

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
**PROPOSED
HIGHWAY PLANS**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	117 BR-2	IROQUOIS	36	1
ILLINOIS			CONTRACT NO. 66B51	

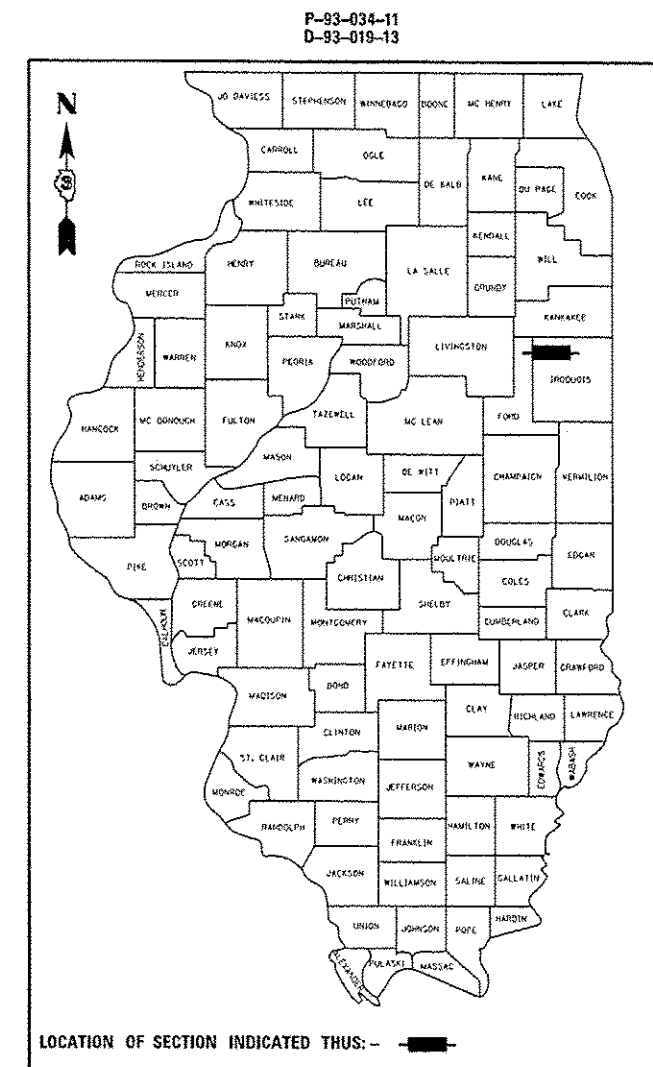
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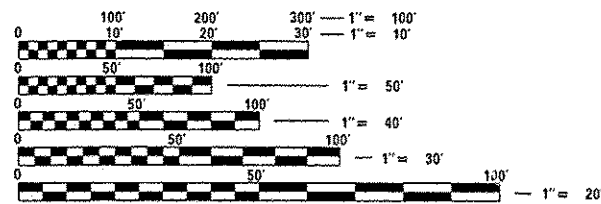
FOR LIST OF ILLINOIS DOT HIGHWAY STANDARDS, SEE SHEET NO. 2

FAP ROUTE 681 (IL 116)
SECTION 117 BR-2
PROJECT: ACF-0681(047)
STRUCTURE REPLACEMENT
IROQUOIS COUNTY

C-93-018-13



RURAL MINOR ARTERIAL (NON-URBAN)
2013 ADT = 725
P.V. = 71%
S.U. = 11%
M.U. = 18%

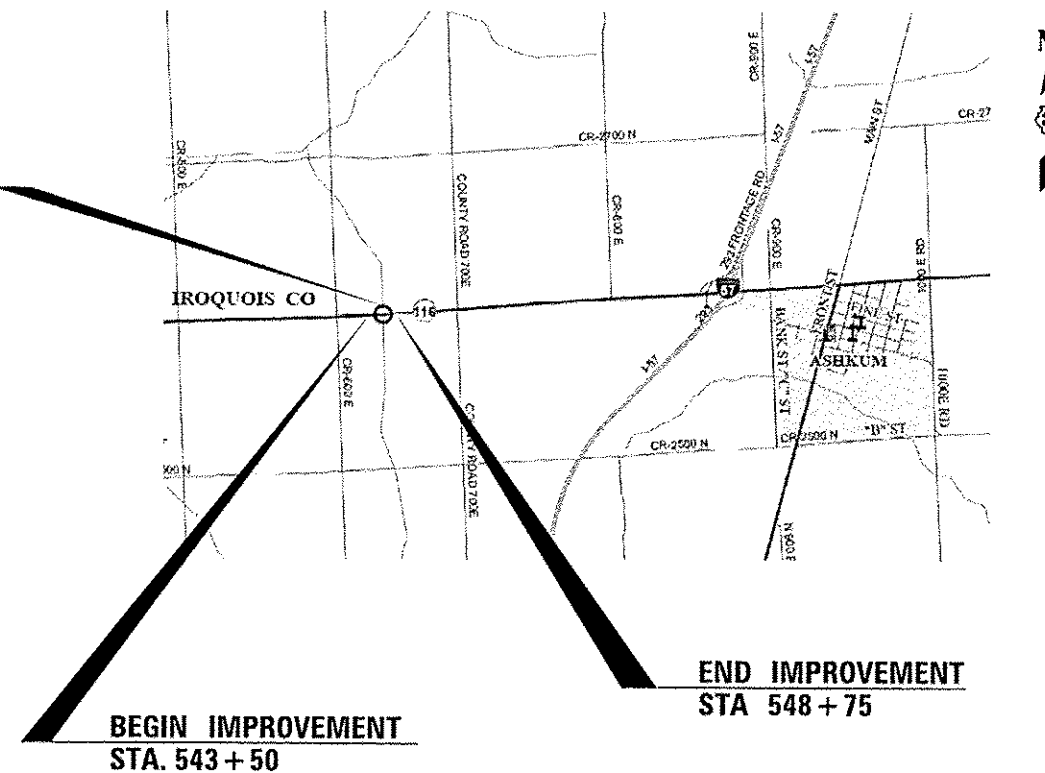


FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES, IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

PROJECT ENGINEER: JOE KANNEL, PE
UNIT CHIEF: MICHELE LINDEMANN, PE

CONTRACT NO. 66B51



LOCATION MAP

GROSS LENGTH = 525 FT = 0.099 MILE
NET LENGTH = 525 FT = 0.099 MILE

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED August 14 2015
Paul Loete D.B.
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

Oct 2 2015
John D. Baranzelli P.E. S.
ENGINEER OF DESIGN AND ENVIRONMENT

Oct 2 2015
Omer Osman P.E. S.
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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OF THE STATE OF ILLINOIS**

GENERAL NOTES

THE THICKNESS OF HMA SHOWN ON THE PLANS IS THE NOMINAL THICKNESS. DEVIATIONS FROM THE NOMINAL THICKNESS WILL BE PERMITTED WHEN SUCH DEVIATIONS OCCUR DUE TO IRREGULARITIES IN THE EXISTING SURFACE OR BASE ON WHICH THE HMA IS PLACED.

EXCEPT AS NOTED ON THE PLANS, PAVEMENT GRADES SHOWN ARE AT THE TOP OF PAVEMENT SURFACES.

BEFORE ORDERING PIPE CULVERTS OR PIPE DRAINS, THE CONTRACTOR SHALL CONSULT THE ENGINEER FOR EXACT LENGTHS.

THE ENGINEER WILL BE THE SOLE JUDGE CONCERNING CURING TIME FOR THE VARIOUS HMA LIFTS.

FOR STABILIZATION, ALL TYPE III BARRICADES WILL REQUIRE A MINIMUM OF FOUR SAND BAGS PER BARRICADE.

SEEDING WILL NOT BE PERMITTED AT ANY TIME WHEN THE GROUND IS FROZEN, WET, OR IN AN UNTILLABLE CONDITION. LOCATIONS TO BE SEEDED WILL BE DETERMINED BY THE ENGINEER.

ONLY THOSE TREES DESIGNATED BY THE ENGINEER OR LISTED IN THE TREE REMOVAL SCHEDULE SHALL BE REMOVED. THE CONTRACTOR SHALL PROTECT ALL REMAINING TREES FROM DAMAGE DUE TO HIS OPERATIONS.

THE FINISHED EARTHWORK SHALL HAVE A VEGETATION SUSTAINING SOIL COVERING THE TOP FOUR INCHES (100 MILLIMETERS) IN AREAS TO BE SEEDED OR SODDED. THE VEGETATION SUSTAINING SOIL REQUIRED WILL NOT BE PAID FOR SEPARATELY BUT WILL BE INCLUDED IN THE COST OF FURNISHED EXCAVATION.

ALL ELEVATIONS REFERRING TO U.S.G.S. MEAN SEA LEVEL DATUM.

ANY REFERENCE TO A STANDARD IN THESE PLANS SHALL BE INTERPRETED TO MEAN THE EDITION AS INDICATED BY THE SUBNUMBER SHOWN IN THE LIST OF STANDARDS OR THE COPY INCLUDED IN THESE PLANS.

THE FOLLOWING RATES OF APPLICATION HAVE BEEN USED IN CALCULATING PLAN QUANTITIES:

GRANULAR MATERIALS	2.05	TONS / CU YD
HMA RESURFACING	112	LBS / SQ YD / IN
SHORT TERM PAVEMENT MARKING	10	FT / 100 FT OF APPLICATION
MIX FOR CRACKS, JTS & FLGWYS	0.0003	TONS / SQ YD

MEMBERS OF JULIE KNOWN TO BE WITHIN THE LIMITS OF THE IMPROVEMENT ARE:

FRONTIER COMMUNICATIONS
EASTERN ILLINI ELECTRIC

COMMITMENTS

LIST OF ILLINOIS DOT HIGHWAY STANDARDS

BLR 17-4	TRAFFIC CONTROL DEVICES - DAY LABOR CONSTRUCTION
BLR 21-9	TYPICAL APPLICATIONS OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION
000001-06	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
280001-07	TEMPORARY EROSION CONTROL SYSTEMS
482001-02	HMA SHOULDER ADJACENT TO FLEXIBLE PAVEMENT
482011-03	HMA SHOULDER STRIPS/SHOULDERS WITH RS OR WIDENING & RS PROJECTS
515001-03	NAME PLATE FOR BRIDGES
542001-04	CONCRETE END SECTIONS FOR PIPE CULVERTS 15" THRU 84" DIA
542011	CONCRETE END SECTIONS FOR ELLIPTICAL PIPE CULVERTS 15" (375mm) THRU 72" (1800 mm) EQUIVALENT DIAMETER
542301-03	PRECAST REINFORCED CONCRETE FLARED END SECTION
542306-02	PRECAST REINFORCED CONCRETE ELLIPTICAL FLARED END SECTION
542406-01	METAL END SECTION FOR PIPE ARCHES
630001-10	STEEL PLATE BEAM GUARDRAIL
630101-09	GUARDRAIL MOUNTED ON EXISTING CULVERTS
630201-06	PCC/HMA STABILIZATION AT STEEL PLATE BEAM GUARDRAIL
630301-06	SHOULDER WIDENING FOR TYPE I (SPECIAL) GUARDRAIL TERMINALS
635006-03	REFLECTOR AND TERMINAL MARKER PLACEMENT
635011-02	REFLECTOR MARKER AND MOUNTING DETAILS
666001-01	RIGHT-OF-WAY MARKERS
701001-02	OFF-ROAD OPERATIONS 2L, 2W, MORE THAN 15' (4.5 m) AWAY
701006-05	OFF-ROAD OPERATIONS 2L, 2W, 15' (4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE
701201-04	LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS 45 MPH
701311-03	LANE CLOSURE, 2L, 2W, MOVING OPERATIONS - DAY ONLY
701901-04	TRAFFIC CONTROL DEVICES
720011-01	METAL POSTS FOR SIGNS, MARKERS AND DELINEATORS
780001-05	TYPICAL PAVEMENT MARKINGS
781001-03	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS

LOCATION(S):	IL 116	IL 116	IL 116	IL 116	IL 116
MIXTURE USE(S):	HMA	HMA	HMA	HMA	HMA
BINDER GRADE (PG):	PG64-22	PG64-22	PG64-22	PG64-22	PG64-22
DESIGN AIR VOIDS:	4.0% @ N50	4.0% @ N50	4.0% @ N50	4.0% @ N50	4.0% @ N50
MIXTURE COMPOSITION (MIXTURE GRADATION):	IL 19.0	IL 9.5FG	IL 9.5	IL 19.0	IL 9.5
FRICTION AGGREGATE:			MIXTURE C		MIXTURE C
MIXTURE WEIGHT:	112 LB/SY/IN	112 LB/SY/IN	112 LB/SY/IN	112 LB/SY/IN	112 LB/SY/IN
QUALITY MANAGEMENT PROGRAM:	QC/QA	QC/QA	QC/QA	QC/QA	QC/QA
SUBLOT SIZE:	N/A	N/A	N/A	N/A	N/A
DENSITY TEST METHOD:	CORES	% GROWTH CURVE	CORES	CORES	CORES

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DISTRICT THREE

PREPARED BY: Tom Benoit
DISTRICT STUDIES & PLANS ENGINEER

DATE: August 14, 2015

EXAMINED BY: [Signature]
DISTRICT CONSTRUCTION ENGINEER

[Signature]
DISTRICT MATERIALS ENGINEER

[Signature]
DISTRICT OPERATIONS ENGINEER

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTR. CODE
				BOX CULVERT 0011 S. N. 032-2027
20200100	EARTH EXCAVATION	CU YD	2230	2230
20700220	POROUS GRANULAR EMBANKMENT	CU YD	290	290
25000300	SEEDING, CLASS 3	ACRE	0.86	0.86
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	77	77
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	77	77
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	77	77
25100630	EROSION CONTROL BLANKET	SQ YD	4181	4181
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	95	95
28000305	TEMPORARY DITCH CHECKS	FOOT	150	150
28000400	PERIMETER EROSION BARRIER	FOOT	114	114
28000500	INLET AND PIPE PROTECTION	EACH	1	1
28001100	TEMPORARY EROSION CONTROL BLANKET	SQ YD	4181	4181
28100107	STONE RIPRAP, CLASS A4	SQ YD	160	160
28200200	FILTER FABRIC	SQ YD	160	160

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* SPECIALTY ITEM

FILE NAME =	USER NAME = oerpanterdj	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
\\VIL604EBIDINTEG.illinois.gov\PIWDOT\Documents\1007 Office\District 3\Projects\0366851\0366851.dwg	PROJECT DATA\CAD\0366851\0366851.dwg	CHECKED -	REVISED -			681	117 BR-2	IROQUOIS	36	3	
PLOT SCALE = 100,0000 / 1 in.	DATE -	CHECKED -	REVISED -			CONTRACT NO. 68851					
PLOT DATE = 8/12/2015	DATE -	CHECKED -	REVISED -			ILLINOIS FED. AID PROJECT					

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTR. CODE
				80% FED. 20% STATE BOX CULVERT 0011 S. N. 032-2027
31100300	SUBBASE GRANULAR MATERIAL, TYPE A 4"	SO YD	180	180
35501316	HOT-MIX ASPHALT BASE COURSE, 8"	SO YD	174	174
40200800	AGGREGATE SURFACE COURSE, TYPE B	TON	129	129
40600275	BITUMINOUS MATERIALS (PRIME COAT)	POUND	1024	1024
40600400	MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS	TON	0.5	0.5
40600527	LEVELING BINDER (HAND METHOD), IL-9.5FG, N50	TON	0.8	0.8
40600627	LEVELING BINDER (MACHINE METHOD), IL-9.5FG, N50	TON	63	63
40603310	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50	TON	128	128
44000158	HOT-MIX ASPHALT SURFACE REMOVAL, 2 1/4"	SO YD	1343	1343
48101200	AGGREGATE SHOULDERS, TYPE B	TON	10	10
48203029	HOT-MIX ASPHALT SHOULDERS, 8"	SO YD	565	565
50100300	REMOVAL OF EXISTING STRUCTURES NO. 1	EACH	1	1
50105220	PIPE CULVERT REMOVAL	FOOT	94	94
51500100	NAME PLATES	EACH	1	1

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* SPECIALTY ITEM

FILE NAME =	USER NAME = carpanterdj	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
Documents\DOT Offices\District 3\Projects\036\Drawings\036\036051-sht-500.dwg	Documents\DOT Offices\District 3\Projects\036\Drawings\036\036051-sht-500.dwg	CHECKED -	REVISED -					681	117 BR-2	IRROUOIS	36	4
PLOT SCALE = 1/8" = 1' / in.	DATE -	CHECKED -	REVISED -		SCALE: _____ SHEET _____ OF _____ SHEETS STA. _____ TO STA. _____			CONTRACT NO. 66B51				
PLOT DATE = 8/12/2015	DATE -	CHECKED -	REVISED -		ILLINOIS FED. AID PROJECT							

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTR. CODE
				80% FED. 20% STATE BOX CULVERT 0011 S.N. 032-2027
54001001	BOX CULVERT END SECTIONS, CULVERT NO. 1	EACH	2	2
54011010	PRECAST CONCRETE BOX CULVERTS 10' X 10'	FOOT	100	100
54200289	PIPE CULVERTS, CLASS D, TYPE 1 84"	FOOT	65	65
54205491	PIPE CULVERTS, CLASS D, TYPE 1 EQUIVALENT ROUND-SIZE 36"	FOOT	46	46
54213519	END SECTIONS 84"	EACH	2	2
54214311	END SECTIONS, EQUIVALENT ROUND-SIZE 36"	EACH	2	2
60100925	PIPE DRAINS 8"	FOOT	10	10
60100935	PIPE DRAINS 10"	FOOT	10	10
60100945	PIPE DRAINS 12"	FOOT	20	20
61100605	MISCELLANEOUS CONCRETE	CU YD	0.5	0.5
61101013	STORM SEWERS PROTECTED, CLASS A, 12"	FOOT	100	100
61133100	FIELD TILE JUNCTION VAULTS, 2' DIA.	EACH	2	2
61139900	STORM SEWERS (SPECIAL), 6"	FOOT	100	100
61140000	STORM SEWERS (SPECIAL), 8"	FOOT	100	100

* SPECIALTY ITEM

FILE NAME =	USER NAME = carpenrerdj	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES				F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
g:\L\884EB\INTEG.illinois.gov\IDOT\Documents\IDOT Offices\District 3\Projects\032\DRAWING\DATA\GAD\sheet\032R6091.sht-500.dwg	DRAWN -	REVISED -	REVISED -						681	117 BR-2	IRROUOIS	36	5
Defaults	PLOT SCALE = 1/8" = 1' IN.	CHECKED -	REVISED -		SCALE:	SHEET	OF	SHEETS	STA.	TO STA.	CONTRACT NO. 66B51		
	PLOT DATE = 8/12/2015	DATE	REVISED						ILLINOIS FED. AID PROJECT				

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTR. CODE
				80% FED. 20% STATE BOX CULVERT 0011 S. N. 032-2027
61140100	STORM SEWERS (SPECIAL), 10"	FOOT	100	100
61140200	STORM SEWERS (SPECIAL), 12"	FOOT	100	100
* 63000001	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	FOOT	325	325
* 63000025	STEEL PLATE BEAM GUARDRAIL, ATTACHED TO STRUCTURES	FOOT	50	50
* 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	1	1
* 63100169	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) FLARED	EACH	4	4
63200310	GUARDRAIL REMOVAL	FOOT	629	629
66600105	FURNISHING AND ERECTING RIGHT OF WAY MARKERS	EACH	9	9
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	3	3
67100100	MOBILIZATION	L SUM	1	1
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1	1
70101830	TRAFFIC CONTROL AND PROTECTION, STANDARD BLR 21	L SUM	1	1
70300100	SHORT TERM PAVEMENT MARKING	FOOT	53	53
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	1050	1050

* SPECIALTY ITEM

FILE NAME =	USER NAME = carperterdj	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES				F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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PLOT SCALE = 100.0000' / in.	CHECKED -	REVISOR -	REVISED -		SCALE: _____ SHEET _____ OF _____ SHEETS STA. _____ TO STA. _____				CONTRACT NO. 66B51				
Default	PLOT DATE = 8/12/2015	DATE -	REVISED -		ILLINOIS FED. AID PROJECT								

CONSTR. CODE
80% FED.
20% STATE
BOX CULVERT
0011
S. N. 032-2027

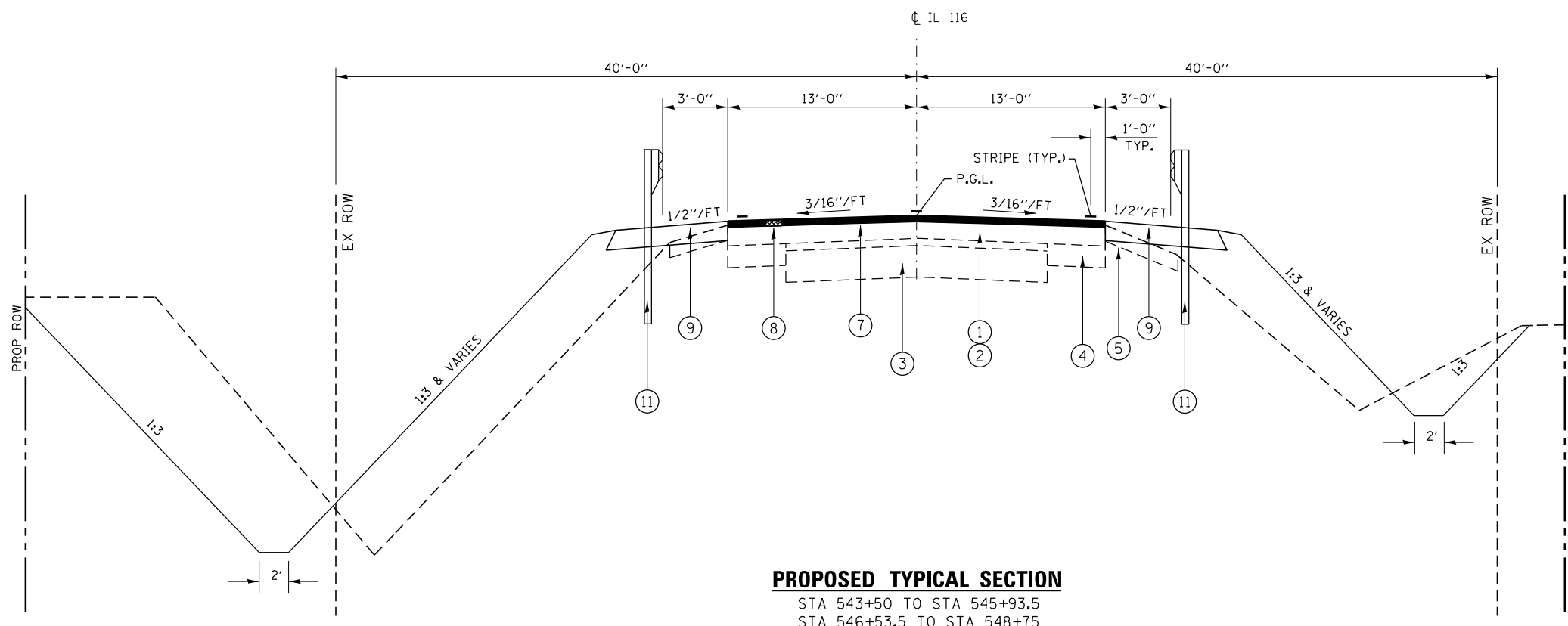
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	
70300240	TEMPORARY PAVEMENT MARKING - LINE 6"	FOOT	131	131
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SO FT	433	433
* 78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	2100	2100
* 78001130	PAINT PAVEMENT MARKING - LINE 6"	FOOT	262	262
* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	7	7
* 78200410	GUARDRAIL MARKERS, TYPE A	EACH	6	6
* 78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	5	5
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	7	7
X0327726	MEMBRANE WATERPROOFING FOR CULVERTS	SO YD	156.3	156.3
X2130010	EXPLORATION TRENCH, SPECIAL	FOOT	1000	1000
X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1	1
Z0004552	APPROACH SLAB REMOVAL	SO YD	106	106
Z0030850	TEMPORARY INFORMATION SIGNING	SO FT	42	42

* SPECIALTY ITEM

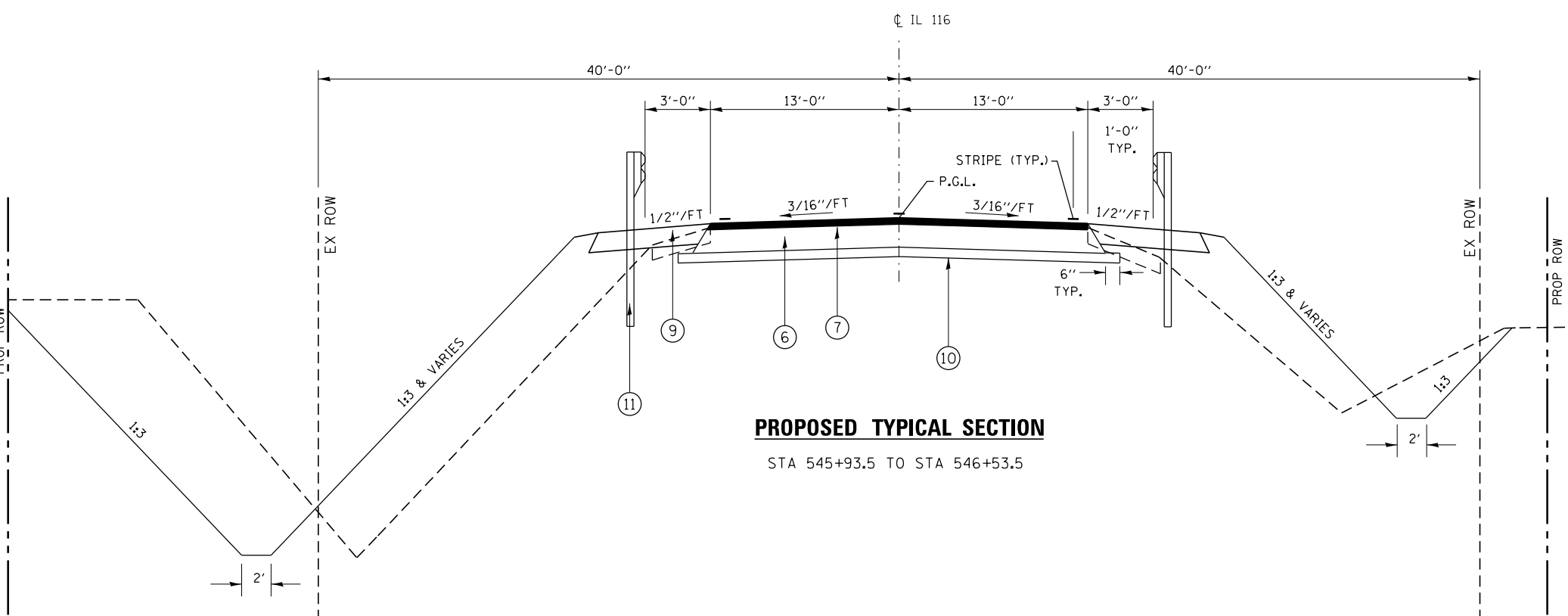
FILE NAME :	USER NAME : carpenterdj	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
pa\\NLR046810\INTEC\illinois.gov\PI00T\O...	Documents\DOT Offices\District 3\Projects\226...	DRAWN BY: GAD	REVISED -			681	117 BR-2	IRROQUOIS	36	7
PLOT SCALE : 1/2" = 100'	CHECKED -	REVISED -	SCALE: _____ SHEET _____ OF _____ SHEETS			STA. _____ TO STA. _____	CONTRACT NO. 66B51		ILLINOIS FED. AID PROJECT	
Default	DATE -	REVISED -								

LEGEND

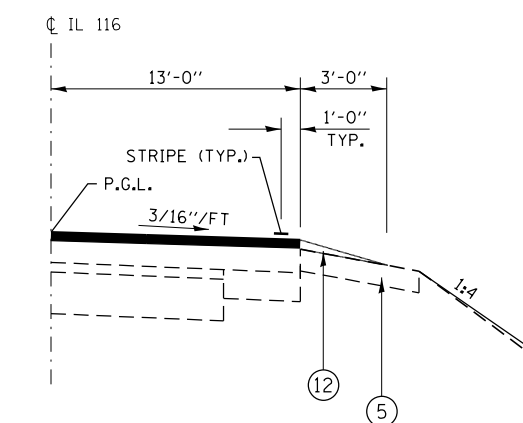
- ① EXISTING 1/2" HMA SURFACE COURSE
- ② EXISTING ±7" HMA BINDER COURSE
- ③ EXISTING 16-10-16" PAVEMENT
- ④ EXISTING 9" HMA BASE COURSE WIDENING
- ⑤ EXISTING AGGREGATE SHOULDER
- ⑥ HMA BASE COURSE, 8"
- ⑦ HMA SURFACE CSE, 1 1/2" & LEVEL BINDER, 3/4"
- ⑧ HMA SURFACE REMOVAL, 2 1/4"
- ⑨ HMA SHOULDERS, 8"
- ⑩ SUBBASE GRANULAR MATERIAL, TYPE A 4"
- ⑪ PROPOSED SPBGR, TY A, 6' POSTS
- ⑫ AGG SHOULDER, TY B



PROPOSED TYPICAL SECTION
 STA 543+50 TO STA 545+93.5
 STA 546+53.5 TO STA 548+75



PROPOSED TYPICAL SECTION
 STA 545+93.5 TO STA 546+53.5



AGG SHOULDER DETAIL
 NW, SW, AND SE QUADRANTS
 (BEYOND GUARDRAIL LIMITS)

FILE NAME =	USER NAME = carpenterdj	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TYPICAL SECTIONS			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
pw:\IL\084EBIDINTEG.illinois.gov\PIWIDOT\Documents\IDOT Offices\District 3\Projects\0366B51\Drawings\CADsheets\0366B51-shd-typical.dwg		CHECKED -	REVISED -		681	117 BR-2	IROQUOIS	36	8			
PLOT SCALE = 100.0000' / 1in.		DATE -	REVISED -		CONTRACT NO. 66B51			ILLINOIS FED. AID PROJECT				
PLOT DATE = 8/12/2015					SCALE:	SHEET OF SHEETS	STA. TO STA.					

MAINLINE SCHEDULE											
LOCATION	LENGTH	PVMT AREA	HMA SURF CSE	LEVEL BINDER (MM)	HMA BASE CSE 8"	SUBBASE GRAN MAT 12"	HMA SURFACE REMOVAL 2 1/4"	APPROACH SLAB REMOVAL	BIT MAT (PR CT)	MIX FOR CRACKS, JOINTS & FLGWYS	LEVEL BINDER (HM)
STA TO STA	FOOT	SQ YD	TON	TON	SQ YD	SQ YD	SQ YD	SQ YD	LBS	TON	TON
543+50 TO 545+93.5	243.5	703	59	30			703		475	0.21	0.35
545+93.5 TO 546+13.5	20	58	5	2	58	60		53	39	0.02	0.03
546+13.5 TO 546+33.5	20	58	5	2	58	60			39	0.02	0.03
546+33.5 TO 546+53.5	20	58	5	2	58	60		53	39	0.02	0.03
546+53.5 TO 548+75	221.5	640	54	27			640		432	0.19	0.32
TOTAL	525	1517	128	63	174	180	1343	106	1024	0.46	0.76

ENTRANCE SCHEDULE						
STATION	SIDE		EXIST MAT	WIDTH	AREA	AGG SURF CSE TY B
				FOOT	SQ YD	TON
543+94.5	LT	FE	AGG	24	127	58
548+01	LT	FE	AGG	24	155	71
SUBTOTAL						129

FIELD TILE											
	PIPE DRAINS 8"	PIPE DRAINS 10"	PIPE DRAINS 12"	STORM SEWER SPECIAL 6"	STORM SEWER SPECIAL 8"	STORM SEWER SPECIAL 10"	STORM SEWER SPECIAL 12"	STORM SEWER PROTECTED 12"	MISC CONC	FIELD TILE JUNCTION VAULT, 2' DIA	EXPLORATION TRENCH SPECIAL
	FT	FT	FT	FT	FT	FT	FT	FT	CU YD	EACH	FT
ENTIRE PROJECT	10	10	20	100	100	100	100	100	0.5	2	1000
TOTALS	10	10	20	100	100	100	100	100	0.5	2	1000

SHOULDER SCHEDULE		
LOCATION	AGG SHLD TYPE B	HMA SHLD 8"
STA TO STA	TON	SQ YD
SOUTH SIDE:		
543+50 TO 544+41	3.3	
544+35 TO 547+69		235
547+63 TO 548+75	4.2	
NORTH SIDE:		
543+50 TO 543+68	0.7	
544+22 TO 544+77	1.9	
544+71 TO 548+75		330
TOTAL	10.1	565

DRAINAGE SCHEDULE										
LOCATION		PIPE CULVERT REMOVAL	PIPE CULV CL D, TY I 36" ERS	END SECT 36" ERS	PIPE CULV CL D, TY I 84"	END SECT 84"	STONE RIP RAP CL A4	FILTER FABRIC	PROP U.S. INVERT ELEV	PROP D.S. INVERT ELEV
STATION	OFFSET	FOOT	FOOT	EACH	FOOT	EACH	TON	SQ YD		
543+71.5	31' LT			1					651.65	
543+94.5	31.75' LT		46							
543+94.5	28' LT	29								
544+17.5	32.5' LT			1					651.50	
547+68.5	51' LT					1	12	12	645.59	
548+01	30' LT	65								
548+01	51' LT				65					
548+33.5	51' LT					1	12	12	645.92	
TOTAL		94	46	2	65	2	24	24		

GUARDRAIL SCHEDULE							
LOCATION	GUARD-RAIL REM	TBT TY 1 SPECIAL FLARED	TBT TY 1 SPECIAL TANGENT	SPBGR TY A 6 FT POSTS	SPBGR ATTACHED TO STRUCTURE	GUARD-RAIL MARK	TERMINAL MARKER DIRECT APPLIED
STA TO STA	FOOT	EACH	EACH	FOOT	FOOT	EACH	TON
SOUTH SIDE:							
544+55 TO 545+05	250	1					1
545+05 TO 546+98.75				168.75	25	3	
546+98.75 TO 547+48.75		1					1
NORTH SIDE:							
544+91.25 TO 545+41.25	287.5	1					1
545+41.25 TO 547+22.5				156.25	25	3	
547+22.5 TO 547+72.5		1					1
548+25 TO 548+75	91.25		1				1
TOTAL	628.75	4	1	325	50	6	5

EARTHWORK SCHEDULE				
LOCATION	EARTH EXCAVATION (CUT)	EARTHWORK ADJUSTED FOR SHRINKAGE	FILL	FURNISHED EXCAVATION
	CU YD			CU YD
DITCH WORK	2230	1673	1649	-24
TOTAL	2230			-24

ASSUME SHRINKAGE FACTOR - 25% EARTH EXCAVATION PAY ITEMS

EXCESS, NO PAY ITEM

TEMPORARY EROSION CONTROL SCHEDULE					
LOCATION	TEMP EROSION CONTROL SEEDING	TEMP EROSION CONTROL BLANKET	PERIMETER EROSION BARRIER	INLET AND PIPE PROTECTION	TEMP DITCH CHECKS
	LB	SQ YD	FOOT	EA	FOOT
SW QUAD	18	798	21		40
SE QUAD	14	633	21		30
NW QUAD	21	924	38	1	40
NE QUAD	42	1826	34		40
TOTAL	95	4181	114	1	150

SEEDING SCHEDULE					
DESCRIPTION	SEEDING CL 3	EROSION CONTROL BLANKET	NIT FERT NUT	PHOS FERT NUT	POT FERT NUT
	ACRE	SQ YD	LB	LB	LB
SW QUADRANT	0.16	798	14	14	14
SE QUADRANT	0.13	633	12	12	12
NW QUADRANT	0.19	924	17	17	17
NE QUADRANT	0.38	1826	34	34	34
TOTAL	0.86	4181	77	77	77

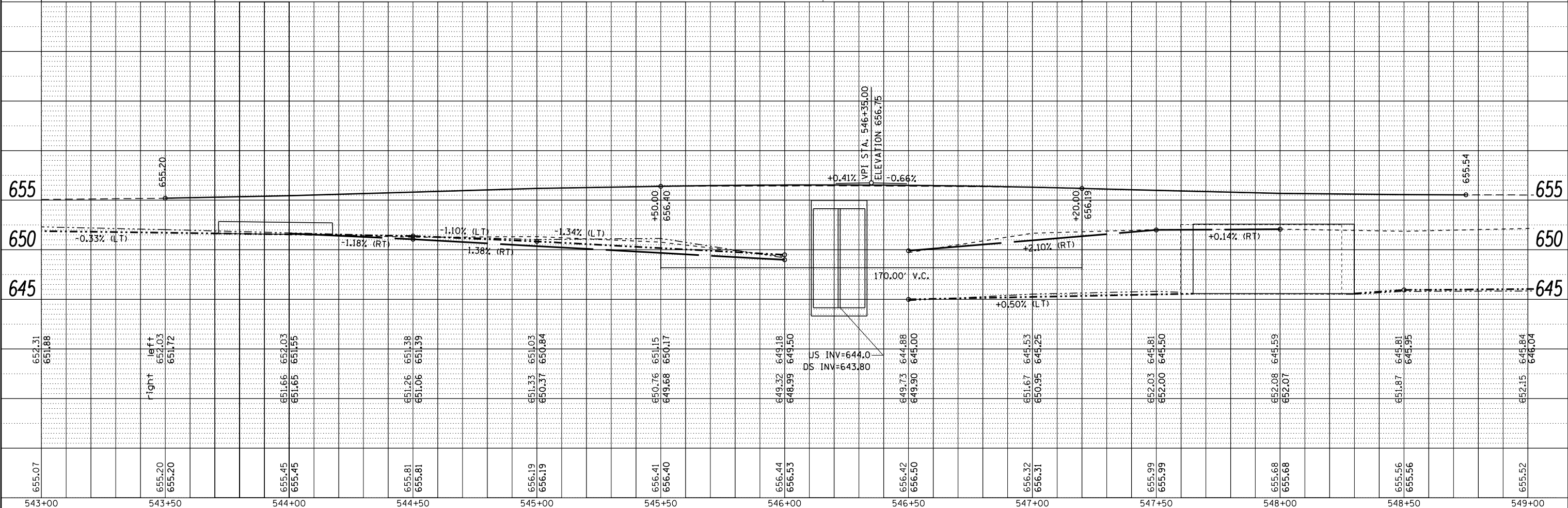
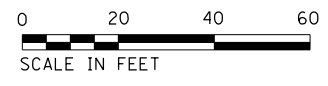
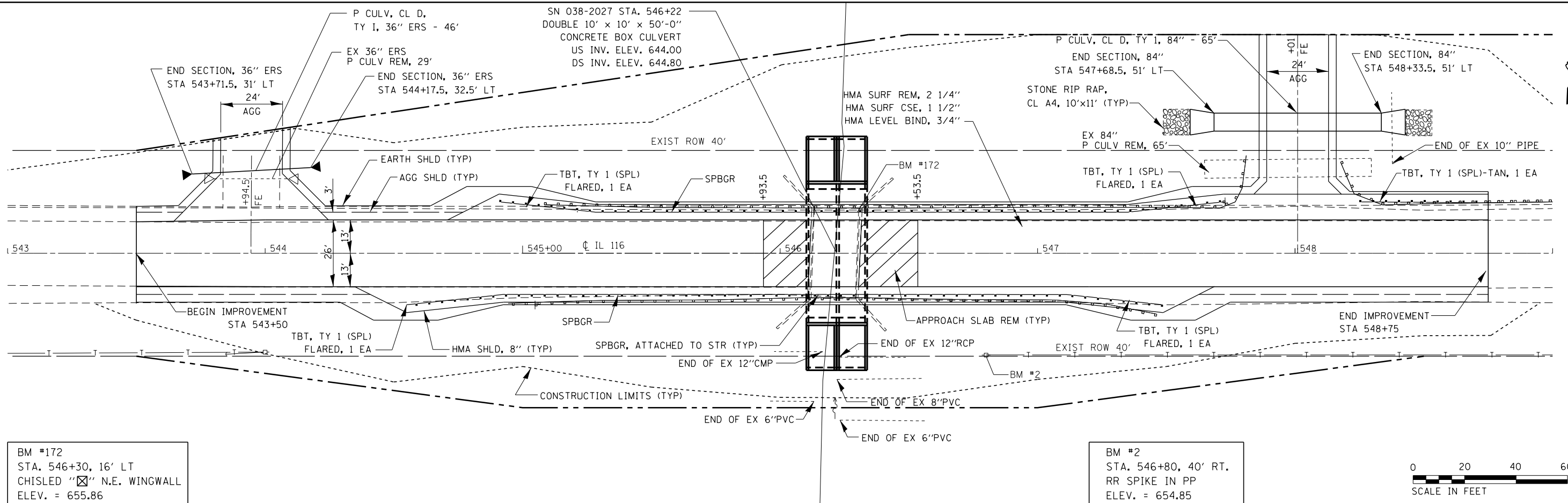
RIGHT OF WAY MARKERS	
LOCATION	ROW MARKERS
	EACH
543+50, 40' LT	1
543+50, 40' RT	1
545+00, 60' RT	1
546+50, 85' LT	1
547+00, 60' RT	1
548+45.59, 85' LT	1
548+50, 40' RT	1
549+00, 85' RT	1
550+00, 40' RT	1
TOTAL	9

PAVEMENT MARKING										
LOCATION	DESCRIPTION	LENGTH	PAINT PAVEMENT MARKING LINE		TEMPORARY PAVEMENT MARKING LINE		SHORT TERM PVMT MARK	WORK ZONE PVMT MARK REMOVAL	RAISED REFL PVMT MARKER REMOVAL	RAISED REFL PVMT MARKER
			4 INCH	6 INCH	4 INCH	6 INCH				
			WHITE	YELLOW	WHITE	YELLOW				
STA		FOOT	FOOT	FOOT	FOOT	FOOT	SQ FT	EACH	EACH	
543+50 TO 548+75	CENTER AND EDGE LINES	525	2100	262	1050	131	53	433	7	7
			2100	262	1050	131	53	433	7	7

NOTE: ADDITIONAL QUANTITY HAS BEEN INCLUDED TO ALLOW FOR TWO SEPARATE APPLICATIONS OF PAINT PAVEMENT MARKING LINE
NO PASSING ZONES SHALL BE REPLACED IN THE SAME LOCATIONS AS EXISTING

PLAN	SURVEYED	DATE
	PLOTTED	BY
	GRADES CHECKED	
	STRUCTURE NOTATIONS OK'D	
	NOTE BOOK NO.	
	CARD FILE NAME	

PROFILE	SURVEYED	DATE
	PLOTTED	BY
	GRADES CHECKED	
	STRUCTURE NOTATIONS OK'D	
	NOTE BOOK NO.	
	CARD FILE NAME	



FILE NAME =	USER NAME = carpenter_dj	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION		PLAN AND PROFILE		F.A.P. RTE. 681	SECTION 117 BR-2	COUNTY IROQUOIS	TOTAL SHEETS 36	SHEET NO. 11
Default	PLOT SCALE = 40.0000' / in.	CHECKED -	REVISED -			SCALE: SHEET OF SHEETS STA. TO STA.		CONTRACT NO. 66B51		ILLINOIS FED. AID PROJECT		
	PLOT DATE = 8/12/2015	DATE -	REVISED -									

LEGEND

- TYPE III BARRICADES CONFORMING TO STD. 702001 "ROAD CLOSED TO ALL TRAFFIC" WITH 2 FLASHING LIGHTS PER BARRICADE
- TYPE III BARRICADES CONFORMING TO STD. 702001 "ROAD CLOSED TO THRU TRAFFIC" WITH 2 FLASHING LIGHTS PER BARRICADE
- SIGNS ON PERMANENT SUPPORTS
- DETOUR ROUTE

NOTES:

1. ALL TRAFFIC CONTROL DEVICES SHALL BE FURNISHED, ERECTED AND MAINTAINED BY THE CONTRACTOR.
2. ALL SIGNS NOT ATTACHED TO BARRICADES SHALL BE POST MOUNTED, UNLESS OTHERWISE NOTED.
3. LOCATIONS OF TRAFFIC CONTROL DEVICES MAY BE ADJUSTED BY THE ENGINEER.
4. SIGNS B,C,J,K,L,M,O,Q,R,S,U,V AND W SHALL BE BLACK LETTERS ON FLUORESCENT ORANGE SIGN.
5. SEE STANDARDS BLR21-9 AND BLR17-4 FOR DETAILS.
6. CONFIRMATION DETOUR SIGNS SHALL BE INSTALLED ADJACENT TO EXISTING ROUTE MARKER SIGNS.
7. COVER OR REMOVE ANY EXISTING CONFLICTING SIGNS. (NOTE: NO DRILLING OR TAPE WILL BE ALLOWED ON THE SIGN FACE.)

ROAD CLOSED R11-2-4830 A	ROAD CLOSED 500 FT W20-3-4848 B	ROAD CLOSED AHEAD W20-3-4848 C	BRIDGE OUT 10 MILES AHEAD LOCAL TRAFFIC ONLY R11-3b-6030 D	BRIDGE OUT 2 MILES AHEAD LOCAL TRAFFIC ONLY R11-3b-6030 E	BRIDGE OUT 1.5 MILES AHEAD LOCAL TRAFFIC ONLY R11-3b-6030 F
IL 116 M1-1100-3024 G	WEST M3-4-2412 H	EAST M3-2-2412 I	DETOUR M4-8-2412 J	→ M6-1-2115 K	← M5-1-2115 L
DETOUR AHEAD W20-2a-4848 M	BRIDGE OUT 4.4 MILES AHEAD LOCAL TRAFFIC ONLY M2-1-2115 N	END DETOUR M4-8A-2418 O	ROAD CLOSED TO THRU TRAFFIC R11-4-6030 P	↑ M6-3-2115 Q	↗ M5-2-2115 R
↗ M6-2-2115 S	 BRIDGE OUT 3.9 MILES AHEAD LOCAL TRAFFIC ONLY R11-3b-6030 T	← M6-1-2115 U	→ M5-1-2115 V	1 MILE 2412 W	



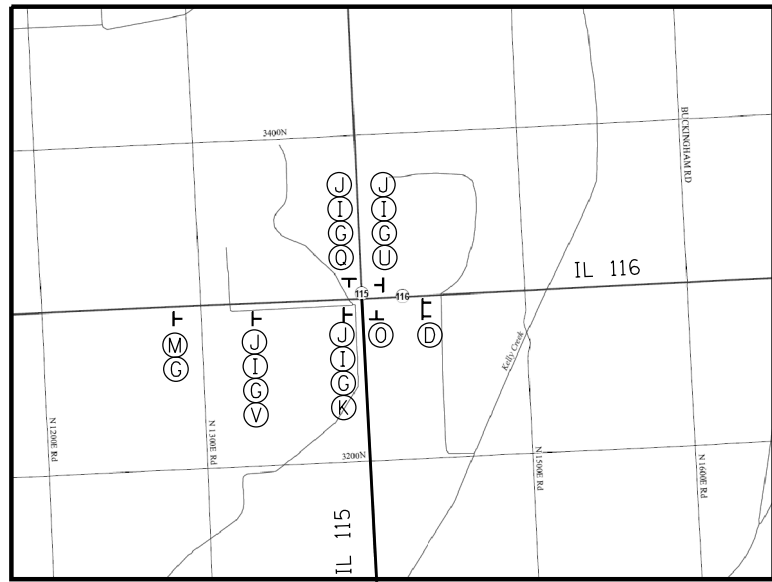
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Default	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/12/2015	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

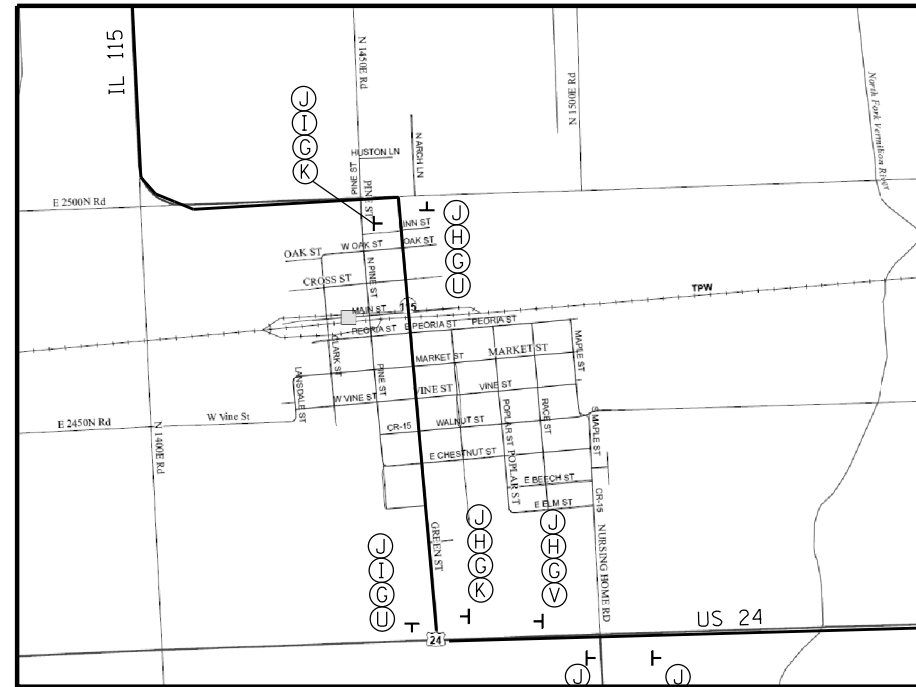
DETOUR PLANS

SCALE: _____ SHEET _____ OF _____ SHEETS STA. _____ TO STA. _____

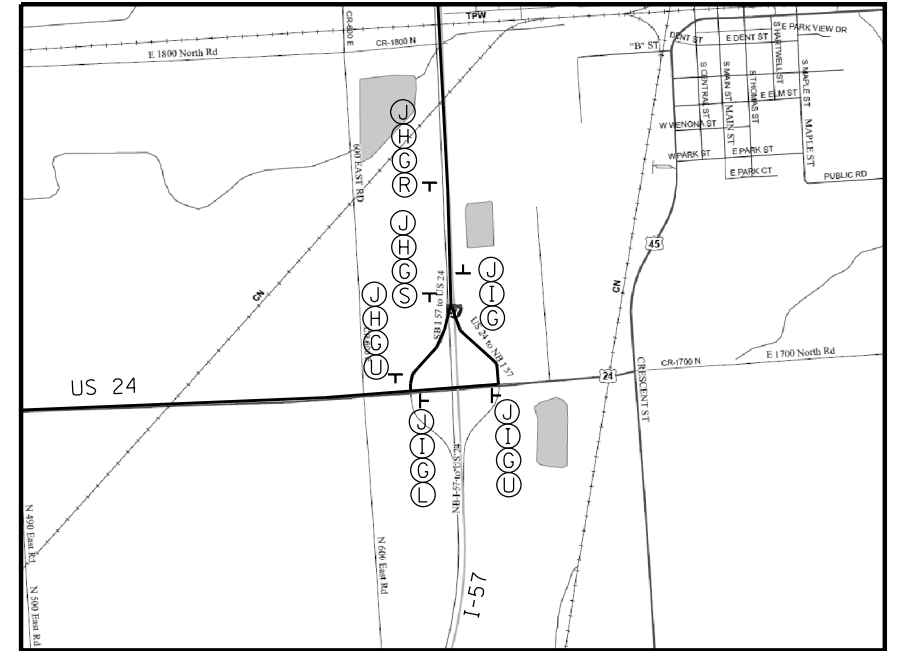
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	117 BR-2	IROQUOIS	36	13
			CONTRACT NO. 66B51	
ILLINOIS FED. AID PROJECT				



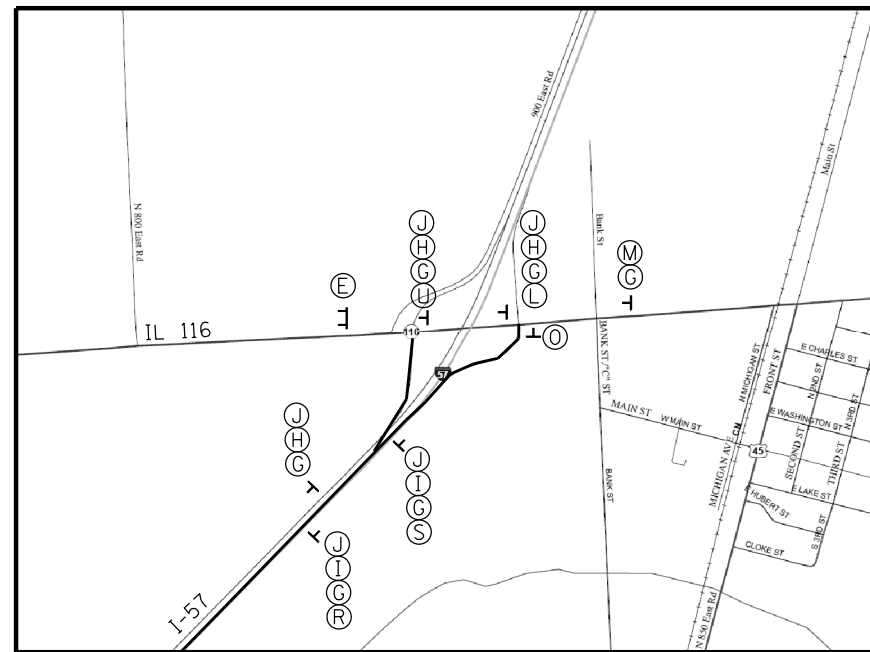
DETAIL A



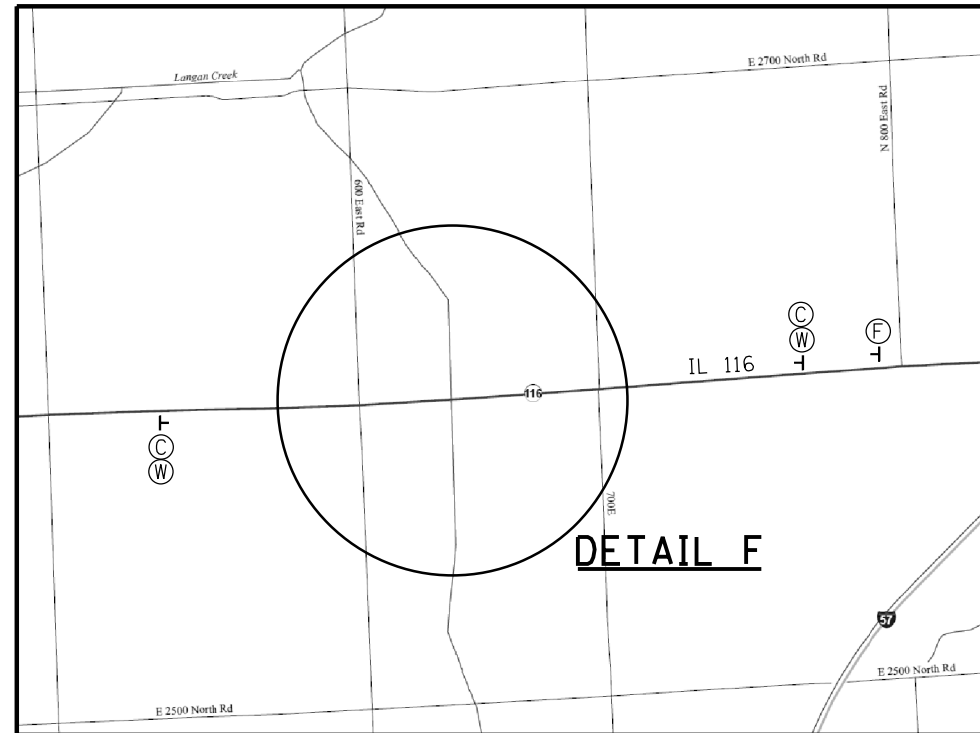
DETAIL B



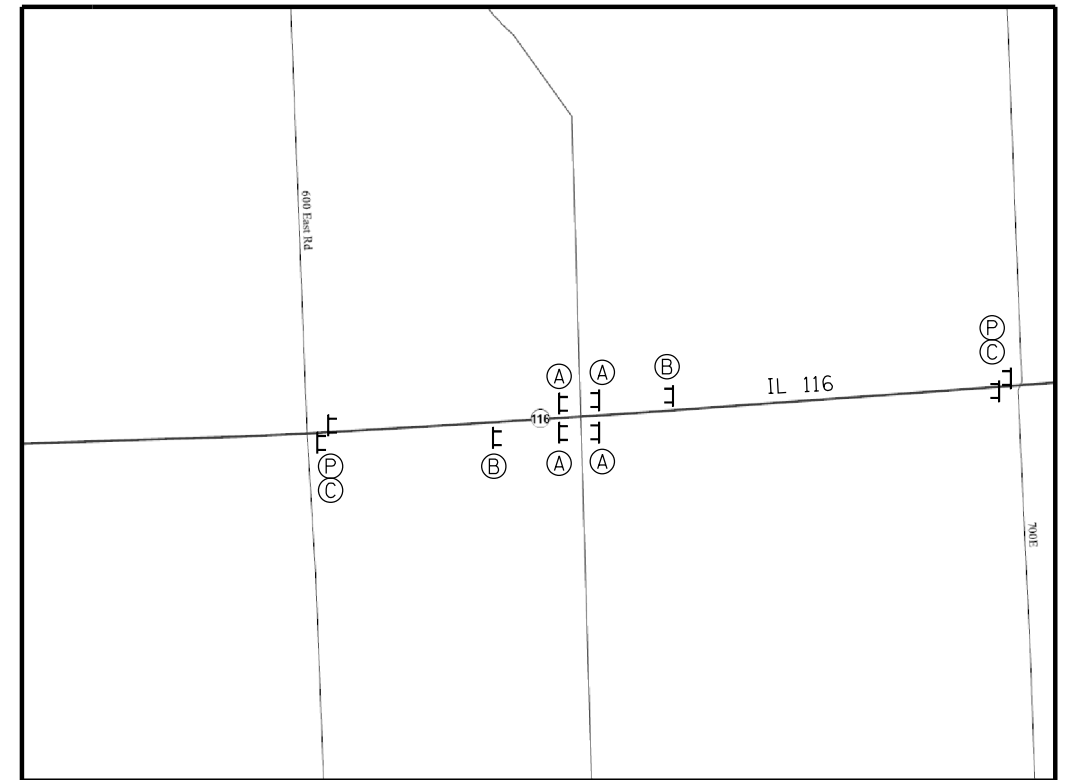
DETAIL C



DETAIL D



DETAIL E
PROJECT LOCATION



DETAIL F
PROJECT LOCATION

NOTE: SIGNING SHALL BE IN ACCORDANCE WITH STANDARD BLR 21.

FILE NAME =	USER NAME = carpenterdj	DESIGNED -	REVISED -
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Default	PLOT DATE = 8/12/2015	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

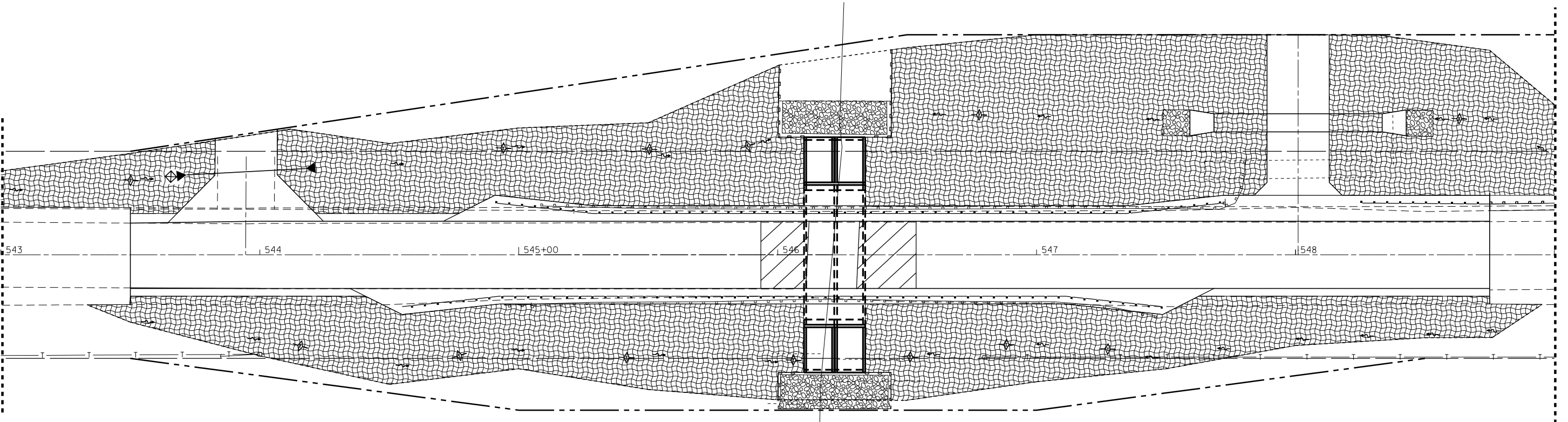
DETOUR PLANS

SCALE: _____ SHEET _____ OF _____ SHEETS STA. _____ TO STA. _____

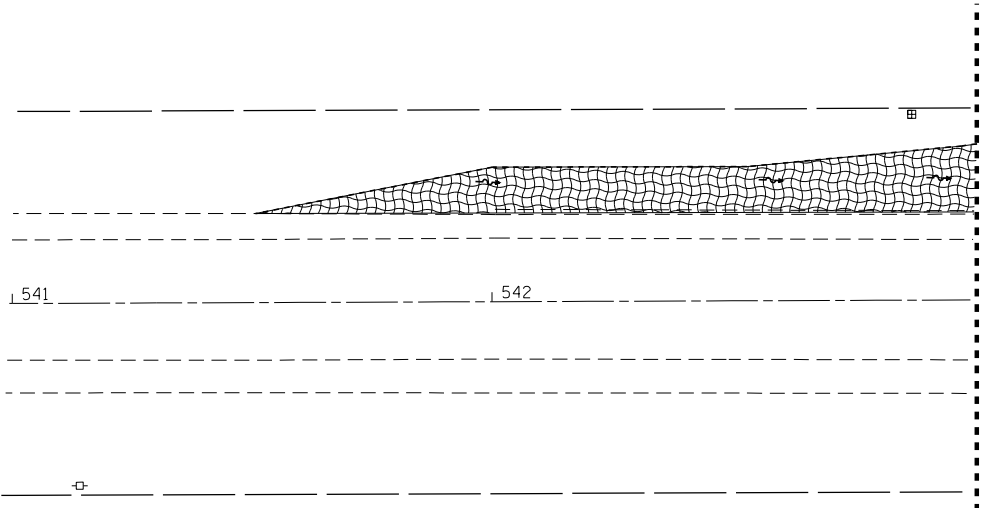
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	117 BR-2	IROQUOIS	36	14
			CONTRACT NO. 66B51	
ILLINOIS FED. AID PROJECT				

MATCH LINE STA. 543 + 00

MATCH LINE STA. 549 + 00

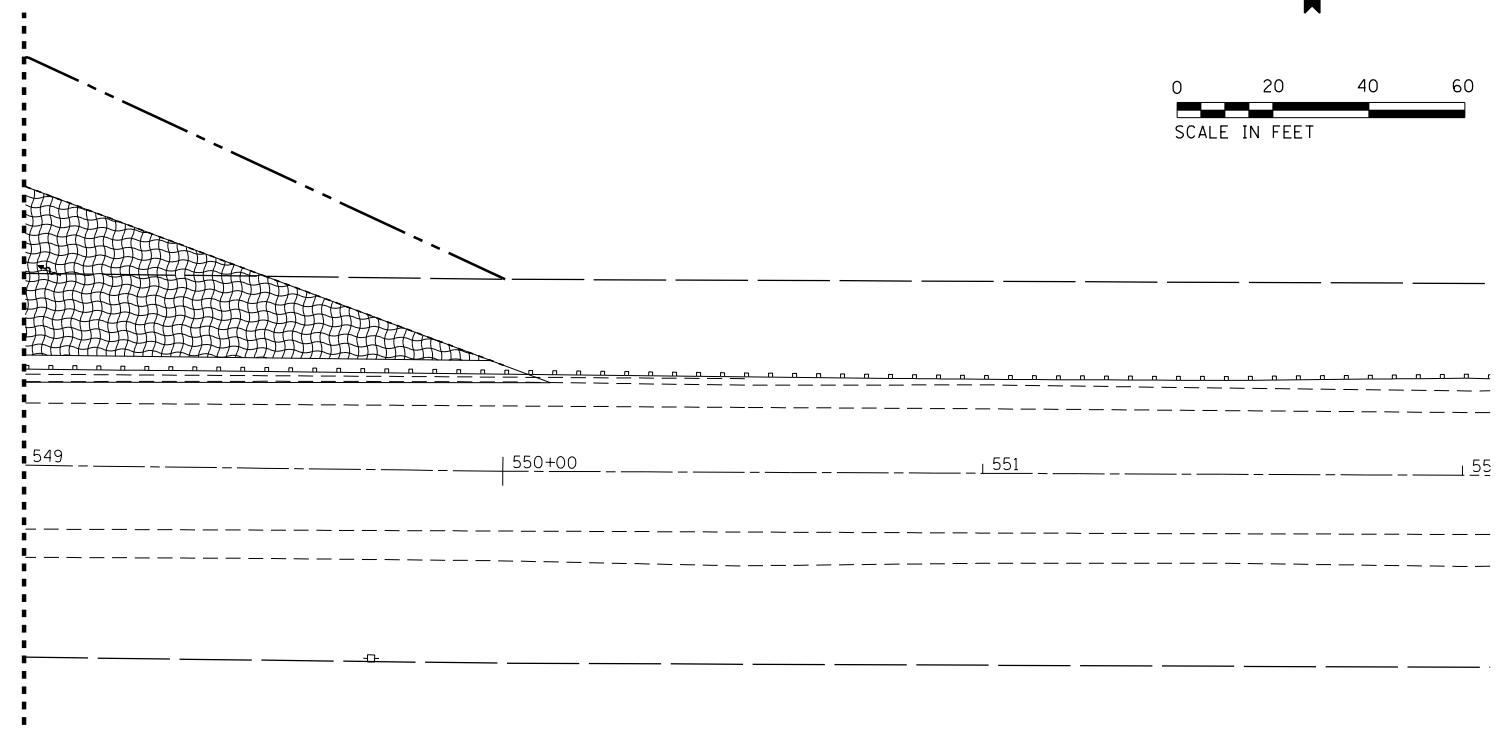


- PROPOSED DITCH
- END SECTION
- STONE RIPRAP, A4
- EROSION CONTROL BLANKET AND PERMANENT SEEDING CLASS 3 (TEMPORARY EROSION CONTROL SEEDING AS NEEDED)
- INLET AND PIPE PROTECTION
- PERIMETER EROSION BARRIER
- TEMPORARY DITCH CHECK



MATCH LINE STA. 543 + 00

MATCH LINE STA. 549 + 00



FILE NAME =	USER NAME = carpenterdj	DESIGNED -	REVISED -
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Default	PLOT SCALE = 40.0000' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/12/2015	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EROSION AND SEDIMENT CONTROL

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	117 BR-2	IROQUOIS	36	15
CONTRACT NO. 66B51				
ILLINOIS FED. AID PROJECT				

SEC. 19, T. 28 N., R. 11 E., 3RD P.M.



PARCEL 3XL0001

SALLY EDWARDS WIDHOLM, TRUSTEE et al.

TOTAL HOLDING = 125.400 AC. ±
 TOTAL R.O.W. REQUIRED = 0.520 AC. ±
 AREA IN EX. R.O.W. = 0.164 AC.
 NET R.O.W. REQUIRED = 0.356 AC. ±
 REMAINDER = 124.880 AC. ±

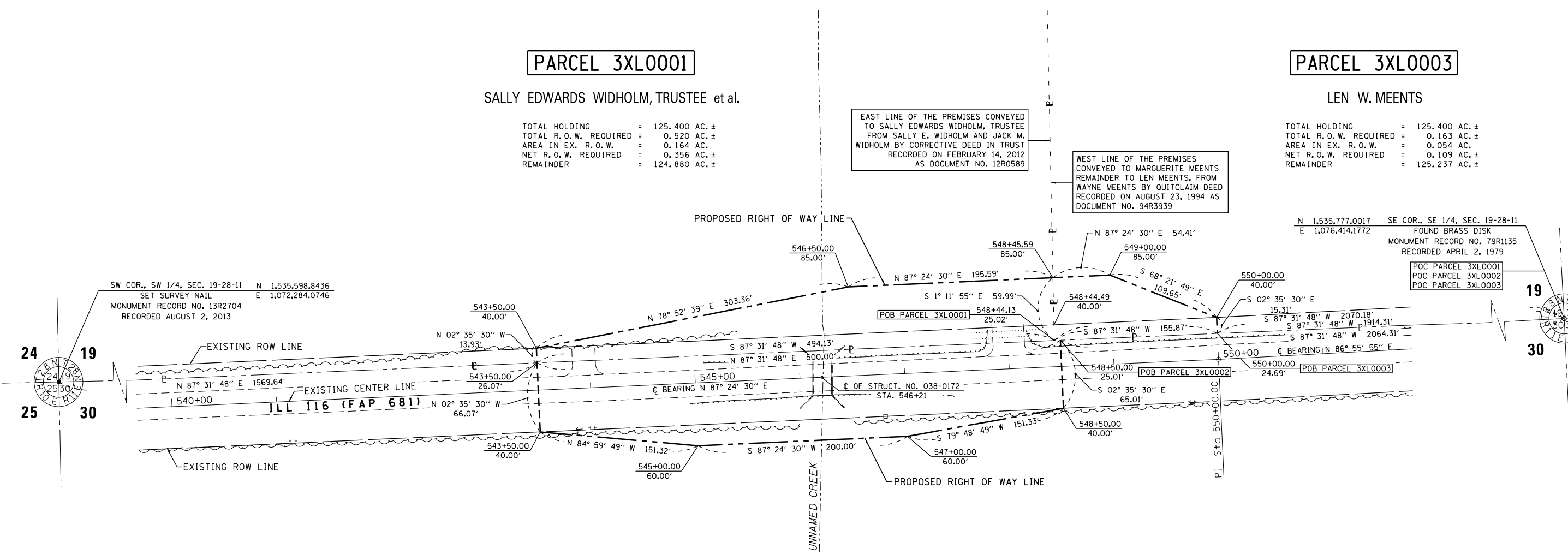
PARCEL 3XL0003

LEN W. MEENTS

TOTAL HOLDING = 125.400 AC. ±
 TOTAL R.O.W. REQUIRED = 0.163 AC. ±
 AREA IN EX. R.O.W. = 0.054 AC.
 NET R.O.W. REQUIRED = 0.109 AC. ±
 REMAINDER = 125.237 AC. ±

EAST LINE OF THE PREMISES CONVEYED TO SALLY EDWARDS WIDHOLM, TRUSTEE FROM SALLY E. WIDHOLM AND JACK M. WIDHOLM BY CORRECTIVE DEED IN TRUST RECORDED ON FEBRUARY 14, 2012 AS DOCUMENT NO. 12R0589

WEST LINE OF THE PREMISES CONVEYED TO MARGUERITE MEENTS REMAINDER TO LEN MEENTS, FROM WAYNE MEENTS BY QUITCLAIM DEED RECORDED ON AUGUST 23, 1994 AS DOCUMENT NO. 94R3939



PARCEL 3XL0002

MELVIN C. JANSSEN, TRUSTEE, et al

TOTAL HOLDING = 83.490 AC. ±
 TOTAL R.O.W. REQUIRED = 0.913 AC. ±
 AREA IN EX. R.O.W. = 0.752 AC.
 NET R.O.W. REQUIRED = 0.161 AC. ±
 REMAINDER = 82.577 AC. ±

SURVEYOR'S STATEMENT

I, CURT A. BENDER, HEREBY CERTIFY THAT I AM A PROFESSIONAL LAND SURVEYOR OF THE STATE OF ILLINOIS, THAT THE SURVEY OF F.A.P. 681 (IL ROUTE 116) WAS MADE BY WILLETT HOFMANN & ASSOCIATES, INC. UNDER MY DIRECTION, AT THE REQUEST OF THE ILLINOIS DEPARTMENT OF TRANSPORTATION, DISTRICT 3, AND THAT THE SURVEY IS TRUE AND COMPLETE AS SHOWN TO THE BEST OF MY KNOWLEDGE AND BELIEF, THAT ALL MONUMENTS AND MARKS ARE OF THE CHARACTER AND OCCUPY THE POSITION SHOWN THEREON, AND ARE SUFFICIENT TO ENABLE THE SURVEY TO BE RETRACED. THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY.

CURT A. BENDER, ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 3688 (EXPIRES NOVEMBER 2014)

SEC. 30, T. 28 N., R. 11 E., 3RD P.M.



NOTE: FOR THE PURPOSE OF THIS PLAT, BEARINGS AND DISTANCES ARE BASED UPON THE ILLINOIS STATE PLANE COORDINATE SYSTEM, (GRID) EAST ZONE, (NAD-83, 2007 ADJ.). ALL AREAS ARE BASED ON GROUND MEASUREMENTS GRID TO GROUND COMBINED FACTOR = 1.00004705 (INVERSE OF COMBINED FACTOR)

S:\PROJECTS\2013\1024D13.D3.W010\SURVEY\0366B51-ILL116\0366B51-SHT-R0WPLAN.DGN calculations by J.R. drawn by J.R.



DESIGNED -	REVISED NAME CHANGE (2) MKB 02/17/15
DRAWN -	REVISED NAME CHANGE (2) MKB 06/12/15
CHECKED -	REVISED -
DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RIGHT OF WAY PLANS	
PROJECT	JOB NO. R93-006-13
SCALE: 1" = 50'	SHEET NO. 1 OF 1 SHEET
STA. 543+50	TO STA. 548+50

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	117 BR-2	IROQUOIS	36	16
ILLINOIS ROUTE 116		CONTRACT NO. 66B51		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

Benchmark: Chiseled "o" on NE wingwall of S.N. 038-0172; Sta. 546+30, 16' L., Elev. 655.86
 Existing Structure: S.N. 038-0172 built in 1971 as S.B.I. Route 116, Section 117BR-1 at Sta. 546+23.50. A one span precast concrete deck beam bridge, 20'-0" back-to-back abutments and 33'-9" out-to-out on pile supported closed abutments. The existing structure is to be removed and replaced. Traffic will be maintained using a detour route during construction.

INDEX OF SHEETS

- 1 General Plan & Elevation
- 2 General Data and Waterproofing Limits
- 3-4 Box Culvert End Section Details
- 5-6 Soil Boring Logs

DESIGN SPECIFICATIONS

2012 AASHTO LRFD Bridge Design Specifications, 6th Edition
 ASTM C1577

DESIGN STRESSES

FIELD UNITS

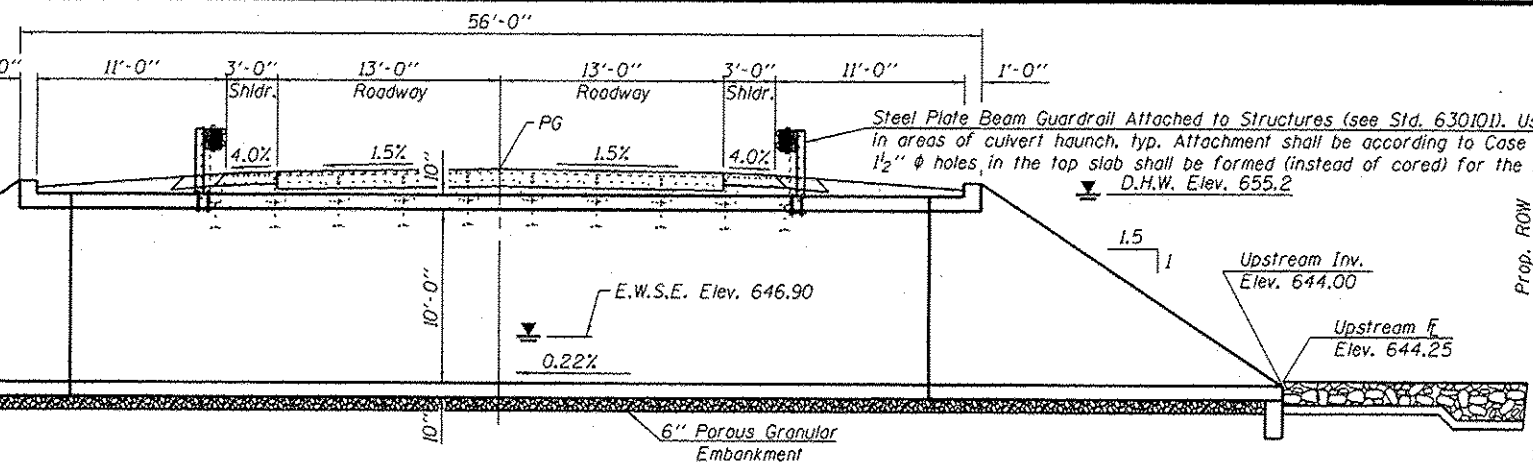
$f'_c = 3,500$ psi
 $f_y = 60,000$ psi (Reinforcement)

PRECAST UNITS

$f'_c = 5,000$ psi
 $f_y = 65,000$ psi (Welded wire fabric)

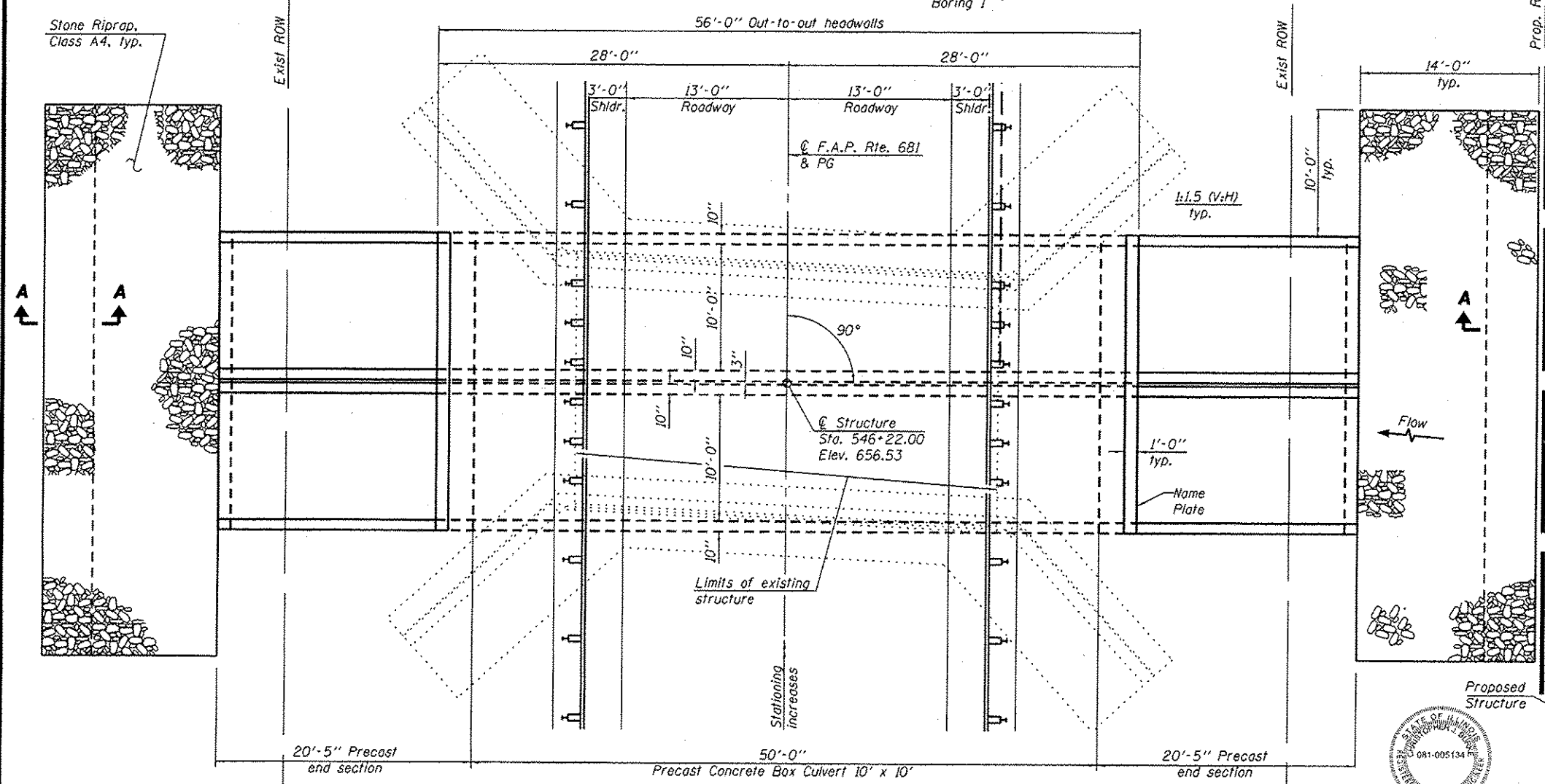
LOADING HL-93

Allow 50#/sq. ft. for future wearing surface.

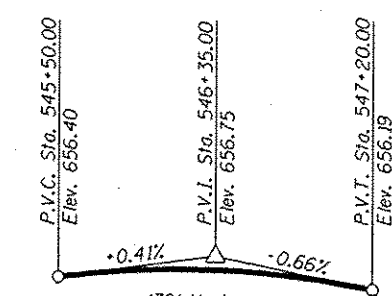


LONGITUDINAL SECTION

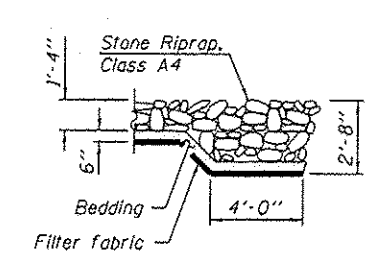
The temporary steel beams under the existing concrete beams shall be salvaged and delivered to a District 3 maintenance yard. Contact Mr. Tom Hufnagel at (815)-698-2223. Deliver to Ashkum Maintenance Yard. The cost of removing the beams and delivering them to the maintenance yard shall be included in the cost of Removal of Existing Structures No. 1.



PLAN



PROFILE GRADE
 (Along C.F.A.P. Rte. 681)



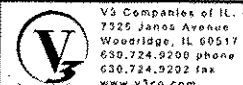
SECTION A-A

GENERAL PLAN & ELEVATION
IL. RTE. 116 OVER UNNAMED
DRAINAGE DITCH
F.A.P. RTE. 681 - SEC. 117BR-2
IROUOIS COUNTY
STATION 546+22.00
STRUCTURE NO. 038-2027



Christopher J. Burke
 Exp. 11-30-2016
 Date: 8-10-2015

LOCATION SKETCH



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

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SHEET NO. 1 OF 6 SHEETS

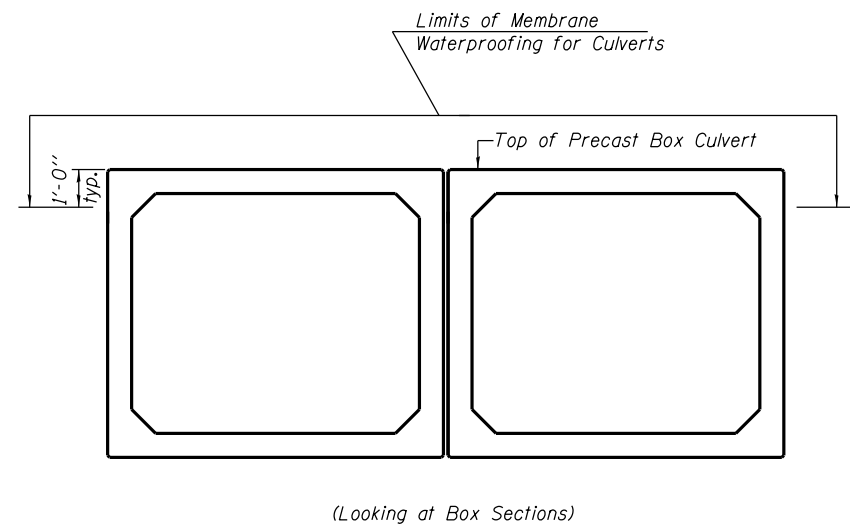
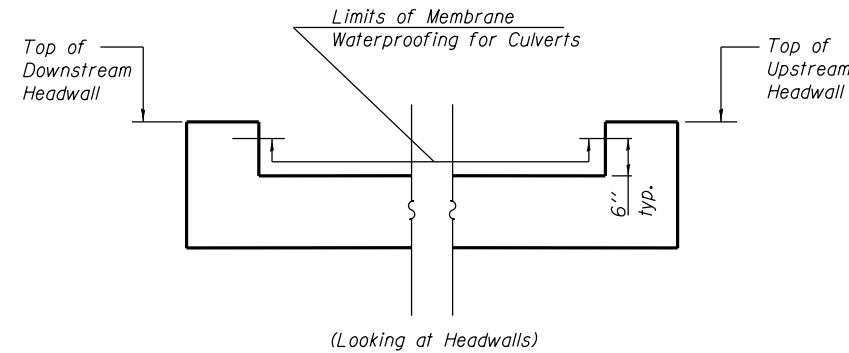
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	117BR-2	IROUOIS	36	17
				CONTRACT NO. 66B51
ILLINOIS FED. AID PROJECT				

CULVERT CONSTRUCTION SEQUENCE

1. Remove existing structure.
2. Place precast toewalls.
3. Prepare bed.
4. Place one precast concrete end section.
5. Place precast box culvert sections.
6. Place remaining precast concrete end section.
7. Backfill culvert and wings.

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Removal of Existing Structures No. 1	Each	1
Name Plates	Each	1
Box Culvert End Sections, Culvert No. 1	Each	2
Precast Concrete Box Culvert 10' x 10'	Foot	100.0
Stone Riprap, Class A4	Sq. yd.	136
Filter Fabric	Sq. yd.	136
Membrane Waterproofing for Culverts	Sq. yd.	156.3



MEMBRANE WATERPROOFING FOR CULVERTS LIMITS

Note: Waterproofing Membrane for Culverts shall cover top of the top slab, top one foot of side walls, and 6 inches up inside face of the headwalls.

WATERWAY INFORMATION

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Nat. H.W.E.	Head - Ft.		Headwater El.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
Proposed Overtopping	8	440	161	200	654.8	0.2	0.1	655.0	654.9
Existing Overtopping	8	450	161	200	654.8	0.2	0.0	655.0	654.8
	10	484	161	200	654.9	0.1	0.1	655.0	655.0
Design	50	767	161	200	655.2	0.2	0.1	655.5	655.4
Base	100	892	161	200	655.4	0.2	0.1	655.6	655.5
Max. Calc.	500	1190	161	200	655.5	0.1	0.1	655.7	655.6

Existing Low Grade Elev. 654.53 @ Sta. 539+00
 Proposed Low Grade Elev. 654.53 @ Sta. 539+00
 Drainage Area = 3.8 sq. mi.

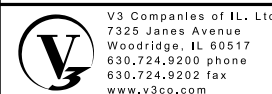
Existing 10-year velocity = 2.8 ft./sec.
 Proposed 10-year velocity = 1.9 ft./sec.

STATION 546+22.00
 BUILT 201 BY
 STATE OF ILLINOIS
 F.A.P. RTE. 681 SEC. 117BR-2
 LOADING HL-93
 STRUCTURE NO. 038-2027

NAME PLATE
 See Std. 515001

GENERAL NOTES

- Layout of slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
- Excavation behind existing abutment walls shall be performed to balance front and back soil pressure before removing the existing superstructure.
- The design fill height for this structure is maximum 1.8 feet and minimum 1.45 feet at edge of shoulder.
- The precast concrete box culvert sections shall conform to the requirements of ASTM C1577.
- The joints between precast box sections shall be sealed, all voids filled with a mastic joint sealer. In addition, the joints shall be externally sealed on all four sides with a 13 inch wide external sealing band. The seal shall be centered over the joint, secured in place and protected during the backfilling process.
- Due to low fill, provide membrane waterproofing system over the top of the culvert.



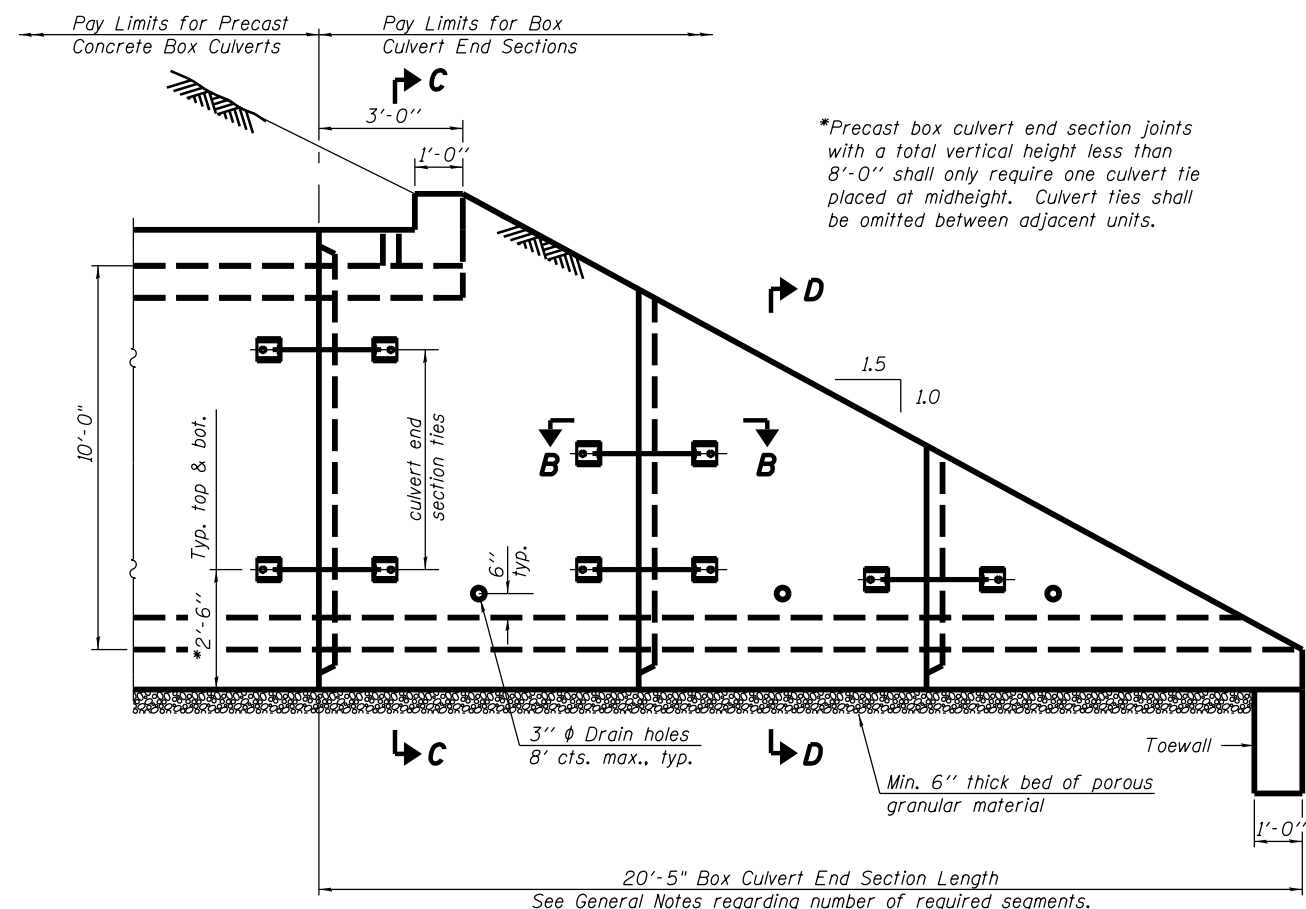
V3 Companies of IL, Ltd.
 7325 James Avenue
 Woodridge, IL 60517
 830.724.9200 phone
 830.724.9202 fax
 www.v3co.com

USER NAME =	DESIGNED - CJB	REVISED	---
	CHECKED - CCF	REVISED	---
PLOT SCALE =	DRAWN - CCF	REVISED	---
PLOT DATE =	CHECKED - CJB	REVISED	---

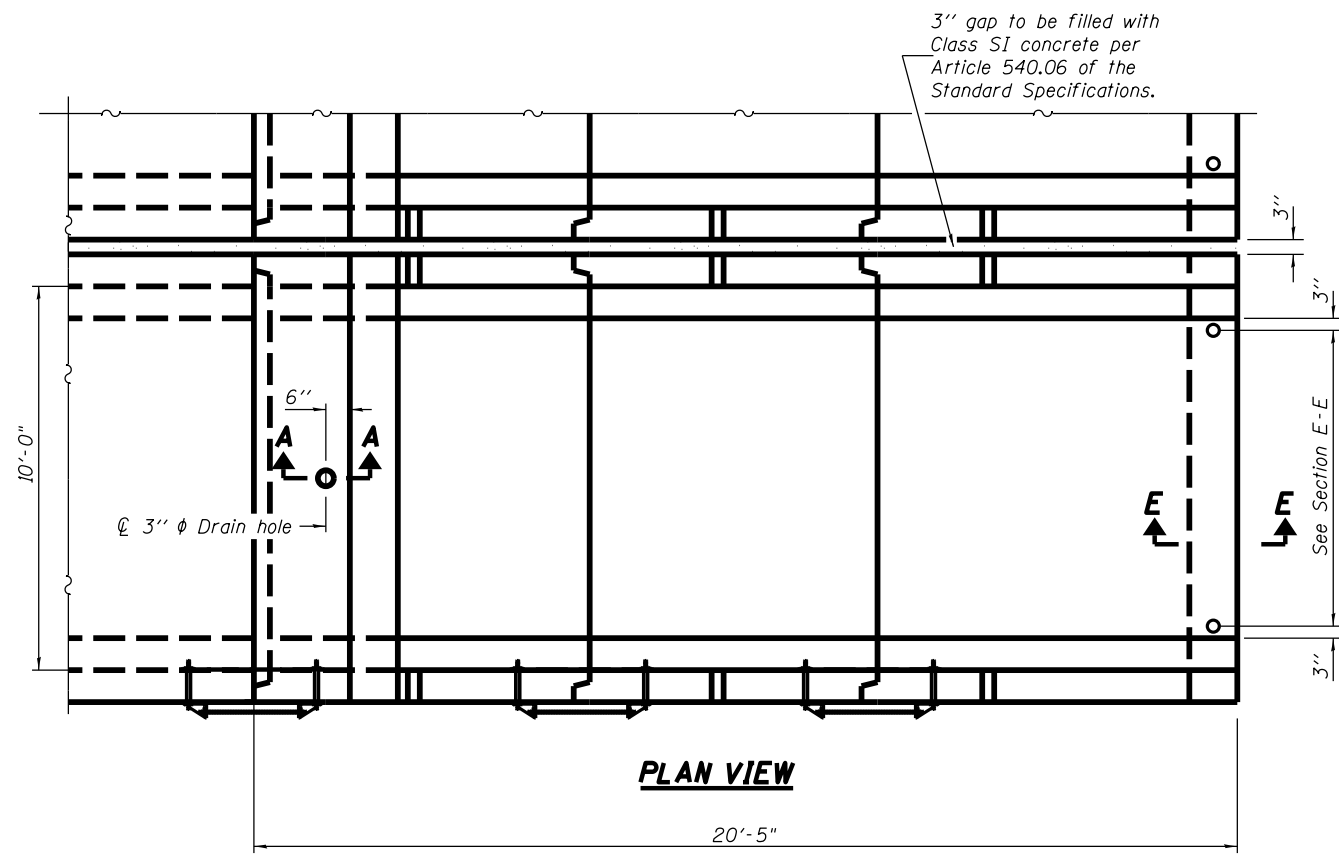
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

GENERAL DATA AND WATERPROOFING LIMITS
 STRUCTURE NO. 038-2027
 SHEET NO. 2 OF 6 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	117BR-2	IROQUOIS	36	18
CONTRACT NO. 66851				
ILLINOIS FED. AID PROJECT				

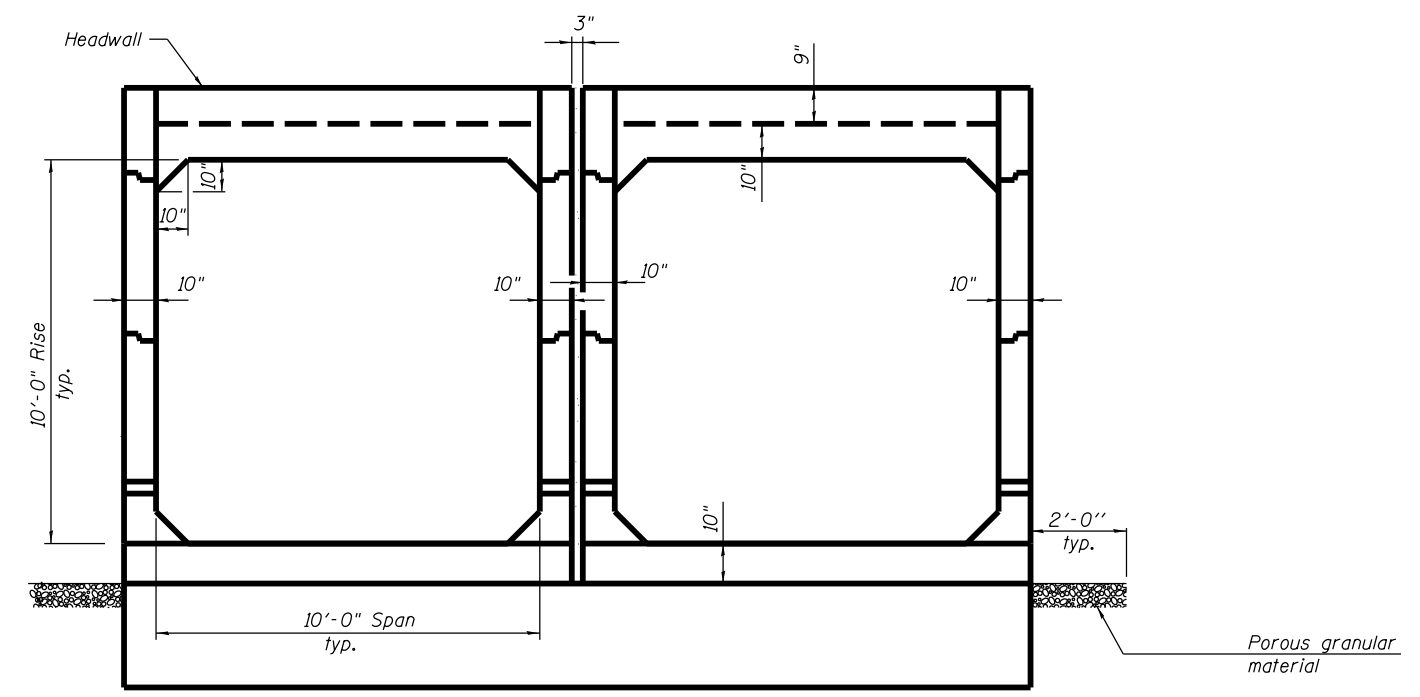


ELEVATION

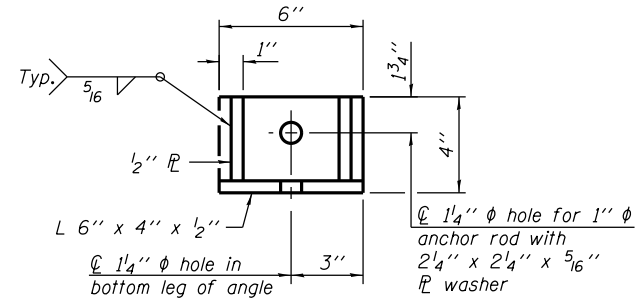


PLAN VIEW

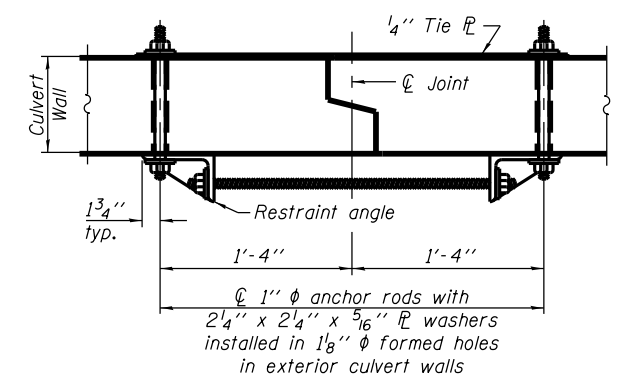
*Precast box culvert end section joints with a total vertical height less than 8'-0" shall only require one culvert tie placed at midheight. Culvert ties shall be omitted between adjacent units.



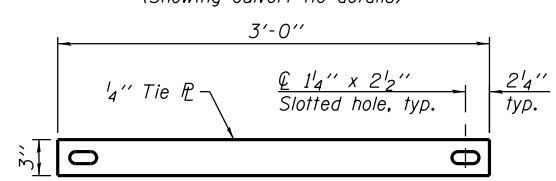
END VIEW



RESTRAINT ANGLE DETAIL



SECTION B-B
(Showing culvert tie details)



TIE PLATE DETAIL

GENERAL NOTES

The box culvert end section shall be constructed according to the requirements of Section 540 of the Standard Specifications except as modified herein. This work will be measured for payment as each, with each end of each culvert being one each. End sections will be paid for at the contract unit price per each for Box Culvert End Sections of the culvert number specified.

Typical box section dimensions, materials, and reinforcement details for Box Culvert End Sections shall be according to the requirements of ASTM C 1577 as required for the design of the portion of the culvert within the limits of Precast Concrete Box Culverts except as modified herein.

Number of segments shown in Elevation is for example only. Length and number of precast box sections required to construct the Box Culvert End Sections shall be determined by the Contractor.

1" ϕ anchor rods for the culvert ties shall conform to the requirements of ASTM F 1554, Grade 105. Structural steel for tie plate and restraint angle shall conform to the requirements of Article 1006.04 of the Standard Specifications. All components of the culvert tie detail shall be galvanized according to the requirements of AASHTO M 111 or M 232 as applicable. 2 1/4" x 2 1/4" x 5/16" plate washers shall be provided under each nut required for the anchor rods. Anchor rods connecting precast sections shall be brought to a snug tight condition followed by an additional 1/2 turn on one of the nuts for anchor rods installed in the walls. Match marks shall be provided on the bolt and nut to verify relative rotation between the bolt and the nut. Holes in the walls for the culvert tie assembly may be drilled using core bits in lieu of using formed holes.

All costs associated with furnishing and installing or constructing the toewall and culvert ties will not be measured for payment but shall be included in the contract unit price for Box Culvert End Sections of the culvert number specified.

Reinforcement bars designated (E) shall be epoxy coated.

Drain holes shall conform to the requirements of Article 503.11 of the Standard Specifications unless noted otherwise.

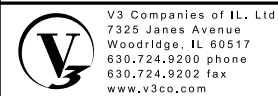
Nonwoven geotextile fabric shall conform to the requirements of Article 1080.01. The minimum weight of the fabric shall be 6 oz. / sq. yd.

See sheet 4 of 6 for Section A-A, C-C, D-D and E-E.

BILL OF MATERIAL

Item	Unit	Total
Box Culvert End Sections, Culvert No. 1	Each	2

(Sheet 1 of 2)

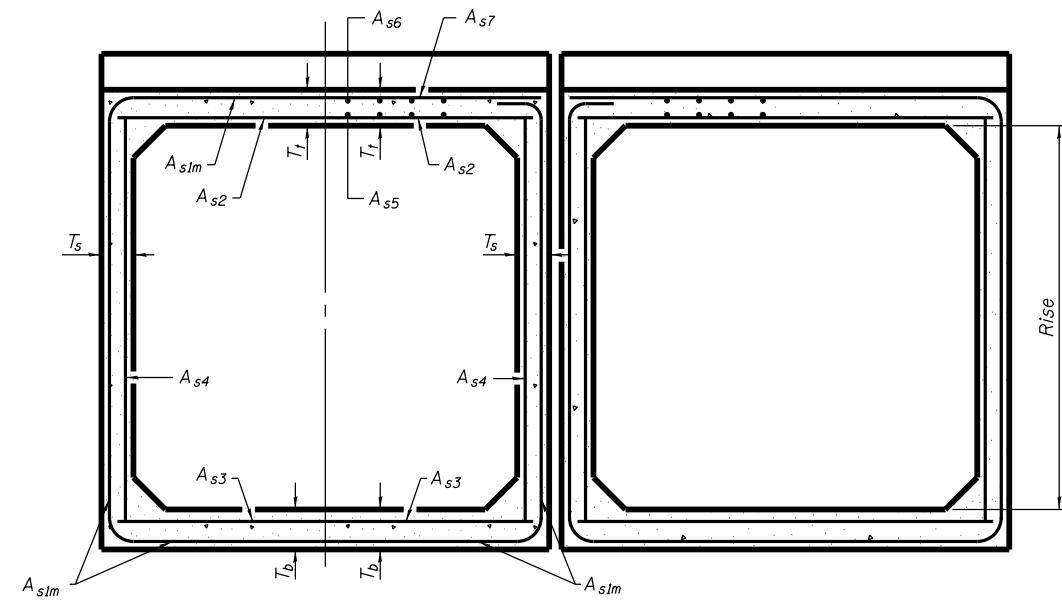


USER NAME =	DESIGNED - CJB	REVISOR
PLOT SCALE =	CHECKED - CCF	REVISION
PLOT DATE =	DRAWN - CCF	REVISION
	CHECKED - CJB	REVISION

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BOX CULVERT END SECTION DETAILS
STRUCTURE NO. 038-2027
SHEET NO. 3 OF 6 SHEETS

F.A.P. RTE. 681	SECTION 117BR-2	COUNTY IROQUOIS	TOTAL SHEETS 36	SHEET NO. 19
CONTRACT NO. 66B51				
ILLINOIS FED. AID PROJECT				



(Design Earth Cover < 2 ft.) (Design Earth Cover ≥ 2 ft.)

SECTION C-C

As1m REINFORCEMENT (in. ² /ft)												
Rise (ft)	2	3	4	5	6	7	8	9	10	11	12	
4	0.19	0.17										
5	0.26	0.21	0.18									
6	0.22	0.26	0.23	0.22								
7	0.25	0.33	0.59	0.27	0.28							
8	0.40	0.35	0.43	0.39	0.36	0.34	0.40					
9	0.44	0.39	0.35	0.43	0.40	0.37	0.36	0.48				
10	0.48	0.42	0.38	0.47	0.44	0.41	0.38	0.42	0.56			
11	0.52	0.45	0.54	0.46	0.46	0.41	0.41	0.42	0.50	0.65		
12	0.55	0.49	0.58	0.50	0.50	0.45	0.45	0.46	0.50	0.65	0.75	

(As1m reinforcement based upon welded wire fabric conforming to AASHTO M 55 or M 221).

Notes:

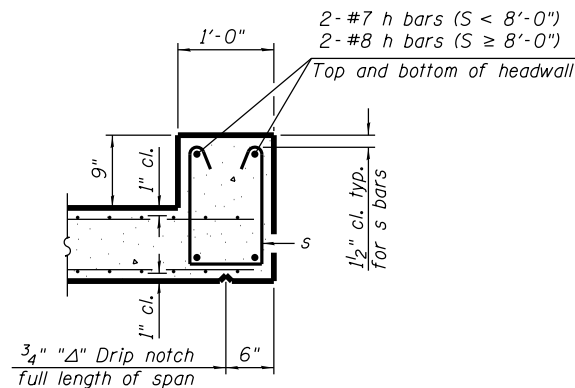
Alternate Section D-D is provided to allow the Contractor the option of casting the bottom slab of the end section first followed by construction of the sidewalls using conventional forming methods. Shop drawings that detail slab thickness and reinforcement layout shall be submitted to the Engineer for review and approval when using Alternate Section D-D.

The size and spacing of the v2(E) bars shall provide a minimum reinforcement area along each face of the walls (in.²/ft.) equal to 1.10*(As1m). v2(E) bars may consist of #3 thru #6 size reinforcement bars and the longitudinal spacing shall not exceed the lesser of the wall thickness or 8 inches.

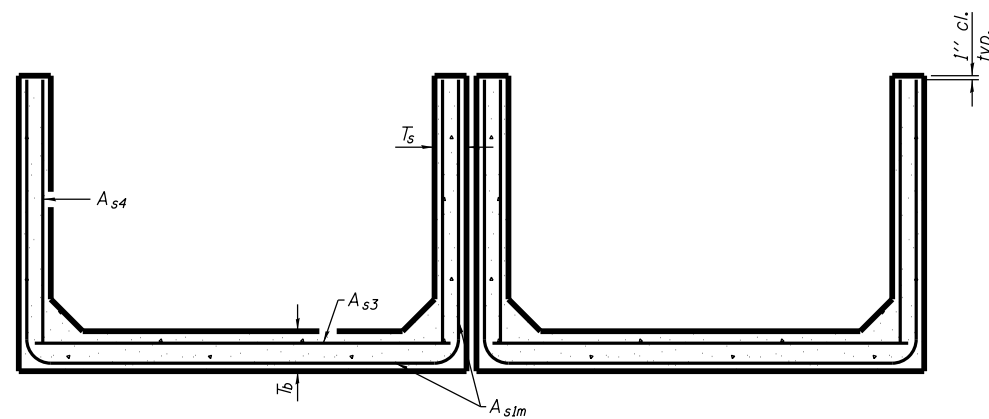
Bonded construction joints shall be prepared according to Article 503.09 of the Standard Specifications.

1 DIMENSION

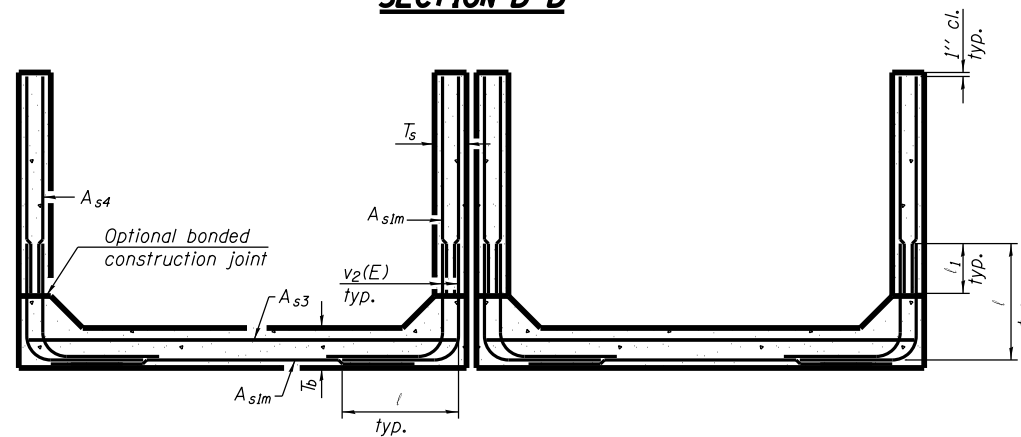
- #3 bar = 2'-0"
- #4 bar = 2'-8"
- #5 bar = 3'-4"
- #6 bar = 3'-11"



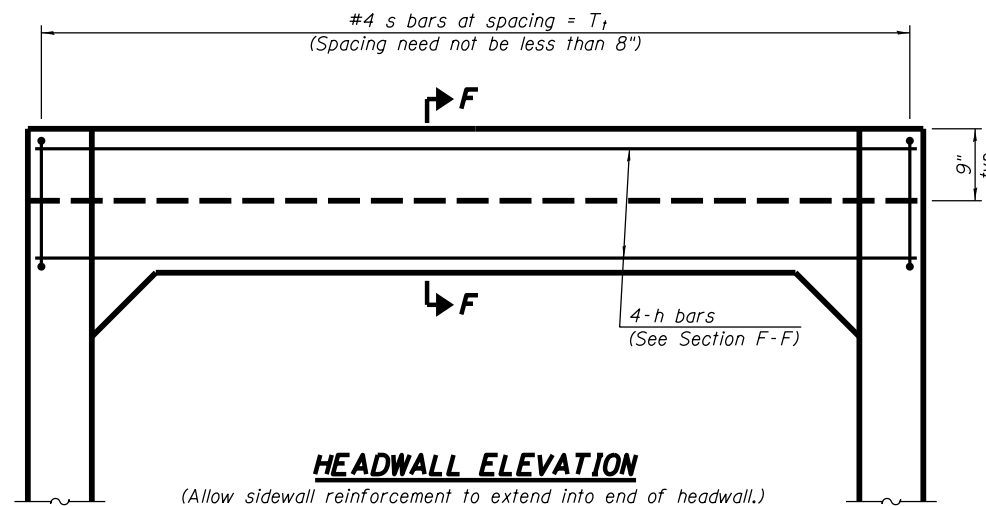
SECTION F-F



SECTION D-D

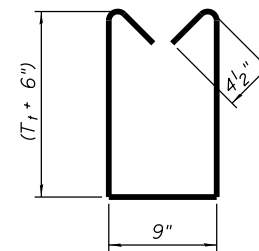


ALTERNATE SECTION D-D

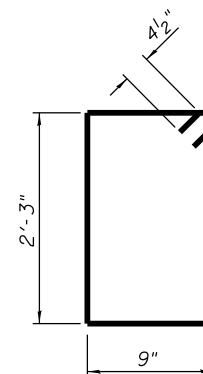


HEADWALL ELEVATION

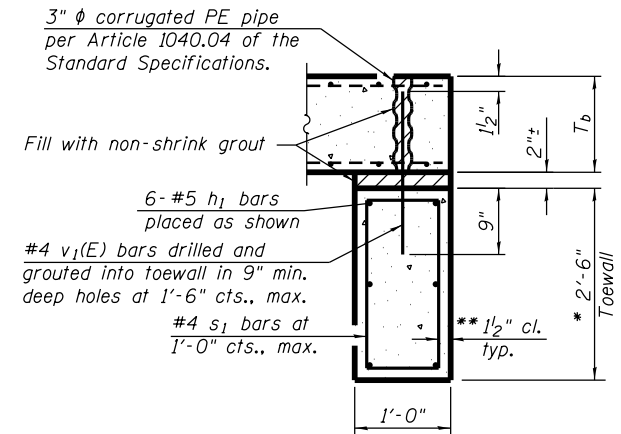
(Allow sidewall reinforcement to extend into end of headwall.)



BAR S



BAR S1



SECTION E-E

TOEWALL CONSTRUCTION SEQUENCE

1. Perform excavation and construct toewall.
2. Backfill according to the applicable paragraphs of Article 502.10 of the Standard Specifications and place bedding for precast box culvert end sections.
3. Set precast box culvert end section.
4. Drill and epoxy grout reinforcement in toewall in accordance with Section 584 of the Standard Specifications.
5. Pressure grout voids using non-shrink grout conforming to Section 1024 of the Standard Specifications.

* The Contractor may furnish a precast or cast-in-place toewall. The Contractor shall be responsible for the strength and stability of the precast toewall during handling. Additional lifting points may be required depending upon the length of the toewall or the Contractor may need to modify the design of the toewall for the proposed handling method.

** If soil conditions permit, the sides of the toewall may be poured directly against the soil. The clear cover on the sides of the toewall shall be increased to 3" by increasing the thickness of the toewall.

12" x 12" x 6" block of CA5, CA7, or CA11 coarse aggregate placed over drain opening. Block of aggregate shall be completely wrapped in nonwoven geotextile fabric.

Provide a double layer of 12" x 12" nonwoven geotextile fabric centered over the drain hole. Fabric shall be sealed to the concrete with mastic.

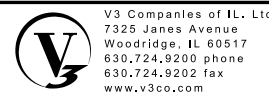
3" φ PVC drain cast with the concrete (Adjust location to clear reinforcement).

1/2" Square foam blockout around PVC drain (to be removed with formwork)

SECTION A-A

(All costs associated with furnishing and constructing the above drain detail will not be measured for payment but shall be included in the contract unit price for the associated work.)

(Sheet 2 of 2)



USER NAME =	DESIGNED - CJB	REVISIONS
PLOT SCALE =	CHECKED - CCF	REVISIONS
PLOT DATE =	DRAWN - CCF	REVISIONS
	CHECKED - CJB	REVISIONS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BOX CULVERT END SECTION DETAILS
STRUCTURE NO. 038-2027

SHEET NO. 4 OF 6 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	117BR-2	IROQUOIS	36	20
CONTRACT NO. 66B51				

ILLINOIS FED. AID PROJECT



SOIL BORING LOG

ROUTE SBI-116 (IL 116) DESCRIPTION IL 116 over Ross Branch Drainage Ditch, 2.15 miles West of I-57 LOGGED BY W. Pearce
 SECTION 117 BR-1 LOCATION S.E. 1/4 of S.W. 1/4, SEC. 19, TWP. 28N, RNG. 11E
 COUNTY Iroquois DRILLING METHOD Hollow Stem Auger HAMMER TYPE _____

STRUCT. NO. Station	D E P T H	B L O W S	U C S Qu	M O I S T	Surface Water Elev. Stream Bed Elev.	D E P T H	B L O W S	U C S Qu	M O I S T	Groundwater Elev.:	
										First Encounter	Upon Completion
BORING NO. Station Offset Ground Surface Elev.	(ft)	(/6")	(tsf)	(%)	ft	(ft)	(/6")	(tsf)	(%)	ft	ft
Stiff Black/Brown Clay to Clay Till, High in Organics Material						7	B				
		5									
		6	1.4	27.0							
		7	B								
	651.41										
		4									
		5	1.5	27.0							
Stiff Yellow/Brown Clay Till		5	B								
	648.91										
		13									
		17	6.4	21.0							
		20	S								
Hard Brown Clay Till, Stratified											
		10									
		13	6.6	19.0							
		16	B								
	643.91										
Stiff Light Gray Clay Till		6									
		6	Lost								
		8	Sample								
		3									
		5	1.2	30.0							
Very Stiff Brownish Gray Clay Till, Very Slightly Stratified Silt Seams at 40.0'		6	B								
		9									
		7	1.9	28.0							
		7	B								
Stiff Light Gray Clay Till											
		5									
		6	1.3	28.0							
		6	1.3	28.0							

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
 BBS, form 137 (Rev. 8-99)

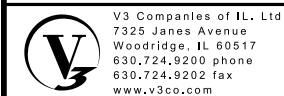


SOIL BORING LOG

ROUTE SBI-116 (IL 116) DESCRIPTION IL 116 over Ross Branch Drainage Ditch, 2.15 miles West of I-57 LOGGED BY W. Pearce
 SECTION 117 BR-1 LOCATION S.E. 1/4 of S.W. 1/4, SEC. 19, TWP. 28N, RNG. 11E
 COUNTY Iroquois DRILLING METHOD Hollow Stem Auger HAMMER TYPE _____

STRUCT. NO. Station	D E P T H	B L O W S	U C S Qu	M O I S T	Surface Water Elev. Stream Bed Elev.	D E P T H	B L O W S	U C S Qu	M O I S T	Groundwater Elev.:	
										First Encounter	Upon Completion
BORING NO. Station Offset Ground Surface Elev.	(ft)	(/6")	(tsf)	(%)	ft	(ft)	(/6")	(tsf)	(%)	ft	ft
Hard Gray Clay Till, Well Stratified		25	B								
	613.91										
		15									
		65	5.8	11.0							
		50	B								
Very Hard Silty Clay Till, Very Dry, Slightly Stratified											
	611.41										
		26									
		53	6.8	16.0							
		70	S								
End of Boring											
		36									
		94	4.2	17.0							
		100/1.5"	S								
	604.41										

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
 BBS, form 137 (Rev. 8-99)



USER NAME =	DESIGNED - CJB	REVISED _____
PLOT SCALE =	CHECKED - CCF	REVISED _____
PLOT DATE =	DRAWN - CCF	REVISED _____
	CHECKED - CJB	REVISED _____

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SOIL BORING LOGS
STRUCTURE NO. 038-2027
SHEET NO. 5 OF 6 SHEETS**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	117BR-2	IROQUOIS	36	21
CONTRACT NO. 66B51				
ILLINOIS FED. AID PROJECT				

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

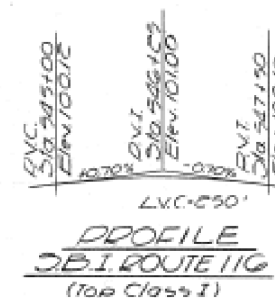
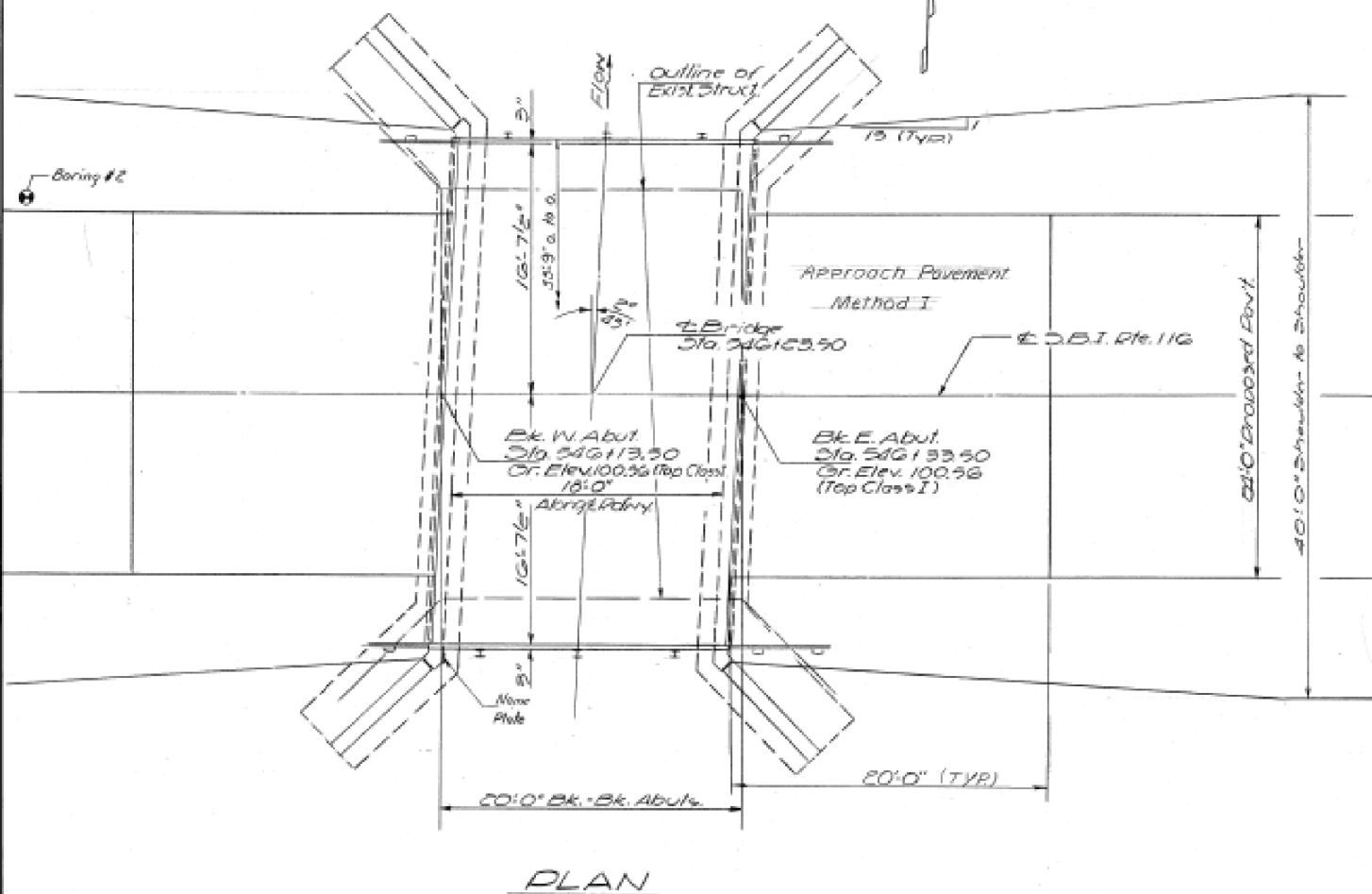
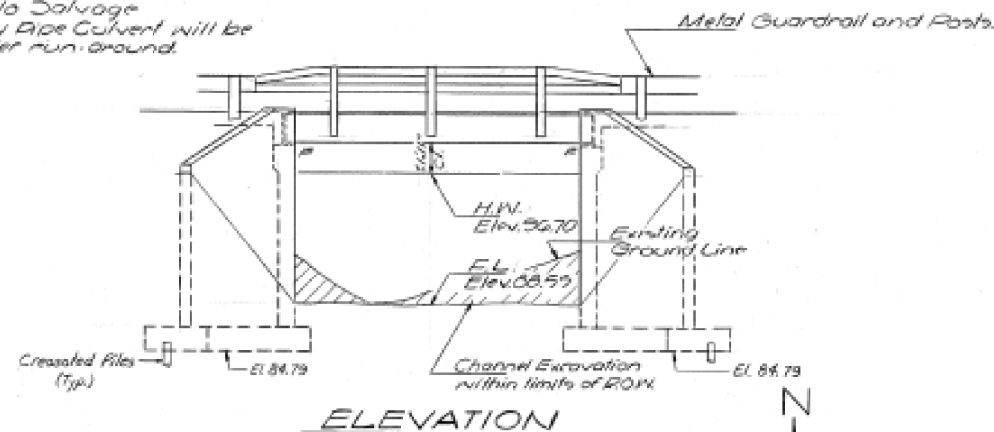
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. /
117 BR-2	117 BR-2	IROQUOIS	104	76	6 SHEETS

GENERAL NOTES

All reinforcement bars shall be lapped 24 dia, unless otherwise shown.
Backfill shall be placed behind the abutments after deck beams have been placed & dowel holes grouted. See Article 502.11 of the Std. Specs.
The contractor shall drive one test pile in a permanent location at the East abutment as directed by the Engineer before ordering the remainder of piles.
The back surfaces of the abutments and wings shall be waterproofed above the tops of the footings.
Nonmetallic water seal used in the wing wall joints shall extend from the top of the facing to within 6" of the top of the headwall.
The cost of excavation for the structure shall be incidental to the contract.

FOR INFORMATION ONLY

B.M. 45A 10" Top D.E. wingwall
14' C' Bl. Sta. 546+33.9 Elev. 100.00
Existing Structure Built 1959, as D.A. 3, Sec. 117 BR-2
Sta. 546+24, RC Slab, RC Abutts. to be removed
by Bridge Contractor before construction
begins. No Salvage
Temporary Pipe Culvert will be
used under run-around.



STATION 546+23.50
BUILT 19 BY
STATE OF ILLINOIS
SBI RT. 116 SEC. 117 BR-1
LOADING HS20

NAME PLATE
See Std. 2113-1

TOTAL BILL OF MATERIAL

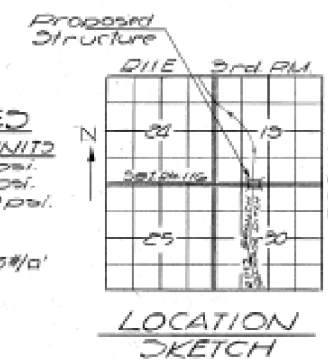
Item	Unit	Super	Sub	Total
Channel Excavation	Cu. Yds.			110
Class A Concrete	Cu. Yds.		137.6	137.6
Precast Concrete Bridge Slab	Sq. Ft.	658		658
Steel Railing, Type N	Lin. Ft.	45		45
Reinforcement Bars	Lbs.		11080	11080
Removal of Existing Structures	Cu. Yds.			1
Coal Tar Interlayer Protective Coat	Sq. Yds.	77		77
Bituminous Conc. Surface Course, Class I	Tons	6		6
Crossed Piles 20.1 to 30 Feet	Lin. Ft.		1653	1653
Test Piles Timber	Ea.		1	1
Name Plates	Ea.		1	1



DESIGN STRESSED
FIELD UNITS: $f_c=1000$ psi - Sub, $f_s=20,000$ psi - Print, $f_s=20,000$ psi - Strud, $n=10$
PRECAST UNITS: $f_c=4500$ psi, $f_s=1800$ psi, $f_s=20,000$ psi, $n=8$

Allowable Full Wearing Surf. (CS#1)
Design Specifications
1969 AA-310 as applicable

LOADING HS20-44

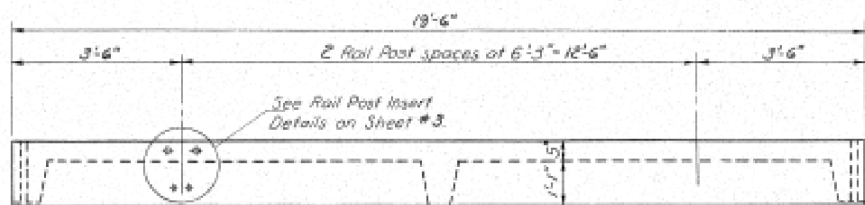


OVER ROSS BRANCH
DRAINAGE DITCH
SBI ROUTE 116
SECTION 117 BR-1
IROQUOIS COUNTY
STATION 546+23.50

DESIGNED J.M. Patel
CHECKED J.B. Redman
DRAWN J.B. Redman
CHECKED J.B. Redman
EXAMINED [Signature]
PASSED [Signature]
APPROVED [Signature]

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

DATE	REVISED	PROJECT	TOTAL SHEETS	SHEET NO.	SHEET NO. 2 OF 6 SHEETS
11/11/10		117 BR-2	104	77	

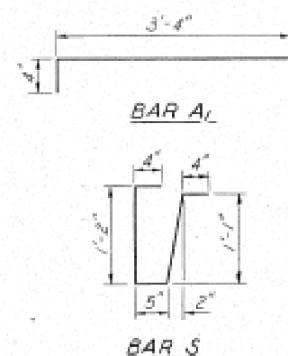


ELEVATION

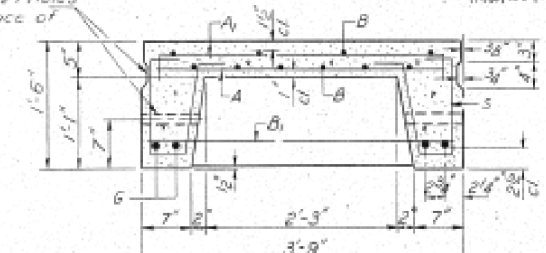
BAR LIST - ONE UNIT

Reinforcement to be cast into slab

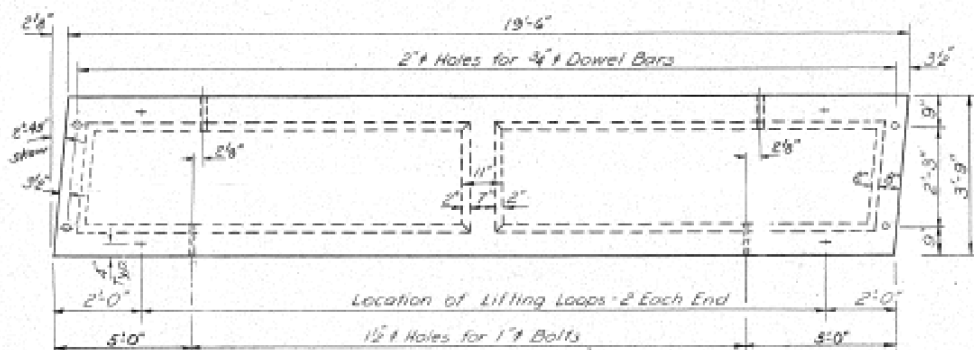
Bar	No	Size	Length	Shape
A	52	#4	3'-3"	
A _v	26	#4	4'-0"	
B	10	#4	19'-3"	
B _v	6	#4	3'-6"	
G	4	#11	19'-3"	
S	42	#3	3'-4"	U



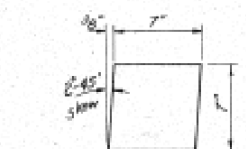
Omit Key & 1/2" Holes on exterior face of outside unit



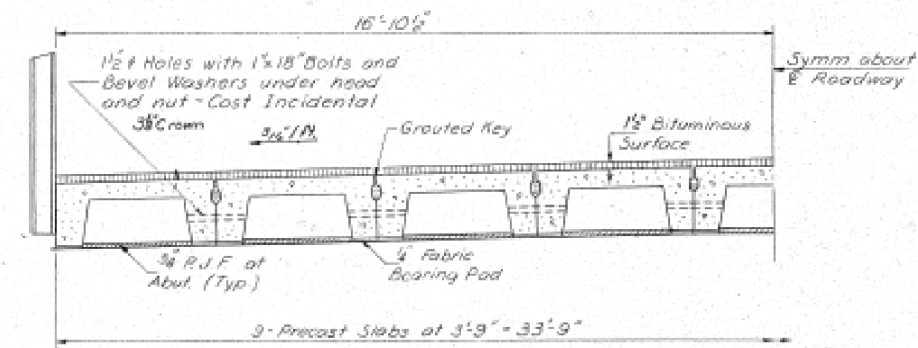
SECTION THRU PRECAST UNIT



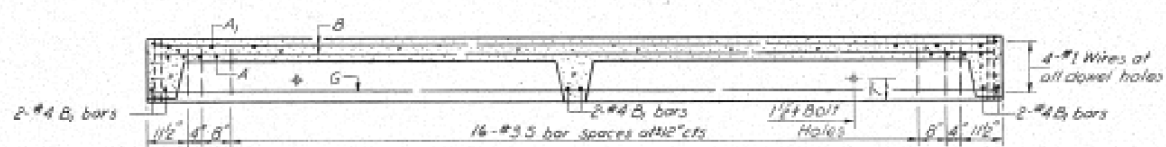
PLAN OF ONE UNIT



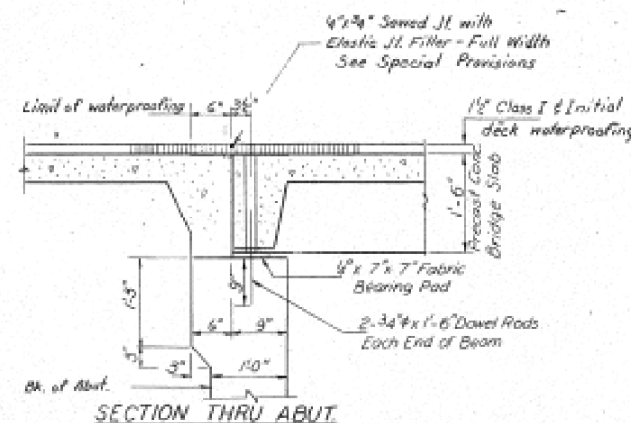
1/2" FABRIC BEARING PAD



HALF CROSS SECTION



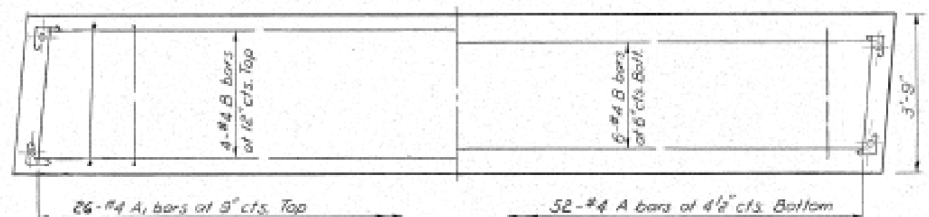
LONGITUDINAL SECTION



SECTION THRU ABUT.

NOTES

Unless otherwise approved by the Engineer, lifting loops shall be 1/2" 6 x 19 class wire rope with fiber core and shall have a minimum ultimate strength of 18,700 lbs. Loops shall be burned off after slab has been erected. Holes shall be drilled and anchor dowels grouted in place. Cost of reinforcement and accessories cast into the slab unit, bearing pads, furnishing, drilling for, placing and grouting anchor dowels is included in Unit bid price for "Precast Concrete Bridge Slab."



SLAB REINFORCEMENT

BILL OF MATERIAL

Item	Unit	Quantity
Precast Concrete Bridge Slab	Sq. Ft.	658

STRESSES

f_c = 4,500 psi
f_t = 1,800 psi
f_s = 20,000 psi
n = 8

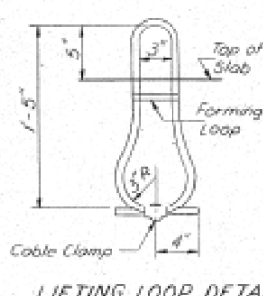
LOADING HS-20

SUPERSTRUCTURE

S.B.I. RT.116 SEC. 117 BR-1
IROQUOIS COUNTY
STA. 346 + 23.50

FOR INFORMATION ONLY

DESIGNED J.M. Patel
CHECKED S.L.
DRAWN A.P. Summer
CHECKED J.B.N.
EXAMINED
PASSED
Richard A. Hollerman



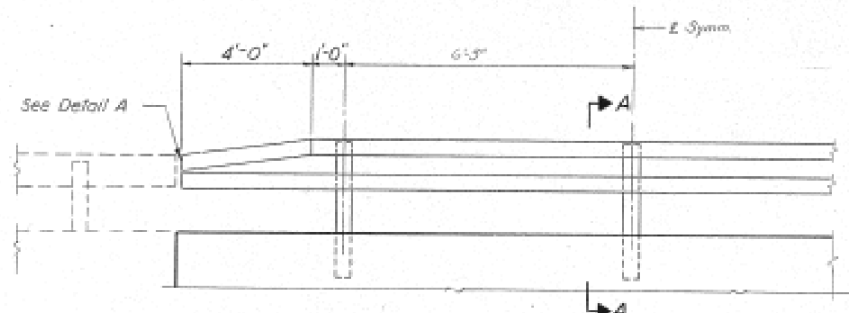
LIFTING LOOP DETAIL

S.R.-3 18" Precast Units 420'lg

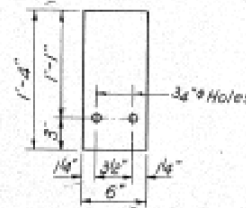
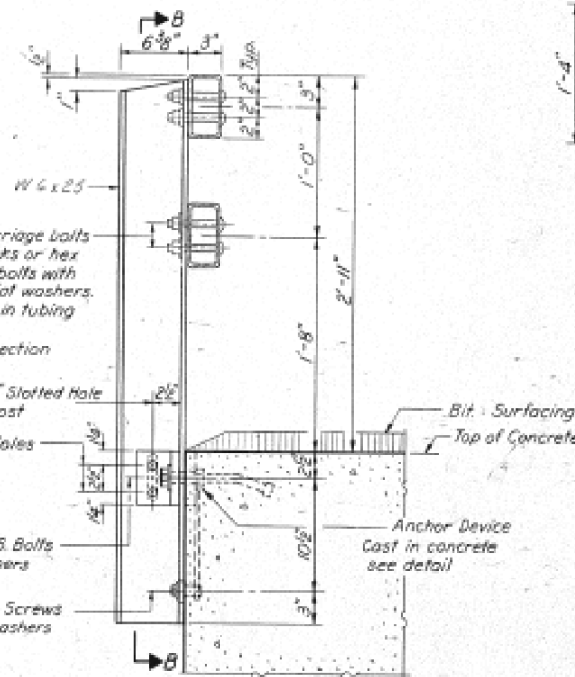
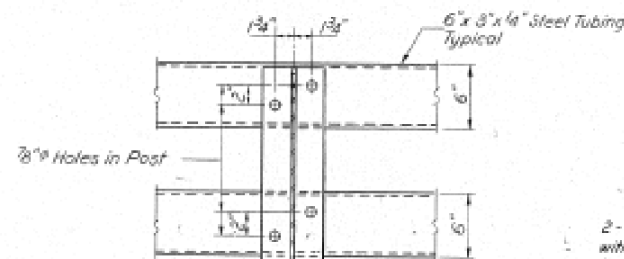
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

DESIGN NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	117 BR-2	IROQUOIS	36	25
CONTRACT NO. 66B51				

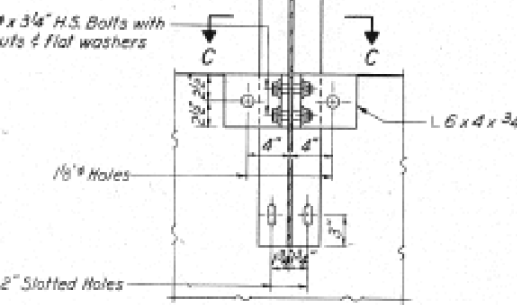
FOR INFORMATION ONLY



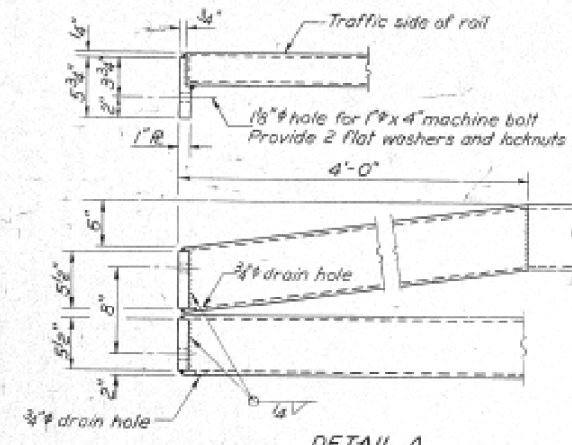
ELEVATION
Showing inside face of railing



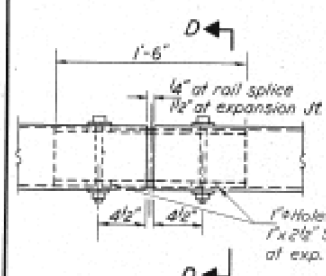
SHIM DETAIL



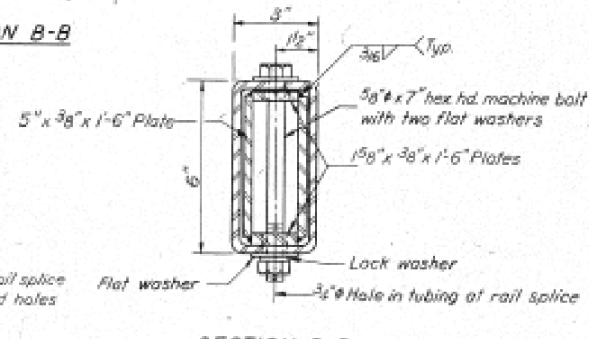
SECTION C-C



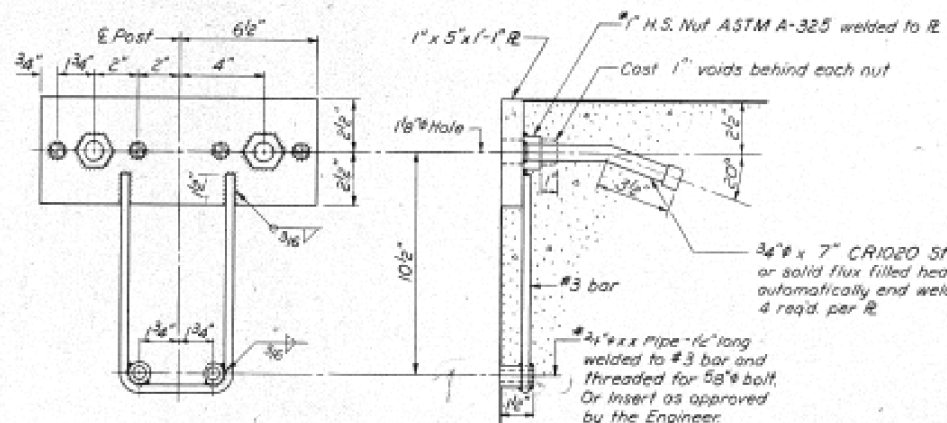
DETAIL A



RAIL SPLICE



SECTION D-D



ANCHOR DEVICE

NOTES

Hollow structural steel tubing shall conform to the requirements of ASTM designation A-501 "Hot Formed Welded and Seamless Carbon Steel Structural Tubing."

All other steel shapes and plates shall conform to the requirements of ASTM designation A-36 except posts shall conform to ASTM A-44.

Bolts, cap screws, and nuts shall conform to the requirement of ASTM designation A-307 except for high strength bolts, nuts and washers noted which shall conform to ASTM designation A-325.

All bolts, nuts, cap screws, washers and lock washers shall be galvanized in accordance with ASTM designation A-153.

All posts, railing, rail splices, anchor devices and angles shall be galvanized after shop fabrication in accordance with ASTM designation A-123 and A-385. Galvanized rail shall not be painted.

Railing shall be in accordance with Section 508 of the Standard Specifications, except as noted, and shall be paid for at the contract unit price per lineal foot for STEEL RAILING, TYPE N

All field drilled holes shall be coated with an approved zinc rich paint before erection.

The lower portion of the post flange in contact with concrete shall receive two coats of asphalt paint conforming to Section 714.08 Type B or place 1/2" fabric bearing pad between the post and concrete.

The 3/4" high strength bolts used to connect the 6 x 4 x 3/4 angles to the post shall be tightened in accordance with Article 710.11 of the Standard Specifications. The 1" high strength bolts connecting the angles to the concrete beam shall be tightened to a snug fit and given an additional 1/8 turn.

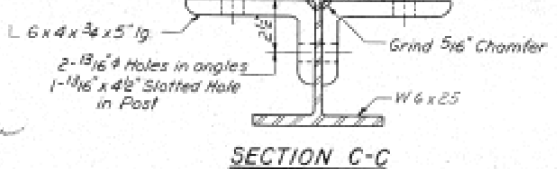
BILL OF MATERIAL

Item	Unit	Quantity
STEEL RAILING, TYPE N	Lin. Ft.	45

**TYPE N
STEEL RAILING**
SEI RT. 116 SEC. 117 BR-1
IROQUOIS COUNTY
STA. 546+23.50

DESIGNED	J.M. Pate
CHECKED	J.S. Ad
DRAWN	J.L. Armstrong
CHECKED	J.S.N.

EXAMINED	11-12-97
PASSED	Richard H. Holterman
APPROVED	Richard H. Holterman

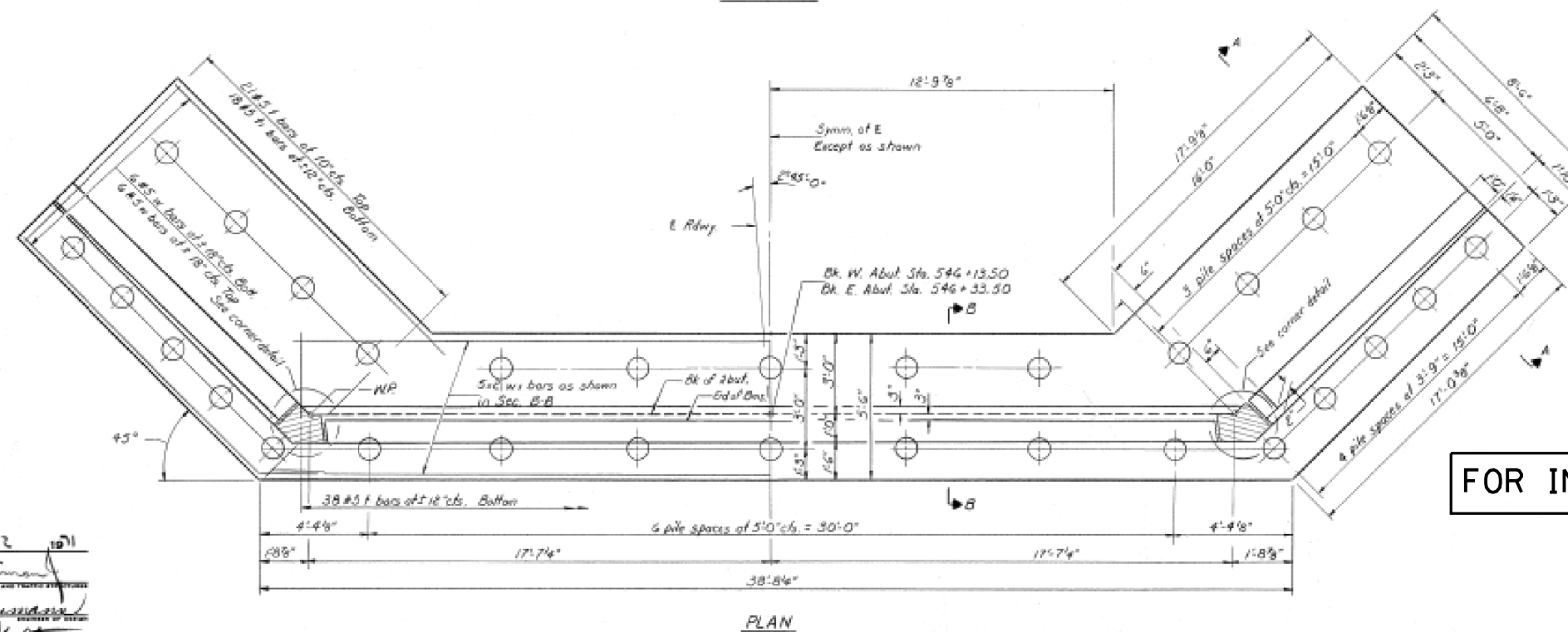
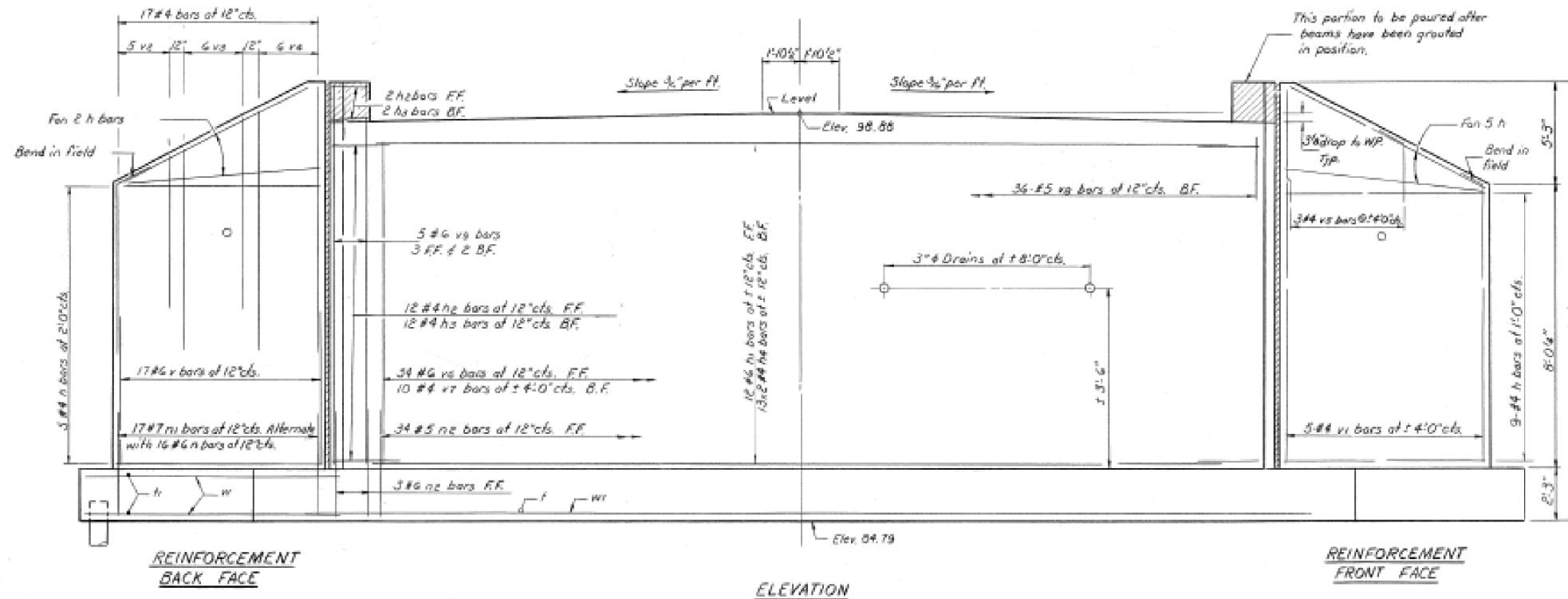


SECTION C-C

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. OF SHEETS
116	117	IROQUOIS	36	26	6

Note:
Bars indicated thus 20x3-#5 etc.
indicates 20 lines of bars with 3
lengths per line.
Min. bar lap = 24 dia.



FOR INFORMATION ONLY

DESIGNED J.M. Patel
CHECKED J.S. Redman
DRAWN S.E. Lindsey
CHECKED J.B.A.

EXAMINED *[Signature]*
PASSED *[Signature]*
APPROVED *[Signature]*

MAY 12 10 11

ABUTMENTS
S.B.I. RT. 116 SEC. 117 BR-1
IROQUOIS COUNTY
STA. 546+23.50

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

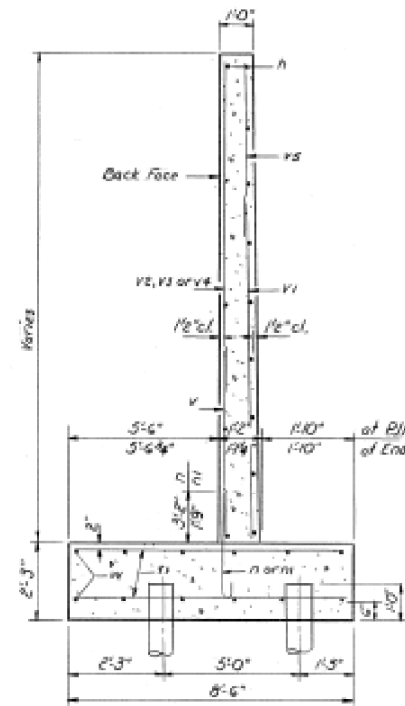
PROJECT NO.	SECTION	SHEET	TOTAL SHEETS	SHEET NO.
11702	117 BR-1	80	80	5

SHEET NO. 5
6 SHEETS

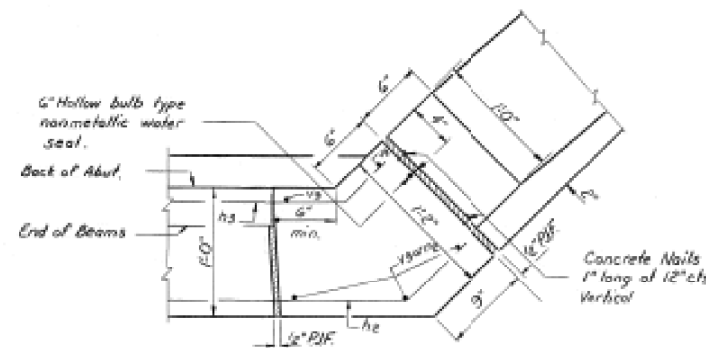
PILE DATA

Type: Creosoted
Capacity: 20 Tons
Estimated Length
West Abutment 29'
East Abutment 27'
No. Required
West Abutment 30 piles
East Abutment 29 piles plus
1 test pile.

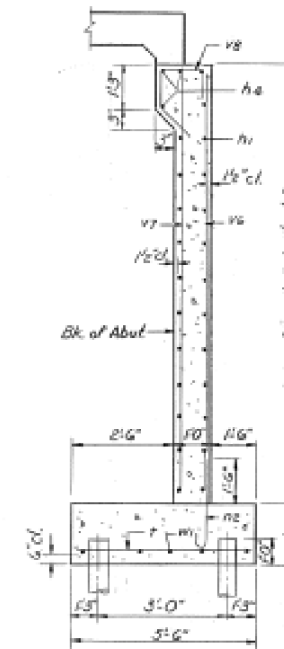
FOR INFORMATION ONLY



SECTION A-A



CORNER DETAIL



SECTION B-B

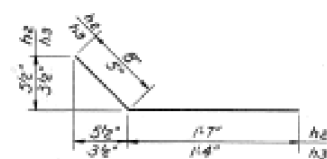
**TWO ABUTMENTS
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h	84	#5	15'-9"	—
h1	24	#6	34'-6"	—
h2	60	#4	21'-3"	—
h3	60	#4	1'-9"	—
h4	52	#4	17'-9"	—
n	64	#6	5'-7"	—
n1	68	#7	4'-8"	—
n2	80	#5	3'-10"	—
f	76	#5	5'-3"	—
f1	156	#5	8'-5"	—
v	68	#6	6'-0"	—
v1	20	#4	9'-3"	—
v2	20	#4	4'-9"	—
v3	24	#4	6'-6"	—
v4	24	#4	8'-3"	—
v5	12	#4	3'-0"	—
v6	48	#6	11'-5"	—
v7	20	#4	11'-5"	—
v8	12	#5	4'-3"	—
v9	20	#6	18'-1"	—
w	48	#5	18'-3"	—
w1	20	#5	20'-0"	—
Class A Concrete				Cu. Yds. 137.6
Reinforcement Bars				Lbs. 11080
Creosoted Piles				Lin. Ft. 1653
Test Piles/Timber				Each 1

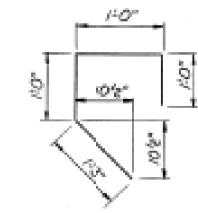
DESIGNED J.M. Patel
CHECKED J.B. Nelson
DRAWN J.E. Lindsey
CHECKED J.B. Nelson

EXAMINED *[Signature]*
PASSED *[Signature]*
APPROVED *[Signature]*

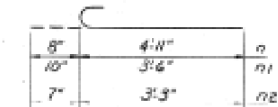
MAY 12 1971



BARS h, h1, h2

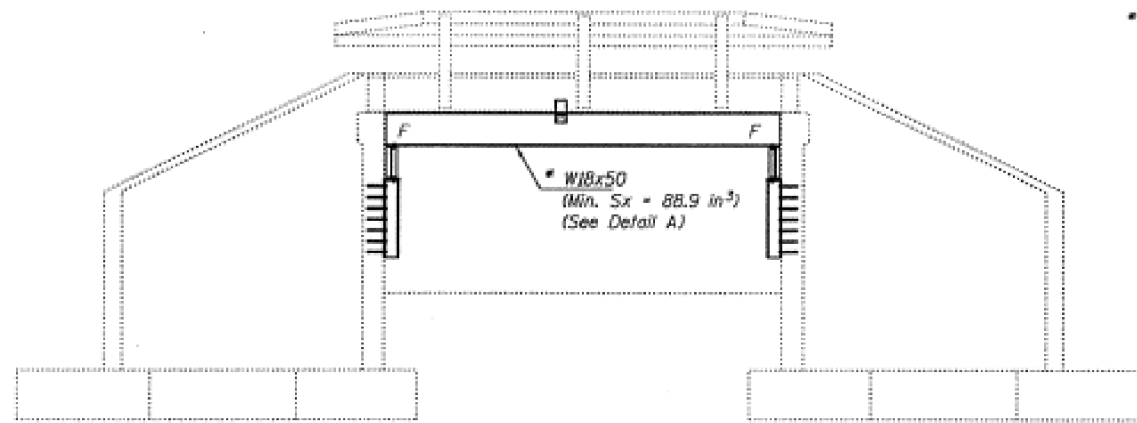


BAR v8

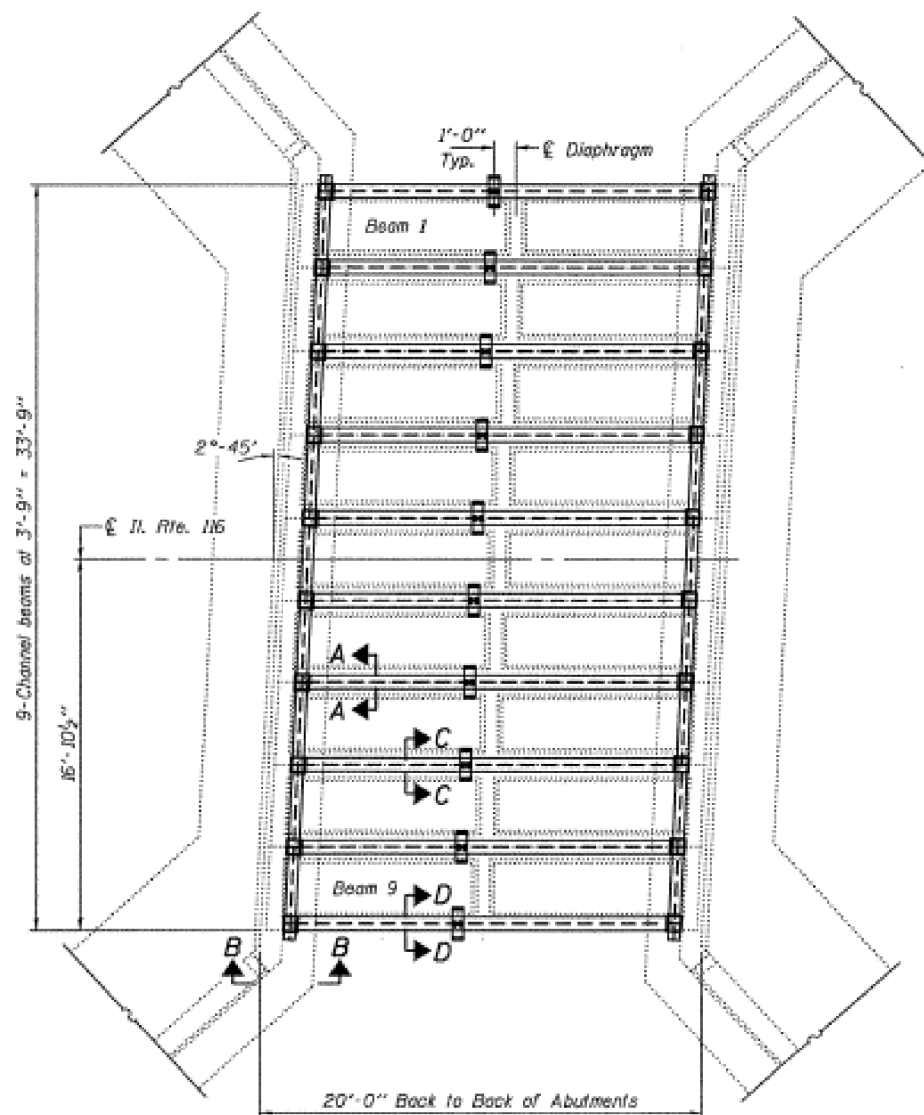
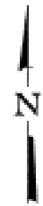


BARS n, n1, n2

ABUTMENT DETAILS
S.B.I. RT. 116 SEC. 117 BR-1
IROQUOIS COUNTY
STA. 546+23.50



ELEVATION

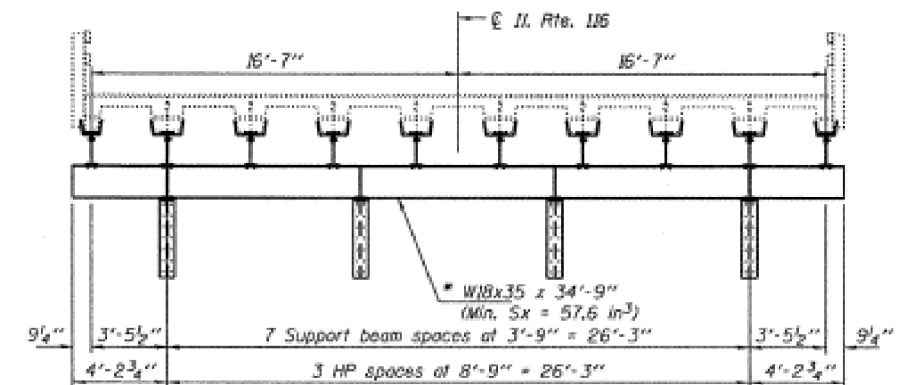


PLAN

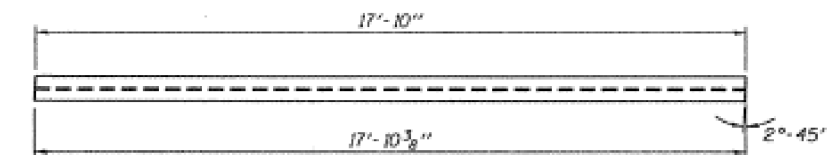
* Contractor is to verify beam length prior to ordering material. Other sections meeting the section modulus requirements shown may be allowed subject to approval by the Bureau of Bridges and Structures. Maximum Girder depth = 18". No additional payment will be allowed if the contractor chooses a heavier steel section than the one specified in the plans.

GENERAL NOTES

All structural steel shall conform to AASHTO Classification M-270 Gr. 36, unless otherwise noted.
 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 scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
 The contractor is advised that the existing Channel Beams are in a deteriorated condition with reduced load carrying capacity. It is the contractors responsibility to account for the condition of the beams when developing construction procedures.
 See Section 584 of the Standard Specifications for Epoxy Grouting of Threaded Rods; Minimum embedment 9".
 If the contractor's procedure for placement of beams involves placement of cranes or other heavy equipment on the bridge, a detailed procedure shall be submitted to the Engineer for approval. The procedure shall include calculations, prepared and sealed by an Illinois Licensed Structural Engineer, verifying that the equipment and procedure used will not overstress the existing beams. To distribute load to multiple beams and protect the existing surface, in all cases a double layer mat of heavy timbers shall be used at all times under crane tracks or wheels and any outriggers in the down position. If necessary, shims shall be used under the crane mat to ensure uniform contact with the underlying beams.
 The cost of epoxy grouting threaded rods on the pier cap, abutments and beams shall be included with Furnishing and Erecting Structural Steel.
 The Contractor has the option of using used steel. See Special Provisions.



CROSS SECTION



DETAIL A

FOR INFORMATION ONLY

For Sections A-A, B-B, C-C and D-D, See sheet 2 of 2.

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Furnishing and Erecting Structural Steel	Pound	13090



Expires November 30, 2012

DESIGNED - <i>[Signature]</i>	EXAMINED - <i>[Signature]</i>	DATE - MARCH 14, 2011
CHECKED - <i>[Signature]</i>	PASSED - <i>[Signature]</i>	
DRAWN - <i>[Signature]</i>		
CHECKED - <i>[Signature]</i>		

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**GENERAL PLAN & ELEVATION
SN 038-0172**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	017-BR-1X	IRROUOIS	6	5

CONTRACT NO. 66B24

FILE NAME -	USER NAME - carpenterdj	DESIGNED -	REVISED -
Default	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/12/2015	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

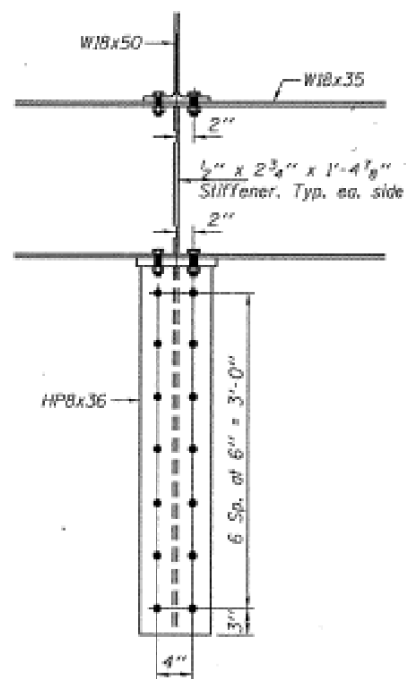
**EXISTING BRIDGE PLANS
FOR INFORMATION ONLY**

SCALE: _____ SHEET _____ OF _____ SHEETS STA. _____ TO STA. _____

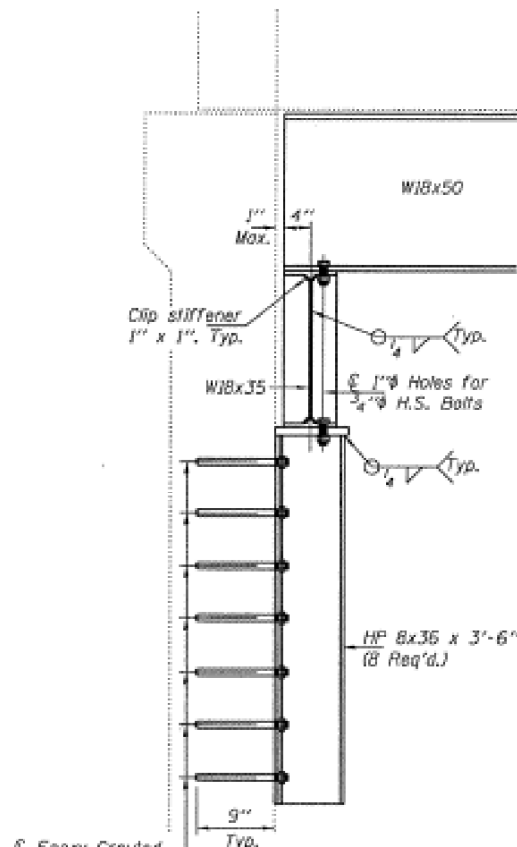
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	117 BR-2	IRROUOIS	36	28

CONTRACT NO. 66B51

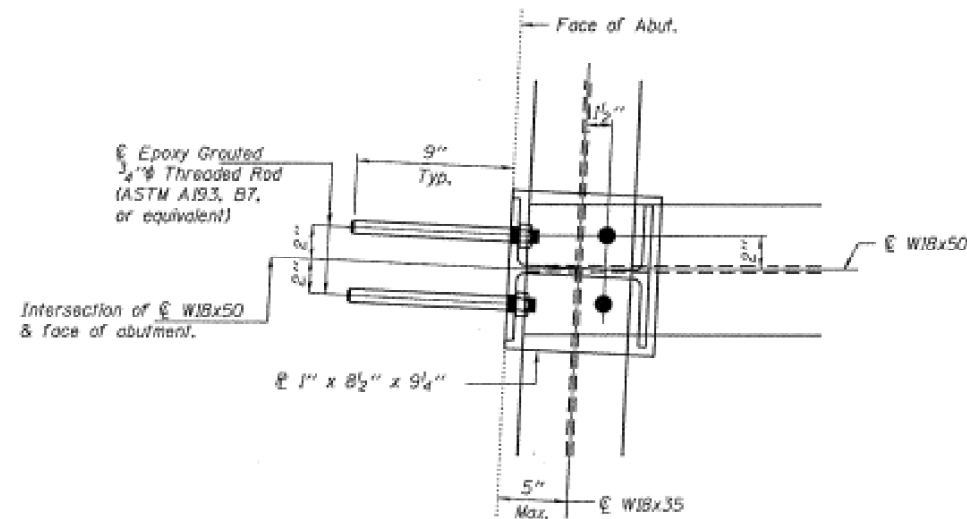
ILLINOIS FED. AID PROJECT



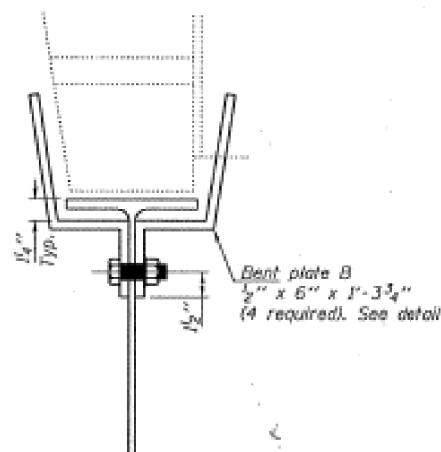
SECTION A-A



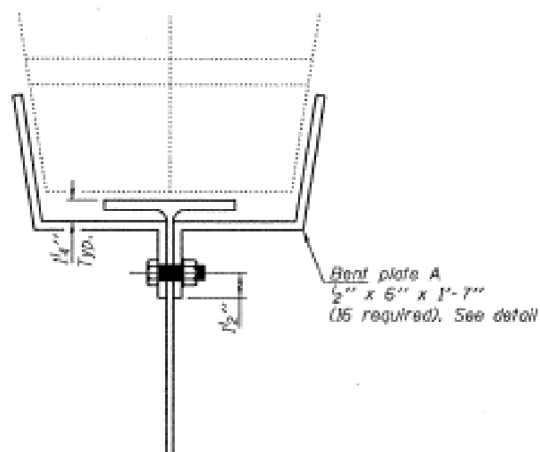
SECTION B-B



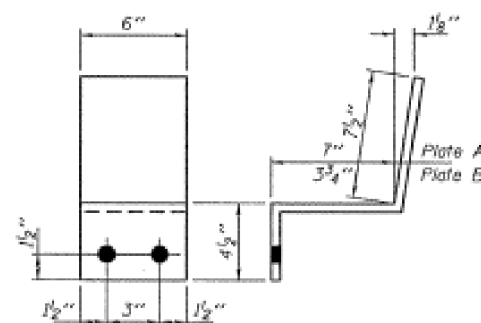
TYPICAL SECTION AT END OF SUPPORT BEAMS



SECTION D-D



SECTION C-C



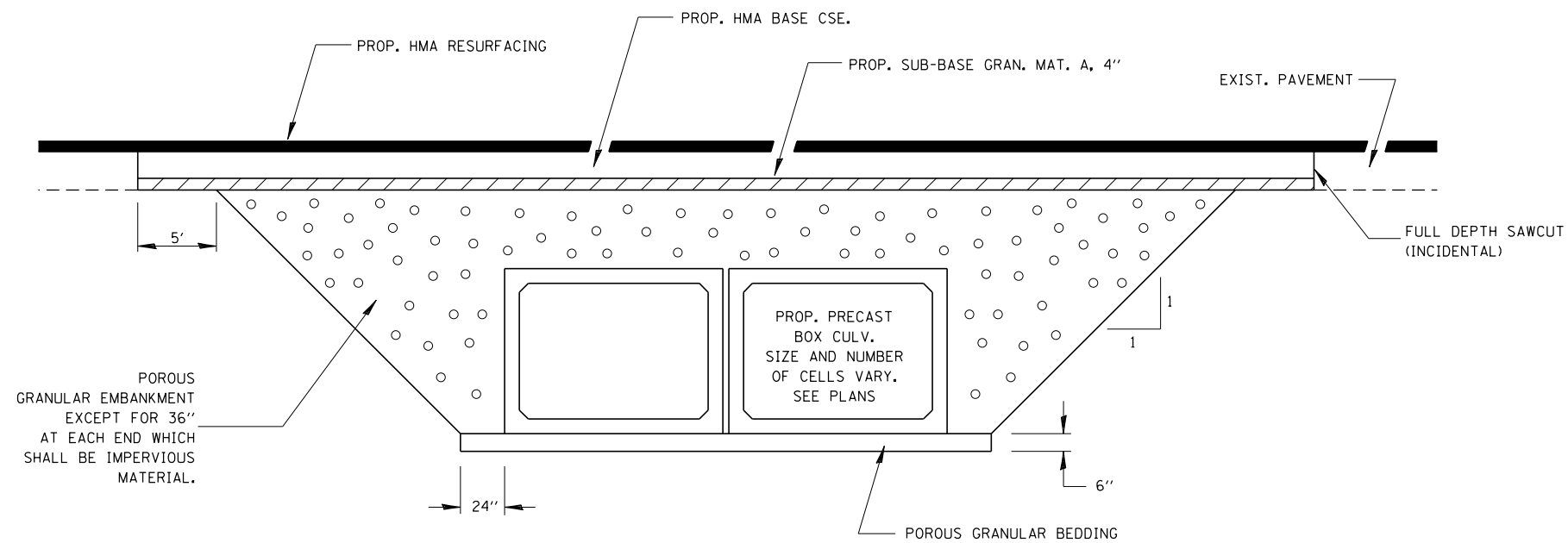
BENT PLATE A & B

Place shims at 1/4 points. Securely weld shims to top flange of support beam. Minimum shim size is 6\"/>

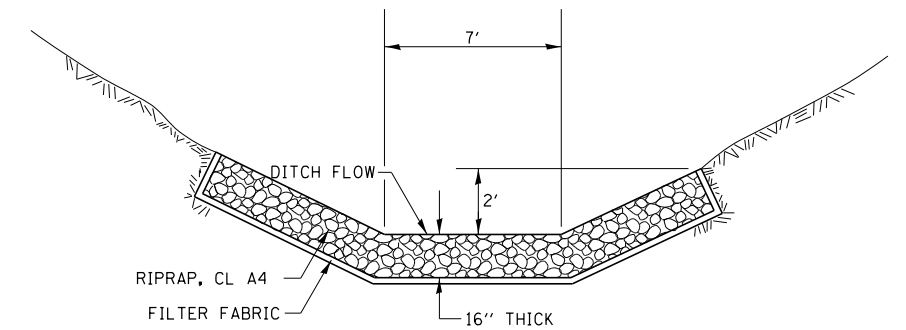
FOR INFORMATION ONLY

DESIGNED - GGE	EXAMINED - <i>James F. Jaffe</i> ACTING ENGINEER OF STRUCTURAL SERVICES	DATE - MARCH 14, 2011	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION		REPAIR DETAILS SN 038-0172	F.A.P. RTE. 681	SECTION 117-BR-1E	COUNTY IROQUOIS	TOTAL SHEETS 6	SHEET NO. 6
CHECKED - I.J.	PASSED - <i>J. Calvey</i> ACTING ENGINEER OF BRIDGES AND STRUCTURES				SHEET NO. 2 OF 2 SHEETS	CONTRACT NO. 66B24				
DRAWN - balva						ILLINOIS FED. AID PROJECT				
CHECKED - GGE I.J.										

FILE NAME -	USER NAME - carpenterdj	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION		EXISTING BRIDGE PLANS FOR INFORMATION ONLY		F.A.P. RTE. 681	SECTION 117 BR-2	COUNTY IROQUOIS	TOTAL SHEETS 36	SHEET NO. 29
Default	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -			SCALE: _____ SHEET _____ OF _____ SHEETS STA. _____ TO STA. _____		CONTRACT NO. 66B51				
	PLOT DATE = 8/12/2015	DATE -	REVISED -					ILLINOIS FED. AID PROJECT				

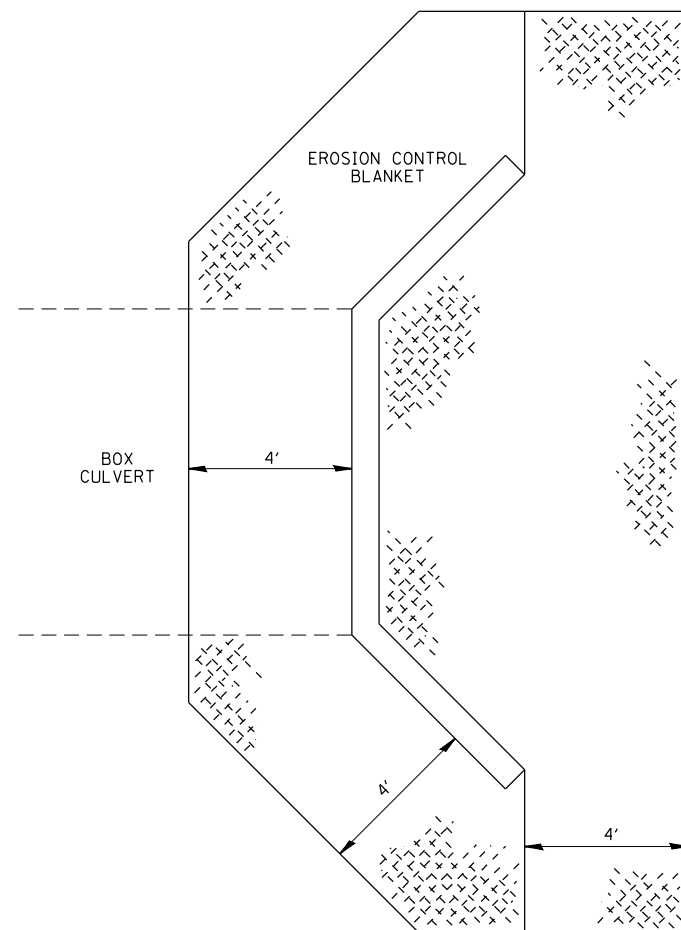


SECTION THROUGH PRECAST BOX CULVERT

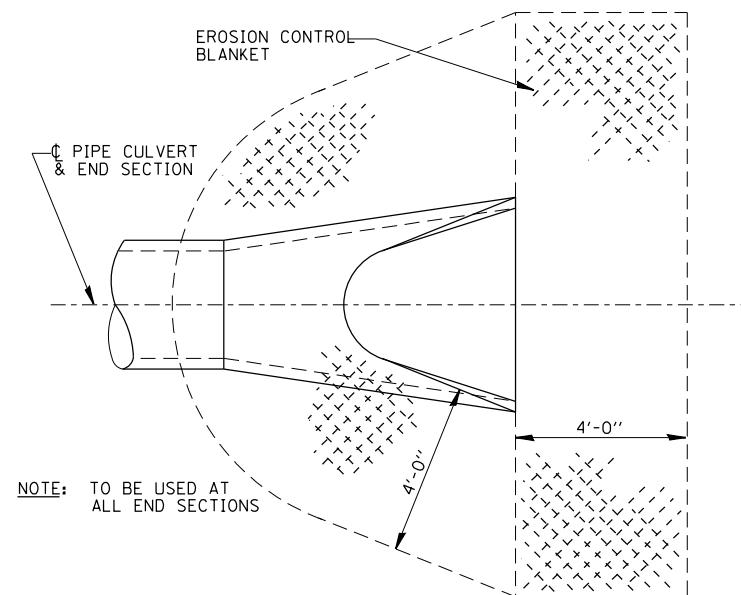


THIS WORK SHALL BE PERFORMED ACCORDING TO SECTION 283 OF THE STANDARD SPECIFICATION.

RIPRAP DETAIL
547 + 68.5, 51' LT
547 + 33.5, 51' LT



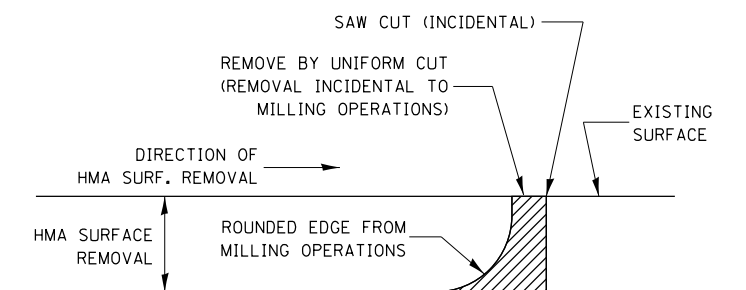
EROSION CONTROL BLANKET AT BOX CULVERT END SECTIONS



NOTE: TO BE USED AT ALL END SECTIONS

NOTE: PRC FLARED END SECTION SHOWN. TREATMENT SAME FOR OTHER END SECTIONS.

DETAIL OF EROSION CONTROL BLANKET LINING AROUND END SECTION



NOTE:

WHEN MILLING OPERATIONS PRODUCE A ROUNDED EDGE, THEN A SAW CUT SHALL BE USED TO MANUFACTURE A PERPENDICULAR EDGE AS SHOWN IN THE DETAIL. THE ENGINEER SHALL BE THE SOLE JUDGE CONCERNING THE USE OF THIS DETAIL

HMA DETAIL AT BUTT JOINTS

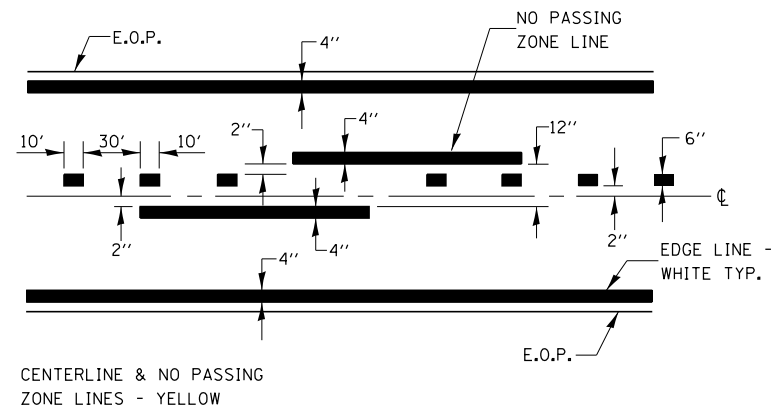
FILE NAME =	USER NAME = carpenterdj	DESIGNED -	REVISED -
pw\11084EBIDINTEG.illinois.gov\PI\DOT\Documents\DOT Offices\District 3\Projects\0366851\Drawings\0366851-shd-detail.dwg		CHECKED -	REVISED -
Default	PLOT DATE = 8/12/2015	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

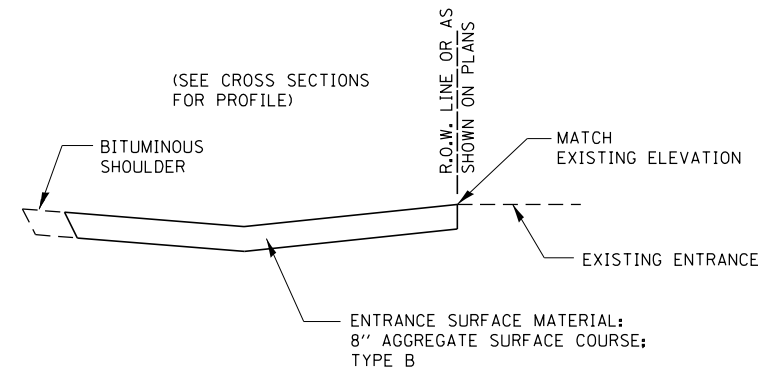
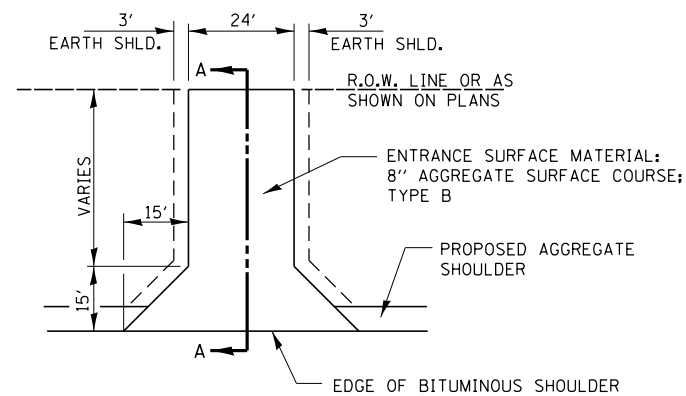
DETAILS

SCALE: _____ SHEET _____ OF _____ SHEETS STA. _____ TO STA. _____

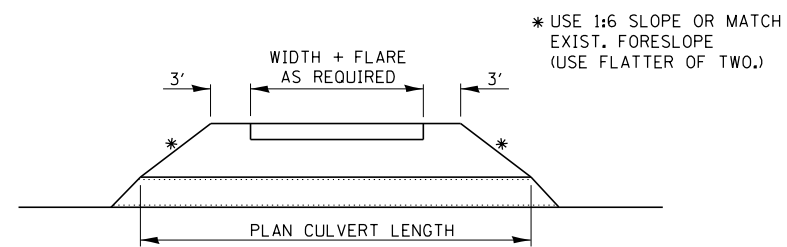
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	117 BR-2	IROQUOIS	36	30
CONTRACT NO. 66B51				
ILLINOIS FED. AID PROJECT				



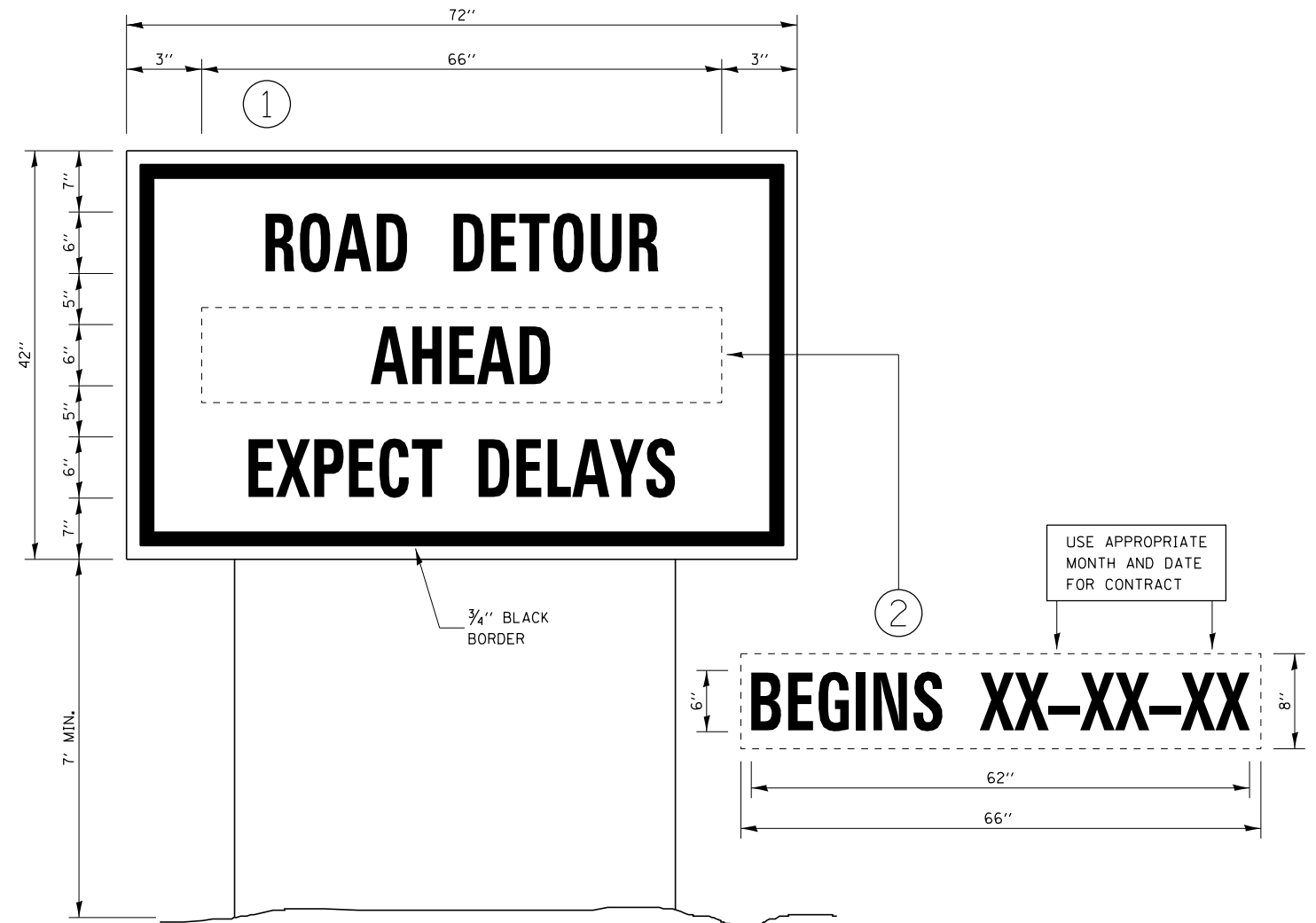
PAVEMENT MARKING



SECTION A-A



FIELD ENTRANCE DETAIL

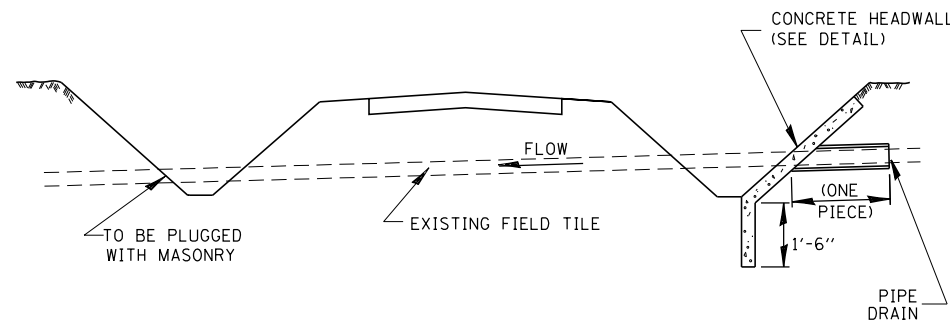
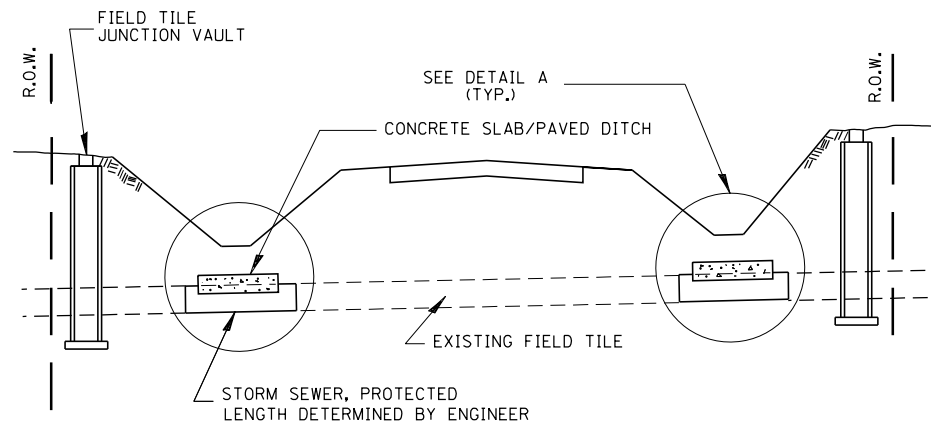


TEMPORARY INFORMATION SIGNING

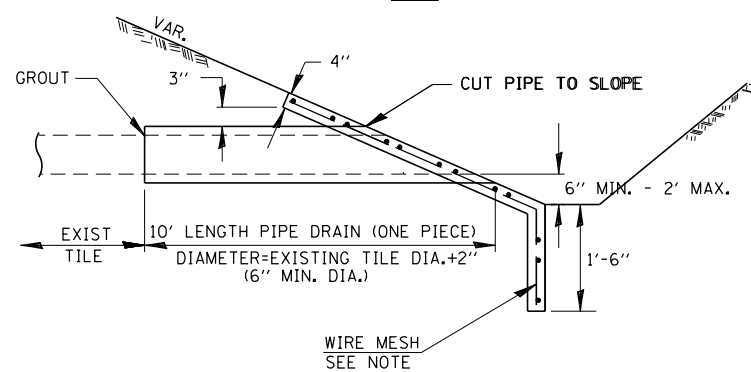
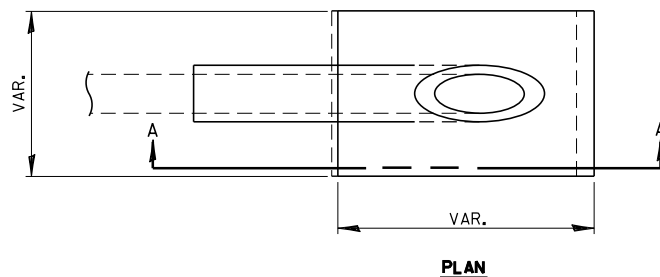
NOTES:

1. USE 6" D BLACK LETTERING ON FLOURESENT ORANGE BACKGROUND.
2. ERECT SIGNS AT LOCATIONS IN ADVANCE OF THE "ROAD CONSTRUCTION AHEAD" SIGNS AS DIRECTED BY THE ENGINEER.
3. ERECT SIGN ① WITH INSTALLED PANEL ② A MINIMUM OF ONE WEEK PRIOR TO THE START OF THE DETOUR.
4. REMOVE PANEL ② ON THAT DATE.
5. SEE SPECIAL PROVISION "TEMPORARY INFORMATION SIGNING" FOR ADDITIONAL INFORMATION.
6. WILL BE PAID FOR PER SQ FT AS "TEMPORARY INFORMATION SIGNING". EACH SIGN = 21 SQ FT AND THE DATE PANEL ② WILL NOT BE MEASURED SEPARATELY FOR PAYMENT.

FILE NAME =	USER NAME = carpenterdj	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DETAILS		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
pw:\IL\084EBIDINTEG.illinois.gov\PI\DOT\Documents\DOT Offices\District 3\Projects\0366851\Drawings\0366851-shd-detailed.dwg		CHECKED -	REVISED -		681	117 BR-2	IROQUOIS	36	31		
Default	PLOT SCALE = 100.0000' / in.	DATE -	REVISED -		SCALE: _____ SHEET _____ OF _____ SHEETS STA. _____ TO STA. _____			CONTRACT NO. 66B51			
	PLOT DATE = 8/12/2015				ILLINOIS FED. AID PROJECT						

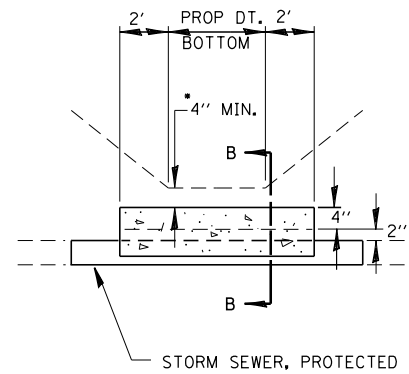


FIELD TILE REPLACEMENT



SECTION A-A

CLASS SI CONCRETE HEADWALLS



DETAIL A

NO SCALE

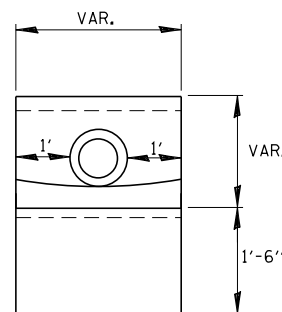
* IF A 4" COVER CAN NOT BE PROVIDED A PAVED DITCH SHALL BE CONSTRUCTED AS SHOWN IN DETAIL C.

NOTES

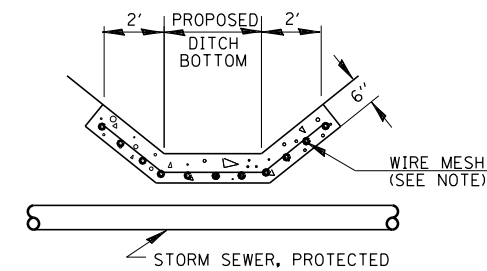
1. WIDTH OF CONCRETE SLAB SHALL BE THE SAME AS THE TRENCH WIDTH IN ACCORDANCE WITH SECTION 550 OF THE STD. SPECIFICATIONS, OR 3' MIN.
2. CONCRETE FOR SLAB, HEADWALL AND PAVED DITCH SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER CUBIC YARD FOR "MISCELLANEOUS CONCRETE."
3. COST OF FURNISHING AND INSTALLING WIRE MESH SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE PER CUBIC YARD FOR MISCELLANEOUS CONCRETE. WIRE MESH TO WEIGH NOT LESS THAN 58# PER 100 SQ. FT.

NOTES

1. ANY STORM SEWER OR FIELD TILE OUTLET INTO A DITCH SHALL HAVE A HEADWALL BUILT IN ACCORDANCE WITH THIS DETAIL.
2. COST OF FURNISHING AND INSTALLING WIRE MESH SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE PER CUBIC YARD FOR MISCELLANEOUS CONCRETE. WIRE MESH TO WEIGH NOT LESS THAN 58# PER 100 SQ. FT.

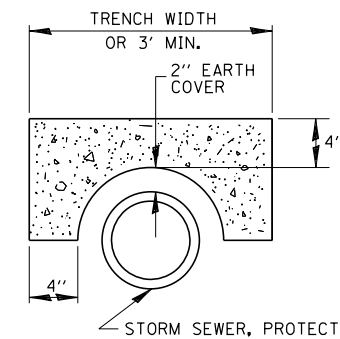


END VIEW

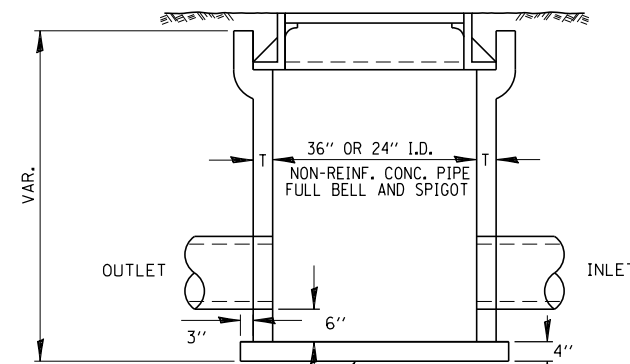


DETAIL C

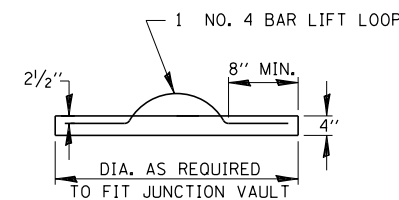
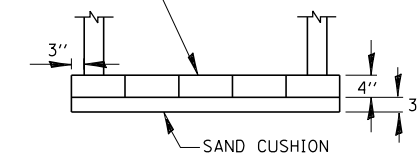
NO SCALE



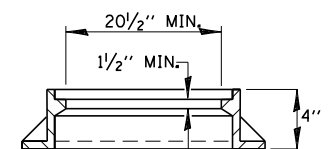
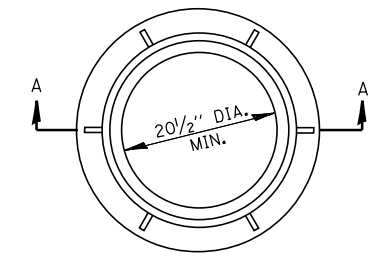
SECTION B-B



CLASS SI CONCRETE OR PRECAST REINFORCED CONCRETE SLABS NOT LESS THAN 12" WIDE



FIELD TILE JUNCTION VAULT



SECTION A-A

ALTERNATE MATERIALS FOR WALLS	T
PRECAST REINFORCED CONCRETE RISERS	4"
CONCRETE MASONRY UNIT	5"
MONOLITHIC CONCRETE	6"
BUILDING BRICK, GRADE SW FROM CLAY OR SHALE	8"
CONCRETE BUILDING BRICK, GRADE A	8"

NOTES

1. THE CONTRACT UNIT PRICE FOR FIELD TILE JUNCTION VAULT SHALL INCLUDE THE COST OF FURNISHING AND PLACING THE FRAME AND GRATE OR PRECAST CONCRETE LID AND WHEN REQUIRED, THE SAND CUSHION.
2. ALL FIELD TILE JUNCTION VAULTS SHALL BE 2'-0" IN DIAMETER UNLESS OTHERWISE NOTED ON THE PLANS.

FILE NAME =	USER NAME = carpenterdj	DESIGNED -	REVISED -
pw:\11084EBIDINTEG.illinois.gov\PI\DOT\Documents\DOT Offices\District 3\Projects\0366851\Drawings\0366851-sht-details.dwg		DRAWN -	REVISED -
Default	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/12/2015	DATE -	REVISED -

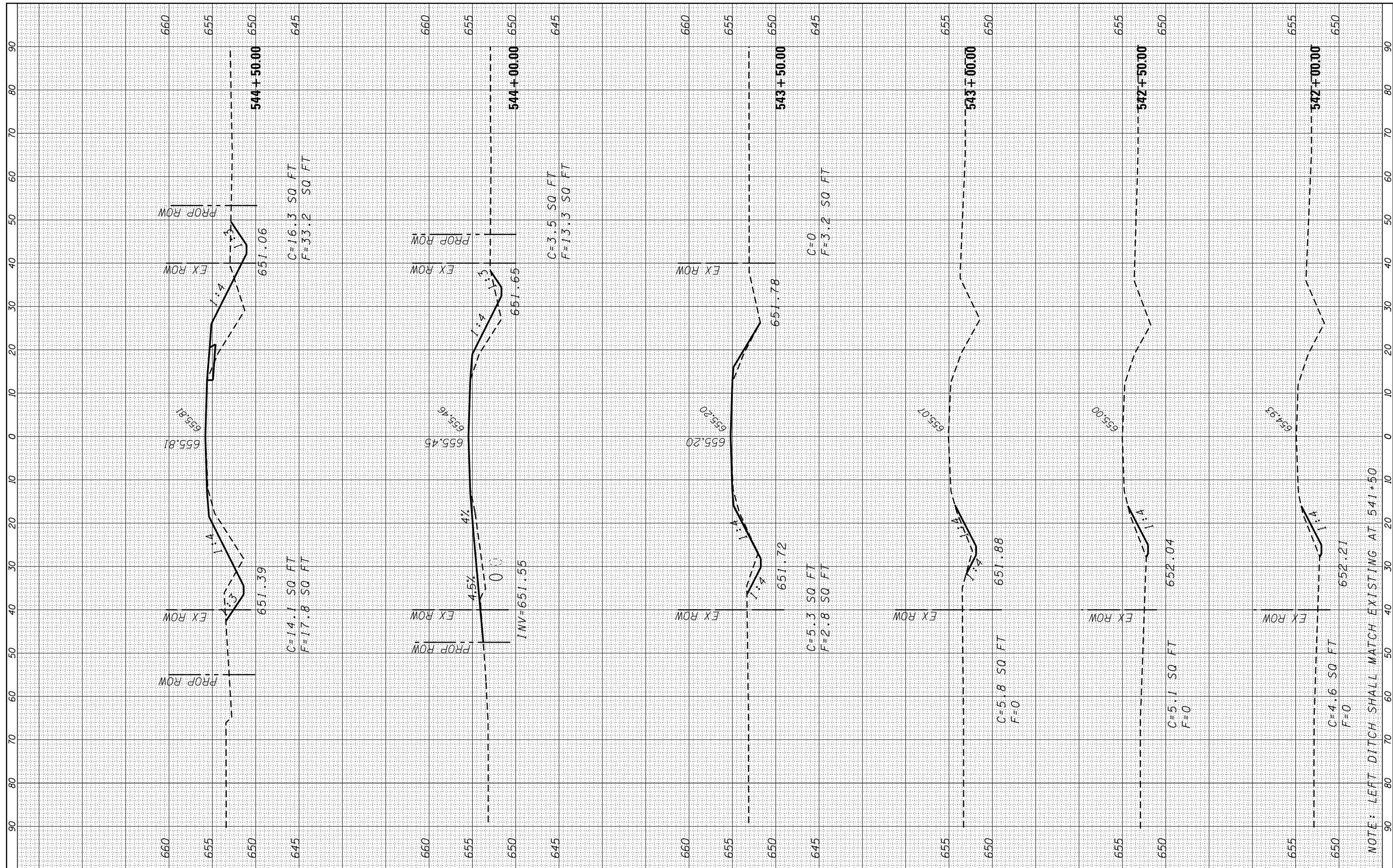
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

DETAILS			
SCALE: _____	SHEET _____	OF _____	SHEETS
STA. _____	TO STA. _____		

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	117 BR-2	IROQUOIS	36	32
				CONTRACT NO. 66B51
ILLINOIS FED. AID PROJECT				

FINAL SURVEY NO.	SURVEYED PLOTTED AREAS CHECKED	BY	DATE

ORIGINAL SURVEY NO.	SURVEYED PLOTTED AREAS CHECKED	BY	DATE



NOTE: LEFT DITCH SHALL MATCH EXISTING AT 541+50

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USER NAME = carpenterdj
 DESIGNED -
 CHECKED -
 DATE -

REVISIONS:
 REVISED -
 REVISED -
 REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS

SCALE: _____ SHEET _____ OF _____ SHEETS STA. 542+00 TO STA. 544+50

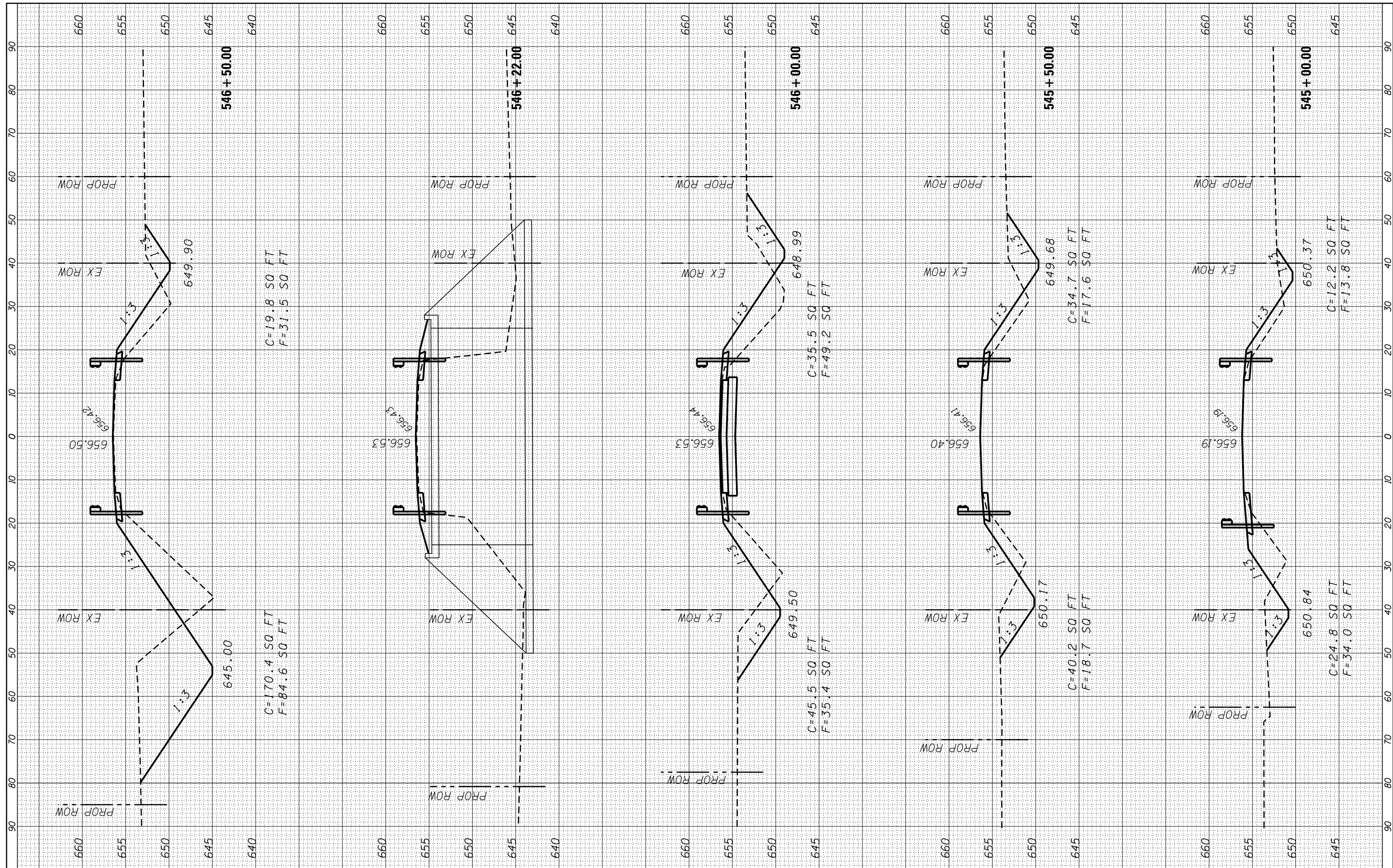
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	117 BR-2	IROQUOIS	36	33

CONTRACT NO. 66B51

ILLINOIS FED. AID PROJECT

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

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



FILE NAME =
p:\11084EBIDINTEG.Illinois.gov\PIWIDOT\Documents\

USER NAME = carpenterdj
DESIGNED -
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DATE -

DESIGNED -
REVISER -
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

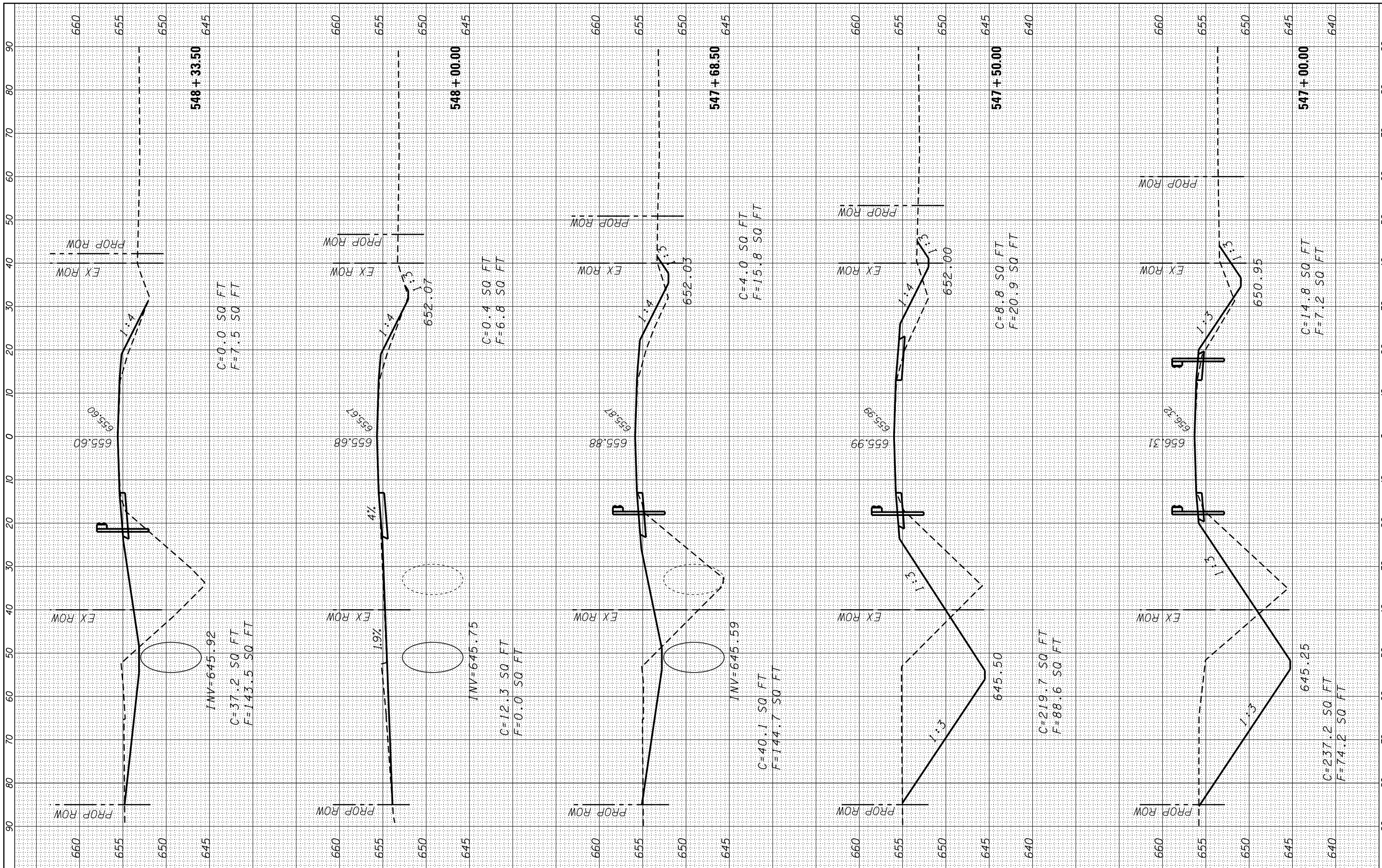
CROSS SECTIONS

SCALE: _____ SHEET _____ OF _____ SHEETS STA. 545+00.00 TO STA. 546+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	117 BR-2	IROQUOIS	36	34
CONTRACT NO. 66B51				
ILLINOIS FED. AID PROJECT				

BY	DATE

BY	DATE



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USER NAME = carpenterdj
 DESIGNED -
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 DATE -

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STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS

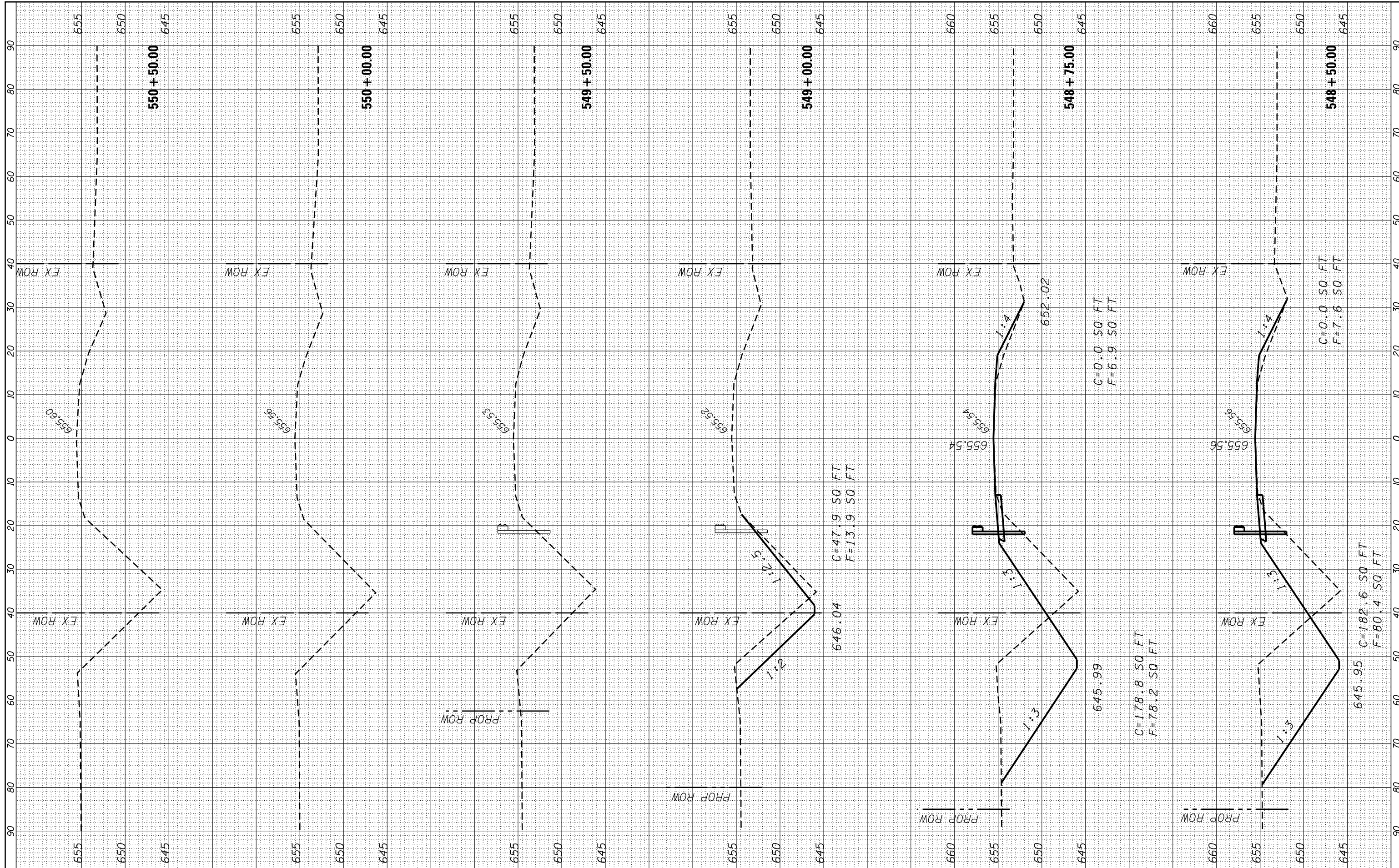
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	117 BR-2	IROQUOIS	36	35
CONTRACT NO. 66B51				

ILLINOIS FED. AID PROJECT

BY	DATE

ORIGINAL SURVEY NO.	SURVEYED PLOTTED AREAS CHECKED



FILE NAME =
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 PLOT DATE = 8/12/2015

USER NAME = carpenterdj
 DESIGNED -
 CHECKED -
 DATE -

DESIGNED -
 CHECKED -
 DATE -

REVISED -
 REVISED -
 REVISED -
 REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SCALE: _____ SHEET _____ OF _____ SHEETS STA. 548+50.00 TO STA. 550+50.00

CROSS SECTIONS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
681	117 BR-2	IROQUOIS	36	36
CONTRACT NO. 66B51				