

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

PLANS FOR PROPOSED  
FEDERAL AID HIGHWAY

FOR INDEX OF SHEETS, SEE SHEET NO. 2

NORTH BRANCH BIKE TRAIL EXTENSION  
W FOREST GLEN AVE TO W FOSTER AVE  
BICYCLE TRAIL

SECTION NO. 15-F3000-27-BT  
PROJECT NO. CMM-4003(671)  
FOREST PRESERVE DISTRICT OF COOK COUNTY  
COOK COUNTY  
JOB NO: C-91-206-16

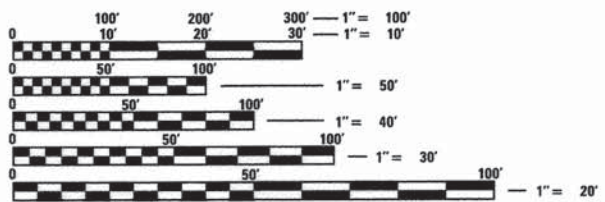
DESIGN SPEED  
20 MPH

DESIGNATION  
BIKE TRAIL

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	15-F3000-27-BT	COOK	52	1
FED. ROAD DIST. NO. -	ILLINOIS	CONTRACT NO. 61C64		

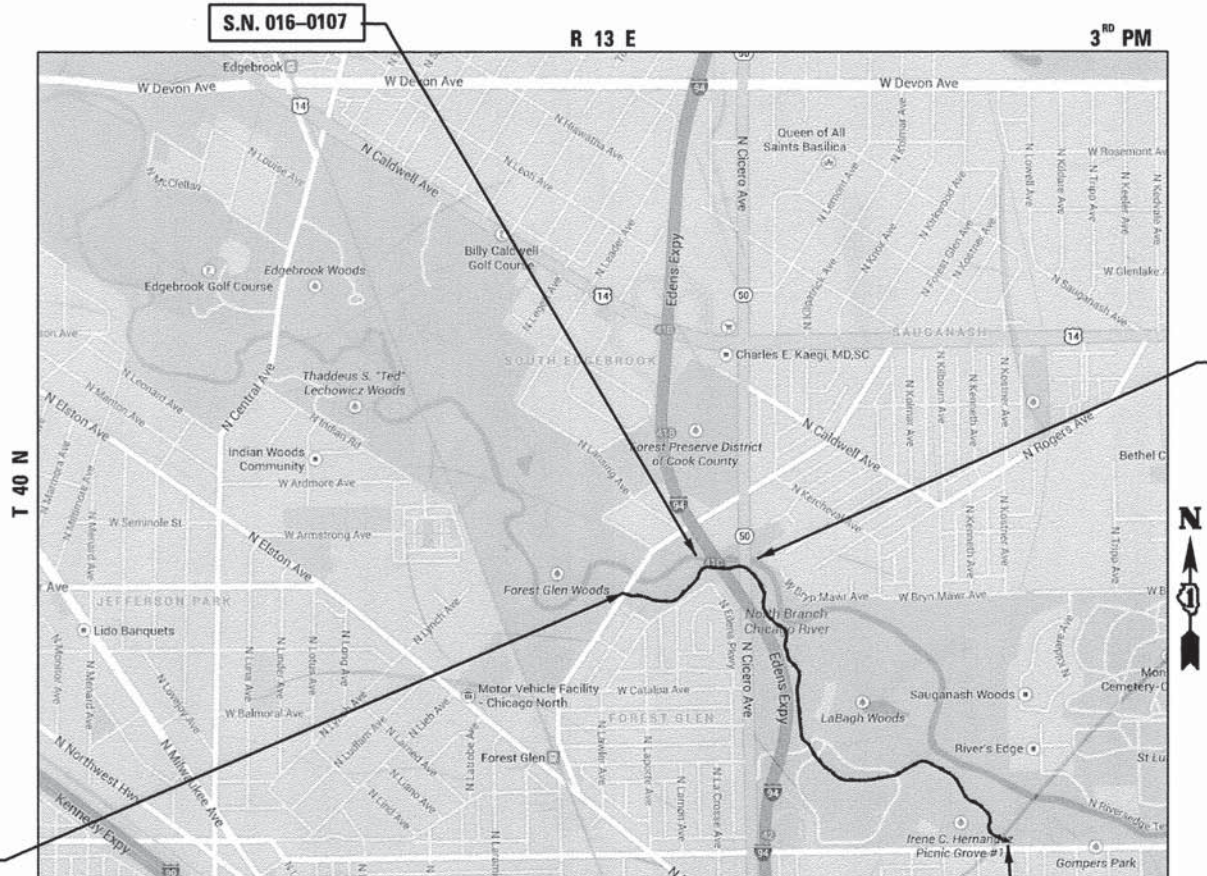


PROJECT IS LOCATED IN  
THE CITY OF CHICAGO



FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E.  
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION  
1-800-892-0123  
OR 811



BEGIN PROJECT  
STA. 103 + 41.22

END PROJECT  
STA. 166 + 19.22

LOCATION MAP  
(NOT TO SCALE)  
NET AND GROSS LENGTH = 6,278 FT = 1.19 MILES

S.N. 016-2782



SIGNATURE  
1/4/16  
DATE

LICENSE EXPIRES 11/30/2017

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

Approved Jan. 4 2016  
Chris Slattery  
FOREST PRESERVE DISTRICT OF COOK COUNTY

Passed January 7 2016  
District #1 Engineer of Local Roads and Streets

Releasing for Bid Based on Limited Review  
January 7 2016  
Deputy Director of Highways, Region #1 Engineer

PRINTED BY THE AUTHORITY  
OF THE STATE OF ILLINOIS

PLANS PREPARED BY:  
**URS**  
100 South Wacker Drive,  
Suite 500  
CHICAGO, IL. 60606  
TEL. (312)-939-1000

FEDERAL AID PROGRAM ENGINEER: FAWAD AQUEEL, P.E., P.T.O.E. 847-705-4021, SCHAUMBURG, IL

CONTRACT NO. 61C64



## INDEX OF SHEETS

1	TITLE SHEET
2	INDEX OF SHEETS, GENERAL CONSTRUCTION NOTES & STATE STANDARDS
3-5	SUMMARY OF QUANTITIES
6-7	TREE REMOVAL & EARTHWORK SCHEDULES
8	TYPICAL SECTIONS
9-11	ALIGNMENTS, TIES & BENCHMARK
12-17	PLAN AND PROFILE SHEETS - TRAIL
18-21	MISCELLANEOUS DETAILS
22-33	RETAINING WALL SHEETS
34-37	DISTRICT DETAILS
39-52	CROSS SECTIONS

## HIGHWAY STANDARDS

000001-06	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
280001-07	TEMPORARY EROSION CONTROL SYSTEMS
424001-08	PERPENDICULAR CURB RAMPS FOR SIDEWALKS
424011-02	CORNER PARALLEL CURB RAMPS FOR SIDEWALKS
424016-02	MID-BLOCK CURB RAMPS FOR SIDEWALKS
424021-03	DEPRESSED CORNER FOR SIDEWALKS
424026-01	ENTRANCE / ALLEY PEDESTRIAN CROSSINGS
542301-03	PRECAST REINFORCED CONCRETE FLARED END SECTION
542306-03	PRECAST REINFORCED CONCRETE ELLIPTICAL FLARED END SECTION
606001-06	CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
606201-03	TYPE B GUTTER (INLET, OUTLET, AND ENTRANCE)
664001-02	CHAIN LINK FENCE
701006-05	OFF ROAD OPERATION-2L2W - 15 FT TO EOP
701101-05	OFF ROAD MOVING OPERATION 2L2W-DAY ONLY
701501-06	URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED
701606-10	URBAN SINGLE LANE CLOSURE, MULTILANE, 2W WITH MOUNTABLE MEDIAN
701801-06	SIDEWALK CORNER OR CROSSWALK CLOSURE
701901-05	TRAFFIC CONTROL DEVICES
720001-01	SIGN PANEL MOUNTING DETAILS
720006-04	SIGN PANEL ERECTION DETAILS
720011-01	METAL POSTS FOR SIGNS, MARKERS AND DELINEATORS
729001-01	APPLICATIONS OF TYPES A AND B METAL POSTS (FOR SIGNS & MARKERS)

## DISTRICT ONE DETAILS

BD-24	CURB AND GUTTER REMOVAL AND REPLACEMENT
BD-51	BENCHING DETAIL FOR EMBANKMENT WIDENING
TC-10	TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS AND DRIVEWAYS
TC-13	DISTRICT ONE TYPICAL PAVEMENT MARKINGS

## BENCHMARKS /CONTROL POINTS

SEE ALIGNMENTS, TIES AND BENCHMARK SHEETS

## FLOODPLAIN MANAGEMENT

THE COMPENSATORY STORAGE SHALL BE PROVIDED AND OPERATED PRIOR TO PLACEMENT OF THE FILL, STRUCTURES OR OTHER MATERIALS IN THE REGULATORY FLOODPLAIN.

## CONSTRUCTION ACCESS LOCATIONS

THE CONSTRUCTION ACCESS LOCATIONS SHALL AVOID WETLAND, WETLAND BUFFER AND RIPARIAN AREAS.

## COMMITMENTS

NO CONSTRUCTION TRAFFIC ON BRYN MAWR AVENUE.

### GENERAL NOTES

THE CONTRACTOR SHALL CONTACT THE DISTRICT ONE TRAFFIC CONTROL SUPERVISOR AT 847-705-4470 A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING WORK BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "JULIE" AT 800-892-0123 FOR FIELD LOCATIONS OF BURIED UTILITY FACILITIES. (48 HOURS NOTIFICATION IS REQUIRED). ALL STATION-OFFSET CALL OUTS AND CURVE DATA ON THE PLANS REFER TO THE PROPOSED CENTERLINE UNLESS OTHERWISE SHOWN.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS.

WHEN NECESSARY, LANE CLOSURES ON IL 50 (CICERO AVE), AND FOSTER AVE WILL ONLY BE PERMITTED BETWEEN THE HOURS OF 9 AM AND 3 PM.

ANY WORK ON HOLIDAYS AND WEEKENDS WILL NEED PRIOR APPROVAL FROM THE DISTRICT.

### SPECIFICATIONS

ALL CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", ADOPTED JANUARY 1, 2012, THE "STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS", JULY 2009 6TH EDITION, THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS", LATEST EDITION, THE DETAILS INCLUDED IN THE PLANS, AND THE SPECIAL PROVISIONS INCLUDED IN THE CONTRACT DOCUMENTS.

### STANDARDS

ANY REFERENCE TO "STANDARDS" THROUGHOUT THE PLANS OR SPECIAL PROVISIONS SHALL BE INTERPRETED TO BE THE LATEST STANDARD OF IDOT AS LISTED ON THIS SHEET.

### COORDINATION

THE CONTRACTOR SHALL NOTIFY THE FOREST PRESERVE DISTRICT OF COOK COUNTY AT LEAST 48 HOURS IN ADVANCE OF BEGINNING WORK, AND SHALL COORDINATE ALL CONSTRUCTION OPERATIONS WITH THE ENGINEER. THE CONTRACTOR SHALL ALSO OBTAIN ANY AND ALL NECESSARY PERMITS REQUIRED BEFORE THE START OF ANY CONSTRUCTION.

### PUBLIC OR PRIVATE UTILITIES

THE LOCATIONS OF PUBLIC OR PRIVATE UTILITIES SHOWN ON THE PLANS ARE APPROXIMATE, AND THE DEPARTMENT AND DISTRICT DO NOT GUARANTEE THEIR ACCURACY. THE CONTRACTOR SHALL BE REQUIRED TO ASCERTAIN THE EXACT LOCATIONS OF SUCH UTILITIES AND EXERCISE CARE DURING CONSTRUCTION OPERATIONS SO AS NOT TO DAMAGE THEM, IN ACCORDANCE WITH THE SPECIAL PROVISIONS AND ARTICLE 107.20 OF THE "STANDARD SPECIFICATIONS". THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE UTILITY OWNERS SO THAT THEIR FACILITIES MAY BE ADJUSTED OR RELOCATED, IF NECESSARY, PRIOR TO THE START OF CONSTRUCTION OPERATIONS UNLESS OTHERWISE NOTED IN THE PLANS. ALL RELOCATION WORK ON EXISTING PRIVATE UTILITIES WILL BE DONE BY THE OWNER OF THAT UTILITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE OR DESTRUCTION OF PUBLIC OR PRIVATE PROPERTY, AND SHALL RESTORE SUCH PROPERTY AT HIS/HER OWN EXPENSE.

### SURVEY AND MONUMENTS

ALL ELEVATIONS IN THE PLANS ARE BASED UPON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)

### EXISTING DRAINAGE STRUCTURES

DURING CONSTRUCTION OPERATIONS, WHENEVER ANY LOOSE MATERIAL IS DEPOSITED IN THE FLOW LINE OF DRAINAGE STRUCTURES, SUCH THAT THE NATURAL FLOW OF WATER IS OBSTRUCTED, IT SHALL BE REMOVED BY THE CONTRACTOR AT THE CLOSE OF EACH WORKING DAY. AT THE CONCLUSION OF CONSTRUCTION OPERATIONS, ALL DRAINAGE STRUCTURES SHALL BE FREE FROM DIRT AND DEBRIS. THE WORK SPECIFIED ABOVE WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED AS INCLUDED IN THE COST OF EARTH EXCAVATION.

### UNSUITABLE MATERIAL

BEFORE REMOVAL OF ANY UNSUITABLE MATERIAL, THE CONTRACTOR SHALL TREAT THE SUBGRADE AS PER ARTICLE 301.03 OF THE "STANDARD SPECIFICATIONS" TO THE SATISFACTION OF THE ENGINEER. UNSUITABLE MATERIAL SHALL NOT BE USED AS EMBANKMENT OR FILL UNDER THE PROPOSED TRAIL AS SHOWN ON THE TYPICAL CROSS SECTIONS.

## GENERAL CONSTRUCTION NOTES

### STOCKPILES

STOCKPILES OF TOPSOIL AND OTHER MATERIALS SHALL NOT BE LOCATED WITHIN A SPECIAL MANAGEMENT AREA. APPROVAL OF THE LOCATION MUST BE OBTAINED FROM THE ENGINEER PRIOR TO PLACEMENT. IF A STOCKPILE IS TO REMAIN IN PLACE FOR MORE THAN THREE DAYS, EROSION CONTROL MEASURES SHALL BE PROVIDED. STOCKPILES TO REMAIN IN PLACE FOR 30 DAYS OR MORE SHALL RECEIVE TEMPORARY SEEDING.

### ACCESS TO PROPERTY

THE CONTRACTOR SHALL MAINTAIN ACCESS TO ABUTTING PROPERTY DURING THE CONSTRUCTION OF THIS PROJECT, EXCEPT FOR PERIODS OF SHORT DURATION AS APPROVED BY THE ENGINEER.

### SAW CUTTING

THE LIMITS OF REMOVAL OF ALL CONCRETE OR BITUMINOUS PAVEMENTS, CURBING OR SIDEWALKS SHALL BE SAWCUT IN ACCORDANCE WITH SECTION 440 OF THE "STANDARD SPECIFICATIONS" AND AT THE DIRECTION OF THE ENGINEER. THE SAW CUTTING OF BITUMINOUS PAVEMENT, DRIVEWAYS, CURBING OR SIDEWALK SHALL BE CONSIDERED INCLUDED IN THE COST OF PAVEMENT REMOVAL, CURB AND GUTTER REMOVAL AND SIDEWALK REMOVAL.

### RESTORATION ACCESS

GRASS AREAS DISTURBED DURING CONSTRUCTION SHALL BE RESTORED WITH SIX INCHES OF TOPSOIL AND SEED OR SOD.

A. THE CONTRACTOR SHALL BE AWARE OF POTENTIAL LIMITED ACCESS TO PORTIONS OF THE PROJECT. TEMPORARY DRAINAGE CROSSINGS APPROVED BY THE ENGINEER MAY BE INSTALLED BY THE CONTRACTOR AT HIS/HER EXPENSE TO GAIN ACCESS.

B. NO CONSTRUCTION TRAFFIC OR CONTRACTOR VEHICLES ALLOWED ON BRYN MAWR AVE. AT ANY TIME

## SEDIMENTATION AND EROSION CONTROL NOTES

- SOIL DISTURBANCE SHALL BE CONDUCTED IN SUCH A MANNER AS TO MINIMIZE EROSION. SOIL STABILIZATION MEASURES SHALL CONSIDER THE TIME OF YEAR, SITE CONDITIONS AND THE USE OF TEMPORARY OR PERMANENT MEASURES.
- SOIL EROSION AND SEDIMENT CONTROL FEATURES SHALL BE CONSTRUCTED PRIOR TO THE COMMENCEMENT OF UPLAND DISTURBANCE.
- TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO DISTURBED AREAS WITHIN 14 CALENDAR DAYS OF THE END OF ACTIVE HYDROLOGIC DISTURBANCE. PERMANENT STABILIZATION SHALL BE DONE WITHIN 14 DAYS AFTER COMPLETION OF FINAL GRADING.
- ALL STORM SEWER FACILITIES THAT ARE OR WILL BE FUNCTIONING DURING CONSTRUCTION SHALL BE PROTECTED, FILTERED, OR OTHERWISE TREATED TO REMOVE SEDIMENT.
- ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED. TRAPPED SEDIMENT AND OTHER DISTURBED SOIL AREAS SHALL BE PERMANENTLY STABILIZED.
- ALL TEMPORARY AND PERMANENT EROSION CONTROL MEASURES SHALL BE MAINTAINED AND REPAIRED AS NEEDED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSPECTION AND REPAIR DURING CONSTRUCTION.
- THE EROSION CONTROL MEASURES INDICATED ON THE PLANS ARE THE MINIMUM REQUIREMENTS. ADDITIONAL MEASURES MAY BE REQUIRED, AS DIRECTED BY THE ENGINEER OR GOVERNING AGENCY.
- THE CONTRACTOR SHALL INSTALL ALL EROSION CONTROL PRIOR TO THE START OF ANY EARTHWORK.
- IF A STOCKPILE IS TO REMAIN IN PLACE FOR MORE THAN THREE DAYS, EROSION CONTROL MEASURES SHALL BE PROVIDED BY THE CONTRACTOR.
- EROSION CONTROL MEASURES SHALL COMPLY WITH THE MINIMUM REQUIREMENTS OF THE COOK COUNTY STORMWATER AND FLOODPLAIN ORDINANCE SPECIFICATIONS AT ALL TIMES.

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

NORTH BRANCH BIKE TRAIL EXTENSION  
INDEX OF SHEETS, GENERAL CONSTRUCTION NOTES  
AND HIGHWAY STANDARDS

SCALE: — SHEET NO. 1 OF 1 SHEETS STA. — TO STA. —

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	15-F3000-27-BT	COOK	52	2
CONTRACT NO. 61C64				
FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT				

FILE NAME = P:\Coast\FPD\_25367369\_Mon-14-16-16\Ext\Roadway\Phase 2 Engineering - Stage 2\General\General.dgn



USER NAME = ken_moy	DESIGNED - DDL	REVISED -
	DRAWN - PMV	REVISED -
PLOT SCALE = 10.0000' / 1" =	CHECKED - NPP	REVISED -
PLOT DATE = 4/1/2016	DATE - 4/01/16	REVISED -



"SUMMARY OF QUANTITIES"

CODE NO.	ITEM	UNIT	TOTAL QUANTITY 0028
20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	1356
20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	1010
20101000	TEMPORARY FENCE	FOOT	620
20101100	TREE TRUNK PROTECTION	EACH	30
* 20101200	TREE ROOT PRUNING	EACH	14
* 20101300	TREE PRUNING (1 TO 10 INCH DIAMETER)	EACH	50
* 20101350	TREE PRUNING (OVER 10 INCH DIAMETER)	EACH	50
20200100	EARTH EXCAVATION	CU YD	1304
20201200	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU YD	5008
20400800	FURNISHED EXCAVATION	CU YD	2994
20800150	TRENCH BACKFILL	CU YD	37
20900110	POROUS GRANULAR BACKFILL	CU YD	366
21001000	GEOTECHNICAL FABRIC FOR GROUND STABILIZATION	SQ YD	7033
21101625	TOPSOIL FURNISH AND PLACE, 6"	SQ YD	8820
* 25000115	SEEDING, CLASS 1B	ACRE	0.75
* 25000312	SEEDING, CLASS 4A	ACRE	1.25
* 25000400	NITROGEN FERTILIZER NUTRIENT	POUND	65
* 25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	65
* 25100115	MULCH, METHOD 2	ACRE	2.0
* 25100630	EROSION CONTROL BLANKET	SQ YD	5333
* 25200200	SUPPLEMENTAL WATERING	UNIT	100

CODE NO.	ITEM	UNIT	TOTAL QUANTITY 0028
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	183
28000315	AGGREGATE DITCH CHECKS	TON	29
28000400	PERIMETER EROSION BARRIER	FOOT	11601
28100103	STONE RIP RAP, CLASS A2	SQ YD	8
28200200	FILTER FABRIC	SQ YD	315
30300001	AGGREGATE SUBGRADE IMPROVEMENT	CU YD	2505
35101600	AGGREGATE BASE COURSE, TYPE B 4"	SQ YD	757
35101800	AGGREGATE BASE COURSE, TYPE B 6"	SQ YD	6277
40600275	BITUMINOUS MATERIALS (PRIME COAT)	POUND	14122
40603335	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50	TON	703
42001300	PROTECTIVE COAT	SQ YD	769
42400300	PORTLAND CEMENT CONCRETE SIDEWALK 6 INCH	SQ FT	6726
42400800	DETECTABLE WARNINGS	SQ FT	133
44000600	SIDEWALK REMOVAL	SQ FT	1540
50102400	CONCRETE REMOVAL	CU YD	137.6
50104650	SLOPE WALL REMOVAL	SQ YD	237
50200100	STRUCTURE EXCAVATION	CU YD	673
50201101	COFFERDAM (TYPE 1) (LOCATION - 1)	EACH	1
50300225	CONCRETE STRUCTURES	CU YD	171.4
50500505	STUD SHEAR CONNECTORS	EACH	1474
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	17810

\* = SPECIALTY ITEMS

FILE NAME = P:\Cook\FD\_25367369\_NorthBranchExt\Roadway\Phase 2\_Engineering - Stage 2\General\Summary\QDQuantities.dgn



USER NAME = ken\_moj  
 PLLOT SCALE = 10.0000' / in.  
 PLLOT DATE = 4/1/2016

DESIGNED - DDL  
 DRAWN - PMV  
 CHECKED - NPP  
 DATE - 4/01/16

REVISED -  
 REVISED -  
 REVISED -  
 REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

NORTH BRANCH BIKE TRAIL EXTENSION  
 SUMMARY OF QUANTITIES

SCALE: SHEET NO. OF 1 SHEETS STA. TO STA. —

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	15-F3000-27-BT	COOK	52	3
FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT			CONTRACT NO. 61C64	



**"SUMMARY OF QUANTITIES"**

CODE NO.	ITEM	UNIT	TOTAL QUANTITY 0028
* 50901760	PIPE HANDRAIL	FOOT	372
51100100	SLOPE WALL 4 INCH	SQ YD	358
52200015	PERMANENT STEEL SHEET PILING	SQ FT	7875
52200100	FURNISHING SOLDIER PILES (HP SECTION)	FOOT	1076
52200150	DRIVING SOLDIER PILES	FOOT	1076
52200255	TREATED TIMBER LAGGING	SQ FT	1685
542A0217	PIPE CULVERTS, CLASS A, TYPE I 12"	FOOT	90
542A0220	PIPE CULVERTS, CLASS A, TYPE I 15"	FOOT	50
542A0223	PIPE CULVERTS, CLASS A, TYPE I 18"	FOOT	24
542A0235	PIPE CULVERTS, CLASS A, TYPE I 30"	FOOT	30
54213657	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 12"	EACH	10
54213660	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 15"	EACH	4
54213663	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 18"	EACH	2
54213675	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 30"	EACH	2
55100700	STORM SEWER REMOVAL 15"	FOOT	20
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	386
59300100	CONTROLLED LOW-STRENGTH MATERIAL	CU YD	30.8
60250200	CATCH BASINS TO BE ADJUSTED	EACH	1
60602800	CONCRETE GUTTER, TYPE B	FOOT	243
67000500	ENGINEER'S FIELD OFFICE, TYPE B	CAL MO	12
67100100	MOBILIZATION	LSUM	1

\* SPECIALTY ITEMS

CODE NO.	ITEM	UNIT	TOTAL QUANTITY 0028
70102620	TRAFFIC CONTROL AND PROTECTION, STANDARD 701501	LSUM	1
70102640	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	LSUM	1
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DAY	60
72000100	SIGN PANEL - TYPE 1	SQ FT	75
72900100	METAL POST - TYPE A	FOOT	128
72900200	METAL POST - TYPE B	FOOT	83
* 78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	206
* 78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	341
* 78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	6097
* 78001150	PAINT PAVEMENT MARKING - LINE 12"	FOOT	35
* 78300100	PAVEMENT MARKING REMOVAL	SQ FT	69
* A2001010	TREE, ACER RUBRUM (RED MAPLE), 1-1/4" CALIPER, BALLED AND BURLAPPED	EACH	10
* A2002912	TREE, CELTIS OCCIDENTALIS (COMMON HACKBERRY), 1-1/2" CALIPER, BALLED AND BURLAPPED	EACH	5
* A2006414	TREE, QUERCUS ALBA (WHITE OAK), 1-3/4" CALIPER, BALLED AND BURLAPPED	EACH	10
* A2006510	TREE, QUERCUS BICOLOR (SWAMP WHITE OAK), 1-1/4" CALIPER, BALLED AND BURLAPPED	EACH	5
* A2006712	TREE, QUERCUS MACROCARPA (BUR OAK), 1-1/2" CALIPER, BALLED AND BURLAPPED	EACH	5
* A2007112	TREE, QUERCUS RUBRA (RED OAK), 1-1/2" CALIPER, BALLED AND BURLAPPED	EACH	5
* A2007612	TREE, TAXODIUM DISTICHUM (COMMON BALD CYPRESS), 1-1/2" CALIPER, BALLED AND BURLAPPED	EACH	5
* A2007814	TREE, TILIA AMERICANA (AMERICAN LINDEN/ BASSWOOD), 1-3/4" CALIPER, BALLED AND BURLAPPED	EACH	5
* C2C01324	SHRUB, CLETHRA ALNIFOLIA (SUMMERSWEET CLETHRA), 2' HEIGHT, CONTAINER	EACH	1
X0325592	REMOVE AND REPLACE STONE RIPRAP	CU YD	285

\* = SPECIALTY ITEMS

FILE NAME = P:\Cook\FPD\_25357361\_Nor-08BranchExt-Roadway\Phase 2 Engineering - Stage 2\General\Summary\Quantities.dgn



USER NAME = ken_moy	DESIGNED - DDL	REVISED -
PLOT SCALE = 10.0000' / 1"	DRAWN - PMV	REVISED -
PLOT DATE = 4/1/2016	CHECKED - NPP	REVISED -
	DATE - 4/01/16	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**NORTH BRANCH BIKE TRAIL EXTENSION  
SUMMARY OF QUANTITIES**

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	15-F3000-27-BT	COOK	52	4
CONTRACT NO. 61C64				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



"SUMMARY OF QUANTITIES"

CODE NO.	ITEM	UNIT	TOTAL QUANTITY 0028
X0327285	DOWNSPOUT ADJUSTMENT	EACH	2
X0350810	BOLLARD REMOVAL	EACH	8
X5030290	STAINING CONCRETE STRUCTURES	SQ FT	2340
* X6640304	CHAIN LINK FENCE TO BE REMOVED AND RE-ERECTED	FOOT	230
XX007452	RELOCATE BOLLARDS	EACH	40
Z0004562	COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT	FOOT	69
* Z0022800	FENCE REMOVAL	FOOT	20
Z0042300	PORTLAND CEMENT CONCRETE SIDEWALK CURB	FOOT	163
Z0046304	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	598
* Z0055800	RUSTIC RAIL FENCE	FOOT	307
Z0056610	STORM SEWER (WATER MAIN REQUIREMENTS) 15 INCH	FOOT	20

\* SPECIALTY ITEMS

FILE NAME = P:\Cook\FPD\_25367369-NorthBranch\EA\Roadway\Phase 2 Engineering - Stage 2\General\Summary\Of\Quantities.dgn

USER NAME = ken.moj	DESIGNED - DDL	REVISED -
	DRAWN - PMV	REVISED -
PLOT SCALE = 10.0000' / in.	CHECKED - NPP	REVISED -
PLOT DATE = 4/1/2016	DATE - 4/01/16	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>NORTH BRANCH BIKE TRAIL EXTENSION</b>			
<b>SUMMARY OF QUANTITIES</b>			
SCALE:	SHEET NO.	OF SHEETS	STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	15-F3000-27-BT	COOK	52	5
FED. ROAD DIST. NO.			CONTRACT NO. 61C64	
[ILLINOIS] FED. AID PROJECT				



TREE REMOVAL SCHEDULE				
STATION	OFFSET		6-15 UNITS	>15 UNITS
	LT	RT		
103+46	0.4		12	
103+53		5.0	6	
103+54		4.8		24
103+63	4.0			18
103+66	5.0		15	
103+67	3.6		8	
103+71		0.8	8	
103+87	2.7		12	
103+99	7.9		15	
104+20		3.0	6	
104+23		3.1		16
104+29		5.6	10	
104+30	7.4		14	
104+46	8.6		13	
104+57	9.2		9	
104+59		5.0	13	
104+62	11.2		15	
104+71		6.9	10	
105+04	7.8		14	
105+09	4.1		8	
105+10	8.9		12	
105+25		4.9		42
105+34		5.6	6	
105+38	6.3		10	
105+49	7.9		7	
105+51	8.2		15	
108+25		6.4	12	
108+26		8.9		28
108+29		5.4	12	
108+32		10.5	15	
108+33		4.1	12	
108+36		11.3		18
108+37		4.2	6	
108+41		0.9	8	
108+54		8.8	12	
108+55		5.4	6	
109+48		0.0		36
112+42	1.0		8	
112+51	4.1		8	
112+64	10.2			22
118+80		11.0		28
118+84		12.0		36
118+91	10.0		12	
119+20		28.2		36
119+26		15.9	12	
119+31		12.1	15	
119+63	9.8		15	
119+64		10.9	12	
119+78		12.7		24
119+88		14.7	8	
119+92		12.0	15	

TREE REMOVAL SCHEDULE				
STATION	OFFSET		6-15 UNITS	>15 UNITS
	LT	RT		
119+93		14.5	12	
120+27	13.5		12	
120+69	17.5			36
120+81	11.7		15	
121+03		9.1	12	
121+18		11.8	12	
121+22		14.6	10	
121+35		11.0	12	
121+35		5.8	12	
121+39		10.0	10	
121+89		6.2	10	
122+00	12.3		10	
122+03	13.4		10	
122+04		9.4	12	
122+13		11.9	12	
122+45		11.0	12	
122+75		10.6	6	
122+80	15.0		12	
122+83	12.3			32
122+93		13.1	12	
123+10		5.1	6	
123+13	1.1		6	
123+33	13.6		6	
123+35		7.4	12	
123+50	7.9		12	
123+64		3.9	6	
124+41		9.3		36
124+45		13.9		28
124+55	8.7		12	
125+72		2.8	10	
125+75	5.1		12	
125+91	2.2			36
126+01		11.9	15	
126+43		15.5	15	
126+68	8.7		15	
126+74	3.7		15	
126+75		13.5		32
126+96	12.1		15	
127+03	11.1			30
127+07	13.8			30
127+14	13.8			30
127+18	22.6		8	
127+38	19.0		15	
127+45	0.0	0.0		36
127+63	4.9			28
128+29		21.4	12	
137+56		2.0	10	
150+08	10.0			18
150+16		4.8	12	
150+22	12.9			18

TREE REMOVAL SCHEDULE				
STATION	OFFSET		6-15 UNITS	>15 UNITS
	LT	RT		
150+27		3.6	6	
150+36	11.9		12	
150+38		5.9	15	
150+42		11.0	15	
150+54		8.3	10	
150+59	15.0		12	
150+65		10.5	8	
150+71	11.6		12	
150+84	10.2		12	
150+85	2.2		12	
151+04		9.8	12	
151+18		11.7	10	
151+42	12.2		6	
151+69	3.7		10	
151+94	7.3		6	
151+96		19.6		60
152+25		3.7	10	
152+31	10.1		15	
152+41	4.4		6	
152+52		7.7	6	
152+65		1.2	10	
152+71	5.5		15	
152+80		12.8		18
152+85	4.1		6	
152+86		8.3	8	
152+87	20.7		10	
152+87	18.2		12	
152+95	1.6		10	
153+97	16.7			18
153+98		1.9	15	
154+09		7.3	6	
165+43		16.7		28
20% GROWTH			226	168
SUBTOTAL			1356	1010

TEMPORARY FENCE SCHEDULE			
STATION TO STATION	OFFSET	LENGTH (FT)	
121+00.00	122+50.00	LT	150
122+55.00	127+25.00	RT	470
		TOTAL:	620

FILE NAME = 8FILES



USER NAME = \$USER\$  
 PLOT SCALE = \$SCALE\$  
 PLOT DATE = \$DATE\$

DESIGNED - DDL  
 DRAWN - PMV  
 CHECKED - NPP  
 DATE - 1/4/16

REVISED -  
 REVISED -  
 REVISED -  
 REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

NORTH BRANCH BIKE TRAIL EXTENSION  
 SCHEDULES - TREE REMOVAL & TEMPORARY FENCE

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	15-F3000-27-BT	COOK	52	6
CONTRACT NO. 61C64				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



SIGN INSTALLATION SCHEDULE									
STATION	RT/LT	SIGN	DESIGNATION	SIGN PANEL DIMENSIONS (IN)		TYPE A POST (EACH)	TYPE B POST (EACH)	LENGTH /POST (FT)	TOTAL LENGTH (FT)
103+49.00	LT	STOP	R1-1	18	18	1		10	10
103+55.00	RT	N Branch Trail	SPECIAL	24	18		1	12	12
		BIKE ROUTE	D11-1	24	18				
105+00.00	RT	Caution: Bike Path May Flood Ahead	SPECIAL	24	18	1		10	10
108+10.00	RT	HILL	W7-5	18	18	1		10	10
135+00.00	LT	Caution: Bike Path May Flood Ahead	SPECIAL	24	18	1		10	10
137+75.00	LT	N Branch Trail	SPECIAL	24	18		1	12	12
		BIKE ROUTE	D11-1	24	18				
138+23.00	RT	STOP	R1-1	18	18	1		10	10
138+87.00	LT	STOP	R1-1	18	18	1		10	10
139+30.00	RT	COMBINATION BIKE AND PED CROSSING AHEAD	W11-15	30	30	2		14	28
			W16-9P	24	12				
139+66.00	RT	STOP	R1-1	18	18	1		10	10
140+34.00	LT	STOP	R1-1	18	18	1		10	10
140+50.00	RT	N Branch Trail	SPECIAL	24	18		1	12	12
		BIKE ROUTE	D11-1	24	18				
148+94.00	RT	STOP	R1-1	18	18	1		10	10
149+44.00	LT	STOP	R1-1	18	18	1		10	10
153+30.00	LT	N Branch Trail	SPECIAL	24	18		1	12	12
		BIKE ROUTE	D11-1	24	18				
153+80.00	RT	N Branch Trail	SPECIAL	24	18		1	12	12
		BIKE ROUTE	D11-1	24	18				
165+95.00	LT	N Branch Trail	SPECIAL	24	18		1	12	12
		BIKE ROUTE	D11-1	24	18				
166+10.00	RT	STOP	R1-1	18	18		1	11	11
		NO MOTOR VEHICLES	R5-3	24	24				

North Branch Bicycle Trail Tree Planting		
Species	Common Name	Quantity
Quercus alba	White Oak	10
Quercus bicolor	Swamp White Oak	5
Quercus macrocarpa	Burr Oak	5
Quercus rubra	Red Oak	5
Acer rubrum	Red Maple	10
Taxodium distichum	Bald Cypress	5
Celtis occidentalis	Hackberry	5
Tilia americana	Linden	5
<b>TOTAL</b>		<b>50</b>

LOCATIONS OF TREES TO BE DETERMINED IN FIELD BY THE ENGINEER

EARTHWORK SCHEDULE											
	STATION	TO	STATION	EARTH EXCAVATION CU YD	EARTH EXCAVATION ADJUSTED FOR SHRINKAGE (25%) CU YD	EMBANKMENT CU YD	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-) FURNISHED EXCAVATION CU YD	UNSUITABLE EXCAVATION (REMOVAL & DISPOSAL OF UNSUITABLE MATERIAL) CU YD	UNSUITABLE MATERIAL ADJUSTED FOR SHRINKAGE (25%) CU YD	TOPSOIL FURNISH AND PLACE, 6" CU YD	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-) (UNSUITABLE MATERIAL) CU YD
2	117+00.00		166+00.00	795	596	3,058	-2,461	3,807	2,855	1,051	1,804
<b>TOTAL:</b>				<b>1,304</b>	<b>978</b>	<b>3,971</b>	<b>-2,994</b>	<b>5,008</b>	<b>3,756</b>	<b>1,470</b>	<b>2,286</b>

FILE NAME: #FILES



USER NAME: #USER#	DESIGNED: DDL	REVISED: -
	DRAWN: PMV	REVISED: -
PLOT SCALE: #SCALE#	CHECKED: NPP	REVISED: -
PLOT DATE: #DATE#	DATE: 1/4/16	REVISED: -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

NORTH BRANCH BIKE TRAIL EXTENSION  
SCHEDULES - EARTHWORK, SIGN INSTALLATION, & TREES

SCALE: SHEET NO. OF 1 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	15-F3000-27-BT	COOK	52	7
CONTRACT NO. 61C64				
FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT				



**BITUMINOUS MIXTURE REQUIREMENTS**

ITEM	VOIDS	USAGE
HOT-MIX ASPHALT SURFACE COURSE, MIX. D, N50 (IL 9.5 mm; 2")	4% @ 50 GYRE	BIKE PATH SURFACE

THE UNIT WEIGHT USED TO CALCULATE ALL BITUMINOUS MIXTURE QUANTITIES IS 112 LBS/SQ. YD/IN.

THE AC TYPE SHALL BE PG-64-22 UNLESS MODIFIED BY SPECIAL PROVISIONS FOR USE OF RECYCLED MATERIALS, SPECIAL PROVISIONS

\*\* LIMIT OF PAYMENT FOR ASPHALT, BITUMINOUS MATERIAL, AND AGGREGATE BASES

**NOTE 1:**

WHERE UNSUITABLE MATERIAL UNDERLIES THE BIKE TRAIL, SHOULDERS AND/OR EMBANKMENT, AS DETERMINED BY THE ENGINEER, THE SUBGRADE TREATMENT WILL CONSIST OF EXCAVATION OF SUCH UNSUITABLE MATERIAL TO A DEPTH 12" BELOW AGGREGATE BASE COURSE AND PLACEMENT OF 12" OF AGGREGATE SUBGRADE IMPROVEMENT AND A GEOTECHNICAL FABRIC FOR GROUND STABILIZATION.

**NOTE 2:**

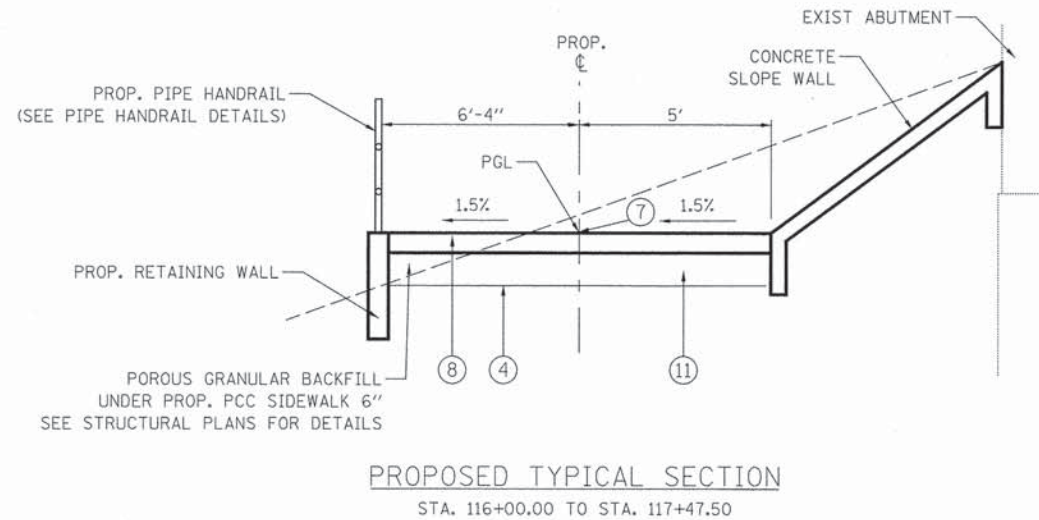
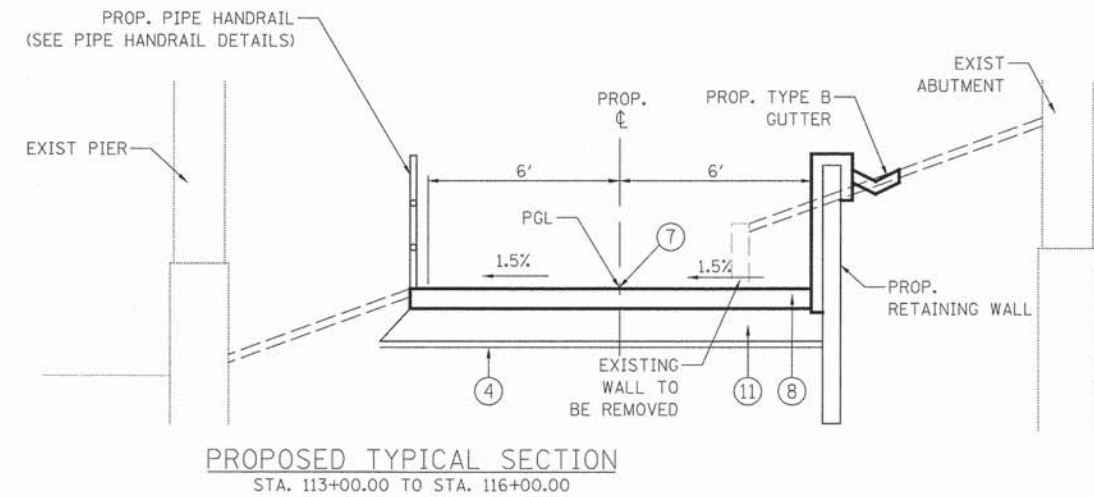
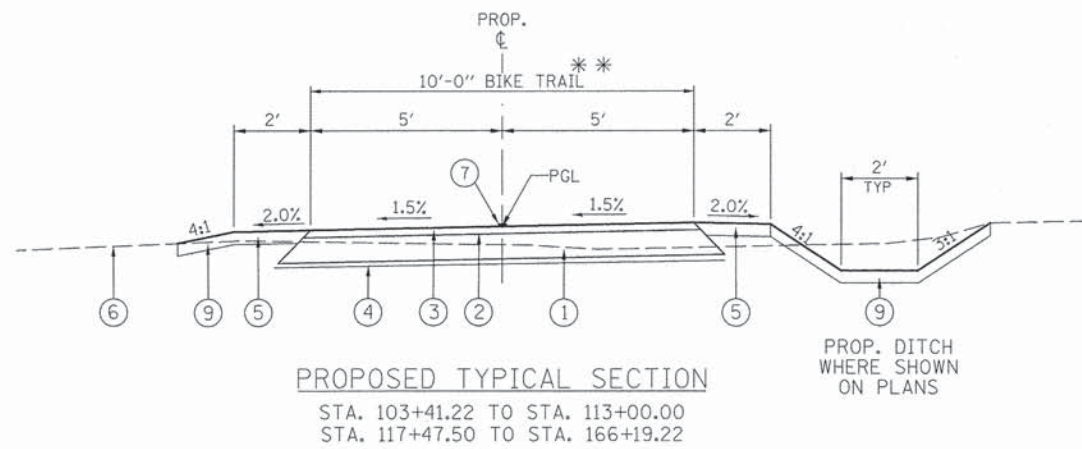
ADDITIONAL FILL MATERIAL TO BE PLACED ABOVE FABRIC IN CUT SECTIONS SHALL NOT BE MEASURED FOR PAYMENT. MATERIAL SHALL BE SUITABLE EMBANKMENT MATERIAL.

**NOTE 3:**

AT ALL INTERSECTIONS OF BIKE PATH AND ROADWAYS, DEPRESS THE CURB (IF APPLICABLE) AND MAINTAIN EXISTING PAVEMENT ELEVATIONS.

**LEGEND:**

- ① AGGREGATE BASE COURSE, TYPE B, 6"
- ② BITUMINOUS MATERIALS (PRIME COAT)
- ③ HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50, 2"
- ④ GEOTECHNICAL FABRIC FOR GROUND STABILIZATION
- ⑤ TOPSOIL FURNISH AND PLACE, 6", AND SEEDING, CLASS 1B
- ⑥ EXISTING GROUND
- ⑦ PAINT PAVEMENT MARKING, 4" YELLOW
- ⑧ PCC SIDEWALK 6"
- ⑨ TOPSOIL FURNISH AND PLACE, 6", AND SEEDING, CLASS 4A
- ⑩ PORTLAND CEMENT CONCRETE CURB
- ⑪ BASE COURSE AGGREGATE, 4"



FILE NAME = 8FILES



USER NAME = *USER*	DESIGNED - PMV	REVISED -
PLT SCALE = *SCALE*	DRAWN - PMV	REVISED -
PLT DATE = *DATE*	CHECKED - NPP	REVISED -
	DATE - 1/4/16	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**NORTH BRANCH BIKE TRAIL EXTENSION  
 PROPOSED TYPICAL SECTIONS**

SCALE: NONE SHEET NO. OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	15-F3000-27-BT	COOK	52	8
CONTRACT NO. 61C64				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				





**BEGIN PROJECT  
103+41.22**

PROP. CURVE NBRNPH2-52  
 PI STA. = 104+44.29  
 $\Delta = 26^\circ 55' 05''$  (LT)  
 D = 57' 17' 45"  
 R = 100.00'  
 T = 23.93'  
 L = 46.98'  
 E = 2.82'  
 e = ----  
 T.R. = ----  
 S.E. RUN = ----  
 P.C. STA. = 104+20.36  
 P.T. STA. = 104+67.34

PROP. CURVE NBRNPH2-53  
 PI STA. = 104+83.93  
 $\Delta = 18^\circ 50' 51''$  (RT)  
 D = 57' 17' 45"  
 R = 100.00'  
 T = 16.60'  
 L = 32.90'  
 E = 1.37'  
 e = ----  
 T.R. = ----  
 S.E. RUN = ----  
 P.C. STA. = 104+67.34  
 P.T. STA. = 105+00.23

PROP. CURVE NBRNPH2-54  
 PI STA. = 105+69.39  
 $\Delta = 12^\circ 06' 41''$  (RT)  
 D = 38' 11' 50"  
 R = 150.00'  
 T = 15.91'  
 L = 31.71'  
 E = 0.84'  
 e = ----  
 T.R. = ----  
 S.E. RUN = ----  
 P.C. STA. = 105+53.48  
 P.T. STA. = 105+85.19

PROP. CURVE NBRNPH2-55  
 PI STA. = 106+78.34  
 $\Delta = 17^\circ 23' 40''$  (LT)  
 D = 38' 11' 50"  
 R = 150.00'  
 T = 22.95'  
 L = 45.54'  
 E = 1.74'  
 e = ----  
 T.R. = ----  
 S.E. RUN = ----  
 P.C. STA. = 106+55.40  
 P.T. STA. = 107+00.93

PROP. CURVE NBRNPH2-56  
 PI STA. = 108+91.45  
 $\Delta = 48^\circ 49' 48''$  (LT)  
 D = 38' 11' 50"  
 R = 150.00'  
 T = 68.09'  
 L = 127.84'  
 E = 14.73'  
 e = ----  
 T.R. = ----  
 S.E. RUN = ----  
 P.C. STA. = 108+23.36  
 P.T. STA. = 109+51.20

PROP. CURVE NBRNPH2-57  
 PI STA. = 111+80.99  
 $\Delta = 6^\circ 04' 40''$  (LT)  
 D = 28' 38' 52"  
 R = 200.00'  
 T = 10.62'  
 L = 21.21'  
 E = 0.28'  
 e = ----  
 T.R. = ----  
 S.E. RUN = ----  
 P.C. STA. = 111+70.37  
 P.T. STA. = 111+91.58

PROP. CURVE NBRNPH2-58  
 PI STA. = 112+08.63  
 $\Delta = 28^\circ 03' 30''$  (LT)  
 D = 57' 17' 45"  
 R = 100.00'  
 T = 24.99'  
 L = 48.97'  
 E = 3.07'  
 e = ----  
 T.R. = ----  
 S.E. RUN = ----  
 P.C. STA. = 111+83.65  
 P.T. STA. = 112+32.62

PROP. CURVE NBRNPH2-59  
 PI STA. = 113+22.10  
 $\Delta = 83^\circ 38' 46''$  (RT)  
 D = 57' 17' 45"  
 R = 100.00'  
 T = 89.48'  
 L = 145.99'  
 E = 34.19'  
 e = ----  
 T.R. = ----  
 S.E. RUN = ----  
 P.C. STA. = 112+32.62  
 P.T. STA. = 113+78.61

FILE NAME: #FILES



USER NAME: #USER#  
 PLOT SCALE: #SCALE#  
 PLOT DATE: #DATE#

DESIGNED - DDL  
 DRAWN - PMV  
 CHECKED - NPP  
 DATE - 1/4/16

REVISED -  
 REVISED -  
 REVISED -  
 REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**NORTH BRANCH BIKE TRAIL EXTENSION  
 ALIGNMENT, TIES, & BENCHMARKS**

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	15-F3000-27-BT	COOK	52	9
CONTRACT NO. 61C64				
FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT				





PROP. CURVE NBRNPH2-60 PI STA. = 115+97.71 Δ = 31° 04' 13" (LT) D = 57' 17" 45" R = 100.00' T = 27.80' L = 54.23' E = 3.79' e = ----- T.R. = ----- S.E. RUN = ----- P.C. STA. = 115+69.91 P.T. STA. = 116+24.14	PROP. CURVE NBRNPH2-61 PI STA. = 116+46.56 Δ = 25° 16' 23" (RT) D = 57' 17" 45" R = 100.00' T = 22.42' L = 44.11' E = 2.48' e = ----- T.R. = ----- S.E. RUN = ----- P.C. STA. = 116+24.14 P.T. STA. = 116+68.25	PROP. CURVE NBRNPH2-62 PI STA. = 117+49.04 Δ = 41° 29' 27" (RT) D = 57' 17" 45" R = 100.00' T = 37.88' L = 72.42' E = 6.93' e = ----- T.R. = ----- S.E. RUN = ----- P.C. STA. = 117+11.16 P.T. STA. = 117+83.57	PROP. CURVE NBRNPH2-63 PI STA. = 118+72.53 Δ = 14° 05' 43" (RT) D = 57' 17" 45" R = 100.00' T = 12.36' L = 24.60' E = 0.76' e = ----- T.R. = ----- S.E. RUN = ----- P.C. STA. = 118+60.17 P.T. STA. = 118+84.77	PROP. CURVE NBRNPH2-64 PI STA. = 119+84.83 Δ = 22° 17' 49" (RT) D = 57' 17" 45" R = 100.00' T = 19.71' L = 38.92' E = 1.92' e = ----- T.R. = ----- S.E. RUN = ----- P.C. STA. = 119+65.12 P.T. STA. = 120+04.04	PROP. CURVE NBRNPH2-65 PI STA. = 120+19.61 Δ = 17° 42' 29" (LT) D = 57' 17" 45" R = 100.00' T = 15.58' L = 30.91' E = 1.21' e = ----- T.R. = ----- S.E. RUN = ----- P.C. STA. = 120+04.04 P.T. STA. = 120+34.94	PROP. CURVE NBRNPH2-66 PI STA. = 120+40.57 Δ = 6° 26' 22" (RT) D = 57' 17" 45" R = 100.00' T = 5.63' L = 11.24' E = 0.16' e = ----- T.R. = ----- S.E. RUN = ----- P.C. STA. = 120+34.94 P.T. STA. = 120+46.18	PROP. CURVE NBRNPH2-67 PI STA. = 120+55.19 Δ = 10° 17' 50" (LT) D = 57' 17" 45" R = 100.00' T = 9.01' L = 17.97' E = 0.41' e = ----- T.R. = ----- S.E. RUN = ----- P.C. STA. = 120+46.18 P.T. STA. = 120+64.15	PROP. CURVE NBRNPH2-68 PI STA. = 121+17.59 Δ = 56° 14' 26" (RT) D = 57' 17" 45" R = 100.00' T = 53.44' L = 98.16' E = 13.38' e = ----- T.R. = ----- S.E. RUN = ----- P.C. STA. = 120+64.15 P.T. STA. = 121+62.31
---	---	---	---	---	---	---	--	--

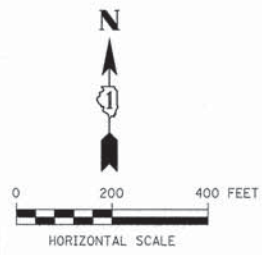
PROP. CURVE NBRNPH2-69 PI STA. = 121+83.13 Δ = 23° 31' 10" (LT) D = 57' 17" 45" R = 100.00' T = 20.82' L = 41.05' E = 2.14' e = ----- T.R. = ----- S.E. RUN = ----- P.C. STA. = 121+62.31 P.T. STA. = 122+03.36	PROP. CURVE NBRNPH2-70 PI STA. = 122+58.66 Δ = 23° 35' 56" (LT) D = 57' 17" 45" R = 100.00' T = 20.89' L = 41.19' E = 2.16' e = ----- T.R. = ----- S.E. RUN = ----- P.C. STA. = 122+37.77 P.T. STA. = 122+78.96	PROP. CURVE NBRNPH2-71 PI STA. = 123+61.98 Δ = 31° 40' 52" (LT) D = 57' 17" 45" R = 100.00' T = 28.37' L = 55.29' E = 3.95' e = ----- T.R. = ----- S.E. RUN = ----- P.C. STA. = 123+33.61 P.T. STA. = 123+88.90	PROP. CURVE NBRNPH2-72 PI STA. = 124+03.99 Δ = 17° 09' 22" (RT) D = 57' 17" 45" R = 100.00' T = 15.08' L = 29.94' E = 1.13' e = ----- T.R. = ----- S.E. RUN = ----- P.C. STA. = 123+88.90 P.T. STA. = 124+18.84	PROP. CURVE NBRNPH2-73 PI STA. = 124+80.58 Δ = 26° 02' 27" (LT) D = 25' 27" 53" R = 225.00' T = 52.03' L = 102.26' E = 5.94' e = ----- T.R. = ----- S.E. RUN = ----- P.C. STA. = 124+28.55 P.T. STA. = 125+30.81	PROP. CURVE NBRNPH2-74 PI STA. = 126+18.12 Δ = 82° 14' 52" (RT) D = 57' 17" 45" R = 100.00' T = 87.31' L = 143.55' E = 32.75' e = ----- T.R. = ----- S.E. RUN = ----- P.C. STA. = 125+30.81 P.T. STA. = 126+74.36	PROP. CURVE NBRNPH2-75 PI STA. = 127+62.96 Δ = 46° 29' 19" (LT) D = 57' 17" 45" R = 100.00' T = 42.95' L = 81.14' E = 8.83' e = ----- T.R. = ----- S.E. RUN = ----- P.C. STA. = 127+20.00 P.T. STA. = 128+01.14	PROP. CURVE NBRNPH2-76 PI STA. = 128+28.05 Δ = 30° 07' 32" (RT) D = 57' 17" 45" R = 100.00' T = 26.91' L = 52.58' E = 3.56' e = ----- T.R. = ----- S.E. RUN = ----- P.C. STA. = 128+01.14 P.T. STA. = 128+53.72
---	---	---	---	--	---	---	---

PROP. CURVE NBRNPH2-77 PI STA. = 128+90.93 Δ = 40° 48' 51" (LT) D = 57' 14" 45" R = 100.00' T = 37.20' L = 71.23' E = 6.70' e = ----- T.R. = ----- S.E. RUN = ----- P.C. STA. = 128+53.72 P.T. STA. = 129+24.96	PROP. CURVE NBRNPH2-78 PI STA. = 131+15.33 Δ = 52° 40' 13" (RT) D = 57' 17" 45" R = 100.00' T = 49.50' L = 91.93' E = 11.58' e = ----- T.R. = ----- S.E. RUN = ----- P.C. STA. = 130+65.84 P.T. STA. = 131+57.76	PROP. CURVE NBRNPH2-79 PI STA. = 132+93.22 Δ = 16° 45' 27" (LT) D = 28' 38" 52" R = 200.00' T = 29.46' L = 58.49' E = 2.16' e = ----- T.R. = ----- S.E. RUN = ----- P.C. STA. = 132+63.76 P.T. STA. = 133+22.26	PROP. CURVE NBRNPH2-80 PI STA. = 138+21.74 Δ = 54° 13' 43" (LT) D = 57' 17" 45" R = 100.00' T = 51.20' L = 94.65' E = 12.35' e = ----- T.R. = ----- S.E. RUN = ----- P.C. STA. = 137+70.54 P.T. STA. = 138+65.18	PROP. CURVE NBRNPH2-81 PI STA. = 138+95.22 Δ = 33° 26' 07" (RT) D = 57' 17" 45" R = 100.00' T = 30.04' L = 58.36' E = 4.41' e = ----- T.R. = ----- S.E. RUN = ----- P.C. STA. = 138+65.18 P.T. STA. = 139+23.54	PROP. CURVE NBRNPH2-82 PI STA. = 140+48.35 Δ = 25° 21' 52" (LT) D = 57' 17" 45" R = 100.00' T = 22.50' L = 44.27' E = 2.50' e = ----- T.R. = ----- S.E. RUN = ----- P.C. STA. = 140+25.85 P.T. STA. = 140+70.12	PROP. CURVE NBRNPH2-83 PI STA. = 140+97.91 Δ = 15° 49' 13" (RT) D = 28' 38" 52" R = 200.00' T = 27.79' L = 55.22' E = 1.92' e = ----- T.R. = ----- S.E. RUN = ----- P.C. STA. = 140+70.12 P.T. STA. = 141+25.34	PROP. CURVE NBRNPH2-84 PI STA. = 141+93.28 Δ = 25° 37' 36" (LT) D = 28' 38" 52" R = 200.00' T = 45.49' L = 89.45' E = 5.11' e = ----- T.R. = ----- S.E. RUN = ----- P.C. STA. = 141+47.79 P.T. STA. = 142+37.25
---	--	---	--	---	---	---	---

PROP. CURVE NBRNPH2-85 PI STA. = 142+73.51 Δ = 20° 33' 19" (RT) D = 28' 38" 52" R = 200.00' T = 36.27' L = 71.75' E = 3.26' e = ----- T.R. = ----- S.E. RUN = ----- P.C. STA. = 142+37.25 P.T. STA. = 143+09.00	PROP. CURVE NBRNPH2-86 PI STA. = 143+99.79 Δ = 48° 49' 51" (LT) D = 28' 38" 52" R = 200.00' T = 90.79' L = 170.45' E = 19.64' e = ----- T.R. = ----- S.E. RUN = ----- P.C. STA. = 143+09.00 P.T. STA. = 144+79.45	PROP. CURVE NBRNPH2-87 PI STA. = 146+90.31 Δ = 11° 07' 33" (LT) D = 11' 27" 33" R = 500.00' T = 48.70' L = 97.09' E = 2.37' e = ----- T.R. = ----- S.E. RUN = ----- P.C. STA. = 146+41.61 P.T. STA. = 147+38.71	PROP. CURVE NBRNPH2-88 PI STA. = 149+93.15 Δ = 22° 22' 07" (LT) D = 57' 17" 45" R = 100.00' T = 19.77' L = 39.04' E = 1.94' e = ----- T.R. = ----- S.E. RUN = ----- P.C. STA. = 149+73.37 P.T. STA. = 150+12.42	PROP. CURVE NBRNPH2-89 PI STA. = 151+04.79 Δ = 5° 08' 18" (RT) D = 11' 27" 33" R = 500.00' T = 22.44' L = 44.84' E = 0.50' e = ----- T.R. = ----- S.E. RUN = ----- P.C. STA. = 150+82.35 P.T. STA. = 151+27.19
---	---	---	---	--

PROP. CURVE NBRNPH2-90 PI STA. = 153+07.75 Δ = 56° 07' 24" (RT) D = 57' 17" 45" R = 100.00' T = 53.31' L = 97.95' E = 13.32' e = ----- T.R. = ----- S.E. RUN = ----- P.C. STA. = 152+54.45 P.T. STA. = 153+52.40	PROP. CURVE NBRNPH2-91 PI STA. = 156+70.60 Δ = 34° 53' 52" (RT) D = 22' 55" 06" R = 250.00' T = 78.58' L = 152.27' E = 12.06' e = ----- T.R. = ----- S.E. RUN = ----- P.C. STA. = 155+92.02 P.T. STA. = 157+44.29	PROP. CURVE NBRNPH2-92 PI STA. = 159+39.84 Δ = 40° 44' 27" (LT) D = 38' 11" 50" R = 150.00' T = 55.70' L = 106.66' E = 10.01' e = ----- T.R. = ----- S.E. RUN = ----- P.C. STA. = 158+84.15 P.T. STA. = 159+90.81	PROP. CURVE NBRNPH2-93 PI STA. = 160+73.34 Δ = 24° 19' 32" (RT) D = 57' 17" 45" R = 100.00' T = 21.55' L = 42.46' E = 2.30' e = ----- T.R. = ----- S.E. RUN = ----- P.C. STA. = 160+51.79 P.T. STA. = 160+94.24	PROP. CURVE NBRNPH2-94 PI STA. = 162+64.55 Δ = 65° 32' 32" (RT) D = 57' 17" 45" R = 100.00' T = 64.37' L = 114.39' E = 18.93' e = ----- T.R. = ----- S.E. RUN = ----- P.C. STA. = 162+00.18 P.T. STA. = 163+14.57
--	---	---	---	---

PROP. CURVE NBRNPH2-95 PI STA. = 164+05.85 Δ = 84° 46' 38" (LT) D = 57' 17" 45" R = 100.00' T = 91.28' L = 147.96' E = 35.39' e = ----- T.R. = ----- S.E. RUN = ----- P.C. STA. = 163+14.57 P.T. STA. = 164+62.54	PROP. CURVE NBRNPH2-96 PI STA. = 165+72.54 Δ = 17° 06' 24" (LT) D = 57' 17" 45" R = 100.00' T = 15.04' L = 29.86' E = 1.12' e = ----- T.R. = ----- S.E. RUN = ----- P.C. STA. = 165+57.50 P.T. STA. = 165+87.36
---	---



FILE NAME = #FILES#



USER NAME = #USER#	DESIGNED - DDL	REVISED -
PLOT SCALE = #SCALE#	DRAWN - PMV	REVISED -
PLOT DATE = #DATE#	CHECKED - NPP	REVISED -
	DATE - 1/4/16	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**NORTH BRANCH BIKE TRAIL EXTENSION  
ALIGNMENT, TIES, & BENCHMARKS**

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	15-F3000-27-BT	COOK	52	10
CONTRACT NO. 61C64				
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

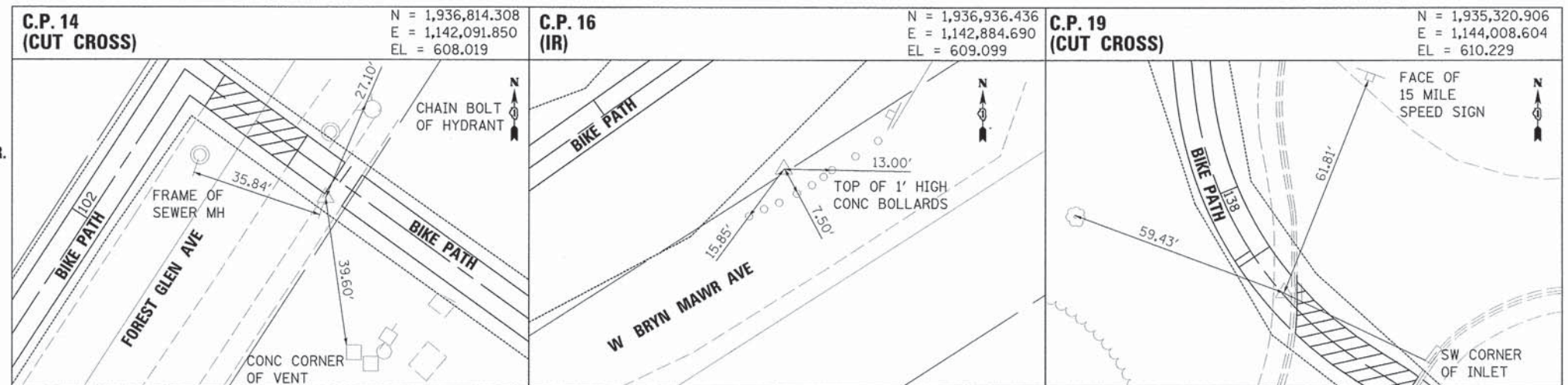


**BENCHMARKS**

BM #102: TOP OF FIRE HYDRANT CHAIN BOLT, LOCATED AT THE WEST SIDE OF CENTRAL AVE. APPROX. 250' SOUTH OF N. LOUIS AVE. ELEV. 617.45

BM #104: CUT SQUARE AT THE WEST END OF SOUTH ABUTMENT SEAT OF CICERO AVE. BRIDGE OVER NORTH BRANCH CHICAGO RIVER. ELEV. 601.00

ALL ELEVATIONS IN THE PLANS ARE BASED UPON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).



FILE NAME = \$FILES\$



USER NAME = \$USER\$  
 PLOT SCALE = \$SCALE\$  
 PLOT DATE = \$DATE\$

DESIGNED - DDL  
 DRAWN - PMV  
 CHECKED - NPP  
 DATE - 1/4/16

REVISED -  
 REVISED -  
 REVISED -  
 REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

NORTH BRANCH BIKE TRAIL EXTENSION

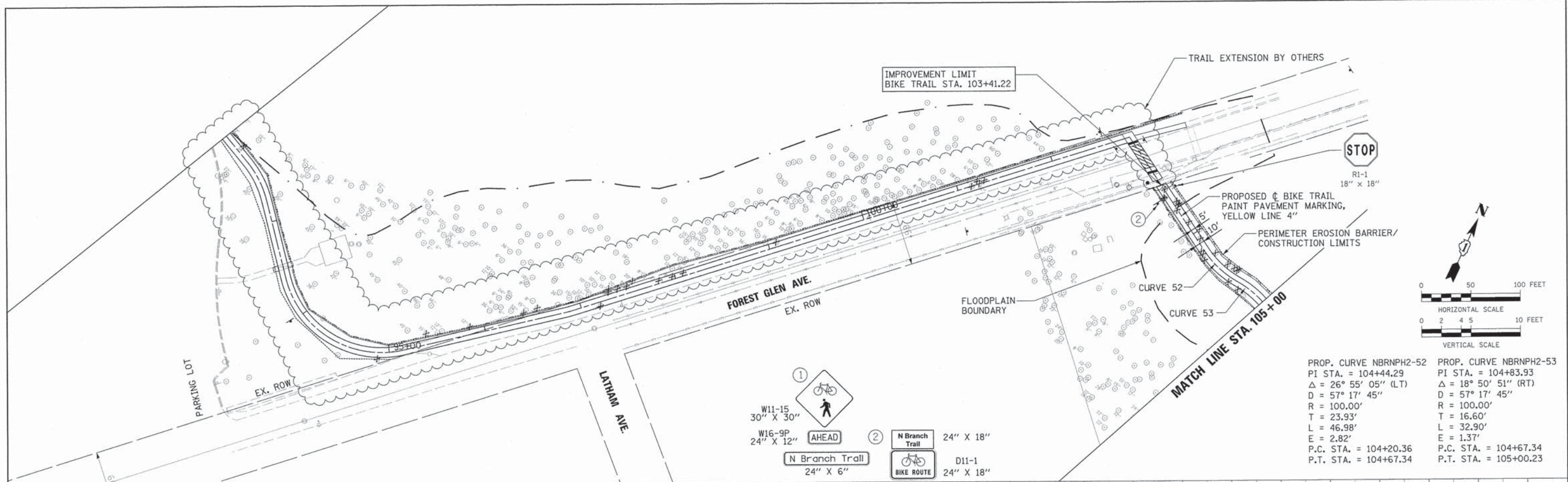
SCALE: SHEET NO. OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	15-F3000-27-BT	COOK	52	11
CONTRACT NO. 61C64				
FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT				

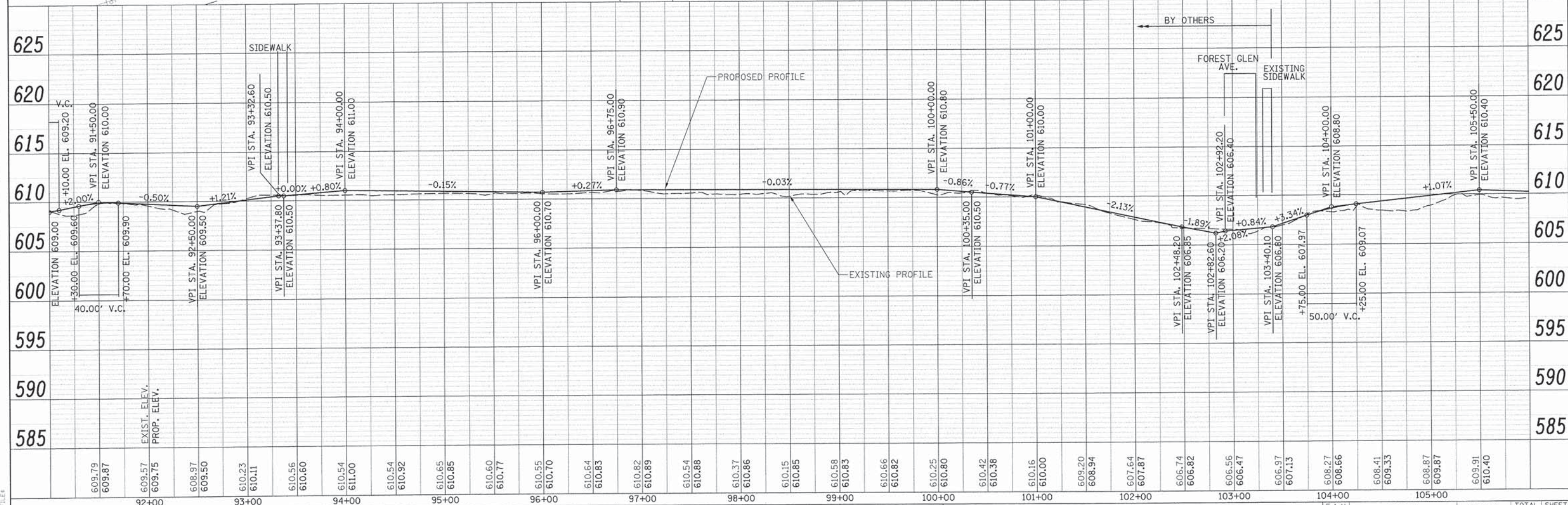


PLAN	REVISIONS	DATE
	NO. 1	
	NO. 2	
	NO. 3	
	NO. 4	
	NO. 5	
	NO. 6	
	NO. 7	
	NO. 8	
	NO. 9	
	NO. 10	

PROFILE	REVISIONS	DATE
	NO. 1	
	NO. 2	
	NO. 3	
	NO. 4	
	NO. 5	
	NO. 6	
	NO. 7	
	NO. 8	
	NO. 9	
	NO. 10	



PROP. CURVE NBRNPH2-52	PROP. CURVE NBRNPH2-53
PI STA. = 104+44.29	PI STA. = 104+83.93
$\Delta = 26^\circ 55' 05''$ (LT)	$\Delta = 18^\circ 50' 51''$ (RT)
$D = 57^\circ 17' 45''$	$D = 57^\circ 17' 45''$
$R = 100.00'$	$R = 100.00'$
$T = 23.93'$	$T = 16.60'$
$L = 46.98'$	$L = 32.90'$
$E = 2.82'$	$E = 1.37'$
P.C. STA. = 104+20.36	P.C. STA. = 104+67.34
P.T. STA. = 104+67.34	P.T. STA. = 105+00.23



609.79	609.87	609.57	609.75	608.97	609.50	610.23	610.11	610.56	610.60	610.54	610.92	610.65	610.85	610.60	610.77	610.55	610.70	610.64	610.83	610.82	610.89	610.54	610.88	610.37	610.86	610.15	610.85	610.58	610.83	610.66	610.82	610.25	610.80	610.42	610.38	610.16	610.00	609.20	608.94	607.64	607.87	606.74	606.82	606.56	606.47	606.97	607.13	608.27	608.66	608.41	609.33	608.87	609.87	609.91	610.40
92+00		93+00		94+00		95+00		96+00		97+00		98+00		99+00		100+00		101+00		102+00		103+00		104+00		105+00																													



USER NAME	DESIGNED
SCALE	DRAWN
DATE	CHECKED
	DATE

DESIGNED	REVISOR
DRAWN	REVISOR
CHECKED	REVISOR
DATE	REVISOR

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

NORTH BRANCH BIKE TRAIL EXTENSION PLAN AND PROFILE			
SCALE: 1" = 50'	DRAWING NO. 1 OF 6	STA. 103+41 TO STA. 105+00	

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	15-F3000-27-BT	COOK	52	12
CONTRACT NO. 61C64			ILLINOIS FED. AID PROJECT	



PLAN	DATE
BY	
NO.	
DATE	
BY	
NO.	
DATE	

PROP. CURVE 58  
 PI STA. = 112+08.64  
 $\Delta = 28^\circ 03' 30''$  (LT)  
 $D = 57' 17' 45''$   
 $R = 100.00'$   
 $T = 24.99'$   
 $L = 48.97'$   
 $E = 3.07'$   
 P.C. STA. = 111+83.65  
 P.T. STA. = 112+32.62

PROP. CURVE 59  
 PI STA. = 113+22.10  
 $\Delta = 83^\circ 38' 46''$  (RT)  
 $D = 57' 17' 45''$   
 $R = 100.00'$   
 $T = 89.48'$   
 $L = 145.99'$   
 $E = 34.19'$   
 P.C. STA. = 112+32.62  
 P.T. STA. = 113+78.61

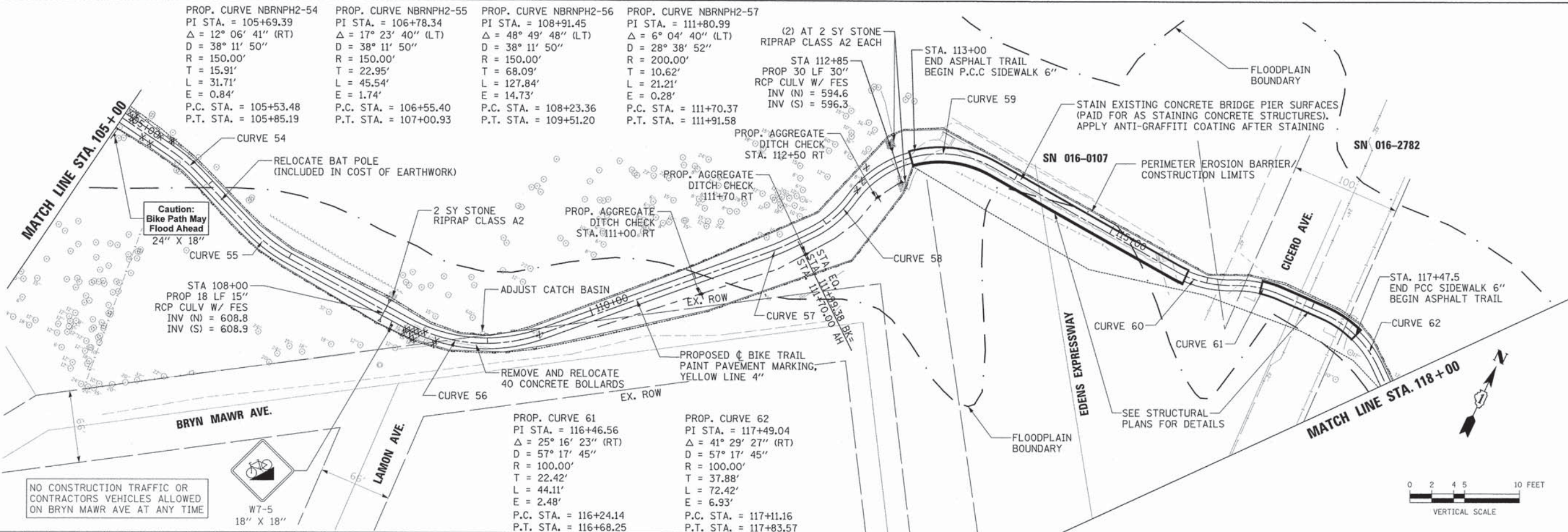
PROP. CURVE 60  
 PI STA. = 115+97.71  
 $\Delta = 31^\circ 04' 13''$  (LT)  
 $D = 57' 17' 45''$   
 $R = 100.00'$   
 $T = 27.80'$   
 $L = 54.23'$   
 $E = 3.79'$   
 P.C. STA. = 115+69.91  
 P.T. STA. = 116+24.14

PROP. CURVE NBRNPH2-54  
 PI STA. = 105+69.39  
 $\Delta = 12^\circ 06' 41''$  (RT)  
 $D = 38' 11' 50''$   
 $R = 150.00'$   
 $T = 15.91'$   
 $L = 31.71'$   
 $E = 0.84'$   
 P.C. STA. = 105+53.48  
 P.T. STA. = 105+85.19

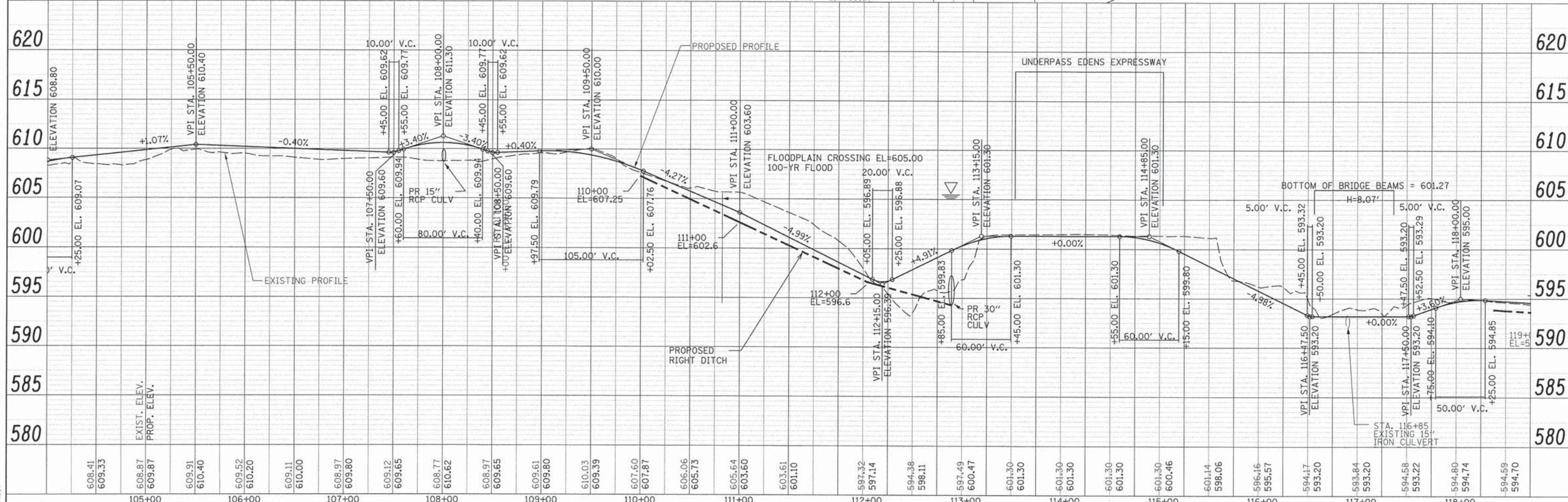
PROP. CURVE NBRNPH2-55  
 PI STA. = 106+78.34  
 $\Delta = 17^\circ 23' 40''$  (LT)  
 $D = 38' 11' 50''$   
 $R = 150.00'$   
 $T = 22.95'$   
 $L = 45.54'$   
 $E = 1.74'$   
 P.C. STA. = 106+55.40  
 P.T. STA. = 107+00.93

PROP. CURVE NBRNPH2-56  
 PI STA. = 108+91.45  
 $\Delta = 48^\circ 49' 48''$  (LT)  
 $D = 38' 11' 50''$   
 $R = 150.00'$   
 $T = 68.09'$   
 $L = 127.84'$   
 $E = 14.73'$   
 P.C. STA. = 108+23.36  
 P.T. STA. = 109+51.20

PROP. CURVE NBRNPH2-57  
 PI STA. = 111+80.99  
 $\Delta = 6^\circ 04' 40''$  (LT)  
 $D = 28^\circ 38' 52''$   
 $R = 200.00'$   
 $T = 10.62'$   
 $L = 21.21'$   
 $E = 0.28'$   
 P.C. STA. = 111+70.37  
 P.T. STA. = 111+91.58



PROFILE	DATE
BY	
NO.	
DATE	
BY	
NO.	
DATE	



USER NAME = #USER#	DESIGNED -	REVISED -
PLOT SCALE = #SCALE#	DRAWN -	REVISED -
PLOT DATE = #DATE#	CHECKED -	REVISED -
	DATE = 1/4/16	REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

NORTH BRANCH BIKE TRAIL EXTENSION  
 PLAN AND PROFILE  
 SCALE: 1" = 50'  
 DRAWING NO. 2 OF 6  
 STA. 105+00 TO STA. 118+00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	15-F3000-27-BT	COOK	52	13
			CONTRACT NO. 61C64	
ILLINOIS FED. AID PROJECT				





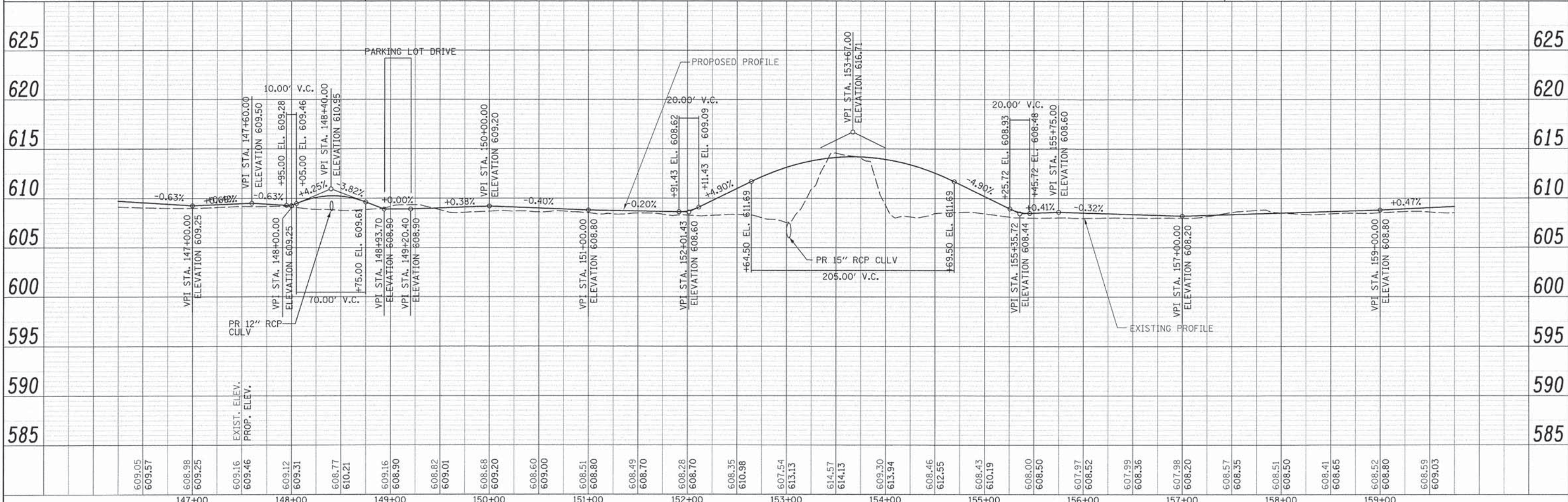
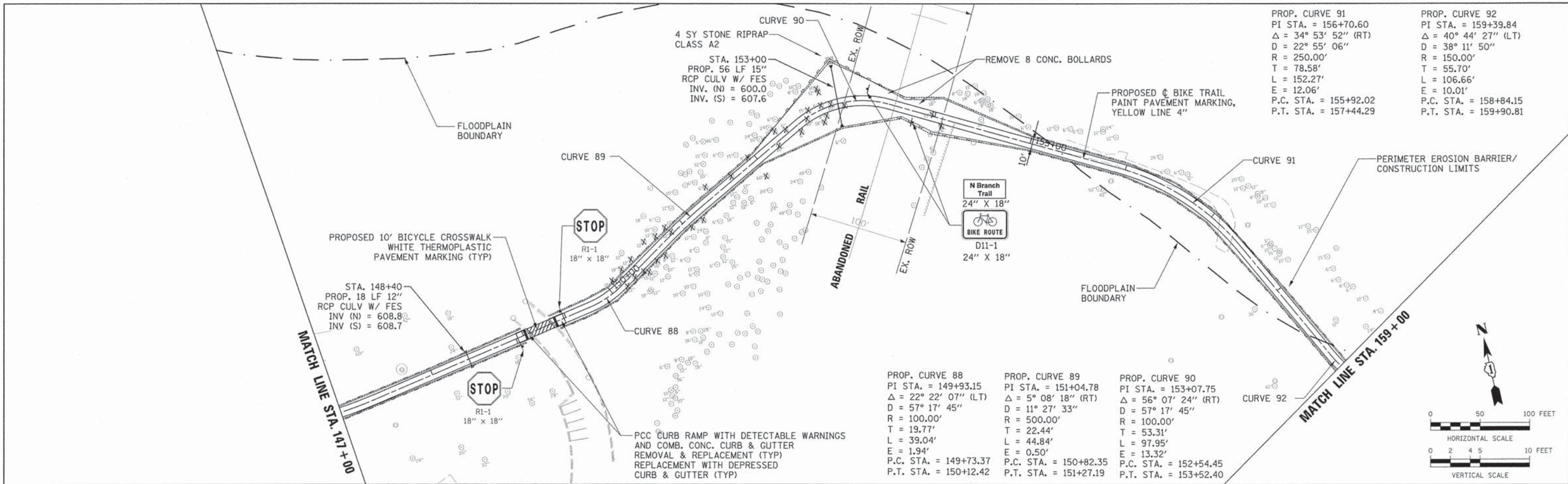






PLAN	REVISIONS	DATE
NO.	BY	
NO.	BY	
NO.	BY	
NO.	BY	
NO.	BY	
NO.	BY	
NO.	BY	
NO.	BY	
NO.	BY	

PROFILE	REVISIONS	DATE
NO.	BY	
NO.	BY	
NO.	BY	
NO.	BY	
NO.	BY	
NO.	BY	
NO.	BY	
NO.	BY	
NO.	BY	



609.05	609.57	608.98	609.25	609.16	609.46	609.12	609.31	608.77	610.21	609.16	608.90	608.82	609.01	608.68	609.20	608.60	609.00	608.51	608.80	608.49	608.70	608.28	608.70	608.35	610.98	607.54	613.13	614.57	614.13	609.30	613.94	608.46	612.55	608.43	610.19	608.00	608.50	607.97	608.52	607.99	608.36	607.98	608.20	608.57	608.35	608.51	608.50	608.41	608.65	608.52	608.80	608.59	609.03
147+00		148+00		149+00		150+00		151+00		152+00		153+00		154+00		155+00		156+00		157+00		158+00		159+00																													



USER NAME: #USER#	DESIGNED	REVISIONS
DRAWN	REVISIONS	
CHECKED	REVISIONS	
DATE: 1/4/16	REVISIONS	

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SCALE: 1"= 50'	DRAWING NO. 5 OF 6	STA. 147+00 TO STA. 159+00
----------------	--------------------	----------------------------

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	15-F3000-27-BT	COOK	52	16
CONTRACT NO. 61C64			ILLINOIS FED. AID PROJECT	



PLAN	REVIEWED	BY	DATE
	PLOTTED		
	NOTED		
	NOTED		
	NOTED		
	NOTED		
	NOTED		
	NOTED		

PROFILE	REVIEWED	BY	DATE
	PLOTTED		
	NOTED		
	NOTED		
	NOTED		
	NOTED		
	NOTED		
	NOTED		

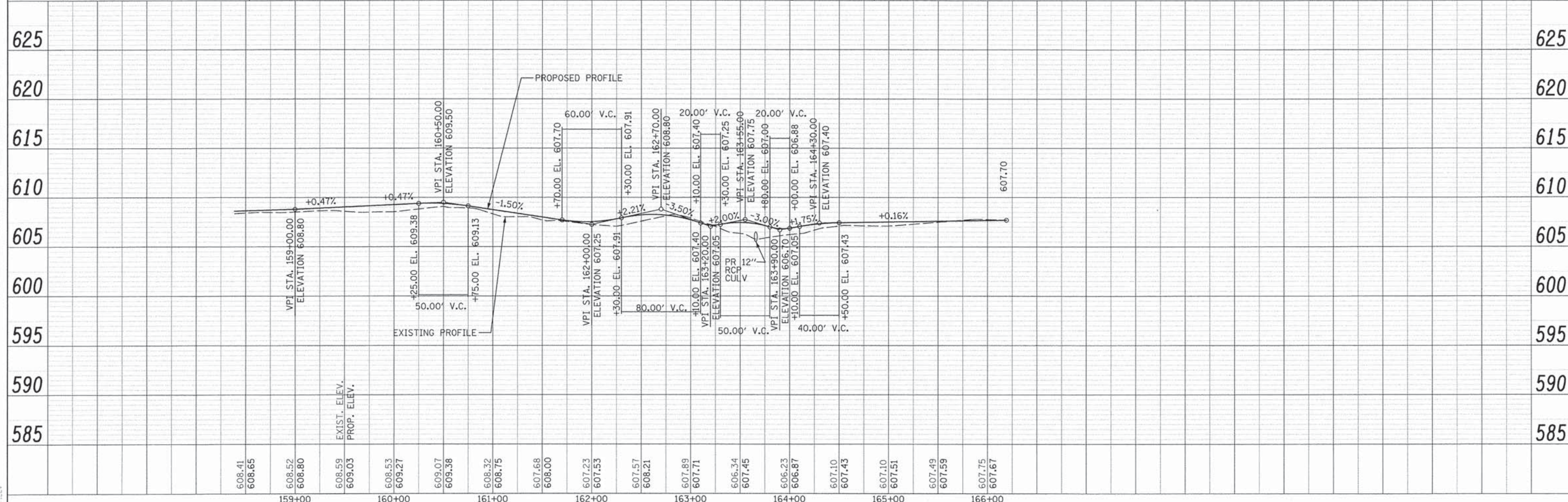
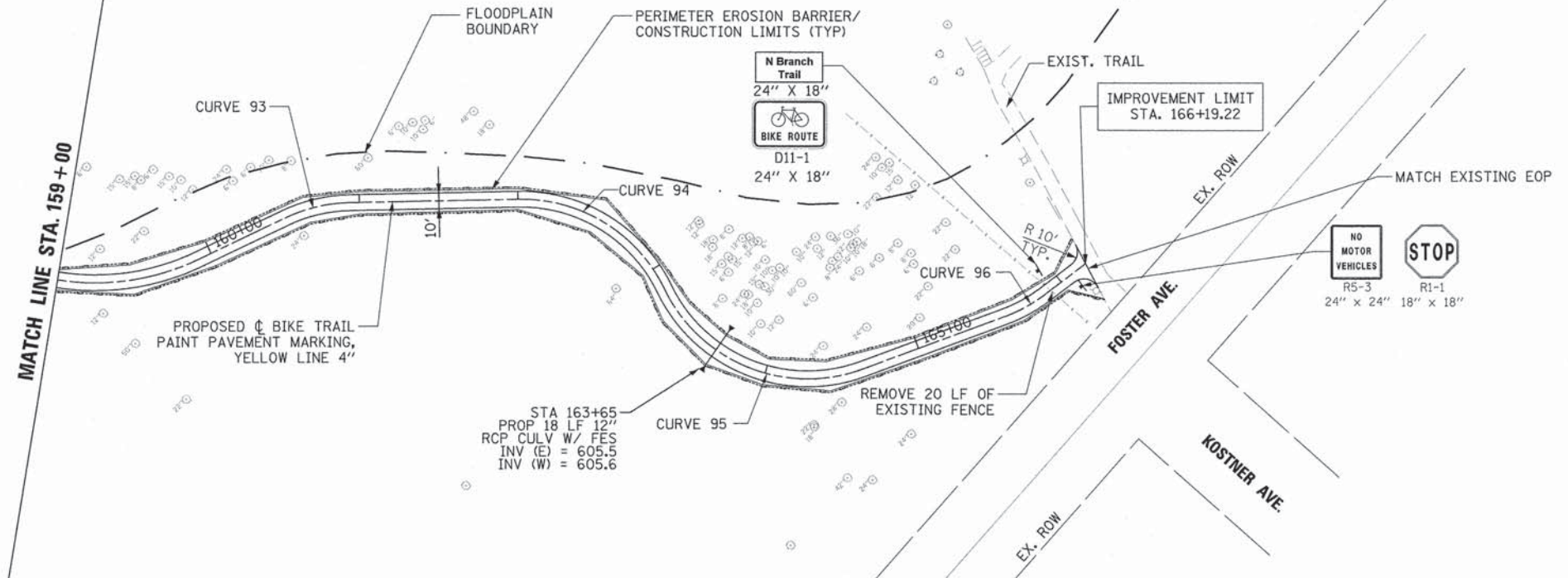
FILE NAME = #FILE#

PROP. CURVE 93  
PI STA. = 160+73.34  
Δ = 24° 19' 32" (RT)  
D = 57° 17' 45"  
R = 100.00'  
T = 21.55'  
L = 42.46'  
E = 2.30'  
P.C. STA. = 160+51.79  
P.T. STA. = 160+94.24

PROP. CURVE 94  
PI STA. = 162+64.55  
Δ = 65° 32' 32" (RT)  
D = 57° 17' 45"  
R = 100.00'  
T = 64.37'  
L = 114.39'  
E = 18.93'  
P.C. STA. = 162+00.18  
P.T. STA. = 163+14.57

PROP. CURVE 95  
PI STA. = 164+05.85  
Δ = 84° 46' 38" (LT)  
D = 57° 17' 45"  
R = 100.00'  
T = 91.28'  
L = 147.96'  
E = 35.39'  
P.C. STA. = 163+14.57  
P.T. STA. = 164+62.54

PROP. CURVE 96  
PI STA. = 165+72.54  
Δ = 17° 06' 24" (LT)  
D = 57° 17' 45"  
R = 100.00'  
T = 15.04'  
L = 29.86'  
E = 1.12'  
P.C. STA. = 165+57.50  
P.T. STA. = 165+87.36



USER NAME = #USER#  
DESIGNED -  
DRAWN -  
CHECKED -  
DATE = 1/4/16

REVISIONS  
REVISED -  
REVISED -  
REVISED -  
REVISED -

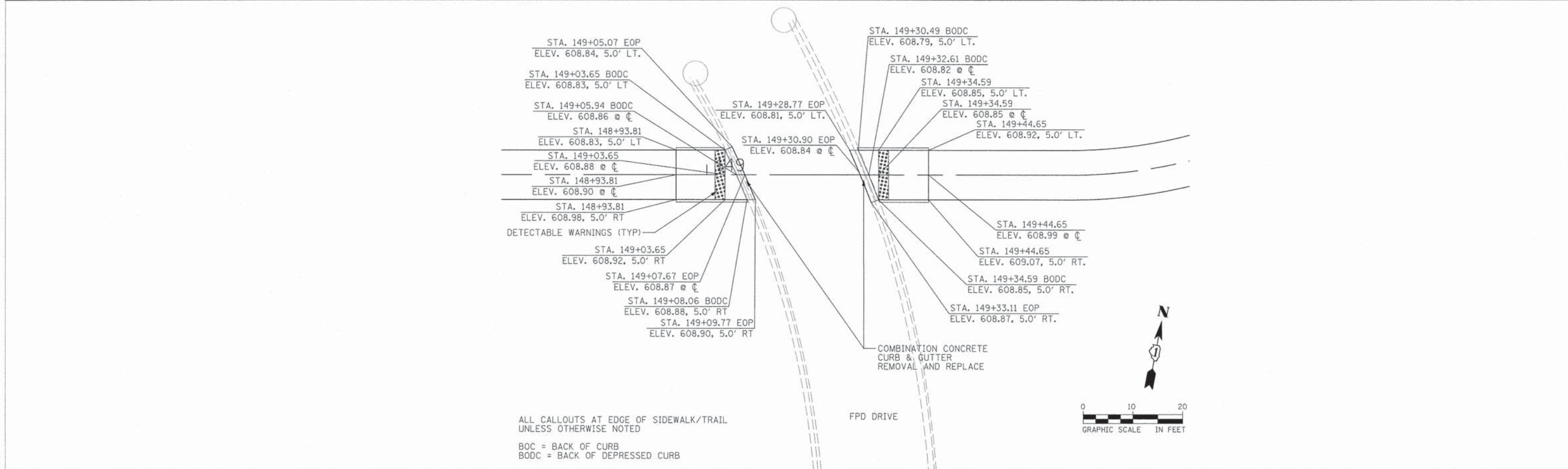
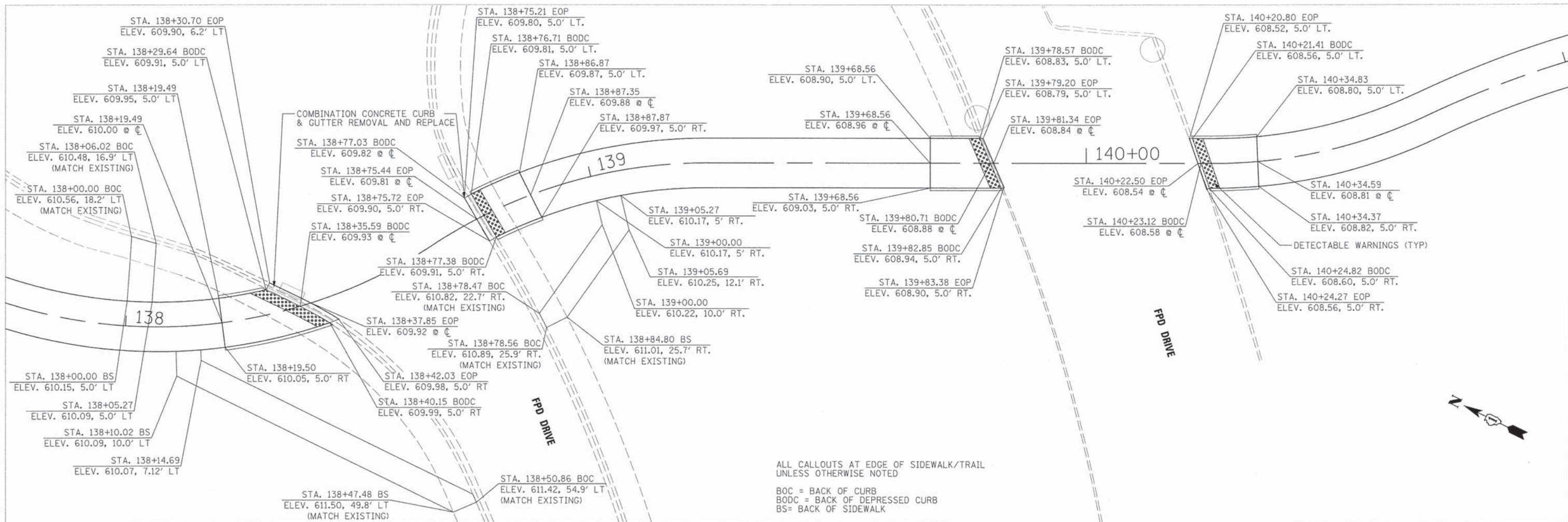
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

NORTH BRANCH BIKE TRAIL EXTENSION  
PLAN AND PROFILE

SCALE: 1" = 50'  
DRAWING NO. 6 OF 6  
STA. 159+00 TO STA. 166+19.22

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	15-F3000-27-BT	COOK	52	17
CONTRACT NO. 61C64			ILLINOIS FED. AID PROJECT	





USER NAME = #USER#	DESIGNED - DDL	REVISED -
PLOT SCALE = #SCALE#	DRAWN - PMV	REVISED -
PLOT DATE = #DATE#	CHECKED - NPP	REVISED -
	DATE - 1/4/16	REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

NORTH BRANCH BIKE TRAIL EXTENSION  
 SCALE: SHEET NO. OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	15-F3000-27-BT	COOK	52	18
CONTRACT NO. 61C64				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



POSSIBLE COFFERDAM ALTERNATE

WATER INFLATED DAM  
PRODUCT SPECIFICATION

(AQUA-BARRIER™ OR EQUIVALENT)

1.1 SPECIFICATION

A WATER -INFLATED TEMPORARY DAM (AQUA-BARRIER™ OR EQUIVALENT) SHALL CONSIST OF THE FOLLOWING:

- 1) THE WATER INFLATED DAM WILL CONSIST OF A SELF CONTAINED, SINGLE TUBE WITH AN INNER RESTRAINT BAFFLE(S)/DIAPHRAM(S) STABILIZATION SYSTEM. THE WATER-INFLATED DAM MUST HAVE THE ABILITY TO STAND ALONE, WITHOUT ANY ADDITIONAL EXTERNAL MECHANICAL OR GRAVITATIONAL STABILIZATION DEVICES, AS A POSITIVE WATER BARRIER AND WATER MANAGEMENT SYSTEM.
- 2) THE WATER-INFLATED DAM SHALL BE PRODUCED FROM HEAVY GAUGE POLYVINYL CHLORIDE (PVC) REINFORCED WITH POLYESTER. THE PVC FABRIC USED TO CREATE THE INFLATABLE DAM WILL BE INFIELD REPAIRABLE UTILIZING A VINYL ADHESIVE AND PATCH MATERIAL.
- 3) THE WATER-INFLATED DAM MUST MAINTAIN MECHANICAL STABILITY IN ADDITION TO PROVIDING ANTI-ROLLING WHEN EXPOSED TO UNEVEN HYDROSTATIC PRESSURE FROM EITHER SIDE.
- 4) THE SELF-CONTAINED WATER INFLATED DAM SHALL HAVE THREADED FILL PORTS AND DRAIN PORTS FOR RAPID INFLATION AND DRAINING. THE DAM WILL BE EQUIPPED WITH END LIFTING LOOPS USED TO CONTROL THE DAM WITH EQUIPMENT DURING THE INSTALLATION AND REMOVAL PROCESS.
- 5) METHOD FOR CONNECTING THE INDIVIDUAL UNITS TOGETHER WILL CONSIST OF OVERLAPPING THE END OF THE UNITS A SPECIFIC LENGTH WHICH WILL CREATE A WATERTIGHT CONNECTION. NO OTHER DEVICES OR METHODS FOR CONNECTING THE BARRIERS ARE REQUIRED.

1.2 PRODUCT DESCRIPTION

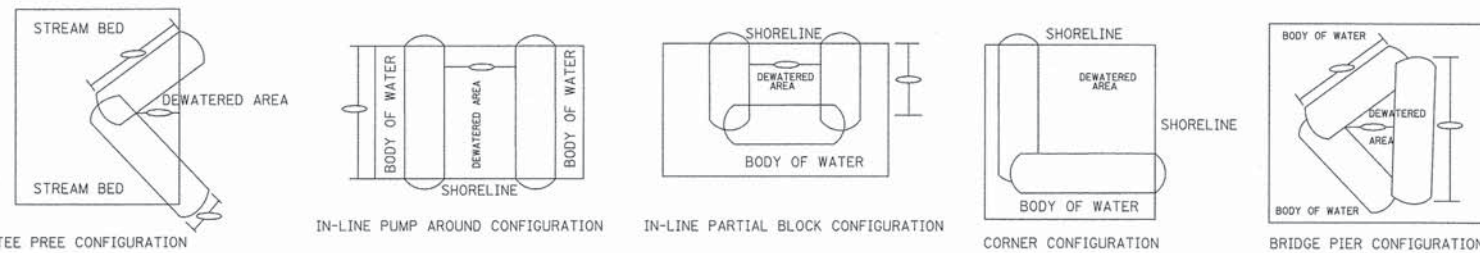
WATER-INFLATED DAMS ARE USED TO CONTROL INVASIVE WATER IN FLOODWATER SITUATIONS, AS A MEANS OF WATER MANAGEMENT TO PROVIDE ACCESS TO UNDERWATER AREAS FOR CONSTRUCTION AND MAINTENANCE OPERATIONS, HAZARDOUS LIQUID CONTAINMENT, SEDIMENT RETENTION IN ENVIRONMENTALLY SENSITIVE AREAS IN ADDITION TO A CONTINUALLY EXPANDING LIST OF WATER CONTROL RELATED APPLICATIONS.

1.3 DAM SIZE REQUIREMENTS

THE WATER-INFLATED TEMPORARY DAM HEIGHT SHALL BE DETERMINED AS FOLLOWS:

- 1) STATIC WATER HEIGHT CONDITIONS SHALL NOT EXCEED 75% OF THE PROPERLY FILLED HEIGHT OF THE BARRIER.
- 2) DYNAMIC WATER HEIGHT CONDITIONS SHALL NOT EXCEED STATED VALUE DURING HYDRODYNAMIC INSTALLATION PROCEDURES (SEE DYNAMIC INSTALLATION INSTRUCTIONS FOR COMPLETE LIST OF REQUIREMENTS.)
- 3) INSTALLATION SIDE CRITERIA ARE REQUIRED FOR ASSESSMENT OF ALL RELEVANT FACTORS.

EXCESS SLOPE, HIGH WATER VELOCITIES, DYNAMIC LOADS RESULTING FROM WAVE ACTIONS, MOUNTING SURFACE IRREGULARITIES, AND CHANGES IN INTERRELATED HYDROLOGICAL CONDITIONS CAN INCREASE THE REQUIRED WATER INFLATED DAM HEIGHT VERSUS RETENTION HEIGHT REQUIREMENTS.



AQUA-BARRIER™ CONNECTION REQUIREMENTS

EACH INFLATION AQUA-BARRIER SECTION IS STRAIGHT WITHOUT THE ABILITY TO BEND. WHEN JOINING AQUA-BARRIERS, AN OVERLAPPING TECHNIQUE IS USED. SIMPLY PLACE THE BARRIER TO BE INFLATED ON TOP OF THE END OF THE INFLATED BARRIER AND BEGIN THE INFLATION PROCESS. THE AMOUNT OF OVERLAP WILL BE DETERMINED BY BARRIER HEIGHT.

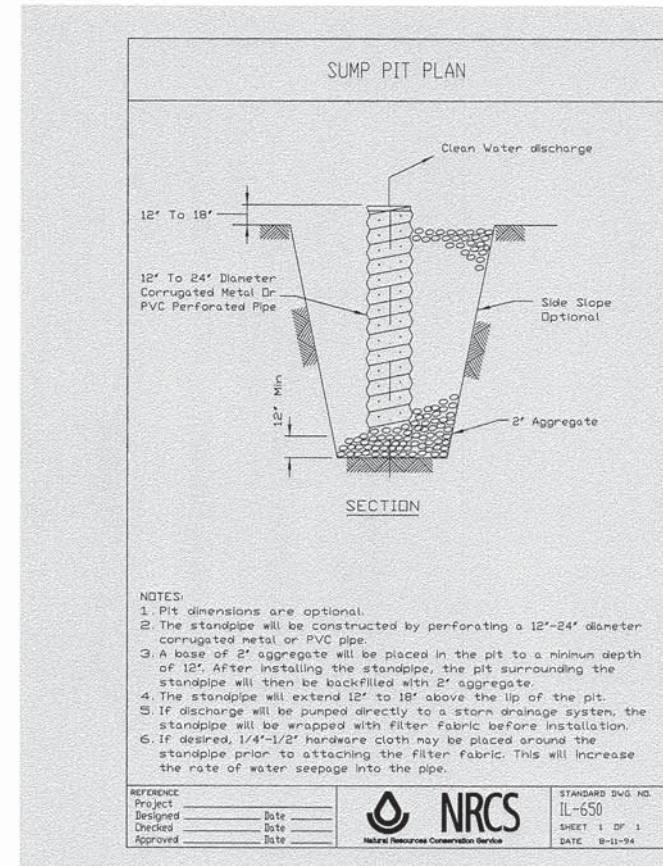
WHEN CONNECTING AQUA-BARRIERS A MINIMUM OF 8FT TO 12FT LOSS OF BARRIER LENGTH WILL BE EXPERIENCED. ALLOWANCES SHOULD BE MADE FOR THE LOSS IN LENGTH OF THE AQUA-BARRIERS DUE TO THE OVERLAP CONNECTION.

AQUA-BARRIER INFLATED HEIGHT (FT)	OVERLAP LENGTH (FT)
2	3
3	4.5
4	6
5	7.5
6	9
7	10.5
8	12

AQUA-BARRIER STANDARD HEIGHTS & DIMENSIONS

INFLATED HEIGHT (FT)	LAYFLAT WIDTH EMPTY (FT)	LAYFLAT WIDTH INFLATED (FT)	GALLONS PER LINEAR FOOT	100 FT SECTION WEIGHT	MAXIMUM DEPTH OF WATER (IM)
2 (22 OZ) (30 OZ)	5	4	60	188 320	18
3 (22 OZ) (30 OZ)	8.5	7	158	270 526	27
4 (22 OZ) (30 OZ)	12	10	256	392 600	36
5 (30 OZ)	15	12.5	390	931	45
6 (30 OZ)	18	15	564	1098	54
7 (30 OZ)	21	17.5	770	1224	63
8 (30 OZ)	24	20	1007	1620	72

\*\* THIS DEPTH OF WATER REPRESENTS 75% OF THE HEIGHT OF A FULLY INFLATED AQUA-BARRIER. IT IS REQUIRED THAT A MINIMUM 25% FREEBOARD CAPACITY BE MAINTAINED DURING ALL PHASES OF A PROJECT. EXCESS SLOPE AND GRADE, SOIL COMPOSITION, MOVING WATER, AND DELAYED HYDROLOGICAL CRITERIA MAY INCREASE OR DECREASE THE ABILITY OF AN AQUA-BARRIER TO PERFORM AS PROJECTED.



- NOTES:
1. Pit dimensions are optional.
  2. The standpipe will be constructed by perforating a 12"-24" diameter corrugated metal or PVC pipe.
  3. A base of 2" aggregate will be placed in the pit to a minimum depth of 12". After installing the standpipe, the pit surrounding the standpipe will then be backfilled with 2" aggregate.
  4. The standpipe will extend 12" to 18" above the lip of the pit.
  5. If discharge will be pumped directly to a storm drainage system, the standpipe will be wrapped with filter fabric before installation.
  6. If desired, 1/4"-1/2" hardware cloth may be placed around the standpipe prior to attaching the filter fabric. This will increase the rate of water seepage into the pipe.

REFERENCE	Project	Designed	Date	Decided	Date	Approved	Date



STANDARD DWG NO.  
IL-650  
SHEET 1 OF 1  
DATE 8-11-94

PRACTICE STANDARD  
SUMP PIT

CODE 950

DEFINITION

A TEMPORARY PIT WHICH IS CONSTRUCTED TO TRAP AND FILTER WATER FOR PUMPING WATER INTO A SUITABLE DISCHARGE AREA.

PURPOSE

THE PURPOSE OF THIS PRACTICE IS TO REMOVE EXCESSIVE WATER IN A MANNER THAT IMPROVES THE QUALITY OF THE WATER BEING PUMPED.

CONDITIONS WHERE PRACTICE APPLIES

SUMP PITS ARE CONSTRUCTED WHEN WATER COLLECTS DURING THE EXCAVATION. THIS PRACTICE IS PARTICULARLY USEFUL IN URBAN AREAS DURING EXCAVATION FOR BUILDING FOUNDATIONS.

CRITERIA

A PERFORATED VERTICAL STANDPIPE IS PLACED IN THE CENTER OF THE PIT TO COLLECT FILTERED WATER. THE STANDPIPE WILL BE A PERFORATED 12 TO 24 - INCH DIAMETER CORRUGATED METAL OR PVC PIPE. WATER IS THEN PUMPED FROM THE CENTER OF THE PIPE TO A SUITABLE DISCHARGE AREA. THE PIT WILL BE FILLED WITH COURSE AGGREGATE MEETING THE REQUIREMENTS FOR IDOT STANDARDS FOR GRADATIONS OF CA-2 OR CA-4.

CONSIDERATIONS

DISCHARGE OF WATER PUMPED FROM THE STANDPIPE SHOULD BE TO A SUITABLE PRACTICE SUCH AS PRACTICE STANDARD IMPOUNDMENT STRUCTURE-ROUTED 842, PORTABLE SEDIMENT TANK 895, TEMPORARY SEDIMENT TRAP 960, OR STABILIZED AREA.

IF WATER FROM THE SUMP PIT WILL BE PUMPED DIRECTLY TO A STORM DRAINAGE SYSTEM, FILTER FABRIC WILL BE WRAPPED AROUND THE STANDPIPE TO ENSURE CLEAN IF WATER DISCHARGE. THE FABRIC, IF USED, SHALL MEET THE REQUIREMENTS AS SHOWN IN MATERIAL SPECIFICATION 592 GEOTEXTILE TABLE 1 OR 2 CLASS 1 WITH AN EQUIVALENT OPENING SIZE OF AT LEAST 30 FOR NON-WOVEN OR 50 FOR WOVEN. IT IS RECOMMENDED THAT 1/4 TO 1/2 INCH HARDWARE CLOTH WIRE BE WRAPPED AROUND AND SECURED TO THE STANDPIPE TO ATTACHING THE FILTER FABRIC. THIS WILL INCREASE THE RATE OF WATER SEEPAGE INTO THE STANDPIPE.

PLANS AND SPECIFICATIONS

PLANS AND SPECIFICATIONS FOR INSTALLING AND UTILIZING SUMP PITS SHALL BE IN KEEPING WITH STANDARD AND SHALL DESCRIBE THE REQUIREMENTS FOR APPLYING THE PRACTICE TO ACHIEVE ITS INTENDED PURPOSE.

THE CONTRACTOR OR RESPONSIBLE REVIEWING AUTHORITY WILL DETERMINE THE NUMBER OF SUMP PITS AND THEIR LOCATIONS.

STANDARD DRAWING IL-650 SUMP PIT PLAN MAY BE USED AS A PLAN SHEET.

ALL PLANS SHALL INCLUDE THE INSTALLATION, INSPECTION, AND MAINTENANCE SCHEDULES WITH THE RESPONSIBLE PARTY IDENTIFIED.

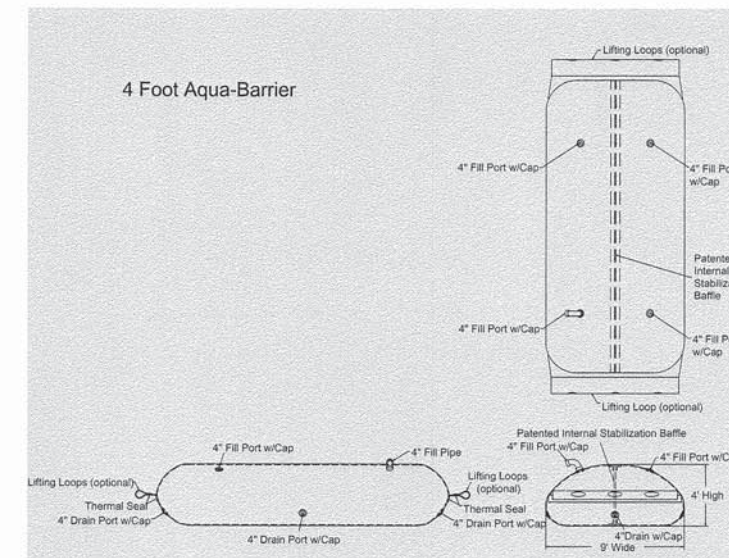
OPERATION AND MAINTENANCE

THE SUMP PIT MAY HAVE TO BE REPLACED IF THE PIT AND FILTER FABRIC PLUGS WITH SEDIMENT.

ALL WORK DESCRIBED ABOVE WILL NOT BE PAID FOR SEPARATELY BUT RATHER CONSIDERED INCIDENTAL TO THE CONTRACT.

NRCS IL

AUGUST 1994



FILE NAME = BFILE#



USER NAME = #USER#	DESIGNED = DDL	REVISED =
PLOT SCALE = #SCALE#	DRAWN = PMV	REVISED =
PLOT DATE = #DATE#	CHECKED = NPP	REVISED =
	DATE = 1/4/16	REVISED =

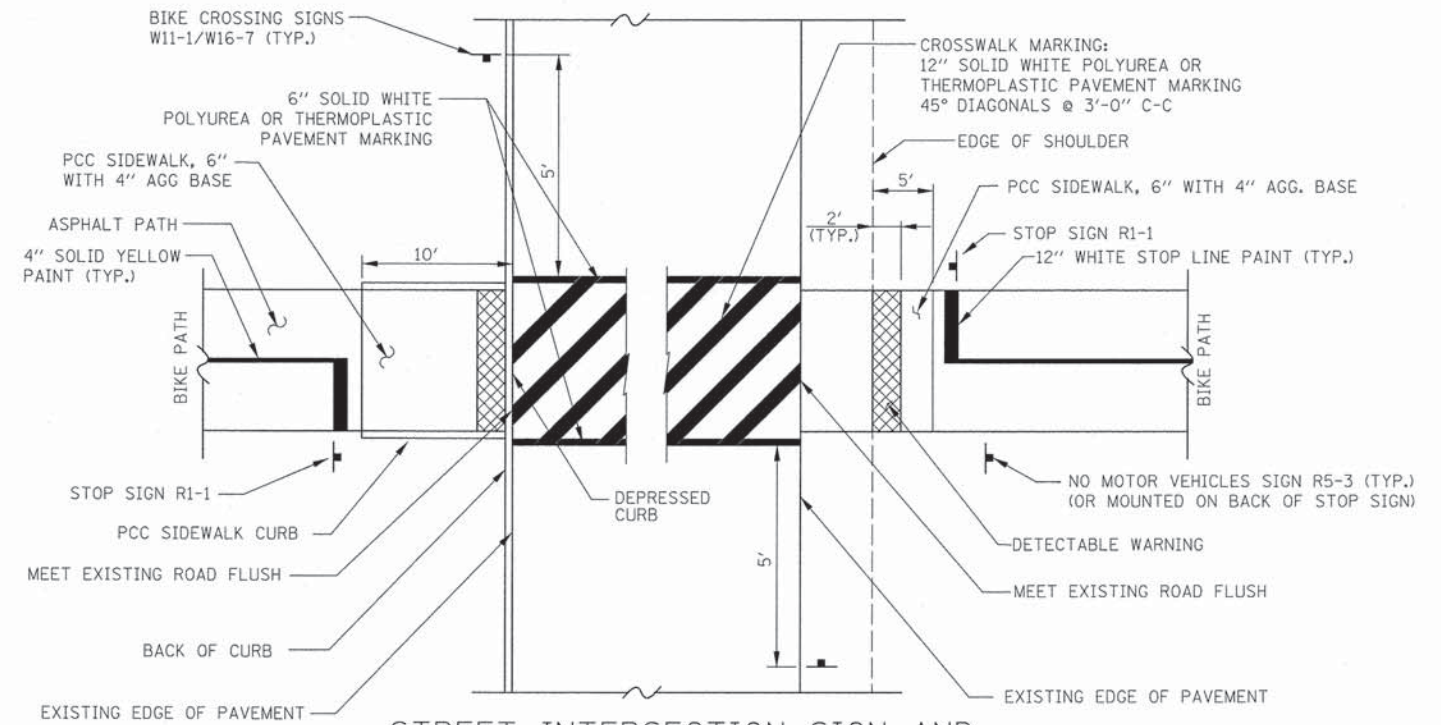
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

NORTH BRANCH BIKE TRAIL EXTENSION

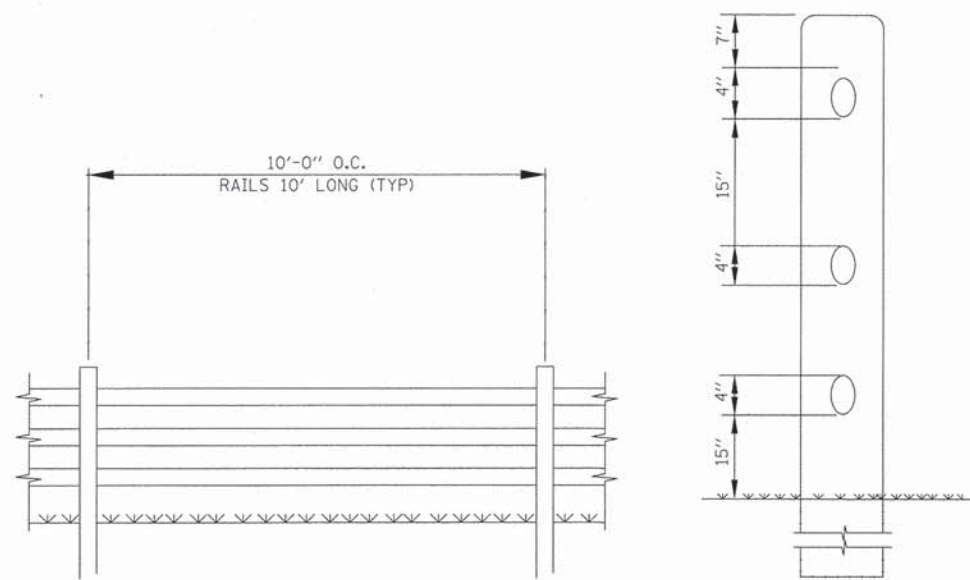
SCALE: SHEET NO. OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	15-F3000-27-BT	COOK	52	19
CONTRACT NO. 61C64				
FED. ROAD DIST. NO.   ILLINOIS   FED. AID PROJECT				

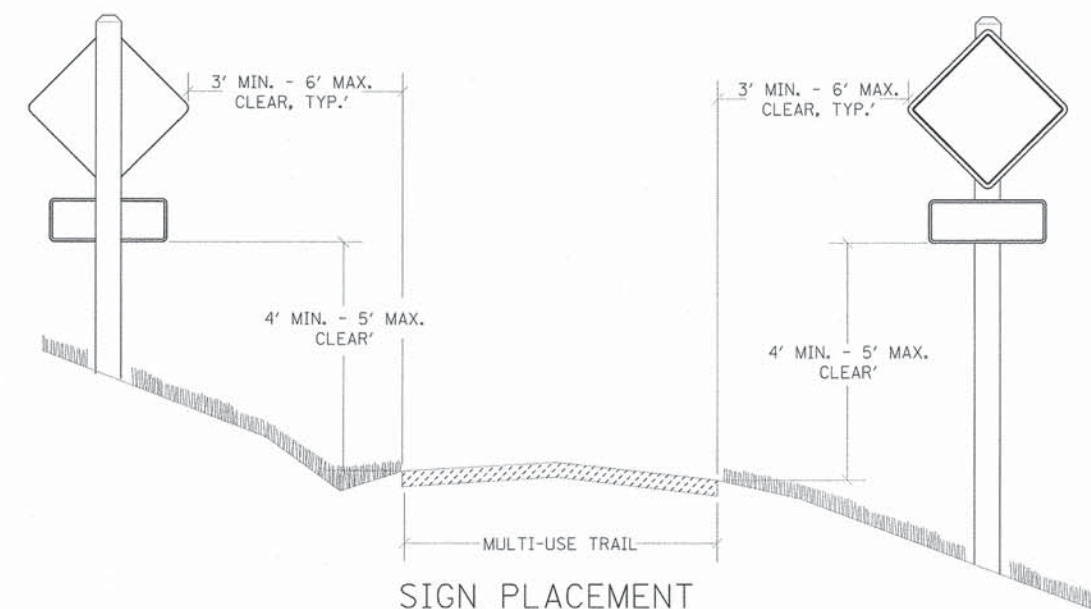




STREET INTERSECTION SIGN AND PAVEMENT MARKING DETAIL  
N.T.S.



RUSTIC RAIL FENCE DETAIL



SIGN PLACEMENT  
N.T.S.

FILE NAME = 8P1E49



USER NAME = #USER#	DESIGNED - PMV	REVISED -
PLOT SCALE = #SCALE#	DRAWN - PMV	REVISED -
PLOT DATE = #DATE#	CHECKED - NPP	REVISED -
	DATE - 1/4/16	REVISED -

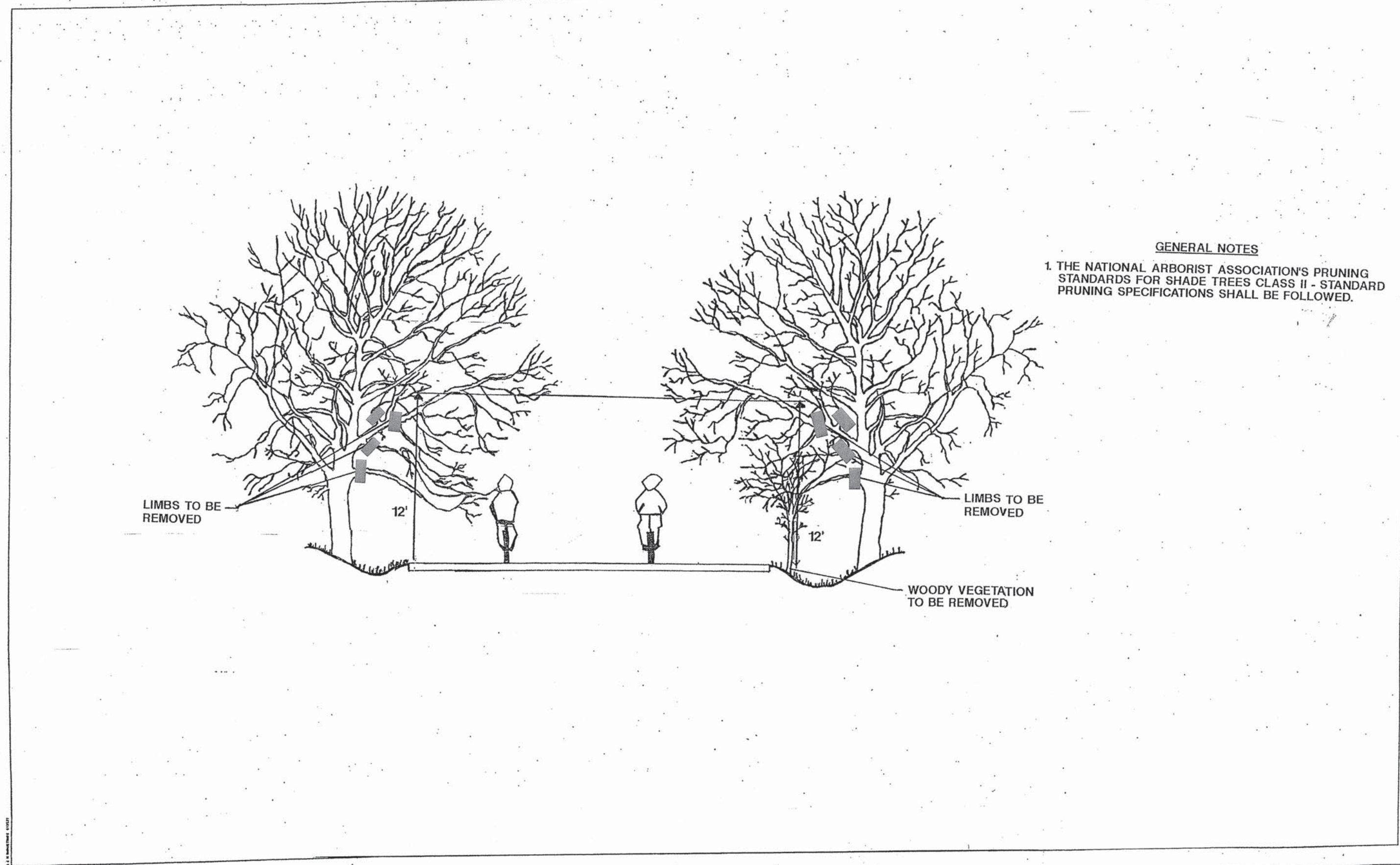
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

NORTH BRANCH BIKE TRAIL EXTENSION  
MISCELLANEOUS DETAILS

SCALE: SHEET NO. 1 OF 2 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	15-F3000-27-BT	COOK	52	20
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	
			CONTRACT NO. 61C64	





**GENERAL NOTES**

1. THE NATIONAL ARBORIST ASSOCIATION'S PRUNING STANDARDS FOR SHADE TREES CLASS II - STANDARD PRUNING SPECIFICATIONS SHALL BE FOLLOWED.

LIMBS TO BE REMOVED

12'

LIMBS TO BE REMOVED

12'

WOODY VEGETATION TO BE REMOVED

FILE NAME: 8FILES



USER NAME = #USER#	DESIGNED - DDL	REVISED -
	DRAWN - PMV	REVISED -
PLOT SCALE = #SCALE#	CHECKED - NPP	REVISED -
PLOT DATE = #DATE#	DATE - 1/4/16	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

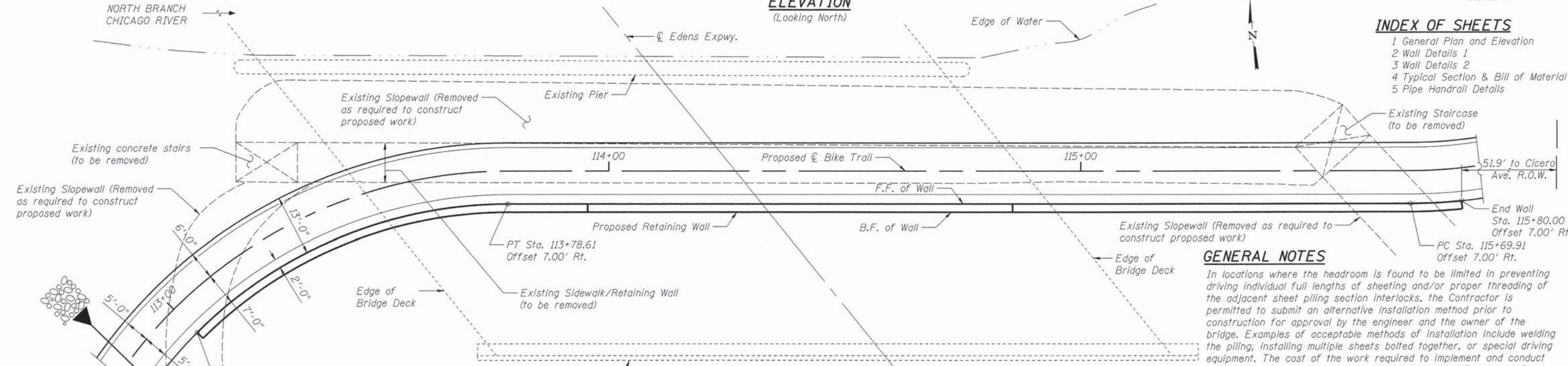
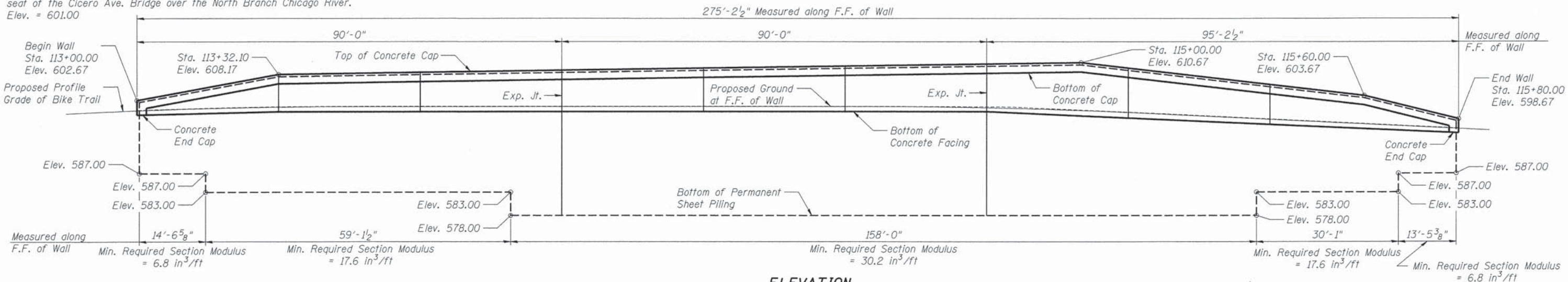
**NORTH BRANCH BIKE TRAIL EXTENSION  
PRUNING FOR SAFETY AND EQUIPMENT CLEARANCE**

SCALE: NTS SHEET NO. 2 OF 2 SHEETS STA. — TO STA. —

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	15-F3000-27-BT	COOK	52	21
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	
CONTRACT NO. 61C64				



Benchmark: BM #104 - Cut square at the west end of the South Abutment seat of the Cicero Ave. Bridge over the North Branch Chicago River. Elev. = 601.00



**INDEX OF SHEETS**

- 1 General Plan and Elevation
- 2 Wall Details 1
- 3 Wall Details 2
- 4 Typical Section & Bill of Material
- 5 Pipe Handrail Details

**GENERAL NOTES**

In locations where the headroom is found to be limited in preventing driving individual full lengths of sheeting and/or proper threading of the adjacent sheet piling section interlocks, the Contractor is permitted to submit an alternative installation method prior to construction for approval by the engineer and the owner of the bridge. Examples of acceptable methods of installation include welding the piling, installing multiple sheets bolted together, or special driving equipment. The cost of the work required to implement and conduct the approved method is included with the bid item "Permanent Steel Sheet Piling".

Permanent steel pile walls shall be backfilled prior to constructing the concrete facing.

Hard driving in hardpan clay may be encountered below elevation 590.00. The Contractor shall provide the appropriate driving equipment for such.

For Curve data, see sheets 2 & 3.

Cost of Preformed Joint Filler (PJF) to be included with the bid item "Concrete Structures".

Reinforcement bars designated (E) shall be epoxy coated.

0.00 Chicago City Datum = 579.88 USGS

**GENERAL PLAN AND ELEVATION  
NORTH BRANCH TRAIL EXTENSION  
EDENS UNDERPASS RETAINING WALL  
SEC. 08-F3000-21-BT  
COOK COUNTY  
STA 113+00.00 TO 115+80.00**

**TOTAL BILL OF MATERIAL**

ITEM	UNIT	TOTAL
Porous Granular Backfill	Cu. Yd.	173.0
Concrete Removal	Cu. Yd.	131.3
Slope Wall Removal	Sq. Yd.	237
Structure Excavation	Cu. Yd.	528.0
Concrete Structures	Cu. Yd.	93.7
Stud Shear Connectors	Each	1,426
Reinforcement Bars, Epoxy Coated	Pound	8,490
Pipe Handrail	Foot	270
Slope Wall 4 Inch	Sq. Yd.	271
Geocomposite Wall Drain	Sq. Yd.	199
Concrete Gutter, Type B	Foot	243
Permanent Steel Sheet Piling	Sq. Ft.	7,398
Pipe Underdrains for Structures 4"	Foot	291
Chain Link Fence to be Removed and Re-Erected	Foot	230



Donald E. Yetter  
DONALD E. YETTER DATE 1-5-2016  
LICENSED STRUCTURAL ENGINEER  
STATE OF ILLINOIS 081-4709  
EXPIRES 11/30/2016

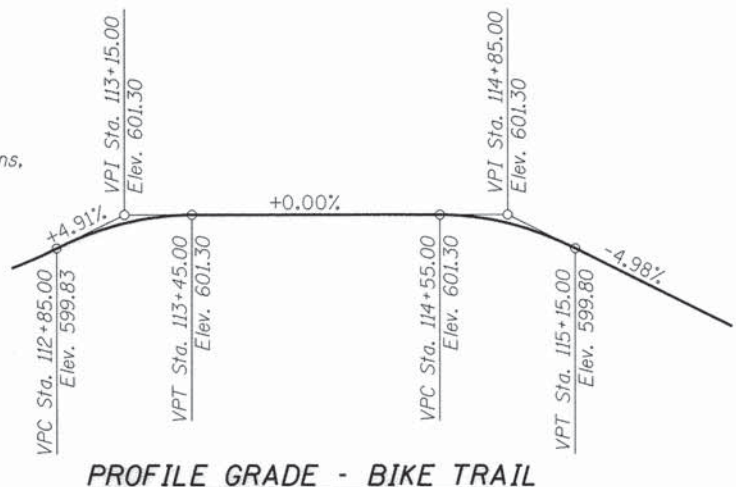
I certify that to the best of knowledge, information and belief, this design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the current AASHTO LRFD Bridge Design Specifications.

**DESIGN SPECIFICATIONS**

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

**DESIGN STRESSES**

FIELD UNITS  
f'c = 3,500 P.S.I.  
Fy = 60,000 P.S.I. (Reinf.)  
Fy = 50,000 P.S.I. (Permanent Sheet Piling)



FILE NO. =	USER NAME =	DESIGNED - PSK 5-16-14	REVISED
		CHECKED - MBQ 5-29-14	REVISED
		DRAWN - PSK 5-16-14	REVISED
		CHECKED - MBQ 5-29-14	REVISED

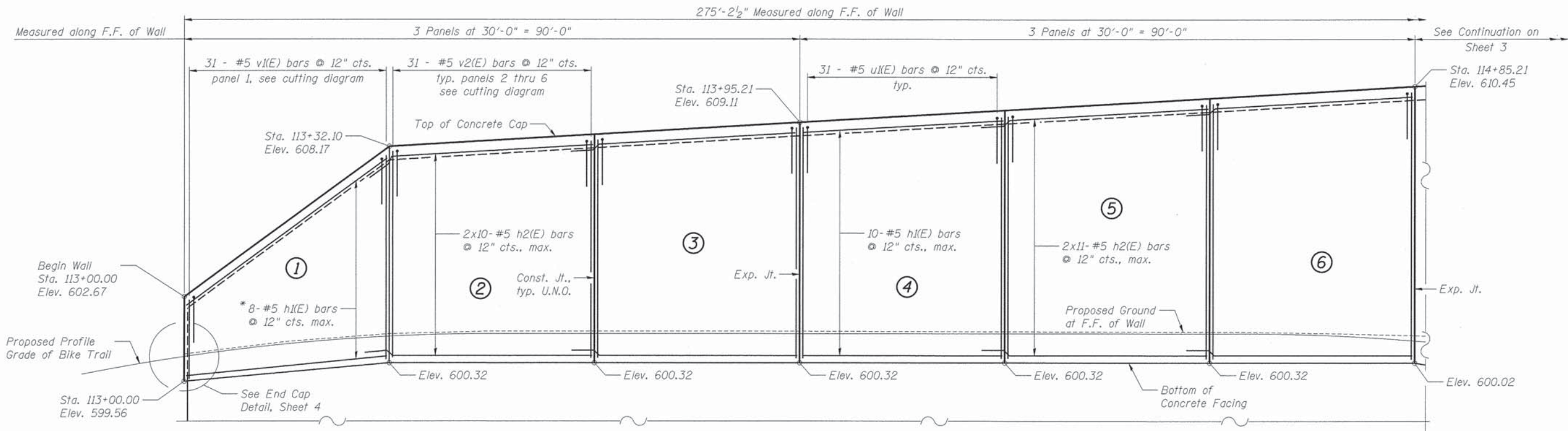
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

NORTH BRANCH TRAIL EXTENSION

SHEET NO. 1 OF 5 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	15-F3000-27-BT	COOK	52	22
CONTRACT NO. 61C64				
ILLINOIS FED. AID PROJECT				





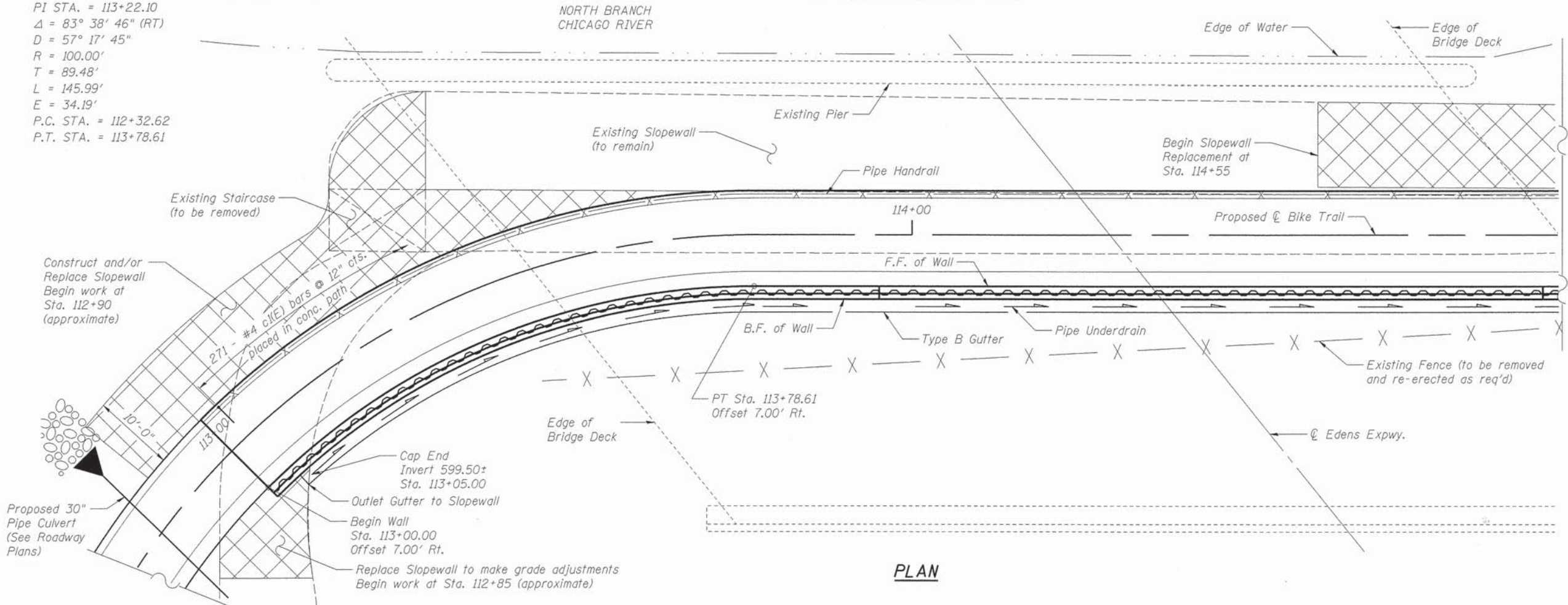
**ELEVATION**  
(Looking North)

Note: h1(E) thru h3(E) bars at back face of cap not shown, see Typical Wall Section

\* Cut, bend and/or flare bars to fit in field. Maintain minimum clearances and maximum spacings as required.

**CURVE DATA**

PI STA. = 113+22.10  
 $\Delta = 83^\circ 38' 46''$  (RT)  
 $D = 57^\circ 17' 45''$   
 $R = 100.00'$   
 $T = 89.48'$   
 $L = 145.99'$   
 $E = 34.19'$   
 P.C. STA. = 112+32.62  
 P.T. STA. = 113+78.61



**PLAN**

**NOTES**

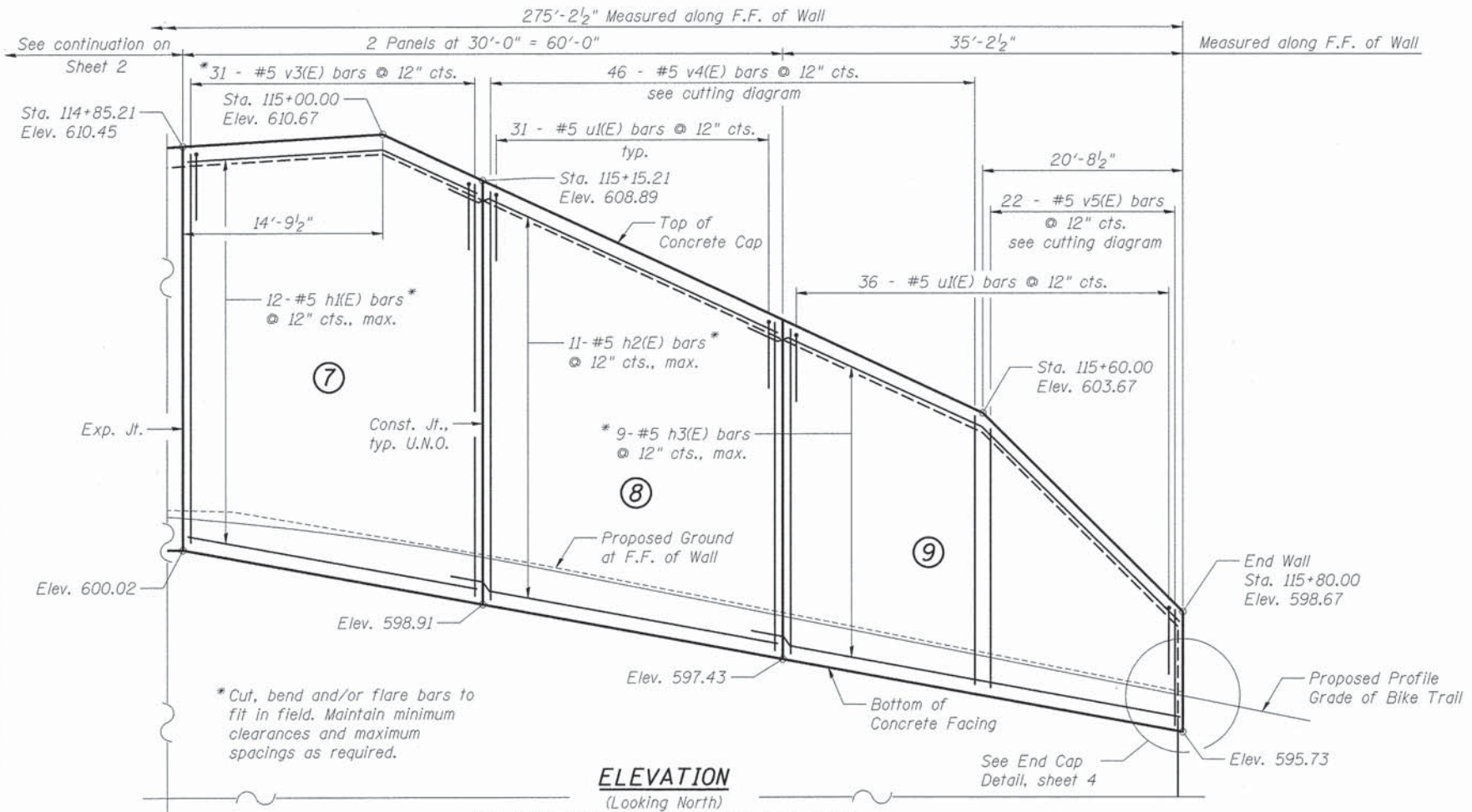
For Slope Wall details, Bar Bend Details, Cutting Diagrams, and Bill of Material, see Sheet 4.  
 For Typical Section thru wall, see Sheet 3.  
 For Construction Joint Detail and Expansion Joint Detail, see Sheet 4.  
 Bars indicated thus 5x3 etc. indicates 5 lines of bars with 3 bars per line.

**MINIMUM BAR LAP**  
#5 Bar = 2'-11"

**LEGEND**

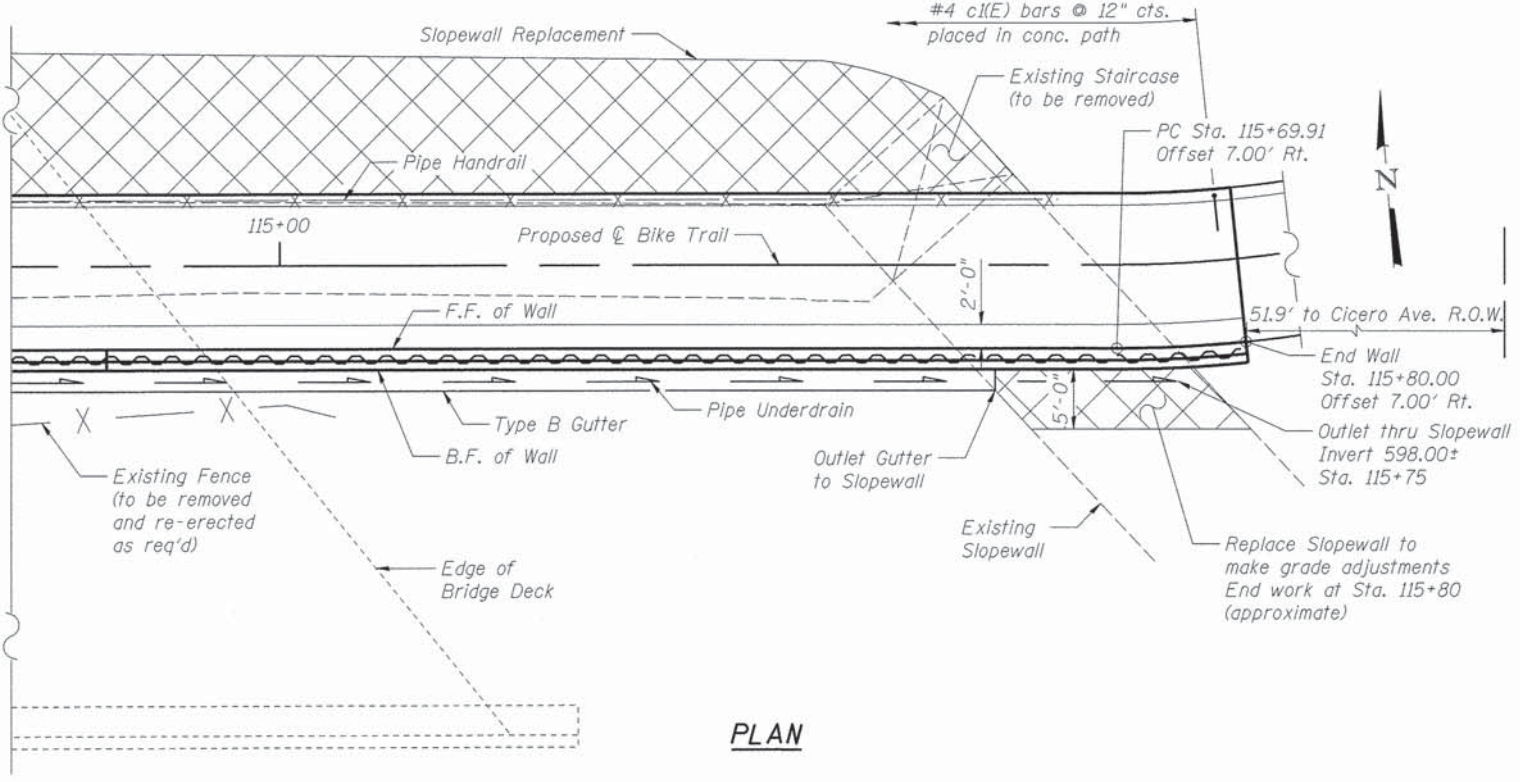
- Proposed Slopewall
- Panel No.



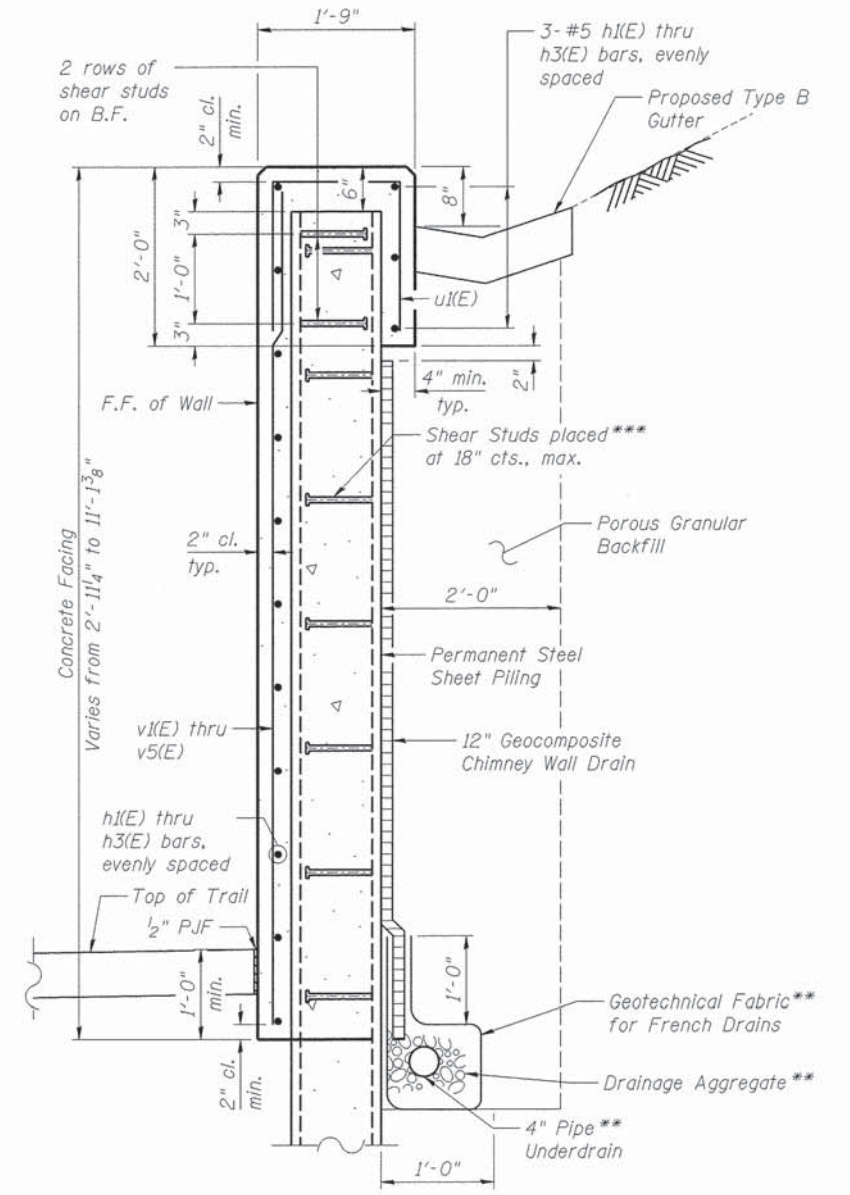


**ELEVATION**  
(Looking North)

Note: h1(E) thru h3(E) bars at back face of cap not shown, see Typical Wall Section



**PLAN**



**TYPICAL WALL SECTION**

\*\* Included in the cost of Pipe Underdrains for Structures.  
\*\*\* Shear Studs shall be 3/4" dia. x 6" granular or solid flux filled headed Studs automatically end welded in the field to Sheet Piling.

**LEGEND**

- Proposed Slope Wall
- Panel No.

**MINIMUM BAR LAP**  
#5 Bar = 2'-11"

**CURVE DATA**

PI STA. = 115+97.71  
 $\Delta = 31^\circ 04' 13''$  (LT)  
 $D = 57^\circ 17' 45''$   
 $R = 100.00'$   
 $T = 27.80'$   
 $L = 54.23'$   
 $E = 3.79'$   
 P.C. STA. = 115+69.91  
 P.T. STA. = 116+24.14

**NOTES**

For Slope Wall details, Bar Bend Details, Cutting Diagrams and Bill of Material, see Sheet 4.  
 For Construction Joint Detail and Expansion Joint Detail, see Sheet 4.  
 12" geocomposite chimney wall drain is paid for as Geocomposite Wall Drain and shall be placed as single vertical strips on the flats and the slopes of the sheeting and secured with double-sided tape or construction adhesive as recommended by the manufacturer and approved by the Engineer.



FILE NO.	USER NAME =	DESIGNED - PSK 5-19-14	REVISED
		CHECKED - MBQ 5-29-14	REVISED
		DRAWN - PSK 5-19-14	REVISED
		CHECKED - MBQ 5-29-14	REVISED
PLOT SCALE =			
PLOT DATE =			

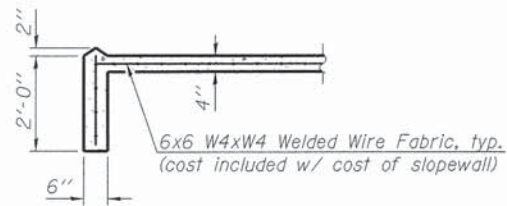
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**NORTH BRANCH TRAIL EXTENSION**  
**WALL DETAILS 2**

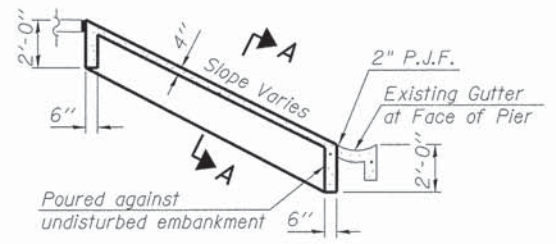
SHEET NO. 3 OF 5 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	15-F3000-27-BT	COOK	52	24
			CONTRACT NO. 61C64	
ILLINOIS FED. AID PROJECT				

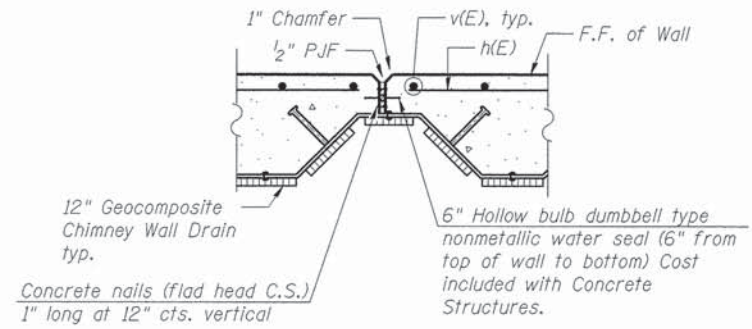




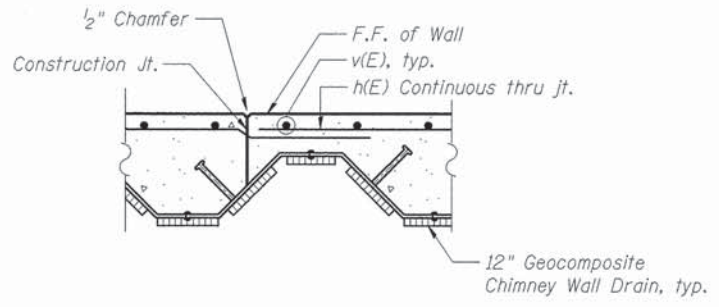
**SECTION A-A**



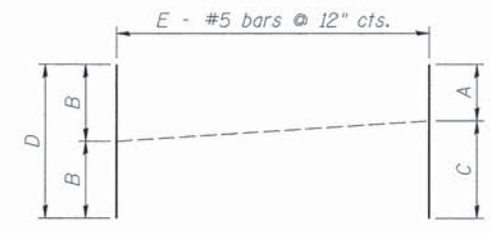
**SECTION THRU CONCRETE SLOPEWALL**



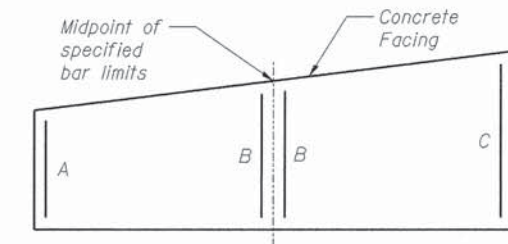
**EXPANSION JOINT DETAIL**



**CONSTRUCTION JOINT DETAIL**



**v1(E), v2(E), v4(E) & v5(E)**



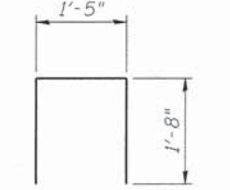
**VERTICAL REINFORCEMENT LAYOUT**

**A THRU E DIMENSIONS**

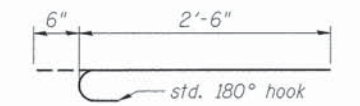
Bar	A	B	C	D	E
V1(E)	2'-9"	5'-2"	7'-6"	10'-3"	16
V2(E)	7'-6"	8'-8"	9'-10"	17'-4"	78
V4(E)	6'-6"	8'-1"	9'-8"	16'-2"	23
V5(E)	2'-7"	4'-6"	6'-6"	9'-1"	11

**BILL OF MATERIAL**

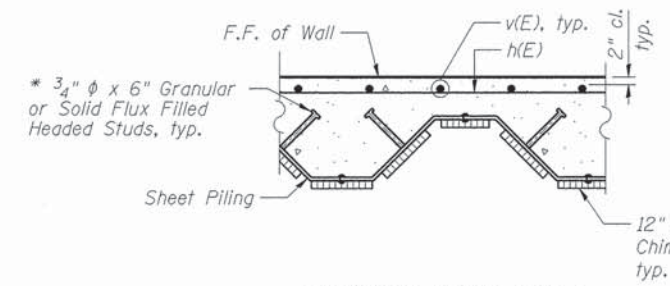
Bar	No.	Size	Length	Shape
c1(E)	271	#4	3'-0"	C
h1(E)	39	#5	30'-2"	—
h2(E)	68	#5	33'-1"	—
h3(E)	12	#5	39'-6"	—
v1(E)	16	#5	10'-3"	—
v2(E)	78	#5	17'-4"	—
v3(E)	31	#5	10'-10"	—
v4(E)	23	#5	16'-2"	—
v5(E)	11	#5	9'-1"	—
u1(E)	292	#5	4'-9"	□
Structure Excavation	Cu. Yd.		528.0	
Concrete Structures	Cu. Yd.		93.7	
Stud Shear Connectors	Each		1,426	
Reinforcement Bars, Epoxy Coated	Pound		8,490	
Permanent Steel Sheet Piling	Sq. Ft.		7,398	



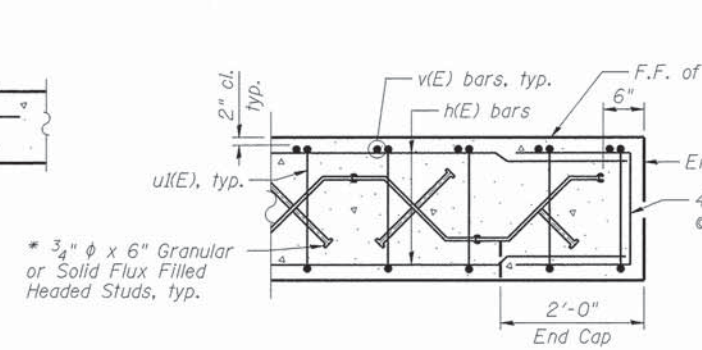
**BAR u1(E)**



**BAR c1(E)**

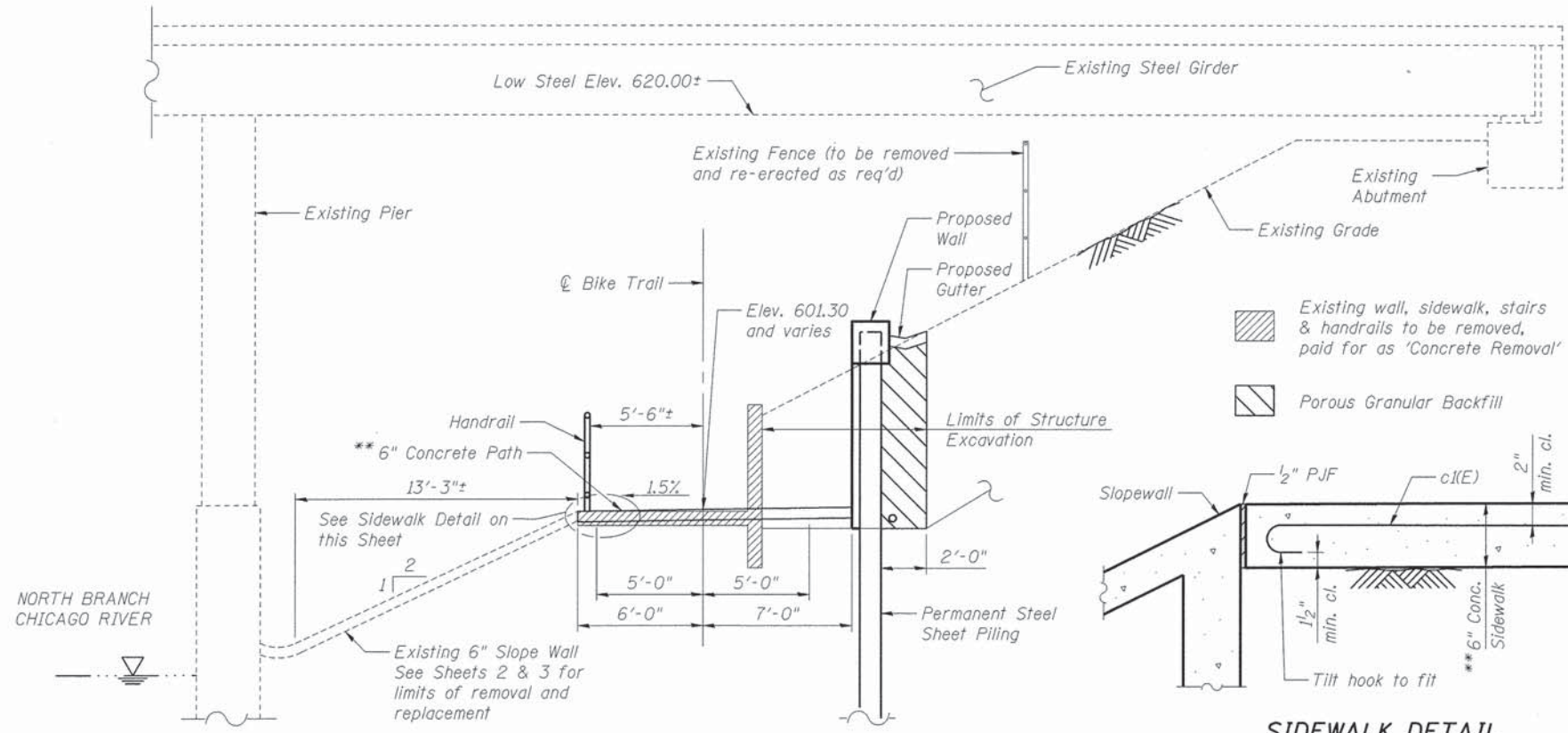


**SECTION THRU WALL**

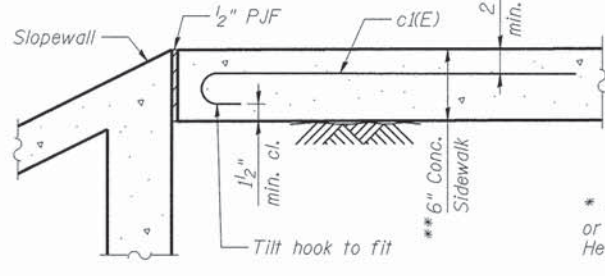


**SECTION THRU CAP**

**NOTE**  
Slope wall shall be reinforced with welded wire fabric, 69 in. x 6 in. - W4.0 x W4.0, weighing 58 lbs. per 100 sq. ft.



**TYPICAL SECTION**



**SIDEWALK DETAIL**

Railing anchorage not shown for clarity, see Sheet 5 for railing details.

\*\* Concrete Path to be paid for under the bid item "Portland Cement Concrete Sidewalk 6 Inch", see Roadway plans for bill of material.



FILE NAME =	USER NAME =	DESIGNED - PSK 5-22-14	REVISED
		CHECKED - MBO 5-29-14	REVISED
PLOT SCALE =		DRAWN - PSK 5-22-14	REVISED
PLOT DATE =		CHECKED - MBO 5-29-14	REVISED

**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**

**NORTH BRANCH TRAIL EXTENSION TYPICAL SECTION & BILL OF MATERIAL**

SHEET NO. 4 OF 5 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	15-F3000-27-BT	COOK	52	25
			CONTRACT NO. 61C64	
ILLINOIS FED. AID PROJECT				



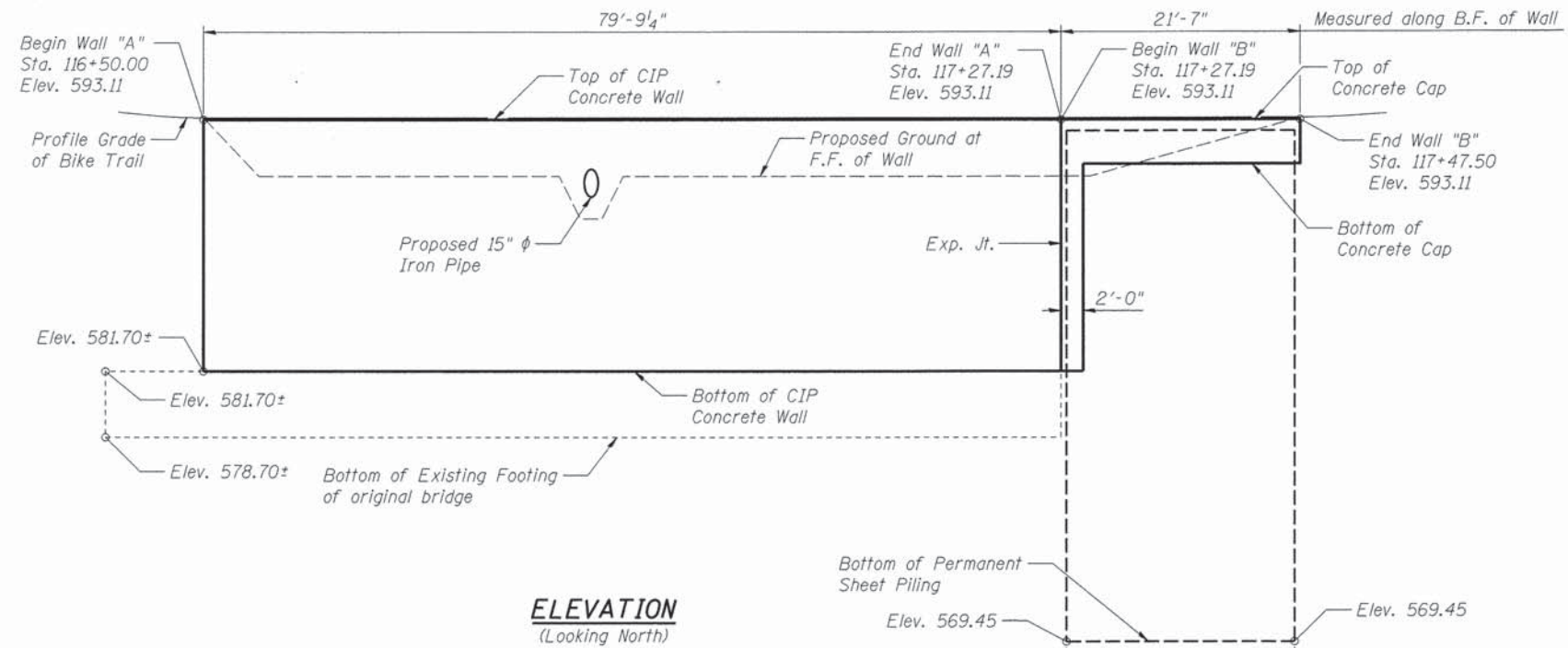




Benchmark: BM #104 - Cut square at the west end of the South Abutment seat of the Cicero Ave. Bridge over the North Branch Chicago River.  
Elev. = 601.00

**TOTAL BILL OF MATERIAL**

ITEM	UNIT	Wall "A"	Wall "B"	TOTAL
Porous Granular Backfill	Cu. Yd.	-	-	192.3
Filter Fabric	Sq. Yd.	-	-	299
Concrete Removal	Cu. Yd.	6.0	-	6.0
Structure Excavation	Cu. Yd.	105.3	-	105.3
Cofferdam (Type 1) (Location - 2)	Each	-	-	1
Concrete Structures	Cu. Yd.	52.7	3.5	56.2
Stud Shear Connectors	Each	-	48	48
Reinforcement Bars, Epoxy Coated	Pound	5,760	360	6,120
Pipe Handrail	Foot	80	22	102
Slope Wall 4 Inch	Sq. Yd.	-	-	87
Storm Sewer Removal 15"	Foot	20	-	20
Controlled Low-Strength Material	Cu. Yd.	30.8	-	30.8
Remove and Replace Stone Riprap	Cu. Yd.	-	-	285.1
Downspout Adjustment	Each	-	-	2
Permanent Steel Sheet Piling	Sq. Ft.	-	477	477
Storm Sewer (Water Main Requirements) 15 Inch	Foot	20	-	20



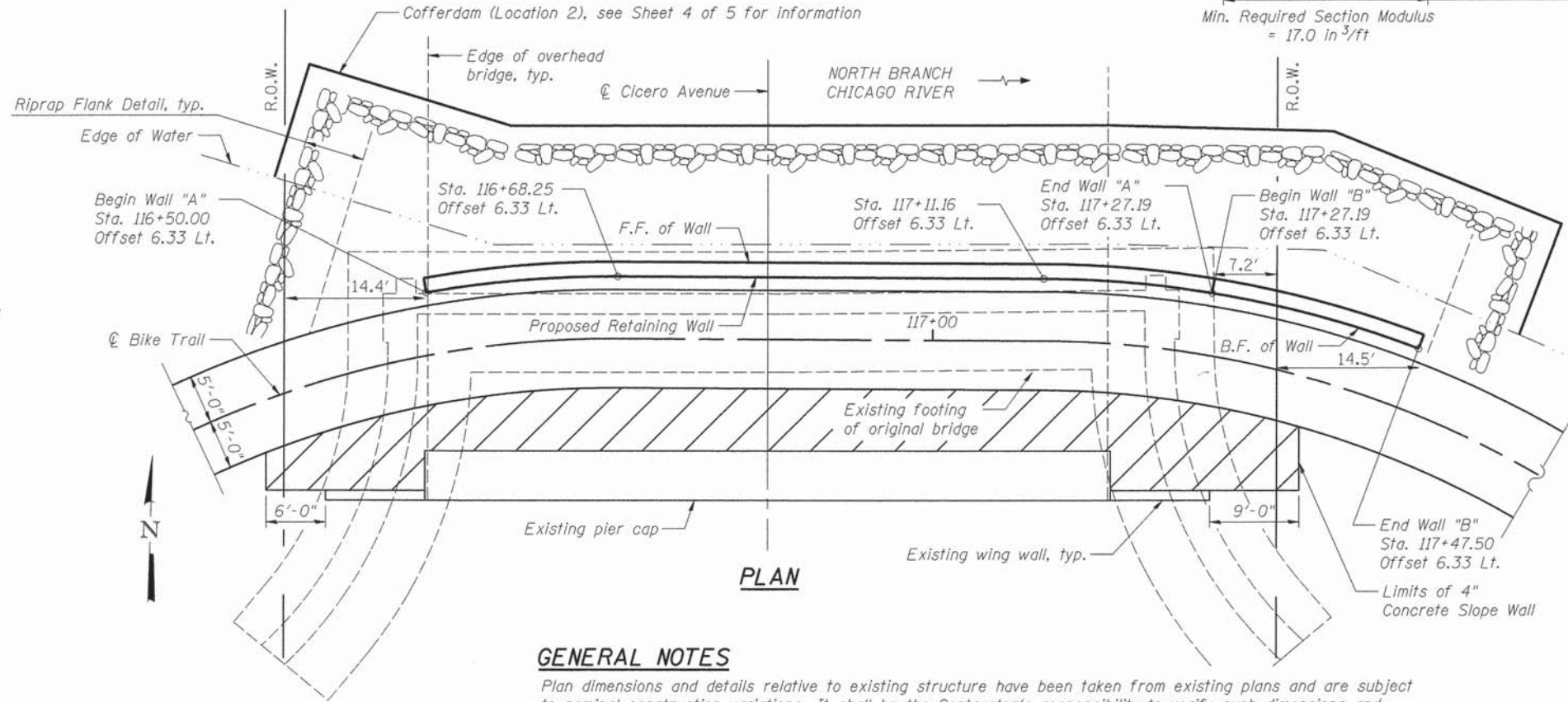
**ELEVATION**  
(Looking North)

**CURVE DATA**

PI STA. = 116+46.56  
Δ = 25° 16' 23" (RT)  
D = 57° 17' 45"  
R = 100.00'  
T = 22.42'  
L = 44.11'  
E = 2.48'  
P.C. STA. = 116+24.14  
P.T. STA. = 116+68.25

**CURVE DATA**

PI STA. = 117+49.04  
Δ = 41° 29' 27" (RT)  
D = 57° 17' 45"  
R = 100.00'  
T = 37.88'  
L = 72.42'  
E = 6.93'  
P.C. STA. = 117+11.16  
P.T. STA. = 117+83.57



**PLAN**

**INDEX OF SHEETS**

- 1 General Plan and Elevation
- 2 Wall "A" Details
- 3 Wall "B" Details
- 4 Details and Bill of Material
- 5 Pipe Handrail Details



Donald E. Yetter

DONALD E. YETTER DATE 1-5-2016  
LICENSED STRUCTURAL ENGINEER  
STATE OF ILLINOIS 081-4709  
EXPIRES 11/30/2016

I certify that to the best of knowledge, information and belief, this design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the current AASHTO LRFD Bridge Design Specifications.

**GENERAL PLAN AND ELEVATION  
NORTH BRANCH TRAIL EXTENSION  
CICERO UNDERPASS RETAINING WALL  
SEC. 15-F3000-27-BT  
COOK COUNTY  
STA 116+50.00 TO 117+50.00**

**GENERAL NOTES**

Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of work; however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

Soil borings were not performed for this project. Soil boring logs are located in the 2006 plans for Structure No. 016-2782, built under Contract No. 60440.

Reinforcement bars designated (E) shall be epoxy coated.

Cost of Preformed Joint Filler (PJF) to be included with the bid item "Concrete Structures".

0.00 Chicago City Datum = 579.88 USGS

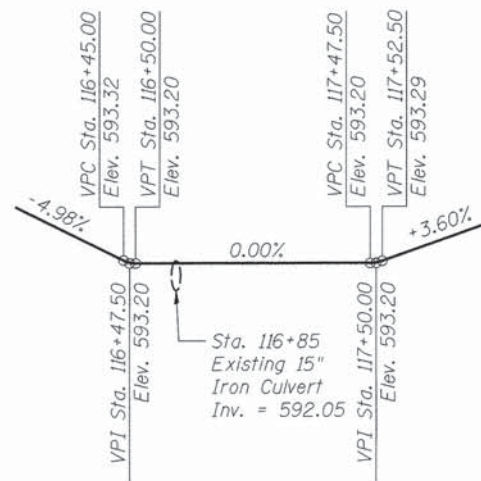
**DESIGN SPECIFICATIONS**

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

**DESIGN STRESSES**

FIELD UNITS  
f'c = 3,500 P.S.I.  
Fy = 60,000 P.S.I. (Reinf.)  
Fy = 50,000 P.S.I. (Permanent Sheet Piling)

**PROFILE GRADE - BIKE TRAIL**



FILE NAME	USER NAME	DESIGNED - PSK 5-2-14	REVISED
		CHECKED - MBQ 5-19-14	REVISED
		DRAWN - PSK 5-2-14	REVISED
		CHECKED - MBQ 5-19-14	REVISED

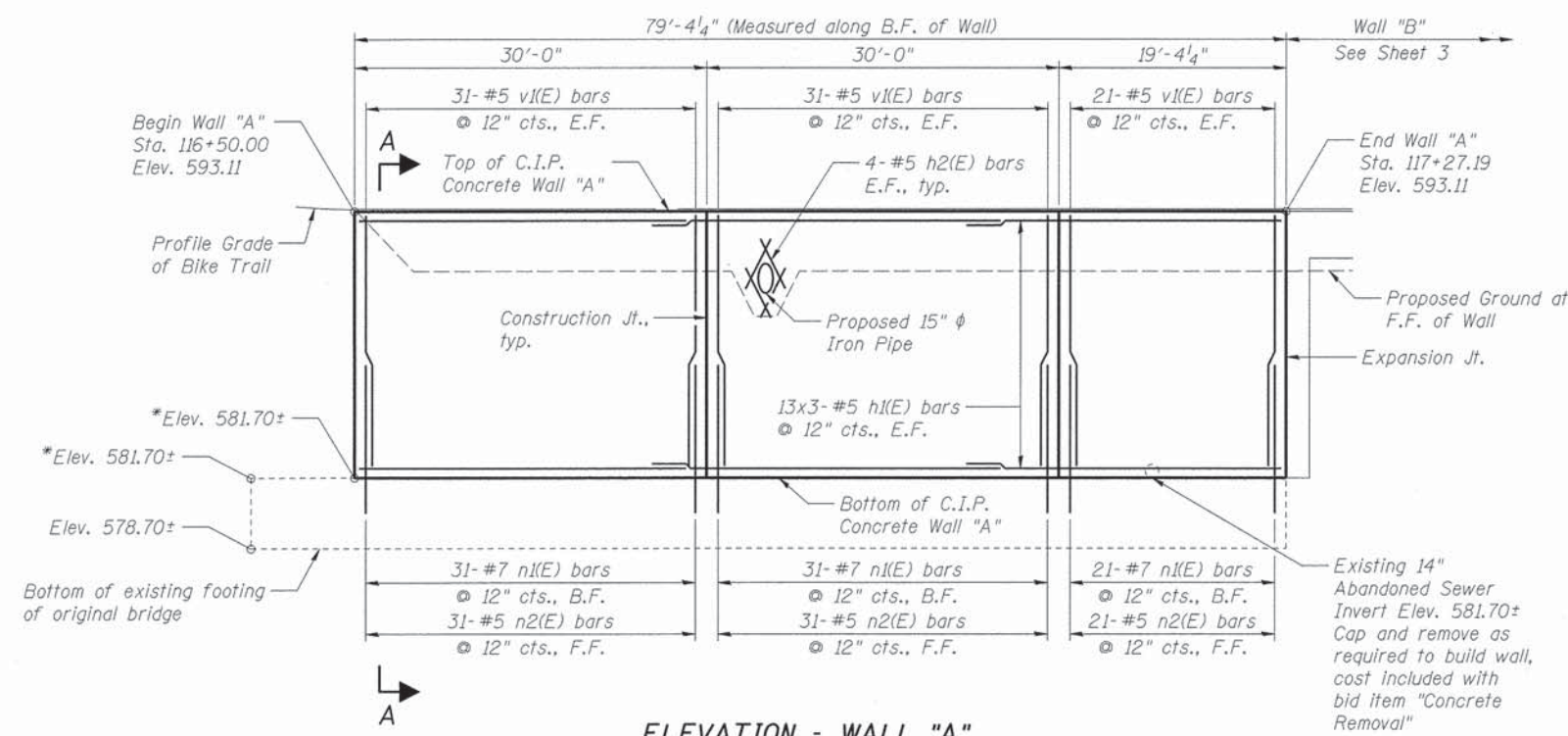
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

NORTH BRANCH TRAIL EXTENSION

SHEET NO. 1 OF 5 SHEETS

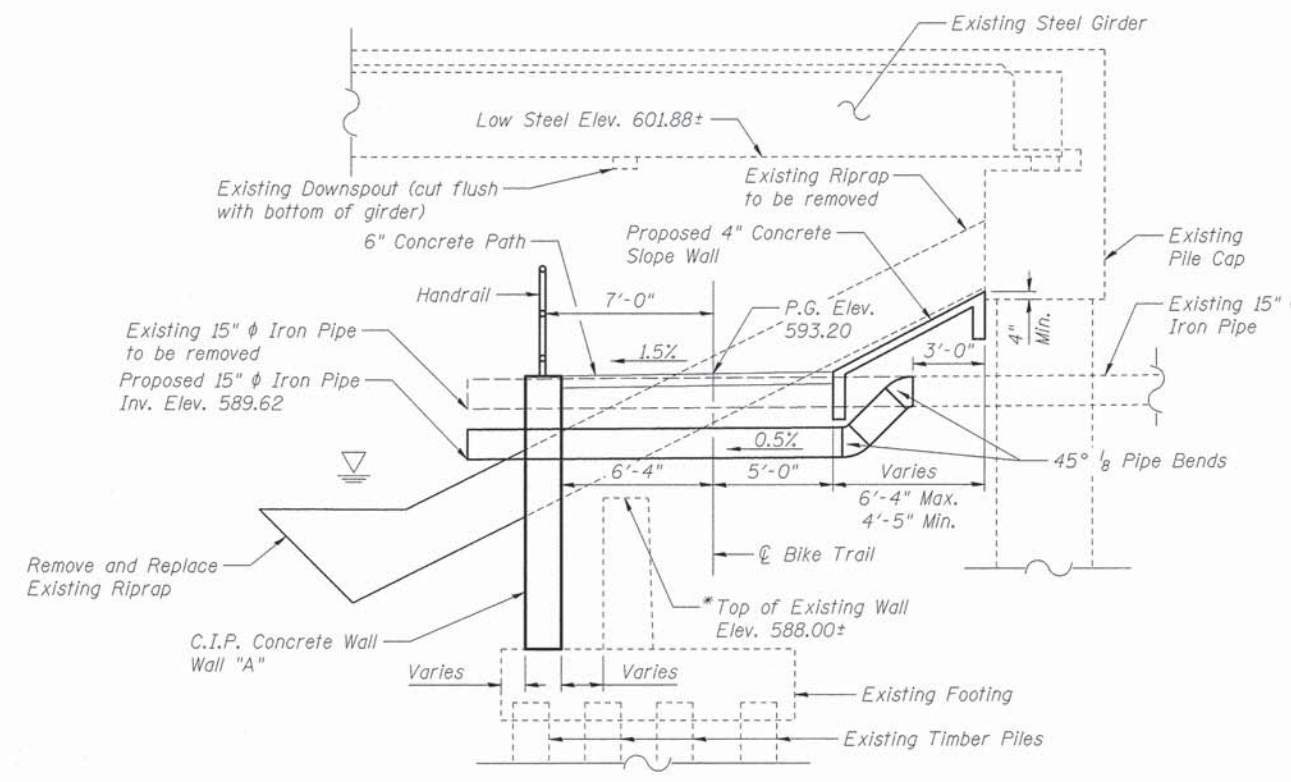
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	15-F3000-27-BT	COOK	52	27
			CONTRACT NO. 61C64	
ILLINOIS FED. AID PROJECT				





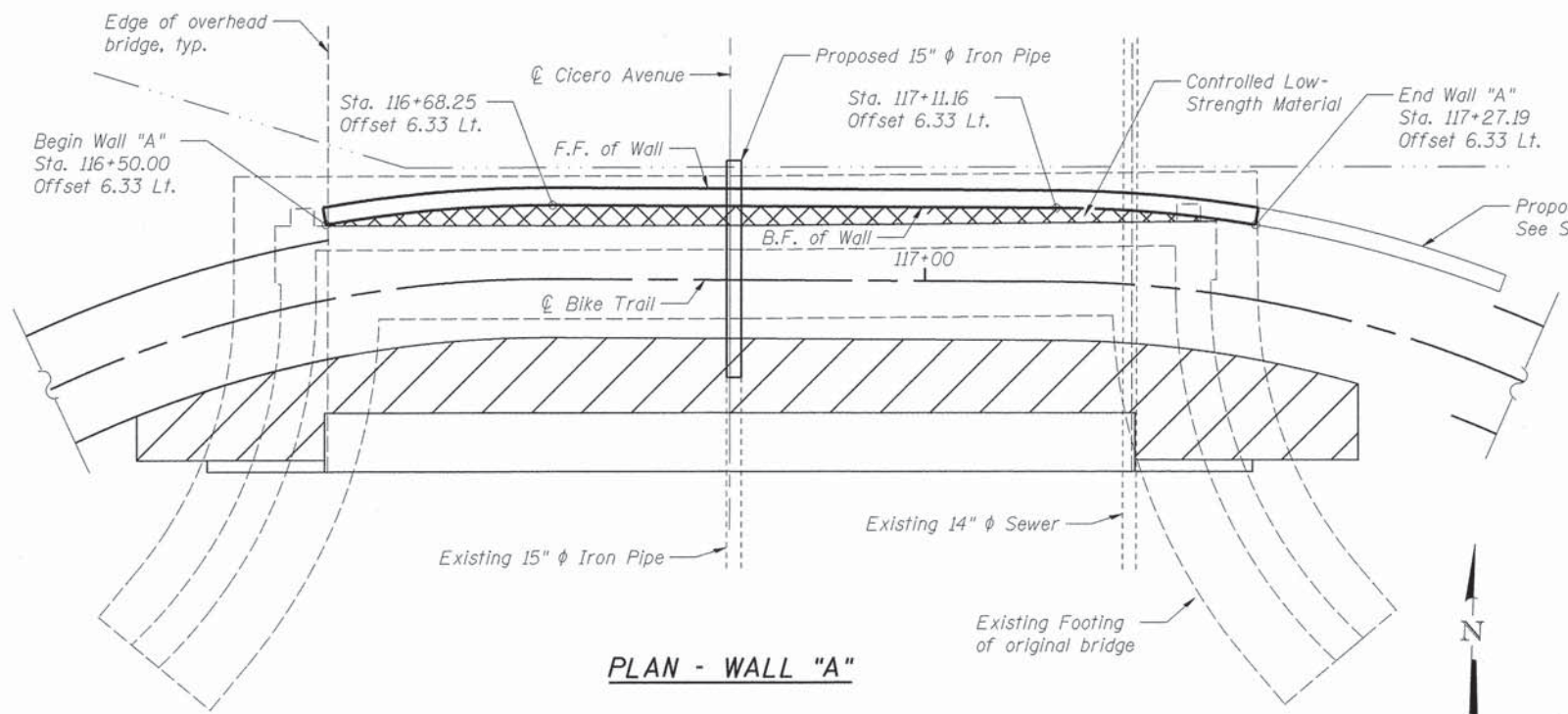
**ELEVATION - WALL "A"**

(Looking North)  
 Bars indicated thus 5x3 etc. indicates 5 lines of bars with 3 bars per line.



**TYPICAL SECTION THRU WALL "A"**

(Section thru Pile Cap shown, similar detail thru Wing Wall)



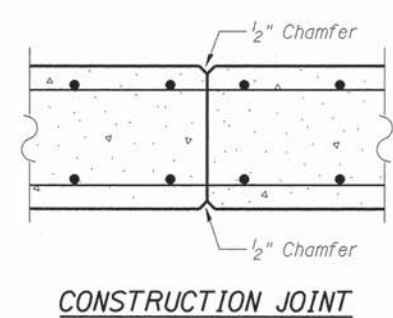
**PLAN - WALL "A"**

**NOTES**

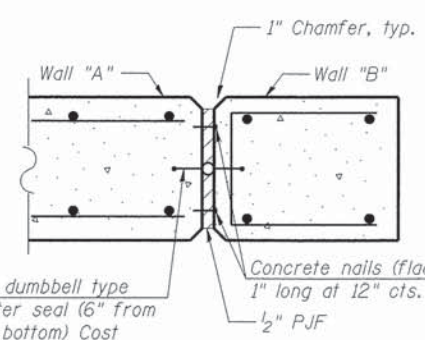
For Slope Wall details, Riprap details, Excavation details and Bill of Material, see Sheet 4.  
 \* Elevations of the existing bridge substructure are based on the 2006 plans for Structure No. 016-2782, Cicero Ave. over North Branch of the Chicago River, Contract No. 60440. These elevations are approximate and are to be verified in the field by the Contractor.

**MINIMUM BAR LAP**

#5 Bar = 2'-11"  
 #7 Bar = 4'-2"

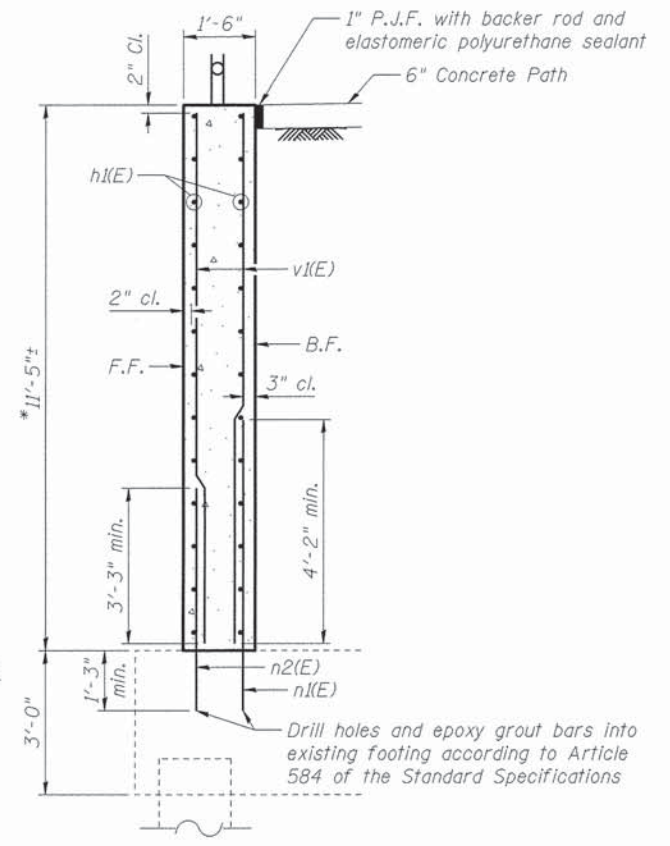


**CONSTRUCTION JOINT**



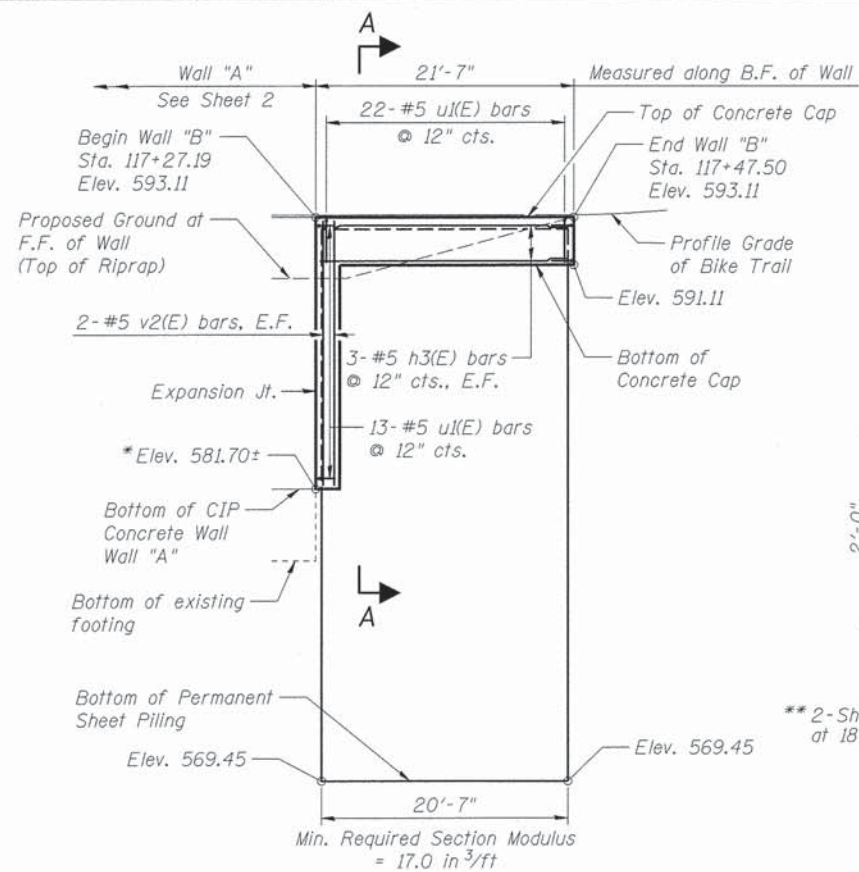
**EXPANSION JOINT**

(Section thru wall shown, section thru cap similar)

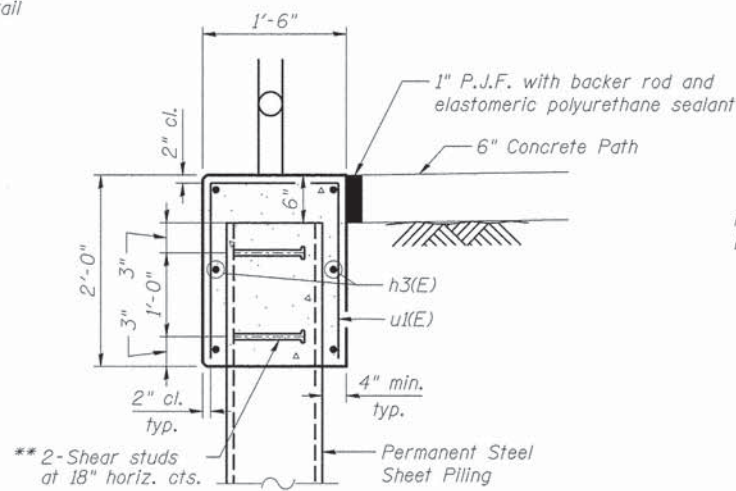


**SECTION A-A**

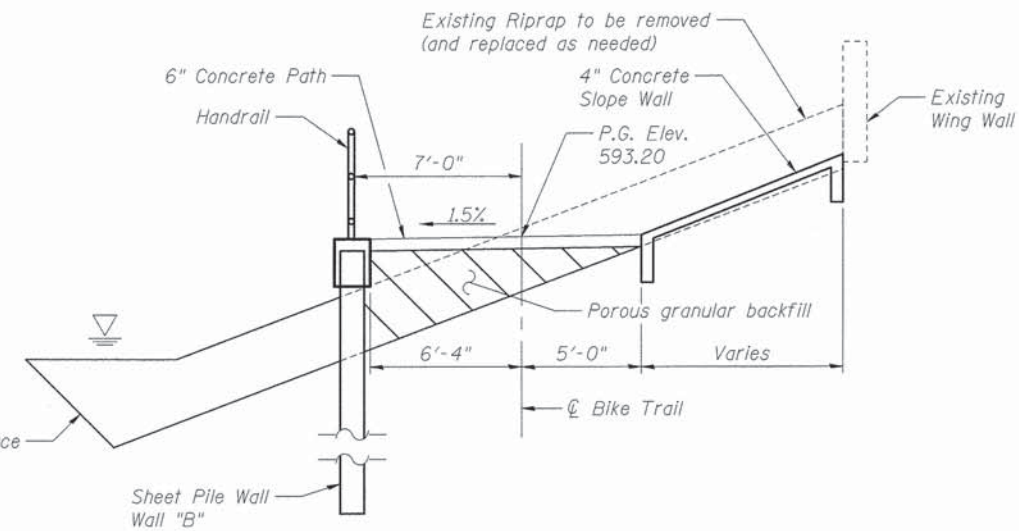




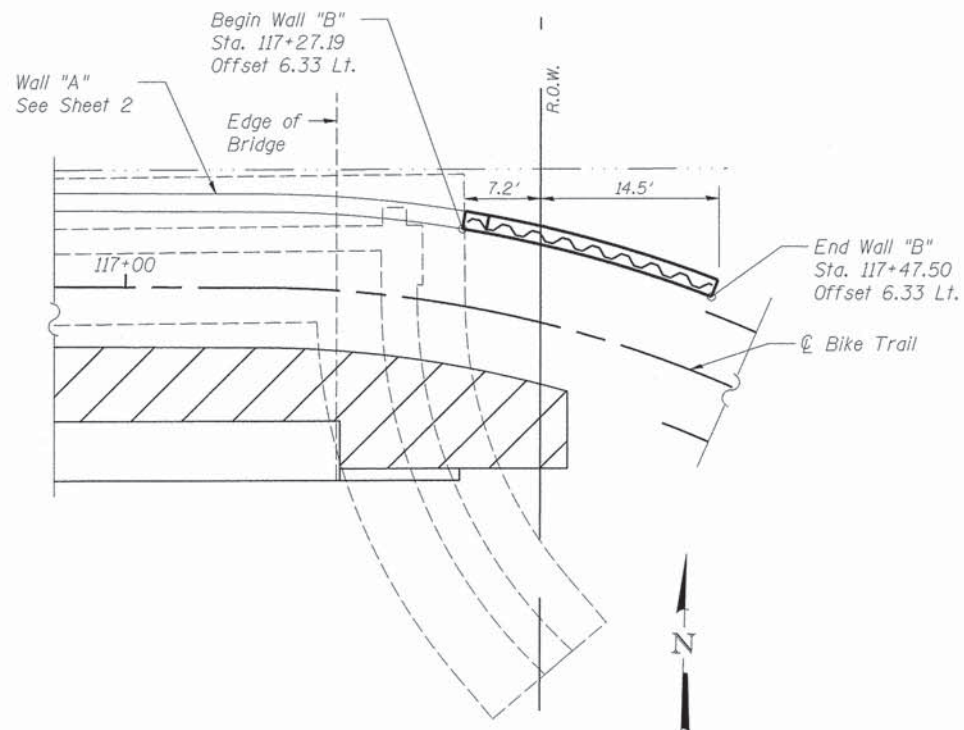
**ELEVATION - WALL "B"**  
(Looking North)



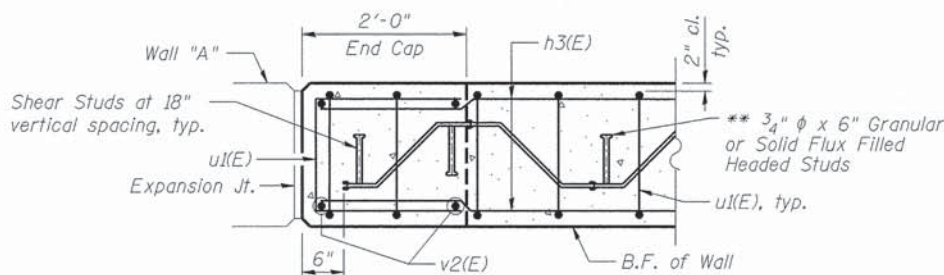
**SECTION A-A**



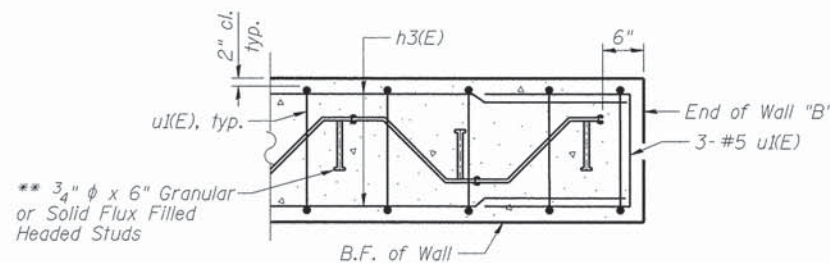
**TYPICAL SECTION THRU WALL "B"**  
(Section thru Wing Wall shown, similar detail past Wing Wall)



**PLAN - WALL "B"**



**CAP DETAIL - WEST END**



**CAP DETAIL - EAST END**

**NOTES**

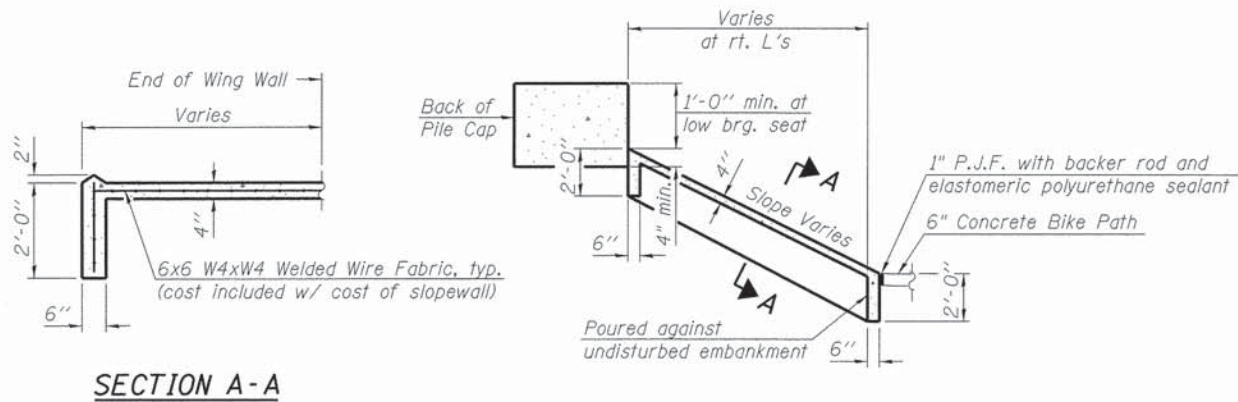
For Slope Wall details, Riprap details, and Bill of Material, see Sheet 4.

For Construction Joint and Expansion Joint details, see Sheet 2.

\* Elevations of the existing bridge substructure are based on the 2006 plans for Structure No. 016-2782, Cicero Ave. over North Branch of the Chicago River, Contract No. 60440. These elevations are approximate and are to be verified in the field by the Contractor.

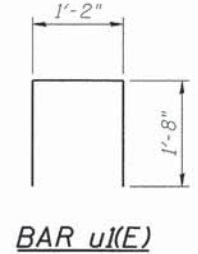
\*\* Shear Studs shall be 3/4" dia. x 6" granular or solid flux filled headed studs automatically end welded in the field to Sheet Piling.





SECTION A-A

SECTION THRU CONCRETE SLOPEWALL



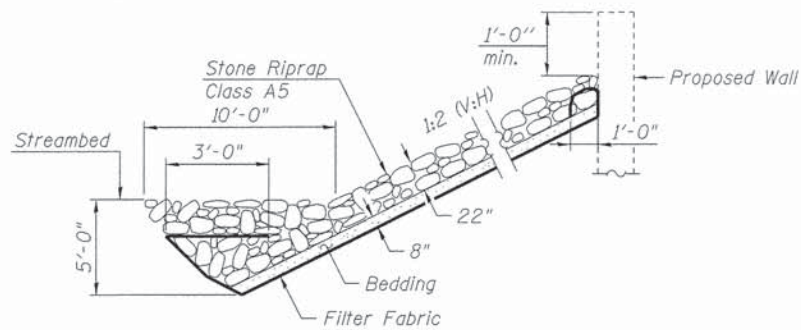
BAR u1(E)

BILL OF MATERIAL WALL "A"

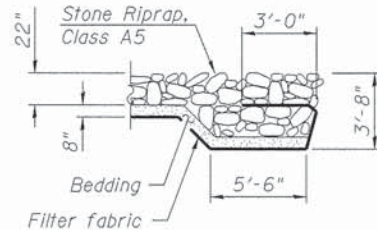
Bar	No.	Size	Length	Shape
h1(E)	78	#5	28'-6"	—
h2(E)	8	#5	3'-0"	—
n1(E)	83	#7	6'-1"	—
n2(E)	83	#5	5'-2"	—
v1(E)	166	#5	11'-2"	—
Structure Excavation	Cu. Yd.	105.3		
Concrete Structures	Cu. Yd.	52.7		
Reinforcement Bars, Epoxy Coated	Pound	5,760		
Controlled Low-Strength Material	Cu. Yd.	30.8		

BILL OF MATERIAL WALL "B"

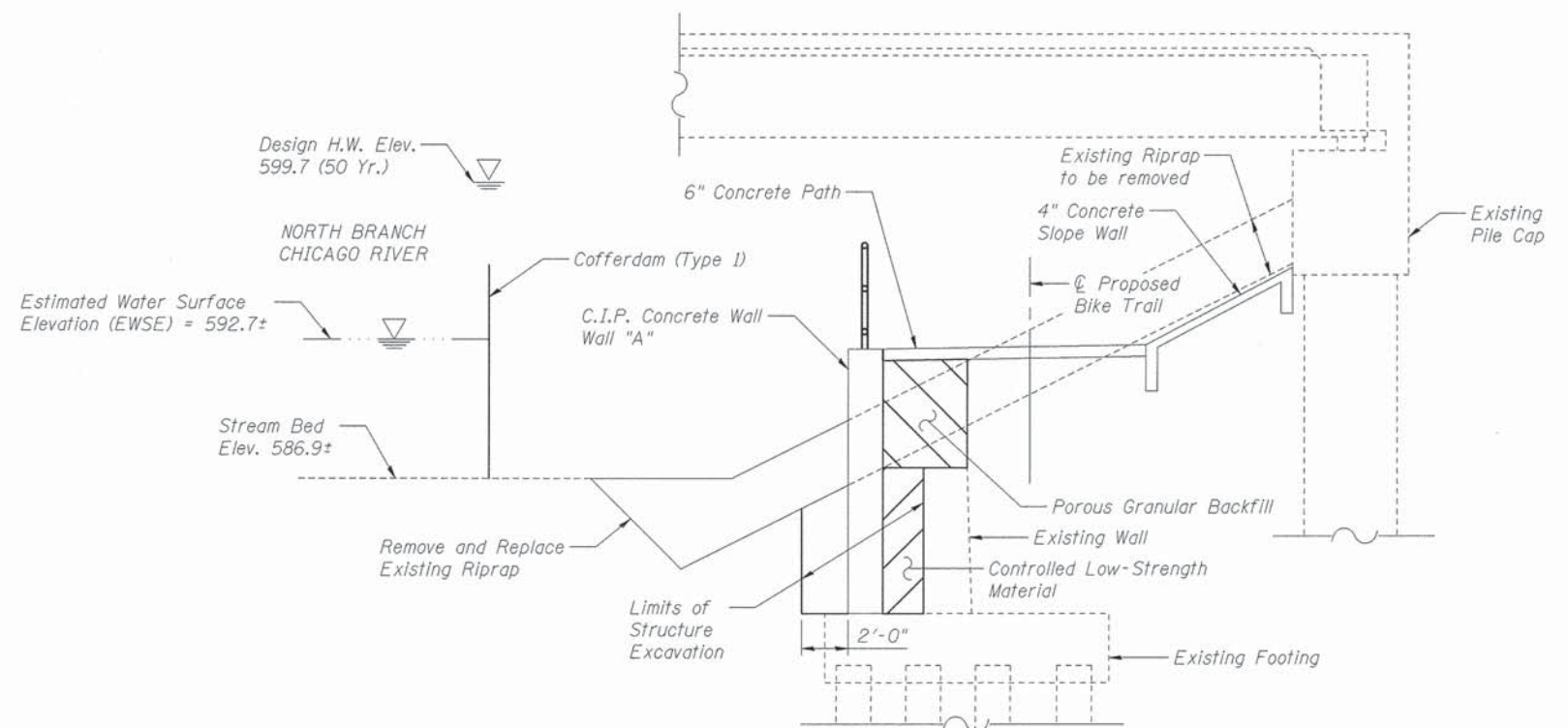
Bar	No.	Size	Length	Shape
h3(E)	6	#5	21'-4"	—
u1(E)	38	#5	4'-6"	□
v2(E)	4	#5	11'-0"	—
Concrete Structures	Cu. Yd.	3.5		
Stud Shear Connectors	Each	48		
Reinforcement Bars, Epoxy Coated	Pound	360		
Permanent Steel Sheet Piling	Sq. Ft.	477		



STONE RIPRAP ANCHOR DETAIL



RIPRAP FLANK DETAIL



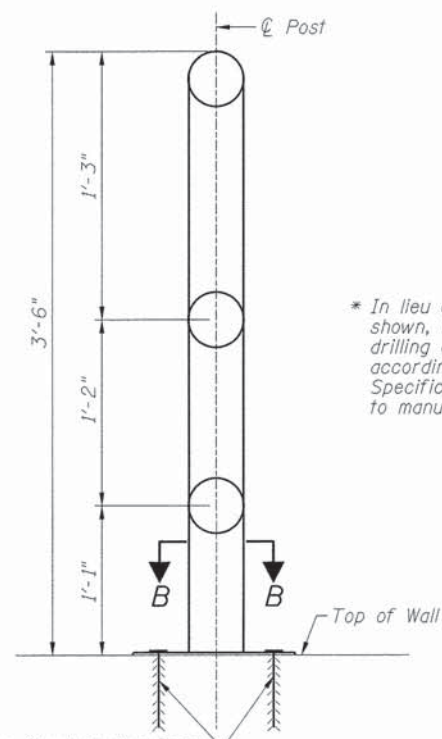
TYPICAL EXCAVATION AND BACKFILL SECTION

**NOTES**

The Estimated Water Surface Elevation (EWSE) is an estimated elevation based on normal flow conditions. The actual elevation encountered may be higher or lower due to seasonal fluctuation or storm events. The Contractor's means and methods should account for such variation and shall not be cause for extra payment.

Slope wall shall be reinforced with welded wire fabric, 6 in. x 6 in. - W4.0 x W4.0 weighing 58 lbs. per 100 sq. ft.

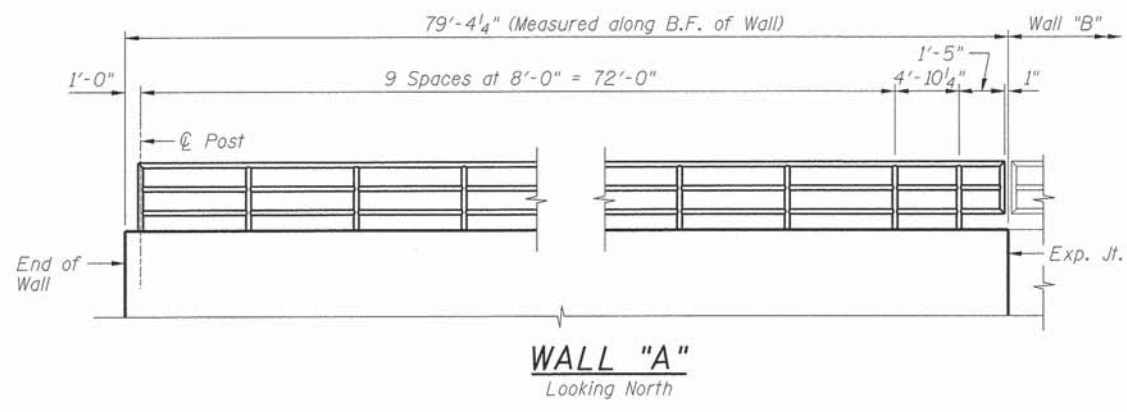




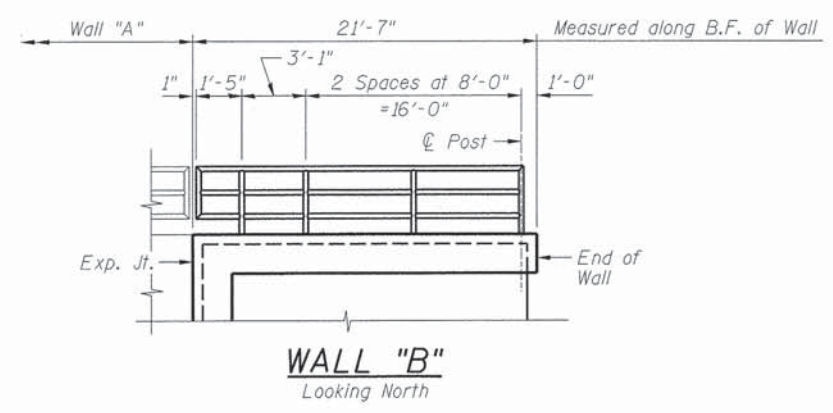
\* In lieu of the cast-in-place anchor rods shown, the Contractor has the option of drilling and setting 3/4" dia. anchor rods according to Article 509.06 of the Standard Specifications. Embedment shall be according to manufacturer's specifications.

\* 3/4"  $\phi$  Stainless Steel Anchor Rods with nut and washer, typ.

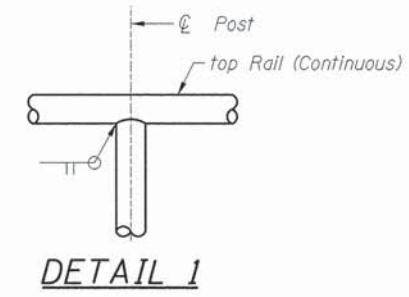
**DETAIL - WALL MOUNTED RAIL POST**



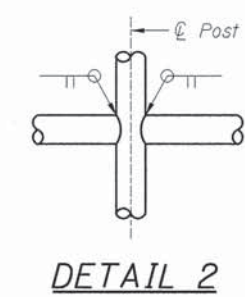
**WALL "A"**  
Looking North



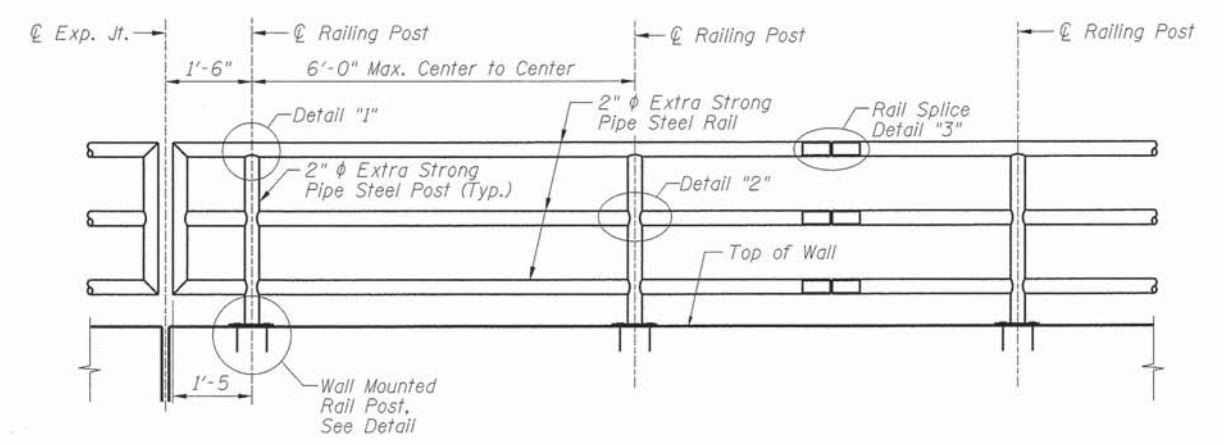
**WALL "B"**  
Looking North



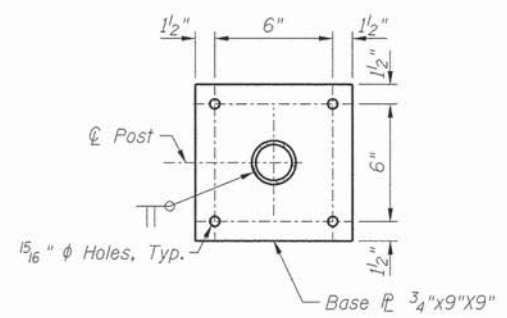
**DETAIL 1**



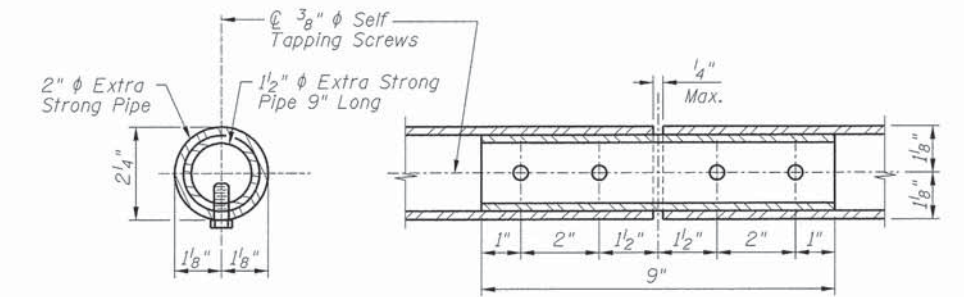
**DETAIL 2**



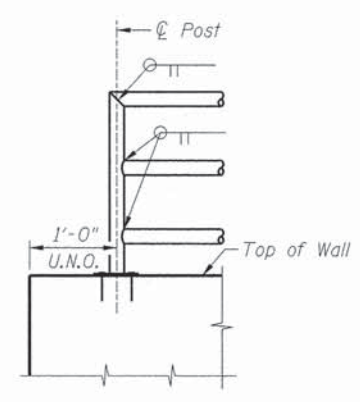
**TYPICAL PIPE HANDRAIL ELEVATION**



**SECTION B-B**



**DETAIL 3 - RAIL SPLICE**

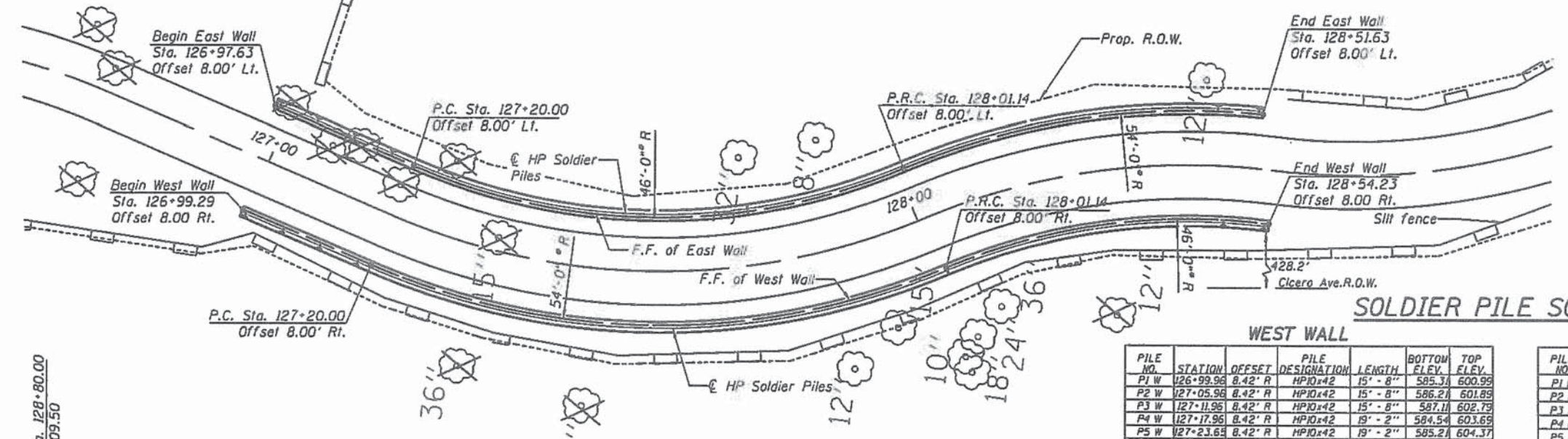
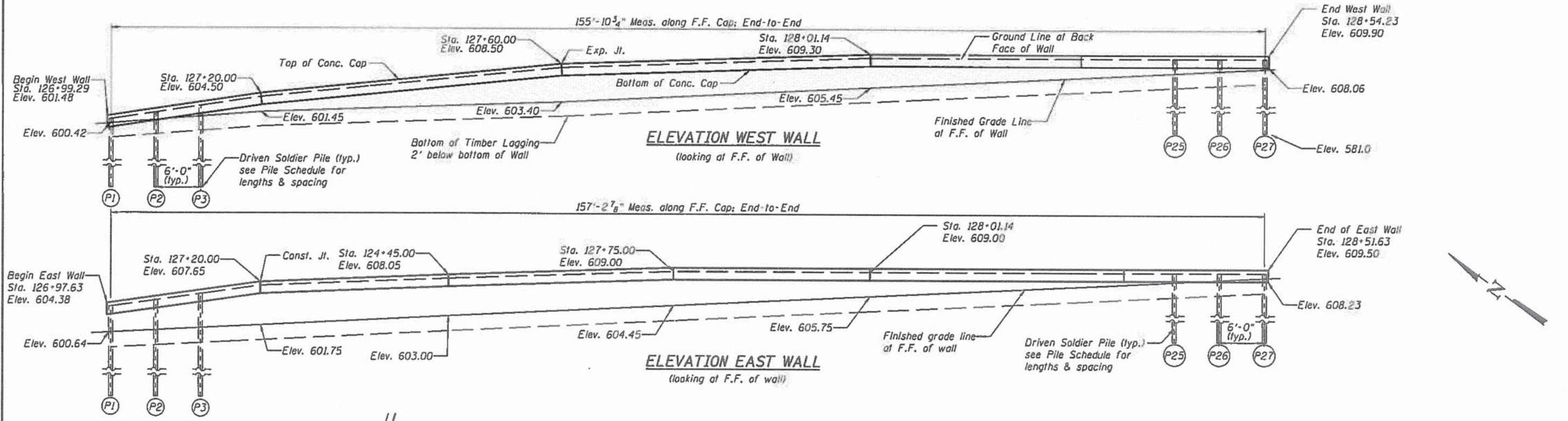


**ELEVATION SHOWING END POST**

**NOTES:**

1. Railing shall be according to Section 509 of the Standard Specifications, except as noted, and will be paid for at the contract unit price per foot.
2. Hollow structural steel tubing shall conform to the requirements of ASTM designation A 500, Grade B, Structural Steel Tubing.
3. All other steel shapes and plates shall conform to the requirements of AASHTO M-270M, Grade 345.
4. All posts, railing, splices, anchor devices, and bent plates shall be galvanized after shop fabrication according to AASHTO M-111 and ASTM A-385. All bolts, nuts and washers shall be galvanized according to AASHTO M-232 except stainless steel bolts as noted.
5. Vent holes for galvanizing shall be placed in the posts and rails at locations that will not allow the accumulation of moisture in the members.
6. Rail to match horizontal profile of bikepath.





**GENERAL PLAN AND ELEVATION  
NORTH BRANCH TRAIL EXTENSION  
STA. 12775.93**

**SOLDIER PILE SCHEDULE**

WEST WALL						EAST WALL							
PILE NO.	STATION	OFFSET	PILE DESIGNATION	LENGTH	BOTTOM ELEV.	TOP ELEV.	PILE NO.	STATION	OFFSET	PILE DESIGNATION	LENGTH	BOTTOM ELEV.	TOP ELEV.
P1 W	126+99.96	8.42' R	HP10x42	15'-8"	585.31	600.99	P1 E	126+98.30	8.42' L	HP10x42	21'-7"	600.67	603.96
P2 W	127+05.98	8.42' R	HP10x42	15'-8"	586.21	601.89	P2 E	127+04.30	8.42' L	HP10x42	22'-2"	600.97	604.80
P3 W	127+11.96	8.42' R	HP10x42	15'-8"	587.11	602.79	P3 E	127+10.30	8.42' L	HP10x57	26'-3"	601.27	606.61
P4 W	127+17.96	8.42' R	HP10x42	19'-2"	584.54	603.69	P4 E	127+16.30	8.42' L	HP10x57	26'-1"	601.57	606.85
P5 W	127+23.96	8.42' R	HP10x42	19'-2"	585.21	604.37	P5 E	127+22.51	8.42' L	HP10x57	26'-0"	601.88	607.10
P6 W	127+29.96	8.42' R	HP10x42	19'-2"	585.77	604.92	P6 E	127+29.05	8.42' L	HP10x57	26'-0"	602.20	607.36
P7 W	127+34.72	8.42' R	HP10x42	22'-2"	583.30	605.47	P7 E	127+35.61	8.42' L	HP10x57	26'-0"	602.53	607.62
P8 W	127+40.28	8.42' R	HP10x42	22'-2"	583.85	606.03	P8 E	127+42.17	8.42' L	HP10x57	25'-11"	602.86	607.89
P9 W	127+45.79	8.42' R	HP10x42	22'-2"	584.41	606.58	P9 E	127+48.72	8.42' L	HP10x57	25'-3"	603.18	608.12
P10 W	127+51.33	8.42' R	HP10x57	24'-11"	582.23	607.13	P10 E	127+55.27	8.42' L	HP10x57	25'-2"	603.50	608.34
P11 W	127+56.88	8.42' R	HP10x57	24'-11"	582.78	607.69	P11 E	127+61.82	8.42' L	HP10x57	25'-1"	603.81	608.56
P12 W	127+62.40	8.42' R	HP10x57	24'-11"	583.18	608.08	P12 E	127+68.38	8.42' L	HP10x57	25'-0"	604.13	608.78
P13 W	127+67.93	8.42' R	HP10x57	24'-11"	583.57	608.27	P13 E	127+74.93	8.42' L	HP10x57	24'-11"	604.45	609.00
P14 W	127+73.47	8.42' R	HP10x57	24'-11"	583.56	608.46	P14 E	127+81.48	8.42' L	HP10x57	24'-7"	604.77	609.00
P15 W	127+79.00	8.42' R	HP10x57	24'-11"	583.74	608.65	P15 E	127+88.03	8.42' L	HP10x42	22'-2"	605.10	609.00
P16 W	127+84.54	8.42' R	HP10x57	24'-11"	583.93	608.83	P16 E	127+94.59	8.42' L	HP10x42	21'-11"	605.42	609.00
P17 W	127+90.07	8.42' R	HP10x57	24'-11"	584.12	609.02	P17 E	128+01.14	8.42' L	HP10x42	21'-7"	605.75	609.00
P18 W	127+95.61	8.42' R	HP10x42	22'-4"	586.87	609.21	P18 E	128+06.68	8.42' L	HP10x42	19'-1"	606.02	609.00
P19 W	128+01.14	8.42' R	HP10x42	22'-4"	587.06	609.40	P19 E	128+12.21	8.42' L	HP10x42	18'-10"	606.30	609.00
P20 W	128+07.69	8.42' R	HP10x42	22'-4"	587.06	609.40	P20 E	128+17.75	8.42' L	HP10x42	18'-7"	606.57	609.00
P21 W	128+14.24	8.42' R	HP10x42	22'-4"	587.06	609.40	P21 E	128+23.28	8.42' L	HP10x42	18'-3"	606.84	609.00
P22 W	128+20.80	8.42' R	HP10x42	19'-1"	590.29	609.40	P22 E	128+28.82	8.42' L	HP10x42	15'-10"	607.12	609.00
P23 W	128+27.39	8.42' R	HP10x42	19'-1"	590.29	609.40	P23 E	128+34.35	8.42' L	HP10x42	15'-7"	607.39	609.00
P24 W	128+33.90	8.42' R	HP10x42	15'-11"	593.45	609.40	P24 E	128+39.89	8.42' L	HP10x42	15'-3"	607.67	609.00
P25 W	128+40.45	8.42' R	HP10x42	15'-11"	593.45	609.40	P25 E	128+45.42	8.42' L	HP10x42	15'-0"	607.94	609.00
P26 W	128+47.01	8.42' R	HP10x42	15'-11"	593.45	609.40	P26 E	128+50.96	8.42' L	HP10x42	14'-9"	608.21	609.00
P27 W	128+53.56	8.42' R	HP10x42	15'-11"	593.45	609.40							

**DESIGN SPECIFICATIONS**

2012 AASHTO LRFD bridge design specifications, (6th edition with 2012 Interims)

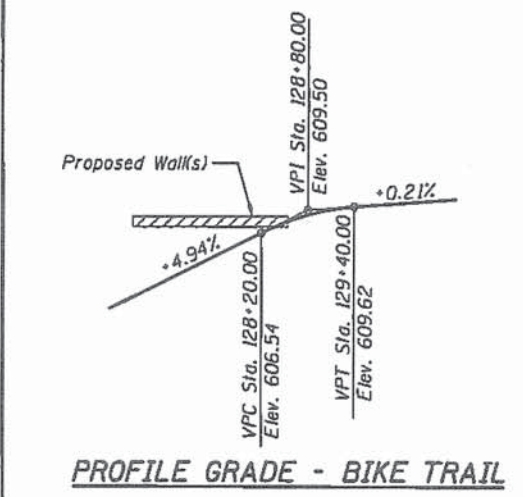
**DESIGN STRESSES**

Field units  
 f'c = 3,500 psi (conc.)  
 fb = 1,600 psi (treated timber lagging)  
 fy = 60,000 psi (reinf.)  
 fy = 50,000 psi (m270 grade 50)

**Notes:**

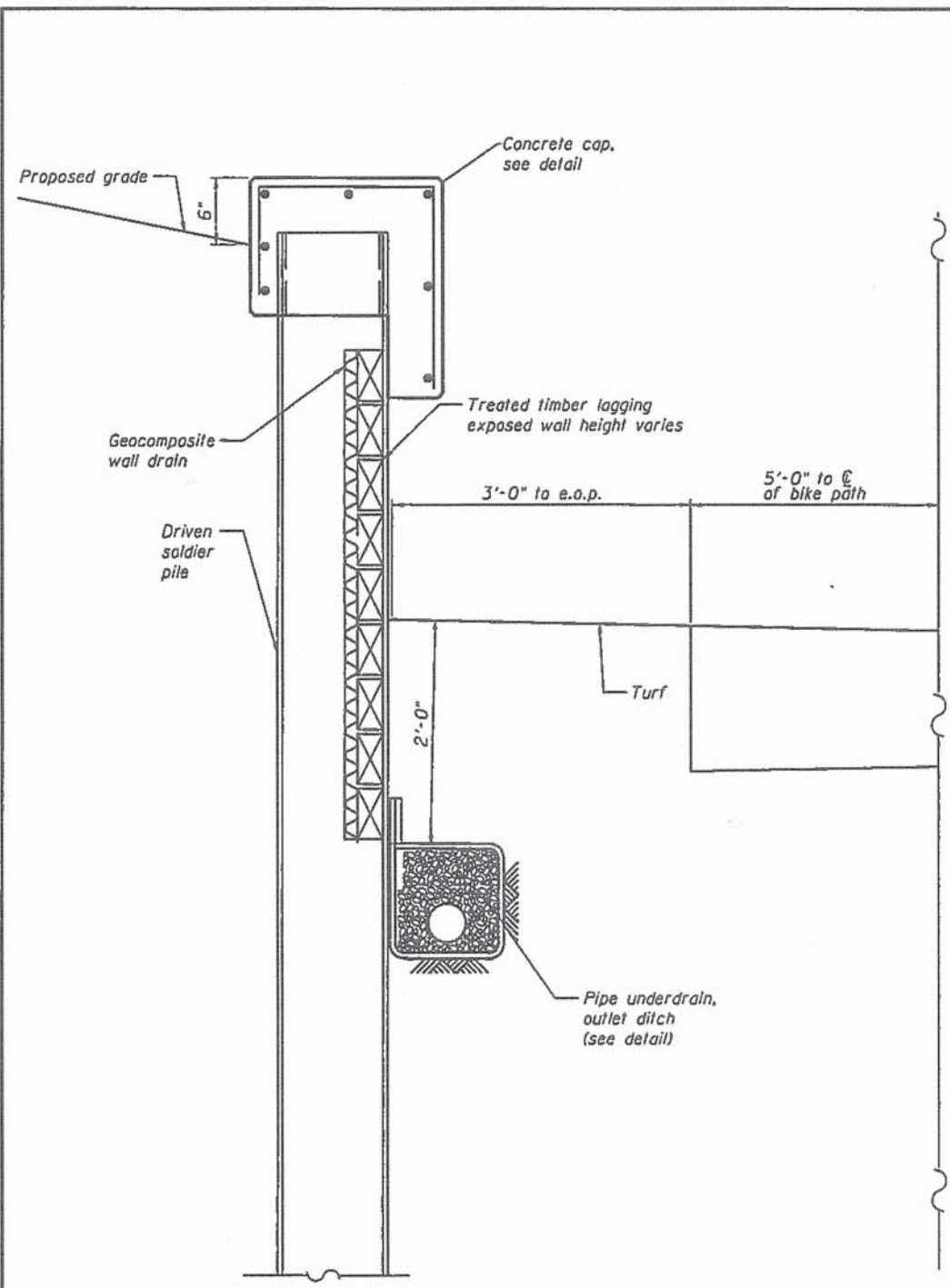
1. Pile lengths are approximate and shall be determined based on layout.
  2. Utilities to be located prior to excavating & driving.
  3. Offset is to centerline of soldier pile.
- 0.00 Chicago City Datum = 579.88 USGS

\*Wall built along Straight Chord between piles



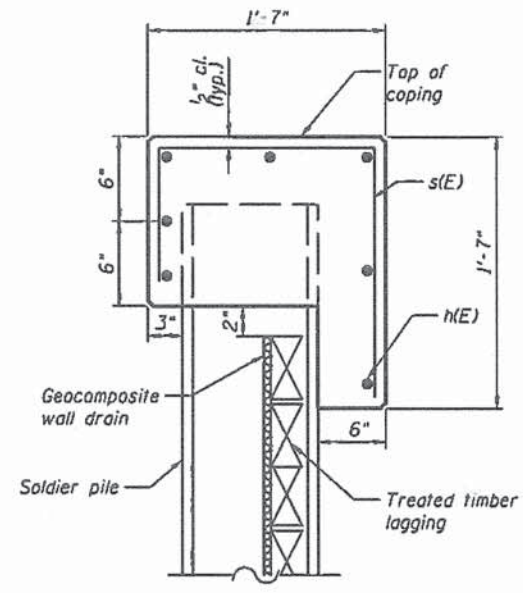
	USER NAME *	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	NORTH BRANCH TRAIL EXTENSION	F.A.I.L. RTE.	SECTION	COUNTY	TOTAL SHEET NO.
	PLOT SCALE *	CHECKED -	REVISED -			15-F3000-27-BT	COOK	52	32
PLOT DATE *	DRAWN -	REVISED -		SHEET NO. 1 OF 2 SHEETS		CONTRACT NO. 61C64		ILLINOIS FED. AID PROJECT	



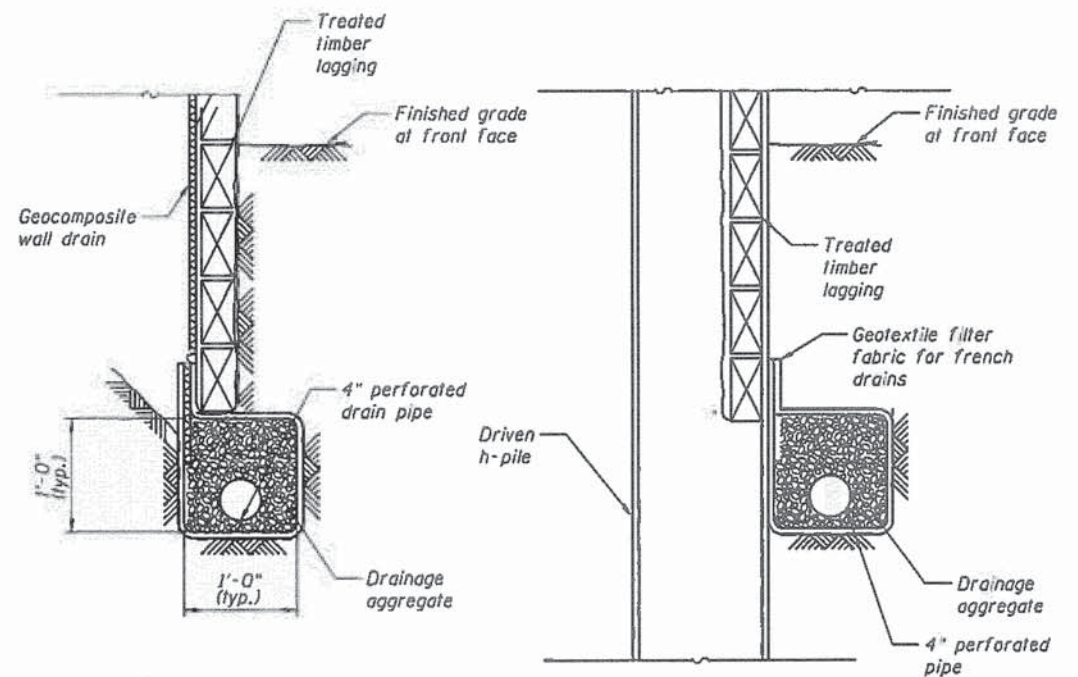


**SOLDIER PILE WALL TYPICAL SECTION**

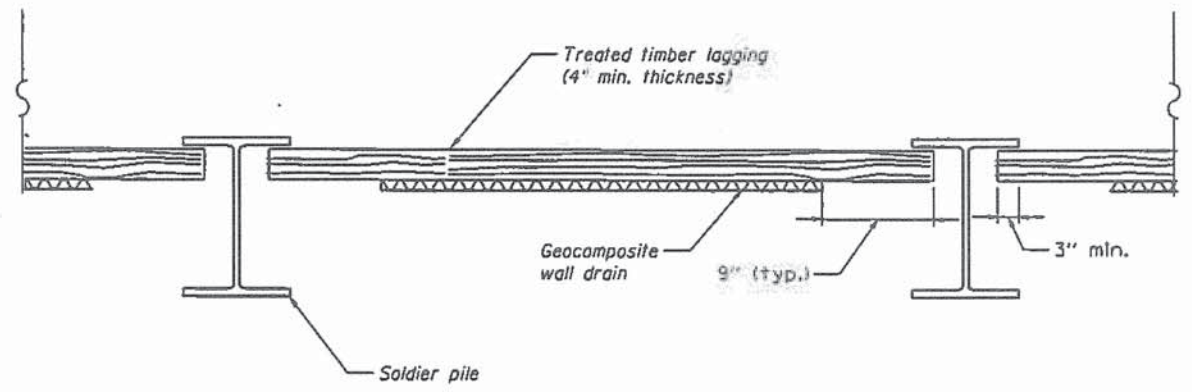
Notes:  
 The timber lagging shall conform to articles 507 and 1007.03 of the standard specifications.  
 The treated timber lagging shall be structural square cut dense southern pine or dense douglas fir.  
 The drain shall be placed behind the lagging with the pervious side toward the soil according to section 591 of the standard specifications and shall be centered between the piles. The drain shall be installed in stages as the excavation proceeds downward making sure that drain splices as well as the top side edges are covered as required to protect the drain.



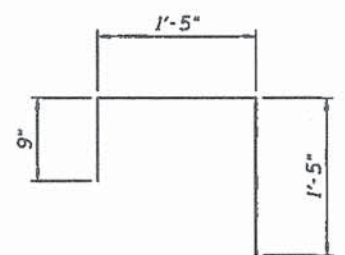
**CONCRETE CAP**  
**MINIMUM BAR LAP**  
 #5 BAR = 2'-11"



**BETWEEN SOLDIER PILES**  
**AT SOLDIER PILES**  
**PIPE UNDERDRAIN DETAIL**



**DETAIL PLAN**



**BAR s(E)**

**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h (E)	42	#5	32'-11"	—
h (E)	14	#5	30'-0"	—
h (E)	14	#5	37'-3"	—
s (E)	315	#5	3'-7"	□
Structure Excavation			Cu. Yd.	40
Concrete Structures			Cu. Yd.	21.4
Pipe Underdrain			Fl.	307
Reinforcement Bars, Epoxy Coated			Pound	3,200
Geocomposite Wall Drain			Sq. Yd.	188
Driving Soldier Piles			Feet	1,076
Furnishing Soldier Piles (HP Piles)			Feet	1,076
Treated Timber Lagging			Sq. Ft.	1,685



USER NAME *	DESIGNED -	REVISED
PLOT SCALE *	CHECKED -	REVISED
PLOT DATE *	DRAWN -	REVISED
	CHECKED -	REVISED

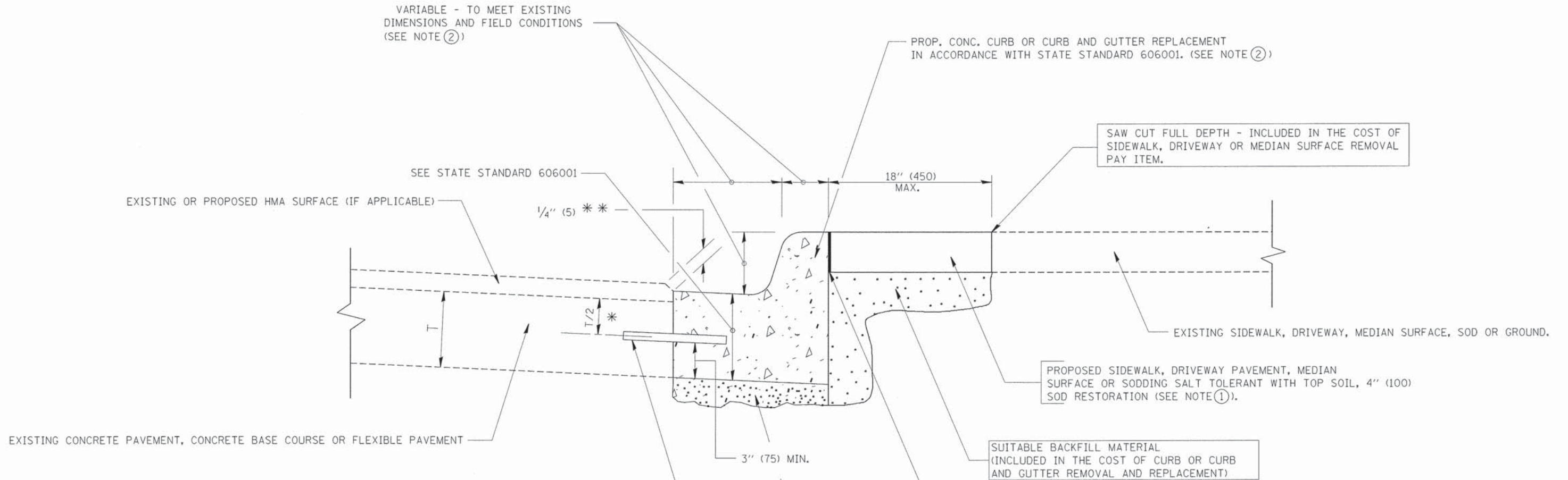
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**NORTH BRANCH TRAIL EXTENSION**

SHEET NO. 2 OF 2 SHEETS

F.A.I.L. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	15-F3000-27-BT	COOK	52	33
			CONTRACT NO. 61C64	
ILLINOIS FED. AID PROJECT				





- \* 3" (75) MINIMUM FROM TOP AND BOTTOM OF THE CONCRETE PAVEMENT OR BASE COURSE.
- \*\* IF THE FINAL SURFACE OF THE PAVEMENT IS CONCRETE, THE GUTTER IS TO BE FLUSH WITH THE PAVEMENT.

- NOTE: ① SIDEWALK, DRIVEWAY PAVEMENT OR MEDIAN SURFACE SHALL BE SIMILAR TO THE MATERIAL BEING REMOVED AND WILL BE PAID FOR SEPARATELY.  
SODDING, SALT TOLERANT AND TOP SOIL, FURNISH AND PLACE 4" WILL BE PAID FOR SEPARATELY.
- ② FERTILIZER FOR THE PLACEMENT OF THE SOD IS NOT REQUIRED
- ③ CURB OR CURB AND GUTTER REPLACEMENT SHALL MATCH THE SHAPE OF THE EXISTING CURB OR CURB AND GUTTER UNLESS OTHERWISE SPECIFIED.
- ④ FOR CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT ADJACENT TO FLEXIBLE PAVEMENT DELETE EPOXY COATED TIE BARS.
- ⑤ LONGITUDINAL BARS, IF ENCOUNTERED IN THE EXISTING CURB OR CURB AND GUTTER, ARE NOT TO BE REPLACED. CUTTING AND REMOVING LONGITUDINAL BARS SHALL BE INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.
- ⑥ THE COST OF HMA SURFACE REMOVAL IN THE EXISTING GUTTER FLAG SHALL BE INCLUDED IN THE COST OF THE CURB AND GUTTER REMOVAL AND REPLACEMENT.
- ⑦ THE REMOVAL AND REPLACEMENT OF THE EXISTING CURB OR CURB AND GUTTER SHALL BE DONE IN ACCORDANCE WITH THE APPLICABLE PORTIONS OF SECTION 440 AND 606 OF THE STANDARD SPECIFICATIONS.
- ⑧ THE LOCATIONS OF REMOVAL AND REPLACEMENT OF EXISTING CURB OR CURB AND GUTTER SHALL BE DETERMINED BY THE RESIDENT ENGINEER AT THE TIME OF CONSTRUCTION.

PROPOSED 3/4" (20) PREFORMED EXPANSION JOINT AT CONCRETE SIDEWALKS, DRIVEWAYS, AND MEDIANS. (INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.)

UNSUITABLE SUB-BASE MATERIAL TO BE REMOVED, IF DIRECTED BY THE ENGINEER, SHALL BE REPLACED WITH EITHER SUB-BASE GRANULAR MATERIAL, TYPE B OR ADDITIONAL THICKNESS OF CONCRETE.

REMOVAL AND REPLACEMENT 4" (100) OR LESS IS INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.

REMOVAL AND REPLACEMENT IN EXCESS OF 4" (100) WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS.

PROPOSED #6 (20) EPOXY COATED TIE BARS 24" (600) LONG AT 24" (600) CENTERS WILL NOT BE PAID FOR SEPARATELY. DELETE EPOXY COATED TIE BARS IF EXISTING TIE BARS ARE USUABLE AS DETERMINED BY THE ENGINEER. (SEE NOTE ③).

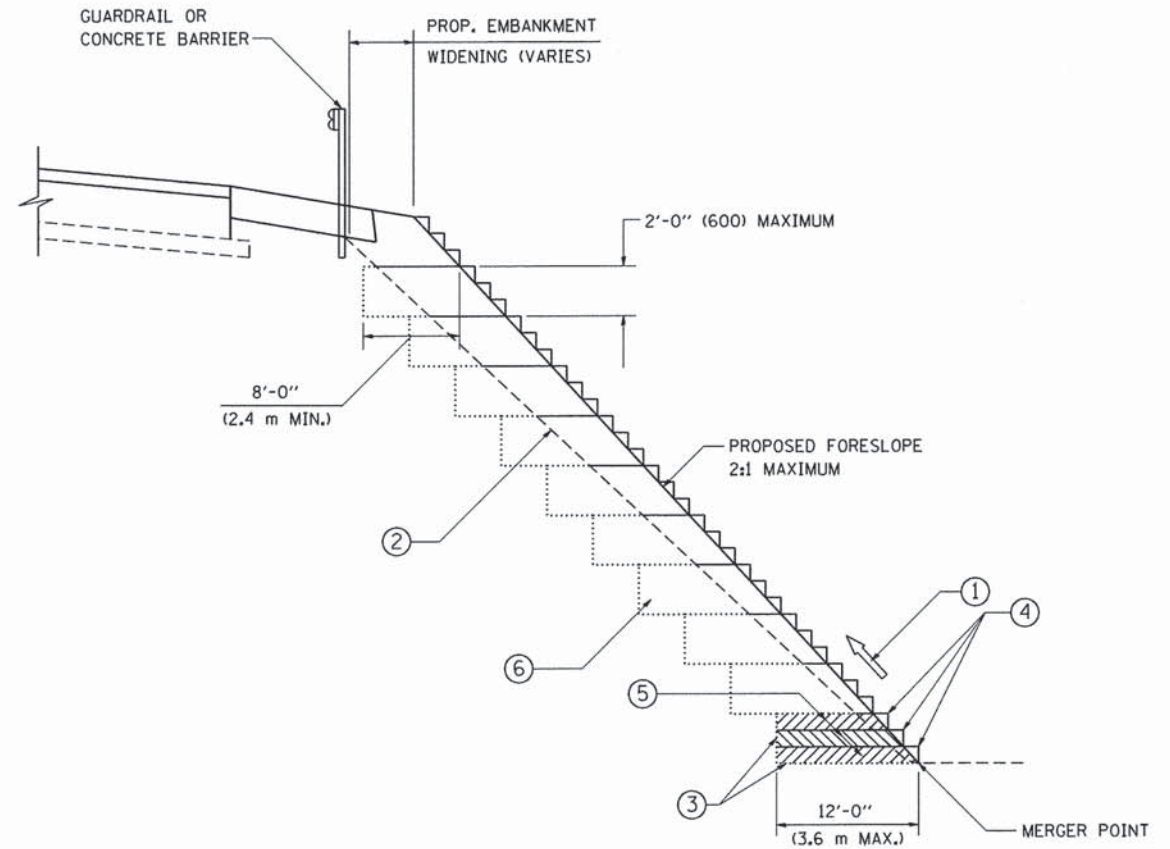
**BASIS OF PAYMENT:**  
THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT (METER) FOR "CURB REMOVAL AND REPLACEMENT" OR "COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT".

# CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

FILE NAME =	USER NAME = drsvkosgn	DESIGNED - A. HOUSEH	REVISED - R. SHAH 10-03-96	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT</b>	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
ct:\pw_work\pwsdot\drsvkosgn\08315\bd24.dgn	DRAWN -	REVISED - A. ABBAS 03-21-97	REVISED - M. GOMEZ 01-22-01			15-F3000-27-BT	COOK	52	34	
PLOT SCALE = 50.000 "/ IN.	CHECKED -	REVISED - R. BORO 12-15-09				BD600-06 (BD-24)	CONTRACT NO. 61C64			
PLOT DATE = 12/15/2009	DATE - 03-11-94					FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
						SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	





TYPICAL BENCHING DETAIL  
FOR EMBANKMENT

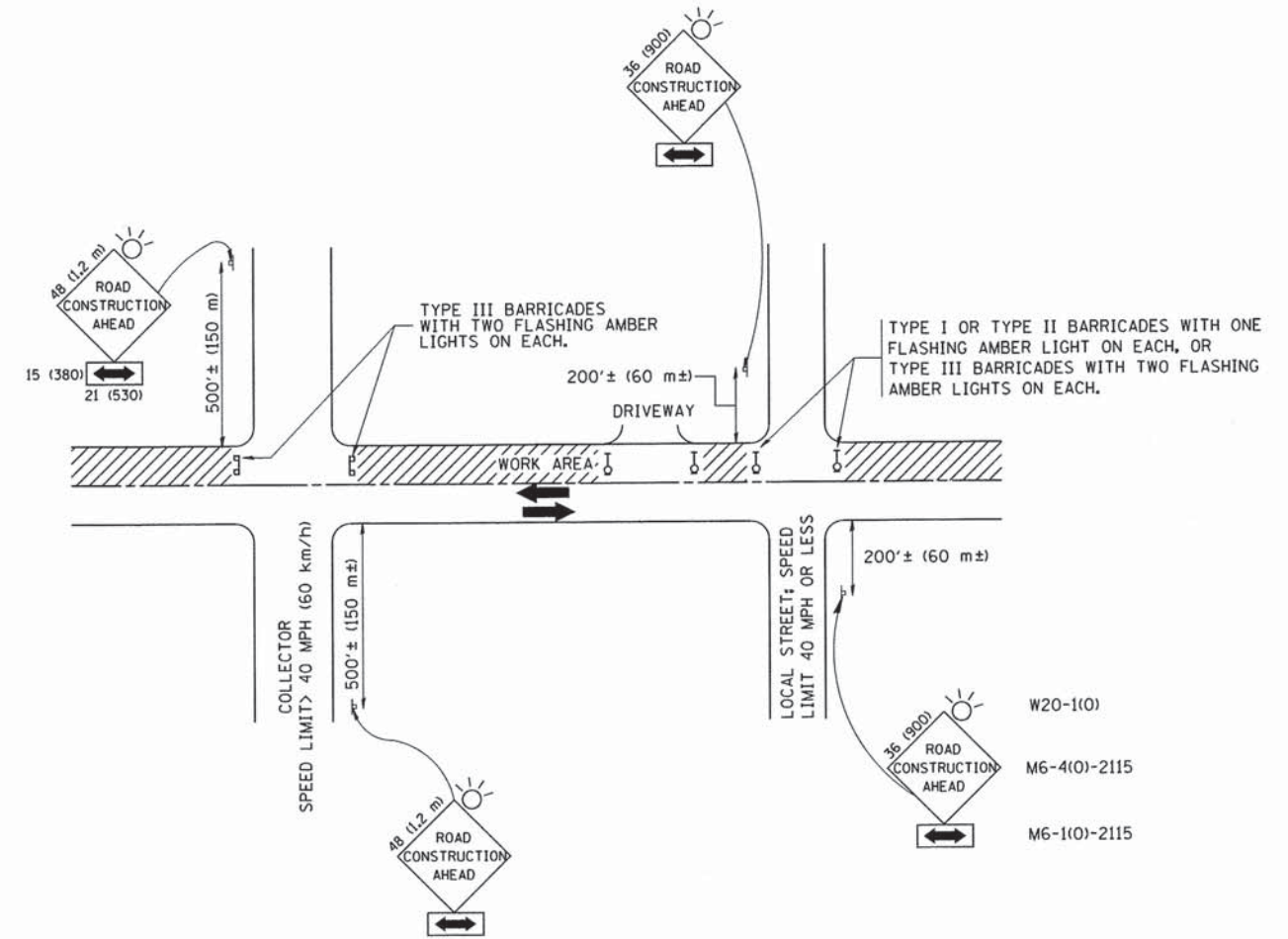
**NOTES:**

- ① CONSTRUCT SUCCEEDING BENCH CUTS AND EMBANKMENT PLACEMENT AND COMPACTION FROM BOTTOM TO TOP IN STAIRSTEP FASHION.
- ② EXISTING FORESLOPE PREPARED IN ACCORDANCE WITH ARTICLE 205.03 OF THE STANDARD SPECIFICATIONS.
- ③ BENCH CUT EXISTING SLOPE TYPICAL FOR EACH STEP.
- ④ TRIM TO FINAL SLOPE.
- ⑤ EQUAL 8-INCH (200) LIFTS OF EMBANKMENT COMPACTED IN ACCORDANCE WITH ARTICLE 205.05 OF THE STANDARD SPECIFICATIONS.
- ⑥ EXCAVATION OF BENCH CUTS WITHIN EXISTING EMBANKMENT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER CUBIC METER OR CUBIC YARD FOR "UNSUITABLE MATERIAL". THIS PRICE WILL INCLUDE ALL LABOR AND MATERIAL, NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
- ⑦ SLOPES SHALL BE BENCHED ACCORDING TO THIS DETAIL WHEN THE SLOPE IS STEEPER THAN 4:1 AND THE HEIGHT IS GREATER THAN 5' (1.5 m).

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS)  
UNLESS OTHERWISE SHOWN.

FILE NAME = W:\dststd\22x34\bd51.dgn	USER NAME = goglienabt	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>BENCHING DETAIL</b> <b>FOR EMBANKMENT WIDENING</b>			F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.		
	PLOT SCALE = 50.0000 ' / IN.	DRAWN - CADD	REVISED -		SCALE: NONE	SHEET NO. 1	OF 1	SHEETS	STA.	TO STA.	15-F3000-27-BT	COOK	52	35
	PLOT DATE = 1/4/2008	CHECKED - S.E.B.	REVISED -								BD-51	CONTRACT NO.	61C64	
		DATE - 06-16-04	REVISED -								FED. ROAD DIST. NO. 1	ILLINOIS FED. AID PROJECT		





TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

NOTES:

A. FOR NO LANE RESTRICTION ON THE SIDE ROAD OR DRIVEWAYS

1. SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
  - a) ONE ROAD CONSTRUCTION AHEAD SIGN 36 x 36 (900x900) WITH A FLASHER AND FLAG MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.
  - b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.
2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
  - a) ONE ROAD CONSTRUCTION AHEAD SIGN 48 x 48 (1.2 m x 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.
  - b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.
3. WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).

B. FOR A LANE CLOSURE ON A SIDE ROAD OR DRIVEWAY:

USE APPLICABLE PORTIONS OF THE TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES (STD. 701501, STD. 701606 OR THE APPROPRIATE STANDARD). THE SPACING OF SIGNS AND BARRICADES SHALL BE ADJUSTED FOR FIELD CONDITIONS AS DIRECTED BY THE ENGINEER. THE DIRECTIONAL ARROW SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE SIDE ROAD LANE CLOSURE.

C. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAY UNLESS OTHERWISE NOTED.

D. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCIDENTAL TO THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

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

FILE NAME =	USER NAME = geglianobt	DESIGNED - LHA	REVISED - J. OBERLE 10-18-95
W:\distatd\22x34\to10.dgn		DRAWN -	REVISED - A. HOUSEH 03-06-96
		CHECKED -	REVISED - A. HOUSEH 10-15-96
		DATE - 06-89	REVISED - T. RAMMACHER 01-06-00

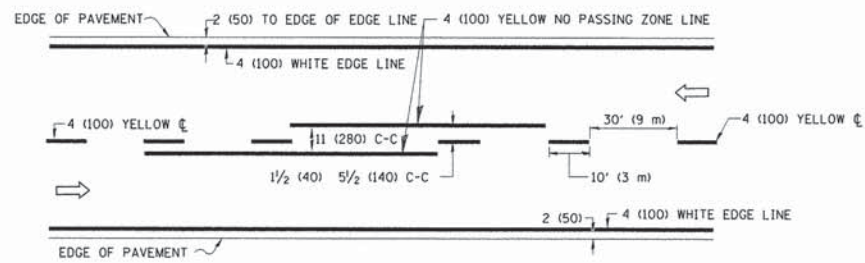
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL AND PROTECTION FOR  
SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

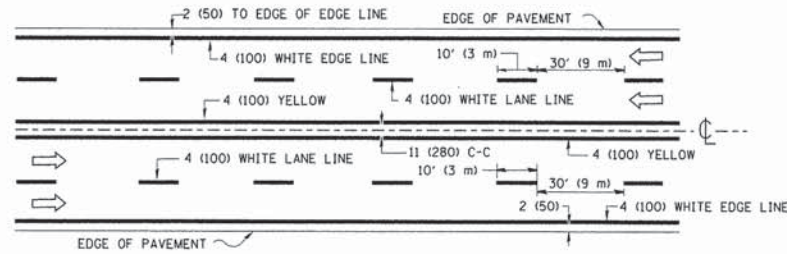
SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	15-F3000-27-BT	COOK	52	36
TC-10		CONTRACT NO. 61C64		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

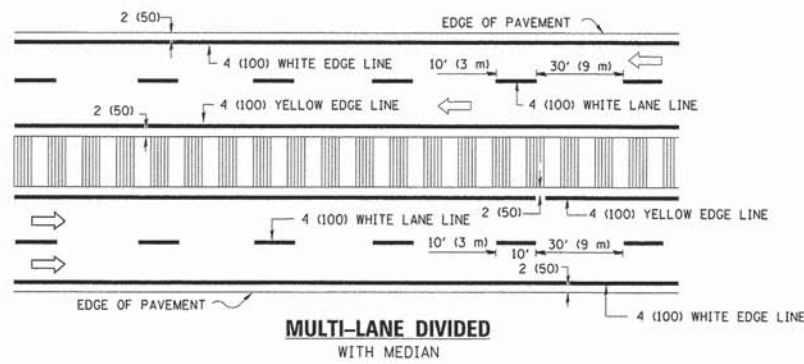




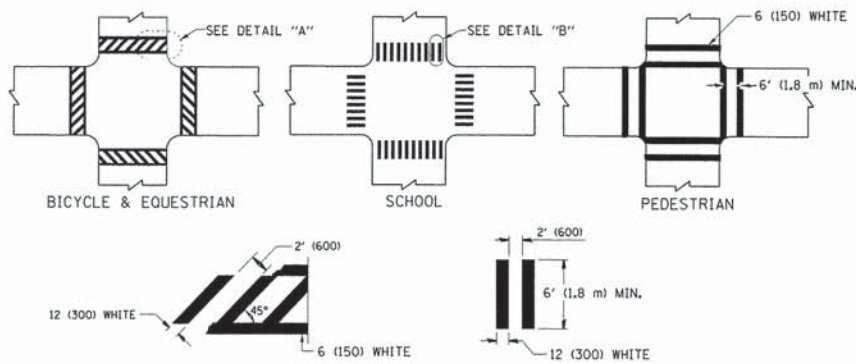
**2-LANE ROADWAY**



**MULTI-LANE UNDIVIDED**



**TYPICAL LANE AND EDGE LINE MARKING**

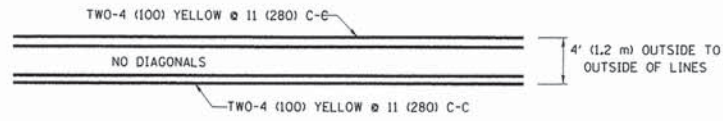


**DETAIL "A"**

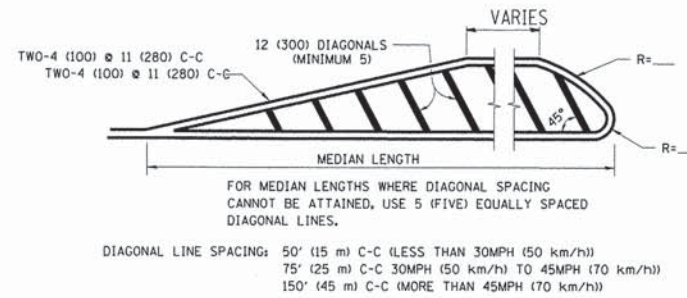
**DETAIL "B"**

**TYPICAL CROSSWALK MARKING**

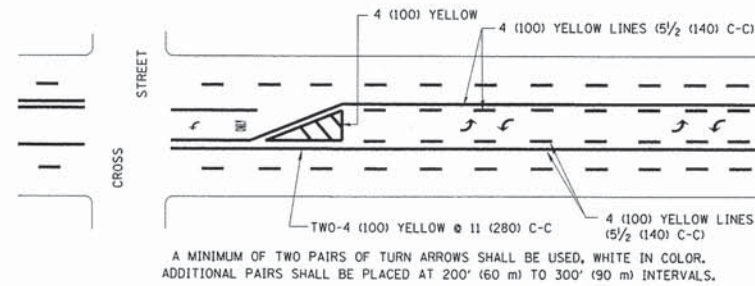
\* MARKINGS SHALL BE INSTALLED PARALLEL TO THE CENTERLINE OF THE ROAD WHICH IT CROSSES



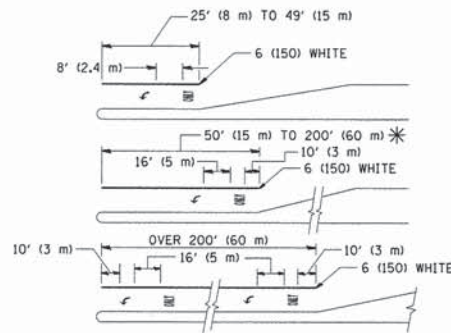
**4' (1.2 m) WIDE MEDIANS ONLY**



**MEDIANS OVER 4' (1.2 m) WIDE**



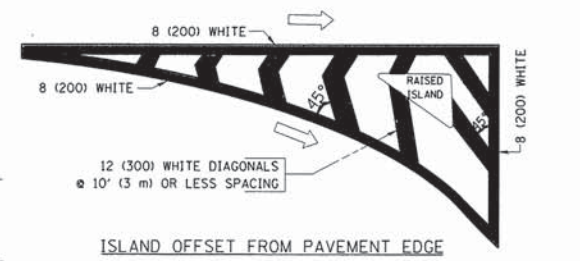
**MEDIAN WITH TWO-WAY LEFT TURN LANE  
TYPICAL PAINTED MEDIAN MARKING**



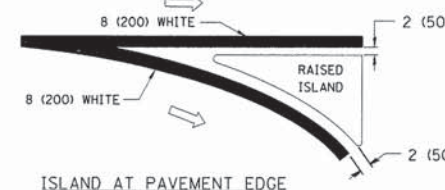
**TYPICAL LEFT (OR RIGHT) TURN LANE**

**TYPICAL TURN LANE MARKING**

FULL SIZE LETTERS 8" (2.4 m) AND ARROWS SHALL BE USED.  
 AREA = 15.6 SQ. FT. (1.5 m<sup>2</sup>) ONLY AREA = 20.8 SQ. FT. (1.9 m<sup>2</sup>)  
 \* TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

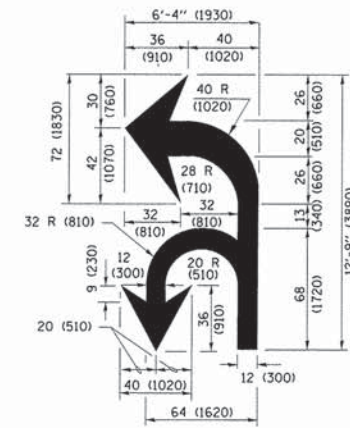


**ISLAND OFFSET FROM PAVEMENT EDGE**

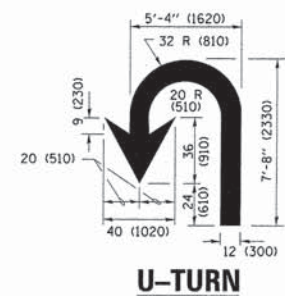


**ISLAND AT PAVEMENT EDGE**

**TYPICAL ISLAND MARKING**



**COMBINATION LEFT AND U-TURN**



**U-TURN**

**LANE REDUCTION TRANSITION**

\* LANE REDUCTION ARROWS REQUIRED AT SPEEDS OF 45 MPH OR GREATER OR WHEN SPECIFIED IN PLANS.

D(FT)	SPEED LIMIT
345	30
425	35
500	40
580	45
665	50
750	55

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING /REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 @ 4 (100)	SOLID SOLID	YELLOW YELLOW	5 1/2 (140) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MEDIANS IN YELLOW
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8" (2.4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION 8' (2.4m) LEFT ARROW	SKIP-DASH AND SOLID SOLID	YELLOW WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5 1/2 (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 @ 6 (150) 12 (300) @ 45° 12 (300) @ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT. PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 @ 4 (100) WITH 12 (300) DIAGONALS @ 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS	SOLID	YELLOW; TWO WAY TRAFFIC WHITE; ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS @ 45°	SOLID	WHITE	DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h) 30' (9 m) C-C (OVER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES; "RR" IS 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"=3.6 SQ. FT. (0.33 m <sup>2</sup> ) EACH "X"=54.0 SQ. FT. (5.0 m <sup>2</sup> )
SHOULDER DIAGONALS (REQUIRED FOR SHOULDERS ≥ 8')	12 (300) @ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h))
U TURN ARROW	SEE DETAIL	SOLID	WHITE	16.3 SF
2 ARROW COMBINATION LEFT AND U TURN	SEE DETAIL	SOLID	WHITE	30.4 SF

FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD 780001.

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

FILE NAME *	USER NAME = Iszekrf	DESIGNED - EVERS	REVISED - T. RAMMACH 10-27-94
pw\11084EBIDINTEG.illinois.gov\FWIDOT\Documents\DOT_Offices\District 1\Projects\Dist		CAD\CADData\CADsheets\tel3.dgn	REVISED - C. JUCIUS 09-09-09
Default	PLOT SCALE = 50.000' / in.	CHECKED -	REVISED - C. JUCIUS 07-01-13
	PLOT DATE = 12/21/2015	DATE - 03-19-90	REVISED - C. JUCIUS 12-21-15

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**DISTRICT ONE  
TYPICAL PAVEMENT MARKINGS**

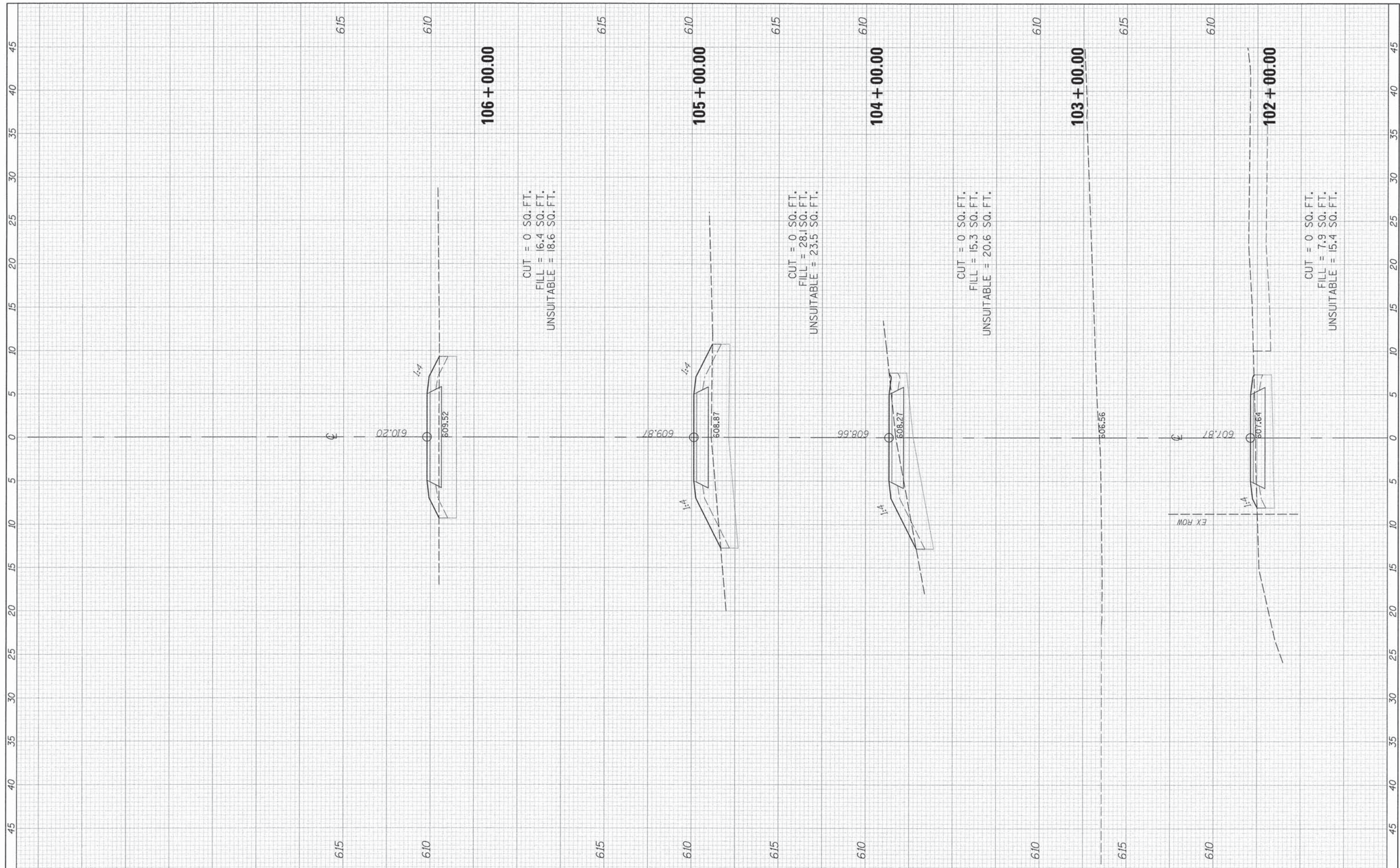
SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	15-F3000-27-BT	COOK	52	37
	TC-13		CONTRACT NO.	
			ILLINOIS FED. AID PROJECT	



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

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



CUT = 0 SQ. FT.  
 FILL = 16.4 SQ. FT.  
 UNSUITABLE = 18.6 SQ. FT.

CUT = 0 SQ. FT.  
 FILL = 28.1 SQ. FT.  
 UNSUITABLE = 23.5 SQ. FT.

CUT = 0 SQ. FT.  
 FILL = 15.3 SQ. FT.  
 UNSUITABLE = 20.6 SQ. FT.

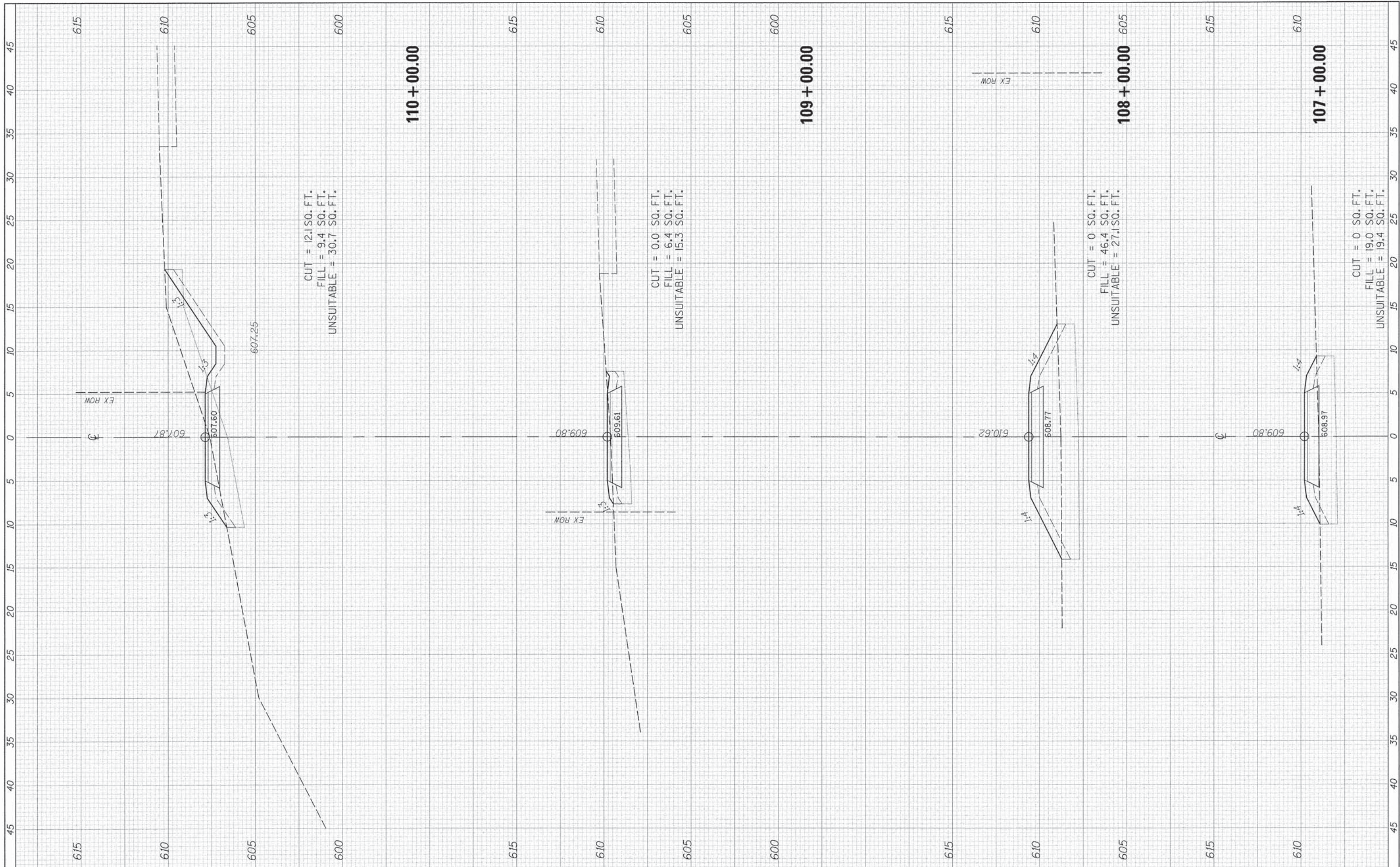
CUT = 0 SQ. FT.  
 FILL = 7.9 SQ. FT.  
 UNSUITABLE = 15.4 SQ. FT.

FILE NAME =	USER NAME = #USER#	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>NORTH BRANCH BIKE TRAIL EXTENSION CROSS SECTIONS</b>			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
#FILE#		DRAWN -	REVISED -		SCALE:	SHEET 1 OF 15 SHEETS	STA. 102+00.00 TO STA. 106+00.00	15-F3000-27-BT	COOK	52	38	
#MODELNAME#		CHECKED - DDL	REVISED -									CONTRACT NO. 61C64
		DATE - 1/4/16	REVISED -									ILLINOIS FED. AID PROJECT



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

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



FILE NAME =  
 #FILE#

USER NAME = #USER#  
 PLOT SCALE = #SCALE#  
 PLOT DATE = #DATE#

DESIGNED -  
 DRAWN -  
 CHECKED - DDL  
 DATE - 1/4/16

REVISED -  
 REVISED -  
 REVISED -  
 REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**NORTH BRANCH BIKE TRAIL EXTENSION  
 CROSS SECTIONS**

SCALE: SHEET 2 OF 15 SHEETS STA. 107+00.00 TO STA. 110+00.00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	15-F3000-27-BT	COOK	52	39
			CONTRACT NO. 61C64	
ILLINOIS FED. AID PROJECT				

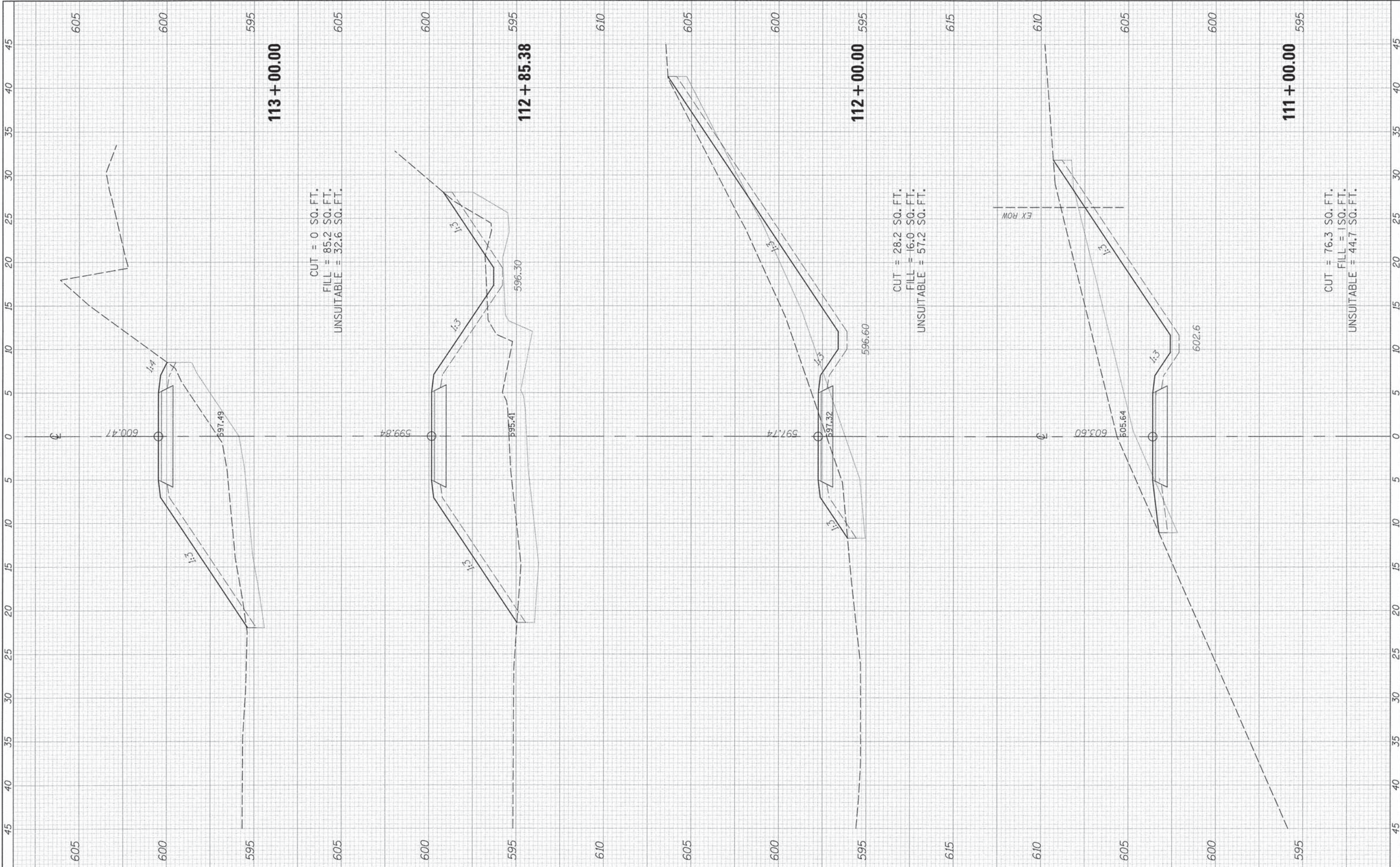


FINAL SURVEY	DATE
NO. _____	_____
NO. _____	_____
NO. _____	_____
NO. _____	_____
NO. _____	_____

ORIGINAL SURVEY	DATE
NO. _____	_____
NO. _____	_____
NO. _____	_____
NO. _____	_____
NO. _____	_____

610

610



CUT = 0 SQ. FT.  
 FILL = 85.2 SQ. FT.  
 UNSUITABLE = 32.6 SQ. FT.

CUT = 28.2 SQ. FT.  
 FILL = 16.0 SQ. FT.  
 UNSUITABLE = 57.2 SQ. FT.

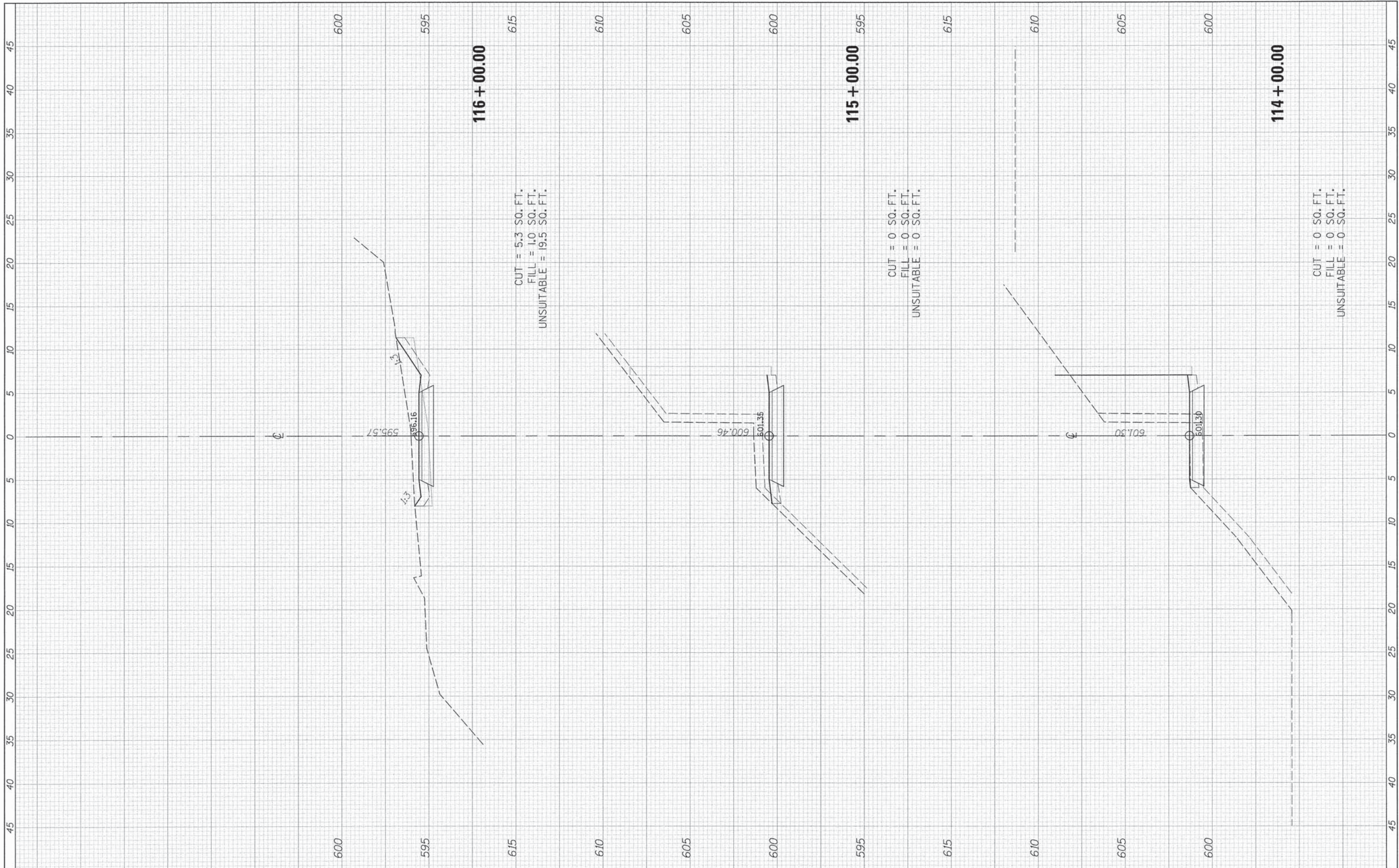
CUT = 76.3 SQ. FT.  
 FILL = 1 SQ. FT.  
 UNSUITABLE = 44.7 SQ. FT.

FILE NAME =	USER NAME = #USER#	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>NORTH BRANCH BIKE TRAIL EXTENSION</b> <b>CROSS SECTIONS</b>	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
#FILE#	PLOT SCALE = #SCALE#	DRAWN -	REVISED -			15-F3000-27-BT	COOK	52	40	
#MODEL#	PLOT DATE = #DATE#	CHECKED - DDL	REVISED -			CONTRACT NO. 61C64				
		DATE - 1/4/16	REVISED -			ILLINOIS FED. AID PROJECT				
					SCALE:	SHEET 3 OF 15 SHEETS STA. 111+00.00 TO STA. 113+00.00				



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

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

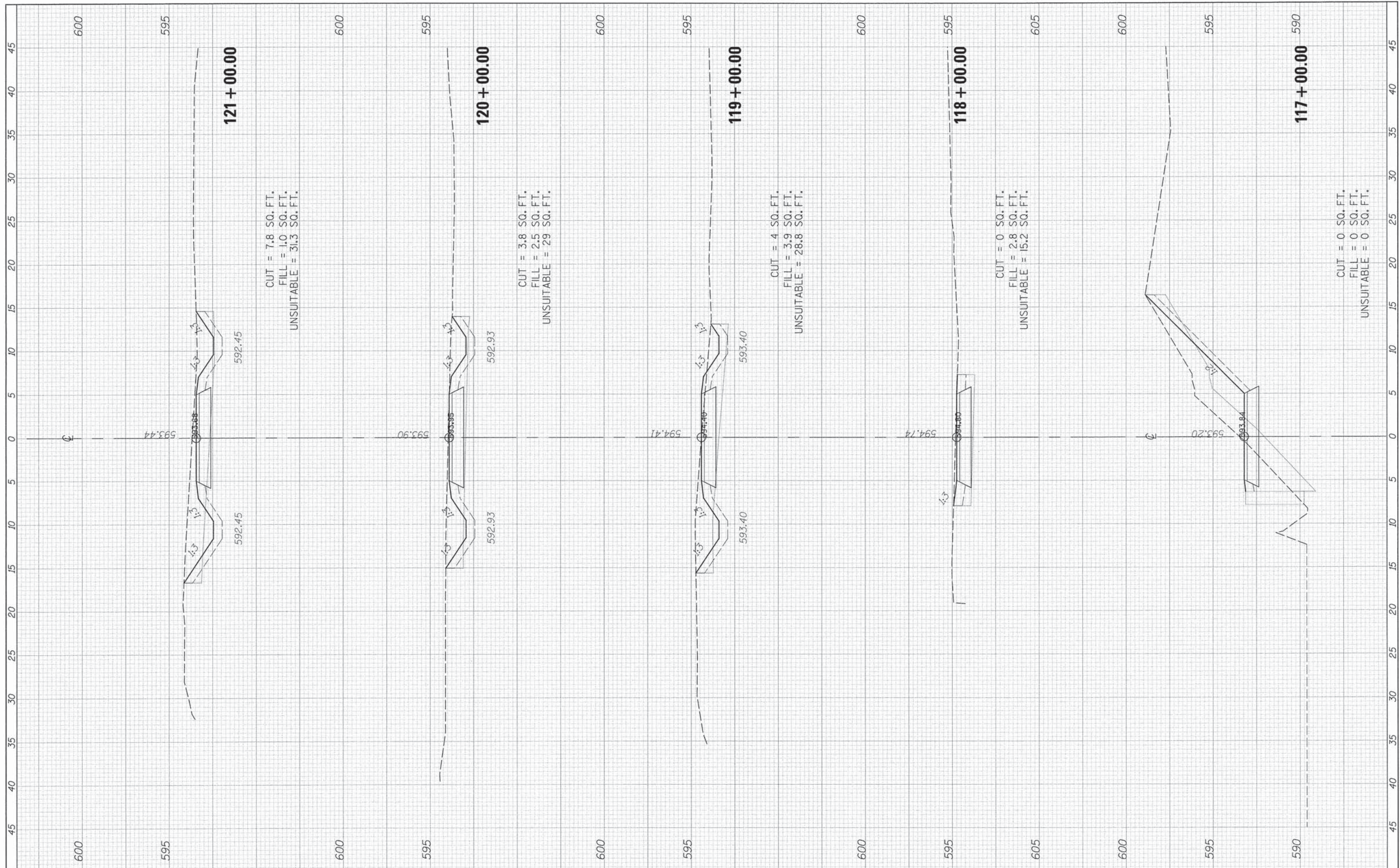


FILE NAME =	USER NAME = #USER#	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>NORTH BRANCH BIKE TRAIL EXTENSION CROSS SECTIONS</b>			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
#FILE#		DRAWN -	REVISED -					15-F3000-27-BT	COOK	52	41	
#MODELNAME#	PLOT SCALE = #SCALE#	CHECKED - DDL	REVISED -					CONTRACT NO. 61C64				
	PLOT DATE = #DATE#	DATE - 1/4/16	REVISED -					SCALE:	SHEET 4 OF 15 SHEETS	STA. 114+00.00 TO STA. 116+00.00	ILLINOIS FED. AID PROJECT	



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

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

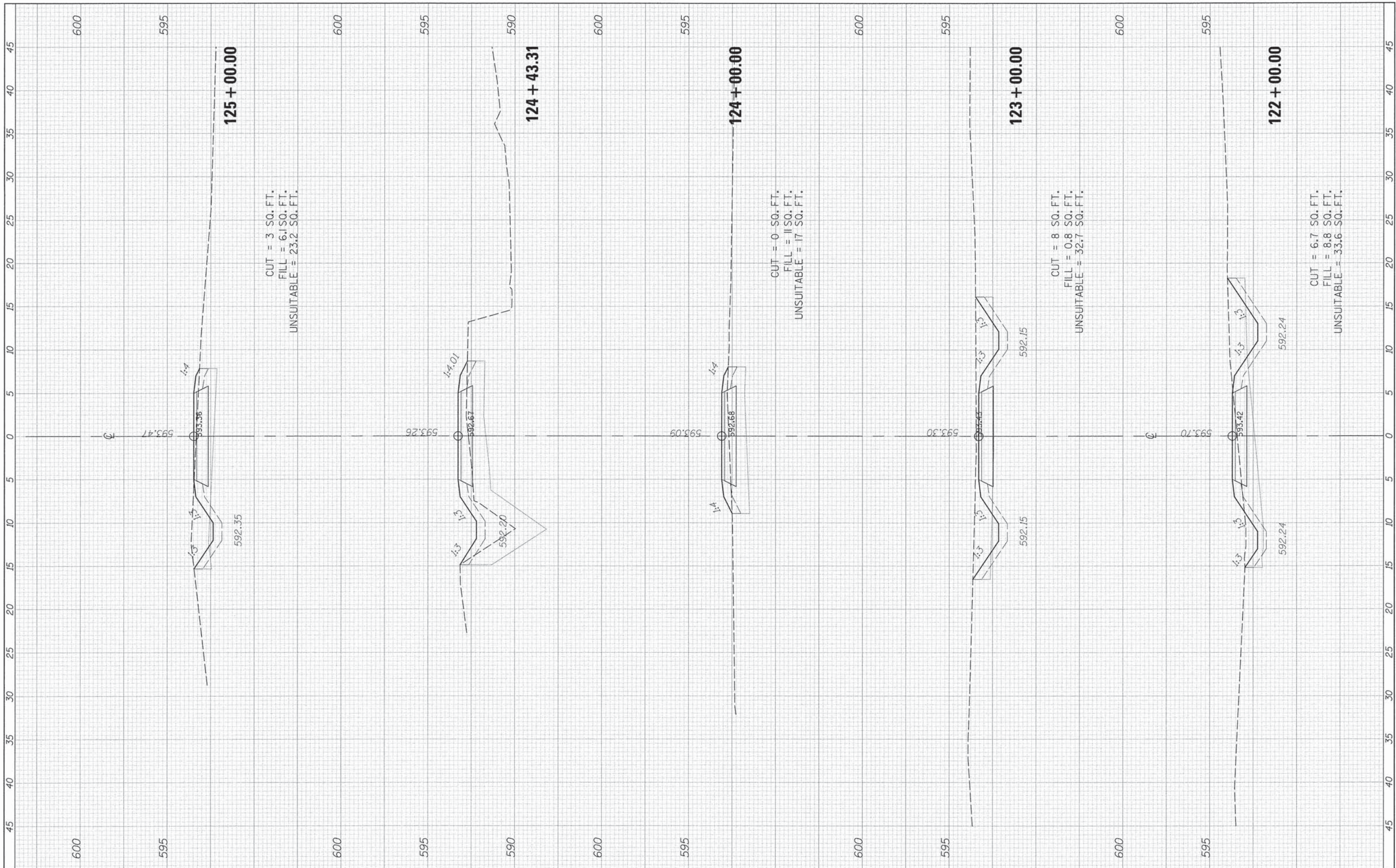


FILE NAME =	USER NAME = #USER#	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>NORTH BRANCH BIKE TRAIL EXTENSION CROSS SECTIONS</b>			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
#FILE#		DRAWN -	REVISED -		SCALE:	SHEET 5	OF 15	SHEETS	15-F3000-27-BT	COOK	52	42
#MODEL NAME#	PLOT SCALE = #SCALE#	CHECKED - DDL	REVISED -		STA. 117+00.00	TO STA. 121+00.00			CONTRACT NO. 61C64			
	PLOT DATE = #DATE#	DATE - 1/4/16	REVISED -		ILLINOIS FED. AID PROJECT							



FWM	SUPERVIEWED	BY	DATE
SURVEY	PLOTTED		
NOTE BOOK	DATE		
NO.	AREAS CHECKED		

ORIGINAL	SUPERVIEWED	BY	DATE
SURVEY	PLOTTED		
NOTE BOOK	DATE		
NO.	AREAS CHECKED		

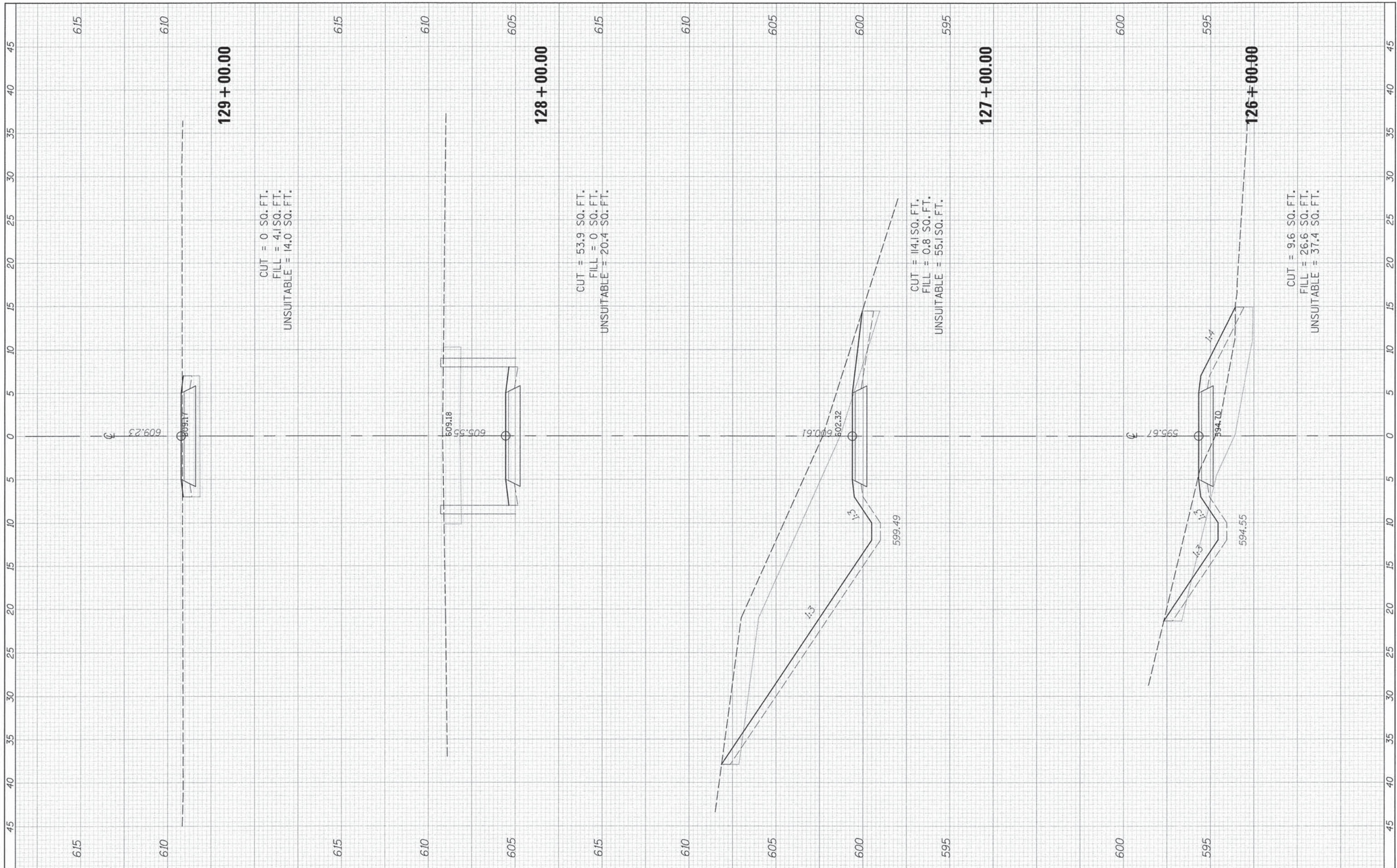


FILE NAME =	USER NAME = USER*	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>NORTH BRANCH BIKE TRAIL EXTENSION CROSS SECTIONS</b>			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
#FILE#		DRAWN -	REVISED -					15-F3000-27-BT	COOK	52	43	
#MODELNAME#	PLOT SCALE = #SCALE#	CHECKED - DDL	REVISED -					CONTRACT NO. 61C64				
	PLOT DATE = #DATE#	DATE - 1/4/16	REVISED -					ILLINOIS FED. AID PROJECT				
					SCALE:	SHEET 6 OF 15 SHEETS		STA. 122+00.00 TO STA. 125+00.00				



FINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
	AREAS		
	CHECKED		

ORIGINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
	AREAS		
	CHECKED		



FILE NAME = #FILE#  
 #MODELNAME#

USER NAME = #USER#  
 PLOT SCALE = #SCALE#  
 PLOT DATE = #DATE#

DESIGNED -  
 DRAWN -  
 CHECKED - DDL  
 DATE - 1/4/16

REVISED -  
 REVISED -  
 REVISED -  
 REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**NORTH BRANCH BIKE TRAIL EXTENSION**  
**CROSS SECTIONS**  
 SCALE: SHEET 7 OF 15 SHEETS STA. 126+00.00 TO STA. 129+00.00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	15-F3000-27-BT	COOK	52	44
			CONTRACT NO. 61C64	
ILLINOIS FED. AID PROJECT				

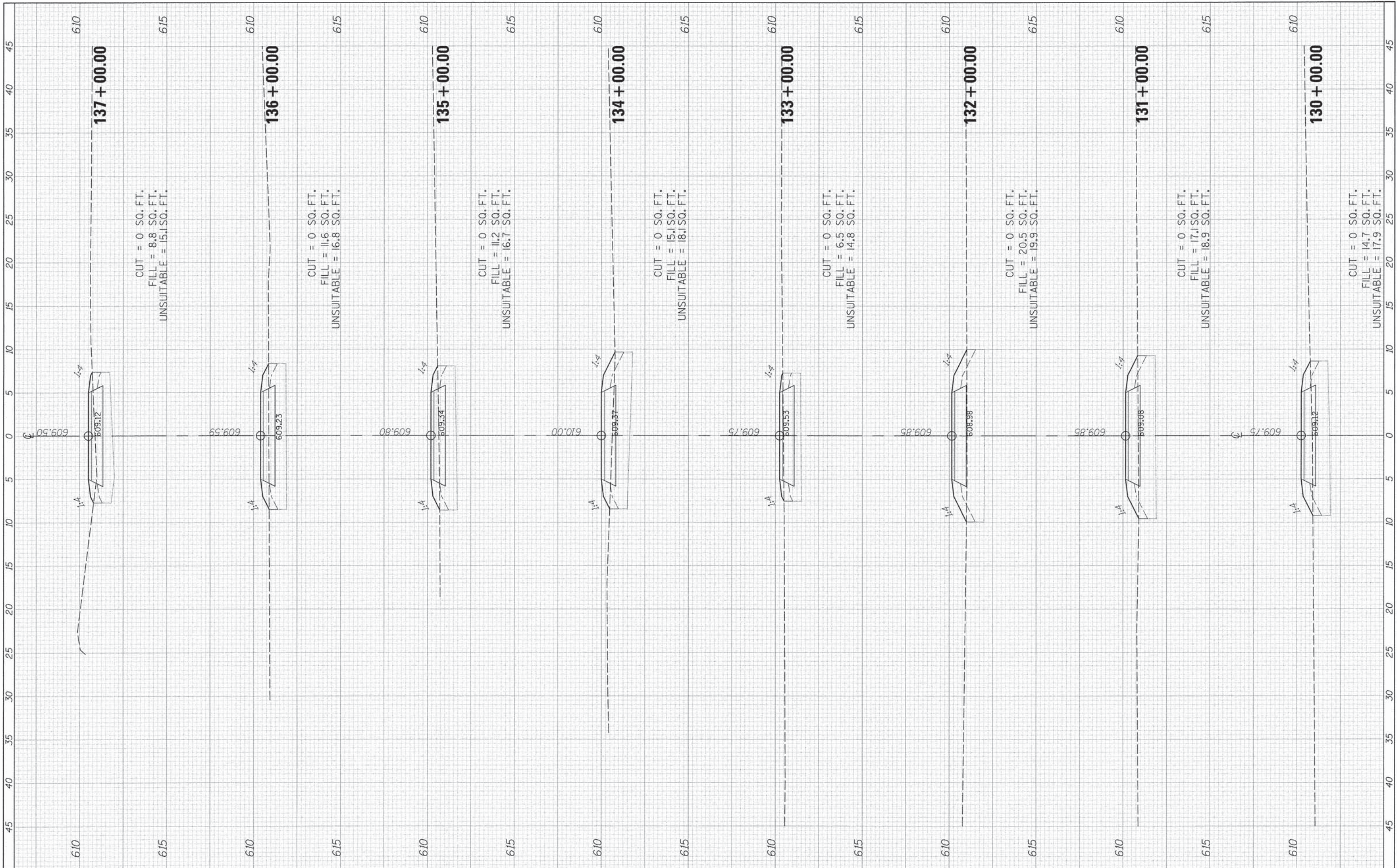


FINAL SURVEY	BY	DATE
SUPERVISED		
PLOTTED		
NOTE BOOK		
AREAS CHECKED		
NO.		

ORIGINAL SURVEY	BY	DATE
SUPERVISED		
PLOTTED		
NOTE BOOK		
AREAS CHECKED		
NO.		

615

615



FILE NAME =	USER NAME = #USER#
#FILE#	DRAWN -
#MODEL#	CHECKED - DDL
	DATE - 1/4/16
	DESIGNED -
	REVISED -
	REVISED -
	REVISED -
	REVISED -

DESIGNED -	REVISED -
DRAWN -	REVISED -
CHECKED - DDL	REVISED -
DATE - 1/4/16	REVISED -

DESIGNED -	REVISED -
DRAWN -	REVISED -
CHECKED - DDL	REVISED -
DATE - 1/4/16	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**NORTH BRANCH BIKE TRAIL EXTENSION  
CROSS SECTIONS**

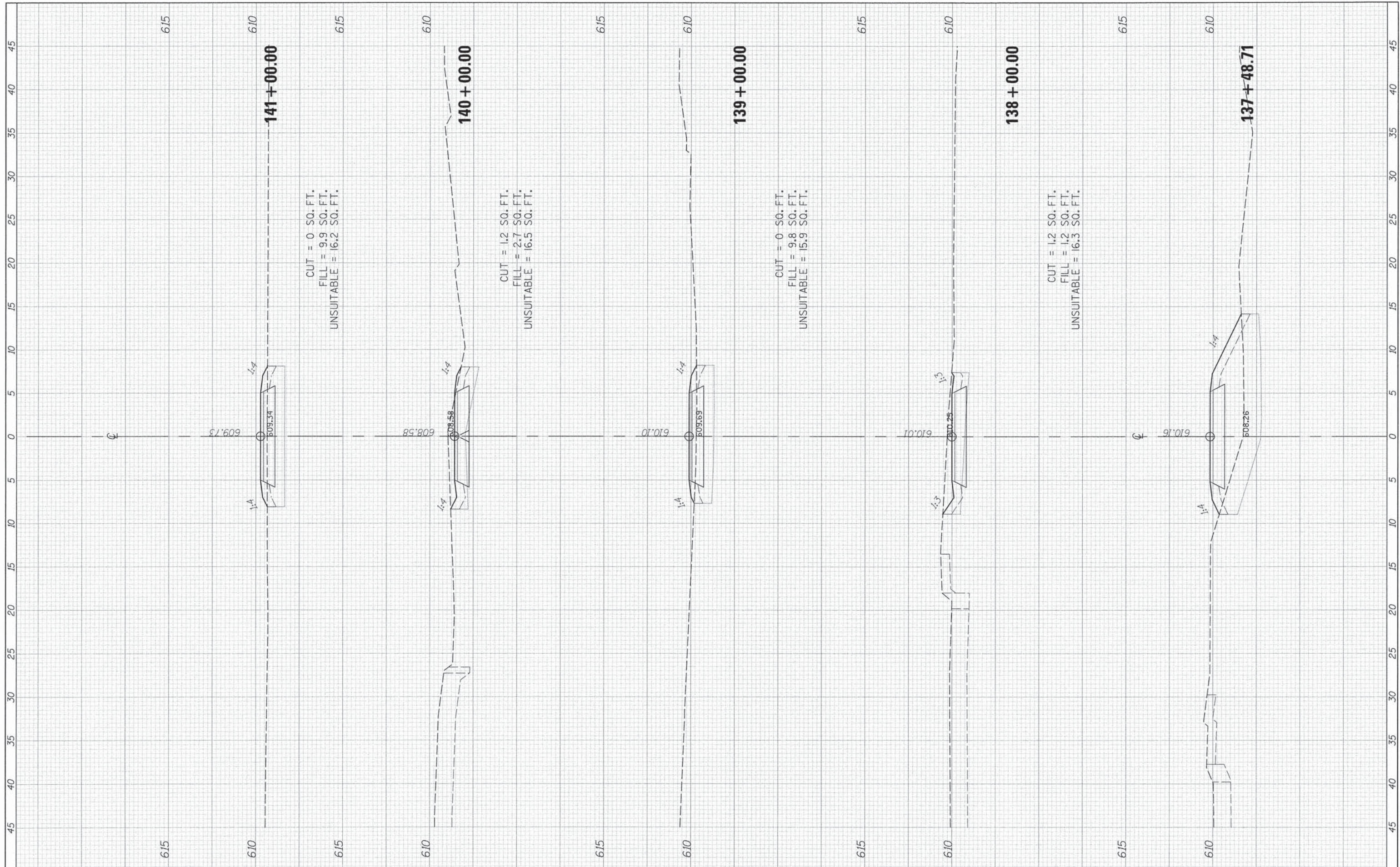
SCALE: SHEET 8 OF 15 SHEETS STA. 130+00.00 TO STA. 137+00.00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	15-F3000-27-BT	COOK	52	45
			CONTRACT NO. 61C64	
			[ILLINOIS] FED. AID PROJECT	



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

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



FILE NAME	USER NAME = #USER#	DESIGNED	REVISED
#FILE#		DRAWN	REVISED
#MODELNAME#	PLOT SCALE = #SCALE#	CHECKED = DDL	REVISED
	PLOT DATE = #DATE#	DATE = 1/4/16	REVISED

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**NORTH BRANCH BIKE TRAIL EXTENSION  
CROSS SECTIONS**

SCALE: SHEET 9 OF 15 SHEETS STA. 137+48.71 TO STA. 141+00.00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	15-F3000-27-BT	COOK	52	46
CONTRACT NO. 61C64				
ILLINOIS FED. AID PROJECT				

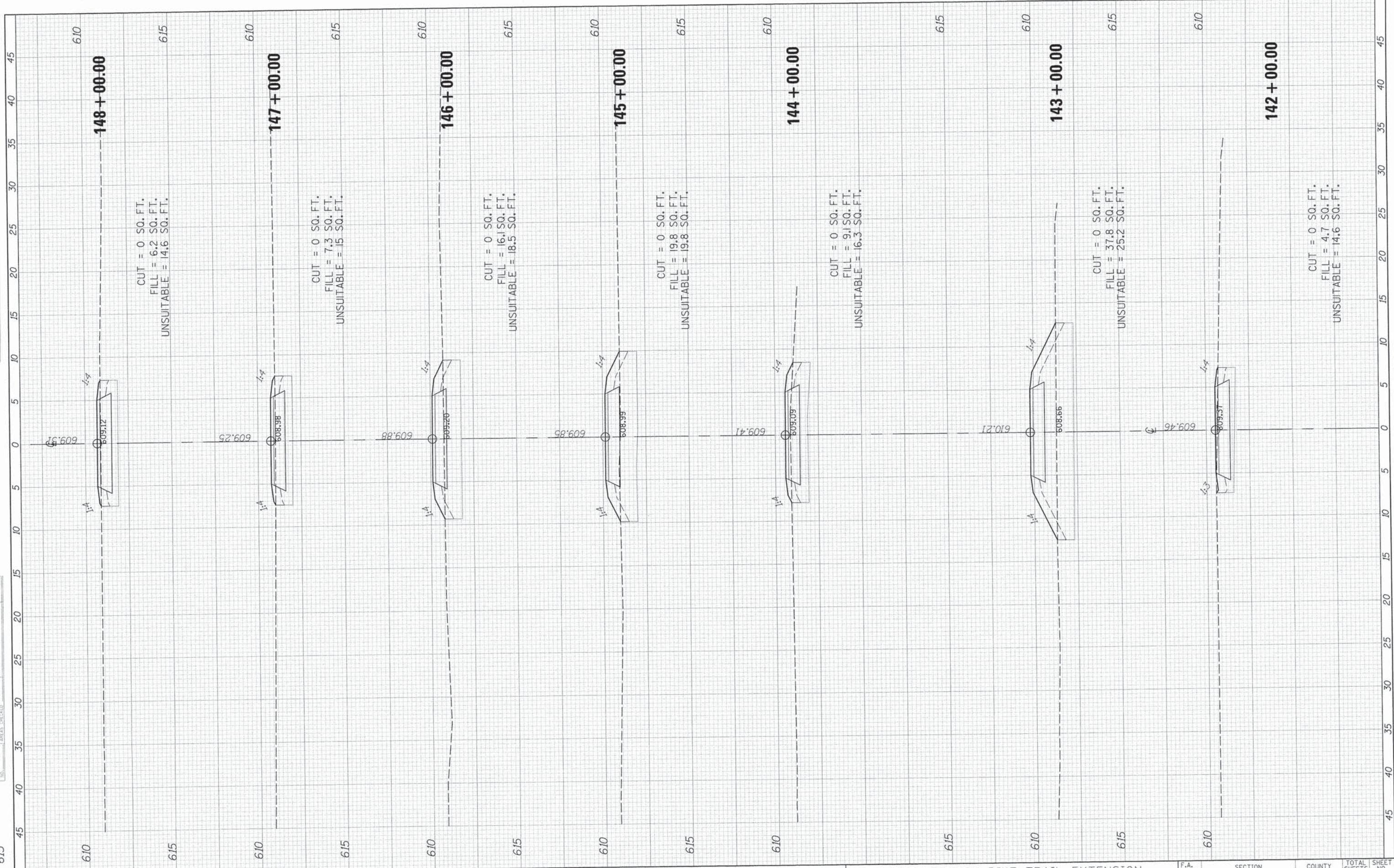


FINAL SURVEY	SUPERVISOR	BY	DATE
NOTE BOOK	PLOTTED		
NO.	TEMPLATE		
	AREAS CHECKED		

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

615

615



FILE NAME: #  
 #FILE#  
 #MODELNAME#

USER NAME: #USER#  
 PLOT SCALE: #SCALE#  
 PLOT DATE: #DATE#

DESIGNED -  
 DRAWN -  
 CHECKED - DDL  
 DATE - 1/4/16

REVISED -  
 REVISED -  
 REVISED -  
 REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**NORTH BRANCH BIKE TRAIL EXTENSION  
 CROSS SECTIONS**

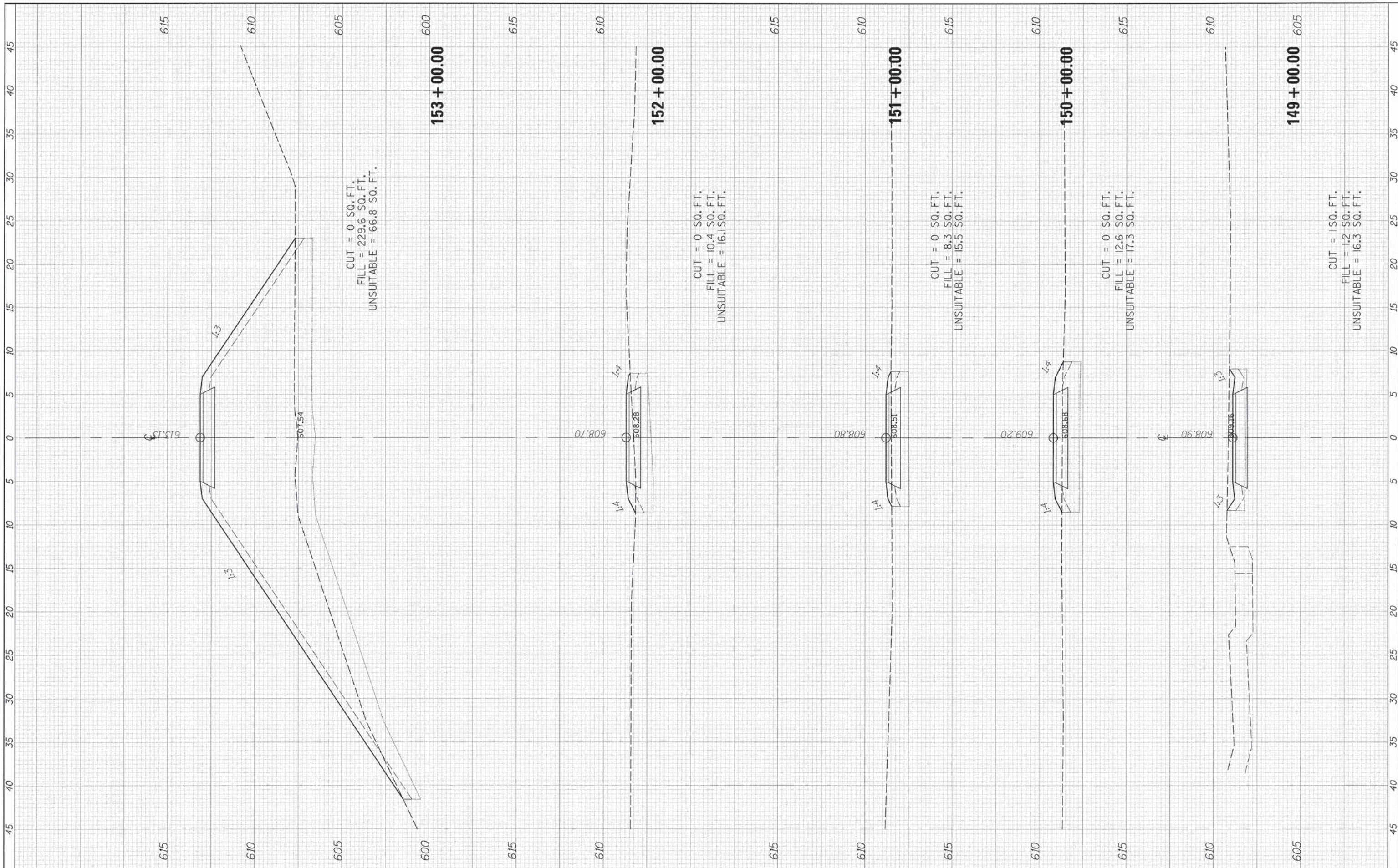
SCALE: SHEET 10 OF 15 SHEETS STA. 142+00.00 TO STA. 148+00.00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	15-F3000-27-BT	COOK	52	47
			CONTRACT NO. 61C64	
ILLINOIS FED. AID PROJECT				



FINAL SURVEY	DATE
PLOTTED	
NOTE BOOK	
AREAS CHECKED	
NO.	

ORIGINAL SURVEY	DATE
PLOTTED	
NOTE BOOK	
AREAS CHECKED	
NO.	



FILE NAME = #FILE#  
 USER NAME = #USER#  
 PLOT SCALE = #SCALE#  
 PLOT DATE = #DATE#

DESIGNED -  
 DRAWN -  
 CHECKED - DDL  
 DATE - 1/4/16

REVISED -  
 REVISED -  
 REVISED -  
 REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**NORTH BRANCH BIKE TRAIL EXTENSION  
 CROSS SECTIONS**

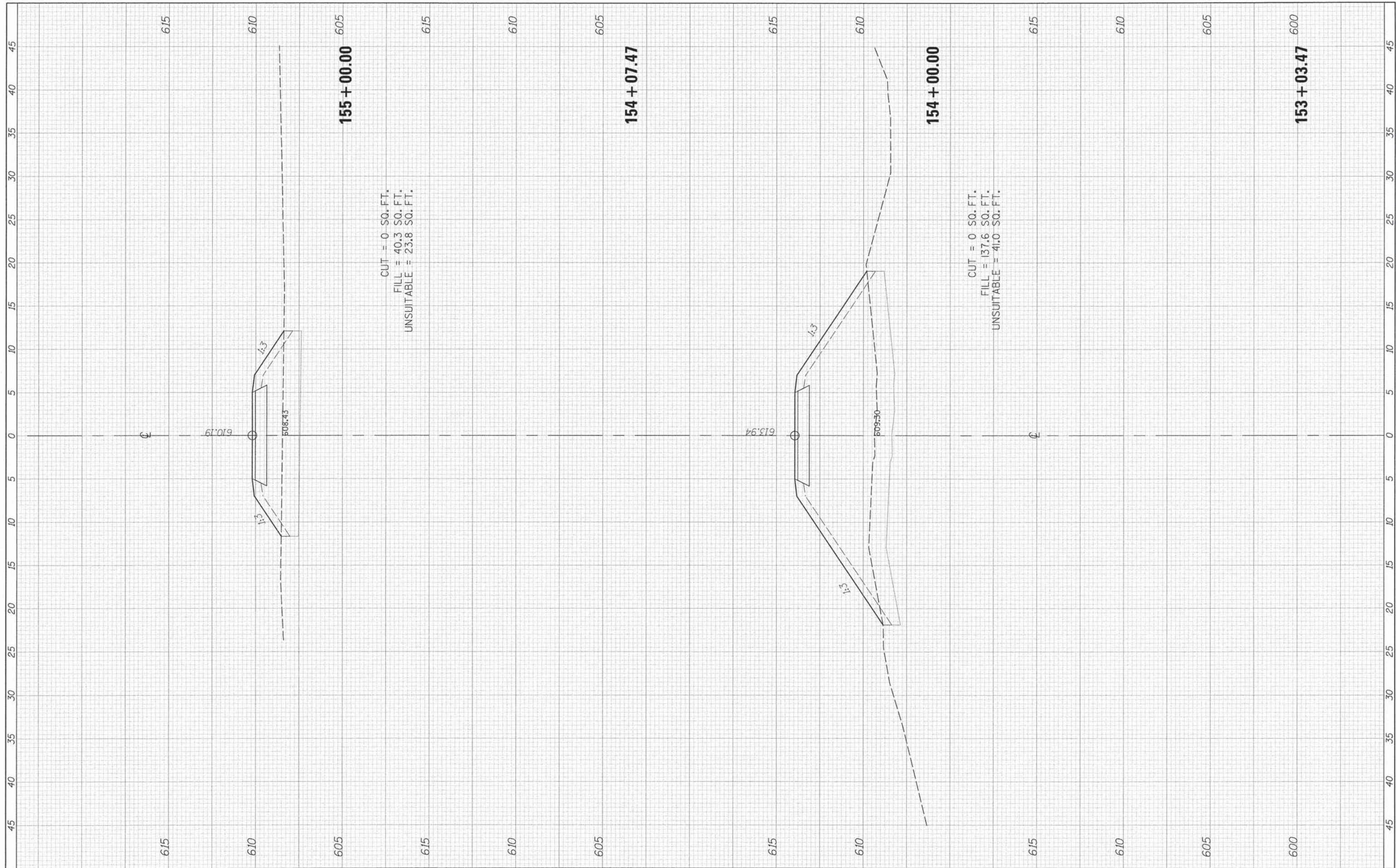
SCALE: SHEET 11 OF 15 SHEETS STA. 149+00.00 TO STA. 153+00.00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	15-F3000-27-BT	COOK	52	48
CONTRACT NO. 61C64				
ILLINOIS FED. AID PROJECT				



FINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
	TEMPLATE		
	INKS		
	AREAS CHECKED		

ORIGINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
	TEMPLATE		
	INKS		
	AREAS CHECKED		



FILE NAME	USER NAME = #USER#	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>NORTH BRANCH BIKE TRAIL EXTENSION CROSS SECTIONS</b>			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
#FILE#		DRAWN -	REVISED -		SCALE:	SHEET 12	OF 15	SHEETS	15-F3000-27-BT	COOK	52	49
#MODELNAME#		CHECKED - DDL	REVISED -		STA. 153+03.47	TO STA. 155+00.00			CONTRACT NO. 61C64			
		DATE - 1/4/16	REVISED -		[ILLINOIS] FED. AID PROJECT							

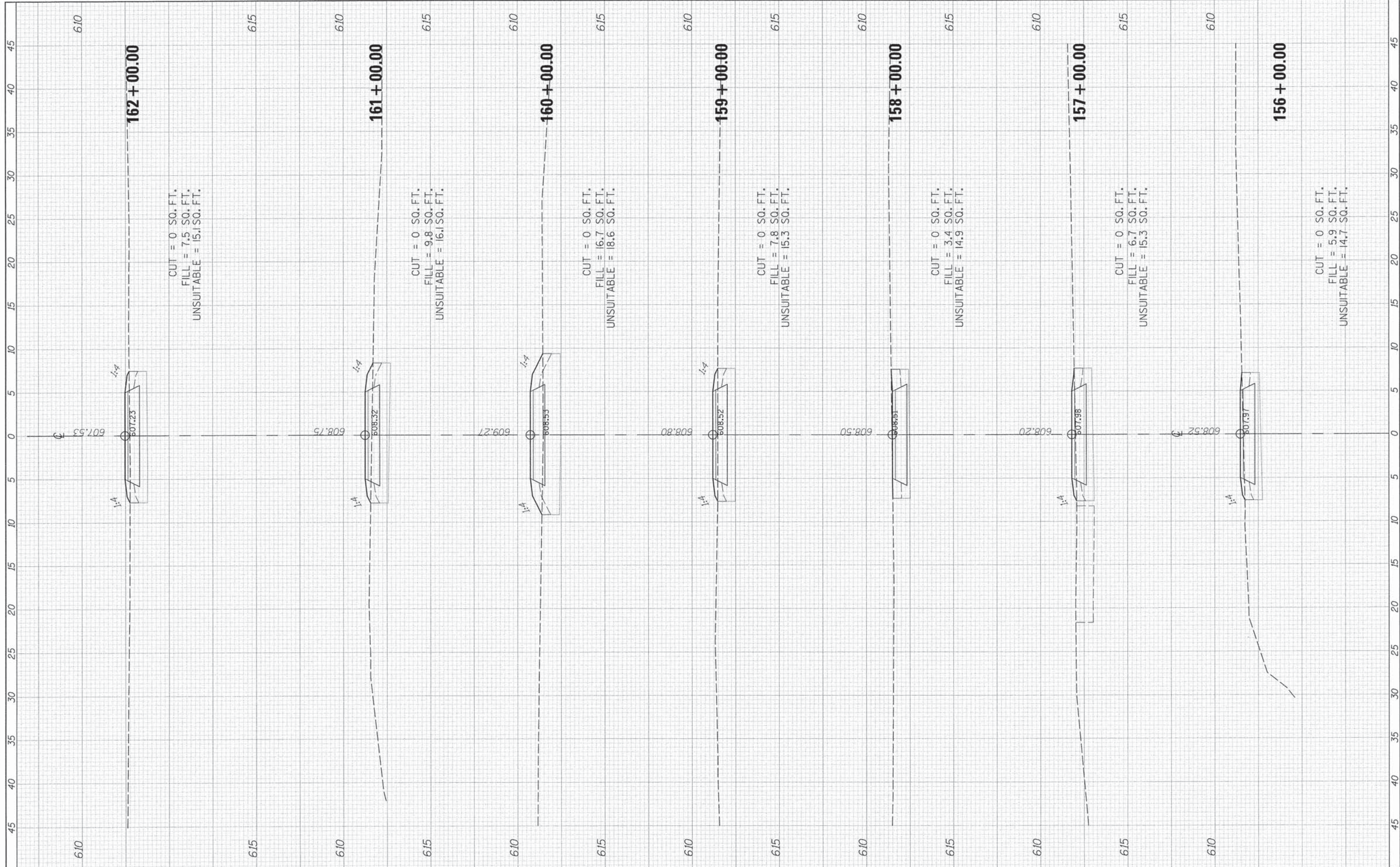


FINAL	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
	TEMPLATE		
	AREAS CHECKED		

ORIGINAL	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
	TEMPLATE		
	AREAS CHECKED		

615

615

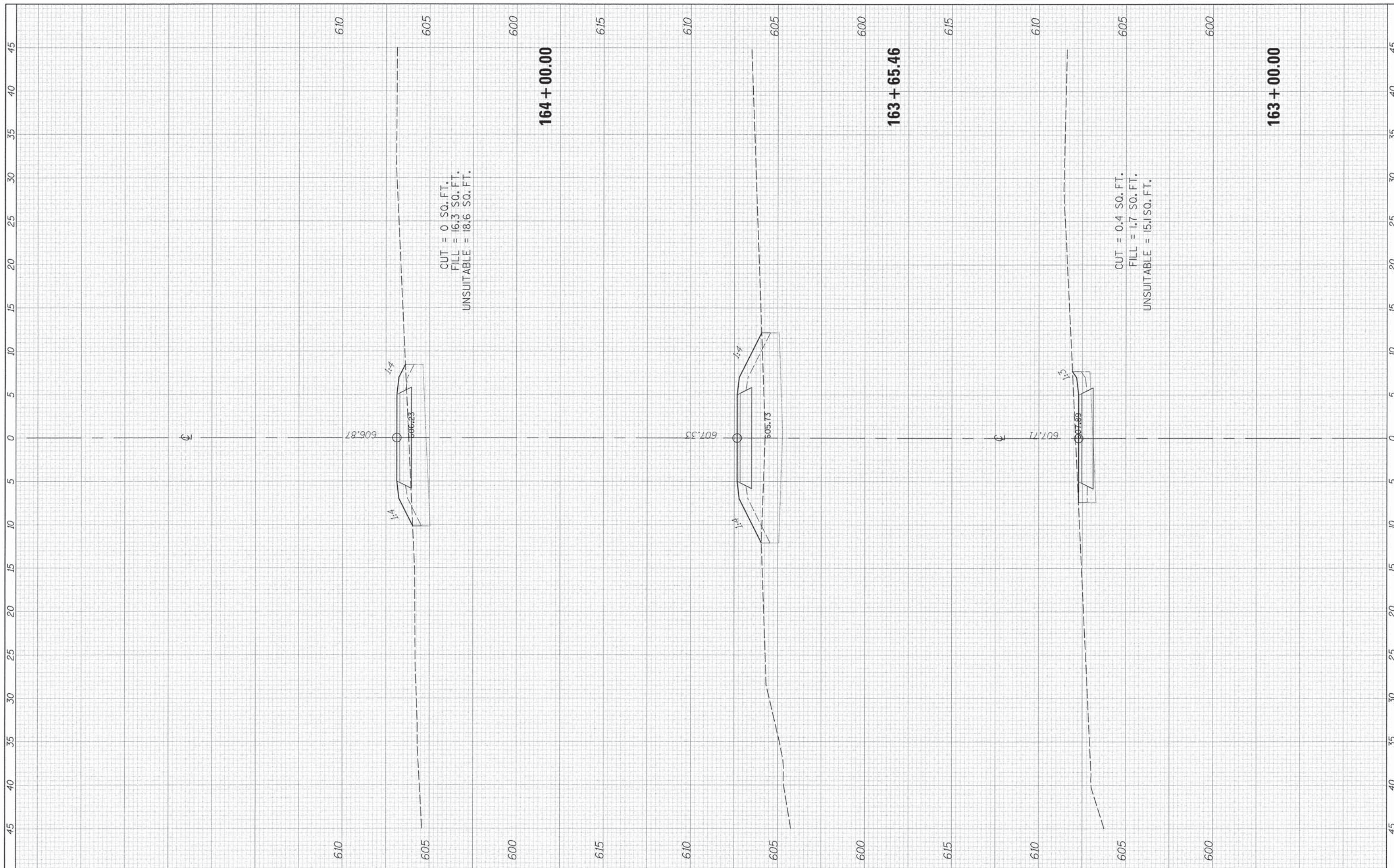


FILE NAME =	USER NAME = #USER#	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>NORTH BRANCH BIKE TRAIL EXTENSION CROSS SECTIONS</b>			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
#FILE#		DRAWN -	REVISED -					15-F3000-27-BT	COOK	52	50	
#MODEL NAME#	PLOT SCALE = #SCALE#	CHECKED - DDL	REVISED -		SCALE: SHEET 13 OF 15 SHEETS STA. 156+00.00 TO STA. 162+00.00			CONTRACT NO. 61C64				
	PLOT DATE = #DATE#	DATE - 1/4/16	REVISED -		ILLINOIS FED. AID PROJECT							



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

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



CUT = 0 SQ. FT.  
 FILL = 16.3 SQ. FT.  
 UNSUITABLE = 18.6 SQ. FT.

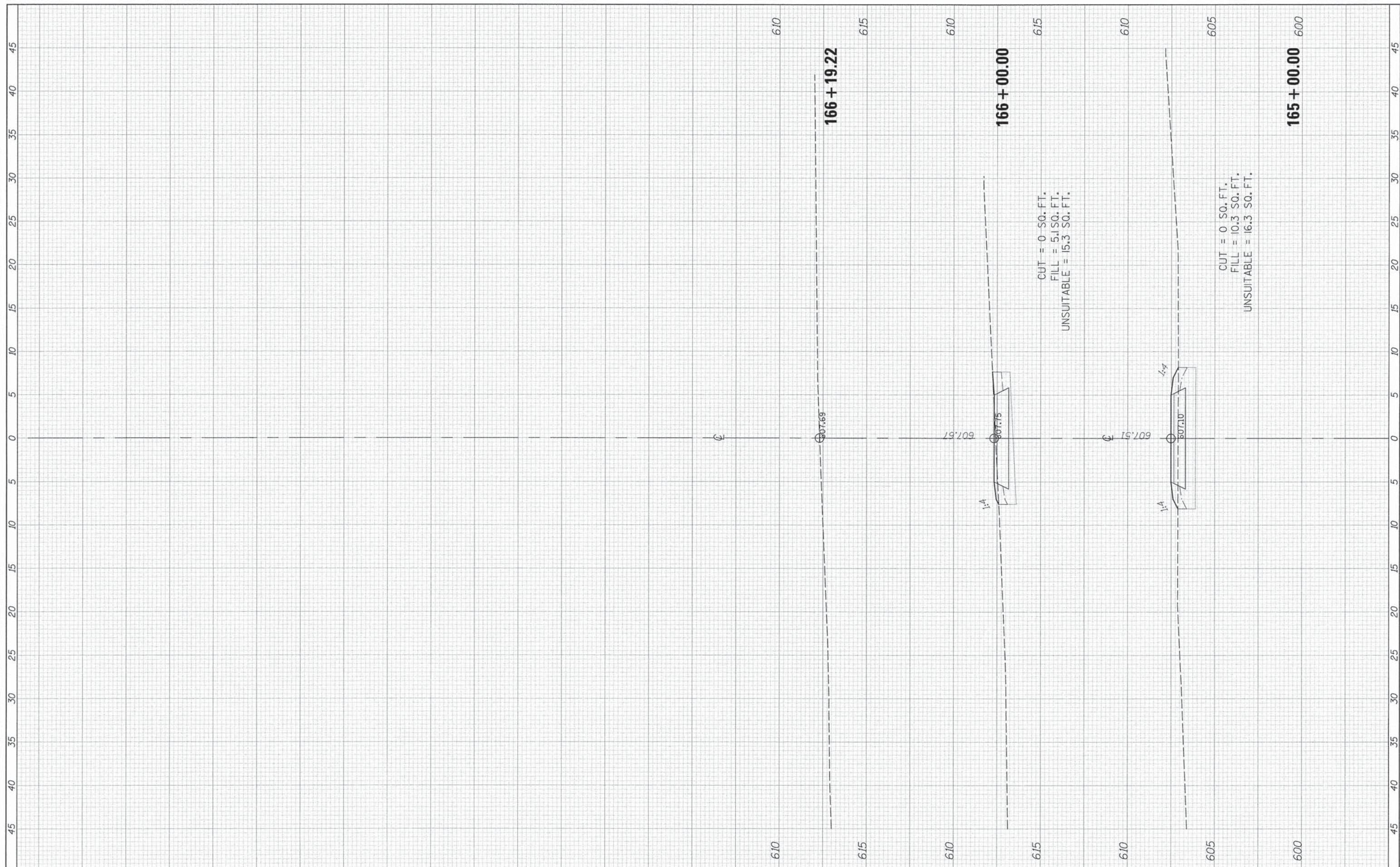
CUT = 0.4 SQ. FT.  
 FILL = 1.7 SQ. FT.  
 UNSUITABLE = 15.1 SQ. FT.

FILE NAME #	USER NAME = #USER#	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	NORTH BRANCH BIKE TRAIL EXTENSION CROSS SECTIONS		F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
#FILE#		DRAWN -	REVISED -		SCALE:	SHEET 14 OF 15 SHEETS	STA. 163+00.00 TO STA. 164+00.00	15-F3000-27-BT	COOK	52	51	
#MODEL NAME#		CHECKED - DDL	REVISED -								CONTRACT NO. 61C64	
		DATE - 1/4/16	REVISED -								ILLINOIS FED. AID PROJECT	



FINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
	TEMPLATE		
	AREAS		
	CHECKED		

ORIGINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
	TEMPLATE		
	AREAS		
	CHECKED		



FILE NAME =	USER NAME = #USER#	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>NORTH BRANCH BIKE TRAIL EXTENSION CROSS SECTIONS</b>		F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
#FILE#		DRAWN -	REVISED -		SCALE:	SHEET 15	OF 15	SHEETS	STA. 165+00.00	TO STA. 166+19.22	52	52
#MODELNAME#		CHECKED - DDL	REVISED -									
		DATE - 1/4/16	REVISED -									

165 + 00.00 600

166 + 00.00 615

166 + 19.22 610

CUT = 0 SQ. FT.  
FILL = 10.3 SQ. FT.  
UNSUITABLE = 16.3 SQ. FT.

CUT = 0 SQ. FT.  
FILL = 5.1 SQ. FT.  
UNSUITABLE = 15.3 SQ. FT.

19'10.97

607.75

14

607.10

14

605

600

ILLINOIS FED. AID PROJECT