04-27-2018 LETTING ITEM 001

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	0909.1-B	COOK	138	1
	ILLINOIS	CONTRACT NO. 60K78		

X138+2=140 TOTAL SHEETS

D-91-596-10

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED
HIGHWAY PLANS

F.A.P. ROUTE 358 – IL 83 /US 6 (TORRENCE AVE)
OVER THE LITTLE CALUMET RIVER
SECTION 0909.1–B
PROJECT: NHPP ID9X(590)
BRIDGE REPLACEMENT
COOK COUNTY
C–91–596–10

FOR INDEX OF SHEETS, SEE SHEET NO. 2

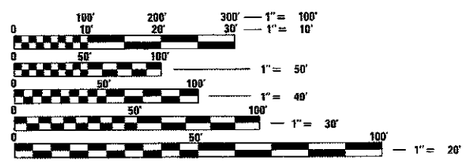
TRAFFIC DATA:
IL 83 / US 6: EX. ADT = 25,400 (2013)
EX. TRUCKS = 465 (1.83%)
IL 83 / US 6: PR. ADT = 30,000 (2030)

POSTED SPEED LIMIT = 40 MPH
DESIGN SPEED = 40 MPH

HIGHWAY FUNCTIONAL CLASS: OTHER PRINCIPAL ARTERIAL (SRA 302)
TRUCK ROUTE CLASSIFICATION: CLASS II

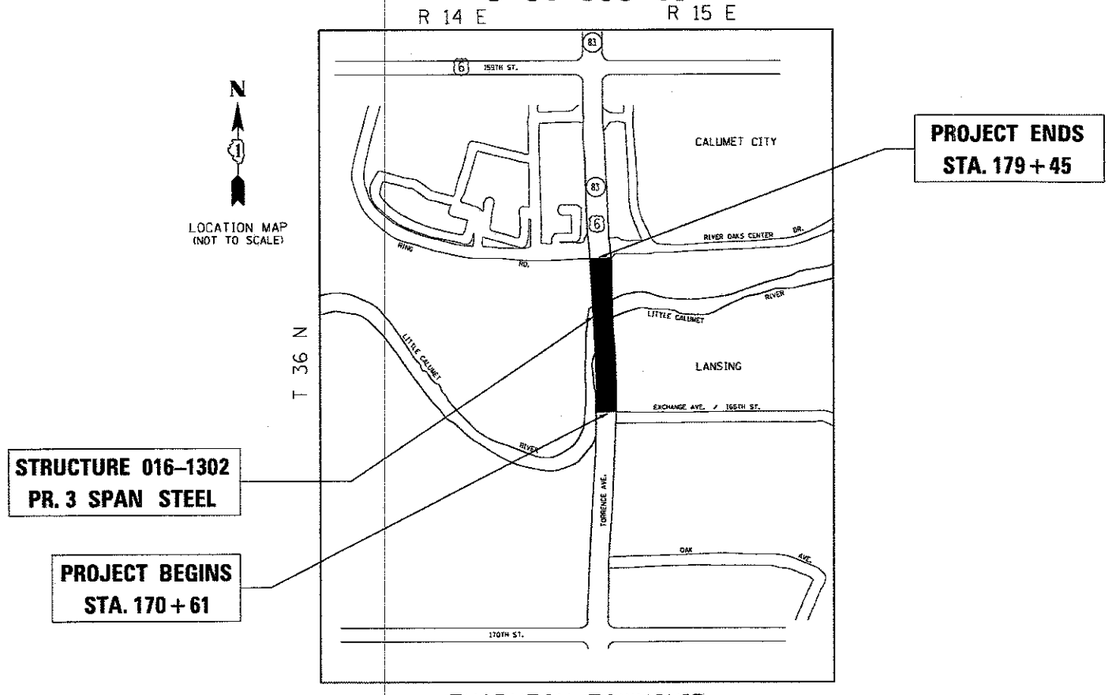
ORIGINAL CONSTRUCTION YEAR: 1923
SUPERSTRUCTURE REPLACEMENT YEAR: 1960
ORIGINAL SUBSTRUCTURE HAS NOT BEEN REPLACED

THIS PROJECT IS LOCATED IN THE CITY OF CALUMET CITY AND THE VILLAGE OF LANSING



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



THORNTON TOWNSHIP
GROSS AND NET LENGTH = 884 FT. = 0.17 MILES

LOCATION OF SECTION INDICATED THUS: –

PROFESSIONAL ENGINEER'S SIGN & SEAL 1/23/18
Peter M. Johnston
EXPIRES: 11/30/2019
062-047647 REGISTERED PROFESSIONAL ENGINEER OF ILLINOIS

STRUCTURAL ENGINEER'S SIGN & SEAL 1/23/2018
081-004706
EXPIRES: 11/30/2019

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED January 24 20 18
Anthony J. Quigley /DB
REGIONAL ENGINEER
Mar 23 20 18
cc
ENGINEER OF DESIGN AND ENVIRONMENT
May 23 20 18
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

GRÄEF
8501 W. Higgins Road; Suite 280
Chicago, Illinois 60631
(773) 399-0112

PROJECT ENGINEER: CRAIG BAUER /(847) 705–4265
PROJECT MANAGER: LONG TRAN /(847) 705–4232

CONTRACT NO. 60K78

INDEX OF SHEETS

HIGHWAY STANDARDS

HIGHWAY STANDARDS

GENERAL NOTES

1. BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "J.U.L.I.E." AT 800-892-0123 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE, AND GAS FACILITIES. (48 HOUR NOTIFICATION IS REQUIRED).
2. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES AND THE CITIES OF CALUMET CITY AND LANSING.
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. WHEN ARTIFICIAL LIGHTING IS USED IN NIGHT OPERATIONS THE CONTRACTOR SHALL EXERCISE THE UTMOST PRECAUTIONS IN PREVENTING ADVERSE VISIBILTY TO THE MOTORING PUBLIC AND ADJOINING RESIDENTIAL AREAS.
5. THE CONTRACTOR SHALL CONTACT THE DISTRICT ONE TRAFFIC CONTROL SUPERVISOR AT (847) 705-4470 A MINIMUM 72 HOURS IN ADVANCE OF BEGINNING WORK.
6. THE RESIDENT ENGINEER SHALL CONTACT THE AREA TRAFFIC FIELD ENGINEER PATRICE HARRIS AT patrice.harris@illinois.gov AT LEAST (2) WEEKS PRIOR TO PLACEMENT OF PERMANENT PAVEMENT MARKINGS.
7. REFER TO DISTRICT ONE 'TYPICAL PAVEMENT MARKINGS' (TC13) AND RAISED REFLECTIVE PAVEMENT MARKERS (TC11) FOR ADDITIONAL DETAILS NOT SHOWN ON THESE PLANS.
8. MATCH EXISTING PAVEMENT MARKINGS AT PROJECT LIMITS.
9. POLYUREA PAVEMENT MARKINGS SHALL BE USED ON CONCRETE SURFACES AND THERMOPLASTIC PAVEMENT MARKINGS SHALL BE USED ON HMA SURFACES.
10. EXCEPT AS NOTED ON THE PLANS, PAVEMENT GRADES SHOWN ARE AT THE TOP OF PAVEMENT SURFACES.
11. FOR STABILIZATION, ALL TYPE III BARRICADES SHALL REQUIRE A MINIMUM OF FOUR SAND BAGS PER BARRICADE.
12. ONLY THOSE TREES DESIGNATED BY THE ENGINEER OR LISTED IN THE TREE REMOVAL SCHEDULE SHALL BE REMOVED. THE CONTRACTOR SHALL PROTECT ALL REMAINING TREES FROM DAMAGE DUE TO HIS OPERATIONS.
13. ALL ELEVATIONS REFERRING TO U.S.G.S. MEAN SEA LEVEL DATUM.
14. ABANDONED UNDERGROUND UTILITIES THAT CONFLICT WITH CONSTRUCTION SHALL BE DISPOSED OF OUTSIDE OF THE LIMITS OF THE RIGHT OF WAY ACCORDING TO ARTICLE 202.03 OF THE STANDARD SPECIFICATIONS AND AS DIRECTED BY THE ENGINEER. THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE COST OF EARTH EXCAVATION.
15. THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE PRESENCE OF DEPARTMENT OWNED UNDERGROUND ELECTRICAL CABLE WITHIN THE LIMITS OF THE PROPOSED IMPROVEMENT. THE CONTRACTOR SHALL REQUEST THE ILLINOIS DEPARTMENT OF TRANSPORTATION IN SCHAUMBURG A MINIMUM OF 72 HOURS NOTICE. THE DEPARTMENT IS NOT A MEMBER OF THE JOINT UTILITY LOCATING INFORMATION FOR EXCAVATORS (JULIE) SYSTEM.
16. ALL DAMAGE TO DEPARTMENT OWNED UNDERGROUND FACILITIES, CAUSED BY THE CONTRACTOR SHALL BE REPAIRED TO THE SATISFACTION OF THE DEPARTMENT AT THE CONTRACTOR'S EXPENSE. THIS SHALL INCLUDE ALL TEMPORARY REPAIRS REQUIRED TO KEEP THE FACILITY OPERATIONAL WHILE MATERIAL IS BEING OBTAINED TO MAKE PERMANENT REPAIRS. SPLICING OF ELECTRIC CABLE SHALL NOT BE ALLOWED. ELECTRIC CABLE SHALL BE REPLACED FROM POLE TO POLE OR CONTROLLER.
17. THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE ACCESS TO ABUTTING PROPERTY AT ALL TIMES DURING THE CONSTRUCTION OF THIS PROJECT.
18. THIS PROJECT REQUIRES A US ARMY CORPS OF ENGINEERS (USACE) 404 PERMIT THAT WILL BE SECURED BY THE DEPARTMENT. AS A CONDITION OF THIS PERMIT, THE CONTRACTOR WILL NEED TO SUBMIT AN IN-STREAM WORK PLAN TO THE DEPARTMENT FOR APPROVAL. GUIDELINES ON ACCEPTABLE IN-STREAM WORK TECHNIQUES CAN BE FOUND ON THE USACE WEBSITE. THE USACE DEFINES AND DETERMINES IN-STREAM WORK. THE COST OF ALL MATERIALS AND LABOR NECESSARY TO COMPLY WITH THE ABOVE PROVISIONS TO PREPARE AND IMPLEMENT AN IN-STREAM WORK PLAN 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.
19. THE DEPARTMENT HAS NOT OBTAINED ANY PERMITS FOR OFFSITE BORROW, WASTE, USE (BWU) AREAS. PRIOR TO WORKING IN BWU AREAS, IF THE CONTRACTOR CHOOSES TO USE ACTIVITIES REQUIRING PERMITS IT IS THE CONTRACTORS RESPONSIBILITY TO SECURE THE PROPER PERMITS. IN ADDITION TO THE BORROW REVIEW (BDE 2289) and USE/WASTE REVIEW(BDE 2290) SUBMITTALS, THE CONTRACTOR SHALL SUBMIT AN EROSION AND SEDIMENT CONTROL (ESC) PLAN FOR EVERY BWU SITE TO THE DEPARTMENT FOR ACCEPTANCE. GUIDELINES FOR ACCEPTABLE BWU PRACTICES CAN BE FOUND IN SECTION II.G.1 AND 2 of the SWPPP. THE COST OF ALL MATERIALS AND LABOR NECESSARY TO COMPLY WITH THE ABOVE PROVISIONS TO PREPARE AND IMPLEMENT ESC PLANS 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.
20. FOR WORK OUTSIDE THE LIMITS OF THE BRIDGE APPROACH PAVEMENT, ALL REFERENCES IN THE HIGHWAY STANDARDS AND STANDARD SPECIFICATIONS FOR REINFORCEMENT, DOWEL BARS AND TIE BARS IN PAVEMENT, SHOULDERS, CURB, GUTTER, COMBINATION CURB & GUTTER AND MEDIAN, AND CHAIR SUPPORTS FOR CRC PAVEMENT, SHALL BE EPOXY COATED, UNLESS NOTED ON THE PLANS.
21. FOR STORM SEWERS CONSTRUCTED UNDER ROADWAY, BACKFILLING METHODS TWO AND THREE AUTHORIZED UNDER THE PROVISIONS OF ARTICLE 550.07 OF THE STANDARD SPECIFICATIONS WILL NOT BE ALLOWED.
22. TEMPORARY FENCE SHOULD BE ERECTED ALONG THE DRIP LINE OF THE TREES, SHRUBS, AND LANDSCAPED BEDS WITHIN THE LIMITS OF CONSTRUCTION DESIGNATED TO REMAIN TO ESTABLISH A 'TREE PROTECTION ZONE" BEFORE ANY WORK BEGINS OR ANY MATERIAL IS DELIVERED TO THE JOBSITE. NO WORK IS TO BE PERFORMED (OTHER THAN ROOT PRUNING), MATERIALS STORED OR VEHICLES DRIVEN OR PARKED WITHIN THE "TREE PROTECTION ZONE". REMOVE PROTECTIVE TEMPORARY FENCE ONLY AFTER ALL CONSTRUCTION WORK HAS BEEN COMPLETED.
23. PRUNE TREE LIMBS THAT MIGHT BE DAMAGED BY EQUIPMENT OPERATIONS AT LEAST ONE WEEK PRIOR TO THE START OF CONSTRUCTION BY A CERTIFIED ARBORIST. ANY TREE LIMBS THAT ARE BROKEN BY CONSTRUCTION EQUIPMENT AFTER THE INITIAL PRUNING MUST BE PRUNED CORRECTLY WITHIN 72 HOURS.
24. SUPPLEMENTAL WATERING IS SPECIFIED FOR TREES AND SHRUBS THAT WILL BE DISTURBED BY CONSTRUCTION BUT WILL REMAIN. WATERING SHOULD BEGIN IMMEDIATELY AFTER ROOT PRUNING, TOP PRUNING OR OTHER CONSTRUCTION DISTURBANCE.
25. THE FINAL LOCATION FOR PLANTING PROPOSED TREES WILL BE DETERMINED BY THE DISTRICT 1 BUREAU OF MAINTENANCE-ROADSIDE DEVELOPMENT SECTION. THE CONTRACTOR SHALL CONTACT THE ROADSIDE DEVELOPMENT SECTION AT 847 705-4596 FOR FINAL LOCATION APPROVAL A MINIMUM TWO WEEKS BEFORE THE TREES AND PLANTS ARE PLANTED.
26. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCLUDED IN THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIAN, SIDEWALKS, PAVEMENT ETC. SHALL BE REPLACED IN KIND, ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250.
27. THE GENERAL CONTRACTOR IS REQUIRED TO HIRE AN ENVIRONMENTAL FIRM WITH AT LEAST FIVE (5) DOCUMENTED LEAKING UNDERGROUND STORAGE TANK CLEANINGS OR THAT IS PRE-QUALIFIED INJ HAZARDOUS WASTE BY THE DEPARTMENT TO REMEDIATE THE SOIL CONTAMINATION AND MONITOR NFOR WORKER PROTECTION.
28. TEN (10) FOOT TRANSITIONS SHALL BE USED TO MATCH PROPOSED CURB AND GUTTER AND MEDIAN ITEMS OF WORK TO EXISTING CURBS AND GUTTER AND MEDIANS IN THE FIELD, UNLESS OTHERWISE SHOWN. THE TRANSITIONS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR THE PROPOSED ITEMS OF WORK SPECIFIED.
29. SIDEWALK RAMPS MODIFICATIONS WITHIN THE LIMITS OF THE PROJECT SHALL CONFORM TO THE APPLICABLE HIGHWAY STANDARDS INCLUDED IN THE PLANS.
30. USE #8 EPOXY-COATED TIE BARS, CONFORMING TO ART. 1006.10 OF THE STANDARD SPECIFICATIONS, FOR ALL TIE BARS. USE THE 'LONGITUDINAL CONSTRUCTION JOINT (TIE BAR GROUTED IN PLACE)" DETAIL SHOWN ON HIGHWAY STANDARD 420001 FOR ALL LONGITUDINAL JOINTS AND FOR TYING PCC PAVEMENT WIDENING TO EXISTING CONCRETE PAVEMENT AS SHOWN ON THE PLANS.
31. ALL DAMAGE TO EXISTING PAVEMENT MARKINGS OR RAISED REFLECTIVE PAVEMENT MARKERS OUTSIDE THE REMOVAL LINE SHOWN ON THE PLANS SHALL BE REPLACED AT NO ADDITIONAL COST TO THE DEPARTMENT.
32. BEFORE BEGINNING ANY WORK, THE CONTRACTOR SHALL RETAIN AND RECORD FOR FUTURE REFERENCE, ALL EXISTING PAVEMENT MARKING LINES (AND RAISED REFLECTIVE PAVEMENT MARKERS) IN ORDER THAT THESE LOCATIONS CAN BE RE-ESTABLISHED FOR STRIPING. EXACT LOCATIONS OF ALL PAVEMENT MARKINGS SHALL BE AS DIRECTED BY THE ENGINEER.
33. DRAINAGE ADJUSTMENT OR RECONSTRUCTION LOCATIONS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.
34. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING OF MATERIALS.
35. FRAMES AND GRATES ADJUSTMENT OF PRIVATE UTILITIES WITHIN THE LIMITS OF THE IMPROVEMENTS SHALL BE DONE BY THEIR RESPECTIVE OWNERS AND ARE NOT PART OF THIS CONTRACT.
36. FRAMES AND GRATES ADJUSTMENT OF PRIVATE UTILITIES WITHIN THE LIMITS OF THE IMPROVEMENTS SHALL BE DONE BY THEIR RESPECTIVE OWNERS AND ARE NOT PART OF THIS CONTRACT.
37. THE CONTRACTOR WILL BE REQUIRED TO KEEP A RECORD OF THE LOCATIONS OF PLATED STRUCTURES BY STATION AND OFFSET LEFT OR RIGHT OF THE CENTERLINE OF PAVEMENT.
38. THE CONTRACTOR WILL BE REQUIRED TO KEEP A RECORD OF THE LOCATIONS OF THE BURIED STRUCTURES ACCORDING TO THE STATION AND DISTANCE LEFT OR RIGHT OF THE CENTERLINE OF PAVEMENT. UPON COMPLETION OF THE WORK, THE CONTRACTOR WILL DELIVER THE RECORD TO THE ENGINEER.
39. EXISTING BROKEN FRAMES AND LIDS SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR AND SHALL BE REPLACED AS DIRECTED BY THE ENGINEER. REPLACEMENT FRAMES AND LIDS WILL BE PAID FOR ACCORDING TO ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS UNLESS A SEPARATE PAY ITEM HAS BEEN PROVIDED.
40. DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS.
41. DOUBLE LANE MARKERS ARE TO BE USED AS SHOWN ON THE DISTRICT ONE DETAIL "TYPICAL APPLICATIONS - RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)" SHOWN IN THE PLANS.
42. NO RAISED REFLECTIVE PAVEMENT MARKERS SHALL BE USED ON THE BRIDGE.
43. PAVEMENT MARKING TAPE, TYPE III SHALL BE USED FOR SHORT TERM PAVEMENT MARKINGS ON ALL FINAL SURFACES. THE COST OF THE PAVEMENT MARKING TAPE, TYPE III AND ITS REMOVAL SHALL BE INCLUDED IN THE COST OF SHORT TERM PAVEMENT MARKING.
44. OVERNIGHT LANE CLOSURES SHALL NOT BE ALLOWED FOR REHABILITATION PROJECTS INVOLVING DAYTIME MILLING AND RESURFACING OPERATIONS AND CLASS D PATCHING UNLESS OTHER CONDITIONS WARRANT EXTENDED LANE CLOSURES AS DETERMINED AND APPROVED IN WRITING BY THE ENGINEER OR AS PROVIDED FOR IN THE CONTRACT SPECIFICATIONS.
45. ALL PERENNIAL PLANT BEDS SHALL HAVE ALL THE SOD REMOVED AND DISPOSED FROM THE BED PRIOR TO TILLING THE EARTH AS DESCRIBED IN ARTICLE 254.07(b) OF THE STANDARD SPECIFICATIONS.
46. UNLESS OTHERWISE NOTED, ALL PERENNIALS SHALL BE PLANTED ONE FOOT ON CENTER AND MULCHED AS DESCRIBED IN ARTICLE 254.08 OF THE STANDARD SPECIFICATIONS.
47. VILLAGE WATER AND SEWER MAINS MAY BE LOCATED IN THE LANDSCAPE AREA. THE CONTRACTOR WILL NOT BE ALLOWED TO PROCEED WITH ANY PLANTING WORK UNTIL ALL UTILITY OWNERS FIELD LOCATE THEIR FACILITIES WHICH MAY INTERFERE WITH CONSTRUCTION OPERATIONS. THE ACTUAL LOCATION OF PROPOSED LANDSCAPING WILL BE ADJUSTED IN THE FIELD TO AVOID UTILITIES.
48. UNDERBRUSH OR DEBRIS AT PLANTING LOCATIONS SHALL BE REMOVED AND DISPOSED OF ACCORDING TO SECTION 201 OF THE STANDARD SPECIFICATIONS. THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT THE COSTS SHALL BE CONSIDERED AS INCLUDED IN THE CONTRACT UNIT PRICES FOR THE CONSTRUCTION ITEMS INVOLVED, AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
49. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS FOR THE PROTECTION OF EXISTING PLANT MATERIAL FOR WHICH THE CONTRACT DOES NOT PROVIDE REMOVAL. THE PROTECTION OF EXISTING PLANT MATERIAL AND THE REPAIR OR REPLACEMENT OF EXISTING PLANT MATERIAL DAMAGED BY THE CONTRACTOR SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION 201 OF THE STANDARD SPECIFICATIONS.
50. SLIPFORMING OF PARAPETS IS NOT ALLOWED.
51. PIPE UNDERDRAINS SHALL BE INSTALLED ACCORDING TO SECTION 601 OF THE SSRBC AND STANDARD 601001-05. TOP OF PIPE UNDERDRAINS SHALL BE PLACED MINIMUM 6" BELOW THE AGGREGATE SUBGRADE IMPROVEMENT LAYER. THE COST OF MAKING PIPE UNDERDRAINS CONNECTIONS TO DRAINAGE STRUCTURES SHALL BE INCLUDED IN THE COST OF THE PIPE UNDERDRAINS.

GRAEF 8501 W. Higgins Road Suite 280 Chicago, Illinois 60631 (773) 399-0112

USER NAME = 1951	DESIGNED - JWB	REVISED -	
	DRAWN - JWB	REVISED -	
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PLOT DATE = 3/14/2018 - 8:38:43 AM	DATE - 01/23/2018	REVISED - 03/13/2018	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL 83/US 6 (TORRENCE AVENUE) OVER LITTLE CALUMET RIVER
GENERAL NOTES, COMMITMENTS
SHEET NO. GEN-1 OF 2

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
368	0909.1-B	COOK	138	3
		CONTRACT NO. 60K78		
	ILLINOIS FED. AID PROJECT			

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COMMITMENTS

1 NO COMMITMENTS HAVE BEEN MADE FOR THIS PROJECT.

HOT-MIX ASPHALT MIXTURE REQUIREMENTS		
MIXTURE TYPE	AIR VOIDS @ Ndes	QUALITY MANAGEMENT PROGRAM (QMP)
PAVEMENT RESURFACING		
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70 (IL 9.5 mm); 1 3/4"	4.0% @ 70 Gyr.	QC/QA
HOT-MIX ASPHALT SHOULDERS, 8"		
HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70; 8" (IN 2 LIFTS)	4.0% @ 70 Gyr.	QC/QA
CLASS D PATCHES, SPECIAL		
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70 (IL 9.5 mm); 2"	4.0% @ 70 Gyr.	QC/QA
HMA BASE COURSE (HMA BINDER, IL-19mm), 8" (IN 2 LIFTS)	4.0% @ 70 Gyr.	QC/QA
TEMPORARY PAVEMENT*		
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70 (IL 9.5 mm); 2"	4.0% @ 70 Gyr.	QC/QA
TEMPORARY PAVEMENT (HMA BINDER, IL-19mm), 8" (IN 2 LIFTS)	4.0% @ 70 Gyr.	QC/QA
QMP DESIGNATION: QUALITY CONTROL / QUALITY ASSURANCE (QC/QA)		

THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE MIXTURES IS 112 LBS/SQ YD/IN.
THE "AC TYPE" FOR POLYMERIZED HMA MIXES SHALL BE "SBS/SBR PG 76-22" AND FOR NON-POLYMERIZED HMA THE "AC TYPE" SHALL BE "PG 64-22" UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROVISIONS. FOR USE OF RECYCLED MATERIALS SEE DISTRICT ONE SPECIAL PROVISIONS.

*PCC TEMPORARY PAVEMENT SHALL CONSIST OF CLASS PV CONCRETE MEETING THE REQUIREMENTS OF ARTICLE 1020 OF THE STANDARD SPECIFICATIONS. PCC THICKNESS SHALL BE 8." PCC TEMPORARY PAVEMENT DOES NOT REQUIRE DOWEL BARS.

*TEMPORARY PAVEMENT USING EITHER HMA OR PCC OPTION SHALL BE PLACED OVER 4" SUBBASE GRANULAR MATERIAL TY B. THE COST OF THE SUBBASE GRANULAR MATERIAL TY B SHALL BE INCLUDED IN THE COST OF EITHER TEMPORARY HMA OR PCC PAVEMENT.

QUALITY MANAGEMENT PROGRAM (QMP) IDENTIFIES THE PARTICULAR QUALITY CONTROL SPECIFICATION THAT APPLIES TO THE HMA MIXTURE

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PLOT DATE = 3/14/2018 - 8:39:20 AM	DATE - 01/23/2018	REVISED - 03/13/2018	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL 83/US 6 (TORRENCE AVENUE) OVER LITTLE CALUMET RIVER
HMA MIXTURE REQUIREMENTS
SHEET NO. GEN-2 OF 2

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	0909.1-B	COOK	138	4
		CONTRACT NO. 60K78		
	ILLINOIS FED. AID PROJECT			

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CODE NO.	DESCRIPTION	UNIT	80/20 (FED/STATE) TOTAL QUANTITY	ROADWAY 0003 80% FED 20% STATE	BRIDGE 0010 S.N. 016-1302 80% FED 20% STATE	TRAFFIC SIGNALS 0021 Ring Rd & IL 83 80% FED 20% STATE	TRAFFIC SIGNALS 0021 Exchange Ave & IL 83 80% FED 20% STATE	TRAFFIC SIGNALS 0021 Interconnect 80% FED 20% STATE
20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	139	139				
20101000	TEMPORARY FENCE	FOOT	1,007	1,007				
20200100	EARTH EXCAVATION	CU YD	3,383	3,383				
20400800	FURNISHED EXCAVATION	CU YD	1,517	1,517				
20800150	TRENCH BACKFILL	CU YD	366	366				
21101505	TOPSOIL EXCAVATION AND PLACEMENT	CU YD	529	529				
* 25000210	SEEDING, CLASS 2A	ACRE	0.1	0.1				
* 25000400	NITROGEN FERTILIZER NUTRIENT	POUND	26	26				
* 25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	26	26				
* 25100630	EROSION CONTROL BLANKET	SQ YD	1,786	1,786				
* 25100900	TURF REINFORCEMENT MAT	SQ YD	480	480				
* 25200110	SODDING, SALT TOLERANT	SQ YD	1,403	1,403				
* 25200200	SUPPLEMENTAL WATERING	UNIT	42	42				
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	47	47				
28000305	TEMPORARY DITCH CHECKS	FOOT	160	160				
28000315	AGGREGATE DITCH CHECKS	TON	7	7				
28000400	PERIMETER EROSION BARRIER	FOOT	1,068	1,068				
28000510	INLET FILTERS	EACH	15	15				

*Specialty Item

CODE NO.	DESCRIPTION	UNIT	80/20 (FED/STATE) TOTAL QUANTITY	ROADWAY 0003	BRIDGE 0010 S.N. 016-1302	TRAFFIC SIGNALS 0021		
				80% FED 20% STATE	80% FED 20% STATE	Ring Rd & IL 83 80% FED 20% STATE	Exchange Ave & IL 83 80% FED 20% STATE	Interconnect 80% FED 20% STATE
28100107	STONE RIPRAP, CLASS A4	SQ YD	1,678	336	1,342			
28200200	FILTER FABRIC	SQ YD	1,678	336	1,342			
30300112	AGGREGATE SUBGRADE IMPROVEMENT 12"	SQ YD	4,795	4,795				
40600275	BITUMINOUS MATERIALS (PRIME COAT)	POUND	360	360				
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	83	83				
40603340	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70	TON	28	28				
42000080	PAVEMENT CONNECTOR (PCC) FOR BRIDGE APPROACH SLAB	SQ YD	1,559	1,559				
42000401	PORTLAND CEMENT CONCRETE PAVEMENT 9" (JOINTED)	SQ YD	2,644	2,644				
42001300	PROTECTIVE COAT	SQ YD	5,697	5,697				
42300200	PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 6 INCH	SQ YD	44	44				
42400300	PORTLAND CEMENT CONCRETE SIDEWALK 6 INCH	SQ FT	7,780	7,780				
42400800	DETECTABLE WARNINGS	SQ FT	30	30				
44000100	PAVEMENT REMOVAL	SQ YD	4,423	4,423				
44000156	HOT-MIX ASPHALT SURFACE REMOVAL, 1 3/4"	SQ YD	192	192				
44000200	DRIVEWAY PAVEMENT REMOVAL	SQ YD	73	73				
44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	1,438	1,438				
44000600	SIDEWALK REMOVAL	SQ FT	3,607	3,607				
44003100	MEDIAN REMOVAL	SQ FT	2,327	2,327				

* Specialty Item

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USER NAME = 1928	DESIGNED - JWB	REVISED -
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PLOT SCALE = 100.0000 ' / in.	CHECKED - RS	REVISED -
PLOT DATE = 1/29/2018 - 3:32:28 PM	DATE - 01/23/2018	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL 83/US 6 (TORRENCE AVENUE) OVER LITTLE CALUMET RIVER
SUMMARY OF QUANTITIES

SHEET NO. 500-2 OF 10

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	0909.1-B	COOK	138	6
		CONTRACT NO. 60K78		
	ILLINOIS FED. AID PROJECT			

CODE NO.	DESCRIPTION		UNIT	TOTAL QUANTITY	ROADWAY 0003	BRIDGE 0010 S.N. 016-1302	TRAFFIC SIGNALS 0021		
					80% FED 20% STATE	80% FED 20% STATE	Ring Rd & IL 83 80% FED 20% STATE	Exchange Ave & IL 83 80% FED 20% STATE	Interconnect 80% FED 20% STATE
48101620	AGGREGATE SHOULDERS, TYPE B 10"		SQ YD	646	646				
48203021	HOT-MIX ASPHALT SHOULDERS, 6"		SQ YD	259	259				
50100100	REMOVAL OF EXISTING STRUCTURES		EACH	1		1			
50104400	CONCRETE HEADWALL REMOVAL		EACH	1	1				
50200100	STRUCTURE EXCAVATION		CU YD	727		727			
50200400	ROCK EXCAVATION FOR STRUCTURES		CU YD	650		650			
50300225	CONCRETE STRUCTURES		CU YD	470		470			
50300255	CONCRETE SUPERSTRUCTURE		CU YD	816		816			
50300260	BRIDGE DECK GROOVING		SQ YD	2,253		2,253			
50300280	CONCRETE ENCASEMENT		CU YD	14		14			
50300300	PROTECTIVE COAT		SQ YD	3,152		3,152			
50301350	CONCRETE SUPERSTRUCTURE (APPROACH SLAB)		CU YD	272		272			
50500105	FURNISHING AND ERECTING STRUCTURAL STEEL		L SUM	1		1			
50500505	STUD SHEAR CONNECTORS		EACH	12,441		12,441			
50800105	REINFORCEMENT BARS		LB	52,830		52,830			
50800205	REINFORCEMENT BARS, EPOXY COATED		LB	312,400		312,400			
50800515	BAR SPLICERS		EACH	1,458		1,458			
50900105	ALUMINUM RAILING, TYPE L		FOOT	214		214			
50901720	BICYCLE RAILING		FOOT	498	223	275			

GRAEF 8501 W. Higgins Road Suite 280 Chicago, Illinois 60631 (773) 399-0112

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL 83/US 6 (TORRENCE AVENUE) OVER LITTLE CALUMET RIVER
SUMMARY OF QUANTITIES

SHEET NO. S00-3 OF 10

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	0909.1-B	COOK	138	7
		CONTRACT NO. 60K78		
	ILLINOIS FED. AID PROJECT			

CODE NO.	DESCRIPTION	UNIT	TOTAL QUANTITY	ROADWAY 0003	BRIDGE 0010 S.N. 016-1302	TRAFFIC SIGNALS 0021		
				80% FED 20% STATE	80% FED 20% STATE	Ring Rd & IL 83 80% FED 20% STATE	Exchange Ave & IL 83 80% FED 20% STATE	Interconnect 80% FED 20% STATE
50901750	PARAPET RAILING	FOOT	270		270			
51201600	FURNISHING STEEL PILES HP12X53	FOOT	2,098		2,098			
51202305	DRIVING PILES	FOOT	2,098		2,098			
51203600	TEST PILE STEEL HP12X53	EACH	4		4			
51500100	NAME PLATES	EACH	1		1			
* 51603000	DRILLED SHAFT IN SOIL	CU YD	315		315			
52100010	ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH	26		26			
52100520	ANCHOR BOLTS, 1"	EACH	104		104			
52200010	TEMPORARY SHEET PILING	SQ FT	440		440			
54213660	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 15"	EACH	1	1				
54213693	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 48"	EACH	1	1				
54261315	CONCRETE END SECTION, STANDARD 542001, 15", 1:3	EACH	1	1				
550A0050	STORM SEWERS, CLASS A, TYPE 1 12"	FOOT	348	348				
550A0070	STORM SEWERS, CLASS A, TYPE 1 15"	FOOT	375	375				
550A0360	STORM SEWERS, CLASS A, TYPE 2 15"	FOOT	52	52				
550A0480	STORM SEWERS, CLASS A, TYPE 2 48"	FOOT	24	24				
550A0780	STORM SEWERS, CLASS A, TYPE 3 48"	FOOT	104	104				
55100400	STORM SEWER REMOVAL 10"	FOOT	170	170				
55100500	STORM SEWER REMOVAL 12"	FOOT	262	262				

*Specialty Item

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL 83/US 6 (TORRENCE AVENUE) OVER LITTLE CALUMET RIVER
SUMMARY OF QUANTITIES

SHEET NO. S00-4 OF 10

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	0909.1-B	COOK	138	8
		CONTRACT NO. 60K78		
	ILLINOIS FED. AID PROJECT			

CODE NO.	DESCRIPTION	UNIT	TOTAL QUANTITY	ROADWAY 0003 80% FED 20% STATE	BRIDGE 0010 S.N. 016-1302 80% FED 20% STATE	TRAFFIC SIGNALS 0021 Ring Rd & IL 83 80% FED 20% STATE	TRAFFIC SIGNALS 0021 Exchange Ave & IL 83 80% FED 20% STATE	TRAFFIC SIGNALS 0021 Interconnect 80% FED 20% STATE
55100700	STORM SEWER REMOVAL 15"	FOOT	143	143				
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	200		200			
59300100	CONTROLLED LOW-STRENGTH MATERIAL	CU YD	13	13				
60107600	PIPE UNDERDRAINS 4"	FOOT	154	154				
60201340	CATCH BASINS, TYPE A, 4'-DIAMETER, TYPE 24 FRAME AND GRATE	EACH	10	10				
60218400	MANHOLES, TYPE A, 4'-DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	5	5				
60223800	MANHOLES, TYPE A, 6'-DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	1	1				
60224446	MANHOLES, TYPE A, 7'-DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	1	1				
60251740	CATCH BASINS TO BE ADJUSTED WITH NEW TYPE 24 FRAME AND GRATE	EACH	1	1				
60261540	INLETS TO BE ADJUSTED WITH NEW TYPE 24 FRAME AND GRATE	EACH	1	1				
60500040	REMOVING MANHOLES	EACH	1	1				
60500050	REMOVING CATCH BASINS	EACH	3	3				
60500060	REMOVING INLETS	EACH	3	3				
60603800	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12	FOOT	76	76				
60605000	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24	FOOT	1,169	1,169				
60623800	CONCRETE BARRIER MEDIAN	SQ FT	2,140	2,140				
* 63000001	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	FOOT	1,114	1,114				
* 63100045	TRAFFIC BARRIER TERMINAL, TYPE 2	EACH	2	2				
* 63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	4	4				

*Specialty Item

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL 83/US 6 (TORRENCE AVENUE) OVER LITTLE CALUMET RIVER
SUMMARY OF QUANTITIES

SHEET NO. S00-5 OF 10

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	0909.1-B	COOK	138	9

CONTRACT NO. 60K78

ILLINOIS FED. AID PROJECT

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	CODE NO.	DESCRIPTION	UNIT	TOTAL QUANTITY	ROADWAY 0003	BRIDGE 0010 S.N. 016-1302	TRAFFIC SIGNALS 0021		
					80% FED 20% STATE	80% FED 20% STATE	Ring Rd & IL 83 80% FED 20% STATE	Exchange Ave & IL 83 80% FED 20% STATE	Interconnect 80% FED 20% STATE
*	63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	1	1				
	63200310	GUARDRAIL REMOVAL	FOOT	1,366	1,366				
*	66900200	NON-SPECIAL WASTE DISPOSAL	CU YD	1,350	1,350				
*	66900450	SPECIAL WASTE PLANS AND REPORTS	L SUM	1	1				
*	66900530	SOIL DISPOSAL ANALYSIS	EACH	4	4				
	67100100	MOBILIZATION	L SUM	1	1				
	70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	180	180				
	70300100	SHORT TERM PAVEMENT MARKING	FOOT	1,885	1,885				
	70300210	TEMPORARY PAVEMENT MARKING LETTERS AND SYMBOLS	SQ FT	762	762				
	70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	14,237	14,237				
	70300240	TEMPORARY PAVEMENT MARKING - LINE 6"	FOOT	2,550	2,550				
	70300260	TEMPORARY PAVEMENT MARKING - LINE 12"	FOOT	50	50				
	70300280	TEMPORARY PAVEMENT MARKING - LINE 24"	FOOT	302	302				
	X7030005	Temporary PAVEMENT MARKING REMOVAL	SQ FT	7,399	7,399				
	70400100	TEMPORARY CONCRETE BARRIER	FOOT	736	736				
	70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	747	747				
	70600240	IMPACT ATTENUATORS, TEMPORARY (NON- REDIRECTIVE), TEST LEVEL 2	EACH	2	2				
	70600340	IMPACT ATTENUATORS, RELOCATE (NON- REDIRECTIVE), TEST LEVEL 2	EACH	4	4				
*	72000100	SIGN PANEL - TYPE 1	SQ FT	30			12	18	

*Specialty Item

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL 83/US 6 (TORRENCE AVENUE) OVER LITTLE CALUMET RIVER
SUMMARY OF QUANTITIES

SHEET NO. S00-6 OF 10

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	0909.1-B	COOK	138	10
		CONTRACT NO. 60K78		
	ILLINOIS FED. AID PROJECT			

	CODE NO.	DESCRIPTION		UNIT	TOTAL QUANTITY	ROADWAY 0003	BRIDGE 0010 S.N. 016-1302	TRAFFIC SIGNALS 0021		
						80% FED 20% STATE	80% FED 20% STATE	Ring Rd & IL 83 80% FED 20% STATE	Exchange Ave & IL 83 80% FED 20% STATE	Interconnect 80% FED 20% STATE
*	72000200	SIGN PANEL - TYPE 2		SQ FT	70			55	15	
*	72400310	REMOVE SIGN PANEL - TYPE 1		SQ FT	6	6				
*	78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS		SQ FT	146	146				
*	78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"		FOOT	1,510	1,510				
*	78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"		FOOT	914	914				
*	78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"		FOOT	103	103				
*	78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"		FOOT	155	155				
*	78008300	POLYUREA PAVEMENT MARKING TYPE II - LETTERS AND SYMBOLS		SQ FT	182	182				
*	78008310	POLYUREA PAVEMENT MARKING TYPE II - LINE 4"		FOOT	3,644	3,644				
*	78008330	POLYUREA PAVEMENT MARKING TYPE II - LINE 6"		FOOT	873	873				
*	78008350	POLYUREA PAVEMENT MARKING TYPE II - LINE 12"		FOOT	75	75				
*	78008370	POLYUREA PAVEMENT MARKING TYPE II - LINE 24"		FOOT	84	84				
*	78100100	RAISED REFLECTIVE PAVEMENT MARKER		EACH	71	71				
	X032797	PAVEMENT MARKING REMOVAL - GRINDING		SQ FT	9827	9827				
	78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL		EACH	87	87				
*	81028200	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.		FOOT	1,388			318	410	660
*	81028220	UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.		FOOT	20			20		
*	81028240	UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.		FOOT	81				81	

* Specialty Item

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL 83/US 6 (TORRENCE AVENUE) OVER LITTLE CALUMET RIVER
SUMMARY OF QUANTITIES

SHEET NO. S00-7 OF 10

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	0909.1-B	COOK	138	11
		CONTRACT NO. 60K78		
	ILLINOIS FED. AID PROJECT			

CODE NO.	DESCRIPTION	UNIT	TOTAL QUANTITY	ROADWAY 0003 80% FED 20% STATE	BRIDGE 0010 S.N. 016-1302 80% FED 20% STATE	TRAFFIC SIGNALS 0021 Ring Rd & IL 83 80% FED 20% STATE	TRAFFIC SIGNALS 0021 Exchange Ave & IL 83 80% FED 20% STATE	TRAFFIC SIGNALS 0021 Interconnect 80% FED 20% STATE
* 81100600	CONDUIT ATTACHED TO STRUCTURE, 2" DIA., GALVANIZED STEEL	FOOT	216					216
* 81400100	HANDHOLE	EACH	3			1	1	1
* 81400200	HEAVY-DUTY HANDHOLE	EACH	3			2	1	
* 85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	2					2
* 87300925	ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C	FOOT	1,140					1,140
* 87301215	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	202				202	
* 87301225	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	226				226	
* 87301305	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	787			357	430	
* 87502500	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	1			1		
* 87800100	CONCRETE FOUNDATION, TYPE A	FOOT	12			4	8	
* 87900200	DRILL EXISTING HANDHOLE	EACH	21			4	8	9
* 88102717	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2				2	
* 88600100	DETECTOR LOOP, TYPE 1	FOOT	98			98		
* 88600700	PREFORMED DETECTOR LOOP	FOOT	405			232	173	
* 88800100	PEDESTRIAN PUSH-BUTTON	EACH	2				2	
* 89000100	TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	2			1	1	
* 89502300	REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	300					300

*Specialty Items

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL 83/US 6 (TORRENCE AVENUE) OVER LITTLE CALUMET RIVER
SUMMARY OF QUANTITIES

SHEET NO. S00-8 OF 10

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	0909.1-B	COOK	138	12

CONTRACT NO. 60K78

ILLINOIS FED. AID PROJECT

REV

	CODE NO.	DESCRIPTION	UNIT	TOTAL QUANTITY	ROADWAY 0003	BRIDGE @OTO S.N. 016-1302	TRAFFIC SIGNALS 0021		
					80% FED 20% STATE	80% FED 20% STATE	Ring Rd & IL 83 80% FED 20% STATE	Exchange Ave & IL 83 80% FED 20% STATE	Interconnect 80% FED 20% STATE
*	89502350	REMOVE AND REINSTALL ELECTRIC CABLE FROM CONDUIT	FOOT	1021				804	217
*	89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1			1		
*	89502380	REMOVE EXISTING HANDHOLE	EACH	5			3	2	
*	89502385	REMOVE EXISTING CONCRETE FOUNDATION	EACH	1			1		
*	A2007916	TREE, TILIA AMERICANA REDMOND (REDMOND AMERICAN LINDEN), 2" CALIPER, BALLED AND BURLAPPED	EACH	4	4				
*	B2000764	TREE, AMELANCHIER X GRANDIFLORA AUTUMN BRILLIANCE (AUTUMN BRILLIANCE SERVICE BERRY), 5' HEIGHT, SHRUB FORM, BALLED AND BURLAPPED	EACH	6	6				
*	B2001616	TREE, CRATAEGUS CRUSGALLI INERMIS (THORN LESS COCKSPUR HAWTHORN), 2" CALIPER, TREE FORM, BALLED AND BURLAPPED	EACH	7	7				
*	B2006316	TREE, SYRINGA RETICULATA IVORY SILK (IVORY SILK JAPANESE TREE LILAC), 2" CALIPER, TREE FORM, BALLED AND BURLAPPED	EACH	3	3				
*	C2000652	SHRUB, ARONIA MELANOCARPA AUTUMN MAGIC, (AUTUMN MAGIC BLACK CHOKEBERRY), 2' HEIGHT, BALLED AND BURLAPPED	EACH	33	33				
*	K0029634	WEED CONTROL, PRE-EMERGENT GRANULAR HERBICIDE	POUND	10	10				
*	X2501800	SEEDING, CLASS 4 (MODIFIED)	ACRE	0.2	0.2				
	X4021000	TEMPORARY ACCESS (PRIVATE ENTRANCE)	EACH	1	1				
	X4420828	CLASS D PATCHES, TYPE III, 12 INCH (SPECIAL)	SQ YD	70	70				
	X5091725	BICYCLE RAILING, SPECIAL	FOOT	435	435				
	X5120003	PRECORING	FOOT	382		382			
	X5860110	GRANULAR BACKFILL FOR STRUCTURES	CU YD	396		396			
	X6700410	ENGINEER'S FIELD OFFICE, TYPE A (SPECIAL)	CAL MO	14	14				
	X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1	1				
	X7240207	REMOVE EXISTING SIGN COMPLETE	EACH	1	1				

* Specialty Items

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL 83/US 6 (TORRENCE AVENUE) OVER LITTLE CALUMET RIVER
SUMMARY OF QUANTITIES

SHEET NO. SQQ-9 OF 10

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	0909.1-B	COOK	138	13
		CONTRACT NO. 60K78		
	ILLINOIS FED. AID PROJECT			

REV

	CODE NO.	DESCRIPTION	UNIT	TOTAL QUANTITY	ROADWAY 0003	BRIDGE 0010 S.N. 016-1302	TRAFFIC SIGNALS 0021		
					80% FED 20% STATE	80% FED 20% STATE	Ring Rd & IL 83 80% FED 20% STATE	Exchange Ave & IL 83 80% FED 20% STATE	Interconnect 80% FED 20% STATE
*	X7800450	POLYUREA PAVEMENT MARKING TYPE 1 - CURB	FOOT	553	553				
*	X8710024	FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM24F	FOOT	1,140					1,140
*	X8760055	PEDESTRIAN PUSH BUTTON POST, TYPE A	EACH	2				2	
	Z0004552	APPROACH SLAB REMOVAL	SQ YD	456	456				
	Z0001900	ASBESTOS BEARING PAD REMOVAL	EACH	144		144			
	Z0018004	DRAINAGE SCUPPERS, DS-12	EACH	8		8			
	Z0013798	CONSTRUCTION LAYOUT	L SUM	1	1				
	Z0030850	TEMPORARY INFORMATION SIGNING	SQ FT	52	52				
*	Z0033044	RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL 1	EACH	2			1	1	
	Z0046304	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	300		300			
	Z0062456	TEMPORARY PAVEMENT	SQ YD	389	389				
*	Z0073510	TEMPORARY TRAFFIC SIGNAL TIMING	EACH	2			1	1	
Ø	Z0076600	TRAINEES	HOUR	1500	1500				
Ø	Z0076604	TRAINEES - TRAINING PROGRAM GRADUATE	HOUR	1500	1500				

* DENOTES SPECIALTY ITEM

Ø 0042

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL 83/US 6 (TORRENCE AVENUE) OVER LITTLE CALUMET RIVER
SUMMARY OF QUANTITIES

SHEET NO. S00-10 OF 10

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	0909.1-B	COOK	138	14
		CONTRACT NO. 60K78		
	ILLINOIS FED. AID PROJECT			

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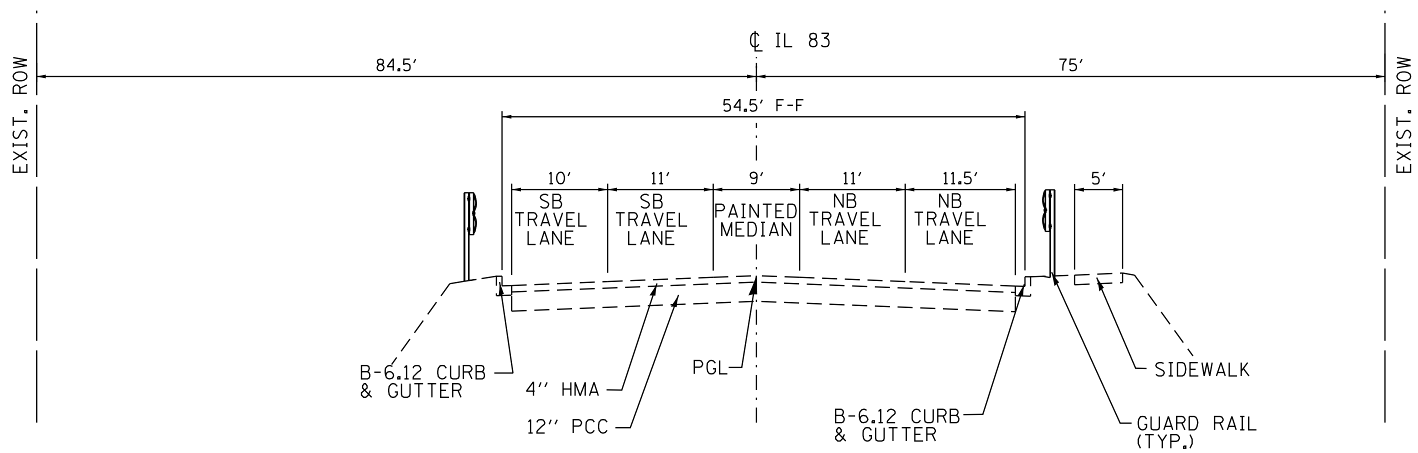
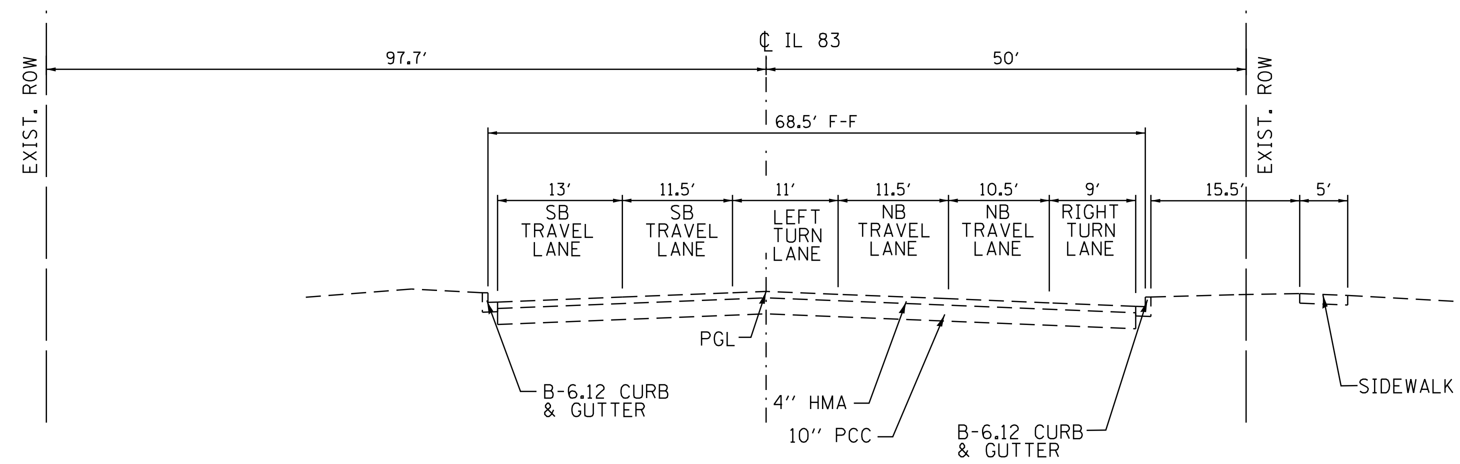


EXISTING TYPICAL SECTION SOUTH OF BRIDGE
STA. 170+76 TO STA. 174+69



EXISTING TYPICAL SECTION NORTH OF BRIDGE
STA. 177+43 TO STA. 179+30

NOTES:

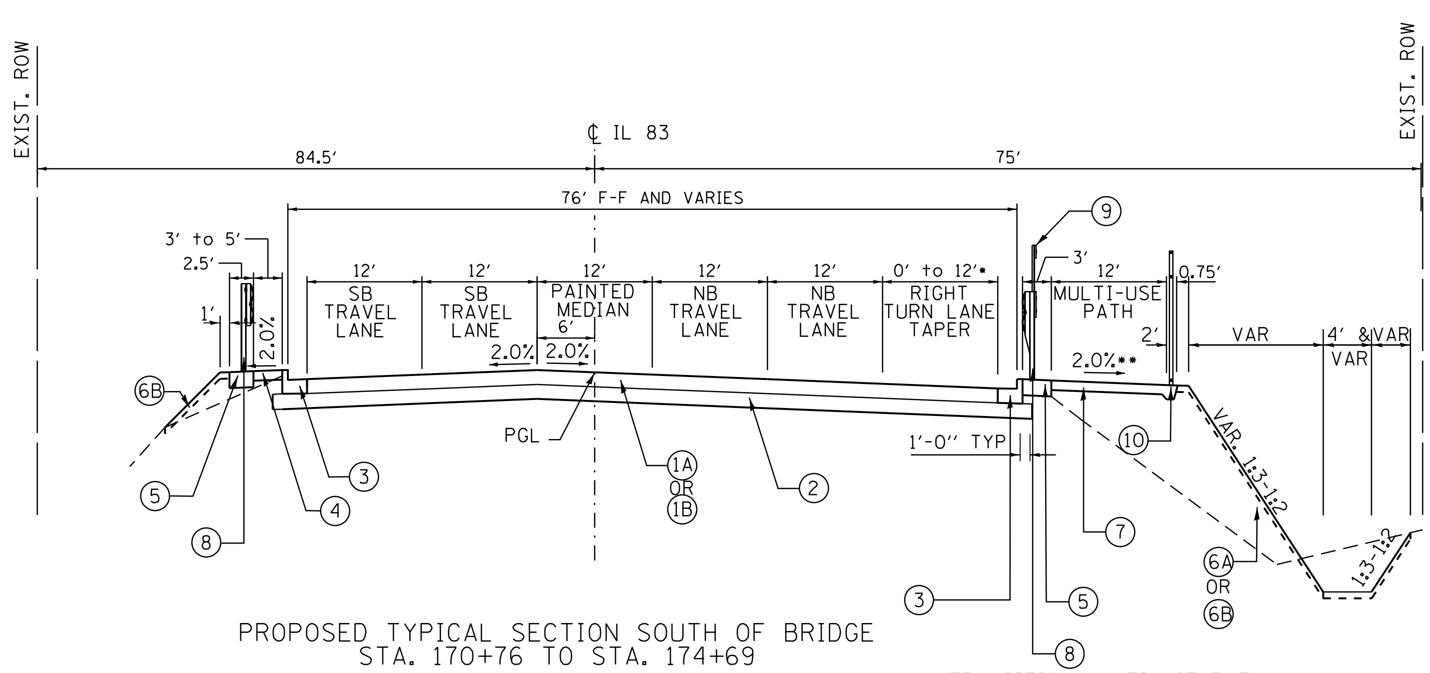
1. EXISTING PCC ISLAND AT THE SOUTHEAST CORNER OF THE INTERSECTION OF RING ROAD AND IL 83 (APPROX. STA 179+50, 42′ RT) WILL BE REMOVED AND REPLACED WITH:

   HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70 (IL 9.5 mm), 1 3/4″
   HOT MIX ASPHALT BASE COURSE, 10 1/4″
   AGGREGATE SUBGRADE IMPROVEMENT, 12″

2. DISTRICT 1 STANDARD PRACTICE IS TO EXTEND AGGREGATE SUBGRADE IMPROVEMENT ONE FOOT BEYOND BACK OF CURB.

PROPOSED LEGEND

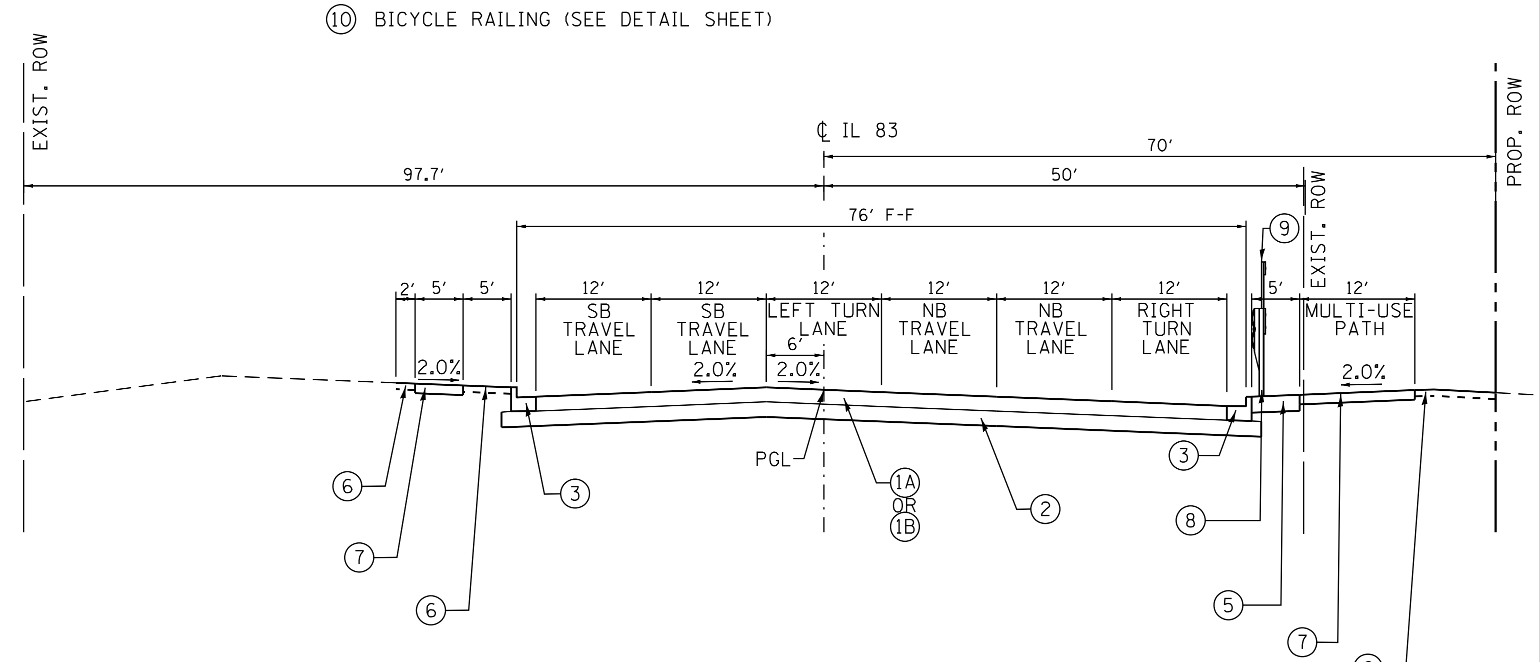
- (1A) PCC PAVEMENT, 9″ (JOINTED) STA. 170+76 TO 173+69 & STA. 178+73 TO 179+30
- (1B) (9″) BRIDGE APPROACH PAVEMENT CONNECTOR (PCC) STA. 173+69 TO 174+69 & STA. 177+73 TO 178+73
- (2) AGGREGATE SUBGRADE IMPROVEMENT, 12″
- (3) COMBINATION CONCRETE CURB & GUTTER TYPE B-6.24
- (4) HOT MIX ASPHALT SHOULDER, 6″
- (5) AGGREGATE SHOULDERS, TYPE B, 10″
- (6) TOPSOIL PLACEMENT, 4″ WITH SODDING, SALT TOLERANT
- (6A) TOPSOIL PLACEMENT, 4″ WITH SEEDING CLASS 2A & TURF REINFORCEMENT MAT
- (6B) TOPSOIL PLACEMENT, 4″ WITH SEEDING CLASS 4 (MODIFIED) AND EROSION CONTROL BLANKET
- (7) PCC SIDEWALK, 6″
- (8) STEEL PLATE BEAM GUARDRAIL TYPE A, 6′ POSTS & TRAFFIC BARRIER TERMINALS
- (9) BIKE RAILING, SPECIAL (SEE DETAIL SHEET)
- (10) BICYCLE RAILING (SEE DETAIL SHEET)



PROPOSED TYPICAL SECTION SOUTH OF BRIDGE
STA. 170+76 TO STA. 174+69

• WIDENS FROM 0′ AT STA. 172+95 TO 12′ AT STA. 174+95

•• TRANSITION MULTI-USE PATH CROSS SLOPE FROM -2.0% TO +2.0% STA. 174+05 TO STA. 174+69



PROPOSED TYPICAL SECTION NORTH OF BRIDGE
STA. 177+43 TO STA. 179+30

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GRAEF 8501 W. Higgins Road, Suite 280 Chicago, Illinois 60631 (773) 399-0112	USER NAME = 1951	DESIGNED - JWB	REVISED -
		DRAWN - JWB	REVISED -
	PLOT SCALE = 20.0000 ' / in.	CHECKED - RS	REVISED -
	PLOT DATE = 3/14/2018 - 8:40:12 AM	DATE - 01/23/2018	REVISED - 03/13/2018

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL 83/US 6 (TORRENCE AVENUE) OVER LITTLE CALUMET RIVER
TYPICAL SECTIONS

SCALE: N.T.S.	SHEET TYP-1 OF 1	STA. 168+50 TO STA. 183+50

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	0909.1-B	COOK	138	15
		CONTRACT NO. 60K78		
		ILLINOIS FED. AID PROJECT		

STATION		OFFSET	SIZE-DIA. INCHES (SURVEY)	TYPE	ACTION	20100110 TREE REMOVAL (6 TO 15 UNITS DIAMETER)
166+82.5	RT	67.6		TREE	NONE	0
168+08.5	RT	63.0		TREE	NONE	0
168+73.9	RT	61.1		TREE	NONE	0
170+08.4	RT	232.8		TREE	NONE	0
170+61.8	RT	208.2		TREE	NONE	0
170+64.6	LT	72.0	8	TREE	NONE	0
170+70.2	LT	64.1	9	TREE	NONE	0
170+70.3	RT	206.6		BUSH	NONE	0
170+70.4	RT	214.7		BUSH	NONE	0
170+70.4	RT	198.8		BUSH	NONE	0
170+70.5	RT	191.9		BUSH	NONE	0
170+70.9	RT	223.5		BUSH	NONE	0
170+76.6	LT	74.7	6	TREE	NONE	0
170+85.0	LT	57.7	4	TREE	NONE	0
170+96.2	LT	57.8	4	TREE	NONE	0
171+00.8	LT	55.6	4	TREE	NONE	0
171+01.7	LT	69.1	10	TREE	NONE	0
171+08.3	LT	59.6	4	TREE	NONE	0
171+23.7	LT	69.1	4	TREE	NONE	0
171+27.3	LT	75.9	4	TREE	NONE	0
171+29.7	LT	47.4	8	TREE	REMOVE	8
171+31.8	LT	41.8	7	TREE	REMOVE	7
171+35.8	LT	46.5	7	TREE	REMOVE	7
171+35.9	LT	66.8	8	TREE	REMOVE	8
171+36.6	LT	52.6	4	TREE	NONE	0
171+44.0	LT	61.6	4	TREE	NONE	0
171+45.0	LT	71.2	4	TREE	NONE	0
171+46.7	LT	57.3	4	TREE	NONE	0
171+51.2	LT	65.0	9	TREE	NONE	0
171+65.2	LT	68.6	4	TREE	NONE	0
171+76.5	LT	72.3	4	TREE	NONE	0
171+89.1	LT	75.1	4	TREE	NONE	0
171+90.1	LT	64.2	6	TREE	NONE	0
171+94.0	LT	49.2	12	TREE	REMOVE	12
172+02.2	LT	61.2	10	TREE	NONE	0
172+02.5	LT	63.7	7	TREE	NONE	0
172+02.6	LT	65.5	7	TREE	NONE	0
172+06.0	LT	52.7	4	TREE	NONE	0
172+14.8	LT	67.6	4	TREE	NONE	0
172+19.0	LT	66.9	4	TREE	NONE	0
172+22.2	LT	64.8	7	TREE	NONE	0
172+31.6	LT	50.2	8	TREE	REMOVE	8
172+38.4	LT	74.2	4	TREE	NONE	0
172+42.5	LT	50.5	7	TREE	REMOVE	7
172+45.5	LT	55.1	4	TREE	NONE	0

STATION		OFFSET	SIZE-DIA. INCHES (SURVEY)	TYPE	ACTION	20100110 TREE REMOVAL (6 TO 15 UNITS DIAMETER)
172+47.6	LT	65.3	24	TREE	NONE	0
172+50.9	LT	70.5	4	TREE	NONE	0
172+52.5	LT	50.1	4	TREE	REMOVE	0
172+53.3	LT	75.5	4	TREE	NONE	0
172+55.1	LT	70.1	4	TREE	NONE	0
172+56.9	LT	48.8	6	TREE	REMOVE	6
172+61.8	LT	47.5	6	TREE	REMOVE	6
172+62.4	LT	76.2	4	TREE	NONE	0
172+62.5	LT	77.1	4	TREE	NONE	0
172+68.4	LT	56.7	4	TREE	NONE	0
172+70.5	LT	56.4	6	TREE	NONE	0
172+97.1	LT	59.8	6	TREE	REMOVE	6
172+98.4	LT	57.1	4	TREE	REMOVE	0
173+07.3	LT	60.5	4	TREE	REMOVE	0
173+07.3	LT	61.5	4	TREE	REMOVE	0
173+14.1	LT	57.0	4	TREE	REMOVE	0
173+25.0	LT	56.7	6	TREE	REMOVE	6
173+28.0	LT	48.0	6	TREE	REMOVE	6
173+54.2	LT	57.0	4	TREE	NONE	0
173+54.2	LT	80.8	34	TREE	NONE	0
173+55.3	LT	76.0	24	TREE	NONE	0
173+75.4	LT	57.1	4	TREE	NONE	0
173+84.5	LT	69.2	4	TREE	NONE	0
174+07.0	RT	46.5	6	TREE	REMOVE	6
174+14.5	RT	65.6	4	TREE	REMOVE	0
174+22.0	RT	50.3	4	TREE	REMOVE	0
174+27.4	LT	61.2	4	TREE	REMOVE	0
174+31.5	RT	48.2	4	TREE	REMOVE	0
174+32.0	LT	61.0	6	TREE	REMOVE	6
174+39.5	RT	84.6	4	TREE	REMOVE	0
174+41.6	RT	59.1	4	TREE	REMOVE	0
174+42.3	RT	68.7	4	TREE	REMOVE	0
174+44.3	LT	59.7	4	TREE	REMOVE	0
174+45.7	LT	48.2	4	TREE	REMOVE	0
174+48.0	LT	64.0	7	TREE	REMOVE	7
174+48.2	RT	79.4	4	TREE	REMOVE	0
174+50.6	LT	72.3	4	TREE	NONE	0
174+54.0	RT	40.0	6	TREE	REMOVE	6
174+67.9	LT	75.6	4	TREE	NONE	0
174+93.4	LT	41.4	4	TREE	REMOVE	0
174+95.2	RT	44.3	4	TREE	REMOVE	0
174+96.0	LT	64.0	4	TREE	REMOVE	0
175+03.3	LT	44.4	4	TREE	REMOVE	0
175+08.3	RT	51.8	4	TREE	REMOVE	0
175+09.1	LT	78.4	4	TREE	REMOVE	0

STATION		OFFSET	SIZE-DIA. INCHES (SURVEY)	TYPE	ACTION	20100110 TREE REMOVAL (6 TO 15 UNITS DIAMETER)
175+10.0	RT	63.2	4	TREE	REMOVE	0
176+40.7	LT	84.1	4	TREE	NONE	0
176+42.8	LT	85.6	4	TREE	NONE	0
176+50.5	LT	85.3	4	TREE	NONE	0
176+61.9	LT	74.5	4	TREE	NONE	0
176+69.8	LT	67.5	4	TREE	NONE	0
176+73.0	LT	72.1	4	TREE	NONE	0
176+78.5	RT	52.9	4	TREE	REMOVE	0
176+78.9	RT	54.2	4	TREE	REMOVE	0
176+92.0	LT	62.0	6	TREE	REMOVE	6
176+98.6	RT	44.9	4	TREE	REMOVE	0
177+03.1	LT	68.6	4	TREE	REMOVE	0
177+03.9	LT	66.8	4	TREE	REMOVE	0
177+08.3	LT	65.1	4	TREE	REMOVE	0
177+08.5	RT	53.3	4	TREE	REMOVE	0
177+10.9	LT	67.4	4	TREE	REMOVE	0
177+11.9	LT	65.4	4	TREE	REMOVE	0
177+23.1	LT	60.8	4	TREE	REMOVE	0
177+26.7	RT	47.8	4	TREE	REMOVE	0
177+26.7	RT	48.7	6	TREE	REMOVE	6
177+26.9	LT	53.8	4	TREE	REMOVE	0
177+29.0	LT	54.0	7	TREE	REMOVE	7
177+29.2	RT	66.1	4	TREE	REMOVE	0
177+29.4	LT	52.4	4	TREE	REMOVE	0
177+30.4	RT	67.8	4	TREE	REMOVE	0
177+30.7	RT	49.0	4	TREE	REMOVE	0
177+32.0	LT	54.0	8	TREE	REMOVE	8
179+22.4	LT	103.0		TREE	NONE	0
179+34.1	LT	174.5		TREE	NONE	0
180+35.3	RT	121.4		TREE	NONE	0
180+38.5	RT	76.3		TREE	NONE	0
181+98.5	RT	49.3		TREE	NONE	0
182+47.5	RT	49.7		TREE	NONE	0
182+91.2	RT	49.6		TREE	NONE	0
TOTALS						139

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL 83/US 6 (TORRENCE AVENUE) OVER LITTLE CALUMET RIVER
TREE REMOVAL AND MAINTENANCE SCHEDULE

SHEET NO. 1 OF 1

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	0909.1-B	COOK	138	16

CONTRACT NO. 60K78

ILLINOIS FED. AID PROJECT

FROM	TO	20200100									20400800		
		EARTH EXCAVATION			EXCAVATION AVAILABLE TO BE USED IN EMBANKMENT, ADJUSTED FOR SHRINKAGE (SHRINKAGE FACTOR = 15%)			EMBANKMENT			FURNISHED EXCAVATION		
		STAGE 1	STAGE 1A	STAGE 2	STAGE 1	STAGE 1A	STAGE 2	STAGE 1	STAGE 1A	STAGE 2	STAGE 1	STAGE 1A	STAGE 2
STATION	STATION	CU YD	CU YD	CU YD	CU YD	CU YD	CU YD	CU YD	CU YD	CU YD	CU YD	CU YD	CU YD
170+50	171+00	50	23	38	43	20	32	11	0	8			
171+00	171+50	100	46	82	85	39	70	51	0	14			
171+50	172+00	103	46	91	87	39	77	120	0	22			
172+00	172+50	121	46	97	103	39	83	144	0	44			
172+50	172+77	82	25	55	70	21	47	64	0	38			
172+77	173+00	73	21	45	62	18	38	63	0	59			
173+00	173+50	146	44	88	124	37	75	141	0	103			
173+50	174+00	118	34	71	100	29	61	278	0	51			
174+00	174+50	80	22	53	68	19	45	536	0	144			
174+50	174+60	18	3	9	15	3	8	122	0	46			
174+60	175+00	44	7	18	38	6	15	531	0	354			
175+00	175+50	0	0	0	0	0	0	372	0	325			
177+12	177+50	85	14	62	72	12	53	90	0	98			
177+50	177+88	141	31	107	120	26	91	11	0	59			
177+88	178+00	45	11	38	38	9	32	2	0	0			
178+00	178+50	209	47	118	178	40	100	5	0	19			
178+50	179+00	218	49	116	185	42	98	2	0	31			
179+00	179+50	106	25	61	91	21	52	1	0	13			
179+50		0	0	0	0	0	0	0	0	0			
TOTALS		1,739	496	1,148	1,478	421	976	2,543	0	1,428	1065	0	452

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL 83/US 6 (TORRENCE AVENUE) OVER LITTLE CALUMET RIVER
EARTHWORK SCHEDULE

SHEET NO. 1 OF 1

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	0909.1-B	COOK	138	17
		CONTRACT NO. 60K78		
	ILLINOIS	FED. AID PROJECT		

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LOCATION			30300112 AGGREGATE SUBGRADE IMPROVEMENT, 12″ (SQ YD)	40603340 HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70 (TON)	42000401 PORTLAND CEMENT CONCRETE PAVEMENT, 9″ (JOINTED) (SQ YD)	42001420 BRIDGE APPROACH PAVEMENT CONNCECTOR (PCC) (SQ YD)	42300200 PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 6″ (SQ YD)	42400300 PORTLAND CEMENT CONCRETE SIDEWALK, 6″ (SQ FT)	42400800 DETECTABLE WARNINGS (SQ FT)	48101620 AGGREGATE SHOULDERS, TYPE B, 10″ (SQ YD)	48203029 HOT-MIX ASPHALT SHOULDERS, 8″ (SQ YD)	42001300 PROTECTIVE COAT (SQ YD)
STATION	TO	STATION										
170+61		174+99	2995	10	1906	755	0	4535	10	336	259	3402
177+13		179+45	1949	17	737	803	44	3245	20	310	0	2295
		TOTALS	4944	28	2644	1559	44	7780	30	646	259	5697

LOCATION			42001300 PROTECTIVE COAT (SQ YD)	60603800 COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12 (FT)		60605000 COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24 (FT)		60623800 CONCRETE BARRIER MEDIAN (SQ FT)	63000001 STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FT POSTS (FT)		63100045 TRAFFIC BARRIER TERMINAL, TYPE 2 (EACH)		63100085 TRAFFIC BARRIER TERMINAL, TYPE 6 (EACH)		63100085 TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT (EACH)		X5091725 BICYCLE RAILING, SPECIAL (FT)	
STATION	TO	STATION		LT	RT	LT	RT		LT	RT	LT	RT	LT	RT	LT	RT	LT	RT
170+61		174+99	3402	0	26	419	390	0	738	25	0	0	1	1	0	1	0	279
177+13		179+45	2295	21	29	184	176	2140	238	113	1	1	1	1	0	0	0	156
		TOTALS	5697	76		1169		2140	1114		2		4		1		435	

LOCATION			40600982	44000100	44000156	44000200	44000500		44000600	44003100	63200310		Z0004552
			HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	PAVEMENT REMOVAL	HOT-MIX ASPHALT SURFACE REMOVAL, 1 3/4"	DRIVEWAY PAVEMENT REMOVAL	COMBINATION CONCRETE CURB AND GUTTER REMOVAL		SIDEWALK REMOVAL	MEDIAN REMOVAL	GUARDRAIL REMOVAL		APPROACH SLAB REMOVAL
			(SQ YD)	(SQ YD)	(SQ YD)	(SQ YD)	(FT)		(SQ FT)	(SQ FT)	(FT)		(SQ YD)
STATION	TO	STATION					LT	RT			LT	RT	
170+61		174+99	34	2683	72	0	476	438	2235	0	817	78	228
177+13		179+45	49	1511	120	73	261	263	1372	2327	432	39	228
		TOTALS	83	4194	192	73	1438		3607	2327	1366		456

LOCATION						55100400	55100500	55100700	60251740	60261540	60500040	60500050	60500060
						STORM SEWER REMOVAL 10"	STORM SEWER REMOVAL 12"	STORM SEWER REMOVAL 15"	CATCH BASINS TO BE ADJUSTED NEW T24 F&G	INLETS TO BE ADJUSTED NEW T24 F&G	REMOVING MANHOLES	REMOVING CATCH BASINS	REMOVING INLETS
						(FT)	(FT)	(FT)	(EACH)	(EACH)	(EACH)	(EACH)	(EACH)
STATION	OFFSET	LT/RT	STATION	OFFSET	LT/RT								
169+92	28.0	LT	169+90	72.0	LT			44					
170+91	27.2	LT							1				
170+93	26.6	RT								1			
172+79	35.1	LT	171+77	37.7	LT			99					
172+79	35.1	LT									1		
172+91	27.2	LT	172+79	35.1	LT		15						
172+91	27.2	LT										1	
172+93	27	RT	172+91	27.2	LT	53							
172+93	27	RT											1
174+91	27.5	LT	172+79	35.1	LT		207						
174+91	27.5	LT										1	
174+92	26.7	RT	174+91	27.5	LT	53							
174+92	26.7	RT											1
177+91	27.1	LT	177+60	53.5	LT		40						
177+91	27.1	LT										1	
177+96	37.9	RT	177+91	27.1	LT	64							
177+96	37.9	RT											1
					TOTALS	170	262	143	1	1	1	3	3

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GRāEF 8501 W. Higgins Road; Suite 280 Chicago, Illinois 60631 (773) 399-0112

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL 83/US 6 (TORRENCE AVENUE) OVER LITTLE CALUMET RIVER
ROADWAY REMOVAL AND SEWER REMOVAL SCHEDULES

SHEET NO. 1 OF 1

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	0909.1-B	COOK	138	19

CONTRACT NO. 60K78

ILLINOIS FED. AID PROJECT

LOCATION			78000200 THERMO PAVEMENT MARKING - LINE 4"	78000400 THERMO PAVEMENT MARKING - LINE 6"	78000600 THERMO PAVEMENT MARKING - LINE 12"	78000650 THERMO PAVEMENT MARKING - LINE 24"	78000100 THERMO PAVEMENT MARKING - LETTERS AND SYMBOLS	78008310 POLYUREA PAVEMENT MARKING - LINE 4"	78008330 POLYUREA PAVEMENT MARKING - LINE 6"	78008350 POLYUREA PAVEMENT MARKING - LINE 12"	78008370 POLYUREA PAVEMENT MARKING - LINE 24"	78008300 POLYUREA PAVEMENT MARKING - LETTERS AND SYMBOLS
STATION	TO	STATION	(FT)	(FT)	(FT)	(FT)	(SQ FT)	(FT)	(FT)	(FT)	(FT)	(SQ FT)
160+00		190+00	1,510	914	103	155	146	3,644	873	75	84	182
TOTALS			1,510	914	103	155	146	3,644	873	75	84	182

LOCATION			78100100 RAISED REFLECTIVE PAVEMENT MARKER			X0327979	78300200	X7800450
			ONE-WAY AMBER	ONE-WAY CRYSTAL	TWO-WAY AMBER	PAVEMENT MARKING REMOVAL -GRINDING	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	POLYUREA PAVEMENT MARKING TYPE 1 - CURB
STATION	TO	STATION	(EACH)	(EACH)	(EACH)	(SQ FT)	(EACH)	(FT)
160+00		190+00	22	32	17	2,428	87	553
TOTALS			22	32	17	2,428	87	553

LOCATION			70300100	70300210			70300220			70300240			70300260			70300280			X0327979
			SHORT TERM PAVEMENT MARKING	TEMPORARY PAVEMENT MARKING - LETTERS AND SYMBOLS			TEMPORARY PAVEMENT MARKING - LINE 4"			TEMPORARY PAVEMENT MARKING - LINE 6"			TEMPORARY PAVEMENT MARKING - LINE 12"			TEMPORARY PAVEMENT MARKING - LINE 24"			PAVEMENT MARKING REMOVAL -GRINDING
				STAGE 1	STAGE 1A	STAGE 2	STAGE 1	STAGE 1A	STAGE 2	STAGE 1	STAGE 1A	STAGE 2	STAGE 1	STAGE 1A	STAGE 2	STAGE 1	STAGE 1A	STAGE 2	
STATION	TO	STATION	(FT)	(SQ FT)	(SQ FT)	(SQ FT)	(FT)	(FT)	(FT)	(FT)	(FT)	(FT)	(FT)	(FT)	(FT)	(FT)	(FT)	(FT)	(SQ FT)
160+00		190+00	1,885	218	182	363	6,057	2,172	6,008	509	901	1,141	50	0	0	176	40	86	7,399
TOTALS			1,885	218	182	363	6,057	2,172	6,008	509	901	1,141	50	0	0	176	40	86	7,399

LOCATION			70400100			70400200			70600240			70600340			Z0062456		
			TEMPORARY CONCRETE BARRIER			RELOCATE TEMPORARY CONCRETE BARRIER			IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 2			IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 2			TEMPORARY PAVEMENT		
			STAGE 1	STAGE 1A	STAGE 2	STAGE 1	STAGE 1A	STAGE 2	STAGE 1	STAGE 1A	STAGE 2	STAGE 1	STAGE 1A	STAGE 2	STAGE 1	STAGE 1A	STAGE 2
STATION	TO	STATION	(FT)	(FT)	(FT)	(FT)	(FT)	(FT)	(EA)	(EA)	(EA)	(FT)	(FT)	(FT)	(SQ YD)	(SQ YD)	(SQ YD)
160+00		190+00	368	368	0	0	313	434	2	0	0	0	2	2	229	0	160
TOTALS			368	368	0	0	313	434	2	0	0	0	2	2	229	0	160

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GRAEF 8501 W. Higgins Road, Suite 280 Chicago, Illinois 60631 (773) 399-0112

USER NAME = 1951	DESIGNED - JWB	REVISED -	
	DRAWN - JWB	REVISED -	
PLOT SCALE = 100.0000 '/ in.	CHECKED - RS	REVISED -	
PLOT DATE = 3/14/2018 - 8:44:15 AM	DATE - 01/23/2018	REVISED - 03/13/2018	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL 83/US 6 (TORRENCE AVENUE) OVER LITTLE CALUMET RIVER
MAINTENANCE OF TRAFFIC SCHEDULES

SHEET NO. 1 OF 1

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	0909.1-B	COOK	138	21

CONTRACT NO. 60K78

ILLINOIS FED. AID PROJECT

ALIGNMENT COORDINATES - IL RTE 83 / US RTE 6 / TORRENCE AVENUE			
IL RTE 83	STATION	N	E
POT	164+52.40	1,794,609.88	1,196,144.06
PC	167+92.01	1,794,949.19	1,196,158.30
PI	171+36.73	1,795,293.61	1,196,172.76
PT	174+80.79	1,795,637.60	1,196,150.38
POT	176+32.67	1,795,789.16	1,196,140.51
PC	185+14.06	1,796,695.63	1,196,081.53
PI	190+48.42	1,797,201.92	1,196,048.59
PT	195+55.57	1,797,709.23	1,196,041.07
POT	197+55.57	1,797,909.20	1,196,038.11

ALIGNMENT COORDINATES - EXISTING DRIVE			
EXIST. DRIVE	STATION	N	E
POT	0+00.00	1,795,864.48	1,196,045.86
PC	0+22.23	1,795,884.77	1,196,054.95
PI	0+33.62	1,795,895.16	1,196,059.61
PT	0+44.73	1,795,903.07	1,196,067.80
PC	0+61.46	1,795,914.69	1,196,079.83
PI	0+69.17	1,795,920.05	1,196,085.38
PT	0+76.24	1,795,920.55	1,196,093.08
POT	1+15.05	1,795,923.07	1,196,131.80

ALIGNMENT COORDINATES - PROPOSED DRIVE			
PROP. DRIVE	STATION	N	E
POT	10+00.00	1,795,858.56	1,196,043.73
PC	10+67.60	1,795,922.05	1,196,066.92
PI	10+87.01	1,795,940.28	1,196,073.57
PT	11+02.05	1,795,941.68	1,196,092.93
POT	11+39.63	1,795,944.39	1,196,130.41

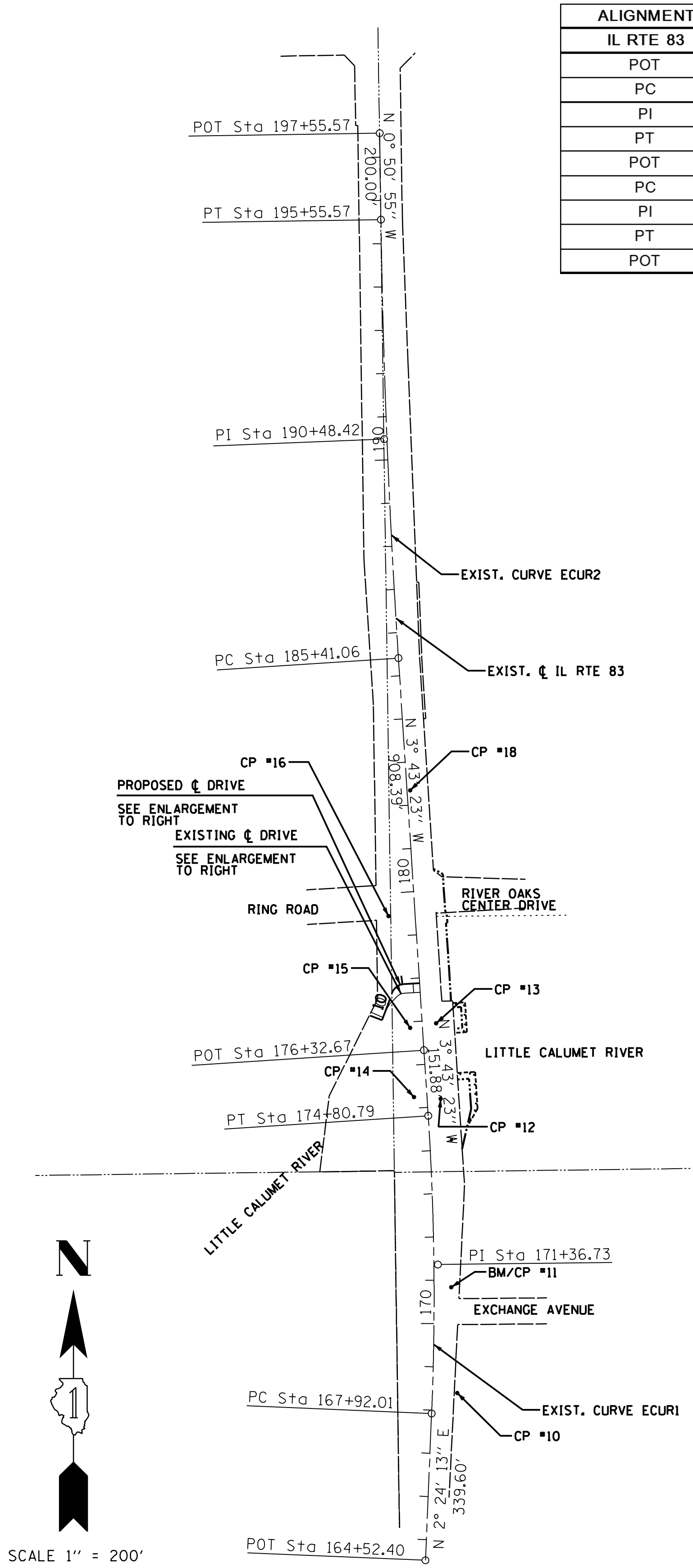
EXIST. CURVE ECUR1
PI STA. = 171+36.73
Δ = 6° 07′ 35″ (LT)
D = 0° 53′ 22″
R = 6,441.63′
T = 344.72′
L = 688.78′
E = 9.22′
e = NORMAL CROWN
T.R. = N/A
S.E. RUN = N/A
P.C. STA. = 167+92.01
P.T. STA. = 174+80.79
DESIGN SPEED=45 MPH
POSTED SPEED=40 MPH

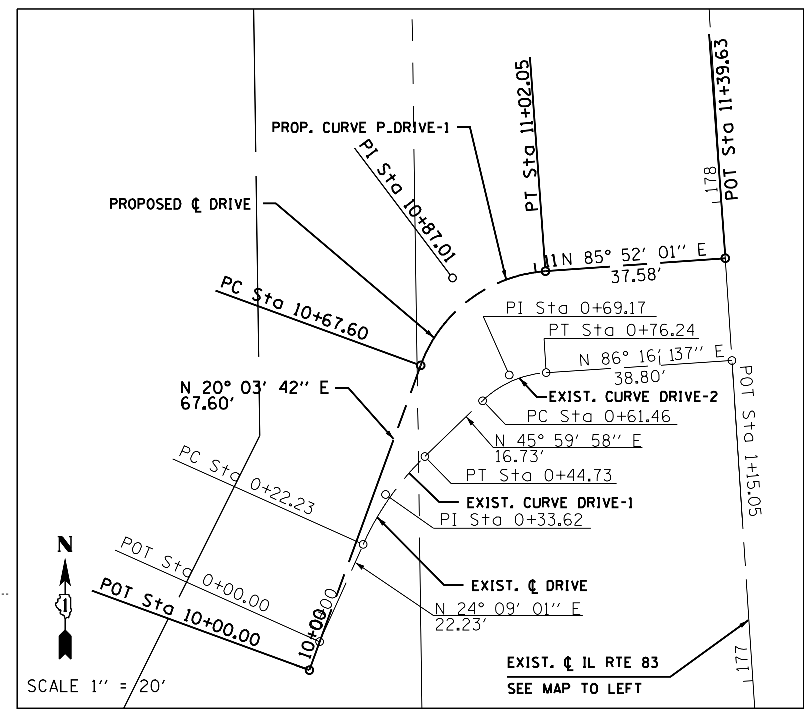
EXIST. CURVE ECUR2
PI STA. = 190+48.42
Δ = 2° 52′ 28″ (RT)
D = 0° 17′ 00″
R = 20,221.99′
T = 507.36′
L = 1,014.51′
E = 6.36′
e = NORMAL CROWN
T.R. = N/A
S.E. RUN = N/A
P.C. STA. = 185+41.06
P.T. STA. = 195+55.57
DESIGN SPEED=45 MPH
POSTED SPEED=40 MPH

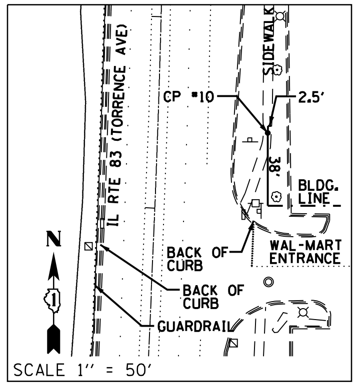
EXIST. CURVE DRIVE-1
PI STA. = 0+33.62
Δ = 21° 50′ 57″ (RT)
D = 97° 06′ 11″
R = 59.01′
T = 11.39′
L = 22.50′
E = 1.09′
e = NORMAL CROWN
T.R. = N/A
S.E. RUN = N/A
P.C. STA. = 0+22.23
P.T. STA. = 0+44.73

EXIST. CURVE DRIVE-2
PI STA. = 0+69.17
Δ = 40° 16′ 39″ (RT)
D = 272° 22′ 18″
R = 21.04′
T = 7.71′
L = 14.79′
E = 1.37′
e = NORMAL CROWN
T.R. = N/A
S.E. RUN = N/A
P.C. STA. = 0+61.46
P.T. STA. = 0+76.24

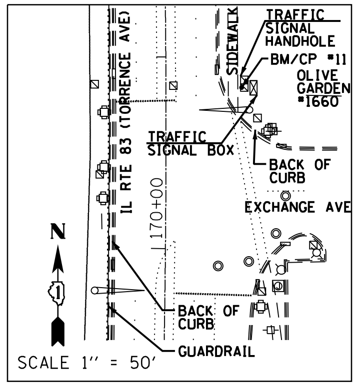
PROP. CURVE P_DRIVE-1
PI STA. = 10+87.01
Δ = 65° 48′ 19″ (RT)
D = 190° 59′ 09″
R = 30.00′
T = 19.41′
L = 34.46′
E = 5.73′
e = NORMAL CROWN
T.R. = N/A
S.E. RUN = N/A
P.C. STA. = 10+67.60
P.T. STA. = 11+02.05



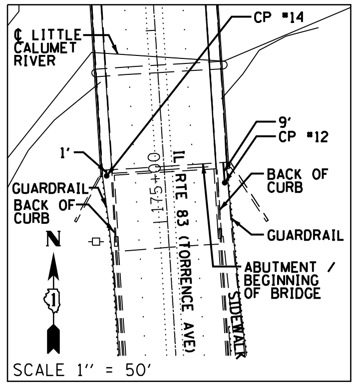




CONTROL POINT #10
ELEV. 599.35
SET CUT CROSS ON SIDEWALK
STATION 168+41.23, 57.34′ RT
N 1,794,996.41
E 1,196,217.49

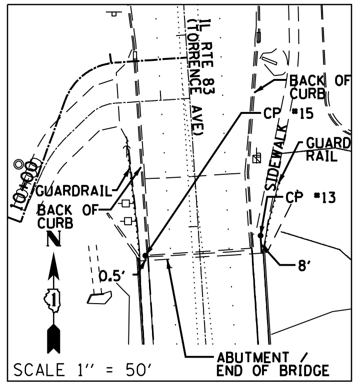


BENCHMARK / CONTROL POINT #11
ELEV. 597.92
SET CROSS ON TRAFFIC SIGNAL HANDHOLE
STATION 170+83.92, 39.46′ RT
N 1,795,241.15
E 1,196,203.39



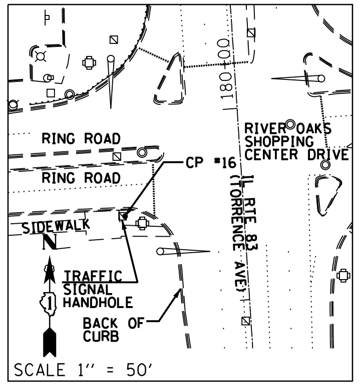
CONTROL POINT #12
ELEV. 601.13
SET CUT CROSS ON SIDEWALK
STATION 175+18.27, 31.06′ RT
N 1,795,677.02
E 1,196,178.94

CONTROL POINT #14
ELEV. 601.13
SET CUT CROSS ON SIDEWALK
STATION 175+25.85, 30.17′ LT
N 1,795,680.61
E 1,196,117.35

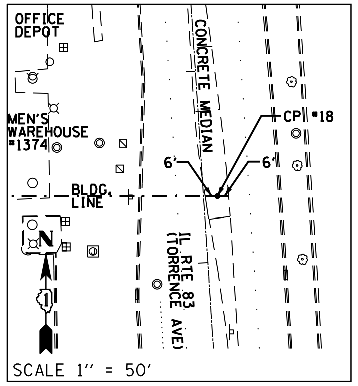


CONTROL POINT #13
ELEV. 601.52
SET CUT CROSS ON SIDEWALK
STATION 176+93.01, 32.17′ RT
N 1,795,851.47
E 1,196,168.70

CONTROL POINT #15
ELEV. 601.55
SET CUT CROSS ON SIDEWALK
STATION 176+86.44, 28.38′ LT
N 1,795,840.98
E 1,196,108.70



CONTROL POINT #16
ELEV. 598.64
SET CROSS ON TRAFFIC SIGNAL HANDHOLE
STATION 179+47.61, 61.81′ LT
N 1,796,099.42
E 1,196,058.38



CONTROL POINT #18
ELEV. 598.96
SET CROSS ON CONCRETE MEDIAN
STATION 182+34.33, 7.18′ RT
N 1,796,390.01
E 1,196,108.61

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GRAEF 8501 W. Higgins Road, Suite 280 Chicago, Illinois 60631 (773) 399-0112

USER NAME = 1908	DESIGNED - JWB	REVISED -
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PLOT DATE = 1/26/2018 - 4:08:41 PM	DATE - 01/23/2018	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL 83/US 6 (TORRENCE AVENUE) OVER LITTLE CALUMET RIVER
ALIGNMENTS, TIES, AND BENCHMARKS

SCALE: 1″=200′ | SHEET NO. ATB-1 OF 1

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	0909.1-B	COOK	138	22

CONTRACT NO. 60K78
ILLINOIS FED. AID PROJECT

WOUS IMPACTS LEGEND

TEMPORARY 0.14 AC.

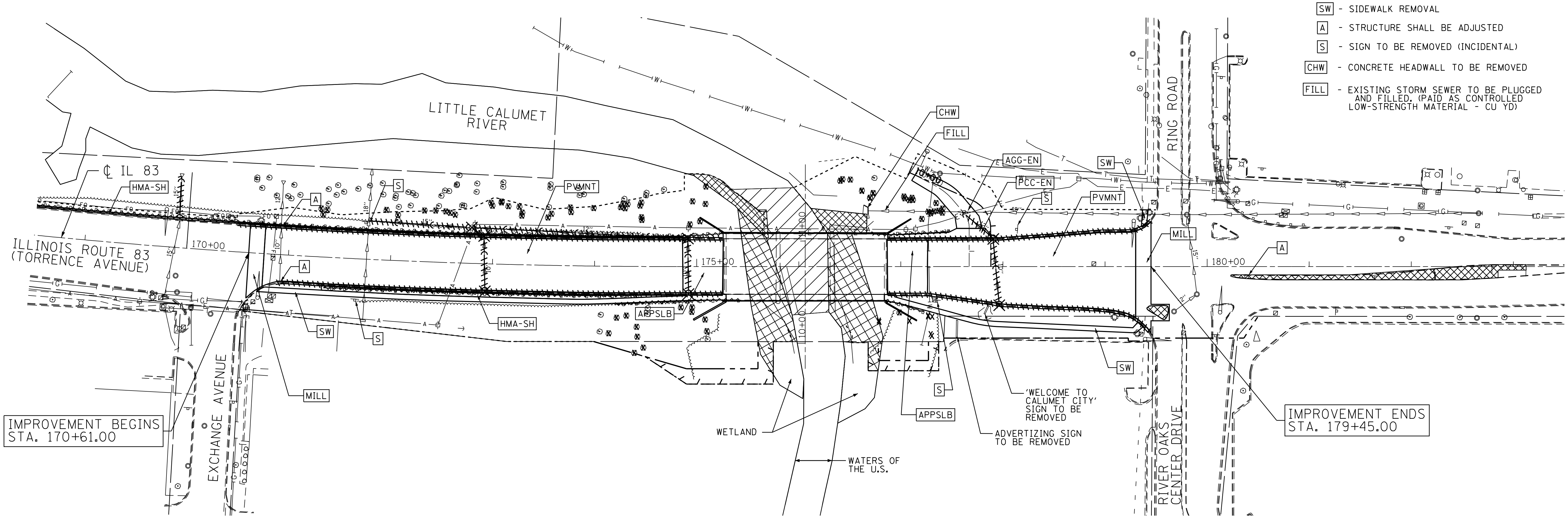
PERMANENT 0.04 AC.

WETLANDS IMPACTS LEGEND

PERMANENT 0.18 AC.

REMOVAL LEGEND

- GUARDRAIL REMOVAL
- STORM SEWER/CULVERT REMOVAL
- CURB REMOVAL
- ITEM REMOVAL
- MEDIAN REMOVAL
- PVMNT - PAVEMENT REMOVAL
- APPSLB - APPROACH SLAB REMOVAL
- AGG-EN - AGGREGATE ENTRANCE REMOVAL
- PCC-EN - P.C.C. ENTRANCE REMOVAL
- HMA-SH - PAVED SHOULDER REMOVAL
- MILL - HOT-MIX ASPHALT SURFACE REMOVAL, 1 3/4"
- SW - SIDEWALK REMOVAL
- A - STRUCTURE SHALL BE ADJUSTED
- S - SIGN TO BE REMOVED (INCIDENTAL)
- CHW - CONCRETE HEADWALL TO BE REMOVED
- FILL - EXISTING STORM SEWER TO BE PLUGGED AND FILLED. (PAID AS CONTROLLED LOW-STRENGTH MATERIAL - CU YD)



NOTE: A FIBER OPRIC HANDHOLE AT THE SOUTHWEST CORNER OF ILLINOIS ROUTE 83 AND RING ROAD WAS CONSTRUCTED AFTER THE S.U.E. SURVEY INCLUDED IN THE PLANS. AN UNDERGROUND LOCATE FOR FIBER OPTIC UTILITIES MUST BE COMPLETED PRIOR TO CONSTRUCTION WORK AND DOCUMENTED PER THE SPECIFICATIONS.

N

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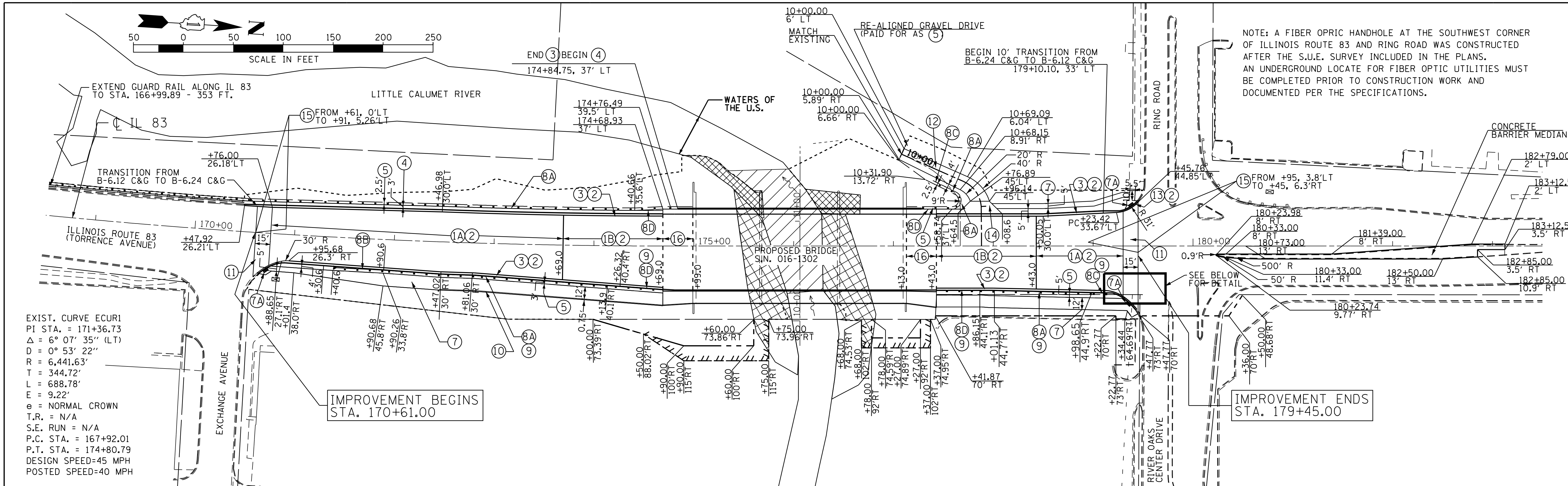
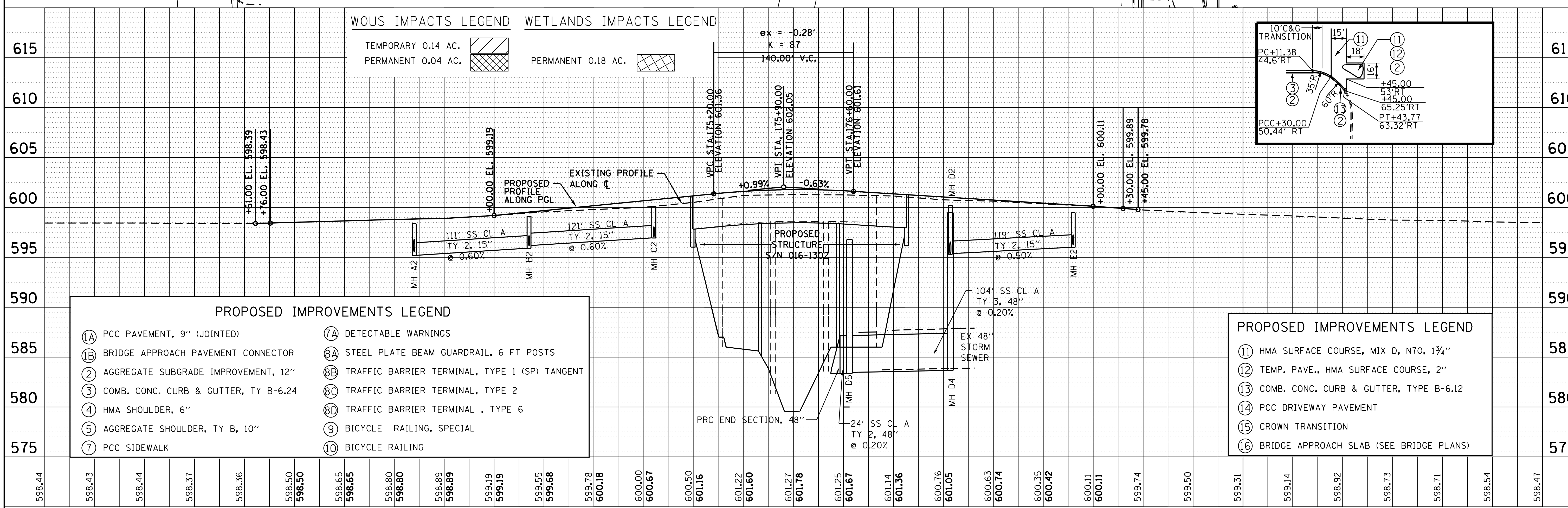
GRAEF 8501 W. Higgins Road, Suite 280 Chicago, Illinois 60631 (773) 399-0112	USER NAME = 1908	DESIGNED - JWB	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
		DRAWN - JWB	REVISED -	
	PLOT SCALE = 100.0000 ' / in.	CHECKED - RS	REVISED -	
	PLOT DATE = 1/26/2018 - 4:08:43 PM	DATE - 01/23/2018	REVISED -	

IL 83/US 6 (TORRENCE AVENUE) OVER LITTLE CALUMET RIVER REMOVAL PLAN			
SCALE: 1" = 50'	SHEET NO. REM-1 OF 1	STA. 168+50	TO STA. 183+50

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	0909.1-B	COOK	138	23
		CONTRACT NO. 60K78		
		ILLINOIS FED. AID PROJECT		





PROPOSED IMPROVEMENTS LEGEND

- (1A) PCC PAVEMENT, 9" (JOINTED)
- (1B) BRIDGE APPROACH PAVEMENT CONNECTOR
- (2) AGGREGATE SUBGRADE IMPROVEMENT, 12"
- (3) COMB. CONC. CURB & GUTTER, TY B-6.24
- (4) HMA SHOULDER, 6"
- (5) AGGREGATE SHOULDER, TY B, 10"
- (7) PCC SIDEWALK
- (7A) DETECTABLE WARNINGS
- (8A) STEEL PLATE BEAM GUARDRAIL, 6 FT POSTS
- (8B) TRAFFIC BARRIER TERMINAL, TYPE 1 (SP) TANGENT
- (8C) TRAFFIC BARRIER TERMINAL, TYPE 2
- (8D) TRAFFIC BARRIER TERMINAL , TYPE 6
- (9) BICYCLE RAILING, SPECIAL
- (10) BICYCLE RAILING

PROPOSED IMPROVEMENTS LEGEND

- (11) HMA SURFACE COURSE, MIX D, N70, 1¾"
- (12) TEMP. PAVE., HMA SURFACE COURSE, 2"
- (13) COMB. CONC. CURB & GUTTER, TYPE B-6.12
- (14) PCC DRIVEWAY PAVEMENT
- (15) CROWN TRANSITION
- (16) BRIDGE APPROACH SLAB (SEE BRIDGE PLANS)

GRAEF 8501 W. Higgins Road, Suite 280 Chicago, Illinois 60631 (773) 399-0112

USER NAME = 1951	DESIGNED - JWB	REVISED -
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PLOT SCALE = 100.0000 ' / in.	CHECKED - RS	REVISED -
PLOT DATE = 3/14/2018 - 8:42:17 AM	DATE - 01/23/2018	REVISED - 03/13/2018

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL 83/US 6 (TORRENCE AVENUE) OVER LITTLE CALUMET RIVER
PLAN AND PROFILE

SCALE: H=50', V=5' | SHEET NO. PLANPROF-1 OF 1 | STA. 168+50 TO STA. 183+50

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	0909.1-B	COOK	138	24

CONTRACT NO. 60K78
ILLINOIS FED. AID PROJECT

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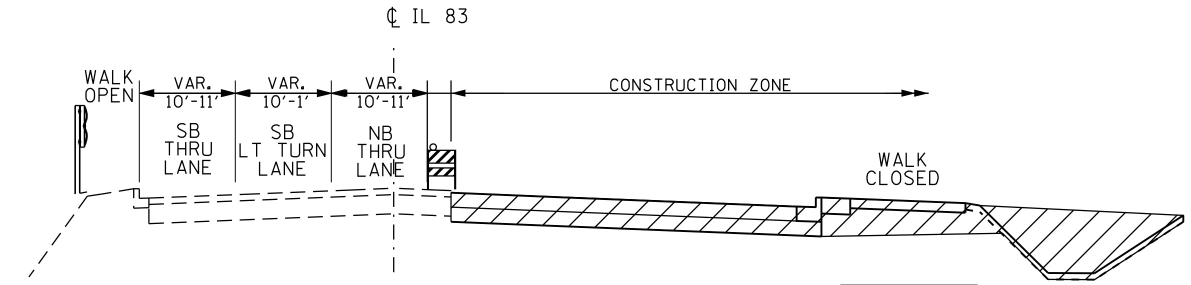
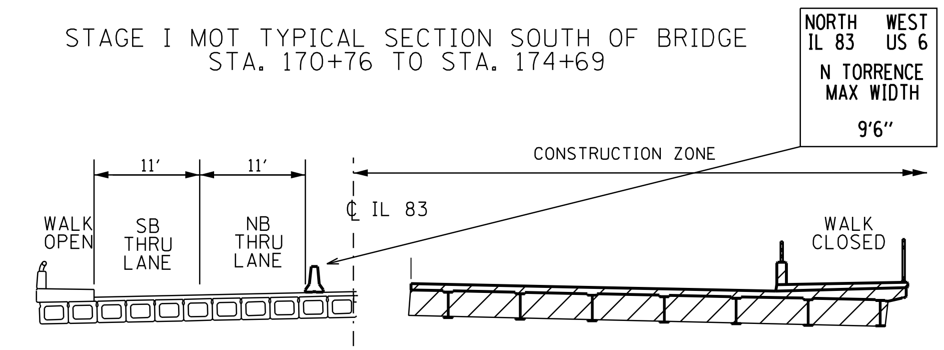
MAINTENANCE OF TRAFFIC AND EROSION & SEDIMENT CONTROL SEQUENCING

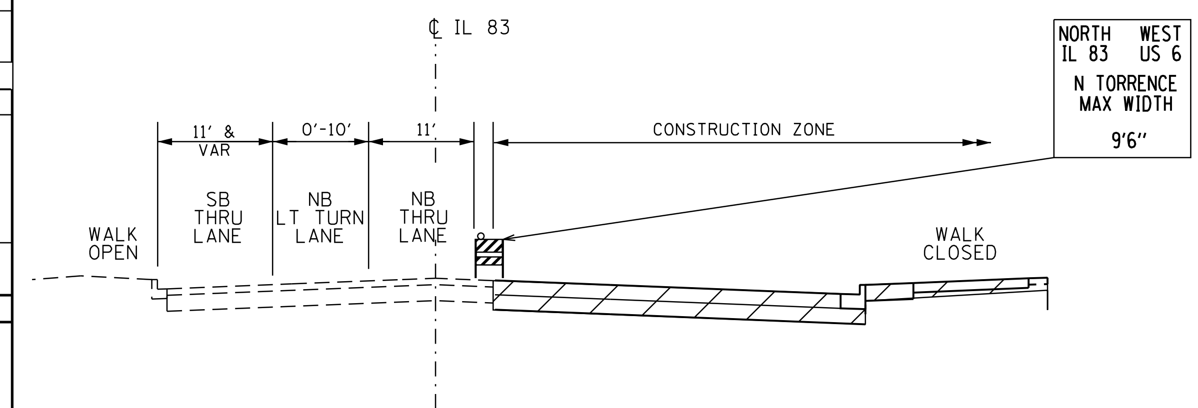
CONSTRUCTION	MAINTENANCE OF TRAFFIC	EROSION & SEDIMENT CONTROL
PRE-STAGE		
CONSTRUCT BRIDGE CONE EMBANKMENTS. PROVIDE WINTER SETTLEMENT PERIOD	HIGHWAY STANDARDS 701101 & 701106.	INSTALL PERIMETER EROSION BARRIER AROUND EMBANKMENT AREA AND SITE ACCESS.
INSTALL TEMPORARY TRAFFIC SIGNALS AT IL 83 AND EXCHANGE AVE AND AT IL 83 AND RING ROAD FOR STAGE 1 MOT	HIGHWAY STANDARDS 701701, 701601, & 701602.	NONE
INSTALL STORM SEWER OUTFALL AND LATERAL AT STATION 177+57 TO STAGE 1 CONSTRUCTION LINE. PATCH PAVEMENT CROSSING.	HIGHWAY STANDARDS 701427.	INSTALL INLET FILTERS AS STRUCTURES ARE CONSTRUCTED.
		PLACE TEMPORARY EROSION CONTROL SEEDING AND TEMPORARY EROSION CONTROL BLANKET PER STANDARD SPECIFICATIONS
STAGE 1		
REMOVE CONCRETE MEDIAN NORTH OF RING ROAD AND CONSTRUCT TEMPORARY PAVEMENT.	HIGHWAY STANDARD 701601, 701606, & 701701.	NONE
STAGE 1 TRAFFIC CONTROL SETUP	HIGHWAY STANDARD 701606, 701701 AND D-1 TC 14	NONE
CONSTRUCT EAST SIDE EMBANKMENT	TEMPORARILY SHIFT TRAFFIC TO NORTHBOUND LANES. INSTALL STAGE I PAVEMENT MARKING AND TEMPORARY CONCRETE BARRIER. SHIFT TRAFFIC TO STAGE 1 CONFIGURATION.	INSTALL PERIMETER EROSION BARRIER AROUND STAGE 1 CONSTRUCTION SITE. PLACE TEMPORARY DITCH CHECKS AS PROGRESS ALLOWS. PLACE TEMPORARY EROSION CONTROL SEEDING PER STANDARD SPECIFICATIONS. MAINTAIN EROSION CONTROL DEVICES INSTALLED IN PRE-STAGE
REMOVE NORTHBOUND LANES AND EAST HALF OF BRIDGE INCLUDING SIDEWALKS.	TRAFFIC IN STAGE 1 CONFIGURATION.	
CONSTRUCT STAGE 1 (NORTHBOUND) PORTION OF BRIDGE AND PAVEMENT INCLUDING SHARED USE PATH.	TRAFFIC IN STAGE 1 CONFIGURATION.	
COMPLETE STORM SEWER CROSSING AT STA. 178+80. INSTALL STORM SEWER MAINS AND LATERALS AT STA. 172+20, AT 174+05 AND AT 177+80 TO STAGE 1 CONSTRUCTION LINE	TRAFFIC IN STAGE 1 CONFIGURATION.	INSTALL INLET FILTERS AND TEMPORARY DITCH CHECKS AS STRUCTURES ARE CONSTRUCTED.
PLACE PERMANENT LANDSCAPING IMPROVEMENTS ON THE EAST SIDE OF THE IMPROVEMENT.	TRAFFIC IN STAGE 1 CONFIGURATION.	
STAGE 1A		
STAGE 1A TRAFFIC CONTROL SETUP		
REMOVE AND CONSTRUCT CENTER PAVEMENT NORTH AND SOUTH OF BRIDGE.	SHIFT TRAFFIC NORTHBOUND TRAFFIC ONTO COMPLETED LANES. INSTALL STAGE IA PAVEMENT MARKING AND TEMPORARY CONCRETE BARRIER. RELOCATE TRAFFIC SIGNAL HEADS TO STAGE 1A LOCATIONS. SHIFT TRAFFIC TO STAGE 1A CONFIGURATION.	MAINTAIN EROSION CONTROL DEVICES INSTALLED IN PRE-STAGE AND STAGE 1.
EXTEND STORM SEWER LATERALS AT STA. 172+20, AT 174+05 AND AT 177+80 TO STAGE 1A CONSTRUCTION LINE	TRAFFIC IN STAGE 1A CONFIGURATION.	NONE
STAGE 2		
STAGE 2 TRAFFIC CONTROL SETUP	INSTALL STAGE 2 PAVEMENT MARKING AND TEMPORARY CONCRETE BARRIER. RELOCATE TRAFFIC SIGNAL HEADS TO STAGE 2 LOCATIONS. SHIFT SOUTHBOUND TRAFFIC TO STAGE 2 CONFIGURATION.	INSTALL PERIMETER EROSION BARRIER AROUND STAGE 2 CONSTRUCTION SITE. PLACE TEMPORARY EROSION CONTROL SEEDING PER STANDARD SPECIFICATIONS. MAINTAIN EROSION CONTROL DEVICES INSTALLED IN PRE-STAGE AND STAGE 1.
CONSTRUCT WEST SIDE EMBANKMENT	TRAFFIC IN STAGE 2 CONFIGURATION.	
REMOVE NORTHBOUND LANES AND EAST HALF OF BRIDGE	TRAFFIC IN STAGE 2 CONFIGURATION.	
CONSTRUCT STAGE 2 (SOUTHBOUND) PORTION OF BRIDGE AND PAVEMENT INCLUDING SIDEWALK.	TRAFFIC IN STAGE 2 CONFIGURATION.	
COMPLETE STORM SEWER LATERALS AT STA. 172+20, AT 174+05, AT 177+80 AND AT 178+90.	TRAFFIC IN STAGE 2 CONFIGURATION.	INSTALL INLET FILTERS AND TEMPORARY DITCH CHECKS AS STRUCTURES ARE CONSTRUCTED.
PLACE PERMANENT LANDSCAPING IMPROVEMENTS ON THE EAST SIDE OF THE IMPROVEMENT.	TRAFFIC IN STAGE 2 CONFIGURATION.	
REMOVE TEMPORARY PAVEMENT AND CONSTRUCT MEDIAN NORTH OF RING ROAD.	HIGHWAY STANDARD 701606	
PLACE PERMANENT TRAFFIC SIGNALS. REMOVE TEMPORARY SIGNALS WHEN PERMANENT SIGNALS ARE OPERATIONAL	HIGHWAY STANDARD 701606, 701701 AND D-1 TC 14	REMOVE TEMPORARY EROSION CONTROL DEVICES AFTER SITE IS STABILIZED.



STAGE I MOT TYPICAL SECTION SOUTH OF BRIDGE
STA. 170+76 TO STA. 174+69



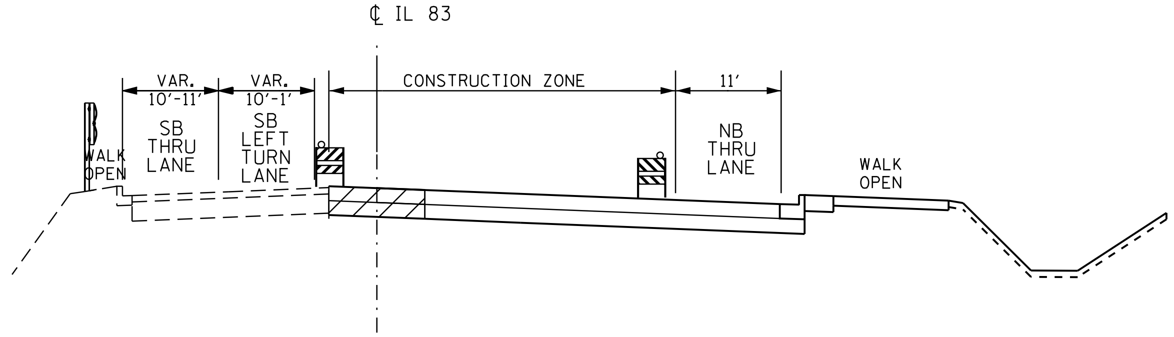
STAGE I MOT TYPICAL SECTION ON BRIDGE
STA. STA. 174+69 TO 177+43



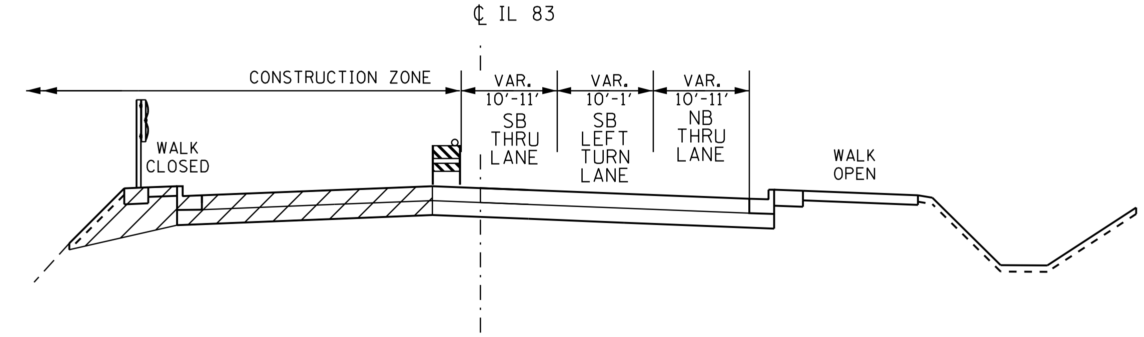
STAGE I MOT TYPICAL SECTION NORTH OF BRIDGE
STA. 177+43 TO STA. 179+30

SUGGESTED STAGING AND TRAFFIC CONTROL - GENERAL NOTES

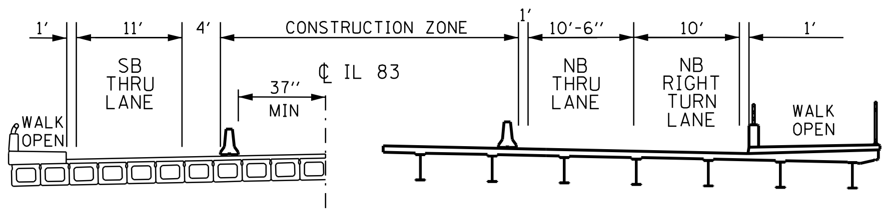
1. ALL TRAFFIC CONTROL DEVICES USED FOR STAGING AND TRAFFIC CONTROL AND DETAILED ON THE PLANS, SHALL BE REFLECTORIZED PRIOR TO THE INSTALLATION AND CLEANED AS NECESSARY THROUGH THE DURATION OF THE CONTRACT.
2. THE CONTRACTOR SHALL REMOVE ALL PERMANENT AND TEMPORARY PAVEMENT MARKING WHICH CONFLICTS WITH STAGING OR ULTIMATE PAVEMENT MARKING.
3. THE CONTRACTOR SHALL COVER, RELOCATE, OR REMOVE ALL CONFLICTING EXISTING SIGNS.
4. IN LOCATIONS WHERE EXISTING RAISED REFLECTIVE PAVEMENT MARKERS CONFLICT WITH THE REQUIRED TEMPORARY PAVEMENT MARKINGS, THE REFLECTORS IN THE EXISTING RAISED PAVEMENT MARKERS SHALL BE REMOVED.
5. CONSTRUCTION SIGN PLACEMENT MAY BE ADJUSTED SLIGHTLY TO FIELD CONDITIONS.
6. PRE STAGE AND EARLY STAGE 1 LANE CLOSURES ARE LIMITED TO HOURS SPECIFIED ON S.P. 'KEEPING ARTERIALS OPEN TO TRAFFIC.'
7. THE CONTRACTOR SHALL CONTACT THE DISTRICT ONE TRAFFIC CONTROL SUPERVISOR AT (847) 705-4470 A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING WORK.



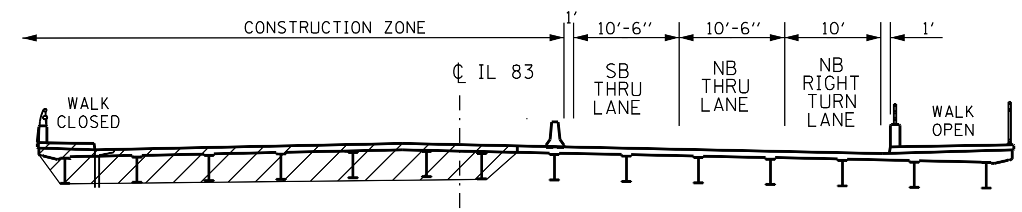
STAGE 1A MOT TYPICAL SECTION SOUTH OF BRIDGE
STA. 170+76 TO STA. 174+69



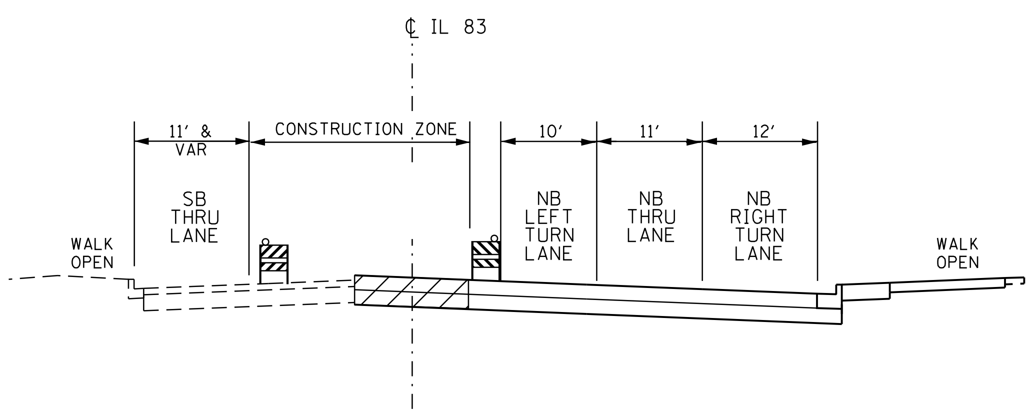
STAGE II MOT TYPICAL SECTION SOUTH OF BRIDGE
STA. 170+76 TO STA. 174+69



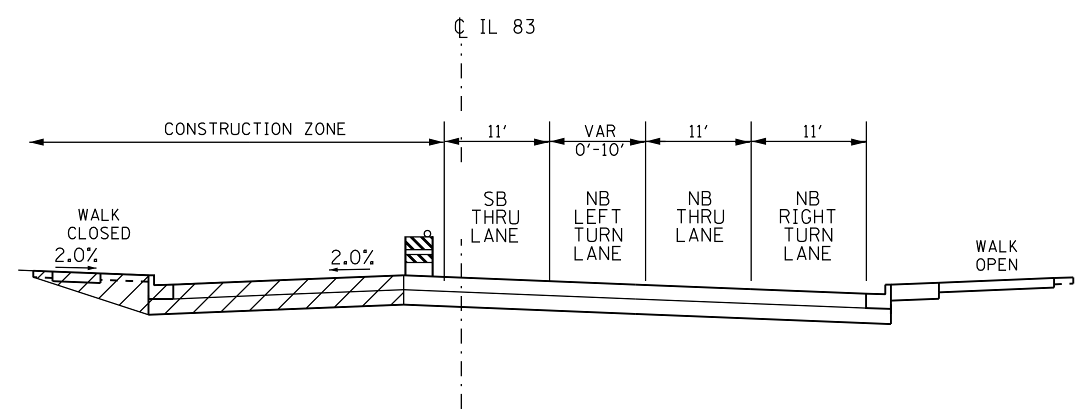
STAGE 1A MOT TYPICAL SECTION ON BRIDGE
STA. STA. 174+69 TO 177+43
NOTE; NO BRIDGE CONSTRUCTION THIS PHASE



STAGE II MOT TYPICAL SECTION ON BRIDGE
STA. STA. 174+69 TO 177+43



STAGE IA MOT TYPICAL SECTION NORTH OF BRIDGE
STA. 177+43 TO STA. 179+30



STAGE II MOT TYPICAL SECTION NORTH OF BRIDGE
STA. 177+43 TO STA. 179+30

SIGNS "CAUTION NEW LANES STOP HERE" OR "CAUTION NEW LANES STOP HERE ON RED" SHALL BE INSTALLED IN LINE WITH STOP BARS AS REQUIRED TWO LANE ROAD WHERE TRAFFIC IS MOVED CLOSER FOR A PERIOD OF TWO WEEKS UPON INITIATING THE STAGE.

GRAEF 8501 W. Higgins Road, Suite 280 Chicago, Illinois 60631 (773) 399-0112	USER NAME = 1951	DESIGNED - JWB	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	IL 83/US 6 (TORRENCE AVENUE) OVER LITTLE CALUMET RIVER	F.A.P RTE. 358	SECTION 0909.1-B
		DRAWN - JWB	REVISED -		CONSTRUCTION TYPICAL SECTIONS STAGES IA & II	COUNTY: COOK	TOTAL SHEETS 138 / SHEET NO. 26
	PLOT SCALE = 20.0000 ' / in.	CHECKED - RS	REVISED -		SCALE: NONE / SHEET NO. 2 of 2 / STA. 162+00 TO STA. 186+00	CONTRACT NO. 60K78	
	PLOT DATE = 3/14/2018 - 8:45:22 AM	DATE - 01/23/2018	REVISED - 03/13/2018			ILLINOIS FED. AID PROJECT	

MAX WIDTH
9'-6"
AHEAD ON
US 6

W12-I103(O)-48

W12-I102(O)-48

9'-6"

W1-6R(O)-2115

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GRAEF 8501 W. Higgins Road; Suite 280 Chicago, Illinois 60631 (773) 399-0112	USER NAME = 1951	DESIGNED - JWB	REVISED -
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL 83/US 6 (TORRENCE AVENUE) OVER LITTLE CALUMET RIVER
ADVANCED WARNING SIGNS

SHEET NO. 2 OF 2

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	0909.1-B	COOK	138	26A
		CONTRACT NO. 60K78		
		ILLINOIS FED. AID PROJECT		

GRAEF 8501 W. Higgins Road Suite 280 Chicago, Illinois 60631 (773) 399-0112	USER NAME = 1951	DESIGNED - JWB	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	IL 83/US 6 (TORRENCE AVENUE) OVER LITTLE CALUMET RIVER ADVANCED WARNING SIGNS
		DRAWN - JWB	REVISED -		
	PLOT SCALE = 100.0000 ' / in.	CHECKED - RS	REVISED -		SHEET NO. 1 OF 2
	PLOT DATE = 3/14/2018 - 8:46:46 AM	DATE - 01/23/2018	REVISED - 03/13/2018		

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	0909.1-B	COOK	138	26B
		CONTRACT NO. 60K78		
	ILLINOIS FED. AID PROJECT			

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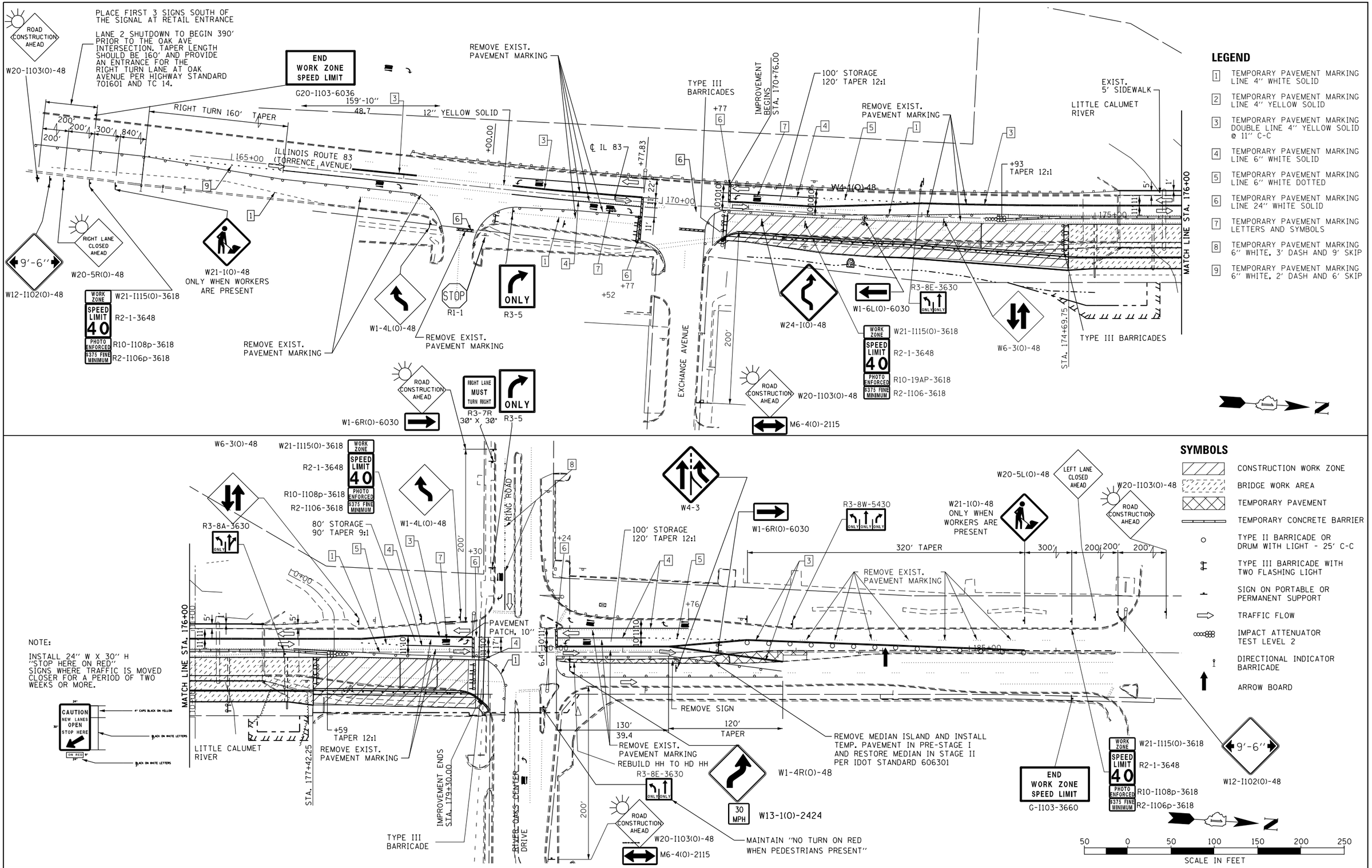

LEGEND

1. TEMPORARY PAVEMENT MARKING LINE 4" WHITE SOLID
2. TEMPORARY PAVEMENT MARKING LINE 4" YELLOW SOLID
3. TEMPORARY PAVEMENT MARKING DOUBLE LINE 4" YELLOW SOLID @ 11" C-C
4. TEMPORARY PAVEMENT MARKING LINE 6" WHITE SOLID
5. TEMPORARY PAVEMENT MARKING LINE 6" WHITE DOTTED
6. TEMPORARY PAVEMENT MARKING LINE 24" WHITE SOLID
7. TEMPORARY PAVEMENT MARKING LETTERS AND SYMBOLS
8. TEMPORARY PAVEMENT MARKING 6" WHITE, 3' DASH AND 9' SKIP
9. TEMPORARY PAVEMENT MARKING 6" WHITE, 2' DASH AND 6' SKIP

SYMBOLS

- CONSTRUCTION WORK ZONE
- BRIDGE WORK AREA
- TEMPORARY PAVEMENT
- TEMPORARY CONCRETE BARRIER
- TYPE II BARRICADE OR DRUM WITH LIGHT - 25' C-C
- TYPE III BARRICADE WITH TWO FLASHING LIGHT
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- TRAFFIC FLOW
- IMPACT ATTENUATOR TEST LEVEL 2
- DIRECTIONAL INDICATOR BARRICADE
- ARROW BOARD

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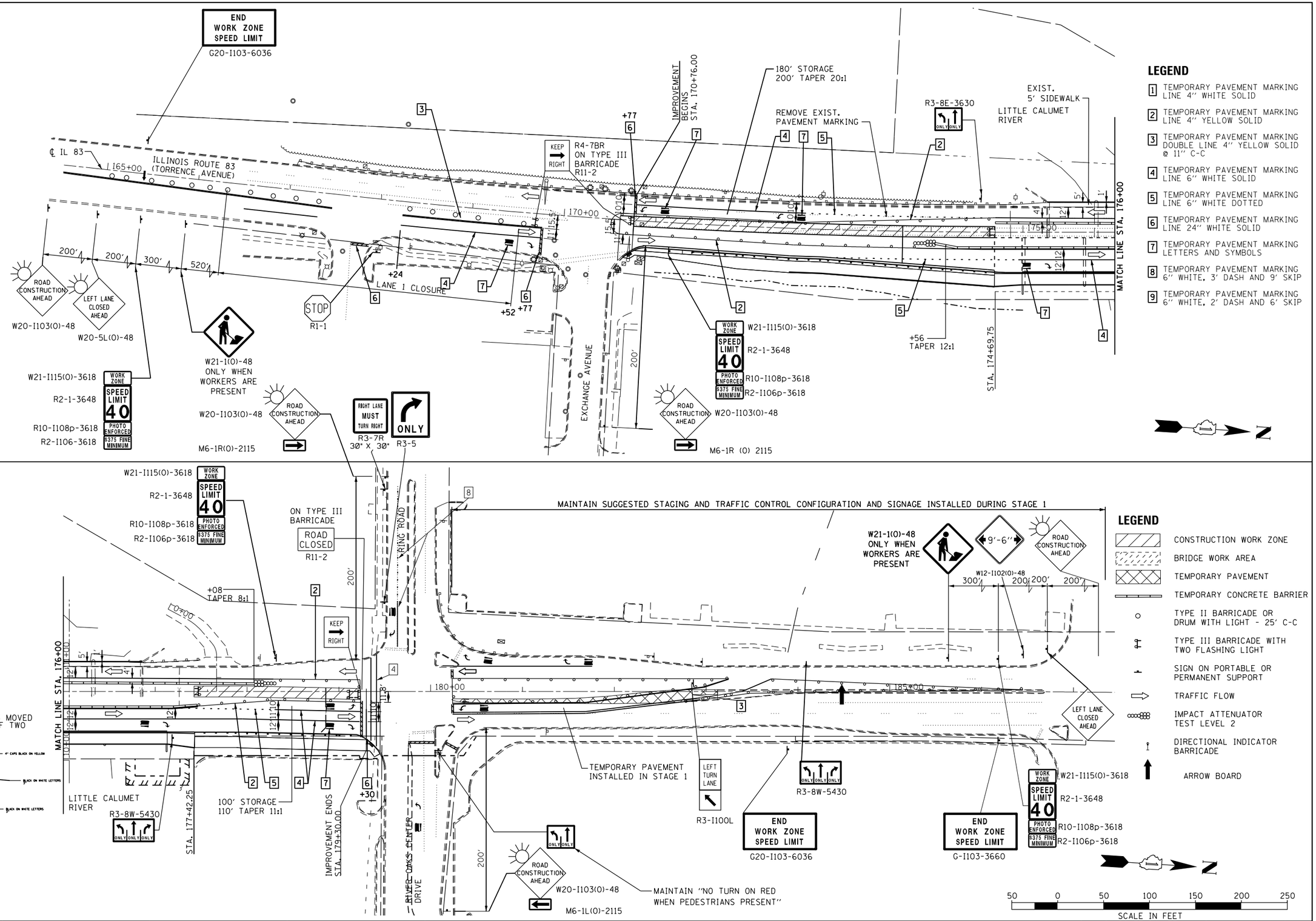
PLOT DATE = 3/14/2018 - 8:47:38 AM	DATE - 01/23/2018	REVISED - 03/13/2018	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL 83/US 6 (TORRENCE AVENUE) OVER LITTLE CALUMET RIVER
STAGING AND TRAFFIC CONTROL – STAGE 1

SCALE: 1" = 50' | SHEET NO. 1 OF 3 | STA. 165+00 | TO STA. 187+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	0909.1-B	COOK	138	27
		CONTRACT NO. 60K78		
	ILLINOIS FED. AID PROJECT			



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GRAEF 8501 W. Higgins Road Suite 280 Chicago, Illinois 60631 (773) 399-0112

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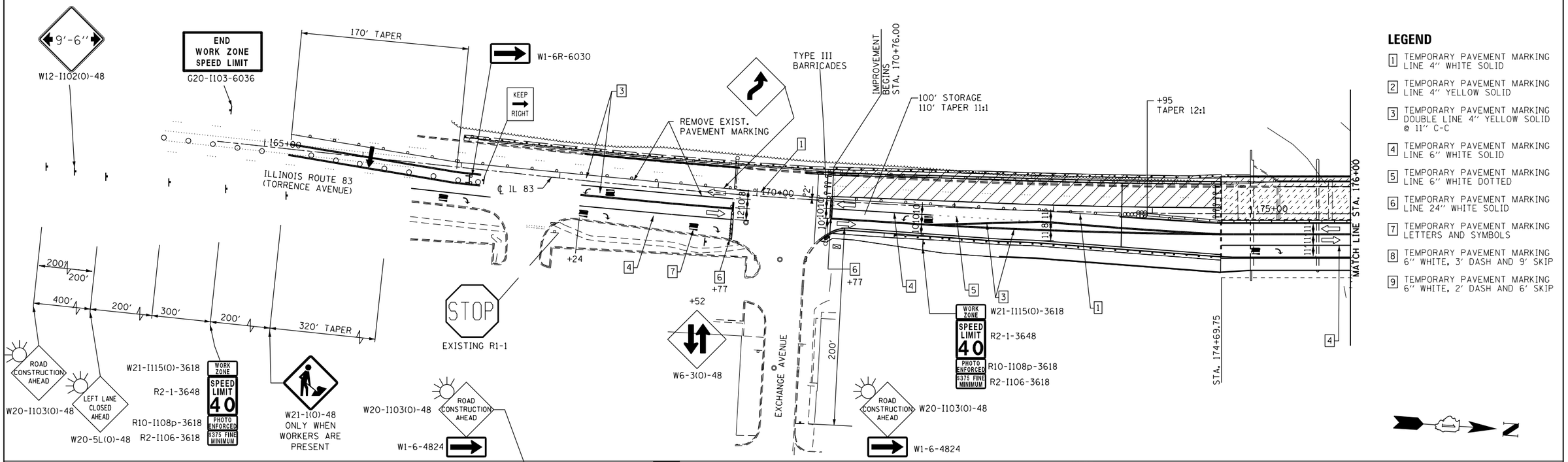
PLOT DATE = 3/14/2018 - 8:48:05 AM	DATE - 01/23/2018	REVISED - 03/13/2018	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL 83/US 6 (TORRENCE AVENUE) OVER LITTLE CALUMET RIVER
STAGING AND TRAFFIC CONTROL – STAGE 1A

SCALE: 1" = 50' | SHEET NO. 2 OF 3 | STA. 165+00 | TO STA. 187+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	0909.1-B	COOK	138	28
		CONTRACT NO. 60K78		
	ILLINOIS FED. AID PROJECT			



LEGEND

1. TEMPORARY PAVEMENT MARKING LINE 4" WHITE SOLID
2. TEMPORARY PAVEMENT MARKING LINE 4" YELLOW SOLID
3. TEMPORARY PAVEMENT MARKING DOUBLE LINE 4" YELLOW SOLID @ 11" C-C
4. TEMPORARY PAVEMENT MARKING LINE 6" WHITE SOLID
5. TEMPORARY PAVEMENT MARKING LINE 6" WHITE DOTTED
6. TEMPORARY PAVEMENT MARKING LINE 24" WHITE SOLID
7. TEMPORARY PAVEMENT MARKING LETTERS AND SYMBOLS
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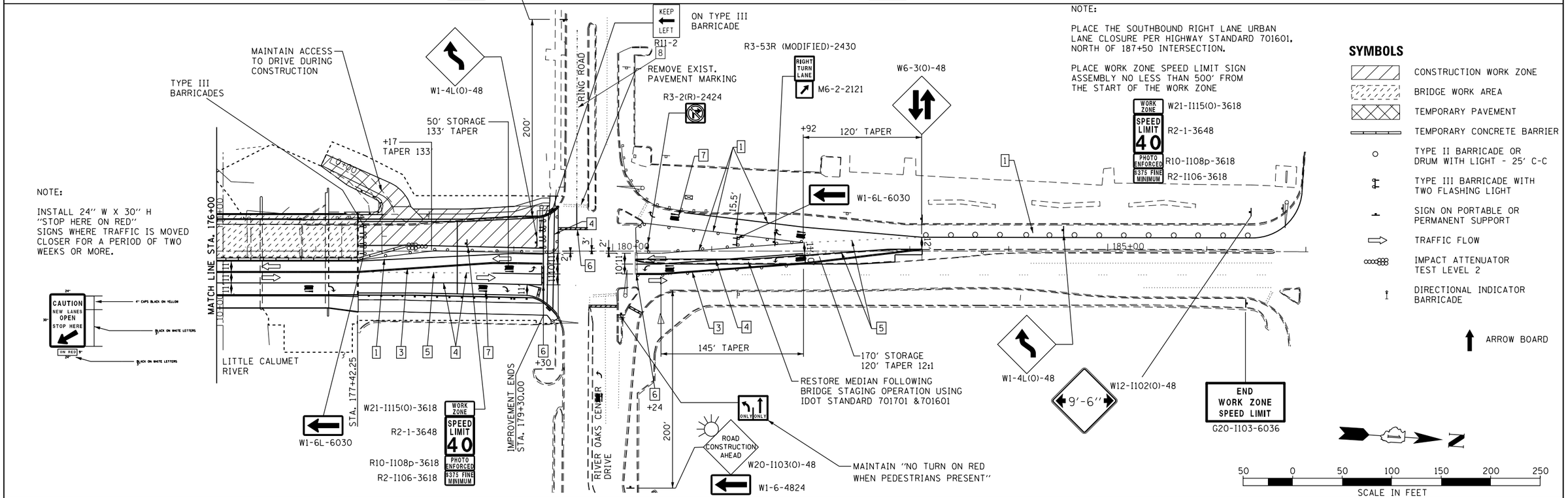
9. TEMPORARY PAVEMENT MARKING 6" WHITE, 2' DASH AND 6' SKIP



SYMBOLS

- CONSTRUCTION WORK ZONE
- BRIDGE WORK AREA
- TEMPORARY PAVEMENT
- TEMPORARY CONCRETE BARRIER
- TYPE II BARRICADE OR DRUM WITH LIGHT - 25' C-C
- TYPE III BARRICADE WITH TWO FLASHING LIGHT
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- TRAFFIC FLOW
- IMPACT ATTENUATOR TEST LEVEL 2
- DIRECTIONAL INDICATOR BARRICADE
- ARROW BOARD

50 0 50 100 150 200 250
SCALE IN FEET

GRAEF 8501 W. Higgins Road Suite 280 Chicago, Illinois 60631 (773) 399-0112

USER NAME = 1951	DESIGNED - JWB	REVISED -
	DRAWN - JWB	REVISED -
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL 83/US 6 (TORRENCE AVENUE) OVER LITTLE CALUMET RIVER
STAGING AND TRAFFIC CONTROL – STAGE 2

SCALE: 1" = 50' | SHEET NO. 3 OF 3 | STA. 165+00 TO STA. 187+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	0909.1-B	COOK	138	29
		CONTRACT NO. 60K78		
		ILLINOIS	FED. AID PROJECT	

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WOUS IMPACTS LEGEND

TEMPORARY 0.14 AC.

PERMANENT 0.04 AC.

WETLAND IMPACTS LEGEND

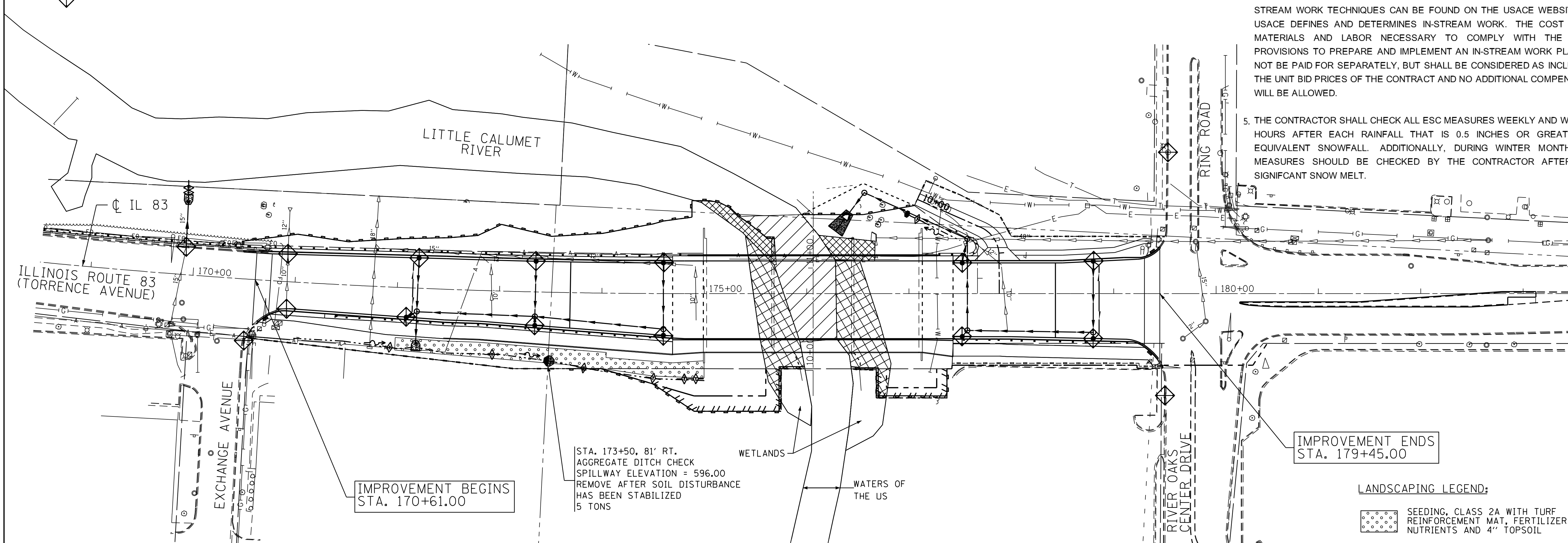
PERMANENT 0.18 AC.

EROSION CONTROL LEGEND:

- TEMPORARY DITCH CHECK, 20 FT +/-
- EROSION CONTROL PERIMETER BARRIER
- TEMPORARY FENCE
- INLET FILTERS

EROSION AND SEDIMENT CONTROL GENERAL NOTES

1. TEMPORARY EROSION CONTROL SEEDING SHALL BE PLACED AT A RATE OF 100 POUNDS PER ACRE. SEE LANDSCAPE PLANS FOR LOCATIONS
2. EROSION CONTROL MEASURES SHALL BE MAINTAINED AND REMAIN IN PLACE UNTIL PERMANENT STABILIZATION HAS BEEN COMPLETED.
3. SEE REMOVAL PLAN FOR TEMPORARY TREE PROTECTION FENCE AND CANOPY PRUNING.
4. THIS PROJECT REQUIRES A US ARMY CORPS OF ENGINEERS (USACE) 404 PERMIT THAT WILL BE SECURED BY THE DEPARTMENT. AS A CONDITION OF THIS PERMIT, THE CONTRACTOR WILL NEED TO SUBMIT AN IN-STREAM WORK PLAN TO THE DEPARTMENT FOR APPROVAL. GUIDELINES ON ACCEPTABLE IN-STREAM WORK TECHNIQUES CAN BE FOUND ON THE USACE WEBSITE. THE USACE DEFINES AND DETERMINES IN-STREAM WORK. THE COST OF ALL MATERIALS AND LABOR NECESSARY TO COMPLY WITH THE ABOVE PROVISIONS TO PREPARE AND IMPLEMENT AN IN-STREAM WORK PLAN 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.
5. THE CONTRACTOR SHALL CHECK ALL ESC MEASURES WEEKLY AND WITHIN 24 HOURS AFTER EACH RAINFALL THAT IS 0.5 INCHES OR GREATER, OR EQUIVALENT SNOWFALL. ADDITIONALLY, DURING WINTER MONTHS, ALL MEASURES SHOULD BE CHECKED BY THE CONTRACTOR AFTER EACH SIGNIFCANT SNOW MELT.



LANDSCAPING LEGEND:

SEEDING, CLASS 2A WITH TURF REINFORCEMENT MAT, FERTILIZER NUTRIENTS AND 4" TOPSOIL

THE CONTRACTOR SHALL ATTACH AN ALUMINUM SIGN WITH THE FOLLOWING TEXT: "PROTECTED WETLAND – NO INTRUSION". THE SIGN(S) SHALL BE ATTACHED TO THE STAKES BY A METHOD APPROVED BY THE ENGINEER. THE SIGN(S) WILL BE PROVIDED BY THE DEPARTMENT AND SHALL BE PICKED UP BY THE CONTRACTOR FROM THE DISTRICT ONE ROADSIDE DEVELOPMENT ARCHITECT IN SCHAUMBURG, ILLINOIS. SCHEDULING THE PICKUP OF THE SIGNS CAN BE ARRANGED BY CONTACTING THE DISTRICT ONE ROADSIDE DEVELOPMENT UNIT AT (847)705-4171. WHEN WORK HAS BEEN COMPLETED, THE SIGN SHALL BE RETURNED TO THE DISTRICT ONE ROADSIDE DEVELOPMENT UNIT. THE COST OF PICKING UP, ATTACHING THE SIGNS TO THE TEMPORARY FENCE STAKES AND RETURNING THE SIGNS WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR TEMPORARY FENCE.

N

50 0 50 100 150 200 250

SCALE IN FEET

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GRAEF 8501 W. Higgins Road, Suite 280 Chicago, Illinois 60631 (773) 399-0112

USER NAME = 1951	DESIGNED - JWB	REVISED -	
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL 83/US 6 (TORRENCE AVENUE) OVER LITTLE CALUMET RIVER
EROSION AND SEDIMENT CONTROL PLAN

SCALE: 1" = 50' | SHEET NO. EROS-1 OF 1 | STA. 168+50 TO STA. 183+50

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	0909.1-B	COOK	138	30
		CONTRACT NO. 60K78		
		ILLINOIS FED. AID PROJECT		

EROSION AND SEDIMENT CONTROL NOTES

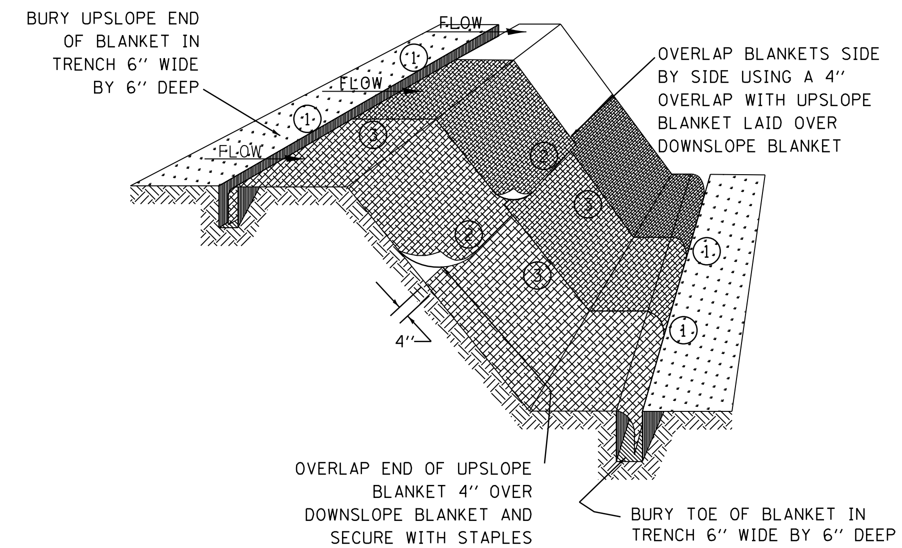
1. EROSION CONTROL ITEMS ARE CONSIDERED TO BE HIGH PRIORITY ITEMS ON THIS CONTRACT. THE ENGINEER WILL IMPLEMENT ALL PROVISIONS OF THE SPECIFICATION NECESSARY TO ASSURE THAT EROSION CONTROL ITEMS ARE CONSTRUCTED AND MAINTAINED IN A TIMELY WAY. ALL EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITIES WHICH WILL POTENTIALLY CREATE ERODABLE CONDITIONS.

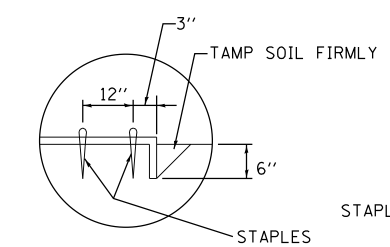
2. THE EROSION CONTROL MEASURES SHOWN ARE BUT A GRAPHICAL REPRESENTATION OF SUGGESTED MEASURES. DEVIATIONS FROM THIS PLAN ARE TO BE EXPECTED PENDING A JOBSITE INSPECTION BETWEEN THE CONTRACTOR AND THE DEPARTMENT.

3. TEMPORARY SEEDING IS PROVIDED FOR ALL DISTURBED AREA THAT IS NOT PAVED OR GRAVELED. THE CONTRACTOR SHALL STABILIZE ALL DISTURBED AREAS WITHIN 14 DAYS OF INITIAL DISTURBANCE WITH TEMPORARY OR PERMANENT SEEDING.

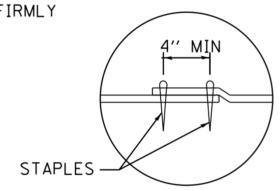
LOCATION			20101000	28000250	28000305	28000315	28000400	28000510	28100107	28200200
			TEMPORARY FENCE	TEMPORARY EROSION CONTROL SEEDING	TEMPORARY DITCH CHECK	AGGREGATE DITCH CHECK	PERIMETER EROSION BARRIER	INLET FILTERS	STONE RIPRAP, CLASS A4	FILTER FABRIC
			FOOT	POUND	FOOT	TON	FOOT	EACH	SQ YD	SQ YD
STATION	TO	STATION								
169+90		176+00	378	30	140	5	843	9	99	99
176+00		179+45	629	17	20	0	225	6	131	131
		10+00				2				3
		TOTALS	1007	47	160	7	1068	15	230	233

LOCATION			25000210	25000310	25200110	25000400
			SEEDING CLASS 2A	SEEDING CLASS 4B (MODIFIED)	SODDING SALT TOLERANT	NITROGEN FERTILIZER NUTRIENT
			(ACRE)	(ACRE)	(SQ YD)	POUND
STATION	TO	STATION				
170+61		175+00	0.10	0.20	545	16
175+00		176+12		0.17		0
176+12		179+45	0.00	0.00	858	11
		TOTALS	0.10	0.37	1403	26

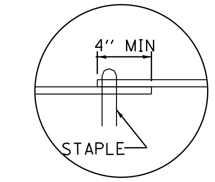




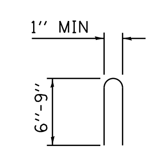
ANCHOR SLOT
DETAIL 1



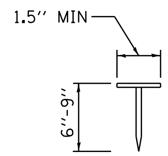
SINGLE JOINT
DETAIL 2



PARALLEL OVERLAPS
DETAIL 3



STAPLE DETAIL



PUSH PIN DETAIL

NOTES:

1. STAPLES SHALL BE PLACED IN A DIAMOND PATTERN AT 2 PER S.Y. FOR STITCHED BLANKETS. NON-STITCHED SHALL USE 4 STAPLES PER S.Y. OF MATERIAL. THIS EQUATES TO 200 STAPLES WITH STITCHED BLANKET AND 400 STAPELS WITH NON-STITCHED BLANKET PER 100 S.Y. OF MATERIAL.

2. STAPLE OR PUSH PIN LENGTHS SHALL BE SELECTED BASED ON SOIL TYPE AND CONDITIONS. (MINIMUM STAPLE LENGTH IS 6″)

3. EROSION CONTROL MATERIAL SHALL BE PLACED IN CONTACT WITH THE SOIL OVER A PREPARED SEEDBED.

4. ALL ANCHOR SLOTS SHALL BE STAPLED AT APPROXIMATELY 12″ INTERVALS.

EROSION CONTROL BLANKET
INSTALLATION DETAILS

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GRAEF 8501 W. Higgins Road, Suite 280 Chicago, Illinois 60631 (773) 399-0112	USER NAME = 1908	DESIGNED - JWB	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
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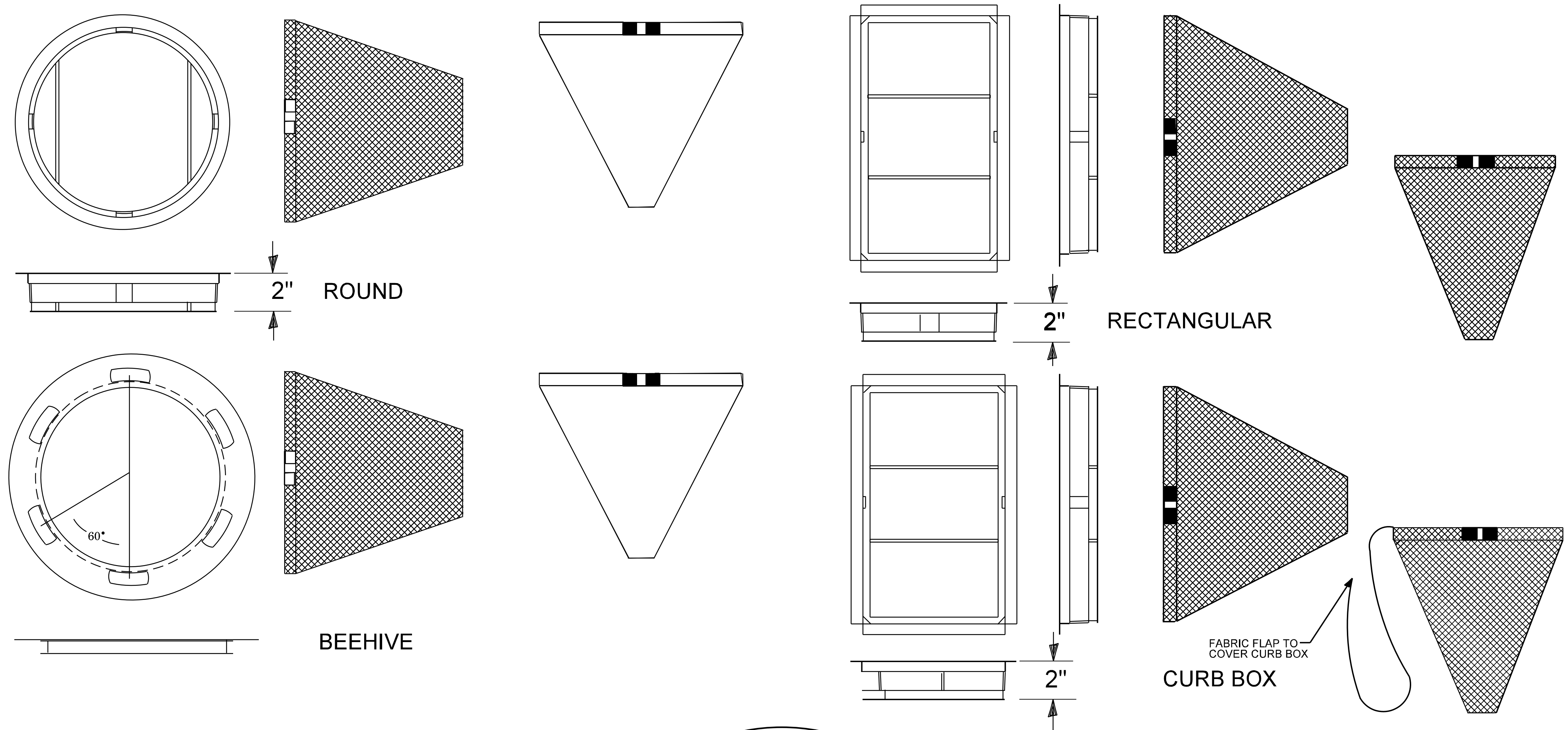
IL 83/US 6 (TORRENCE AVENUE) OVER LITTLE CALUMET RIVER
EROSION AND SEDIMENT CONTROL DETAILS

SCALE: N.T.S. | SHEET NO. 1 OF 2

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	0909.1-B	COOK	138	31

CONTRACT NO. 60K78

ILLINOIS FED. AID PROJECT



INLET AND PIPE PROTECTION

DESCRIPTION: This work shall consist of furnishing, installation, and removal of a drainage structure inlet filter assembly, consisting of a frame and filter bag, to collect sediment in surface storm water runoff at locations shown on the plans or as directed by the Engineer.

The Contractor shall inspect the worksite and review the plans to determine the number and dimensions of the various types of drainage structure frames (circular and rectangular) into which the inlet filters will be installed prior to ordering materials.

The drainage structure inlet filter assembly shall be installed under the grate on the lip of the drainage structure frame with the fabric bag hanging down into the drainage structure.

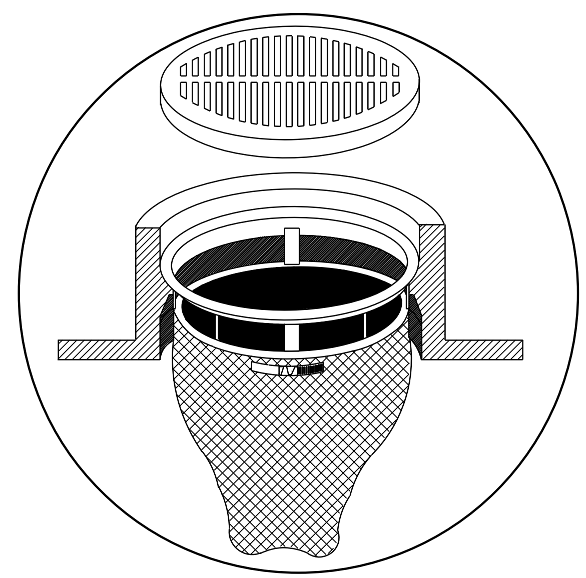
The drainage structure inlet filter assembly shall remain in place until final removal of the assembly is directed by the Engineer. The drainage structure inlet filter assembly shall remain the property of the Contractor.

Final removal of the assembly shall include the disposal of debris or silt that has accumulated in the filter bag at the time of final removal. Periodic cleaning of the filter is paid for separately.

MATERIALS: The drainage structure inlet shall be the (INLET AND PIPE PROTECTION), as furnished by Marathon Materials, Inc. 25523 W. Shultz St., Plainfield, IL 60544, (800) 983–9493, or approved equal. A detailed drawing in the plans depicts the drainage structure inlet filter assembly.

The drainage structure inlet filter assembly shall consist of a steel frame with a replaceable geotextile fabric bag attached with a steel band with locking cap that is suspended from the frame. A clean used bag and used steel frame in good condition, meeting the approval of the Engineer, may be substituted for new materials.

The drainage structure inlet filter assembly frame shall be rigid steel meeting the requirements of ASTM–A36. The frame shall include an overflow feature that is welded to the frame*s ring. The overflow feature shall be designed to allow full flow of water into the structure if the filter bag is filled with sediment. The dimensions of the assembly frame shall allow the drainage structure grate to fit into the inlet filter assembly frame opening. The assembly frame shall rest on the inside lip of the drainage structure frame for the full variety of existing and proposed drainage structure frames that are present on this contract.



The drainage structure inlet filter assembly bag shall be constructed of polypropylene geotextile fabric with a minimum weight of 4 ounces per square yard, minimum flow rate of 145 gallons per minute per square foot, and designed for minimum silt and debris capacity of 2 cubic feet. The filter bag shall be reinforced with an outer layer of polyester mesh fabric with a minimum weight of 4 ounces per square yard. The filter bag shall be suspended from the steel frame with a stainless steel band and locking cap. The inlet filter assembly frame shall not cause the drainage structure grate to extend higher than 1/8-inch above the drainage structure frame.

BASIS OF PAYMENT: The work will be paid for at the contract unit price per EACH for INLET FILTER, which price shall include all cost of labor, materials, equipment, and incidental items necessary to perform the work.

INLET FILTERS

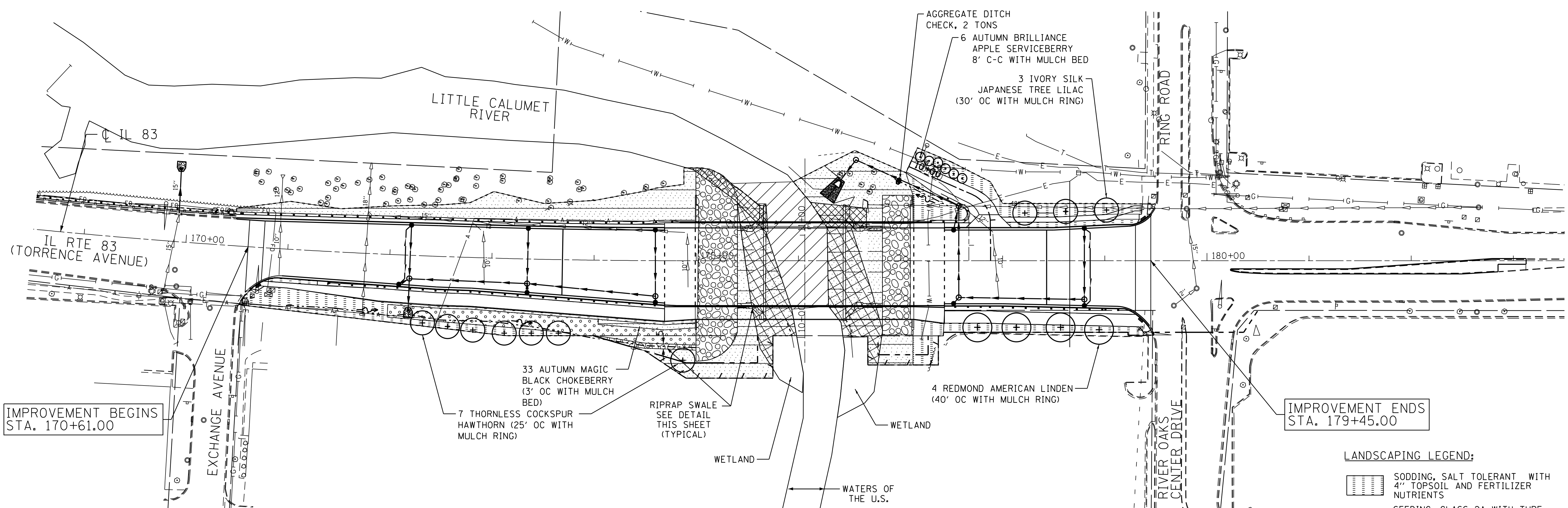
WOUS-1 IMPACTS LEGEND

TEMPORARY 0.14 AC.

PERMANENT 0.04 AC.

WETLANDS IMPACTS LEGEND

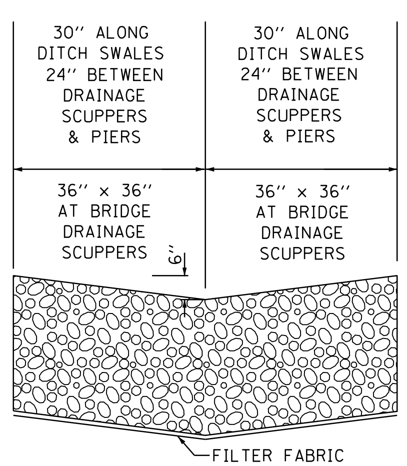
PERMANENT 0.18 AC.



LANDSCAPING LEGEND:

- SODDING, SALT TOLERANT WITH 4" TOPSOIL AND FERTILIZER NUTRIENTS
- SEEDING, CLASS 2A WITH TURF REINFORCEMENT MAT, FERTILIZER NUTRIENTS AND 4" TOPSOIL
- SEEDING, CLASS 4 (MODIFIED) WITH KNITTED STRAW EROSION CONTROL BLANKET & 12" TOPSOIL
- RIPRAP CLASS A4 AND FILTER FABRIC OR AGGREGATE DITCH CHECK AND FILTER FABRIC

NOTE: A FIBER OPRIC HANDHOLE AT THE SOUTHWEST CORNER OF ILLINOIS ROUTE 83 AND RING ROAD WAS CONSTRUCTED AFTER THE S.U.E. SURVEY INCLUDED IN THE PLANS. AN UNDERGROUND LOCATE FOR FIBER OPTIC UTILITIES MUST BE COMPLETED PRIOR TO CONSTRUCTION WORK AND DOCUMENTED PER THE SPECIFICATIONS.



RIPRAP SWALE DETIAL

50 0 50 100 150 200 250

SCALE IN FEET

GRAEF 8501 W. Higgins Roads Suite 280 Chicago, Illinois 60631 (773) 399-0112	USER NAME = 1908	DESIGNED - JWB	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	IL 83/US 6 (TORRENCE AVENUE) OVER LITTLE CALUMET RIVER LANDSCAPE PLAN
		DRAWN - JWB	REVISED -		
	PLOT SCALE = 100.0000 ' / in.	CHECKED - RS	REVISED -		
	PLOT DATE = 1/26/2018 - 4:09:00 PM	DATE - 01/23/2018	REVISED -		SCALE: 1" = 50' / SHEET NO. LAND-1 OF 1 / STA. 168+50 TO STA. 183+50

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	0909.1-B	COOK	138	33
		CONTRACT NO. 60K78		
		ILLINOIS FED. AID PROJECT		

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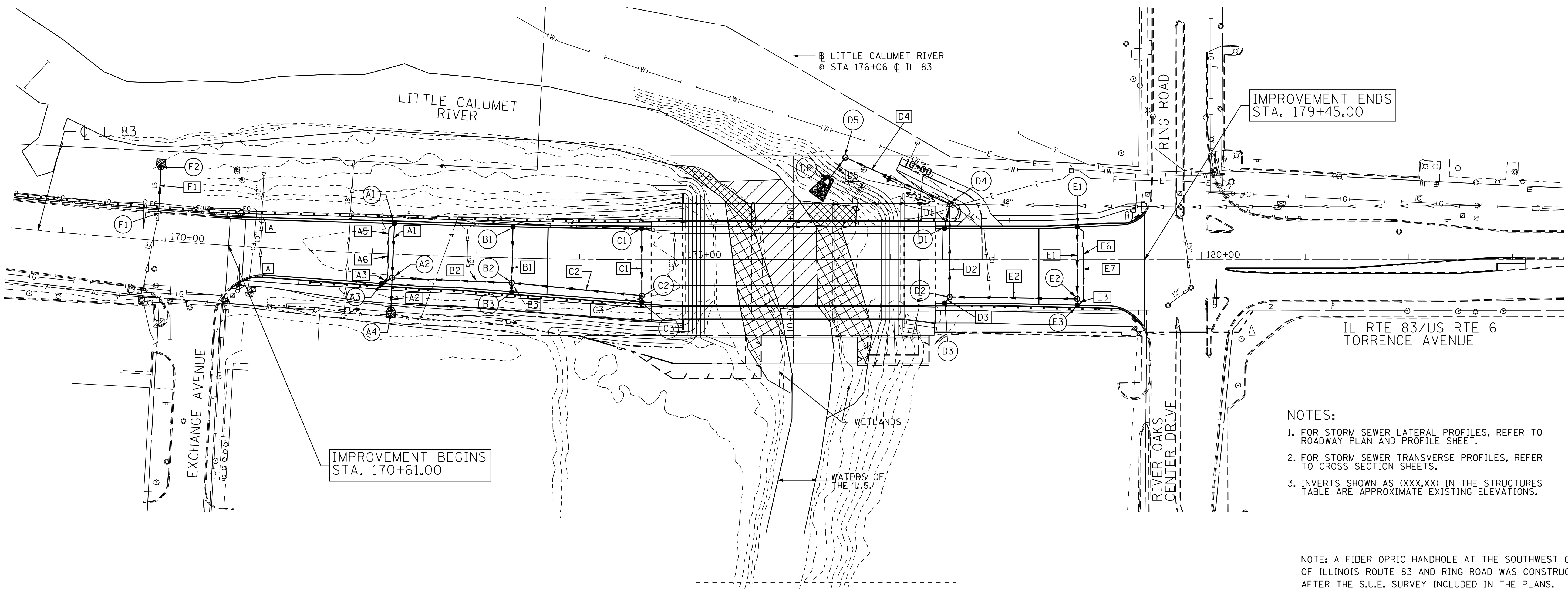
1/26/2018 - 4:09:00 PM

STRUCTURE NO.	STATION	OFFSET		STRUCTURE	RIM	INVERT				PIPE NO.	SIZE INCH	LENGTH FOOT	Slope	TRENCH BACKFILL CU YD
						N	S	E	W					
A1	172+20.00	29.70	LT	CB-A-4-24	598.49			595.74		A1	12	50	0.50%	10.8
A2	172+20.00	23.00	RT	MH-A-4-1CL	598.37	595.23	595.13	595.54	595.49	A2	15	24	0.50%	6.2
A3	172+10.00	28.76	RT	CB-A-4-24	598.23	595.48				A3	12	8	0.50%	1.9
A4	172+20.00	55.00	RT	CES, 15", 1:3					595.01					
B1	173+35.00	30.00	LT	CB-A-4-24	599.21			596.46		B1	12	50	0.50%	10.8
B2	173+35.00	24.00	RT	MH-A-4-1CL	599.09	596.21	595.90	596.15	596.21	B2	15	111	0.60%	28.7
B3	173+35.00	32.72	RT	CB-A-4-24	598.92				596.17	B3	12	5	0.50%	1.1
C1	174+60.00	30.00	LT	CB-A-4-24	600.41				597.66	C1	12	71	0.50%	15.1
C2	174+60.00	34.80	RT	MH-A-4-1CL	600.06		596.94	597.31	597.18	C2	15	121	0.60%	28.6
C3	174+60.00	41.08	RT	CB-A-4-24	599.94			597.19		C3	12	3	0.50%	0.6

STRUCTURE TABLE										PIPE TABLE				
STRUCTURE NO.	STATION	OFFSET		STRUCTURE	RIM	INVERT				PIPE NO.	SIZE INCH	LENGTH FOOT	Slope	TRENCH BACKFILL CU YD
						N	S	E	W					
D1	177+52.00	30.00	LT	CB-A-4-24	600.56				595.71	D1	12	19	1.00%	2.2
D2	177+57.00	36.00	RT	MH-A-4-1CL	600.20	595.38		597.25	595.28	D2	15	84	1.00%	56.8
D3	177+52.00	42.00	RT	CB-A-4-24	600.08				597.33	D3	12	6	1.00%	1.4
D4	177+57.00	53.20	LT	MH-A-6-1CL	598.80	(583.86)	583.70	593.60		D4	48	104	0.20%	145.4
								595.33						
D5	176+56.40	98.60	LT	MH-A-7-1CL	597.00	583.48	583.38			D5	48	24	0.20%	
D6	176+37.10	63.80	LT	RCFES, 48"		583.33								
E1	178+80.00	31.50	LT	CB-A-4-24	599.68				596.93	E1	12	60	1.00%	12.9
E2	178+80.00	37.90	RT	MH-A-4-1CL	599.39		595.99	596.46	596.24	E2	15	119	0.50%	43.2
E3	178+80.00	43.90	RT	CB-A-4-24	599.27				596.52	E3	12	2	1.00%	0.4
F1	169+92.00	28.00	LT	EX CB	597.58				(589.60)	F1	15	42	5.00%	2.4
F2	169+90.00	72.00	LT	RCFES, 15"				587.40						

PIPE UNDERDRAIN TABLE

PIPE NO.	SIZE	LENGTH
A5	4	28.5
A6	4	40
E6	4	32.8
E7	4	52.8



NOTES:

1. FOR STORM SEWER LATERAL PROFILES, REFER TO ROADWAY PLAN AND PROFILE SHEET.
2. FOR STORM SEWER TRANSVERSE PROFILES, REFER TO CROSS SECTION SHEETS.
3. INVERTS SHOWN AS (XXX.XX) IN THE STRUCTURES TABLE ARE APPROXIMATE EXISTING ELEVATIONS.

NOTE: A FIBER OPRIC HANDHOLE AT THE SOUTHWEST CORNER OF ILLINOIS ROUTE 83 AND RING ROAD WAS CONSTRUCTED AFTER THE S.U.E. SURVEY INCLUDED IN THE PLANS. AN UNDERGROUND LOCATE FOR FIBER OPTIC UTILITIES MUST BE COMPLETED PRIOR TO CONSTRUCTION WORK AND DOCUMENTED PER THE SPECIFICATIONS.

WOUS IMPACTS LEGEND

TEMPORARY 0.14 AC.

PERMANENT 0.04 AC.

WETLAND IMPACTS LEGEND

PERMANENT 0.18 AC.

50 0 50 100 150 200 250
SCALE IN FEET

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H:\Jobs2012\20123002\CAD\60K78\CAD_Sheets\DI60K78-sht-drain.dgn
4:09:01 PM 1/26/2018 - 4:09:01 PM

GRAEF 8501 W. Higgins Road, Suite 280 Chicago, Illinois 60631 (773) 399-0112

USER NAME = 1908	DESIGNED - JWB	REVISED -
	DRAWN - JWB	REVISED -
PLOT SCALE = 100.0000 ' / in.	CHECKED - RS	REVISED -
PLOT DATE = 1/26/2018 - 4:09:01 PM	DATE - 01/23/2018	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

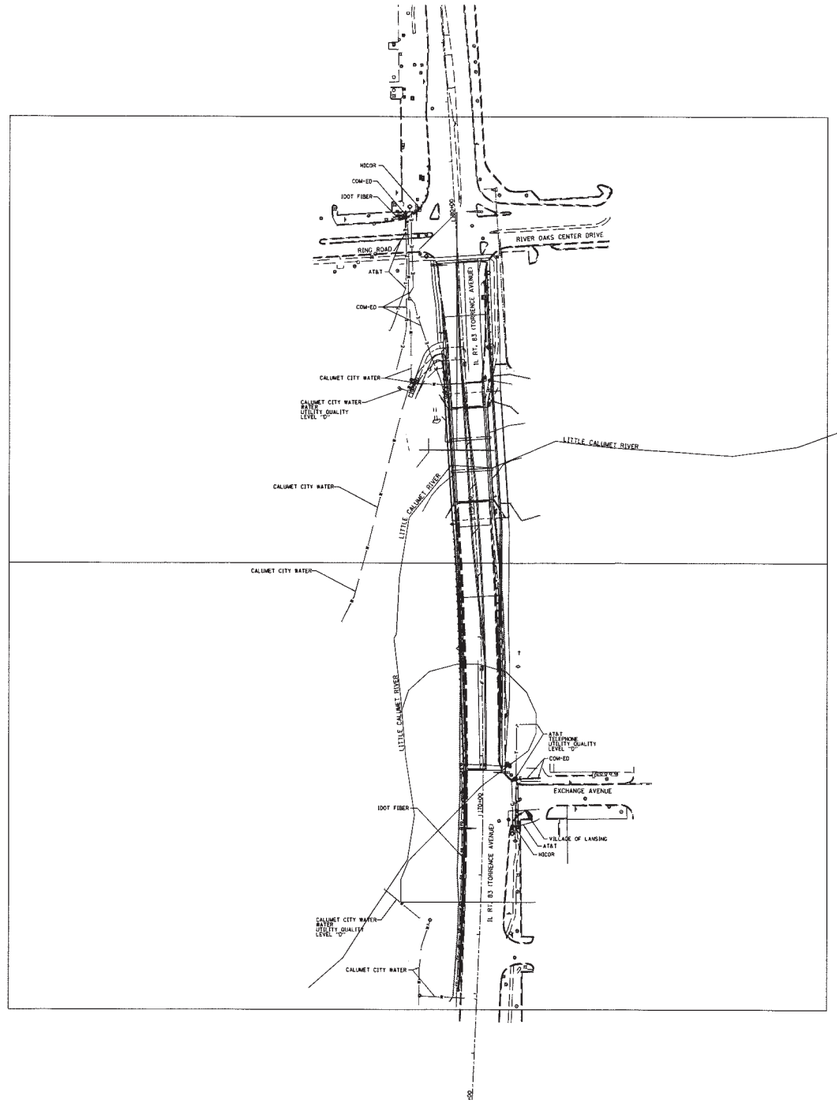
IL 83/US 6 (TORRENCE AVENUE) OVER LITTLE CALUMET RIVER
DRAINAGE PLAN

SCALE: 1" = 50' | SHEET NO. DRAIN-1 OF 1 | STA. 168+50 TO STA. 183+50

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	0909.1-B	COOK	138	34

CONTRACT NO. 60K78

ILLINOIS FED. AID PROJECT



N

AERIAL
UNKNOWN
CABLE TV
TELEPHONE
GAS
ELECTRIC
WATER
FIBER OPTIC

TBE TEST HOLE

Utility Quality Level "A" : Visually Verified Test Hole
Utility Quality Level "B" : Designating/non Visually Verified Test Hole
Utility Quality Level "C" : Research with Survey
Utility Quality Level "D" : Records Research

UTILITY OWNERS

AT&T = TELEPHONE
CALUMET CITY WATER = WATER
COM-ED = ELECTRIC
IDOT FIBER = FIBER OPTIC
NICOR = GAS
VILLAGE OF LANSING = WATER

Utilities shown on these plans as depicted in the legend have been investigated by Cardno TBE in accordance with SUE Industry Standards. All other information shown has been provided to Cardno TBE by others. Cardno TBE's QL"B" SUE field investigation was performed8/1/12 through 8/24/12. Changes to utilities after 8/24/12 may have been made and therefore may result in variances from this plan. Consideration should be given to updating this plan if deemed advisable prior to final design and construction.

ALL UTILITIES SHOWN QUALITY LEVEL "B" UNLESS NOTED OTHERWISE.

LICENSED PROFESSIONAL ENGINEER
KENNETH F. SLANINKA, Jr.
062-055488
STATE OF ILLINOIS
signature
8/30/12
date
license expires 11-30-13

Cardno TBE
CIVIL ENGINEERING * TRANSPORTATION * ENVIRONMENTAL * PLANNING * UTILITY ENGINEERING/LOCATING

Dynasty Group
Engineers & Surveyors

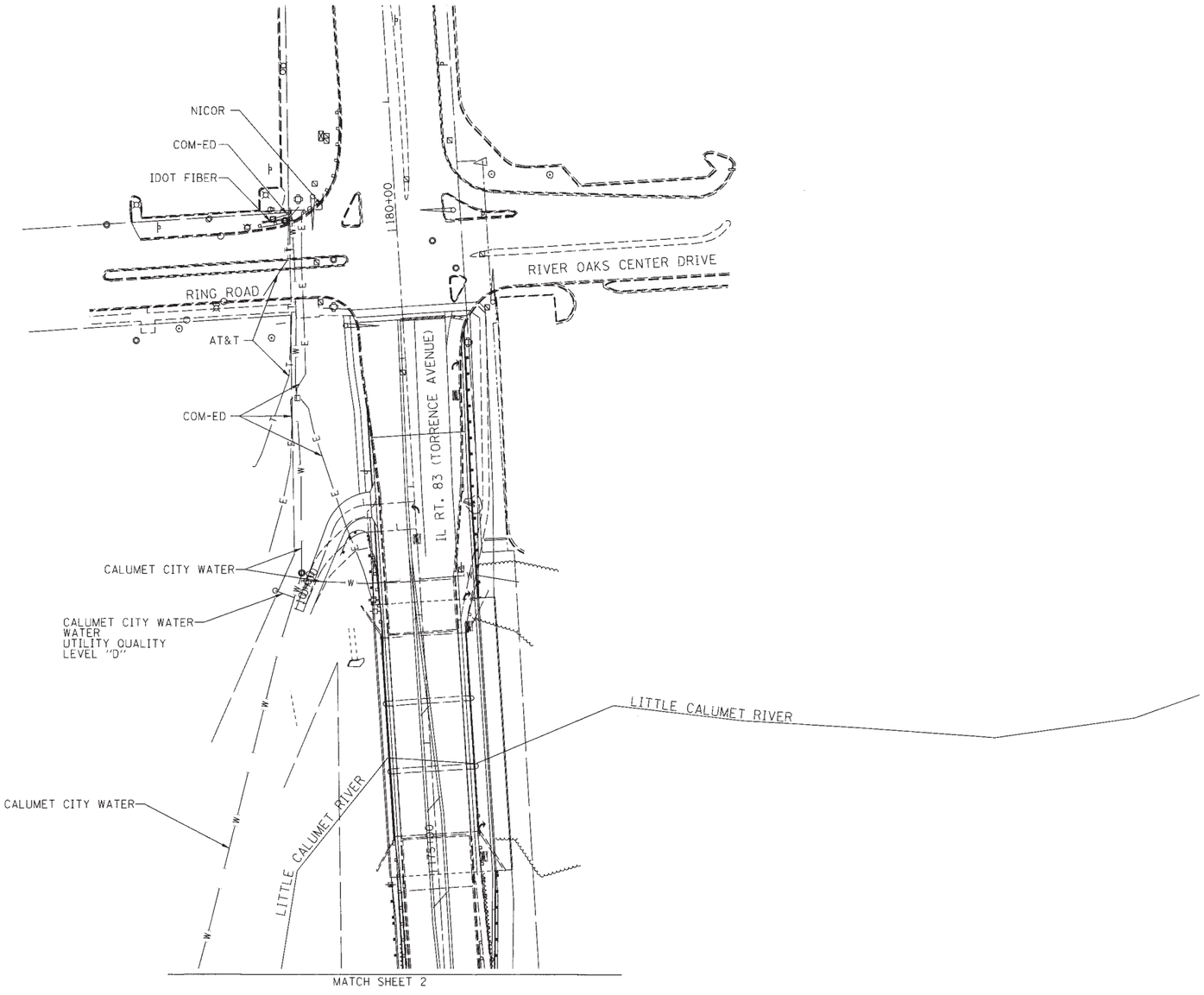
TBE Job No. IL09510503
SUE Plan Page: Cover

DESIGNED	IP	REVISED
DRAWN	SRK	REVISED
CHECKED	KFS	REVISED
DATE	8/28/12	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL RT. 83 over Little Calumet River
Calumet City, Illinois

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	0909.1-B	Cook	141	35
		Contract No. 60K78		
FED. ROAD DIST. NO.	ILLINOIS	IDOT Project No.		



A — A — AERIAL
UNKNOWN
CTV — CTV — CABLE TV
T — T — TELEPHONE
G — G — GAS
E — E — ELECTRIC
W — W — WATER
FO — FO — FIBER OPTIC

TBE TEST HOLE

Utility Quality Level "A" : Visually Verified Test Hole
Utility Quality Level "B" : Designating/non Visually Verified Test Hole
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Utility Quality Level "D" : Records Research

UTILITY OWNERS

AT&T = TELEPHONE
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20 0 METERS 20 40
50 0 FEET 50 100

KENNETH F. SLANINKA, Jr. 062-055488 LICENSED PROFESSIONAL ENGINEER STATE OF ILLINOIS
signature
date
license expires 11-30-13

Cardno TBE
CIVIL ENGINEERING * TRANSPORTATION * ENVIRONMENTAL * PLANNING * UTILITY ENGINEERING/LOCATING

Dynasty Group
Engineers & Surveyors

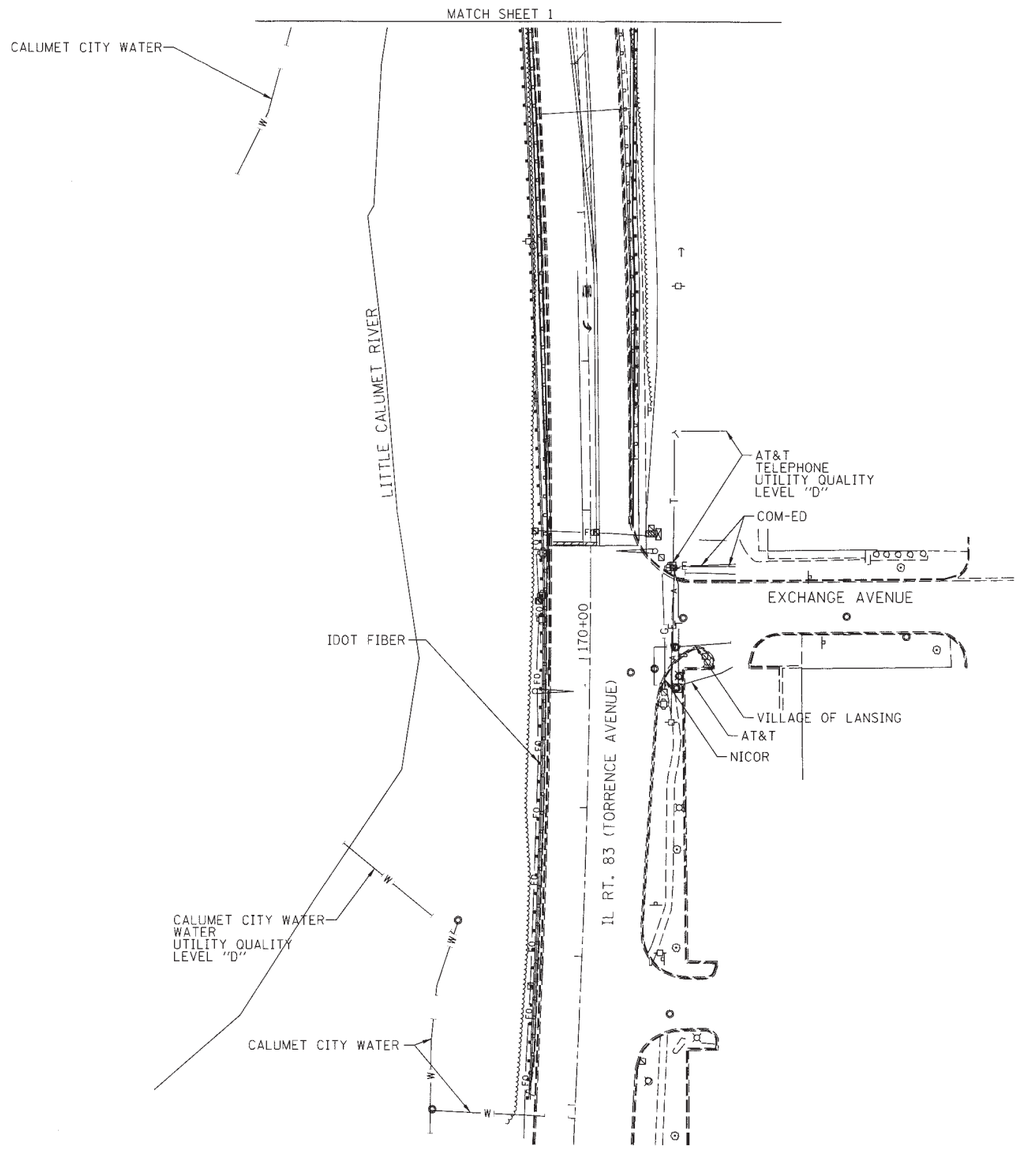
TBE Job No. IL09510503
SUE Plan Page: 1 of 2

DESIGNED	IP	REVISED
DRAWN	SRK	REVISED
CHECKED	KFS	REVISED
DATE	8/28/12	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL RT. 83 over Little Calumet River
Calumet City, Illinois

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	0909.1-B	Cook	141	36
		Contract No. 60K78		
FED. ROAD DIST. NO. _	ILLINOIS	IDOT Project No.		



A — A — AERIAL
UNKNOWN
CTV — CTV — CABLE TV
T — T — TELEPHONE
G — G — GAS
E — E — ELECTRIC
W — W — WATER
FO — FO — FIBER OPTIC

TBE TEST HOLE

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AT&T = TELEPHONE
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50 0 FEET 50 100

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Dynasty Group
Engineers & Surveyors

TBE Job No. IL09510503
SUE Plan Page: 2 of 2

Utility Quality Level "A" : Visually Verified Test Hole
Utility Quality Level "B" : Designating/non Visually Verified Test Hole
Utility Quality Level "C" : Research with Survey
Utility Quality Level "D" : Records Research

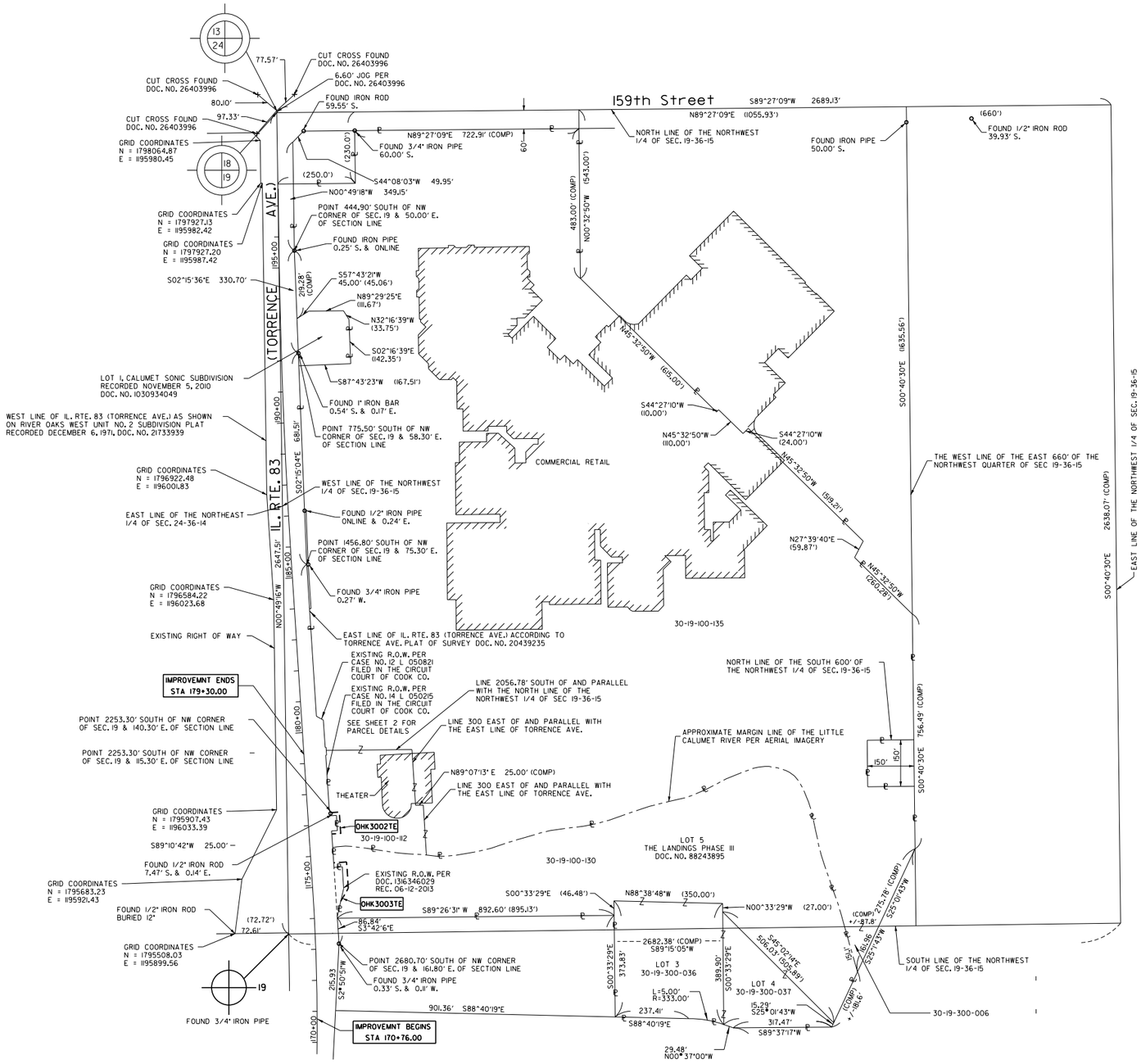
DESIGNED	IP	REVISED
DRAWN	SRK	REVISED
CHECKED	KFS	REVISED
DATE	8/28/12	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL RT. 83 over Little Calumet River
Calumet City, Illinois

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	0909.1-B	Cook	141	37
		Contract No. 60K78		
FED. ROAD DIST. NO. _	ILLINOIS	IDOT Project No.		

PART OF THE NW 1/4 OF SECTION 19, TWP. 36 N., R. 15 E. OF THE 3RD. P.M., IN COOK COUNTY, ILLINOIS.



LEGEND

- SECTION CORNER
- QUARTER SECTION CORNER
- SECTION LINE
- QUARTER SECTION LINE
- QUARTER, QUARTER SECTION LINE
- PLATTED LOT LINES
- PROPERTY (DEED) LINE
- APPARENT PROPERTY LINE
- EXISTING CENTERLINE
- PROPOSED CENTERLINE
- EXISTING RIGHT OF WAY LINE
- PROPOSED RIGHT OF WAY LINE
- PROPOSED EASEMENT
- 129.32' MEASURED DIMENSION
- 129.32' (COMP) COMPUTED DIMENSION
- (129.32') RECORDED DIMENSION
- EXISTING BUILDING

GRAPHIC SCALE FEET

SCALE: 1" = 200'

Bearings are based on the Illinois State Plane Coordinate System, East Zone, NAD83, at Ground. Ground to Grid Factor = 0.99999663

- ○ IRON PIPE OR ROD FOUND
- ⊕ "MAG" NAIL SET
- \+ CUT CROSS FOUND OR SET
- ● 5 / 8" REBAR SET
- ● T1, T2, T3 — THESE STAKES REFERENCE FOUND OR SET MONUMENTATION. SET 5/8 INCH IRON ROD FLUSH WITH GROUND TO TIE FOUND IRON STAKE IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
- ● BT1, BT2, BT3 — THESE STAKES, IN CULTIVATED AREAS, REFERENCE FOUND OR SET MONUMENTATION. BURIED 5/8 INCH IRON ROD 20 INCHES BELOW GROUND TO TIE FOUND IRON STAKE, IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
- ■ STAKING OF PROPOSED RIGHT OF WAY. SET DIVISION OF HIGHWAYS SURVEY MARKER TO MONUMENT THE POSITION SHOWN. IDENTIFIED BY INSCRIPTION DATA AND SURVEYORS REGISTRATION NUMBER.
- ■ M — STAKING OF PROPOSED RIGHT OF WAY IN CULTIVATED AREAS. BURIED 5/8 INCH METAL ROD 20 INCHES BELOW GROUND TO MARK FUTURE SURVEY MARKER POSITION IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
- PERMANENT SURVEY MARKER, I.D.O.T. STANDARD 2135 (TO BE SET BY OTHERS)
- □ RIGHT OF WAY STAKING PROPOSED TO BE SET

STATE OF ILLINOIS)
)SS
COUNTY OF COOK)

THIS IS TO CERTIFY THAT WE, DB STERLIN CONSULTANTS, INC. AN ILLINOIS PROFESSIONAL DESIGN FIRM LAND SURVEYING CORPORATION, NUMBER 184-001909, HAVE SURVEYED THE PLAT OF HIGHWAYS SHOWN HEREON IN SECTION 19, TOWNSHIP 36 NORTH, RANGE 15 EAST OF THE THIRD PRINCIPAL MERIDIAN, COOK COUNTY, THAT THE SURVEY IS TRUE AND COMPLETE AS SHOWN TO THE BEST OF MY KNOWLEDGE AND BELIEF, THAT THE PLAT CORRECTLY REPRESENTS SAID SURVEY, THAT ALL MONUMENTS FOUND AND ESTABLISHED ARE OF PERMANENT QUALITY AND OCCUPY THE POSITIONS SHOWN THEREON AND THAT THE MONUMENTS ARE SUFFICIENT TO ENABLE THE SURVEY TO BE RETRACED, MADE FOR THE DEPARTMENT OF TRANSPORTATION, STATE OF ILLINOIS.

DATED AT CHICAGO, ILLINOIS THIS 26TH DAY OF MAY, 2017 A.D.

ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 35-3134
LICENSE EXPIRATION DATE: NOV. 30, 2018

THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY.

THOMAS J. GALBREATH 35-03134 PROFESSIONAL LAND SURVEYOR STATE OF ILLINOIS Renewable 11-30-18 CHICAGO

DB STERLIN CONSULTANTS, INC.
123 N. WACKER DRIVE SUITE 2000
CHICAGO, ILLINOIS 60606
TEL. (312)857-1006 FAX. (312)857-1056

PARCEL NUMBER	OWNER	TOTAL HOLDINGS ACRES	PART TAKEN ACRES	AREA IN EXISTING R.O.W. ACRES	REMAINDER AREA ACRES	EASEMENT AREA ACRES	EASEMENT AREA SQUARE FEET	EASEMENT PURPOSE	PERMANENT INDEX NUMBER	PROPERTY ACQUIRED BY
OHK3002TE	River Oaks Realty LLC, an Illinois Limited Liability Company, as to an Undivided 70% Interest; River Oaks CH LLC, an Illinois Limited Liability Comany, As To An Undivided 25% Interest; and River Oaks Nassim LLC, an Illinois Limited Liability Company, as to an Undivided 5% Interest, all as Tenants in Common.	73.681	N/A	N/A	N/A	0.024	N/A		30-19-100-135 30-19-100-112 30-19-100-129 30-19-300-006	
OHK3003TE	Village of Lansing	17.093	N/A	N/A	N/A	0.045	N/A		30-19-100-130 30-19-300-036 30-19-300-037	

PLAT OF HIGHWAYS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ILLINOIS ROUTE 83 (TORRENCE AVE.)

SECTION: EXCHANGE AVE. TO RING RD. COUNTY: COOK
PROJECT JOB NO.: R-90-015-11
STATION: 170+76 TO 179+30
SCALE: 1" = 200' SHEET 1 OF 2

BUREAU OF LAND ACQUISITION
201 WEST CENTER COURT
SCHAUMBURG, ILLINOIS 60196

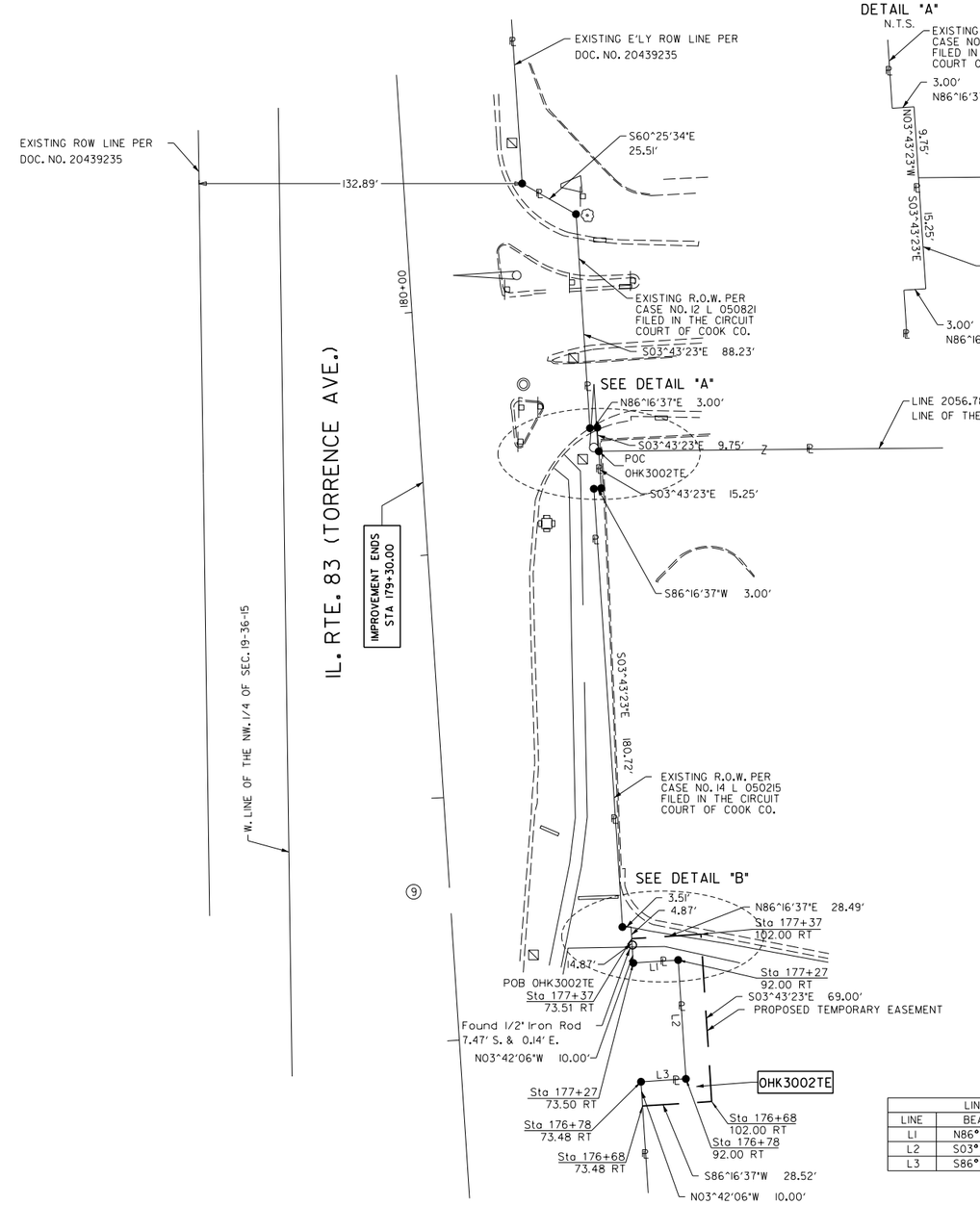
REVISION DATE: MAY 25, 2017

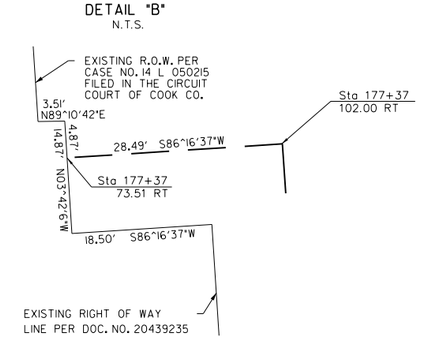
REVISION: RE-NAMED T.E. PARCELS AND CHANGED PROPOSED R.O.W. TO EXISTING R.O.W.

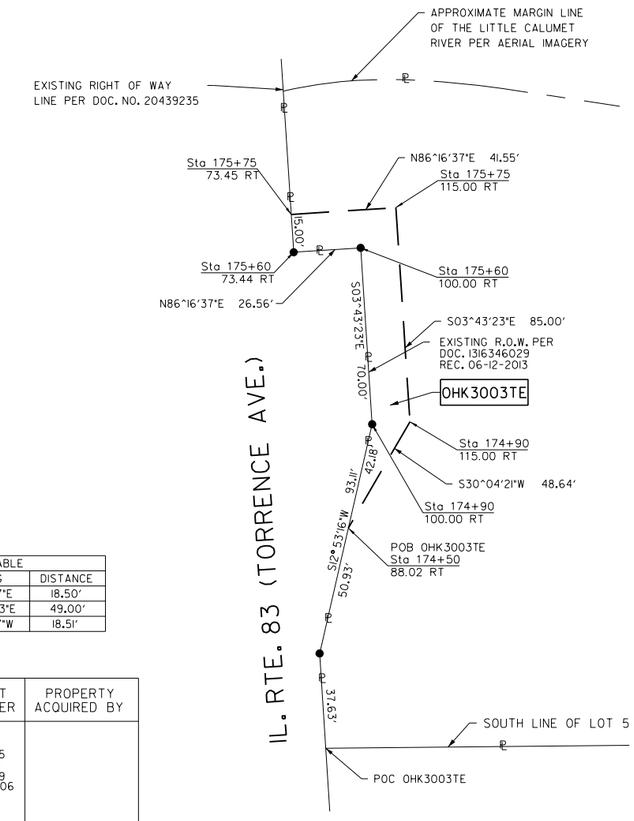
MADE BY: TJG

ROUTE ILLINOIS ROUTE 83 SECTION: COUNTY COOK JOB NO.: R-90-015-11 RECORDING: RECORDED ON

PART OF THE NW 1/4 OF SECTION 19, TWP. 36 N., R. 15 E. OF THE 3RD. P.M., IN COOK COUNTY, ILLINOIS.







LINE TABLE		
LINE	BEARING	DISTANCE
L1	N86° 16' 37"E	18.50'
L2	S03° 43' 23"E	49.00'
L3	S86° 16' 37"W	18.51'

PARCEL NUMBER	OWNER	TOTAL HOLDINGS ACRES	PART TAKEN ACRES	AREA IN EXISTING R.O.W. ACRES	REMAINDER AREA ACRES	EASEMENT AREA ACRES	EASEMENT AREA SQUARE FEET	EASEMENT PURPOSE	PERMANENT INDEX NUMBER	PROPERTY ACQUIRED BY
OHK3002TE	River Oaks Realty LLC, an Illinois Limited Liability Company, as to an Undivided 70% Interest; River Oaks CH LLC, an Illinois Limited Liability Comany, As To An Undivided 25% Interest; and River Oaks Nassim LLC, an Illinois Limited Liability Company, as to an Undivided 5% Interest, alias Tenants In Common.	73.681	N/A	N/A	N/A	0.024	N/A		30-19-100-135 30-19-100-112 30-19-100-129 30-19-300-006	
OHK3003TE	Village of Lansing	17.093	N/A	N/A	N/A	0.045	N/A		30-19-100-130 30-19-300-036 30-19-300-037	

LEGEND

- SECTION CORNER (9 / 10 / 16 / 15)
- QUARTER SECTION CORNER (16 — 15)
- SECTION LINE
- QUARTER SECTION LINE
- QUARTER, QUARTER SECTION LINE
- PLATTED LOT LINES
- ℄ PROPERTY (DEED) LINE
- APL APPARENT PROPERTY LINE
- EXISTING CENTERLINE
- PROPOSED CENTERLINE
- EXISTING RIGHT OF WAY LINE
- PROPOSED RIGHT OF WAY LINE
- PROPOSED EASEMENT
- 129.32' MEASURED DIMENSION
- 129.32' (COMP) COMPUTED DIMENSION
- (129.32') RECORDED DIMENSION
- EXISTING BUILDING

N

GRAPHIC SCALE FEET

30 0 0 30

SCALE: 1" = 30'

Bearings are based on to the Illinois State Plane Coordinate System, East Zone, NAD83, at Ground. Ground to Grid Factor = 0.99999663

- ○ IRON PIPE OR ROD FOUND
- ⊕ "MAG" NAIL SET
- \+ CUT CROSS FOUND OR SET
- ● 5 / 8" REBAR SET
- ● T1, T2, T3 — THESE STAKES REFERENCE FOUND OR SET MONUMENTATION. SET 5/8 INCH IRON ROD FLUSH WITH GROUND TO TIE FOUND IRON STAKE IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
- ● BT1, BT2, BT3 — THESE STAKES, IN CULTIVATED AREAS, REFERENCE FOUND OR SET MONUMENTATION. BURIED 5/8 INCH IRON ROD 20 INCHES BELOW GROUND TO TIE FOUND IRON STAKE. IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
- ■ STAKING OF PROPOSED RIGHT OF WAY. SET DIVISION OF HIGHWAYS SURVEY MARKER TO MONUMENT THE POSITION SHOWN. IDENTIFIED BY INSCRIPTION DATA AND SURVEYORS REGISTRATION NUMBER.
- ■ M STAKING OF PROPOSED RIGHT OF WAY IN CULTIVATED AREAS. BURIED 5/8 INCH METAL ROD 20 INCHES BELOW GROUND TO MARK FUTURE SURVEY MARKER POSITION IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
- ◔ PERMANENT SURVEY MARKER, I.D.O.T. STANDARD 2135 (TO BE SET BY OTHERS)
- □ RIGHT OF WAY STAKING PROPOSED TO BE SET

STATE OF ILLINOIS)
)SS
COUNTY OF COOK)

THIS IS TO CERTIFY THAT WE, DB STERLIN CONSULTANTS, INC. AN ILLINOIS PROFESSIONAL DESIGN FIRM LAND SURVEYING CORPORATION, NUMBER 184-001909, HAVE SURVEYED THE PLAT OF HIGHWAYS SHOWN HEREON IN SECTION 19, TOWNSHIP 36 NORTH, RANGE 15 EAST OF THE THIRD PRINCIPAL MERIDIAN, COOK COUNTY, THAT THE SURVEY IS TRUE AND COMPLETE AS SHOWN TO THE BEST OF MY KNOWLEDGE AND BELIEF, THAT THE PLAT CORRECTLY REPRESENTS SAID SURVEY, THAT ALL MONUMENTS FOUND AND ESTABLISHED ARE OF PERMANENT QUALITY AND OCCUPY THE POSITIONS SHOWN THEREON AND THAT THE MONUMENTS ARE SUFFICIENT TO ENABLE THE SURVEY TO BE RETRACED, MADE FOR THE DEPARTMENT OF TRANSPORTATION, STATE OF ILLINOIS.

DATED AT CHICAGO, ILLINOIS THIS 26TH DAY OF MAY, 2017 A.D.

ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 35-3134
LICENSE EXPIRATION DATE: NOV. 30, 2018

THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY.

THOMAS J. GALBREATH 35-03134 PROFESSIONAL LAND SURVEYOR STATE OF ILLINOIS Renewable 11-30-18 CHICAGO

DB STERLIN CONSULTANTS, INC.
123 N. WACKER DRIVE SUITE 2000
CHICAGO, ILLINOIS 60606
TEL. (312)857-1006 FAX. (312)857-1056

PLAT OF HIGHWAYS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
ILLINOIS ROUTE 83 (TORRENCE AVE.)

SECTION: EXCHANGE AVE. TO RING RD. COUNTY: COOK
PROJECT JOB NO.: R-90-015-11
STATION: 170+76 TO 179+30
SCALE: 1" = 30' SHEET 2 OF 2

BUREAU OF LAND ACQUISITION
201 WEST CENTER COURT
SCHAUMBURG, ILLINOIS 60196

REVISION DATE: MAY 25, 2017

REVISION: RE-NAMED T.E. PARCELS AND CHANGED PROPOSED R.O.W. TO EXISTING R.O.W.

MADE BY: TJG

ROUTE ILLINOIS ROUTE 83 SECTION: COUNTY COOK JOB NO.: R-90-015-11 RECORDING: RECORDED ON

℄ IL 83

598.18 598.25 598.32 598.39 598.46 598.50 598.53 598.68 598.83 599.08 599.32 599.57 599.82 600.06 600.31
598.39 598.47 598.55 598.62 598.69 598.73 598.77 598.82 599.07 599.32 599.56 599.81 600.06 600.30 600.55
598.61 598.69 598.77 598.85 598.92 598.97 599.01 599.16 599.31 599.56 599.80 600.05 600.30 600.54 600.79
171 172 173 174
598.39 598.48 598.55 598.63 598.69 598.73 598.77 598.92 599.07 599.32 599.56 599.81 600.06 600.30 600.55
598.18 598.26 598.32 598.40 598.46 598.50 598.53 598.68 598.83 599.08 599.32 599.57 599.82 600.06 600.31
597.97 598.04 598.10 598.17 598.23 598.26 598.29 598.44 598.59 598.82 599.08 599.33 599.82 600.07
598.58 599.58 600.07
598.57 598.79 599.01 599.23 599.45 599.66

175+00 ILLINOIS ROUTE 83
(TORRENCE AVENUE)

MATCH LINE STA. 176+00

EXCHANGE AVENUE

IMPROVEMENT BEGINS
STA. 170+61.00

(597.60) 597.68 597.82 597.94
(597.80)
(597.75) 597.82 6.09' RT
177+12 595.86 70.8' LT
+25 598.43 7.01' RT
177+50 597.86 52.2' LT
+68.15 PC 20'R 599.69 8.91'RT
598.45 6.00'LT +25
598.57
599.17 8.12' RT +50
599.21 6.00'LT +50
599.87
599.75 6.04'LT +69.09 PC 40'R
599.33
600.70 9.59'RT PT 20'R
600.22
600.08 7.30'LT +83.54
600.64
600.56
600.58 8.94'LT PT 40'R
600.38
600.69
10+00
40'R
20'R
+76.89 45'LT
+96.14 45'LT

℄ IL 83

599.81 598.96 599.37 599.61
600.19 600.02
600.93 600.53 600.45 599.73 599.65 599.45
600.77 600.62 600.45 600.28 600.11 599.94 599.75
601.17 601.01 600.86 600.69 600.52 600.32 600.18 599.99
600.93 600.77 600.62 600.45 600.28 600.11 599.94 599.75
600.69 600.53 600.38 600.21 600.04 599.87 599.70 599.51
600.45 600.29 600.14 599.97 599.80 599.63 599.46 599.27
600.21 599.90 599.73 599.56 599.22 598.97
600.05 599.39

(598.98) BOC
(598.60) EOP
598.87 SW
598.86 EOP
598.96
598.94 SW
598.93 EOP
(598.97) SW
(598.75) EOP
598.93 SW
598.92 EOP
598.85 SW
598.84 EOP
598.90
599.09
(598.98) SW

RING ROAD

RIVER OAKS CENTER DRIVE

MATCH LINE STA. 176+00

176 177 178 179

180+00 ILLINOIS ROUTE 83 181
(TORRENCE AVENUE)

IMPROVEMENT ENDS
STA. 179+45.00

20 0 20 40 60 80 100
SCALE IN FEET

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1/26/2018 - 4:09:04 PM

GRÄEF 8501 W. Higgins Road Suite 280 Chicago, Illinois 60631 (773) 399-0112

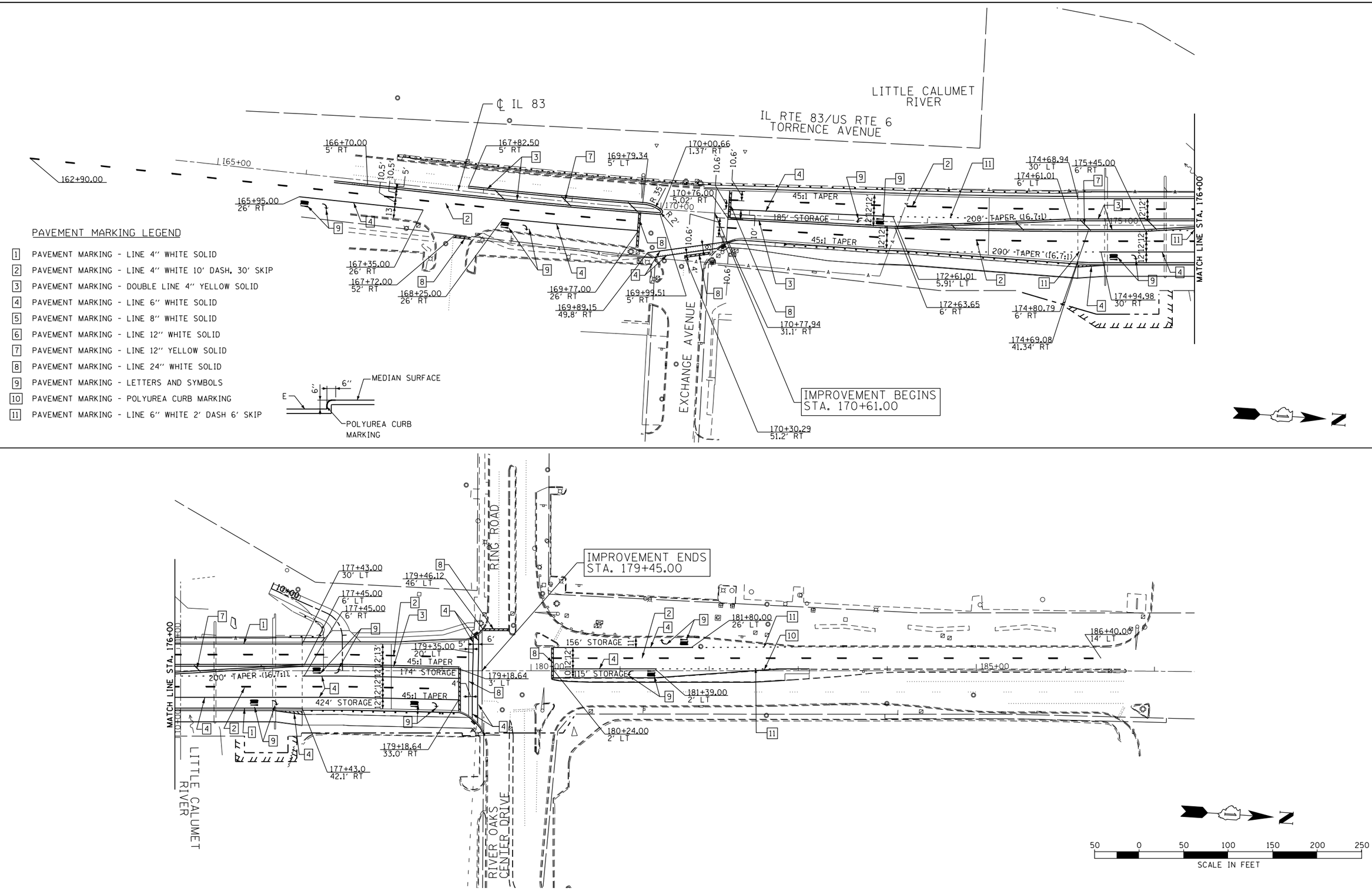
USER NAME = 1908	DESIGNED - JWB	REVISED -	
	DRAWN - JWB	REVISED -	
PLOT SCALE = 40.0000 ' / in.	CHECKED - RS	REVISED -	
PLOT DATE = 1/26/2018 - 4:09:04 PM	DATE - 01/23/2018	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL 83/US 6 (TORRENCE AVENUE) OVER LITTLE CALUMET RIVER
GRADING AND JOINTING PLAN

SCALE: 1" = 20' | SHEET NO. GRD-1 OF 1 | STA. 170+50 TO STA. 181+30

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	0909.1-B	COOK	138	40
		CONTRACT NO. 60K78		
		ILLINOIS FED. AID PROJECT		



PAVEMENT MARKING LEGEND

1. PAVEMENT MARKING - LINE 4'' WHITE SOLID
2. PAVEMENT MARKING - LINE 4'' WHITE 10' DASH, 30' SKIP
3. PAVEMENT MARKING - DOUBLE LINE 4'' YELLOW SOLID
4. PAVEMENT MARKING - LINE 6'' WHITE SOLID
5. PAVEMENT MARKING - LINE 8'' WHITE SOLID
6. PAVEMENT MARKING - LINE 12'' WHITE SOLID
7. PAVEMENT MARKING - LINE 12'' YELLOW SOLID
8. PAVEMENT MARKING - LINE 24'' WHITE SOLID
9. PAVEMENT MARKING - LETTERS AND SYMBOLS
10. PAVEMENT MARKING - POLYUREA CURB MARKING
11. PAVEMENT MARKING - LINE 6'' WHITE 2' DASH 6' SKIP

GRAEF 8501 W. Higgins Road Suite 280 Chicago, Illinois 60631 (773) 399-0112

USER NAME = 1951	DESIGNED - JWB	REVISED -
	DRAWN - JWB	REVISED -
PLOT SCALE = 100.0000 ' / in.	CHECKED - RS	REVISED -
PLOT DATE = 3/14/2018 - 8:49:26 AM	DATE - 01/23/2018	REVISED - 03/13/2018

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL 83/US 6 (TORRENCE AVENUE) OVER LITTLE CALUMET RIVER
PAVEMENT MARKING PLAN

SCALE: 1'' = 50' | SHEET NO. PMK-1 OF 1 | STA. 165+00 TO STA. 187+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	0909.1-B	COOK	138	41
		CONTRACT NO. 60K78		
	ILLINOIS FED. AID PROJECT			

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3/14/2018 - 8:49:26 AM

TRAFFIC SIGNAL LEGEND

(NOT TO SCALE)

ITEM	EXISTING	PROPOSED
CONTROLLER CABINET		
COMMUNICATION CABINET	CC	CC
MASTER CONTROLLER	MC	MC
MASTER MASTER CONTROLLER	MMC	MMC
UNINTERRUPTABLE POWER SUPPLY		
SERVICE INSTALLATION -(P) POLE MOUNTED	P	P
SERVICE INSTALLATION -(G) GROUND MOUNTED -(GM) GROUND MOUNTED METERED	G GM	G GM
TELEPHONE CONNECTION	ET	T
STEEL MAST ARM ASSEMBLY AND POLE		
ALUMINUM MAST ARM ASSEMBLY AND POLE		
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE		
SIGNAL POST -(BM) BARREL MOUNTED - TEMPORARY		BM
WOOD POLE		
GUY WIRE		
SIGNAL HEAD		
SIGNAL HEAD WITH BACKPLATE		
SIGNAL HEAD OPTICALLY PROGRAMMED	P P	P P
FLASHER INSTALLATION -(FS) SOLAR POWERED	F FS F FS	F FS F FS
PEDESTRIAN SIGNAL HEAD		
PEDESTRIAN PUSH BUTTON -(APS) ACCESSIBLE PEDESTRIAN PUSH BUTTON	APS	APS
RADAR DETECTION SENSOR	R	R
VIDEO DETECTION CAMERA	V	V
RADAR/VIDEO DETECTION ZONE		
PAN, TILT, ZOOM (PTZ) CAMERA	PTZ	PTZ
EMERGENCY VEHICLE LIGHT DETECTOR		
CONFIMATION BEACON		
WIRELESS INTERCONNECT		
WIRELESS INTERCONNECT RADIO REPEATER	ERR	RR

ITEM	EXISTING	PROPOSED
HANDHOLE -SQUARE -ROUND		
HEAVY DUTY HANDHOLE -SQUARE -ROUND	H	H
DOUBLE HANDHOLE		
JUNCTION BOX		
RAILROAD CANTILEVER MAST ARM		
RAILROAD FLASHING SIGNAL		
RAILROAD CROSSING GATE		
RAILROAD CROSSBUCK		
RAILROAD CONTROLLER CABINET		
UNDERGROUND CONDUIT (UC), GALVANIZED STEEL		
TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE		
SYSTEM ITEM	S	SP
INTERSECTION ITEM	I	IP
REMOVE ITEM		R
RELOCATE ITEM		RL
ABANDON ITEM		A
CONTROLLER CABINET AND FOUNDATION TO BE REMOVED		RCF
MAST ARM POLE AND FOUNDATION TO BE REMOVED		RMF
SIGNAL POST AND FOUNDATION TO BE REMOVED		RPF
DETECTOR LOOP, TYPE I		
PREFORMED DETECTOR LOOP	P	P
SAMPLING (SYSTEM) DETECTOR	S	S
INTERSECTION AND SAMPLING (SYSTEM) DETECTOR	IS	IS
QUEUE AND SAMPLING (SYSTEM) DETECTOR	QS	QS
WIRELESS DETECTOR SENSOR	W	W
WIRELESS ACCESS POINT		

ITEM	EXISTING	PROPOSED
SIGNAL HEAD -(P) PROGRAMMABLE SIGNAL HEAD	P	P
SIGNAL HEAD WITH BACKPLATE -(P) PROGRAMMABLE SIGNAL HEAD -(RB) RETROREFLECTIVE BACKPLATE	P RB	P RB
PEDESTRIAN SIGNAL HEAD AT RAILROAD INTERSECTIONS		
PEDESTRIAN SIGNAL HEAD WITH COUNTDOWN TIMER	C D	C D
ILLUMINATED SIGN "NO LEFT TURN"/"NO RIGHT TURN"		
NUMBER OF CONDUCTORS, ELECTRIC CABLE NO. 14, UNLESS NOTED OTHERWISE. ALL DETECTOR LOOP CABLE TO BE SHIELDED	5	5
GROUND CABLE IN CONDUIT, NO. 6 SOLID COPPER (GREEN)	1#6	1#6
ELECTRIC CABLE IN CONDUIT, TRACER NO. 14 1/C	1	1
COAXIAL CABLE	C	C
VENDOR CABLE	V	V
COPPER INTERCONNECT CABLE, NO. 18, 3 PAIR TWISTED, SHIELDED	6#18	6#18
FIBER OPTIC CABLE -NO. 62.5/125, MM12F -NO. 62.5/125, MM12F SM12F -NO. 62.5/125, MM12F SM24F	12F 24F 36F	12F 24F 36F
GROUND ROD -(C) CONTROLLER -(M) MAST ARM -(P) POST -(S) SERVICE	C M P S	C M P S

FILE NAME = ts05.dgn	USER NAME = leysa	DESIGNED - IP	REVISED -
		DRAWN - IP	REVISED -
	PLOT SCALE = 50.0000 ' / in.	CHECKED - LP	REVISED -
Default	PLOT DATE = 9/29/2016	DATE - 9/29/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: NONE | SHEET 1 OF 7 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			138	42
	TS-05	CONTRACT NO.		
	ILLINOIS	FED. AID PROJECT		

LOOP DETECTOR NOTES

1. 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.

2. 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.

3. 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.

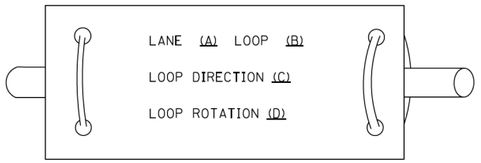
4. ALL LOOP CABLE SHALL BE FASTENED WITH PLASTIC TIE WRAP TO THE HANDHOLE HOOKS.

5. IN ASPHALT PAVEMENT, LOOPS SHOULD BE PLACED IN THE BINDER AND DIVEHOLES 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.

6. 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.

7. 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

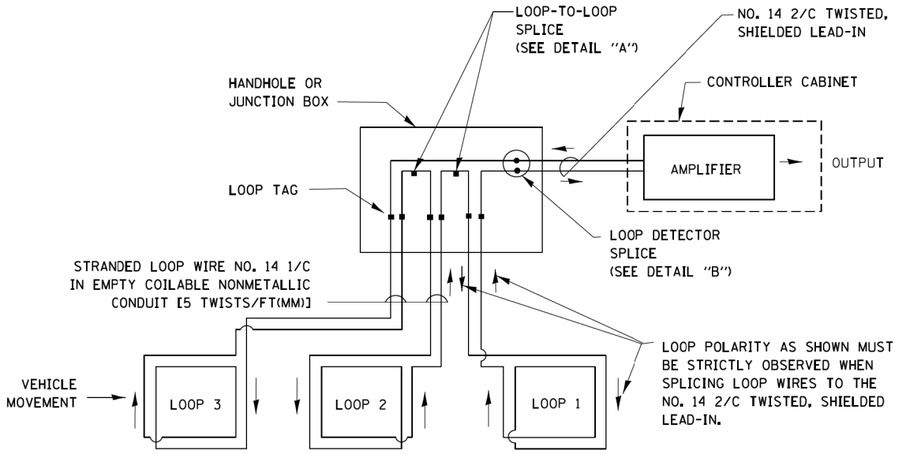


A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY

B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.

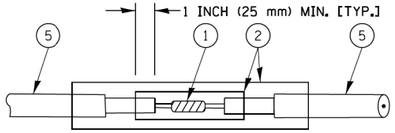
C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".

D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

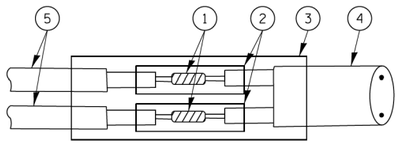


DETECTOR LOOP WIRING SCHEMATIC

- 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.

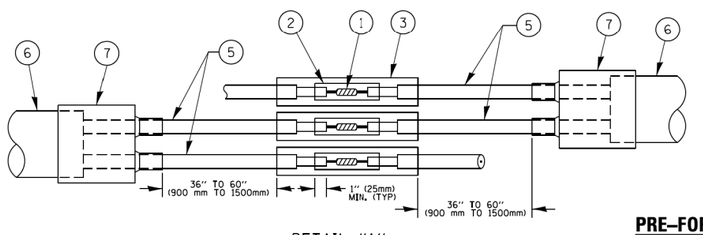


DETAIL "A"
LOOP-TO-LOOP SPLICE



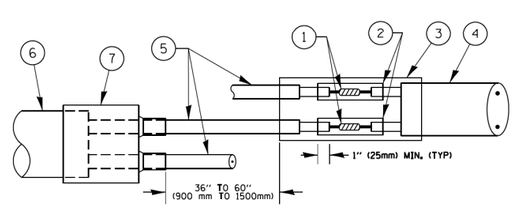
DETAIL "B"
LOOP-TO-CONTROLLER SPLICE

TYPE I LOOP



DETAIL "A"
LOOP-TO-LOOP SPLICE

PRE-FORMED LOOP



DETAIL "B"
LOOP-TO-CONTROLLER SPLICE

LOOP DETECTOR SPLICE

(1) WESTERN UNION SPLICE SOLDERED WITH ROSIN CORE FLUX. ALL EXPOSED SURFACES OF THE SOLDER SHALL BE SMOOTH. THE WESTERN UNION SPLICES SHALL BE STAGGERED.

(2) WCSMW 30/100 HEAT SHRINK TUBE, MINIMUM LENGTH 3" (75 mm), UNDERWATER GRADE.

(3) WCS 200/750 HEAT SHRINK TUBE, MINIMUM LENGHT 6" (150 mm), UNDERWATER GRADE.

(4) NO. 14 2/C TWISTED, SHIELDED CABLE.

(5) LOOP CONDUCTOR WITH FLEXIBLE PLASTIC TUBE.

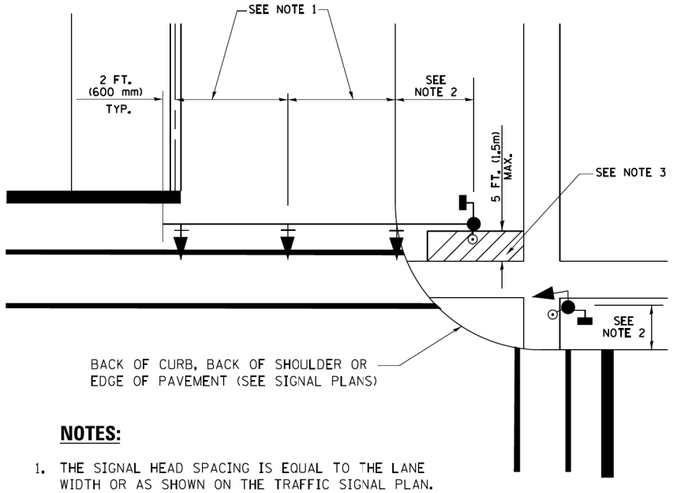
(6) PRE-FORMED LOOP

(7) XL POLYOLEFIN 2 CONDUCTOR BREAKOUT SEALS, TYCO CBR-2 OR APPROVED EQUAL

FILE NAME = c:\pw_work\pwidot\footemj\d0108315\ts05.dgn	USER NAME = footemj	DESIGNED - DAD	REVISED - DAG 1-1-14	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN - BCK	REVISED -								138	43
	PLOT SCALE = 50.0000 ' / in.	CHECKED - DAD	REVISED -						TS-05	CONTRACT NO.		
	PLOT DATE = 1/13/2014	DATE - 10-28-09	REVISED -		SCALE: NONE	SHEET NO. 2 OF 7 SHEETS	STA. TO STA.	FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

TRAFFIC SIGNAL MAST ARM AND SIGNAL POST

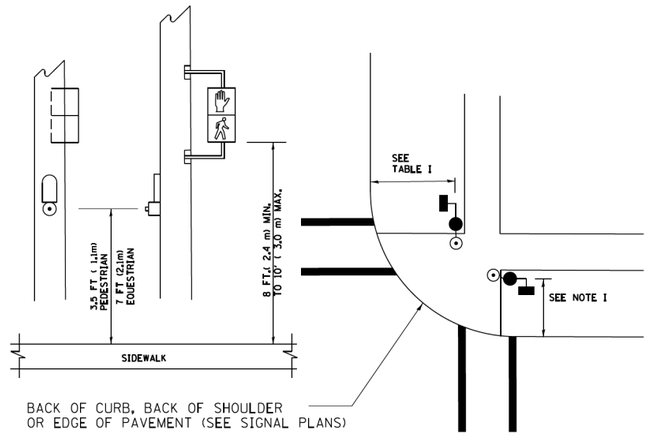
MAST ARM MOUNTED SIGNALS IN EXISTING, PROPOSED OR FUTURE SIDEWALK/BICYCLE PATH AREA. INTERSECTION SHOWN WITH PEDESTRIAN SIGNALS AND PEDESTRIAN PUSHBUTTON DETECTORS.



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."

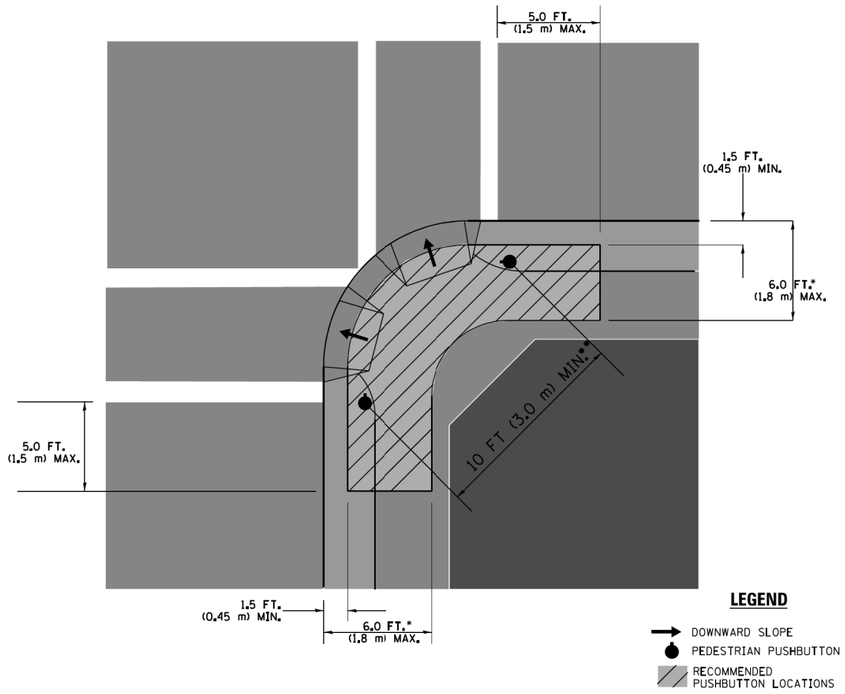
PEDESTRIAN SIGNAL POST AND PEDESTRIAN PUSH BUTTON POST



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 TOTHE 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.

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	PLOT DATE = 1/13/2014	DATE - 10-28-09	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: NONE | SHEET NO. 3 OF 7 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			138	44
	TS-05	CONTRACT NO.		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

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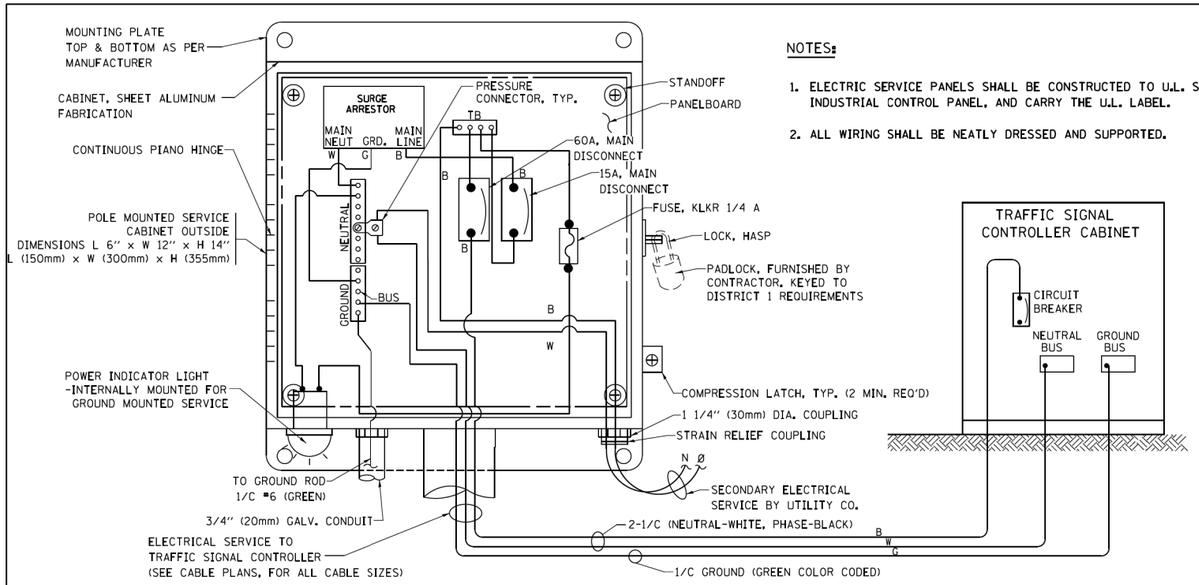
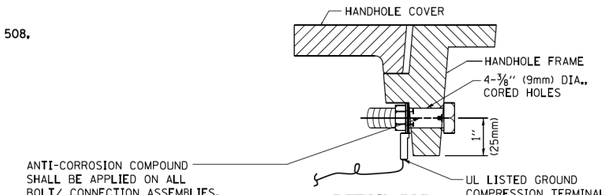


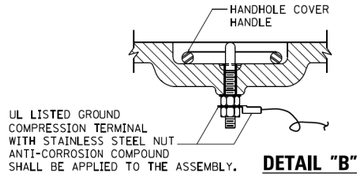
NOTES:

1. ELECTRIC SERVICE PANELS SHALL BE CONSTRUCTED TO U.L. STD 508, INDUSTRIAL CONTROL PANEL, AND CARRY THE U.L. LABEL.
2. ALL WIRING SHALL BE NEATLY DRESSED AND SUPPORTED.

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



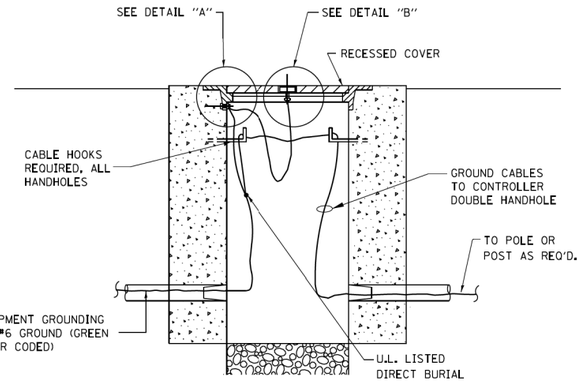
DETAIL "A"



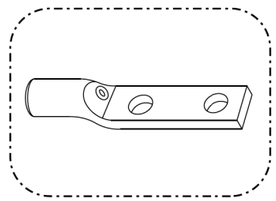
DETAIL "B"

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.



HANDHOLE COVER & FRAME – GROUNDING DETAIL
(NOT TO SCALE)

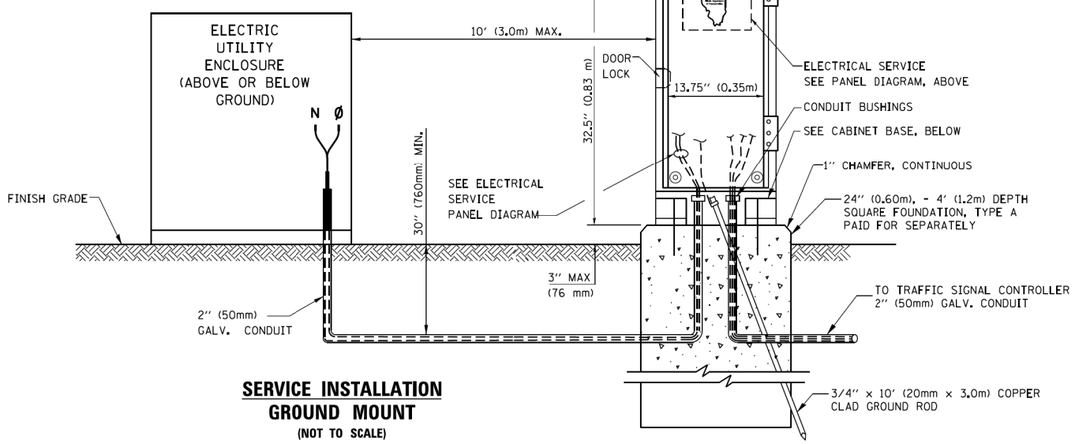


HEAVY-DUTY COMPRESSION TERMINAL (BURNDY TYPE YCHA OR APPROVED EQUAL)

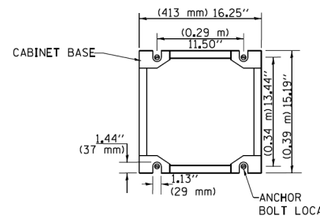
¾" (20mm) HEAVY-DUTY GROUND ROD CLAMP (BURNDY TYPE GRC OR APPROVED EQUAL)

NOTES:

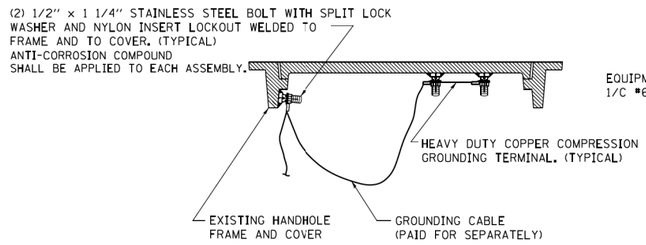
- ALL CLAMPS SHALL BE BRONZE OR COPPER, UL APPROVED.
- GROUND CABLE SHALL BE LOOPED OVER HOOKS IN THE HANDHOLES 6.5' (2.0m) SLACK SHALL BE PROVIDED IN SINGLE HANDHOLES 13' (4.0m) OF SLACK SHALL BE PROVIDED IN DOUBLE HANDHOLES. 5' (1.4m) OF SLACK SHALL BE PROVIDED BETWEEN FRAME AND COVER.



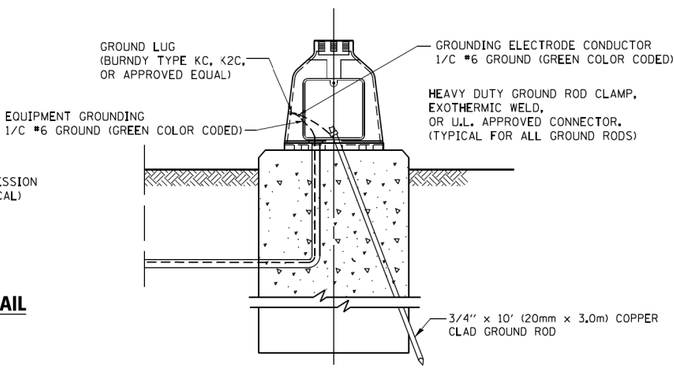
SERVICE INSTALLATION GROUND MOUNT
(NOT TO SCALE)



CABINET – BASE BOLT PATTERN
(NOT TO SCALE)



EXISTING HANDHOLE COVER & FRAME – GROUNDING DETAIL
(NOT TO SCALE)



MAST ARM POLE / POST–GROUNDING DETAIL
(NOT TO SCALE)

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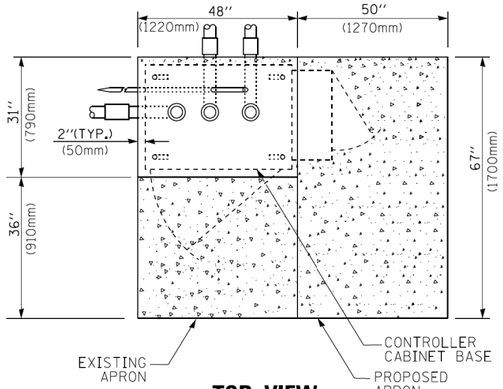
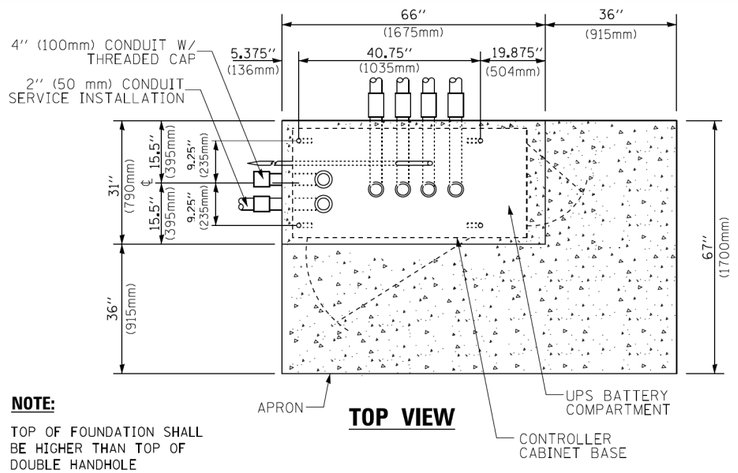
		DRAWN - BCK	REVISED -							138	45
	PLOT SCALE = 50.0000 ' / in.	CHECKED - DAD	REVISED -					TS-05	CONTRACT NO.		
	PLOT DATE = 1/13/2014	DATE - 10-28-09	REVISED -		SCALE: NONE	SHEET NO. 4 OF 7 SHEETS STA. TO STA.	FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



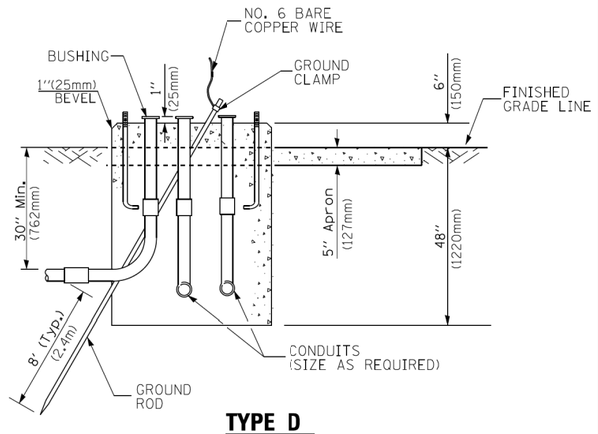
TOP VIEW



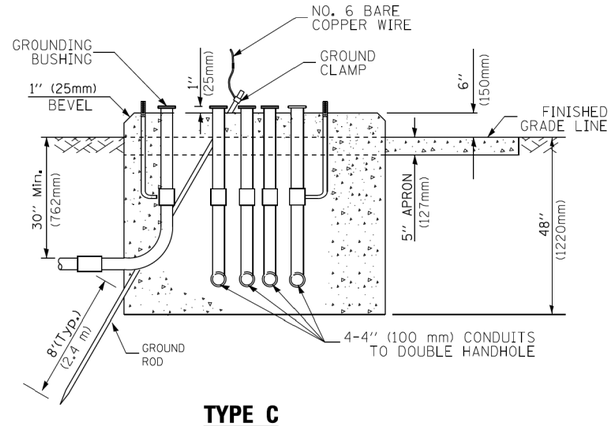
NOTE:

TOP OF FOUNDATION SHALL BE HIGHER THAN TOP OF DOUBLE HANDHOLE

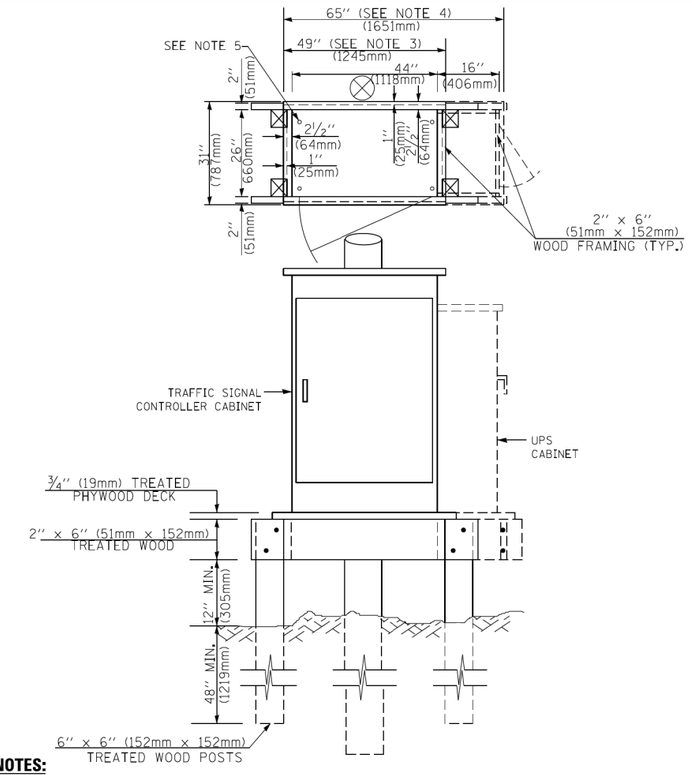
TOP VIEW



TYPE D
FOR GROUND MOUNTED
CONTROLLER CABINET
AND UPS BATTERY CABINET



TYPE C
FOR GROUND MOUNTED
SUPER P (TYPE IV) AND SUPER R (TYPE V)
CONTROLLER CABINETS



NOTES:

1. 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
2. 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.
3. PLATFORM SIZE FOR CONTROLLER CABINET TYPE IV.
4. PLATFORM SIZE FOR CONTROLLER CABINET TYPE IV AND UNINTERRUPTIBLE POWER SUPPLY CABINET.
5. 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.
6. 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	① 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)
	11'-0'' (3.4 m)	36'' (900mm)	30'' (750mm)	12	7(22)
Greater than or equal to 40' (12.2 m) and less than 50' (15.2 m)	13'-0'' (4.0 m)	36'' (900mm)	30'' (750mm)	12	7(22)
Greater than or equal to 50' (15.2 m) and up to 55' (16.8 m)	15'-0'' (4.6 m)	36'' (900mm)	30'' (750mm)	12	7(22)
Greater than or equal to 56' (16.8 m) and less than 65' (19.8 m)	21'-0'' (6.4 m)	42'' (1060mm)	36'' (900mm)	16	8(25)
Greater than or equal to 65' (19.8 m) and up to 75' (22.9 m)	25'-0'' (7.6 m)	42'' (1060mm)	36'' (900mm)	16	8(25)

NOTES:

1. 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.
2. Combination mast arm assemblies under 55 feet (16.8 m) shall use 36'' (900 mm) diameter foundations.
3. Combination mast arm assemblies under 56 feet (16.8 m) through 75 feet (22.9 m) shall use 42'' (1060 mm) diameter foundations
4. For mast arm assemblies with dual arms refer to state standard 878001..

DEPTH OF MAST ARM FOUNDATIONS, TYPE E

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	PLOT DATE = 1/13/2014	CHECKED - DAD	REVISED -
		DATE - 10-28-09	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: NONE | SHEET NO. 5 OF 7 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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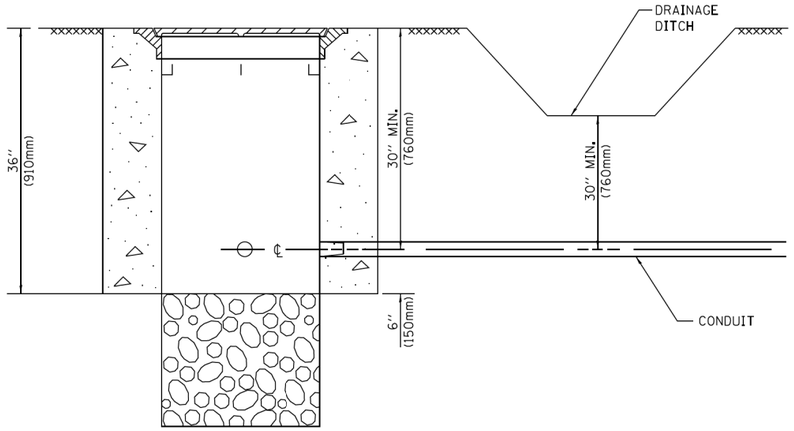
	TS-05	CONTRACT NO.		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

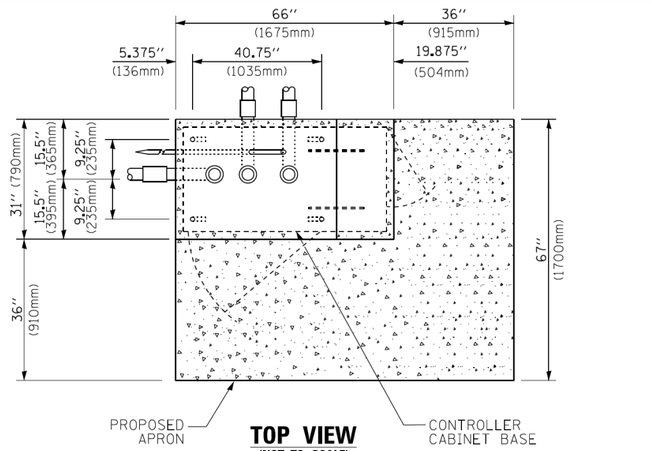


NOTES:

1. CONDUIT DEPTH SHALL BE A MINIMUM OF 30" (760mm) BELOW THE BOTTOM OF THE DRAINAGE DITCH OR ANY SLOPING GROUND
2. THE MINIMUM CONDUIT DEPTH APPLIES TO ALL CONDUIT PLACED UNDER ROADWAY PAVEMENT, MULTI-USE PATHS, SIDEWALKS AND SOIL SURFACES.
3. THE MINIMUM CONDUIT DEPTH APPLIES TO ALL HANDHOLES, HEAVY DUTY HANDHOLES AND DOUBLE HANDHOLES.

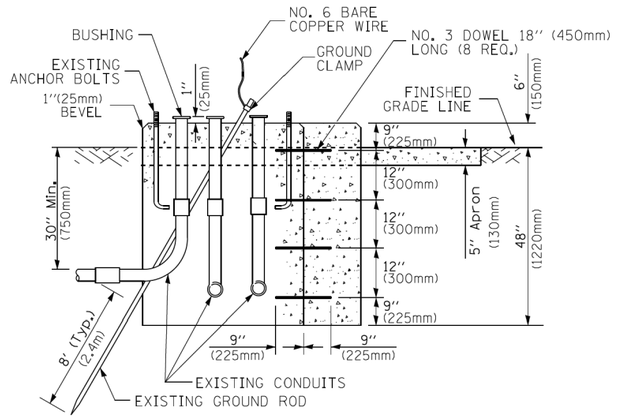
HANDHOLE WITH MINIMUM CONDUIT DEPTH

(NOT TO SCALE)



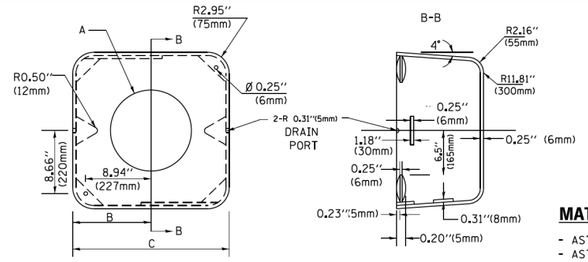
TOP VIEW

(NOT TO SCALE)



MODIFY EXISTING TYPE "D" FOUNDATION TO TYPE "C" FOUNDATION

(NOT TO SCALE)



MATERIAL:

- ASTM A36 STEEL
- ASTM A-123 HOT DIPPED GALVANIZED

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

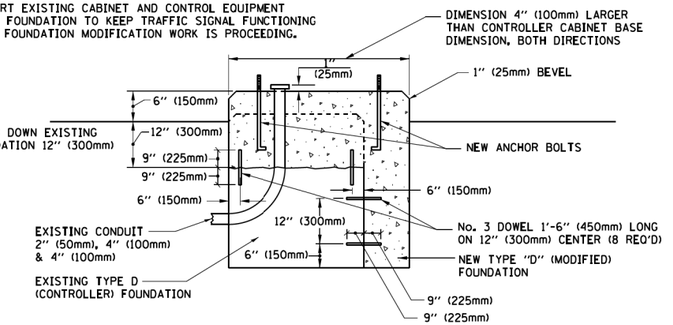
SHROUD

NOTES:

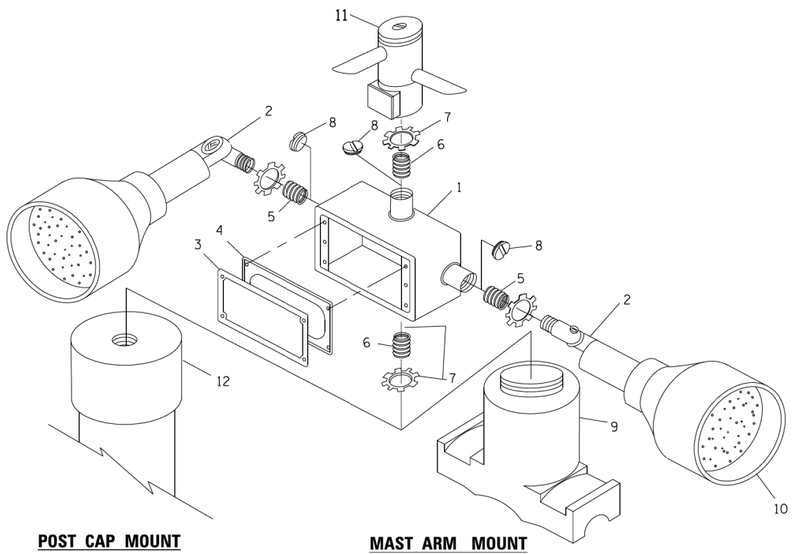
1. DIMENSION "A" IS EQUAL TO THE DIAMETER OF THE MAST ARM POLE AT THE TOP OF THE SHROUD. THE SHROUD SHALL BE TIGHT TO THE MAST ARM POLE.
2. THE SUPPLIER SHALL VERIFIED THE ABOVE DIMENSIONS BASED ON MAST ARM REQUIREMENTS.
3. THE HEIGHT OF THE SHROUD SHALL COVER THE ANCHOR BOLTS, NUTS AND MAST ARM POLE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

NOTE:

SUPPORT EXISTING CABINET AND CONTROL EQUIPMENT ABOVE FOUNDATION TO KEEP TRAFFIC SIGNAL FUNCTIONING WHILE FOUNDATION MODIFICATION WORK IS PROCEEDING.



MODIFY EXISTING TYPE "D" FOUNDATION



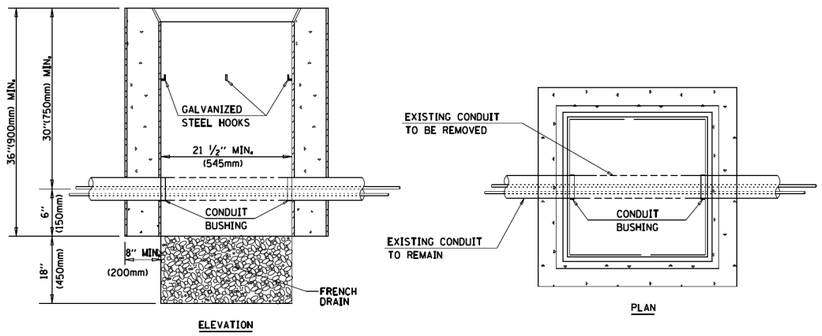
POST CAP MOUNT **MAST ARM MOUNT**

EMERGENCY VEHICLE DETECTOR WITH CONFIRMATION BEACON MOUNTING DETAIL

ITEM NO.	IDENTIFICATION
1	OUTLET BOX- GALV. 21 CU.IN. (0.000344 CU-M)
2	LAMP HOLDER AND COVER
3	OUTLET BOX COVER
4	RUBBER COVER GASKET
5	REDUCING BUSHING
6	¾"(19 mm) CLOSE NIPPLE
7	¾"(19 mm) LOCKNUT
8	¾"(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:

1. ALL ELECTRICAL ITEMS, EXCEPT ITEMS #2 AND #11 SHALL BE ALUMINUM OR GALVANIZED
2. 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
3. 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:

1. HANDHOLE CONSTRUCTED PER STATE STANDARD 814001.
2. REMOVAL OF THE EXISTING CONDUIT FROM THE HANDHOLE AND THE INSTALLATION OF THE CONDUIT BUSHINGS SHALL BE INCLUDED WITH THE COST OF THE HANDHOLE.

HANDHOLE TO INTERCEPT EXISTING CONDUIT

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	PLOT SCALE = 50.0000 ' / in.	DRAWN - BCK	REVISED -		
	PLOT DATE = 1/13/2014	CHECKED - DAD	REVISED -		
		DATE - 10-28-09	REVISED -		SCALE: NONE | SHEET NO. 6 OF 7 SHEETS | STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			138	47
	TS-05		CONTRACT NO.	
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

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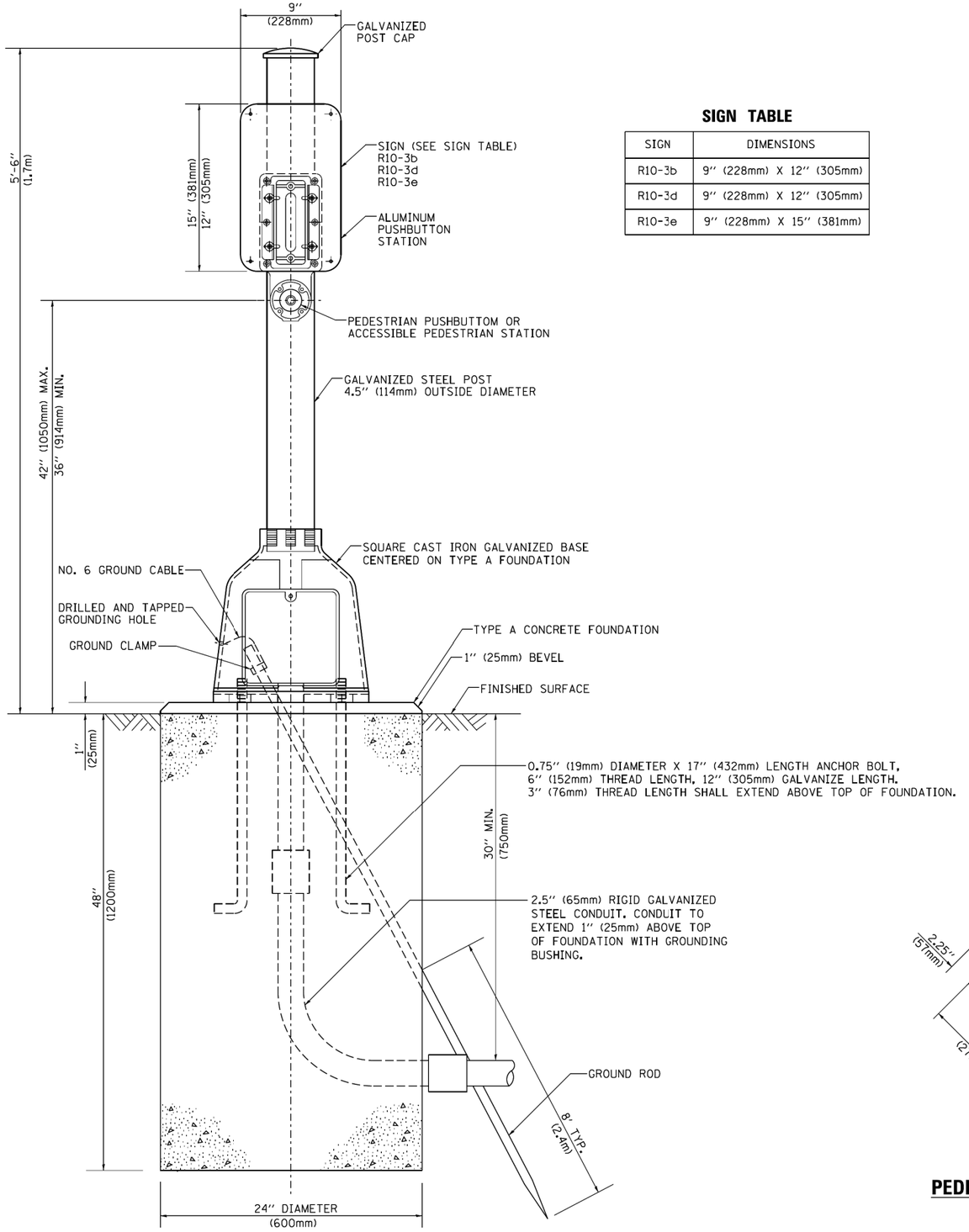
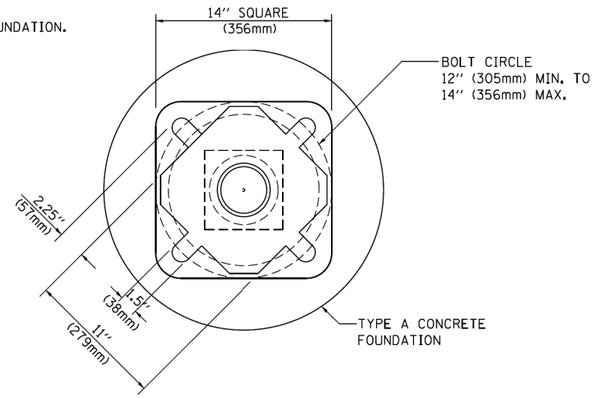


SIGN TABLE

SIGN	DIMENSIONS
R10-3b	9'' (228mm) X 12'' (305mm)
R10-3d	9'' (228mm) X 12'' (305mm)
R10-3e	9'' (228mm) X 15'' (381mm)



BOLT PATTERN

PEDESTRIAN PUSH BUTTON POST, TYPE A

FILE NAME = c:\pw_work\pwidot\footemj\d0108315\ts05.dgn	USER NAME = footemj	DESIGNED - DAG	REVISED - DAG 1-1-14
		DRAWN - GND	REVISED -
	PLOT SCALE = 50.0000 '/ in.	CHECKED - DAD	REVISED -
	PLOT DATE = 1/13/2014	DATE - 10/1/2012	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

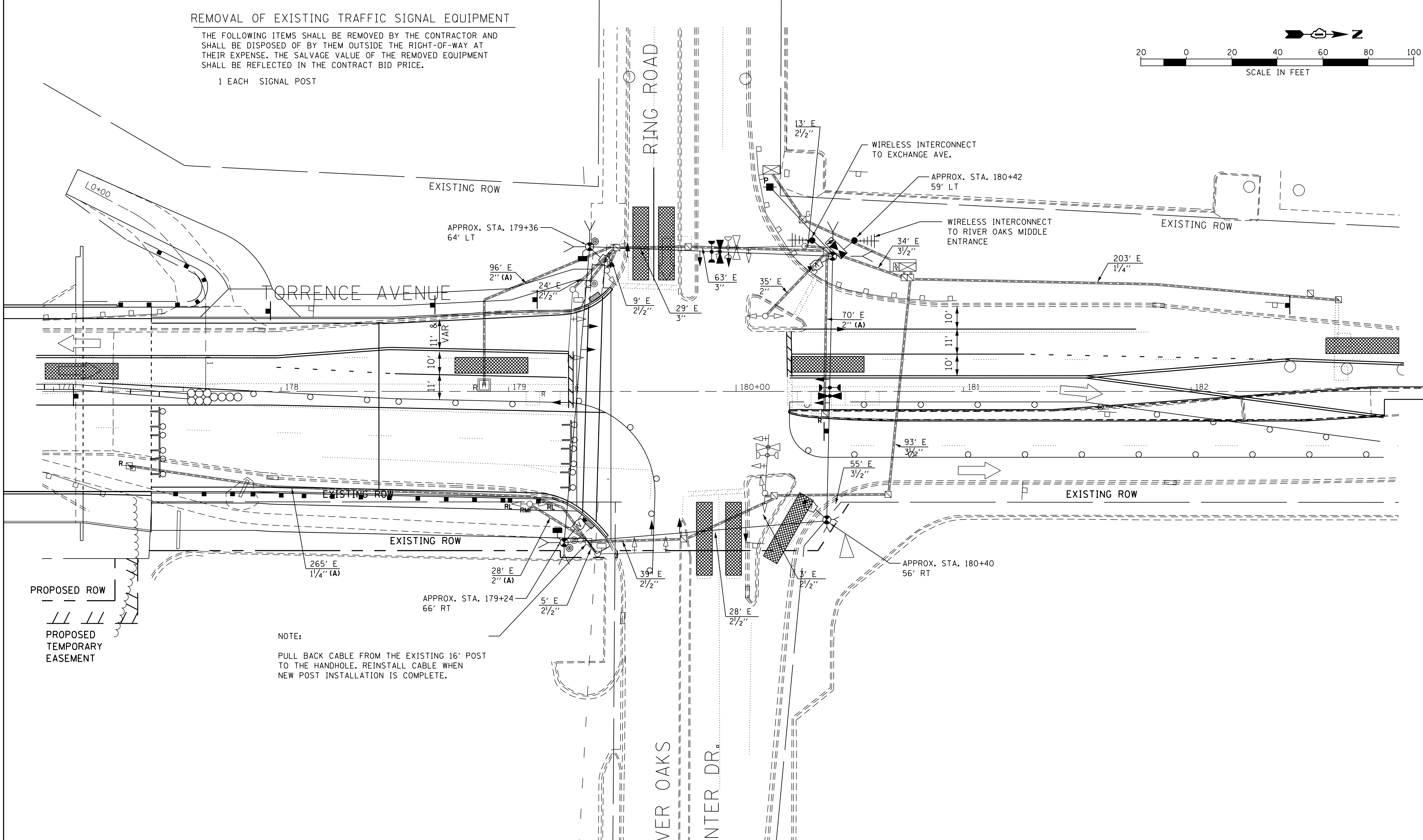
SCALE: NONE | SHEET NO. 7 OF 7 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			138	48
	TS-05	CONTRACT NO.		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

1 EACH SIGNAL POST



NOTE:

PULL BACK CABLE FROM THE EXISTING 16' POST TO THE HANDHOLE. REINSTALL CABLE WHEN NEW POST INSTALLATION IS COMPLETE.

ECON 49
TS #345

GRAEF 8501 W. Higgins Road, Suite 280 Chicago, Illinois 60631 (773) 399-0112	USER NAME = 1951	DESIGNED - JWB	REVISED -
		DRAWN - JWB	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED - RS	REVISED -
	PLOT DATE = 3/23/2018 - 11:47:47 AM	DATE - 03/23/2018	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNAL, STAGE 1 & REMOVAL PLAN
IL 83/US 6 (TORRENCE AVE.) AT RING RD/RIVER OAKS CENTER DR.

SCALE: 1" = 20' | SHEET NO. 1 OF 7 | AT STA. 179+70

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	0909.1-B	COOK	138	49
		CONTRACT NO. 60K78		
		ILLINOIS FED. AID PROJECT		

20123002\Final1-25-18\.tbl
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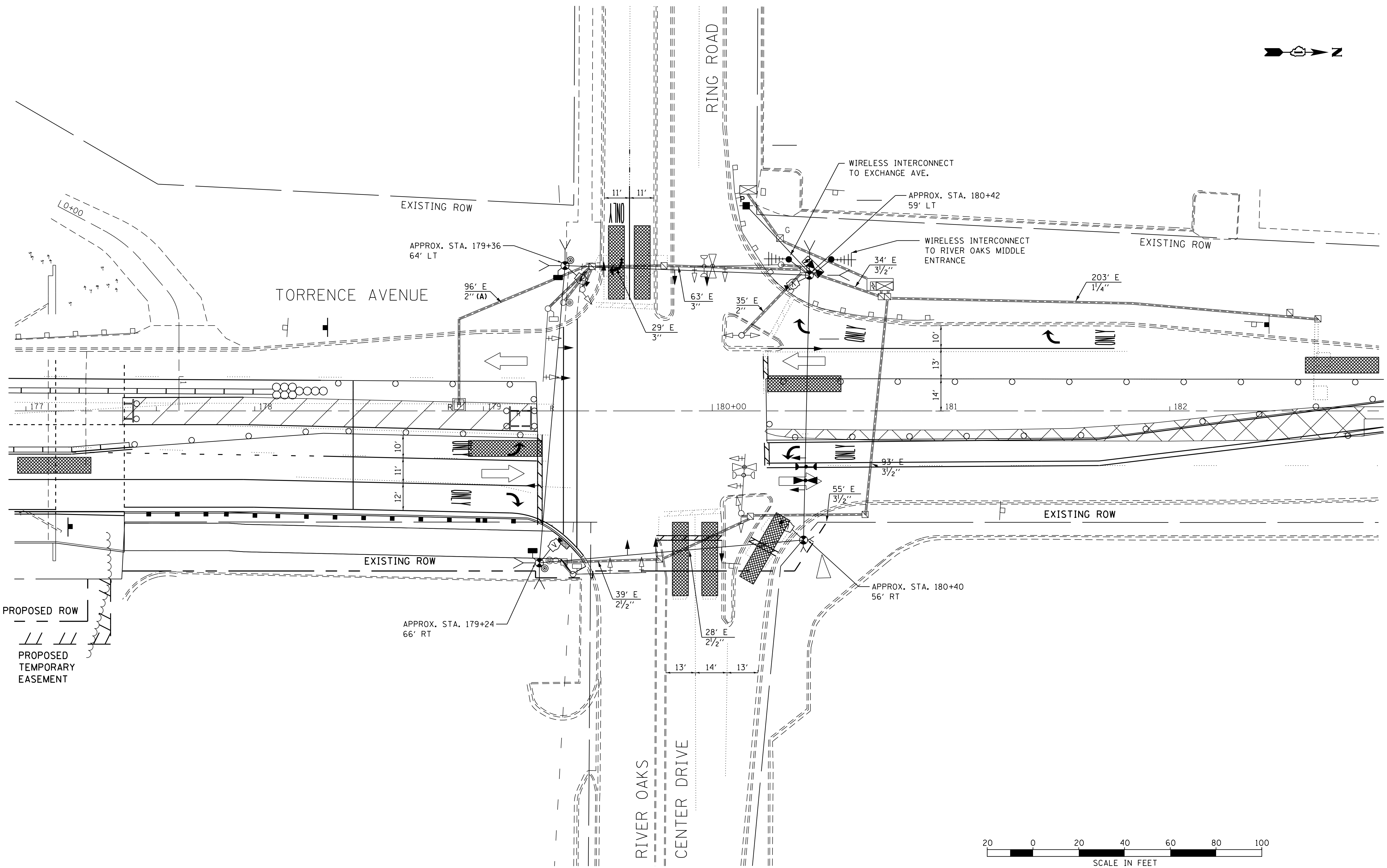

USER NAME = 1951	DESIGNED - JWB	REVISED -	
	DRAWN - JWB	REVISED -	
PLOT SCALE = 40.0000 '/ in.	CHECKED - RS	REVISED -	
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GRAEF 8501 W. Higgins Road, Suite 280 Chicago, Illinois 60631 (773) 399-0112

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNAL, STAGE 1A
IL 83/US 6 (TORRENCE AVE.) AT RING RD/RIVER OAKS CENTER DR.

SCALE: 1" = 20' | SHEET NO. 2 OF 7 | AT STA. 179+70

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	0909.1-B	COOK	138	50

CONTRACT NO. 60K78

ILLINOIS FED. AID PROJECT

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RING ROAD

EXISTING ROW

L0+00

APPROX. STA. 179+36
64' LT

TORRENCE AVENUE

WIRELESS INTERCONNECT
TO EXCHANGE AVE.

APPROX. STA. 180+42
59' LT

WIRELESS INTERCONNECT
TO RIVER OAKS MIDDLE
ENTRANCE

EXISTING ROW

34' E
3½"

203' E
1¼"

63' E
3"

35' E
2"

29' E
3"

15.5'

ONLY

177 178 179 180+00 181 182

11' 11' 13' 10' 11' 11' 11' 10' 11'

65' E
3½"

55' E
3½"

EXISTING ROW

EXISTING ROW

39' E
2½"

APPROX. STA. 180+40
56' RT

APPROX. STA. 179+24
66' RT

28' E
2½"

RIVER OAKS CENTER DRIVE

20 0 20 40 60 80 100
SCALE IN FEET

ECON 49
TS ▪345

GRAEF 8501 W. Higgins Road Suite 280 Chicago, Illinois 60631 (773) 399-0112	USER NAME = 1951	DESIGNED - JWB	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TEMPORARY TRAFFIC SIGNAL, STAGE 2
		DRAWN - JWB	REVISED -		IL 83/US 6 (TORRENCE AVE.) AT RING RD./RIVER OAKS CENTER DR.
	PLOT SCALE = 40.0000 ' / in.	CHECKED - RS	REVISED -		SCALE: 1" = 20' | SHEET NO. 3 OF 7 | AT STA. 179+70
	PLOT DATE = 3/23/2018 - 11:48:49 AM	DATE - 03/23/2018	REVISED -		

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	0909.1-B	COOK	138	51
		CONTRACT NO. 60K78		
		ILLINOIS FED. AID PROJECT		

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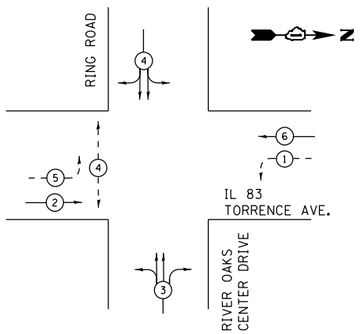
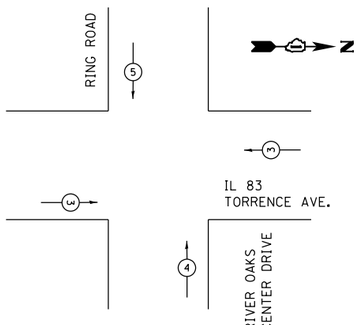
3/23/2018 - 11:48:49 AM
11:48:49 AM

TEMPORARY CONTROLLER SEQUENCE

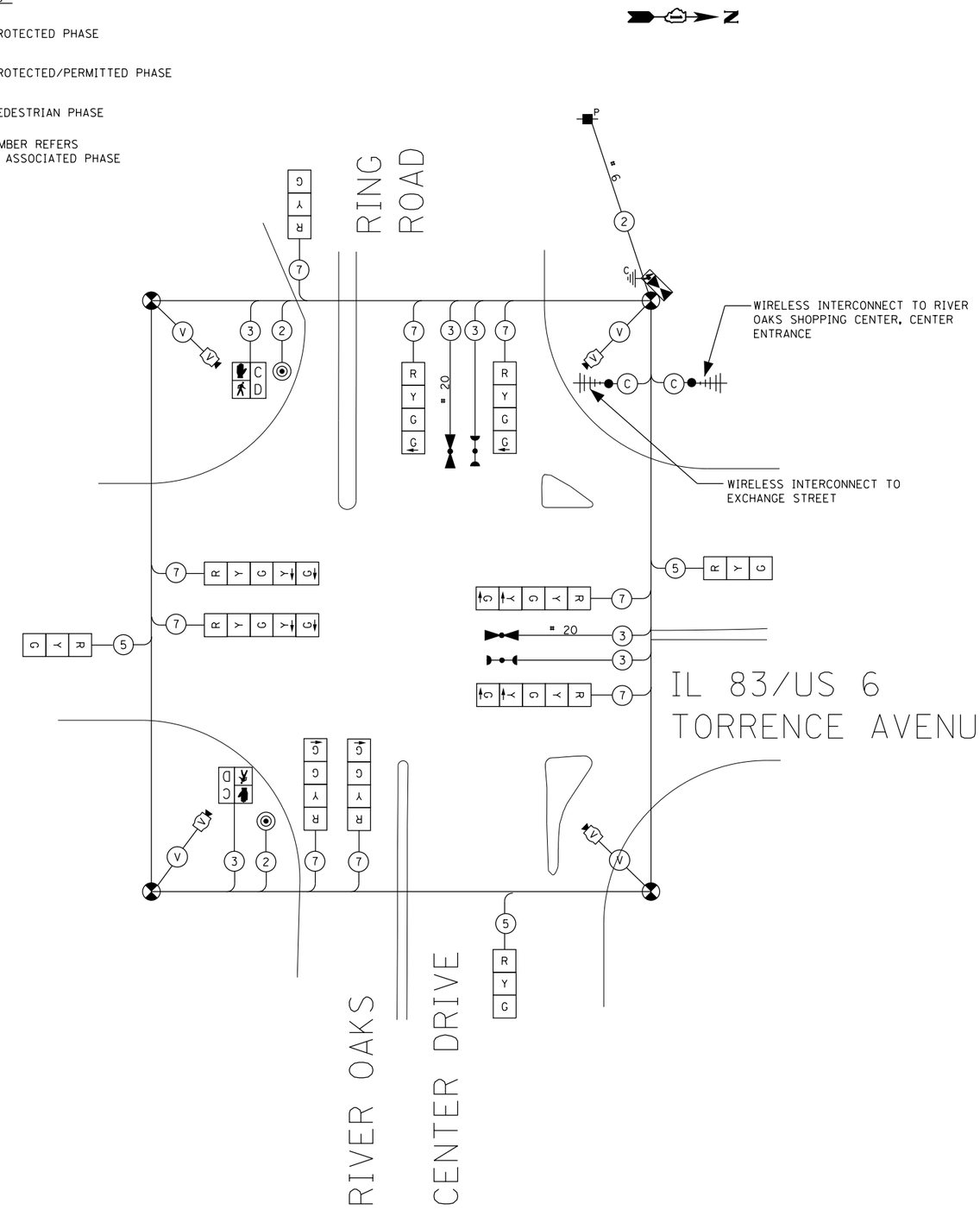


EMERGENCY VEHICLE PREEMPTION SEQUENCE



LEGEND

- PROTECTED PHASE
- PROTECTED/PERMITTED PHASE
- PEDESTRIAN PHASE
- NUMBER REFERS TO ASSOCIATED PHASE



TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	12	11	50	66.0
(YELLOW)	12	20	5	12.0
(GREEN)	12	12	45	64.8
PERMISSIVE ARROW	12	10	10	12.0
PED. SIGNAL	2	20	100	40.0
CONTROLLER	1	100	100	100.0
UPS	1	25	100	25.0
VIDEO SYSTEM	1	150	100	150.0
BLANK-OUT SIGN	-	25	5	-
FLASHER	-	-	50	-
STREET NAME SIGN	-	120	50	-
LUMINAIRE	-	-	-	-
			TOTAL =	469.8

ENERGY COSTS TO:

CITY OF CALUMET CITY
204 PULASKI ROAD
CALUMET CITY, IL 60409

ENERGY SUPPLY: CONTACT: WARREN TAYLOR
PHONE: (708) 235-2328
COMPANY: COMMONWEALTH EDISON
ACCOUNT NUMBER: ---

ECON 49
TS #345

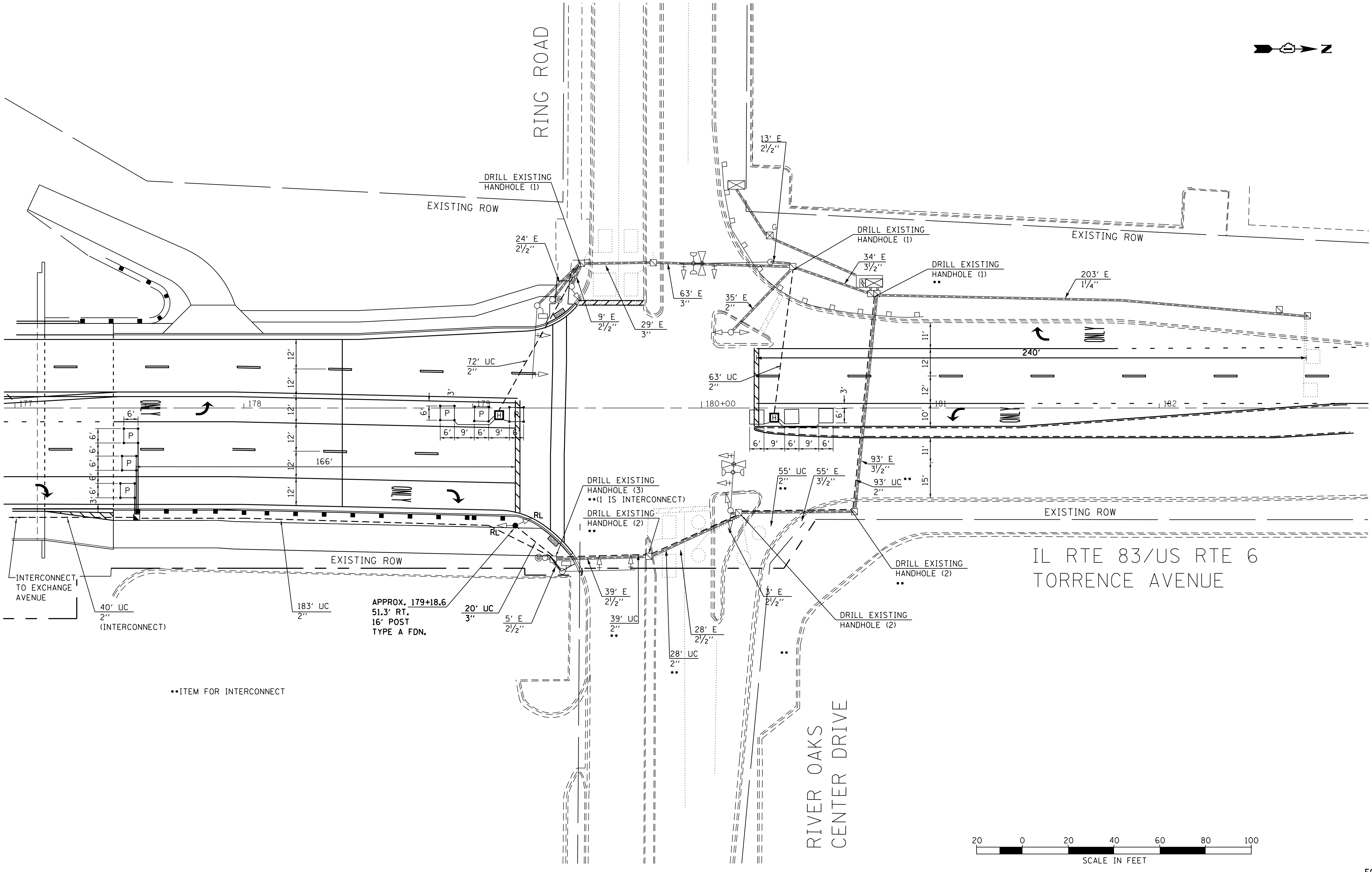
GRAEF 8501 W. Higgins Roads Suite 280 Chicago, Illinois 60631 (773) 399-0112

USER NAME = 1951	DESIGNED - JWB	REVISED -
	DRAWN - JWB	REVISED -
PLOT SCALE = 40.0000 ' / in.	CHECKED - RS	REVISED -
PLOT DATE = 3/23/2018 - 10:26:16 AM	DATE - 03/23/2018	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY CABLE PLAN, PHASE DESIGNATION DIAGRAM & EMERGENCY VEHICLE PREEMPTION ALL STAGES
IL 83/US 6 (TORRENCE AVENUE) & RING RD/RIVER OAKS SHOPPING CENTER DR.
SCALE: NONE | SHEET NO. 4 OF 7 | AT STA. 179+70

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	0909.1-B	COOK	138	52
		CONTRACT NO. 60K78		
	ILLINOIS FED. AID PROJECT			



ECON 49
TS #345

GRAEF 8501 W. Higgins Road, Suite 280 Chicago, Illinois 60631 (773) 399-0112	USER NAME = 1951	DESIGNED - JWB	REVISED -
		DRAWN - JWB	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED - RS	REVISED -
	PLOT DATE = 3/23/2018 - 11:49:30 AM	DATE - 03/23/2018	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL MODERNIZATION PLAN
IL 83/US 6 (TORRENCE AVE.) AT RING RD/RIVER OAKS CENTER DR.

SCALE: 1" = 20' | SHEET NO. 5 OF 7 | AT STA. 179+70

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	0909.1-B	COOK	138	53

CONTRACT NO. 60K78
ILLINOIS FED. AID PROJECT

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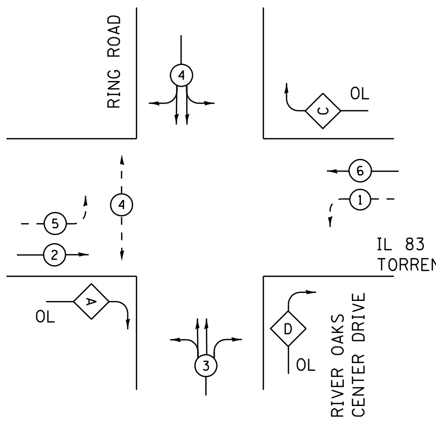
PROPOSED CONTROLLER SEQUENCE



LEGEND

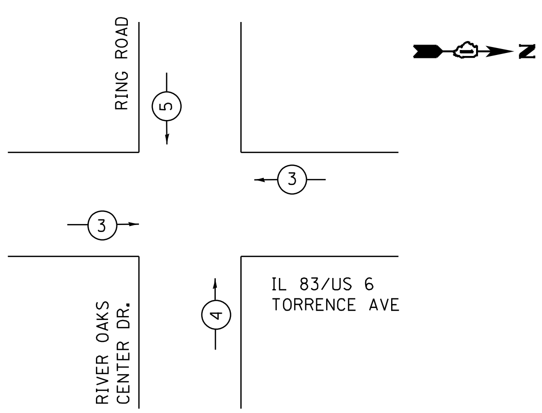
- PROTECTED PHASE
- PROTECTED/PERMITTED PHASE
- PEDESTRIAN PHASE
- OL OVERLAP

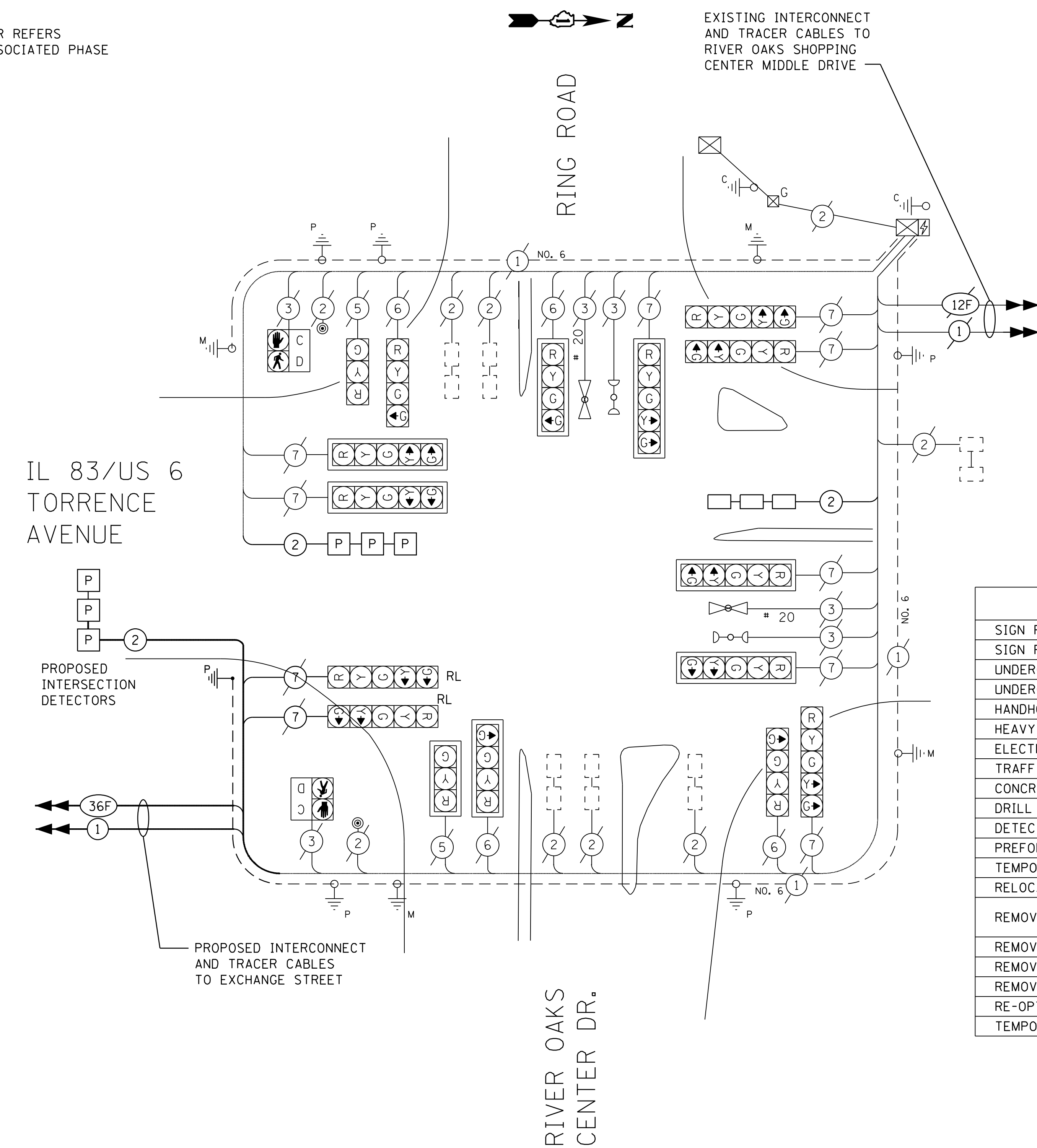
NUMBER REFERS TO ASSOCIATED PHASE

RIGHT TURN OVERLAP PHASE DESIGNATION

OVERLAP LETTER		PERMITTED PHASE		PROTECTED PHASE
A	=	2	+	3
C	=	6	+	4
D	=	3	+	1

PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE





TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	16	11	50	88.0
(YELLOW)	16	20	5	16.0
(GREEN)	16	12	45	86.4
PERMISSIVE ARROW	24	10	10	24.0
PED. SIGNAL	2	20	100	40.0
CONTROLLER	1	100	100	100.0
UPS	1	25	100	25.0
VIDEO SYSTEM	-	150	100	-
BLANK-OUT SIGN	-	25	5	-
FLASHER	-	-	50	-
STREET NAME SIGN	-	120	50	-
LUMINAIRE	-	-	-	-
			TOTAL =	379.4

ENERGY COSTS TO:

CITY OF CALUMET CITY
204 PULASKI ROAD
CALUMET CITY, IL 60409

ENERGY SUPPLY: CONTACT: WARREN TAYLOR
PHONE: (708) 235-2328
COMPANY: COMMONWEALTH EDISON
ACCOUNT NUMBER: ---

SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
SIGN PANEL - TYPE 1	SQ FT	12
SIGN PANEL - TYPE 2	SQ FT	55
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	318
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	20
HANDHOLE	EACH	1
HEAVY-DUTY HANDHOLE	EACH	2
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	357
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	1
CONCRETE FOUNDATION, TYPE A	FOOT	4
DRILL EXISTING HANDHOLE	EACH	4
DETECTOR LOOP, TYPE 1	FOOT	98
PREFORMED DETECTOR LOOP	FOOT	232
TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
RELOCATE EXISTING SIGNAL HEAD	EACH	2
REMOVE AND REINSTALL ELECTRIC CABLE FROM CONDUIT	FOOT	147
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING HANDHOLE	EACH	3
REMOVE EXISTING CONCRETE FOUNDATION	EACH	1
RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL 1	EACH	1
TEMPORARY TRAFFIC SIGNAL TIMING	EACH	1

ECON 49
TS #345

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GRAEF 8501 W. Higgins Road, Suite 280 Chicago, Illinois 60631 (773) 399-0112

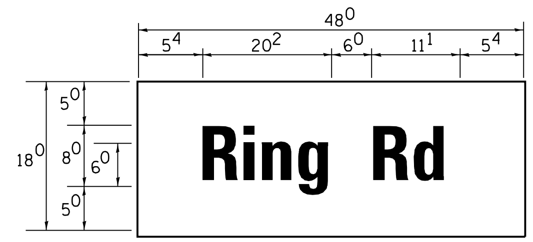
USER NAME = 1951	DESIGNED - JWB	REVISED -
	DRAWN - JWB	REVISED -
PLOT SCALE = 40.0000 ' / in.	CHECKED - RS	REVISED -
PLOT DATE = 3/23/2018 - 10:27:09 AM	DATE - 03/23/2018	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

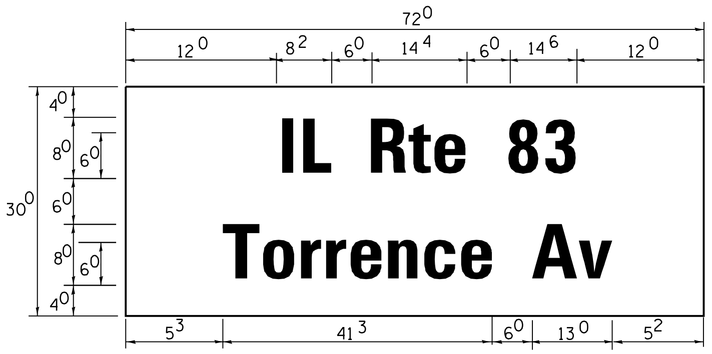
IL 83/US 6 (TORRENCE AVE) AT RING RD/RIVER OAKS SHOPPING CENTER DR.
TRAFFIC SIGNAL MODERNIZATION
CABLE PLAN, PHASE DESIGNATION DIAGRAM & EMERGENCY VEHICLE PREEMPTION
SCALE: NONE | SHEET NO. 6 OF 7 | AT STA. 179+70

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	0909.1-B	COOK	138	54
		CONTRACT NO. 60K78		
		ILLINOIS FED. AID PROJECT		

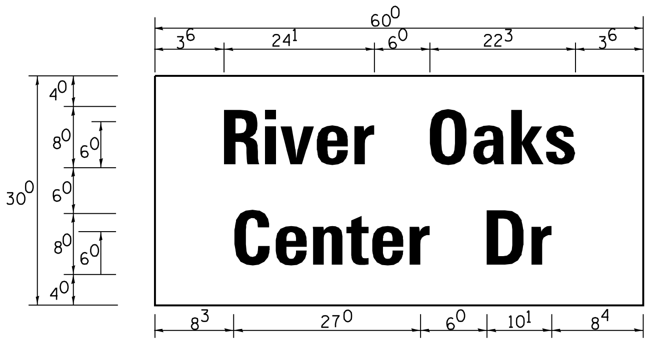
SIGN PANEL – TYPE 1 OR TYPE 2



___ Sq. M. each
6 Sq. Ft. each
2 Required
Design Series D



___ Sq. M. each
15 Sq. Ft. each
2 Required
Design Series D



___ Sq. M. each
12.5 Sq. Ft. each
2 Required
Design Series D

DESIGN SERIES	AREA (SQ FT)	SIGN PANEL TYPE	SHEETING TYPE	QTY. REQUIRED
D OR C	-	1 OR 2	ZZ	-

ALL DIMENSIONS ARE IN INCHES EXCEPT NOTED OTHERWISE

COMMON STREET NAME ABBREVIATIONS AND WIDTHS

NAME	ABBREVATION	WIDTH (INCH) SERIES "C"	SERIES "D"
AVENUE	Ave	15.000	18.250
BOULEVARD	Blvd	17.125	20.000
CIRCLE	Cir	11.125	13.000
COURT	Ct	8.250	9.625
DRIVE	Dr	8.625	10.125
HIGHWAY	Hwy	18.375	22.000
ILLINOIS	IL	7.000	8.250
LANE	Ln	9.125	10.750
PARKWAY	Pkwy	23.375	27.375
PLACE	Pl	7.125	7.750
ROAD	Rd	9.625	11.125
ROUTE	Rte	12.625	14.500
STREET	St	8.000	9.125
TERRACE	Ter	12.625	14.625
TRAIL	Tr	7.750	9.125
UNITED STATES	US	10.375	12.250

GENERAL NOTES

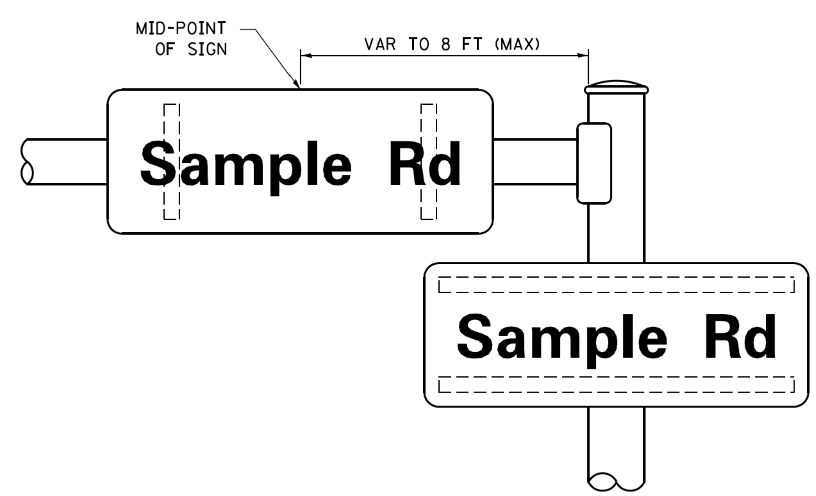
1. WHERE MAST ARM MOUNTED STREET NAME SIGNS ARE SPECIFIED, THE MAST ARM ASSEMBLY AND POLES SHALL BE DESIGNED TO SUPPORT THE LOADINGS CALLED FOR ON STANDARDS 877001, 877002, 877006, 877011 AND 877012, AS APPLICABLE, PLUS TWO (2) SIGN PANELS 2'-6" x 8'-0" MOUNTED AS SHOWN. THE DESIGN SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CURRENT "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS" AS PUBLISHED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS FOR 80 M.P.H. WIND VELOCITY.
2. ALL SIGNS SHALL CONSIST OF A WHITE LEGEND AND BORDER (TYPE ZZ SHEETING) ON A GREEN BACKGROUND (TYPE ZZ SHEETING)
3. THE SIGN LENGTH SHALL BE IN 6-INCH INCREMENTS, BUT THE OVERALL LENGTH SHALL NOT EXCEED 8'-0". ALL BORDERS SHALL BE ¾" WIDE. CORNER RADIUS SHALL BE 1-7/8". THE SPACING BETWEEN THE WORDS SHOULD BE 6", IF POSSIBLE, BUT MAY BE REDUCED TO 5" WHEN SPACING IS CRITICAL. A MINIMUM OF 2-1/2" SHALL BE INCLUDED BETWEEN THE WORD AND THE RIGHT AND LEFT EDGES OF THE SIGN.
4. A PREFERRED METHOD FOR THE SIGN DESIGN IS TO USE SERIES "D" LETTER ON A ONE-LINE SIGN 18" IN HEIGHT AND A MAXIMUM OF 8'-0" IN WIDTH. IF SERIES "D" DOES NOT FIT ON A 8'-0" SIGN, THEN SERIES "C" SHOULD BE TRIED. IF SERIES "C" DOES NOT FIT ON A 8'-0" SIGN, A 30" HIGH TWO-LINE SIGN CAN BE USED. THE CROSSROAD DESIGNATION AS TO STREET, AVENUE, ETC. SHOULD BE SPELLED OUT ON THE SECOND LINE, IF THE ABBREVIATION CANNOT FIT ON THE FIRST LINE.
5. LED ILLUMINATED STREET NAME SIGNS CAN BE USED IN PLACE OF REGULAR SIGN PANELS BUT ANY SPECIAL WORDING AND SYMBOLOGY MUST BE APPROVED BY THE DEPARTMENT. GENERAL DESIGN REQUIREMENT AS LISTED ABOVE (COLOR, FONT, SIZE, ETC.) MUST BE FOLLOWED.
6. SIGNFIX ALUMINUM CHANNEL FRAMING SYSTEM SHALL BE USED FOR ALL SIGNS ATTACHED TO SIGNAL POLES AND POSTS.

LOCAL SUPPLIERS:	PARTS LISTING:	
- J.O. HERBERT COMPANY, INC MIDLOTHIAN, VA	SIGN CHANNEL	PART #HPN053 (MED. CHANNEL)
	SIGN SCREWS	1/4" x 14 x 1" H.W.H. #3 SELF TAPPING WITH NEOPRENE WASHER
- WESTERN REMAC, INC. WOODRIDGE, IL	BRACKETS	PART #HPN034 (UNIVERSAL) CHANNEL CLAMPS WITH STAINLESS STEEL STRAPPING

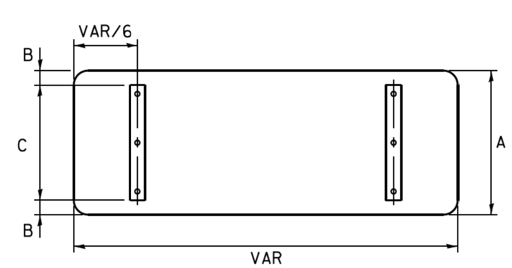
OTHER BRANDS OF MOUNTING HARDWARE ARE ACCEPTABLE, BASED UPON THE DEPARTMENT'S APPROVAL AND COMPATIBILITY WITH THE CHANNEL/BRACKET OF THE ABOVE PRODUCT.

MOUNTING LOCATION

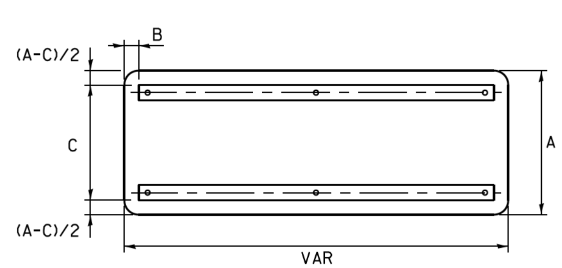
ARM OR POLE MOUNTED



SUPPORTING CHANNELS



A	B	C
18"	2"	14"
30"	2"	24"



A	B	C
18"	2"	12"
30"	2"	22"

STANDARD ALPHABETS SPACING CHART

(8") UPPER CASE AND (6") LOWER CASE

FHWA SERIES "C" CHARACTER	LEFT SPACING (INCH)	WIDTH (INCH)	RIGHT SPACING (INCH)	FHWA SERIES "D" CHARACTER	LEFT SPACING (INCH)	WIDTH (INCH)	RIGHT SPACING (INCH)
A	0.240	5.122	0.240	A	0.240	6.804	0.240
B	0.880	4.482	0.480	B	0.960	5.446	0.400
C	0.720	4.482	0.720	C	0.800	5.446	0.800
D	0.880	4.482	0.720	D	0.960	5.446	0.800
E	0.880	4.082	0.480	E	0.960	4.962	0.400
F	0.880	4.082	0.240	F	0.960	4.962	0.240
G	0.720	4.482	0.720	G	0.800	5.446	0.800
H	0.880	4.482	0.880	H	0.960	5.446	0.960
I	0.880	1.120	0.880	I	0.960	1.280	0.960
J	0.240	4.082	0.880	J	0.240	5.122	0.960
K	0.880	4.482	0.480	K	0.960	5.604	0.400
L	0.880	4.082	0.240	L	0.960	4.962	0.240
M	0.880	5.284	0.880	M	0.960	6.244	0.960
N	0.880	4.482	0.880	N	0.960	5.446	0.960
O	0.720	4.722	0.720	O	0.800	5.684	0.800
P	0.880	4.482	0.720	P	0.960	5.446	0.240
Q	0.720	4.722	0.720	Q	0.800	5.684	0.800
R	0.880	4.482	0.480	R	0.960	5.446	0.400
S	0.480	4.482	0.480	S	0.400	5.446	0.400
T	0.240	4.082	0.240	T	0.240	4.962	0.240
U	0.880	4.482	0.880	U	0.960	5.446	0.960
V	0.240	4.962	0.240	V	0.240	6.084	0.240
W	0.240	6.084	0.240	W	0.240	7.124	0.240
X	0.240	4.722	0.240	X	0.400	5.446	0.400
Y	0.240	5.122	0.240	Y	0.240	6.884	0.240
Z	0.480	4.482	0.480	Z	0.400	5.446	0.400
a	0.320	3.842	0.640	a	0.400	4.562	0.720
b	0.720	4.082	0.480	b	0.800	4.802	0.480
c	0.480	4.002	0.240	c	0.480	4.722	0.240
d	0.480	4.082	0.720	d	0.480	4.802	0.800
e	0.480	4.082	0.320	e	0.480	4.722	0.320
f	0.320	2.480	0.160	f	0.320	2.882	0.160
g	0.480	4.082	0.720	g	0.480	4.802	0.800
h	0.720	4.082	0.640	h	0.800	4.722	0.720
i	0.720	1.120	0.720	i	0.800	1.280	0.800
j	0.000	2.320	0.720	j	0.000	2.642	0.800
k	0.720	4.322	0.160	k	0.800	5.122	0.160
l	0.720	1.120	0.720	l	0.800	1.280	0.800
m	0.720	6.724	0.640	m	0.800	7.926	0.720
n	0.720	4.082	0.640	n	0.800	4.722	0.720
o	0.480	4.082	0.480	o	0.480	4.882	0.480
p	0.720	4.082	0.480	p	0.800	4.802	0.480
q	0.480	4.082	0.720	q	0.480	4.802	0.800
r	0.720	2.642	0.160	r	0.800	3.042	0.160
s	0.320	3.362	0.240	s	0.320	3.762	0.240
t	0.080	2.882	0.080	t	0.080	3.202	0.080
u	0.640	4.082	0.720	u	0.720	4.722	0.800
v	0.160	4.722	0.160	v	0.160	5.684	0.160
w	0.160	7.524	0.160	w	0.160	9.046	0.160
x	0.000	5.202	0.000	x	0.000	6.244	0.000
y	0.160	4.962	0.160	y	0.160	6.004	0.160
z	0.240	3.362	0.240	z	0.240	4.002	0.240
1	0.720	1.680	0.880	1	0.800	2.000	0.960
2	0.480	4.482	0.480	2	0.800	5.446	0.800
3	0.480	4.482	0.480	3	1.440	5.446	0.800
4	0.240	4.962	0.720	4	0.160	6.004	0.960
5	0.480	4.482	0.480	5	0.800	5.446	0.800
6	0.720	4.482	0.720	6	0.800	5.446	0.800
7	0.240	4.482	0.720	7	0.560	5.446	0.560
8	0.480	4.482	0.480	8	0.800	5.446	0.800
9	0.480	4.482	0.480	9	0.800	5.446	0.800
0	0.720	4.722	0.720	0	0.800	5.684	0.800
-	0.240	2.802	0.240	-	0.240	2.802	0.240

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GRAEF 8501 W. Higgins Roads Suite 280 Chicago, Illinois 60631 (773) 399-0112

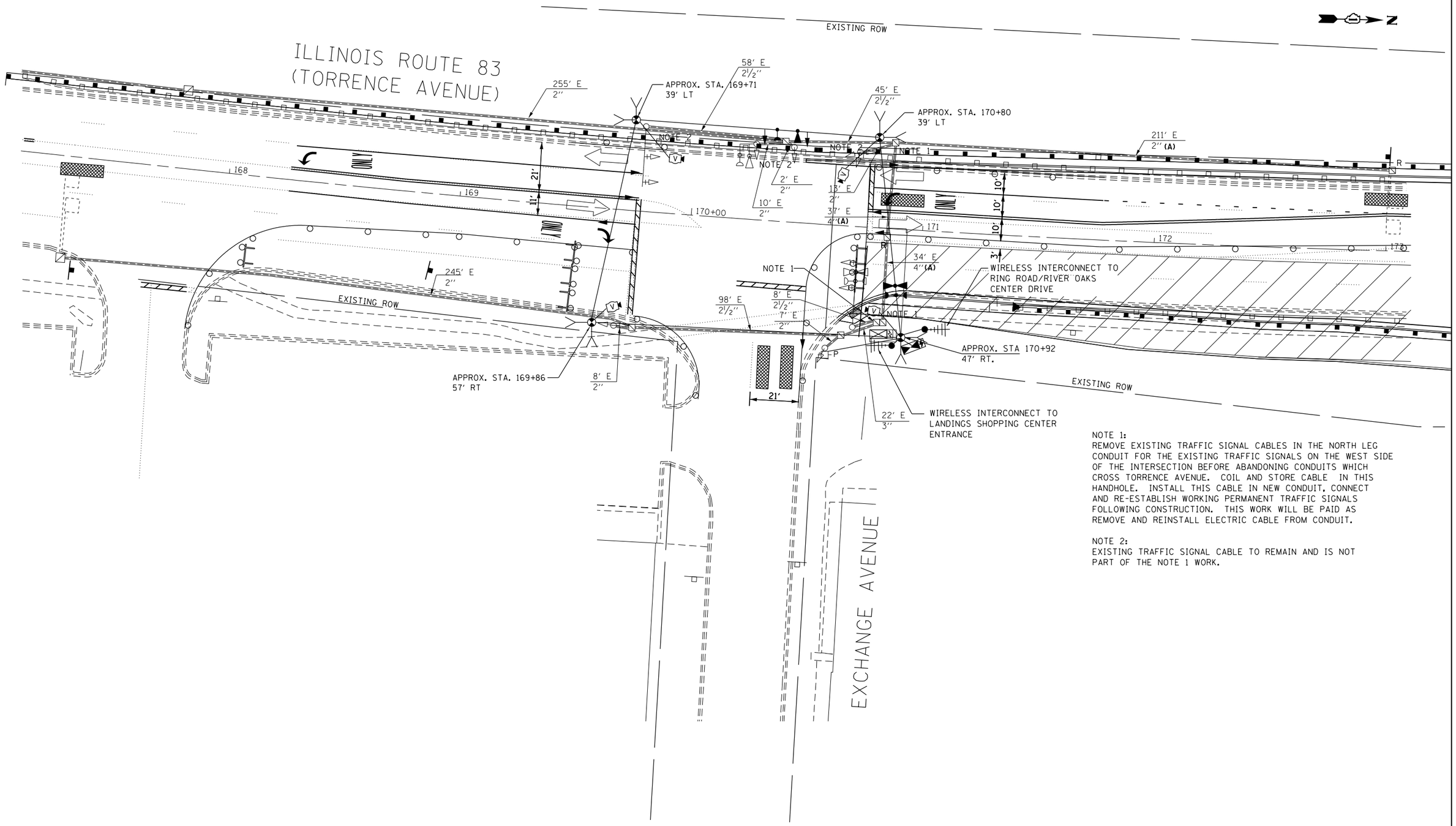
USER NAME = 1908	DESIGNED - DAG/BCK	REVISED - DAG 10/28/09
	DRAWN - BCK	REVISED -
PLOT SCALE = 99.9998 ' / in.	CHECKED - DAG/DAD	REVISED -
PLOT DATE = 1/26/2018 - 4:10:42 PM	DATE - 01/23/2018	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL 83/US 6 (TORRENCE AVENUE) OVER LITTLE CALUMET RIVER
MAST ARM MOUNTED STREET NAME SIGNS
SCALE: NONE | SHEET NO. 7 OF 7 SHEETS

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	0909.1-B	COOK	138	55

CONTRACT NO. 60K78
ILLINOIS FED. AID PROJECT



NOTE 1:
REMOVE EXISTING TRAFFIC SIGNAL CABLES IN THE NORTH LEG CONDUIT FOR THE EXISTING TRAFFIC SIGNALS ON THE WEST SIDE OF THE INTERSECTION BEFORE ABANDONING CONDUITS WHICH CROSS TORRENCE AVENUE. COIL AND STORE CABLE IN THIS HANDHOLE. INSTALL THIS CABLE IN NEW CONDUIT, CONNECT AND RE-ESTABLISH WORKING PERMANENT TRAFFIC SIGNALS FOLLOWING CONSTRUCTION. THIS WORK WILL BE PAID AS REMOVE AND REINSTALL ELECTRIC CABLE FROM CONDUIT.

NOTE 2:
EXISTING TRAFFIC SIGNAL CABLE TO REMAIN AND IS NOT PART OF THE NOTE 1 WORK.

ECON 49
TS#20955

GRAEF 8501 W. Higgins Road Suite 280 Chicago, Illinois 60631 (773) 399-0112

USER NAME = 1951	DESIGNED - JWB	REVISED -	
	DRAWN - JWB	REVISED -	
PLOT SCALE = 40.0000 ' / in.	CHECKED - RS	REVISED -	
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNAL INSTALLATION, STAGE 1 AND REMOVAL PLAN
IL 83/US 6 (TORRENCE AVENUE) & EXCHANGE STREET

SCALE: 1" = 20' | SHEET NO. 1 OF 7 SHEETS | AT STA. 170+30

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	0909.1-B	COOK	138	56
		CONTRACT NO. 60K78		
		ILLINOIS	FED. AID PROJECT	

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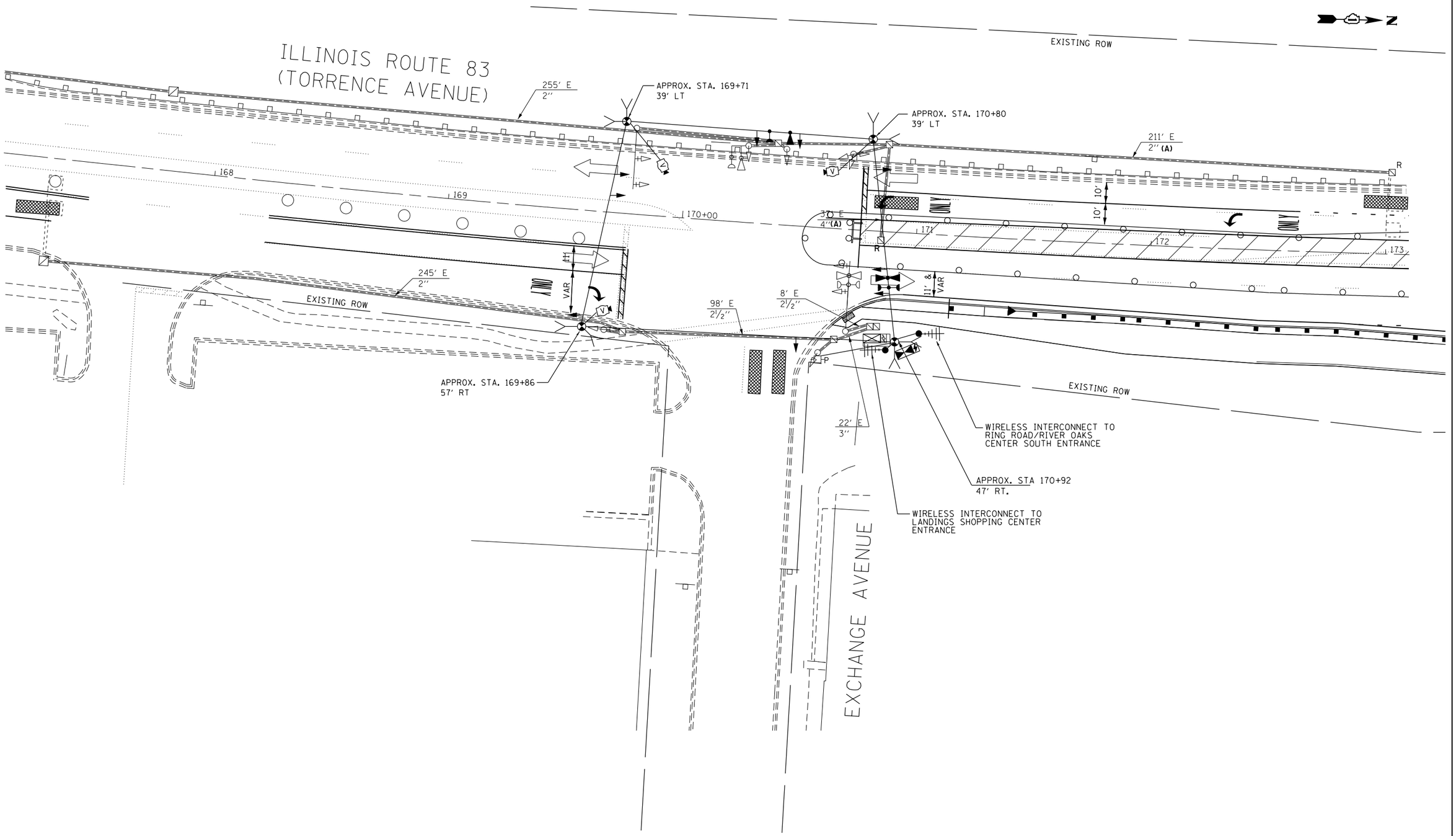

ECON 49
TS#20955

GRÄEF 8501 W. Higgins Road Suite 280 Chicago, Illinois 60631 (773) 399-0112	USER NAME = 1951	DESIGNED - JWB	REVISED -	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**	**TEMPORARY TRAFFIC SIGNAL, STAGE 1A**	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN - JWB	REVISED -		**IL 83/US 6 (TORRENCE AVENUE) & EXCHANGE STREET**	358	0909.1-B	COOK	138	57
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	PLOT DATE = 3/23/2018 - 10:28:08 AM	DATE - 03/23/2018	REVISED -		SCALE: 1"= 20' | SHEET NO. 2 OF 7 SHEETS | AT STA. 170+30			ILLINOIS	FED. AID PROJECT	

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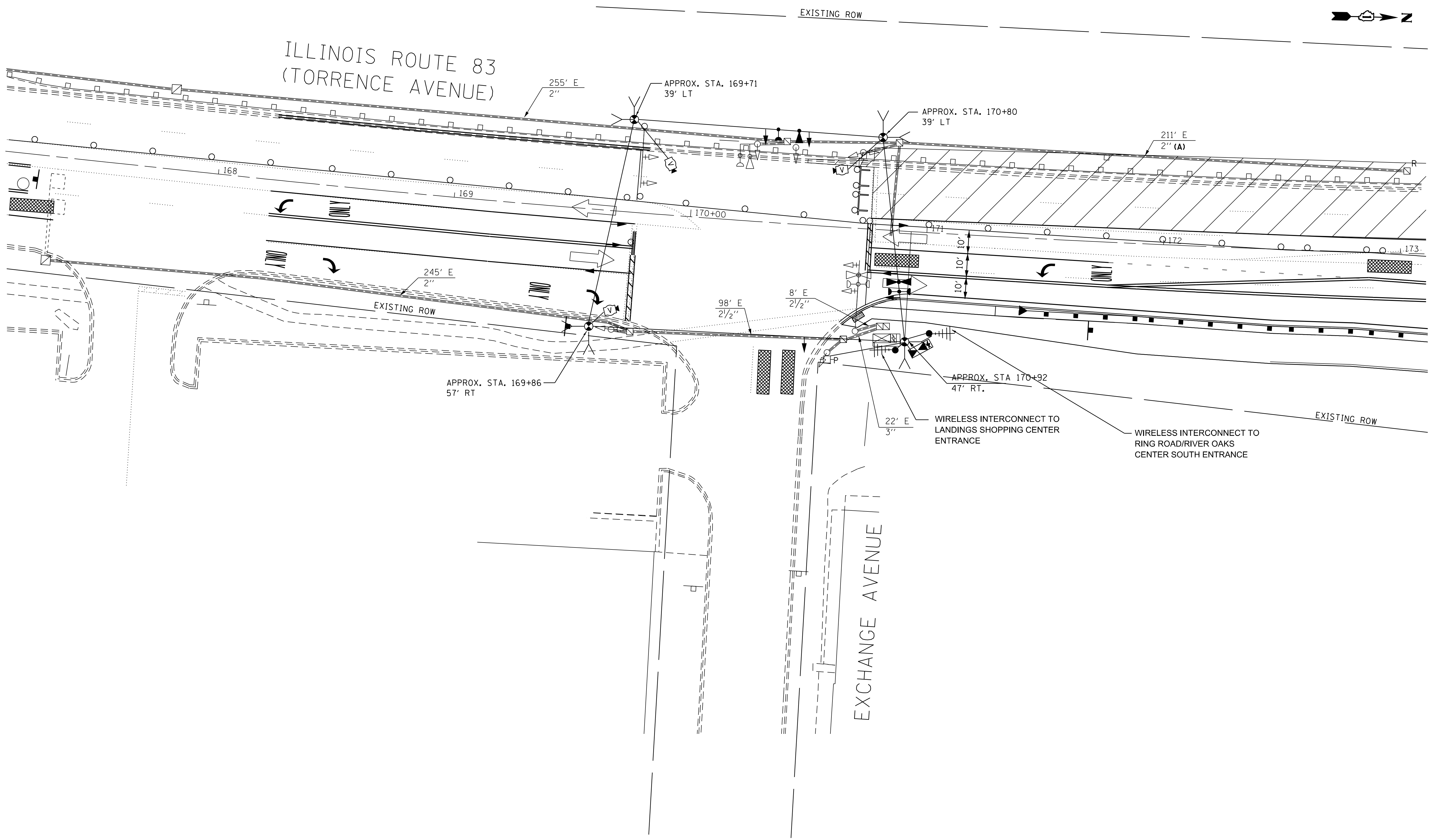

ECON 49
TS#20955

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GRAEF 8501 W. Higgins Road, Suite 280 Chicago, Illinois 60631 (773) 399-0112	USER NAME = 1951	DESIGNED - JWB	REVISED -
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	PLOT SCALE = 40.0000 ' / in.	CHECKED - RS	REVISED -
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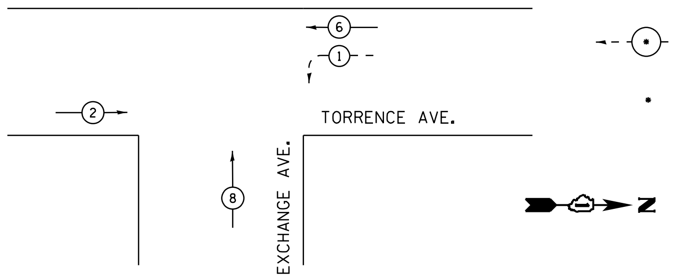
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNAL, STAGE 2
IL 83/US 6 (TORRENCE AVENUE) & EXCHANGE STREET

SCALE: 1"=20' | SHEET NO. 3 OF 7 SHEETS | AT STA. 170+30

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	0909.1-B	COOK	138	58
		CONTRACT NO. 60K78		
		ILLINOIS FED. AID PROJECT		

TEMPORARY CONTROLLER SEQUENCE

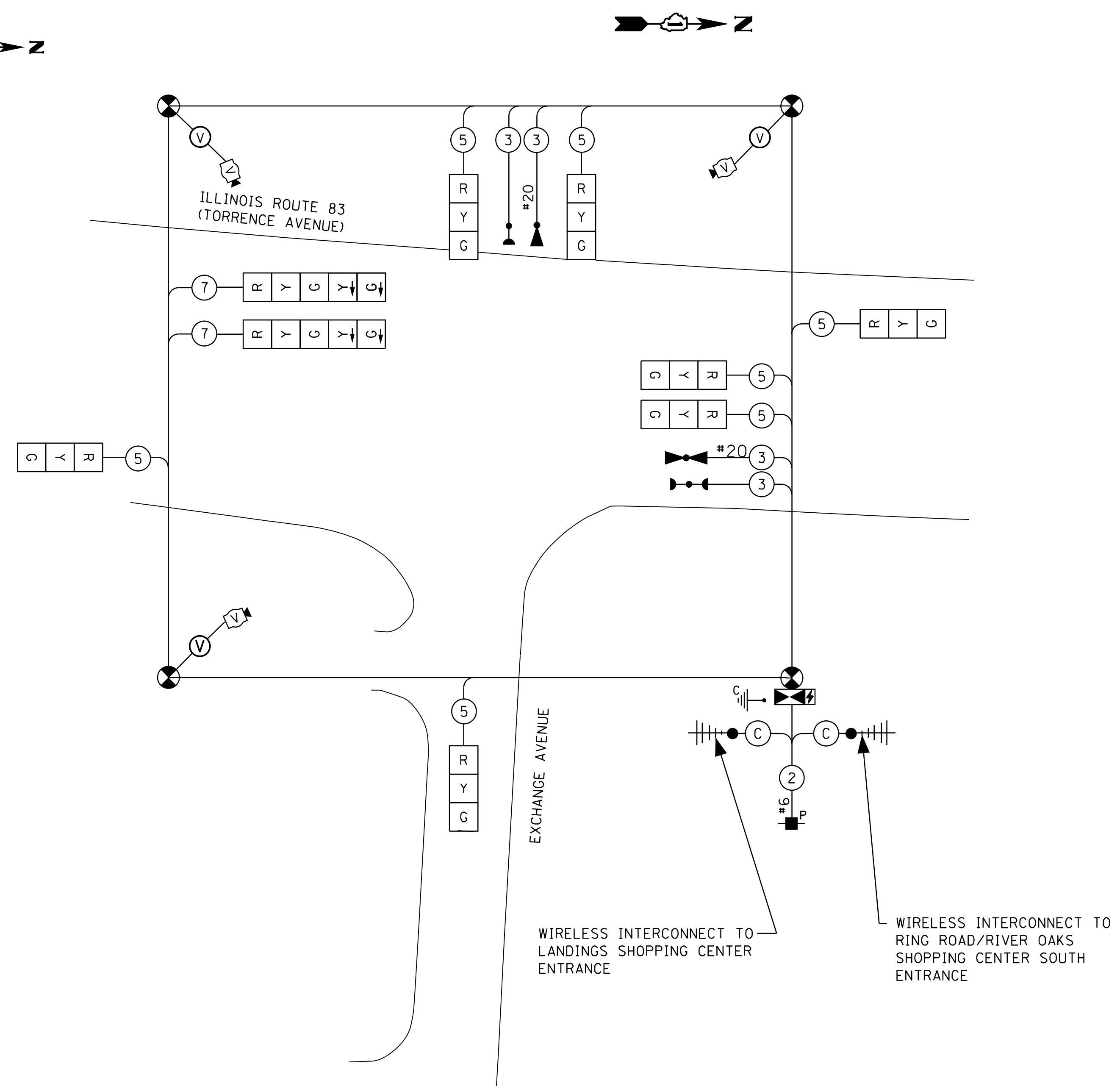


LEGEND

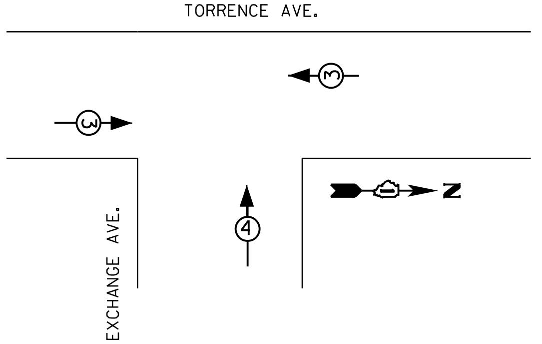
PROTECTED PHASE

PROTECTED/PERMITTED PHASE

• NUMBER REFERS TO ASSOCIATED PHASE



EMERGENCY VEHICLE PREEMPTION SEQUENCE



TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	9	11	50	49.5
(YELLOW)	9	20	5	9.0
(GREEN)	9	12	45	48.6
PERMISSIVE ARROW	4	10	10	4.0
PED. SIGNAL	-	20	100	-
CONTROLLER	1	100	100	100.0
UPS	1	25	100	25.0
VIDEO SYSTEM	1	150	100	150.0
BLANK-OUT SIGN	-	25	5	-
FLASHER	-	-	50	-
STREET NAME SIGN	-	120	50	-
LUMINAIRE	-	-	-	-
			TOTAL =	386.1

ENERGY COSTS TO:

CITY OF CALUMET CITY
204 PULASKI ROAD
CALUMET CITY, IL 60409

ENERGY SUPPLY: CONTACT: WARREN TAYLOR
PHONE: (708) 235-2328
COMPANY: COMMONWEALTH EDISON
ACCOUNT NUMBER: ---

ECON 49
TS #20955

GRAEF 8501 W. Higgins Road, Suite 280 Chicago, Illinois 60631 (773) 399-0112	USER NAME = 1951	DESIGNED - JWB	REVISED -
		DRAWN - JWB	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED - RS	REVISED -
	PLOT DATE = 3/23/2018 - 10:29:01 AM	DATE - 03/23/2018	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY CABLE PLAN, PHASE DESIGNATION DIAGRAM & EMERGENCY VEHICLE PREEMPTION - ALL STAGES
IL 83/US 6 (TORRENCE AVENUE) & EXCHANGE STREET

SCALE: NONE | SHEET NO. 4 OF 7 SHEETS | AT STA. 170+30

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	0909.1-B	COOK	138	59

CONTRACT NO. 60K78

ILLINOIS FED. AID PROJECT

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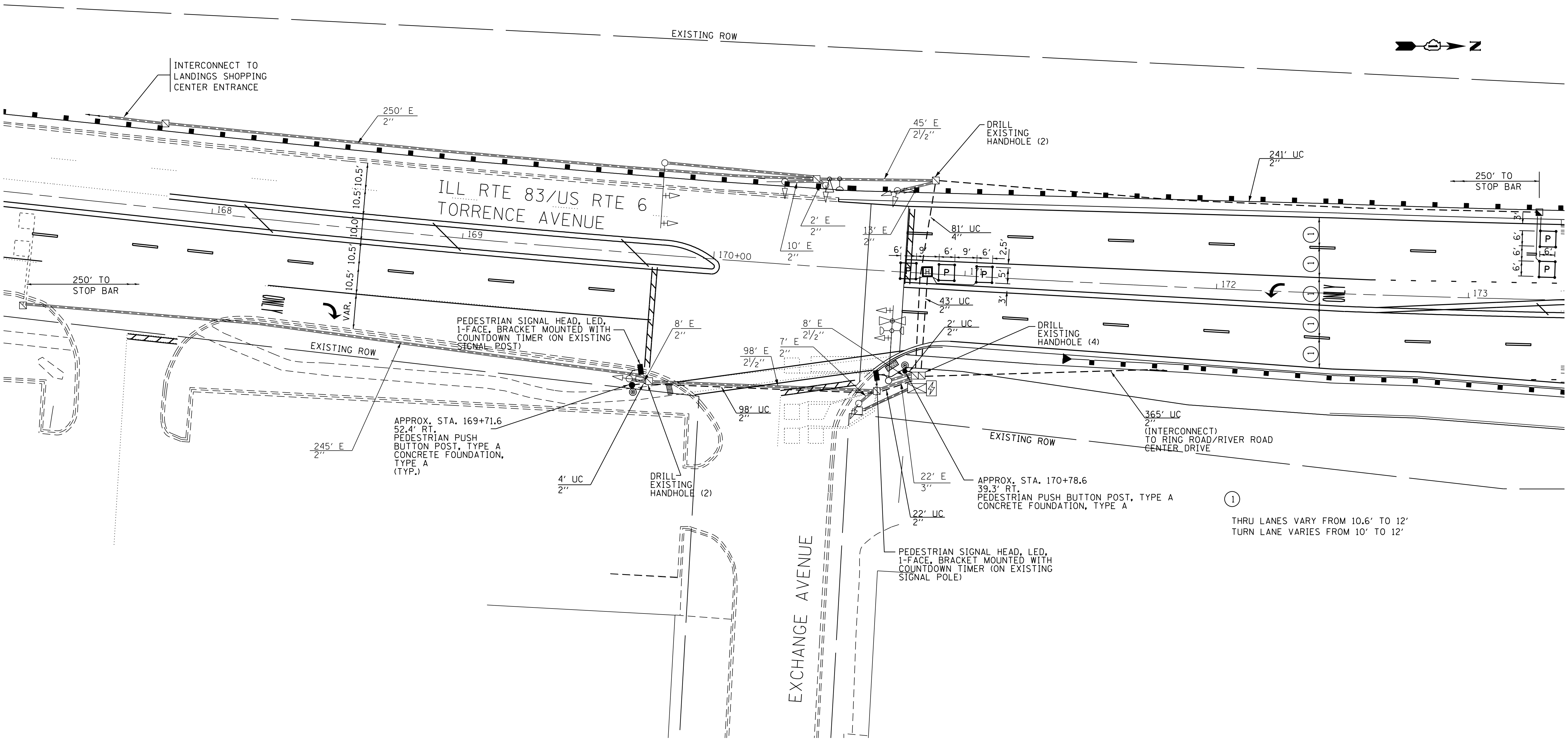

NOTE:
THE TRAFFIC SIGNAL CONTROL
EQUIPMENT FOR THIS PROJECT
SHALL BE 'ECONOLITE' TO MATCH
THE EXISTING ADJACENT SYSTEM

20 0 20 40 60 80 100
SCALE IN FEET

ECON 49
TS #20955

GRAEF 8501 W. Higgins Roads Suite 280 Chicago, Illinois 60631 (773) 399-0112	USER NAME = 1951	DESIGNED - JWB	REVISED -
		DRAWN - JWB	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED - RS	REVISED -
	PLOT DATE = 3/23/2018 - 10:29:51 AM	DATE - 03/23/2018	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL MODERNIZATION PLAN
IL 83/US 6 (TORRENCE AVENUE) & EXCHANGE STREET

SCALE: 1" = 20' | SHEET 5 OF 7 SHEETS | AT STA. 170+30

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	0909.1-B	COOK	138	60
		CONTRACT NO. 60K78		
		ILLINOIS FED. AID PROJECT		

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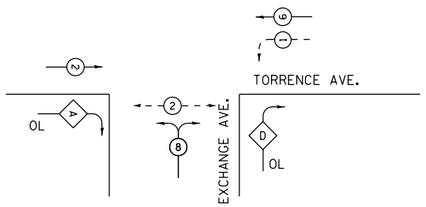
PROPOSED CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM

OVERLAP LETTER		PERMITTED PHASE		PROTECTED PHASE
A	=	2	+	8
D	=	8	+	1

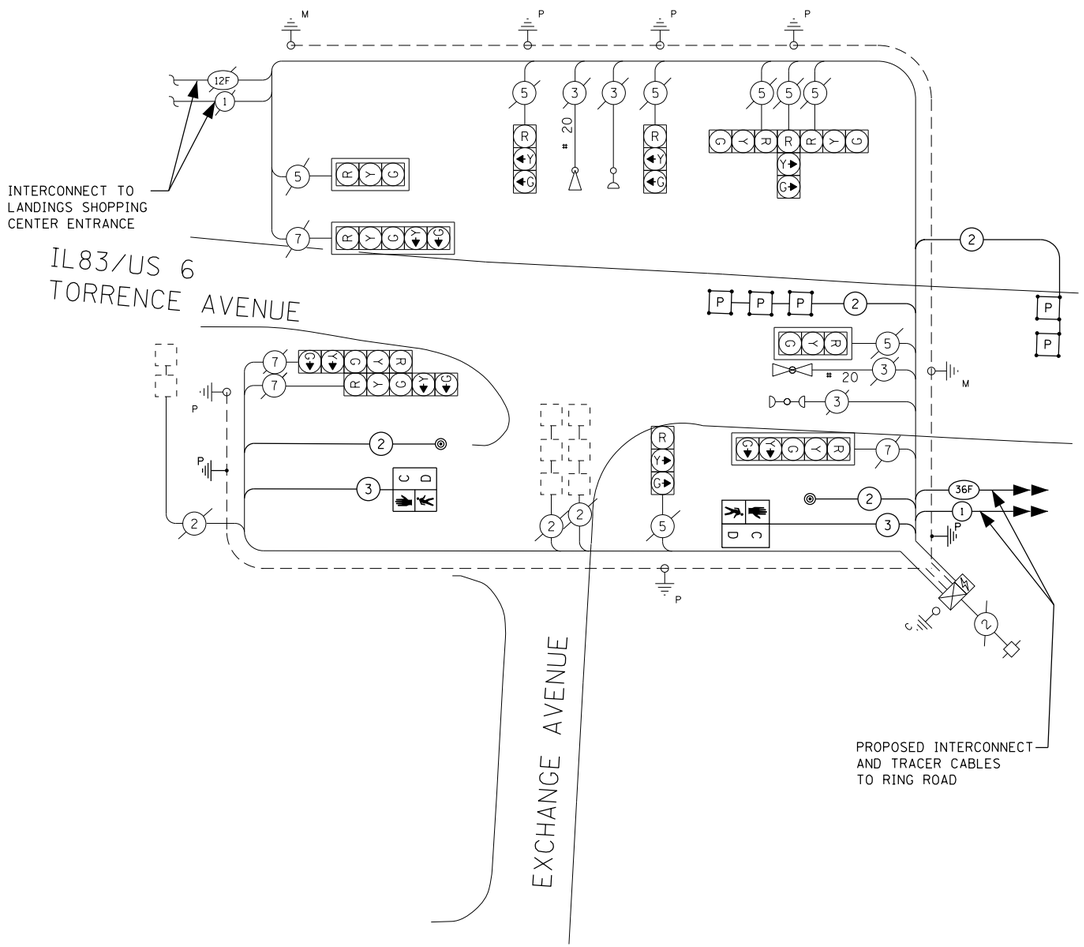
PROPOSED CONTROLLER SEQUENCE

LEGEND

- PROTECTED PHASE
- PROTECTED/PERMITTED PHASE
- PEDESTRIAN PHASE
- OL OVERLAP

NUMBER REFERS TO ASSOCIATED PHASE

PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE



SCHEDULE OF QUANTITES

ITEM	UNIT	QUANTITY
SIGN PANEL - TYPE 1	SQ FT	18
SIGN PANEL - TYPE 2	SQ FT	15
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	410
UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	81
HANDHOLE	EACH	1
HEAVY-DUTY HANDHOLE	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	202
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	226
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	430
CONCRETE FOUNDATION, TYPE A	FOOT	8
DRILL EXISTING HANDHOLE	EACH	8
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2
PREFORMED DETECTOR LOOP	FOOT	173
PEDESTRIAN PUSH-BUTTON	EACH	2
TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
REMOVE AND REINSTALL ELECTRIC CABLE FROM CONDUIT	FOOT	901
REMOVE EXISTING HANDHOLE	EACH	2
PEDIESTRIAN PUSH BUTTON POST, TYPE A	EACH	2
RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL 1	EACH	1
TEMPORARY TRAFFIC SIGNAL TIMING	EACH	1

TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	12	11	50	66.0
(YELLOW)	8	20	5	8.0
(GREEN)	8	12	45	43.2
PERMISSIVE ARROW	16	10	10	16.0
PED. SIGNAL	2	20	100	40.0
CONTROLLER	1	100	100	100.0
UPS	1	25	100	25.0
VIDEO SYSTEM	-	150	100	-
BLANK-OUT SIGN	-	25	5	-
FLASHER	-	-	50	-
STREET NAME SIGN	-	120	50	-
LUMINAIRE	-	-	-	-
			TOTAL =	298.2

ENERGY COSTS TO:

CITY OF CALUMET CITY
204 PULASKI ROAD
CALUMET CITY, IL 60409

ENERGY SUPPLY: CONTACT: WARREN TAYLOR
PHONE: (708) 235-2328
COMPANY: COMMONWEALTH EDISON
ACCOUNT NUMBER: ---

ECON 49
TS #20955

GRAEF 8501 W. Higgins Roads Suite 280 Chicago, Illinois 60631 (773) 399-0112

USER NAME = 1951	DESIGNED - JWB	REVISED -	
	DRAWN - JWB	REVISED -	
PLOT SCALE = 40.0000 ' / in.	CHECKED - RS	REVISED -	
PLOT DATE = 3/23/2018 - 10:30:24 AM	DATE - 03/23/2018	REVISED -	

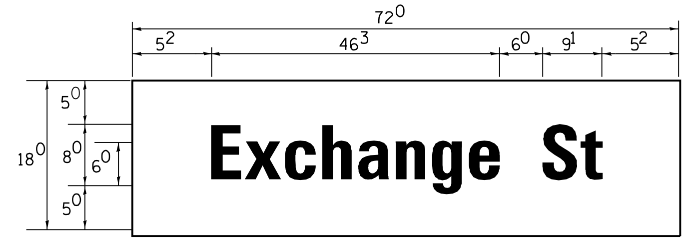
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN,
PHASE DESIGNATION DIAGRAM & EMERGENCY VEHICLE PREEMPTION
IL 83/US 6 (TORRENCE AVENUE) AT EXCHANGE STREET
TRAFFIC SIGNAL MODERNIZATION

SCALE: NONE | SHEET NO. 6 OF 7 | AT STA. 170+30

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	0909.1-B	COOK	138	61
		CONTRACT NO. 60K78		
		ILLINOIS FED. AID PROJECT		

SIGN PANEL – TYPE 1 OR TYPE 2

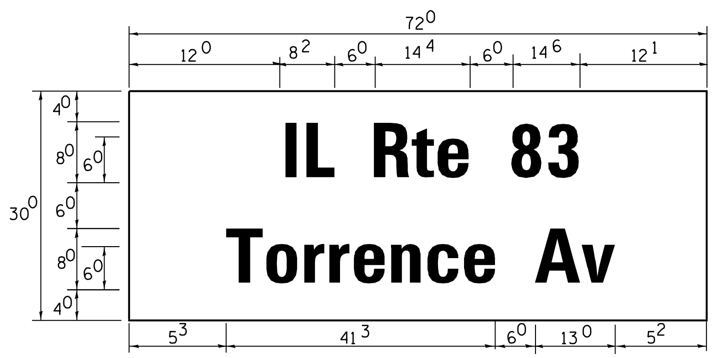


___ Sq. M. each

9 Sq. Ft. each

2 Required

Design Series D



___ Sq. M. each

15 Sq. Ft. each

1 Required

Design Series D

DESIGN SERIES	AREA (SQ FT)	SIGN PANEL TYPE	SHEETING TYPE	QTY. REQUIRED
D OR C	-	1 OR 2	ZZ	-

ALL DIMENSIONS ARE IN INCHES EXCEPT NOTED OTHERWISE

COMMON STREET NAME ABBREVIATIONS AND WIDTHS

NAME	ABBREVATION	WIDTH (INCH) SERIES "C"	SERIES "D"
AVENUE	Ave	15.000	18.250
BOULEVARD	Blvd	17.125	20.000
CIRCLE	Cir	11.125	13.000
COURT	Ct	8.250	9.625
DRIVE	Dr	8.625	10.125
HIGHWAY	Hwy	18.375	22.000
ILLINOIS	IL	7.000	8.250
LANE	Ln	9.125	10.750
PARKWAY	Pkwy	23.375	27.375
PLACE	Pl	7.125	7.750
ROAD	Rd	9.625	11.125
ROUTE	Rte	12.625	14.500
STREET	St	8.000	9.125
TERRACE	Ter	12.625	14.625
TRAIL	Tr	7.750	9.125
UNITED STATES	US	10.375	12.250

GENERAL NOTES

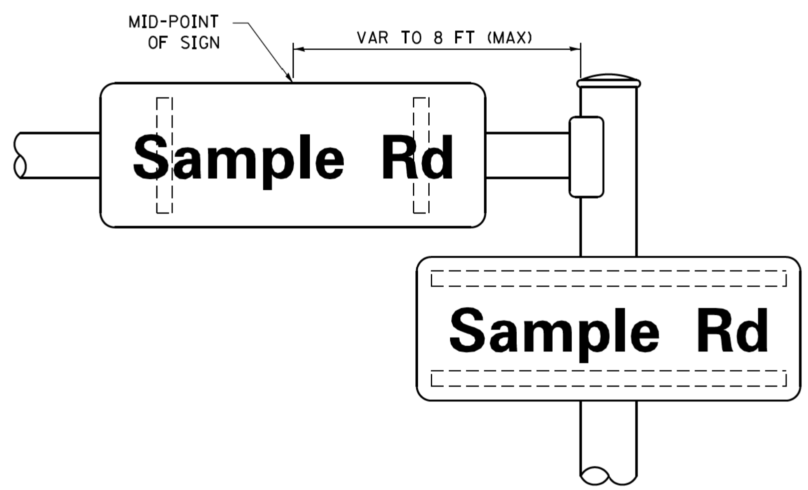
1. WHERE MAST ARM MOUNTED STREET NAME SIGNS ARE SPECIFIED, THE MAST ARM ASSEMBLY AND POLES SHALL BE DESIGNED TO SUPPORT THE LOADINGS CALLED FOR ON STANDARDS 877001, 877002, 877006, 877011 AND 877012, AS APPLICABLE, PLUS TWO (2) SIGN PANELS 2′-6″ x 8′-0″ MOUNTED AS SHOWN. THE DESIGN SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CURRENT "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS" AS PUBLISHED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS FOR 80 M.P.H. WIND VELOCITY.
2. ALL SIGNS SHALL CONSIST OF A WHITE LEGEND AND BORDER (TYPE ZZ SHEETING) ON A GREEN BACKGROUND (TYPE ZZ SHEETING)
3. THE SIGN LENGTH SHALL BE IN 6-INCH INCREMENTS, BUT THE OVERALL LENGTH SHALL NOT EXCEED 8′-0″. ALL BORDERS SHALL BE ¾″ WIDE. CORNER RADIUS SHALL BE 1-7/8″. THE SPACING BETWEEN THE WORDS SHOULD BE 6″, IF POSSIBLE, BUT MAY BE REDUCED TO 5″ WHEN SPACING IS CRITICAL. A MINIMUM OF 2-1/2″ SHALL BE INCLUDED BETWEEN THE WORD AND THE RIGHT AND LEFT EDGES OF THE SIGN.
4. A PREFERRED METHOD FOR THE SIGN DESIGN IS TO USE SERIES "D" LETTER ON A ONE-LINE SIGN 18″ IN HEIGHT AND A MAXIMUM OF 8′-0″ IN WIDTH. IF SERIES "D" DOES NOT FIT ON A 8″-0″ SIGN, THEN SERIES "C" SHOULD BE TRIED. IF SERIES "C" DOES NOT FIT ON A 8′-0″ SIGN, A 30″ HIGH TWO-LINE SIGN CAN BE USED. THE CROSSROAD DESIGNATION AS TO STREET, AVENUE, ETC. SHOULD BE SPELLED OUT ON THE SECOND LINE, IF THE ABBREVIATION CANNOT FIT ON THE FIRST LINE.
5. LED ILLUMINATED STREET NAME SIGNS CAN BE USED IN PLACE OF REGULAR SIGN PANELS BUT ANY SPECIAL WORDING AND SYMBOLOGY MUST BE APPROVED BY THE DEPARTMENT. GENERAL DESIGN REQUIREMENT AS LISTED ABOVE (COLOR, FONT, SIZE, ETC.) MUST BE FOLLOWED.
6. SIGNFIX ALUMINUM CHANNEL FRAMING SYSTEM SHALL BE USED FOR ALL SIGNS ATTACHED TO SIGNAL POLES AND POSTS.

LOCAL SUPPLIERS:	PARTS LISTING:	
- J.O. HERBERT COMPANY, INC MIDLOTHIAN, VA	SIGN CHANNEL	PART #HPN053 (MED. CHANNEL)
	SIGN SCREWS	1/4″ x 14 x 1″ H.W.H. #3 SELF TAPPING WITH NEOPRENE WASHER
- WESTERN REMAC, INC. WOODRIDGE, IL	BRACKETS	PART #HPN034 (UNIVERSAL) CHANNEL CLAMPS WITH STAINLESS STEEL STRAPPING

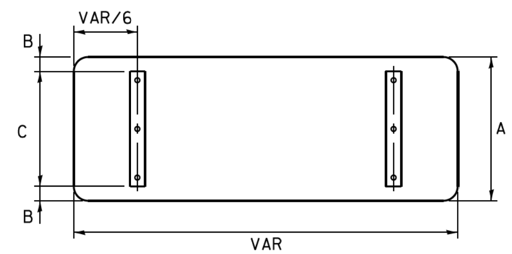
OTHER BRANDS OF MOUNTING HARDWARE ARE ACCEPTABLE, BASED UPON THE DEPARTMENT'S APPROVAL AND COMPATIBILITY WITH THE CHANNEL/BRACKET OF THE ABOVE PRODUCT.

MOUNTING LOCATION

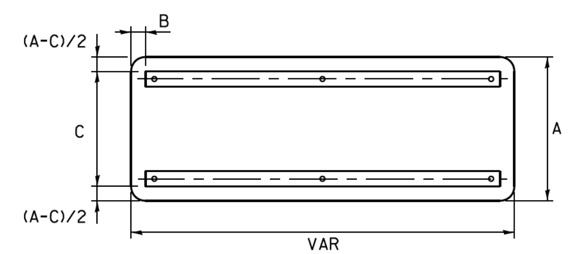
ARM OR POLE MOUNTED



SUPPORTING CHANNELS



A	B	C
18″	2″	14″
30″	2″	24″



A	B	C
18″	2″	12″
30″	2″	22″

STANDARD ALPHABETS SPACING CHART

(8″) UPPER CASE AND (6″) LOWER CASE

FHWA SERIES "C" CHARACTER	LEFT SPACING (INCH)	WIDTH (INCH)	RIGHT SPACING (INCH)	FHWA SERIES "D" CHARACTER	LEFT SPACING (INCH)	WIDTH (INCH)	RIGHT SPACING (INCH)
A	0.240	5.122	0.240	A	0.240	6.804	0.240
B	0.880	4.482	0.480	B	0.960	5.446	0.400
C	0.720	4.482	0.720	C	0.800	5.446	0.800
D	0.880	4.482	0.720	D	0.960	5.446	0.800
E	0.880	4.082	0.480	E	0.960	4.962	0.400
F	0.880	4.082	0.240	F	0.960	4.962	0.240
G	0.720	4.482	0.720	G	0.800	5.446	0.800
H	0.880	4.482	0.880	H	0.960	5.446	0.960
I	0.880	1.120	0.880	I	0.960	1.280	0.960
J	0.240	4.082	0.880	J	0.240	5.122	0.960
K	0.880	4.482	0.480	K	0.960	5.604	0.400
L	0.880	4.082	0.240	L	0.960	4.962	0.240
M	0.880	5.284	0.880	M	0.960	6.244	0.960
N	0.880	4.482	0.880	N	0.960	5.446	0.960
O	0.720	4.722	0.720	O	0.800	5.684	0.800
P	0.880	4.482	0.720	P	0.960	5.446	0.240
Q	0.720	4.722	0.720	Q	0.800	5.684	0.800
R	0.880	4.482	0.480	R	0.960	5.446	0.400
S	0.480	4.482	0.480	S	0.400	5.446	0.400
T	0.240	4.082	0.240	T	0.240	4.962	0.240
U	0.880	4.482	0.880	U	0.960	5.446	0.960
V	0.240	4.962	0.240	V	0.240	6.084	0.240
W	0.240	6.084	0.240	W	0.240	7.124	0.240
X	0.240	4.722	0.240	X	0.400	5.446	0.400
Y	0.240	5.122	0.240	Y	0.240	6.884	0.240
Z	0.480	4.482	0.480	Z	0.400	5.446	0.400
a	0.320	3.842	0.640	a	0.400	4.562	0.720
b	0.720	4.082	0.480	b	0.800	4.802	0.480
c	0.480	4.002	0.240	c	0.480	4.722	0.240
d	0.480	4.082	0.720	d	0.480	4.802	0.800
e	0.480	4.082	0.320	e	0.480	4.722	0.320
f	0.320	2.480	0.160	f	0.320	2.882	0.160
g	0.480	4.082	0.720	g	0.480	4.802	0.800
h	0.720	4.082	0.640	h	0.800	4.722	0.720
i	0.720	1.120	0.720	i	0.800	1.280	0.800
j	0.000	2.320	0.720	j	0.000	2.642	0.800
k	0.720	4.322	0.160	k	0.800	5.122	0.160
l	0.720	1.120	0.720	l	0.800	1.280	0.800
m	0.720	6.724	0.640	m	0.800	7.926	0.720
n	0.720	4.082	0.640	n	0.800	4.722	0.720
o	0.480	4.082	0.480	o	0.480	4.882	0.480
p	0.720	4.082	0.480	p	0.800	4.802	0.480
q	0.480	4.082	0.720	q	0.480	4.802	0.800
r	0.720	2.642	0.160	r	0.800	3.042	0.160
s	0.320	3.362	0.240	s	0.320	3.762	0.240
t	0.080	2.882	0.080	t	0.080	3.202	0.080
u	0.640	4.082	0.720	u	0.720	4.722	0.800
v	0.160	4.722	0.160	v	0.160	5.684	0.160
w	0.160	7.524	0.160	w	0.160	9.046	0.160
x	0.000	5.202	0.000	x	0.000	6.244	0.000
y	0.160	4.962	0.160	y	0.160	6.004	0.160
z	0.240	3.362	0.240	z	0.240	4.002	0.240
1	0.720	1.680	0.880	1	0.800	2.000	0.960
2	0.480	4.482	0.480	2	0.800	5.446	0.800
3	0.480	4.482	0.480	3	1.440	5.446	0.800
4	0.240	4.962	0.720	4	0.160	6.004	0.960
5	0.480	4.482	0.480	5	0.800	5.446	0.800
6	0.720	4.482	0.720	6	0.800	5.446	0.800
7	0.240	4.482	0.720	7	0.560	5.446	0.560
8	0.480	4.482	0.480	8	0.800	5.446	0.800
9	0.480	4.482	0.480	9	0.800	5.446	0.800
0	0.720	4.722	0.720	0	0.800	5.684	0.800
-	0.240	2.802	0.240	-	0.240	2.802	0.240

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DISTRICT ONE

MAST ARM MOUNTED STREET NAME SIGNS

SCALE: NONE | SHEET NO. 7 OF 7 | AT STA. 170+30

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	0909.1-B	COOK	138	62
	TS-02	CONTRACT NO. 60K78		

ILLINOIS FED. AID PROJECT

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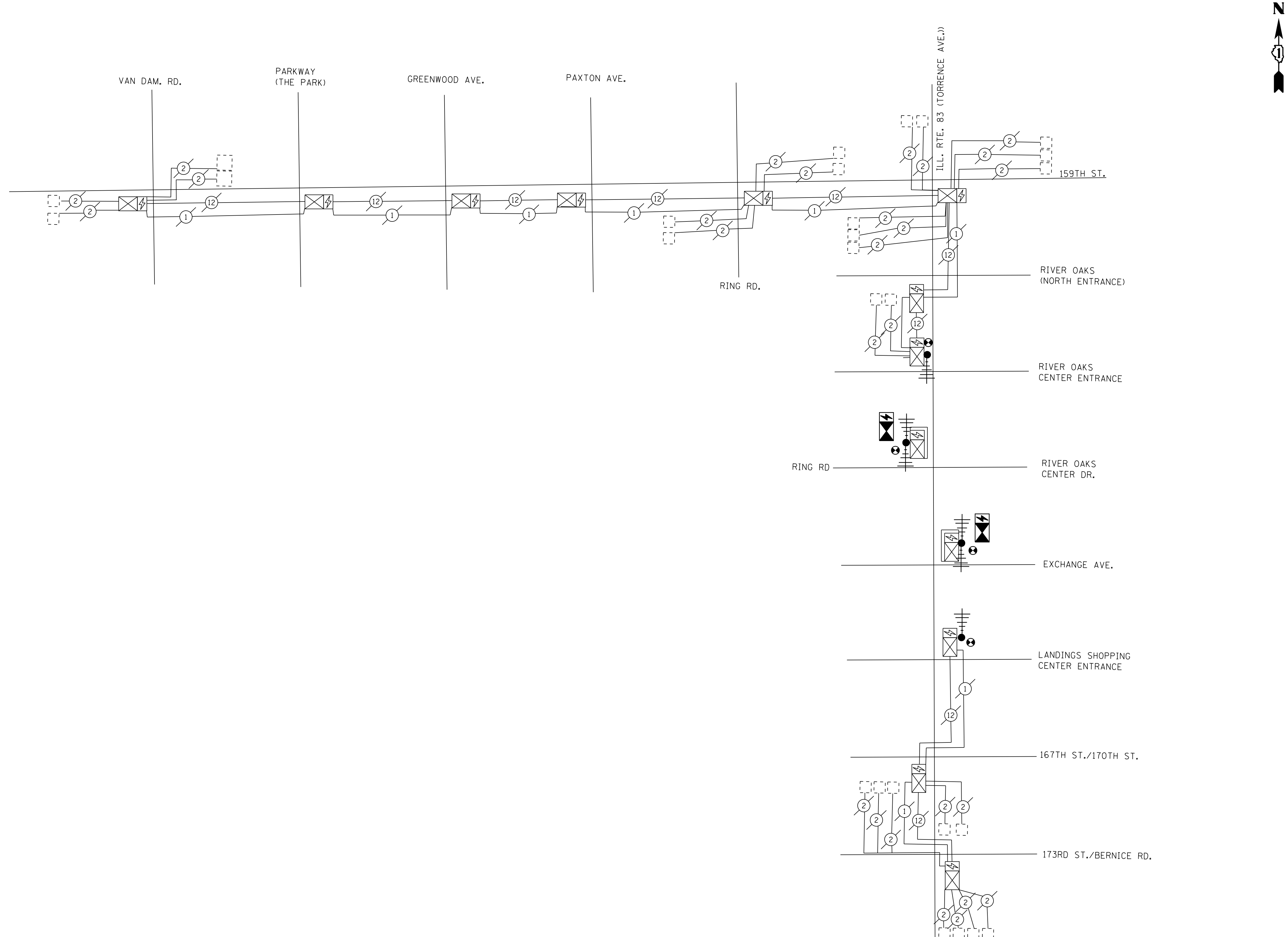

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GRAEF 8501 W. Higgins Road; Suite 280 Chicago, Illinois 60631 (773) 399-0112

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

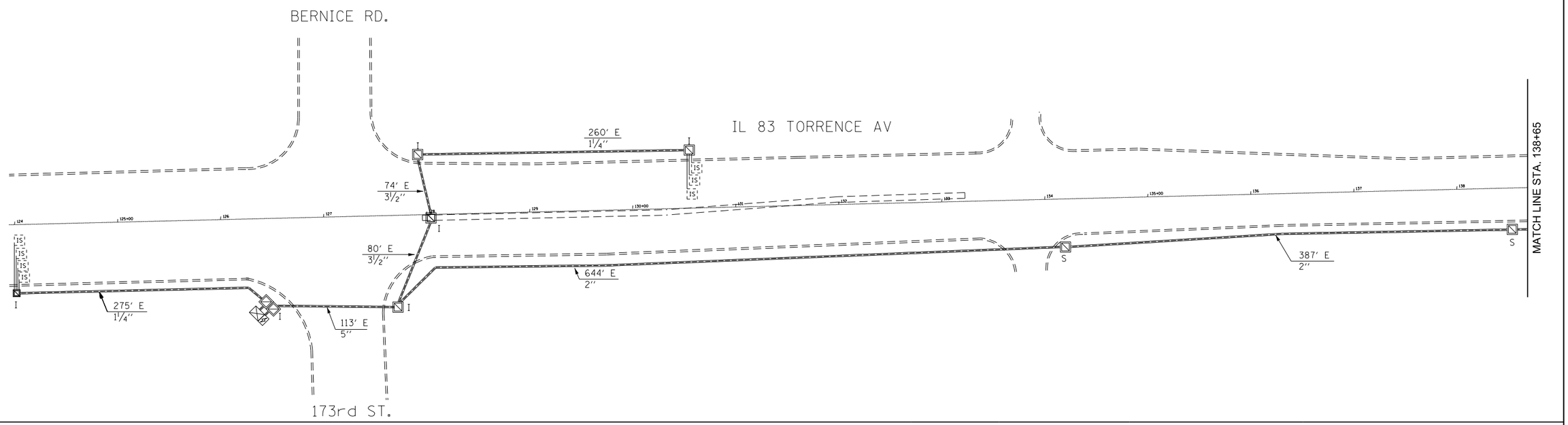
IL 83/US 6 (TORRENCE AVENUE) FROM 173rd ST TO 159th ST
TEMPORARY INTERCONNECT SCHEMATIC PLAN

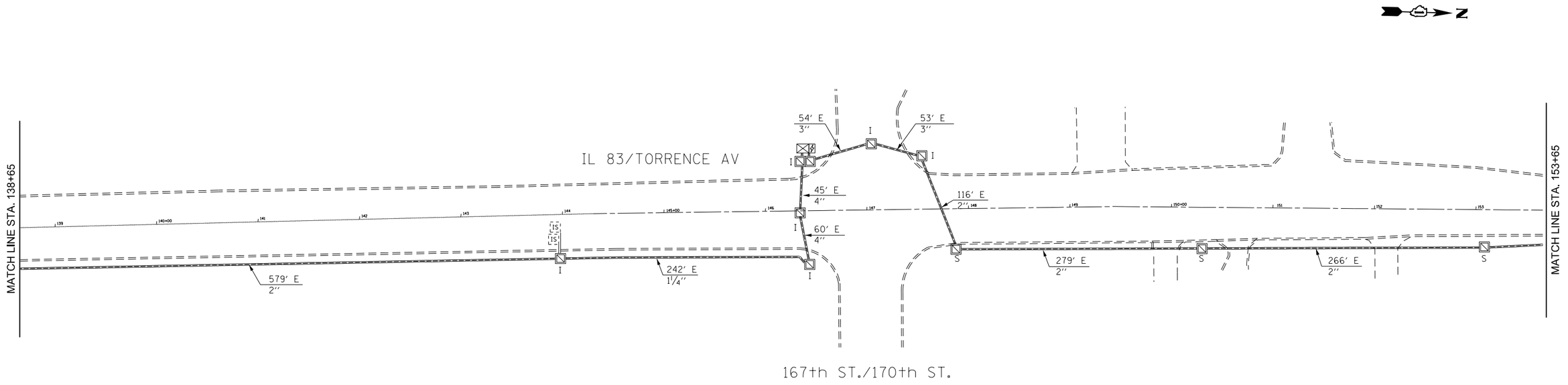
SCALE: NONE | SHEET NO. 4 OF 8

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	0909.1-B	COOK	138	63

CONTRACT NO. 60K78

ILLINOIS FED. AID PROJECT





ECON 49

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		DRAWN - JWB	REVISED -		
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	0909.1-B	COOK	138	64
		CONTRACT NO. 60K78		
	ILLINOIS FED. AID PROJECT			

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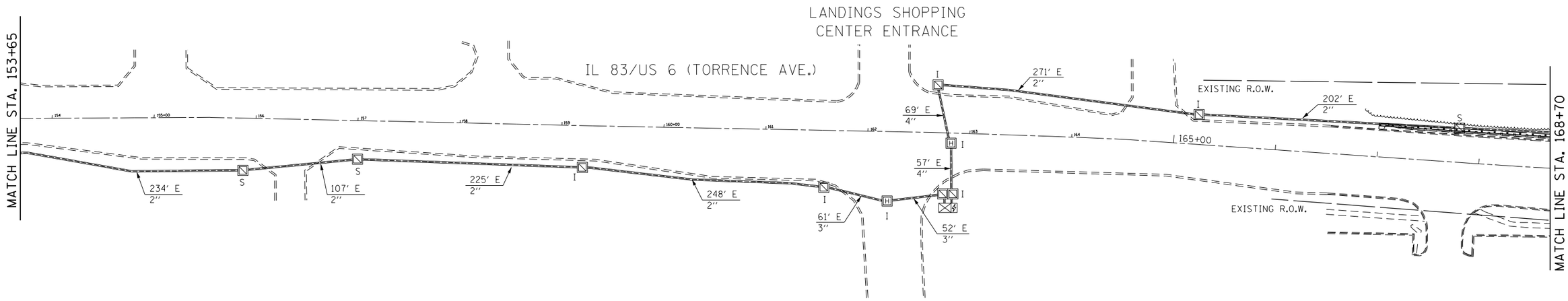
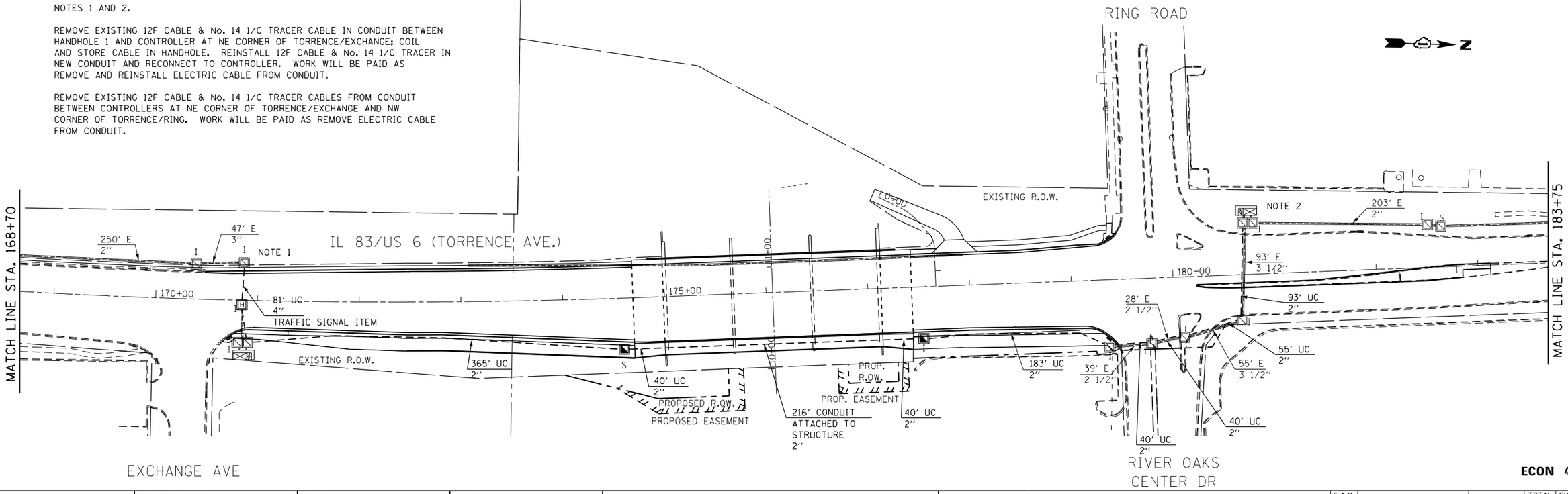


NOTES 1 AND 2.

REMOVE EXISTING 12F CABLE & No. 14 1/C TRACER CABLE IN CONDUIT BETWEEN HANDHOLE 1 AND CONTROLLER AT NE CORNER OF TORRENCE/EXCHANGE; COIL AND STORE CABLE IN HANDHOLE. REINSTALL 12F CABLE & No. 14 1/C TRACER IN NEW CONDUIT AND RECONNECT TO CONTROLLER. WORK WILL BE PAID AS REMOVE AND REINSTALL ELECTRIC CABLE FROM CONDUIT.

REMOVE EXISTING 12F CABLE & No. 14 1/C TRACER CABLES FROM CONDUIT BETWEEN CONTROLLERS AT NE CORNER OF TORRENCE/EXCHANGE AND NW CORNER OF TORRENCE/RING. WORK WILL BE PAID AS REMOVE ELECTRIC CABLE FROM CONDUIT.



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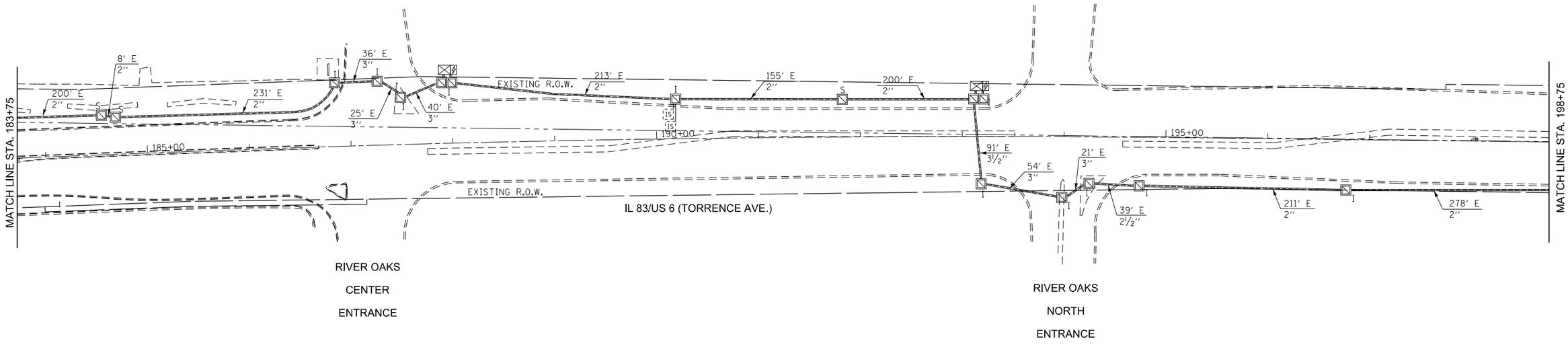
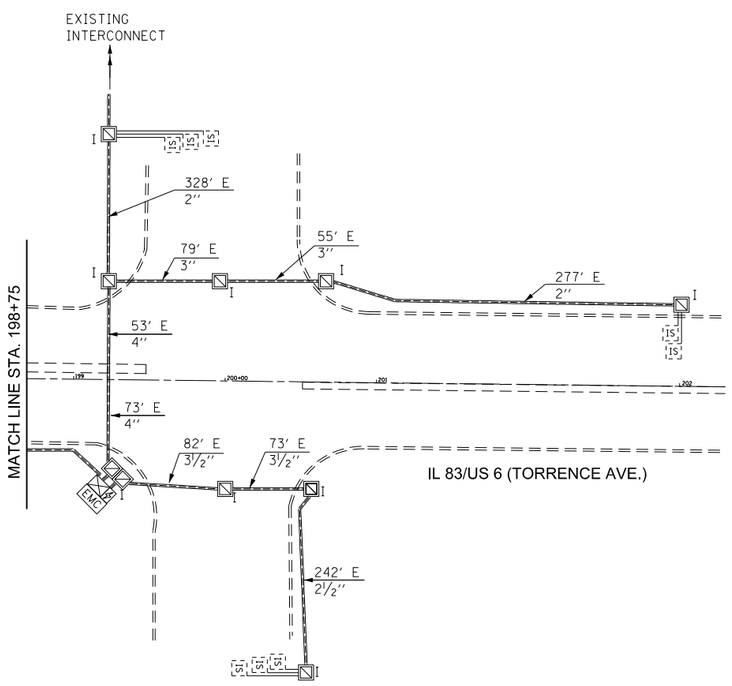
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	0909.1-B	COOK	138	65
		CONTRACT NO. 60K78		
		ILLINOIS FED. AID PROJECT		





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GRAEF 8501 W. Higgins Road Suite 280 Chicago, Illinois 60631 (773) 399-0112	USER NAME = 1951	DESIGNED - JWB	REVISED -
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL 83/US 6 (TORRENCE AVENUE) FROM 173rd ST TO 159th ST
INTERCONNECT MODRENIZATION PLAN

SCALE: 1" = 50' | SHEET NO. 7 OF 8

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	0909.1-B	COOK	138	66
		CONTRACT NO. 60K78		
	ILLINOIS FED. AID PROJECT			

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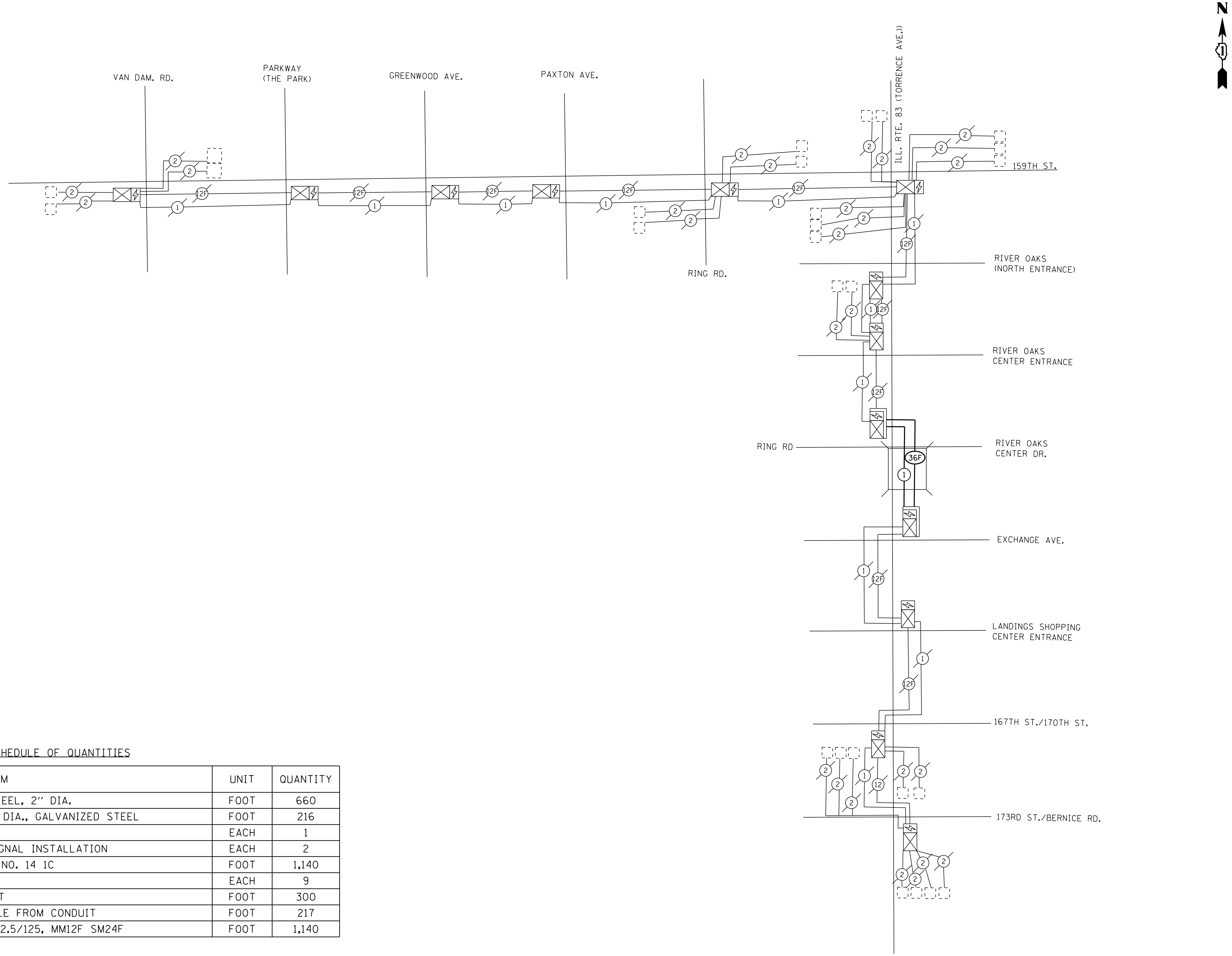

SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	660
CONDUIT ATTACHED TO STRUCTURE, 2" DIA., GALVANIZED STEEL	FOOT	216
HANDHOLE	EACH	1
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	2
ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C	FOOT	1,140
DRILL EXISTING HANDHOLE	EACH	9
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	300
REMOVE AND REINSTALL ELECTRIC CABLE FROM CONDUIT	FOOT	217
FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM24F	FOOT	1,140

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GRAEF 8501 W. Higgins Roads Suite 280 Chicago, Illinois 60631 (773) 399-0112

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL 83/US 6 (TORRENCE AVENUE) FROM 173rd ST TO 159th ST
INTERCONNECT SCHEMATIC PLAN

SCALE: NONE | SHEET NO. 8 OF 8

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	0909.1-B	COOK	138	67

CONTRACT NO. 60K78

ILLINOIS FED. AID PROJECT

Bench Mark: Chiseled "X" on traffic signal handhole at Sta. 170+83.92, 39.46' Rt. Elevation 597.92

Existing Structure: S.N. 016-0936, originally built in 1923 as FAU 2937, Section 1212.1-B-R(82). In 1962, the structure was widened to the east with simple span PPC deck beams. In 1984, the original T-beams on the west side were replaced with PPC deck beams. The existing structure consists of 3 spans on pile supported closed abutments and pile supported solid wall piers. The structure is 158'-10" back to back of abutments and 67'-10" out to out of deck. The structure is to be completely removed and replaced. Existing metal railings and posts on the bridge parapets shall remain the property of IDOT and shall be delivered by the Contractor to the District Bridge Yard on Biesterfield Road in Elk Grove Village, Illinois, 60007. Traffic is to be maintained utilizing staged construction.

DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)
fy = 50,000 psi (M270 Grade 50W)

DESIGN SPECIFICATIONS

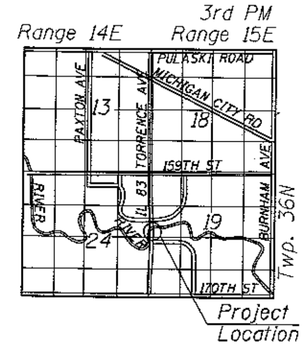
2012 AASHTO LRFD Bridge Design Specifications, 6th Edition.

SEISMIC DATA

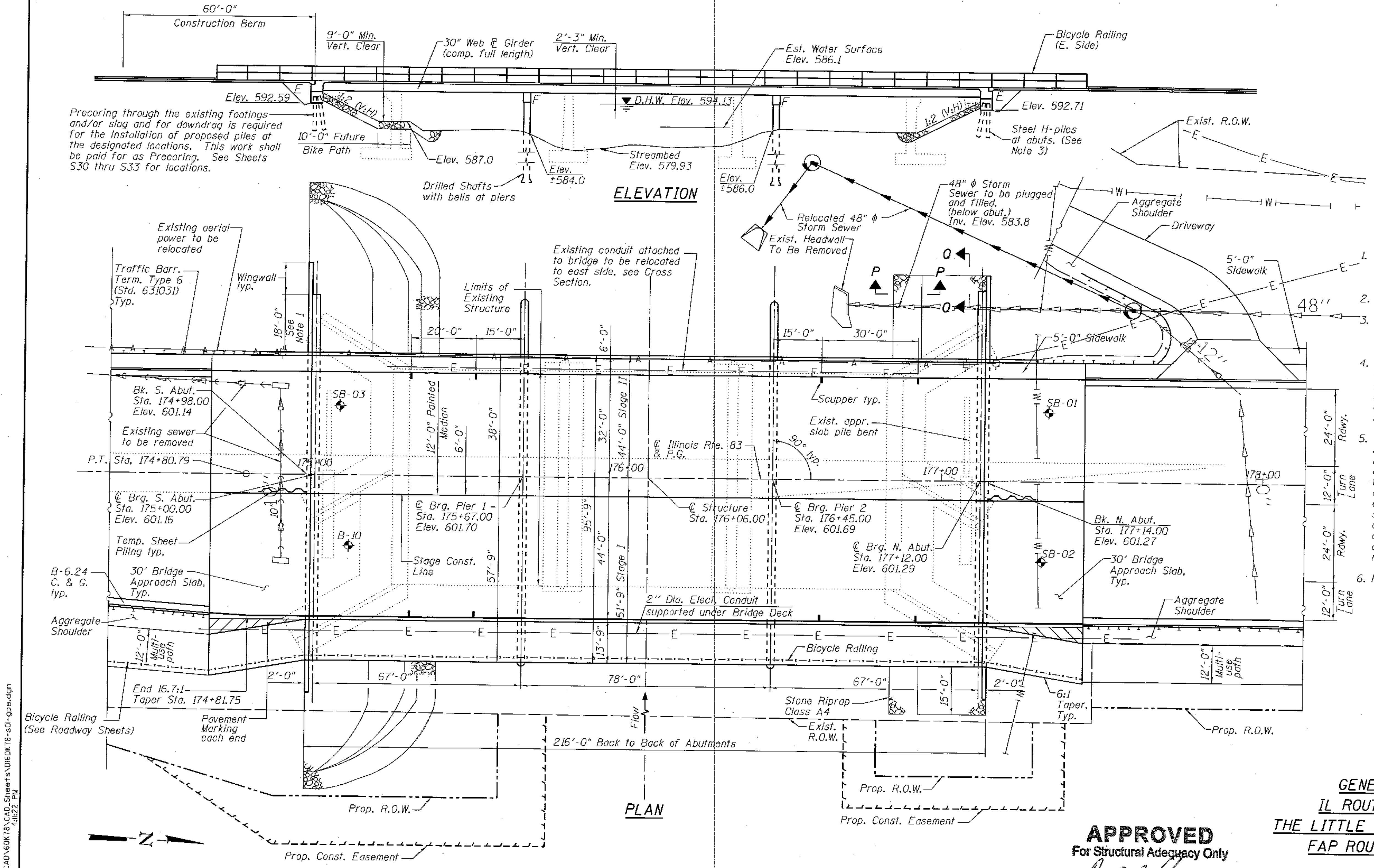
Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at 1.0 sec. (S_{D1}) = 0.091g
Design Spectral Acceleration at 0.2 sec. (S_{DS}) = 0.146g
Soil Site Class = D

LOADING HL-93

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



LOCATION SKETCH



NOTES

1. The piers and abutments will be constructed 18' wider on the west side for future deck widening.
2. For Sections P-P and Q-Q, see Sheet S35.
3. H-piles at N. Abut. are spaced to miss 48"ϕ Sewer. Sewer location to be field verified. See Sheet S33.
4. The quantity for Structure Excavation includes the excavation, which is not considered Rock Excavation, required between the Existing Abutment and the Proposed Abutment (between outer existing wingwalls) at both the South and North Abutments.
5. The quantity for Rock Excavation includes the slag excavation, which is not considered Structure Excavation, required behind the Existing Abutments and Wingwalls east of the ℄ Illinois Rt. 83 down to the bottom of the proposed riprap & bedding at both the South and North Abutments. Slag is defined as very dense bluish gray or black, wet sand, partially cemented fill material with a septic or chemical like odor having a Blow Count equal to or greater than 20 blows per 6" The determination of Rock Excavation or Structure Excavation is the responsibility of the Resident Engineer.
6. For Waterway Information table see Sheet S2.

APPROVED
For Structural Adequacy Only
Engineer of Bridges & Structures

GENERAL PLAN & ELEVATION
IL ROUTE 83 (U.S. ROUTE 6) OVER
THE LITTLE CALUMET RIVER (PUBLIC WATER)
FAP ROUTE 358 - SECTION 0909.1-B
COOK COUNTY
STATION 176+06.00
STRUCTURE NO. 016-1302

GRAEF
8501 W. Higgins Road, Suite 280
Chicago, Illinois 60631 (773) 399-0112

USER NAME =	DESIGNED - J.J.G.	REVISED -
	CHECKED - J.A.Z.	REVISED -
PLOT SCALE =	DRAWN - D.L.G.	REVISED -
PLOT DATE =	DATE - 01/23/2018	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN & ELEVATION
STRUCTURE NO. 016-1302
SHEET NO. S1 OF 47 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	0909.1-B	COOK	138	68
		CONTRACT NO. 60K78		
	ILLINOIS FED. AID PROJECT			

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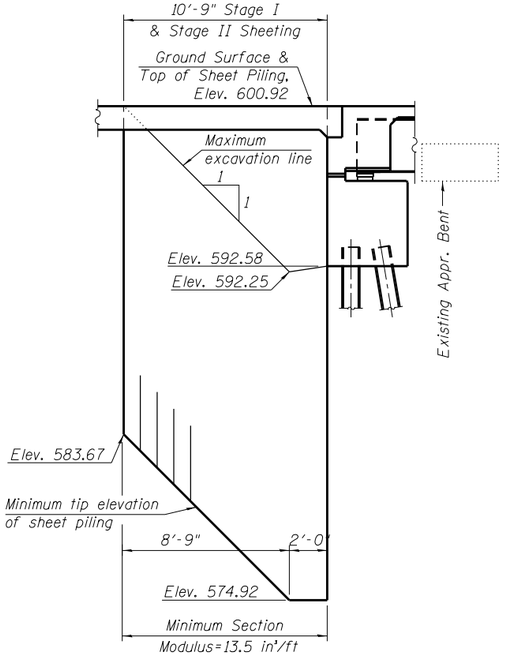
BRIDGE GENERAL NOTES

1. Fasteners shall be ASTM A325 Type 1, mechanically galvanized bolts in painted areas and ASTM A325 Type 3 in unpainted areas. Bolts 7/8 in. diameter, holes 15/16 in. diameter, unless otherwise noted.
2. Calculated weight of Structural Steel = 409,010 lbs.
3. All structural steel shall be AASHTO M 270 Grade 50W.
4. No field welding is permitted except as specified in the contract documents.
5. Reinforcement bars designated (E) shall be epoxy coated.
6. Bearing seat surfaces shall be constructed or adjusted to the designed elevations within a tolerance of 1/8 in. (0.01 ft.). Adjustment shall be made either by grinding the surface or by shimming the bearings.
7. Structural steel shall only be painted for a distance equal to the depth of embedment into the concrete diaphragm plus 1'-6". Painted areas shall be primed in the shop with a Department approved zinc rich primer. Field painting will not be required.
8. Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
9. The embankment configuration shown shall be the minimum that must be placed and compacted prior to construction of the abutments.
10. The Contractor shall obtain a construction permit from the Illinois Department of Natural Resources (IDNR), Office of Water Resources for any temporary construction activity placed in the water. This shall include the placement of material for run-arounds, causeways, etc. Any permit application by the Contractor shall refer to the IDNR 3704 Floodway Construction permit number allowing permanent construction as shown in the contract plans.
11. 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.

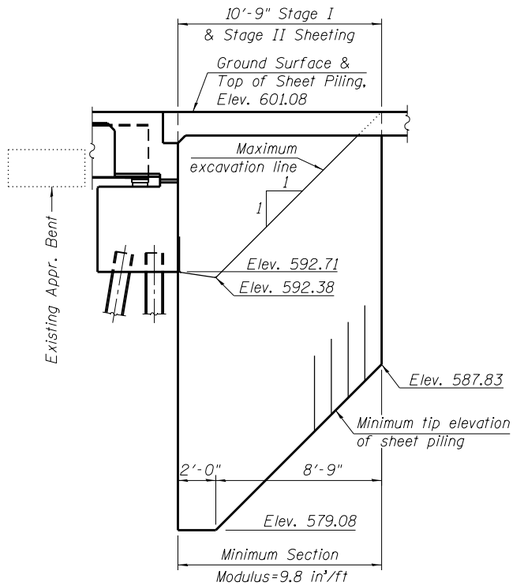
TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Stone Riprap, Class A4	Sq. Yd.		1,342	1,342
Filter Fabric	Sq. Yd.		1,342	1,342
Removal of Existing Structures	Each		1	1
Structure Excavation	Cu. Yd.		727	727
Rock Excavation for Structures	Cu. Yd.		650	650
Concrete Structures	Cu. Yd.		470.2	470.2
Concrete Superstructure	Cu. Yd.	816.0		816.0
Bridge Deck Grooving	Sq. Yd.	2,253		2,253
Concrete Encasement	Cu. Yd.		13.6	13.6
Protective Coat	Sq. Yd.	3,152		3,152
Concrete Superstructure (Approach Slab)	Cu. Yd.	272.3		272.3
Furnishing & Erecting Structural Steel	L Sum	1		1
Stud Shear Connectors	Each	12,441		12,441
Reinforcement Bars	Pound		52,830	52,830
Reinforcement Bars, Epoxy Coated	Pound	242,500	69,900	312,400
Bar Splicers	Each	918	540	1,458
Aluminum Railing, Type L	Foot	214		214
Bicycle Railing	Foot	275		275
Parapet Railing	Foot	270		270
Furnishing Steel Piles HP12x53	Foot		2,098	2,098
Driving Piles	Foot		2,098	2,098
Test Pile Steel HP12x53	Each		4	4
Name Plates	Each	1		1
Drilled Shaft in Soil	Cu. Yd.		315	315
Elastometric Bearing Assembly, Type I	Each	26		26
Anchor Bolts, 1"	Each	104		104
Temporary Sheet Piling	Sq. Ft.		440	440
Geocomposite Wall Drain	Sq. Yd.		200	200
Precoring	Foot		382	382
Granular Backfill for Structures	Cu. Yd.		396	396
Asbestos Bearing Pad Removal	Each		144	144
Drainage Scuppers, DS-12	Each	8		8
Pipe Underdrains for Structures 4"	Foot		300	300

INDEX OF SHEETS



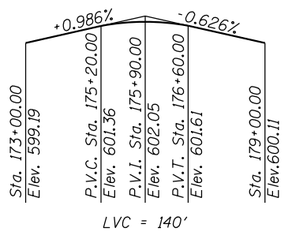
ELEVATION VIEW OF TEMPORARY SHEET PILING
LOOKING WEST AT SOUTH ABUTMENT



ELEVATION VIEW OF TEMPORARY SHEET PILING
LOOKING WEST AT NORTH ABUTMENT

STATION 176+06.00
BUILT 201_ BY
STATE OF ILLINOIS
F.A.P. RTE. 358 SEC. 0909.1-B
LOADING HL-93
STRUCTURE NO. 016-1302

NAME PLATE
See Std. 515001



PROFILE GRADE
(along ℄ IL 83)

CURVE DATA
P.I. Sta. = 171+36.73
Δ = 6° 07' 35"
D = 0° 53' 22"
R = 6,441.63'
T = 344.72'
L = 688.78'
E = 9.22'
e = 0.0
P.C. Sta. = 167+92.01
P.T. Sta. = 174+80.79

WATERWAY INFORMATION

Drainage Area = 96.1 Sq. Mi.
Exist. Low Grade Elev.= 598.36 FT. @ sta. 170+50
Prop. Low Grade Elev.= 598.36 FT. @ sta. 170+50

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Nat. H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
2 Year Peak Flow	2	820	1095	1280	591.84	0.01	0.01	591.85	591.85
	10	1050	1351	1507	592.83	0.02	0.01	592.85	592.84
Design	50	1370	1546	1756	594.13	0.02	0.01	594.15	594.14
Base	100	1390	1726	1980	595.29	0.01	0.01	595.30	595.30
Overtopping	>500								
Max. Calc.	500	1910	2098	2336	597.77	0.02	0.02	597.79	597.79

DESIGN SCOUR ELEVATIONS (FT.)

	S. Abut.	Pier 1	Pier 2	N. Abut.
100 Yr.	592.59	582.0	583.0	592.71
500 Yr.	592.59	581.5	582.5	592.71

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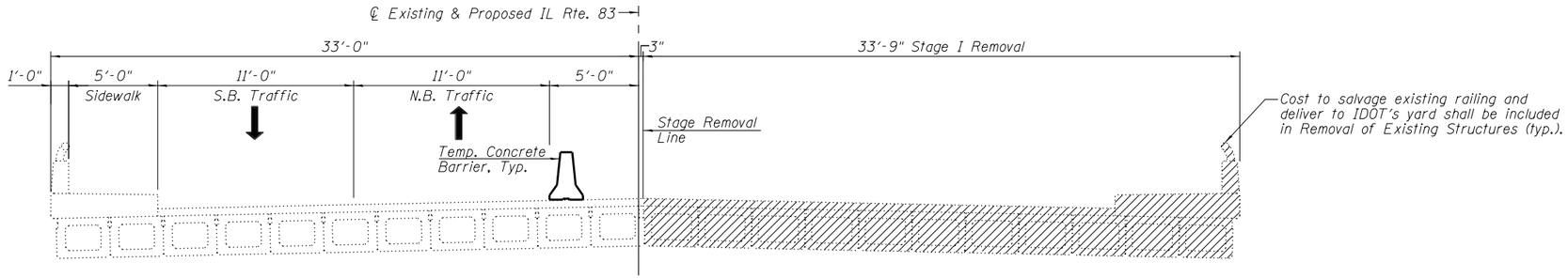
PLOT DATE =	DATE - 01/23/2018	REVISED -	

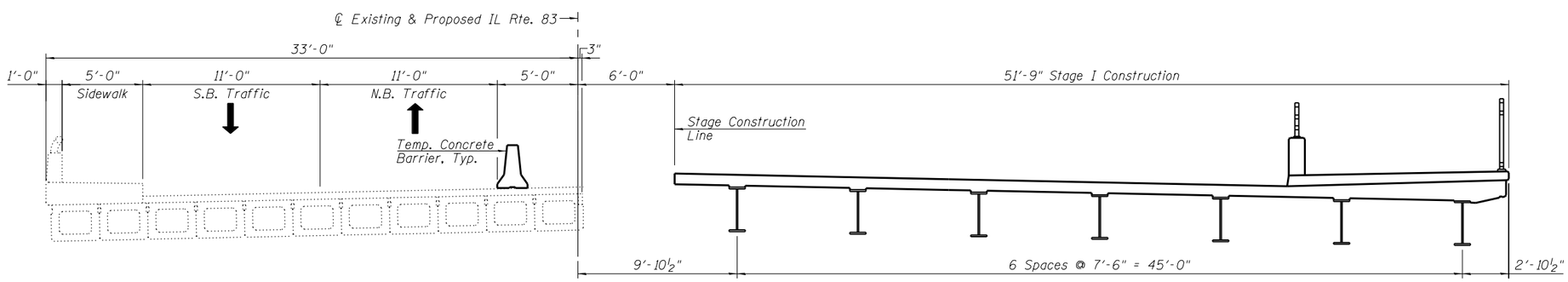
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES & TOTAL BILL OF MATERIAL
STRUCTURE NO. 016-1302
SHEET NO. S2 OF 47 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	0909.1-B	COOK	138	69
		CONTRACT NO. 60K78		
		ILLINOIS FED. AID PROJECT		



STAGE I REMOVAL
(Looking North)



STAGE I CONSTRUCTION
(Looking North)

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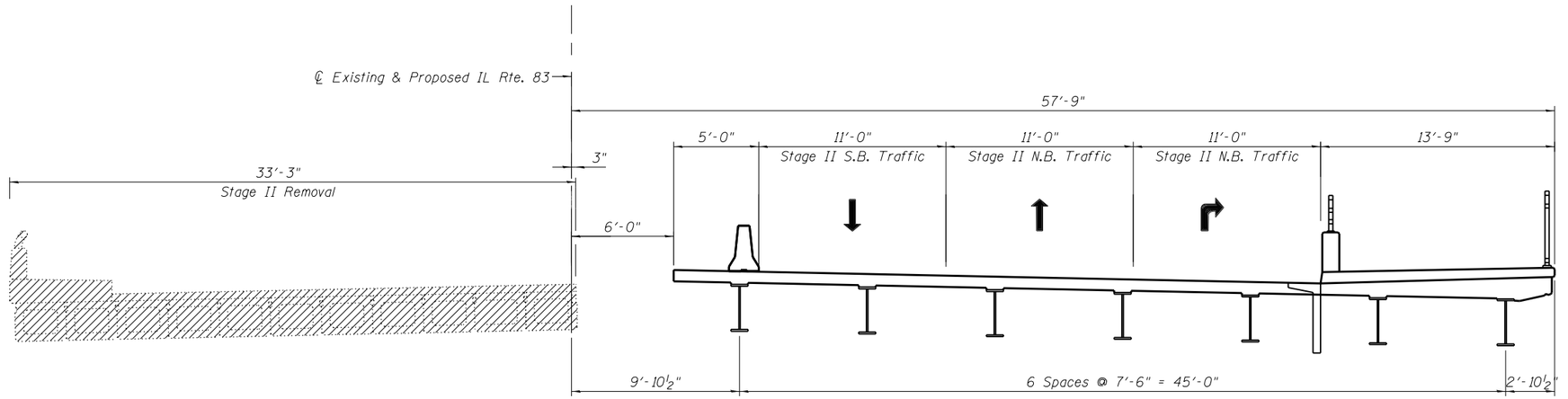
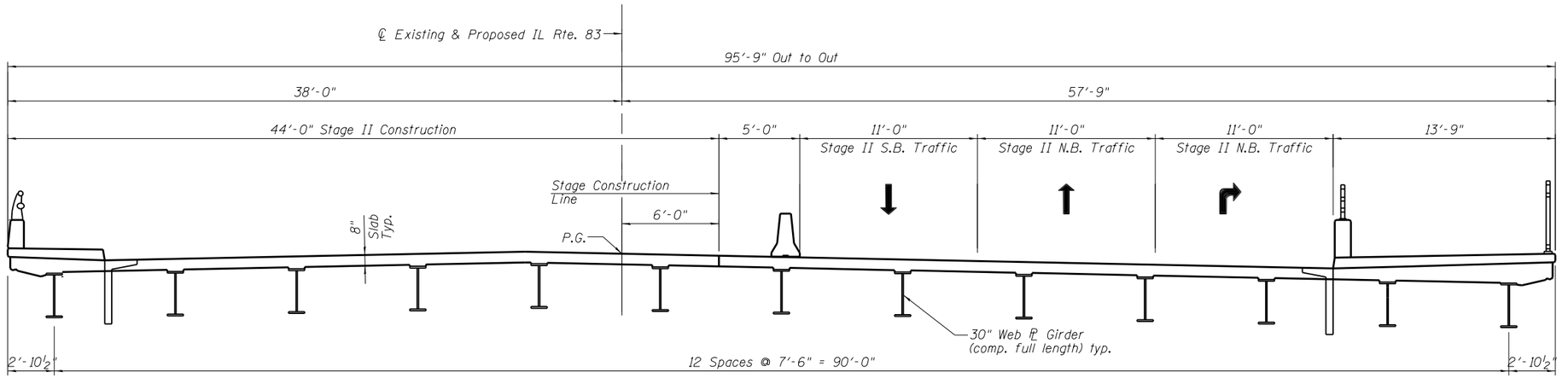
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONSTRUCTION STAGING I
STRUCTURE NO. 016-1302
SHEET NO. S3 OF 47 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	0909.1-B	COOK	138	70
		CONTRACT NO. 60K78		
	ILLINOIS FED. AID PROJECT			



STAGE II REMOVAL
(Looking North)



STAGE II CONSTRUCTION
(Looking North)

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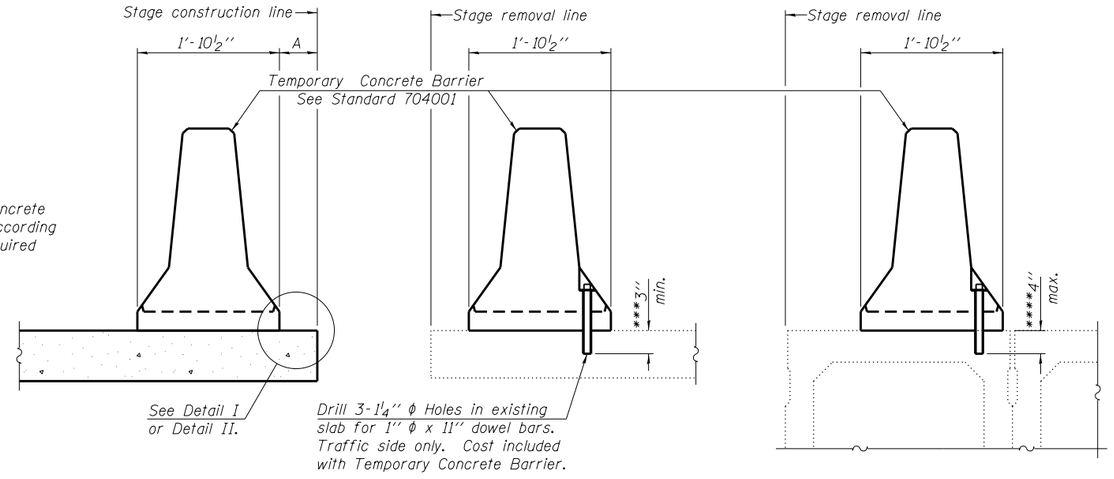
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONSTRUCTION STAGING II
STRUCTURE NO. 016-1302
SHEET NO. 54 OF 47 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	0909.1-B	COOK	138	71
		CONTRACT NO. 60K78		
	ILLINOIS FED. AID PROJECT			

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".



NEW SLAB

EXISTING SLAB

EXISTING DECK BEAM

NOTES

Detail I - With Bar Splicer or Couplers:
Connect one (1) 1" x 7' 'x "W" steel PL to the top layer of couplers with 2-⅝" ϕ bolts screwed to coupler at approximate ℄ of each barrier panel.

Detail II - With Extended Reinforcement Bars:
Connect one (1) 1" x 7" x "W" steel PL to the concrete slab or concrete wearing surface with 2-⅝" ϕ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate ℄ of each barrier panel.

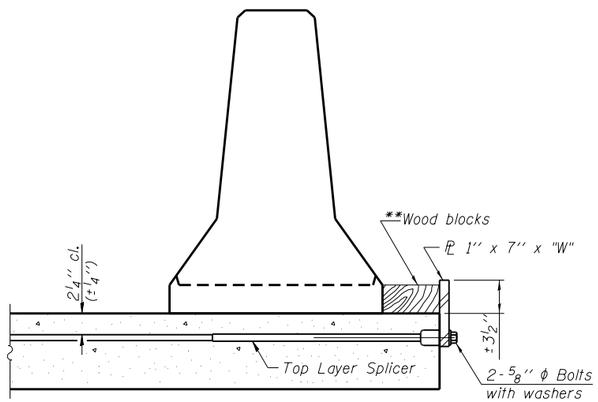
Cost of anchorage is included with Temporary Concrete Barrier.

The 1" x 7" x "W" 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.

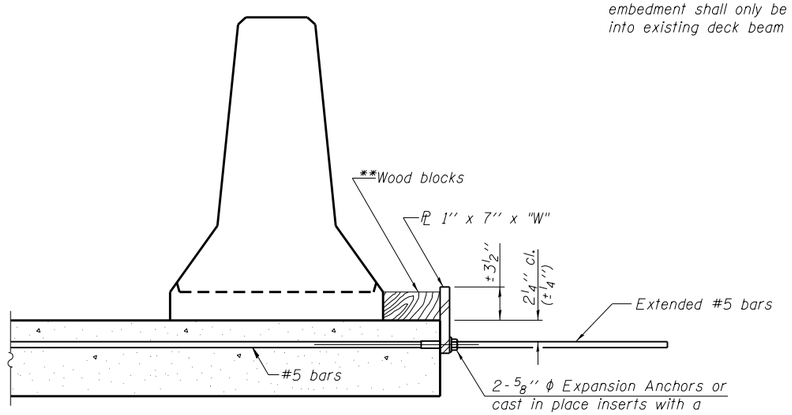
SECTIONS THRU SLAB OR DECK BEAM

*** 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.



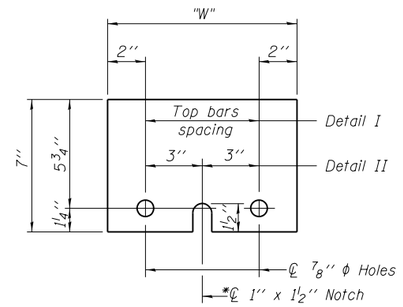
DETAIL I



DETAIL II

** 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"



STEEL RETAINER PL 1" x 7" x "W"

* Required only with Detail II

R-27

7-1-10

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TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION
STRUCTURE NO. 016-1302
SHEET NO. 55 OF 47 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	0909.1-B	COOK	138	72
		CONTRACT NO. 60K78		
	ILLINOIS FED. AID PROJECT			

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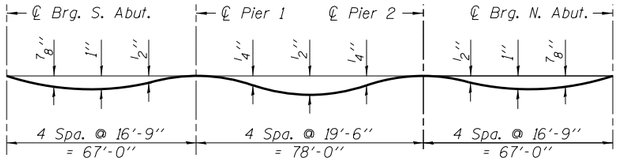
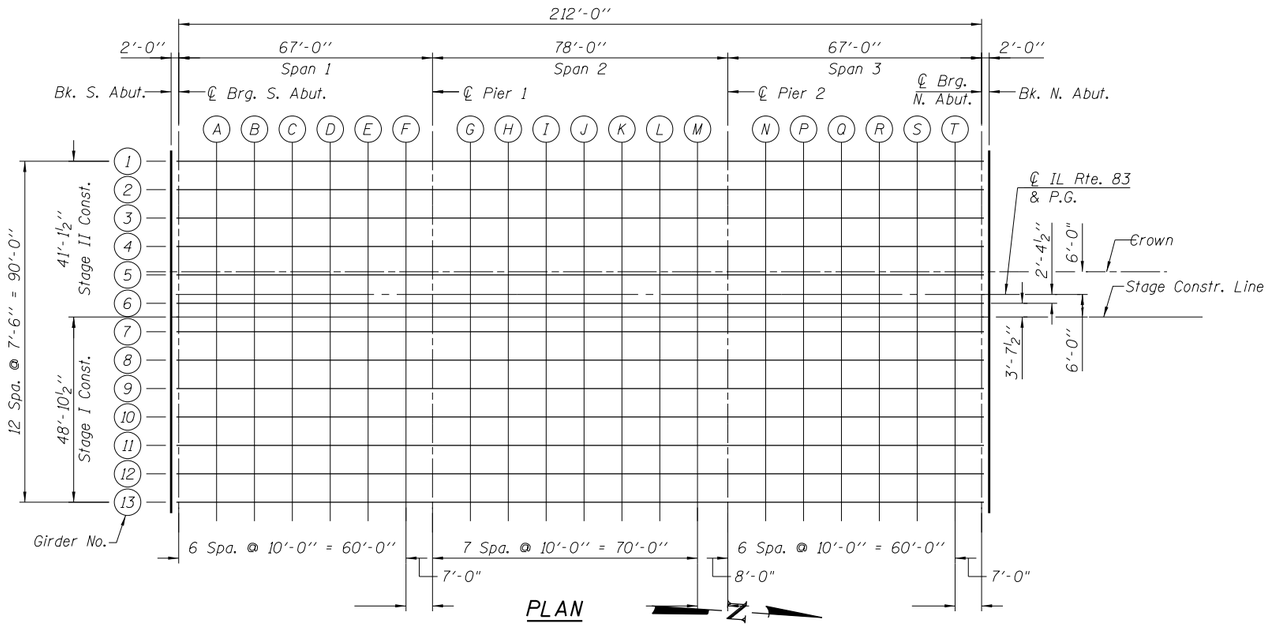


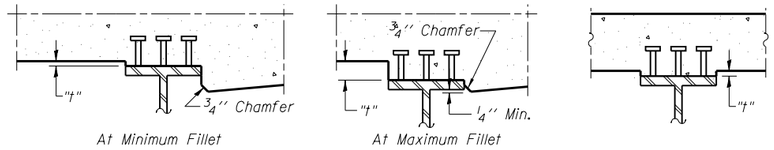
DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only.)

Note: The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown on Sheets S7 thru S12.



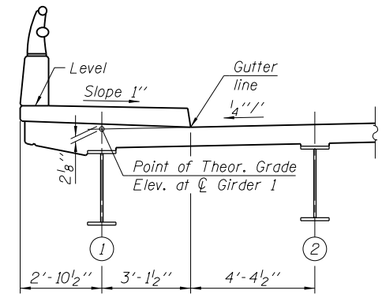
PLAN



EXTERIOR BEAMS **INTERIOR BEAMS**

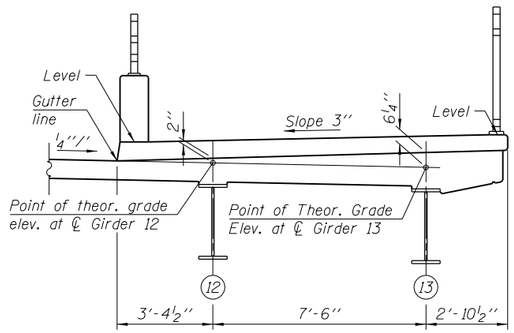
To determine "t": After all structural steel has been erected, elevations of the top flanges of the girder shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on Sheets S7 thru S12, minus slab thickness, equals the fillet heights "t" above top flange of girder.

FILLET HEIGHTS



SECTION THRU WEST SIDEWALK

(Looking North)



SECTION THRU EAST SIDEWALK

(Looking North)

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF DECK SLAB ELEVATIONS LAYOUT
STRUCTURE NO. 016-1302
SHEET NO. S6 OF 47 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	0909.1-B	COOK	138	73
		CONTRACT NO. 60K78		
	ILLINOIS FED. AID PROJECT			

GIRDER 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for DL Deflection
BK. S. ABUT.	174+98.00	-35.13	600.66	600.66
CL. Brg. S. Abut.	175+00.00	-35.13	600.68	600.68
A	175+10.00	-35.13	600.78	600.82
B	175+20.00	-35.13	600.88	600.96
C	175+30.00	-35.13	600.97	601.06
D	175+40.00	-35.13	601.05	601.13
E	175+50.00	-35.13	601.12	601.17
F	175+60.00	-35.13	601.18	601.19
CL. Brg. Pier 1	175+67.00	-35.13	601.21	601.21
G	175+77.00	-35.13	601.25	601.26
H	175+87.00	-35.13	601.28	601.30
I	175+97.00	-35.13	601.30	601.33
J	176+07.00	-35.13	601.30	601.34
K	176+17.00	-35.13	601.29	601.33
L	176+27.00	-35.13	601.27	601.29
M	176+37.00	-35.13	601.24	601.25
CL. Brg. Pier 2	176+45.00	-35.13	601.21	601.21
N	176+55.00	-35.13	601.16	601.18
P	176+65.00	-35.13	601.10	601.15
Q	176+75.00	-35.13	601.04	601.12
R	176+85.00	-35.13	600.97	601.06
S	176+95.00	-35.13	600.91	600.99
T	177+05.00	-35.13	600.85	600.89
CL. Brg. N. Abut.	177+12.00	-35.13	600.80	600.80
BK. N. ABUT.	177+14.00	-35.13	600.79	600.79

GIRDER 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for DL Deflection
BK. S. ABUT.	174+98.00	-27.63	600.82	600.82
CL. Brg. S. Abut.	175+00.00	-27.63	600.84	600.84
A	175+10.00	-27.63	600.94	600.98
B	175+20.00	-27.63	601.03	601.11
C	175+30.00	-27.63	601.13	601.22
D	175+40.00	-27.63	601.21	601.28
E	175+50.00	-27.63	601.28	601.32
F	175+60.00	-27.63	601.34	601.35
CL. Brg. Pier 1	175+67.00	-27.63	601.37	601.37
G	175+77.00	-27.63	601.41	601.41
H	175+87.00	-27.63	601.44	601.46
I	175+97.00	-27.63	601.45	601.49
J	176+07.00	-27.63	601.46	601.50
K	176+17.00	-27.63	601.45	601.48
L	176+27.00	-27.63	601.43	601.45
M	176+37.00	-27.63	601.40	601.40
CL. Brg. Pier 2	176+45.00	-27.63	601.37	601.37
N	176+55.00	-27.63	601.32	601.33
P	176+65.00	-27.63	601.26	601.31
Q	176+75.00	-27.63	601.19	601.27
R	176+85.00	-27.63	601.13	601.22
S	176+95.00	-27.63	601.07	601.14
T	177+05.00	-27.63	601.00	601.04
CL. Brg. N. Abut.	177+12.00	-27.63	600.96	600.96
BK. N. ABUT.	177+14.00	-27.63	600.95	600.95

GIRDER 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for DL Deflection
BK. S. ABUT.	174+98.00	-20.13	600.97	600.97
CL. Brg. S. Abut.	175+00.00	-20.13	600.99	600.99
A	175+10.00	-20.13	601.09	601.14
B	175+20.00	-20.13	601.19	601.27
C	175+30.00	-20.13	601.28	601.37
D	175+40.00	-20.13	601.36	601.44
E	175+50.00	-20.13	601.43	601.48
F	175+60.00	-20.13	601.49	601.51
CL. Brg. Pier 1	175+67.00	-20.13	601.53	601.53
G	175+77.00	-20.13	601.57	601.57
H	175+87.00	-20.13	601.59	601.61
I	175+97.00	-20.13	601.61	601.64
J	176+07.00	-20.13	601.61	601.66
K	176+17.00	-20.13	601.61	601.64
L	176+27.00	-20.13	601.59	601.60
M	176+37.00	-20.13	601.56	601.56
CL. Brg. Pier 2	176+45.00	-20.13	601.52	601.52
N	176+55.00	-20.13	601.47	601.49
P	176+65.00	-20.13	601.41	601.46
Q	176+75.00	-20.13	601.35	601.43
R	176+85.00	-20.13	601.29	601.38
S	176+95.00	-20.13	601.22	601.30
T	177+05.00	-20.13	601.16	601.20
CL. Brg. N. Abut.	177+12.00	-20.13	601.12	601.12
BK. N. ABUT.	177+14.00	-20.13	601.10	601.10

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF DECK SLAB ELEVATIONS I
STRUCTURE NO. 016-1302
SHEET NO. 57 OF 47 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	0909.1-B	COOK	138	74
		CONTRACT NO. 60K78		
	ILLINOIS FED. AID PROJECT			

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GIRDER 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for DL Deflection
BK. S. ABUT.	174+98.00	-12.63	601.13	601.13
CL. Brg. S. Abut.	175+00.00	-12.63	601.15	601.15
A	175+10.00	-12.63	601.25	601.29
B	175+20.00	-12.63	601.35	601.43
C	175+30.00	-12.63	601.44	601.53
D	175+40.00	-12.63	601.52	601.60
E	175+50.00	-12.63	601.59	601.64
F	175+60.00	-12.63	601.65	601.66
CL. Brg. Pier 1	175+67.00	-12.63	601.68	601.68
G	175+77.00	-12.63	601.72	601.72
H	175+87.00	-12.63	601.75	601.77
I	175+97.00	-12.63	601.76	601.80
J	176+07.00	-12.63	601.77	601.81
K	176+17.00	-12.63	601.76	601.80
L	176+27.00	-12.63	601.74	601.76
M	176+37.00	-12.63	601.71	601.71
CL. Brg. Pier 2	176+45.00	-12.63	601.68	601.68
N	176+55.00	-12.63	601.63	601.65
P	176+65.00	-12.63	601.57	601.62
Q	176+75.00	-12.63	601.50	601.58
R	176+85.00	-12.63	601.44	601.53
S	176+95.00	-12.63	601.38	601.45
T	177+05.00	-12.63	601.32	601.35
CL. Brg. N. Abut.	177+12.00	-12.63	601.27	601.27
BK. N. ABUT.	177+14.00	-12.63	601.26	601.26

CROWN

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for DL Deflection
BK. S. ABUT.	174+98.00	-6.00	601.27	601.27
CL. Brg. S. Abut.	175+00.00	-6.00	601.29	601.29
A	175+10.00	-6.00	601.39	601.43
B	175+20.00	-6.00	601.48	601.56
C	175+30.00	-6.00	601.58	601.67
D	175+40.00	-6.00	601.66	601.73
E	175+50.00	-6.00	601.73	601.77
F	175+60.00	-6.00	601.79	601.80
CL. Brg. Pier 1	175+67.00	-6.00	601.82	601.82
G	175+77.00	-6.00	601.86	601.86
H	175+87.00	-6.00	601.89	601.91
I	175+97.00	-6.00	601.90	601.94
J	176+07.00	-6.00	601.91	601.95
K	176+17.00	-6.00	601.90	601.93
L	176+27.00	-6.00	601.88	601.90
M	176+37.00	-6.00	601.85	601.85
CL. Brg. Pier 2	176+45.00	-6.00	601.82	601.82
N	176+55.00	-6.00	601.77	601.79
P	176+65.00	-6.00	601.71	601.76
Q	176+75.00	-6.00	601.64	601.72
R	176+85.00	-6.00	601.58	601.67
S	176+95.00	-6.00	601.52	601.59
T	177+05.00	-6.00	601.46	601.49
CL. Brg. N. Abut.	177+12.00	-6.00	601.41	601.41
BK. N. ABUT.	177+14.00	-6.00	601.40	601.40

GIRDER 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for DL Deflection
BK. S. ABUT.	174+98.00	-5.13	601.25	601.25
CL. Brg. S. Abut.	175+00.00	-5.13	601.27	601.27
A	175+10.00	-5.13	601.37	601.41
B	175+20.00	-5.13	601.47	601.55
C	175+30.00	-5.13	601.56	601.65
D	175+40.00	-5.13	601.64	601.72
E	175+50.00	-5.13	601.71	601.76
F	175+60.00	-5.13	601.77	601.78
CL. Brg. Pier 1	175+67.00	-5.13	601.80	601.80
G	175+77.00	-5.13	601.84	601.84
H	175+87.00	-5.13	601.87	601.89
I	175+97.00	-5.13	601.88	601.92
J	176+07.00	-5.13	601.89	601.93
K	176+17.00	-5.13	601.88	601.92
L	176+27.00	-5.13	601.86	601.88
M	176+37.00	-5.13	601.83	601.83
CL. Brg. Pier 2	176+45.00	-5.13	601.80	601.80
N	176+55.00	-5.13	601.75	601.77
P	176+65.00	-5.13	601.69	601.74
Q	176+75.00	-5.13	601.62	601.70
R	176+85.00	-5.13	601.56	601.65
S	176+95.00	-5.13	601.50	601.57
T	177+05.00	-5.13	601.44	601.47
CL. Brg. N. Abut.	177+12.00	-5.13	601.39	601.39
BK. N. ABUT.	177+14.00	-5.13	601.38	601.38

GRāEF
8501 W. Higgins Road; Suite 280
Chicago, Illinois 60631; (773) 399-0112

USER NAME =	DESIGNED - J.Z.	REVISED -	
	CHECKED - J.J.G.	REVISED -	
PLOT SCALE =	DRAWN - D.L.G.	REVISED -	
PLOT DATE =	DATE - 01/23/2018	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF DECK SLAB ELEVATIONS II
STRUCTURE NO. 016-1302
SHEET NO. 58 OF 47 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	0909.1-B	COOK	138	75
		CONTRACT NO. 60K78		
	ILLINOIS FED. AID PROJECT			

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P.G. & ℄ IL Rte. 83

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for DL Deflection
BK. S. ABUT.	174+98.00	0.00	601.14	601.14
CL. Brg. S. Abut.	175+00.00	0.00	601.16	601.16
A	175+10.00	0.00	601.26	601.31
B	175+20.00	0.00	601.36	601.44
C	175+30.00	0.00	601.45	601.54
D	175+40.00	0.00	601.53	601.61
E	175+50.00	0.00	601.60	601.65
F	175+60.00	0.00	601.66	601.68
CL. Brg. Pier 1	175+67.00	0.00	601.70	601.70
G	175+77.00	0.00	601.73	601.74
H	175+87.00	0.00	601.76	601.78
I	175+97.00	0.00	601.78	601.81
J	176+07.00	0.00	601.78	601.82
K	176+17.00	0.00	601.77	601.81
L	176+27.00	0.00	601.76	601.77
M	176+37.00	0.00	601.73	601.73
CL. Brg. Pier 2	176+45.00	0.00	601.69	601.69
N	176+55.00	0.00	601.64	601.66
P	176+65.00	0.00	601.58	601.63
Q	176+75.00	0.00	601.52	601.60
R	176+85.00	0.00	601.46	601.55
S	176+95.00	0.00	601.39	601.47
T	177+05.00	0.00	601.33	601.37
CL. Brg. N. Abut.	177+12.00	0.00	601.29	601.29
BK. N. ABUT.	177+14.00	0.00	601.27	601.27

GIRDER 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for DL Deflection
BK. S. ABUT.	174+98.00	2.38	601.09	601.09
CL. Brg. S. Abut.	175+00.00	2.38	601.11	601.11
A	175+10.00	2.38	601.21	601.26
B	175+20.00	2.38	601.31	601.39
C	175+30.00	2.38	601.40	601.49
D	175+40.00	2.38	601.48	601.56
E	175+50.00	2.38	601.55	601.60
F	175+60.00	2.38	601.61	601.63
CL. Brg. Pier 1	175+67.00	2.38	601.65	601.65
G	175+77.00	2.38	601.69	601.69
H	175+87.00	2.38	601.71	601.73
I	175+97.00	2.38	601.73	601.76
J	176+07.00	2.38	601.73	601.78
K	176+17.00	2.38	601.73	601.76
L	176+27.00	2.38	601.71	601.72
M	176+37.00	2.38	601.68	601.68
CL. Brg. Pier 2	176+45.00	2.38	601.64	601.64
N	176+55.00	2.38	601.59	601.61
P	176+65.00	2.38	601.53	601.58
Q	176+75.00	2.38	601.47	601.55
R	176+85.00	2.38	601.41	601.50
S	176+95.00	2.38	601.34	601.42
T	177+05.00	2.38	601.28	601.32
CL. Brg. N. Abut.	177+12.00	2.38	601.24	601.24
BK. N. ABUT.	177+14.00	2.38	601.22	601.22

STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for DL Deflection
BK. S. ABUT.	174+98.00	6.00	601.02	601.02
CL. Brg. S. Abut.	175+00.00	6.00	601.04	601.04
A	175+10.00	6.00	601.14	601.18
B	175+20.00	6.00	601.23	601.31
C	175+30.00	6.00	601.33	601.42
D	175+40.00	6.00	601.41	601.48
E	175+50.00	6.00	601.48	601.52
F	175+60.00	6.00	601.54	601.55
CL. Brg. Pier 1	175+67.00	6.00	601.57	601.57
G	175+77.00	6.00	601.61	601.61
H	175+87.00	6.00	601.64	601.66
I	175+97.00	6.00	601.65	601.69
J	176+07.00	6.00	601.66	601.70
K	176+17.00	6.00	601.65	601.68
L	176+27.00	6.00	601.63	601.65
M	176+37.00	6.00	601.60	601.60
CL. Brg. Pier 2	176+45.00	6.00	601.57	601.57
N	176+55.00	6.00	601.52	601.54
P	176+65.00	6.00	601.46	601.51
Q	176+75.00	6.00	601.39	601.47
R	176+85.00	6.00	601.33	601.42
S	176+95.00	6.00	601.27	601.34
T	177+05.00	6.00	601.21	601.24
CL. Brg. N. Abut.	177+12.00	6.00	601.16	601.16
BK. N. ABUT.	177+14.00	6.00	601.15	601.15

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GRĀEF
8501 W. Higgins Road; Suite 280
Chicago, Illinois 60631; (773) 399-0112

USER NAME =	DESIGNED - J.Z.	REVISED -	
	CHECKED - J.J.G.	REVISED -	
PLOT SCALE =	DRAWN - D.L.G.	REVISED -	
PLOT DATE =	DATE - 01/23/2018	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF DECK SLAB ELEVATIONS III
STRUCTURE NO. 016-1302
SHEET NO. 59 OF 47 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	0909.1-B	COOK	138	76
		CONTRACT NO. 60K78		
	ILLINOIS FED. AID PROJECT			

GIRDER 7

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for DL Deflection
BK. S. ABUT.	174+98.00	9.88	600.94	600.94
CL. Brg. S. Abut.	175+00.00	9.88	600.96	600.96
A	175+10.00	9.88	601.05	601.10
B	175+20.00	9.88	601.15	601.23
C	175+30.00	9.88	601.25	601.34
D	175+40.00	9.88	601.33	601.40
E	175+50.00	9.88	601.40	601.44
F	175+60.00	9.88	601.46	601.47
CL. Brg. Pier 1	175+67.00	9.88	601.49	601.49
G	175+77.00	9.88	601.53	601.53
H	175+87.00	9.88	601.56	601.58
I	175+97.00	9.88	601.57	601.61
J	176+07.00	9.88	601.58	601.62
K	176+17.00	9.88	601.57	601.60
L	176+27.00	9.88	601.55	601.57
M	176+37.00	9.88	601.52	601.52
CL. Brg. Pier 2	176+45.00	9.88	601.49	601.49
N	176+55.00	9.88	601.44	601.45
P	176+65.00	9.88	601.37	601.43
Q	176+75.00	9.88	601.31	601.39
R	176+85.00	9.88	601.25	601.34
S	176+95.00	9.88	601.19	601.26
T	177+05.00	9.88	601.12	601.16
CL. Brg. N. Abut.	177+12.00	9.88	601.08	601.08
BK. N. ABUT.	177+14.00	9.88	601.07	601.07

GIRDER 8

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for DL Deflection
BK. S. ABUT.	174+98.00	17.38	600.78	600.78
CL. Brg. S. Abut.	175+00.00	17.38	600.80	600.80
A	175+10.00	17.38	600.90	600.94
B	175+20.00	17.38	601.00	601.08
C	175+30.00	17.38	601.09	601.18
D	175+40.00	17.38	601.17	601.25
E	175+50.00	17.38	601.24	601.29
F	175+60.00	17.38	601.30	601.31
CL. Brg. Pier 1	175+67.00	17.38	601.33	601.33
G	175+77.00	17.38	601.37	601.38
H	175+87.00	17.38	601.40	601.42
I	175+97.00	17.38	601.42	601.45
J	176+07.00	17.38	601.42	601.46
K	176+17.00	17.38	601.41	601.45
L	176+27.00	17.38	601.39	601.41
M	176+37.00	17.38	601.36	601.36
CL. Brg. Pier 2	176+45.00	17.38	601.33	601.33
N	176+55.00	17.38	601.28	601.30
P	176+65.00	17.38	601.22	601.27
Q	176+75.00	17.38	601.16	601.24
R	176+85.00	17.38	601.09	601.18
S	176+95.00	17.38	601.03	601.11
T	177+05.00	17.38	600.97	601.00
CL. Brg. N. Abut.	177+12.00	17.38	600.92	600.92
BK. N. ABUT.	177+14.00	17.38	600.91	600.91

GIRDER 9

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for DL Deflection
BK. S. ABUT.	174+98.00	24.88	600.62	600.62
CL. Brg. S. Abut.	175+00.00	24.88	600.64	600.64
A	175+10.00	24.88	600.74	600.79
B	175+20.00	24.88	600.84	600.92
C	175+30.00	24.88	600.93	601.02
D	175+40.00	24.88	601.02	601.09
E	175+50.00	24.88	601.09	601.13
F	175+60.00	24.88	601.14	601.16
CL. Brg. Pier 1	175+67.00	24.88	601.18	601.18
G	175+77.00	24.88	601.22	601.22
H	175+87.00	24.88	601.24	601.26
I	175+97.00	24.88	601.26	601.30
J	176+07.00	24.88	601.26	601.31
K	176+17.00	24.88	601.26	601.29
L	176+27.00	24.88	601.24	601.25
M	176+37.00	24.88	601.21	601.21
CL. Brg. Pier 2	176+45.00	24.88	601.17	601.17
N	176+55.00	24.88	601.12	601.14
P	176+65.00	24.88	601.06	601.11
Q	176+75.00	24.88	601.00	601.08
R	176+85.00	24.88	600.94	601.03
S	176+95.00	24.88	600.87	600.95
T	177+05.00	24.88	600.81	600.85
CL. Brg. N. Abut.	177+12.00	24.88	600.77	600.77
BK. N. ABUT.	177+14.00	24.88	600.76	600.76

GRĀEF
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Chicago, Illinois 60631; (773) 399-0112

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PLOT SCALE =	DRAWN - D.L.G.	REVISED -	
PLOT DATE =	DATE - 01/23/2018	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF DECK SLAB ELEVATIONS IV
STRUCTURE NO. 016-1302
SHEET NO. S10 OF 47 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	0909.1-B	COOK	138	77
		CONTRACT NO. 60K78		
	ILLINOIS FED. AID PROJECT			

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GIRDER 10

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for DL Deflection
BK. S. ABUT.	174+98.00	32.38	600.47	600.47
CL. Brg. S. Abut.	175+00.00	32.38	600.49	600.49
A	175+10.00	32.38	600.59	600.63
B	175+20.00	32.38	600.68	600.76
C	175+30.00	32.38	600.78	600.87
D	175+40.00	32.38	600.86	600.93
E	175+50.00	32.38	600.93	600.97
F	175+60.00	32.38	600.99	601.00
CL. Brg. Pier 1	175+67.00	32.38	601.02	601.02
G	175+77.00	32.38	601.06	601.06
H	175+87.00	32.38	601.09	601.11
I	175+97.00	32.38	601.10	601.14
J	176+07.00	32.38	601.11	601.15
K	176+17.00	32.38	601.10	601.13
L	176+27.00	32.38	601.08	601.10
M	176+37.00	32.38	601.05	601.05
CL. Brg. Pier 2	176+45.00	32.38	601.02	601.02
N	176+55.00	32.38	600.97	600.99
P	176+65.00	32.38	600.91	600.96
Q	176+75.00	32.38	600.84	600.92
R	176+85.00	32.38	600.78	600.87
S	176+95.00	32.38	600.72	600.79
T	177+05.00	32.38	600.66	600.69
CL. Brg. N. Abut.	177+12.00	32.38	600.61	600.61
BK. N. ABUT.	177+14.00	32.38	600.60	600.60

GIRDER 11

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for DL Deflection
BK. S. ABUT.	174+98.00	39.88	600.31	600.31
CL. Brg. S. Abut.	175+00.00	39.88	600.33	600.33
A	175+10.00	39.88	600.43	600.48
B	175+20.00	39.88	600.53	600.61
C	175+30.00	39.88	600.62	600.71
D	175+40.00	39.88	600.70	600.78
E	175+50.00	39.88	600.77	600.82
F	175+60.00	39.88	600.83	600.84
CL. Brg. Pier 1	175+67.00	39.88	600.87	600.87
G	175+77.00	39.88	600.90	600.91
H	175+87.00	39.88	600.93	600.95
I	175+97.00	39.88	600.95	600.98
J	176+07.00	39.88	600.95	600.99
K	176+17.00	39.88	600.94	600.98
L	176+27.00	39.88	600.92	600.94
M	176+37.00	39.88	600.89	600.90
CL. Brg. Pier 2	176+45.00	39.88	600.86	600.86
N	176+55.00	39.88	600.81	600.83
P	176+65.00	39.88	600.75	600.80
Q	176+75.00	39.88	600.69	600.77
R	176+85.00	39.88	600.62	600.71
S	176+95.00	39.88	600.56	600.64
T	177+05.00	39.88	600.50	600.54
CL. Brg. N. Abut.	177+12.00	39.88	600.46	600.46
BK. N. ABUT.	177+14.00	39.88	600.44	600.44

GIRDER 12

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for DL Deflection
BK. S. ABUT.	174+98.00	47.38	600.16	600.16
CL. Brg. S. Abut.	175+00.00	47.38	600.18	600.18
A	175+10.00	47.38	600.27	600.32
B	175+20.00	47.38	600.37	600.45
C	175+30.00	47.38	600.47	600.56
D	175+40.00	47.38	600.55	600.62
E	175+50.00	47.38	600.62	600.66
F	175+60.00	47.38	600.68	600.69
CL. Brg. Pier 1	175+67.00	47.38	600.71	600.71
G	175+77.00	47.38	600.75	600.75
H	175+87.00	47.38	600.78	600.79
I	175+97.00	47.38	600.79	600.83
J	176+07.00	47.38	600.79	600.84
K	176+17.00	47.38	600.79	600.82
L	176+27.00	47.38	600.77	600.79
M	176+37.00	47.38	600.74	600.74
CL. Brg. Pier 2	176+45.00	47.38	600.71	600.71
N	176+55.00	47.38	600.65	600.67
P	176+65.00	47.38	600.59	600.65
Q	176+75.00	47.38	600.53	600.61
R	176+85.00	47.38	600.47	600.56
S	176+95.00	47.38	600.41	600.48
T	177+05.00	47.38	600.34	600.38
CL. Brg. N. Abut.	177+12.00	47.38	600.30	600.30
BK. N. ABUT.	177+14.00	47.38	600.29	600.29

GRĀEF
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PLOT DATE =	DATE - 01/23/2018	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF DECK SLAB ELEVATIONS V
STRUCTURE NO. 016-1302
SHEET NO. S11 OF 47 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	0909.1-B	COOK	138	78
		CONTRACT NO. 60K78		
	ILLINOIS	FED. AID PROJECT		

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GIRDER 13

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for DL Deflection
BK. S. ABUT.	174+98.00	54.88	600.00	600.00
CL. Brg. S. Abut.	175+00.00	54.88	600.02	600.02
A	175+10.00	54.88	600.12	600.16
B	175+20.00	54.88	600.22	600.30
C	175+30.00	54.88	600.31	600.40
D	175+40.00	54.88	600.39	600.47
E	175+50.00	54.88	600.46	600.51
F	175+60.00	54.88	600.52	600.53
CL. Brg. Pier 1	175+67.00	54.88	600.55	600.55
G	175+77.00	54.88	600.59	600.59
H	175+87.00	54.88	600.62	600.64
I	175+97.00	54.88	600.63	600.67
J	176+07.00	54.88	600.64	600.68
K	176+17.00	54.88	600.63	600.67
L	176+27.00	54.88	600.61	600.63
M	176+37.00	54.88	600.58	600.58
CL. Brg. Pier 2	176+45.00	54.88	600.55	600.55
N	176+55.00	54.88	600.50	600.52
P	176+65.00	54.88	600.44	600.49
Q	176+75.00	54.88	600.37	600.45
R	176+85.00	54.88	600.31	600.40
S	176+95.00	54.88	600.25	600.32
T	177+05.00	54.88	600.19	600.22
CL. Brg. N. Abut.	177+12.00	54.88	600.14	600.14
BK. N. ABUT.	177+14.00	54.88	600.13	600.13

GRāEF
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PLOT SCALE =	DRAWN - D.L.G.	REVISED -
PLOT DATE =	DATE - 01/23/2018	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF DECK SLAB ELEVATIONS VI
STRUCTURE NO. 016-1302
SHEET NO. S12 OF 47 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	0909.1-B	COOK	138	79
		CONTRACT NO. 60K78		
	ILLINOIS FED. AID PROJECT			

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WEST EDGE OF APPROACH

Location	Station	Offset	Theoretical Grade Elevations
S. End S. Appr. Slab	174+69.00	-37.00	600.34
A1	174+79.00	-37.00	600.43
A2	174+89.00	-38.00	600.51
N. End S. Appr. Slab	174+99.00	-38.00	600.61

WEST GUTTER LINE

Location	Station	Offset	Theoretical Grade Elevations
S. End S. Appr. Slab	174+69.00	-32.00	600.44
A1	174+79.00	-32.00	600.54
A2	174+89.00	-32.00	600.64
N. End S. Appr. Slab	174+99.00	-32.00	600.74

CROWN

Location	Station	Offset	Theoretical Grade Elevations
S. End S. Appr. Slab	174+69.00	-6.00	600.98
A1	174+79.00	-6.00	601.08
A2	174+89.00	-6.00	601.18
N. End S. Appr. Slab	174+99.00	-6.00	601.28

℄ IL Rte. 83 & P.G.

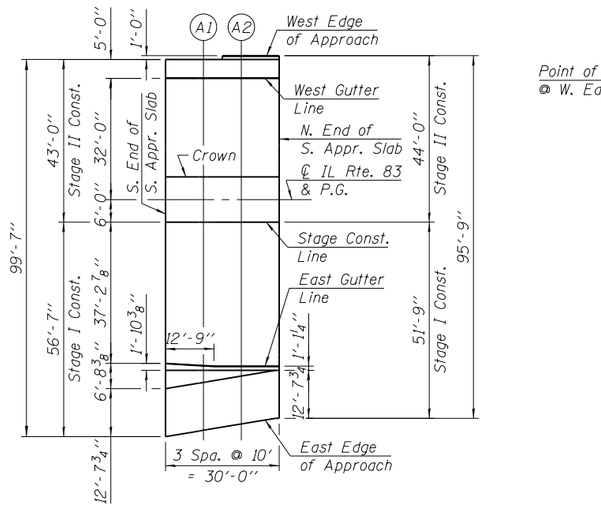
Location	Station	Offset	Theoretical Grade Elevations
S. End S. Appr. Slab	174+69.00	0.00	600.86
A1	174+79.00	0.00	600.95
A2	174+89.00	0.00	601.05
N. End S. Appr. Slab	174+99.00	0.00	601.15

STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations
S. End S. Appr. Slab	174+69.00	6.00	600.73
A1	174+79.00	6.00	600.83
A2	174+89.00	6.00	600.93
N. End S. Appr. Slab	174+99.00	6.00	601.03

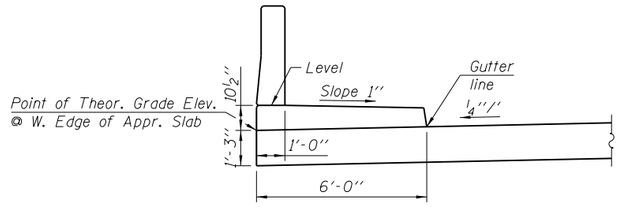
EAST GUTTER LINE

Location	Station	Offset	Theoretical Grade Elevations
S. End S. Appr. Slab	174+69.00	43.24	599.96
A1	174+79.00	43.40	600.05
A2	174+89.00	44.00	600.14
N. End S. Appr. Slab	174+99.00	44.00	600.24



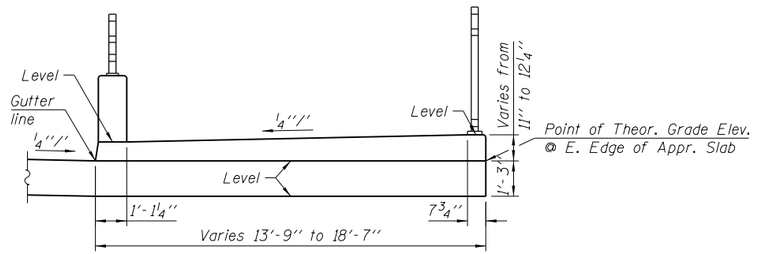
SOUTH APPROACH PLAN

N



SECTION THRU WEST SIDEWALK

(Looking North)



SECTION THRU EAST SIDEWALK

(Looking North)

EAST EDGE OF APPROACH

Location	Station	Offset	Theoretical Grade Elevations
S. End S. Appr. Slab	174+69.00	62.58	599.96
A1	174+79.00	60.92	600.05
A2	174+89.00	59.25	600.14
N. End S. Appr. Slab	174+99.00	57.75	600.24

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SOUTH APPROACH SLAB ELEVATIONS
STRUCTURE NO. 016-1302
SHEET NO. S13 OF 47 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	0909.1-B	COOK	138	80
		CONTRACT NO. 60K78		
	ILLINOIS FED. AID PROJECT			

WEST EDGE OF APPROACH

Location	Station	Offset	Theoretical Grade Elevations
S. End N. Appr. Slab	177+13.00	-38.00	600.74
A3	177+23.00	-38.00	600.68
A4	177+33.00	-37.00	600.63
N. End N. Appr. Slab	177+43.00	-37.00	600.57

WEST GUTTER LINE

Location	Station	Offset	Theoretical Grade Elevations
S. End N. Appr. Slab	177+13.00	-32.00	600.86
A3	177+23.00	-32.00	600.80
A4	177+33.00	-32.00	600.74
N. End N. Appr. Slab	177+43.00	-32.00	600.68

CROWN

Location	Station	Offset	Theoretical Grade Elevations
S. End N. Appr. Slab	177+13.00	-6.00	601.41
A3	177+23.00	-6.00	601.34
A4	177+33.00	-6.00	601.28
N. End N. Appr. Slab	177+43.00	-6.00	601.22

℄ IL Rte. 83 & P.G.

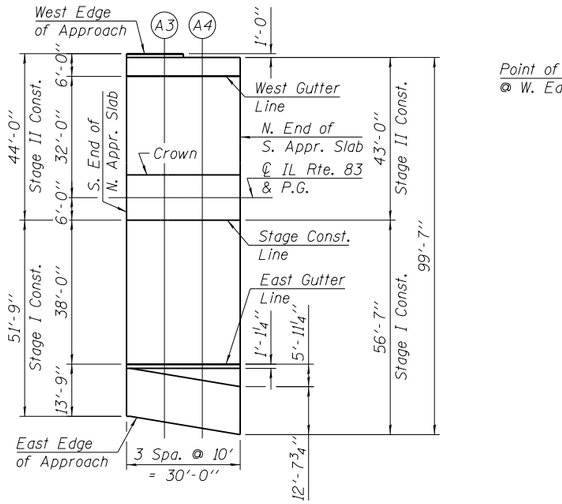
Location	Station	Offset	Theoretical Grade Elevations
S. End N. Appr. Slab	177+13.00	0.00	601.28
A3	177+23.00	0.00	601.22
A4	177+33.00	0.00	601.15
N. End N. Appr. Slab	177+43.00	0.00	601.09

STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations
S. End N. Appr. Slab	177+13.00	6.00	601.16
A3	177+23.00	6.00	601.09
A4	177+33.00	6.00	601.03
N. End N. Appr. Slab	177+43.00	6.00	600.97

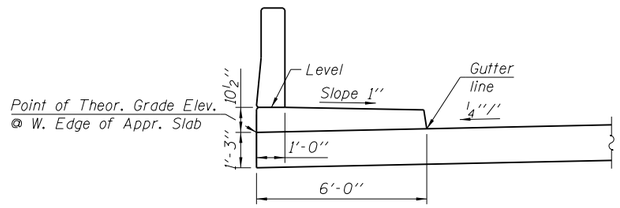
EAST GUTTER LINE

Location	Station	Offset	Theoretical Grade Elevations
S. End N. Appr. Slab	177+13.00	44.00	600.36
A3	177+23.00	44.00	600.30
A4	177+33.00	44.00	600.24
N. End N. Appr. Slab	177+43.00	44.00	600.18



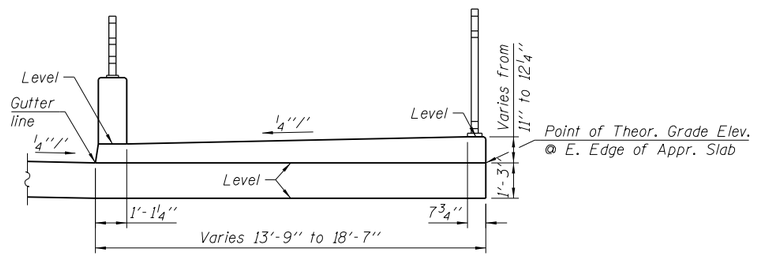
NORTH APPROACH PLAN

N



SECTION THRU WEST SIDEWALK

(Looking North)



SECTION THRU EAST SIDEWALK

(Looking North)

EAST EDGE OF APPROACH

Location	Station	Offset	Theoretical Grade Elevations
S. End N. Appr. Slab	177+13.00	57.75	600.36
A3	177+23.00	59.25	600.30
A4	177+33.00	60.92	600.24
N. End N. Appr. Slab	177+43.00	62.58	600.18

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF NORTH APPROACH SLAB ELEVATIONS
STRUCTURE NO. 016-1302

SHEET NO. S14 OF 47 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	0909.1-B	COOK	138	81
		CONTRACT NO. 60K78		
	ILLINOIS FED. AID PROJECT			

214'-0" end to end deck

68'-0" Span 1 | 78'-0" Span 2 | 68'-0" Span 3

214-#4 d_4(E) bars at 12" cts. Outside of Parapet
214-#6 d_5(E) bars at 12" cts. Inside of Parapet

10'-8" | 10'-8" | Formed joint in sidewalk, Each Side | 1x8-#5 b(E) bars bottom of sidewalk | 10'-8" | 10'-8" | Formed joint in sidewalk, Each Side

1'-0"
5'-0"
44'-0" Stage II Construction
38'-0"
44-#5 v(E) bars at 12" cts. Each End

214-#5 c_2(E) bars at 12" cts. top of sidewalk

214-#5 c(E) bars at 12" cts. top of sidewalk

Drainage Scupper, DS-12
See details on Sheet S25 (Typ.)

467-#5 a_4(E) bars at 5½" cts. top
285#5 a_5(E) bars at 9" cts. bottom

44-#6 b_1(E) bars at 12" cts. between b(E) bars, as shown in Cross Section, top of slab over Pier 1, Pier 2 sim.

7x8-#5 b(E) bars at 12"(-) top of sidewalk

44x8-#5 b(E) bars at 12" cts., top of slab

41x9-#5 b_2(E) bars spaced as shown in cross section, bottom of slab

Back of S. Abut.

℄ Pier 1

℄ IL Rte. 83 & P.G.

℄ Pier 2

Back of N. Abut.

6'-0"

95'-9"

21'-0" | 23'-0"

Stage Const. Line

23'-0" | 21'-0"

51'-9" Stage I Construction
38'-0"
52-#5 v(E) bars at 12" cts. Each End
1'-1¼"
12'-7¾"

467-Bar Splicers (E) at 5½" cts. for #5 bars, top
285-Bar Splicers (E) at 9" cts. for #5 bars, bottom

467-#5 a_2(E) bars at 5½" cts. top
285#5 a_3(E) bars at 9" cts. bottom

467-#5 a(E) bars at 5½" cts. top, lap with a_2(E) bars
285-#5 a_1(E) bars at 9" cts. bottom, lap with a_3(E) bars

214-#4 d_1(E) bars at 12" cts. Outside of Parapet
214-#6 d_2(E) bars at 12" cts. Inside of Parapet

214-#5 c(E) bars at 12" cts. top of sidewalk

214-#5 c_1(E) bars at 12" cts. top of sidewalk

214-#4 d(E) bars @ 12" cts. see section thru sidewalk

51-#6 b_1(E) bars at 12" cts. between b(E) bars, as shown in Cross Section, top of slab over Pier 1, Pier 2 sim.

15x8-#5 b(E) bars at 12"(-) top of sidewalk

1x8-#5 b(E) bars bottom of sidewalk

52-x8-#5 b(E) bars at 12" cts., top of slab

49x9-#5 b_2(E) bars spaced as shown in cross section, bottom of slab

A | A

Post for Bicycle Railing. Spacing to match East parapet post spacing.

PLAN

N

MINIMUM BAR LAP

#5 bar = 3'-3"

NOTES

1. Work this sheet with sheets S16 thru S19.
2. Bars indicated thus 20x3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
3. See Sheet S1 for Drainage Scupper Locations.

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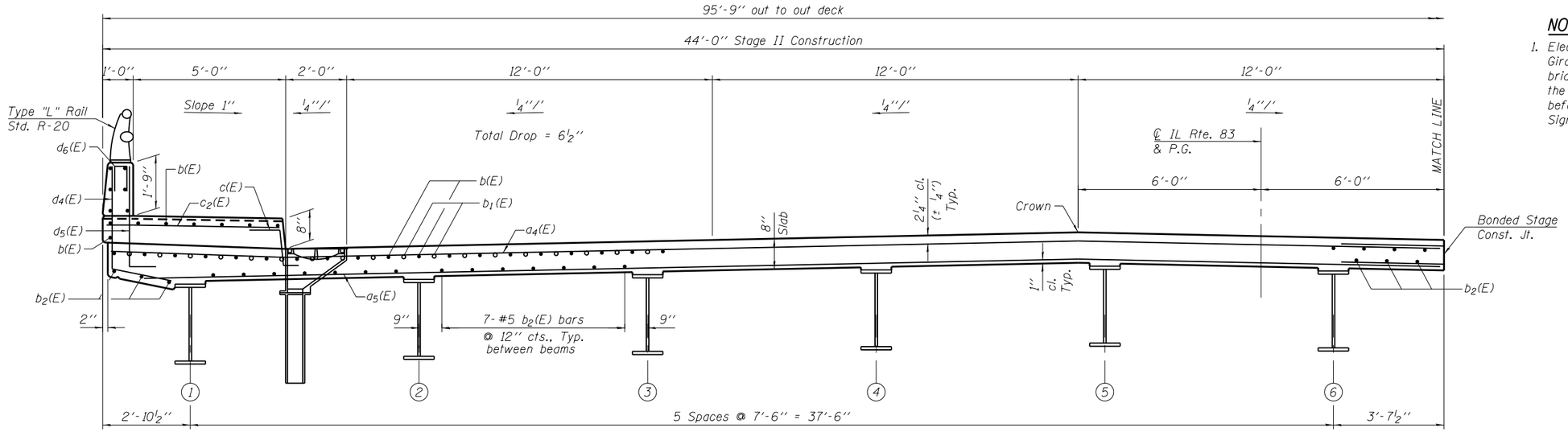
DEPARTMENT OF TRANSPORTATION

DECK PLAN
STRUCTURE NO. 016-1302
SHEET NO. S15 OF 47 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	0909.1-B	COOK	138	82
		CONTRACT NO. 60K78		
		ILLINOIS FED. AID PROJECT		



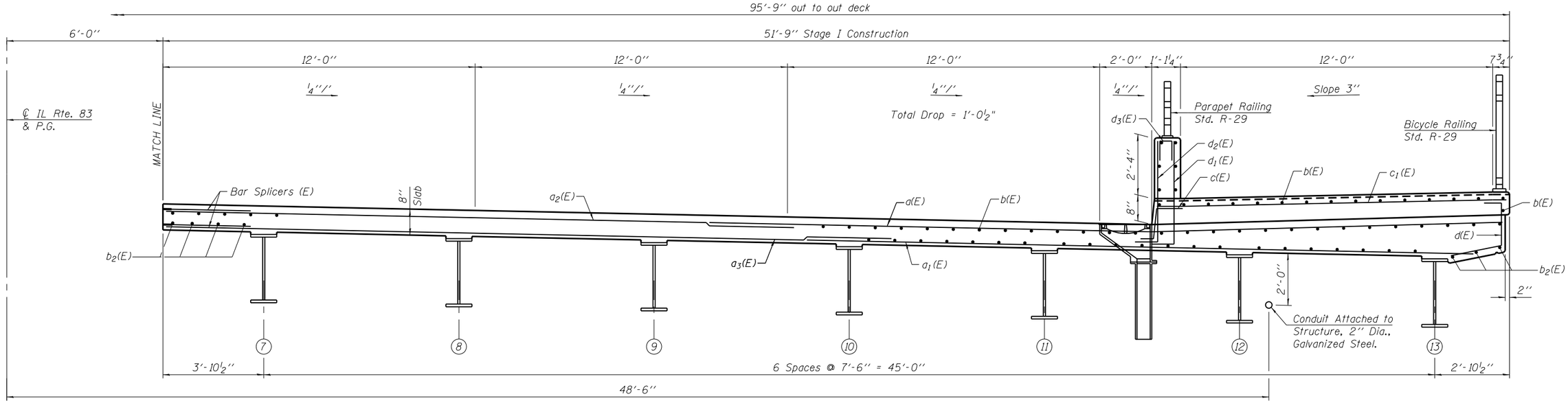
NEAR PIER

CROSS SECTION (STAGE II CONSTRUCTION)

(Looking North)

NOTES

1. Electrical Conduit, 2'' diameter, shown between Girders 12 & 13 shall be supported from the bridge deck. The method shall be proposed by the Contractor & approved by the Engineer before construction is begun. See Traffic Signal Interconnect Plans.



NEAR MIDSPAN

CROSS SECTION (STAGE I CONSTRUCTION)

(Looking North)

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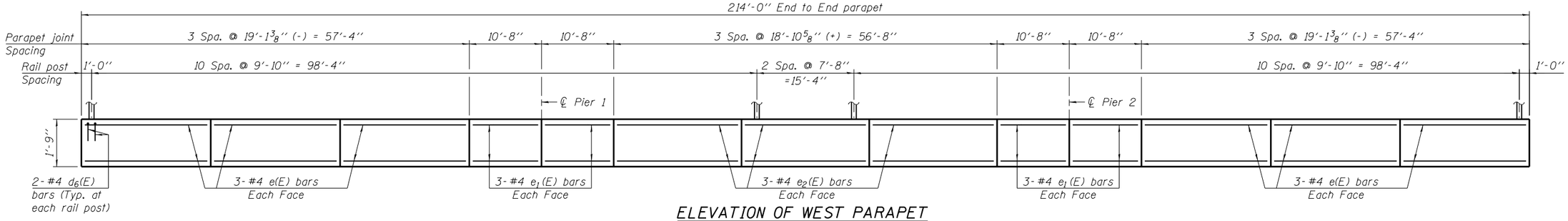
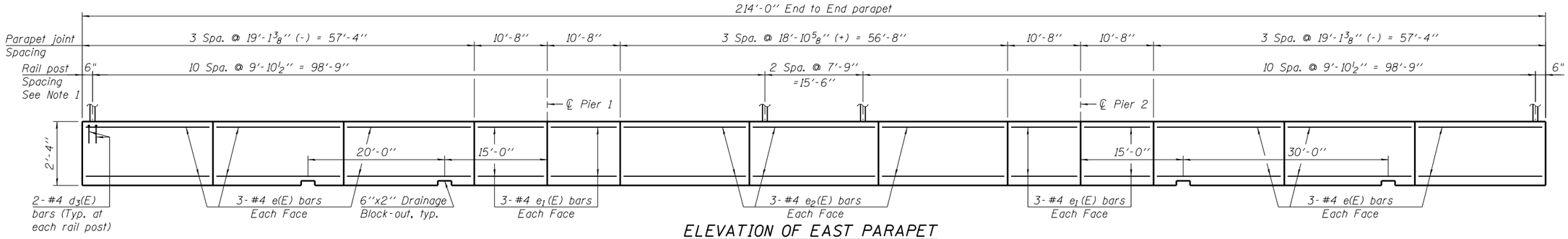
DECK CROSS SECTION
STRUCTURE NO. 016-1302
SHEET NO. S16 OF 47 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	0909.1-B	COOK	138	83
		CONTRACT NO. 60K78		
	ILLINOIS FED. AID PROJECT			



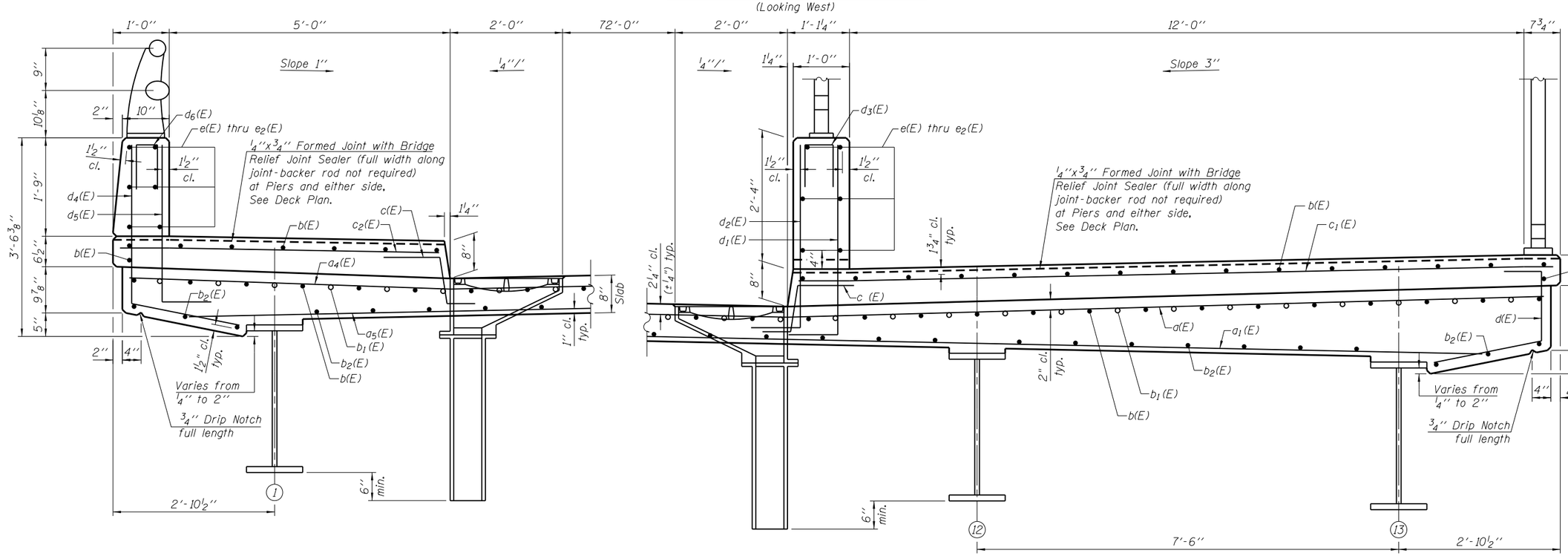
ELEVATION OF WEST PARAPET

(Looking West)



ELEVATION OF EAST PARAPET

(Looking West)



NOTES

1. Bicycle Railing post spacing shall match East Parapet Railing post spacing.

SECTION THRU WEST SIDEWALK & PARAPET

(Looking North)

SECTION THRU EAST SIDEWALK AND PARAPET

(Looking North)

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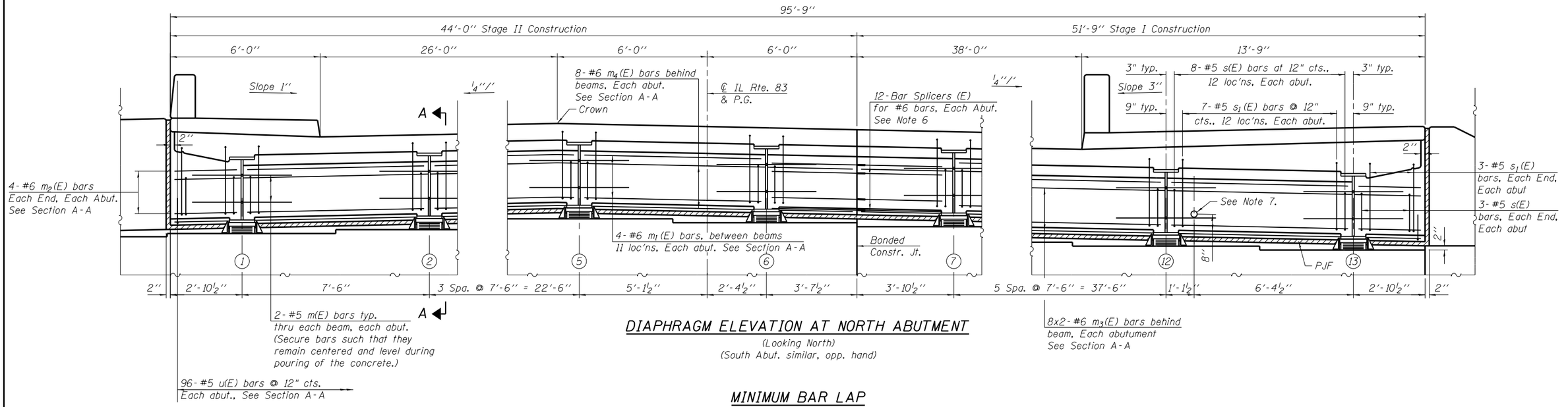
DECK PARAPETS
STRUCTURE NO. 016-1302
SHEET NO. S17 OF 47 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	0909.1-B	COOK	138	84
		CONTRACT NO. 60K78		
	ILLINOIS FED. AID PROJECT			

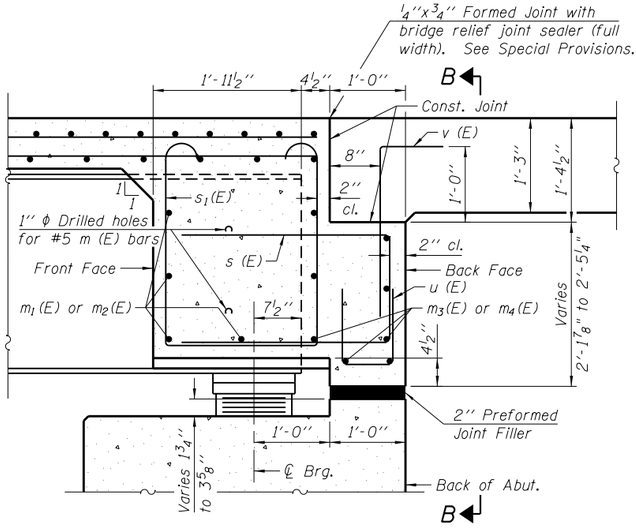


DIAPHRAGM ELEVATION AT NORTH ABUTMENT

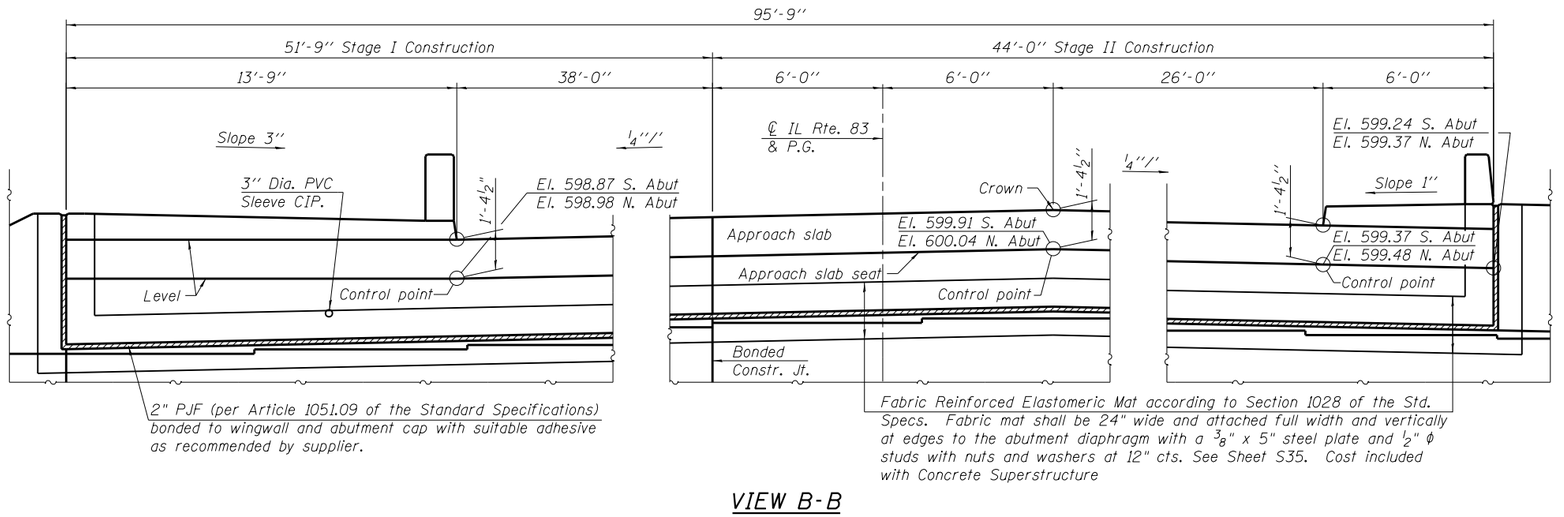
(Looking North)
(South Abut. similar, opp. hand)

MINIMUM BAR LAP

#6 bar = 4'-5"



SECTION A-A



VIEW B-B

NOTES

1. Reinforcement bars in diaphragm are billed with superstructure on sheet S19.
2. Concrete in diaphragm is included with Concrete Superstructure on sheet S19.
3. For details of bars s(E), s_1(E), u(E) and v(E) see sheet S19.
4. The approach slab seat shall have a constant slope determined from the control points shown.
5. For bearing details see sheet S29.
6. Bar splicers in Front Face of diaphragm do not lap with any #6 bars. Cut bar splicers to fit between beams.
7. Cast 3" Dia. PVC Sleeve into & thru both abutment diaphragms for Conduit Attached to Structure, 2" Dia., Galvanized Steel. Grout annular space to prevent seepage. Cost included with Concrete Structures.

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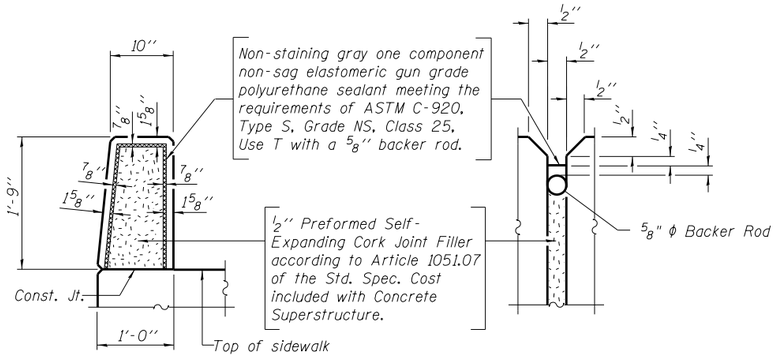
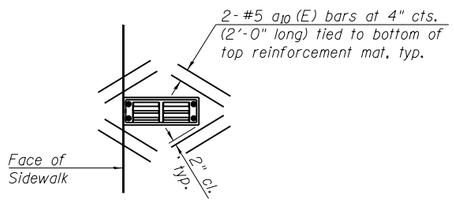
ABUTMENT DIAPHRAGMS
STRUCTURE NO. 016-1302
SHEET NO. S18 OF 47 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	0909.1-B	COOK	138	85
		CONTRACT NO. 60K78		
	ILLINOIS FED. AID PROJECT			



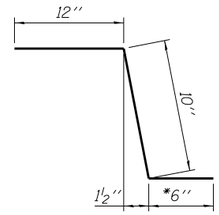
WEST PARAPET JOINT DETAILS

(East Parapet Jt. Details are similar)



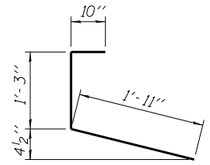
DETAILS AT SCUPPER

Note:
Cut longitudinal reinforcement to clear drainage scuppers.

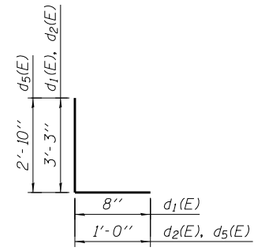


BAR c(E)

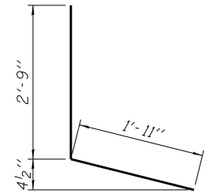
*In lieu of bottom leg, the deck may be drilled and the c(E) bar set according to Article 509.06 of the Standard Specifications. Drilled holes shall be roughened or scored per manufacturer's recommendations. Maximum depth of hole shall not exceed 6''. Contractor shall take all necessary precautions to prevent drilled-hole interference with deck reinforcement bars. Locate longitudinal bars to miss drilled locations. Locate drilled holes to miss transverse bars in deck.



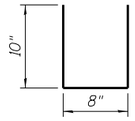
BAR d(E)



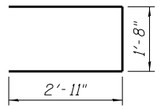
BARS d1(E) & d2(E) & d5(E)



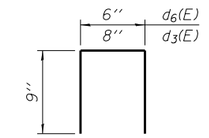
BAR d4(E)



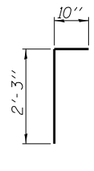
BARS u(E)



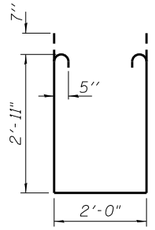
BARS s(E)



BARS d3(E) & d6(E)



BAR v(E)



BAR s1(E)

SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	467	#5	30'-5"	——
a1(E)	285	#5	26'-8"	——
a2(E)	467	#5	24'-1"	——
a3(E)	285	#5	27'-10"	——
a4(E)	467	#5	43'-6"	——
a5(E)	285	#5	43'-2"	——
a10 (E)	64	#5	2'-0"	——
b(E)	960	#5	29'-7"	——
b1(E)	190	#6	44'-0"	——
b2(E)	810	#5	26'-8"	——
c(E)	428	#5	2'-4"	⌐
c1(E)	214	#5	13'-4"	——
c2(E)	214	#5	5'-7"	——
d(E)	214	#4	4'-0"	⌐
d1(E)	214	#4	3'-11"	⌐
d2(E)	214	#6	4'-3"	⌐
d3(E)	46	#4	2'-2"	⌐
d4(E)	214	#4	4'-8"	⌐
d5(E)	214	#6	3'-10"	⌐
d6(E)	46	#4	2'-0"	⌐
e(E)	72	#4	18'-9"	——
e1(E)	48	#4	10'-4"	——
e2(E)	36	#4	18'-6"	——
m(E)	52	#5	4'-0"	——
m1(E)	88	#6	7'-2"	——
m2(E)	16	#6	2'-6"	——
m3(E)	32	#6	27'-11"	——
m4(E)	16	#6	43'-8"	——
s(E)	204	#5	7'-6"	⊐
s1(E)	180	#5	9'-0"	⊐
u(E)	192	#5	2'-4"	⊔
v(E)	192	#5	3'-1"	⊓
Reinforcement Bars, Epoxy Coated			Pound	161,060
Concrete Superstructure			Cu. Yds.	767.8

GRÄEF
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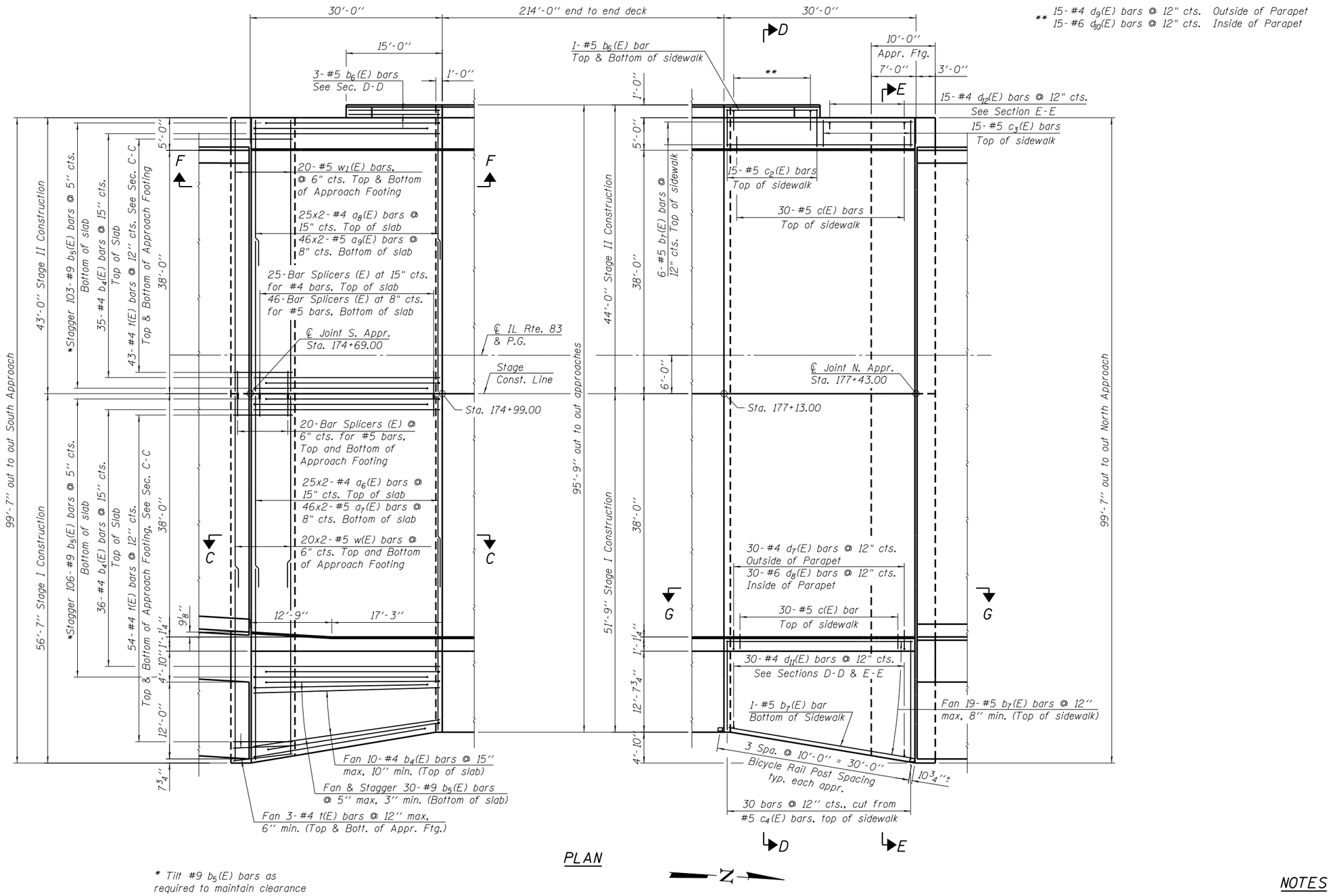
USER NAME =	DESIGNED - E.E.J.	REVISED -	
	CHECKED - J.J.G.	REVISED -	
PLOT SCALE =	DRAWN - D.L.G.	REVISED -	
PLOT DATE =	DATE - 01/23/2018	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE DETAILS
STRUCTURE NO. 016-1302
SHEET NO. S19 OF 47 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	0909.1-B	COOK	138	86
		CONTRACT NO. 60K78		
	ILLINOIS	FED. AID PROJECT		



PLAN

* Tilt #9 b_5(E) bars as required to maintain clearance

MINIMUM BAR LAP

#4 bar = 2'-11"
#5 bar = 3'-3"

NOTES

1. Work this sheet with sheets S21 and S22.
2. North Approach reinforcement shall mirror South Approach reinforcement.
3. Bars indicated thus 20x3- #5 etc. indicates 20 lines of bars with 3 lengths per line.

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

APPROACH SLABS
STRUCTURE NO. 016-1302
SHEET NO. S20 OF 47 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	0909.1-B	COOK	138	87
		CONTRACT NO. 60K78		
	ILLINOIS FED. AID PROJECT			

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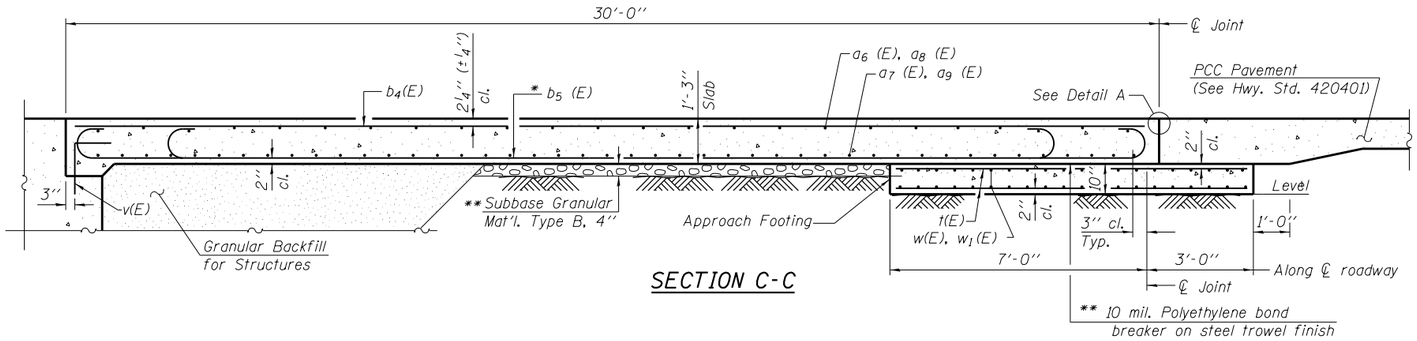
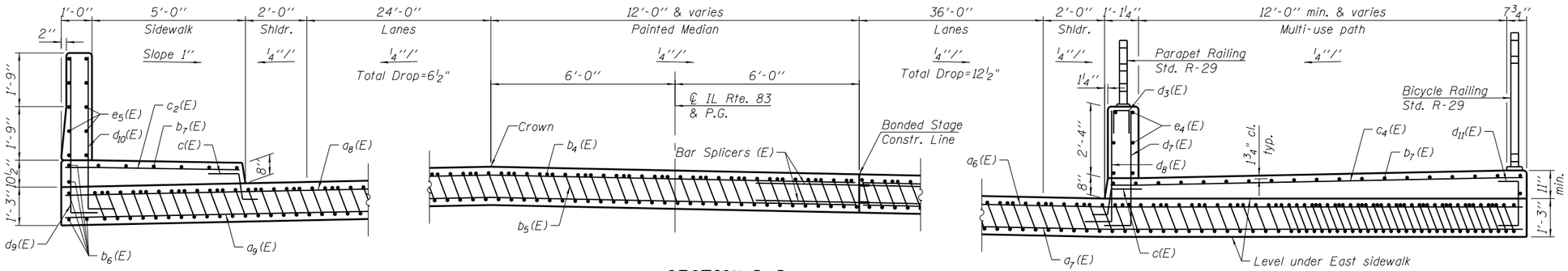


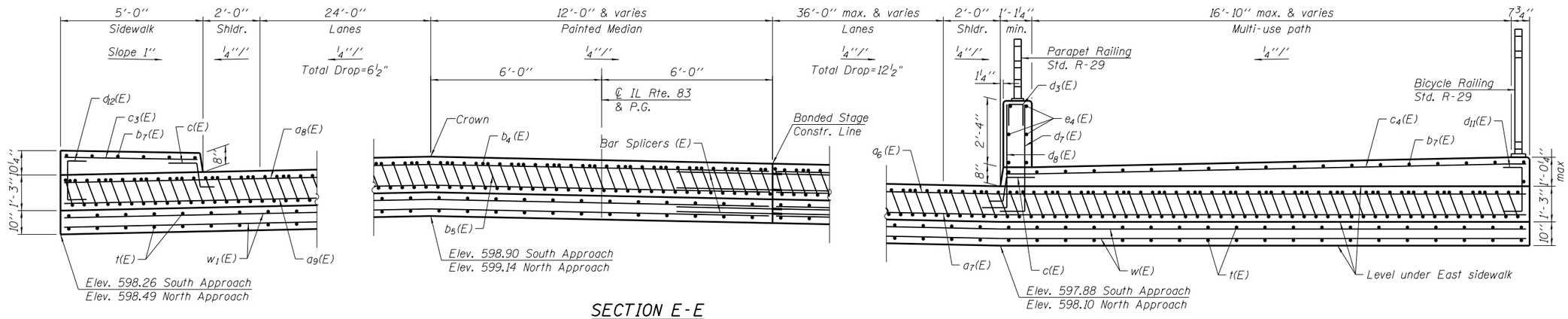
SECTION C-C

* Tilt #9 b_5 (E) bars as required to maintain clearance.

** Cost included with Concrete Superstructure (Approach Slab).



SECTION D-D



SECTION E-E

NOTES

1. Work this sheet with sheets S20 and S22.

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PLOT SCALE =	DRAWN - D.L.G.	REVISED -
PLOT DATE =	DATE - 01/23/2018	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BRIDGE APPROACH SLAB DETAILS I
STRUCTURE NO. 016-1302
SHEET NO. S21 OF 47 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	0909.1-B	COOK	138	88
		CONTRACT NO. 60K78		
	ILLINOIS FED. AID PROJECT			

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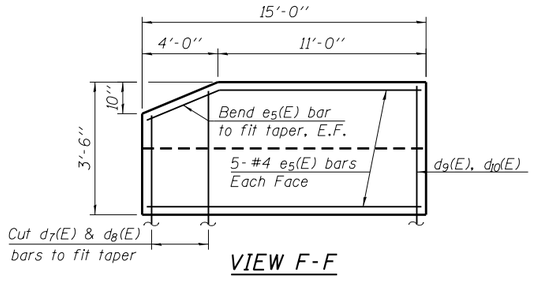
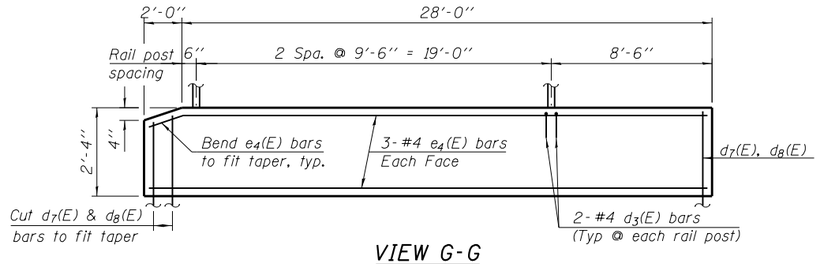
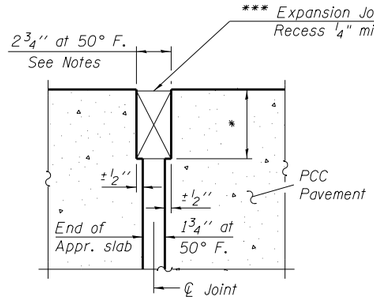


VIEW F-F



VIEW G-G



RIGID PAVEMENT

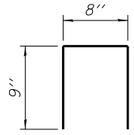
DETAIL A

*Per manufacturer recommendations.
*** Cost included with Concrete Superstructure (Approach Slab).

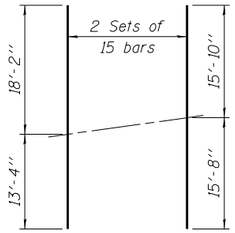
APPROACH SLAB BILL OF MATERIAL

Bar	No.	Size	Length	Shape
$a_6(E)$	100	#4	29'-7"	—
$a_7(E)$	184	#5	29'-9"	—
$a_8(E)$	100	#4	23'-4"	—
$a_9(E)$	184	#5	23'-6"	—
$b_4(E)$	162	#4	29'-8"	—
$b_5(E)$	478	#9	29'-9"	⊂⊃
$b_6(E)$	10	#5	14'-8"	—
$b_7(E)$	52	#5	29'-8"	—
$c(E)$	120	#5	2'-4"	⌐
$c_2(E)$	30	#5	5'-7"	—
$c_3(E)$	30	#5	4'-7"	—
$c_4(E)$	30	#5	31'-6"	—
$d_3(E)$	12	#4	2'-2"	⊓
$d_7(E)$	60	#4	4'-6"	L
$d_8(E)$	60	#6	4'-10"	L
$d_9(E)$	30	#4	5'-10"	L
$d_{10}(E)$	30	#6	6'-2"	L
$d_{11}(E)$	60	#4	3'-0"	⊏
$d_{12}(E)$	30	#4	2'-11"	⊏
$e_4(E)$	12	#4	29'-8"	—
$e_5(E)$	20	#4	14'-8"	—
$f(E)$	400	#4	9'-8"	—
$w(E)$	160	#5	29'-10"	—
$w_1(E)$	80	#5	42'-8"	—

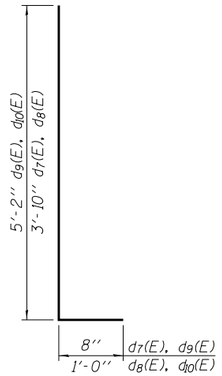
Concrete Superstructure	Cu. Yd.	48.2
Concrete Superstructure (Approach Slab)	Cu. Yd.	272.3
Concrete Structures	Cu. Yd.	61.5
Reinforcement Bars, Epoxy Coated	Pound	81,440



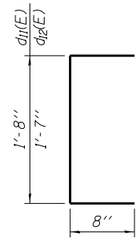
BARS $d_3(E)$



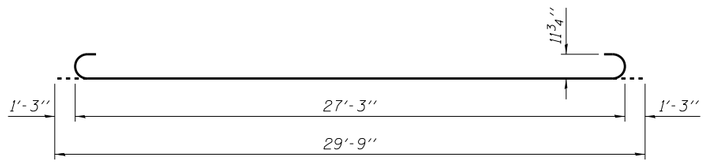
BAR $c_4(E)$ CUTTING DIAGRAM



BARS $d_7(E)$ THRU $d_{10}(E)$



BARS $d_{11}(E)$ & $d_{12}(E)$



BAR $b_5(E)$

NOTES

1. Work this sheet with sheets S20 and S21.
2. Parapet and sidewalk concrete shall be paid for as Concrete Superstructure.
3. Approach slab shall be paid for as Concrete Superstructure (Approach Slab)
4. Approach footing concrete shall be paid for as Concrete Structures.
5. Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.
6. For v(E) bar details, see sheet S15.
7. The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.
8. For bar splicer (E) details, see sheet S40.
9. Cost of excavation for approach footing included with Concrete Structures.
10. For Granular Backfill for Structures and drainage treatment details, see sheet S35.
11. For c(E) bar bend detail, see sheet S19.
12. The joint opening shall be adjusted for temperature per Article 520.04 of the Standard Specifications. However, since this detail is for jointless structures, the length of bridge used to calculate the adjustment shall be equal to half the total bridge length plus the length of the bridge approach pavement.

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PLOT DATE =	DATE - 01/23/2018	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BRIDGE APPROACH SLAB DETAILS II
STRUCTURE NO. 016-1302
SHEET NO. S22 OF 47 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	0909.1-B	COOK	138	89
		CONTRACT NO. 60K78		
	ILLINOIS FED. AID PROJECT			

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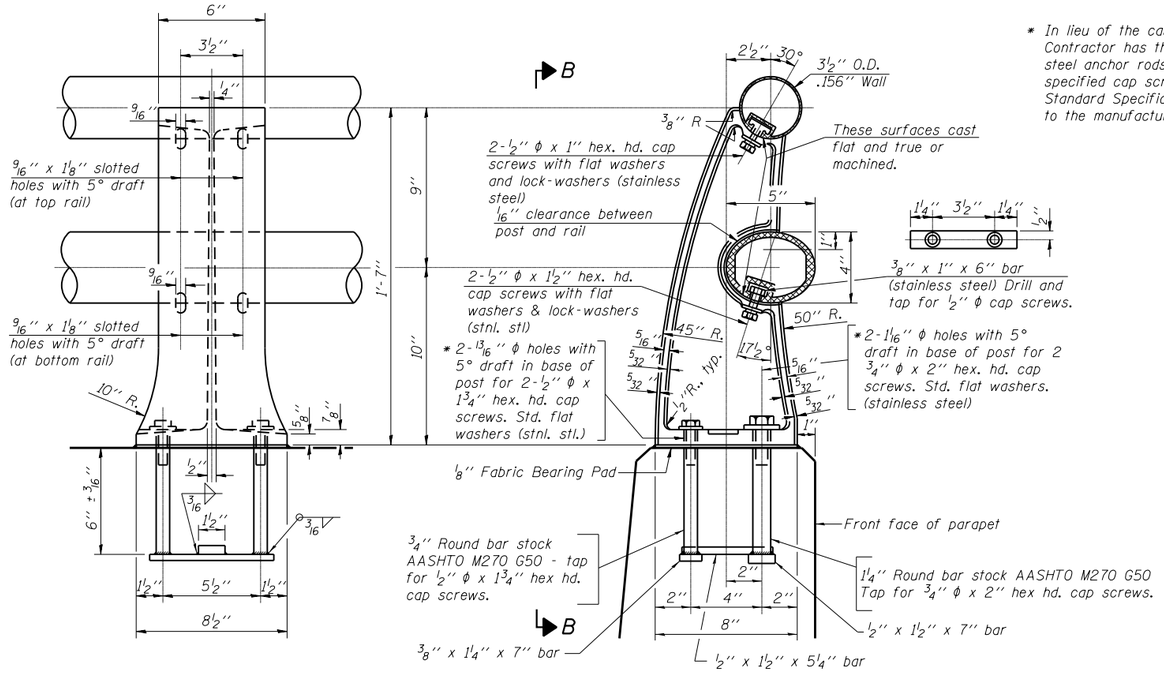
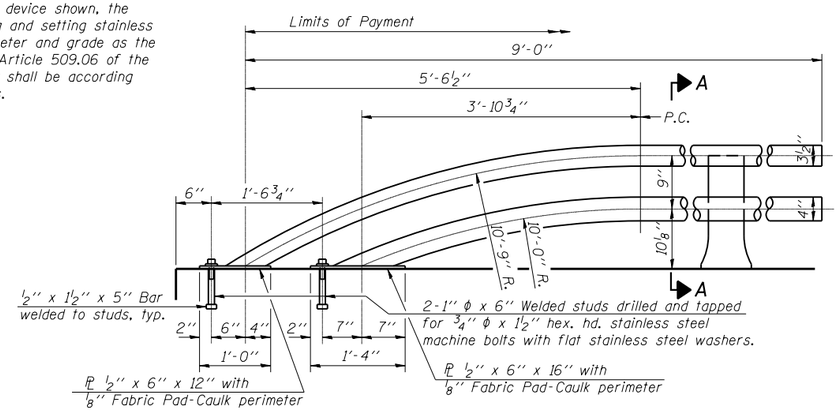
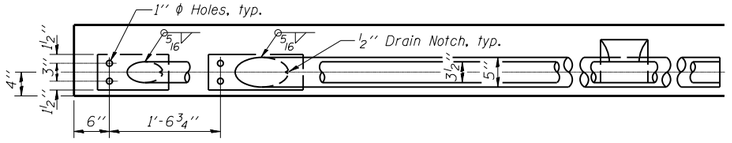


* *In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and setting stainless steel anchor rods of the same diameter and grade as the specified cap screws according to Article 509.06 of the Standard Specifications. Embedment shall be according to the manufacturer's specifications.*



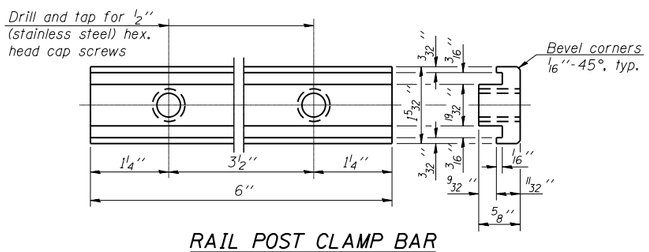


RAIL TERMINAL SECTION

VIEW B-B

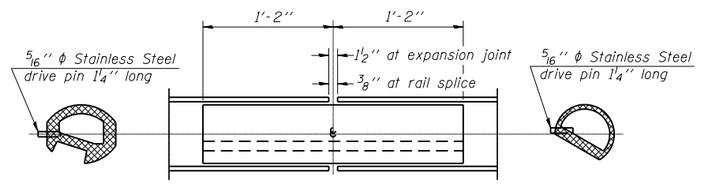
SECTION A-A

RAIL POST DETAILS

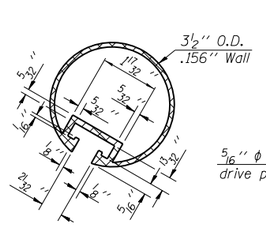


RAIL POST CLAMP BAR

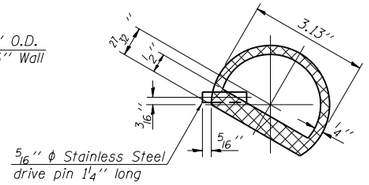
For Top Rail



RAIL SPLICE

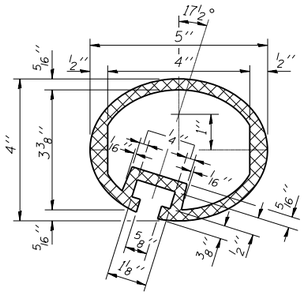


SECTION THRU TOP RAIL

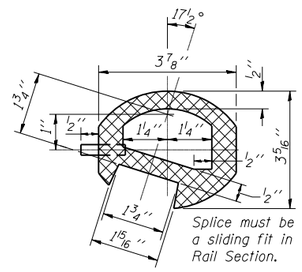


SECTION THRU SPLICE

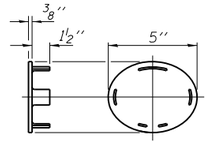
For Top Rail



SEC. THRU ELLIPTICAL RAIL SECTION

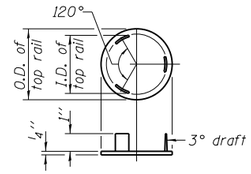


SEC. THRU SPLICE



CAST END CAP

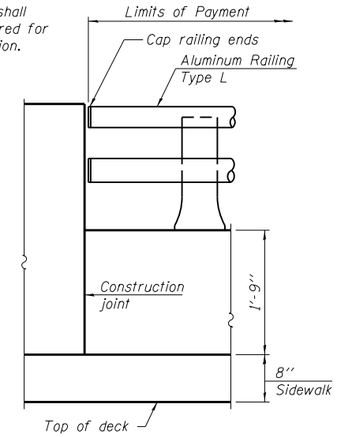
For bottom rail
DRIVE FIT TYPE



CAST END CAP

For top rail

Note:
The end rail post shall be set back as required for the terminal rail section.



RAIL END TREATMENT FOR TYPE 5 AND 6 TERMINAL

Notes:
All Posts shall be normal to parapet.
All joints in rail shall be spliced per detail.
All exposed rail ends shall be capped per detail.
Provide 1-⅛'' and 2-1/16'' Aluminum Shims for 25% of the Posts. Rail elements shall be parallel to Grade-high spots will be ground and low spots shimmed.
See sheet S17 for rail post spacing.

BILL OF MATERIAL

Item	Unit	Quantity
Aluminum Railing, Type L	Foot	214

R-20 1-27-12 (7'-0'' to 10'-0'' Post spacing)

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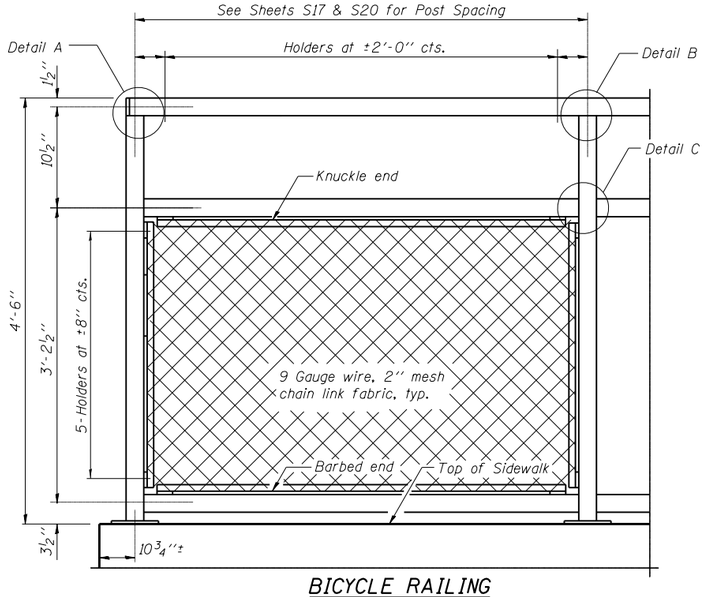
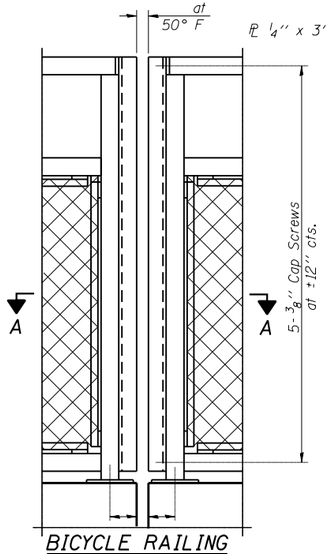
DEPARTMENT OF TRANSPORTATION

ALUMINUM RAILING, TYPE L
STRUCTURE NO. 016-1302
SHEET NO. S23 OF 47 SHEETS

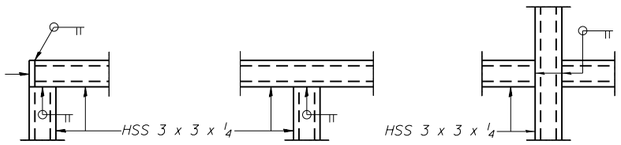
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	0909.1-B	COOK	138	90
		CONTRACT NO. 60K78		
	ILLINOIS FED. AID PROJECT			



BICYCLE RAILING

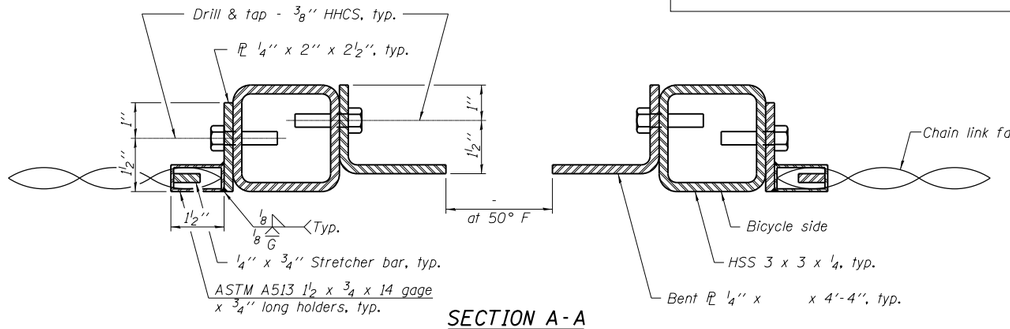


BICYCLE RAILING

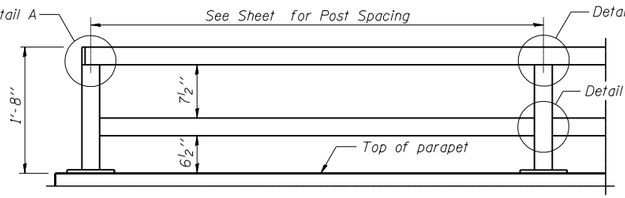


DETAIL A DETAIL B DETAIL C

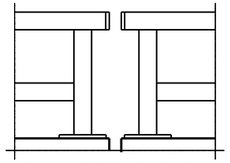
All steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.



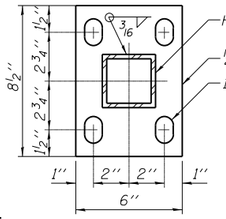
SECTION A-A



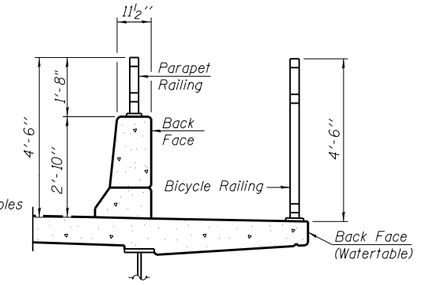
PARAPET RAILING ELEVATION
(Inside Face of Two Element Rail)



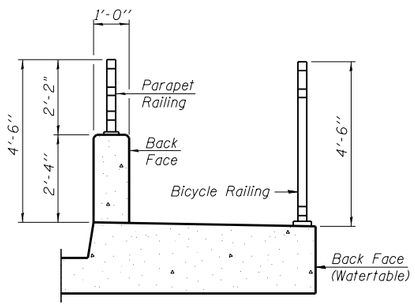
PARAPET RAILING ELEVATION AT EXPANSION JOINT
(Two Element Rail Shown - Three Element Rail Similar)



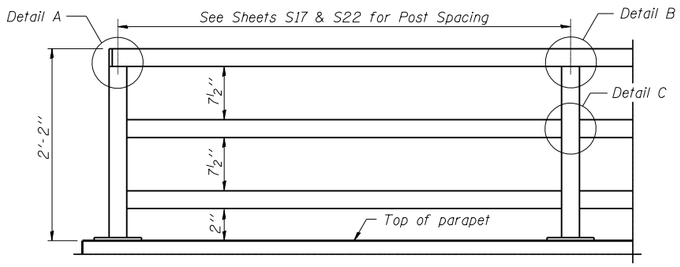
BASE PL



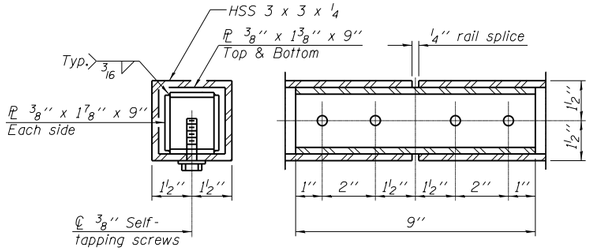
SECTION THRU DECK



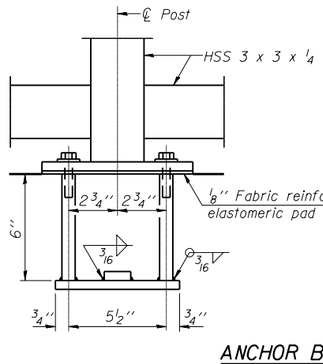
SECTION THRU SIDEWALK

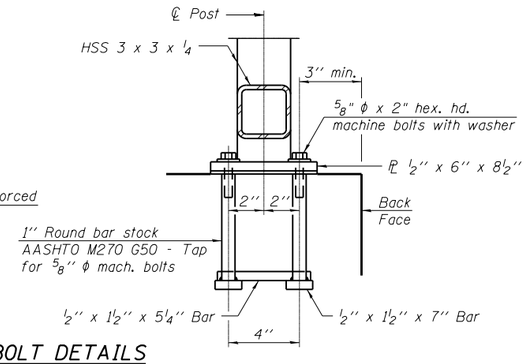


PARAPET RAILING ELEVATION
(Inside Face of Three Element Rail)



RAIL SPLICE





ANCHOR BOLT DETAILS

In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and setting ⅝" ϕ anchor rods according to Article 509.06 of the Standard Specifications. Embedment shall be according to the manufacturer's specifications.

BILL OF MATERIAL

Item	Unit	Quantity
Bicycle Railing	Foot	275
Parapet Railing	Foot	270

R-29 1-27-12 (10'-0" Maximum Post Spacing)

Notes:
All structural steel tubing, post and railing, for parapet railing shall be CVN tested according to 1006.34(b) of the Standard Specifications.

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Chicago, Illinois 60631; (773) 399-0112

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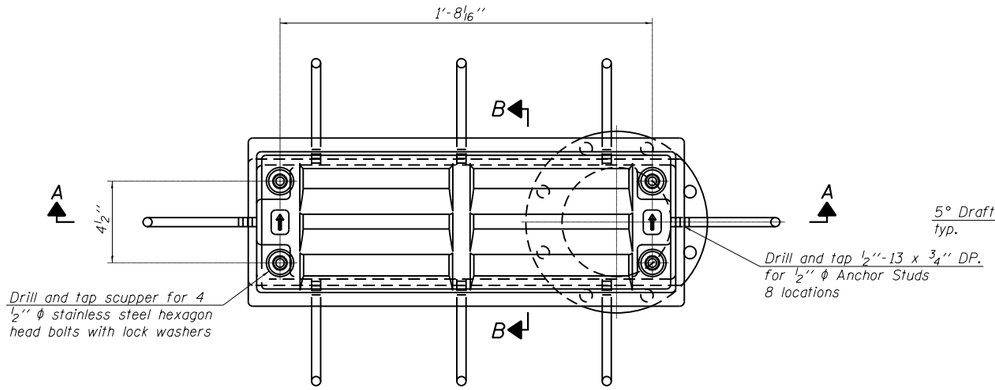
PLOT DATE =	DATE - 01/23/2018	REVISED -

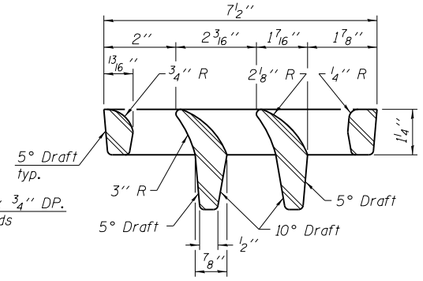
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BICYCLE & PARAPET RAILINGS
STRUCTURE NO. 016-1302
SHEET NO. S24 OF 47 SHEETS

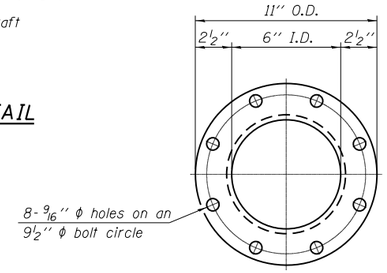
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	0909.1-B	COOK	138	91
		CONTRACT NO. 60K78		
	ILLINOIS FED. AID PROJECT			



PLAN



VANE GRATE DETAIL



Notes:

All cast iron parts shall be gray iron conforming to the requirements of AASHTO M 105, Class 35B.

Bolts, anchor studs, washers and nuts shall conform to the requirements of ASTM A 307 and shall be galvanized according to AASHTO M 232.

Floor drains need not be painted.

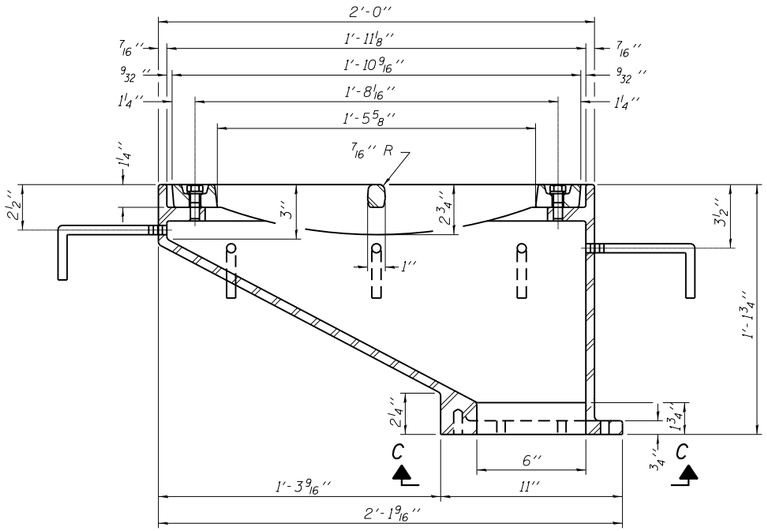
As an alternate, bolts, anchor studs, washers and nuts may be stainless steel according to Article 1006.29(d) of the Standard Specifications.

Structural steel weldments of equal sections and of the same configuration may be substituted for the cast iron scupper frame. Fillet or full penetration welds shall be used for the weldments. Details shall be submitted to the Engineer for approval. Structural steel weldments shall not be substituted for the cast iron scupper grate. Structural steel frames and downspouts shall be galvanized according to AASHTO M111.

The Contractor shall take appropriate measures to assure that Protective Coat is not applied to the scupper.

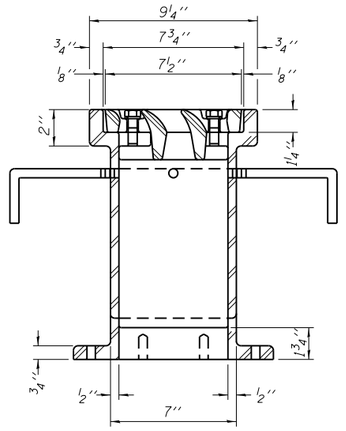
Cost of the Grate, Frame, Downspout, Anchor Studs, Bolts, Washers and Nuts including complete installation of the scupper shall be paid for at the contract unit price each for Drainage Scuppers, DS-12.

Alternate fiberglass downspout conforming to ASTM D 2996 with a short-time rupture strength hoop tensile stress of 30,000 psi min. may be used in lieu of the cast iron or steel equivalent.

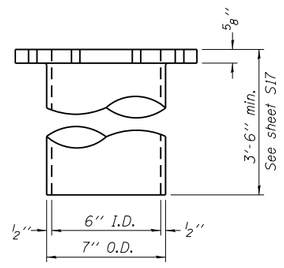


SECTION A-A

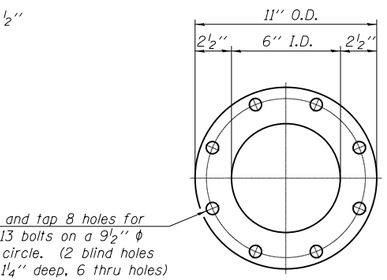
See sheet S17 of 47 for scupper location relative to parapet.



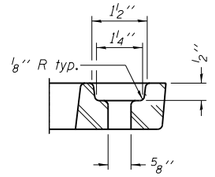
SECTION B-B



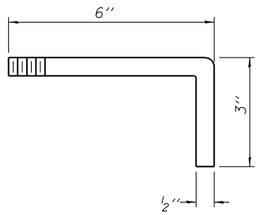
DOWNSPOUT



VIEW C-C



BOLT HOLE DETAIL



ANCHOR STUD DETAIL

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Drainage Scuppers, DS-12	Each	8

DS-12 7-1-10

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCUPPER DS-12
STRUCTURE NO. 016-1302
SHEET NO. S25 OF 47 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	0909.1-B	COOK	138	92
		CONTRACT NO. 60K78		
	ILLINOIS FED. AID PROJECT			

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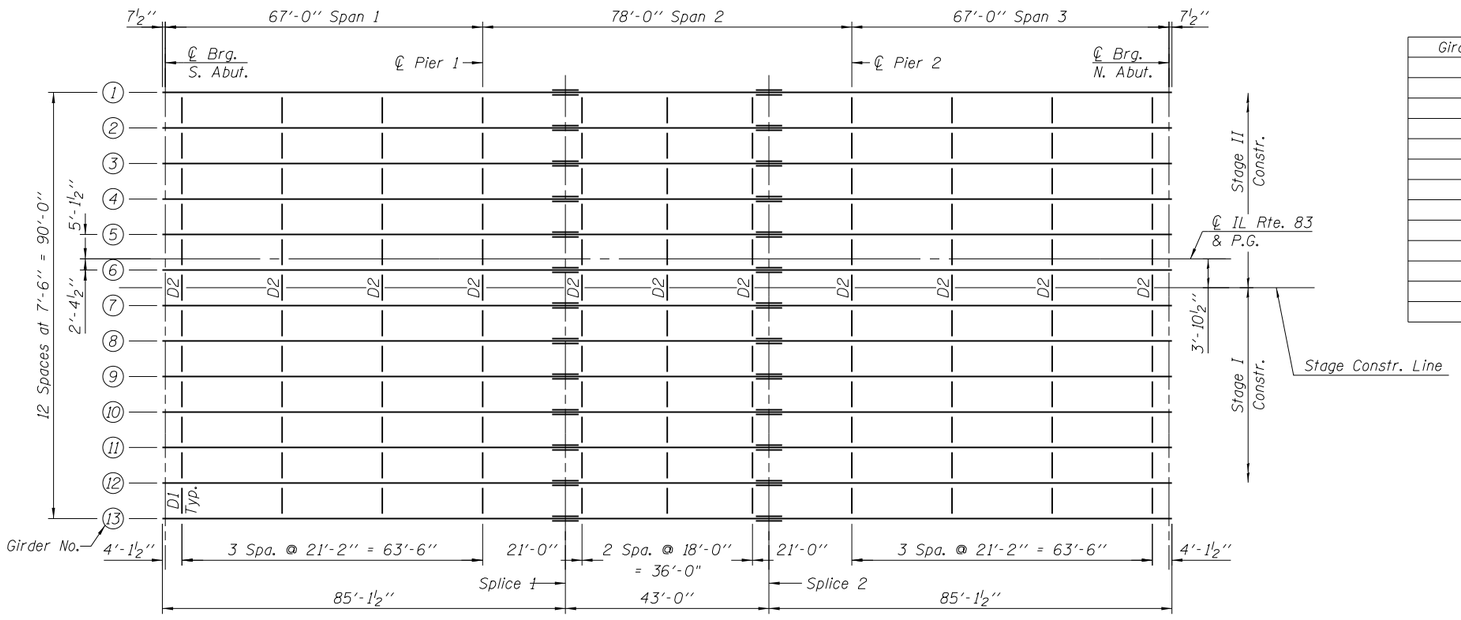
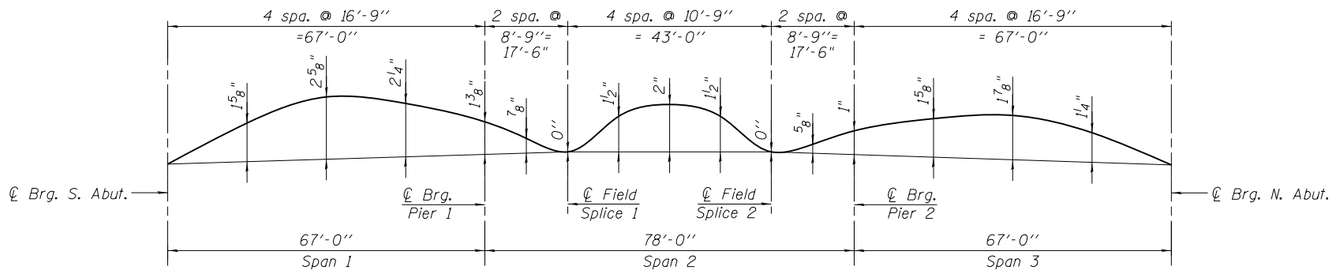


FRAMING PLAN

Top of Girder Web Elevations
(For Fabrication only)

Girder No.	CL. BRG. S. ABUT.	CL Brg. Pier 1	CL. SPLICE 1	CL. SPLICE 2	CL Brg. Pier 2	CL. BRG. N. ABUT.
1	599.88	600.39	600.38	600.38	600.39	600.00
2	600.03	600.55	600.54	600.54	600.54	600.16
3	600.19	600.70	600.70	600.70	600.70	600.32
4	600.35	600.86	600.85	600.85	600.86	600.47
5	600.47	600.98	600.97	600.97	600.98	600.59
6	600.31	600.82	600.82	600.82	600.82	600.43
7	600.15	600.67	600.66	600.66	600.66	600.28
8	600.00	600.51	600.50	600.50	600.51	600.12
9	599.84	600.35	600.35	600.35	600.35	599.97
10	599.69	600.20	600.19	600.19	600.20	599.81
11	599.53	600.04	600.04	600.03	600.04	599.65
12	599.37	599.89	599.88	599.88	599.88	599.50
13	599.22	599.73	599.72	599.72	599.73	599.34



CAMBER DIAGRAM

NOTES

1. Work this sheet with sheets S27 and S28.
2. All diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual diaphragms at supports may be temporarily disconnected to install bearing anchor rods.

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FRAMING PLAN
STRUCTURE NO. 016-1302
SHEET NO. S26 OF 47 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	0909.1-B	COOK	138	93
		CONTRACT NO. 60K78		
	ILLINOIS FED. AID PROJECT			

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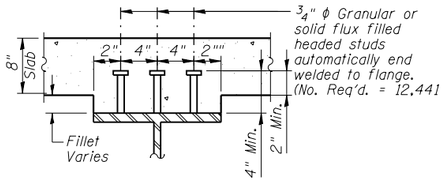
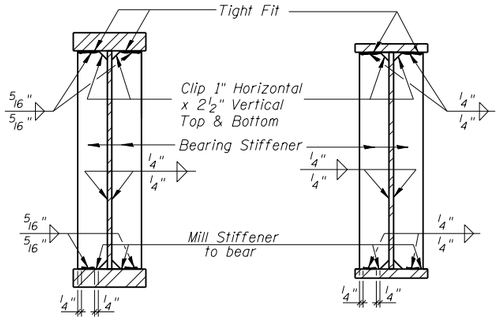
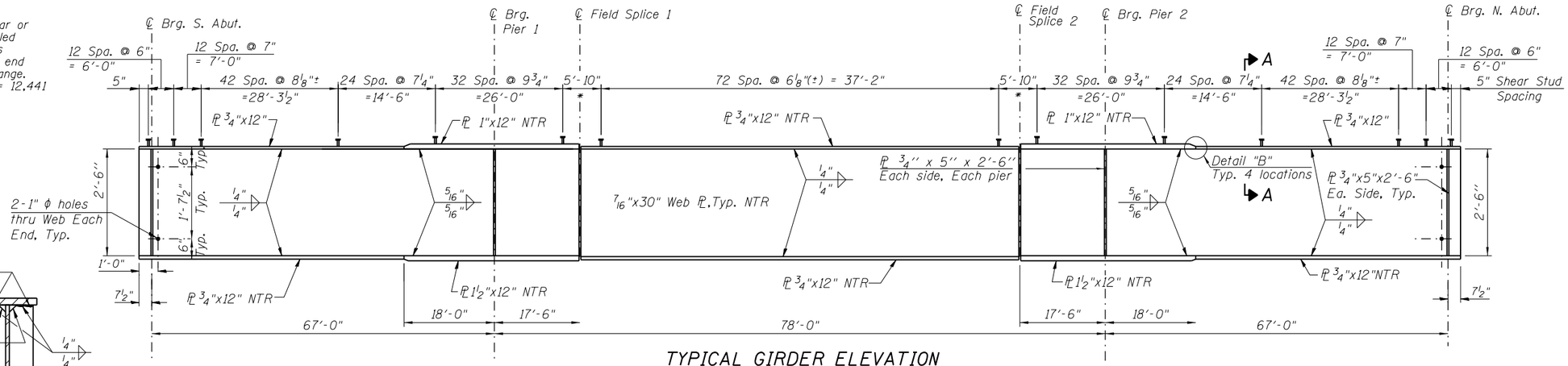


SECTION A-A



SECTION AT PIER

SECTION AT ABUTMENT



TYPICAL GIRDER ELEVATION

* For details, see Splice Details on Sheet S28.

DEFINITIONS

I_s, S_s: Non-composite moment of inertia and section modulus of the steel section used for computing f_s (Total-Strength I, and Service II) due to non-composite dead loads (in.^{4} and in.^{3}).

$I_c(n)$, $S_c(n)$: Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing f_s (Total-Strength I, and Service II) in uncracked sections due to short-term composite live loads (in.^{4} and in.^{3}).

$I_c(3n)$, $S_c(3n)$: Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing f_s (Total-Strength I, and Service II) in uncracked sections, due to long-term composite (superimposed) dead loads (in.^{4} and in.^{3}).

$I_c(cr)$, $S_c(cr)$: Composite moment of inertia and section modulus of the steel and longitudinal deck reinforcement, used for computing f_s (Total-Strength I and Service II) in cracked sections, due to both short-term composite live loads and long-term composite (superimposed) dead loads (in.^{4} and in.^{3}).

DC1: Un-factored non-composite dead load (kips/ft.).

M_{DC1}: Un-factored moment due to non-composite dead load (kip-ft.).

DC2: Un-factored long-term composite (superimposed excluding future wearing surface) dead load (kips/ft.).

M_{DC2}: Un-factored moment due to long-term composite (superimposed excluding future wearing surface) dead load (kip-ft.).

DW: Un-factored long-term composite (superimposed future wearing surface only) dead load (kips/ft.).

M_{DW}: Un-factored moment due to long-term composite (superimposed future wearing surface only) dead load (kip-ft.).

M_{L+IM}: Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).

M_u (Strength I): Factored design moment (kip-ft.).
$1.25\ (M_{DC1} + M_{DC2}) + 1.5\ M_{DW} + 1.75\ M_{L+IM}$

$\phi_f M_n$: Compact composite positive moment capacity computed according to Article 6.10.7.1 or non-slender negative moment capacity according to Article A6.1.1 or A6.1.2 (kip-ft).

f_s DC1: Un-factored stress at edge of flange for controlling steel flange due to vertical non-composite dead loads as calculated below (ksi).
M_{DC1} / S_{nc}

f_s DC2: Un-factored stress at edge of flange for controlling steel flange due to vertical composite dead loads as calculated below (ksi).
$M_{DC2} / S_c(3n)$ or $M_{DC2} / S_c(cr)$ as applicable.

f_s DW: Un-factored stress at edge of flange for controlling steel flange due to vertical composite future wearing surface loads as calculated below (ksi).
$M_{DW} / S_c(3n)$ or $M_{DW} / S_c(cr)$ as applicable.

f_s (L+IM): Un-factored stress at edge of flange for controlling steel flange due to vertical composite live load plus impact loads as calculated below (ksi).
$M_{L+IM} / S_c(n)$ or $M_{DW} / S_c(cr)$ as applicable.

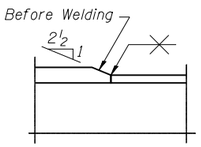
f_s (Service II): Sum of stresses as computed below (ksi).
$f_{sDC1} + f_{sDC2} + f_{sDW} + 1.3\ f_s(L+IM)$

$0.95 R_h F_{yf}$: Composite stress capacity for Service II loading according to Article 6.10.4.2 (ksi).

f_s (Total)(Strength I): Sum of stresses as computed below on non-compact section (ksi).
$1.25\ (f_{sDC1} + f_{sDC2}) + 1.5\ f_{sDW} + 1.75\ f_s(L+IM)$

$\phi_f F_n$: Non-Compact composite positive or negative stress capacity for Strength I loading according to Article 6.10.7 or 6.10.8 (ksi).

V_f: Maximum factored shear range in span computed according to Article 6.10.10.



DETAIL "B"

INTERIOR GIRDER MOMENT TABLE

		0.4 Sp. 1 & 0.6 Sp. 3	Pier 1 & Pier 2	0.5 Sp. 2
I_s	(in^4)	5,240	8,116	5,240
I_c (n)	(in^4)	14,711	—	14,711
I_c (3n)	(in^4)	11,325	—	11,325
I_c (cr)	(in^4)	—	11,470	—
S_s	(in^3)	332.7	569.9	332.7
S_c (n)	(in^3)	484.2	—	484.2
S_c (3n)	(in^3)	446.0	—	446.0
S_c (cr)	(in^3)	—	664.1	—
DC1	(k/')	0.924	0.965	0.924
M_{DC1}	('k)	285	537	174
DC2	(k/')	0.562	0.562	0.562
M_{DC2}	('k)	174	323	105
DW	(k/')	0.292	0.292	0.292
M_{DW}	('k)	90	168	54
M_{L+IM}	('k)	727	887	646
M_u (Strength I)	('k)	2,078	3,029	1,634
$\phi_f M_n$	('k)	2,360	3,169	2,463
f_s DC1	(ksi)	10.29	11.30	6.27
f_s DC2	(ksi)	4.66	5.84	2.79
f_s DW	(ksi)	2.42	3.03	1.45
f_s (L+IM)	(ksi)	18.00	16.07	15.98
f_s (Service II)	(ksi)	38.66	41.07	31.28
$0.95 R_h F_{yf}$	(ksi)	47.50	47.50	47.5
f_s (Total)(Strength I)	(ksi)	41.55	48.05	41.1
$\phi_f F_n$	(ksi)	50.0	50.0	50.0
V_f	(k)	21.58	36.91	22.62

INTERIOR GIRDER REACTION TABLE

		S. & N. Abut.	Pier 1 & Pier 2
R_{DC1}	(k)	59.23	76.38
R_{DC2}	(k)	14.00	45.58
R_{DW}	(k)	7.27	23.68
R_{L+IM}	(k)	76.42	120.79
R_{Total}	(k)	156.92	266.43

NOTES

1. Work this sheet with sheets S26 and S28.
2. Load carrying components designated "NTR" shall conform to the Impact Testing Requirements, Zone 2.
3. All Structural Steel on this sheet shall be AASHTO M270 Grade 50W Steel.

BILL OF MATERIAL

Item	Unit	Total
Stud Shear Connectors	Each	12,441

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DEPARTMENT OF TRANSPORTATION

GIRDER ELEVATION
STRUCTURE NO. 016-1302
SHEET NO. S27 OF 47 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	0909.1-B	COOK	138	94
		CONTRACT NO. 60K78		
	ILLINOIS FED. AID PROJECT			

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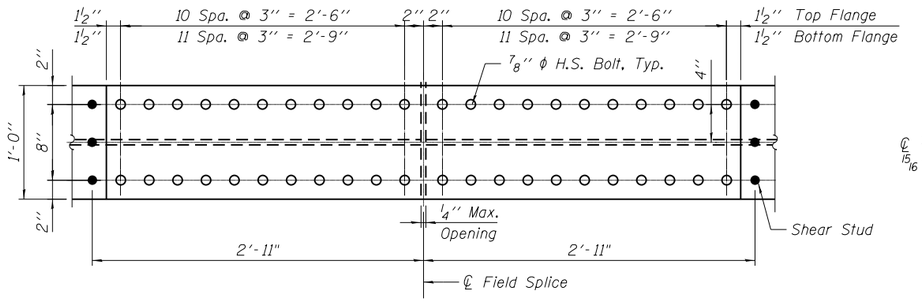
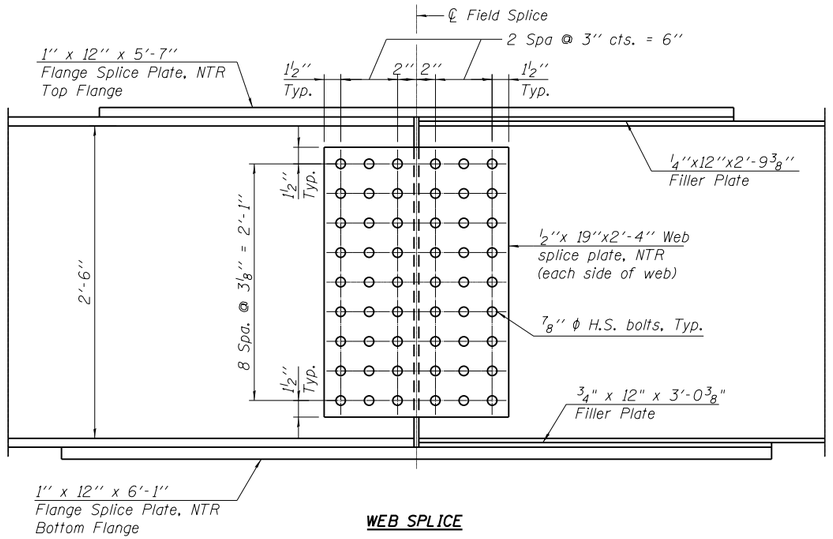


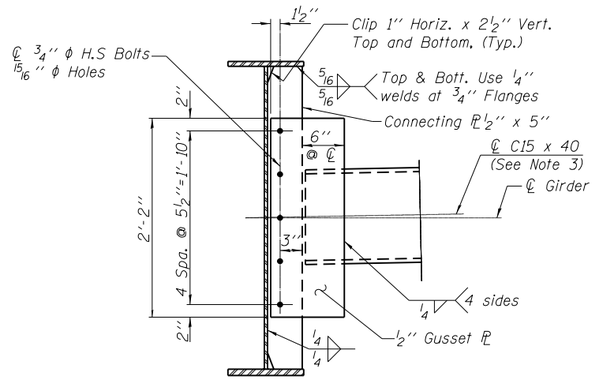
FLANGE SPLICE



WEB SPLICE

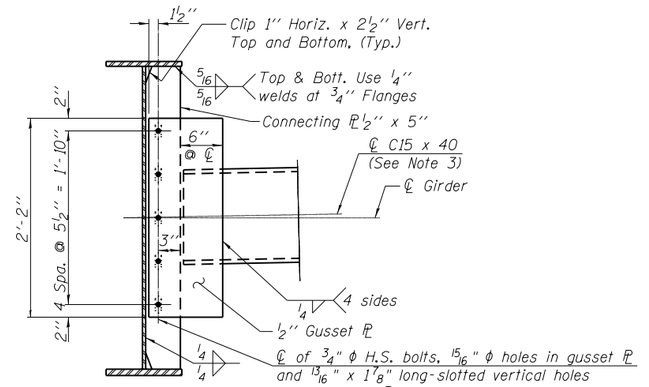
FIELD SPLICES 1 & 2

(Looking West at Field Splice 1
Looking East at Field Splice 2)



INTERIOR DIAPHRAGM - D1

(121 Required)



℄ of ¾" ϕ H.S. bolts, 15/16" ϕ holes in gusset PL and 13/16" x 1'⅛" long-slotted vertical holes in connection PL. At girder 6, locate slotted holes such that at final condition, bolts are at top of slots. The bolts for the slotted holes shall only be finger tightened prior to the deck pouring and to be fully tightened after completion of the pouring for Stage II Construction.

INTERIOR DIAPHRAGM - D2

(11 Required)

NOTES

1. All Structural Steel on this sheet shall be AASHTO M270 Grade 50W.
2. Two hardened washers are required for each set of oversized holes.
3. Alternate C15x50 diaphragm channels are permitted to facilitate material acquisition. Calculated weight of structural steel is based on C15x40. The alternate, if utilized, shall be provided at no extra cost to the Department.
4. All diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual diaphragms at support may be temporarily disconnected to install bearing anchor rods.
5. Load carrying components designated "NTR" shall conform to the Impact Testing Reuirements, Zone 2.

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DEPARTMENT OF TRANSPORTATION

GIRDER DETAILS
STRUCTURE NO. 016-1302
SHEET NO. S28 OF 47 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	0909.1-B	COOK	138	95
		CONTRACT NO. 60K78		
	ILLINOIS FED. AID PROJECT			

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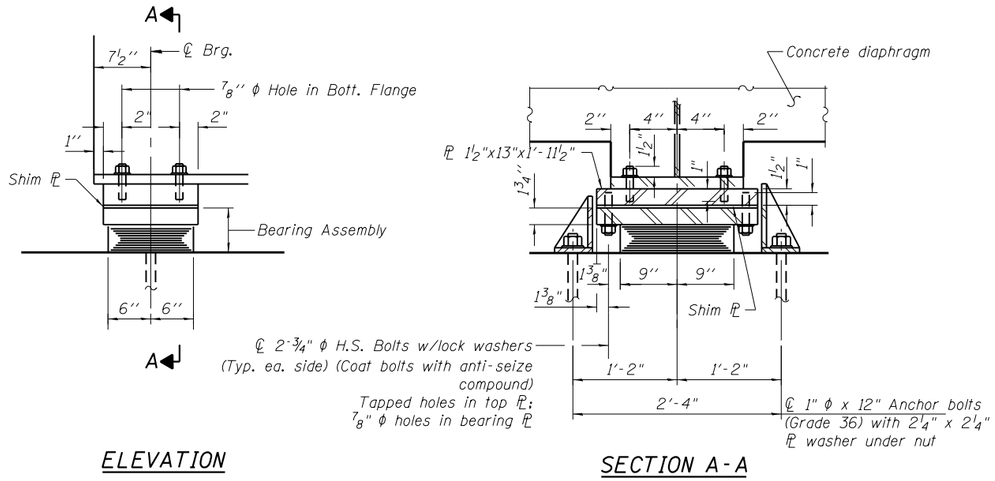
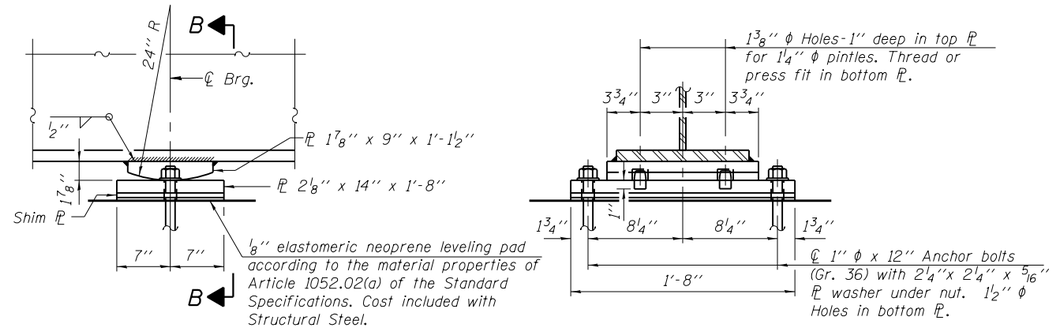


ELEVATION

SECTION A-A

TYPE I ELASTOMERIC EXP. BRG. AT ABUTMENTS

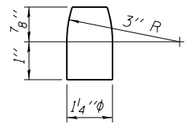
(26 Required)



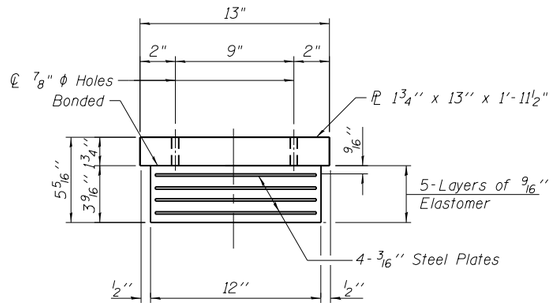
ELEVATION AT PIERS

SECTION B-B

FIXED BEARING AT PIERS

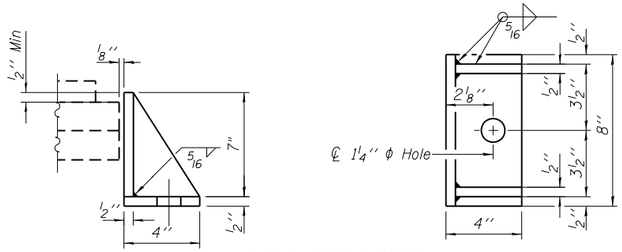


PINTLE



BEARING ASSEMBLY

Note:
Shim plates shall not be placed under Bearing Assembly.



SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.

NOTES

1. Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
2. H.S. bolts in bearing assemblies shall be galvanized according to AASHTO M 298 Class 50.
3. Anchor bolts for side retainers for Type I and fixed bearings may be cast in place or installed in holes drilled before or after the supported members are in place.
4. Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
5. Side retainers and other steel members required for the elastomeric bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type I.
6. The structural steel plates of the Bearing Assembly and the top and bottom plates and pintles for the Fixed Bearings shall conform to the requirements of AASHTO M 270 Grade 50W.
7. Two ⅛ in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	26
Anchor Bolts, 1''	Each	104

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXPANSION & FIXED BEARINGS
STRUCTURE NO. 016-1302
SHEET NO. 29 OF 47 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	0909.1-B	COOK	138	96
		CONTRACT NO. 60K78		
	ILLINOIS FED. AID PROJECT			

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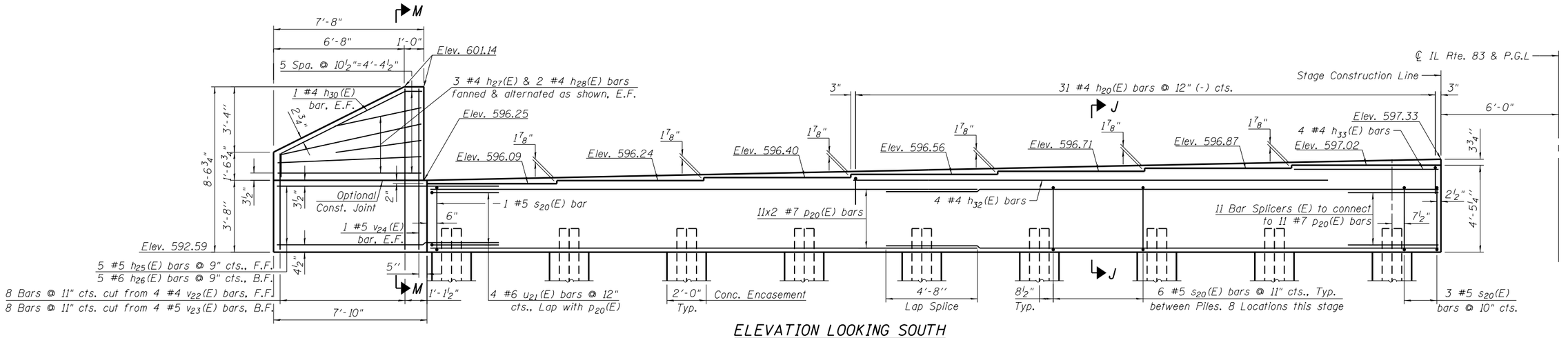
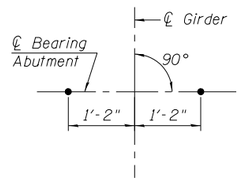
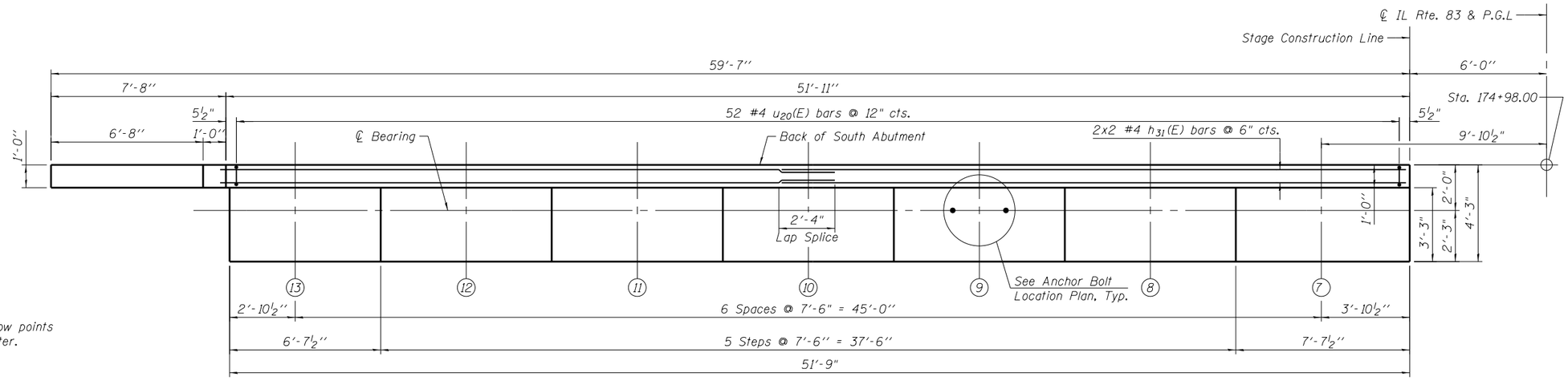


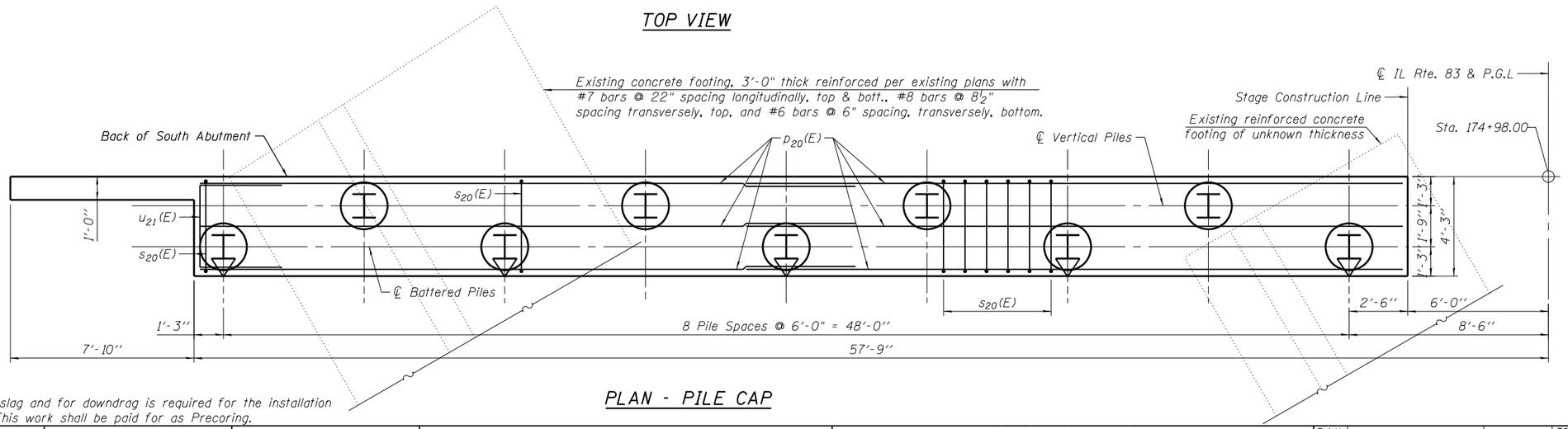
ELEVATION LOOKING SOUTH



ANCHOR BOLT LOCATION PLAN



TOP VIEW



PLAN - PILE CAP

LEGEND

- Designates Battered Pile. Arrow points to direction of 2¼:12 (H:V) batter.
- Designates Vertical Pile
- (7) Designates Girder Number
- Designates Concrete Encasement
- Designates Concrete Encasement and Anticipated Precoring

PILE DATA

Pile Type and Size: HP12x53
Nominal Required Bearing: 419k
Factored Resistance Available: 230k
Estimated Pile Length: 59 feet
Number Production Piles: Eight
Number Test Piles: One

NOTES

1. Work Sheets S30 thru S35 together.
2. For Details of Piles & Concrete Encasement, see Sheet S39.
3. Pour steps monolithically with abutment seat.
4. Bars indicated thus: 11x2 #7 etc. indicates 11 lines of bars with 2 lengths per line.
5. Precoring through the existing footings and/or slag and for downdrag is required for the installation of proposed piles at the designated locations. This work shall be paid for as Precoring.

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STATE OF ILLINOIS
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SOUTH ABUTMENT STAGE I
STRUCTURE NO. 016-1302
SHEET NO. S30 OF 47 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	0909.1-B	COOK	138	97
		CONTRACT NO. 60K78		
	ILLINOIS FED. AID PROJECT			

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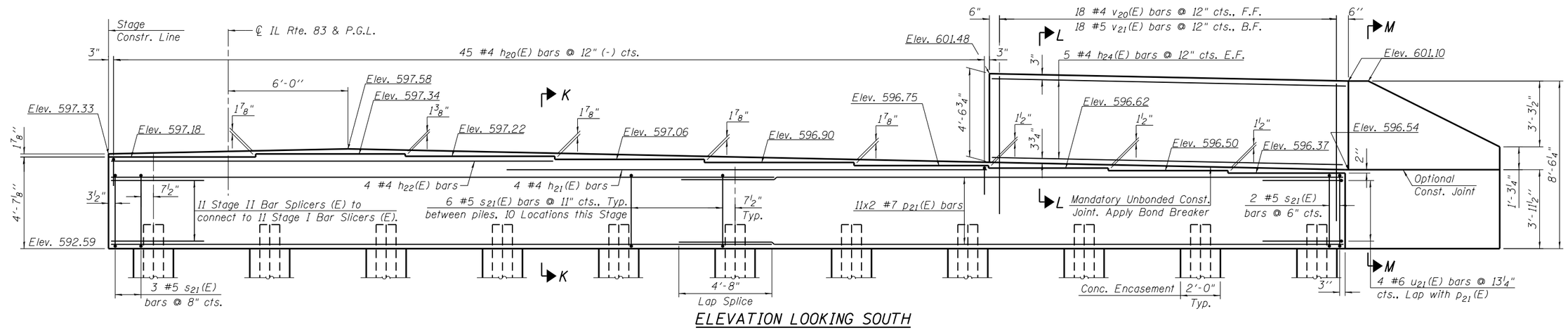
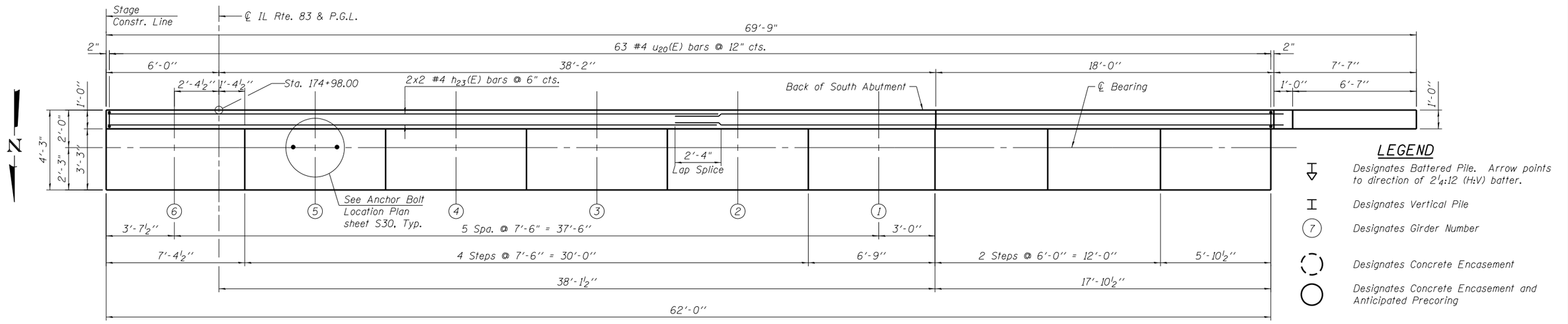
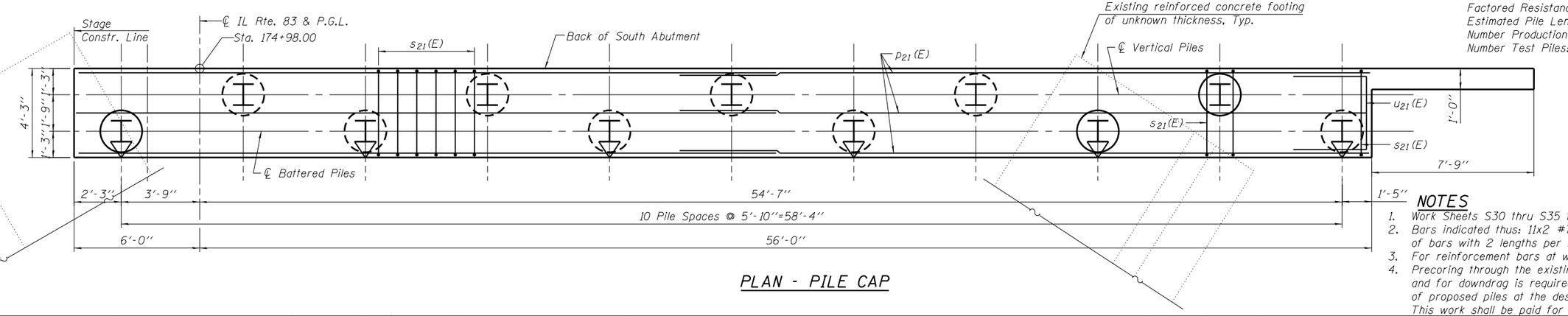


ELEVATION LOOKING SOUTH



TOP VIEW



PLAN - PILE CAP

LEGEND

- Designates Battered Pile. Arrow points to direction of 2¼:12 (H:V) batter.
- Designates Vertical Pile
- (7) Designates Girder Number
- Designates Concrete Encasement
- Designates Concrete Encasement and Anticipated Precoring

PILE DATA

Pile Type and Size: HP12x53
Nominal Required Bearing: 419k
Factored Resistance Available: 230k
Estimated Pile Length: 61 feet
Number Production Piles: Ten
Number Test Piles: One

NOTES

1. Work Sheets S30 thru S35 together.
2. Bars indicated thus: 11x2 #7 etc. indicates 11 lines of bars with 2 lengths per line.
3. For reinforcement bars at wingwall, see Sheet S34.
4. Precoring through the existing footings and/or slag and for downdrag is required for the installation of proposed piles at the designated locations. This work shall be paid for as Precoring.

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOUTH ABUTMENT STAGE II
STRUCTURE NO. 016-1302
SHEET NO. S31 OF 47 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	0909.1-B	COOK	138	98
		CONTRACT NO. 60K78		
	ILLINOIS FED. AID PROJECT			

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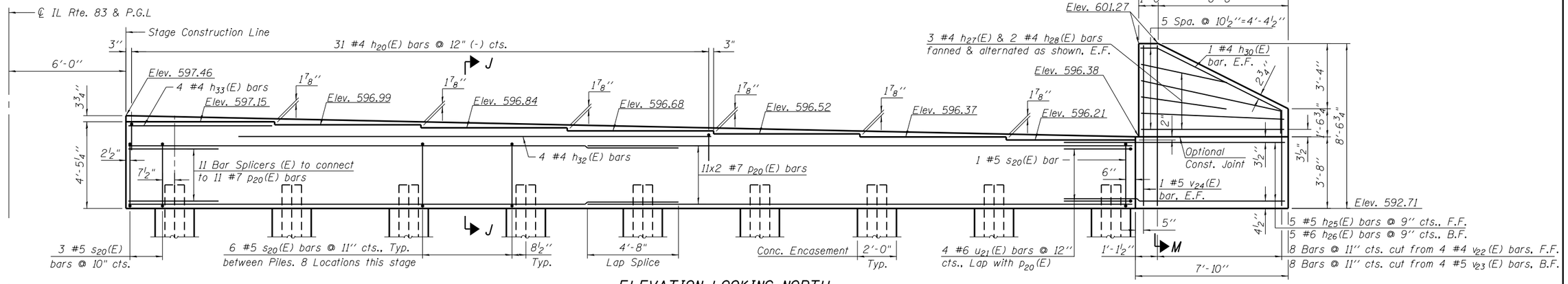
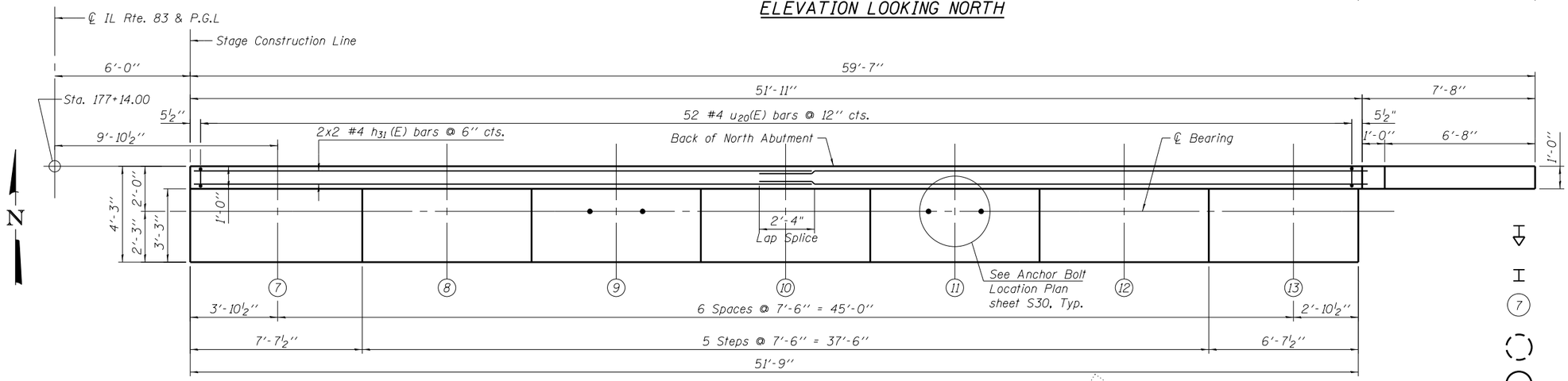
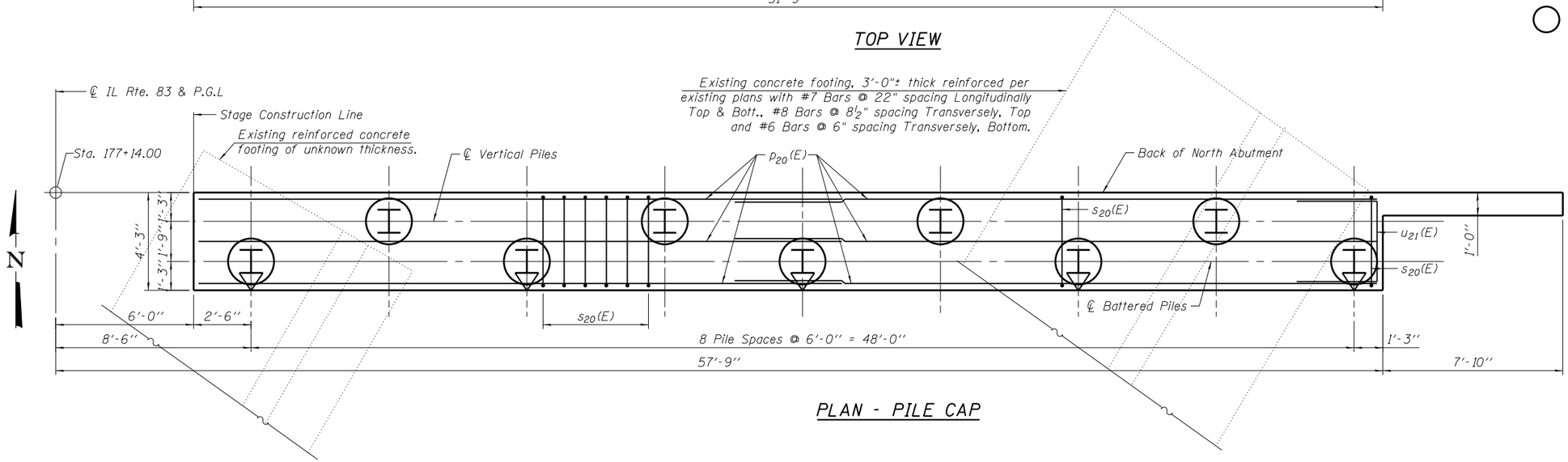


ELEVATION LOOKING NORTH



TOP VIEW



PLAN - PILE CAP

LEGEND

- Designates Battered Pile. Arrow points to direction of 2 1/4:12 (H:V) batter.
- Designates Vertical Pile
- (7) Designates Girder Number
- Designates Concrete Encasement
- Designates Concrete Encasement and Anticipated Precoring

PILE DATA

Pile Type and Size: HP12x53
Nominal Required Bearing: 419k
Factored Resistance Available: 230k
Estimated Pile Length: 52 feet
Number Production Piles: Eight
Number Test Piles: One

NOTES

1. Work Sheets S30 thru S35 together.
2. Bars indicated thus: 11x2 #7 etc. indicates 11 lines of bars with 2 lengths per line.
3. Precoring through the existing footings and/or slag and for downdrag is required for the installation of proposed piles at the designated locations. This work shall be paid for as Precoring.

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DEPARTMENT OF TRANSPORTATION

NORTH ABUTMENT STAGE I
STRUCTURE NO. 016-1302
SHEET NO. S32 OF 47 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	0909.1-B	COOK	138	99
		CONTRACT NO. 60K78		
	ILLINOIS FED. AID PROJECT			

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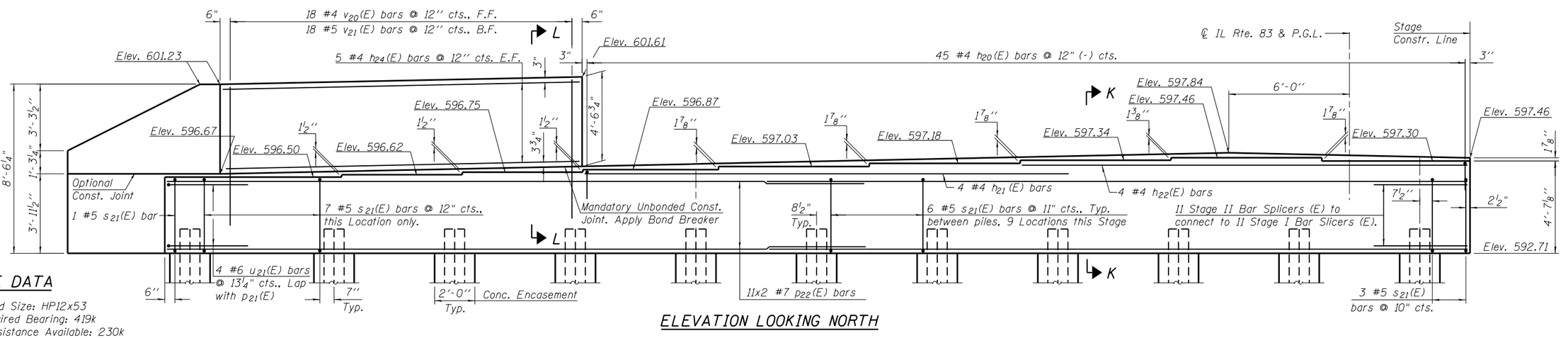
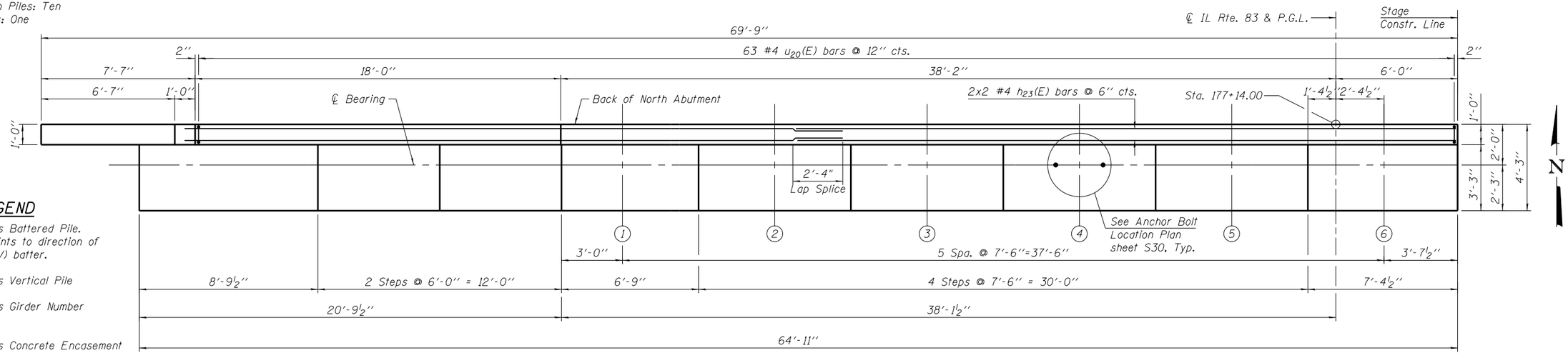


ELEVATION LOOKING NORTH

PILE DATA

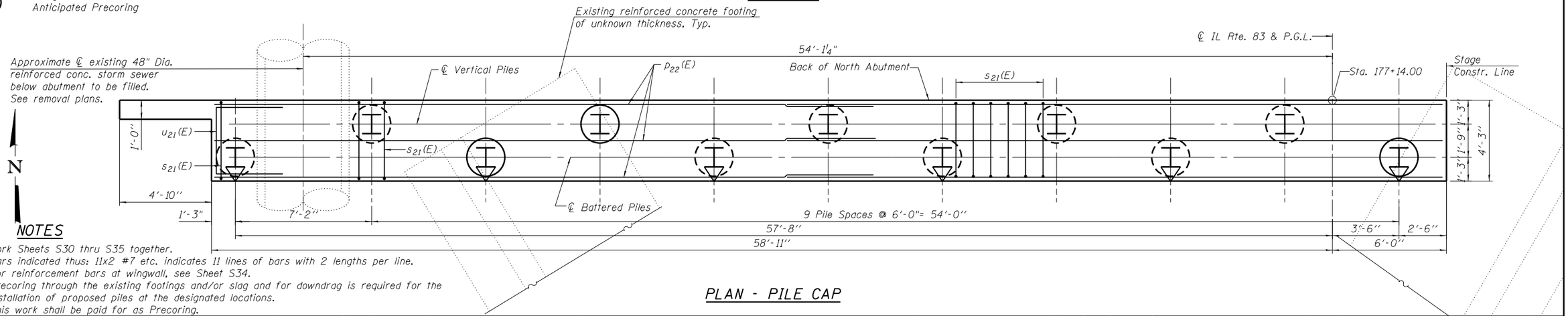
Pile Type and Size: HP12x53
Nominal Required Bearing: 419k
Factored Resistance Available: 230k
Estimated Pile Length: 60 feet
Number Production Piles: Ten
Number Test Piles: One



LEGEND

- Designates Battered Pile. Arrow points to direction of 2¼:12 (H:V) batter.
- Designates Vertical Pile
- (7) Designates Girder Number
- Designates Concrete Encasement
- Designates Concrete Encasement and Anticipated Precoring

TOP VIEW



PLAN - PILE CAP

NOTES

1. Work Sheets S30 thru S35 together.
2. Bars indicated thus: 11x2 #7 etc. indicates 11 lines of bars with 2 lengths per line.
3. For reinforcement bars at wingwall, see Sheet S34.
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NORTH ABUTMENT STAGE II
STRUCTURE NO. 016-1302
SHEET NO. S33 OF 47 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	0909.1-B	COOK	138	100
		CONTRACT NO. 60K78		
	ILLINOIS FED. AID PROJECT			

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