

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

**PROPOSED
HIGHWAY PLANS**

**FAU 1238 /IL ROUTE 176 (ROCKLAND ROAD) OVER EAST SKOKIE DITCH
BRIDGE REPLACEMENT
SECTION C-B-I**

**LAKE COUNTY
C-91-257-10**

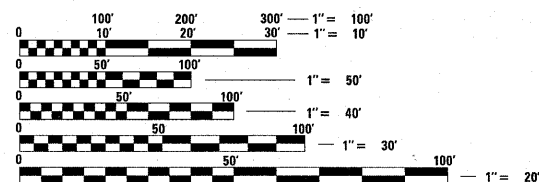
FOR INDEX OF SHEETS, SEE SHEET NO. 2

TRAFFIC DATA:
EXISTING ADT = 14,200 (2009)
POSTED SPEED = 40 MPH

PROJECT LOCATION
ILLINOIS ROUTE 176
OVER EAST SKOKIE DITCH
STRUCTURE NO. 049-0238

IMPROVEMENT BEGINS
STA. 1154 + 04.8

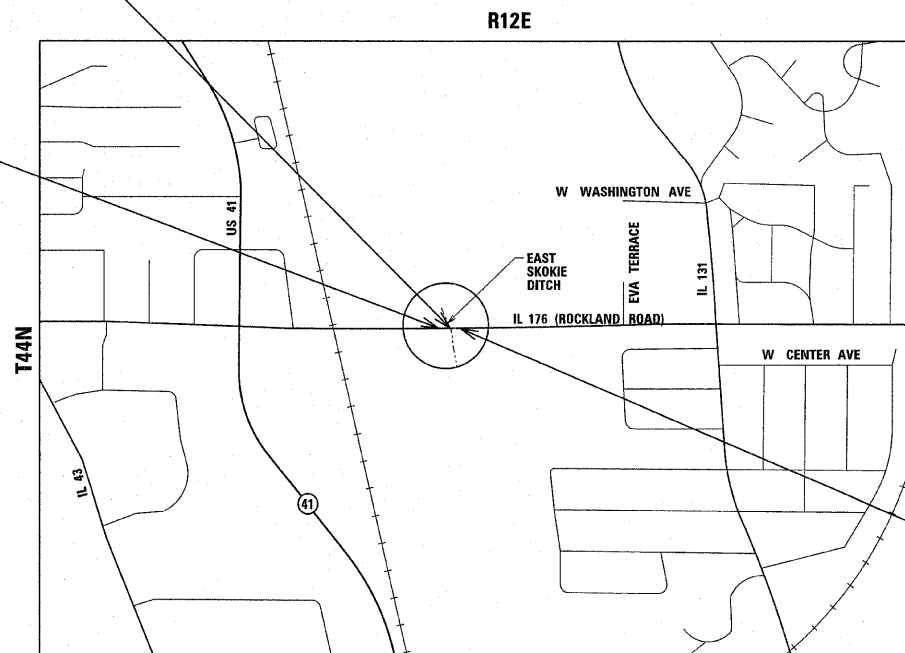
PROJECT IS LOCATED IN THE
VILLAGE OF LAKE BLUFF



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 MANAGER RAJENDRA SHAH (847) 705-4555
PROJECT ENGINEER MICHELLE AQUINO (847) 705-4606
CONTRACT NO. 60J67



IMPROVEMENT ENDS
STA. 1163 + 00

SECTION 20
SHIELDS TOWNSHIP
LOCATION MAP
NOT TO SCALE

GROSS LENGTH OF PROJECT = 895.2 FEET = 0.17 MILES
NET LENGTH OF PROJECT = 895.2 FEET = 0.17 MILES

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1238	C-B-I	LAKE	64	1
FED ROAD DIST No. 1	ILLINOIS	CONTRACT No.	60J67	

D-91-641-09



LOCATION OF SECTION INDICATED THIS: -

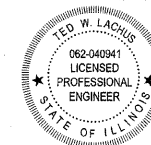
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED December 22, 2010
Diane M. O'Keefe
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

February 4, 2011
Scott E. Stitt P.E.
Acting ENGINEER OF DESIGN AND ENVIRONMENT

February 4, 2011
Christine M. Reed
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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OF THE STATE OF ILLINOIS**



Ted W. Lachus
TED W. LACHUS, P.E.
EXPIRES 11-30-2011

1-3-2011
DATE

Primera
100 S. WACKER DRIVE SUITE 700 CHICAGO IL 60606.
P:312-606-0910 F:312-606-0415

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- 780001-02 TYPICAL PAVEMENT MARKINGS

GENERAL NOTES:

1. PLAN DIMENSIONS AND DETAILS RELATIVE TO EXISTING PLANS ARE SUBJECT TO VARIATIONS FOUND IN THE FIELD. THE CONTRACTOR SHALL FIELD VERIFY EXISTING DIMENSIONS AND DETAILS AFFECTING NEW CONSTRUCTION AND MAKE NECESSARY ADJUSTMENTS PRIOR TO CONSTRUCTION OR ORDERING MATERIALS. ANY ADJUSTMENTS PROPOSED BY THE CONTRACTOR MUST BE APPROVED BY THE ENGINEER. 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 BASED UPON THE UNIT PRICE.
2. FORTY- EIGHT HOURS BEFORE STARTING EXCAVATION, THE CONTRACTOR WILL CALL J.U.L.I.E. (1-800-892-0123) OR 811 FOR LOCATIONS OF THE EXISTING UTILITIES.
3. THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT.
4. SAW CUTTING PRIOR TO ANY REMOVAL ITEMS NOTED ON THE PLANS OR DIRECTED BY THE ENGINEER SHALL BE CONSIDERED INCLUDED IN THE COST OF THE ITEMS BEING REMOVED.
5. DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS.
6. THE CONTRACTOR SHALL USE CARE IN REMOVING OR EXCAVATING NEAR ALL EXISTING ITEMS WHICH WILL REMAIN. ANY DAMAGE DONE TO EXISTING ITEMS BY THE CONTRACTOR SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
7. WHEN ARTIFICIAL LIGHTING IS UTILIZED IN NIGHT OPERATIONS, THE CONTRACTOR SHALL EXERCISE THE UTMOST PRECAUTIONS IN PREVENTING ADVERSE VISIBILITY TO THE MOTORING PUBLIC AS WELL AS ADJOINING RESIDENTIAL AREAS.
8. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS, AS REQUIRED, PRIOR TO COMMENCING WITH CONSTRUCTION.
9. THE CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO ASSURE THAT NO DEBRIS FALLS INTO THE WATERWAY. THE COST OF THIS WORK SHALL BE INCLUDED IN THE VARIOUS PAY ITEMS.
10. THE CONTRACTOR SHALL CONTACT THE TRAFFIC CONTROL SUPERVISOR AT (847) 705-4470 A MINIMUM OF 72 HOURS PRIOR TO THE PLACEMENT OF ANY TEMPORARY TRAFFIC CONTROL DEVICES.
11. THE ENGINEER SHALL CONTACT DEBBIE HANLON, THE AREA TRAFFIC FIELD TECHNICIAN, AT (847) 715-8419 TWO (2) WEEKS PRIOR TO THE PLACEMENT OF PERMANENT PAVEMENT MARKINGS.
12. ALL DAMAGE TO EXISTING PAVEMENT MARKINGS OUTSIDE THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
13. UNLESS OTHERWISE NOTED ON THE PLANS ACCESS SHALL BE PROVIDED AT ALL TIMES TO PROPERTIES ABUTTING THE PROPOSED IMPROVEMENT. DRIVEWAYS WILL BE MAINTAINED USING "TEMPORARY ACCESS (PRIVATE/COMMERCIAL ENTRANCE)".
14. THE CONTRACTOR SHALL PREPARE IN-STREAM WORK PLANS (ALL COFFERDAMS, WORK PADS, AND EROSION AND SEDIMENT CONTROL, ETC.) AND SUBMIT TO THE ENGINEER AND THE U.S. ARMY CORP OF ENGINEERS FOR REVIEW AND APPROVAL. THE COST OF ALL IN-STREAM WORK ITEMS WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED AS INCLUDED IN THE UNIT BID PRICES OF THE CONTRACT, AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

COMMITMENTS

NONE

PLAN	SURVEYED	DATE
	BY	
	PLOTTED	
	ALIGNED	
	CHECKED	
	FILED	
	CADD FILE NAME	
	NO.	

PLAN	SURVEYED	DATE
	BY	
	PLOTTED	
	ALIGNED	
	CHECKED	
	FILED	
	CADD FILE NAME	
	NO.	

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DRAWN	REVISED -
CHECKED	REVISED -
DATE	JANUARY 3, 2011
	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INDEX OF SHEET, STATE STANDARDS,
GENERAL NOTES AND COMMITMENTS

SCALE: N.T.S. SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1238	C-B-1	LAKE	62	2
CONTRACT NO. 60J67				
ILLINOIS FED. AID PROJECT				

SUMMARY OF QUANTITIES

*URBAN
100% STATE*

CODED PAY ITEM NUMBER	PAY ITEM	UNIT	TOTAL QUANTITIES	CONSTRUCTION TYPE CODE		
				ROADWAY 0004	BRIDGE RECONSTRUCTION 0011	LANDSCAPING 0031
20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	267			267
20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	58			58
20101100	TREE TRUNK PROTECTION	EACH	17	17		
20101300	TREE PRUNING (1 TO 10 INCH DIAMETER)	EACH	7			7
20101350	TREE PRUNING (OVER 10 INCH DIAMETER)	EACH	10			10
20200100	EARTH EXCAVATION	CU YD	1837	1837		
20201200	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU YD	100	100		
20300100	CHANNEL EXCAVATION	CU YD	80			80
20400800	FURNISHED EXCAVATION	CU YD	100	100		
20800150	TRENCH BACKFILL	CU YD	467	467		
21001000	GEOTECHNICAL FABRIC FOR GROUND STABILIZATION	SQ YD	144	144		
* 21101615	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	3630			3630
* 25000210	SEEDING, CLASS 2A	ACRE	0.50			0.50
* 25000314	SEEDING, CLASS 4B	ACRE	0.25			0.25
* 25000400	NITROGEN FERTILIZER NUTRIENT	POUND	68			68
* 25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	68			68
* 25100630	EROSION CONTROL BLANKET	SQ YD	3630	3630		
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	75	75		
28000305	TEMPORARY DITCH CHECKS	FOOT	42	42		
28000400	PERIMETER EROSION BARRIER	FOOT	852	852		
28000510	INLET FILTERS	EACH	3	3		
* 25100115	MULCH, METHOD 2	ACRE	1			1
28100107	STONE RIPRAP, CLASS A4	SQ YD	110		110	
28200200	FILTER FABRIC	SQ YD	110		110	
31101400	SUB BASE GRANULAR MATERIAL, TYPE B 6"	SQ YD	1013	1013		

* INDICATES SPECIALTY ITEMS

*URBAN
100% STATE*

CODED PAY ITEM NUMBER	PAY ITEM	UNIT	TOTAL QUANTITIES	CONSTRUCTION TYPE CODE		
				ROADWAY 0004	BRIDGE RECONSTRUCTION 0011	LANDSCAPING 0031
35501316	HOT-MIX ASPHALT BASE COURSE, 8"	SQ YD	541	541		
40600100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	90	90		
40603085	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70	TON	1931	1931		
40603310	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50	TON	73	73		
40603340	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70	TON	386	386		
44000100	PAVEMENT REMOVAL	SQ YD	3449	3449		
44000200	DRIVEWAY PAVEMENT REMOVAL	SQ YD	449	449		
48101620	AGGREGATE SHOULDERS, TYPE B 10"	SQ YD	651	651		
48203029	HOT-MIX ASPHALT SHOULDERS, 8"	SQ YD	1013	1013		
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1		1	
50105220	PIPE CULVERT REMOVAL	FOOT	104	104		
50200100	STRUCTURE EXCAVATION	CU YD	560		560	
50300225	CONCRETE STRUCTURES	CU YD	490.9		490.9	
50300300	PROTECTIVE COAT	SQ YD	178		178	
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	59,260		59,260	
50800515	BAR SPLICERS	EACH	142		142	
51200957	FURNISHING METAL SHELL PILES 12" X 0.250"	FOOT	1587		1587	
51202305	DRIVING PILES	FOOT	1587		1587	
51203200	TEST PILE METAL SHELLS	EACH	2		2	
51500100	NAME PLATES	EACH	1		1	
54213870	STEEL END SECTIONS 15"	EACH	1	1		
54213873	STEEL END SECTIONS 18"	EACH	1	1		
542D0220	PIPE CULVERTS, CLASS D, TYPE 1 15"	FOOT	47	47		
542D0223	PIPE CULVERTS, CLASS D, TYPE 1 18"	FOOT	53	53		
550A0430	STORM SEWERS, CLASS A, TYPE 2 30"	FOOT	651	651		

* INDICATES SPECIALTY ITEMS

DATE: _____ BY: _____
 SURVEYED _____ ALIGNED CHECKED _____
 PLAN NOTE BOOK _____
 NO. _____

DATE: _____ BY: _____
 SURVEYED _____ ALIGNED CHECKED _____
 PLAN NOTE BOOK _____
 NO. _____

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DESIGNED	JRB	REVISED	-
DRAWN	JRB	REVISED	-
CHECKED	RJD	REVISED	-
DATE	JANUARY 3, 2011	REVISED	-

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**IL ROUTE 176 OVER EAST SKOKIE DITCH
SUMMARY OF QUANTITIES**

SCALE: N.T.S. SHEET NO. 1 OF 2 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1238	C-B-1	LAKE	61	3
ILLINOIS FED. AID PROJECT				CONTRACT NO. 60J67

Rev.

SUMMARY OF QUANTITIES

URBAN
1001 STATE

CODED PAY ITEM NUMBER	PAY ITEM	UNIT	TOTAL QUANTITIES	CONSTRUCTION TYPE CODE		
				ROADWAY 0004	BRIDGE RECONSTRUCTION 0011	LANDSCAPING 0031
55101400	STORM SEWER REMOVAL 30"	FOOT	325	325		
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	134		134	
60221100	MANHOLES, TYPE A, 5'-DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	1	1		
60223800	MANHOLES, TYPE A, 6'-DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	2	2		
60500040	REMOVING MANHOLES	EACH	1	1		
* 63000001	STEEL PLATE BEAM GUARD RAIL, TYPE A, 6 FOOT POSTS	FOOT	112.5	112.5		
* 63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	4	4		
63200310	GUARDRAIL REMOVAL	FOOT	504	504		
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	7	7		
67100100	MOBILIZATION	L SUM	1	1		
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	107	107		
70104490	TRAFFIC CONTROL AND PROTECTION (SPECIAL), LOCATION 1	EACH	1	1		
70106800	CHANGEABLE MESSAGE SIGN	CAL MO	10	10		
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	4183	4183		
70400100	TEMPORARY CONCRETE BARRIER	FOOT	263	263		
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	238	238		
* 78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	62	62		
* 78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	3445	3445		
* 78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	24	24		
* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	19	19		
78300100	PAVEMENT MARKING REMOVAL	SQ FT	2220	2220		
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	19	19		
Z0028462	GEOTEXTILE RETAINING WALL	SQ FT	130		130	
X0325239	TEMPORARY PAVEMENT 10"	SQ YD	2878	2878		
X0326276	TEMPORARY LIGHTING FOR SINGLE LANE STAGING	L SUM	1	1		
X2070304	POROUS GRANULAR EMBANKMENT, SPECIAL	CU YD	177		177	
X4022000	TEMPORARY ACCESS (COMMERCIAL ENTRANCE)	EACH	6	6		
X7030025	WET REFLECTIVE TEMPORARY TAPE, TYPE III - LETTERS AND SYMBOLS	SQ FT	123	123		

* INDICATES SPECIALTY ITEMS

LETTERS AND SYMBOLS

URBAN
1001 STATE

CODED PAY ITEM NUMBER	PAY ITEM	UNIT	TOTAL QUANTITIES	CONSTRUCTION TYPE CODE		
				ROADWAY 0004	BRIDGE RECONSTRUCTION 0011	LANDSCAPING 0031
X7030030	WET REFLECTIVE TEMPORARY TAPE TYPE III, 4 INCH	FOOT	19804	19804		
X7030055	WET REFLECTIVE TEMPORARY TAPE TYPE III, 24 INCH	FOOT	68	68		
X8900005	TEMPORARY BRIDGE TRAFFIC SIGNAL INSTALLATION	EACH	1	1		
XZ030256	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	2	2		
XZ030260	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	2	2		
Z0001050	AGGREGATE SUBGRADE 12"	SQ YD	3449	3449		
Z0026407	TEMPORARY SHEET PILING	SQ FT	1004		1004	
Z0030850	TEMPORARY INFORMATION SIGNING	SQ FT	51	51		
Z0042002	POROUS GRANULAR EMBANKMENT, SUBGRADE	CU YD	100	100		
* A2000320	TREE, ACER MIYABEI MORTON (STATE STREET MIYABE MAPLE), 2-1/2" CALIPER, BALLED AND BURLAPPED	EACH	2		2	
* A2006516	TREE, QUERCUS BICOLOR (SWAMP WHITE OAK), 2" CALIPER, BALLED AND BURLAPPED	EACH	1		1	
* A2064012	TREE, QUERCUS ALBA X ROBUR CRIMSCHMIDT (CRIMSON SPIRE OAK), 2-1/2" CALIPER, BALLED AND BURLAPPED	EACH	2		2	
* K0029634	WEED CONTROL, PRE-EMERGENT GRANULAR HERBICIDE	POUND	28		28	
* B2006069	TREE, SYRINGA PEKINENSIS 'ZHING ZHIMING' (BEIJING GOLD PEKING LILAC), 7' HEIGHT, CLUMP FORM, BALLED AND BURLAPPED	EACH	3		3	
Z0038140	THREE-SIDED PRECAST CONCRETE STRUCTURES 32'X10'	FOOT	51.2		51.2	
* 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	4	4		

* INDICATES SPECIALTY ITEMS

PLAN SURVEYED BY DATE
NOTE BOOK NO. _____
ALIGNMENT CHECKED BY _____
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ROAD FILE NAME _____

PLAN SURVEYED BY DATE
NOTE BOOK NO. _____
ALIGNMENT CHECKED BY _____
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ROAD FILE NAME _____

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CHECKED RJD
DATE JANUARY 3, 2011

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REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL ROUTE 176 OVER EAST SKOKIE DITCH
SUMMARY OF QUANTITIES

SCALE: N.T.S. SHEET NO. 2 OF 2 SHEETS STA. TO STA.

F.A.U. RTE. 1238	SECTION C-B-1	COUNTY LAKE	TOTAL SHEETS 61	SHEET NO. 4
CONTRACT NO. 60J67				
ILLINOIS FED. AID PROJECT				

Rev.

PLAN	REVISIONS	DATE
NO.	PLOTTED	
NOTE BOOK	ALIGNMENT CHECKED	
NO.	FIELD FILE NAME	

PLAN	REVISIONS	DATE
NO.	PLOTTED	
NOTE BOOK	ALIGNMENT CHECKED	
NO.	FIELD FILE NAME	

TREE REMOVAL SCHEDULE		
LOCATION		
	6"-15"	15"+
STA. 1156+16--35.1 LT	15	
STA. 1156+72--27.7 LT	7	
STA. 1156+81--26.3 LT	14	
STA. 1156+90--28.4 LT	7	
STA. 1157+25--27.0 LT	7	
STA. 1157+38--23.2 LT	8	
STA. 1157+56--24.1 LT	14	
STA. 1157+73--23.4 LT	8	
STA. 1157+79--37.8 LT	8	
STA. 1158+07--27.7 LT	12	
STA. 1158+47--22.8 LT	12	
STA. 1158+48--25.3 LT	12	
STA. 1158+73--28.1 LT	7	
STA. 1158+98--20.2 LT	12	
STA. 1159+61--27.1 LT	15	
STA. 1159+65--29.8 LT	8	
STA. 1159+69--29.2 LT	12	
STA. 1159+96--45.0 RT	15	
STA. 1159+96--18.7 LT	12	
STA. 1160+14--26.6 LT		20
STA. 1160+28--26.6 LT		18
STA. 1161+45--23.9 LT	12	
STA. 1161+47--25.9 LT	15	
STA. 1161+48--22.1 LT	7	
STA. 1161+58--50.1 RT	8	
STA. 1161+68--39.6 RT	8	
STA. 1161+68--24.3 LT		
STA. 1162+42--37.8 RT	12	20
TOTAL	267	58

ROADWAY/DRIVEWAY REMOVALS SCHEDULE			
LOCATION	OFFSET	PAVEMENT REMOVAL (SQ YD)	DRIVEWAY REMOVAL (SQ YD)
STA. 1154+05 TO STA. 1159+20	RT/LT	2161	
STA. 1154+50	LT		119.4
STA. 1155+70	RT		125.2
STA. 1159+53 TO STA. 1163+00	RT/LT	1388	
STA. 1161+25	RT		127.2
STA. 1162+25	RT		77.1
TOTAL		3449	449

GUARDRAIL SCHEDULE				
LOCATION	OFFSET	STEEL PLATE BEAM RAIL, TYPE A (FOOT)	TRAFFIC BARRIER TERMINAL	
			TYPE 1 (SPEC.) TANGENT	TYPE 6
STA. 1157+75 TO STA. 1158+25	RT	50	1	1
STA. 1158+03 TO STA. 1158+66	LT	62.5	1	1
STA. 1160+03 TO STA. 1160+97	RT	-	1	1
STA. 1161+73 TO STA. 1162+67	LT	-	1	1
TOTAL		112.5	4	4

TEMPORARY CONCRETE BARRIER SCHEDULE				
LOCATION	TEMP. CONC. BARRIER (FOOT)	RELOCATE TEMP. CONC. BARRIER (FOOT)	TL 3 TEMP. IMPACT ATTENUATOR (EACH)	RELOCATE TL3 TEMP. IMPACT ATTENUATOR (EACH)
STA. 1158+04.5 TO STA. 1160+67.0, 3' RT	262.5			
STA. 1158+05, 4' RT			1	
STA. 1158+30 TO STA. 1160+67.5, 29' RT		237.5		
STA. 1158+30, 4' LT				1
STA. 1160+67, 4' LT				1
STA. 1160+68, 4' RT			1	
TOTAL	262.5	237.5	2	2

AGGREGATE SHOULDER SCHEDULE		
LOCATION	OFFSET	AGGREGATE SHOULDERS, TYPE B 10"
STA. 1151+02 TO STA. 1154+04.8	LT	185
STA. 1151+38 TO STA. 1154+04.8	RT	175
STA. 1163+00 TO STA. 1166+33	LT	204
STA. 1163+00 TO STA. 1164+42	RT	87
TOTAL		650.5

PAVEMENT AND DRIVEWAY SCHEDULE							
LOCATION	OFFSET	10" TEMP. PAVEMENT (SQ YD)	HMA SURFACE MIX "D" N70 (TON)	HMA BINDER IL-19.0 N70 (TON)	HMA ASPHALT SHOULDER, 8" (SQ YD)	HMA SURFACE MIX "C" N50 (TON)	HMA BASE COURSE, 8" (SQ YD)
STA. 1151+05 TO STA. 1154+05	LT	210					
STA. 1151+05 TO STA. 1158+40	RT	637					
STA. 1154+00	RT					10	
STA. 1154+00	RT						92
STA. 1154+05 TO STA. 1159+20	CL		231				
STA. 1154+05 TO STA. 1159+20	CL			1096			
STA. 1154+05 TO STA. 1155+55	RT				100		
STA. 1154+50	LT					13	
STA. 1154+50	LT						118
STA. 1154+88 TO STA. 1159+20	LT				288		
STA. 1155+75	RT						149
STA. 1155+75	RT					17	
STA. 1156+06 TO STA. 1159+20	RT				209		
STA. 1156+57 TO STA. 1158+70	RT	151					
STA. 1156+67 TO STA. 1159+25	LT	83					
STA. 1158+70 TO STA. 1160+00	RT	374					
STA. 1159+52 TO STA. 1161+17	RT				110		
STA. 1159+52 TO STA. 1163+00	LT				232		
STA. 1159+53 TO STA. 1163+00	CL		155				
STA. 1159+53 TO STA. 1163+00	CL			738			
STA. 1159+54 TO STA. 1161+95	LT	78					
STA. 1160+00 TO STA. 1161+95	RT	158					
STA. 1160+68 TO STA. 1168+40	RT	690					
STA. 1161+25	RT					13	
STA. 1161+25	RT						120
STA. 1161+59 TO STA. 1162+11	RT				35		
STA. 1162+25	RT					10	
STA. 1162+25	RT						85
STA. 1162+42 TO STA. 1163+00	RT				39		
STA. 1163+00 TO STA. 1166+60	LT	255					
STA. 1163+00 TO STA. 1168+40	LT	241					
STA. 1163+25	RT					13	
STA. 1163+25	RT						112
TOTAL		2878	386	1835	1013	76	676

EARTHWORK SCHEDULE					
ITEM (CY)	TOTAL	PRE-STAGE	STAGE 1	STAGE 3 & 4	STAGE 5
EARTH EXCAVATION	1,837	63	501	976	298
*ADJUSTED EARTH EXCAVATION	1,561	53	426	829	253
FILL/FURNISHED EXCAVATION	1,123	3	106	751	263
EARTHWORK BALANCE EXCESS (+) OR SHORTAGE (-)	+438	+50	+320	+78	-10
REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL (UNDERCUT)	100	-	-	-	-

*NOTE: SHRINKAGE CALCULATED USING 15% SHRINKAGE FACTOR.

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DATE	JANUARY 3, 2011	REVISED	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

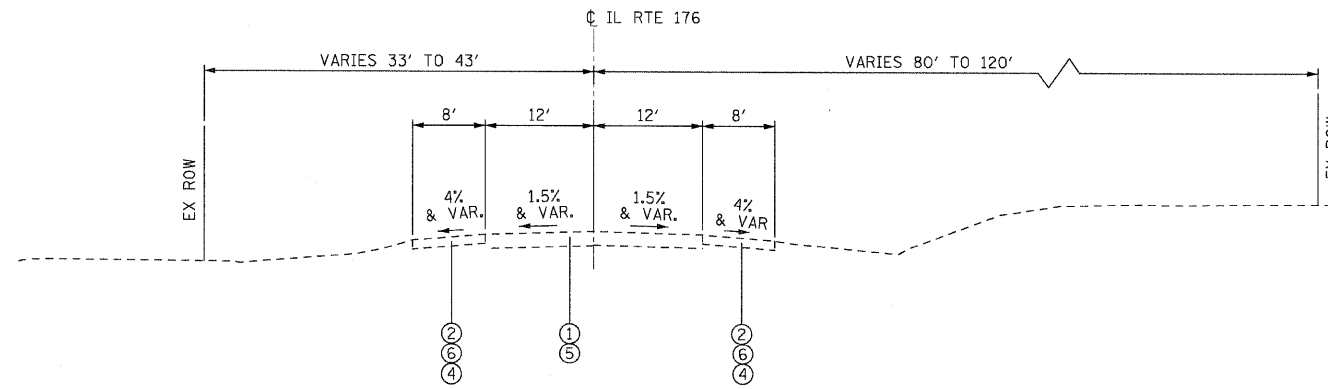
IL ROUTE 176 OVER EAST SKOKIE DITCH
SCHEDULE OF QUANTITIES

SCALE: N.T.S. SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1238	C-B-1	LAKE	61	5
ILLINOIS FED. AID PROJECT			CONTRACT NO. 60J67	

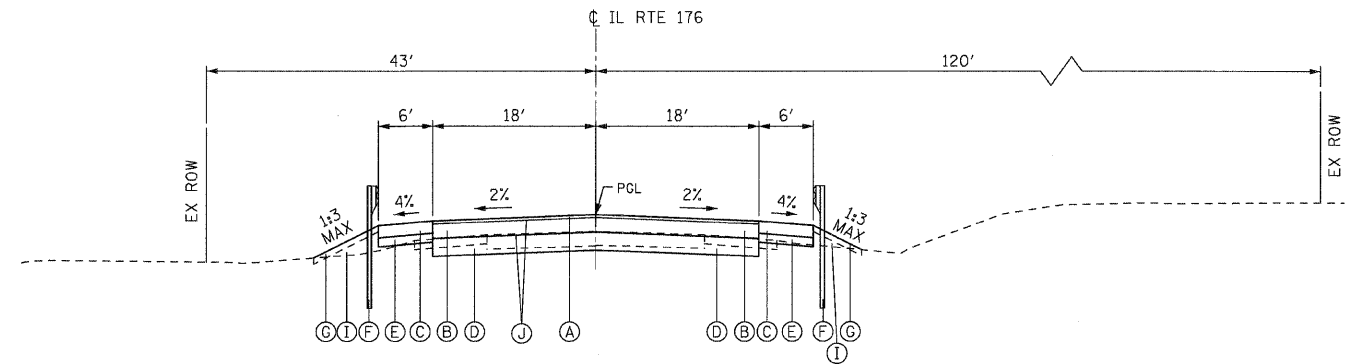
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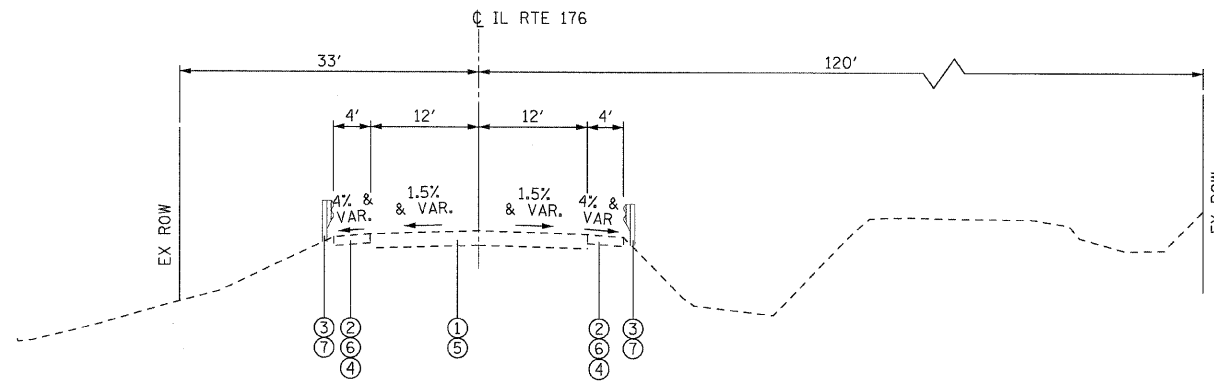
EXISTING TYPICAL SECTION

STA. 1151+00 TO STA. 1158+00
STA. 1161+00 TO STA. 1163+00



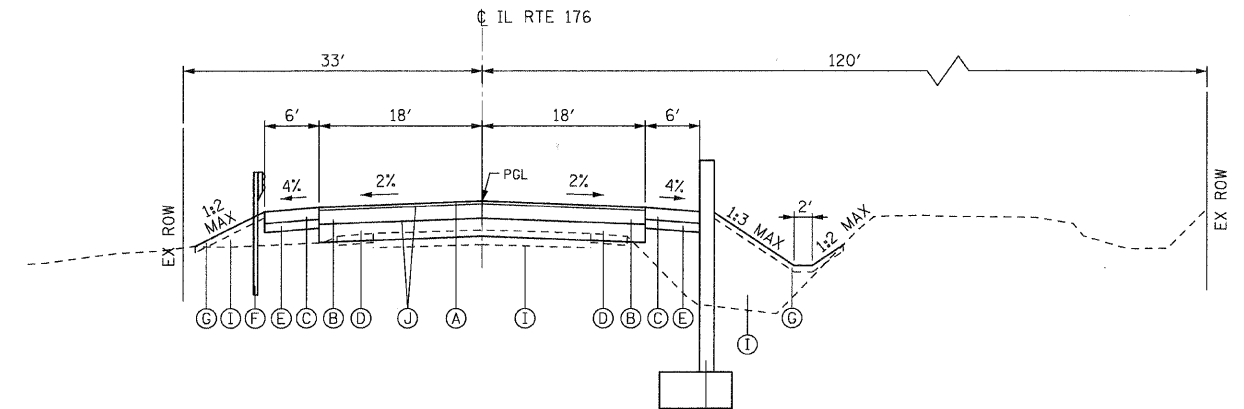
PROPOSED TYPICAL SECTION

STA. 1157+50 TO STA. 1158+70



EXISTING TYPICAL SECTION

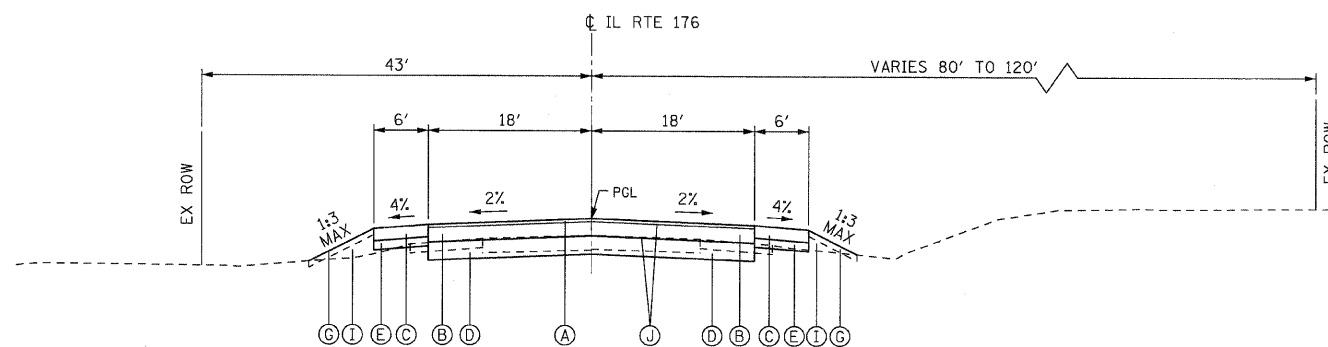
STA. 1158+00 TO STA. 1161+00



PROPOSED TYPICAL SECTION

STA. 1158+70 TO STA. 1159+09

STA. 1158+09 TO STA. 1159+63
(SEE STRUCTURAL PLANS)



PROPOSED TYPICAL SECTION

STA. 1154+04.8 TO STA. 1157+50

LEGEND

EXISTING CONDITIONS

- ① HMA PAVEMENT
- ② AGGREGATE SHOULDER
- ③ STEEL PLATE BEAM GUARDRAIL
- ④ EARTH EXCAVATION
- ⑤ PAVEMENT REMOVAL
- ⑥ AGGREGATE SHOULDER TO BE REMOVED
- ⑦ GUARDRAIL REMOVAL

PROPOSED CONDITIONS

- Ⓐ HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70, 2"
- Ⓑ HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70, 10"
- Ⓒ HOT-MIX ASPHALT SHOULDER, 8"
- Ⓓ AGGREGATE SUBGRADE, 12"
- Ⓔ SUBBASE GRANULAR MATERIAL, TYPE B, 6"
- Ⓕ STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS
- Ⓖ DITCH RESTORATION:
-EROSION CONTROL BLANKET
-SEEDING, CLASS 2A
-TOPSOIL FURNISH AND PLACE 4"
- Ⓗ CONCRETE RETAINING WALL
- Ⓘ FILL/FURNISHED EXCAVATION
- Ⓝ BITUMINOUS MATERIALS PRIME COAT

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DATE	JANUARY 3, 2011	REVISED	-

STATE OF ILLINOIS
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IL ROUTE 176 OVER EAST SKOKIE
EXISTING AND PROPOSED TYPICAL SECTIONS

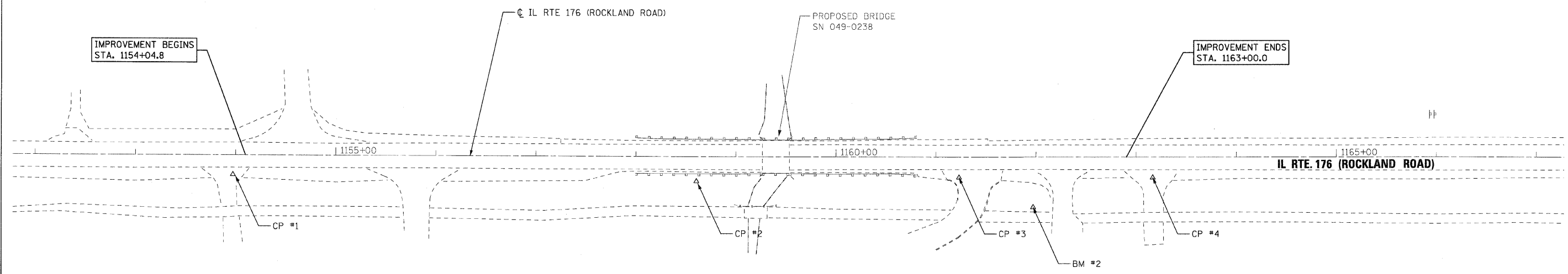
SCALE: NTS SHEET NO. 1 OF 2 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1238	C-B-I	LAKE	61	6
			CONTRACT NO. 60J67	
ILLINOIS FED. AID PROJECT				



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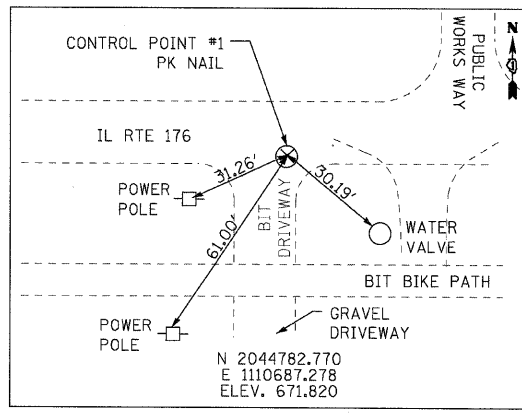
BENCHMARK:
 BM#A
 SQUARE CUT ON NORTH SIDE OF TRAFFIC LIGHT CONCRETE BASE AT THE SOUTHEAST CORNER OF SKOKIE VALLEY ROAD AND IL RTE. 176.
 ELEV = 675.73

BM#2
 CROSS CUT ON SOUTHWEST BOLT OF FIRE HYDRANT AT STA. 116+97, 51' RT.
 ELEV = 675.38

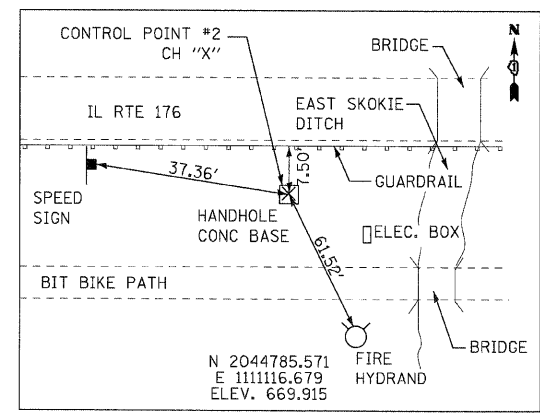
ALIGNMENT COORDINATES - IL-176 (ROCKLAND ROAD)

STATION	NORTHING	EASTING
BEG. 1154+04.8	2044802.047	1110690.617
END 1163+00	2044818.163	1111585.672

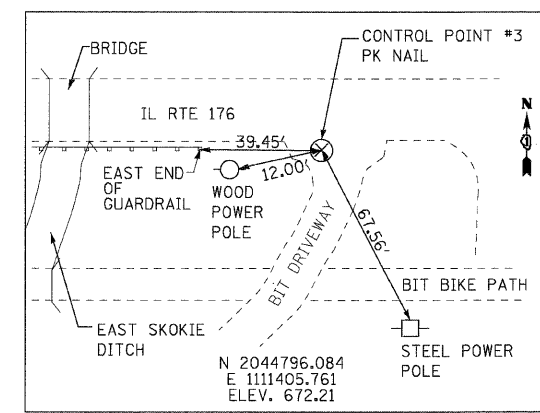
CONTROL POINT #1



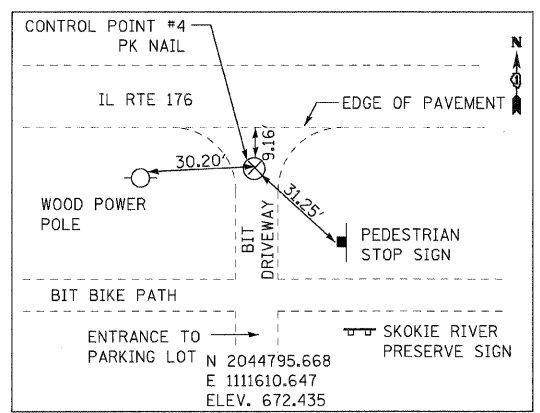
CONTROL POINT #2



CONTROL POINT #3



CONTROL POINT #4



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DATE	JANUARY 3, 2011	REVISED	-

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

IL ROUTE 176 OVER EAST SKOKIE DITCH
 ALIGNMENT & TIES

SCALE: 1"=50' SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1238	C-B-1	LAKE	61	8
CONTRACT NO. 60J67			ILLINOIS FED. AID PROJECT	

MAINTENANCE OF TRAFFIC GENERAL NOTES

1. THE MAINTENANCE OF TRAFFIC CONTROL (MOT) PLANS SHALL SERVE AS A GUIDE FOR SAFE DIVERSION OF TRAFFIC DURING EXECUTION OF THIS CONTRACT. HOWEVER, THE CONTRACTOR MAY MODIFY THE MOT PLANS TO MEET CONSTRUCTION NEEDS BUT NOT AT THE EXPENSE OF PUBLIC SAFETY OR CONVENIENCE. ANY CHANGES TO THE MOT PLANS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.
2. THE ENGINEER SHALL BE INFORMED 48 HOURS IN ADVANCE OF ANY CHANGE TO THE MOT PLANS.
3. ALL EXISTING PAVEMENT MARKINGS IN CONFLICT WITH THE MAINTENANCE OF TRAFFIC STRIPING SHALL BE REMOVED. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT, "PAVEMENT MARKING REMOVAL".
4. THE CONTRACTOR SHALL REMOVE ALL TEMPORARY PAVEMENT MARKING TAPE WHICH CONFLICTS WITH THE NEXT STAGE OR FINAL STRIPING.
5. ALL TRAFFIC CONTROL DEVICES USED FOR THE MAINTENANCE OF TRAFFIC, AS DETAILED ON THE PLANS, OR HIGHWAY STANDARD SHALL BE REFLECTORIZED PRIOR TO INSTALLATION AND CLEANED AS SPECIFIED IN MAINTENANCE OF TRAFFIC SPECIAL PROVISIONS OR AS DIRECTED BY THE ENGINEER.
6. ALL DRUMS, VERTICAL PANELS AND BARRICADES ADJACENT TO THE EDGE OF TRAVELED WAY SHALL BE EQUIPPED WITH STEADY-BURNING LIGHTS.
7. ALL EXISTING SIGNS WITHIN THE LIMITS OF MAINTENANCE OF TRAFFIC WHICH ARE OBSCURED BY OR OTHERWISE INTERFERED WITH BY THE CONSTRUCTION OPERATIONS AND MAINTENANCE OF TRAFFIC, SHALL BE COVERED OR REMOVED BY THE CONTRACTOR UNLESS SPECIFIED IN THE PLANS OR WHEN DIRECTED BY THE ENGINEER. THIS WORK SHALL BE IN ACCORDANCE WITH ARTICLE 107.25 OF THE IDOT STANDARD SPECIFICATIONS.
8. TEMPORARY, OFF-PEAK HOUR LANE CLOSURES MUST BE REQUESTED THROUGH THE ENGINEER AND AS SPECIFIED IN THE SPECIAL PROVISIONS, THOUGH ONE LANE OF TRAFFIC MUST REMAIN OPEN AT ALL TIMES. WHEN OFF-PEAK HOUR OR WEEKEND LANE CLOSURES ARE REQUIRED, A PORTABLE CHANGEABLE MESSAGE SIGN SHALL BE INSTALLED ONE WEEK PRIOR TO THE CLOSURE. THE MESSAGE SIGN WORDING AND LOCATION WILL BE DETERMINED BY THE ENGINEER. THE COST OF THE PORTABLE CHANGEABLE MESSAGE SIGNS SHALL BE INCIDENTAL TO THE PAY ITEM "TRAFFIC CONTROL AND PROTECTION (SPECIAL), LOCATION 1".
9. THE CONTRACTOR SHALL PLACE A CHANGEABLE MESSAGE SIGN AT EACH END OF THE PROJECT AND/OR AS DIRECTED BY THE ENGINEER TO INFORM MOTORISTS OF UPCOMING CONSTRUCTION ACTIVITIES. THE MESSAGE SIGNS WITH THE APPROPRIATE INFORMATION SHALL BE IN PLACED TWO WEEKS BEFORE START OF CONSTRUCTION ACTIVITY. THIS WORK IS TO BE PAID FOR AT THE CONTRACT UNIT PRICE PER CALENDAR MONTH, "CHANGEABLE MESSAGE SIGN".
10. ARTERIAL ROAD INFORMATION SIGNS SHALL BE PAID FOR AS "TEMPORARY INFORMATION SIGNING". THE COST OF ALL OTHER TEMPORARY SIGNS SHALL BE INCIDENTAL TO THE PAY ITEM "TRAFFIC CONTROL AND PROTECTION (SPECIAL), LOCATION 1".
11. FOR ADDITIONAL BRIDGE CONSTRUCTION STAGING INFORMATION, SEE STRUCTURAL PLANS.
12. IL RTE. 176 SHALL BE OPEN TO TWO-WAY TRAFFIC FROM FRIDAY JULY 1, 2011 AT 3PM UNTIL TUESDAY JULY 5, 2011 AT 5AM. LIQUIDATED DAMAGES WILL BE ASSESSED IF THE ROAD IS NOT OPEN TO TWO-WAY TRAFFIC DURING THIS PERIOD.

DENOTES INCIDENTAL ITEMS

SUGGESTED CONSTRUCTION SEQUENCING

PRESTAGE

CONSTRUCTION:
REMOVE EXISTING PAVEMENT MARKINGS. CONSTRUCT TEMPORARY HMA PAVEMENT ON NORTH SIDE OF BRIDGE. INSTALL TEMPORARY SIGNALS.

IMPLEMENT STAGE 1 MOT PAVEMENT MARKING AND TRAFFIC CONTROL

MAINTENANCE OF TRAFFIC:
UTILIZE STANDARD 701321-11 AND 701326-04.

STAGE 1

CONSTRUCTION:
EASTBOUND LANES: REMOVE HMA PAVEMENT FROM STATION 1158+70 TO 1160+00 TO CONSTRUCT THE SOUTH HALF OF BRIDGE, PCC DECK BEAMS, SUBSTRUCTURE, GUARDRAIL AND TERMINAL BARRIER.
PLACE NEW THREE SIDED PRECAST CONCRETE STRUCTURE, SUBSTRUCTURE, AND HMA TEMPORARY PAVEMENT. INSTALL SOUTHEAST AND SOUTHWEST RETAINING WALLS.

MAINTENANCE OF TRAFFIC:
UTILIZE MAINTENANCE OF TRAFFIC DETAILS IN THE PLANS AND STANDARD 701321-11.

STAGE 2

CONSTRUCTION:
WESTBOUND LANES: RELOCATE THE TEMPORARY TRAFFIC SIGNAL. REMOVE EXISTING HMA PAVEMENT FROM STATION 1158+70 TO 1160+00 TO CONSTRUCT THE NORTH HALF OF BRIDGE, PCC DECK BEAMS, SUBSTRUCTURE AND REMOVE GUARDRAIL AND TERMINALS.
PLACE NEW THREE SIDED PRECAST STRUCTURE AND SUBSTRUCTURE. INSTALL NORTHEAST RETAINING WALL.

MAINTENANCE OF TRAFFIC:
UTILIZE MAINTENANCE OF TRAFFIC DETAILS IN THE PLANS AND STANDARD 701321-11

STAGE 3

CONSTRUCTION:
WESTBOUND LANES:
REMOVE TEMPORARY SIGNAL. REMOVE THE REMAINING WB HMA PAVEMENT AND AGGREGATE SHOULDER. PLACE EB TEMPORARY HMA PAVEMENT FOR TRANSITIONS AND CONSTRUCT HMA SHOULDER AND MAINLINE PAVEMENTS ON NORTH SIDE. GRADE ROADSIDE DITCHES ON WB SIDE. INSTALL GUARDRAIL AND TERMINAL.

MAINTENANCE OF TRAFFIC:
UTILIZE MAINTENANCE OF TRAFFIC DETAILS IN THE PLANS AND STANDARDS 701502-04 AND 701606-07.

STAGE 4

CONSTRUCTION:
WESTBOUND/EASTBOUND:
REMOVE EXISTING HMA PAVEMENT IN THE CENTER OF IL 176 AND TEMPORARY PAVEMENT.
CONSTRUCT HMA MAINLINE PAVEMENT IN THE CENTER OF IL 176.

MAINTENANCE OF TRAFFIC:
UTILIZE MAINTENANCE OF TRAFFIC DETAILS IN THE PLANS AND STANDARDS 701502-04 AND 701606-07.

STAGE 5

CONSTRUCTION:
EASTBOUND:
CONSTRUCT HMA SHOULDER AND MAINLINE PAVEMENTS ALONG EB IL 176. GRADE ROADSIDE DITCHES ALONG EB IL 176. INSTALL GUARDRAIL AND TERMINAL.

MAINTENANCE OF TRAFFIC:
UTILIZE MAINTENANCE OF TRAFFIC DETAILS IN THE PLANS AND STANDARDS 701502-04 AND 701606-07.

STAGE 6

CONSTRUCTION:
PLACE AGGREGATE SHOULDERS, LANDSCAPING, PAVEMENT MARKINGS AND RAISED REFLECTIVE MARKERS.

MAINTENANCE OF TRAFFIC:
UTILIZE STANDARDS 701311-03.

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		PT. OF WAY	CHECKED	
		ADJ. FILE	NAME	
PLAN	NOTE BOOK	NO.		

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PLAN	NOTE BOOK	NO.		

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DATE	JANUARY 3, 2011	REVISED	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL ROUTE 176 OVER EAST SKOKIE DITCH
MOT GENERAL NOTES AND SUGGESTED CONSTRUCTION SEQUENCING

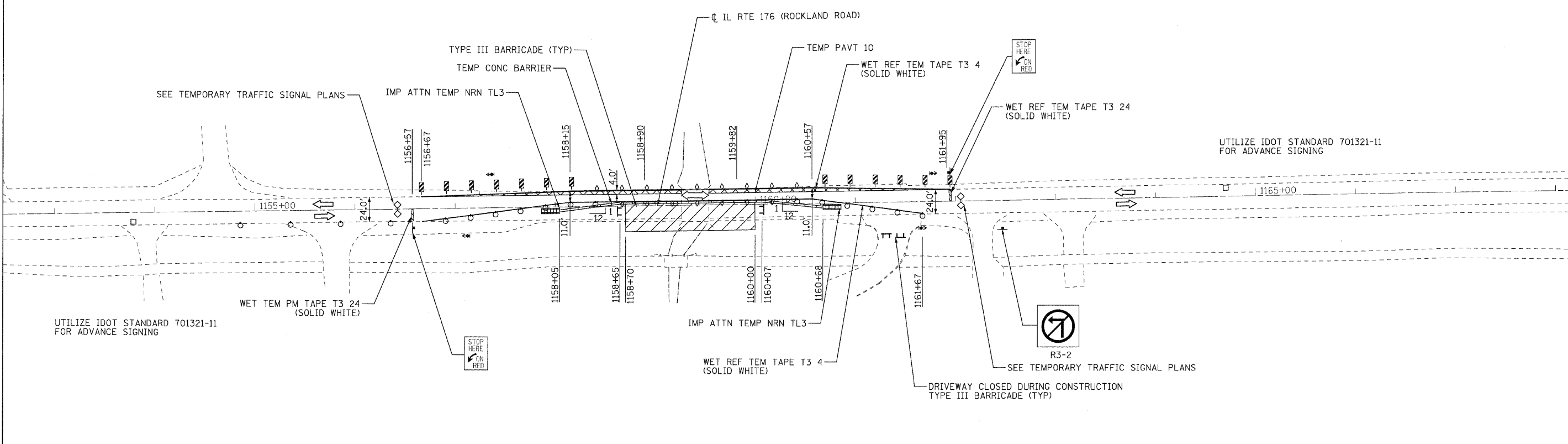
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F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1238	C-B-I	LAKE	62	10
CONTRACT NO. 60J67				
ILLINOIS FED. AID PROJECT				



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PLAN	SURVEYED	DATE
NOTE BOOK	ALIGNMENT CHECKED	
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UTILIZE IDOT STANDARD 701321-11 FOR ADVANCE SIGNING

UTILIZE IDOT STANDARD 701321-11 FOR ADVANCE SIGNING

- LEGEND:**
- WORK AREA
 - TEMPORARY PAVEMENT
 - TEMPORARY CONCRETE BARRIER
 - SIGN
 - DRUM WITH STEADY BURNING BIDIRECTIONAL LIGHT
 - VERTICAL PANEL
 - TYPE III BARRICADE
 - IMPACT ATTENUATOR, TEMPORARY (NON-REDIRECTIVE, NARROW) TEST LEVEL 3
 - DIRECTION OF TRAFFIC
 - DIRECTION OF TRAFFIC
 - DETECTOR LOOPS
 - CRYSTAL, BIDIRECTIONAL BARRIER WALL/GUARDRAIL MARKER
 - TEMPORARY TRAFFIC SIGNAL

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STATE OF ILLINOIS
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IL ROUTE 176 OVER EAST SKOKIE DITCH
SUGGESTED STAGE OF CONSTRUCTION & TRAFFIC CONTROL
STAGE 1

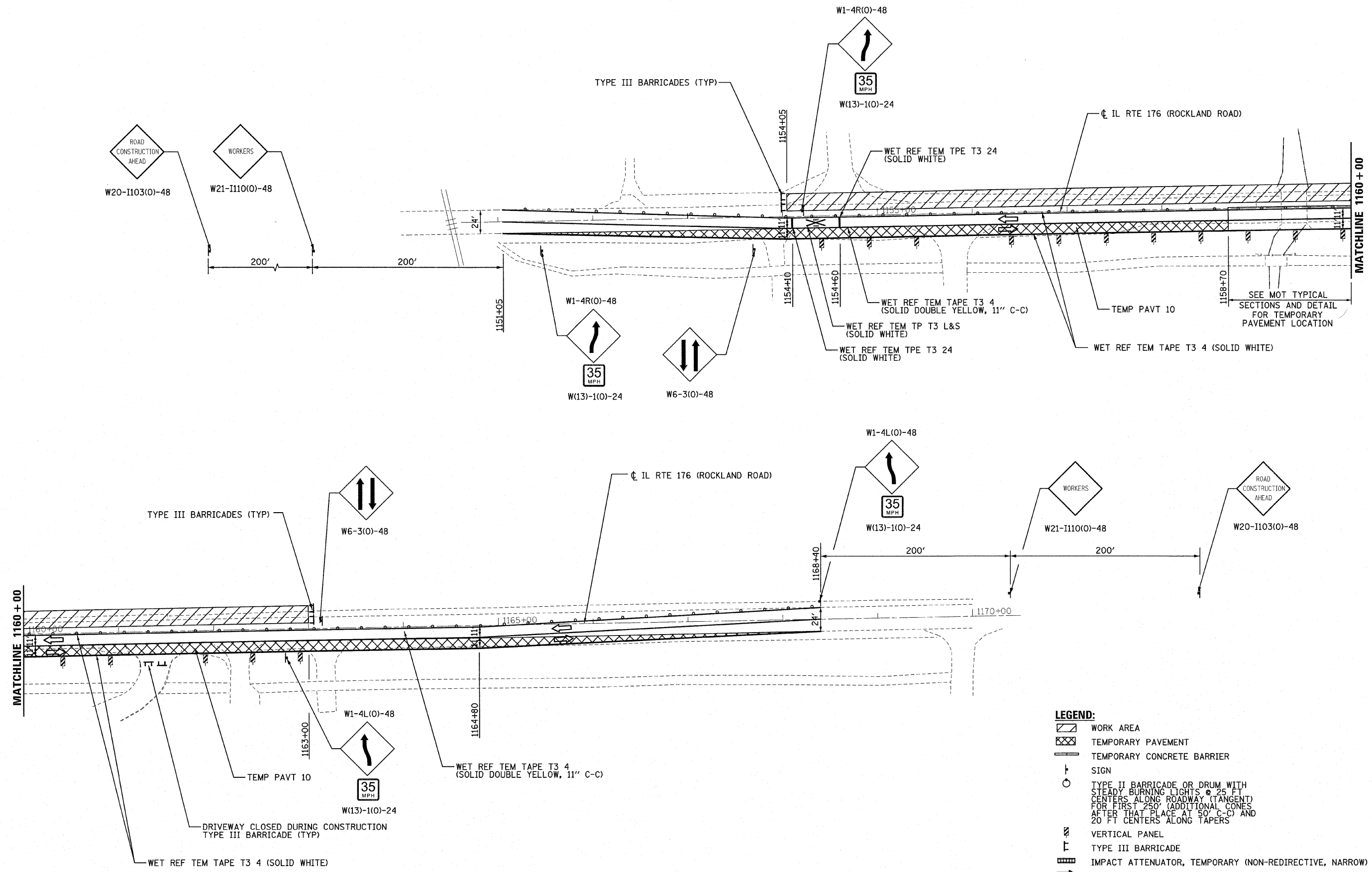
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F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1238	C-B-1	LAKE	61	12
				CONTRACT NO. 60J67
ILLINOIS FED. AID PROJECT				



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LEGEND:

- WORK AREA
- TEMPORARY PAVEMENT
- TEMPORARY CONCRETE BARRIER
- SIGN
- TYPE II BARRICADE OR DRUM WITH STEADY BURNING LIGHTS @ 25 FT CENTERS ALONG ROADWAY (TANGENT) FOR FIRST 250' (ADDITIONAL CONES AFTER THAT PLACE AT 50' C-C) AND 20 FT CENTERS ALONG TAPERS
- VERTICAL PANEL
- TYPE III BARRICADE
- IMPACT ATTENUATOR, TEMPORARY (NON-REDIRECTIVE, NARROW) TEST LEVEL 3
- DIRECTION OF TRAFFIC
- CONE, DRUM OR BARRICADE

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DRAWN	JRB	REVISED	-
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DATE	JANUARY 3, 2011	REVISED	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

**IL ROUTE 176 OVER EAST SKOKIE DITCH
SUGGESTED STAGE OF CONSTRUCTION & TRAFFIC CONTROL
STAGE 3**

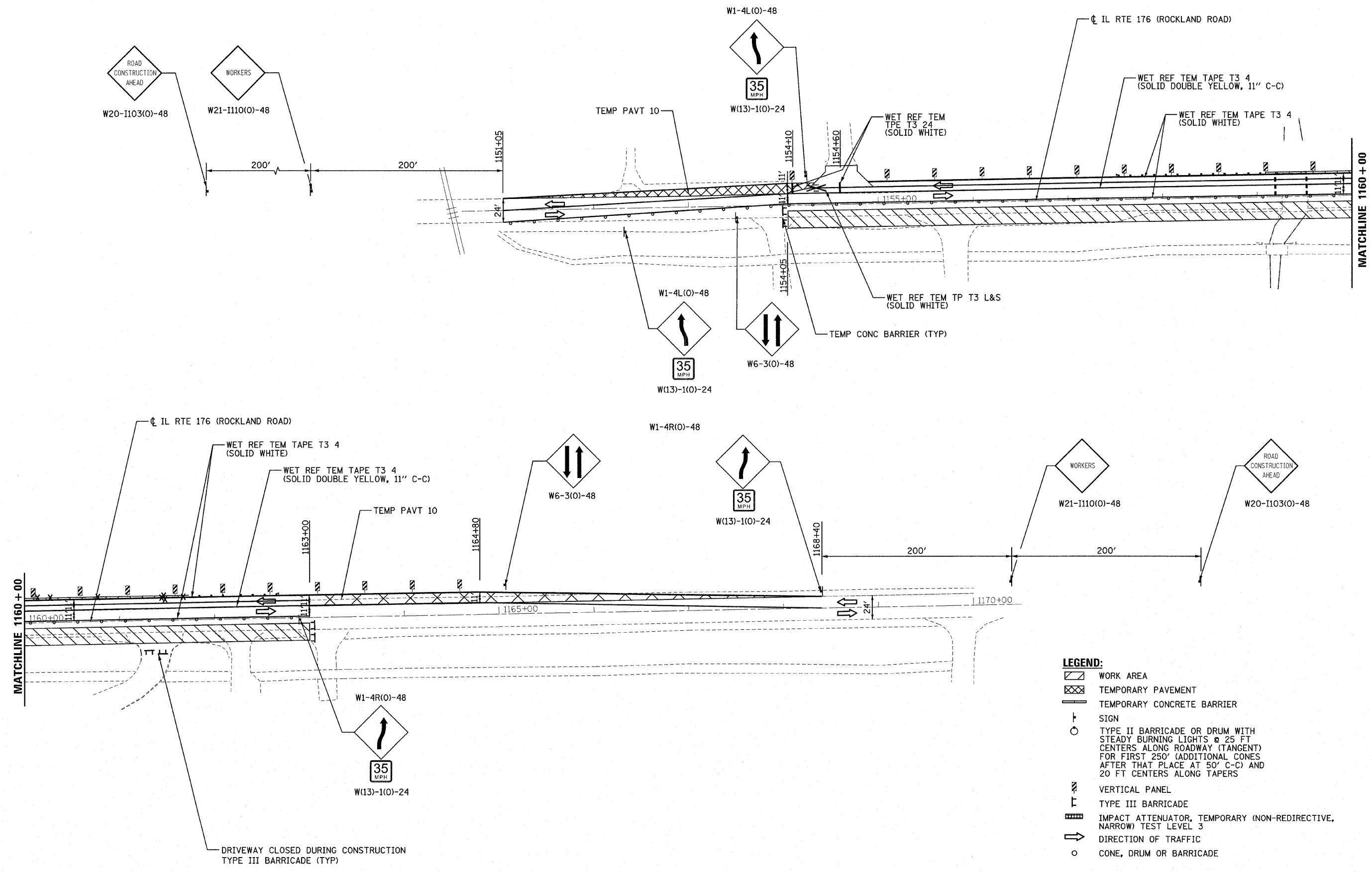
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F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1238	C-B-I	LAKE	62	14
				CONTRACT NO. 60J67
ILLINOIS FED. AID PROJECT				



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PLAN	SUBMITTED	DATE
	PLOTTED	BY
	ALIGNMENT CHECKED	
	NOTE BOOK	
	CADD FILE NAME	
	NO.	



LEGEND:

- WORK AREA
- TEMPORARY PAVEMENT
- TEMPORARY CONCRETE BARRIER
- SIGN
- TYPE II BARRICADE OR DRUM WITH STEADY BURNING LIGHTS @ 25 FT CENTERS ALONG ROADWAY (TANGENT) FOR FIRST 250' (ADDITIONAL CONES AFTER THAT PLACE AT 50' C-C) AND 20 FT CENTERS ALONG TAPERS
- VERTICAL PANEL
- TYPE III BARRICADE
- IMPACT ATTENUATOR, TEMPORARY (NON-REDIRECTIVE, NARROW) TEST LEVEL 3
- DIRECTION OF TRAFFIC
- CONE, DRUM OR BARRICADE

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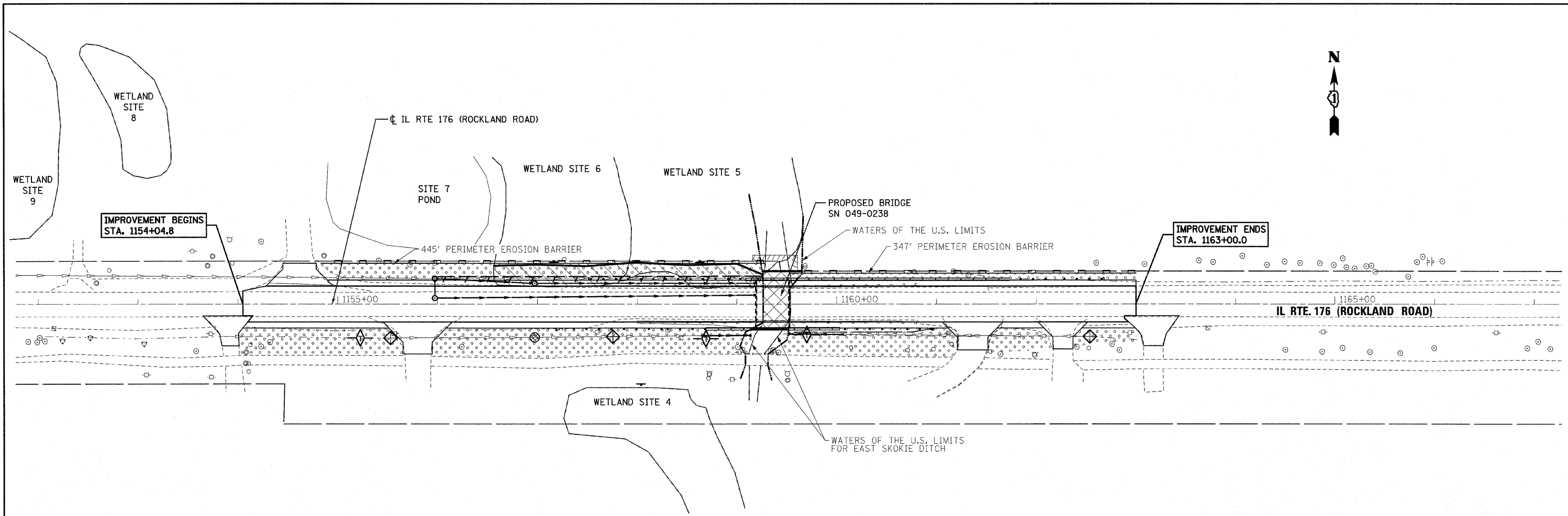
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL ROUTE 176 OVER EAST SKOKIE DITCH
SUGGESTED STAGE OF CONSTRUCTION & TRAFFIC CONTROL
STAGE 5
SCALE: 1" = 50' SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1238	C-B-1	LAKE	62	16
				CONTRACT NO. 60J67
ILLINOIS FED. AID PROJECT				

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EROSION CONTROL NOTES

1. THE EROSION CONTROL MEASURES INDICATED ON THE PLANS ARE THE MINIMUM REQUIREMENTS. ADDITIONAL MEASURES MAY BE REQUIRED, AS DIRECTED BY THE ENGINEER.
2. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS TO PREVENT POLLUTION OF STORM WATER AND SHALL FOLLOW IEPA & IDOT CONSTRUCTION MEMORANDUM NO. 02-60.
3. ALL VEGETATIVE AND STRUCTURAL EROSION CONTROL PRACTICES SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE MINIMUM STANDARDS AND SPECIFICATIONS OF THE "ILLINOIS PROCEDURES AND STANDARDS FOR URBAN SOIL EROSION AND SEDIMENTATION CONTROL" AND THE "STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL" OF THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY.
4. SOIL DISTURBANCE SHALL BE CONDUCTED IN SUCH A MANNER AS TO MINIMIZE EROSION. SOIL STABILIZATION MEASURES SHALL CONSIDER THE TIME OF YEAR, SITE CONDITIONS AND THE USE OF TEMPORARY OR PERMANENT MEASURES.
5. THE MAINTENANCE AND REPAIR OR REPLACEMENT OF EROSION CONTROL ITEMS, WHEN DIRECTED BY THE ENGINEER, WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE COST OF THE ASSOCIATED PAY ITEMS.
6. ALL STORM SEWER FACILITIES THAT ARE OR WILL BE FUNCTIONING DURING CONSTRUCTION SHALL BE PROTECTED, FILTERED OR OTHERWISE TREATED TO REMOVE SEDIMENT. MUD AND SEDIMENT DEPOSITS SHALL BE REMOVED FROM THE ROADWAY AT THE END OF EACH WORK DAY BY SHOVELING AND/OR SWEEPING.
7. INLET FILTERS SHALL BE PLACED ON ALL CATCH BASINS, INLETS, AND MANHOLES WITH OPEN GRATES.
8. THE CONTRACTOR SHALL APPLY TEMPORARY EROSION CONTROL SEEDING TO ALL ERODIBLE BARE EARTH AREAS WITHIN 7 DAYS AFTER THE EARTH IS EXPOSED. APPLICATION RATE USED: 100 LB/ACRE
9. BROADCASTING OF THE SEED BY MACHINE, HAND METHODS, HYDRAULIC SEEDING OR OTHER METHODS APPROVED BY THE ENGINEER WILL BE ALLOWED FOR TEMPORARY EROSION CONTROL SEEDING.
10. TOPSOIL AND FERTILIZER NUTRIENTS ARE NOT REQUIRED FOR TEMPORARY EROSION CONTROL SEEDING.
11. SEED BED PREPARATION WILL NOT BE REQUIRED FOR TEMPORARY EROSION CONTROL SEEDING IF THE SOIL IS IN A LOOSE CONDITION. LIGHT DISKING SHALL BE DONE IF THE SOIL IS HARD PACKED OR CAKED.
12. MULCH WILL NOT BE REQUIRED AFTER TEMPORARY EROSION CONTROL SEEDING HAS BEEN COMPLETED ON AREAS WITH SLOPES FLATTER THAN 1:3 (V:H) THAT ARE TEMPORARY SEEDED BEFORE NOVEMBER 2.
13. MULCH, METHOD 2 (PROCEDURE 2) SHALL BE PLACED IN ACCORDANCE WITH THE REQUIREMENT OF THE STANDARD SPECIFICATIONS AFTER TEMPORARY EROSION CONTROL SEEDING HAS BEEN COMPLETED ON AREAS WITH SLOPES STEEPER THAN 1:3 (V:H) THAT ARE TEMPORARY SEEDED BEFORE NOVEMBER 2.
14. EROSION CONTROL BLANKET SHALL BE PLACED IN ACCORDANCE WITH THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS AFTER TEMPORARY EROSION CONTROL SEEDING HAS BEEN COMPLETED ON ALL AREAS THAT ARE TEMPORARY SEEDED ON OR AFTER NOVEMBER 2.
15. ALL TEMPORARY INFORMATION SIGNS, PERIMETER EROSION BARRIER AND TEMPORARY FENCE SHALL BE INSTALLED WITHIN THE TEMPORARY EASEMENT, PROPOSED RIGHT-OF-WAY OR EXISTING RIGHT-OF-WAY.
16. 'WETLANDS' SIGNS SHALL BE ATTACHED TO THE PERIMETER EROSION BARRIER POST AT EACH WETLAND. SIGNS ARE AVAILABLE FROM THE IDOT ROADSIDE DEVELOPMENT UNIT (847) 705-4171. THE COST TO PICK UP AND INSTALL THESE SIGNS FROM THE IDOT ROADSIDE DEVELOPMENT UNIT SHALL BE INCLUDED IN THE PAY ITEM FOR 'PERIMETER EROSION BARRIER'.

EROSION CONTROL LEGEND

PERIMETER EROSION BARRIER	
RIPRAP	
TEMPORARY INFORMATION SIGNING (FOR WETLAND AREAS)	
TEMPORARY EROSION CONTROL SEEDING	
DRAINAGE PROTECTION (PAID FOR AS PERIMETER EROSION BARRIER)	
INLET FILTER	
TEMPORARY DITCH CHECK	

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DRAWN	NWS	REVISED	-
CHECKED	RJD	REVISED	-
DATE	JANUARY 3, 2011	REVISED	-

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**IL ROUTE 176 OVER EAST SKOKIE DITCH
EROSION CONTROL PLAN**

SCALE: 1"=50' SHEET NO. 1 OF 1 SHEETS STA. TO STA.

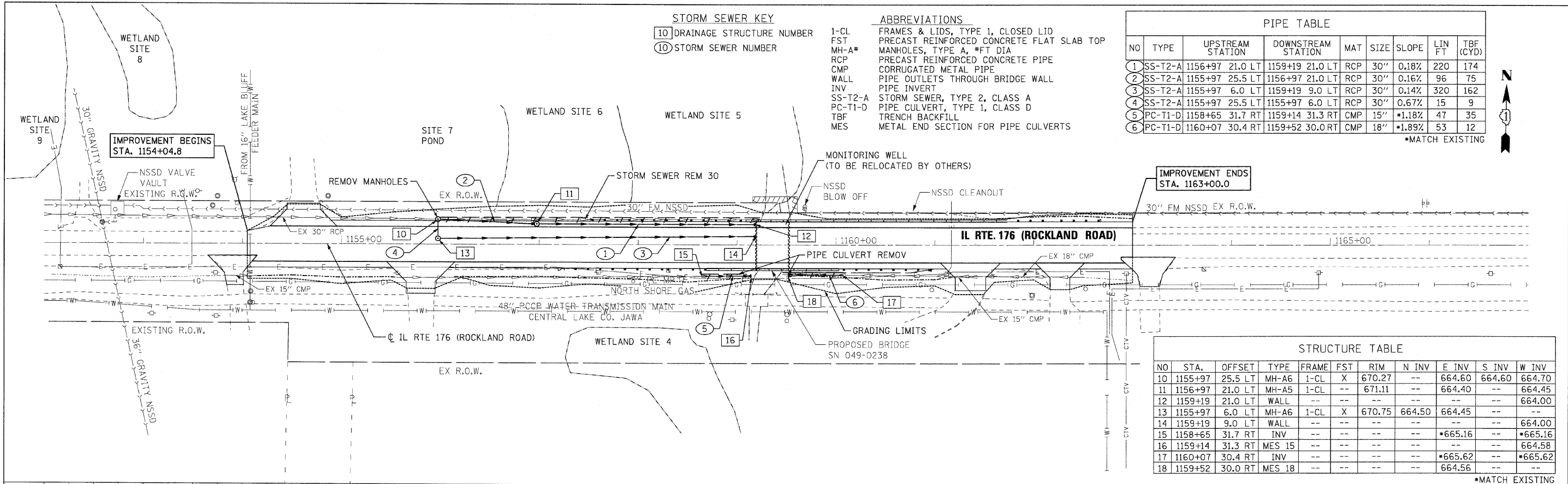
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1238	C-B-I	LAKE	62	17
CONTRACT NO. 60J67				
ILLINOIS FED. AID PROJECT				

STORM SEWER KEY
 10 DRAINAGE STRUCTURE NUMBER
 10 STORM SEWER NUMBER

ABBREVIATIONS
 1-CL FRAMES & LIDS, TYPE 1, CLOSED LID
 FST PRECAST REINFORCED CONCRETE FLAT SLAB TOP
 MH-A* MANHOLES, TYPE A, *FT DIA
 RCP PRECAST REINFORCED CONCRETE PIPE
 CMP CORRUGATED METAL PIPE
 WALL PIPE OUTLETS THROUGH BRIDGE WALL
 INV PIPE INVERT
 SS-T2-A STORM SEWER, TYPE 2, CLASS A
 PC-T1-D PIPE CULVERT, TYPE 1, CLASS D
 TBF TRENCH BACKFILL
 MES METAL END SECTION FOR PIPE CULVERTS

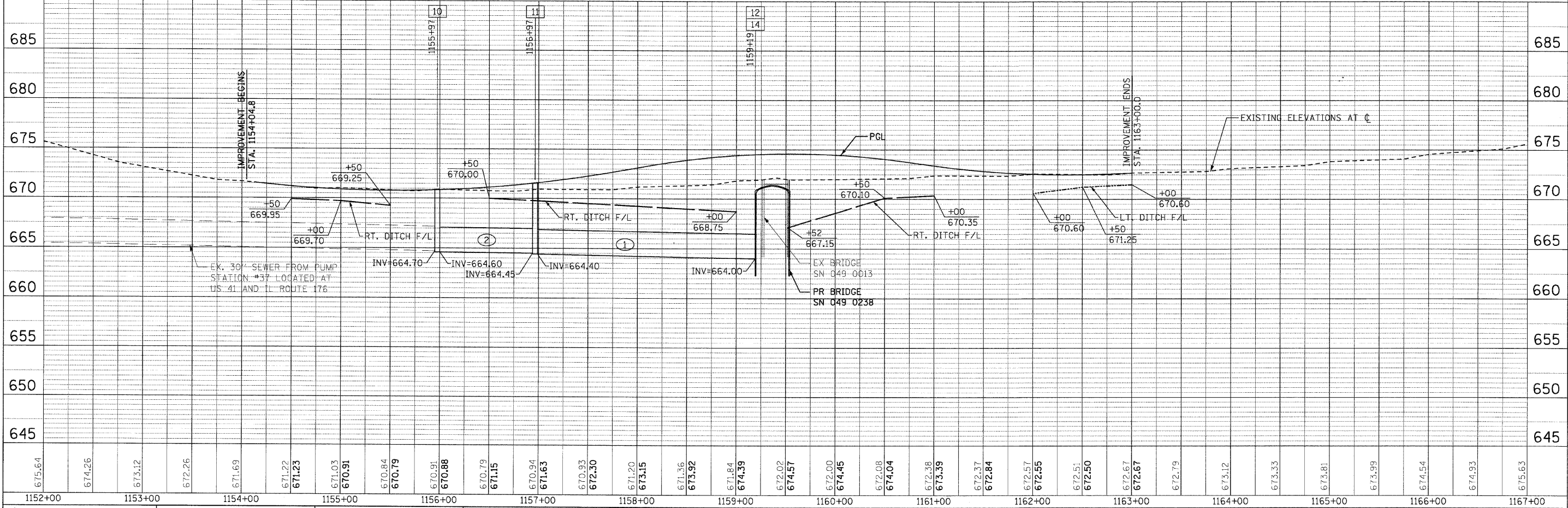
PIPE TABLE									
NO	TYPE	UPSTREAM STATION	DOWNSTREAM STATION	MAT	SIZE	SLOPE	LIN FT	TBF (CYD)	
1	SS-T2-A	1156+97 21.0 LT	1159+19 21.0 LT	RCP	30"	0.18%	220	174	
2	SS-T2-A	1155+97 25.5 LT	1156+97 21.0 LT	RCP	30"	0.16%	96	75	
3	SS-T2-A	1155+97 6.0 LT	1159+19 9.0 LT	RCP	30"	0.14%	320	162	
4	SS-T2-A	1155+97 25.5 LT	1155+97 6.0 LT	RCP	30"	0.67%	15	9	
5	PC-T1-D	1158+65 31.7 RT	1159+14 31.3 RT	CMP	15"	*1.18%	47	35	
6	PC-T1-D	1160+07 30.4 RT	1159+52 30.0 RT	CMP	18"	*1.89%	53	12	*MATCH EXISTING

DATE: _____
 BY: _____
 SURVEYED: _____
 PLAN: _____
 NOTE BOOK: _____
 NO. _____



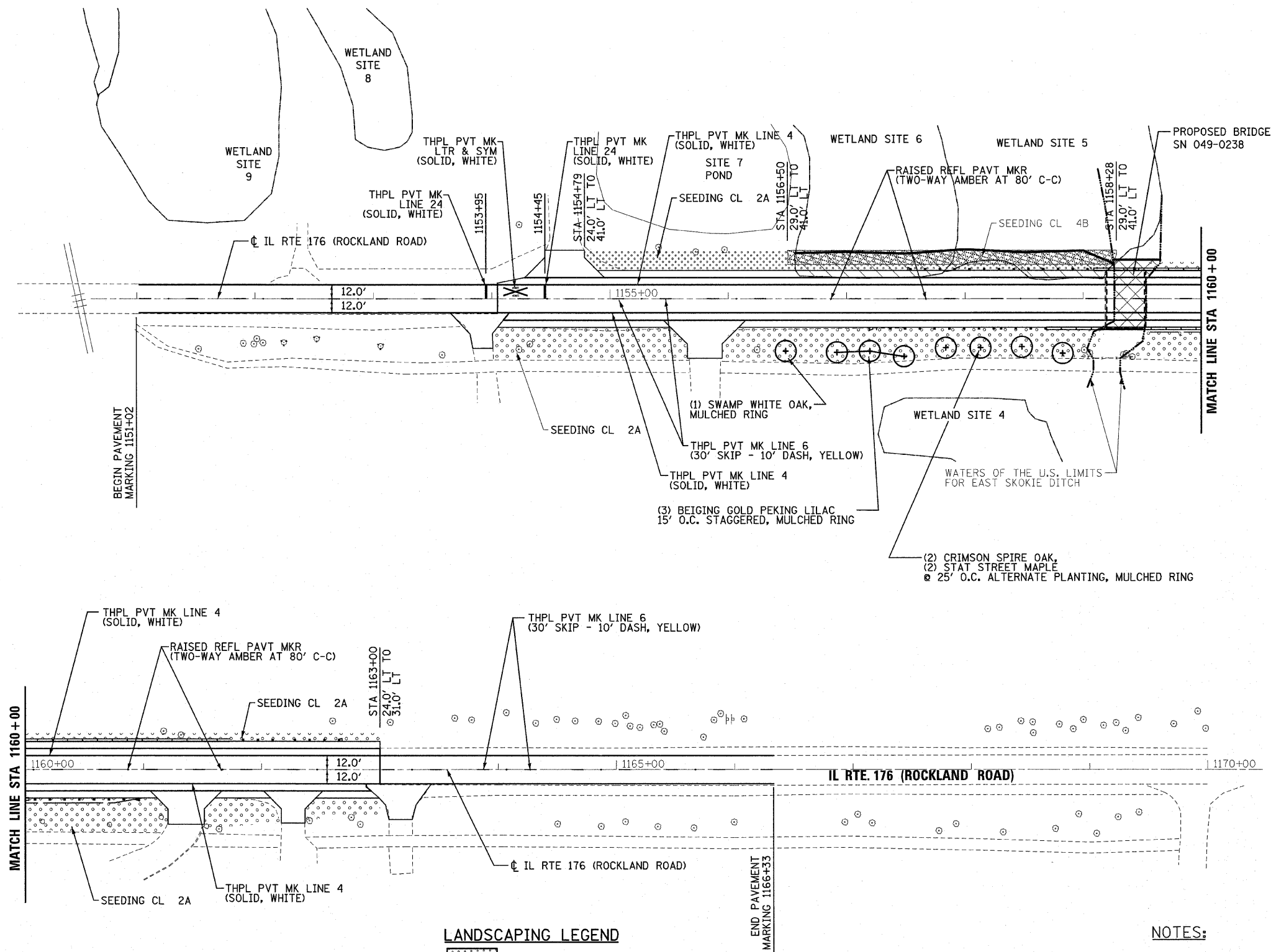
STRUCTURE TABLE											
NO	STA.	OFFSET	TYPE	FRAME	FST	RIM	N INV	E INV	S INV	W INV	
10	1155+97	25.5 LT	MH-A6	1-CL	X	670.27	--	664.60	664.60	664.70	
11	1156+97	21.0 LT	MH-A5	1-CL	--	671.11	--	664.40	--	664.45	
12	1159+19	21.0 LT	WALL	--	--	--	--	--	--	664.00	
13	1155+97	6.0 LT	MH-A6	1-CL	X	670.75	664.50	664.45	--	--	
14	1159+19	9.0 LT	WALL	--	--	--	--	--	--	664.00	
15	1158+65	31.7 RT	INV	--	--	--	--	*665.16	--	*665.16	
16	1159+14	31.3 RT	MES 15	--	--	--	--	--	--	664.58	
17	1160+07	30.4 RT	INV	--	--	--	--	*665.62	--	*665.62	
18	1159+52	30.0 RT	MES 18	--	--	--	--	664.56	--	--	*MATCH EXISTING

DATE: _____
 BY: _____
 SURVEYED: _____
 PROFILE: _____
 NOTE BOOK: _____
 NO. _____






PLAN	DATE
BY	
REVIEWED	
ALIGNED	
CHECKED	
NO.	

PLAN	DATE
BY	
REVIEWED	
ALIGNED	
CHECKED	
NO.	



LANDSCAPING LEGEND

-  SEEDING, CLASS 2A
-  SEEDING, CLASS 4B
-  PROPOSED TREE

NOTES:

- REFER TO DISTRICT 1 DETAILS "TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)" AND "TYPICAL PAVEMENT MARKING" FOR ADDITIONAL INFORMATION.

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CHECKED	RJD	REVISED	-
DATE	JANUARY 3, 2011	REVISED	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL ROUTE 176 OVER EAST SKOKIE DITCH
PAVEMENT MARKING AND LANDSCAPING PLANS

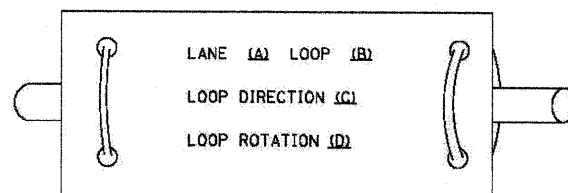
SCALE: 1"=50' SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1238	C-B-I	LAKE	62	19
CONTRACT NO. 60J67				
ILLINOIS FED. AID PROJECT				

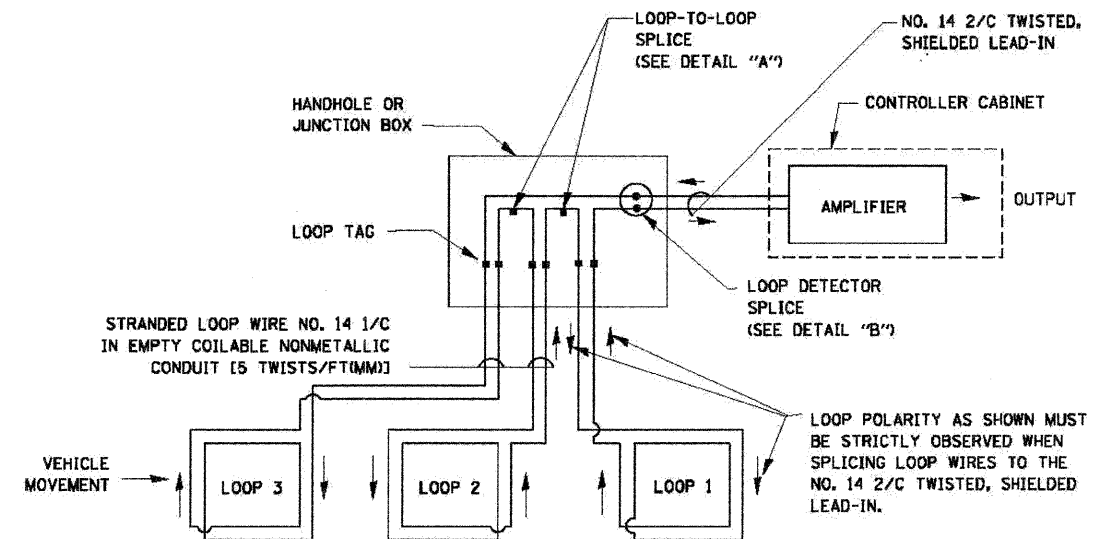
LOOP DETECTOR NOTES

- EACH PAIR OF LOOP WIRES SHALL BE PLACED IN A SEPARATE EMPTY COILABLE NONMETALLIC CONDUIT FROM THE EDGE OF PAVEMENT TO THE HANDHOLE. SPACING BETWEEN THE HOLES DRILLED IN THE PAVEMENT SHALL NOT BE LESS THAN 6" (150 mm). EMPTY COILABLE NONMETALLIC CONDUIT SHALL BE INCLUDED IN THE COST OF THE LOOP WIRE.
- THE NUMBER OF LOOP TURNS SHALL BE AS RECOMMENDED BY THE AMPLIFIER MANUFACTURER. ALL ADJACENT SIDES OF THE LOOPS SHALL BE INSTALLED IN SUCH A WAY THAT THE CURRENT FLOW IS IN THE SAME DIRECTION TO REINFORCE ITS MAGNETIC FIELDS FOR SMALL VEHICLE DETECTION.
- EACH LOOP LEAD-IN SHALL BE IDENTIFIED AND PERMANENTLY TAGGED IN THE HANDHOLE. EACH LEAD-IN CABLE TAG SHALL INDICATE THE LOCATION OF THE LOOP, LOOP ROTATION (CLOCKWISE/COUNTERCLOCKWISE), LOOP LEAD-IN DIRECTION (IN OR OUT), LOOP CABLE NUMBER AND LOCATION IN CABINET, AND NUMBER OF TURNS IN THE DETECTOR LOOPS IN WATER PROOF INK AS INDICATED ON THE DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAIL. THE CONTRACTOR SHALL MARK LOOP LOCATIONS ON RECORD DRAWINGS AND PRESENT TO THE ENGINEER AFTER FINAL INSPECTION. LOOPS SHALL BE MARKED BY LANE AND LOOP NUMBER. SEE DETAIL BELOW.
- ALL LOOP CABLE SHALL BE FASTENED WITH PLASTIC TIE WRAP TO THE HANDHOLE HOOKS.
- IN ASPHALT PAVEMENT, LOOPS SHOULD BE PLACED IN THE BINDER AND DIVESHOLES MARKED AT THE CURB WITH A SAW-CUT. THE SAW-CUT SHALL BE CUT IN ACCORDANCE WITH LOCAL AND E.P.A. DUST CONTROL REQUIREMENTS. DETECTOR LOOP(S) SHALL NOT BE INSTALLED IN WET CONDITIONS AND THE SAW-CUTS MUST BE FREE OF DEBRIS AND RESIDUE SUCH AS DUST AND WATER WHICH IS TO BE ACHIEVED BY THE USE OF COMPRESSED AIR, WIRE BRUSHING AND HEAT DRYING ACCORDING TO SEALANT MANUFACTURER REQUIREMENTS. THE DETECTOR WIRE SHALL BE HELD IN PLACE BY THE USE OF FORM WEDGES. WEDGES SHALL BE SPACED NO MORE THAN 18" (450 mm) APART.
- LOOP SPLICES SHALL BE SOLDERED USING A SOLDERING IRON. BLOW TORCHES OR OTHER DEVICES WHICH OXIDIZE COPPER CABLE SHALL NOT BE ALLOWED FOR SOLDERING OPERATIONS. SEE DETAIL BELOW RIGHT.
- PREFORMED DETECTOR LOOPS SHALL BE USED, AS SHOWN ON THE PLANS, WHERE NEW CONCRETE PAVEMENT IS PROPOSED. THE INSTALLATION OF PREFORMED LOOPS SHALL BE IN ACCORDANCE WITH THE DISTRICT 1 SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER.

LOOP LEAD-IN CABLE TAG

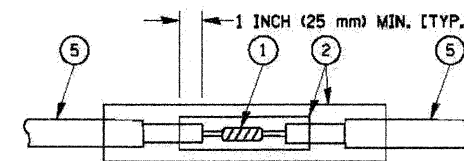


- LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

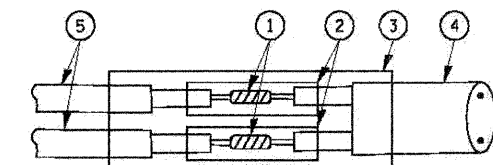


DETECTOR LOOP WIRING SCHEMATIC

- LOOPS SHALL BE SPLICED IN SERIES.
- SAW-CUTS SHALL BE A MINIMUM WIDTH OF 5/16" (8 mm).
- SAW-CUT DEPTHS SHALL BE 3" (75 mm). IF IN CONCRETE, THE SAW-CUT DEPTH SHALL BE TO THE TOP OF THE REINFORCEMENT.
- LOOP CORNERS SHALL BE DRILLED WITH A 2" (50 mm) DIAMETER CORE.

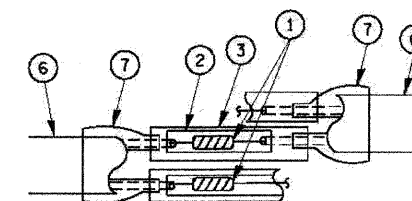


**DETAIL "A"
LOOP-TO-LOOP SPLICE**

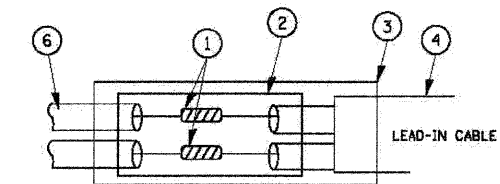


**DETAIL "B"
LOOP-TO-CONTROLLER SPLICE**

TYPE I LOOP



**DETAIL "A"
LOOP-TO-LOOP SPLICE**



PRE-FORMED LOOP

**DETAIL "B"
LOOP-TO-CONTROLLER SPLICE**

LOOP DETECTOR SPLICE

- WESTERN UNION SPLICE SOLDERED WITH ROSIN CORE FLUX. ALL EXPOSED SURFACES OF THE SOLDER SHALL BE SMOOTH.
- WCSMW 30/100 HEAT SHRINK TUBE, MINIMUM LENGTH 3" (75 mm), UNDERWATER GRADE.
- WCS 200/750 HEAT SHRINK TUBE, MINIMUM LENGTH 6" (150 mm), UNDERWATER GRADE.
- NO. 14 2/C TWISTED, SHIELDED CABLE.
- LOOP CONDUCTOR WITH FLEXIBLE PLASTIC TUBE.
- PRE-FORMED LOOP
- XL POLYOLEFIN 2 CONDUCTOR BREAKOUT SEALS, TYCO CBR-2 OR APPROVED EQUAL

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		DRAWN - BCK	REVISED -
	PLOT SCALE = #SCALE#	CHECKED - DAD	REVISED -
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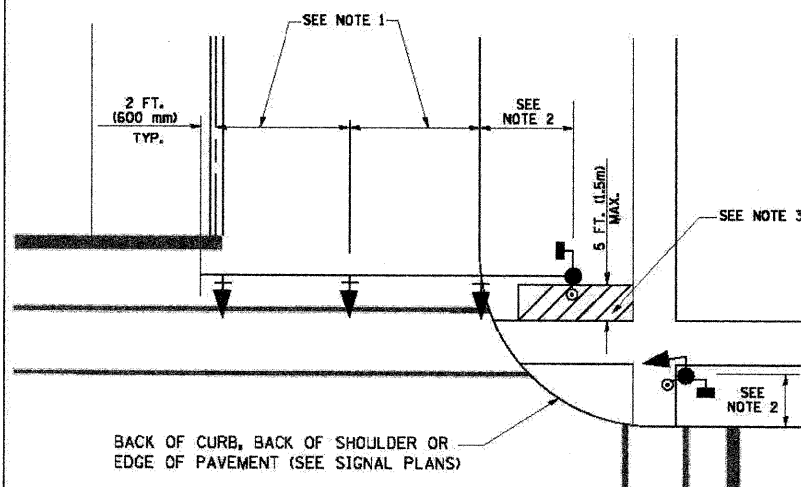
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS**

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

F.A.U. RTE. 1238	SECTION C-B-1	COUNTY LAKE	TOTAL SHEETS 61	SHEET NO. 20
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 60J67	

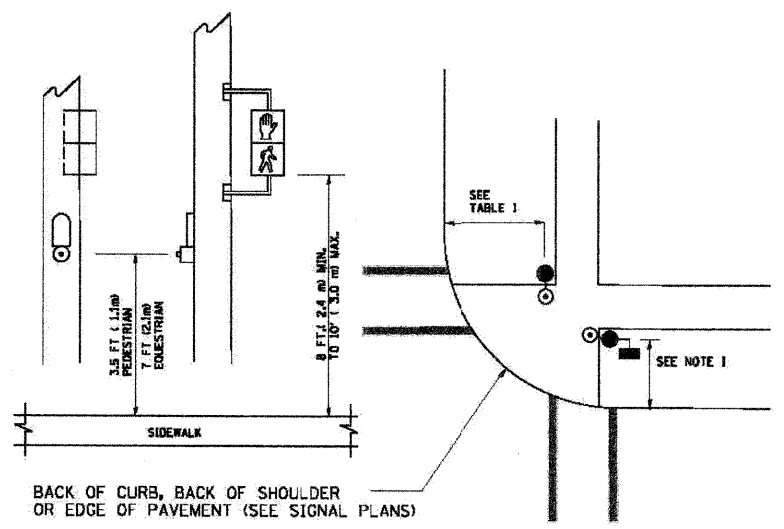
TRAFFIC SIGNAL MAST ARM AND SIGNAL POST
 MAST ARM MOUNTED SIGNALS IN EXISTING, PROPOSED OR FUTURE SIDEWALK/BICYCLE PATH AREA. INTERSECTION SHOWN WITH PEDESTRIAN SIGNALS AND PEDESTRIAN PUSHBUTTON DETECTORS.



NOTES:

1. THE SIGNAL HEAD SPACING IS EQUAL TO THE LANE WIDTH OR AS SHOWN ON THE TRAFFIC SIGNAL PLAN.
2. REFER TO THE TRAFFIC SIGNAL EQUIPMENT OFFSET TABLE.
3. PROVIDE A LEVEL ALL-WEATHER SURFACE (CONCRETE SIDEWALK, ASPHALT BICYCLE PATH SURFACE OR MATCHING MATERIAL TO THE ADJACENT SURFACE) UP TO THE MAST ARM SHAFT OR THE SIGNAL POST.
4. THE FACE OF THE PEDESTRIAN PUSHBUTTON SHALL BE PARALLEL TO THE CROSSWALK TO BE USED.
5. THE LOCATIONS AND INSTALLATION OF PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS SHALL MEET THE REQUIREMENTS OF THE MUTCD AND INFORMATION FOUND IN THE "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES."

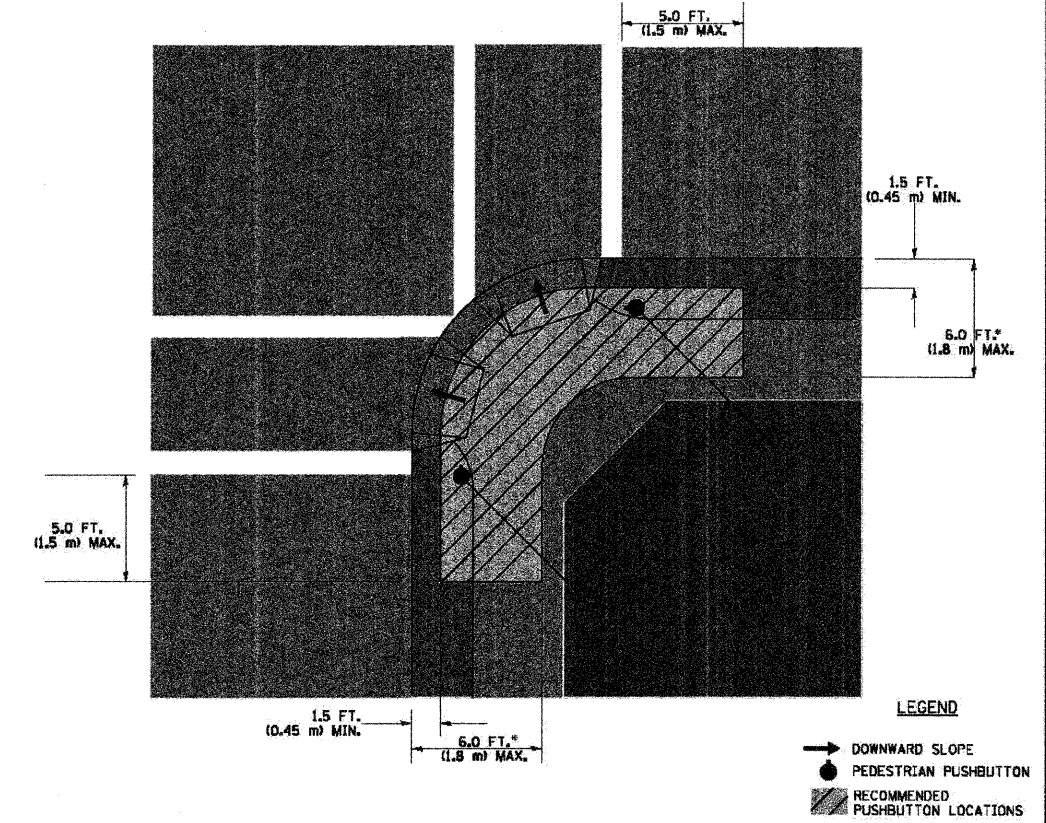
PEDESTRIAN SIGNAL POST AND PEDESTRIAN PUSH BUTTON POST



NOTES:

1. REFER TO THE TRAFFIC SIGNAL EQUIPMENT OFFSET TABLE.
2. PROVIDE A LEVEL ALL-WEATHER SURFACE (CONCRETE SIDEWALK, ASPHALT BICYCLE PATH SURFACE OR MATCHING MATERIAL TO THE ADJACENT SURFACE) UP TO THE PEDESTRIAN SIGNAL POST OR THE PEDESTRIAN PUSH BUTTON POST.
3. THE FACE OF THE PEDESTRIAN PUSHBUTTON SHALL BE PARALLEL TO THE CROSSWALK TO BE USED.
4. THE LOCATIONS AND INSTALLATION OF PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS SHALL MEET THE REQUIREMENTS OF THE MUTCD AND INFORMATION FOUND IN THE "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES."

RECOMMENDED PUSHBUTTON LOCATIONS



- WHERE THERE ARE CONSTRAINTS THAT MAKE IT IMPRACTICAL TO PLACE THE PEDESTRIAN PUSHBUTTON BETWEEN 1.5 FT (0.45 m) AND 6 FT (1.8 m) FROM THE EDGE OF THE CURB, SHOULDER, OR PAVEMENT, IT SHOULD NOT BE FURTHER THAN 10 FT (3 m) FROM THE EDGE OF CURB, SHOULDER, OR PAVEMENT.
- WHERE THERE ARE CONSTRAINTS ON A PARTICULAR CORNER THAT MAKE IT IMPRACTICAL TO PROVIDE THE 10 FT (3 m) SEPERATION BETWEEN THE TWO PEDESTRIAN PUSHBUTTONS, THE PUSHBUTTONS MAY BE PLACED CLOSER TOGETHER OR ON THE SAME POLE.

NOTES:

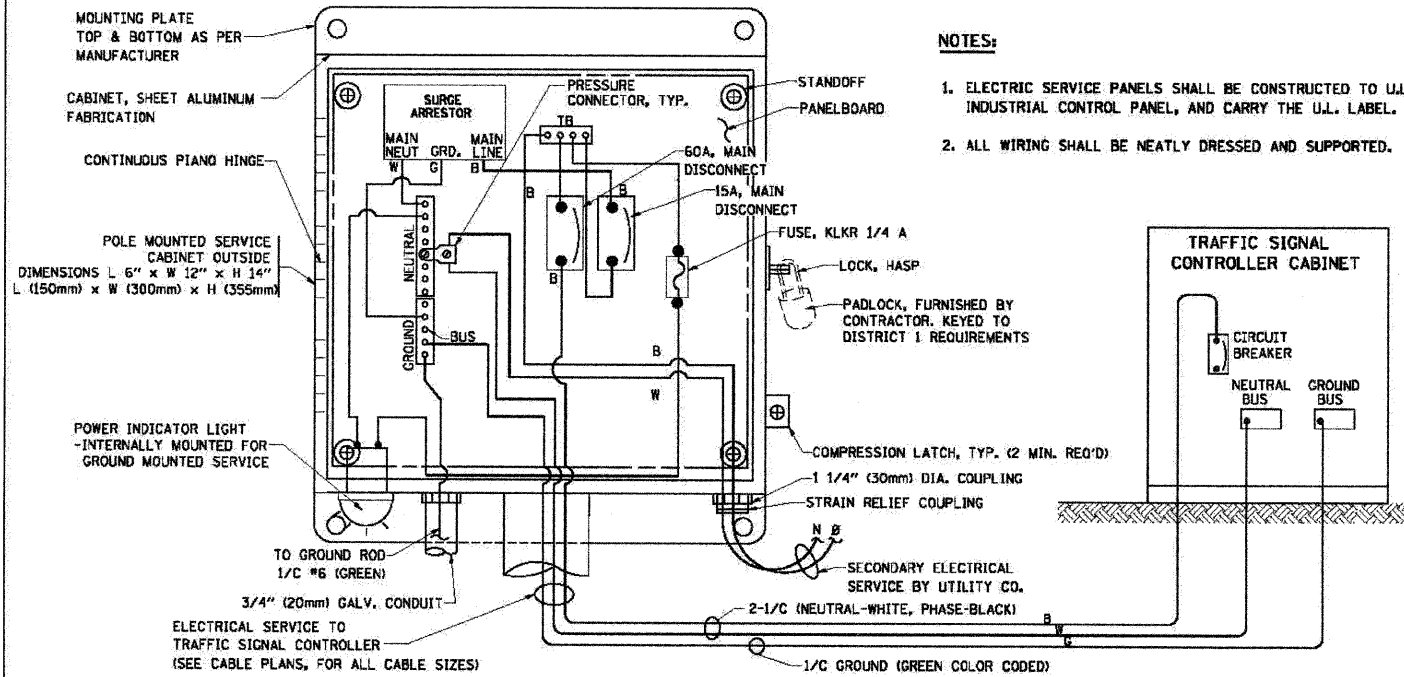
1. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 8 FT (2.4 m) OR MORE THAN 10 FT (3 m) ABOVE SIDEWALK LEVEL, AND SHALL BE POSITIONED AND ADJUSTED TO PROVIDE MAXIMUM VISIBILITY AT THE BEGINNING OF THE CONTROLLED CROSSWALK.
2. THE BOTTOM OF THE SIGNAL HOUSING (INCLUDING BRACKETS) OF A VEHICULAR SIGNAL FACE THAT IS NOT LOCATED OVER A HIGHWAY SHALL BE AT LEAST 8 FT (2.4 m) BUT NOT MORE THAN 19 FT (5.8 m) ABOVE THE SIDEWALK OR, IF THERE IS NO SIDEWALK, ABOVE THE PAVEMENT GRADE AT THE CENTER OF THE ROADWAY.
3. THE BOTTOM OF THE SIGNAL HOUSING AND ANY RELATED ATTACHMENTS TO A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL BE ACCORDING TO CURRENT STATE STANDARDS 877001, 877002, 877006, 877011 AND 877012 WITH A MINIMUM OF 16 FT (5.0 m) AND A MAXIMUM OF 18 FT. (5.5 m) FROM THE HIGHEST POINT OF PAVEMENT.
4. THE BOTTOM OF THE TEMPORARY SPAN WIRE MOUNTED SIGNAL HOUSING AND ANY RELATED ATTACHMENTS TO A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL BE ACCORDING TO CURRENT STATE STANDARD 880001 WITH A MINIMUM OF 17 FT (5.18 m) FROM THE HIGHEST POINT OF PAVEMENT.
5. THE TOP OF THE SIGNAL HOUSING OF A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL NOT BE MORE THAN 25.6 FT (7.8 m) ABOVE THE PAVEMENT.

TRAFFIC SIGNAL EQUIPMENT OFFSET

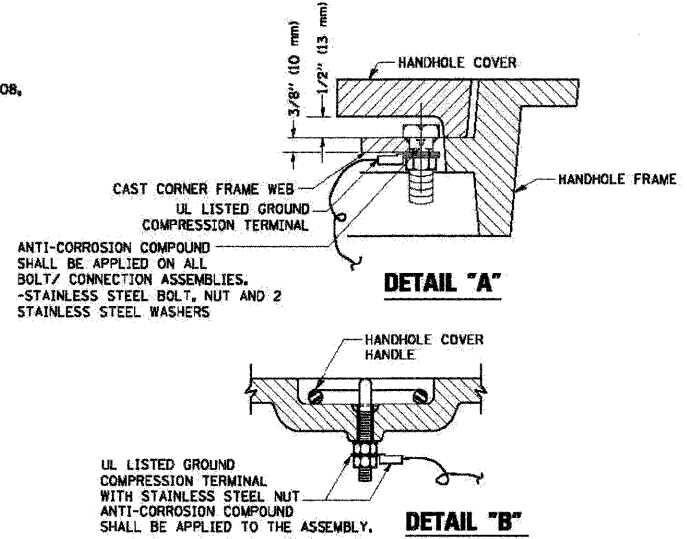
TRAFFIC SIGNAL EQUIPMENT	COMBINATION CONCRETE CURB AND GUTTER (MINIMUM DISTANCE FROM BACK OF CURB TO CENTERLINE OF FOUNDATION)	SHOULDER/NON-CURBED AREA (MINIMUM DISTANCE FROM EDGE OF PAVEMENT TO CENTERLINE OF FOUNDATION)
TRAFFIC SIGNAL MAST ARM POLE	6 FT (1.8m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
TRAFFIC SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
PEDESTRIAN SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
PEDESTRIAN PUSHBUTTON POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
TEMPORARY WOOD POLE	6 FT (1.8m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
CONTROLLER CABINET	6 FT (1.8m) MINIMUM DISTANCE SEE NOTE 2	SHOULDER WIDTH + 6 FT (1.8m), MINIMUM 16 FT (4.9m) SEE NOTE 3.
SERVICE INSTALLATION, GROUND MOUNT	6 FT (1.8m) MINIMUM DISTANCE SEE NOTE 2	SHOULDER WIDTH + 6 FT (1.8m), MINIMUM 16 FT (4.9m) SEE NOTE 3.

NOTES:

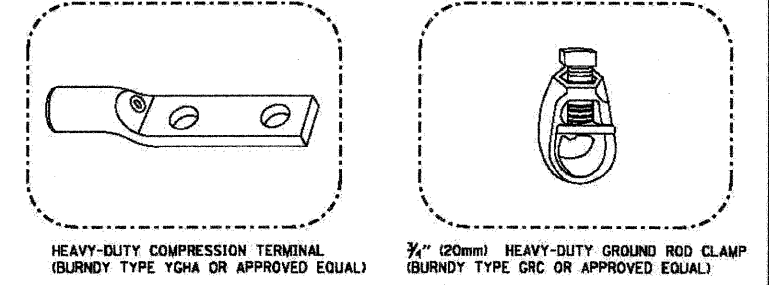
1. CONTACT THE "AREA TRAFFIC SIGNAL MAINTENANCE AND OPERATIONS ENGINEER" FOR ASSISTANCE IN LOCATING THE TRAFFIC SIGNAL EQUIPMENT WHEN THERE ARE CONFLICTS WITH DITCHES OR THE MINIMUM OFFSET DISTANCES CANNOT BE MET.
2. MINIMUM DISTANCE FROM THE BACK OF CURB TO THE ROADWAY SIDE OF THE FOUNDATION.
3. MINIMUM DISTANCE FROM THE EDGE OF PAVEMENT TO THE ROADWAY SIDE OF THE FOUNDATION.
4. ANY CHANGES TO THE OFFSETS OF THE FOUNDATIONS, FROM THE MINIMUM DISTANCES LISTED IN THE "TRAFFIC SIGNAL EQUIPMENT OFFSET" CHART AND THE TRAFFIC SIGNAL INSTALLATION PLAN, COULD EFFECT THE PLACEMENT OF THE SIGNAL HEADS, PEDESTRIAN SIGNAL HEADS AND THE PEDESTRIAN PUSHBUTTONS. THE SIGNAL HEAD PLACEMENT ON THE MAST ARMS SHALL REMAIN AS PER THE TRAFFIC SIGNAL INSTALLATION PLAN AND THE "TRAFFIC SIGNAL MAST ARM AND SIGNAL POST" DETAIL ABOVE. THE PROPOSED MAST ARM LENGTHS MAY NEED TO BE REVISED TO MEET THE ABOVE REQUIREMENTS. THE PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS MUST MEET THE REQUIREMENTS UNDER THE DETAILS ON THIS SHEET.



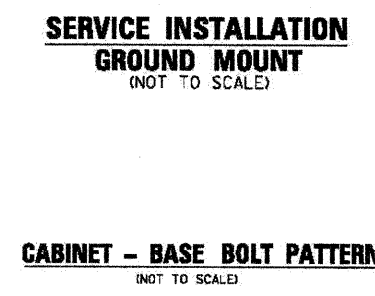
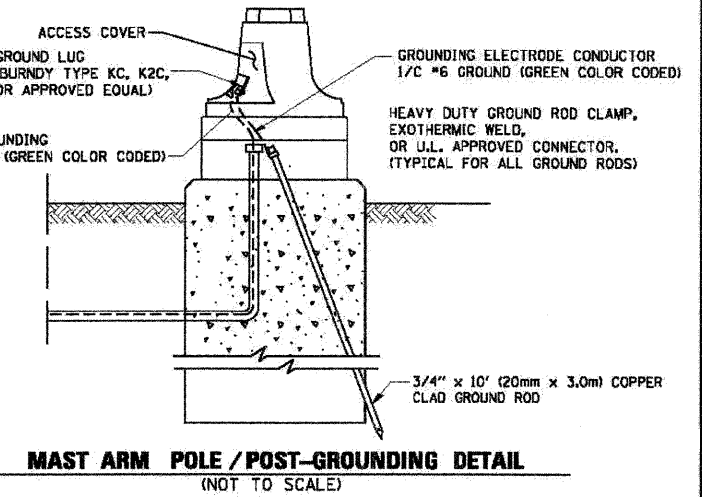
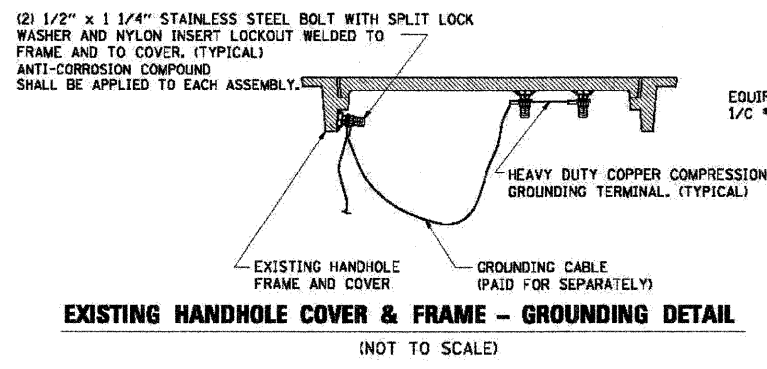
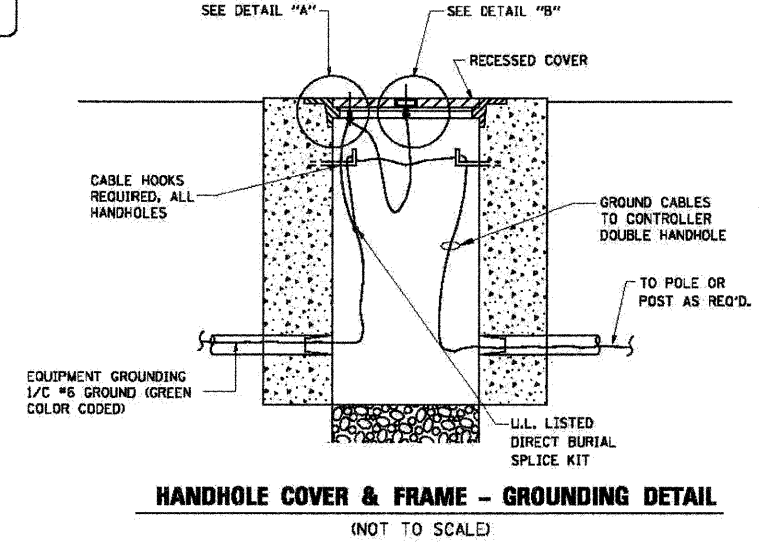
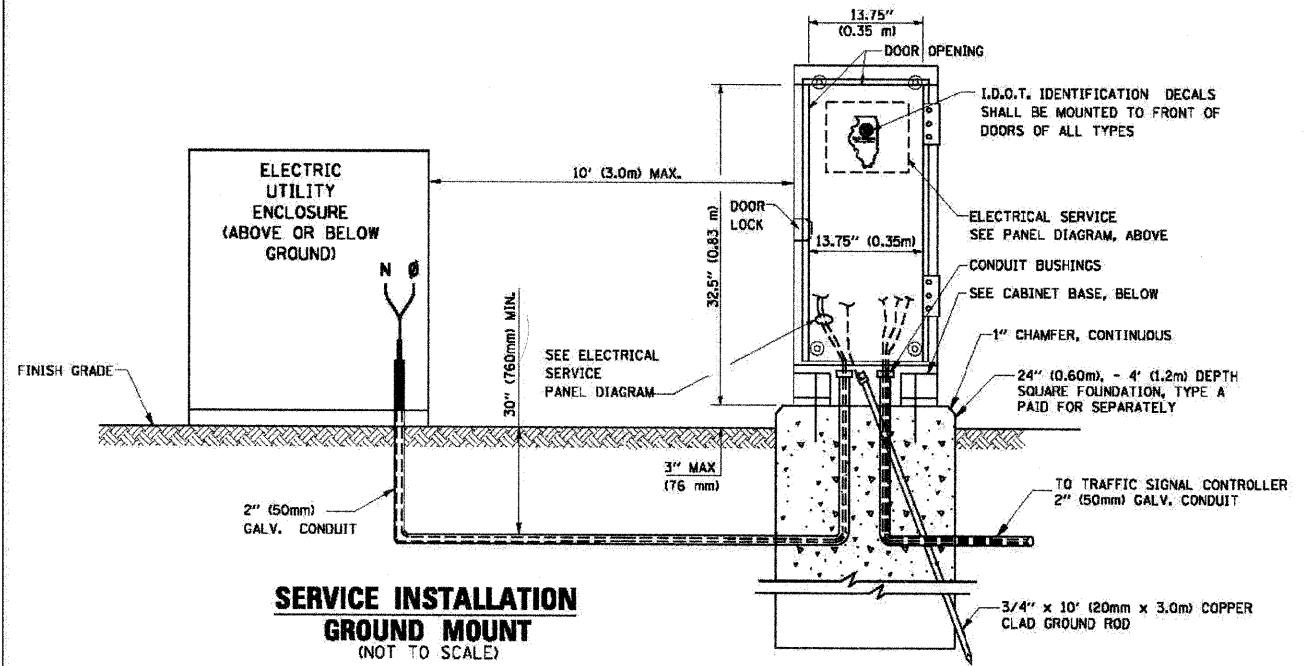
ELECTRICAL SERVICE - PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE)
SERVICE INSTALLATION POLE MOUNT (SHOWN)
 (NOT TO SCALE)



- NOTES:**
- GROUNDING SYSTEM**
1. THE GROUNDING SYSTEM SHALL CONSIST OF AN INSULATED CONDUCTOR TYPE XLP, NO. 6 A.W.G., STRANDED COPPER TO BE INSTALLED IN RACEWAYS. THE GROUNDING CABLE SHALL BE INSTALLED IN A CONTINUOUS MANNER AS SHOWN ON THE CABLE PLAN PROVIDED. ALL GROUNDING CONDUCTORS SHALL BE BONDED TO METAL ENCLOSURE (HANDHOLE, POST, MAST ARM, CONTROLLER, ETC.). GROUND ROD SHALL BE 3/4" DIA. x 10'-0" (20mm x 3.0m) LONG, COPPER CLAD. ONE GROUND ROD SHALL BE INSTALLED AT ALL POST FOUNDATIONS, POLE FOUNDATIONS, CONTROLLER CABINET FOUNDATION AND ELECTRICAL SERVICE INSTALLATION AS INDICATED ON THE CABLE PLAN. IF THERE ARE ANY SPECIAL CONDITIONS SUCH AS SUB-SURFACE CONDITIONS OR INSTALLATION PROBLEMS, THE RESIDENT ENGINEER SHALL BE NOTIFIED OR CONTACT THE BUREAU OF TRAFFIC, ILLINOIS DEPARTMENT OF TRANSPORTATION DISTRICT ONE AT (847) 705-4139.
 2. THE NEUTRAL CONDUCTOR AND THE GROUND CONDUCTOR SHALL BE CONNECTED IN THE SERVICE INSTALLATION. AT NO OTHER POINT IN THE TRAFFIC SIGNAL SYSTEM SHALL THE NEUTRAL AND GROUND CONDUCTORS BE CONNECTED.
 3. ALL EQUIPMENT GROUNDING CONDUCTORS SHALL TERMINATE AT THE GROUND BUS IN THE CONTROLLER CABINET.
 4. THE CONTRACTOR SHALL PROVIDE A GROUND CABLE WITH CONNECTORS BETWEEN THE HANDHOLE COVER AND HANDHOLE FRAME.



- NOTES:**
- ALL CLAMPS SHALL BE BRONZE OR COPPER, U.L. APPROVED.
 - GROUND CABLE SHALL BE LOOPED OVER HOOKS IN THE HANDHOLES 6.5' (2.0m) SLACK SHALL BE PROVIDED IN SINGLE HANDHOLES 13' (4.0m) OF SLACK SHALL BE PROVIDED IN DOUBLE HANDHOLES. 5' (1.4m) OF SLACK SHALL BE PROVIDED BETWEEN FRAME AND COVER.



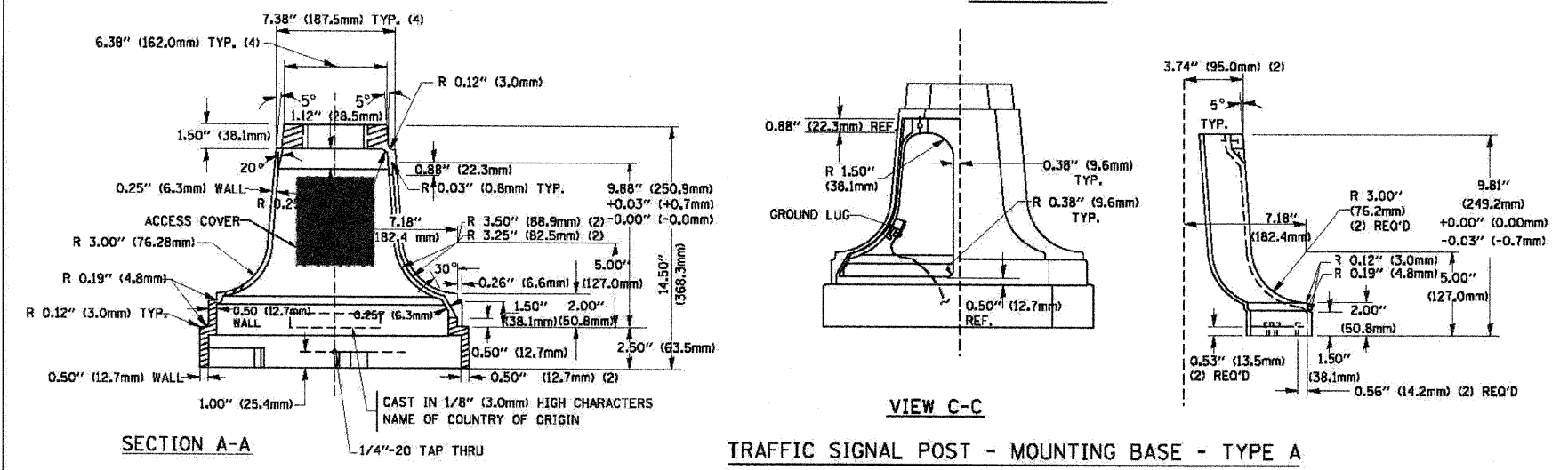
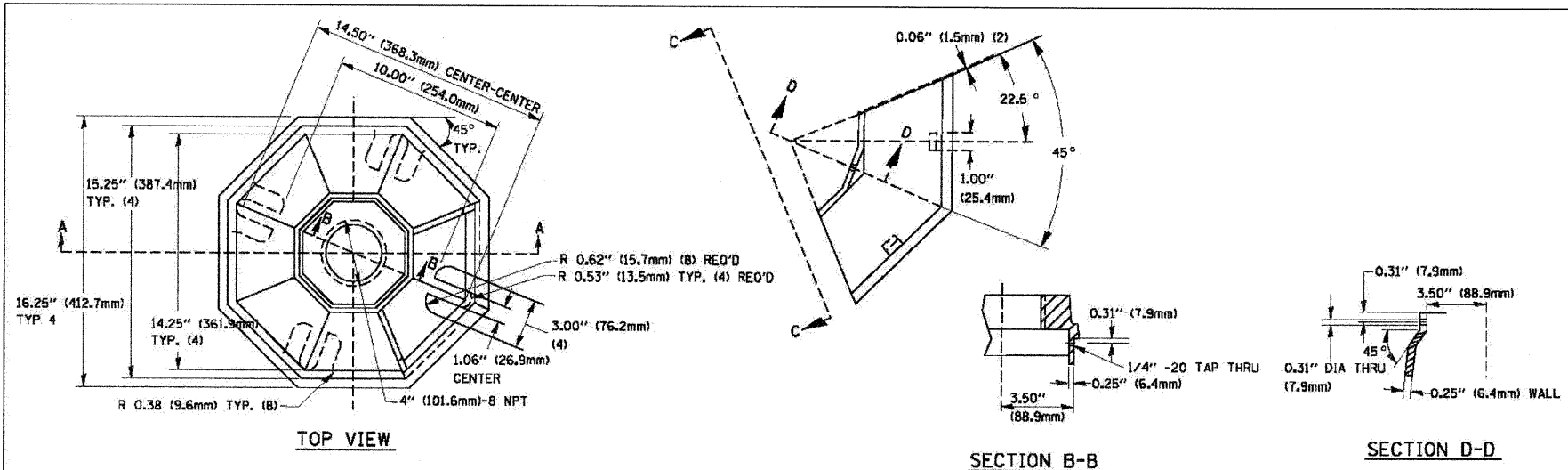
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

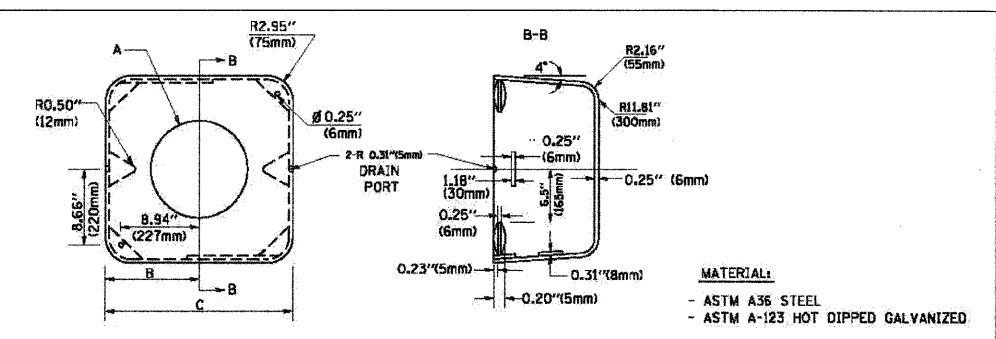
DISTRICT ONE
 STANDARD TRAFFIC SIGNAL DESIGN DETAILS

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

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1238	C-6-1	LAKE	61	22
FED. ROAD DIST. NO. - ILLINOIS/FED. AID PROJECT			CONTRACT NO. 60J67	



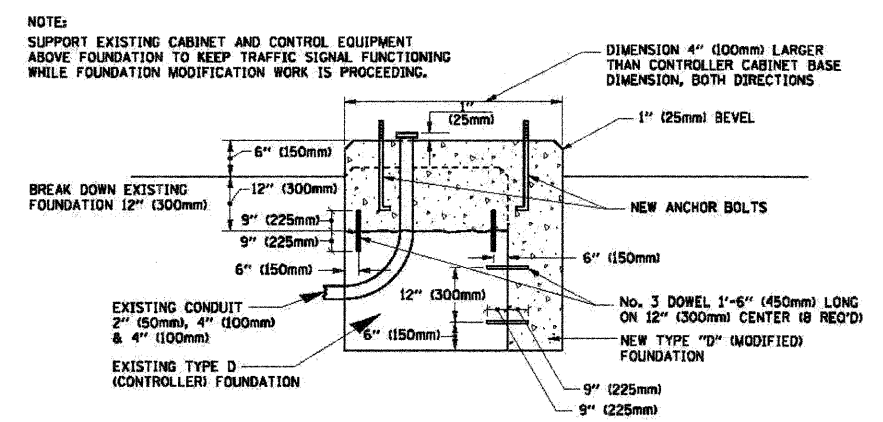
TRAFFIC SIGNAL POST - MOUNTING BASE - TYPE A



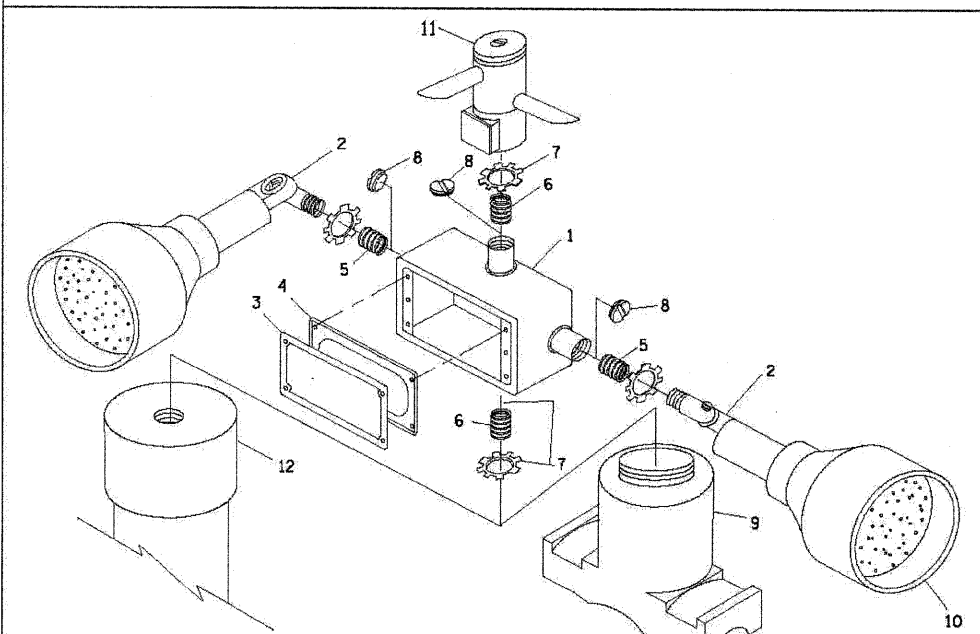
A	B	C	HEIGHT	WEIGHT
VARIABLES	9.5" (241mm)	19" (483mm)	7" (178mm) - 12" (300mm)	53 lbs (24kg)
VARIABLES	10.75" (273mm)	21.5" (546mm)	7" (178mm) - 12" (300mm)	68 lbs (31 kg)
VARIABLES	13.0" (330mm)	26" (660mm)	7" (178mm) - 12" (300mm)	81 lbs (37 kg)
VARIABLES	18.5" (470mm)	37" (940mm)	7" (178mm) - 12" (300mm)	126 lbs (57 kg)

SHROUD

- NOTES:
- DIMENSION "A" IS EQUAL TO THE DIAMETER OF THE MAST ARM POLE AT THE TOP OF THE SHROUD. THE SHROUD SHALL BE TIGHT TO THE MAST ARM POLE.
 - THE SUPPLIER SHALL VERIFY THE ABOVE DIMENSIONS BASED ON MAST ARM REQUIREMENTS.
 - THE HEIGHT OF THE SHROUD SHALL COVER THE ANCHOR BOLTS, NUTS AND MAST ARM POLE BASE.



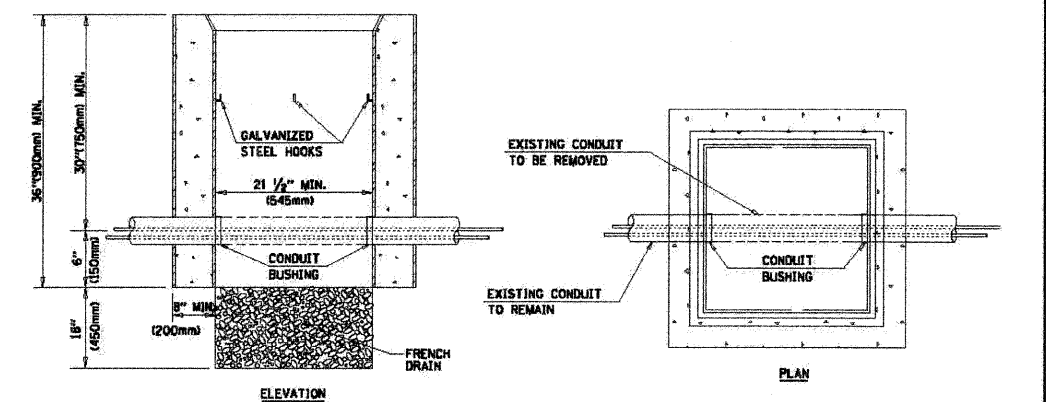
MODIFY EXISTING TYPE "D" FOUNDATION



EMERGENCY VEHICLE DETECTOR WITH CONFIRMATION BEACON MOUNTING DETAIL

ITEM NO.	IDENTIFICATION
1	OUTLET BOX - GALV. 21 CU. IN. (0.00344 CU-W)
2	LAMP HOLDER AND COVER
3	OUTLET BOX COVER
4	RUBBER COVER GASKET
5	REDUCING BUSHING
6	3/4" (19 mm) CLOSE NIPPLE
7	3/4" (19 mm) LOCKNUT
8	3/4" (19 mm) HOLE PLUG
9	SADDLE BRACKET - GALV.
10	6 WATT PAR 38 LED FLOOD LAMP
11	DETECTOR UNIT
12	POST CAP [18 FT. (5.4 m) POST MIN.]

- NOTES:
- ALL ELECTRICAL ITEMS, EXCEPT ITEMS *2 AND *11 SHALL BE ALUMINUM OR GALVANIZED
 - ITEM *1- OZ/GEDNEY FSX-1-50 OR EQUIVALENT
ITEM *2- MULBERRY CON-O-SHADE LAMP SHIELD OR EQUIVALENT
ITEM *9- "BAND-IT" SADDLE BRACKET OR EQUIVALENT
 - WHEN POST MOUNTING IS SPECIFIED, ITEM *9 SHALL NOT BE REQUIRED. THE DETECTION UNIT SHALL BE MOUNTED DIRECTLY ON TOP OF THE CAP BY DRILLING AND TAPPING A 3/4" (19 mm) HOLE WITH PIPE THREADS. THE POST CAP SHALL EITHER BE SCREWED TO THE TOP OF THE POST OR A MINIMUM OF 3 TIGHTENING SCREWS SHALL BE REQUIRED ON EACH CAP.



- NOTES:
- HANDHOLE CONSTRUCTED PER STATE STANDARD 814001.
 - REMOVAL OF THE EXISTING CONDUIT FROM THE HANDHOLE AND THE INSTALLATION OF THE CONDUIT BUSHINGS SHALL BE INCIDENTAL TO THE HANDHOLE.

HANDHOLE TO INTERCEPT EXISTING CONDUIT

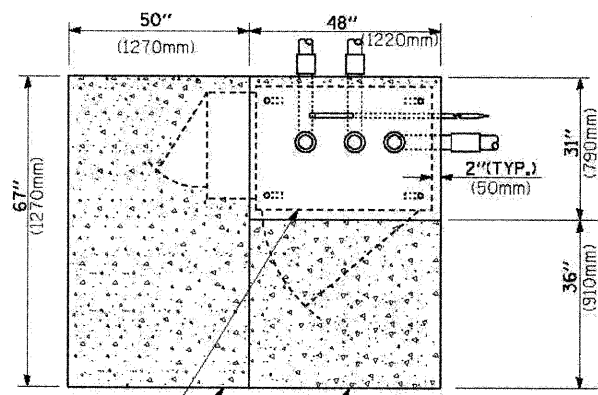
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

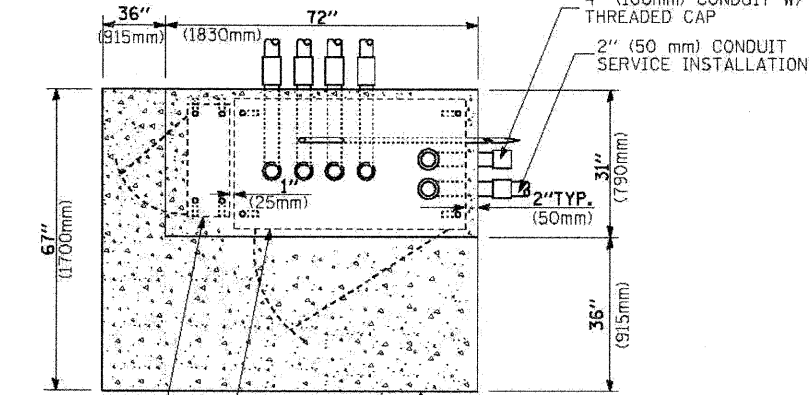
DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEET NO.
1238	C-B-1	LAKE	61 23
			CONTRACT NO. 60J67
FED. ROAD DIST. NO. ... ILLINOIS FED. AID PROJECT			

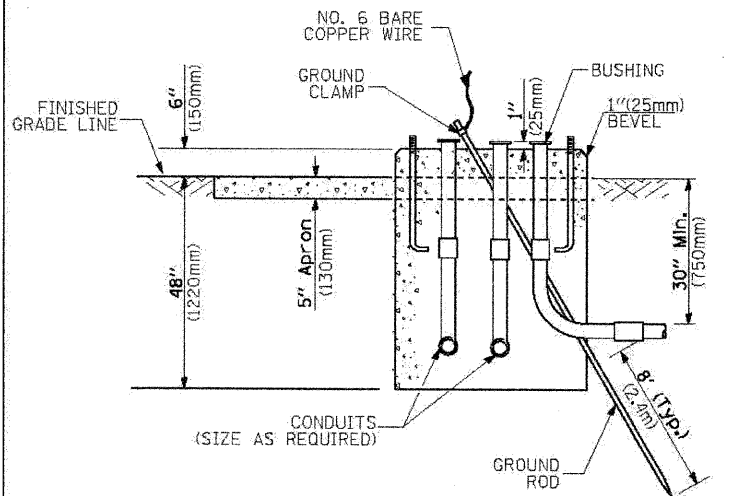
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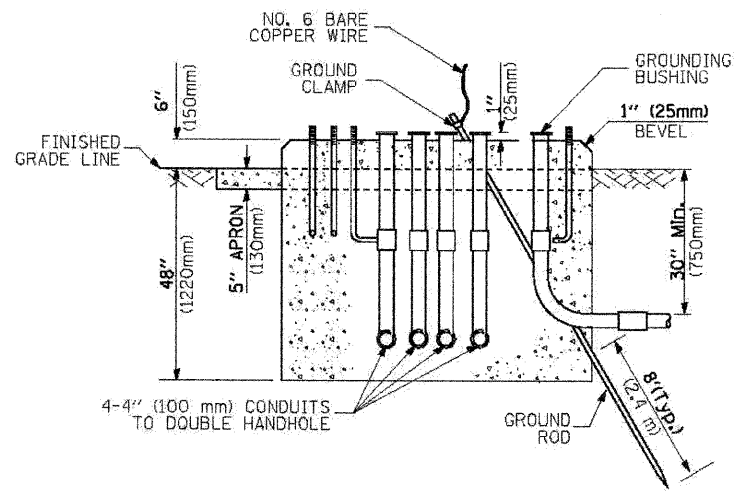
CONTROLLER CABINET BASE
PROPOSED APRON
EXISTING APRON
TOP VIEW



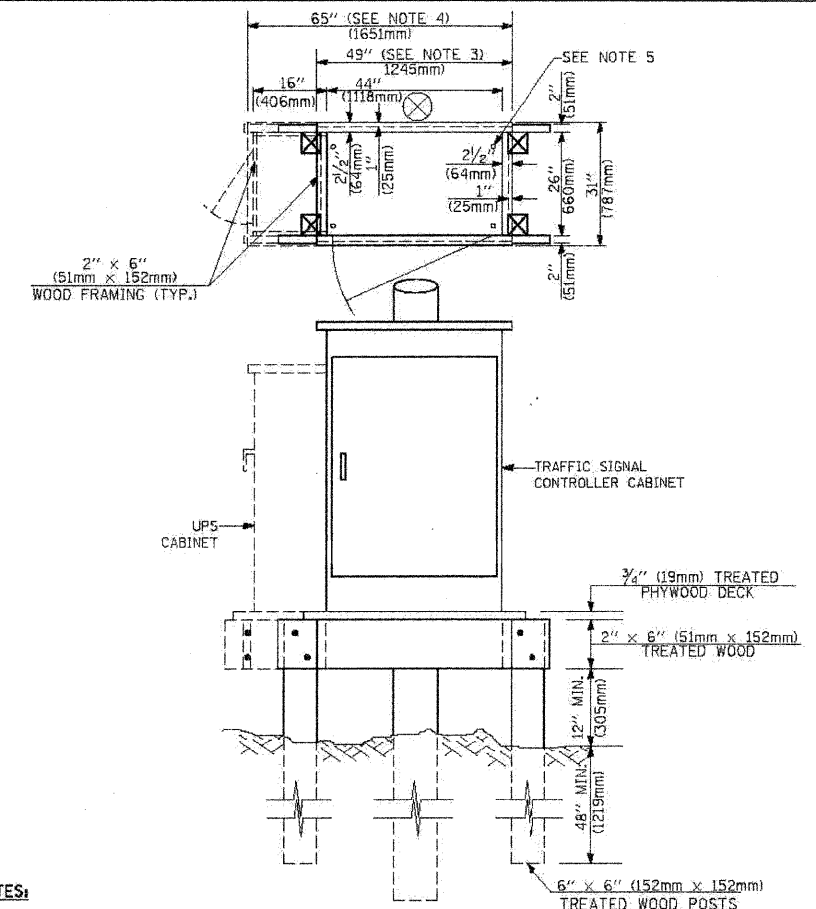
UPS CABINET BASE
CONTROLLER CABINET BASE
TOP VIEW
APRON



TYPE D
FOR GROUND MOUNTED
CONTROLLER CABINET
AND UPS BATTERY CABINET



TYPE C
FOR GROUND MOUNTED
CONTROLLER CABINET
AND UPS BATTERY CABINET



- NOTES:**
- BASED ON CONTROLLER CABINET TYPE IV WITH BASE DIMENSIONS OF 26" x 44" (660mm x 1118mm), ADJUST PLATFORM SIZE TO FIT CABINET BASE DIMENSIONS BEING SUPPLIED.
 - BASED ON UNINTERRUPTIBLE POWER SUPPLY CABINET WITH BASE DIMENSIONS OF 16" x 25" (406mm x 635mm), ADJUST PLATFORM SIZE TO FIT CABINET BASE DIMENSIONS BEING SUPPLIED.
 - PLATFORM SIZE FOR CONTROLLER CABINET TYPE IV.
 - PLATFORM SIZE FOR CONTROLLER CABINET TYPE IV AND UNINTERRUPTIBLE POWER SUPPLY CABINET.
 - DRILLED HOLES THROUGH THE PLATFORM BASE TO MATCH THE CONTROLLER CABINET BOLT TEMPLATE. FASTEN THE CONTROLLER CABINET TO THE PLATFORM WITH CARRIAGE BOLTS, WASHERS AND NUTS.
 - FASTEN ALL SUPPORT WOOD FRAMING TO THE WOOD POSTS WITH 2 LAG SCREWS FOR EACH CONNECTION.

**TEMPORARY SIGNAL CONTROLLER
WOOD SUPPORT PLATFORM**

CABLE SLACK LENGTH	FEET	METER
HANDHOLE	6.5	2.0
DOUBLE HANDHOLE	13.0	4.0
SIGNAL POST	2.0	0.6
MAST ARM	2.0	0.6
CONTROLLER CABINET	1.5	0.5
FIBER OPTIC AT CABINET	13.0	4.0
ELECTRIC SERVICE AT (CABINET OR SERVICE LOCATION)	1.5	0.5
GROUND CABLE (SIGNAL POST, MAST ARM, CABINET)	1.5	0.5
GROUND CABLE (BETWEEN FRAME AND COVER)	5.0	1.6

CABLE SLACK

VERTICAL CABLE LENGTH	FEET	METER
MAST ARM POLE (MAST ARM MOUNTED SIGNAL HEAD) (L = MAST ARM LENGTH - DISTANCE TO SIGNAL HEAD FROM END OF ARM)	20.0+L	6.0+L
BRACKET MOUNTED (MAST ARM POLE OR SIGNAL POLE)	13.0	4.0
PEDESTRIAN PUSH BUTTON	6.0	2.0
SERVICE INSTALLATION POLE MOUNT TO SERVICE DROP	13.5	4.1
SERVICE INSTALLATION POLE MOUNT TO GROUND	13.5	4.1
SERVICE INSTALLATION GROUND MOUNT	6.0	2.0
FOUNDATION (SIGNAL POST, MAST ARM POLE, CONTROLLER CABINET, SERVICE-GROUND MOUNT)	3.0	1.0

VERTICAL CABLE LENGTH

FOUNDATION	DEPTH
TYPE A - Signal Post	4'-0" (1.2m)
TYPE C - CONTROLLER W/ UPS	4'-0" (1.2m)
TYPE D - CONTROLLER	4'-0" (1.2m)
SERVICE INSTALLATION, GROUND MOUNT, TYPE A - SQUARE	4'-0" (1.2m)

DEPTH OF FOUNDATION

Mast Arm Length	Foundation Depth	Foundation Diameter	Spiral Diameter	Quantity of Rebars	Size of Rebars
Less than 30' (9.1 m)	10'-0" (3.0 m)	30" (750mm)	24" (600mm)	8	6(19)
Greater than or equal to 30' (9.1 m) and less than 40' (12.2 m)	13'-6" (4.1 m)	30" (750mm)	24" (600mm)	8	6(19)
Greater than or equal to 40' (12.2 m) and less than 50' (15.2 m)	11'-0" (3.4 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 50' (15.2 m) and up to 55' (16.8 m)	13'-0" (4.0 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 55' (16.8 m) and less than 65' (19.8 m)	15'-0" (4.6 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 65' (19.8 m) and up to 75' (22.9 m)	21'-0" (6.4 m)	42" (1060mm)	36" (900mm)	16	8(25)
	25'-0" (7.6 m)	42" (1060mm)	36" (900mm)	16	8(25)

- NOTES:**
- These foundation depths are for sites which have cohesive soils (clayey silt, sandy clay, etc.) along the length of the shaft, with an average Unconfined Compressive Strength (qu) > 1.0 tsf (100 kpa). This strength shall be verified by boring data prior to construction or with testing by the Engineer during foundation drilling. The Bureau of Bridges & Structures should be contacted for a revised design if other conditions are encountered.
 - Combination mast arm assemblies under 55 feet (16.8 m) shall use 36" (900 mm) diameter foundations.
 - Combination mast arm assemblies under 56 feet (16.8 m) through 75 feet (22.9 m) shall use 42" (1060 mm) diameter foundations.
 - For mast arm assemblies with dual arms refer to state standard 878001.

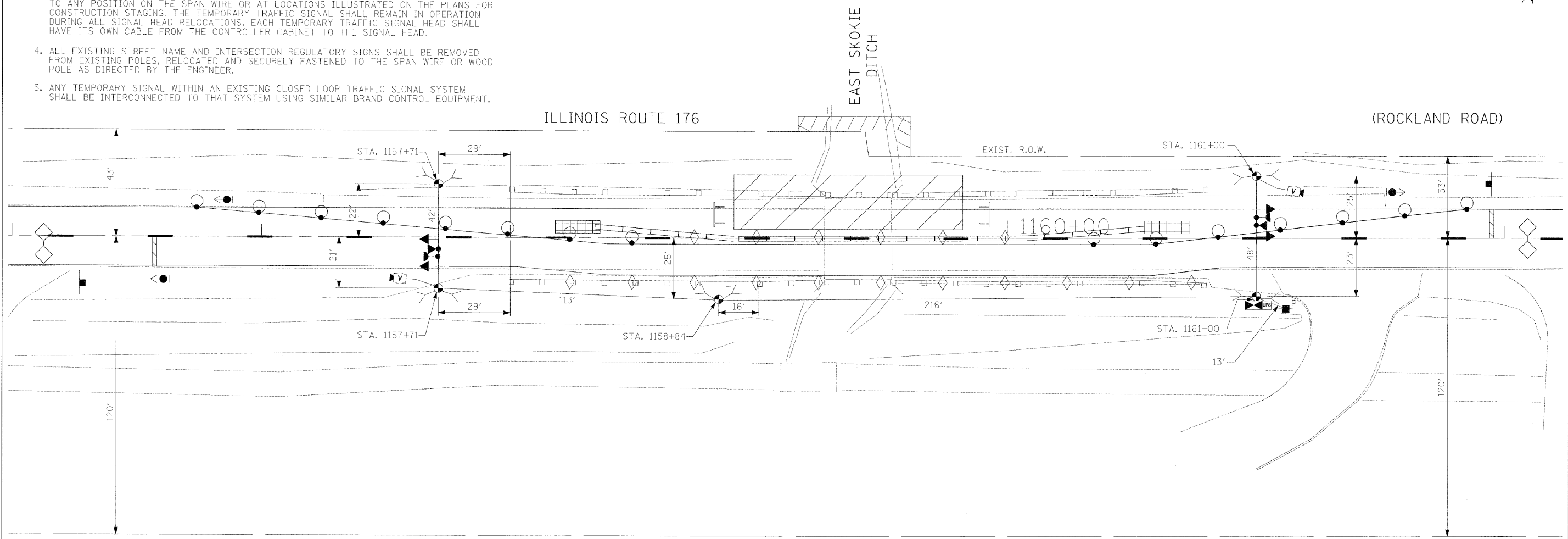
DEPTH OF MAST ARM FOUNDATIONS, TYPE E

TRAFFIC SIGNAL LEGEND

ITEM	REMOVAL	EXISTING	PROPOSED	ITEM	REMOVAL	EXISTING	PROPOSED	ITEM	REMOVAL	EXISTING	PROPOSED
CONTROLLER CABINET				EMERGENCY VEHICLE LIGHT DETECTOR				ELECTRICAL CABLE IN CONDUIT, TRACER, NO. 14 1/C. UNLESS NOTED OTHERWISE			
RAILROAD CONTROL CABINET				CONFIRMATION BEACON				COAXIAL CABLE			
COMMUNICATIONS CABINET				HANDHOLE				VENDOR CABLE FOR CAMERA			
MASTER CONTROLLER				HEAVY DUTY HANDHOLE				COPPER INTERCONNECT CABLE, NO. 18 3 PAIR TWISTED, SHIELDED			
MASTER MASTER CONTROLLER				DOUBLE HANDHOLE				FIBER OPTIC CABLE NO. 62.5/125, MM12F			
UNINTERRUPTIBLE POWER SUPPLY				JUNCTION BOX				FIBER OPTIC CABLE NO. 62.5/125, MM12F SM12F			
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT				GALVANIZED STEEL CONDUIT IN TRENCH (T) OR PUSHED (P)				FIBER OPTIC CABLE NO. 62.5/125, MM12F SM12F			
TELEPHONE CONNECTION (P) POLE OF (G) GOUND MOUNT				TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE				FIBER OPTIC CABLE NO. 62.5/125, (NUMBER OF FIBERS & TYPE TO BE NOTED ON PLANS)			
STEEL MAST ARM ASSEMBLY AND POLE				COMMON TRENCH				GROUND ROD AT (C) cONTROLLER, (H) HANDHOLE, (P) POST, (M) MAST ARM, OR (S) SERVICE			
ALUMINUM MAST ARM ASSEMBLY AND POLE				COILABLE NONMETALLIC CONDUIT (EMPTY)				CONTROLLER CABINET AND FOUNDATION TO BE REMOVE			
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE				SYSTEM ITEM				STEEL MAST ARM POLE AND FOUNDATION TO BE REMOVE			
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH PTZ CAMERA				INTERSECTION ITEM				ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVE			
SIGNAL POST				REMOVE ITEM				STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE AND FOUNDATION TO BE REMOVE			
TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 45 FOOT (13.7m) MINIMUM				ABANDON ITEM				SIGNAL POST AND FOUNDATION TO BE REMOVE			
GUY WIRE				12" (300mm) TRAFFIC SIGNAL SECTION				INTERSECTION & SAMPLING (SYSTEM) DETECTOR			
SIGNAL HEAD				12" (300mm) RED WITH 8" (200mm) YELLOW AND GREEN TRAFFIC SIGNAL FACE				SAMPLING SYSTEM DETECTOR			
SIGNAL HEAD CONSTRUCTION STAGES (NUMBERS INDICATE THE CONSTRUCTION STAGE)				SIGNAL FACE				EXISTING INTERSECTION LOOP DETECTOR			
SIGNAL HEAD WITH BACKPLATE				SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD				PROPOSED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR			
SIGNAL HEAD OPTICALLY PROGRAMMED				12" (300mm) PEDESTRIAN SIGNAL HEAD WALK/DON'T WALK SYMBOL				EXISTING PREFORMED INTERSECTION LOOP DETECTOR			
FLASHER INSTALLATION (S DENOTES SOLAR POWER)				12" (300mm) PEDESTRIAN SIGNAL HEAD INTERNATIONAL SYMBOL, OUTLINED				PROPOSED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR			
PEDESTRIAN SIGNAL HEAD				12" (300mm) PEDESTRIAN SIGNAL HEAD INTERNATIONAL SYMBOL, SOLID				PREFORMED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR			
PEDESTRIAN PUSHBUTTON DETECTOR				PEDESTRIAN SIGNAL HEAD, INTERNATIONAL SYMBOL, WITH COUNTDOWN TIMER				PREFORMED SAMPLING (SYSTEM) DETECTOR			
ACCESSIBLE PEDESTRIAN PUSHBUTTON DETECTOR				RADIO INTERCONNECT				RAILROAD SYMBOLS			
ILLUMINATED SIGN "NO LEFT TURN"				RADIO REPEATER				RAILROAD CONTROL CABINET			
ILLUMINATED SIGN "NO RIGHT TURN"				DENOTES NUMBER OF CONDUCTORS, ELECTRIC CABLE NO. 14, UNLESS NOTED OTHERWISE, ALL DETECTOR LOOP CABLE TO BE SHIELDED				RAILROAD CANTILEVER MAST ARM			
DETECTOR LOOP, TYPE I				GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)				FLASHING SIGNAL			
PREFORMED DETECTOR LOOP								CROSSING GATE			
MICROWAVE VEHICLE SENSOR								CROSSBUCK			
VIDEO DETECTION CAMERA											
VIDEO DETECTION ZONE											
PAN, TILT, ZOOM CAMERA											
WIRELESS DETECTOR SENSOR											
WIRELESS ACCESS POINT											

NOTES FOR TEMPORARY TRAFFIC SIGNALS

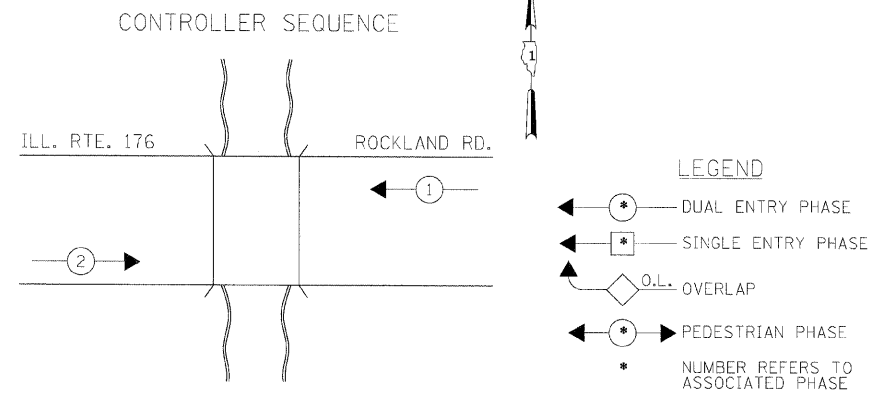
1. ALL CONTROL EQUIPMENT INCLUDING EMERGENCY PRE-EMPTION AND COMMUNICATION DEVICES FOR THE TEMPORARY TRAFFIC SIGNAL(S) SHALL BE FURNISHED BY THE CONTRACTOR.
2. ONLY CONTROLLERS SUPPLIED BY ONE OF THE IDOT DISTRICT ONE APPROVED CLOSED LOOP EQUIPMENT MANUFACTURERS WILL BE APPROVED FOR USE AT TEMPORARY SIGNAL LOCATIONS. ALL CONTROLLERS USED FOR TEMPORARY TRAFFIC SIGNALS SHALL BE FULLY ACTUATED NEMA MICROPROCESSOR BASED WITH RS232 DATA ENTRY PORTS COMPATIBLE WITH EXISTING MONITORING SOFTWARE APPROVED BY IDOT DISTRICT 1, INSTALLED IN A NEMA TS2 CABINET. ONLY ONE BRAND OF CONTROLLER WILL BE ACCEPTED FOR ANY ONE CONTRACT.
3. ALL TRAFFIC SIGNAL SECTIONS AND PEDESTRIAN SIGNAL SECTIONS SHALL BE LED AND 12" (300mm) DIAMETER. HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS DIRECTED BY THE ENGINEER. PEDESTRIAN SIGNALS SHALL INCLUDE SOLID INTERNATIONAL SYMBOLS. PEDESTRIAN SIGNALS WITH COUNTDOWN TIMERS SHALL BE USED WHEN THE EXISTING INSTALLATION UTILIZES COUNTDOWN TYPE OR AS DIRECTED BY THE ENGINEER. COUNTDOWN TYPE PEDESTRIAN SIGNALS ARE NOT TO BE INSTALLED AT A RAILROAD INTERSECTION. THE CONTRACTOR SHALL FURNISH ENOUGH CABLE SLACK TO RELOCATE HEADS TO ANY POSITION ON THE SPAN WIRE OR AT LOCATIONS ILLUSTRATED ON THE PLANS FOR CONSTRUCTION STAGING. THE TEMPORARY TRAFFIC SIGNAL SHALL REMAIN IN OPERATION DURING ALL SIGNAL HEAD RELOCATIONS. EACH TEMPORARY TRAFFIC SIGNAL HEAD SHALL HAVE ITS OWN CABLE FROM THE CONTROLLER CABINET TO THE SIGNAL HEAD.
4. ALL EXISTING STREET NAME AND INTERSECTION REGULATORY SIGNS SHALL BE REMOVED FROM EXISTING POLES, RELOCATED AND SECURELY FASTENED TO THE SPAN WIRE OR WOOD POLE AS DIRECTED BY THE ENGINEER.
5. ANY TEMPORARY SIGNAL WITHIN AN EXISTING CLOSED LOOP TRAFFIC SIGNAL SYSTEM SHALL BE INTERCONNECTED TO THAT SYSTEM USING SIMILAR BRAND CONTROL EQUIPMENT.



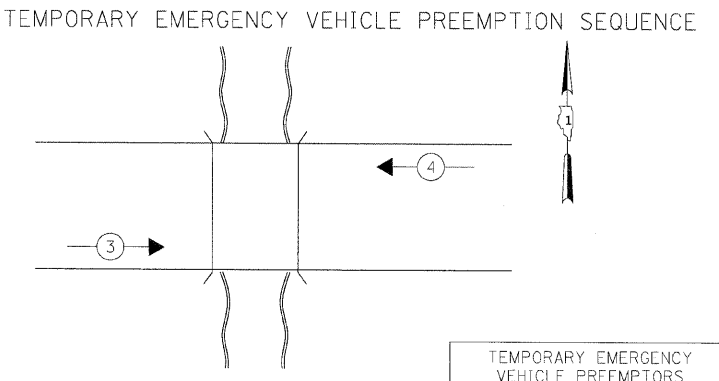
6. THE TEMPORARY TRAFFIC SIGNAL SHALL HAVE THE SIGNAL HEAD DISPLAYS, SIGNAL HEAD PLACEMENTS AND CONTROLLER PHASING MATCH THE EXISTING TRAFFIC SIGNAL, AT THE TIME OF THE TURN ON, IF NO TRAFFIC STAGING IS IN PLACE OR WILL NOT BE STAGED ON THE DAY OF THE TURN ON.
7. UNINTERRUPTIBLE POWER SUPPLY (UPS) SYSTEMS SHALL BE INSTALLED AND MADE OPERATIONAL AT TEMPORARY TRAFFIC SIGNAL INSTALLATIONS WHERE UPS IS INSTALLED AT THE EXISTING TRAFFIC SIGNAL, TEMPORARY TRAFFIC SIGNALS AT RAILROAD INTERSECTIONS, AND TEMPORARY TRAFFIC SIGNALS AT INTERSECTIONS WITH FIRE STATION ACTUATED EMERGENCY VEHICLE PRE-EMPTION, OR WHEN INDICATED ON THE PLANS.
8. TRAFFIC SIGNAL MANAGEMENT SYSTEMS SHALL BE MAINTAINED IN OPERATION AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER. REQUIRED EQUIPMENT SHALL BE AS SHOWN ON THE PLANS AND THE CONTRACTOR SHALL PLACE THE EQUIPMENT IN OPERATION TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE TRAFFIC SIGNAL MANAGEMENT SYSTEM.
9. DETECTION AT TEMPORARY TRAFFIC SIGNALS SHALL BE INCLUDED FOR ALL APPROACHES OF THE INTERSECTION UNLESS INDICATED OTHERWISE ON THE PLANS. THE DETECTION SYSTEM MUST MEET THE SPECIFICATIONS OF IDOT DISTRICT 1 AND THE CONTRACTOR SHALL PLACE THE DETECTORS INTO OPERATION TO THE SATISFACTION OF THE ENGINEER.
10. WHEN PAN, TILT, ZOOM CAMERAS ARE INSTALLED AT THE EXISTING INTERSECTION OR ARE CALLED FOR IN THE PLANS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING AND MAINTAINING THE CAMERAS TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE CAMERAS.

THE CONTRACTOR SHALL VERIFY THE POWER LOCATION WITH ComEd PRIOR TO COMMENCEMENT OF THE WORK.

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	PLOT DATE = #DATE#	DATE - 12/30/2010	REVISED -			FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT				
				SCALE:	SHEET NO. OF SHEETS	STA. TO STA.				



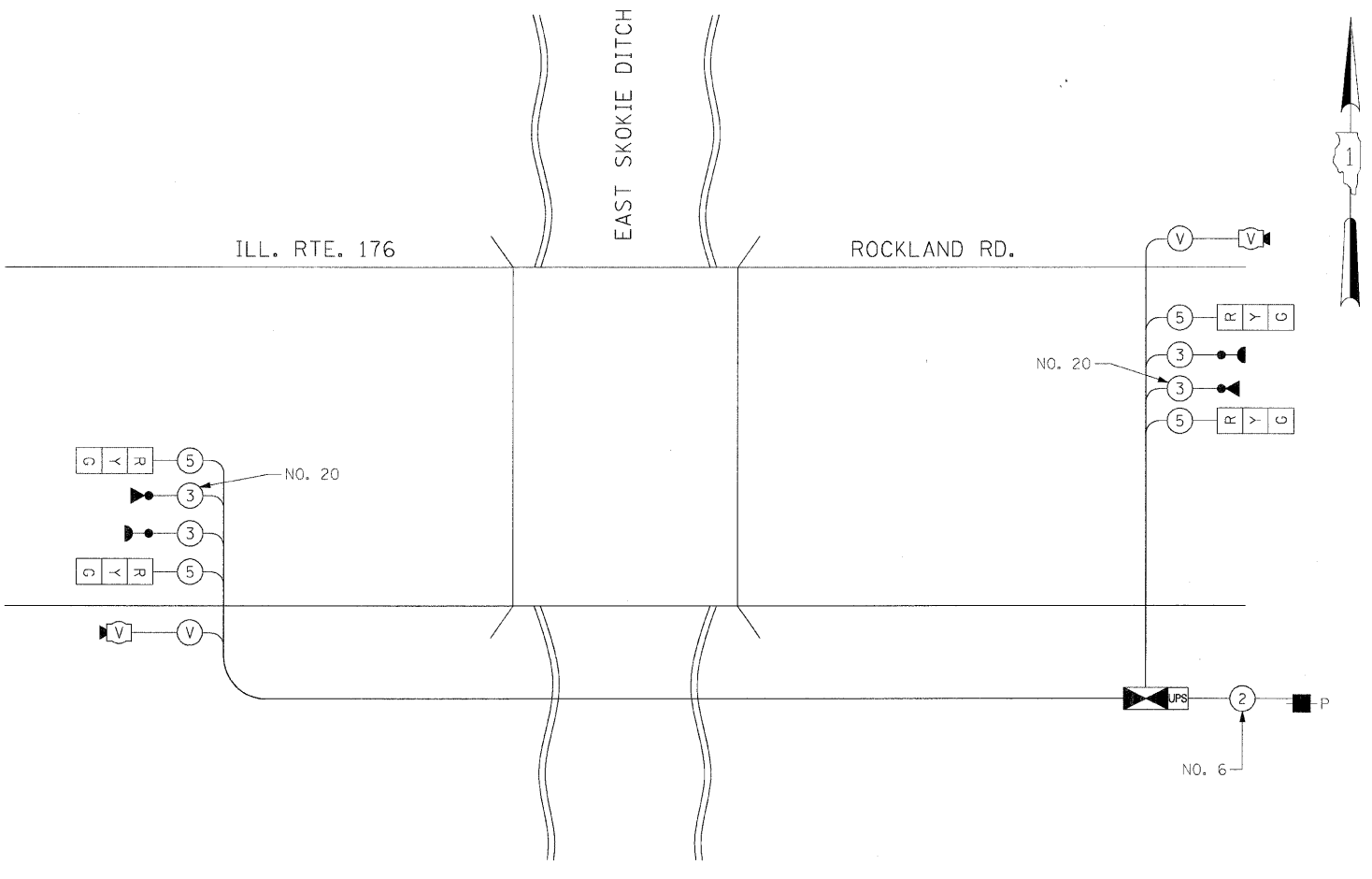
TEMPORARY PHASE DESIGNATION DIAGRAM



TEMPORARY EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	→	←

SCHEDULE OF QUANTITIES

QUANTITY	UNIT	ITEM
1	EACH	TEMPORARY BRIDGE TRAFFIC SIGNAL INSTALLATION



TEMPORARY BRIDGE TRAFFIC SIGNAL CABLE PLAN
(NOT TO SCALE)

THE CONTRACTOR SHALL VERIFY THE POWER LOCATION WITH ComEd PRIOR TO COMMENCEMENT OF THE WORK.

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO LAMPS	WATTAGE		%OPERATION	
		INCAND.	LED		
SIGNAL (RED)	4	135	17	0.50	34
(YELLOW)	4	135	25	0.25	25
(GREEN)	4	135	15	0.25	15
ARROW		135	12	0.10	
PED. SIGNAL		90	25	1.00	
CONTROLLER		100	100	1.00	100
ILLUM. SIGN				0.05	
VIDEO SYSTEM		150		1.00	150
FLASHER				0.50	
ENERGY COSTS TO:				TOTAL =	324

ILLINOIS DEPARTMENT OF TRANSPORTATION
201 WEST CENTER COURT
SCHAUMBURG, ILLINOIS 60156-1096

ENERGY SUPPLY CONTACT: JOE HURLEY
PHONE: (847) 816-5503
COMPANY: COMED

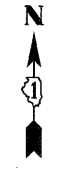
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

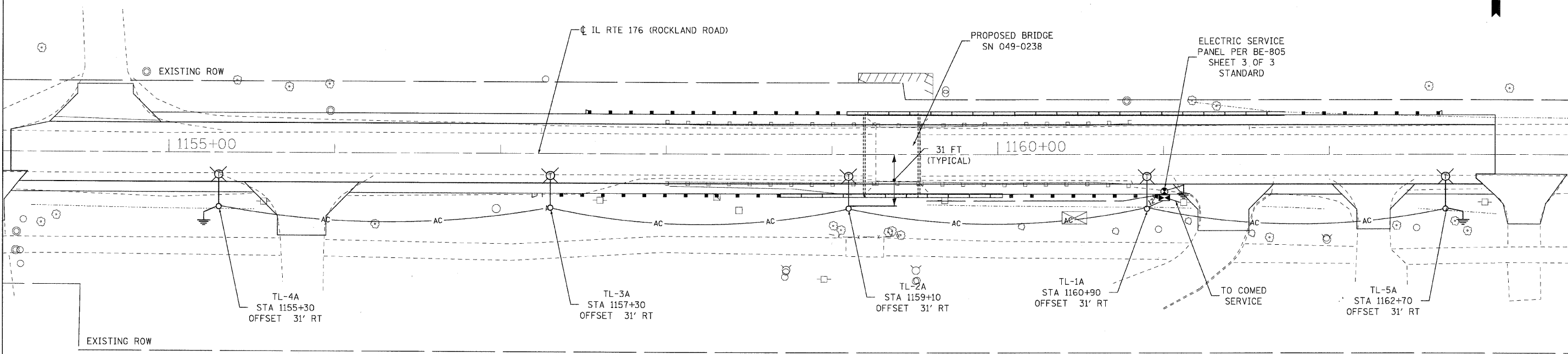
TEMPORARY CABLE PLAN, TEMPORARY PHASE DESIGNATION DIAGRAM,
SCHEDULE OF QUANTITIES
ILLINOIS ROUTE 176 OVER EAST SKOKIE DITCH (SHEET 2 OF 2)

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

F.A.U. RTE. 1238	SECTION C-B-1	COUNTY LAKE	TOTAL SHEETS 61	SHEET NO. 27
CONTRACT NO. 60J67				
FED. ROAD DIST. NO. - [ILLINOIS] FED. AID PROJECT				



DATE	
BY	
DESIGNED	
CHECKED	
ALIGNED	
NOTED	
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NO.	


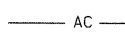

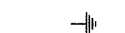

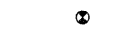


DATE	
BY	
DESIGNED	
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NO.	

GENERAL NOTES

- CONTACT TO THE ELECTRIC UTILITY SHALL BE INITIATED BEFORE THE PRECONSTRUCTION MEETING, AND DOCUMENTATION OF CONTACT SHALL BE PRESENTED AT THAT MEETING. NO PLACEMENT OF POLES WILL BE ALLOWED WITHOUT EVIDENCE OF SIGNED AGREEMENT WITH THE ELECTRIC UTILITY, FURNISHED TO THE ENGINEER.
- THE LAYOUT PRESENTED APPLIES TO THE BRIDGES NOT EXCEEDING 250' SPAN AS DESCRIBED IN NOTE 2 OF SHEET 1 OF 3 (BE-805) IDOT PLAN.
- THE LAYOUT OF THE TEMPORARY EQUIPMENT WILL VARY BASED ON FIELD CONDITIONS, STAGING, UTILITY IMPACTS, AND ELECTRIC SERVICE LOCATION AS COORDINATED WITH ELECTRIC UTILITY. THE CONTRACTOR SHALL SUBMIT A PLAN INDICATING SETTING OF POLES, TRAFFIC SIGNAL AND COMBINED POWER SERVICE. PLANS MUST BE APPROVED BY ENGINEER BEFORE POLES ARE PLACED.
- THE ELECTRIC SERVICE SHALL BE 240/120V. WHERE 240 V SERVICE IS NOT AVAILABLE CONTRACTOR WILL SUBMIT A PROPOSAL FOR 120V SERVICE. DROP CABLE MAIN BREAKER AND ALL OTFGHER SERVICE APPURTENANCES SHALL BE APPROPRIATELY RATED & INCLUDED REGARDLESS OF THE SERVICE VOLTAGE APPLIED.
- LIGHT POLE SETBACK FROM THE EDGE OF TRAVEL PAVEMENT SHALL BE 18 FT. UNLESS THE LIGHT POLE IS BEHIND GUARDRAIL. THE LIGHT POLES INSTALLED BEHIND THE GUARDRAIL OR BARRIER WALL SHOULD HAVE 8 FT. SETBACK FROM THE BACK OF SHOULDER AND/OR AS DIRECTED BY ENGINEER.
- EACH LIGHTING UNIT SHALL BE CONTROLLED BY A PHOTO CELL MOUNTED ON EACH LUMINAIRE FED FROM TEMPORARY SERVICE DISCONNECT BOX. OTHERS MEANS OF LUMINAIRE CONTROL CAN BE CONSIDERED IF APPROVED BY THE ENGINEER.
- CONTRACTOR SHALL SPLICE AERIAL CABLE AT THE LIGHT POLE USING HEAT SHRINKABLE CAPS WITH FACTORY APPLIED WATER PROOF SEALANT OR APPROVED UL LISTED AERIAL TAP DEVICE. ALL AREAS DISTURBED UNDER THIS CONTRACT SHALL BE RESTORED TO ORIGINAL CONDITION TO SATISFACTION OF ENGINEER.
- REMOVAL OF TEMPORARY LIGHTS IS INCLUDED IN THE PAY ITEM "TEMPORARY LIGHTING FOR SINGLE LANE STAGING".

TEMPORARY LIGHTING LEGEND

-  400W, 120V MCIII HPS, WITH PHOTOCELL, 15' MA, 50' MH ON WOOD POLE, CLASS 4
-  3-1/C N02 AERIAL CABLE ALUMINUM WITH MESSENGER WIRE
-  TL-1A TEMPORARY LIGHTING UNIT NUMBER-ONE CIRCUIT A
-  GROUND ROD 5/8" DIA x 10'
-  TEMPORARY LIGHTING CONTROLLER
-  TEMPORARY WOOD POLE NOMINAL 60 FT, CLASS 4

SCHEDULE OF QUANTITY

PAY ITEM #	DESCRIPTION	UNIT	QUANTITY
X0326276	TEMPORARY LIGHTING FOR SINGLE LANE STAGING	L SUM	1

...D160J67-shf-llght.dgn
12/23/2010
9:43:23 AM



DESIGNED	SM	REVISED	-
DRAWN	GEW	REVISED	-
CHECKED	RJD	REVISED	-
DATE	JANUARY 3, 2011	REVISED	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL ROUTE 176 OVER EAST SKOKIE DITCH
TEMPORARY LIGHTING PLAN

SCALE: 1"=30' SHEET NO. OF SHEETS STA. TO STA.

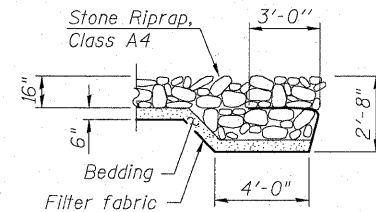
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1238	C-B-1	LAKE	61	28
				CONTRACT NO. 60J67
ILLINOIS FED. AID PROJECT				

Benchmark: "X" cut SW bolt on hydrant at Sta. 1161+97 and Offset 51' right, Elev. 675.38.

Existing Structure: Structure No. 049-0013 was originally built in 1921 as F.A. Route 42. Section C-BR and the Superstructure was reconstructed in 1975. The existing single span structure consist of P.P.C. deck beams supported on closed wall, top and bottom restrained abutments with spread footings. The structure is 26'-0" back to back abutments and 33'-0" Out to Out of Beams.

Traffic will be maintained utilizing staged construction and temporary traffic signal system will be provided to maintain two way traffic over one lane.

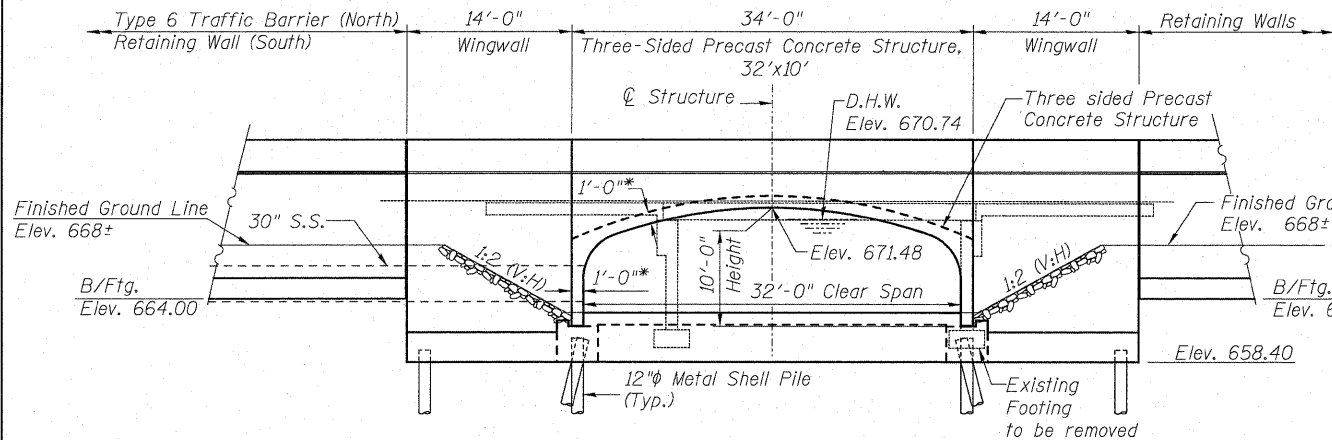
No Salvage



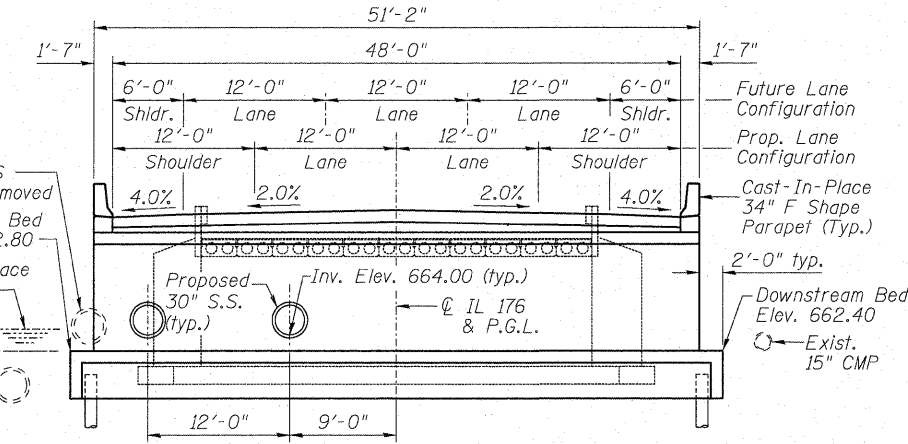
SECTION A-A

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	Downstream	Upstream
	658.66	658.66



ELEVATION *Slab and wall thickness may vary as per manufacturer's design.



SECTION THRU STRUCTURE

INDEX OF SHEETS

- S-1 General Plan
- S-2 Stage Construction Details
- S-3 Temporary Concrete Barrier
- S-4 Geotextile Retaining Wall
- S-5 Foundation Plan and Details
- S-6 Wingwall Elevations and Details
- S-7 Wingwall Details
- S-8 Headwall and Parapet Details
- S-9 Bar Splicer Assembly Details
- S-10 Metal Shell Pile Details
- S-11 General Plan - Retaining Walls
- S-12 SW & SE Retaining Walls
- S-13 NE Retaining Wall
- S-14 Retaining Wall Details
- S-15 Boring Logs

LOADING HS-20

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

DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications, 17th Edition

DESIGN STRESSES

FIELD UNITS

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

PRECAST UNITS

f'c = 5,000 psi
fy = 60,000 psi (Reinforcement)
fy = 65,000 psi (Welded Wire Fabric)

SEISMIC DATA

Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 0.035g
Site Coefficient (S) = 1.0

WATERWAY INFORMATION

Drainage Area = 8.17 sq. mi. Prop. Low Grade Elev. 671.2 ft @ Sta. 1156+50

Flood	Freq. Year	Q C.F.S.	Opening Sq. Ft.		Nat. H.W.E.	Head - Ft.		Headwater El.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
Design	50	682	170.6	234.3	670.74	0.35	0.12	671.09	670.86
Base	100	747	170.6	238.1	671.06	0.37	0.14	671.43	671.20
Overtopping	>100	747	170.6	238.1	671.06	0.37	0.14	671.43	671.20
Max. Calc.	500	1139	170.6	242.5	672.76	0.06	0.05	672.82	672.81

Note:

- The Contractor is advised that the existing PPC Deck beams are in a deteriorated condition with reduced load carrying capacity. It is the Contractor's responsibility to account for the condition of the beams when developing construction procedures for removal and replacement of the superstructure.
- If the Contractor's procedures for existing deck beam removal involves placement of heavy equipment on the existing deck beams, a detailed procedure shall be submitted to the Engineer for approval. The procedure shall include calculations, sealed by an Illinois Licensed Structural Engineer, verifying the structural adequacy of the beams for the proposed loads. Cost included with Removal of Existing Structures.

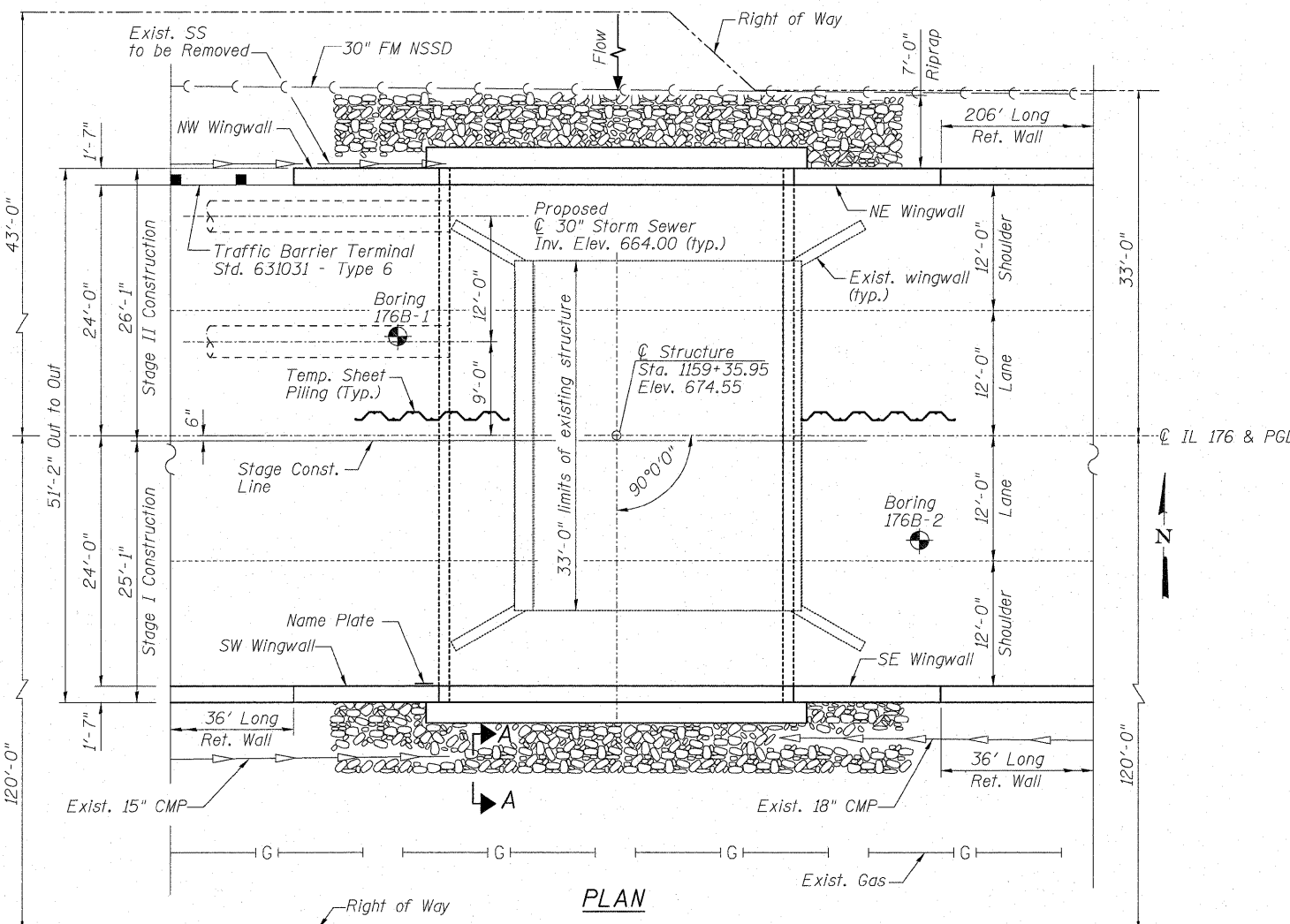
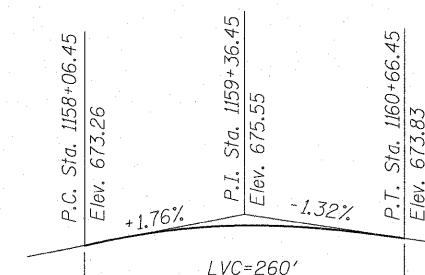
APPROVED FOR STRUCTURAL ADEQUACY ONLY

Carl [Signature]
ENGINEER OF BRIDGES AND STRUCTURES

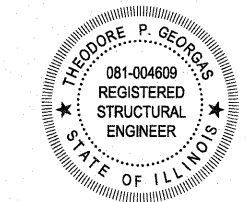
STATION 1159+35.95
BUILT 2011 BY
STATE OF ILLINOIS
F.A.U. 1238/RT. IL-176
LOADING HS-20
STRUCTURE NO. 049-0238

NAME PLATE
See Std. 515001

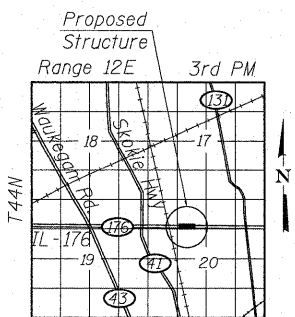
PROFILE GRADE - IL ROUTE 176



PLAN



Theodore P. Georgas 1-31-11
Theodore P. Georgas Date
Licensed Structural Engineer
State of Illinois 081-4609
Expires 11/30/2012



LOCATION SKETCH

IL ROUTE 176 OVER EAST SKOKIE DITCH



USER NAME =	DESIGNED - JXH	REVISED -
PLOT SCALE =	CHECKED - JW	REVISED -
PLOT DATE =	DRAWN - JLS	REVISED -
	CHECKED - JXH/JW	REVISED -

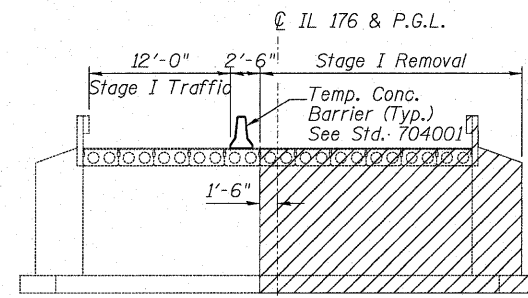
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN
STRUCTURE NUMBER 049-0238 STATION 1159+35.95

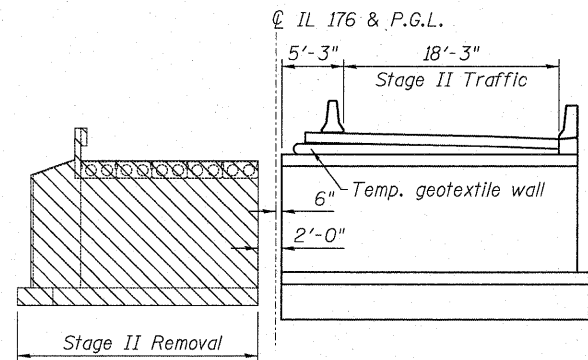
SHEET NO. S-1 OF S-15 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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DATE: 01-28-2011			ILLINOIS FED. AID PROJECT	

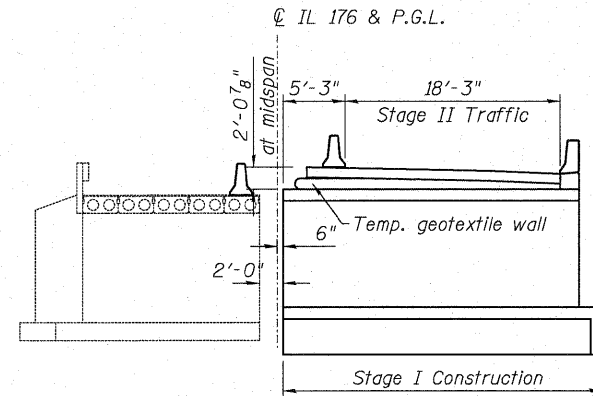
CONTRACT NO. 60J67



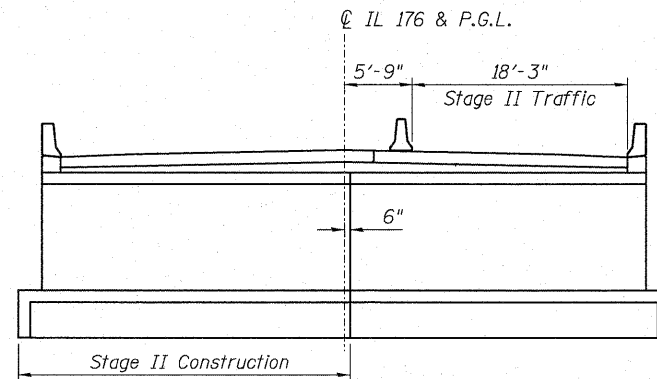
STAGE I REMOVAL
(Looking East)



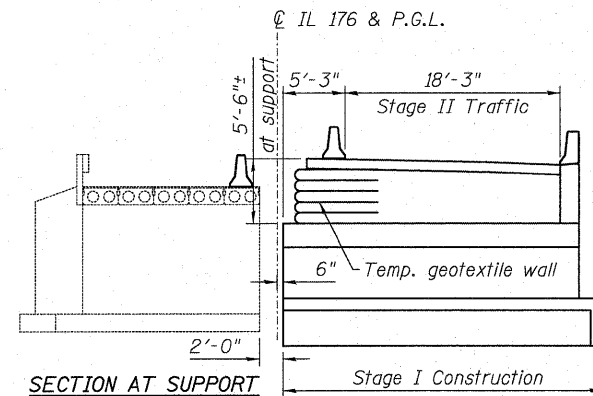
STAGE II REMOVAL
(Looking East)



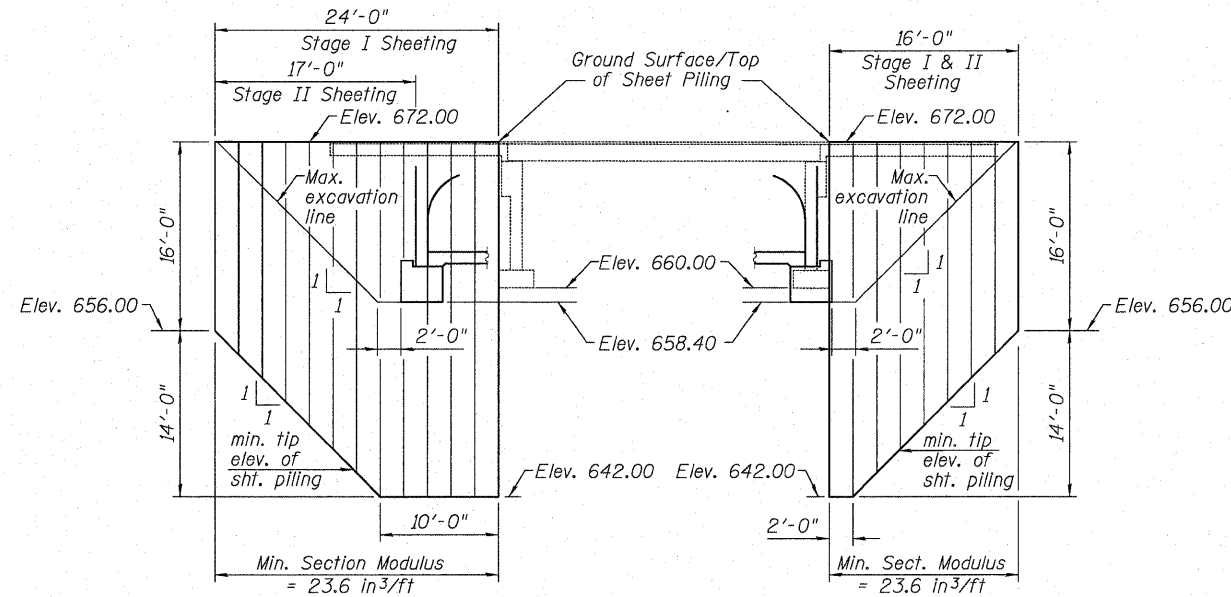
SECTION AT MIDSPAN
(Looking East)



STAGE II CONSTRUCTION
(Looking East)



STAGE I CONSTRUCTION AND STAGE II TRAFFIC
(Looking East)



TEMPORARY SHEET PILING
AT WEST END

TEMPORARY SHEET PILING
AT EAST END

Notes:
If the Contractor chooses to alter the temporary cantilevered sheet piling design requirements shown on the plans, a design submittal including plan details and calculations will be required for review and acceptance by the Engineer.
The Contractor shall connect the first sheet to the existing abutment wall to ensure stability of sheets driven to the top of the existing footing. This connection shall be reviewed and accepted by the Engineer and included in the cost for Temporary Sheet Piling.

GENERAL NOTES

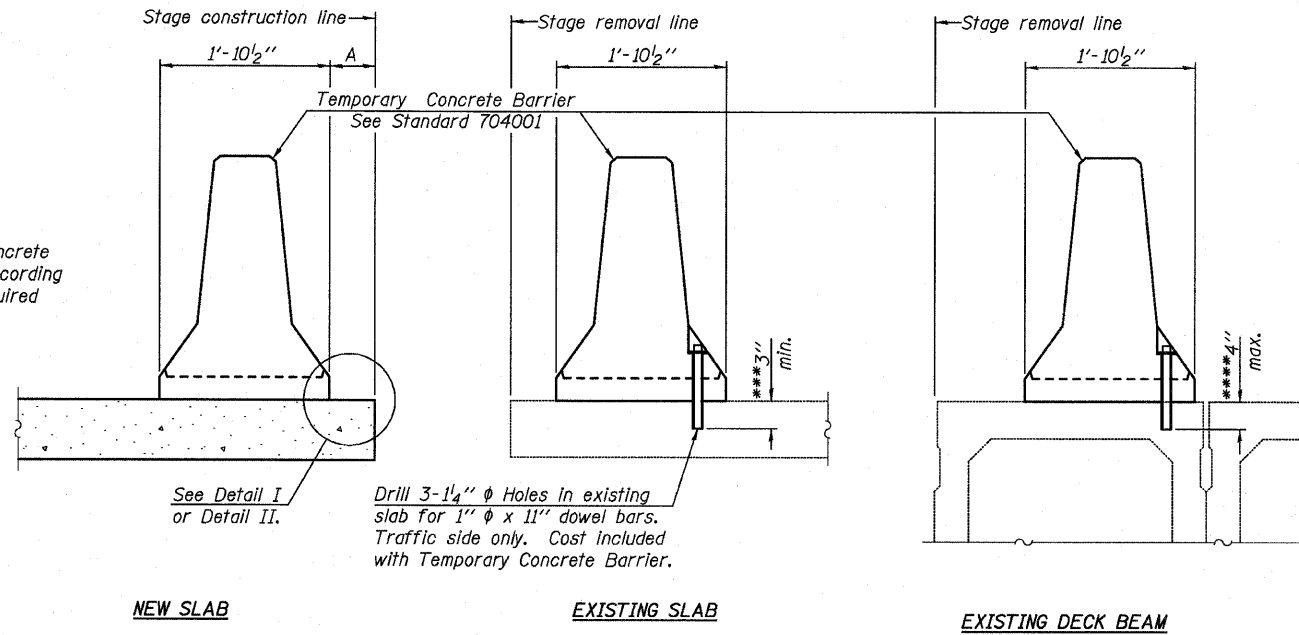
Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions.
Reinforcement bars designated (E) shall be epoxy coated.
The option of using a precast footing is not allowed.
The option of using precast wingwalls is not allowed.
Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.
All details shown are developed assuming the use of cast-in-place headwalls and wingwalls placed as shown. The Contractor has the option of using precast headwalls. If the precast option is used the details for the headwalls shall be submitted to the Engineer for approval.
The foundation design is based on the following maximum reactions applied at the top of the footing pedestal:
Vertical: 15.7 k/ft (DL) + 3.6 k/ft (LL)
Horizontal: 3.8 k/ft (DL) + 1.7 k/ft (LL)
The Contractor shall verify that the selected structure meets these design parameters. If the design parameters are exceeded, a complete foundation design with calculations, details, and the required structural seals shall be submitted for review and approval.
Excavation behind existing abutment walls shall be performed to balance front and back soil pressure before removing the existing superstructure. The Contractor shall sawcut the upper portion of the existing abutment at the Stage Removal Line before Stage I Removal to ensure the remaining portion will not be prematurely damaged.
Cost of excavation is included in the pay item Three Sided Precast Concrete Structure 32' x 10'.

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Stone Riprap, Class A4	Sq. Yd.	110
Filter Fabric	Sq. Yd.	110
Removal of Existing Structures	Each	1
Structure Excavation	Cu. Yd.	560
Concrete Structures	Cu. Yd.	490.9
** Protective Coat	Sq. Yd.	178
Reinforcement Bars, Epoxy Coated	Pound	59,260
Bar Splicers	Each	142
Furnishing Metal Shell Piles 12" x 0.250"	Foot	1,587
Driving Piles	Foot	1,587
Test Pile Metal Shells	Each	2
Name Plates	Each	1
Geocomposite Wall Drain	Sq. Yd.	134
Geotextile Retaining Wall	Sq. Ft.	130
Porous Granular Embankment, Special	Cu. Yd.	177
Three-Sided Precast Concrete Structures, 32'x10'	Foot	51.2
Temporary Sheet Piling	Sq. Ft.	1,004

** Protective Coat shall be applied to top surface and inside face of the parapet Barrier.

When "A" is 3'-6" or less, the temporary concrete barrier shall be anchored to the new slab according to Detail I or Detail II. No anchorage is required when "A" is greater than 3'-6".



SECTIONS THRU SLAB OR DECK BEAM

NOTES

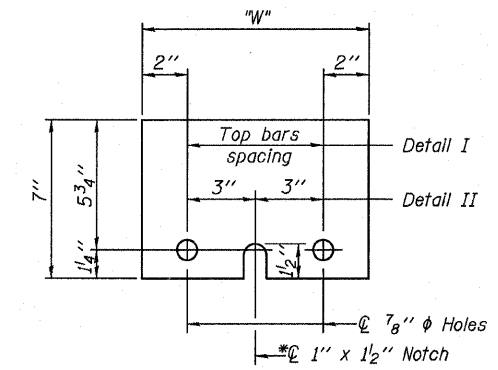
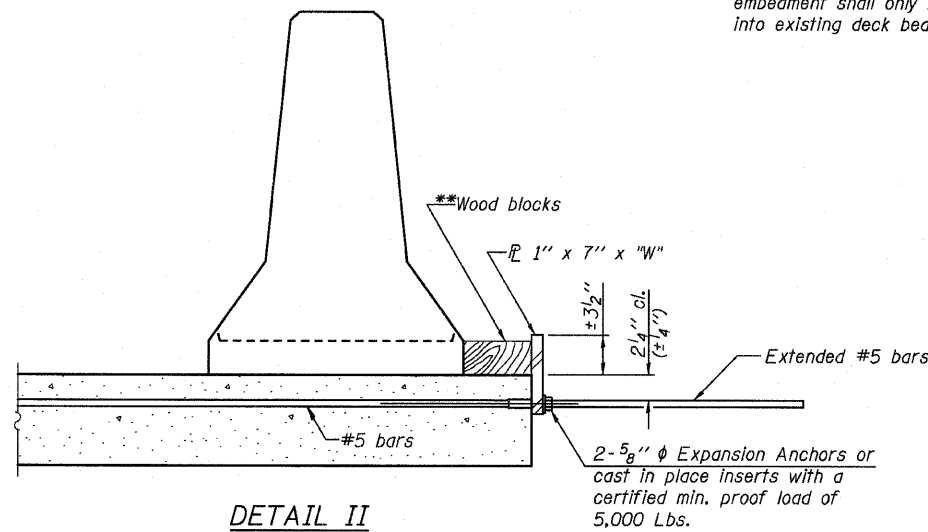
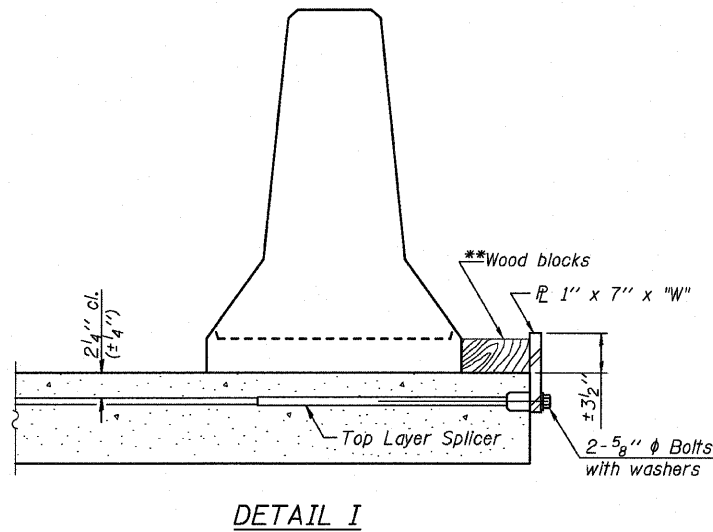
Detail I - With Bar Splicer or Couplers:
Connect one (1) 1"x7"x10" steel PL to the top layer of couplers with 2-5/8" φ bolts screwed to coupler at approximate C of each barrier panel.

Detail II - With Extended Reinforcement Bars:
Connect one (1) 1"x7"x10" steel PL to the concrete slab or concrete wearing surface with 2-5/8" φ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate C of each barrier panel.

Cost of anchorage is included with Temporary Concrete Barrier. The 1" x 7" x 10" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

*** Dimension shown is minimum required embedment into concrete. If hot-mix asphalt wearing surface is present, minimum embedment shall be in addition to wearing surface depth.

**** If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



** Wood blocks may be omitted when required to provide minimum stage traffic lane width. When the wood blocks are omitted, the concrete barrier shall be in direct contact with the steel retainer plate.

"W" = Top bars spacing + 4"

R-27

7-1-10

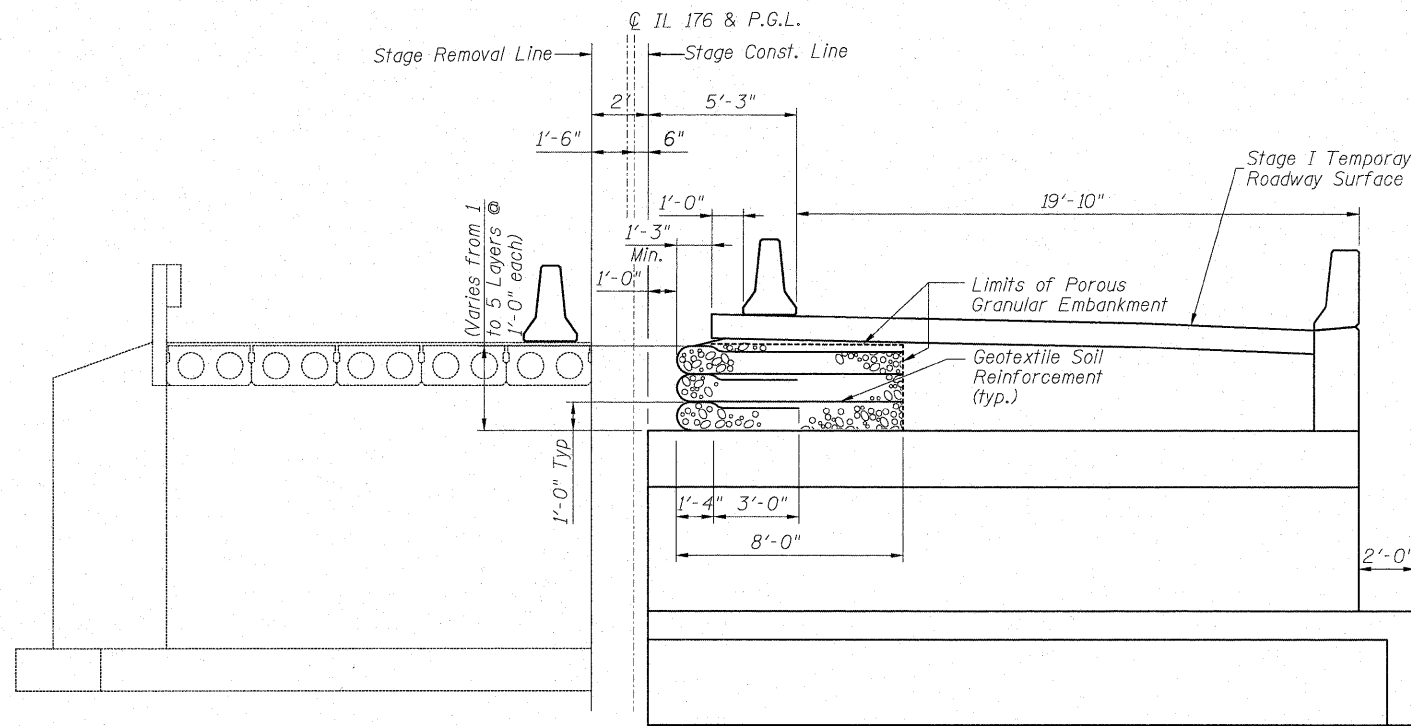


USER NAME =	DESIGNED - JXH	REVISED -
PLOT SCALE =	CHECKED - JW	REVISED -
PLOT DATE =	DRAWN - JLS	REVISED -
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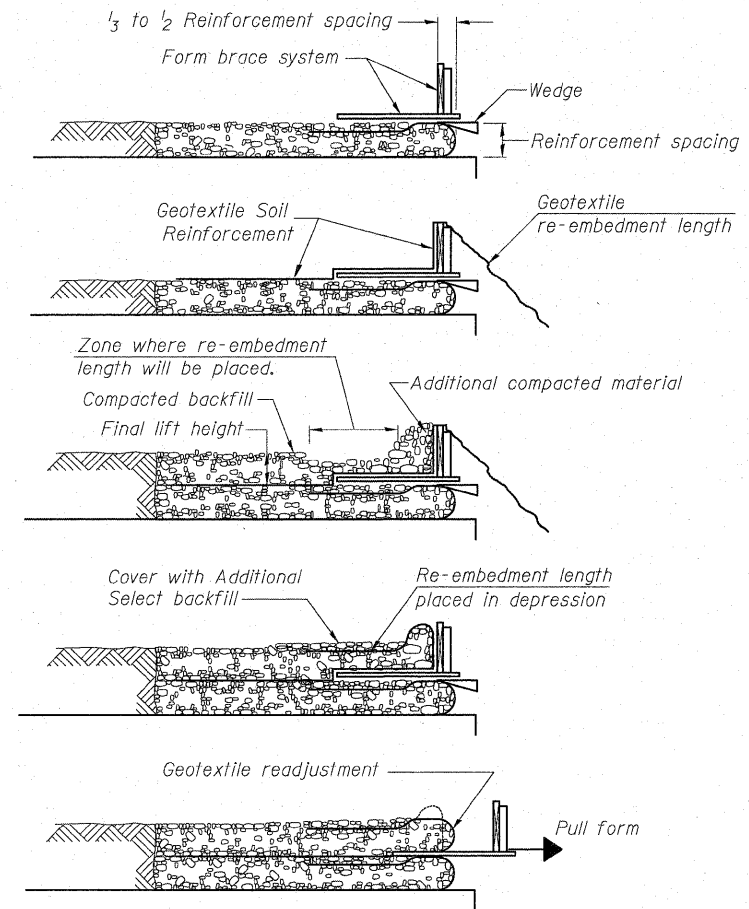
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION
STRUCTURE NUMBER 049-0238 STATION 1159 + 35.95

F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1238	C-B-I	LAKE	61	31
DATE: 01-10-2011			ILLINOIS FED. AID PROJECT	
SHEET NO. S-3 OF S-15 SHEETS			CONTRACT NO. 60J67	



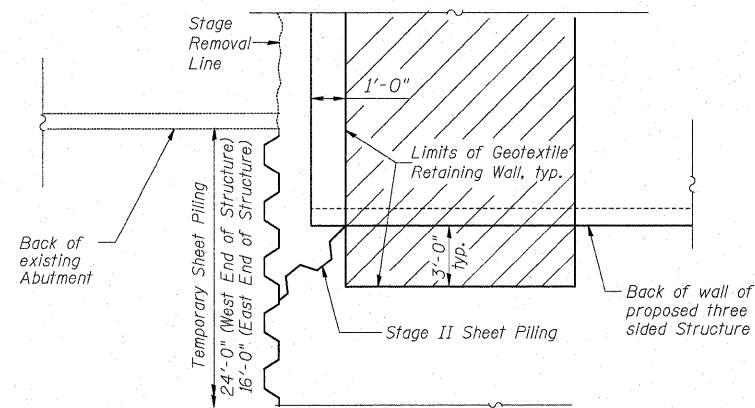
TYPICAL SECTION
Looking East



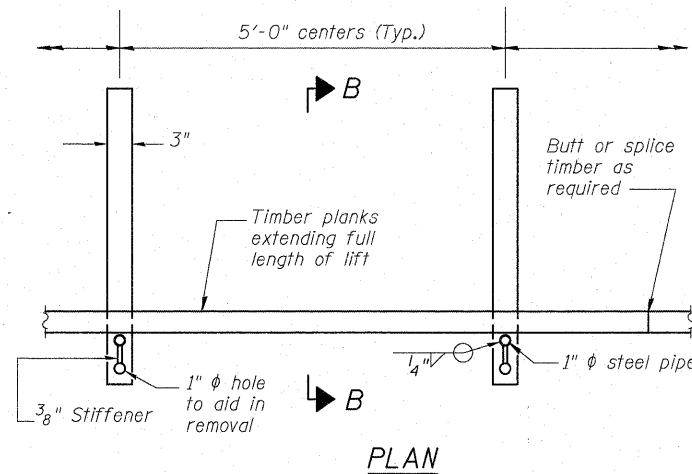
1. Place form brace system on completed reinforcement level; back from the finished fabric face a distance of $\frac{1}{3}$ to $\frac{1}{2}$ the geotextile reinforcement spacing.
2. Position fabric so that the required geotextile re-embedment length extends over the top of the form brace and the design reinforcement width is placed with no slack against the previous level.
3. Compact select fill material in lifts to final lift height, create ($\pm 3'$) depression in zone where re-embedment length will be located and place additional height of compacted select fill against form brace.
4. Fold Geotextile re-embedment length back over form brace into zone where depression was made in select fill and place additional select fill ($\pm 3'$) to embed geotextile and bring to final lift height.
5. Pull form brace outward allowing geotextile face to slightly readjust to form tight round face level with plan reinforcement spacing.

**TEMPORARY GEOTEXTILE WALL
CONSTRUCTION SEQUENCE**

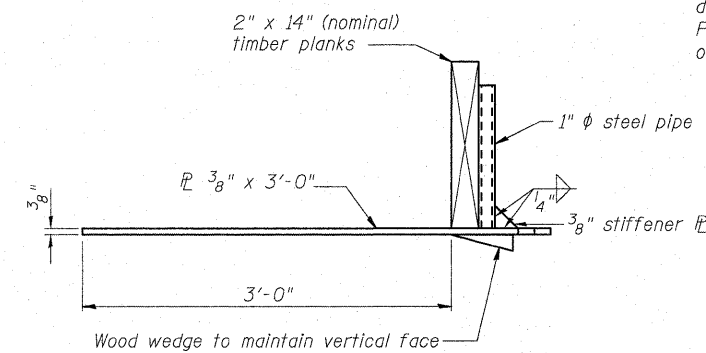
Note:
The geotextile soil reinforcement shall have a minimum allowable tensile strength (T min.) of 20 lb./in. as determined by the procedure described in the Special Provision. The computations supporting the determination of (T min.) shall be submitted to the engineer for approval.



PARTIAL PLAN AT WEST END



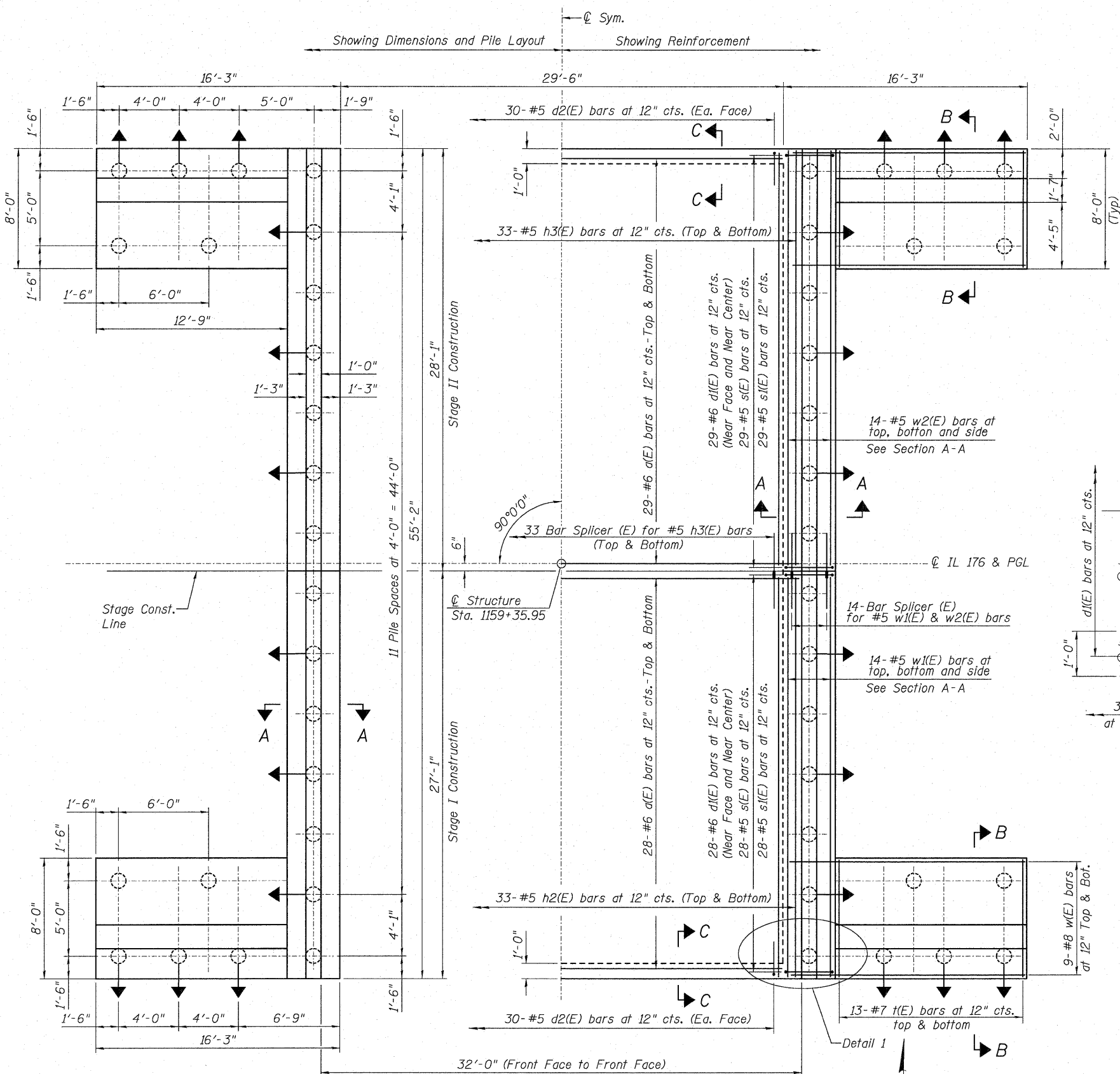
PLAN



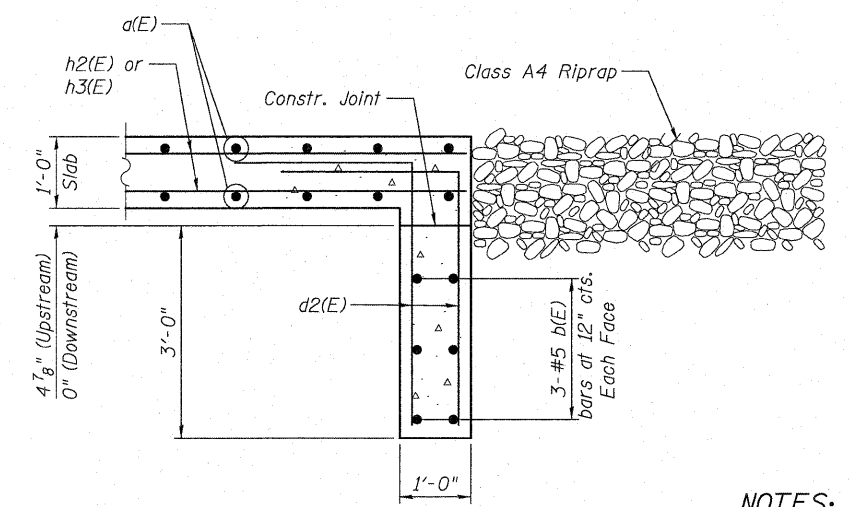
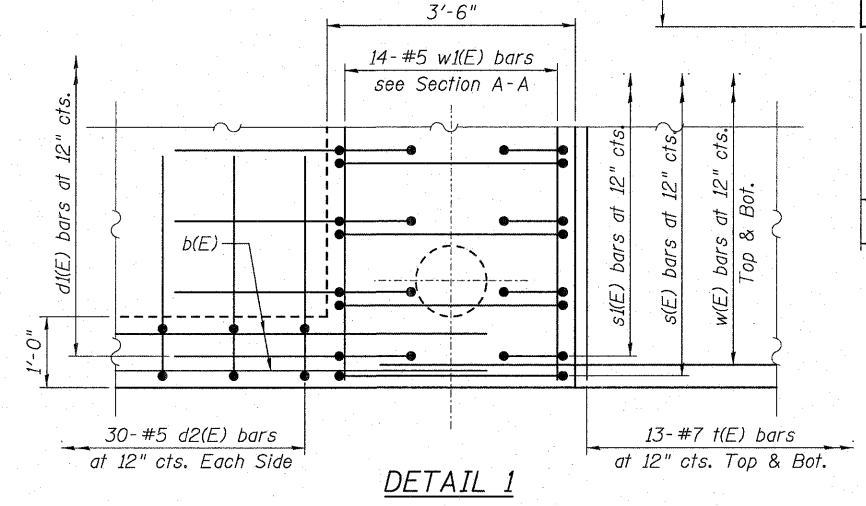
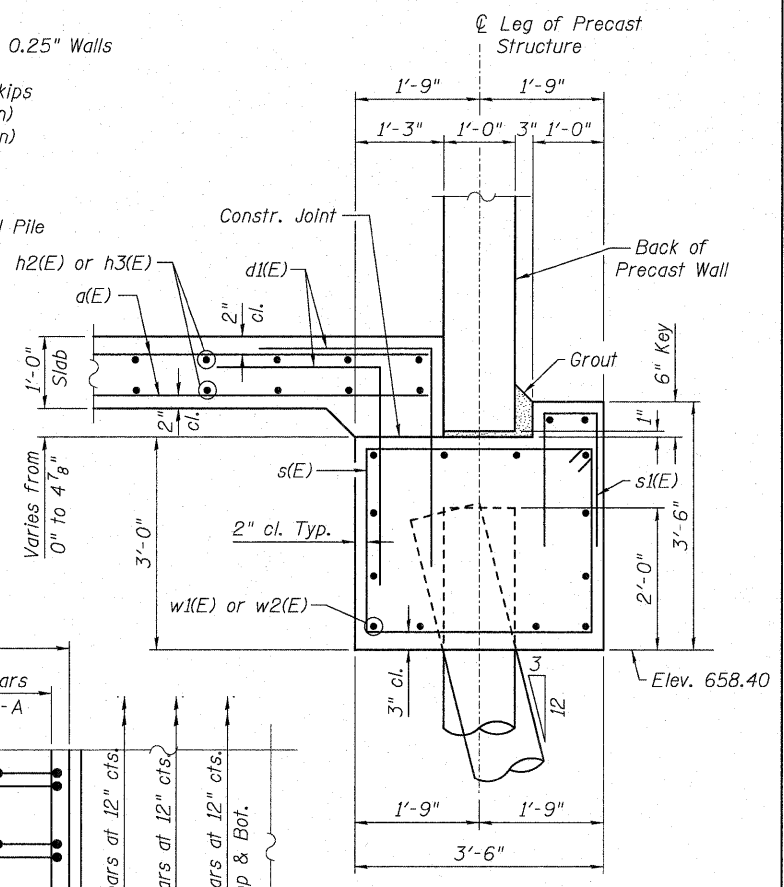
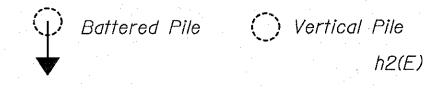
SECTION B-B

**GEOTEXTILE TEMPORARY
FORM BRACE DETAIL**

Note:
This is a suggested detail, the Contractor is responsible for the design of the form brace system to be used.



PILE DATA
 Type & Size: Metal Shell - 12" ϕ x 0.25" Walls
 Nominal Required Bearing: 270 kips
 Allowable Resistance Available: 90 kips
 Est. Length: 33 ft (West Foundation)
 36 ft (East Foundation)
 No. Production Piles: 46
 No. Test Piles: 2



NOTES:
 See Sheet S-6 for Section B-B.



USER NAME =	DESIGNED - JXH	REVISED -
PLOT SCALE =	CHECKED - JW	REVISED -
PLOT DATE =	DRAWN - JLS	REVISED -
	CHECKED - JXH/JW	REVISED -

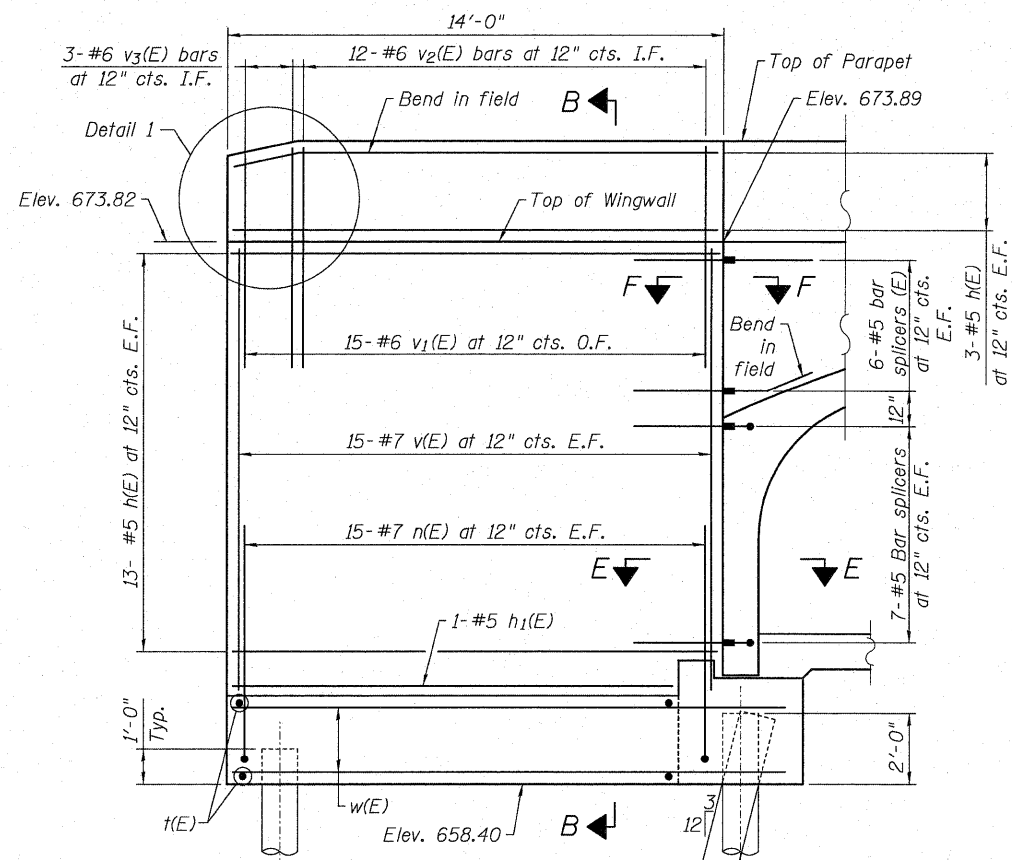
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

FOUNDATION PLAN AND DETAILS
 STRUCTURE NUMBER 049-0238 STATION 1159 + 35.95

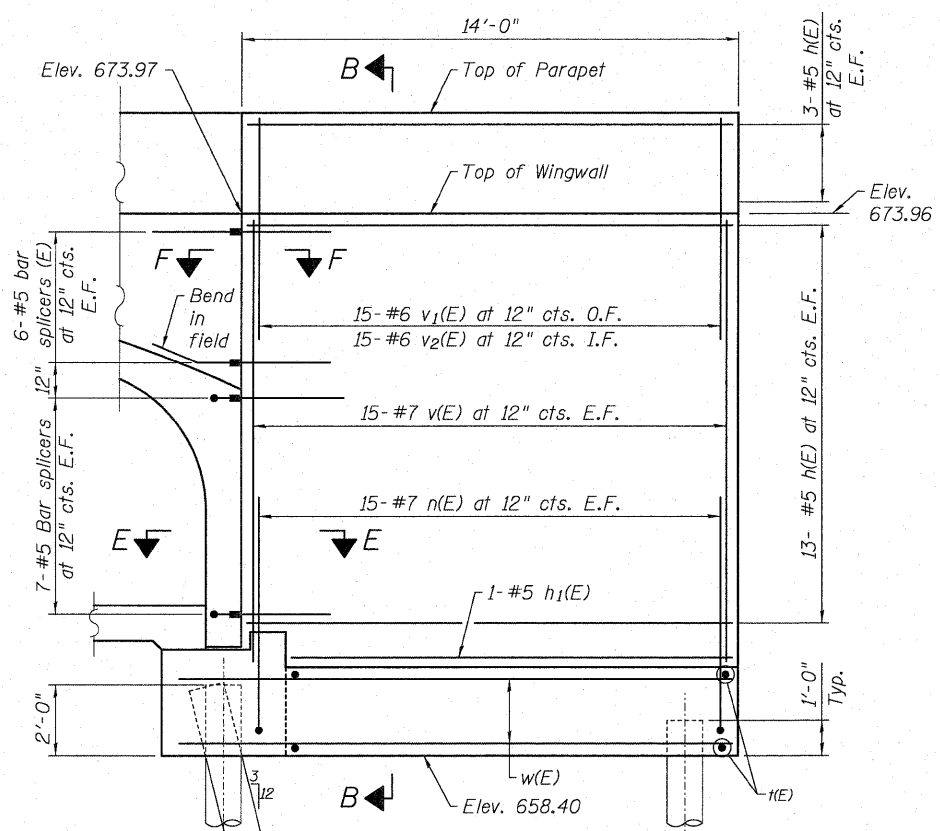
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1238	C-B-1	LAKE	61	33
DATE: 01-28-2011			ILLINOIS FED. AID PROJECT	

SHEET NO. S-5 OF S-15 SHEETS

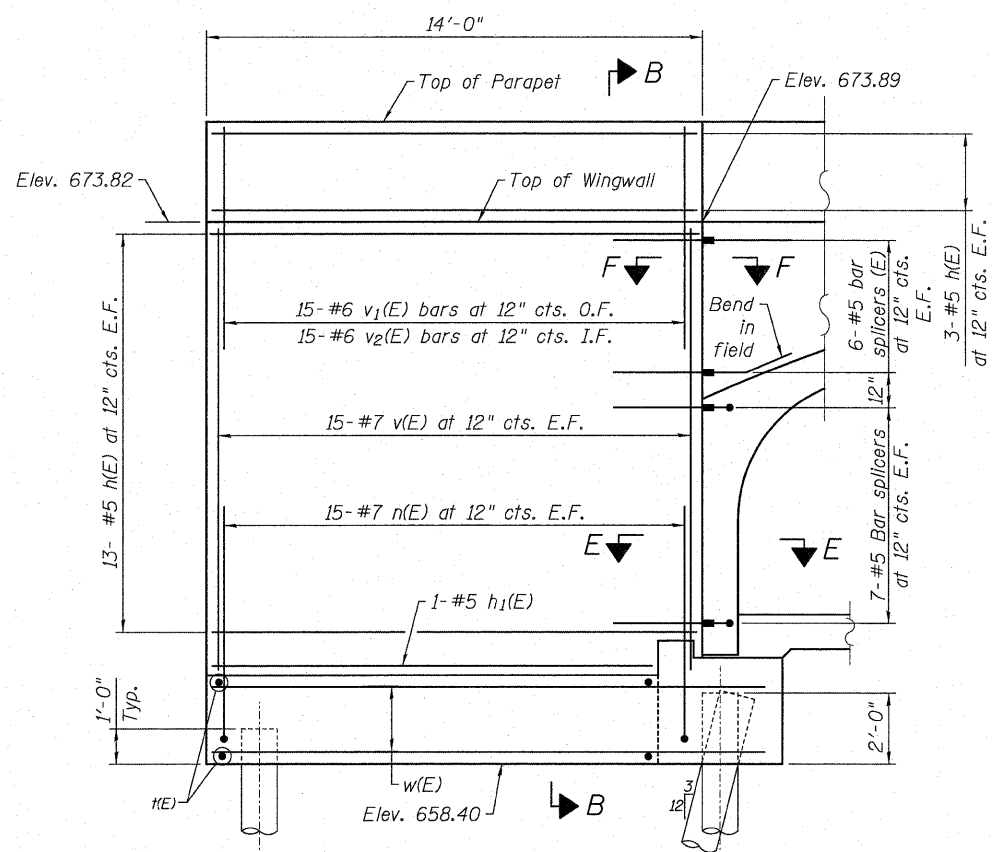
CONTRACT NO. 60J67



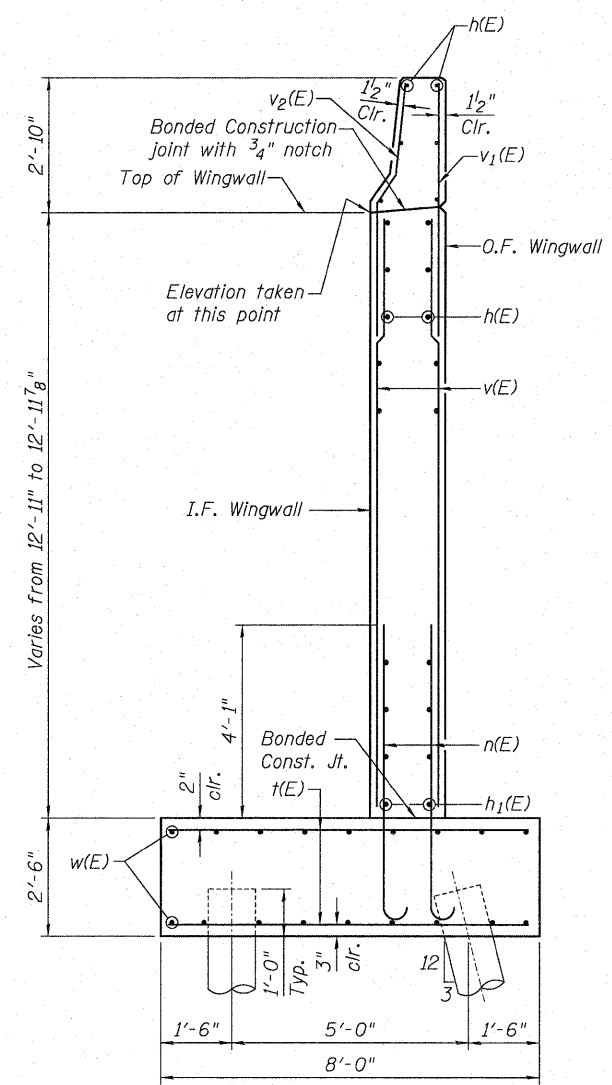
NW WINGWALL ELEVATION
(Looking North)



NE WINGWALL ELEVATION - SHOWN
(Looking North)
SE WINGWALL REFLECTED ELEVATION
(Looking North)



SW WINGWALL ELEVATION
(Looking North)



SECTION B-B

- Note:**
- See sheet S-7 of S-15 for detail 1, section E-E and section F-F.
 - Minimum bar lap length:
#5 = 2'-6"
#6 = 3'-0"
#7 = 3'-11"



USER NAME =	DESIGNED - JXH	REVISED -
PLOT SCALE =	CHECKED - JW	REVISED -
PLOT DATE =	DRAWN - JLS	REVISED -
	CHECKED - JXH/JW	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

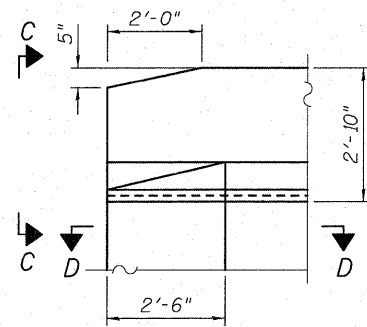
WINGWALL ELEVATIONS AND DETAILS
STRUCTURE NUMBER 049-0238 STATION 1159+35.95

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1238	C-B-1	LAKE	61	34
DATE: 01-28-2011			ILLINOIS FED. AID PROJECT	

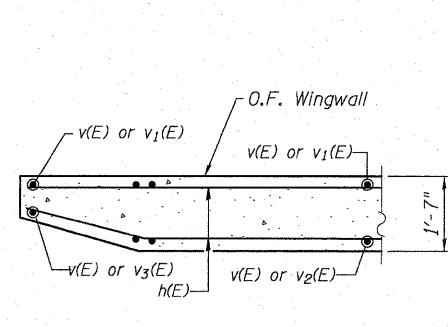
SHEET NO. S-6 OF S-15 SHEETS

**BILL OF MATERIAL
FOUNDATION AND WINGWALLS**

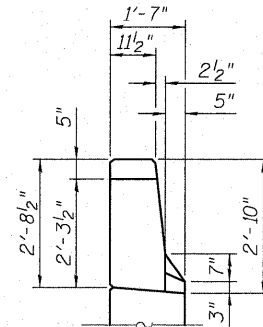
Bar	No.	Size	Length	Shape
a(E)	114	#6	31'-8"	—
b(E)	12	#5	34'-0"	—
d ₁ (E)	228	#6	6'-0"	└
d ₂ (E)	120	#5	6'-3"	└
h(E)	128	#5	13'-8"	—
h ₁ (E)	8	#5	12'-6"	—
h ₂ (E)	66	#5	26'-9"	—
h ₃ (E)	66	#5	27'-9"	—
n(E)	120	#7	6'-8"	⌋
s(E)	114	#5	12'-5"	□
s ₁ (E)	114	#5	4'-8"	▭
t(E)	104	#7	7'-8"	—
v(E)	120	#7	12'-8"	—
v ₁ (E)	60	#6	5'-2"	—
v ₂ (E)	57	#6	6'-2"	—
v ₃ (E)	3	#6	6'-2"	—
w(E)	72	#5	15'-6"	—
w ₁ (E)	28	#5	26'-9"	—
w ₂ (E)	28	#5	27'-9"	—
Structure Excavation		Cu. Yd	136	
Concrete Structures		Cu. Yd	206.6	
Protective Coat		Sq. Yd.	25	
Reinforcement Bars, Epoxy Coated		Pound	26,550	
Bar Splicers		Each	94	
Furnishing Metal Shell		Foot	1,587	
Piles 12" x 0.250"		Foot	1,587	
Driving Piles		Foot	1,587	
Test Pile Metal Shells		Each	2	



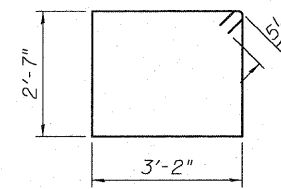
DETAIL 1



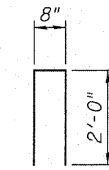
SECTION D-D



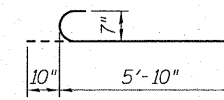
VIEW C-C



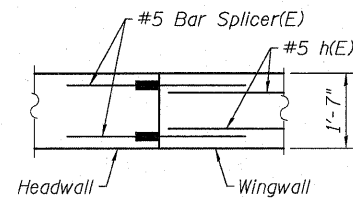
BAR s(E)



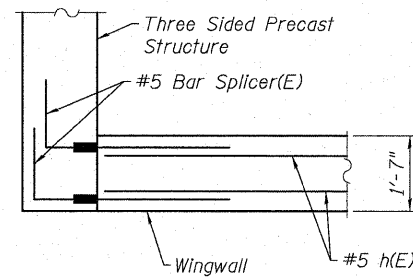
BAR s1(E)



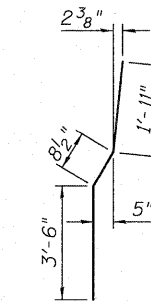
BAR n(E)



SECTION F-F



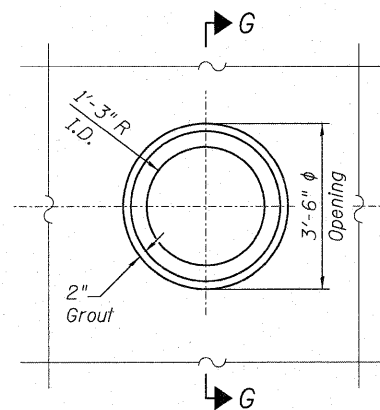
SECTION E-E



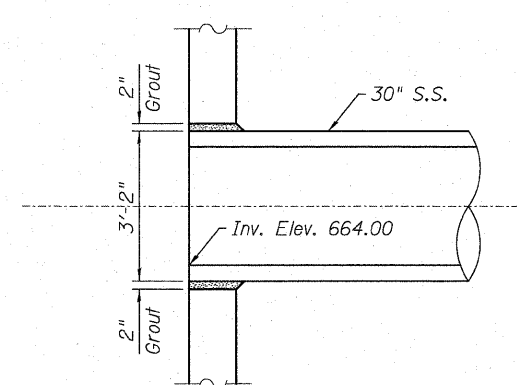
BAR v2(E)



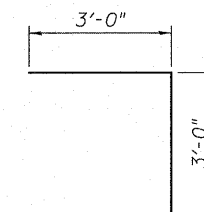
BAR v3(E)



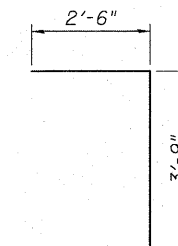
ELEVATION VIEW



SECTION G-G

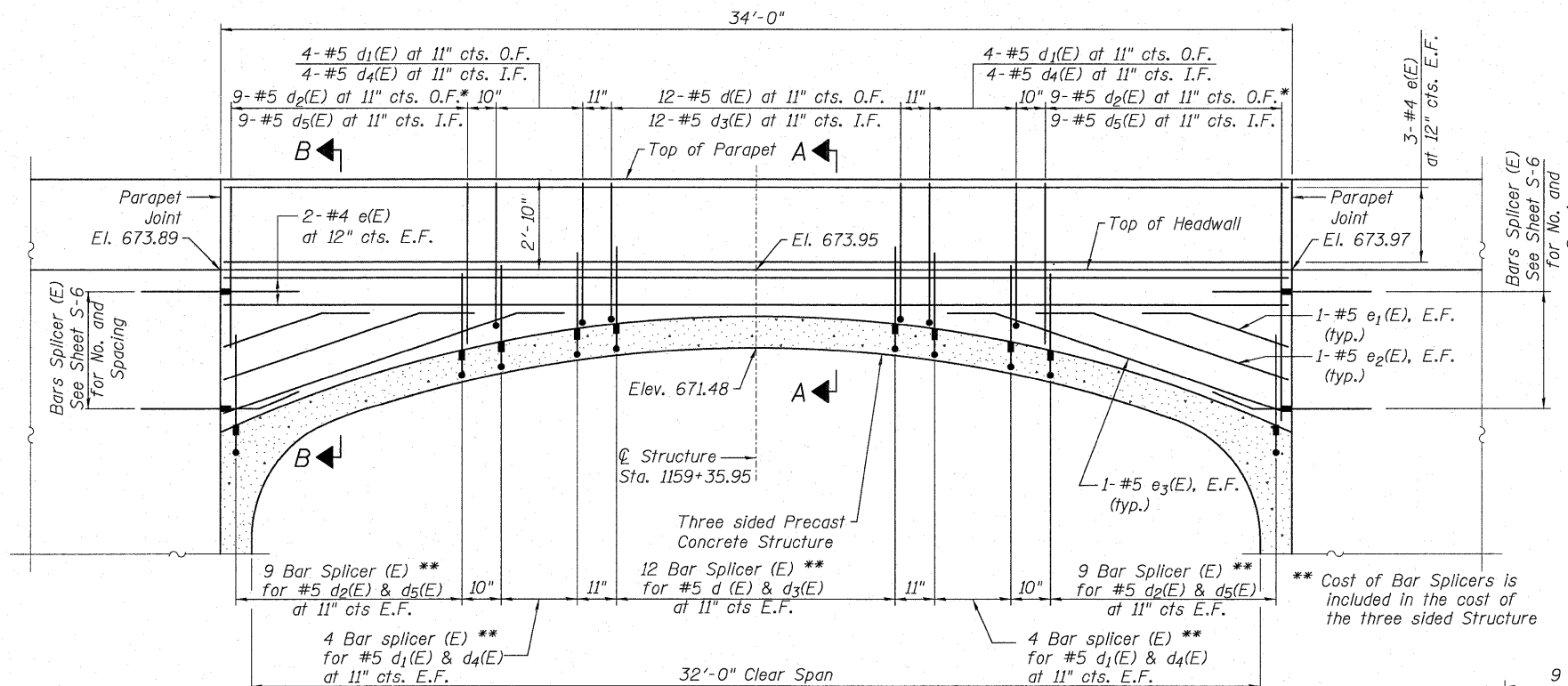


BAR d1(E)

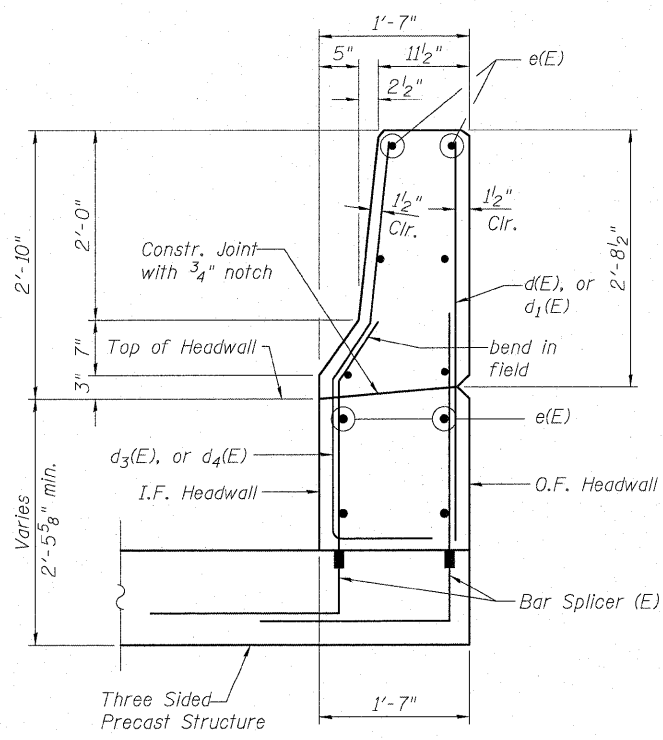


BAR d2(E)

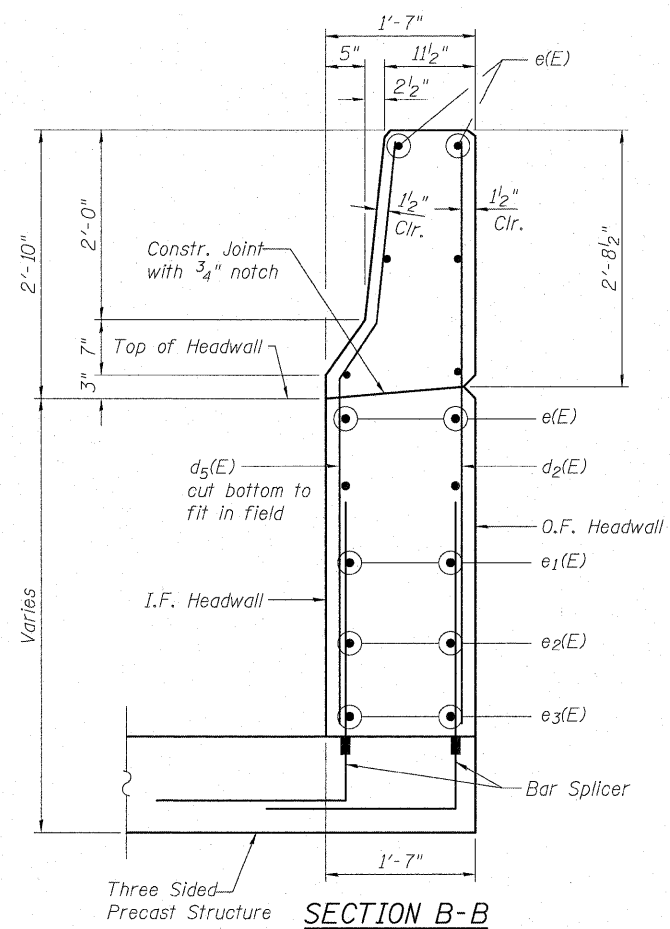
OPENING IN THREE-SIDED STRUCTURE



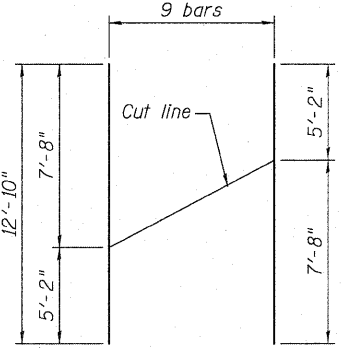
ELEVATION



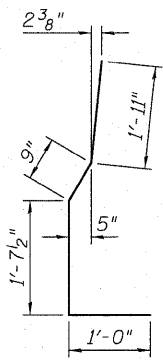
SECTION A-A



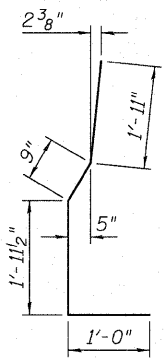
SECTION B-B



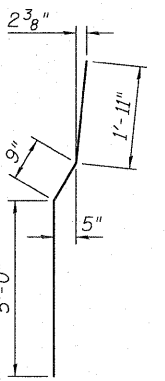
BAR CUTTING DIAGRAM d2(E) BAR



BAR d3(E)

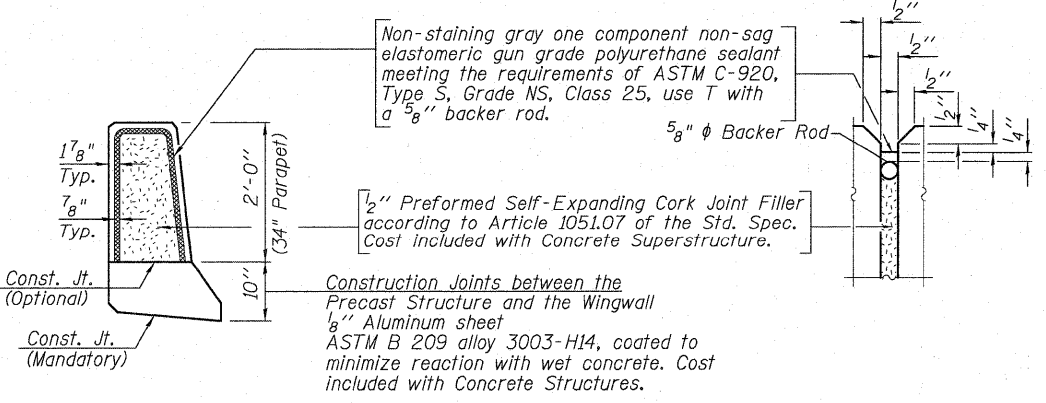


BAR d4(E)



BAR d5(E)

Note: Cut bar d5(E) in field to fit



PARAPET JOINT DETAILS BETWEEN THE PRECAST STRUCTURE AND THE WINGWALL

BILL OF MATERIAL HEADWALLS AND PARAPETS

Bar	No.	Size	Length	Shape
d1(E)	24	#5	4'-1"	—
d1(E)	16	#5	4'-6"	—
d2(E)	18	#5	12'-10"	—
d3(E)	24	#5	5'-4"	~
d4(E)	16	#5	5'-8"	~
d5(E)	36	#5	7'-8"	~
e(E)	20	#4	33'-8"	—
e1(E)	8	#4	5'-0"	~
e2(E)	8	#4	8'-3"	~
e3(E)	8	#4	11'-6"	~
Concrete Structures		Cu. Yd.	19.1	
Protective Coat		Sq. Yd.	30	
Reinforcement Bars, Epoxy Coated		Pound	1,520	
Bar Splicers		Each	48	

BARS e1(E), e2(E) & e3(E)



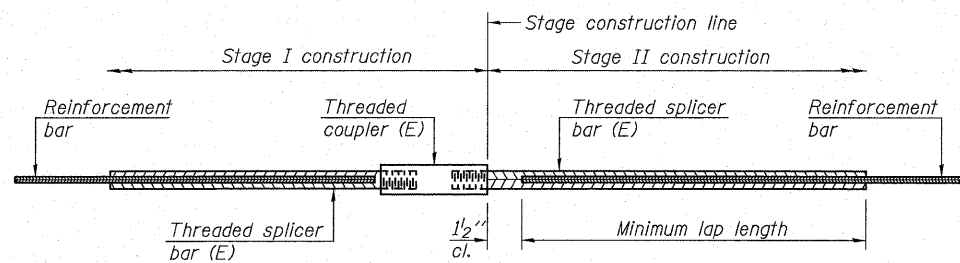
USER NAME =	DESIGNED - JXH	REVISED -
PLOT SCALE =	CHECKED - JW	REVISED -
PLOT DATE =	DRAWN - JLS	REVISED -
	CHECKED - JXH/JW	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

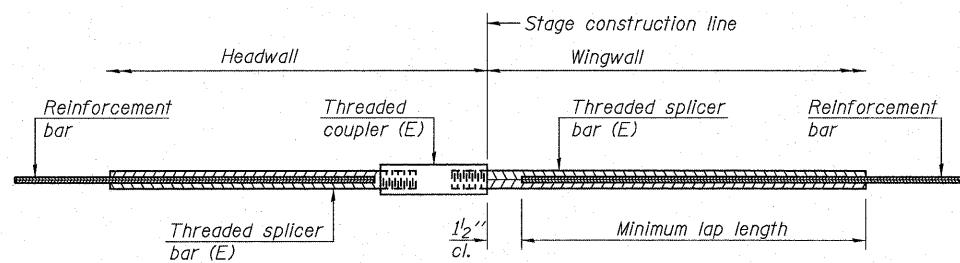
HEADWALL AND PARAPET DETAILS
STRUCTURE NUMBER 049-0238 STATION 1159 + 35.95

SHEET NO. S-8 OF S-15 SHEETS

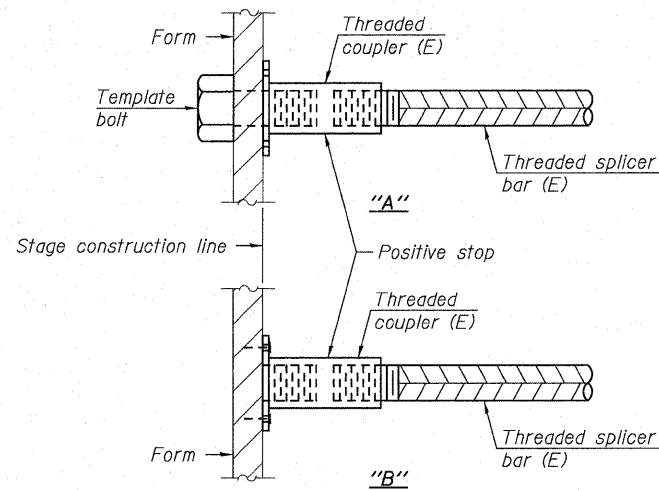
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1238	C-B-I	LAKE	61	36
DATE: 01-28-2011			ILLINOIS FED. AID PROJECT	
			CONTRACT NO. 60J67	



BAR SPLICER ASSEMBLY FOR FOUNDATIONS



BAR SPLICER ASSEMBLY BETWEEN HEADWALLS AND WINGWALLS



INSTALLATION AND SETTING METHODS

"A" : Set bar splicer assembly by means of a template bolt.
 "B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.
 (E) : Indicates epoxy coating.

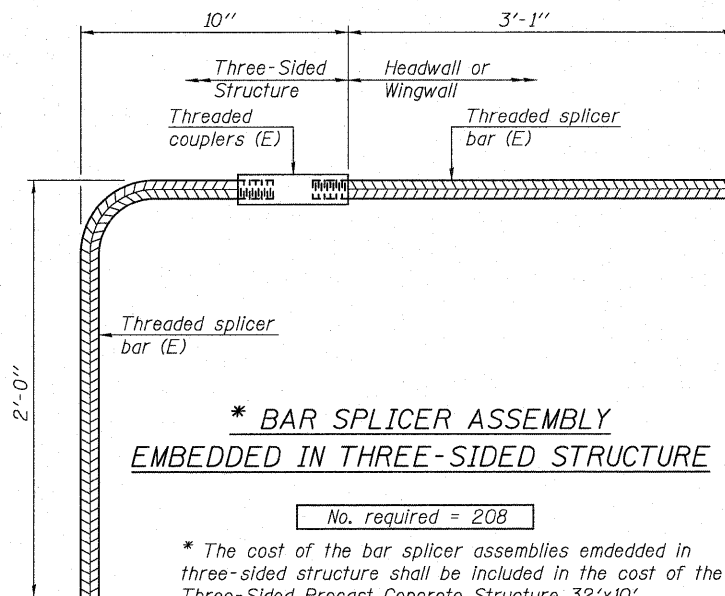
Minimum Lap Lengths				
Bar size to be spliced	Table 1	Table 2	Table 3	Table 4
3, 4	1'-5"	1'-11"	2'-1"	2'-4"
5	1'-9"	2'-5"	2'-7"	2'-11"
6	2'-1"	2'-11"	3'-1"	3'-6"
7	2'-9"	3'-10"	4'-2"	4'-8"
8	3'-8"	5'-1"	5'-5"	6'-2"
9	4'-7"	6'-5"	6'-10"	7'-9"

Table 1: Black bar, 0.8 Class C
 Table 2: Black bar, Top bar lap, 0.8 Class C
 Table 3: Epoxy bar, 0.8 Class C
 Table 4: Epoxy bar, Top bar lap, 0.8 Class C

Threaded splicer bar length = min. lap length + 1/2" + thread length

* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length
Pile Caps	#5	28	Table 3
Footing Slab	#5	66	Table 3
Between Headwall & Wingwall	#5	48	Table 3



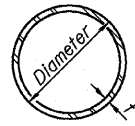
*** BAR SPLICER ASSEMBLY EMBEDDED IN THREE-SIDED STRUCTURE**

No. required = 208

* The cost of the bar splicer assemblies embedded in three-sided structure shall be included in the cost of the Three-Sided Precast Concrete Structure 32'x10'.

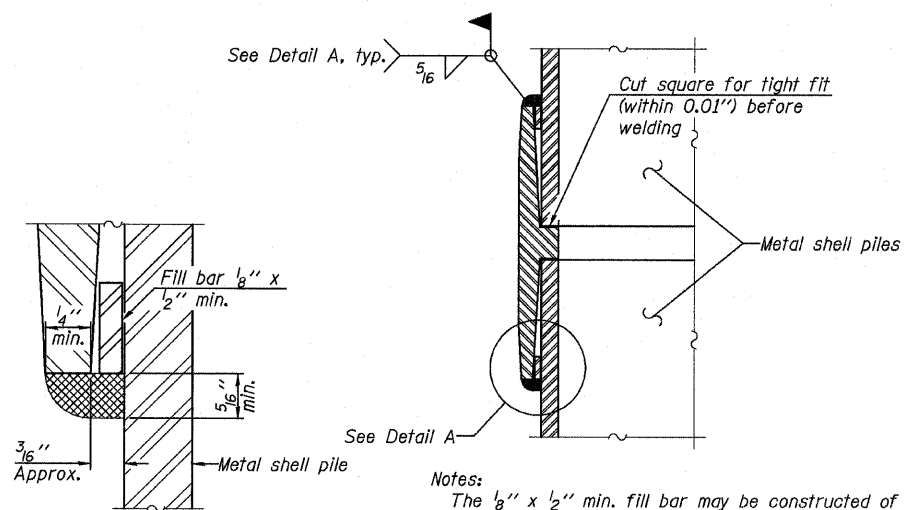
NOTES

Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.
 All reinforcement shall be lapped and tied to the splicer bars.
 Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.
 See special provision for Mechanical Splicers.
 See approved list of bar splicer assemblies and mechanical splicers for alternatives.
 Threaded splicer bar length = min. lap length + 1/2" + threaded length



METAL SHELL PILE TABLE

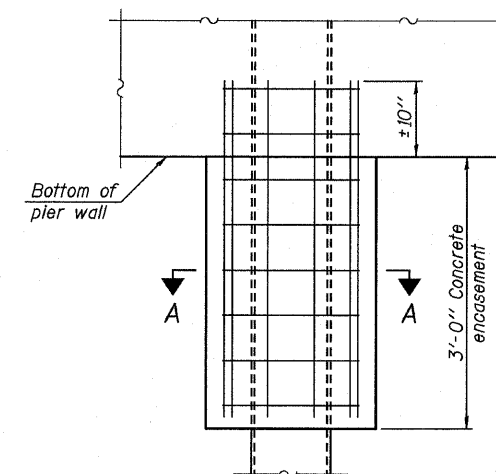
Designation and outside diameter	Wall thickness t	Weight per foot (Lbs./ft.)	Inside volume (yd. ³ /ft.)
PP12	0.179"	22.60	0.0274
PP12	0.250"	31.37	0.0267
PP14	0.250"	36.71	0.0368
PP14	0.312"	45.61	0.0361



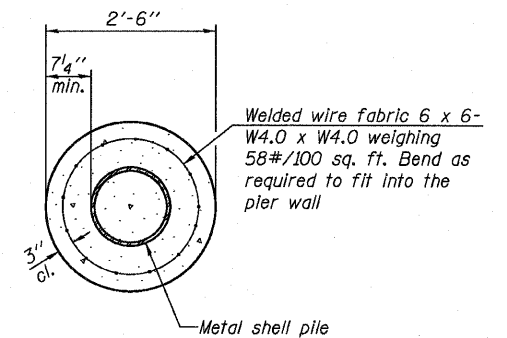
DETAIL A

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



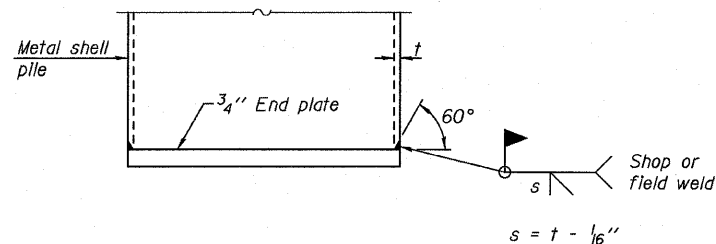
ELEVATION



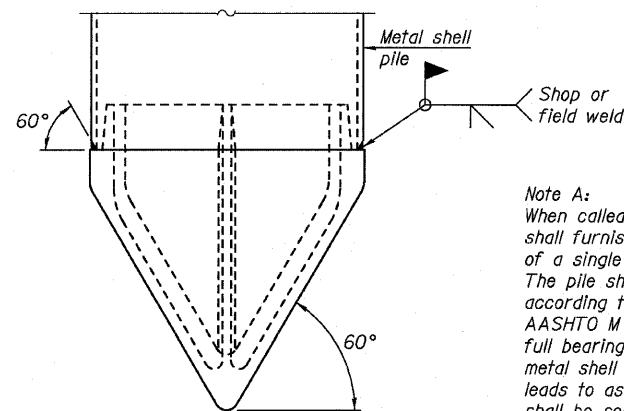
SECTION A-A

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

CONCRETE ENCASMENT AT PIERS



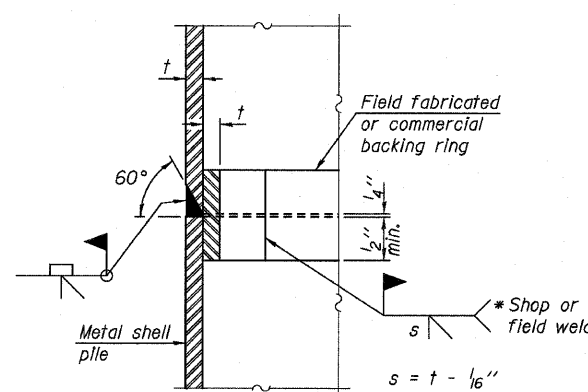
END PLATE ATTACHMENT



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.

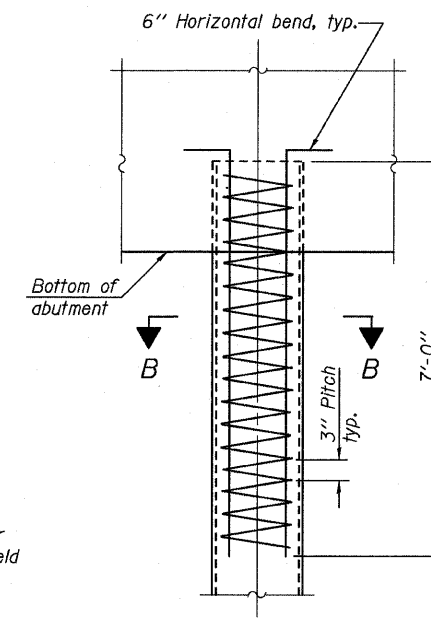
METAL SHELL PILE SHOE ATTACHMENT

(See Note A)

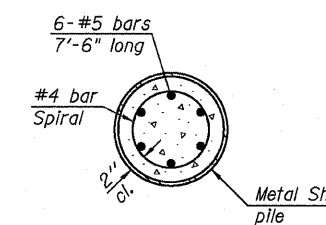


COMPLETE PENETRATION WELD SPLICE

* 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.



ELEVATION



SECTION B-B

METAL SHELL REINFORCEMENT AT ABUTMENTS

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

F-MS

7-1-10



USER NAME =	DESIGNED - JXH	REVISED -
PLOT SCALE =	CHECKED - JW	REVISED -
PLOT DATE =	DRAWN - JLS	REVISED -
	CHECKED - JXH/JW	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

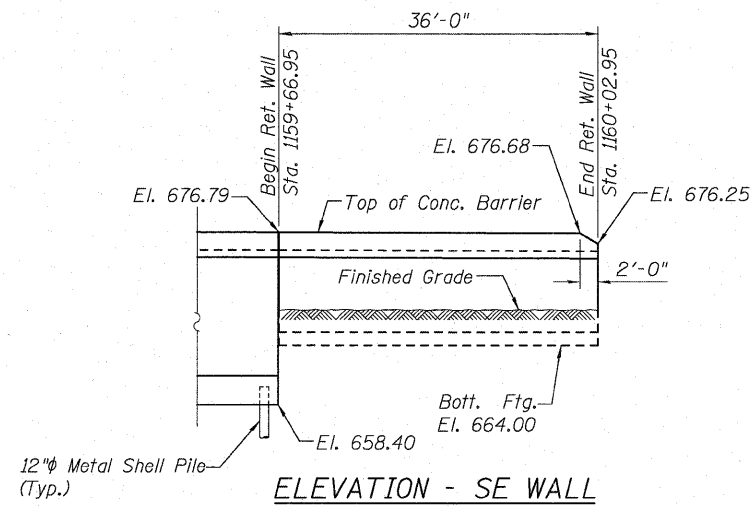
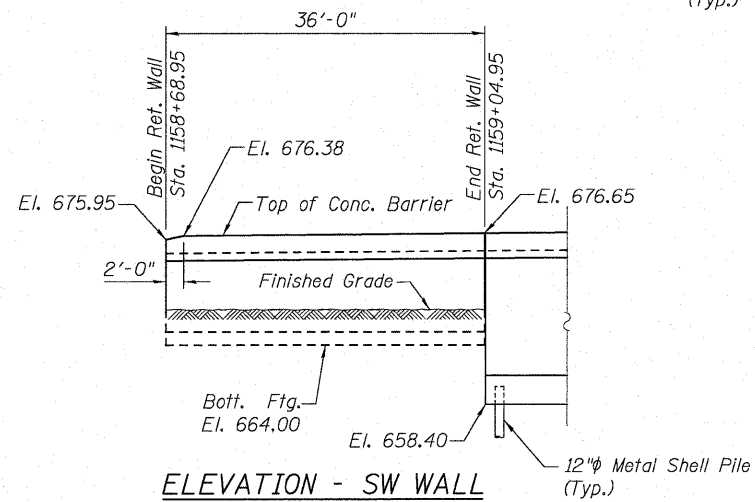
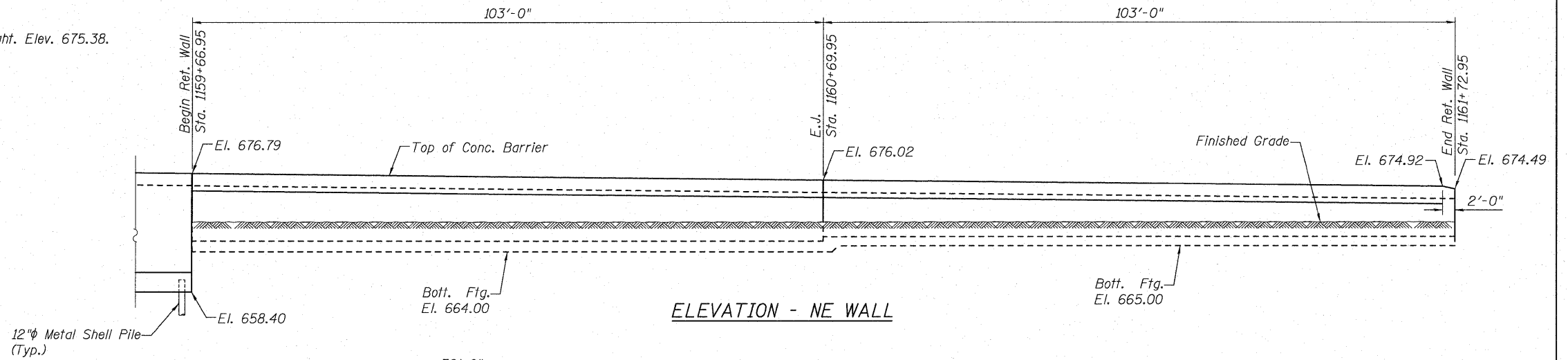
**METAL SHELL PILE DETAILS
 STRUCTURE NUMBER 049-0238 STATION 1159 + 35.95**

SHEET NO. 5-10 OF 5-15 SHEETS

F.A.U. RTE. 1238	SECTION C-B-I	COUNTY LAKE	TOTAL SHEETS 61	SHEET NO. 38
DATE: 01-10-2011		ILLINOIS FED. AID PROJECT CONTRACT NO. 60J67		

Benchmark: X cut SW bolt on hydrant at Sta. 1161+97 and Offset 51' right. Elev. 675.38.

Existing Structure: None



GENERAL NOTES:

Reinforcement bars shall conform to the requirements of ASTM A 706 Gr. 60. See Special Provisions.

Reinforcement bars designated (E) shall be epoxy coated.

For Total Bill of Material, see Sheet S-2 of S-15.

DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications, 17th Edition

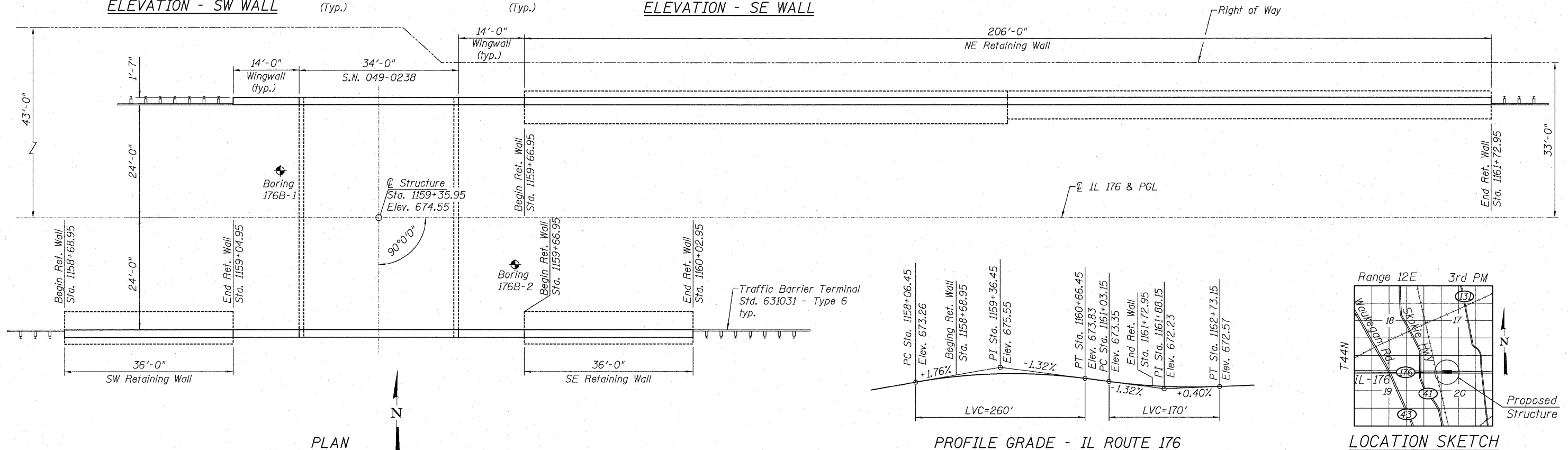
DESIGN STRESSES

FIELD UNITS

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

SEISMIC DATA

Seismic Performance Category (SPC) = A
 Bedrock Acceleration Coefficient (A) = 0.035g
 Site Coefficient (S) = 1.0



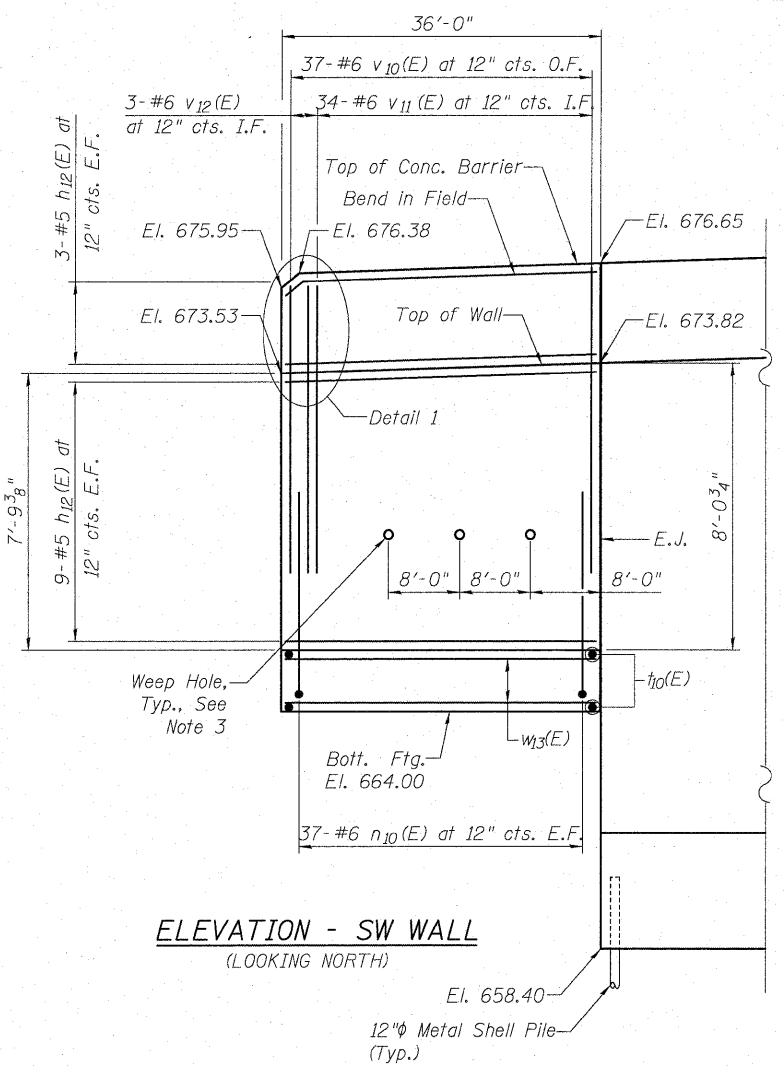
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PLOT SCALE =	CHECKED - JW	REVISED -
PLOT DATE =	DRAWN - JLS	REVISED -
	CHECKED - JXH/JW	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

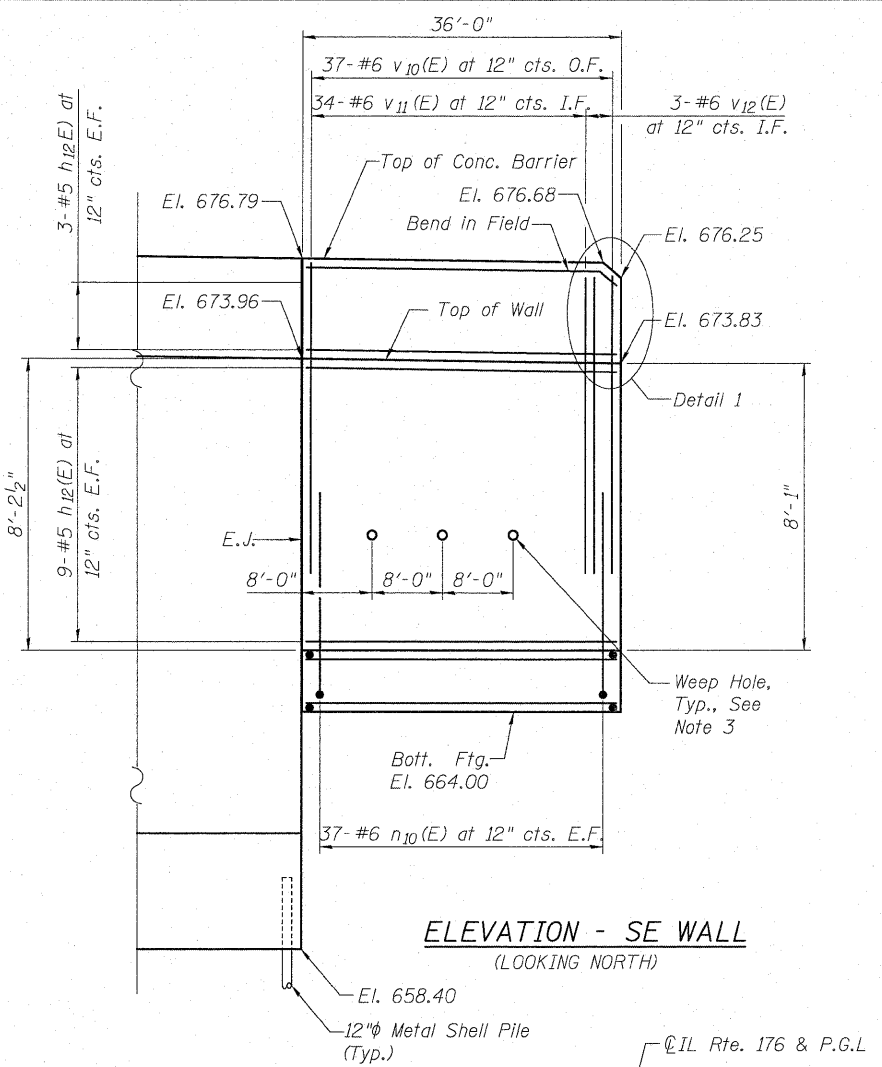
GENERAL PLAN - RETAINING WALLS
 STATION 1158 + 68.95 TO STATION 1161 + 72.95

SHEET NO. S-11 OF S-15 SHEETS

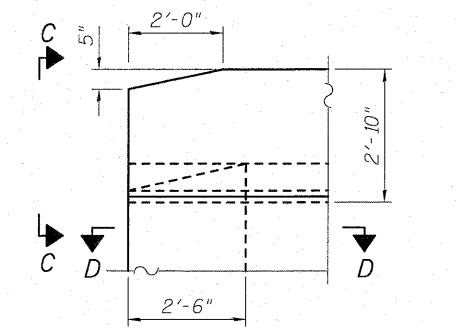
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1238	C-BR	LAKE	61	39
DATE: 1-28-2011			ILLINOIS FED. AID PROJECT	
			CONTRACT NO. 60J67	



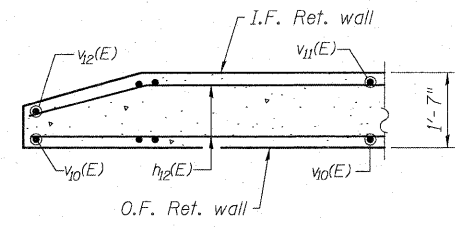
ELEVATION - SW WALL
(LOOKING NORTH)



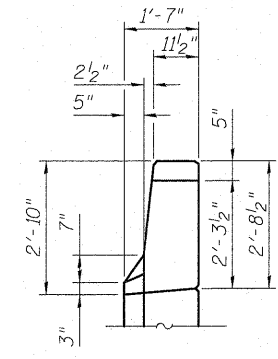
ELEVATION - SE WALL
(LOOKING NORTH)



DETAIL 1



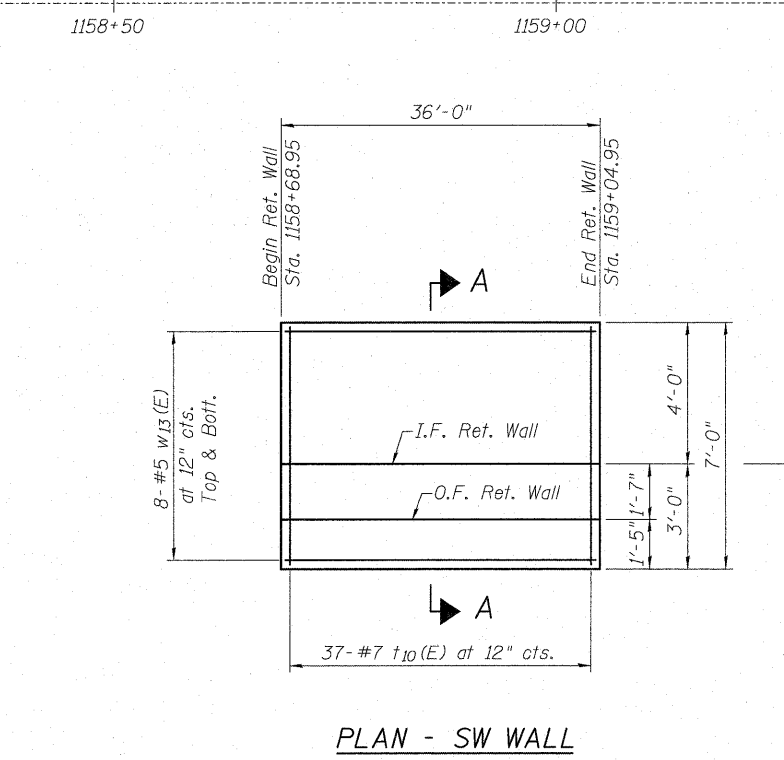
SECTION D-D



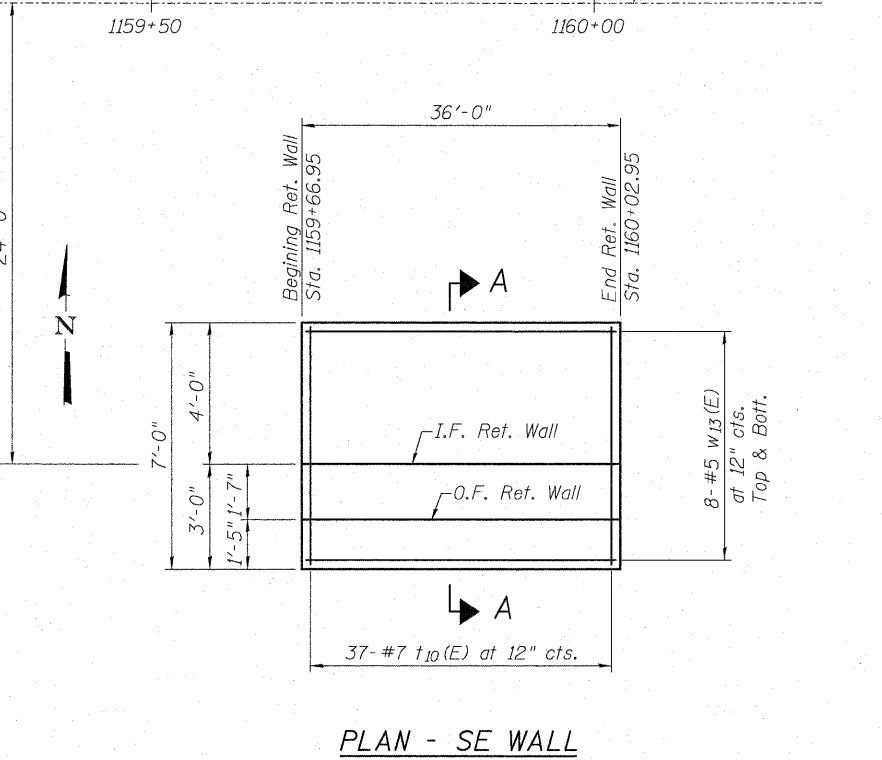
VIEW C-C

BILL OF MATERIAL
SW & SE RETAINING WALLS

Bar	No.	Size	Length	Shape
h ₁₂ (E)	48	#5	35'-8"	
n ₁₀ (E)	148	#6	9'-0"	
t ₁₀ (E)	148	#7	6'-8"	
v ₁₀ (E)	74	#6	8'-0"	
v ₁₁ (E)	68	#6	8'-2"	
v ₁₂ (E)	6	#6	7'-11"	
w ₁₃ (E)	32	#5	35'-8"	
Structure Excavation		Cu. Yd.	117	
Concrete Structures		Cu. Yd.	75.2	
Protective Coat		Sq. Yd.	32	
Reinforcement Bars, Epoxy Coated		Pound	8,790	
Geocomposite Wall Drain		Sq. Yd.	44	
Porous Granular Embankment, Special		Cu. Yd.	57	



PLAN - SW WALL



PLAN - SE WALL

NOTES:

- E.J. = Expansion Joint
C.J. = Construction Joint
For Joint Details see Sheet S-14 of S-15.
- For Section A-A see Sheet S-14 of S-15.
- Place Weep Hole so that bottom of hole is 1'-0" above Finished Grade Elevation at the Outside Face Retaining Wall. Place in Wall Panel adjacent to Wingwall only.
- Minimum lap lengths.
#4 = 2'-0"
#5 = 2'-6"
#6 = 3'-0"



USER NAME =	DESIGNED - JXH	REVISED -
PLOT SCALE =	CHECKED - JW	REVISED -
PLOT DATE =	DRAWN - JLS	REVISED -
	CHECKED - JXH/JW	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

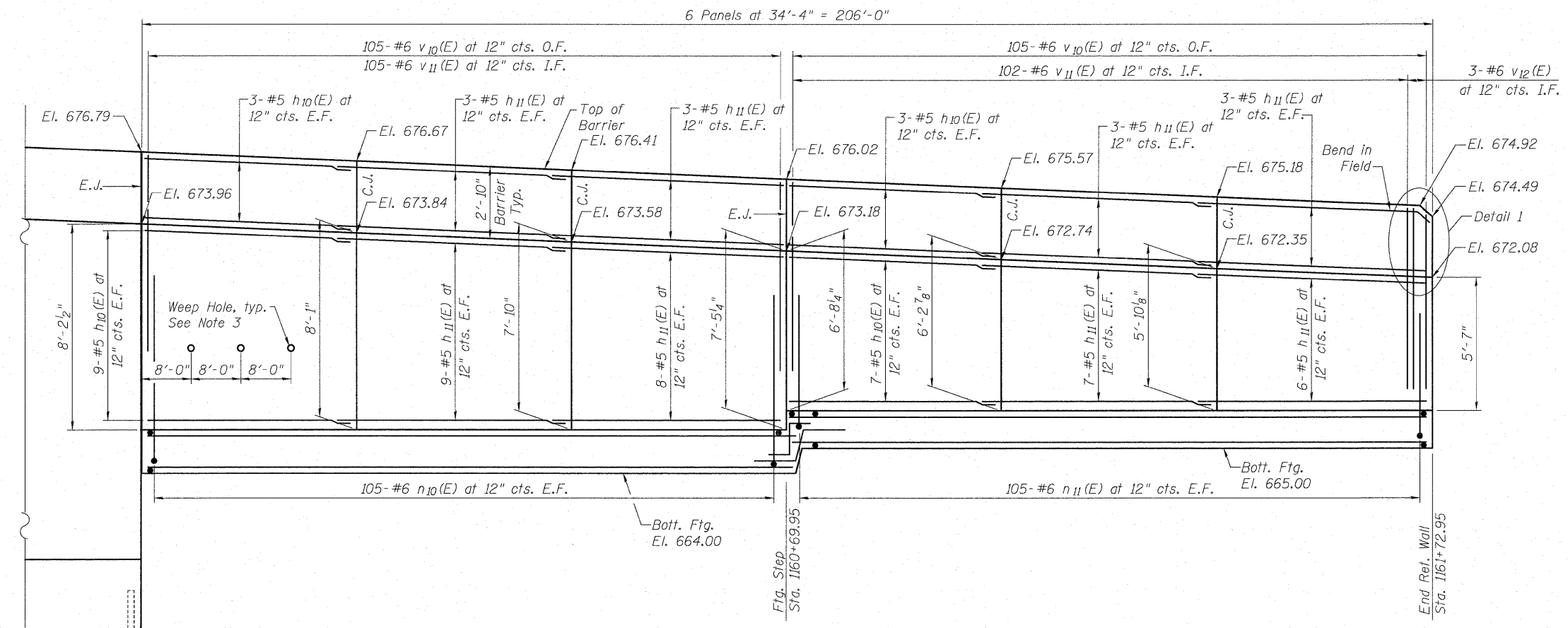
SW & SE RETAINING WALL - PLAN AND ELEVATIONS
STATION 1158 + 68.95 TO STATION 1161 + 72.95

SHEET NO. S-12 OF S-15 SHEETS

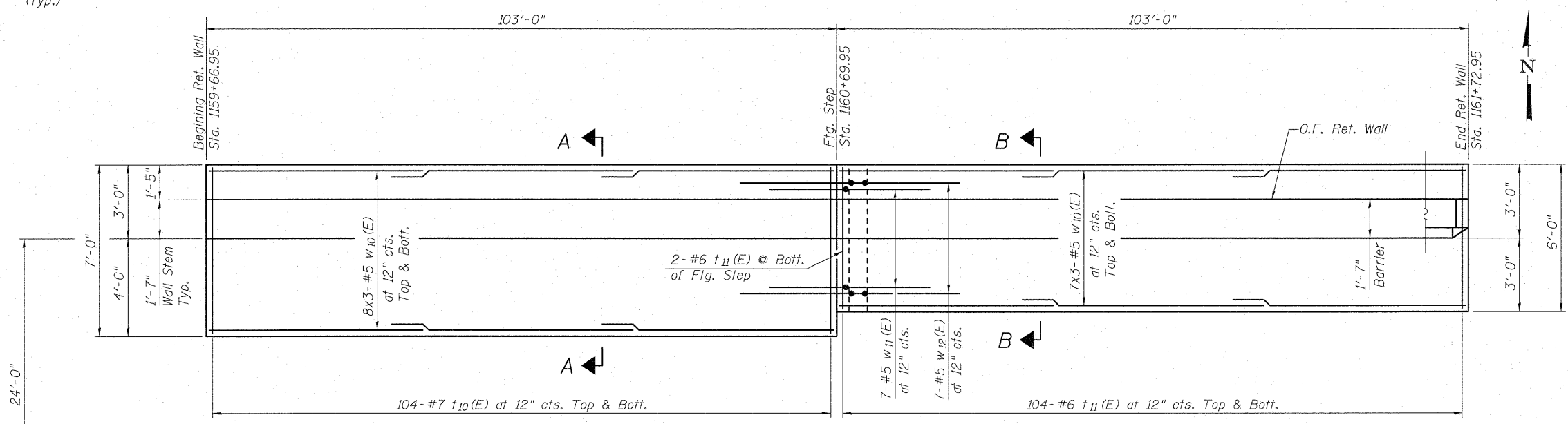
F.A.U. RTE. 1238	SECTION C-BR	COUNTY LAKE	TOTAL SHEETS 61	SHEET NO. 40
DATE: 1-28-2011			ILLINOIS FED. AID PROJECT	

**BILL OF MATERIAL
NE RETAINING WALL**

Bar	No.	Size	Length	Shape
$h_{10}(E)$	44	#5	34'-0"	—
$h_{11}(E)$	84	#5	36'-6"	—
$n_{10}(E)$	210	#6	9'-0"	—
$n_{11}(E)$	210	#5	7'-2"	—
$t_{10}(E)$	208	#7	6'-8"	—
$t_{11}(E)$	210	#6	5'-8"	—
$v_{10}(E)$	210	#6	8'-0"	—
$v_{11}(E)$	207	#6	8'-2"	—
$v_{12}(E)$	3	#6	7'-11"	—
$w_{10}(E)$	90	#5	36'-0"	—
$w_{11}(E)$	7	#5	6'-11"	—
$w_{12}(E)$	7	#5	9'-8"	—
Structure Excavation		Cu. Yd.	307	
Concrete Structures		Cu. Yd.	190.0	
Protective Coat		Sq. Yd.	91	
Reinforcement Bars, Epoxy Coated		Pound	22,400	
Geocomposite Wall Drain		Sq. Yd.	90	
Porous Granular Embankment, Special		Cu. Yd.	120	



NORTHEAST RETAINING WALL REFLECTED ELEVATION



NORTHEAST RETAINING WALL PLAN

NOTES:

- E.J. = Expansion Joint
C.J. = Construction Joint
For Joint Details, see Sheet S-14 of S-15.
- For Section A-A & B-B see Sheet S-14 of S-15.
- Place Weep Hole so that bottom of hole is 1'-0" above Finished Grade El. at the O.F. Ret. Wall. Place in Wall Panel adjacent to Wingwall only.
- For Footing Step Detail, see Sheet S-14 of S-15.
- Bars indicated thus 8x3-#5 etc. indicates 8 lines of bars with 3 lengths per line.
- Minimum lap lengths.
#4 = 2'-0"
#5 = 2'-6"
#6 = 3'-0"
- For Detail 1 see sheet S-12 of S-15.



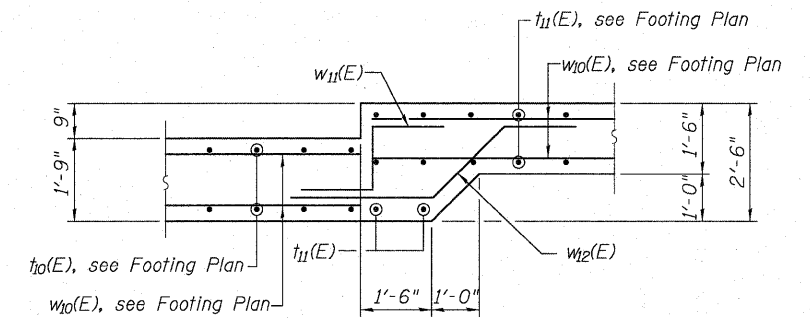
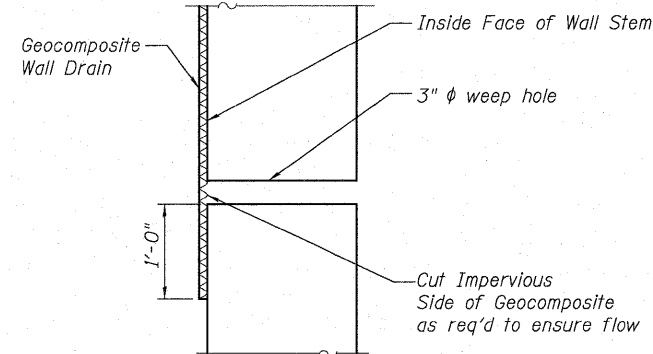
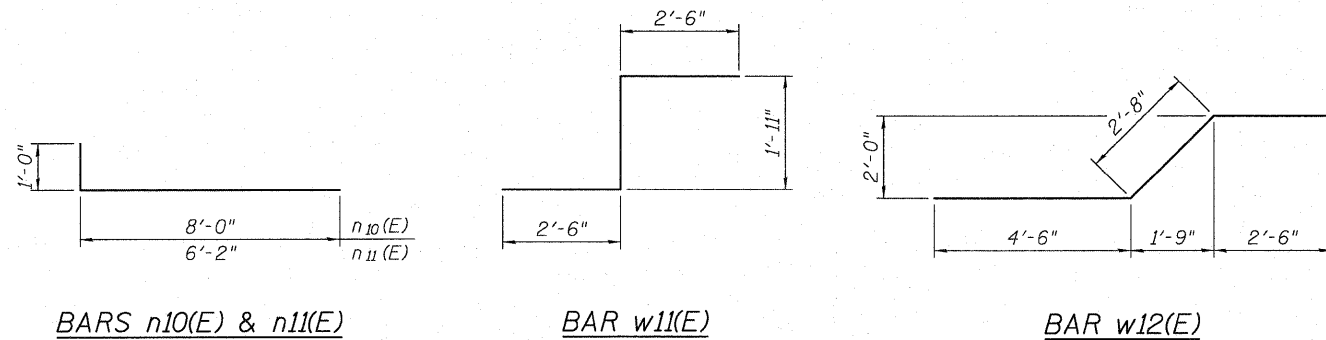
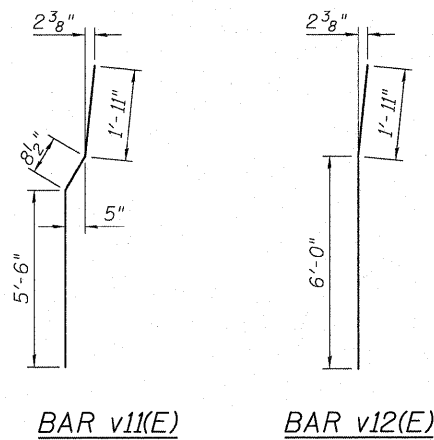
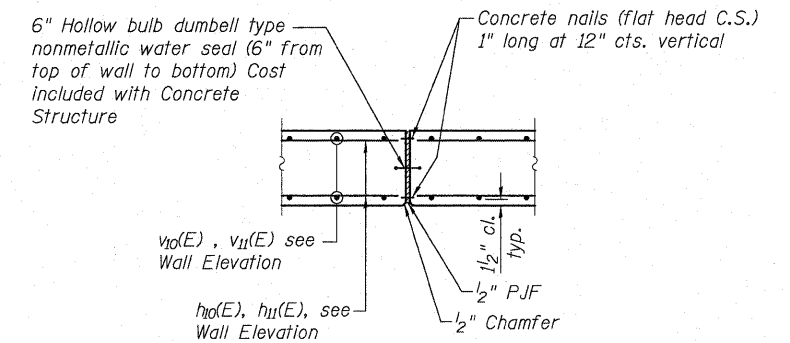
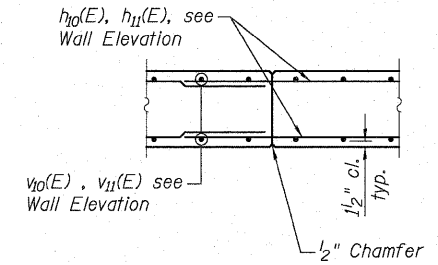
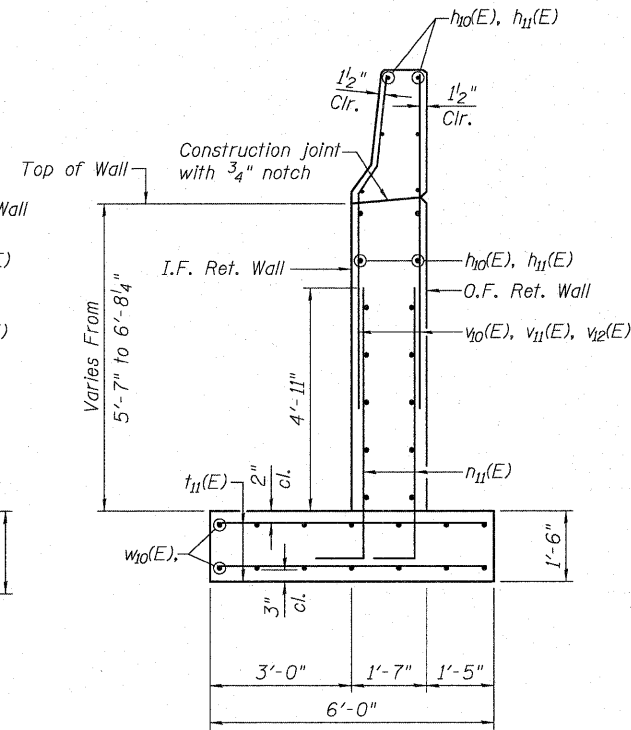
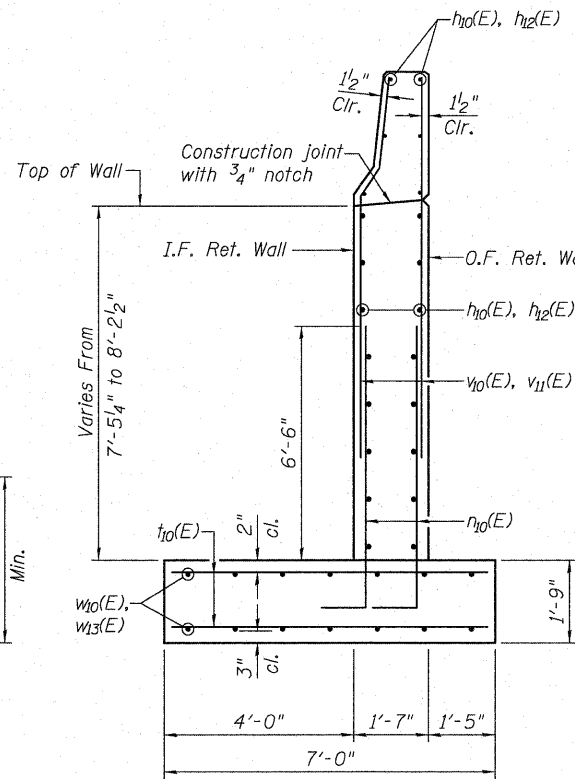
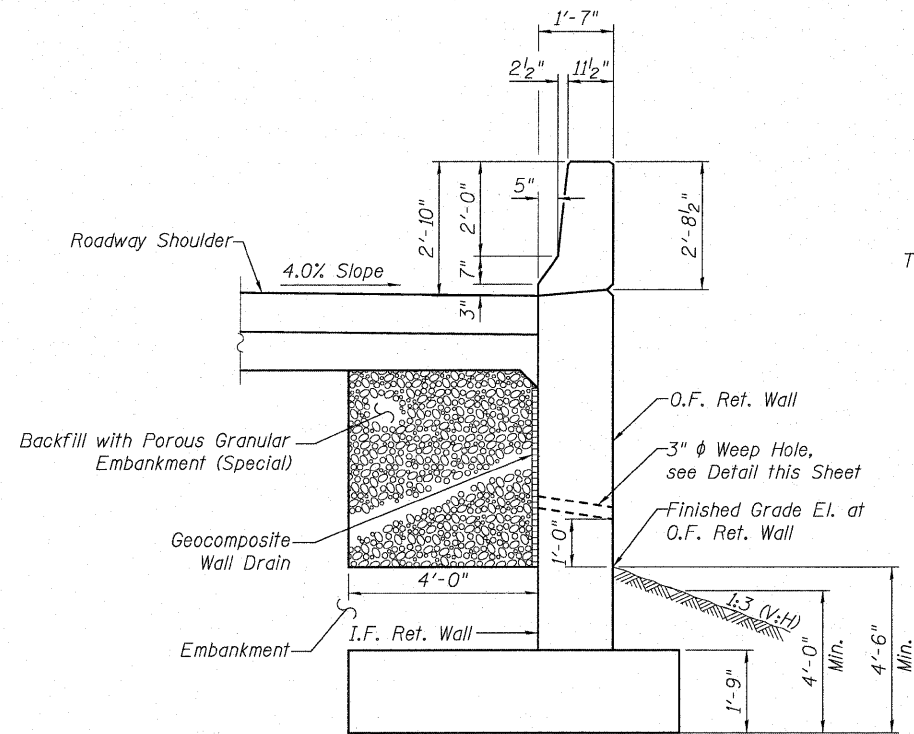
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PLOT SCALE =	CHECKED - JW	REVISED -
PLOT DATE =	DRAWN - JLS	REVISED -
	CHECKED - JXH/JW	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**NE RETAINING WALL - PLAN AND ELEVATIONS
STATION 1158 + 68.95 TO STATION 1161 + 72.95**

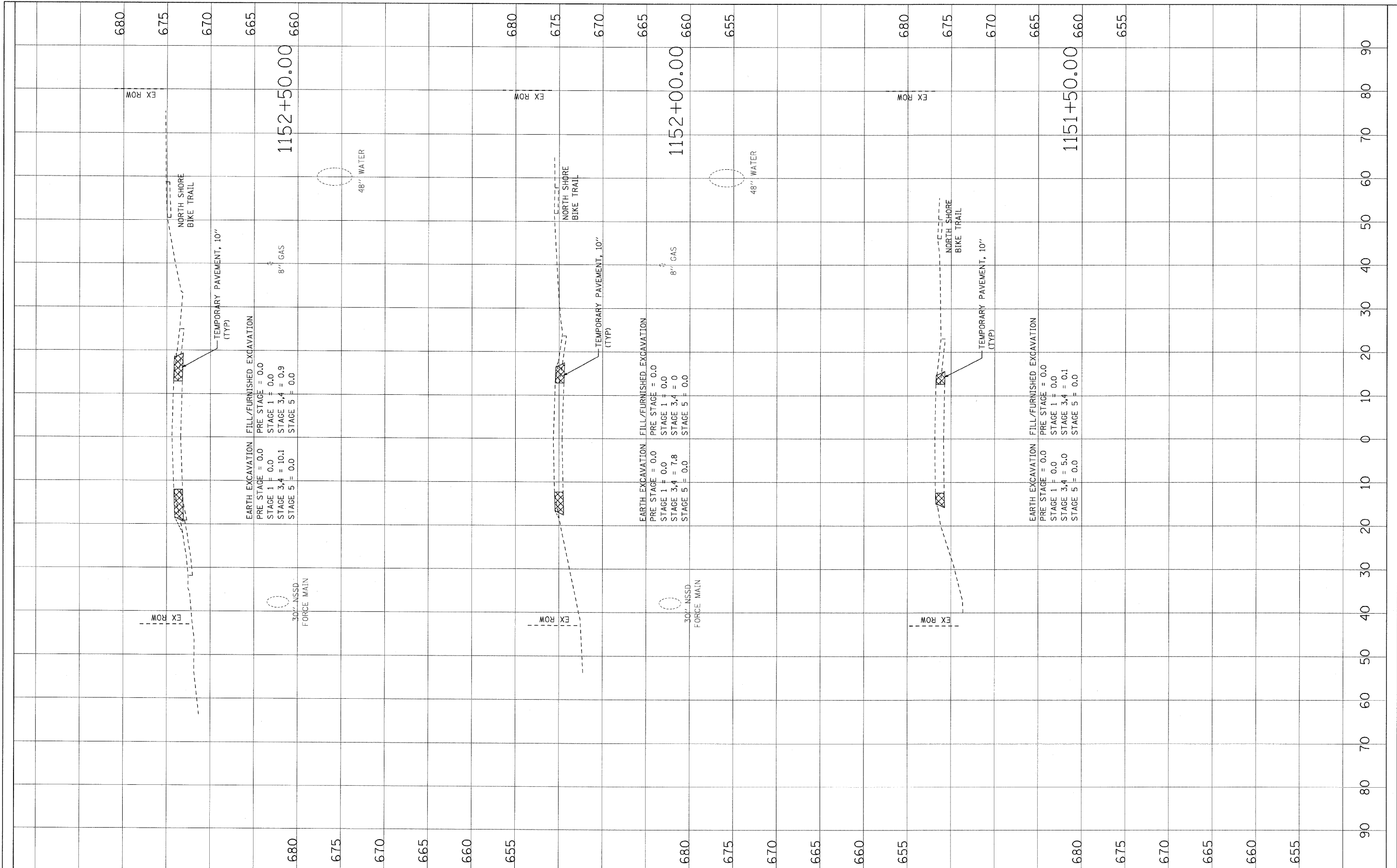
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1238	C-BR	LAKE	61	41
CONTRACT NO. 60J67				
DATE: 1-28-2011		ILLINOIS FED. AID PROJECT		

SHEET NO. S-13 OF S-15 SHEETS



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

ORIGINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
NO.	AREAS		
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12/23/2010
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DATE	-		REVISED	-

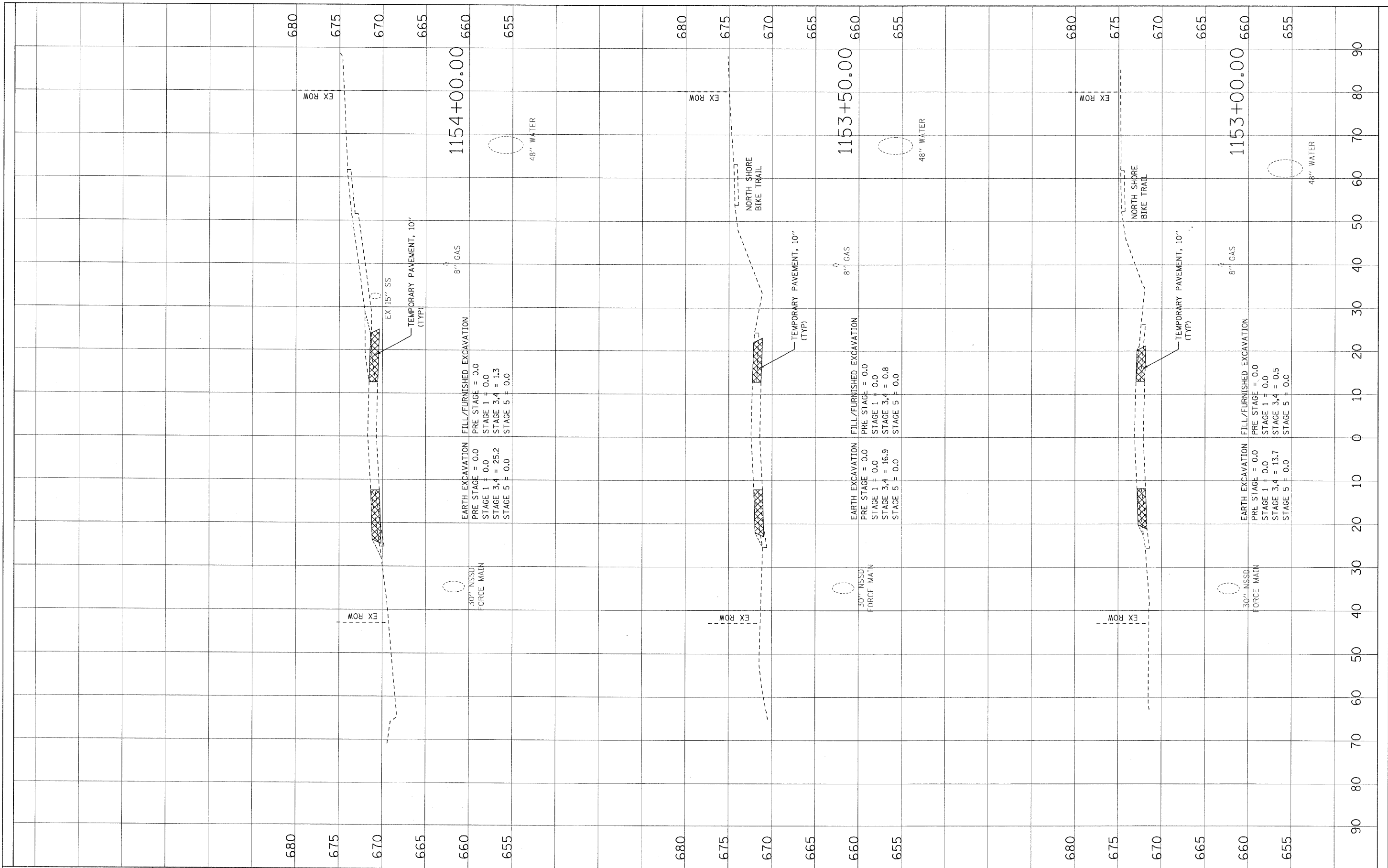
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL ROUTE 176 OVER EAST SKOKIE DITCH
CROSS SECTIONS
SCALE: 1"=10'(H); 1"=5'(V) SHEET NO. OF SHEETS STA. 1153+00.00 TO STA. 1154+00.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1238	C-B-I	LAKE	61	44
CONTRACT NO. 60J67			ILLINOIS FED. AID PROJECT	

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



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DATE		REVISED	-

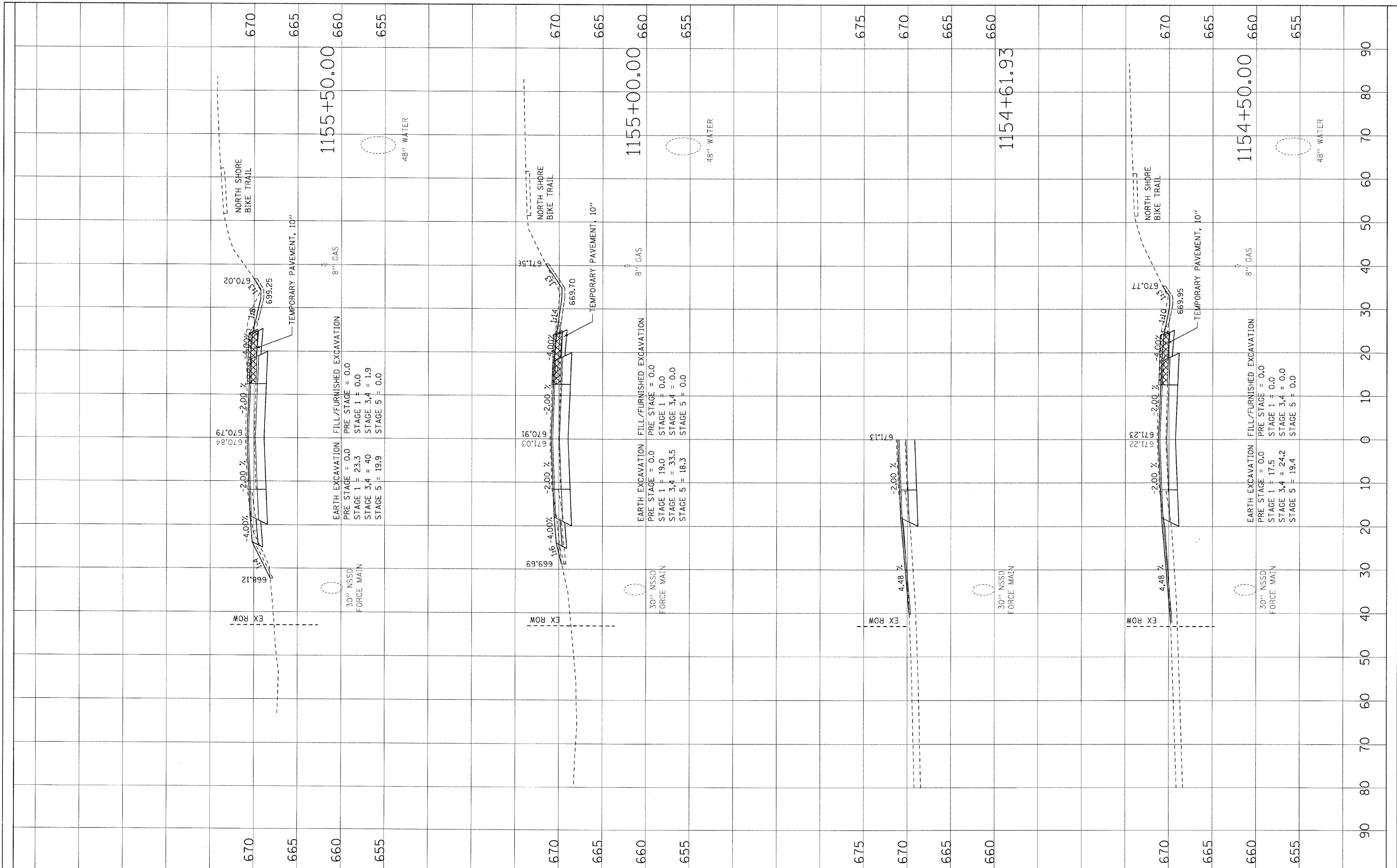
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

IL ROUTE 176 OVER EAST SKOKIE DITCH
 CROSS SECTIONS
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F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1238	C-B-1	LAKE	61	45
CONTRACT NO. 60J67			ILLINOIS FED. AID PROJECT	

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SURVEYED		
PLOTTED		
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SURVEYED		
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NOTE BOOK		
AREAS CHECKED		
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STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

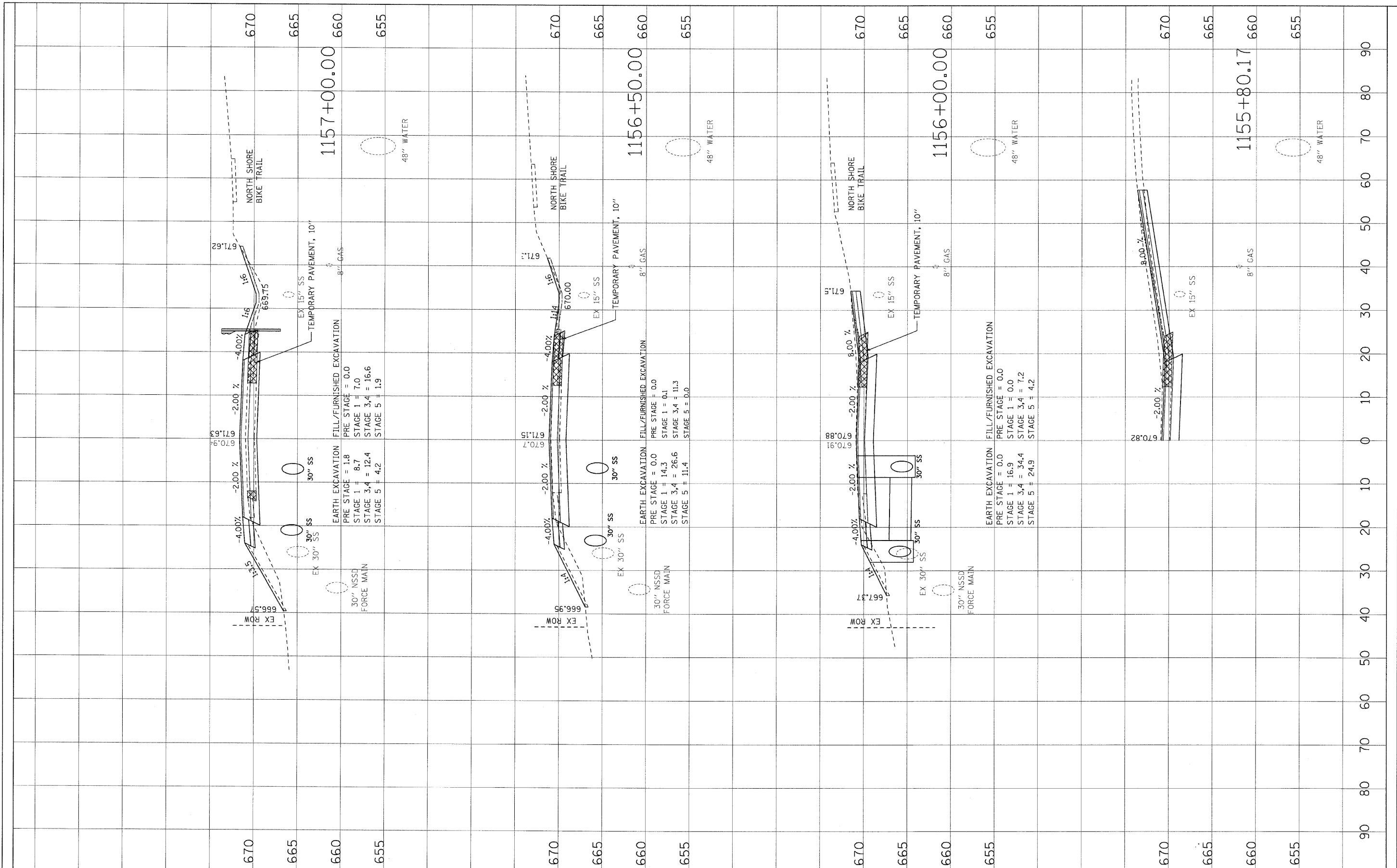
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 CROSS SECTIONS

SCALE: 1"=10'(H); 1"=5'(V) SHEET NO. OF SHEETS STA. 1154+50.00 TO STA. 1155+50.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1238	C-B-1	LAKE	61	46
ILLINOIS FED. AID PROJECT			CONTRACT NO. 60J67	

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

ORIGINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	TEMP. DATE		
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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

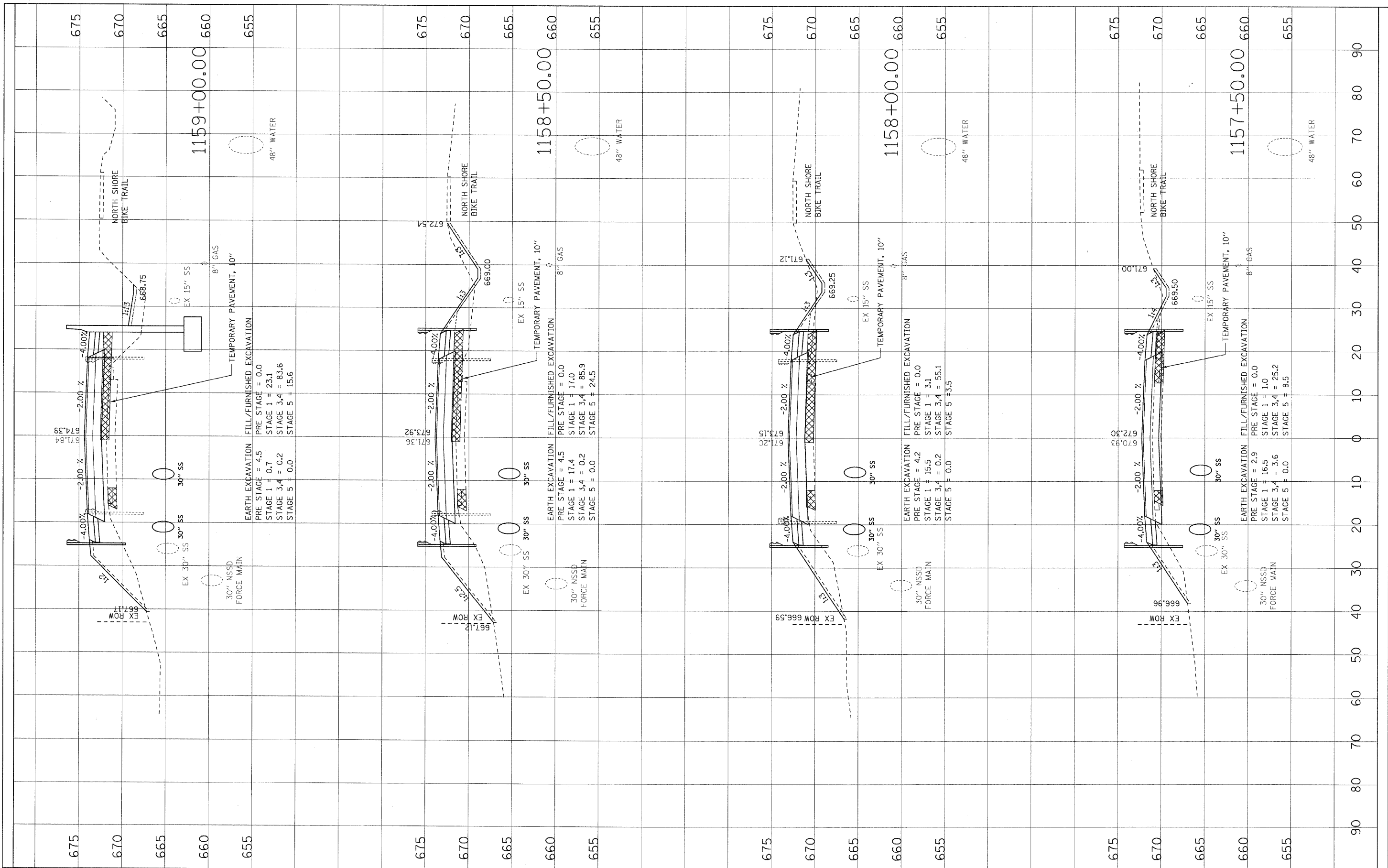
**IL ROUTE 176 OVER EAST SKOKIE DITCH
 CROSS SECTIONS**

SCALE: 1"=10'(H); 1"=5'(V) SHEET NO. OF SHEETS | STA. 1155+80.17 TO STA. 1157+00.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1238	C-B-1	LAKE	61	47
CONTRACT NO. 60J67			ILLINOIS FED. AID PROJECT	

FINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
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NOTE BOOK	PLOTTED		
	AREAS CHECKED		
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

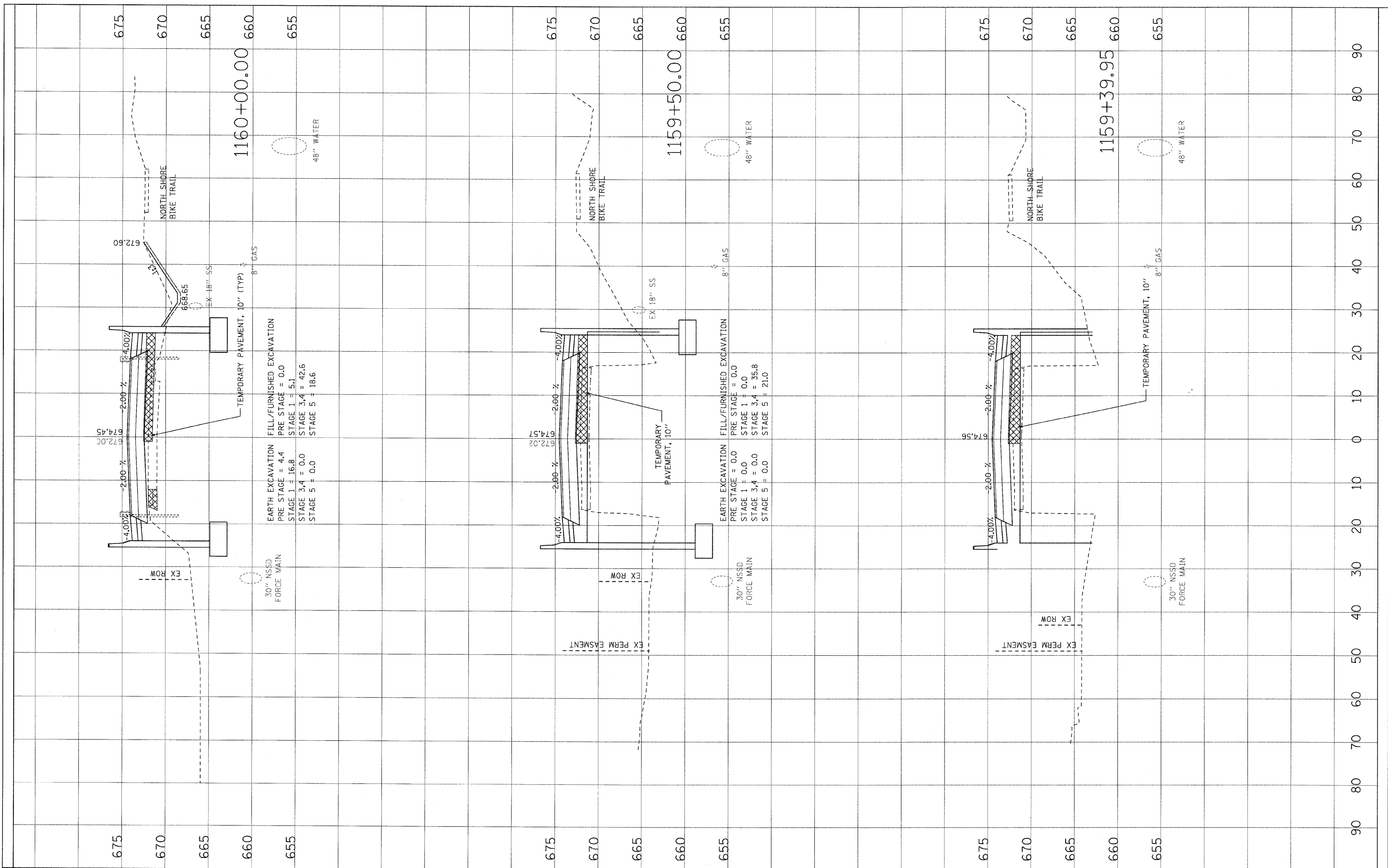
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CROSS SECTIONS

SCALE: 1"=10'(H); 1"=5'(V) SHEET NO. OF SHEETS STA. 1157+50.00 TO STA. 1159+00.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1238	C-B-1	LAKE	61	48
CONTRACT NO. 60J67			ILLINOIS FED. AID PROJECT	

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

ORIGINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
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AREAS CHECKED	AREAS CHECKED		
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DATE	-	-	REVISED	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

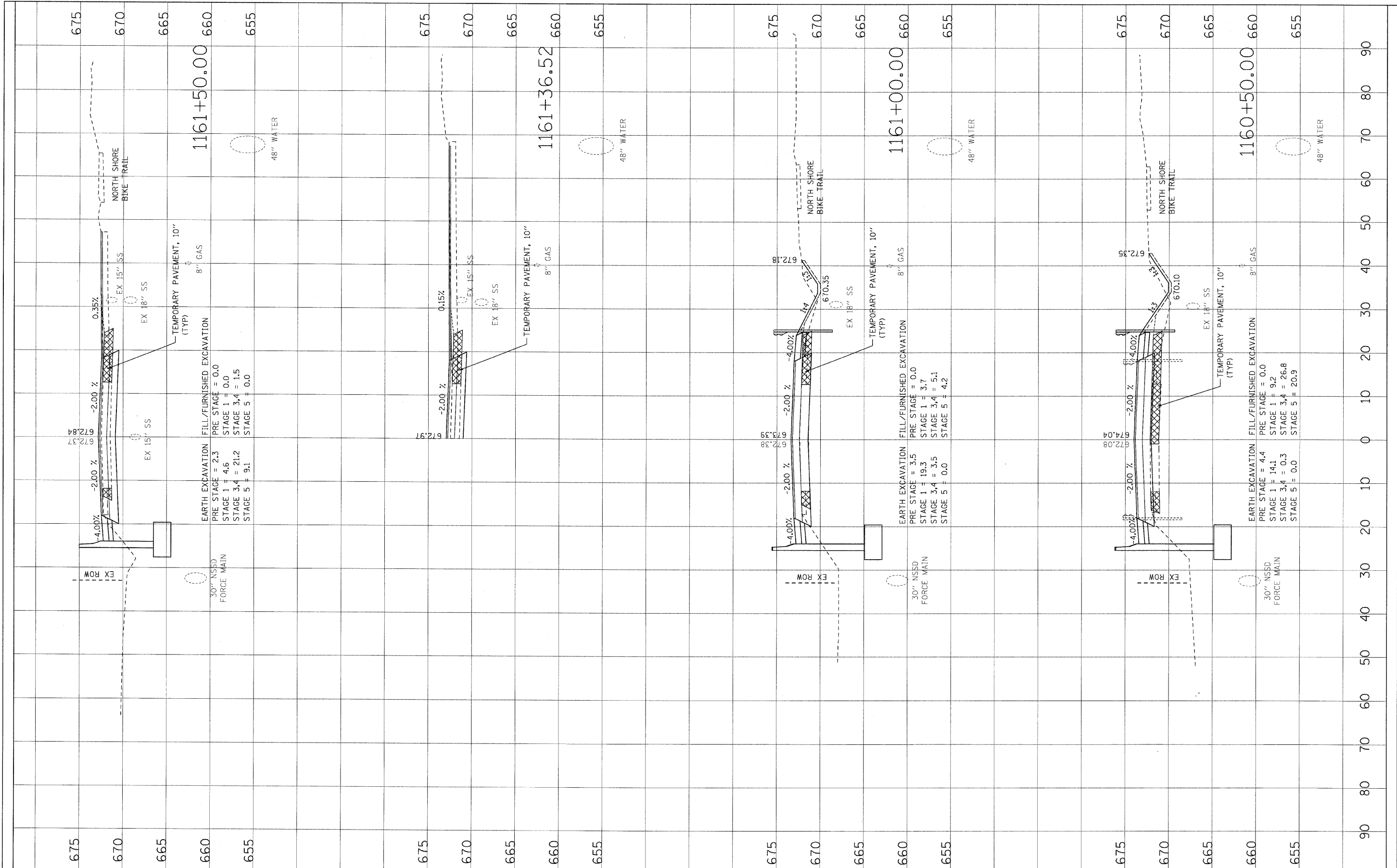
IL ROUTE 176 OVER EAST SKOKIE DITCH
CROSS SECTIONS

SCALE: 1"=10'(H); 1"=5'(V) SHEET NO. OF SHEETS STA. 1159+35.95 TO STA. 1160+00.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1238	C-B-I	LAKE	61	49
CONTRACT NO. 60J67			ILLINOIS FED. AID PROJECT	

FINAL SURVEY	BY	DATE
SURVEYED		
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PLOTTED		
DATE		
NO. _____		
AREAS CHECKED		

ORIGINAL SURVEY	BY	DATE
SURVEYED		
NOTED		
PLOTTED		
DATE		
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AREAS CHECKED		



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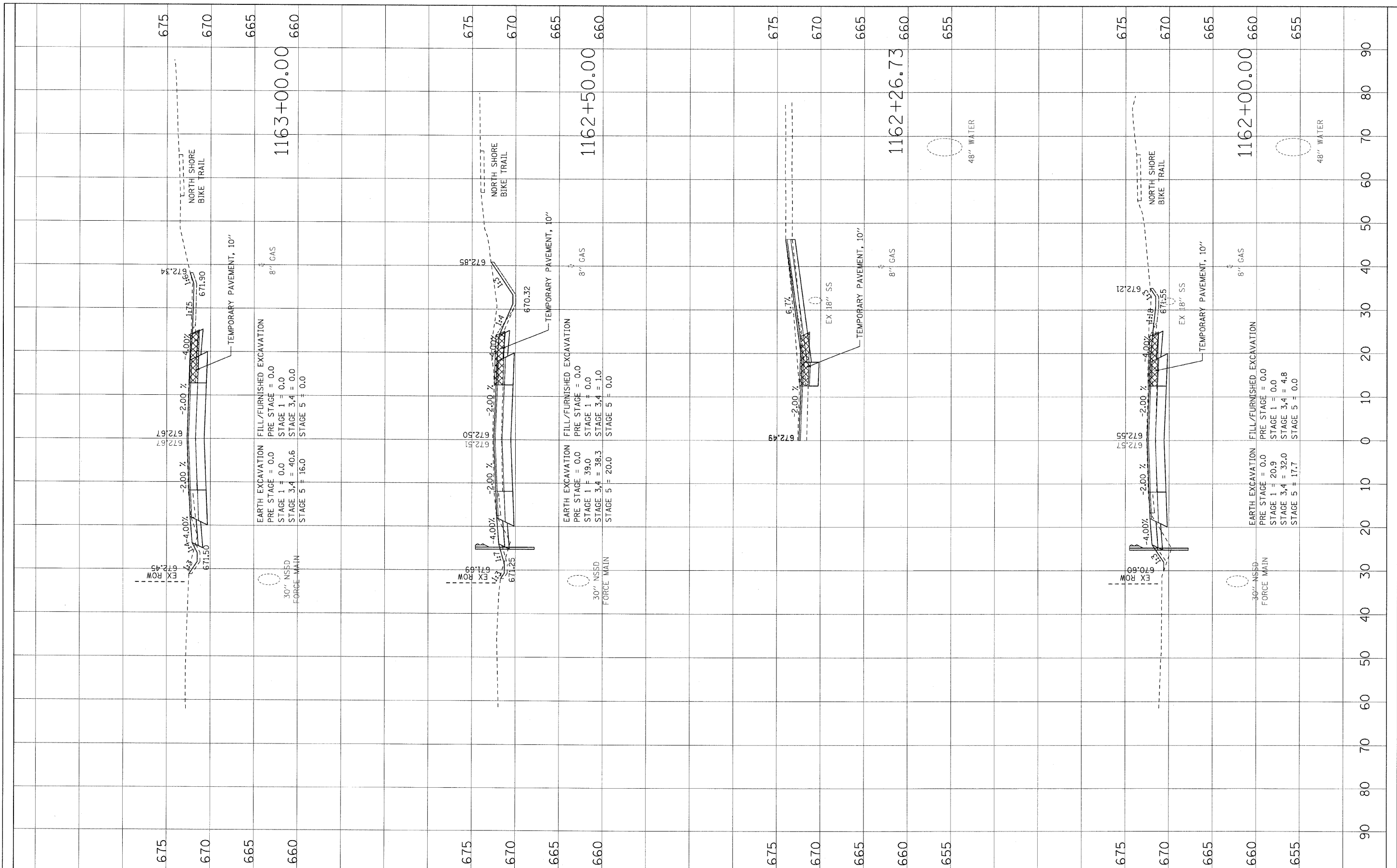
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL ROUTE 176 OVER EAST SKOKIE DITCH
CROSS SECTIONS
SCALE: 1"=10'(H); 1"=5'(V) SHEET NO. OF SHEETS STA. 1160+50.00 TO STA. 1161+50.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1238	C-B-1	LAKE	61	50
				CONTRACT NO. 60J67
ILLINOIS FED. AID PROJECT				

FINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
AREAS	CHECKED		
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ORIGINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

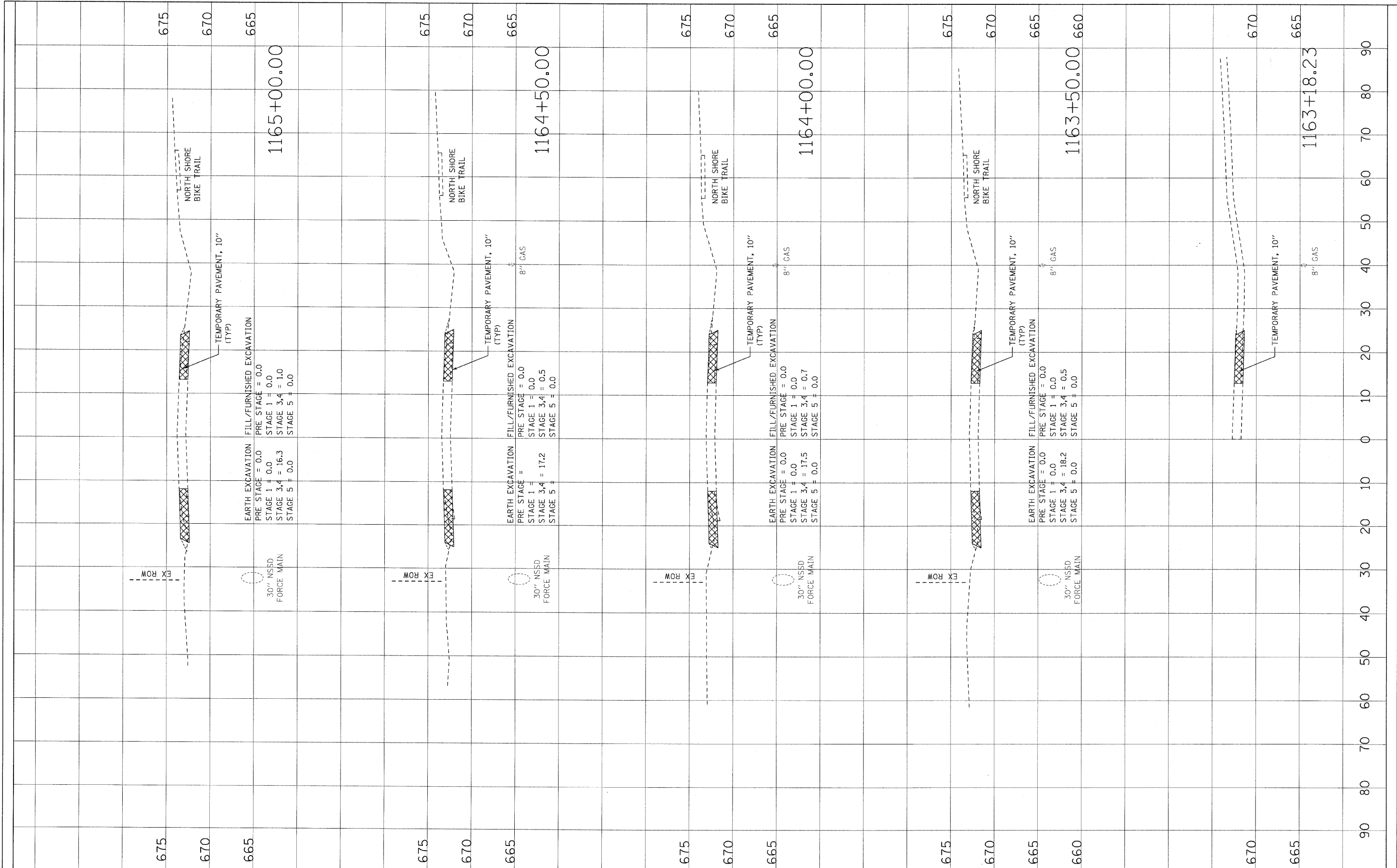
**IL ROUTE 176 OVER EAST SKOKIE DITCH
CROSS SECTIONS**

SCALE: 1"=10'(H); 1"=5'(V) SHEET NO. OF SHEETS STA. 1162+00.00 TO STA. 1163+00.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1238	C-B-1	LAKE	61	51
CONTRACT NO. 60J67			ILLINOIS FED. AID PROJECT	

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

ORIGINAL SURVEY	SURVEYED	DATE
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NO.	AREAS CHECKED	



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DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

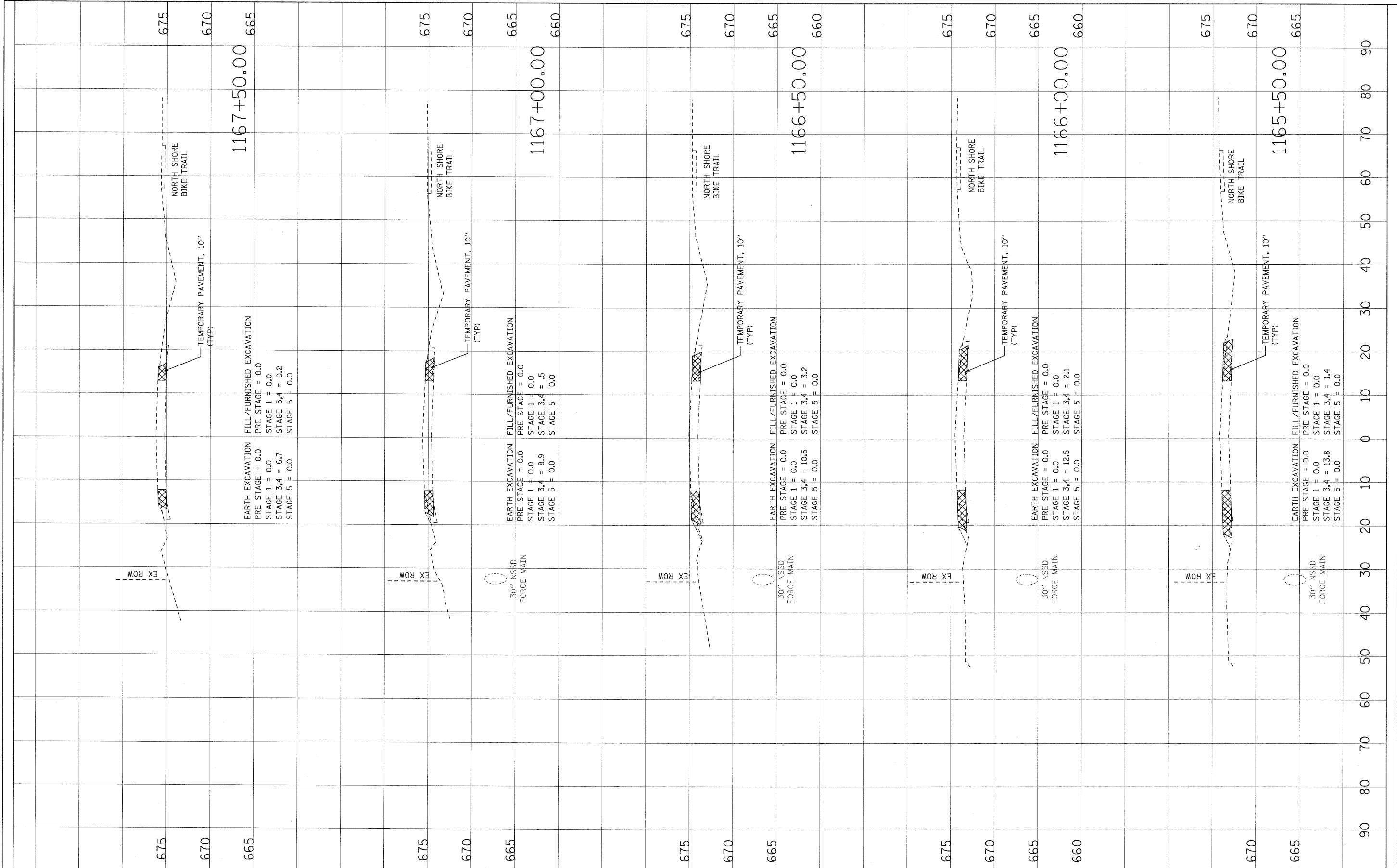
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 CROSS SECTIONS**

SCALE: 1"=10'(H); 1"=5'(V) SHEET NO. OF SHEETS | STA. 1163+18.23 TO STA. 1165+00.00

F.A.U. RTE. 1238	SECTION C-B-1	COUNTY LAKE	TOTAL SHEETS 61	SHEET NO. 52
CONTRACT NO. 60J67			ILLINOIS FED. AID PROJECT	

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

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



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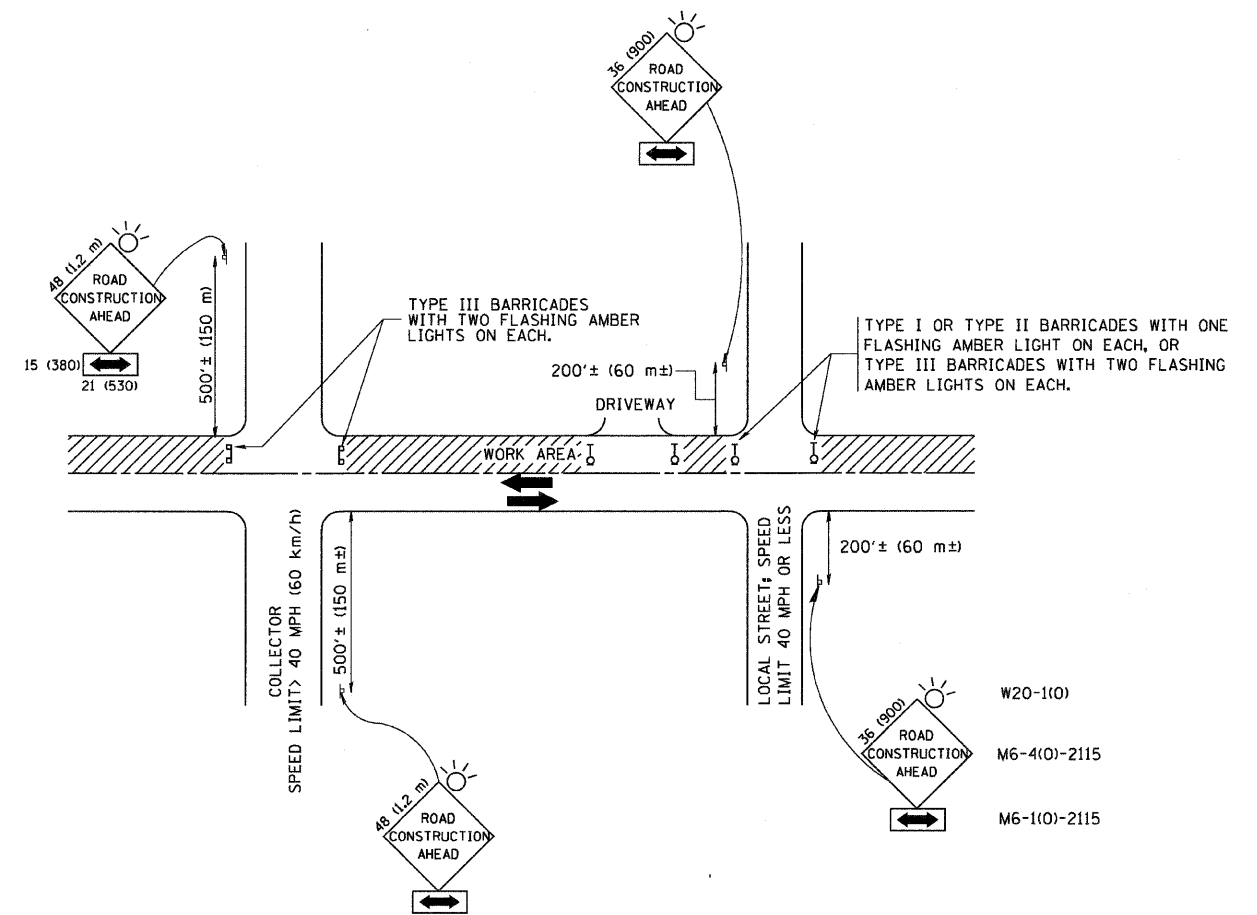


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CHECKED - RJD	REVISED -
DATE -	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

IL ROUTE 176 OVER EAST SKOKIE DITCH
 CROSS SECTIONS
 SCALE: 1"=10'(H); 1"=5'(V) SHEET NO. OF SHEETS STA. 1163+18.23 TO STA. 1165+00.00

F.A.U. RTE. 1238	SECTION C-B-1	COUNTY LAKE	TOTAL SHEETS 61	SHEET NO. 53
ILLINOIS FED. AID PROJECT			CONTRACT NO. 60J67	



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

NOTES:

- A. FOR NO LANE RESTRICTION ON THE SIDE ROAD OR DRIVEWAYS
- SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
 - ONE ROAD CONSTRUCTION AHEAD SIGN 36 x 36 (900x900) WITH A FLASHER AND FLAG MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.
 - THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.
 - SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
 - ONE ROAD CONSTRUCTION AHEAD SIGN 48 x 48 (1.2 m x 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.
 - THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.
3. WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).
- B. FOR A LANE CLOSURE ON A SIDE ROAD OR DRIVEWAY:
- USE APPLICABLE PORTIONS OF THE TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES (STD. 701501, STD. 701606 OR THE APPROPRIATE STANDARD). THE SPACING OF SIGNS AND BARRICADES SHALL BE ADJUSTED FOR FIELD CONDITIONS AS DIRECTED BY THE ENGINEER. THE DIRECTIONAL ARROW SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE SIDE ROAD LANE CLOSURE.
- C. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAY UNLESS OTHERWISE NOTED.
- D. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCIDENTAL TO THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

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



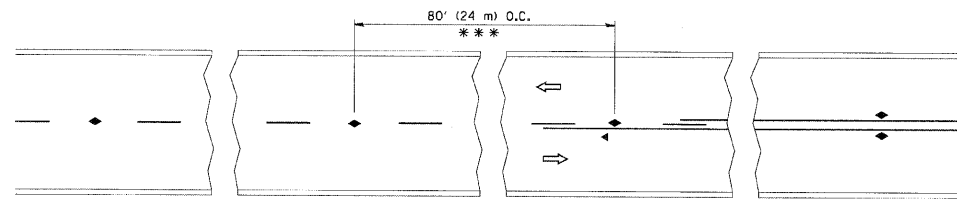
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PLOT SCALE = 50,000' / IN.	DRAWN -	REVISED - A. HOUSEH 03-06-96
PLOT DATE = 1/4/2008	CHECKED -	REVISED - A. HOUSEH 10-15-96
	DATE - 06-89	REVISED - T. RAMMACHER 01-06-00

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

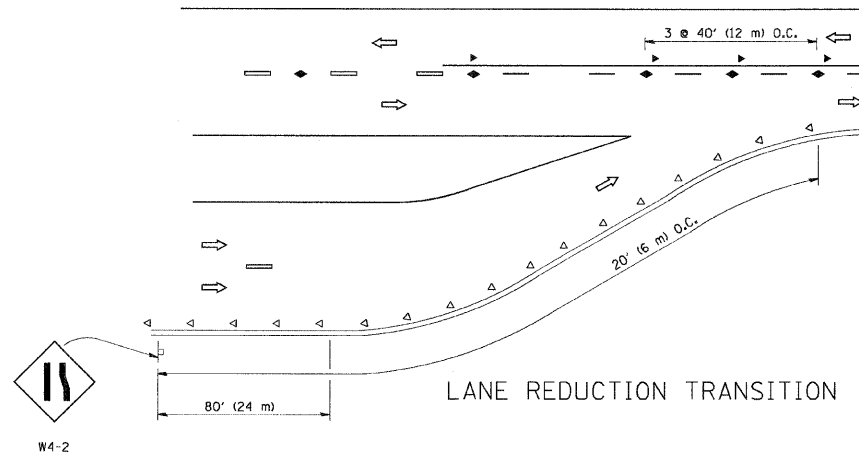
TRAFFIC CONTROL AND PROTECTION FOR
SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

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

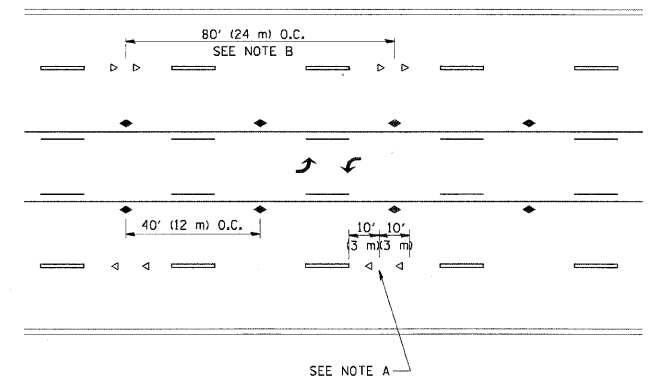
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TC-10			CONTRACT NO. 60J67	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



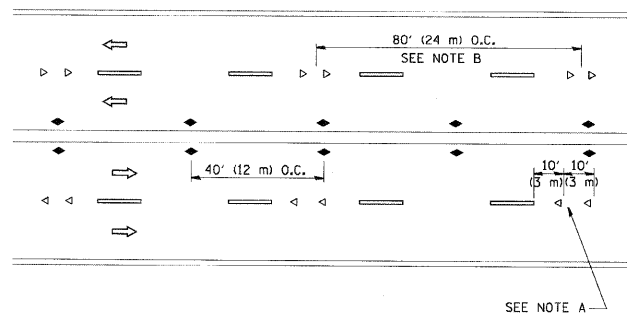
TWO-LANE/TWO-WAY



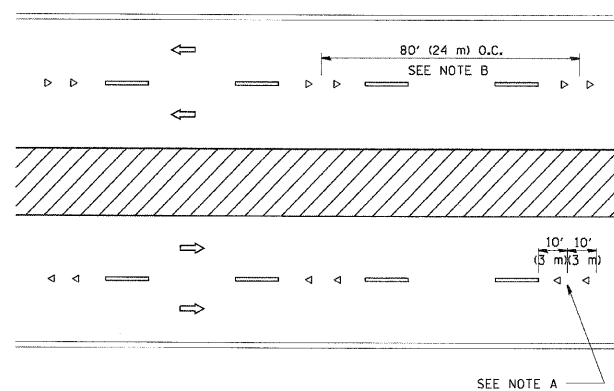
LANE REDUCTION TRANSITION



TWO-WAY LEFT TURN



MULTI-LANE/UNDIVIDED



MULTI-LANE/DIVIDED

GENERAL NOTES

1. MARKERS USED WITH DASHED LINES SHALL BE CENTERED IN THE GAP BETWEEN SEGMENTS.
2. MARKERS USED ADJACENT TO SOLID LINES SHALL BE OFFSET 2 TO 3 (50 TO 75) TOWARD TRAFFIC AS SHOWN.
3. MARKERS THROUGH TANGENTS LESS THAN 500' (150 m) IN LENGTH BETWEEN CURVES SHALL BE INSTALLED AT THE LESSER OF THE TWO CURVE SPACINGS.

SYMBOLS

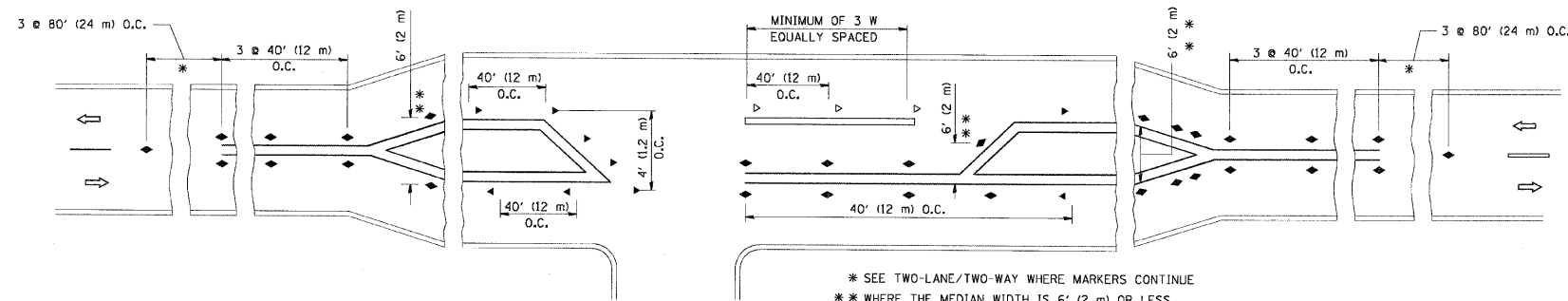
- YELLOW STRIPE
- WHITE STRIPE
- ◀ ONE-WAY AMBER MARKER
- ◁ ONE-WAY CRYSTAL MARKER (W/O)
- ◆ TWO-WAY AMBER MARKER

LANE MARKER NOTES

- A. USE DOUBLE LANE LINE MARKERS SPACED AS SHOWN.
- B. REDUCE TO 40' (12 m) O.C. ON CURVES WHERE ADVISORY SPEEDS ARE 10 M.P.H. (20 km/h) LOWER THAN POSTED SPEEDS.

DESIGN NOTES

1. DOUBLE LANE LINE MARKERS SHALL BE USED UNLESS SPECIFIED OTHERWISE.
2. EXCEPT AS SHOWN ON THE LANE REDUCTION TRANSITION AND FREEWAY EXIT RAMP DETAIL, MARKERS ARE NOT TO BE SPECIFIED ON RIGHT EDGE LINES.
3. THE EXACT MARKER LIMITS, SPACING, AND COLOR SHOULD BE INCLUDED IN THE PLANS.
4. MARKERS SHOULD NOT BE USED ALONGSIDE CURBS EXCEPT FOR EXTREMELY SHORT SECTIONS OF CURBS WHERE NOT MORE THAN TWO MARKERS WOULD BE INVOLVED.



LEFT TURN

* SEE TWO-LANE/TWO-WAY WHERE MARKERS CONTINUE
 ** WHERE THE MEDIAN WIDTH IS 6' (2 m) OR LESS USE TWO-WAY MARKERS.

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



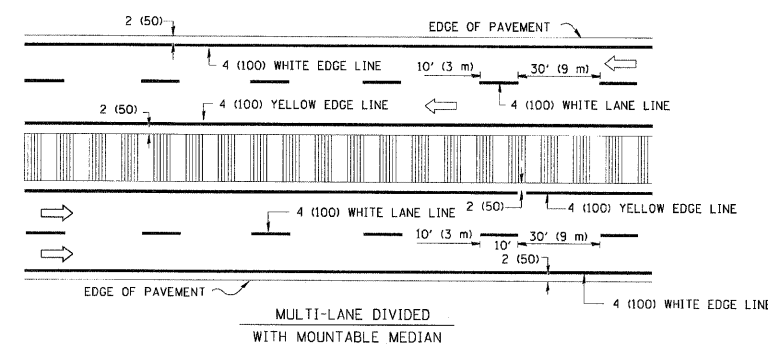
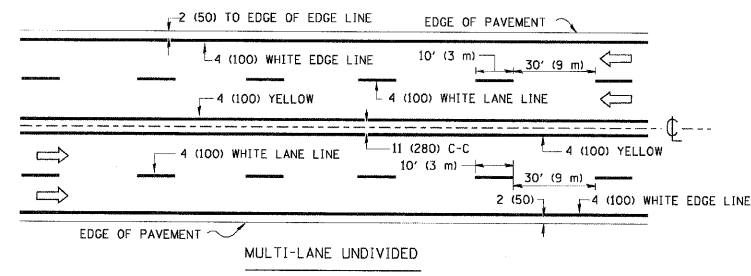
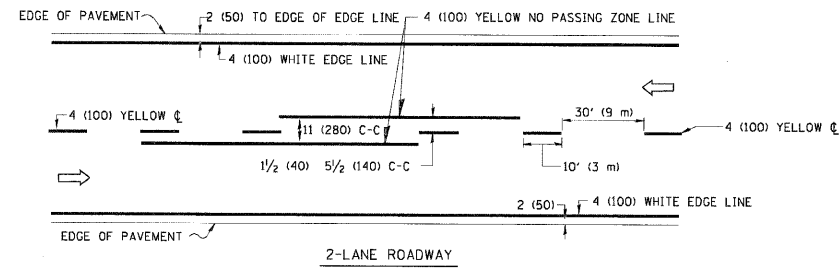
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PLOT DATE = 9/9/2009	DATE -	REVISED - C. JUCIUS 09-09-09

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

TYPICAL APPLICATIONS
 RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)

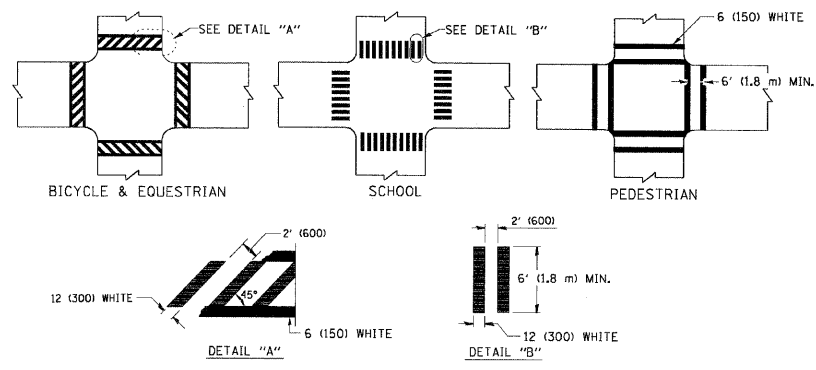
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F.A.U. RTE. 1238	SECTION C-B-I	COUNTY LAKE	TOTAL SHEETS 61	SHEET NO. 55
TC-11		CONTRACT NO. 60J67		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

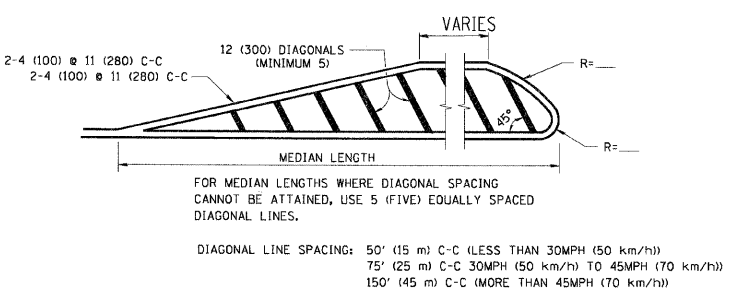
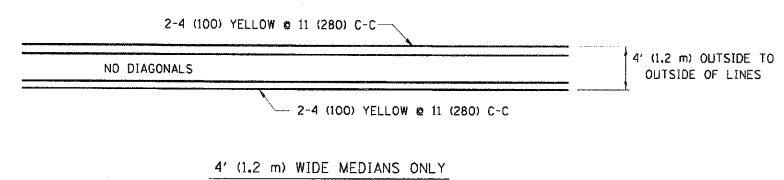


NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

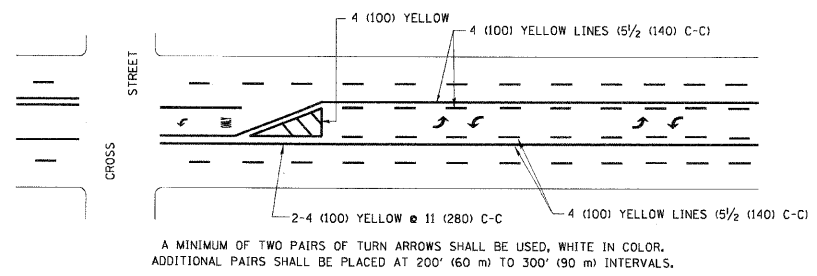
TYPICAL LANE AND EDGE LINE MARKING



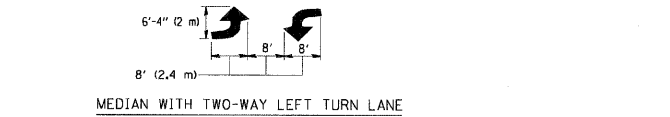
TYPICAL CROSSWALK MARKING



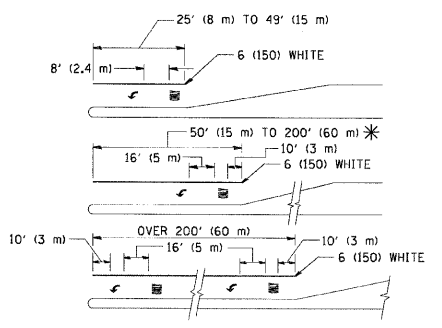
MEDIANS OVER 4' (1.2 m) WIDE



TYPICAL PAINTED MEDIAN MARKING



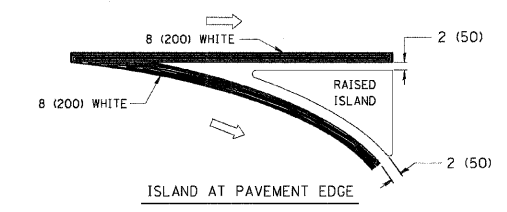
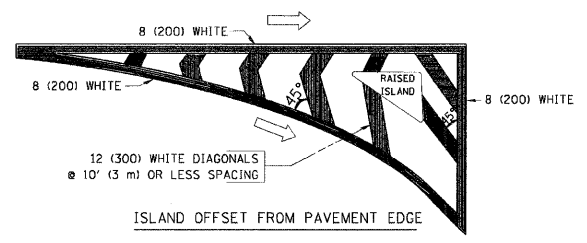
TYPICAL PAINTED MEDIAN MARKING



FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.
AREA = 15.6 SQ. FT. (1.5 m²) ONLY AREA = 20.8 SQ. FT. (1.9 m²)

* TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

TYPICAL LEFT (OR RIGHT) TURN LANE MARKING



TYPICAL ISLAND MARKING

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

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

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

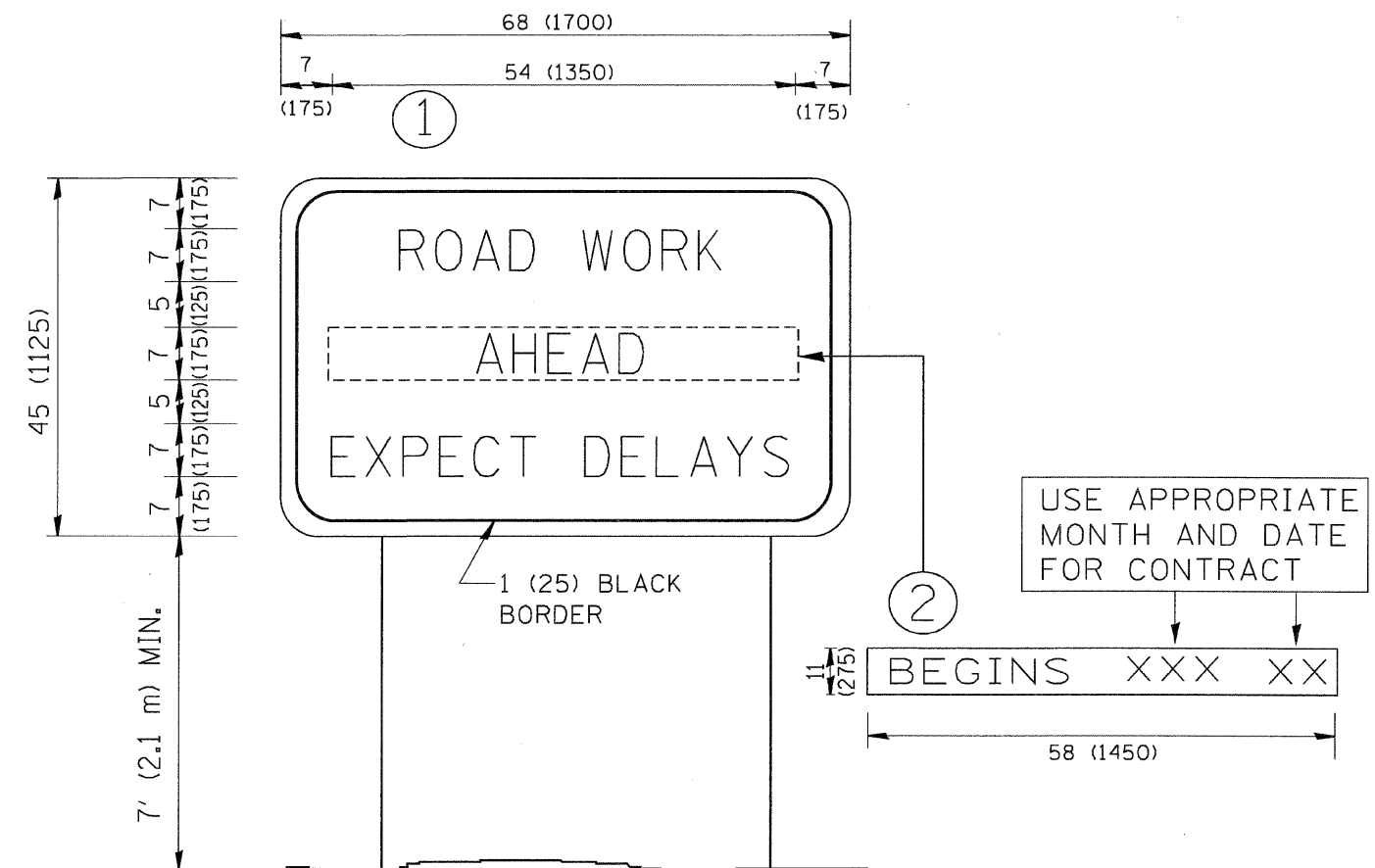


USER NAME = drivakasn	DESIGNED - EVERS	REVISED - T. RAMMACHER 10-27-94
3.dgn	DRAWN -	REVISED - C. JUCIUS 09-09-09
PLOT SCALE = 50,000' / IN.	CHECKED -	REVISED -
PLOT DATE = 9/9/2009	DATE - 03-19-90	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE		F.A.U. RTE. 1238	SECTION C-B-1	COUNTY LAKE	TOTAL SHEETS 61	SHEET NO. 56
TYPICAL PAVEMENT MARKINGS		TC-13		CONTRACT NO. 60J67		
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.			

FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT
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NOTES:

1. USE BLACK LETTERING ON ORANGE BACKGROUND.
2. ERECT SIGNS IN ADVANCE OF THE LOCATION FOR THE "ROAD CONSTRUCTION AHEAD" SIGN AT LOCATIONS AS DIRECTED BY THE ENGINEER.
3. ERECT SIGN ① WITH INSTALLED PANEL ② ONE WEEK PRIOR TO THE START OF CONSTRUCTION.
4. REMOVE PANEL ② SOON AFTER THE START OF CONSTRUCTION.
5. SEE SPECIAL PROVISION FOR "TEMPORARY INFORMATION SIGNING" FOR ADDITIONAL INFORMATION.
6. ONE SIGN ASSEMBLY EQUALS 25.70 SQ. FT. (2.3 SQ. M.)
7. SHALL BE PAID FOR AS TEMPORARY INFORMATION SIGNING.

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

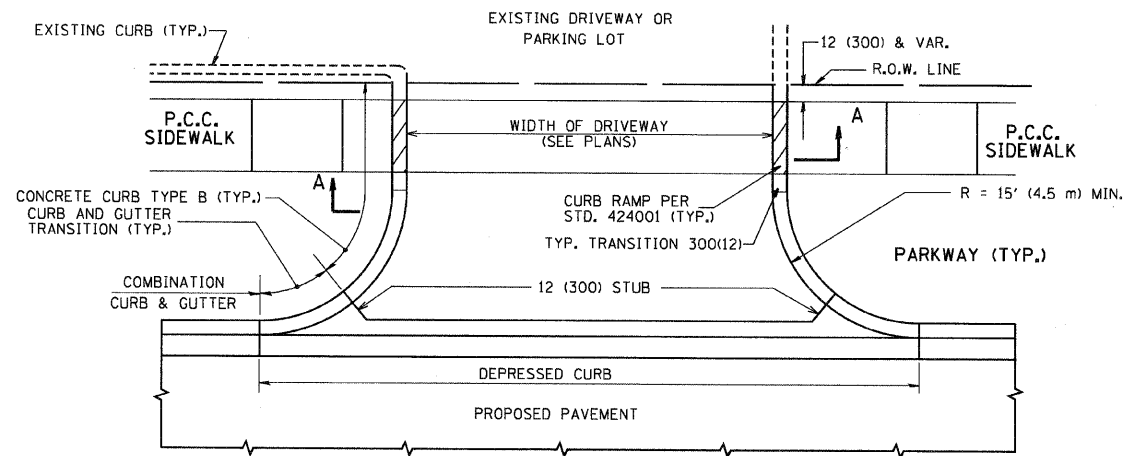


USER NAME = goglianobt	DESIGNED -	REVISED - R. MIRS 09-15-97
PLOT SCALE = 50,000' / IN.	DRAWN -	REVISED - R. MIRS 12-11-97
PLOT DATE = 1/4/2008	CHECKED -	REVISED - T. RAMMACHER 02-02-99
	DATE -	REVISED - C. JUCIUS 01-31-07

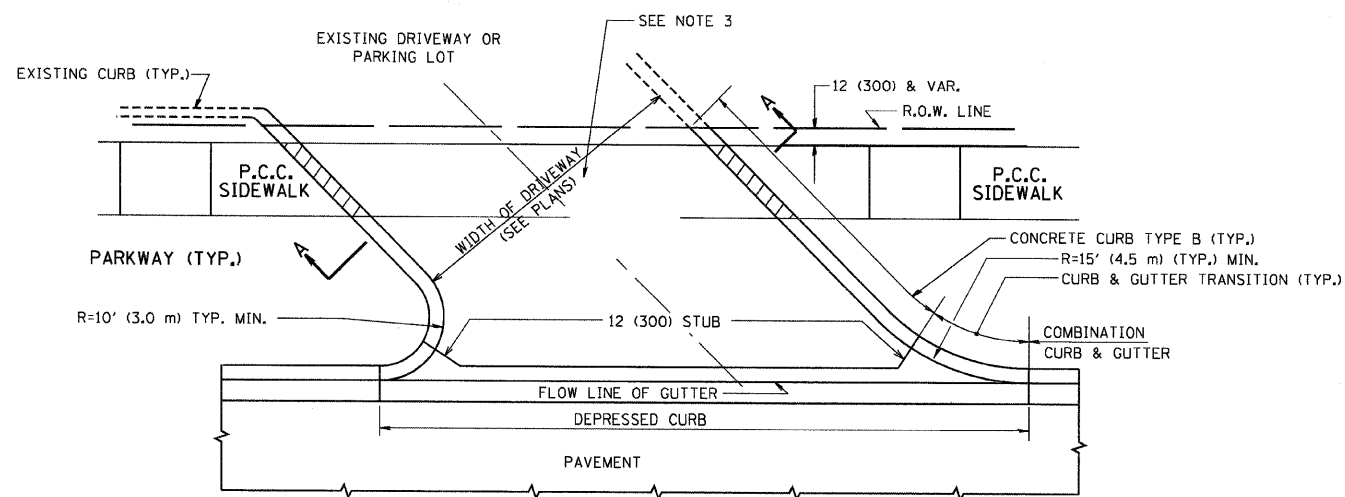
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ARTERIAL ROAD INFORMATION SIGN		
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA. TO STA.

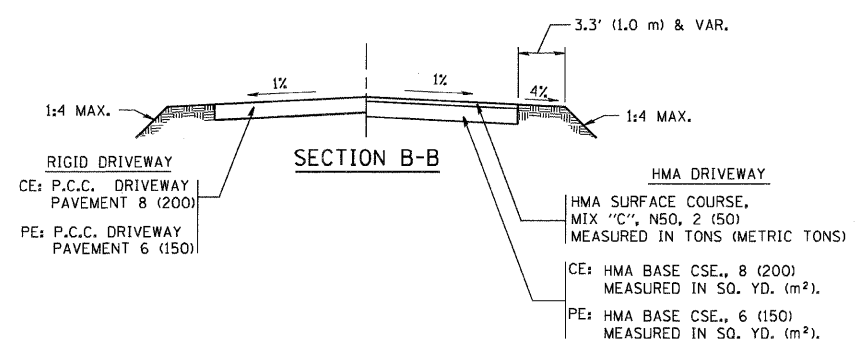
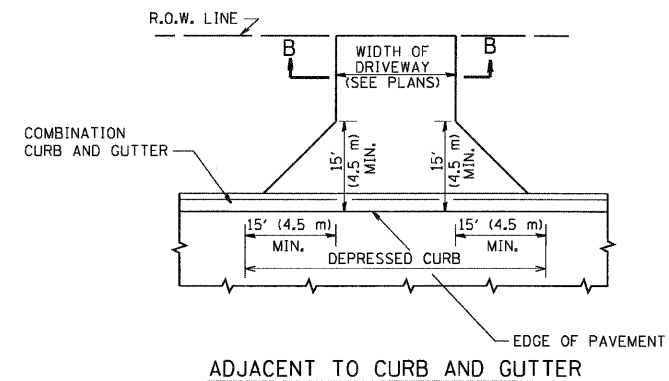
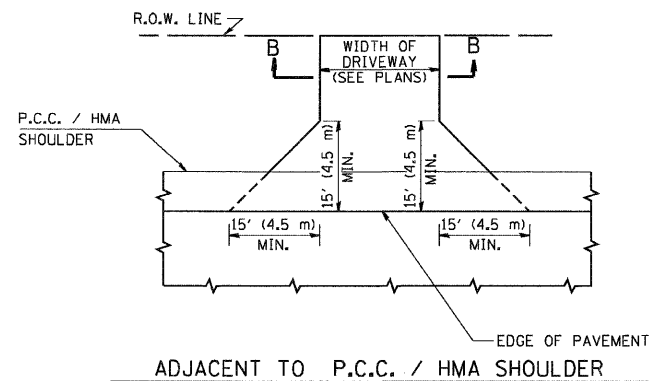
F.A.J. RTE. 1238	SECTION C-B-1	COUNTY LAKE	TOTAL SHEETS 61	SHEET NO. 57
TC-22		CONTRACT NO. 60J67		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



WITH CONCRETE CURB, TYPE B



WITH CONCRETE CURB, TYPE B



GENERAL NOTES:

DRIVEWAY SLOPES, LOCATIONS, & GEOMETRIC LAYOUT SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "HANDBOOK FOR POLICY ON PERMITS FOR ACCESS DRIVEWAYS TO STATE HIGHWAYS". FOR FURTHER LAYOUT REQUIREMENTS, REFER TO ILLUSTRATIONS IN THE PERMIT HANDBOOK. DRIVEWAYS SHALL BE REPLACED IN KIND, UNLESS OTHERWISE NOTED ON THE PLANS.

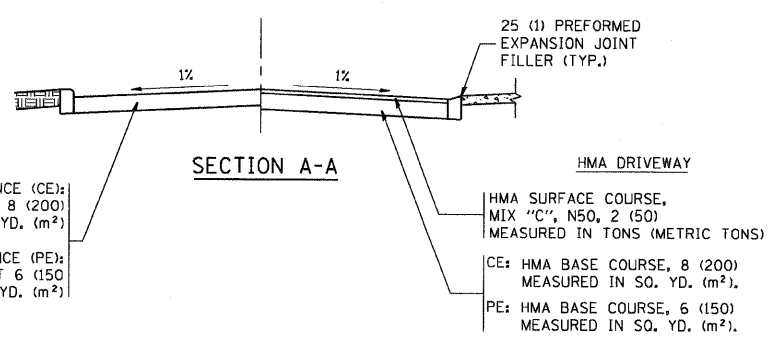
COMMERCIAL DRIVEWAYS SHALL BE CONSTRUCTED WITH CONCRETE CURB, TYPE B RETURNS EXCEPT WHEN THE SIDEWALK EDGE IS 4 FEET (1.2 METERS) OR LESS FROM THE BACK OF CURB, CONSTRUCT A FLARE DRIVEWAY WITHOUT CURB.

THE RESIDENT ENGINEER SHALL CONTACT THE TRAFFIC PERMIT OFFICE AT 847/ 705-4131 FOR ANY QUESTIONS ON DRIVEWAYS SHOWN IN THE PLANS; SPECIFICALLY IN REFERENCE TO ADDITIONAL AND/OR RELOCATION/REMOVAL OF A DRIVEWAY.

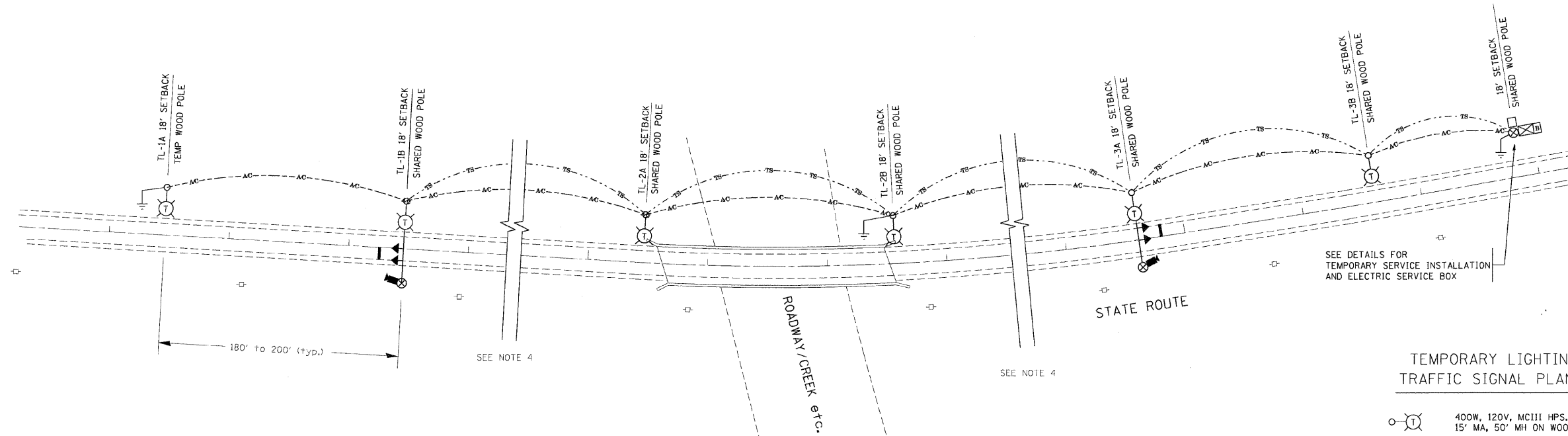
COMBINATION CONCRETE CURB & GUTTER SHALL BE MEASURED STRAIGHT ACROSS THE DRIVEWAY. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR THE CURB & GUTTER TRANSITION.

1 (25) PREFORMED EXPANSION JOINT FILLER WILL NOT BE PAID SEPARATELY, BUT SHALL BE CONSIDERED INCLUDED IN THE COST OF THE P.C.C. DRIVEWAY PAVEMENT OR P.C.C. SIDEWALK.

WHEN THE P.C.C. SIDEWALK EXTENDS THROUGH THE DRIVEWAY, THE THICKNESS OF THE SIDEWALK IN THE DRIVEWAY AREA SHALL BE THE SAME AS THE DRIVEWAY THICKNESS. SIDEWALK WILL BE PAID FOR AS P.C.C. SIDEWALK OF THE THICKNESS SPECIFIED, SIDEWALK CROSS SLOPE THRU DRIVEWAY AREA TO BE A MAXIMUM OF 1:50.



FILE NAME = c:\projects\dststd22x34\bd01.dgn	USER NAME = bauerdl	DESIGNED - R. SHAH	REVISED - M. GOMEZ 04-06-01	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DRIVEWAY DETAILS - DISTANCE BETWEEN R.O.W. AND FACE OF CURB & EDGE OF SHOULDER >= 15' (4.5 m)		F.A.U. RTE. 1238	SECTION C-B-I	COUNTY LAKE	TOTAL SHEETS 61	SHEET NO. 58	
	PLOT SCALE = 49,9999' / IN.	DRAWN -	REVISED - P. LOFLUER 04-15-03		SCALE: NONE		SHEET NO. 1 OF 1 SHEETS		STA. TO STA.		BD0156-07 (BD-01) CONTRACT NO. 60J67	
	PLOT DATE = 6/12/2008	CHECKED -	REVISED - R. BORO 01-01-07		SHEET NO. 1 OF 1 SHEETS		STA. TO STA.		FED. ROAD DIST. NO. 1 ILLINOIS		FED. AID PROJECT	
		DATE - 11-04-95	REVISED - R. BORO 06-11-08		SHEET NO. 1 OF 1 SHEETS		STA. TO STA.		FED. ROAD DIST. NO. 1 ILLINOIS		FED. AID PROJECT	



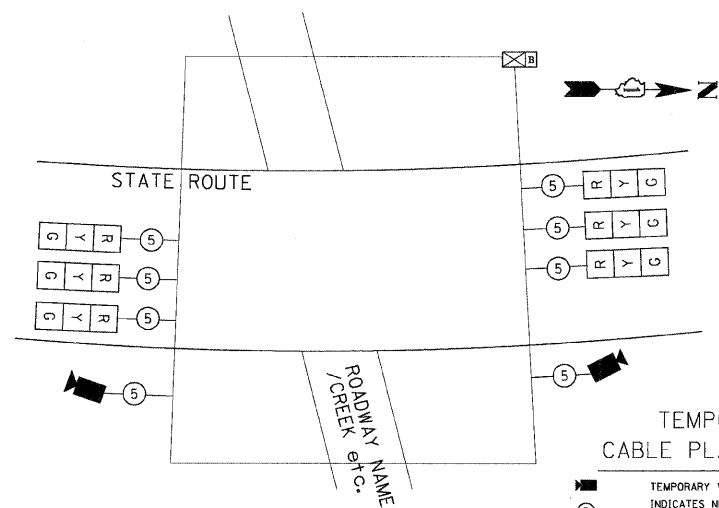
TYPICAL LAYOUT FOR TEMPORARY LIGHTING AND TRAFFIC SIGNALS
NOT TO SCALE

TEMPORARY LIGHTING AND TRAFFIC SIGNAL PLAN LEGEND

- 400W, 120V, MCIII HPS. WITH PHOTO CELL 15' MA, 50' MH ON WOOD POLE, CLASS 4
- 3-1/2" x 2, AERIAL CABLE WITH MESSENGER WIRE UNLESS OTHERWISE NOTED
- TL-1A TEMPORARY LIGHTING UNIT NUMBER - ONE CIRCUIT A
- GROUND ROD 5/8" DIA. x 10'
- COMBINATION LIGHTING AND TRAFFIC POLE MOUNTED ELECTRICAL SERVICE BOX
- TEMPORARY WOOD POLE - NOMINAL 60 FT., CLASS 4
- TEMPORARY LED TRAFFIC SIGNAL HEAD, NUMBER OF SECTION AND DISPLAY AS REQUIRED.
- TEMPORARY TRAFFIC SIGNAL SPAN WIRE, NUMBER OF CONDUCTORS AS REQUIRED.
- TEMPORARY TRAFFIC CONTROLLER WITH UPS AND BOTTOM PLATE MOUNTED TO WOOD POLE
- TEMPORARY VIDEO DETECTOR

GENERAL NOTES:

1. CONTACT TO THE ELECTRIC UTILITY SHALL BE INITIATED BEFORE THE PRECONSTRUCTION MEETING, AND DOCUMENTATION OF CONTACT SHALL BE PRESENTED AT THAT MEETING. NO PLACEMENT OF POLES WILL BE ALLOWED WITHOUT EVIDENCE OF A SIGNED AGREEMENT WITH THE ELECTRIC UTILITY, FURNISHED TO THE ENGINEER.
2. UNLESS OTHERWISE INDICATED, AND EXCEPT AS OTHERWISE NOTED, THIS STANDARDIZED LAYOUT SHALL APPLY FOR BRIDGES NOT EXCEEDING A 250-FOOT SPAN. FOR BRIDGE SPANS IN EXCESS OF 250 FEET, THE POLES IMMEDIATELY ADJACENT TO THE BRIDGE SHALL BE 100-FOOT POLES (90-FOOT MOUNTING HEIGHT), WITH 750-WATT TYPE III HIGH PRESSURE SODIUM HIGH-MAST LUMINAIRES AS APPROVED BY THE ENGINEER.
3. THE LAYOUT OF THE TEMPORARY EQUIPMENT WILL VARY BASED ON FIELD CONDITIONS, STAGING, UTILITY IMPACTS, AND THE ELECTRIC SERVICE LOCATION AS COORDINATED WITH THE ELECTRIC UTILITY. THE CONTRACTOR SHALL SUBMIT A PLAN INDICATING THE SETTING OF POLES, TRAFFIC SIGNALS, AND COMBINED SERVICE. THIS PLAN MUST BE APPROVED BY THE ENGINEER BEFORE ANY POLES ARE PLACED
4. THE ELECTRIC SERVICE SHALL BE 240/120V. WHERE 240V SERVICE IS NOT AVAILABLE, THE CONTRACTOR MAY SUBMIT A PROPOSAL FOR 120V SERVICE. DROP CABLE, MAIN BREAKER, AND ALL OTHER SERVICE APPURTENANCES SHALL BE APPROPRIATELY RATED AND INCLUDED REGARDLESS OF THE SERVICE VOLTAGE APPLIED
5. THE TEMPORARY LIGHTING AND TRAFFIC SIGNAL INSTALLATION SHALL SHARE ANY COMMON ELEMENTS SUCH AS WOOD POLES, ELECTRICAL SERVICE, ELECTRICAL SERVICE BOX, CABLE, ETC. THE CONTRACTOR SHALL COORDINATE TEMPORARY LIGHTING AND TRAFFIC SIGNAL INSTALLATIONS.
6. THE LIGHT POLE SETBACK FROM THE EDGE OF TRAVEL PAVEMENT SHALL BE 18 FT. UNLESS THE LIGHT POLE IS BEHIND GUARDRAIL. THE LIGHT POLES INSTALLED BEHIND THE GUARDRAIL OR BARRIER WALL SHOULD HAVE AT LEAST 8 FT. SETBACK FROM THE BACK OF THE SHOULDER AND OR AS DIRECTED BY THE ENGINEER.
7. EACH LIGHTING UNIT SHALL BE CONTROLLED BY A PHOTO CELL MOUNTED ON EACH LUMINAIRE WITH THE LIGHTING CIRCUIT FED FROM THE TEMPORARY SERVICE DISCONNECT BOX. OTHER MEANS OF LUMINAIRE CONTROL CAN BE CONSIDERED IF APPROVED BY THE ENGINEER.
8. THE CONTRACTOR SHALL SPLICE AERIAL CABLE AT THE LIGHT POLE USING HEAT SHRINKABLE CAPS WITH THE FACTORY APPLIED WATERPROOF SEALANT OR AN APPROVED UL LISTED AERIAL TAP DEVICE.
9. ALL AREAS DISTURBED UNDER THIS CONTRACT SHALL BE RESTORED TO THE ORIGINAL CONDITION OR BETTER, TO THE SATISFACTION OF THE ENGINEER.

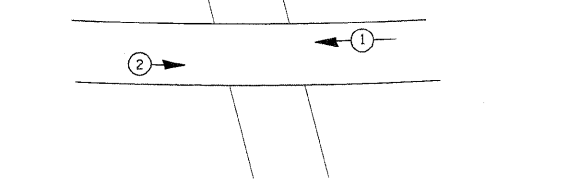


TEMPORARY CABLE PLAN LEGEND

- TEMPORARY VIDEO DETECTOR
- INDICATES NUMBER OF CONDUCTORS IN CABLE. ALL CONDUCTORS TO BE NUMBER 14 AWG WIRE UNLESS OTHERWISE NOTED.
- TEMPORARY TRAFFIC SIGNAL SECTION OR PEDESTRIAN SIGNAL SECTION, 12" (300 mm)

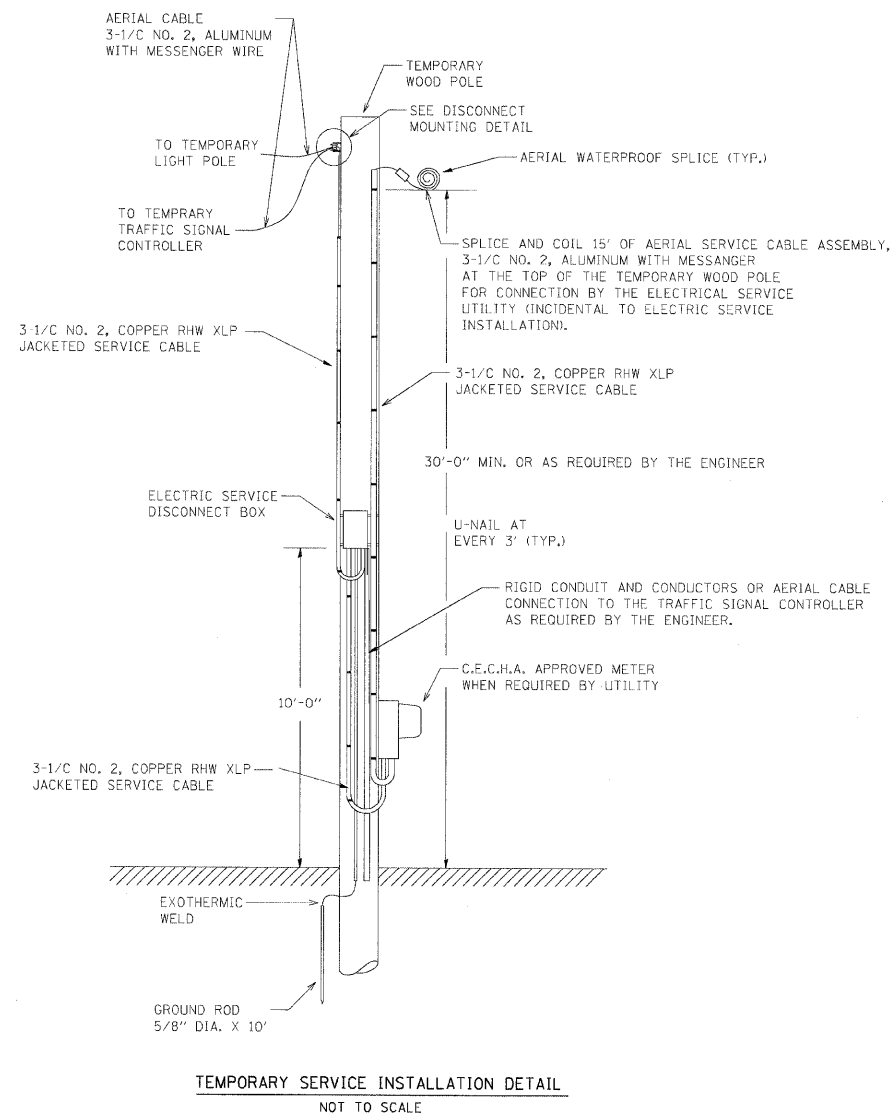
TEMPORARY PHASE DESIGNATION DIAGRAM LEGEND

- DUAL ENTRY PHASE
- SINGLE ENTRY PHASE
- OVERLAP
- PEDESTRIAN PHASE
- NUMBER REFERS TO ASSOCIATED PHASE

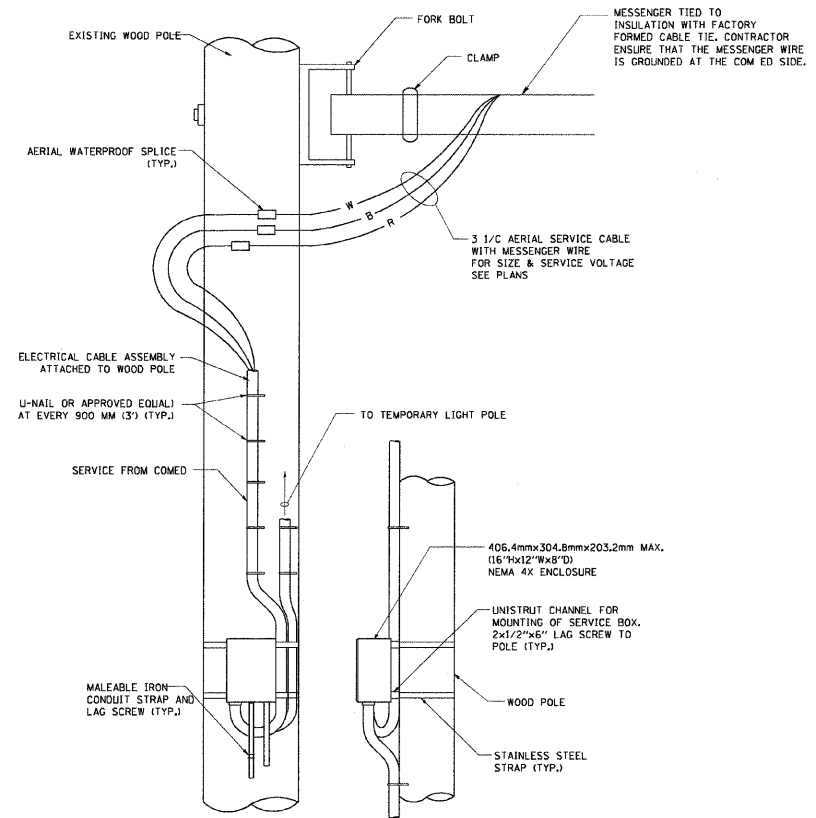


TEMPORARY PHASE DESIGNATION DIAGRAM (TYPICAL)
NOT TO SCALE

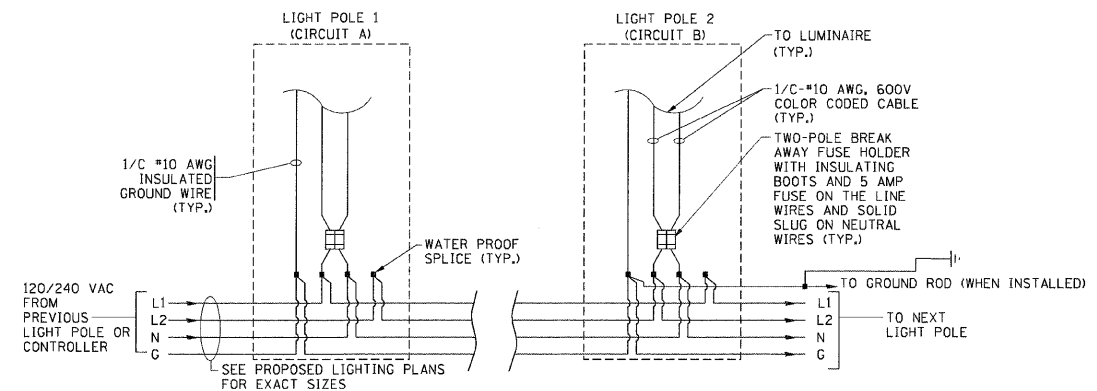
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		PLOT SCALE = 50,000' / 1" IN.	REVISED -		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT							
		PLOT DATE = 1/14/2010	REVISED -									



TEMPORARY SERVICE INSTALLATION DETAIL
NOT TO SCALE



DISCONNECT MOUNTING DETAIL
NOT TO SCALE



LIGHT POLE WIRING DETAIL
NOT TO SCALE

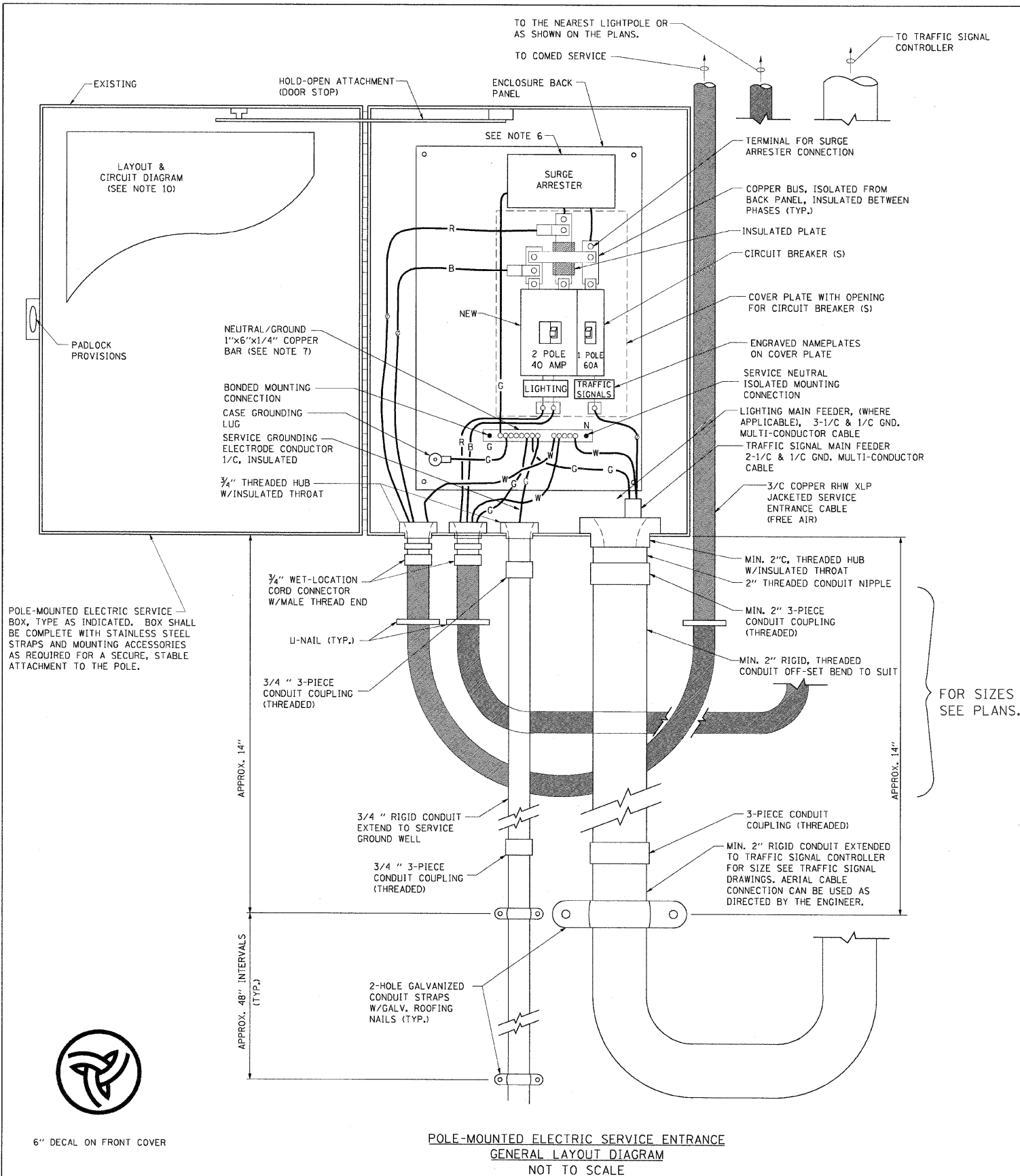
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		CHECKED =	REVISED =
		DATE = 01/14/10	REVISED =

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY LIGHTING AND TRAFFIC SIGNALS
FOR SINGLE LANE STAGING

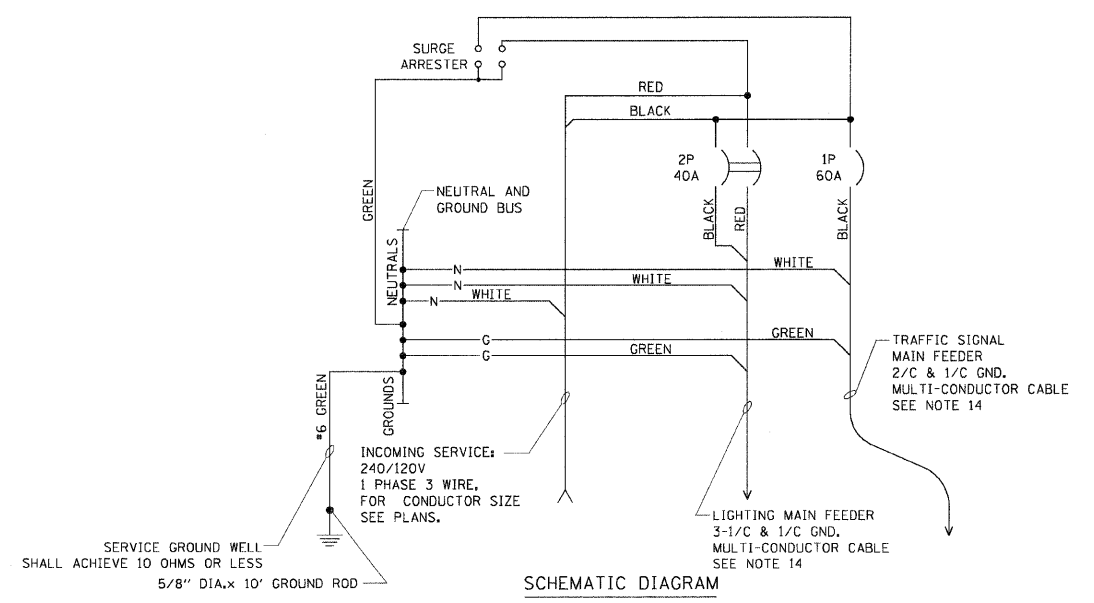
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F.A.U. RTE. 1238	SECTION C-B-1	COUNTY LAKE	TOTAL SHEETS 61	SHEET NO. 60
BE-805		CONTRACT NO. 60J67		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



NOTES:

1. ELECTRIC SERVICE SHALL BE OF THE VOLTAGE INDICATED OR DESIGNATED BY THE ENGINEER, AND SERVICE DROP CABLE SHALL BE COMPATIBLE WITH THE SERVICE ACCORDINGLY. SOME INSTALLATIONS MAY CALL FOR SERVICE ENTRANCE EQUIPMENT SUITABLE FOR 3-WIRE SERVICE EVEN THOUGH INITIALLY WIRED FOR 2-WIRE SERVICE.
2. THE POLE-MOUNTED ELECTRIC SERVICE BOX SHALL BE CONFIGURED AND FULLY EQUIPPED FOR 240/120V 3W SERVICE, COMPLETE WITH LIGHTING MAIN BREAKER AND TRAFFIC SIGNALS MAIN BREAKER AS REQUIRED.
3. THE ELECTRIC SERVICE EQUIPMENT ASSEMBLY SHALL BE UL LISTED AS SUITABLE FOR USE AS SERVICE ENTRANCE EQUIPMENT.
4. THE ELECTRIC SERVICE EQUIPMENT ENCLOSURE SHALL BE NEMA 4X STAINLESS STEEL, NOMINALLY 12"W X 16"H X 8"D, WITH A PIANO-HINGED DOOR, STEEL BACK PANEL, FAST-ACTING STAINLESS STEEL ENCLOSURE CLAMPS, PADLOCK PROVISIONS AND DOOR STOP, HOFFMAN CATALOG NO. A-16H120856LP/A-16 P12/A-DSTOPK/C-PMK12, OR APPROVED EQUAL.
5. CIRCUIT BREAKERS SHALL BE THERMAL MAGNETIC BOLT-ON TYPE WITH A MINIMUM INTERRUPTING CAPACITY OF 25,000 SYMMETRICAL AMPERES AT 240 VOLTS. THEY SHALL BE LOCKABLE IN THE "OFF" POSITION FOR COMPLIANCE WITH OSHA LOCK-OUT/TAG-OUT REQUIREMENTS. HANDLES SHALL BE TRIP FREE.
6. THE SURGE PROTECTOR SHALL BE SUITABLE FOR THE SERVICE VOLTAGE SINGLE PHASE 60HZ AC, WITH A SURGE ENERGY CAPABILITY OF 2160 JOULES OR BETTER AT 8/20 MICRO-SECONDS, RATED -40 TO 60 DEGREES C., WITH LED OPERATING INDICATORS, AND SHALL BE UL LISTED PER UL 1449, CUTLER-HAMMER CMOV230L065XST OR APPROVED EQUAL.
7. BUS BARS, CONNECTORS, AND LUGS SHALL BE COPPER, INSULATED AND ISOLATED, AND CONFIGURED TO PREVENT SHORTED CONDITIONS FROM TIGHTENING TERMINATIONS, ETC. THE OVERALL BUS SECTION SHALL BE CONFIGURED BEHIND AN INSULATING BARRIER SHIELD WHICH IS REMOVABLE FOR ACCESS TO CONNECTIONS, OR THE ASSEMBLY SHALL BE A MANUFACTURED SPECIALTY PANELBOARD, CUTLER-HAMMER PRL2A OR APPROVED EQUAL.
8. THE COMBINATION GROUND AND NEUTRAL BAR SHALL BE CONFIGURED WITH SEPARATE GROUND AND NEUTRAL SECTIONS AND SPARE TERMINALS AS INDICATED. THE HEADS OF GROUND SCREWS SHALL BE PAINTED GREEN. THE HEADS OF NEUTRAL SCREWS SHALL BE PAINTED WHITE. THE SERVICE NEUTRAL AND SERVICE GROUNDING ELECTRODE CONDUCTOR SHALL BE TERMINATED ADJACENT TO EACH OTHER AT THE DIVIDE BETWEEN THE SECTIONS AND WIRING SHALL BE TERMINATED ONLY UPON THE APPROPRIATE SECTION.
9. THE WIRING TERMINALS, INCLUDING THE GROUND/NEUTRAL BAR SHALL BE ARRANGED TO PROVIDE ADEQUATE ROOM FOR PERFORMING FIELD TERMINATIONS.
10. A PLASTIC LAMINATED LAYOUT AND CIRCUIT DIAGRAM SHALL BE MECHANICALLY SECURED TO THE INTERIOR SIDE OF THE ENCLOSURE DOOR.
11. A 2-COLOR ENGRAVED PLASTIC NAMEPLATE, ATTACHED WITH SCREWS, AND ENGRAVED AS INDICATED, SHALL BE PROVIDED FOR EACH MAIN BREAKER.
12. LUGS AND CONNECTORS SHALL BE RATED FOR 75 C CONDUCTOR.
13. THE EXACT MOUNTING HEIGHT OF THE BOX SHALL BE FIELD DETERMINED TO AVOID OBSTRUCTIONS AND PUBLIC ACCESS. TYPICAL HEIGHT SHALL BE APPROXIMATELY 10 FEET ABOVE GRADE.



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61\pw-work\PWID01\BAUERDL\0108315\ba805.dgn		DRAWN -	REVISED -
		CHECKED -	REVISED -
		DATE - 01/14/10	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY LIGHTING AND TRAFFIC SIGNALS FOR SINGLE LANE STAGING		F.A.J. RTE. 1238	SECTION C-B-1	COUNTY LAKE	TOTAL SHEETS 61	SHEET NO. 61
SCALE: NONE	SHEET NO. 3 OF 3 SHEETS	STA.	TO STA.	CONTRACT NO. 60J67		

TEMPORARY LIGHTING AND TRAFFIC SIGNALS FOR SINGLE LANE STAGING		F.A.J. RTE. 1238	SECTION C-B-1	COUNTY LAKE	TOTAL SHEETS 61	SHEET NO. 61
SCALE: NONE	SHEET NO. 3 OF 3 SHEETS	STA.	TO STA.	CONTRACT NO. 60J67		

FED. ROAD DIST. NO. 1 | ILLINOIS | FED. AID PROJECT