


STAGE 5 CONSTRUCTION

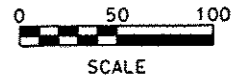
 COMPLETED DURING THIS ZONE



MATCH LINE STA. 278+00

MATCH LINE STA. 293+00

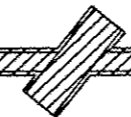
SCOTT-TROY TRAIL




MATCH LINE STA. 293+00

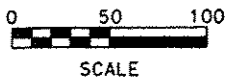
MATCH LINE STA. 308+00

SCOTT-TROY TRAIL




STAGE 5 CONSTRUCTION

 COMPLETED DURING THIS ZONE



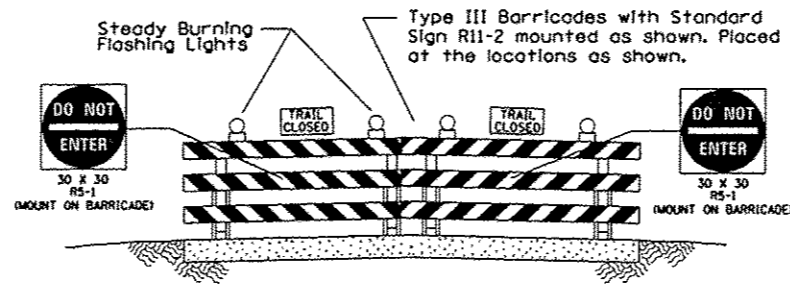
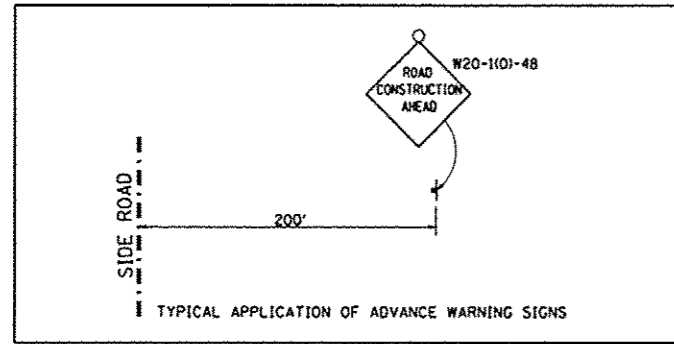
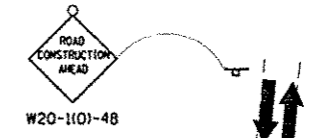
FILE NAME = stage 09.dgn	USER NAME = Scott	DESIGNED - SAS	REVISED -	METRO EAST PARK & RECREATION DISTRICT SCOTT-TROY TRAIL	STAGE CONSTRUCTION ZONE 5			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 100.0000' / in.	DRAWN - SAS	REVISED -		06-00001-00-BT	MADISON	335	101				
	PLOT DATE = 7/12/2016	CHECKED - WJB	REVISED -		CONTRACT NO. 97633							
	DATE - 11/19/15	REVISED -		SCALE: 1" = 50'	SHEET NO. 09 OF 15 SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT				

STAGE 5 CONSTRUCTION

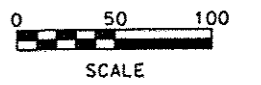
 COMPLETED DURING THIS ZONE

MATCH LINE STA. 308+00


SCOTT-TROY TRAIL



LEMEN SETTLEMENT

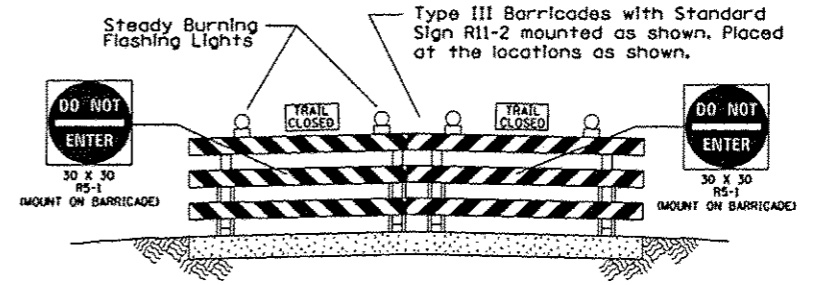
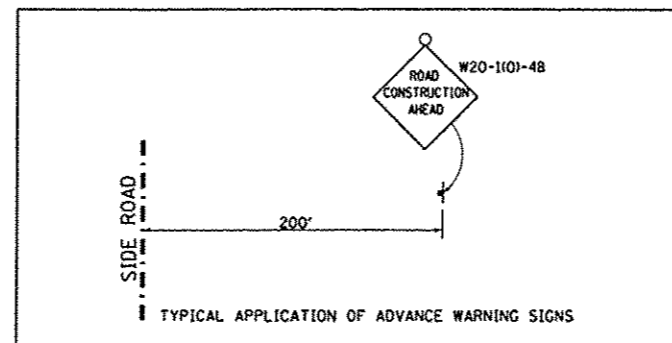
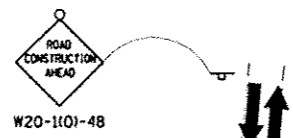


STAGE 6 CONSTRUCTION

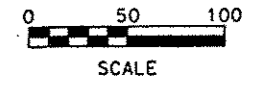
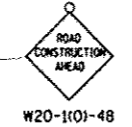
 COMPLETED DURING THIS ZONE

MATCH LINE STA. 332+00

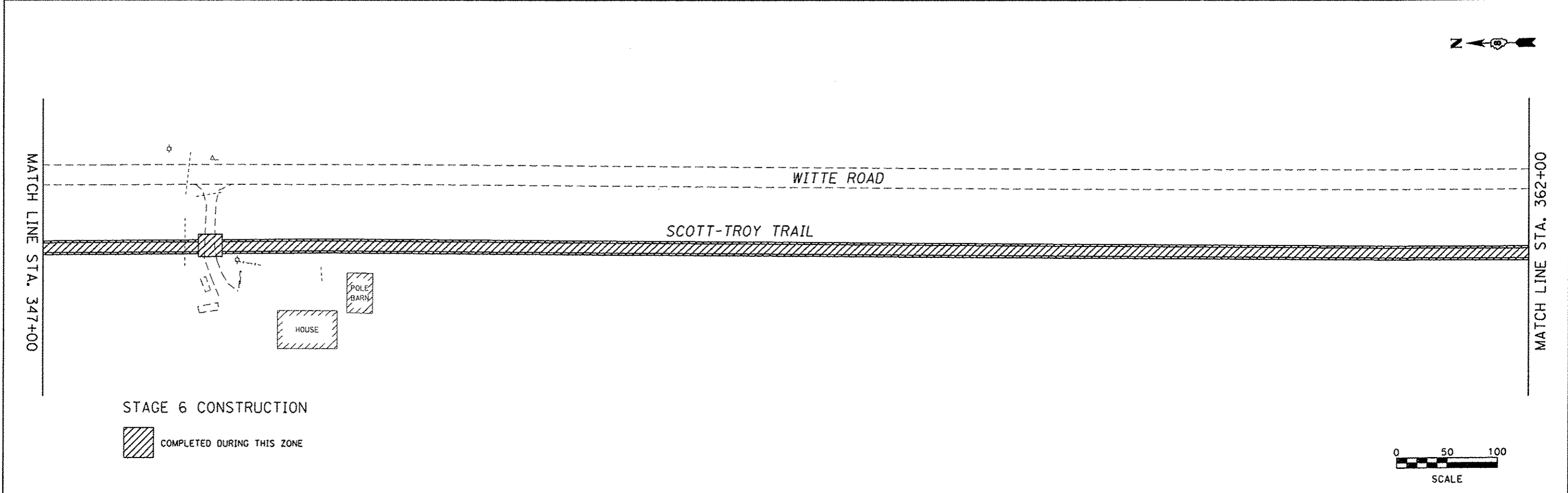
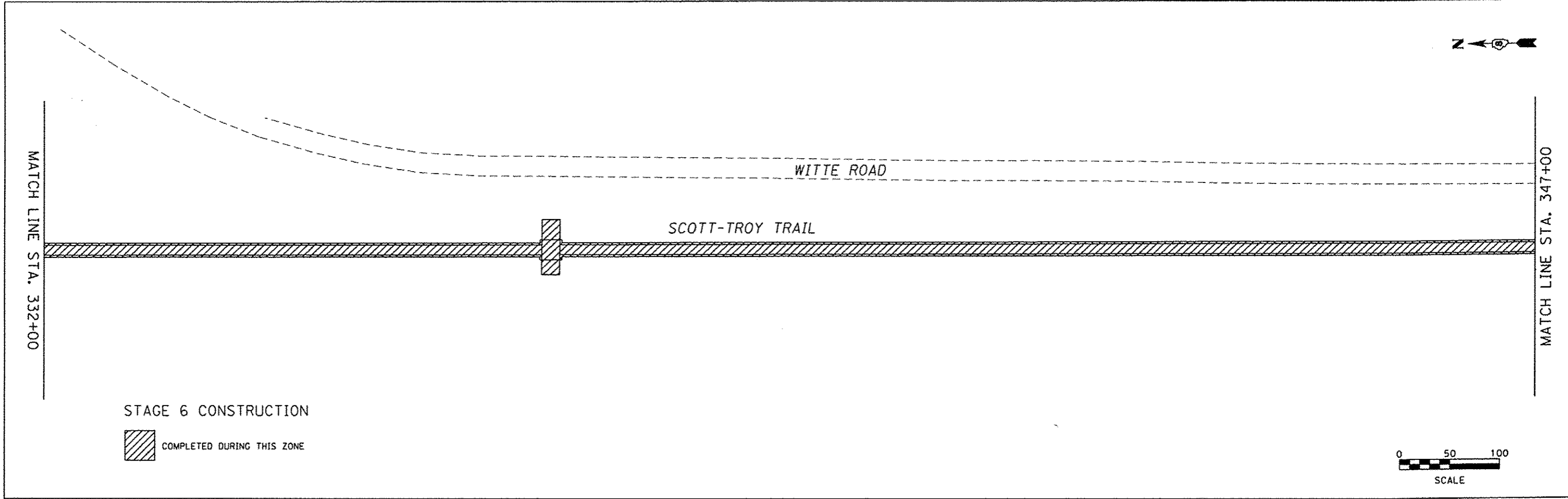
SCOTT-TROY TRAIL



LEMEN SETTLEMENT




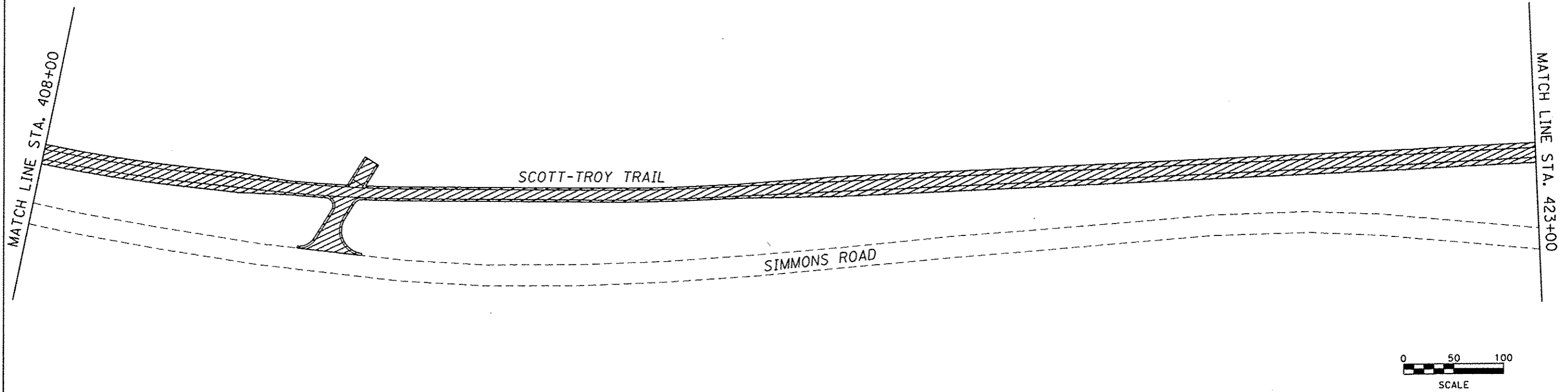
FILE NAME * stage 10.dgn	USER NAME * Scott	DESIGNED - SAS	REVISED -	METRO EAST PARK & RECREATION DISTRICT SCOTT-TROY TRAIL	STAGE CONSTRUCTION ZONE 5 & 6			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN - SAS	REVISED -		SCALE: 1" = 50'	SHEET NO. 10 OF 15 SHEETS	STA.	TO STA.	06-00001-00-BT	MADISON	335	102
		CHECKED - WJB	REVISED -		CONTRACT NO. 97633							
		DATE - 11/19/15	REVISED -		ILLINOIS FED. AID PROJECT							




FILE NAME * stage 11.dgn	USER NAME * Scott	DESIGNED - SAS	REVISED -	METRO EAST PARK & RECREATION DISTRICT SCOTT-TROY TRAIL	STAGE CONSTRUCTION ZONE 6			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE * 100.0000' / 1" =	DRAWN - SAS	REVISED -		06-00001-00-BT	ST. CLAIR	335	103				
	PLOT DATE * 7/12/2016	CHECKED - WJB	REVISED -		CONTRACT NO. 97633							
		DATE - 11/19/15	REVISED -		ILLINOIS FED. AID PROJECT							
				SCALE: 1" = 50'	SHEET NO. 11 OF 15 SHEETS	STA.	TO STA.					

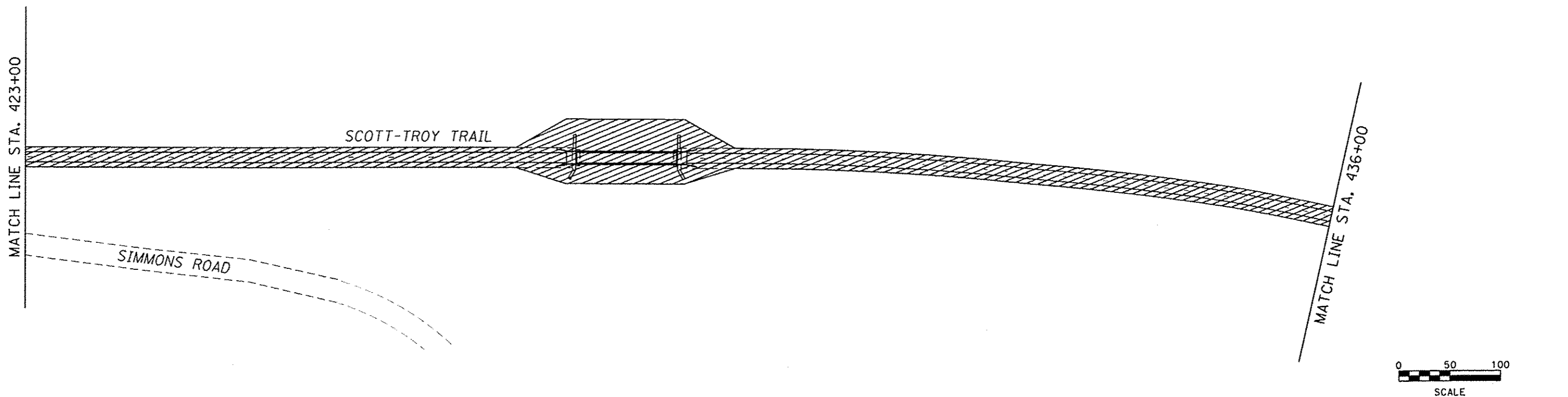
STAGE 7 CONSTRUCTION

 COMPLETED DURING THIS ZONE




STAGE 7 CONSTRUCTION

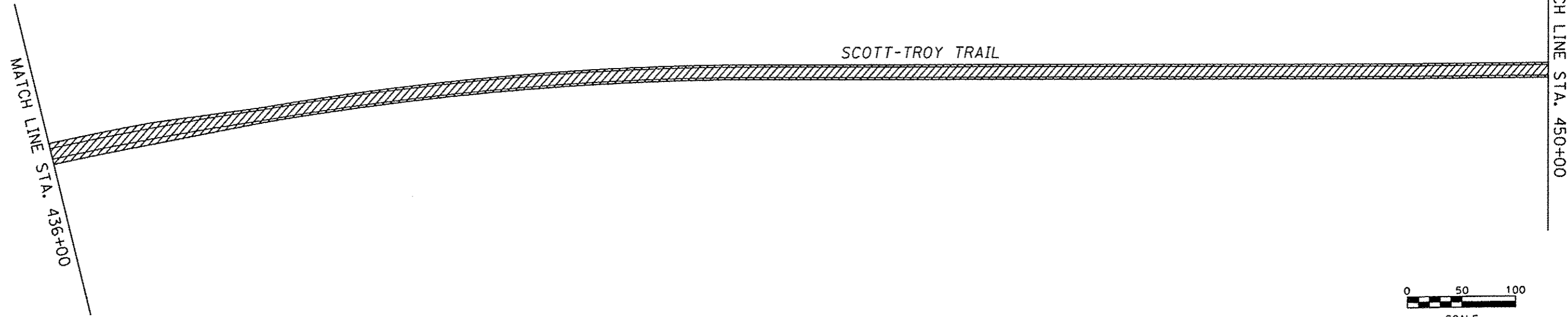
 COMPLETED DURING THIS ZONE




FILE NAME = stage 14.dgn	USER NAME = Scott	DESIGNED - SAS	REVISED -	METRO EAST PARK & RECREATION DISTRICT SCOTT-TROY TRAIL	STAGE CONSTRUCTION ZONE 7			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 1/80.0000 7 / in.	DRAWN - SAS	REVISED -		06-00001-00-BT	ST. CLAIR	335	106				
	PLOT DATE = 7/12/2016	CHECKED - WJB	REVISED -		CONTRACT NO. 97633							
	DATE - 11/19/15	REVISED -		SCALE: 1" = 50'	SHEET NO. 14 OF 15 SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT				

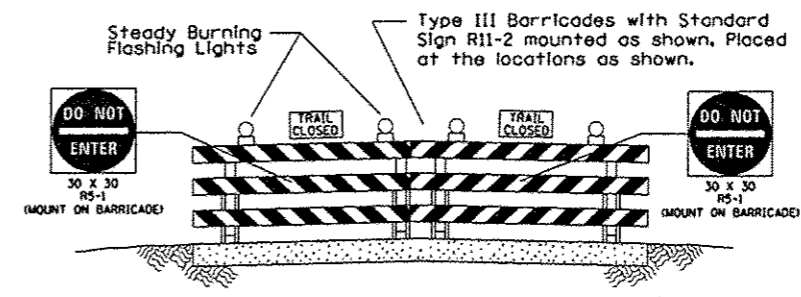
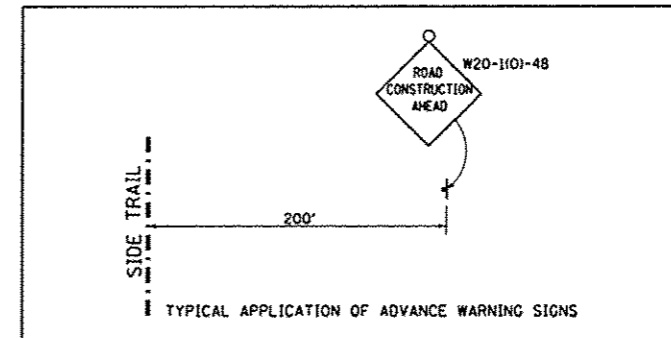
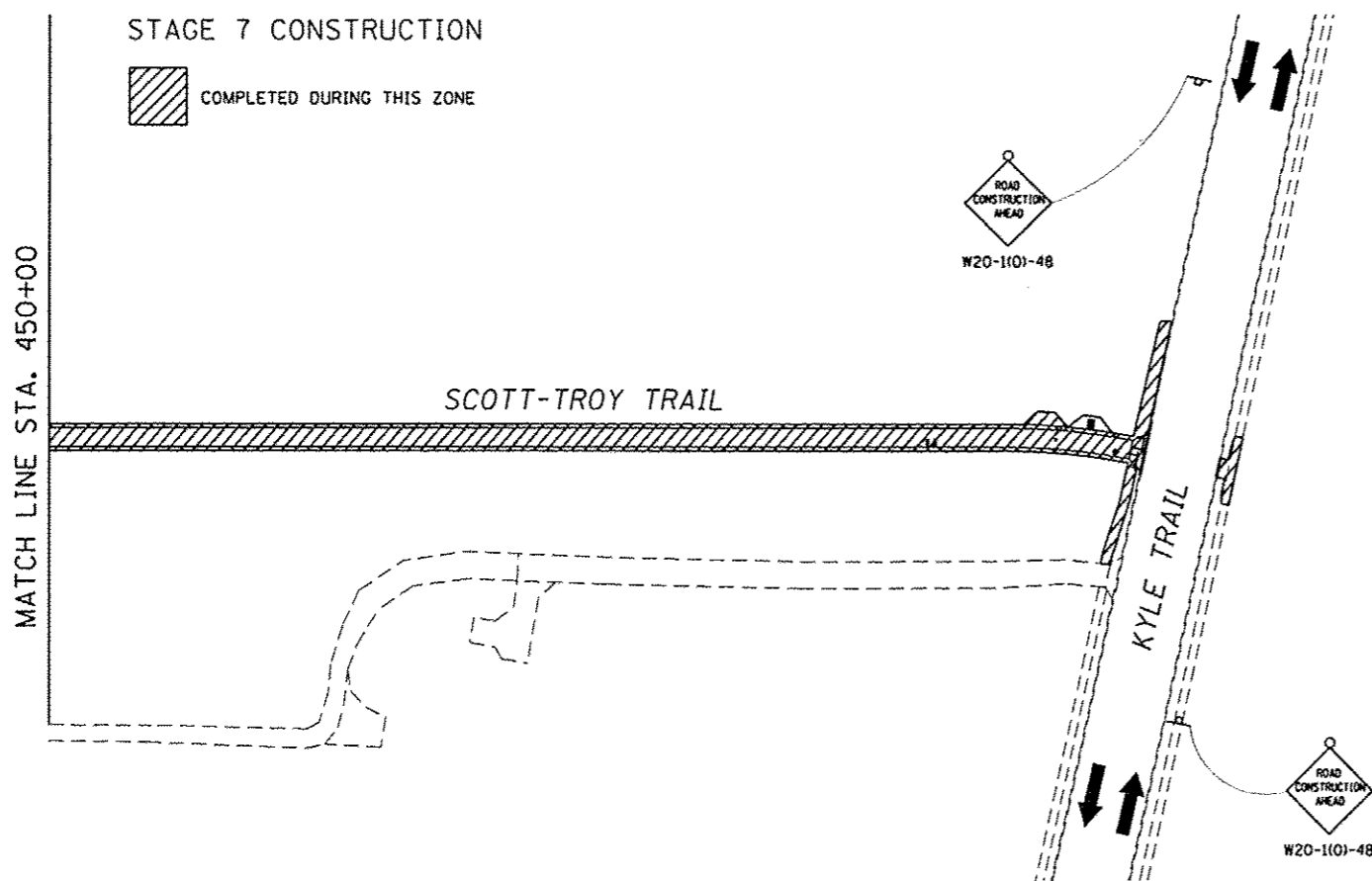
STAGE 7 CONSTRUCTION

 COMPLETED DURING THIS ZONE



STAGE 7 CONSTRUCTION

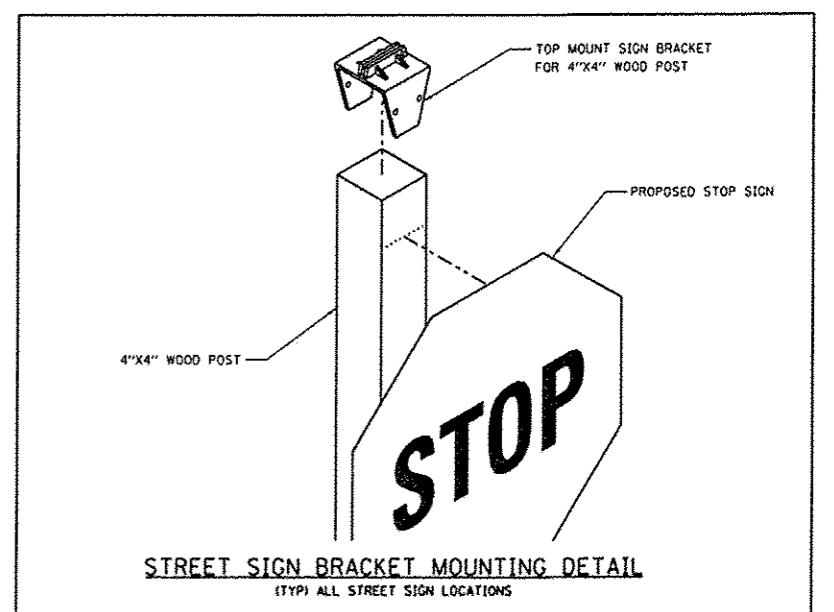
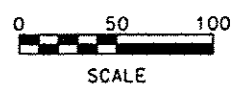
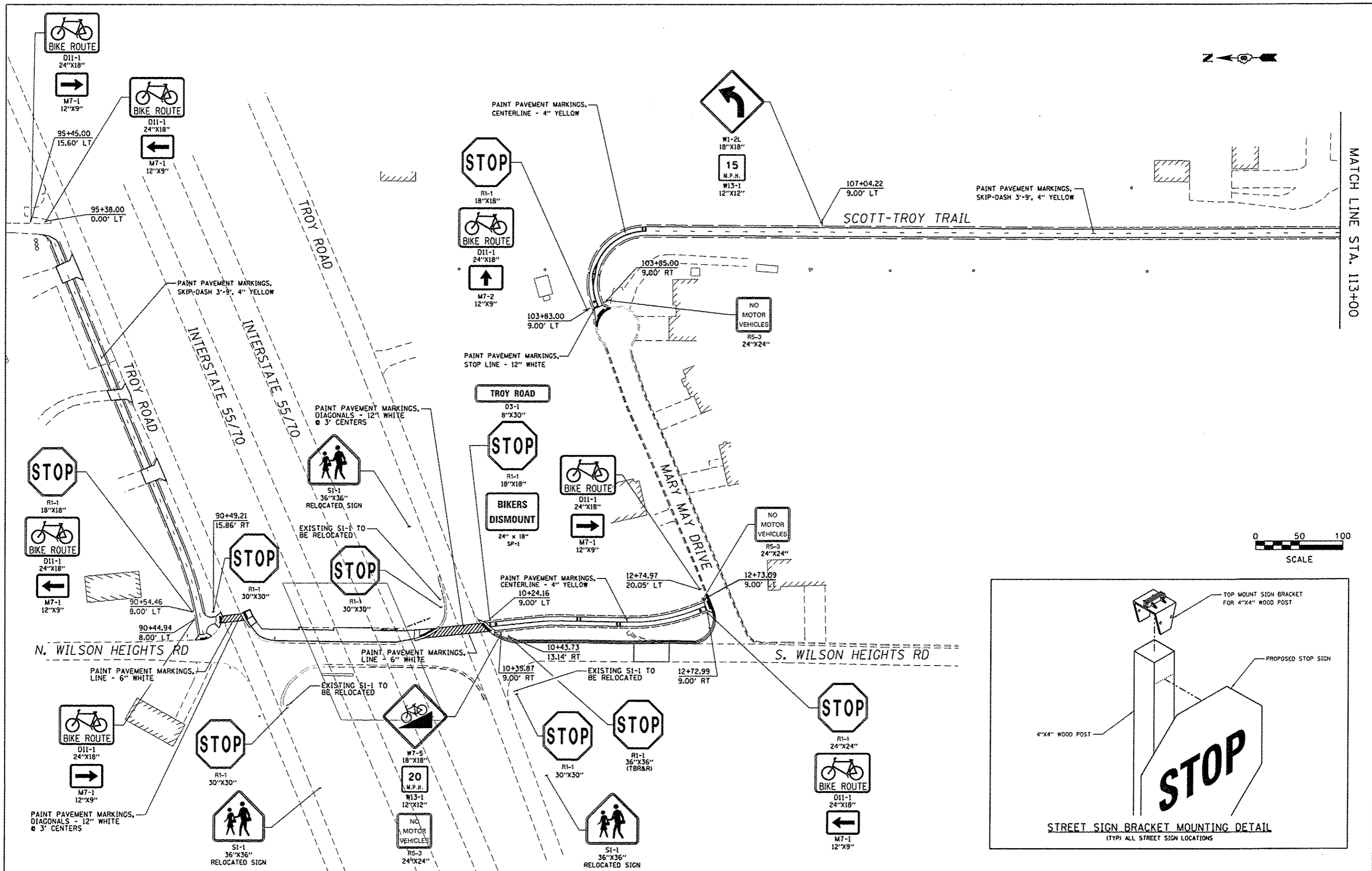
 COMPLETED DURING THIS ZONE



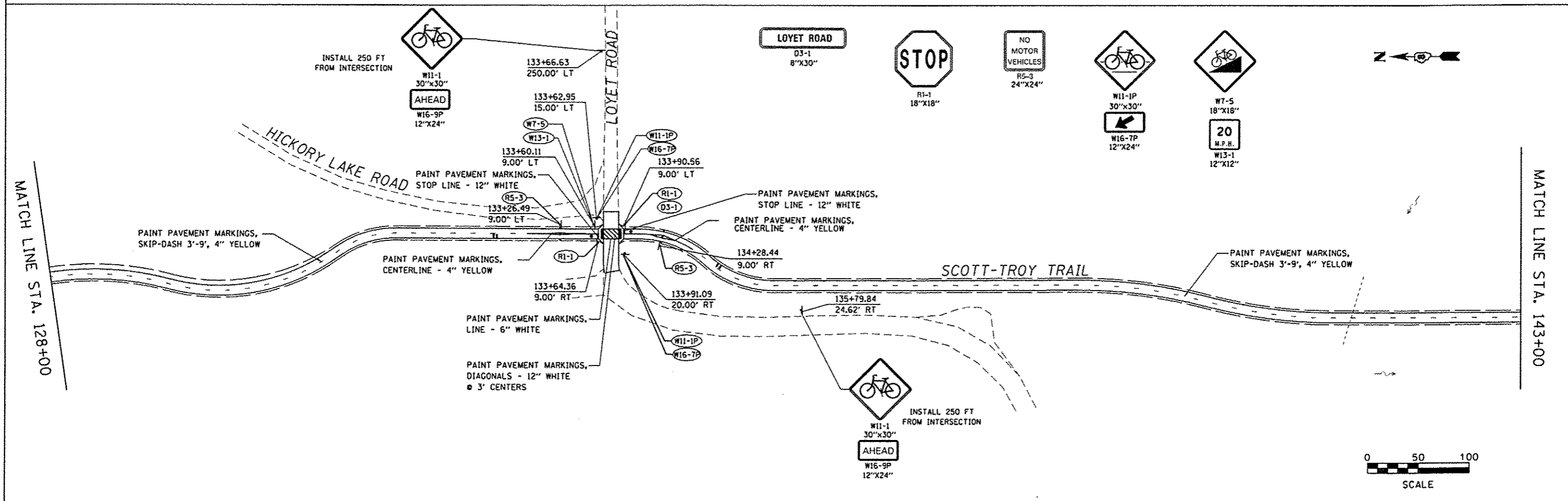
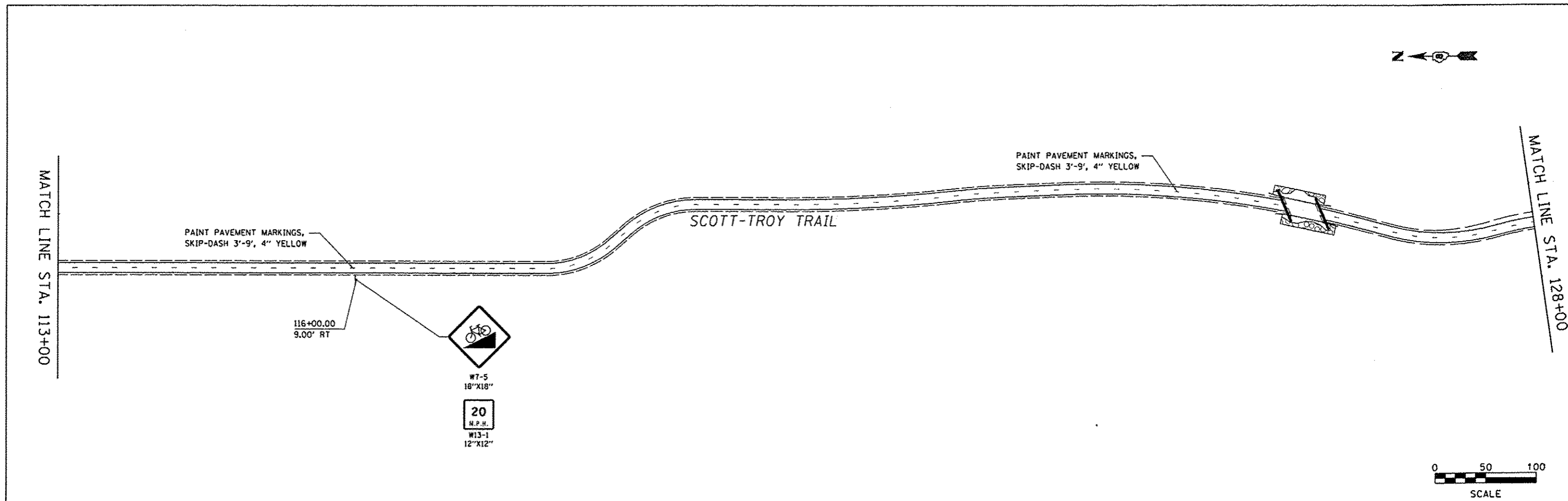
FILE NAME * stage 15.dgn	USER NAME * Scott	DESIGNED - SAS	REVISED -	METRO EAST PARK & RECREATION DISTRICT SCOTT-TROY TRAIL	STAGE CONSTRUCTION ZONE 7			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE * 1/8"=30' / in.	DRAWN - SAS	REVISED -		06-00001-00-BT	ST. CLAIR	335	107				
	PLOT DATE * 7/12/2016	CHECKED - WJB	REVISED -		CONTRACT NO. 97633							
		DATE - 11/19/15	REVISED -		SCALE: 1" = 50'	SHEET NO. 15 OF 15 SHEETS	STA.	TO STA.	(ILLINOIS) FED. AID PROJECT			



MATCH LINE STA. 113+00



FILE NAME pmark_01.dgn	USER NAME Scott	DESIGNED SAS	REVISED -	METRO EAST PARK & RECREATION DISTRICT SCOTT-TROY TRAIL	SIGNAGE & PAVEMENT MARKING SHEETS	F.A. RTE.	SECTION 06-00001-00-BT	COUNTY MADISON	TOTAL SHEETS 335	SHEET NO. 108		
PLOT SCALE 1/8" = 100'	CHECKED WJB	REVISED -	SCALE: 1" = 50'			SHEET NO. 01 OF 13 SHEETS	STA. 103+77.51 TO STA. 113+00.00	CONTRACT NO. 97633		ILLINOIS FED. AID PROJECT		
PLOT DATE 7/12/2016	DATE 11/19/15	REVISED -										



FILE NAME = pmark_02.dgn	USER NAME = Scott	DESIGNED - SAS	REVISED -	METRO EAST PARK & RECREATION DISTRICT SCOTT-TROY TRAIL	SIGNAGE & PAVEMENT MARKING SHEETS		F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 1/8" = 100' / in.	DRAWN - SAS	REVISED -		SCALE: 1" = 50'	SHEET NO. 02 OF 13 SHEETS	STA. 113+00.00 TO STA. 143+00.00	06-00001-00-BT	MADISON	335	109
	PLOT DATE = 7/12/2016	CHECKED - WJB	REVISED -					CONTRACT NO. 97633			
		DATE - 11/19/15	REVISED -					ILLINOIS FED. AID PROJECT			



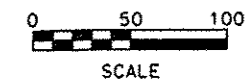
MATCH LINE STA. 143+00

PAINT PAVEMENT MARKINGS,
SKIP-DASH 3'-9", 4" YELLOW

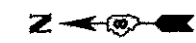
PAINT PAVEMENT MARKINGS,
SKIP-DASH 3'-9", 4" YELLOW

SCOTT-TROY TRAIL

MATCH LINE STA. 158+00



SCALE



MATCH LINE STA. 158+00

PAINT PAVEMENT MARKINGS,
SKIP-DASH 3'-9", 4" YELLOW

PAINT PAVEMENT MARKINGS,
SKIP-DASH 3'-9", 4" YELLOW

SCOTT-TROY TRAIL

MATCH LINE STA. 173+00



SCALE

FILE NAME : pmark.03.dgn	USER NAME : Scott	DESIGNED - SAS	REVISED -	METRO EAST PARK & RECREATION DISTRICT SCOTT-TROY TRAIL	SIGNAGE & PAVEMENT MARKING SHEETS	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 1/8"=20' @ 11/19/15	DRAWN - SAS	REVISED -			06-00001-00-BT	MADISON	335	110	
	PLOT DATE = 7/12/2016	CHECKED - WJB	REVISED -			CONTRACT NO. 97633		ILLINOIS FED. AID PROJECT		
	DATE - 11/19/15	REVISED -		SCALE: 1" = 50'	SHEET NO. 03 OF 13 SHEETS	STA. 143+00.00 TO STA. 173+00.00				



MATCH LINE STA. 173+00

MATCH LINE STA. 188+00

PAINT PAVEMENT MARKINGS,
SKIP-DASH 3'-9", 4" YELLOW

SCOTT-TROY TRAIL

PAINT PAVEMENT MARKINGS,
SKIP-DASH 3'-9", 4" YELLOW



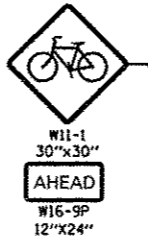
MATCH LINE STA. 188+00

MATCH LINE STA. 203+00

PAINT PAVEMENT MARKINGS,
SKIP-DASH 3'-9", 4" YELLOW

SCOTT-TROY TRAIL

INSTALL 250 FT
FROM INTERSECTION



197+49.49
118.13' LT

CLAY SCHOOL ROAD

199+45.34
14.74' LT

199+84.33
9.00' LT

PAINT PAVEMENT MARKINGS,
STOP LINE - 12" WHITE
PAINT PAVEMENT MARKINGS,
SKIP-DASH 3'-9", 4" YELLOW

PAINT PAVEMENT MARKINGS,
CENTERLINE - 4" YELLOW

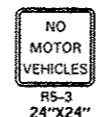
199+14.82
9.00' LT

PAINT PAVEMENT MARKINGS,
STOP LINE - 12" WHITE

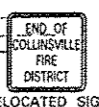
199+54.49
9.00' RT

PAINT PAVEMENT MARKINGS,
CENTERLINE - 4" YELLOW

200+36.13
9.00' RT

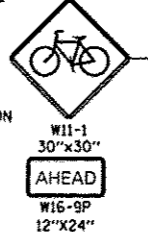


PAINT PAVEMENT MARKINGS,
DIAGONALS - 12" WHITE
3' CENTERS
PAINT PAVEMENT MARKINGS,
LINE - 6" WHITE



CLAY SCHOOL ROAD
D3-1
8"X30"

INSTALL 250 FT
FROM INTERSECTION



199+99.06
47.79' RT

200+09.34
246.90' RT



FILE NAME = pmark_04.dgn	USER NAME = Scott	DESIGNED - SAS	REVISED -	METRO EAST PARK & RECREATION DISTRICT SCOTT-TROY TRAIL	SIGNAGE & PAVEMENT MARKING SHEETS			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 100.0000' / in.	DRAWN - SAS	REVISED -		SCALE: 1" = 50'	SHEET NO. 04 OF 13 SHEETS	STA. 173+00.00 TO STA. 203+00.00	06-00001-00-BT	MADISON	335	111	
PLOT DATE = 7/12/2016	CHECKED - WJB	DATE - 11/19/15	REVISED -				CONTRACT NO. 97633			ILLINOIS FED. AID PROJECT		



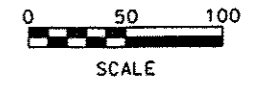
MATCH LINE STA. 203+00

MATCH LINE STA. 218+00

PAINT PAVEMENT MARKINGS,
SKIP-DASH 3'-9", 4" YELLOW

PAINT PAVEMENT MARKINGS,
SKIP-DASH 3'-9", 4" YELLOW

SCOTT-TROY TRAIL



MATCH LINE STA. 218+00

MATCH LINE STA. 233+00

NO MOTOR
VEHICLES
R5-3
24"X24"

YIELD
R1-2
18"X18"X18"

219+54.50
9.00' LT

219+64.48
9.00' LT

PAINT PAVEMENT MARKINGS,
SKIP-DASH 3'-9", 4" YELLOW

NO MOTOR
VEHICLES
R5-3
24"X24"

YIELD
R1-2
18"X18"X18"

224+35.00
9.00' LT

224+45.00
9.00' LT

PAINT PAVEMENT MARKINGS,
CENTERLINE, 4" YELLOW

SCOTT-TROY TRAIL

PAINT PAVEMENT MARKINGS,
SKIP-DASH 3'-9", 4" YELLOW

YIELD
R1-2
18"X18"X18"

219+92.31
9.00' RT

220+02.26
9.00' RT

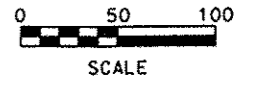
NO MOTOR
VEHICLES
R5-3
24"X24"

YIELD
R1-2
18"X18"X18"

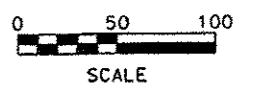
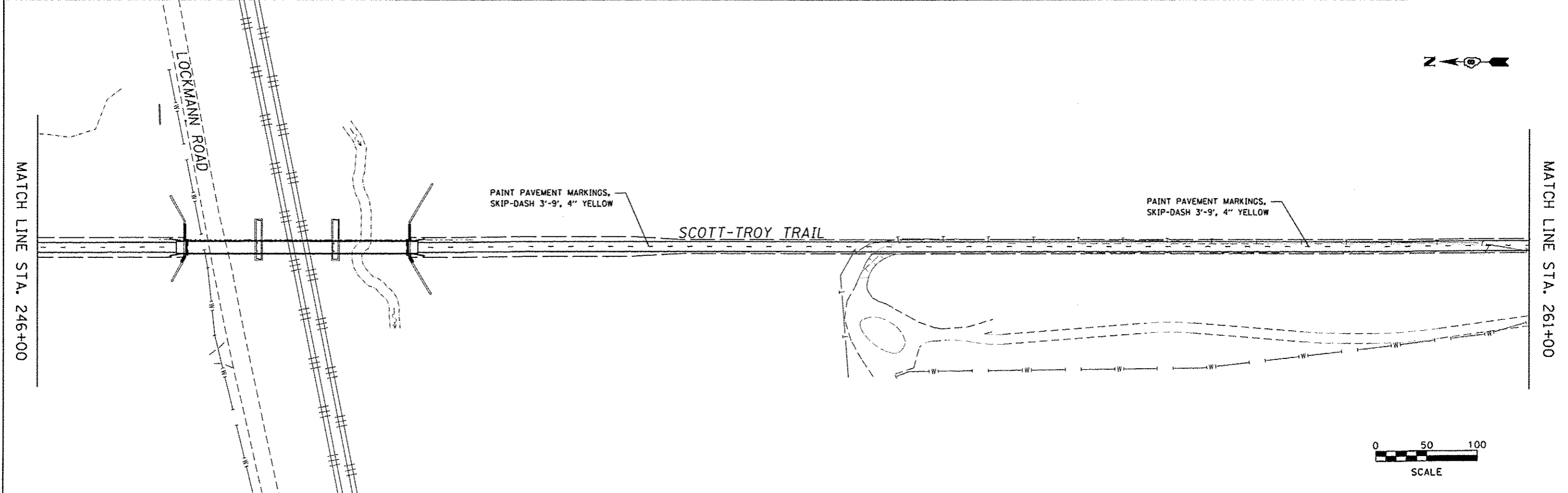
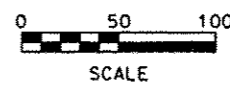
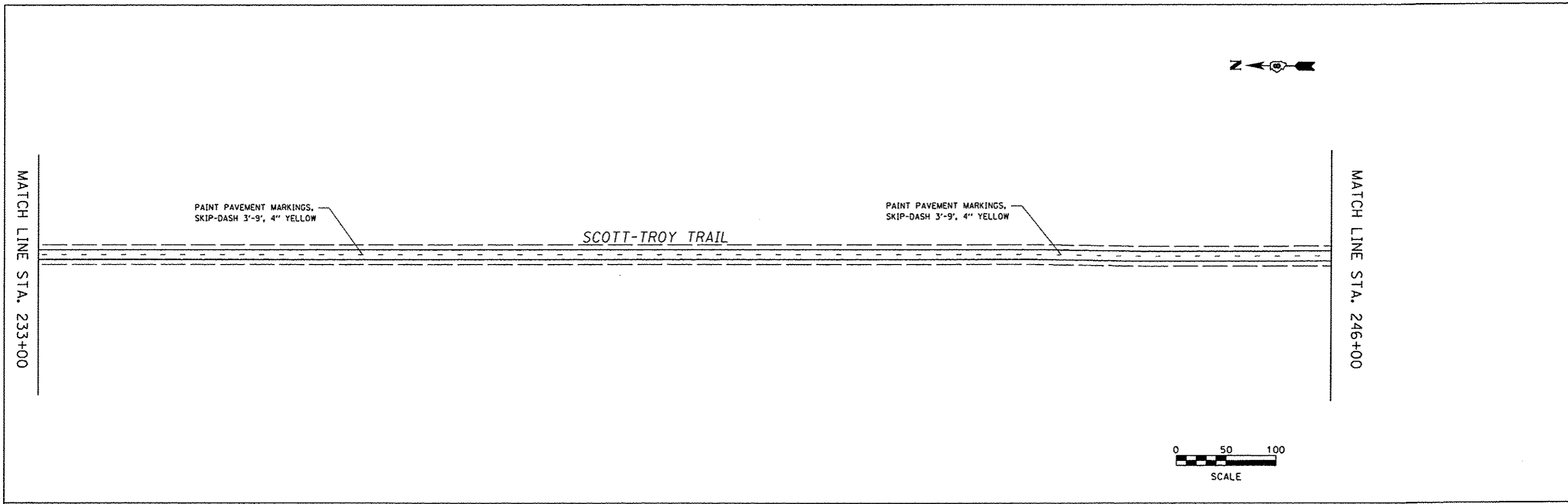
224+58.00
9.00' RT

224+68.00
9.00' RT

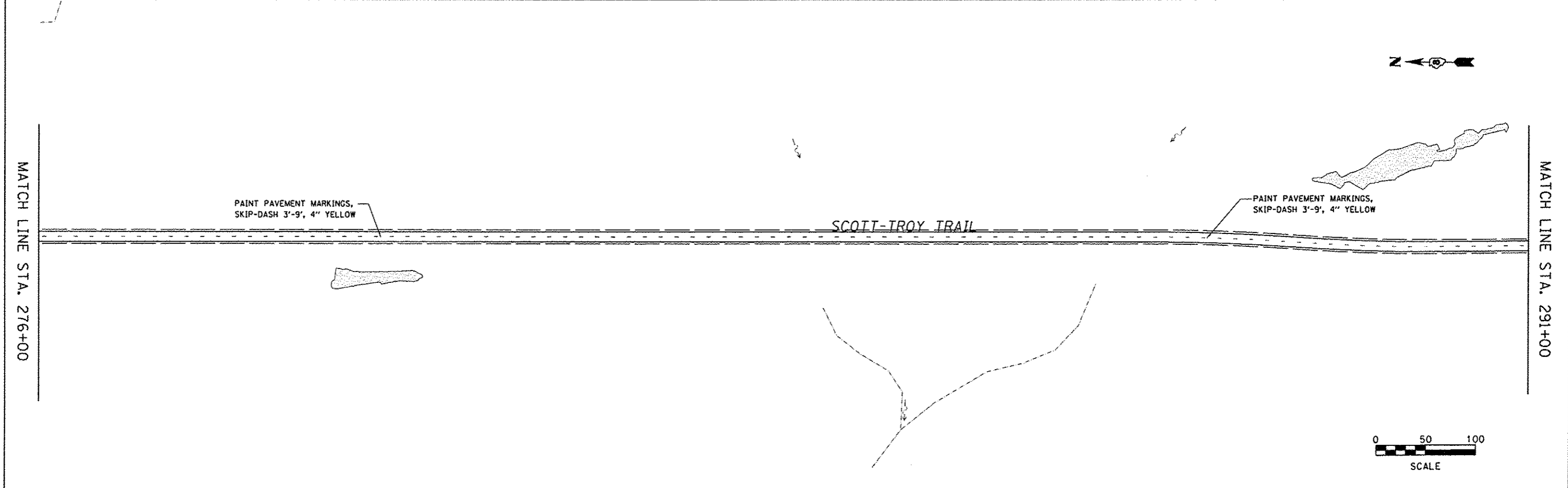
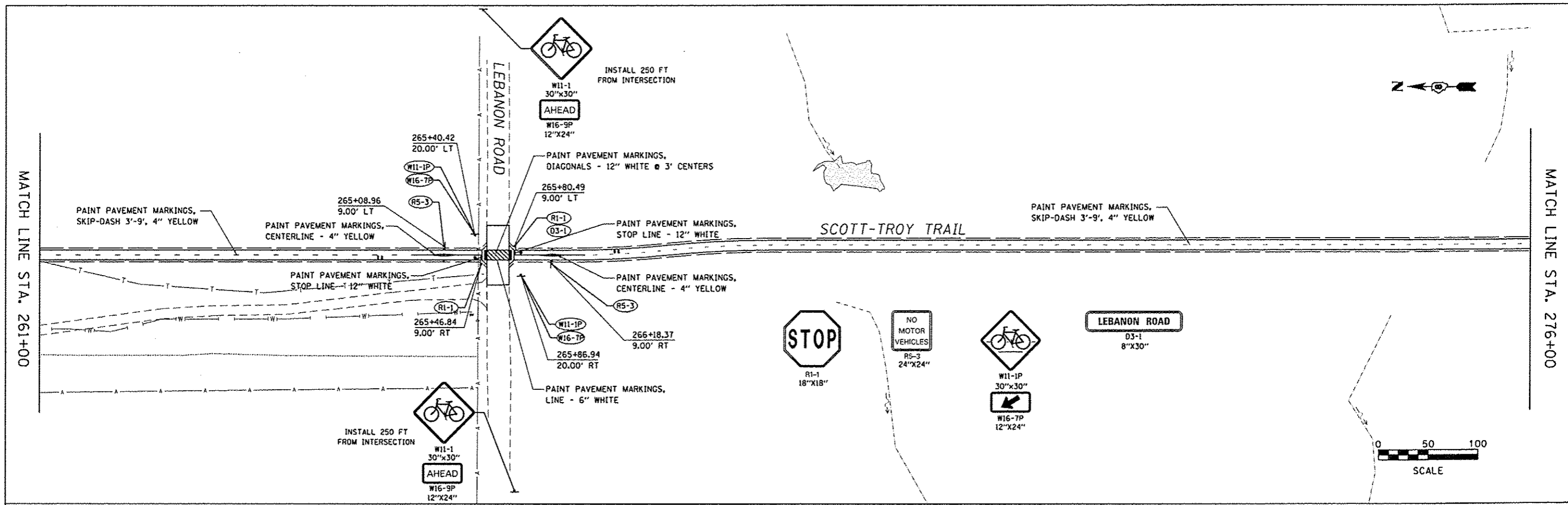
NO MOTOR
VEHICLES
R5-3
24"X24"



FILE NAME * pmark_05.dgn	USER NAME * Scott	DESIGNED - SAS	REVISED -	METRO EAST PARK & RECREATION DISTRICT SCOTT-TROY TRAIL	SIGNAGE & PAVEMENT MARKING SHEETS			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 1/8" = 100' / in.	CHECKED - WJB	REVISED -					06-00001-00-BT	MADISON	335	112	
	PLOT DATE = 7/12/2016	DATE - 11/19/15	REVISED -					CONTRACT NO. 97633				
SCALE: 1" = 50'					SHEET NO. 05 OF 13 SHEETS	STA. 203+00.00 TO STA. 233+00.00	ILLINOIS FED. AID PROJECT					



FILE NAME pmark_06.dgn	USER NAME Scott	DESIGNED SAS	REVISED -	METRO EAST PARK & RECREATION DISTRICT SCOTT-TROY TRAIL	SIGNAGE & PAVEMENT MARKING SHEETS		F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE 1/8" = 50'	CHECKED WJB	REVISED -		SCALE: 1" = 50'	SHEET NO. 06 OF 13 SHEETS	STA. 233+00.00 TO STA. 261+00.00	06-00001-00-BT	MADISON	335	113
	PLOT DATE 7/12/2016	DATE 11/19/15	REVISED -				CONTRACT NO. 97633		ILLINOIS FED. AID PROJECT		



FILE NAME = pmark_07.dgn	USER NAME = Scott	DESIGNED - SAS	REVISED -	METRO EAST PARK & RECREATION DISTRICT SCOTT-TROY TRAIL	SIGNAGE & PAVEMENT MARKING SHEETS		F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
		DRAWN - SAS	REVISED -		SCALE: 1" = 50'		SHEET NO. 07 OF 13 SHEETS	06-00001-00-BT	MADISON	335	114	
		CHECKED - WJB	REVISED -		STA. 261+00.00 TO STA. 291+00.00							
		DATE - 11/19/15	REVISED -		ILLINOIS FED. AID PROJECT							



MATCH LINE STA. 321+00

PAINT PAVEMENT MARKINGS,
SKIP-DASH 3'-9", 4" YELLOW

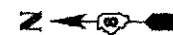
SCOTT-TROY TRAIL

PAINT PAVEMENT MARKINGS,
SKIP-DASH 3'-9", 4" YELLOW

MATCH LINE STA. 336+00



SCALE



MATCH LINE STA. 336+00

336+83.80
9.00' LT
NO MOTOR VEHICLES
R5-3
24"X24"

YIELD
R1-2
18"x18"x18"

336+98.76
9.00' LT

PAINT PAVEMENT MARKINGS,
SKIP-DASH 3'-9", 4" YELLOW

SCOTT-TROY TRAIL

348+37.43
9.00' LT
NO MOTOR VEHICLES
R5-3
24"X24"

YIELD
R1-2
18"x18"x18"

348+52.51
9.00' LT

PAINT PAVEMENT MARKINGS,
SKIP-DASH 3'-9", 4" YELLOW

MATCH LINE STA. 351+00

337+26.47
9.00' RT

YIELD
R1-2
18"x18"x18"

NO MOTOR VEHICLES
R5-3
24"X24"

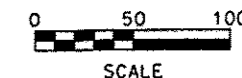
337+41.43
9.00' RT

YIELD
R1-2
18"x18"x18"

348+86.13
9.00' RT

NO MOTOR VEHICLES
R5-3
24"X24"

349+01.09
9.00' RT



SCALE

FILE NAME =
pmark_09.dgn

USER NAME = Scott
PLOT SCALE = 1/80.0000' / in.
PLOT DATE = 7/12/2016

DESIGNED - SAS
DRAWN - SAS
CHECKED - WJB
DATE - 11/19/15

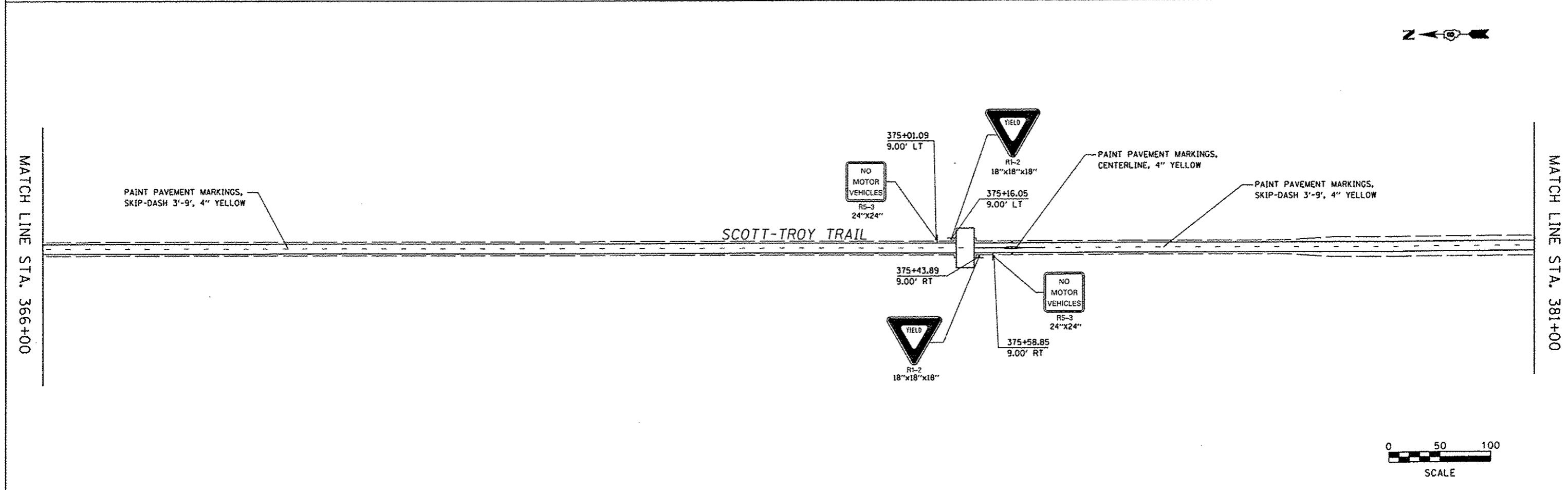
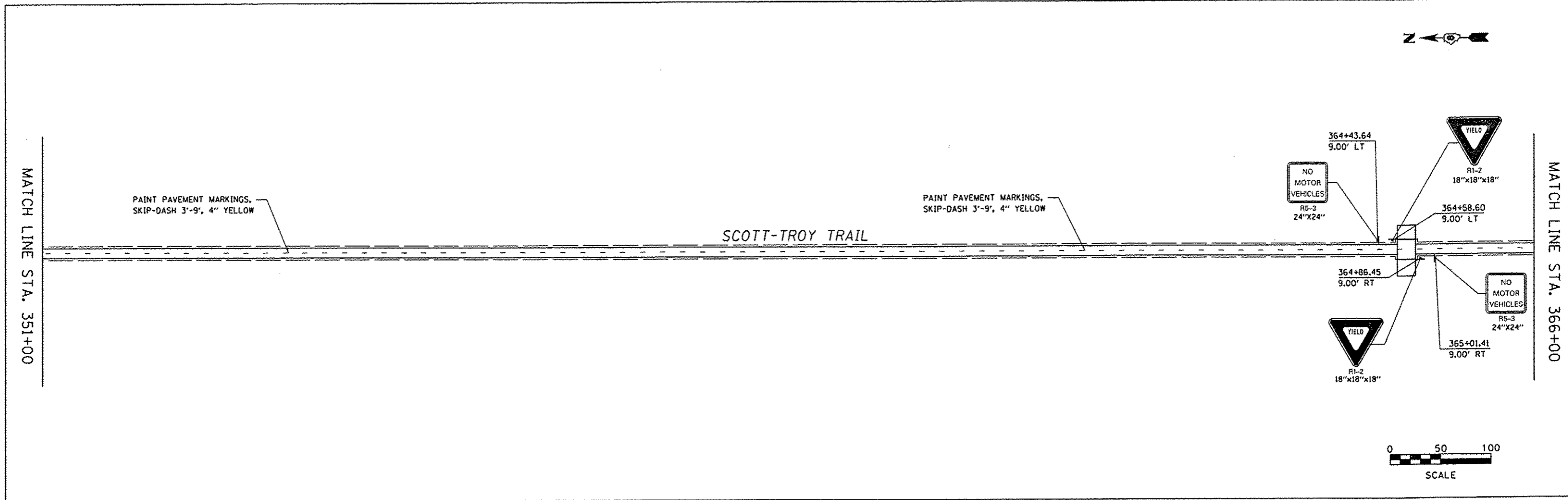
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METRO EAST PARK & RECREATION DISTRICT
SCOTT-TROY TRAIL

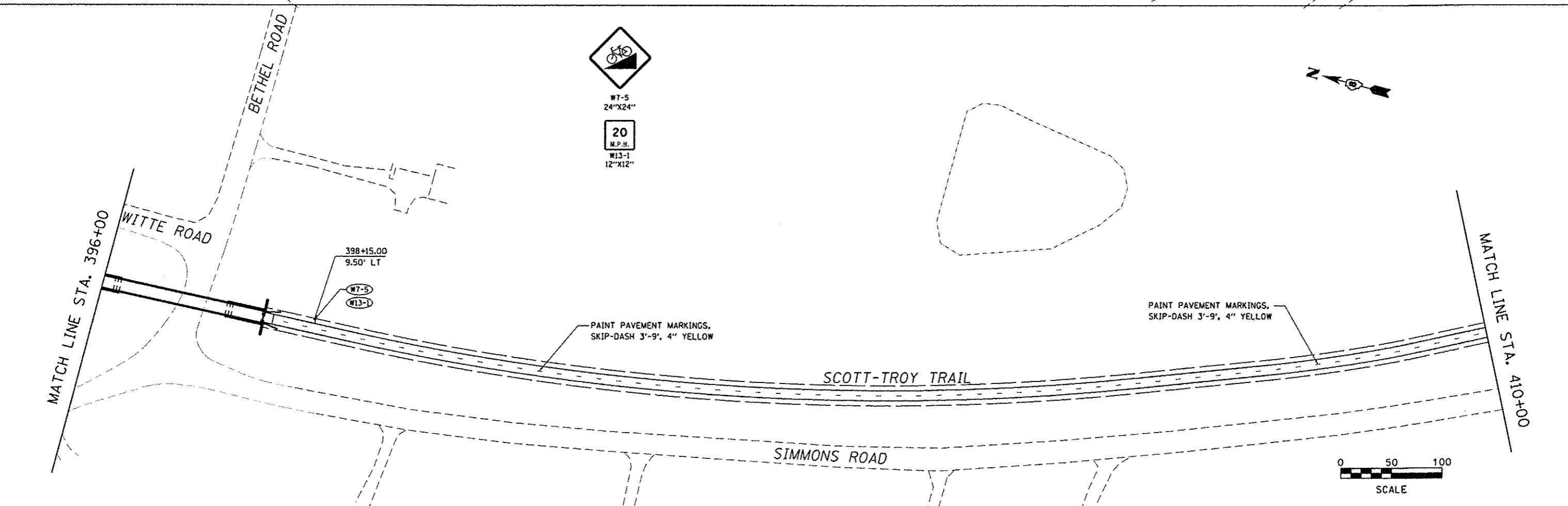
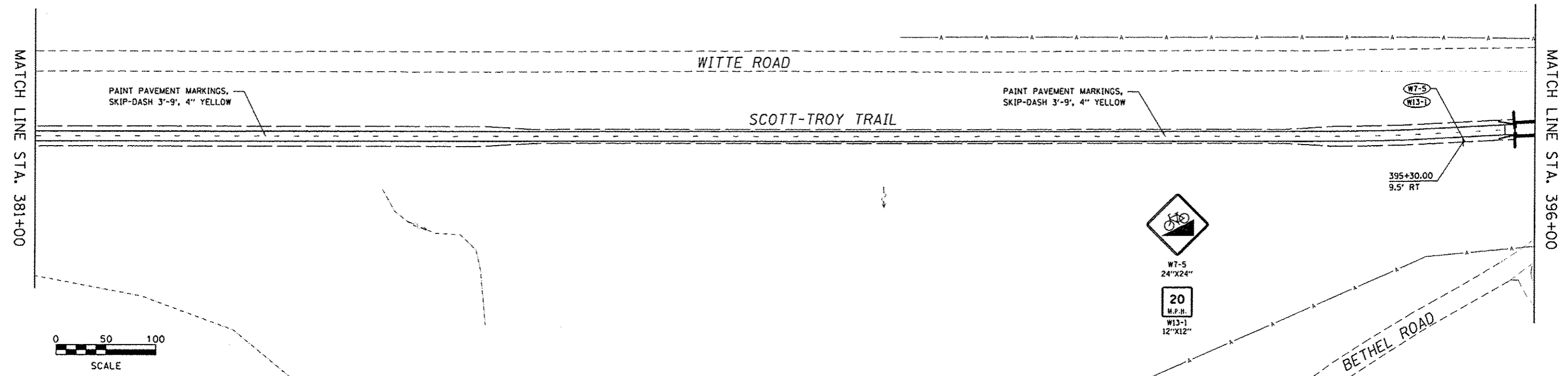
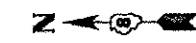
SIGNAGE & PAVEMENT MARKING SHEETS

SCALE: 1" = 50' SHEET NO. 09 OF 13 SHEETS STA. 321+00.00 TO STA. 351+00.00

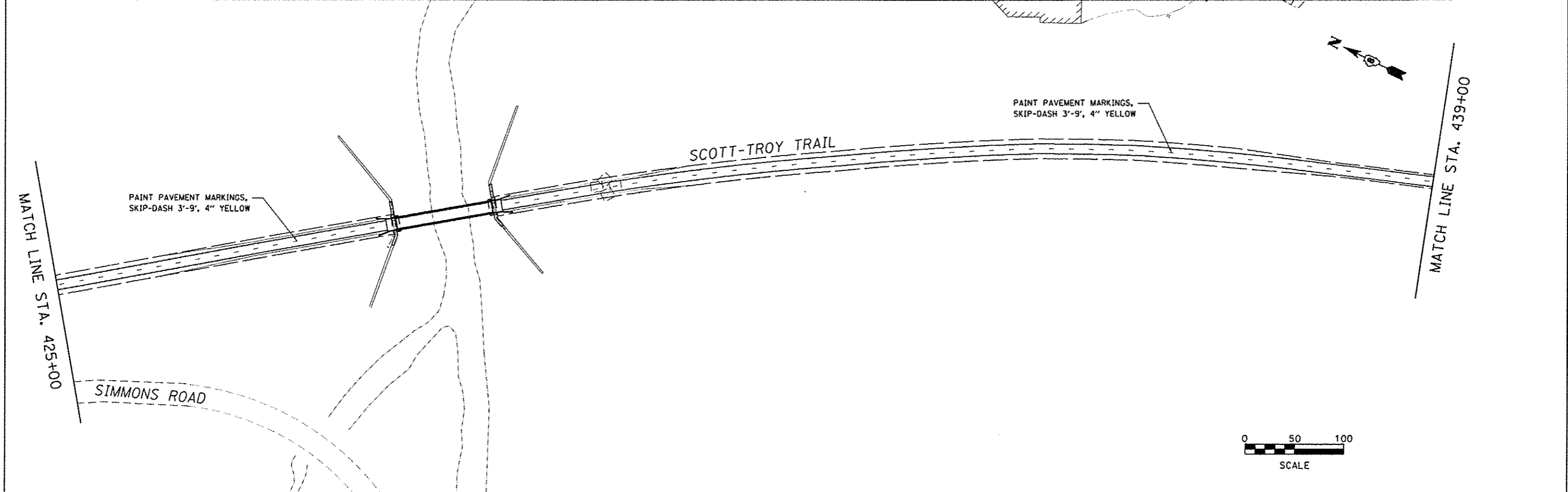
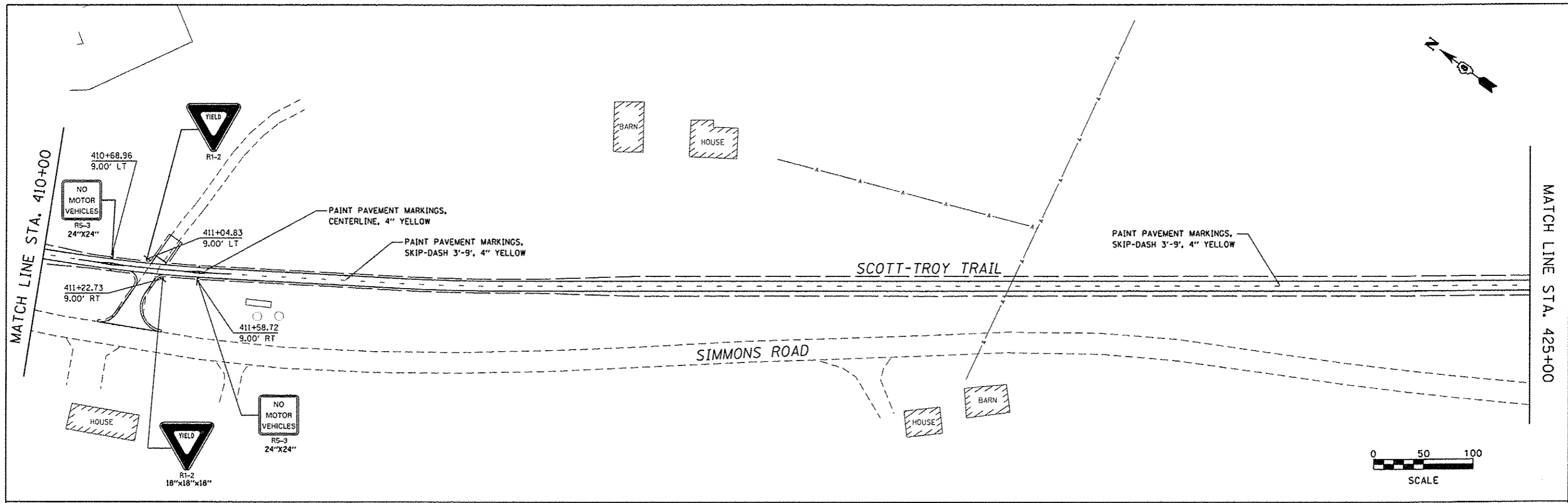
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00001-00-BT	ST. CLAIR	335	116
CONTRACT NO. 97633				
ILLINOIS FED. AID PROJECT				



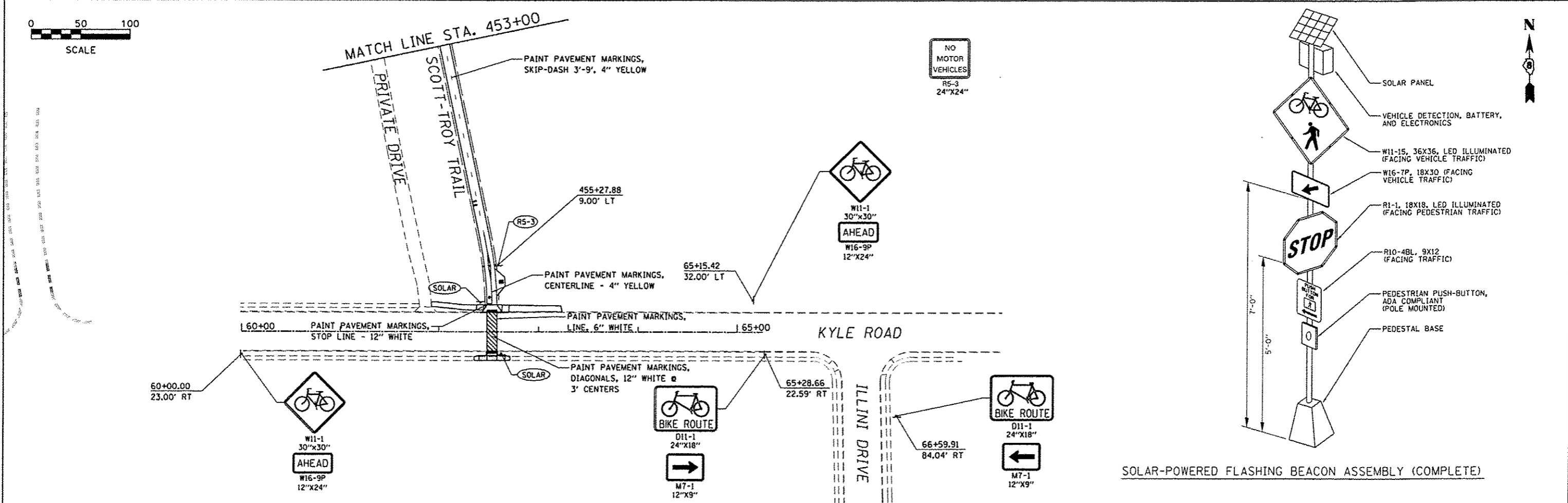
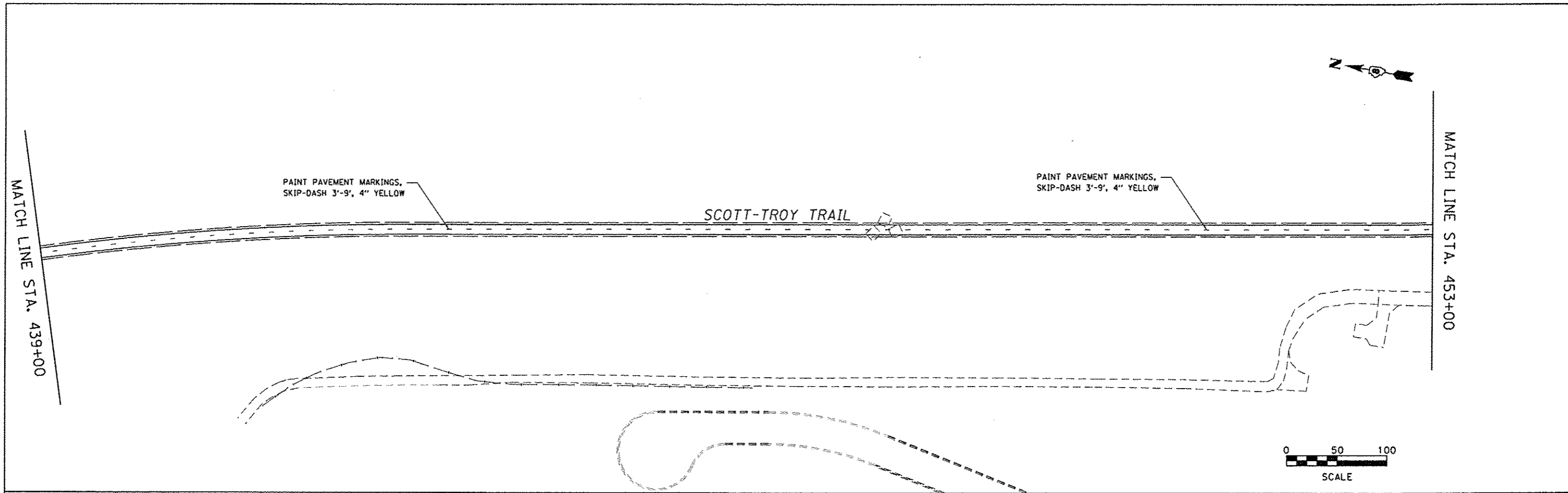
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	PLOT SCALE = 100.0000' / 1" =	DRAWN - SAS	REVISED -					06-00001-00-BT	ST. CLAIR	335	117		
	PLOT DATE = 7/12/2016	CHECKED - WJB	REVISED -		SCALE: 1" = 50'			SHEET NO. 10 OF 13 SHEETS		STA. 351+00.00 TO STA. 381+00.00		CONTRACT NO. 97633	
	DATE - 11/19/15	REVISED -	ILLINOIS FED. AID PROJECT										



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	PLOT SCALE = 1/8"=20' / in.	DRAWN - SAS	REVISED -		06-00001-00-BT	ST. CLAIR		335	118		
PLOT DATE = 7/12/2016	CHECKED - WJB	DATE - 11/19/15	REVISED -	SCALE: 1" = 50'	SHEET NO. 11 OF 13 SHEETS	STA. 381+00.00 TO STA. 410+00.00	CONTRACT NO. 97633				
ILLINOIS FED. AID PROJECT											



FILE NAME * pmark_12.dgn	USER NAME * Scott	DESIGNED - SAS	REVISED -	METRO EAST PARK & RECREATION DISTRICT SCOTT-TROY TRAIL	SIGNAGE & PAVEMENT MARKING SHEETS		F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE * 1/8"=1'-0" @ 1/8" = 1'	DRAWN - SAS	REVISED -		SCALE: 1" = 50'	SHEET NO. 12 OF 13 SHEETS	STA. 410+00.00 TO STA. 439+00.00	06-00001-00-BT	ST. CLAIR	335	119
	PLOT DATE * 7/12/2016	CHECKED - WJB	REVISED -				CONTRACT NO. 97633		ILLINOIS FED. AID PROJECT		
		DATE - 11/19/15	REVISED -								



FILE NAME * pmark_13.dgn	USER NAME * Scott	DESIGNED - SAS	REVISED -	METRO EAST PARK & RECREATION DISTRICT SCOTT-TROY TRAIL	SIGNAGE & PAVEMENT MARKING SHEETS		F.A. RTE.	SECTION 06-00001-00-BT	COUNTY ST. CLAIR	TOTAL SHEETS 335	SHEET NO. 120
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		CHECKED - WJB	REVISED -								
		DATE - 11/19/15	REVISED -								

[ILLINOIS] FED. AID PROJECT

DESIGN SPECIFICATIONS
 2009 AASHTO LRFD Guide Specifications for Design of Pedestrian Bridges
 2012 AASHTO LRFD Bridge Design Specifications 6th Edition with 2013 Interims

LOADING
 Pedestrian Live Load = 90 psf
 Vehicle Live Load = H-10

DESIGN STRESSES
FIELD UNITS
 f'c = 3,500 psi (Concrete)
 fy = 36,000 psi (Structural Steel)
 fy = 60,000 psi (Reinforcement)
 fy = 45,000 psi (Bolts, nuts, etc.)

PRECAST CONCRETE
 f'c = 6,000 psi
 f'ci = 5,000 psi
 f's = 270,000 psi (1/2" ϕ Strands)
 f'si = 201,960 psi (1/2" ϕ Strands)

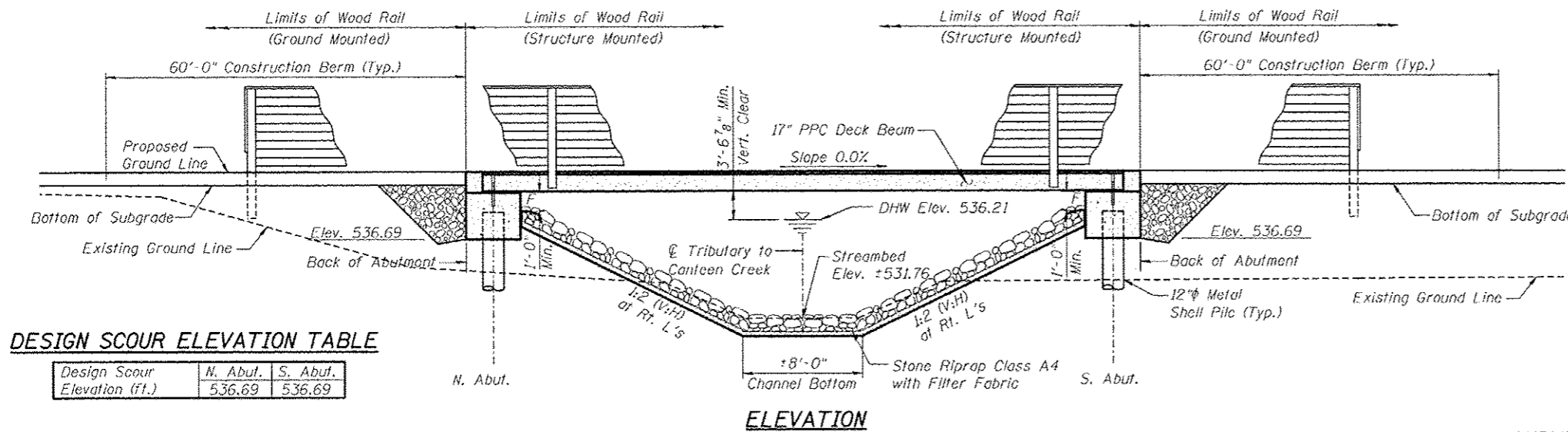
Design stresses for wood members shall be as specified in Section 1007 of the IDOT Standard Specifications.

SEISMIC DATA

Seismic Performance Zone (SPZ) = 2
 Design Spectral Acceleration at 1.0 sec. (S_{D1}) = 0.240g
 Design Spectral Acceleration at 0.2 sec. (S_{D5}) = 0.523g
 Soil Site Class = D

CURVE DATA

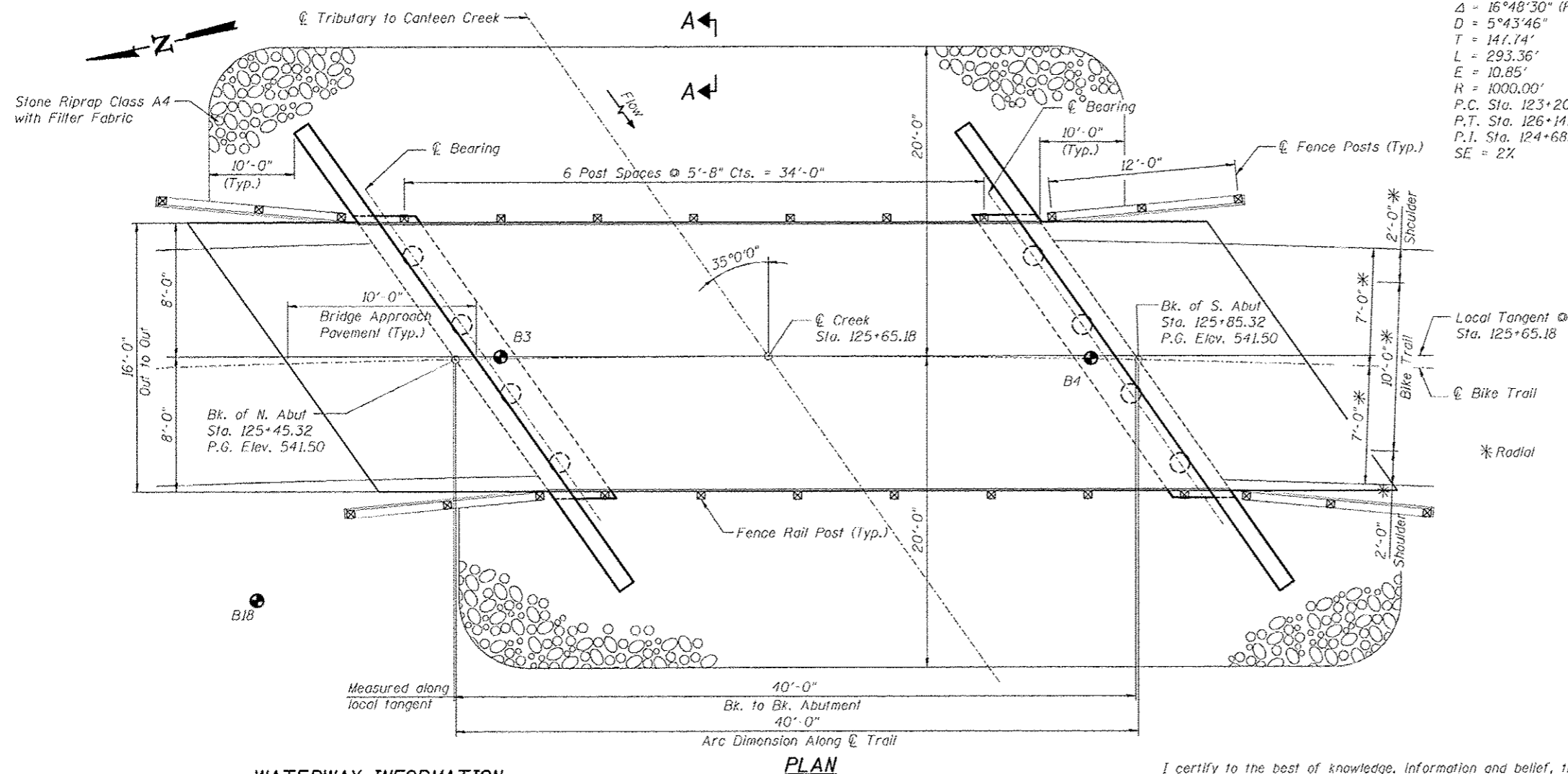
$\Delta = 16^\circ 48' 30''$ (RT)
 D = $5^\circ 43' 46''$
 T = 147.74'
 L = 293.36'
 E = 10.85'
 R = 1000.00'
 P.C. Sta. 123+20.88
 P.T. Sta. 126+14.24
 P.I. Sta. 124+68.62
 SE = 2%



DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	N. Abut.	S. Abut.
	536.69	536.69

ELEVATION

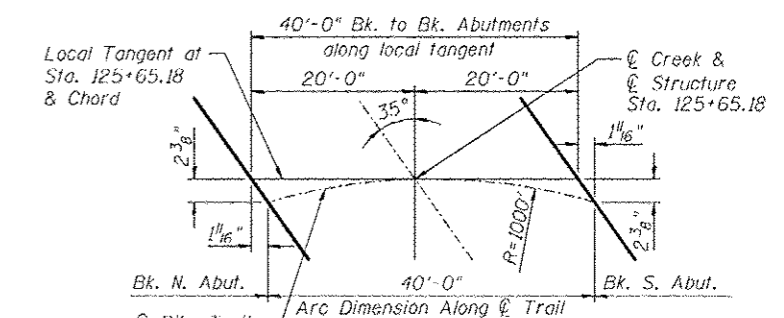


PLAN

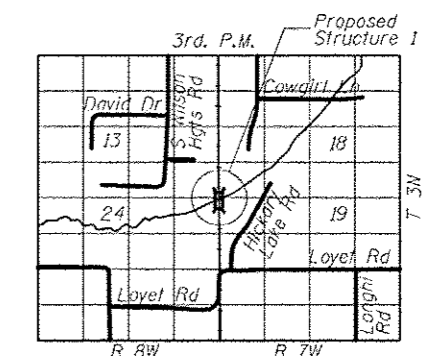
WATERWAY INFORMATION

Drainage Area = 0.56 Sq. Mi. Low Grade Elev. 541.5 @ Sta. 125+40.00

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Head - Ft.		Headwater El.		
			Exist.	Prop.	H.W.E.	Exist.	Prop.	Exist.	Prop.
Design	10	330	N/A	190.57	535.65	N/A	0.25	N/A	535.90
Base	50	524	N/A	248.67	536.21	N/A	0.45	N/A	536.66
Overtopping	100	608	N/A	271.46	536.41	N/A	0.54	N/A	536.95
Max. Calc.	500	811	N/A	326.23	536.84	N/A	0.78	N/A	537.62



OFFSET DETAIL



LOCATION SKETCH

Note:

For Section A-A, see Sheet 2 of 12.

For General Notes and Total Bill of Material, see Sheet 2 of 12.

For Profile Grade, see Sheet 2 of 12.

I certify to the best of knowledge, information and belief, this bridge 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 Standard Specification for Highway Bridges.



Wesley W. Herndon 7/13/16
 WESLEY W. HERNDON, S.E. DATE

Expires 11-30-16

1 OF 12 SHTS

REVISIONS				SCALE:	
NO.	DATE	BY	REMARKS	NOT TO SCALE, FOLLOW DIMENSIONS	
				DSN BY: DB	DATE: 04/18/2016
				DWN BY: ER	DATE: 04/18/2016
				CHK'D: NK	DATE: 04/20/2016
DGN NAME:				JOB NO. E074404	CONTRACT NO. 97633 OF 335 SHTS

Juneau Associates, Inc. P.C.
 CONSULTING ENGINEERS AND LAND SURVEYORS
 2700 State St., 100 North Broadway St., 705 N. Lincoln St., Ste 200
 Grand Rapids, MI 49503 / Grand Rapids, MI 49503 / Grand Rapids, MI 49503
 Phone: (616) 941-1400 / Phone: (616) 941-1400 / Phone: (616) 941-1400
 Fax: (616) 941-1400 / Fax: (616) 941-1400 / Fax: (616) 941-1400
 Registered Professional Service Corporation License No. 384-001394

SCOTT TROY BIKE TRAIL OVER TRIBUTARY TO CANTEEN CREEK MADISON COUNTY STATION 125+65.18 STRUCTURE NO. 1

121

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Notes

Reinforcement bars designated (E) shall be epoxy coated.

Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.

The embankment configuration shown shall be the minimum that must be placed and compacted prior to construction of the abutments.

Any necessary channel excavation shall be considered incidental to Structure Excavation.

Treated timber shall be according to Sections 507 and 1007 of the Standard Specifications. Wood members shall be visually graded No. 1 Southern Pine or No. 2 Douglas Fir-Larch or approved equivalent.

Holes for all hardware shall be predrilled to avoid splitting.

Bolt holes in lumber shall be in accordance with Article 507.08 of the Standard Specifications.

All lumber dimensions shown are nominal dimensions in inches.

Lumber shall be surfaced four sides.

All dimensions are shown in inches unless otherwise noted.

All hardware including bolts, screws nails etc. shall be stainless steel in accordance with Article 1006.29(d) of the Standard Specifications.

All Structural Steel including angles, steel tubing and plates shall conform to AASHTO M270 in accordance with Article 1006.4 and shall be hot dipped galvanized according to AASHTO M232.

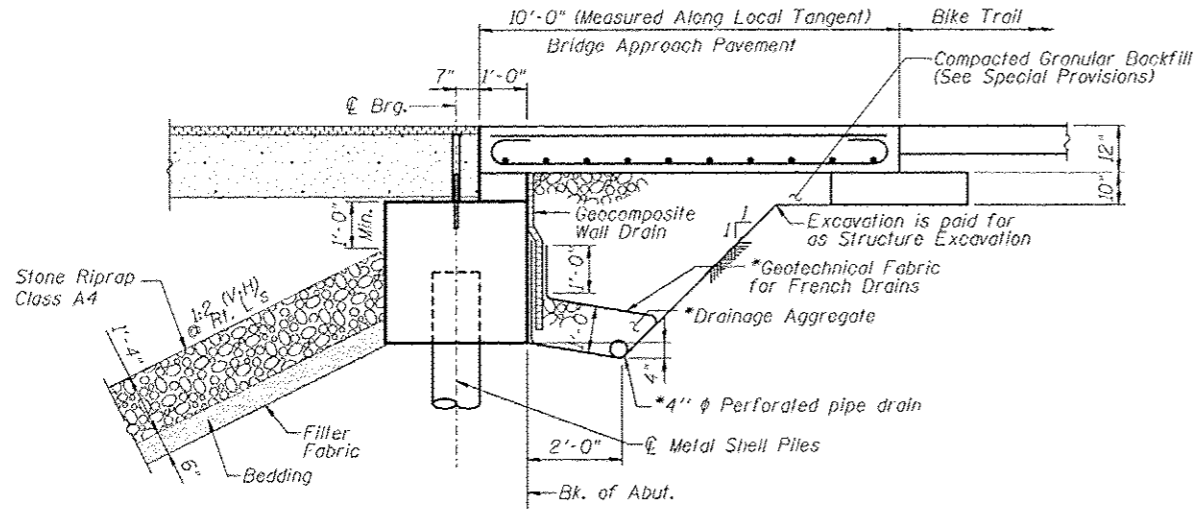
All caulking material shall be a waterproof, non-hardening exterior compound capable of providing a water, dust, and insect proof seal.

See Bikeway Plans for underground utility locations.

See Bikeway Plans for profile grade of trail.

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Stone Rip Rap, Class A4	Sq. Yd.	203
Filter Fabric	Sq. Yd.	203
Hot Mix Asphalt Surface Course, Mix C N50	Ton	6
Structure Excavation	Cu. Yd.	76
Concrete Structures	Cu. Yd.	34.4
Precast Prestressed Concrete Deck Beams (17" Depth)	Sq. Ft.	601
Reinforcement Bars, Epoxy Coated	Pound	4840
Furnishing Metal Shell Piles, 12"x0.25"	Foot	204
Driving Piles	Foot	204
Test Pile Metal Shells	Each	2
Pile Shoes	Each	8
Waterproofing Membrane System	Sq. Yd.	67
Portland Cement Mortar Fairing Course	Foot	113
Geocomposite Wall Drain	Sq. Yd.	28
Granular Backfill for Structures	Cu. Yd.	40
Pipe Underdrain For Structures, 4 in.	Foot	99
Wood Rail	Foot	131



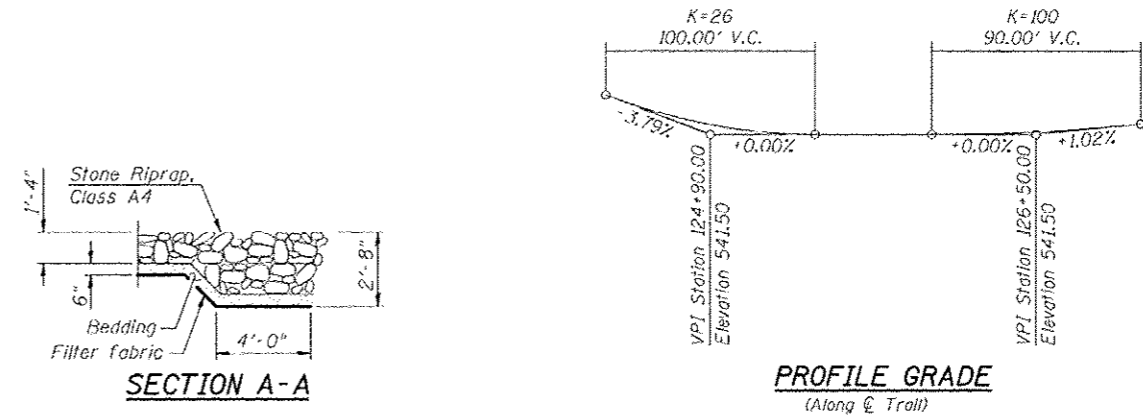
SECTION THRU ABUTMENT

(Horiz. dim. @ RL. L's)

*Included in the cost of Pipe Underdrains for Structures. (See Special Provisions)

Note:

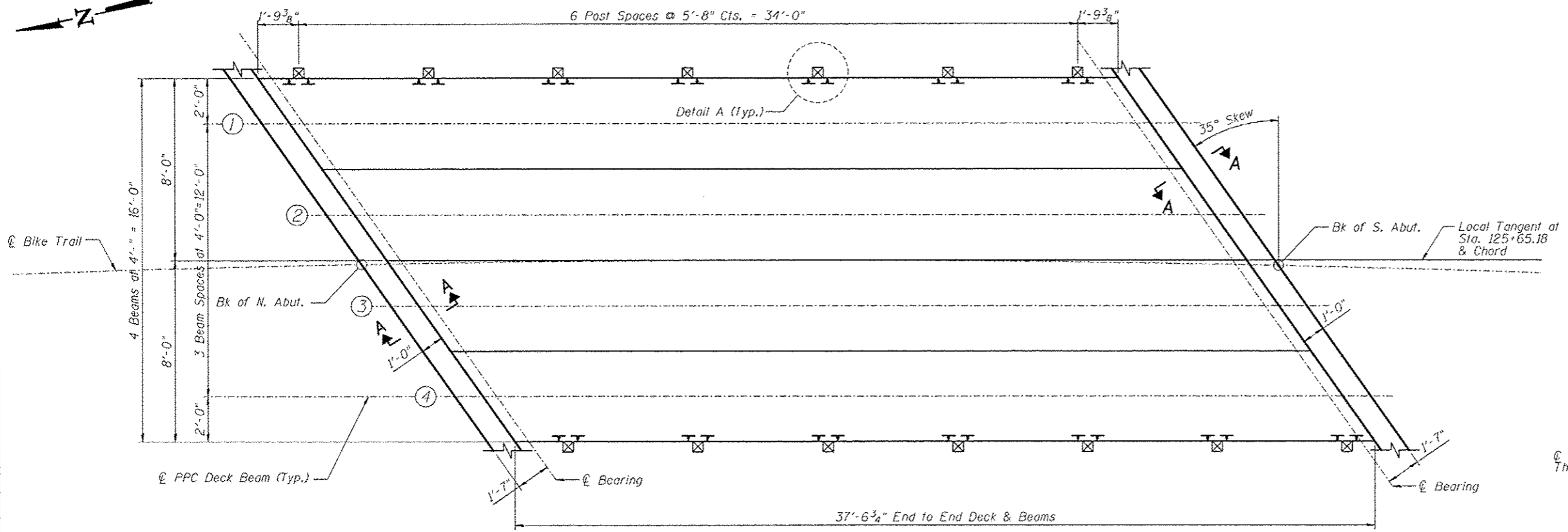
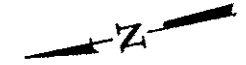
All drainage system components shall extend parallel to the abutment back wall until they intersect the wingwalls or 2'-0" from the end of the wingwalls when the wings are parallel to the abutment. The pipe shall extend under the wingwall, if necessary, until intersecting the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).



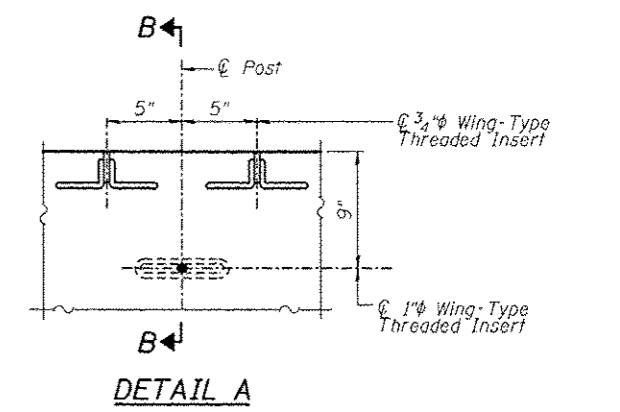
PROFILE GRADE

(Along & Trail)

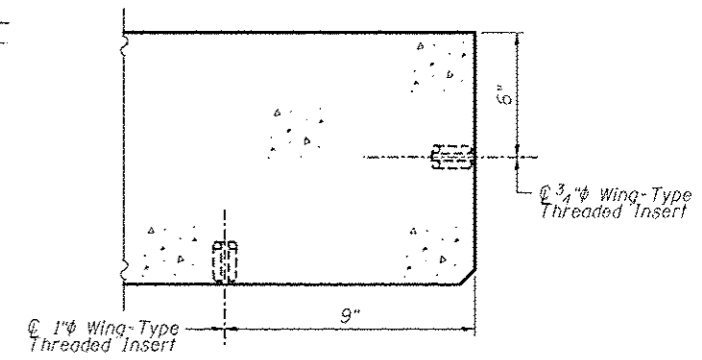
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				CHKD:	NK DATE: 04/20/2016
DGN NAME:				JOB NO. E074404	CONTRACT NO. 07633 OF 335 SHTS



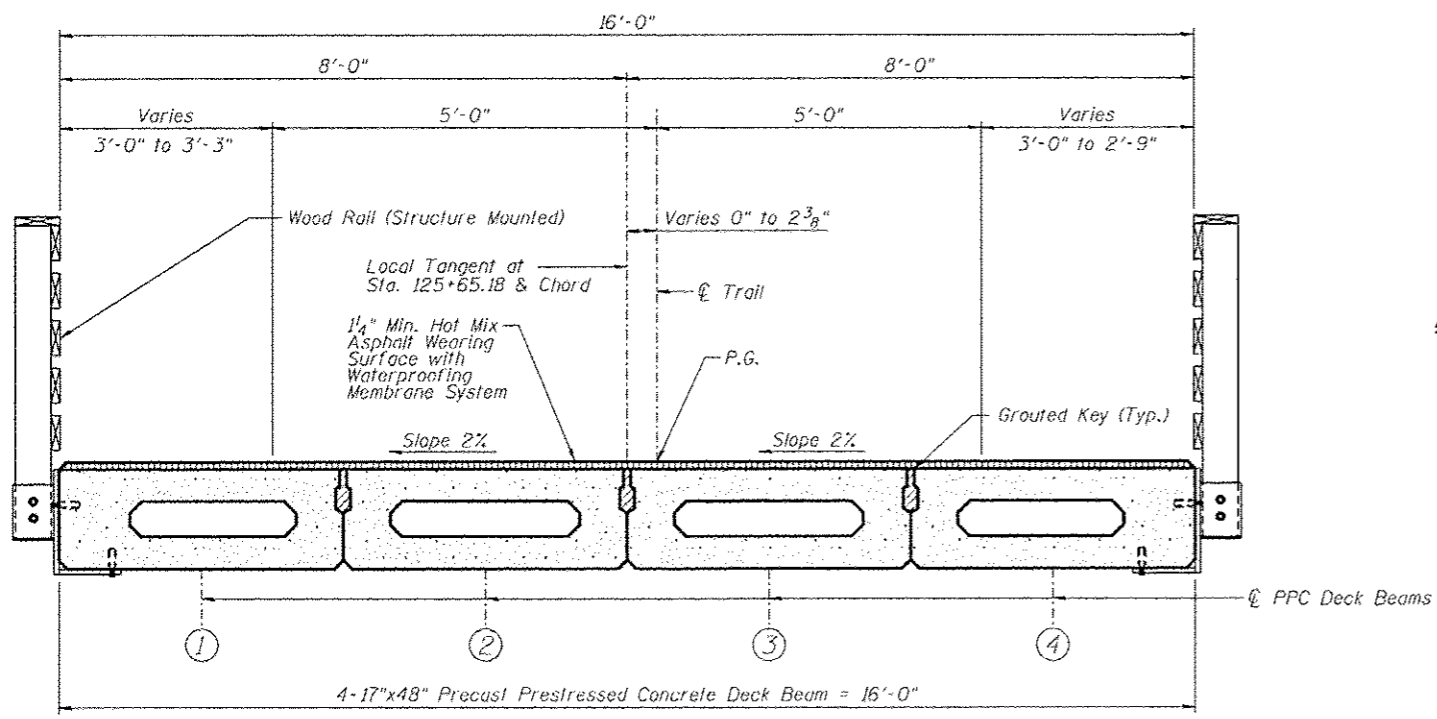
SUPERSTRUCTURE PLAN



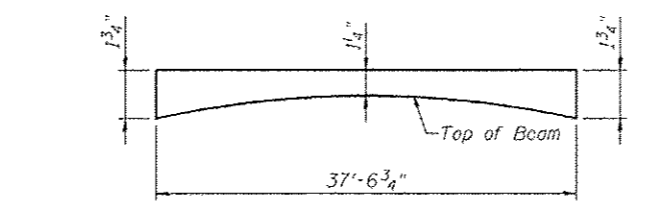
DETAIL A



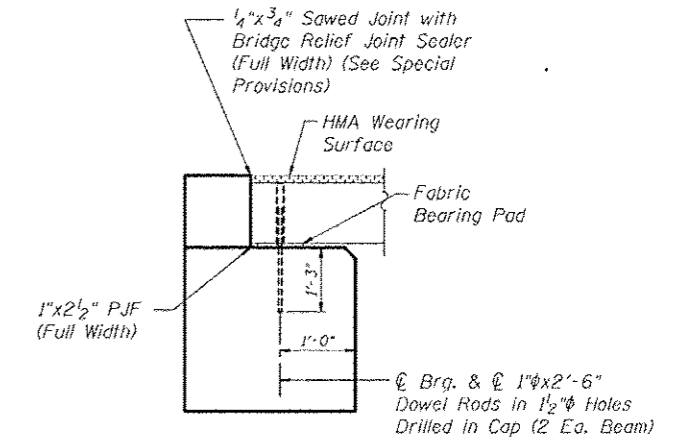
SECTION B-B



CROSS SECTION
(Looking South)



ANTICIPATED HMA WEARING SURFACE PROFILE
(For Information Only)



SECTION A-A

Notes:

Wing-Type Threaded Inserts shall be tapped for 3/4"φ or 1"φ H.S. bolts as specified in the plans or approved equal.

3/4"φ Wing-Type Threaded Inserts shall consist of an F-62 Flared Thin Slab Ferrule Insert, 3/4"φ bolt X 3 5/8" high, Electro-Galvanized finish by Dayton Superior, or approved equal with a minimum allowable tension capacity of 2,200 Lbs. and a minimum allowable shear capacity of 2,200 Lbs.

1"φ Wing-Type Threaded Inserts shall consist of an F-62 Flared Thin Slab Ferrule Insert, 1"φ bolt X 4 5/8" high, Electro-Galvanized finish by Dayton Superior, or approved equal with a minimum allowable tension capacity of 4,400 Lbs. and a minimum allowable shear capacity of 4,400 Lbs.

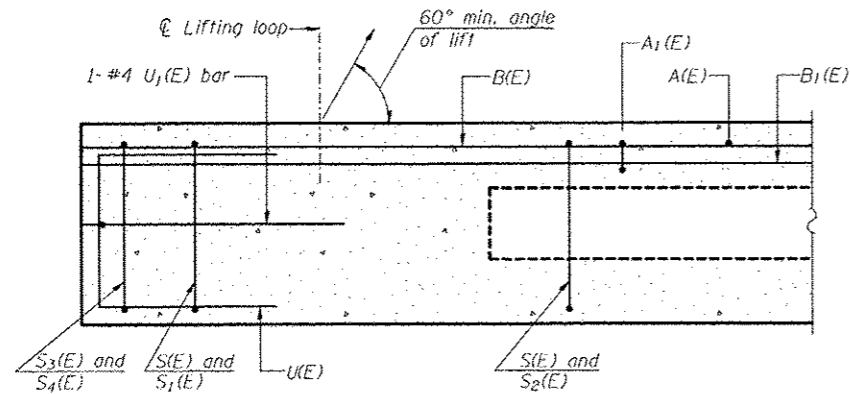
Notes:

For PPC Deck Beam Details - Beams 1 & 4, See Sheet 4 & 5.

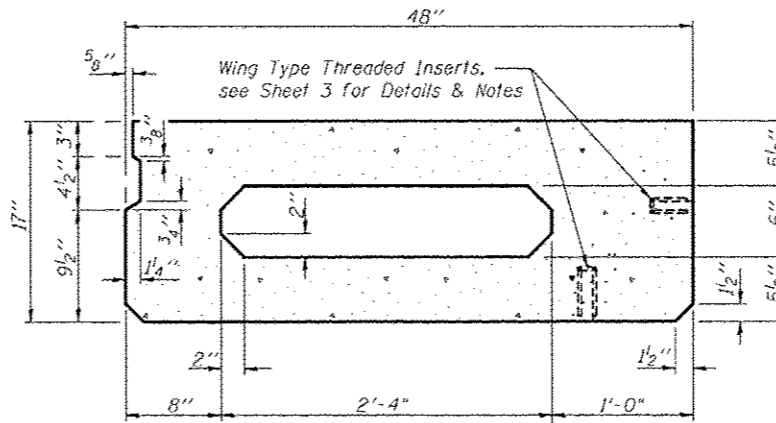
For PPC Deck Beam Details - Beams 2 & 3, See Sheet 6 & 7.

For Wood Rail Details, See Sheet 12.

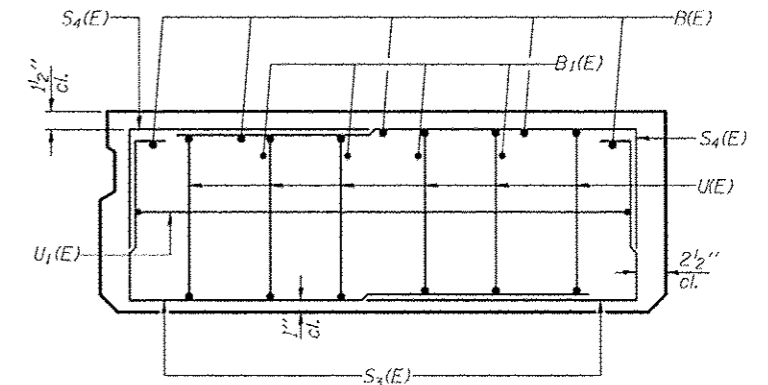
SUPERSTRUCTURE PLAN & CROSS SECTION											
<p>Juneau Associates, Inc. P.C. CONSULTING ENGINEERS AND LAND SURVEYORS 5100 State St., Juneau, Alaska 99801 Phone: (907) 586-1100 Fax: (907) 586-1101 Toll Free: (800) 541-1100</p>		<p>SCOTT TROY BIKE TRAIL OVER TRIBUTARY TO CANTEEN CREEK MADISON COUNTY STATION 125+65.18 STRUCTURE NO. 1</p>									
<p>REVISIONS</p> <table border="1"> <thead> <tr> <th>NO.</th> <th>DATE</th> <th>BY</th> <th>REMARKS</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>		NO.	DATE	BY	REMARKS					<p>SCALE: NOT TO SCALE, FOLLOW DIMENSIONS</p>	
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<p>3 OF 12 SHTS</p>		<p>DWN. BY: ER DATE: 04/18/2016 123</p>									
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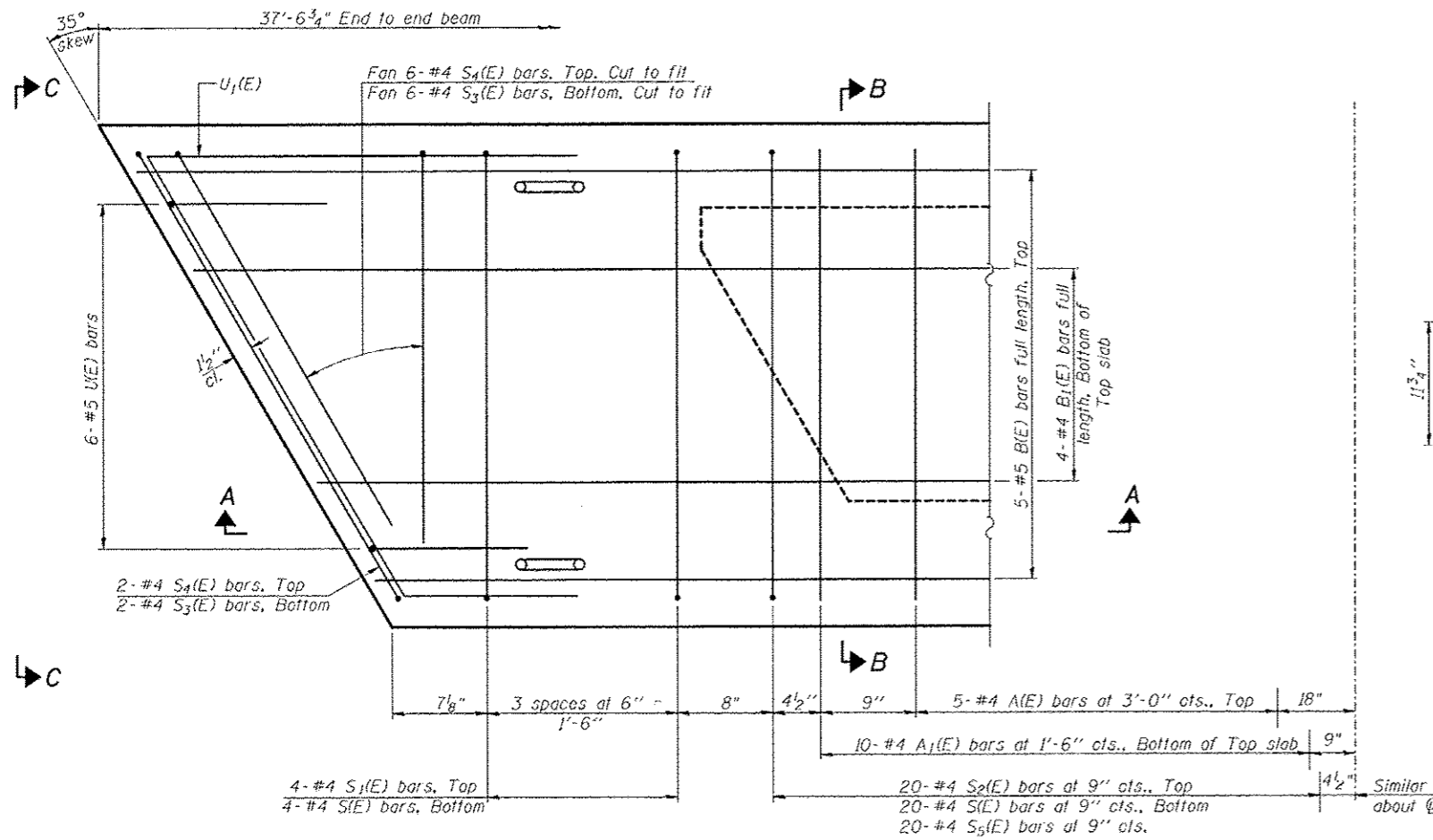
SECTION A-A



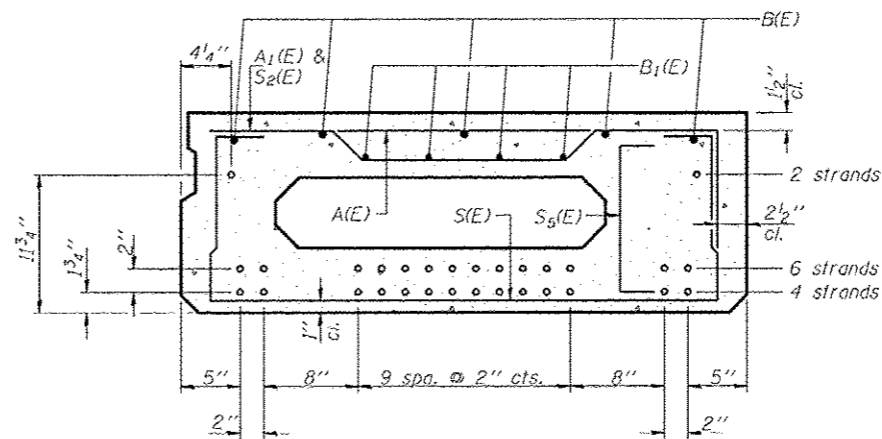
SECTION B-B
(Showing dimensions)



VIEW C-C



PLAN VIEW



SECTION B-B
(Showing reinforcement and permissible strand locations)

Note: Place the number of strands specified in each row symmetrically about the centerline of beam in the permissible strand locations shown.

BAR LIST
ONE BEAM ONLY
(For information only)

Bar	No.	Size	Length	Shape
A1(E)	10	#4	3'-7"	—
A1(E)	20	#4	3'-10"	—
B1(E)	5	#5	37'-3"	—
B1(E)	1	#4	37'-3"	—
S1(E)	48	#4	6'-9"	⌋
S1(E)	8	#4	5'-3"	⌋
S2(E)	40	#4	5'-6"	⌋
S3(E)	12	#4	5'-8"	⌋
S4(E)	12	#4	4'-11"	⌋
S5(E)	10	#4	2'-3"	⌋
U(E)	12	#5	3'-8"	⌋
U1(E)	2	#4	9'-4"	⌋

Note: See sheet 5 of 12 for additional details and Bill of Material.

Note: Spacing of S1(E), S2(E) and S3(E) bars may be adjusted up to 4" in the immediate area of the transverse tie diaphragms to miss the block outs for the transverse ties.

MINIMUM BAR LAP

#4 bar = 1'-11"
#5 bar = 2'-6"

17"X48" PPC DECK BEAM DETAILS - BEAMS 1 & 4

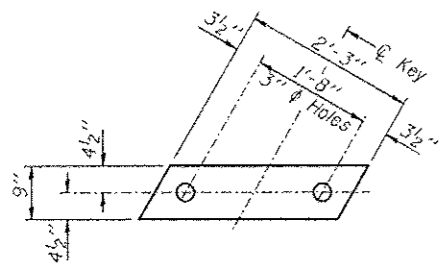
Juneau Associates, Inc. P.C.
CONSULTING ENGINEERS AND LAND SURVEYORS
7100 State St., Juneau, Alaska 99801
Phone: (907) 586-1100 Fax: (907) 586-1102
Registered Professional Service Corporation License No. 184-00181

SCOTT TROY BIKE TRAIL
OVER TRIBUTARY TO CANTREEN CREEK
MADISON COUNTY
STATION 125+65.18
STRUCTURE NO. 1

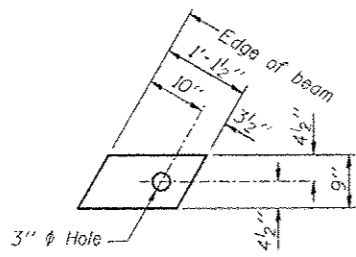
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				CHKD:	NK DATE: 04/20/2016
DGN NAME:				JOB NO.	E074404 CONTRACT NO. 97633 OF 335 SHTS

4 OF 12 SHTS

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FABRIC BEARING PAD
(Interior)

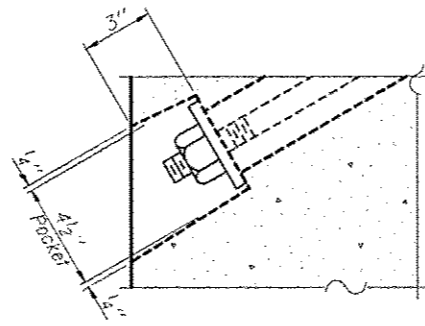


FABRIC BEARING PAD
(Exterior)

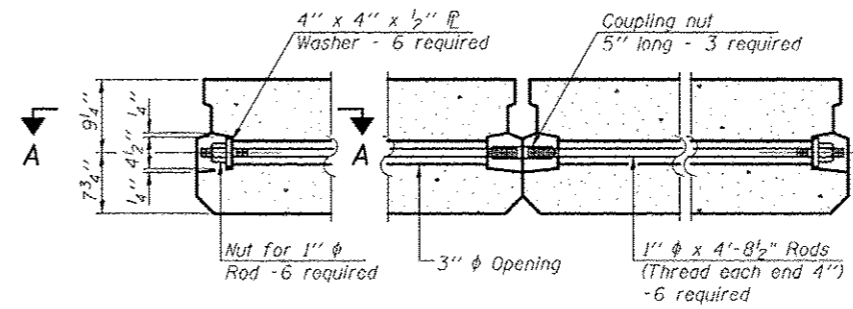
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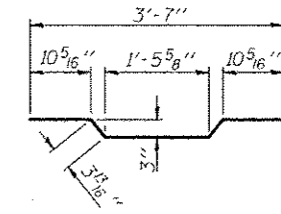
All bearing pads shall be 1" thick.
Omit holes when using expansion bearings.
Expansion bearing pad shall be bonded to the substructure.



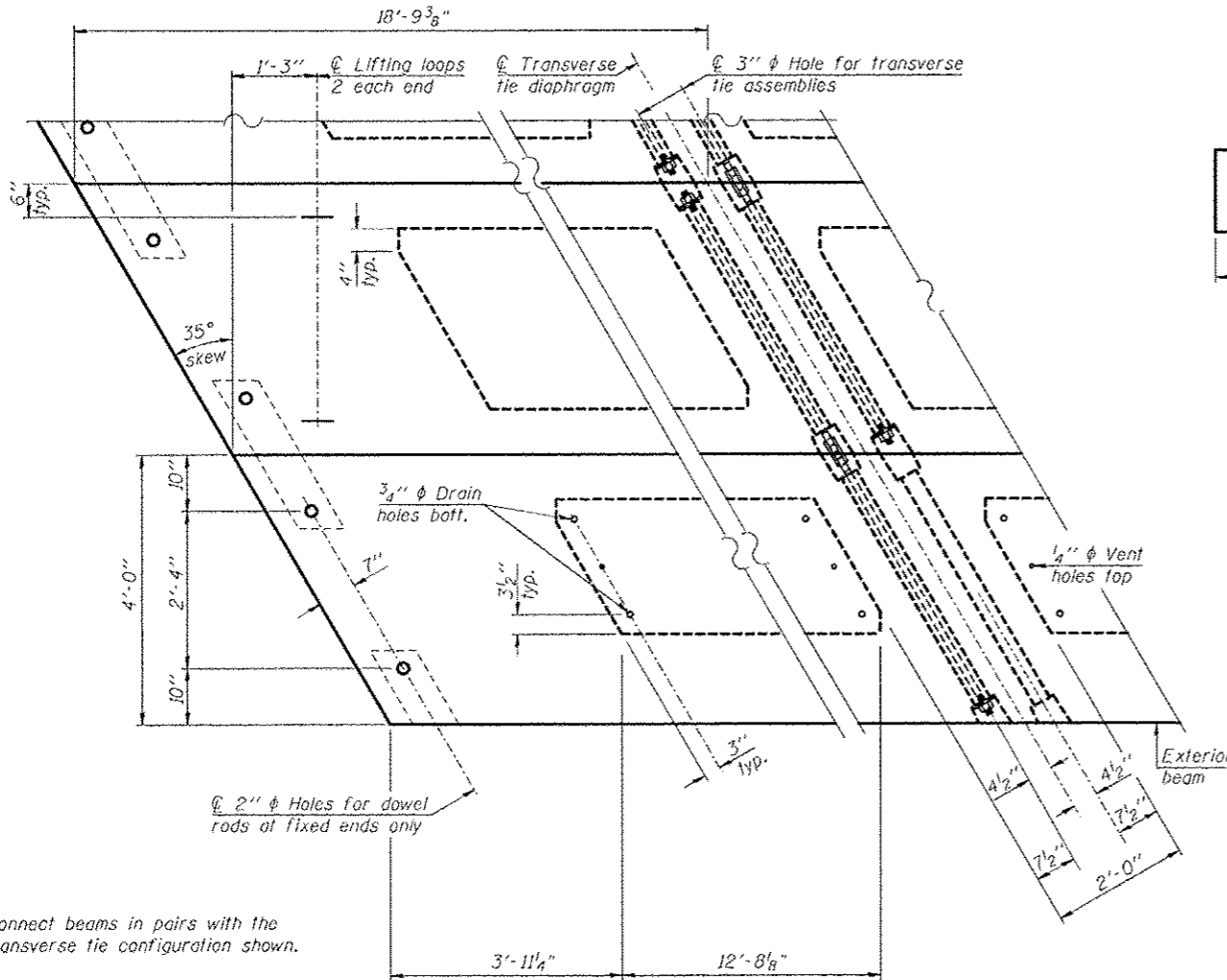
SECTION A-A



TYPICAL TRANSVERSE TIE ASSEMBLY



BAR A1(E)

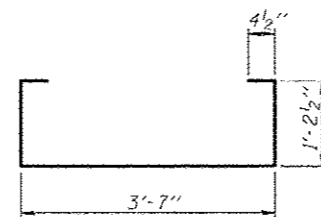


PLAN VIEW

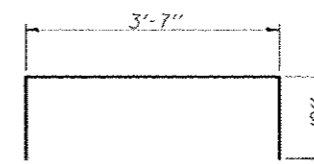
Note: Connect beams in pairs with the transverse tie configuration shown.

NOTES

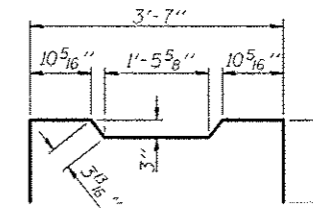
Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in. The 1" phi rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets on exterior faces of bridge shall be filled with grout after transverse tie assembly is in place.
Reinforcement bars shall conform to ASTM A 706, Grade 60. (See Special Provisions).
Two 1/2" fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location.
A minimum 2 1/2" phi lifting pin shall be used to engage the lifting loops during handling.
Corrosion Inhibitor, per Article 1020.05(b)(12) and 1021.06 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.
Compressive strength of prestressed concrete, f'c, shall be 6000 psi.
Compressive strength of prestressed concrete at release, f'ci, shall be 5000 psi.



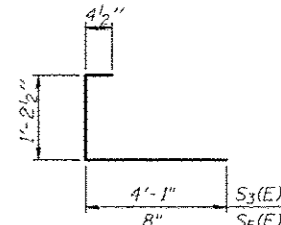
BAR S(E)



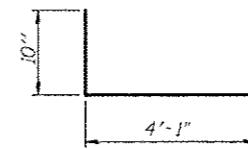
BAR S1(E)



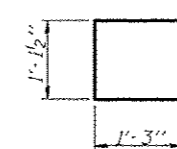
BAR S2(E)



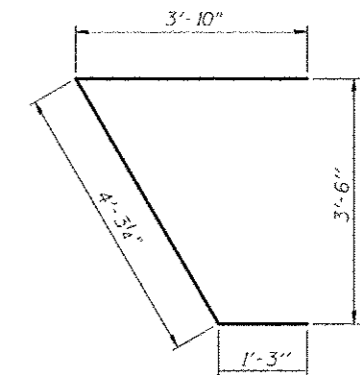
BAR S3(E) & S5(E)



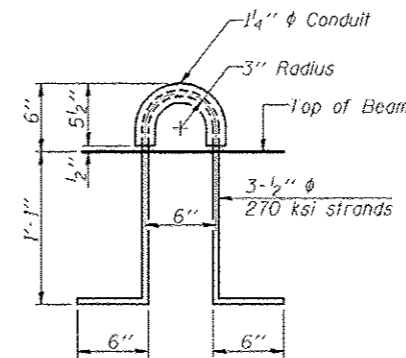
BAR S4(E)



BAR U(E)



BAR U1(E)



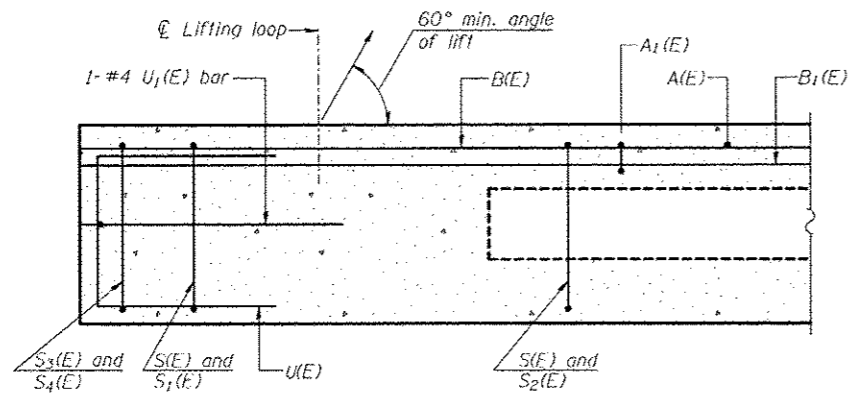
LIFTING LOOP DETAIL

BILL OF MATERIAL

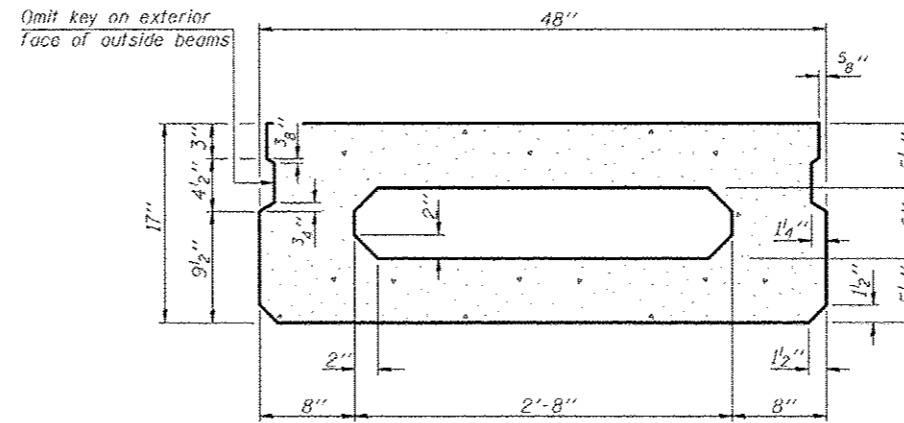
Precast Prestressed Conc. Deck Bms. (17" depth)	Sq. Ft.	601
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17"X48" PPC DECK BEAM DETAILS - BEAMS 1 & 4											
<p>Juneau Associates, Inc. P.C. CONSULTING ENGINEERS AND LAND SURVEYORS 2100 State St., Juneau, Alaska 99801 Phone: (907) 586-1400 / Fax: (907) 586-1400 E-mail: juneau@juneauassoc.com</p>		<p>SCOTT TROY BIKE TRAIL OVER TRIBUTARY TO CANTEEN CREEK MADISON COUNTY STATION 125+65.18 STRUCTURE NO. 1</p>									
<p>REVISIONS</p> <table border="1"> <thead> <tr> <th>NO.</th> <th>DATE</th> <th>BY</th> <th>REMARKS</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>		NO.	DATE	BY	REMARKS					<p>SCALE: NOT TO SCALE, FOLLOW DIMENSIONS</p>	
NO.	DATE	BY	REMARKS								
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<p>DGN NAME:</p>		<p>SHEET 125</p>									
<p>5 OF 12 SHTS</p>		<p>JOB NO. E074404 CONTRACT NO. 07633 OF 335 SHTS</p>									

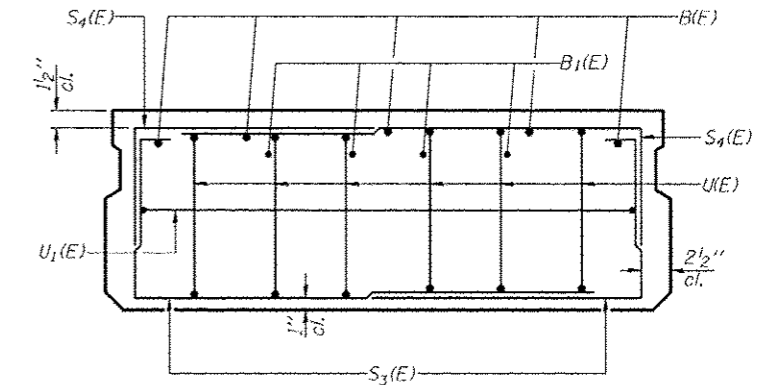
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 4/18/2016 10:56:53 AM 7/12/2016



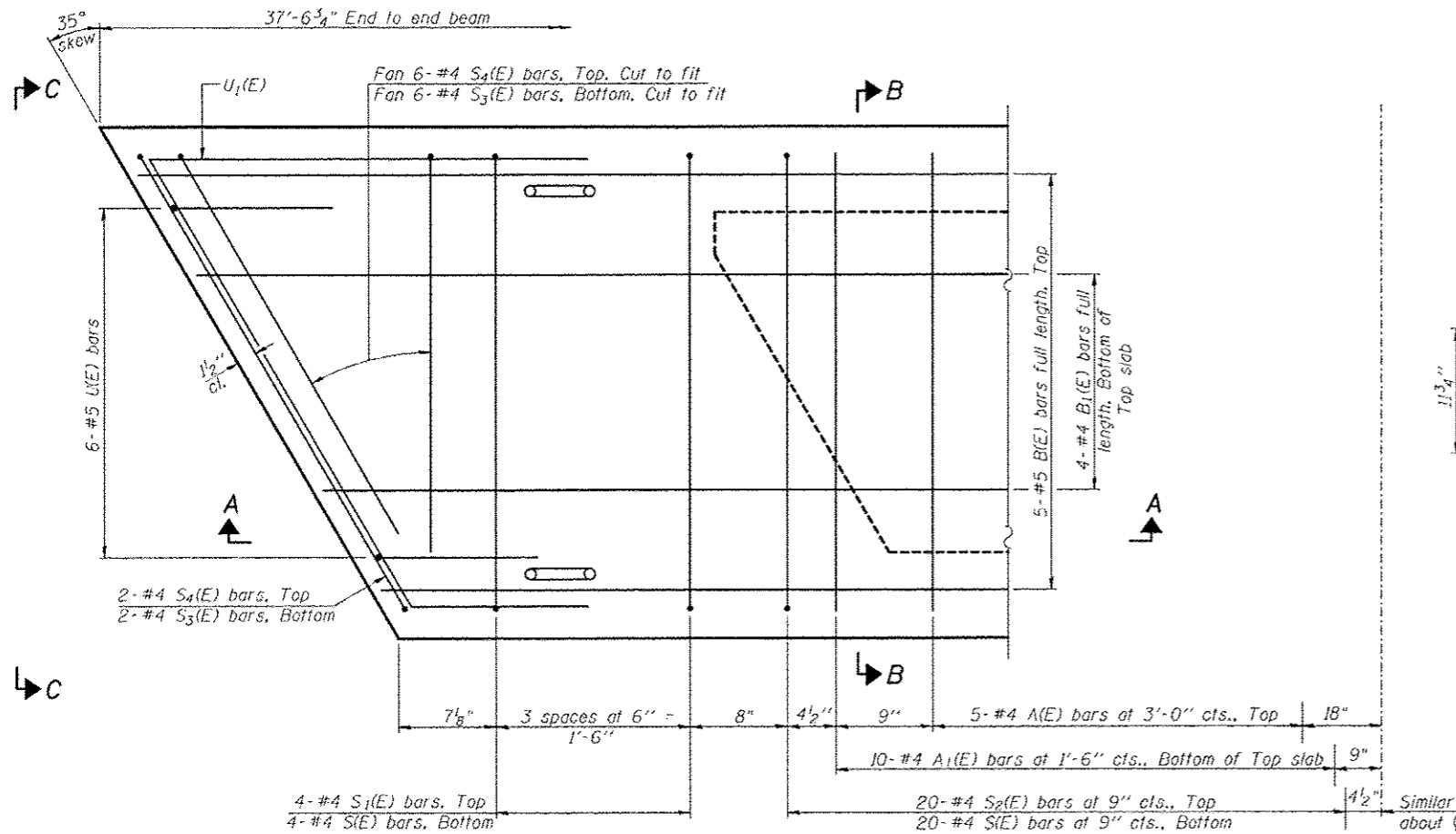
SECTION A-A



SECTION B-B
(Showing dimensions)

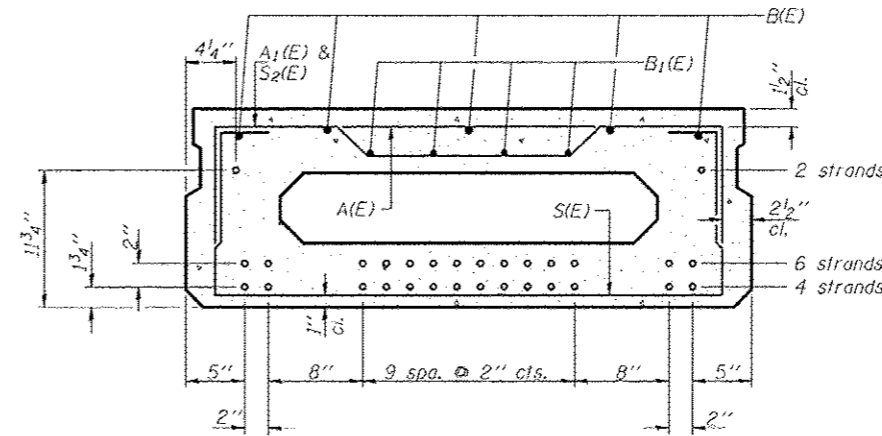


VIEW C-C



PLAN VIEW

Note: Spacing of S1(E) and S2(E) bars may be adjusted up to 4" in the immediate area of the transverse tie diaphragms to miss the block outs for the transverse ties.



SECTION B-B
(Showing reinforcement and permissible strand locations)

Note: Place the number of strands specified in each row symmetrically about the centerline of beam in the permissible strand locations shown.

BAR LIST
ONE BEAM ONLY
(For information only)

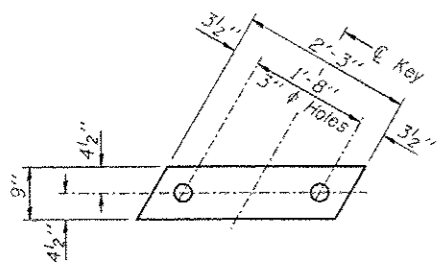
Bar	No.	Size	Length	Shape
A(E)	10	#4	3'-7"	—
A1(E)	20	#4	3'-10"	—
B(E)	5	#5	37'-3"	—
B1(E)	4	#4	37'-3"	—
S(E)	48	#4	6'-9"	□
S1(E)	8	#4	5'-3"	□
S2(E)	40	#4	5'-6"	□
S3(E)	12	#4	5'-8"	□
S4(E)	12	#4	4'-11"	□
U(E)	12	#5	3'-8"	□
U1(E)	2	#4	9'-4"	□

Note: See sheet 7 of 12 for additional details and Bill of Material.

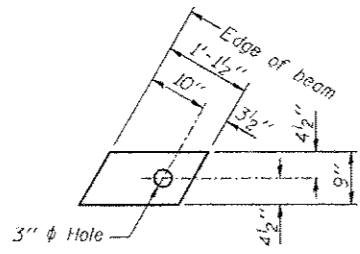
MINIMUM BAR LAP

#4 bar = 1'-11"
#5 bar = 2'-6"

<p>Juneau Associates, Inc. P.C. CONSULTING ENGINEERS AND LAND SURVEYORS 2100 State St., Juneau, Alaska 99801 P.O. Box 10000, Juneau, Alaska 99801 Phone: (907) 586-1100 Fax: (907) 586-1101 Registered Professional Service Corporation License No. 184-001389</p>		<p>17"X48" PPC DECK BEAM DETAILS - BEAMS 2 & 3</p> <p>SCOTT TROY BIKE TRAIL OVER TRIBUTARY TO CANTEEN CREEK MADISON COUNTY STATION 125+65.18 STRUCTURE NO. 1</p>									
<p>REVISIONS</p> <table border="1"> <thead> <tr> <th>NO.</th> <th>DATE</th> <th>BY</th> <th>REMARKS</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>		NO.	DATE	BY	REMARKS					<p>SCALE: NOT TO SCALE, FOLLOW DIMENSIONS</p>	
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<p>DGN NAME:</p>		<p>JOB NO. E074404 CONTRACT NO. 07633 OF 335 SHTS</p>									



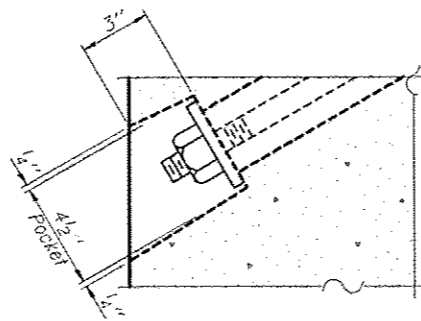
FABRIC BEARING PAD
(Interior)



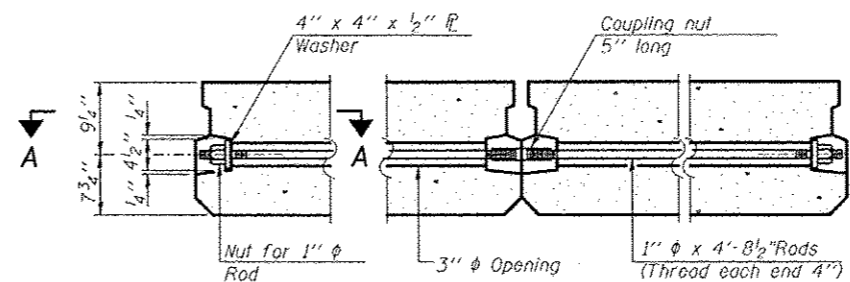
FABRIC BEARING PAD
(Exterior)

Notes:

FIXED
All bearing pads shall be 1" thick.
Omit holes when using expansion bearings.
Expansion bearing pad shall be bonded to the substructure.

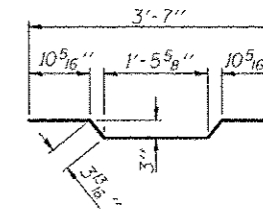


SECTION A-A

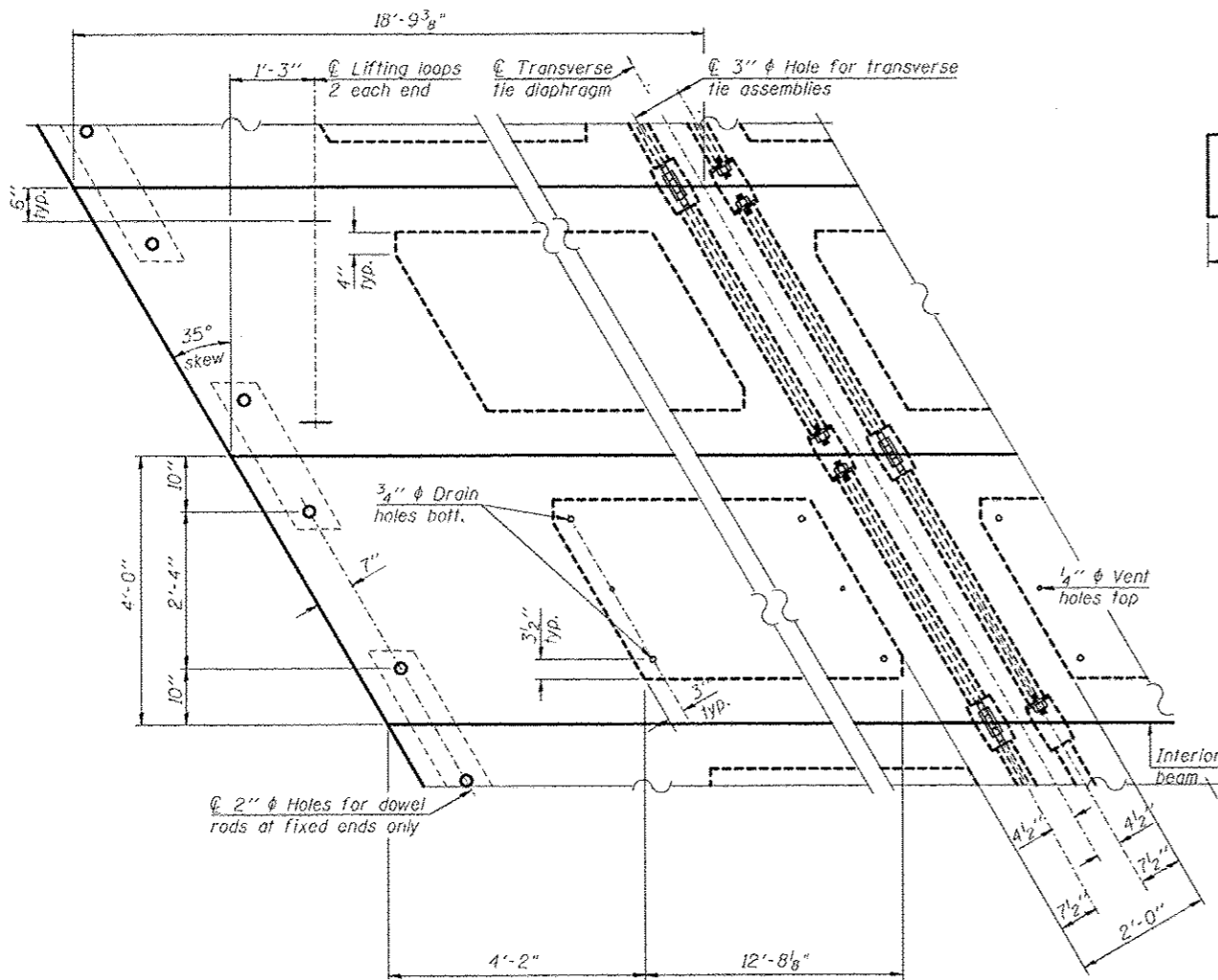


For Number of \bar{P} washers, coupling nuts, 1" rods and nut for 1" rods required, see Sheet No. 5.

TYPICAL TRANSVERSE TIE ASSEMBLY



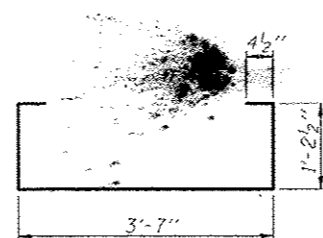
BAR A₁(E)



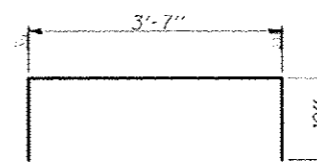
PLAN VIEW

NOTES

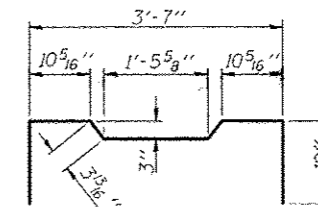
Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in.
The 1" rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets on exterior faces of bridge shall be filled with grout after transverse tie assembly is in place.
Reinforcement bars shall conform to ASTM A 706, Grade 60. (See Special Provisions).
Two 1/8" fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location.
A minimum 2 1/2" diameter lifting pin shall be used to engage the lifting loops during handling.
Corrosion Inhibitor, per Article 1020.05(b)(12) and 1021.06 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.
Compressive strength of prestressed concrete, f'c, shall be 6000 psi.
Compressive strength of prestressed concrete at release, f'ci, shall be 5000 psi.



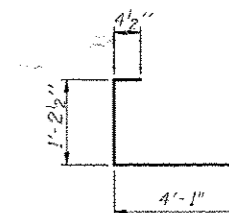
BAR S(E)



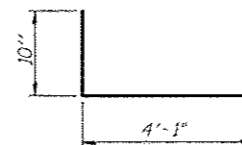
BAR S₁(E)



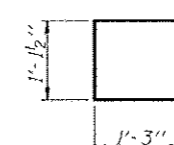
BAR S₂(E)



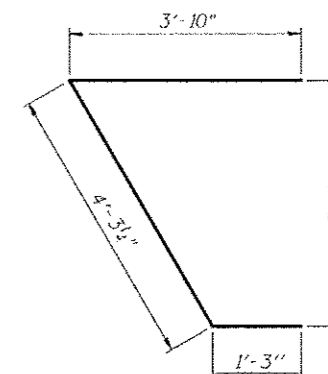
BAR S₃(E)



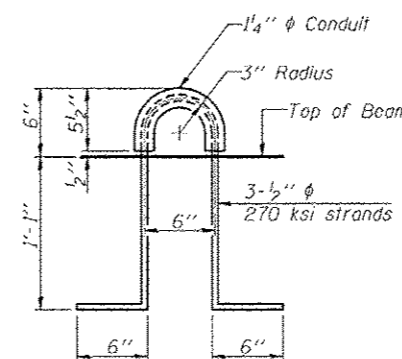
BAR S₄(E)



BAR U(E)



BAR U₁(E)



LIFTING LOOP DETAIL

Note:

For Bill of Material, see Sheet No. 5.

Note: Connect beams in pairs with the transverse tie configuration shown.

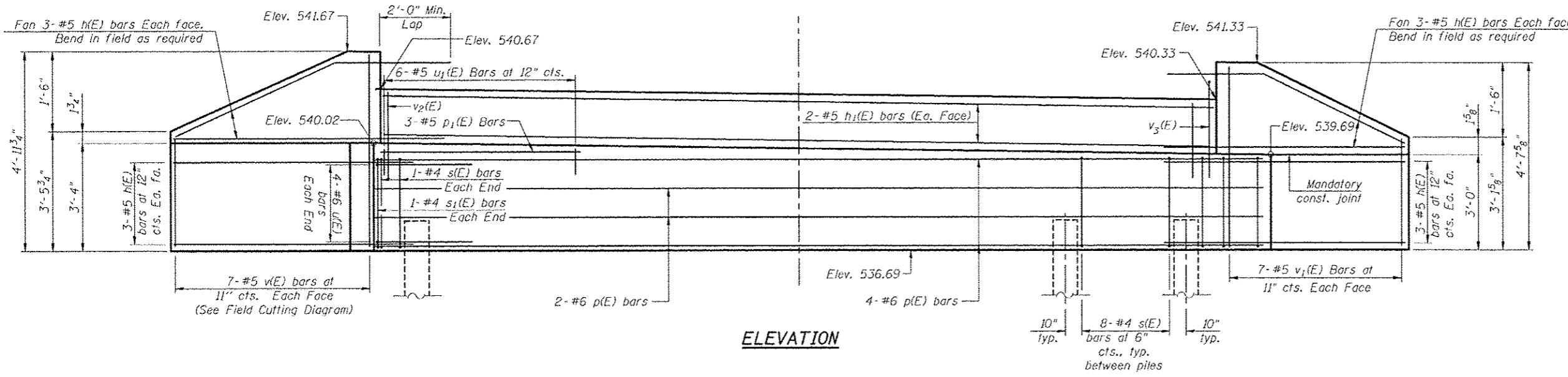
17"X48" PPC DECK BEAM DETAILS - BEAMS 2 & 3											
<p>Juneau Associates, Inc. P.C. CONSULTING ENGINEERS AND LAND SURVEYORS 2100 State St., Juneau, Alaska 99801 Phone: 907-586-1100 / Fax: 907-586-1100</p>		<p>SCOTT TROY BIKE TRAIL OVER TRIBUTARY TO CANTEEN CREEK MADISON COUNTY STATION 125+65.18 STRUCTURE NO. 1</p>									
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<p>NO. DATE BY</p>		<p>DSN. BY: DB DATE: 04/18/2016 SHEET</p>									
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<p> </p>		<p>JOB NO. E074404 CONTRACT NO. 07633 OF 335 SHTS</p>									

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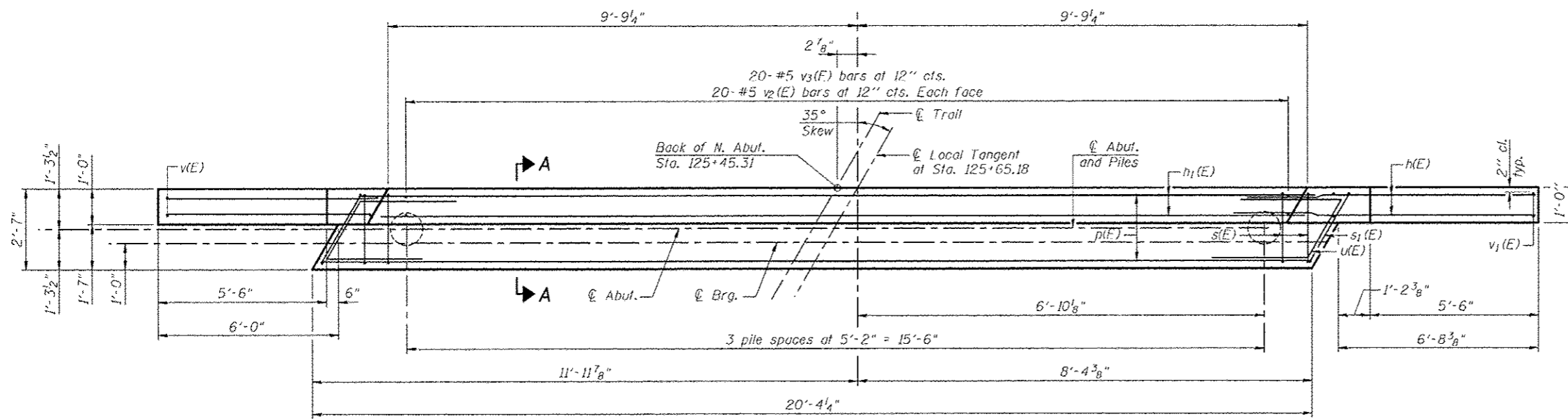
**NORTH ABUTMENT
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h(E)	24	#5	8'-9"	—
h ₁ (E)	4	#5	19'-3"	—
p(E)	12	#6	20'-0"	—
p ₁ (E)	4	#5	5'-6"	—
s(E)	28	#4	10'-7"	□
s ₁ (E)	2	#4	11'-7"	□
u(E)	8	#6	9'-7"	┘
u ₁ (E)	6	#5	4'-3"	┘
v(E)	7	#5	7'-11"	—
v ₁ (E)	7	#5	7'-2"	—
v ₂ (E)	40	#5	2'-0"	—
v ₃ (E)	20	#5	4'-6"	┘
Structure Excavation		Cu. Yd.	38	
Concrete Structures		Cu. Yd.	9.3	
Reinforcement Bars, Epoxy Coated		Pound	1330	
Furnishing Metal Shell Piles 12"x0.250"		Foot	102	
Driving Piles		Foot	102	
Test Pile, Metal Shells		Each	1	
Pile Shoes		Each	4	

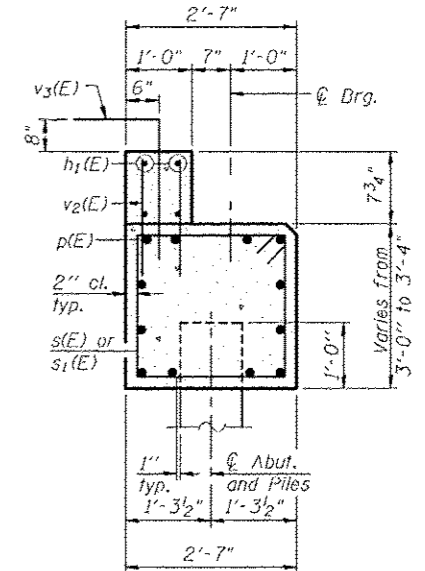
Notes:
For details of piles, see sheet 11 of 12.
Cast backwall after beams have been erected.



ELEVATION



PLAN

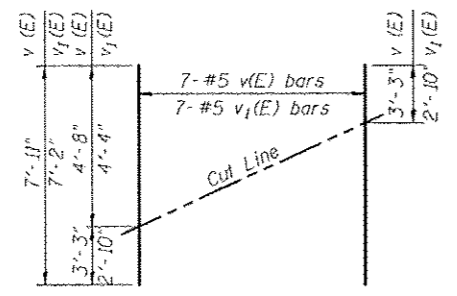


SECTION A-A

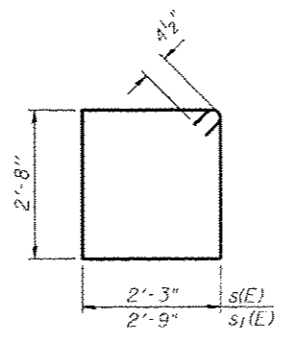
(Horizontal Dimensions are at Rt. L's)

PILE DATA

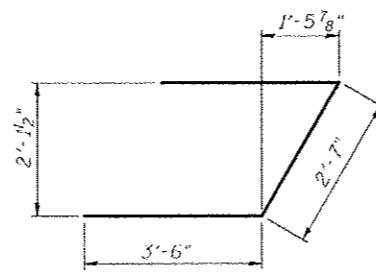
Type: Metal Shell 12" Dia. x 0.25" wall with Pile Shoe
Nominal Required Bearing: 273
Factored Resistance Available: 150
Est. Length: 34 Ft.
No. Production Piles: 3
No. Test Piles: 1



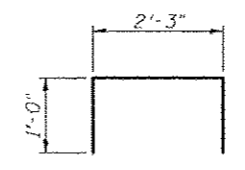
FIELD CUTTING DIAGRAM
Order v(E) and v₁(E) full length. Cut as shown and use remainder of bars in opposite face.



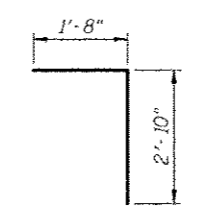
BARS s(E) & s₁(E)



BAR u(E)



BAR u₁(E)



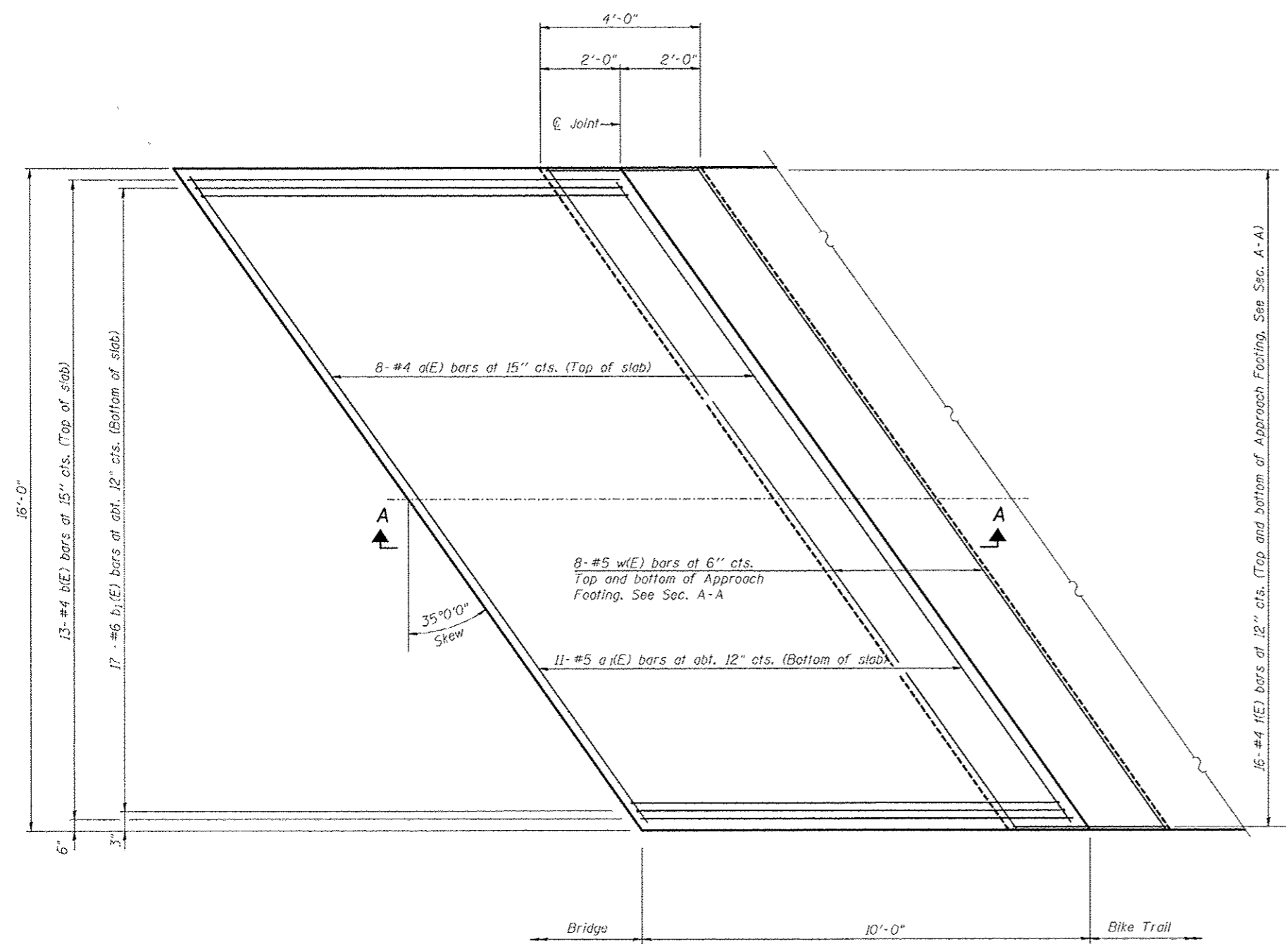
BAR v₃(E)

NORTH ABUTMENT DETAILS

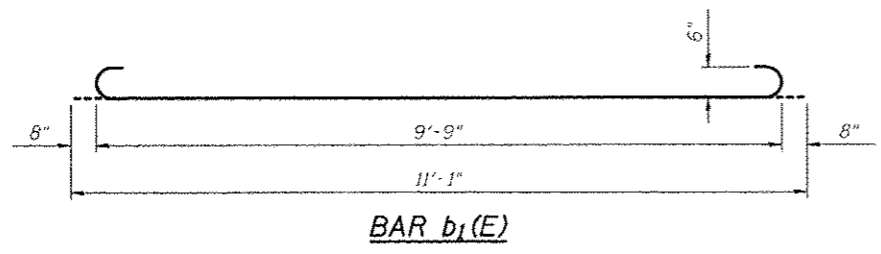
<p>Juneau Associates, Inc. P.C. CONSULTING ENGINEERS AND LAND SURVEYORS 7102 SICKLE ST. JUNEAU, ALASKA 99801-3400 PHONE: (907) 586-1400 / FAX: (907) 586-1400 E-MAIL: JUNE@JUNEAU.AS</p>		<p>SCOTT TROY BIKE TRAIL OVER TRIBUTARY TO CANTEEN CREEK MADISON COUNTY STATION 125+65.18 STRUCTURE NO. 1</p>									
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<p>CHKD: NK DATE: 04/20/2016</p>		<p>JOB NO. E074404 CONTRACT NO. 076333 OF 335 SHTS</p>									

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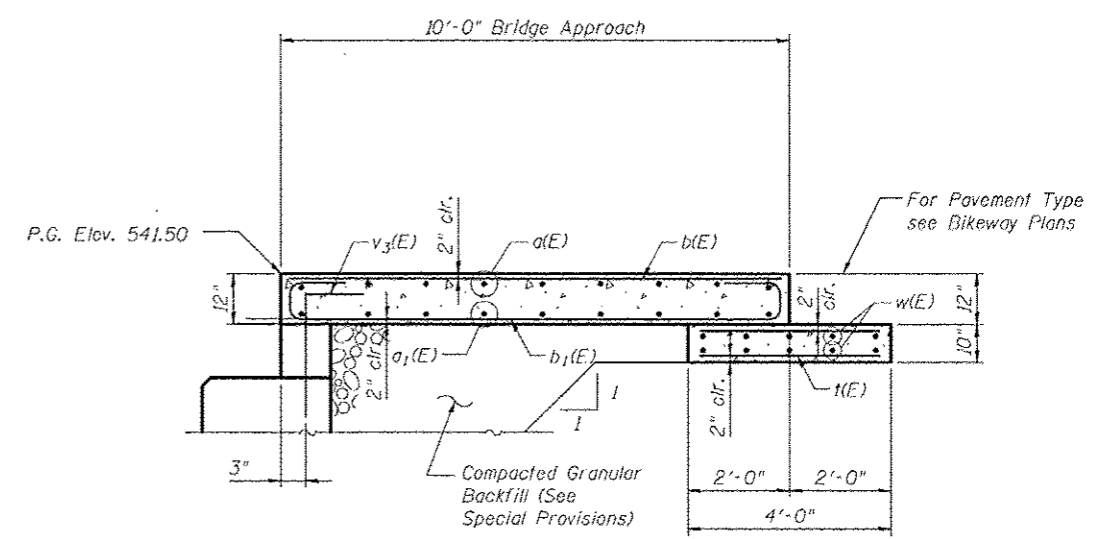
P:\InRoads\130813 AM 7/12/2016 W:\STRUCTURE\074404 (Scott) Troy Trail\Drawings\Structure (INCLUDED)\Approach Slab Details.dgn



BRIDGE APPROACH PAVEMENT PLAN



BAR $b_1(E)$



SECTION A-A

**TWO APPROACHES
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a(E)	16	#4	19'-2"	—
a ₁ (E)	22	#5	19'-2"	—
b(E)	26	#4	9'-9"	—
b ₁ (E)	34	#6	11'-1"	U
h(E)	64	#4	3'-8"	—
w(E)	32	#5	19'-2"	—
Concrete Structures			Cu. Yd.	15.8
Reinforcement Bars, Epoxy Coated			Pound	2180

Notes:

For $v_3(E)$ bar details, see sheet 8 of 12.

For Granular Backfill for Structures and drainage treatment details, see sheet 2 of 12.

Approach Slab & footing concrete shall be paid for as Concrete Structures.

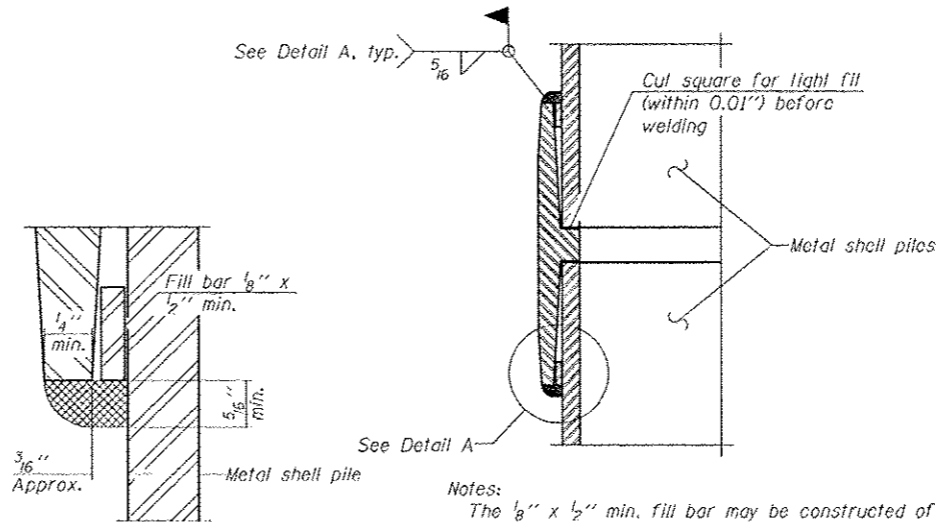
NO.		DATE	BY	REVISIONS	REMARKS

Juneau Associates, Inc. P.C. CONSULTING ENGINEERS AND LAND SURVEYORS <small>3100 South 24th Ave. / P.O. Box 100000 / Anchorage, AK 99510-0000 / Phone: (907) 562-1100 / Fax: (907) 562-1101</small>		SCOTT TROY BIKE TRAIL OVER TRIBUTARY TO CANTHEEN CREEK MADISON COUNTY STATION 125+65.18 STRUCTURE NO. 1	
SCALE: NOT TO SCALE, FOLLOW DIMENSIONS			
OSN. BY: DB		DATE: 04/18/2016	
DWN. BY: ER		DATE: 04/18/2016	
CHKD: NK		DATE: 04/20/2016	
DGN NAME:		JOB NO. E074404	



METAL SHELL PILE TABLE

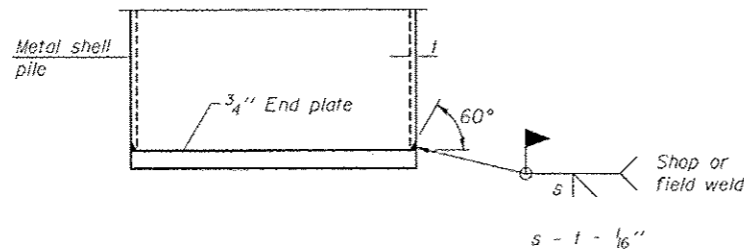
Designation and outside diameter	Wall thickness t	Weight per foot (Lbs./ft.)	Inside volume (yd. ³ /ft.)
PP12	0.179"	22.60	0.0274
PP12	0.250"	31.37	0.0267
PP14	0.250"	36.71	0.0368
PP14	0.312"	45.61	0.0361



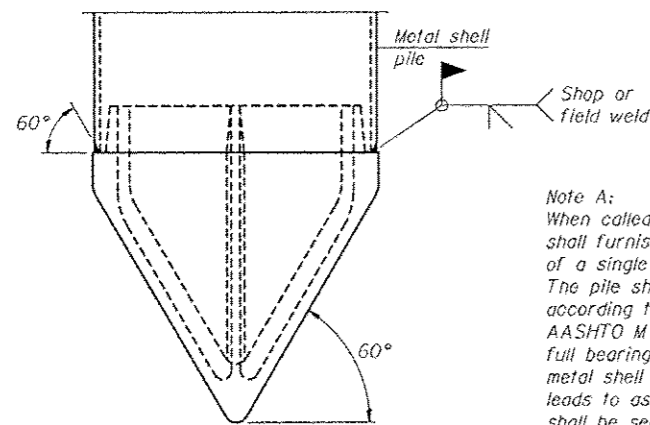
DETAIL A

Notes:
 The 1/8" x 1/2" min. fill bar may be constructed of 2 bars with a 1/8" max. gap between them.
 Pile segments shall be driven to solid contact with splicer before welding.

WELDED COMMERCIAL SPLICE



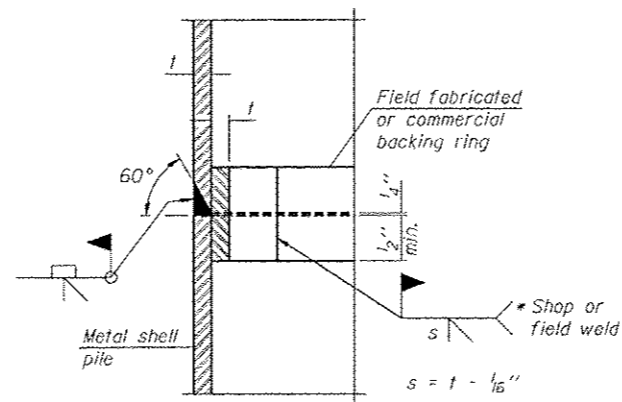
END PLATE ATTACHMENT



METAL SHELL PILE SHOE ATTACHMENT

(See Note A)

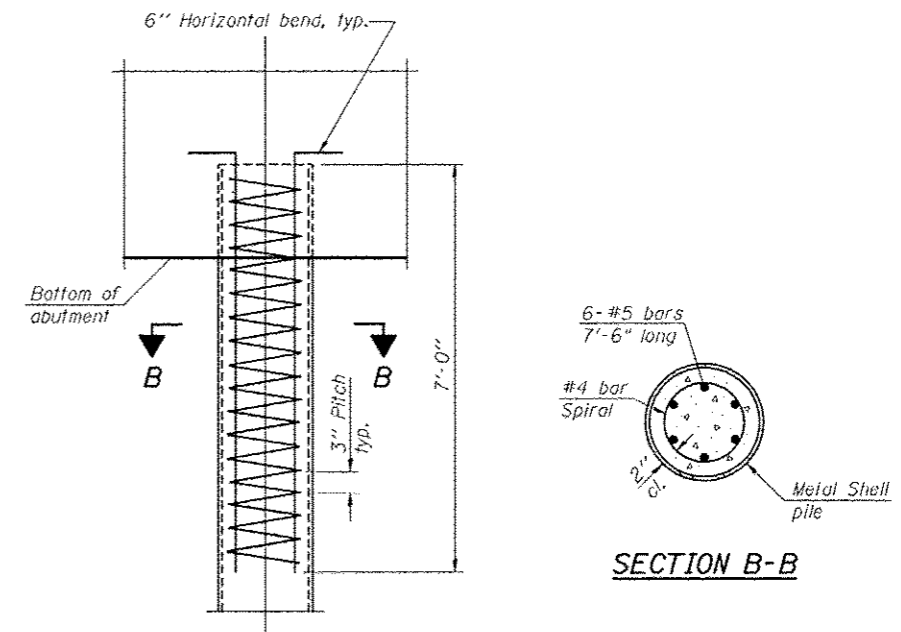
Note A:
 When called for on the plans, the Contractor shall furnish metal shell pile shoes consisting of a single piece conical pile point as shown. The pile shoes shall be cast in one piece steel according to either ASTM A 148 Grade 90-60 or AASHTO M 103 Grade 65-35 and shall provide full bearing over the full circumference of the metal shell pile. The pile shoe shall have tapered leads to assure proper alignment and fitting and shall be secured to the pile with a circumferential weld.



COMPLETE PENETRATION WELD SPLICE

* Field fabricated backing ring may be made from pile shell by removing segment to allow reducing circumference and vertically rejoin with partial joint penetration weld.

Note:
 The metal shell piles shall be according to ASTM A 252 Grade 3.



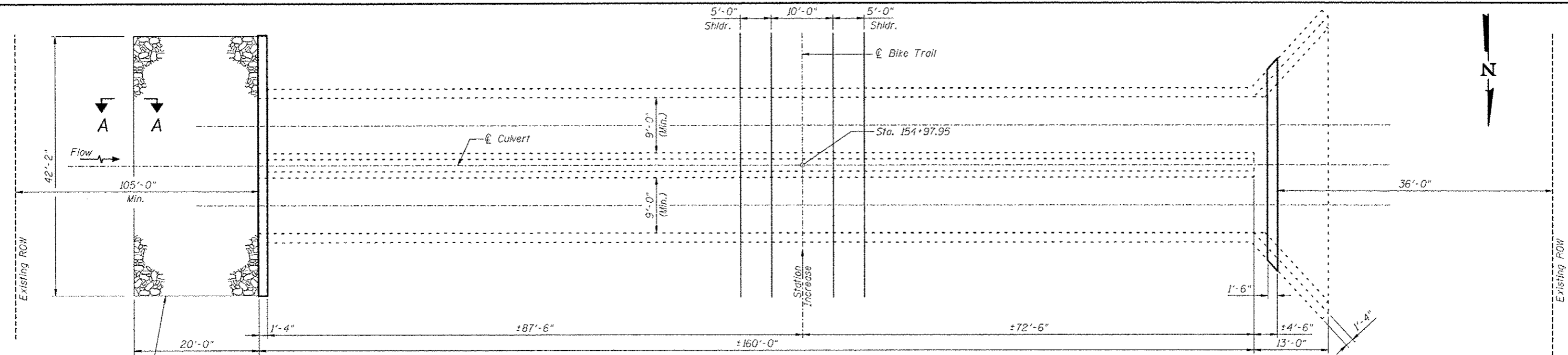
ELEVATION

METAL SHELL REINFORCEMENT AT ABUTMENTS

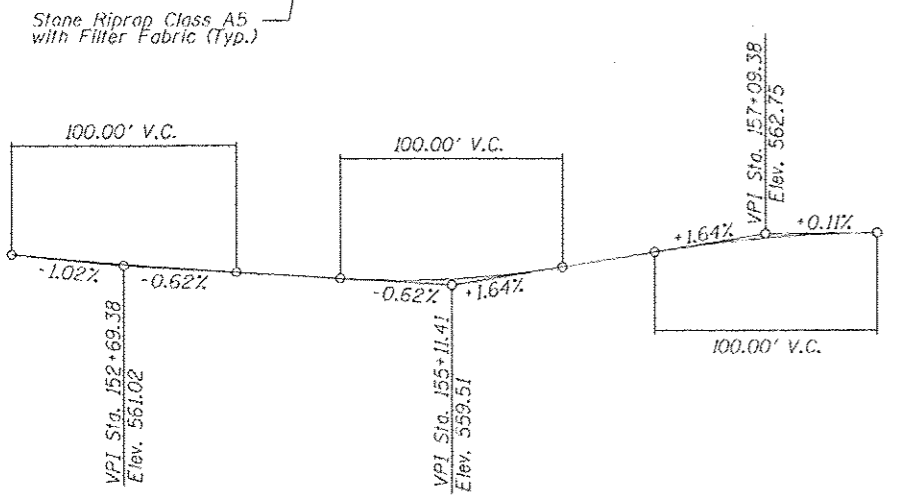
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				DWN BY:	ER DATE: 04/18/2016
				CHKD:	NK DATE: 04/20/2016
				JOB NO. E074404	CONTRACT NO. 97633 OF 336 SHTS

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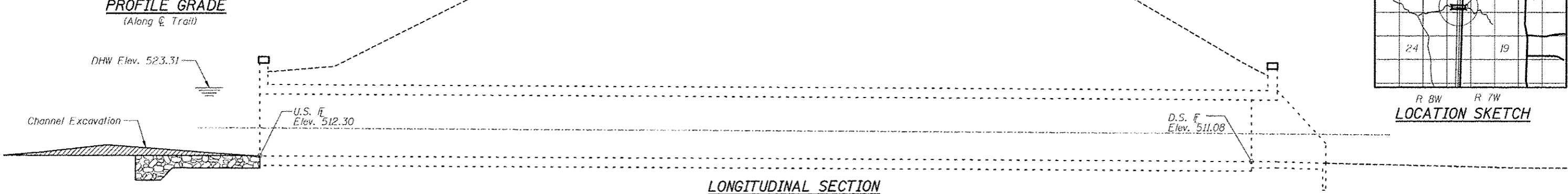
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PLAN



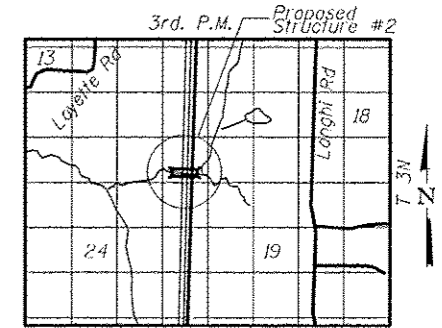
PROFILE GRADE
(Along & Trail)



LONGITUDINAL SECTION

DESIGN SPECIFICATIONS

2002 AASHTO
LOADING
 Pedestrian Live Load = 85 psf
 Vehicle Live Load = H-10
DESIGN STRESSES
 FIELD UNITS
 $f'_c = 3,500$ psi (Concrete)
 $f_y = 60,000$ psi (Reinforcement)

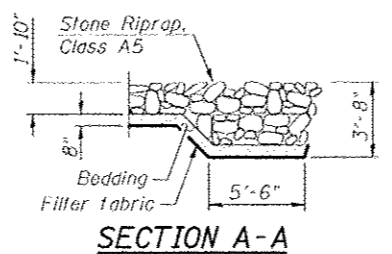


LOCATION SKETCH

WATERWAY INFORMATION

Drainage Area = 1.60 Sq. Mi. Low Grade Elev. N/A @ Sta. 155+00.00

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Nat. H.W.E.	Head - Ft.		Headwater El.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
Design	10	823	200.00	200.00	520.68	-0.55	-0.55	520.13	520.13
Base	50	1565	200.00	200.00	523.31	-0.12	-0.12	523.19	523.19
Overtopping	100	1939	200.00	200.00	524.32	0.29	0.29	524.61	524.61
Max. Calc.	500	2901	200.00	200.00	526.49	2.27	2.27	528.76	528.76



SECTION A-A

I certify to the best of knowledge, information and belief, this bridge 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 Standard Specification for Highway Bridges.



Wesley W. Herndon 7/13/16
 WESLEY W. HERNDON, S.E. DATE

PROPOSED DETAILS - PLAN AND ELEVATION			
 Juneau Associates, Inc. P.C. CONSULTING ENGINEERS AND LAND SURVEYORS 7100 Sibley Dr., Suite 200, St. Louis, MO 63105 Phone: (314) 887-1400 Fax: (314) 887-1400 Email: juneau@juneau.com Website: www.juneau.com		SCOTT TROY BIKE TRAIL OVER TRIBUTARY T1 TO CANTEN CREEK MADISON COUNTY STATION 154+97.95 STRUCTURE NO. 2	
REVISIONS NO. DATE BY REMARKS			
SCALE: NOT TO SCALE, FOLLOW DIMENSIONS			
DSN. BY: DB		DATE: 04/18/2016	
DWN. BY: ER		DATE: 04/18/2016	
CHK'D: NK		DATE: 04/20/2016	
JOB NO. E074404		CONTRACT NO. 97633 OF 335 SHTS	

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TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Channel Excavation	Cu. Yd.	275
Stone Riprap, Class A5	Sq. Yd.	94
Filter Fabric	Sq. Yd.	94
Concrete Removal	Cu. Yd.	2.5
Cofferdam (Type 1) (Location 1)	Each	1
Cofferdam (Type 1) (Location 2)	Each	1
Concrete Structures	Cu. Yd.	4.8
Reinforcement Bars, Epoxy Coated	Pound	483
Epoxy Crack Injection	Foot	144
Box Culvert to be Cleaned	Foot	328
Structural Repair of Concrete (Depth equal to or less than 5")	Sq. Ft.	1747

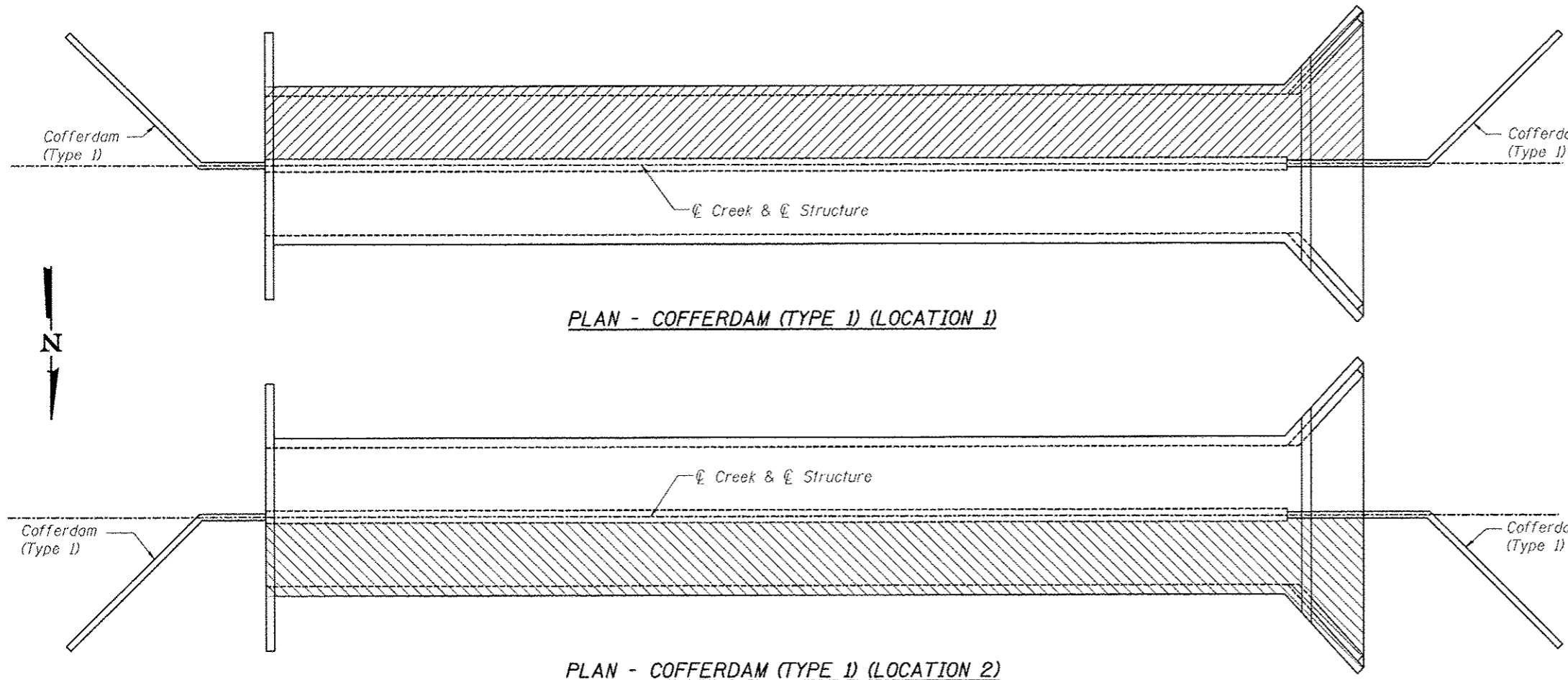
GENERAL NOTES

Reinforcement bars designated (E) shall be epoxy coated.

Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction 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 the scope of the work however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.

The cost of any saw cuts made to complete the work as described in the plan details, unless otherwise noted, shall not be paid for separately but shall be included in Concrete Removal.




COFFERDAM (TYPE 1) (LOCATION 1)

Install cofferdam and divert water to the north side of the channel & the north cell.
Repair the south cell.

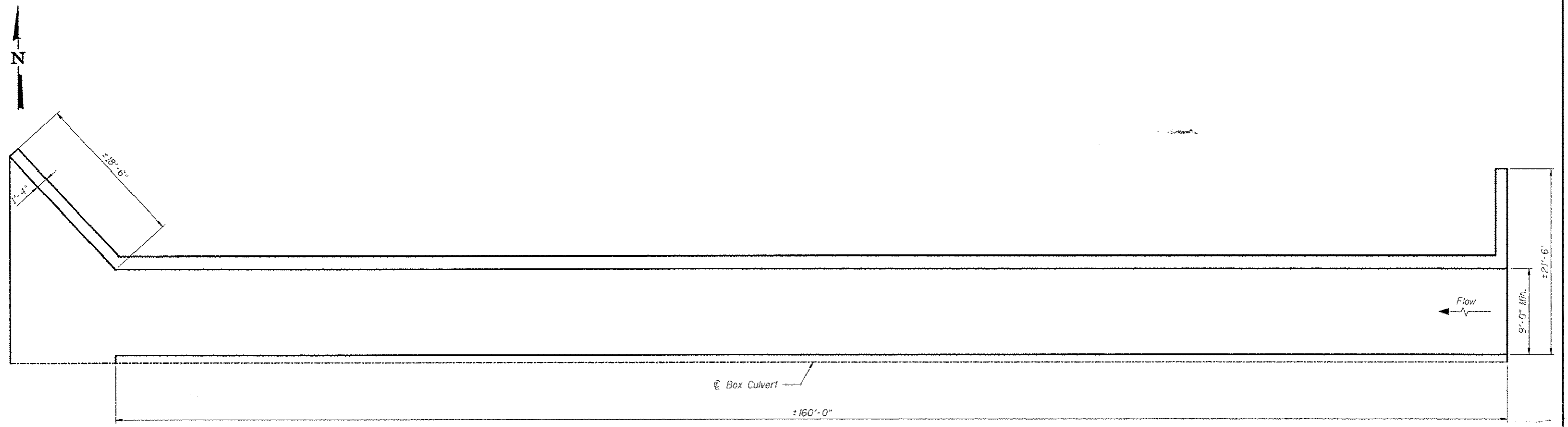
COFFERDAM (TYPE 1) (LOCATION 2)

Install cofferdam and divert water to the south side of the channel & the south cell.
Repair the north cell.

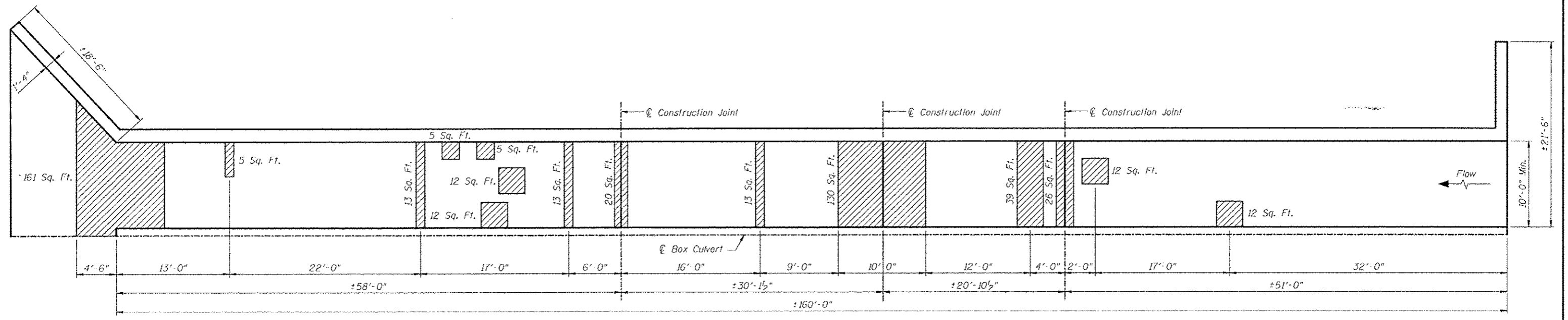
QUANTITIES & NOTES

 Juneau Associates, Inc. P.C. CONSULTING ENGINEERS AND LAND SURVEYORS <small>1105 State St. / 100 North Hancock St. / 100 N. Lincoln St., Ste. 200 Granite City, IL 62040 / Granite City, IL 62040 / St. Louis, MO 63102 Phone: (618) 681-1100 / Phone: (618) 681-0200 / Phone: (314) 426-1441 Fax: (618) 681-2341 / Fax: (618) 681-0241 / Fax: (314) 999-1331 Registered Professional Service Corporation License No. 161-961315</small>		SCOTT TROY BIKE TRAIL OVER TRIBUTARY T1 TO CANTREEN CREEK MADISON COUNTY STATION 154+97.95 STRUCTURE NO. 2																	
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DGN NAME:		JOB NO. E074404 CONTRACT NO. 97833 OF 335 SHTS																	

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BOTTOM SLAB



TOP SLAB

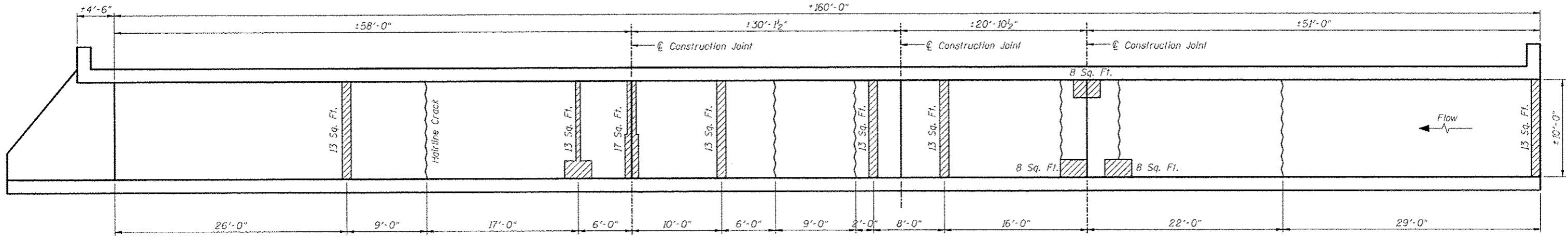
**NORTH CELL
BILL OF MATERIAL**

ITEM	UNIT	TOTAL
Structural Repair of Concrete (Depth Equal to or Less than 5")	Sq. Ft.	478

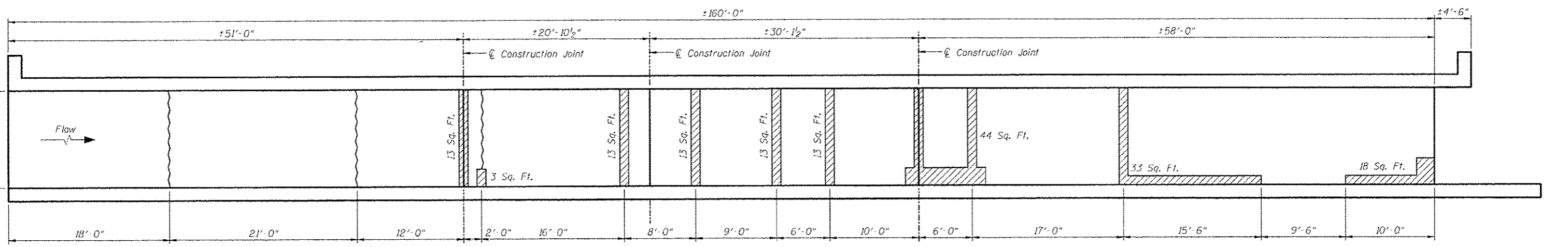
- LEGEND**
- Structural Repair of Concrete (Depth Equal to or Less than 5")
 - Epoxy Crack Injection

CONCRETE REPAIRS - NORTH CELL		Juneau Associates, Inc. P.C. CONSULTING ENGINEERS AND LAND SURVEYORS <small>2100 State St., Granite City, IL 62040 / 1700 North Riverchase Dr., St. Louis, MO 63107 / 310 N. Fourth St., Ste 200, St. Louis, MO 63102</small> <small>Phone: (618) 382-7400 / Fax: (618) 382-7400 / Phone: (314) 761-4444 / Fax: (314) 761-4444</small> <small>Registered Professional Service Corporation License No. 181-061393</small>									
SCOTT TROY BIKE TRAIL OVER TRIBUTARY T1 TO CANTEEN CREEK MADISON COUNTY STATION 154+97.95 STRUCTURE NO. 2		SCALE: NOT TO SCALE, FOLLOW DIMENSIONS									
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NO.	DATE	BY	REMARKS								
DGN NAME:		SHEET 135 JOB NO. E074404 CONTRACT NO. 97633 OF 335 SHTS									

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NORTH WALL ELEVATION
(Looking North)



SOUTH WALL ELEVATION
(Looking South)

**NORTH CELL
BILL OF MATERIAL**

ITEM	UNIT	TOTAL
Structural Repair of Concrete (Depth Equal to or Less than 5")	Sq. Ft.	282
Epoxy Crack Injection	Foot	110

LEGEND

Structural Repair of Concrete (Depth Equal to or Less than 5")

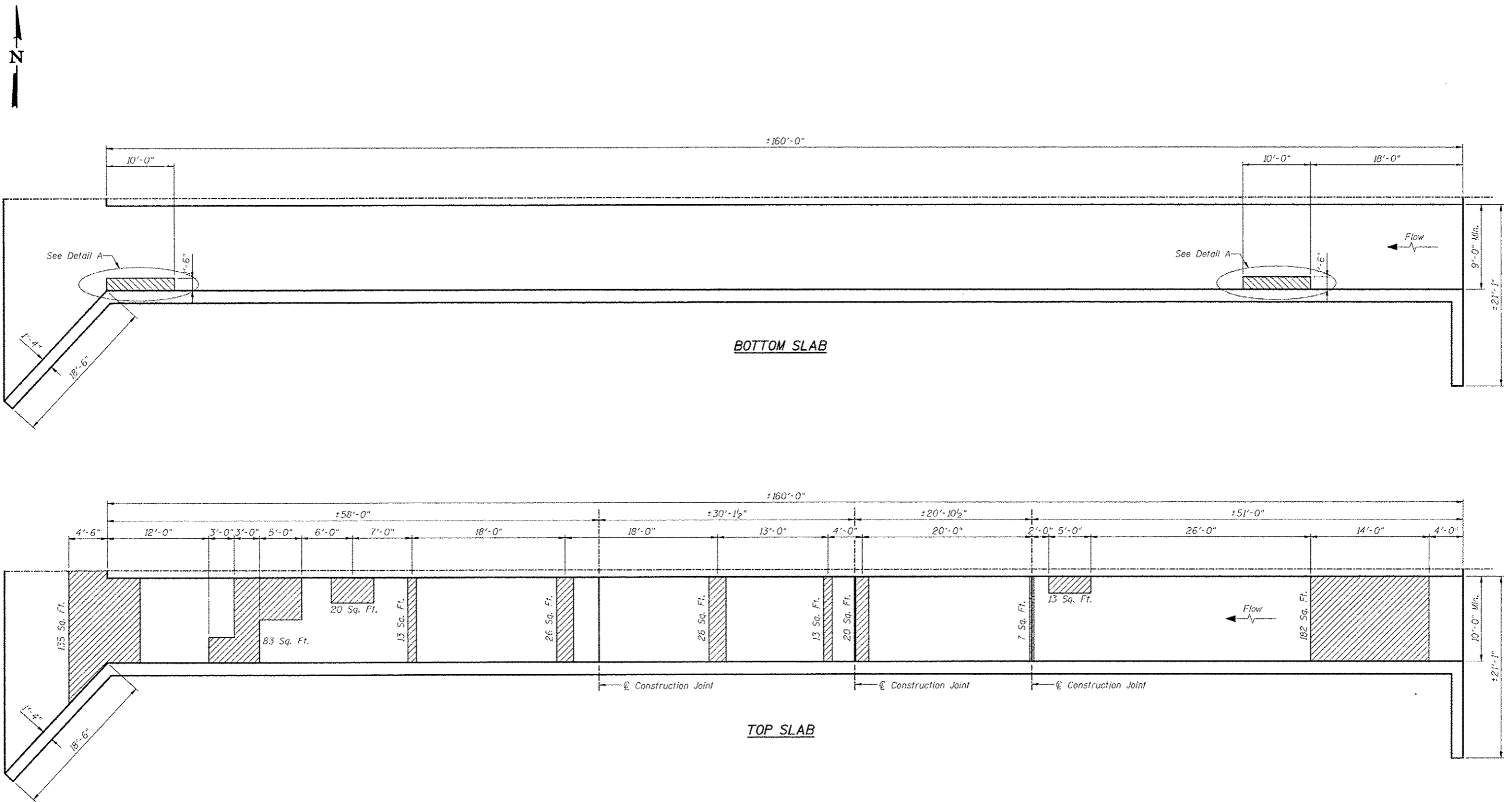
Epoxy Crack Injection

REVISIONS				SCALE:	
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				DWN. BY:	ER DATE: 04/18/2016
				CHKD:	NK DATE: 04/20/2016
DGN NAME:				JOB NO.	E074404 CONTRACT NO. 97633 OF 335 SHTS

Juneau Associates, Inc. P.C.
 CONSULTING ENGINEERS AND LAND SURVEYORS
 7100 State St., Suite 200, Juneau, Alaska 99801
 Phone: (907) 586-1400 / Fax: (907) 586-1401
 7100 North Seward St., Suite 200, Anchorage, Alaska 99503
 Phone: (907) 561-5100 / Fax: (907) 561-5101
 Registered Professional Engineer License No. 181-001381

SCOTT TROY BIKE TRAIL
 OVER TRIBUTARY T1 TO CANTEEN CREEK
 MADISON COUNTY
 STATION 154+97.95
 STRUCTURE NO. 2

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**SOUTH CELL
BILL OF MATERIAL**

ITEM	UNIT	TOTAL
Structural Repair of Concrete (Depth Equal to or Less than 5")	Sq. Ft.	538

LEGEND

- Bottom Slab Concrete Repair
- Structural Repair of Concrete (Depth Equal to or Less than 5")
- Epoxy Crack Injection

Note: For Detail A and Bottom Slab Concrete Repair Bill of Material, See Sheet 9 of 9.

REVISIONS				SCALE:	
NO.	DATE	BY	REMARKS	NOT TO SCALE, FOLLOW DIMENSIONS	
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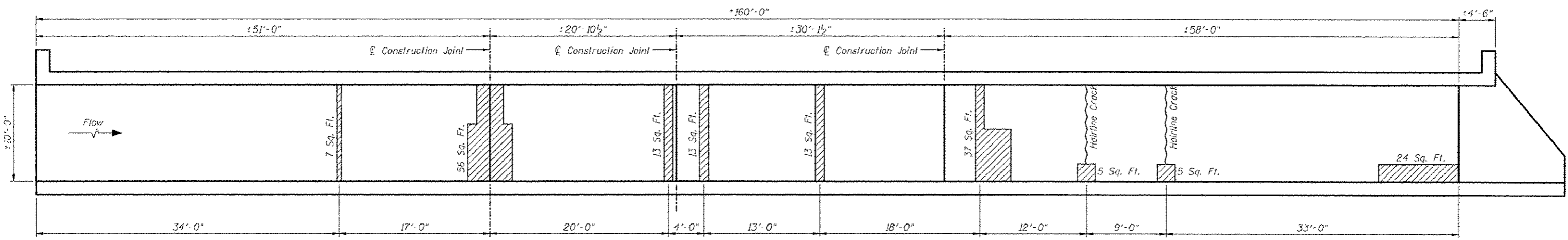
Juneau Associates, Inc. P.C.
CONSULTING ENGINEERS AND LAND SURVEYORS

2100 Stone St. / 100 North Main Street / 1500 W. Main St., Ste 200
Scottsdale, AZ 85261 / Lombardville, IL 62550 / St. Louis, MO 63107
Phone: (480) 837-1100 / Phone: (618) 657-2020 / Phone: (314) 761-4444
Fax: (480) 837-2141 / Fax: (618) 657-0910 / Fax: (314) 761-1131
Engineer/Professional Seal: Service Corporation License No. 184-001269

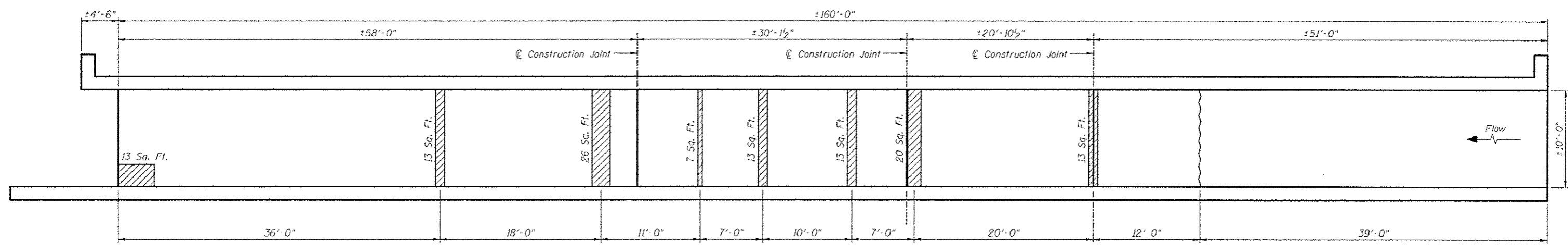
CONCRETE REPAIRS - SOUTH CELL

SCOTT TROY BIKE TRAIL
OVER TRIBUTARY T1 TO CANTREEN CREEK
MADISON COUNTY
STATION 154+97.95
STRUCTURE NO. 2

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SOUTH WALL ELEVATION
(Looking South)



NORTH WALL ELEVATION
(Looking North)

**SOUTH CELL
BILL OF MATERIAL**

ITEM	UNIT	TOTAL
Structural Repair of Concrete (Depth Equal to or Less than 5")	Sq. Ft.	291
Epoxy Crack Injection	Foot	34

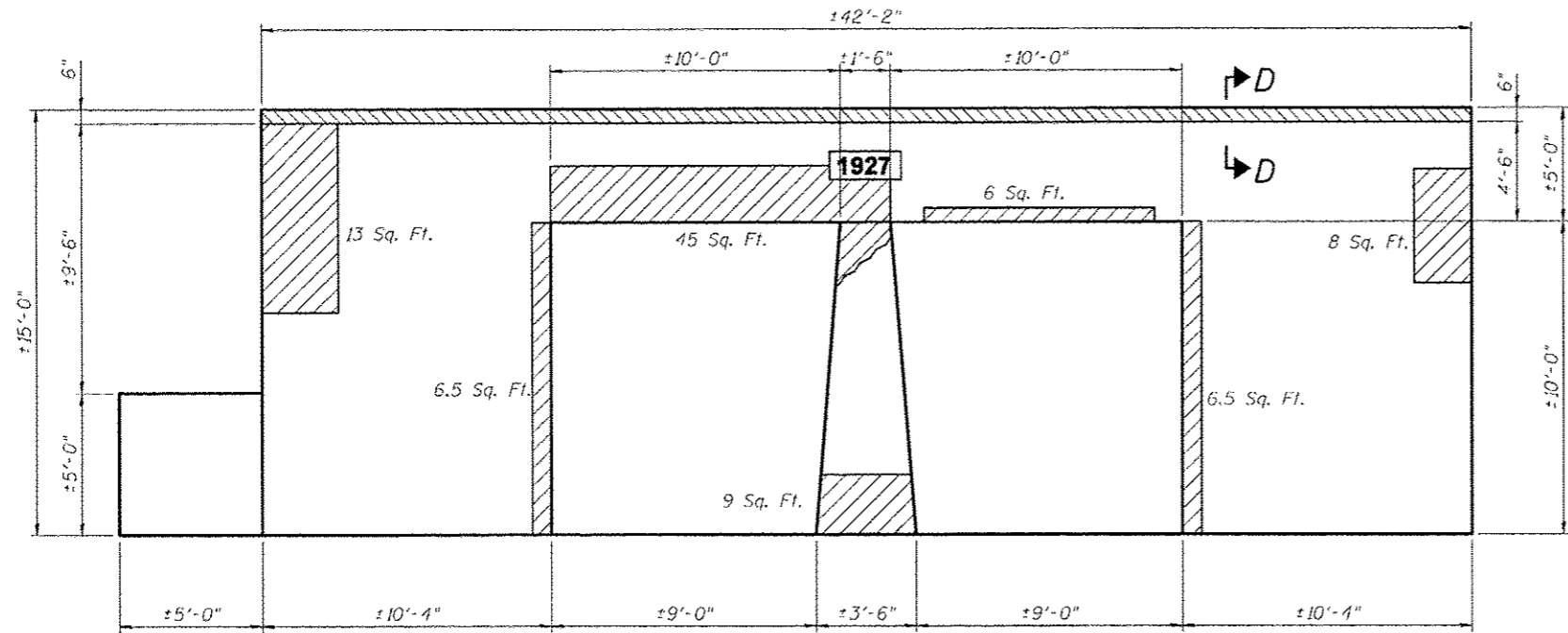
LEGEND

Structural Repair of Concrete (Depth Equal to or Less than 5")

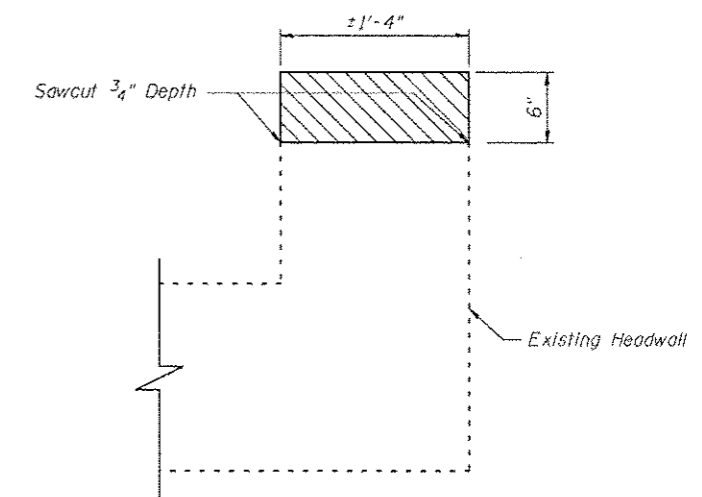
Epoxy Crack Injection

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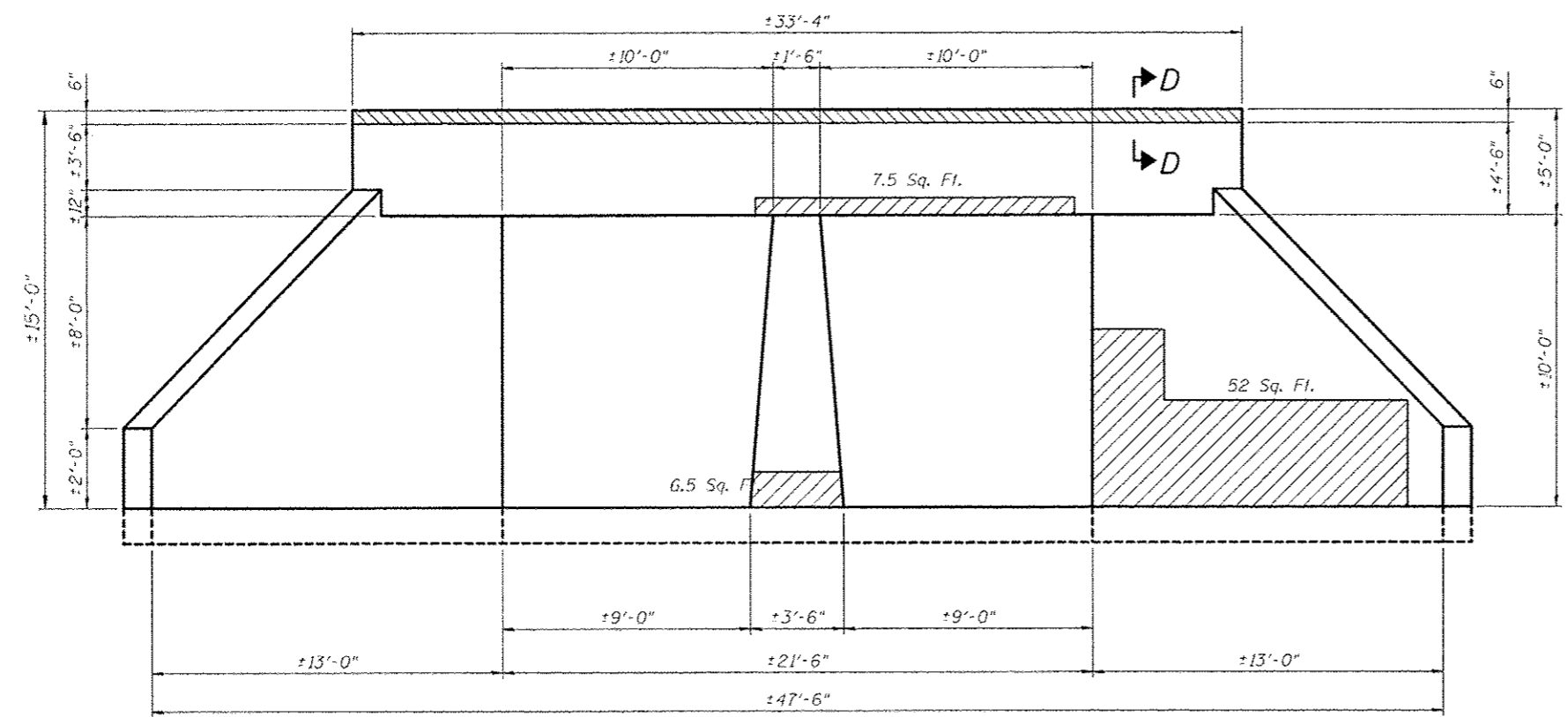
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UPSTREAM (EAST) END ELEVATION
 (Looking West) (Showing Concrete Removal) * Typical



SECTION D-D
 (Showing Removal)



DOWNSTREAM (WEST) END ELEVATION
 (Looking East) (Showing Concrete Removal)

LEGEND

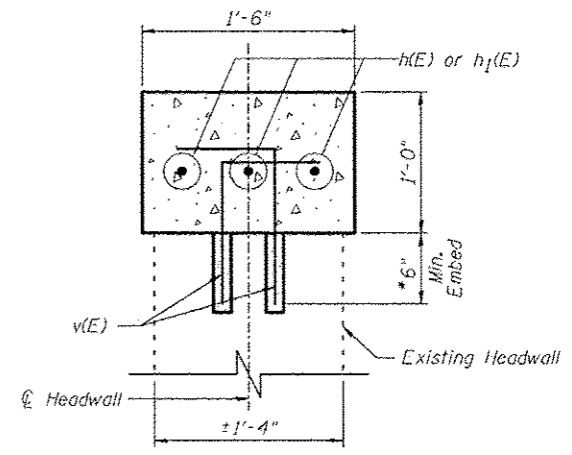
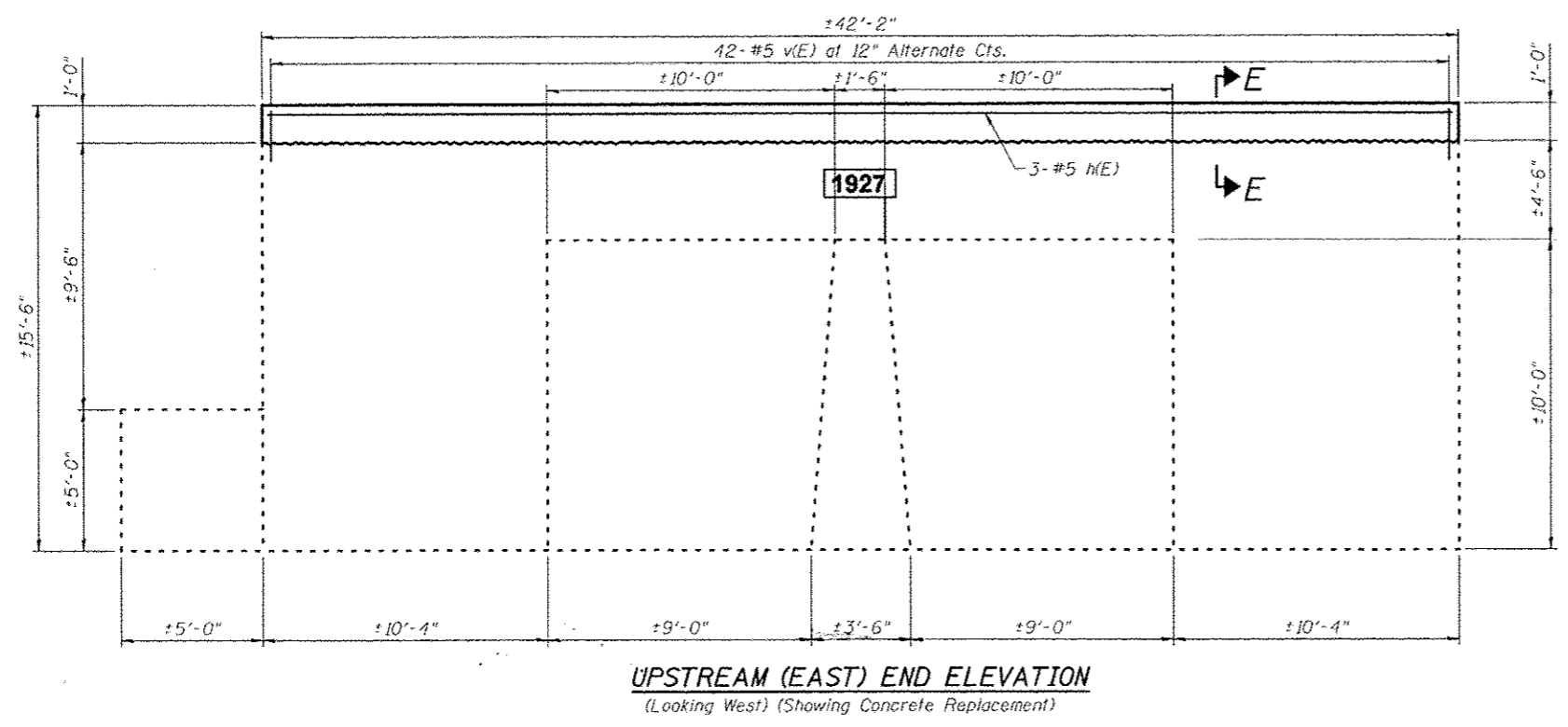
- Concrete Removal
- Structural Repair of Concrete (Depth Equal to or Less Than 5")

**HEADWALL/WINGWALL
 BILL OF MATERIAL**

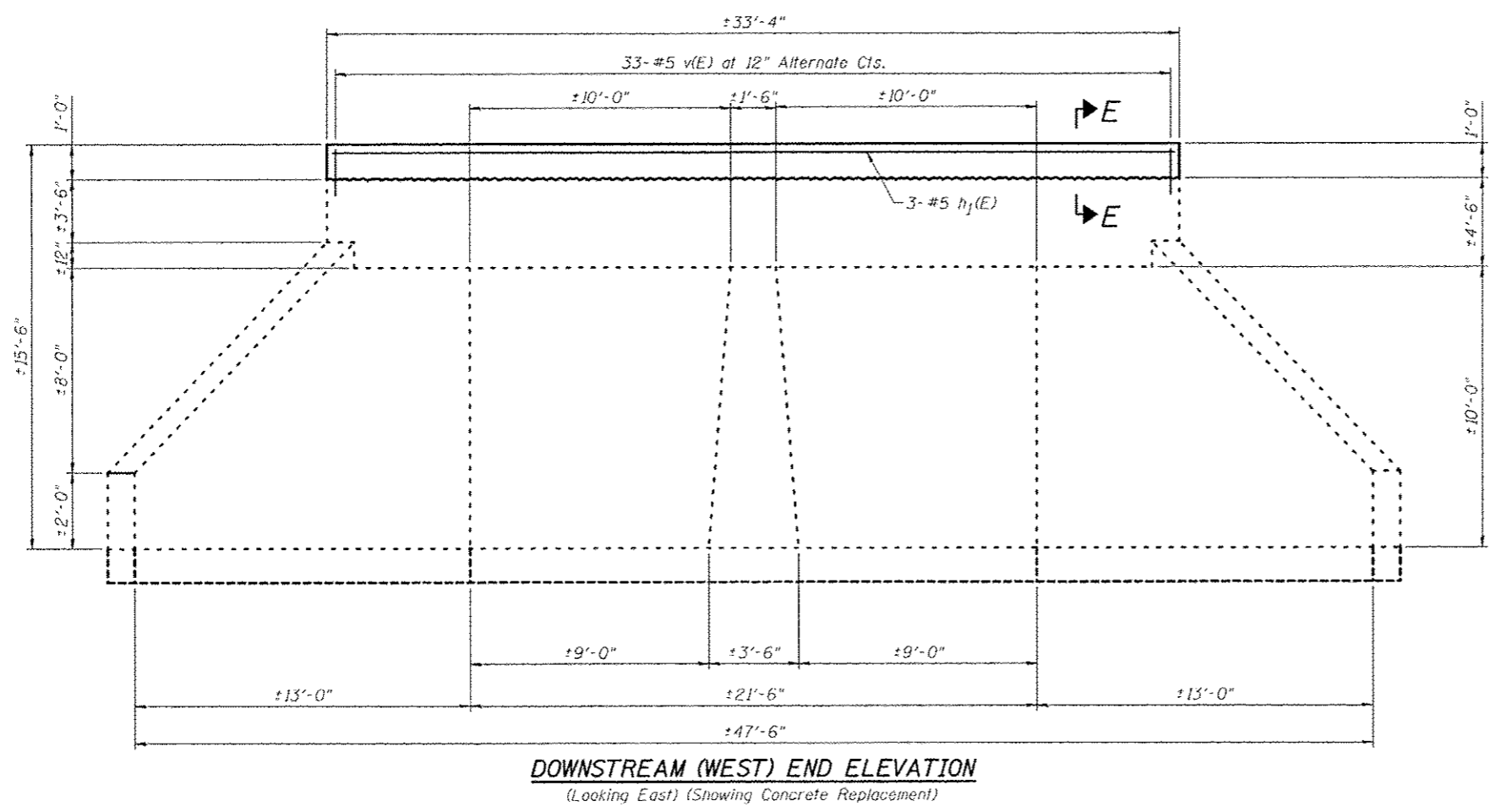
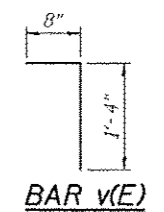
ITEM	UNIT	TOTAL
Concrete Removal	Cu. Yd.	1.9
Structural Repair of Concrete (Depth Equal to or Less than 5")	Sq. Ft.	158

HEADWALL/WINGWALL - CONCRETE REPAIRS									
Juneau Associates, Inc. P.C. CONSULTING ENGINEERS AND LAND SURVEYORS <small>2100 State St., Juneau, Alaska 99801 Phone: 907-586-7100 / Fax: 907-586-7100 1100 North Prospect St., Sitka, Alaska 99801 Phone: 907-586-7100 / Fax: 907-586-7100</small>		SCOTT TROY BIKE TRAIL OVER TRIBUTARY T1 TO CANTEEN CREEK MADISON COUNTY STATION 154+97.95 STRUCTURE NO. 2							
		REVISIONS <table border="1"> <thead> <tr> <th>NO.</th> <th>DATE</th> <th>BY</th> <th>REMARKS</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>		NO.	DATE	BY	REMARKS		
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DGN NAME:		JOB NO. E074404 CONTRACT NO. 97633 OF 335 SHTS							

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* 6" minimum embedment of as required by manufacturer.
SECTION E-E
 (Showing Replacement)



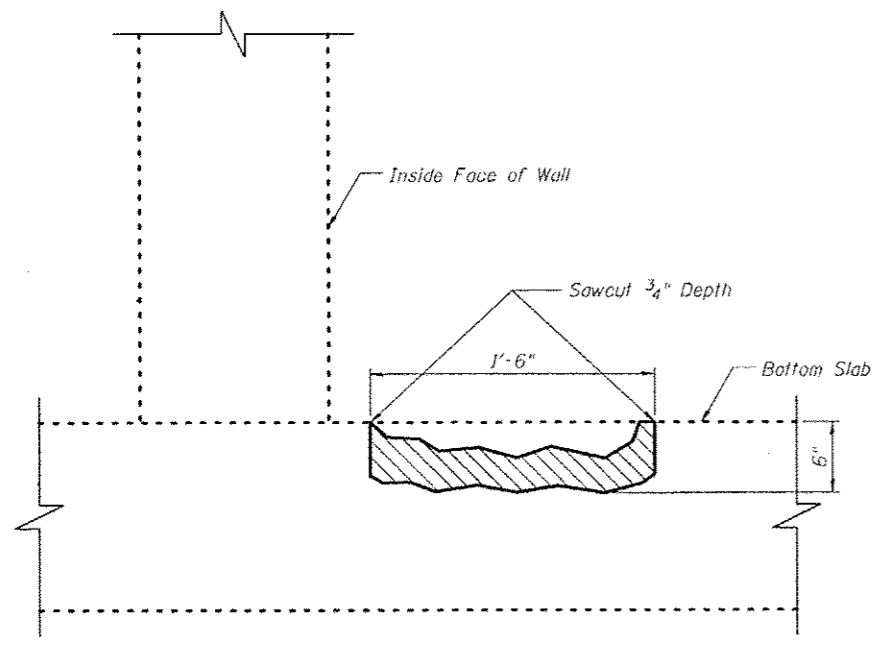
**HEADWALL/WINGWALL
 CONCRETE REPLACEMENT
 BILL OF MATERIAL**

Bar	No.	Size	Length	Shape	
h(E)	3	#5	41'-10"	—	
h1(E)	3	#5	33'-0"	—	
v(E)	75	#5	2'-0"	└	
Concrete Structures				Cu. Yd.	4.2
Reinforcement Bars, Epoxy Coated				Pound	391

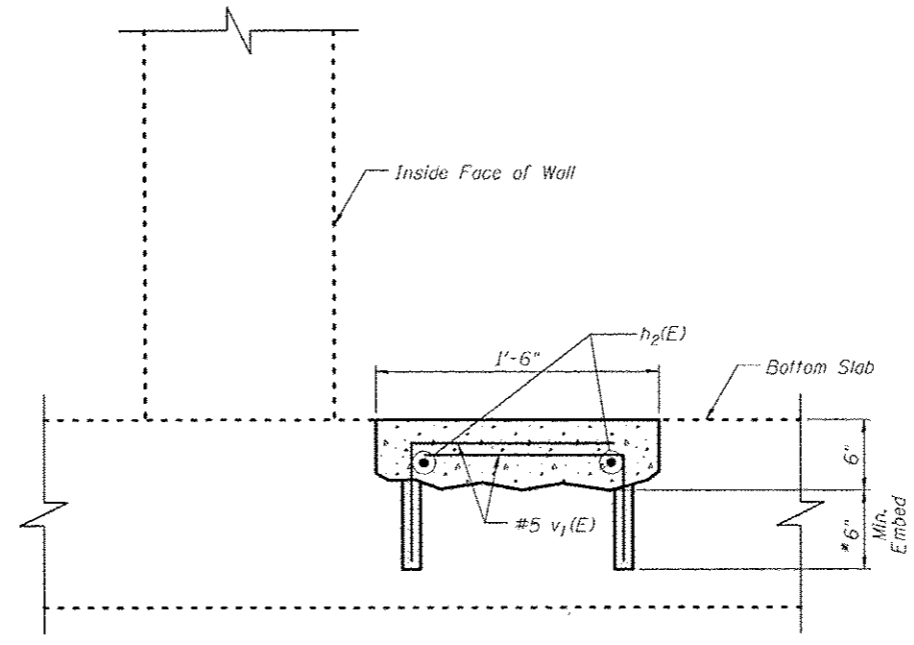
Note:
 Epoxy grout #5 v(E) Bars in 7/8" Drilled holes, see Standard Specifications. Cost included with Reinforcement Bars, Epoxy Coated.

Juneau Associates, Inc. P.C. CONSULTING ENGINEERS AND LAND SURVEYORS <small>2100 State St., Juneau, AK 99801 / 710 North Stearns St., Juneau, AK 99801 / 10000 Highway 1, Sitka, AK 99830 / 14000 Highway 1, Sitka, AK 99830</small> <small>Phone: (907) 586-1100 / Fax: (907) 586-1100 / Phone: (907) 586-1100 / Fax: (907) 586-1100</small>		SCOTT TROY BIKE TRAIL OVER TRIBUTARY T1 TO CANTREEN CREEK MADISON COUNTY STATION 154+97.95 STRUCTURE NO. 2	
REVISIONS NO. DATE BY REMARKS		SCALE: NOT TO SCALE, FOLLOW DIMENSIONS	
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CHK'D: NK DATE: 04/20/2016		JOB NO. E074404 CONTRACT NO. 97633 OF 335 SHTS	
DGN NAME:		8 OF 9 SHTS	

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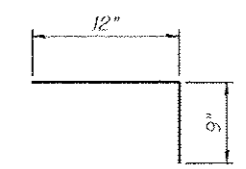


SECTION F-F
(Showing Removal)

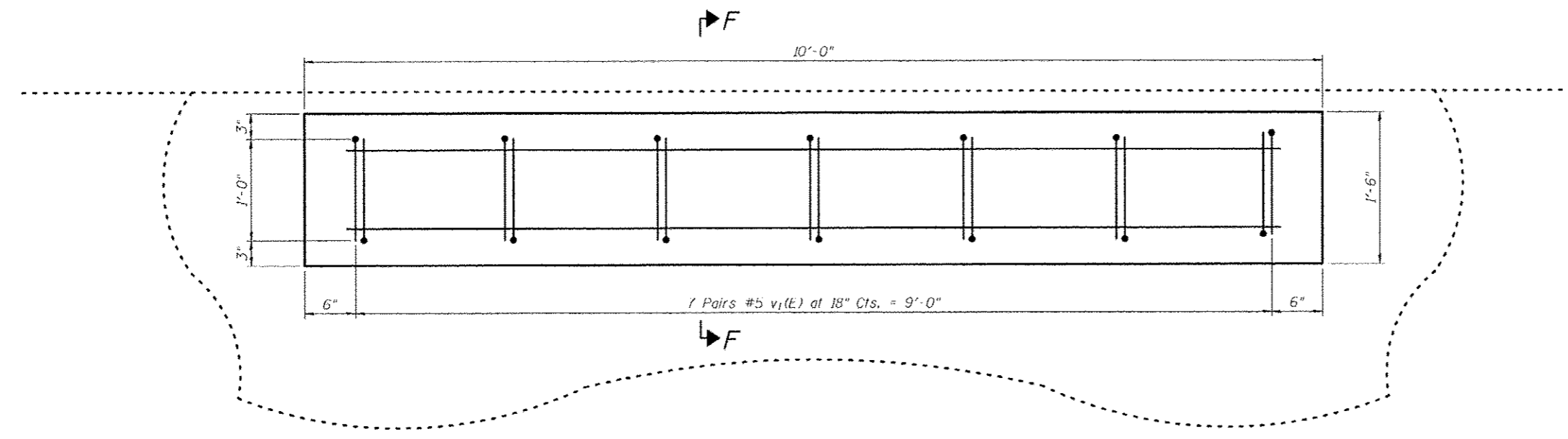


SECTION F-F
(Showing Replacement)

* 6" minimum embedment or as required by manufacturer.



BAR v₁(E)



DETAIL A

**BOTTOM SLAB CONCRETE REPAIR
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h ₂ (E)	4	#5	9'-9"	—
v ₁ (E)	28	#5	1'-9"	⌊
Concrete Removal			Cu. Yd.	0.6
Concrete Structures			Cu. Yd.	0.6
Reinforcement Bars, Epoxy Coated			Pound	92

Note:
 For location of Detail A. See Sheet 5.
 Epoxy grout #5 v₁(E) bars in 7/8" drilled holes. See Standard Specifications. Cost included with Reinforcement Bars, Epoxy Coated.

LEGEND
 Concrete Removal

BOTTOM SLAB CONCRETE REPAIR DETAILS

Juneau Associates, Inc. P.C.
 CONSULTING ENGINEERS AND LAND SURVEYORS
 7100 State St., Juneau, Alaska 99801
 Phone: (907) 586-1100 / Fax: (907) 586-1101
 100 North Starbuck Dr., Sitka, Alaska 99830
 Phone: (907) 339-0200 / Fax: (907) 339-0201
 Registered Professional Service Corporation License No. 184-001591

SCOTT TROY BIKE TRAIL
 OVER TRIBUTARY T1 TO CANTEN CREEK
 MADISON COUNTY
 STATION 154+97.95
 STRUCTURE NO. 2

REVISIONS				SCALE:	
NO.	DATE	BY	REMARKS	NOT TO SCALE, FOLLOW DIMENSIONS	
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				DWN. BY:	ER DATE: 04/18/2016 141
				CHKD:	NK DATE: 04/20/2016
DGN NAME:				JOB NO.	E074404 CONTRACT NO. 97633 OF 335 SHTS

Existing Structure:
Concrete piers, abutments, and wingwalls

Existing Overhead Wires
Upper Line Elev. +603.00
Existing Overhead Wires
Lower Line Elev. +588.75

CAUTION OVERHEAD WIRES

DESIGN SPECIFICATIONS

2009 AASHTO LRFD Guide Specifications for Design of Pedestrian Bridges
2012 AASHTO LRFD Bridge Design Specifications 6th Edition with 2013 Interims

LOADING

Pedestrian Live Load = 90 psf
Vehicle Live Load = H-10

DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi (Concrete)
fy = 36,000 psi (Structural Steel)
fy = 60,000 psi (Reinforcement)
fy = 45,000 psi (Bolts, nuts, etc.)

Design stresses for wood members shall be as specified in Section 1007 of the IDOT Standard Specifications.

SEISMIC DATA

Seismic Performance Zone (SPZ) = 2
Design Spectral Acceleration at 1.0 sec. (S_{DI}) = 0.243g
Design Spectral Acceleration at 0.2 sec. (S_{DS}) = 0.530g
Soil Site Class = D

WATERWAY INFORMATION

Drainage Area = 0.75 Sq. Mi. Low Grade Elev. 562.62 @ Sta. 245+50.00									
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Nat. Head - Ft.		Headwater El.		
			Exist.	Prop.	Exist.	Prop.	Exist.	Prop.	
Design	10	565	144.19	144.19	513.68	0	0	513.68	513.68
Base	100	1071	213.81	213.81	516.10	0	0	516.10	516.10
Overtopping									
Max. Calc.	500	1450	253.95	253.95	517.35	0	0	517.35	517.35

Notes:

1. The Pedestrian Truss Superstructure shall conform to the following configuration:

Clear Span: 223'-6³/₄" @ Brg. - @ Brg.
Clear Width: 12'-0"
Clear Height: 8'-3"
Rub Rail and Wood Deck shall be as shown in the Cross Section on Sheet 2.
@ Truss Bearings = 13'-4" at Abutments

2. Truss Manufacturer shall camber truss to provide min. vertical clearance as shown with allowance for Dead Load Deflection.

3. The substructure has been designed per AASHTO and based on assumed truss service dead loads shown below:

Total Superstructure Dead Load = 220.40^K
Total Truss Dead Load at Abutment = 110.20^K

4. Truss bearings at abutments are assumed to be 8" deep.

5. Safety Screen shall be a vinyl coat fence. Vinyl coat color to be determined by Owner.

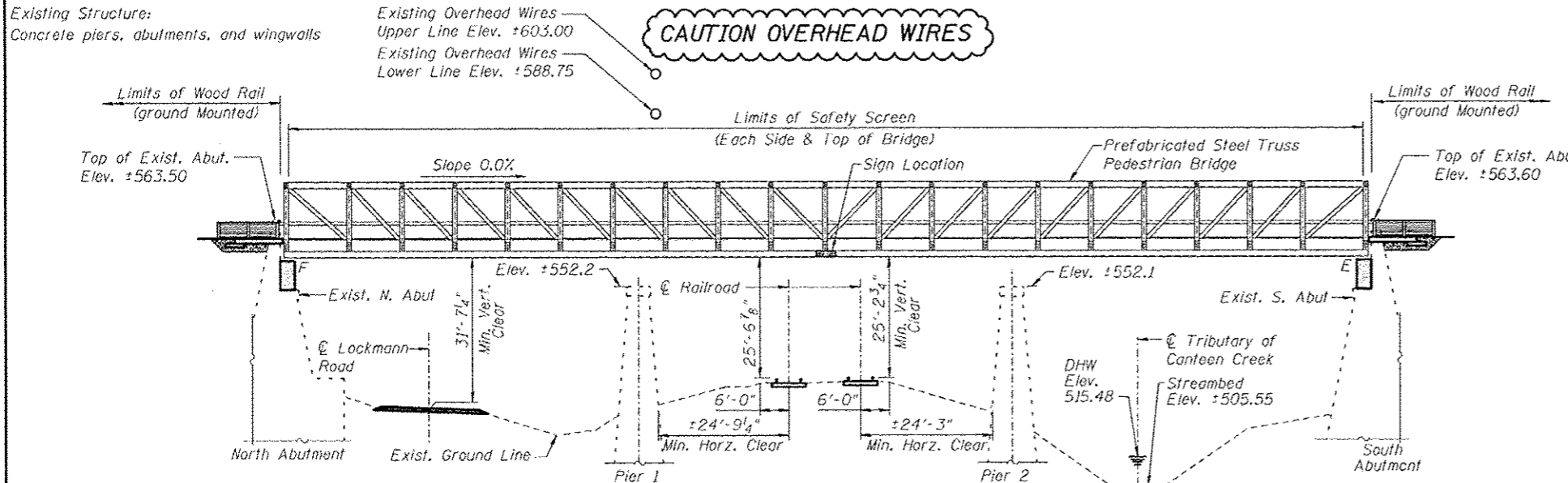
6. For General Notes and Total Bill of Material, see Sheet 2 of 13.

7. For Cross Section and Profile Grade, see Sheet 2 of 13.

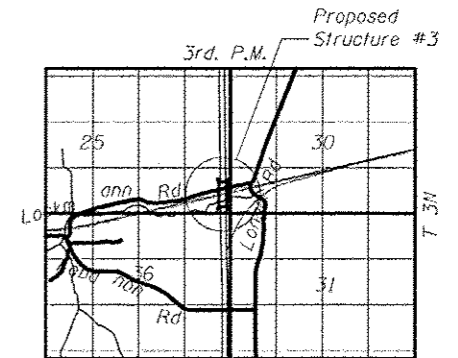
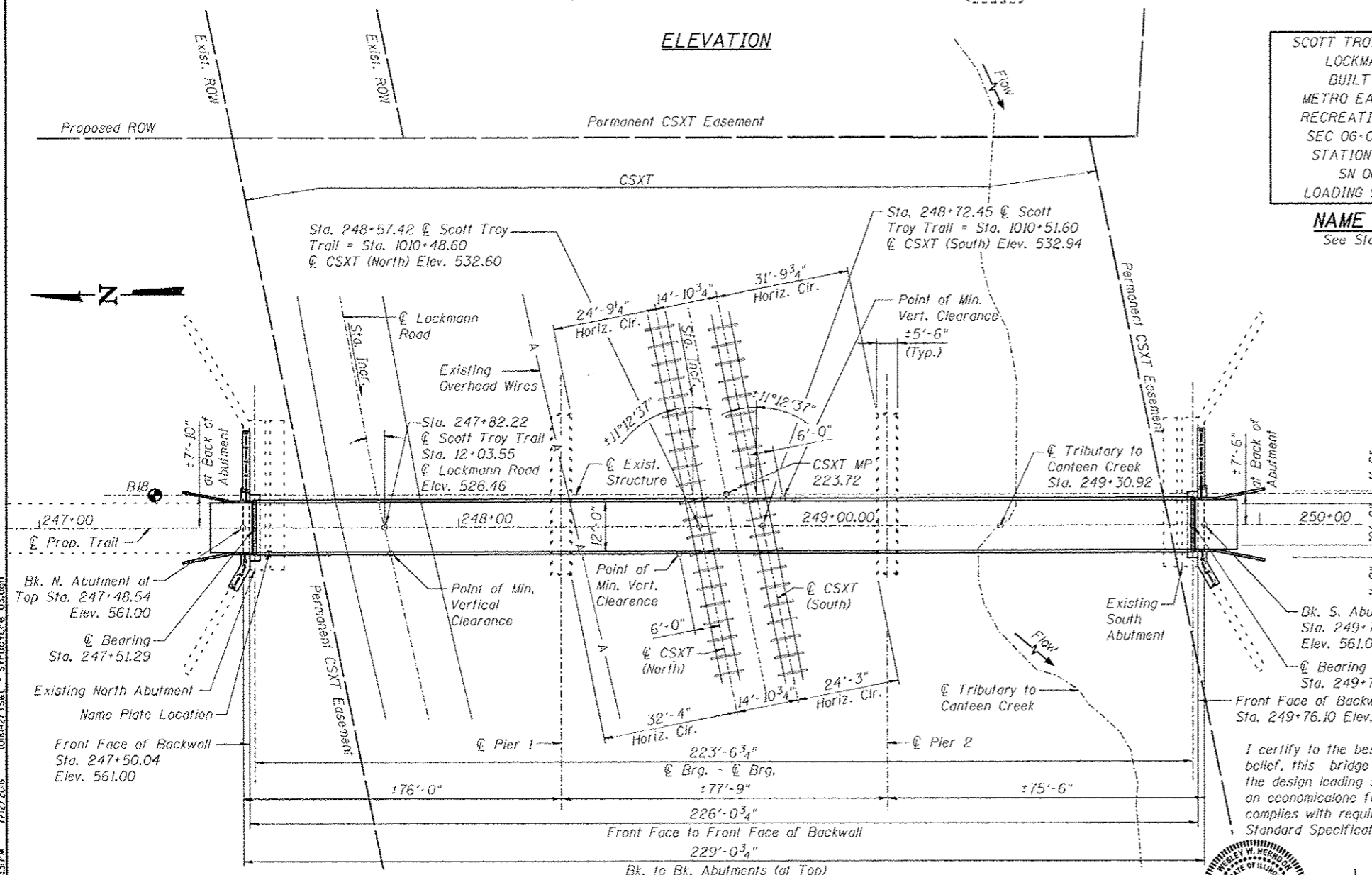
8. For Sequence of Construction, see Sheet 5 of 13.

SCOTT TROY TRAIL OVER
LOCKMANN ROAD
BUILT 20... BY
METRO EAST PARKS &
RECREATION DISTRICT
SEC 06-00001-00-BT
STATION 247+82.32
SN 060-7100
LOADING 90PSF & H10

NAME PLATE
See Std. 515001



ELEVATION



LOCATION SKETCH

PROPOSED PLAN & ELEVATION

Juneau Associates, Inc. P.C.
CONSULTING ENGINEERS AND LAND SURVEYORS
2100 State St., Suite 200, Madison, WI 53706
Tel: 608.261.1234 Fax: 608.261.1235
www.juneauassociates.com

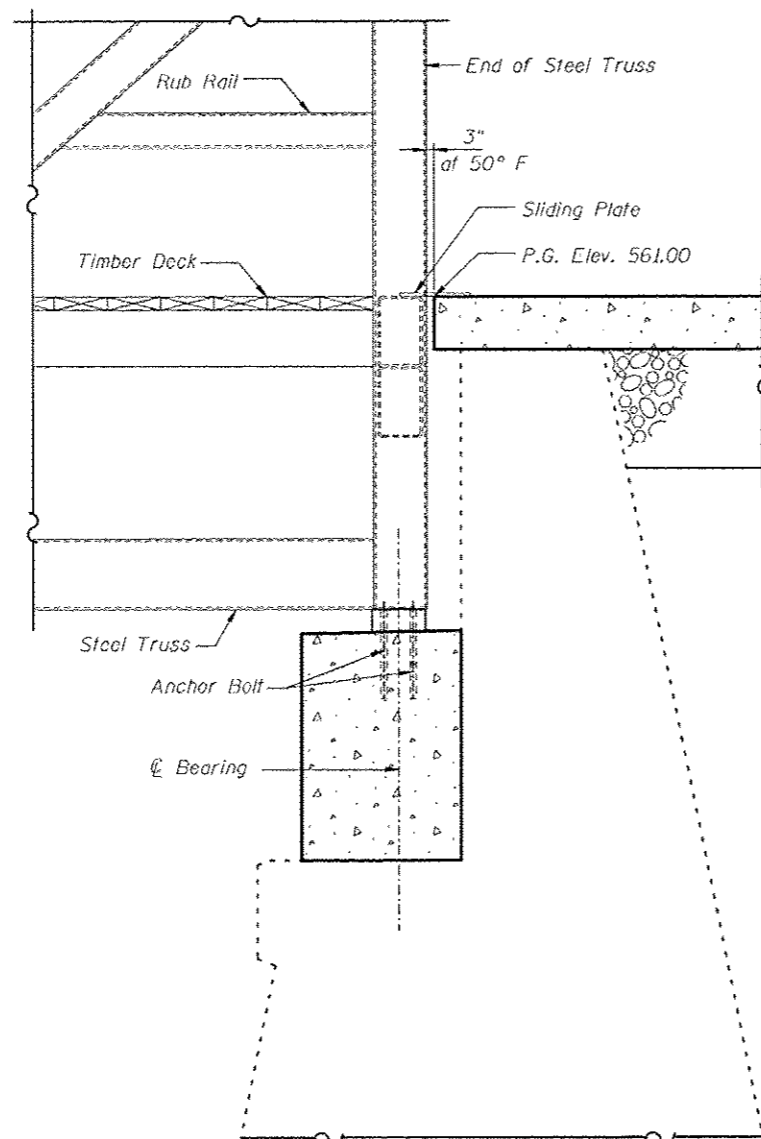
SCOTT TROY BIKE TRAIL OVER LOCKMANN ROAD, CSX RR & A TRIBUTARY TO CANTEEN CREEK SECTION 06-00001-00-BT MADISON COUNTY STATION 247+82.22 STRUCTURE NO. 060-7100

SCALE: NOT TO SCALE, FOLLOW DIMENSIONS

NO.	DATE	BY	REVISIONS	REMARKS

DSN. BY: DB DATE: 04/18/2016 SHEET
DWN. BY: ER DATE: 04/18/2016
CHKD: NK DATE: 04/20/2016
JOB NO. E074404 CONTRACT NO. 07633 OF 335 SHTS

Printed: 2:26:33 PM 7/12/2016 031421 ISS - Structure 03.dwg



ABUTMENT SECTION
(Dimension at Right Angles to Bearing)

Notes:

Anchor bolts shall be ASTM F1554 all-thread (or an Engineer approved alternate material of grade(s) and diameter(s)). Size, Grade and location of anchor bolts shall be determined by the pedestrian truss manufacturer. The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.

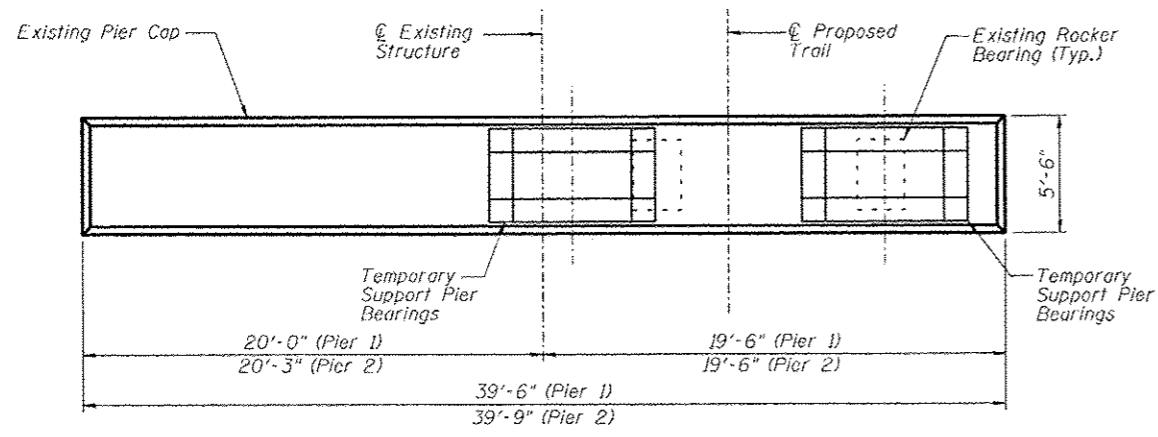
Anchor bolts at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.

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

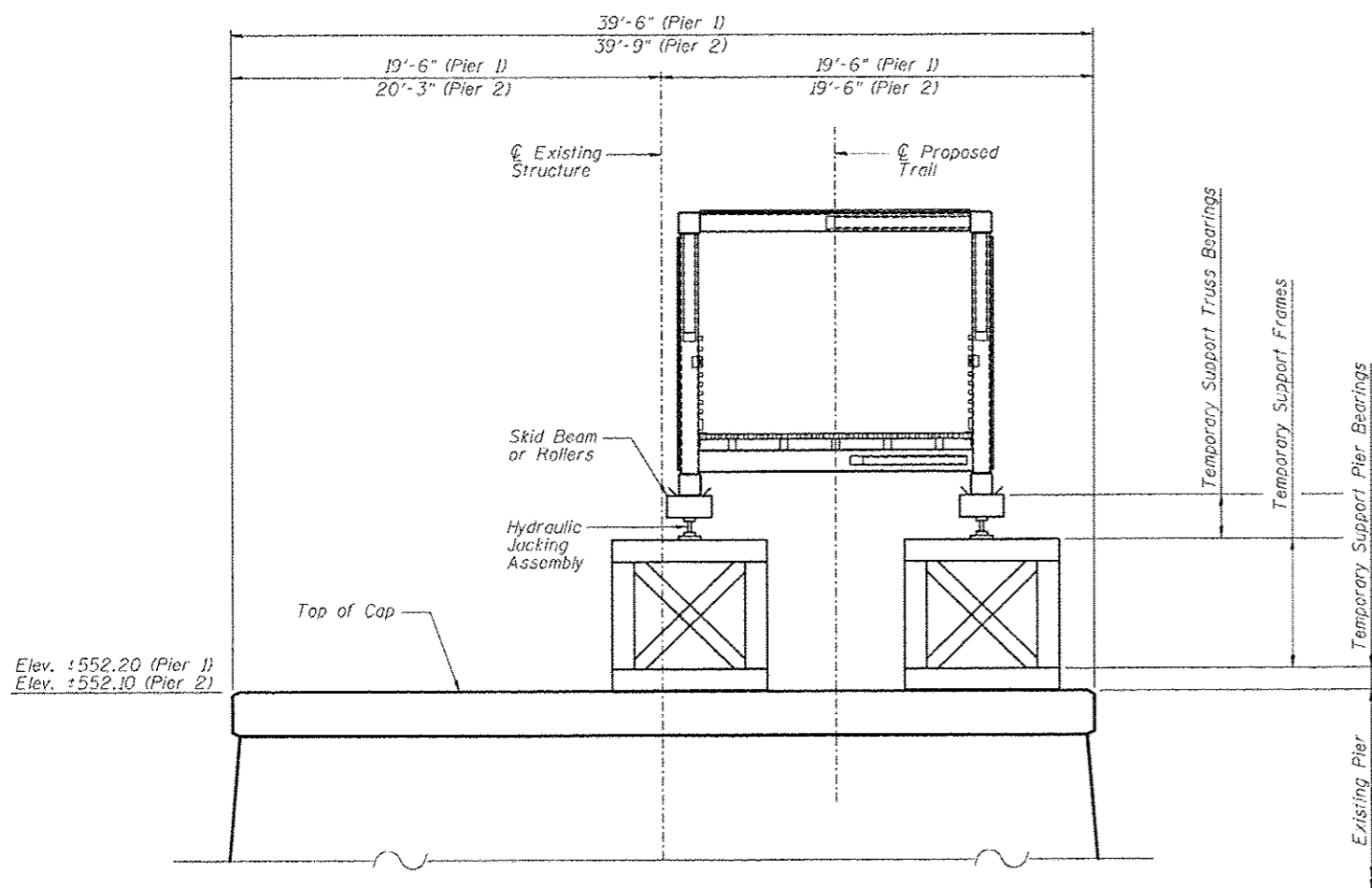
Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.

Printed: 05:53 AM 7/27/2016 C:\311441\Abutment Details.dgn

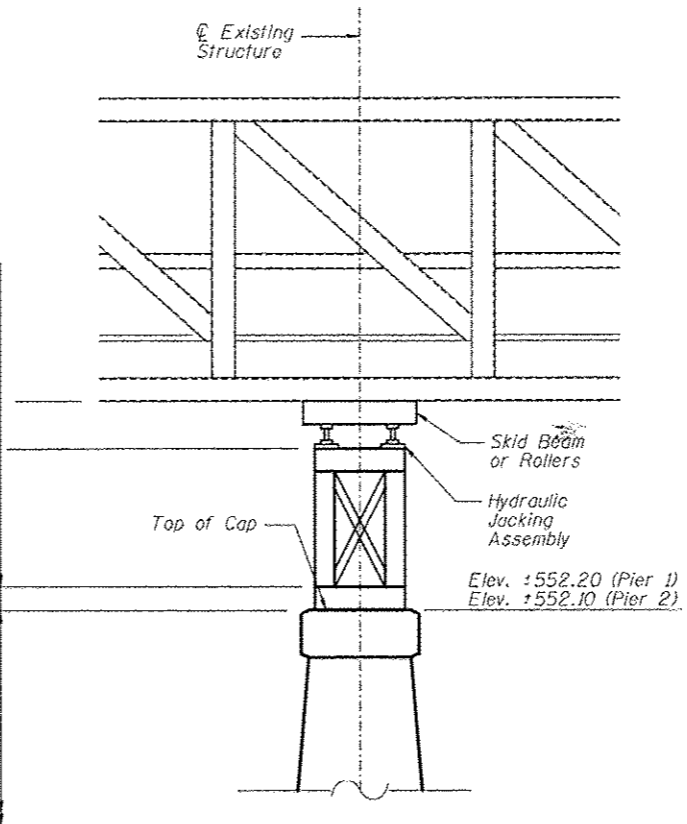
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NO.	DATE	BY	REMARKS	NOT TO SCALE, FOLLOW DIMENSIONS	
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				CHKD:	NK DATE: 04/20/2016
DGN NAME:				JOB NO.	E074404 CONTRACT NO. 97633 OF 335 SHTS



PLAN



ELEVATION
(Looking South)



SECTION

Notes:

1. The contractor is responsible for maintaining the stability of the structure at all times and shall take all necessary precautions to maintain the stability and safety of the existing intermediate pier at the contractor's cost.
2. The contractor shall be responsible for the design of the Temporary Supports including Temporary Support Pier Bearings, Temporary Support Frames and Temporary Support Truss Bearings on top of the two existing intermediate bridge piers necessary to install the new prefabricated steel truss. See Special Provisions.
3. The contractor shall submit drawings and design calculations signed and sealed by a Licensed Structural Engineer registered in the State of Illinois to the Engineer for review a minimum of 4 weeks prior to the installation of any Temporary Supports.
4. The Temporary Supports including Temporary Support Pier Bearings, Temporary Support Frames and Temporary Support Truss Bearings on top of the two existing intermediate bridge piers shall be designed and constructed to support the vertical service loads shown on the plans.
5. The reactions provided are based on the proposed truss service loads. The Contractor must use the actual truss service loads for the design of the Temporary Supports.
6. The Contractor shall remove the existing rocker bearings located on the abutments and piers. The cost for removing the existing rocker bearings shall be considered completely covered by the contract unit price per each for Removal of Existing Bearings.
7. Temporary Support Pier Bearings at the intermediate piers shall be designed for an allowable bearing pressure not to exceed 1500 psi.
8. The cost of all materials, equipment and labor necessary to design, construct, maintain and remove the Temporary Supports including Temporary Support Pier Bearings, Temporary Support Frames and Temporary Support Truss Bearings on top of the two existing intermediate bridge piers shall be considered completely covered by the contract lump sum price for Temporary Supports.

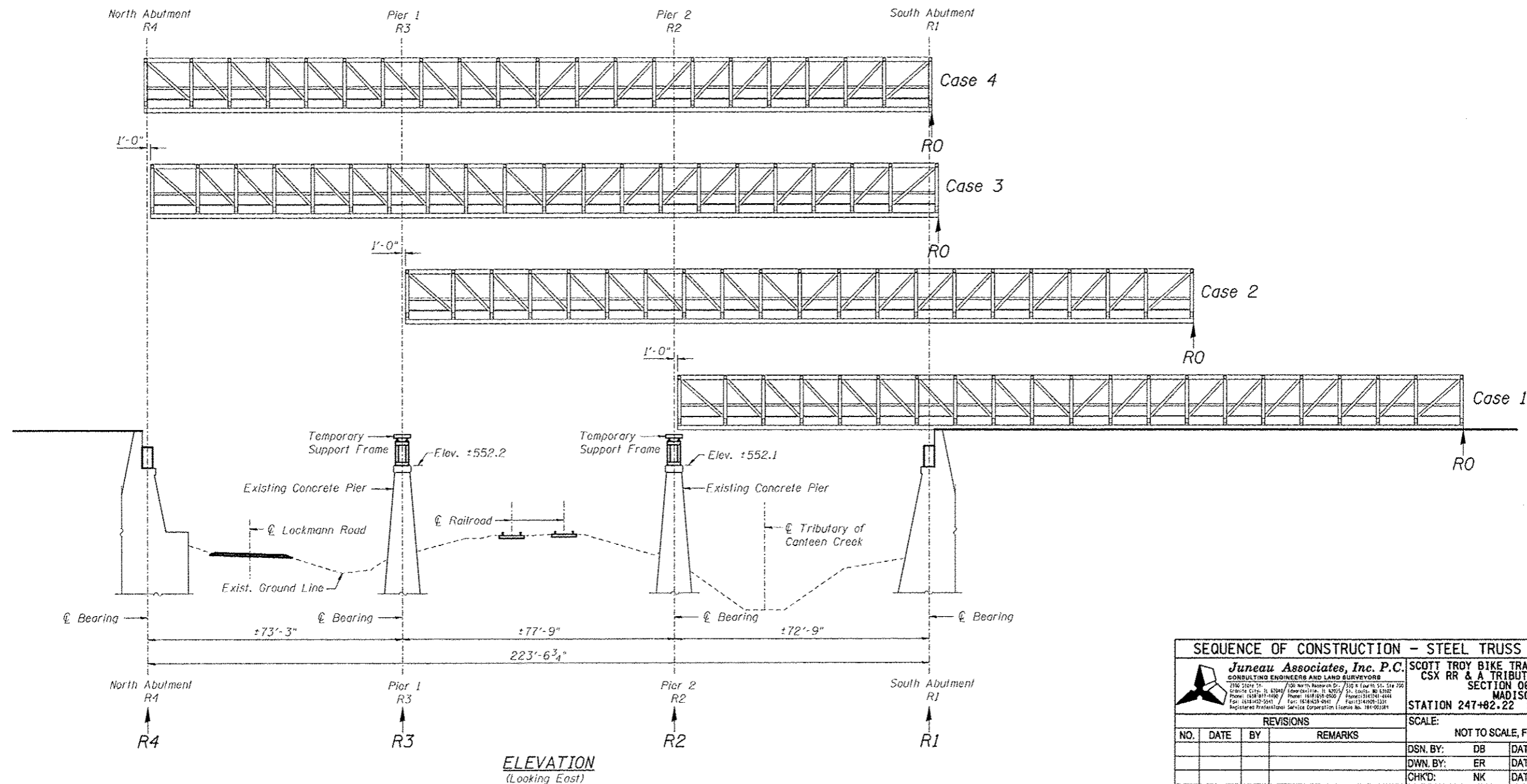
Printed: 05:28 AM 7/2/2015 (03/14/15) Temporary_Support.dgn


TEMPORARY SUPPORTS AT EXISTING INTERMEDIATE PIERS		SCOTT TROY BIKE TRAIL OVER LOCKMANN ROAD, CSX RR & A TRIBUTARY TO CANTEN CREEK SECTION 06-00001-00-BT MADISON COUNTY STATION 247+82.22 STRUCTURE NO. 060-7100																					
Juneau Associates, Inc. P.C. CONSULTING ENGINEERS AND LAND SURVEYORS <small>7100 State St., 7100 North Research Dr., 7110 & Four 16 St., 214 3300 Granite City, IL 62040 / Granite City, IL 62040 / St. Louis, MO 63103 Phone: 618.818.1100 / Phone: 618.818.0200 / Fax: 618.818.1144 Fax: 618.818.1241 / Fax: 618.818.0911 / Fax: 618.818.0911</small>																							
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JOB NO. E074404		CONTRACT NO. 97633 OF 335 SHTS																					

SEQUENCE OF CONSTRUCTION - STEEL TRUSS SUPERSTRUCTURE

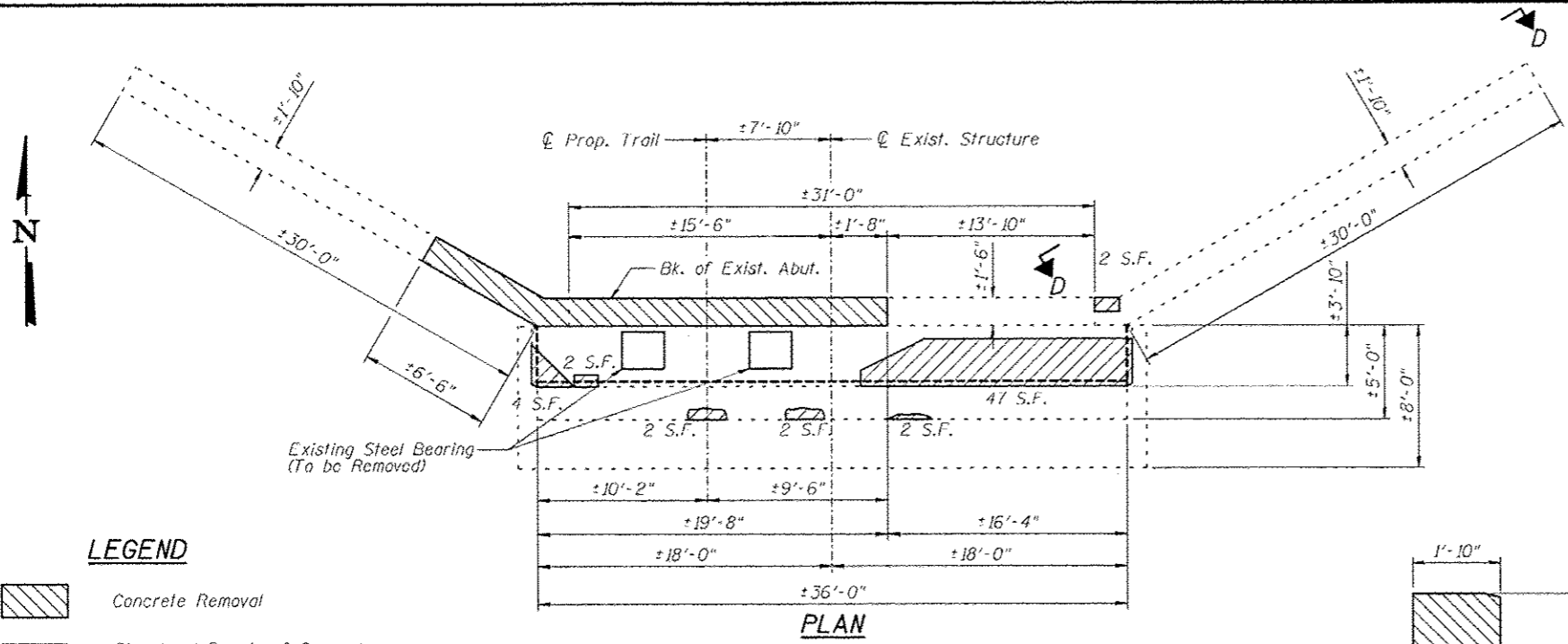
ESTIMATED SERVICE LOAD REACTIONS					
	R4	R3	R2	R1	R0
Case 1	--	--	--	162.21 ^K	58.18 ^K
Case 2	--	--	151.91 ^K	31.32 ^K	37.13 ^K
Case 3	--	141.49 ^K	42.16 ^K	36.25 ^K	--
Case 4	110.20 ^K	--	--	110.20 ^K	--

1. Install Temporary Supports including Temporary Support Pier Bearings, Temporary Support Frames, and Temporary Support Truss Bearings on top of the two existing intermediate bridge piers to facilitate the installation of the steel truss superstructure.
2. Assemble the steel truss superstructure South of the South Abutment.
3. Connect the North end of the steel truss superstructure with cable suitable to pull the steel truss superstructure horizontally. Connect the cables to a crane or other mechanical means suitable for pulling the steel truss superstructure to the North.
4. Vertically support the South end of the steel truss superstructure with a crane or other mechanical means suitable for moving the steel truss superstructure horizontally.
5. With cranes or other mechanical means move the steel truss superstructure to the North in a slow and controlled manner. Use the Temporary Supports located at the two existing intermediate piers to facilitate the installation of the steel truss superstructure.
6. After the steel truss superstructure is in place, lower the jacking assembly and remove the Temporary Supports at the top of the two existing intermediate bridge piers.



SEQUENCE OF CONSTRUCTION - STEEL TRUSS SUPERSTRUCTURE  Juneau Associates, Inc. P.C. CONSULTING ENGINEERS AND LAND SURVEYORS <small>2100 State St., 7th Floor, Madison, WI 53703-1500 / Phone: 608.261.1400 / Fax: 608.261.1404 2100 State St., 7th Floor, Madison, WI 53703-1500 / Phone: 608.261.1400 / Fax: 608.261.1404 2100 State St., 7th Floor, Madison, WI 53703-1500 / Phone: 608.261.1400 / Fax: 608.261.1404</small>		SCOTT TROY BIKE TRAIL OVER LOCKMANN ROAD, CSX RR & A TRIBUTARY TO CANTEEN CREEK SECTION 06-00001-00-BT MADISON COUNTY STATION 247+82.22 STRUCTURE NO. 060-7100																	
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NO.	DATE	BY	REMARKS																
DGN NAME:		5 OF 13 SHTS																	

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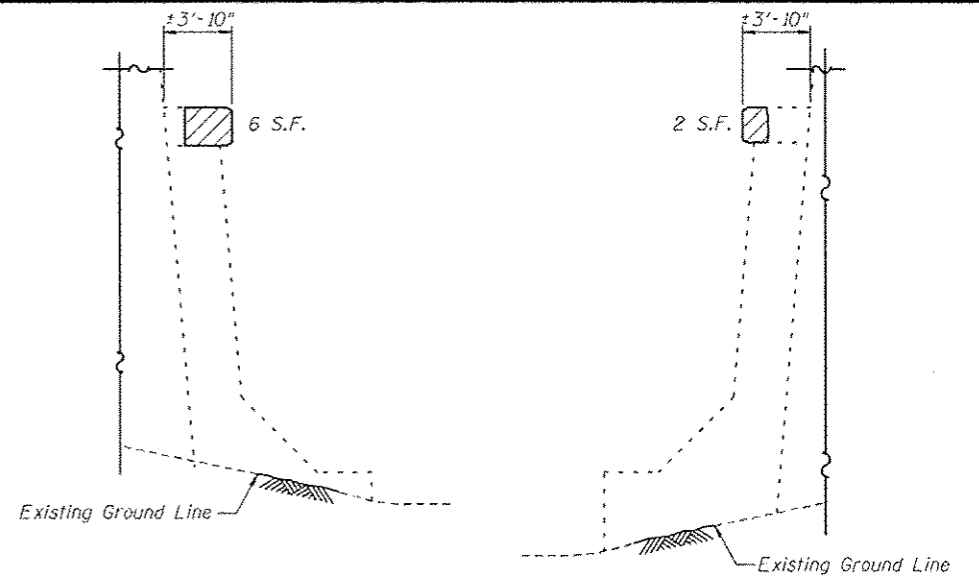


LEGEND

- Concrete Removal
- Structural Repair of Concrete (Depth Equal to or Less Than 5")

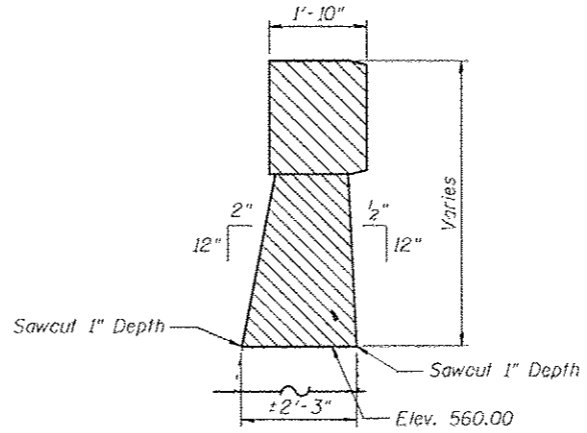
**NORTH ABUTMENT
BILL OF MATERIAL**

ITEM	UNIT	TOTAL
Concrete Removal	Cu. Yd.	6
Structural Repair (Depth Equal to or Less Than 5")	Sq. Ft.	119
Clean Bearing Seats	Sq. Ft.	138

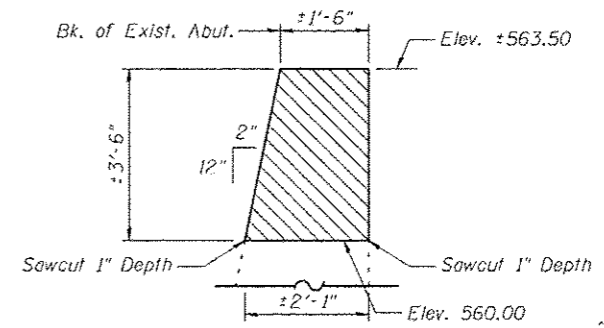


ELEVATION A-A
(Looking East)

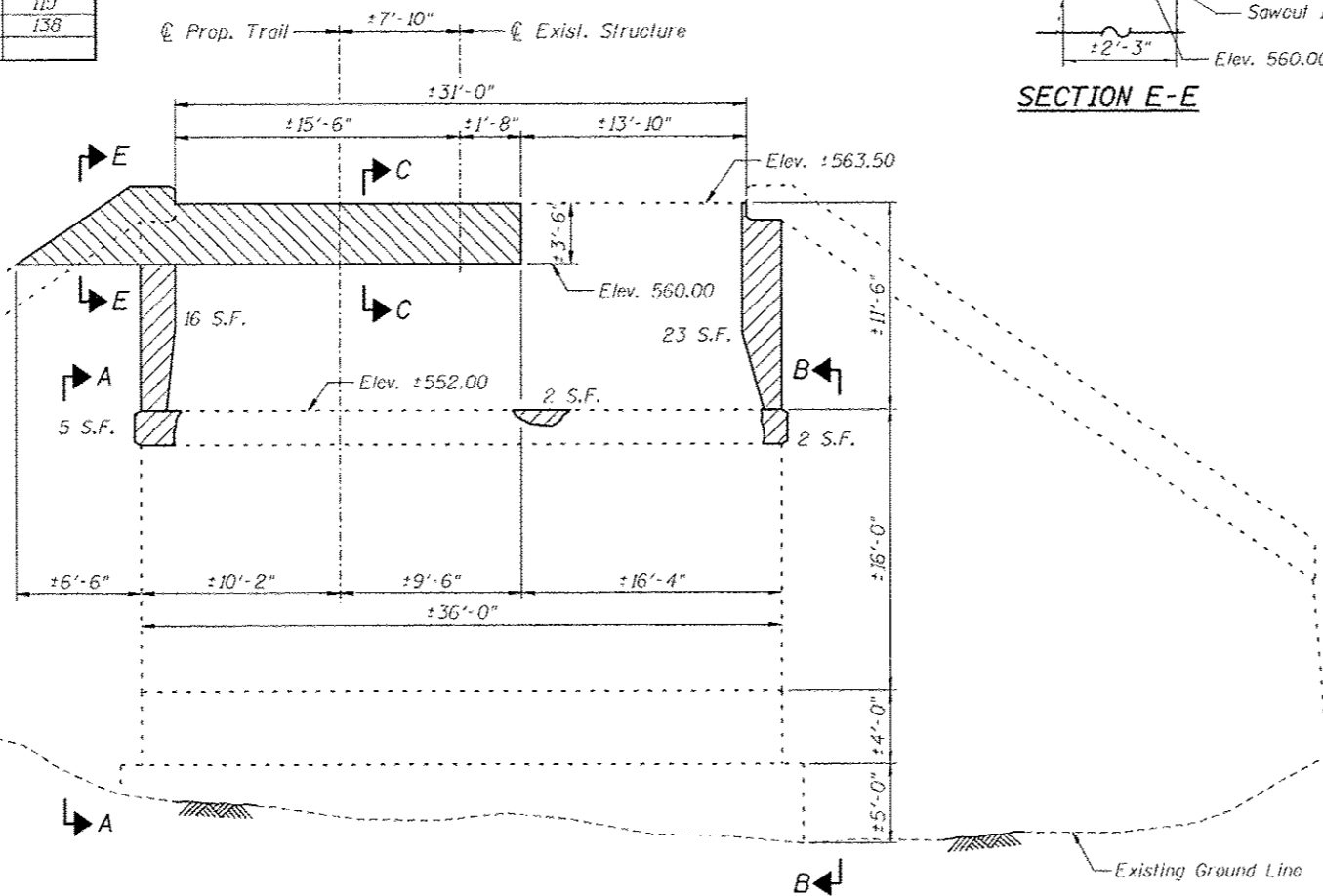
ELEVATION B-B
(Looking West)



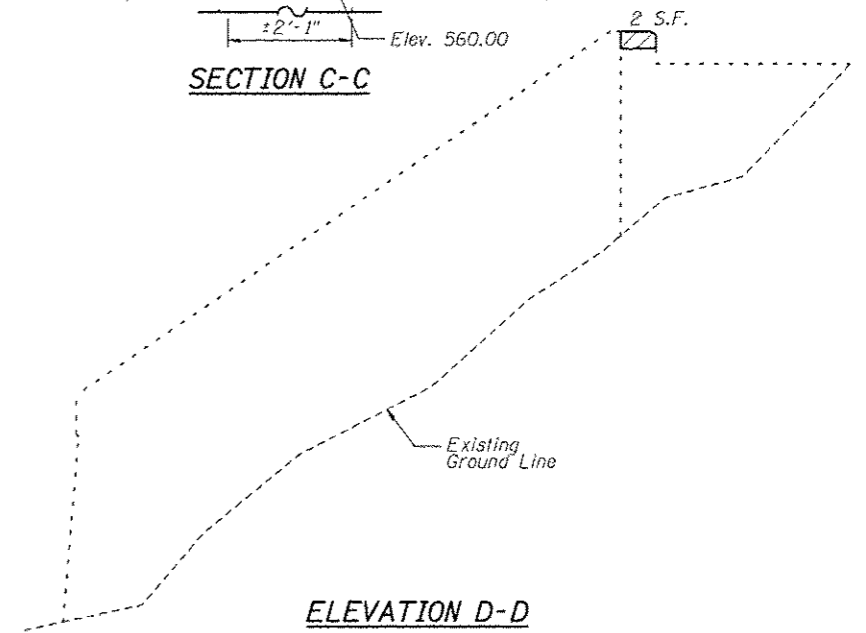
SECTION E-E



SECTION C-C



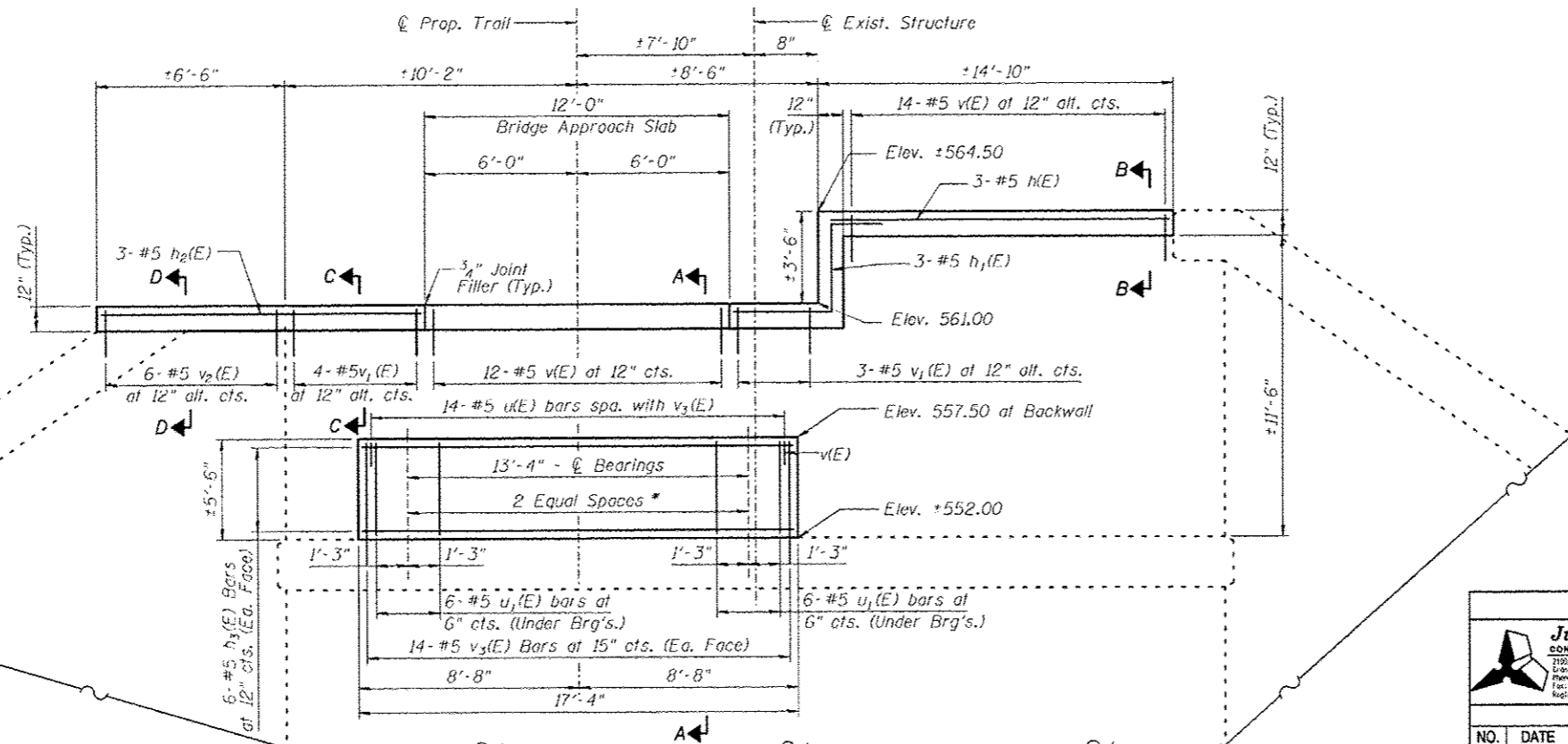
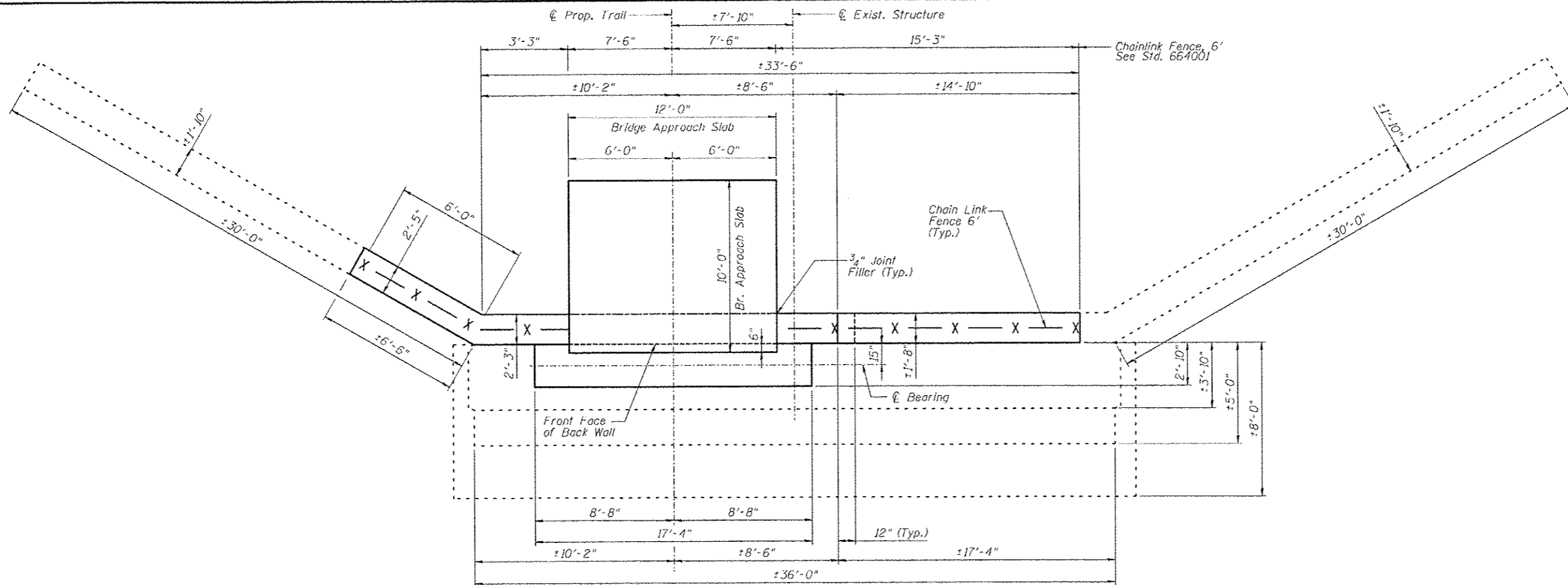
NORTH ABUTMENT
(Developed Elevation - Looking North)
(Showing Concrete Removal and Concrete Repair)



ELEVATION D-D

NORTH ABUTMENT CONCRETE REMOVAL AND REPAIRS			
Juneau Associates, Inc. P.C. <small>CONSULTING ENGINEERS AND LAND SURVEYORS</small> 7100 State St., Suite 200, Granite City, IL 62040 Phone: 618-837-1000 / Fax: 618-837-1001 1500 North Riverside Dr., Suite 200, Chicago, IL 60642 Phone: 618-837-1000 / Fax: 618-837-1001		SCOTT TROY BIKE TRAIL OVER LOCKMANN ROAD, CSX RR & A TRIBUTARY TO CANTEEN CREEK SECTION 06-00001-00-BT MADISON COUNTY STATION 247+82.22 STRUCTURE NO. 060-7100	
REVISIONS NO. DATE BY REMARKS			
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DSN. BY: DB		DATE: 04/18/2016	
DWN. BY: ER		DATE: 04/18/2016	
CHK'D: NK		DATE: 04/20/2016	
JOB NO. E074404		CONTRACT NO. 97633	

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Note:
 * Contractor to coordinate the total dimension with truss manufacturer.
 #5 v(E), v₁(E), v₂(E), v₃(E) and h₂(E) bars shall be installed in existing concrete using HILTI HIT-RE 500 Epoxy Adhesive with a minimum embed depth as shown on sheet B of 13, or approved equal. Cost included with Reinforcement Bars, Epoxy Coated.
 For Section A-A, B-B, C-C and D-D, see Sheet B of 13.
 For North Abutment Bill of Material, see Sheet B of 13.
 Space Reinforcement in cap to miss anchor bolts.

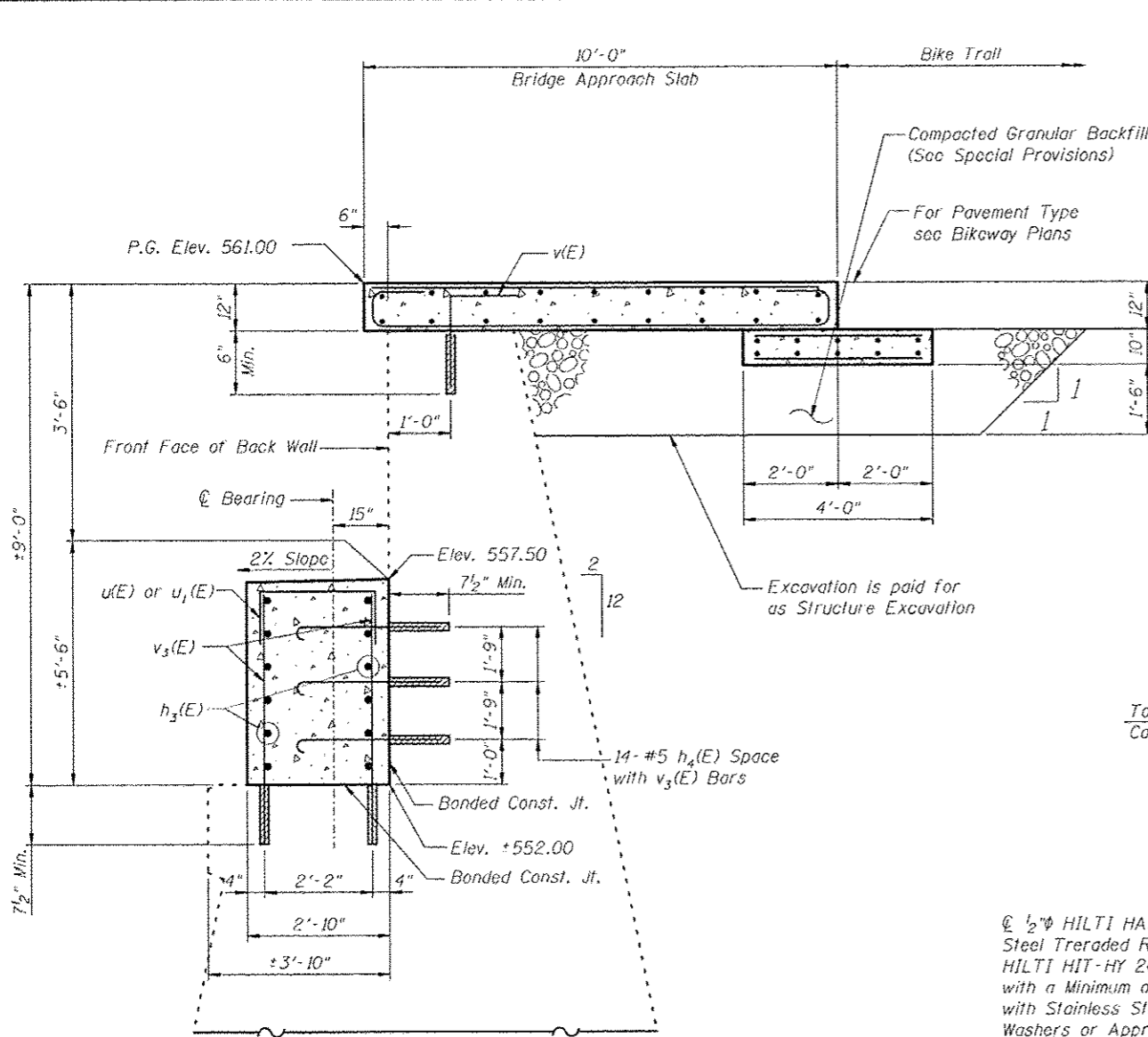
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				CHK'D:	NK	DATE: 04/20/2016
				JOB NO.	E074404	CONTRACT NO. 97633

PROPOSED NORTH ABUTMENT DETAILS

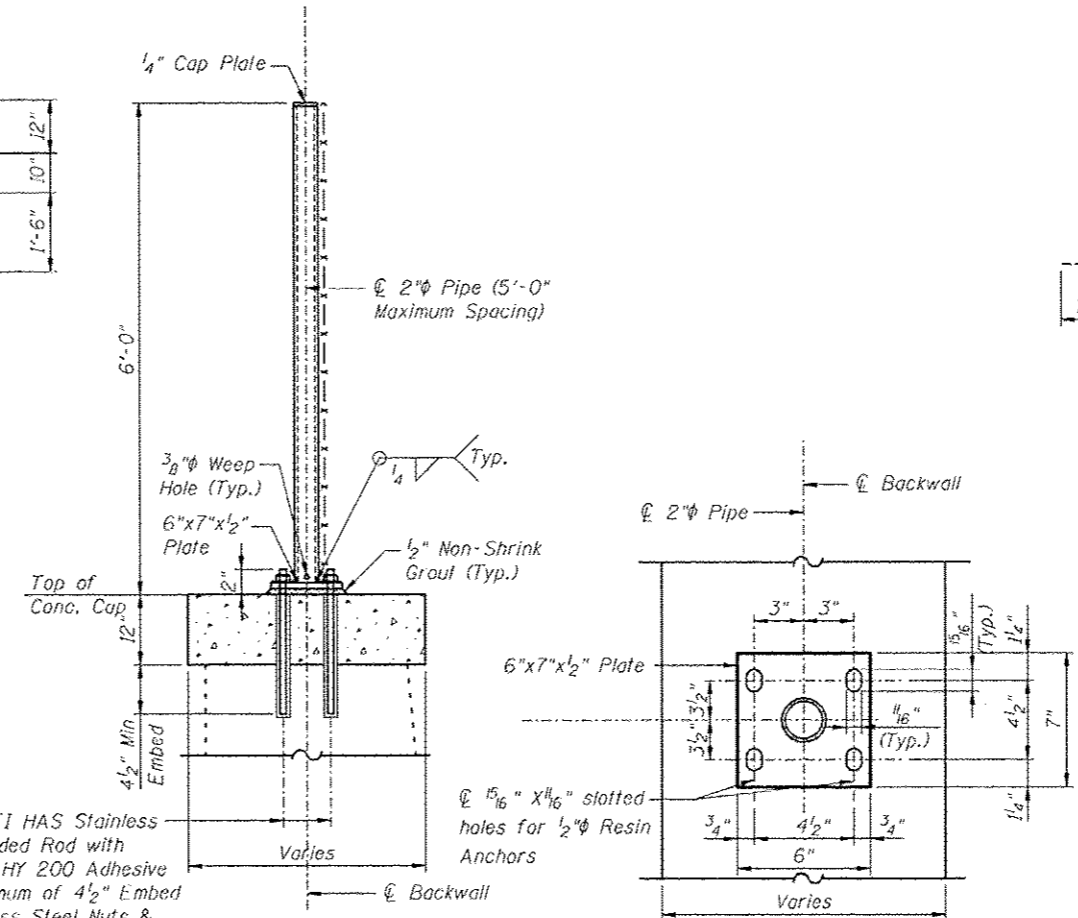
Juneau Associates, Inc. P.C.
 CONSULTING ENGINEERS AND LAND SURVEYORS
 2150 State St., Juneau, Alaska 99801
 Phone: (907) 586-1100 / Fax: (907) 586-1101
 Email: info@juneauassoc.com / Website: www.juneauassoc.com

SCOTT TROY BIKE TRAIL OVER LOCKMANN ROAD,
 CSX RR & A TRIBUTARY TO CANTEEN CREEK
 SECTION 06-00001-00-BT
 MADISON COUNTY
 STATION 247+82.22 STRUCTURE NO. 060-7100

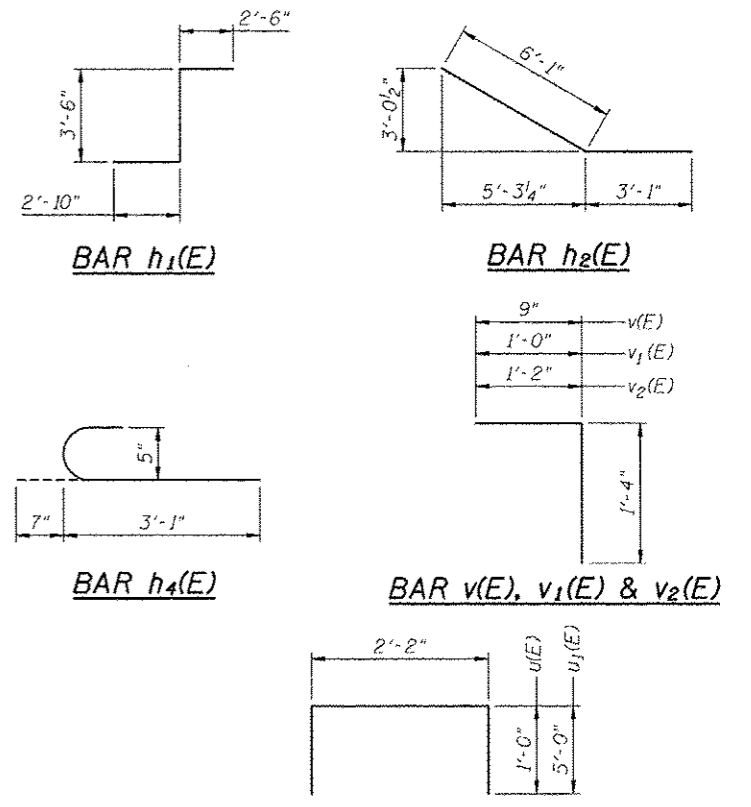
7 OF 13 SHTS



SECTION A-A



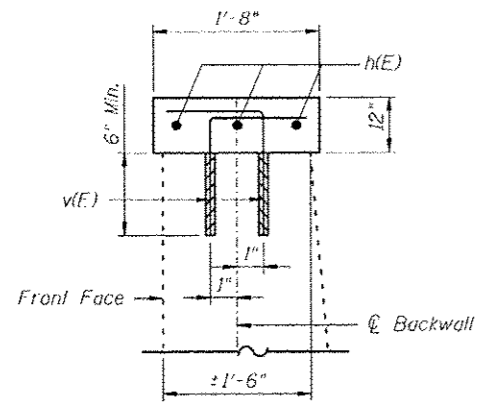
SECTION FENCE DETAIL



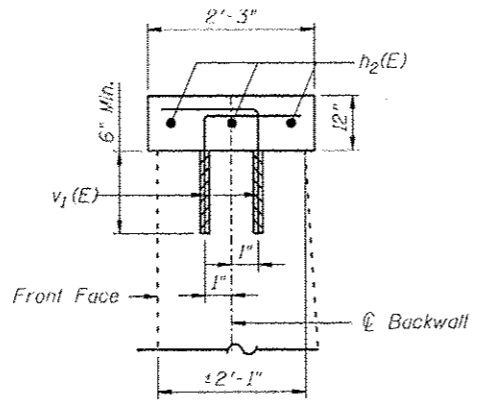
BAR u(E) & u1(E)

NORTH ABUTMENT BILL OF MATERIAL

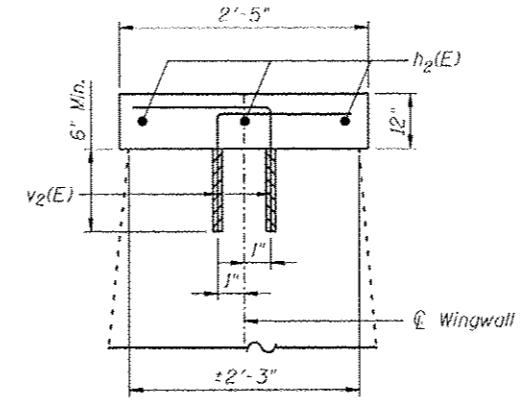
Bar	No.	Size	Length	Shape
h(E)	3	#5	14'-6"	U
h1(E)	3	#5	8'-10"	U
h2(E)	3	#5	9'-2"	U
h3(E)	12	#5	17'-1"	U
h4(E)	42	#5	3'-8"	U
u(E)	14	#5	4'-2"	U
u1(E)	12	#5	12'-2"	U
v(E)	26	#5	2'-1"	U
v1(E)	7	#5	2'-4"	U
v2(E)	6	#5	2'-6"	U
v3(E)	28	#5	5'-11"	U
Structure Excavation			Cu. Yd.	16
Concrete Structures			Cu. Yd.	12.3
Reinforcement Bars, Epoxy Coated			Pound	960



SECTION B-B



SECTION C-C



SECTION D-D

Notes:

#5 v(E), v1(E), v2(E), v3(E) and h4(E) bars shall be installed in existing concrete using HILTI HIT-RE 500 Epoxy Adhesive with a minimum embed depth as shown on this sheet, or approved equal. Cost included with Reinforcement Bars., Epoxy Coated

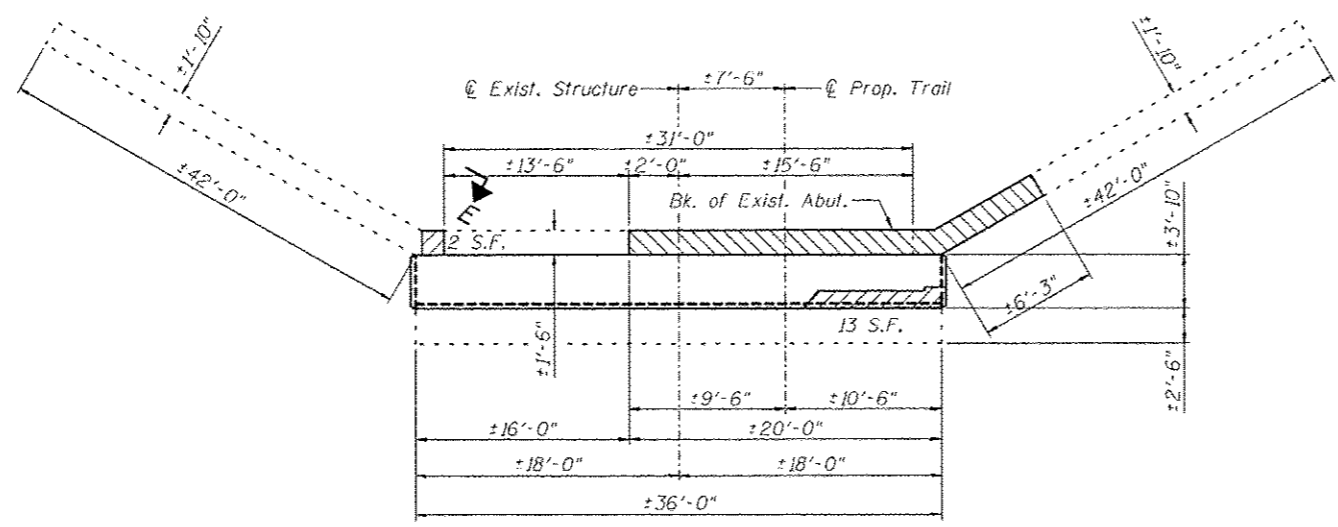
For location of Section A-A, B-B, C-C and D-D, see Sheet 7 of 13.

For bridge approach slab details and bill of material see sheet 12 of 13.

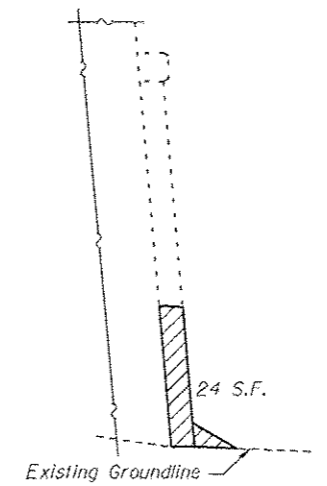
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				JOB NO.	E074404	CONTRACT NO.	97633

149

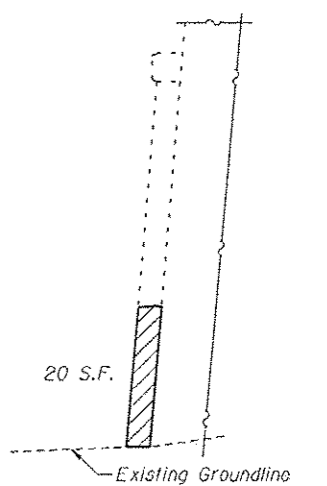
SHEET



PLAN



ELEVATION A-A
(Looking West)



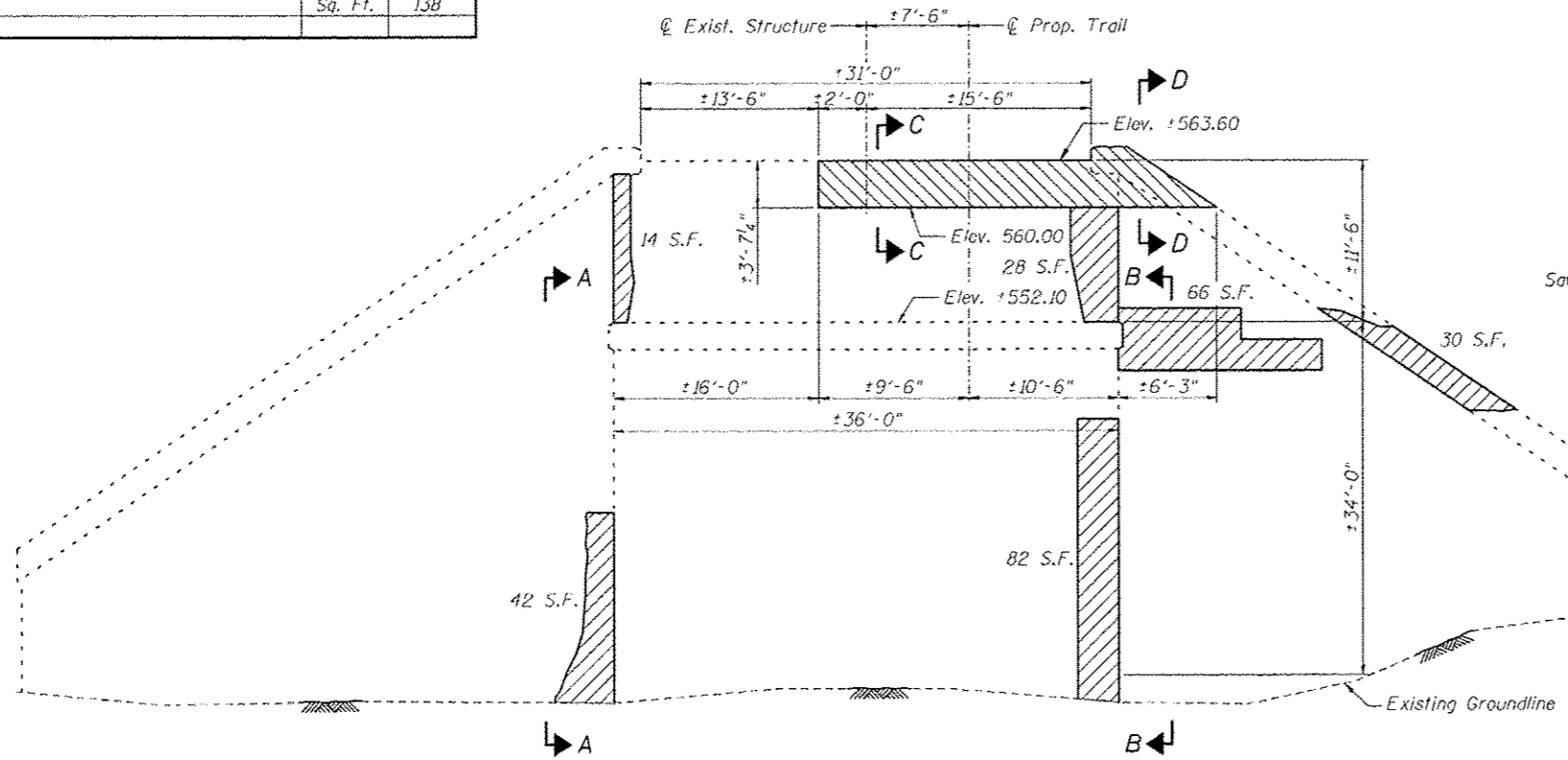
ELEVATION B-B
(Looking East)

LEGEND

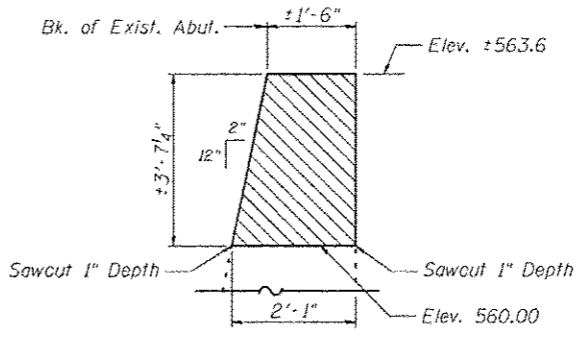
- Concrete Removal
- Structural Repair of Concrete (Depth Equal to or Less Than 5")

**SOUTH ABUTMENT
BILL OF MATERIAL**

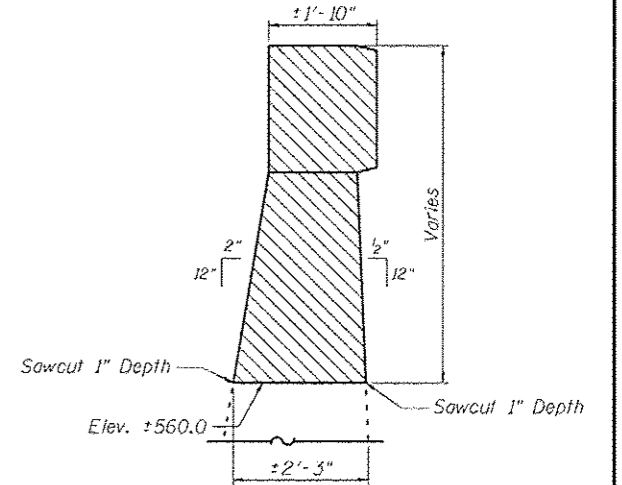
ITEM	UNIT	TOTAL
Concrete Removal	Cu. Yd.	7
Structural Repair (Depth Equal to or Less Than 5")	Sq. Ft.	321
Clean Bearing Seats	Sq. Ft.	138



SOUTH ABUTMENT ELEVATION
(Developed Elevation Looking South)
(Showing Concrete Removal and Concrete Repair)



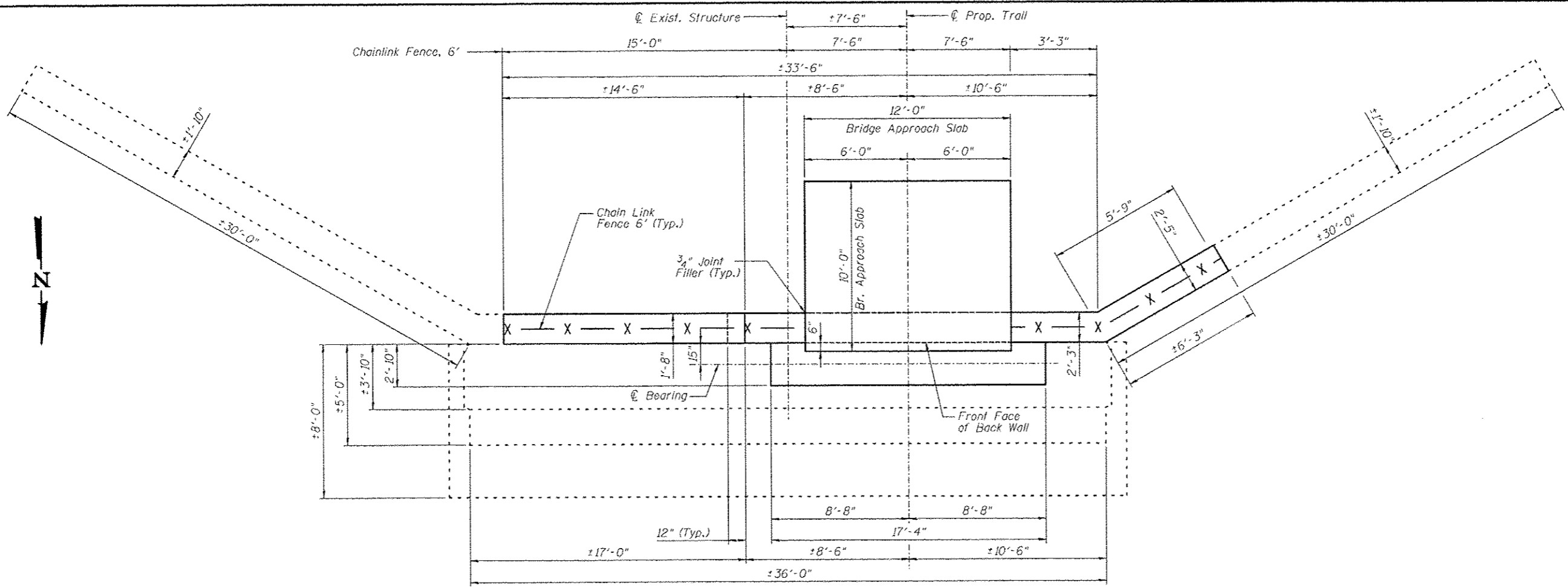
SECTION C-C



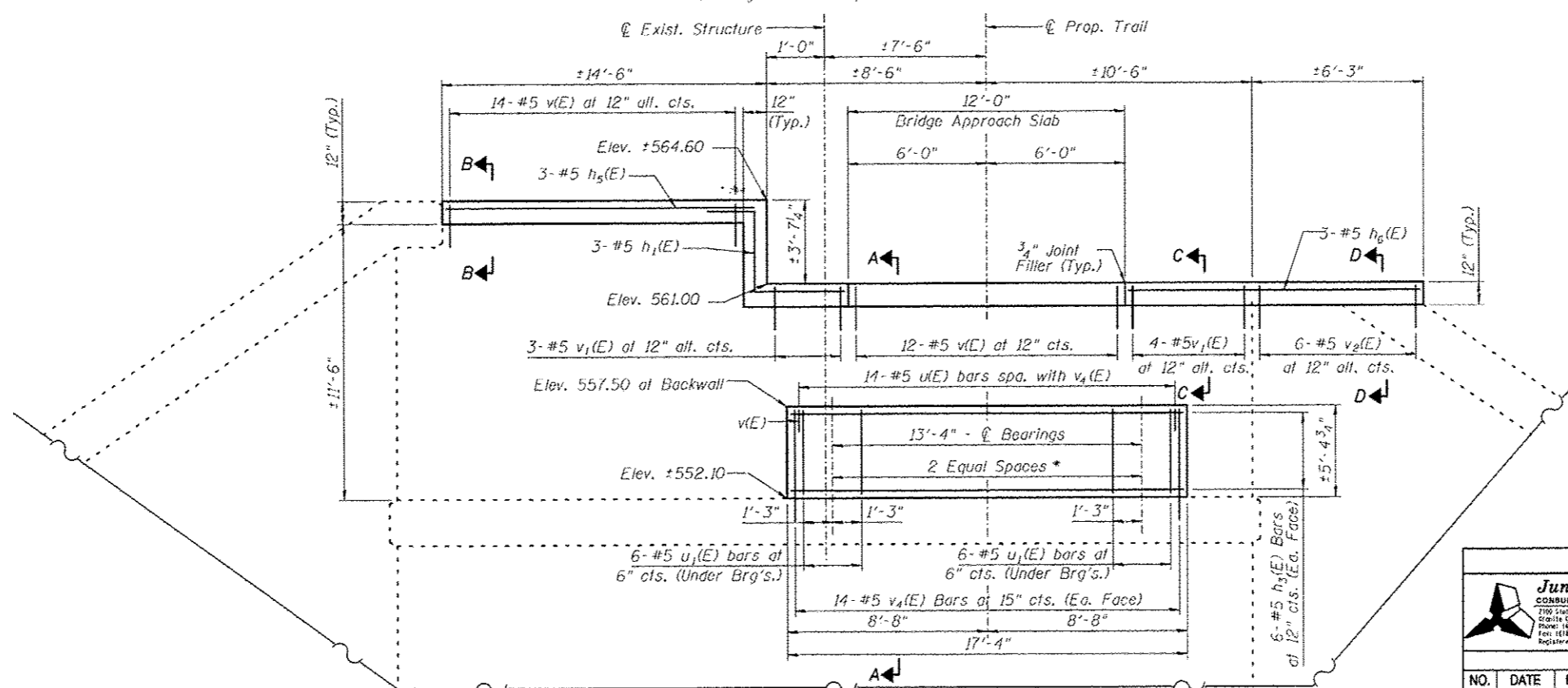
SECTION D-D

REVISIONS				SCALE:	
NO.	DATE	BY	REMARKS	NOT TO SCALE, FOLLOW DIMENSIONS	
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				DWN. BY:	ER DATE: 04/18/2016
				CHKD:	NK DATE: 04/20/2016
				JOB NO.	E074404 CONTRACT NO. 97633 OF 335 SHTS

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PLAN
(Showing Concrete Replacement)

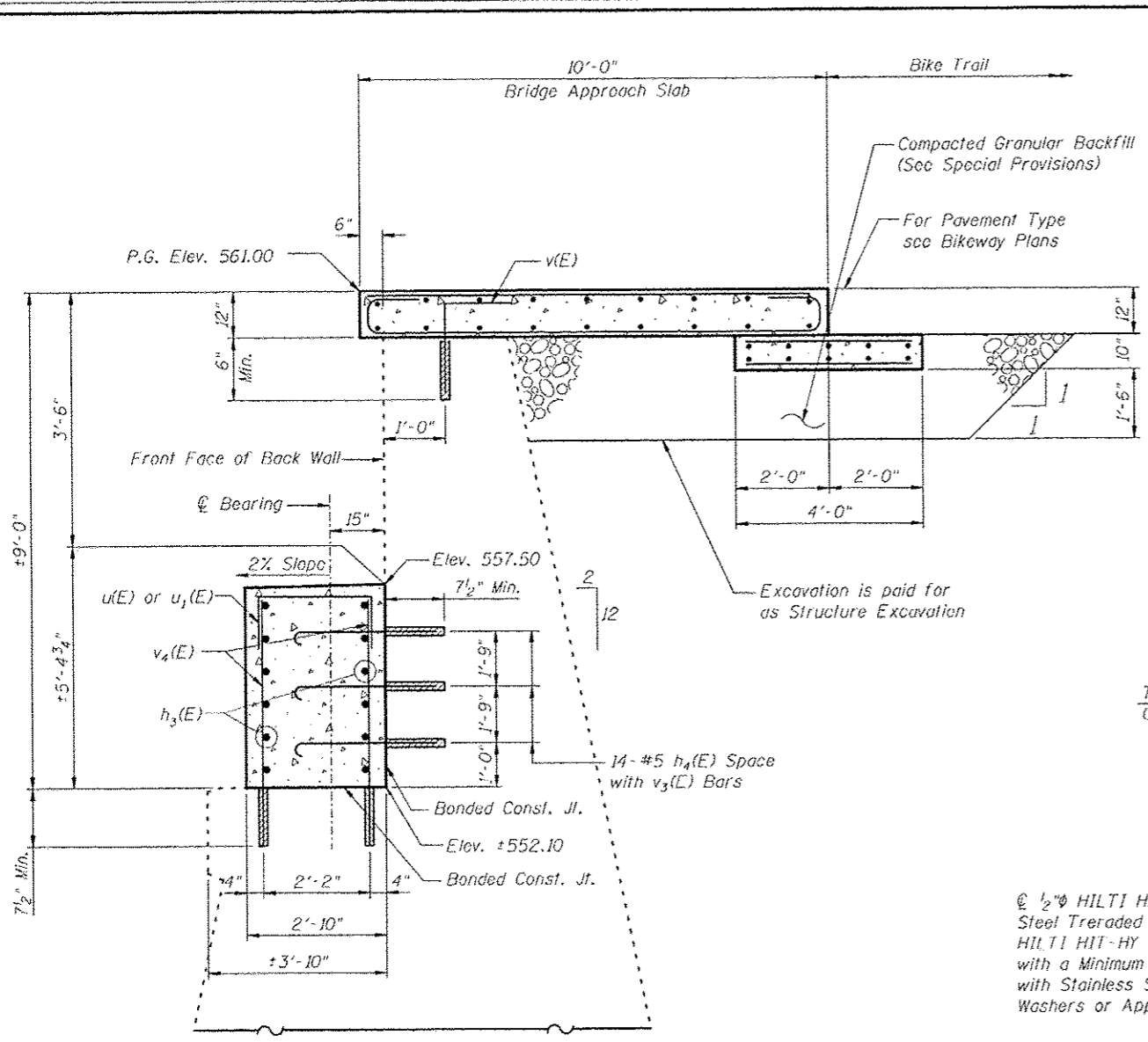


SOUTH ABUTMENT
(Developed Elevation - Looking South)
(Showing Concrete Replacement)

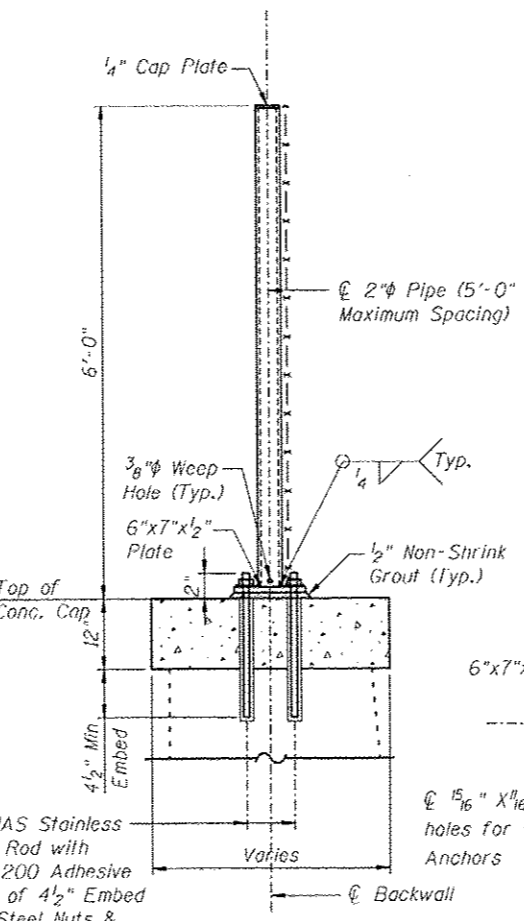
Note:
 * Contractor to coordinate the total dimension with truss manufacturer.
 #5 v(E), v₁(E), v₂(E), v₃(E) and h₄(E) bars shall be installed in existing concrete using HILTI HIT-RE 500 Epoxy Adhesive with a minimum embed depth as shown on sheet 11 of 13, or approved equal. Cost included with Reinforcement Bars, Epoxy Coated.
 For Section A-A, B-B, C-C and D-D see Sheet 11 of 13.
 For South Abutment Bill of Material, see Sheet 11 of 13.
 Space Reinforcement in cap to miss anchor bolts.

 Juneau Associates, Inc. P.C. CONSULTING ENGINEERS AND LAND SURVEYORS <small>2100 South St. Suite 200 Granite City, IL 62040 Phone: (618) 875-0100 / Fax: (618) 875-0101 Email: juneau@juneau.com / www.juneau.com</small>		PROPOSED SOUTH ABUTMENT SCOTT TROY BIKE TRAIL OVER LOCKMANN ROAD, CSX RR & A TRIBUTARY TO CANTEEN CREEK SECTION 06-00001-00-BT MADISON COUNTY STATION 247+82.22 STRUCTURE NO. 060-7100															
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NO.	DATE	BY	REMARKS														
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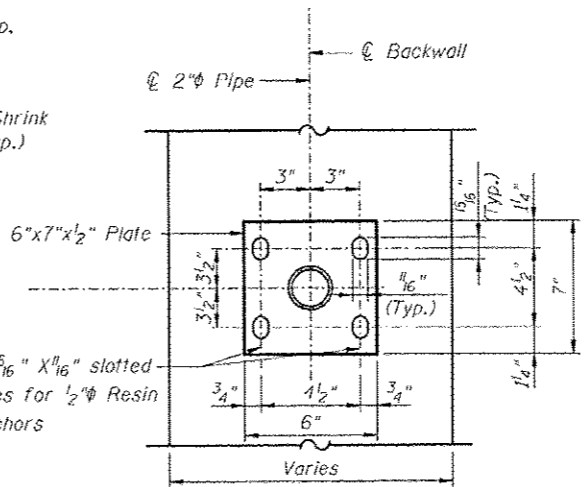


SECTION A-A

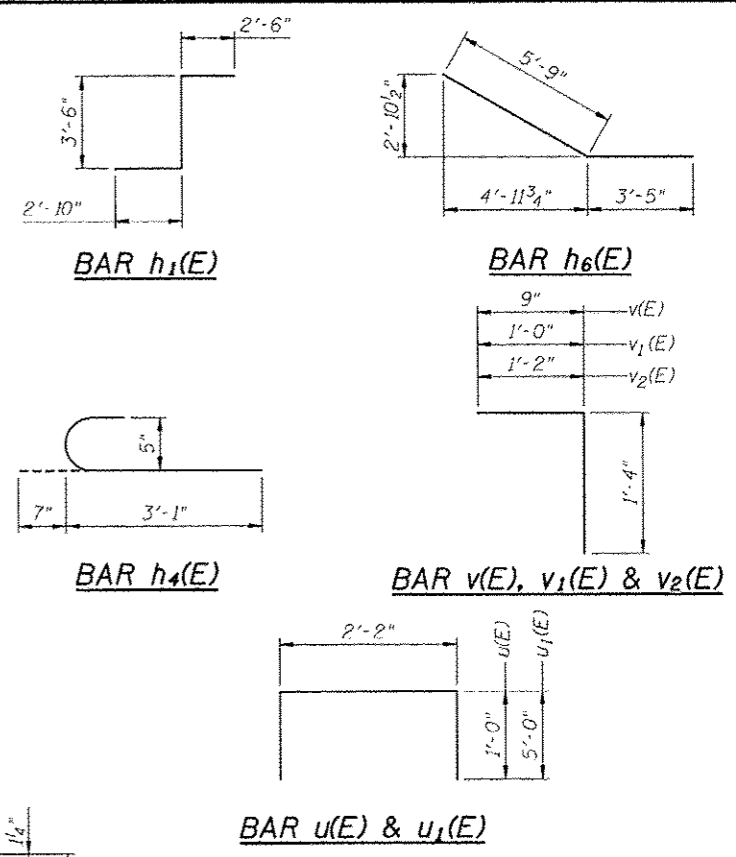


SECTION

FENCE DETAIL

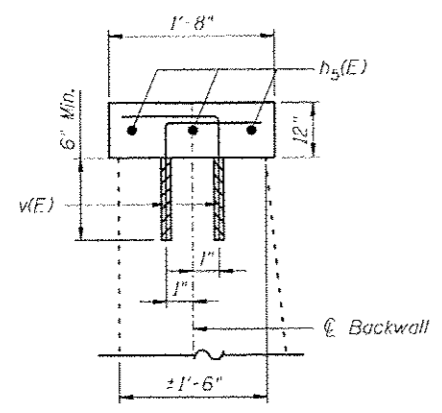


BASE PLATE

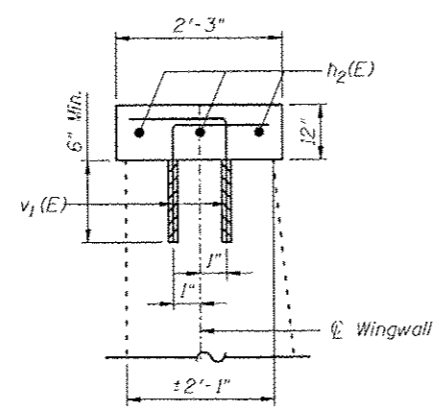


SOUTH ABUTMENT
BILL OF MATERIAL

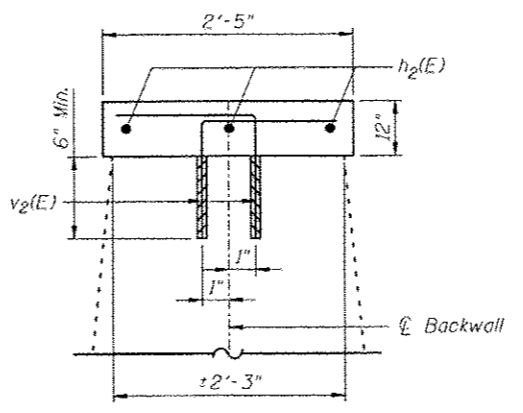
Bar	No.	Size	Length	Shape
h ₁ (E)	3	#5	8'-10"	L
h ₃ (E)	12	#5	17'-1"	—
h ₄ (E)	42	#5	3'-8"	C
h ₅ (E)	3	#5	14'-2"	—
h ₆ (E)	3	#5	9'-2"	—
u(E)	14	#5	4'-2"	L
u ₁ (E)	12	#5	12'-2"	L
v(E)	26	#5	2'-1"	L
v ₁ (E)	7	#5	2'-4"	L
v ₂ (E)	6	#5	2'-6"	L
v ₄ (E)	28	#5	5'-10"	—
Structure Excavation			Cu. Yd.	16
Concrete Structures			Cu. Yd.	12.1
Reinforcement Bars, Epoxy Coated			Pound	950



SECTION B-B



SECTION C-C



SECTION D-D

Notes:

#5 v(E), v₁(E), v₂(E), v₃(E) and h₄(E) bars shall be installed in existing concrete using HILTI HIT-RE 500 Epoxy Adhesive with a minimum embed depth as shown on this sheet, or approved equal. Cost included with Reinforcement Bars.. Epoxy Coated

For location of Section A-A, B-B, C-C and D-D, see Sheet 10 of 13.

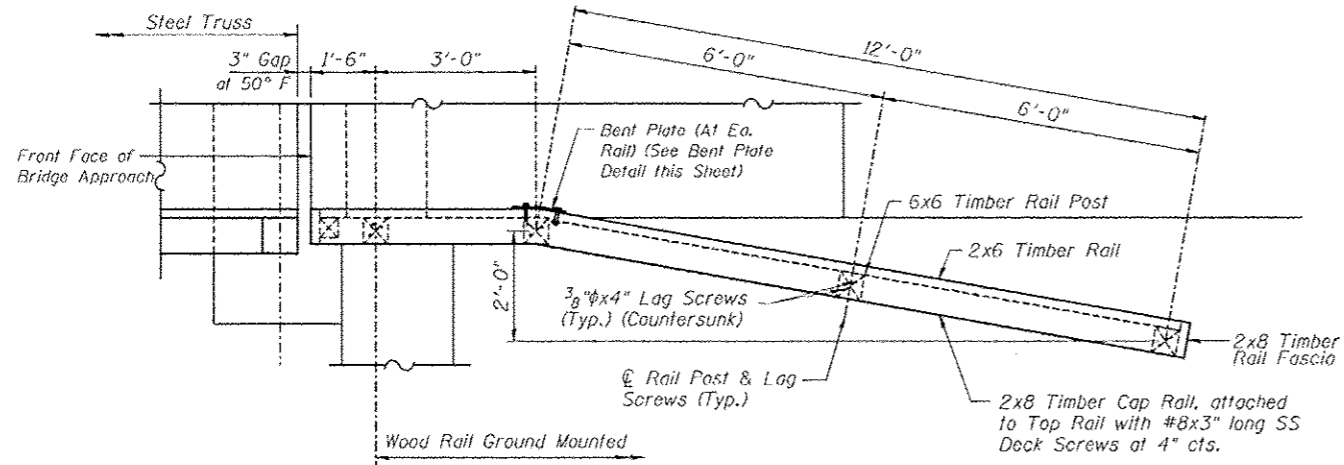
For bridge approach slab details and bill of material see sheet 12 of 13.

REVISIONS			
NO.	DATE	BY	REMARKS

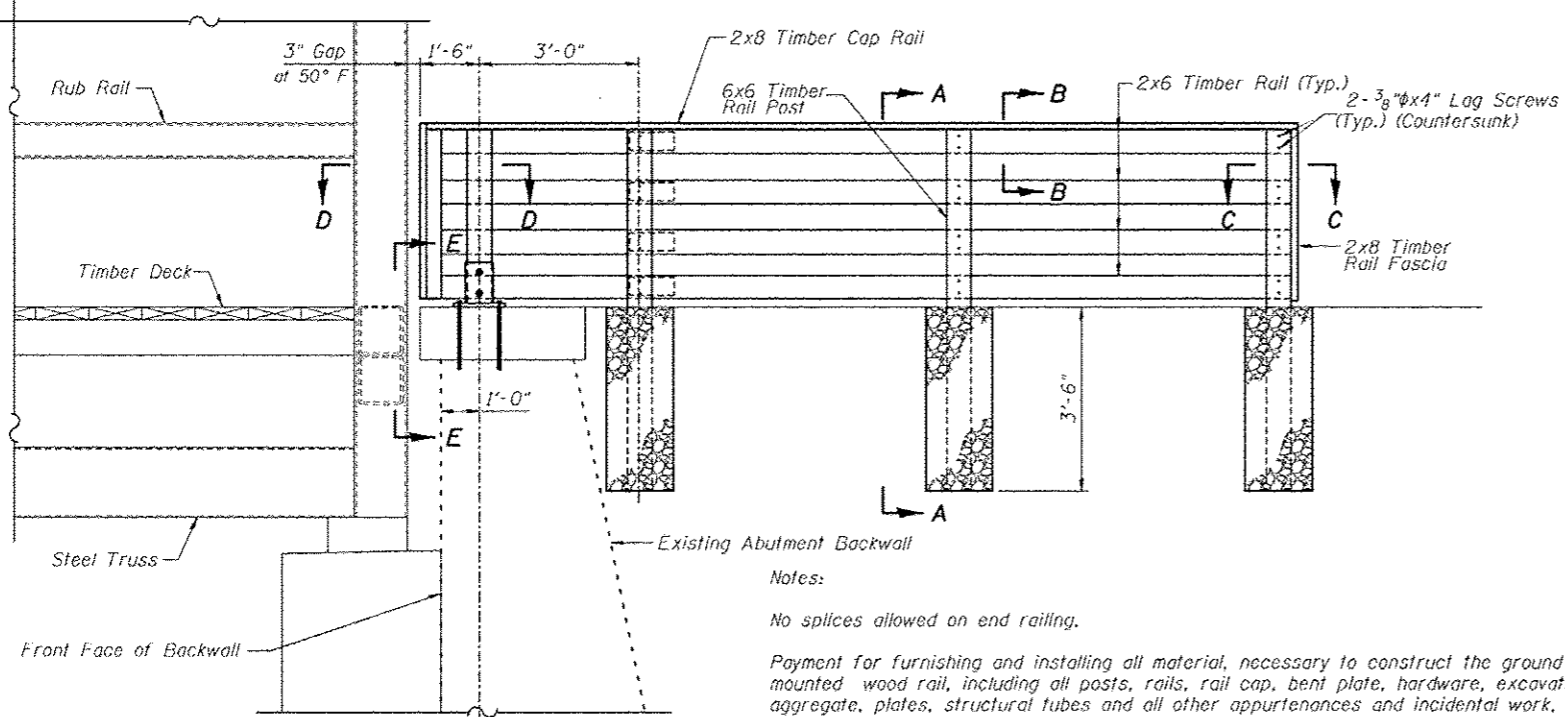
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DSN. BY: DB	DATE: 04/18/2016	SHEET
DWN. BY: ER	DATE: 04/18/2016	152
CHK'D: NK	DATE: 04/20/2016	

DGN NAME: JOB NO. E074404 CONTRACT NO. 97633 OF 335 SHTS



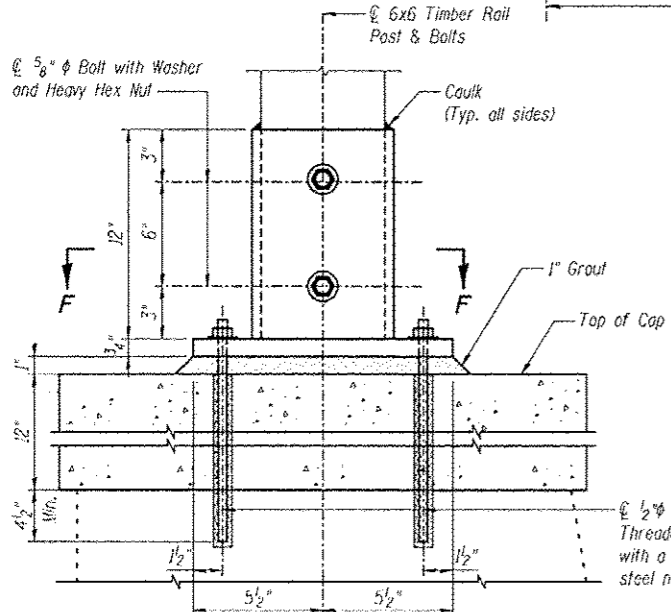
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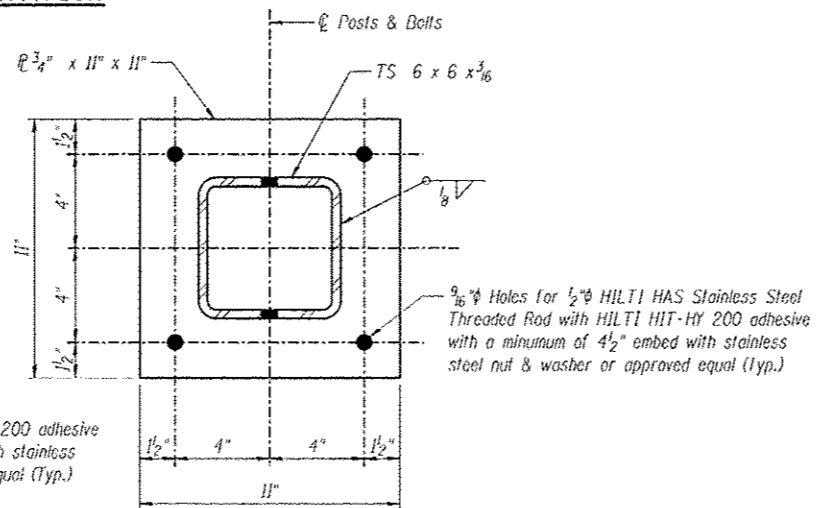
Notes:

No splices allowed on end railing.
Payment for furnishing and installing all material, necessary to construct the ground mounted wood rail, including all posts, rails, rail cap, bent plate, hardware, excavation, aggregate, plates, structural tubes and all other appurtenances and incidental work, complete in place, will be considered completely covered by the contract unit price per foot for Wood Rail.
* Top of top timber rail shall be installed a minimum 3'-6" above the finished ground line. Adjust post length accordingly in field.

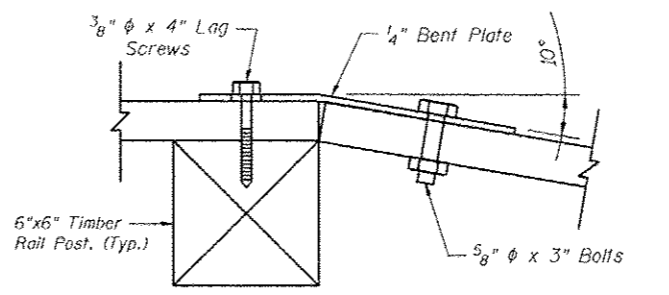
ELEVATION



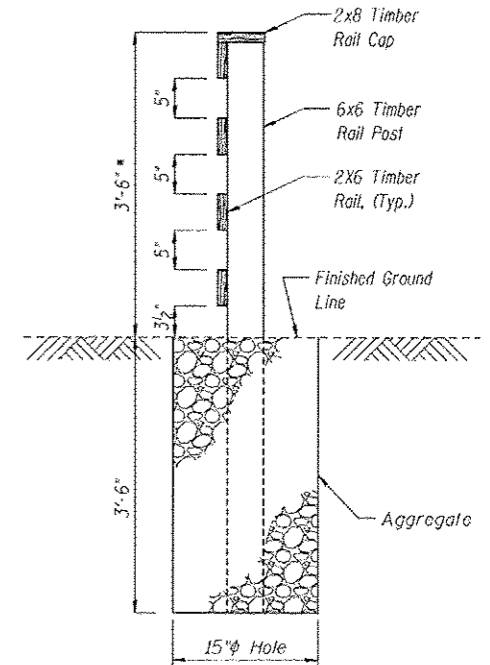
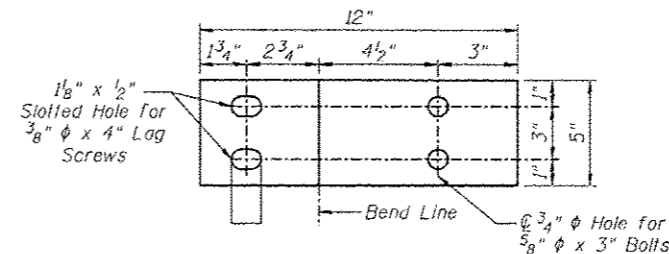
SECTION E-E



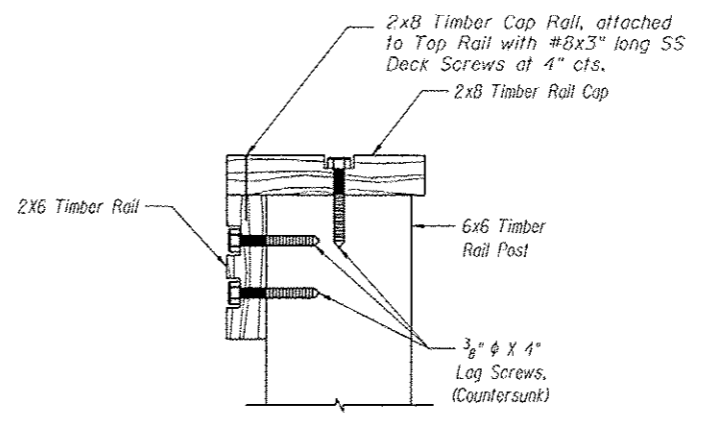
SECTION F-F



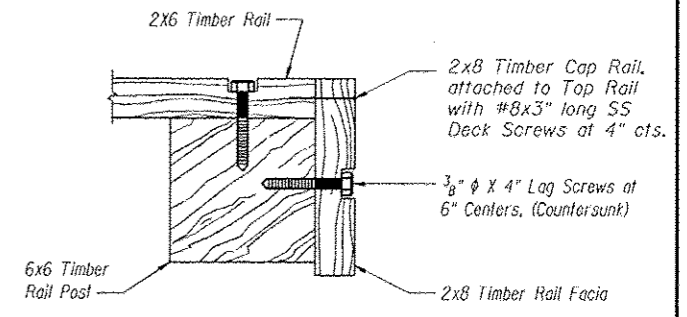
BENT PLATE DETAIL



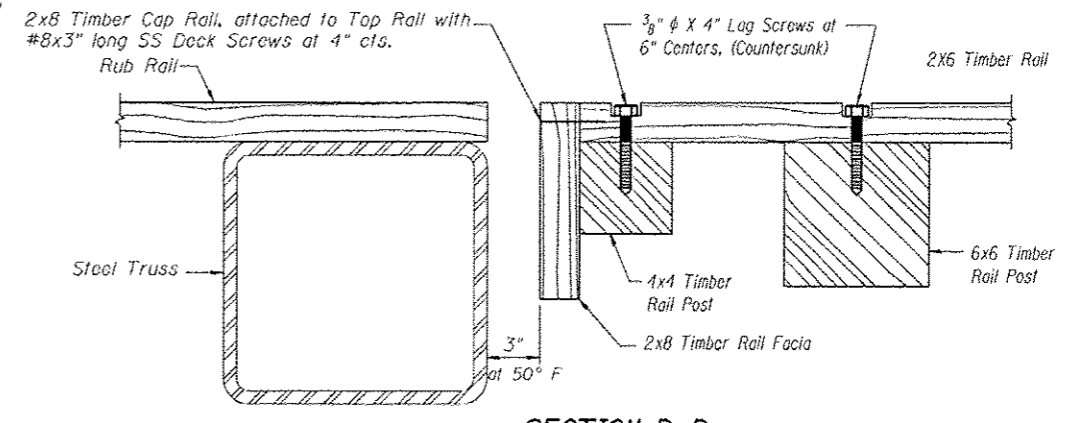
SECTION A-A



SECTION B-B



SECTION C-C

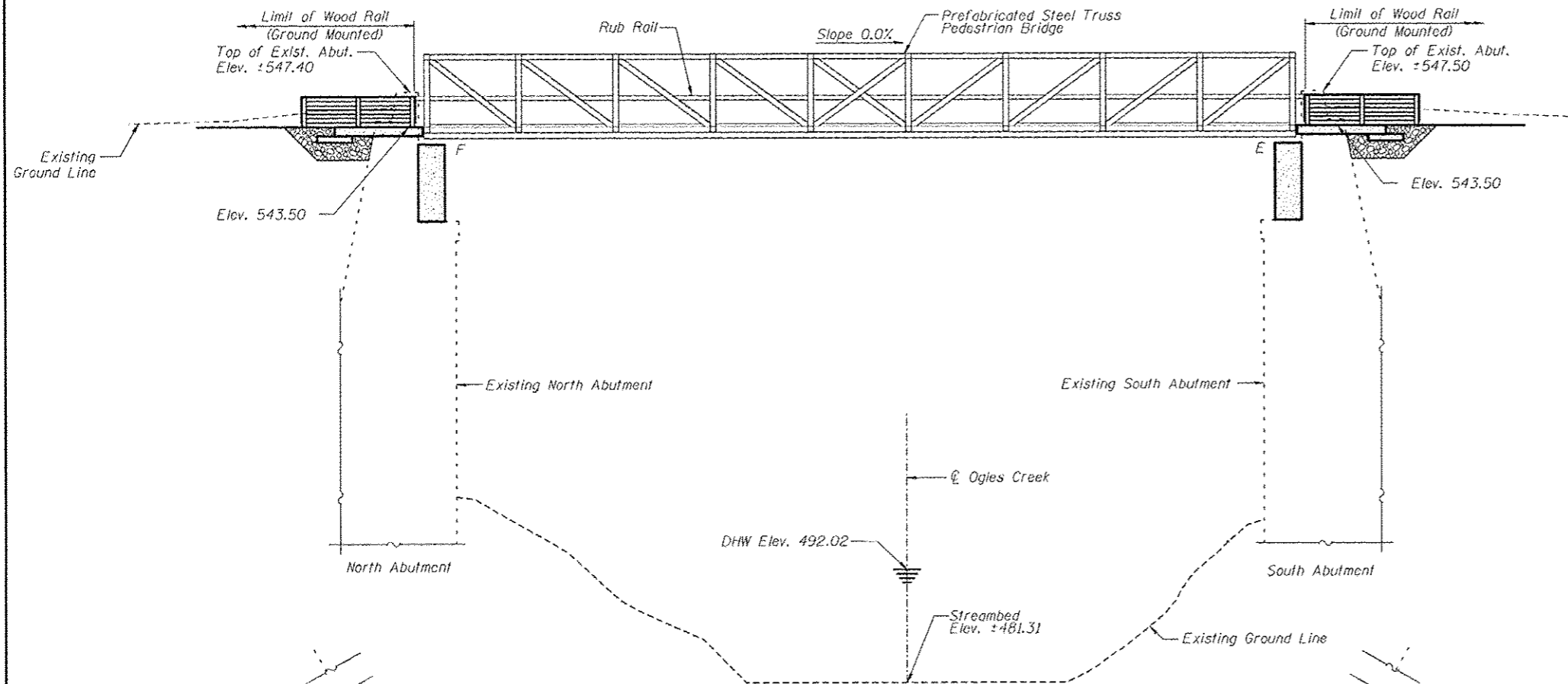


SECTION D-D

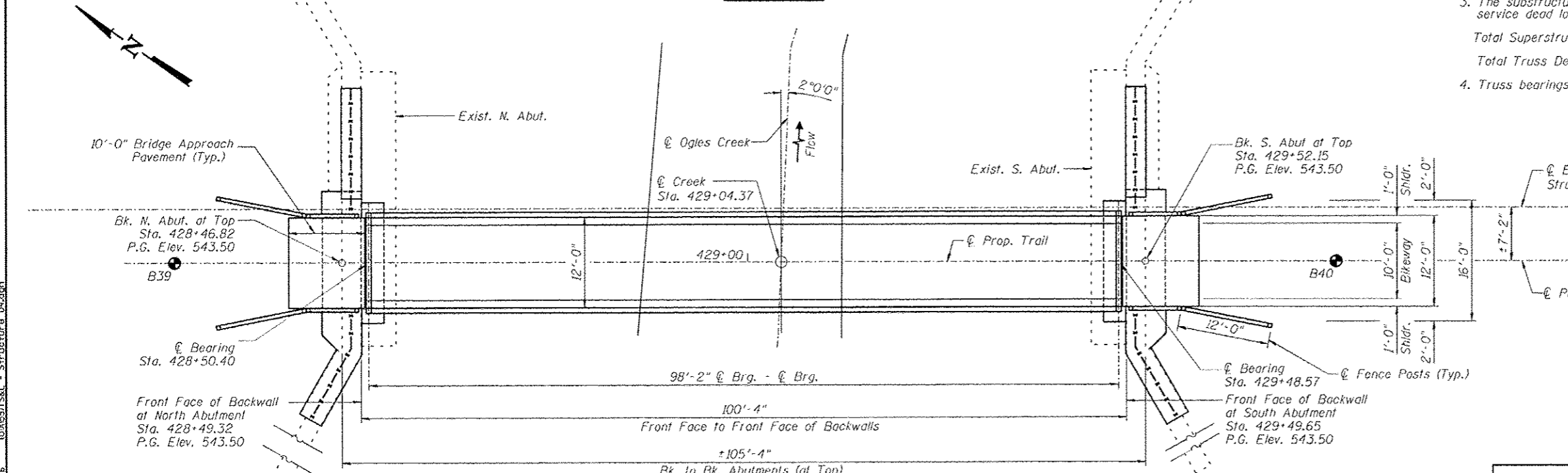
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NO.	DATE	BY	REMARKS

DGN NAME:		JOB NO. E074404	
SCALE:		NOT TO SCALE, FOLLOW DIMENSIONS	
DSN. BY: DB	DATE: 04/18/2016	SHEET	
DWN. BY: ER	DATE: 04/18/2016	154	
CHK'D: NK	DATE: 04/20/2016		
CONTRACT NO. 97633		OF 335 SHTS	

Existing Structure: Concrete abutments and wingwalls



ELEVATION



PLAN

DESIGN SPECIFICATIONS
 2009 AASHTO LRFD Guide Specifications for Design of Pedestrian Bridges
 2012 AASHTO LRFD Bridge Design Specifications 6th Edition with 2013 Interims

LOADING
 Pedestrian Live Load = 90 psf
 Vehicle Live Load = H-10

DESIGN STRESSES
FIELD UNITS
 $f'_c = 3,500$ psi (Concrete)
 $f_y = 60,000$ psi (Reinforcement)
 $f_y = 36,000$ psi (Structural Steel)
 $f = 45,000$ psi (Bolts, nuts, etc.)
 Design stresses for wood members shall be as specified in Section 1007 of the IDOT Standard Specifications.

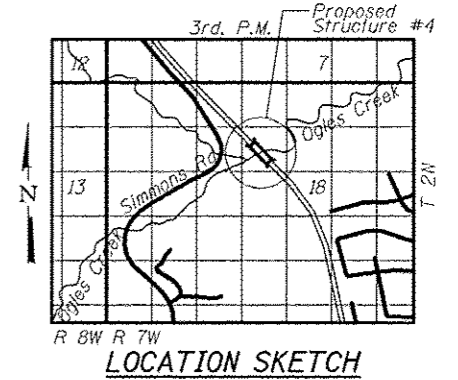
SEISMIC DATA
 Seismic Performance Zone (SPZ) = 2
 Design Spectral Acceleration at 1.0 sec. (S_{D1}) = 0.247g
 Design Spectral Acceleration at 0.2 sec. (S_{D5}) = 0.624g
 Soil Site Class = D

WATERWAY INFORMATION

Drainage Area = 10.04 Sq. Mi. Low Grade Elev. 542.80 @ Sta. 426+50.00

Flood	Freq. Yr.	C.F.S.	Opening Sq. Ft.		Head - Ft.		Headwater El.		
			Exist.	Prop.	H.W.E. Exist.	Prop.	Exist.	Prop.	
Design	10	2230	423.07	423.07	490.33	0.11	0.11	490.44	490.44
Base	50	3290	521.37	521.37	492.02	0.1	0.1	492.12	492.12
Overlapping	100	3860	566.29	566.29	492.79	0.08	0.08	492.87	492.87
Max. Calc.	500	4820	634.09	634.09	493.94	0.06	0.06	494.00	494.00

- Notes:
- The Pedestrian Truss Superstructure shall conform to the following configuration:
 Clear Span: 98'-2" @ Brg. - @ Brg.
 Clear Width: 12'-0"
 Rub Rail and Wood Deck shall be as shown in the Cross Section on Sheet 2.
 @ Truss Bearings = 13'-4" at Abutments
 - Truss Manufacturer shall camber truss to provide min. vertical clearance as shown with allowance for Dead Load Deflection.
 - The substructure has been designed per AASHTO and based on assumed truss service dead loads shown below:
 Total Superstructure Dead Load = 72.10^K
 Total Truss Dead Load at Abutment = 36.05^K
 - Truss bearings at abutments are assumed to be 6" deep.



LOCATION SKETCH

Notes:
 For General Notes, Sequence of Construction and Total Bill of Material, see Sheet 2 of 11.
 For Cross Section and Profile Grade, see Sheet 2 of 11.

I certify to the best of knowledge, information and belief, this bridge 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 Standard Specification for Highway Bridges.



Wesley W. Herndon
 WESLEY W. HERNDON, S.E. DATE 7/13/16

PROPOSED PLAN & ELEVATION			
Juneau Associates, Inc. P.C. CONSULTING ENGINEERS AND LAND SURVEYORS 2700 State St., Suite 200, Chicago, IL 60647 Phone: 312.875.1100 Fax: 312.875.1101 150 North Dearborn St., Suite 200, Chicago, IL 60642 Phone: 312.875.1100 Fax: 312.875.1101 Registered Professional Service Corporation License No. 191-00259		SCOTT TROY BIKE TRAIL OVER OGLES CREEK SECTION 06-00001-00-BT ST. CLAIR COUNTY STATION 429+04.37 STRUCTURE NO. 4	
REVISIONS NO. DATE BY REMARKS			
SCALE: NOT TO SCALE, FOLLOW DIMENSIONS			
DSN. BY: DB DATE: 04/18/2016 SHEET		DWN. BY: ER DATE: 04/18/2016 155	
CHKD: NK DATE: 04/20/2016		JOB NO. E074404 CONTRACT NO. 97633 OF 335 SHTS	
DGN NAME:			

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TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Concrete Removal	Cu. Yd.	35
Structure Excavation	Cu. Yd.	24
Concrete Structures	Cu. Yd.	49.7
Reinforcement Bars, Epoxy Coated	Pound	3840
Concrete Sealer	Sq. Ft.	117
Chain Link Fence, 6'	Foot	57
Epoxy Crack Injection	Foot	34
Pedestrian Truss Superstructure	Sq. Ft.	1178
Granular Backfill for Structures	Cu. Yd.	20
Removal of Existing Bearings	Each	4
Cleaning Bridge Seats	Sq. Ft.	334
Structural Repair of Concrete (Greater than 5")	Sq. Ft.	237
Structural Repair of Concrete (Depth Equal to or Less than 5")	Sq. Ft.	70
Wood Rail	Foot	79

GENERAL NOTES

Reinforcement bars designated (E) shall be epoxy coated.

Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions, elevations and details affecting new construction 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 the scope of the work however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

The cost of any saw cuts made to complete the work as described in the plan details, unless otherwise noted, shall not be paid for separately but shall be included in Concrete Removal.

See Bikeway Plans for underground utility locations.

The main load carrying member components subject to tensile stress shall conform to the Impact Testing Requirements Zone 2. These components are the truss vertical, diagonal and horizontal members.

Concrete Sealer shall be applied to all exposed surfaces of abutment bridge seat, backwalls and front face of concrete pedestal. See this sheet for details.

All construction joints shall be bonded.

No field welding is permitted.

Truss Manufacturer shall provide 1" nominal shim pack for each bearing consisting of 1", 3/4", 1/2", 1/4" and 3/8" shim plates matching the dimensions of the masonry plate provided, including holes for anchor bolts. Cost included in the cost of Pedestrian Truss Superstructure.

Bearing seat elevations at abutments are determined based on total height of bearing assembly, including shims of 6". Contractor must coordinate work with pedestrian truss manufacturer.

Timber for the Bridge shall be provided and installed in accordance with the applicable portions of Sections 507 and 1007 of the Standard Specifications. Wood members shall be naturally durable hardwood Ipe (Tabebuia Spp Lapacho Group), graded both faces and both edges meeting FEQ-CAH (First Export Quality-Clear All Heart) grading rules.

Treated timber for the Ground Mounted Wood Rail shall be according to Sections 507 and 1007 of the Standard Specifications. Wood members shall be visually graded No. 1 Southern Pine or No. 2 Douglas Fir-Larch or approved equivalent.

Holes for all hardware shall be predrilled to avoid splitting.

Bolt holes in lumber shall be in accordance with Article 507.08 of the Standard Specifications.

Lumber shall be surfaced four sides.

All dimensions are shown in inches unless otherwise noted.

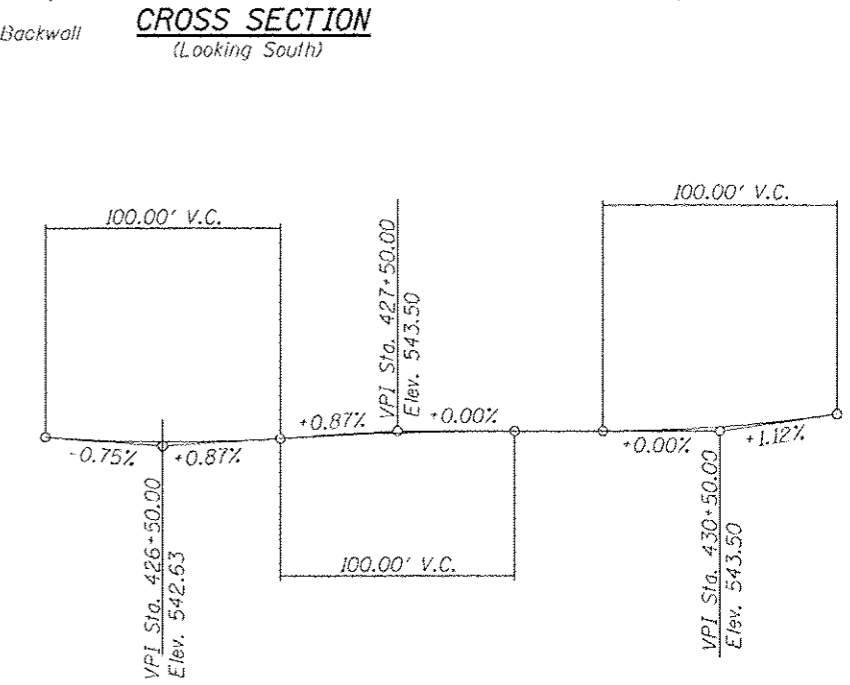
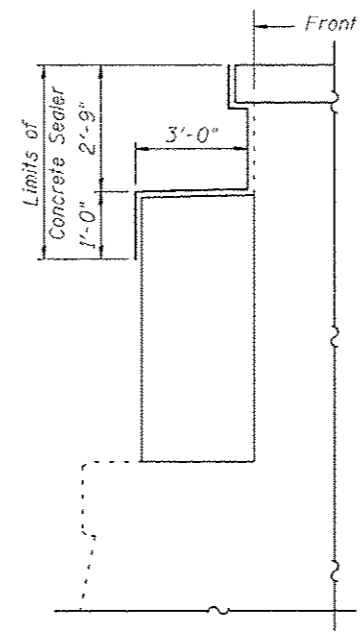
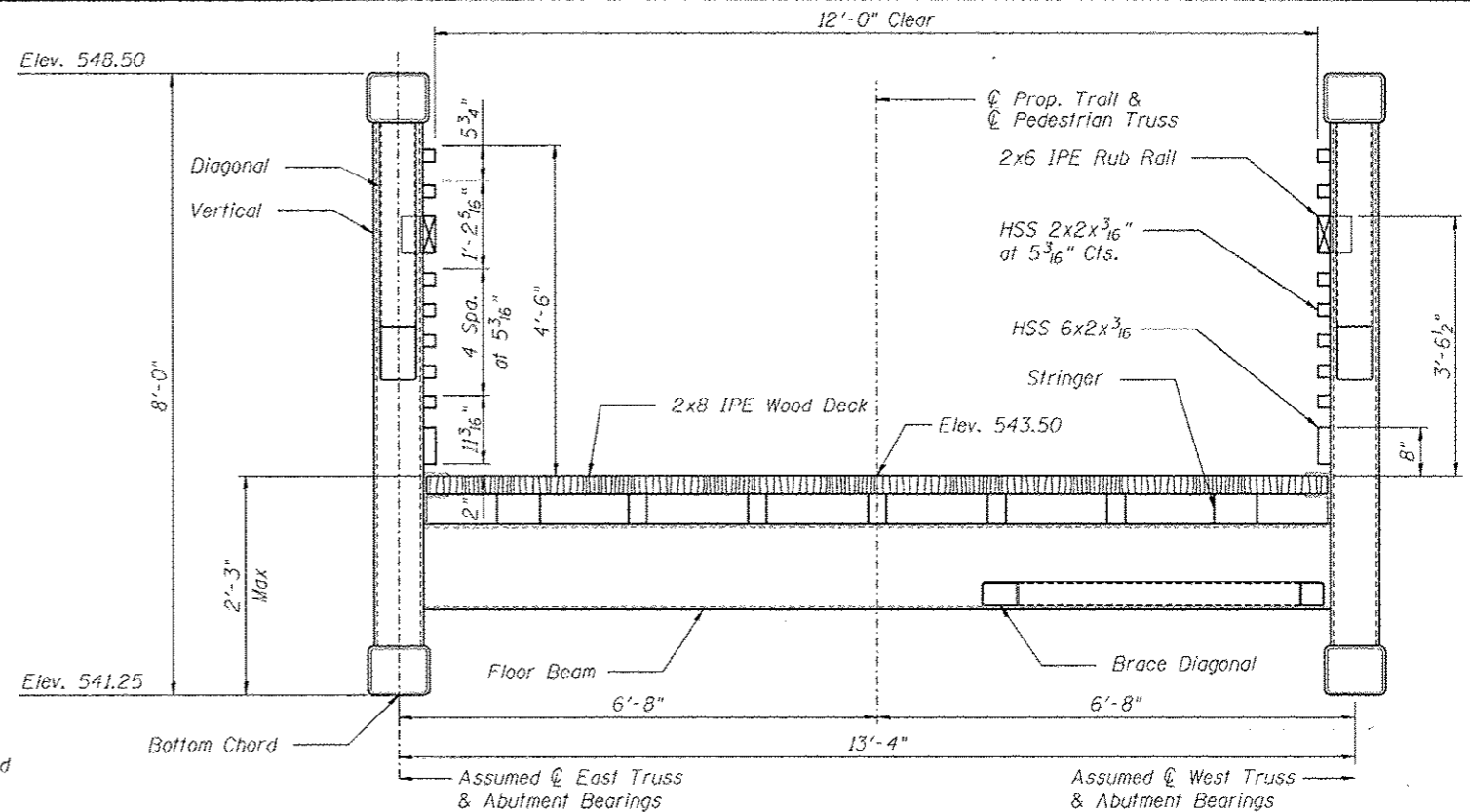
All hardware including bolts, screws nails etc. shall be stainless steel in accordance with Article 1006.29(d) of the Standard Specifications.

All Structural Steel including angles, steel tubing and plates shall conform to AASHTO M270 in accordance with Article 1006.4 and shall be hot dipped galvanized according to AASHTO M232.

All caulking material shall be a waterproof, non-hardening exterior compound capable of providing a water, dust, and insect proof seal.

SEQUENCE OF CONSTRUCTION - STEEL TRUSS SUPERSTRUCTURE

1. Assemble the steel truss superstructure South of the South Abutment.
2. Connect the North end of the steel truss superstructure with cable suitable to pull the steel truss superstructure horizontally. Connect the cables to a crane or other mechanical means suitable for pulling the steel truss superstructure to the North.
3. Vertically support the South end of the steel truss superstructure with a crane or other mechanical means suitable for moving the steel truss superstructure horizontally.
4. With cranes or other mechanical means move the steel truss superstructure to the North in a slow and controlled manner.

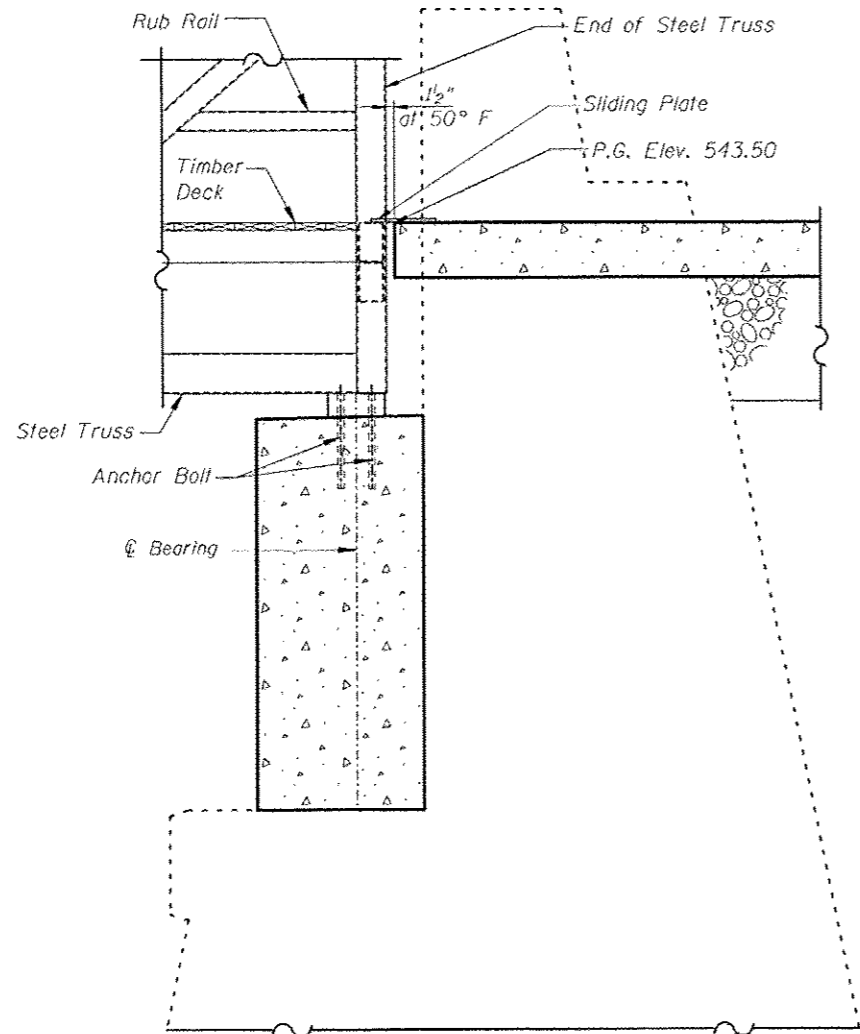


SECTION THROUGH ABUTMENT SHOWING CONCRETE SEALER

PROFILE GRADE (Along Centerline of Trail)

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<p>Juneau Associates, Inc. P.C. CONSULTING ENGINEERS AND LAND SURVEYORS 7100 North Research Dr., Suite 100, Fort St. 114 100 Greenville, SC 29615 Phone: 864.671.1207 / Fax: 864.671.1208 / Email: info@juneauassoc.com</p>		<p>SCOTT TROY BIKE TRAIL OVER OGLES CREEK SECTION 06-00001-00-BT ST. CLAIR COUNTY STATION 429+04.37 STRUCTURE NO. 4</p>									
<p>REVISIONS</p> <table border="1"> <thead> <tr> <th>NO.</th> <th>DATE</th> <th>BY</th> <th>REMARKS</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>		NO.	DATE	BY	REMARKS					<p>SCALE: NOT TO SCALE, FOLLOW DIMENSIONS</p>	
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<p>CHK'D: NK DATE: 04/20/2016</p>		<p>JOB NO. E074404 CONTRACT NO. 97633 OF 335 SHTS</p>									



ABUTMENT SECTION
 (Dimension at Right Angles to \odot Bearing)

Notes:

Anchor bolts shall be ASTM F1554 all-thread (or an Engineer approved alternate material of grade(s) and diameter(s)). Size, grade and location of anchor bolts shall be determined by the pedestrian truss manufacturer. The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.

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





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

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

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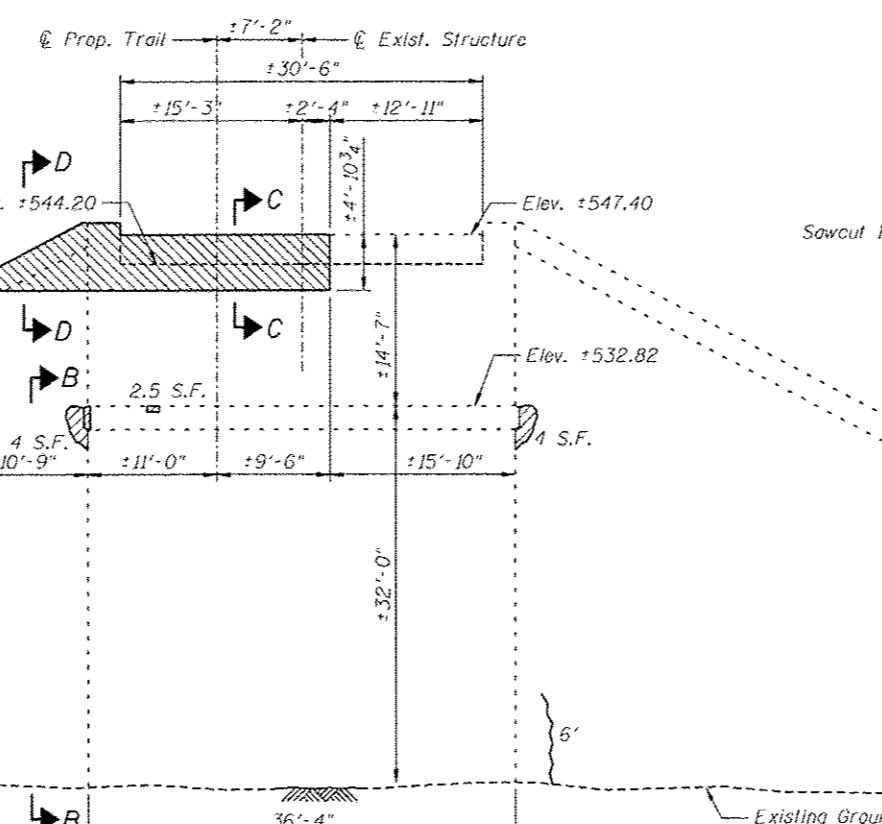
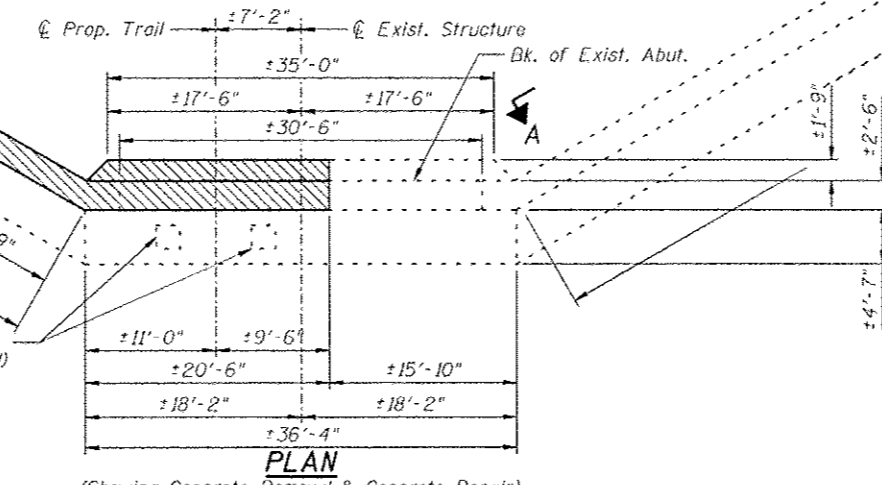
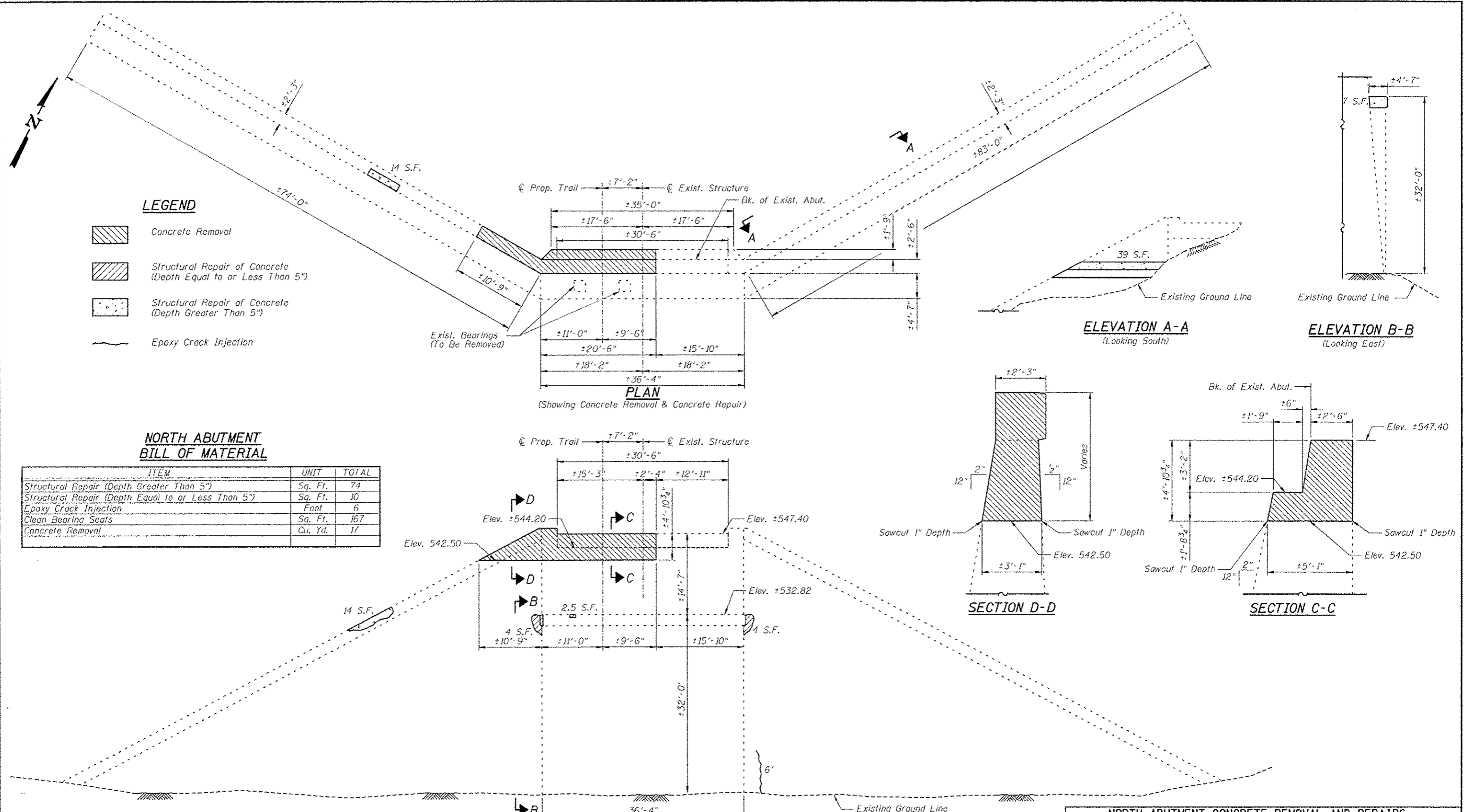
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				DWN. BY:	ER	DATE: 04/18/2016
				CHKD:	NK	DATE: 04/20/2016
				JOB NO.	E074404	CONTRACT NO. 07633

LEGEND

-  Concrete Removal
-  Structural Repair of Concrete (Depth Equal to or Less Than 5")
-  Structural Repair of Concrete (Depth Greater Than 5")
-  Epoxy Crack Injection

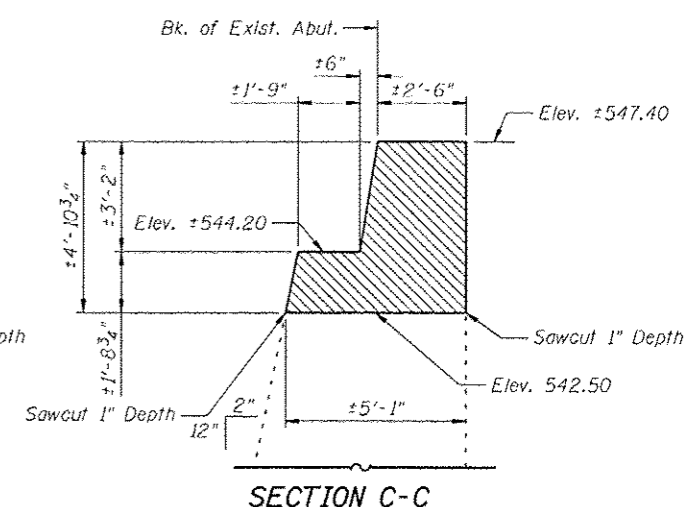
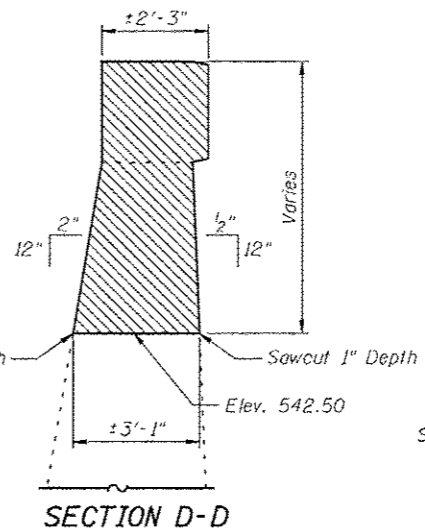
**NORTH ABUTMENT
BILL OF MATERIAL**

ITEM	UNIT	TOTAL
Structural Repair (Depth Greater Than 5")	Sq. Ft.	74
Structural Repair (Depth Equal to or Less Than 5")	Sq. Ft.	10
Epoxy Crack Injection	Foot	6
Clean Bearing Seats	Sq. Ft.	167
Concrete Removal	Cu. Yd.	17



ELEVATION A-A
(Looking South)

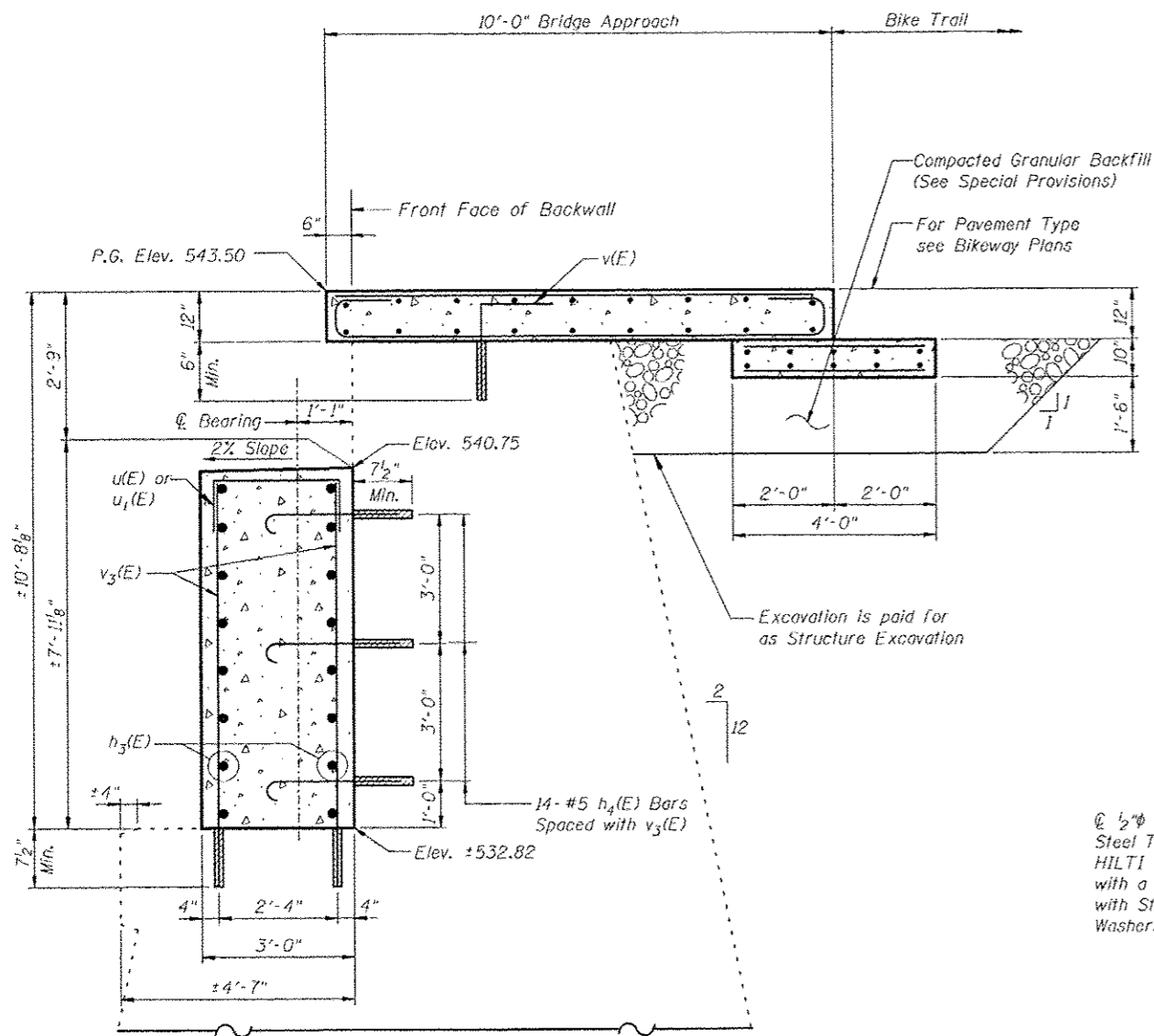
ELEVATION B-B
(Looking East)



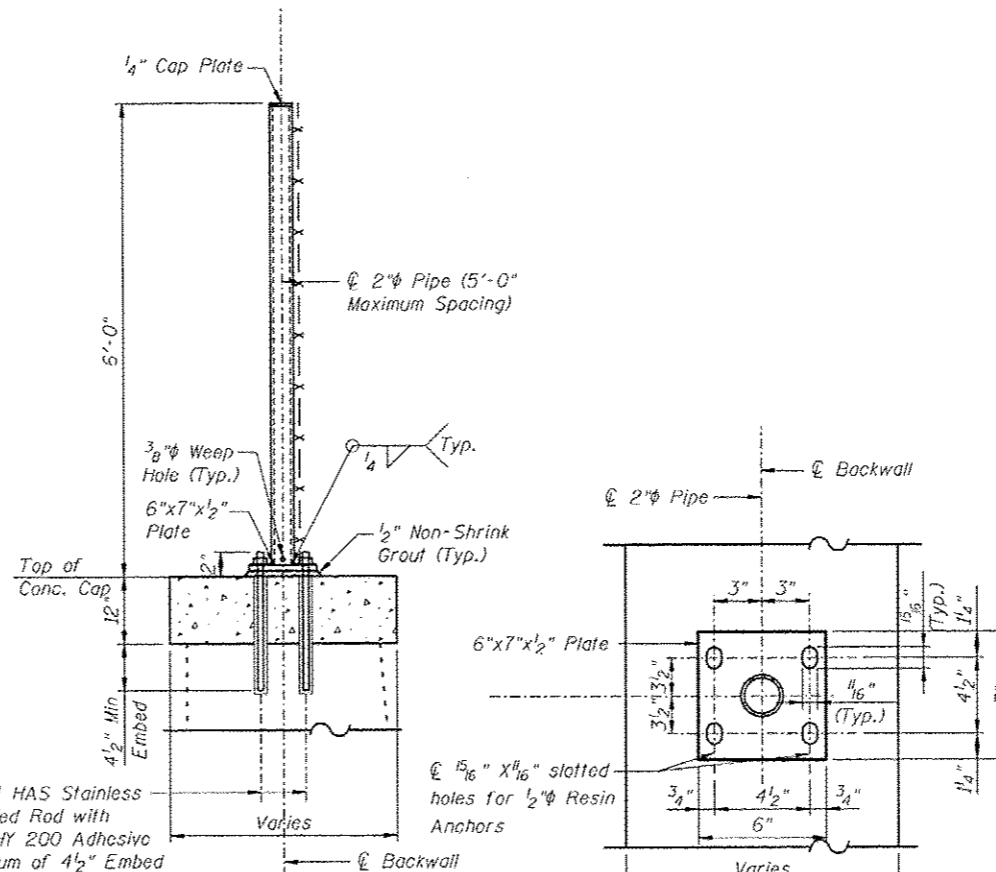
NORTH ABUTMENT
(Showing Concrete Removal & Concrete Repair)
(Developed Elevation - Looking North)

<p>NORTH ABUTMENT CONCRETE REMOVAL AND REPAIRS</p> <p>Juneau Associates, Inc. P.C. CONSULTING ENGINEERS AND LAND SURVEYORS 7100 State St., Juneau, Alaska 99801 Phone: (907) 586-1100 Fax: (907) 586-1100</p>		<p>SCOTT TROY BIKE TRAIL OVER OGLES CREEK SECTION 06-00001-00-BT ST. CLAIR COUNTY STATION 429+04.37 STRUCTURE NO. 4</p>									
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<p>4 OF 11 SHTS DGN NAME:</p>		<p>JOB NO. E074404 CONTRACT NO. 97633 OF 335 SHTS</p>									

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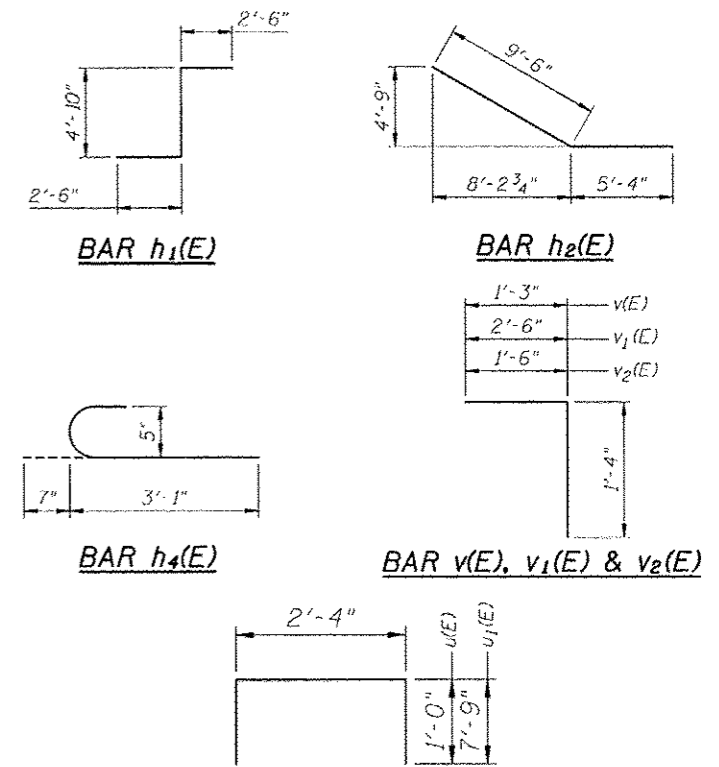
SECTION A-A



SECTION

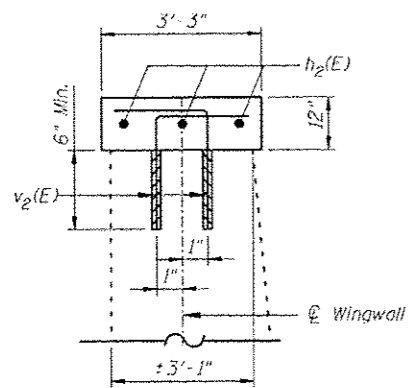
FENCE DETAIL

BASE PLATE

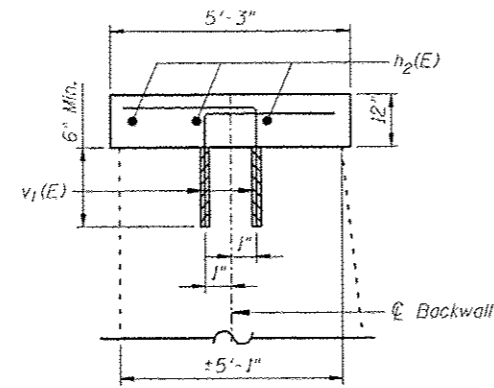


BAR u(E) & u1(E)
NORTH ABUTMENT
BILL OF MATERIAL

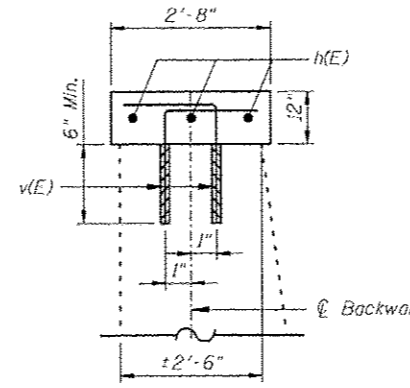
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h1(E)	3	#5	9'-10"	[Shape]
h2(E)	3	#5	14'-10"	[Shape]
h3(E)	16	#5	17'-1"	[Shape]
h4(E)	42	#5	3'-8"	[Shape]
u(E)	14	#5	4'-4"	[Shape]
u1(E)	12	#5	17'-10"	[Shape]
v(E)	25	#5	2'-7"	[Shape]
v1(E)	7	#5	3'-10"	[Shape]
v2(E)	10	#5	2'-10"	[Shape]
v3(E)	28	#5	8'-4"	[Shape]
Structure Excavation		Cu. Yd.	12	
Concrete Structures		Cu. Yd.	20	
Reinforcement Bars, Epoxy Coated		Pound	1220	



SECTION B-B



SECTION C-C



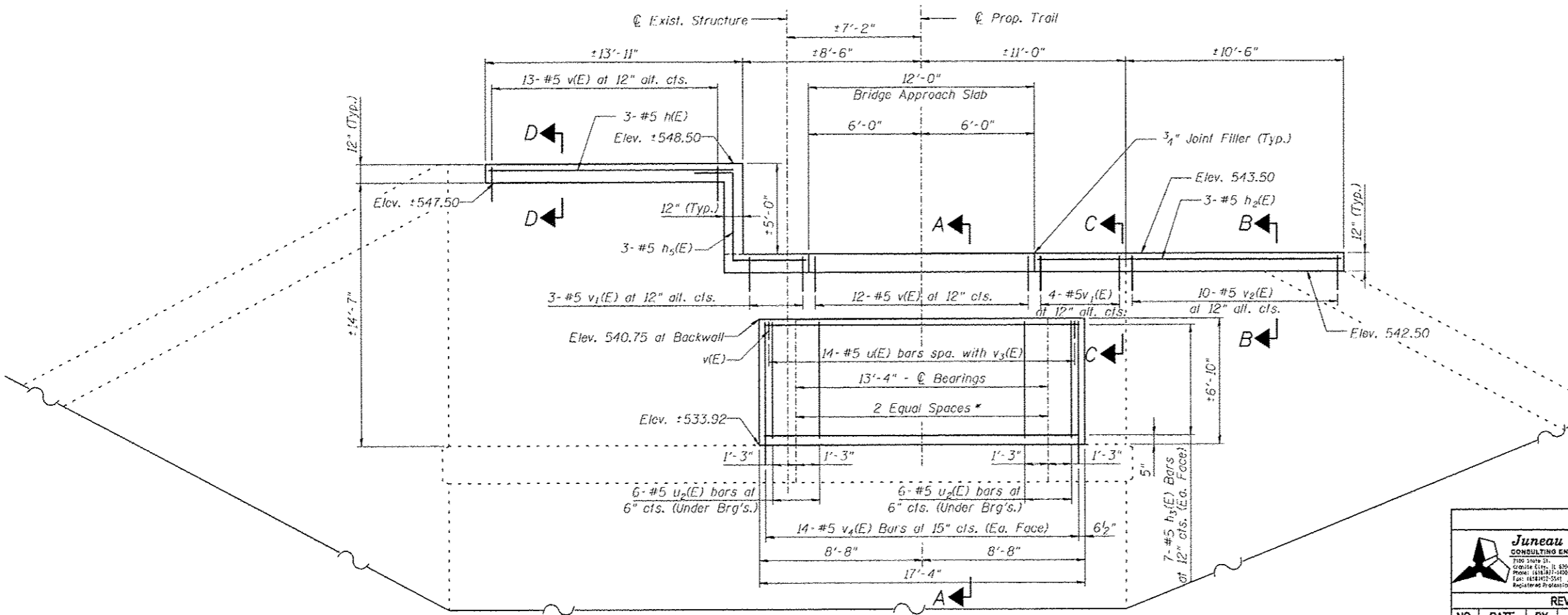
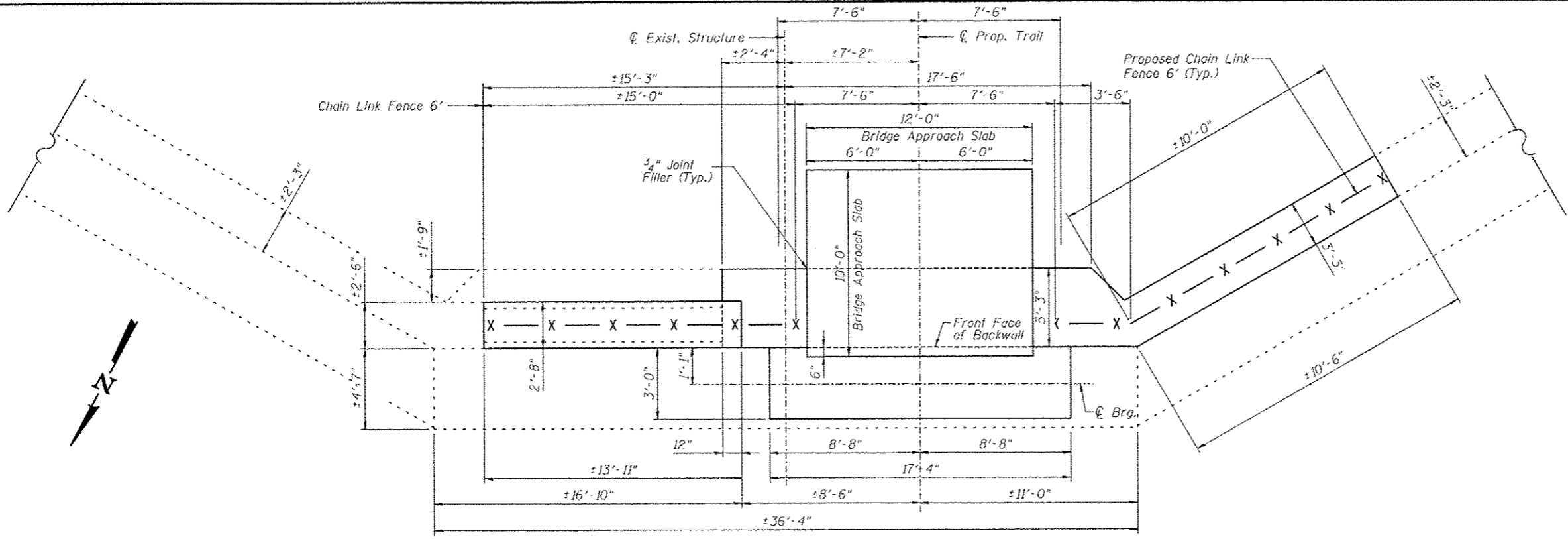
SECTION D-D

Notes:

#5 v(E), v1(E), v2(E), v3(E) and h4(E) bars shall be installed in existing concrete using HILTI HIT-RE 500 Epoxy Adhesive with a minimum embed depth as shown on this sheet, or approved equal. Cost included with Reinforcement Bars, Epoxy Coated.

For bridge approach slab details and bill of material see sheet 10 of 11.

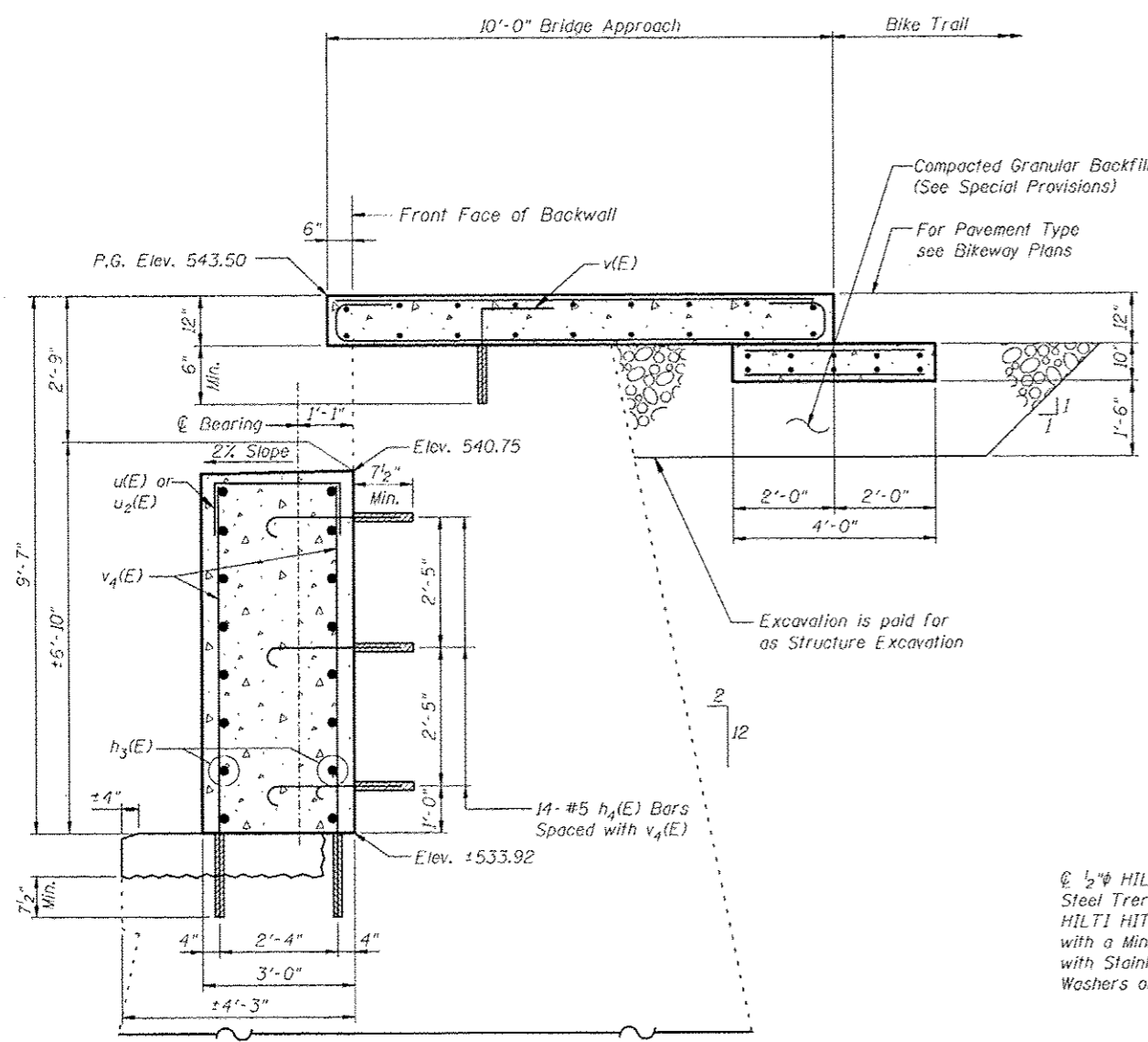
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DGN NAME:				JOB NO. E074404	CONTRACT NO. 97633



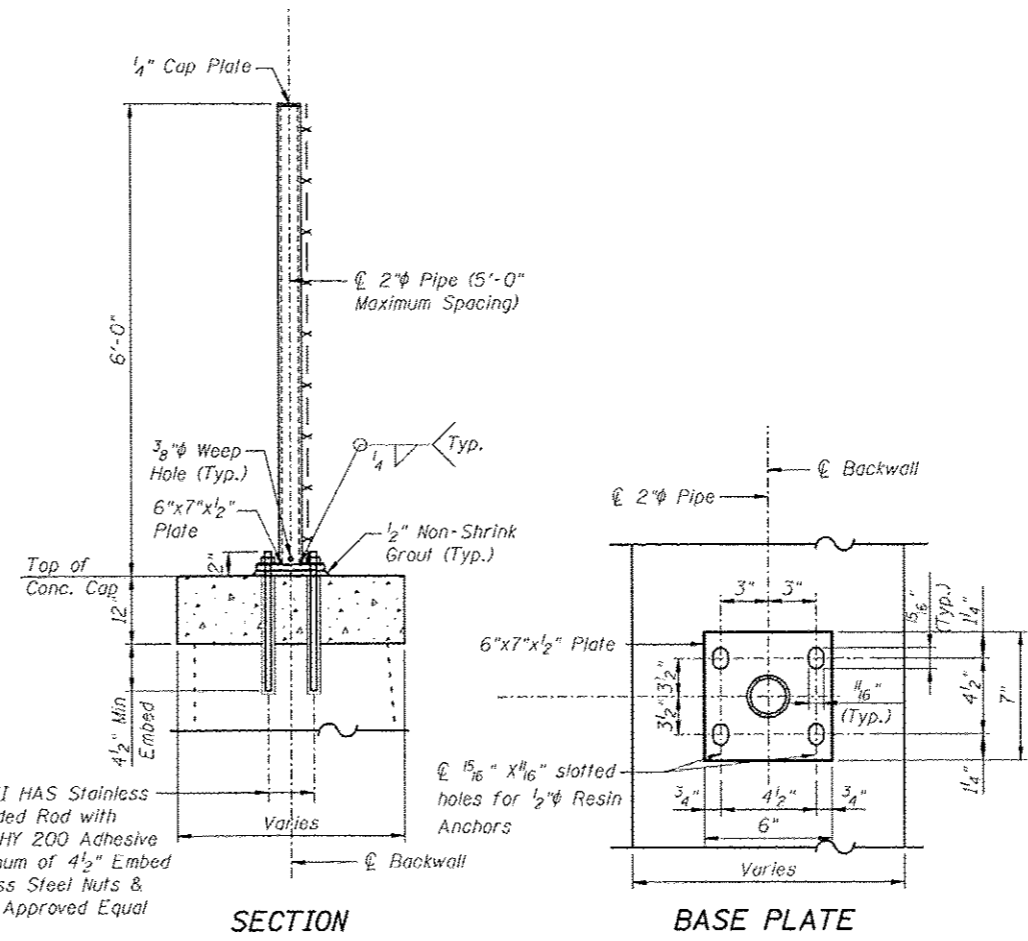
Note:
 * Contractor to coordinate the total dimension with truss manufacturer.
 #5 v(E), v₁(E), v₂(E), v₃(E) and h₄(E) bars shall be installed in existing concrete using HILTI HIT-RE 500 Epoxy Adhesive with a minimum embed depth as shown on sheet 6 of 11, or approved equal. Cost included with Reinforcement Bars, Epoxy Coated.
 For Section A-A, B-B, C-C and D-D. See Sheet 6 of 11.
 For South Abutment Bill of Material & Notes, see Sheet 6 of 11.
 Space Reinforcement in cap to miss anchor bolts.

REVISIONS				SCALE:				
NO.	DATE	BY	REMARKS	NOT TO SCALE, FOLLOW DIMENSIONS				
				DSN. BY:	DB	DATE:	04/18/2016	SHEET
				DWN. BY:	ER	DATE:	04/18/2016	162
				CHKD:	NK	DATE:	04/20/2016	
DGN NAME:				JOB NO.	E074404	CONTRACT NO.	97633	OF 335 SHTS

Printed: 4:59:54 PM 7/12/2016 1081162 South Abutment.dgn

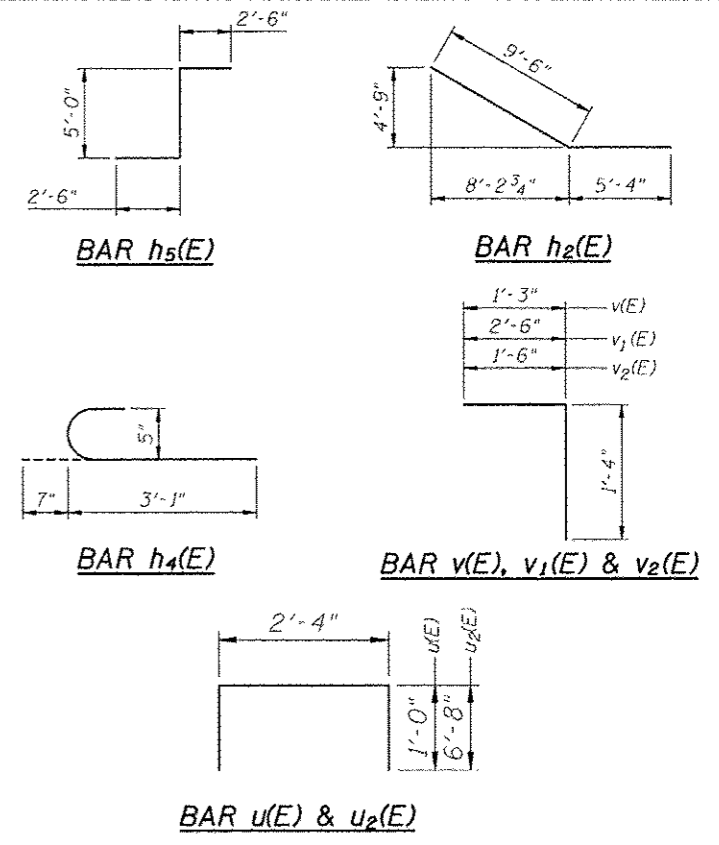


SECTION A-A



SECTION

FENCE DETAIL

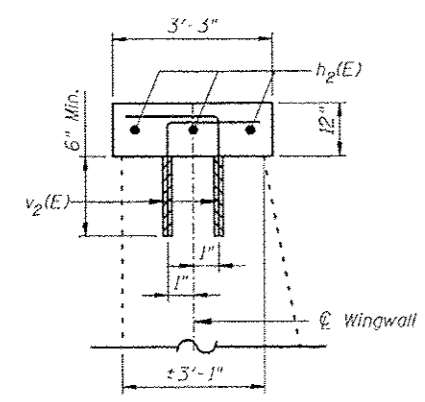


BAR u(E) & u2(E)

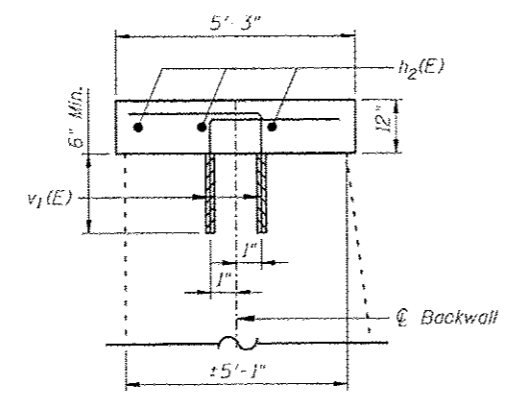
**SOUTH ABUTMENT
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h(E)	3	#5	13'-8"	—
h2(E)	3	#5	14'-10"	—
h3(E)	14	#5	17'-1"	—
h4(E)	42	#5	3'-8"	—
h5(E)	3	#5	10'-0"	—
u(E)	14	#5	4'-4"	—
u2(E)	12	#5	15'-8"	—
v(E)	25	#5	2'-7"	—
v1(E)	7	#5	3'-10"	—
v2(E)	10	#5	2'-10"	—
v4(E)	28	#5	7'-9"	—
Structure Excavation			Cu. Yd.	12
Concrete Structures			Cu. Yd.	17.8
Reinforcement Bars, Epoxy Coated			Pound	1150

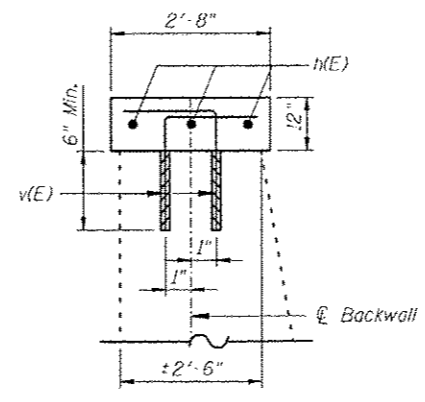
1/2" HILTI HAS Stainless Steel Treaded Rod with HILTI HIT-HY 200 Adhesive with a Minimum of 4 1/2" Embed with Stainless Steel Nuts & Washers or Approved Equal



SECTION B-B



SECTION C-C



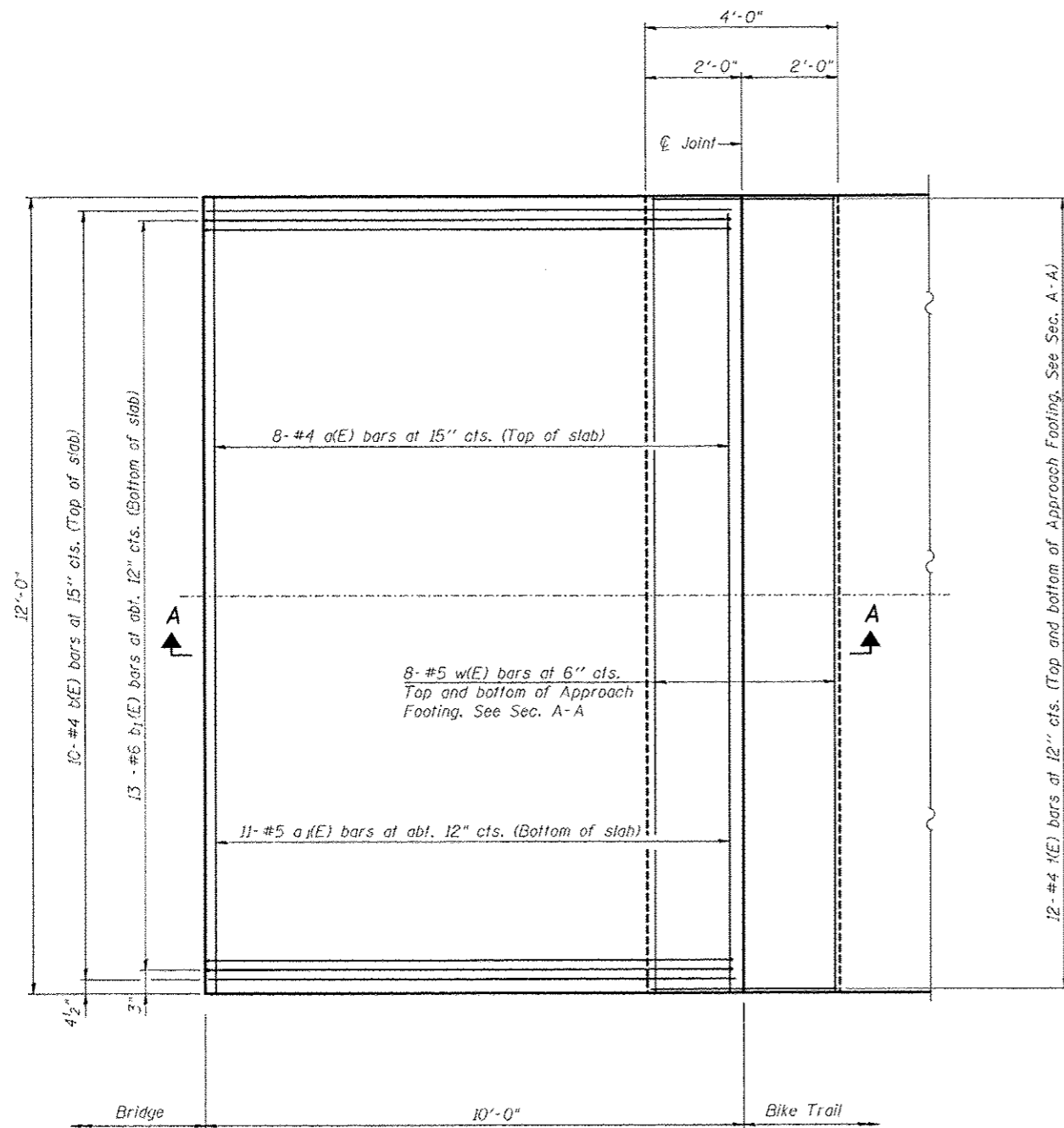
SECTION D-D

Notes:

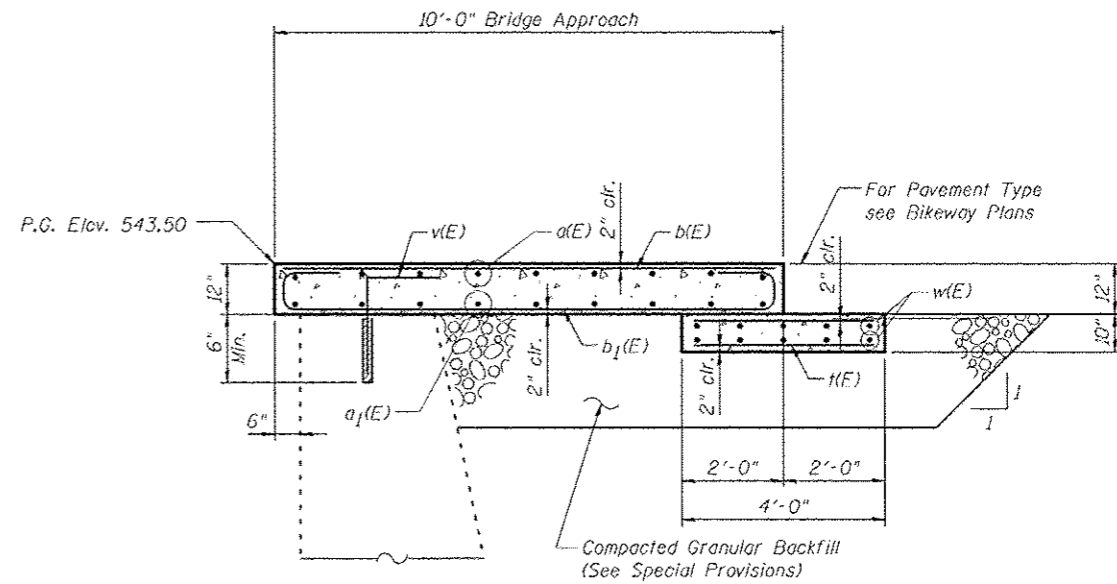
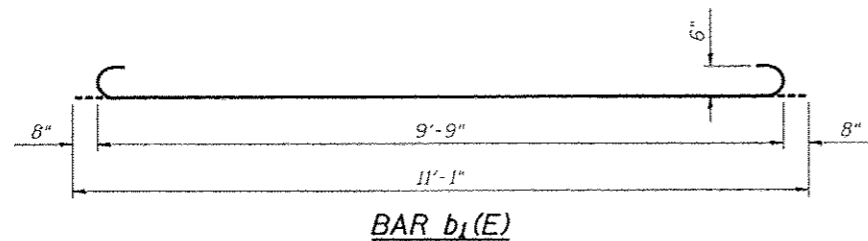
#5 v(E), v1(E), v2(E), v3(E) and h4(E) bars shall be installed in existing concrete using HILTI HIT-RE 500 Epoxy Adhesive with a minimum embed depth as shown on this sheet, or approved equal. Cost included with Reinforcement Bars. Epoxy Coated.

For bridge approach slab details and bill of material see sheet 10 of 11.

REVISIONS				SCALE:	
NO.	DATE	BY	REMARKS	NOT TO SCALE, FOLLOW DIMENSIONS	
				DSN. BY:	DB DATE: 04/18/2016
				DWN. BY:	ER DATE: 04/18/2016
				CHKD:	NK DATE: 04/20/2016
				JOB NO.	E074404
				CONTRACT NO.	97633



BRIDGE APPROACH PAVEMENT PLAN



SECTION A-A

**TWO APPROACHES
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a(E)	16	#4	11'-8"	————
a1(E)	22	#5	11'-8"	————
b(E)	20	#4	9'-9"	————
b1(E)	26	#6	11'-1"	————
k(E)	48	#4	3'-8"	————
w(E)	32	#5	11'-8"	————
Concrete Structures			Cu. Yd.	11.9
Reinforcement Bars, Epoxy Coated			Pound	1470

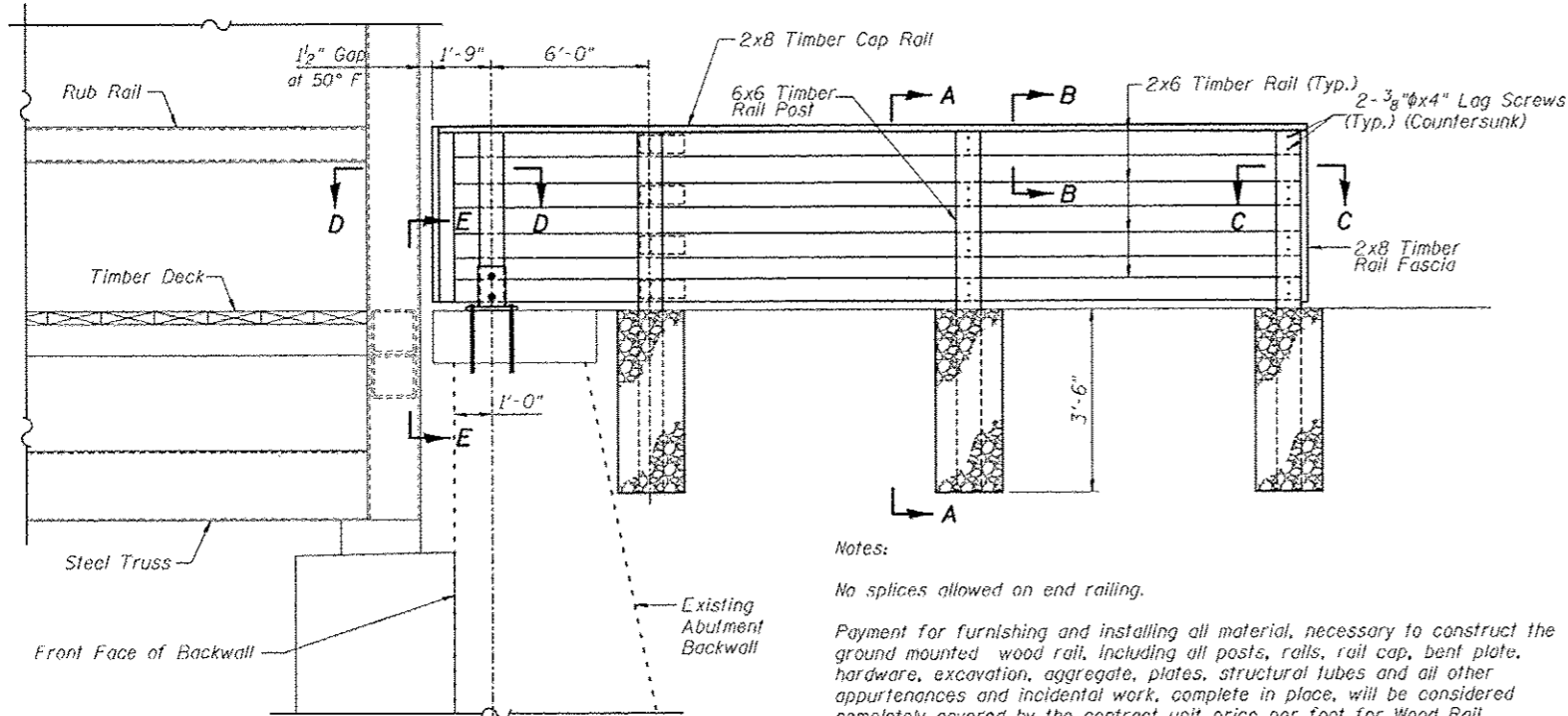
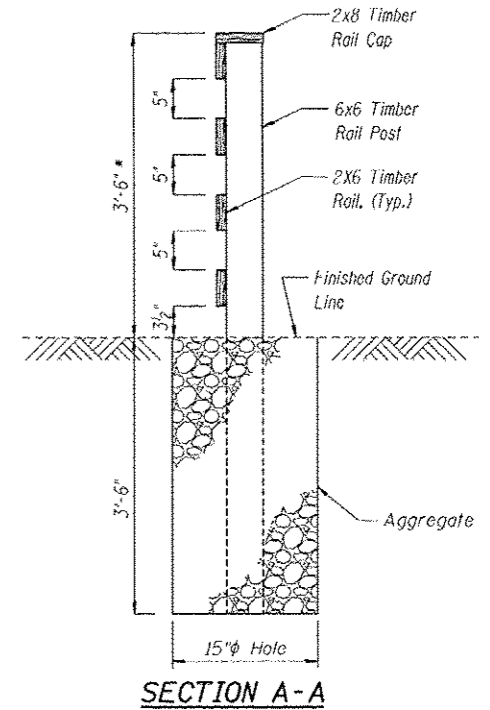
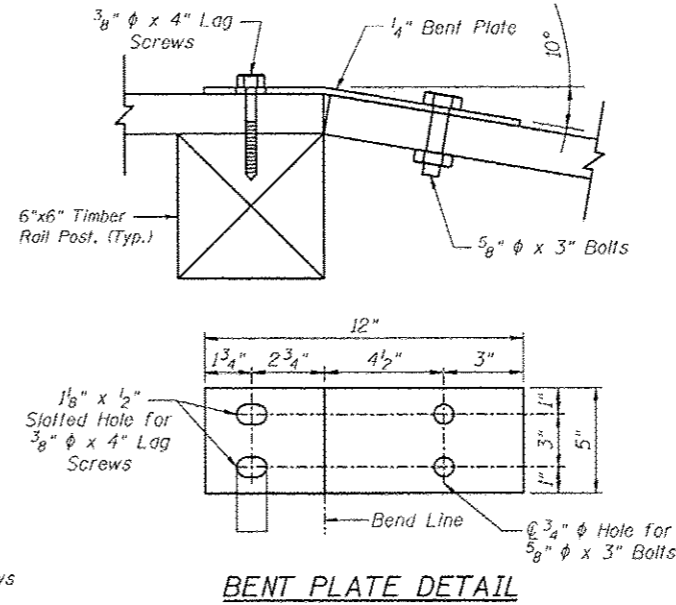
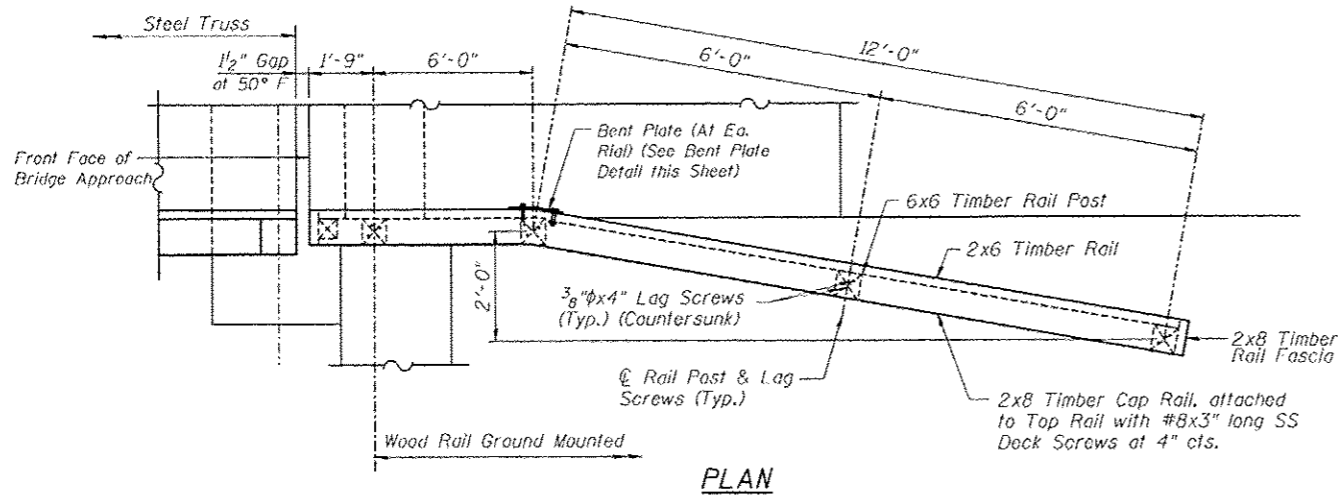
Notes:

For v(E) bar details, see sheets 5 & 8 of 11.

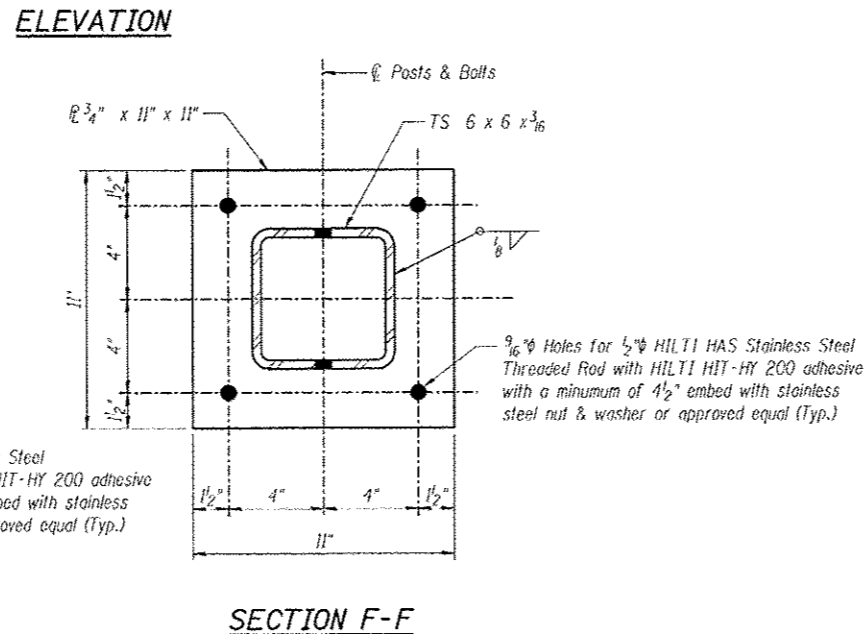
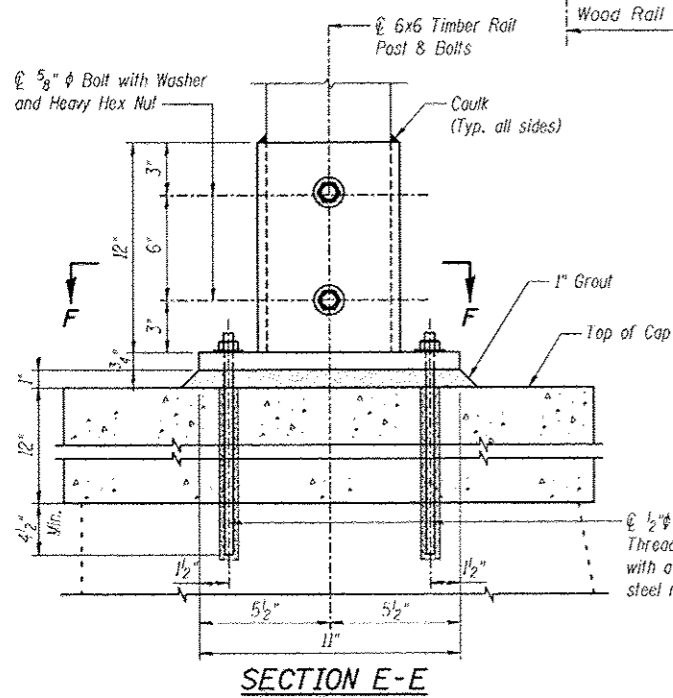
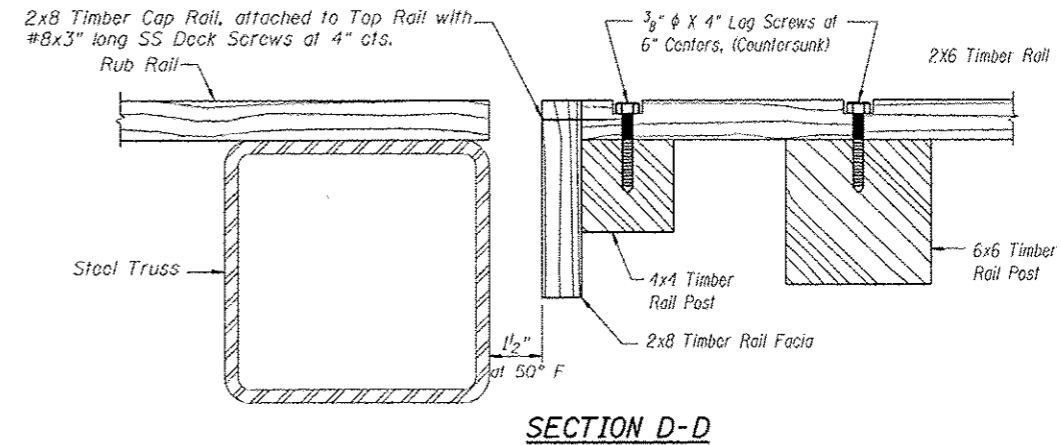
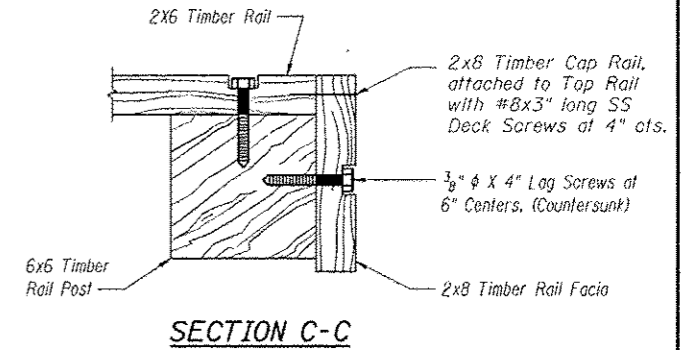
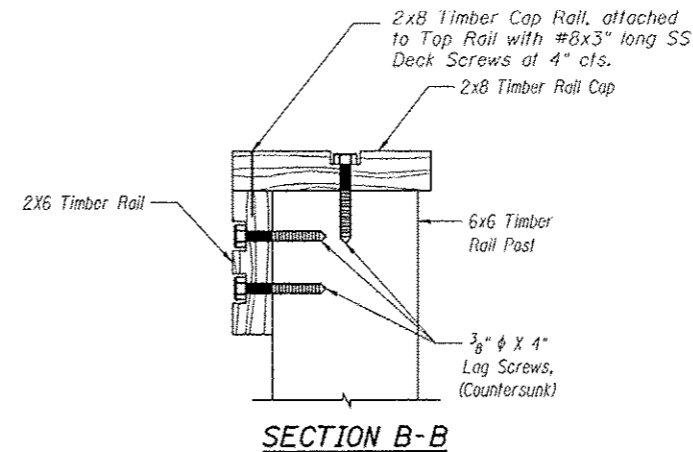
For Granular Backfill for Structures, see details this sheet.

Approach slab & footing concrete shall be paid for as Concrete Structures.

REVISIONS				SCALE:	
NO.	DATE	BY	REMARKS	NOT TO SCALE, FOLLOW DIMENSIONS	
				DSN. BY:	DB DATE: 04/18/2016 SHEET
				DWN. BY:	ER DATE: 04/18/2016
				CHKD:	NK DATE: 04/20/2016
DGN NAME:				JOB NO.	E074404 CONTRACT NO. 97633 OF 335 SHTS



Notes:
 No splices allowed on end railing.
 Payment for furnishing and installing all material, necessary to construct the ground mounted wood rail, including all posts, rails, rail cap, bent plate, hardware, excavation, aggregate, plates, structural tubes and all other appurtenances and incidental work, complete in place, will be considered completely covered by the contract unit price per foot for Wood Rail.
 * Top of top timber rail shall be installed a minimum 3'-6" above the finished ground line. Adjust post length accordingly in field.



REVISIONS				SCALE:				
NO.	DATE	BY	REMARKS	NOT TO SCALE, FOLLOW DIMENSIONS				
				DSN. BY:	DB	DATE:	04/18/2016	SHEET
				DWN. BY:	ER	DATE:	04/18/2016	165
				CHKD:	NK	DATE:	04/20/2016	
DGN NAME:				JOB NO.	E074404	CONTRACT NO.	97633	OF 335 SHTS

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TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structure Excavation	Cu. Yd.	110
Concrete Encasement	Cu. Yd.	2.8
Concrete Structures	Cu. Yd.	36.7
Reinforcement Bars, Epoxy Coated	Pound	4910
Slope Wall, 4 in.	Sq. Yd.	130
Furnishing Steel Piles HP 12x63	Linear Ft.	384
Driving Piles	Linear Ft.	384
Test Pile HP 12x63	Each	2
Pile Shoes	Each	8
Name Plates	Each	1
Anchor Bolts, 1/2"	Each	8
Concrete Sealer	Sq. Ft.	160
Geocomposite Wall Drain	Sq. Yd.	43
Pedestrian Truss Superstructure	Sq. Ft.	2220
Granular Backfill for Structures	Cu. Yd.	70
Pipe Underdrain for Structures, 4 in.	Foot	126
Wood Rail	Foot	67

GENERAL NOTES

Reinforcement bars designated (E) shall be epoxy coated.

See Bikeway Plans for underground utility locations.

The main load carrying member components subject to tensile stress shall conform to the Impact Testing Requirements Zone 2. These components are the truss vertical, diagonal and horizontal members.

Concrete Sealer shall be applied to all exposed surfaces of abutment bridge seat, backwalls and front face of pile cap.

All construction joints shall be bonded.

No field welding is permitted.

Truss Manufacturer shall provide 1" nominal shim pack for each bearing consisting of 1", 3/4", 1/2", 1/4" and 1/8" shim plates matching the dimensions of the masonry plate provided, including holes for anchor bolts. Cost included in the cost of Pedestrian Truss Superstructure.

Bearings and anchor bolts shall be designed for minimum lateral load capacity of 20% of all contributing Superstructure Dead Loads in the restrained direction at the given location under consideration.

Bearing seat elevations at abutments are determined based on total height of bearing assembly, including shims of 7". Contractor must coordinate work with pedestrian truss manufacturer.

Timber for the Bridge shall be provided and installed in accordance with the applicable portions of Sections 507 and 1007 of the Standard Specifications. Wood members shall be naturally durable hardwood Ipe (Tabebuia Spp Lapacho Group), graded both faces and both edges meeting FEQ-CAH (First Export Quality-Clear All Heart) grading rules.

Treated timber for the Ground Mounted Wood Rail shall be according to Sections 507 and 1007 of the Standard Specifications. Wood members shall be visually graded No. 1 Southern Pine or No. 2 Douglas Fir-Larch or approved equivalent.

Holes for all hardware shall be predrilled to avoid splitting.

Bolt holes in lumber shall be in accordance with Article 507.08 of the Standard Specifications.

Lumber shall be surfaced four sides.

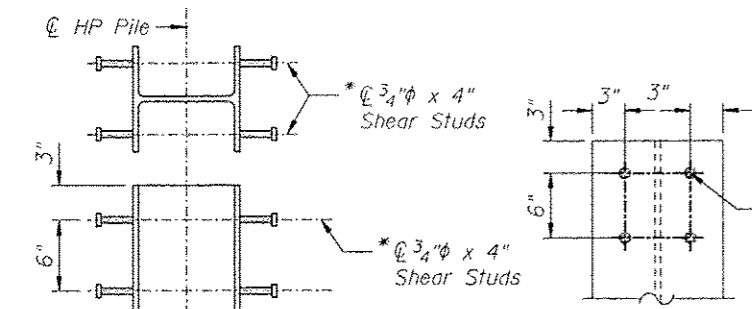
All dimensions are shown in inches unless otherwise noted.

All hardware including bolts, screws nails etc. shall be stainless steel in accordance with Article 1006.29(d) of the Standard Specifications.

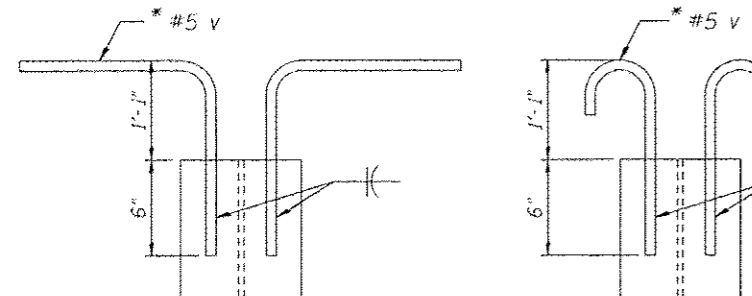
All Structural Steel including angles, steel tubing and plates shall conform to AASHTO M270 in accordance with Article 1006.4 and shall be hot dipped galvanized according to AASHTO M232.

All caulking material shall be a waterproof, non-hardening exterior compound capable of providing a water, dust, and insect proof seal.

Truss Manufacturer shall provide Safety Screen within the limits shown on the plans. Safety Screen shall consist of vinyl coated 9 gauge 2" maximum diamond chain link fence fabric. Safety Screen vinyl coat color to be determined by owner. Cost of furnishing and installing the Safety Screen shall be included in the cost of the Pedestrian Truss Superstructure.



OPTION A



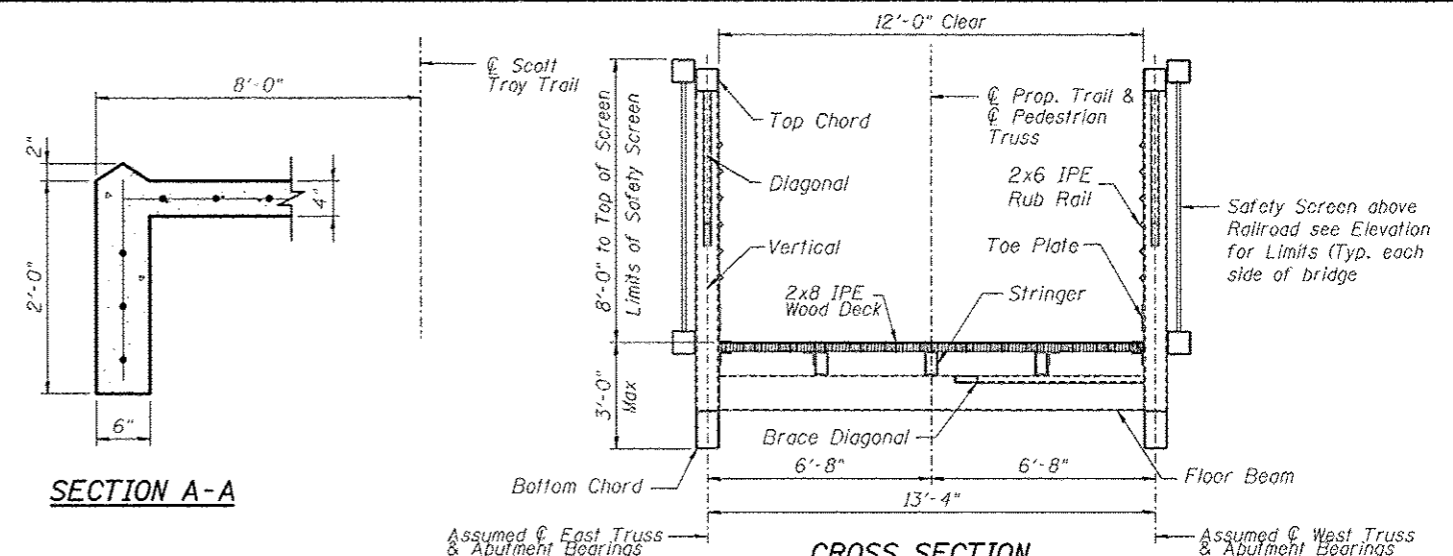
OPTION B

OPTION C

BAR v (OPTION B)

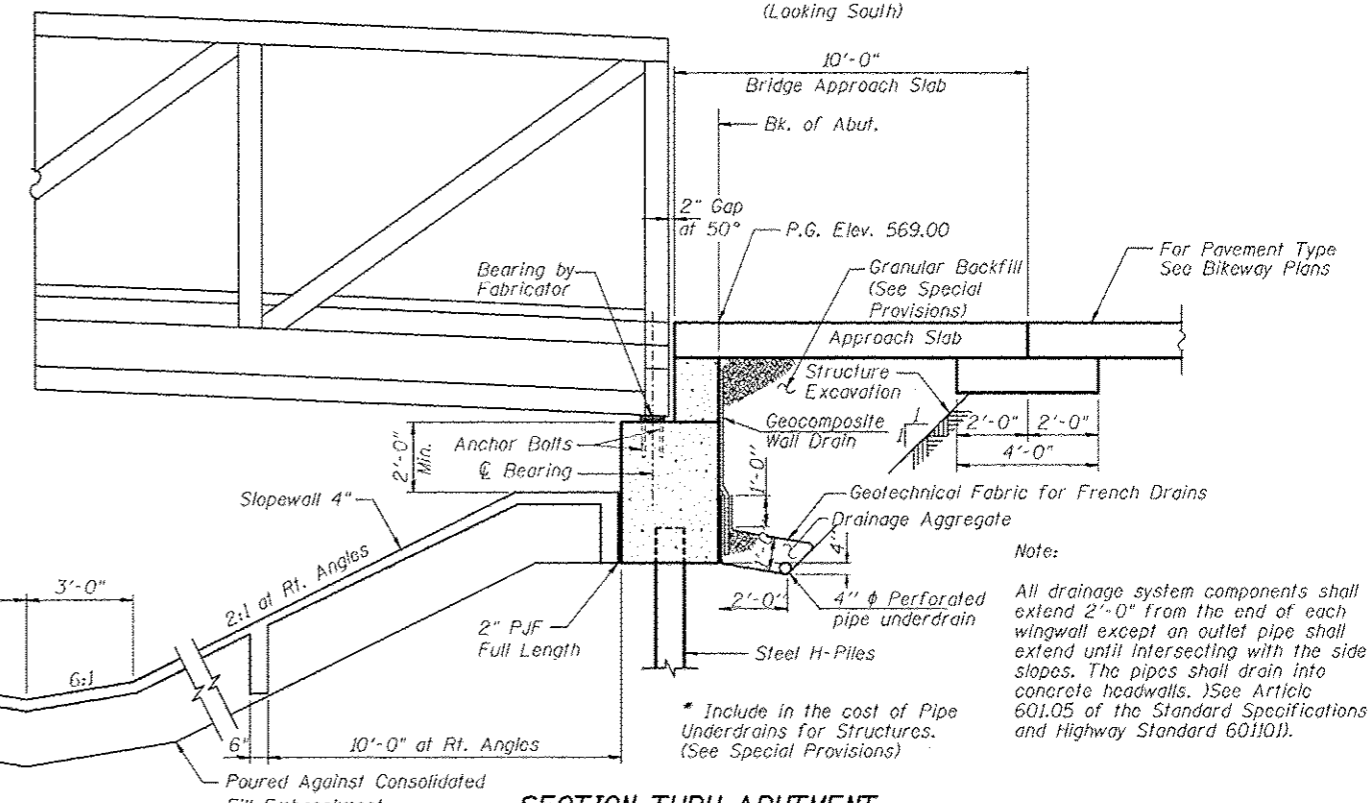
BAR v (OPTION C)

HP PILE ANCHORAGE



SECTION A-A

CROSS SECTION



SECTION THRU ABUTMENT

Notes:

Anchor bolts shall be ASTM F1554 all-thread (or an Engineer approved alternate material of grade(s) and diameter(s)). Size, Grade and location of anchor bolts shall be determined by the pedestrian truss manufacturer. The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.

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

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

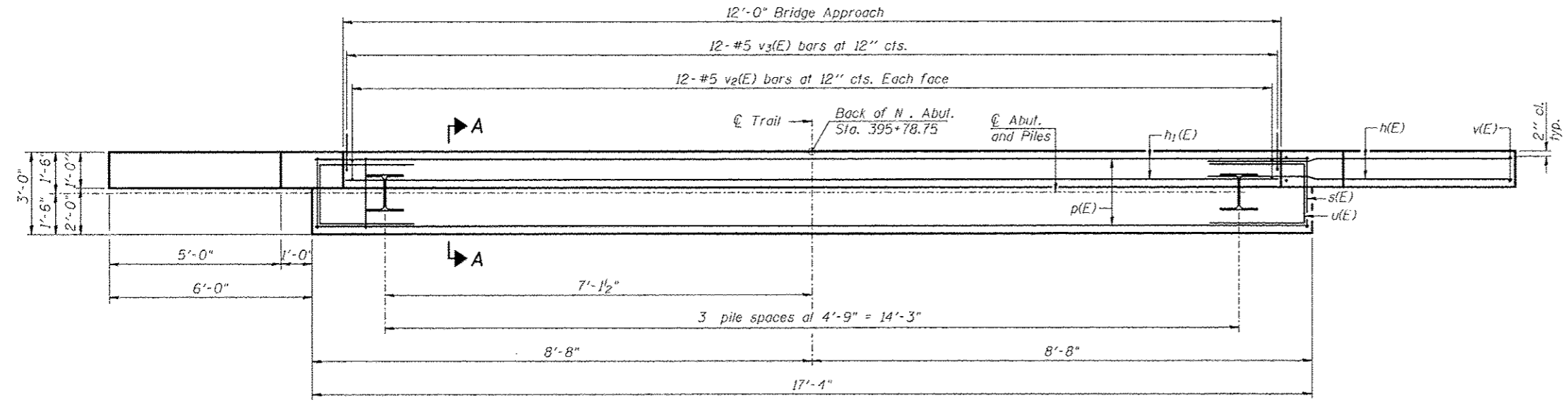
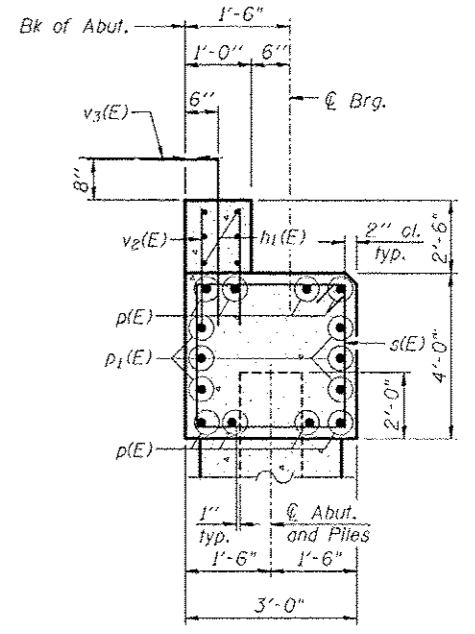
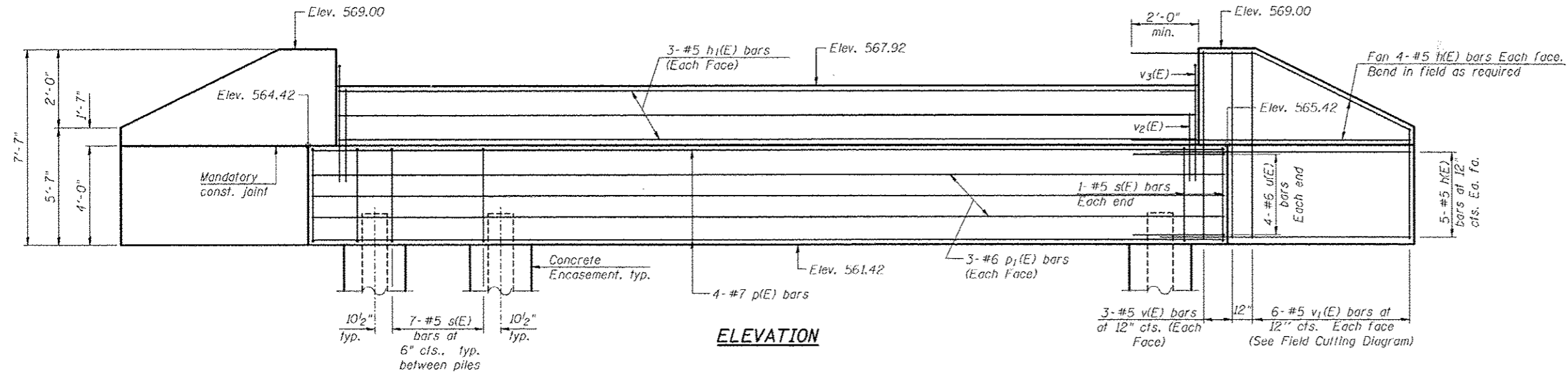
Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.

* Typical each flange, each pile. Cost of furnishing and installing HP Pile Anchorage for Option A, B or C is included in the cost unit price for Furnishing Steel Piles HP 10x42 and Furnishing Steel Piles HP 14x73.

GENERAL NOTES & QUANTITIES			
<p>Juneau Associates, Inc. P.C. CONSULTING ENGINEERS AND LAND SURVEYORS 1100 Pine St. • 700 West Riverside St. • 700 N. Taylor St. • Ste 200 Grafton City, IL 62047 • Grafton, IL 62047 • St. Louis, MO 63102 Phone: 618-937-4100 • Fax: 618-937-4100 • Email: juneau@juneau.com</p>		<p>SCOTT TROY BIKE TRAIL OVER BETHEL ROAD SECTION 06-00001-00-BT ST. CLAIR COUNTY STATION 396+90.70 STRUCTURE NO. 082-7101</p>	
<p>NO. DATE BY REMARKS</p>		<p>SCALE: NOT TO SCALE, FOLLOW DIMENSIONS</p>	
<p>DSN. BY: DB DATE: 04/18/2016 SHEET</p>		<p>DWN. BY: ER DATE: 04/18/2016</p>	
<p>CHKD: NK DATE: 04/20/2016</p>		<p>167</p>	
<p>DGN NAME:</p>		<p>JOB NO. E074404 CONTRACT NO. 97633 OF 335 SHTS</p>	

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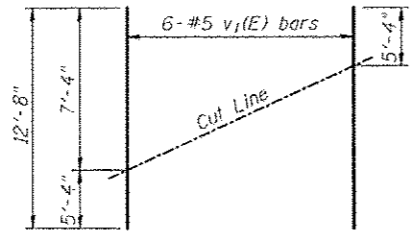


**NORTH ABUTMENT
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h(E)	32	#5	10'-9"	—
h1(E)	6	#5	11'-9"	—
p(E)	8	#7	17'-1"	—
p1(E)	4	#6	17'-1"	—
s(E)	25	#5	13'-7"	□
u(E)	8	#6	9'-7"	└
v(E)	12	#5	7'-4"	—
v1(E)	12	#5	12'-8"	—
v2(E)	14	#5	4'-0"	—
v3(E)	12	#5	6'-4"	└
Structure Excavation		Cu. Yd.	55	
Concrete Structures		Cu. Yd.	12.4	
Reinforcement Bars, Epoxy Coated		Pound	1720	
Furnishing - Steel		Foot	198	
HP 12x63 Piles,		Foot	198	
Driving Piles		Foot	198	
Test Pile, HP 12x63		Each	1	
Pile Shoes		Each	1	
Concrete Encasement		Cu. Yd.	1.4	

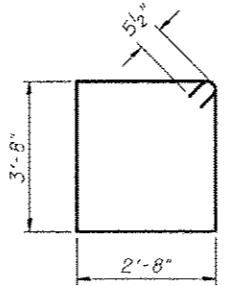
PILE DATA

Type: Steel HP 12x63 with Pile Shoes
 Nominal Required Bearing: 497
 Factored Resistance Available: 273
 Est. Length: 66 Ft.
 No. Production Piles: 3
 No. Test Piles: 1

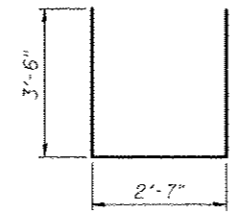


FIELD CUTTING DIAGRAM

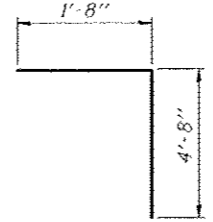
Order v1(E) bars full length. Cut as shown and use remainder of bars in opposite face.



BAR s(E)



BAR u(E)



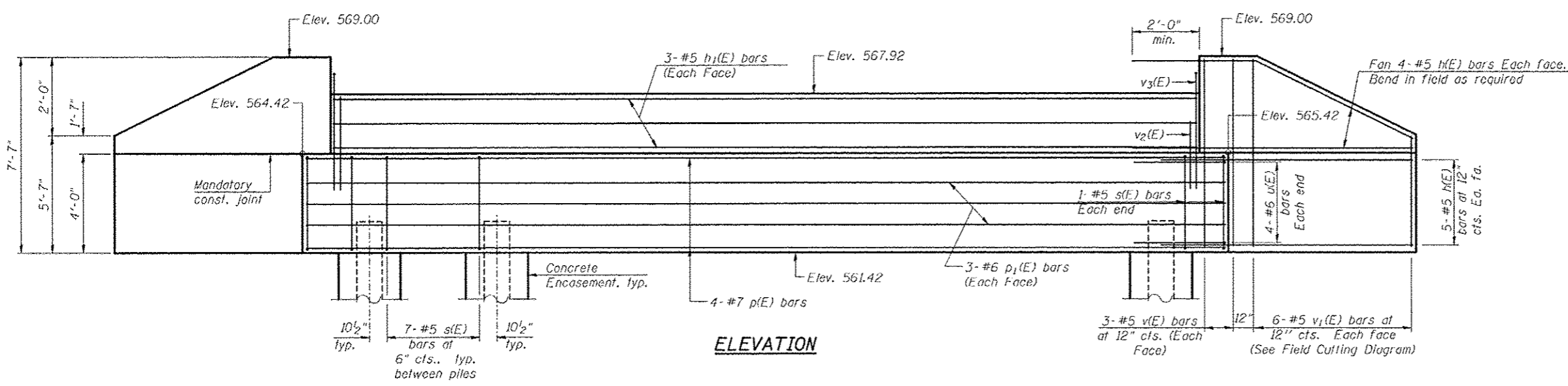
BAR v3(E)

Notes:

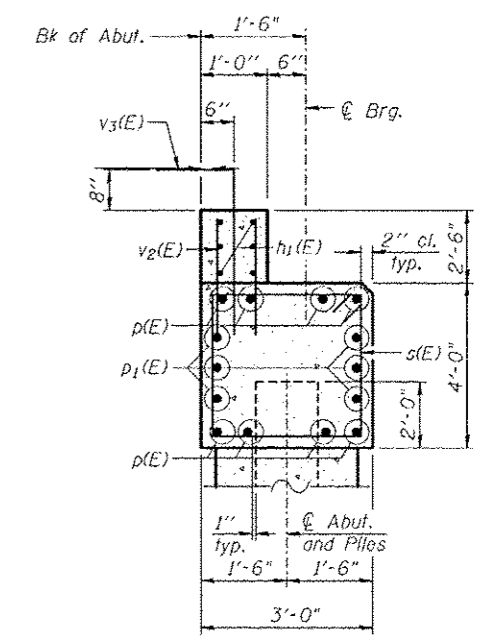
- Space reinforcement in the cap to miss anchor bolts.
- For details of piles and Concrete Encasement, see sheet 6 of 7.
- For Bridge Approach Slab Details, see Sheet 5 of 7.

REVISIONS				SCALE:	
NO.	DATE	BY	REMARKS	NOT TO SCALE, FOLLOW DIMENSIONS	
				DSN. BY:	DB DATE: 04/18/2016
				DWN. BY:	ER DATE: 04/18/2016
				CHKD:	NK DATE: 04/20/2016
DGN NAME:				JOB NO.	E074404
				CONTRACT NO.	067633

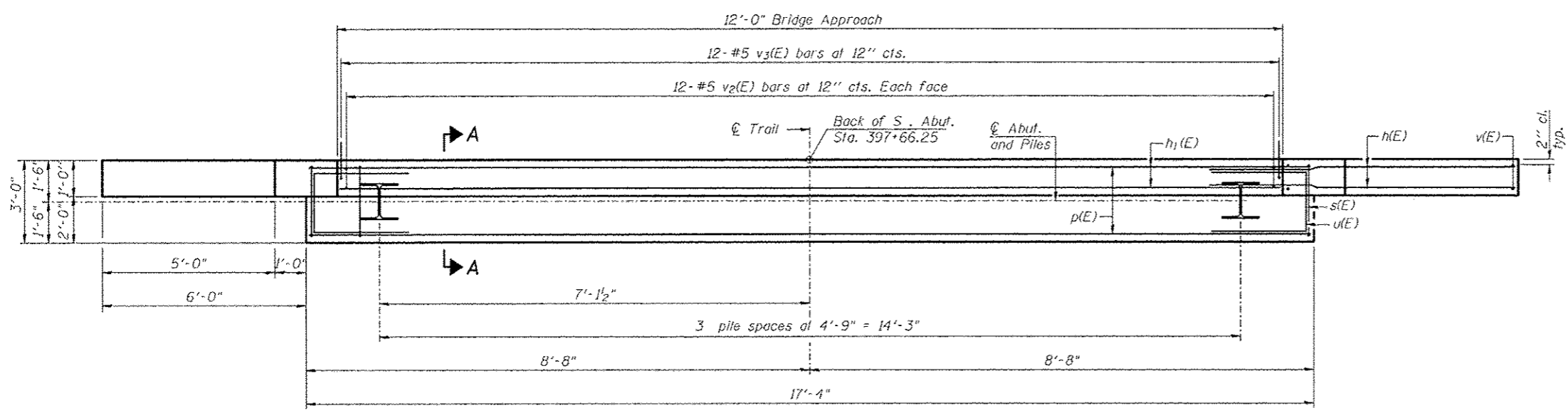
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ELEVATION



SECTION A-A



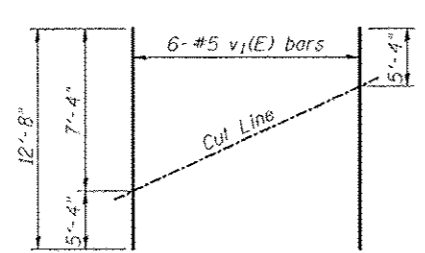
PLAN

**SOUTH ABUTMENT
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h(E)	32	#5	10'-9"	—
h1(E)	6	#5	11'-9"	—
p(E)	8	#7	17'-1"	—
p1(E)	4	#6	17'-1"	—
s(E)	25	#5	13'-7"	□
u(E)	8	#6	9'-7"	□
v(E)	12	#5	7'-4"	—
v1(E)	12	#5	12'-8"	—
v2(E)	14	#5	4'-0"	—
v3(E)	12	#5	6'-4"	└
Structure Excavation		Cu. Yd.	55	
Concrete Structures		Cu. Yd.	12.4	
Reinforcement Bars, Epoxy Coated		Pound	1720	
Furnishing - Steel HP 12x63 Piles,		Foot	198	
Driving Piles		Foot	198	
Test Pile, HP 12x63		Each	1	
Pile Shoes		Each	1	
Concrete Encasement		Cu. Yd.	1.4	

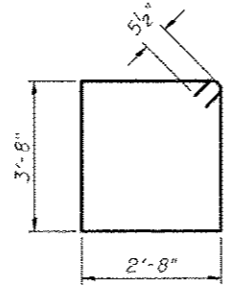
PILE DATA

Type: Steel HP 12x63 with Pile Shoes
 Nominal Required Bearing: 497
 Factored Resistance Available: 273
 Est. Length: 66 Ft.
 No. Production Piles: 3
 No. Test Piles: 1

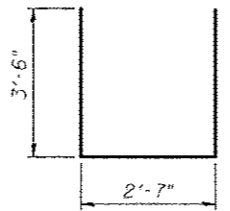


FIELD CUTTING DIAGRAM

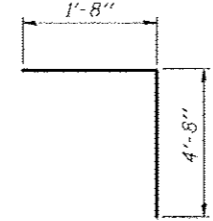
Order v1(E) bars full length. Cut as shown and use remainder of bars in opposite face.



BAR s(E)



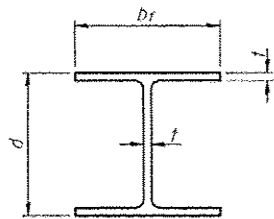
BAR u(E)



BAR v3(E)

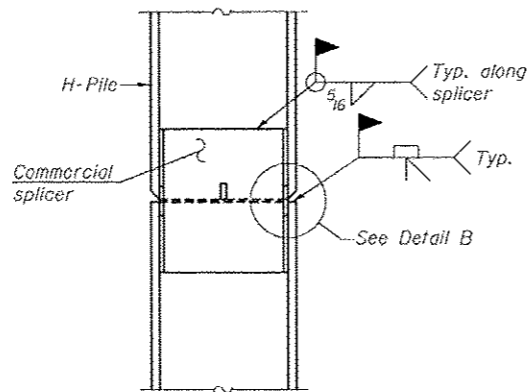
Notes:
 Space reinforcement in the cap to miss anchor bolts.
 For details of piles and Concrete Encasement, see sheet 6 of 7.
 For Bridge Approach Slab Details, see Sheet 5 of 7.

REVISIONS				SCALE:	
NO.	DATE	BY	REMARKS	NOT TO SCALE, FOLLOW DIMENSIONS	
				DSN. BY:	DB
				DATE:	04/18/2016
				DWN. BY:	ER
				DATE:	04/18/2016
				CHKD:	NK
				DATE:	04/20/2016
DGN NAME:				JOB NO.	E074404
				CONTRACT NO.	97633
				OF 335 SHTS	169

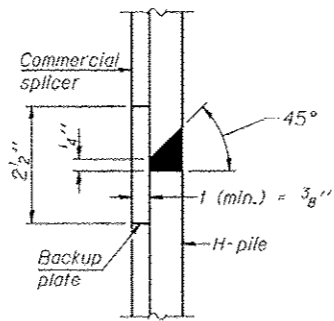


STEEL PILE TABLE

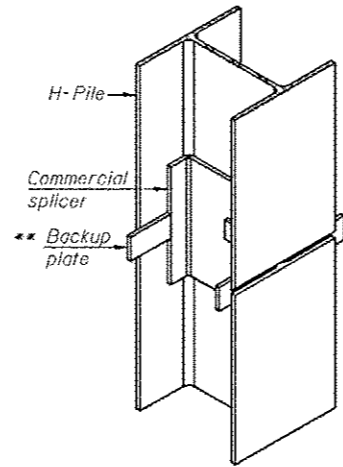
Designation	Depth d	Flange width b _f	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	13/16"	30"
x102	14"	14 3/4"	1/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	1/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 5/8"	1/2"	24"
x53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



ELEVATION

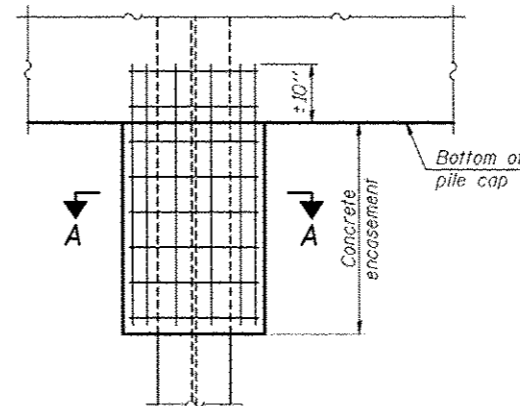


DETAIL "B"



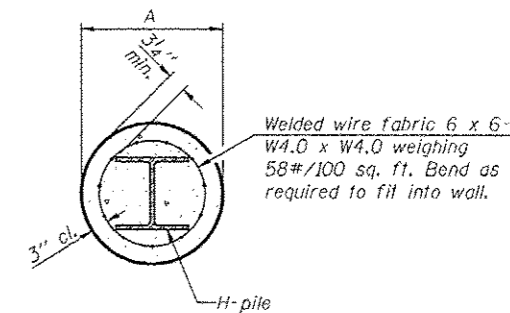
ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE



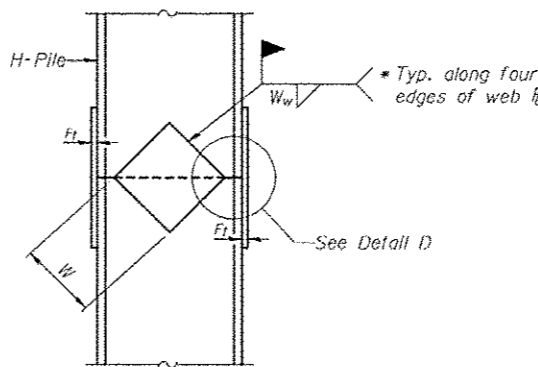
ELEVATION

PILE ENCASEMENT

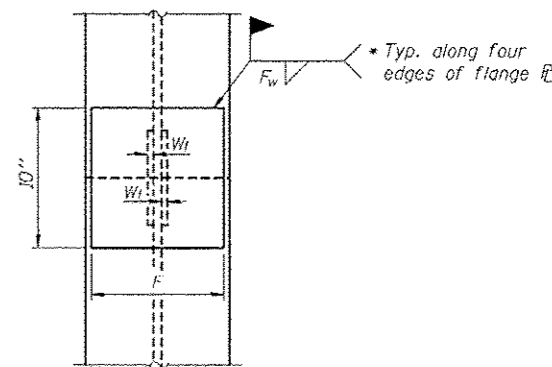


SECTION A-A

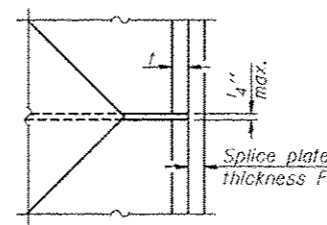
Note: Forms for encasement may be omitted when soil conditions permit.



ELEVATION



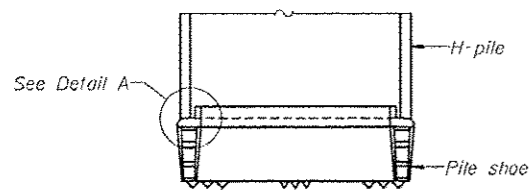
END VIEW



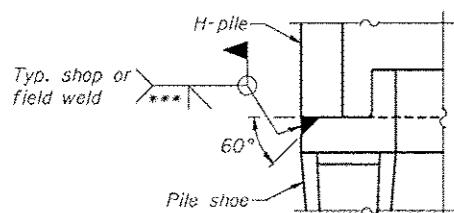
DETAIL D

WELDED PLATE FIELD SPLICE

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

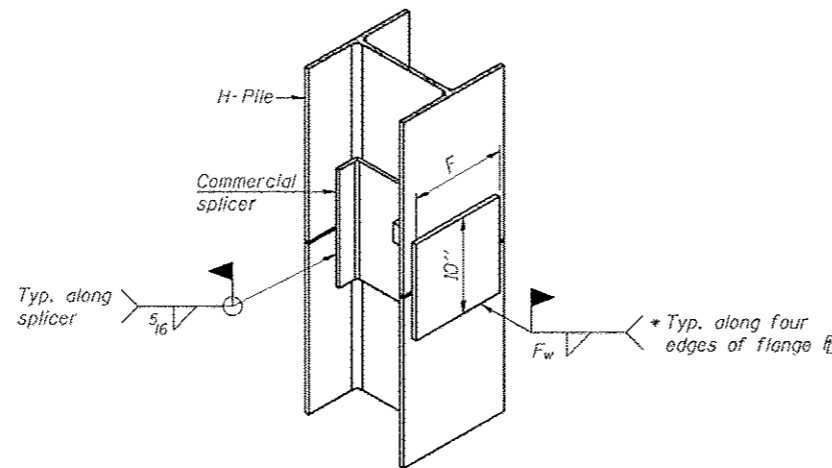


ELEVATION



DETAIL A

H-PILE SHOE ATTACHMENT



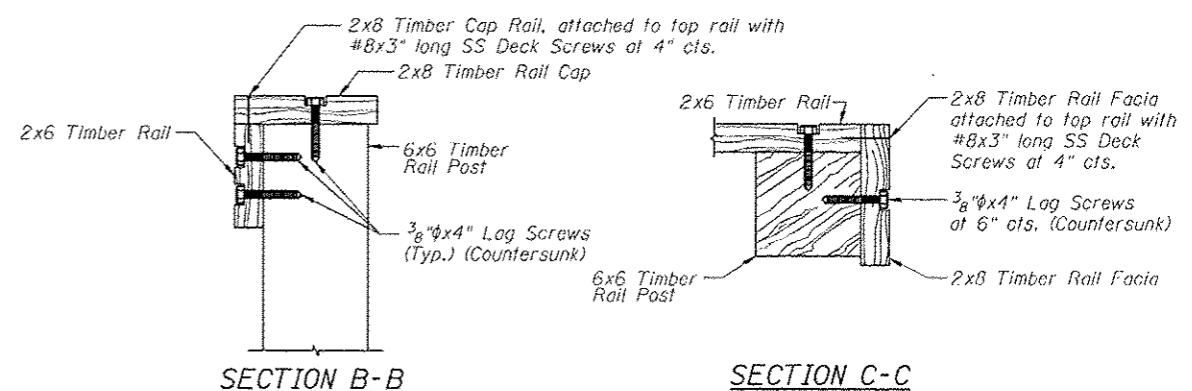
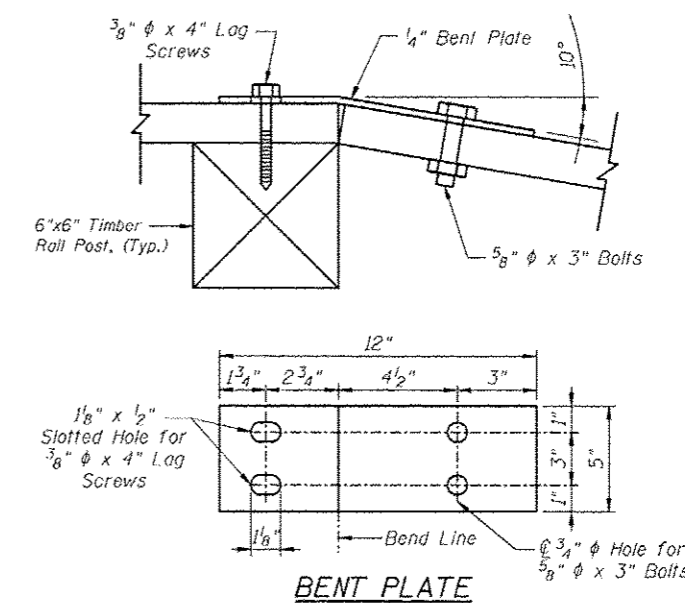
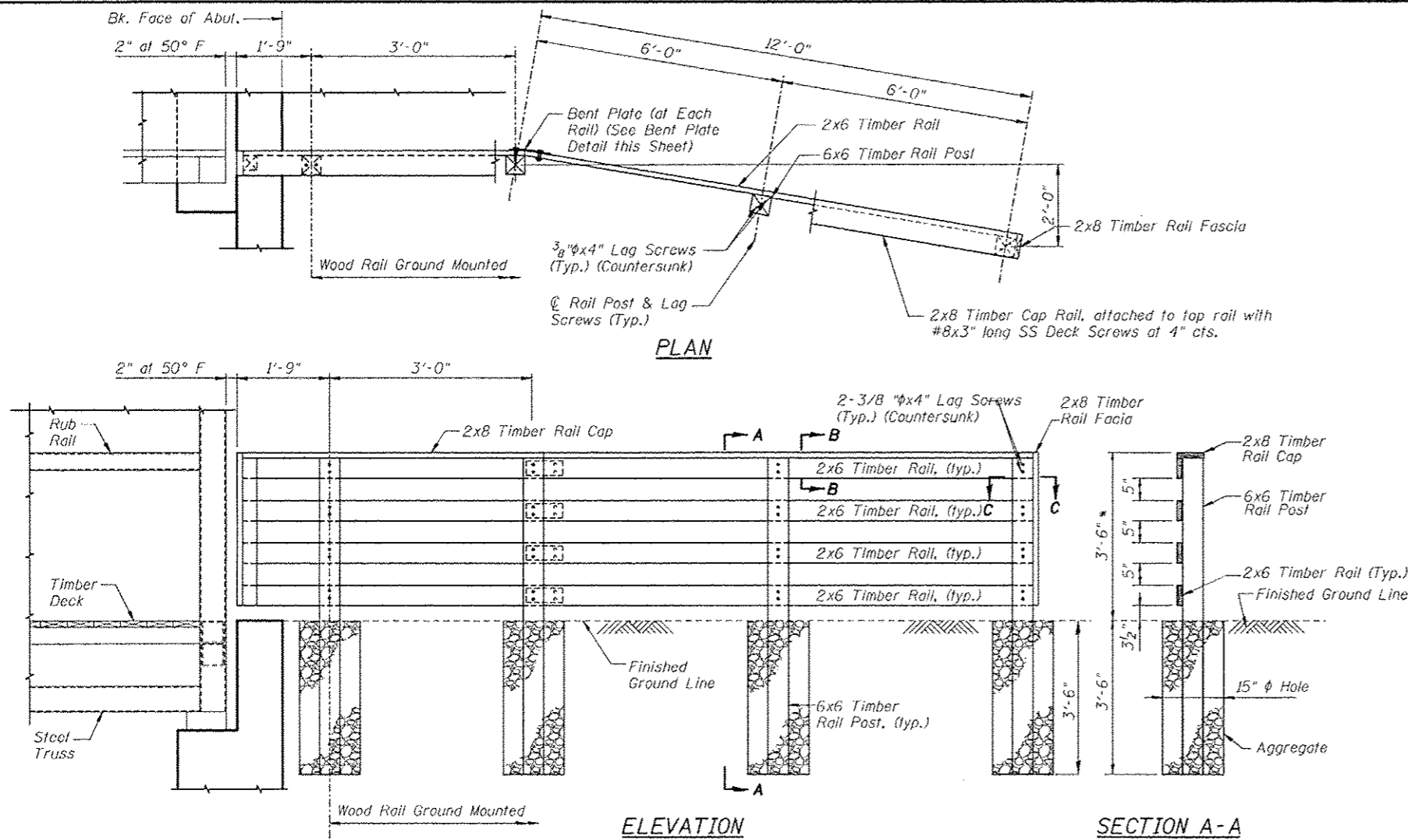
ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE ALTERNATE

- * Interrupt welds 1/4" from end of web and/or each flange.
- ** Remove portions of backup plates that extend outside the flanges.
- *** Weld size per pile shoe manufacturer (3/16" min.).

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

REVISIONS				HP PILE DETAILS		
NO.	DATE	BY	REMARKS	Juneau Associates, Inc. P.C. CONSULTING ENGINEERS AND LAND SURVEYORS 1100 N. 1st St., Suite 200, Troy, IL 61864 Phone: 618-317-1000 Fax: 618-317-1001 Email: juneau@juneau.com Website: www.juneau.com		
SCOTT TROY BIKE TRAIL OVER BETHEL ROAD SECTION 06-00001-00-BT ST. CLAIR COUNTY STATION 396+90.70 STRUCTURE NO. 082-7101				SCALE: NOT TO SCALE, FOLLOW DIMENSIONS		
DSN BY: DB DATE: 04/18/2016 SHEET				DWN BY: ER DATE: 04/18/2016 171		
CHK'D: NK DATE: 04/20/2016				JOB NO. E074404 CONTRACT NO. 97633 OF 335 SHTS		



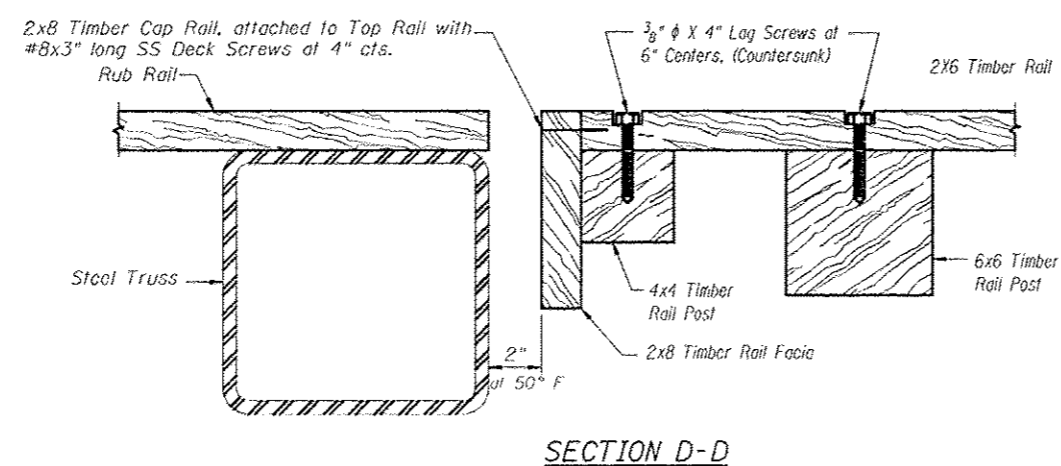
TIMBER FENCE RAIL DETAIL

Notes:

No splices allowed on end railing.

Payment for furnishing and installing all material, necessary to construct the ground mounted wood rail, including all posts, rails, rail cap, bent plate, hardware, excavation, aggregate, plates, structural tubes and all other appurtenances and incidental work, complete in place, will be considered completely covered by the contract unit price per foot for Wood Rail.

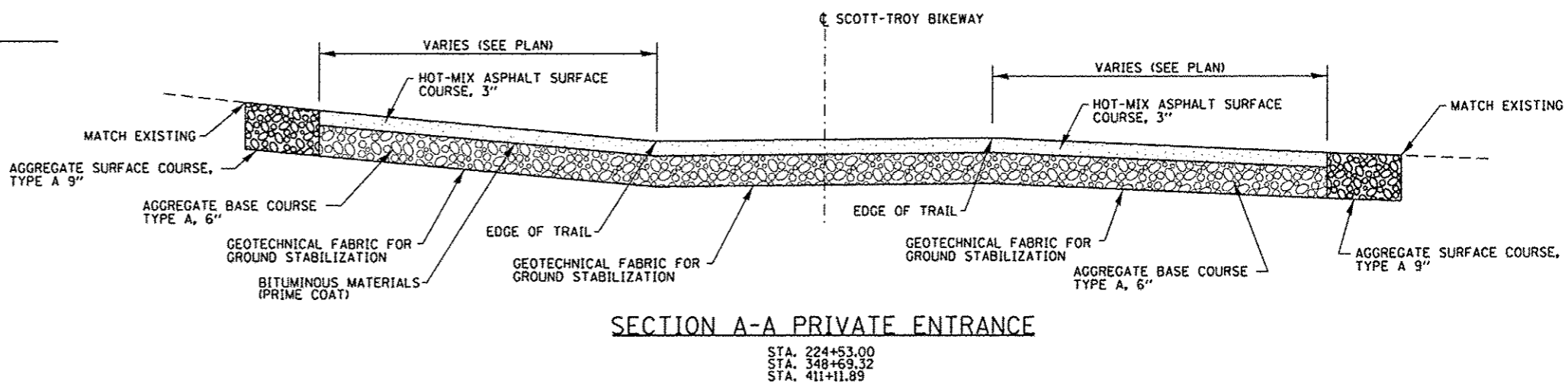
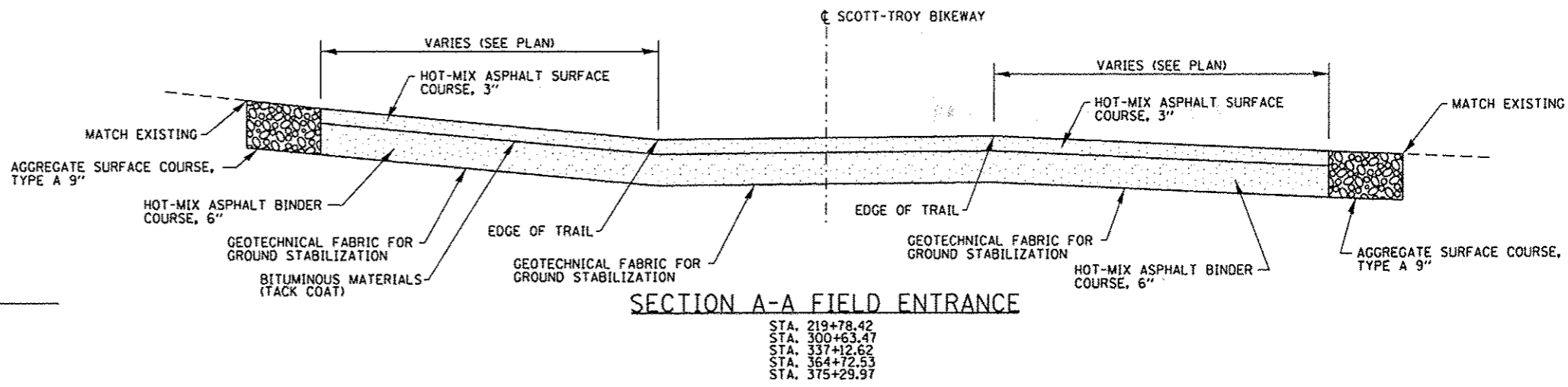
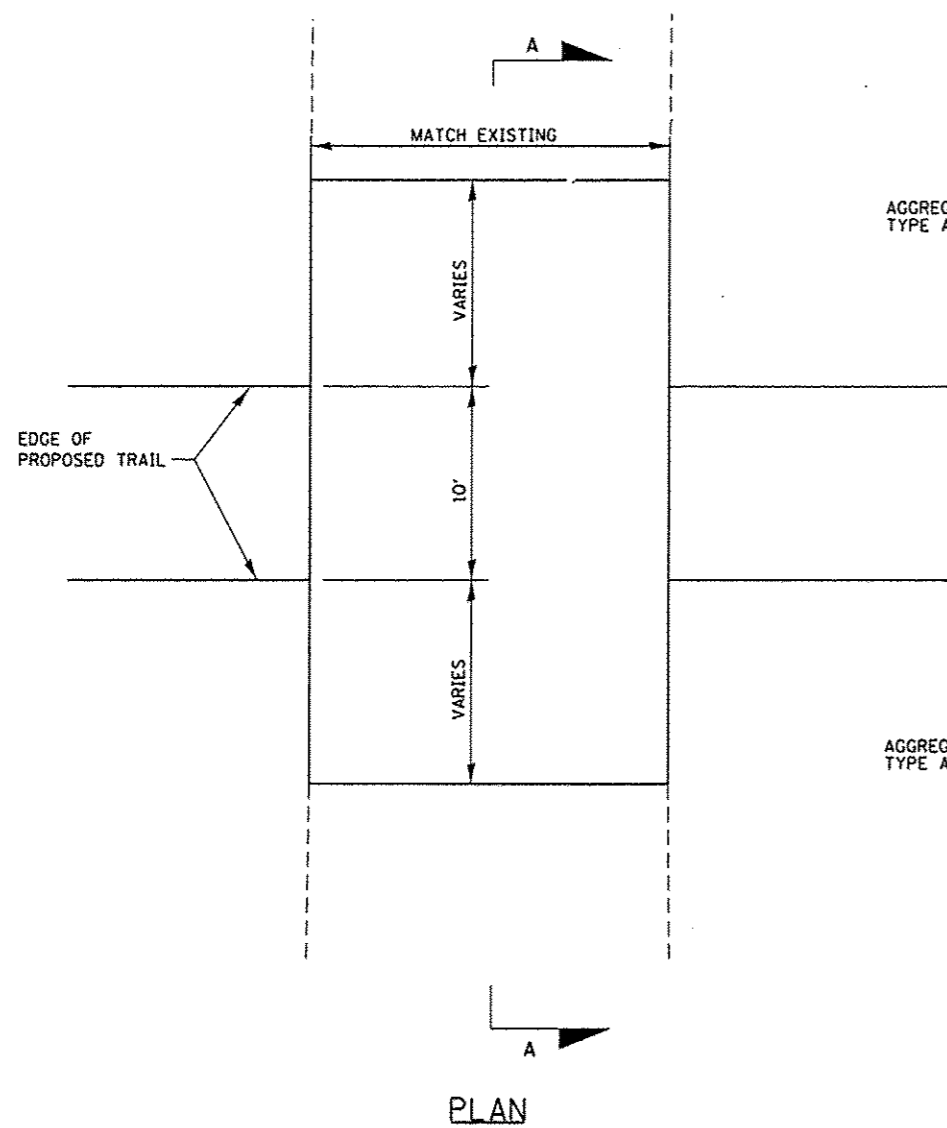
* Top of top timber rail shall be installed a minimum 3'-6" above the finished ground line. Adjust post length accordingly in field.



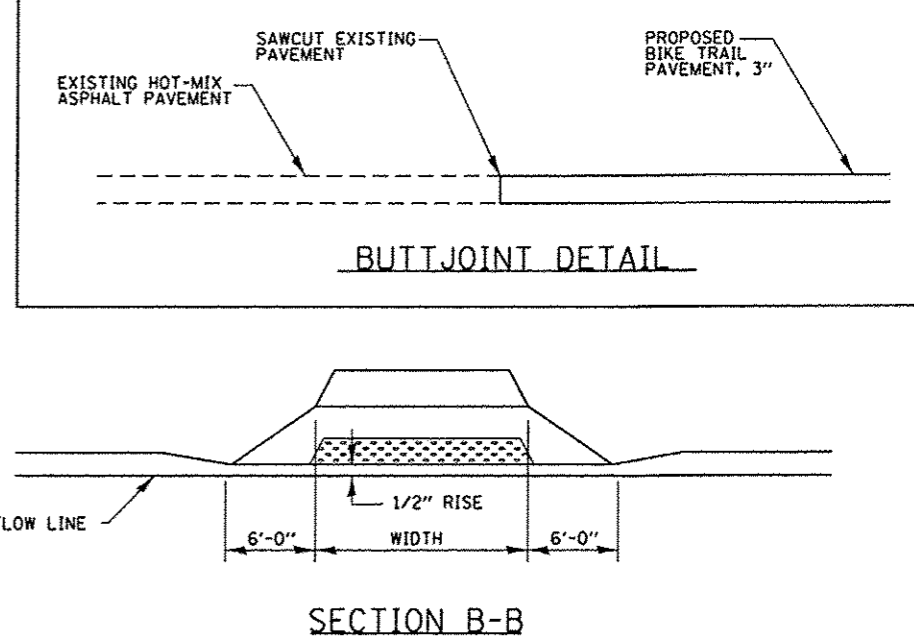
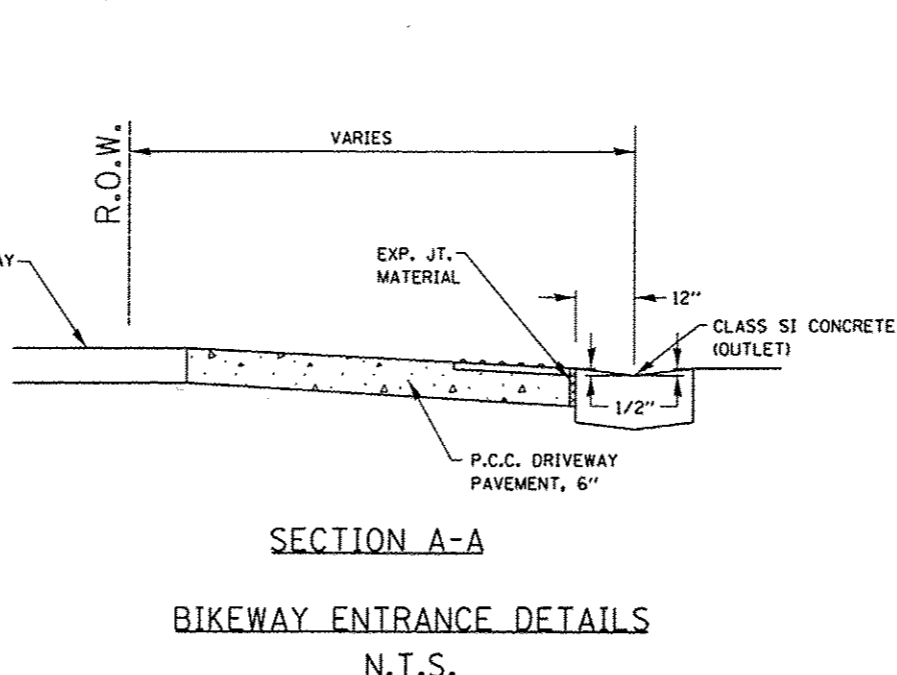
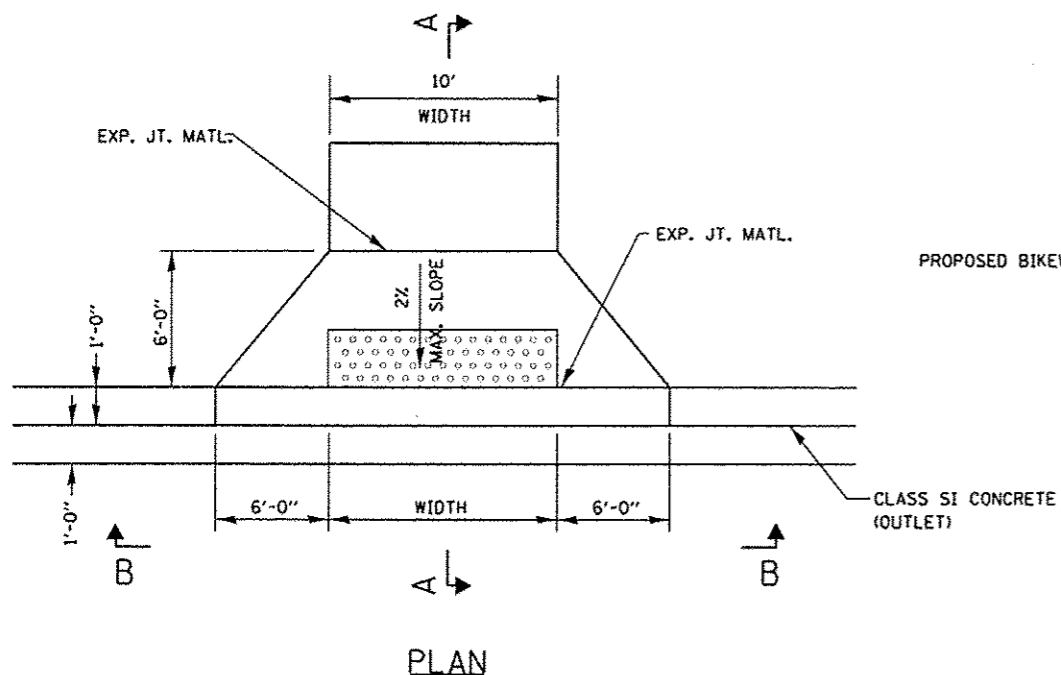
REVISIONS			
NO.	DATE	BY	REMARKS

		WOOD RAIL DETAILS	
CONSULTING ENGINEERS AND LAND SURVEYORS 2100 State St., Juneau, Alaska 99801 Phone: (907) 586-1100 Fax: (907) 586-1101		SCOTT TROY BIKE TRAIL OVER BETHEL ROAD SECTION 06-00001-00-BT ST. CLAIR COUNTY STATION 396+90.70 STRUCTURE NO. 082-7101	
SCALE: NOT TO SCALE, FOLLOW DIMENSIONS		SHEET 172	
DGN. BY: DB DATE: 04/18/2016		JOB NO. E074404 CONTRACT NO. 97633 OF 335 SHTS	
DWN. BY: ER DATE: 04/18/2016		7 OF 7 SHTS	
CHK'D: NK DATE: 04/20/2016		DGN NAME:	

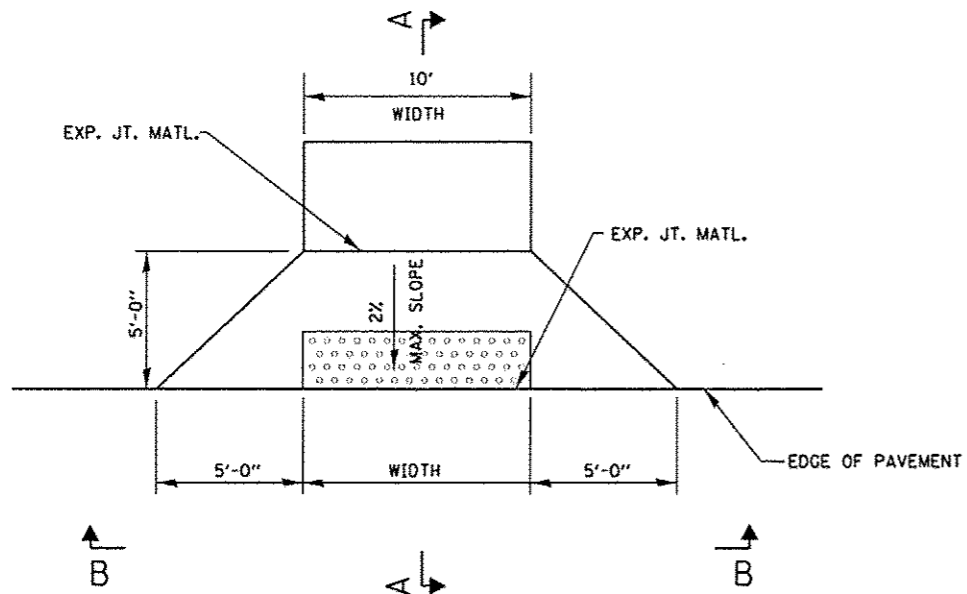
Printed: 8:25:52 AM 7/12/2016 W:\STRUCTURE\BethelRoad\074404\Scott Truss Iron\Drawings\BethelRoad\074404\Fence Details.dgn



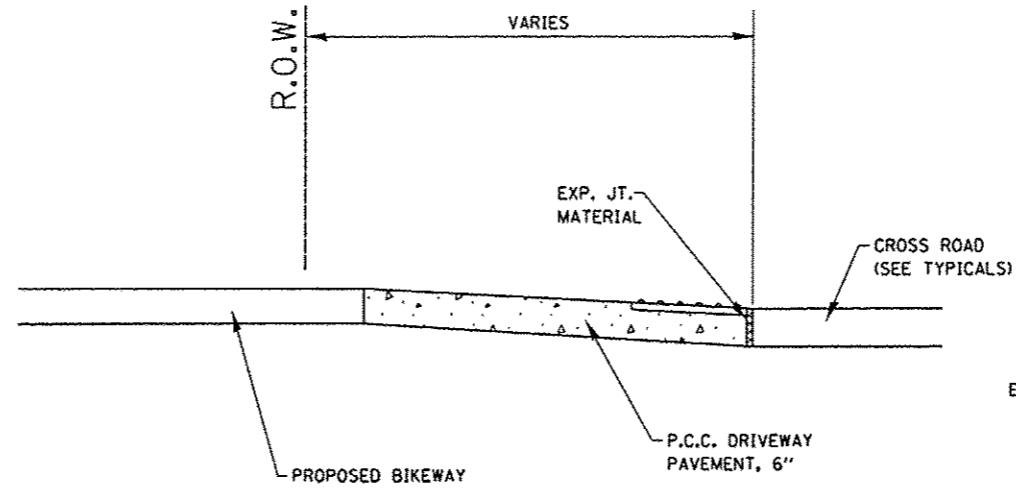
FIELD ENTRANCE AND PRIVATE ENTRANCE CROSSING DETAIL



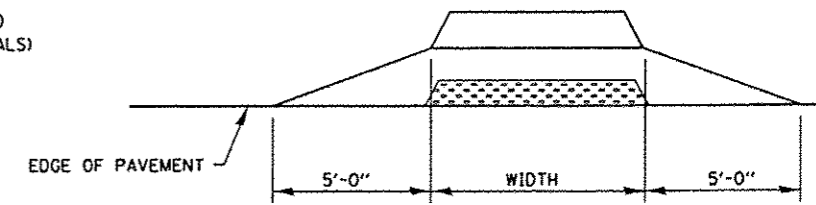
FILE NAME = Details Entrance.dgn	USER NAME = Scott	DESIGNED - SAS	REVISED -	METRO EAST PARK & RECREATION DISTRICT SCOTT-TROY TRAIL	ENTRANCE DETAILS			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN - JDH	REVISED -		SCALE: N.T.S.	SHEET NO. 01 OF 02 SHEETS	STA.	TO STA.	06-00016-00-BT	MADISON	335	173
		CHECKED - WJB	REVISED -		CONTRACT NO. 97633							
		DATE - 11/19/15	REVISED -		FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT							



PLAN

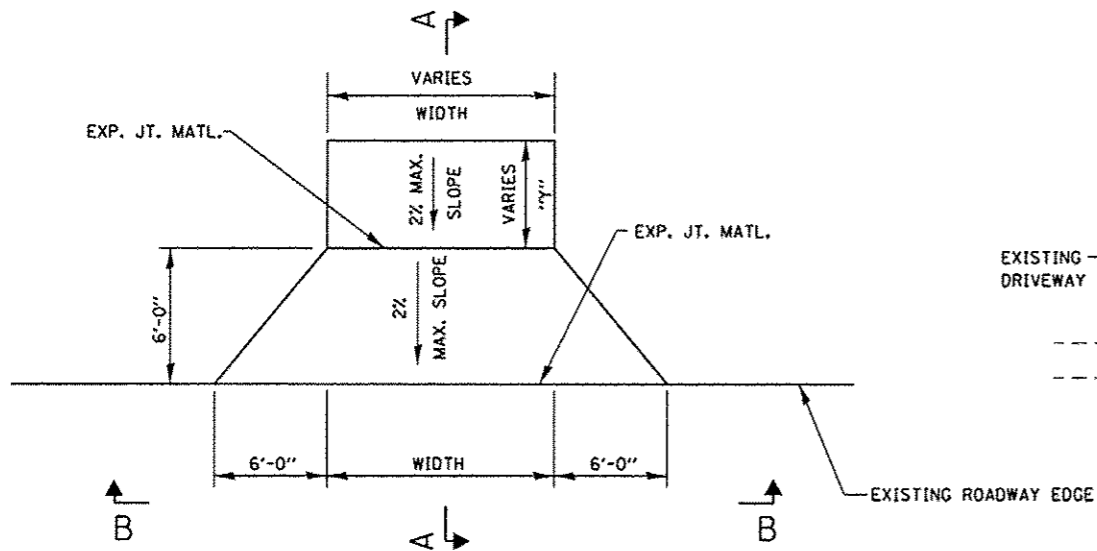


SECTION A-A

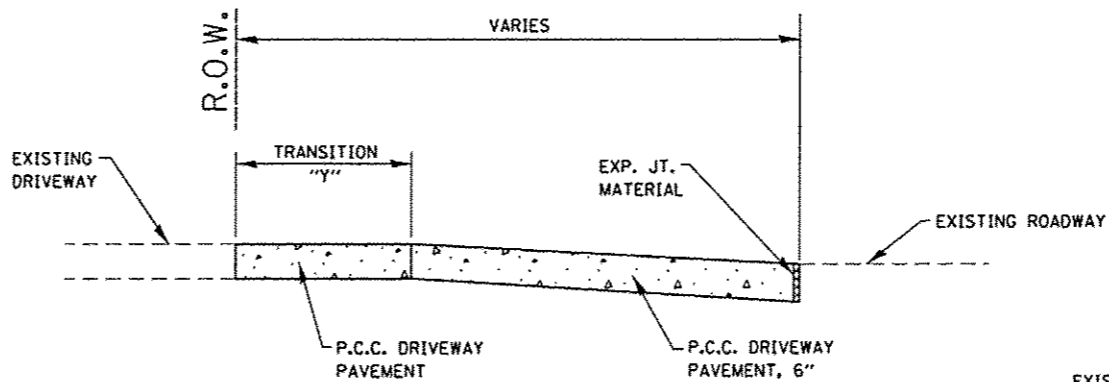


SECTION B-B

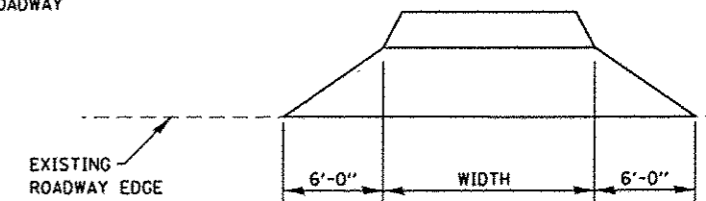
BIKEWAY ENTRANCE DETAILS
N.T.S.



PLAN



SECTION A-A



SECTION B-B

PRIVATE ENTRANCE DETAILS
N.T.S.

FILE NAME *
Details Entrance.dgn

USER NAME * Scott
PLOT SCALE * 1/8" = 1'-0"
PLOT DATE * 7/12/2016

DESIGNED - SAS
DRAWN - JDH
CHECKED - SAS
DATE - 11/19/15

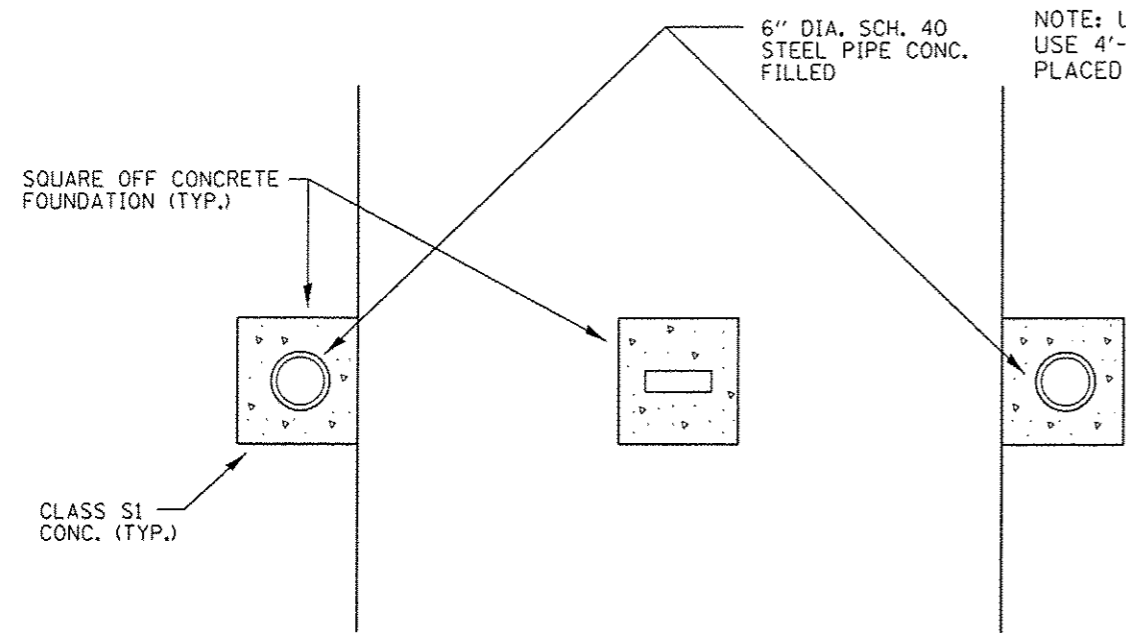
REVISED -
REVISED -
REVISED -
REVISED -

METRO EAST PARK & RECREATION DISTRICT
SCOTT-TROY TRAIL

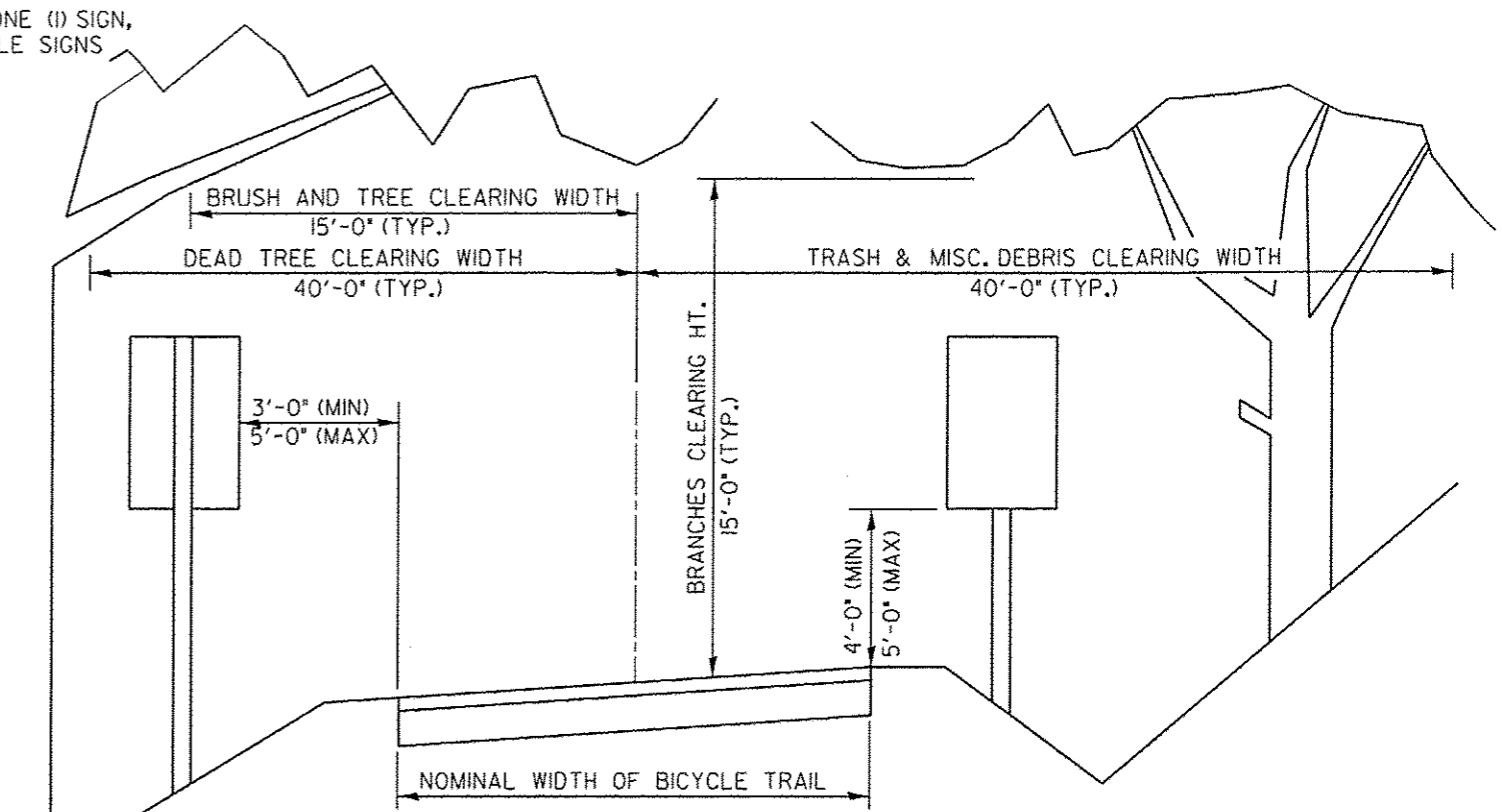
ENTRANCE DETAILS

SCALE: N.T.S. SHEET NO. 02 OF 02 SHEETS

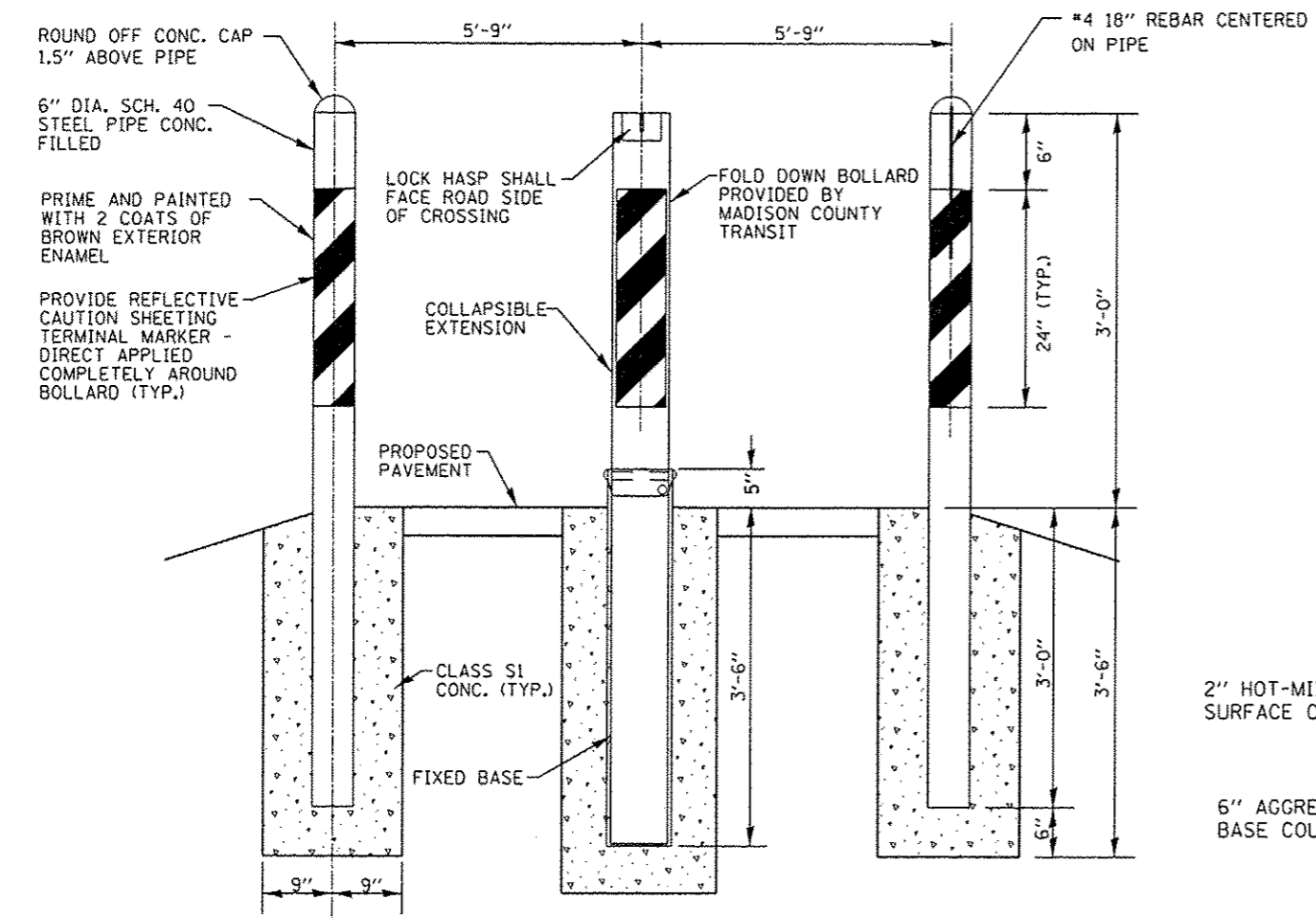
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00001-00-BT	MADISON	335	174
CONTRACT NO. 97633				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



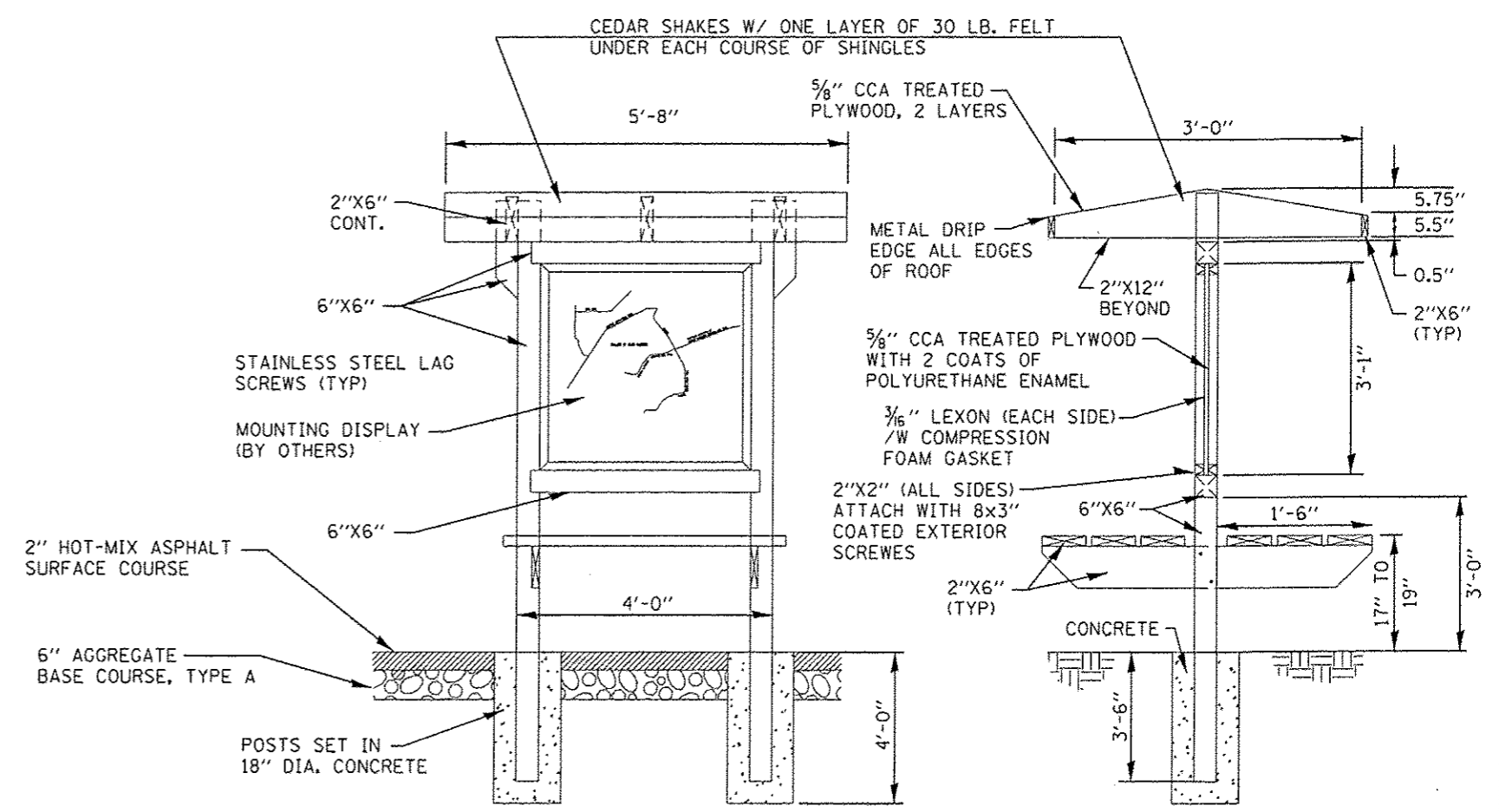
BOLLARD GATE PLAN VIEW



SIGN AND CLEARANCE DETAIL

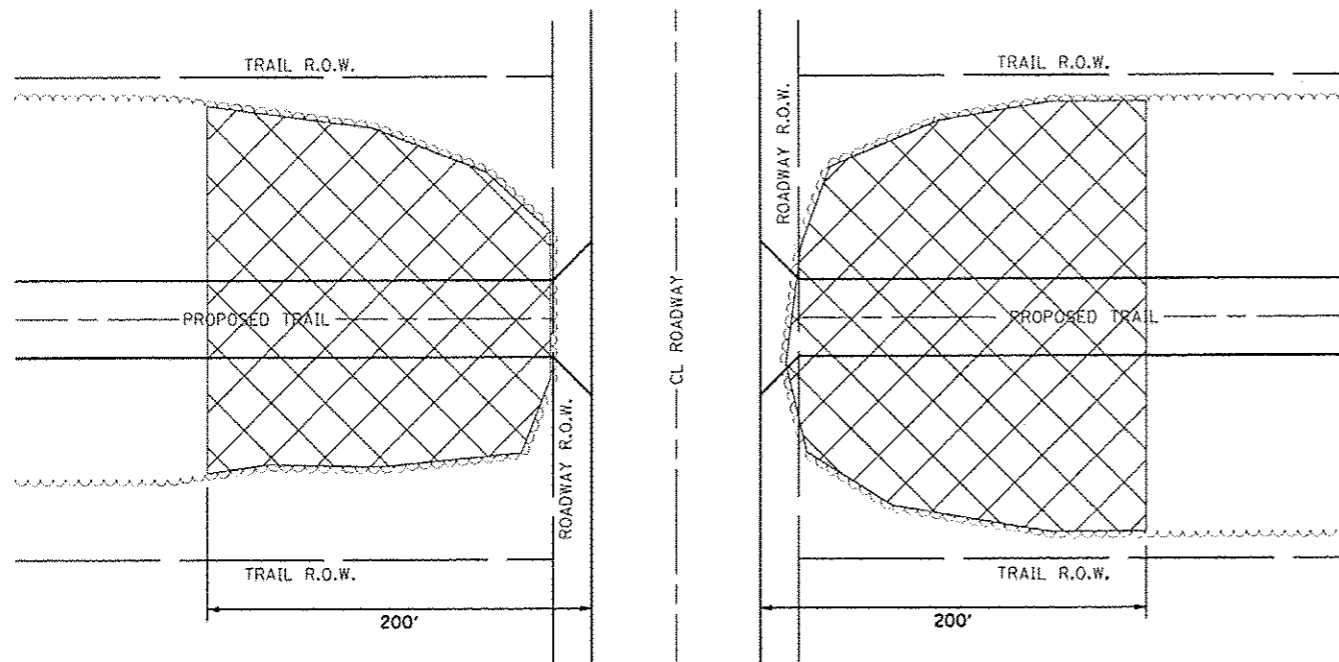


BOLLARD GATE DETAIL

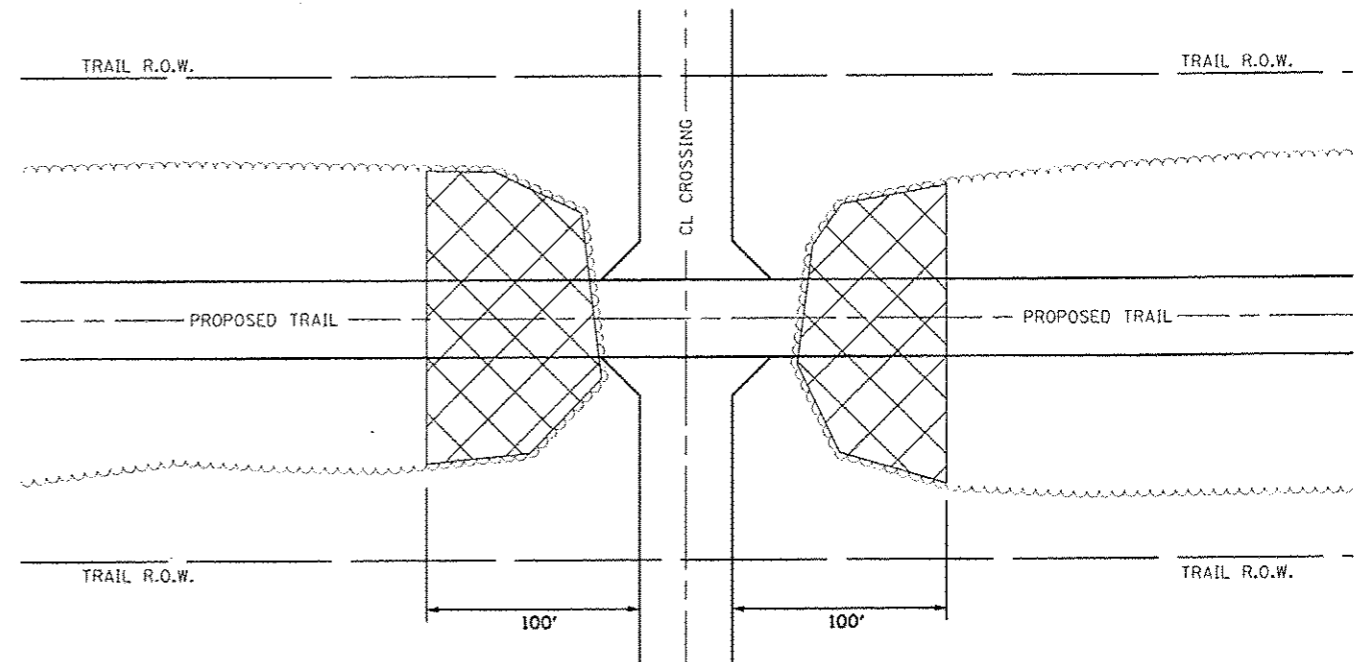


INFORMATION KIOSK

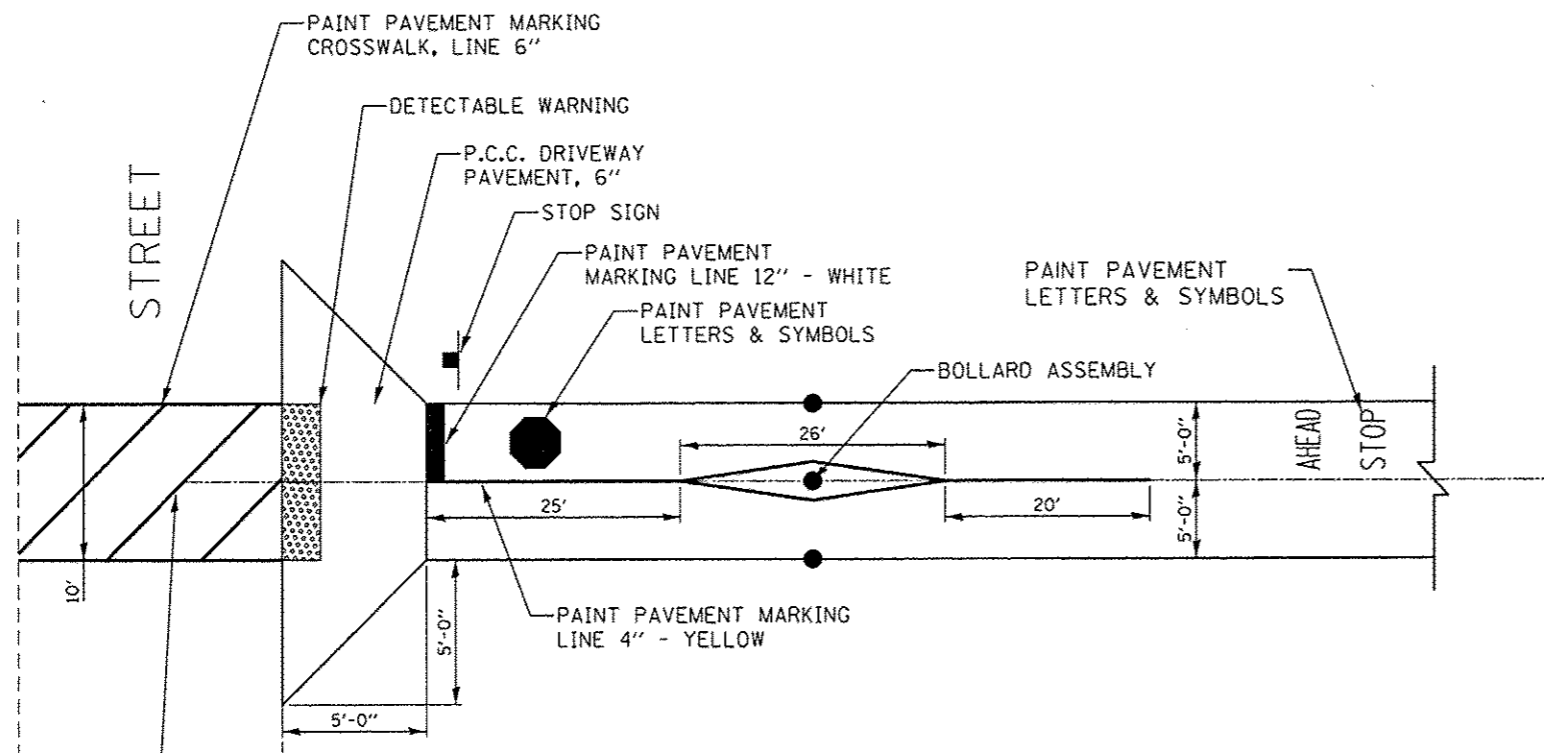
FILE NAME * Details Misc.dgn	USER NAME * Scott	DESIGNED - SAS	REVISED -	METRO EAST PARK & RECREATION DISTRICT SCOTT-TROY TRAIL	MISCELLANEOUS DETAILS			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 1/8" = 1'-0"	DRAWN - SAS	REVISED -		SCALE: N.T.S.	SHEET NO. 01 OF 04 SHEETS	06-00001-00-BT	MADISON	335	175		
	PLOT DATE = 7/12/2016	CHECKED - WJB	REVISED -									
		DATE - 11/19/15	REVISED -								CONTRACT NO. 97633	



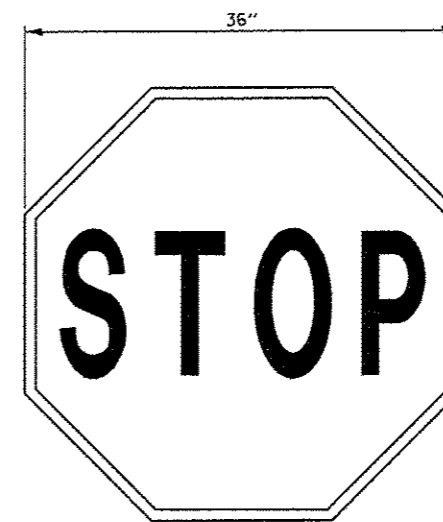
TREE REMOVAL @ ROADWAY CROSSING



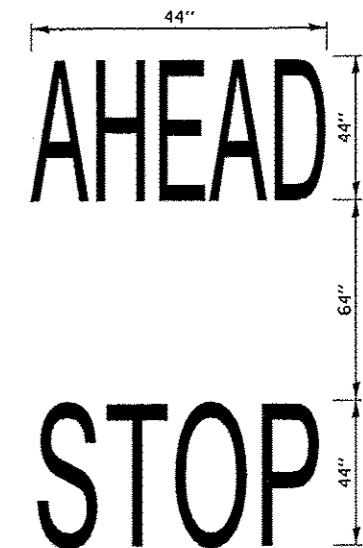
TREE REMOVAL @ TRAIL CROSSING



INTERSECTION DETAIL



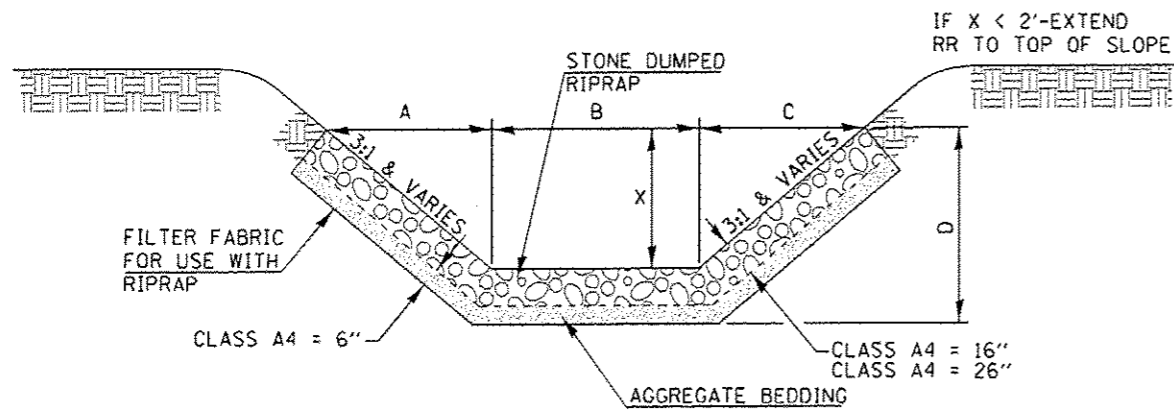
COLOR AND SHAPE SHALL MATCH SIGN R1-1 IN THE MANUAL ON TRAFFIC CONTROL DEVICES



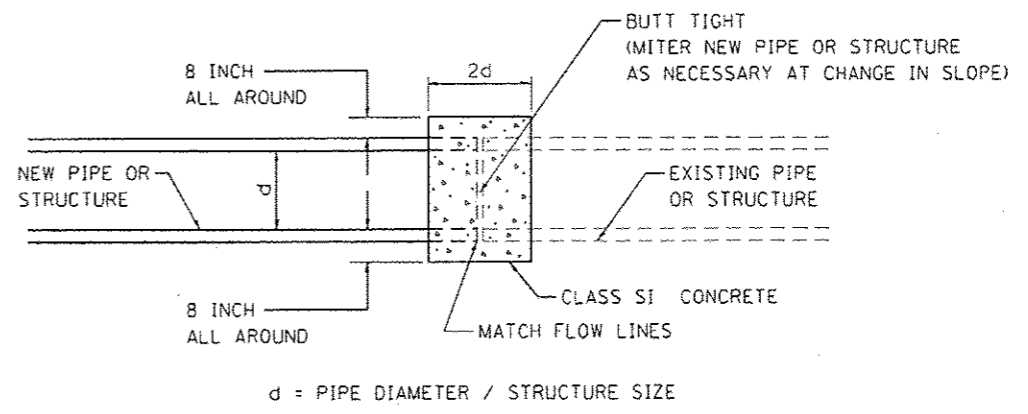
PAVEMENT MARKING DETAILS

STOP AHEAD - LOCATED 100' IN ADVANCE OF STOP BAR AT CROSSING
 "STOP" SYMBOL - LOCATED 5' IN ADVANCE OF STOP BAR EACH SIDE OF CROSSING

FILE NAME = Details Misc.dgn	USER NAME = Scott	DESIGNED - SAS	REVISED -	METRO EAST PARK & RECREATION DISTRICT SCOTT-TROY TRAIL	MISCELLANEOUS DETAILS		F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 1/8" = 1'-0"	DRAWN - SAS	REVISED -				06-00001-00-BT	MADISON	335	176	
	PLOT DATE = 7/12/2016	CHECKED - WJB	REVISED -				CONTRACT NO. 97633				
	DATE = 05/25/16	REVISED -	FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT								
					SCALE: N.T.S.	SHEET NO. 02 OF 04 SHEETS					



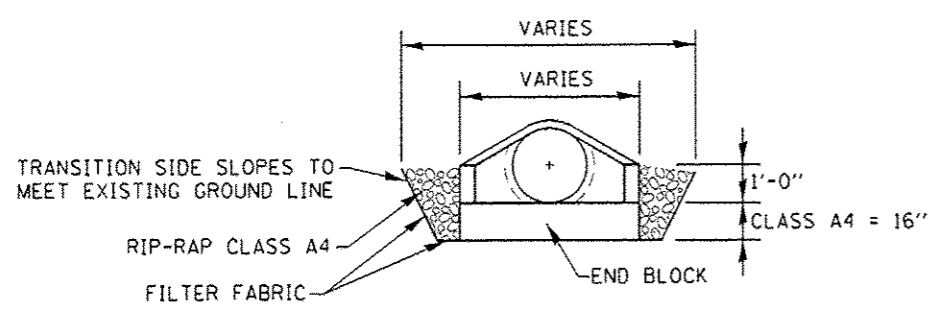
STONE RIPRAP DITCH LINING



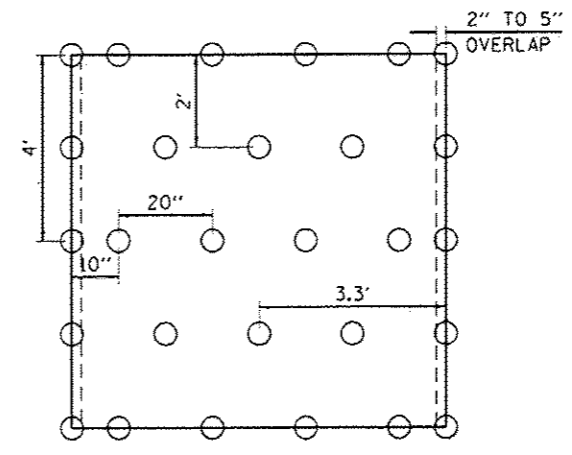
NOTE:
CONCRETE COLLARS TO BE USED AT ALL
PIPE/END SECTION CONNECTIONS

CONCRETE COLLAR DETAIL

(COLLAR INCLUDED WITH PIPE, END SECTION OR
STRUCTURE PAY ITEM)



**RIPRAP DETAIL
PIPE CULVERT OUTFALL**



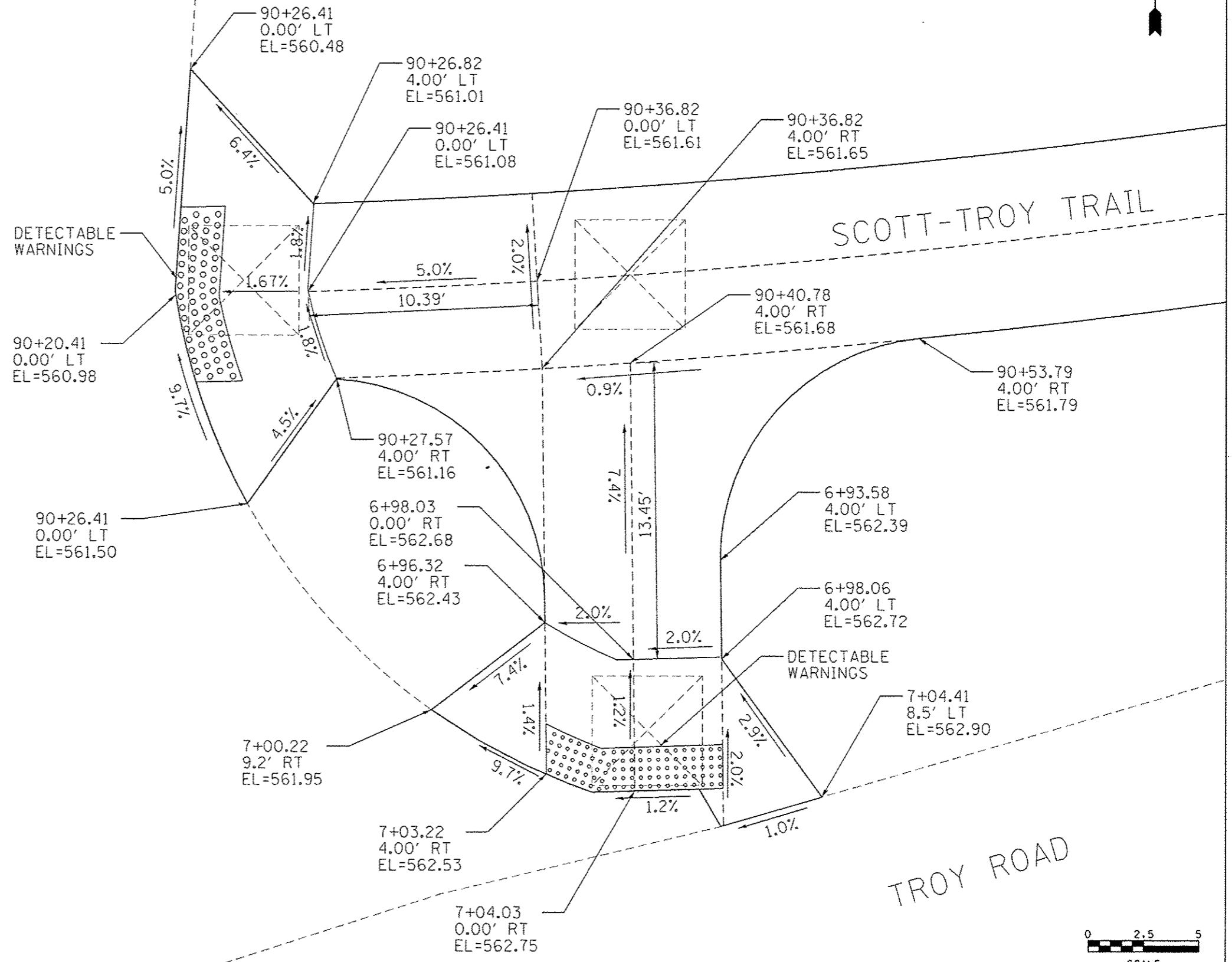
**TURF REINFORCEMENT MAT
STAPLE PATTERN**

3.75 STAPLES PER SQ. YD.

FILE NAME * Details Misc.dgn	USER NAME * Scott	DESIGNED - SAS	REVISED -	METRO EAST PARK & RECREATION DISTRICT SCOTT-TROY TRAIL	MISCELLANEOUS DETAILS	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 1/8" = 1'-0"	DRAWN - SAS	REVISED -			06-00001-00-BT	MADISON	335	178	
	PLOT DATE = 7/19/2016	CHECKED - WJB	REVISED -			CONTRACT NO. 97633				
	DATE = 11/19/15	DATE = 11/19/15	REVISED -			FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
					SCALE: N.T.S.	SHEET NO. 04 OF 04 SHEETS				



NORTH WILSON
HEIGHTS ROAD



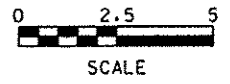
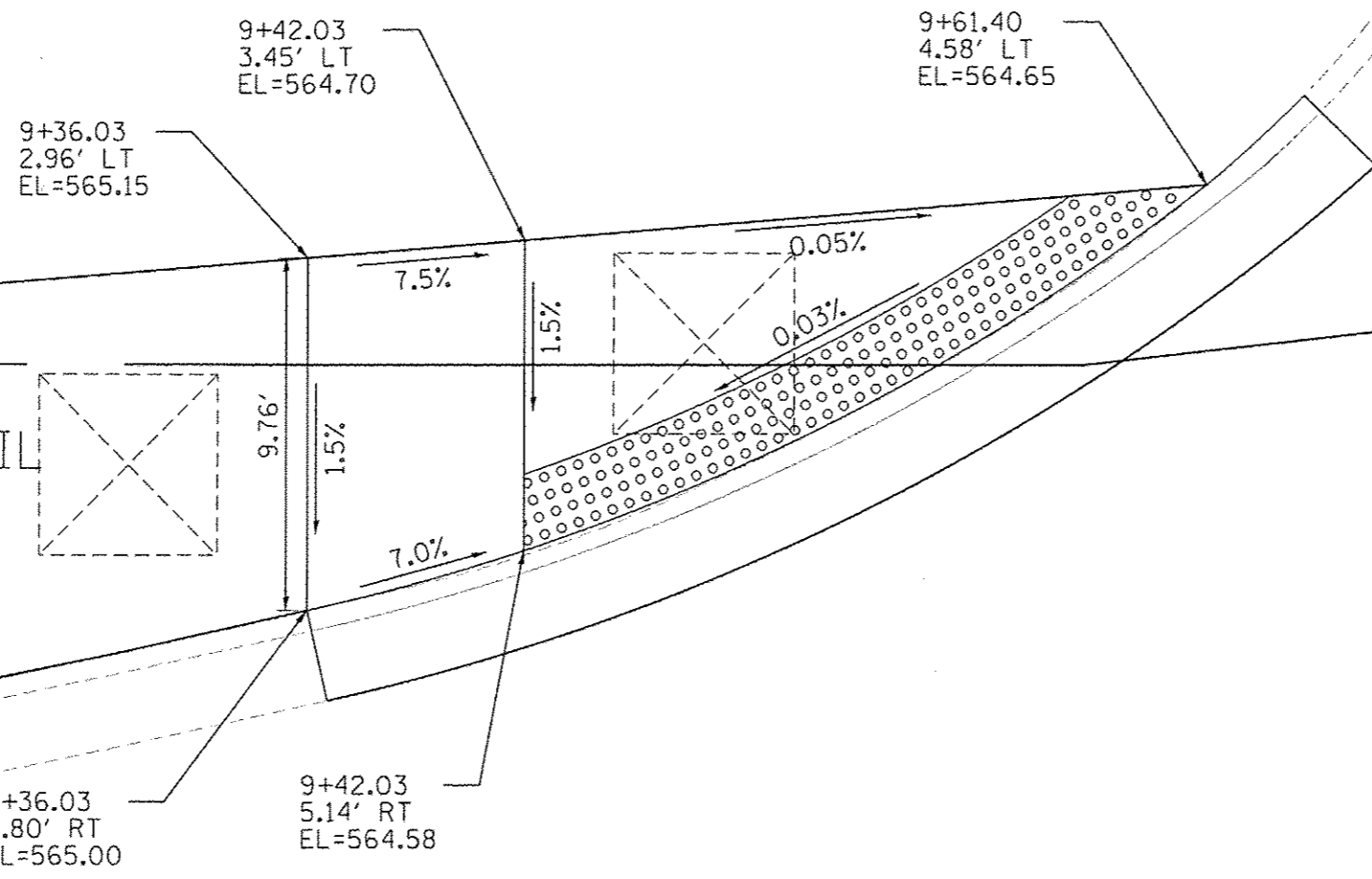
FILE NAME Details Misc.dgn	USER NAME Scott	DESIGNED SAS	REVISIONS -	METRO EAST PARK & RECREATION DISTRICT SCOTT-TROY TRAIL	SIDEWALK DETAILS		F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE 5.0000 / 1"	DRAWN SAS	REVISIONS -		SCALE N.T.S.	SHEET NO. 01 OF 02 SHEETS	06-00001-00-BT	MADISON	335	179	
	PLOT DATE 7/19/2016	CHECKED WJB	REVISIONS -				CONTRACT NO. 97633				
		DATE 06/13/16	REVISIONS -				ILLINOIS FED. AID PROJECT				



TROY ROAD

SOUTH WILSON HEIGHTS ROAD

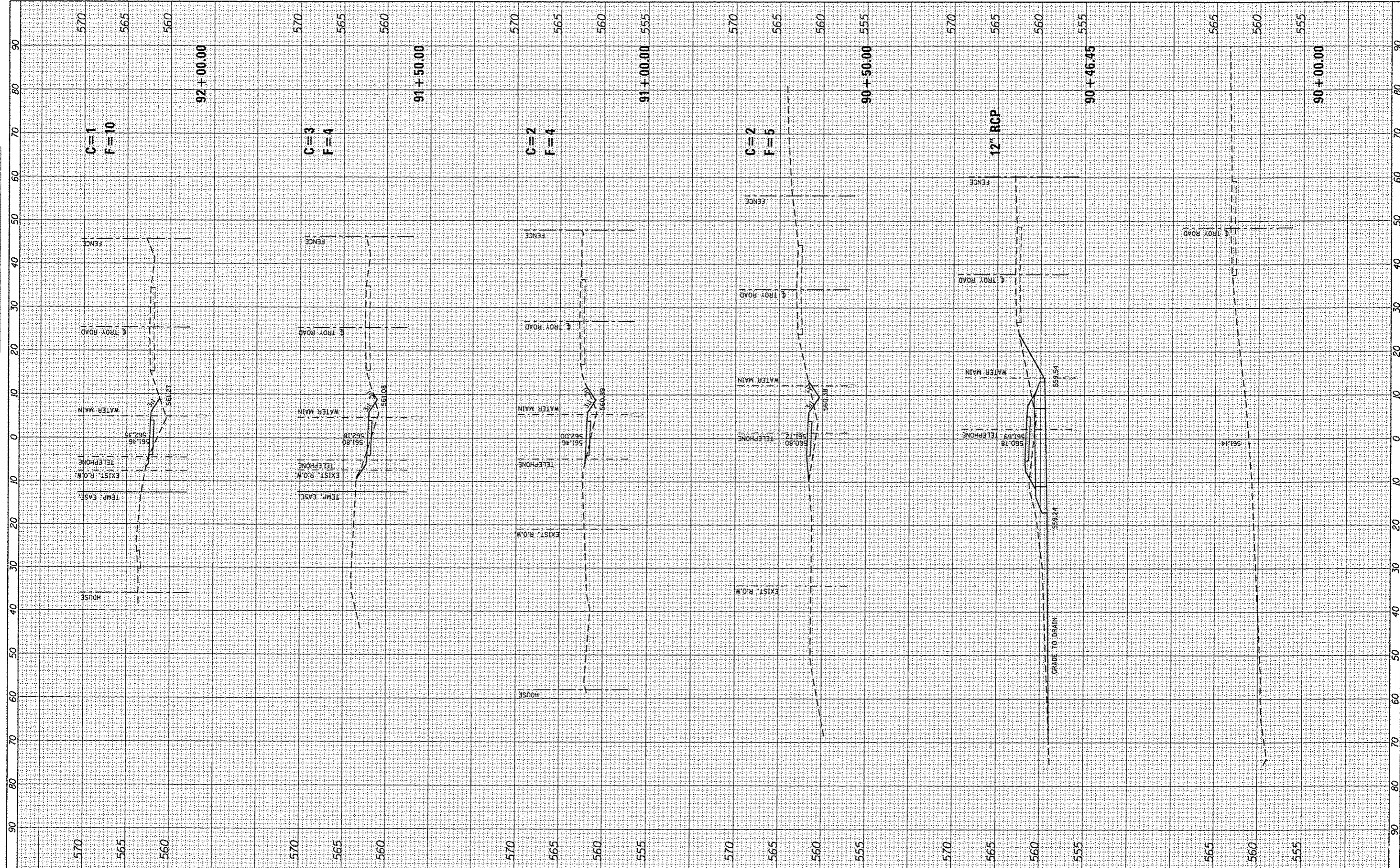
SCOTT-TROY TRAIL



FILE NAME * Details Misc.dgn	USER NAME * Scott	DESIGNED - SAS	REVISED -	METRO EAST PARK & RECREATION DISTRICT SCOTT-TROY TRAIL	SIDEWALK DETAILS		F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 5.0000' / 1" =	CHECKED - WJB	REVISED -		06-00001-00-BT	MADISON	335	181			
	PLOT DATE = 7/12/2016	DATE - 06/13/16	REVISED -		CONTRACT NO. 97633		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				
					SCALE: 1"=5'	SHEET NO. 03 OF 03 SHEETS					

FINAL SURVEY	BY	DATE
SUPERSEDED		
PLOTTED		
TEMPLATE		
AREAS		
NO.		

ORIGINAL SURVEY	BY	DATE
SUPERSEDED		
PLOTTED		
TEMPLATE		
AREAS		
NO.		



FILE NAME = xplot_troy3.dgn

USER NAME = Scott
 PLOT SCALE = 20,0000 "/>

DESIGNED - SAS
 DRAWN - SAS
 CHECKED - WJB
 DATE - 11/19/15

REVISED -
 REVISED -
 REVISED -
 REVISED -

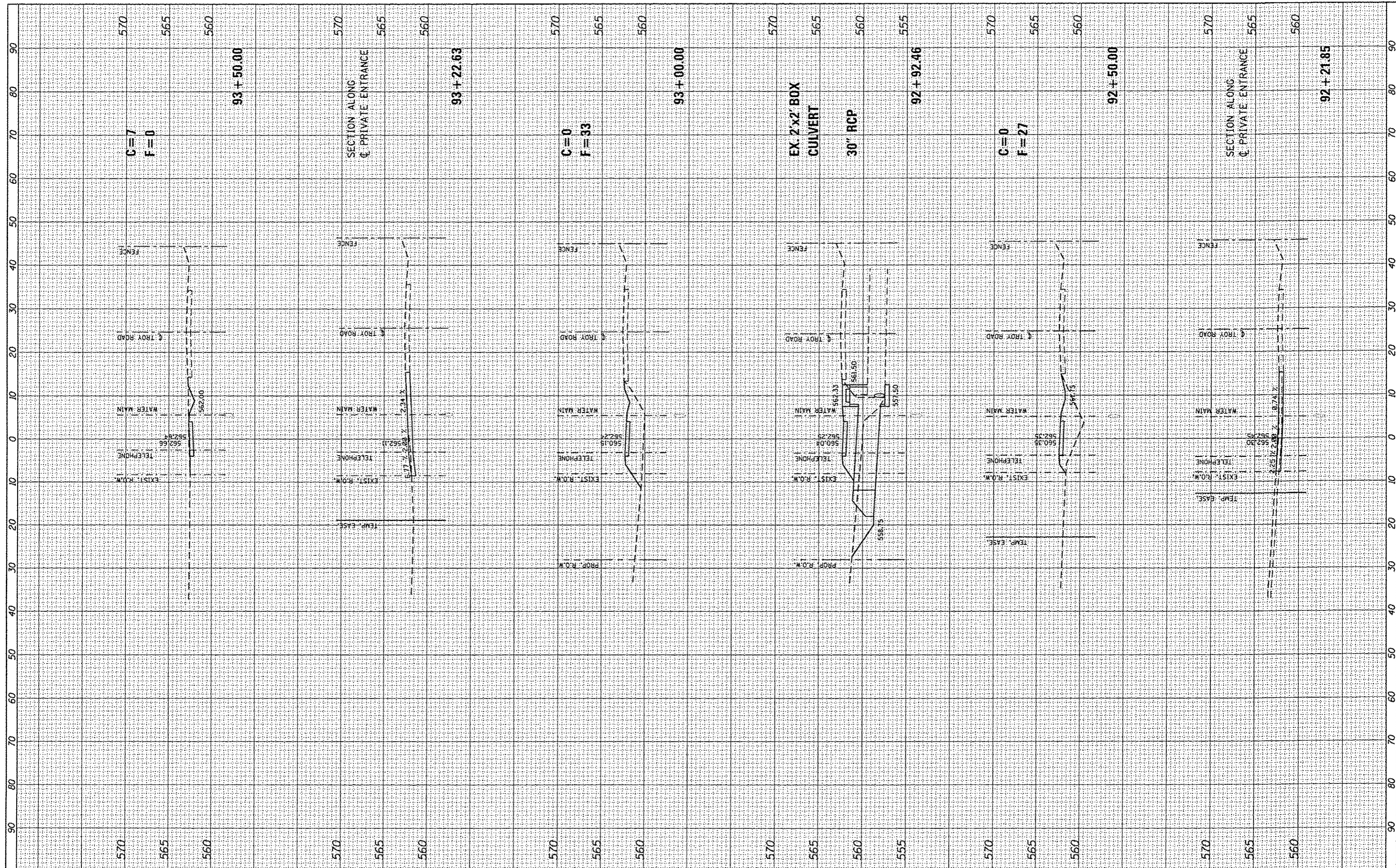
**METRO EAST PARK & RECREATION DISTRICT
 SCOTT-TROY TRAIL**

**CROSS SECTIONS
 TROY ROAD**
 SCALE: NTS SHEET NO. 01 OF 141 SHEETS STA. 90+00.00 TO STA. 92+00.00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00001-00-BT	MADISON	335	182
			CONTRACT NO. 97633	
ILLINOIS FED. AID PROJECT				

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

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



FILE NAME = eplot_troy3.dgn
 USER NAME = Scott
 PLOT SCALE = 20.0000' / 1"
 PLOT DATE = 7/12/2016

DESIGNED - SAS
 DRAWN - SAS
 CHECKED - WJB
 DATE - 11/19/15

REVISED -
 REVISED -
 REVISED -
 REVISED -

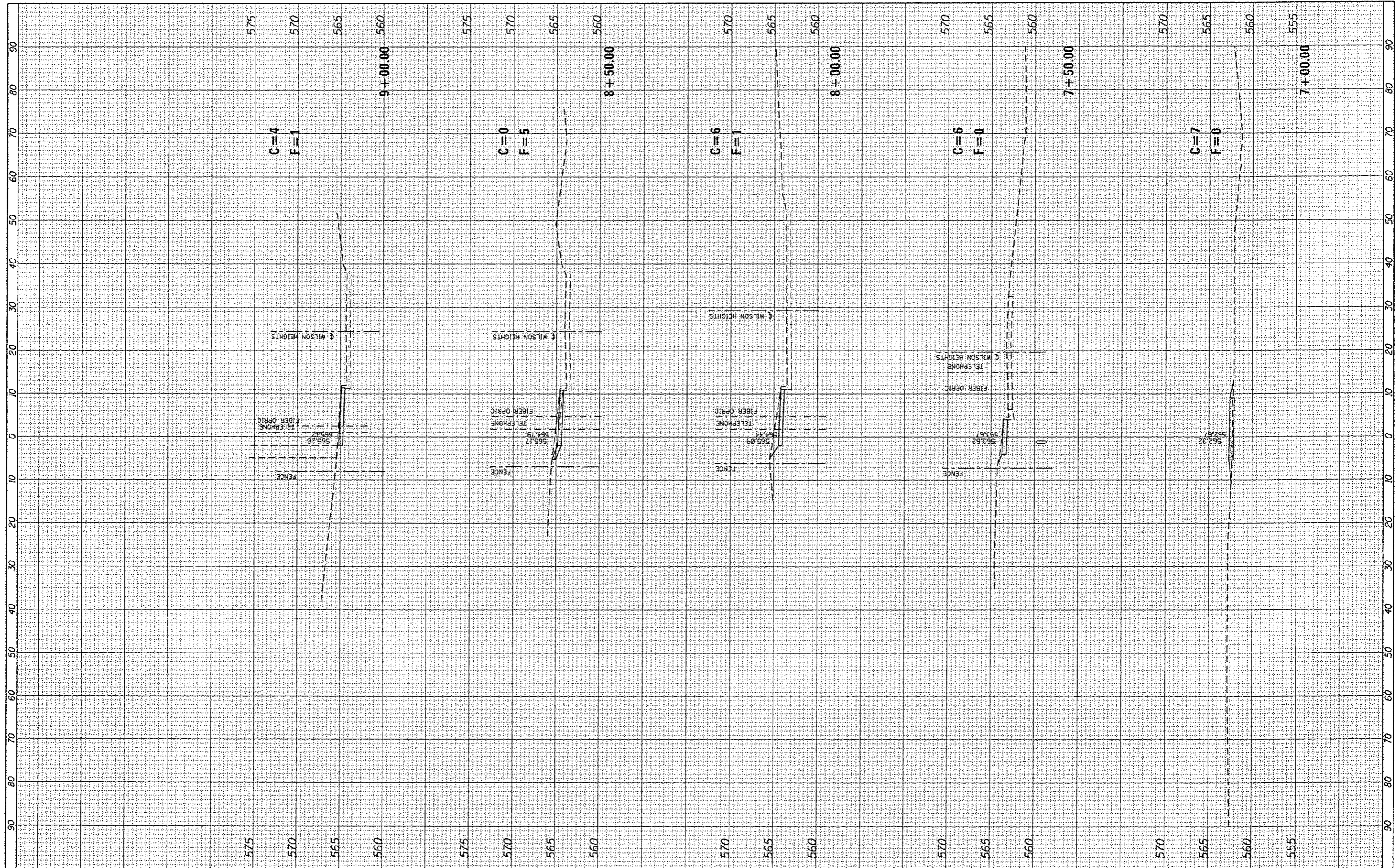
**METRO EAST PARK & RECREATION DISTRICT
 SCOTT-TROY TRAIL**

**CROSS SECTIONS
 TROY ROAD**
 SCALE: NTS
 SHEET NO. 02 OF 141 SHEETS
 STA. 92+21.85 TO STA. 93+50.00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00001-00-BT	MADISON	335	183
			CONTRACT NO. 97633	
ILLINOIS FED. AID PROJECT				

FWL	SURVEYED	DATE
SURVEY	PLOTTED	
NOTE BOOK	TEMPLATE	
NO.	AREAS CHECKED	

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



FILE NAME = xplot_wilson.dgn

USER NAME = Scott
 DESIGNED - SAS
 DRAWN - SAS
 CHECKED - WJB
 DATE - 11/19/15

REVISED -
 REVISED -
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 REVISED -

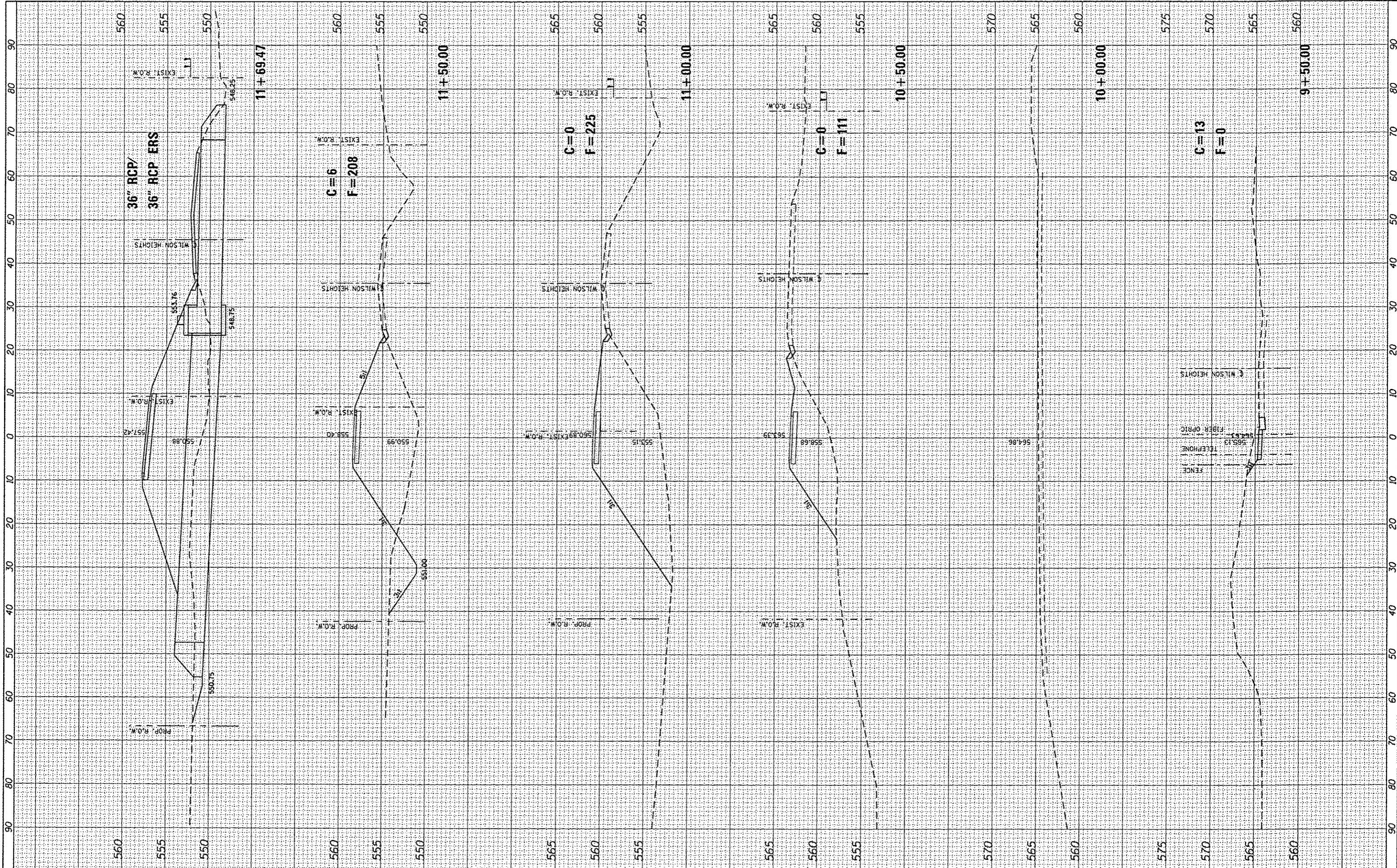
**METRO EAST PARK & RECREATION DISTRICT
 SCOTT-TROY TRAIL**

**CROSS SECTIONS
 SOUTH WILSON HEIGHTS**
 SCALE: SHEET NO. 04 OF 141 SHEETS STA. 6+00.00 TO STA. 9+00.00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00001-00-BT	MADISON	335	185
			CONTRACT NO. 97633	
ILLINOIS FED. AID PROJECT				

FINAL SURVEY	DATE
SURVEYED	
PLOTTED	
EMULATE	
NOTE BOOK	
AREAS CHECKED	

ORIGINAL SURVEY	DATE
SURVEYED	
PLOTTED	
EMULATE	
NOTE BOOK	
AREAS CHECKED	



FILE NAME = xplot_wilson.dgn
 USER NAME = Scott

DESIGNED - SAS
 DRAWN - SAS
 CHECKED - WJB
 DATE - 11/19/15

REVISIONS:
 REVISION -
 REVISION -
 REVISION -
 REVISION -

**METRO EAST PARK & RECREATION DISTRICT
 SCOTT-TROY TRAIL**

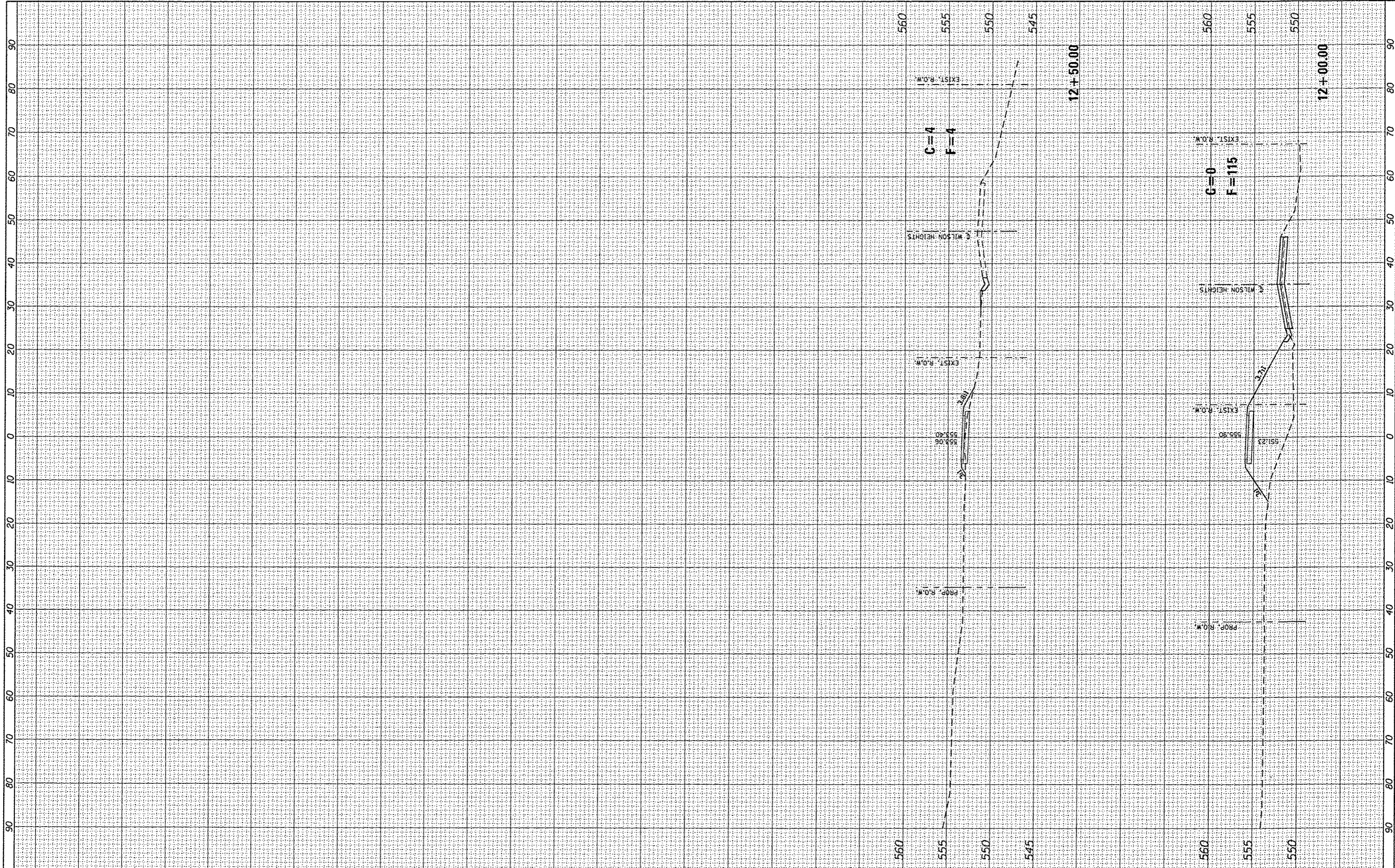
**CROSS SECTIONS
 SOUTH WILSON HEIGHTS**

SCALE: SHEET NO. 05 OF 141 SHEETS STA. 9+50.00 TO STA. 11+62.21

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00001-00-BT	MADISON	335	186
CONTRACT NO. 97633				
ILLINOIS FED. AID PROJECT				

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

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



FILE NAME = xplot.wilson.dgn

USER NAME = Scott
 PLOT SCALE = 20.0000' / in.
 PLOT DATE = 7/12/2016

DESIGNED - SAS
 DRAWN - SAS
 CHECKED - WJB
 DATE - 11/19/15

REVISED -
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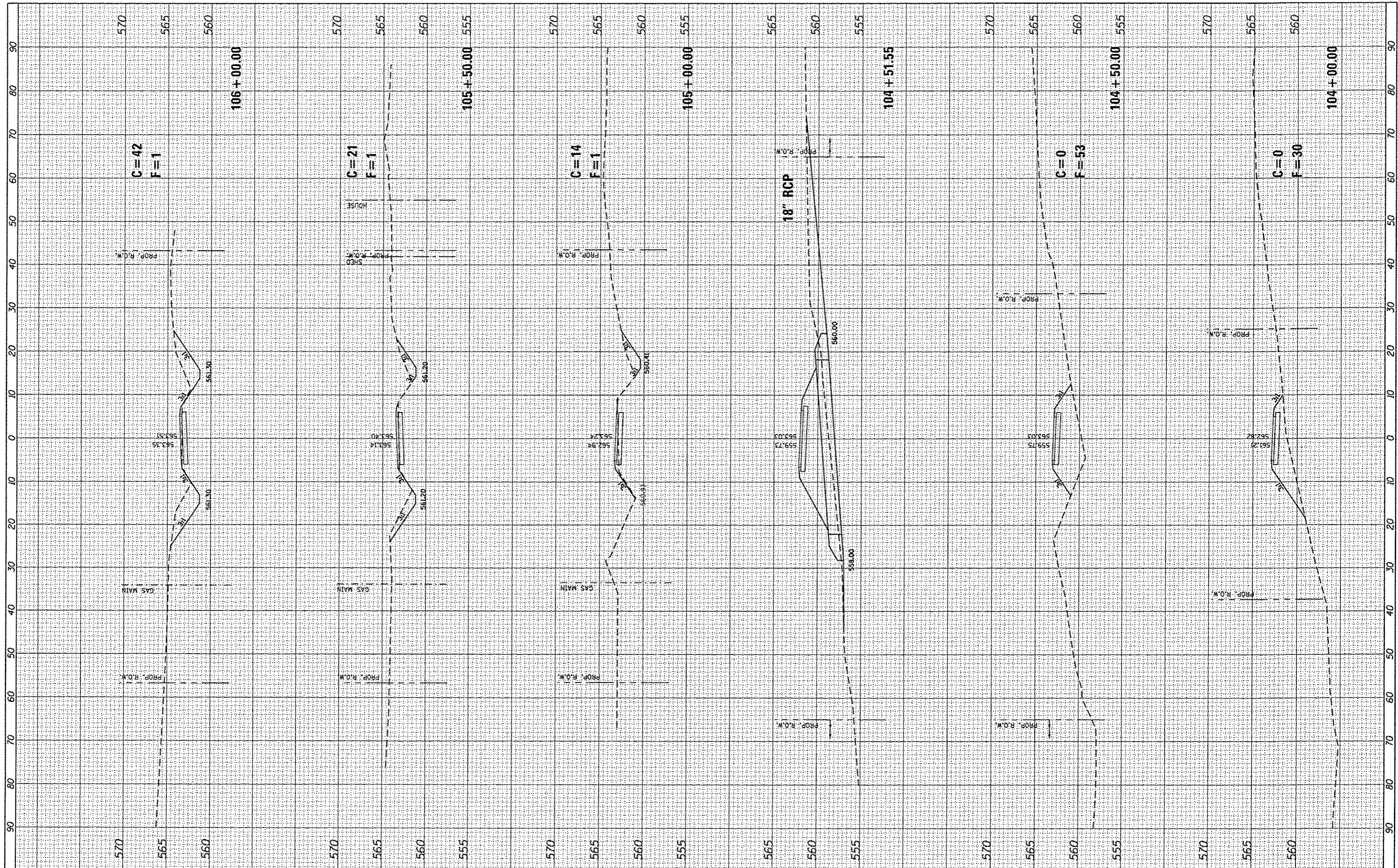
**METRO EAST PARK & RECREATION DISTRICT
 SCOTT-TROY TRAIL**

**CROSS SECTIONS
 SOUTH WILSON HEIGHTS**
 SCALE: SHEET NO. 06 OF 141 SHEETS STA. 12+00.00 TO STA. 12+50.00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00001-00-BT	MADISON	335	187
CONTRACT NO. 97633				
[ILLINOIS] FEB. AID PROJECT				

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

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



FILE NAME * xplot alpha.dgn

USER NAME * Scott
 PLOT SCALE * 20.0000' / in.
 PLOT DATE * 7/12/2016

DESIGNED - SAS
 DRAWN - SAS
 CHECKED - WJB
 DATE - 11/19/15

REVISED -
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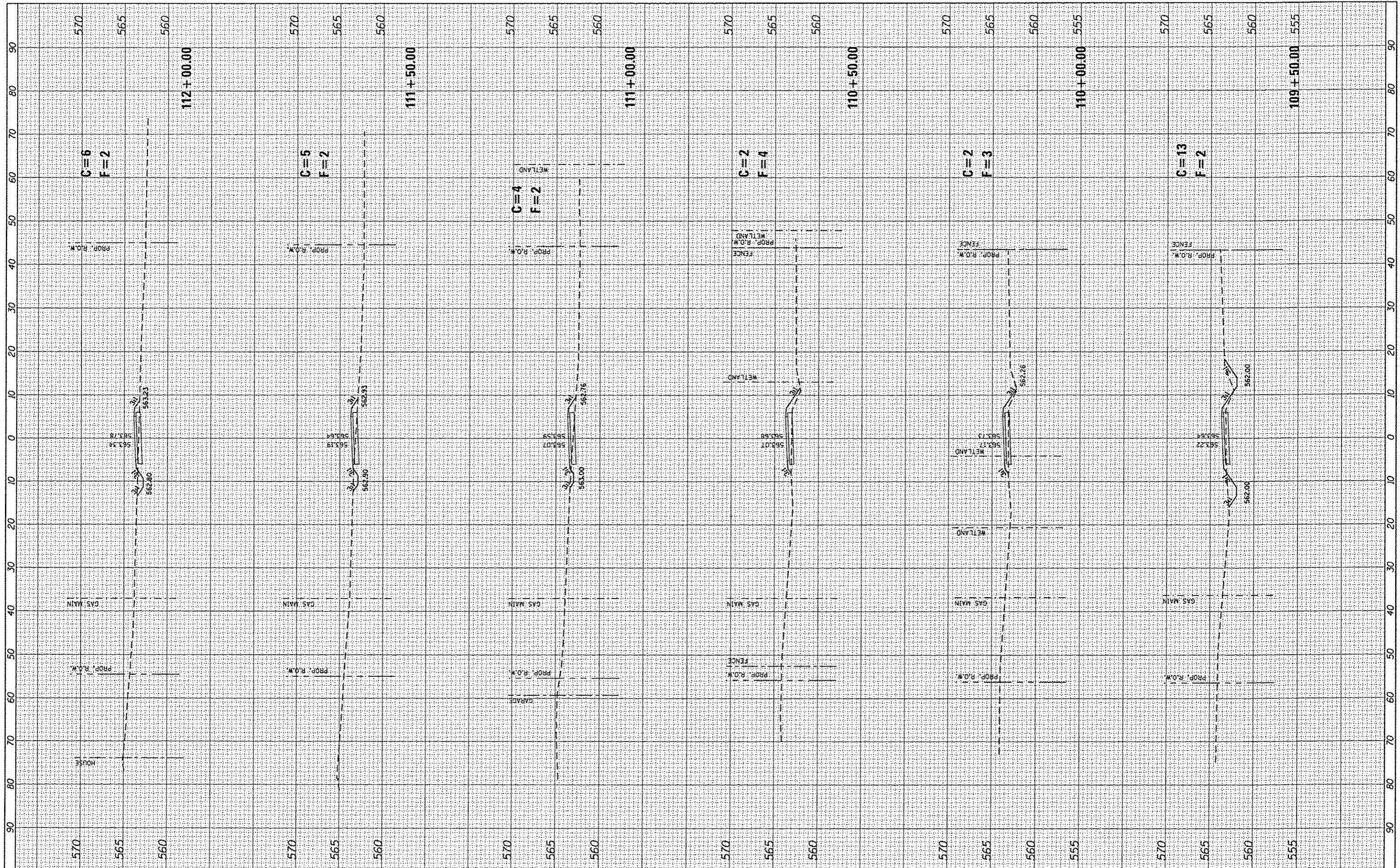
**METRO EAST PARK & RECREATION DISTRICT
 SCOTT-TROY TRAIL**

**CROSS SECTIONS
 SCOTT-TROY TRAIL**
 SCALE: SHEET NO. 07 OF 141 SHEETS STA. 104+00.00 TO STA. 106+00.00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00001-00-BT	MADISON	335	188
CONTRACT NO. 97633			[ILLINOIS] FED. AID PROJECT	

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

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



FILE NAME *
*plot alpha.dgn

USER NAME	*Scott
DESIGNED	- SAS
DRAWN	- SAS
CHECKED	- WJB
DATE	- 11/19/15
PLOT SCALE	= 20.0000' / 1" =
PLOT DATE	= 7/12/2016

REVISED	-
REVISED	-
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REVISED	-

**METRO EAST PARK & RECREATION DISTRICT
SCOTT-TROY TRAIL**

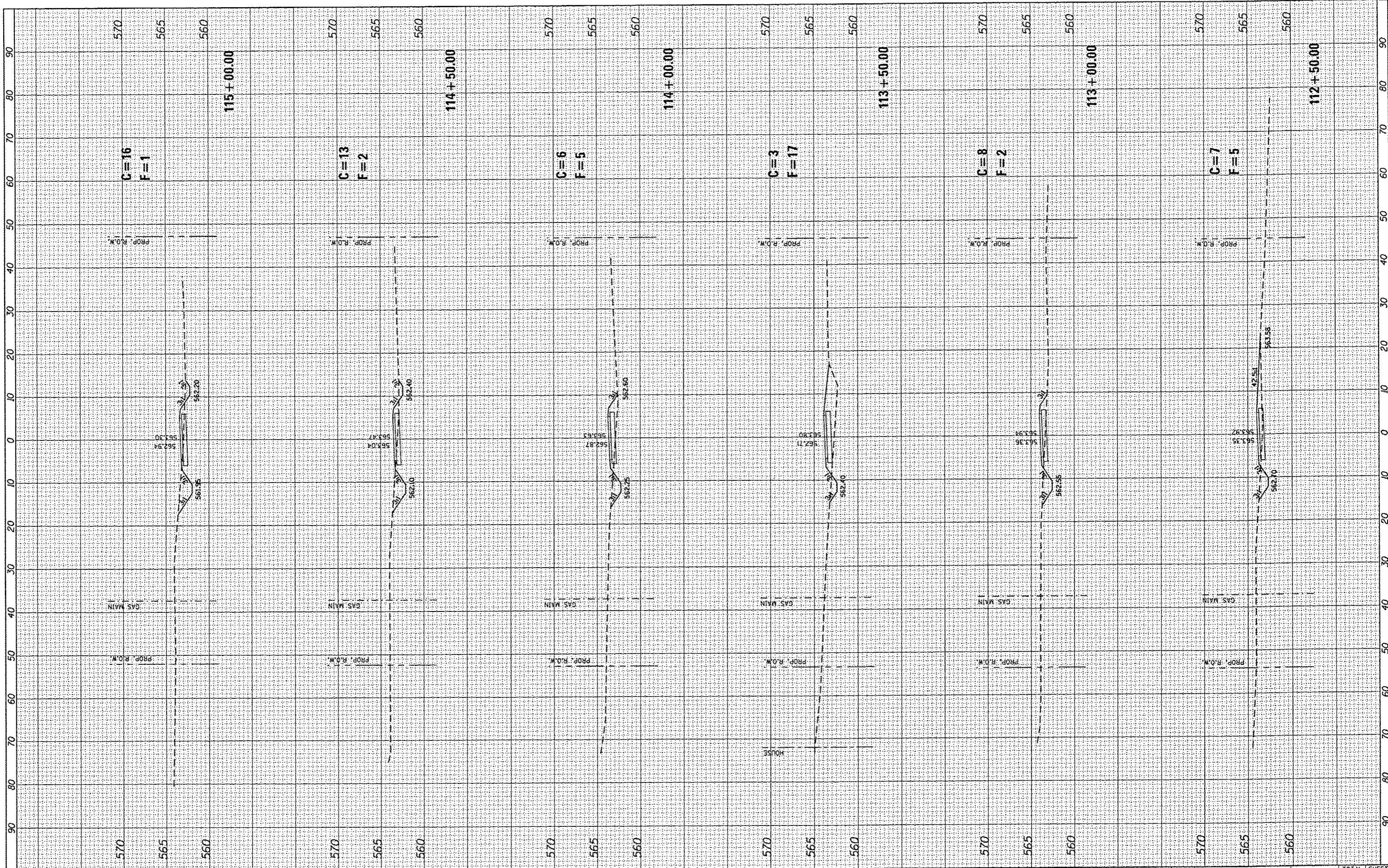
**CROSS SECTIONS
SCOTT-TROY TRAIL**

SCALE: SHEET NO. 09 OF 141 SHEETS STA. 109+50.00 TO STA. 112+00.00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00001-00-BT	MADISON	335	190
			CONTRACT NO. 97633	
[ILLINOIS] FED. AID PROJECT				

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

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



FILE NAME *
*splot.alpha.dgn

USER NAME * Soott
PLOT SCALE * 20.00000' / in.
PLOT DATE * 7/12/2016

DESIGNED - SAS
DRAWN - SAS
CHECKED - WJB
DATE - 11/19/15

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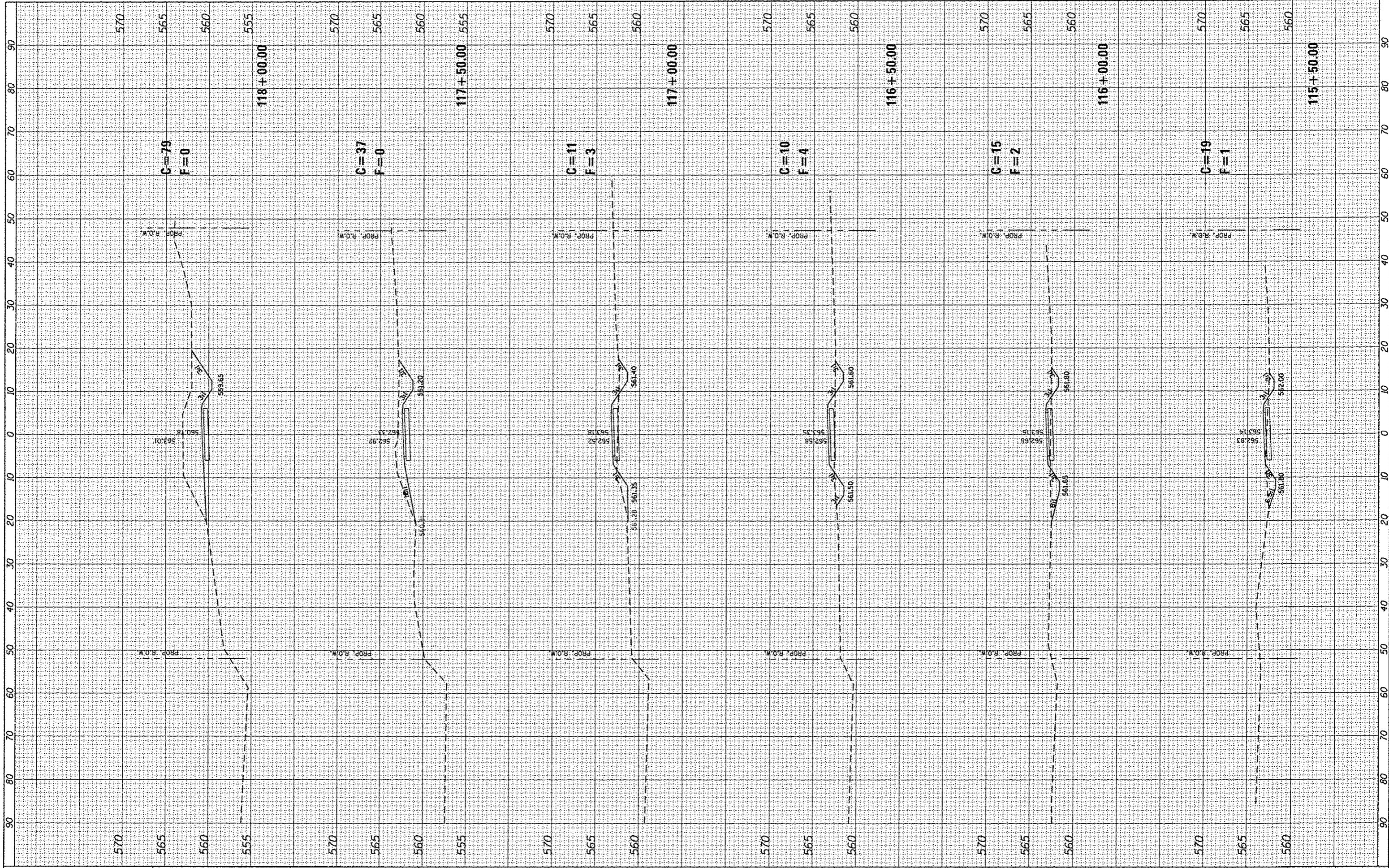
**METRO EAST PARK & RECREATION DISTRICT
SCOTT-TROY TRAIL**

**CROSS SECTIONS
SCOTT-TROY TRAIL**
SCALE: SHEET NO. 10 OF 141 SHEETS STA. 112+50.00 TO STA. 115+00.00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00001-00-BT	MADISON	335	191
			CONTRACT NO. 97633	
ILLINOIS FED. AID PROJECT				

FINAL SURVEY	BY	DATE
SURVEYED		
PLOTTED		
REPLATE		
NOTE BOOK		
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ORIGINAL SURVEY	BY	DATE
SURVEYED		
PLOTTED		
REPLATE		
NOTE BOOK		
NO.		



FILE NAME *
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USER NAME * Scott
PLOT SCALE = 20,000' / 1" =
PLOT DATE = 7/12/2016

DESIGNED - SAS
DRAWN - SAS
CHECKED - WJB
DATE - 11/19/15

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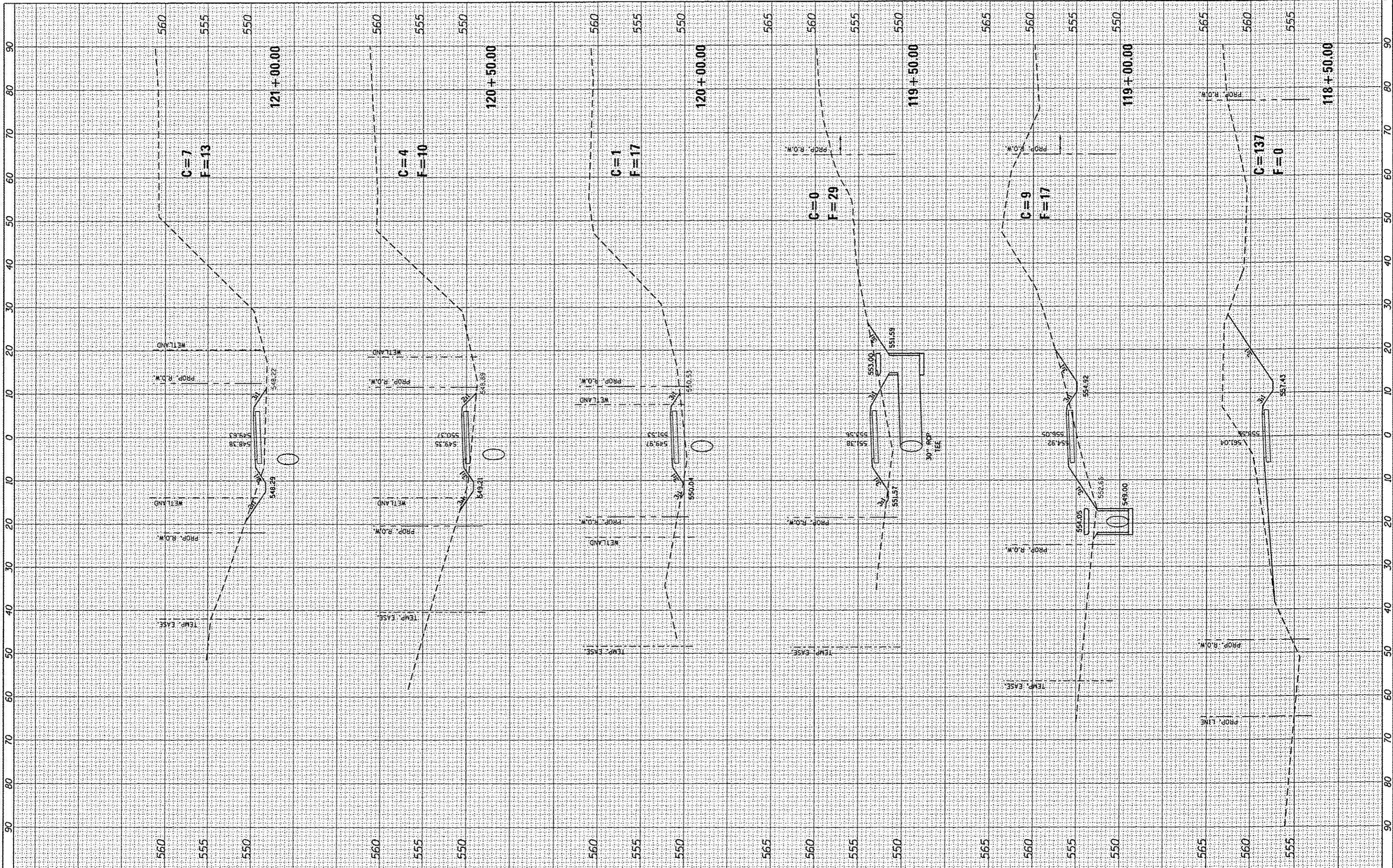
**METRO EAST PARK & RECREATION DISTRICT
SCOTT-TROY TRAIL**

**CROSS SECTIONS
SCOTT-TROY TRAIL**
SCALE: SHEET NO. 11 OF 141 SHEETS STA. 115+50.00 TO STA. 118+00.00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00001-00-BY	MADISON	335	192
			CONTRACT NO. 97633	
[ILLINOIS] FED. AID PROJECT				

FINAL SURVEY	BY	DATE
SURVEYED		
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NOTE BOOK		
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AREAS CHECKED		
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ORIGINAL SURVEY	BY	DATE
SURVEYED		
PLOTTED		
NOTE BOOK		
AREAS		
AREAS CHECKED		
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FILE NAME = *plot alpha.dgn
 USER NAME = Scott
 PLOT SCALE = 20.0000' / 1" =
 PLOT DATE = 7/12/2016

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CHECKED - WJB	REVISIONS
DATE - 11/19/15	REVISIONS

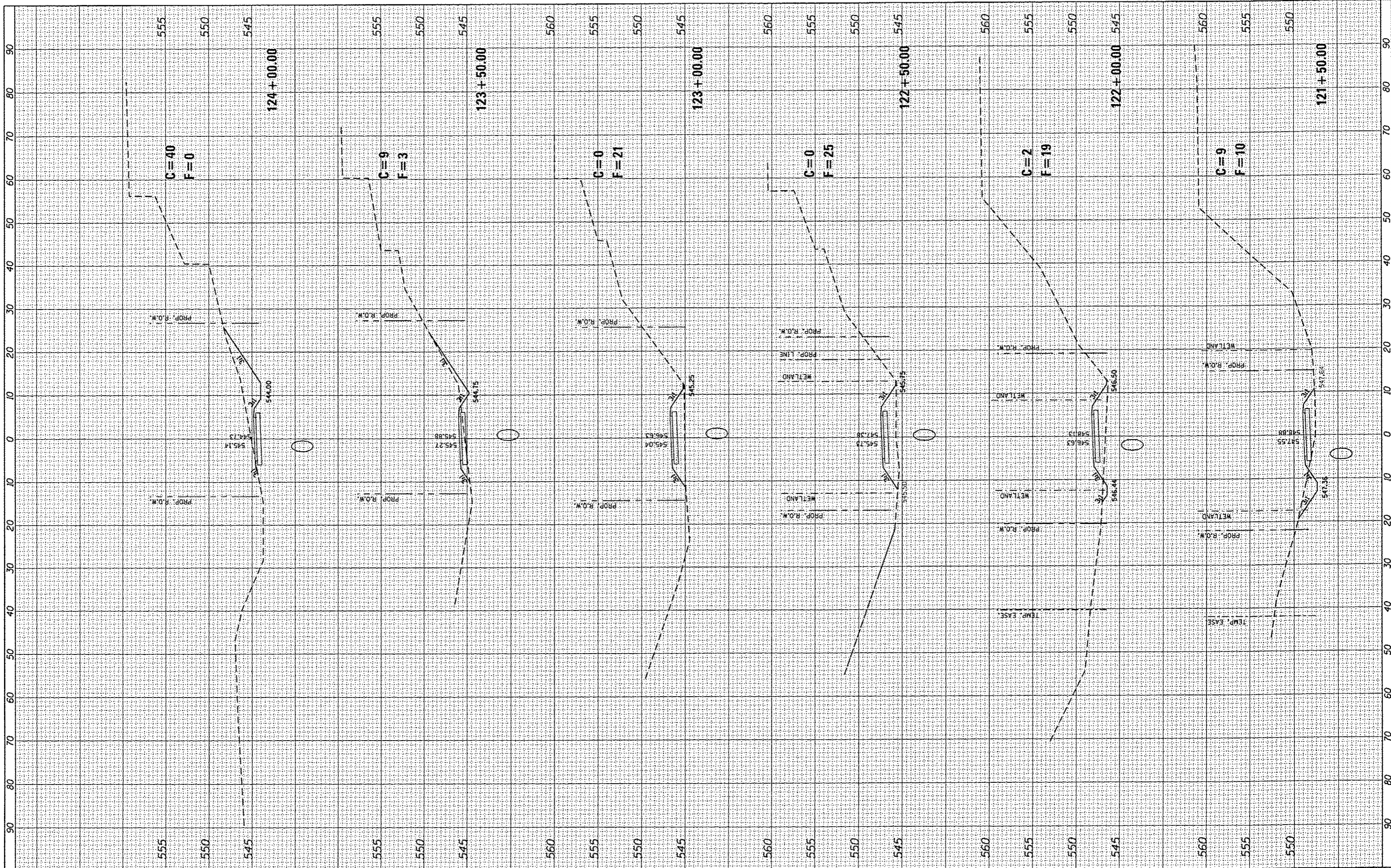
**METRO EAST PARK & RECREATION DISTRICT
 SCOTT-TROY TRAIL**

**CROSS SECTIONS
 SCOTT-TROY TRAIL**
 SCALE: SHEET NO. 12 OF 141 SHEETS STA. 118+50.00 TO STA. 121+00.00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00001-00-BT	MADISON	335	193
			CONTRACT NO. 97633	
ILLINOIS REG. AIO PROJECT				

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

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



FILE NAME = \\plot alpha.dgn
 USER NAME = Scott
 PLOT SCALE = 20.0000' / 1" = 1" = 20.0000'
 PLOT DATE = 7/12/2016

DESIGNED - SAS	REVISED -
DRAWN - SAS	REVISED -
CHECKED - WJB	REVISED -
DATE - 11/19/15	REVISED -

**METRO EAST PARK & RECREATION DISTRICT
SCOTT-TROY TRAIL**

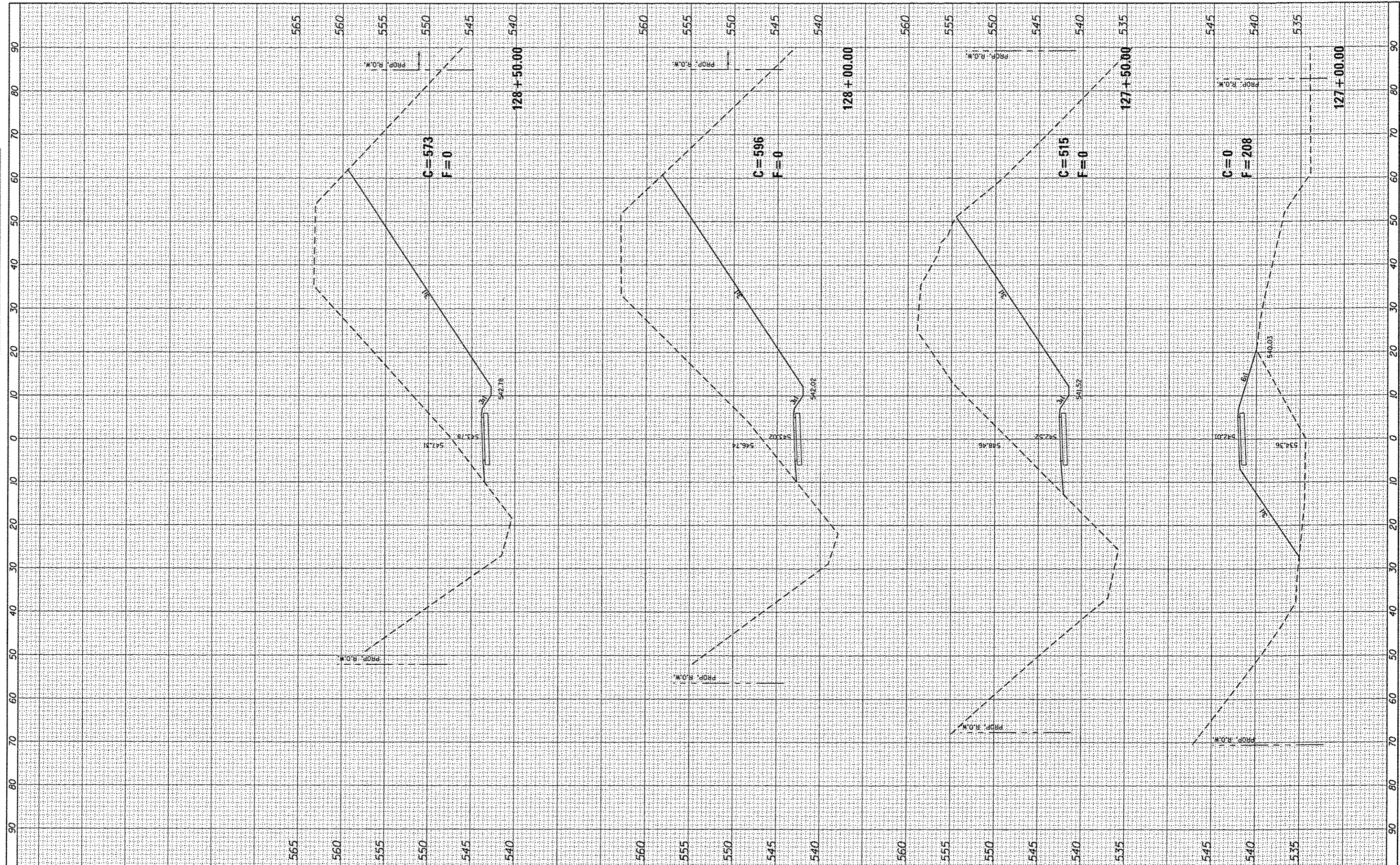
**CROSS SECTIONS
SCOTT-TROY TRAIL**

SCALE: SHEET NO. 13 OF 141 SHEETS STA. 121+50.00 TO STA. 124+00.00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00001-00-BT	MADISON	335	194
			CONTRACT NO. 97633	
ILLINOIS FED. AID PROJECT				

FINAL SURVEY	DATE
SUPERVISED	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	
NO.	

ORIGINAL SURVEY	DATE
SUPERVISED	
PLOTTED	
TEMPLATE	
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FILE NAME =
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USER NAME = Scott
PLOT SCALE = 20,0000 "/ in.
PLOT DATE = 7/12/2016

DESIGNED - SAS
DRAWN - SAS
CHECKED - WJB
DATE - 11/19/15

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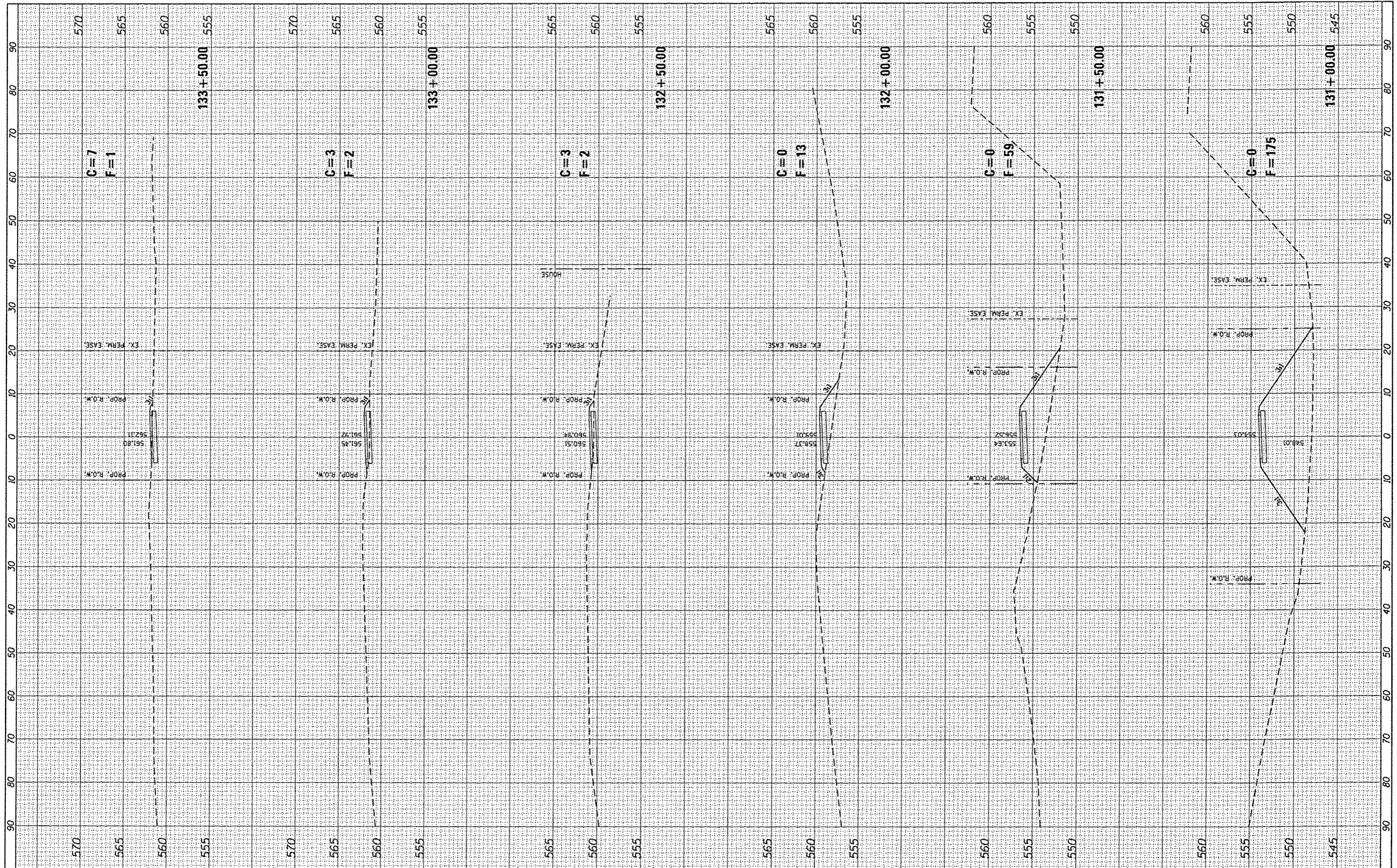
**METRO EAST PARK & RECREATION DISTRICT
SCOTT-TROY TRAIL**

**CROSS SECTIONS
SCOTT-TROY TRAIL**
SCALE: SHEET NO. 15 OF 141 SHEETS STA. 127+00.00 TO STA. 128+50.00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00001-00-BT	MADISON	335	196
			CONTRACT NO. 97633	
[ILLINOIS] FEB. AID PROJECT				

FINAL SURVEY	SURVEYED	BY	DATE
NO. _____	PLOTTED	_____	_____
NOTE BOOK	EX. PERM. EASE.	_____	_____
NO. _____	AREAS CHECKED	_____	_____

ORIGINAL SURVEY	SURVEYED	BY	DATE
NO. _____	PLOTTED	_____	_____
NOTE BOOK	EX. PERM. EASE.	_____	_____
NO. _____	AREAS CHECKED	_____	_____



FILE NAME = *splot alpha.dgn

USER NAME = Scott
 DESIGNED - SAS
 DRAWN - SAS
 CHECKED - WJB
 DATE - 11/19/15

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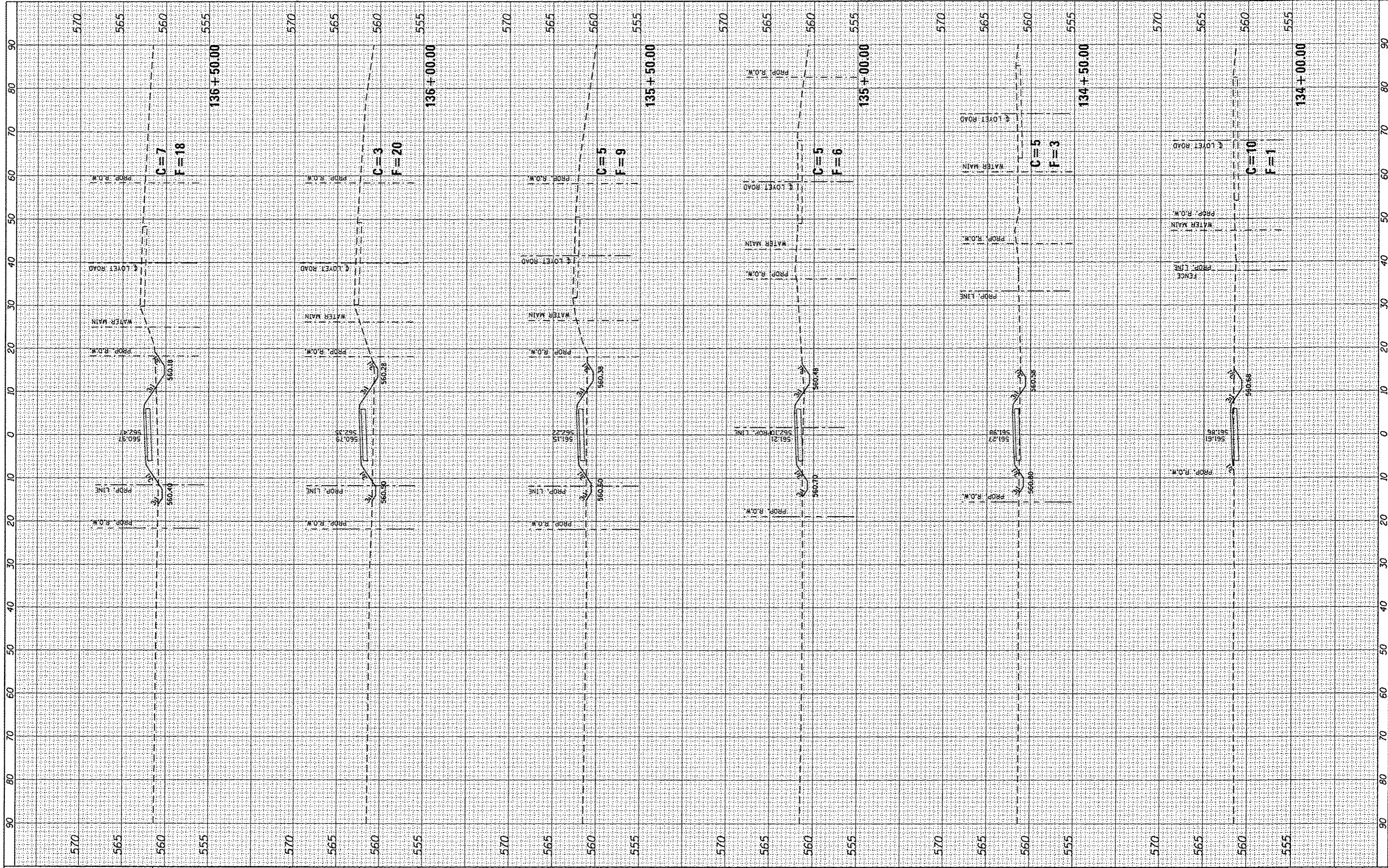
**METRO EAST PARK & RECREATION DISTRICT
 SCOTT-TROY TRAIL**

**CROSS SECTIONS
 SCOTT-TROY TRAIL**
 SCALE: SHEET NO. 17 OF 141 SHEETS STA. 131+00.00 TO STA. 133+50.00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00001-00-BT	MADISON	335	198
CONTRACT NO. 97633			[ILLINOIS] FED. AID PROJECT	

FINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
	TEMPERATURE		
	AREAS CHECKED		
	AREAS CHECKED		

ORIGINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
	TEMPERATURE		
	AREAS CHECKED		
	AREAS CHECKED		



FILE NAME = x:\plot_scoot.dgn
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 PLOT SCALE = 20,0000 "/>

DESIGNED - SAS
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 CHECKED - WJB
 DATE - 11/19/15

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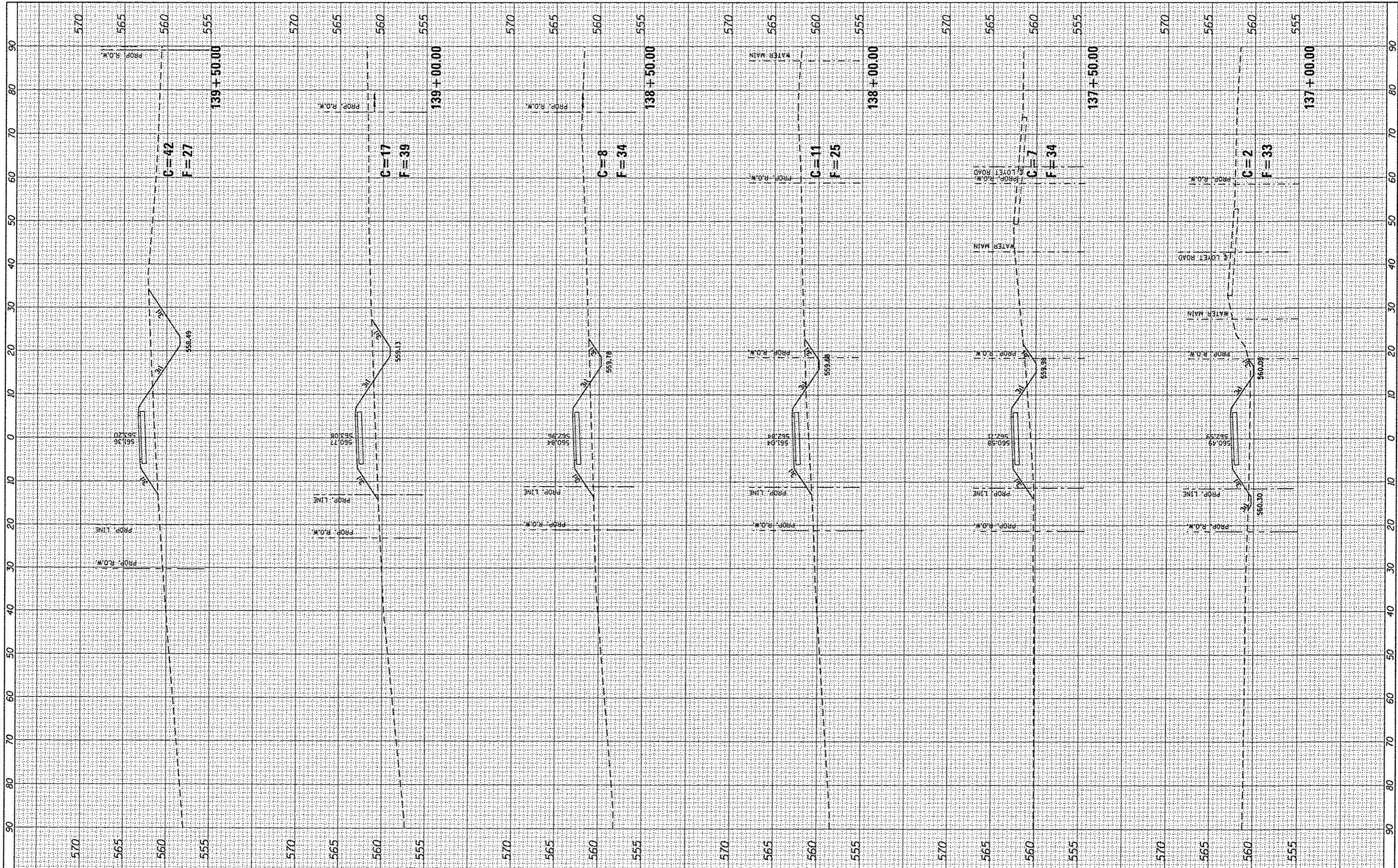
**METRO EAST PARK & RECREATION DISTRICT
 SCOTT-TROY TRAIL**

**CROSS SECTIONS
 SCOTT-TROY TRAIL**
 SCALE: SHEET NO. 18 OF 154 SHEETS STA. 134+00.00 TO STA. 136+50.00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00001-00-BT	MADISON	335	199
CONTRACT NO. 97633				
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.	



FILE NAME =
 *splot scott.dgn

USER NAME = Scott
 DESIGNED - SAS
 DRAWN - SAS
 CHECKED - WJB
 DATE - 11/19/15

REVISED -
 REVISED -
 REVISED -
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**METRO EAST PARK & RECREATION DISTRICT
 SCOTT-TROY TRAIL**

**CROSS SECTIONS
 SCOTT-TROY TRAIL**
 SCALE: 1" = 20'-0" SHEET NO. 19 OF 154 SHEETS STA. 137+00.00 TO STA. 139+50.00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-0001-00-BT	MADISON	335	200
ILLINOIS FED. AID PROJECT			CONTRACT NO. 97633	