

11-08-2013 LETTING ITEM 063

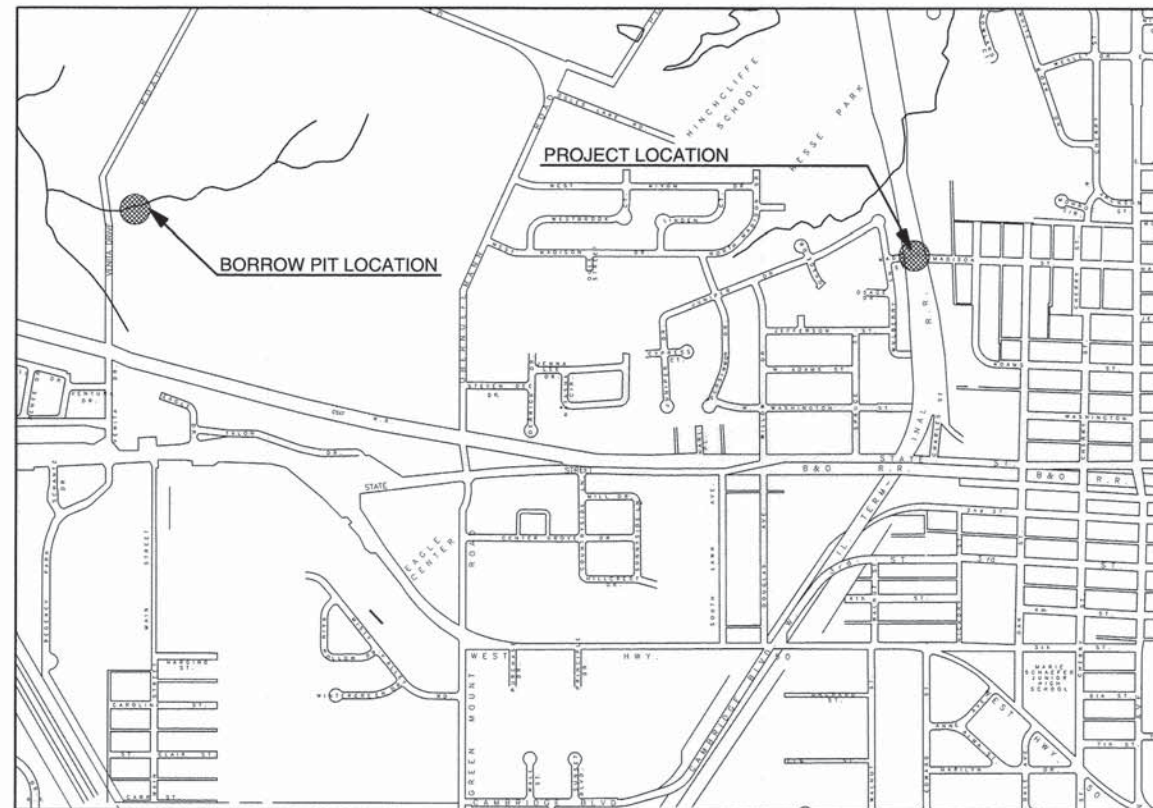
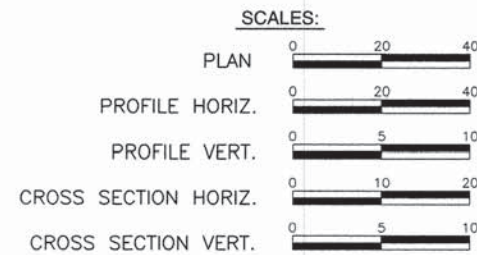
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PLANS FOR PROPOSED
LOCAL AGENCY PROJECT

SURFACE TRANSPORTATION/ENHANCEMENT PROGRAM
MADISON ILLINI BIKE TRAIL CONNECTOR & PEDESTRIAN BRIDGE
SECTION 10-00061-00-BT
PROJECT NO. TE-00D8(166)
CITY OF O'FALLON, ILLINOIS
ST. CLAIR COUNTY
JOB NO. C-98-316-11

F.A.U. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NUMBER
N/A	10-00061-00-BT	ST. CLAIR	23	1
FEDERAL AID PROJECT			CONTRACT 97536	

- INDEX OF SHEETS**
- COVER SHEET
 - GENERAL NOTES, HIGHWAY STANDARDS UTILITIES, AND SUMMARY OF QUANTITIES
 - TYPICAL SECTIONS
 - CONSTRUCTION SCHEDULES
 - ROADWAY PLAN AND PROFILE
 - PAVEMENT MARKING AND SIGNAGE PLAN
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 - DRAINAGE PROFILES
 - STRUCTURAL PLANS
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 - MISCELLANEOUS DETAILS
 - CROSS SECTIONS



LOCATION MAP
NOT TO SCALE

DESIGN DESIGNATION
CLASSIFICATION = SHARED-USE PATH
DESIGN SPEED = 20 MPH

HOLD IT ! CALL BEFORE YOU DIG !
Phone J.U.L.I.E.



The owner would like to remind you that underground utility facilities can be damaged by shovel blades or other digging equipment. You can prevent damage or possible personal danger by phoning 800/892-0123 at least 48 hours before you dig. That's the toll-free number for "J.U.L.I.E.", which stands for Joint Utilities Location Information for Excavators.

If there are any pipes, cables, lines or mains in the excavation area, utility personnel will be out to mark the facilities so you can work around them.

Toll Free 800/892-0123

ILLINI TRAIL—STA. 1+82 TO STA. 3+25	143.00 FT. = 0.271 MILES
MADISON TRAIL—STA. 11+25.20 TO 15+21.25	396.05 FT. = 0.750 MILES
CONNECTOR TRAIL—STA 2+00 TO STA 2+97.27	97.27 FT. = 0.018 MILES
NET LENGTH OF IMPROVEMENT	636.32 FT. = 0.121 MILES



Christopher A. Smith
Date of Signing: 9/1/13
Date of License Expiration: 4/30/18

ILLINOIS DEPARTMENT OF TRANSPORTATION	
APPROVED	9-4-13 DATE
	<i>Ray J. Adams</i> MAYOR, CITY OF O'FALLON
PASSED	9-17-13 DATE
	<i>Urbahn</i> DISTRICT EIGHT ENGINEER OF LOCAL ROADS & STREETS
RELEASING FOR BID BASED ON LIMITED REVIEW	9-17-13 DATE
	<i>Deputy Director</i> DEPUTY DIRECTOR OF HIGHWAYS, REGION FIVE ENGINEER
PRINTED BY AUTHORITY OF THE STATE OF ILLINOIS	

PREPARED BY:
RHUTASEL and ASSOCIATES, INC.
CONSULTING ENGINEERS • LAND SURVEYORS

CORPORATE OFFICE 4 INDUSTRIAL DRIVE FREEBURG, ILLINOIS 62243 (618) 539-3179	REGIONAL OFFICE 201 SOUTH LOCUST STREET CENTRALIA, ILLINOIS 62801 (618) 532-1992
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SUMMARY OF QUANTITIES

CODE NO.	ITEM	UNIT	TOTAL QUANTITY
20200100	EARTH EXCAVATION	CU YD	1890
20400100	BORROW EXCAVATION	CU YD	7798
20700220	POROUS GRANULAR EMBANKMENT	CU YD	206
20800150	TRENCH BACKFILL	CU YD	335
25000305	SEEDING, CLASS 3A	ACRE	0.8
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	72
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	72
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	72
25100127	MULCH, METHOD 3A	ACRE	0.8
25100630	EROSION CONTROL BLANKET	SQ YD	2924
25100635	HEAVY DUTY EROSION CONTROL BLANKET	SQ YD	65
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	80
28000305	TEMPORARY DITCH CHECKS	FOOT	21
28000400	PERIMETER EROSION BARRIER	FOOT	729
28000500	INLET AND PIPE PROTECTION	EACH	9
28100105	STONE RIPRAP, CLASS A3	SQ YD	174
28100107	STONE RIPRAP, CLASS A4	SQ YD	89
28200200	FILTER FABRIC	SQ YD	263
35100500	AGGREGATE BASE COURSE, TYPE A, 6"	SQ YD	887
40600100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	322
40600300	AGGREGATE (PRIME COAT)	TON	2
40603305	HOT MIX ASPHALT, SURFACE COURSE, MIX C, N30	TON	149
42400100	PORTLAND CEMENT CONCRETE SIDEWALK, 4"	SQ FT	409
42400300	PORTLAND CEMENT CONCRETE SIDEWALK, 6"	SQ FT	242
42400800	DETECTABLE WARNINGS	SQ FT	16
44000100	PAVEMENT REMOVAL	SQ YD	145
44000600	SIDEWALK REMOVAL	SQ FT	86
44200065	PAVEMENT PATCHING, TYPE II, 6 INCH	SQ YD	16
44200069	PAVEMENT PATCHING, TYPE III, 6 INCH	SQ YD	35
50105220	PIPE CULVERT REMOVAL	FOOT	264
50200100	STRUCTURE EXCAVATION	CU YD	264
50300225	CONCRETE STRUCTURES	CU YD	48.8
50300285	FORMED LINER TEXTURED SURFACE	SQ FT	698
50800105	REINFORCEMENT BARS	POUND	4820
50901730	BRIDGE FENCE RAILING	FOOT	44
51500100	NAME PLATES	EACH	1
54241069	PIPE CULVERTS, CLASS A, TYPE 2 24"	FOOT	32
54242797	PIPE CULVERTS, CLASS A, TYPE 4 72"	FOOT	266
54213450	END SECTIONS, 15"	EACH	1
54213459	END SECTIONS, 24"	EACH	2
54213507	END SECTIONS, 72"	EACH	2
550A2320	STORM SEWERS, RUBBER GASKET, CLASS A, TYPE 1 12"	FOOT	96
550A2330	STORM SEWERS, RUBBER GASKET, CLASS A, TYPE 1 15"	FOOT	12
550A2520	STORM SEWERS, RUBBER GASKET, CLASS A, TYPE 2 12"	FOOT	195
550A2530	STORM SEWERS, RUBBER GASKET, CLASS A, TYPE 2 15"	FOOT	116
58700300	CONCRETE SEALER	SQ FT	440
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	46
60100945	PIPE DRAINS 12"	FOOT	8
60235700	INLETS, TYPE A, TYPE 3 FRAME AND GRATE	EACH	2
60236200	INLETS, TYPE A, TYPE 8 GRATE	EACH	4
60240215	INLETS, TYPE B, TYPE 1 FRAME, CLOSED LID	EACH	2
60240301	INLETS, TYPE B, TYPE 8 GRATE	EACH	4
60604400	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.1B	FOOT	57
67100100	MOBILIZATION	L SUM	1

SUMMARY OF QUANTITIES

CODE NO.	ITEM	UNIT	TOTAL QUANTITY
72000100	SIGN PANEL - TYPE 1	SQ FT	37
73000100	WOOD SIGN SUPPORT	FOOT	132
80400100	ELECTRIC SERVICE INSTALLATION	EACH	1
81028720	UNDERGROUND CONDUIT, COILABLE NONMETALLIC CONDUIT, 1" DIAMETER	FOOT	180
81100300	CONDUIT ATTACHED TO STRUCTURE, 1" DIA. GALVANIZED STEEL	FOOT	77
81300210	JUNCTION BOX STAINLESS STEEL, ATTACHED TO STRUCTURE, 6"x4"x4"	EACH	1
81500100	GULFBOX JUNCTION	EACH	1
81702110	ELECTRIC CABLE IN CONDUIT, 600 V (XLP-TYPE USE) 1/C No. 10	FOOT	789
82107300	UNDERPASS LUMINAIRE, 150 WATT, HIGH PRESSURE SODIUM VAPOR	EACH	2
X0322508	PEDESTRIAN TRUSS SUPERSTRUCTURE	SQ FT	925
X5860110	GRANULAR BACKFILL FOR STRUCTURES	CU YD	106
X7010216	TRAFFIC CONTROL AND PROTECTION (SPECIAL)	L SUM	1
XX000882	WOOD FENCE	FOOT	495
Z0004002	BOLLARDS	EACH	18
Z0046304	PIPE DRAINS FOR STRUCTURES 4"	FOOT	58
Z0065704	BITUMINOUS COATED AGGREGATE SLOPEWALL 6"	SQ YD	98

* - SPECIALTY ITEMS

GENERAL NOTES

ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH ILLINOIS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, ADOPTED JANUARY 1, 2012.

ALL AREAS DISTURBED FOR ANY REASON WITHIN THE CONSTRUCTION LIMITS SHALL BE SEEDED WITH CLASS 3A SEEDING. NUTRIENTS SHALL CONFORM TO ARTICLE 250.04. ALL AREAS OUTSIDE THE CONSTRUCTION SHALL BE RESTORED TO THE SATISFACTION OF THE ENGINEER AND AT CONTRACTOR'S OWN EXPENSE.

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING OF MATERIALS.

"ROAD CONSTRUCTION AHEAD" SIGNS SHALL BE PLACED AT THE BEGINNING AND END OF THE PROJECT PLUS THE INTERSECTING SIDE ROADS AND WILL BE INCLUDED IN THE TRAFFIC CONTROL PAY ITEMS. ALL CONSTRUCTION SIGNS SHALL BE FLUORESCENT ORANGE IN COLOR, 48".

EXISTING UTILITIES SHOWN ARE LOCATED FROM SURFACE OBSERVATIONS OR INFORMATION PROVIDED BY THE RESPECTIVE UTILITIES AND MUST BE CONSIDERED APPROXIMATE. THERE MAY BE OTHERS, THE EXACT LOCATION OF WHICH ARE UNKNOWN AND NOT SHOWN. THE CONTRACTOR WILL BE RESPONSIBLE FOR NOTIFYING THE RESPECTIVE UTILITIES BEFORE WORK IS BEGUN. FIELD MARKINGS OF UNDERGROUND UTILITIES MAY BE OBTAINED BY PROVIDING A MINIMUM OF 48 HOURS ADVANCE NOTICE THROUGH THE J.U.L.I.E. SYSTEM BY CALLING 1-800-892-0123 OR BY DIRECT CONTACT WITH NON-MEMBERS OF J.U.L.I.E.

IF ASH TREES ARE REMOVED ON THE PROJECT, THE CONTRACTOR SHALL BECOME FAMILIAR WITH AND COMPLY WITH MEASURES SPECIFIED BY THE ILLINOIS DEPARTMENT OF AGRICULTURE (IDOA) TO PREVENT THE SPREAD OF THE EMERALD ASH BORER. THE IDOA INFORMATION FOR ASH TREE REMOVAL CAN BE FOUND ON THE IDOA WEBSITE AT WWW.AGR.STATE.IL.US/EAB.

THE CONTRACTOR SHALL BENCH THE PROPOSED EMBANKMENT INTO THE EXISTING SLOPES TO THE SATISFACTION OF THE ENGINEER.

THE CONTRACTOR SHALL STAGE THE CONSTRUCTION IN SUCH A MANNER TO MINIMIZE THE IMPACT ON THE EXISTING TRAIL. ANY DAMAGE TO THE EXISTING BIKE TRAIL OUTSIDE THE CONSTRUCTION LIMITS SHALL BE REPLACED BY THE CONTRACTOR AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

THE EXACT LOCATIONS OF SIGNS AND BOLLARDS SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD

UTILITY TYPE	NAME OF UTILITY	PHONE NUMBER	CONTACT NAME
ELECTRIC	AMEREN IP	618-236-4351	TIMOTHY KERN
GAS	AMEREN IP	618-236-4351	TIMOTHY KERN
WATER	CITY OF OFALLON	618-624-4500 EXT. 3	HEIDE BELL
SEWER	CITY OF OFALLON	618-624-4500 EXT. 3	HEIDE BELL
CABLE	CHARTER COMMUNICATIONS	618-374-7058	SARAH BISHOP
TELEPHONE	AT&T ILLINOIS	618-346-6422	DEAN LITZENBURG

F.A.U. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NUMBER
N/A	10-00061-00-BT	ST. CLAIR	23	2
FEDERAL AID PROJECT			CONTRACT 97536	

APPLICABLE IDOT HIGHWAY STANDARDS:

280001-07	604006-04
424001-07	604036-02
424026-01	606001-05
515001-03	701801-05
542301-03	701901-02
601101-01	720001-01
602301-03	720006-03
602306-03	805001-01
602601-02	

THE CONTRACTOR SHALL BE AWARE THERE ARE SEVERAL STUMPS WITHIN LIMITS OF THE PROJECT. ALL STUMPS WITHIN 12' OF THE SURFACE AND THOSE WHICH ARE IN CONFLICT WITH THE CONTRACTOR'S OPERATIONS SHALL BE COMPLETELY REMOVED; ALL OTHERS MAY REMAIN. THE COST FOR STUMP REMOVAL SHALL BE INCLUDED IN EARTH EXCAVATION.

THE CONTRACTOR IS ADVISED THAT WORK ON SEPARATE CONTRACTS MAY BE UNDERWAY IN THE VICINITY OF THIS PROJECT. CONTRACTOR SHALL, THEREFORE, COOPERATE WITH THE CITY OF OFALLON PERSONNEL AND OTHER CONTRACTORS IN THE PHASING AND PERFORMANCE OF HIS WORK, SO AS NOT TO DELAY, INTERRUPT OR HINDER THE PROGRESS OR COMPLETION OF THE WORK BEING PERFORMED BY OTHER CONTRACTORS. NO ADDITIONAL COMPENSATION WILL BE ALLOWED TO THIS CONTRACTOR FOR COMPLIANCE WITH THE ABOVE REQUIREMENTS NOR ANY DELAYS OR INCONVENIENCES RESULTING FROM THE ACTIVITIES OF THE OTHER CONTRACTORS.

FACTORS USED FOR QUANTITY CALCULATIONS ARE AS FOLLOWS:

PAVING	
ALL HOT-MIX ASPHALT	0.056 TONS/SQ.YD./INCH
AGGREGATE (PRIME COAT)	0.0015 TONS/SQ.YD.
BITUMINOUS MATERIALS (PRIME COAT)	0.35 GAL./SQ.YD. (AGG. SURFACE)

SEEDING	
NITROGEN FERTILIZER NUTRIENT	90 LBS/ACRE
PHOSPHORUS FERTILIZER NUTRIENT	90 LBS/ACRE
POTASSIUM FERTILIZER NUTRIENT	90 LBS/ACRE
MULCH	2 TONS/ACRE

PAYMENT FOR FURNISHING AND INSTALLING THE UNDERPASS LIGHTING AND ANY OTHER INCIDENTAL ITEMS SHALL BE FULLY COVERED BY THE CONTRACT UNIT PRICE FOR UNDERPASS LUMINAIRE, 150 WATT, HIGH PRESSURE SODIUM VAPOR, EACH.

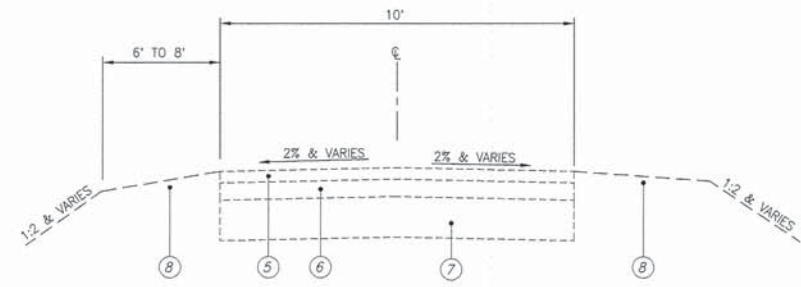
ALL COUPLINGS, ELBOWS, CAPS, SLEEVES, AND CLAMPS ASSOCIATED WITH FURNISHING AND INSTALLING THE 1" ROUND GALVANIZED STEEL CONDUIT SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE PER FOOT FOR CONDUIT ATTACHED TO STRUCTURE, 1" DIA., GALVANIZED STEEL.

SAW-CUTTING SHALL BE CONSIDERED INCIDENTAL TO THE REMOVAL ITEM INVOLVED.

F.A.U. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NUMBER
N/A	10-00061-00-BT	ST. CLAIR	23	3
FEDERAL AID PROJECT		CONTRACT 97536		

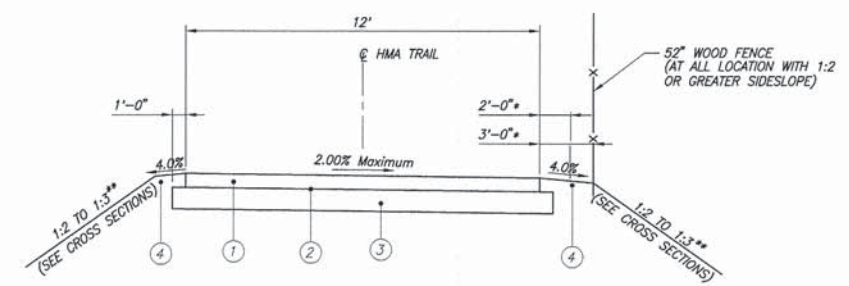
LEGEND

- ① HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N30, 3"
- ② BITUMINOUS MATERIALS (PRIME COAT)
- ③ AGGREGATE BASE COURSE, TYPE A, 6"
- ④ TURF SHOULDERS
- ⑤ EXISTING HMA SURFACE, ±2½"
- ⑥ EXISTING AGGREGATE BASE, ±4"
- ⑦ EXISTING AGGREGATE/SLAG SUBGRADE, 16" TO 18"
- ⑧ EXISTING TURF SHOULDERS



EXISTING ILLINI BIKE TRAIL (TO BE REMOVED)

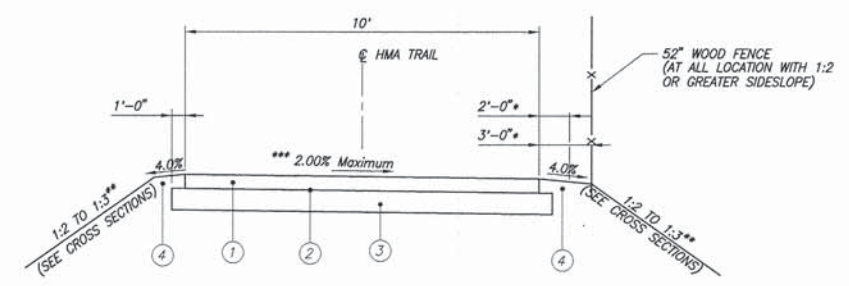
N.T.S.
STA. 1+94.52 TO STA. 3+08.52



PROPOSED MADISON BIKE TRAIL

N.T.S.
STA. 11+25.20 TO STA. 15+21.20
 * 2' Shoulder were no fence present.
 * 3' Shoulder were fence present.
 ** 1:2 in locations where fill exceeds 5'.

NOTE: SEE CROSS SECTIONS FOR DITCH LOCATIONS AND DEPTHS



PROPOSED CONNECTOR TRAIL

N.T.S.
STA. 200+00.00 TO STA. 202+97.27
 * 2' Shoulder were no fence present.
 * 3' Shoulder were fence present.
 ** 1:2 in locations where fill exceeds 5'.
 *** Slope shall transition from 2% right to 2% left Sta. 201+67.93 to Sta. 201+93.63

NOTE: SEE CROSS SECTIONS FOR DITCH LOCATIONS AND DEPTHS

F.A.U. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NUMBER
N/A	10-00061-00-BT	ST. CLAIR	23	4
FEDERAL AID PROJECT			CONTRACT 97536	

EARTHWORK SCHEDULE

LOCATION	EARTH EXCAVATION	EARTH EXCAVATION ADJUSTED FOR SHRINKAGE (25%)	EMBANKMENT	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-)	BORROW EXCAVATION (15%)
	CU YD	CU YD	CU YD	CU YD	CU YD
11+25 TO 15+21	1890	1418	8046	- 6628	7798
TOTAL	1890				7798

PAVING SCHEDULE

STATION	AGGREGATE BASE COURSE, TYPE A, 6"	BITUMINOUS MATERIALS PRIME COAT	HOT-MIX ASPHALT SURFACE COURSE MIX C, N 30
	SQ YD	GALLON	TON
MADISON BIKE TRAIL 11+25.20 TO 15+21.25	528	198	89
CONNECTOR BIKE TRAIL 11+25.20 TO 15+21.25	327	123	55
ILLINI BIKE TRAIL 11+25.20 TO 15+21.25	32	1	5
TOTAL	887	322	149

BOLLARD SCHEDULE

STATION	OFFSET	BOLLARD	BOLLARD (REMOVABLE)
		EACH	EACH
11+27	8' LT/G/8'RT	2	1
15+05	8' LT/G/8'RT	2	1
200+21	7' LT/G/7'RT	2	1
202+95	7' LT/G/7'RT	2	1
1+93	7' LT/G/7'RT	2	1
3+10	7' LT/G/7'RT	2	1
TOTAL		12	6

EROSION CONTROL SCHEDULE

STATION	HEAVY DUTY EROSION CONTROL BLANKET	EROSION CONTROL BLANKET	PERIMETER EROSION BARRIER	TEMPORARY DITCH CHECK	INLET AND PIPE PROTECTION	STONE RIPRAP CLASS A3	STONE RIPRAP CLASS A4	FILTER FABRIC
	SQ YD	SQ YD	FOOT	FOOT	EACH	SQ YD	SQ YD	SQ YD
11+25 TO 15+21, LT./RT.		2693						
11+28, LT.					1			
11+28, RT.					1			
11+28 TO 12+06, RT.			96					
11+28 TO 12+04, LT.			91					
11+54, LT.					1			
11+54 TO 12+56, RT.						44		44
11+56 TO 12+52, LT.						44		44
12+18 TO 13+69, RT.			163					
13+05 TO 13+66, LT.			61					
13+77, LT.					1			
13+77, RT.					1			
13+77 TO 14+00, RT.	10			7				
13+77 TO 14+00, RT.	10			7				
14+25, LT.								
14+50, RT.								
14+92, LT.					1			
15+00, LT.					1			
15+50, LT.					1			
15+55, RT.					1			
1+95 TO 2+05, RT.							22	22
2+66 TO 4+65, RT.			318	7				
3+45, RT.								
4+15 TO 4+62, RT.						22		22
4+62 TO 4+88, RT.							67	67
200+30 TO 201+81, LT.	45					64		64
201+79 TO 202+80, RT.								
TOTAL	65	2924	729	21	9	174	89	263

SEEDING SCHEDULE

STATION	SEEDING CLASS 3A	NITROGEN FERTILIZER NUTRIENT	PHOSPHORUS FERTILIZER NUTRIENT	POTASSIUM FERTILIZER NUTRIENT	MULCH METHOD 3A	TEMPORARY EROSION CONTROL SEEDING
	ACRE	POUND	POUND	POUND	ACRE	POUND
11+25 TO 15+21, LT./RT.	0.80	72	72	72	0.80	80
TOTAL	0.80	72	72	72	0.80	80

STORM SEWER & DRAINAGE STRUCTURE SCHEDULE

PT	LOCATION STATION / OFFSET	DESCRIPTION	TOP OF LID/GRATE	FLOWLINE			
				N	S	E	W
1	11+28.36 16.81'R	INLETS, TY A, TY 8 GRATE	528.10		525.24		
2	11+27.66 17.88'R	INLETS, TY A, TY 8 GRATE	528.15	524.91		523.91	
3	11+54.48 18.86'L	END SECTIONS, 24"	-----	524.23			
4	11+51.10 23.35'R	END SECTIONS, 24"	-----		523.47		
5	12+55.68 12.58'R	END SECTIONS, 15"					530.69
6	12+55.68 12.58'R	INLETS, TY B, TY 1 FRAME, CLOSED LID	533.85			530.97	530.87
7	12+55.68 12.58'R	INLETS, TY B, TY 1 FRAME, CLOSED LID	537.71			531.45	531.35
8	13+76.72 10.98'L	INLETS, TY B, TY 8 GRATE	537.07	531.65			531.55
9	13+76.72 11.34'R	INLETS, TY B, TY 8 GRATE	537.31		531.75	531.85	
10	14+92.13 34.92'L	INLETS, TY B, TY 8 GRATE	538.89		535.25	535.25	535.15
11	15+34.81 35.71'L	INLETS, TY A, TY 3 F&G	539.42*			536.60	536.50
12	15+50.10 34.46'L	INLETS, TY A, TY 8 GRATE	538.40				536.90
13	14+99.82 8.66'L	INLETS, TY B, TY 8 GRATE	539.95	536.40		536.50	
14	15+38.44 3.27'R	INLETS, TY A, TY 3 F&G	539.81*			537.33	537.23
15	15+55.25 1.79'R	INLETS, TY A, TY 8 GRATE	539.65			537.75	537.65
16	1+94.52 67.11'R	END SECTIONS, 72"	-----	512.04			
17	4+77.34 72.87'R	END SECTIONS, 72"	-----		509.25		

(*) - ELEVATION AT EDGE OF PAVEMENT
NOTE: OFFSETS TO ALL INLETS AND MANHOLES ARE TO THE CENTER OF THE DRAINAGE STRUCTURE AND CENTER/END OF END SECTION OR PIPE.

STORM SEWER/PIPE CULVERT SCHEDULE

No.	STRUCTURE PT. - PT.	STORM SEWERS, RUBBER GASKET, CLASS A				PIPE CULVERTS, CLASS A		PIPE DRAINS	TRENCH BACKFILL
		TYPE 1		TYPE 2		TYPE 2	TYPE 4		
		12" FOOT	15" FOOT	12" FOOT	15" FOOT	24" FOOT	72" FOOT		
1	1 - 2	33						9.6	
2	2 - OPEN DITCH			20				3.6*	
3	3 - 4					32		12.4	
4	6 - 5		12					0.0	
5	7 - 6				76			50.7	
6	8 - 7				20			9.2*	
7	9 - 8				20			19.0	
8	10 - 9			110				36.2*	
9	11 - 10			40				4.9*	
10	12 - 11	10						1.9	
11	13 - 10		25					8.7	
12	14 - 13	37						9.2	
13	15 - 14	16						2.6	
14	EXISTING CMP - 15						8	0.5	
15	16 - 17					266		166.5	
TOTAL		96	12	195	116	32	266	8	335.0

(*) FOR USE WITHIN 2' OF PAVEMENT, SIDEWALK, ETC.

WOOD FENCE SCHEDULE

LOCATION	WOOD FENCE FOOT
MADISON BIKE TRAIL STA. 12+50 TO 13+50, RT. STA. 12+75 TO 13+50, LT.	100 75
CONNECTOR BIKE TRAIL STA. 200+13 TO 201+95, RT. STA. 201+95 TO 202+92, LT.	210 110
TOTAL	495

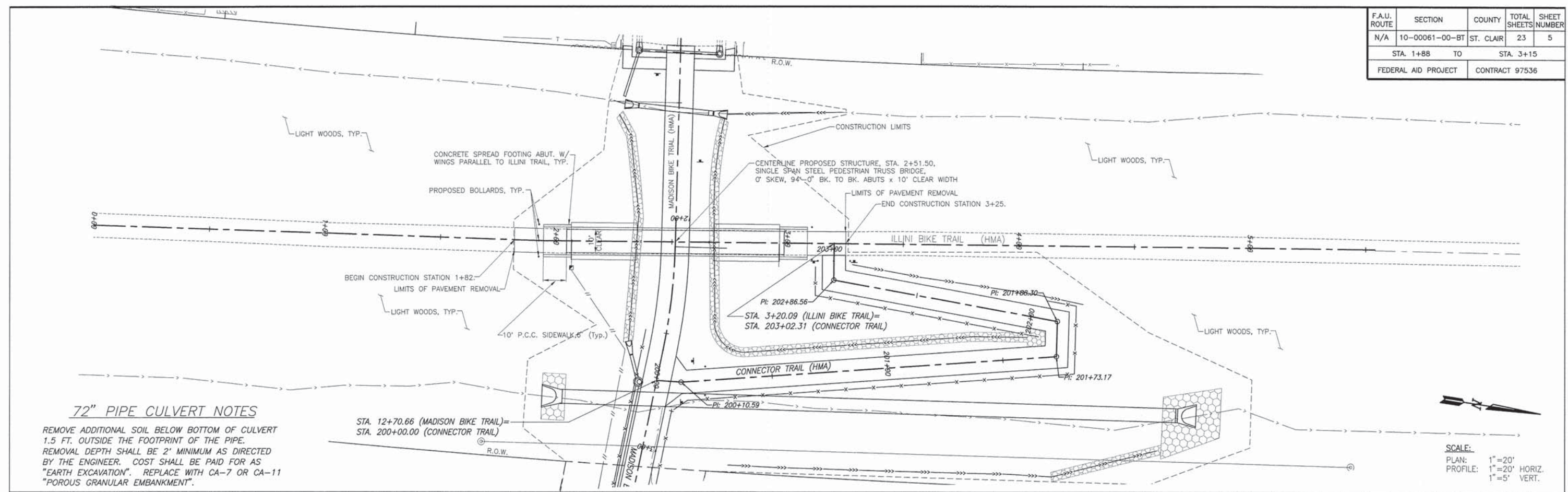
SIGNING SCHEDULE

STATION	OFFSET	DESCRIPTION	SIGN PANEL TYPE 1	WOOD SIGN SUPPORT
			SQ FT	FOOT
10+63.75	19.0' LT	R8-3a (18X24)	3.00	11.0
10+75.50	19.5' RT	R8-3a (18X24)	3.00	11.0
11+37.50	10.0' RT	R5-3 (24X24)	4.00	11.0
11+75.50	9.75' LT	W16-1P (18X24)	3.00	11.0
14+50.00	9.75' LT	W7-5 (18X18)	2.25	11.0
14+72.00	9.75' RT	W16-1P (18X24)	3.00	11.0
15+12.00	10.0' LT	R5-3 (24X24)	4.00	11.0
15+17.50	9.75' RT	R1-1 (18X18)	2.25	11.0
200+10.50	8.75' RT	CYCLIST DISMOUNT (24X24)	4.00	11.0
200+16.50	8.75' LT	R1-2 (18X18)	2.25	11.0
202+94.50	8.75' RT	R1-2 (18X18)	2.25	11.0
202+94.50	8.75' LT	CYCLIST DISMOUNT (24X24)	4.00	11.0
TOTAL			37.00	132

POROUS GRANULAR EMBANKMENT SCHEDULE

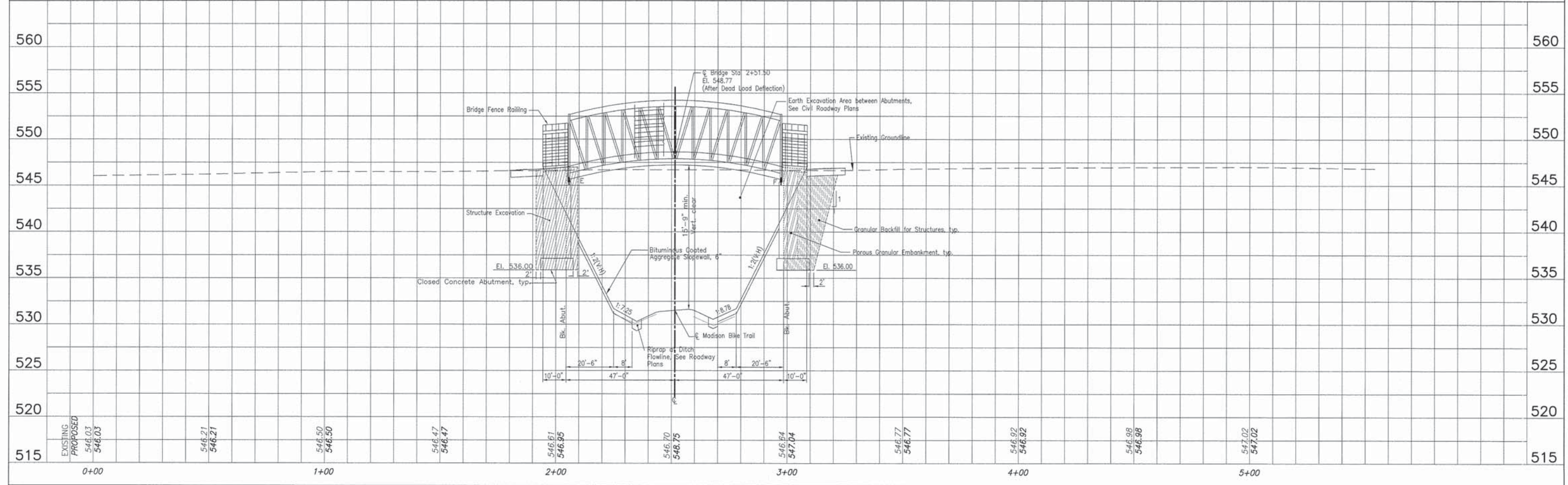
LOCATION	CU YD
PEDESTRIAN BRIDGE	46
PIPE CULVERT (OVER EXCAVATION), 72"	160
TOTAL	206

F.A.U. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NUMBER
N/A	10-00061-00-BT	ST. CLAIR	23	5
STA. 1+88 TO STA. 3+15				
FEDERAL AID PROJECT		CONTRACT 97536		



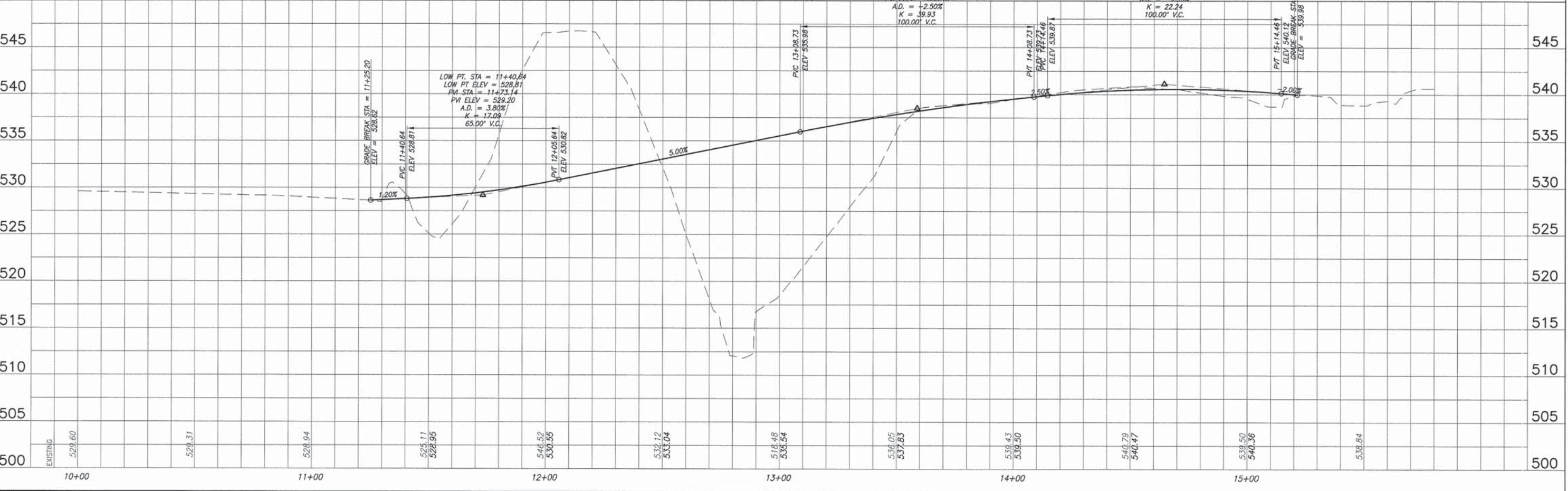
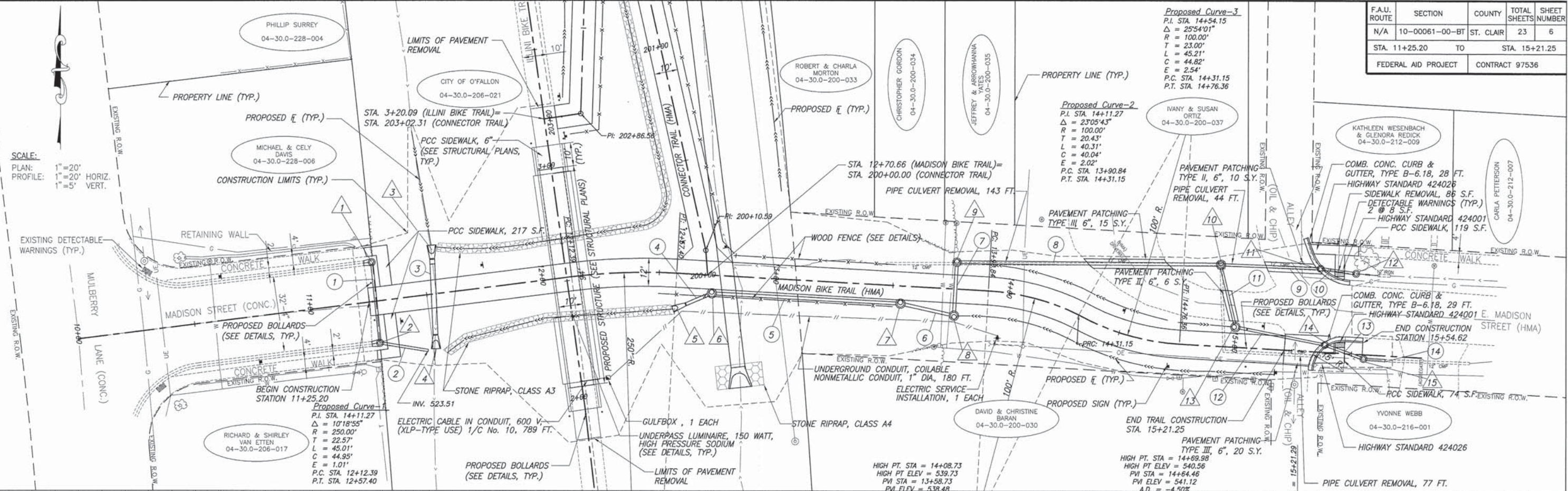
72" PIPE CULVERT NOTES
 REMOVE ADDITIONAL SOIL BELOW BOTTOM OF CULVERT 1.5 FT. OUTSIDE THE FOOTPRINT OF THE PIPE. REMOVAL DEPTH SHALL BE 2' MINIMUM AS DIRECTED BY THE ENGINEER. COST SHALL BE PAID FOR AS "EARTH EXCAVATION". REPLACE WITH CA-7 OR CA-11 "POROUS GRANULAR EMBANKMENT".

SCALE:
 PLAN: 1"=20'
 PROFILE: 1"=20' HORIZ.
 1"=5' VERT.



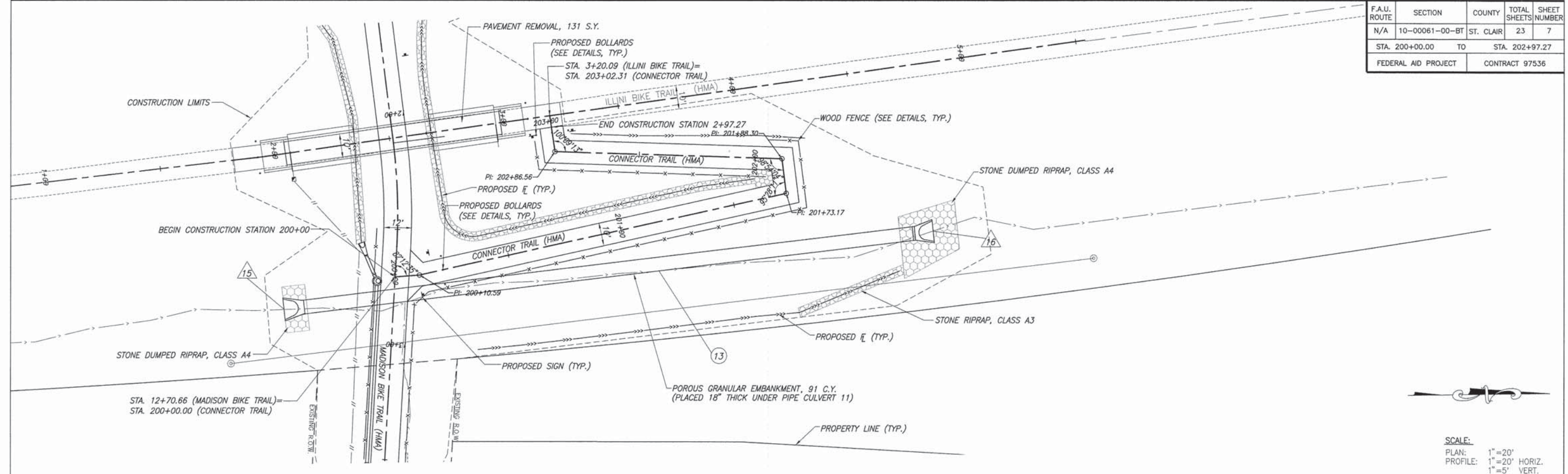
PLAN AND PROFILE MADISON ILLINI BIKE TRAIL CONNECTOR PROJECT
 SECTION 10-00061-BT ST CLAIR COUNTY, ILLINOIS

F.A.U. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NUMBER
N/A	10-00061-00-BT	ST. CLAIR	23	6
STA. 11+25.20		TO		STA. 15+21.25
FEDERAL AID PROJECT		CONTRACT 97536		

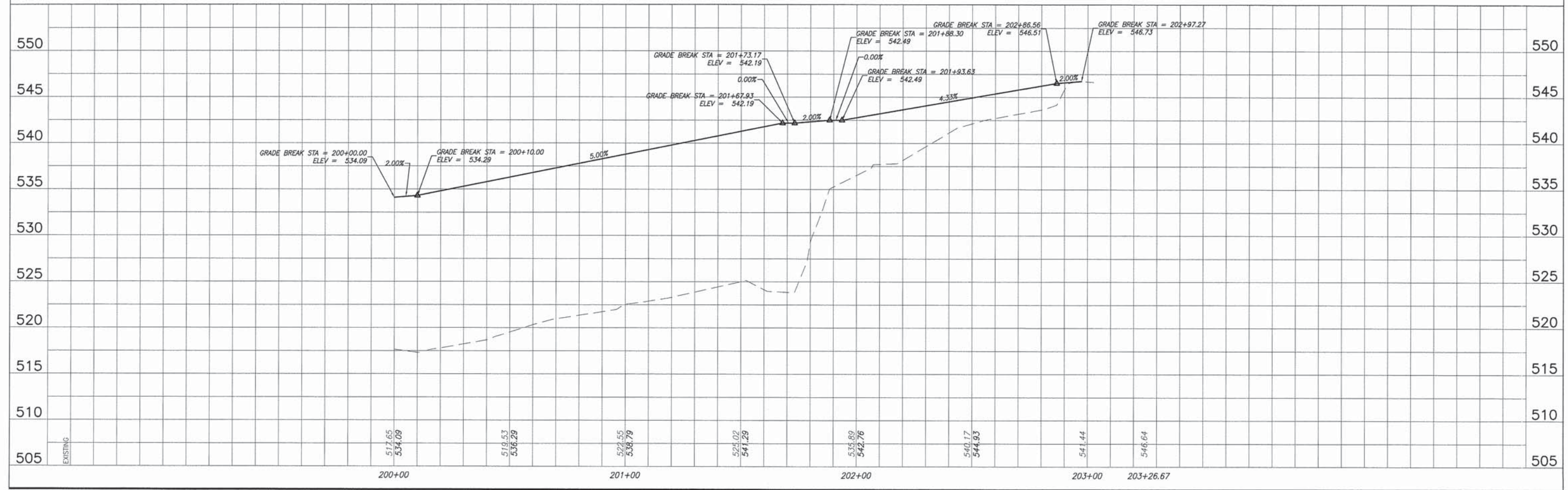


PLAN AND PROFILE MADISON ILLINI BIKE TRAIL CONNECTOR PROJECT
SECTION 10-00061-BT ST CLAIR COUNTY, ILLINOIS

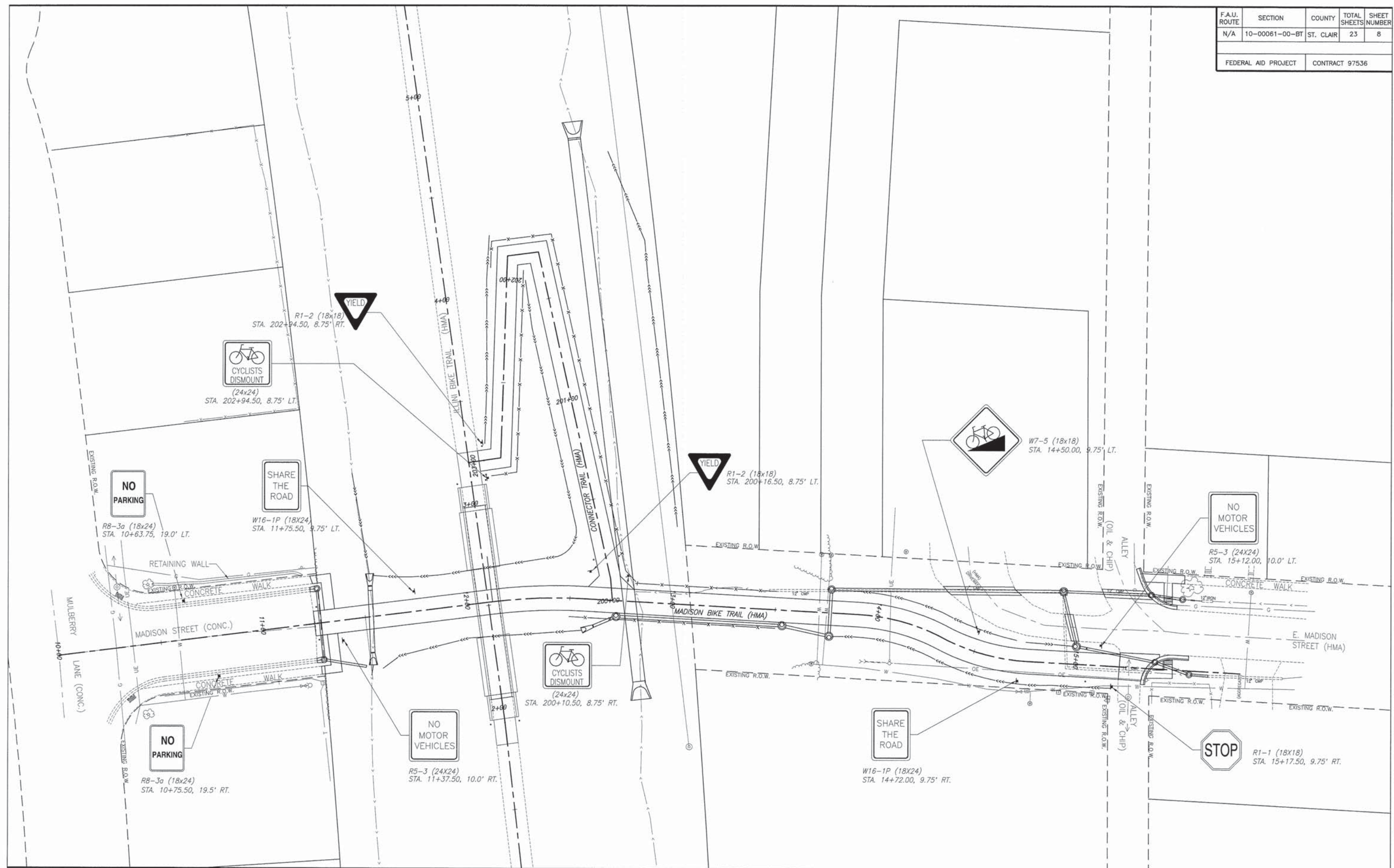
F.A.U. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NUMBER
N/A	10-00061-00-BT	ST. CLAIR	23	7
STA. 200+00.00		TO	STA. 202+97.27	
FEDERAL AID PROJECT		CONTRACT 97536		



SCALE:
 PLAN: 1"=20'
 PROFILE: 1"=20' HORIZ.
 1"=5' VERT.



F.A.U. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NUMBER
N/A	10-00061-00-BT	ST. CLAIR	23	8
FEDERAL AID PROJECT		CONTRACT 97536		

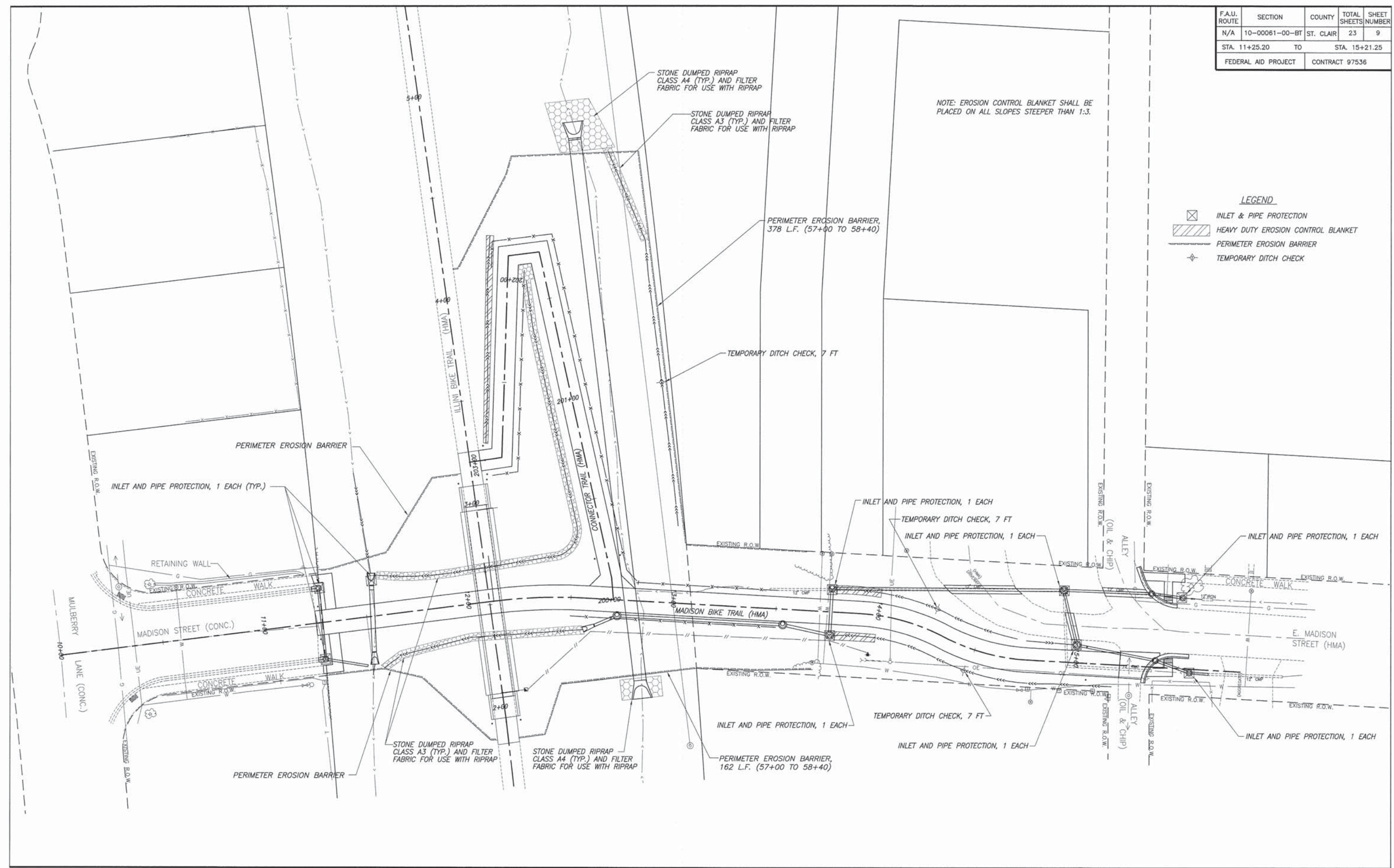


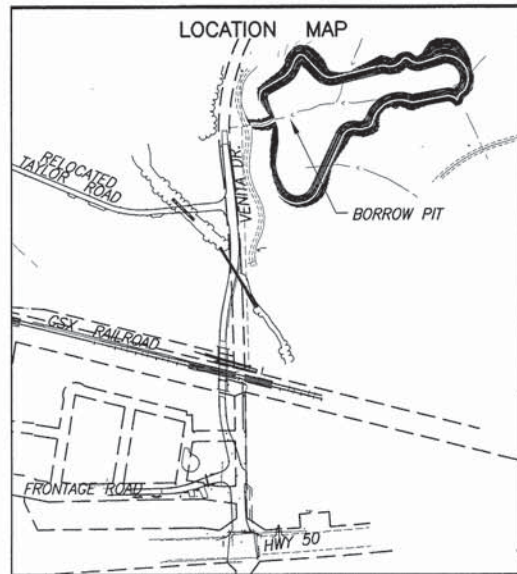
F.A.U. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NUMBER
N/A	10-00061-00-BT	ST. CLAIR	23	9
STA. 11+25.20		TO	STA. 15+21.25	
FEDERAL AID PROJECT		CONTRACT 97536		

NOTE: EROSION CONTROL BLANKET SHALL BE PLACED ON ALL SLOPES STEEPER THAN 1:3.

LEGEND

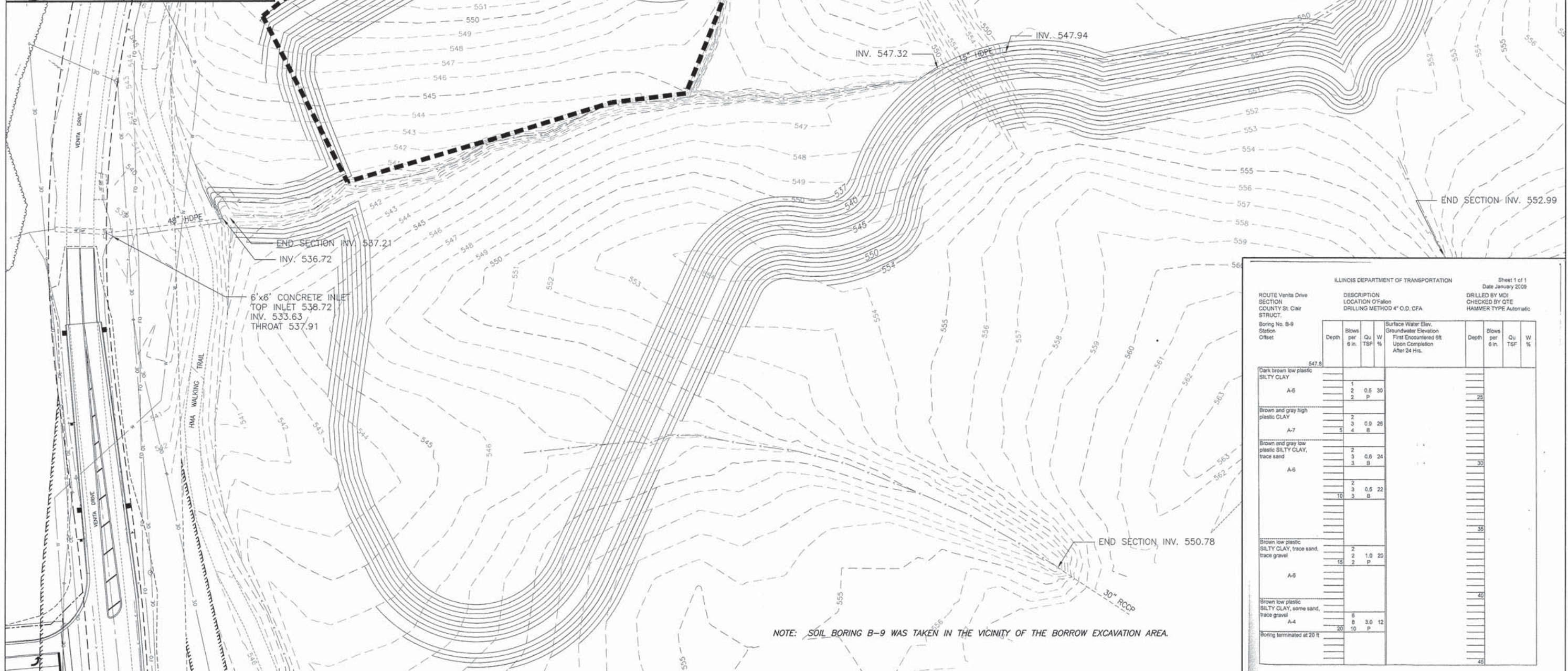
	INLET & PIPE PROTECTION
	HEAVY DUTY EROSION CONTROL BLANKET
	PERIMETER EROSION BARRIER
	TEMPORARY DITCH CHECK





NOTE: THE CONTRACTOR SHALL BE AWARE THAT ADDITIONAL CONTRACTS WILL BE USING THIS BORROW PIT AND SHALL COORDINATE WITH THE OTHER CONTRACTORS AND ENGINEERS PRIOR TO EXCAVATION.

FA.U. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NUMBER
N/A	10-00061-00-BT	ST. CLAIR	23	10
FEDERAL AID PROJECT		CONTRACT 97536		



ILLINOIS DEPARTMENT OF TRANSPORTATION
 ROUTE Venta Drive
 SECTION COUNTY St. Clair
 COUNTY St. Clair
 STRUCT.

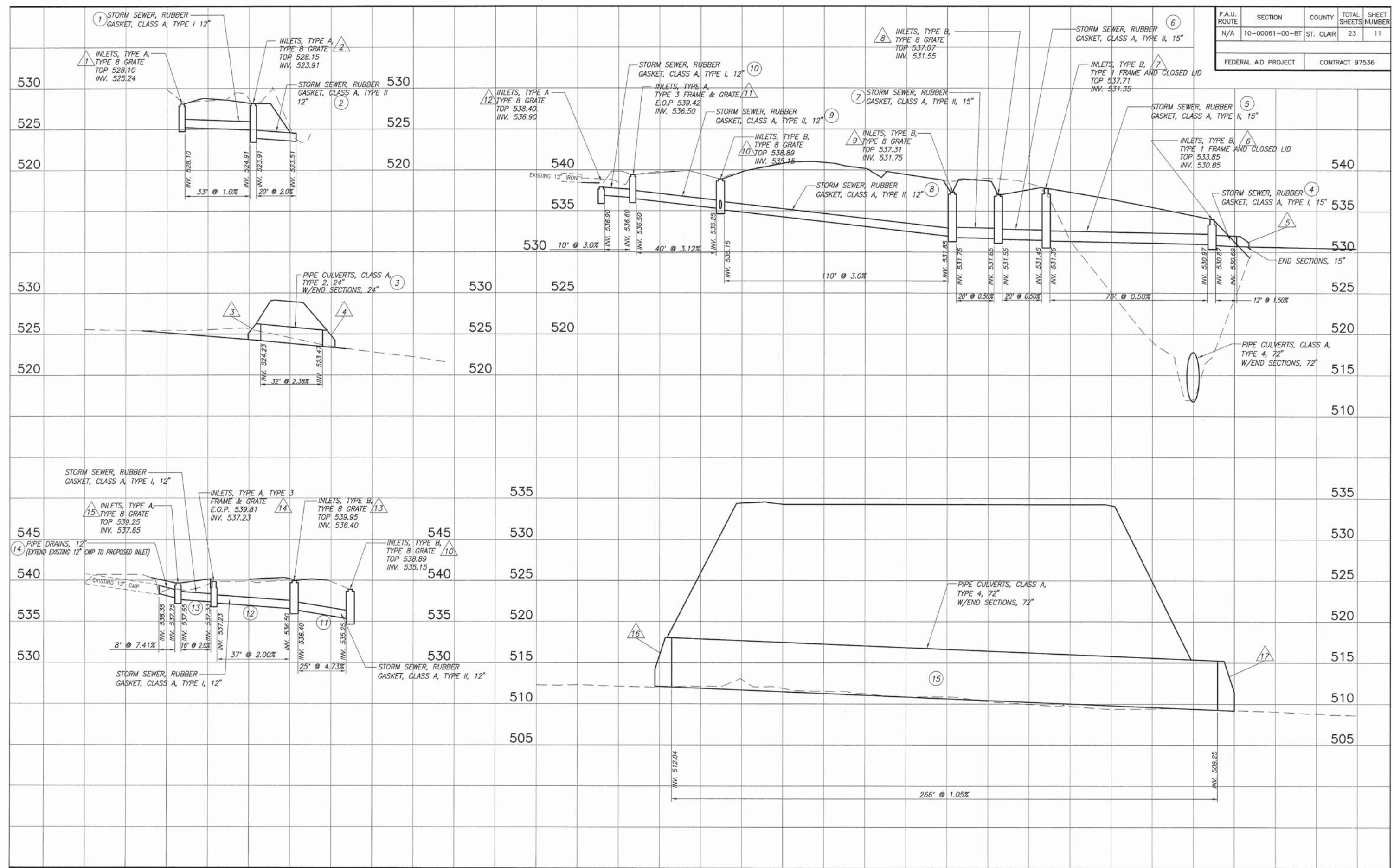
DESCRIPTION LOCATION OF Fallon
 DRILLING METHOD 4" O.D. CFA

Sheet 1 of 1
 Date January 2009
 DRILLED BY MDJ
 CHECKED BY QTE
 HAMMER TYPE Automatic

Boring No. B-9 Station Offset	Depth	Blows per 6 in.	Qu	TSF	W %	Surface Water Elev.		Depth	Blows per 6 in.	Qu	TSF	W %
						Groundwater Elevation	First Encountered Elevation Upon Completion After 24 Hrs.					
547.8	1	2	0.5	30								
	2	2	P									
	3	5	4	8								
	4	3	0.9	28								
	5	4	8									
	6	2	3	0.6	24							
	7	3	0.6	24								
	8	3	0.5	22								
	9	10	3	8								
	10	3	0.5	22								
A-5	11	15	2	1.0	20							
	12	2	P									
	13	2	P									
A-4	14	6	8	3.0	12							
	15	8	3.0	12								
	16	10	P									
Boring terminated at 20 ft												

BORROW PIT PLAN MADISON ILLINI BIKE TRAIL CONNECTOR PROJECT
 SECTION 10-00061-BT ST CLAIR COUNTY, ILLINOIS

F.A.U. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NUMBER
N/A	10-00061-00-BT	ST. CLAIR	23	11
FEDERAL AID PROJECT		CONTRACT 97536		



TBM 1/16/12 "B" - N. Rim Sanitary Manhole,
67.34' Rt. of Sta. 13+11.77 - Elev. 520.23

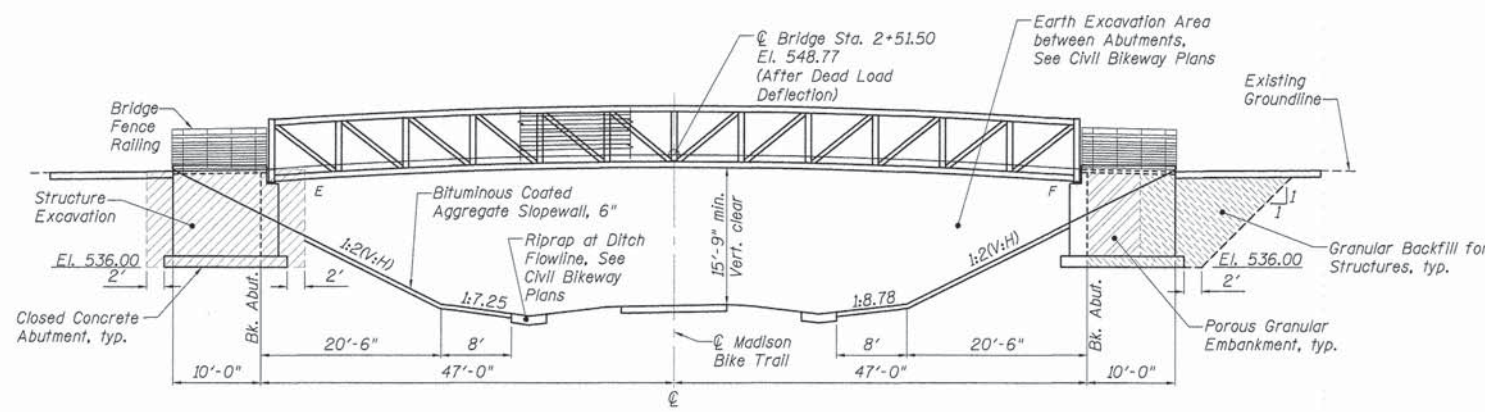
Existing Structure: None

FAU. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NUMBER
N/A	10-00061-00-BT	ST. CLAIR	23	12
FEDERAL AID PROJECT			CONTRACT NO. 97536	

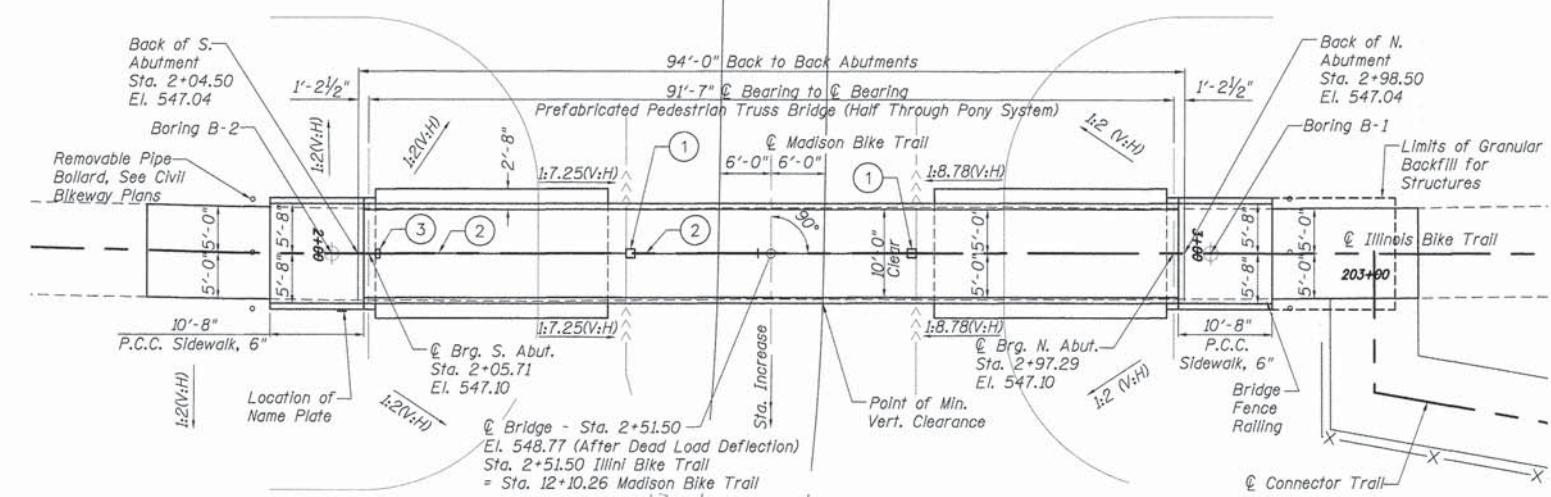
STA 2+51.50
SEC. 10-00061-00-BT BUILT 201_
CITY OF O'FALLON
ST. CLAIR COUNTY
LOADING H5 TRUCK
STR. NO. 082-P002

BILL OF MATERIALS (BRIDGE ONLY)

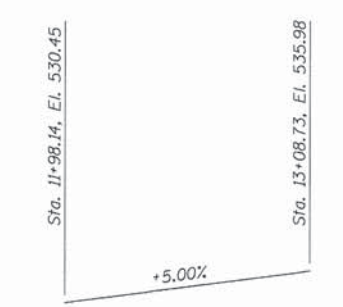
ITEM	UNIT	TOTAL
Porous Granular Embankment	Cu Yd	46
Portland Cement Concrete Sidewalk 6 Inch	Sq Ft	242
Structure Excavation	Cu Yd	264
Concrete Structures	Cu Yd	48.8
Form Liner Textured Surface	Sq Ft	698
Reinforcement Bars	Pound	4820
Bridge Fence Railing	Foot	44
Name Plates	Each	1
Concrete Sealer	Sq Ft	440
Geocomposite Wall Drain	Sq Yd	46
Pedestrian Truss Superstructure	Sq Ft	925
Granular Backfill for Structures	Cu Yd	106
Pipe Underdrains for Structures 4"	Foot	58
Bituminous Coated Aggregate Slopewall 6"	Sq Yd	98



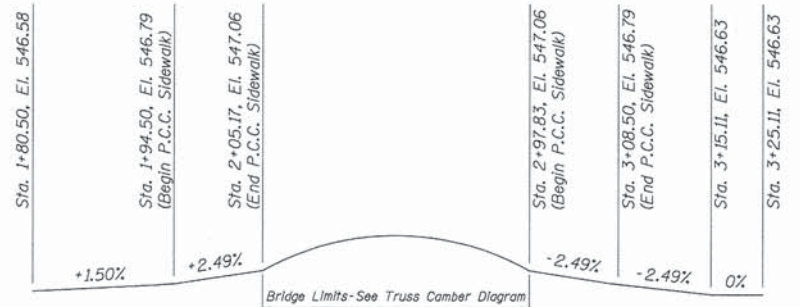
ELEVATION



PLAN



PROFILE GRADE LINE
(Along Madison Bike Trail)



PROFILE GRADE LINE
(Along Illini Bike Trail)

NAME PLATE

(See State Standard 515001 for details)
(Locate on Front Face of SE Wing Wall)

DESIGN SPECIFICATIONS

LRFD Guide Specifications for the
Design of Pedestrian Bridges (December 2009)
2010 (4th ed.) AASHTO LRFD Bridge Design Specifications

DESIGN STRESSES - FIELD UNITS

$f'_c = 3,500$ psi
 $f_y = 60,000$ psi (reinforcement)

SEISMIC DATA

Seismic Performance Zone (SPZ) = 2
Design Spectral Acceleration at 1.0 sec (S_{D1}) = 0.249g
Design Spectral Acceleration at 0.2 sec (S_{D5}) = 0.572g
Soil Site Class = D

LOADING

Pedestrian Live Load = 90 p.s.f.
Vehicle Live Load = H5 Truck

GENERAL NOTES

Rhutasel and Associates, Inc. design includes substructure elements only. Abutment design and details are based on assumed typical reactions and dimensions. Contractor shall verify that final design and details are compatible with the selected superstructure prior to construction. The assumed Unfactored Bridge Reactions at Each Bearing are as follows:
Vert. Dead Load (Each Bearing): 13,400 lbs. (4 per span)
Vert. Uniform Live Load (Each Bearing): 20,850 lbs. (4 per span)
Vert. Vehicle Live Load (Each Bearing): 5,000 lbs. (4 per span)

The Minimum Soil Load Bearing Capacity under the Abutment Footings shall be 2,300 p.s.f.

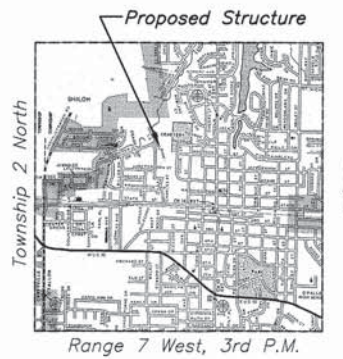
Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of $\frac{1}{8}$ inch. Adjustment shall be made either by grinding the surface or by shimming the bearing. Two $\frac{1}{8}$ " adjusting shims, of the dimensions of the bottom bearing plate, shall be provided for each bearing addition to all other plates or shims.

Structural steel shall be fabricated using ASTM A500 grade C cold-formed welded square and rectangular tubing ($F_y=50,000$ psi) and/or high strength, low alloy, atmospheric corrosion resistant ASTM A847 cold-formed welded square and rectangular tubing ($F_y=50,000$ psi) and/or ASTM A588, ASTM A242, ASTM A572, ASTM A 606 ($F_y=50,000$ psi) and /or ASTM A36 ($F_y=36,000$ psi) plate and structural steel shapes. Splice plates, if required, shall be ASTM A588.

The Prefabricated Pedestrian Truss and Bridge Fence Railing shall be painted. The Organic Zinc Rich Primer / Epoxy / Urethane Paint System shall be used for painting of new structural steel except where otherwise noted. The entire system shall be shop applied, with the exception that masked off connection surfaces, field installed fasteners and damaged areas shall be touched up in the field. The color of the final finish coat shall be black, Munsell No. N1. See Section 506 of the Standard Specifications.

No field welding is permitted except as specified in the contract documents.

See Special Provisions for Soil Boring logs.



LOCATION SKETCH

This Structural Seal Covers the Substructure Elements of the Pedestrian Truss Superstructure.



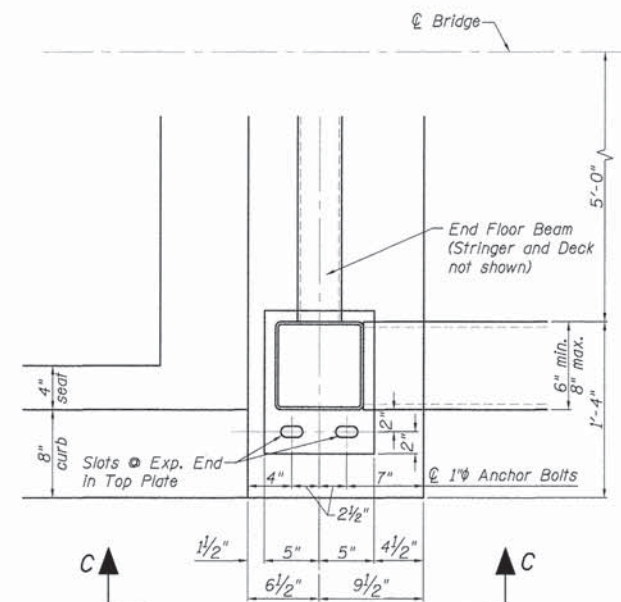
William D. Lueking
William D. Lueking
08-30-2013
Date of Signing
11-30-2014
Date of License Expiration

A Separate Structural Seal will be provided by the Pedestrian Truss Superstructure Manufacturer.

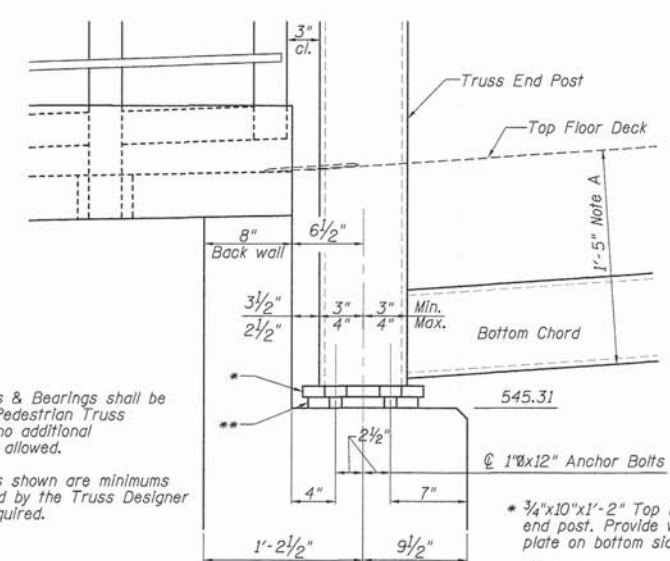
INDEX OF SHEETS

1. General Plan & Elevation
2. Miscellaneous Details
3. Abutment Details

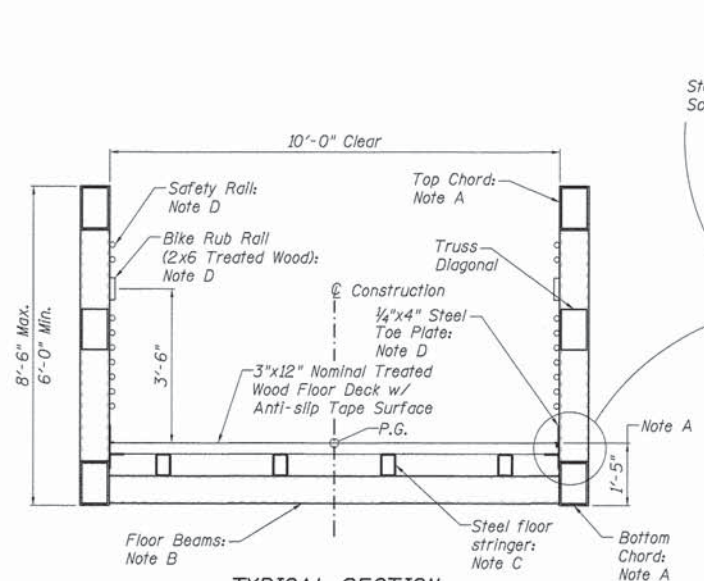
F.A.U. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NUMBER
N/A	10-00061-00-BT	ST. CLAIR	23	13
FEDERAL AID PROJECT		CONTRACT NO. 97536		



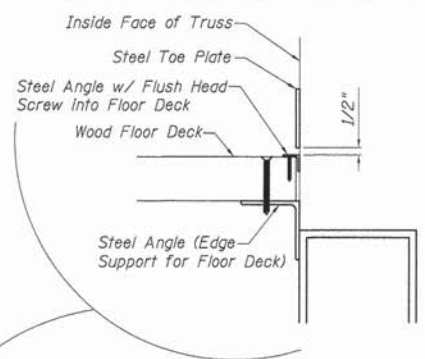
PARTIAL PLAN - BEARING SEAT



SECTION C-C (South Abutment Shown)

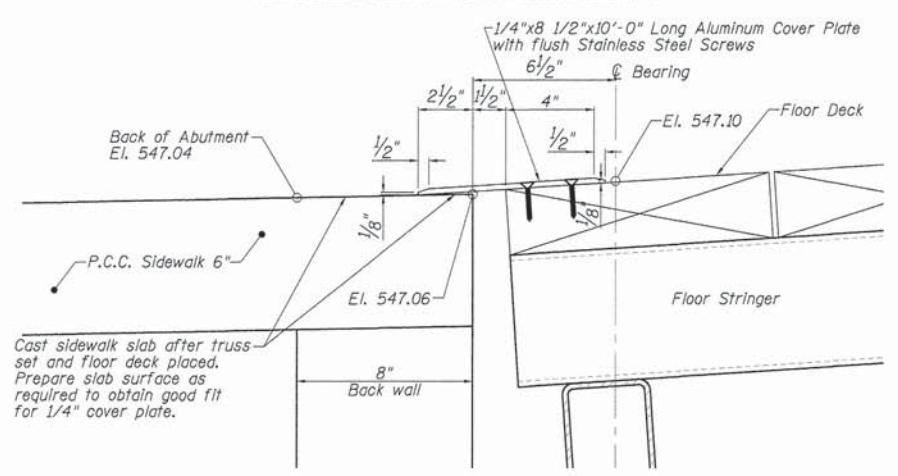


TYPICAL SECTION

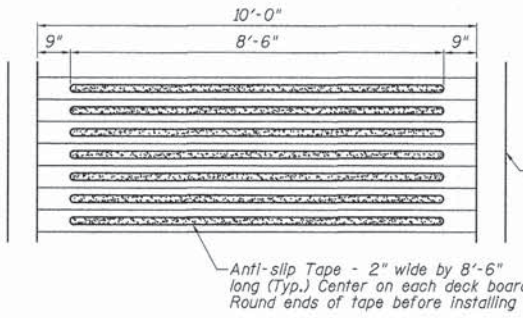


NOTES

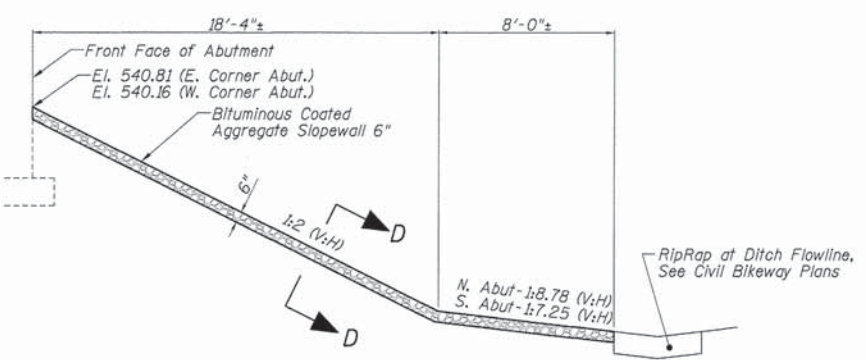
- A: Truss Manufacturer to use maximum of 1'-5" for Structure depth (deck and stringers and floor beams). Provide 8" maximum width, 6" minimum width Truss Chord members.
- B: Truss Manufacturer to design Floor Beams as required to carry stringers and provide stability for Truss members.
- C: Truss Manufacturer to design steel stringers to support floor deck. HSS tubes shown, other steel sections selected by Truss Manufacturer may be used. At Face of Truss, provide angle and secondary member to support end of floor deck. See Detail.
- D: Truss Manufacturer to provide secondary supports for safety rail, rub rail and toe plate as required between Truss elements.



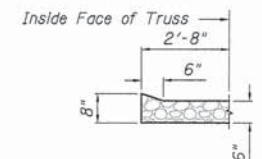
SECTION



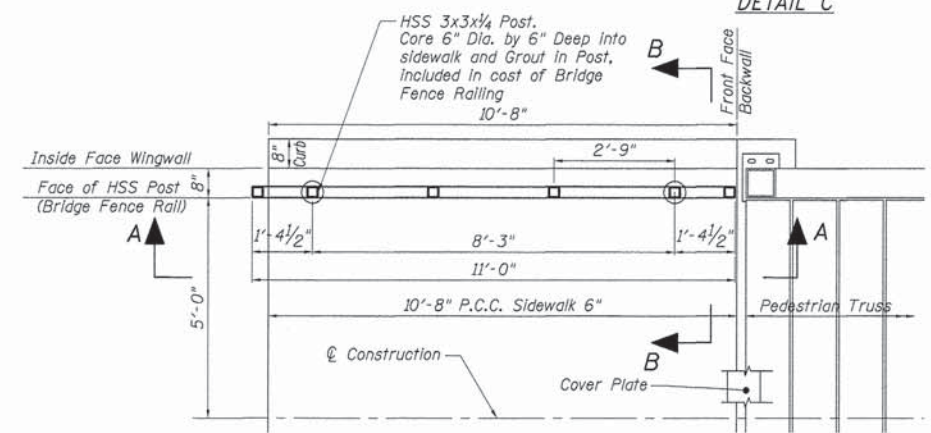
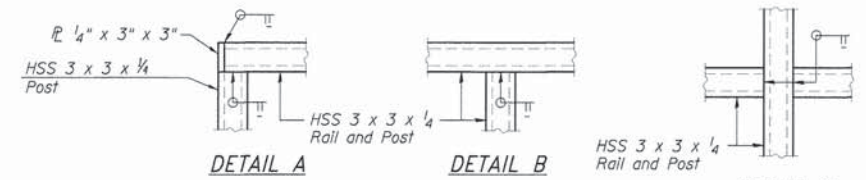
PARTIAL PLAN ANTI-SLIP TAPE



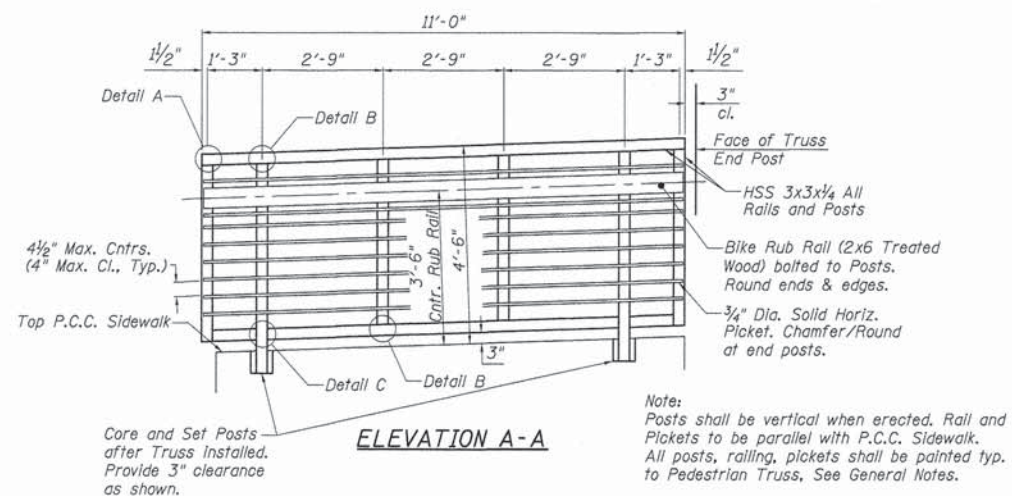
SECTION THRU BITUMINOUS COATED AGGREGATE SLOPEWALL 6"



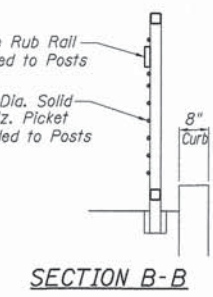
SECTION D-D



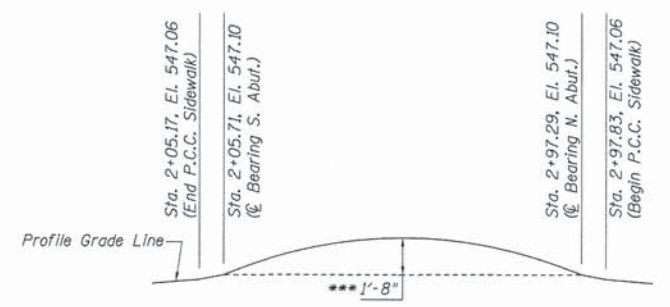
PLAN - BRIDGE FENCE RAILING



ELEVATION A-A



SECTION B-B



TRUSS CAMBER DIAGRAM

Note: Camber Diagram is for Fabricators use only. Fabricate Superstructure to provide 1'-8" camber (+630' radius) after truss dead load deflection.

GENERAL NOTES

All exposed edges shall have standard 1/4" chamfer, unless otherwise noted.

All clearances between rebar and form surface shall be 1 1/2", unless otherwise noted.

Reinforcement bars shall conform to ASTM A 706 (IL Modified), Grade 60.

Concrete sealer shall be applied to beam seat and front face of backwall and all exposed surfaces of closed abutment and wingwalls.

Minimum Soil Load Bearing Capacity under the Abutment Footings = 2,300 p.s.f.

Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.

Anchor bolts at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.

Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.

All plates shall be ASTM A36 (Fy=36ksi).

* Thickness of Form Liner Textured Surface (1 1/4" max. relief plus 3/4" form thickness)

** Extents of Geocomposite Wall Drain, Pipe Underdrains for Structures, & Porous Granular Embankment

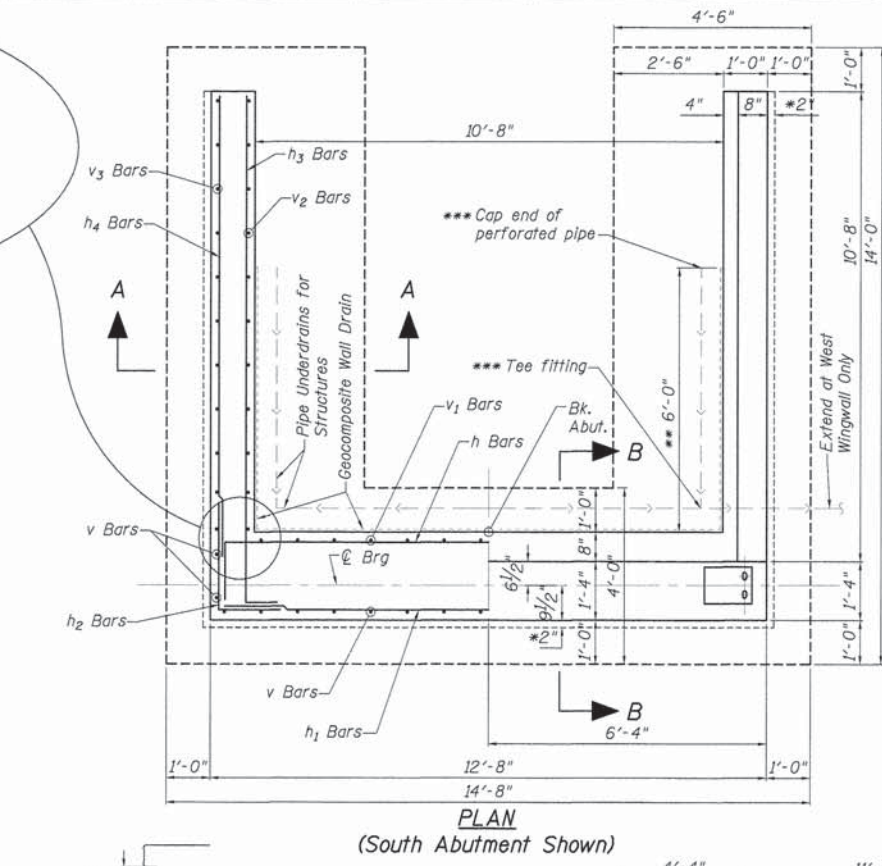
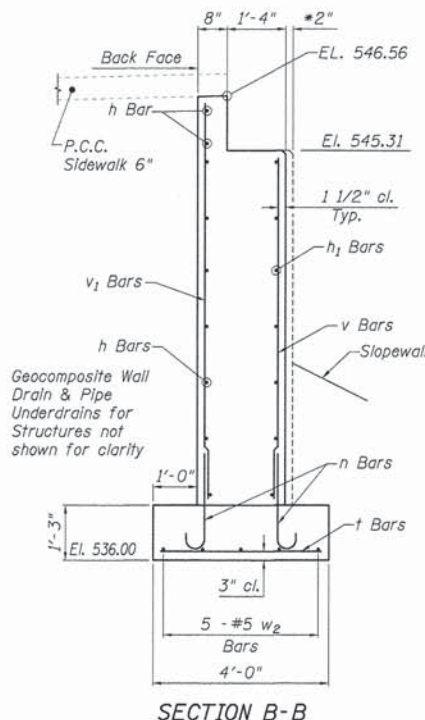
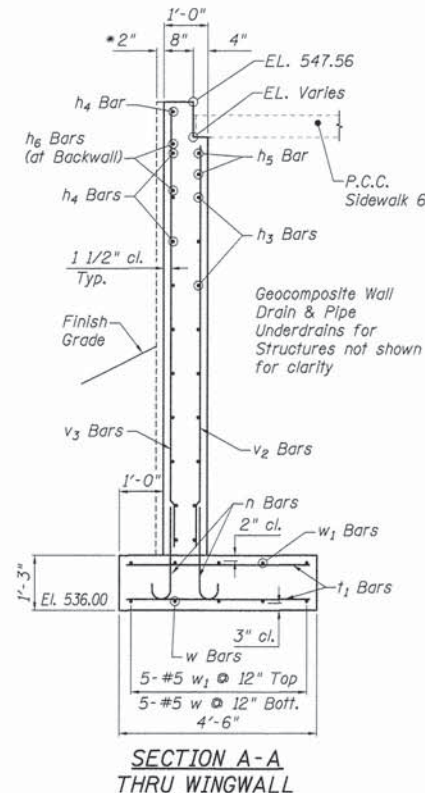
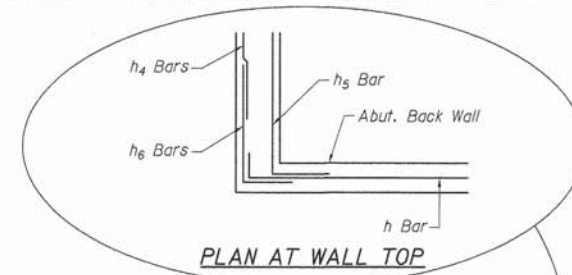
*** Included in the cost of Pipe Underdrains for Structures

**** Exposed Exterior Vertical Faces of Abutment and Wingwalls shall have Form Liner Textured Surface Ashlar Pattern (Not Shown Full Wall for Clarity)

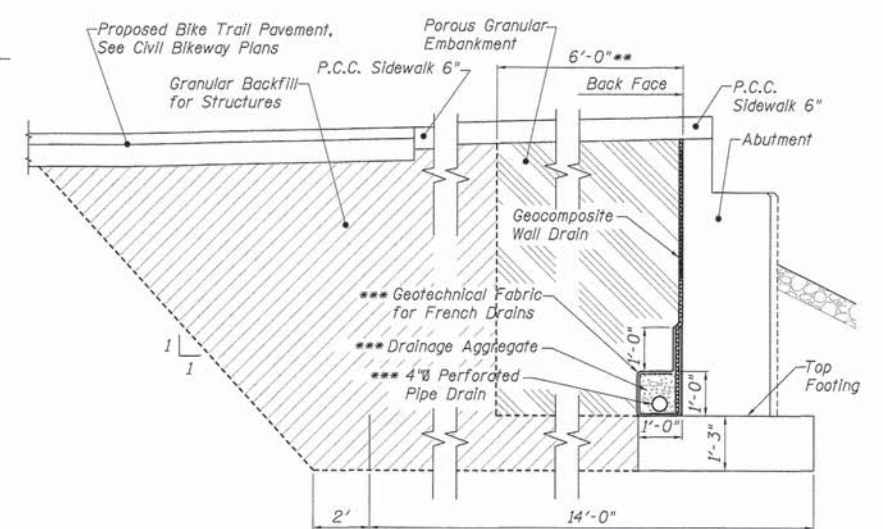
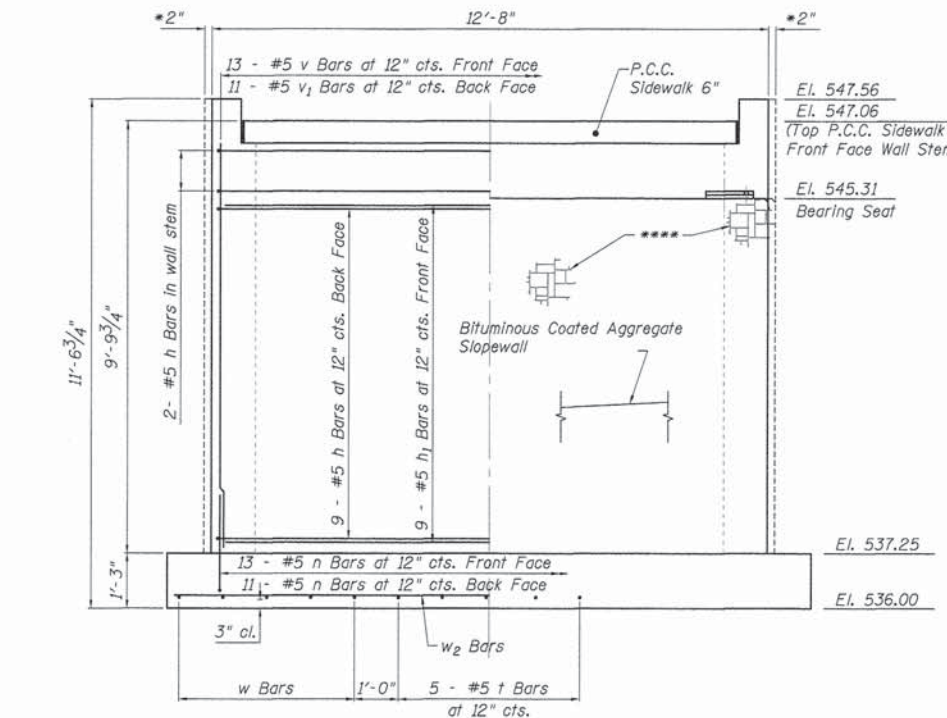
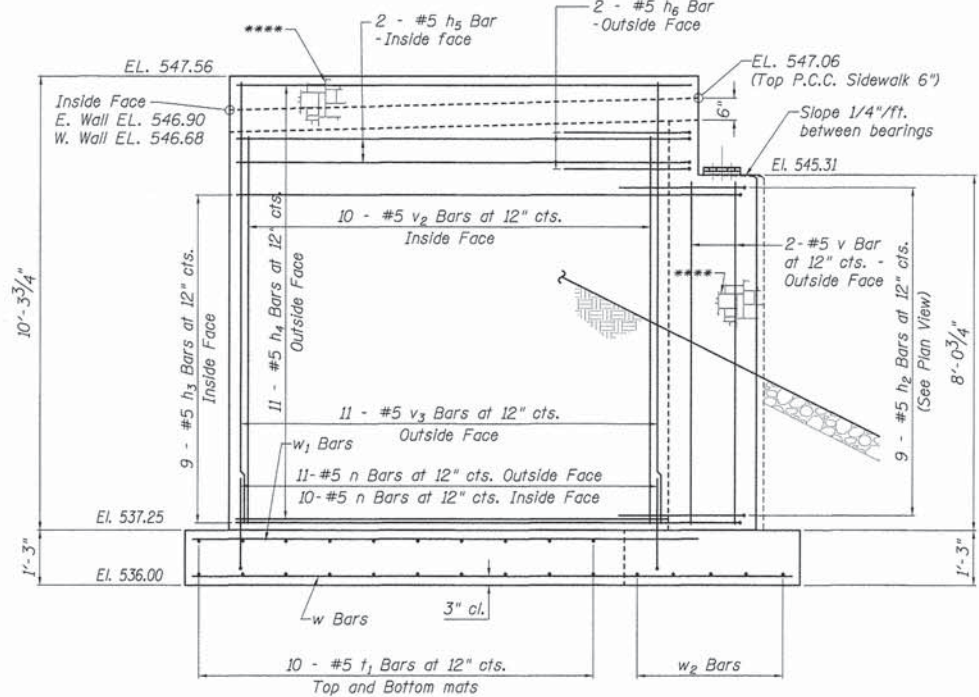
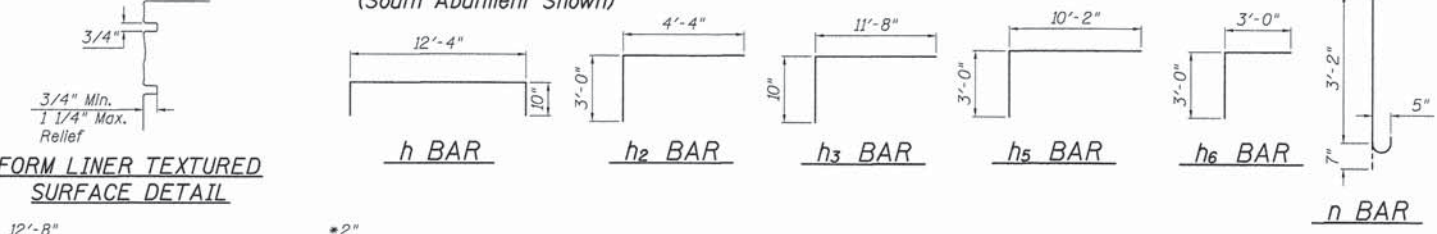
F.A.U. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NUMBER
N/A	10-00061-00-BT	ST. CLAIR	23	14
FEDERAL AID PROJECT		CONTRACT NO. 97536		

**BILL OF MATERIALS
ONE ABUTMENT ONLY**

Bar	No.	Size	Length	Shape
h	11	#5	14'-0"	┌───┐
h ₁	9	#5	12'-4"	┌───┐
h ₂	18	#5	7'-4"	┌───┐
h ₃	18	#5	12'-6"	┌───┐
h ₄	22	#5	10'-4"	┌───┐
h ₅	4	#5	13'-2"	┌───┐
h ₆	4	#5	6'-0"	┌───┐
n	66	#5	3'-9"	┌───┐
v	17	#5	7'-11"	┌───┐
v ₁	11	#5	9'-1"	┌───┐
v ₂	20	#5	8'-9"	┌───┐
v ₃	22	#5	10'-1"	┌───┐
t	5	#5	3'-8"	┌───┐
t ₁	40	#5	4'-2"	┌───┐
w	10	#5	13'-8"	┌───┐
w ₁	10	#5	11'-6"	┌───┐
w ₂	5	#5	14'-4"	┌───┐
Concrete Structures			Cu. Yd.	24.4
Form Liner Textured Surface			Sq. Ft.	349
Reinforcement Bars			Pound	2410
Concrete Sealer			Sq. Ft.	220
Geocomposite Wall Drain			Sq. Yd.	23
Pipe Underdrains for Struct. 4"			Foot	29



FORM LINER TEXTURED SURFACE DETAIL



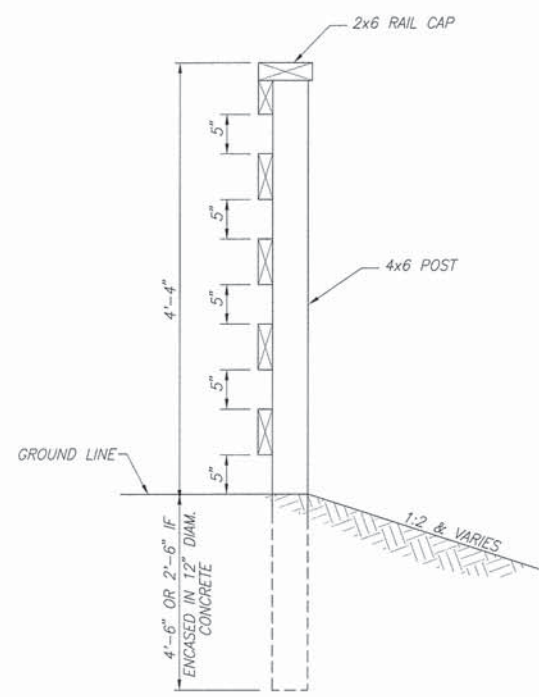
Note: All drainage system components shall extend full length along back of abutment and along wingwalls as shown in plan view (this sheet). Extend an outlet pipe through west wingwall of each abutment until intersecting with the side slopes. The pipes shall drain into *** concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).

WING ELEVATION

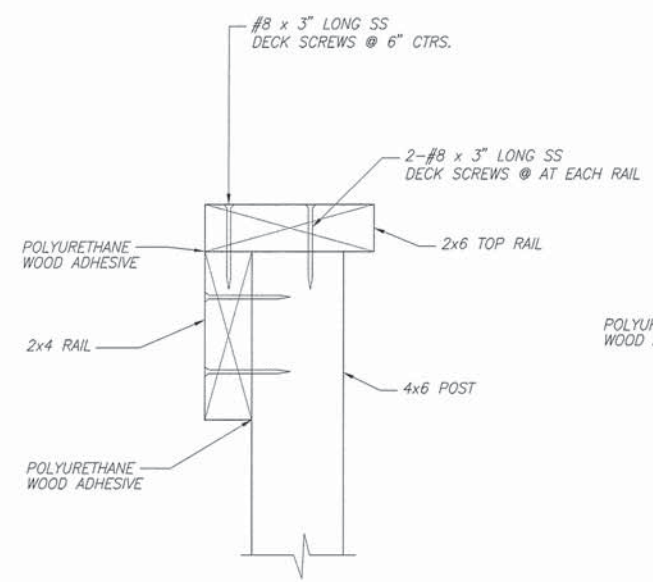
ELEVATION

SECTION THRU ABUTMENT

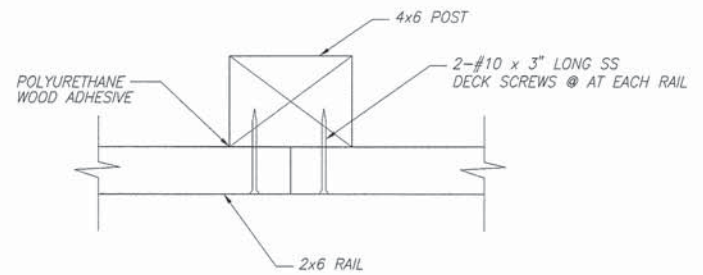
F.A.U. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NUMBER
N/A	10-00061-00-BT	ST. CLAIR	23	15
FEDERAL AID PROJECT		CONTRACT 97536		



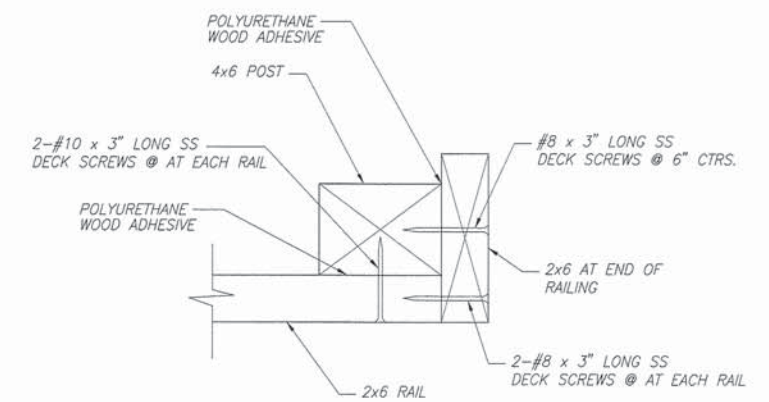
SECTION B-B
N.T.S.



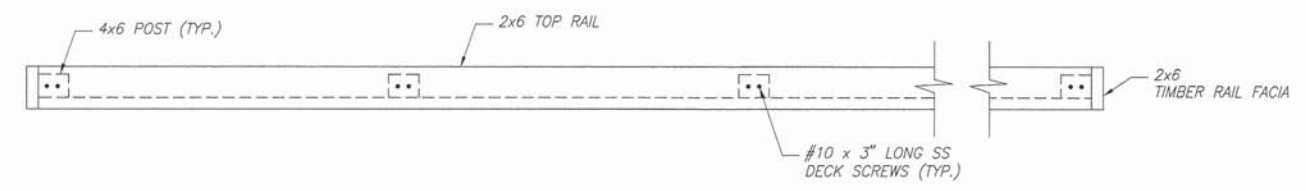
SECTION C-C
N.T.S.



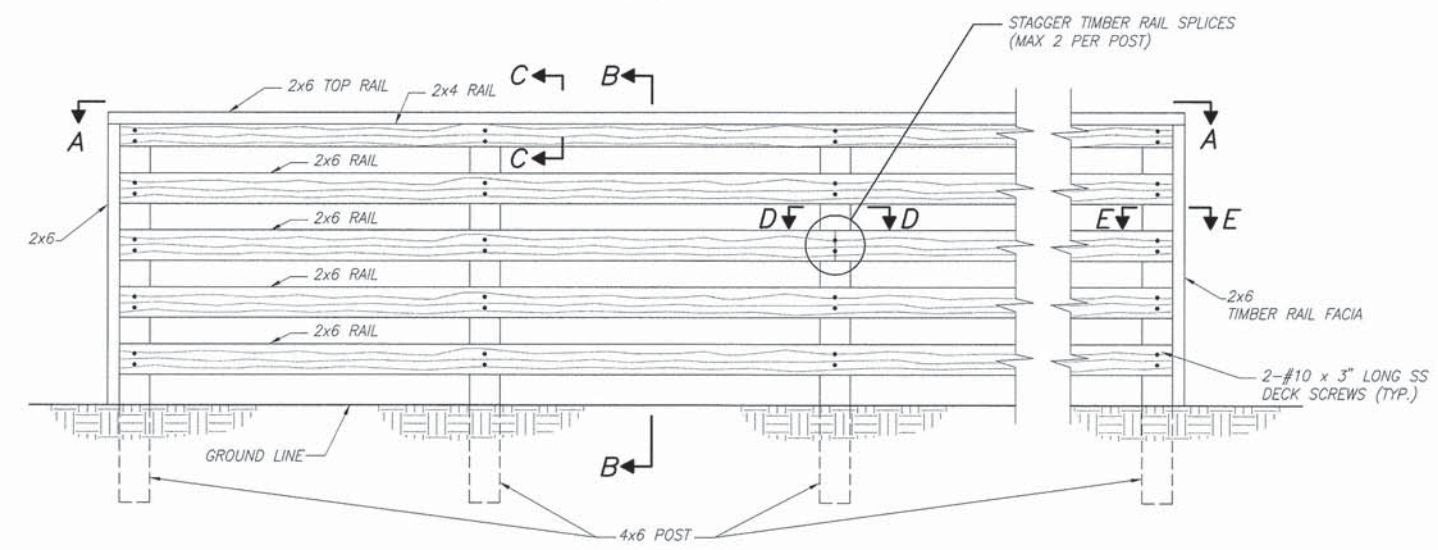
SECTION D-D
N.T.S.



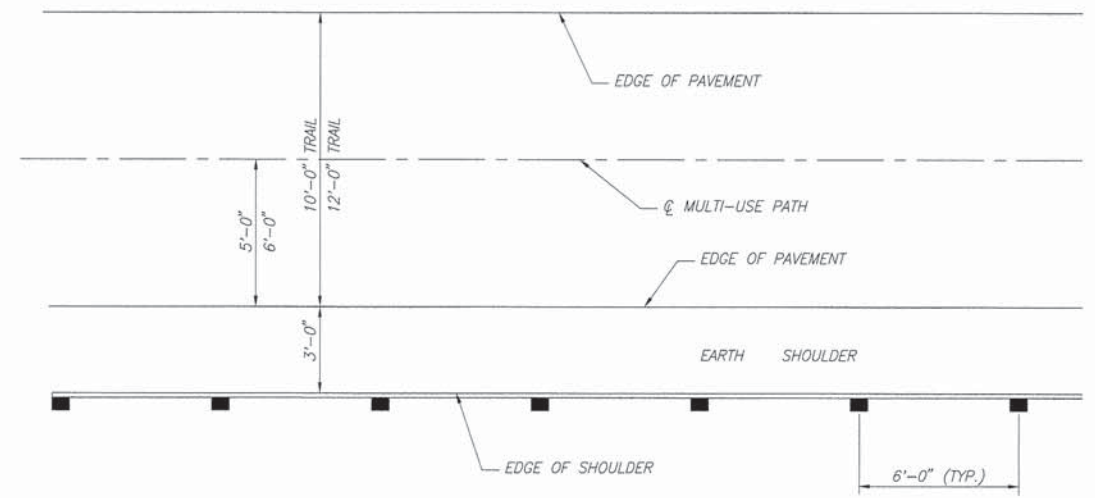
SECTION E-E
N.T.S.



SECTION A-A
N.T.S.

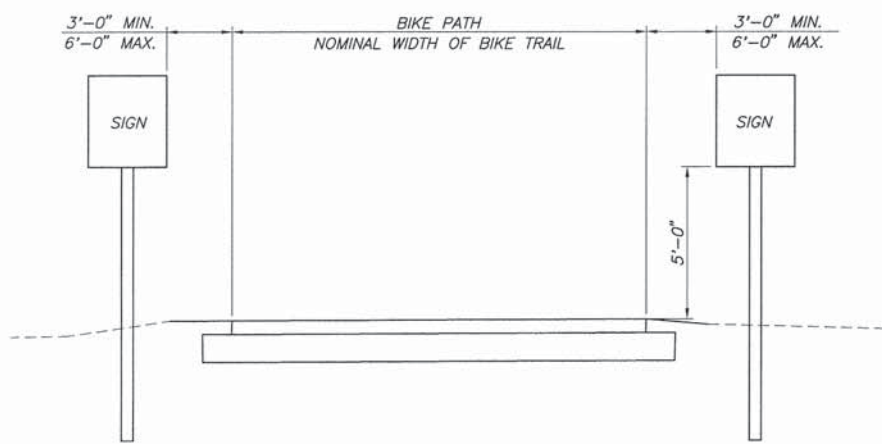


WOOD FENCE DETAIL
N.T.S.

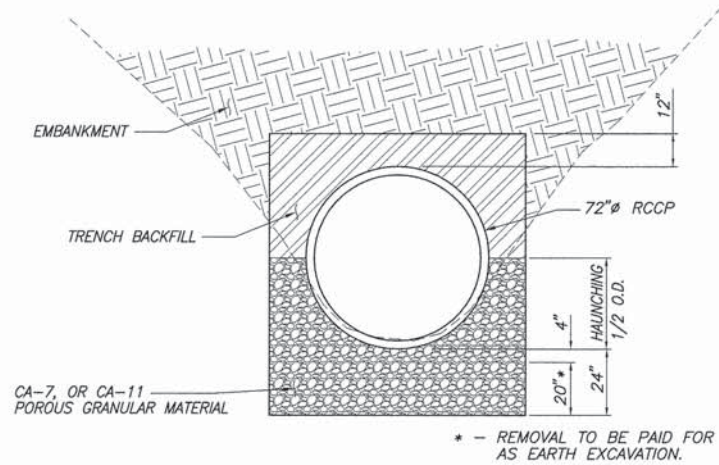


PLAN
N.T.S.

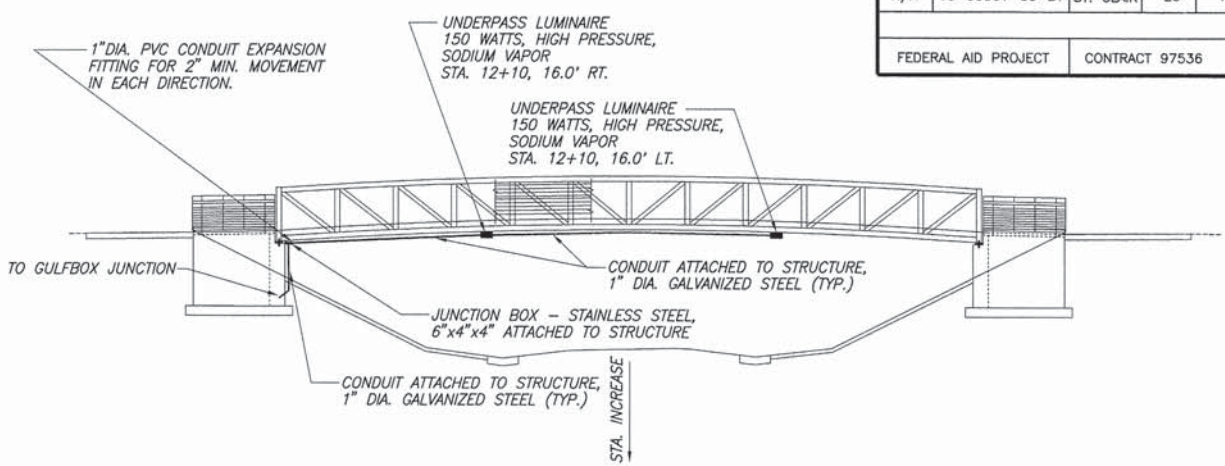
F.A.U. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NUMBER
N/A	10-00061-00-BT	ST. CLAIR	23	16
FEDERAL AID PROJECT		CONTRACT 97536		



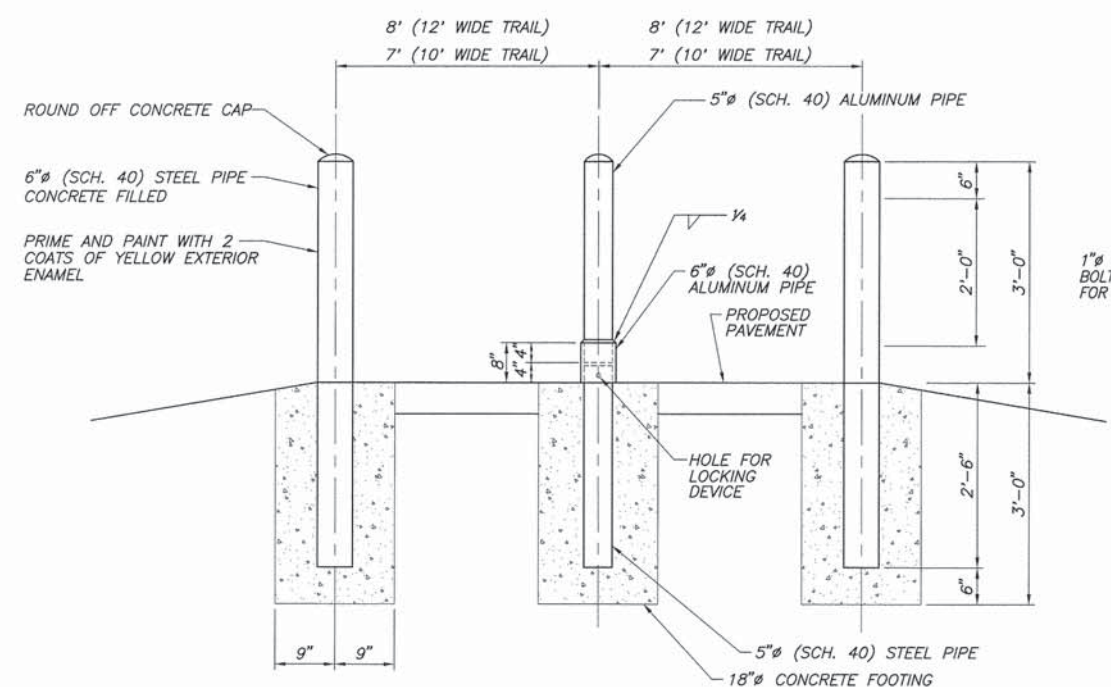
SIGN PLACEMENT DETAIL
N.T.S.



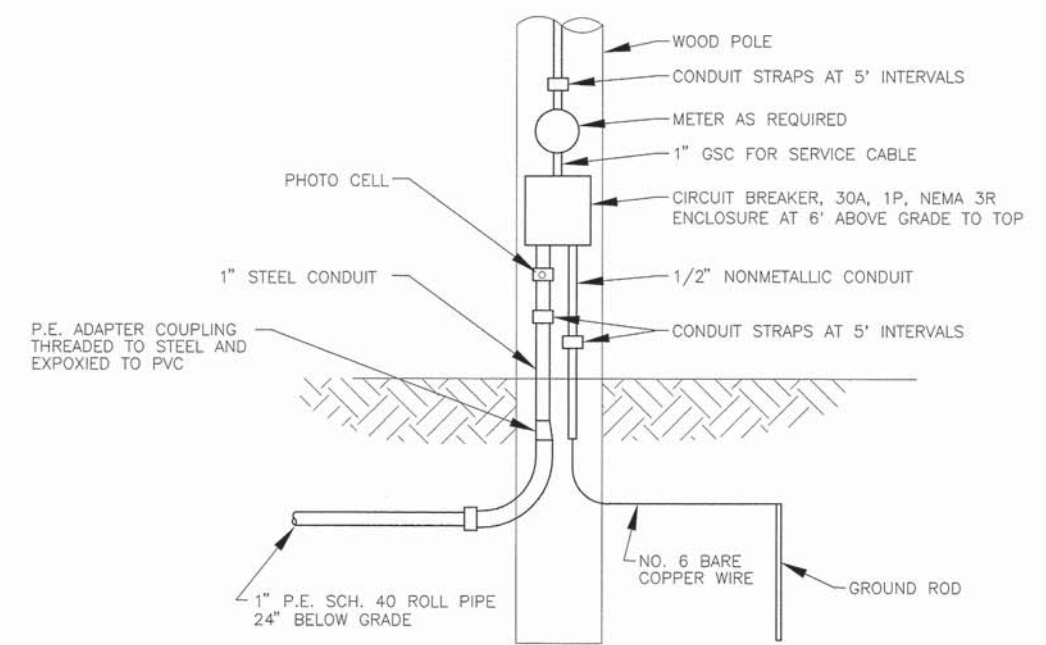
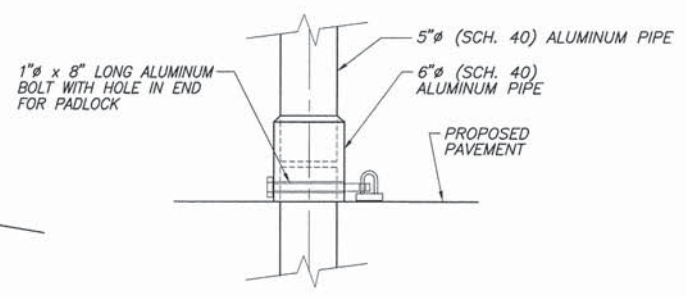
72" RCCP TRENCH DETAIL
N.T.S.



BRIDGE LIGHTING DETAIL
N.T.S.



BOLLARD DETAIL
N.T.S.

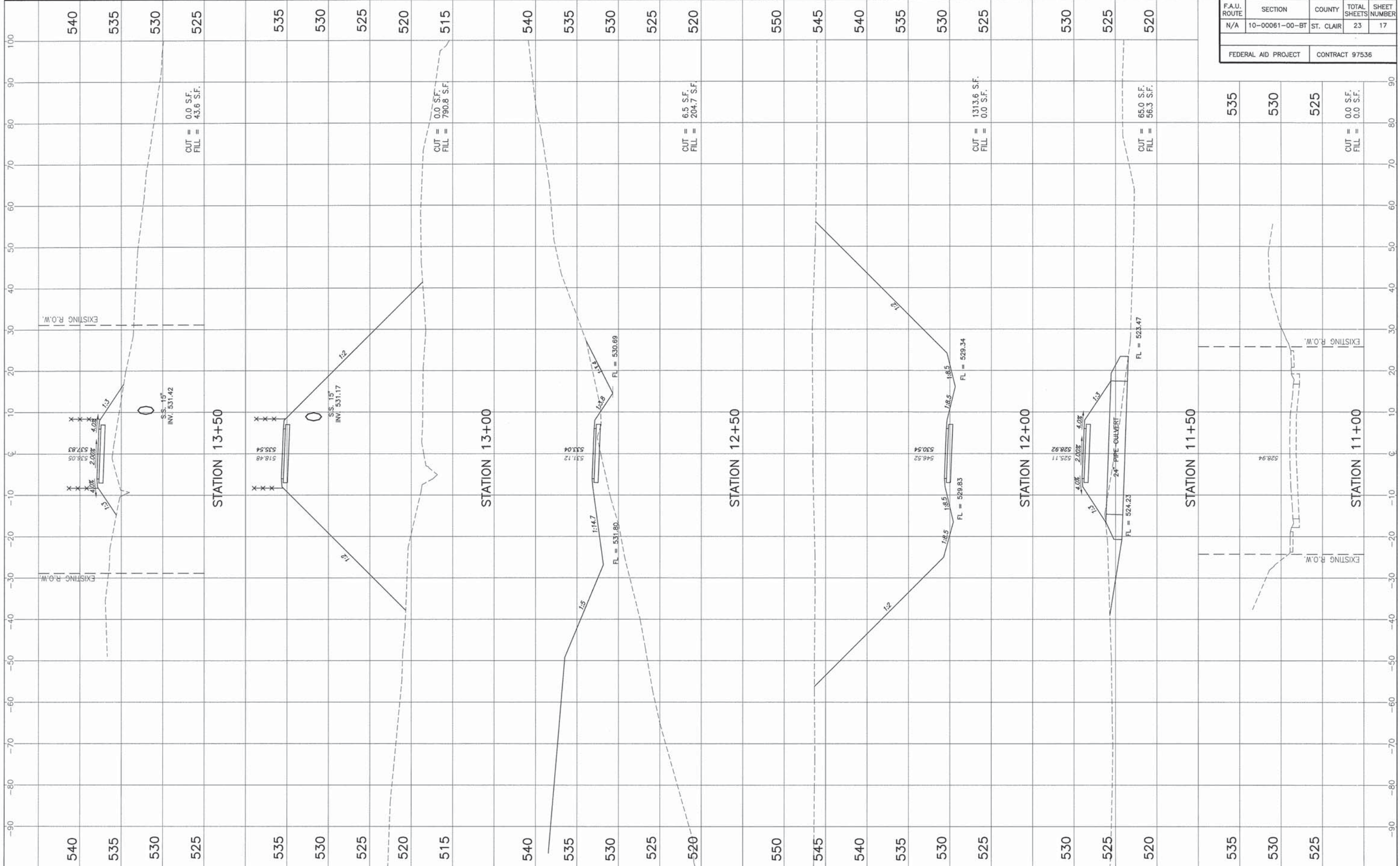


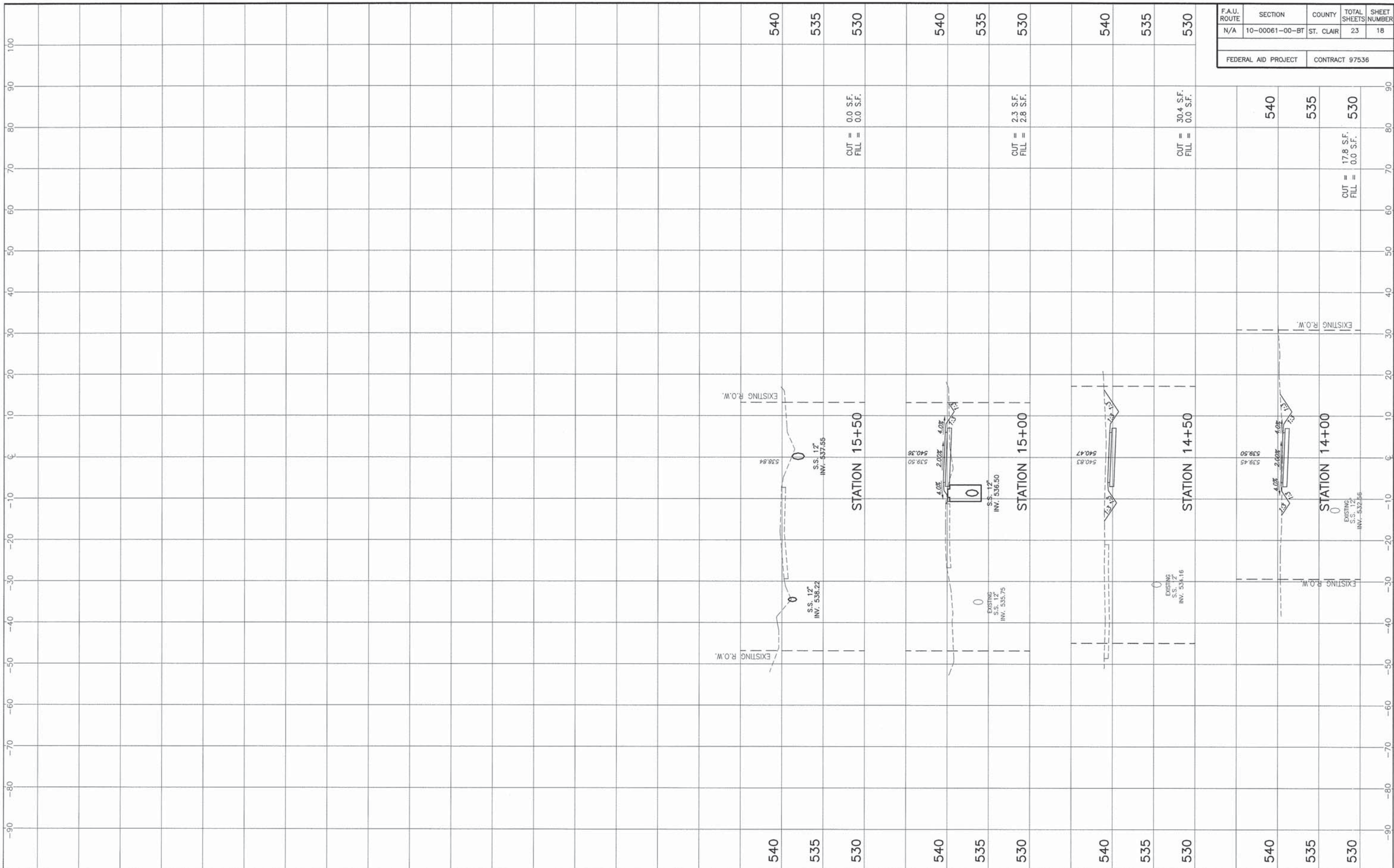
NOTES

1. VERTICAL CONDUIT SECTIONS ATTACHED TO THE SERVICE POLE SHALL BE INCIDENTAL TO THE SERVICE INSTALLATION. SUCH INSTALLATION OF CONDUIT ON THE SERVICE POLE SHALL BE DONE TO THE SATISFACTION OF THE UTILITY COMPANY.
2. UNLESS OTHERWISE NOTED, SITE LIGHTING SHALL BE (2) #10, (1) #10G
3. ELECTRICAL CABLE WILL BE MEASURED FOR PAYMENT IN ACCORDANCE ARTICLE 817.04.

ELECTRICAL SERVICE INSTALLATION DETAIL
N.T.S.

F.A.U. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NUMBER
N/A	10-00061-00-BT	ST. CLAIR	23	17
FEDERAL AID PROJECT		CONTRACT 97536		





100
90
80
70
60
50
40
30
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
-90

540
535
530
540
535
530
540
535
530
540
535
530

STATION 15+50

STATION 15+00

STATION 14+50

STATION 14+00

CUT = 0.0 S.F.
FILL = 0.0 S.F.

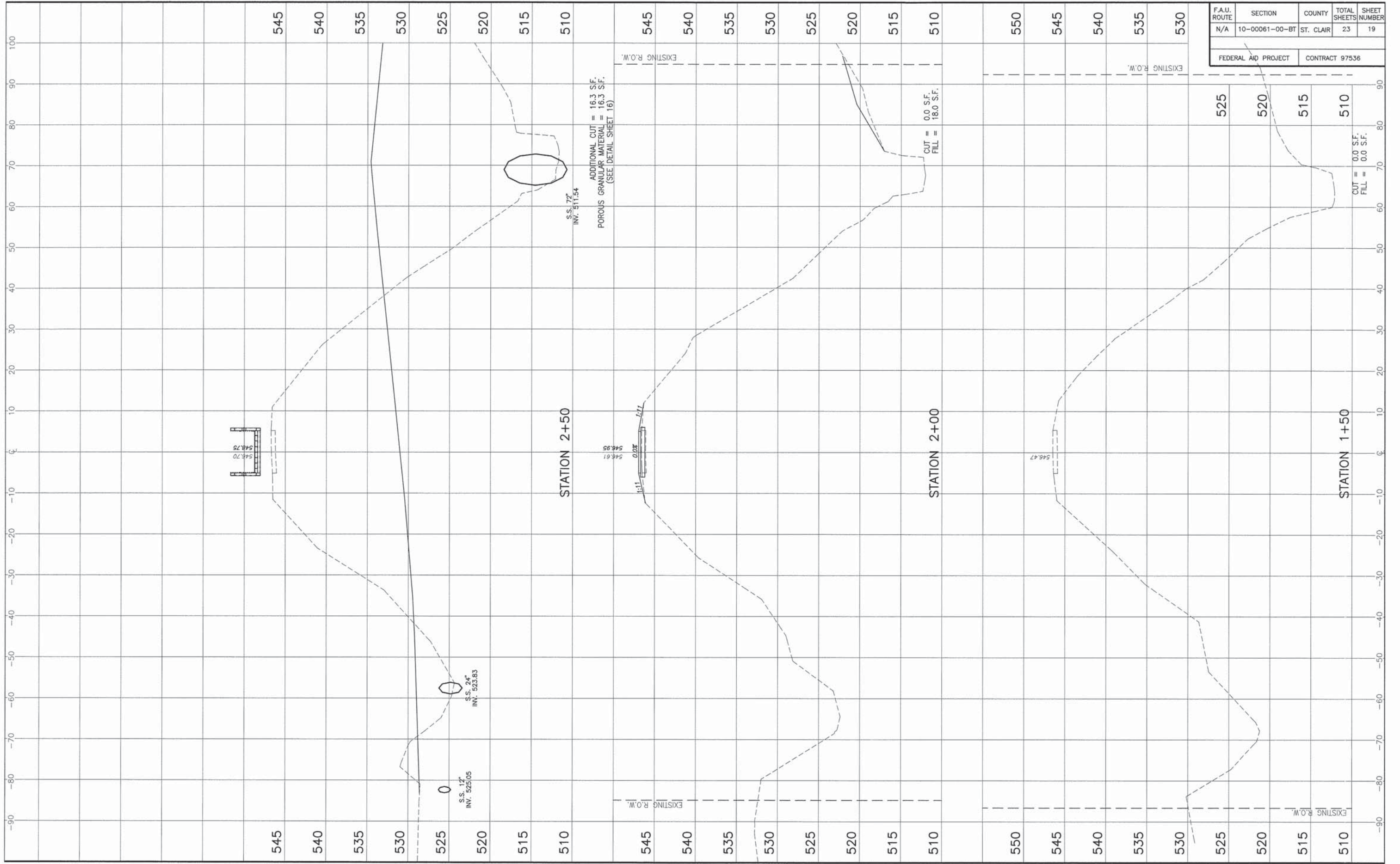
CUT = 2.3 S.F.
FILL = 2.8 S.F.

CUT = 30.4 S.F.
FILL = 0.0 S.F.

CUT = 17.8 S.F.
FILL = 0.0 S.F.

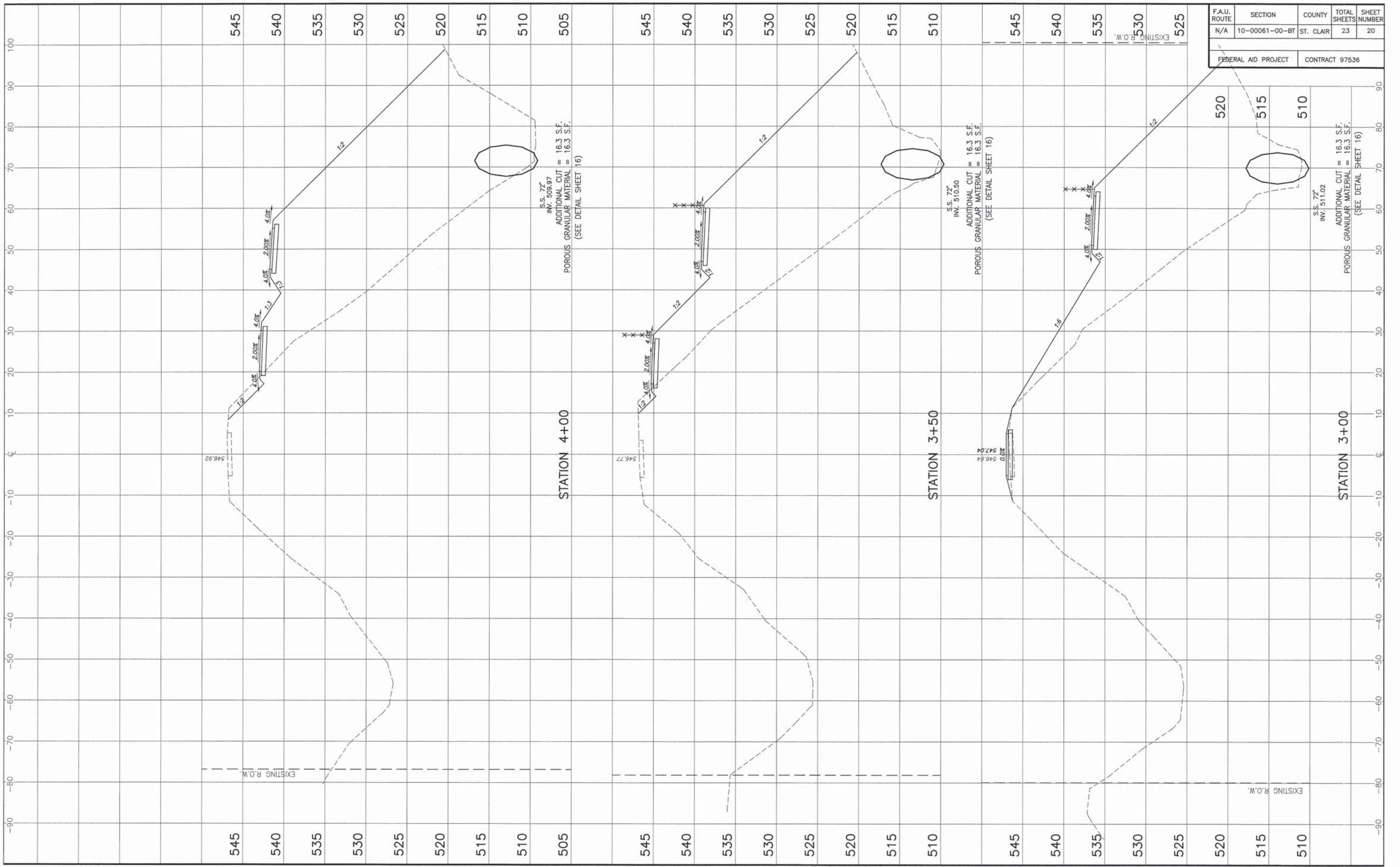
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N/A	10-00061-00-BT	ST. CLAIR	23	18
FEDERAL AID PROJECT		CONTRACT 97536		

540
535
530



CROSS SECTIONS MADISON ILLINI BIKE TRAIL CONNECTOR PROJECT
SECTION 10-00061-BT ST CLAIR COUNTY, ILLINOIS

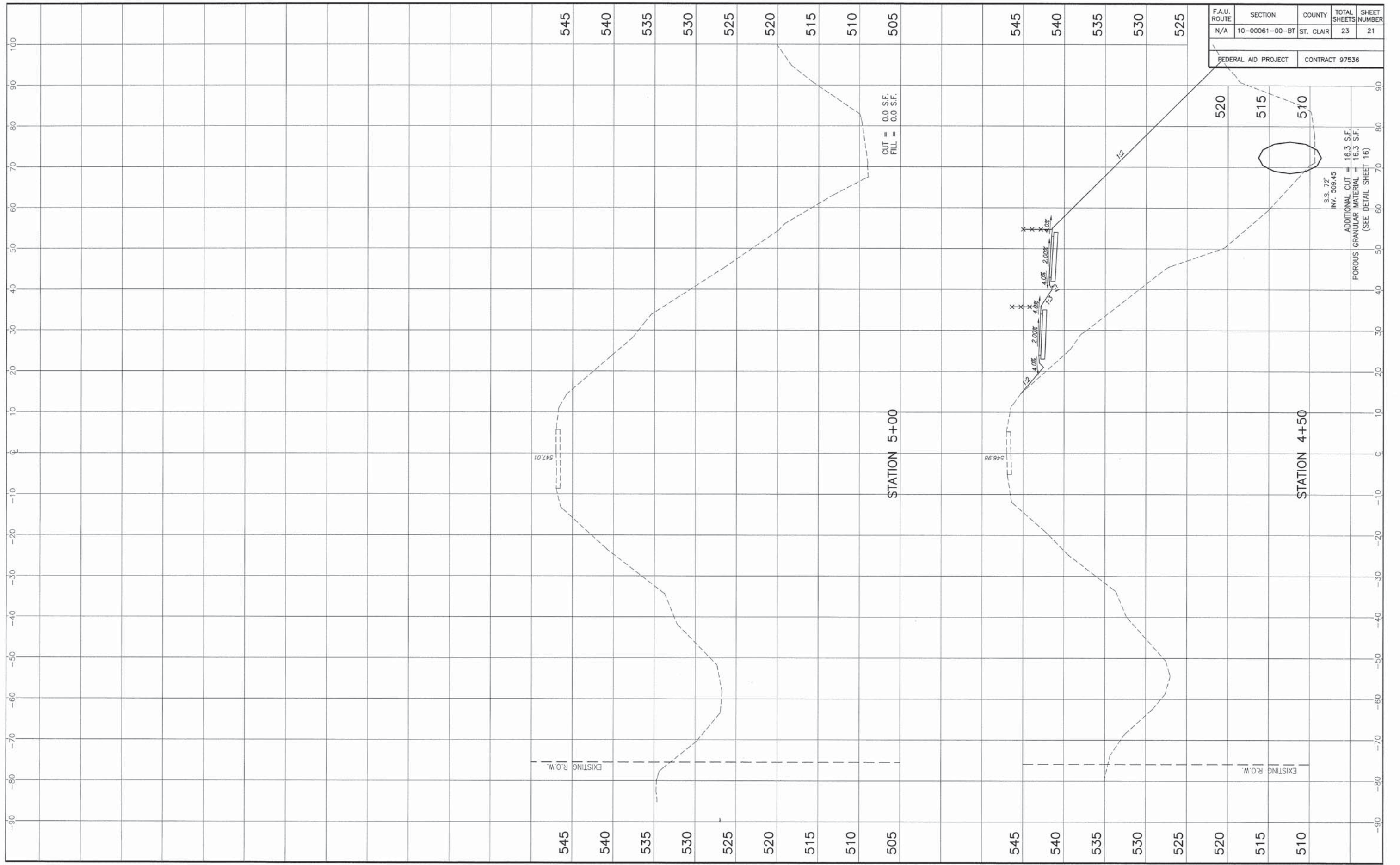
F.A.U. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NUMBER
N/A	10-00061-00-BT	ST. CLAIR	23	20
FEDERAL AID PROJECT		CONTRACT 97536		



CROSS SECTIONS MADISON ILLINI BIKE TRAIL CONNECTOR PROJECT
SECTION 10-00061-BT ST CLAIR COUNTY, ILLINOIS

F.A.U. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NUMBER
N/A	10-00061-00-BT	ST. CLAIR	23	21

FEDERAL AID PROJECT CONTRACT 97536



STATION 5+00

STATION 4+50

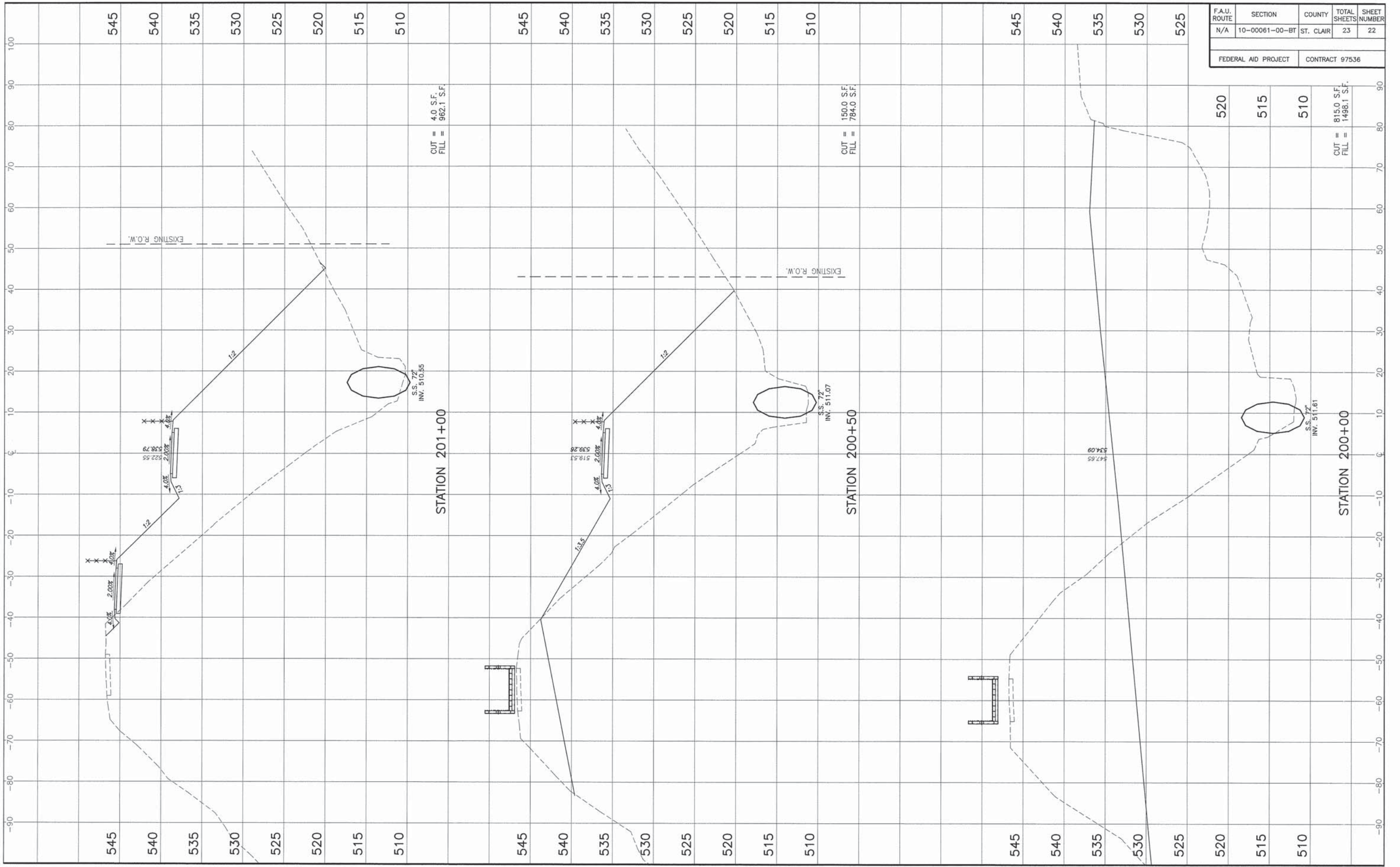
CUT = 0.0 S.F.
FILL = 0.0 S.F.

S.S. 72"
INV. 509.45
ADDITIONAL CUT = 16.3 S.F.
POROUS GRANULAR MATERIAL = 16.3 S.F.
(SEE DETAIL SHEET 16)

EXISTING R.O.W.

EXISTING R.O.W.

F.A.U. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NUMBER
N/A	10-00061-00-BT	ST. CLAIR	23	22
FEDERAL AID PROJECT		CONTRACT 97536		



F.A.U. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NUMBER
N/A	10-00061-00-BT	ST. CLAIR	23	23
FEDERAL AID PROJECT		CONTRACT 97536		

