf]	at Tc + 3 month [in]	at Tc + 1 year [in]	Factor of Safety Required		Factor of Safety Required	
				Sliding	Global	Tr = 1000 yr	Tr = 2500 yr
439+23	4.0	2	3	1.5	1.5	1.0	1.0
439+50	6.0	2	3	1.5	1.5	1.0	1.0*
440+23	6.0	2	3	1.5	1.5	1.0	1.0*
441+23	6.0	2	3	1.5	1.5	1.0	1.0
443+70	5.0	2	3	1.5	1.5	1.0	1.0
445+70	4.5	2	3	1.5	1.5	1.0	1.0
447+50	4.0	2	3	1.5	1.5	1.0	1.0

Bearing
Bearing demand is the unfactored, static, equivalent uniform demand acting at T/Leveling Pad. Bearing demand includes the envelope of dead load, live load and potential downdrag associated with settlement of adjacent unreinforced embankment acting on an MSE wall of assumed typical proportions. The improved ground shall provide factor of safety = 2.5, calculated as Nominal Bearing Capacity / Bearing Demand.

Settlement
Settlement shall be measured at T/Leveling pad, and referred to a reference elevation taken prior to placement of wall panels. Tc shall be the time of completion of the MSE wall fill.

Stability - Static
Factor of safety calculations shall be based on an assumed MSE wall design of typical proportions. Factor of safety for global stability shall be based on the envelope of trial and error solution of feasible sliding block and rotating wedge failure surfaces.

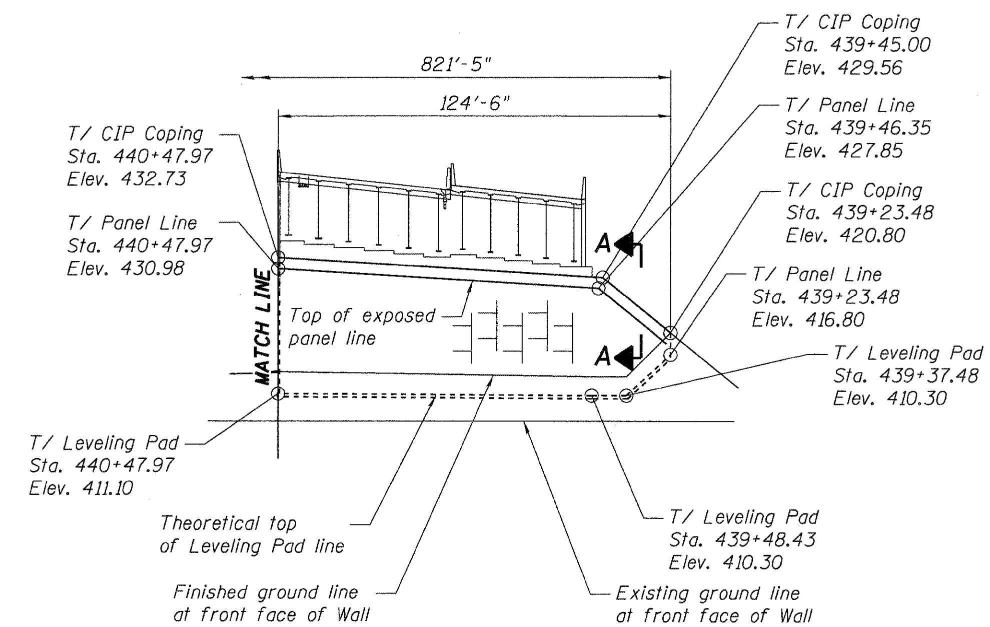
Liquefaction
Liquefaction anlayses reflecting the presence of increased vertical stress due to the proposed wall have been performed and are reported in the Structure Geotechnical Reports for the Darling Spur Wall (SN 082-W234) and the I-70 Connector Bridge (SN 082-0318 and -0319). Mitigation of liquefaction occurrence is not a performance criteria for Contractor Designed Ground Improvement. The occurrence and hazard associated with liquefaction is recognized through performance criteria on global stability which include the effects of predicted liquefaction.

Stability - Dynamic
Factor of safety calculation shall be based on an assumed MSE wall design of typical proportions. Factor of safety for global stability shall be based on the envelope of trial and error solution of feasible sliding block and rotating wedge failure surfaces.

Factor of safety calculations for global stability shall:

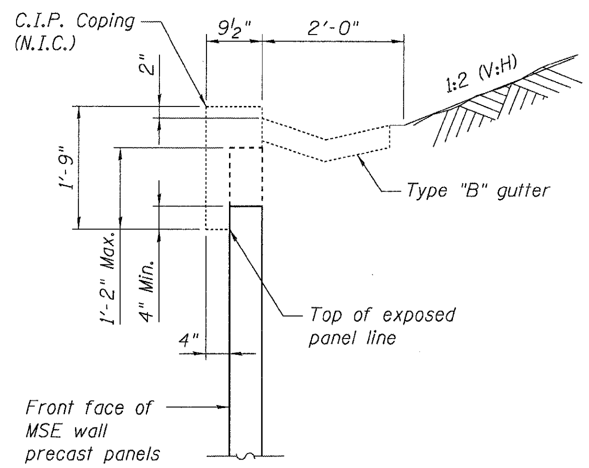
- be based on the envelope of trial and error solution of feasible sliding block and rotating wedge failure surfaces.
- reflect a driving inertial force from acceleration equal to 75% of the Modified Peak Ground Acceleration As.
- include reduced soil properties to represent liquefaction for the return periods, locations, and depths at which it is indicated in the Structure Geotechnical Reports for the Darling Spur Retaining Wall and the MRB Connector Bridge.

* For the 2500-year event (only), the stability calculation for sections cut through the abutment may consider a stabilizing contribution from the bridge abutment foundation. The design of these foundations has included an allowance for delivering a restoring shear force of 16.5 kips per foot of wall on an assumed failure plane which intersects the foundations at elevation 392'.

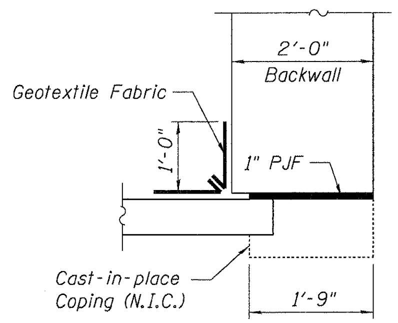


ELEVATION
(Looking East)

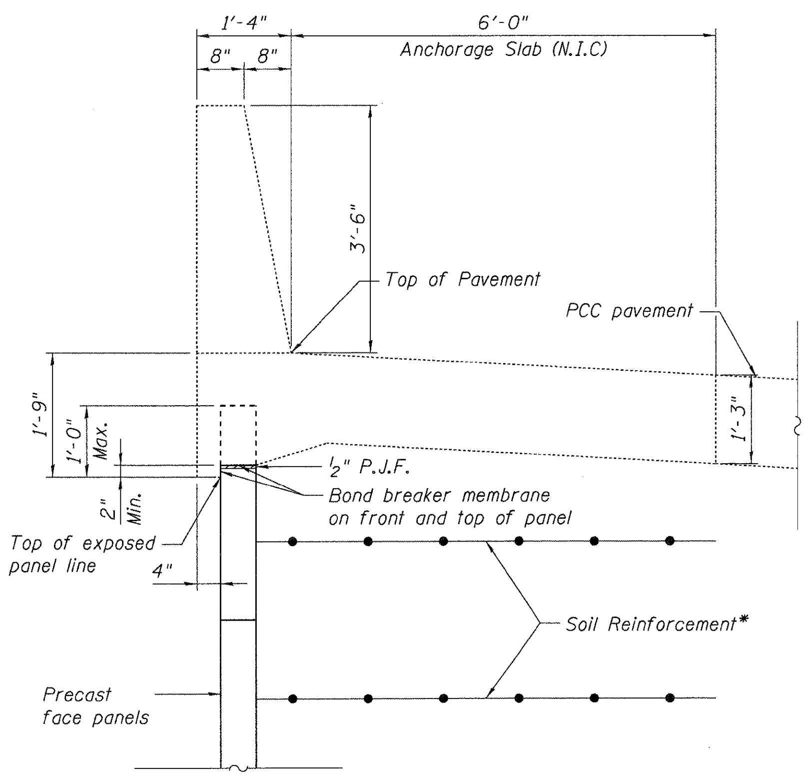
FILE NAME = $FILE$	USER NAME = $USER$	DESIGNED - TCG	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	MSE WALL ELEVATION	F.A.P RTE. 998	SECTION 82-2-1HVB	COUNTY ST. CLAIR	TOTAL SHEETS 285	SHEET NO. 223
TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS	PLOT SCALE = $SCALE$	DRAWN - TCG	REVISED -	I-70 CONNECTION RETAINING WALL	SCALE: NTS	SHEET NO. W-2 OF W-14	STA. 140+57.64 TO STA. 147+35.00	SN 082-W234	CONTRACT NO. 76C44	
	PLOT DATE = $DATE$	CHECKED - TCU	REVISED -			FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
		DATE - 06/04/10	REVISED -							



SECTION A-A

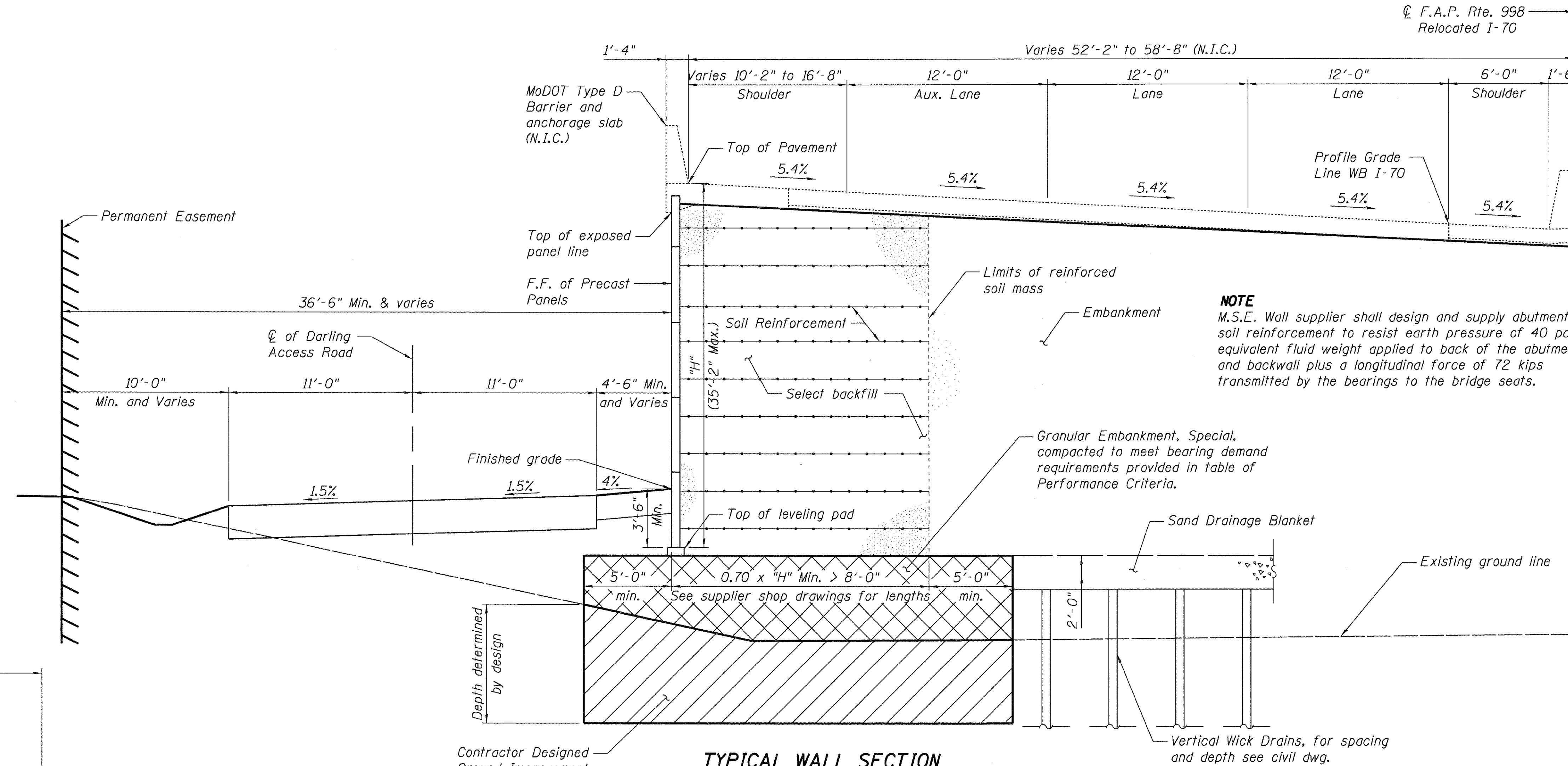


SECTION B-B



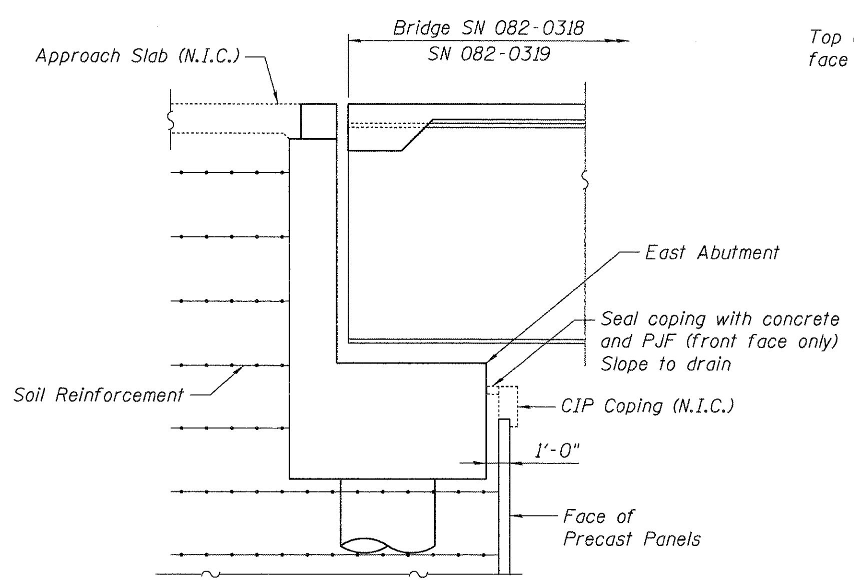
SECTION THROUGH ANCHORAGE SLAB

*The M.S.E. wall supplier's internal stability design shall account for the anchorage slab's bearing pressure surcharge of 0.24 ksf and horizontal sliding force of 0.5 kip/ft of wall

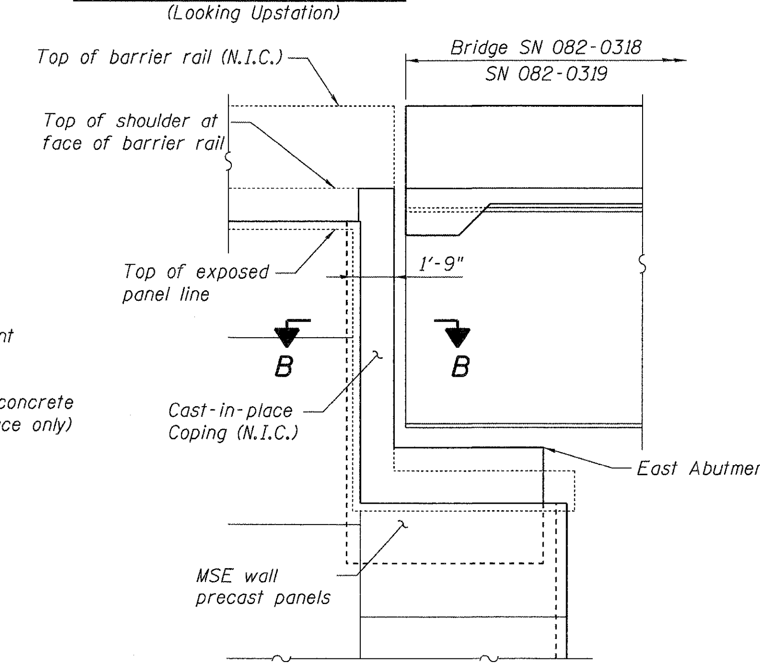


TYPICAL WALL SECTION
(Looking Upstation)

NOTE
M.S.E. Wall supplier shall design and supply abutment soil reinforcement to resist earth pressure of 40 pcf equivalent fluid weight applied to back of the abutment and backwall plus a longitudinal force of 72 kips transmitted by the bearings to the bridge seats.



SECTION THROUGH ABUTMENT
(Looking South)



COPING DETAIL AT ABUTMENT
(Looking South)

NOTE:
N.I.C. indicates Not In Contract. The items constructed in a later contract include Bridge Approach Slab, cast-in-place coping for MSE Wall, anchorage slab and parapet on MSE Wall, and concrete gutter adjacent to coping.

FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED -	REVISED -	STATE OF ILLINOIS	MSE WALL DETAILS	
TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS	PLOT SCALE = $SCALE$	DRAWN - TCG	REVISED -	DEPARTMENT OF TRANSPORTATION		
		CHECKED - TCU	REVISED -	I-70 CONNECTION		
	PLOT DATE = $DATE$	DATE - 06/04/10	REVISED -	RETAINING WALL	SCALE: NTS	SHEET NO. W-3 OF W-14	STA. 140+57.64 TO STA. 147+35.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB	ST. CLAIR	285	224
	SN 082-W234	CONTRACT NO. 76C44		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

WB-01

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering

SOIL BORING LOG

PAGE 1 of 2
DATE 7/20/2009
LOGGED BY DR
GSI JOB No. 08201

ROUTE I-70 — DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION XX — LOCATION I-70 Curved Approach Structure-Retaining Wall
COUNTY St. Clair — DRILLING METHOD Straight Flight Auger/Rotary — HAMMER TYPE Diedrich Automatic

STRUCT. NO. XX
Station: 140+70 to 147+35
BORING NO. WB-01
Station: 140+23
Offset: 34.5' Left
Ground Surface Elev. *406.0*

Surface Water Elev. *n/a*
Stream Bed Elev. *n/a*
Groundwater Elevation:
First Encounter *397.5* ▼
Upon Completion *n/a* ▽
After 24 Hrs. *n/a*

Description	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
TOPSOIL-black		AS	-	31
XX				
SILTY CLAY-brown- medium stiff to stiff (A-6) Wet		1		*85*
		2		
		3	1.3B	33
		1		
		2		
	-5	2	1.25P	33
		1		*82*
		2		
		3	0.7B	34
▼		0		*77*
		1		
	-10	1	0.15B	43
XX				
SILTY CLAY-brown- very soft (A-7) Wet		0		
		1		
		2	NP	37
XX				
SAND-brown-loose (A-2)		0		
		2		
	-15	3	NP	29
XX				
SAND-brown- medium dense to dense (A-3)		5		
		7		
		7	NP	19
		3		
		8		
	-20	11	NP	18

Description	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SAND-brown- medium dense to dense (A-3)		5		
		8		
		9	NP	23
		7		
		7		
	-25	9	NP	23
		10		
		11		
		13	NP	22
		11		
		15		
	-30	17	NP	19
		11		
		12		
		13	NP	21
		6		
		10		
	-35	9	NP	16
XX				
SAND-gray- medium dense to dense (A-3)		6		
		7		
		7	NP	22
		10		
		12		
	-40	13	NP	19

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

WB-01

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering

SOIL BORING LOG

PAGE 2 of 2
DATE 7/20/2009
LOGGED BY DR
GSI JOB No. 08201

ROUTE I-70 — DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION XX — LOCATION I-70 Curved Approach Structure-Retaining Wall
COUNTY St. Clair — DRILLING METHOD Straight Flight Auger/Rotary — HAMMER TYPE Diedrich Automatic

STRUCT. NO. XX
Station: 140+70 to 147+35
BORING NO. WB-01
Station: 140+23
Offset: 34.5' Left
Ground Surface Elev. *406.0*

Surface Water Elev. *n/a*
Stream Bed Elev. *n/a*
Groundwater Elevation:
First Encounter *397.5* ▼
Upon Completion *n/a* ▽
After 24 Hrs. *n/a*

Description	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SAND-gray- medium dense to dense (A-3)		12		
		16		
		19	NP	23
		8		
		9		
	-45	11	NP	22
		9		
		9		
		10	NP	22
		16		
		19		
	-50	21	NP	22
		12		
		9		
		8	NP	23
XX				
SAND with Gravel-gray- loose (A-1-b)		5		
		4		
	-55	3	NP	16
XX				
SAND-gray- loose to dense (A-3)		10		
		6		
		3	NP	22
		7		
		7		
	-60	7	NP	22

Description	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SAND-gray- loose to dense (A-3)		10		
		11		
		10	NP	23
		14		
		16		
	-65	17	NP	23
		14		
		13		
		15	NP	24
		11		
		12		
	-70	16	NP	25
		14		
		16		
		15	NP	24
		13		
		14		
	-75	11	NP	22
XX				
SAND with Gravel-gray- medium dense (A-1-b)		9		
		19		
		8	NP	12
End Of Boring @ -80.0' Straight Flight Augers To -10.0' Rotary Drilling To Completion 10.0' of 4.0"* Casing Used		10		
		12		
XX	-80	16	NP	10

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

WB-02

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering

SOIL BORING LOG

PAGE 1 of 2
DATE 7/20-21/2009
LOGGED BY DR
GSI JOB No. 08201

ROUTE I-70 — DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION XX — LOCATION I-70 Curved Approach Structure-Retaining Wall
COUNTY St. Clair — DRILLING METHOD Straight Flight Auger/Rotary — HAMMER TYPE Diedrich Automatic

STRUCT. NO. XX
Station: 140+70 to 147+35
BORING NO. WB-02
Station: 140+72
Offset: 34.5' Left
Ground Surface Elev. *406.0*

Surface Water Elev. *n/a*
Stream Bed Elev. *n/a*
Groundwater Elevation:
First Encounter *397.5* ▼
Upon Completion *n/a* ▽
After 24 Hrs. *n/a*

Description	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
TOPSOIL-black		AS	-	31
XX				
SILTY CLAY-brown- stiff (A-6) Wet		1		*87*
		2		
		3	1.4B	33
		1		*84*
		2		
	-5	2	1.1B	33
XX				
SILTY CLAY-brown- soft (A-6/A-7) Wet		1		*86*
		1		
		1	0.3B	34
▼		1		*88*
		1		
	-10	1	0.3B	34
XX				
SANDY LOAM-brown & gray- loose (A-2)		1		
		1		
		4	NP	26
XX				
SAND-brown- medium dense to dense (A-3)		5		
		6		
	-15	5	NP	21
		4		
		7		
		6	NP	20
		5		
		6		
	-20	10	NP	18

Description	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SAND-brown- medium dense to dense (A-3)		6		
		6		
		7	NP	22
		3		
		7		
	-25	8	NP	21
		8		
		11		
		21	NP	19
		10		
		12		
	-30	14	NP	19
		10		
		13		
		12	NP	19
		6		
		7		
	-35	10	NP	19
XX				
SAND-gray- medium dense to dense (A-3)		9		
		9		
		8	NP	23
		9		
		13		
	-40	13	NP	26

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

..\082031B-CONN-05-011-MS.DGN, ..\082031B-CONN-05-011-MS.DGN, ..\082031B-CONN-05-011-MS.DGN, ..\082031B-CONN-99-001-BD.DGN
6-03-2010, 10:56:00 BONDHUJO \\FS-0044\NM\VAULT\D-TRANS.07\2002\20868-001\STRUCT\CAD\01 DESIGN\082W234\SHEET\082W234-CONN-05-023-SHT-MS.DGN

WB-02

SOIL BORING LOG

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
805 Amherst Court, Suite 204
Naperville, Illinois 60565
(630) 355-2838

PAGE 2 of 2
DATE 7/20-21/2009
LOGGED BY DR
GSI JOB No. 08201

ROUTE I-70 — DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION XX — LOCATION I-70 Curved Approach Structure-Retaining Wall
COUNTY St. Clair — DRILLING METHOD Straight Flight Auger/Rotary — HAMMER TYPE Diedrich Automatic

STRUCT. NO. XX
Station: 140+70 to 147+35
BORING NO. WB-02
Station: 140+72
Offset: 34.5' Left
Ground Surface Elev. 406.0

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter 397.5
Upon Completion n/a
After 24 Hrs. n/a

Description	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SAND-gray-medium dense to dense (A-3)		8 / 10 / 12	NP	15
	-45	14 / 18 / 18	NP	16
		11 / 16 / 15	NP	17
	-50	8 / 10 / 17	NP	23
		14 / 14 / 13	NP	16
XX				
SAND with Gravel-gray-loose (A-1-b)	-55	3 / 5 / 7	NP	14
XX				
SAND-gray-loose to dense (A-3)		13 / 14 / 16	NP	21
	-60	13 / 14 / 15	NP	20
SAND-gray-loose to dense (A-3)		15 / 16 / 13	NP	19
	-65	16 / 19 / 20	NP	20
		11 / 9 / 7	NP	25
	-70	6 / 8 / 18	NP	22
		13 / 14 / 16	NP	21
	-75	19 / 22 / 26	NP	19
		16 / 26 / 36	NP	18
XX				
SAND with Gravel-loose (A-1-b)		12 / 13 / 19	NP	11
End Of Boring @ -80.0' Straight Flight Augers To -10.0' Rotary Drilling To Completion XX	-80			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

WB-03

SOIL BORING LOG

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GSI JOB No. 08201

ROUTE I-70 — DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION XX — LOCATION I-70 Curved Approach Structure-Retaining Wall
COUNTY St. Clair — DRILLING METHOD Straight Flight Auger/Rotary — HAMMER TYPE Diedrich Automatic

STRUCT. NO. XX
Station: 140+70 to 147+35
BORING NO. WB-03
Station: 142+23
Offset: 38.5' Left
Ground Surface Elev. 405.7

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter 397.2
Upon Completion n/a
After 24 Hrs. n/a

Description	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
TOPSOIL-black		AS	-	24
XX				
SILTY CLAY-brown-soft to stiff (A-6) Wet		1 / 2 / 3	1.7B	*88* 33
	-5	1 / 2 / 2	1.5P	28
		0 / 1 / 1	0.25B	*86* 34
	-10	0 / 1 / 1	0.5B	*87* 35
		1 / 1 / 2	0.25P	36
XX				
SAND-brown-medium dense (A-3)	-15	3 / 5 / 6	NP	22
		5 / 7 / 10	NP	21
	-20	8 / 8 / 8	NP	22
SAND-brown-medium dense (A-3)		9 / 9 / 8	NP	20
	-25	4 / 7 / 12	NP	21
		8 / 8 / 9	NP	25
	-30	6 / 13 / 11	NP	18
		9 / 5 / 8	NP	19
	-35	6 / 8 / 9	NP	25
		6 / 9 / 10	NP	20
	-40	7 / 9 / 13	NP	18

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

WB-03

SOIL BORING LOG

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ROUTE I-70 — DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION XX — LOCATION I-70 Curved Approach Structure-Retaining Wall
COUNTY St. Clair — DRILLING METHOD Straight Flight Auger/Rotary — HAMMER TYPE Diedrich Automatic

STRUCT. NO. XX
Station: 140+70 to 147+35
BORING NO. WB-03
Station: 142+23
Offset: 38.5' Left
Ground Surface Elev. 405.7

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter 397.2
Upon Completion n/a
After 24 Hrs. n/a

Description	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SAND-brown-medium dense (A-3) XX				
SAND-gray-medium dense to dense (A-3)		12 / 17 / 16	NP	15
	-45	7 / 9 / 11	NP	18
		10 / 11 / 12	NP	24
	-50	9 / 12 / 13	NP	21
		12 / 16 / 19	NP	19
	-55	10 / 12 / 19	NP	18
		15 / 15 / 14	NP	17
	-60	14 / 10 / 7	NP	21
SAND-gray-medium dense to dense (A-3)		10 / 12 / 16	NP	20
	-65	10 / 10 / 11	NP	21
		15 / 16 / 16	NP	20
	-70	12 / 15 / 17	NP	24
		11 / 15 / 23	NP	10
	-75	14 / 15 / 17	NP	20
		17 / 22 / 19	NP	17
XX				
SAND & Gravel-medium dense (A-1-b)		21 / 6 / 5	NP	13
End Of Boring @ -80.0' Straight Flight Augers To -10.0' Rotary Drilling To Completion XX	-80			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

WB-04

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SOIL BORING LOG

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GSI JOB No. 08201

ROUTE I-70
DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION XX
LOCATION I-70 Curved Approach Structure-Retaining Wall
COUNTY St. Clair
DRILLING METHOD Straight Flight Auger/Rotary
HAMMER TYPE Diedrich Automatic

STRUCT. NO. XX
Station: 140+70 to 147+35
BORING NO. WB-04
Station: 142+73
Offset: 39.5' Left
Ground Surface Elev. 405.4

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter n/a
Upon Completion n/a
After 24 Hrs. n/a

Description	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
TOPSOIL-black		AS	–	29
XX				
SILTY CLAY-brown-medium stiff to stiff (A-6) Wet		1		*90*
		3		
		4	2.5B	32
		1		*90*
		1		
	–5	1	1.1B	29
		1		
		1		
		1	0.5P	28
XX				
SANDY LOAM-brown-loose (A-2)		2		
		3		
	–10	3	NP	23
XX				
SILTY CLAY-brown-medium stiff (A-6) Wet		1		
		2		
		2	0.5P	30
XX				
SAND-gray-loose to medium dense (A-3)		3		
		4		
	–15	3	NP	22
		6		
		12		
		14	NP	20
		8		
		6		
	–20	8	NP	20

Description	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SAND-loose to medium dense (A-3) XX				
SANDY LOAM-gray-loose (A-2)		1		
		5		
		1	–	30
XX				
SAND-brown-medium dense (A-3)		5		
		8		
	–25	10	NP	18
		8		
		8		
		8	NP	21
		4		
		8		
	–30	11	NP	19
		14		
		14		
		12	NP	16
		7		
		9		
	–35	9	NP	19
XX				
SAND-gray-loose to dense (A-3)		7		
		4		
		7	NP	26
		7		
		9		
	–40	10	NP	23

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

WB-04

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SOIL BORING LOG

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GSI JOB No. 08201

ROUTE I-70
DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION XX
LOCATION I-70 Curved Approach Structure-Retaining Wall
COUNTY St. Clair
DRILLING METHOD Straight Flight Auger/Rotary
HAMMER TYPE Diedrich Automatic

STRUCT. NO. XX
Station: 140+70 to 147+35
BORING NO. WB-04
Station: 142+73
Offset: 39.5' Left
Ground Surface Elev. 405.4

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter n/a
Upon Completion n/a
After 24 Hrs. n/a

Description	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
		12		
		11		
		8	NP	22
		4		
SAND-gray-loose to dense (A-3)		6		
	–45	6	NP	17
		6		
Trace organics from –46.0' to –47.5'.		9		
		15	NP	28
		11		
		12		
	–50	8	NP	24
		7		
		7		
		10	NP	23
		13		
		12		
	–55	13	NP	22
		14		
		18		
		16	NP	20
		9		
		10		
	–60	10	NP	22

Description	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
		19		
		17		
		12	NP	20
		11		
		8		
	–65	10	NP	23
		18		
		20		
		16	NP	21
		11		
		11		
	–70	8	NP	26
		5		
Trace organics from –71.0' to –72.5'.		4		
		4	NP	30
		11		
		14		
	–75	13	NP	16
		10		
		17		
		25	NP	17
XX				
SAND with Gravel-medium dense (A-1-b)				
End Of Boring @ –80.0'		13		
Straight Flight Augers To –10.0'		7		
Rotary Drilling To Completion XX	–80	5	NP	16

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

WB-05

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SOIL BORING LOG

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ROUTE I-70
DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION XX
LOCATION I-70 Curved Approach Structure-Retaining Wall
COUNTY St. Clair
DRILLING METHOD Straight Flight Auger/Rotary
HAMMER TYPE Diedrich Automatic

STRUCT. NO. XX
Station: 140+70 to 147+35
BORING NO. WB-05
Station: 143+25
Offset: 51.5' Left
Ground Surface Elev. 405.7

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter n/a
Upon Completion n/a
After 24 Hrs. n/a

Description	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SANDY TOPSOIL-black		AS	–	27
XX				
SILTY CLAY-brown-medium stiff to stiff (A-6) Wet		1		*88*
		2		
		4	1.5B	34
		2		*89*
		2		
	–5	2	0.4B	31
XX				
SILTY LOAM-brown-very loose to loose (A-4) Wet		1		
		2		
		2	NP	28
		1		
		1		
	–10	2	NP	29
XX				
SANDY LOAM-brown-very loose (A-2)		3		
		5		
		3	NP	26
		4		
		5		
	–15	4	NP	24
XX				
SAND-brown-medium dense (A-3)		2		
		5		
		8	NP	21
		3		
		4		
	–20	9	NP	21

Description	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
		6		
		10		
		14	NP	19
		7		
		8		
	–25	11	NP	17
SAND-brown-medium dense (A-3)		6		
		11		
		13	NP	24
		7		
		7		
	–30	7	NP	21
		4		
		10		
		10	NP	18
		4		
		7		
	–35	10	NP	21
		6		
		9		
		14	NP	25
		NP		
		10		
	–40	13	NP	23

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

WB-05

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SOIL BORING LOG

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ROUTE I-70 | DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION XX | LOCATION I-70 Curved Approach Structure-Retaining Wall
COUNTY St. Clair | DRILLING METHOD Straight Flight Auger/Rotary | HAMMER TYPE Diedrich Automatic

STRUCT. NO. XX
Station: 140+70 to 147+35
BORING NO. WB-05
Station: 143+25
Offset: 51.5' Left
Ground Surface Elev. 405.7

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter n/a
Upon Completion n/a
After 24 Hrs. n/a

Description	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SAND-brown-medium dense (A-3) XX				
		6		
		6		
SAND-gray-medium dense (A-3)		8	NP	26
		4		
		7		
	-45	12	NP	24
		9		
		8		
		5	NP	28
XX				
		7		
SAND with Gravel-gray-medium dense (A-1-b)		7		
	-50	13	NP	16
XX				
		12		
		12		
		12	NP	22
SAND-gray-medium dense to very dense (A-3)		11		
		12		
	-55	13	NP	23
		9		
		12		
		19	NP	20
		13		
		14		
	-60	18	NP	19

Description	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Trace organics from -61.0' to -62.5'.		10		
		16		
		38	NP	20
		17		
		12		
	-65	15	NP	20
SAND-gray-medium dense to very dense (A-3)		9		
		13		
		25	NP	25
		11		
		14		
	-70	20	NP	22
		15		
		29		
		33	NP	20
		16		
		11		
	-75	9	NP	20
		12		
		26		
		15	NP	16
XX				
SAND with Gravel-loose (A-1-b)				
End Of Boring @ -80.0'		10		
Straight Flight Augers To -10.0'		8		
Rotary Drilling To Completion XX	-80	8	NP	12

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

WB-06

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SOIL BORING LOG

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DATE 7/23-24/2009
LOGGED BY MR
GSI JOB No. 08201

ROUTE I-70 | DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION XX | LOCATION I-70 Curved Approach Structure-Retaining Wall
COUNTY St. Clair | DRILLING METHOD Straight Flight Auger/Rotary | HAMMER TYPE Diedrich Automatic

STRUCT. NO. XX
Station: 140+70 to 147+35
BORING NO. WB-06
Station: 143+75
Offset: 52.5' Left
Ground Surface Elev. 405.8

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter n/a
Upon Completion n/a
After 24 Hrs. n/a

Description	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
TOPSOIL-black		AS	–	30
XX				
		2		*88*
		2		
		4	1.3B	32
SILTY CLAY-brown-soft to stiff (A-6) Wet		1		*86*
		3		
	-5	4	1.4B	34
		1		*92*
		2		
		2	0.3B	31
XX				
SILTY LOAM-brown-loose (A-4)		1		
		2		
	-10	3	NP	25
XX				
		2		
		2		
		4	NP	26
		1		
SAND-brown-loose to medium dense (A-3)		2		
	-15	5	NP	27
		3		
		4		
		7	NP	22
		5		
		6		
	-20	9	NP	21

Description	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SAND-loose to medium dense (A-3) XX				
		4		
SANDY LOAM-gray-loose (A-2)		3		
		4	NP	33
XX				
SAND with Gravel-brown-medium dense (A-1-b)		3		
		9		
	-25	9	NP	15
XX				
		8		
		8		
		8	NP	25
		4		
		10		
	-30	19	NP	25
SAND-brown-medium dense to dense (A-3)		9		
		16		
		17	NP	19
		7		
		9		
	-35	11	NP	22
		4		
		9		
		12	NP	24
		4		
		5		
	-40	6	NP	24

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

WB-06

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SOIL BORING LOG

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GSI JOB No. 08201

ROUTE I-70 | DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION XX | LOCATION I-70 Curved Approach Structure-Retaining Wall
COUNTY St. Clair | DRILLING METHOD Straight Flight Auger/Rotary | HAMMER TYPE Diedrich Automatic

STRUCT. NO. XX
Station: 140+70 to 147+35
BORING NO. WB-06
Station: 143+75
Offset: 52.5' Left
Ground Surface Elev. 405.8

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter n/a
Upon Completion n/a
After 24 Hrs. n/a

Description	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SAND-brown-medium dense to dense (A-3)		5		
		8		
		15	NP	24
XX				
		7		
		6		
	-45	11	NP	24
		8		
		8		
		15	NP	26
SAND-gray-medium dense to dense (A-3)		8		
		9		
	-50	11	NP	25
		10		
		12		
		13	NP	25
		12		
		18		
	-55	21	NP	24
		9		
		12		
		14	NP	23
		8		
		12		
	-60	19	NP	22

Description	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
		10		
		14		
		24	NP	23
SAND-gray-medium dense to dense (A-3)		13		
		17		
	-65	22	NP	22
		13		
		13		
		20	NP	22
XX				
SAND with Gravel-gray-dense (A-1-b)		17		
		18		
	-70	20	NP	8
XX				
		16		
		24		
SAND-gray-dense (A-3)		28	NP	14
		16		
		25		
	-75	18	NP	23
XX				
		50		
SAND with Gravel-gray-medium dense (A-1-b)		14		
		10	NP	11
End Of Boring @ -80.0'		6		
Straight Flight Augers To -10.0'				
Rotary Drilling To Completion		7		
10.0' of 4.0"* Casing Used XX	-80	9	NP	11

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

FILE NAME =	USER NAME = $USER$	DESIGNED -	REVISED -	STATE OF ILLINOIS	SOIL BORING LOGS	F.A.P RTE. 998 / SECTION 82-2-1HVB / COUNTY ST. CLAIR / TOTAL SHEETS 285 / SHEET NO. 228
$FILEL$		DRAWN - TCG	REVISED -	DEPARTMENT OF TRANSPORTATION	4 OF 11	SN 082-W234 / CONTRACT NO. 76C44
TENG — TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS	PLOT SCALE = $SCALE$	CHECKED -	REVISED -	I-70 CONNECTION	SCALE: NTS / SHEET NO. W-7 OF W-14 / STA. 140+57.64 TO STA. 147+35.00	FED. ROAD DIST. NO. / ILLINOIS / FED. AID PROJECT
	PLOT DATE = $DATE$	DATE - 06/04/10	REVISED -	RETAINING WALL		

..\0820318-CONN-05-011-MS.DGN, ..\0820318-CONN-05-011-MS.DGN, ..\0820318-CONN-99-001-BD.DGN
6-03-2010, 10:56:24 BONDHUJO \\FS-2044\AMVAULT\D-TRANS.07\2202\20868-001\STRUCT\CAD\01 DESIGN\082W234\SHEET\082W234-CONN-05-026-SHT-MS.DGN

WB-07

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
805 Amherst Court, Suite 204
Naperville, Illinois 60565
(630) 355-2838

SOIL BORING LOG

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DATE 7/27/2009
LOGGED BY MR
GSI JOB No. 08201

ROUTE I-70 | DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION XX | LOCATION I-70 Curved Approach Structure-Retaining Wall
COUNTY St. Clair | DRILLING METHOD Straight Flight Auger/Rotary | HAMMER TYPE Diedrich Automatic

STRUCT. NO. XX
Station: 140+70 to 147+35
BORING NO. WB-07
Station: 144+25
Offset: 53.5' Left
Ground Surface Elev. 405.7

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter n/a
Upon Completion n/a
After 24 Hrs. n/a

Description	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
TOPSOIL–black		AS	–	30
XX				
		2		*87*
		4		
		5	2.5B	30
SILTY CLAY–brown– very stiff (A-6) Wet				
		2		*89*
		2		
	–5	3	3.6B	27
XX				
		4		
		5		
SANDY LOAM–brown– very loose to medium dense (A-2)		5	NP	24
		1		
		1		
	–10	1	NP	25
XX				
SILTY CLAY–gray– medium stiff (A-6) Wet		1		
		6		
		8	NP	28
XX				
SANDY LOAM–brown–loose (A-2)		2		
		4		
	–15	4	NP	31
XX				
SAND–brown–medium dense (A-3)		3		
		4		
		7	NP	24
		6		
		9		
	–20	7	NP	23

Description	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SAND–brown–medium dense (A-3) XX				
		6		*75*
SILTY CLAY–gray– soft (A-7) Wet		4		
		4	0.25B	43
XX				
		7		
		9		
	–25	9	NP	21
		4		
		3		
		6	NP	21
		4		
		5		
	–30	3	NP	20
SAND–brown– loose to dense (A-3)				
		8		
		9		
		15	NP	21
		9		
		14		
	–35	20	NP	19
		8		
		10		
		13	NP	20
		8		
		12		
	–40	13	NP	22

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

WB-07

Geo Services, Inc.
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SOIL BORING LOG

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LOGGED BY MR
GSI JOB No. 08201

ROUTE I-70 | DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION XX | LOCATION I-70 Curved Approach Structure-Retaining Wall
COUNTY St. Clair | DRILLING METHOD Straight Flight Auger/Rotary | HAMMER TYPE Diedrich Automatic

STRUCT. NO. XX
Station: 140+70 to 147+35
BORING NO. WB-07
Station: 144+25
Offset: 53.5' Left
Ground Surface Elev. 405.7

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter n/a
Upon Completion n/a
After 24 Hrs. n/a

Description	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
		8		
		14		
SAND–brown– loose to dense (A-3)		12	NP	23
		6		
		13		
	–45	14	NP	16
		15		
		14		
		17	NP	19
XX				
		9		
Trace organics from –48.5' to –50.0'.		13		
	–50	12	NP	24
		8		
SAND–gray– loose to very dense (A-3)		7		
		13	NP	24
		10		
		10		
	–55	13	NP	23
		5		
		3		
		1	NP	23
		0		
Trace organics from –58.5' to –60.0'.		4		
	–60	3	NP	37

Description	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
		8		
		10		
		13	NP	24
		8		
		12		
	–65	19	NP	20
SAND–gray– loose to very dense (A-3)				
		14		
		19		
		30	NP	16
		16		
		21		
	–70	21	NP	17
		20		
		37		
		36	NP	18
		20		
		22		
	–75	11	NP	21
XX				
		35		
SAND with Gravel–brown & gray– medium dense (A-1-b)		16		
		10	NP	11
End Of Boring @ –80.0' Straight Flight Augers To –10.0' Rotary Drilling To Completion		10		
		7		
10.0' of 4.0"* Casing Used XX	–80	8	NP	14

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

WB-08

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SOIL BORING LOG

PAGE 1 of 2
DATE 7/27-28/2009
LOGGED BY MR
GSI JOB No. 08201

ROUTE I-70 | DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION XX | LOCATION I-70 Curved Approach Structure-Retaining Wall
COUNTY St. Clair | DRILLING METHOD Straight Flight Auger/Rotary | HAMMER TYPE Diedrich Automatic

STRUCT. NO. XX
Station: 140+70 to 147+35
BORING NO. WB-08
Station: 144+75
Offset: 54.5' Left
Ground Surface Elev. 405.3

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter n/a
Upon Completion n/a
After 24 Hrs. n/a

Description	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
TOPSOIL–black		AS	–	25
XX				
		2		*82*
SILTY CLAY–brown– very stiff (A-6) Wet		2		
		3	2.2B	35
XX				
		3		
		2		
SILTY CLAY LOAM–brown– loose (A-4) Wet	–5	3	0.25P	25
		2		
		2		
		3	0.5P	27
XX				
		3		
		3		
	–10	4	NP	26
		3		
SAND–brown– loose to medium dense (A-3)		3		
		4	NP	25
		2		
		3		
	–15	3	NP	25
		2		
		3		
		8	NP	19
XX				
SILTY CLAY–gray– very soft (A-7) Wet		2		
		3		
	–20	3	<0.25P	65

Description	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SILTY CLAY–gray– very soft (A-7) Wet				
XX		7		
		4		
		2	NP	23
		7		
		10		
	–25	17	NP	15
		5		
		8		
		7	NP	22
SAND–brown– loose to dense (A-3)				
		5		
		12		
	–30	14	NP	18
		9		
		14		
		16	NP	20
		9		
		12		
	–35	11	NP	22
		10		
		12		
		15	NP	20
		9		
		15		
	–40	16	NP	21

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

..\0820318-CONN-05-011-MS.DGN,..\0820318-CONN-05-011-MS.DGN,..\0820318-CONN-05-011-MS.DGN,..\0820318-CONN-99-001-BO.DGN
6-03-2010, 10:56:36 BONDHUJO \\FS-0044\AM\VAULT\D-TRANS_07\2202\20868-001\STRUCT\CAD\01 DESIGN\082W234\SHEET\082W234-CONN-05-027-SHT-MS.DGN

FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED -	REVISED -	STATE OF ILLINOIS	SOIL BORING LOGS	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS		DRAWN - TCG	REVISED -	DEPARTMENT OF TRANSPORTATION	5 OF 11	998	82-2-1HVB	ST. CLAIR	285	229
	PLOT SCALE = $SCALE$	CHECKED -	REVISED -	I-70 CONNECTION			SN 082-W234	CONTRACT NO. 76C44		
	PLOT DATE = $DATE$	DATE - 06/04/10	REVISED -	RETAINING WALL	SCALE: NTS / SHEET NO. W-8 OF W-14 / STA. 140+57.64 TO STA. 147+35.00	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

WB-08

Geo Services Inc.
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805 Amherst Court, Suite 204
Naperville, Illinois 60565

SOIL BORING LOG

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GSI JOB No. 08201

ROUTE I-70
DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION XX
LOCATION I-70 Curved Approach Structure-Retaining Wall
COUNTY St. Clair
DRILLING METHOD Straight Flight Auger/Rotary
HAMMER TYPE Diedrich Automatic

STRUCT. NO. XX
Station: 140+70 to 147+35
BORING NO. WB-08
Station: 144+75
Offset: 54.5' Left
Ground Surface Elev. *405.3*

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter n/a
Upon Completion n/a
After 24 Hrs. n/a

Description	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
		10		
		14		
SAND-brown- loose to dense (A-3)		14	NP	20
		7		
		10		
	-45	12	NP	23
		10		
		14		
		15	NP	21
		11		
		16		
	-50	18	NP	22
		11		
		15		
		17	NP	24
XX				
		12		
		14		
	-55	18	NP	23
SAND-gray- medium dense to dense (A-3)		13		
		13		
		17	NP	21
		11		
		14		
	-60	16	NP	25

Description	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
		9		
		13		
		14	NP	24
		10		
		20		
	-65	29	NP	22
SAND-gray- medium dense to dense (A-3)		16		
		28		
		30	NP	16
		15		
		25		
	-70	29	NP	20
		14		
		18		
		28	NP	22
		14		
		13		
	-75	16	NP	22
XX				
SAND with Gravel-brown & gray- medium dense (A-1-b)		24		
		12		
		12	NP	9
End Of Boring @ -80.0' Straight Flight Augers To -10.0' Rotary Drilling To Completion 10.0' of 4.0"* Casing Used		8		
		7		
XX	-80	8	NP	14

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

WB-09

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Naperville, Illinois 60565

SOIL BORING LOG

PAGE 1 of 2
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GSI JOB No. 08201

ROUTE I-70
DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION XX
LOCATION I-70 Curved Approach Structure-Retaining Wall
COUNTY St. Clair
DRILLING METHOD Straight Flight Auger/Rotary
HAMMER TYPE Diedrich Automatic

STRUCT. NO. XX
Station: 140+70 to 147+35
BORING NO. WB-09
Station: 145+25
Offset: 44.5' Left
Ground Surface Elev. *404.8*

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter n/a
Upon Completion n/a
After 24 Hrs. n/a

Description	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
TOPSOIL-black		AS	–	27
XX				
		2		*78*
		2		
		3	1.1B	37
SILTY CLAY-brown- medium stiff to stiff (A-6/A-7) Wet		2		*80*
		3		
	-5	3	1.5B	36
		2		*75*
		2	1.4S@	
		3	9.9%	44
		3		*83*
		3		
	-10	3	0.9B	36
XX				
		0		*56*
SILTY CLAY-gray- very soft (A-7) Wet		0		
		0	0.2B	71
XX				
		5		
		1		
	-15	3	NP	21
SAND-brown-loose (A-3)		2		
		2		
		3	NP	26
		1		
XX		3		
SILTY CLAY-gray-very soft (A-7) Wet	-20	5	NP	26

Description	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SILTY CLAY-gray-very soft (A-7) Wet		4		*66*
		2		
		2	0.2B	51
XX				
		10		
		12		
	-25	13	NP	16
		5		
		9		
		11	NP	25
SAND-brown & gray- medium dense to dense (A-3)		5		
		11		
	-30	16	NP	22
		9		
		15		
		23	NP	30
		10		
		17		
	-35	18	NP	19
		8		
		11		
		16	NP	18
		7		
		14		
	-40	12	NP	18

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

WB-09

Geo Services Inc.
Geotechnical, Environmental & Civil Engineering
805 Amherst Court, Suite 204
Naperville, Illinois 60565

SOIL BORING LOG

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GSI JOB No. 08201

ROUTE I-70
DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION XX
LOCATION I-70 Curved Approach Structure-Retaining Wall
COUNTY St. Clair
DRILLING METHOD Straight Flight Auger/Rotary
HAMMER TYPE Diedrich Automatic

STRUCT. NO. XX
Station: 140+70 to 147+35
BORING NO. WB-09
Station: 145+25
Offset: 44.5' Left
Ground Surface Elev. *404.8*

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter n/a
Upon Completion n/a
After 24 Hrs. n/a

Description	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
		10		
		13		
		12	NP	19
Trace organics from -43.5' to -45.0'.		4		
		8		
	-45	13	NP	30
SAND-brown & gray- medium dense to dense (A-3)		9		
		8		
		10	NP	25
		6		
		12		
	-50	17	NP	27
		9		
		10		
		14	NP	26
		6		
		9		
	-55	12	NP	23
		2		
Trace organics from -56.0' to -57.5'.		4		
		7	NP	42
		5		
		8		
	-60	10	NP	25

Description	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
		11		
		10		
SAND-brown & gray- medium dense to dense (A-3)		13	NP	23
		8		
		10		
	-65	12	NP	22
XX				
SAND with Gravel-gray- medium dense (A-1-b)		4		
		9		
		8	NP	15
XX				
SAND-gray-dense (A-3)		10		
		20		
	-70	25	NP	22
XX				
		10		
		13		
SAND with Gravel-gray- medium dense to very dense (A-1-b)		14	NP	11
		10		
		31		
	-75	33	NP	8
XX				
SAND-gray-dense (A-3)		18		
		33		
		19	NP	22
XX				
SAND with Gravel-medium dense (A-1-b)				
End Of Boring @ -80.0' Straight Flight Augers To -10.0' Rotary Drilling To Completion		10		
		8		
XX	-80	8	NP	17

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SOIL BORING LOGS 6 OF 11
TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS		DRAWN - TCG	REVISED -	I-70 CONNECTION RETAINING WALL	
	PLOT SCALE = $SCALE$	CHECKED -	REVISED -		SCALE: NTS
	PLOT DATE = $DATE$	DATE - 06/04/10	REVISED -		SHEET NO. W-9 OF W-14

STA. 140+57.64 TO STA. 147+35.00

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB	ST. CLAIR	285	230
	SN 082-W234	CONTRACT NO. 76C44		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

WB-10

SOIL BORING LOG

Geo Services, Inc.
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805 Amherst Court, Suite 204
Naperville, Illinois 60565
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LOGGED BY DR
GSI JOB No. 08201

ROUTE I-70 | DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION XX | LOCATION I-70 Curved Approach Structure-Retaining Wall
COUNTY St. Clair | DRILLING METHOD Straight Flight Auger/Rotary | HAMMER TYPE CME Automatic

STRUCT. NO. XX
Station: 140+70 to 147+35
BORING NO. WB-10
Station: 145+75
Offset: 56.5' Left
Ground Surface Elev. 404.7

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter n/a
Upon Completion n/a
After 24 Hrs. n/a

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
TOPSOIL-black (A-7)			AS	–	33
	403.7				
SILTY CLAY-brown & gray- medium stiff to very stiff (A-6/A-7) Wet			2		*89*
			3		
			3	2.0B	33
		-5	ST	1.0P	45
			1		
			2		
			2	0.75P	34
	395.7		2		
SAND-brown- loose to medium dense (A-3)			2		
		-10	3	0.5P	33
			3		
			3		
			4	NP	21
Clay seams from -13.5' to -15.0'.			2		
			4		
		-15	5	NP	22
			3		
			6		
			7	NP	23
	386.7				
SILTY CLAY-dark gray- very soft (A-7) Wet			3		
			3		
		-20	3	<0.25P	58

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SILTY CLAY-dark gray-very soft (A-7)	384.2				
SAND-brown & gray- medium dense to dense (A-3)			3		
			5		
			6	NP	18
			8		
			12		
		-25	13	NP	18
			7		
			13		
			14	NP	21
			6		
			7		
		-30	6	NP	24
			6		
			11		
			12	NP	24
			7		
			10		
		-35	13	NP	20
			9		
			8		
			9	NP	23
			8		
			9		
		-40	10	NP	21

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

WB-10

SOIL BORING LOG

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
805 Amherst Court, Suite 204
Naperville, Illinois 60565
(630) 355-2838

PAGE 2 of 4
DATE 4/8-10/2009
LOGGED BY DR
GSI JOB No. 08201

ROUTE I-70 | DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION XX | LOCATION I-70 Curved Approach Structure-Retaining Wall
COUNTY St. Clair | DRILLING METHOD Straight Flight Auger/Rotary | HAMMER TYPE CME Automatic

STRUCT. NO. XX
Station: 140+70 to 147+35
BORING NO. WB-10
Station: 145+75
Offset: 56.5' Left
Ground Surface Elev. 404.7

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter n/a
Upon Completion n/a
After 24 Hrs. n/a

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
			7		
			8		
			9	NP	21
			6		
			8		
		-45	8	NP	16
SAND-brown & gray- medium dense to dense (A-3)			7		
			7		
			11	NP	18
			7		
			11		
		-50	16	NP	21
			10		
			17		
			24	NP	21
			13		
			18		
		-55	21	NP	19
			11		
			12		
			24	NP	21
			11		
			14		
		-60	23	NP	20

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SAND-brown & gray- medium dense to dense (A-3)			10		
			12		
			19	NP	23
			12		
			14		
		-65	28	NP	19
	339.2				
SAND & GRAVEL-brown & gray- loose (A-1-b)			17		
			5		
			4	NP	17
	336.7				
SAND-brown & gray- medium dense to dense (A-3)			12		
			19		
		-70	28	NP	22
			11		
			9		
			8	NP	16
	331.7				
SAND & GRAVEL-brown & gray- very dense (A-1)			28		
			50/5"		
		-75		NP	8
	329.2				
SAND-brown & gray-dense (A-3)			14		
			17		
			30	NP	22
	326.7				
SAND & GRAVEL-brown & gray- loose to dense (A-1-b)			11		
			9		
		-80	8	NP	16

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

WB-10

SOIL BORING LOG

Geo Services, Inc.
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Naperville, Illinois 60565
(630) 355-2838

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DATE 4/8-10/2009
LOGGED BY DR
GSI JOB No. 08201

ROUTE I-70 | DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION XX | LOCATION I-70 Curved Approach Structure-Retaining Wall
COUNTY St. Clair | DRILLING METHOD Straight Flight Auger/Rotary | HAMMER TYPE CME Automatic

STRUCT. NO. XX
Station: 140+70 to 147+35
BORING NO. WB-10
Station: 145+75
Offset: 56.5' Left
Ground Surface Elev. 404.7

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter n/a
Upon Completion n/a
After 24 Hrs. n/a

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
			5		
			3		
			4	NP	12
SAND & GRAVEL-brown & gray- loose to dense (A-1-b)			11		
			11		
		-85	26	NP	17
			13		
			10		
			12	NP	14
			7		
			11		
		-90	14	NP	12
			18		
			16		
			20	NP	12
	310.7		31		
			50/3"		
		-95		NP	9
SAND-brown & gray-very dense (A-3)			19		
			35		
			50	NP	13
			27		
			31		
		-100	48	NP	14

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SAND-brown & gray-very dense (A-3)	304.2				
SAND & GRAVEL-brown & gray- very dense (A-1)			50/4"		
				NP	15
			50/1"		
		-105			NR
	298.7				
RUN 1 (-106.0' to -116.0') Mississippian System, Valmeyeran Series Limestone Light gray & fine grained with horizontal bedding becoming. Some chert replacement throughout. Numerous horizontal fractures with some thin clay partings. RECOVERY=100.0% R.Q.D.=41.8%		-110	RUN 1		
		-115			
	288.7				
RUN 2 (-116.0' to -121.0') Mississippian System, Valmeyeran Series Limestone Light gray & fine grained with horizontal bedding becoming. Numerous horizontal fractures throughout. ¼" clay partings @ -117.4', -117.6' & -118.2'.		-120	RUN 2		

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED -	REVISED -	
TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS		DRAWN - TCG	REVISED -	
	PLOT SCALE = $SCALE$	CHECKED -	REVISED -	
	PLOT DATE = $DATE$	DATE - 06/04/10	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
I-70 CONNECTION
RETAINING WALL

SOIL BORING LOGS
7 OF 11

SCALE: NTS | SHEET NO. W-10 OF W-14 | STA. 140+57.64 TO STA. 147+35.00

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB	ST. CLAIR	285	231
	SN 082-W234	CONTRACT NO. 76C44		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

WB-10

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SOIL BORING LOG

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LOGGED BY DR
GSI JOB No. 08201

ROUTE I-70 | DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION XX | LOCATION I-70 Curved Approach Structure-Retaining Wall
COUNTY St. Clair | DRILLING METHOD Straight Flight Auger/Rotary | HAMMER TYPE CME Automatic

STRUCT. NO. XX
Station: 140+70 to 147+35
BORING NO. WB-10
Station: 145+75
Offset: 56.5' Left
Ground Surface Elev. 404.7

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter n/a
Upon Completion n/a
After 24 Hrs. n/a

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)		DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
RECOVERY=100.0% R.Q.D.=59.5% 283.7		RUN 2							
End Of Boring @ -121.0' Straight Flight Augers To -15.0' Rotary Drilling To Completion 15.0' of 4.0"* Casing Used CME Automatic Hammer									
	-125					-145			
	-130					-150			
	-135					-155			
	-140					-160			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

WB-10 Run-1

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ROCK CORE LOG

PAGE 1 of 2
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GSI JOB No. 08201

ROUTE I-70 | DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION XX | LOCATION I-70 Curved Approach Structures Retaining Wall
COUNTY St. Clair | CORING METHOD Rotary Wash

STRUCT. NO. XX
Station: 140+70 to 147+35
BORING NO. WB-10
Station: 145+75
Offset: 56.5' Left
Ground Surface Elev. 404.7

CORING BARREL TYPE & SIZE NX Double Swivel-10 ft
Core Diameter 2.0 in
Top of Rock Elev. 298.7
Begin Core Elev. 298.7

	DEPTH (ft)	CORE RUN (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
RUN 1 (-106.0' to -116.0') Mississippian System, Valmeyeran Series Limestone Light gray & fine grained with horizontal bedding becoming. Some chert replacement throughout. Numerous horizontal fractures with some thin clay partings.	298.7	1	100.0	41.8	n/a	1177@ -106.3'
	-111.0					
	-116.0					

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

WB-10 Run-2

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ROCK CORE LOG

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GSI JOB No. 08201

ROUTE I-70 | DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION XX | LOCATION I-70 Curved Approach Structures Retaining Wall
COUNTY St. Clair | CORING METHOD Rotary Wash

STRUCT. NO. XX
Station: 140+70 to 147+35
BORING NO. WB-10
Station: 145+75
Offset: 56.5' Left
Ground Surface Elev. 404.7

CORING BARREL TYPE & SIZE NX Double Swivel-5 ft
Core Diameter 2.0 in
Top of Rock Elev. 298.7
Begin Core Elev. 298.7

	DEPTH (ft)	CORE RUN (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
RUN 2 (-116.0' to -121.0') Mississippian System, Valmeyeran Series Limestone Light gray & fine grained with horizontal bedding becoming. Numerous horizontal fractures throughout. ¼" clay partings @ -117.4', -117.6' & -118.2'.	288.7	2	100.0	59.5	n/a	1119@ -118.8'
	-121.0					
	-126.0					

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

FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
		DRAWN - TCG	REVISED -	I-70 CONNECTION RETAINING WALL
TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS	PLOT SCALE = $SCALE$	CHECKED -	REVISED -	
	PLOT DATE = $DATE$	DATE - 06/04/10	REVISED -	

SOIL BORING LOGS
8 OF 11

SCALE: NTS | SHEET NO. W-11 OF W-14 | STA. 140+57.64 TO STA. 147+35.00

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB	ST. CLAIR	285	232
	SN 082-W234	CONTRACT NO. 76C44		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

..\0820318-CONN-05-011-MS.DGN, ..\0820318-CONN-05-011-MS.DGN, ..\0820318-CONN-05-011-MS.DGN, ..\0820318-CONN-99-001-BO.DGN
6-03-2010, 10:56:58 BONDHUJD \\VFS-2044\AM\VAULT\D-TRANS.07\2202\20868-001\STRUCT\CAD\01 DESIGN\082W234\SHEET\082W234-CONN-05-030-SHT-MS.DGN

WB-11

SOIL BORING LOG

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Naperville, Illinois 60565
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DATE 7/29/2009
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GSI JOB No. 08201

ROUTE I-70 | DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION XX | LOCATION I-70 Curved Approach Structure-Retaining Wall
COUNTY St. Clair | DRILLING METHOD Straight Flight Auger/Rotary | HAMMER TYPE Diedrich Automatic

STRUCT. NO. XX
Station: 140+70 to 147+35
BORING NO. WB-11
Station: 146+50
Offset: 58.0' Left
Ground Surface Elev. 405.4

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter n/a
Upon Completion n/a
After 24 Hrs. n/a

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
			AS	–	38
SILTY CLAY-brown-stiff (A-6) Wet			2		*83*
			2		
			2	1.3B	32
	XX				
SILTY LOAM to LOAM-brown-loose (A-2/A-4)			2		
			3		
		-5	3	NP	22
			2		
			2		
			2	NP	25
			2		
			2		
		-10	2	NP	27
	XX				
SAND-brown-loose to medium dense (A-3)			3		
			4		
			4	NP	24
			1		
			3		
		-15	4	NP	27
			2		
			3		
			8	NP	19
	XX				
SANDY CLAY LOAM-gray-loose (A-2)			3		
			2		
		-20	3	–	33

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SANDY CLAY LOAM-gray-loose (A-2)	XX				
SAND-brown & gray-medium dense to dense (A-3)			5		
			9		
			11	NP	21
			11		
			12		
		-25	11	NP	21
			5		
			4		
			7	NP	25
			4		
			6		
		-30	9	NP	25
			8		
			9		
			6	NP	24
			6		
			10		
		-35	11	NP	16
			9		
			12		
			16	NP	18
			10		
			10		
		-40	12	NP	22

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

WB-11

SOIL BORING LOG

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DATE 7/29/2009
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GSI JOB No. 08201

ROUTE I-70 | DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION XX | LOCATION I-70 Curved Approach Structure-Retaining Wall
COUNTY St. Clair | DRILLING METHOD Straight Flight Auger/Rotary | HAMMER TYPE Diedrich Automatic

STRUCT. NO. XX
Station: 140+70 to 147+35
BORING NO. WB-11
Station: 146+50
Offset: 58.0' Left
Ground Surface Elev. 405.4

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter n/a
Upon Completion n/a
After 24 Hrs. n/a

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SAND-brown & gray-medium dense to dense (A-3)			8		
			13		
			13	NP	21
			7		
			11		
		-45	13	NP	21
			8		
			13		
			11	NP	17
			4		
			5		
		-50	6	NP	17
			4		
			5		
			6	NP	16
			5		
			7		
		-55	9	NP	16
			11		
			16		
			16	NP	22
			7		
			11		
		-60	14	NP	20

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SAND-brown & gray-medium dense to dense (A-3)			12		
			15		
			21	NP	16
			8		
			12		
		-65	22	NP	17
	XX				
SAND with Gravel-gray-medium dense (A-1-b)			11		
			14		
			14	NP	10
			9		
			10		
		-70	15	NP	9
	XX				
SAND-gray-medium dense to dense (A-1-b)			8		
			50		
			33	NP	14
			10		
			16		
		-75	24	NP	18
			29		
			9		
			12	NP	19
	XX				
SAND with Gravel-medium dense (A-1-b)					
End Of Boring @ -80.0'			8		
Straight Flight Augers To -10.0'			6		
Rotary Drilling To Completion	XX	-80	7	NP	13

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

WB-12

SOIL BORING LOG

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DATE 4/6-8/2009
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GSI JOB No. 08201

ROUTE I-70 | DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION XX | LOCATION I-70 Curved Approach Structure-Retaining Wall
COUNTY St. Clair | DRILLING METHOD Straight Flight Auger/Rotary | HAMMER TYPE CME Automatic

STRUCT. NO. XX
Station: 140+70 to 147+35
BORING NO. WB-12
Station: 147+25
Offset: 60.0' Left
Ground Surface Elev. 413.0

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter n/a
Upon Completion n/a
After 24 Hrs. n/a

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
			AS	–	35
TOPSOIL with Cinders, Stone & Brick-very loose to loose (Fill)			2		
			4		
			5	–	25
			2		
			1		
		-5	2	–	21
			1		
			1		
			0	–	31
	405.0				
SILTY CLAY-dark brown & gray-stiff (A-6/A-7) Wet			2		*82*
			4		
		-10	4	1.9B	36
	402.0				
SILTY LOAM to LOAM-brown & gray-very loose (A-4)			ST	NP	17
			2		
			3		
		-15	3	NP	23
			1		
			1		
			2	NP	33
	395.0				
SILTY CLAY LOAM-brown & gray-very loose (A-4/A-6)			3		
			1		
		-20	1	–	38

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SILTY CLAY LOAM-very loose (A-4/A-6)	392.5				
SAND-brown-medium dense (A-3)			4		
			5		
			6	NP	23
			3		
			5		
		-25	6	NP	27
			5		
			5		
			6	NP	32
	385.0				
SILTY CLAY-dark gray-very soft to soft (A-7) Wet			4		*66*
			3		
		-30	2	0.4B	58
			4		
			2		
			2	<0.25P	57
	380.0				
SILTY LOAM to LOAM-dark gray-medium dense (A-2/A-4)			3		
			12		
		-35	9	NP	39
	377.5				
SILTY CLAY-dark gray-soft (A-7) Wet			0		*61*
			2		
			1	0.4B	65
	375.0				
SAND-gray-loose to medium dense (A-3)			2		
			2		
		-40	3	NP	28

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED -	REVISED -
		DRAWN - TCG	REVISED -
TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS	PLOT SCALE = $SCALE$	CHECKED -	REVISED -
	PLOT DATE = $DATE$	DATE - 06/04/10	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
I-70 CONNECTION
RETAINING WALL

SOIL BORING LOGS
9 OF 11

SCALE: NTS | SHEET NO. W-12 OF W-14 | STA. 140+57.64 TO STA. 147+35.00

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB	ST. CLAIR	285	233
	SN 082-W234	CONTRACT NO. 76C44		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

WB-12

Geo Services, Inc.
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SOIL BORING LOG

PAGE 2 of 4
DATE 4-6-8-2009
LOGGED BY DR
GSI JOB No. 08201

ROUTE I-70 | DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION XX | LOCATION I-70 Curved Approach Structure-Retaining Wall
COUNTY St. Clair | DRILLING METHOD Straight Flight Auger/Rotary | HAMMER TYPE CME Automatic

STRUCT. NO. XX
Station: 140+70 to 147+35
BORING NO. WB-12
Station: 147+25
Offset: 60.0' Left
Ground Surface Elev. 413.0

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter n/a
Upon Completion n/a
After 24 Hrs. n/a

Description	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SAND-gray-loose to medium dense (A-3)		3		
		11		
		13	NP	26
370.0				
SILTY CLAY-dark gray-soft (A-7) Wet		0		*65*
		3		
	-45	4	0.4B	59
367.5				
SAND-brown & gray-medium dense to dense (A-3)		8		
		11		
		17	NP	25
		5		
		9		
	-50	8	NP	22
		7		
		8		
		11	NP	20
		8		
		10		
	-55	9	NP	23
		6		
		6		
		10	NP	19
		6		
		6		
	-60	11	NP	15

Description	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
		6		
		6		
		11	NP	17
		10		
		15		
	-65	24	NP	19
SAND-brown & gray-medium dense to dense (A-3)		11		
		19		
		27	NP	19
		15		
		13		
	-70	16	NP	25
		17		
		17		
		18	NP	22
		6		
Trace organics from -73.5' to -75.0'.		10		
	-75	9	NP	24
337.5				
SAND & GRAVEL-brown & gray-dense (A-1)		10		
		19		
		23	NP	13
335.0				
SAND-gray-dense (A-3)		15		
		23		
	-80	27	NP	22

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

WB-12

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering

SOIL BORING LOG

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DATE 4-6-8-2009
LOGGED BY DR
GSI JOB No. 08201

ROUTE I-70 | DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION XX | LOCATION I-70 Curved Approach Structure-Retaining Wall
COUNTY St. Clair | DRILLING METHOD Straight Flight Auger/Rotary | HAMMER TYPE CME Automatic

STRUCT. NO. XX
Station: 140+70 to 147+35
BORING NO. WB-12
Station: 147+25
Offset: 60.0' Left
Ground Surface Elev. 413.0

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter n/a
Upon Completion n/a
After 24 Hrs. n/a

Description	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SAND-gray-dense (A-3)		12		
		20		
		34	NP	22
		16		
		24		
	-85	18	NP	23
327.5				
SAND & GRAVEL-brown & gray-loose to medium dense (A-1-b)		11		
		10		
		9	NP	13
		6		
		4		
	-90	4	NP	15
		36		
		30		
		22	NP	11
320.0				
SAND-brown & gray-dense (A-3)		11		
		13		
	-95	17	NP	20
317.5				
Trace coal from -96.0' to -97.5'. SAND & GRAVEL-brown & gray-medium dense to dense (A-1-b)		25		
		24		
		15	NP	22
		14		
		13		
	-100	16	NP	12

Description	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SAND & GRAVEL-brown & gray-medium dense to dense (A-1-b)		14		
		21		
		50	NP	12
310.0				
		16		
		24		
	-105	32		NR
SAND & GRAVEL-brown & gray-dense to very dense (A-1)		50/1"		
			NP	12
		45		
		50/3"		
	-110		NP	7
302.5				
SAND-brown-very dense (A-3)		44		
		50/6"		
			NP	17
300.0				
Drillers Observation: Apparent Bedrock. 299.5		50/1"		NR
RUN 1 (-113.5' to -123.5') Mississippian System, Valmeyeran Series Limestone	-115	RUN 1		
Light gray & fine grained with horizontal bedding becoming. Some chert replacement throughout. Numerous horizontal fractures throughout. RECOVERY=100.0% R.Q.D.=44.3%	-120			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

WB-12

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SOIL BORING LOG

PAGE 4 of 4
DATE 4-6-8-2009
LOGGED BY DR
GSI JOB No. 08201

ROUTE I-70 | DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION XX | LOCATION I-70 Curved Approach Structure-Retaining Wall
COUNTY St. Clair | DRILLING METHOD Straight Flight Auger/Rotary | HAMMER TYPE CME Automatic

STRUCT. NO. XX
Station: 140+70 to 147+35
BORING NO. WB-12
Station: 147+25
Offset: 60.0' Left
Ground Surface Elev. 413.0

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter n/a
Upon Completion n/a
After 24 Hrs. n/a

Description	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
RUN 1 (-113.5' to -123.5')		RUN 1		
289.5				
RUN 2 (-123.5' to -125.5') Light gray & fine grained with horizontal bedding becoming. Numerous horizontal fractures throughout. RECOVERY=84.0% R.Q.D.=16.5%	-125	RUN 2		
287.5				
RUN 3 (-125.5' to -130.5') Mississippian System, Valmeyeran Series Limestone. Light gray & fine grained with horizontal bedding becoming. Numerous horizontal fractures throughout. RECOVERY=100.0% R.Q.D.=16.5%	-130	RUN 3		
282.5				
End Of Boring @ -130.5' Straight Flight Augers To -15.0' Rotary Drilling To Completion 15.0' of 4.0"* Casing Used 115.0' of 3.0"* Casing Used CME Automatic Hammer	-135			
	-140			

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
-145			
-150			
-155			
-160			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

WB-12 Run-1

Geo Services, Inc.
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805 Amherst Court, Suite 204
Naperville, Illinois 60565
(630) 355-2838

ROCK CORE LOG

PAGE 1 of 2
DATE 4/6-8/2009
LOGGED BY DR
GSI JOB No. 08201

ROUTE I-70
DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION XX
LOCATION I-70 Curved Approach Structures Retaining Wall
COUNTY St. Clair
CORING METHOD Rotary Wash
STRUCT. NO. XX
Station: 140+70 to 147+35
CORING BARREL TYPE & SIZE NX Double Swivel-10 ft
Core Diameter 2.0 in
Top of Rock Elev. 300.0
Begin Core Elev. 299.5
BORING NO. WB-12
Station: 147+25
Offset: 60.0' Left
Ground Surface Elev. 413.0

Description	DEPTH (ft)	CORE RUN (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
RUN 1 (-113.5' to -123.5') Mississippian System, Valmeyeran Series Limestone Light gray & fine grained with horizontal bedding becoming. Some chert replacement throughout. Numerous horizontal fractures throughout.	299.5 -118.5 -123.5	1	100.0	44.3	n/a	1010@ -115.1'

WB-12 Run-2&3

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ROCK CORE LOG

PAGE 2 of 2
DATE 4/6-8/2009
LOGGED BY DR
GSI JOB No. 08201

ROUTE I-70
DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION XX
LOCATION I-70 Curved Approach Structures Retaining Wall
COUNTY St. Clair
CORING METHOD Rotary Wash
STRUCT. NO. XX
Station: 140+70 to 147+35
CORING BARREL TYPE & SIZE NX Double Swivel-5 ft
Core Diameter 2.0 in
Top of Rock Elev. 300.0
Begin Core Elev. 299.5
BORING NO. WB-12
Station: 147+25
Offset: 60.0' Left
Ground Surface Elev. 413.0

Description	DEPTH (ft)	CORE RUN (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
RUN 2 (-123.5' to -125.5') Mississippian System, Valmeyeran Series Limestone Light gray & fine grained with horizontal bedding becoming. Numerous horizontal fractures throughout.	289.5	2	84.0	16.5	n/a	n/a
RUN 3 (-125.5' to -130.5') Mississippian System, Valmeyeran Series Limestone Light gray & fine grained with horizontal bedding becoming. Numerous horizontal fractures throughout.	277.5 -128.5 -133.5	3	100.0	16.5	n/a	970@ -128.5'

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

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

..\0820318-CONN-05-011-MS.DGN, ..\0820318-CONN-05-011-MS.DGN, ..\0820318-CONN-99-001-BO.DGN
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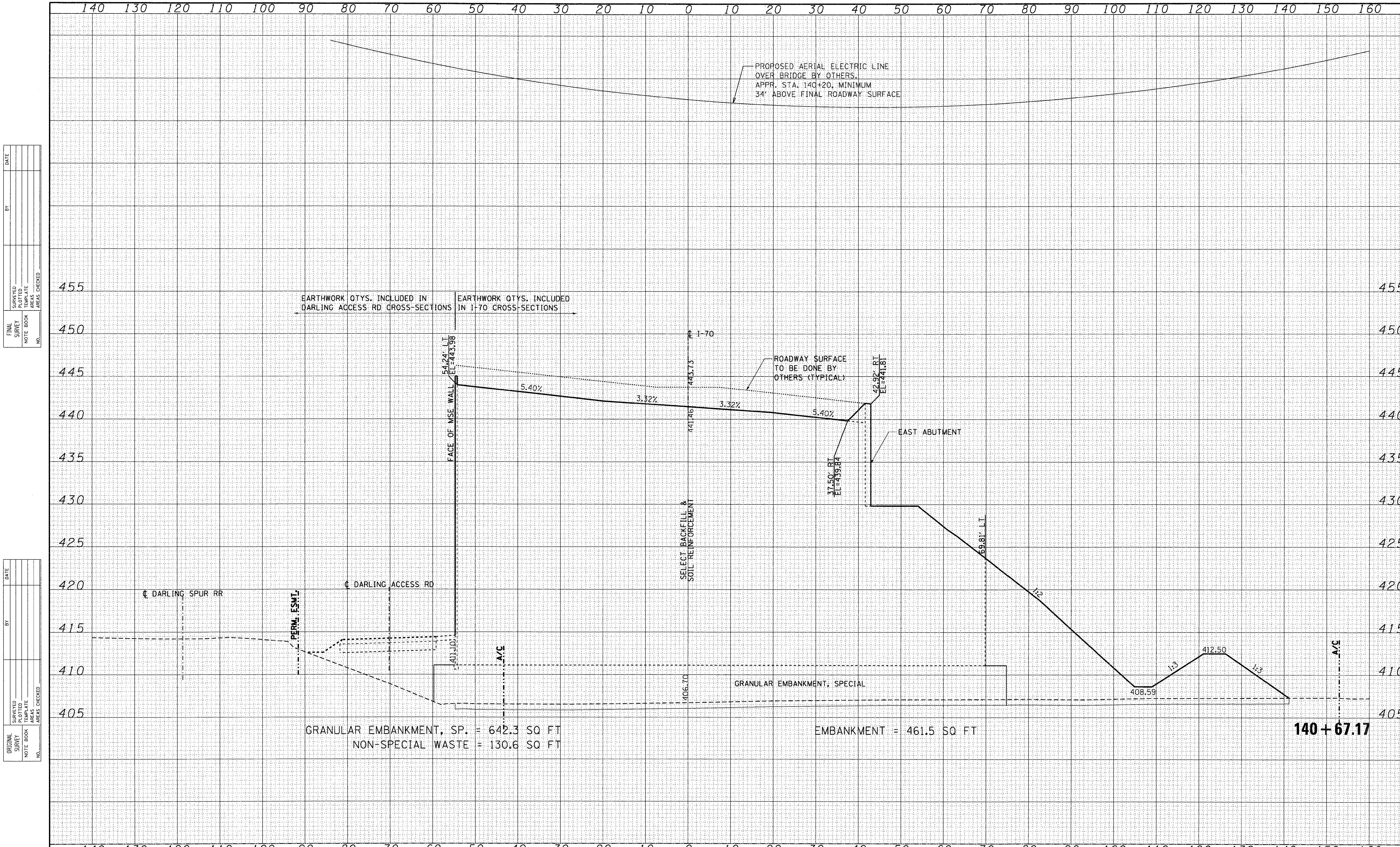
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
I-70 CONNECTION
RETAINING WALL

SOIL BORING LOGS
11 OF 11

SCALE: NTS | SHEET NO. W-14 OF W-14 | STA. 140+57.64 TO STA. 147+35.00

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB	ST. CLAIR	285	235
SN 082-W234		CONTRACT NO. 76C44		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



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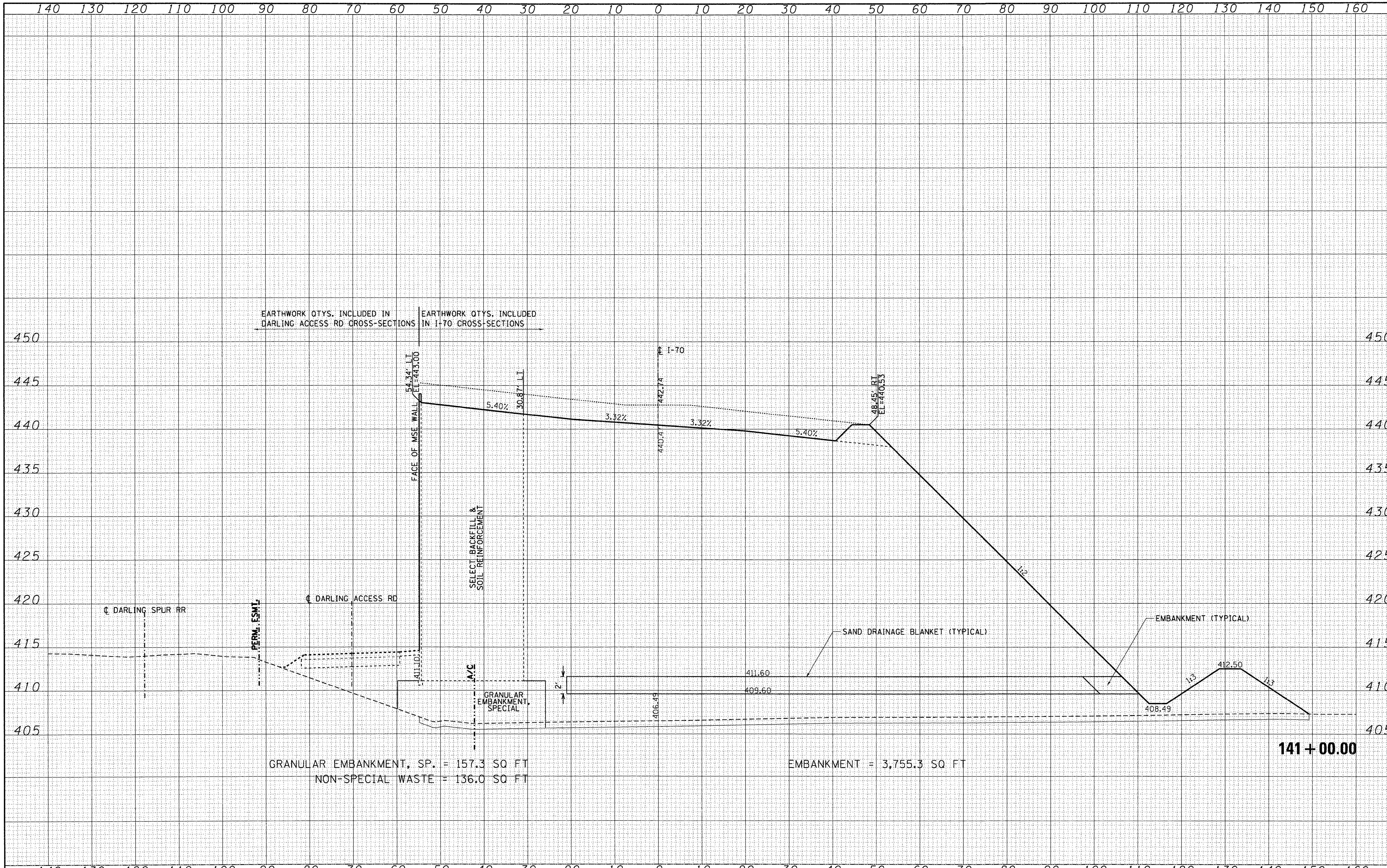
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB	ST. CLAIR	285	236
		CONTRACT NO. 76C44		
		ILLINOIS FED. AID PROJECT		



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		DRAWN - AG	REVISED -					CONTRACT NO. 76C44		
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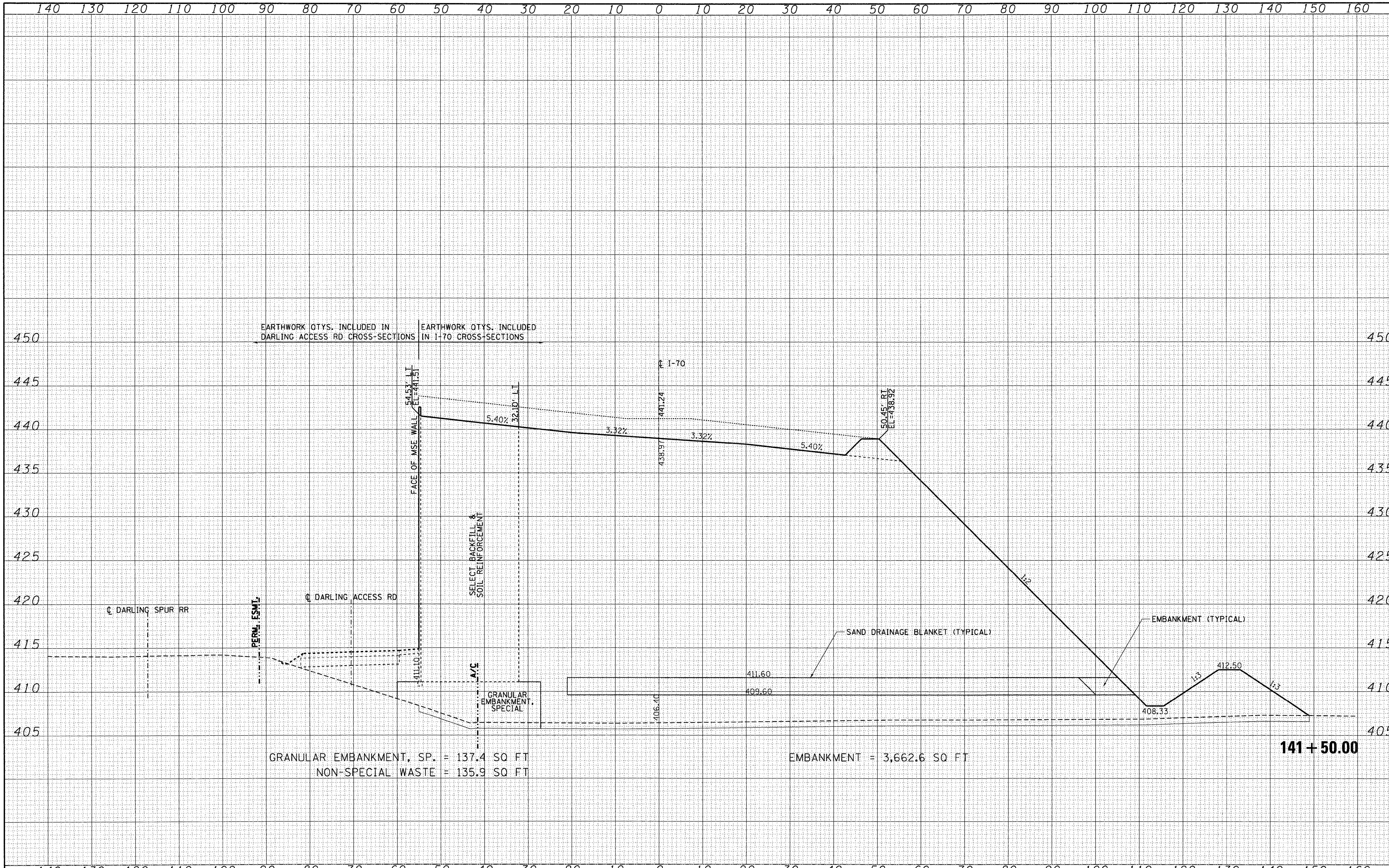
FINAL SURVEY	
NOTE BOOK	SURVEYED
NO.	PLOTTED
	TEMPLATE
	AREAS
	AREAS CHECKED
BY	DATE

ORIGINAL SURVEY	
NOTE BOOK	SURVEYED
NO.	PLOTTED
	TEMPLATE
	AREAS
	AREAS CHECKED
BY	DATE



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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS-SECTIONS
INTERSTATE 70

SCALE: | SHEET NO. OF SHEETS | STA. 141+50.00 TO STA. 141+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB	ST. CLAIR	285	238
		CONTRACT NO. 76C44		

ILLINOIS FED. AID PROJECT

FINAL SURVEY	NOTE BOOK NO.	SURVEYED / PLOTTED / TEMPLATE / AREAS / AREAS CHECKED	BY	DATE

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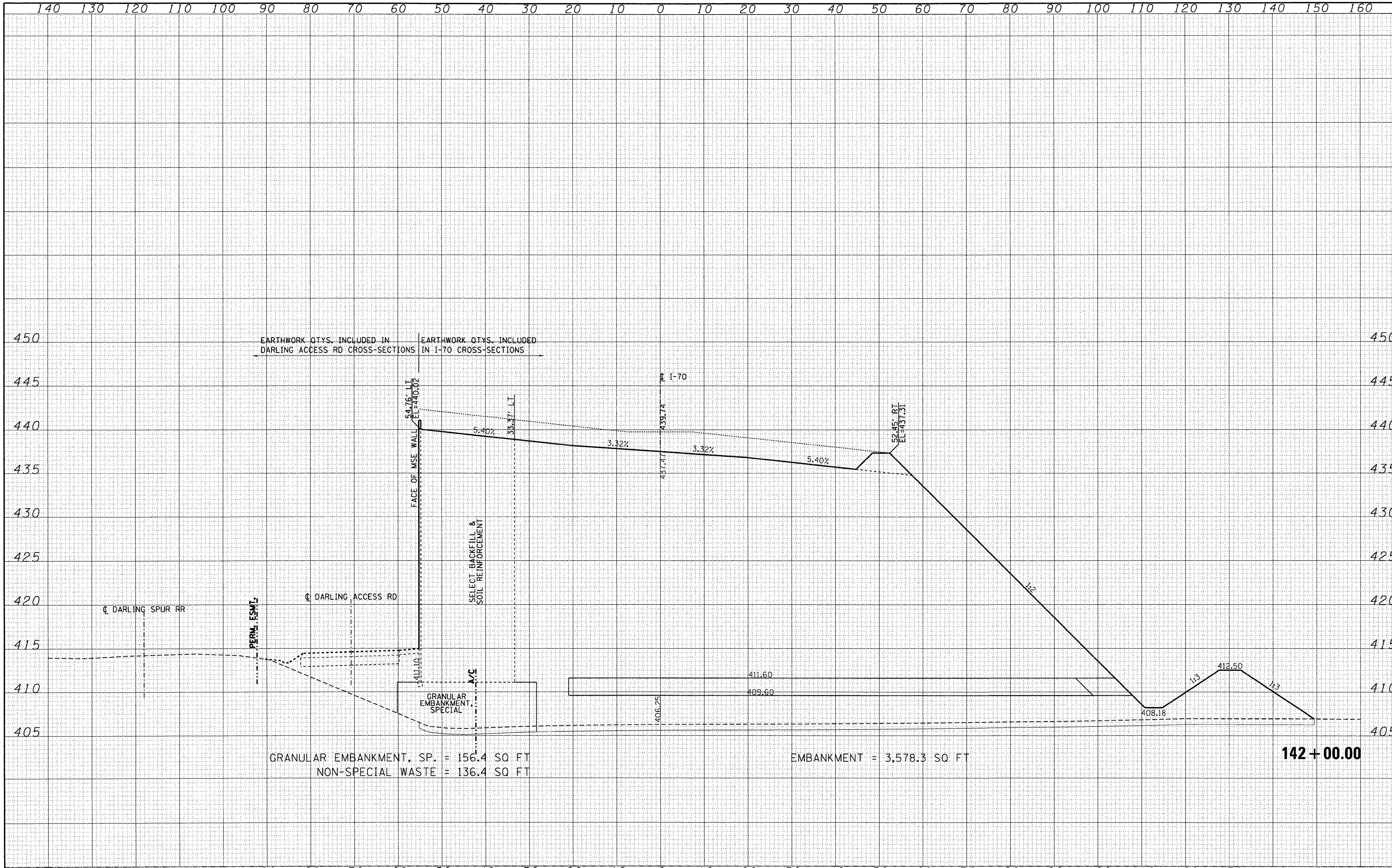

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS-SECTIONS
INTERSTATE 70

SCALE: | SHEET NO. OF SHEETS | STA. 142+00.00 TO STA. 142+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB	ST. CLAIR	285	239

CONTRACT NO. 76C44

ILLINOIS FED. AID PROJECT

FINAL SURVEY: NOTE BOOK NO. | SURVEYED | PLOTTED | TEMPLATE | AREAS | AREAS CHECKED | BY | DATE

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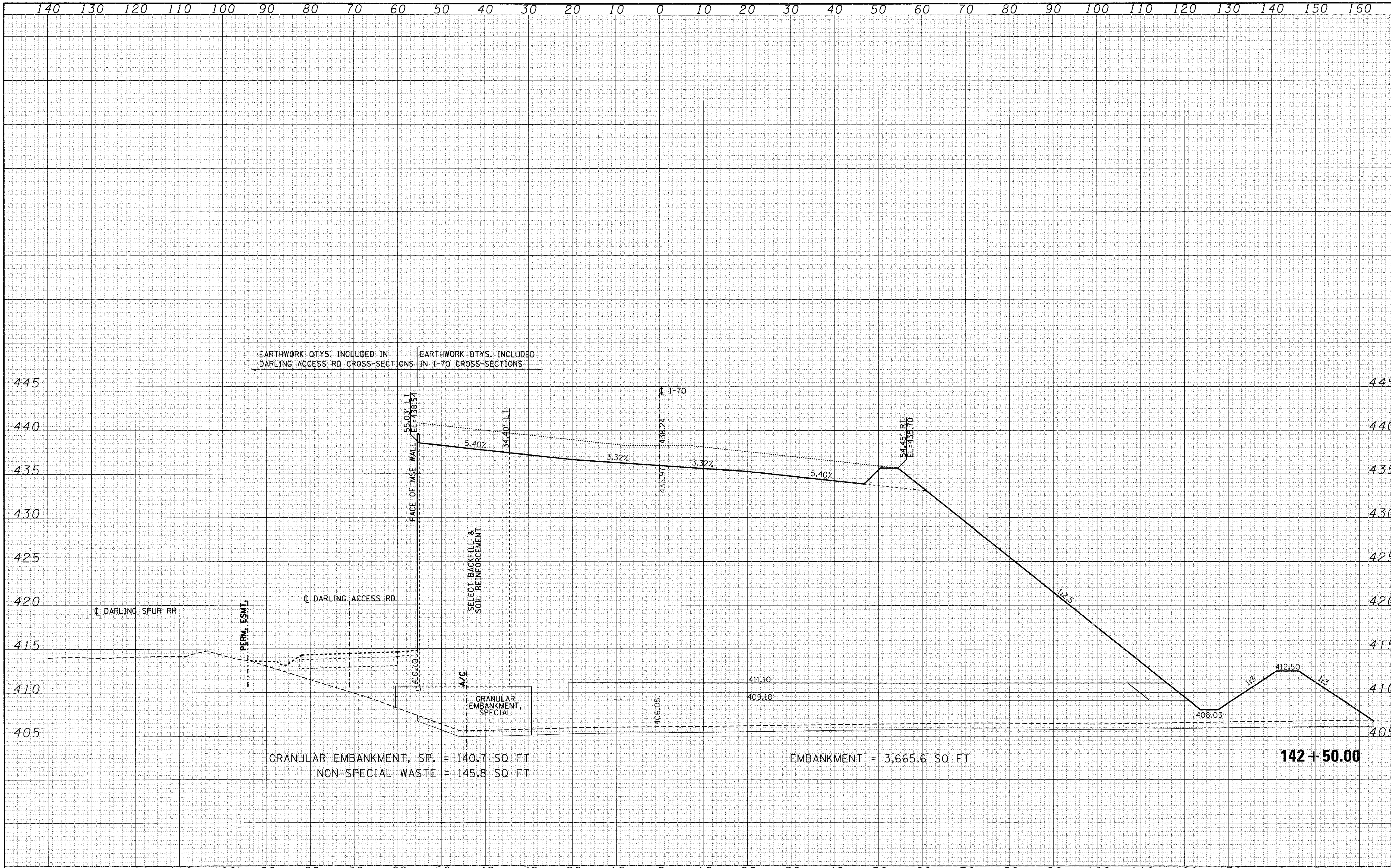

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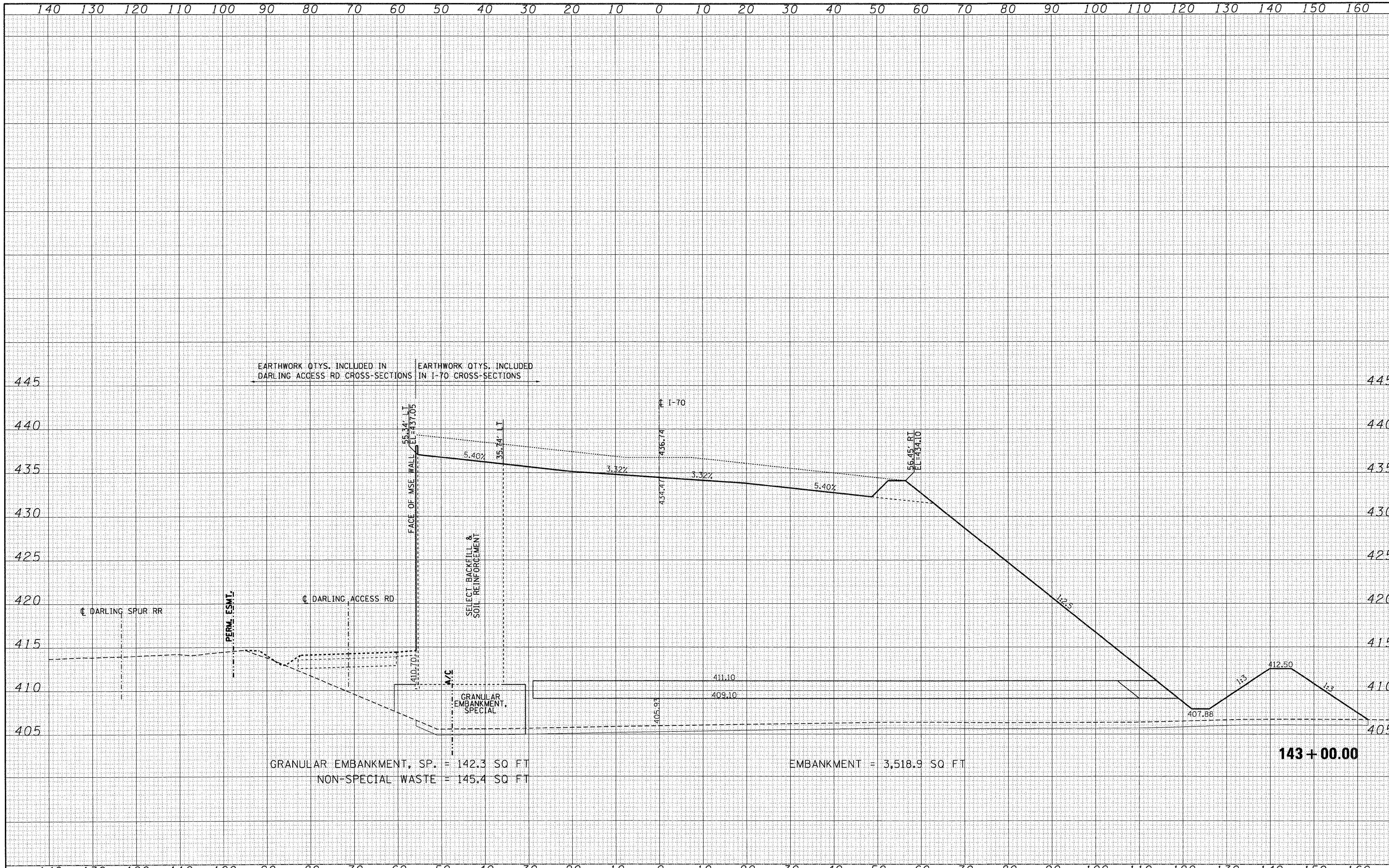
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB	ST. CLAIR	285	240
		CONTRACT NO. 76C44		
		ILLINOIS FED. AID PROJECT		

FINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

ORIGINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE



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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS-SECTIONS
INTERSTATE 70

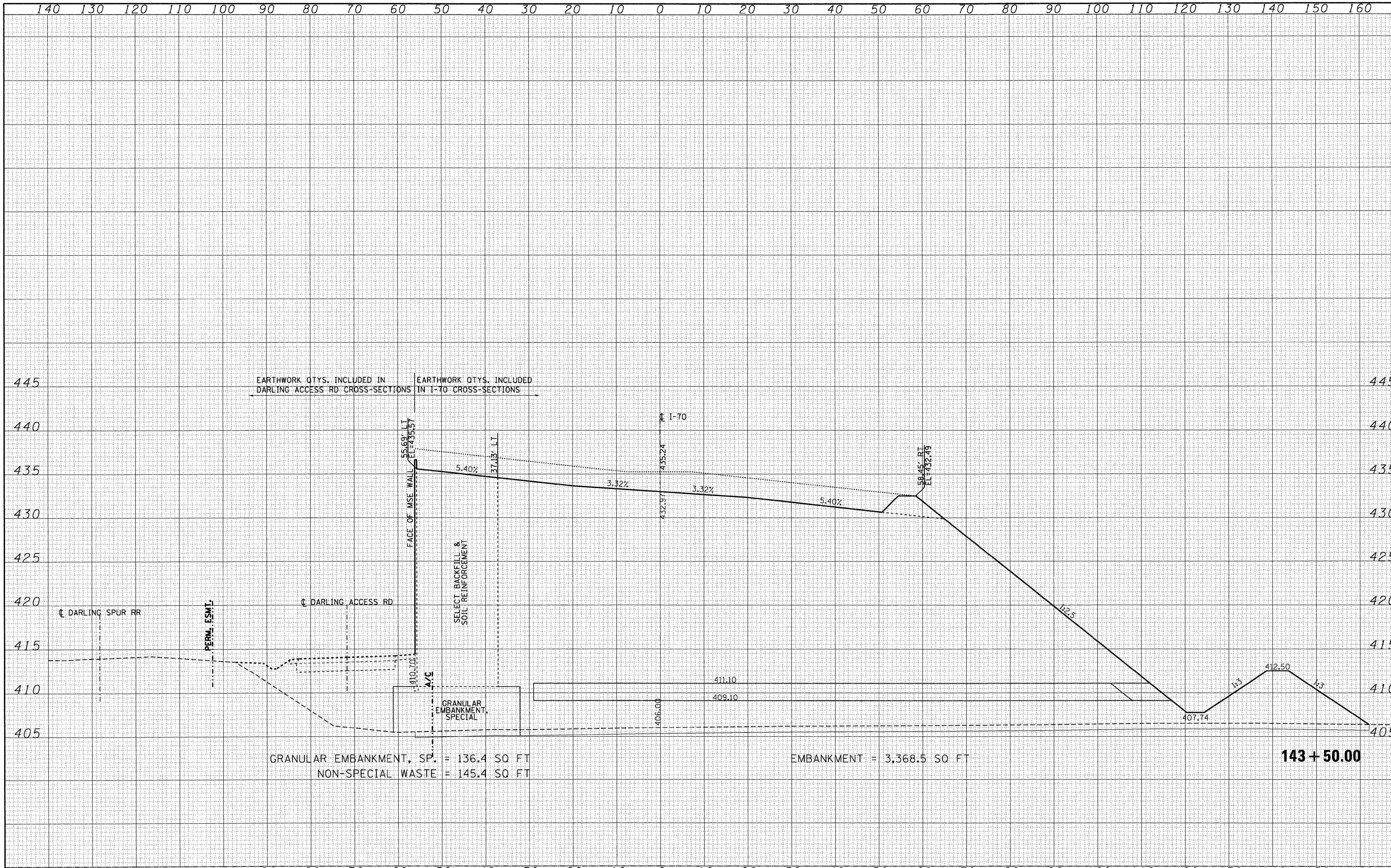
SCALE: SHEET NO. OF SHEETS STA. 143+00.00 TO STA. 143+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB	ST. CLAIR	285	241
		CONTRACT NO. 76C44		

ILLINOIS FED. AID PROJECT

FINAL SURVEY	
NOTE BOOK	NO.
SURVEYED	BY / DATE
PLOTTED	
TEMPLATE	
AREAS	
AREAS CHECKED	

ORIGINAL SURVEY	
NOTE BOOK	NO.
SURVEYED	BY / DATE
PLOTTED	
TEMPLATE	
AREAS	
AREAS CHECKED	



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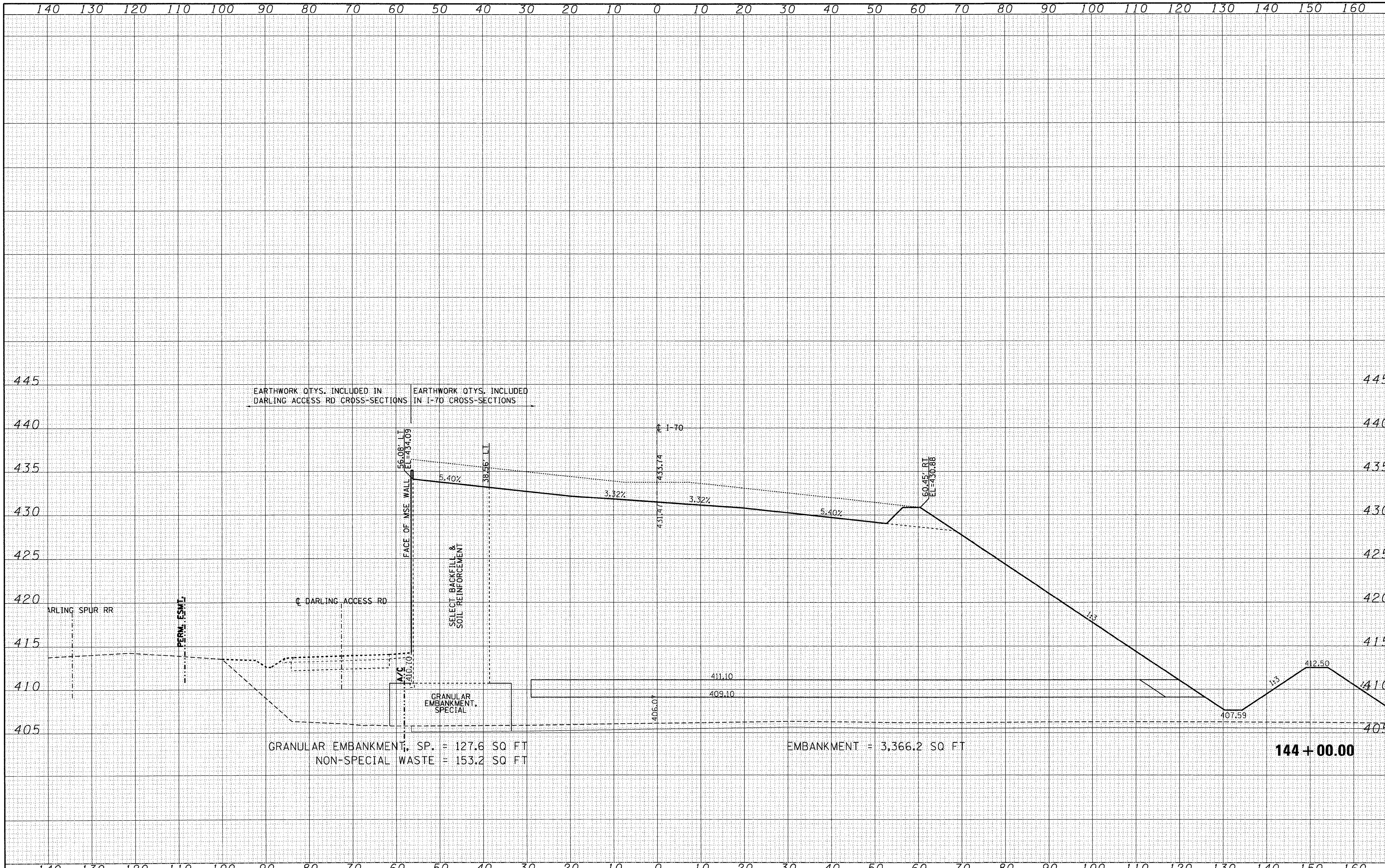
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS-SECTIONS
INTERSTATE 70

SCALE: | SHEET NO. OF SHEETS | STA. 143+50.00 TO STA. 143+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB	ST. CLAIR	285	242
		CONTRACT NO. 76C44		
		ILLINOIS FED. AID PROJECT		



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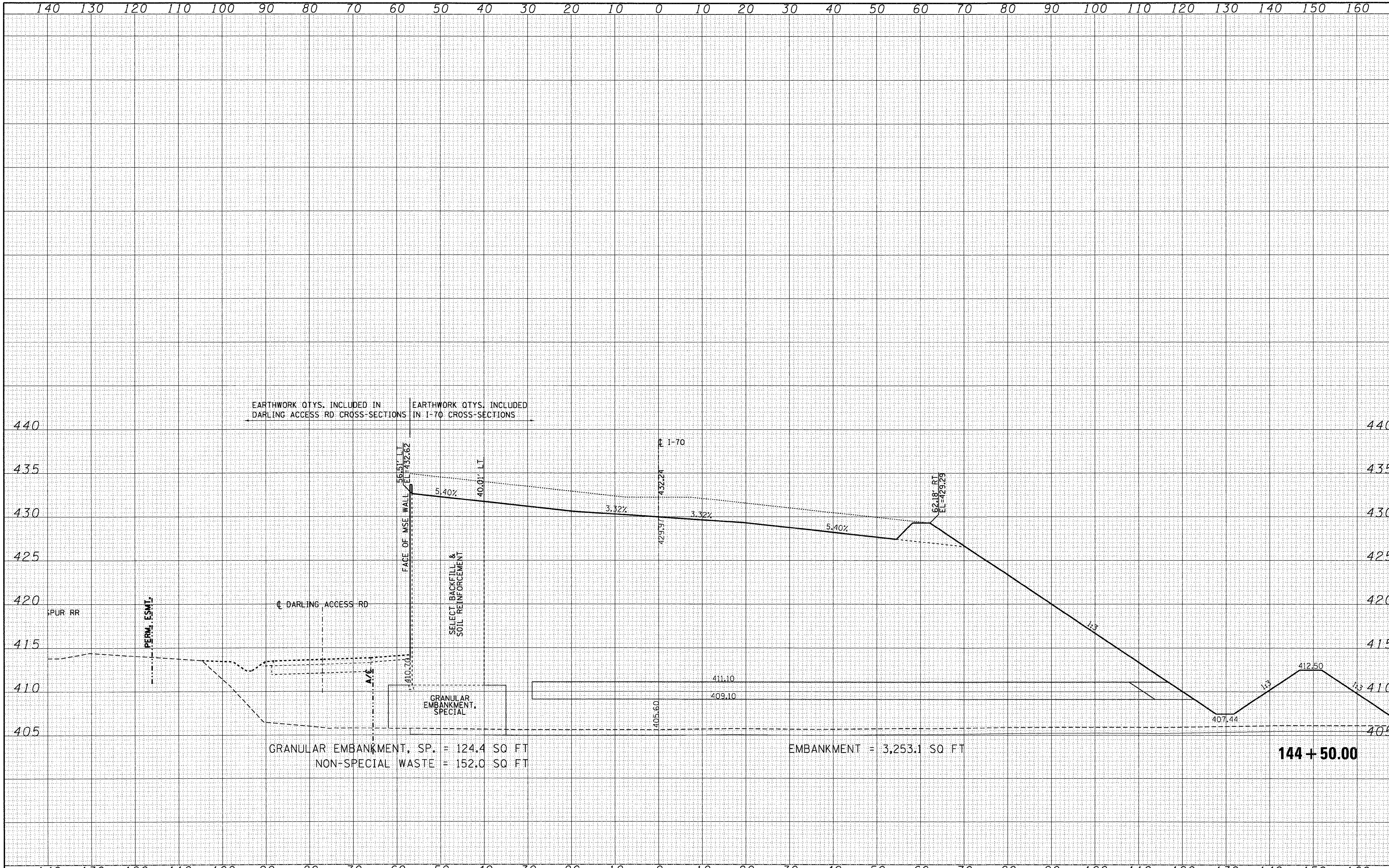
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS-SECTIONS
INTERSTATE 70

SCALE: | SHEET NO. OF SHEETS | STA. 144+00.00 TO STA. 144+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB	ST. CLAIR	285	243
		CONTRACT NO. 76C44		
		ILLINOIS FED. AID PROJECT		



FINAL SURVEY / NOTE BOOK NO. — SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED — BY — DATE

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

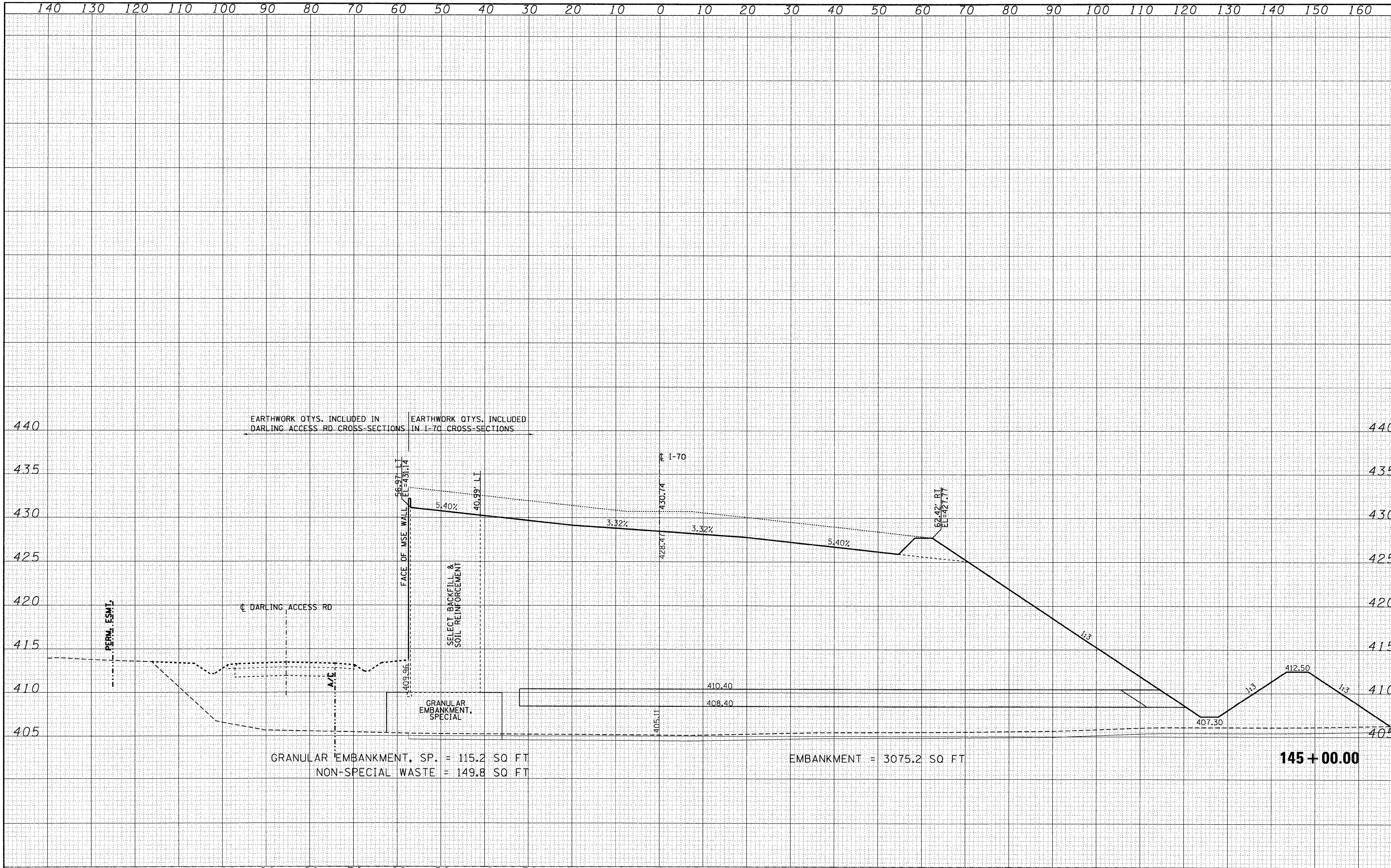
CROSS-SECTIONS
INTERSTATE 70

SCALE: | SHEET NO. OF SHEETS | STA. 144+50.00 TO STA. 144+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB	ST. CLAIR	285	244

CONTRACT NO. 76C44

ILLINOIS FED. AID PROJECT



145+00.00

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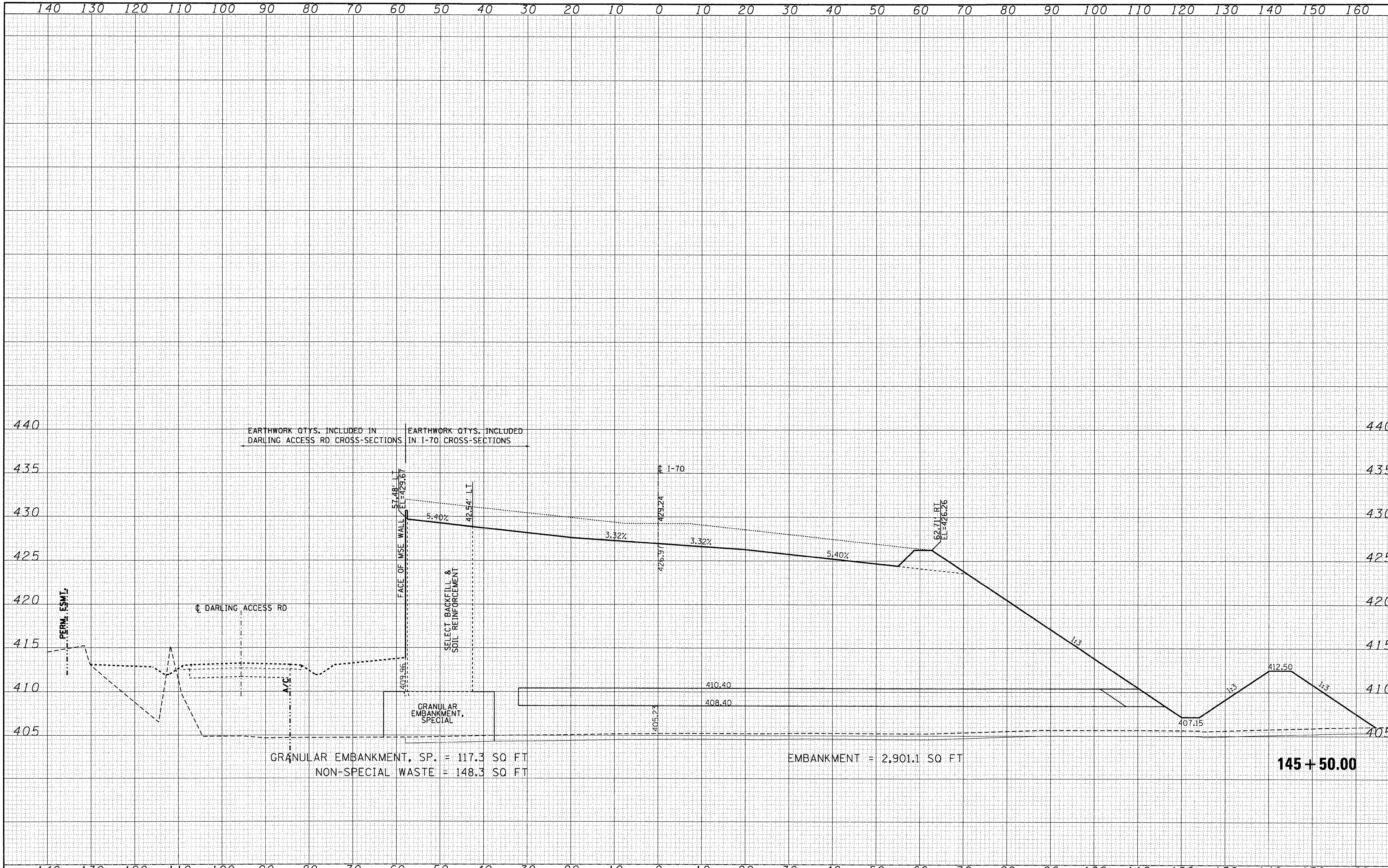
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS-SECTIONS
INTERSTATE 70

SCALE: | SHEET NO. OF SHEETS | STA. 145+00.00 TO STA. 145+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB	ST. CLAIR	285	245
		CONTRACT NO. 76C44		

ILLINOIS FED. AID PROJECT



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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS-SECTIONS
INTERSTATE 70

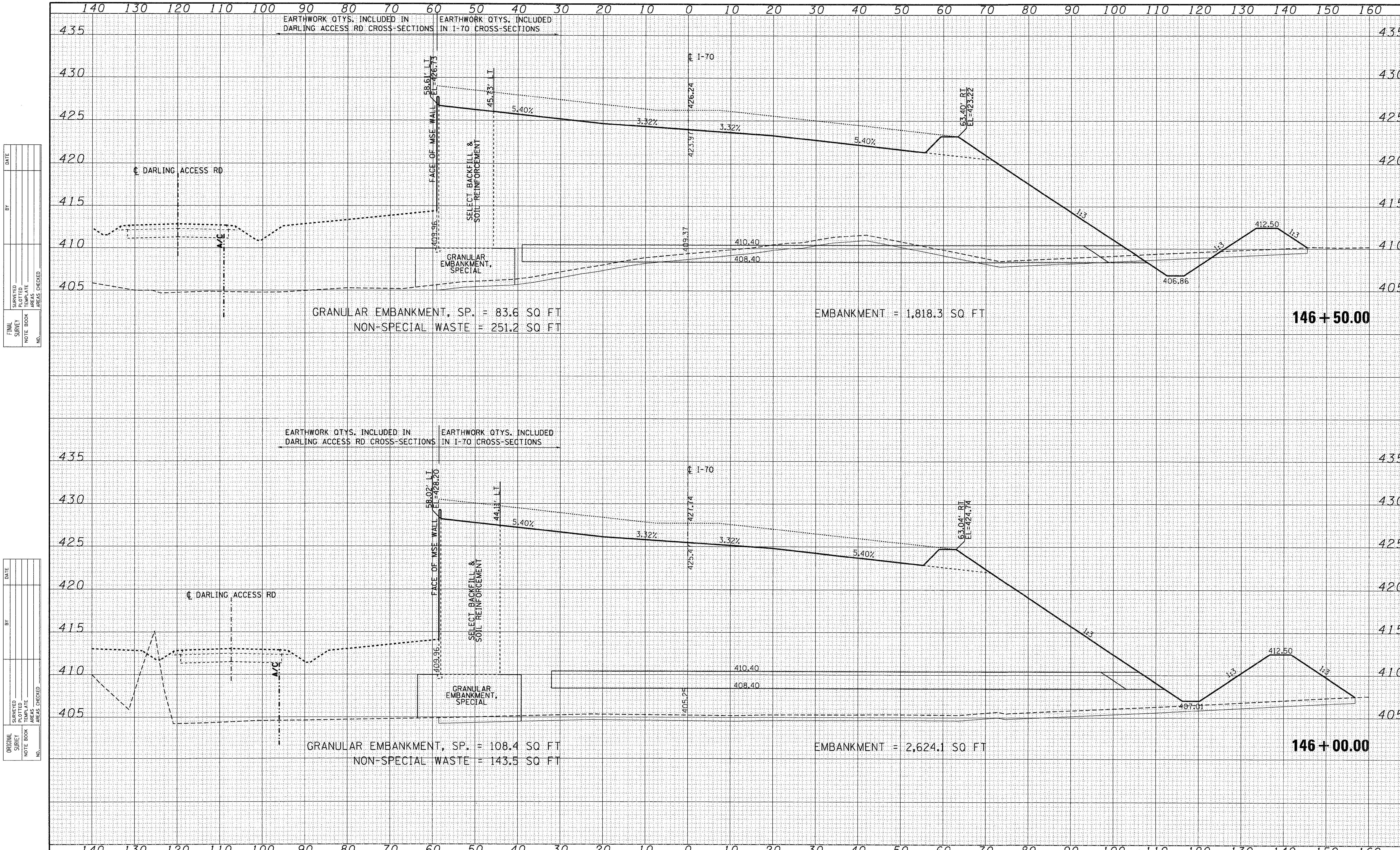
SCALE: | SHEET NO. OF SHEETS | STA. 145+50.00 TO STA. 145+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB	ST. CLAIR	285	246
		CONTRACT NO. 76C44		

ILLINOIS FED. AID PROJECT

FINAL SURVEY	NOTE BOOK NO.	SURVEYED	PLOTTED	TEMPLATE	AREAS	AREAS CHECKED	BY	DATE

ORIGINAL SURVEY	NOTE BOOK NO.	SURVEYED	PLOTTED	TEMPLATE	AREAS	AREAS CHECKED	BY	DATE



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	PLOT DATE = $DATE$	DATE - 06/04/10	REVISED -

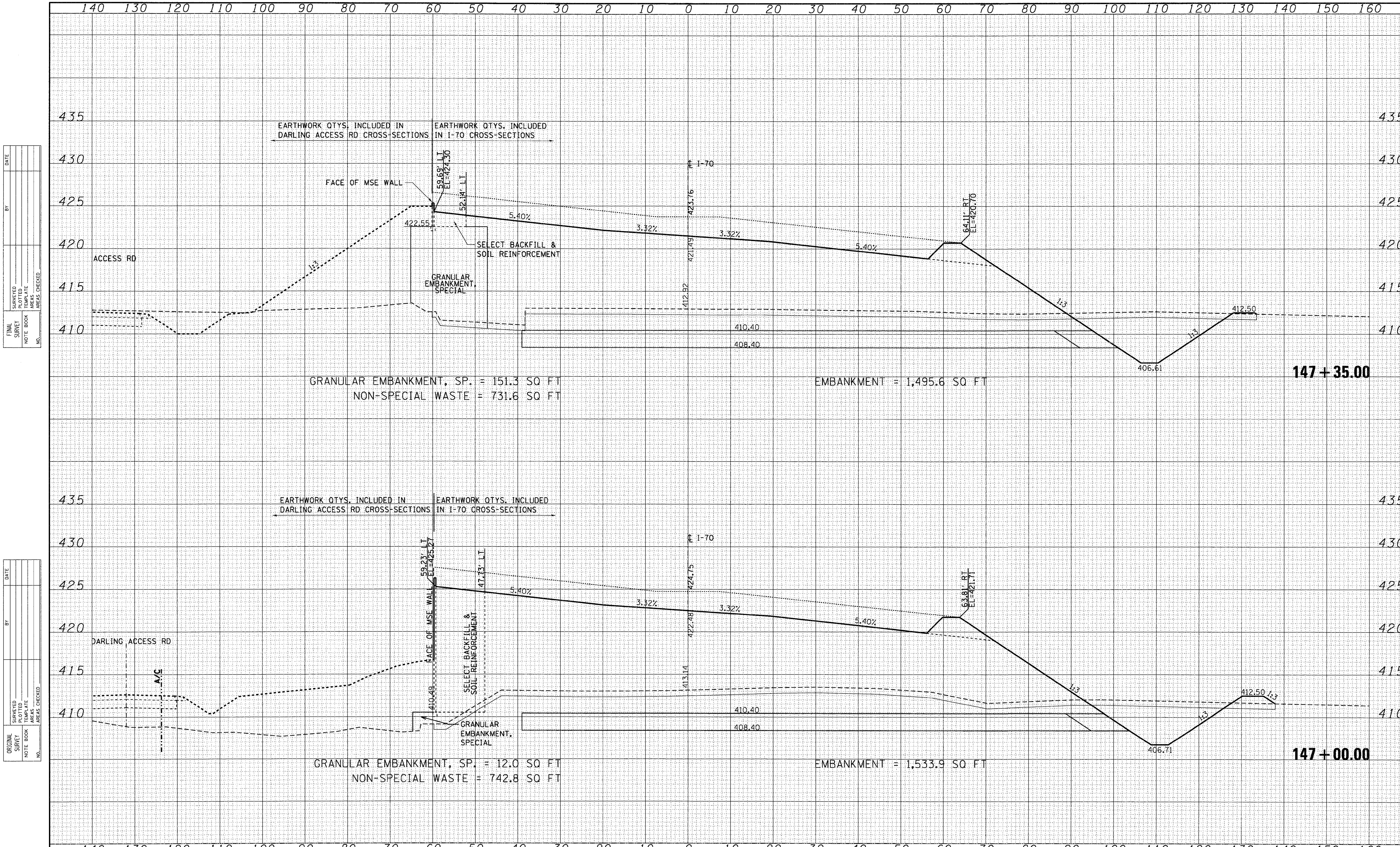
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS-SECTIONS
INTERSTATE 70

SCALE: | SHEET NO. OF SHEETS | STA. 146+00.00 TO STA. 146+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB	ST. CLAIR	285	247
		CONTRACT NO. 76C44		

ILLINOIS FED. AID PROJECT



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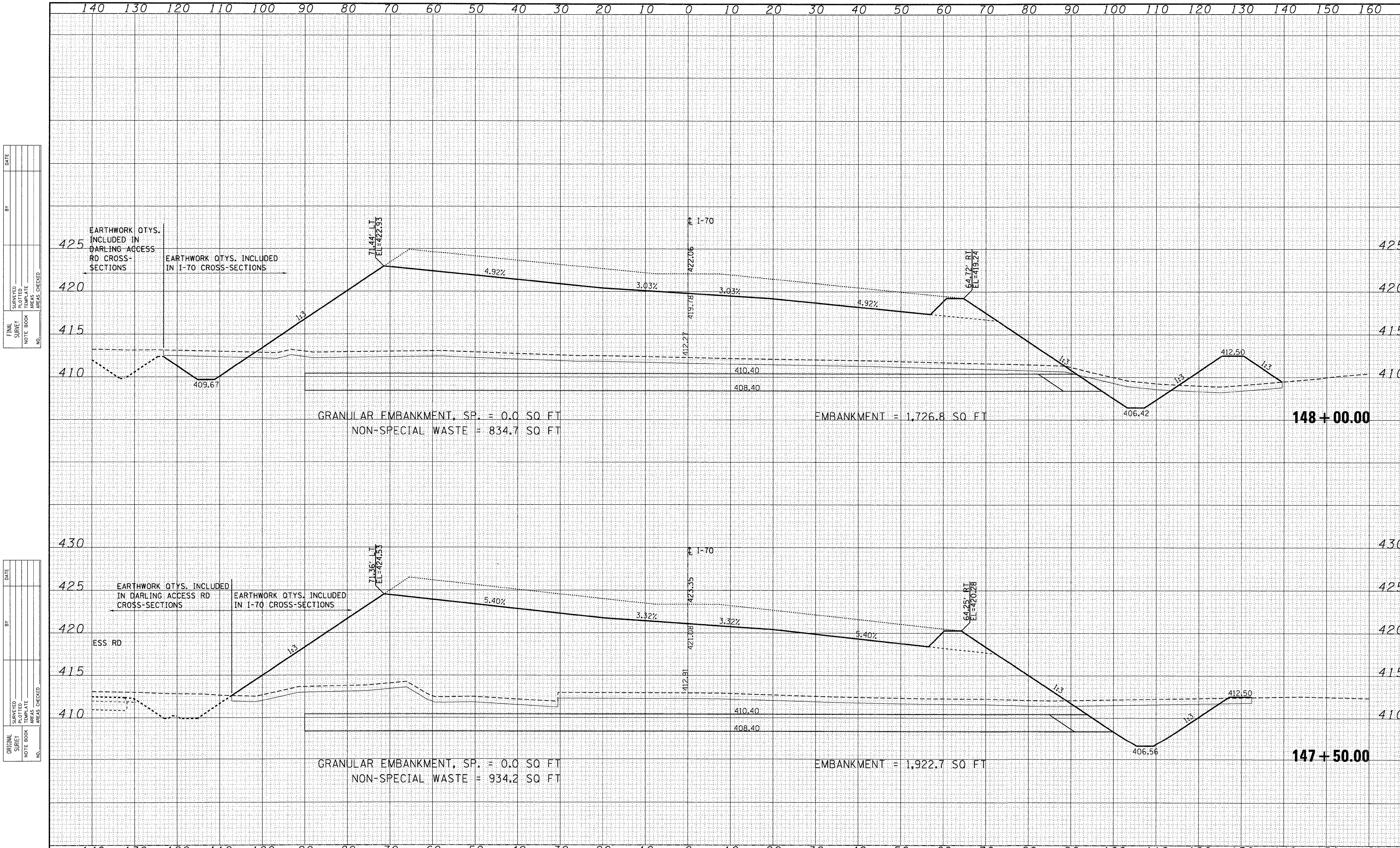
	PLOT DATE = $DATE$	DATE - 06/04/10	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS–SECTIONS
INTERSTATE 70

SCALE: | SHEET NO. OF SHEETS | STA. 147+00.00 TO STA. 147+35.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB	ST. CLAIR	285	248
		CONTRACT NO. 76C44		
		ILLINOIS FED. AID PROJECT		



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	PLOT DATE = $DATE$	DATE - 06/04/10	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

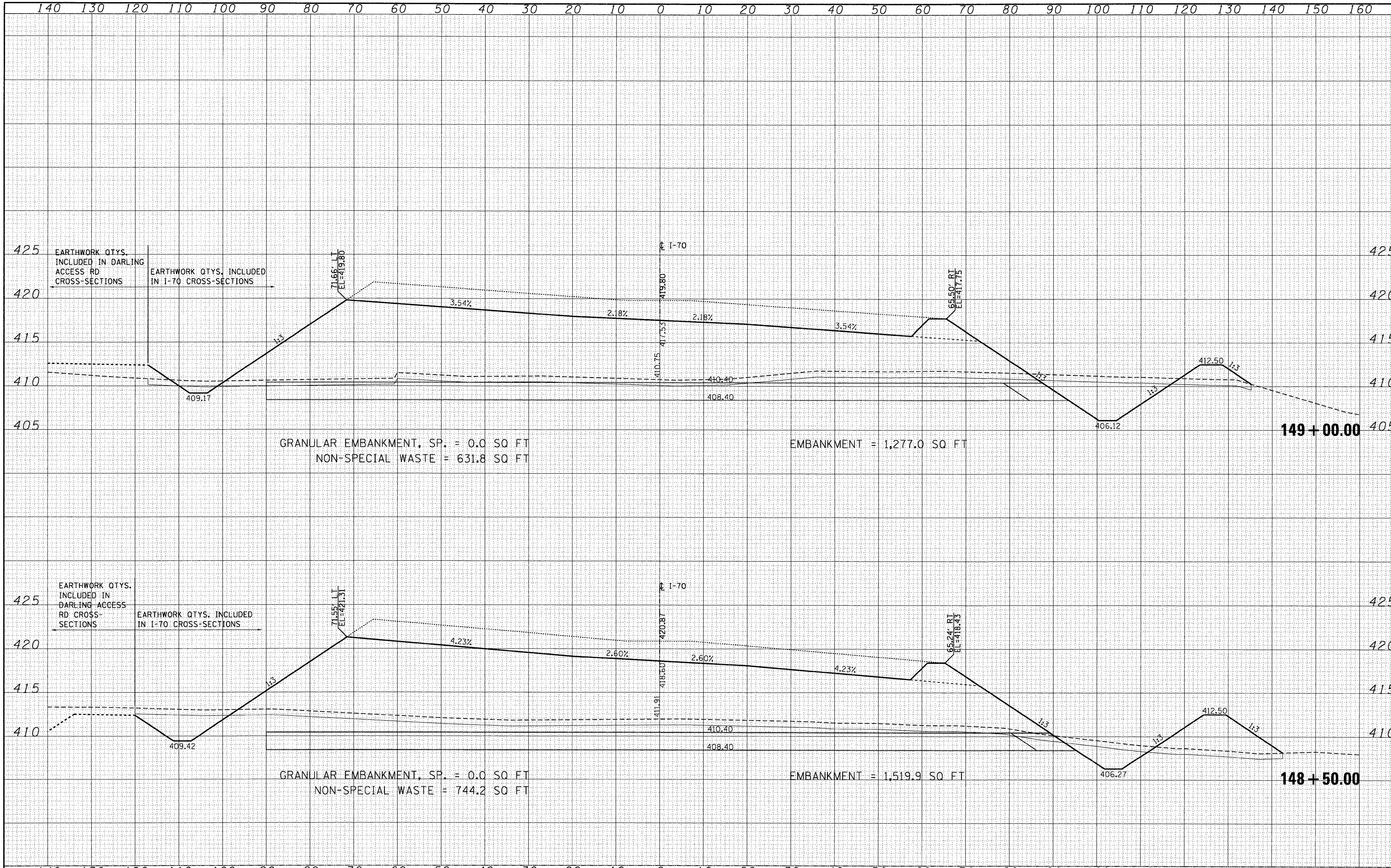
CROSS-SECTIONS
INTERSTATE 70

SCALE: | SHEET NO. OF SHEETS | STA. 147+50.00 TO STA. 148+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB	ST. CLAIR	285	249

CONTRACT NO. 76C44

ILLINOIS FED. AID PROJECT



FINAL SURVEY: NOTE BOOK / NO. — SURVEYED / PLOTTED / TEMPLATE / AREAS / AREAS CHECKED — BY — DATE

ORIGINAL SURVEY: NOTE BOOK / NO. — SURVEYED / PLOTTED / TEMPLATE / AREAS / AREAS CHECKED — BY — DATE

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PLOT DATE = $DATE$

DESIGNED - JB
DRAWN - AG
CHECKED - ACL
DATE - 06/04/10

REVISED -
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

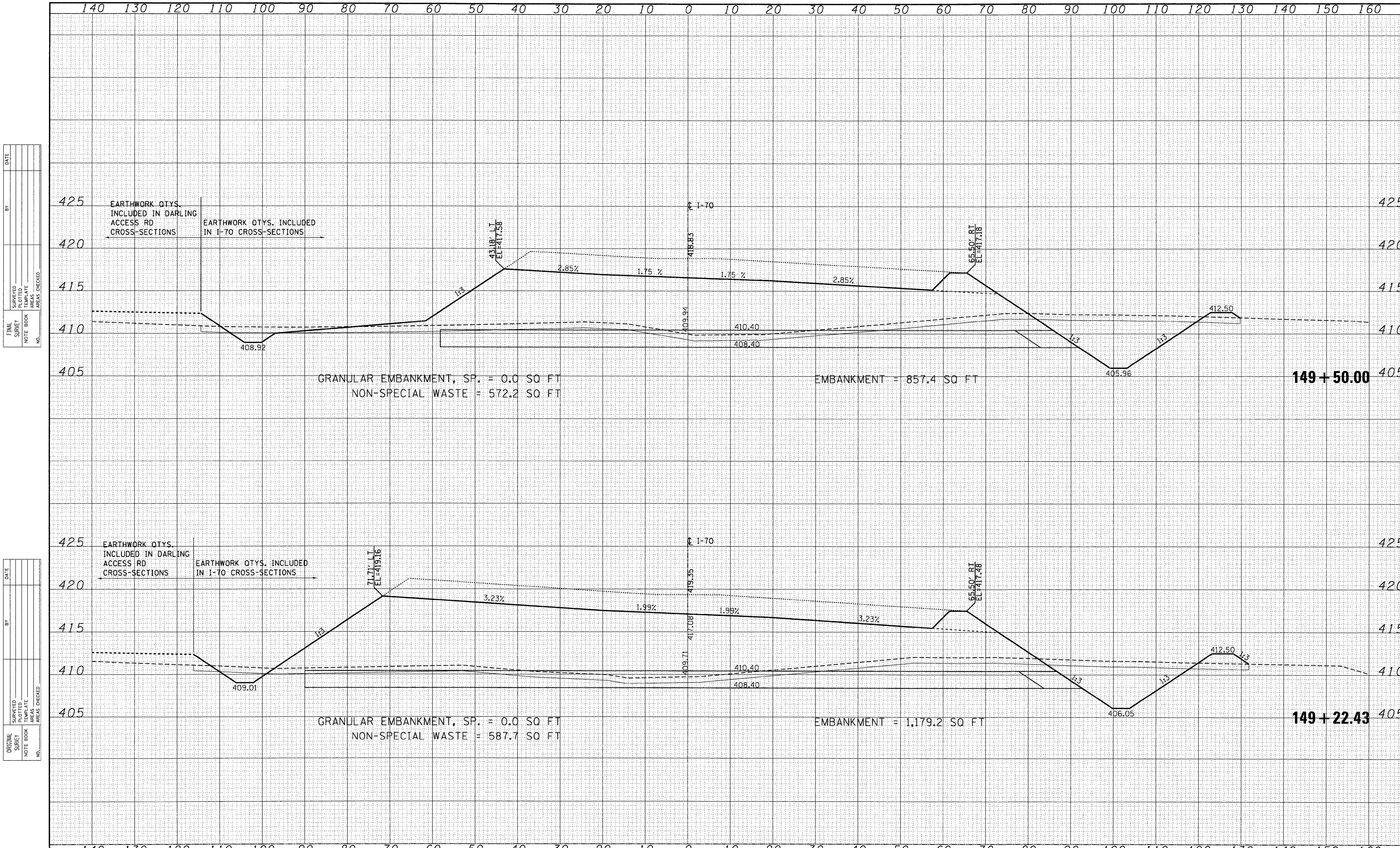
CROSS-SECTIONS
INTERSTATE 70

SCALE: SHEET NO. OF SHEETS STA. 148+50.00 TO STA. 149+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB	ST. CLAIR	285	250

CONTRACT NO. 76C44

ILLINOIS FED. AID PROJECT



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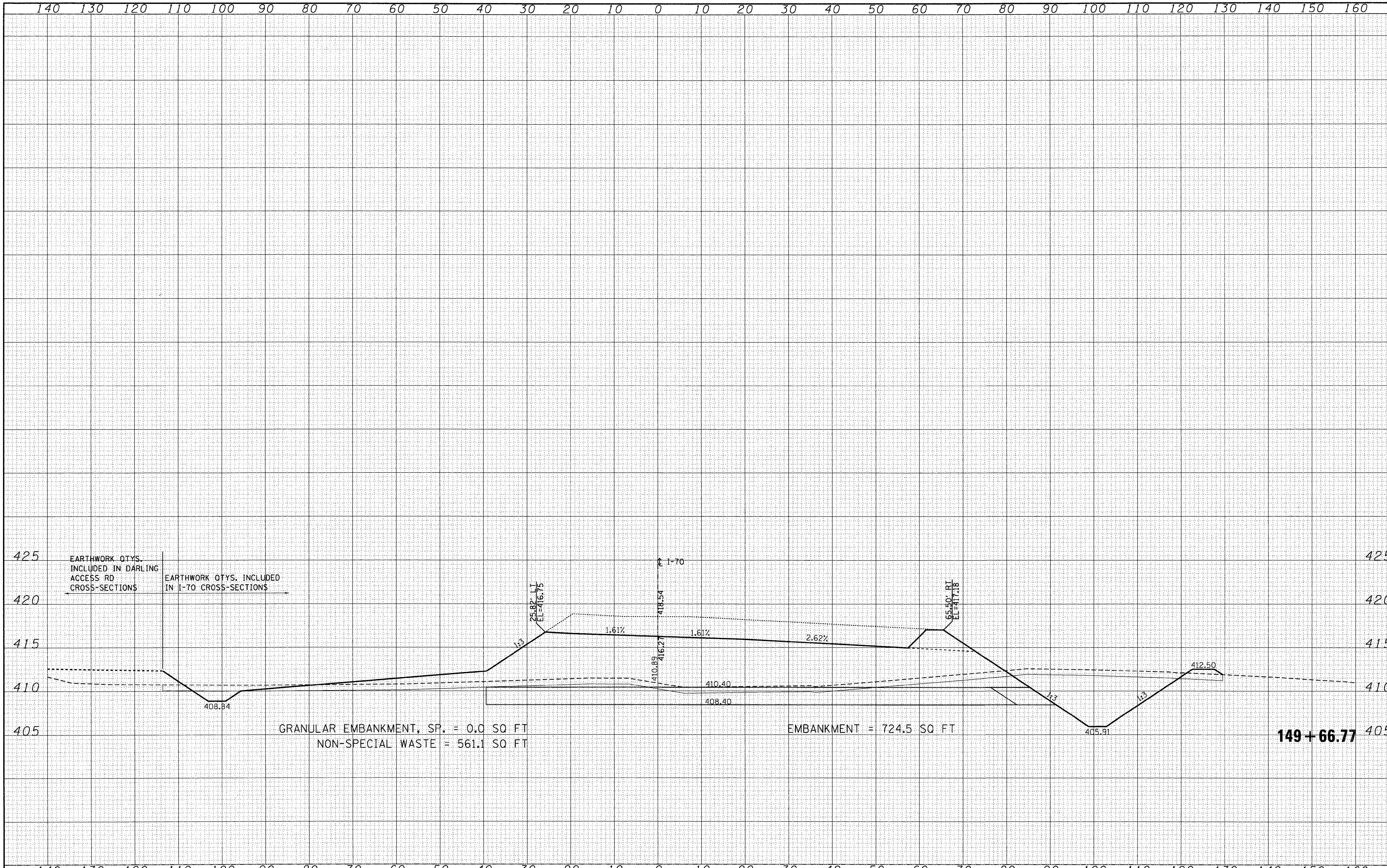
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS-SECTIONS
INTERSTATE 70

SCALE: | SHEET NO. OF SHEETS | STA. 149+22.43 TO STA. 149+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB	ST. CLAIR	285	251
		CONTRACT NO. 76C44		

ILLINOIS FED. AID PROJECT

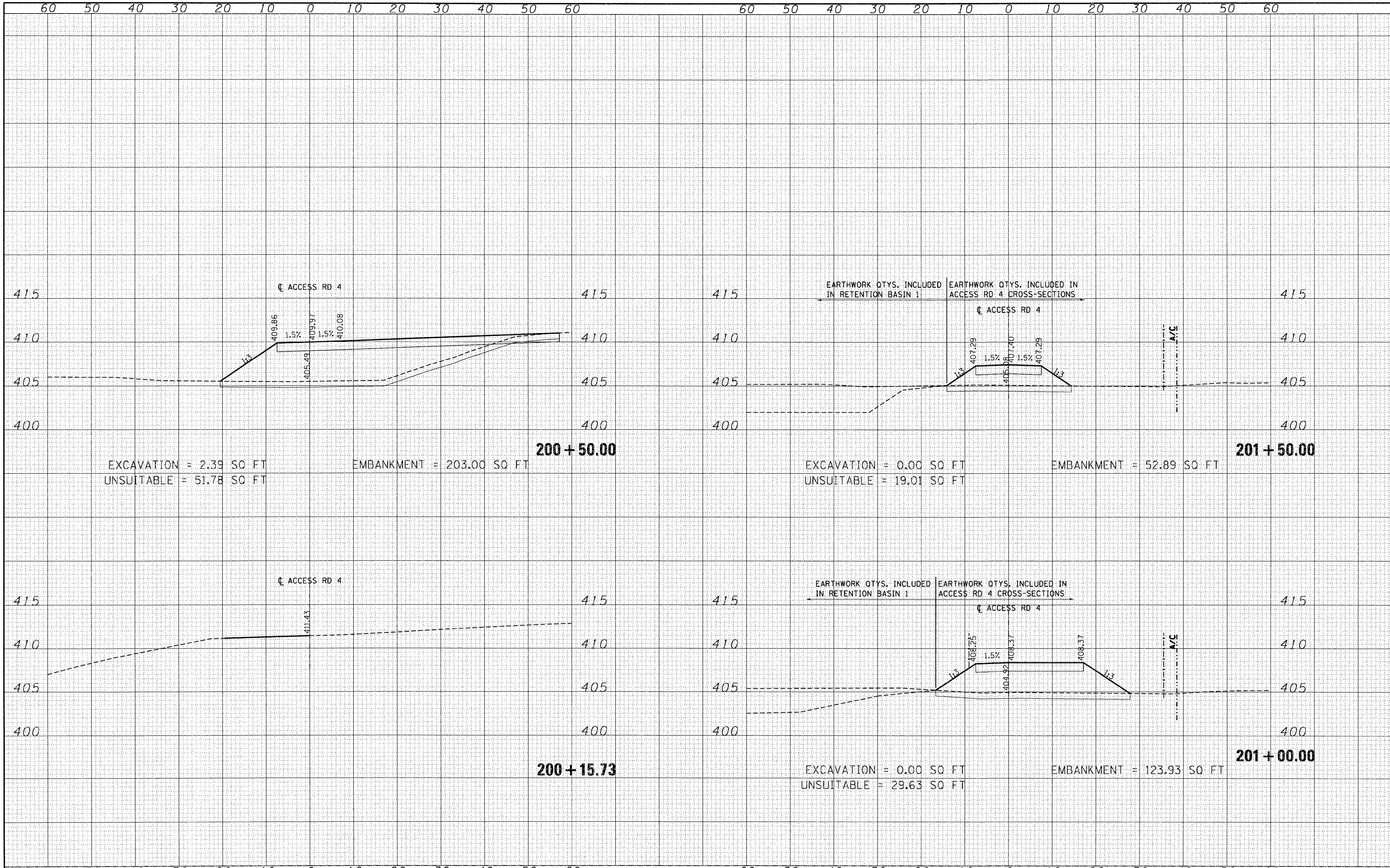


FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED - JB	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CROSS-SECTIONS INTERSTATE 70
		DRAWN - AG	REVISED -		
	PLOT SCALE = $SCALE$	CHECKED - ACL	REVISED -		
	PLOT DATE = $DATE$	DATE - 06/04/10	REVISED -		SCALE: SHEET NO. OF SHEETS STA. 149+66.77 TO STA. 149+66.77

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB	ST. CLAIR	285	252
		CONTRACT NO. 76C44		
	ILLINOIS FED. AID PROJECT			

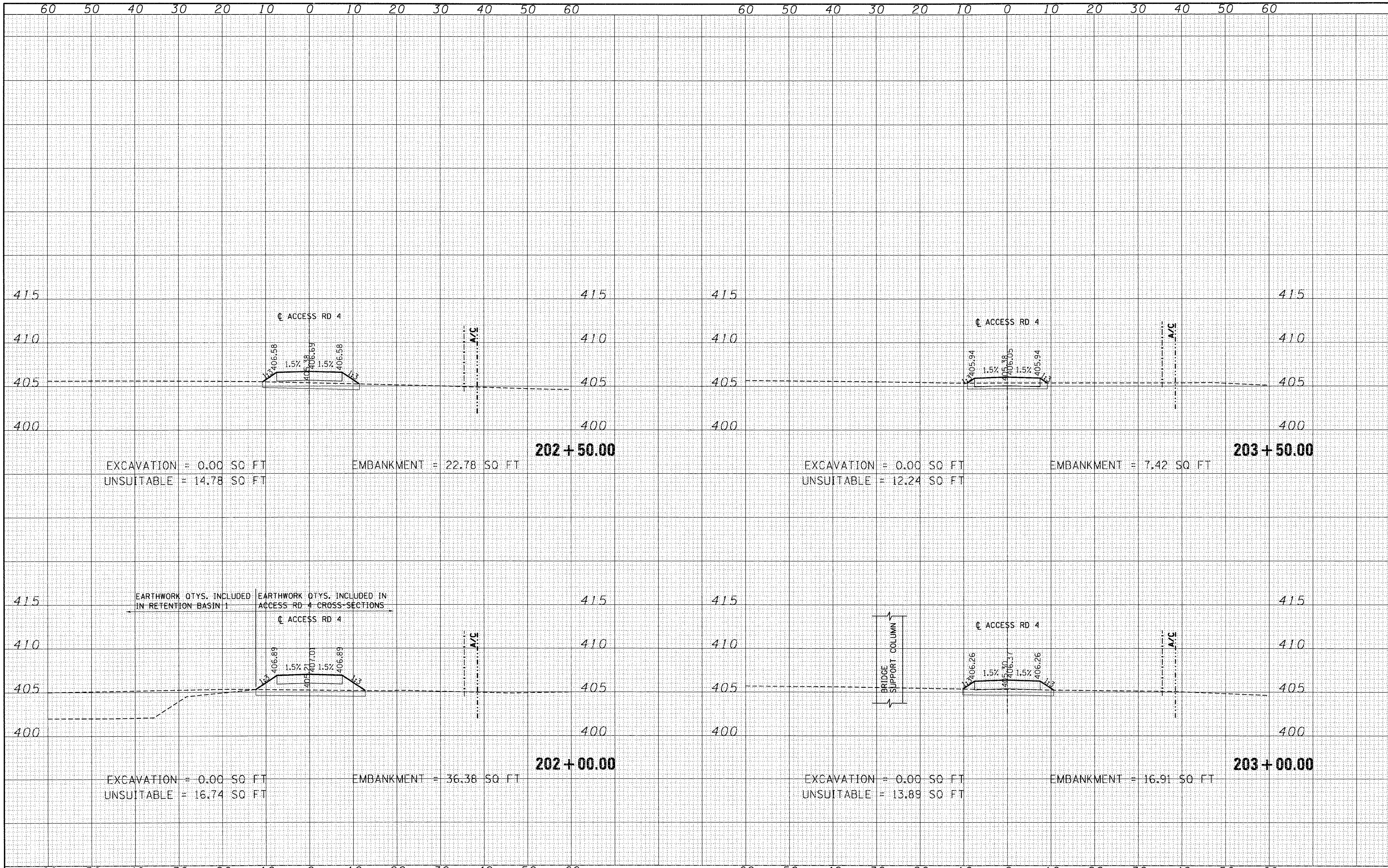
FINAL SURVEY		
NOTE BOOK		
NO.		
SURVEYED	BY	DATE
PLOTTED		
TEMPLATE		
AREAS		
AREAS CHECKED		

ORIGINAL SURVEY		
NOTE BOOK		
NO.		
SURVEYED	BY	DATE
PLOTTED		
TEMPLATE		
AREAS		
AREAS CHECKED		



FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED - JB	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CROSS-SECTIONS ACCESS ROAD 4
		DRAWN - AG	REVISED -		
	PLOT SCALE = $SCALE$	CHECKED - ACL	REVISED -		
	PLOT DATE = $DATE$	DATE - 06/04/10	REVISED -		SCALE: SHEET NO. OF SHEETS STA. 200+15.73 TO STA. 201+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB	ST. CLAIR	285	253
		CONTRACT NO. 76C44		
		ILLINOIS FED. AID PROJECT		



FINAL SURVEY		BY	DATE
NOTE BOOK	SURVEYED		
NO.	PLOTTED		
	TEMPLATE		
	AREAS		
	AREAS CHECKED		

ORIGINAL SURVEY		BY	DATE
NOTE BOOK	SURVEYED		
NO.	PLOTTED		
	TEMPLATE		
	AREAS		
	AREAS CHECKED		

FILE NAME = $FILE$

USER NAME = $USER$

PLOT SCALE = $SCALE$

PLOT DATE = $DATE$

DESIGNED - JB
DRAWN - AG
CHECKED - ACL
DATE - 06/04/10

REVISED -
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

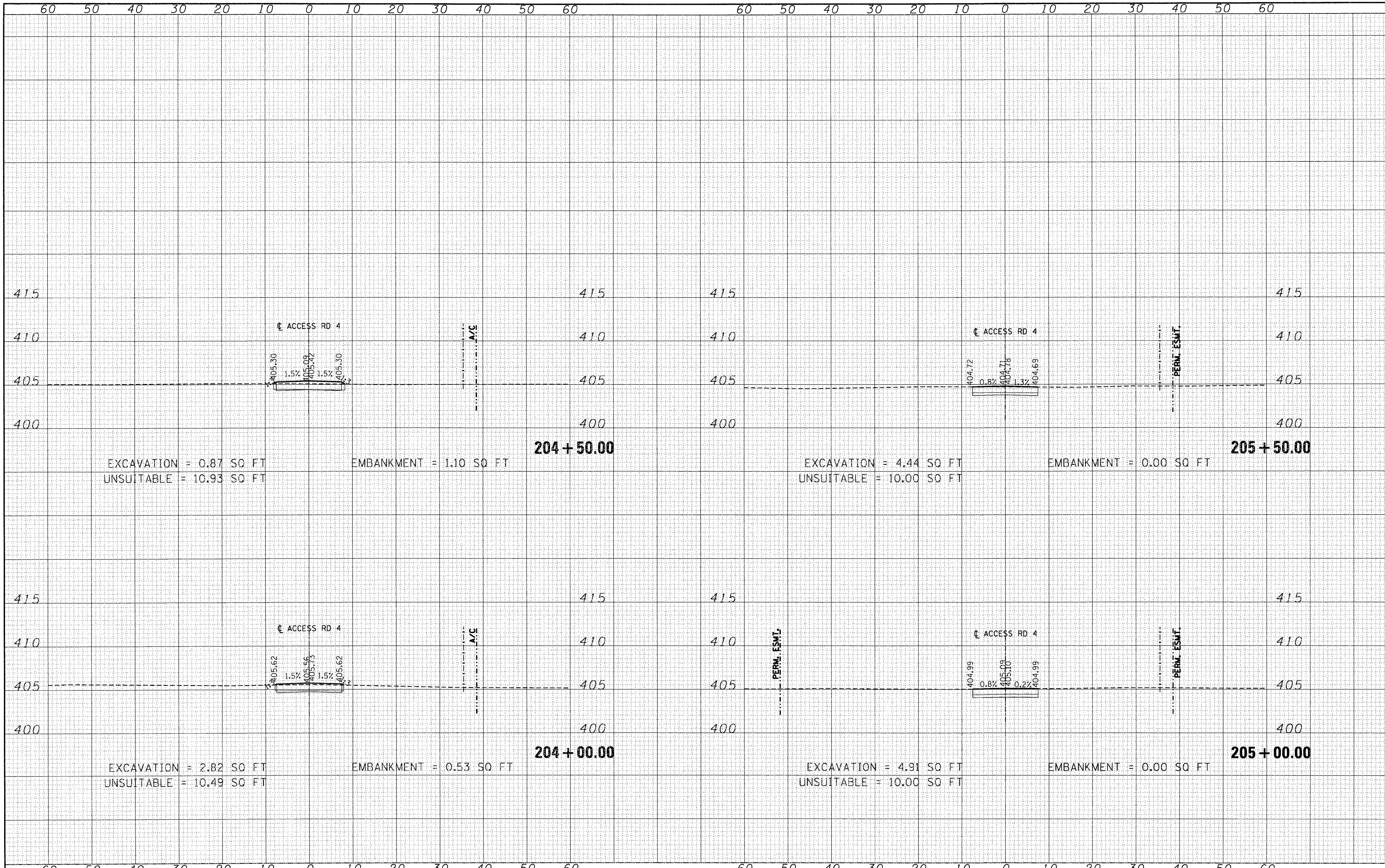
CROSS-SECTIONS
ACCESS ROAD 4

SCALE: SHEET NO. OF SHEETS STA. 202+00.00 TO STA. 203+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB	ST. CLAIR	285	254

CONTRACT NO. 76C44

ILLINOIS FED. AID PROJECT



FINAL SURVEY NOTE BOOK NO. — SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED — BY — DATE

ORIGINAL SURVEY NOTE BOOK NO. — SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED — BY — DATE

FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED - JB	REVISED -
		DRAWN - AG	REVISED -
	PLOT SCALE = $SCALE$	CHECKED - ACL	REVISED -
	PLOT DATE = $DATE$	DATE - 06/04/10	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

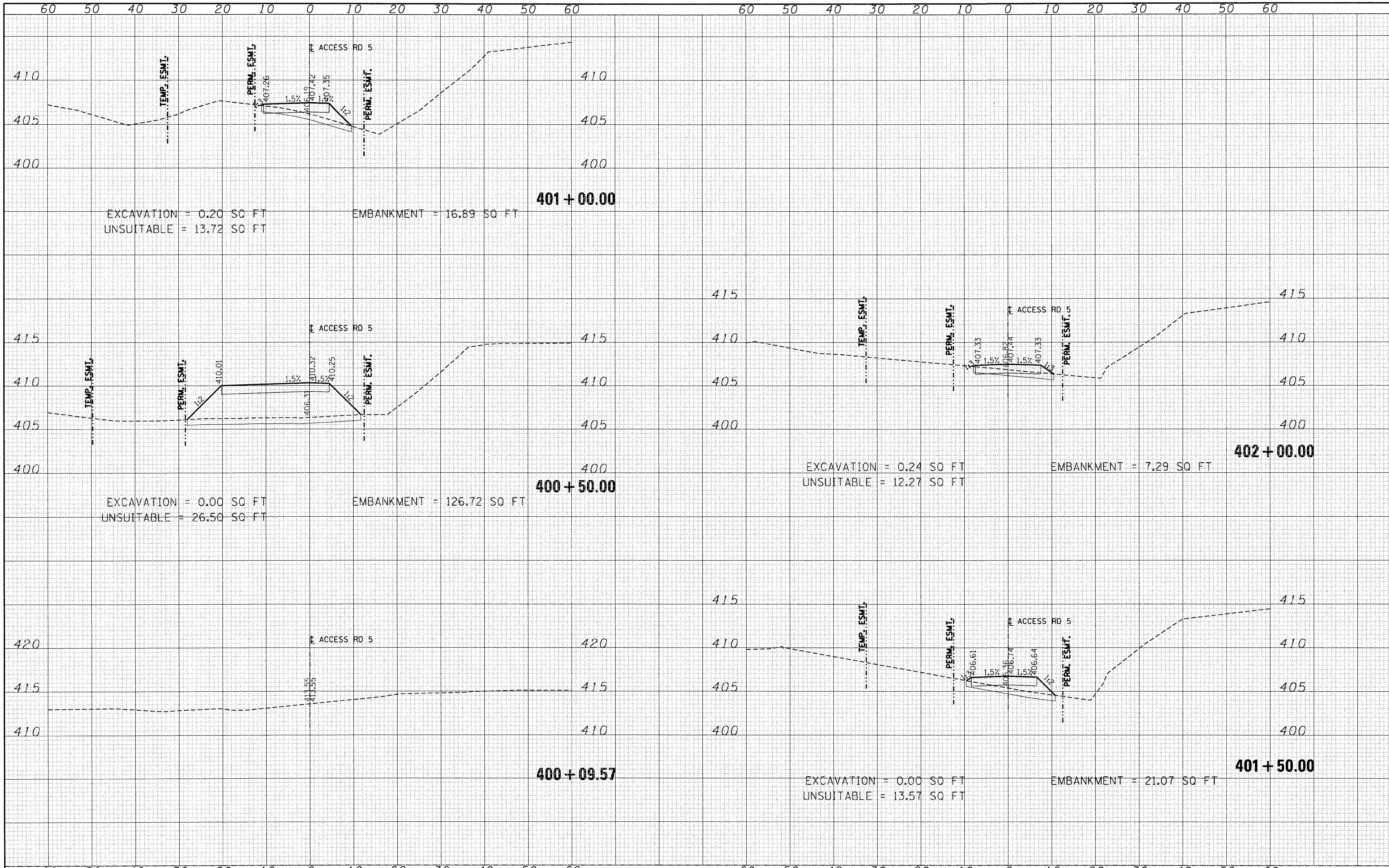
CROSS-SECTIONS
ACCESS ROAD 4

SCALE: SHEET NO. OF SHEETS STA. 204+00.00 TO STA. 205+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB	ST. CLAIR	285	255

CONTRACT NO. 76C44

ILLINOIS FED. AID PROJECT



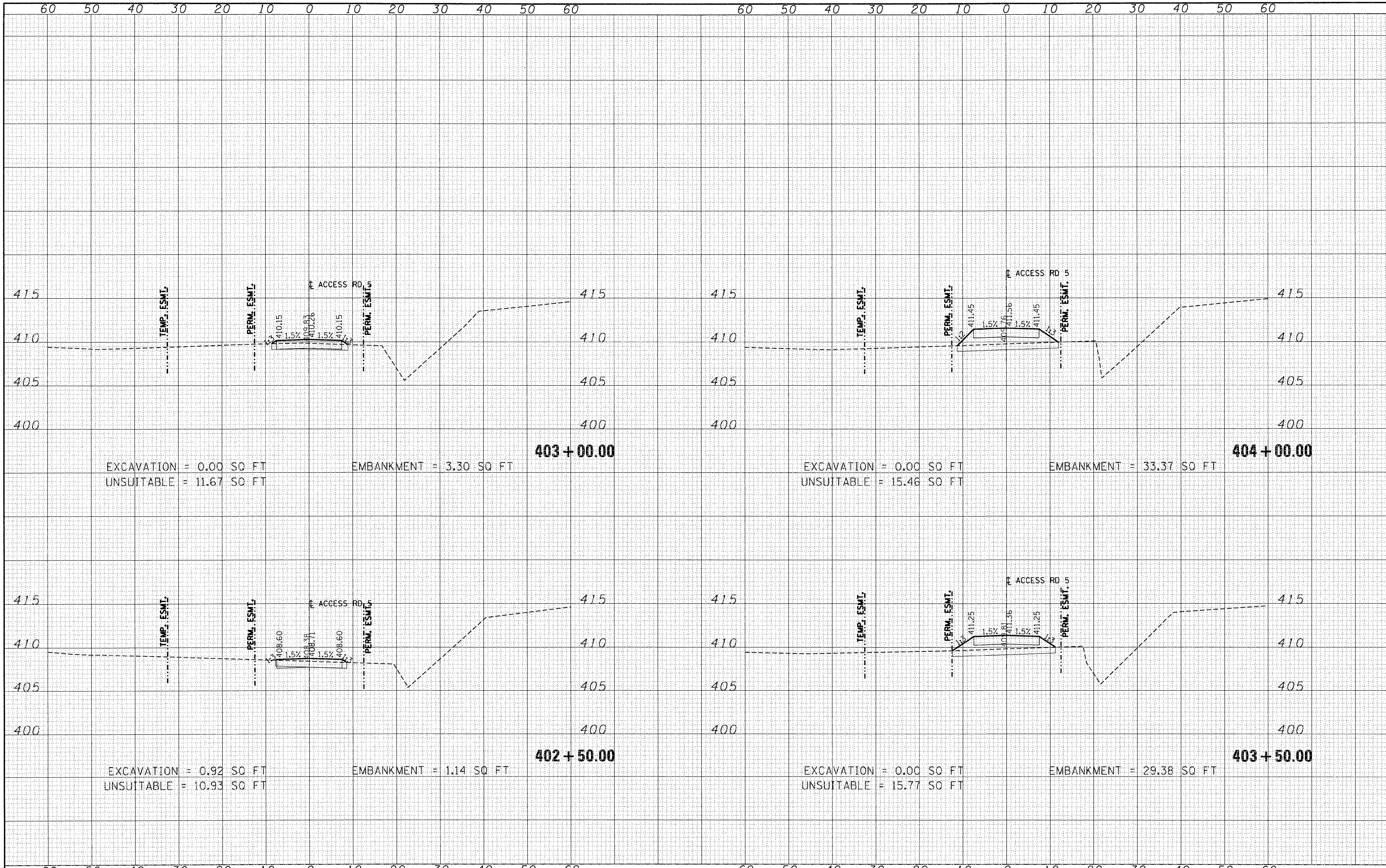
FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED - JB	REVISED -
		DRAWN - AG	REVISED -
	PLOT SCALE = $SCALE$	CHECKED - ACL	REVISED -
	PLOT DATE = $DATE$	DATE - 06/04/10	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS–SECTIONS
ACCESS ROAD 5

SCALE: | SHEET NO. OF SHEETS | STA. 400+09.57 TO STA. 402+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB	ST. CLAIR	285	256
		CONTRACT NO. 76C44		
		ILLINOIS FED. AID PROJECT		

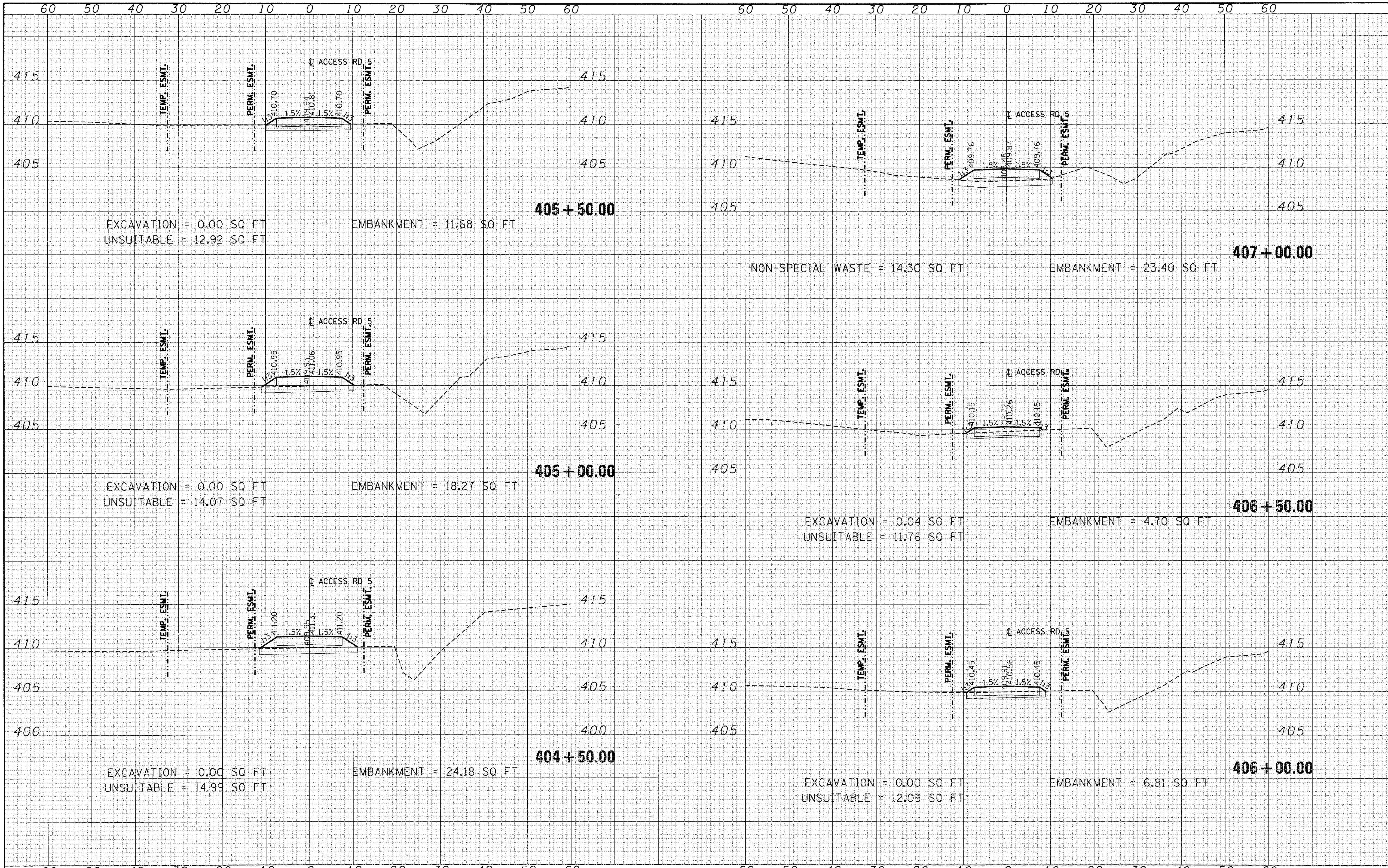


FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED - JB	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
		DRAWN - AG	REVISED -	
	PLOT SCALE = $SCALE$	CHECKED - ACL	REVISED -	
	PLOT DATE = $DATE$	DATE - 06/04/10	REVISED -	

CROSS-SECTIONS
ACCESS ROAD 5

SCALE: | SHEET NO. OF SHEETS | STA. 402+50.00 TO STA. 404+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB	ST. CLAIR	285	257
		CONTRACT NO. 76C44		
		ILLINOIS FED. AID PROJECT		



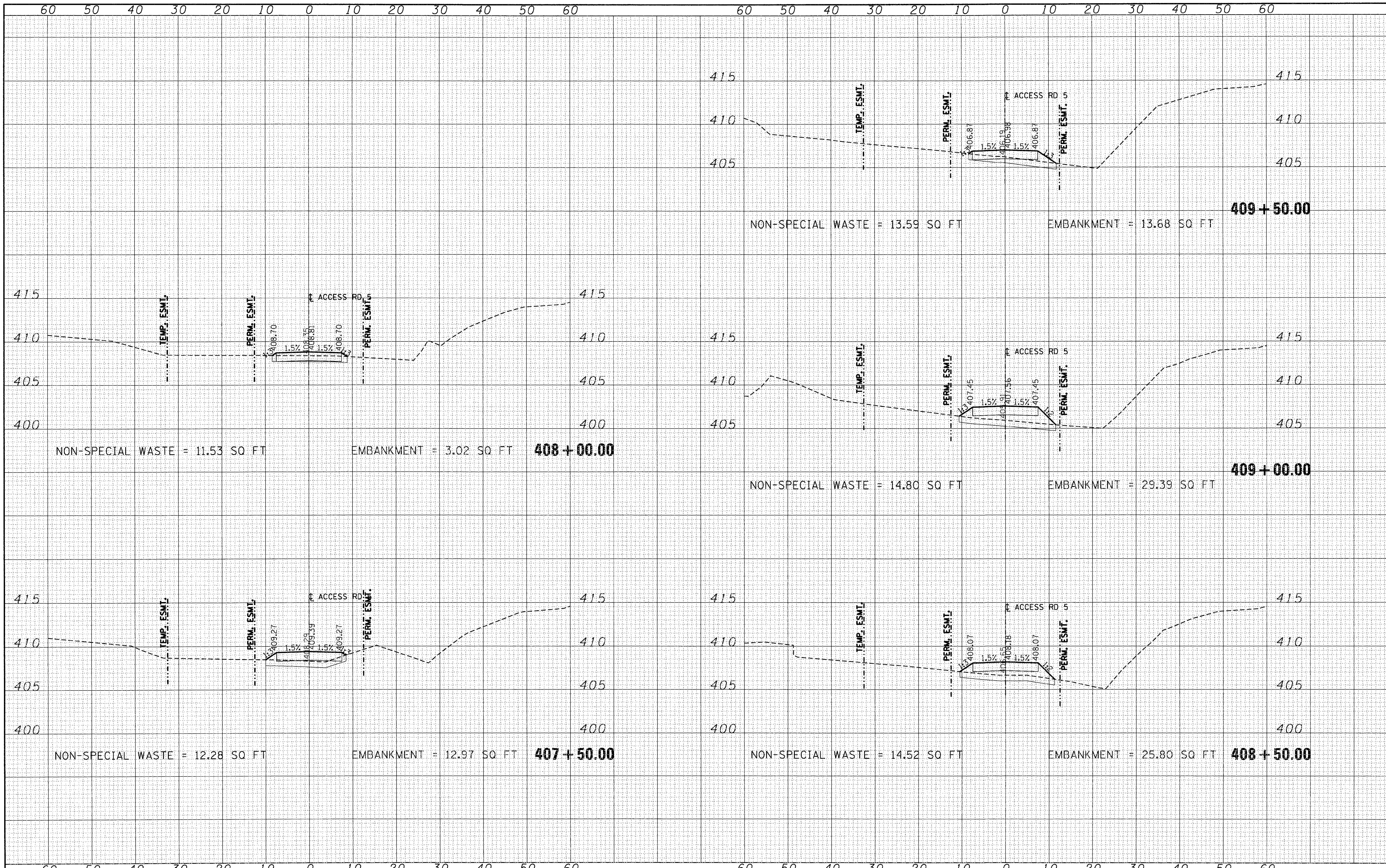
FILE NAME = $FILE$	USER NAME = $USER$	DESIGNED - JB	REVISED -
		DRAWN - AG	REVISED -
	PLOT SCALE = $SCALE$	CHECKED - ACL	REVISED -
	PLOT DATE = $DATE$	DATE - 06/04/10	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS-SECTIONS
ACCESS ROAD 5

SCALE: SHEET NO. OF SHEETS STA. 404+50.00 TO STA. 407+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB	ST. CLAIR	285	258
		CONTRACT NO. 76C44		
		ILLINOIS FED. AID PROJECT		

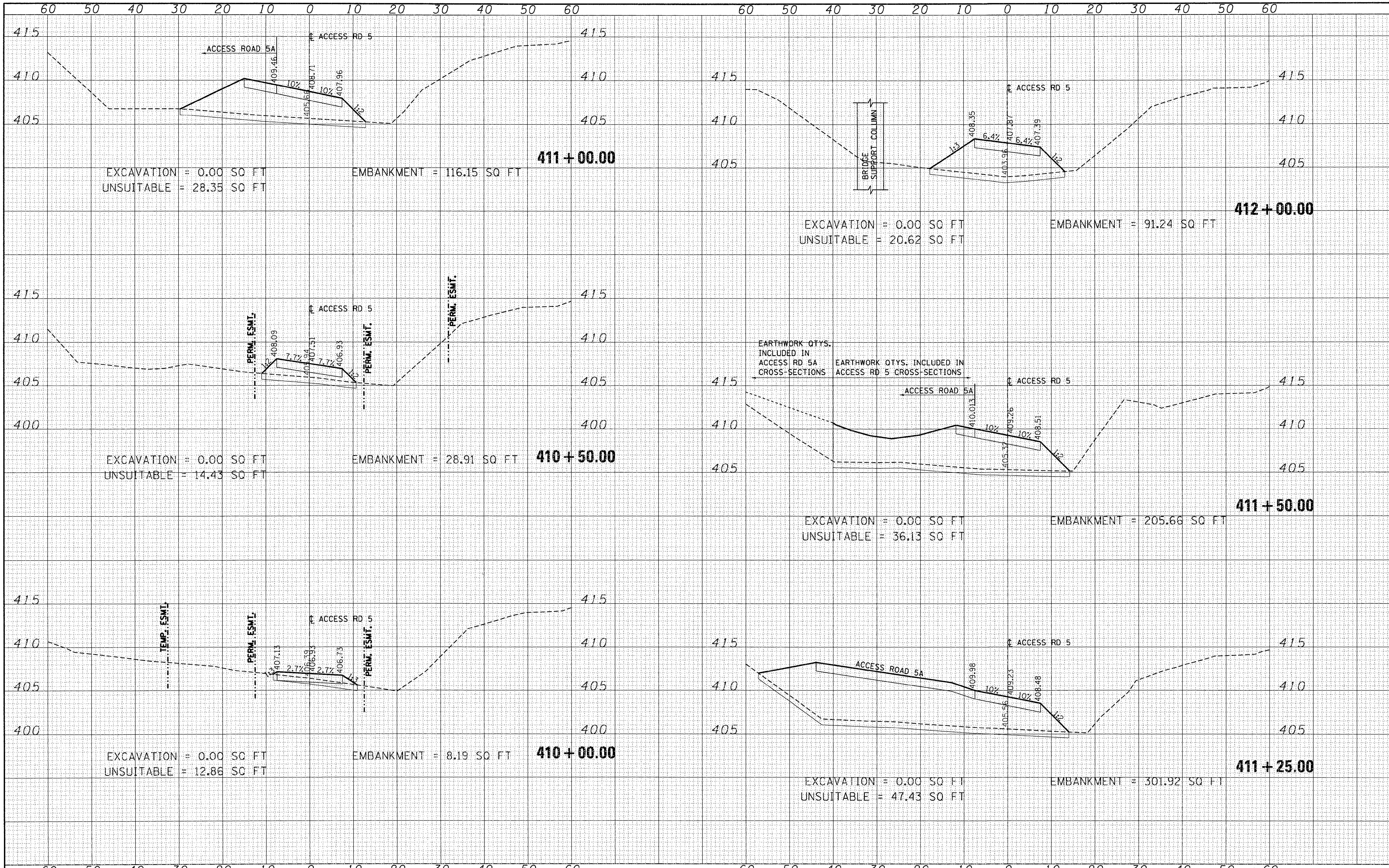


FINAL SURVEY: SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED — NOTE BOOK — NO. — BY — DATE

ORIGINAL SURVEY: SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED — NOTE BOOK — NO. — BY — DATE

FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED - JB	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CROSS-SECTIONS ACCESS ROAD 5
		DRAWN - AG	REVISED -		
	PLOT SCALE = $SCALE$	CHECKED - ACL	REVISED -		
	PLOT DATE = $DATE$	DATE - 06/04/10	REVISED -		SCALE: SHEET NO. OF SHEETS STA. 407+50.00 TO STA. 409+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB	ST. CLAIR	285	259
		CONTRACT NO. 76C44		
		ILLINOIS FED. AID PROJECT		



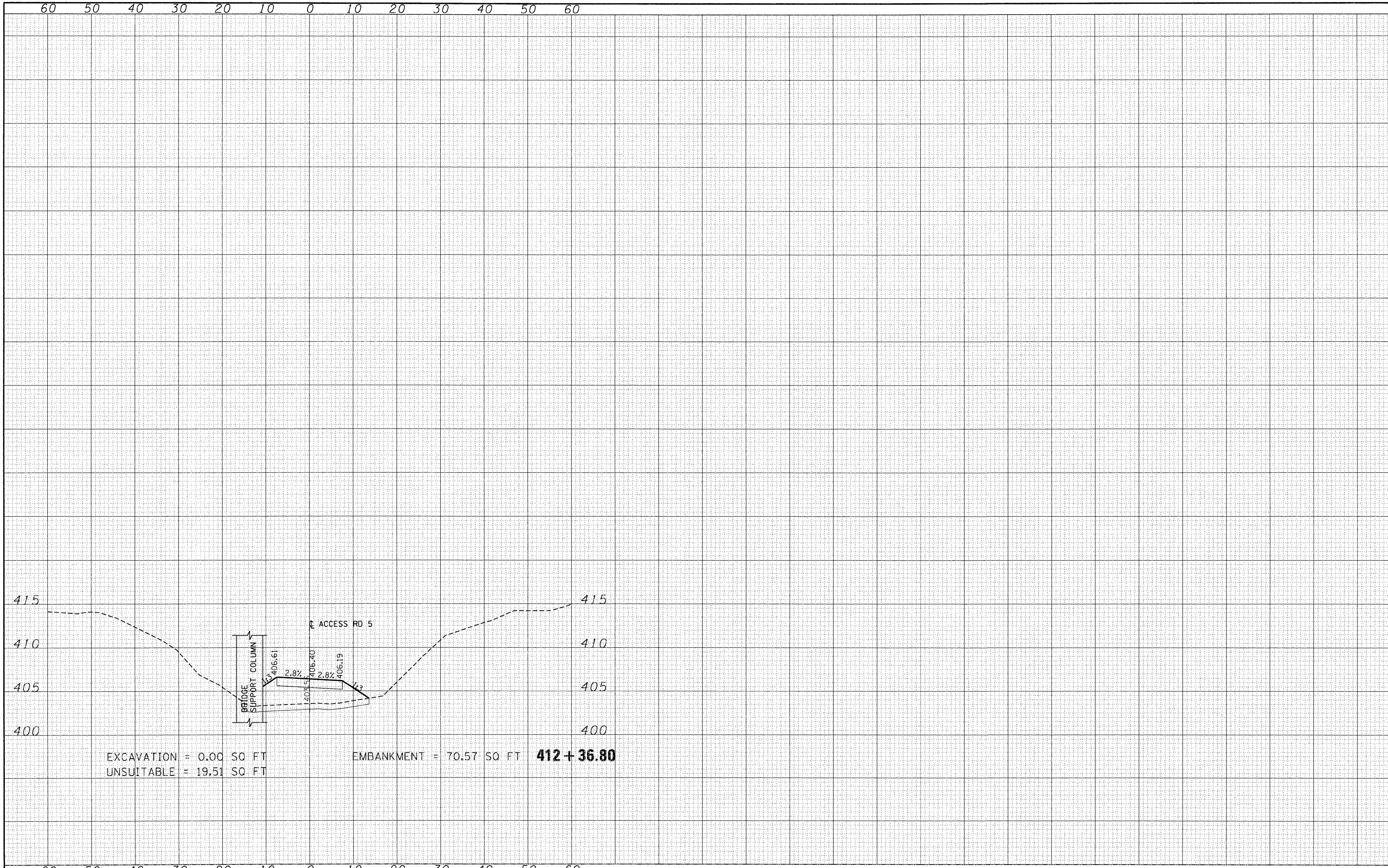
FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED - JB	REVISED -
		DRAWN - AG	REVISED -
	PLOT SCALE = $SCALE$	CHECKED - ACL	REVISED -
	PLOT DATE = $DATE$	DATE - 06/04/10	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS-SECTIONS
ACCESS ROAD 5

SCALE: | SHEET NO. OF SHEETS | STA. 410+00.00 TO STA. 412+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB	ST. CLAIR	285	260
		CONTRACT NO. 76C44		
		ILLINOIS FED. AID PROJECT		



FINAL SURVEY	BY	DATE
NOTE BOOK NO.		
SURVEYED		
PLOTTED		
TEMPLATE		
AREAS		
AREAS CHECKED		

ORIGINAL SURVEY	BY	DATE
NOTE BOOK NO.		
SURVEYED		
PLOTTED		
TEMPLATE		
AREAS		
AREAS CHECKED		

FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED - JB	REVISED -
		DRAWN - AG	REVISED -
	PLOT SCALE = $SCALE$	CHECKED - ACL	REVISED -
	PLOT DATE = $DATE$	DATE - 06/04/10	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

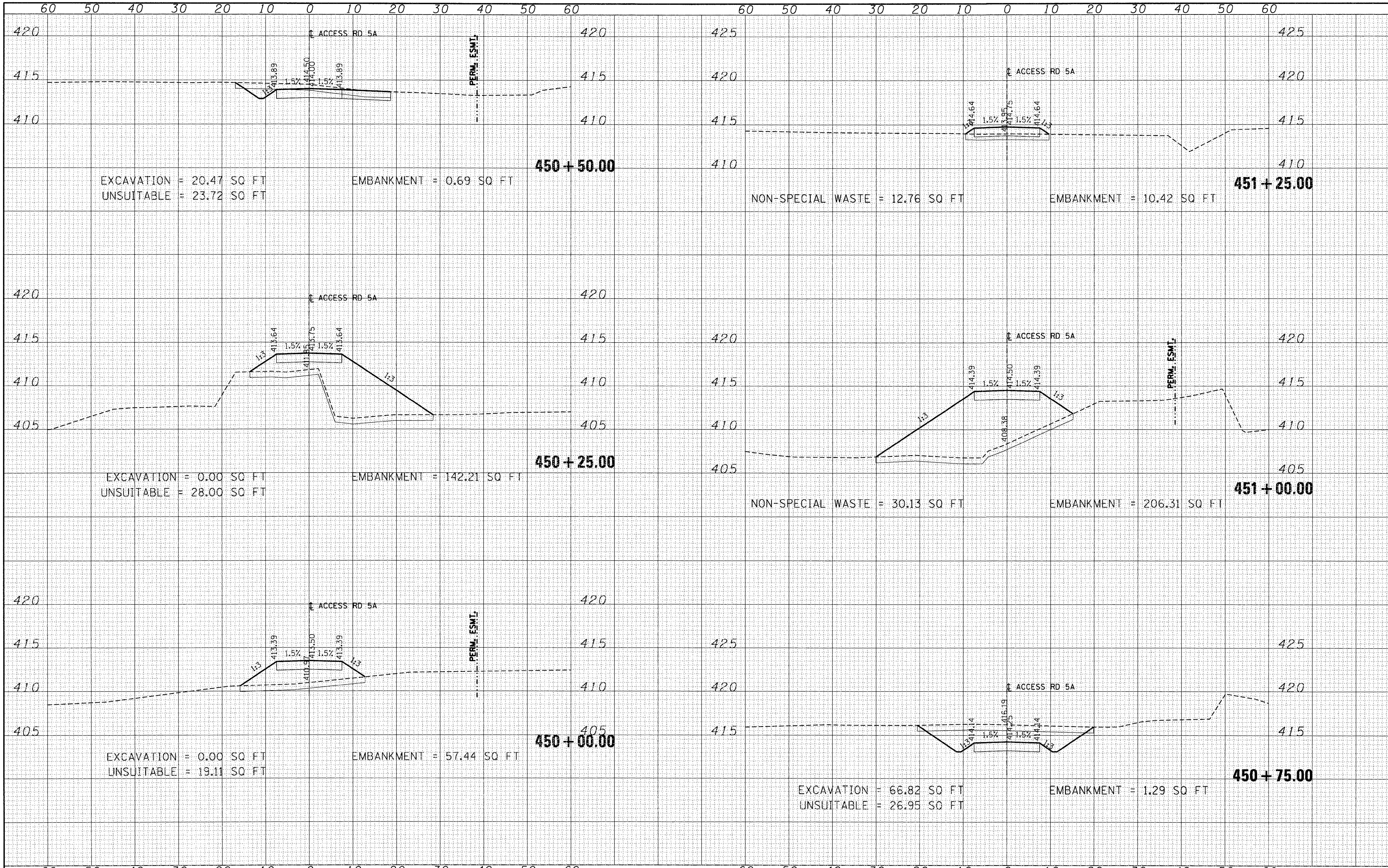
CROSS–SECTIONS
ACCESS ROAD 5

SCALE: | SHEET NO. OF SHEETS | STA. 412+36.80 TO STA. 412+36.80

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB	ST. CLAIR	285	261

CONTRACT NO. 76C44

ILLINOIS FED. AID PROJECT



FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED - JB	REVISED -
		DRAWN - AG	REVISED -
	PLOT SCALE = $SCALE$	CHECKED - ACL	REVISED -
	PLOT DATE = $DATE$	DATE - 06/04/10	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

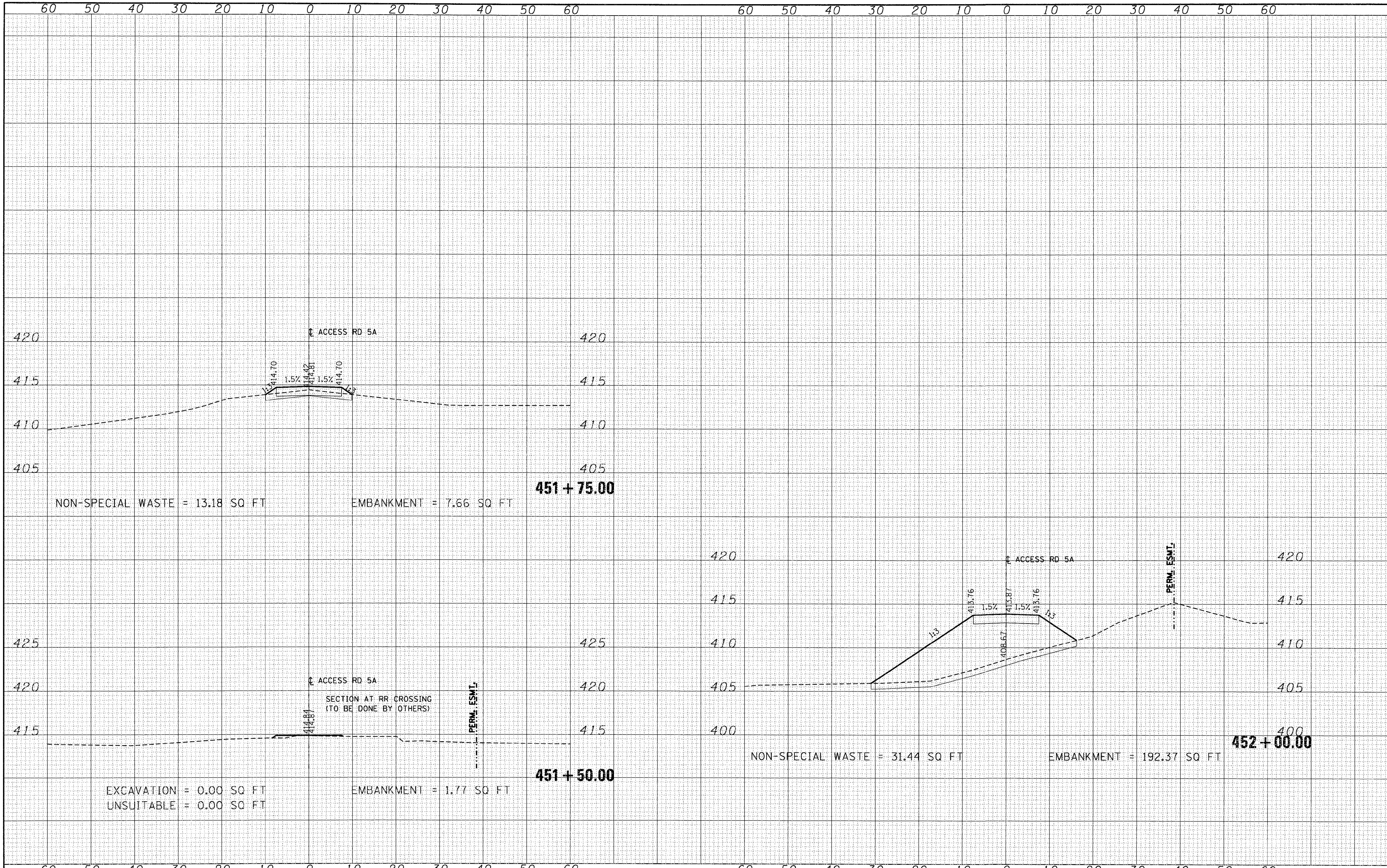
CROSS-SECTIONS
ACCESS ROAD 5A

SCALE: | SHEET NO. OF SHEETS | STA. 450+00.00 TO STA. 451+25.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB	ST. CLAIR	285	262

CONTRACT NO. 76C44

ILLINOIS FED. AID PROJECT



FINAL SURVEY		BY	DATE
NOTE BOOK	SURVEYED		
NO.	PLOTTED		
	TEMPLATE		
	AREAS		
	AREAS CHECKED		

ORIGINAL SURVEY		BY	DATE
NOTE BOOK	SURVEYED		
NO.	PLOTTED		
	TEMPLATE		
	AREAS		
	AREAS CHECKED		

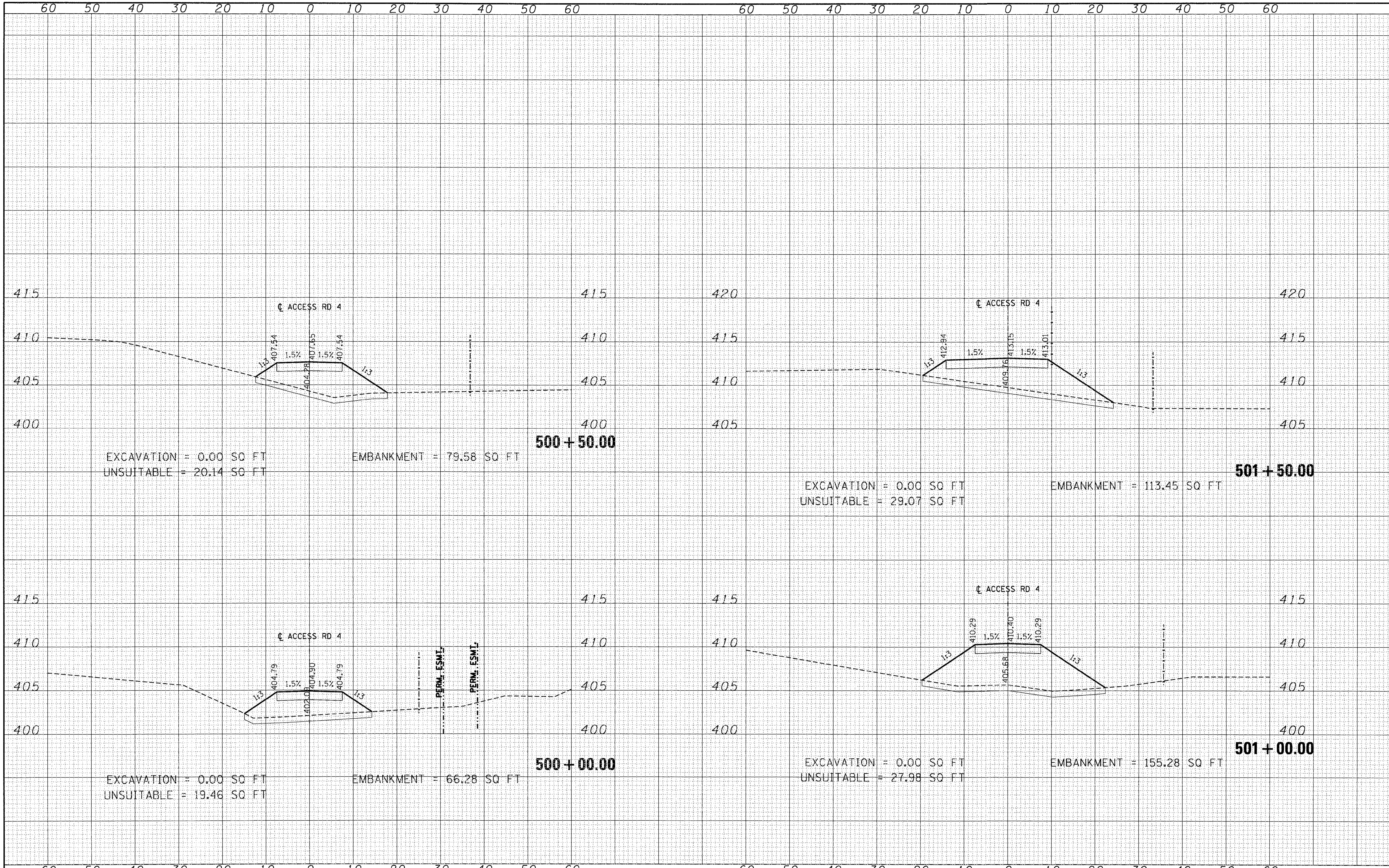
FILE NAME = $FILE$	USER NAME = $USER$	DESIGNED - JB	REVISED -
		DRAWN - AG	REVISED -
	PLOT SCALE = $SCALE$	CHECKED - ACL	REVISED -
	PLOT DATE = $DATE$	DATE - 06/04/10	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS-SECTIONS
ACCESS ROAD 5A

SCALE: | SHEET NO. OF SHEETS | STA. 451+50.00 TO STA. 452+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB	ST. CLAIR	285	263
		CONTRACT NO. 76C44		
		ILLINOIS FED. AID PROJECT		



FINAL SURVEY NOTE BOOK NO. — SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED — BY — DATE

ORIGINAL SURVEY NOTE BOOK NO. — SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED — BY — DATE

FILE NAME = $FILEL$

USER NAME = $USER$

PLOT SCALE = $SCALE$

PLOT DATE = $DATE$

DESIGNED - JB
DRAWN - AG
CHECKED - ACL
DATE - 06/04/10

REVISED -
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

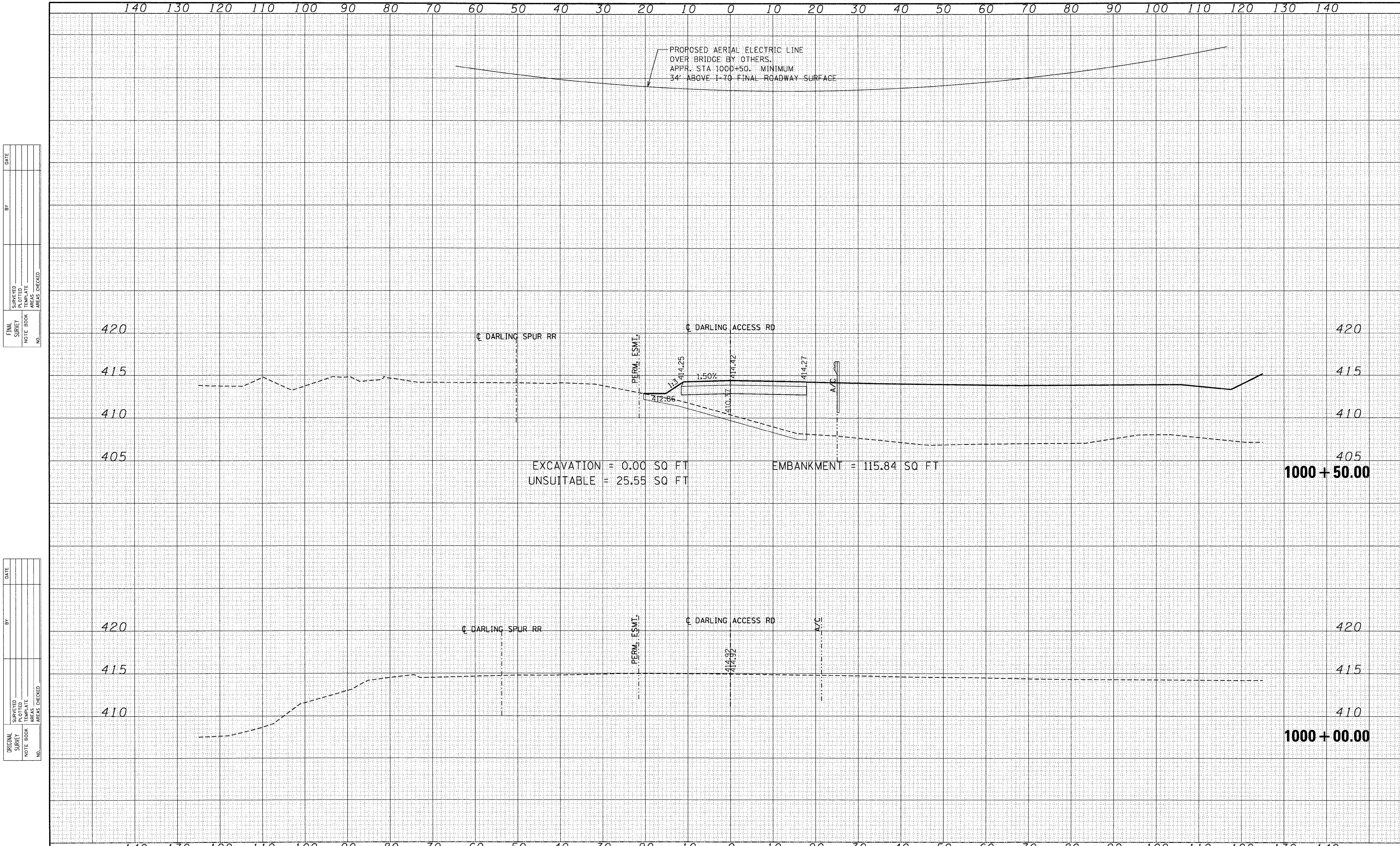
CROSS-SECTIONS
ACCESS ROAD 6

SCALE: SHEET NO. OF SHEETS STA. 500+00.00 TO STA. 501+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB	ST. CLAIR	285	264

CONTRACT NO. 76C44

ILLINOIS FED. AID PROJECT



FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED - JB	REVISED -	
		DRAWN - AG	REVISED -	
	PLOT SCALE = $SCALE$	CHECKED - ACL	REVISED -	
	PLOT DATE = $DATE$	DATE - 06/04/10	REVISED -	

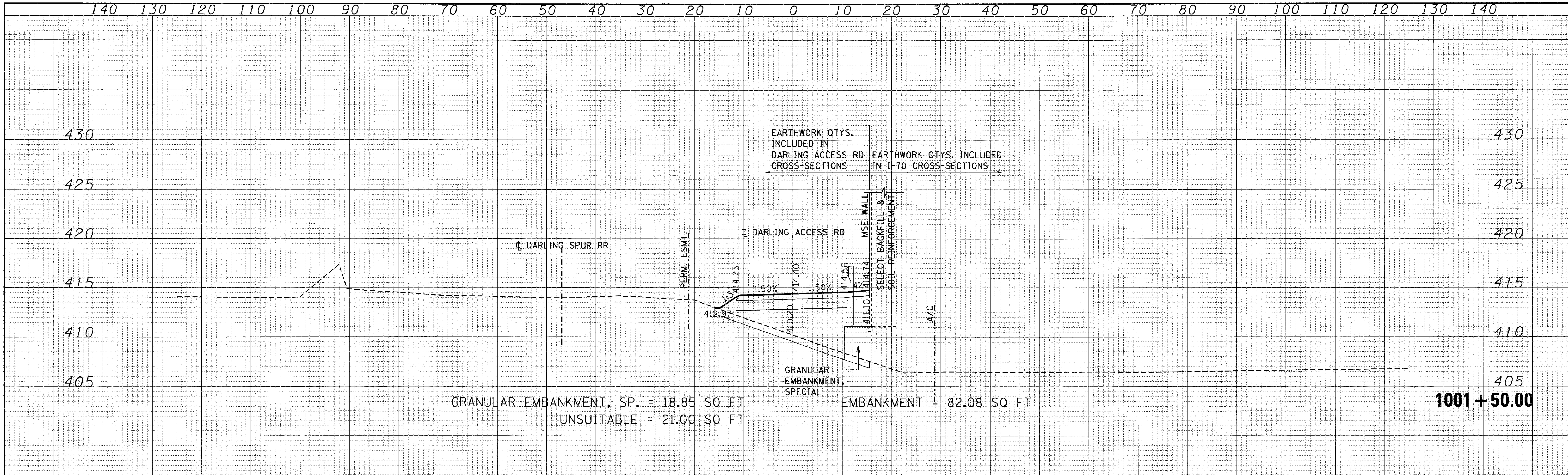
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

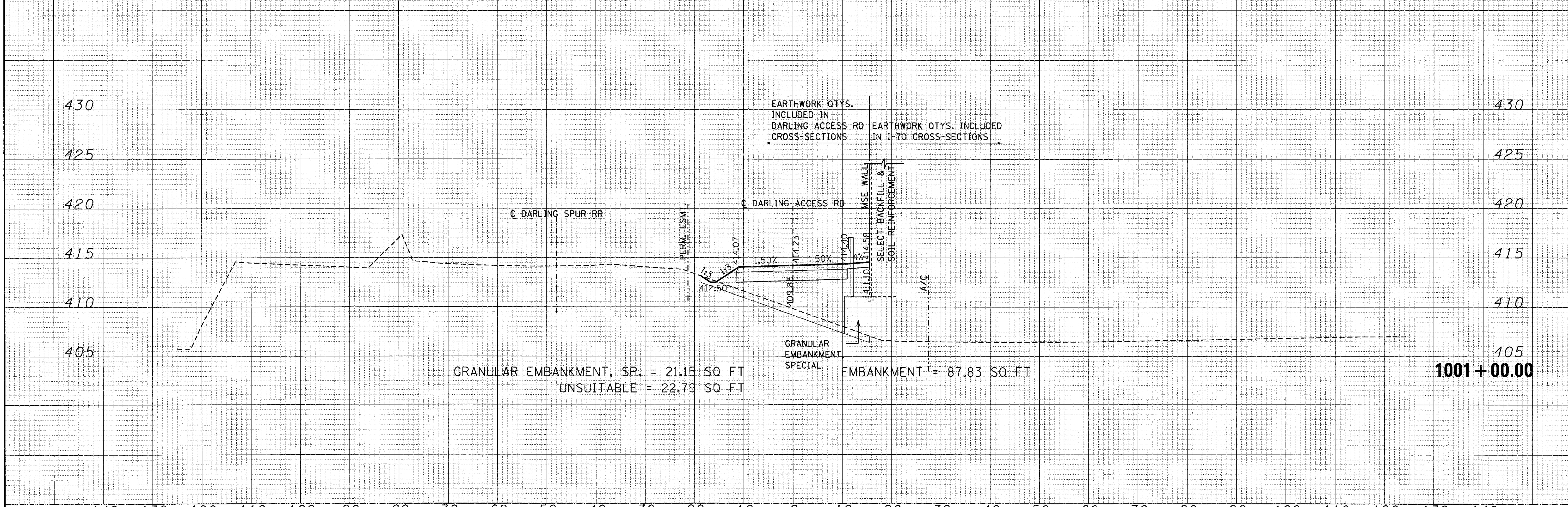
CROSS–SECTIONS
DARLING ACCESS ROAD

SCALE: | SHEET NO. OF SHEETS | STA. 1000+00.00 TO STA. 1000+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB	ST. CLAIR	285	265
		CONTRACT NO. 76C44		

ILLINOIS FED. AID PROJECT





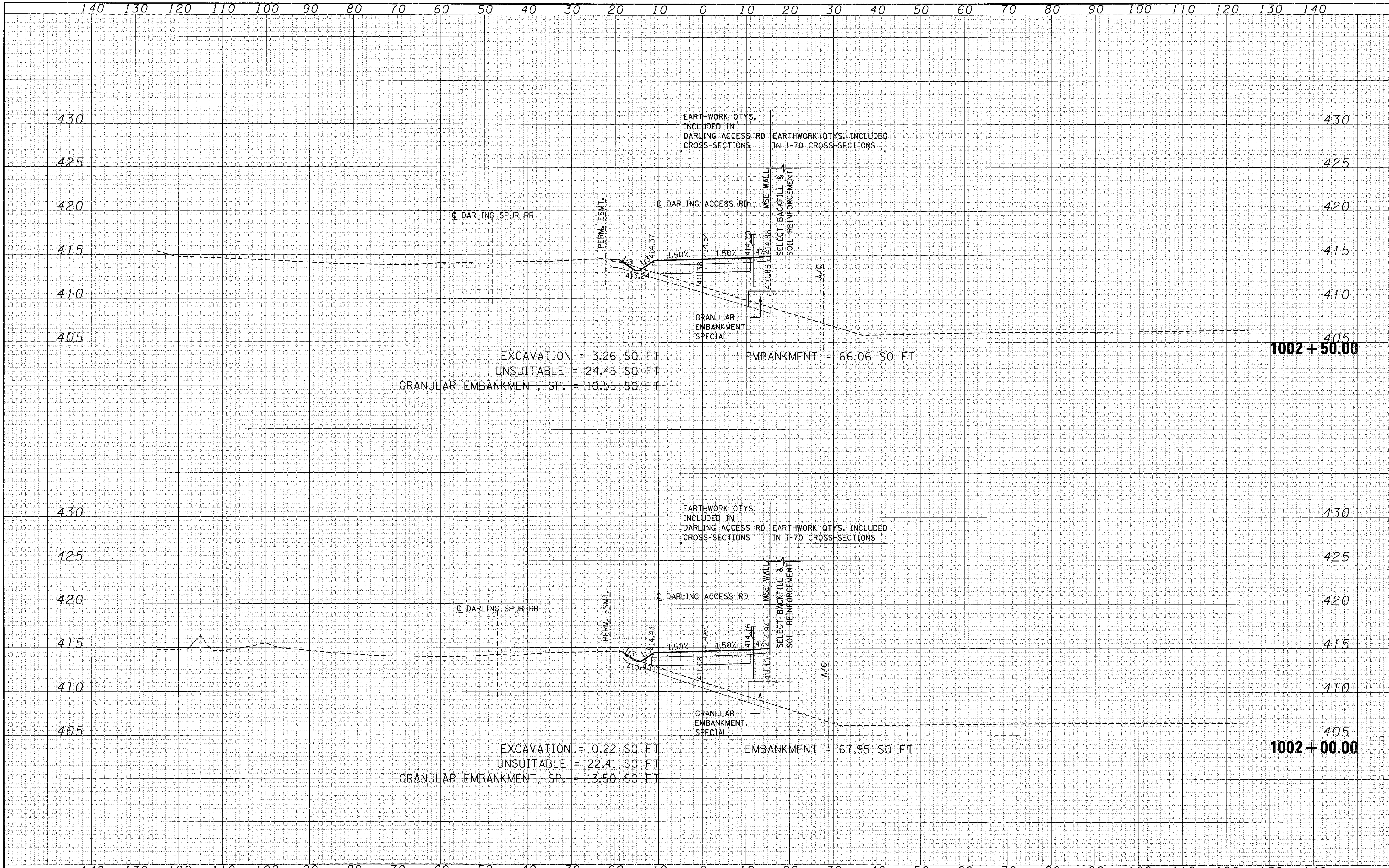
FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED - JB	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
		DRAWN - AG	REVISED -	
	PLOT SCALE = $SCALE$	CHECKED - ACL	REVISED -	
	PLOT DATE = $DATE$	DATE - 06/04/10	REVISED -	

CROSS-SECTIONS
DARLING ACCESS ROAD

SCALE: | SHEET NO. OF SHEETS | STA. 1001+00.00 TO STA. 1001+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB	ST. CLAIR	285	266
		CONTRACT NO. 76C44		

ILLINOIS FED. AID PROJECT



FINAL SURVEY: SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED; NOTE BOOK, NO.; BY, DATE

ORIGINAL SURVEY: SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED; NOTE BOOK, NO.; BY, DATE

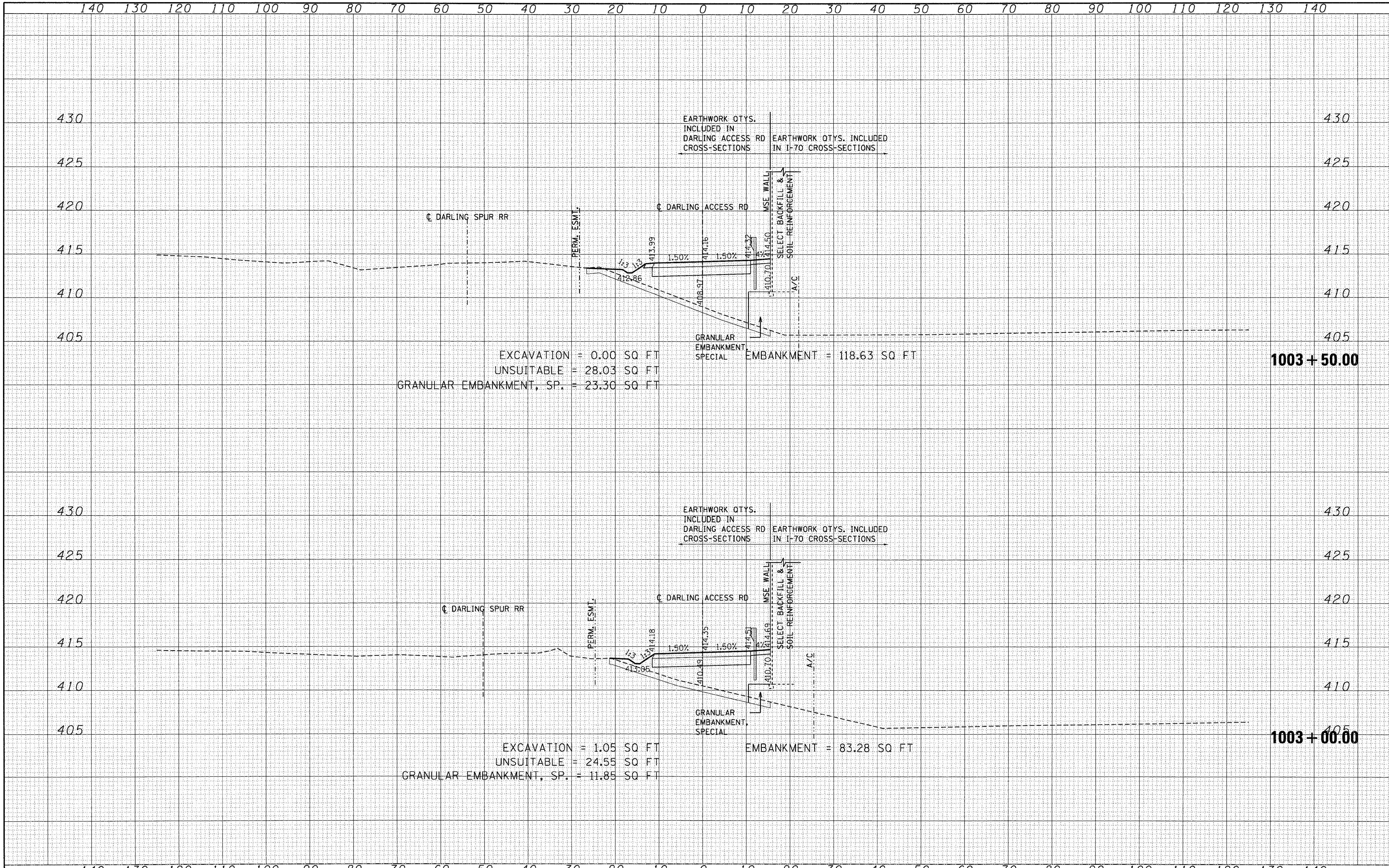
FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED - JB	REVISED -
		DRAWN - AG	REVISED -
	PLOT SCALE = $SCALE$	CHECKED - ACL	REVISED -
	PLOT DATE = $DATE$	DATE - 06/04/10	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

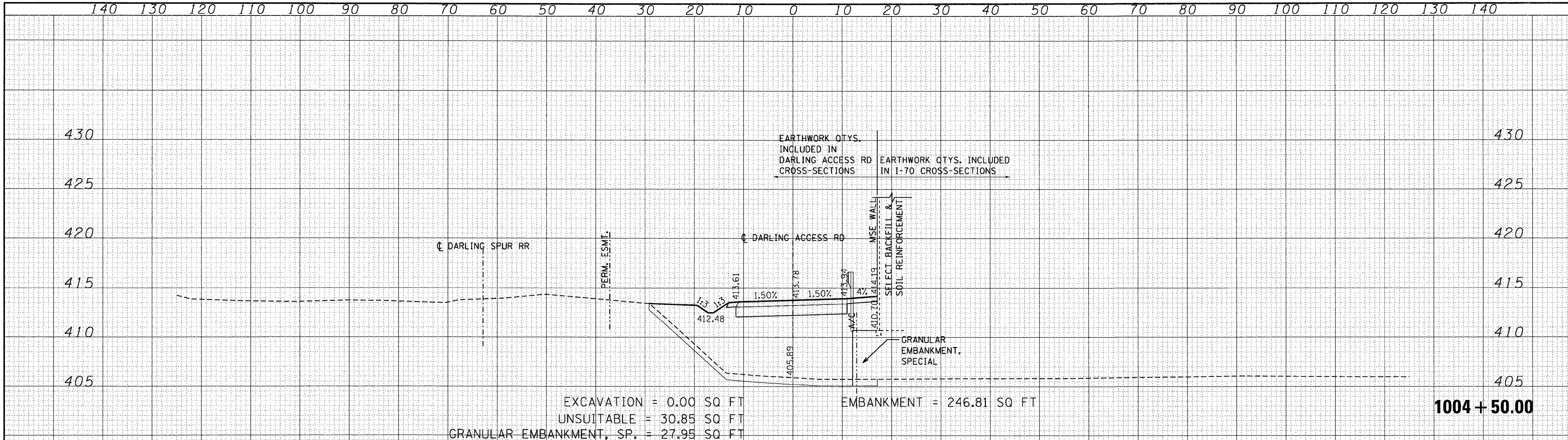
CROSS-SECTIONS
DARLING ACCESS ROAD

SCALE: | SHEET NO. OF SHEETS | STA. 1002+00.00 TO STA. 1002+50.00

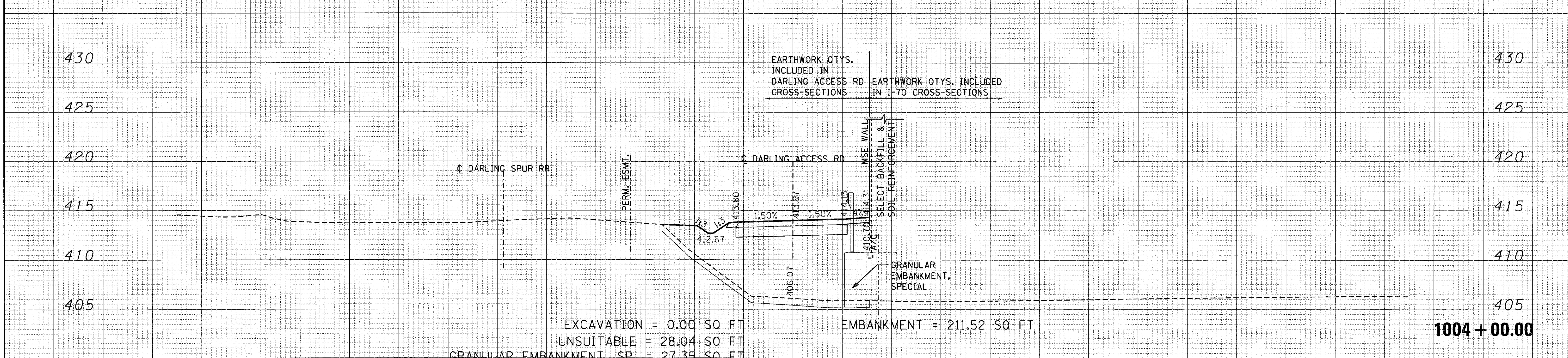
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB	ST. CLAIR	285	267
		CONTRACT NO. 76C44		
		ILLINOIS FED. AID PROJECT		



FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED - JB	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CROSS-SECTIONS DARLING ACCESS ROAD	F.A.P. RTE. 998	SECTION 82-2-1HVB
	PLOT SCALE = $SCALE$	DRAWN - AG	REVISED -		SCALE:	COUNTY ST. CLAIR	TOTAL SHEETS 285
	PLOT DATE = $DATE$	CHECKED - ACL	REVISED -		SHEET NO. OF SHEETS	SHEET NO. 268	CONTRACT NO. 76C44
		DATE - 06/04/10	REVISED -		STA. 1003+00.00 TO STA. 1003+50.00	ILLINOIS FED. AID PROJECT	



1004 + 50.00



1004 + 00.00

FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED - JB	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
		DRAWN - AG	REVISED -	
	PLOT SCALE = $SCALE$	CHECKED - ACL	REVISED -	
	PLOT DATE = $DATE$	DATE - 06/04/10	REVISED -	

CROSS-SECTIONS
DARLING ACCESS ROAD

SCALE: | SHEET NO. OF SHEETS | STA. 1004+00.00 TO STA. 1004+50.00

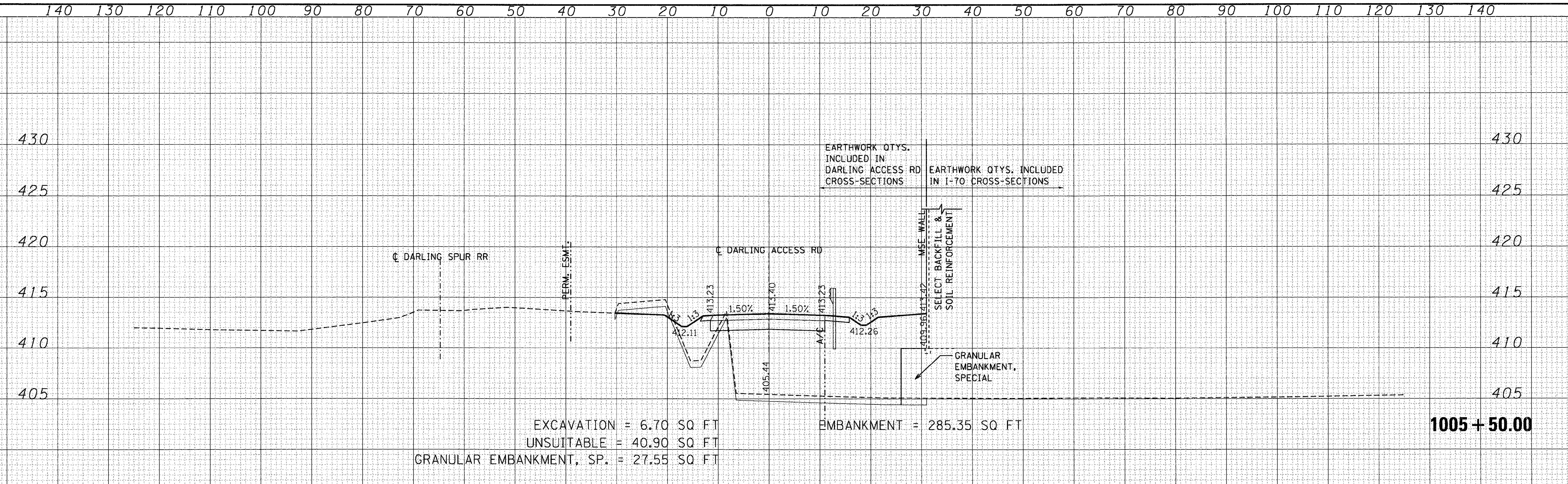
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB	ST. CLAIR	285	269

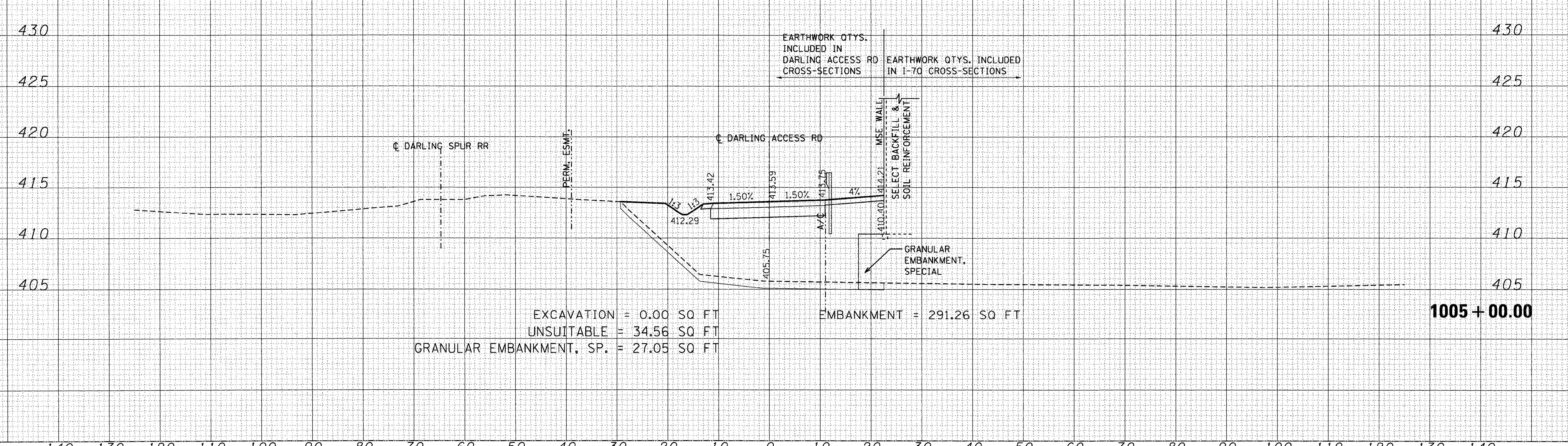
CONTRACT NO. 76C44

ILLINOIS FED. AID PROJECT

ORIGINAL SURVEY	
NOTE BOOK	SURVEYED
NO.	PLOTTED / TEMPLATE / AREAS / AREAS CHECKED
BY	DATE

FINAL SURVEY	
NOTE BOOK	SURVEYED
NO.	PLOTTED / TEMPLATE / AREAS / AREAS CHECKED
BY	DATE





FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED - JB	REVISED -
		DRAWN - AG	REVISED -
	PLOT SCALE = $SCALE$	CHECKED - ACL	REVISED -
	PLOT DATE = $DATE$	DATE - 06/04/10	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS–SECTIONS
DARLING ACCESS ROAD

SCALE: | SHEET NO. OF SHEETS | STA. 1005+00.00 TO STA. 1005+50.00

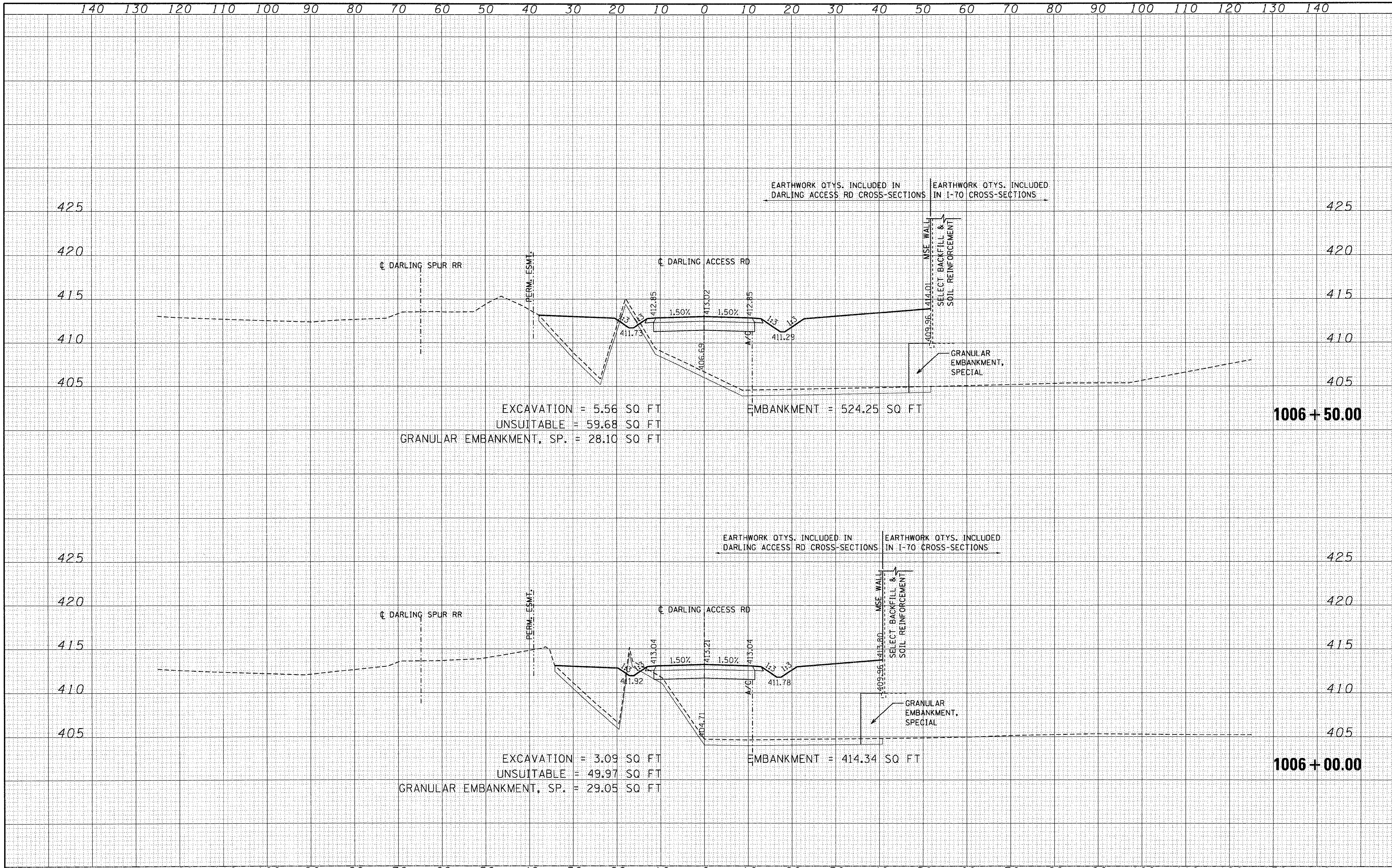
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB	ST. CLAIR	285	270

CONTRACT NO. 76C44

ILLINOIS FED. AID PROJECT

FINAL SURVEY	SURVEYED	PLOTTED	TEMPLATE	AREAS	AREAS CHECKED	BY	DATE
NOTE BOOK							
NO.							

ORIGINAL SURVEY	SURVEYED	PLOTTED	TEMPLATE	AREAS	AREAS CHECKED	BY	DATE
NOTE BOOK							
NO.							



FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED - JB	REVISED -
		DRAWN - AG	REVISED -
	PLOT SCALE = $SCALE$	CHECKED - ACL	REVISED -
	PLOT DATE = $DATE$	DATE - 06/04/10	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

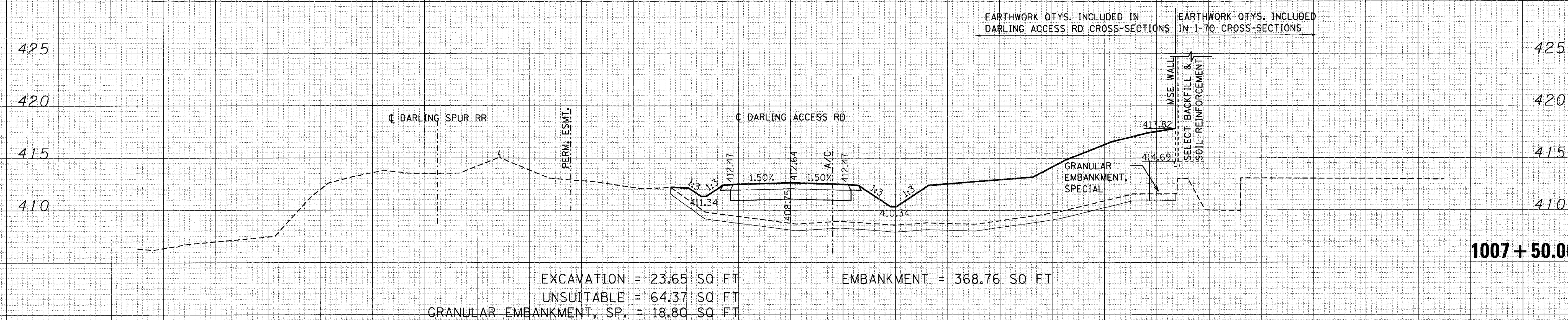
CROSS-SECTIONS
DARLING ACCESS ROAD

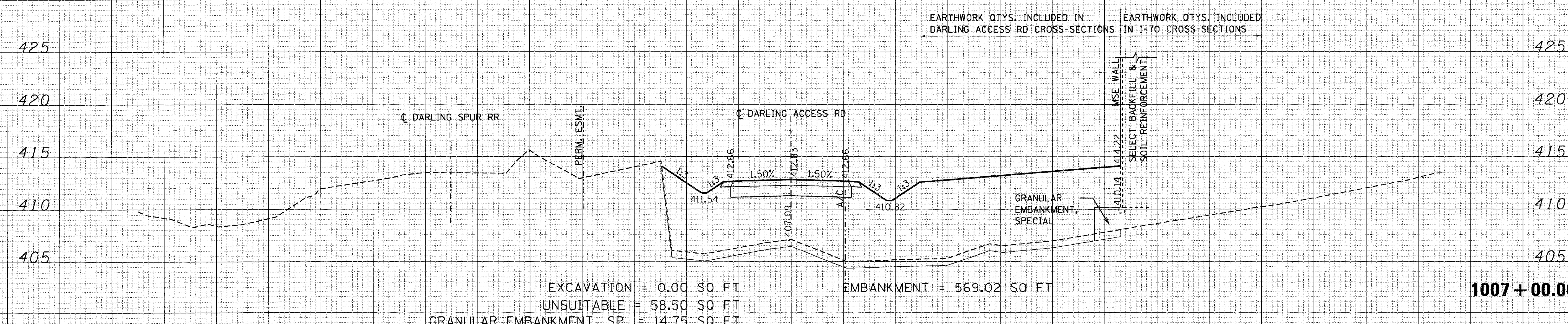
SCALE: | SHEET NO. OF SHEETS | STA. 1006+00.00 TO STA. 1006+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB	ST. CLAIR	285	271

CONTRACT NO. 76C44

ILLINOIS FED. AID PROJECT





FILE NAME = $FILEL$
USER NAME = $USER$
PLOT SCALE = $SCALE$
PLOT DATE = $DATE$
DESIGNED - JB
DRAWN - AG
CHECKED - ACL
DATE - 06/04/10
REVISED -
REVISED -
REVISED -
REVISED -

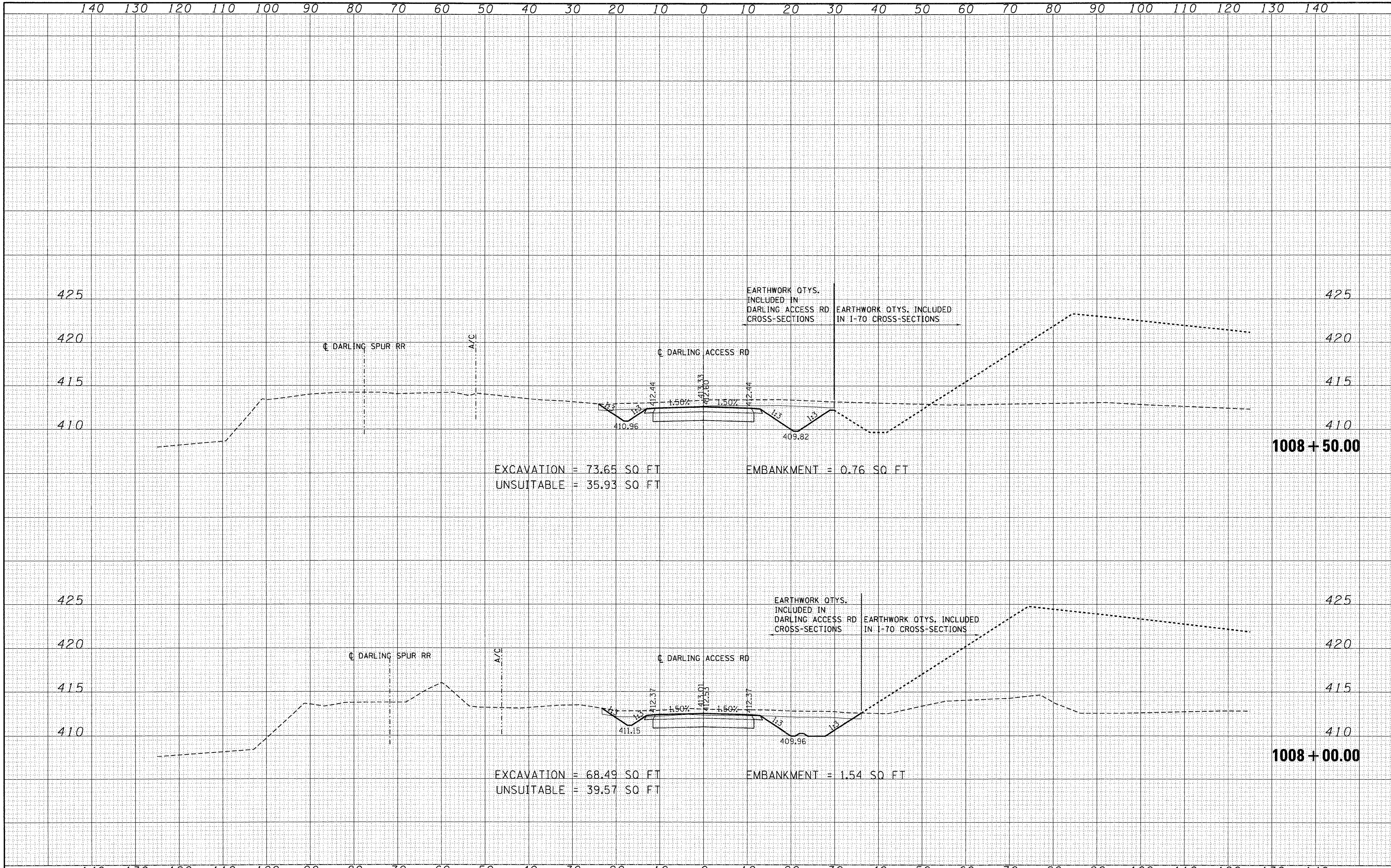
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS-SECTIONS
DARLING ACCESS ROAD

SCALE: | SHEET NO. OF SHEETS | STA. 1007+00.00 TO STA. 1007+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB	ST. CLAIR	285	272

CONTRACT NO. 76C44
ILLINOIS FED. AID PROJECT

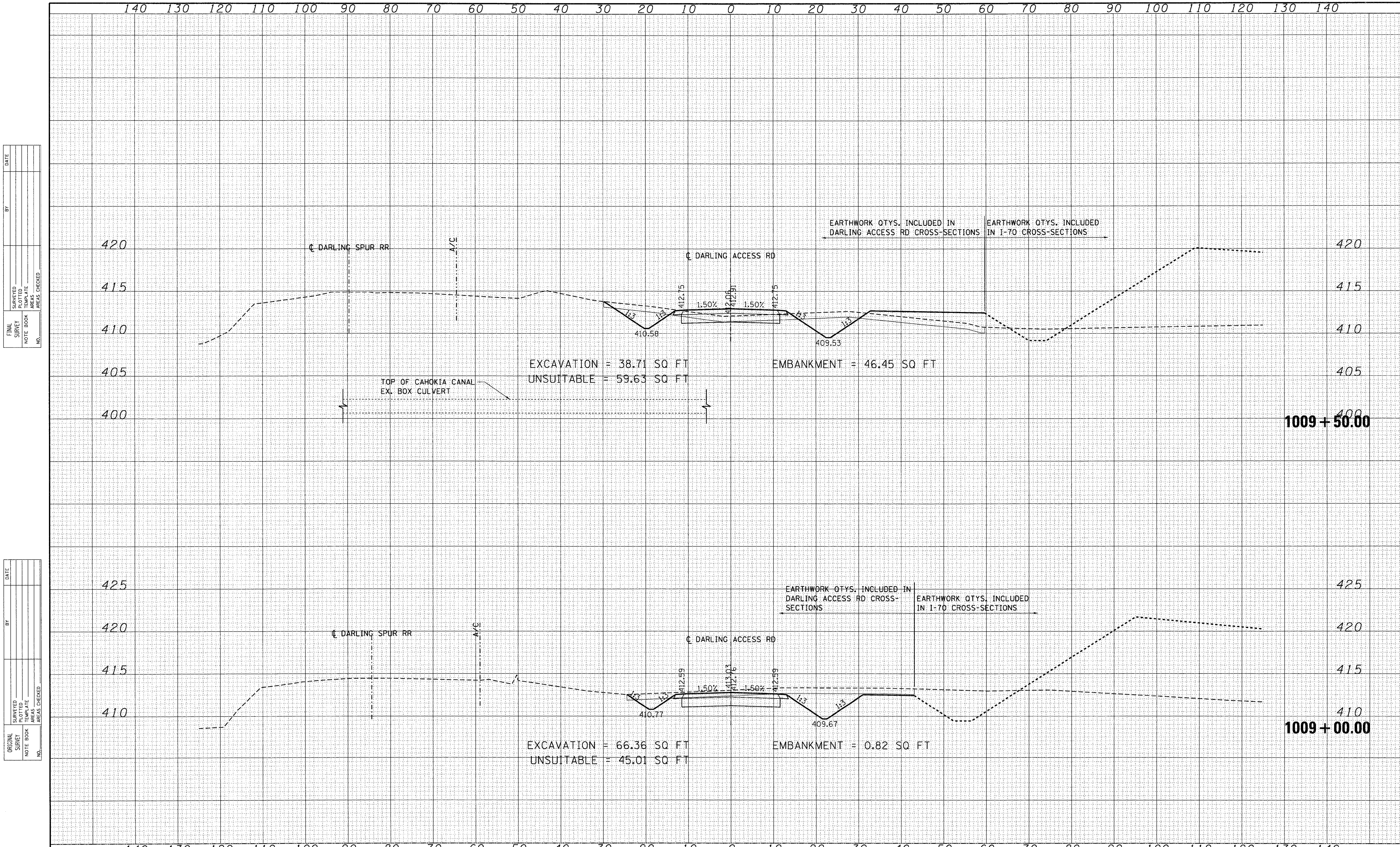


FINAL SURVEY — NOTE BOOK NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

ORIGINAL SURVEY — NOTE BOOK NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

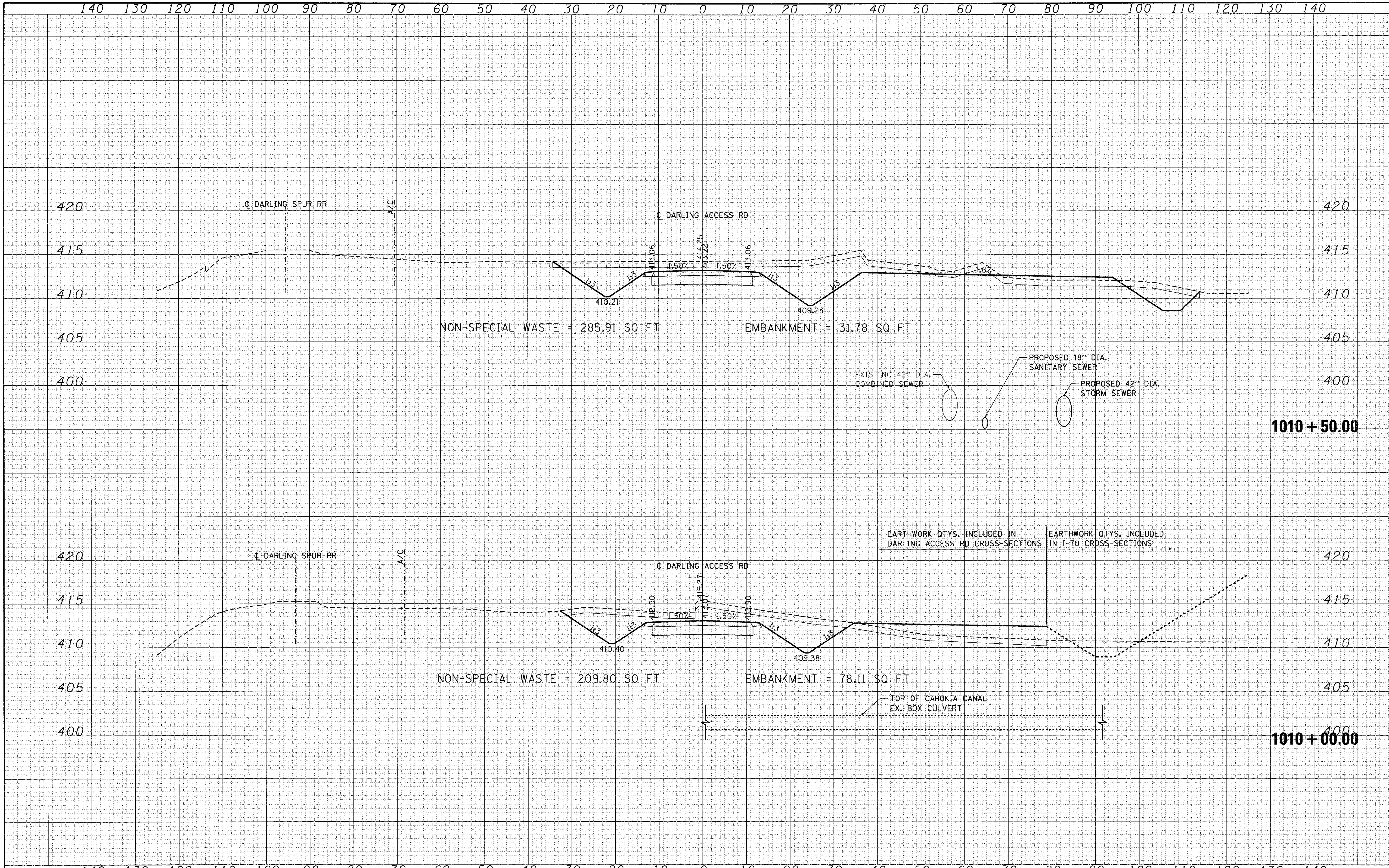
FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED - JB	REVISED -	STATE OF ILLINOIS	CROSS-SECTIONS
		DRAWN - AG	REVISED -	DEPARTMENT OF TRANSPORTATION	DARLING ACCESS ROAD
	PLOT SCALE = $SCALE$	CHECKED - ACL	REVISED -		
	PLOT DATE = $DATE$	DATE - 06/04/10	REVISED -		SCALE: SHEET NO. OF SHEETS STA. 1008+00.00 TO STA. 1008+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB	ST. CLAIR	285	273
		CONTRACT NO. 76C44		
		ILLINOIS FED. AID PROJECT		



FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED - JB	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CROSS-SECTIONS DARLING ACCESS ROAD
		DRAWN - AG	REVISED -		
	PLOT SCALE = $SCALE$	CHECKED - ACL	REVISED -		
	PLOT DATE = $DATE$	DATE - 06/04/10	REVISED -		SCALE: SHEET NO. OF SHEETS STA. 1009+00.00 TO STA. 1009+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB	ST. CLAIR	285	274
		CONTRACT NO. 76C44		
		ILLINOIS FED. AID PROJECT		



FINAL SURVEY | NOTE BOOK | NO. | SURVEYED | PLOTTED | TEMPLATE | AREAS | AREAS CHECKED | BY | DATE

ORIGINAL SURVEY | NOTE BOOK | NO. | SURVEYED | PLOTTED | TEMPLATE | AREAS | AREAS CHECKED | BY | DATE

FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED - JB	REVISED -
		DRAWN - AG	REVISED -
	PLOT SCALE = $SCALE$	CHECKED - ACL	REVISED -
	PLOT DATE = $DATE$	DATE - 06/04/10	REVISED -

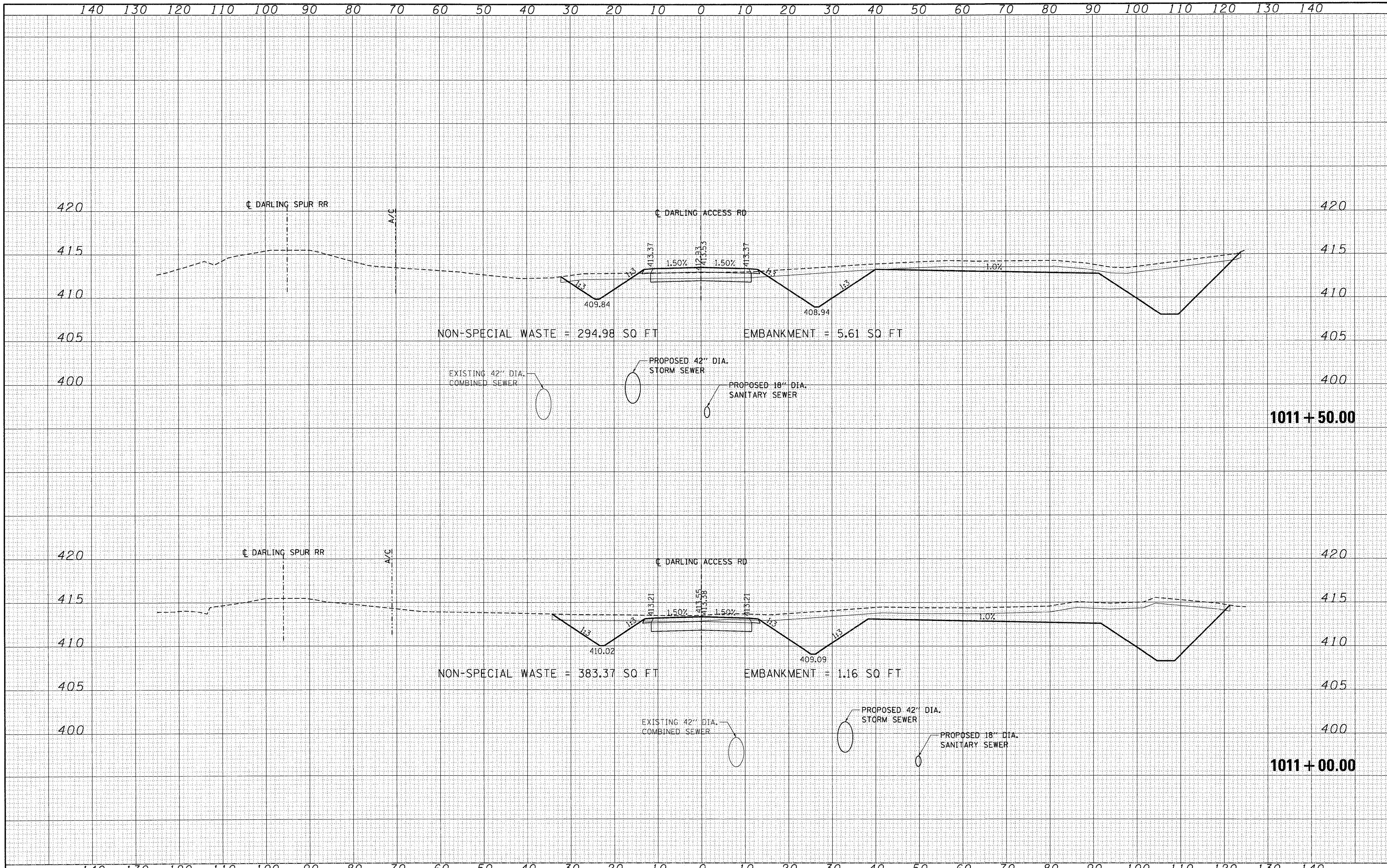
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS-SECTIONS
DARLING ACCESS ROAD

SCALE: | SHEET NO. OF SHEETS | STA. 1010+00.00 TO STA. 1010+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB	ST. CLAIR	285	275
		CONTRACT NO. 76C44		

ILLINOIS FED. AID PROJECT



FINAL SURVEY | NOTE BOOK | NO. | SURVEYED | PLOTTED | TEMPLATE | AREAS | AREAS CHECKED | BY | DATE

ORIGINAL SURVEY | NOTE BOOK | NO. | SURVEYED | PLOTTED | TEMPLATE | AREAS | AREAS CHECKED | BY | DATE

FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED - JB	REVISED -
		DRAWN - AG	REVISED -
	PLOT SCALE = $SCALE$	CHECKED - ACL	REVISED -
	PLOT DATE = $DATE$	DATE - 06/04/10	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

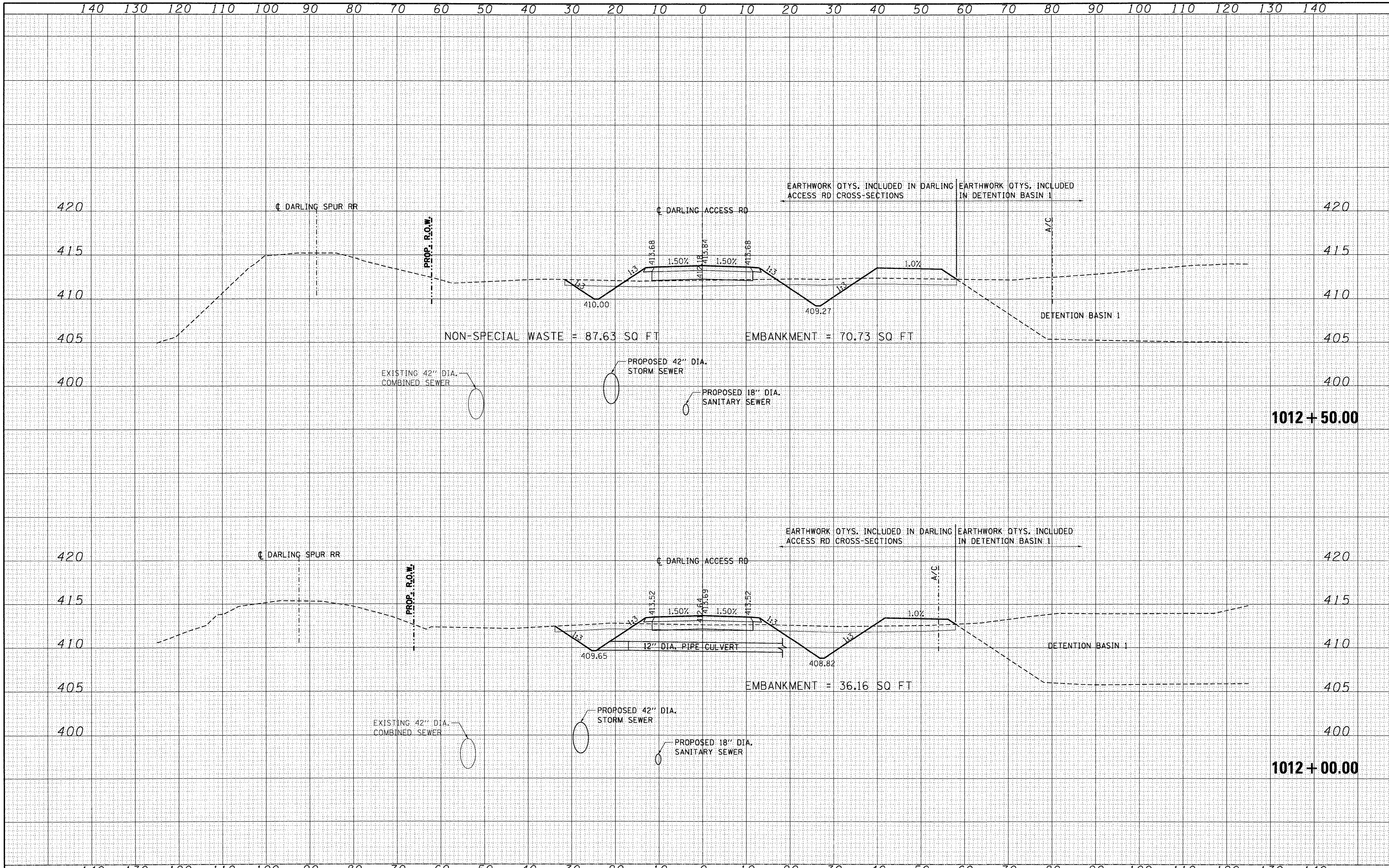
CROSS-SECTIONS
DARLING ACCESS ROAD

SCALE: | SHEET NO. OF SHEETS | STA. 1011+00.00 TO STA. 1011+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB	ST. CLAIR	285	276

CONTRACT NO. 76C44

ILLINOIS FED. AID PROJECT



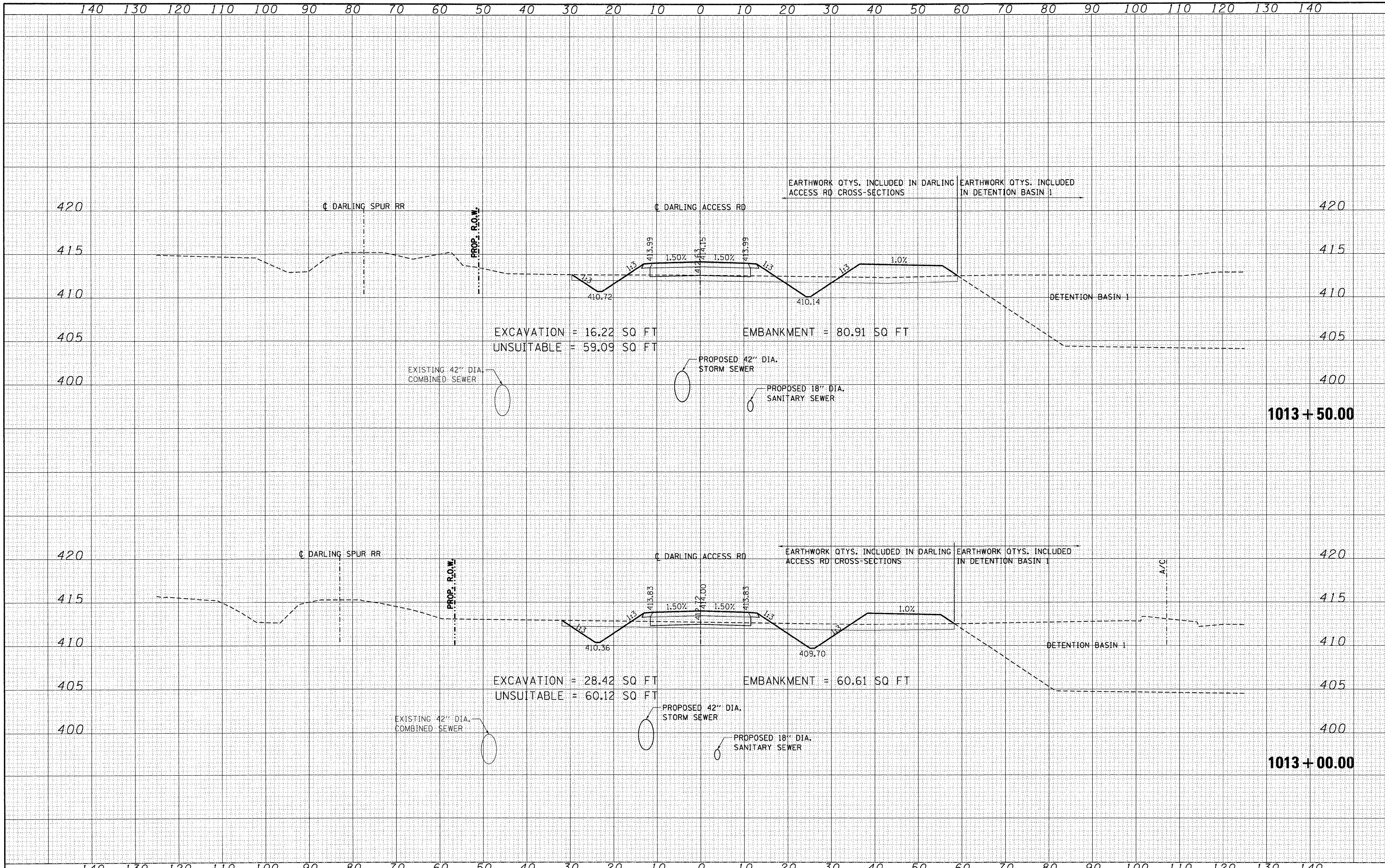
FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED - JB	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
		DRAWN - AG	REVISED -	
	PLOT SCALE = $SCALE$	CHECKED - ACL	REVISED -	
	PLOT DATE = $DATE$	DATE - 06/04/10	REVISED -	

CROSS-SECTIONS
DARLING ACCESS ROAD

SCALE: | SHEET NO. OF SHEETS | STA. 1012+00.00 TO STA. 1012+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB	ST. CLAIR	285	277
		CONTRACT NO. 76C44		

ILLINOIS FED. AID PROJECT



FINAL SURVEY | NOTE BOOK | NO. | SURVEYED | PLOTTED | TEMPLATE | AREAS | AREAS CHECKED | BY | DATE

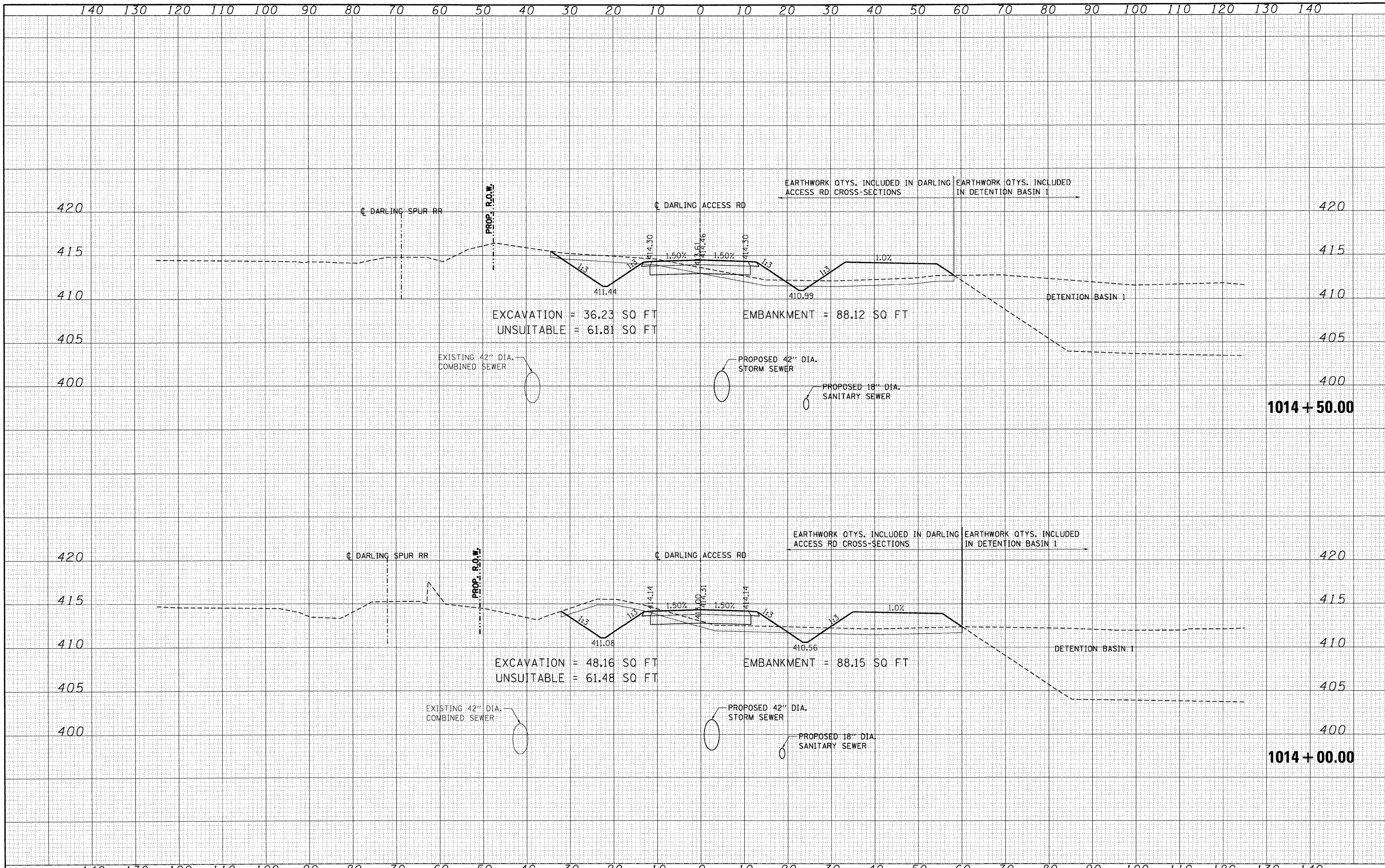
ORIGINAL SURVEY | NOTE BOOK | NO. | SURVEYED | PLOTTED | TEMPLATE | AREAS | AREAS CHECKED | BY | DATE

FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED - JB	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
		DRAWN - AG	REVISED -	
	PLOT SCALE = $SCALE$	CHECKED - ACL	REVISED -	
	PLOT DATE = $DATE$	DATE - 06/04/10	REVISED -	

CROSS-SECTIONS
DARLING ACCESS ROAD

SCALE: | SHEET NO. OF SHEETS | STA. 1013+00.00 TO STA. 1013+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB	ST. CLAIR	285	278
		CONTRACT NO. 76C44		
		ILLINOIS FED. AID PROJECT		



FINAL SURVEY NOTE BOOK NO. — SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED — BY — DATE

ORIGINAL SURVEY NOTE BOOK NO. — SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED — BY — DATE

FILE NAME = $FILE$	USER NAME = $USER$	DESIGNED - JB	REVISED -
		DRAWN - AG	REVISED -
	PLOT SCALE = $SCALE$	CHECKED - ACL	REVISED -
	PLOT DATE = $DATE$	DATE - 06/04/10	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

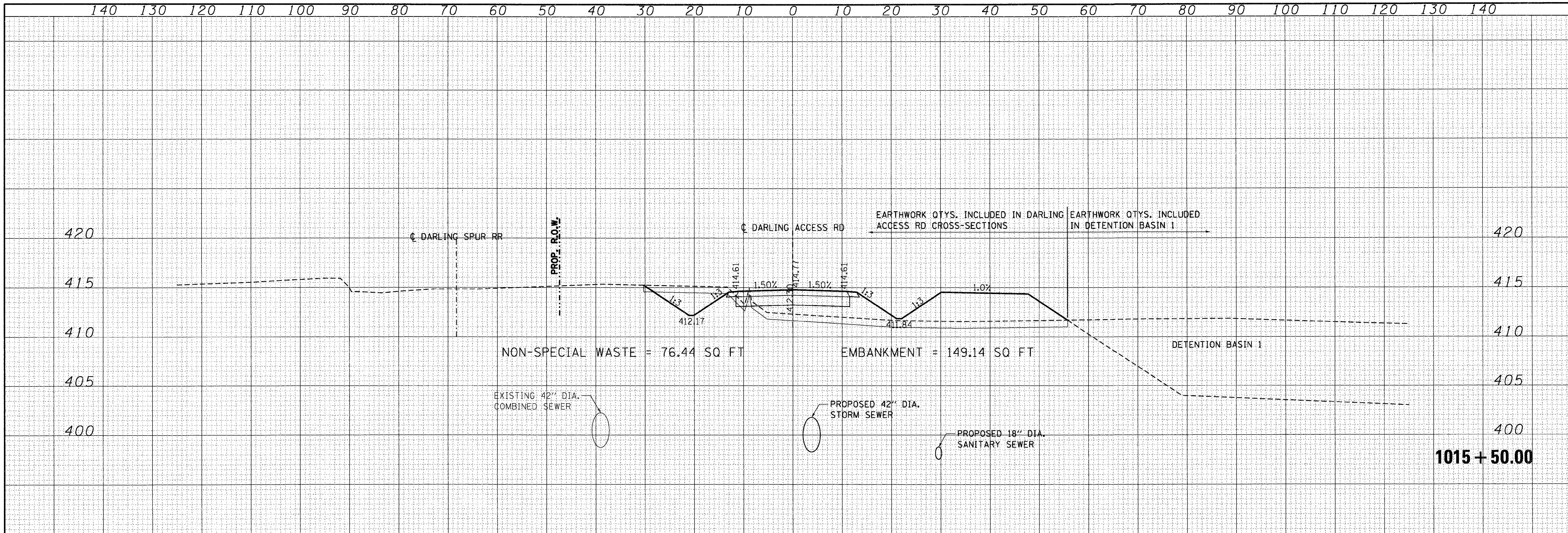
CROSS-SECTIONS
DARLING ACCESS ROAD

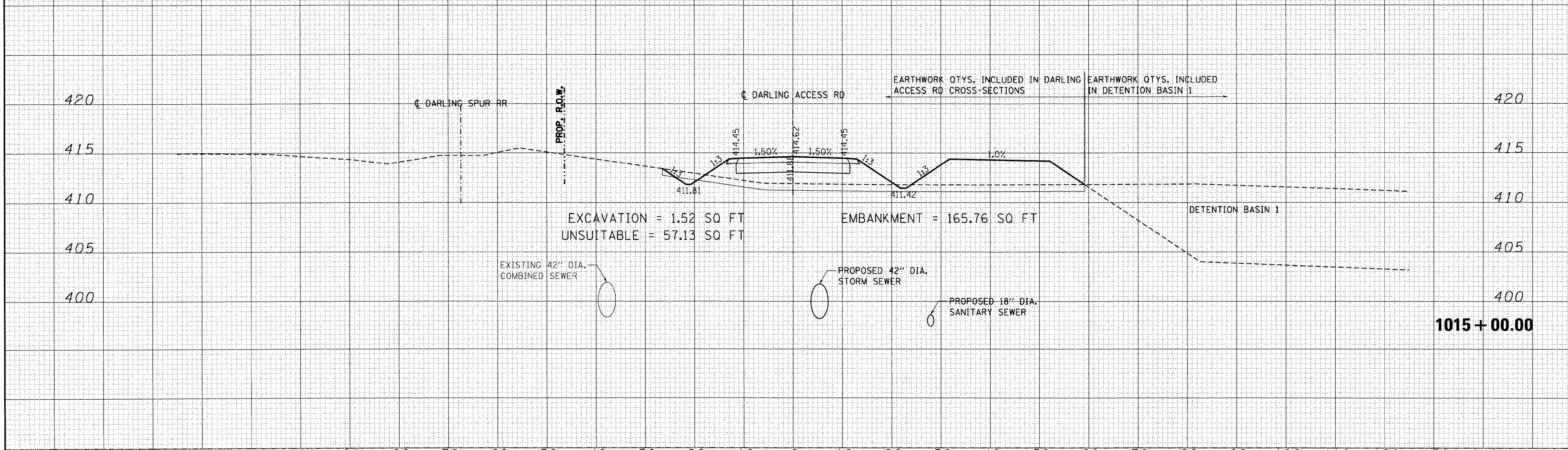
SCALE: | SHEET NO. OF SHEETS | STA. 1014+00.00 TO STA. 1014+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB	ST. CLAIR	285	279

CONTRACT NO. 76C44

ILLINOIS FED. AID PROJECT





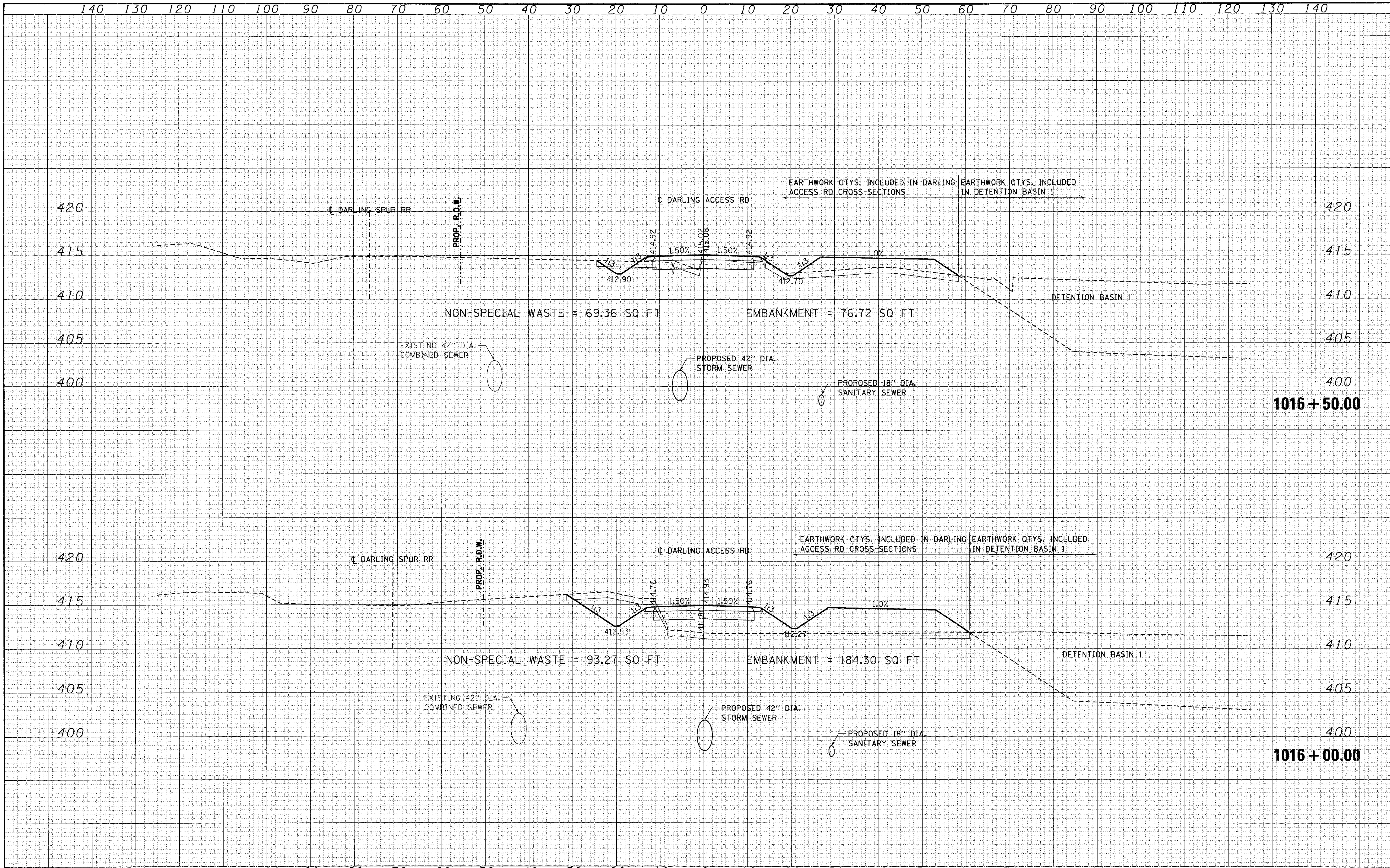
FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED - JB	REVISED -
		DRAWN - AG	REVISED -
	PLOT SCALE = $SCALE$	CHECKED - ACL	REVISED -
	PLOT DATE = $DATE$	DATE - 06/04/10	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS-SECTIONS
DARLING ACCESS ROAD

SCALE: | SHEET NO. OF SHEETS | STA. 1015+00.00 TO STA. 1015+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB	ST. CLAIR	285	280
		CONTRACT NO. 76C44		
		ILLINOIS FED. AID PROJECT		



FINAL SURVEY | NOTE BOOK | NO. | SURVEYED | PLOTTED | TEMPLATE | AREAS | AREAS CHECKED | BY | DATE

ORIGINAL SURVEY | NOTE BOOK | NO. | SURVEYED | PLOTTED | TEMPLATE | AREAS | AREAS CHECKED | BY | DATE

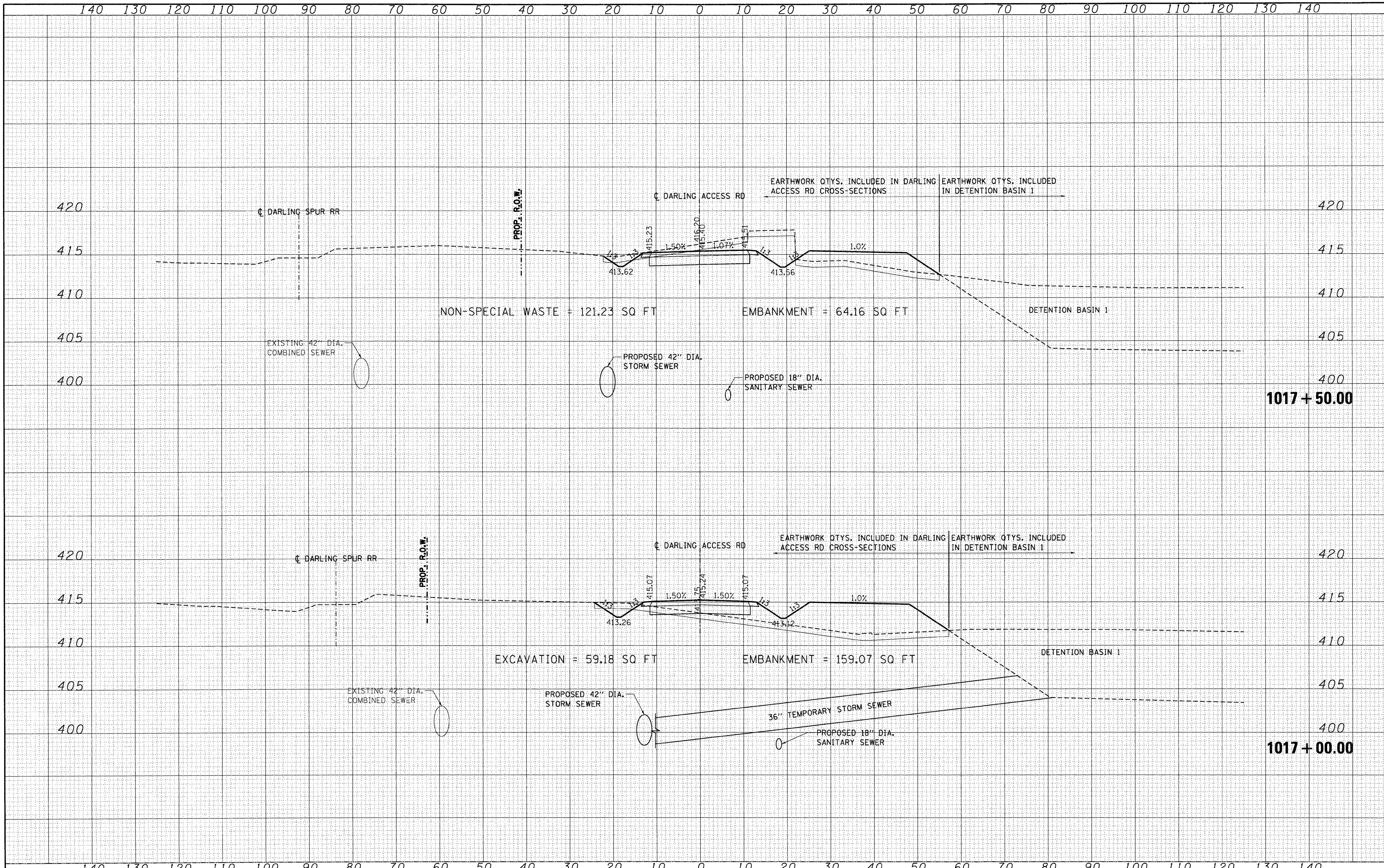
FILE NAME = $FILE$	USER NAME = $USER$	DESIGNED - JB	REVISED -
		DRAWN - AG	REVISED -
	PLOT SCALE = $SCALE$	CHECKED - ACL	REVISED -
	PLOT DATE = $DATE$	DATE - 06/04/10	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS–SECTIONS
DARLING ACCESS ROAD

SCALE: | SHEET NO. OF SHEETS | STA. 1016+00.00 TO STA. 1016+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB	ST. CLAIR	285	281
		CONTRACT NO. 76C44		
		ILLINOIS FED. AID PROJECT		



FINAL SURVEY — NOTE BOOK NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

ORIGINAL SURVEY — NOTE BOOK NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED - JB	REVISED -
		DRAWN - AG	REVISED -
	PLOT SCALE = $SCALE$	CHECKED - ACL	REVISED -
	PLOT DATE = $DATE$	DATE - 06/04/10	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

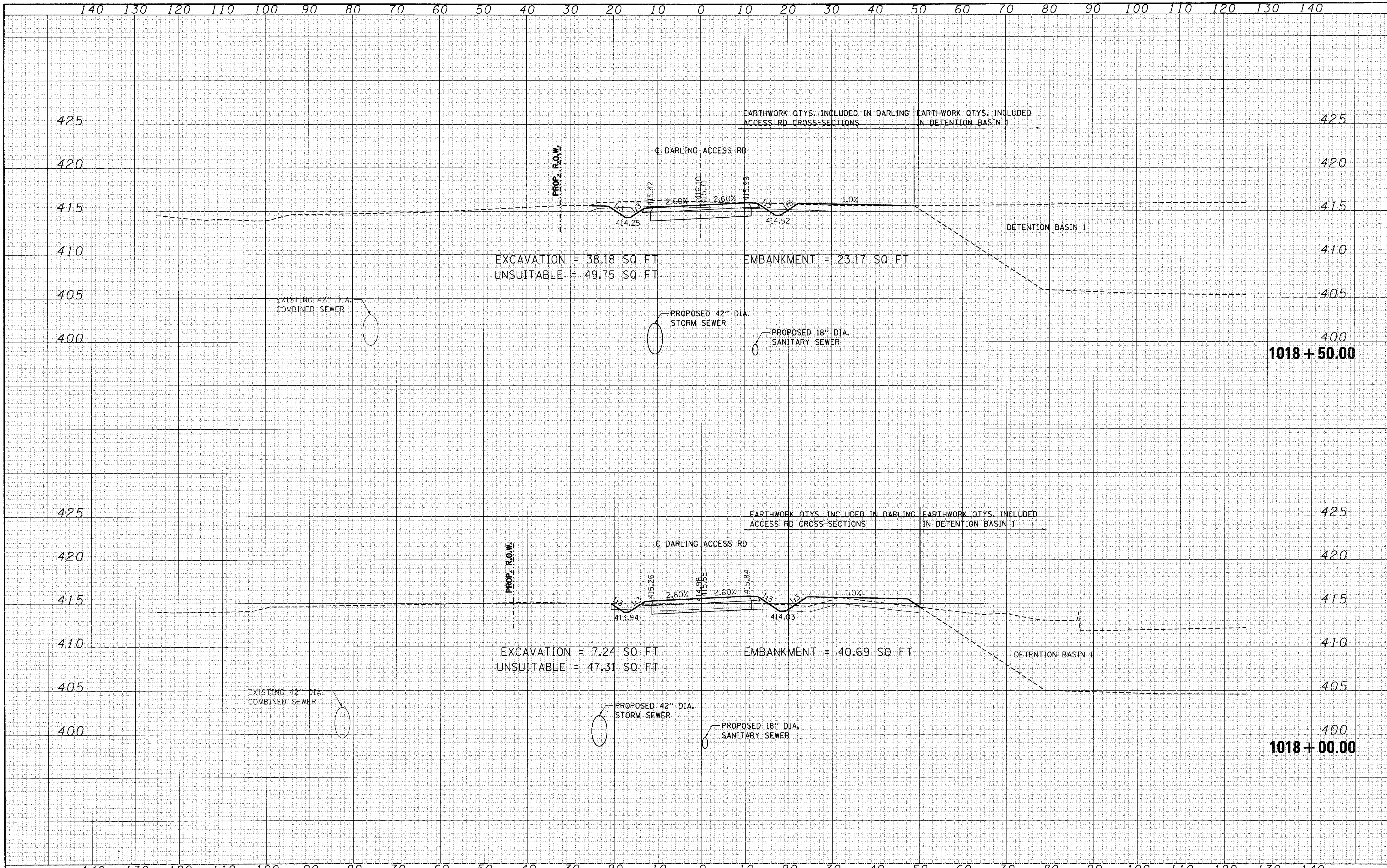
CROSS–SECTIONS
DARLING ACCESS ROAD

SCALE: | SHEET NO. OF SHEETS | STA. 1017+00.00 TO STA. 1017+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB	ST. CLAIR	285	282

CONTRACT NO. 76C44

ILLINOIS FED. AID PROJECT



FINAL SURVEY | NOTE BOOK | NO. | SURVEYED | PLOTTED | TEMPLATE | AREAS | AREAS CHECKED | BY | DATE

ORIGINAL SURVEY | NOTE BOOK | NO. | SURVEYED | PLOTTED | TEMPLATE | AREAS | AREAS CHECKED | BY | DATE

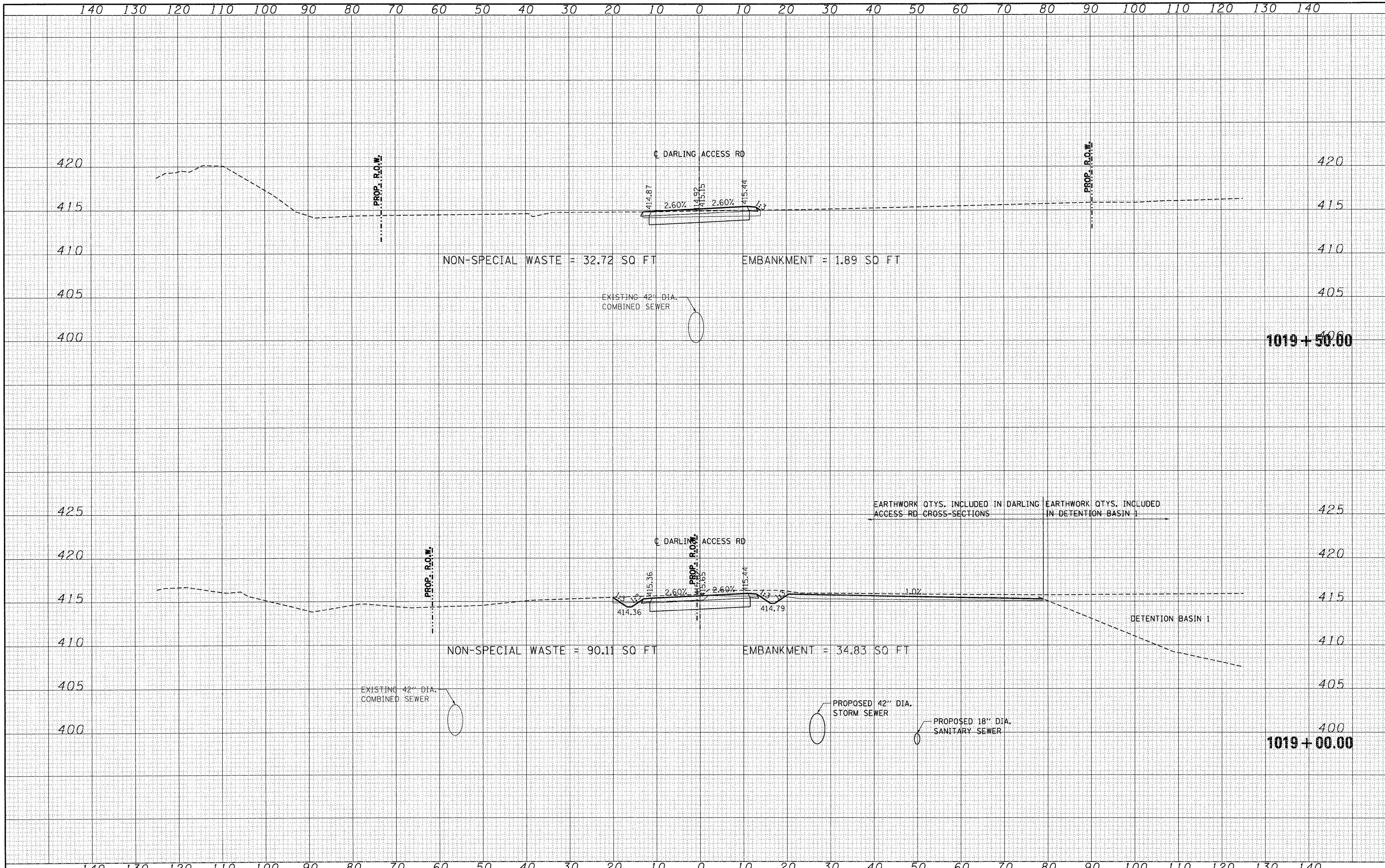
FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED - JB	REVISED -
		DRAWN - AG	REVISED -
	PLOT SCALE = $SCALE$	CHECKED - ACL	REVISED -
	PLOT DATE = $DATE$	DATE - 06/04/10	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS–SECTIONS
DARLING ACCESS ROAD

SCALE: | SHEET NO. OF SHEETS | STA. 1018+00.00 TO STA. 1018+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB	ST. CLAIR	285	283
		CONTRACT NO. 76C44		
		ILLINOIS FED. AID PROJECT		

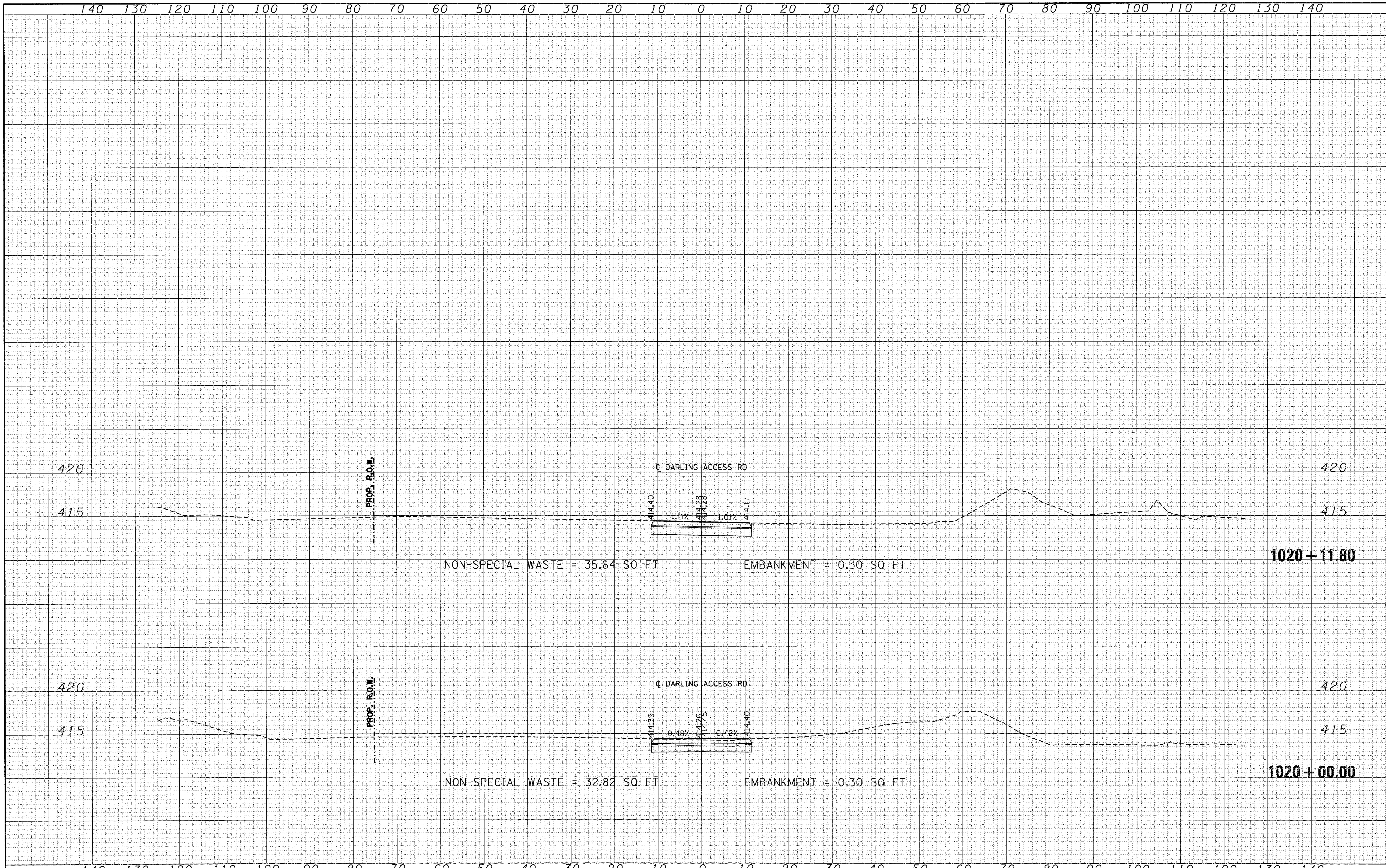


FINAL SURVEY: NOTE BOOK NO. / SURVEYED / PLOTTED / TEMPLATE / AREAS / AREAS CHECKED / BY / DATE

ORIGINAL SURVEY: NOTE BOOK NO. / SURVEYED / PLOTTED / TEMPLATE / AREAS / AREAS CHECKED / BY / DATE

FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED - JB	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CROSS-SECTIONS DARLING ACCESS ROAD
		DRAWN - AG	REVISED -		
	PLOT SCALE = $SCALE$	CHECKED - ACL	REVISED -		
	PLOT DATE = $DATE$	DATE - 06/04/10	REVISED -		SCALE: SHEET NO. OF SHEETS STA. 1019+00.00 TO STA. 1019+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB	ST. CLAIR	285	284
		CONTRACT NO. 76C44		
		ILLINOIS FED. AID PROJECT		



FINAL SURVEY — NOTE BOOK NO. — SURVEYED / PLOTTED / TEMPLATE / AREAS / AREAS CHECKED — BY — DATE

ORIGINAL SURVEY — NOTE BOOK NO. — SURVEYED / PLOTTED / TEMPLATE / AREAS / AREAS CHECKED — BY — DATE

FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED - JB	REVISED -
		DRAWN - AG	REVISED -
	PLOT SCALE = $SCALE$	CHECKED - ACL	REVISED -
	PLOT DATE = $DATE$	DATE - 06/04/10	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS–SECTIONS
DARLING ACCESS ROAD

SCALE: | SHEET NO. OF SHEETS | STA. 1020+00.00 TO STA. 1020+11.80

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB	ST. CLAIR	285	285
		CONTRACT NO. 76C44		
		ILLINOIS FED. AID PROJECT		