

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1011.3-BR	COOK	145	1
FED. ROAD DIST. NO. 1		ILLINOIS	CONTRACT NO. 60T43	

FOR INDEX OF SHEETS, SEE SHEET NO. 2

PROJECT LOCATED IN THE CITIES OF  
OAK FOREST AND COUNTRY CLUB HILLS  
AND IN UNINCORPORATED COOK COUNTY

TRAFFIC DATA:	ADT (2015)	ADT (2035)	DESIGN SPEED	POSTED SPEED
FAI 57 I-57	95,400	141,192	55 MPH	55 MPH
167TH ST	17,300	25,604	50 MPH	45 MPH

# PROPOSED HIGHWAY PLANS

F.A.I. RTE. 57 AT 167TH ST  
STRUCTURE NO. 016-2125

SECTION: 1011.3-BR

PROJECT: NHPP-3QW9(569)

BRIDGE REHABILITATION  
COOK COUNTY

C-91-355-12

DESIGN DESIGNATION:

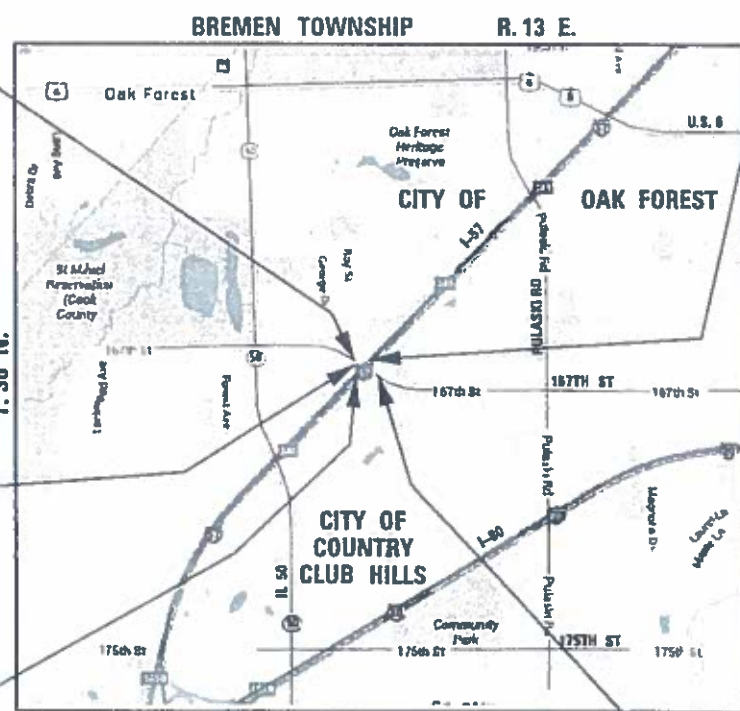
I-57 15,531 (35) INTERSTATE - CLASS I TRUCK ROUTE  
167TH ST 2,816 (35) OTHER ARTERIAL (URBAN)



PROJECT BEGINS  
STA. 26 + 40.00

BRIDGE  
S.N. 016-2125

STA. 99 + 52.6

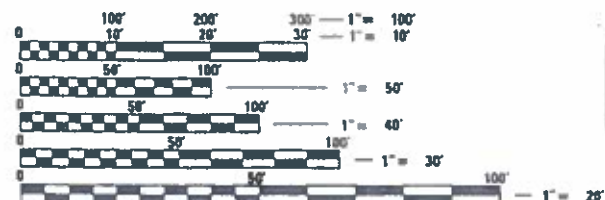


LOCATION MAP

PROJECT ENDS  
STA. 31 + 03.00

STA. 101 + 52.6

	<p>KNIGHT E/A, INC.</p> <p>Date: <u>6-20-18</u></p> <p><u>Stanley J. Przekoznik</u></p> <p>Stanley J. Przekoznik</p> <p>Expires: 11-30-19</p> <p>Sheet No.: 1-47, 133-145</p>
	<p>KNIGHT E/A, INC.</p> <p>Date: <u>6/21/2018</u></p> <p><u>Jia Wang</u></p> <p>Jia Wang</p> <p>Expires: 11-30-18</p> <p>Sheet No.: 48-55, 70-94, 97-132</p>
	<p>Milhouse Eng. &amp; Const., Inc.</p> <p>Date: <u>6/20/2018</u></p> <p><u>Lynn M. Stock</u></p> <p>Lynn M. Stock</p> <p>Expires: 11-30-18</p> <p>Sheet No.: 95-96</p>
	<p>SPAAN Tech, Inc.</p> <p>Date: <u>6-20-18</u></p> <p><u>Irwin A. Berman</u></p> <p>Irwin A. Berman</p> <p>Expires: 11-30-19</p> <p>Sheet No.: 56-69</p>



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 LOCATING INFORMATION FOR EXCAVATORS  
1-800-892-0123  
OR 811

DISTRICT ONE - DESIGN  
PROJECT MANAGER: FAWAD AQUEEL, P.E. (847) 705-4247  
PROJECT ENGINEER: RAGHAD ADEIS-DAHMAN, P.E. S.E. (847) 705-4237

CONTRACT NO. 60T43

I-57 - GROSS LENGTH	=	200.00 FEET	=	0.038 MILES
I-57 - NET LENGTH	=	200.00 FEET	=	0.038 MILES
167th STREET - GROSS LENGTH	=	463.00 FEET	=	0.088 MILES
167th STREET - NET LENGTH	=	463.00 FEET	=	0.088 MILES

Plans Prepared By:  
**KNIGHT**  
Engineers & Architects  
221 North LaSalle Street  
Suite 300  
Chicago, IL 60601-1211  
Phone: (312) 577-3300

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

SUBMITTED June 22 2018  
Anthony J. Dwyer / CRJ  
REGIONAL ENGINEER

Aug 7 2018  
E.A. Elk  
ENGINEER OF DESIGN AND ENVIRONMENT

Aug 17 2018  
Paul P. Ch...  
DIRECTOR OF HIGHWAY PROJECT IMPLEMENTATION

PRINTED BY THE AUTHORITY  
OF THE STATE OF ILLINOIS

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**LIST OF STATE STANDARDS**

STANDARD NO.	DESCRIPTION
000001-06	STANDARD SYMBOLS, ABBREVIATIONS, AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
420001-09	PAVEMENT JOINTS
420106-06	36' (10.8 m) JOINTED P.C.C. PAVEMENT
420111-04	P.C.C. PAVEMENT ROUNDOUTS
420401-12	PAVEMENT CONNECTOR (PCC) FOR BRIDGE APPROACH SLAB
421001-03	BAR REINFORCEMENT FOR CRC PAVEMENT
482011-03	HMA SHOULDER STRIPS/SHOULDERS WITH RESURFACING OR WIDENING AND RESURFACING PROJECTS
483001-05	PCC SHOULDER
515001-03	NAME PLATE FOR BRIDGES
542301-03	PRECAST REINFORCED CONCRETE FLARED END SECTION
601101-02	CONCRETE HEADWALL FOR PIPE UNDERDRAINS
602001-02	CATCH BASIN, TYPE A
602601-05	PRECAST REINFORCED CONCRETE FLAT SLAB TOP
602701-02	MANHOLE STEPS
604001-04	FRAME AND LIDS, TYPE 1
606001-07	CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
606301-04	P.C. CONCRETE ISLANDS AND MEDIANS
610001-08	SHOULDER INLET WITH CURB
630001-12	STEEL PLATE BEAM GUARD RAIL
630301-08	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
631031-15	TRAFFIC BARRIER TERMINAL, TYPE 6
701101-05	OFF-RD OPERATIONS, MULTILANE, 15' (4.5 M) TO 24" (600mm) FROM PAVEMENT EDGE
701106-02	OFF-RD OPERATIONS, MULTILANE, MORE THAN 15' (4.5 M) AWAY
701400-09	APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY
701401-11	LANE CLOSURE, FREEWAY/EXPRESSWAY
701411-09	LANE CLOSURE, MULTILANE, AT ENTRANCE OR EXIT RAMP, FOR SPEEDS > 45MPH
701426-09	LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPERATION, FOR SPEEDS > 45 MPH
701427-05	LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPERATION, FOR SPEEDS < 40 MPH
701428-01	TRAFFIC CONTROL, SETUP AND REMOVAL, FREEWAY/EXPRESSWAY
701446-09	TWO LANE CLOSURE, FREEWAY/EXPRESSWAY
701601-09	URBAN LANE CLOSURE, MULTILANE, 1W OR 2W WITH NON TRAVERSABLE MEDIAN
701606-10	URBAN LANE CLOSURE, MULTILANE, 2W WITH MOUNTABLE MEDIAN
701701-10	URBAN LANE CLOSURE, MUTLILANE INTERSECTION
701901-07	TRAFFIC CONTROL DEVICES
704001-08	TEMPORARY CONCRETE BARRIER
720021-02	SIGN PANELS, EXTRUDED ALUMINUM TYPE
725001-01	OBJECT AND TERMINAL MARKERS
780001-05	TYPICAL PAVEMENT MARKINGS
781001-04	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS
782006	GUARDRAIL AND BARRIER WALL REFLECTOR MOUNTING DETAILS
812001	RACEWAY EMBEDDED IN STRUCTURE
836001-03	LIGHT POLE FOUNDATION

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**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**INDEX OF SHEETS AND STATE STANDARDS  
 167TH ST OVER I-57**

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

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1011.3-BR	COOK	145	2
<b>CONTRACT NO. 60T43</b>				
<small>FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT</small>				

**GENERAL NOTES**

1. THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT.
2. FORTY-EIGHT HOURS BEFORE STARTING EXCAVATION, THE CONTRACTOR SHALL CALL J.U.L.I.E. AT 1-800-892-0123 OR 811 TO HAVE THE LOCATION OF EXISTING UTILITIES MARKED.
3. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS, AS REQUIRED, PRIOR TO COMMENCING WITH CONSTRUCTION.
4. DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS.
5. POLLUTION CONTROL: THE CONTRACTOR SHALL BE REQUIRED TO COMPLY WITH STATE REGULATIONS REGARDING AIR, WATER AND NOISE POLLUTION.
6. WHERE ARTIFICIAL LIGHTING IS UTILIZED IN NIGHT OPERATIONS, THE CONTRACTOR SHALL EXERCISE THE UTMOST PRECAUTIONS IN PREVENTING ADVERSE VISIBILITY TO THE MOTORING PUBLIC AND ADJOINING RESIDENTIAL AREAS.
7. 10 FT. (3 M) TRANSITIONS SHALL BE USED TO MATCH PROPOSED ITEMS OF WORK TO EXISTING ITEMS IN THE FIELD, UNLESS OTHERWISE SHOWN. THE TRANSITIONS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR THE PROPOSED ITEM OF WORK SPECIFIED.
8. SAW CUTTING PRIOR TO THE REMOVAL OF ANY ITEMS NOTED ON THE PLANS OR AS DIRECTED BY THE ENGINEER SHALL BE INCLUDED IN THE COST OF THE ITEMS BEING REMOVED.
9. THE CONTRACTOR SHALL USE CARE IN REMOVING OR EXCAVATING NEAR ALL EXISTING ITEMS WHICH WILL REMAIN. ANY DAMAGE DONE TO EXISTING ITEMS BY THE CONTRACTOR SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
10. THE CONTRACTOR WILL BE REQUIRED TO MAINTAIN THE EXISTING PAVEMENT AS DIRECTED BY THE ENGINEER. THIS WORK SHALL BE PAID FOR ACCORDING TO ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS.
11. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING DRAINAGE THROUGHOUT THE CONSTRUCTION OF THIS PROJECT.
12. IN ACCORDANCE WITH SECTION 550 OF THE STANDARD SPECIFICATIONS, THE CONNECTING OF EXISTING DRAIN TILES, PIPE CULVERTS, OR STORM SEWERS TO THE PROPOSED DRAINAGE SYSTEM STRUCTURES WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED AS INCLUDED IN THE PAY ITEMS INVOLVED.
13. LOCATIONS OF EXISTING UTILITIES SHOWN ON THE PLANS ARE FROM BEST AVAILABLE RECORD INFORMATION AND MUST BE FIELD VERIFIED BY THE CONTRACTOR. PLAN DIMENSIONS AND DETAILS RELATIVE TO EXISTING PLANS ARE SUBJECT TO ROUTINE VARIATIONS. THE CONTRACTOR SHALL FIELD VERIFY EXISTING DIMENSIONS AND DETAILS AFFECTING NEW CONSTRUCTION AND MAKE NECESSARY APPROVED ADJUSTMENTS PRIOR TO CONSTRUCTION OR ORDERING MATERIALS. SUCH VARIATIONS SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATION FOR A CHANGE IN THE SCOPE OF THE WORK, HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED BASED UPON THE UNIT PRICE.
14. THE CONTRACTOR SHALL PROTECT EXISTING AND NEW UTILITIES AND SHALL BRACE AND SUPPORT THE UTILITIES PROPERLY IN ORDER TO PREVENT SETTLEMENT, DISPLACEMENT, OR DAMAGE TO THE UTILITIES. THE PROTECTION OF THE UTILITIES AS SPECIFIED HEREIN WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED AS INCLUDED IN THE CONTRACT.
15. BARRICADES: TYPE I, TYPE II AND TYPE III BARRICADES SHALL BE WEIGHTED IN A MANNER APPROVED BY THE MANUFACTURER SO THAT THEY ARE NOT MOVED BY TRAFFIC.
16. THE CONTRACTOR SHALL CONTACT THE TRAFFIC CONTROL SUPERVISOR AT (847) 705-4470 AND EXPRESSWAY TRAFFIC CONTROL SUPERVISOR AT (847) 705-4155 A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING WORK.
17. THE ENGINEER SHALL CONTACT MS. PATRICE HARRIS, IDOT'S AREA TRAFFIC FIELD ENGINEER FOR COOK COUNTY, VIA E-MAIL AT PATRICE.HARRIS@ILLINOIS.GOV AND, OR AT (708)597-9800, A MINIMUM OF TWO (2) WEEKS PRIOR TO THE PLACEMENT OF PERMANENT PAVEMENT MARKINGS.
18. FOR WORK OUTSIDE THE LIMITS OF BRIDGE APPROACH PAVEMENT, ALL REFERENCES IN THE HIGHWAY STANDARDS AND SPECIFICATIONS FOR REINFORCEMENT, DOWEL BARS AND TIE BARS IN PAVEMENT, SHOULDERS, CURB, GUTTER, COMBINATION CURB AND GUTTER, MEDIAN AND CHAIR SUPPORTS FOR CRC PAVEMENT, SHALL BE EPOXY COATED, UNLESS NOTED ON THE PLAN.
19. PLAN DIMENSIONS AND DETAILS RELATIVE TO EXISTING PLANS ARE SUBJECT TO ROUTINE VARIATIONS. THE CONTRACTOR SHALL FIELD VERIFY EXISTING DIMENSIONS AND DETAILS AFFECTING NEW CONSTRUCTION AND MAKE NECESSARY APPROVED ADJUSTMENTS PRIOR TO CONSTRUCTION OR ORDERING MATERIALS. SUCH VARIATIONS SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATION FOR A CHANGE IN THE SCOPE OF THE WORK, HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED AT THE UNIT BID FOR THE WORK.
20. AGGREGATE SUBGRADE IMPROVEMENT (CU YD) HAS BEEN PROVIDED FOR USE AT THE LOCATIONS INDICATED FOR SOILS THAT TEND TO BE UNSTABLE AND/OR UNSUITABLE. THE ACTUAL NEED FOR REMOVAL AND REPLACEMENT WITH ASI WILL BE DETERMINED IN THE FIELD AT THE TIME OF CONSTRUCTION BY THE GEOTECHNICAL ENGINEER. ALL POTENTIALLY UNSTABLE SOILS SHOULD BE TESTED WITH A STATIC OR DYNAMIC CONE PENETROMETER AND TREATED IN ACCORDANCE WITH ARTICLE 301.04 OF THE SSRBC AND IDOT SUBGRADE STABILITY MANUAL. IF UNSTABLE AND/OR UNSUITABLE SOILS ARE NOT ENCOUNTERED, THEN THE QUANTITY SHALL BE DEDUCTED AND NO ADDITIONAL COMPENSATION WILL BE DUE TO THE CONTRACTOR.

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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**GENERAL NOTES  
167TH ST OVER I-57**

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

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1011.3-BR	COOK	145	3
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO. 60T43	

SUMMARY OF QUANTITIES				CONSTRUCTION CODE	
CODE NO.	ITEM	UNIT	URBAN TOTAL QUANTITY	0013 ROADWAY 90% FED	0021 LIGHTING 90% FED
				10% STATE	10% STATE
20100110	TREE REMOVAL ( 6 TO 15 UNITS DIAMETER)	UNIT	72	72	
20100210	TREE REMOVAL ( OVER 15 UNITS DIAMETER)	UNIT	16	16	
20200100	EARTH EXCAVATION	CU YD	480	480	
20201200	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU YD	20	20	
20800150	TRENCH BACKFILL	CU YD	160	160	
21001000	GEOTECHNICAL FABRIC FOR GROUND STABILIZATION	SQ YD	60	60	
21101615	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	2, 224	2, 224	
25000210	SEEDING, CLASS 2A	ACRE	0. 5	0. 5	
25100635	HEAVY DUTY EROSION CONTROL BLANKET	SQ YD	2, 224	2, 224	
25100900	TURF REINFORCEMENT MAT	SQ YD	16	16	
28000510	INLET FILTERS	EACH	6	6	
30300001	AGGREGATE SUBGRADE IMPROVEMENT	CU YD	20	20	
30300112	AGGREGATE SUBGRADE IMPROVEMENT 12"	SQ YD	742	742	
31101200	SUBBASE GRANULAR MATERIAL, TYPE B 4"	SQ YD	422	422	
42000080	PAVEMENT CONNECTOR (PCC) FOR BRIDGE APPROACH SLAB	SQ YD	441	441	

\* SPECIALTY ITEM

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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES  
167TH ST OVER I-57

SCALE: NONE SHEET NO. 1 OF 9 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1011.3-BR	COOK	145	4
CONTRACT NO. 60T43				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

SUMMARY OF QUANTITIES				CONSTRUCTION CODE	
CODE NO.	ITEM	UNIT	URBAN TOTAL QUANTITY	0013	0021
				ROADWAY 90% FED 10% STATE	LIGHTING 90% FED 10% STATE
42000501	PORTLAND CEMENT CONCRETE PAVEMENT 10" (JOINTED)	SQ YD	241	241	
42001300	PROTECTIVE COAT	SQ YD	1,846	1,846	
44000100	PAVEMENT REMOVAL	SQ YD	1,456	1,456	
44000300	CURB REMOVAL	FOOT	186	186	
44003100	MEDIAN REMOVAL	SQ FT	5,086	5,086	
44004250	PAVED SHOULDER REMOVAL	SQ YD	638	638	
48101620	AGGREGATE SHOULDERS, TYPE B 10"	SQ YD	236	236	
48300500	PORTLAND CEMENT CONCRETE SHOULDERS 10"	SQ YD	412	412	
50101500	REMOVAL OF EXISTING SUPERSTRUCTURES	EACH	2	2	
50102400	CONCRETE REMOVAL	CU YD	71.5	71.5	
50104720	REMOVAL OF EXISTING CONCRETE DECK	EACH	1	1	
50157300	PROTECTIVE SHIELD	SQ YD	2,449	2,449	
50200100	STRUCTURE EXCAVATION	CU YD	77	77	
50300225	CONCRETE STRUCTURES	CU YD	111.4	111.4	
50300255	CONCRETE SUPERSTRUCTURE	CU YD	986.2	986.2	

\* SPECIALTY ITEM

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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES  
167TH ST OVER I-57

SCALE: NONE SHEET NO. 2 OF 9 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1011.3-BR	COOK	145	5
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO. 60T43	

REV. 7/30/18

SUMMARY OF QUANTITIES				CONSTRUCTION CODE	
				0013 ROADWAY 90% FED 10% STATE	0021 LIGHTING 90% FED 10% STATE
CODE NO.	ITEM	UNIT	URBAN TOTAL QUANTITY		
50300260	BRIDGE DECK GROOVING	SQ YD	3,531	3,531	
50300300	PROTECTIVE COAT	SQ YD	4,141	4,141	
50301350	CONCRETE SUPERSTRUCTURE (APPROACH SLAB)	CU YD	271.5	271.5	
50400805	FURNISHING AND ERECTING PRECAST PRESTRESSED CONCRETE I-BEAMS, 36 IN.	FOOT	1,260	1,260	
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	335,470	335,470	
50800515	BAR SPLICERS	EACH	1,506	1,506	
51500100	NAME PLATES	EACH	1	1	
52000110	PREFORMED JOINT STRIP SEAL	FOOT	183	183	
52100010	ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH	24	24	
52100520	ANCHOR BOLTS, 1"	EACH	48	48	
52200010	TEMPORARY SHEET PILING	SQ FT	129	129	
54213657	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 12"	EACH	4	4	
55100500	STORM SEWER REMOVAL 12"	FOOT	169	169	
55100700	STORM SEWER REMOVAL 15"	FOOT	312	312	
58700300	CONCRETE SEALER	SQ FT	1,304	1,304	

\* SPECIALTY ITEM

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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES  
167TH ST OVER I-57

SCALE: NONE SHEET NO. 3 OF 9 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1011.3-BR	COOK	145	6
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO. 60T43	

SUMMARY OF QUANTITIES				CONSTRUCTION CODE	
CODE NO.	ITEM	UNIT	URBAN TOTAL QUANTITY	0013 ROADWAY 90% FED	0021 LIGHTING 90% FED
				10% STATE	10% STATE
59000200	EPOXY CRACK INJECTION	FOOT	108	108	
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	42	42	
60100945	PIPE DRAINS 12"	FOOT	294	294	
60200205	CATCH BASINS, TYPE A, 4' -DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	2	2	
60250200	CATCH BASINS TO BE ADJUSTED	EACH	7	7	
60255500	MANHOLES TO BE ADJUSTED	EACH	3	3	
60500050	REMOVING CATCH BASINS	EACH	4	4	
60619200	CONCRETE MEDIAN, TYPE SB-6.06	SQ FT	4,850	4,850	
61000050	CONCRETE THRUST BLOCKS	EACH	4	4	
61000115	TYPE E INLET BOX, STANDARD 610001	EACH	4	4	
* 63000001	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	FOOT	312.5	312.5	
* 63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	2	2	
* 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	2	2	
63200310	GUARDRAIL REMOVAL	FOOT	1,428	1,428	
66201120	CONCRETE SHOULDER CURB	FOOT	222	222	

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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES  
167TH ST OVER I-57

SCALE: NONE SHEET NO. 4 OF 9 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1011.3-BR	COOK	145	7
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO. 60T43	

SUMMARY OF QUANTITIES				CONSTRUCTION CODE	
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	0013	0021
				ROADWAY 90% FED 10% STATE	LIGHTING 90% FED 10% STATE
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	12	12	
67100100	MOBILIZATION	L SUM	1	1	
* 66900200	NON-SPECIAL WASTE DISPOSAL	CU YD	550	550	
* 66900450	SPECIAL WASTE PLANS AND REPORTS	L SUM	1	1	
* 66900530	SOIL DISPOSAL ANALYSIS	EACH	2	2	
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	126	126	
70300100	SHORT TERM PAVEMENT MARKING	FOOT	640	640	
70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SQ FT	213	213	
70300900	PAVEMENT MARKING TAPE, TYPE IV - LETTERS AND SYMBOLS	SQ FT	220	220	
70300904	PAVEMENT MARKING TAPE, TYPE IV 4"	FOOT	17,355	17,355	
70300906	PAVEMENT MARKING TAPE, TYPE IV 6"	FOOT	313	313	
70300908	PAVEMENT MARKING TAPE, TYPE IV 8"	FOOT	2,759	2,759	
70300912	PAVEMENT MARKING TAPE, TYPE IV 12"	FOOT	565	565	
70400100	TEMPORARY CONCRETE BARRIER	FOOT	1,737.5	1,737.5	
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	275	275	

\* SPECIALTY ITEM

FILE NAME = D:\60T43-ah\1-S00.dgn

PLOT DATE = 6/19/2018  
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES  
167TH ST OVER I-57

SCALE: NONE SHEET NO. 5 OF 9 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1011.3-BR	COOK	145	8
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO. 60T43	



SUMMARY OF QUANTITIES				CONSTRUCTION CODE	
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	0013	0021
				ROADWAY	LIGHTING
				90% FED	90% FED
				10% STATE	10% STATE
70600250	IMPACT ATTENUATORS, TEMPORARY (NON- REDIRECTIVE), TEST LEVEL 3	EACH	2	2	
70600260	IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	2	2	
70600332	IMPACT ATTENUATORS, RELOCATE (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	2	2	
* 72000300	SIGN PANEL - TYPE 3	SQ FT	434	434	
* 72501000	TERMINAL MARKER - DIRECT APPLIED	EACH	2	2	
73304000	OVERHEAD SIGN STRUCTURE - BRIDGE MOUNTED	FOOT	56	56	
73602000	REMOVE OVERHEAD SIGN STRUCTURE - BRIDGE MOUNTED	EACH	3	3	
* 78000500	THERMOPLASTIC PAVEMENT MARKING - LINE 8"	FOOT	1,558	1,558	
* 78008210	POLYUREA PAVEMENT MARKING TYPE I - LINE 4"	FOOT	5,400	5,400	
* 78008240	POLYUREA PAVEMENT MARKING TYPE I - LINE 8"	FOOT	3,570	3,570	
* 78008250	POLYUREA PAVEMENT MARKING TYPE I - LINE 12"	FOOT	331	331	
* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	52	52	
* 78200005	GUARDRAIL REFLECTORS, TYPE A	EACH	8	8	
* 78200011	BARRIER WALL REFLECTORS, TYPE C	EACH	24	24	
* 81100320	CONDUIT ATTACHED TO STRUCTURE, 1" DIA., PVC COATED GALVANIZED STEEL	FOOT	500		500

\* SPECIALTY ITEM

FILE NAME = D:\60T43-ah-t-500.dgn

PLOT DATE = 6/19/2018  
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES  
167TH ST OVER I-57

SCALE: NONE SHEET NO. 6 OF 9 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1011.3-BR	COOK	145	9
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO. 60T43	

SUMMARY OF QUANTITIES				CONSTRUCTION CODE	
CODE NO.	ITEM	UNIT	URBAN TOTAL QUANTITY	0013 ROADWAY 90% FED	0021 LIGHTING 90% FED
				10% STATE	10% STATE
* 81200230	CONDUIT EMBEDDED IN STRUCTURE, 2" DIA., PVC	FOOT	360		360
* 81300220	JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 6" X 6" X 4"	EACH	14		14
* 81300530	JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 12" X 10" X 6"	EACH	6		6
* 81300550	JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 12" X 12" X 6"	EACH	2		2
* 81300810	JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 18" X 12" X 8"	EACH	2		2
* 81702110	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 10	FOOT	2,300		2,300
* 81702130	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 6	FOOT	255		255
* 81702140	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 4	FOOT	510		510
* 82102200	LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 200 WATT	EACH	2		2
* 83007600	LIGHT POLE, ALUMINUM, 35 FT. M. H., 15 FT. MAST ARM	EACH	2		2
* X0326331	CLEANING AND PAINTING BEARINGS	EACH	12	12	
* X0327303	REMOVAL OF EXISTING SIGN LIGHTING UNIT WITH NO SALVAGE	EACH	5		5
* X0327577	PROTECT AND MAINTAIN EXISTING UNDERPASS LUMINAIRE	L SUM	1		1
X0327773	ACCESS DOOR	EACH	2	2	
X0327980	PAVEMENT MARKING REMOVAL - WATER BLASTING	SQ FT	2,819	2,819	

\* SPECIALTY ITEM

FILE NAME = D:\60T43-ah-t-500.dgn

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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES  
167TH ST OVER I-57

SCALE: NONE SHEET NO. 7 OF 9 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1011.3-BR	COOK	145	10
CONTRACT NO. 60T43				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

REV. 7/30/18

SUMMARY OF QUANTITIES				CONSTRUCTION CODE	
CODE NO.	ITEM	UNIT	URBAN TOTAL QUANTITY	0013 ROADWAY 90% FED	0021 LIGHTING 90% FED
				10% STATE	10% STATE
X5860110	GRANULAR BACKFILL FOR STRUCTURES	CU YD	64	64	
X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1	1	
X7011015	TRAFFIC CONTROL AND PROTECTION (EXPRESSWAYS)	L SUM	1	1	
X7015005	CHANGEABLE MESSAGE SIGN	CAL DAY	960	960	
X7030005	TEMPORARY PAVEMENT MARKING REMOVAL	SQ FT	8,566	8,566	
X7040125	PINNING TEMPORARY CONCRETE BARRIER	EACH	122	122	
* X7200052	REMOVE, STORE AND RE-ERECT SIGN PANEL	SQ FT	276	276	
* X8110458	CONDUIT ATTACHED TO STRUCTURE, 2" DIA., STAINLESS STEEL	FOOT	50		50
* X8420111	REMOVAL OF UNDERPASS LIGHTING UNIT, NO SALVAGE	EACH	18		18
Z0001899	JACK AND REMOVE EXISTING BEARINGS	EACH	24	24	
Z0004552	APPROACH SLAB REMOVAL	SQ YD	425	425	
* Z0007112	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES	L SUM	1	1	
Z0012754	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	175	175	
Z0013798	CONSTRUCTION LAYOUT	L SUM	1	1	
Z0018500	DRAINAGE STRUCTURES TO BE CLEANED	EACH	7	7	

\* SPECIALTY ITEM

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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES  
167TH ST OVER I-57

SCALE: NONE SHEET NO. 8 OF 9 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1011.3-BR	COOK	145	11
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO. 60T43	

REV. 7/30/18

SUMMARY OF QUANTITIES

SUMMARY OF QUANTITIES				CONSTRUCTION CODE	
				0013 ROADWAY 90% FED 10% STATE	0021 LIGHTING 90% FED 10% STATE
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	URBAN	
Z0024475	TUBULAR MARKER	EACH	78		78
Z0030850	TEMPORARY INFORMATION SIGNING	SQ FT	1,309		1,309
* Z0033020	LUMINAIRE SAFETY CABLE ASSEMBLY	EACH	2		2
* Z0033028	MAINTENANCE OF LIGHTING SYSTEM	CAL MO	9		9
Z0046304	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	198		198
Z0062456	TEMPORARY PAVEMENT	SQ YD	799		799
** Z0076600	TRAINEES	HOURS	500		500
X0327991	REMOVAL OF EXISTING PROTECTIVE SHIELD	SQ YD	2,449		2,449
* X1400344	LUMINAIRE, UNDERPASS, LED, TYPE A	EACH	14		14
** Z0076604	TRAINEES TRAINING PROGRAM GRADUATE	HOURS	500		500

\* SPECIALTY ITEM \*\* = 0042

FILE NAME = 0160T43-ah-t-S00.dgn

PLOT DATE = 6/20/2018  
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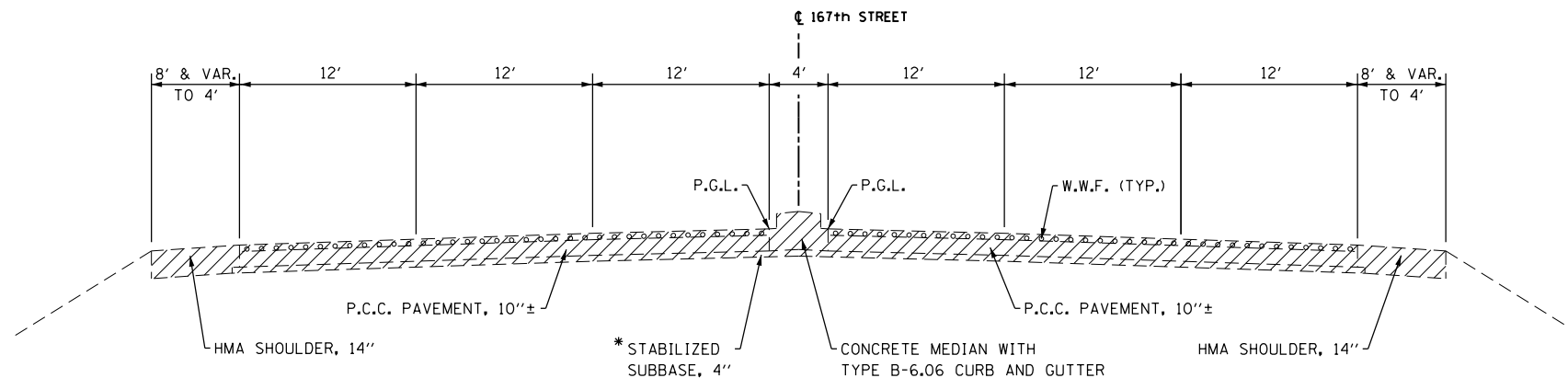
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES  
167TH ST OVER I-57

SCALE: NONE SHEET NO. 9 OF 9 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1011.3-BR	COOK	145	12
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO. 60T43	

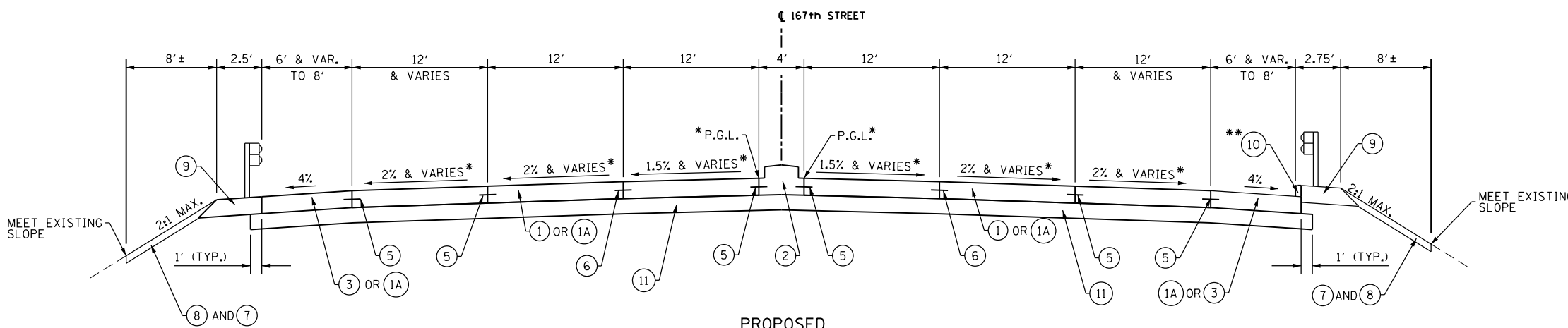


**EXISTING**  
 STA. 26+40.00 TO STA. 26+80.45  
 BRIDGE & APPROACH SLAB OMISSION STA. 26+80.45 TO STA. 30+62.6  
 STA. 30+62.6 TO STA. 31+03.00

\* THE COST OF THE REMOVAL OF THE STABILIZED SUBBASE SHALL BE INCLUDED IN THE UNIT PRICE FOR PAVEMENT REMOVAL.

**LEGEND**  
 REMOVAL ITEMS

- PROPOSED LEGEND**
- ① P.C.C. PAVEMENT, 10" (JOINTED)
  - ①A PAVEMENT CONNECTOR (PCC) FOR BRIDGE APPROACH SLABS
  - ② CONCRETE MEDIAN, TYPE SB-6.06
  - ③ P.C.C. SHOULDERS, 10"
  - ③A SUBBASE GRANULAR MATERIAL, TYPE B, 4"
  - ④ NO. 6 - 24" LONG, EPOXY-COATED TIE-BARS @ 24" C-C. DRILLED AND GROUTED (COST WILL BE INCLUDED IN CONCRETE MEDIAN OR PCC SHOULDERS)
  - ⑤ LONGITUDINAL CONSTRUCTION JOINT WITH NO. 6 - 24" LONG EPOXY-COATED TIE-BARS @ 24" C-C. DRILLED & GROUTED (COST WILL BE INCLUDED IN P.C.C. PAVEMENT)
  - ⑥ SAWED LONGITUDINAL JOINT WITH NO. 6 - 30" LONG EPOXY-COATED TIE-BARS @ 30" C-C. (COST WILL BE INCLUDED IN P.C.C. PAVEMENT)
  - ⑦ TOPSOIL, FURNISH & PLACE, 4"
  - ⑧ SEEDING, CLASS 2A & HEAVY DUTY EROSION CONTROL BLANKET
  - ⑨ AGGREGATE SHOULDER, TYPE B, 10"
  - ⑩ CONCRETE SHOULDER CURB STD 610001 (SEE PLANS FOR LOCATIONS)
  - ⑪ AGGREGATE SUBGRADE IMPROVEMENT 12"



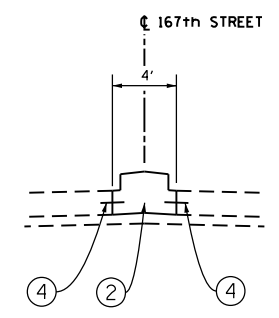
**PROPOSED**  
 STA. 26+40.00 TO STA. 26+77.67  
 BRIDGE & APPROACH SLAB OMISSION STA. 26+77.67 TO STA. 30+65.39  
 STA. 30+65.39 TO STA. 31+03.00

\* VARY CROSS SLOPES AND P.G.L. AS NEEDED TO MEET EXISTING ELEVATIONS

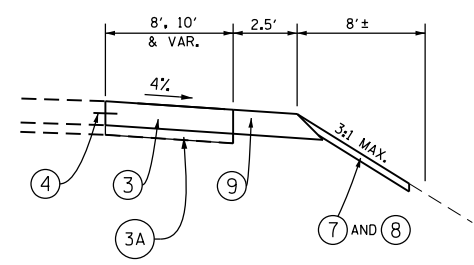
\*\* CONCRETE SHOULDER CURB CAST MONOLITHIC WITH SHOULDER. SEE PLANS FOR LOCATIONS, (BETWEEN APPROACH SLAB AND SHOULDER INLET, INCREASE SHLD WIDTH 6" TO PROVIDE BASE FOR CURB.)

**NOTES:**

1. THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE MIXTURE QUANTITIES IS 112 LBS/SO YD/IN.
2. 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 SPECIAL PROVISIONS.  
  
 QUALITY MANAGEMENT PROGRAM (QMP) IDENTIFIES THE PARTICULAR QUALITY CONTROL SPECIFICATION THAT APPLIES TO THE MIXTURE.
3. TEMPORARY PAVEMENT: THE CONTRACTOR HAS THE OPTION OF HOT MIX ASPHALT OR CONCRETE. IF THE CONTRACTOR CHOOSES CONCRETE, THE THICKNESS SHALL BE 8" P.C. CONCRETE WITH 4" SUBBASE GRANULAR MATERIAL. P.C. CONCRETE TEMPORARY PAVEMENT SHALL CONSIST OF CLASS PV CONCRETE MEETING THE REQUIREMENTS OF ARTICLE 1020 OF THE STANDARD SPECIFICATIONS.



SECTION THROUGH CONCRETE MEDIAN TYPE SB-6.06  
 STA. 20+50 TO STA. 26+40  
 STA. 31+03 TO STA. 36+50



SECTION THROUGH PCC SHOULDER ADJACENT TO EXISTING PAVEMENT  
 STA. 24+00 TO STA. 26+40 & STA. 31+03 TO STA. 31+35, RT.  
 STA. 26+29 TO STA. 26+40 & STA. 31+03 TO STA. 32+32, LT.

HOT-MIX ASPHALT MIXTURE REQUIREMENTS		QUALITY MANAGEMENT PROGRAM (QMP)
MIXTURE TYPE	AIR VOIDS @ Ndes	
<b>TEMPORARY PAVEMENT FOR TRAFFIC STAGING</b>		
HMA SURFACE COURSE, MIX "D", N70 (IL 9.5 mm) - 2"	4% @ 70 GYR.	OC / OA
HMA BINDER IL-19 mm, N70 - 8" (3 LIFTS)	4% @ 70 GYR.	OC / OA
QMP Designation: Quality Control/Quality Assurance (QC/QA); Quality Control for Performance (QCP); Pay for Performance (PFP)		

FILE NAME = D:\60743-sh1-typical.dgn

PLOT DATE = 6/19/2018  
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**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**EXISTING & PROPOSED TYPICAL SECTIONS  
 167TH STREET**  
 SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1011.3-BR	COOK	145	13
CONTRACT NO. 60T43				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

TYP-1

PORTLAND CEMENT CONCRETE SHOULDERS, 10" SCHEDULE					
PAY ITEM					48300500
LOCATION			Length (FT)	Width (FT)	SQ YD
26+29.00	26+40.00	LT	11	8	10
24+00.00	26+01.00	RT	201	VAR	213
26+16.00	26+54.75	RT	39	VAR	33
30+88.31	31+20.00	LT	32	VAR	27
31+35.00	32+32.00	LT	97	8	86
31+03.00	31+51.00	RT	48	8	43
TOTAL					412

CONCRETE SHOULDER CURB SCHEDULE					
PAY ITEM					66201120
LOCATION			DESCRIPTION		LENGTH (FOOT)
26+01.00	26+70.00	RT	ON SHOULDER INLET		69
26+40.00	26+86.00	LT	ON SHOULDER INLET		46
30+57.67	31+03.00	RT	ON SHOULDER INLET		45
30+73.66	31+35.00	LT	ON SHOULDER INLET		61
TOTAL					222

PAVED SHOULDER REMOVAL SCHEDULE					
PAY ITEM					44004250
LOCATION			Length (FT)	Width (FT)	SQ YD
24+00	27+00	RT	300	VAR	297
26+29	27+14	LT	85	VAR	70
30+28	31+51	RT	123	VAR	109
30+43	32+32	LT	189	VAR	162
TOTAL					638

APPROACH SLAB REMOVAL SCHEDULE					
PAY ITEM					20004552
LOCATION			Average Length (FT)	Average Width (FT)	Area (SQ YD)
26+80.45	27+07.00	RT	23.05	36.00	92
26+80.45	24+14.00	LT	30.20	35.75	120
30+35.90	30+62.60	RT	30.25	35.30	119
30+36.10	30+62.60	LT	23.25	36.40	94
TOTAL					425

LANDSCAPING SCHEDULE			
PAY ITEM	25100635	21101615	
	HEAVY DUTY EROSION CONTROL BLANKET	EMBANKMENT	TOPSOIL FURNISH AND PLACE, 4"
LOCATION	SQ YD	CU YD	SQ YD
STA 26+30 TO 2685, LT	286	21	286
STA 30+57 TO 3160, LT	688	0	688
STA 24+00 to 26+85, RT	698	25	698
STA 30+42 TO 31+04, RT	500	22	500
AT TREE REMOVALS	32		32
AT LT FOUNDATIONS	20		20
TOTAL	2,224	68	2,224

PORTLAND CEMENT CONCRETE PAVEMENT 10" (JOINTED) SCHEDULE					
PAY ITEM					42000501
LOCATION			Average Length (FT)	Average Width (FT)	Area (SQ YD)
26+40.00	26+54.75	LT	14.75	37.30	61
26+40.00	26+54.75	RT	14.75	36.30	59
30+88.31	31+03.00	LT	14.69	36.00	59
30+88.31	31+03.00	RT	14.69	37.80	62
TOTAL					241

PAVEMENT REMOVAL SCHEDULE					
PAY ITEM					44000100
LOCATION			Average Length (FT)	Average Width (FT)	Area (SQ YD)
26+40.00	26+80.45	LT	40.45	37.00	166
26+40.00	26+80.45	RT	40.45	36.00	162
30+62.60	31+03.00	LT	40.40	36.00	162
30+62.60	31+03.00	RT	40.40	37.00	167
TEMPORARY PAVEMENT					799
TOTAL					1,456

PAVEMENT CONNECTOR (PCC) FOR BRIDGE APPROACH SLAB SCHEDULE						
PAY ITEM					42000080	50800205
LOCATION			Average Length (FT)	Average Width (FT)	Area (SQ YD)	LBS
26+54.75	26+77.67	LT	27.00	44.50	131	3,460
26+54.75	26+77.67	RT	19.50	43.50	90	2,670
30+65.39	30+88.31	LT	18.00	43.00	88	2,630
30+65.39	30+88.31	RT	27.00	43.50	133	3,530
TOTAL					441	12,290

CURB REMOVAL SCHEDULE					
PAY ITEM					44000300
LOCATION			DESCRIPTION	LENGTH (FOOT)	
26+62	27+12	RT	NW BRIDGE CURB	50	
26+59	27+00	RT	SW BRIDGE CURB	41	
30+44	30+83	LT	NE BRIDGE CURB	39	
30+28	30+84	RT	SE BRIDGE CURB	56	
TOTAL					186

EARTHWORK SCHEDULE					
	AREA SEE PAVING PAY ITEM	DEPTH SEE TYP SECTION	EARTH EXCAVATION (FOR AGG SUBGRADE IMPROVEMENT 12")	EMBANKMENT	REMOVAL AND DISPOSAL OF UNSUIT MATERIAL
LOCATION	SQ YD	FT	CU YD	CU YD	CU YD
• PCC PAVEMENT, 10"	241	1.00	80		
• PCC SHOULDERS, 10" (ADJACENT TO PCC PVMT)	30	1.00	9		
• PCC SHOULDERS, 10" (ADJACENT TO EX PVMT)	353	0.46	52		
AGGREGATE SHOULDER, 10"	336	0.83	62		
• PAVEMENT CONNECTOR(PCC) FOR BRIDGE	440	1.00	147		
• APPROACH SLAB	391	1.00	130		
FILL FOR ERODED DITCHES				68	
ESTIMATE FOR AGG SUBGRADE IMPROVEMENT PLUS SHRINKAGE 15%					20
TOTAL			480	78	20

GUARDRAIL REMOVAL SCHEDULE				
PAY ITEM				63200310
LOCATION			Length (FT)	
22+60	27+13	RT	453	
30+14	32+67	RT	265	
24+99	27+30	LT	254	
30+29	34+73	LT	456	
TOTAL				1,428

TREE REMOVAL SCHEDULE				
PAY ITEM		20100110	20100210	
		TREE REMOVAL (6 TO 15 UNITS DIAMETER)	TREE REMOVAL (OVER 15 UNITS DIAMETER)	
LOCATION	OFFSET	UNIT	UNIT	
24+80	60' RT	6		
25+00	60' RT	6		
25+25	66' RT	6		
25+85	70' RT	6		
26+00	70' RT	6		
25+00	125' LT	6		
25+40	100' LT	6		
25+80	87' LT	6		
26+10	78' LT	6		
26+55	68' LT	6		
27+00	60' LT		16	
30+80	57' LT	6		
31+10	55' LT	6		
TOTAL		72	16	

• EXCAVATION FOR AGGREGATE SUBGRADE IMPROVEMENT, 12"

FILE NAME = D:\60743-shr-schedule.dgn

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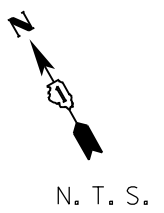
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES  
167TH ST OVER I-57

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

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1011.3-BR	COOK	145	14
CONTRACT NO. 60743			FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT	

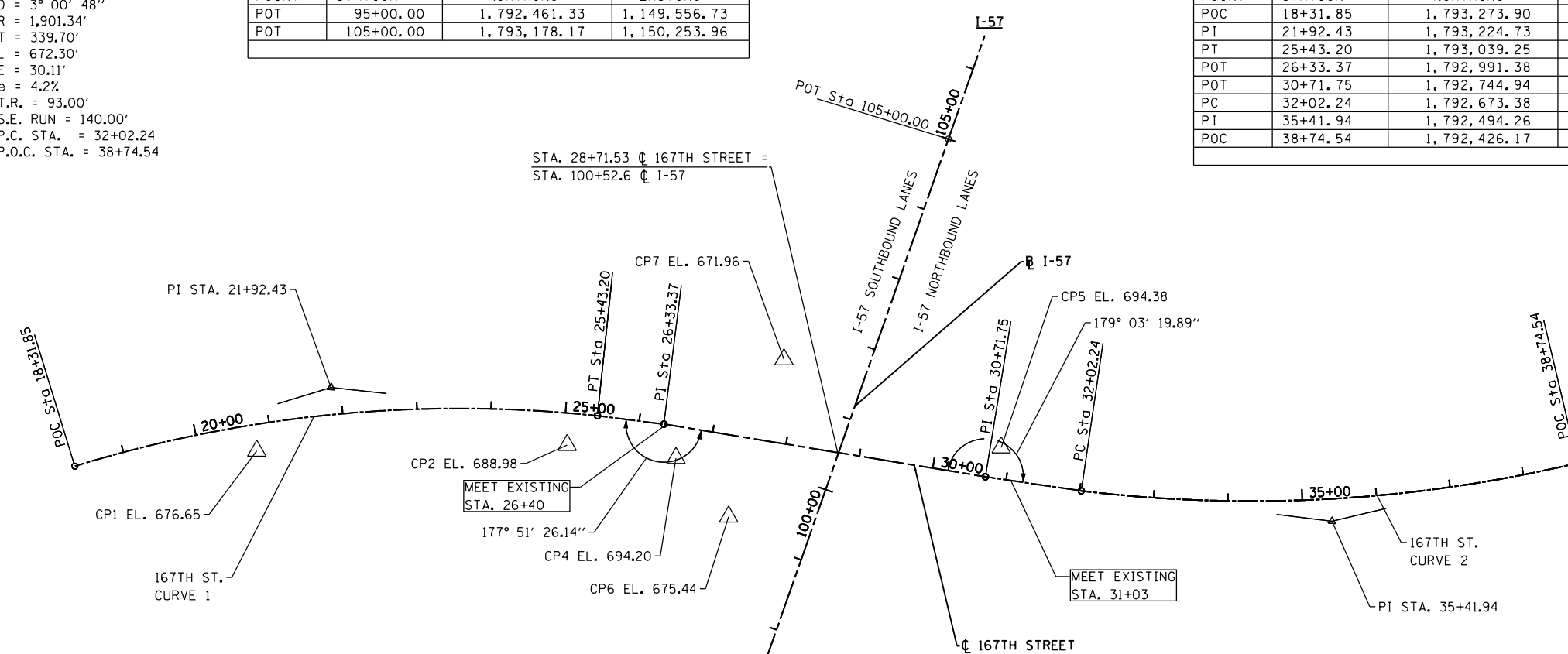


PROP. CURVE CURVE 1  
 PI STA. = 21+92.43  
 $\Delta = 23^\circ 07' 16''$  (RT)  
 $D = 3^\circ 15' 01''$   
 $R = 1,762.76'$   
 $T = 360.58'$   
 $L = 711.35'$   
 $E = 36.50'$   
 $e = 4.4\%$   
 $T.R. = 98.00'$   
 $S.E. RUN = 147.00'$   
 $P.O.C. STA. = 18+31.85$   
 $P.T. STA. = 25+43.20$

PROP. CURVE CURVE 2  
 PI STA. = 35+41.94  
 $\Delta = 20^\circ 15' 34''$  (LT)  
 $D = 3^\circ 00' 48''$   
 $R = 1,901.34'$   
 $T = 339.70'$   
 $L = 672.30'$   
 $E = 30.11'$   
 $e = 4.2\%$   
 $T.R. = 93.00'$   
 $S.E. RUN = 140.00'$   
 $P.C. STA. = 32+02.24$   
 $P.O.C. STA. = 38+74.54$

ALIGNMENT COORDINATES - I-57			
POINT	STATION	NORTHING	EASTING
POT	95+00.00	1,792,461.33	1,149,556.73
POT	105+00.00	1,793,178.17	1,150,253.96

ALIGNMENT COORDINATES - 167TH STREET			
POINT	STATION	NORTHING	EASTING
POC	18+31.85	1,793,273.90	1,149,002.25
PI	21+92.43	1,793,224.73	1,149,668.68
PT	25+43.20	1,793,039.25	1,147,668.68
POT	26+33.37	1,792,991.38	1,149,745.10
POT	30+71.75	1,792,744.94	1,150,107.65
PC	32+02.24	1,792,673.38	1,150,216.76
PI	35+41.94	1,792,494.26	1,150,505.40
POC	38+74.54	1,792,426.17	1,150,838.21



**CONTROL POINT #1**

PK NAIL IN SHOULDER  
 STA 20+77.59, 35.53' RT.  
 N 1,793,189.3770  
 E 1,149,232.8860  
 ELEV. 676.650

**CONTROL POINT #2**

PK NAIL IN SHOULDER  
 STA 25+05.81, 43.10' RT.  
 N 1,793,020.7238  
 E 1,149,615.0322  
 ELEV. 688.978

**CONTROL POINT #4**

PK NAIL IN SHOULDER  
 STA 20+77.59, 35.48' RT.  
 N 1,792,943.1950  
 E 1,149,740.4740  
 ELEV. 694.200

**CONTROL POINT #5**

PK NAIL IN SHOULDER  
 STA 26+56.63, 42.45' RT.  
 N 1,792,771.6400  
 E 1,150,143.3500  
 ELEV. 694.380

**CONTROL POINT #6**

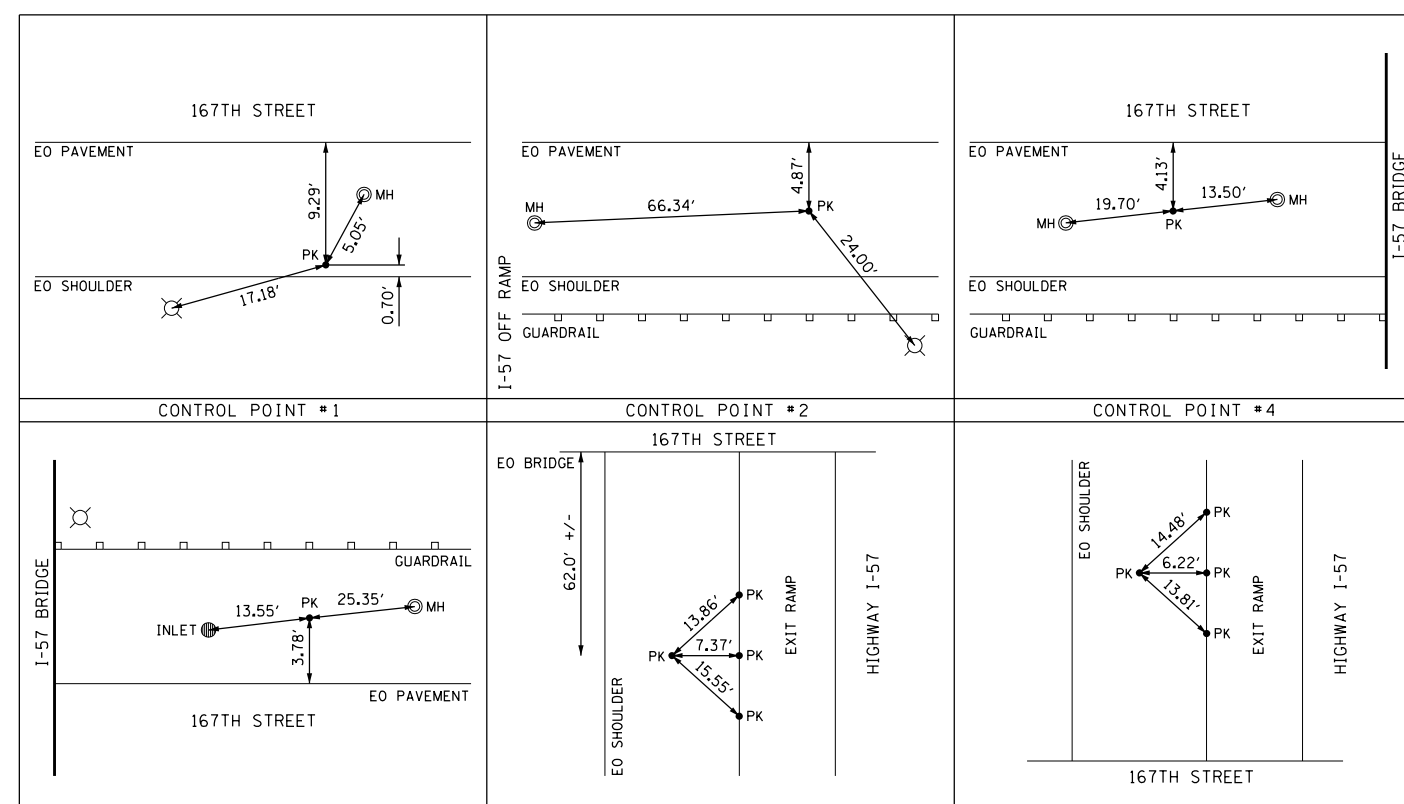
PK NAIL IN SHOULDER  
 STA 30+86.96, 41.91' LT.  
 N 1,792,841.7900  
 E 1,149,771.6000  
 ELEV. 675.440

**CONTROL POINT #7**

PK NAIL IN SHOULDER  
 STA 27+39.38, 108.82' RT.  
 N 1,793,002.4560  
 E 1,149,928.2840  
 ELEV. 671.960

**BENCHMARK**

ELEV. 699.66  
 TBM-3 CUT [ ] ON THE  
 WEST END OF THE  
 NW VAULTED WALL  
 OF THE  
 WEST ABUTMENT.



FILE NAME = 0160743-sh1-ATB.dgn

PLOT DATE = 6/19/2018  
 PLOT SCALE = 200.0000' / 1"

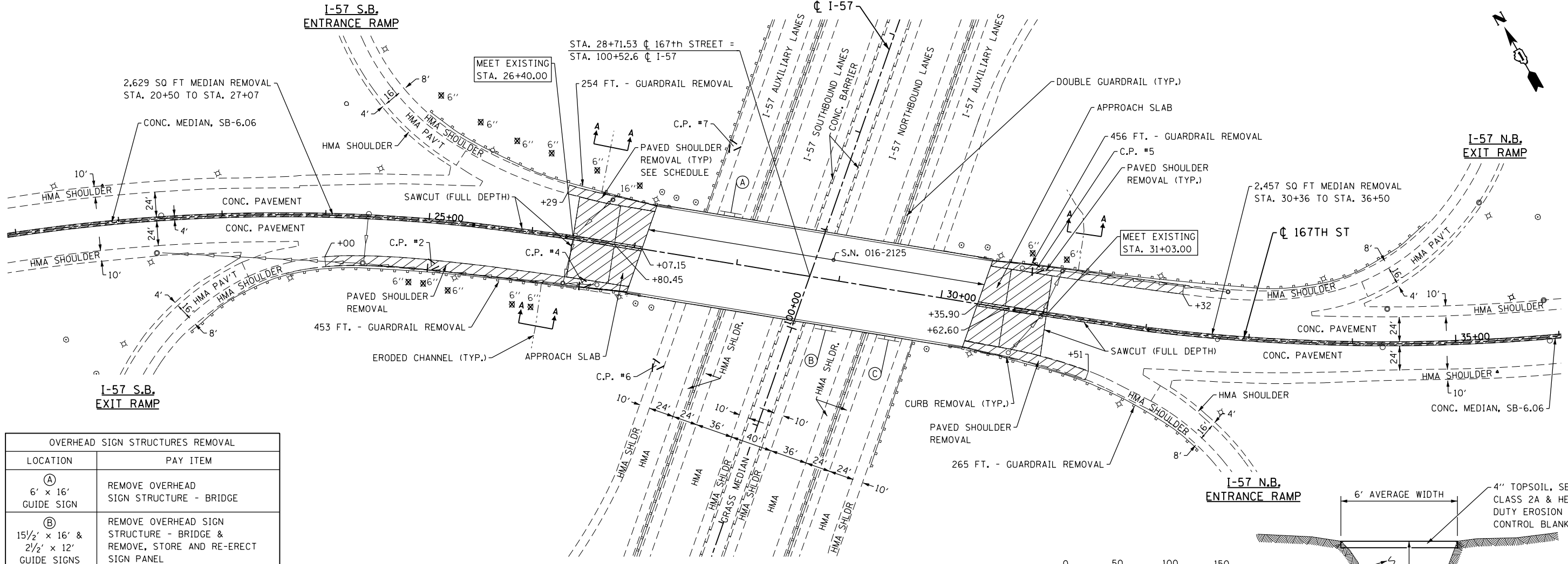


DESIGNED - SJP	REVISED -
DRAWN - SJP	REVISED -
CHECKED - MM	REVISED -
DATE - JUNE 25, 2018	REVISED -

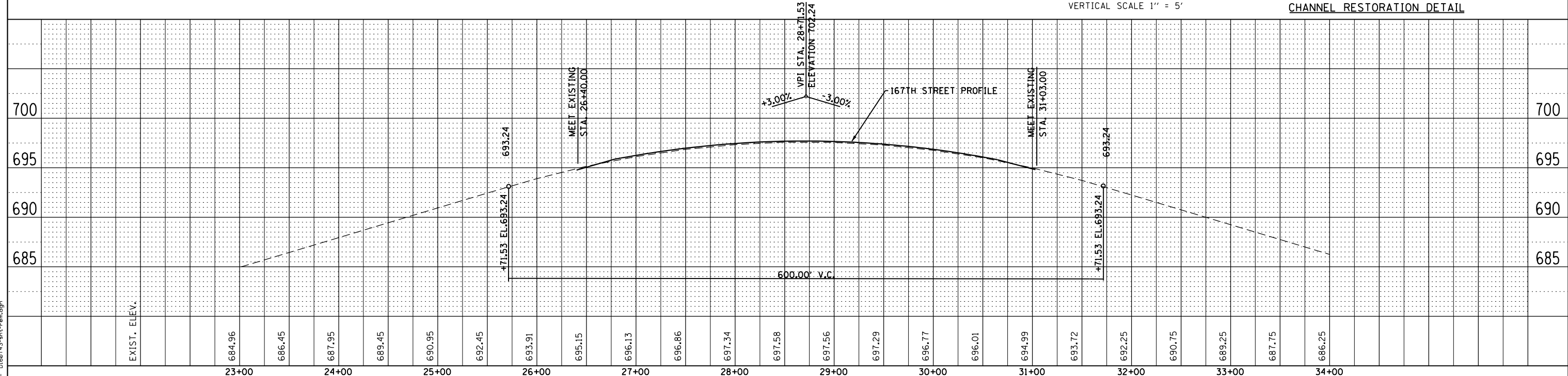
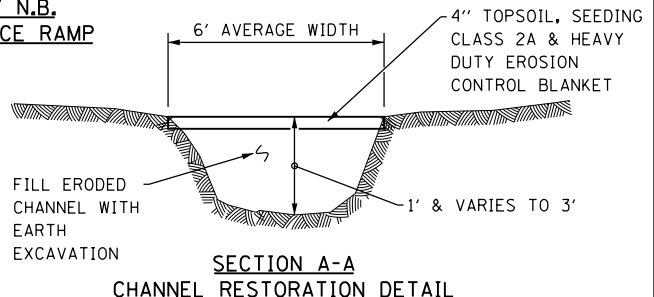
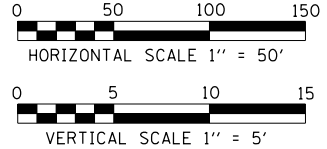
STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

ALIGNMENT, TIES & BENCHMARKS  
 167TH ST OVER I-57  
 SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1011.3-BR	COOK	145	15
CONTRACT NO. 60T43				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



OVERHEAD SIGN STRUCTURES REMOVAL	
LOCATION	PAY ITEM
(A) 6' x 16' GUIDE SIGN	REMOVE OVERHEAD SIGN STRUCTURE - BRIDGE
(B) 15 1/2' x 16' & 2 1/2' x 12' GUIDE SIGNS	REMOVE OVERHEAD SIGN STRUCTURE - BRIDGE & REMOVE, STORE AND RE-ERECT SIGN PANEL
(C) 9' x 21' GUIDE SIGN	REMOVE OVERHEAD SIGN STRUCTURE - BRIDGE



FILE NAME = 0160743-shit-rem.dgn

PLOT DATE = 6/19/2018  
PLOT SCALE = 100.0000' / 1"



DESIGNED - SJP  
DRAWN - SJP  
CHECKED - MM  
DATE - JUNE 25, 2018

REVISED -  
REVISED -  
REVISED -  
REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

EXISTING CONDITIONS AND REMOVAL PLAN  
167TH ST OVER I-57  
SCALE: 1" = 50'  
SHEET NO. 1 OF 1 SHEETS  
STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1011.3-BR	COOK	145	16
CONTRACT NO. 60T43				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

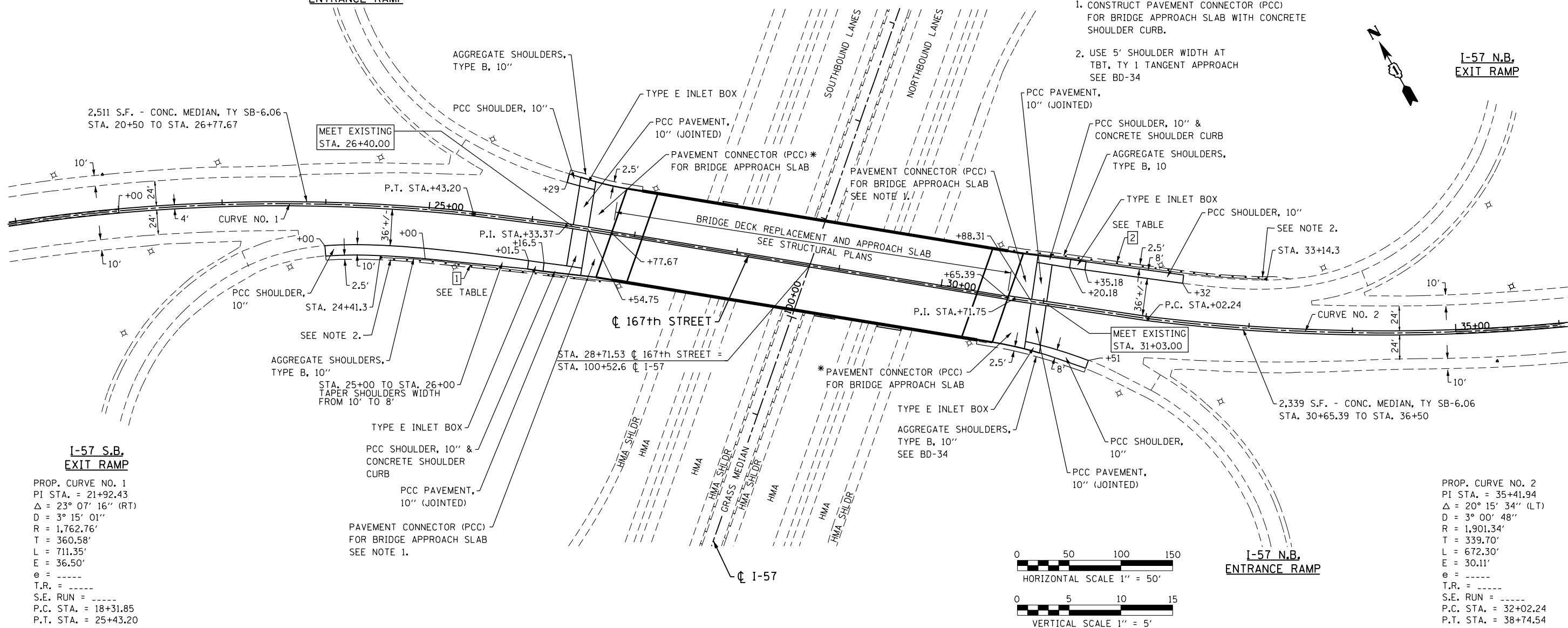


I-57 S.B.  
ENTRANCE RAMP

I-57

I-57 N.B.  
EXIT RAMP

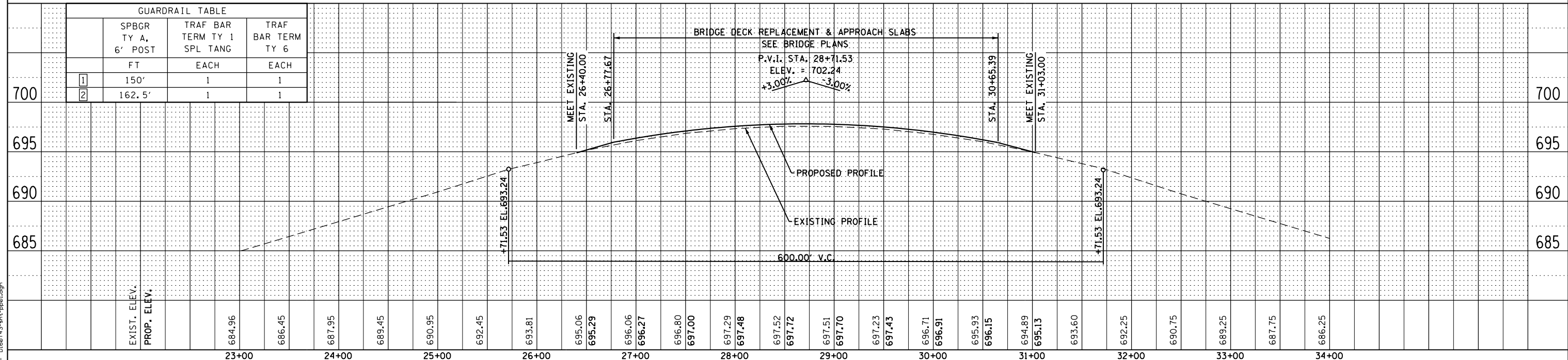
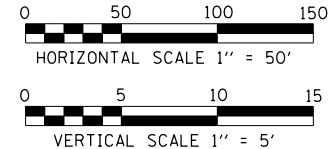
- NOTES:  
 1. CONSTRUCT PAVEMENT CONNECTOR (PCC) FOR BRIDGE APPROACH SLAB WITH CONCRETE SHOULDER CURB.  
 2. USE 5' SHOULDER WIDTH AT TBT, TY 1 TANGENT APPROACH SEE BD-34



I-57 S.B.  
EXIT RAMP

PROP. CURVE NO. 1  
 PI STA. = 21+92.43  
 $\Delta = 23^\circ 07' 16''$  (RT)  
 $D = 3^\circ 15' 01''$   
 $R = 1,762.76'$   
 $T = 360.58'$   
 $L = 711.35'$   
 $E = 36.50'$   
 $e = \text{---}$   
 $T.R. = \text{---}$   
 $S.E. \text{ RUN} = \text{---}$   
 $P.C. \text{ STA.} = 18+31.85$   
 $P.T. \text{ STA.} = 25+43.20$

PROP. CURVE NO. 2  
 PI STA. = 35+41.94  
 $\Delta = 20^\circ 15' 34''$  (LT)  
 $D = 3^\circ 00' 48''$   
 $R = 1,901.34'$   
 $T = 339.70'$   
 $L = 672.30'$   
 $E = 30.11'$   
 $e = \text{---}$   
 $T.R. = \text{---}$   
 $S.E. \text{ RUN} = \text{---}$   
 $P.C. \text{ STA.} = 32+02.24$   
 $P.T. \text{ STA.} = 38+74.54$



GUARDRAIL TABLE			
	SPBGR TY A, 6' POST	TRAF BAR TERM TY 1 SPL TANG	TRAF BAR TERM TY 6
	FT	EACH	EACH
700	150'	1	1
695	162.5'	1	1

EXIST. ELEV.	PROP. ELEV.
684.96	686.45
687.95	689.45
689.45	690.95
692.45	693.81
695.06	695.29
696.06	696.27
696.80	697.00
697.29	697.48
697.52	697.72
697.51	697.70
697.23	697.43
696.71	696.91
695.93	696.15
694.89	695.13
693.60	692.25
690.75	689.25
687.75	686.25

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CHECKED - MM	REVISED -
DATE - JUNE 25, 2018	REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

PROPOSED PLAN AND PROFILE  
 167TH ST OVER I-57  
 SCALE: 1" = 50'  
 SHEET NO. 1 OF 1 SHEETS  
 STA. TO STA.

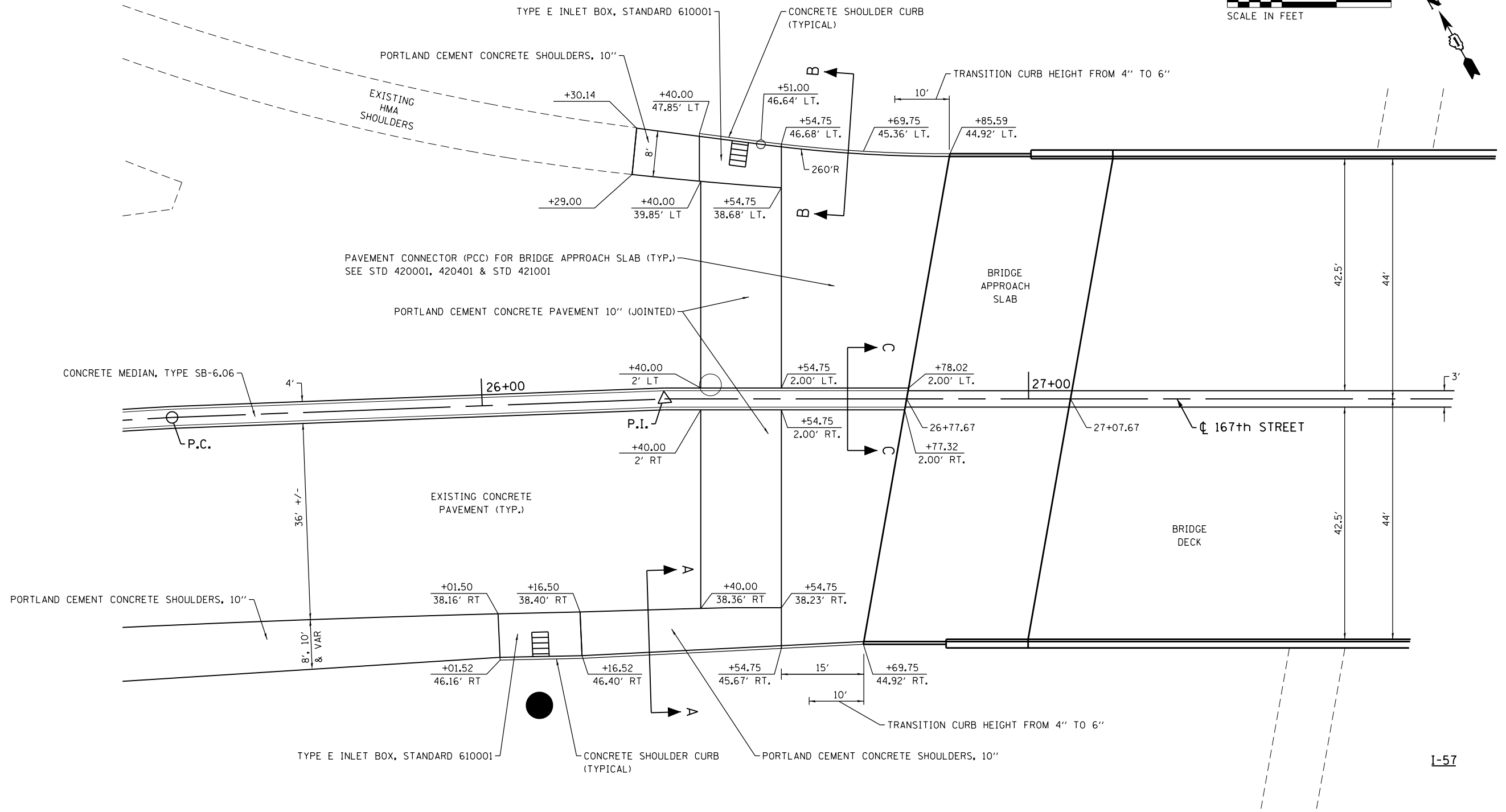
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1011.3-BR	COOK	145	17

CONTRACT NO. 60T43  
 FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT

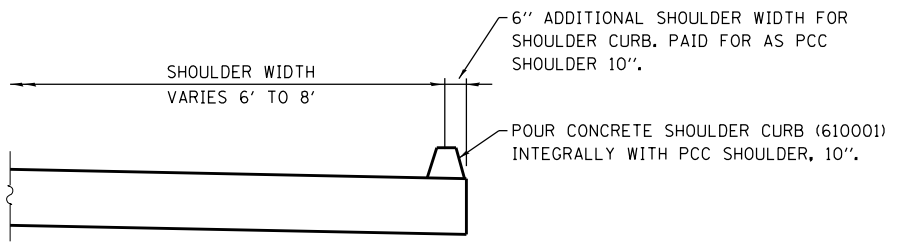
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PLOT DATE = 6/19/2018  
 PLOT SCALE = 100.0000 / 1"

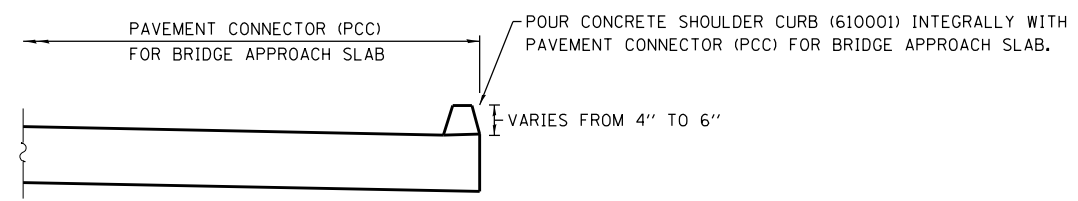
**KNIGHT**  
 Engineers & Architects



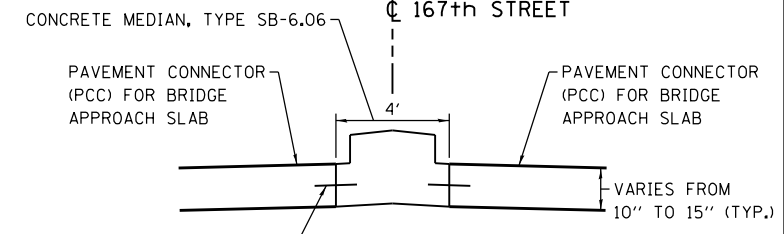
I-57



**SECTION A-A**



**SECTION B-B**



**SECTION C-C**

NO. 6 - 24" LONG, EPOXY-COATED TIE-BARS @ 24" c-c. DRILLED AND GROUTED (COST WILL BE INCLUDED IN CONCRETE MEDIAN) (TYP.)

FILE NAME = D:\60T43-sh1-105scale\wgdr

PLOT DATE = 6/19/2018  
PLOT SCALE = 20.0000' / 1"

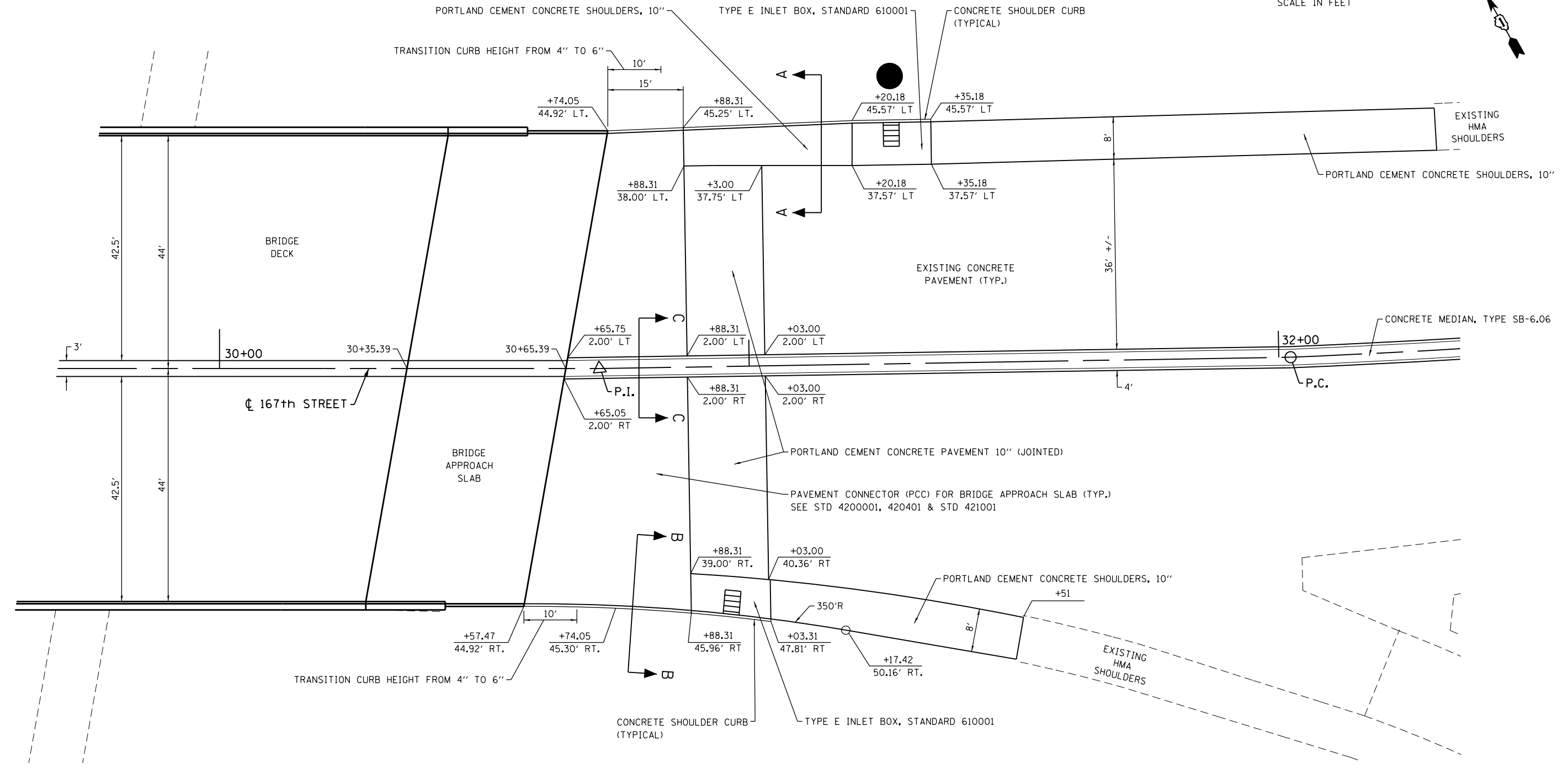


DESIGNED - SJP	REVISED -
DRAWN - SJP	REVISED -
CHECKED - MM	REVISED -
DATE - JUNE 25, 2018	REVISED -

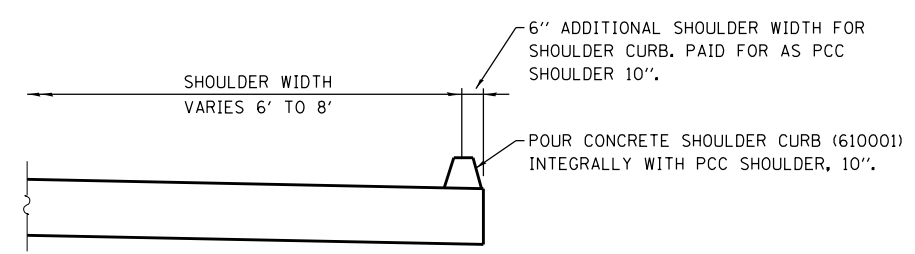
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**ROADWAY DETAILS  
167TH ST OVER I-57**  
SCALE: 1" = 10' SHEET NO. 1 OF 2 SHEETS STA. TO STA.

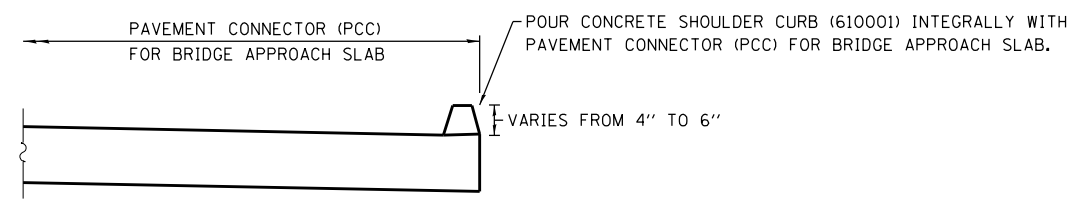
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1011.3-BR	COOK	145	18
CONTRACT NO. 60T43				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



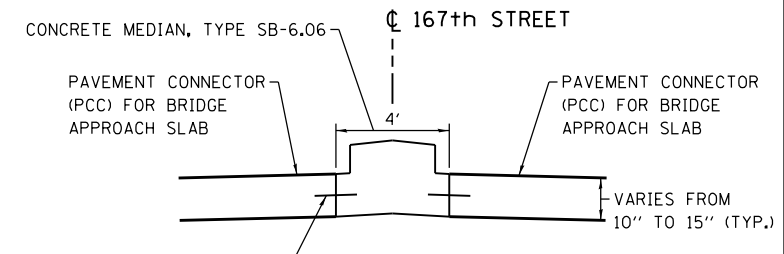
I-57



**SECTION A-A**



**SECTION B-B**



**SECTION C-C**

NO. 6 - 24" LONG, EPOXY-COATED TIE-BARS @ 24" c-c. DRILLED AND GROUTED (COST WILL BE INCLUDED IN CONCRETE MEDIAN) (TYP.)

FILE NAME = D:\60743-sha-105scale.dgn

PLOT DATE = 6/19/2018  
PLOT SCALE = 20.0000' / 1" =



DESIGNED - SJP	REVISED -
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DATE - JUNE 25, 2018	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**ROADWAY DETAILS  
167TH ST OVER I-57**

SCALE: 1" = 10' SHEET NO. 2 OF 2 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1011.3-BR	COOK	145	19
CONTRACT NO. 60T43				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

**MAINTENANCE OF TRAFFIC GENERAL NOTES**

1. THE CONTRACTOR SHALL CONTACT THE D1 TRAFFIC CONTROL SUPERVISOR VIA EMAIL AT CORY.JUCIUS@ILLINOIS.GOV A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING OF WORK.
2. THE CONTRACTOR IS ADVISED THAT IN THE EVENT OF SNOW, HE WILL BE RESPONSIBLE FOR THE IMMEDIATE REMOVAL OF ANY MAINTENANCE OF TRAFFIC PROTECTIVE DEVICES THAT WOULD INTERFERE WITH SNOW REMOVAL OPERATIONS PERFORMED BY THE STATE OR LOCAL AGENCIES.
3. TYPE III BARRICADES SHALL BE PLACED AT BOTH ENDS OF THE CLOSED PORTION OF BRIDGE UNDER CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ENOUGH TYPE III BARRICADES TO CROSS THE ENTIRE ROADWAY AS DEPICTED ON THE PLANS.
4. THROUGHOUT THE WORKZONE ALL DRUMS, VERTICAL PANELS, AND TYPE II BARRICADES SHALL BE SPACED AS FOLLOWS, EXCEPT AS SHOWN IN THE PLANS:  
 - @ 50' CTRS ON TANGENTS; 20' CTRS ON TAPERS; & 10' CTRS ON CURVES.

**DETOUR GENERAL NOTES**

1. THE DETOUR PLANS SHALL BE USED IN CONJUNCTION WITH DISTRICT ONE STANDARD DETAIL TC-21 DETOUR SIGNING FOR CLOSING STATE HIGHWAYS. RAMP CLOSURES SHALL BE IN ACCORDANCE WITH IDOT DISTRICT ONE DETAIL TC-08.
2. DETOUR SIGNAGE SHALL BE CONSIDERED INCLUDED IN THE COST FOR TRAFFIC CONTROL AND PROTECTION (SPECIAL) EXCEPT AS OTHERWISE NOTED IN THE PLANS.
3. ANY SIGNS THAT ARE TO BE IN PLACE FOR MORE THAN FOUR (4) DAYS SHALL BE POST MOUNTED IN THE GROUND, WHERE POSSIBLE, PER ARTICLE 701.14 OF THE STANDARD SPECIFICATIONS AND HIGHWAY STANDARD 701901.
4. THE ENGINEER SHALL BE NOTIFIED IN WRITING AT LEAST THREE (3) WEEKS PRIOR TO THE DAY THE DETOUR IS TO BE IN EFFECT.
5. THE ENGINEER SHALL BE NOTIFIED IN WRITING AT LEAST THREE (3) DAYS PRIOR TO THE REMOVAL OF THE DETOUR.
6. THE SIZE OF ALL SIGNS AND LETTERS HEIGHTS NOT SPECIFIED IN THESE PLANS SHALL BE IN ACCORDANCE WITH THE ILLINOIS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
7. THE CONTRACTOR SHALL MAKE ALL CHANGES IN THE SIGNING THAT ARE DEEMED NECESSARY BY THE ENGINEER. THIS WORK SHALL BE INCLUDED IN THE CONTRACT COST FOR TRAFFIC CONTROL AND PROTECTION (SPECIAL).
8. PORTABLE CHANGEABLE MESSAGE SIGNS AND SIGNS PER TC-08 SHALL BE PLACED ONE WEEK IN ADVANCE TO NOTIFY TRAFFIC OF UPCOMING CLOSURES.
9. THE CONTRACTOR SHALL NOT OBSTRUCT ANY EXISTING SIGN LEGEND WITH THE PLACEMENT OF DETOUR SIGNAGE.

FILE NAME = D:\60T43-sh1-GENERAL STAGING NOTES.dgn

PLOT DATE = 6/19/2018  
 PLOT SCALE = 100.0000' / 1" =



DESIGNED - SJP	REVISED -
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DATE - JUNE 25, 2018	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**MAINTENANCE OF TRAFFIC GENERAL NOTES  
 167TH ST OVER I-57**

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

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1011.3-BR	COOK	145	20
<b>CONTRACT NO. 60T43</b>				
FED. ROAD DIST. NO. 1   ILLINOIS FED. AID PROJECT				

**CONSTRUCTION STAGING NOTES**

**CONSTRUCTION - PRESTAGE**

- 167TH ST - REMOVE CONC. BARRIER MEDIAN AND WESTBOUND HMA SHOULDERS. REPLACE WITH TEMPORARY PAVEMENT. PLACE TEMPORARY PAVEMENT MARKINGS AND TEMPORARY CONCRETE BARRIER FOR STAGE I.
- I-57 AND AUXILIARY LANES - REMOVE EXISTING PROTECTIVE SHIELDING, PLACE PROPOSED PROTECTIVE SHIELDING FOR THE BRIDGE.

**CONSTRUCTION - STAGE I**

- 167TH ST - REPLACE THE BRIDGE DECK AND REPLACE PCC I-BEAMS IN THE OUTSIDE SPANS FOR THE EASTBOUND LANES. PERFORM ALL OTHER WORK RELATED TO THE EASTBOUND LANES.
- I-57 AUXILIARY LANES - REMOVE AND REPLACE BEARINGS AT ABUTMENT. PERFORM STRUCTURAL REPAIRS ON ABUTMENT.
- I-57 AND AUXILIARY LANES - PERFORM STRUCTURAL REPAIRS ON CENTER PIER. REMOVE PROTECTIVE SHIELDING FOR THE EASTBOUND LANES.
- SIGNING - INSTALL TEMPORARY RAMP GUIDE SIGNS ON GROUND MOUNTED SUPPORTS AND REMOVE THE TWO GUIDE SIGNS ATTACHED TO BRIDGE SOUTH PARAPET. AT THE END OF THIS STAGE, REINSTALL THE EXISTING BRIDGE MOUNTED NORTHBOUND TOLLWAY GUIDE SIGN AND INSTALL NEW NORTHBOUND RAMP GUIDE SIGN.

**CONSTRUCTION - STAGE II**

- 167TH ST - REPLACE THE BRIDGE DECK AND REPLACE PCC I-BEAMS IN THE OUTSIDE SPANS FOR THE WESTBOUND LANES. CONSTRUCT THE RAISED MEDIAN ON THE BRIDGE AND APPROACH SLABS. PERFORM ALL OTHER WORK RELATED TO THE WESTBOUND LANES.
- I-57 AUXILIARY LANES - REMOVE AND REPLACE BEARINGS AT ABUTMENT. PERFORM STRUCTURAL REPAIRS ON ABUTMENT.
- I-57 AND AUXILIARY LANES - PERFORM STRUCTURAL REPAIRS ON CENTER PIER. REMOVE PROTECTIVE SHIELDING FOR THE WESTBOUND LANES. INSTALL THE UNDERPASS LIGHTING.
- SIGNING - INSTALL TEMPORARY RAMP GUIDE SIGN, REMOVE RAMP GUIDE SIGN ATTACHED TO BRIDGE NORTH PARAPET. AT THE END OF THIS STAGE, INSTALL NEW BRIDGE MOUNTED SB RAMP GUIDE SIGN.

**CONSTRUCTION - STAGE III**

- REMOVE TEMPORARY PAVEMENT IN THE MEDIAN AND CONSTRUCT THE CONCRETE MEDIAN TYPE SB-6.06.
- PLACE FINAL PAVEMENT MARKINGS AND RAISED REFLECTIVE PAVEMENT MARKERS.

**TRAFFIC CONTROL NOTES**

**TRAFFIC CONTROL - PRESTAGE (NOT SHOWN)**

- 167TH ST (MEDIAN WORK) - CLOSE INSIDE LANE IN EACH DIRECTION. UTILIZE STD 701601. ARTERIAL LANE CLOSURES WILL NOT BE PERMITTED DURING PEAK TRAFFIC VOLUME HOURS AS LISTED IN SPECIAL PROVISION "KEEPING ARTERIAL ROADWAYS OPEN TO TRAFFIC (LANE CLOSURES ONLY)".
- I-57 NB EXIT RAMP - NB I-57 TO WB 167TH ST (SHOULDER WORK) - CLOSE RIGHT RAMP SHOULDER AND PARTIAL CLOSURE OF RAMP PAVEMENT USING DISTRICT STANDARD TC-17.  
  
EAST OF THE BRIDGE, CLOSE 167TH ST. OUTSIDE WB LANE, USING STD 701601. USE THIS LANE AS WEAVE LANE.  
  
I-57 SB ENTRANCE RAMP - WB 167TH ST TO SB I-57 (SHOULDER WORK) - CLOSE RIGHT RAMP SHOULDER AND PARTIAL CLOSURE OF RAMP PAVEMENT USING DISTRICT STANDARD TC-17.  
  
I-57 AND AUXILIARY LANES (PROTECTIVE SHIELDING) - TEMPORARY LANE CLOSURES WILL BE ALLOWED DURING THE TIMES LISTED IN THE SPECIAL PROVISION "KEEPING EXPRESSWAY OPEN TO TRAFFIC". CLOSE I-57 LANES USING STD 701400, 701401 & 701446; ALONG WITH DISTRICT STANDARDS TC-09 & TC-17.

**TRAFFIC CONTROL - STAGE I**

- 167TH ST - MAINTAIN ONE LANE OF TRAFFIC IN EACH DIRECTION AND ACCESS TO AND FROM THE I-57 RAMPS ALONG WB 167TH ST. SEE PLANS FOR THIS STAGE.  
  
CLOSE I-57 LOOP RAMPS - ENTRANCE RAMP (EB 167TH ST TO NB I-57) AND I-57 EXIT RAMP (SB I-57 TO EB 167TH ST). DETOUR RAMP TRAFFIC. CLOSE RAMP USING DISTRICT STANDARD TC-08. SEE DETOUR PLANS AND DISTRICT STD TC-21.
- I-57 AUXILIARY LANES (BEARING REPLACEMENT) - CLOSE AUXILIARY LANE RIGHT SHOULDER WITH TEMPORARY CONCRETE BARRIER. SEE PLANS AND DISTRICT STANDARD TC-17 FOR THIS STAGE.
- I-57 AND AUXILIARY LANES (CENTER PIER REPAIR AND PROTECTIVE SHIELDING REMOVAL) - PIER REPAIR - TEMPORARY SHOULDER CLOSURE WILL BE ALLOWED DURING THE TIMES LISTED IN THE SPECIAL PROVISION "KEEPING EXPRESSWAY OPEN TO TRAFFIC". CLOSE SHOULDER USING DISTRICT STANDARD TC-17.  
  
PROTECTIVE SHIELDING - TEMPORARY I-57 LANE CLOSURES WILL BE ALLOWED DURING THE TIMES LISTED IN THE SPECIAL PROVISION "KEEPING EXPRESSWAY OPEN TO TRAFFIC". CLOSE I-57 LANES USING STD 701400, 701401 & 701446; ALONG WITH DISTRICT STANDARDS TC-09 & TC-17.
- BRIDGE MOUNTED SIGNING - TEMPORARY I-57 LANE CLOSURES WILL BE ALLOWED DURING THE TIMES LISTED IN THE SPECIAL PROVISION "KEEPING EXPRESSWAY OPEN TO TRAFFIC". CLOSE I-57 LANES USING STD 701400, 701401 & 701446; ALONG WITH DISTRICT STANDARDS TC-09 & TC-17. EASTBOUND LANES OF 167TH ST WILL BE CLOSED TO TRAFFIC FOR THIS STAGE.

**TRAFFIC CONTROL - STAGE II**

- 167TH ST - MAINTAIN ONE LANE OF TRAFFIC IN EACH DIRECTION AND ACCESS TO AND FROM THE I-57 RAMPS ALONG EASTBOUND 167TH ST. SEE PLANS FOR THIS STAGE.  
  
CLOSE I-57 LOOP RAMPS - ENTRANCE RAMP (WB 167TH ST TO SB I-57) AND I-57 EXIT RAMP (NB I-57 TO WB 167TH ST). DETOUR RAMP TRAFFIC. CLOSE RAMP USING DISTRICT STANDARD TC-08. SEE DETOUR PLANS AND DISTRICT STD TC-21.
- I-57 AUXILIARY LANES (BEARING REPLACEMENT) - CLOSE AUXILIARY LANE RIGHT SHOULDER WITH TEMPORARY CONCRETE BARRIER. SEE PLANS AND DISTRICT STANDARD TC-17 FOR THIS STAGE.
- I-57 AND AUXILIARY LANES (CENTER PIER REPAIR AND PROTECTIVE SHIELDING REMOVAL) - PIER REPAIR - TEMPORARY SHOULDER CLOSURE WILL BE ALLOWED DURING THE TIMES LISTED IN THE SPECIAL PROVISION "KEEPING EXPRESSWAY OPEN TO TRAFFIC". CLOSE SHOULDER USING DISTRICT STANDARD TC-17.  
  
PROTECTIVE SHIELDING - TEMPORARY I-57 LANE CLOSURES WILL BE ALLOWED DURING THE TIMES LISTED IN THE SPECIAL PROVISION "KEEPING EXPRESSWAY OPEN TO TRAFFIC". CLOSE I-57 LANES USING STD 701400, 701401 & 701446 ; ALONG WITH DISTRICT STANDARDS TC-09 & TC-17.
- BRIDGE MOUNTED SIGNING AND UNDERPASS LIGHTING - TEMPORARY I-57 LANE CLOSURES WILL BE ALLOWED DURING THE TIMES LISTED IN THE SPECIAL PROVISION "KEEPING EXPRESSWAY OPEN TO TRAFFIC". CLOSE I-57 LANES USING STD 701400, 701401 & 701446; ALONG WITH DISTRICT STANDARD TC-09 & TC-17. WESTBOUND LANES OF 167TH ST WILL BE CLOSED TO TRAFFIC FOR THIS STAGE.

**TRAFFIC CONTROL - STAGE III (NOT SHOWN)**

- MAINTAIN EASTBOUND TRAFFIC IN STAGE II CONFIGURATION AND PLACE TYPE II BARRICADES CONTINUOUSLY ALONG DOUBLE YELLOW TEMPORARY PAVEMENT MARKING. PLACE WESTBOUND TRAFFIC IN THE OUTSIDE LANE OF THE NEWLY CONSTRUCTED WESTBOUND 167TH ST PAVEMENT. CLOSE INSIDE WESTBOUND LANE USING STD 701601.
- 167TH ST - USE STD 701426 TO PLACE FINAL PAVEMENT MARKINGS.

FILE NAME = D:\60743-sh-1-STAGING-NOTES.dgn

PLOT DATE = 6/19/2018  
PLOT SCALE = 100.0000' / 1"



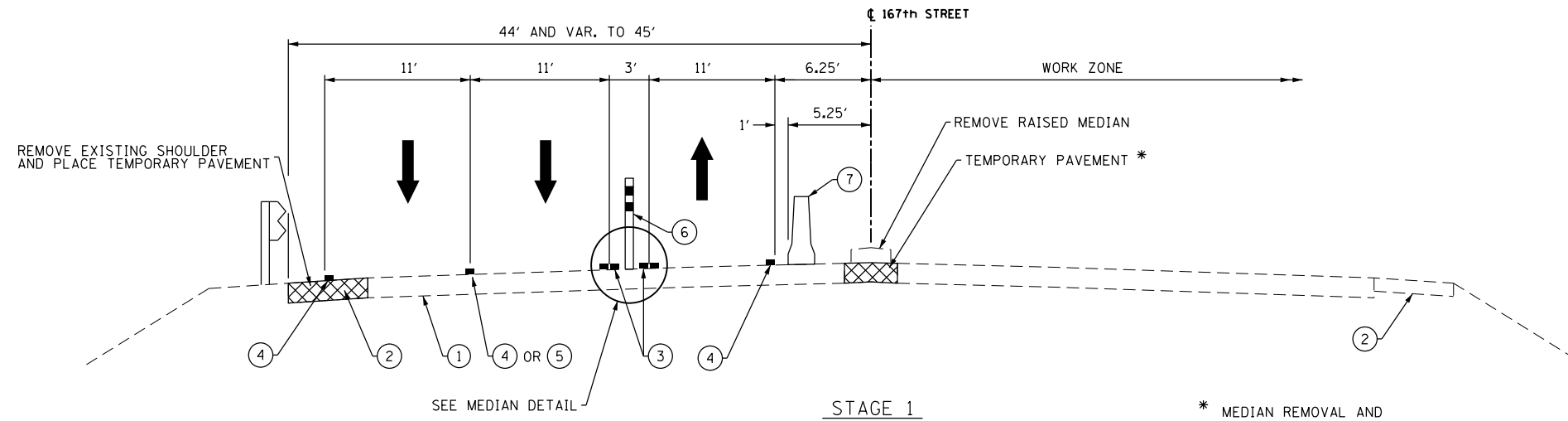
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DRAWN - SJP	REVISED -
CHECKED - MM	REVISED -
DATE - JUNE 25, 2018	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**MAINTENANCE OF TRAFFIC STAGING NOTES  
167TH ST OVER I-57**

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

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1011.3-BR	COOK	145	21
<b>CONTRACT NO. 60T43</b>				
<small>FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT</small>				

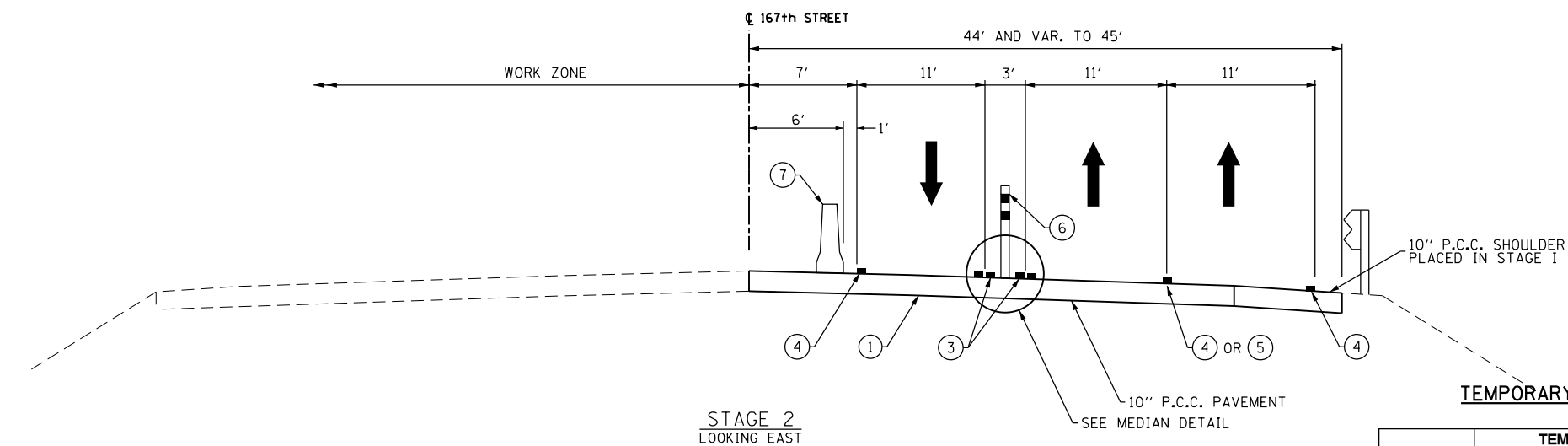


- LEGEND**
- ① PCC PAVEMENT, 10"±
  - ② HMA SHOULDER (EXISTING)
  - ③ 2-4" YELLOW LINE AT 11" C-C
  - ④ 4" WHITE LINE
  - ⑤ 6" WHITE SKIP-DASH LINE
  - ⑥ TUBULAR MARKER
  - ⑦ TEMPORARY CONCRETE WALL

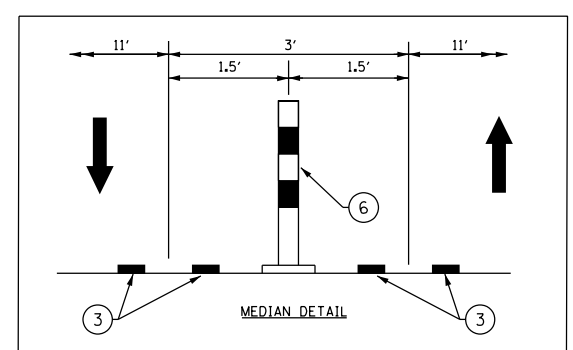
**NOTES:**  
ALL TEMPORARY PAVEMENT MARKINGS SHALL BE "PAVEMENT MARKING TAPE, TYPE IV".

**STAGE 1**  
LOOKING EAST  
STA. 26+40.00 TO STA. 26+77.67  
STA. 30+65.39 TO STA. 31+03.00  
FOR STA. 26+77.67 TO 30+65.39 SEE STRUCTURAL SHEET S3

\* MEDIAN REMOVAL AND TEMPORARY PAVEMENT LIMITS  
STA. 20+50 TO STA. 27+07  
STA. 30+62 TO STA. 36+50



**STAGE 2**  
LOOKING EAST  
STA. 26+40.00 TO STA. 26+77.67  
STA. 30+65.39 TO STA. 31+03.00  
FOR STA. 26+77.67 TO 30+65.39 SEE STRUCTURAL SHEET S3



**TEMPORARY CONCRETE BARRIER SCHEDULE**

LOCATION	STAGE	TEMPORARY CONCRETE BARRIER			LENGTH FEET
		STA	TO	STA	
167TH ST.	1	24+75		32+37.50	762.5
167TH ST.	2	26+35		31+10	475
I-57 NB	ALL	98+77		101+27	250
I-57 SB	ALL	99+79		102+29	250
				<b>TOTAL</b>	<b>1737.5</b>

**PINNING TEMP. CONC. BARRIER SCHEDULE**

LOCATION	STAGE	PINNING TEMP CONCRETE BARRIER			EACH
		STA	TO	STA	
167TH ST.	1	26+29		31+04	122
				<b>TOTAL</b>	<b>122</b>

LOCATION	STAGE	RELOCATE TEMP CONCRETE BARRIER			LENGTH FEET
		STA	TO	STA	
167TH ST.	2	25+35		26+35	100
167TH ST.	2	31+10		32+60	150
				<b>TOTAL</b>	<b>250</b>

FILE NAME = D:\6043-sh-1-STAGING-TYP.dgn

PLOT DATE = 6/19/2018  
PLOT SCALE = 1/20" = 1' / in.



DESIGNED - SJP  
DRAWN - SJP  
CHECKED - MM  
DATE - JUNE 25, 2018

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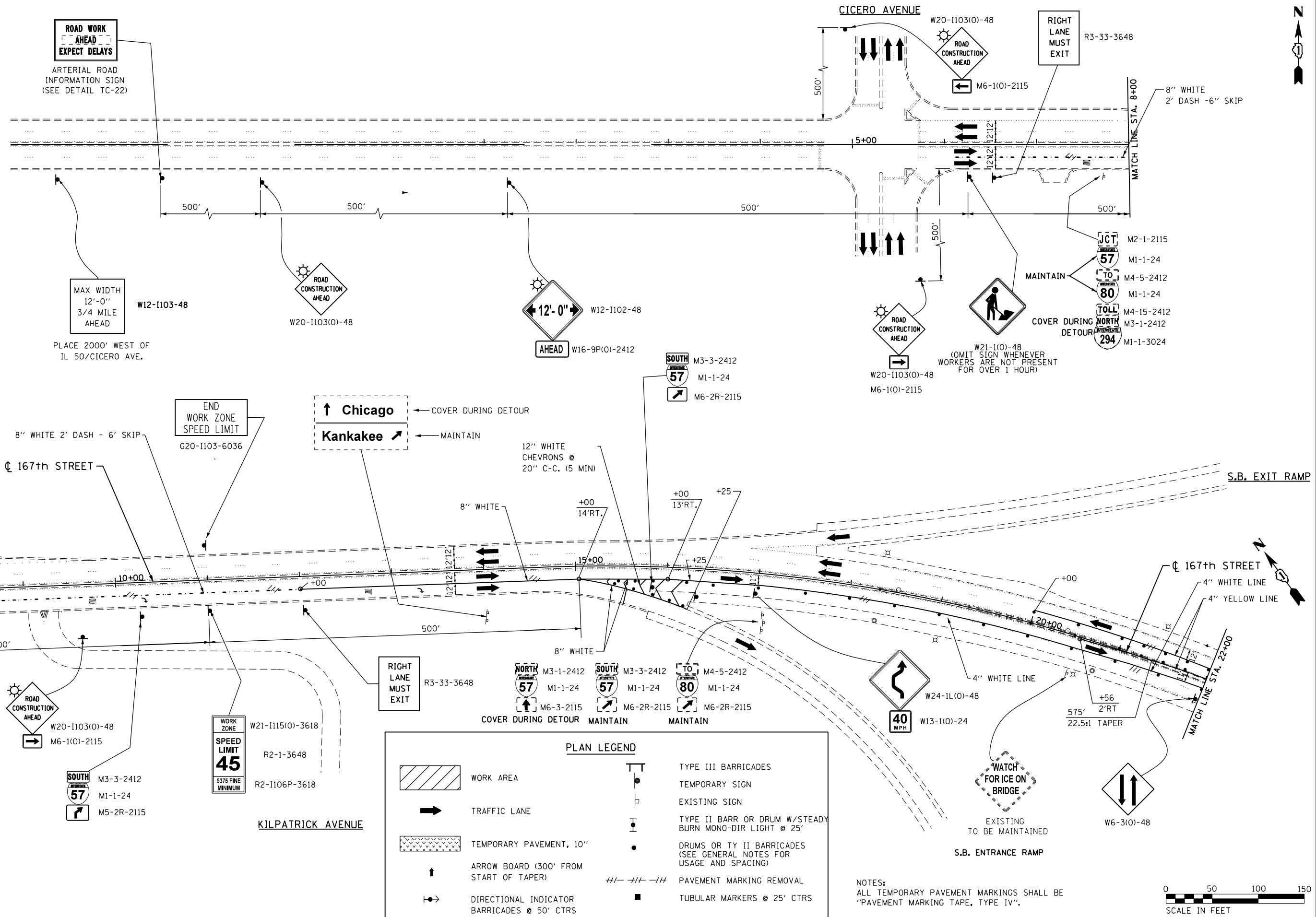
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**MAINTENANCE OF TRAFFIC TYPICAL SECTIONS**  
**167TH ST OVER I-57**

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

F.A.I. RTE. 57 SECTION 1011.3-BR COUNTY COOK TOTAL SHEETS 145 SHEET NO. 22 CONTRACT NO. 60T43  
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT

MOTTYP-1



**ROAD WORK AHEAD**  
EXPECT DELAYS

ARTERIAL ROAD INFORMATION SIGN  
(SEE DETAIL TC-22)

MAX WIDTH  
12'-0"  
3/4 MILE  
AHEAD

PLACE 2000' WEST OF  
IL 50/CICERO AVE.

END  
WORK ZONE  
SPEED LIMIT

G20-1103-6036

**Chicago**  
**Kankakee**

← COVER DURING DETOUR

← MAINTAIN

12" WHITE  
CHEVRONS @  
20" C-C. (5 MIN)

RIGHT  
LANE  
MUST  
EXIT

WORK AREA

TRAFFIC LANE

TEMPORARY PAVEMENT, 10"

ARROW BOARD (300' FROM  
START OF TAPER)

DIRECTIONAL INDICATOR  
BARRICADES @ 50' CTRS

**PLAN LEGEND**

- TYPE III BARRICADES
- TEMPORARY SIGN
- EXISTING SIGN
- TYPE II BARR OR DRUM W/STEADY BURN MONO-DIR LIGHT @ 25'
- DRUMS OR TY II BARRICADES (SEE GENERAL NOTES FOR USAGE AND SPACING)
- PAVEMENT MARKING REMOVAL
- TUBULAR MARKERS @ 25' CTRS

NOTES:  
ALL TEMPORARY PAVEMENT MARKINGS SHALL BE  
"PAVEMENT MARKING TAPE, TYPE IV".



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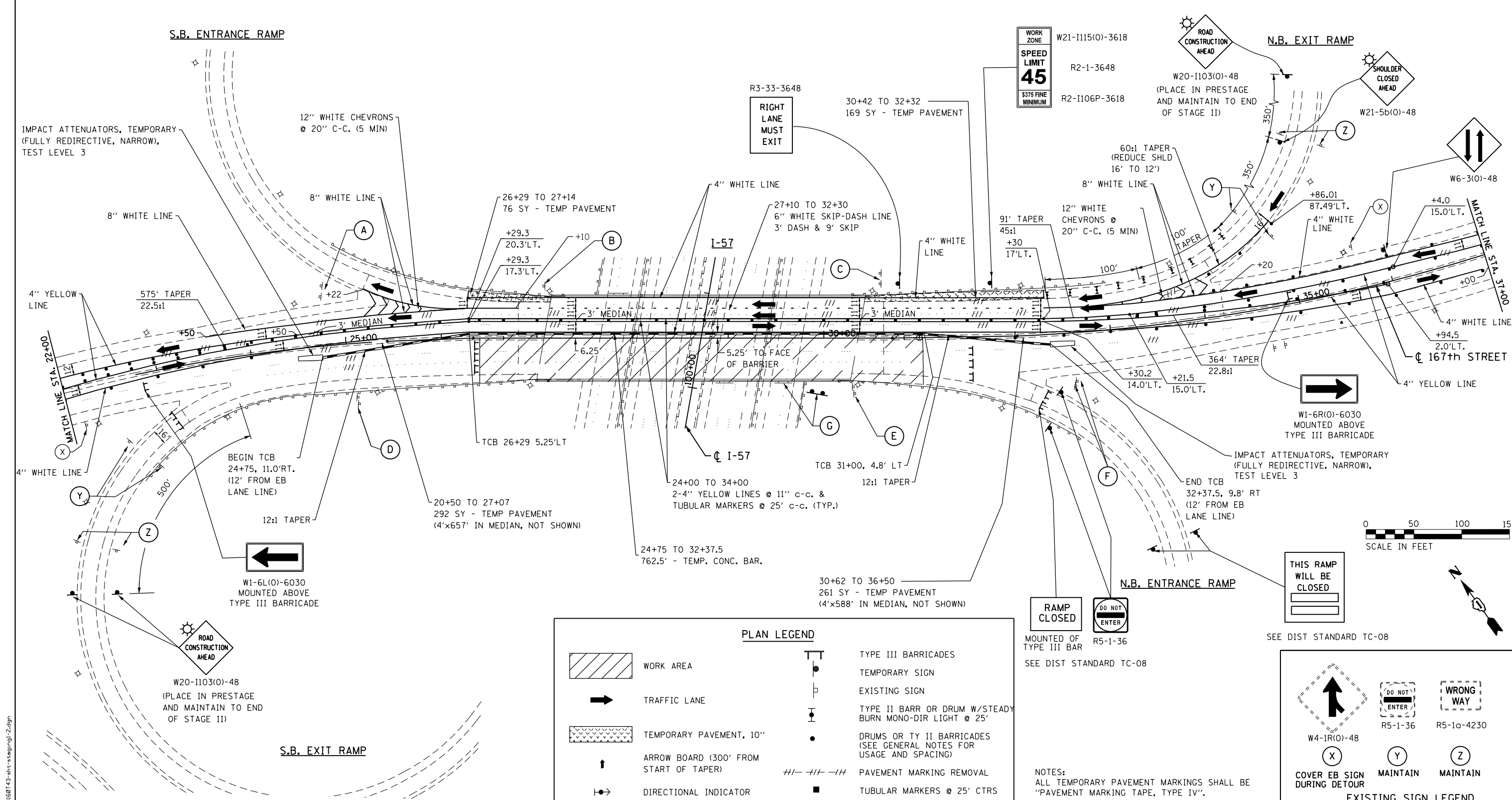
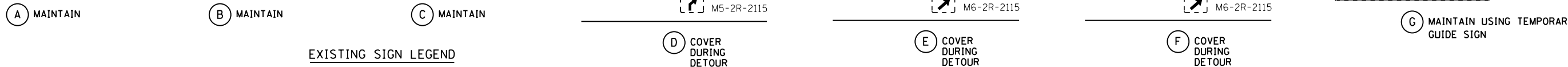
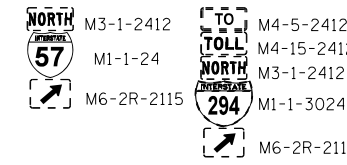
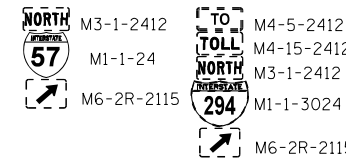
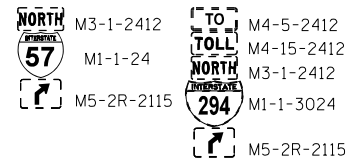
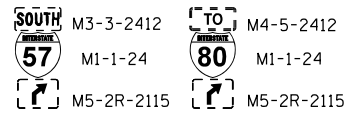
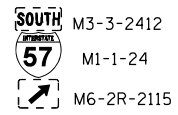
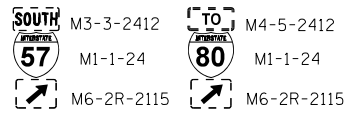
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DRAWN - SJP	REVISED -
CHECKED - MM	REVISED -
DATE - JUNE 25, 2018	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SUGGESTED TRAFFIC CONTROL AND PROTECTION - STAGE I  
167TH ST OVER I-57**

SCALE: 1" = 50' SHEET NO. 1 OF 3 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1011.3-BR	COOK	145	23
CONTRACT NO. 60T43				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



FILE NAME = 0160743-shr-stgmg1-2.dgn  
PLOT DATE = 6/19/2018  
PLOT SCALE = 100.0002 Ft / in.

**KNIGHT**  
Engineers & Architects

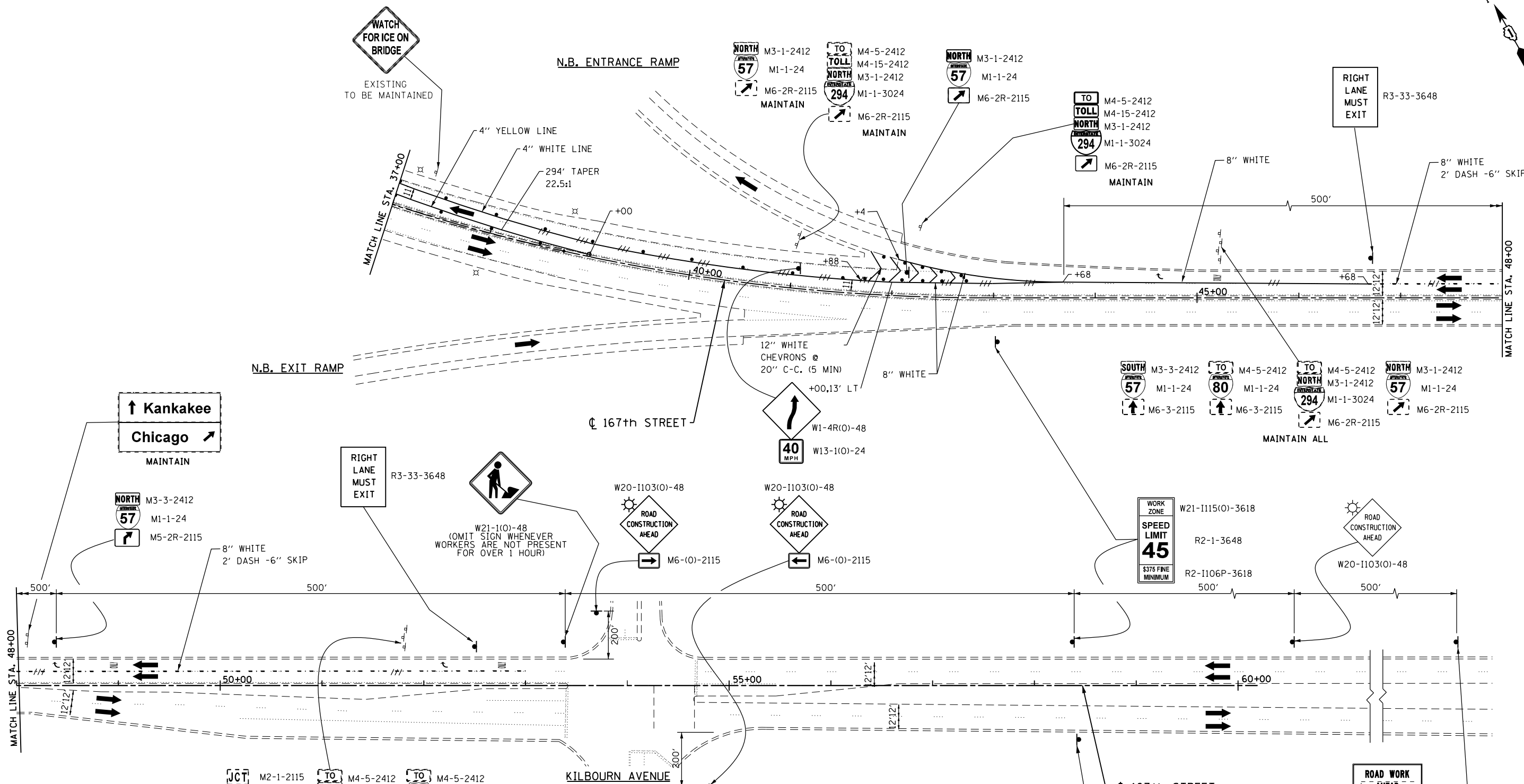
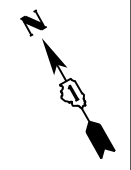
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DRAWN - SJP	REVISED -
CHECKED - MM	REVISED -
DATE - JUNE 25, 2018	REVISED -

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

**SUGGESTED TRAFFIC CONTROL AND PROTECTION - STAGE I**  
**167TH ST OVER I-57**  
SCALE: 1" = 50' SHEET NO. 2 OF 3 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1011.3-BR	COOK	145	24
CONTRACT NO. 60T43				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

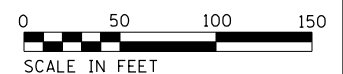




**PLAN LEGEND**

	WORK AREA		TYPE III BARRICADES
	TRAFFIC LANE		TEMPORARY SIGN
	TEMPORARY PAVEMENT, 10"		EXISTING SIGN
	ARROW BOARD (300' FROM START OF TAPER)		TYPE II BARR OR DRUM W/STEADY BURN MONO-DIR LIGHT @ 25'
	DIRECTIONAL INDICATOR BARRICADES @ 50' CTRS		DRUMS OR TY II BARRICADES (SEE GENERAL NOTES FOR USAGE AND SPACING)
			PAVEMENT MARKING REMOVAL
			TUBULAR MARKERS @ 25' CTRS

NOTES:  
ALL TEMPORARY PAVEMENT MARKINGS SHALL BE "PAVEMENT MARKING TAPE, TYPE IV".



FILE NAME = 0160743-shr-staging-3.dgn

PLOT DATE = 6/19/2018  
PLOT SCALE = 100.0000' / 1"



DESIGNED - SJP  
DRAWN - SJP  
CHECKED - MM  
DATE - JUNE 25, 2018

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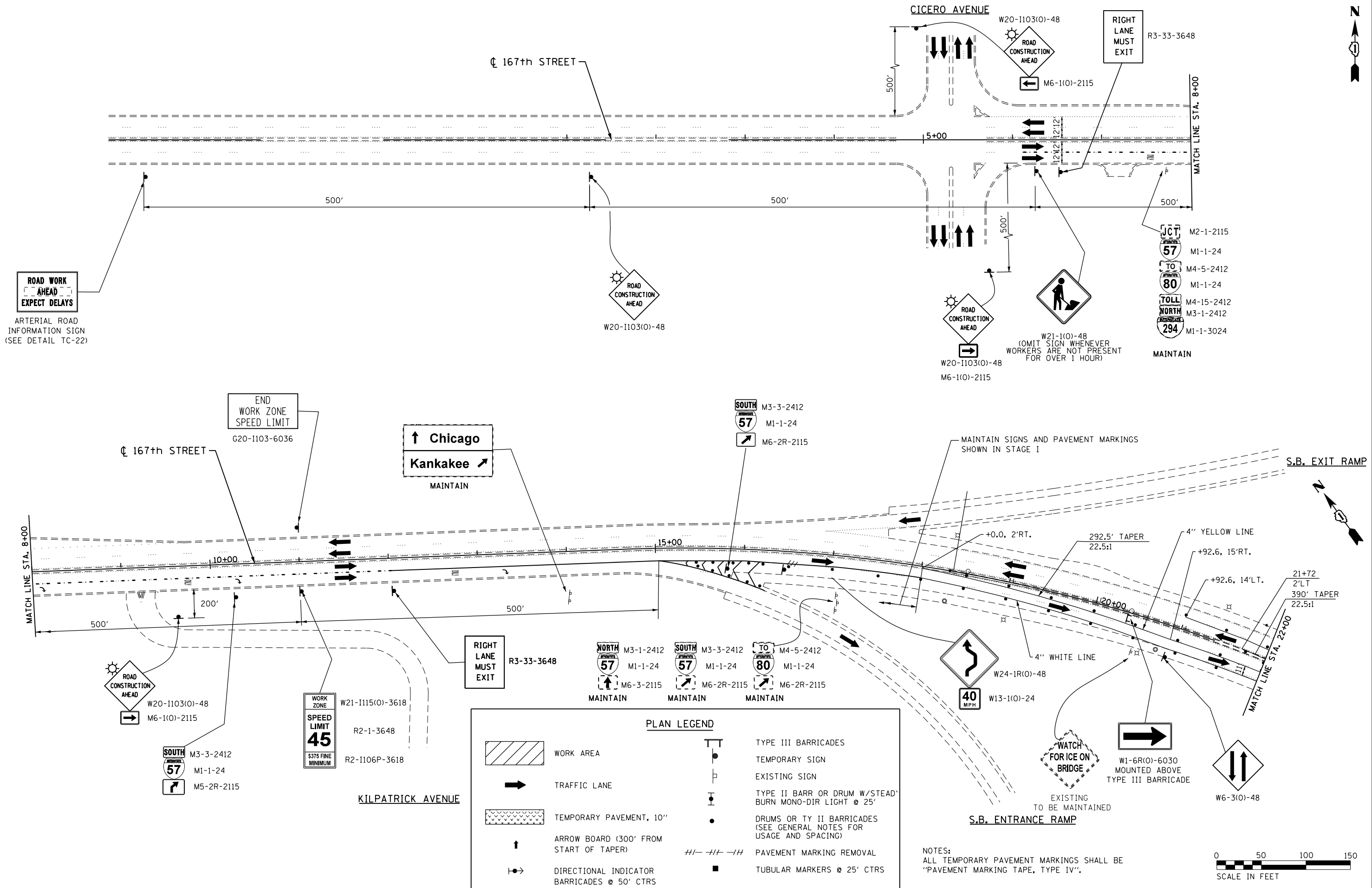
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SUGGESTED TRAFFIC CONTROL AND PROTECTION - STAGE I  
167TH ST OVER I-57**

SCALE: 1" = 50'    SHEET NO. 3 OF 3 SHEETS    STA.    TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1011.3-BR	COOK	145	25
CONTRACT NO. 60T43				

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



**ROAD WORK AHEAD EXPECT DELAYS**  
 ARTERIAL ROAD INFORMATION SIGN  
 (SEE DETAIL TC-22)

**ROAD CONSTRUCTION AHEAD**  
 W20-1103(O)-48

**ROAD CONSTRUCTION AHEAD**  
 W20-1103(O)-48  
 M6-1(O)-2115

W21-1(O)-48  
 (OMIT SIGN WHENEVER WORKERS ARE NOT PRESENT FOR OVER 1 HOUR)

**MAINTAIN**  
 M2-1-2115  
 M1-1-24  
 M4-5-2412  
 M1-1-24  
 M4-15-2412  
 M3-1-2412  
 M1-1-3024

**END WORK ZONE SPEED LIMIT**  
 G20-1103-6036

**Chicago**  
**Kankakee**  
 MAINTAIN

**SOUTH 57**  
 M3-3-2412  
 M1-1-24  
 M6-2R-2115

MAINTAIN SIGNS AND PAVEMENT MARKINGS SHOWN IN STAGE I

MATCH LINE STA. 8+00

167th STREET  
 10+00

**ROAD CONSTRUCTION AHEAD**  
 W20-1103(O)-48  
 M6-1(O)-2115

**SOUTH 57**  
 M3-3-2412  
 M1-1-24  
 M5-2R-2115

**WORK ZONE SPEED LIMIT 45**  
 \$375 FINE MINIMUM  
 W21-1115(O)-3618  
 R2-1-3648  
 R2-1106P-3618

**RIGHT LANE MUST EXIT**  
 R3-33-3648

**NORTH 57** M3-1-2412 M1-1-24 M6-3-2115  
**SOUTH 57** M3-3-2412 M1-1-24 M6-2R-2115  
**TO 80** M4-5-2412 M1-1-24 M6-2R-2115

PLAN LEGEND	
	WORK AREA
	TRAFFIC LANE
	TEMPORARY PAVEMENT, 10"
	ARROW BOARD (300' FROM START OF TAPER)
	DIRECTIONAL INDICATOR BARRICADES @ 50' CTRS
	TYPE III BARRICADES
	TEMPORARY SIGN
	EXISTING SIGN
	TYPE II BARR OR DRUM W/STEAD' BURN MONO-DIR LIGHT @ 25'
	DRUMS OR TY II BARRICADES (SEE GENERAL NOTES FOR USAGE AND SPACING)
	PAVEMENT MARKING REMOVAL
	TUBULAR MARKERS @ 25' CTRS

**40 MPH**  
 W24-1R(O)-48  
 W13-1(O)-24

**WATCH FOR ICE ON BRIDGE**  
 EXISTING TO BE MAINTAINED

**RIGHT LANE MUST EXIT**  
 W1-6R(O)-6030 MOUNTED ABOVE TYPE III BARRICADE

**RIGHT LANE MUST EXIT**  
 W6-3(O)-48

**NOTES:**  
 ALL TEMPORARY PAVEMENT MARKINGS SHALL BE "PAVEMENT MARKING TAPE, TYPE IV".



FILE NAME = D:\6043-shr-staging2-1.dgn

PLOT DATE = 6/19/2018  
 PLOT SCALE = 100.0002 Ft / in.

**KNIGHT**  
 Engineers & Architects

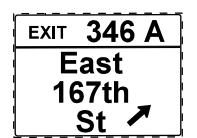
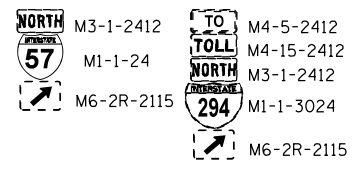
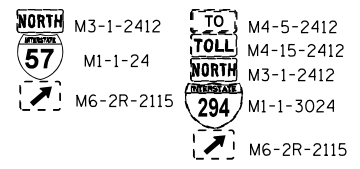
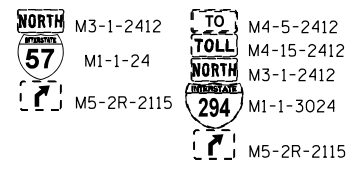
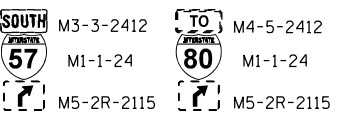
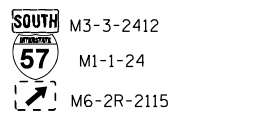
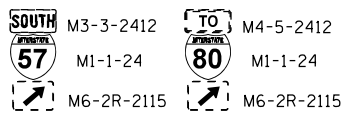
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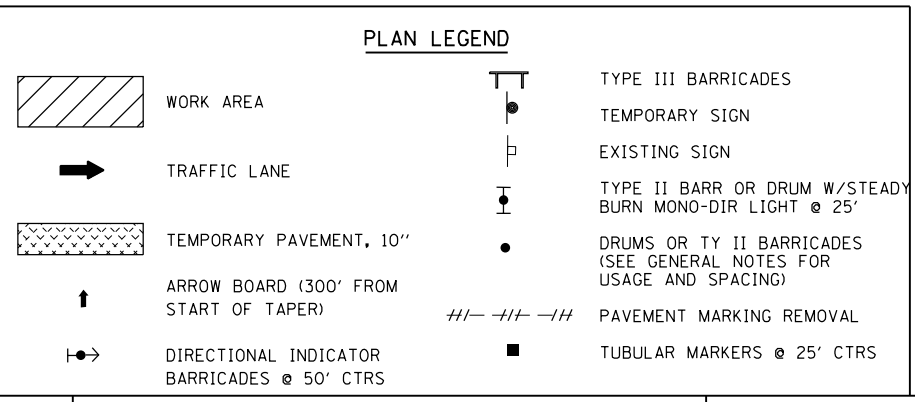
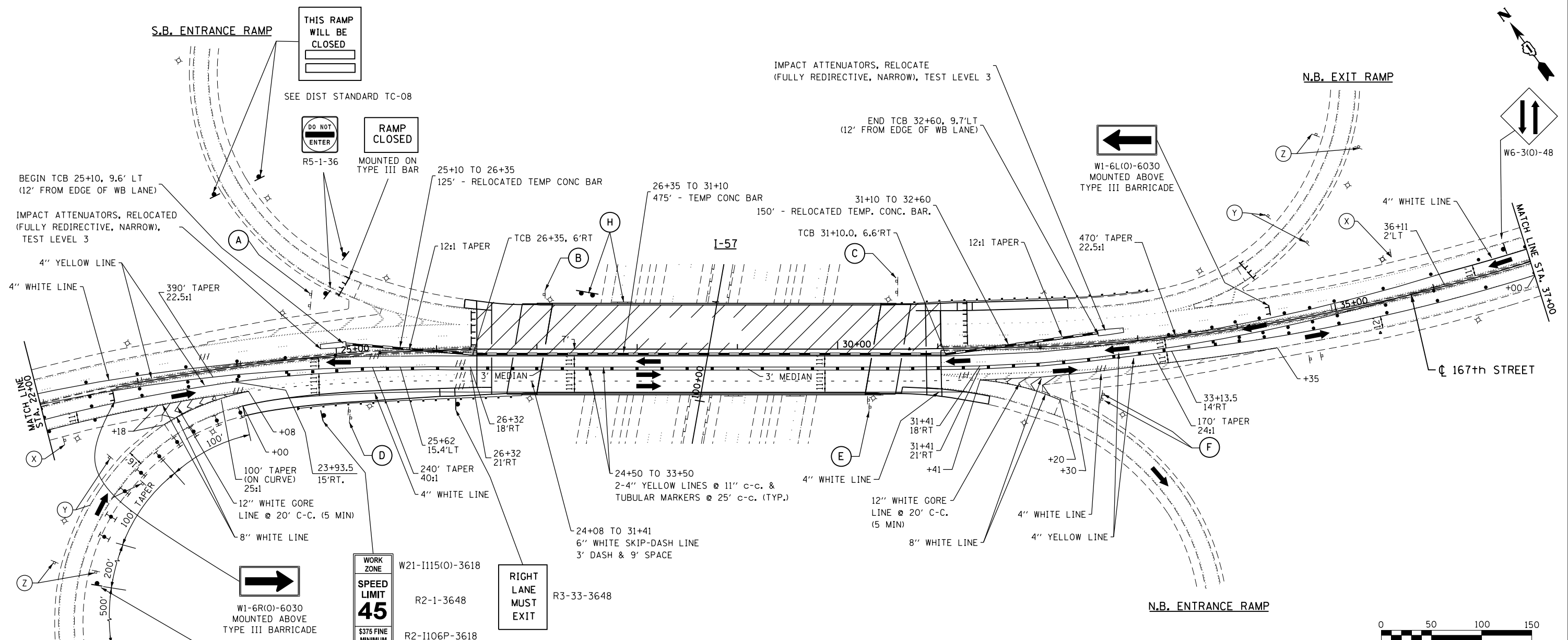
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**SUGGESTED TRAFFIC CONTROL AND PROTECTION - STAGE II**  
**167TH ST OVER I-57**  
 SCALE: 1" = 50' SHEET NO. 1 OF 3 SHEETS STA. TO STA.

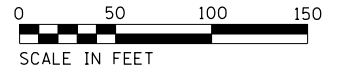
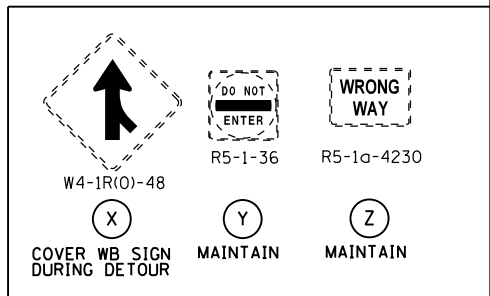
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1011.3-BR	COOK	145	26
CONTRACT NO. 60T43				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



EXISTING SIGN LEGEND



NOTES:  
ALL TEMPORARY PAVEMENT MARKINGS SHALL BE "PAVEMENT MARKING TAPE, TYPE IV".



FILE NAME = 0160743-shr-staging2-2.dgn

PLOT DATE = 6/19/2018  
PLOT SCALE = 100.0002 Ft / in.



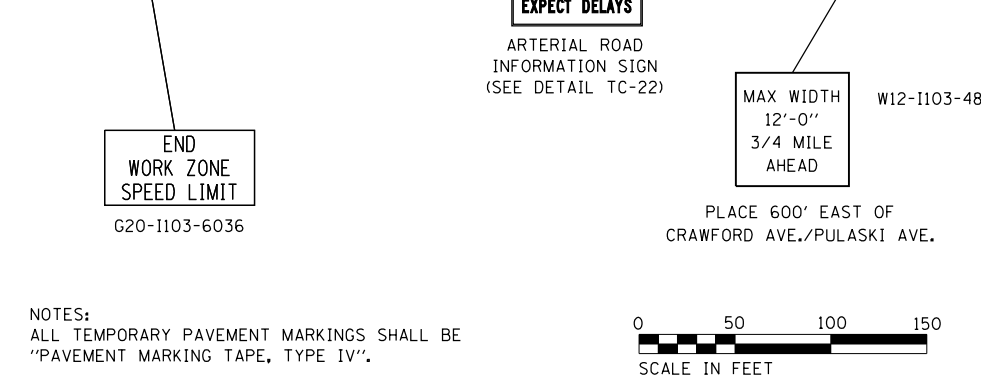
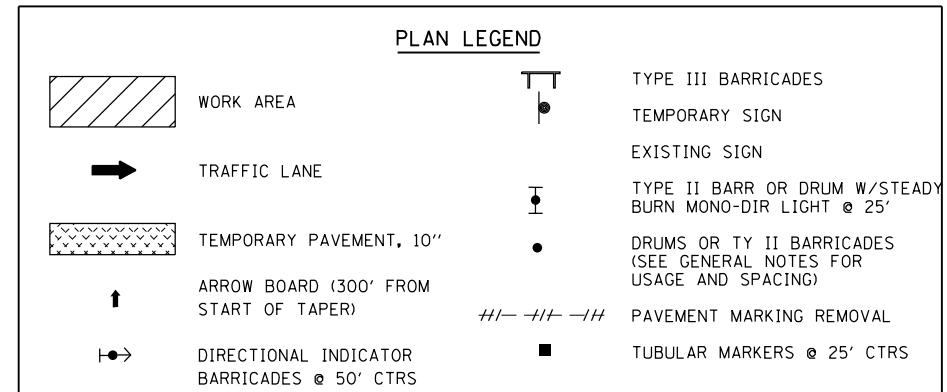
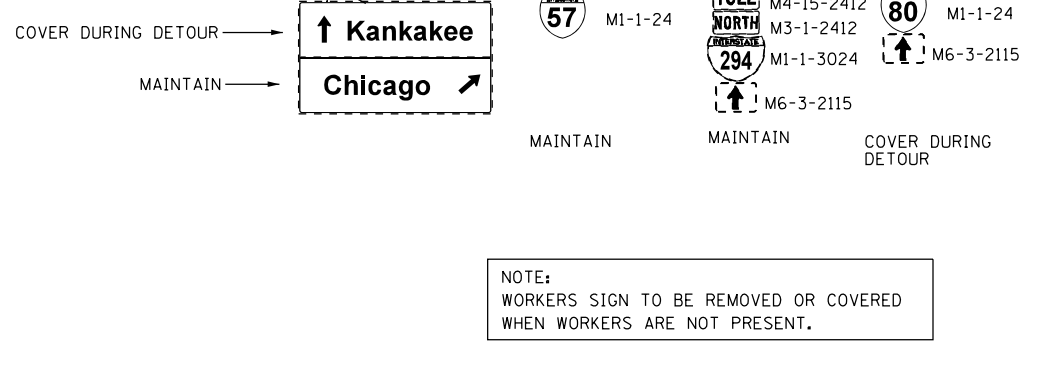
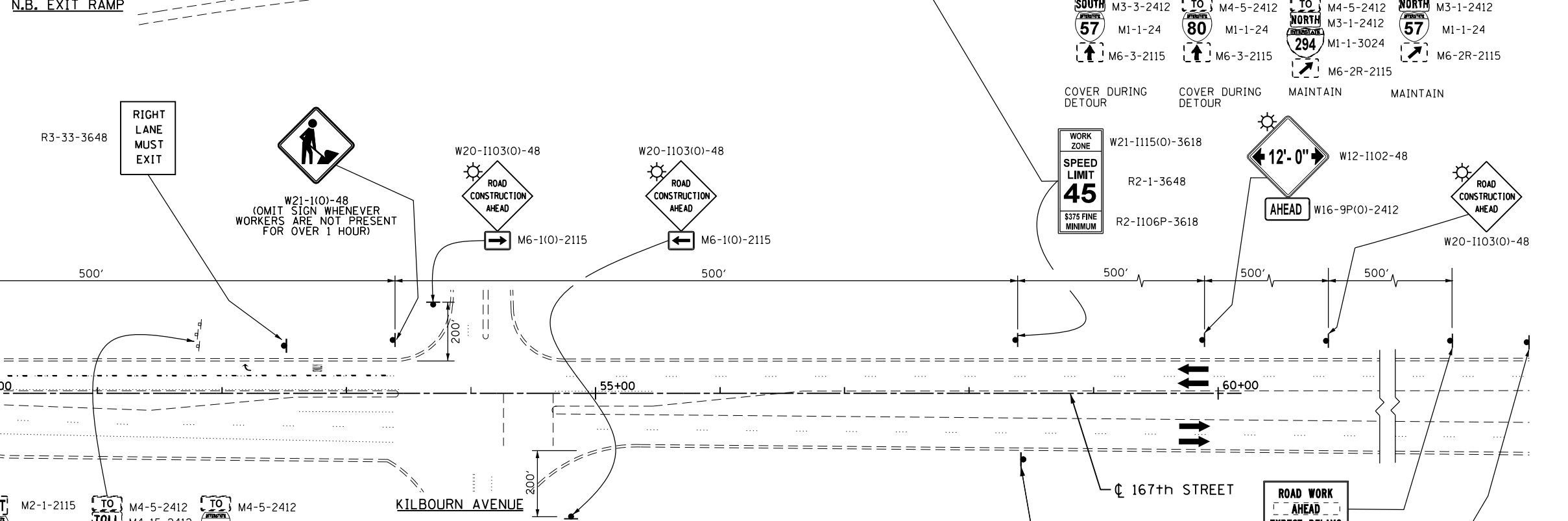
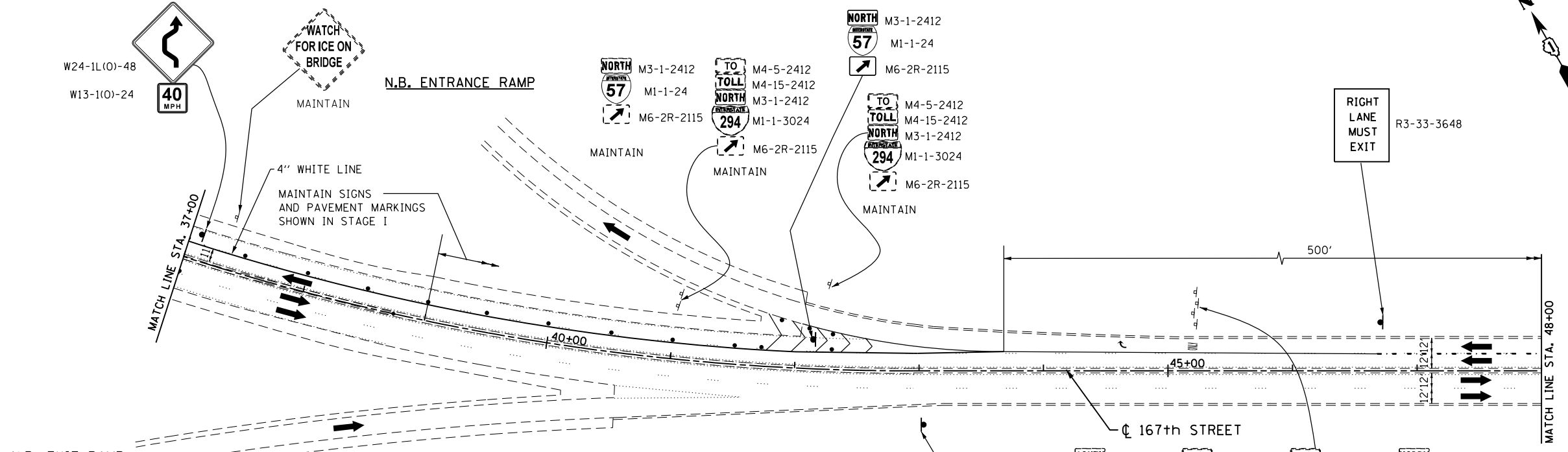
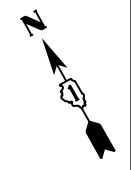
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DRAWN - SJP	REVISED -
CHECKED - MM	REVISED -
DATE - JUNE 25, 2018	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SUGGESTED TRAFFIC CONTROL AND PROTECTION - STAGE II  
167TH ST OVER I-57

SCALE: 1" = 50' SHEET NO. 2 OF 3 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1011.3-BR	COOK	145	27
CONTRACT NO. 60T43				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



NOTE:  
WORKERS SIGN TO BE REMOVED OR COVERED  
WHEN WORKERS ARE NOT PRESENT.

NOTES:  
ALL TEMPORARY PAVEMENT MARKINGS SHALL BE  
"PAVEMENT MARKING TAPE, TYPE IV".

FILE NAME = D:\60743-shr-staging2-3.dgn

PLOT DATE = 6/19/2018  
PLOT SCALE = 100.0000' / 1"



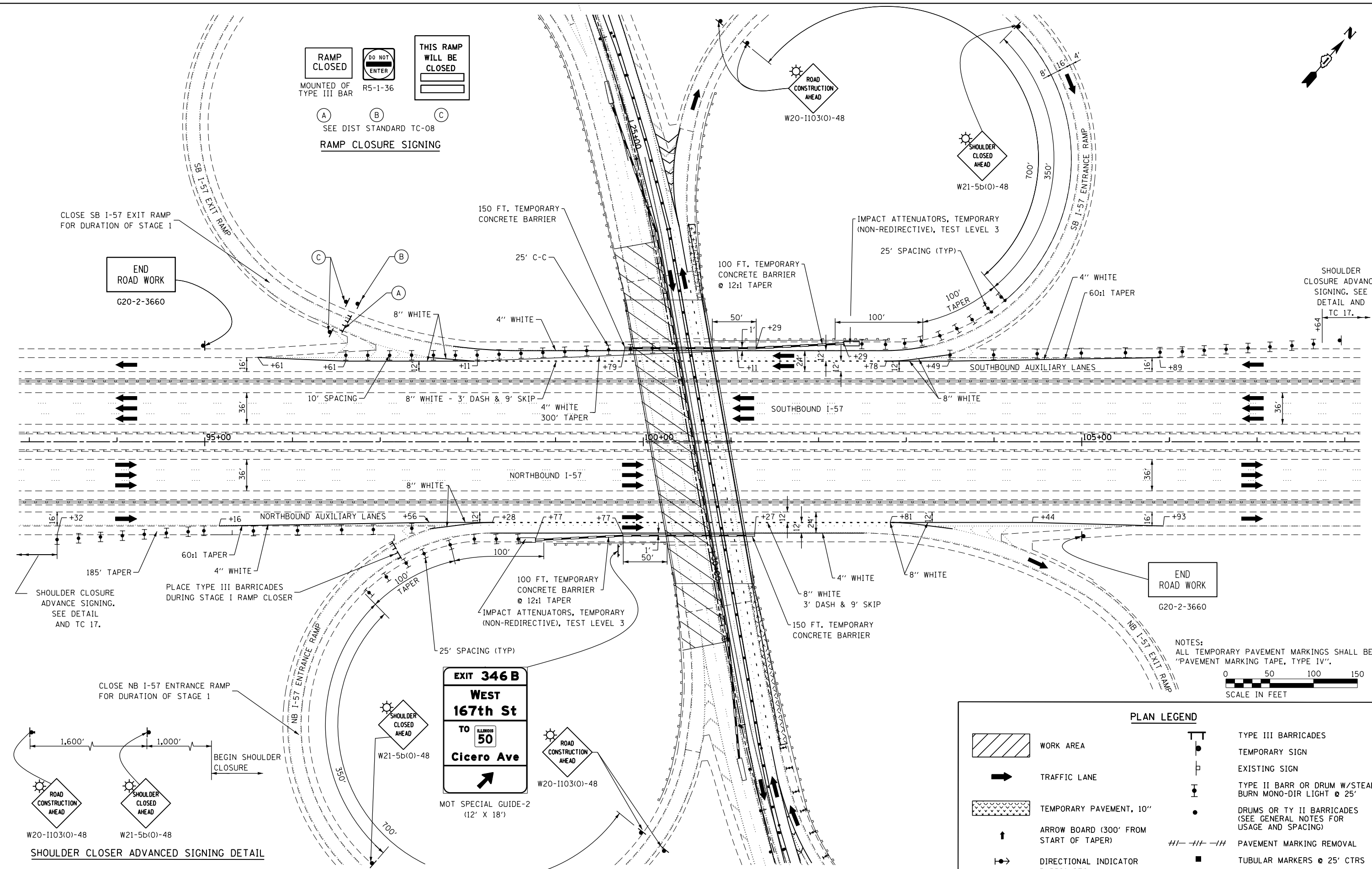
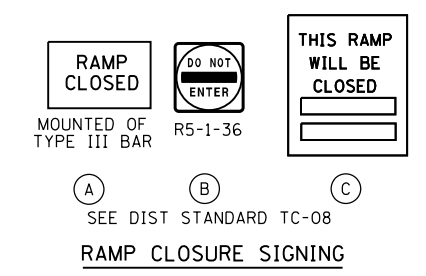
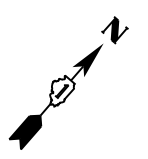
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DRAWN - SJP  
CHECKED - MM  
DATE - JUNE 25, 2018

REVISED -  
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REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SUGGESTED TRAFFIC CONTROL AND PROTECTION - STAGE II  
167TH ST OVER I-57  
SCALE: 1" = 50'  
SHEET NO. 3 OF 3 SHEETS  
STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1011.3-BR	COOK	145	28
CONTRACT NO. 60T43				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

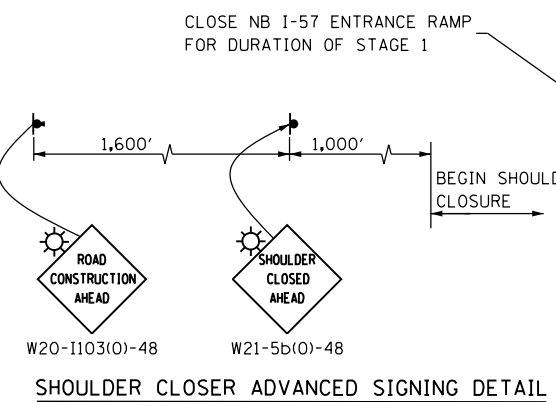


END ROAD WORK  
G20-2-3660

END ROAD WORK  
G20-2-3660

NOTES:  
ALL TEMPORARY PAVEMENT MARKINGS SHALL BE "PAVEMENT MARKING TAPE, TYPE IV".

SCALE IN FEET



**PLAN LEGEND**

	WORK AREA		TYPE III BARRICADES
	TRAFFIC LANE		TEMPORARY SIGN
	TEMPORARY PAVEMENT, 10"		EXISTING SIGN
	ARROW BOARD (300' FROM START OF TAPER)		TYPE II BARR OR DRUM W/STEADY BURN MONO-DIR LIGHT @ 25'
	DIRECTIONAL INDICATOR BARRICADES @ 50' CTRS		DRUMS OR TY II BARRICADES (SEE GENERAL NOTES FOR USAGE AND SPACING)
			PAVEMENT MARKING REMOVAL
			TUBULAR MARKERS @ 25' CTRS

FILE NAME = 0160743-shy-STAGING-RAMP-CLOSURES-AUXILIARY.dgn

PLOT DATE = 6/21/2018  
PLOT SCALE = 100.000' / IN.

**KNIGHT**  
Engineers & Architects

DESIGNED - SJP  
DRAWN - SJP  
CHECKED - MM  
DATE - JUNE 25, 2018

REVISED -  
REVISED -  
REVISED -  
REVISED -

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

**SUGGESTED TRAFFIC CONTROL AND PROTECTION - STAGE I**  
**I-57 AUXILIARY LANES AND RAMP CLOSURE**

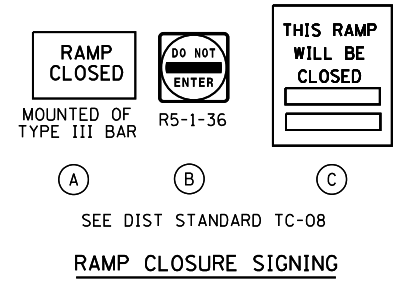
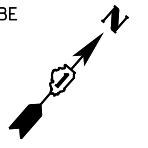
SCALE: 1" = 50' SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1011.3-BR	COOK	145	29

CONTRACT NO. 60T43

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

- NOTES:
1. ALL TEMPORARY PAVEMENT MARKINGS SHALL BE "PAVEMENT MARKING TAPE, TYPE IV".
  2. ALL TEMPORARY PAVEMENT MARKINGS PLACED IN STAGE I EXCEPT AS NOTED.



END ROAD WORK  
G20-2-3660

MOT SPECIAL GUIDE-1  
(12' X 11')  
**EXIT 346 A**  
**EAST**  
**167th St**

CLOSE SB I-57 ENTRANCE RAMP FOR DURATION OF STAGE 2

SHOULDER CLOSURE, SIGNING, AND PARTIAL LANE CLOSURE PLACED IN STAGE I

TEMPORARY CONCRETE BARRIER PLACED IN STAGE 1

SOUTHBOUND AUXILIARY LANES

SOUTHBOUND I-57

NORTHBOUND I-57

NORTHBOUND AUXILIARY LANES

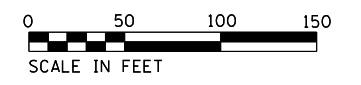
END ROAD WORK  
G20-2-3660

4" WHITE 300' TAPER  
10' SPACING

TEMPORARY CONCRETE BARRIER PLACED IN STAGE 1

CLOSE NB I-57 EXIT RAMP FOR DURATION OF STAGE 2

SHOULDER CLOSURE, SIGNING AND PARTIAL LANE CLOSURE PLACED IN STAGE I



PLAN LEGEND			
	WORK AREA		TYPE III BARRICADES
	TRAFFIC LANE		TEMPORARY SIGN
	TEMPORARY PAVEMENT, 10"		EXISTING SIGN
	ARROW BOARD (300' FROM START OF TAPER)		TYPE II BARR OR DRUM W/STEADY BURN MONO-DIR LIGHT @ 25'
	DIRECTIONAL INDICATOR BARRICADES @ 50' CTRS		DRUMS OR TY II BARRICADES (SEE GENERAL NOTES FOR USAGE AND SPACING)
			PAVEMENT MARKING REMOVAL
			TUBULAR MARKERS @ 25' CTRS

FILE NAME = 0160743-sh+STAGING-AUXILIARY.dgn

PLOT DATE = 6/21/2018  
PLOT SCALE = 100.000' / 1"



DESIGNED - SJP	REVISED -
DRAWN - SJP	REVISED -
CHECKED - MM	REVISED -
DATE - JUNE 25, 2018	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

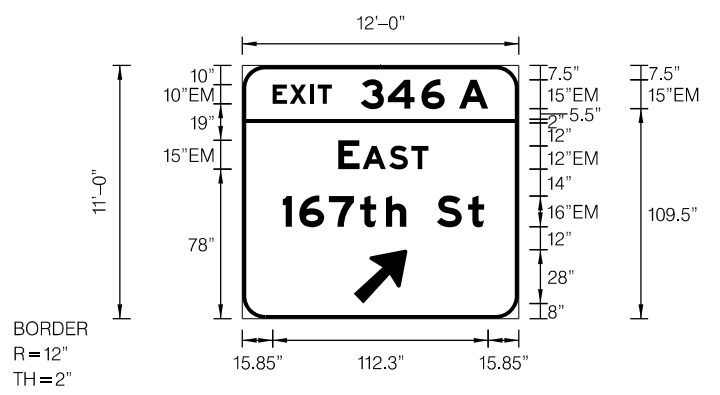
SUGGESTED TRAFFIC CONTROL AND PROTECTION - STAGE II  
I-57 AUXILIARY LANES AND RAMP CLOSURE

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

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1011.3-BR	COOK	145	30
CONTRACT NO. 60T43				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

**SIGN DETAIL**  
1:75

MOT SPECIAL GUIDE-1 SIGN WILL BE MEASURED AND PAID FOR SEPARATELY AT THE CONTRACT UNIT PRICE FOR TEMPORARY INFORMATION SIGNING.



Panel Style: guide\_fwy\_intermediate.ssi  
Dimensions are in inches.tenths  
Letter locations are panel edge to lower left corner

SIGN NUMBER	MOT SPECIAL GUIDE-1
WIDTH x HGHT.	12'-0" x 11'-0"
BORDER WIDTH	2"
CORNER RADIUS	12"
MOUNTING	Temporary Ground
BACKGROUND	TYPE: ZZ Sheeting
LEGEND/BORDER	TYPE: ZZ Sheeting
	COLOR: Green
	COLOR: White/White

SYMBOL	ROT	X	Y	WID	HT
AR_Type A	315	58	8	22.3	35.6

LETTER POSITIONS (X)										LENGTH	SERIESIZE
E	X	I	T	3	4	6	A			EM	2000
15.9	24.7	35.5	39.3	61.7	75.8	93.3	113			112.3	10,15
E	A	S	T							EM	2000
50	62.7	76.6	88.1							47	15,12
1	6	7	t	h		S	t			EM	2000
21	29.7	45.2	61.4	74.8	85.4	101.4	117.7			105	16,12

**SIGN DETAIL**  
1:75

MOT SPECIAL GUIDE-2 SIGN WILL BE MEASURED AND PAID FOR SEPARATELY AT THE CONTRACT UNIT PRICE FOR TEMPORARY INFORMATION SIGNING.



Panel Style: guide\_fwy\_intermediate.ssi  
Dimensions are in inches.tenths  
Letter locations are panel edge to lower left corner

SIGN NUMBER	MOT SPECIAL GUIDE-2
WIDTH x HGHT.	12'-0" x 18'-0"
BORDER WIDTH	2"
CORNER RADIUS	12"
MOUNTING	Temporary Ground
BACKGROUND	TYPE: ZZ SHEETING
LEGEND/BORDER	TYPE: ZZ SHEETING
	COLOR: Green
	COLOR: White/White

SYMBOL	ROT	X	Y	WID	HT
MI-1100a-36	0	54	79.5	36	36
AR_Type A	315	58	8	22.3	35.6

LETTER POSITIONS (X)										LENGTH	SERIESIZE
E	X	I	T	3	4	6	B			EM	2000
19.8	28.6	39.4	43.2	65.6	79.7	97.2	116.9			109.3	10,15
W	E	S	T							EM	2000
47.2	65.4	76.4	87.9							49.6	15,12
1	6	7	t	h		S	t			EM	2000
19.5	28.2	43.7	59.8	73.3	83.8	99.8	116.2			105	16,12
T	O									EM	2000
27.4	36.2									17.2	10
C	i	c	e	r	o	A	v	e		EM	2000
15	29.5	36.3	48.1	61	69.7	78.7	92.1	107.3	120.2	114	13,310

FILE NAME = 0160743-shit-sign\_detail\_temp.dgn

PLOT DATE = 6/19/2018  
PLOT SCALE = 1000.0000 / in.



DESIGNED - SJP	REVISED -
DRAWN - SJP	REVISED -
CHECKED - MM	REVISED -
DATE - JUNE 25, 2018	REVISED -

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

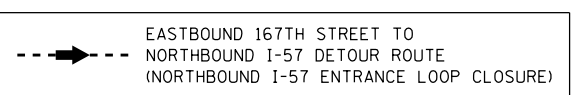
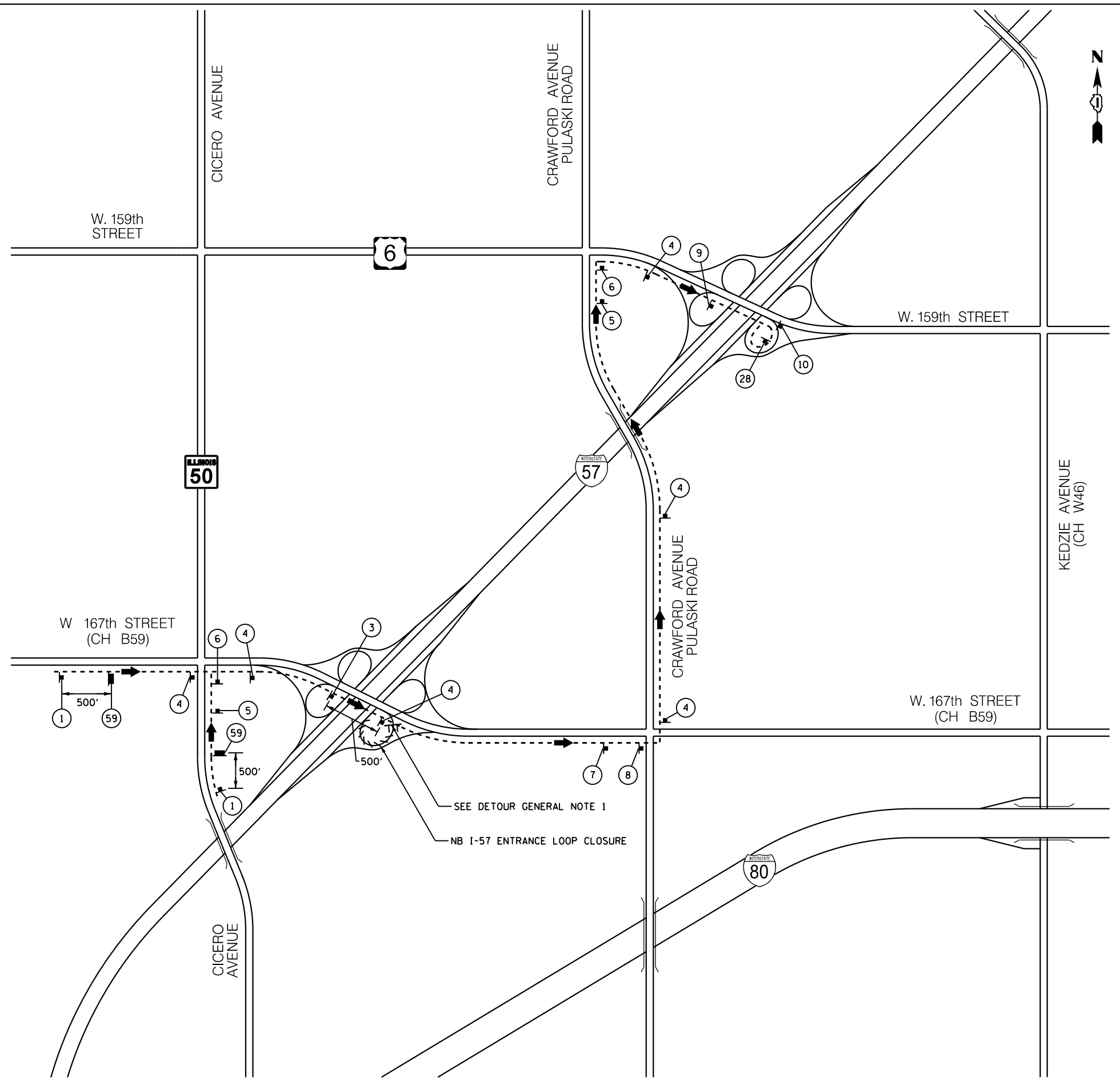
**MAINTENANCE OF TRAFFIC SPECIAL GUIDE SIGN DETAILS**  
**167TH ST OVER I-57**

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

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1011.3-BR	COOK	145	31
<b>CONTRACT NO. 60T43</b>				
<small>FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT</small>				

**SIGN LEGEND**

- 1 W20-2(O)-48
- 3 W20-30(O)-48
- 4 M4-8(O)-2412  
M3-1(O)-2412  
M1-1-24  
M6-3(O)-2115
- 5 M4-8(O)-2412  
M3-1(O)-2412  
M1-1-24  
M5-1R(O)-2115
- 6 M4-8(O)-2412  
M3-1(O)-2412  
M1-1-24  
M6-1(O)-2115
- 7 M4-8(O)-2412  
M3-1(O)-2412  
M1-1-24  
M5-1L(O)-2115
- 8 M4-8(O)-2412  
M3-1(O)-2412  
M1-1-24  
M6-1(O)-2115
- 9 M4-8(O)-2412  
M3-1(O)-2412  
M1-1-24  
M5-2R(O)-2115
- 10 M4-8(O)-2412  
M3-1(O)-2412  
M1-1-24  
M6-2R(O)-2115
- 28 M4-8A(O)-2418  
M3-1(O)-2412  
M1-1-24
- 59 **PORTABLE CHANGEABLE MESSAGE SIGN**
  - RAMP TO N I-57 CLOSED**  
PHASE I  
3-SEC DISPLAY  
(18" LETTERS)
  - FOLLOW MARKED DETOUR**  
PHASE II  
3-SEC DISPLAY  
(18" LETTERS)



**NOTES**

1. SIGN NUMBERS NOT USED FOR THIS DETOUR ROUTE HAVE BEEN OMITTED FOR CLARITY.

FILE NAME = D:\6043-shr-detour-1.dgn

PLOT DATE = 6/19/2018  
PLOT SCALE = 100.000' / 1" IN.



DESIGNED - SJP	REVISED -
DRAWN - SJP	REVISED -
CHECKED - MM	REVISED -
DATE - JUNE 25, 2018	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**RAMP DETOUR PLAN STAGE I - NB I-57 ENTRANCE RAMP  
FROM EB 167TH ST**

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

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1011.3-BR	COOK	145	32
CONTRACT NO. 60T43				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



**SIGN LEGEND**

- 1 W20-2(O)-48
- 2 W20-1103(O)-48
- 3 W20-30(O)-48
- 11 M3-2(O)-3618  
SPECIAL(O)-3630 8" (HWY D FONT)  
M4-9(O)-4836
- 12 M3-2(O)-3618  
SPECIAL(O)-3630 8" (HWY D FONT)  
M4-9R(O)-4836
- 13 M3-2(O)-3618  
SPECIAL(O)-3630 8" (HWY D FONT)  
M4-9R(O)-4836
- 14 M3-2(O)-2412  
SPECIAL(O)-3630 8" (HWY D FONT)  
M4-9(O)-3024
- 15 M3-2(O)-2412  
SPECIAL(O)-3630 8" (HWY D FONT)  
M4-9L(O)-3024
- 16 M3-2(O)-2412  
SPECIAL(O)-3630 8" (HWY D FONT)  
M4-9L(O)-3024
- 27 M4-8A(O)-2418

30 COVER LETTERS AND SYMBOL WITH BLANK OUT PANELS A,B (NOTE 1)

INSTALL TEMPORARY CARDINAL DIRECTION PANEL (DETOUR SIGN 2) ABOVE "167th St" ON EXISTING SIGN (NOTE 2)

(EXISTING OVERHEAD SIGN STRUCTURE)

INSTALL TEMPORARY DETOUR PANEL (DETOUR SIGN 1) LEFT OF THE ROUTE 6 SYMBOL ON EXISTING SIGN (NOTE 2)

31 COVER LETTERS AND SYMBOL WITH BLANK OUT PANELS A,B (NOTE 1)

INSTALL TEMPORARY CARDINAL DIRECTION PANEL (DETOUR SIGN 2) ABOVE "167th St" ON EXISTING SIGN (NOTE 2)

(EXISTING OVERHEAD SIGN STRUCTURE)

INSTALL TEMPORARY DETOUR PANEL (DETOUR SIGN 1) LEFT OF THE ROUTE 6 SYMBOL ON EXISTING SIGN (NOTE 2)

32 INSTALL TEMPORARY DETOUR PANEL (DETOUR SIGN 5) ABOVE EXISTING SIGN (NOTE 2)

(EXISTING OVERHEAD SIGN STRUCTURE)

33 (EXISTING)

35 COVER "Country Club Hills" WITH BLANK OUT PANEL (22' X 2')

(EXISTING)

36 INSTALL TEMPORARY CARDINAL DIRECTION PANEL (DETOUR SIGN 10) LEFT OF "167th St" ON EXISTING SIGN (NOTE 2)

COVER LETTERS AND SYMBOL WITH BLANK OUT PANELS A,B (NOTE 1)

(EXISTING CANTILEVER SIGN STRUCTURE)

37 COVER LETTERS AND SYMBOL WITH BLANK OUT PANELS A,C (NOTE 1)

(EXISTING)

38 INSTALL TEMPORARY DETOUR PANEL (DETOUR SIGN 4) ACROSS EXISTING SIGN (NOTE 2)

(EXISTING OVERHEAD SIGN STRUCTURE)

39 INSTALL TEMPORARY DETOUR PANEL (DETOUR SIGN 4) ACROSS EXISTING SIGN (NOTE 2)

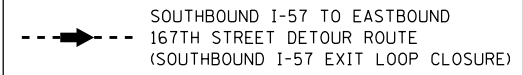
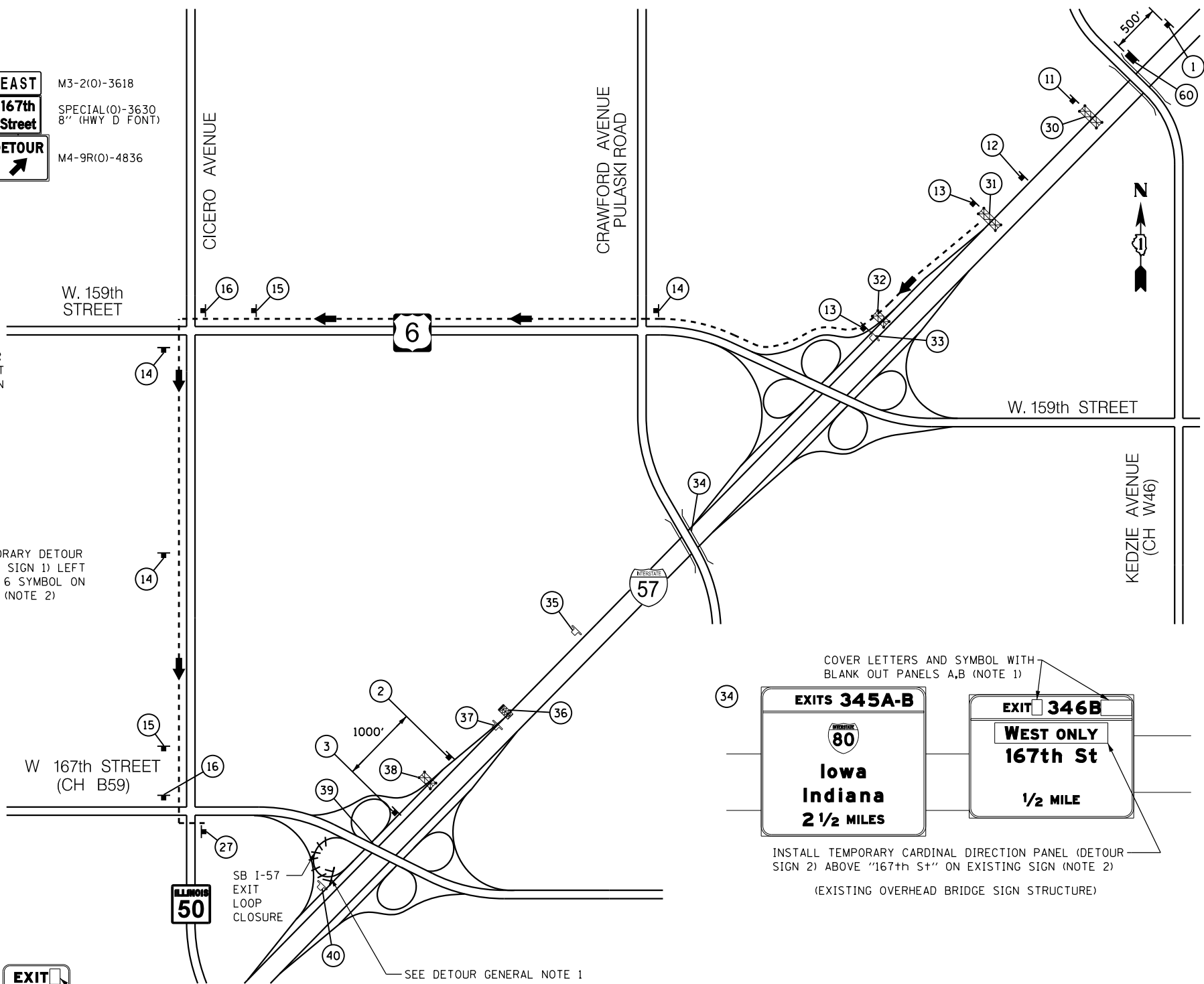
(EXISTING OVERHEAD BRIDGE SIGN STRUCTURE)

40 COVER EXISTING SIGN DURING DETOUR

60 PORTABLE CHANGEABLE MESSAGE SIGN

PHASE I  
3-SEC DISPLAY  
(18" LETTERS)

PHASE II  
3-SEC DISPLAY  
(18" LETTERS)



- NOTES**
- DIMENSIONS FOR BLANK OUT PANELS ARE AS FOLLOWS: (TEMPORARY INFORMATION SIGNING)  
A SIZE - 1' X 1.5'  
B SIZE - 3' X 1.5'  
C SIZE - 3' X 2'
  - SEE DETOUR SIGN PANEL DETAILS FOR ADDITIONAL INFORMATION.
  - SIGN NUMBERS NOT USED FOR THIS DETOUR ROUTE HAVE BEEN OMITTED FOR CLARITY.

FILE NAME = D:\60743-shr-detour-1-2.dgn

PLOT DATE = 6/19/2018  
PLOT SCALE = 100.000' / 1"



DESIGNED - SJP	REVISED -
DRAWN - SJP	REVISED -
CHECKED - MM	REVISED -
DATE - JUNE 25, 2018	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**RAMP DETOUR PLAN STAGE I - SB I-57 EXIT RAMP  
TO EB 167TH ST**

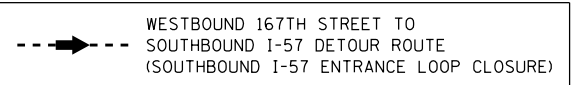
SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1011.3-BR	COOK	145	33
				CONTRACT NO. 60T43
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

**SIGN LEGEND**

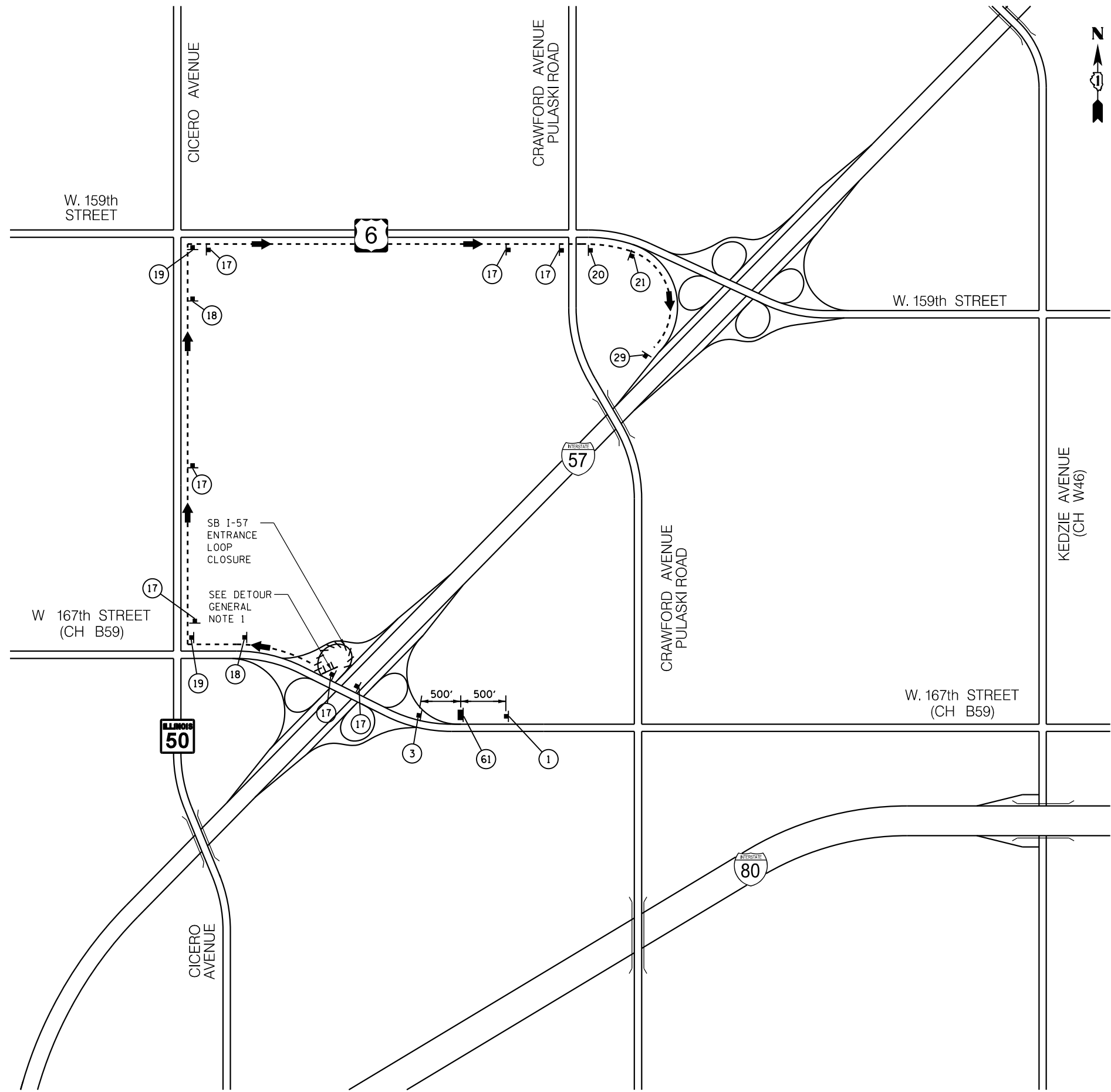
- 1 W20-2(O)-48
- 3 W20-30(O)-48
- 17 M4-8(O)-2412  
M3-3(O)-2412  
M1-1-24  
M6-3(O)-2115
- 18 M4-8(O)-2412  
M3-3(O)-2412  
M1-1-24  
M5-1R(O)-2115
- 19 M4-8(O)-2412  
M3-3(O)-2412  
M1-1-24  
M6-1(O)-2115
- 20 M4-8(O)-2412  
M3-3(O)-2412  
M1-1-24  
M5-2R(O)-2115
- 21 M4-8(O)-2412  
M3-3(O)-2412  
M1-1-24  
M6-2R(O)-2115
- 29 M4-8A(O)-2418  
M3-3(O)-2412  
M1-1-24

- 61 PORTABLE CHANGEABLE MESSAGE SIGN
  - PHASE I  
3-SEC DISPLAY  
(18" LETTERS)
  - PHASE II  
3-SEC DISPLAY  
(18" LETTERS)



**NOTES**

1. SIGN NUMBERS NOT USED FOR THIS DETOUR ROUTE HAVE BEEN OMITTED FOR CLARITY.



FILE NAME = 0160743-shr-detour-2-1.dgn

PLOT DATE = 6/19/2018 PLOT SCALE = 100.000' / 1"		DESIGNED - SJP DRAWN - SJP CHECKED - MM DATE - JUNE 25, 2018	REVISED - REVISED - REVISED - REVISED -	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>RAMP DETOUR PLAN STAGE II - SB I-57 ENTRANCE RAMP</b> <b>FROM WB 167TH ST</b>	SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>F.A.I. RTE.</th> <th>SECTION</th> <th>COUNTY</th> <th>TOTAL SHEETS</th> <th>SHEET NO.</th> </tr> <tr> <td>57</td> <td>1011.3-BR</td> <td>COOK</td> <td>145</td> <td>34</td> </tr> </table>	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	57	1011.3-BR	COOK	145	34
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.													
57	1011.3-BR	COOK	145	34													
CONTRACT NO. 60T43						FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT											

**SIGN LEGEND**

- 1 W20-2(O)-48
- 2 W20-1103(O)-48
- 3 W20-30(O)-48
- 22 M3-4(O)-3618  
SPECIAL(O)-3630 8" (HWY D FONT)  
M4-9(O)-4836
- 23 M3-4(O)-3618  
SPECIAL(O)-3630 8" (HWY D FONT)  
M4-9R(O)-4836
- 24 M3-4(O)-3618  
SPECIAL(O)-3630 8" (HWY D FONT)  
M4-9R(O)-4836
- 25 M3-4(O)-2412  
SPECIAL(O)-3630 8" (HWY D FONT)  
M4-9R(O)-3024

- 26 M3-4(O)-2412  
SPECIAL(O)-3630 8" (HWY D FONT)  
M4-9R(O)-3024
- 27 M4-8A(O)-2418
- 41 COVER LETTERS AND SYMBOL WITH BLANK OUT PANELS A,B (NOTE 1)  
INSTALL TEMPORARY CARDINAL DIRECTION PANEL (DETOUR SIGN 8) ABOVE "167th St" ON EXISTING SIGN (NOTE 2)  
(EXISTING OVERHEAD BRIDGE SIGN STRUCTURE)
- 42 INSTALL TEMPORARY DETOUR PANEL (DETOUR SIGN 9) BELOW "Cicero Ave" ON EXISTING SIGN (NOTE 2)  
(EXISTING)

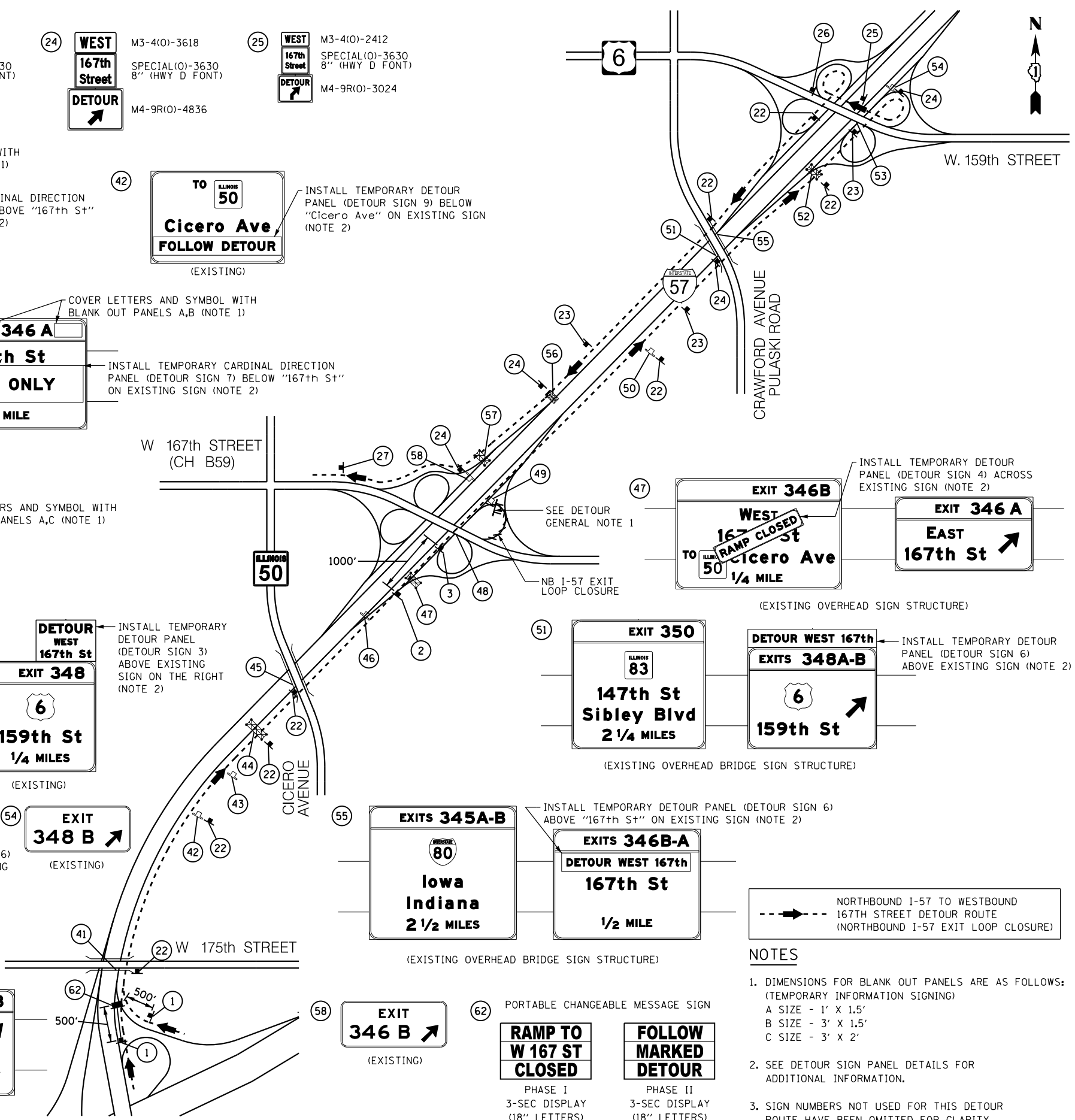
- 43 COVER "Tinley Park" WITH BLANK OUT PANEL (15' X 2')  
(EXISTING)
- 44 INSTALL TEMPORARY DETOUR PANEL (DETOUR SIGN 3) LEFT OF THE ROUTE 6 SYMBOL ON EXISTING SIGN (NOTE 2)  
(EXISTING OVERHEAD SIGN STRUCTURE)
- 44 COVER LETTERS AND SYMBOL WITH BLANK OUT PANELS A,B (NOTE 1)  
INSTALL TEMPORARY CARDINAL DIRECTION PANEL (DETOUR SIGN 7) BELOW "167th St" ON EXISTING SIGN (NOTE 2)

- 45 COVER LETTERS AND SYMBOL WITH BLANK OUT PANELS A,B (NOTE 1)  
INSTALL TEMPORARY CARDINAL DIRECTION PANEL (DETOUR SIGN 8) ABOVE "167th St" ON EXISTING SIGN (NOTE 2)  
(EXISTING OVERHEAD BRIDGE SIGN STRUCTURE)
- 46 COVER LETTERS AND SYMBOL WITH BLANK OUT PANELS A,C (NOTE 1)  
(EXISTING)

- 48 INSTALL TEMPORARY DETOUR PANEL (DETOUR SIGN 4) ACROSS EXISTING SIGN (NOTE 2)  
(EXISTING OVERHEAD BRIDGE SIGN STRUCTURE)
- 49 COVER EXISTING SIGN DURING DETOUR  
(EXISTING)
- 50 INSTALL TEMPORARY DETOUR PANEL (DETOUR SIGN 3) ABOVE EXISTING SIGN ON THE RIGHT (NOTE 2)  
(EXISTING)

- 52 INSTALL TEMPORARY DETOUR PANEL (DETOUR SIGN 6) ABOVE EXISTING SIGN (NOTE 2)  
(EXISTING OVERHEAD SIGN STRUCTURE)
- 53 INSTALL TEMPORARY DETOUR PANEL (DETOUR SIGN 6) ABOVE EXISTING SIGN (NOTE 2)  
(EXISTING OVERHEAD BRIDGE SIGN STRUCTURE)
- 54 (EXISTING)
- 55 INSTALL TEMPORARY DETOUR PANEL (DETOUR SIGN 6) ABOVE "167th St" ON EXISTING SIGN (NOTE 2)  
(EXISTING OVERHEAD BRIDGE SIGN STRUCTURE)
- 55 (EXISTING OVERHEAD BRIDGE SIGN STRUCTURE)

- 56 INSTALL TEMPORARY DETOUR PANEL (DETOUR SIGN 3) LEFT OF "167th St" ON EXISTING SIGN (NOTE 2)  
(EXISTING CANTILEVER SIGN STRUCTURE)
- 57 INSTALL TEMPORARY DETOUR PANEL (DETOUR SIGN 3) ON TOP LEFT CORNER OF EXISTING SIGN (NOTE 2)  
(EXISTING OVERHEAD SIGN STRUCTURE)
- 58 (EXISTING)



--- NORTHBOUND I-57 TO WESTBOUND 167TH STREET DETOUR ROUTE (NORTHBOUND I-57 EXIT LOOP CLOSURE)

- NOTES**
- DIMENSIONS FOR BLANK OUT PANELS ARE AS FOLLOWS: (TEMPORARY INFORMATION SIGNING)  
A SIZE - 1' X 1.5'  
B SIZE - 3' X 1.5'  
C SIZE - 3' X 2'
  - SEE DETOUR SIGN PANEL DETAILS FOR ADDITIONAL INFORMATION.
  - SIGN NUMBERS NOT USED FOR THIS DETOUR ROUTE HAVE BEEN OMITTED FOR CLARITY.

FILE NAME = D:\60743-shr-detour-2.dgn

PLOT DATE = 6/19/2018  
PLOT SCALE = 100.000' / 1"

**KNIGHT**  
Engineers & Architects

DESIGNED - SJP	REVISED -
DRAWN - SJP	REVISED -
CHECKED - MM	REVISED -
DATE - JUNE 25, 2018	REVISED -

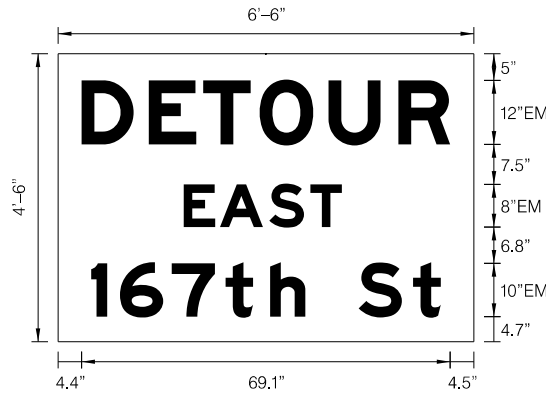
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**RAMP DETOUR PLAN STAGE II - NB I-57 EXIT RAMP TO WB 167TH ST**  
SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1011.3-BR	COOK	145	35
				CONTRACT NO. 60T43
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

**SIGN DETAIL**  
1:25

DETOUR SIGN 1 WILL BE MEASURED AND PAID FOR SEPARATELY AT THE CONTRACT UNIT PRICE FOR TEMPORARY INFORMATION SIGNING.



SIGN NUMBER	DETOUR SIGN 1
WIDTH x HGHT.	6'-6" x 4'-6"
BORDER WIDTH	0"
CORNER RADIUS	0"
MOUNTING	Temporary Overlay
BACKGROUND	TYPE: ZZ SHEETING
	COLOR: Orange
LEGEND/BORDER	TYPE: ZZ SHEETING
	COLOR: Black/Orange

SYMBOL	ROT	X	Y	WID	HT

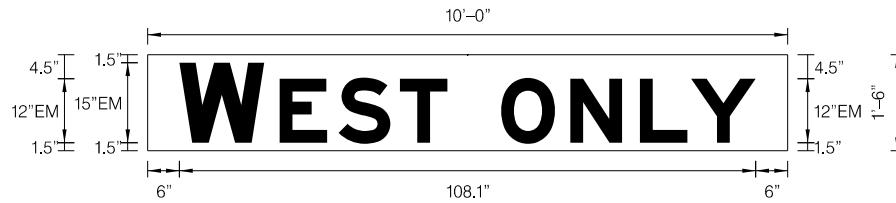
Panel Style: Construction\_Guide\_noborder.ssi  
Dimensions are in inches,tenths

Letter locations are panel edge to lower left corner

LETTER POSITIONS (X)															LENGTH	SERIES/SIZE
D	E	T	O	U	R											EM 2000
4.4	17	27.2	37.8	50.8	63.8											69.1
E	A	S	T													EM 2000
23.6	30.4	39.6	47.3													29.7
1	6	7	t	h	S	t										EM 2000
6.2	11.6	21.3	31.4	39.8	46.4	56.4	66.6									65.6

**SIGN DETAIL**  
1:25

DETOUR SIGN 2 WILL BE MEASURED AND PAID FOR SEPARATELY AT THE CONTRACT UNIT PRICE FOR TEMPORARY INFORMATION SIGNING.



SIGN NUMBER	DETOUR SIGN 2
WIDTH x HGHT.	10'-0" x 4'-6"
BORDER WIDTH	0"
CORNER RADIUS	0"
MOUNTING	Temporary Overlay
BACKGROUND	TYPE: ZZ SHEETING
	COLOR: Orange
LEGEND/BORDER	TYPE: ZZ SHEETING
	COLOR: Black/Orange

SYMBOL	ROT	X	Y	WID	HT

Panel Style: Construction\_Guide\_noborder.ssi  
Dimensions are in inches,tenths

Letter locations are panel edge to lower left corner

LETTER POSITIONS (X)															LENGTH	SERIES/SIZE
W	E	S	T													EM 2000
6	24.8	35.8	47.3													50.2
O	N	L	Y													EM 2000
66.3	79.3	92.3	101.9													47.8

FILE NAME = 0160743-shr-detour-3-signdetail.dgn



DESIGNED - MJM	REVISED -
DRAWN - PAW	REVISED -
CHECKED -	REVISED -
DATE - JUNE 25, 2018	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

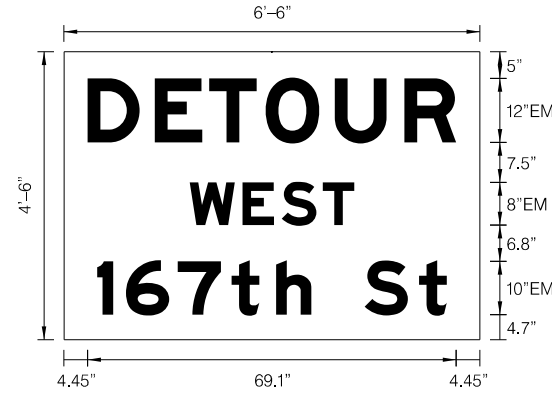
**DETOUR GUIDE SIGN PANEL DETAILS**

SCALE: SHEET NO. 1 OF 7 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1011.3-BR	COOK	145	36
CONTRACT NO. 60T43				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

**SIGN DETAIL**  
1:25

DETOUR SIGN 3 WILL BE MEASURED AND PAID FOR SEPARATELY AT THE CONTRACT UNIT PRICE FOR TEMPORARY INFORMATION SIGNING.



SIGN NUMBER	DETOUR SIGN 3
WIDTH x HGHT.	6'-6" x 4'-6"
BORDER WIDTH	0"
CORNER RADIUS	0"
MOUNTING	Temporary Overlay
BACKGROUND	TYPE: ZZ SHEETING
	COLOR: Orange
LEGEND/BORDER	TYPE: ZZ SHEETING
	COLOR: BlackOrange

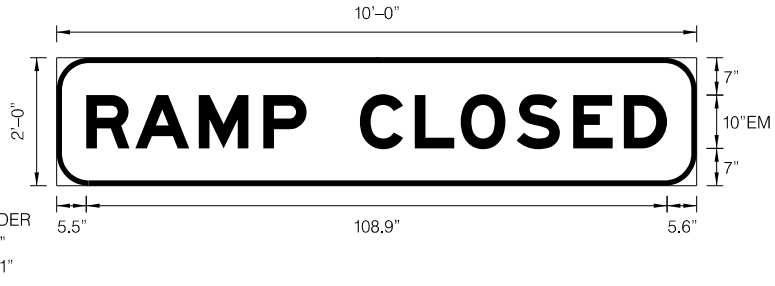
SYMBOL	ROT	X	Y	WID	HT

Panel Style: Construction\_Guide\_noborder.ssi  
Dimensions are in inches,tenths  
Letter locations are panel edge to lower left corner

LETTER POSITIONS (X)													LENGTH	SERIESSIZE		
D	E	T	O	U	R										EM 2000	
4.4	17	27.2	37.8	50.8	63.8										69.1	12
W	E	S	T													EM 2000
23.6	33.5	40.8	48.5												30.9	8
1	6	7	t	h	S	t										EM 2000
6.2	11.6	21.3	31.4	39.8	46.4	56.4	66.6								65.6	107.5

**SIGN DETAIL**  
1:25

DETOUR SIGN 4 WILL BE MEASURED AND PAID FOR SEPARATELY AT THE CONTRACT UNIT PRICE FOR TEMPORARY INFORMATION SIGNING.



SIGN NUMBER	DETOUR SIGN 4
WIDTH x HGHT.	10'-0" x 2'-0"
BORDER WIDTH	1"
CORNER RADIUS	6"
MOUNTING	Temporary Overlay
BACKGROUND	TYPE: ZZ SHEETING
	COLOR: Orange
LEGEND/BORDER	TYPE: ZZ SHEETING
	COLOR: BlackBlack

SYMBOL	ROT	X	Y	WID	HT

Panel Style: warning\_fw\_A.ssi  
Dimensions are in inches,tenths  
Letter locations are panel edge to lower left corner

LETTER POSITIONS (X)													LENGTH	SERIESSIZE			
R	A	M	P	C	L	O	S	E	D							EM 2000	
5.6	14.8	26.7	38.8	46.9	56.9	67.2	75.8	86.3	96.9	106.4						108.9	10

FILE NAME = 0160743-shit-detour-3-signdetail02.dgn



DESIGNED - MJM	REVISED -
DRAWN - PAW	REVISED -
CHECKED -	REVISED -
DATE - JUNE 25, 2018	REVISED -

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

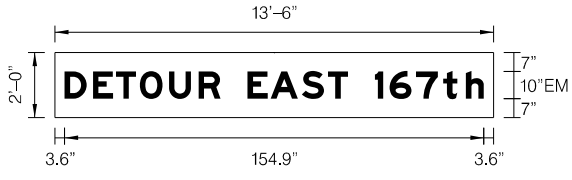
**DETOUR GUIDE SIGN PANEL DETAILS**

SCALE: SHEET NO. 2 OF 7 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1011.3-BR	COOK	145	37
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				CONTRACT NO. 60T43

SIGN DETAIL  
1:50

DETOUR SIGN 5 WILL BE MEASURED AND PAID FOR SEPARATELY AT THE CONTRACT UNIT PRICE FOR TEMPORARY INFORMATION SIGNING.



SIGN NUMBER	DETOUR SIGN 5
WIDTH x HGHT.	13'-6" x 2'-0"
BORDER WIDTH	0"
CORNER RADIUS	0"
MOUNTING	Temporary Overlay
BACKGROUND	TYPE: ZZ SHEETING
	COLOR: Orange
LEGEND/BORDER	TYPE: ZZ SHEETING
	COLOR: BlackOrange

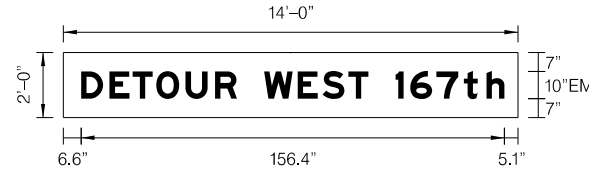
SYMBOL	ROT	X	Y	WD	HT

Panel Style: Construction\_Gulde\_noborder.sst  
Dimensions are in inches,tenths Letter locations are panel edge to lower left corner

LETTER POSITIONS (X)																LENGTH	SERIESIZE				
D	E	T	O	U	R		E	A	S	T	1	6	7	t	h				EM 2000		
3.6	14.1	22.6	31.4	42.2	53.1	61.2	71.2	79.7	91.3	100.9	108.3	118.3	123.7	133.4	143.5	151.9			154.9	107.5	

SIGN DETAIL  
1:50

DETOUR SIGN 6 WILL BE MEASURED AND PAID FOR SEPARATELY AT THE CONTRACT UNIT PRICE FOR TEMPORARY INFORMATION SIGNING.



SIGN NUMBER	DETOUR SIGN 6
WIDTH x HGHT.	14'-0" x 2'-0"
BORDER WIDTH	0"
CORNER RADIUS	0"
MOUNTING	Temporary Overlay
BACKGROUND	TYPE: ZZ SHEETING
	COLOR: Orange
LEGEND/BORDER	TYPE: ZZ SHEETING
	COLOR: BlackOrange

SYMBOL	ROT	X	Y	WD	HT

Panel Style: Construction\_Gulde\_noborder.sst  
Dimensions are in inches,tenths Letter locations are panel edge to lower left corner

LETTER POSITIONS (X)																		LENGTH	SERIESIZE	
D	E	T	O	U	R		W	E	S	T	1	6	7	t	h			EM 2000		
6.6	17.1	25.6	34.4	45.2	56.1	64.2	74.2	86.6	95.8	105.4	112.8	122.8	128.2	137.9	148	156.4		156.4	107.5	

FILE NAME = 0160743-sh1-detour-3-signdetail03.dgn



DESIGNED - MJM	REVISED -
DRAWN - PAW	REVISED -
CHECKED -	REVISED -
DATE - JUNE 25, 2018	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

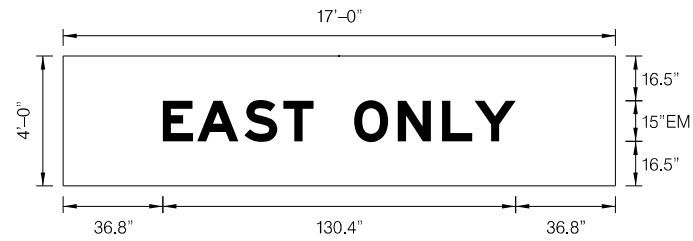
DETOUR GUIDE SIGN PANEL DETAILS

SCALE:	SHEET NO. 3 OF 7 SHEETS	STA.	TO STA.
--------	-------------------------	------	---------

F.A.I. RTE. 57	SECTION 1011.3-BR	COUNTY COOK	TOTAL SHEETS 145	SHEET NO. 38
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO. 60T43	

SIGN DETAIL  
1:50

DETOUR SIGN 7 WILL BE MEASURED AND PAID FOR SEPARATELY AT THE CONTRACT UNIT PRICE FOR TEMPORARY INFORMATION SIGNING.



SIGN NUMBER	DETOUR SIGN 7
WIDTH x HGHT.	17'-0" x 4'-0"
BORDER WIDTH	0"
CORNER RADIUS	0"
MOUNTING	Temporary Overlay
BACKGROUND	TYPE: ZZ SHEETING
	COLOR: Orange
LEGEND/BORDER	TYPE: ZZ SHEETING
	COLOR: Black/Orange

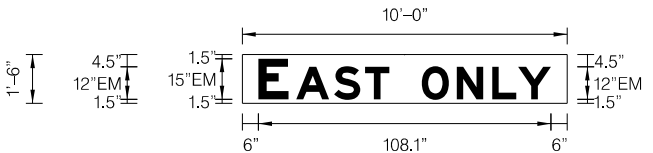
SYMBOL	ROT	X	Y	WD	HT

Panel Style: Construction\_Guide\_noborder.ssi  
Dimensions are in inches, tenths  
Letter locations are panel edge to lower left corner

LETTER POSITIONS (X)													LENGTH	SERIES SIZE	
E	A	S	T		O	N	L	Y							EM 2000
36.8	49.6	67	81.4	92.5	107.5	123.7	140	152							130.4 15

SIGN DETAIL  
1:50

DETOUR SIGN 8 WILL BE MEASURED AND PAID FOR SEPARATELY AT THE CONTRACT UNIT PRICE FOR TEMPORARY INFORMATION SIGNING.



SIGN NUMBER	DETOUR SIGN 8
WIDTH x HGHT.	10'-0" x 4'-0"
BORDER WIDTH	0"
CORNER RADIUS	0"
MOUNTING	Temporary Overlay
BACKGROUND	TYPE: ZZ SHEETING
	COLOR: Orange
LEGEND/BORDER	TYPE: ZZ SHEETING
	COLOR: Black/Orange

SYMBOL	ROT	X	Y	WD	HT

Panel Style: Construction\_Guide\_noborder.ssi  
Dimensions are in inches, tenths  
Letter locations are panel edge to lower left corner

LETTER POSITIONS (X)													LENGTH	SERIES SIZE	
E	A	S	T												EM 2000
6	20	33.9	45.4												48.3 15.12

FILE NAME = D:\6043-shrt-detour-3-signdetail.dgn



DESIGNED -	MJM	REVISED -	
DRAWN -	PAW	REVISED -	
CHECKED -		REVISED -	
DATE -	JUNE 25, 2018	REVISED -	

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

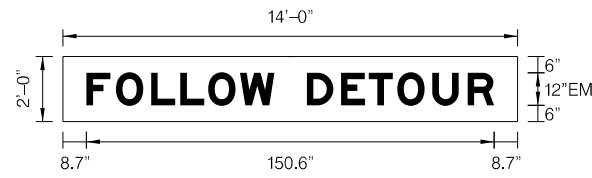
DETOUR GUIDE SIGN PANEL DETAILS

SCALE: SHEET NO. 4 OF 7 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1011.3-BR	COOK	145	39
CONTRACT NO. 60T43				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

**SIGN DETAIL**  
1:50

DETOUR SIGN 9 WILL BE MEASURED AND PAID FOR SEPARATELY AT THE CONTRACT UNIT PRICE FOR TEMPORARY INFORMATION SIGNING.



SIGN NUMBER	DETOUR SIGN 9
WIDTH x HGHT.	14'-0" x 2'-0"
BORDER WIDTH	0"
CORNER RADIUS	0"
MOUNTING	Temporary Overlay
BACKGROUND	TYPE: ZZ SHEETING
	COLOR: Orange
LEGEND/BORDER	TYPE: ZZ SHEETING
	COLOR: Black/Orange

SYMBOL	ROT	X	Y	WD	HT

Panel Style: Construction\_Gulde\_noborder.sst  
Dimensions are in inches, tenths

Letter locations are panel edge to lower left corner

LETTER POSITIONS (X)													LENGTH	SERIES SIZE			
F	O	L	L	O	W		D	E	T	O	U	R				EM	
8.7	19.6	32.6	43.4	53.7	65.5	78.2	90.2	102.8	113	123.5	136.5	149.6				150.6	12

FILE NAME = D:\60T43-shr-detour-3-signdetail02.dgn



DESIGNED - MJM	REVISED -
DRAWN - PAW	REVISED -
CHECKED -	REVISED -
DATE - JUNE 25, 2018	REVISED -

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

**DETOUR GUIDE SIGN PANEL DETAILS**

SCALE: SHEET NO. 5 OF 7 SHEETS STA. TO STA.

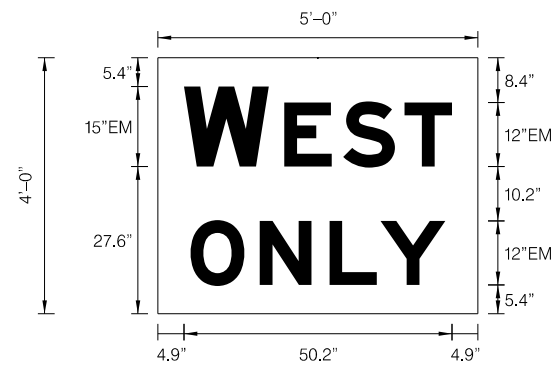
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1011.3-BR	COOK	145	40
<b>CONTRACT NO. 60T43</b>				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



**SIGN DETAIL**

1:25

DETOUR SIGN 10 WILL BE MEASURED AND PAID FOR SEPARATELY AT THE CONTRACT UNIT PRICE FOR TEMPORARY INFORMATION SIGNING.



SIGN NUMBER	DETOUR SIGN 10
WIDTH x HGHT.	5'-0" x 4'-0"
BORDER WIDTH	0"
CORNER RADIUS	0"
MOUNTING	Temporary Overlay
BACKGROUND	TYPE: ZZ SHEETING COLOR: Orange
LEGEND/BORDER	TYPE: ZZ SHEETING COLOR: Black/Orange

SYMBOL	ROT	X	Y	WID	HT

Panel Style: Construction\_Guide\_noborder.ssi  
 Dimensions are in inches.tenths  
 Letter locations are panel edge to lower left corner

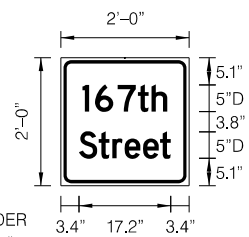
LETTER POSITIONS (X)												LENGTH	SERIESIZE
W	E	S	T									50.2	EM 2000 15,12
4.9	23.7	34.7	46.3										
O	N	L	Y									47.8	EM 2000 12
6.1	19.1	32.2	41.8										

FILE NAME = D:\60T43-shr-detour-3-signdetail06.dgn

**SIGN DETAIL**

1:25

SPECIAL(O)-24 DETOUR SIGNS SHALL BE CONSIDERED INCLUDED IN THE COST FOR TRAFFIC CONTROL AND PROTECTION (SPECIAL) AND WILL NOT BE MEASURED FOR PATEMENT. NO ADDITIONAL COMPENSATION WILL BE ALLOWED.



BORDER  
R=1.5"  
TH=0.63"  
IN=0.47"

Panel Style: construction\_guide.ssi  
Dimensions are in inches,tenths

Letter locations are panel edge to lower left corner

SIGN NUMBER	SPECIAL(O)-24
WIDTH x HGHT.	2'-0" x 2'-0"
BORDER WIDTH	0.63"
CORNER RADIUS	1.5"
MOUNTING	Temporary Post
BACKGROUND	TYPE: AP SHEETING COLOR: Orange
LEGEND/BORDER	TYPE: AP SHEETING COLOR: Black/Black

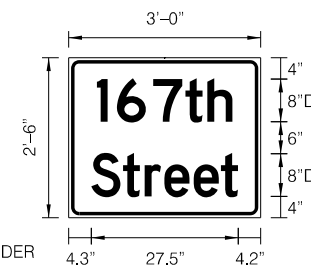
SYMBOL	ROT	X	Y	WID	HT

LETTER POSITIONS (X)						LENGTH	SERIES/SIZE
1	6	7	t	h			D 2000
4.1	6.4	10.7	14.5	17		15.9	53.8
S	t	r	e	e	t		D 2000
3.4	7.1	9.7	12	15.4	18.6	17.2	53.8

**SIGN DETAIL**

1:25

SPECIAL(O)-3630 DETOUR SIGNS SHALL BE CONSIDERED INCLUDED IN THE COST FOR TRAFFIC CONTROL AND PROTECTION (SPECIAL) AND WILL NOT BE MEASURED FOR PATEMENT. NO ADDITIONAL COMPENSATION WILL BE ALLOWED.



BORDER  
R=1.5"  
TH=0.63"  
IN=0.47"

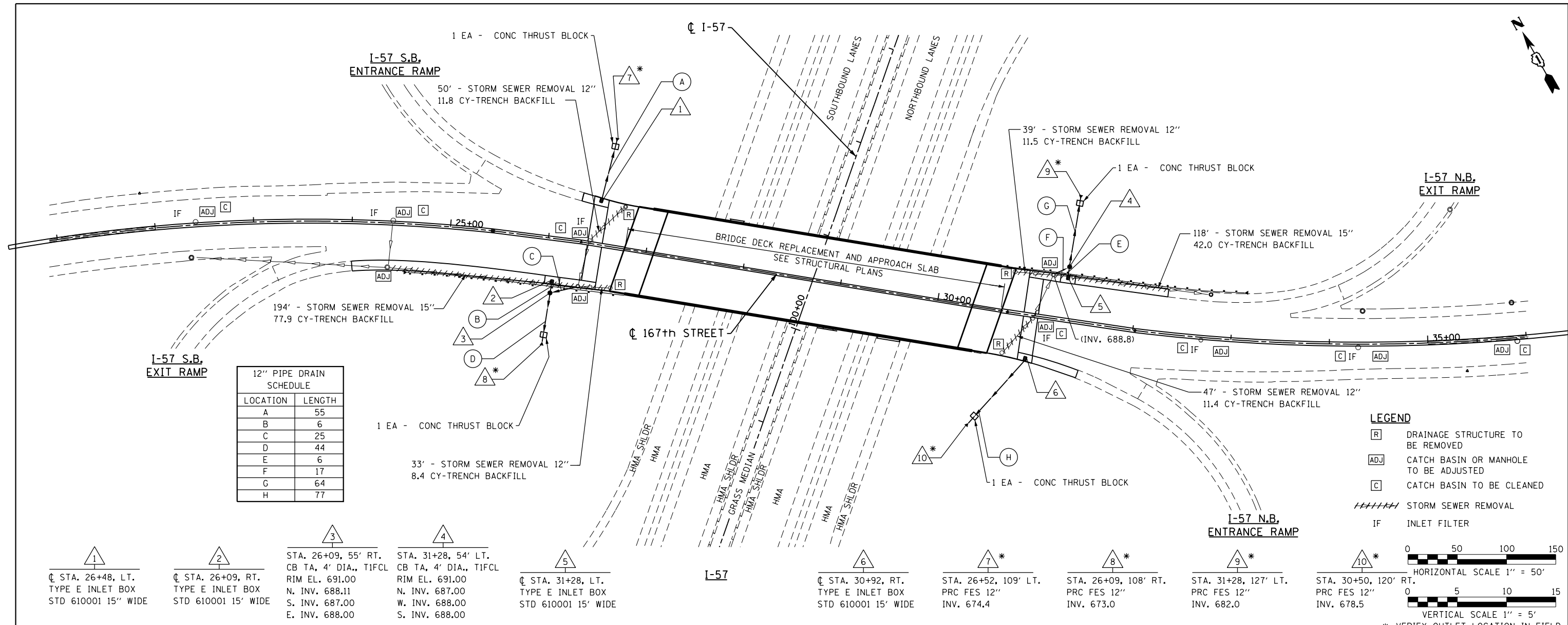
Panel Style: construction\_guide.ssi  
Dimensions are in inches,tenths

Letter locations are panel edge to lower left corner

SIGN NUMBER	SPECIAL(O)-3630
WIDTH x HGHT.	3'-0" x 2'-6"
BORDER WIDTH	0.63"
CORNER RADIUS	1.5"
MOUNTING	Temporary Post
BACKGROUND	TYPE: AP SHEETING COLOR: Orange
LEGEND/BORDER	TYPE: AP SHEETING COLOR: Black/Black

SYMBOL	ROT	X	Y	WID	HT

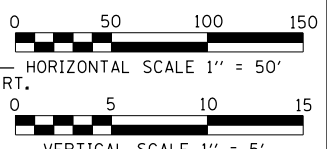
LETTER POSITIONS (X)						LENGTH	SERIES/SIZE
1	6	7	t	h			D 2000
5.3	9	15.8	21.9	26		25.4	86
S	t	r	e	e	t		D 2000
4.3	10.2	14.3	17.9	23.5	28.6	27.5	86



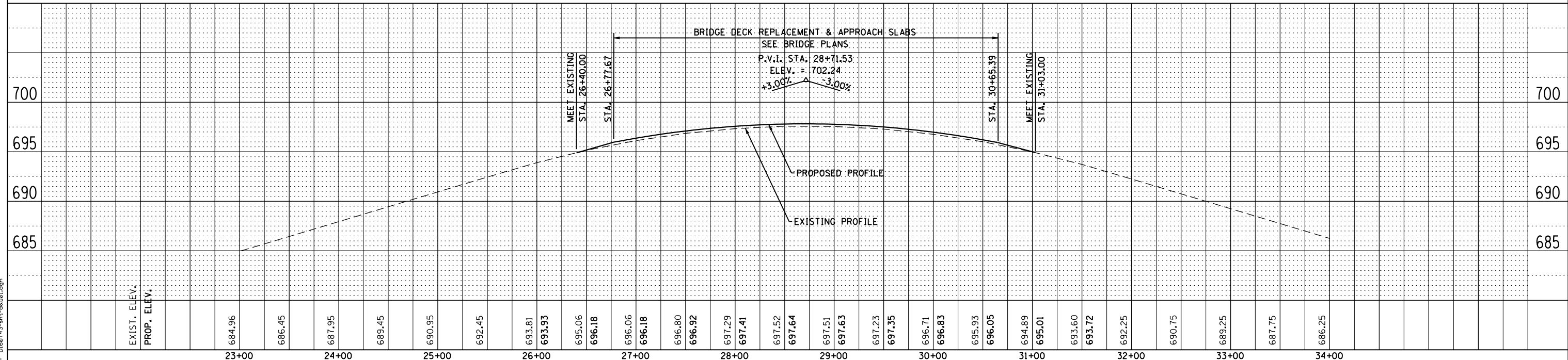
12" PIPE DRAIN SCHEDULE

LOCATION	LENGTH
A	55
B	6
C	25
D	44
E	6
F	17
G	64
H	77

- LEGEND**
- [R] DRAINAGE STRUCTURE TO BE REMOVED
  - [ADJ] CATCH BASIN OR MANHOLE TO BE ADJUSTED
  - [C] CATCH BASIN TO BE CLEANED
  - STORM SEWER REMOVAL
  - IF INLET FILTER



- 1: STA. 26+48, LT. TYPE E INLET BOX STD 610001 15" WIDE
- 2: STA. 26+09, RT. TYPE E INLET BOX STD 610001 15" WIDE
- 3: STA. 26+09, 55' RT. CB TA, 4' DIA., TIFCL RIM EL. 691.00 N. INV. 688.11 S. INV. 687.00 E. INV. 688.00
- 4: STA. 31+28, 54' LT. CB TA, 4' DIA., TIFCL RIM EL. 691.00 N. INV. 687.00 W. INV. 688.00 S. INV. 688.00
- 5: STA. 31+28, LT. TYPE E INLET BOX STD 610001 15" WIDE
- 6: STA. 30+92, RT. TYPE E INLET BOX STD 610001 15" WIDE
- 7\*: STA. 26+52, 109' LT. PRC FES 12" INV. 674.4
- 8\*: STA. 26+09, 108' RT. PRC FES 12" INV. 673.0
- 9\*: STA. 31+28, 127' LT. PRC FES 12" INV. 682.0
- 10\*: STA. 30+50, 120' RT. PRC FES 12" INV. 678.5



STATION	EXIST. ELEV.	PROP. ELEV.
23+00	684.96	
24+00	686.45	
25+00	687.95	
26+00	689.45	
27+00	690.95	
28+00	692.45	
29+00	693.81	
30+00	693.93	
31+00	695.06	
32+00	696.18	
33+00	696.06	
34+00	696.18	
35+00	696.80	
36+00	696.92	
37+00	697.29	
38+00	697.41	
39+00	697.52	
40+00	697.64	
41+00	697.51	
42+00	697.63	
43+00	697.23	
44+00	697.35	
45+00	696.71	
46+00	696.83	
47+00	695.93	
48+00	696.05	
49+00	694.89	
50+00	695.01	
51+00	693.60	
52+00	693.72	
53+00	692.25	
54+00	690.75	
55+00	689.25	
56+00	687.75	
57+00	686.25	

FILE NAME = D:\60743-shr-d8\01.dgn

PLOT DATE = 6/20/2018  
PLOT SCALE = 100.0000' / 1"

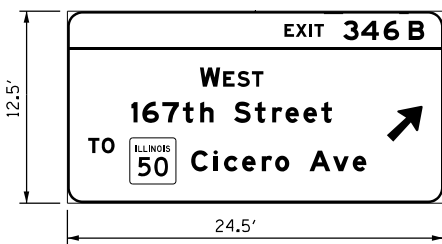
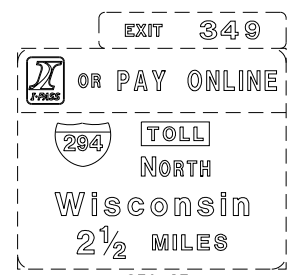
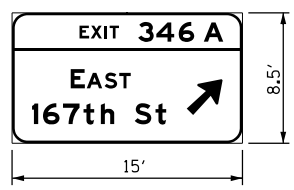


DESIGNED - SJP	REVISED -
DRAWN - SJP	REVISED -
CHECKED - MM	REVISED -
DATE - JUNE 25, 2018	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

PROPOSED DRAINAGE & UTILITY PLAN	
167TH ST OVER I-57	
SCALE: 1" = 50'	SHEET NO. 1 OF 1 SHEETS
STA.	TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1011.3-BR	COOK	145	43
CONTRACT NO. 60T43				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

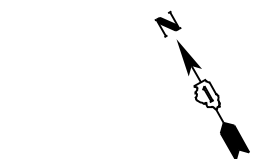
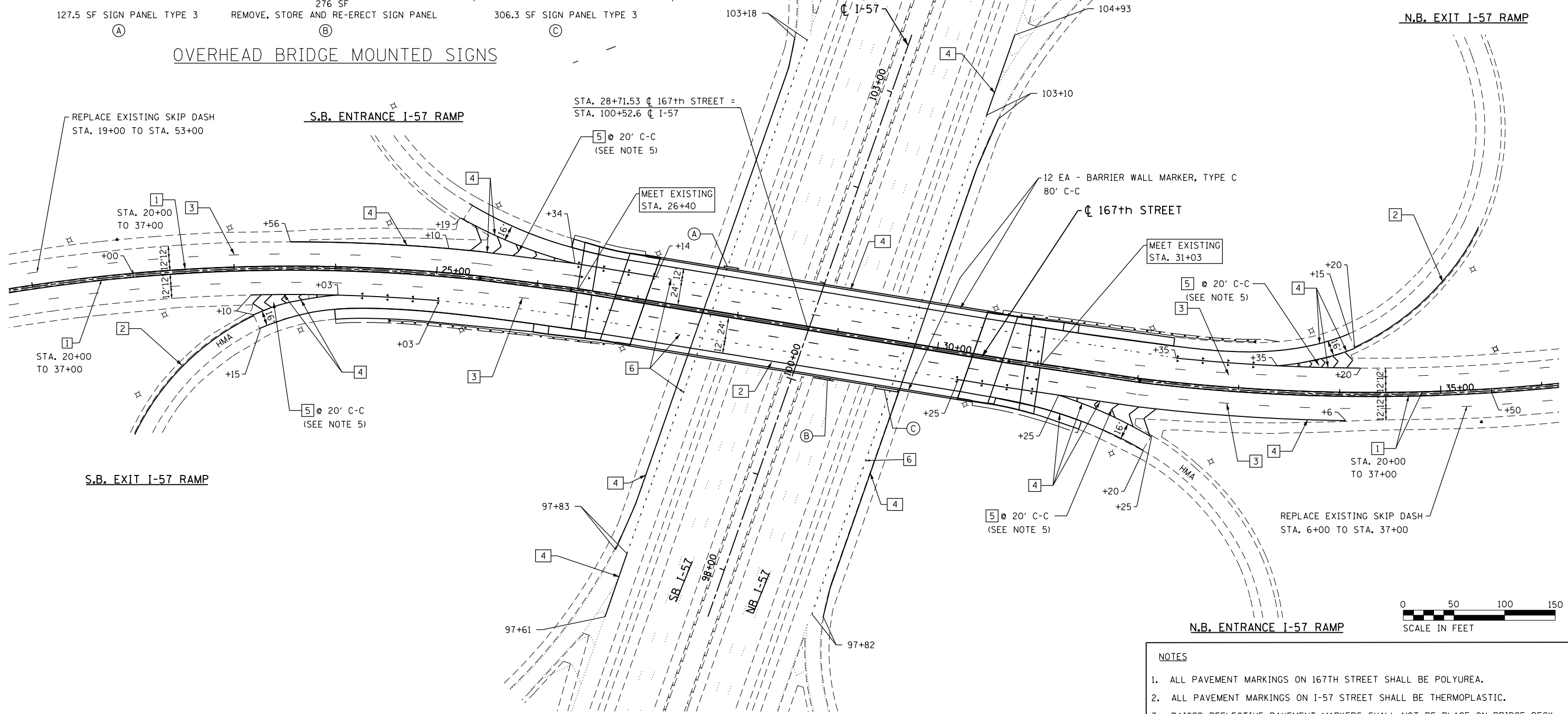


127.5 SF SIGN PANEL TYPE 3  
A

REMOVE, STORE AND RE-ERECT SIGN PANEL  
B

306.3 SF SIGN PANEL TYPE 3  
C

OVERHEAD BRIDGE MOUNTED SIGNS

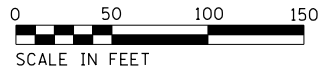


N.B. EXIT I-57 RAMP

S.B. ENTRANCE I-57 RAMP

S.B. EXIT I-57 RAMP

N.B. ENTRANCE I-57 RAMP



NOTES

1. ALL PAVEMENT MARKINGS ON 167TH STREET SHALL BE POLYUREA.
2. ALL PAVEMENT MARKINGS ON I-57 STREET SHALL BE THERMOPLASTIC.
3. RAISED REFLECTIVE PAVEMENT MARKERS SHALL NOT BE PLACE ON BRIDGE DECK.  
SEE DISTRICT DETAIL FOR TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT).
4. PAVEMENT MARKING SHALL BE PLACED AS SHOWN ON "DISTRICT ONE PAVEMENT MARKINGS TC-13".
5. A MINIMUM 5 EQUALLY SPACED DIAGONALS SHALL BE PLACED IN GORES.

LEGEND

- |  |  |
|--|--|
| 1 LINE 4" (YELLOW SOLID LINE)                    | 5 LINE 12" (WHITE DIAGONAL LINE)               |
| 2 LINE 4" (WHITE SOLID LINE)                     | 6 LINE 8" (WHITE LANE LINE - 3' DASH, 9' SKIP) |
| 3 LINE 4" (WHITE LANE LINE - 10' DASH, 30' SKIP) |  |
| 4 LINE 8" (WHITE SOLID LINE)                     |  |

FILE NAME = 0160743-shr-pmk.dgn

PLOT DATE = 6/19/2018  
PLOT SCALE = 100.0000' / 1"



DESIGNED - SJP  
DRAWN - SJP  
CHECKED - MM  
DATE - JUNE 25, 2018

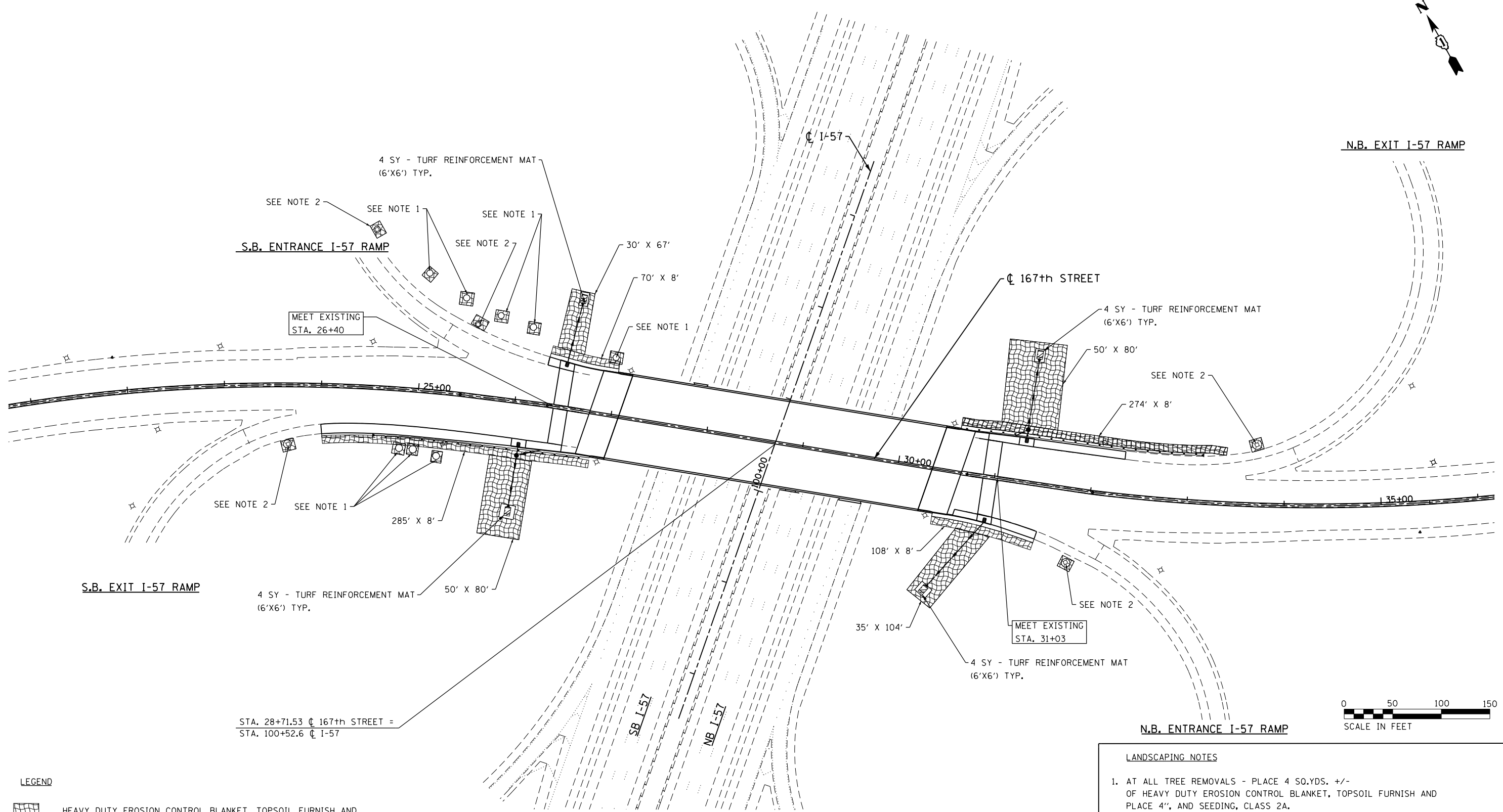
REVISED -  
REVISED -  
REVISED -  
REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

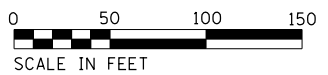
PAVEMENT MARKING AND AND SIGNING  
167TH ST OVER I-57

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



F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1011.3-BR	COOK	145	44
CONTRACT NO. 60T43			FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT	



STA. 28+71.53  $\bar{C}$  167th STREET =  
 STA. 100+52.6  $\bar{C}$  I-57



**LEGEND**

-  HEAVY DUTY EROSION CONTROL BLANKET, TOPSOIL FURNISH AND PLACE 4" AND SEEDING, CLASS 2A.
-  TURF REINFORCEMENT MAT

**LANDSCAPING NOTES**

1. AT ALL TREE REMOVALS - PLACE 4 SQ.YDS. +/- OF HEAVY DUTY EROSION CONTROL BLANKET, TOPSOIL FURNISH AND PLACE 4", AND SEEDING, CLASS 2A.
2. AT ALL LIGHT POLE FOUNDATION REGRADINGS - PLACE 4 SQ.YD. +/- OF HEAVY DUTY EROSION CONTROL BLANKET, TOPSOIL FURN AND PLACE, 4" AND SEEDING, CLASS 2A. SEE STANDARD 836001 FOR GRADING INFORMATION.
3. AT ALL DISTURBED AREAS - PLACE TOPSOIL FURNISH AND PLACE 4", CLASS 2A, AND HEAVY DUTY EROSION CONTROL BLANKET.

FILE NAME = 0160743-shr-landscaping-1.dgn

PLOT DATE = 6/19/2018  
 PLOT SCALE = 100.0000' / 1"



DESIGNED - SJP	REVISED -
DRAWN - SJP	REVISED -
CHECKED - MM	REVISED -
DATE - JUNE 25, 2018	REVISED -

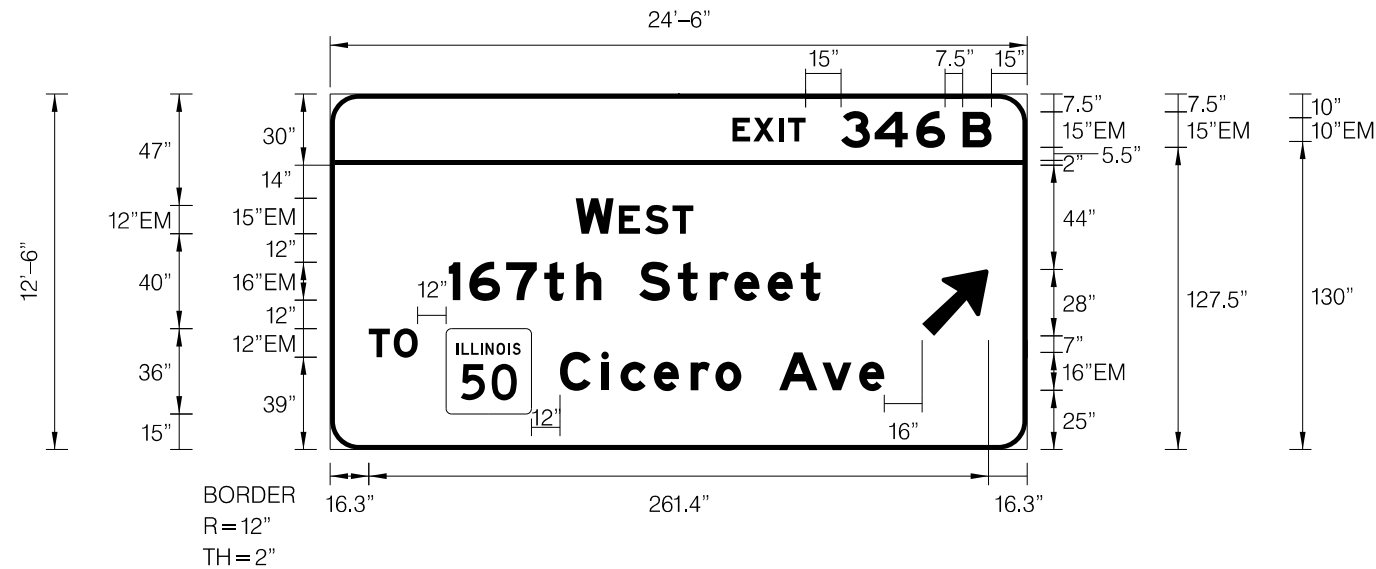
**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**LANDSCAPING PLAN  
 167TH ST OVER I-57**

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

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1011.3-BR	COOK	145	45
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO. 60T43	

SIGN DETAIL  
1:75



Panel Style: guide\_fw\_intermediate(clearview).ssi  
Dimensions are in inches.tenths

Letter locations are panel edge to lower left corner

SIGN NUMBER	SIGN C
WIDTH x HGHT.	24'-6" x 12'-6"
BORDER WIDTH	2"
CORNER RADIUS	12"
MOUNTING	Overhead
BACKGROUND	TYPE: ZZ sheeting
	COLOR: Green
LEGEND/BORDER	TYPE: ZZ sheeting
	COLOR: White/White

SYMBOL	ROT	X	Y	WID	HT
AR_Type A	315	249.7	48	22.3	35.6
M1-I100a	0	48.9	15	36	36

LETTER POSITIONS (X)

																		LENGTH	SERIESIZE
E	X	I	T	3	4	6	B											109.2	EM 2000 10,15
169.8	178.6	189.4	193.2	215.6	229.6	247.2	266.8											49.6	EM 2000 15,12
W	E	S	T															156.8	EM 2000 16,12
103.6	121.8	132.8	144.4															20.6	EM 2000 12
1	6	7	t	h		S	t	r	e	e	t							136.8	EM 2000 16,12
50	58.7	74.2	90.4	103.8	114.4	130.4	146.7	160.1	170.5	184.6	198.5								
T	O																		
16.3	26.8																		
C	i	c	e	r	o		A	v	e										
96.9	114.4	122.5	136.6	152.1	162.5	173.4	189.4	207.6	223.2										

FILE NAME = 0160743-shit-sign\_detail\_01.dgn

PLOT DATE = 6/19/2018  
PLOT SCALE = 6.7483 ' / 1"



DESIGNED - SJP	REVISED -
DRAWN - SJP	REVISED -
CHECKED - MM	REVISED -
DATE - JUNE 25, 2018	REVISED -

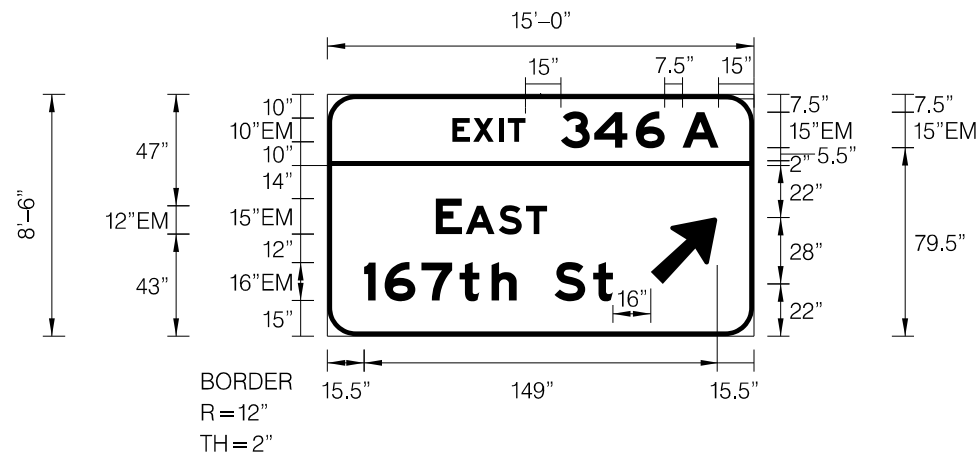
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SIGNING DETAILS  
167TH ST OVER I-57  
SCALE: NONE SHEET NO. 1 OF 2 SHEETS STA. TO STA.

F.A.I. RTE. 57	SECTION 1011.3-BR	COUNTY COOK	TOTAL SHEETS 145	SHEET NO. 46
CONTRACT NO. 60T43				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

SIGN DETAIL

1:75



Panel Style: guide\_fwy\_intermediate(clearview).ssi  
 Dimensions are in inches.tenths

Letter locations are panel edge to lower left corner

SIGN NUMBER	SIGN A
WIDTH x HGHT.	15'-0" x 8'-6"
BORDER WIDTH	2"
CORNER RADIUS	12"
MOUNTING	Overhead
BACKGROUND	TYPE: ZZ Sheeting
	COLOR: Green
LEGEND/BORDER	TYPE: ZZ Sheeting
	COLOR: White/White

SYMBOL	ROT	X	Y	WID	HT
AR_Type A	315	136.5	22	22.3	35.6

LETTER POSITIONS (X)

								LENGTH	SERIESIZE
E	X	I	T	3	4	6	A	112.2	EM 2000
52.8	61.6	72.4	76.2	98.6	112.7	130.2	149.9	10,15	
E	A	S	T					47	EM 2000
45.8	58.4	72.3	83.8					15,12	
1	6	7	t	h		S	t	105	EM 2000
15.5	24.2	39.7	55.8	69.3	79.8	95.8	112.2	1612	

FILE NAME = 0160743-shit-sign\_detail\_02.dgn

PLOT DATE = 6/19/2018  
 PLOT SCALE = 6.7483 ' / in.



DESIGNED - SJP	REVISED -
DRAWN - SJP	REVISED -
CHECKED - MM	REVISED -
DATE - JUNE 25, 2018	REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

SIGNING DETAILS 167TH ST OVER I-57			
SCALE: NONE	SHEET NO. 2 OF 2 SHEETS	STA.	TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1011.3-BR	COOK	145	47
CONTRACT NO. 60T43				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

**GENERAL NOTES**

**SPECIFICATIONS:**

**DESIGN:** AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals. ("AASHTO Specifications")

**CONSTRUCTION:** Current (at time of letting) Illinois Department of Transportation Standard Specifications for Road and Bridge Construction, Supplemental Specifications and Special Provisions. ("Standard Specifications")

**LOADING:** 90 M.P.H. WIND VELOCITY

**WALKWAY LOADING:** Dead load plus 500 lbs. concentrated live load.

**MINIMUM CLEARANCE:** 3" greater than bridge members at all locations. (All Obstructions)

**WELDING:** All welds to be continuous unless otherwise shown. All welding to be done in accordance with current AWS D1.1 Structural Welding Code (Steel) and the Standard Specifications.

**MATERIALS:** All Structural Steel Pipe shall be ASTM A53 Grade B with a minimum yield of 35,000 p.s.i., or A500 Grade B or C with a minimum yield of 46,000 p.s.i. If A500 pipe is substituted for A53, then the outside diameter shall be as detailed and wall thickness greater than or equal to A53. All Structural Steel Plates and Shapes shall conform to AASHTO M270 Gr. 36, Gr. 50 (M183, M223 Gr. 50.).

**HIGH STRENGTH BOLTS:** All bolts, washers, nuts and locknuts shall satisfy the requirements of ASTM designation A307 unless noted as "H.S." which shall require AASHTO M164 (A325), ASTM A449, or approved alternate. All fasteners shall be hot dip galvanized per AASHTO M232 unless otherwise specified.

**GALVANIZING:** All Steel Grating, Plates, Shapes and Pipe shall be Hot Dip Galvanized after fabrication in accordance with AASHTO M111. Painting is not permitted.

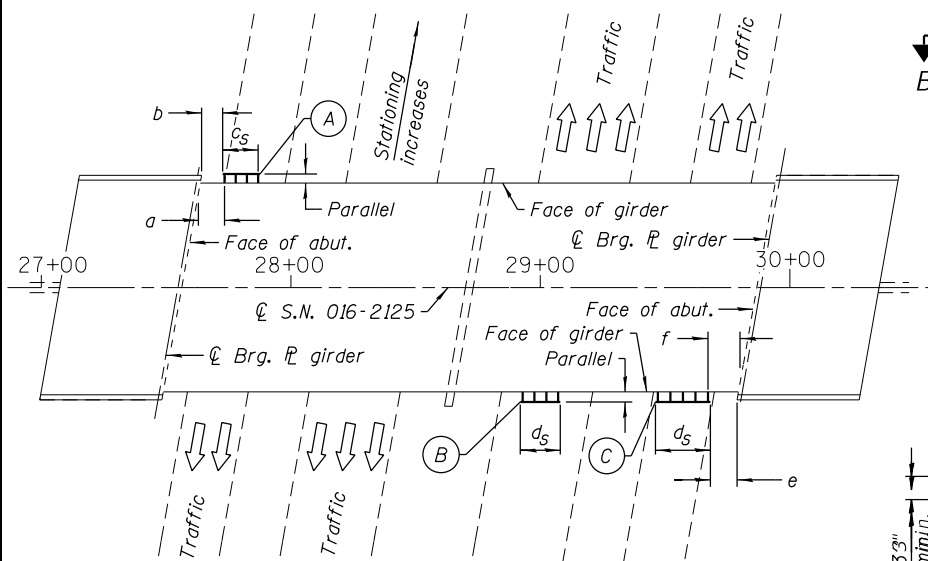
**ANCHOR RODS:** All-threaded rod shall conform to ASTM F1554 Grade 105, 3/4" Ø x 12" long, each with one plate washer and locknut and be hot dip galvanized per AASHTO M232. They shall be either cast into the concrete or epoxy grouted in accordance with Section 584 of the Standard Specifications. Minimum embedment in concrete shall be 9".

- ① Bracket spacing  $g \leq 6'-0"$ , max. Spacing shall be uniform if possible but may vary  $\pm 6"$  to miss existing obstruction (rail post, light poles, web stiffeners, splice plates, etc.). Adjust bracket lengths accordingly on skewed structures.
- ② Any design modifications shall be based on the current version of applicable specifications and submitted for the Engineer's approval.
- ③ Unit price includes grating, handrail, brackets, supports, anchor bolts, fasteners, fabrication, delivery, erection, field drilling and other necessary items. Limits of payment are based on grating length (cw, dw) unless otherwise specified. For Safety Chain Details and Details D, F and G, see Base Sheet BM-4.
- ④ If walkway bracket at safety chain location is behind sign, add angle to bracket. See detail on Base Sheet BM-4.

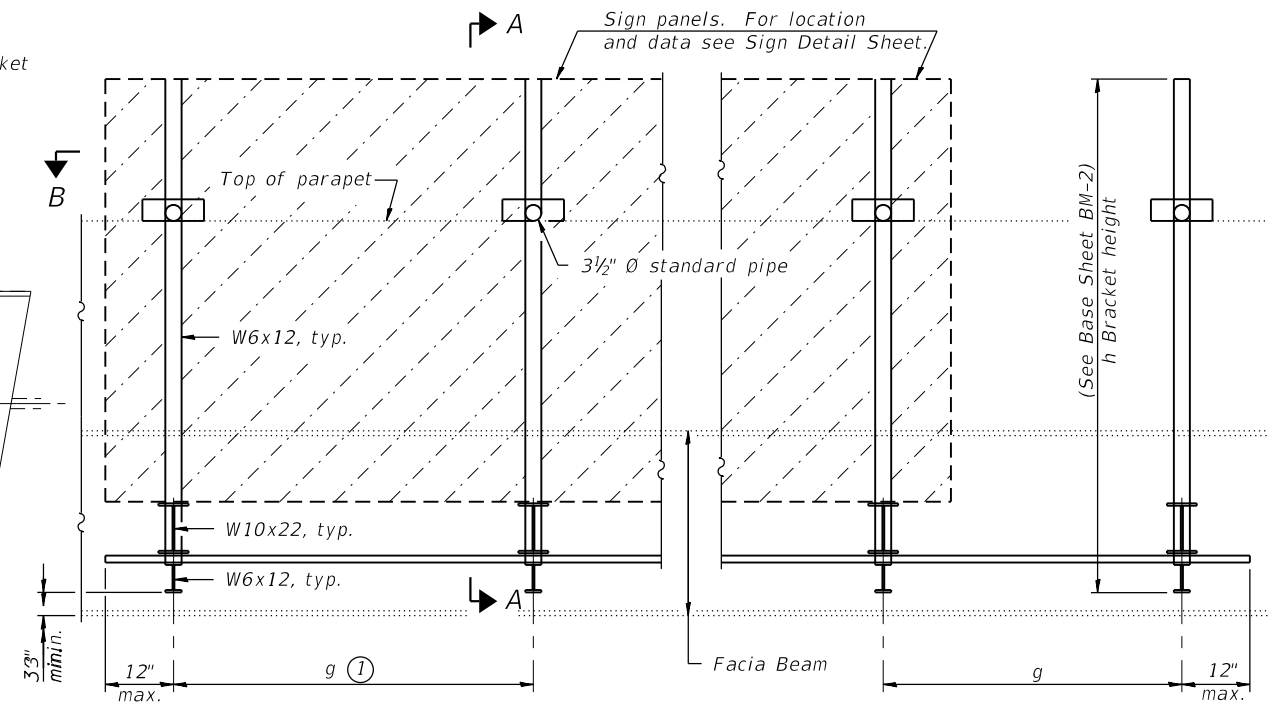
**TOTAL BILL OF MATERIAL**

③ OVERHEAD SIGN STRUCTURE-BRIDGE MOUNTED	Foot	56
--	------	----

"a" and "f" are measured along  $\bar{C}$  of fascia beam/girder to center of bracket  
 $c_s$  &  $d_s$  = sign width

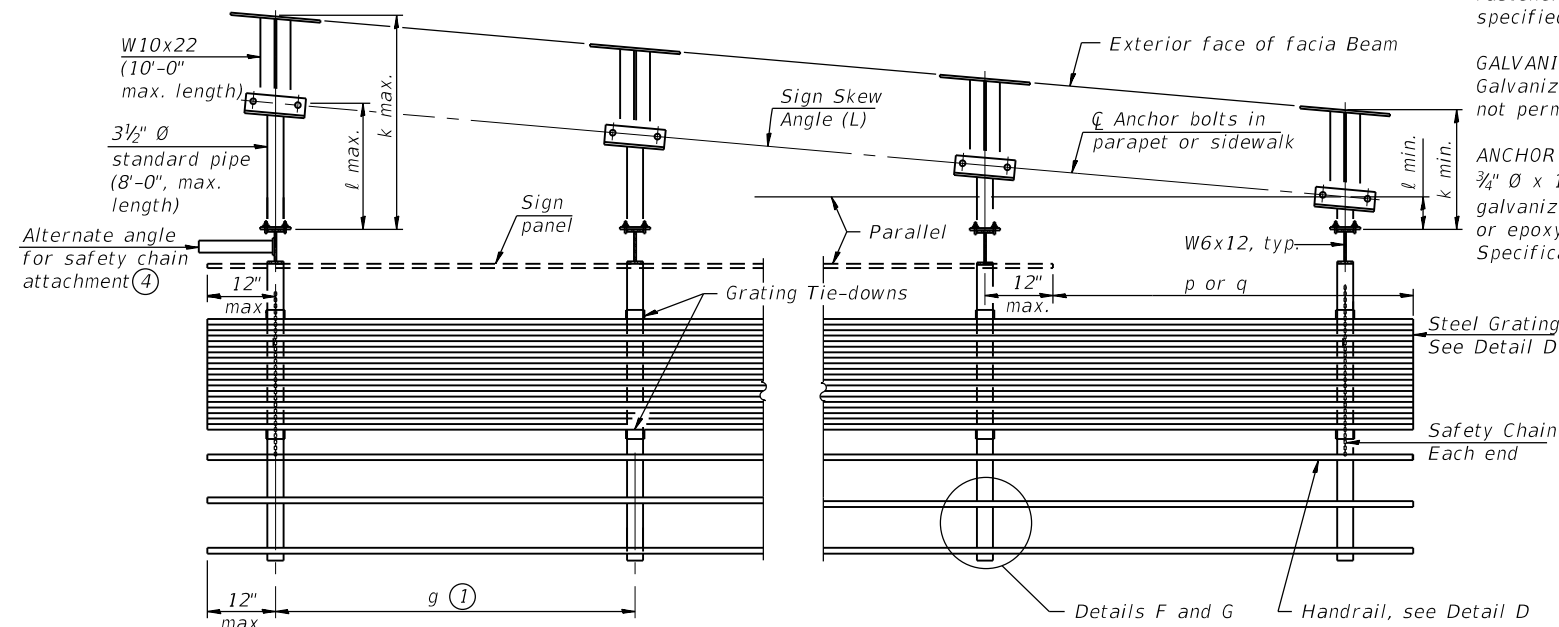


**PLAN**



**TYPICAL FRONT ELEVATION**

(With lights, safety chain and handrail omitted for clarity.)



**SECTION B-B**

(Shown: Left Sign Skew > 15°)

No Walkways or Light Fixtures in this contract.

	Structure Number	Sign Skew Angle (L) or (R)	Bridge Station	Bridge Structure Number	Contract Route Designation	a	b	$c_s$	$d_s$	e	f	g	No. of Brackets (Total)
A	1B0161057L346.6-000	10° (R)	27+79	016-2125	SB I-57	10'-9"	8'-9"	15'-0"				4'-6"	4
B	1B0161057R346.5-001	10° (R)	29+00	016-2125	NB I-57				16'-0"	*	*	*	4
C	1B0161057R346.5-000	10° (R)	29+70	016-2125	NB I-57				24'-6"	10'-8"	13'-7"	5'-8"	5

\*Existing sign panel to be relocated onto new sign panel truss. Truss to be fabricated to meet existing holes in girder. See Sheet No. 39A & 39C for sign placement and 39D & 39E for truss member sizes and connection details.

Dimensions a, b, e, f & g may vary as approved by the Engineer, see ①.

BM-1 2-17-2017

**KNIGHT**  
Engineers & Architects

USER NAME = 100T	DESIGNED - J.W. / B.N.S.	REVISED -
PLOT SCALE = 99.9999' / in.	CHECKED - B.N.S. / J.W.	REVISED -
PLOT DATE = 6/19/2018	DRAWN - B.K.	REVISED -
	DATE - JUNE 2018	REVISED -

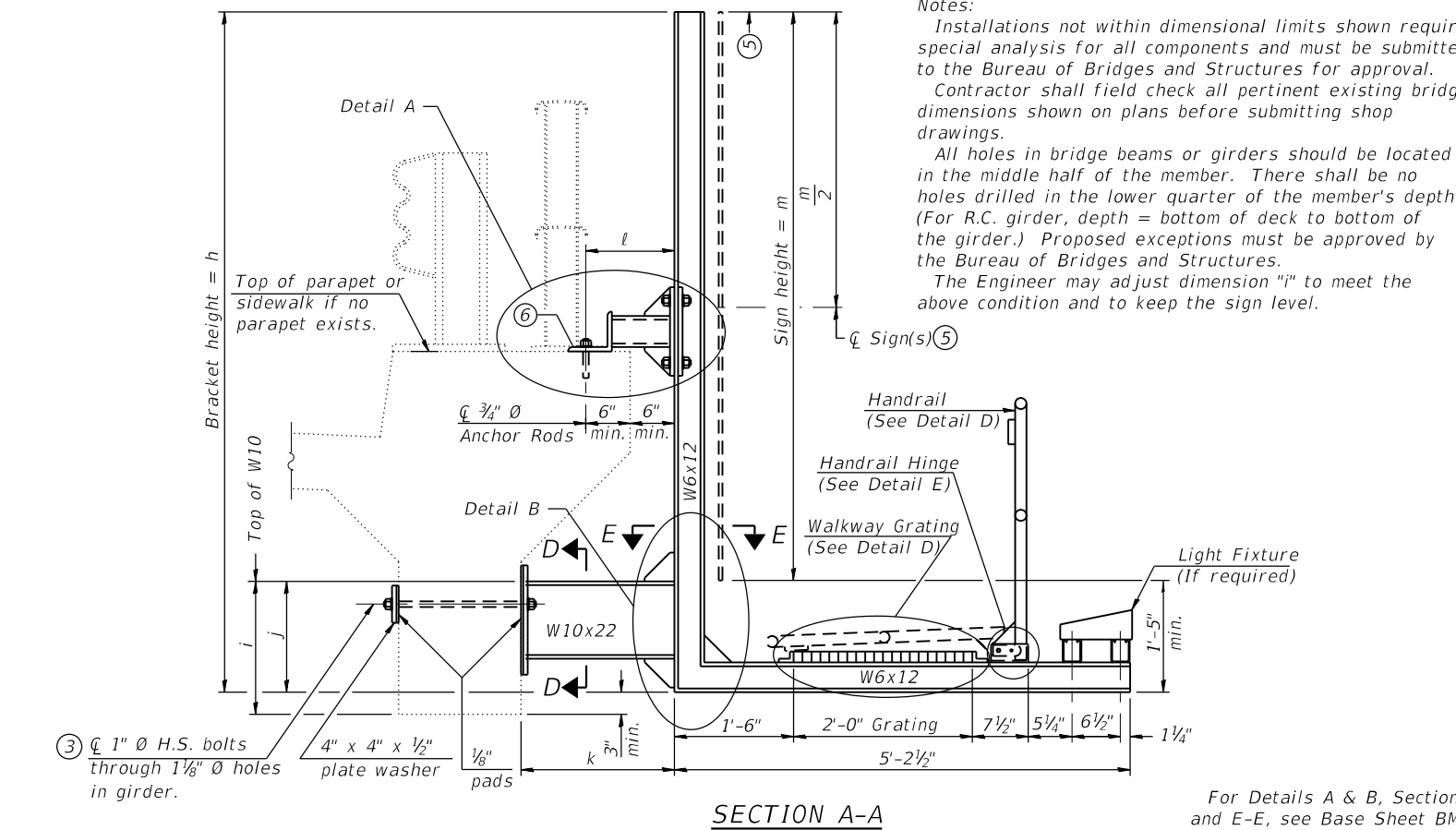
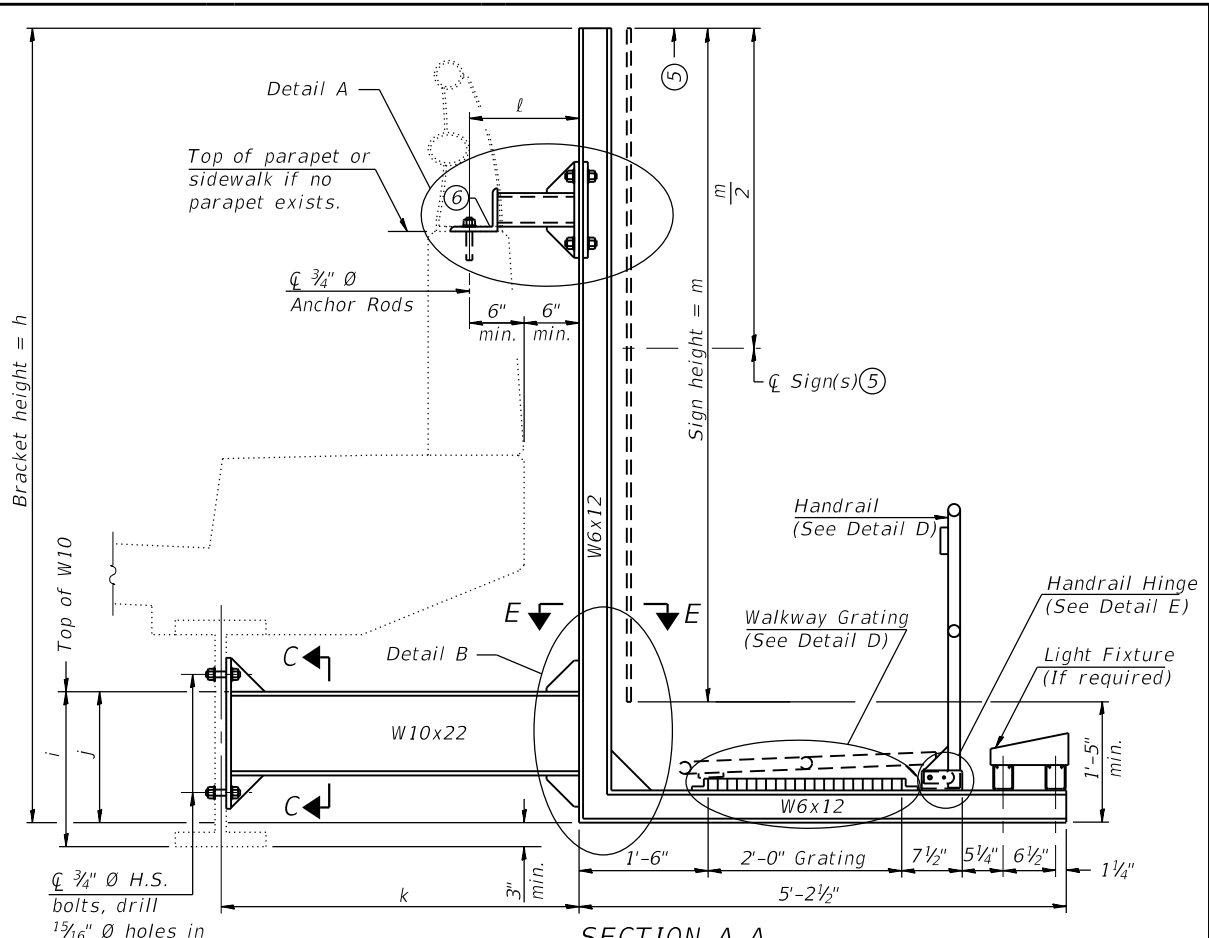
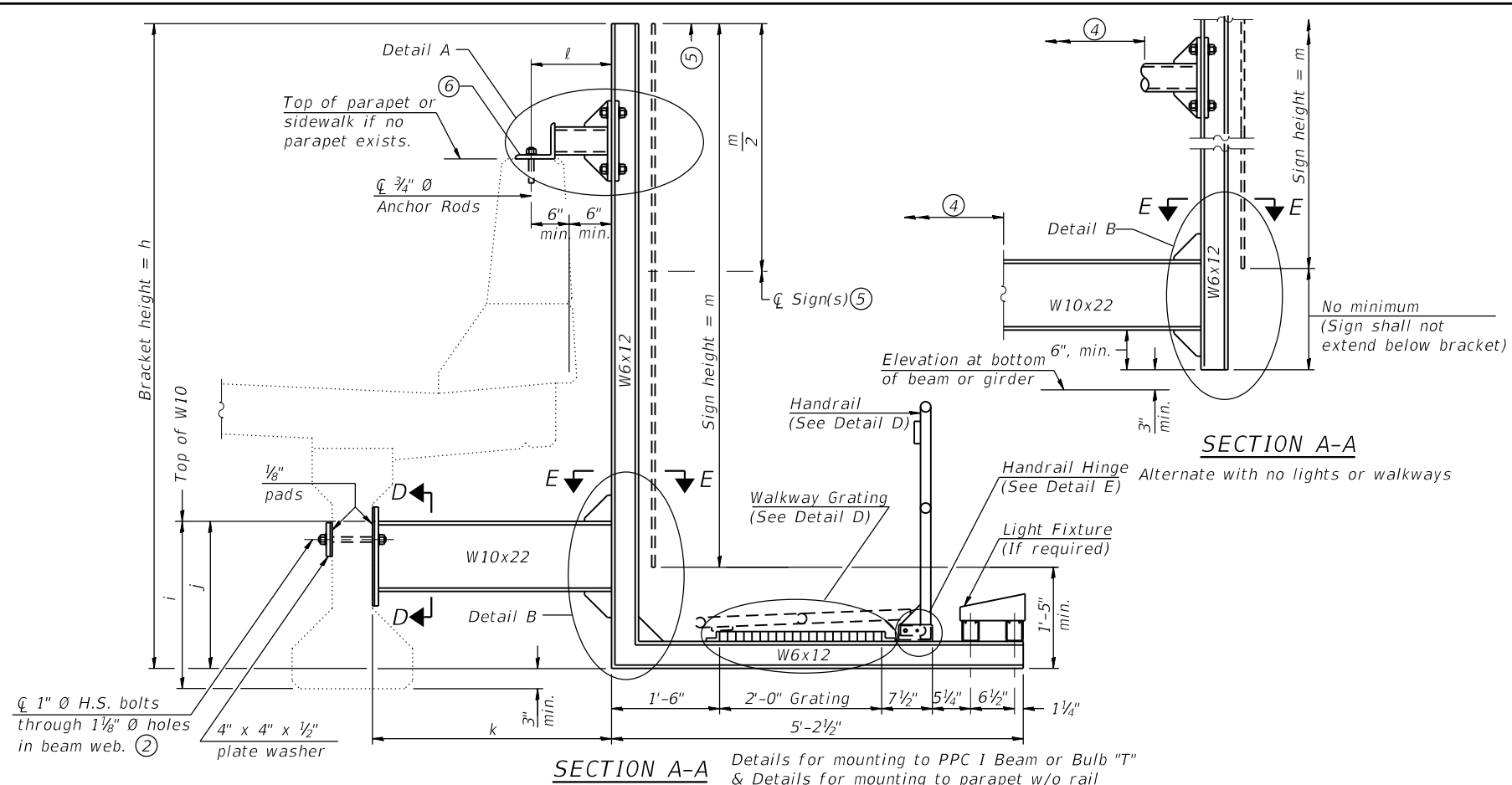
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**BRIDGE MOUNT SIGN STRUCTURES-GENERAL PLAN & ELEVATION**  
167TH STREET OVER I-57  
STRUCTURE NO. 016-2125  
SHEET NO. 1 OF 2 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1011.3-BR	COOK	145	48
CONTRACT NO. 60T43			ILLINOIS FED. AID PROJECT	

FILE NAME = L:\265\02\CAD\CADD Sheets\Sign Structures\0160143-01.GPE.dgn





- Notes:**  
 Installations not within dimensional limits shown require special analysis for all components and must be submitted to the Bureau of Bridges and Structures for approval. Contractor shall field check all pertinent existing bridge dimensions shown on plans before submitting shop drawings.  
 All holes in bridge beams or girders should be located in the middle half of the member. There shall be no holes drilled in the lower quarter of the member's depth. (For R.C. girder, depth = bottom of deck to bottom of the girder.) Proposed exceptions must be approved by the Bureau of Bridges and Structures.  
 The Engineer may adjust dimension "i" to meet the above condition and to keep the sign level.
- Holes in new steel members may be drilled in the fabrication shop or in the field. Field drill existing members.
  - For new PPC I beams, holes shall be formed during casting. For existing PPC I beams, prestressing strand locations shall be determined and spaced to miss strands by 6", min. Minimize spalling during field drilling of existing beams.
  - For new construction, form holes. For existing RC beams, locate primary reinforcement and space holes to miss by 6", min. Minimize spalling and concrete fracturing/damage during field drilling of existing concrete. Spalls over 1/4" deep or beyond the coverage of the 4x4 plate washer shall be repaired with epoxy mortar before installing washer.
  - For attachment details of 3/2" pipe and W10x22, see other sections as applicable.
  - Sign shall not extend more than 6" above top of bracket, and this dimension may vary to keep sign level if bridge is on grade or vertical curve. Multiple signs of various heights shall share a common horizontal centerline and use equal bracket heights. If no sign is attached to a W6x12 vertical (bracket only supporting walkway), dimension h shall be the same as an adjacent bracket with a sign attached, unless Engineer specifically directs shorter brackets due to locational restraints on future uses. (See Detail A for minimum bracket height.)
  - For bridge mounted sign structures installed on new bridges with railing, during design, bracket spacing must be coordinated with railing post spacing and the Contractor must install upper brackets prior to railing installation. For bridge mounted sign structures installed on existing bridges with railing, during design, brackets spacing must be coordinated with railing post spacing and the Contractor must temporarily remove sections of railing to facilitate upper bracket installation. If it is determined during design that existing railings can't be removed, alternate upper connection details must be developed for the contract plans and approved by the Bureau of Bridges and Structures.

No Walkways or Light Fixtures in this contract.

Structure Number	Bridge Station	h	i	j	k max (10'-0" max.)	l max (18'-0" max.)	m (15'-0" max.)
1B0161057L346.6-000	27+79	8'-6"	2'-7"	2'-1"	3'-9"	1'-2 3/4"	8'-6"
1B0161057R346.5-001	29+00	*	*	*	3'-9"	*	*
1B0161057R346.5-000	29+70	14'-0"	2'-7"	2'-1"	3'-9"	1'-2 3/4"	12'-6"

\* Existing sign panel to be relocated onto new sign panel truss. Truss to be fabricated to meet existing holes in girder. See Sheet No. 39A & 39C for sign placement and 39D & 39E for truss member sizes and connection details.

BM-2 2-17-2017

Details for mounting to integral reinforced concrete girder & Details for mounting on safety curb with surface-mount bridge rail

For Details A & B, Sections C-C, D-D and E-E, see Base Sheet BM-3. For Details D & E, see Base Sheet BM-4.

**KNIGHT**  
Engineers & Architects

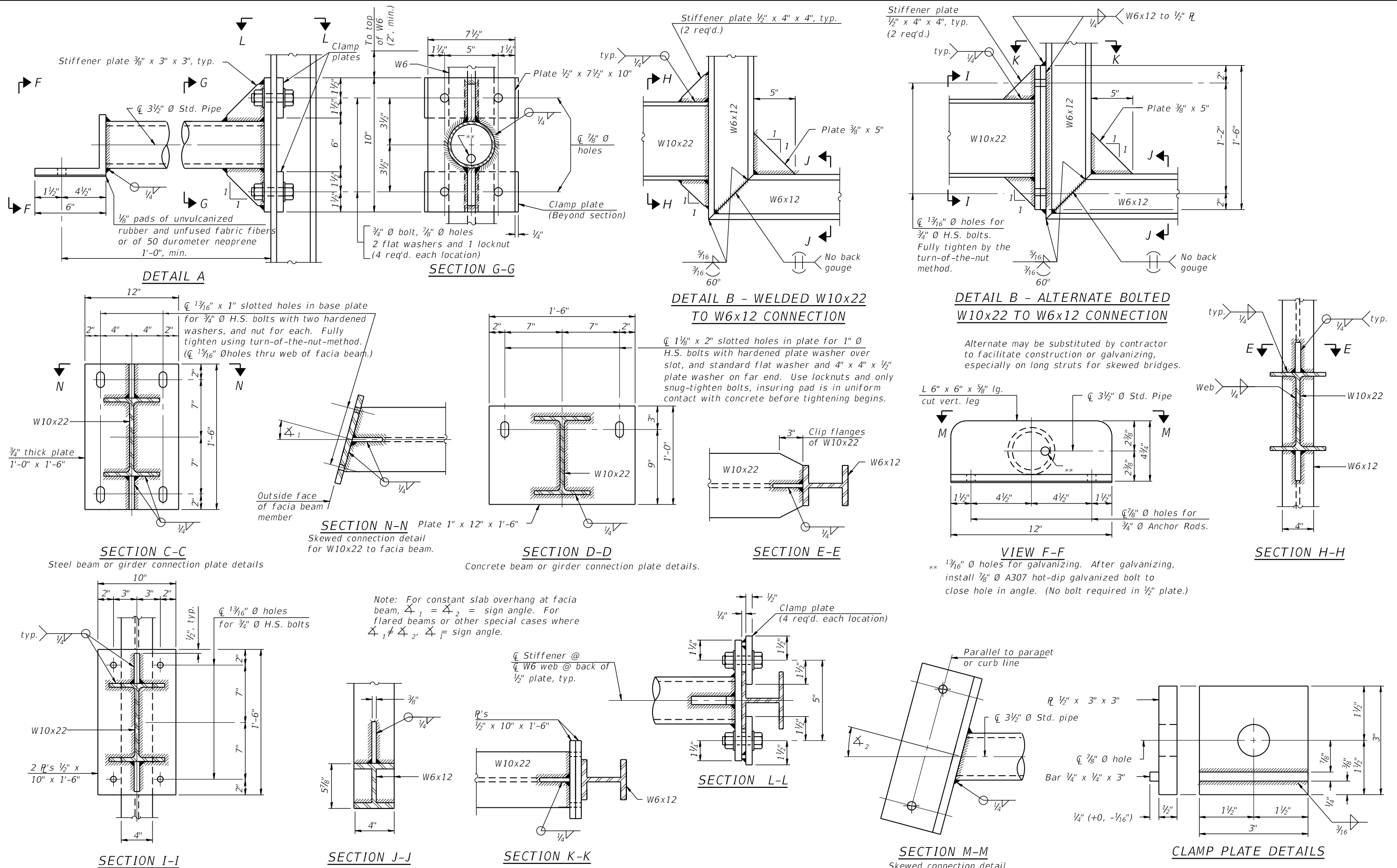
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PLOT SCALE = 99.9999' / in.	CHECKED - B.N.S. / J.W.	REVISED -
PLOT DATE = 6/19/2018	DRAWN - B.K.	REVISED -
	DATE - JUNE 2018	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

BRIDGE MOUNT SIGN STRUCTURES-WALKWAY AND CONNECTION DETAILS  
167TH STREET OVER I-57  
STRUCTURE NO. 016-2125  
SHEET NO. 2 OF 2 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1011.3-BR	COOK	145	49
CONTRACT NO. 60T43				
ILLINOIS FED. AID PROJECT				

FILE NAME = L:\7265\02\CADD\CADD Sheets\Sign Structures\0160143-02-Sign details.dgn



BM-3 2-17-2017

**KNIGHT**  
Engineers & Architects

USER NAME = 100T  
PLOT SCALE = 99.9999' / in.  
PLOT DATE = 6/19/2018

DESIGNED - J.W. / B.N.S.  
CHECKED - B.N.S. / J.W.  
DRAWN - B.K.  
DATE - JUNE 2018

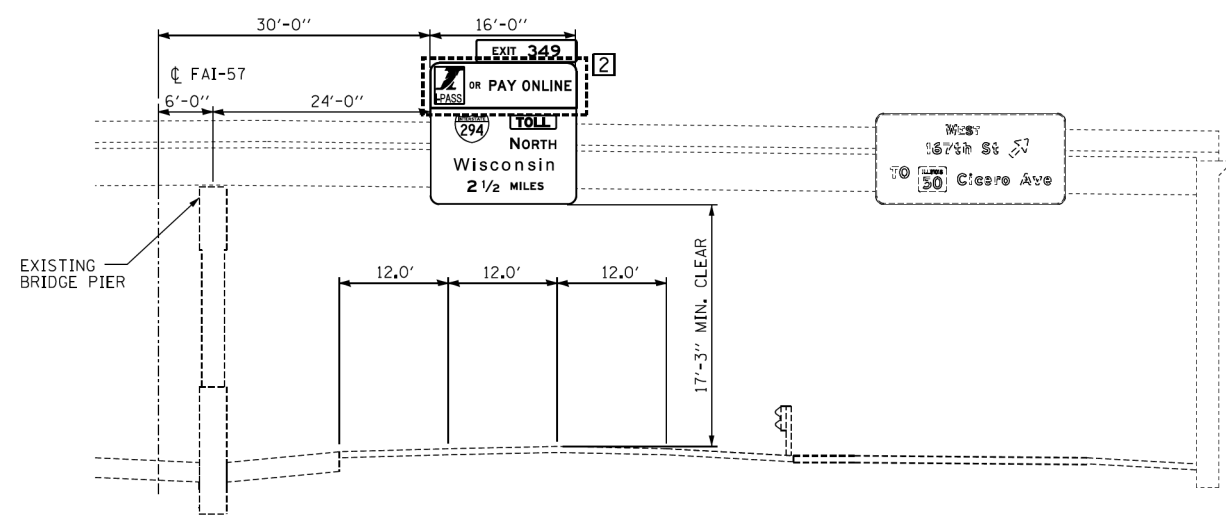
REVISED -  
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REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

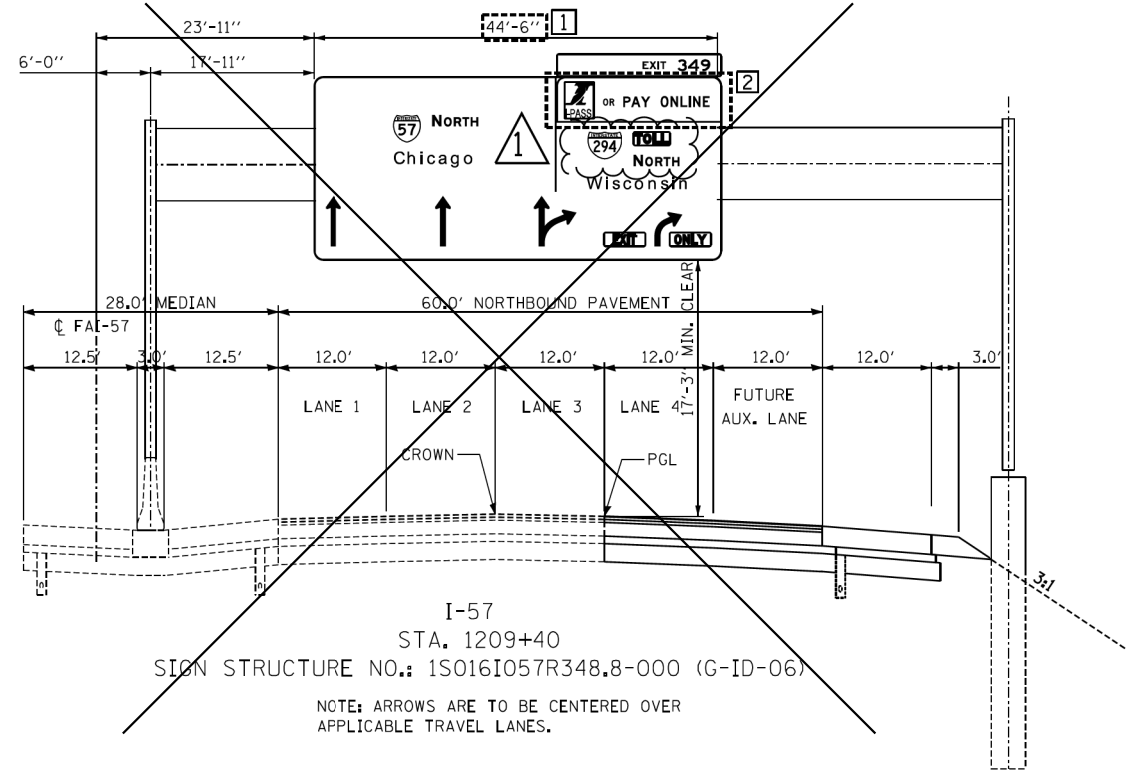
BRIDGE MOUNT SIGN STRUCTURES-CONNECTION DETAILS  
167TH STREET OVER I-57  
STRUCTURE NO. 016-2125  
SHEET NO. OF 43 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1011.3-BR	COOK	145	50
CONTRACT NO. 60T43				
ILLINOIS FED. AID PROJECT				

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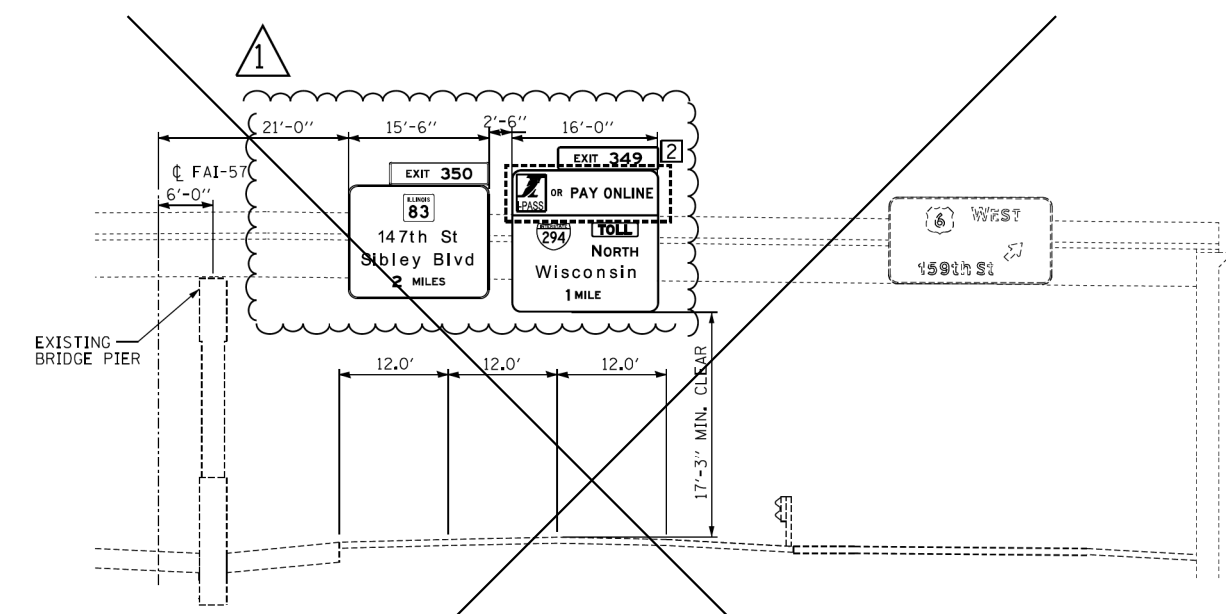


I-57  
167TH STREET BRIDGE  
BRIDGE MOUNT SIGN STRUCTURE NUMBERS:  
1B016I057R346.5-000 & 1B016I057R346.5-001 (G-ID-01)

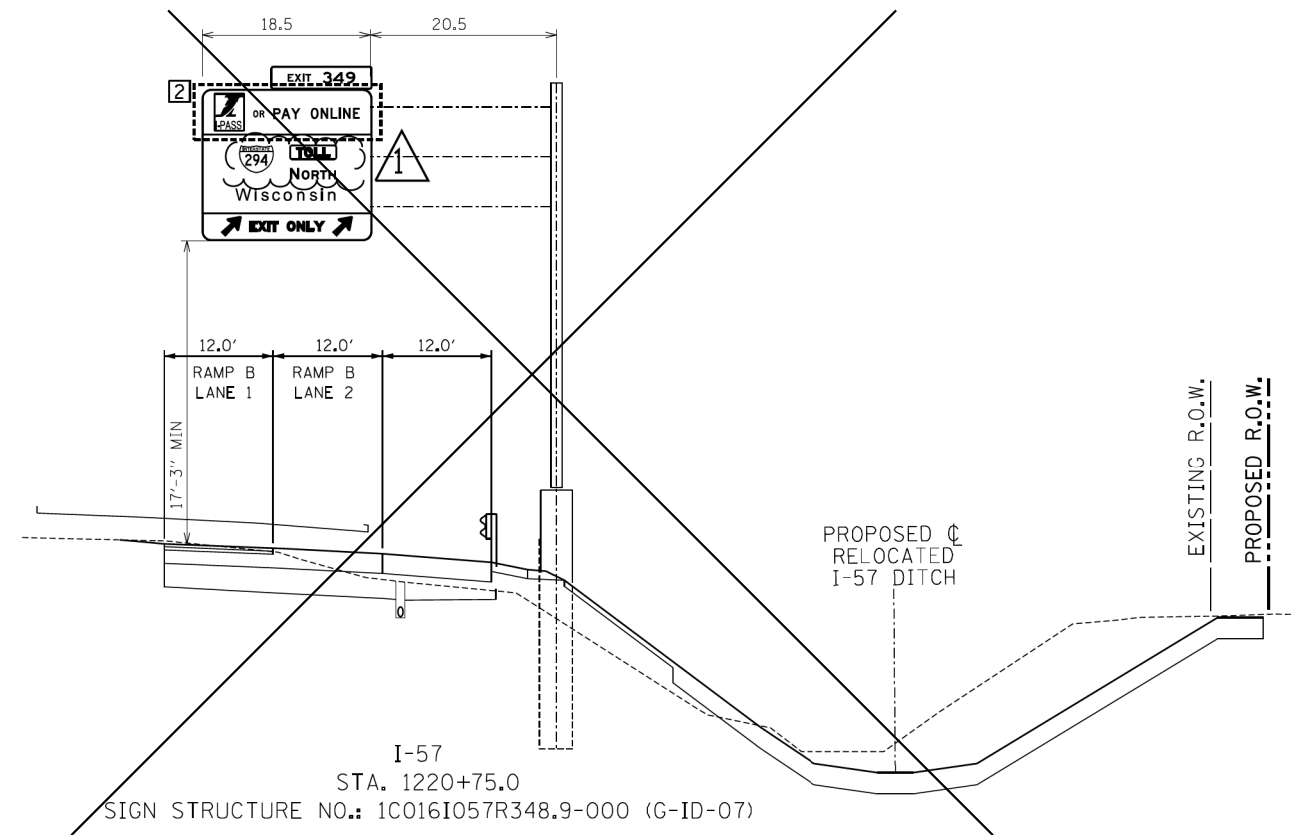


I-57  
STA. 1209+40  
SIGN STRUCTURE NO.: 1S016I057R348.8-000 (G-ID-06)

NOTE: ARROWS ARE TO BE CENTERED OVER APPLICABLE TRAVEL LANES.



I-57  
159TH STREET BRIDGE  
BRIDGE MOUNT SIGN STRUCTURE NUMBERS:  
1B016I057R348.0-000 & 1B016I057R348.0-001 (G-ID-02)  
& 1B016I057R348.1-000 (G-ID-02A)



I-57  
STA. 1220+75.0  
SIGN STRUCTURE NO.: 1C016I057R348.9-000 (G-ID-07)

**FOR REFERENCE ONLY**

FILE NAME = D:\60743-shr-sign-struct-sign-exist57A.dgn

P:\60254057-2944\Road\PSI\_RampB-IDD\VPJL\_SIGNDET\_SHTB.dgn  
9/8/2014

DRAWN BY *BES* DATE *11-15-2012*  
CHECKED BY *JPM* SCALE *NONE*

**TYLIN INTERNATIONAL**

**THE ILLINOIS STATE TOLL HIGHWAY AUTHORITY**  
2700 OGDEN AVENUE  
DOWNERS GROVE, ILLINOIS 60515

REVISIONS		
NO.	DATE	DESCRIPTION
1	12/28/12	ADDENDUM NO. 1
2	10/4/13	ISU 036 - SIGN PANEL DESIGN
3	9/8/14	TOLLWAY IPASS SIGNING REVISIONS

CONTRACT I-12-4066 SHEET SIGN-012  
NB I-57 WIDENING AND RAMP B  
GUIDE SIGN DETAILS  
I-57  
186 OF 574

PLOT DATE = 6/19/2018  
PLOT SCALE = 2.0000 ' / in.

**KNIGHT**  
Engineers & Architects

DESIGNED - SJP  
DRAWN - SJP  
CHECKED - MM  
DATE - JUNE 25, 2018

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

EXISTING BRIDGE MOUNT SIGN STRUCTURES  
167TH STREET OVER I-57  
STRUCTURE NO. 016-2125  
SCALE: NONE SHEET NO. 1 OF 5 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1011.3-BR	COOK	145	51

CONTRACT NO. 60T43  
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT

2

**SIGN DETAIL**  
1:120

Panel Style: tab1.bsl  
M.U.T.C.D.: 2009 Edition

**PROPERTY**

**OR PAY ONLINE**  
294 TOLL  
NORTH Wisconsin  
2 1/2 MILES

Panel Style: guide\_exp\_advance\_b.ssi  
M.U.T.C.D.: 2009 Edition

FONT: (1) ClearviewHwy-5-W

Letter spacings are to start of next letter

SYMBOL	ROT	X	Y	WID	HT
I-Pass logo versio 2	9.2	132.1	38.5	48	
MI_1	0	34.8	80.8	45.1	36.1

LETTER POSITIONS (X)											LENGTH	SERIES/SIZE
E	X	I	T	3	4	9					88.2	E 2000
22	8.9	10.7	3.5	7.5	15	13.8	16.6	12.2	21.9			10.15
O	R	P	A	Y							56.6	D 2000
53.7	8.4	6.2	7	10.4	12.7	12	82.1					9.14
O	N	L	I	N	E						63.9	D 2000
119.3	13	12.9	10.8	5.6	12.9	8.7	9.2					14
T	O	L	L								43.6	E 2000
104.1	10.7	12.8	11	9	44.7							12
N	O	R	T	H							59.9	E 2000
96	12.2	3	12.8	11	11	9.8	36.5					15.12
W	i	s	c	o	n	s	i	n			132.6	ClearviewHwy-5-W
30.7	25.5	8.2	14.7	14.9	17.8	15.9	15	9.5	11.1	29.1		1613
2	12	M	I	L	E	S					99.3	E 2000
47.4	12.2	7.4	22.1	14.9	12	4.4	9.2	8.9	8.2	45.7		15.10

**Professional Engineer Seal: JAMES L. POWELL, 062-38865, REGISTERED PROFESSIONAL ENGINEER OF ILLINOIS, 9/4/14**

**SIGN DETAIL**  
1:120

Panel Style: tab1.bsl  
M.U.T.C.D.: 2009 Edition

**PROPERTY**

**OR PAY ONLINE**  
294 TOLL  
NORTH Wisconsin  
1 MILE

Panel Style: guide\_exp\_advance\_b.ssi  
M.U.T.C.D.: 2009 Edition

FONT: (1) ClearviewHwy-5-W

Letter spacings are to start of next letter

SYMBOL	ROT	X	Y	WID	HT
I-Pass logo versio 2	9.2	132.1	38.5	48	
MI_1	0	34.8	80.8	45.1	36.1

LETTER POSITIONS (X)											LENGTH	SERIES/SIZE
E	X	I	T	3	4	9					88.2	E 2000
22	8.9	10.7	3.5	7.5	15	13.8	16.6	12.2	21.9			10.15
O	R	P	A	Y							56.6	D 2000
53.7	8.4	6.2	7	10.4	12.7	12	82.1					9.14
O	N	L	I	N	E						63.9	D 2000
119.3	13	12.9	10.8	5.6	12.9	8.7	9.2					14
T	O	L	L								43.6	E 2000
104.1	10.7	12.8	11	9	44.7							12
N	O	R	T	H							59.9	E 2000
96	12.2	3	12.8	11	11	9.8	36.5					15.12
W	i	s	c	o	n	s	i	n			132.6	ClearviewHwy-5-W
30.7	25.5	8.2	14.7	14.9	17.8	15.9	15	9.5	11.1	29.1		1613
1	M	I	L	E	S						52.6	EM 2000.E 2000
73.7	4.5	15	12	4.4	9.2	7.5	66.1					15.10

**Professional Engineer Seal: JAMES L. POWELL, 062-38865, REGISTERED PROFESSIONAL ENGINEER OF ILLINOIS, 9/4/14**

**SIGN DETAIL**  
1:120

Panel Style: tab1.bsl  
M.U.T.C.D.: 2009 Edition

**PROPERTY**

**OR PAY ONLINE**  
294 TOLL  
NORTH Wisconsin  
EXIT ONLY

Panel Style: guide\_exp\_advance\_b.ssi  
M.U.T.C.D.: 2009 Edition

FONT: (1) ClearviewHwy-5-W

Letter spacings are to start of next letter

SYMBOL	ROT	X	Y	WID	HT
I-Pass logo versio 2	16.3	144.3	38.5	48	
AR_Type A	315	25.8	7.1	20.1	31.6
AR_Type A	315	171.1	7.3	20.1	31.6

LETTER POSITIONS (X)											LENGTH	SERIES/SIZE
E	X	I	T	3	4	9					88.2	E 2000
21.9	8.9	10.7	3.5	7.6	14.9	13.8	16.7	12.1	21.9			10.15
O	R	P	A	Y	O	N	I	N	E		139.2	D 2000
66.8	9.3	6.9	9.9	10.4	12.7	12	14	13	12.9	10.8		10.14
T	O	L	L								43.6	E 2000
119.9	10.7	12.8	11	9.1	58.8							12
N	O	R	T	H							80	E 2000
111.8	12.2	3.1	12.8	11	11	9.7	50.5					15.12
W	i	s	c	o	n	s	i	n			132.6	ClearviewHwy-5-W
45.6	25.5	8.2	14.7	14.9	17.8	15.9	15	9.5	11.1	44		1613
E	X	I	T	O	N	L	Y				96.7	E 2000
62.6	10.7	12.8	4.2	9	12.8	12.8	10	12.3	63			12

**Professional Engineer Seal: JAMES L. POWELL, 062-38865, REGISTERED PROFESSIONAL ENGINEER OF ILLINOIS, 9/4/14**

**SIGN DETAIL**  
1:25

Panel Style: Guide\_fw\_gore\_minor.ssi  
M.U.T.C.D.: 2009 Edition

**PROPERTY**

**EXIT 349**

Panel Style: guide\_exp\_advance\_b.ssi  
M.U.T.C.D.: 2009 Edition

FONT: (1) ClearviewHwy-5-W

Letter locations are panel edge to lower left corner

SYMBOL	ROT	X	Y	WID	HT
AR_Type A	315	65.4	6.4	18.3	26.8

LETTER POSITIONS (X)						LENGTH	SERIES/SIZE
E	X	I	T			44.4	E 2000
31.9	44.6	60.5	67.2				12
3	4	9				51.1	E 2000
9.7	26.3	46.3					18

FOR REFERENCE ONLY

FILE NAME = 0160743-shr-sign-exist578.dgn	PLOT DATE = 6/19/2018	PLOT SCALE = 2.0000 ' / in.	DESIGNED - SJP	DRAWN - SJP	CHECKED - MM	DATE - JUNE 25, 2018	REVISED -	REVISED -	REVISED -	REVISED -											
DRAWN BY: <b>BES</b>	DATE: <b>11-15-2012</b>	CHECKED BY: <b>JPM</b>	SCALE: <b>NONE</b>	<b>TYLIN INTERNATIONAL</b> THE ILLINOIS STATE TOLL HIGHWAY AUTHORITY 2700 OGDEN AVENUE DOWNERS GROVE, ILLINOIS 60515		<b>STATE OF ILLINOIS</b> DEPARTMENT OF TRANSPORTATION	REVISIONS <table border="1"> <thead> <tr> <th>NO.</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>12/28/12</td> <td>ADDENDUM NO. 1</td> </tr> <tr> <td>1</td> <td>10/4/13</td> <td>ISU 036 - SIGN PANEL DESIGN</td> </tr> <tr> <td>2</td> <td>9/8/14</td> <td>TOLLWAY IPASS SIGNING REVISIONS</td> </tr> </tbody> </table>	NO.	DATE	DESCRIPTION	1	12/28/12	ADDENDUM NO. 1	1	10/4/13	ISU 036 - SIGN PANEL DESIGN	2	9/8/14	TOLLWAY IPASS SIGNING REVISIONS	CONTRACT I-12-4066 NB I-57 WIDENING AND RAMP B GUIDE SIGN DETAILS I-57	SHEET SIGN-015 189 OF 574
NO.	DATE	DESCRIPTION																			
1	12/28/12	ADDENDUM NO. 1																			
1	10/4/13	ISU 036 - SIGN PANEL DESIGN																			
2	9/8/14	TOLLWAY IPASS SIGNING REVISIONS																			
<b>KNIGHT</b> Engineers & Architects			EXISTING BRIDGE MOUNT SIGN STRUCTURES 167TH STREET OVER I-57 STRUCTURE NO. 016-2125			F.A.I. RTE.: 57 SECTION: 1011.3-BR COUNTY: COOK TOTAL SHEETS: 145 SHEET NO.: 52	SCALE: NONE SHEET NO. 2 OF 5 SHEETS STA. TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT CONTRACT NO. 60T43													

GENERAL NOTES

SPECIFICATIONS:

DESIGN: AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals. ("AASHTO Specifications") ②

CONSTRUCTION: Current (at time of letting) Illinois Department of Transportation Standard Specifications for Road and Bridge Construction, Supplemental Specifications and Special Provisions. ("Standard Specifications")

LOADING: 90 M.P.H. WIND VELOCITY

WALKWAY LOADING: Dead load plus 500 lbs. concentrated live load.

MINIMUM CLEARANCE: 3" greater than bridge members at all locations. (All Obstructions)

WELDING: All welds to be continuous unless otherwise shown. All welding to be done in accordance with current AWS D1.1 Structural Welding Code (Steel) and the Standard Specifications.

MATERIALS: All Structural Steel Pipe shall be ASTM A53 Grade B with a minimum yield of 35,000 p.s.i., or A500 Grade B or C with a minimum yield of 46,000 p.s.i. If A500 pipe is substituted for A53, then the outside diameter shall be as detailed and wall thickness greater than or equal to A53.

All Structural Steel Plates and Shapes shall conform to AASHTO M270 Gr. 36, Gr. 50 (M183, M223 Gr. 50).

HIGH STRENGTH BOLTS: All bolts, washers, nuts and locknuts shall satisfy the requirements of ASTM designation A307 unless noted as "H.S." which shall require AASHTO M164 (A325), ASTM A449, or approved alternate. All fasteners shall be hot dip galvanized per AASHTO M232 unless otherwise specified.

GALVANIZING: All Steel Grating, Plates, Shapes and Pipe shall be Hot Dip Galvanized after fabrication in accordance with AASHTO M111. Painting is not permitted.

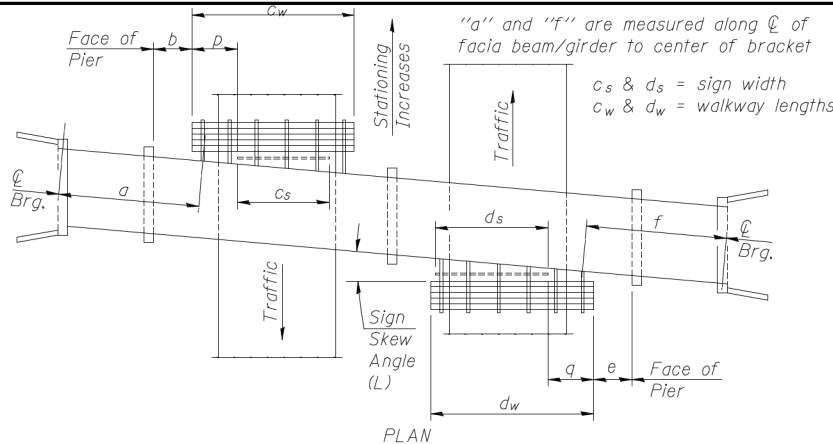
ANCHOR RODS: All-threaded rod shall conform to ASTM F1554 Grade 105, 3/4" φ x 12" long, each with one plate washer and locknut and be hot dip galvanized per AASHTO M232. They shall be either cast into the concrete or epoxy grouted in accordance with Section 584 of the Standard Specifications. Minimum embedment in concrete shall be 9".

- ① Bracket spacing  $g \leq 6'-0"$ , max. Spacing shall be uniform if possible but may vary  $\pm 6"$  to miss existing obstruction (rail post, light poles, web stiffeners, splice plates, etc.). Adjust bracket lengths accordingly on skewed structures.
- ② Any design modifications shall be based on the current version of applicable specifications and submitted for the Engineer's approval.
- ③ Unit price includes grating, handrail, brackets, supports, anchor bolts, fasteners, fabrication, delivery, erection, field drilling and other necessary items. Limits of payment are based on grating length (cw, dw) unless otherwise specified. For Safety Chain Details and Details D, F and G, see Base Sheet BM-4.
- ④ If walkway bracket at safety chain location is behind sign, add angle to bracket. See detail on Base Sheet BM-4.

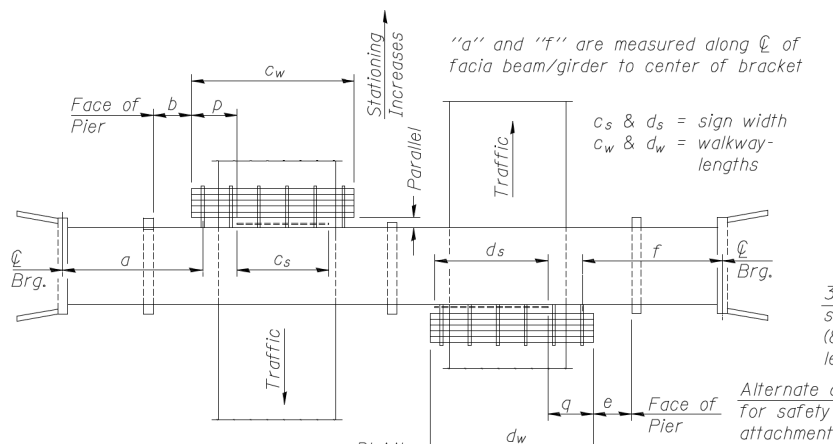
**FOR REFERENCE ONLY**

TOTAL BILL OF MATERIAL

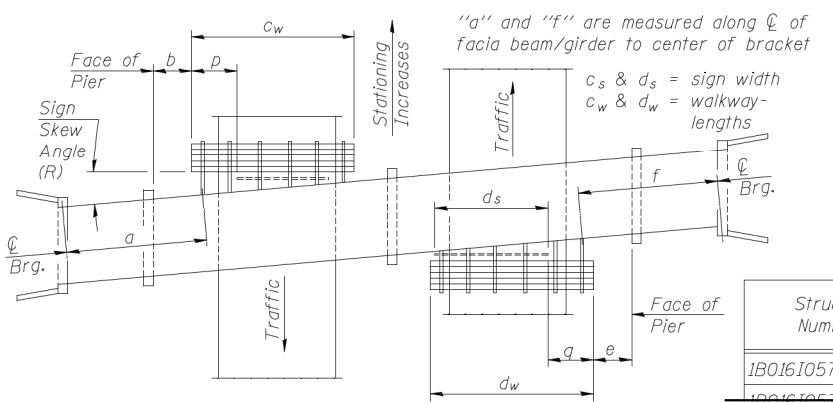
③ OVERHEAD SIGN STRUCTURE - BRIDGE MOUNTED	Foot	76.5
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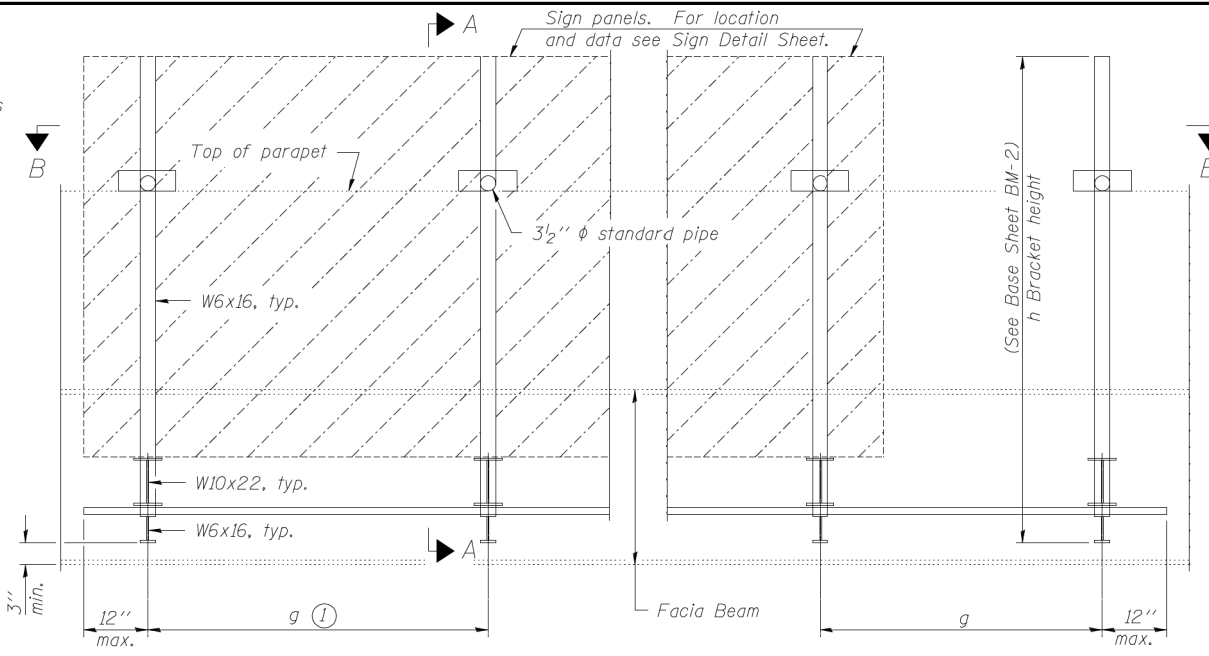
WALKWAY AND HANDRAIL SKETCH  
(Road plan beneath structure varies.)



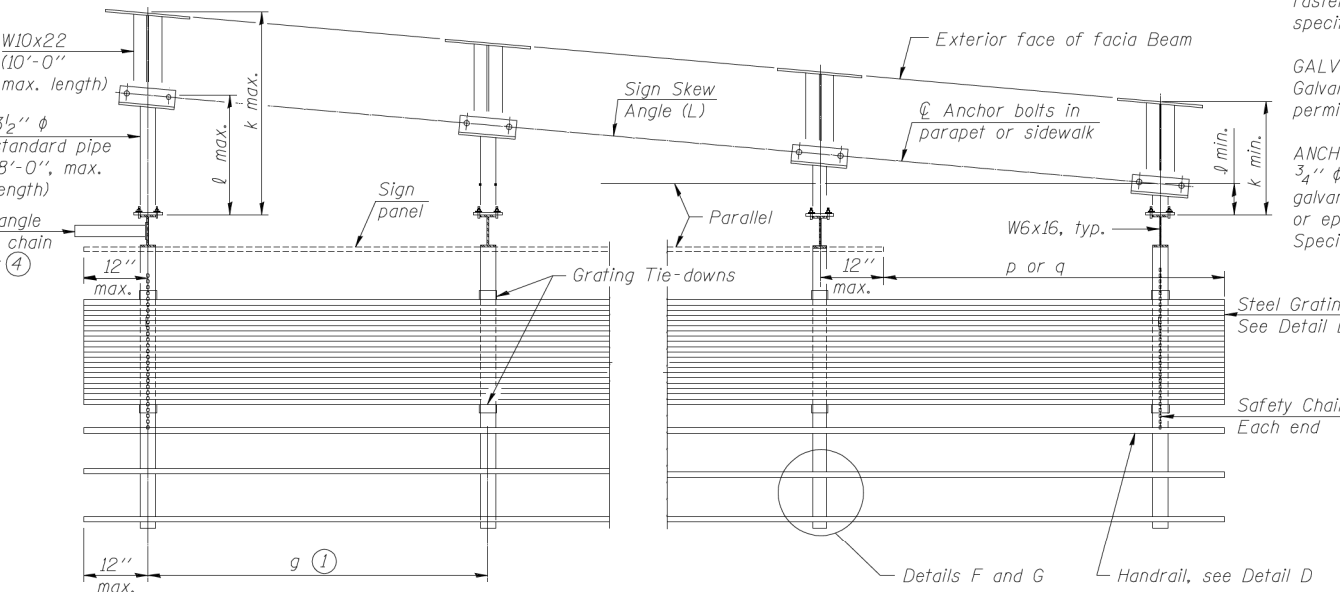
WALKWAY AND HANDRAIL SKETCH  
(Road plan beneath structure varies.)



WALKWAY AND HANDRAIL SKETCH  
(Road plan beneath structure varies.)



TYPICAL FRONT ELEVATION  
(With lights, safety chain and handrail omitted for clarity.)



SECTION B-B  
(Shown: Left Sign Skew > 15°)

Structure Number	Sign Skew Angle (L) or (R)	Bridge Station	Bridge Structure Number	Contract Route Designation	a	b	c <sub>s</sub>	c <sub>w</sub>	d <sub>s</sub>	d <sub>w</sub>	e	f	g	No. of Brackets (Total)	p	q	Total Grating/Hndrl. Lengths (c <sub>w</sub> + d <sub>w</sub> )
1B0161057R346.5	0°		016-2125	167th ST.					16.0'			69.5'	4.67'	4			
1B0161057R348.0	18.4° (R)		016-1013	159th ST.					16.0'			80.0'	4.67'	4			
1B0161057R349.1	0°		016-1196	Kedzie Ave.					29.0'			105.0'	4.50'	7			
1B0161057R348.1	18.4° (R)		016-1013	159th ST.					15.5'			99.8'	4.50'	4			

Dimensions a, b, e, f & g may vary as approved by the Engineer, see ①.  
When c<sub>w</sub> < c<sub>s</sub> and/or d<sub>w</sub> < d<sub>s</sub>, use alternate brackets without walkway supports where applicable, see ③.

BM-1-SPECIAL 6-1-12

DRAWN BY ..... DATE 11-15-2012  
CHECKED BY ..... SCALE .....

**TYLIN INTERNATIONAL**

**THE ILLINOIS STATE TOLL HIGHWAY AUTHORITY**  
2700 OGDEN AVENUE  
DOWNERS GROVE, ILLINOIS 60515

REVISIONS	
NO.	DATE DESCRIPTION
1	12/28/12 ADDENDUM NO. 1

CONTRACT I-12-4066  
NB I-57 WIDENING AND RAMP B SIGN STRUCTURE - SHEET 9  
SHEET SIGN 027  
201 OF 574

**KNIGHT**  
Engineers & Architects

DESIGNED - SJP  
DRAWN - SJP  
CHECKED - MM  
DATE - JUNE 25, 2018

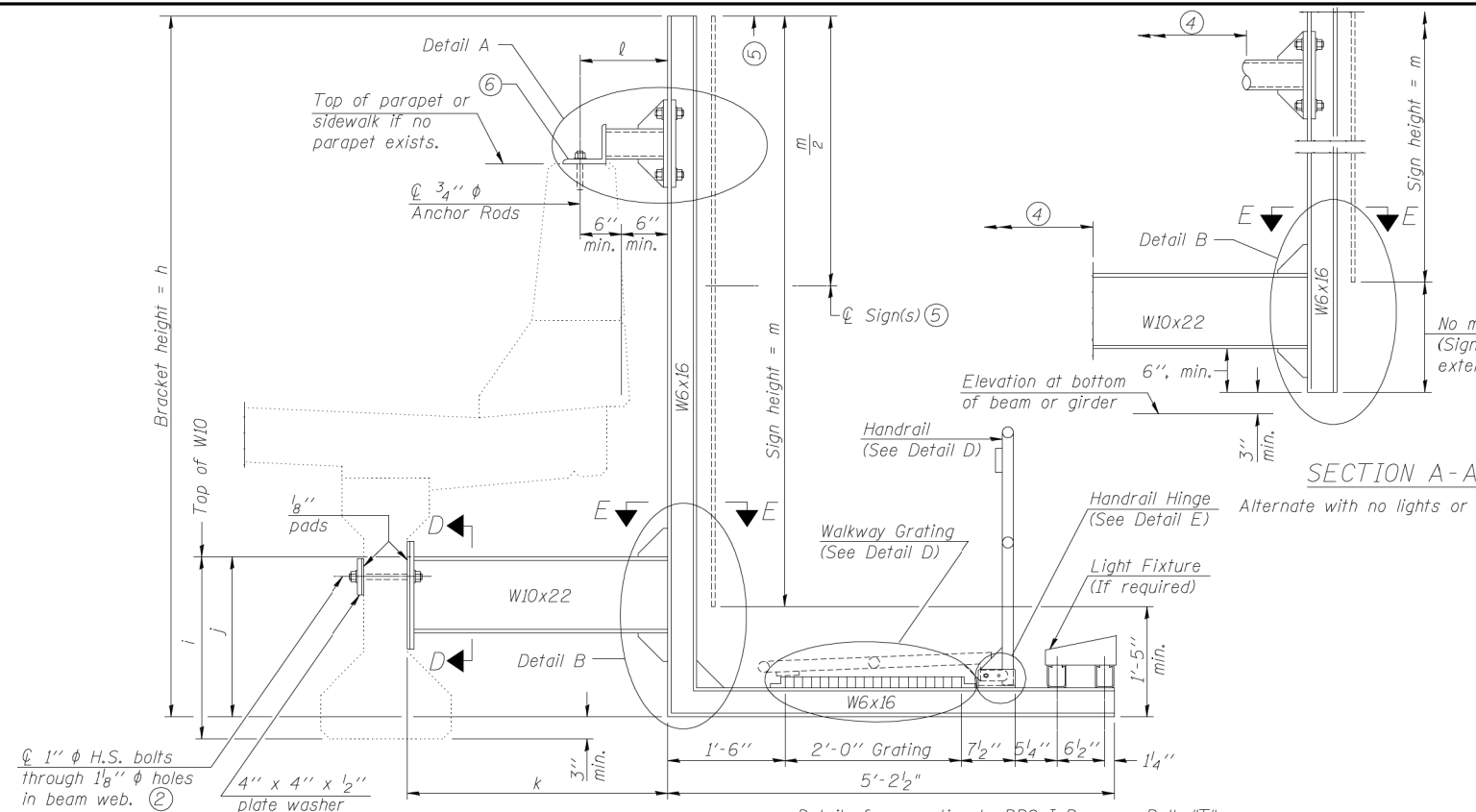
**STATE OF ILLINOIS**  
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE MOUNT SIGN STRUCTURES  
167TH STREET OVER I-57  
STRUCTURE NO. 016-2125  
SCALE: NONE SHEET NO. 3 OF 5 SHEETS STA. TO STA.

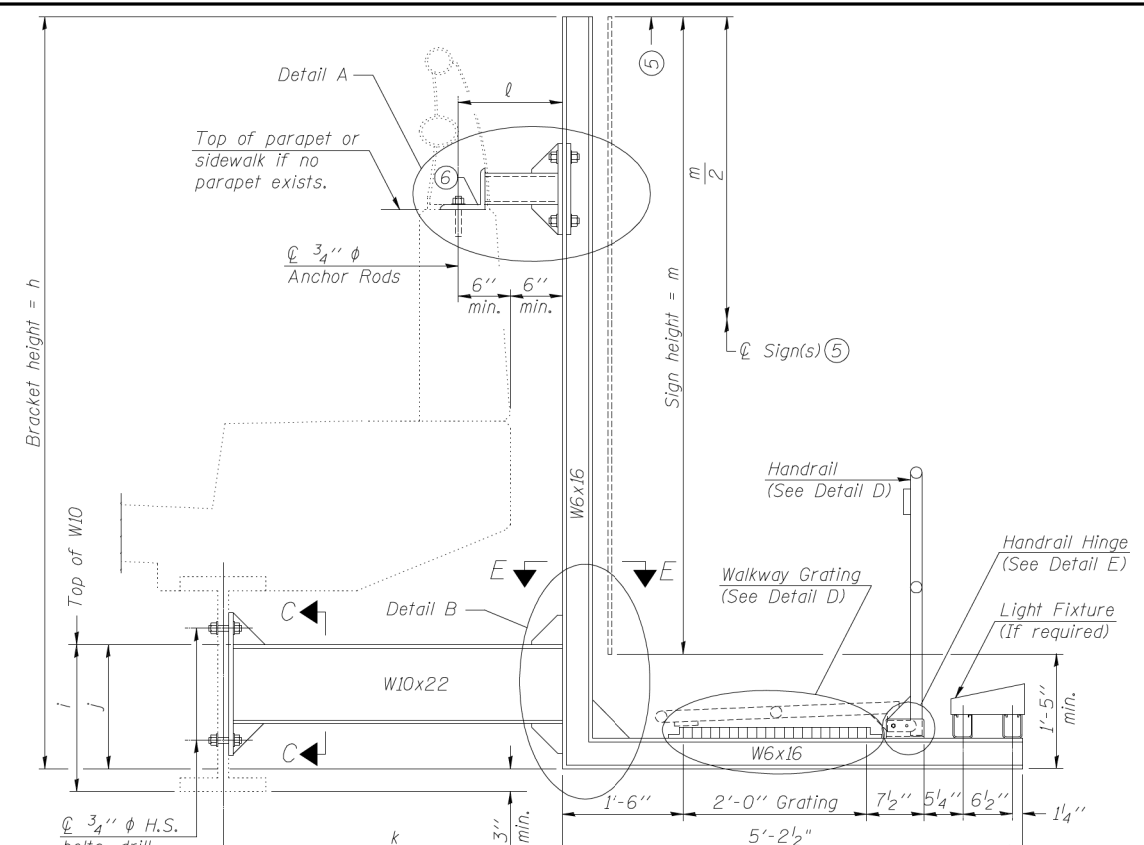
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1011.3-BR	COOK	145	53

CONTRACT NO. 60T43  
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT

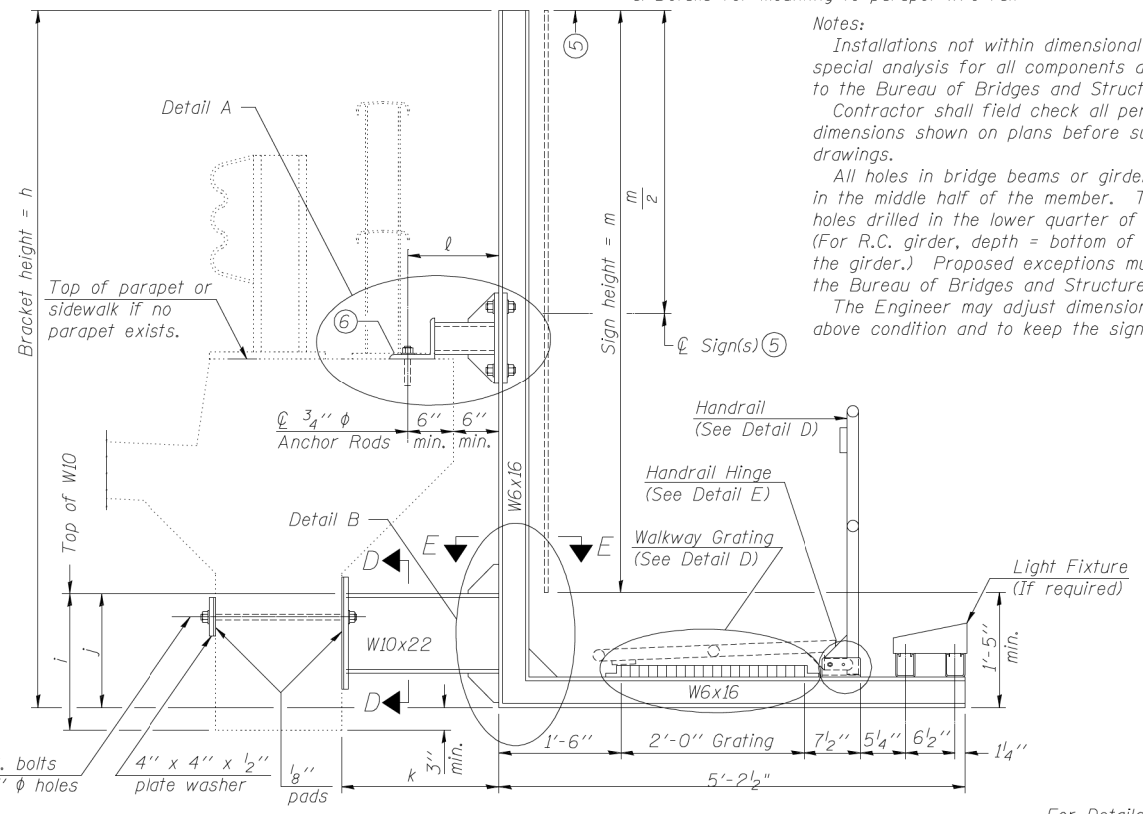
FILE NAME = 0160743-shr-sign-struct-0161157C.dgn  
PLOT DATE = 6/19/2018  
PLOT SCALE = 2.0000' / 1"



SECTION A-A Details for mounting to PPC I Beam or Bulb "T" & Details for mounting to parapet w/o rail



SECTION A-A Details for mounting to steel beam or girder & Details for mounting with existing parapet mounted rail



SECTION A-A Details for mounting to integral reinforced concrete girder & Details for mounting on safety curb with surface-mount bridge rail

Notes:  
 Installations not within dimensional limits shown require special analysis for all components and must be submitted to the Bureau of Bridges and Structures for approval. Contractor shall field check all pertinent existing bridge dimensions shown on plans before submitting shop drawings.  
 All holes in bridge beams or girders should be located in the middle half of the member. There shall be no holes drilled in the lower quarter of the member's depth. (For R.C. girder, depth = bottom of deck to bottom of the girder.) Proposed exceptions must be approved by the Bureau of Bridges and Structures.  
 The Engineer may adjust dimension "i" to meet the above condition and to keep the sign level.

- ① Holes in new steel members may be drilled in the fabrication shop or in the field. Field drill existing members.
- ② For new PPC I beams, holes shall be formed during casting. For existing PPC I beams, prestressing strand locations shall be determined and spaced to miss strands by 6", min. Minimize spalling during field drilling of existing beams.
- ③ For new construction, form holes. For existing RC beams, locate primary reinforcement and space holes to miss by 6", min. Minimize spalling and concrete fracturing/damage during field drilling of existing concrete. Spalls over 1/4" deep or beyond the coverage of the 4x4 plate washer shall be repaired with epoxy mortar before installing washer.
- ④ For attachment details of 3/2" pipe and W10x22, see other sections as applicable.
- ⑤ Sign shall not extend more than 6" above top of bracket, and this dimension may vary to keep sign level if bridge is on grade or vertical curve. Multiple signs of various heights shall share a common horizontal centerline and use equal bracket heights. If no sign is attached to a W6x12 vertical (bracket only supporting walkway), dimension h shall be the same as an adjacent bracket with a sign attached, unless Engineer specifically directs shorter brackets due to locational restraints on future uses. (See Detail A for minimum bracket height.)
- ⑥ For bridge mounted sign structures installed on new bridges with railing, during design, bracket spacing must be coordinated with railing post spacing and the Contractor must install upper brackets prior to railing installation. For bridge mounted sign structures installed on existing bridges with railing, during design, brackets spacing must be coordinated with railing post spacing and the Contractor must temporarily remove sections of railing to facilitate upper bracket installation. If it is determined during design that existing railings can't be removed, alternate upper connection details must be developed for the contract plans and approved by the Bureau of Bridges and Structures.

NO WALKWAY OR LIGHT FIXTURES IN THIS CONTRACT

Structure Number	Station	h	i	j	k max. (10'-0" max.)	l max. (8'-0" max.)	m (15'-0" max.)
1B0161057R346.5	1100+18	18'-0"	2.70'	2.45'	3'-0"	1'-0"	18'-0"
1B0161057R348.0	1172+45	18'-0"	2.80'	2.55'	8'-2"	6'-0 3/4"	18'-0"
1B0161057R349.1	1222+66	18'-0"	2.63'	2.38'	4'-8"	1'-0"	18'-0"
1B0161057R346.1	1172+45	15'-0"	2.80'	2.55'	6'-0"	5'-10 3/4"	15'-0"

**FOR REFERENCE ONLY**

BM-2-SPECIAL 6-1-12  
 DRAWN BY ..... DATE 11-15-2012  
 CHECKED BY ..... SCALE .....

**TYLIN INTERNATIONAL**

**THE ILLINOIS STATE TOLL HIGHWAY AUTHORITY**  
 2700 OGDEN AVENUE  
 DOWNERS GROVE, ILLINOIS 60515

REVISIONS	
NO.	DATE DESCRIPTION
1	12/28/12 ADDENDUM NO. 1

CONTRACT I-12-4066  
 NB I-57 WIDENING AND RAMP B  
 SIGN STRUCTURE - SHEET 10  
 SHEET SIGN 028  
 202 OF 574

DESIGNED - SJP  
 DRAWN - SJP  
 CHECKED - MM  
 DATE - JUNE 25, 2018

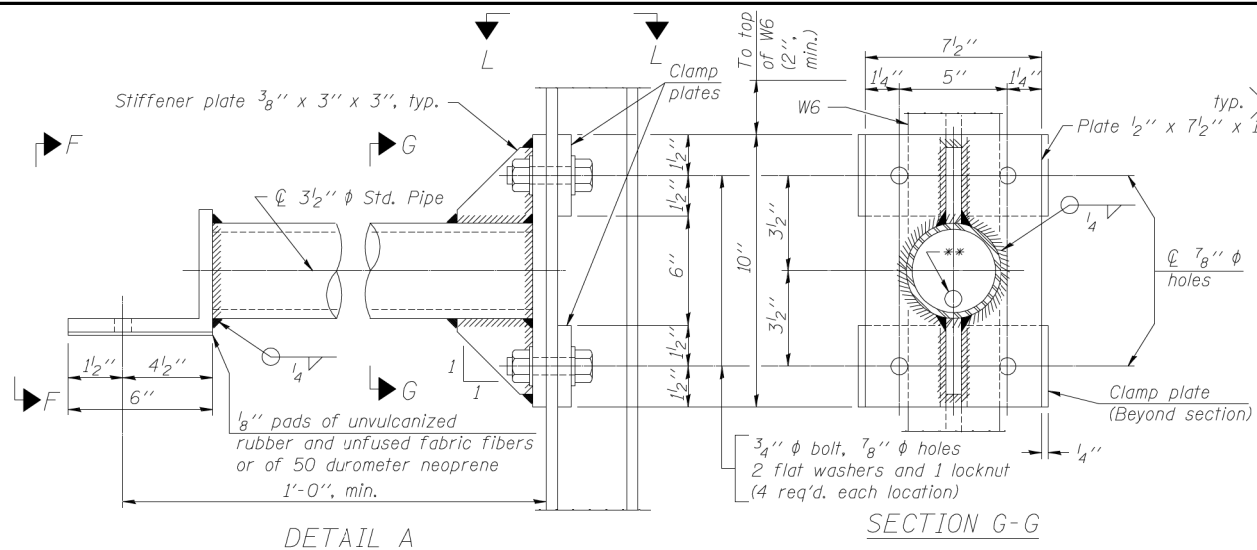
**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

EXISTING BRIDGE MOUNT SIGN STRUCTURES  
 167TH STREET OVER I-57  
 STRUCTURE NO. 016-2125  
 SCALE: NONE SHEET NO. 4 OF 5 SHEETS STA. TO STA.

F.A.I. SECTION COUNTY TOTAL SHEET SHEET NO.  
 RTE. 57 1011.3-BR COOK 145 54  
 CONTRACT NO. 60T43  
 FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT

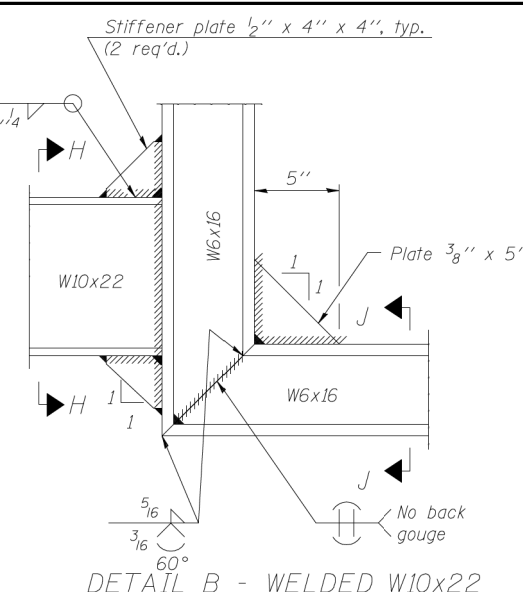
**KNIGHT**  
 Engineers & Architects

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 PLOT SCALE = 2.0000 ' / 1"

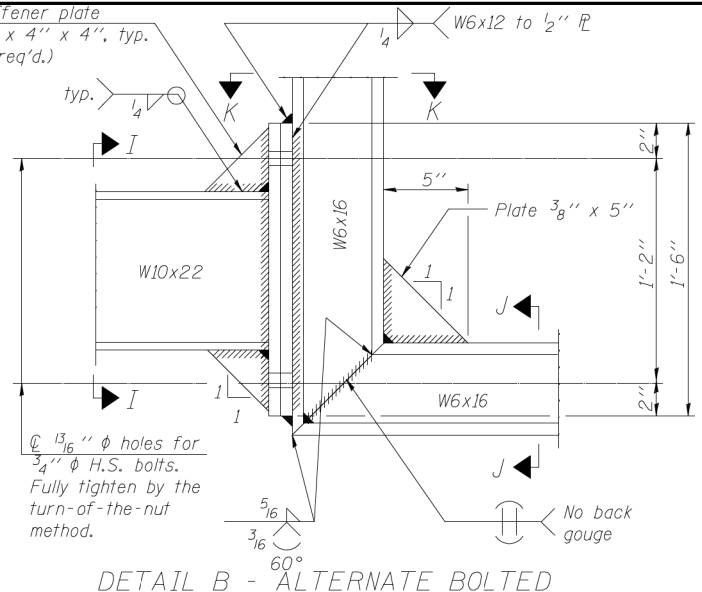


DETAIL A

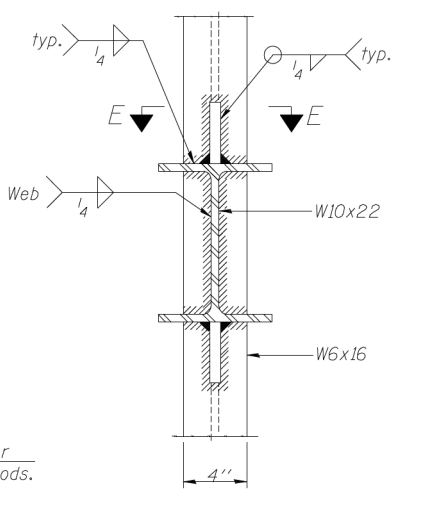
SECTION G-G



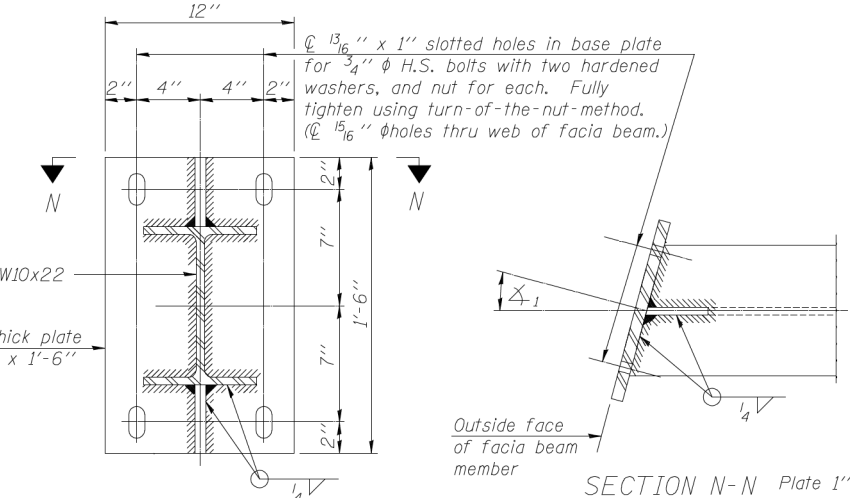
DETAIL B - WELDED W10x22 TO W6x16 CONNECTION



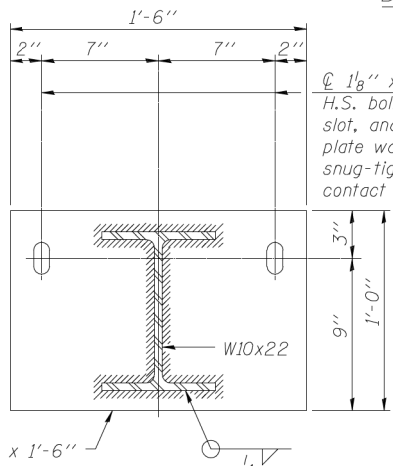
DETAIL B - ALTERNATE BOLTED W10x22 TO W6x16 CONNECTION



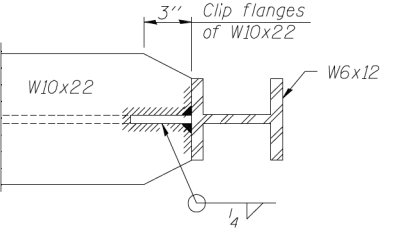
SECTION H-H



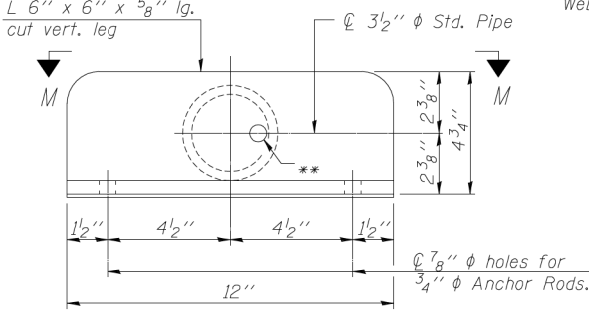
SECTION N-N Plate 1" x 12" x 1'-6"



SECTION D-D



SECTION E-E

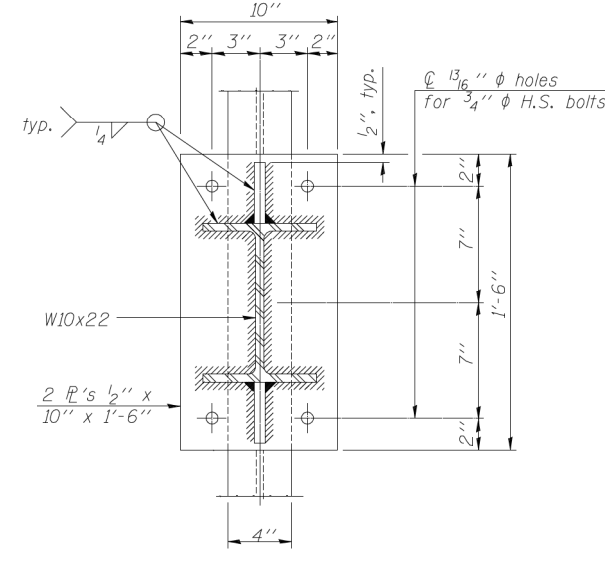


VIEW F-F

\*\* 1 3/16 inch holes for galvanizing. After galvanizing, install 7/8 inch A307 hot-dip galvanized bolt to close hole in angle. (No bolt required in 1/2 inch plate.)

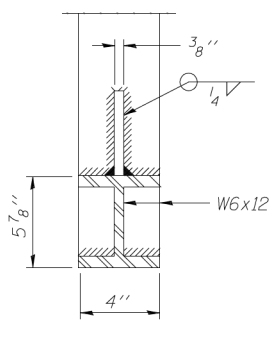
SECTION C-C Steel beam or girder connection plate details

Concrete beam or girder connection plate details.

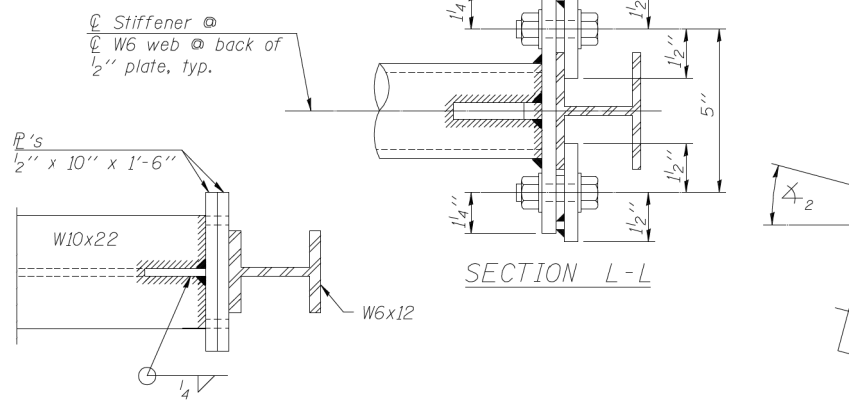


SECTION I-I

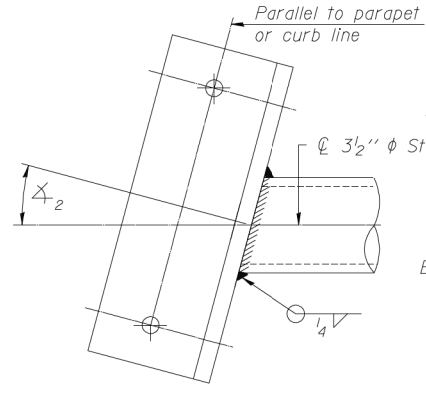
Note: For constant slab overhang to fascia beam,  $\Delta_1 = \Delta_2 = \text{sign angle}$ . For flared beams or other special cases where  $\Delta_1 \neq \Delta_2$ ,  $\Delta_1 = \text{sign angle}$ .



SECTION J-J

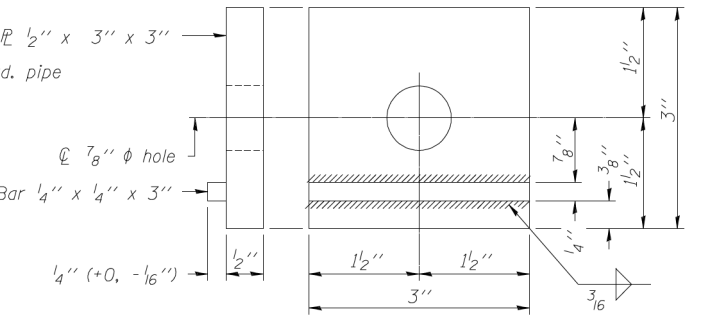


SECTION K-K



SECTION M-M Skewed connection detail for 3/2 inch pipe to parapet.

**FOR REFERENCE ONLY**



CLAMP PLATE DETAILS

BM-3-SPECIAL 6-1-12

DRAWN BY . . . . . DATE . . . 11-15-2012 . . .  
CHECKED BY . . . . . SCALE . . . . .

**TYLIN INTERNATIONAL**

**THE ILLINOIS STATE TOLL HIGHWAY AUTHORITY**  
2700 OGDEN AVENUE  
DOWNERS GROVE ILLINOIS 60515

REVISIONS		
NO.	DATE	DESCRIPTION

CONTRACT I-12-4066  
NB I-57 WIDENING AND RAMP B  
SIGN STRUCTURE - SHEET 11

SHEET SIGN 029  
**203** OF **574**

FILE NAME = 0160743-shr-sign-struct.dgn  
PLOT DATE = 6/19/2018  
PLOT SCALE = 2.0000 ' / in.

**KNIGHT**  
Engineers & Architects

DESIGNED - SJP  
DRAWN - SJP  
CHECKED - MM  
DATE - JUNE 25, 2018

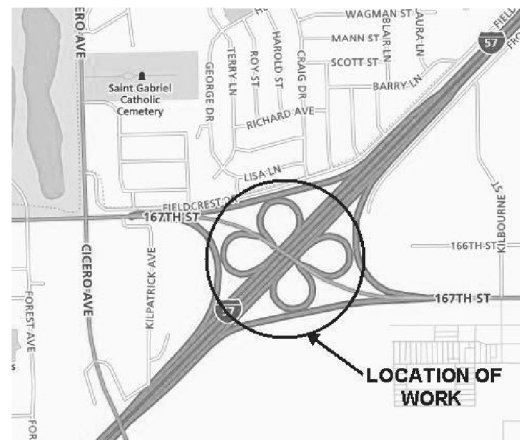
**STATE OF ILLINOIS**  
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE MOUNT SIGN STRUCTURES  
167TH STREET OVER I-57  
STRUCTURE NO. 016-2125  
SCALE: NONE SHEET NO. 5 OF 5 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1011.3-BR	COOK	145	55
CONTRACT NO. 60T43				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

**GENERAL NOTES – UNDERPASS LIGHTING**

- SPLICING OF CONDUCTORS SHALL BE IN POLE BASES OR WEATHER TIGHT JUNCTION BOXES ONLY. SPLICES BELOW GRADE WILL NOT BE PERMITTED.
- LIGHTING CIRCUITS SHALL BE WIRED IN ACCORDANCE WITH THE PLANS. DEVIATIONS WILL NOT BE PERMITTED WITHOUT PRIOR APPROVAL OF THE ENGINEER.
- THE CONTRACTOR SHALL REQUEST A FORMAL MAINTENANCE TRANSFER BEFORE ANY WORK BEGINS. THE CONTRACTOR SHALL CONTACT THE ILLINOIS DEPARTMENT OF TRANSPORTATION AT (708) 524-2145.
- ALL WORK SHALL CONFORM TO THE LATEST IDOT STANDARDS, IDOT DISTRICT 1 STANDARDS, SPECIAL PROVISIONS, SUPPLEMENTAL SPECIFICATIONS, AND THE NATIONAL ELECTRICAL SAFETY CODE.
- ALL ELECTRICAL EQUIPMENT SHALL BE NEW, UL LISTED AND LABELED.
- ALL CONDUITS SHALL BE SEALED.
- ALL CIRCUIT WIRES SHALL BE LABELED WITH CIRCUIT IDENTIFICATION.
- ALL LAMPS SHALL BE FURNISHED AS PART OF THE CONTRACT.
- CIRCUITS SHALL BE TESTED PER SPECIFICATION.
- THE LOCATIONS OF ALL PROPOSED EQUIPMENT ARE ILLUSTRATED DIAGRAMMATICALLY. THE ACTUAL LOCATION IN THE FIELD SHALL MEET THE APPROVAL OF THE ENGINEER.
- ALL MEASUREMENTS ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY MEASUREMENTS IN THE FIELD.
- THE EXISTING LIGHTING SYSTEM VOLTAGE IS 240/480 VOLT, 1-PHASE.
- THE CONTRACTOR TO VERIFY ALL OF THE DATA SHOWN ON THE CONTRACT PLANS AND REFERENCE DRAWINGS WHICH WOULD AFFECT THE CONTRACTOR'S WORK UNDER THIS CONTRACT OR THE OPERATION OF THE EXISTING UNDERPASS, ROADWAY AND SIGN LIGHTING SYSTEMS.
- GROUNDING CONDUCTORS SHALL BE CONTINUOUS.
- THE ELECTRICAL MATERIALS MUST BE NEW AND THE TYPE AND KINDS APPROVED BY THE FOLLOWING ORGANIZATIONS:
  - NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION (NEMA)
  - INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS (IEEE)
  - ILLUMINATING ENGINEERING SOCIETY OF NORTH AMERICA (IESNA)
  - UNITED STATES DEPARTMENT OF TRANSPORTATION (U.S. D.O.T.)
  - AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO)
  - UNDERWRITERS LABORATORY (UL)
  - AMERICAN NATIONAL STANDARD INSTITUTE (ANSI)
- EXPANSION ANCHORS (THREADED INSERTS) SHOULD BE A MINIMUM OF 2" LONG AND HOT DIPPED GALVANIZED AS MANUFACTURED BY PARABOLT, KWIK BOLT, OR WEJ-IT.
- NO MATERIAL OR EQUIPMENT SHALL BE DELIVERED TO THE JOB SITE PRIOR TO INSPECTION AND APPROVAL BY THE ENGINEER. ANY MATERIAL AND EQUIPMENT DELIVERED TO THE JOB SITE VIOLATING THE ABOVE PROCEDURE SHALL BE REMOVED FROM THE JOB SITE AT THE CONTRACTOR'S EXPENSE.
- FOR REFERENCE DRAWINGS AND SPECIFICATIONS, REFER TO THE IDOT DISTRICT 1 STANDARD DRAWINGS AND THE SUPPLEMENTAL SPECIFICATIONS TO THE ILLINOIS DEPARTMENT OF TRANSPORTATION (IDOT) STANDARD SPECIFICATIONS.



LOCATION OF WORK

**LIGHTING SHEET INDEX**

- LT-01 LEGEND, SYMBOLS, ABBREVIATIONS, SCHEDULE OF QUANTITIES & GENERAL NOTES
- LT-02 REMOVAL PLAN
- LT-03 PROPOSED UNDERPASS LIGHTING PLAN
- LT-04 PARTIAL WIRING DIAGRAM
- LT-05 EXISTING UNDERPASS LIGHTING WIRING DIAGRAM
- LT-06 EXISTING ROADWAY LIGHTING WIRING DIAGRAM
- LT-07 EXISTING ROADWAY LIGHTING PLAN
- LT-08 EXISTING ROADWAY LIGHTING PLAN
- LT-09 EXISTING ROADWAY LIGHTING PLAN

**IDOT DISTRICT 1 LIGHTING DETAILS**

- LT-10 BE-329 LIGHT POLE MOUNTED ON CONCRETE PARAPET WALL 11 1/2" BOLT CIRCLE
- LT-11 BE-402 ALUMINUM LIGHT POLE 35'-0" MOUNTING HEIGHT
- LT-12 BE-701 LUMINAIRE SAFETY CABLE ASSEMBLY
- LT-13 BE-702 MISC. ELECTRICAL DETAILS, SHEET A
- LT-14 BE-900 SUSPENSION MOUNT UNDERPASS LUMINAIRE INSTALLATION DETAILS

**IDOT STANDARD DETAILS**

812001 SHEET 1 OF 3, RACEWAY EMBEDDED IN STRUCTURE

**SYMBOL LIST**

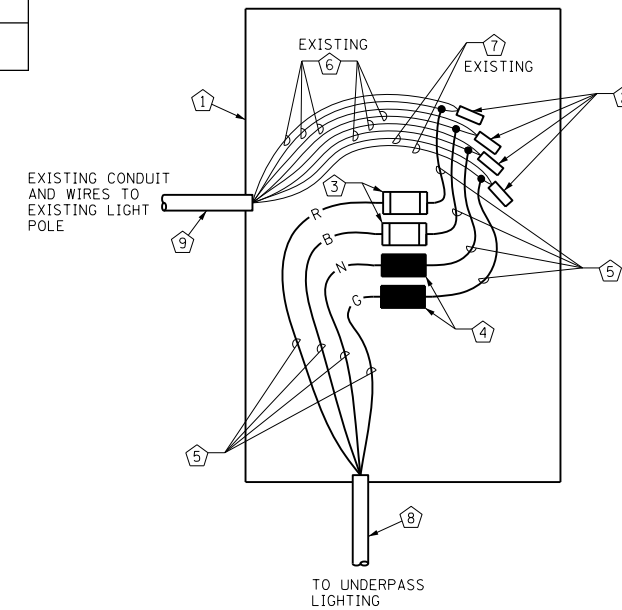
DESCRIPTION	PROPOSED	EXISTING TO REMAIN	TO BE REMOVED
UNDERPASS LUMINAIRE, LED, TYPE A, 240V			
JUNCTION BOX			
CONDUIT, ATTACHED TO STRUCTURE			
CONDUIT, EMBEDDED IN STRUCTURE			
LIQUID TIGHT FLEXIBLE METAL CONDUIT			
LIGHTING UNIT, 200 WATT, HPS, 240V, 35' MOUNTING HEIGHT			
UNIT DUCT			
SIGN LUMINAIRE			

**ABBREVIATIONS**

- A AMPS
- A.G. ABOVE GRADE
- DIA DIAMETER
- C CONDUCTOR
- CDOT CHICAGO DEPARTMENT OF TRANSPORTATION
- GND GROUND
- FT FEET
- HPS HIGH PRESSURE SODIUM
- IDOT ILLINOIS DEPARTMENT OF TRANSPORTATION
- P PUSHED
- PH PHASE
- PVC POLYVINYL CHLORIDE
- RGSC RIGID GALVANIZED STEEL CONDUIT
- SS STAINLESS STEEL
- STA STATION
- UNO UNLESS NOTED OTHERWISE
- V VOLTS
- W WATTS
- W WIRES

**BILL OF MATERIAL - LIGHTING**

	UNIT	QUANTITY
CONDUIT ATTACHED TO STRUCTURE 1" DIA. PVC COATED GALVANIZED STEEL	FOOT	500
CONDUIT EMBEDDED IN STRUCTURE, 2" DIA., PVC	FOOT	360
JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 6" X 6" X 4"	EACH	14
JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 12" X 10" X 6"	EACH	6
JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 12" X 12" X 6"	EACH	2
JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 18" X 12" X 8"	EACH	2
ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 10	FOOT	2,300
ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 6	FOOT	255
ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 4	FOOT	510
LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 200 WATT	EACH	2
LIGHT POLE, ALUMINUM, 35 FT. M.H., 15 FT. MAST ARM	EACH	2
LUMINAIRE, UNDERPASS, LED, TYPE A	EACH	14
CONDUIT ATTACHED TO STRUCTURE, 2" DIA., STAINLESS STEEL	FOOT	50
REMOVAL OF UNDERPASS LIGHTING UNIT, NO SALVAGE	EACH	18
REMOVAL OF EXISTING SIGN LIGHTING UNIT WITH NO SALVAGE	EACH	5
PROTECT AND MAINTAIN EXISTING UNDERPASS LUMINAIRE	LS	1
LUMINAIRE SAFETY CABLE ASSEMBLY	EACH	2
MAINTENANCE OF LIGHTING SYSTEM	CAL MO	9



**TAG NOTES**

- PROPOSED 18" x 12" x 8" STAINLESS STEEL JUNCTION BOX REPLACES EXISTING JUNCTION BOX MOUNTED TO TOP OF ABUTMENT
  - MECHANICAL SPLICE - CONNECT NEW WIRES FOR PROPOSED UNDERPASS LUMINARIES
  - QUICK DISCONNECT FUSE KIT WITH 30A FUSE
  - QUICK DISCONNECT FUSE KIT WITH SOLID NEUTRAL ASSEMBLY
  - #10 COPPER, 600V
  - #4 COPPER, 600V
  - #6 COPPER GROUND
  - 1" PVC COATED RGS CONDUIT
  - EXISTING EMBEDDED CONDUIT WITH (6) 1/C #4 AND (1) 1/C #4 GROUND TO REMAIN
- (R) RED  
(B) BLACK  
(N) NEUTRAL  
(G) GROUND

1 JUNCTION BOX WIRING DETAIL  
N.T.S.

DATE	BY	SURVEYED	PLOTTED	TEMPLATE	AREAS CHECKED
		NO.			

DATE	BY	SURVEYED	PLOTTED	TEMPLATE	AREAS CHECKED
		NO.			



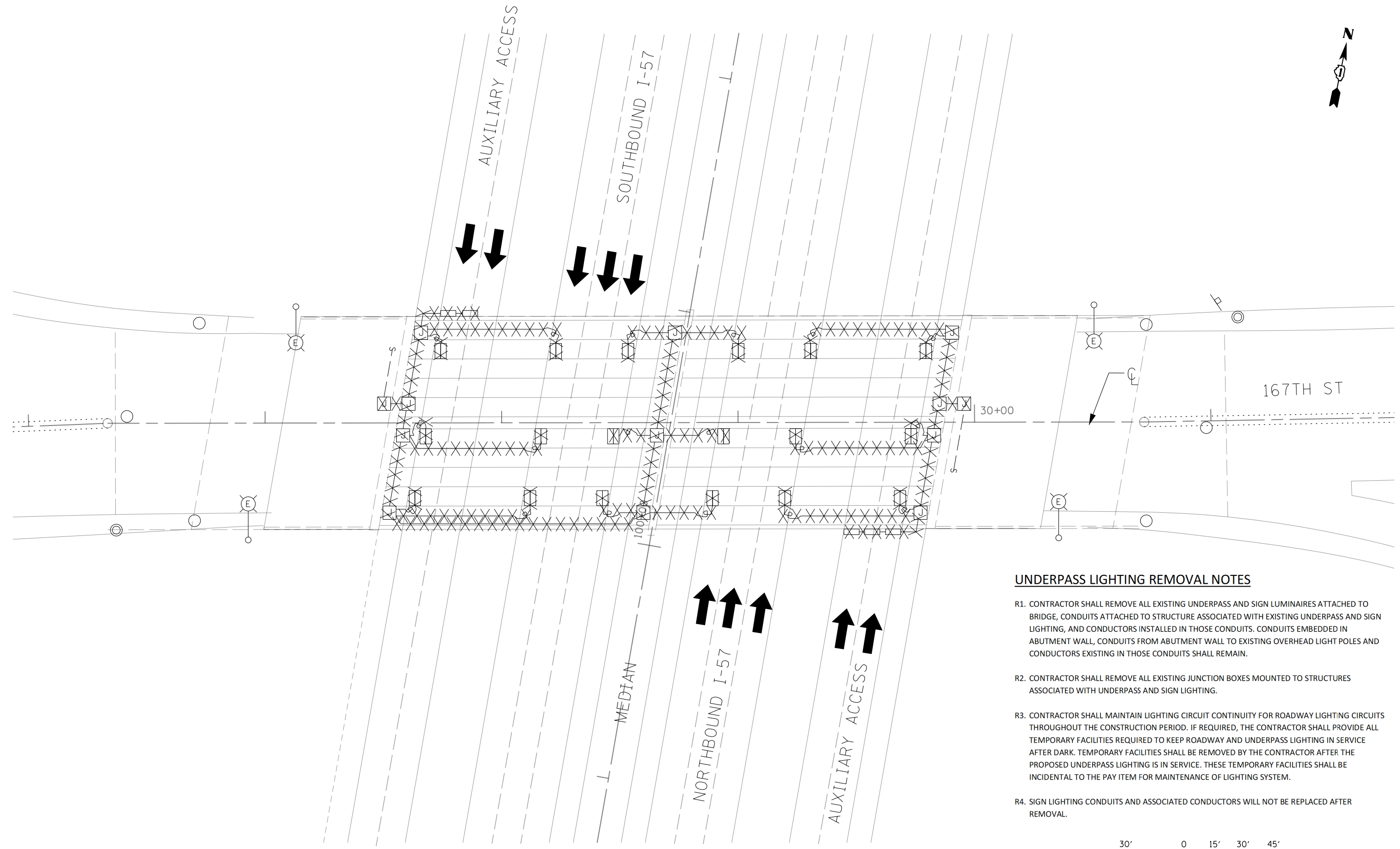
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ORIGINAL SURVEY NO.	SURVEYED BY	DATE

DESIGNED - I.B.	REVISED -
DRAWN - S.F.D.	REVISED -
CHECKED - W.D.	REVISED -
DATE - JUNE 25, 2018	REVISED -

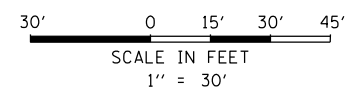
<b>REMOVAL PLAN</b>			
SCALE:	SHEET NO.	OF SHEETS	STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1011.3-BR	COOK	145	57
CONTRACT NO. 60T43				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



**UNDERPASS LIGHTING REMOVAL NOTES**

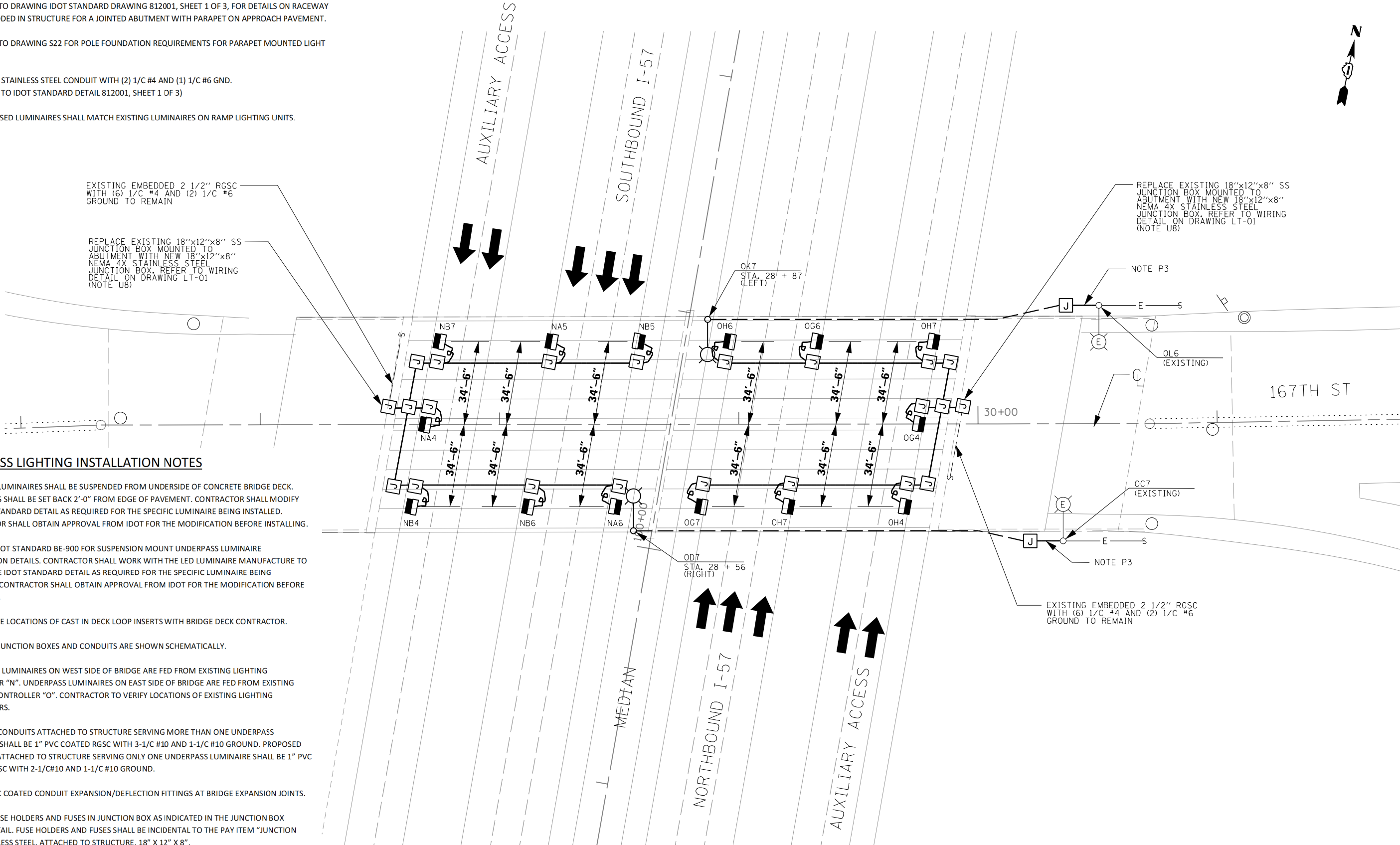
- R1. CONTRACTOR SHALL REMOVE ALL EXISTING UNDERPASS AND SIGN LUMINAIRES ATTACHED TO BRIDGE, CONDUITS ATTACHED TO STRUCTURE ASSOCIATED WITH EXISTING UNDERPASS AND SIGN LIGHTING, AND CONDUCTORS INSTALLED IN THOSE CONDUITS. CONDUITS EMBEDDED IN ABUTMENT WALL, CONDUITS FROM ABUTMENT WALL TO EXISTING OVERHEAD LIGHT POLES AND CONDUCTORS EXISTING IN THOSE CONDUITS SHALL REMAIN.
- R2. CONTRACTOR SHALL REMOVE ALL EXISTING JUNCTION BOXES MOUNTED TO STRUCTURES ASSOCIATED WITH UNDERPASS AND SIGN LIGHTING.
- R3. CONTRACTOR SHALL MAINTAIN LIGHTING CIRCUIT CONTINUITY FOR ROADWAY LIGHTING CIRCUITS THROUGHOUT THE CONSTRUCTION PERIOD. IF REQUIRED, THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY FACILITIES REQUIRED TO KEEP ROADWAY AND UNDERPASS LIGHTING IN SERVICE AFTER DARK. TEMPORARY FACILITIES SHALL BE REMOVED BY THE CONTRACTOR AFTER THE PROPOSED UNDERPASS LIGHTING IS IN SERVICE. THESE TEMPORARY FACILITIES SHALL BE INCIDENTAL TO THE PAY ITEM FOR MAINTENANCE OF LIGHTING SYSTEM.
- R4. SIGN LIGHTING CONDUITS AND ASSOCIATED CONDUCTORS WILL NOT BE REPLACED AFTER REMOVAL.



**PARAPET WALL MOUNTED LIGHTING INSTALLATION NOTES**

- P1. REFER TO DRAWING IDOT STANDARD DRAWING 812001, SHEET 1 OF 3, FOR DETAILS ON RACEWAY EMBEDDED IN STRUCTURE FOR A JOINTED ABUTMENT WITH PARAPET ON APPROACH PAVEMENT.
- P2. REFER TO DRAWING S22 FOR POLE FOUNDATION REQUIREMENTS FOR PARAPET MOUNTED LIGHT POLE.
- P3. 2" DIA. STAINLESS STEEL CONDUIT WITH (2) 1/C #4 AND (1) 1/C #6 GND. (REFER TO IDOT STANDARD DETAIL 812001, SHEET 1 OF 3)
- P4. PROPOSED LUMINAIRES SHALL MATCH EXISTING LUMINAIRES ON RAMP LIGHTING UNITS.

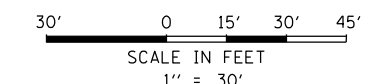
DATE	BY	SURVEYED	PLOTTED	TEMPLATE	AREAS CHECKED
		NO.			



**UNDERPASS LIGHTING INSTALLATION NOTES**

- U1. PROPOSED LUMINAIRES SHALL BE SUSPENDED FROM UNDERSIDE OF CONCRETE BRIDGE DECK. LUMINAIRES SHALL BE SET BACK 2'-0" FROM EDGE OF PAVEMENT. CONTRACTOR SHALL MODIFY THE IDOT STANDARD DETAIL AS REQUIRED FOR THE SPECIFIC LUMINAIRE BEING INSTALLED. CONTRACTOR SHALL OBTAIN APPROVAL FROM IDOT FOR THE MODIFICATION BEFORE INSTALLING.
- U2. REFER TO IDOT STANDARD BE-900 FOR SUSPENSION MOUNT UNDERPASS LUMINAIRE INSTALLATION DETAILS. CONTRACTOR SHALL WORK WITH THE LED LUMINAIRE MANUFACTURE TO MODIFY THE IDOT STANDARD DETAIL AS REQUIRED FOR THE SPECIFIC LUMINAIRE BEING INSTALLED. CONTRACTOR SHALL OBTAIN APPROVAL FROM IDOT FOR THE MODIFICATION BEFORE INSTALLING.
- U3. COORDINATE LOCATIONS OF CAST IN DECK LOOP INSERTS WITH BRIDGE DECK CONTRACTOR.
- U4. PROPOSED JUNCTION BOXES AND CONDUITS ARE SHOWN SCHEMATICALLY.
- U5. UNDERPASS LUMINAIRES ON WEST SIDE OF BRIDGE ARE FED FROM EXISTING LIGHTING CONTROLLER "N". UNDERPASS LUMINAIRES ON EAST SIDE OF BRIDGE ARE FED FROM EXISTING LIGHTING CONTROLLER "O". CONTRACTOR TO VERIFY LOCATIONS OF EXISTING LIGHTING CONTROLLERS.
- U6. PROPOSED CONDUITS ATTACHED TO STRUCTURE SERVING MORE THAN ONE UNDERPASS LUMINAIRE SHALL BE 1" PVC COATED RGSC WITH 3-1/C #10 AND 1-1/C #10 GROUND. PROPOSED CONDUITS ATTACHED TO STRUCTURE SERVING ONLY ONE UNDERPASS LUMINAIRE SHALL BE 1" PVC COATED RGSC WITH 2-1/C#10 AND 1-1/C #10 GROUND.
- U7. INSTALL PVC COATED CONDUIT EXPANSION/DEFLECTION FITTINGS AT BRIDGE EXPANSION JOINTS.
- U8. PROVIDE FUSE HOLDERS AND FUSES IN JUNCTION BOX AS INDICATED IN THE JUNCTION BOX WIRING DETAIL. FUSE HOLDERS AND FUSES SHALL BE INCIDENTAL TO THE PAY ITEM "JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 18" X 12" X 8".
- U9. REFER TO DRAWING LT-11 FOR SUSPENDED MOUNT UNDERPASS LUMINAIRE INSTALLATION DETAILS.

DATE	BY	SURVEYED	PLOTTED	TEMPLATE	AREAS CHECKED
		NO.			



**LT-03**






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DRAWN - S.F.D.	REVISED -
CHECKED - W.D.	REVISED -
DATE - JUNE 25, 2018	REVISED -

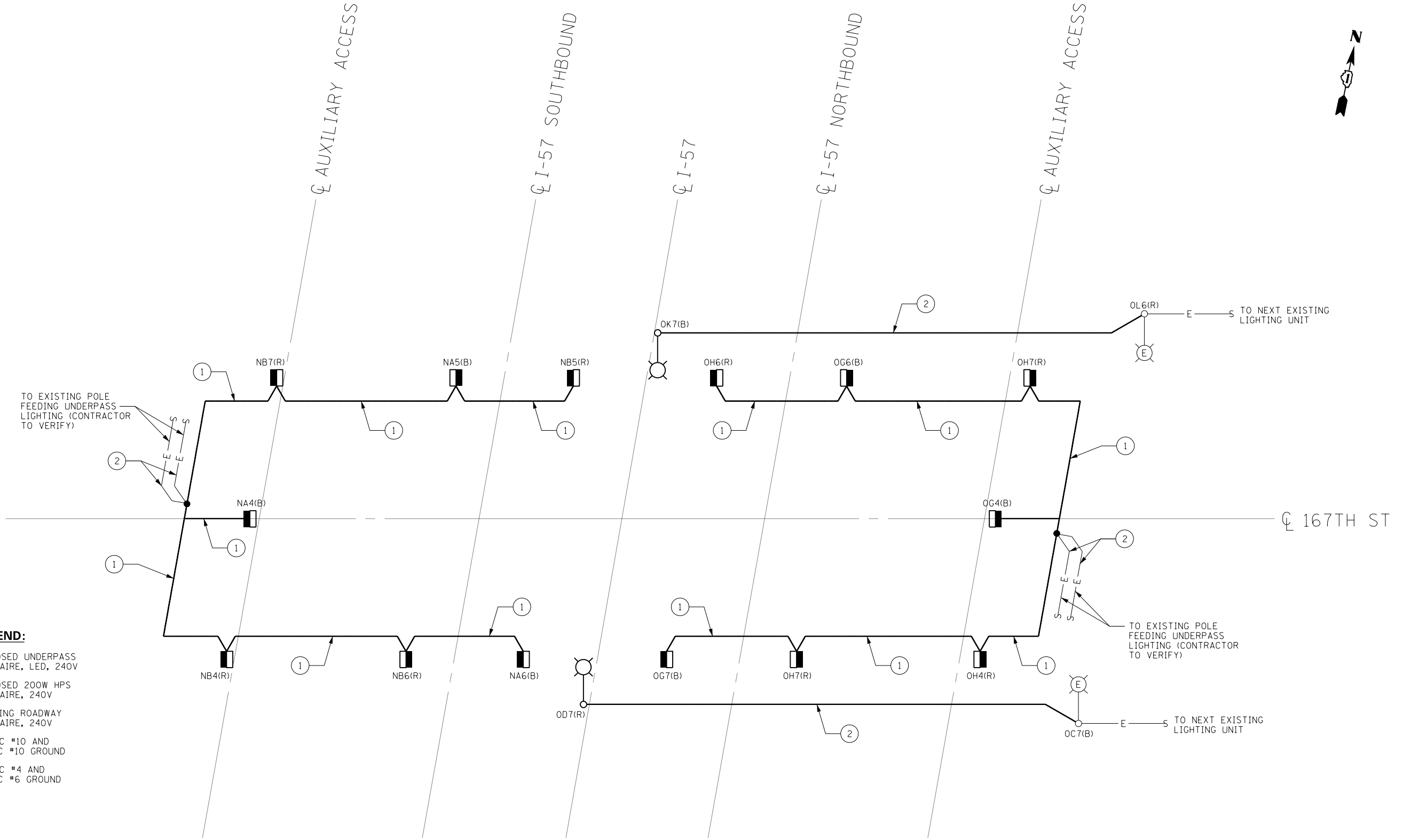
<b>PROPOSED LIGHTING PLAN</b>			
SCALE:	SHEET NO.	OF SHEETS	STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1011.3-BR	COOK	145	58
CONTRACT NO. 60T43				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

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

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

- LEGEND:**
-  PROPOSED UNDERPASS LUMINAIRE, LED, 240V
  -  PROPOSED 200W HPS LUMINAIRE, 240V
  -  EXISTING ROADWAY LUMINAIRE, 240V
  -  (3) 1/C #10 AND (1) 1/C #10 GROUND
  -  (3) 1/C #4 AND (1) 1/C #6 GROUND



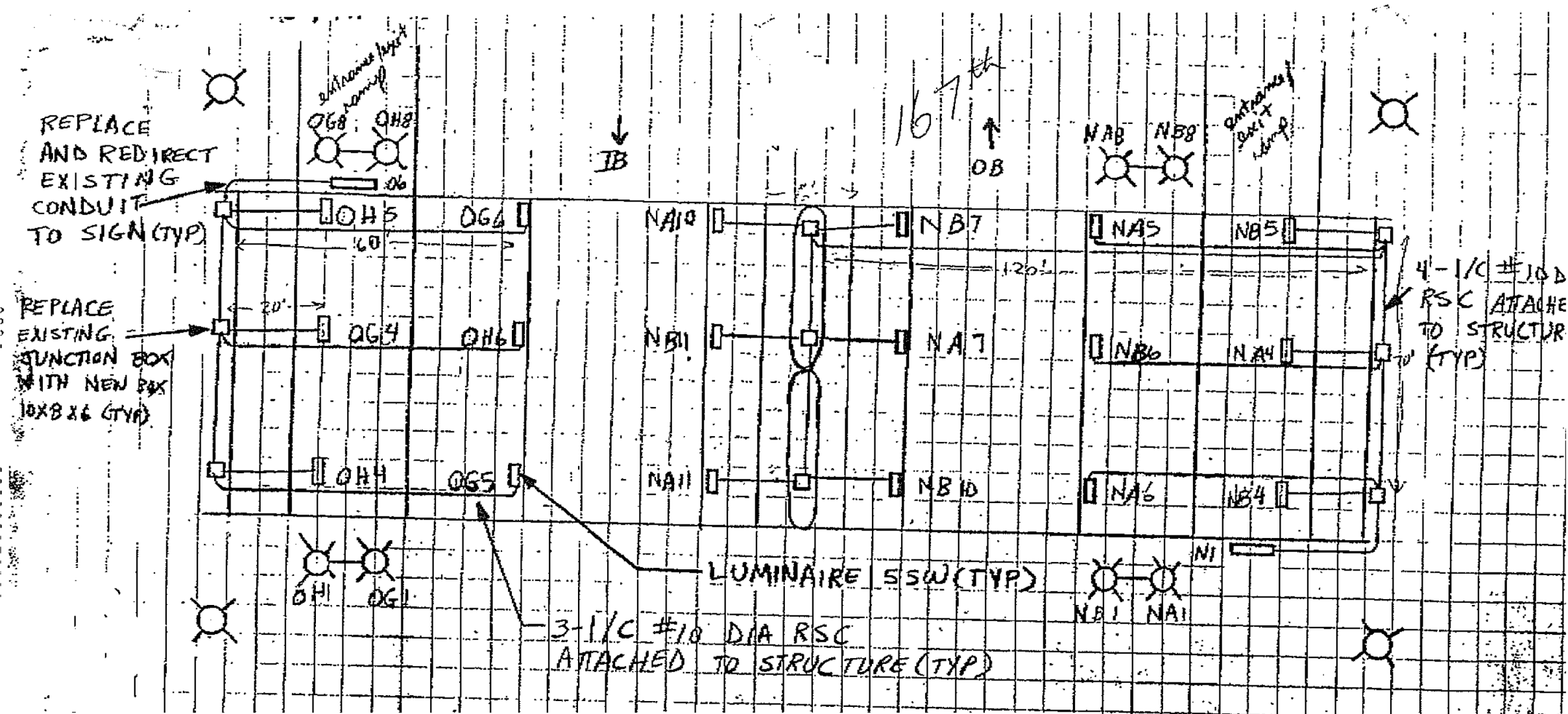
DESIGNED - I.B.	REVISED -
DRAWN - S.F.D.	REVISED -
CHECKED - W.D.	REVISED -
DATE - JUNE 25, 2018	REVISED -

<b>PARTIAL WIRING DIAGRAM</b>			
SCALE:	SHEET NO.	OF SHEETS	STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1011.3-BR	COOK	145	59
CONTRACT NO. 60T43				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

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

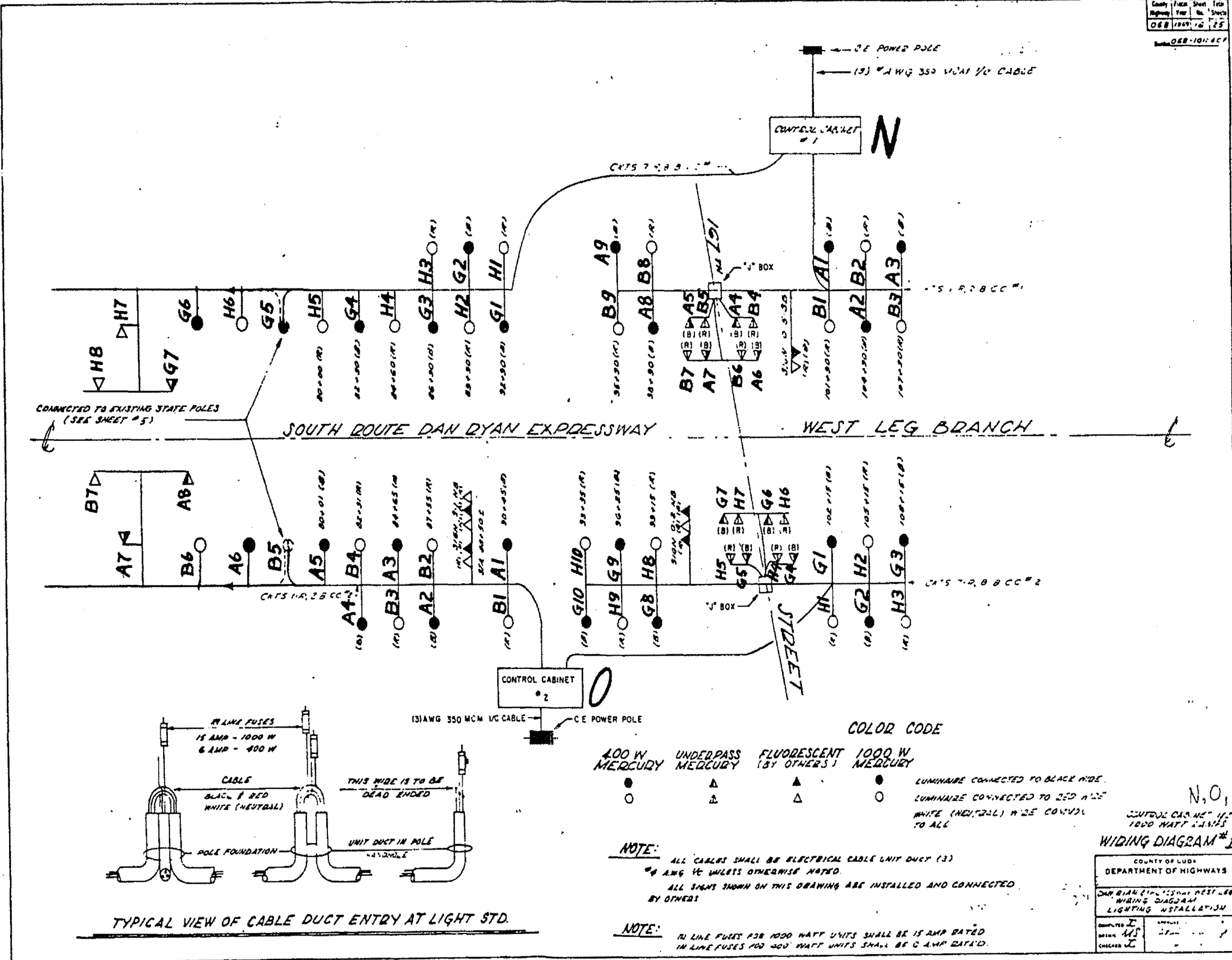
DATE	
BY	
ORIGINAL SURVEY	
SURVEYED	
PLOTTED	
TEMPLATE	
NOTE BOOK	
AREAS CHECKED	
NO.	



NOTE: BEAMS ARE NUMBERED IN THE DIRECTION OF O.B TRAFFIC

- FIXTURES BETWEEN BEAMS 2 & 3, 7 & 8, 11 & 12.

ISSUED FOR REFERENCE ONLY



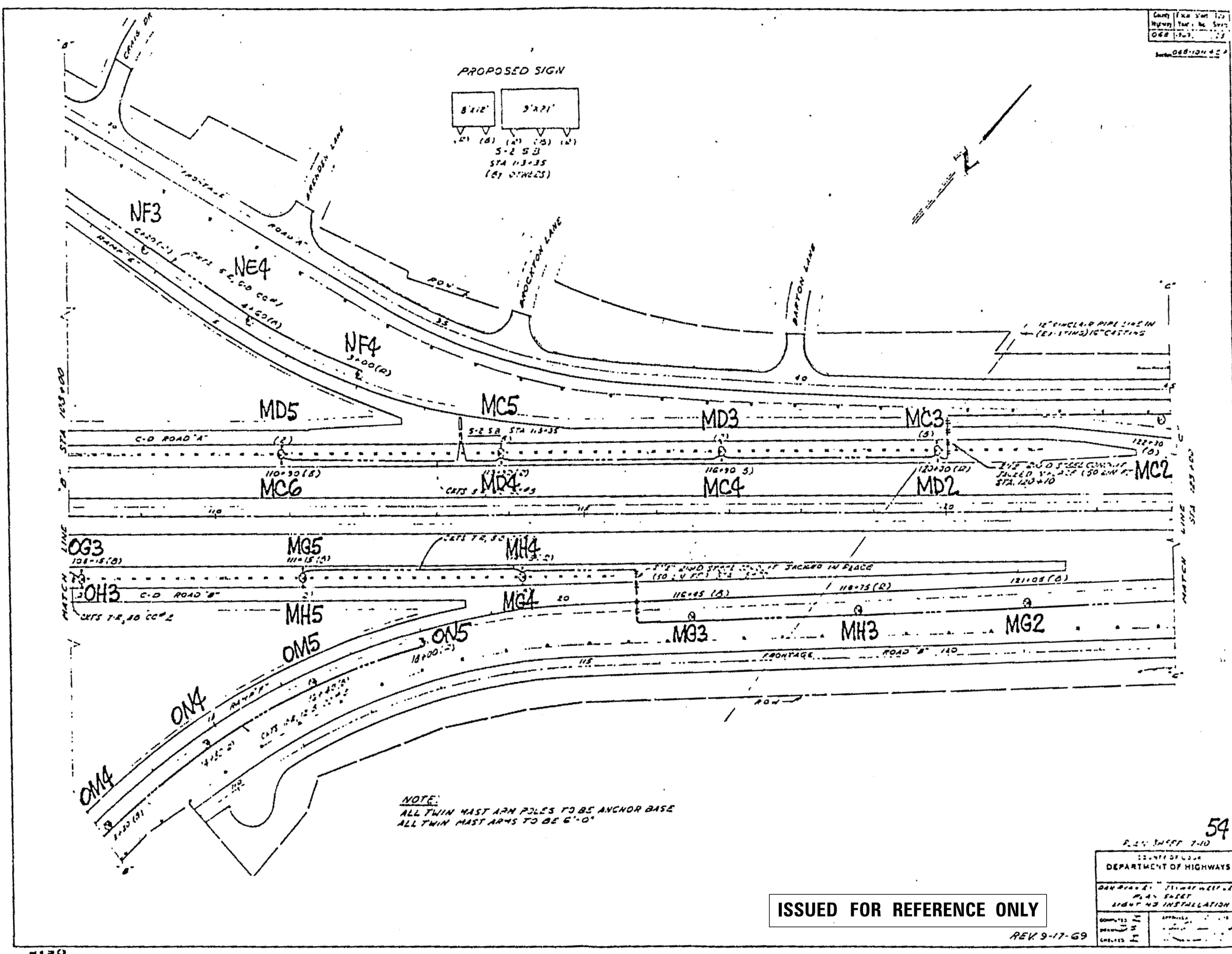
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BY	
NO.	
ORIGINAL SURVEY	
SURVEYED	
PLOTTED	
TEMPLATE	
NOTE BOOK	
AREAS CHECKED	

DESIGNED - I.B.	REVISED -
DRAWN - S.F.D.	REVISED -
CHECKED - W.D.	REVISED -
DATE - JUNE 25, 2018	REVISED -

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
NOTE BOOK	
AREAS CHECKED	
NO.	

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
NOTE BOOK	
AREAS CHECKED	
NO.	



County: Cook  
 Highway: 1011.3-BR  
 Date: 06/25/18  
 Scale: 1/4" = 10'-0"

**ISSUED FOR REFERENCE ONLY**

REV 9-17-69

**54**

PLAN SHEET 7-10

ILLINOIS  
 DEPARTMENT OF HIGHWAYS

DATE: 06/25/18  
 SHEET NO. 54  
 CONTRACT NO. 60T43

APPROVED: [Signature]  
 CHECKED: [Signature]

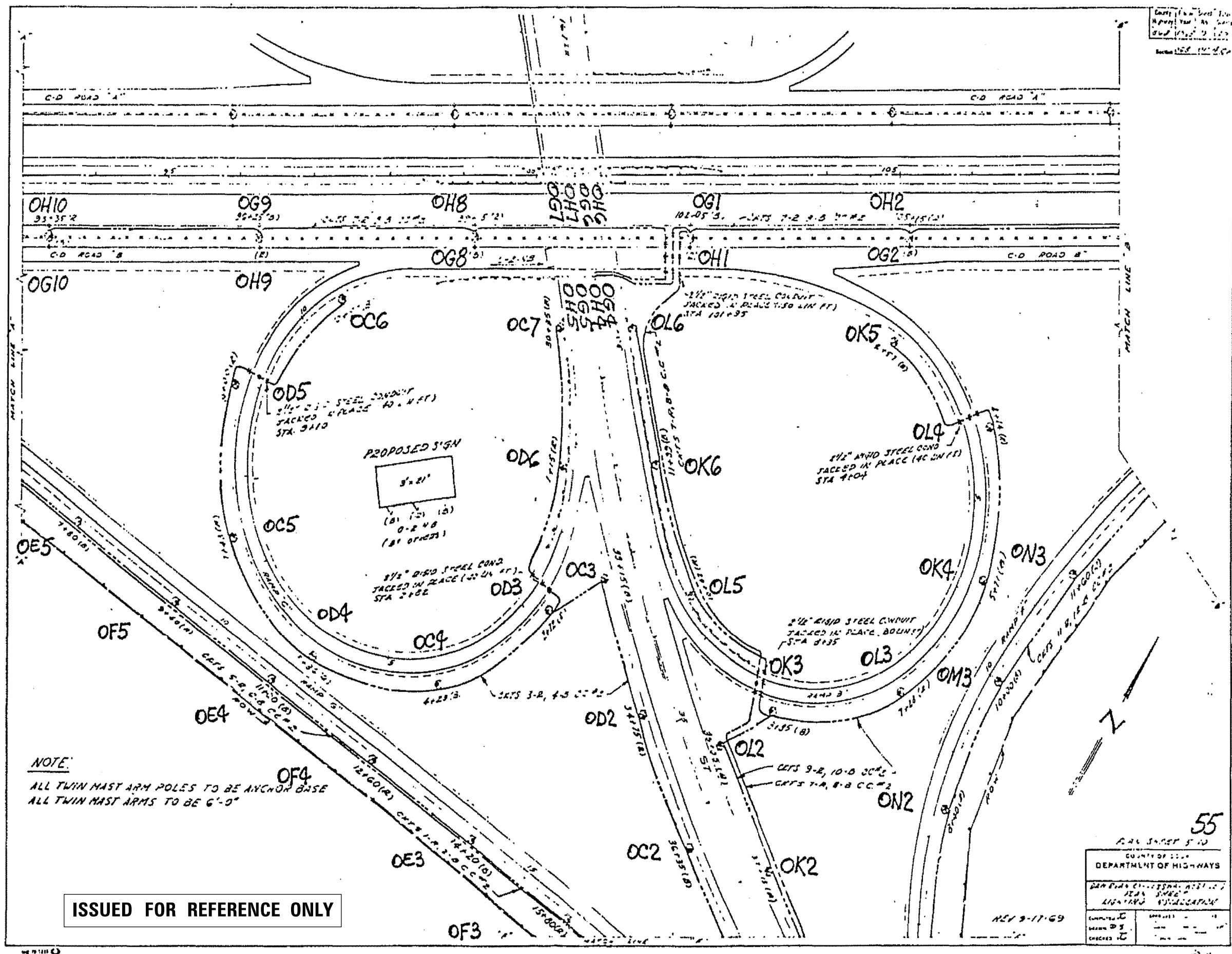
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DRAWN	- S.F.D.	REVISED	-
CHECKED	- W.D.	REVISED	-
DATE	- JUNE 25, 2018	REVISED	-

EXISTING ROADWAY LIGHTING PLAN			
SHEET NO.	OF SHEETS	STA.	TO STA.
57	1011.3-BR		

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1011.3-BR	COOK	145	62
CONTRACT NO. 60T43				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

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

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



**NOTE:**  
 ALL TWIN MAST ARM POLES TO BE ANCHOR BASE  
 ALL TWIN MAST ARMS TO BE 6'-0"

**ISSUED FOR REFERENCE ONLY**

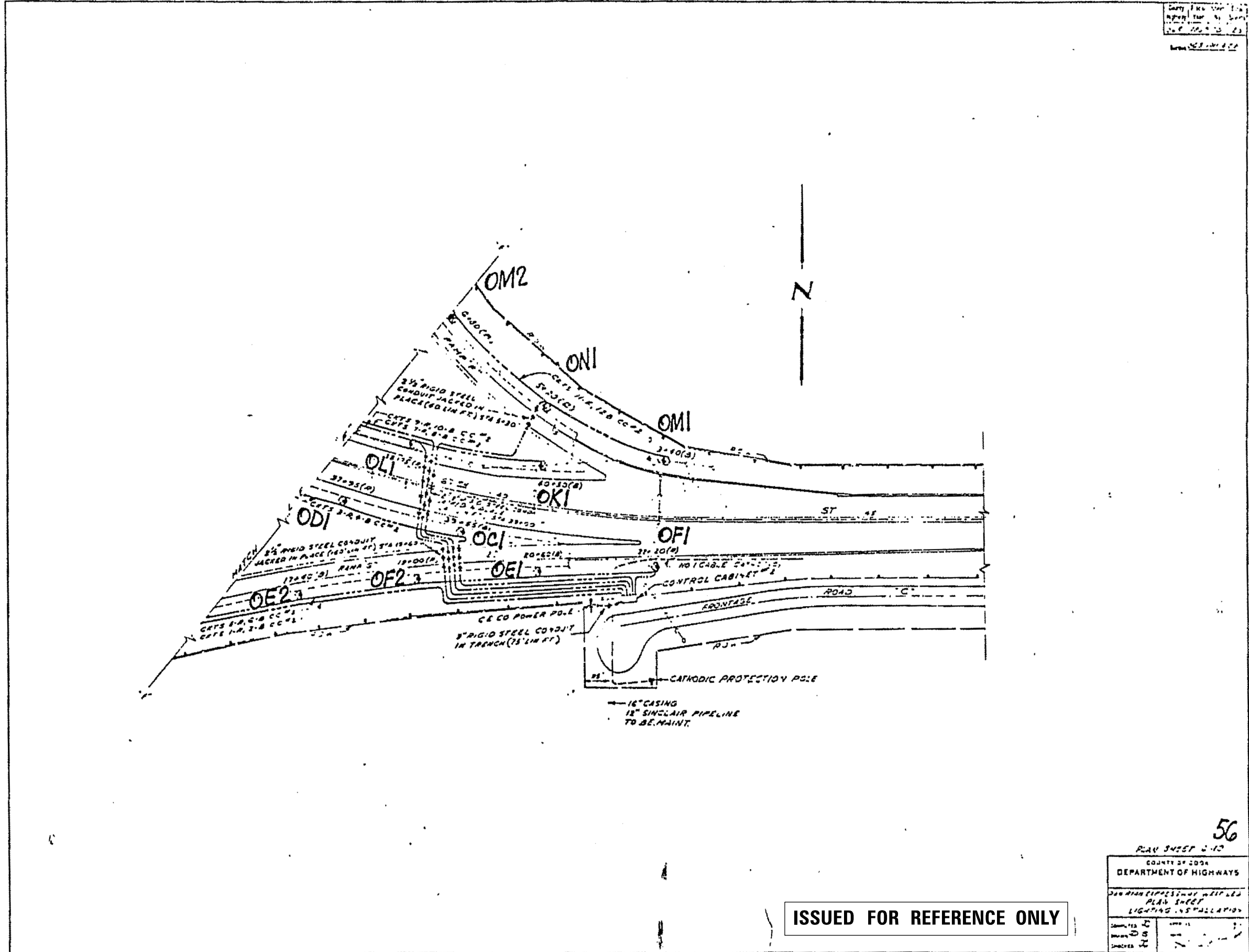
55  
 PLAN SHEET 510  
 COUNTY OF COOK  
 DEPARTMENT OF HIGHWAYS  
 DAN RICH CONSULTING, INC.  
 JEFF SWEET  
 LIGHTING CONSULTANT  
 DATE: 9-17-69  
 CHECKED: [Signature]

DESIGNED	- I.B.	REVISED	-
DRAWN	- S.F.D.	REVISED	-
CHECKED	- W.D.	REVISED	-
DATE	- JUNE 25, 2018	REVISED	-

DATE PLOTTED: 10/25/18  
 DATE CHECKED: 10/25/18  
 DRAWN BY: S.F.D.  
 CHECKED BY: W.D.

DATE	BY	SURVEYED	PLOTTED	TEMPLATE	AREAS CHECKED

DATE	BY	SURVEYED	PLOTTED	TEMPLATE	AREAS CHECKED



**ISSUED FOR REFERENCE ONLY**

**56**

PLAN SHEET 2-10  
 COUNTY OF COOK  
 DEPARTMENT OF HIGHWAYS

FOR THE DEPARTMENT OF HIGHWAYS  
 PLAN SHEET  
 LIGHTING INSTALLATION

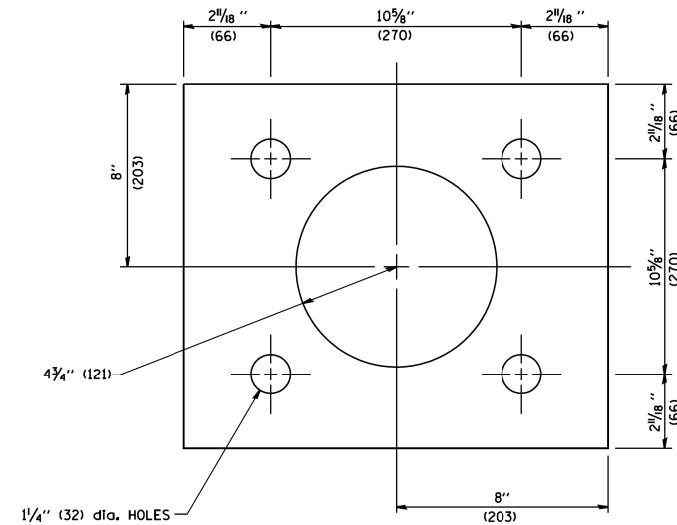
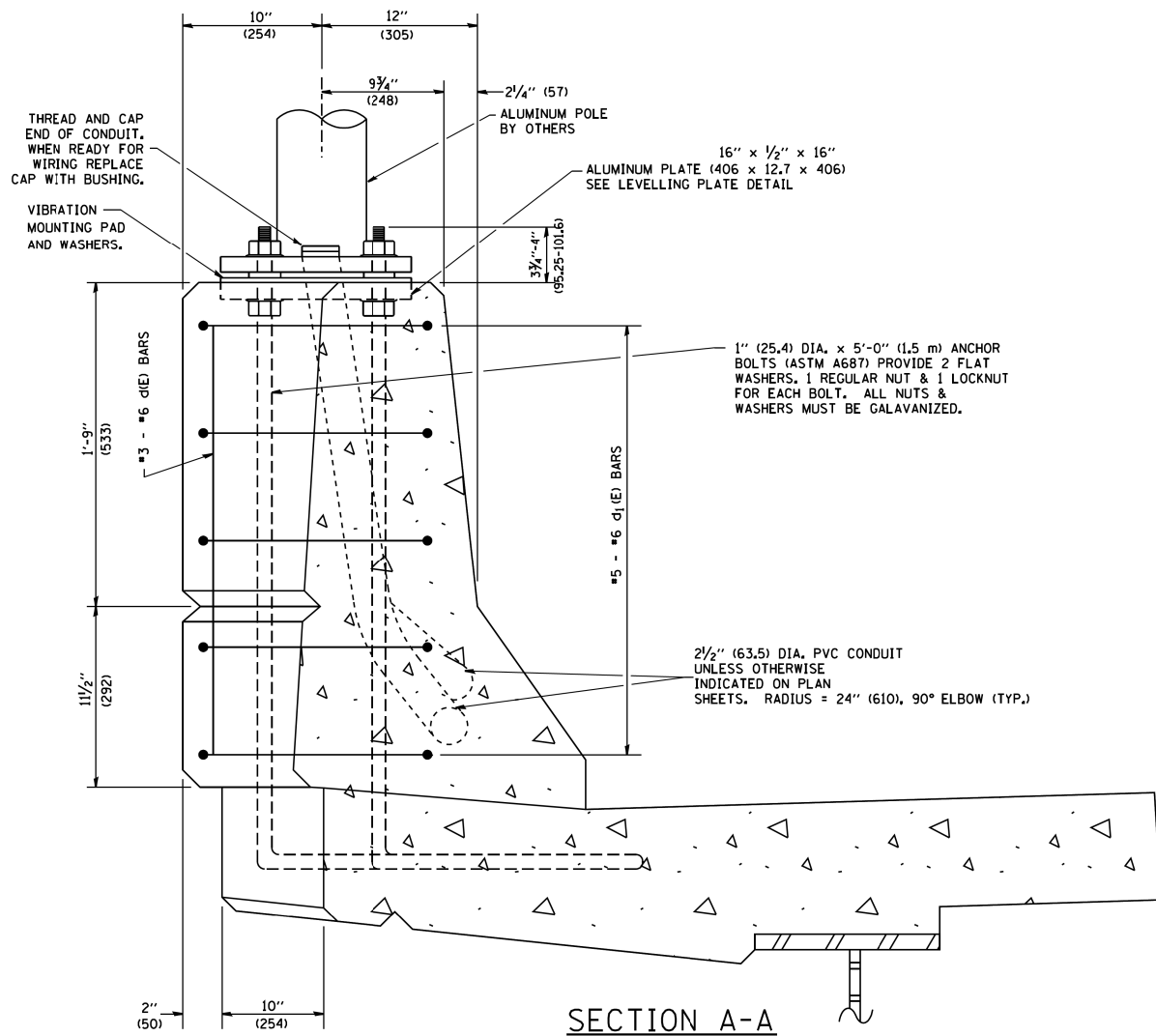
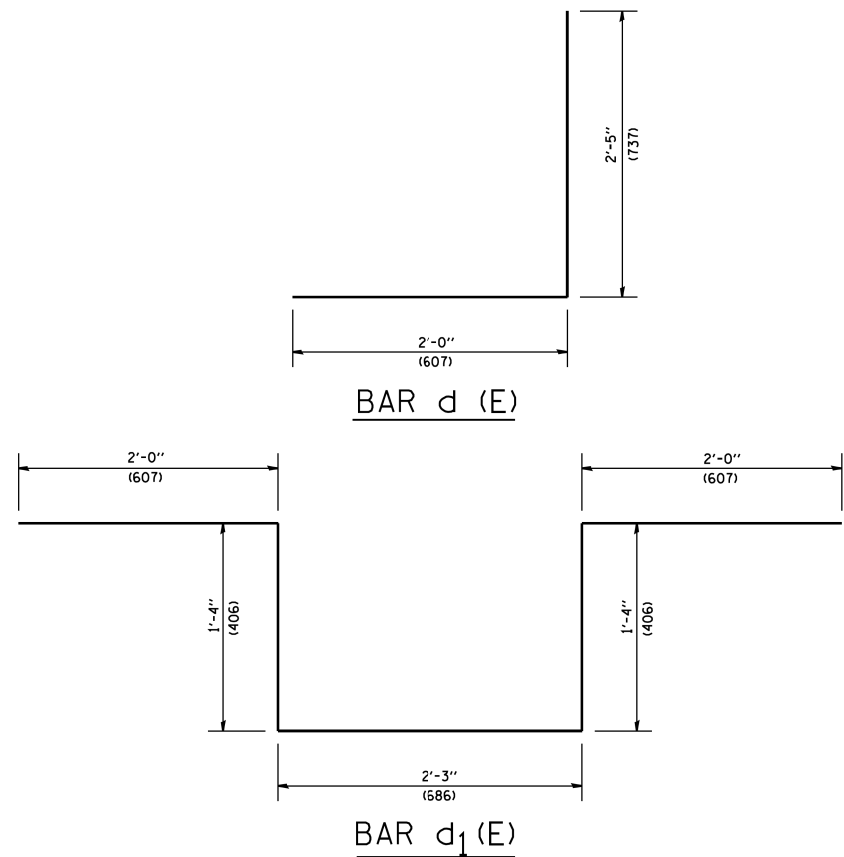
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10/25/18	W.D.	10/25/18	S.F.D.
10/25/18	S.F.D.	10/25/18	W.D.

DESIGNED - I.B.	REVISED -
DRAWN - S.F.D.	REVISED -
CHECKED - W.D.	REVISED -
DATE - JUNE 25, 2018	REVISED -

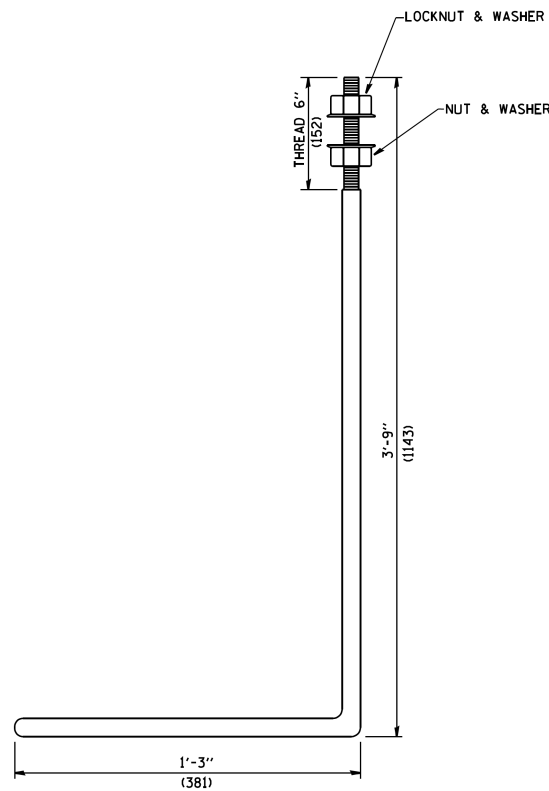
<b>EXISTING ROADWAY LIGHTING PLAN</b>			
SHEET NO.	OF SHEETS	STA.	TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1011.3-BR	COOK	145	64
CONTRACT NO. 60T43				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

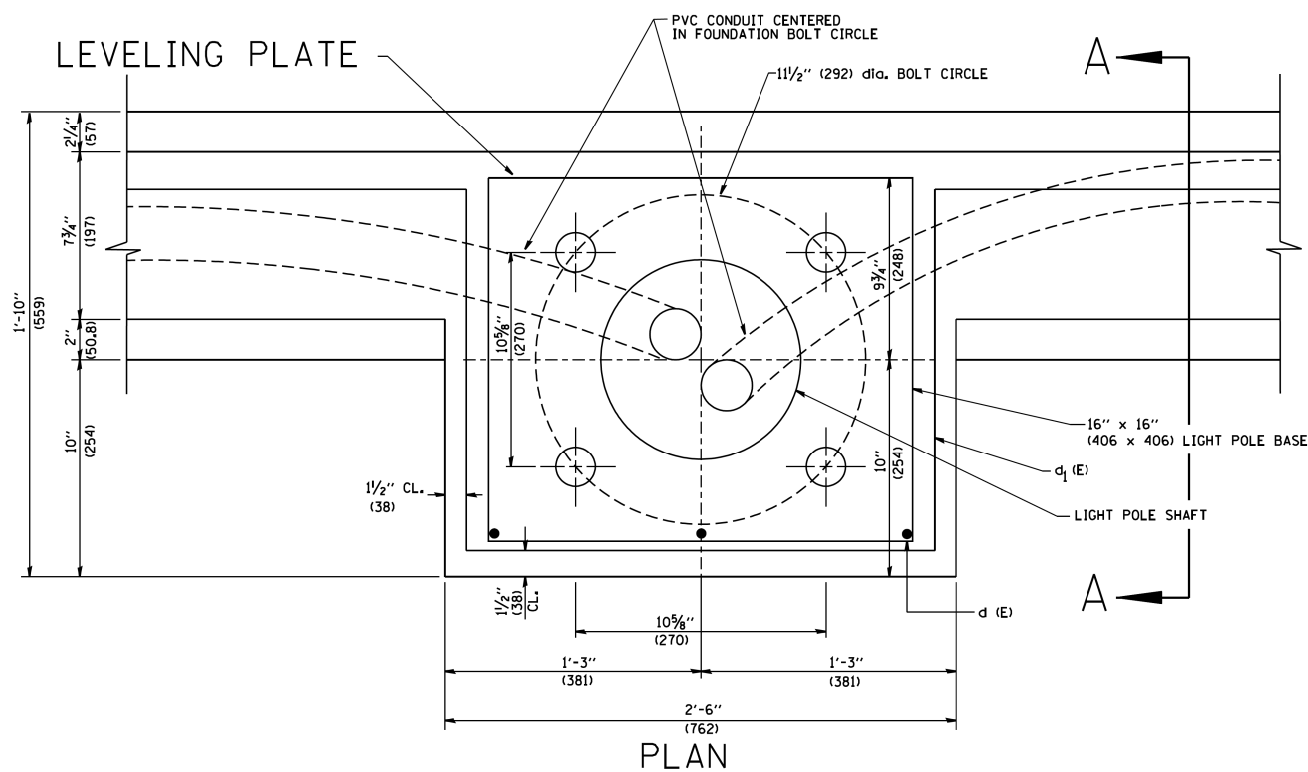




LEVELLING PLATE DETAIL



1" (25.4) dia. ANCHOR BOLT



PLAN

NOTES

1. ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
2. LEVEL LIGHT POLE PLATES, USING THE FLANGE NUTS, PRIOR TO POURING THE PARAPET WALL. THE TOP OF THE PLATE SHALL BE AT THE SAME ELEVATION AS THE FINISHED CONCRETE PARAPET.
3. THE COST OF ANCHOR BOLTS, CONDUIT, LEVELLING PLATE AND FOUNDATION IS INCLUDED IN THE COST OF THE BRIDGE STRUCTURE.

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		DRAWN -	REVISED -
		CHECKED -	REVISED -
		DATE - JUNE 25, 2018	REVISED -

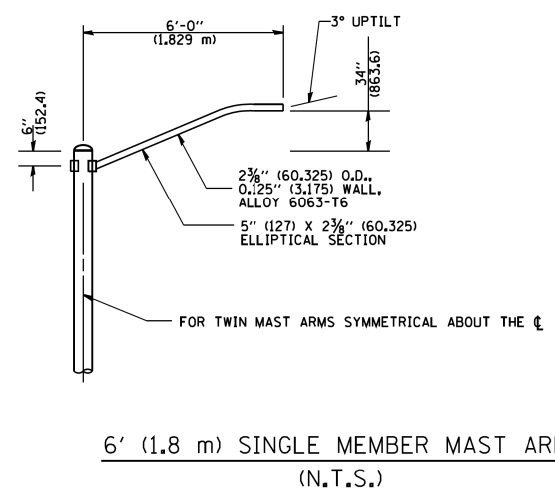
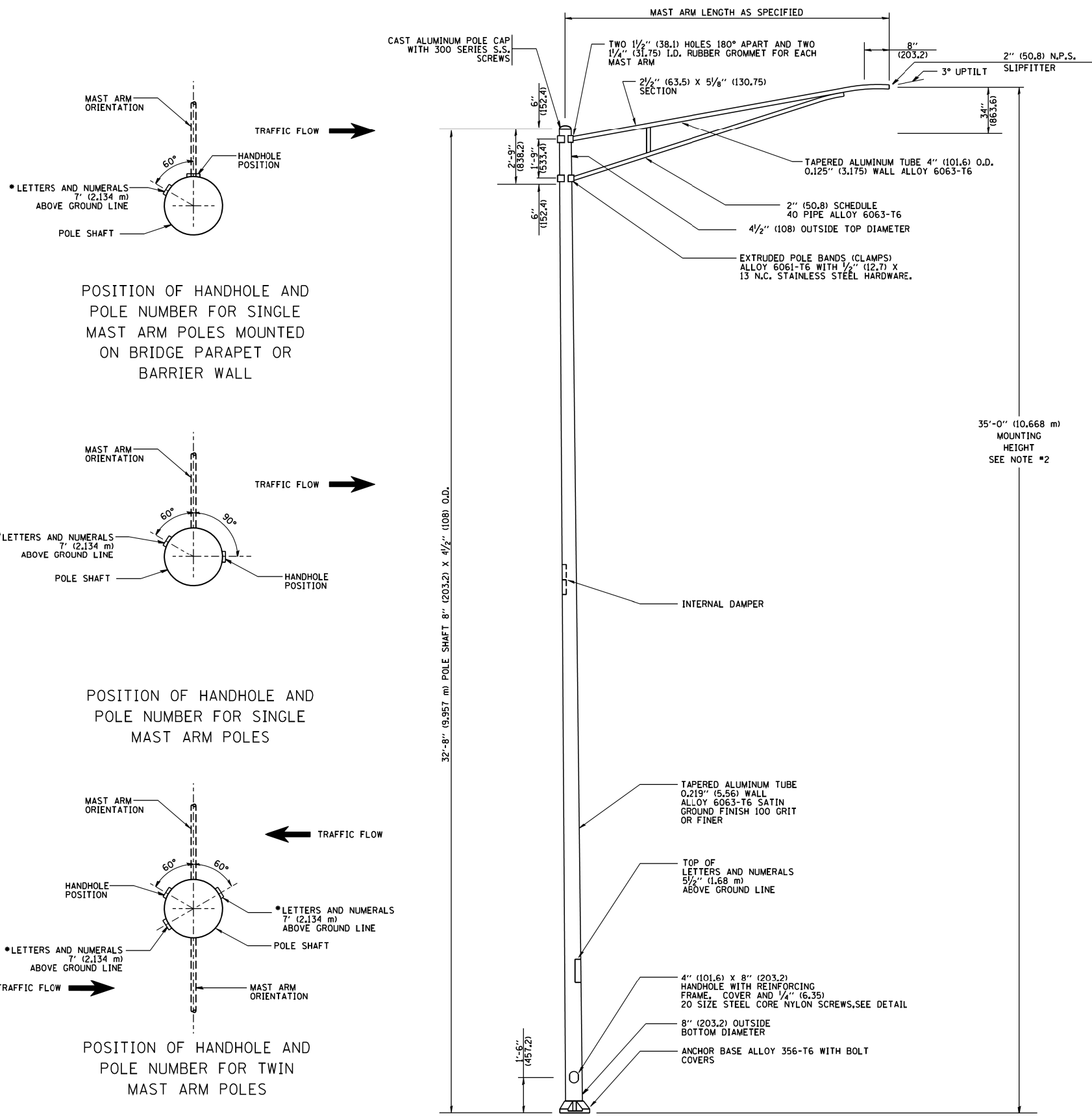
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

LIGHT POLE MOUNTED ON CONCRETE PARAPET WALL  
11 1/2" (292 mm) BOLT CIRCLE

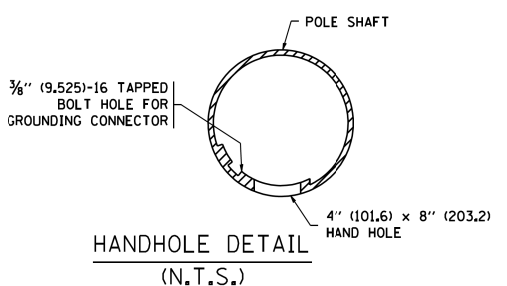
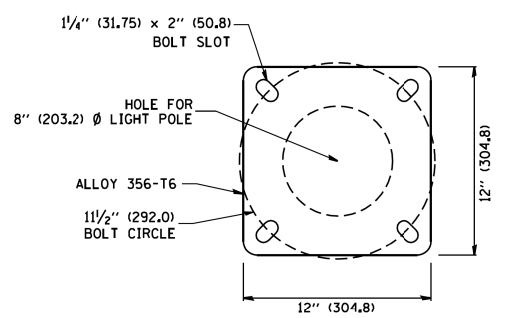
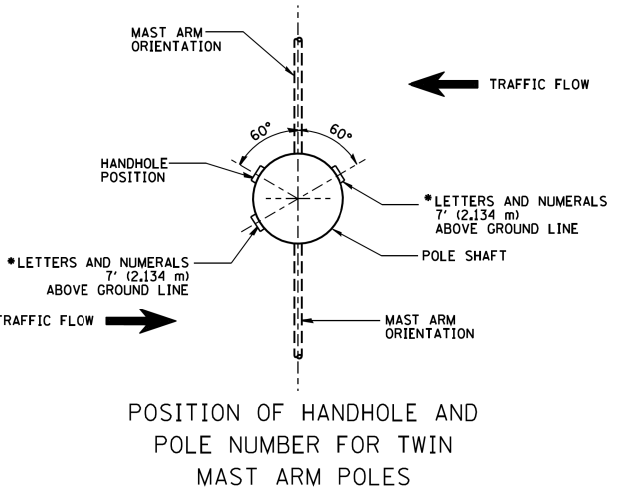
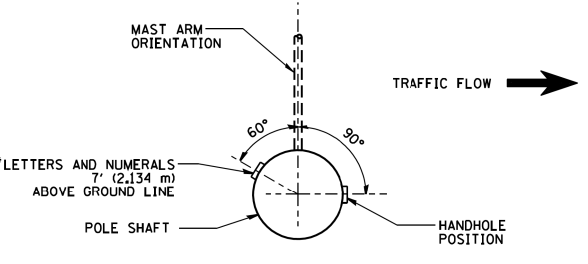
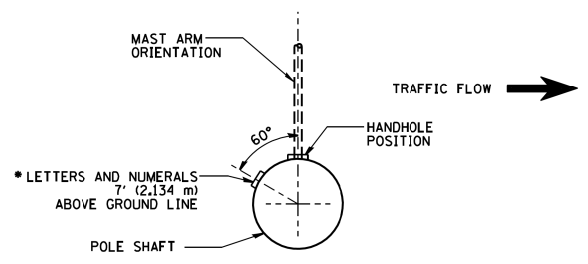
SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	BE-329		145	65
CONTRACT NO.				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

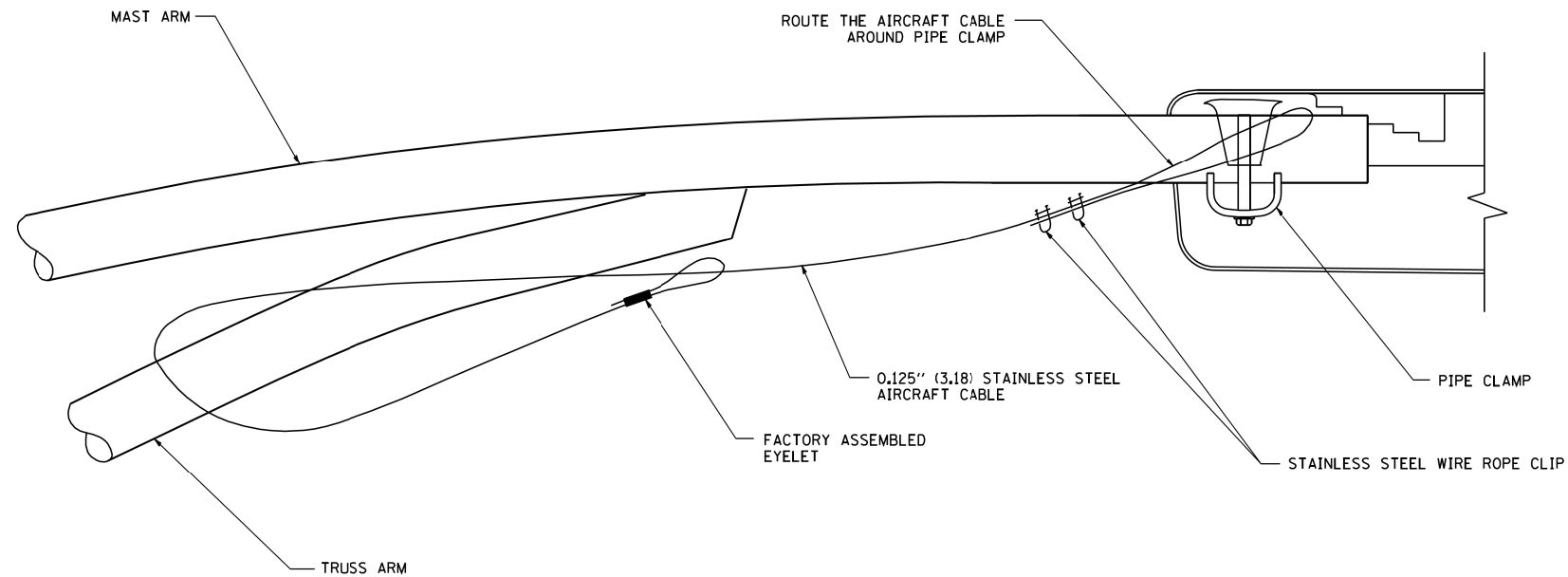
LT-10



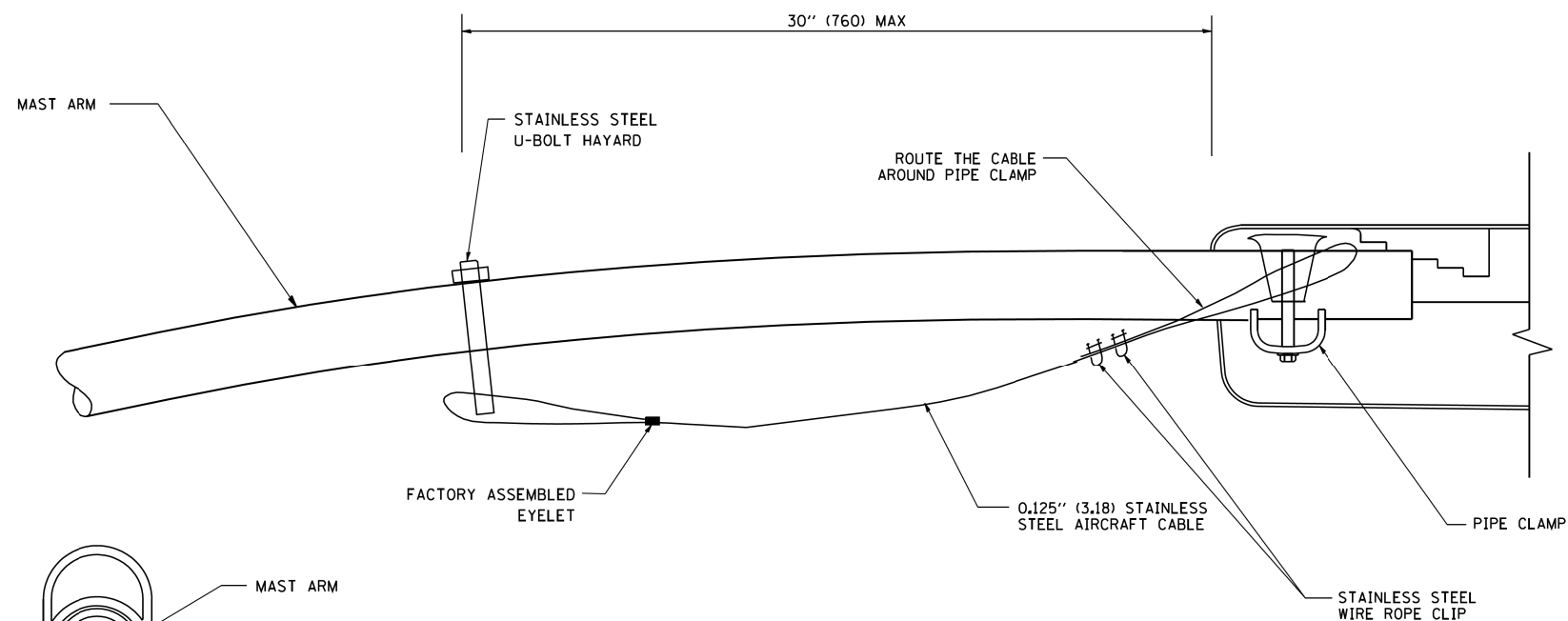
- NOTES:**
1. ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
  2. MOUNTING HEIGHT IS DEFINED AS THE DISTANCE FROM THE CENTERLINE OF THE TENON TO THE BOTTOM OF THE ANCHOR BASE.
  3. THE LIGHT POLE WILL MEET AASHTO DESIGN CRITERIA AS SPECIFIED.
  4. THE INSTALLING CONTRACTOR WILL PROVIDE A UL LISTED GROUNDING CONNECTOR, BURNDY K2C23, T&B SP4DL OR APPROVED EQUAL.
  5. LIGHT POLES WILL NOT BE INSTALLED WITHOUT MAST ARMS AND LUMINAIRES.
  6. LIGHT POLES WILL BE SET PLUMB ON THE FOUNDATION WITHOUT THE USE OF LEVELING NUTS, WASHERS OR SHIMS.
  7. LIGHTING UNIT IDENTIFICATION NUMBERS SHALL BE INSTALLED BEFORE THE LIGHTING UNIT IS ENERGIZED.



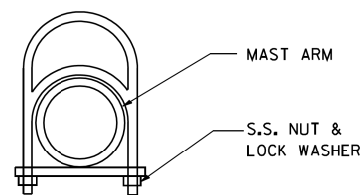
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					SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	<b>BE-402</b>		<b>CONTRACT NO.</b>	
					FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT							



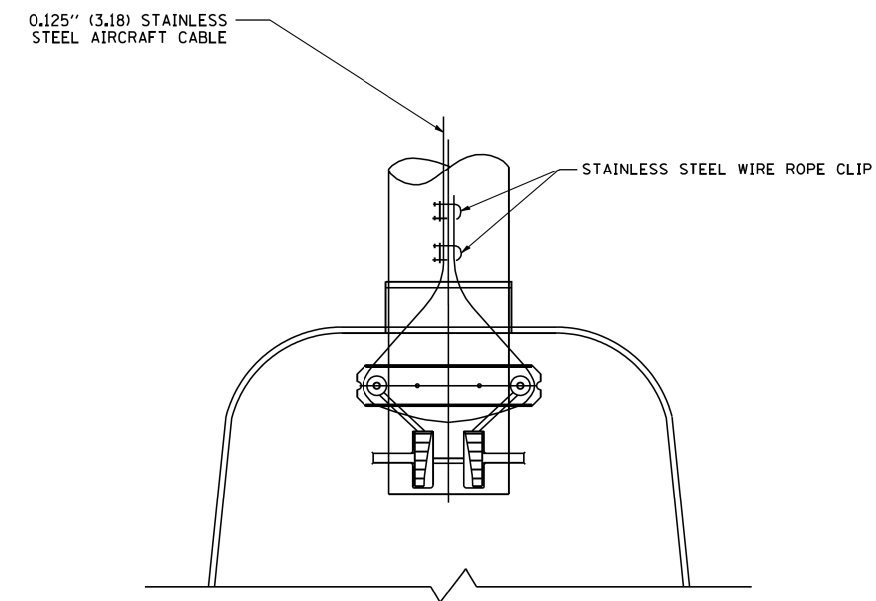
**SIDE VIEW (TRUSS ARM)**  
N.T.S.



**SIDE VIEW (SINGLE MEMBER OR DAVIT ARM)**  
N.T.S.



STAINLESS STEEL  
U-BOLT HAYARD



**BOTTOM VIEW**  
N.T.S.

**NOTES:**

1. ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE SHOWN.
2. CONTRACTOR SHALL ADJUST THE WIRE CLIP TO ELIMINATE ANY SLACK FROM THE WIRE ROPE.
3. THE 0.125" (3.18) STAINLESS STEEL AIRCRAFT CABLE SHALL REMAIN VISIBLE FROM THE GROUND LEVEL.
4. THE BREAKING STRENGTH OF THE CABLE SHALL BE 1700 LBS. MIN.

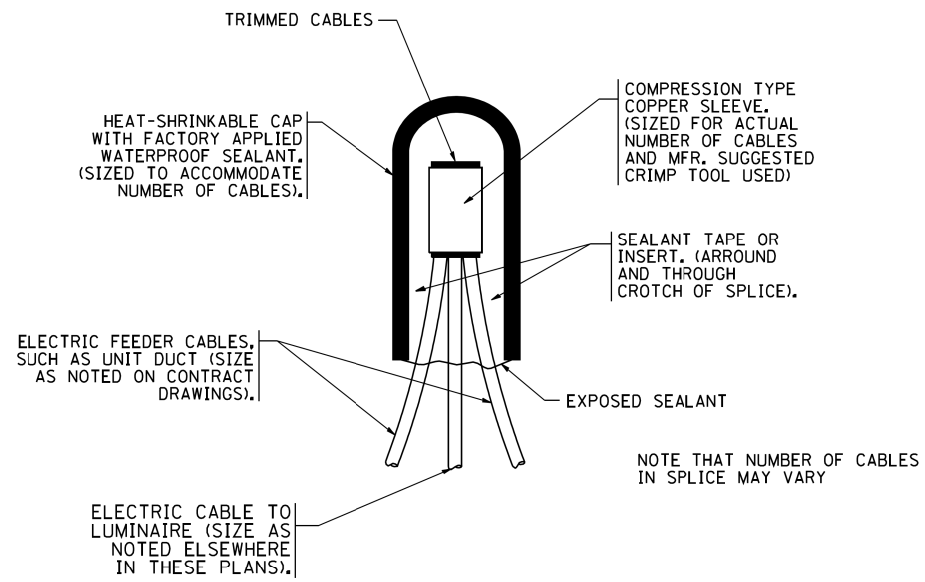
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		DRAWN -	REVISED -
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	PLOT DATE = 1/4/2008	DATE - JUNE 25, 2018	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**LUMINAIRE SAFETY CABLE ASSEMBLY**

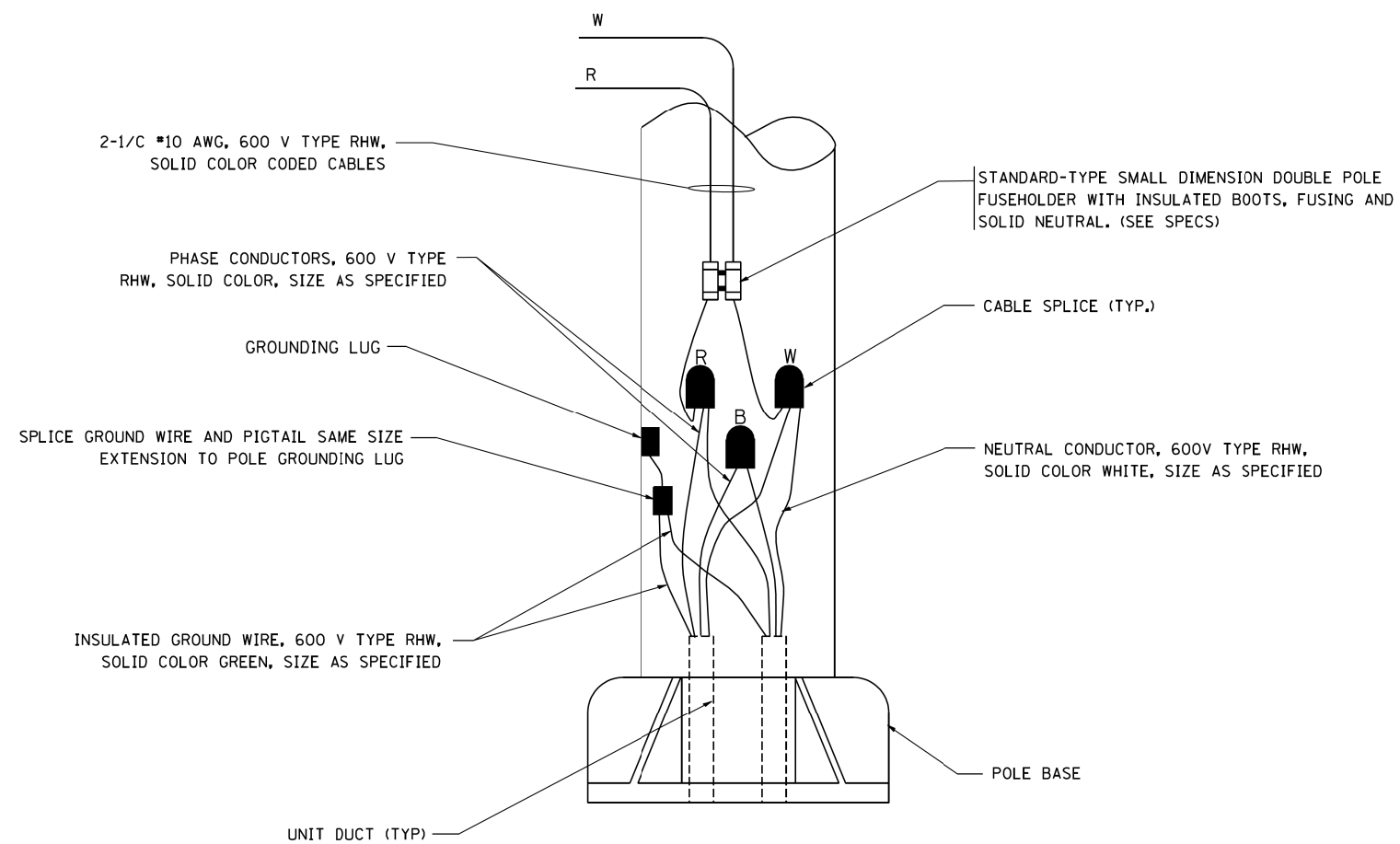
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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	BE-701		145	67
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO.	



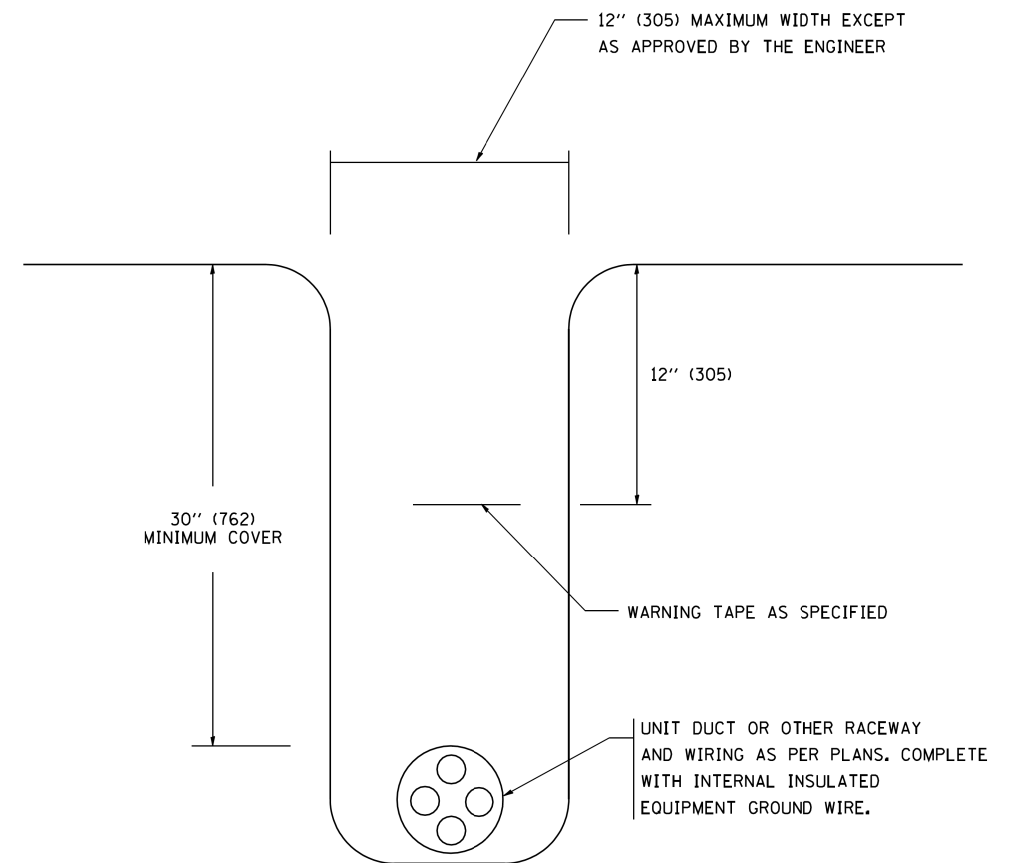
**TYPICAL SPLICE DETAIL**

N.T.S.



**POLE WIRING DETAIL**

N.T.S.



**TYPICAL WIRING IN TRENCH DETAIL**

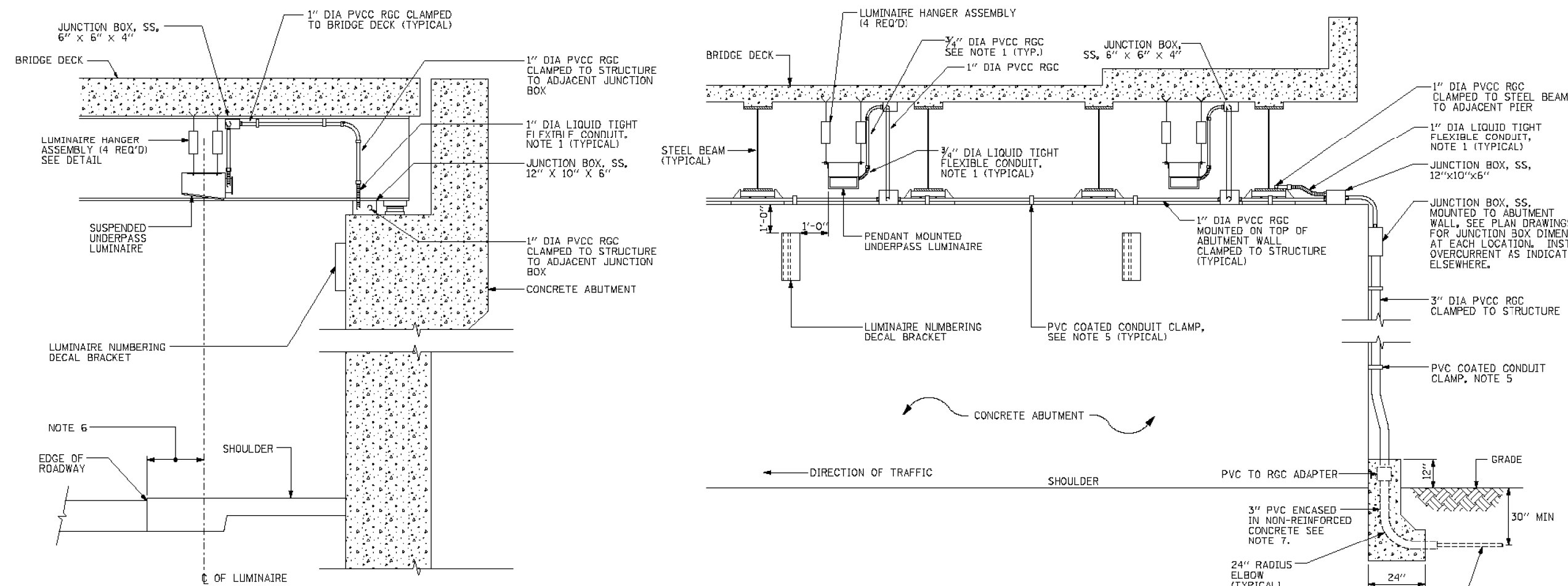
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		CHECKED -	REVISED -
		DATE - JUNE 25, 2018	REVISED -

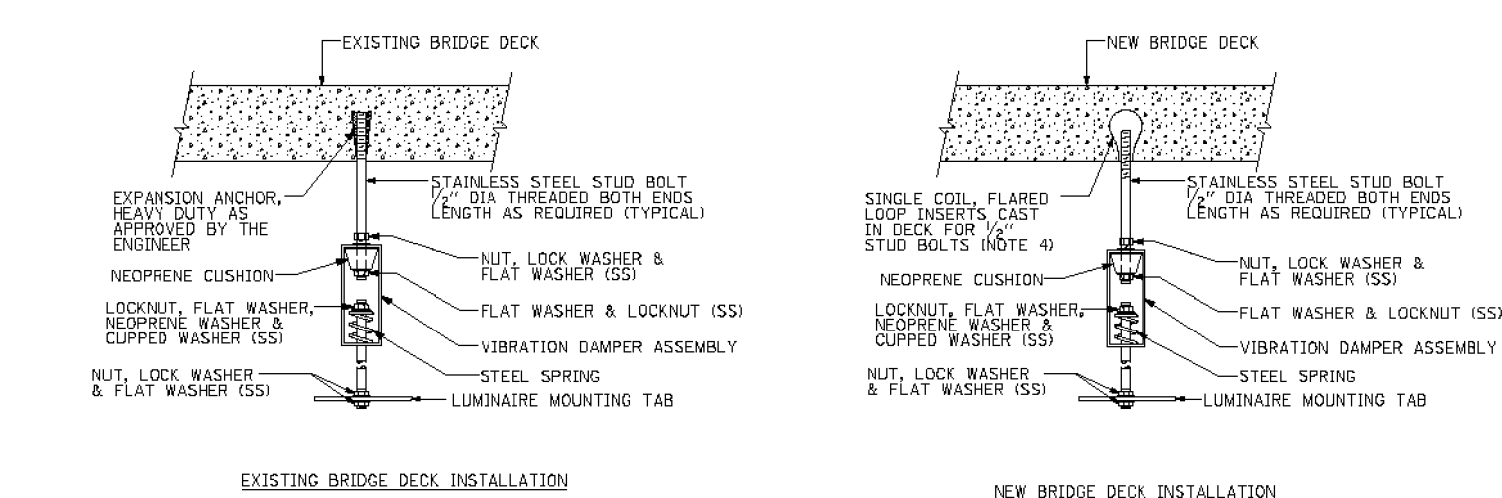
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>MISC. ELECTRICAL DETAILS</b>			
<b>SHEET A</b>			
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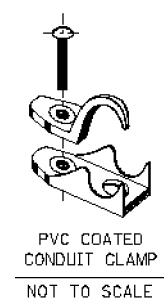
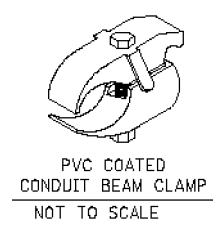
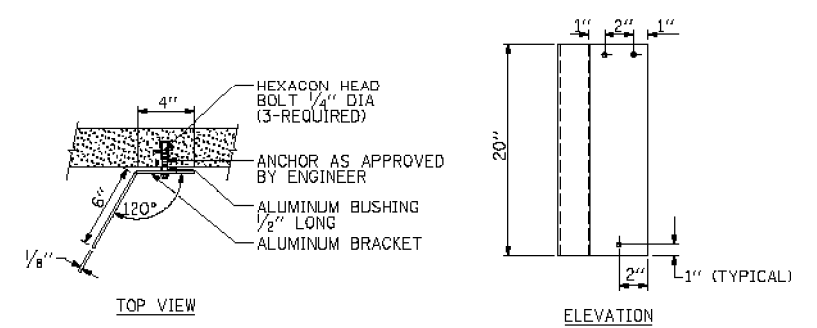
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			145	68
<b>BE-702</b>		CONTRACT NO.		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



- NOTES:**
- LIQUID TIGHT FLEXIBLE METAL CONDUIT, MAXIMUM LENGTH 6'-0", TYPICAL FOR EACH INSTANCE AS SHOWN. PROVIDE PVC COATED RIGID GALVANIZED STEEL CONDUIT AS REQUIRED NOT TO EXCEED 6'-0" OF FLEXIBLE LIQUID TIGHT METAL CONDUIT. LIQUID TIGHT FLEXIBLE METAL CONDUIT WILL BE INCLUDED IN THE COST OF THE CONDUIT ATTACHED TO STRUCTURE, OF THE CORRESPONDING DIA., GALVANIZED STEEL, PVC COATED PAY ITEM EXCEPT THAT 3/4" DIA. CONDUIT AND 1/2" DIA. FLEXIBLE CONDUIT SHALL BE INCLUDED IN THE COST OF UNDERPASS LUMINAIRE INSTALLATION.
  - SEE UNDERPASS LIGHTING PLANS FOR INSTALLATION LOCATION OF UNDERPASS LIGHTING LUMINAIRES.
  - THE CONTRACTOR SHALL USE APPROVED SINGLE COIL FLARED LOOP INSERTS WHEN SUSPENDING AN UNDERPASS LUMINAIRE TO A NEW BRIDGE DECK. THE FLARED LOOP INSERTS MUST BE CAST INTO THE CONCRETE DECK. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING AND COORDINATING THE INSERT LOCATIONS FOR MOUNTING THE UNDERPASS LIGHTING SYSTEM AS SHOWN ON THE PLANS WITH THE BRIDGE DECK CONTRACTOR. SEE DETAIL.
  - THE UNDERPASS LUMINAIRE HANGER ASSEMBLY COMPLETE WITH HEAVY DUTY ANCHORS/INSERTS AND ALL APPLICABLE HARDWARE SHALL BE INCLUDED IN THE COST OF THE UNDERPASS LUMINAIRE PAY ITEM.
  - SECURE THE CONDUIT WITH PVC COATED CONDUIT CLAMPS OR CONDUIT BEAM CLAMPS AS SHOWN AT 5'-0" INTERVALS FOR LATERALS AND WITHIN 2'-0" MAXIMUM FROM ANY JUNCTION BOX, FLEXIBLE CONDUIT, OR CHANGE IN DIRECTION. ALL PVC COATED CONDUIT CLAMPS OR BEAM CLAMPS SHALL BE INCLUDED WITH THE COST OF THE "CONDUIT ATTACHED TO STRUCTURE, OF THE CORRESPONDING DIA., GALVANIZED STEEL, PVC COATED" PAY ITEM.
  - ALL UNDERPASS LUMINAIRES MUST BE CENTERED IN THE BEAM SPACE AS INDICATED ON THE PLANS UNLESS OTHERWISE DIRECTED BY THE ENGR. LUMINAIRE SETBACK SHALL BE AS INDICATED IN PLANS FOR EACH SPECIFIC UNDERPASS
  - THE CONCRETE ENCASED CONDUIT TRANSITION SHALL BE INCLUDED IN THE COST OF THE GALVANIZED RIGID STEEL CONDUIT PAY ITEMS.
  - ALL CONDUIT ATTACHED TO STRUCTURE SHALL BE PVC COATED RIGID STEEL CONDUIT (PVCC RGC) TYPICAL.



TYPICAL LUMINAIRE HANGER ASSEMBLY DETAILS



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**LT-14**  
 SUSPENDED MOUNT UNDERPASS LUMINAIRE INSTALLATION DETAILS

SCALE: VERT. HORIZ.  
 DATE: 1/17/2007

TOTAL SHEETS: 145  
 SHEET NO.: 69

DRAWN BY  
 CHECKED BY  
 BE-900  
 REVISION DATE: 01-01-2007

PLOT DATE = 1/17/2007  
 PLOT SCALE = 80.000  
 USER NAME = ghrshhd

**BENCHMARK:**

TBM-3 cut [ ] on the west end of the NW vaulted wall of the West Abutment, Elev. 699.66  
 Existing Structure: S.N. 016-2125 carrying 167th Street over I-57 was built in 1968 as part of F.A.I. Rte. 57 Project I-57-7-162-348, I-57 West Leg Section 068-1011.3-CF. The four span structure consists of two 116'-9 1/4" continuous steel plate girder interior spans and two 43'-8", 36" Precast Prestressed Concrete I-Beams vaulted approach spans. The structure is skewed 10°-00'-00" and is 329'-9 1/4" back to back of pile caps and 90'-0" wide. In 2008 the overlay and the expansion joints were replaced and repairs were made to the deck slab, the parapets and the abutments.  
 The existing bridge has underpass lighting and sign lighting. The underpass lighting will need to be maintained during rehabilitation and new underpass lighting will need to be installed when the repairs are completed. There are large signs attached to the bridge, these are lighted and they will need to be reinstated and lighted after construction. Traffic will be maintained utilizing Stage Construction.  
 Salvage: Aluminum handrails and posts will be sent to the District Bridge Yard in Elk Grove Village.

**DESIGN SPECIFICATIONS**  
 2002 AASHTO Bridge Standard Specifications,  
 1995 FHWA Seismic Retrofitting Manual for  
 Highway Bridges

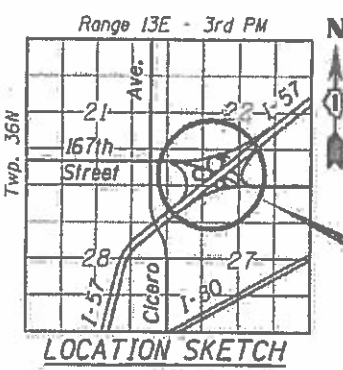
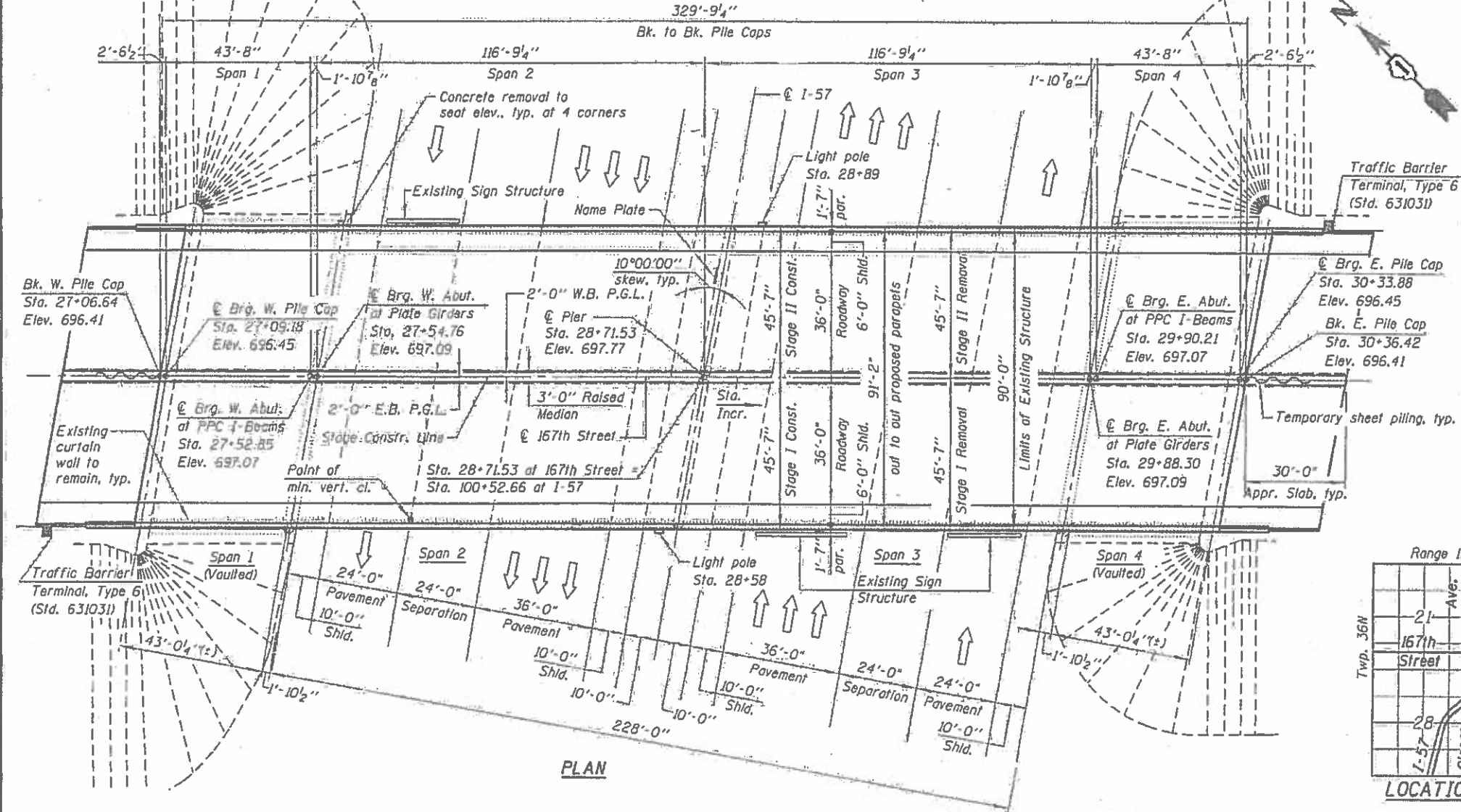
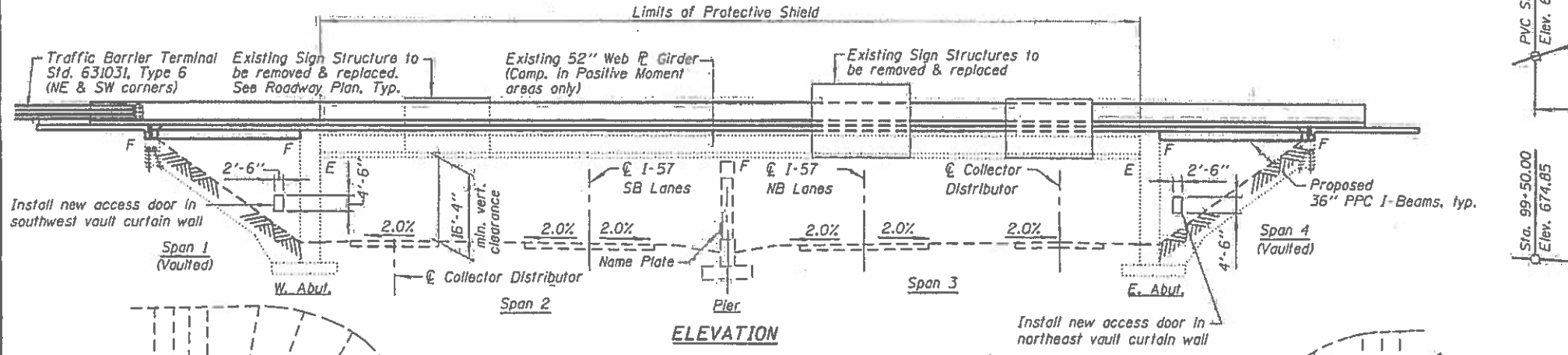
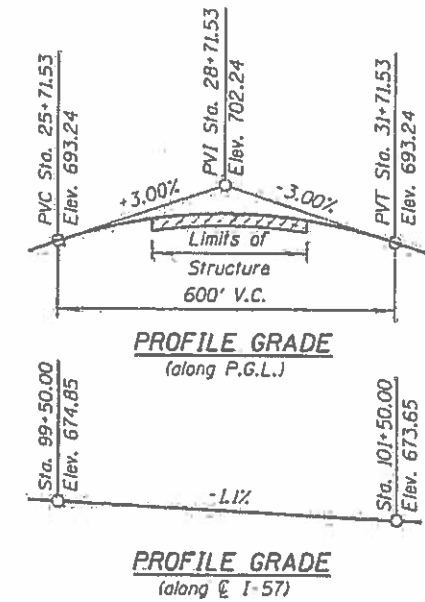
**DESIGN STRESSES**  
**FIELD UNITS**  
 (NEW CONSTRUCTION)  
 f'c = 3,500 psi  
 fy = 60,000 psi (Reinforcement)  
 fy = 36,000 psi (AASHTO M270, Gr. 36)

**PRECAST PRESTRESSED UNITS**  
 f'c = 5,000 psi  
 f'cl = 4,000 psi  
 fs = 270,000 psi, (1/2" low lax strands)  
 fsl = 201,960 psi, (1/2" low lax strands)

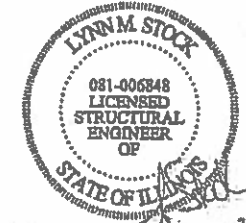
**DESIGN STRESSES**  
**FIELD UNITS**  
 (EXISTING CONSTRUCTION)  
 f'c = 3,500 psi  
 fy = 40,000 psi (Reinforcement)  
 fy = 36,000 psi (Structural Steel A36, Gr 36)  
 fy = 50,000 psi (Structural Steel A441, Gr 50)

**LOADING HS20-44**  
 Allow 50#/sq. ft. for future wearing surface

**SEISMIC DATA**  
 Seismic Performance Category (SPC) = A  
 Horizontal Bedrock Acceleration coefficient (A) = 0.04g  
 Site Coefficient (S) = 1.0



**APPROVED**  
 For Structural Adequacy Only  
*[Signature]*  
 Engineer of Bridges & Structures



EXPIRES: 11-30-18 Shts S26 & 27



EXPIRES: 11-30-18 Shts S1 to S25 and S28 to S43

**GENERAL PLAN & ELEVATION**  
 167TH STREET OVER I-57  
 F.A.I. RTE. 57  
 SEC. 1011.3-BR  
 COOK COUNTY  
 STATION 28+71.53  
 STRUCTURE NO. 016-2125

FILE NAME: I:\2265\02\CAD\Struct\167th\167th-01-DPE.dgn

**KNIGHT**  
 Engineers & Architects

USER NAME: IDOT	DESIGNED: J.W. / B.N.S.	REVISED:
PLLOT SCALE: 1/8" = 1'-0"	CHECKED: B.N.S. / J.W.	REVISED:
PLLOT DATE: 6/28/2018	DRAWN: B.K.	REVISED:
	DATE: JUNE 2018	REVISED:

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

GENERAL PLAN & ELEVATION  
 167TH STREET OVER I-57  
 STRUCTURE NO. 016-2125  
 SHEET NO. 51 OF 43 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEET NO.
57	1011.3-BR	COOK	145 70
			CONTRACT NO. 60T43
ILLINOIS FED. AID PROJECT			

**TOTAL BILL OF MATERIAL**

DESCRIPTION	UNIT	SUPER.	SUB.	TOTAL
Removal of Existing Superstructures	Each	2	-	2
Concrete Removal	Cu Yd	-	71.5	71.5
Removal of Existing Concrete Deck	Each	1	-	1
Protective Shield	Sq Yd	2,449	-	2,449
Structure Excavation	Cu Yd	-	76.7	76.7
Concrete Structures	Cu Yd	-	111.4	111.4
Concrete Superstructure	Cu Yd	986.2	-	986.2
Bridge Deck Grooving	Sq Yd	3,531	-	3,531
Concrete Superstructure (Approach Slab)	Cu Yd	271.5	-	271.5
Protective Coat	Sq Yd	4,141	-	4,141
Furnishing and Erecting Precast Prestressed Concrete I-Beams, 36 In.	Foot	1,260	-	1,260
Reinforcement Bars, Epoxy Coated	Pound	307,700	15,480	323,180
Bar Splicers	Each	1,408	98	1,506
Name Plates	Each	-	1	1
Preformed Joint Strip Seal	Foot	183	-	183
Elastomeric Bearing Assembly, Type I	Each	24	-	24
Anchor Bolts, 1"	Each	48	-	48
Temporary Sheet Piling	Sq Ft	-	129	129
Concrete Sealer	Sq Ft	-	1,304	1,304
Epoxy Crack Injection	Foot	-	108	108
Geocomposite Wall Drain	Sq Yd	-	42	42
Cleaning and Painting Bearings	Each	12	-	12
Access Door	Each	-	2	2
Granular Backfill For Structures	Cu Yd	-	64.2	64.2
Jack and Remove Existing Bearings	Each	24	-	24
Containment and Disposal of Lead Paint Cleaning Residues	L Sum	1	-	1
Structural Repair of Concrete (Depth Equal to or Less than 5 Inches)	Sq Ft	-	175	175
Pipe Underdrain for Structures 4"	Foot	-	198	198
Removal of Existing Protective Shield	Sq Yd	2,449	-	2,449

**SCOPE OF WORK:**

- Remove the existing deck (90'-0" out to out) including the 1/2" waterproofing membrane system, 1 1/2" HMA surface course and the abutment vault slabs and then replace with an 8" reinforced concrete deck (91'-2" out to out).
- The Contractor shall not sawcut the deck over the top of the existing flanges.
- Remove and replace West and East approach slabs.
- Remove & replace PPC I-Beams in the two vaulted spans.
- Replace fixed bearings under the PPC I-Beam girders.
- Replace expansion bearings and clean and paint fixed bearings under the steel girders.
- Perform structural repair of concrete to the abutments, pile caps & the pier.
- Reconstruct the bridge seats at the abutments & at pile caps and install a 4"φ underdrain behind the pile caps.
- Install concrete diaphragms at pile caps to seal access.
- Install new expansion joints and preformed joint seals.
- Install one access door in northeast vault curtain wall and the southwest vault curtain wall.
- Cleaning and Painting of existing structural steel to be under a separate contract.

**GENERAL NOTES:**

Concrete Sealer shall be applied to the designated areas of all exposed surfaces of backwalls & bridge seat extensions of the abutments.

Prior to pouring the new concrete deck, all heavy or loose rust, loose mill scale, and other loose or potentially detrimental foreign material shall be removed from the surfaces in contact with concrete. Tightly adhered paint may remain unless otherwise noted. Removal shall be accomplished by methods that will not damage steel and the cost will be included in the pay item covering the Removal of the Existing Concrete.

As directed by the Engineer, existing construction accessories welded to the top flange of beams and girders shall be removed. The weld areas shall be ground flush and inspected for cracks using magnetic particle testing (MT) or dye penetrant testing (PT) by qualified personnel by the Engineer. Any cracks that can not be removed by grinding 1/4 in. deep shall be identified and reported to the Bureau of Bridges and Structures for further disposition. The cost of removing welded accessories, grinding and inspecting weld areas and grinding cracks will be paid for according to Article 109.04 of The Standard Specifications.

Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

Cleaning and painting existing bearings will be part of this contract.

Cleaning and field painting of all other structural steel shall be done under a separate painting contract. No field welding is permitted except as specified in the contract documents.

The information concerning the type and location of underground and other utilities is not guaranteed to be accurate or all inclusive. It shall be the Contractor's responsibility to verify the location of all utilities prior to starting construction by contacting J.U.L.I.E. at 1-800-892-0123.

Slip forming of the parapets is not allowed.

Reinforcement bars designated (E) shall be epoxy coated.

The existing structural steel coating contains lead. The contractor shall take appropriate precautions to deal with the presence of lead on this project.

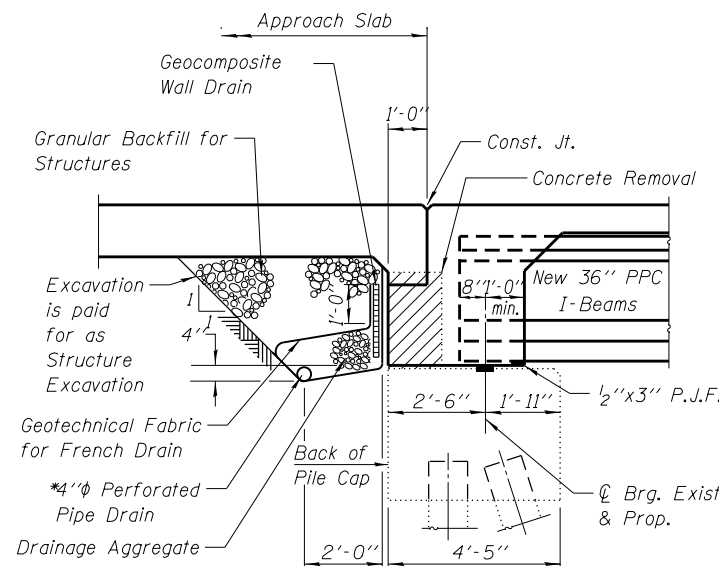
Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of 1/8 inch (0.01 ft.). Adjustment shall be made either by grinding the surface or by shimming the bearings.

Existing steel bearings that are to remain in place shall be cleaned and painted with an inorganic zinc rich primer per AASHTO M300, Type 1.

**INDEX OF SHEETS:**

- S1 General Plan & Elevation
- S2 General Notes & Total Bill of Material
- S3 Stage Construction
- S4 Typical Cross Sections
- S5 Temporary Concrete Barrier For Stage Construction
- S6 Top of Slab Elevations - Span 1 (1 of 3)
- S7 Top of Slab Elevations - Span 1 (2 of 3)
- S8 Top of Slab Elevations - Span 1 (3 of 3)
- S9 Top of Slab Elevations - Span 2 & 3 (1 of 6)
- S10 Top of Slab Elevations - Span 2 & 3 (2 of 6)
- S11 Top of Slab Elevations - Span 2 & 3 (3 of 6)
- S12 Top of Slab Elevations - Span 2 & 3 (4 of 6)
- S13 Top of Slab Elevations - Span 2 & 3 (5 of 6)
- S14 Top of Slab Elevations - Span 2 & 3 (6 of 6)
- S15 Top of Slab Elevations - Span 4 (1 of 3)
- S16 Top of Slab Elevations - Span 4 (2 of 3)
- S17 Top of Slab Elevations - Span 4 (3 of 3)
- S18 Top of West Approach Slab Elevations
- S19 Top of East Approach Slab Elevations
- S20 Superstructure & Deck Removal Details
- S21 Deck Plan and Section - Span 2 & 3
- S22 Superstructure Details - Span 2 & 3
- S23 Deck Plan - Vaulted Abutment Approach Span 1 & 4
- S24 Vaulted Abutment Approach Span 1 & 4 Details 1 of 2
- S25 Vaulted Abutment Approach Span 1 & 4 Details 2 of 2
- S26 Bridge Approach Slab Details - I
- S27 Bridge Approach Slab Details - II
- S28 Preformed Joint Strip Seal
- S29 Structural Steel Framing Plan - Span 2 & 3
- S30 Existing Structural Steel Details - Span 2 & 3
- S31 PPC I-Beam Framing Plan - Span 1 & 4
- S32 36" PPC I-Beam
- S33 36" PPC I-Beam Details
- S34 Expansion Bearing Details
- S35 Pile Cap Removal Details
- S36 Pile Cap Plan & Elevation
- S37 Abutment Removal Details
- S38 Abutment Plan & Elevation
- S39 Abutment Details
- S40 Abutment Repairs
- S41 Pier Repairs
- S42 Access Door
- S43 Bar Splicer Assembly Details

For Existing Bridge Plans, see Sheet No's SX01-SX20

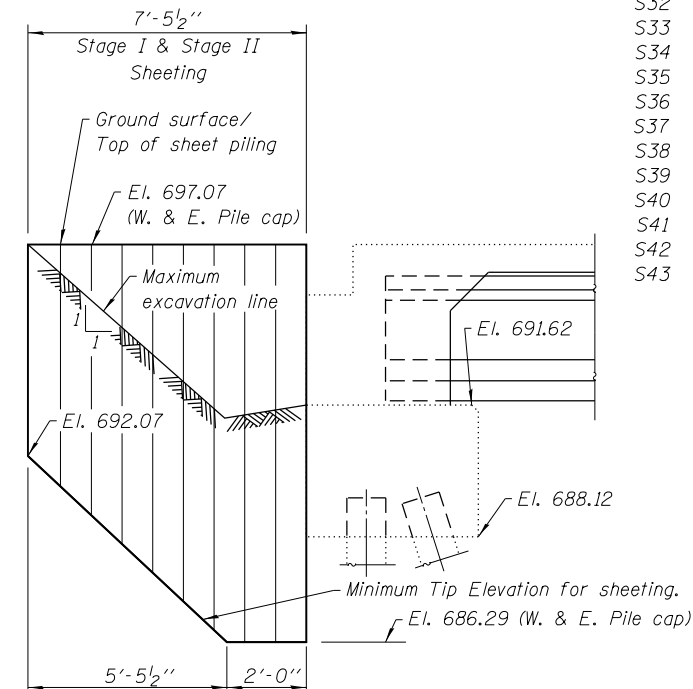


**SECTION AT PILE CAP**

(Dimensions are at right Ls)

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

All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe extend until intersecting with the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101)



**TEMPORARY SHEET PILING**

(West and East Pile caps)

Minimum Section Modulus = 4.0 in<sup>3</sup>/ft  
Minimum Embedment = 5'-0"

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.

STATION 28+71.53
RE-BUILT BY
STATE OF ILLINOIS
F.A.I. RTE. 57 SEC. 1011.3-BR
LOADING HS 20-44
STRUCTURE NO. 016-2125

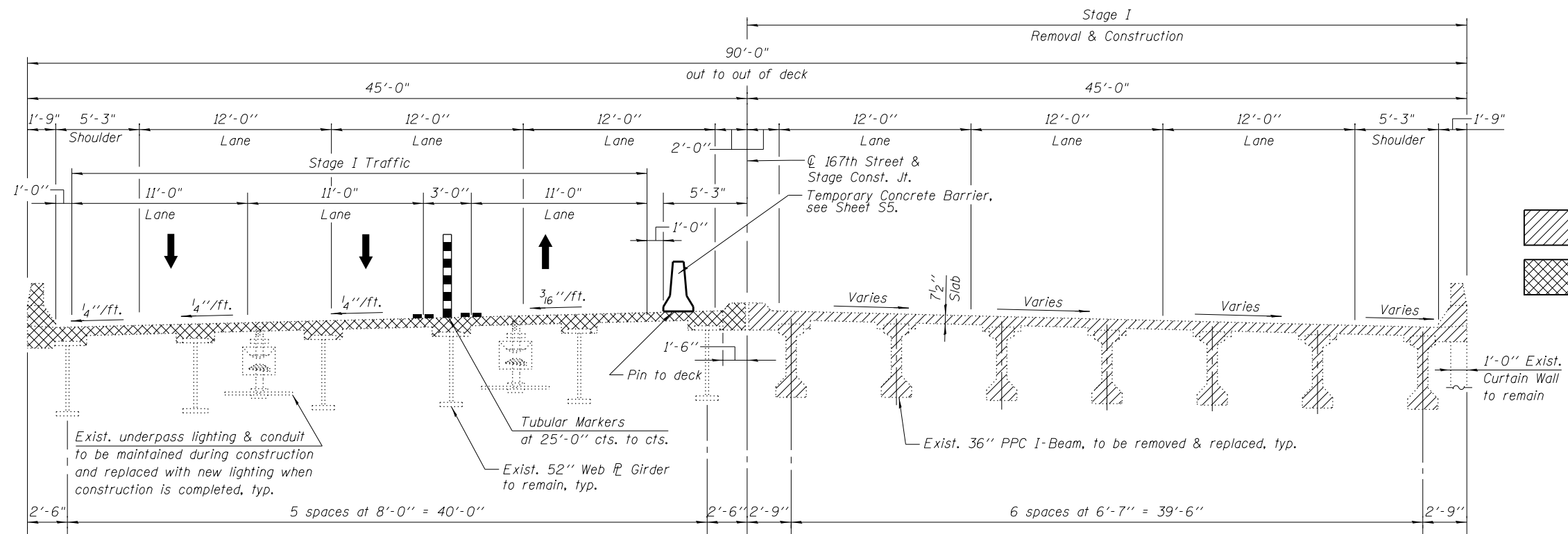
**NAME PLATE**

See Std. 515001

Note:  
Existing Name Plate shall be cleaned and relocated next to new Name Plate. Cost included with Name Plate.

FILE NAME = L:\7265\02\CAD\Structural\CADD Sheets\160743-02-gen\_notes.dgn

<b>KNIGHT</b> Engineers & Architects	USER NAME = 100T	DESIGNED - J.W. / B.N.S.	REVISED -	<b>STATE OF ILLINOIS</b> DEPARTMENT OF TRANSPORTATION	<b>GENERAL NOTES &amp; TOTAL BILL OF MATERIAL</b> 167TH STREET OVER I-57 STRUCTURE NO. 016-2125 SHEET NO. S2 OF 43 SHEETS	F.A.I. RTE. 57	SECTION 1011.3-BR	COUNTY COOK	TOTAL SHEETS 145	SHEET NO. 71
	PLOT SCALE = 99.9999' / in.	DRAWN - B.K.	REVISED -			CONTRACT NO. 60T43				
	PLOT DATE = 6/21/2018	DATE - JUNE 2018	REVISED -			ILLINOIS FED. AID PROJECT				



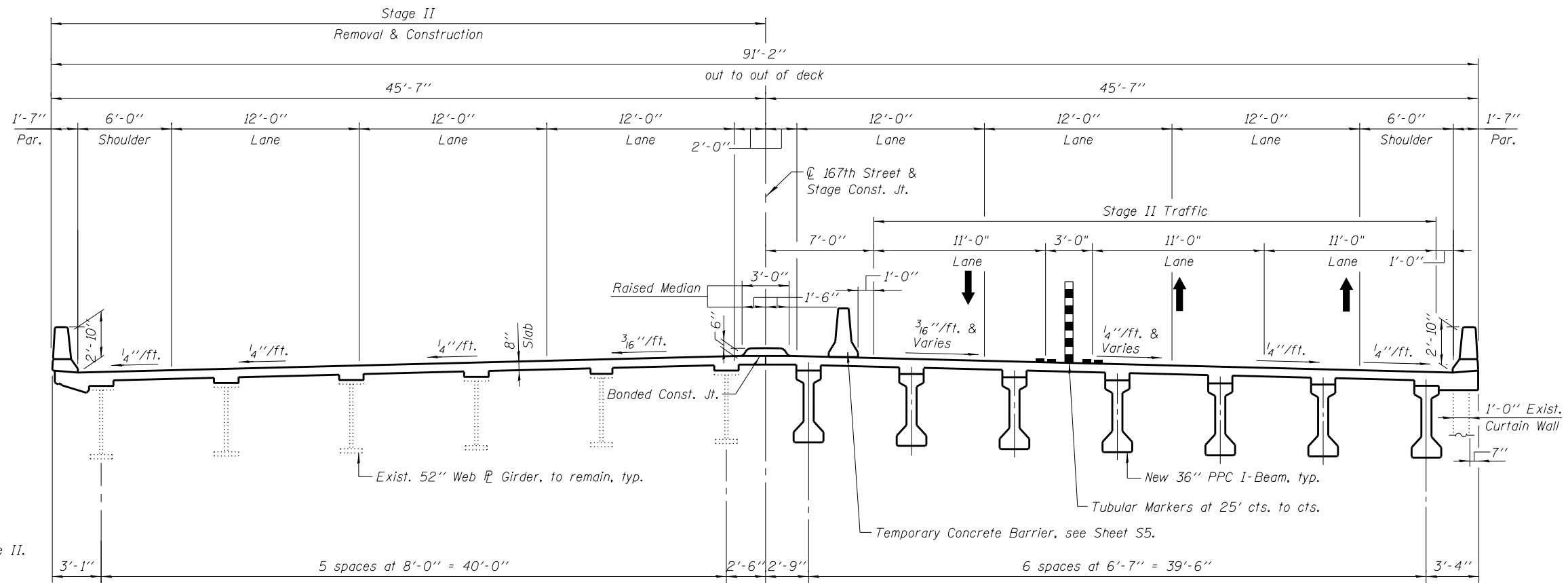
**CROSS SECTION AT ROADWAY SPANS**

(Spans 2 & 3  
Symm. about C)

**CROSS SECTION THRU VAULTED APPROACH SPANS**

(Spans 1 & 4  
Symm. about C)

**CROSS SECTION**  
(Existing)



**CROSS SECTION AT ROADWAY SPANS**

(Spans 2 & 3  
Symm. about C)

**CROSS SECTION THRU VAULTED APPROACH SPANS**

(Spans 1 & 4  
Symm. about C)

**CROSS SECTION**  
(Proposed)

**LEGEND**

	Removal of Existing Superstructures
	Removal of Existing Deck

Notes:  
Cross Sections are looking East.  
Raised median to be built after Stage II.  
For quantity of Temporary Concrete Barrier see Roadway plans.

FILE NAME = L:\7265.02\CA05\Structural\CA05 Sheets\160743-03-stage const.dgn



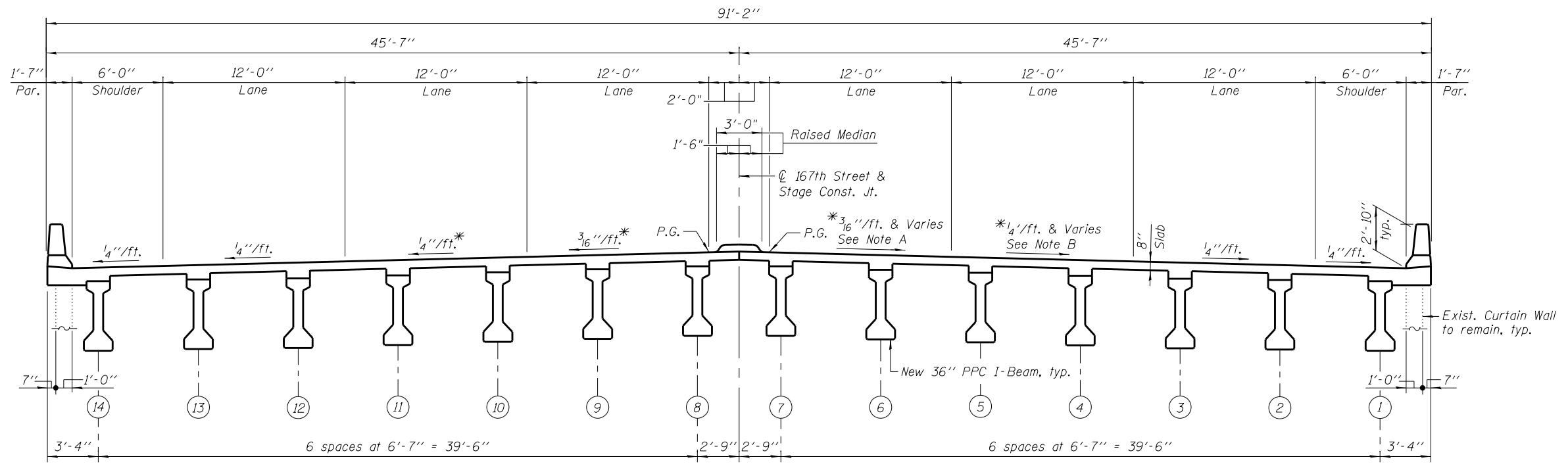
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PLOT SCALE = 99.9999' / in.	CHECKED - B.N.S. / J.W.	REVISED -
PLOT DATE = 6/19/2018	DRAWN - B.K.	REVISED -
	DATE - JUNE 2018	REVISED -

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

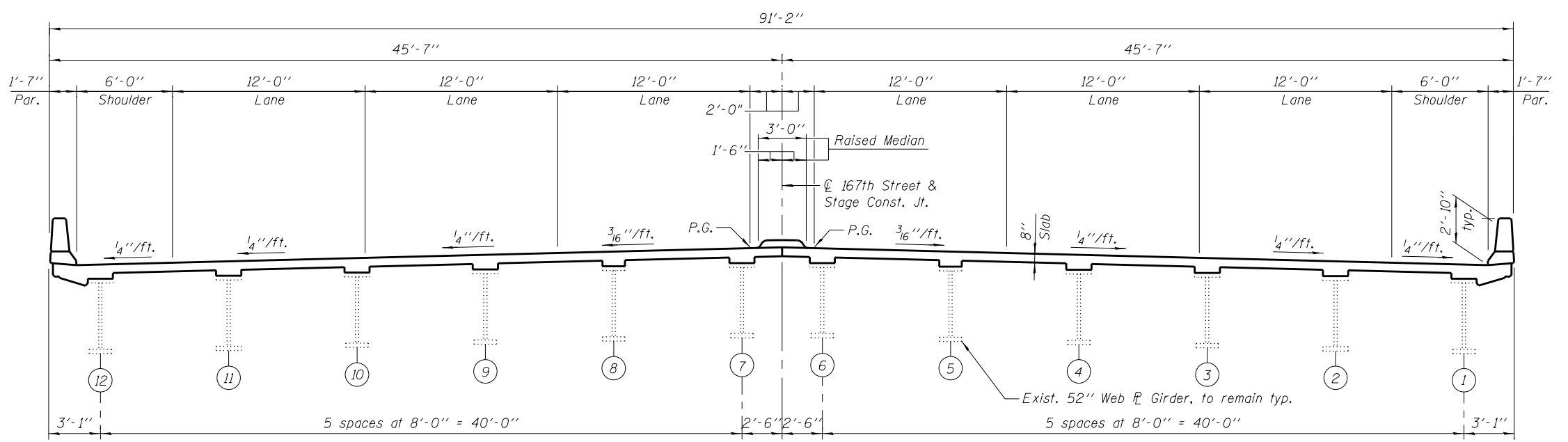
**STAGE CONSTRUCTION**  
**167TH STREET OVER I-57**  
**STRUCTURE NO. 016-2125**  
SHEET NO. S3 OF 43 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1011.3-BR	COOK	145	72
CONTRACT NO. 60T43				
ILLINOIS FED. AID PROJECT				





**PROPOSED CROSS SECTION**  
(Spans 1 & 4)



**PROPOSED CROSS SECTION**  
(Spans 2 & 3)

Note A:  
Westbound varies from 1.5% to -0.9% from Sta. 27+54.00 to Sta. 27+07.50 to match existing roadway.  
Eastbound varies from 1.5% to 0.1% from Sta. 29+89.00 to Sta. 30+36.00 to match existing roadway.

Note B:  
Westbound varies from 2.0% to 0.3% from Sta. 27+54.00 to Sta. 27+07.50 to match existing roadway.  
Eastbound varies from 2.0% to 0.6% from Sta. 29+89.00 to Sta. 30+36.00 to match existing roadway.

- Notes:
- 1. Spans 1 & 4 are in superelevation transitions and the cross slopes varies. See Sht's. S7 & S8 and S16 & S17 for proposed elevations.
  - 2. Raised median to be built after Stage II.
  - 3. For quantity of Temporary Concrete Barrier see Roadway plans.
  - 4. For locations of flared loop inserts, See Sht's. LT-01 thru LT-04.

FILE NAME = L:\7265.02\CAD\Structural\CADD Sheets\160743-04-cross section.dgn



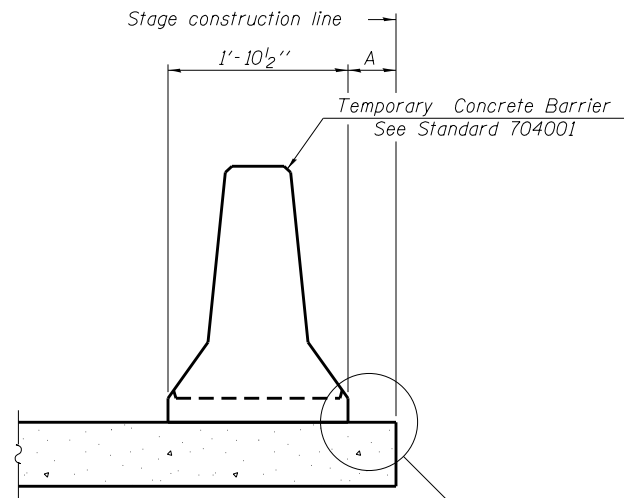
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PLOT DATE = 6/19/2018	DRAWN - B.K.	REVISED -
	DATE - JUNE 2018	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TYPICAL CROSS SECTIONS  
167TH STREET OVER I-57  
STRUCTURE NO. 016-2125**

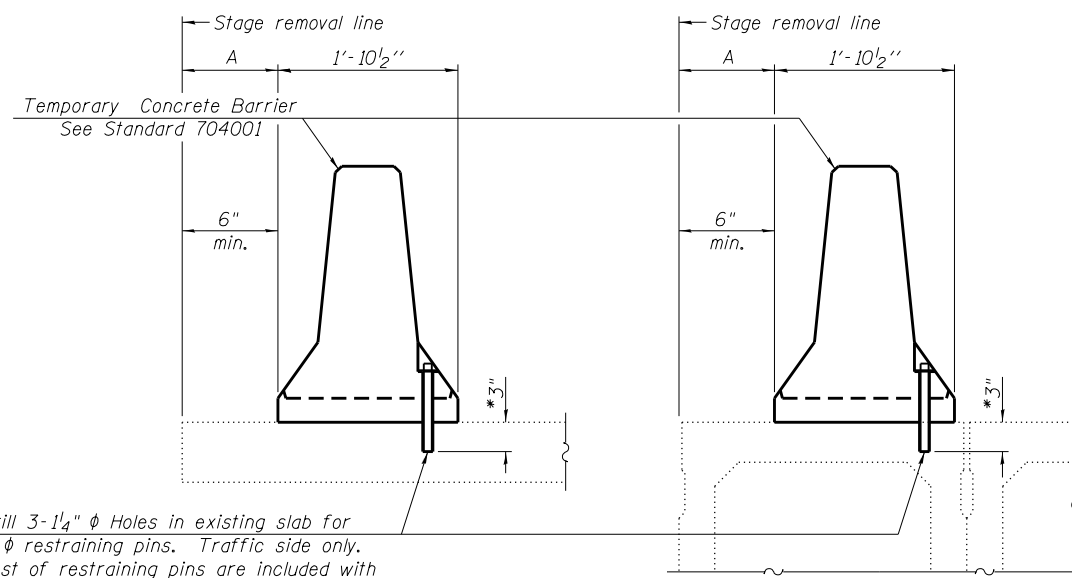
SHEET NO. S4 OF 43 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1011.3-BR	COOK	145	73
CONTRACT NO. 60T43				
ILLINOIS FED. AID PROJECT				



When "A" is 3'-1" or less, the temporary concrete barrier shall be restrained to the new slab according to Detail I, II or III. No restraint is required when "A" is greater than 3'-1".

**NEW SLAB OR NEW DECK BEAM**



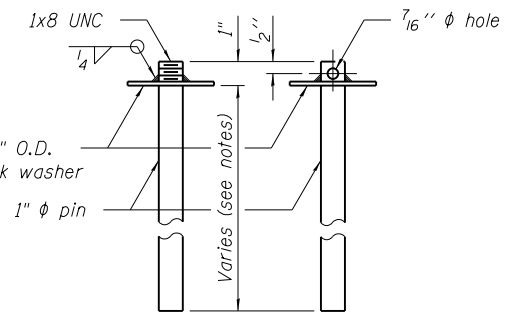
Drill 3-1/4"  $\phi$  Holes in existing slab for 1"  $\phi$  restraining pins. Traffic side only. Cost of restraining pins are included with Temporary Concrete Barrier. No restraint is required when "A" is greater than 3'-1".

**EXISTING SLAB**

**EXISTING DECK BEAM**

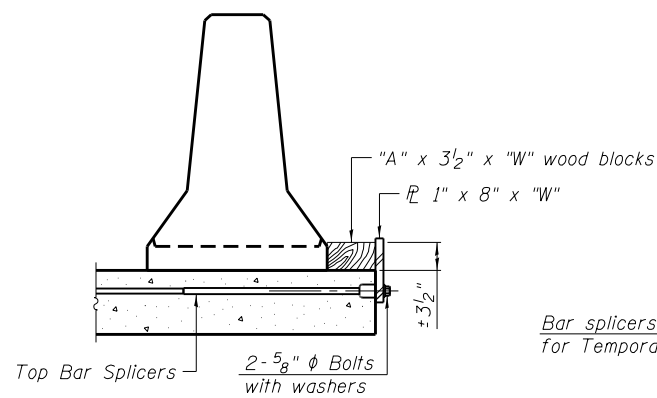
\* When hot-mix asphalt wearing surface is present, embedment shall be 3" plus the wearing surface depth.

**SECTIONS THRU SLAB OR DECK BEAM**

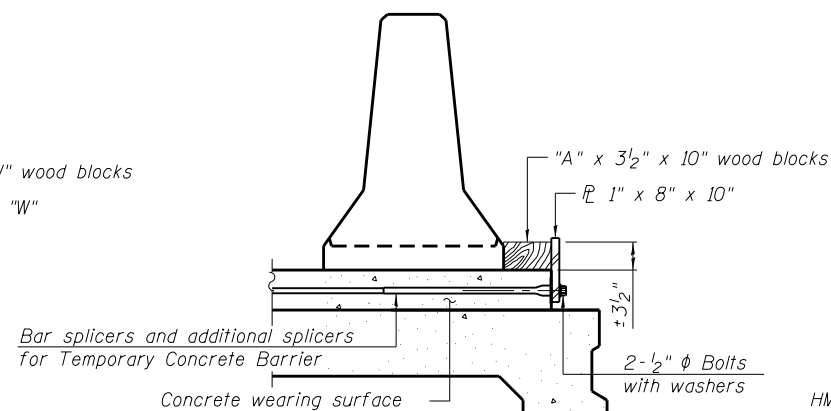


US Std. 1/16" I.D. x 2 1/2" O.D. x approx. 8 gauge thick washer

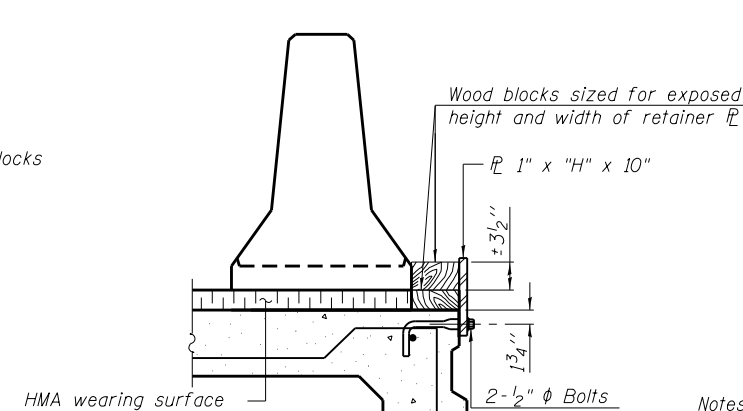
**RESTRAINING PIN**



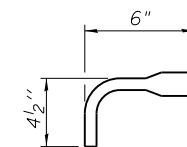
**DETAIL I**



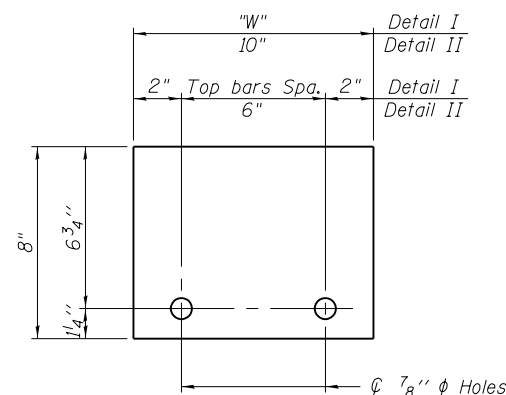
**DETAIL II**



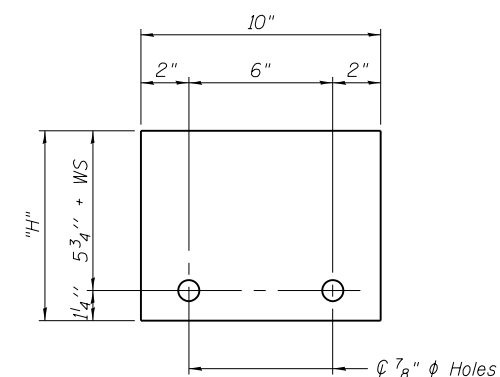
**DETAIL III**



**BAR SPLICER FOR #4 BAR - DETAIL III**



**STEEL RETAINER 1" x 8" x "W"**  
(Detail I and II)



**STEEL RETAINER 1" x "H" x 10"**  
(Detail III)

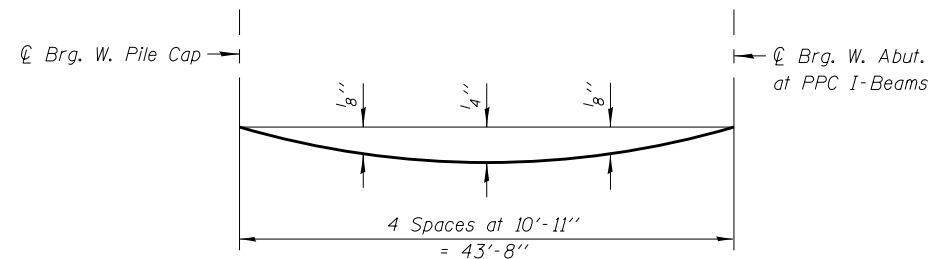
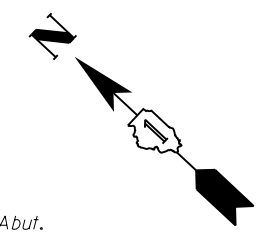
Notes:  
 Cost of retainer assembly is included with Temporary Concrete Barrier.  
 A retainer assembly shall be located at the approximate \* of each temporary concrete barrier.  
 The retainer plate shall not be removed until the concrete on the adjacent stage is ready to be poured. For Detail III applications the retainer plate shall not be removed until just prior to placing the adjacent beam.  
 When the 'A' dimension is less than 1 1/2", the wood block shall be omitted and the barrier shall be placed in direct contact with the steel retainer plate. For deck beam applications the minimum required 'A' distance is 6" to accommodate the shear key clamping device.

Detail I - Installation for a new bridge deck or bridge slab.  
 Detail II - Installation for a new deck beam with an initial concrete wearing surface. Additional bar splicers shall be provided at 6'-0" centers and paired with the bar splicers of the concrete wearing surface reinforcement to accommodate the installation of the retainer assemblies. The cost of the additional bar splicers is included with the concrete wearing surface.  
 Detail III - Installation for a new deck beam with no initial wearing surface or with an initial hot-mix asphalt (HMA) wearing surface present. The deck beam directly beneath the temporary concrete barrier shall be fabricated with bar splicer inserts in the side of the beam, as detailed, to accommodate the installation of the retainer assemblies. A pair of bar splicers, 6" apart, shall be placed at 6'-0" centers along the length of the beam. The cost of the bar splicers is included with the deck beam.

R-27 8-11-2017

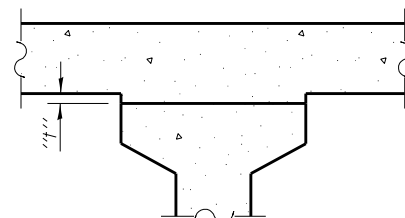
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<b>KNIGHT</b> Engineers & Architects	USER NAME = 100T	DESIGNED - J.W. / B.N.S.	REVISED -	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION</b> <b>167TH STREET OVER I-57</b> <b>STRUCTURE NO. 016-2125</b>	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 99.9999' / in.	CHECKED - B.N.S. / J.W.	REVISED -			57	1011.3-BR	COOK	145	74
	PLOT DATE = 6/19/2018	DRAWN - B.K.	REVISED -			CONTRACT NO. 60T43				
	DATE - JUNE 2018	REVISED -		SHEET NO. 55 OF 43 SHEETS			ILLINOIS FED. AID PROJECT			



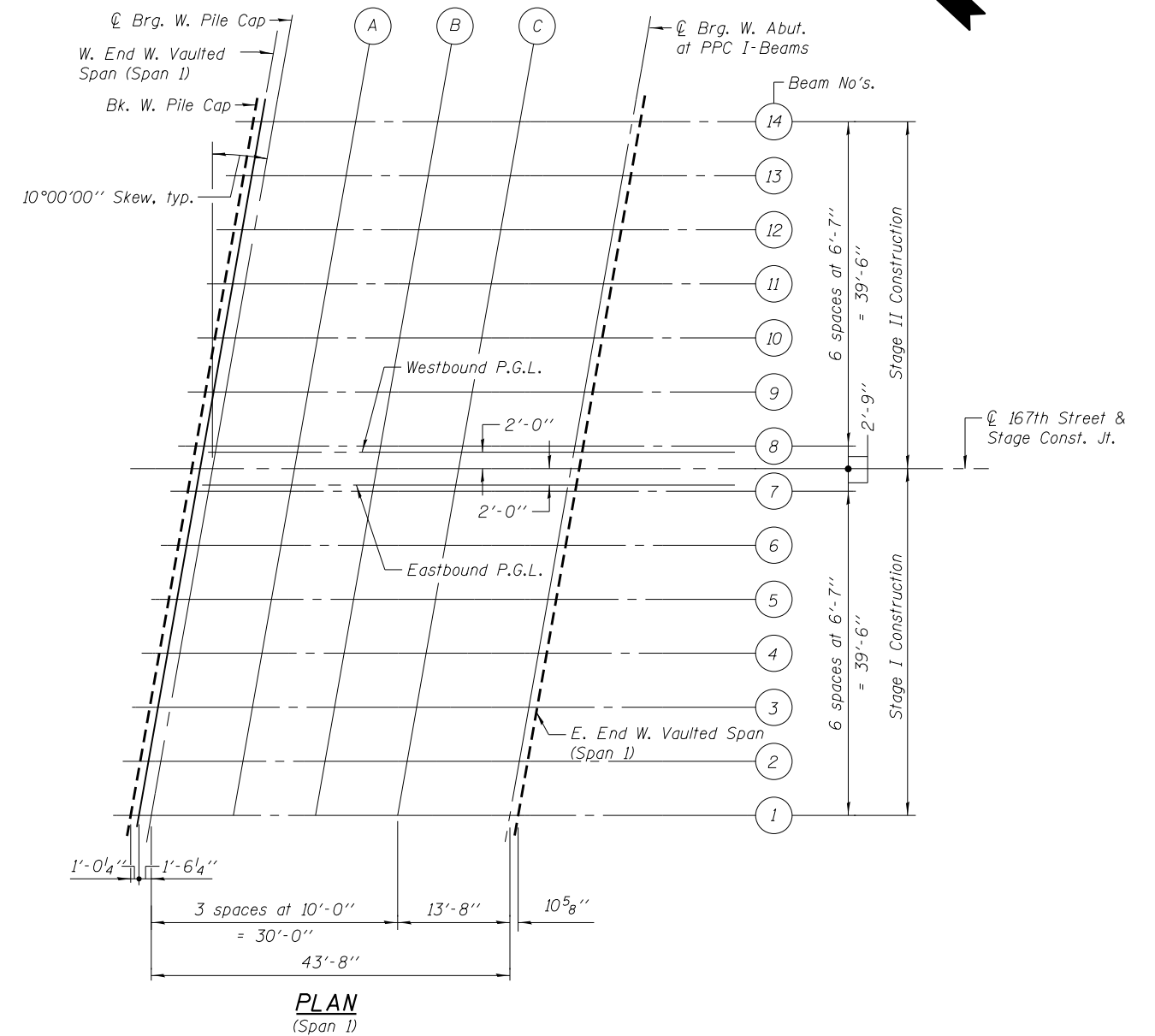
**DEAD LOAD DEFLECTION DIAGRAM**  
(Includes weight of concrete, excluding beams)

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 Sht's. S7 and S8



To determine "t": After all precast prestressed beams have been erected, elevations of the top flanges of the beams shall be taken at intervals as shown on this sheet. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead load Deflections" as shown on Sht's. S7 & S8 minus slab thickness, equals the fillet heights "t" above top flanges of beams.

**FILLET HEIGHTS**



**PLAN**  
(Span 1)

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USER NAME = 100T	DESIGNED - J.W. / B.N.S.	REVISED -
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PLOT DATE = 6/19/2018	DATE - JUNE 2018	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TOP OF SLAB ELEVATIONS - SPAN 1 (1 of 3)**  
**167TH STREET OVER I-57**  
**STRUCTURE NO. 016-2125**  
SHEET NO. S6 OF 43 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1011.3-BR	COOK	145	75
CONTRACT NO. 60T43				

ILLINOIS FED. AID PROJECT

**BEAM 1**

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS
BK. W. PILE CAP	26+99.19	42.25	695.48	695.48
W. END W. VAULTED SPAN (SPAN 1)	27+00.22	42.25	695.50	695.50
CL. BRG. W. PILE CAP	27+01.74	42.25	695.52	695.52
A	27+11.74	42.25	695.69	695.70
B	27+21.74	42.25	695.84	695.86
C	27+31.74	42.25	695.99	696.01
CL. BRG. W. ABUT. AT PPC I-BEAMS	27+45.40	42.25	696.17	696.17
E. END W. VAULTED SPAN (SPAN 1)	27+46.29	42.25	696.18	696.18

**BEAM 2**

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS
BK. W. PILE CAP	27+00.36	35.67	695.64	695.64
W. END W. VAULTED SPAN (SPAN 1)	27+01.38	35.67	695.65	695.65
CL. BRG. W. PILE CAP	27+02.90	35.67	695.68	695.68
A	27+12.90	35.67	695.84	695.86
B	27+22.90	35.67	696.00	696.02
C	27+32.90	35.67	696.14	696.16
CL. BRG. W. ABUT. AT PPC I-BEAMS	27+46.56	35.67	696.32	696.32
E. END W. VAULTED SPAN (SPAN 1)	27+47.45	35.67	696.33	696.33

**BEAM 3**

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS
BK. W. PILE CAP	27+01.52	29.08	695.79	695.79
W. END W. VAULTED SPAN (SPAN 1)	27+02.54	29.08	695.81	695.81
CL. BRG. W. PILE CAP	27+04.06	29.08	695.84	695.84
A	27+14.06	29.08	696.00	696.01
B	27+24.06	29.08	696.15	696.17
C	27+34.06	29.08	696.29	696.31
CL. BRG. W. ABUT. AT PPC I-BEAMS	27+47.72	29.08	696.47	696.47
E. END W. VAULTED SPAN (SPAN 1)	27+48.61	29.08	696.48	696.48

**BEAM 4**

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS
BK. W. PILE CAP	27+02.68	22.50	695.95	695.95
W. END W. VAULTED SPAN (SPAN 1)	27+03.70	22.50	695.97	695.97
CL. BRG. W. PILE CAP	27+05.22	22.50	695.99	695.99
A	27+15.22	22.50	696.15	696.17
B	27+25.22	22.50	696.30	696.33
C	27+35.22	22.50	696.45	696.46
CL. BRG. W. ABUT. AT PPC I-BEAMS	27+48.89	22.50	696.62	696.62
E. END W. VAULTED SPAN (SPAN 1)	27+49.77	22.50	696.63	696.63

**BEAM 5**

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS
BK. W. PILE CAP	27+03.84	15.92	696.11	696.11
W. END W. VAULTED SPAN (SPAN 1)	27+04.86	15.92	696.12	696.12
CL. BRG. W. PILE CAP	27+06.38	15.92	696.15	696.15
A	27+16.38	15.92	696.31	696.32
B	27+26.38	15.92	696.46	696.48
C	27+36.38	15.92	696.60	696.62
CL. BRG. W. ABUT. AT PPC I-BEAMS	27+50.05	15.92	696.77	696.77
E. END W. VAULTED SPAN (SPAN 1)	27+50.93	15.92	696.79	696.79

**BEAM 6**

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS
BK. W. PILE CAP	27+05.00	9.33	696.24	696.24
W. END W. VAULTED SPAN (SPAN 1)	27+06.02	9.33	696.26	696.26
CL. BRG. W. PILE CAP	27+07.54	9.33	696.28	696.28
A	27+17.54	9.33	696.44	696.46
B	27+27.54	9.33	696.59	696.61
C	27+37.54	9.33	696.73	696.75
CL. BRG. W. ABUT. AT PPC I-BEAMS	27+51.21	9.33	696.90	696.90
E. END W. VAULTED SPAN (SPAN 1)	27+52.09	9.33	696.91	696.91

**BEAM 7**

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS
BK. W. PILE CAP	27+06.16	2.75	696.36	696.36
W. END W. VAULTED SPAN (SPAN 1)	27+07.18	2.75	696.38	696.38
CL. BRG. W. PILE CAP	27+08.70	2.75	696.40	696.40
A	27+18.70	2.75	696.56	696.58
B	27+28.70	2.75	696.71	696.73
C	27+38.70	2.75	696.85	696.86
CL. BRG. W. ABUT. AT PPC I-BEAMS	27+52.37	2.75	697.02	697.02
E. END W. VAULTED SPAN (SPAN 1)	27+53.25	2.75	697.03	697.03

**EASTBOUND PGL**

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS
BK. W. PILE CAP	27+06.29	2.00	696.37	696.37
W. END W. VAULTED SPAN (SPAN 1)	27+07.31	2.00	696.39	696.39
CL. BRG. W. PILE CAP	27+08.83	2.00	696.42	696.42
A	27+18.83	2.00	696.57	696.59
B	27+28.83	2.00	696.72	696.74
C	27+38.83	2.00	696.86	696.88
CL. BRG. W. ABUT. AT PPC I-BEAMS	27+52.50	2.00	697.03	697.03
E. END W. VAULTED SPAN (SPAN 1)	27+53.39	2.00	697.04	697.04

**CL 167TH STREET & STAGE CONSTRUCTION JOINT**

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS
BK. W. PILE CAP	27+06.64	0.00	696.41	696.41
W. END W. VAULTED SPAN (SPAN 1)	27+07.67	0.00	696.43	696.43
CL. BRG. W. PILE CAP	27+09.19	0.00	696.45	696.45
A	27+19.19	0.00	696.61	696.63
B	27+29.19	0.00	696.76	696.78
C	27+39.19	0.00	696.89	696.91
CL. BRG. W. ABUT. AT PPC I-BEAMS	27+52.85	0.00	697.07	697.07
E. END W. VAULTED SPAN (SPAN 1)	27+53.74	0.00	697.08	697.08

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**WESTBOUND PGL**

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS
BK. W. PILE CAP	27+07.00	-2.00	696.39	696.39
W. END W. VAULTED SPAN (SPAN 1)	27+08.02	-2.00	696.40	696.40
CL. BRG. W. PILE CAP	27+09.54	-2.00	696.43	696.43
A	27+19.54	-2.00	696.58	696.60
B	27+29.54	-2.00	696.73	696.75
C	27+39.54	-2.00	696.87	696.89
CL. BRG. W. ABUT. AT PPC I-BEAMS	27+53.21	-2.00	697.04	697.04
E. END W. VAULTED SPAN (SPAN 1)	27+54.09	-2.00	697.05	697.05

**BEAM 8**

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS
BK. W. PILE CAP	27+07.13	-2.75	696.40	696.40
W. END W. VAULTED SPAN (SPAN 1)	27+08.15	-2.75	696.41	696.41
CL. BRG. W. PILE CAP	27+09.67	-2.75	696.44	696.44
A	27+19.67	-2.75	696.59	696.60
B	27+29.67	-2.75	696.73	696.75
C	27+39.67	-2.75	696.86	696.88
CL. BRG. W. ABUT. AT PPC I-BEAMS	27+53.34	-2.75	697.03	697.03
E. END W. VAULTED SPAN (SPAN 1)	27+54.22	-2.75	697.04	697.04

**BEAM 9**

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS
BK. W. PILE CAP	27+08.29	-9.33	696.47	696.47
W. END W. VAULTED SPAN (SPAN 1)	27+09.31	-9.33	696.48	696.48
CL. BRG. W. PILE CAP	27+10.83	-9.33	696.50	696.50
A	27+20.83	-9.33	696.62	696.63
B	27+30.83	-9.33	696.72	696.75
C	27+40.83	-9.33	696.82	696.84
CL. BRG. W. ABUT. AT PPC I-BEAMS	27+54.50	-9.33	696.94	696.94
E. END W. VAULTED SPAN (SPAN 1)	27+55.38	-9.33	696.95	696.95

**BEAM 10**

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS
BK. W. PILE CAP	27+09.45	-15.92	696.51	696.51
W. END W. VAULTED SPAN (SPAN 1)	27+10.47	-15.92	696.52	696.52
CL. BRG. W. PILE CAP	27+11.99	-15.92	696.54	696.54
A	27+21.99	-15.92	696.62	696.64
B	27+31.99	-15.92	696.70	696.72
C	27+41.99	-15.92	696.76	696.78
CL. BRG. W. ABUT. AT PPC I-BEAMS	27+55.66	-15.92	696.84	696.84
E. END W. VAULTED SPAN (SPAN 1)	27+56.54	-15.92	696.85	696.85

**BEAM 11**

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS
BK. W. PILE CAP	27+10.61	-22.50	696.50	696.50
W. END W. VAULTED SPAN (SPAN 1)	27+11.63	-22.50	696.50	696.50
CL. BRG. W. PILE CAP	27+13.15	-22.50	696.51	696.51
A	27+23.15	-22.50	696.57	696.59
B	27+33.15	-22.50	696.62	696.64
C	27+43.15	-22.50	696.66	696.67
CL. BRG. W. ABUT. AT PPC I-BEAMS	27+56.82	-22.50	696.72	696.72
E. END W. VAULTED SPAN (SPAN 1)	27+57.71	-22.50	696.73	696.73

**BEAM 12**

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS
BK. W. PILE CAP	27+11.77	-29.08	696.42	696.42
W. END W. VAULTED SPAN (SPAN 1)	27+12.79	-29.08	696.43	696.43
CL. BRG. W. PILE CAP	27+14.31	-29.08	696.44	696.44
A	27+24.31	-29.08	696.48	696.49
B	27+34.31	-29.08	696.51	696.54
C	27+44.31	-29.08	696.53	696.55
CL. BRG. W. ABUT. AT PPC I-BEAMS	27+57.98	-29.08	696.59	696.59
E. END W. VAULTED SPAN (SPAN 1)	27+58.87	-29.08	696.60	696.60

**BEAM 13**

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS
BK. W. PILE CAP	27+12.93	-35.67	696.29	696.29
W. END W. VAULTED SPAN (SPAN 1)	27+13.95	-35.67	696.30	696.30
CL. BRG. W. PILE CAP	27+15.48	-35.67	696.31	696.31
A	27+25.48	-35.67	696.35	696.36
B	27+35.48	-35.67	696.38	696.40
C	27+45.48	-35.67	696.40	696.42
CL. BRG. W. ABUT. AT PPC I-BEAMS	27+59.14	-35.67	696.47	696.47
E. END W. VAULTED SPAN (SPAN 1)	27+60.03	-35.67	696.48	696.48

**BEAM 14**

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS
BK. W. PILE CAP	27+14.09	-42.25	696.16	696.16
W. END W. VAULTED SPAN (SPAN 1)	27+15.12	-42.25	696.17	696.17
CL. BRG. W. PILE CAP	27+16.64	-42.25	696.17	696.17
A	27+26.64	-42.25	696.21	696.23
B	27+36.64	-42.25	696.24	696.27
C	27+46.64	-42.25	696.26	696.28
CL. BRG. W. ABUT. AT PPC I-BEAMS	27+60.30	-42.25	696.35	696.35
E. END W. VAULTED SPAN (SPAN 1)	27+61.19	-42.25	696.36	696.36

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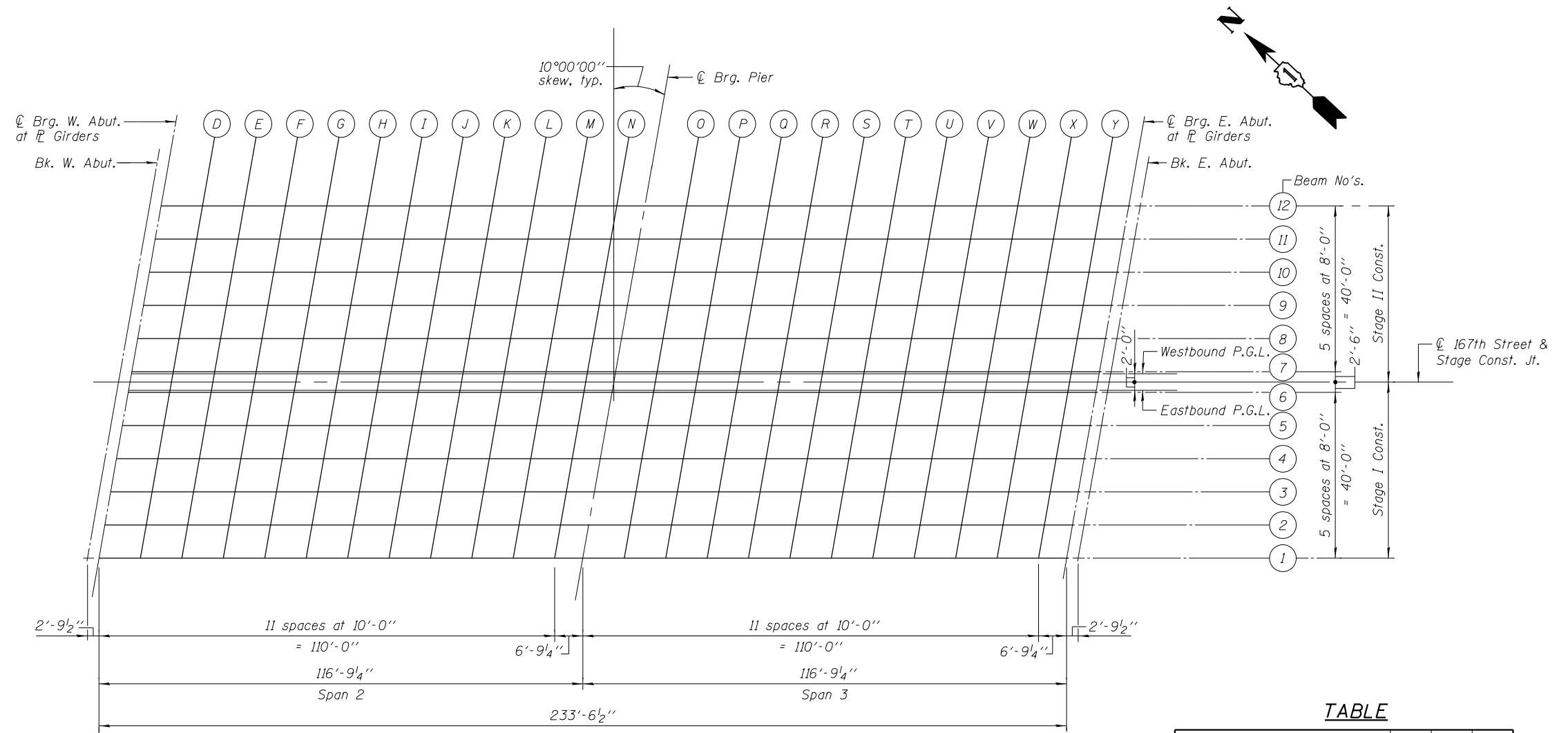
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PLOT SCALE = 99.9999' / in.	DRAWN - B.K.	REVISED -
PLOT DATE = 6/19/2018	DATE - JUNE 2018	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS - SPAN 1 (3 of 3)  
167TH STREET OVER I-57  
STRUCTURE NO. 016-2125

SHEET NO. 58 OF 43 SHEETS

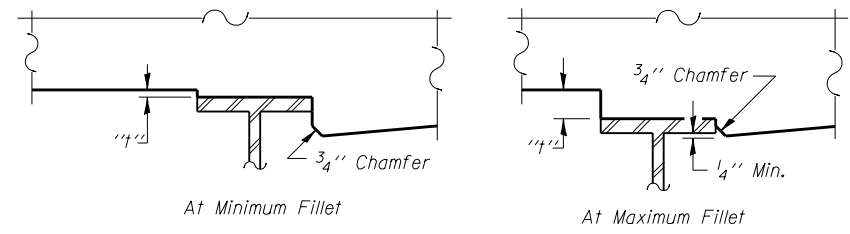
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1011.3-BR	COOK	145	77
CONTRACT NO. 60T43			ILLINOIS FED. AID PROJECT	



**PLAN**

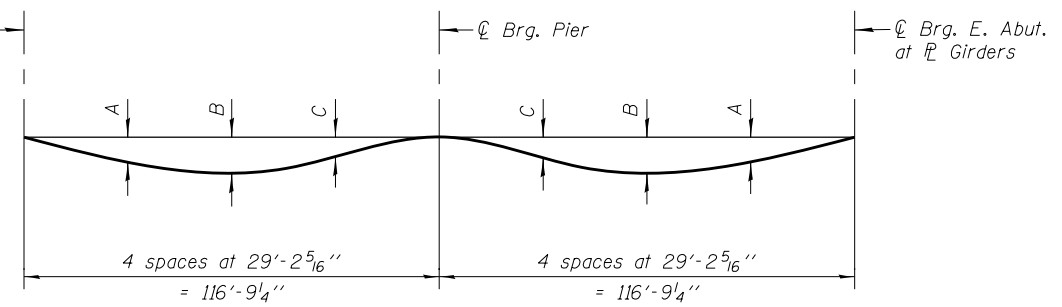
**TABLE**

Location	A	B	C
Beams 2 thru 5 & 8 thru 11	1 3/8"	1 3/4"	5/8"
Beams 1, 6, 7 & 12	1 3/8"	1 1/2"	5/8"



**FILLET HEIGHTS**

To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals as shown above. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on Sht's. S10 thru S14, minus slab thickness, equals the fillet heights "t" above top flange of beams.



**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 Sht's. S10 thru S14.

FILE NAME = L:\7265.02\CAD\Structural\CADD Sheets\160743-09-Span 2-3\_top\_elev-1.dgn

**KNIGHT**  
Engineers & Architects

USER NAME = 100T	DESIGNED - J.W. / B.N.S.	REVISED -
	CHECKED - B.N.S. / J.W.	REVISED -
PLOT SCALE = 99.9999' / in.	DRAWN - B.K.	REVISED -
PLOT DATE = 6/19/2018	DATE - JUNE 2018	REVISED -

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

**TOP OF SLAB ELEVATIONS - SPAN 2 & 3 (1 of 6)**  
**167TH STREET OVER I-57**  
**STRUCTURE NO. 016-2125**

SHEET NO. S9 OF 43 SHEETS

F.A.I. RTE. 57	SECTION 1011.3-BR	COUNTY COOK	TOTAL SHEETS 145	SHEET NO. 78
ILLINOIS FED. AID PROJECT			CONTRACT NO. 60T43	

FILE NAME = L:\7265.02\CAD\Structural\CADD Sheets\160743-10-Span 2, 3, top elev-2.dgn

**BEAM 1**

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS
BK. W. ABUT.	27+44.47	42.50	696.15	696.15
CL. BRG. W. ABUT. AT PL GIRDERS	27+47.27	42.50	696.19	696.19
D	27+57.27	42.50	696.31	696.35
E	27+67.27	42.50	696.42	696.50
F	27+77.27	42.50	696.51	696.63
G	27+87.27	42.50	696.60	696.73
H	27+97.27	42.50	696.68	696.81
I	28+07.27	42.50	696.75	696.87
J	28+17.27	42.50	696.81	696.91
K	28+27.27	42.50	696.86	696.93
L	28+37.27	42.50	696.90	696.94
M	28+47.27	42.50	696.93	696.95
N	28+57.27	42.50	696.95	696.95
CL BRG. PIER	28+64.04	42.50	696.96	696.96
O	28+74.04	42.50	696.96	696.97
P	28+84.04	42.50	696.95	696.98
Q	28+94.04	42.50	696.93	696.98
R	29+04.04	42.50	696.91	696.98
S	29+14.04	42.50	696.87	696.97
T	29+24.04	42.50	696.82	696.95
U	29+34.04	42.50	696.76	696.90
V	29+44.04	42.50	696.70	696.82
W	29+54.04	42.50	696.62	696.72
X	29+64.04	42.50	696.53	696.60
Y	29+74.04	42.50	696.43	696.46
CL. BRG. E. ABUT. AT PLATE GIRDERS	29+80.81	42.50	696.36	696.36
BK. E. ABUT.	29+83.60	42.50	696.33	696.33

**BEAM 2**

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS
BK. W. ABUT.	27+45.88	34.50	696.34	696.34
CL. BRG. W. ABUT. AT PL GIRDERS	27+48.68	34.50	696.37	696.37
D	27+58.68	34.50	696.49	696.54
E	27+68.68	34.50	696.60	696.69
F	27+78.68	34.50	696.69	696.82
G	27+88.68	34.50	696.78	696.93
H	27+98.68	34.50	696.86	697.01
I	28+08.68	34.50	696.93	697.07
J	28+18.68	34.50	696.99	697.10
K	28+28.68	34.50	697.03	697.11
L	28+38.68	34.50	697.07	697.12
M	28+48.68	34.50	697.10	697.12
N	28+58.68	34.50	697.12	697.12
CL BRG. PIER	28+65.45	34.50	697.12	697.12
O	28+75.45	34.50	697.12	697.13
P	28+85.45	34.50	697.12	697.15
Q	28+95.45	34.50	697.10	697.16
R	29+05.45	34.50	697.07	697.16
S	29+15.45	34.50	697.03	697.15
T	29+25.45	34.50	696.98	697.12
U	29+35.45	34.50	696.92	697.07
V	29+45.45	34.50	696.85	697.00
W	29+55.45	34.50	696.77	696.90
X	29+65.45	34.50	696.68	696.77
Y	29+75.45	34.50	696.59	696.62
CL. BRG. E. ABUT. AT PLATE GIRDERS	29+82.22	34.50	696.51	696.51
BK. E. ABUT.	29+85.01	34.50	696.48	696.48

**BEAM 3**

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS
BK. W. ABUT.	27+47.29	26.50	696.52	696.52
CL. BRG. W. ABUT. AT PL GIRDERS	27+50.09	26.50	696.55	696.55
D	27+60.09	26.50	696.67	696.72
E	27+70.09	26.50	696.78	696.88
F	27+80.09	26.50	696.87	697.00
G	27+90.09	26.50	696.96	697.11
H	28+00.09	26.50	697.04	697.19
I	28+10.09	26.50	697.10	697.24
J	28+20.09	26.50	697.16	697.27
K	28+30.09	26.50	697.21	697.29
L	28+40.09	26.50	697.24	697.29
M	28+50.09	26.50	697.27	697.29
N	28+60.09	26.50	697.29	697.29
CL BRG. PIER	28+66.86	26.50	697.29	697.29
O	28+76.86	26.50	697.29	697.30
P	28+86.86	26.50	697.28	697.31
Q	28+96.86	26.50	697.26	697.32
R	29+06.86	26.50	697.23	697.32
S	29+16.86	26.50	697.19	697.31
T	29+26.86	26.50	697.14	697.28
U	29+36.86	26.50	697.08	697.23
V	29+46.86	26.50	697.01	697.15
W	29+56.86	26.50	696.93	697.05
X	29+66.86	26.50	696.84	696.92
Y	29+76.86	26.50	696.74	696.77
CL. BRG. E. ABUT. AT PLATE GIRDERS	29+83.63	26.50	696.66	696.66
BK. E. ABUT.	29+86.42	26.50	696.63	696.63



USER NAME = 100T	DESIGNED - J.W. / B.N.S.	REVISED -
	CHECKED - B.N.S. / J.W.	REVISED -
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PLOT DATE = 6/19/2018	DATE - JUNE 2018	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS - SPAN 2 & 3 (2 of 6)  
167TH STREET OVER I-57  
STRUCTURE NO. 016-2125

SHEET NO. 510 OF 43 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1011.3-BR	COOK	145	79
CONTRACT NO. 60T43			ILLINOIS FED. AID PROJECT	

FILE NAME = L:\7265.02\CAD\Structural\CADD Sheets\160743-11-Span 2\_3\_top elev-3.dgn

**BEAM 4**

**BEAM 5**

**BEAM 6**

LOCATION	STATION	OFFSET	GRADE ELEVATIONS	THEORETICAL GRADE FOR DEAD LOAD DEFLECTIONS
BK. W. ABUT.	27+48.71	18.50	696.70	696.70
CL. BRG. W. ABUT. AT PL GIRDERS	27+51.50	18.50	696.74	696.74
D	27+61.50	18.50	696.85	696.91
E	27+71.50	18.50	696.96	697.06
F	27+81.50	18.50	697.05	697.18
G	27+91.50	18.50	697.14	697.29
H	28+01.50	18.50	697.21	697.36
I	28+11.50	18.50	697.28	697.42
J	28+21.50	18.50	697.33	697.45
K	28+31.50	18.50	697.38	697.46
L	28+41.50	18.50	697.41	697.46
M	28+51.50	18.50	697.44	697.46
N	28+61.50	18.50	697.45	697.46
CL BRG. PIER	28+68.27	18.50	697.46	697.46
O	28+78.27	18.50	697.46	697.47
P	28+88.27	18.50	697.44	697.47
Q	28+98.27	18.50	697.42	697.48
R	29+08.27	18.50	697.39	697.48
S	29+18.27	18.50	697.35	697.47
T	29+28.27	18.50	697.30	697.44
U	29+38.27	18.50	697.24	697.39
V	29+48.27	18.50	697.16	697.31
W	29+58.27	18.50	697.08	697.20
X	29+68.27	18.50	696.99	697.08
Y	29+78.27	18.50	696.89	696.93
CL. BRG. E. ABUT. AT PLATE GIRDERS	29+85.04	18.50	696.81	696.81
BK. E. ABUT.	29+87.83	18.50	696.78	696.78

LOCATION	STATION	OFFSET	GRADE ELEVATIONS	THEORETICAL GRADE FOR DEAD LOAD DEFLECTIONS
BK. W. ABUT.	27+50.12	10.50	696.87	696.87
CL. BRG. W. ABUT. AT PL GIRDERS	27+52.91	10.50	696.90	696.90
D	27+62.91	10.50	697.02	697.07
E	27+72.91	10.50	697.12	697.22
F	27+82.91	10.50	697.21	697.34
G	27+92.91	10.50	697.30	697.45
H	28+02.91	10.50	697.37	697.52
I	28+12.91	10.50	697.43	697.57
J	28+22.91	10.50	697.49	697.60
K	28+32.91	10.50	697.53	697.61
L	28+42.91	10.50	697.57	697.61
M	28+52.91	10.50	697.59	697.61
N	28+62.91	10.50	697.60	697.61
CL BRG. PIER	28+69.68	10.50	697.61	697.61
O	28+79.68	10.50	697.60	697.61
P	28+89.68	10.50	697.59	697.62
Q	28+99.68	10.50	697.57	697.63
R	29+09.68	10.50	697.53	697.62
S	29+19.68	10.50	697.49	697.61
T	29+29.68	10.50	697.44	697.58
U	29+39.68	10.50	697.37	697.53
V	29+49.68	10.50	697.30	697.45
W	29+59.68	10.50	697.22	697.34
X	29+69.68	10.50	697.13	697.21
Y	29+79.68	10.50	697.02	697.06
CL. BRG. E. ABUT. AT PLATE GIRDERS	29+86.45	10.50	696.95	696.95
BK. E. ABUT.	29+89.24	10.50	696.92	696.92

LOCATION	STATION	OFFSET	GRADE ELEVATIONS	THEORETICAL GRADE FOR DEAD LOAD DEFLECTIONS
BK. W. ABUT.	27+51.53	2.50	697.01	697.01
CL. BRG. W. ABUT. AT PL GIRDERS	27+54.32	2.50	697.04	697.04
D	27+64.32	2.50	697.16	697.21
E	27+74.32	2.50	697.26	697.35
F	27+84.32	2.50	697.35	697.47
G	27+94.32	2.50	697.43	697.57
H	28+04.32	2.50	697.51	697.64
I	28+14.32	2.50	697.57	697.69
J	28+24.32	2.50	697.62	697.72
K	28+34.32	2.50	697.66	697.74
L	28+44.32	2.50	697.69	697.74
M	28+54.32	2.50	697.72	697.74
N	28+64.32	2.50	697.73	697.73
CL BRG. PIER	28+71.09	2.50	697.73	697.73
O	28+81.09	2.50	697.73	697.74
P	28+91.09	2.50	697.71	697.74
Q	29+01.09	2.50	697.69	697.74
R	29+11.09	2.50	697.65	697.74
S	29+21.09	2.50	697.61	697.72
T	29+31.09	2.50	697.55	697.69
U	29+41.09	2.50	697.49	697.63
V	29+51.09	2.50	697.42	697.55
W	29+61.09	2.50	697.33	697.44
X	29+71.09	2.50	697.24	697.31
Y	29+81.09	2.50	697.13	697.17
CL. BRG. E. ABUT. AT PLATE GIRDERS	29+87.86	2.50	697.06	697.06
BK. E. ABUT.	29+90.65	2.50	697.02	697.02



USER NAME = 100T	DESIGNED - J.W. / B.N.S.	REVISED -
	CHECKED - B.N.S. / J.W.	REVISED -
PLOT SCALE = 99.9999' / in.	DRAWN - B.K.	REVISED -
PLOT DATE = 6/19/2018	DATE - JUNE 2018	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TOP OF SLAB ELEVATIONS - SPAN 2 & 3 (3 of 6)  
167TH STREET OVER I-57  
STRUCTURE NO. 016-2125**

SHEET NO. S11 OF 43 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1011.3-BR	COOK	145	80
CONTRACT NO. 60T43			ILLINOIS FED. AID PROJECT	



FILE NAME = L:\7265.02\CAD\Structural\CADD Sheets\160743-12-Span 2\_3\_top\_elev-4.dgn

**EASTBOUND PGL**

**CL 167TH STREET & STAGE CONSTRUCTION JOINT**

**WESTBOUND PGL**

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS
BK. W. ABUT.	27+51.61	2.00	697.02	697.02
CL. BRG. W. ABUT. AT PL GIRDERS	27+54.41	2.00	697.05	697.05
D	27+64.41	2.00	697.17	697.21
E	27+74.41	2.00	697.27	697.36
F	27+84.41	2.00	697.36	697.48
G	27+94.41	2.00	697.44	697.58
H	28+04.41	2.00	697.51	697.65
I	28+14.41	2.00	697.58	697.70
J	28+24.41	2.00	697.63	697.73
K	28+34.41	2.00	697.67	697.74
L	28+44.41	2.00	697.70	697.75
M	28+54.41	2.00	697.73	697.75
N	28+64.41	2.00	697.74	697.74
CL BRG. PIER	28+71.18	2.00	697.74	697.74
O	28+81.18	2.00	697.74	697.74
P	28+91.18	2.00	697.72	697.75
Q	29+01.18	2.00	697.70	697.75
R	29+11.18	2.00	697.66	697.74
S	29+21.18	2.00	697.62	697.73
T	29+31.18	2.00	697.56	697.69
U	29+41.18	2.00	697.50	697.64
V	29+51.18	2.00	697.42	697.56
W	29+61.18	2.00	697.34	697.45
X	29+71.18	2.00	697.24	697.32
Y	29+81.18	2.00	697.14	697.17
CL. BRG. E. ABUT. AT PLATE GIRDERS	29+87.95	2.00	697.06	697.06
BK. E. ABUT.	29+90.74	2.00	697.03	697.03

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS
BK. W. ABUT.	27+51.97	0.00	697.06	697.06
CL. BRG. W. ABUT. At PL GIRDERS	27+54.76	0.00	697.09	697.09
D	27+64.76	0.00	697.20	697.25
E	27+74.76	0.00	697.30	697.39
F	27+84.76	0.00	697.39	697.51
G	27+94.76	0.00	697.48	697.62
H	28+04.76	0.00	697.55	697.69
I	28+14.76	0.00	697.61	697.74
J	28+24.76	0.00	697.66	697.76
K	28+34.76	0.00	697.70	697.77
L	28+44.76	0.00	697.73	697.77
M	28+54.76	0.00	697.76	697.78
N	28+64.76	0.00	697.77	697.78
CL BRG. PIER	28+71.53	0.00	697.77	697.77
O	28+81.53	0.00	697.76	697.77
P	28+91.53	0.00	697.75	697.78
Q	29+01.53	0.00	697.72	697.77
R	29+11.53	0.00	697.69	697.77
S	29+21.53	0.00	697.64	697.75
T	29+31.53	0.00	697.59	697.72
U	29+41.53	0.00	697.52	697.66
V	29+51.53	0.00	697.45	697.58
W	29+61.53	0.00	697.37	697.48
X	29+71.53	0.00	697.27	697.35
Y	29+81.53	0.00	697.17	697.20
CL. BRG. E. ABUT. AT PLATE GIRDERS	29+88.30	0.00	697.09	697.09
BK. E. ABUT.	29+91.09	0.00	697.06	697.06

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS
BK. W. ABUT.	27+52.32	-2.00	697.03	697.03
CL. BRG. W. ABUT. At PL GIRDERS	27+55.11	-2.00	697.06	697.06
D	27+65.11	-2.00	697.17	697.22
E	27+75.11	-2.00	697.27	697.36
F	27+85.11	-2.00	697.37	697.49
G	27+95.11	-2.00	697.45	697.58
H	28+05.11	-2.00	697.52	697.66
I	28+15.11	-2.00	697.58	697.71
J	28+25.11	-2.00	697.63	697.74
K	28+35.11	-2.00	697.67	697.75
L	28+45.11	-2.00	697.70	697.75
M	28+55.11	-2.00	697.73	697.75
N	28+65.11	-2.00	697.74	697.74
CL BRG. PIER	28+71.88	-2.00	697.74	697.74
O	28+81.88	-2.00	697.73	697.74
P	28+91.88	-2.00	697.72	697.75
Q	29+01.88	-2.00	697.69	697.75
R	29+11.88	-2.00	697.66	697.74
S	29+21.88	-2.00	697.61	697.72
T	29+31.88	-2.00	697.56	697.69
U	29+41.88	-2.00	697.49	697.63
V	29+51.88	-2.00	697.42	697.55
W	29+61.88	-2.00	697.33	697.44
X	29+71.88	-2.00	697.24	697.31
Y	29+81.88	-2.00	697.13	697.16
CL. BRG. E. ABUT. AT PLATE GIRDERS	29+88.65	-2.00	697.05	697.05
BK. E. ABUT.	29+91.45	-2.00	697.02	697.02



USER NAME = 100T	DESIGNED - J.W. / B.N.S.	REVISED -
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PLOT SCALE = 99.9999' / in.	DRAWN - B.K.	REVISED -
PLOT DATE = 6/19/2018	DATE - JUNE 2018	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TOP OF SLAB ELEVATIONS - SPAN 2 & 3 (4 of 6)  
167TH STREET OVER I-57  
STRUCTURE NO. 016-2125**

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1011.3-BR	COOK	145	81
			CONTRACT NO. 60T43	
			ILLINOIS FED. AID PROJECT	

FILE NAME = L:\7265.02\CAD\Structural\CADD Sheets\160743-13-Span 2\_3\_top elev-5.dgn

**BEAM 7**

**BEAM 8**

**BEAM 9**

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS
BK. W. ABUT.	27+52.41	-2.50	697.02	697.02
CL. BRG. W. ABUT. AT PL GIRDERS	27+55.20	-2.50	697.06	697.06
D	27+65.20	-2.50	697.17	697.22
E	27+75.20	-2.50	697.27	697.36
F	27+85.20	-2.50	697.36	697.48
G	27+95.20	-2.50	697.44	697.58
H	28+05.20	-2.50	697.51	697.65
I	28+15.20	-2.50	697.57	697.70
J	28+25.20	-2.50	697.62	697.73
K	28+35.20	-2.50	697.67	697.74
L	28+45.20	-2.50	697.70	697.74
M	28+55.20	-2.50	697.72	697.74
N	28+65.20	-2.50	697.73	697.74
CL BRG. PIER	28+71.97	-2.50	697.73	697.73
O	28+81.97	-2.50	697.73	697.74
P	28+91.97	-2.50	697.71	697.74
Q	29+01.97	-2.50	697.69	697.74
R	29+11.97	-2.50	697.65	697.73
S	29+21.97	-2.50	697.60	697.72
T	29+31.97	-2.50	697.55	697.68
U	29+41.97	-2.50	697.48	697.62
V	29+51.97	-2.50	697.41	697.54
W	29+61.97	-2.50	697.32	697.43
X	29+71.97	-2.50	697.23	697.31
Y	29+81.97	-2.50	697.12	697.16
CL. BRG. E. ABUT. AT PLATE GIRDERS	29+88.74	-2.50	697.04	697.04
BK. E. ABUT.	29+91.53	-2.50	697.01	697.01

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS
BK. W. ABUT.	27+53.82	-10.50	696.92	696.92
CL. BRG. W. ABUT. AT PL GIRDERS	27+56.61	-10.50	696.95	696.95
D	27+66.61	-10.50	697.06	697.11
E	27+76.61	-10.50	697.16	697.25
F	27+86.61	-10.50	697.25	697.38
G	27+96.61	-10.50	697.33	697.47
H	28+06.61	-10.50	697.40	697.55
I	28+16.61	-10.50	697.46	697.59
J	28+26.61	-10.50	697.51	697.62
K	28+36.61	-10.50	697.55	697.63
L	28+46.61	-10.50	697.58	697.62
M	28+56.61	-10.50	697.60	697.62
N	28+66.61	-10.50	697.61	697.61
CL BRG. PIER	28+73.38	-10.50	697.61	697.61
O	28+83.38	-10.50	697.60	697.61
P	28+93.38	-10.50	697.58	697.61
Q	29+03.38	-10.50	697.56	697.61
R	29+13.38	-10.50	697.52	697.61
S	29+23.38	-10.50	697.47	697.59
T	29+33.38	-10.50	697.42	697.56
U	29+43.38	-10.50	697.35	697.50
V	29+53.38	-10.50	697.27	697.42
W	29+63.38	-10.50	697.19	697.31
X	29+73.38	-10.50	697.09	697.17
Y	29+83.38	-10.50	696.98	697.02
CL. BRG. E. ABUT. AT PLATE GIRDERS	29+90.15	-10.50	696.90	696.90
BK. E. ABUT.	29+92.94	-10.50	696.87	696.87

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS
BK. W. ABUT.	27+55.23	-18.50	696.78	696.78
CL. BRG. W. ABUT. AT PL GIRDERS	27+58.02	-18.50	696.81	696.81
D	27+68.02	-18.50	696.92	696.98
E	27+78.02	-18.50	697.02	697.12
F	27+88.02	-18.50	697.11	697.24
G	27+98.02	-18.50	697.19	697.34
H	28+08.02	-18.50	697.26	697.41
I	28+18.02	-18.50	697.32	697.45
J	28+28.02	-18.50	697.36	697.48
K	28+38.02	-18.50	697.40	697.48
L	28+48.02	-18.50	697.43	697.48
M	28+58.02	-18.50	697.45	697.47
N	28+68.02	-18.50	697.46	697.46
CL BRG. PIER	28+74.79	-18.50	697.46	697.46
O	28+84.79	-18.50	697.45	697.46
P	28+94.79	-18.50	697.43	697.46
Q	29+04.79	-18.50	697.40	697.46
R	29+14.79	-18.50	697.36	697.46
S	29+24.79	-18.50	697.32	697.44
T	29+34.79	-18.50	697.26	697.40
U	29+44.79	-18.50	697.19	697.34
V	29+54.79	-18.50	697.11	697.26
W	29+64.79	-18.50	697.02	697.15
X	29+74.79	-18.50	696.93	697.01
Y	29+84.79	-18.50	696.82	696.85
CL. BRG. E. ABUT. AT PLATE GIRDERS	29+91.56	-18.50	696.74	696.74
BK. E. ABUT.	29+94.35	-18.50	696.70	696.70



USER NAME = 100T	DESIGNED - J.W. / B.N.S.	REVISED -
	CHECKED - B.N.S. / J.W.	REVISED -
PLOT SCALE = 99.9999' / in.	DRAWN - B.K.	REVISED -
PLOT DATE = 6/19/2018	DATE - JUNE 2018	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TOP OF SLAB ELEVATIONS - SPAN 2 & 3 (5 of 6)  
167TH STREET OVER I-57  
STRUCTURE NO. 016-2125**

SHEET NO. S13 OF 43 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1011.3-BR	COOK	145	82
CONTRACT NO. 60T43			ILLINOIS FED. AID PROJECT	

FILE NAME = L:\7265.02\CAD\Structural\CADD Sheets\160743-14-Span 2\_3\_top elev-6.dgn

**BEAM 10**

**BEAM 11**

**BEAM 12**

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS
BK. W. ABUT.	27+56.64	-26.50	696.63	696.63
CL. BRG. W. ABUT. AT PL GIRDERS	27+59.43	-26.50	696.66	696.66
D	27+69.43	-26.50	696.77	696.82
E	27+79.43	-26.50	696.87	696.97
F	27+89.43	-26.50	696.95	697.09
G	27+99.43	-26.50	697.03	697.18
H	28+09.43	-26.50	697.10	697.25
I	28+19.43	-26.50	697.16	697.29
J	28+29.43	-26.50	697.20	697.32
K	28+39.43	-26.50	697.24	697.32
L	28+49.43	-26.50	697.27	697.31
M	28+59.43	-26.50	697.28	697.31
N	28+69.43	-26.50	697.29	697.30
CL BRG. PIER	28+76.20	-26.50	697.29	697.29
O	28+86.20	-26.50	697.28	697.29
P	28+96.20	-26.50	697.26	697.29
Q	29+06.20	-26.50	697.23	697.29
R	29+16.20	-26.50	697.19	697.28
S	29+26.20	-26.50	697.14	697.26
T	29+36.20	-26.50	697.08	697.23
U	29+46.20	-26.50	697.01	697.17
V	29+56.20	-26.50	696.93	697.08
W	29+66.20	-26.50	696.84	696.97
X	29+76.20	-26.50	696.74	696.83
Y	29+86.20	-26.50	696.63	696.67
CL. BRG. E. ABUT. AT PLATE GIRDERS	29+92.97	-26.50	696.55	696.55
BK. E. ABUT.	29+95.77	-26.50	696.52	696.52

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS
BK. W. ABUT.	27+58.05	-34.50	696.48	696.48
CL. BRG. W. ABUT. AT PL GIRDERS	27+60.84	-34.50	696.51	696.51
D	27+70.84	-34.50	696.62	696.67
E	27+80.84	-34.50	696.71	696.81
F	27+90.84	-34.50	696.80	696.93
G	28+00.84	-34.50	696.88	697.02
H	28+10.84	-34.50	696.94	697.09
I	28+20.84	-34.50	697.00	697.13
J	28+30.84	-34.50	697.04	697.16
K	28+40.84	-34.50	697.08	697.16
L	28+50.84	-34.50	697.10	697.15
M	28+60.84	-34.50	697.12	697.14
N	28+70.84	-34.50	697.13	697.13
CL BRG. PIER	28+77.61	-34.50	697.12	697.12
O	28+87.61	-34.50	697.11	697.12
P	28+97.61	-34.50	697.09	697.12
Q	29+07.61	-34.50	697.06	697.12
R	29+17.61	-34.50	697.02	697.11
S	29+27.61	-34.50	696.97	697.09
T	29+37.61	-34.50	696.91	697.05
U	29+47.61	-34.50	696.84	696.99
V	29+57.61	-34.50	696.75	696.90
W	29+67.61	-34.50	696.66	696.79
X	29+77.61	-34.50	696.56	696.65
Y	29+87.61	-34.50	696.45	696.49
CL. BRG. E. ABUT. AT PLATE GIRDERS	29+94.38	-34.50	696.37	696.37
BK. E. ABUT.	29+97.18	-34.50	696.34	696.34

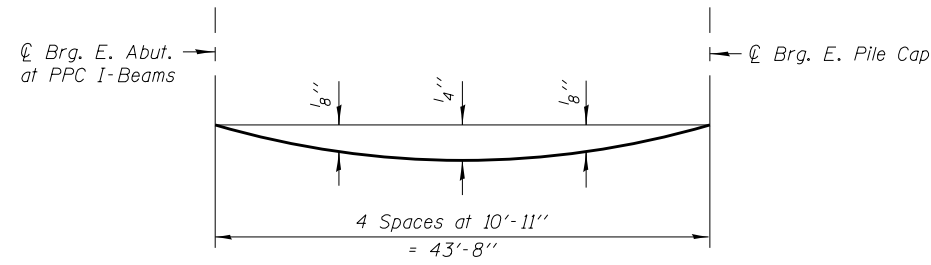
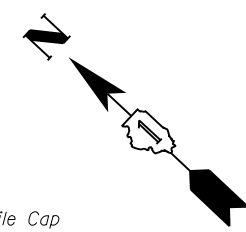
LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS
BK. W. ABUT.	27+59.46	-42.50	696.33	696.33
CL. BRG. W. ABUT. AT PL GIRDERS	27+62.25	-42.50	696.36	696.36
D	27+72.25	-42.50	696.47	696.51
E	27+82.25	-42.50	696.56	696.64
F	27+92.25	-42.50	696.64	696.76
G	28+02.25	-42.50	696.72	696.85
H	28+12.25	-42.50	696.78	696.91
I	28+22.25	-42.50	696.84	696.96
J	28+32.25	-42.50	696.88	696.98
K	28+42.25	-42.50	696.92	696.98
L	28+52.25	-42.50	696.94	696.98
M	28+62.25	-42.50	696.95	696.97
N	28+72.25	-42.50	696.96	696.96
CL BRG. PIER	28+79.02	-42.50	696.96	696.96
O	28+89.02	-42.50	696.94	696.95
P	28+99.02	-42.50	696.92	696.95
Q	29+09.02	-42.50	696.89	696.94
R	29+19.02	-42.50	696.85	696.92
S	29+29.02	-42.50	696.79	696.90
T	29+39.02	-42.50	696.73	696.86
U	29+49.02	-42.50	696.66	696.79
V	29+59.02	-42.50	696.58	696.70
W	29+69.02	-42.50	696.48	696.59
X	29+79.02	-42.50	696.38	696.45
Y	29+89.02	-42.50	696.27	696.30
CL. BRG. E. ABUT. AT PLATE GIRDERS	29+95.79	-42.50	696.19	696.19
BK. E. ABUT.	29+98.59	-42.50	696.15	696.15

	USER NAME = 100T	DESIGNED - J.W. / B.N.S.	REVISED -
		CHECKED - B.N.S. / J.W.	REVISED -
	PLOT SCALE = 99.9999' / in.	DRAWN - B.K.	REVISED -
	PLOT DATE = 6/19/2018	DATE - JUNE 2018	REVISED -

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

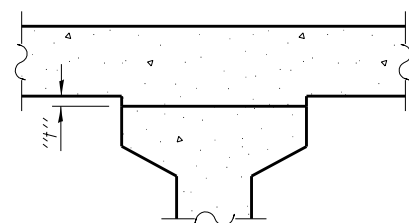
**TOP OF SLAB ELEVATIONS - SPAN 2 & 3 (6 of 6)**  
**167TH STREET OVER I-57**  
**STRUCTURE NO. 016-2125**  
 SHEET NO. S14 OF 43 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1011.3-BR	COOK	145	83
CONTRACT NO. 60T43			ILLINOIS FED. AID PROJECT	



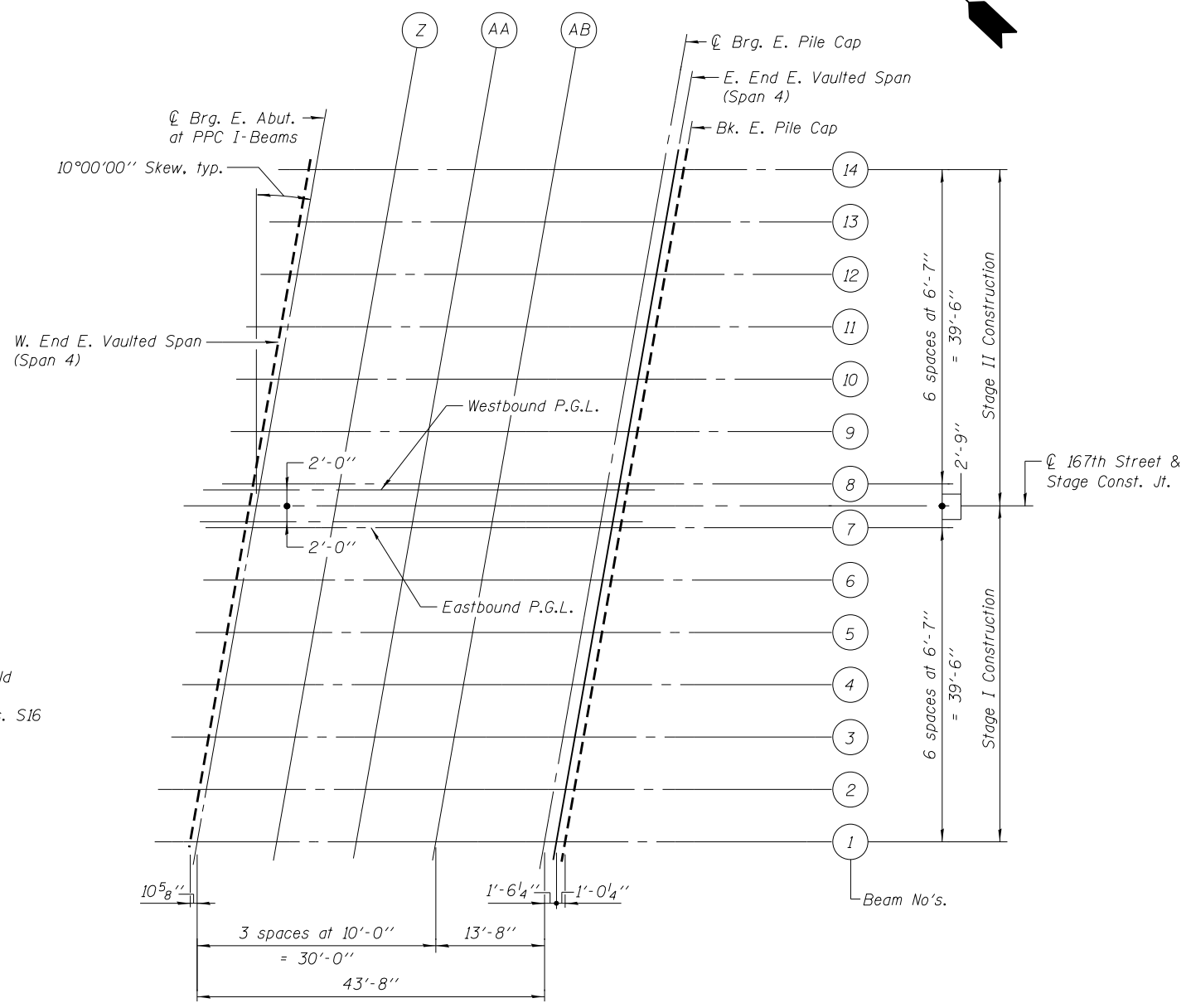
**DEAD LOAD DEFLECTION DIAGRAM**  
(Includes weight of concrete, excluding beams)

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 Sht's. S16 and S17



To determine "t": After all precast prestressed beams have been erected, elevations of the top flanges of the beams shall be taken at intervals as shown on this sheet. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead load Deflections" as shown on Sht's. S16 & S17 minus slab thickness, equals the fillet heights "t" above top flanges of beams.

**FILLET HEIGHTS**



**PLAN**  
(Span 4)

FILE NAME = L:\7265.02\CAD\Structural\CADD Sheets\160743-15-Span 4-top elev-1.dgn

	USER NAME = 100T	DESIGNED - J.W. / B.N.S.	REVISED -	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>TOP OF SLAB ELEVATIONS - SPAN 4 (1 of 3)</b> <b>167TH STREET OVER I-57</b> <b>STRUCTURE NO. 016-2125</b>	F.A.I. RTE. 57	SECTION 1011.3-BR	COUNTY COOK	TOTAL SHEETS 145	SHEET NO. 84
	PLOT SCALE = 99.9999' / in.	DRAWN - B.K.	REVISED -			SHEET NO. S15 OF 43 SHEETS	CONTRACT NO. 60T43		ILLINOIS FED. AID PROJECT	
	PLOT DATE = 6/19/2018	DATE - JUNE 2018	REVISED -							

**BEAM 1**

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS
W. END E. VAULTED SPAN (SPAN 4)	29+81.87	42.25	696.36	696.36
CL. BRG. E. ABUT. AT PPC I-BEAMS	29+82.76	42.25	696.35	696.35
Z	29+92.76	42.25	696.26	696.27
AA	30+02.76	42.25	696.21	696.23
AB	30+12.76	42.25	696.15	696.16
CL BRG. E. PILE CAP	30+26.42	42.25	696.05	696.05
E. END E. VAULTED SPAN (SPAN 4)	30+27.94	42.25	696.03	696.03
BK. E. PILE CAP	30+28.97	42.25	696.03	696.03

**BEAM 2**

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS
W. END E. VAULTED SPAN (SPAN 4)	29+83.03	35.67	696.48	696.48
CL. BRG. E. ABUT. AT PPC I-BEAMS	29+83.92	35.67	696.47	696.47
Z	29+93.92	35.67	696.39	696.40
AA	30+03.92	35.67	696.34	696.36
AB	30+13.92	35.67	696.27	696.29
CL BRG. E. PILE CAP	30+27.58	35.67	696.17	696.17
E. END E. VAULTED SPAN (SPAN 4)	30+29.11	35.67	696.16	696.16
BK. E. PILE CAP	30+30.13	35.67	696.15	696.15

**BEAM 3**

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS
W. END E. VAULTED SPAN (SPAN 4)	29+84.19	29.08	696.60	696.60
CL. BRG. E. ABUT. AT PPC I-BEAMS	29+85.08	29.08	696.59	696.59
Z	29+95.08	29.08	696.52	696.54
AA	30+05.08	29.08	696.47	696.49
AB	30+15.08	29.08	696.40	696.42
CL BRG. E. PILE CAP	30+28.75	29.08	696.30	696.30
E. END E. VAULTED SPAN (SPAN 4)	30+30.27	29.08	696.29	696.29
BK. E. PILE CAP	30+31.29	29.08	696.28	696.28

**BEAM 4**

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS
W. END E. VAULTED SPAN (SPAN 4)	29+85.35	22.50	696.73	696.73
CL. BRG. E. ABUT. AT PPC I-BEAMS	29+86.24	22.50	696.72	696.72
Z	29+96.24	22.50	696.64	696.66
AA	30+06.24	22.50	696.58	696.60
AB	30+16.24	22.50	696.50	696.52
CL BRG. E. PILE CAP	30+29.91	22.50	696.38	696.38
E. END E. VAULTED SPAN (SPAN 4)	30+31.43	22.50	696.37	696.37
BK. E. PILE CAP	30+32.45	22.50	696.36	696.36

**BEAM 5**

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS
W. END E. VAULTED SPAN (SPAN 4)	29+86.52	15.92	696.85	696.85
CL. BRG. E. ABUT. AT PPC I-BEAMS	29+87.40	15.92	696.84	696.84
Z	29+97.40	15.92	696.76	696.77
AA	30+07.40	15.92	696.67	696.69
AB	30+17.40	15.92	696.57	696.59
CL BRG. E. PILE CAP	30+31.07	15.92	696.42	696.42
E. END E. VAULTED SPAN (SPAN 4)	30+32.59	15.92	696.41	696.41
BK. E. PILE CAP	30+33.61	15.92	696.39	696.39

**BEAM 6**

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS
W. END E. VAULTED SPAN (SPAN 4)	29+87.68	9.33	696.93	696.93
CL. BRG. E. ABUT. AT PPC I-BEAMS	29+88.56	9.33	696.94	696.94
Z	29+98.56	9.33	696.84	696.86
AA	30+08.56	9.33	696.73	696.75
AB	30+18.56	9.33	696.61	696.63
CL BRG. E. PILE CAP	30+32.23	9.33	696.43	696.43
E. END E. VAULTED SPAN (SPAN 4)	30+33.75	9.33	696.41	696.41
BK. E. PILE CAP	30+34.77	9.33	696.40	696.40

**BEAM 7**

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS
W. END E. VAULTED SPAN (SPAN 4)	29+88.84	2.75	697.04	697.04
CL. BRG. E. ABUT. AT PPC I-BEAMS	29+89.72	2.75	697.03	697.03
Z	29+99.72	2.75	696.91	696.92
AA	30+09.72	2.75	696.78	696.80
AB	30+19.72	2.75	696.64	696.66
CL BRG. E. PILE CAP	30+33.39	2.75	696.43	696.43
E. END E. VAULTED SPAN (SPAN 4)	30+34.91	2.75	696.40	696.40
BK. E. PILE CAP	30+35.93	2.75	696.39	696.39

**EASTBOUND PGL**

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS
W. END E. VAULTED SPAN (SPAN 4)	29+88.97	2.00	697.05	697.05
CL. BRG. E. ABUT. AT PPC I-BEAMS	29+89.85	2.00	697.04	697.04
Z	29+99.85	2.00	696.92	696.93
AA	30+09.85	2.00	696.78	696.81
AB	30+19.85	2.00	696.64	696.66
CL BRG. E. PILE CAP	30+33.52	2.00	696.43	696.43
E. END E. VAULTED SPAN (SPAN 4)	30+35.04	2.00	696.40	696.40
BK. E. PILE CAP	30+36.06	2.00	696.39	696.39

**CL 167TH STREET & STAGE CONSTRUCTION JOINT**

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS
W. END E. VAULTED SPAN (SPAN 4)	29+89.32	0.00	697.08	697.08
CL. BRG. E. ABUT. AT PPC I-BEAMS	29+90.21	0.00	697.07	697.07
Z	30+00.21	0.00	696.94	696.96
AA	30+10.21	0.00	696.81	696.83
AB	30+20.21	0.00	696.66	696.68
CL BRG. E. PILE CAP	30+33.87	0.00	696.45	696.45
E. END E. VAULTED SPAN (SPAN 4)	30+35.39	0.00	696.43	696.43
BK. E. PILE CAP	30+36.42	0.00	696.41	696.41

FILE NAME = L:\7265\02\CAD\Structural\CAD Sheets\160743-16-Span 4\_top elev-2.dgn



USER NAME = 100T	DESIGNED - J.W. / B.N.S.	REVISED -
	CHECKED - B.N.S. / J.W.	REVISED -
PLOT SCALE = 99.9999' / in.	DRAWN - B.K.	REVISED -
PLOT DATE = 6/19/2018	DATE - JUNE 2018	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TOP OF SLAB ELEVATIONS - SPAN 4 (2 of 3)  
167TH STREET OVER I-57  
STRUCTURE NO. 016-2125**

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1011.3-BR	COOK	145	85
CONTRACT NO. 60T43			ILLINOIS FED. AID PROJECT	

SHEET NO. S16 OF 43 SHEETS

**WESTBOUND PGL**

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS
W. END E. VAULTED SPAN (SPAN 4)	29+89.67	-2.00	697.04	697.04
CL. BRG. E. ABUT. AT PPC I-BEAMS	29+90.56	-2.00	697.03	697.03
Z	30+00.56	-2.00	696.91	696.92
AA	30+10.56	-2.00	696.77	696.80
AB	30+20.56	-2.00	696.63	696.65
CL BRG. E. PILE CAP	30+34.23	-2.00	696.42	696.42
E. END E. VAULTED SPAN (SPAN 4)	30+35.75	-2.00	696.39	696.39
BK. E. PILE CAP	30+36.77	-2.00	696.37	696.37

**BEAM 8**

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS
W. END E. VAULTED SPAN (SPAN 4)	29+89.81	-2.75	697.03	697.03
CL. BRG. E. ABUT. AT PPC I-BEAMS	29+90.69	-2.75	697.02	697.02
Z	30+00.69	-2.75	696.89	696.91
AA	30+10.69	-2.75	696.76	696.78
AB	30+20.69	-2.75	696.62	696.63
CL BRG. E. PILE CAP	30+34.36	-2.75	696.40	696.40
E. END E. VAULTED SPAN (SPAN 4)	30+35.88	-2.75	696.38	696.38
BK. E. PILE CAP	30+36.90	-2.75	696.36	696.36

**BEAM 9**

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS
W. END E. VAULTED SPAN (SPAN 4)	29+90.97	-9.33	696.91	696.91
CL. BRG. E. ABUT. AT PPC I-BEAMS	29+91.85	-9.33	696.90	696.90
Z	30+01.85	-9.33	696.78	696.79
AA	30+11.85	-9.33	696.64	696.66
AB	30+21.85	-9.33	696.50	696.51
CL BRG. E. PILE CAP	30+35.52	-9.33	696.28	696.28
E. END E. VAULTED SPAN (SPAN 4)	30+37.04	-9.33	696.26	696.26
BK. E. PILE CAP	30+38.06	-9.33	696.24	696.24

**BEAM 10**

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS
W. END E. VAULTED SPAN (SPAN 4)	29+92.13	-15.92	696.78	696.78
CL. BRG. E. ABUT. AT PPC I-BEAMS	29+93.01	-15.92	696.77	696.77
Z	30+03.01	-15.92	696.65	696.66
AA	30+13.01	-15.92	696.51	696.53
AB	30+23.01	-15.92	696.36	696.38
CL BRG. E. PILE CAP	30+36.68	-15.92	696.15	696.15
E. END E. VAULTED SPAN (SPAN 4)	30+38.20	-15.92	696.12	696.12
BK. E. PILE CAP	30+39.22	-15.92	696.11	696.11

**BEAM 11**

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS
W. END E. VAULTED SPAN (SPAN 4)	29+93.29	-22.50	696.63	696.63
CL. BRG. E. ABUT. AT PPC I-BEAMS	29+94.17	-22.50	696.62	696.62
Z	30+04.17	-22.50	696.50	696.51
AA	30+14.17	-22.50	696.36	696.38
AB	30+24.17	-22.50	696.21	696.23
CL BRG. E. PILE CAP	30+37.84	-22.50	695.99	695.99
E. END E. VAULTED SPAN (SPAN 4)	30+39.36	-22.50	695.97	695.97
BK. E. PILE CAP	30+40.38	-22.50	695.95	695.95

**BEAM 12**

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS
W. END E. VAULTED SPAN (SPAN 4)	29+94.45	-29.08	696.48	696.48
CL. BRG. E. ABUT. AT PPC I-BEAMS	29+95.34	-29.08	696.47	696.47
Z	30+05.34	-29.08	696.34	696.36
AA	30+15.34	-29.08	696.20	696.23
AB	30+25.34	-29.08	696.06	696.07
CL BRG. E. PILE CAP	30+39.00	-29.08	695.84	695.84
E. END E. VAULTED SPAN (SPAN 4)	30+40.52	-29.08	695.81	695.81
BK. E. PILE CAP	30+41.54	-29.08	695.79	695.79


**BEAM 13**

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS
W. END E. VAULTED SPAN (SPAN 4)	29+95.61	-35.67	696.33	696.33
CL. BRG. E. ABUT. AT PPC I-BEAMS	29+96.50	-35.67	696.32	696.32
Z	30+06.50	-35.67	696.19	696.21
AA	30+16.50	-35.67	696.05	696.07
AB	30+26.50	-35.67	695.90	695.92
CL BRG. E. PILE CAP	30+40.16	-35.67	695.68	695.68
E. END E. VAULTED SPAN (SPAN 4)	30+41.68	-35.67	695.65	695.65
BK. E. PILE CAP	30+42.70	-35.67	695.64	695.64

**BEAM 14**

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS
W. END E. VAULTED SPAN (SPAN 4)	29+96.77	-42.25	696.18	696.18
CL. BRG. E. ABUT. AT PPC I-BEAMS	29+97.66	-42.25	696.17	696.17
Z	30+07.66	-42.25	696.04	696.05
AA	30+17.66	-42.25	695.90	695.92
AB	30+27.66	-42.25	695.74	695.76
CL BRG. E. PILE CAP	30+41.32	-42.25	695.52	695.52
E. END E. VAULTED SPAN (SPAN 4)	30+42.84	-42.25	695.50	695.50
BK. E. PILE CAP	30+43.87	-42.25	695.48	695.48

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	PLOT DATE = 6/19/2018	DRAWN - B.K.	REVISED -
		DATE - JUNE 2018	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TOP OF SLAB ELEVATIONS - SPAN 4 (3 of 3)  
167TH STREET OVER I-57  
STRUCTURE NO. 016-2125**

SHEET NO. S17 OF 43 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1011.3-BR	COOK	145	86
			CONTRACT NO. 60T43	
ILLINOIS FED. AID PROJECT				

**NORTH EDGE OF CURB LINE**

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS
W. END W. APPR. SLAB	26+85.42	-44.00	695.80
A1	26+95.42	-44.00	695.94
A2	27+05.42	-44.00	696.07
E. END W. APPR. SLAB	27+15.42	-44.00	696.13

**NORTH OUTSIDE LANE LINE**

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS
W. END W. APPR. SLAB	26+82.25	-26.00	696.12
A1	26+92.25	-26.00	696.27
A2	27+02.25	-26.00	696.40
E. END W. APPR. SLAB	27+12.25	-26.00	696.49

**WESTBOUND PGL**

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS
W. END W. APPR. SLAB	26+78.02	-2.00	695.87
A1	26+88.02	-2.00	696.06
A2	26+98.02	-2.00	696.23
E. END W. APPR. SLAB	27+08.02	-2.00	696.40

**NORTH EDGE OF PAVEMENT**

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS
W. END W. APPR. SLAB	26+84.37	-38.00	695.91
A1	26+94.37	-38.00	696.05
A2	27+04.37	-38.00	696.18
E. END W. APPR. SLAB	27+14.37	-38.00	696.25

**NORTH INSIDE LANE LINE**

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS
W. END W. APPR. SLAB	26+80.13	-14.00	696.02
A1	26+90.13	-14.00	696.20
A2	27+00.13	-14.00	696.38
E. END W. APPR. SLAB	27+10.13	-14.00	696.53

**CL 167TH STREET & STAGE CONSTRUCTION JOINT**

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS
W. END W. APPR. SLAB	26+77.67	0.00	695.89
A1	26+87.67	0.00	696.08
A2	26+97.67	0.00	696.26
E. END W. APPR. SLAB	27+07.67	0.00	696.43

**EASTBOUND PGL**

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS
W. END W. APPR. SLAB	26+77.31	2.00	695.85
A1	26+87.31	2.00	696.04
A2	26+97.31	2.00	696.22
E. END W. APPR. SLAB	27+07.31	2.00	696.39

**SOUTH INSIDE LANE LINE**

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS
W. END W. APPR. SLAB	26+75.20	14.00	695.63
A1	26+85.20	14.00	695.82
A2	26+95.20	14.00	696.00
E. END W. APPR. SLAB	27+05.20	14.00	696.17

**SOUTH OUTSIDE LANE LINE**

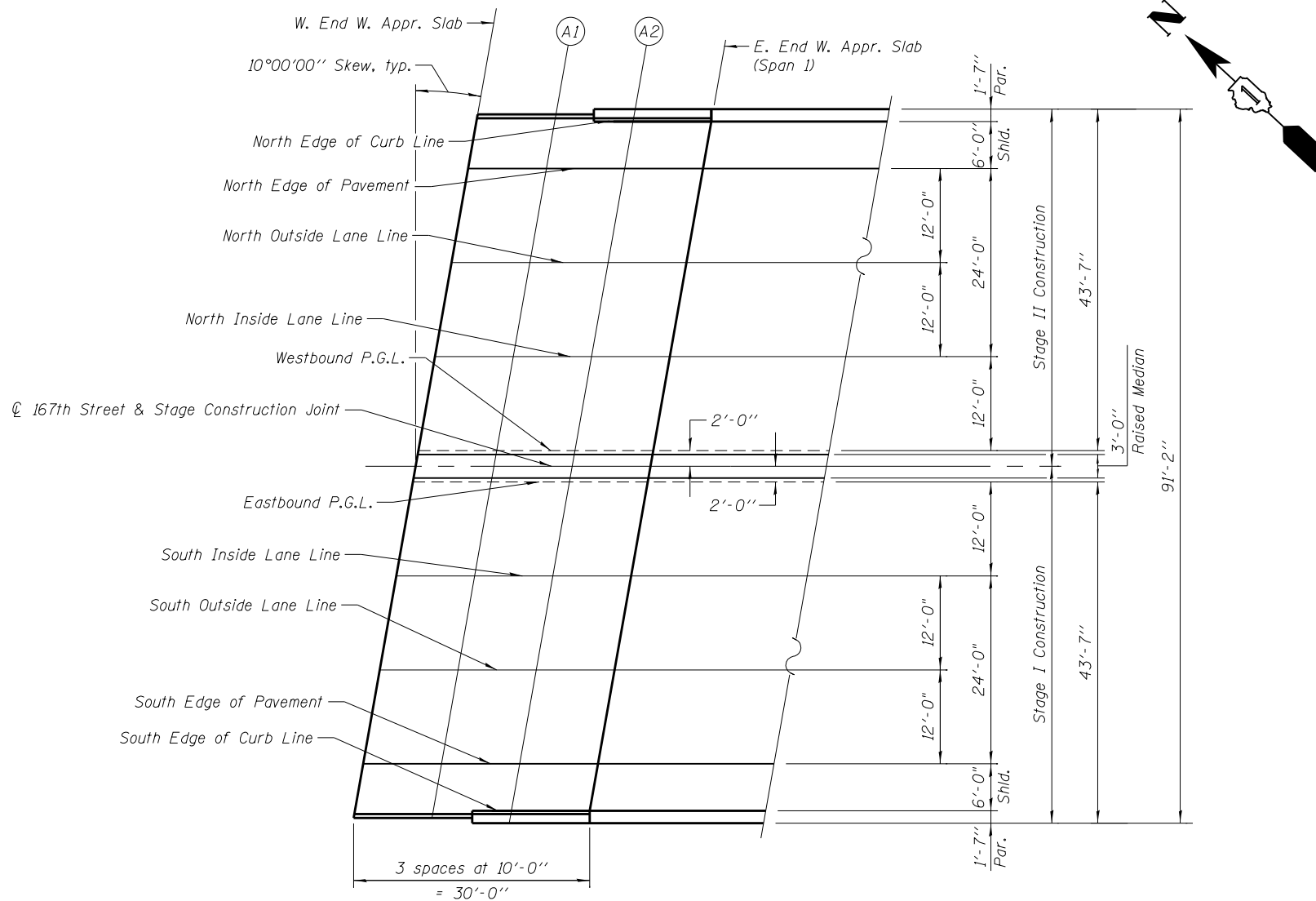
LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS
W. END W. APPR. SLAB	26+73.08	26.00	695.33
A1	26+83.08	26.00	695.53
A2	26+93.08	26.00	695.71
E. END W. APPR. SLAB	27+03.08	26.00	695.88

**SOUTH EDGE OF PAVEMENT**

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS
W. END W. APPR. SLAB	26+70.96	38.00	695.04
A1	26+80.96	38.00	695.24
A2	26+90.96	38.00	695.42
E. END W. APPR. SLAB	27+00.96	38.00	695.60

**SOUTH EDGE OF CURB LINE**

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS
W. END W. APPR. SLAB	26+69.91	44.00	694.90
A1	26+79.91	44.00	695.09
A2	26+89.91	44.00	695.28
E. END W. APPR. SLAB	26+99.91	44.00	695.45



**PLAN**

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**KNIGHT**  
Engineers & Architects

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	DATE - JUNE 2018	REVISED -

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

**TOP OF WEST APPROACH SLAB ELEVATIONS**  
**167TH STREET OVER I-57**  
**STRUCTURE NO. 016-2125**

SHEET NO. S18 OF 43 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1011.3-BR	COOK	145	87
ILLINOIS FED. AID PROJECT			CONTRACT NO. 60T43	

**NORTH EDGE OF CURB LINE**

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS
W. END E. APPR. SLAB	30+43.15	-44.00	695.45
A3	30+53.15	-44.00	695.28
A4	30+63.15	-44.00	695.09
E. END E. APPR. SLAB	30+73.88	-44.00	694.88

**NORTH OUTSIDE LANE LINE**

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS
W. END E. APPR. SLAB	30+39.98	-26.00	695.88
A3	30+49.98	-26.00	695.71
A4	30+59.98	-26.00	695.53
E. END E. APPR. SLAB	30+69.98	-26.00	695.33

**WESTBOUND PGL**

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS
W. END E. APPR. SLAB	30+35.75	-2.00	696.39
A3	30+45.75	-2.00	696.22
A4	30+55.75	-2.00	696.04
E. END E. APPR. SLAB	30+65.75	-2.00	695.85

**NORTH EDGE OF PAVEMENT**

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS
W. END E. APPR. SLAB	30+42.10	-38.00	695.60
A3	30+52.10	-38.00	695.42
A4	30+62.10	-38.00	695.24
E. END E. APPR. SLAB	30+72.72	-38.00	695.03

**NORTH INSIDE LANE LINE**

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS
W. END E. APPR. SLAB	30+37.86	-14.00	696.17
A3	30+47.86	-14.00	696.00
A4	30+57.86	-14.00	695.82
E. END E. APPR. SLAB	30+67.86	-14.00	695.62

**CL 167TH STREET & STAGE CONSTRUCTION JOINT**

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS
W. END E. APPR. SLAB	30+35.39	0.00	696.43
A3	30+45.39	0.00	696.26
A4	30+55.39	0.00	696.08
E. END E. APPR. SLAB	30+65.39	0.00	695.89

**EASTBOUND PGL**

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS
W. END E. APPR. SLAB	30+35.04	2.00	696.40
A3	30+45.04	2.00	696.23
A4	30+55.04	2.00	696.06
E. END E. APPR. SLAB	30+65.04	2.00	695.87

**SOUTH INSIDE LANE LINE**

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS
W. END E. APPR. SLAB	30+32.93	14.00	696.41
A3	30+42.93	14.00	696.30
A4	30+52.93	14.00	696.19
E. END E. APPR. SLAB	30+62.93	14.00	696.07

**SOUTH OUTSIDE LANE LINE**

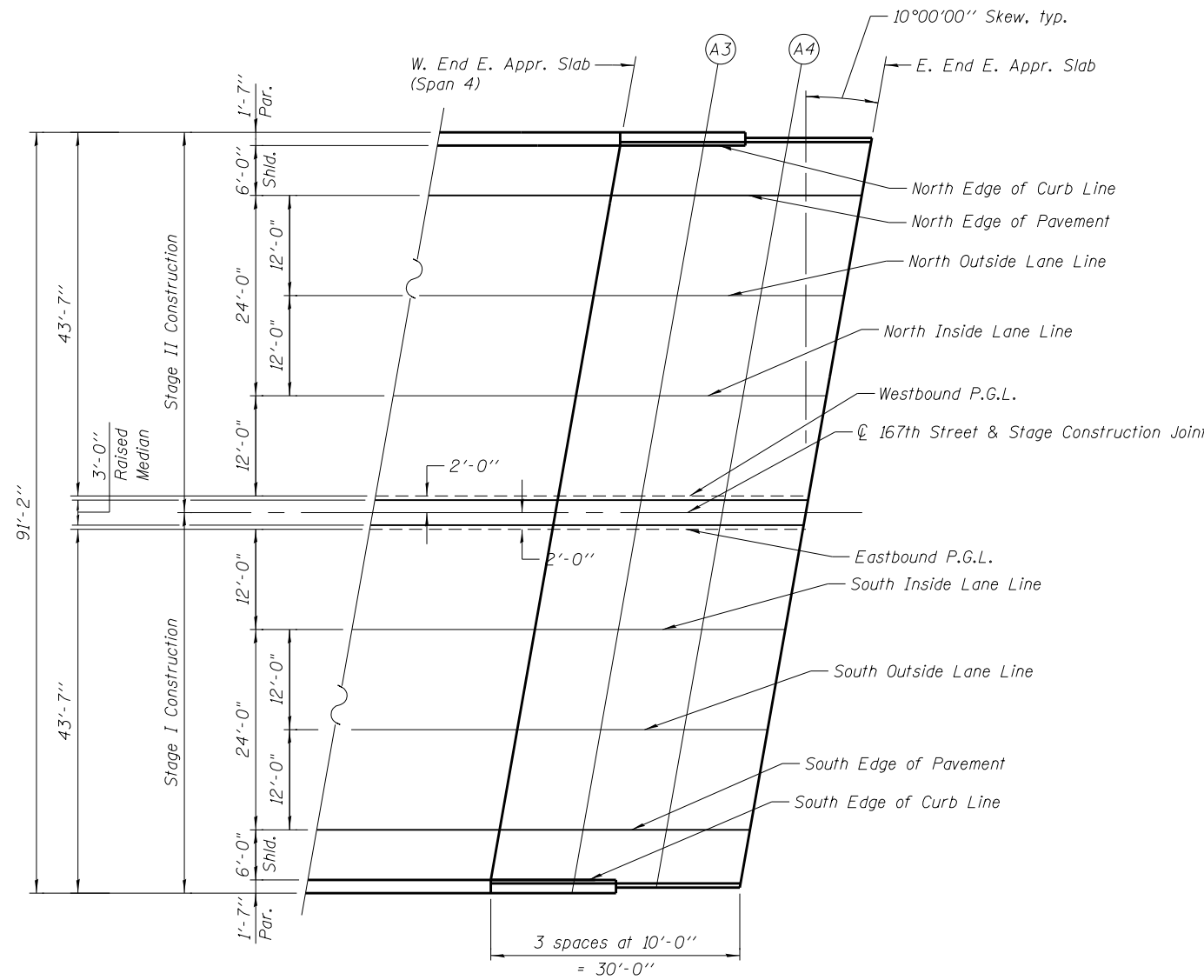
LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS
W. END E. APPR. SLAB	30+30.81	26.00	696.35
A3	30+40.81	26.00	696.26
A4	30+50.81	26.00	696.17
E. END E. APPR. SLAB	30+60.81	26.00	696.06

**SOUTH EDGE OF PAVEMENT**

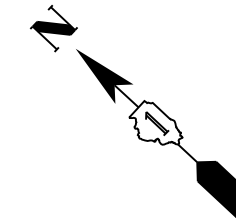
LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS
W. END E. APPR. SLAB	30+28.69	38.00	696.12
A3	30+38.69	38.00	696.03
A4	30+48.69	38.00	695.96
E. END E. APPR. SLAB	30+58.69	38.00	695.87

**SOUTH EDGE OF CURB LINE**

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS
W. END E. APPR. SLAB	30+27.64	44.00	696.00
A3	30+37.64	44.00	695.92
A4	30+47.64	44.00	695.85
E. END E. APPR. SLAB	30+57.64	44.00	695.77



**PLAN**



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**KNIGHT**  
Engineers & Architects

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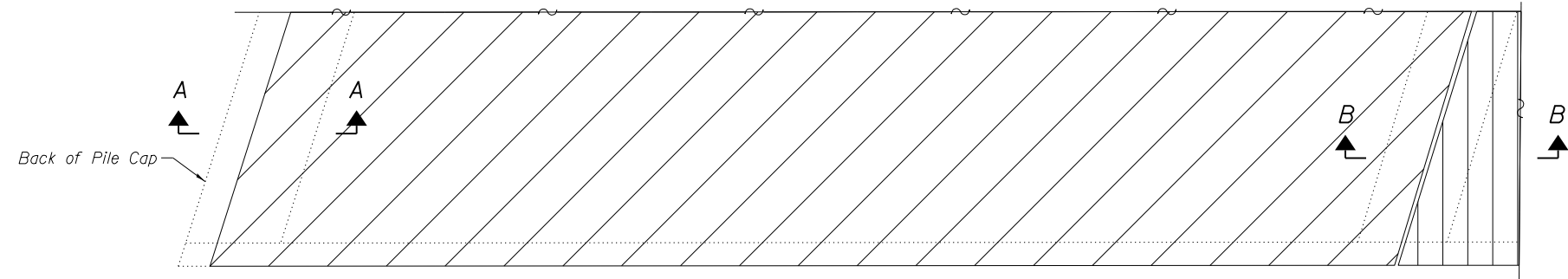
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**TOP OF EAST APPROACH SLAB ELEVATIONS**  
**167TH STREET OVER I-57**  
**STRUCTURE NO. 016-2125**

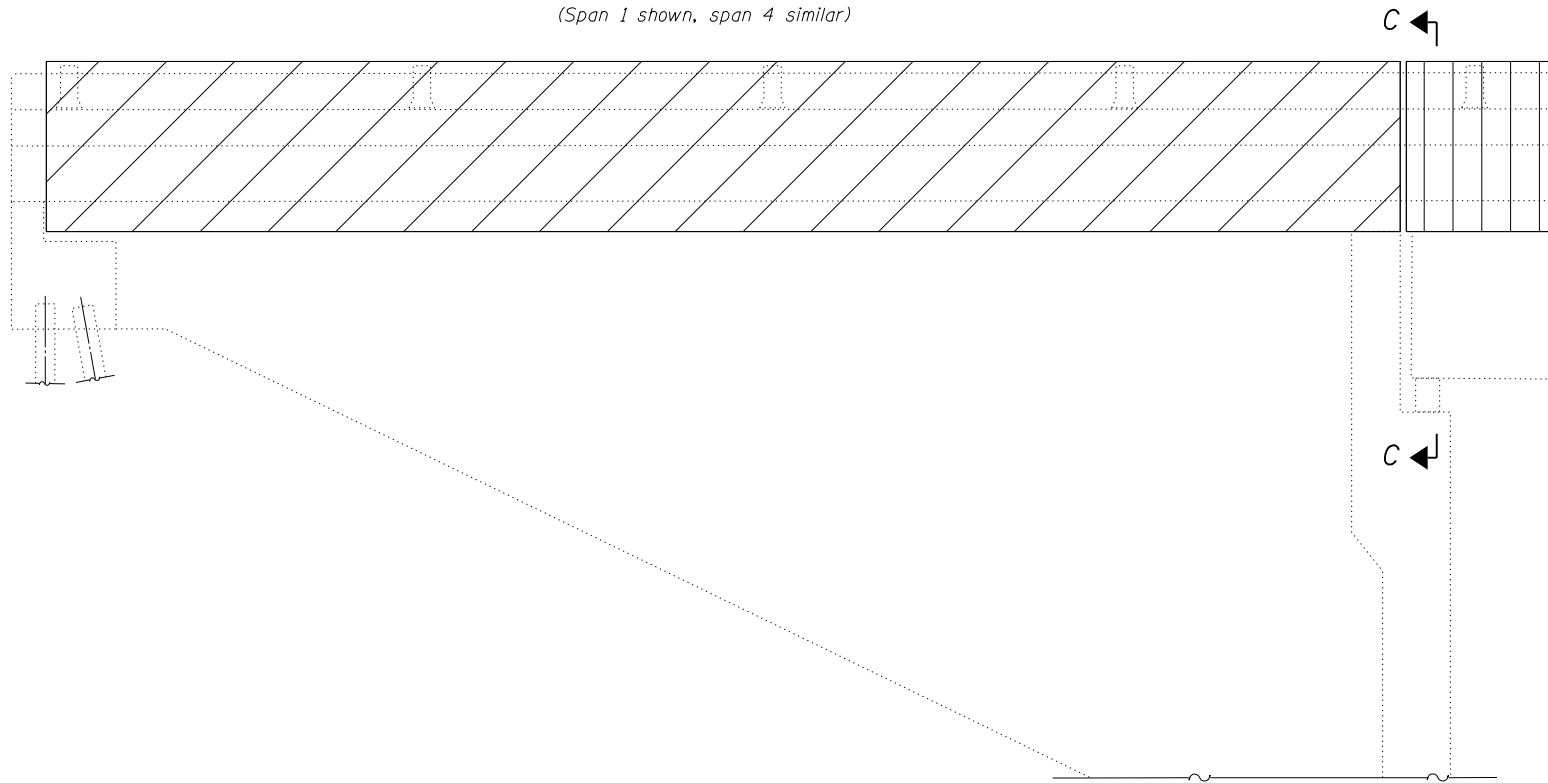
SHEET NO. S19 OF 43 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1011.3-BR	COOK	145	88
			CONTRACT NO. 60T43	
ILLINOIS FED. AID PROJECT				

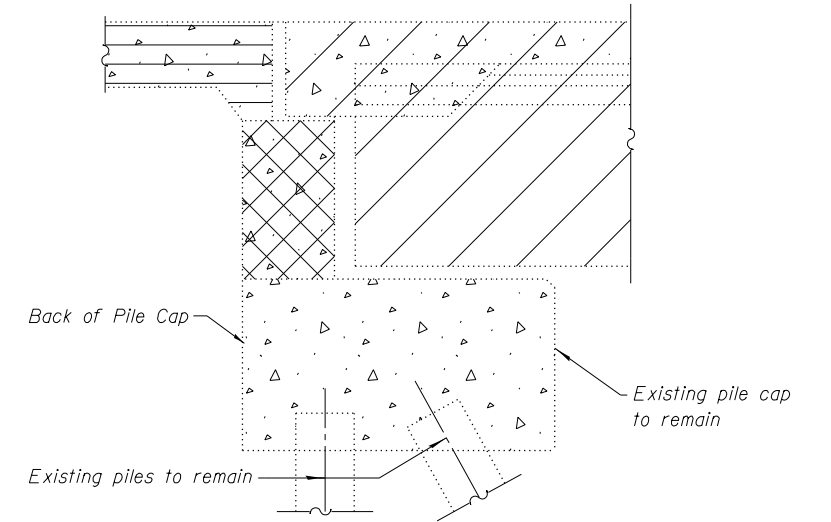




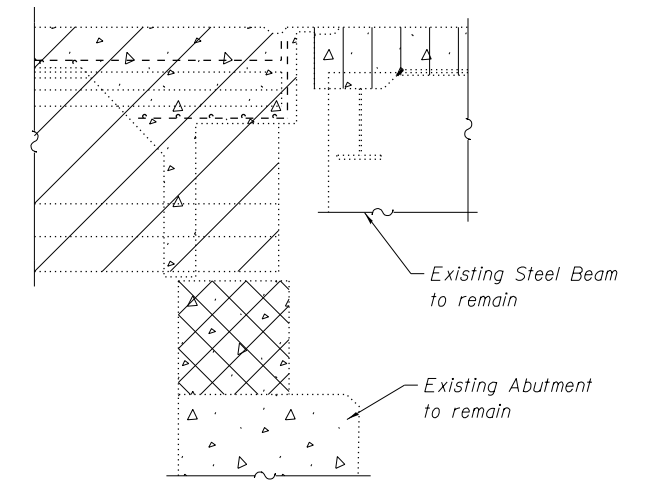
**PARTIAL PLAN**  
(Span 1 shown, span 4 similar)



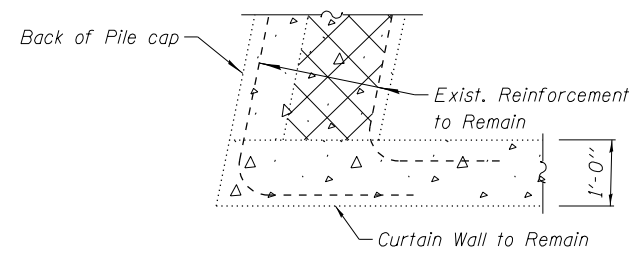
**PARTIAL ELEVATION**



**SECTION A-A**

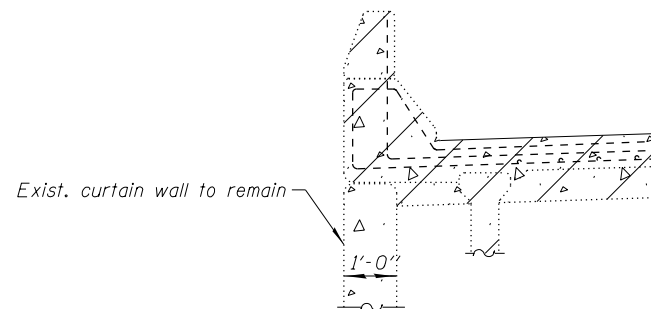


**SECTION B-B**







**PARTIAL PLAN**

(Showing superstructure removal at pile cap)



**SECTION C-C**

-  Denotes "Removal of Existing Superstructures".
-  Denotes "Concrete Removal".
-  Denotes "Removal of Existing Concrete Deck".
-  Denotes "Approach Slab Removal", see Roadway Plans

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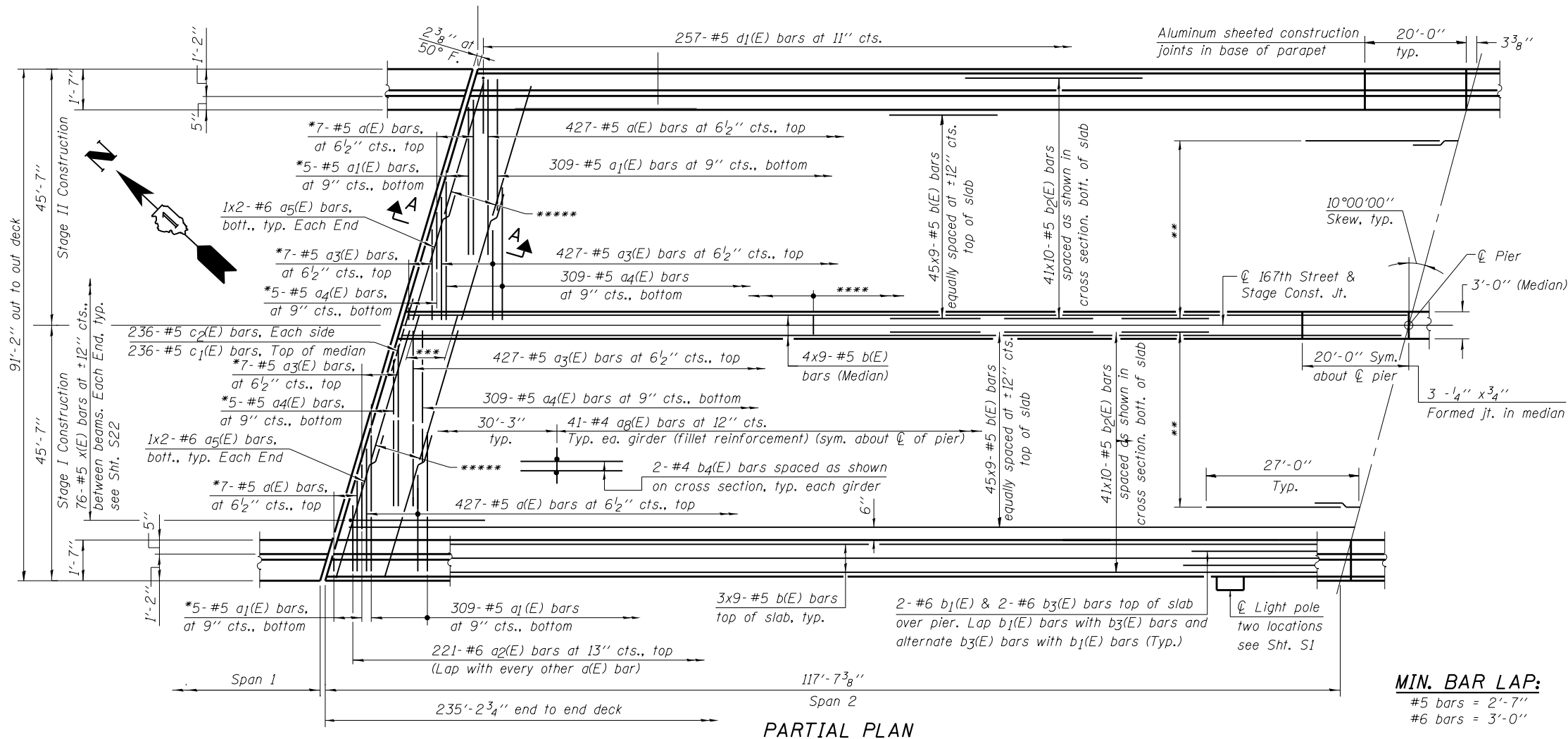
**KNIGHT**  
Engineers & Architects

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PLOT DATE = 6/19/2018	DRAWN - B.K.	REVISED -
	DATE - JUNE 2018	REVISED -

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

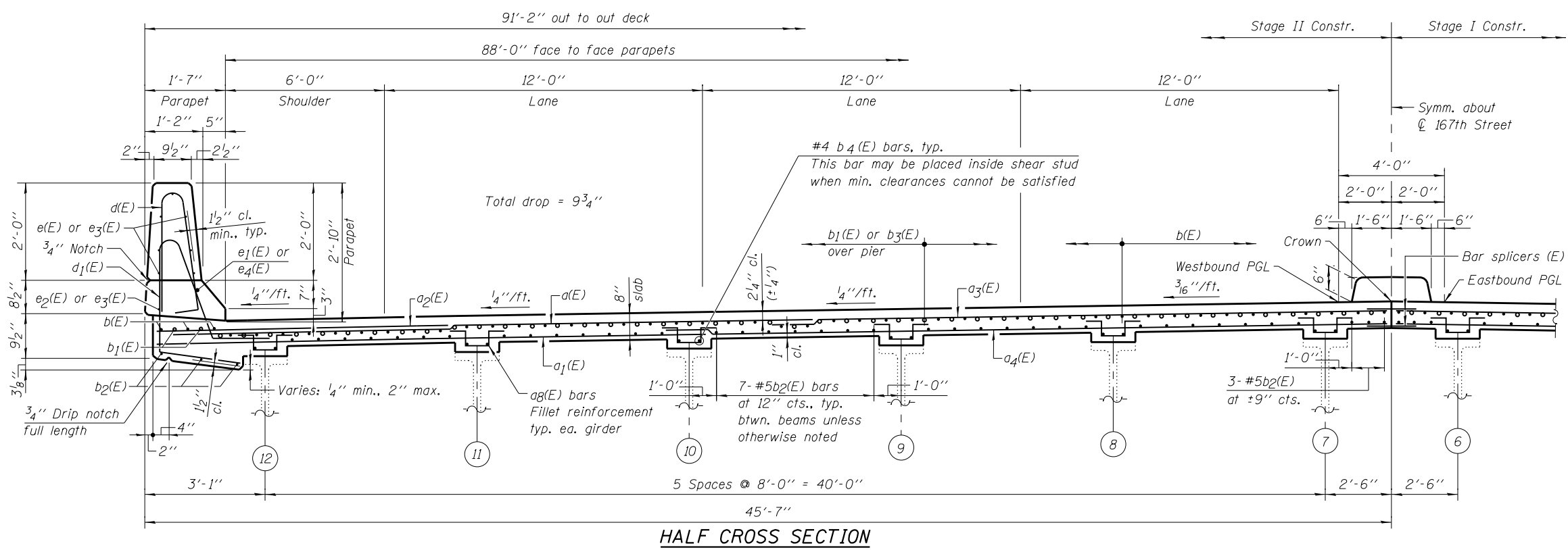
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**167TH STREET OVER I-57**  
**STRUCTURE NO. 016-2125**  
SHEET NO. S20 OF 43 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1011.3-BR	COOK	145	89
CONTRACT NO. 60T43			ILLINOIS FED. AID PROJECT	



- \*Order a(E), a1(E), a3(E) & a4(E) bars full length. Cut to fit skew and use remainder of bars in opposite end.
- \*\*44-#6 b1(E) & 44-#6 b3(E) bars at ±12" cts. top of slab over pier. Equally spaced at ±12" cts. between each #5 b(E) bars. Lap b1(E) bars with b3(E) bars and alternate b3(E) bars with b1(E) bars.
- \*\*\*1-#6 Bar Splicers (E) at bottom, Each End, typ.
- 4-#6 Bar Splicers (E) at 4" cts., top, Each End, typ.
- 3-#6 Bar Splicers (E) at 6" cts., bott., Each End, typ.
- \*\*\*\*434-#5 Bar Splicers (E) at 6 1/2" cts., top
- 314-#5 bar Splicers (E) at 9" cts., bottom
- \*\*\*\*\*4x2-#6 a5(E) bars at 4" cts., top, Each End, typ.
- 3-#6 a6(E) bars at 6" cts., bottom between beams, Each End, typ.
- 3-#6 a7(E) bars at 6" cts., between beams
- ⑥ or ⑦ & Stage constr. jt. only, Each End, typ.

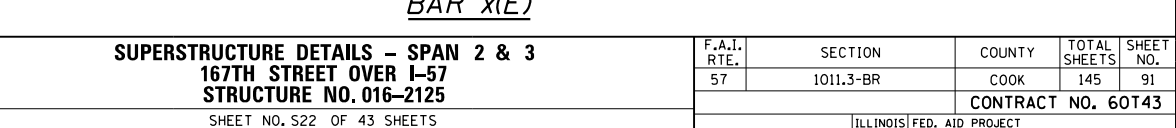
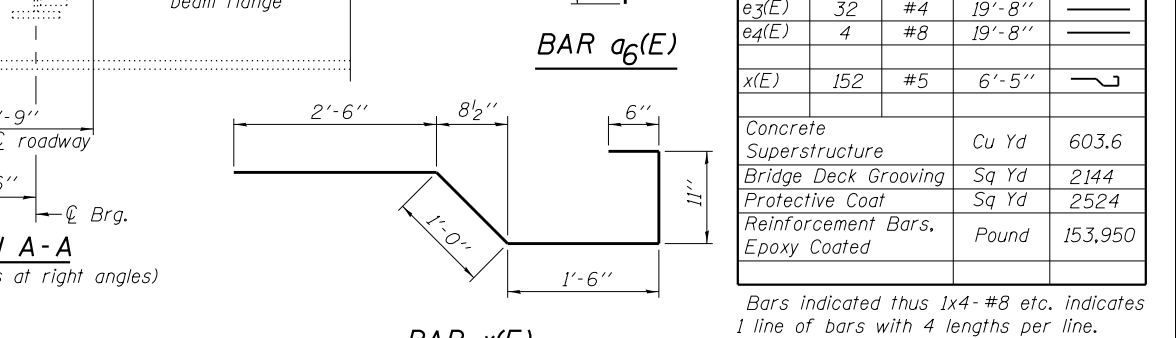
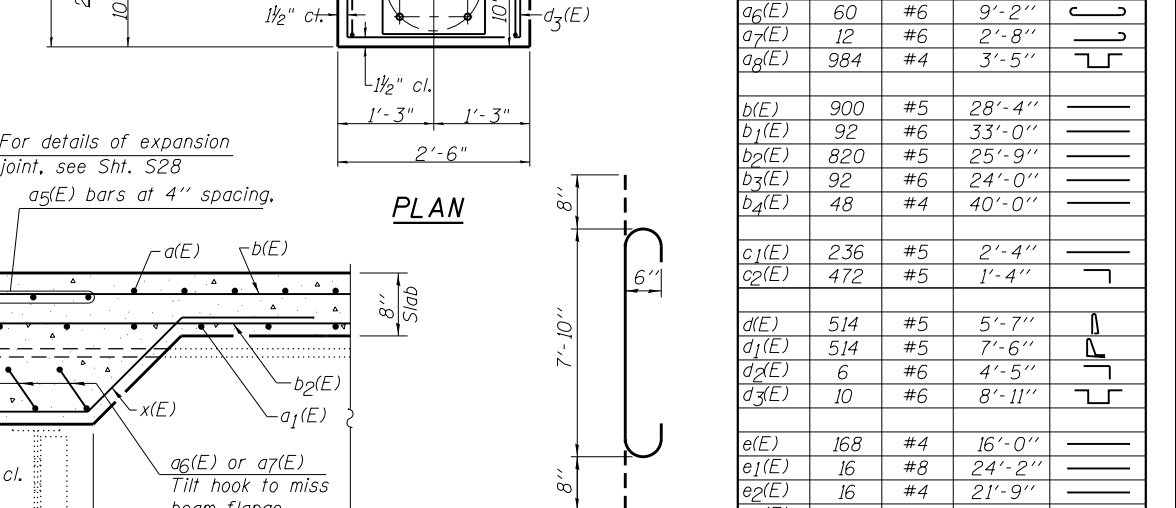
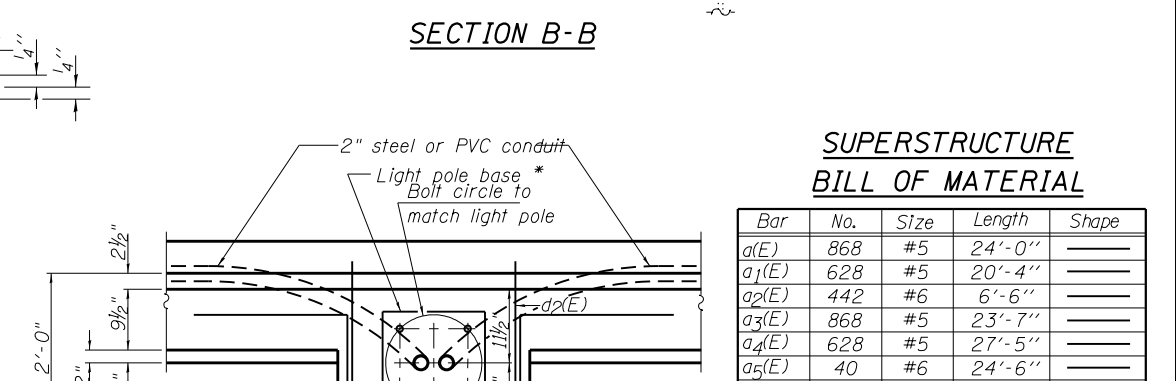
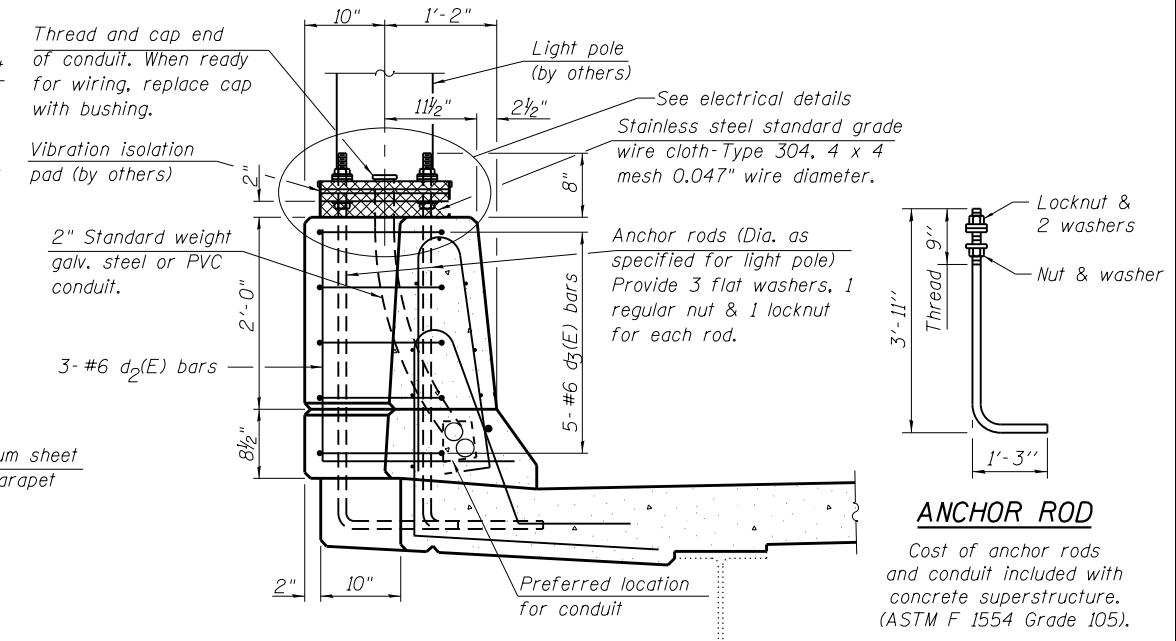
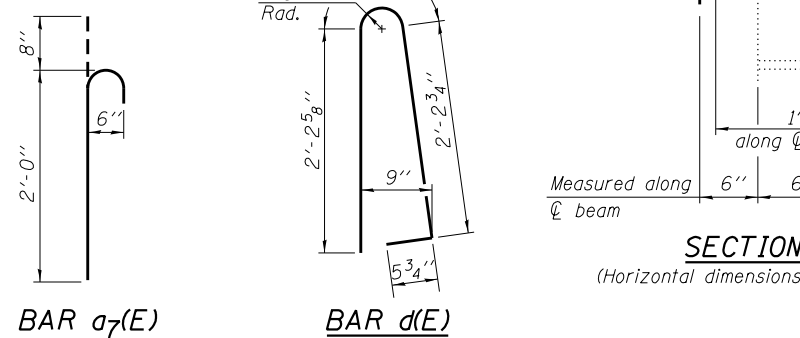
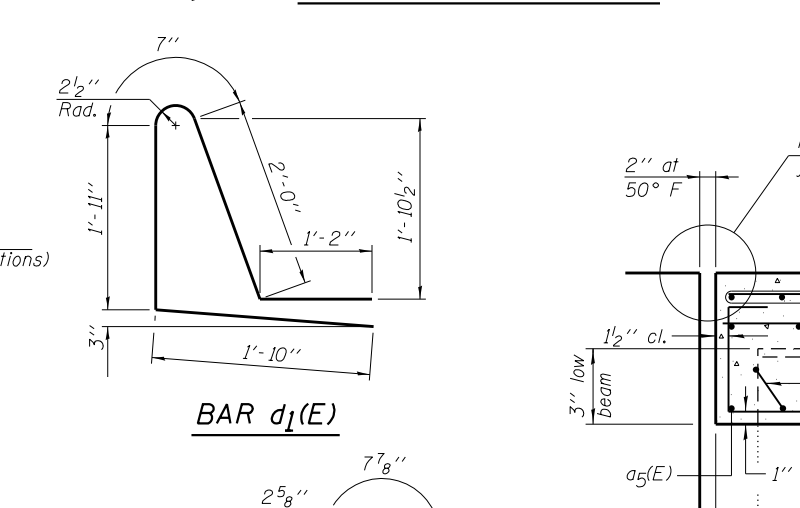
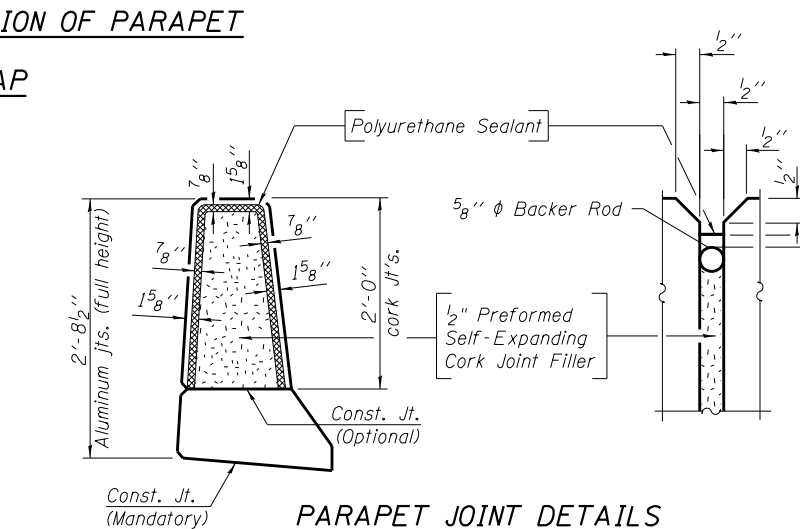
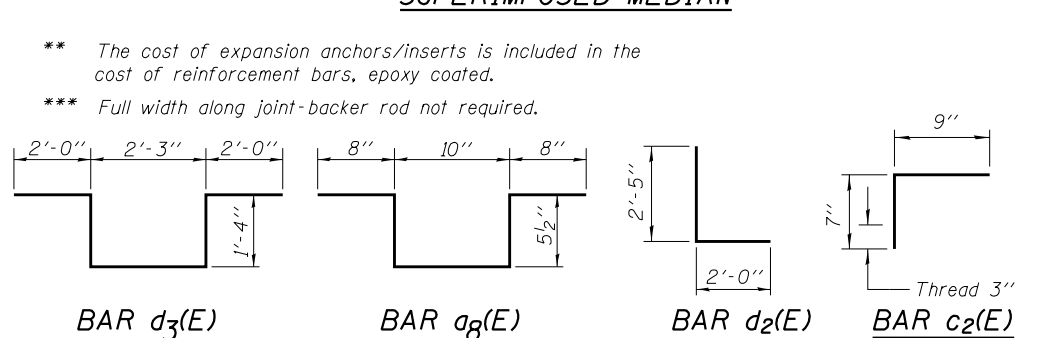
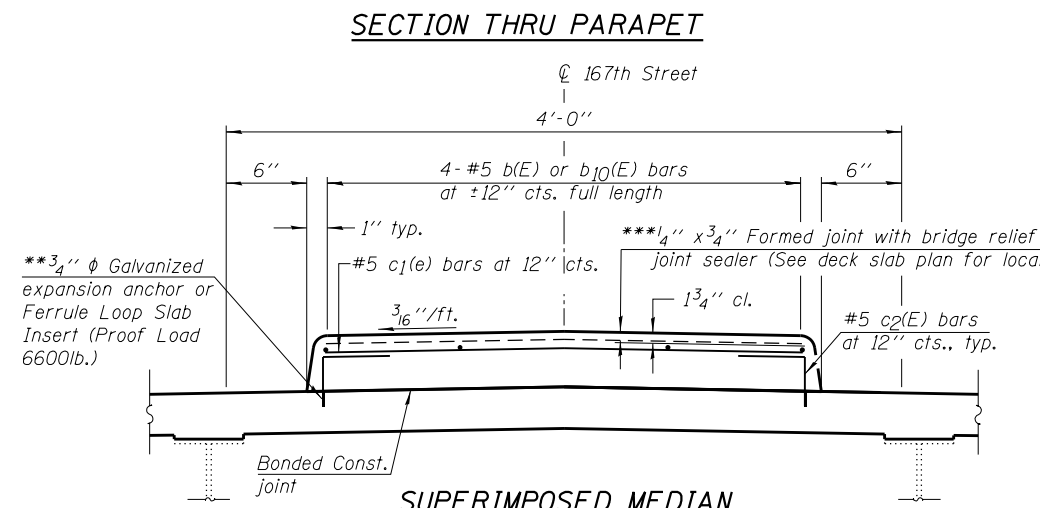
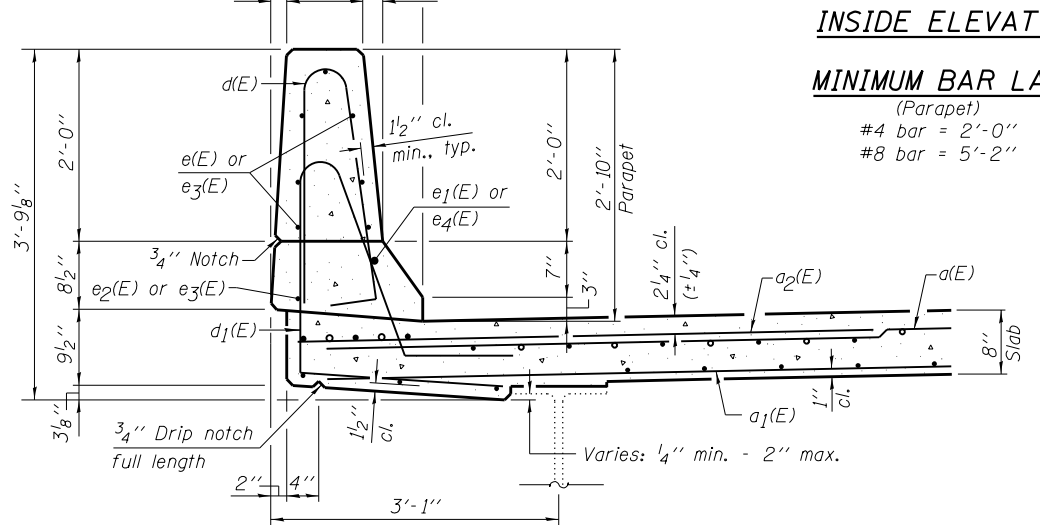
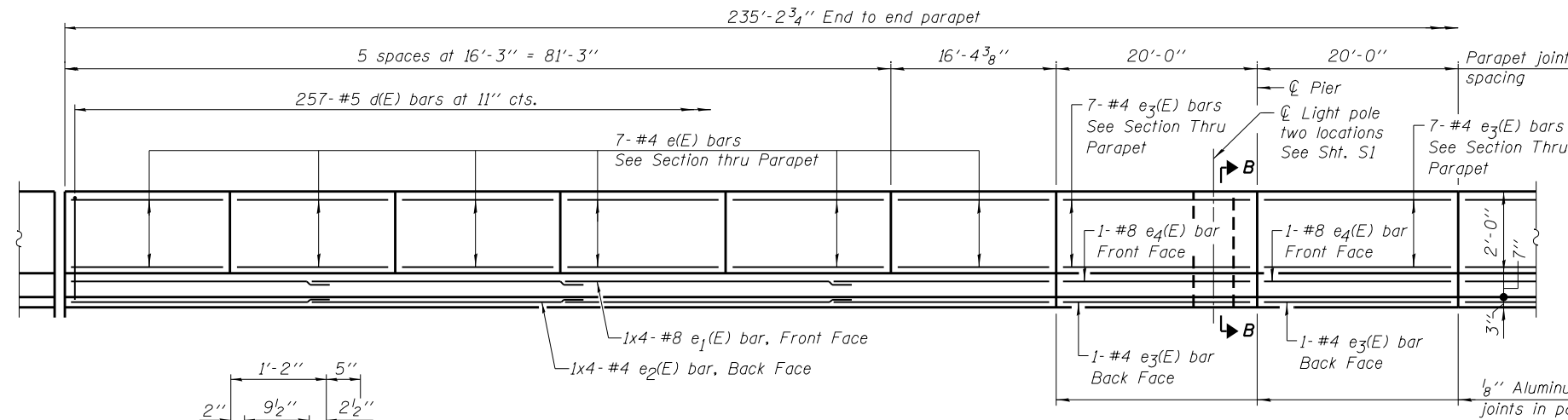
Dimensions are based on a Rolled Rail Strip Seal Joint. If the Contractor elects to use the Welded Rail Strip Seal Joint, deck dimensions may require adjustments to satisfy the details on Base Sheet EJ-SSJ (Sht. S28)



Notes:  
 For Section A-A, see Sht. S22.  
 See Sht. S22 for superstructure details, median cross-sections and Bill of Material.  
 Bars indicated thus 41x10-#5 etc. indicates 41 lines of bars with 10 lengths per line.  
 Cross section is looking East.

FILE NAME = L:\7265\02\CAD\Structural\CADD Sheets\1607143-21-super-deck plan & section span 2 & 3.dgn

<b>KNIGHT</b> Engineers & Architects	USER NAME = 100T	DESIGNED - J.W. / B.N.S.	REVISED -	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>DECK PLAN &amp; SECTION - SPAN 2 &amp; 3</b> <b>167TH STREET OVER I-57</b> <b>STRUCTURE NO. 016-2125</b>	F.A.I. RTE. 57	SECTION 1011.3-BR	COUNTY COOK	TOTAL SHEETS 145	SHEET NO. 90
	PLOT SCALE = 99.9999' / in.	DRAWN - B.K.	REVISED -			CONTRACT NO. 60T43				
PLOT DATE = 8/14/2018		DATE - JUNE 2018	REVISED -	SHEET NO. S21 OF 43 SHEETS			ILLINOIS FED. AID PROJECT			



**INSIDE ELEVATION OF PARAPET**  
**MINIMUM BAR LAP**  
 (Parapet)  
 #4 bar = 2'-0"  
 #8 bar = 5'-2"

**SUPERSTRUCTURE**  
**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a(E)	868	#5	24'-0"	—
a1(E)	628	#5	20'-4"	—
a2(E)	442	#6	6'-6"	—
a3(E)	868	#5	23'-7"	—
a4(E)	628	#5	27'-5"	—
a5(E)	40	#6	24'-6"	—
a6(E)	60	#6	9'-2"	—
a7(E)	12	#6	2'-8"	—
a8(E)	984	#4	3'-5"	—
b(E)	900	#5	28'-4"	—
b1(E)	92	#6	33'-0"	—
b2(E)	820	#5	25'-9"	—
b3(E)	92	#6	24'-0"	—
b4(E)	48	#4	40'-0"	—
c1(E)	236	#5	2'-4"	—
c2(E)	472	#5	1'-4"	—
d(E)	514	#5	5'-7"	—
d1(E)	514	#5	7'-6"	—
d2(E)	6	#6	4'-5"	—
d3(E)	10	#6	8'-11"	—
e(E)	168	#4	16'-0"	—
e1(E)	16	#8	24'-2"	—
e2(E)	16	#4	21'-9"	—
e3(E)	32	#4	19'-8"	—
e4(E)	4	#8	19'-8"	—
x(E)	152	#5	6'-5"	—
Concrete Superstructure		Cu Yd	603.6	
Bridge Deck Grooving		Sq Yd	2144	
Protective Coat		Sq Yd	2524	
Reinforcement Bars, Epoxy Coated		Pound	153,950	

Bars indicated thus 1x4-#8 etc. indicates 1 line of bars with 4 lengths per line.

FILE NAME = L:\7265\02\Structural\CAAD\Sheets\160743-22-super-details span 2 & 3.dgn

**KNIGHT**  
 Engineers & Architects

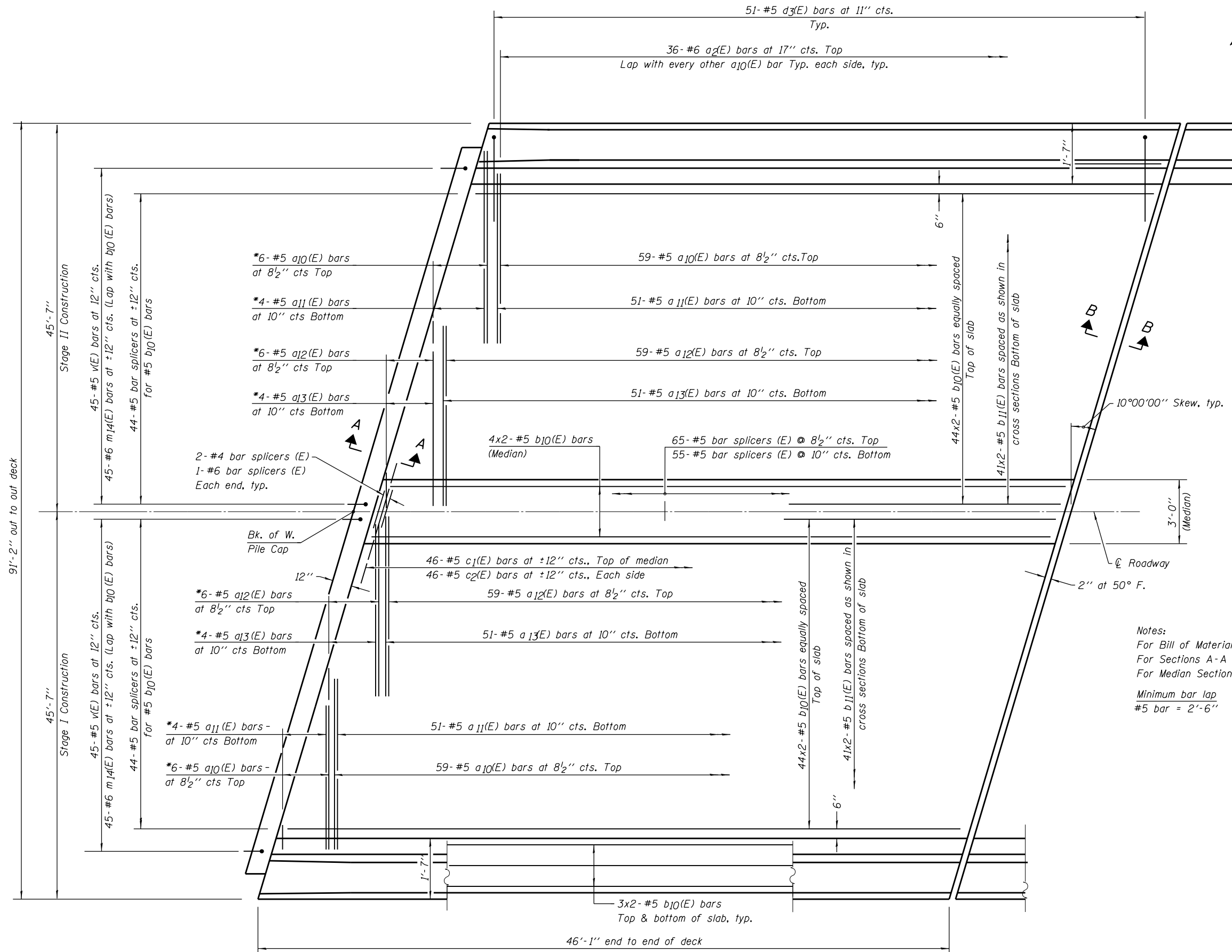
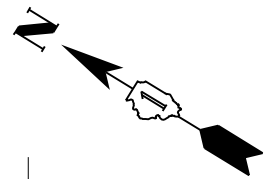
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PLOT DATE = 8/14/2018	DRAWN - B.K.	REVISED -
	DATE - JUNE 2018	REVISED -

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

**SUPERSTRUCTURE DETAILS - SPAN 2 & 3**  
**167TH STREET OVER I-57**  
**STRUCTURE NO. 016-2125**  
 SHEET NO. S22 OF 43 SHEETS

F.A.I. RTE. 57	SECTION 1011.3-BR	COUNTY COOK	TOTAL SHEETS 145	SHEET NO. 91
			CONTRACT NO. 60T43	
ILLINOIS FED. AID PROJECT				

\*Order a<sub>10</sub>(E) thru a<sub>13</sub>(E) bars full length. Cut to fit skew and use remainder of bars in opposite end.



Notes:  
 For Bill of Material see Sht. S25.  
 For Sections A-A & B-B see Sht. S25.  
 For Median Section, see Sht. S22.  
 Minimum bar lap  
 #5 bar = 2'-6"

**PLAN**  
 (Span 1 shown - Span 4 opposite hand)

FILE NAME = L:\7265.02\CAD\Structural\CADD Sheets\160743-23-abut-vaulted-deck plan span 1 & 4.dgn

**KNIGHT**  
 Engineers & Architects

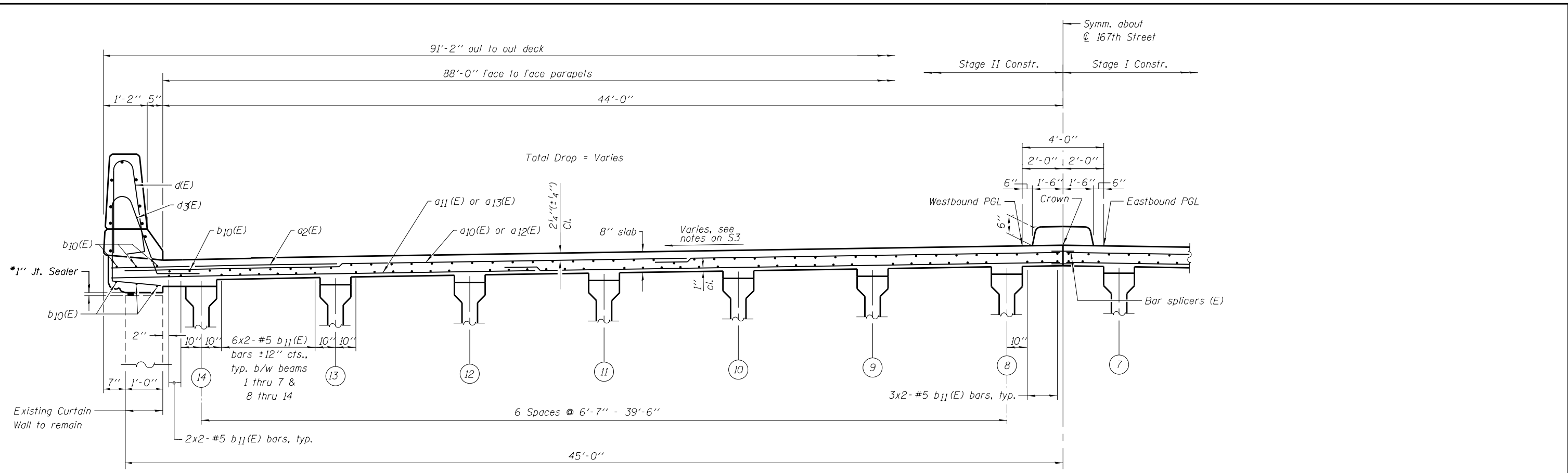
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	DATE - JUNE 2018	REVISED -

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

**DECK PLAN - VAULTED ABUTMENT APPROACH SPAN 1 & 4**  
**167TH STREET OVER I-57**  
**STRUCTURE NO. 016-2125**  
 SHEET NO. S23 OF 43 SHEETS

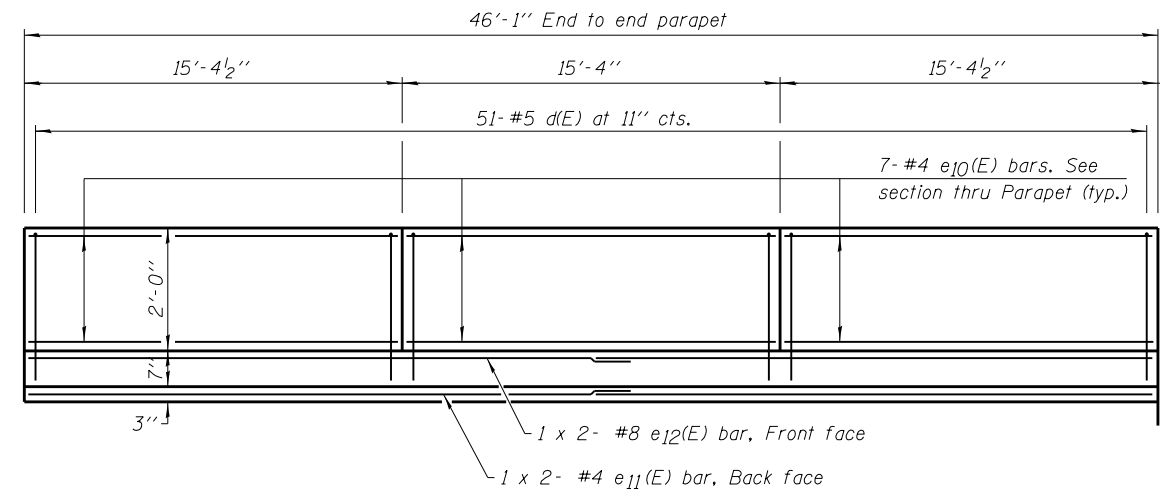
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1011.3-BR	COOK	145	92
CONTRACT NO. 60T43				

ILLINOIS FED. AID PROJECT



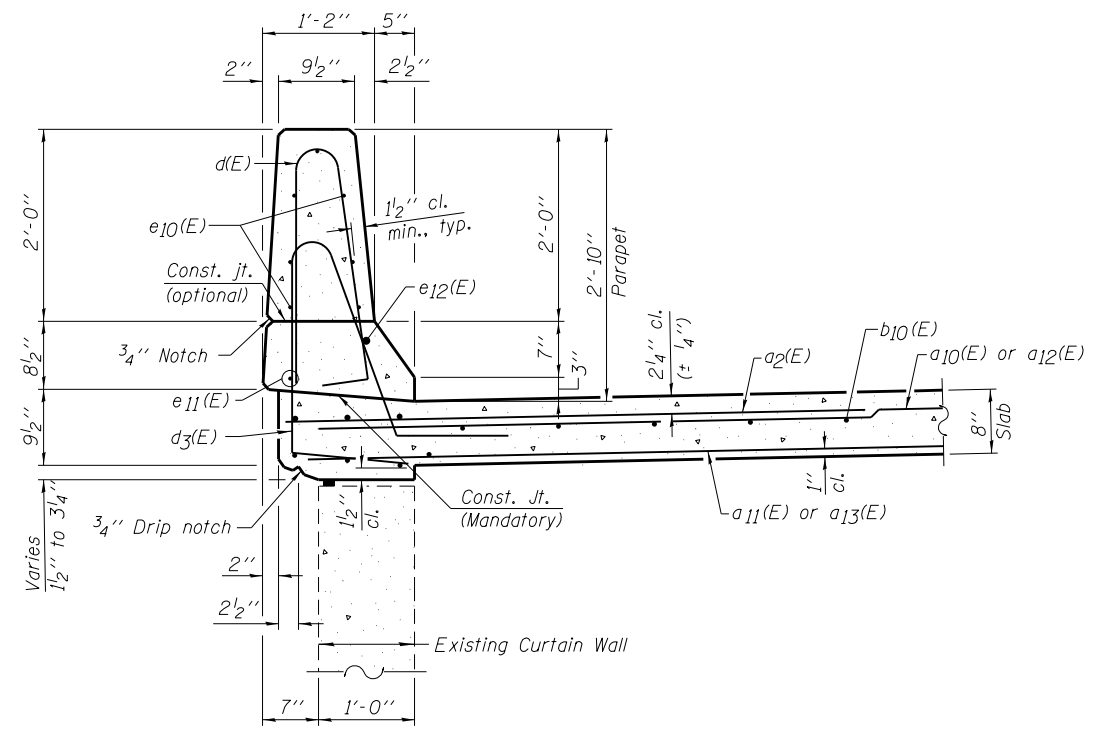
**HALF CROSS SECTION**

\* Cost included with Concrete Superstructure



**INSIDE ELEVATION OF PARAPET**

**MINIMUM BAR LAP**  
 #4 bar = 2'-0"  
 #8 bar = 5'-2"



**SECTION THRU PARAPET**

FILE NAME = L:\7265.02\CA01\Structural\CA01\Structural\160743-24-abut-vaulted\_details02.1 & 4.dgn



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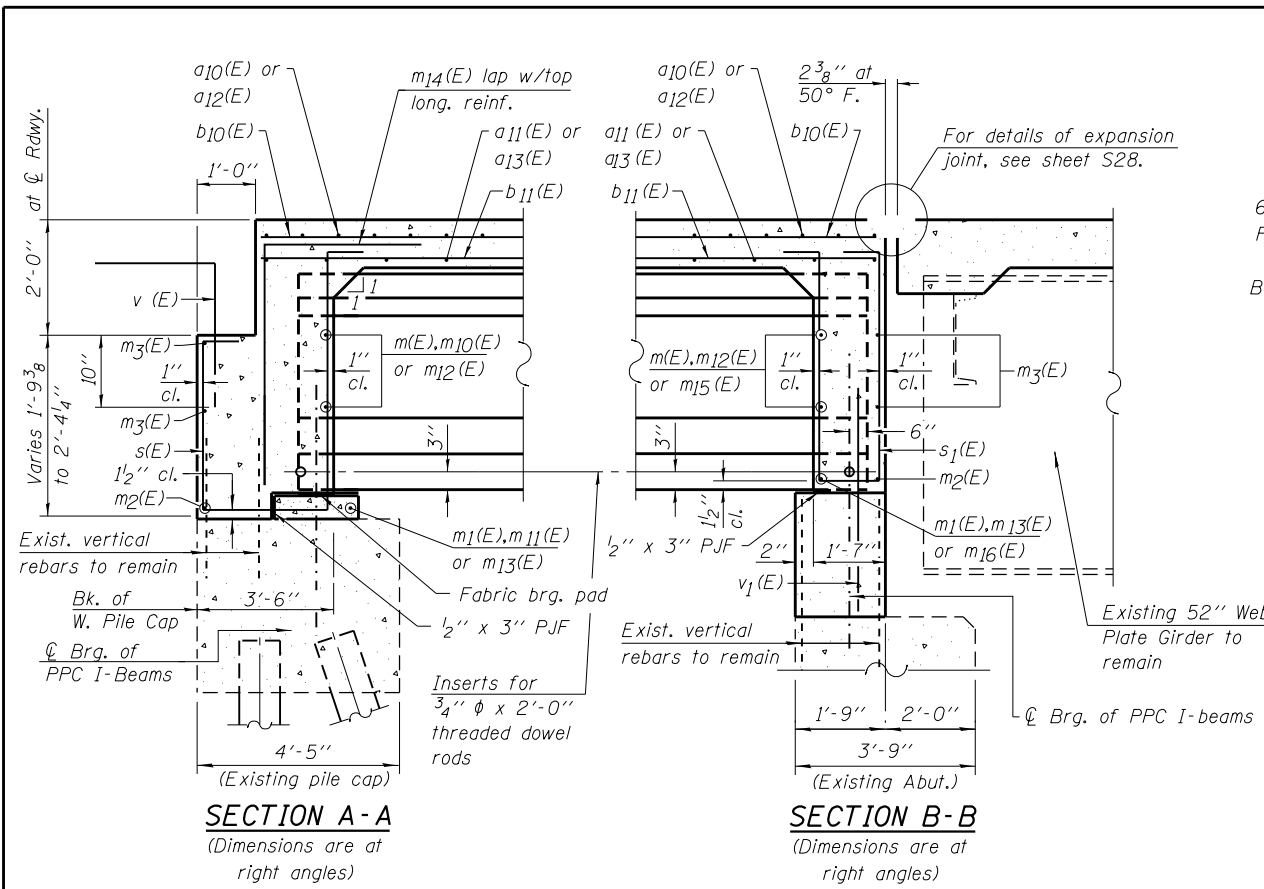
**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**VAULTED ABUTMENT APPROACH SPAN 1 & 4 DETAILS 1 OF 2**  
 167TH STREET OVER I-57  
 STRUCTURE NO. 016-2125  
 SHEET NO. S24 OF 43 SHEETS

F.A.I. RTE. 57	SECTION 1011.3-BR	COUNTY COOK	TOTAL SHEETS 145	SHEET NO. 93
CONTRACT NO. 60T43				

ILLINOIS FED. AID PROJECT

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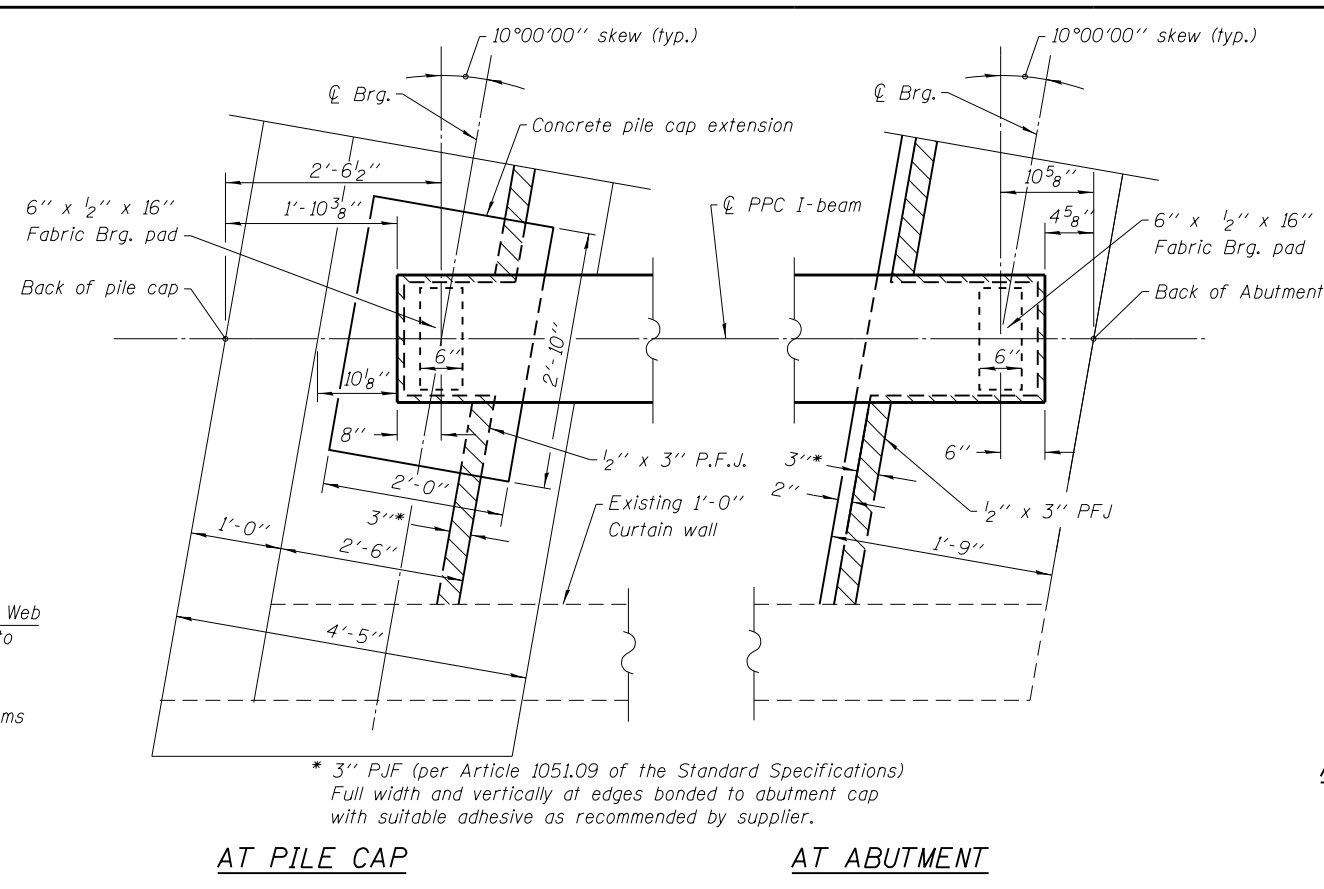


**SECTION A-A**  
(Dimensions are at right angles)

**SECTION B-B**  
(Dimensions are at right angles)

Existing reinforcement shall be cleaned and incorporated into the new construction.  
Cost included with Concrete Removal.

Denotes "Concrete Removal". Work this sheet with Sheets S35 & S36 together.

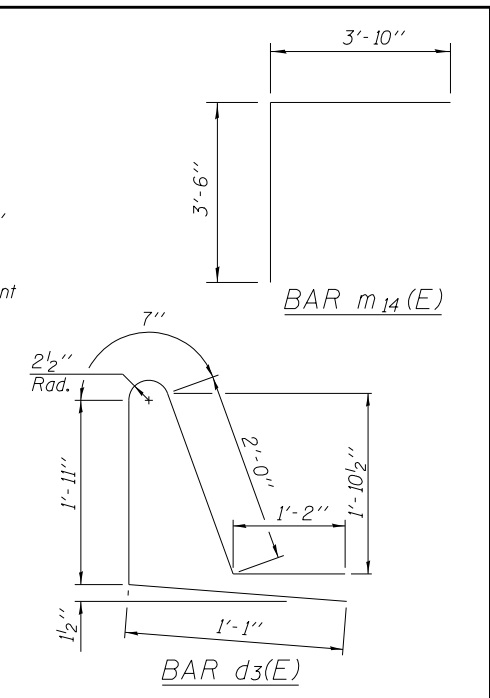


**AT PILE CAP**

**AT ABUTMENT**

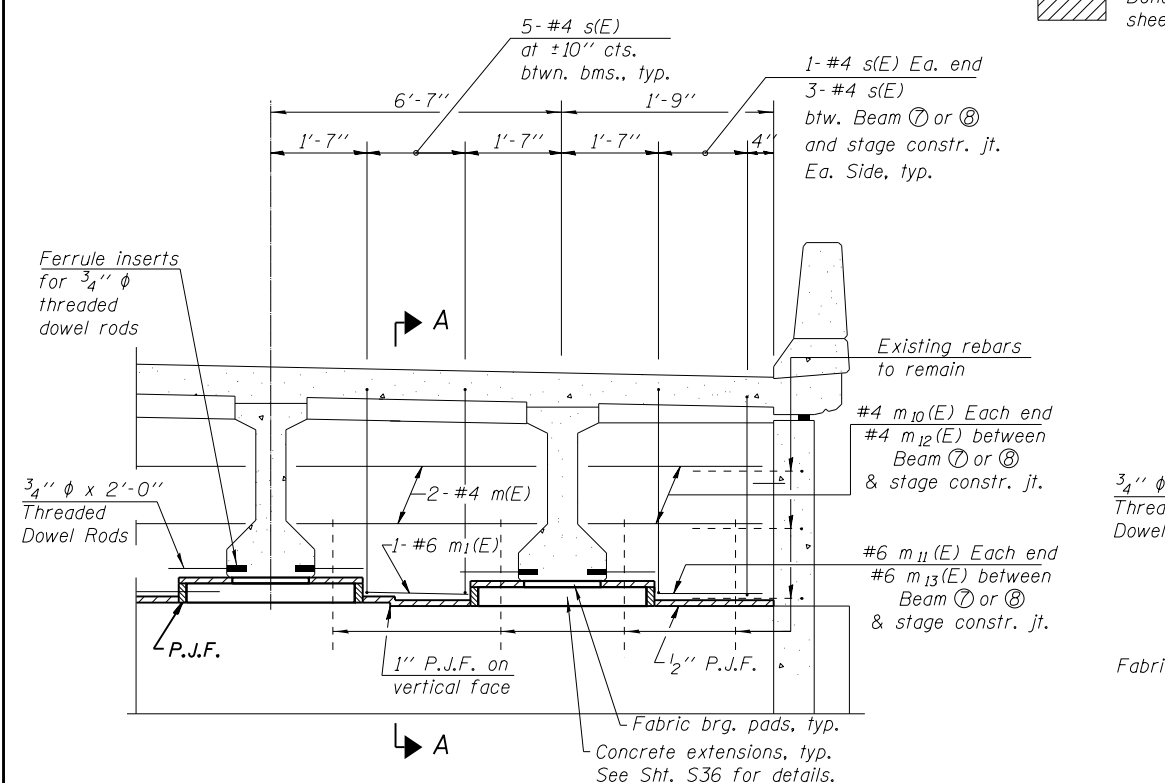
**PARTIAL PLAN**

\* 3" PJF (per Article 1051.09 of the Standard Specifications)  
Full width and vertically at edges bonded to abutment cap with suitable adhesive as recommended by supplier.



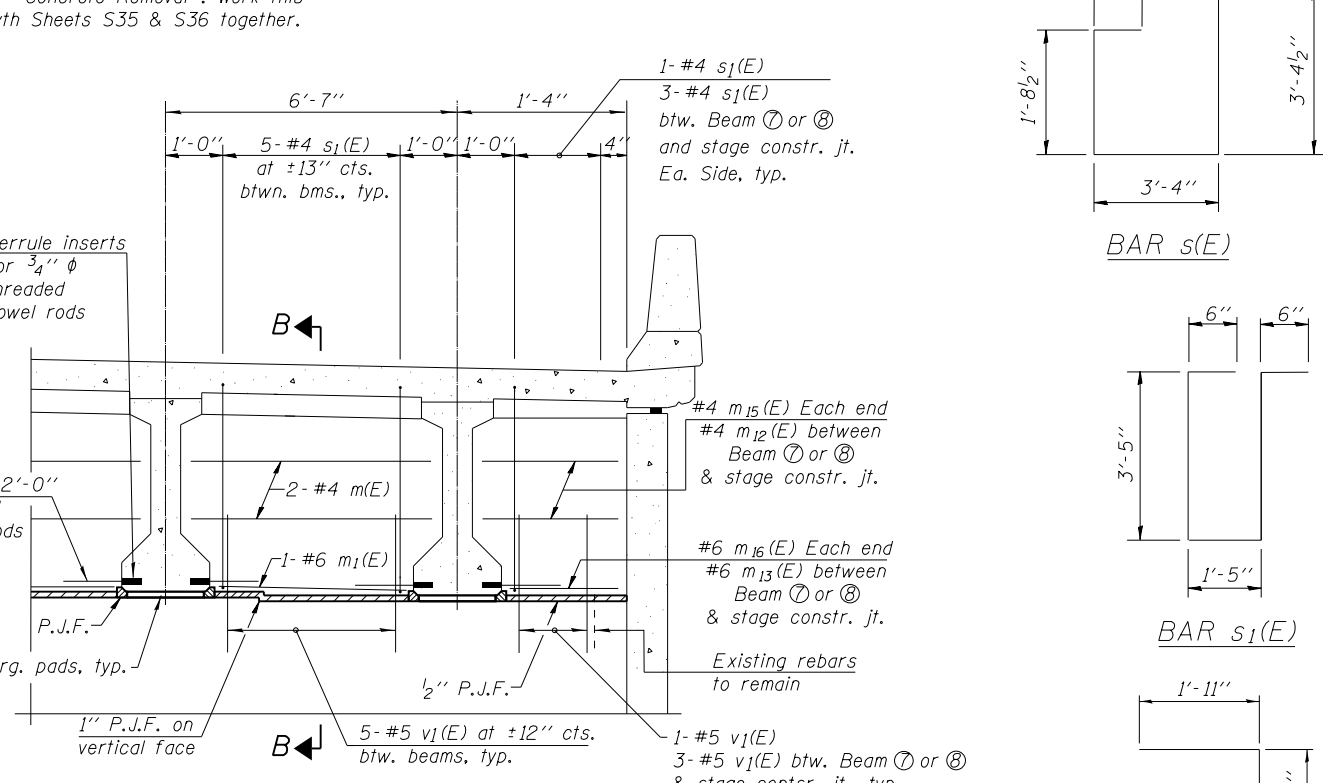
**VAULTED ABUTMENT**  
**APPROACH SPAN (SPAN 1 & 4)**  
**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a2(E)	144	#6	6'-6"	—
a10(E)	260	#5	27'-6"	—
a11(E)	220	#5	24'-3"	—
a12(E)	260	#5	20'-4"	—
a13(E)	220	#5	23'-8"	—
b10(E)	416	#5	24'-2"	—
b11(E)	328	#5	24'-2"	—
c1(E)	92	#5	2'-4"	—
c2(E)	184	#5	1'-4"	—
d(E)	204	#5	5'-7"	—
d3(E)	204	#5	6'-9"	—
e10(E)	84	#4	15'-0"	—
e11(E)	8	#4	24'-0"	—
e12(E)	8	#8	25'-6"	—
m(E)	96	#4	5'-10"	—
m1(E)	48	#6	4'-9"	—
m2(E)	8	#6	45'-10"	—
m3(E)	16	#4	45'-10"	—
m10(E)	8	#4	1'-2"	—
m11(E)	4	#6	0'-8"	—
m12(E)	16	#4	2'-0"	—
m13(E)	8	#6	1'-6"	—
m14(E)	180	#6	7'-4"	—
m15(E)	8	#4	0'-9"	—
m16(E)	4	#6	0'-6"	—
s(E)	140	#4	9'-5"	—
s1(E)	136	#4	9'-3"	—
v(E)	180	#5	3'-9"	—
v1(E)	136	#5	5'-10"	—
Reinforcement Bars, Epoxy Coated	Pound		55,790	
Concrete Superstructure	Cu. Yd.		371.5	
Bridge Deck Grooving	Sq. Yd.		840	
Protective Coat	Sq. Yd.		989	



**DIAPHRAGM AT PILE CAP**

For location of m(E) thru m3(E) and m10(E) thru m14(E) bars, see Section A-A this sheet.  
Cut m1(E), m11(E) and m13(E) bars in field to fit.



**DIAPHRAGM AT ABUTMENT**

For location of m(E) thru m3(E), m12(E), m13(E), m15(E) and m16(E) bars, see Section B-B this sheet.

Note:  
For c2(E) & d(E) bar dimensions, see Sht. S22.

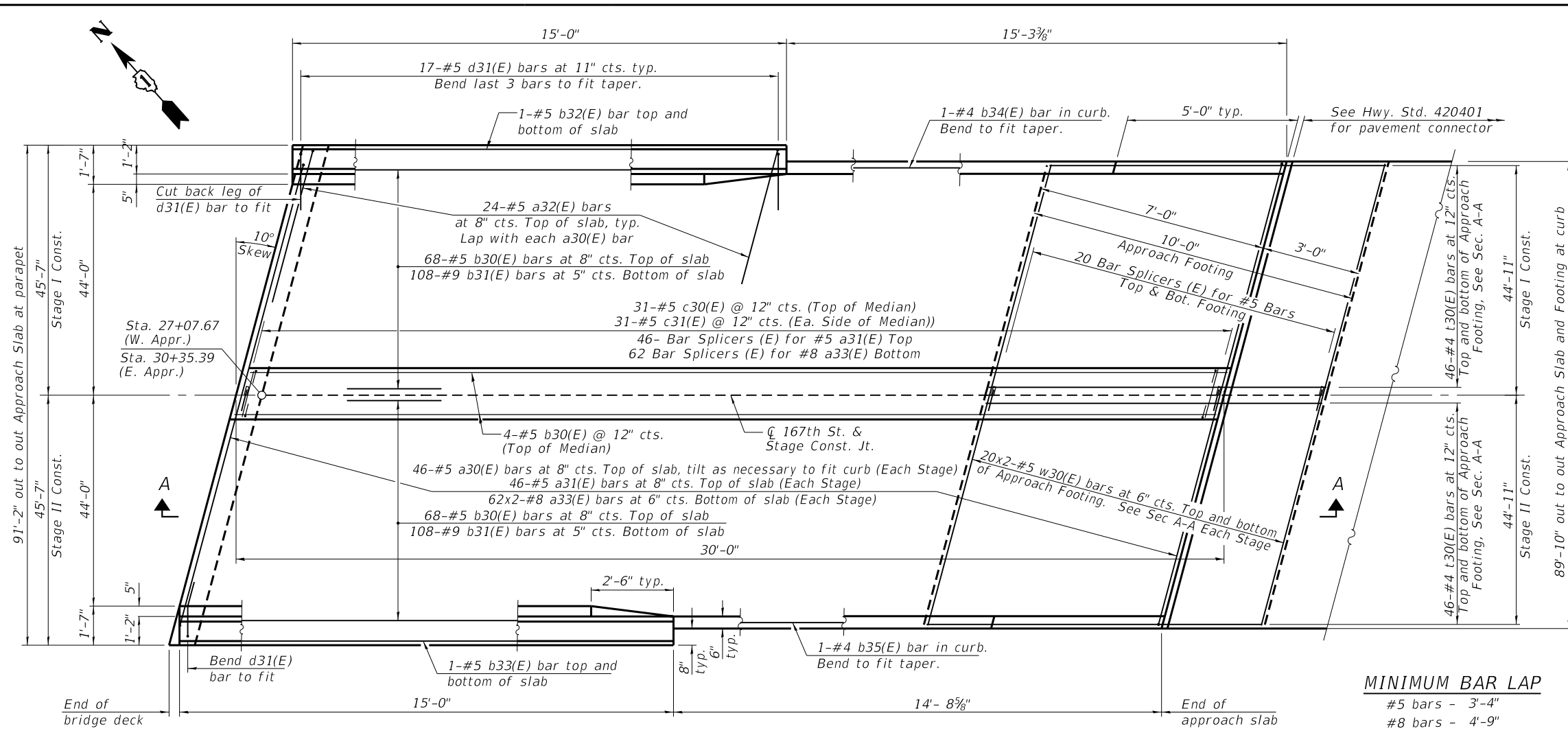
**KNIGHT**  
Engineers & Architects

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	DATE - JUNE 2018	REVISED -

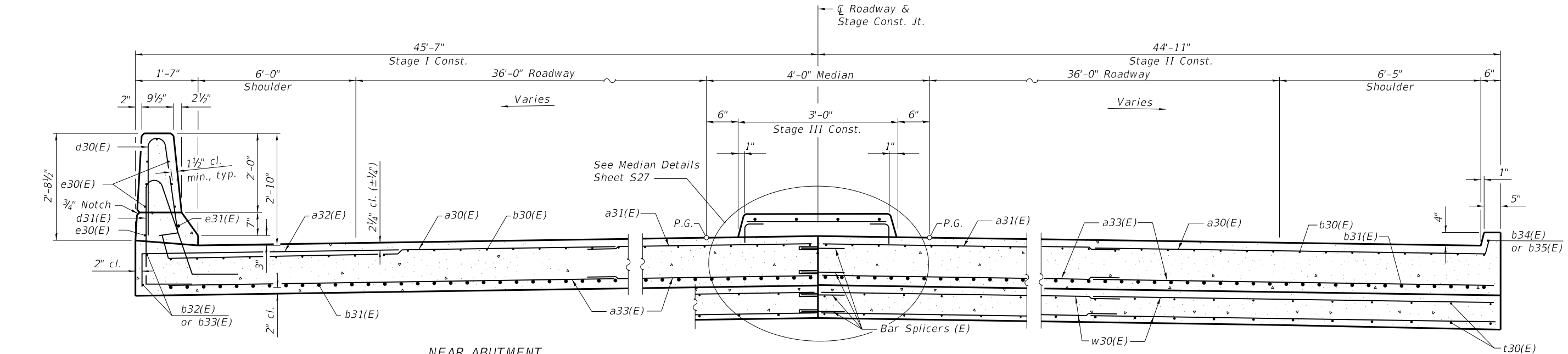
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**VAULTED ABUTMENT APPROACH SPAN 1 & 4 DETAILS 2 of 2**  
**167TH STREET OVER I-57**  
**STRUCTURE NO. 016-2125**  
SHEET NO. S25 OF 43 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1011.3-BR	COOK	145	94
				CONTRACT NO. 60T43
ILLINOIS FED. AID PROJECT				



PLAN



NEAR ABUTMENT

CROSS SECTION  
(Looking East)

AT APPROACH FOOTING

TOP AND BOTTOM ELEVATIONS  
FOR APPROACH FOOTING

WEST APPROACH FOOTING

Point	7' from End of Approach		3' from End of Approach	
	Top	Bottom	Top	Bottom
N Edge Curb	694.65	693.81	694.51	693.67
N Edge Pvt	694.76	693.92	694.62	693.78
N Outside Lane Line	694.98	694.14	694.83	693.99
N Inside Lane Line	694.90	694.06	694.72	693.88
WB PGL	694.75	693.92	694.56	693.73
CL	694.77	693.94	694.58	693.75
EB PGL	694.73	693.90	694.54	693.71
S Inside Lane Line	694.51	693.68	694.32	693.49
S Outside Lane Line	694.22	693.39	694.02	693.19
S Edge Pvt	693.93	693.10	693.73	692.90
S Edge Curb	693.78	692.95	693.59	692.76

EAST APPROACH FOOTING

Point	7' from End of Approach		3' from End of Approach	
	Top	Bottom	Top	Bottom
N Edge Curb	693.78	692.94	693.57	692.73
N Edge Pvt	693.93	693.09	693.72	692.88
N Outside Lane Line	694.22	693.39	694.02	693.19
N Inside Lane Line	694.51	693.68	694.31	693.48
WB PGL	694.73	693.90	694.54	693.71
CL	694.77	693.94	694.58	693.75
EB PGL	694.75	693.92	694.56	693.73
S Inside Lane Line	694.90	694.07	694.78	693.95
S Outside Lane Line	694.89	694.05	694.78	693.94
S Edge Pvt	694.68	693.85	694.59	693.76
S Edge Curb	694.58	693.74	694.50	693.66

Note: For locations of points, see sheets S18 and S19.

MINIMUM BAR LAP  
#5 bars - 3'-4"  
#8 bars - 4'-9"

FILE NAME = P:\2015\0548\_Verious Phase II - CR PTB 161-03\0548-04\_Task Order 2C\_Update Approach Slab\Coord\Approach Slab.dgn

BAIA-CIP-34FS-L(≤30°) 8-11-2017



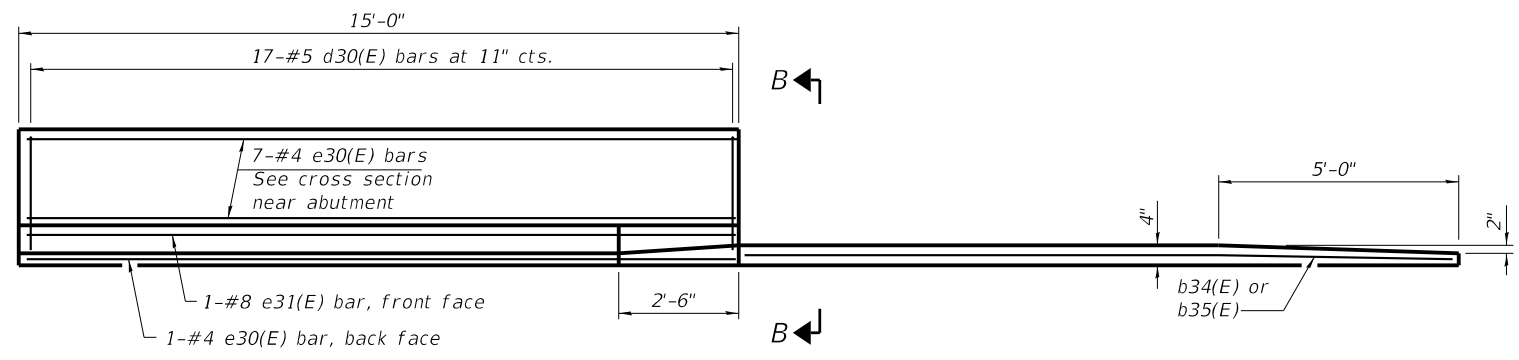
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

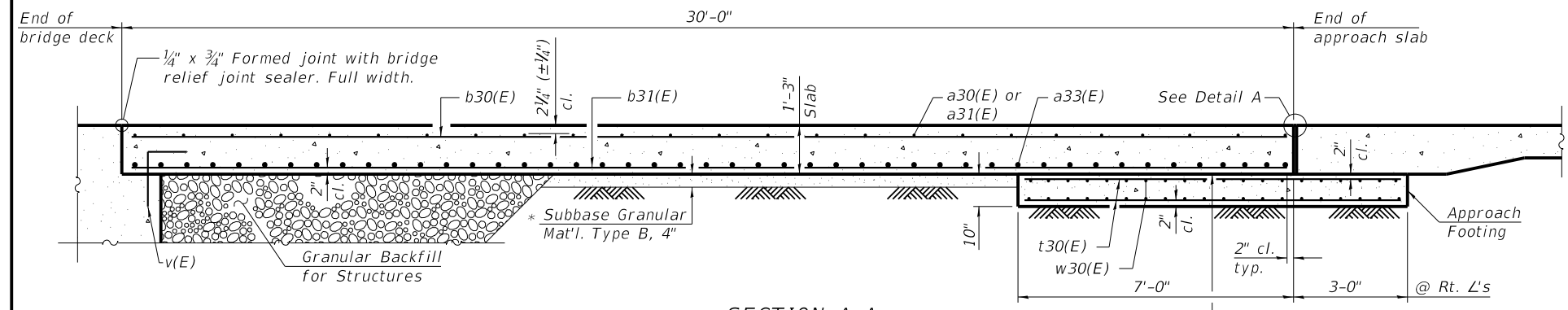
(Sheet 1 of 2)  
BRIDGE APPROACH SLAB DETAILS-I  
167TH STREET OVER I-57  
STRUCTURE NO. 016-2125  
SHEET NO. S26 OF S43 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 60T43				
ILLINOIS FED. AID PROJECT				

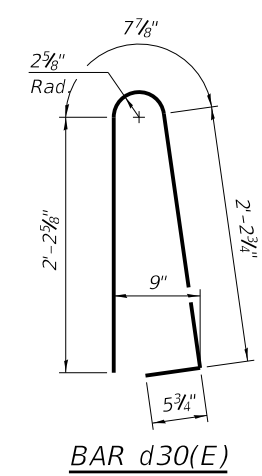
Notes:  
 The joint opening shall be adjusted for temperature per Article 520.04 of the Standard Specifications. However, since this detail is for jointless structures, the length of bridge used to calculate the adjustment shall be equal to half the total bridge length plus the length of the bridge approach slab.  
 Parapet concrete shall be paid for as Concrete Superstructure.  
 Approach slab shall be paid for as Concrete Superstructure (Approach Slab).  
 Approach footing concrete shall be paid for as Concrete Structures.  
 The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.  
 Cost of excavation for approach footing included with Concrete Structures.  
 For Granular Backfill for Structures and drainage treatment details, see sheet S2 of S48.



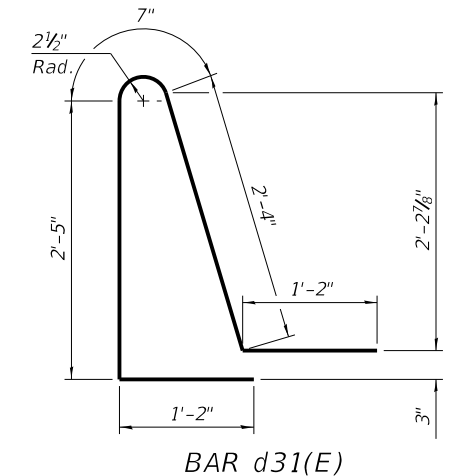
INSIDE ELEVATION OF PARAPET AND CURB



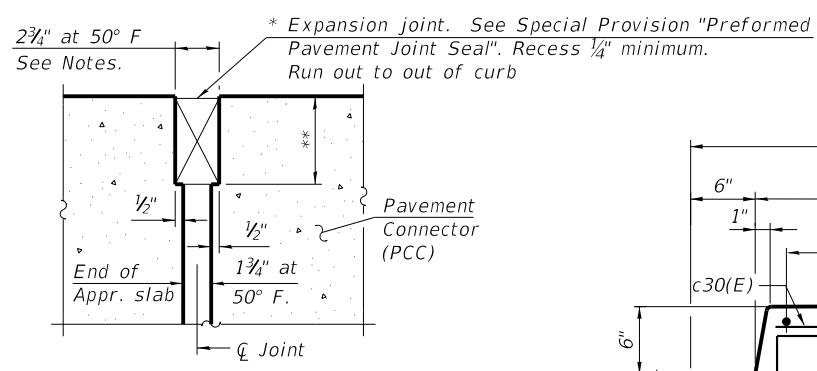
SECTION A-A



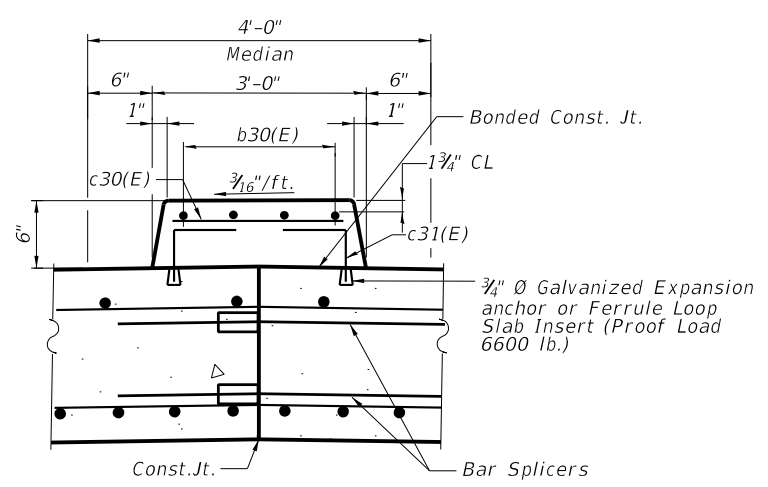
BAR d30(E)



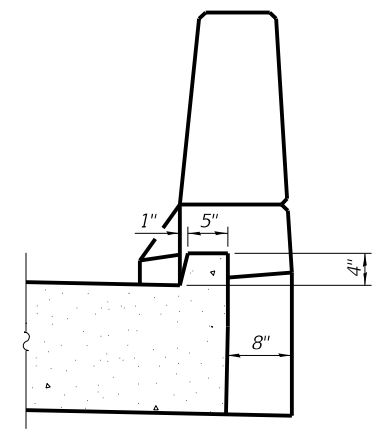
BAR d31(E)



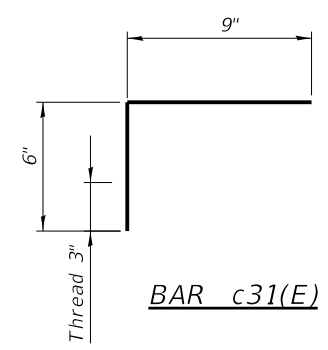
DETAIL A  
 (@ Rt. L's)



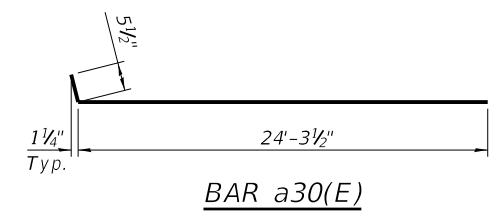
MEDIAN DETAIL



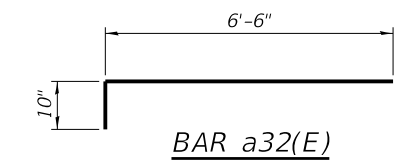
VIEW B-B



BAR c31(E)



BAR a30(E)



BAR a32(E)

TWO APPROACHES  
 BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a30(E)	184	#5	24'-9"	┌
a31(E)	184	#5	24'-4"	┌
a32(E)	96	#5	7'-4"	┌
a33(E)	496	#8	25'-5"	┌
b30(E)	280	#5	29'-8"	┌
b31(E)	432	#9	29'-8"	┌
b32(E)	4	#5	14'-4"	┌
b33(E)	4	#5	14'-11"	┌
b34(E)	2	#4	14'-11"	┌
b35(E)	2	#4	14'-4"	┌
c30(E)	62	#5	2'-6"	┌
c31(E)	124	#5	1'-3"	┌
d30(E)	68	#5	5'-7"	┌
d31(E)	68	#5	7'-8"	┌
e30(E)	32	#4	14'-8"	┌
e31(E)	4	#8	14'-8"	┌
t30(E)	368	#4	9'-10"	┌
w30(E)	320	#5	24'-4"	┌
Bridge Deck Grooving		Sq. Yd.	548	
Protective Coat		Sq. Yd.	628	
Concrete Superstructure		Cu. Yd.	11.1	
Concrete Superstructure (Approach Slab)		Cu. Yd.	271.5	
Concrete Structures		Cu. Yd.	56.3	
Reinforcement Bars, Epoxy Coated		Pound	108,500	

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

BAIA-CIP-34FS-L(≤30°) 8-11-2017



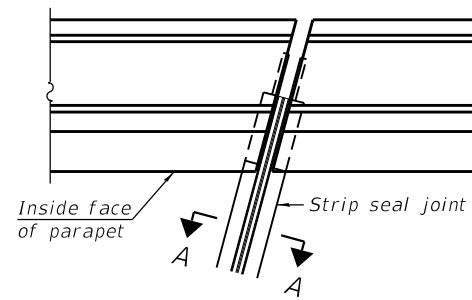
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	DATE - APRIL, 2018	REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

(Sheet 2 of 2)  
 APPROACH SLAB DETAILS-II  
 167H STREET OVER I-57  
 STRUCTURE NO. 016-2125  
 SHEET NO. S27 OF S43 SHEETS

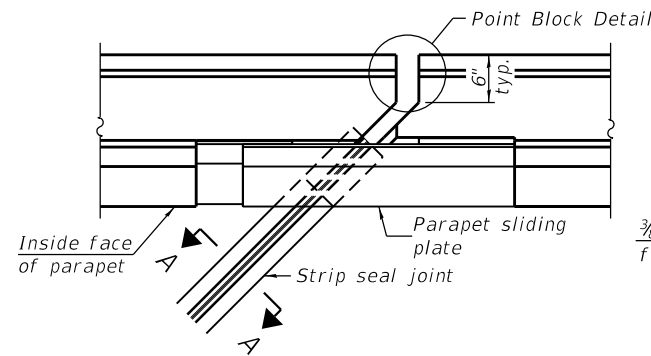
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1011.3-BR	COOK	145	96
CONTRACT NO. 60T43			ILLINOIS FED. AID PROJECT	



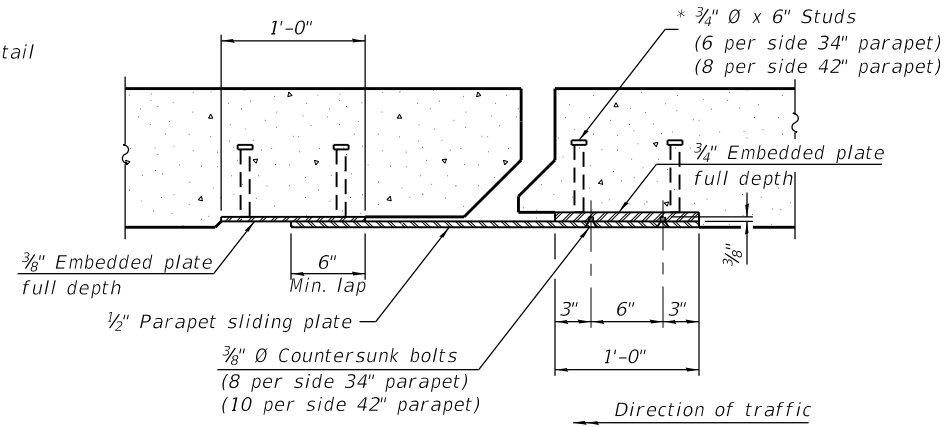


FOR SKEWS  $\leq 30^\circ$

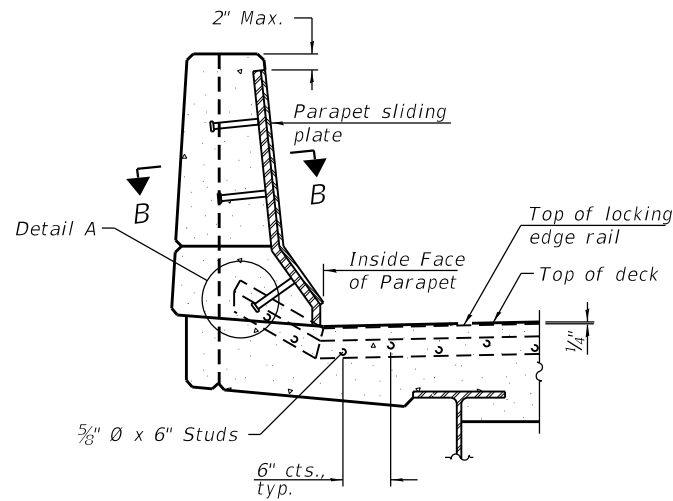
PLAN AT PARAPET



FOR SKEWS  $> 30^\circ$

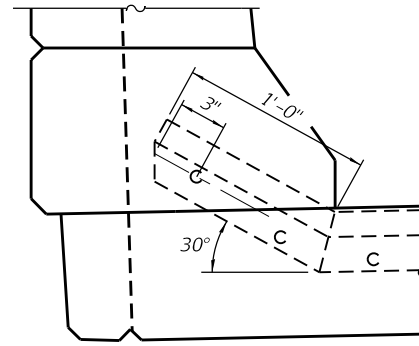


SECTION B-B

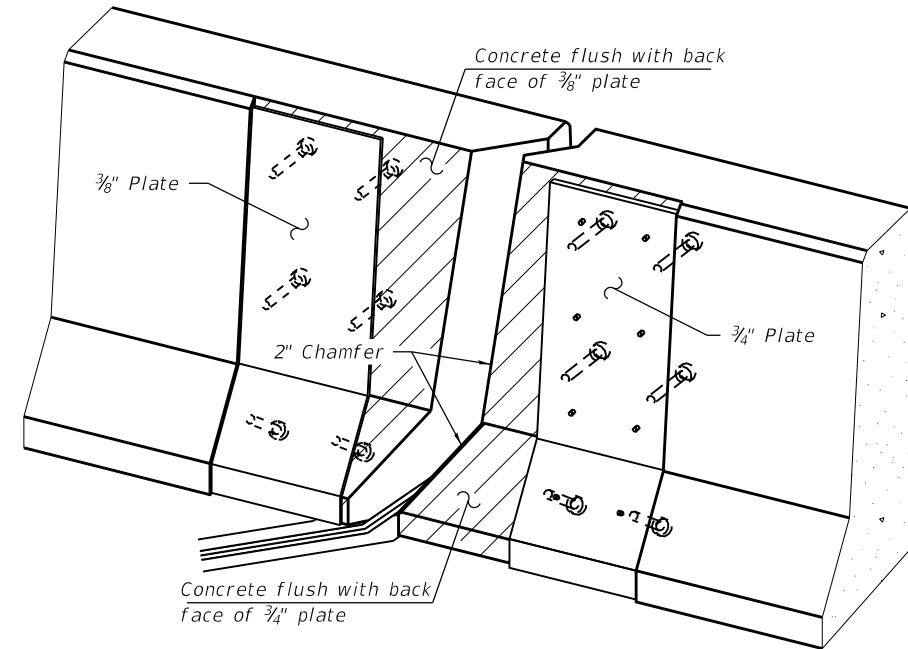


ELEVATION AT PARAPET

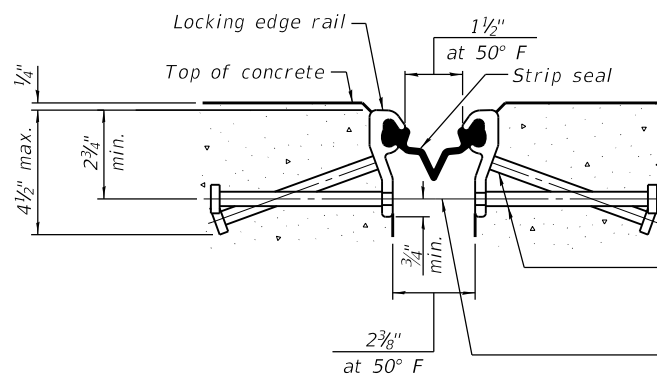
(Skews  $> 30^\circ$  shown. Skews  $\leq 30^\circ$  similar except as shown in plan view.)



DETAIL A



TRIMETRIC VIEW  
(Showing embedded plates only)



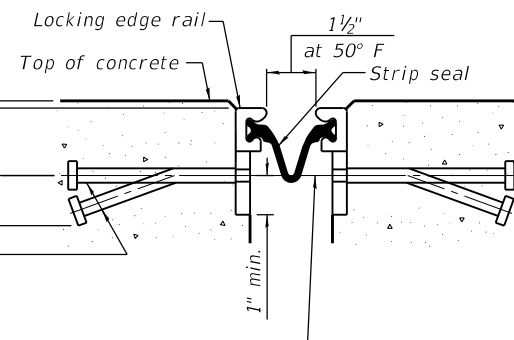
SHOWING ROLLED RAIL JOINT

\*  $5/8$ "  $\varnothing$  x 6" studs @ 6" cts. (alternate angled/bent studs with horizontal studs)

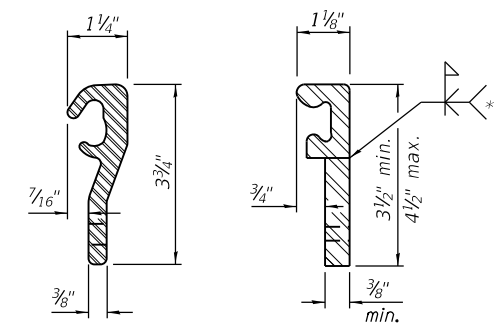
$3/8$ "  $\varnothing$  threaded rods in  $7/16$ "  $\varnothing$  holes at  $\pm 4$ "-0" cts. for holding the proper joint opening based on the temperature during the deck pour. Place to miss studs. All rods shall be burned, or sawed off flush with the plates after concrete is set.

SECTION A-A

\* Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.

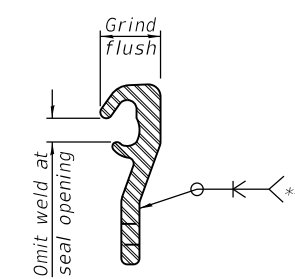


SHOWING WELDED RAIL JOINT



LOCKING EDGE RAILS

\*\* Back gouge not required if complete joint penetration is verified by mock-up.



LOCKING EDGE RAIL SPLICE

The inside of the locking edge rail groove shall be free of weld residue. Rolled rail shown, welded rail similar.

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	183

EJ-SS

8-11-17

**KNIGHT**  
Engineers & Architects

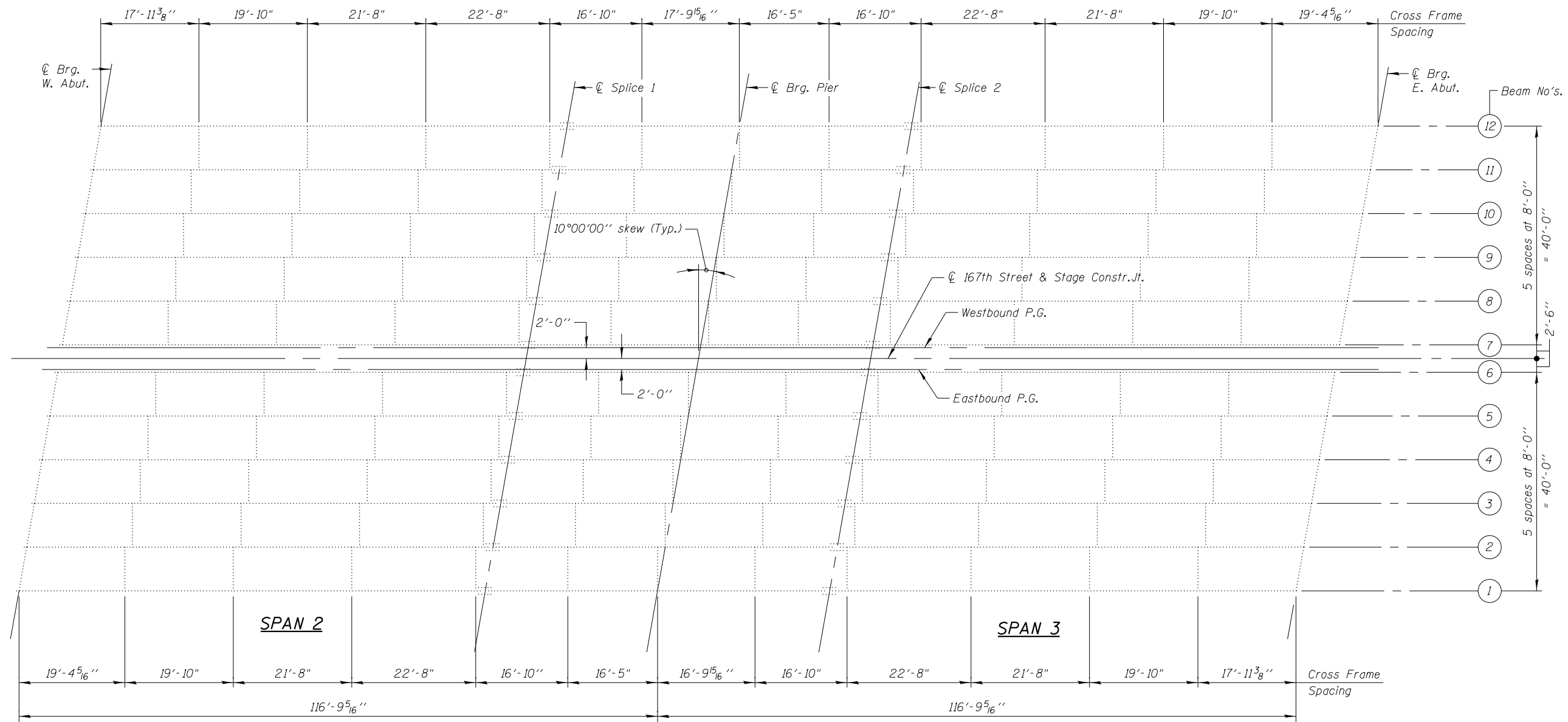
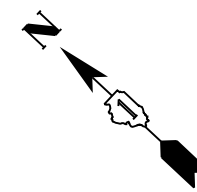
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PLOT DATE = 6/19/2018	DRAWN - B.K.	REVISED -
	DATE - JUNE 2018	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

PREFORMED JOINT STRIP SEAL  
167TH STREET OVER I-57  
STRUCTURE NO. 016-2125  
SHEET NO. S28 OF 43 SHEETS

F.A.I. RTE. 57	SECTION 1011.3-BR	COUNTY COOK	TOTAL SHEETS 145	SHEET NO. 97
CONTRACT NO. 60T43				
ILLINOIS FED. AID PROJECT				

FILE NAME = L:\7265.02\CA00\Structural\CA00 Sheets\160743-28-pre\_jt\_seal.dgn



**EXISTING FRAMING PLAN**

FILE NAME = L:\7265.02\CAD\Structural\CADD Sheets\160743-29-Framing plan\_span 2\_3.dgn

<b>KNIGHT</b> Engineers & Architects	USER NAME = 100T	DESIGNED - J.W. / B.N.S.	REVISED -
	PLOT SCALE = 99.9999' / in.	CHECKED - B.N.S. / J.W.	REVISED -
	PLOT DATE = 6/19/2018	DRAWN - B.K.	REVISED -
		DATE - JUNE 2018	REVISED -

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

**STRUCTURAL STEEL FRAMING PLAN-SPANS 2 & 3**  
**167TH STREET OVER I-57**  
**STRUCTURE NO. 016-2125**  
 SHEET NO. S29 OF 43 SHEETS

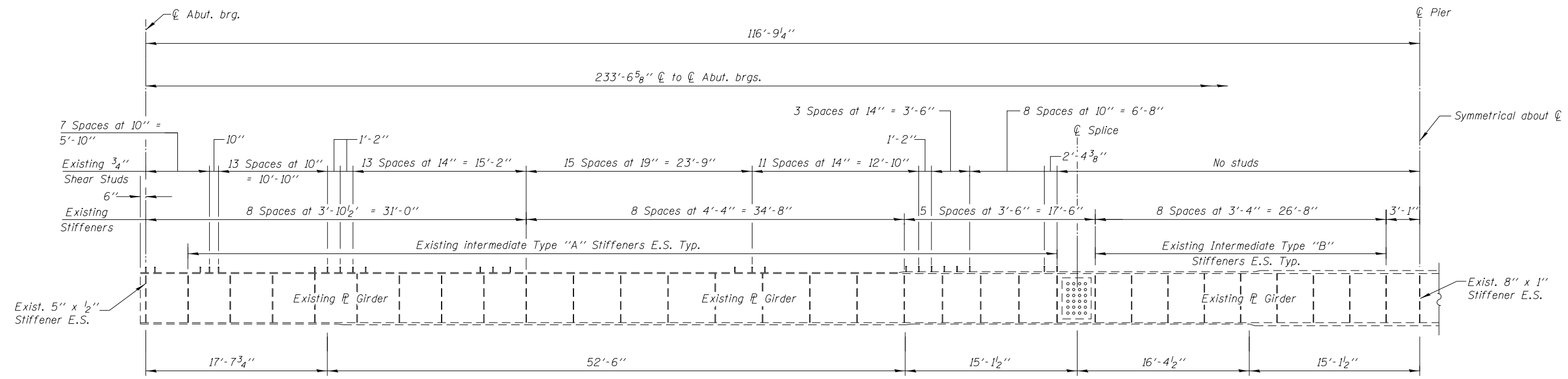
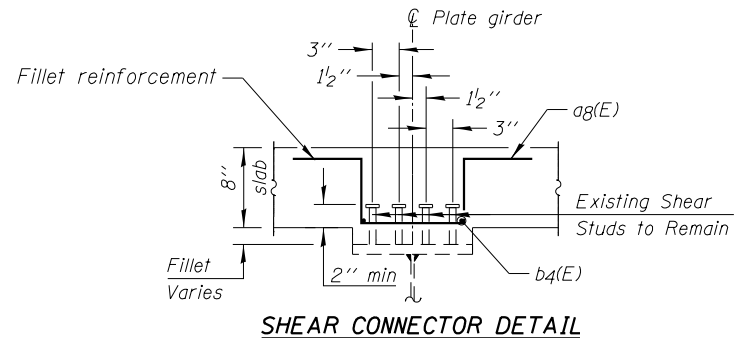
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57	1011.3-BR	COOK	145	98
CONTRACT NO. 60T43				
ILLINOIS FED. AID PROJECT				

$I_s, S_s$ : Non-composite moment of inertia and section modulus of the steel section used for computing  $f_s$ (Total and Overload) 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 and Overload) 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 and Overload) due to long-term composite (superimposed) dead loads ( $in^4$  and  $in^3$ ).  
 $Q$ : Un-factored non-composite dead load (kips/ft.).  
 $M_Q$ : Un-factored moment due to non-composite dead load (kip-ft.).  
 $s_Q$ : Un-factored long-term composite (superimposed) dead load (kips/ft.)  
 $M_sQ$ : Un-factored moment due to long-term composite (superimposed) dead load (kip-ft.).  
 $M_L$ : Un-factored live load moment (kip-ft.).  
 $M_I$ : Un-factored moment due to impact (kip-ft.).  
 $M_o$ : Factored design moment (kip-ft.).  
 $M_u$ : Compact composite moment capacity according to AASHTO LFD 10.50 or compact non-composite moment capacity according to AASHTO LFD 10.48.1 (kip-ft.).  
 $f_s$  (Overload): Sum of stresses as computed from the moments below on non-compact section (ksi).  
 $f_s$  (Total): Sum of stresses as computed from the moments below on non-compact section (ksi).  
 $V_r$ : Maximum  $L_t$  + impact shear range within the composite portion of the span for stud shear connector design (kips).

INTERIOR GIRDER MOMENT TABLE			
		0.4 Sp. 2 or 0.6 Sp. 3	Pier
$I_s$	( $in^4$ )	25,474	64,025
$I_c(n)$	( $in^4$ )	78,972	-
$I_c(3n)$	( $in^4$ )	55,434	-
$S_s$	( $in^3$ )	1,328	2,266
$S_c(n)$	( $in^3$ )	1,813	-
$S_c(3n)$	( $in^3$ )	1,686	-
$Q$	( $k/ft$ )	1.017	1.664
$M_Q$	( $k$ )	814	2,889
$s_Q$	( $k/ft$ )	0.467	-
$M_sQ$	( $k$ )	413	-
$M_L$	( $k$ )	1,327	1,456
$M_I$	( $k$ )	274	301
$^{5/3}[M_L + I]$	( $k$ )	2,674	2,935
$M_o$	( $k$ )	5,073	7,570
* $M_u$	( $k$ )	6,246	-
$f_s Q$ non-comp	(ksi)	7.36	15.30
$f_s Q$ (comp)	(ksi)	2.94	-
$f_s ^{5/3}[M_L + M_I]$	(ksi)	17.70	15.54
$f_s$ (Overload)	(ksi)	28.01	30.83
** $f_s$ (Total)	(ksi)	-	40.08
$V_r$	( $k$ )	62.56	65.39

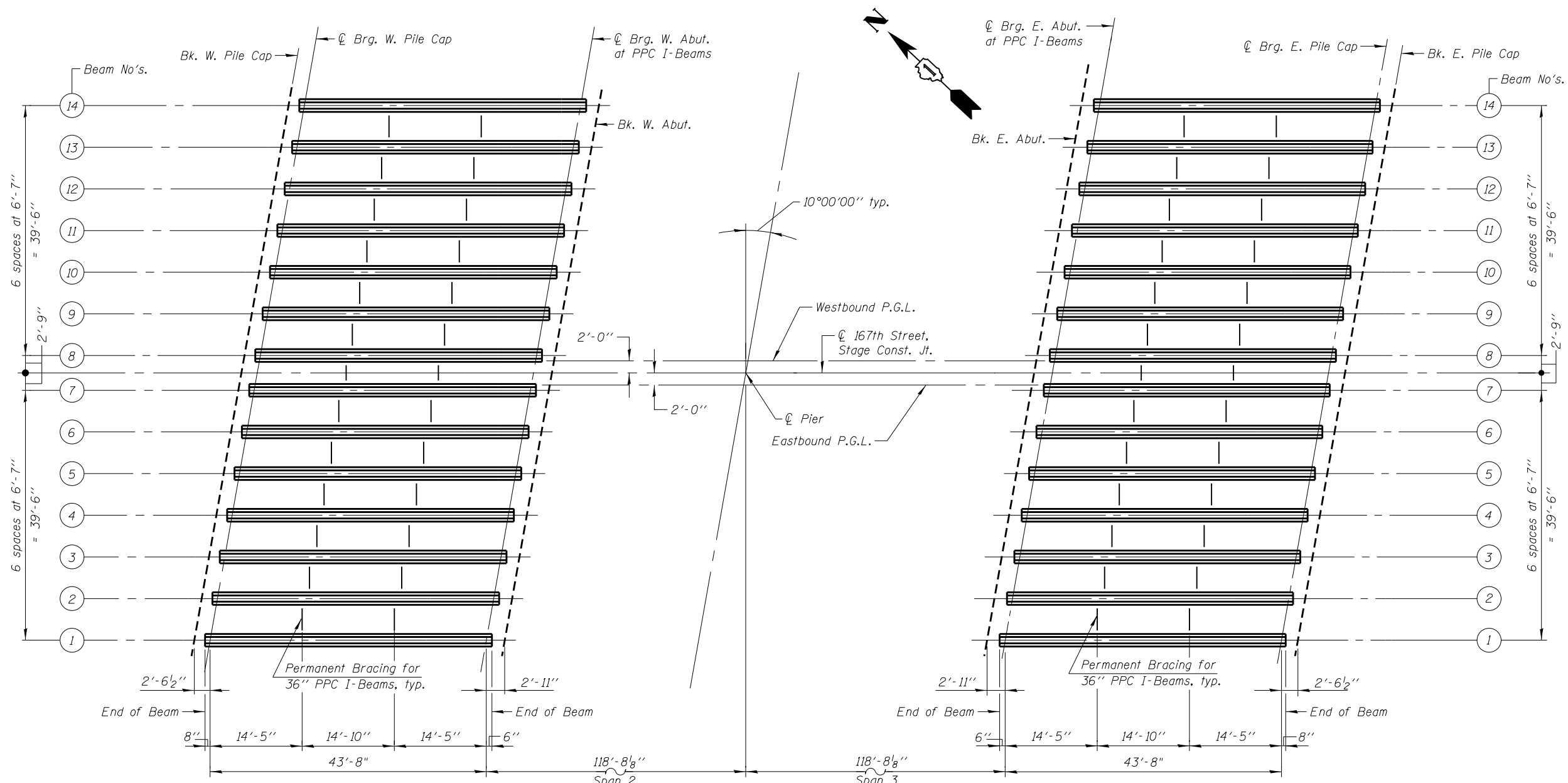
INTERIOR GIRDER REACTION TABLE			
	Abutment	Pier	
$R_Q$	( $k$ )	62.10	223.10
$R_L$	( $k$ )	47.30	85.10
$R_I$	( $k$ )	9.78	17.60
$R_{Total}$	( $k$ )	119.18	325.80

\*Compact section  
 \*\*Braced non-compact and partially braced section



**Notes:**  
 Contractor to field verify all dimensions.  
 For existing stiffener details see existing bridge plans.

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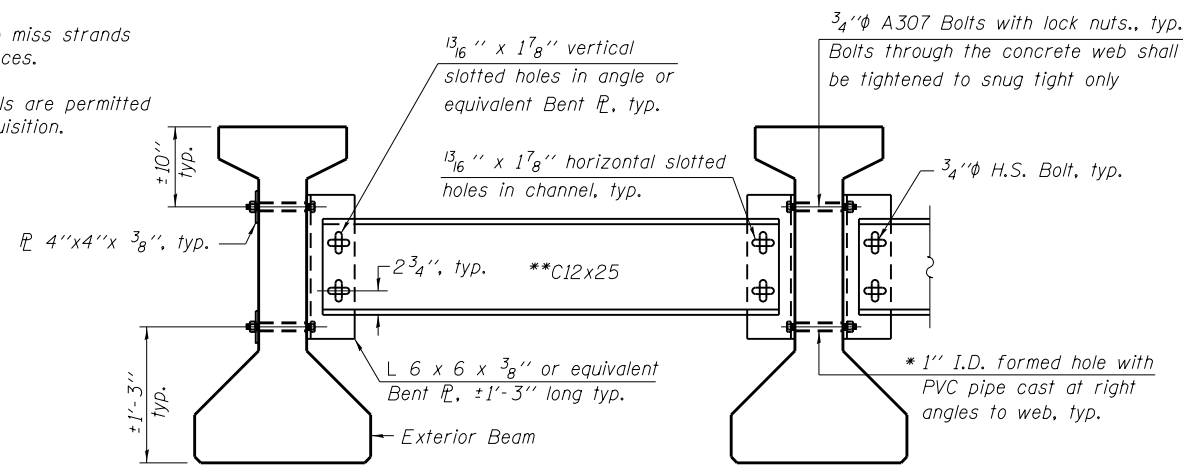


**FRAMING PLAN  
SPAN 1**

**FRAMING PLAN  
SPAN 4**

- \*Fabricator shall locate to miss strands within permissible tolerances.
- \*\* Alternate C12x30 channels are permitted to facilitate material acquisition.

**Notes:**  
 All material for bracing shall be hot dip galvanized according to AASHTO M111 unless otherwise noted.  
 Two hardened washers are required for each set of oversized holes.  
 All holes shall be 15/16" φ unless otherwise noted.  
 5/16" x 3" x 3" plate washers are required over all slotted holes.  
 All bolts shall be galvanized according to AASHTO M232.  
 Bracing shall be installed as beams are erected and tightened as soon as possible during erection.  
 Permanent bracing shall not be paid for separately, but shall be included in the cost of Furnishing and Erecting Precast Prestressed Concrete I-Beams.



**PERMANENT BRACING DETAILS  
FOR 36" PPC I-BEAMS**

- $I$ : Non-composite moment of inertia of beam section (in.<sup>4</sup>).
- $I'$ : Composite moment of inertia of beam section (in.<sup>4</sup>).
- $S_b$ : Non-composite section modulus for the bottom fiber of the prestressed beam (in.<sup>3</sup>).
- $S_b'$ : Composite section modulus for the bottom fiber of the prestressed beam (in.<sup>3</sup>).
- $S_t$ : Non-composite section modulus for the top fiber of the prestressed beam (in.<sup>3</sup>).
- $S_t'$ : Composite section modulus for the top fiber of the prestressed beam (in.<sup>3</sup>).
- $Q$ : Un-factored non-composite dead load (kips/ft.).
- $M_Q$ : Un-factored moment due to non-composite dead load conservatively taken at 0.5 of the span (kip-ft.).
- $s_Q$ : Un-factored long-term composite (superimposed) dead load (kips/ft.).
- $M_s Q$ : Un-factored moment due to long-term composite (superimposed) dead load (kip-ft.).
- $M_L$ : Un-factored live load moment on the composite section (kip-ft.).
- $M_I$ : Un-factored moment due to impact on the composite section (kip-ft.).

**INTERIOR BEAM MOMENT TABLE**

		0.5 Span
$I$	(in. <sup>4</sup> )	48,648
$I'$	(in. <sup>4</sup> )	191,465
$S_b$	(in. <sup>3</sup> )	3,165
$S_b'$	(in. <sup>3</sup> )	6,243
$S_t$	(in. <sup>3</sup> )	2,358
$S_t'$	(in. <sup>3</sup> )	35,922
$Q$	(k/ft.)	1.042
$M_Q$	(k-ft.)	249
$s_Q$	(k/ft.)	0.400
$M_s Q$	(k-ft.)	96
$M_L$	(k-ft.)	303
$M_I$	(k-ft.)	91

**INTERIOR BEAM REACTION TABLE**

		Abutment
$R_Q$	(k)	22.8
$R_s Q$	(k)	8.7
$R_L$	(k)	34.0
$R_I$	(k)	11.1
$R_{Total}$	(k)	76.6

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**KNIGHT**  
Engineers & Architects

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PLOT DATE = 6/19/2018	DRAWN - B.K.	REVISED -
	DATE - JUNE 2018	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**P.P.C. I-BEAM FRAMING PLAN-SPAN 1 & 4**  
**167TH STREET OVER I-57**  
**STRUCTURE NO. 016-2125**  
 SHEET NO. S31 OF 43 SHEETS

F.A.I. RTE. 57	SECTION 1011.3-BR	COUNTY COOK	TOTAL SHEETS 145	SHEET NO. 100
CONTRACT NO. 60T43				ILLINOIS FED. AID PROJECT