

06-12-2020 LETTING ITEM 001

FOR INDEX OF SHEETS, SEE SHEET NO. 2

IMPROVEMENT LOCATED WITHIN VILLAGES OF INDIAN HEAD PARK, AND BURR RIDGE, LYONS TOWNSHIP, COOK COUNTY

TRAFFIC DATA

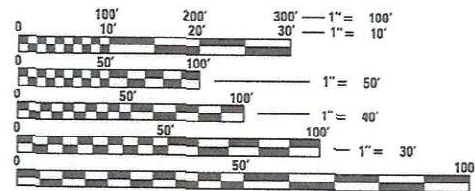
JOLIET ROAD  
2014 ADT=11,750  
2032 ADT=12,875

POSTED SPEED LIMIT=40 MPH  
DESIGN SPEED LIMIT=45 MPH  
FUNCTIONAL CLASSIFICATION - MINOR ARTERIAL

PV: 92%  
SU: 3%  
MU: 5%

JOLIET RD EB TO I-294 (TOLLWAY) NB (RAMP D)  
2016 ADT = 2,700  
POSTED SPEED LIMIT = 35 MPH

I-55 NB TO JOLIET RD EB RAMP  
2017 ADT = 8,000  
POSTED SPEED LIMIT = 55 MPH



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

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

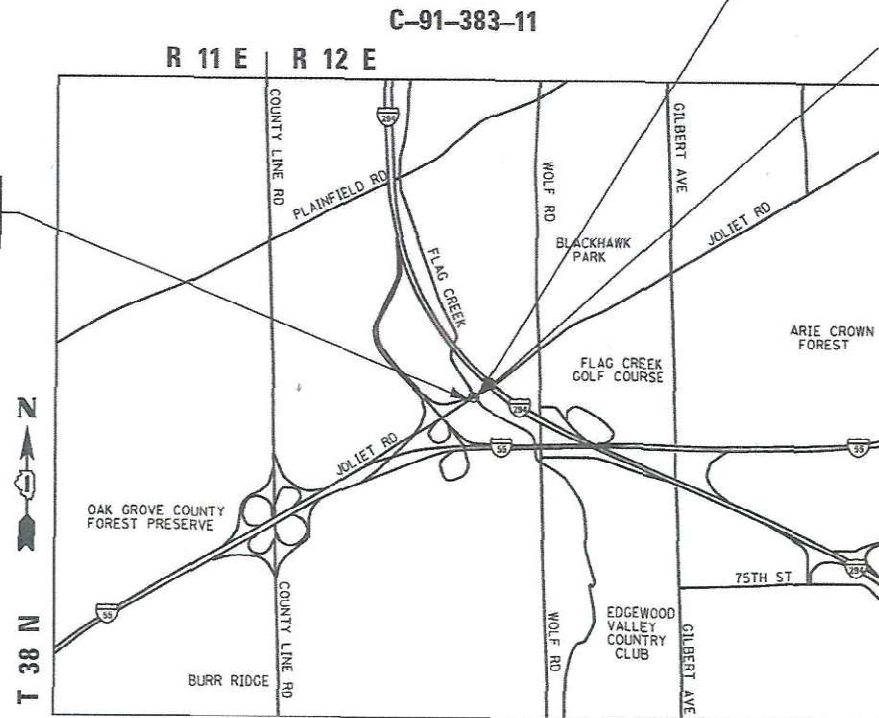
PROJECT ENGINEER PRAVEEN KAINI, PE (847) 705-4237  
PROJECT MANAGER: FAWAD AQUEEL, PE, PTOE (847) 705-4247

CONTRACT NO. 60N80

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
**PROPOSED  
HIGHWAY PLANS**  
F.A.U. ROUTE 3562: JOLIET ROAD  
OVER FLAG CREEK  
SECTION: T-5-4B-R  
PROJECT NO.: STP-URB IRPX(529)  
BRIDGE SUPERSTRUCTURE  
COOK COUNTY

PROJECT ENDS  
STA. 110 + 25

S.N. 016-0393  
STA. 107 + 49.98



LOCATION MAP  
NOT TO SCALE

LYONS TOWNSHIP

GROSS LENGTH OF PROJECT = 600 FT. = 0.11 MILE  
NET LENGTH OF PROJECT = 600 FT. = 0.11 MILE

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3562	T-5-4B-R	COOK	92	1
FED. ROAD DIST. NO. 1		ILLINOIS	CONTRACT NO. 60N80	

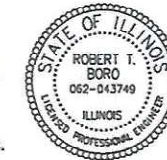
D-91-383-11



LOCATION OF SECTION INDICATED THUS: -

HBM ENGINEERING GROUP, LLC.  
ROBERT T. BORO, P.E.  
IL. LIC. NO. 062-043749  
EXPIRES 11/30/2021

SIGNED: *Robert T. Boro*  
DATE: 3/3/2020  
SIGNATURE AND SEAL APPLIES TO DRWG. 1 THRU 5



HBM ENGINEERING GROUP, LLC.  
DR. MOUSSA A. ISSA, S.E.  
IL. LIC. NO. 081-005738  
EXPIRES 11/30/2020

SIGNED: *Moussa A. Issa*  
DATE: 03/03/2020  
SIGNATURE AND SEAL APPLIES TO DRWG. 28 THRU 66



MILLENNIA PROFESSIONAL SERVICES OF ILL., LTD.  
THOMAS V. NGO, P.E.  
IL. LIC. NO. 062-058379  
EXPIRES 11/30/2021

SIGNED: *Thomas V. Ngo*  
DATE: 3/3/2020  
SIGNATURE AND SEAL APPLIES TO DRWG. 6 THRU 25, 67, 85 THRU 92



GANDHI & ASSOCIATES, INC.  
P.K. GANDHI, P.E.  
IL. LIC. NO. 062-034993  
EXPIRES 11/30/2021

SIGNED: *P.K. Gandhi*  
DATE: 3/3/2020  
SIGNATURE AND SEAL APPLIES TO DRWG. 26-27



STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
SUBMITTED: *MARCH 17 2020*  
*Douglas Quigley / CRB*  
REGIONAL ENGINEER  
May 8, 2020  
*Joe A. Elk*  
ENGINEER OF DESIGN AND ENVIRONMENT  
May 8, 2020  
*Thomas V. Ngo*  
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

PRINTED BY THE AUTHORITY  
OF THE STATE OF ILLINOIS



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**COMMITMENTS**

NO COMMITMENTS FOR THIS PROJECT

**LIST OF HIGHWAY STANDARDS**

000001-07 STANDARD SYMBOLS, ABBREVIATIONS, AND PATTERNS  
 280001-07 TEMPORARY EROSION CONTROL SYSTEMS  
 353001-05 PCC BASE COURSE WITH HMA BINDER AND SURFACE COURSES  
 420001-09 PAVEMENT JOINTS  
 420406 PAVEMENT CONNECTOR (HMA) FOR BRIDGE APPROACH SLAB  
 515001-04 NAME PLATE FOR BRIDGES  
 542301-03 PRECAST REINFORCED CONCRETE FLARED END SECTION  
 601001-05 SUB-SURFACE DRAINS  
 601101-02 CONCRETE HEADWALL FOR PIPE DRAIN  
 604001-05 FRAME AND LIDS TYPE 1  
 604091-03 FRAME AND GRATE TYPE 24  
 606001-07 CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER  
 606301-04 PC CONCRETE ISLANDS AND MEDIANS  
 606306-04 CORRUGATED PC CONCRETE MEDIANS  
 630001-12 STEEL PLATE BEAM GUARDRAIL  
 630201-07 PCC/HMA STABILIZATION AT STEEL PLATE BEAM GUARDRAIL  
 631011-10 TRAFFIC BARRIER TERMINAL, TYPE 2  
 631031-16 TRAFFIC BARRIER TERMINAL, TYPE 6  
 701101-05 OFF-RD OPERATIONS, MULTILANE, 15' (4.5 m) TO 24" (600 MM) FROM PAVEMENT EDGE  
 701400-09 APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY  
 701401-12 LANE CLOSURE, FREEWAY / EXPRESSWAY  
 701411-09 LANE CLOSURE, MULTILANE, AT ENTRANCE OR EXIT RAMP, FOR SPEEDS >= 45 MPH  
 701427-05 LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPER., FOR SPEEDS <= 40 MPH  
 701428-01 TRAFFIC CONTROL SETUP AND REMOVAL FREEWAY/EXPRESSWAY  
 701601-09 URBAN LANE CLOSURE, MULTILANE, 1W OR 2W WITH NONTRAVERSABLE MEDIAN  
 701701-10 URBAN LANE CLOSURE, MULTILANE INTERSECTION  
 701901-08 TRAFFIC CONTROL DEVICES  
 704001-08 TEMPORARY CONCRETE BARRIER  
 780001-05 TYPICAL PAVEMENT MARKINGS  
 781001-04 TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS

**GENERAL NOTES**

- BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "J.U.L.I.E." AT 800-892-0123 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE, AND GAS FACILITIES. 48 HOUR NOTIFICATION IS REQUIRED.
- THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH THE UTILITY COMPANIES, AND THE VILLAGE OF INDIAN HEAD PARK.
- THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT.
- ALL DAMAGE TO EXISTING PAVEMENT MARKING OR RAISED REFLECTIVE PAVEMENT MARKERS OUTSIDE THE REMOVAL LINE SHOWN ON THE PLANS SHALL BE REPLACED AT NO ADDITIONAL COST TO THE DEPARTMENT.
- BEFORE BEGINNING ANY WORK, THE CONTRACTOR SHALL RETAIN AND RECORD FOR FUTURE REFERENCES, ALL EXISTING PAVEMENT MARKING LINES AND RAISED REFLECTIVE PAVEMENT MARKERS IN ORDER THAT THESE LOCATIONS CAN BE RE-ESTABLISHED FOR STRIPING. EXACT LOCATIONS OF ALL STRIPING SHALL BE AS DIRECTED BY THE ENGINEER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING MATERIALS.
- THE CONTRACTOR SHALL CONTACT THE DISTRICT ONE TRAFFIC CONTROL SUPERVISOR AT KALPANA.KANNAN-HOSADURGA@ILLINOIS.GOV A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING WORK.
- THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE ACCESS TO ABUTTING PROPERTY AT ALL TIMES DURING THE CONSTRUCTION OF THIS PROJECT.
- THE "ARTERIAL ROAD INFORMATION SIGN (TC-22)" IS APPLICABLE ONLY TO ARTERIAL ROADS AND SHALL NOT BE APPLIED TO EXPRESSWAYS.
- DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS.
- DOUBLE LANE MARKERS ARE TO BE USED AS SHOWN ON THE DISTRICT ONE DETAIL "TYPICAL APPLICATIONS - RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)" SHOWN ON THE PLANS. RAISED REFLECTIVE PAVEMENT MARKERS ARE NOT ALLOWED TO BE PLACED ON THE BRIDGE DECK

**GENERAL NOTES CONTINUED**

- FRAMES AND GRATES ADJUSTMENT OF PRIVATE UTILITIES WITHIN THE LIMITS OF THE IMPROVEMENTS SHALL BE DONE BY THEIR RESPECTIVE OWNERS AND ARE NOT PART OF THIS CONTRACT.
- THE CONTRACTOR SHALL PLACE PROPOSED PAVEMENT MARKINGS IN ACCORDANCE WITH DISTRICT 1 TYPICAL PAVEMENT MARKINGS DETAIL (TC-13).
- THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL LOGS, SHRUBS, BUSHES, SAPLINGS, UNDERBRUSH OR DEBRIS ACCORDING TO SECTION 201 OF THE STANDARD SPECIFICATIONS AT LOCATIONS REQUIRING ACCESS TO THE SUBSTRUCTURE. THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT THE COST SHALL BE CONSIDERED AS INCLUDED IN THE CONTRACT AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
- ANY ABANDONED UTILITY OR SEWER ENCOUNTERED DURING CONSTRUCTION SHALL BE PLUGGED AS DIRECTED BY THE ENGINEER AND ABANDONED IN PLACE. THIS WORK SHALL BE INCIDENTAL TO THE COST OF THE CONTRACT.
- DURING CONSTRUCTION OPERATIONS, IF ANY LOOSE MATERIAL IS DEPOSITED IN THE FLOW LINE OF DRAINAGE STRUCTURES SUCH THAT THE NATURAL FLOW OF WATER IS OBSTRUCTED, THE MATERIAL SHALL BE REMOVED AT THE CLOSE OF EACH WORKING DAY. AT THE CONCLUSION OF CONSTRUCTION OPERATIONS, ALL UTILITY STRUCTURES SHALL BE FREE OF DUST AND DEBRIS. THE WORK SPECIFIED ABOVE WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCIDENTAL IN THE COST OF THE CONTRACT.
- IF CONFLICTS OCCUR AND RELOCATION OF THE NEW FACILITIES IS NOT FEASIBLE, THE CONTRACTOR SHALL WORK WITH THE ENGINEER TO MAKE ARRANGEMENTS WITH THE UTILITY COMPANIES TO HAVE THE AFFECTED UTILITIES PROTECTED OR RELOCATED. NO ADDITIONAL COMPENSATION WILL BE ALLOWED AS A RESULT OF ANY ADDITIONAL COSTS.
- THE ENGINEER SHALL COORDINATE WITH MR. STEVE MUSSER, ILLINOIS STATE TOLL HIGHWAY AUTHORITY INCIDENT MANAGER, AT (630) 241-6800 X 3904, PRIOR TO IMPLEMENTING THE DETOUR AND ANY CHANGES IN TRAFFIC STAGING.
- THE CONTRACTOR IS REQUIRED TO OBTAIN CONSTRUCTION PERMITS FROM THE ILLINOIS STATE TOLL HIGHWAY AUTHORITY TO BE ABLE TO WORK ON THE RAMP TO BE RECONSTRUCTED.
- THE ENGINEER SHALL CONTACT KYLIE VOGRIN, AREA TRAFFIC FIELD TECHNICIAN, AT KYLIE.VOGRIN@ILLINOIS.GOV A MINIMUM OF TWO (2) WEEKS PRIOR TO THE PLACEMENT OF PERMANENT PAVEMENT MARKINGS.
- THIS PROJECT REQUIRES A US ARMY CORPS OF ENGINEERS (USACE) 404 PERMIT THAT WILL BE SECURED BY THE DEPARTMENT. AS A CONDITION OF THIS PERMIT, THE CONTRACTOR WILL NEED TO SUBMIT AN IN-STREAM WORK PLAN TO THE DEPARTMENT FOR APPROVAL. GUIDELINES ON ACCEPTABLE IN-STREAM WORK TECHNIQUES CAN BE FOUND ON THE USACE WEBSITE. THE USACE DEFINES AND DETERMINES IN-STREAM WORK. THE COST OF ALL MATERIALS AND LABOR NECESSARY TO COMPLY WITH THE ABOVE PROVISIONS TO PREPARE AND IMPLEMENT AN IN-STREAM WORK PLAN WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED AS INCLUDED IN THE UNIT BID PRICES OF THE CONTRACT AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED WITH THE EXCEPTION OF COFFERDAMS WHICH WILL BE PAID FOR AS "COFFERDAM (TYPE 1) (IN-STREAM /WETLAND WORK)" WITH A BASIS OF PAYMENT OF EACH.
- EXISTING LIGHTING ALONG RAMP, INCLUDING LIGHTING UNIT TO BE RELOCATED, IS OWNED AND MAINTAINED BY ILLINOIS TOLLWAY. THE ENGINEER SHALL COORDINATE WITH JOHN ANDREE, ILLINOIS TOLLWAY HIGHWAY AUTHORITY LIGHTING GROUP, AT 630-241-6800 EXT 4340, PRIOR TO REMOVAL OF THE EXISTING RAMP LIGHT POLE. EXISTING LIGHTING SHALL BE MAINTAINED. CABLE TO EXISTING LIGHTING UNIT IS TO BE ABANDONED IN PLACE.
- THE SUBGRADE STABILITY SHALL BE VERIFIED BY PROOF ROLLING WITH A FULLY LOADED TANDEM-AXLE TRUCK.
- 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 STANDARD SPECIFICATIONS 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.
- ANY AGGREGATE SUBGRADE IMPROVEMENT CONTAMINATED AND/OR DAMAGED BY THE CONTRACTOR'S VEHICLES AND/OR EQUIPMENTS IS TO BE REMOVED AND REPLACED AS DIRECT BY THE ENGINEER AT CONTRACTOR EXPENSE.
- PIPE UNDERDRAINS SHALL BE INSTALLED ACCORDING TO SECTION 601 OF THE STANDARD SPECIFICATIONS AND STANDARD 601001. TOP OF PIPE UNDERDRAINS SHALL BE PLACED MINIMUM 6" BELOW THE AGGREGATE SUBGRADE IMPROVEMENT LAYER. THE COST OF MAKING PIPE UNDERDRAINS CONNECTIONS TO DRAINAGE STRUCTURES SHALL BE INCLUDED IN THE COST OF THE PIPE UNDERDRAINS.
- BACKFILLING STORM SEWER CONSTRUCTED UNDER THE ROADWAY SPECIFIED UNDER ART. 550.07(b, c) OF THE STANDARD SPECIFICATIONS WILL NOT BE ALLOWED.

REV-SEP

FILE NAME = P:\1111-532 IDOT PTB161 Item 8 (Various-Variou\Work Order #15 Joliet Rd. Over Flag Creek\CADD Sheets\Cv11\02-D160N80-sht-gennote.dgn  
 PLOT SCALE = 2.0000 / 1" = 40.0000 FT.  
 USER NAME = #USER#HME

**HBM**  
 ENGINEERING GROUP, LLC.  
 4415 WEST HARRISON STREET, SUITE 231  
 HILLSIDE, IL 60162  
 PHONE: (708) 236-0900 FAX: (708) 236-0901

DESIGNED - KJD	REVISED -
DRAWN - KJD	REVISED -
CHECKED - RTB	REVISED -
DATE - 3/17/2020	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**JOLIET ROAD OVER FLAG CREEK  
 INDEX OF SHEETS, LIST OF IDOT HIGHWAY STANDARDS, GENERAL NOTES  
 AND COMMITMENTS**

SCALE: N/A SHEET NO. 1 OF 1 SHEETS STA. N/A TO STA. N/A

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3562	T-5-4B-R	COOK	92	2
CONTRACT NO. 60N80				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

P:\1111-532 IDOT PTB161 Item 8 (Various-Variou\Work Order #15 Joliet Rd. Over Flag Creek\CADD Sheets\Cv11\02-D160N80-sht-gennote.dgn

FILE NAME: P:\1111-532 IDOT PTB161 Item 8 (Various-Various)\Work Order \*15 Joliet Rd. Over Flag Creek\CADD Sheets\Civil\03-05-0160N80-sht-S00.dgn  
 PLOT SCALE: 1/8"=1'-0"  
 USER NAME: #052RNPH8

SUMMARY OF QUANTITIES				CONSTRUCTION CODE	
CODE NO.	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	ROADWAY	BRIDGE
				0004	0013
				URBAN	016-0393
20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	40	40	
20200100	EARTH EXCAVATION	CU YD	303	303	
20400800	FURNISHED EXCAVATION	CU YD	869	869	
20800150	TRENCH BACKFILL	CU YD	30	30	
21001000	GEOTECHNICAL FABRIC FOR GROUND STABILIZATION	SO YD	507	507	
21101505	TOPSOIL EXCAVATION AND PLACEMENT	CU YD	56	56	
25000210	SEEDING, CLASS 2A	ACRE	0.7	0.7	
25000312	SEEDING, CLASS 4A	ACRE	0.13	0.13	
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	75	75	
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	75	75	
25100115	MULCH, METHOD 2	ACRE	0.83	0.83	
25100630	EROSION CONTROL BLANKET	SO YD	3776	3776	
25100635	HEAVY DUTY EROSION CONTROL BLANKET	SO YD	274	274	
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	83	83	
28000305	TEMPORARY DITCH CHECKS	FOOT	70	70	
28000400	PERIMETER EROSION BARRIER	FOOT	1634	1634	
28000510	INLET FILTERS	EACH	10	10	
28100107	STONE RIPRAP, CLASS A4	SO YD	716	716	
28200200	FILTER FABRIC	SO YD	716	716	
30300001	AGGREGATE SUBGRADE IMPROVEMENT	CU YD	170	170	
30300112	AGGREGATE SUBGRADE IMPROVEMENT 12"	SO YD	5066	5066	
35501316	HOT-MIX ASPHALT BASE COURSE, 8"	SO YD	74	74	
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SO YD	50	50	
40604010	HOT-MIX ASPHALT SURFACE COURSE, IL-9.5FG, MIX "D", N50	TON	1.8	1.8	
40604012	HOT-MIX ASPHALT SURFACE COURSE, IL-9.5FG, MIX "D", N70	TON	11.7	11.7	
40700100	BITUMINOUS MATERIALS (TACK COAT)	POUND	1691	1691	
40701821	HOT-MIX ASPHALT PAVEMENT (FULL-DEPTH), 7"	SO YD	691.8	691.8	
40701926	HOT-MIX ASPHALT PAVEMENT (FULL-DEPTH), 12 1/4"	SO YD	2769.2	2769.2	

SUMMARY OF QUANTITIES				CONSTRUCTION CODE	
CODE NO.	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	ROADWAY	BRIDGE
				0004	0013
				URBAN	016-0393
42000070	PAVEMENT CONNECTOR (HMA) FOR BRIDGE APPROACH SLAB	SO YD	176	176	
44000100	PAVEMENT REMOVAL	SO YD	2982	2982	
44000200	DRIVEWAY PAVEMENT REMOVAL	SO YD	86	86	
44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	527	527	
44003100	MEDIAN REMOVAL	SO FT	7113	7113	
44004250	PAVED SHOULDER REMOVAL	SO YD	1460	1460	
44213204	TIE BARS 3/4"	EACH	125	125	
48101500	AGGREGATE SHOULDERS, TYPE B 6"	SO YD	427	427	
48203021	HOT-MIX ASPHALT SHOULDERS, 6"	SO YD	849	849	
50101500	REMOVAL OF EXISTING SUPERSTRUCTURES	EACH	1		1
50102400	CONCRETE REMOVAL	CU YD	73.9		73.9
50105220	PIPE CULVERT REMOVAL	FOOT	45		45
50200100	STRUCTURE EXCAVATION	CU YD	341.8		341.8
50300100	FLOOR DRAINS	EACH	12		12
50300225	CONCRETE STRUCTURES	CU YD	246.2		246.2
50300255	CONCRETE SUPERSTRUCTURE	CU YD	287.1		287.1
50300260	BRIDGE DECK GROOVING	SO YD	1255		1255
50300300	PROTECTIVE COAT	SO YD	2370	891	1479
50301350	CONCRETE SUPERSTRUCTURE (APPROACH SLAB)	CU YD	238.4		238.4
50500105	FURNISHING AND ERECTING STRUCTURAL STEEL	L SUM	1		1
50500505	STUD SHEAR CONNECTORS	EACH	6255		6255
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	188430		188430
50800515	BAR SPLICERS	EACH	656		656
51500100	NAME PLATES	EACH	1		1
52100520	ANCHOR BOLTS, 1"	EACH	90		90
52200010	TEMPORARY SHEET PILING	SO FT	946		946
542A0229	PIPE CULVERTS, CLASS A, TYPE 1 24"	FOOT	45		45

▲ CONSTRUCTION CODE 0021

□ CONSTRUCTION CODE 0042

▪ SPECIALTY ITEM

REV-SEP

**HBM**  
 ENGINEERING GROUP, LLC  
 4415 WEST HARRISON STREET, SUITE 231  
 HILLSIDE, IL 60162  
 PHONE: (708) 236-0900 FAX: (708) 236-0901

DESIGNED - KJD	REVISED -
DRAWN - KJD	REVISED -
CHECKED - RTB	REVISED -
DATE - 3/17/2020	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

JOLIET ROAD OVER FLAG CREEK  
SUMMARY OF QUANTITIES

SCALE: N/A SHEET NO. 1 OF 3 SHEETS STA. N/A TO STA. N/A

F.A.U. RTE. 3562	SECTION T-5-4B-R	COUNTY COOK	TOTAL SHEETS 92	SHEET NO. 3
CONTRACT NO. 60N80			FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT	

P:\1111-532 IDOT PTB161 Item 8 (Various-Various)\Work Order \*15 Joliet Rd. Over Flag Creek\CADD Sheets\Civil\03-05-0160N80-sht-S00.dgn

**SUMMARY OF QUANTITIES**

CODE NO.	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE	
				ROADWAY	BRIDGE
				0004	0013
				URBAN	016-0393
550A0050	STORM SEWERS, CLASS A, TYPE 1 12"	FOOT	61	61	
54213669	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 24"	EACH	2	2	
58700300	CONCRETE SEALER	SO FT	1575		1575
59000200	EPOXY CRACK INJECTION	FOOT	23		23
59100100	GEOCOMPOSITE WALL DRAIN	SO YD	179		179
60100060	CONCRETE HEADWALLS FOR PIPE DRAINS	EACH	5	5	
60108100	PIPE UNDERDRAINS 4" (SPECIAL)	FOOT	32	32	
60108200	PIPE UNDERDRAINS 6" (SPECIAL)	FOOT	56	56	
60108206	PIPE UNDERDRAINS, TYPE 2, 6"	FOOT	1305	1305	
60237470	INLETS, TYPE A, TYPE 24 FRAME AND GRATE	EACH	2	2	
60255700	MANHOLES TO BE ADJUSTED WITH NEW TYPE 1 FRAME, OPEN LID	EACH	1	1	
60255800	MANHOLES TO BE ADJUSTED WITH NEW TYPE 1 FRAME, CLOSED LID	EACH	3	3	
60261540	INLETS TO BE ADJUSTED WITH NEW TYPE 24 FRAME AND GRATE	EACH	4	4	
60603500	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.06	FOOT	72	72	
60605000	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24	FOOT	404	404	
60619200	CONCRETE MEDIAN, TYPE SB-6.06	SO FT	5564	5564	
60624600	CORRUGATED MEDIAN	SO FT	1107	1107	
63000001	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	FOOT	100	100	
63000003	STEEL PLATE BEAM GUARDRAIL, TYPE A, 9 FOOT POSTS	FOOT	187.5	187.5	
63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	2	2	
63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	2	2	
63200310	GUARDRAIL REMOVAL	FOOT	306	306	
* 66900200	NON-SPECIAL WASTE DISPOSAL	CU YD	950	950	
* 66900530	SOIL DISPOSAL ANALYSIS	EACH	3	3	
* 66901001	REGULATED SUBSTANCES PRE-CONSTRUCTION PLAN	LSUM	1	1	
* 66901003	REGULATED SUBSTANCES FINAL CONSTRUCTION REPORT	LSUM	1	1	
* 66901006	REGULATED SUBSTANCES MONITORING	CAL DA	20	20	
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	12	12	

**SUMMARY OF QUANTITIES**

CODE NO.	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE	
				ROADWAY	BRIDGE
				0004	0013
				URBAN	016-0393
67100100	MOBILIZATION	L SUM	1	1	
70107025	CHANGEABLE MESSAGE SIGN	CAL DA	12	12	
70300904	PAVEMENT MARKING TAPE, TYPE IV 4"	FOOT	32342	32342	
70300906	PAVEMENT MARKING TAPE, TYPE IV 6"	FOOT	2968	2968	
70400100	TEMPORARY CONCRETE BARRIER	FOOT	987	987	
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	853	853	
70600255	IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 2	EACH	2	2	
70600322	IMPACT ATTENUATORS, RELOCATE (FULLY REDIRECTIVE, NARROW), TEST LEVEL 2	EACH	2	2	
72400710	RELOCATE SIGN PANEL - TYPE 1	SO FT	8	8	
72501000	TERMINAL MARKER - DIRECT APPLIED	EACH	2	2	
78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SO FT	146	146	
78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	8655	8655	
78000300	THERMOPLASTIC PAVEMENT MARKING - LINE 5"	FOOT	500	500	
78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	929	929	
78000500	THERMOPLASTIC PAVEMENT MARKING - LINE 8"	FOOT	131	131	
78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	243	243	
78009004	MODIFIED URETHANE PAVEMENT MARKING - LINE 4"	FOOT	639	639	
78009008	MODIFIED URETHANE PAVEMENT MARKING - LINE 8"	FOOT	321	321	
78009012	MODIFIED URETHANE PAVEMENT MARKING - LINE 12"	FOOT	53	53	
78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	74	74	
78100200	TEMPORARY RAISED REFLECTIVE PAVEMENT MARKER	EACH	120	120	
78200006	GUARDRAIL REFLECTORS, TYPE B	EACH	18	18	
78200011	BARRIER WALL REFLECTORS, TYPE C	EACH	150	150	
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	132	132	
JS816034	UNIT DUCT, WITH 2-1/C NO. 8 AND 1/C NO. 8 GROUND, 600V (XLP-TYPE USE), 2" DIA. CNC	FOOT	180	180	
JS836001	LIGHT POLE FOUNDATION (ROADWAY) STEEL HELIX (7 FT) OR CONCRETE	EACH	1	1	
JS842105	POLE FOUNDATION, REMOVED	EACH	1	1	
JS846001	MAINTAIN LIGHTING SYSTEM	L SUM	1	1	

△ CONSTRUCTION CODE 0021

□ CONSTRUCTION CODE 0042

• SPECIALTY ITEM

REV-SEP

FILE NAME = P:\1111-532 IDOT PTB161 Item 8 (Various-Various)\Work Order #15 Joliet Rd. Over Flag Creek\CADD Sheets\Civil\03-05-D160N80-sht-5002.dgn  
PLOT SCALE = 1/8"=1'-0" / in.  
USER NAME = JSE/RNHE

**HBM**  
ENGINEERING GROUP, LLC.  
4415 WEST HARRISON STREET, SUITE 231  
HILLSDALE, IL 60162  
PHONE: (708) 236-0900 FAX: (708) 236-0901

DESIGNED - KJD	REVISED -
DRAWN - KJD	REVISED -
CHECKED - RTB	REVISED -
DATE - 3/17/2020	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**JOLIET ROAD OVER FLAG CREEK  
SUMMARY OF QUANTITIES**

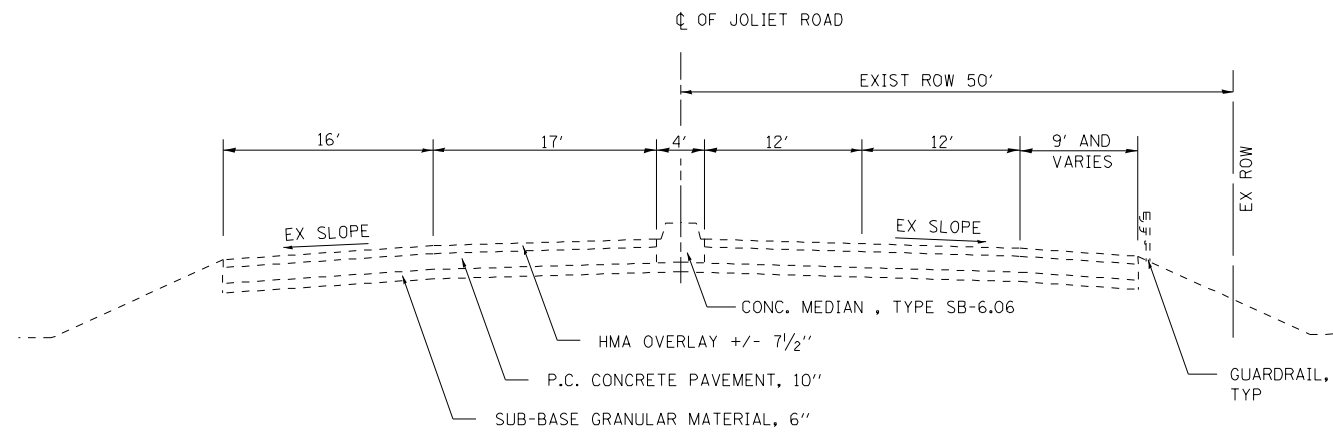
SCALE: N/A SHEET NO. 2 OF 3 SHEETS STA. N/A TO STA. N/A

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3562	T-5-4B-R		92	4
CONTRACT NO.			60N80	
FED. ROAD DIST. NO. 1   ILLINOIS FED. AID PROJECT				

P:\1111-532 IDOT PTB161 Item 8 (Various-Various)\Work Order #15 Joliet Rd. Over Flag Creek\CADD Sheets\Civil\03-05-D160N80-sht-5002.dgn

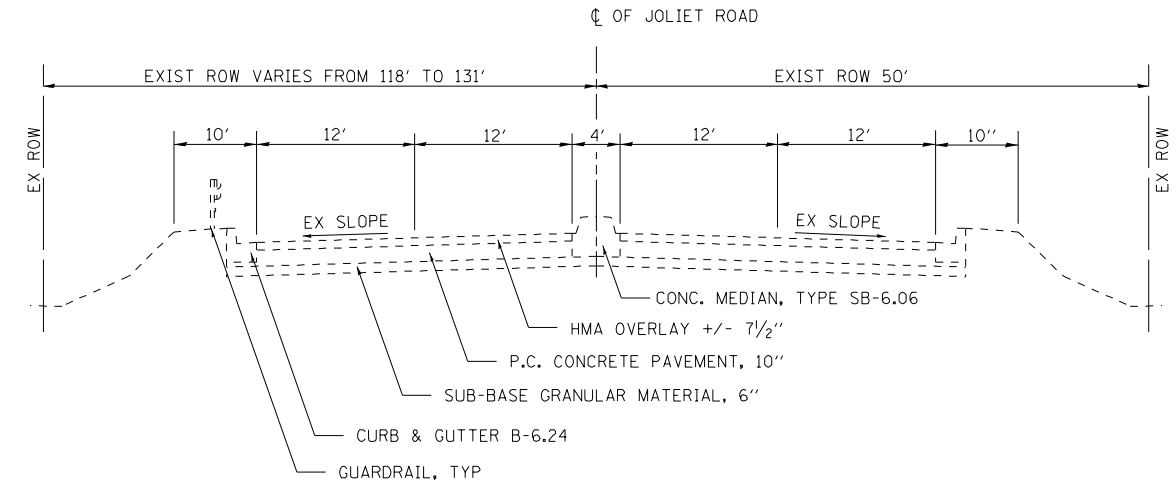






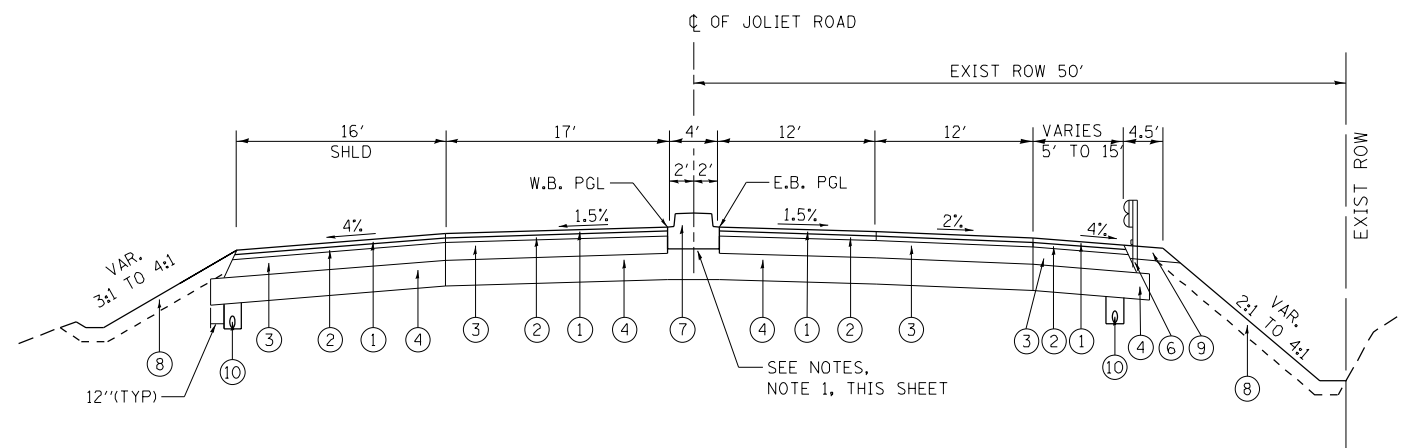
**EXISTING TYPICAL SECTION (ROADWAY)**

STA 104+25 TO STA 106+74



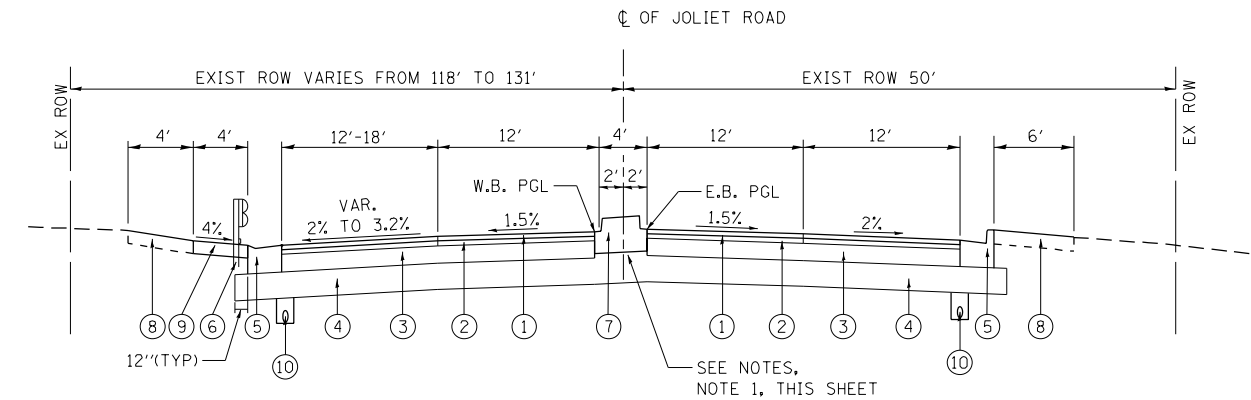
**EXISTING TYPICAL SECTION (ROADWAY)**

STA 108+26 TO STA 110+25



**PROPOSED TYPICAL SECTION (ROADWAY)**

STA 104+25 TO STA 106+74



**PROPOSED TYPICAL SECTION (ROADWAY)**

STA 108+26 TO STA 110+25

FOR BRIDGE TYPICAL SECTIONS SEE STRUCTURAL PLANS.  
(STA 106+74 TO STA 108+26)

**LEGEND**

- ① POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "E", N70 - 2" (SEE NOTE 2)
- ② POLYMERIZED HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N90 - 2 1/4" (SEE NOTE 2)
- ③ HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N90 - 8" (SEE NOTE 2)
- ④ AGGREGATE SUBGRADE IMPROVEMENT, 12"
- ⑤ COMBINATION CURB & GUTTER, TYPE B-6.24
- ⑥ STEEL PLATE BEAM GUARDRAIL, TYPE A
- ⑦ CONCRETE MEDIAN, TYPE SB-6.06
- ⑧ TOPSOIL FURNISH AND PLACE, 6" (WITH SEEDING CLASS 2A OR CLASS 4A)
- ⑨ AGGREGATE SHOULDER TYPE B, 6"
- ⑩ PIPE UNDERDRAINS 6"

**NOTES**

- 1. THE ADDITIONAL AGGREGATE SUBGRADE IMPROVEMENT UNDER THE MEDIAN SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE UNIT BID PRICE OF AGGREGATE SUBGRADE IMPROVEMENT, 12".
- 2. THESE ITEMS SHALL BE PAID FOR AT THE UNIT BID PRICE PER SQ YD AS HOT-MIX ASPHALT PAVEMENT (FULL-DEPTH) 12 1/4"

FILE NAME = P:\2011\ME11007\_Ver\_Ver\_Phi\CAD\DWG15\_JolietRd\_FlagCrk\Shets\06-07-D160N80-sh-typical.dgn  
 PLOT SCALE = 1/8"=1'-0"  
 USER NAME = Millennium Professional Services



2600 Warrenville Road, Suite 203, Downers Grove, IL 60515  
 630.705.0110 voice, 630.839.2566 fax  
 www.millennia.pro

**MILLENNIA PROFESSIONAL SERVICES**

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CHECKED - TVN	REVISED -
DATE - 2/28/2020	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**JOLIET ROAD OVER FLAG CREEK  
MAINLINE TYPICAL SECTIONS**

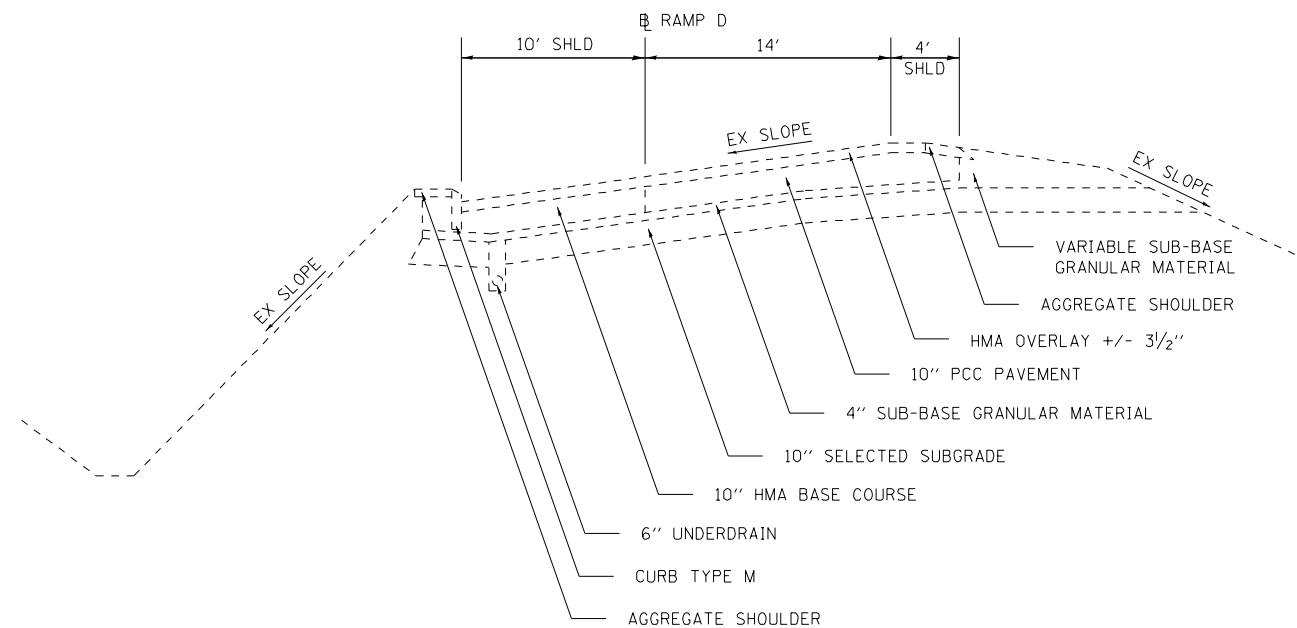
SCALE: N/A SHEET NO. 1 OF 2 SHEETS STA. N/A TO STA. N/A

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3562	T-5-4B-R	COOK	92	6
FED. ROAD DIST. NO. 1 [ILLINOIS] FED. AID PROJECT			CONTRACT NO. 60N80	

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### HOT MIX ASPHALT MIXTURE REQUIREMENTS

MIXTURE TYPE		QMP TYPE
<b>MAINLINE PAVEMENT – HMA PAVEMENT (FD) 12 1/4"</b>		
POLYMERIZED HMA SURFACE COURSE, MIX "E", N70 (IL-9.5mm)	4% @ 70 GYR.	Qc/Qa
POLYMERIZED HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N90	4% @ 90 GYR.	Qc/Qa
HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N90	4% @ 90 GYR.	Qc/Qa
<b>MAINLINE SHOULDER – HMA PAVEMENT (FD) 12 1/4"</b>		
POLYMERIZED HMA SURFACE COURSE, MIX "E", N70 (IL-9.5mm)	4% @ 70 GYR.	Qc/Qa
POLYMERIZED HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N90	4% @ 90 GYR.	Qc/Qa
HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N90	4% @ 90 GYR.	Qc/Qa
<b>RAMP PAVEMENT – HMA PAVEMENT (FD) 7"</b>		
POLYMERIZED HMA SURFACE COURSE, MIX "E", N70 (IL-9.5mm)	4% @ 70 GYR.	Qc/Qa
POLYMERIZED HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N90	4% @ 90 GYR.	Qc/Qa
HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N90	4% @ 90 GYR.	Qc/Qa
<b>RAMP-HMA SHOULDER, 6"</b>		
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70 (IL-9.5mm)	4% @ 70 GYR.	Qc/Qa
HMA BINDER COURSE, IL-19.0, N70, 4 1/2"	4% @ 70 GYR.	Qc/Qa
<b>DRIVEWAY PAVEMENT</b>		
HMA SURFACE COURSE, MIX "D", N50 (IL-9.5mm); 2"	4% @ 50 GYR.	Qc/Qa
HMA BASE COURSE (HMA BINDER IL-19mm); CE - 8"	4% @ 50 GYR.	Qc/Qa
<b>RESURFACE – BOTH SIDES OF MEDIAN</b>		
HMA SURFACE COURSE, MIX "D", N70 (IL-9.5mm)	4% @ 70 GYR.	Qc/Qa
<b>TEMPORARY PAVEMENT</b>		
HMA BINDER COURSE, IL-19.0, N70, 9" ***	4% @ 70 GYR.	Qc/Qa
HMA SURFACE COURSE, MIX D, N70, (IL 9.5mm); 2"	4% @ 70 GYR.	Qc/Qa
<b>QMP DESIGNATION: QUALITY CONTROL /QUALITY ASSURANCE (QC/QA)</b>		



**EXISTING TYPICAL SECTION (RAMP)**

STA 64+13 TO STA 68+59.49

\*\*\*THE CONTRACTOR SHALL HAVE THE OPTION OF CONSTRUCTING A TEMPORARY HMA PAVEMENT OR TEMPORARY PCC PAVEMENT. IF A TEMPORARY PCC PAVEMENT IS CONSTRUCTED IT SHALL HAVE A THICKNESS OF 11". PCC TEMPORARY PAVEMENT SHALL CONSIST OF CLASS PV CONCRETE MEETING THE REQUIREMENTS OF ART. 1020 OF THE STANDARD SPECIFICATIONS. TEMPORARY PCC PAVEMENT DOES NOT REQUIRE DOWEL BARS.

### MIXTURE NOTES

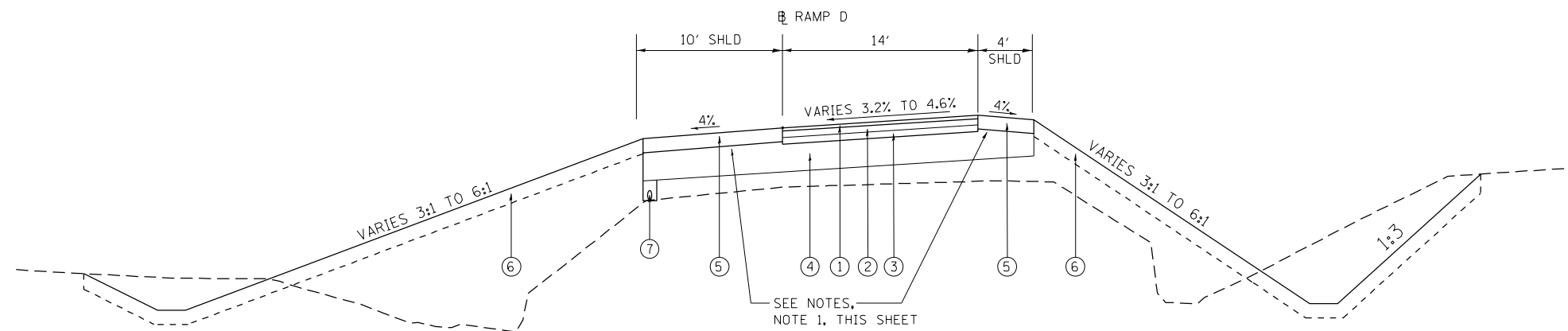
1. THE UNIT WEIGHT USED TO CALCULATE ALL HOT-MIX ASPHALT SURFACE MIXTURES IS 112 LBS/SQ YD/IN
2. THE "AC TYPE" FOR POLYMERIZED HMA MIXES SHALL BE "SBS/SBR PG 76-22" AND FOR NON-POLYMERIZED HMA THE "AC TYPE" SHALL BE "PG 64-22" UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROVISIONS. FOR USE OF RECYCLED MATERIALS SEE DISTRICT ONE SPECIAL PROVISIONS.
3. QUALITY MANAGEMENT PROGRAM (QMP) IDENTIFIES THE PARTICULAR QUALITY CONTROL SPECIFICATION THAT APPLIES TO THE HMA MIXTURES.

### LEGEND

- ① POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "E", N70 - 2" (SEE NOTE 2)
- ② POLYMERIZED HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N90 - 2 1/4" (SEE NOTE 2)
- ③ HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N90 - 2 3/4" (SEE NOTE 2)
- ④ AGGREGATE SUBGRADE IMPROVEMENT, 12"
- ⑤ HOT-MIX SHOULDERS, 6"
- ⑥ TOPSOIL FURNISH AND PLACE, 6" (WITH SEEDING CLASS 2A OR CLASS 4A)
- ⑦ PIPE UNDERDRAINS 6"

### NOTES

1. THE THICKNESS OF THE AGGREGATE SUBGRADE IMPROVEMENT UNDER THE SHOULDER VARIES AND SHALL NOT BE LESS THAN 12" THICK. ANY ADDITIONAL AGGREGATE SUBGRADE IMPROVEMENT UNDER THE SHOULDER SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE UNIT BID PRICE OF AGGREGATE SUBGRADE IMPROVEMENT, 12".
2. THESE ITEMS SHALL BE PAID FOR AT THE UNIT BID PRICE PER SQ YD AS HOT-MIX ASPHALT PAVEMENT (FULL-DEPTH) 7"



**PROPOSED TYPICAL SECTION (RAMP)**

STA 64+13 TO STA 68+59.49

FILE NAME = P:\2011\ME11007\_Ver-Ver-PhI\CADD\W015\_JolietRd\_FlagCrk\Shots\06-07-D160N80-sht-typicol.dgn  
 PLOT SCALE = 1/8"=1'-0"  
 USER NAME = Millennium Professional Services



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 630.705.0110 voice, 630.839.2566 fax  
 www.millennia.pro  
**MILLENNIA PROFESSIONAL SERVICES**

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CHECKED - TVN	REVISED -
DATE - 2/28/2020	REVISED -

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

**JOLIET ROAD OVER FLAG CREEK**  
**RAMP TYPICAL SECTIONS**

SCALE: N/A	SHEET NO. 2 OF 2 SHEETS	STA. N/A	TO STA. N/A	F.A.U. RTE. 3562	SECTION T-5-4B-R	COUNTY COOK	TOTAL SHEETS 92	SHEET NO. 7
				CONTRACT NO. 60N80		FED. ROAD DIST. NO. 1 [ILLINOIS] FED. AID PROJECT		

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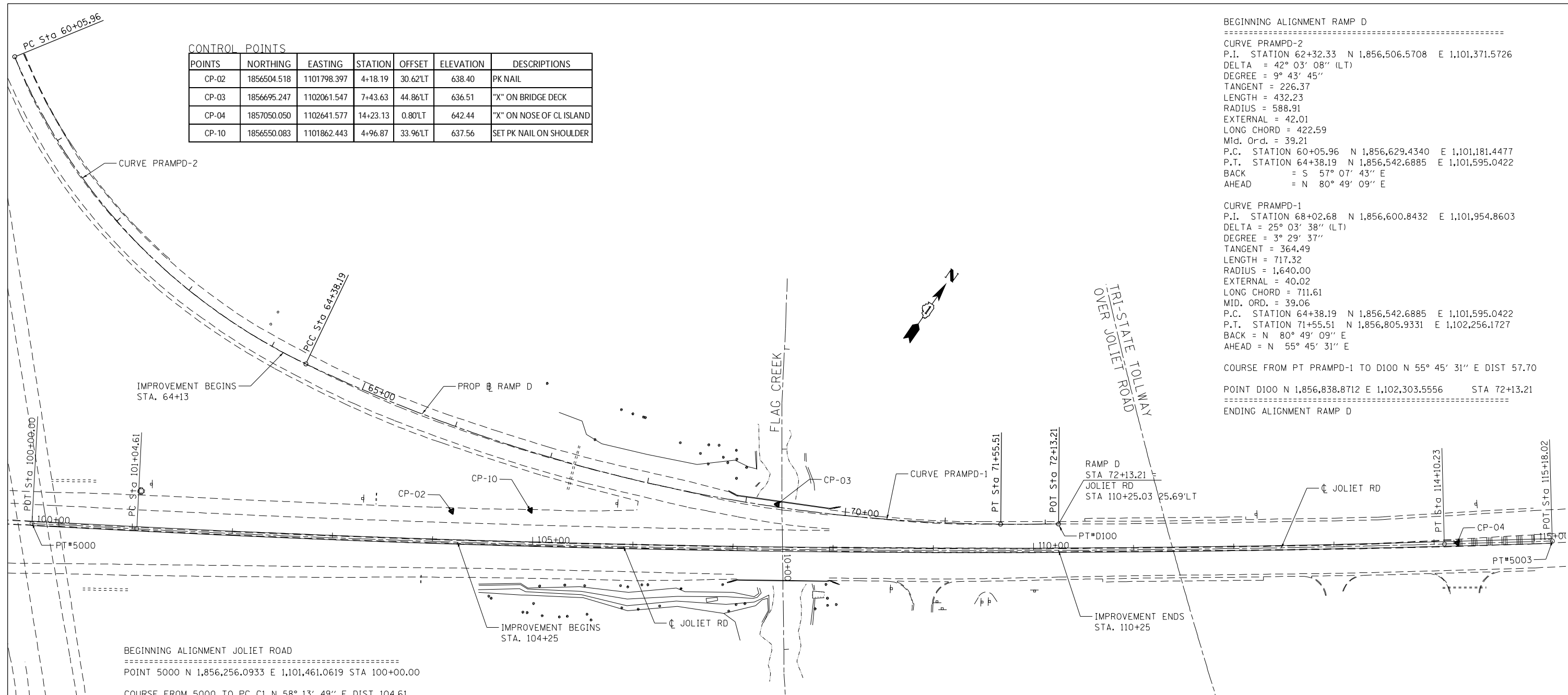


CONTROL POINTS						
POINTS	NORTHING	EASTING	STATION	OFFSET	ELEVATION	DESCRIPTIONS
CP-02	1856504.518	1101798.397	4+18.19	30.62'LT	638.40	PK NAIL
CP-03	1856695.247	1102061.547	7+43.63	44.86'LT	636.51	"X" ON BRIDGE DECK
CP-04	1857050.050	1102641.577	14+23.13	0.80'LT	642.44	"X" ON NOSE OF CL ISLAND
CP-10	1856550.083	1101862.443	4+96.87	33.96'LT	637.56	SET PK NAIL ON SHOULDER

BEGINNING ALIGNMENT RAMP D  
 =====  
 CURVE PRAMPD-2  
 P.I. STATION 62+32.33 N 1,856,506.5708 E 1,101,371.5726  
 DELTA = 42° 03' 08" (LT)  
 DEGREE = 9° 43' 45"  
 TANGENT = 226.37  
 LENGTH = 432.23  
 RADIUS = 588.91  
 EXTERNAL = 42.01  
 LONG CHORD = 422.59  
 MID. ORD. = 39.21  
 P.C. STATION 60+05.96 N 1,856,629.4340 E 1,101,181.4477  
 P.T. STATION 64+38.19 N 1,856,542.6885 E 1,101,595.0422  
 BACK = S 57° 07' 43" E  
 AHEAD = N 80° 49' 09" E

CURVE PRAMPD-1  
 P.I. STATION 68+02.68 N 1,856,600.8432 E 1,101,954.8603  
 DELTA = 25° 03' 38" (LT)  
 DEGREE = 3° 29' 37"  
 TANGENT = 364.49  
 LENGTH = 717.32  
 RADIUS = 1,640.00  
 EXTERNAL = 40.02  
 LONG CHORD = 711.61  
 MID. ORD. = 39.06  
 P.C. STATION 64+38.19 N 1,856,542.6885 E 1,101,595.0422  
 P.T. STATION 71+55.51 N 1,856,805.9331 E 1,102,256.1727  
 BACK = N 80° 49' 09" E  
 AHEAD = N 55° 45' 31" E

COURSE FROM PT PRAMPD-1 TO D100 N 55° 45' 31" E DIST 57.70  
 POINT D100 N 1,856,838.8712 E 1,102,303.5556 STA 72+13.21  
 =====  
 ENDING ALIGNMENT RAMP D



BEGINNING ALIGNMENT JOLIET ROAD  
 =====  
 POINT 5000 N 1,856,256.0933 E 1,101,461.0619 STA 100+00.00  
 COURSE FROM 5000 TO PC C1 N 58° 13' 49" E DIST 104.61

CURVE C1  
 P.I. STATION 107+57.76 N 1,856,655.0606 E 1,102,105.2879  
 DELTA = 4° 32' 01" (LT)  
 DEGREE = 0° 20' 50"  
 TANGENT = 653.15  
 LENGTH = 1,305.62  
 RADIUS = 16,500.00  
 EXTERNAL = 12.92  
 LONG CHORD = 1,305.28  
 MID. ORD. = 12.91  
 P.C. STATION 101+04.61 N 1,856,311.1708 E 1,101,549.9974  
 P.T. STATION 114+10.23 N 1,857,041.7679 E 1,102,631.6578  
 BACK = N 58° 13' 49" E  
 AHEAD = N 53° 41' 47" E

COURSE FROM PT C1 TO 5003 N 53° 41' 47" E DIST 107.79

POINT 5003 N 1,857,105.5868 E 1,102,718.5254 STA 115+18.02  
 =====  
 ENDING ALIGNMENT JOLIET ROAD



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 PLOT SCALE = 1/8"=1'-0" / in.  
 USER NAME = Millennium Professional Services

2600 Warrenville Road, Suite 203, Downers Grove, IL 60515  
 630.785.0110 voice, 630.839.2566 fax  
 www.millennia.pro  
**MILLENNIA PROFESSIONAL SERVICES**

DESIGNED - MG	REVISED -
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CHECKED - TVN	REVISED -
DATE - 2/28/2020	REVISED -

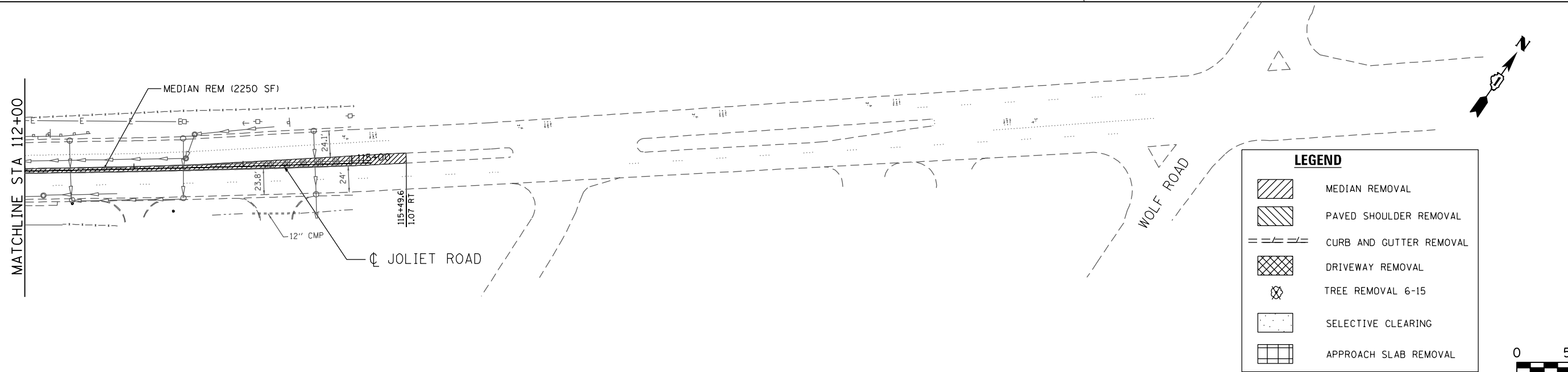
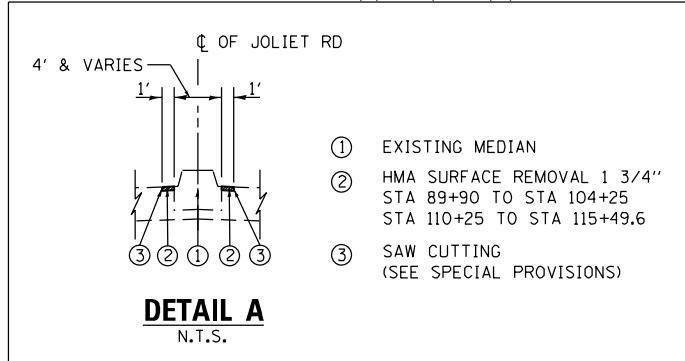
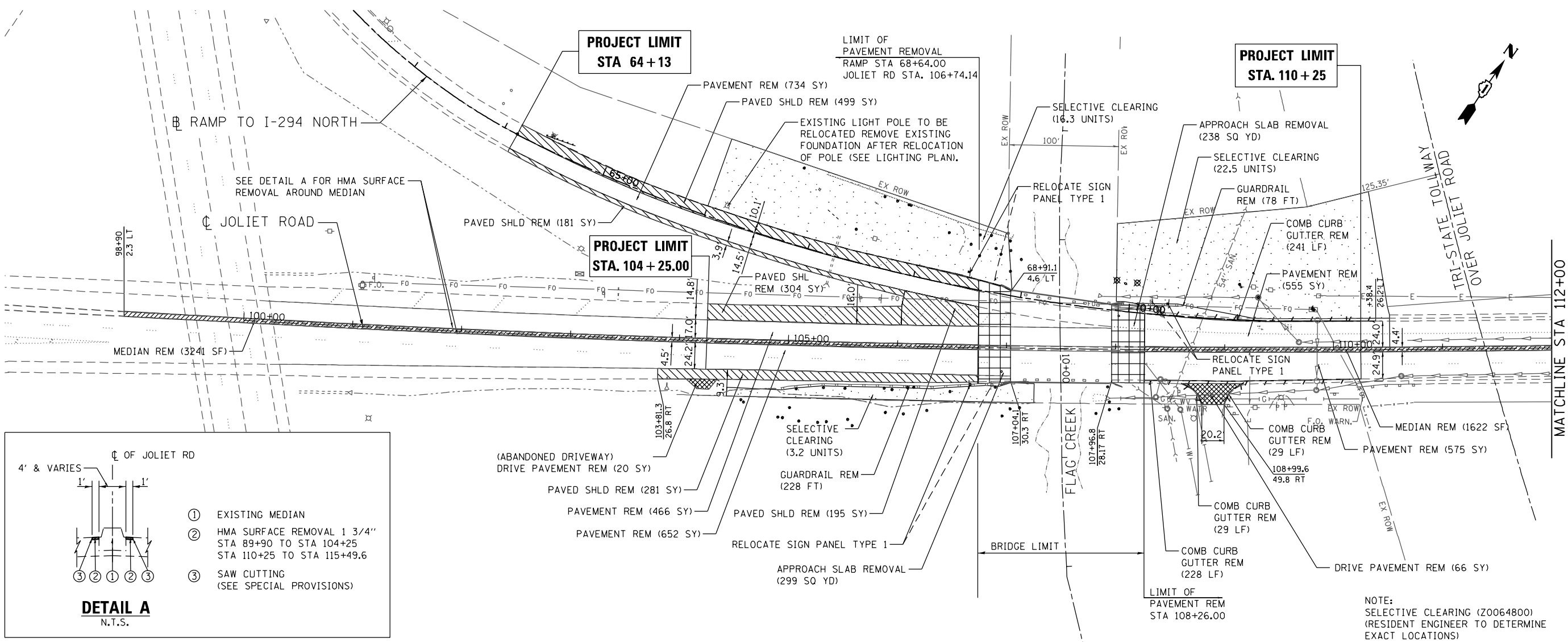
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**JOLIET ROAD OVER FLAG CREEK**  
**ALIGNMENT, TIES AND BENCHMARKS**

SCALE: 1"=50' SHEET NO. 1 OF 1 SHEETS STA. 100+00 TO STA. 115+18

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3562	T-5-4B-R	COOK	92	8
CONTRACT NO. 60N80				
FED. ROAD DIST. NO. 1   ILLINOIS FED. AID PROJECT				

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 PLOT SCALE = 1/8"=1'-0"  
 USER NAME = Millennia Professional Services

**MILLENNIA PROFESSIONAL SERVICES**  
 2600 Warrenville Road, Suite 203, Downers Grove, IL 60515  
 630.795.0110 voice, 630.839.2566 fax  
 www.millennia.pro

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CHECKED - TVN	REVISED -
DATE - 3/17/2020	REVISED -

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

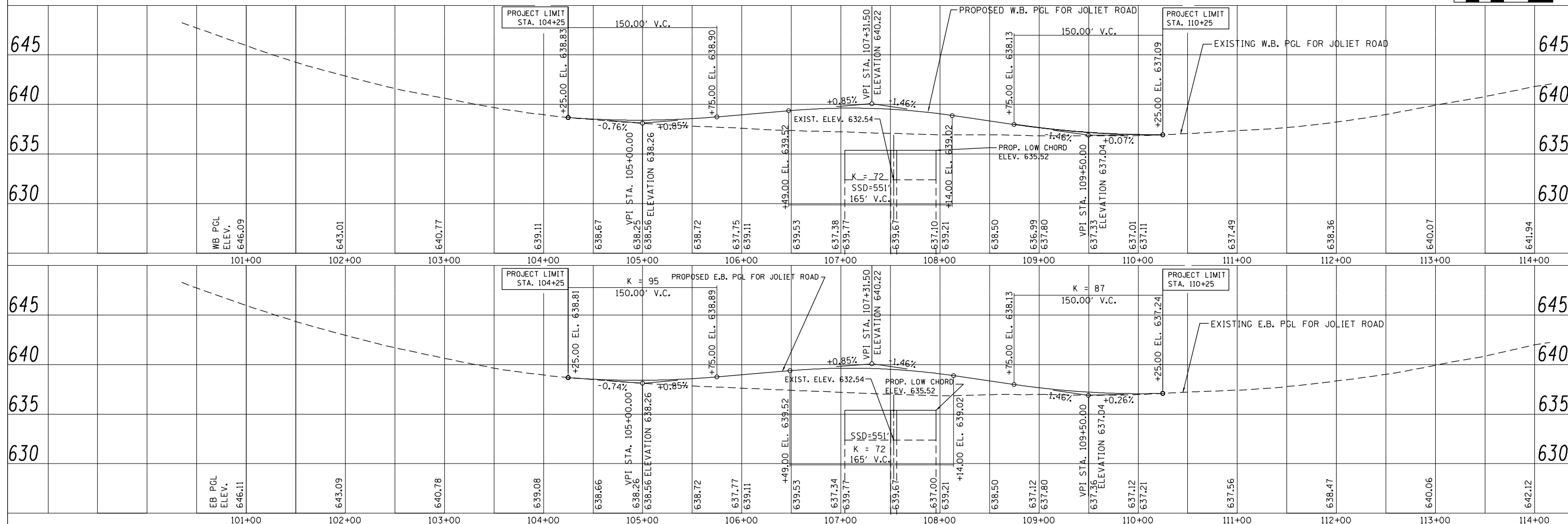
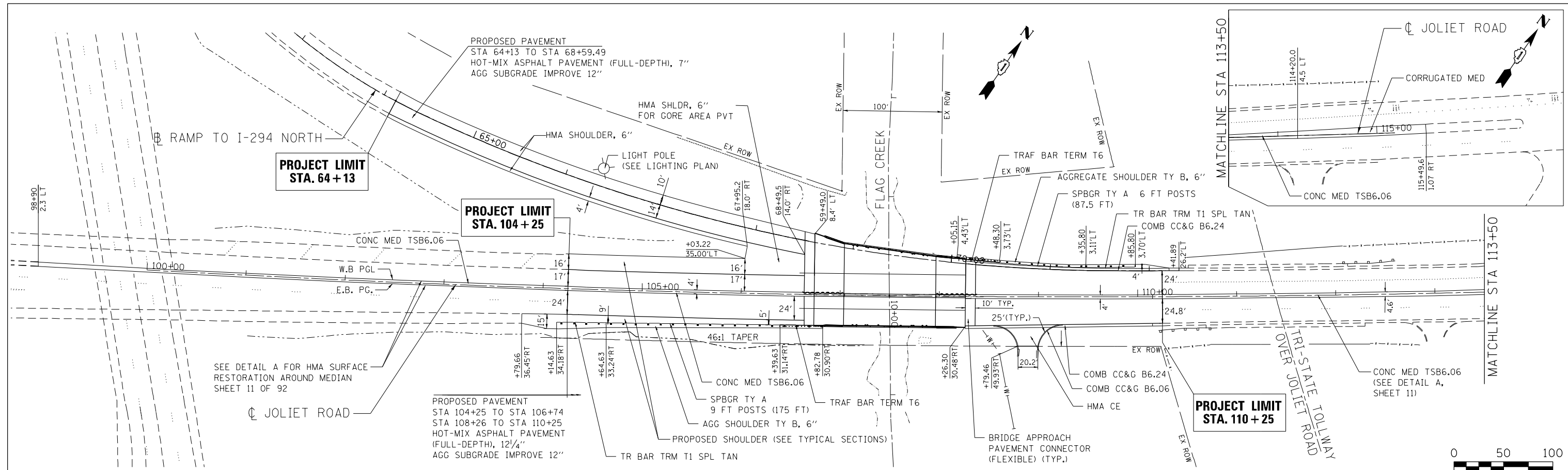
**JOLIET ROAD OVER FLAG CREEK**  
**REMOVAL PLAN**

SCALE: 1"=50' SHEET NO. 1 OF 1 SHEETS STA. 98+90 TO STA. 115+49.6

F.A.U. RTE. 3562	SECTION T-5-4B-R	COUNTY COOK	TOTAL SHEETS 92	SHEET NO. 9
CONTRACT NO. 60N80				

FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT  
 P:\2011\ME11007\_Ver-Var-Ph\I\CADD\W015\_JolietRd.FlagCrk\Shas\09-D160N80-sht-rem.dgn

DATE	
BY	
PROFILE SURVEYED	
GRADES CHECKED	
STRUCTURE NOTATIONS CHKD	
NOTE BOOK NO.	



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CHECKED	- TVN	REVISED	-
DATE	- 2/28/2020	REVISED	-

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

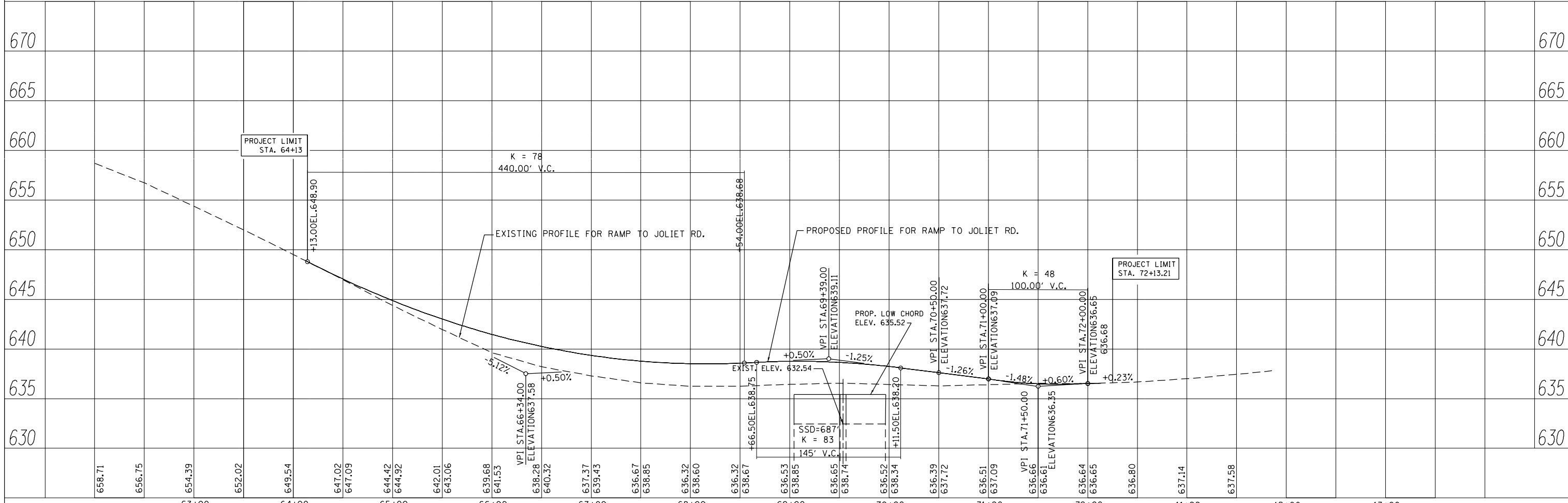
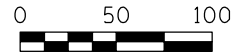
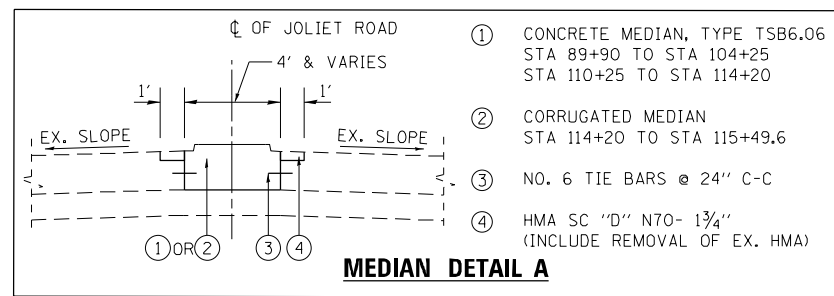
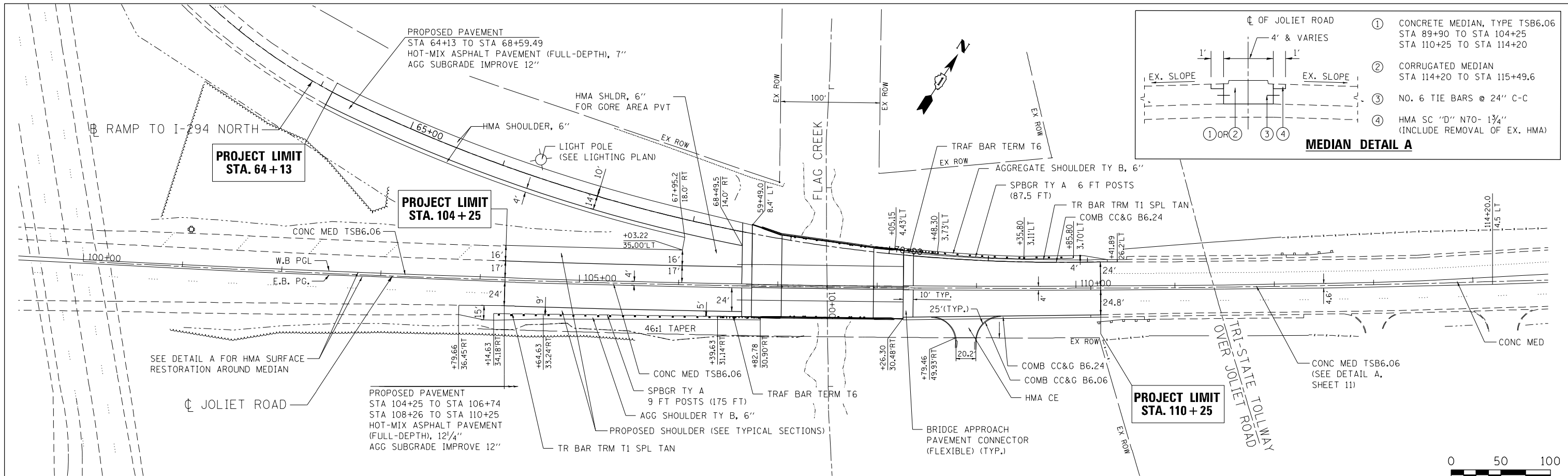
**JOLIET ROAD OVER FLAG CREEK  
 PLAN AND PROFILE**

SCALE: 1"=50'    SHEET NO. 1 OF 2 SHEETS    STA. 98+90 TO STA. 115+49

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS
3562	T-5-4B-R	COOK	92 10
CONTRACT NO. 60N80			
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			



DATE	
BY	
PROFILE SURVEYED	
GRADES CHECKED	
STRUCTURE NOTATIONS CHKD	
NOTE BOOK NO.	



658.71	656.75	654.39	652.02	649.54	647.02	647.09	644.42	644.92	642.01	643.06	639.68	641.53	638.28	640.32	637.37	639.43	636.67	638.85	636.32	638.60	636.32	638.67	636.53	638.85	636.65	638.74	636.52	638.94	636.39	637.72	636.51	637.09	636.66	636.61	636.64	636.65	636.60	637.14	637.58		
63+00	64+00	65+00	66+00	67+00	68+00	69+00	70+00	71+00	72+00	11+00	12+00	13+00																													


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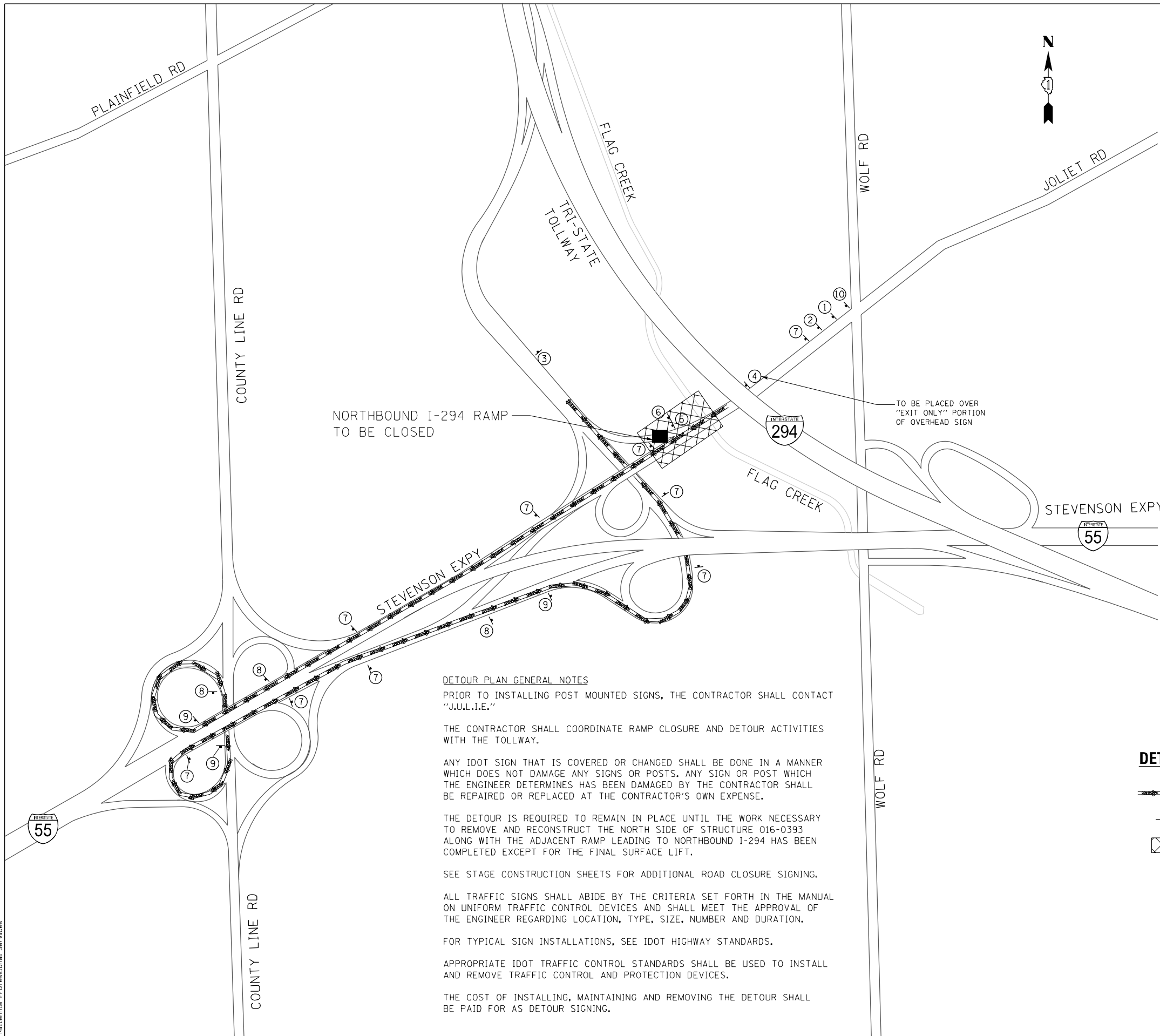
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DRAWN - MG	REVISED -
CHECKED - TVN	REVISED -
DATE - 2/28/2020	REVISED -

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

**JOLIET ROAD OVER FLAG CREEK**  
**I-294 RAMP PLAN AND PROFILE**

SCALE: 1"=50' SHEET NO. 2 OF 2 SHEETS STA. 100+00 TO STA. 110+13

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3562	T-5-4B-R	COOK	92	11
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT	
		CONTRACT NO. 60N80		



NORTHBOUND I-294 RAMP  
TO BE CLOSED

TO BE PLACED OVER  
"EXIT ONLY" PORTION  
OF OVERHEAD SIGN

**DETOUR PLAN GENERAL NOTES**

PRIOR TO INSTALLING POST MOUNTED SIGNS, THE CONTRACTOR SHALL CONTACT "J.U.L.I.E."

THE CONTRACTOR SHALL COORDINATE RAMP CLOSURE AND DETOUR ACTIVITIES WITH THE TOLLWAY.

ANY IDOT SIGN THAT IS COVERED OR CHANGED SHALL BE DONE IN A MANNER WHICH DOES NOT DAMAGE ANY SIGNS OR POSTS. ANY SIGN OR POST WHICH THE ENGINEER DETERMINES HAS BEEN DAMAGED BY THE CONTRACTOR SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S OWN EXPENSE.

THE DETOUR IS REQUIRED TO REMAIN IN PLACE UNTIL THE WORK NECESSARY TO REMOVE AND RECONSTRUCT THE NORTH SIDE OF STRUCTURE 016-0393 ALONG WITH THE ADJACENT RAMP LEADING TO NORTHBOUND I-294 HAS BEEN COMPLETED EXCEPT FOR THE FINAL SURFACE LIFT.

SEE STAGE CONSTRUCTION SHEETS FOR ADDITIONAL ROAD CLOSURE SIGNING.

ALL TRAFFIC SIGNS SHALL ABIDE BY THE CRITERIA SET FORTH IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND SHALL MEET THE APPROVAL OF THE ENGINEER REGARDING LOCATION, TYPE, SIZE, NUMBER AND DURATION.

FOR TYPICAL SIGN INSTALLATIONS, SEE IDOT HIGHWAY STANDARDS.

APPROPRIATE IDOT TRAFFIC CONTROL STANDARDS SHALL BE USED TO INSTALL AND REMOVE TRAFFIC CONTROL AND PROTECTION DEVICES.

THE COST OF INSTALLING, MAINTAINING AND REMOVING THE DETOUR SHALL BE PAID FOR AS DETOUR SIGNING.

- ① W20-1 36"x36"
- ② W20-2 36"x36"
- ③ M4-8A 36"x18"
- ④ 10'x2'
- ⑤ 4'x3'
- ⑥ R5-1 48"x48"
- ⑦ M4-8 36"x18"  
 M4-15 36"x18"  
 M3-1 36"x18"  
 M1-1 45"x36"  
 M5-2R 30"x21"
- ⑧ M4-8 36"x18"  
 M4-15 36"x18"  
 M3-1 36"x18"  
 M1-1 45"x36"  
 M5-2R 30"x21"
- ⑨ M4-8 36"x18"  
 M4-15 36"x18"  
 M3-1 36"x18"  
 M1-1 45"x36"  
 M5-2R 30"x21"
- ⑩

MINIMUM 6" UPPER CASE  
BLACK LETTER ON  
ORANGE BACKGROUND

**DETOUR PLAN LEGEND**

- DETOUR ROUTE
- DETOUR SIGN
- ROAD CLOSURE  
(SEE OTHER PLAN SHEETS FOR MORE DETAILS)

FILE NAME = P:\2011\ME11007\_VerVar-PhI\CADD\W015\_JolietRd\_FlagCrk\Shst\12-D16\N80-sh1-Detour.dgn  
 PLOT SCALE = 1/8"=1'-0"  
 USER NAME = Millennium Professional Services

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DATE -	2/28/2020	REVISED -	

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**JOLIET ROAD OVER FLAG CREEK  
RAMP DETOUR PLAN**

SCALE: N/A SHEET NO. 1 OF 1 SHEETS STA. N/A TO STA. N/A

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3562	T-5-4B-R	COOK	92	12
CONTRACT NO. 60N80				

**MAINTENANCE OF TRAFFIC GENERAL NOTES**

1. THE SUGGESTED STAGES OF CONSTRUCTION AND TRAFFIC CONTROL PLANS SHALL SERVE AS A GUIDE FOR SAFE DIVERSION OF TRAFFIC DURING EXECUTION OF THIS CONTRACT. HOWEVER, THE CONTRACTOR MAY IMPROVE OR MODIFY THE TRAFFIC CONTROL PLANS TO MEET CONSTRUCTION NEEDS BUT NOT AT THE EXPENSE OF PUBLIC SAFETY OR CONVENIENCE. ANY CHANGES TO THE TRAFFIC CONTROL PLAN SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.
2. THE CONTRACTOR SHALL BE REQUIRED TO MAINTAIN TRAFFIC IN ACCORDANCE WITH THE TRAFFIC CONTROL PLANS, SPECIAL PROVISIONS, APPLICABLE STATE STANDARDS, AND AS DIRECTED BY THE ENGINEER.
3. THE CONTRACTOR SHALL MAINTAIN A MINIMUM OF ONE THROUGH LANE IN EACH DIRECTION THROUGH OUT THE PROJECT AREA AT ALL TIMES.
4. UNLESS OTHERWISE NOTED IN THE PLANS, THE CONTRACTOR SHALL BE REQUIRED TO MAINTAIN ACCESS TO ALL ENTRANCES, APPROACHES, AND TEMPORARY ROADS WITHIN THE PROJECT LIMITS. THIS WORK IS TO BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH AS, "TEMPORARY ACCESS (COMMERCIAL ENTRANCE)".
5. DRUMS SHALL BE SPACED 50 FEET CENTER TO CENTER ON TANGENT, AND 20 FEET CENTER TO CENTER ON TAPERS AND CURVES.
6. THE CONTRACTOR SHALL PROVIDE ADEQUATE TEMPORARY DRAINAGE AND EROSION & SEDIMENT CONTROL PLAN PROTECTION DURING ALL PHASES OF CONSTRUCTION.
7. ALL EXISTING SIGNS THAT CONFLICT WITH THE TRAFFIC CONTROL PLAN SHALL BE COVERED OR REMOVED IN ACCORDANCE WITH ARTICLE 107.25 OF THE STANDARD SPECIFICATIONS.
8. THE CONTRACTOR SHALL PROVIDE, INSTALL, MAINTAIN AND REMOVE ALL SIGNS AND SIGN SUPPORTS REQUIRED FOR TRAFFIC CONTROL AND PROTECTION.
9. THE CONTRACTOR SHALL PLACE A CHANGEABLE MESSAGE SIGN AT EACH END OF THE PROJECT AND/OR AS DIRECTED BY THE ENGINEER TO INFORM MOTORISTS OF UPCOMING CONSTRUCTION ACTIVITIES. THE MESSAGE SIGNS WITH THE APPROPRIATE INFORMATION SHALL BE IN PLACED TWO WEEKS BEFORE START OF CONSTRUCTION ACTIVITY. THIS WORK IS TO BE PAID FOR AT THE CONTRACT UNIT PRICE PER CALENDAR MONTH, "CHANGEABLE MESSAGE SIGN".
10. THE CONTRACTOR SHALL PLACE "DRIVEWAY ENTRANCE" SIGNS AT EVERY COMMERCIAL ENTRANCE WITHIN THE PROJECT LIMITS WHERE ENTRANCE IS OBSTRUCTED DUE TO CONSTRUCTION AND/OR AS DIRECTED BY THE ENGINEER. SEE TC-26.

11. TAPER LENGTH FOR TRAFFIC CONTROL DEVICES IS DEFINED BY:  
 $L = (W \times S^2) / 60$

L = TAPER LENGTH IN FEET  
 W = WIDTH OF OFFSET IN FEET  
 S = POSTED SPEED IN MPH.

12. THE FOLLOWING TEMPORARY PAVEMENT MARKINGS SHALL BE PROVIDED IN ACCORDANCE WITH SECTION 703 "WORK ZONE PAVEMENT MARKINGS" OF STANDARD SPECIFICATIONS AT ALL THE FOLLOWING LOCATIONS IN EACH OF THE VARIOUS STAGES OF CONSTRUCTION:

- 4 IN WHITE EDGE LINE
- 4 IN YELLOW EDGE LINE
- 4 IN DOUBLE YELLOW - (BETWEEN OPPOSING LANES, 2 LINES AT 11" C-C)
- 6 IN WHITE SKIP DASH, 6' SKIP, 2' DASH

13. TEMPORARY RAISED REFLECTIVE PAVEMENT MARKERS SHALL BE PLACED IN THE CENTER OF TEMPORARY DOUBLE YELLOW PAVEMENT MARKINGS THAT SEPARATE OPPOSING TRAFFIC. THE SPACING SHALL BE IN ACCORDANCE WITH THE DISTRICT ONE DETAIL TC-11 OR AS DIRECTED BY THE ENGINEER.

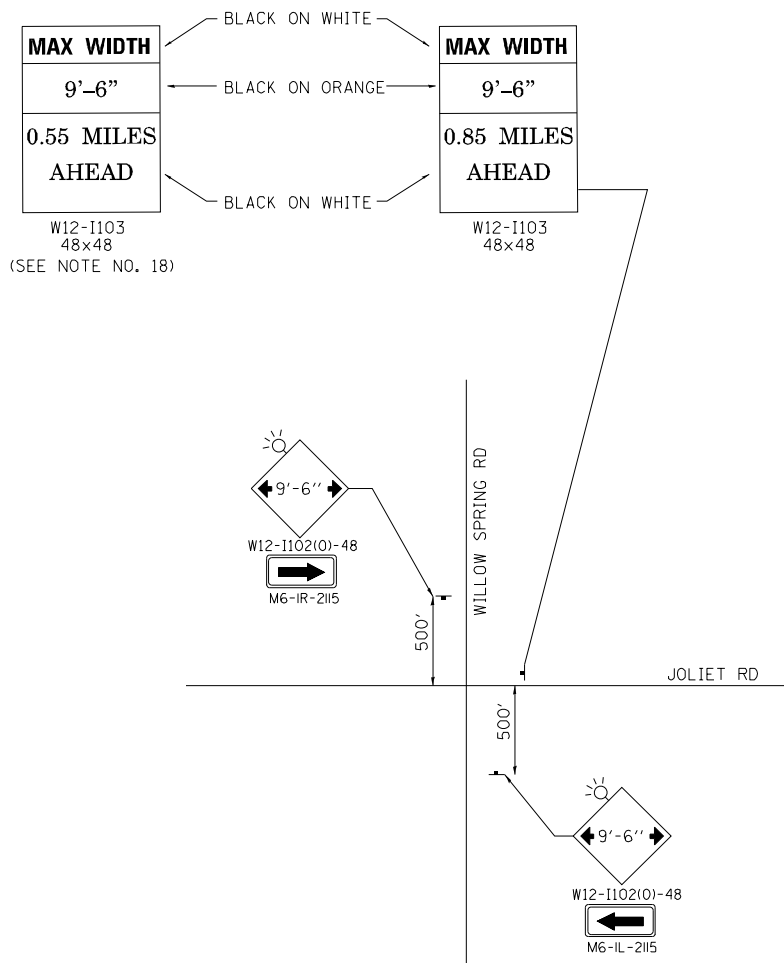
14. TEMPORARY PAVEMENT IS REQUIRED TO MAINTAIN THE REQUIRED TRAFFIC LANES ON JOLIET ROAD AS SHOWN ON THE STAGING PLANS. SEE HMA MIXTURES REQUIREMENT TABLE ON SHEET 5 AND THE SPECIAL PROVISIONS FOR THE HMA MATERIALS. THE REMOVAL OF TEMPORARY PAVEMENT SHALL BE PAID FOR AS "PAVEMENT REMOVAL".

15. TYPE III BARRICADES SHALL BE PROVIDED AT LOCATIONS SHOWN IN THE PLANS.

16. ONE MONO-DIRECTIONAL FLASHING AMBER BEACON SHALL BE MOUNTED TO THE FIRST TWO WARNING SIGNS ON EACH APPROACH. THE FLASHING AMBER BEACON SHALL BE OPERATIONAL DURING HOURS OF DARKNESS.

17. TEMPORARY HMA RAMPS SHALL BE INSTALLED TO TRANSITION TRAFFIC FROM THE PROPOSED HMA BINDER COURSE TO THE EXISTING RIDING SURFACE AT RECONSTRUCTION LIMITS THROUGHOUT THE PROJECT. THE TEMPORARY RAMPS SHALL BE IN ACCORDANCE WITH DETAIL BD32 AND SHALL BE MEASURED IN PLACE AND PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD AS "HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT".

**JOLIET ROAD – SUGGESTED MAINTENANCE OF TRAFFIC**



- PRE-STAGE  
 ESTABLISH TEMPORARY EROSION CONTROL  
 REMOVE MEDIAN  
 CONSTRUCT TEMPORARY PAVEMENT  
 USE STATE STANDARDS 701006, 701101, 701421, 701423, 701426, 701601, AND 701901 FOR TRAFFIC CONTROL AND PROTECTION
- STAGE I  
 TRAFFIC  
 REDUCE TRAFFIC TO ONE 11' LANE IN EACH DIRECTION  
 SHIFT TRAFFIC TO THE NORTH SIDE OF JOLIET ROAD  
 KEEP RAMP OPEN TO TRAFFIC  
 USE TEMPORARY CONCRETE BARRIER TO PROTECT TRAFFIC FROM WORK ZONE
- REMOVAL  
 REMOVE EXISTING MEDIAN (NOT REMOVED IN PRE-STAGE)  
 REMOVE EXISTING PAVEMENT, SHOULDERS, CURB AND GUTTER, GUARDRAIL  
 REMOVE EXISTING STRUCTURE (SEE STRUCTURAL PLANS)
- CONSTRUCTION  
 NEW PAVEMENT (2-12' LANES) UP TO HMA BINDER COURSE  
 NEW SHOULDER OR CURB AND GUTTER  
 NEW GUARDRAIL  
 NEW ROADWAY SIDE SLOPES AND DITCHING  
 FINAL LANDSCAPING  
 NEW STRUCTURE (SEE STRUCTURAL PLANS)
- STAGE II  
 EROSION CONTROL  
 ESTABLISH TEMPORARY EROSION CONTROL
- TRAFFIC  
 REDUCE TRAFFIC TO ONE 11' LANE IN EACH DIRECTION  
 SHIFT TRAFFIC TO THE SOUTH SIDE OF JOLIET ROAD, ON THE NEWLY CONSTRUCTED PAVEMENT AND STRUCTURE  
 IMPLEMENT DETOUR AND CLOSE RAMP OPEN TO TRAFFIC
- REMOVAL  
 REMOVE EXISTING PAVEMENT, SHOULDERS, CURB AND GUTTER, GUARDRAIL  
 REMOVE EXISTING STRUCTURE (SEE STRUCTURAL PLANS)
- CONSTRUCTION  
 NEW PAVEMENT (HMA PAVEMENT UP TO HMA BINDER COURSE)  
 NEW SHOULDER OR CURB AND GUTTER  
 NEW GUARDRAIL  
 NEW ROADWAY SIDE SLOPES AND DITCHING  
 FINAL LANDSCAPING  
 NEW STRUCTURE (SEE STRUCTURAL PLANS)
- STAGE III  
 TRAFFIC  
 PLACE WESTBOUND TRAFFIC ON PAVEMENT AND STRUCTURE CONSTRUCTED IN STAGE 2  
 OPEN RAMP AND REMOVE DETOUR
- REMOVAL  
 REMOVE TEMPORARY PAVEMENT
- CONSTRUCTION  
 BARRIER MEDIAN
- STAGE IV  
 CONSTRUCTION  
 HMA SURFACE COURSE  
 FINAL, PERMANENT PAVEMENT MARKINGS  
 USE STATE STANDARDS 701101, 701427, 701601, 701701 AND 701901 FOR TRAFFIC CONTROL AND PROTECTION
- POST STAGE  
 COMPLETE CLEAN-UP AND PUNCH LIST ITEMS

**MAINTENANCE OF TRAFFIC GENERAL NOTES (CONTINUED)**

18. ADVANCE WIDTH RESTRICTION SIGNS, W12-1103, SHALL BE INSTALLED. ONE SIGN SHALL BE INSTALLED APPROXIMATELY 0.55 MILES SOUTHWEST OF THE PROJECT AT THE EXIT RAMP FROM I-55 TO JOLIET ROAD. ONE SIGN SHALL BE INSTALLED 0.85 MILES NORTHEAST OF THE PROJECT AT THE INTERSECTION OF JOLIET ROAD AND WILLOW SPRINGS ROAD.

19. THE TOLLWAY LIGHTING SHALL BE RELOCATED DURING STAGE II.

20. THE CONTRACTOR SHALL REQUEST AND GAIN APPROVAL FROM THE ILLINOIS DEPARTMENT OF TRANSPORTATION'S EXPRESSWAY TRAFFIC OPERATIONS ENGINEER AT WWW.IDOTICS.COM TWENTY-FOUR (24) HOURS IN ADVANCE OF ALL PERMANENT AND WEEKEND CLOSURES ON ALL FREEWAYS AND/OR EXPRESSWAYS IN DISTRICT ONE. THIS ADVANCE NOTIFICATION IS CALCULATED BASED ON WORKWEEK OF MONDAY THROUGH FRIDAY AND SHALL NOT INCLUDE WEEKENDS OR HOLIDAYS.

21. THE CONTRACTOR SHALL COORDINATE WITH THE TOLLWAY WHEN CLOSING THE RAMP TO AND FROM THE TOWALL.

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 PLOT SCALE = 1/8"=1'-0"  
 USER NAME = Millennium Professional Services

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DATE - 3/2/2020	REVISED -

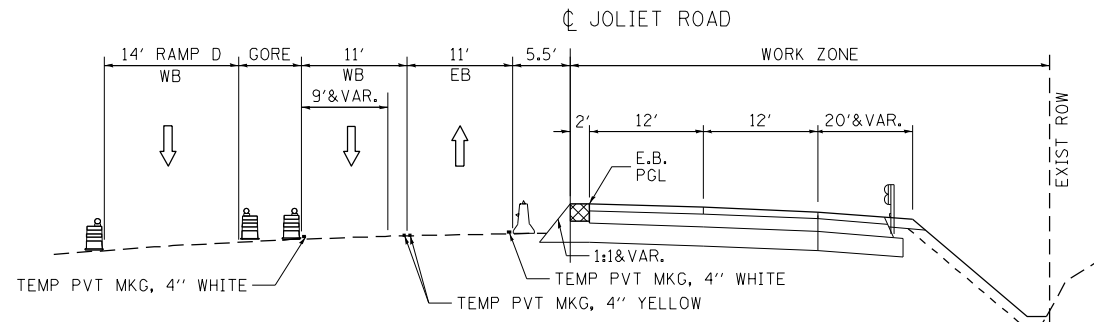
**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**JOLIET ROAD OVER FLAG CREEK  
 STAGING NOTES AND CONSTRUCTION SEQUENCE**

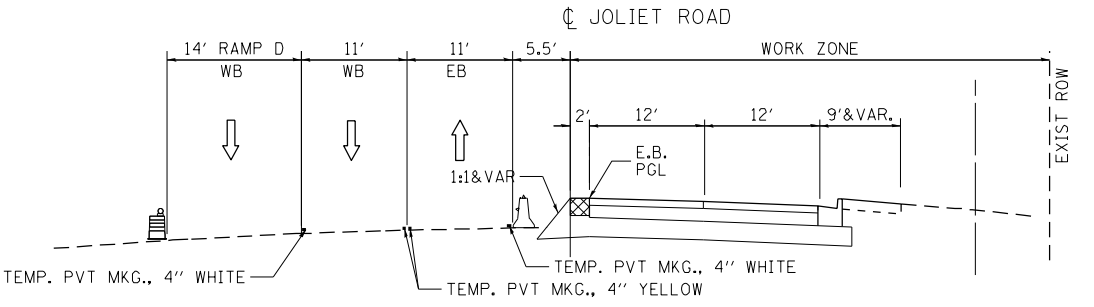
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				CONTRACT NO. 60N80				
FED. ROAD DIST. NO. 1   ILLINOIS FED. AID PROJECT								

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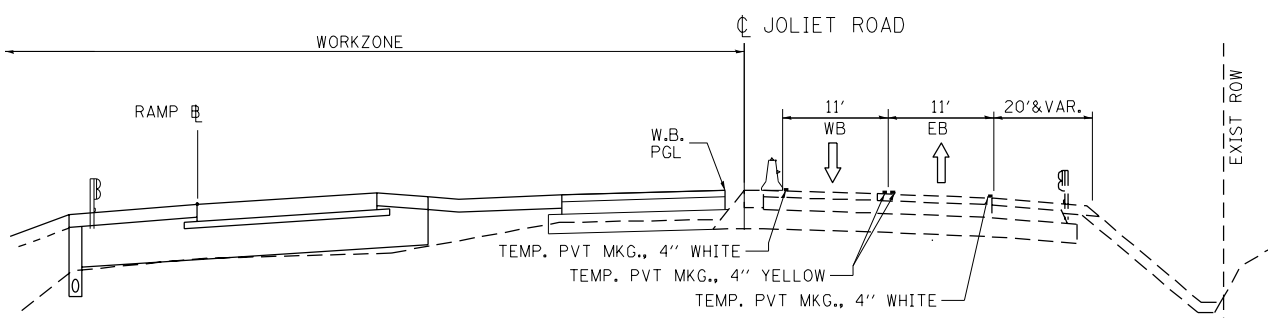




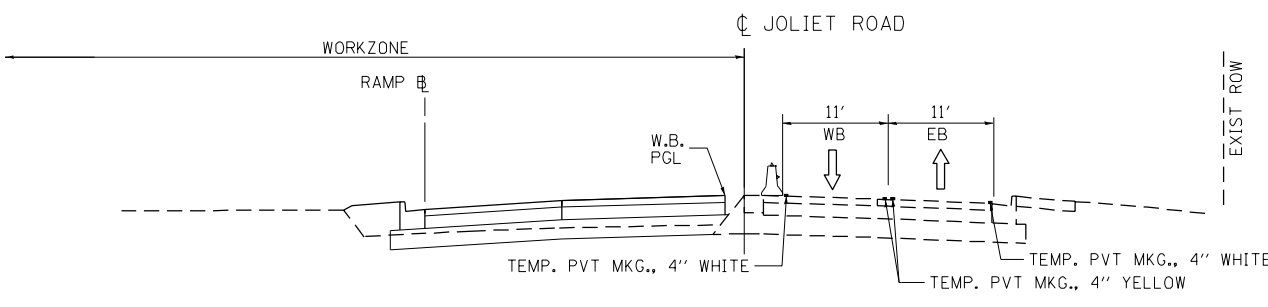
TYPICAL SECTION STAGE I  
STA. 104+25 TO STA. 106+74  
ROADWAY SECTION  
(LOOKING EAST)



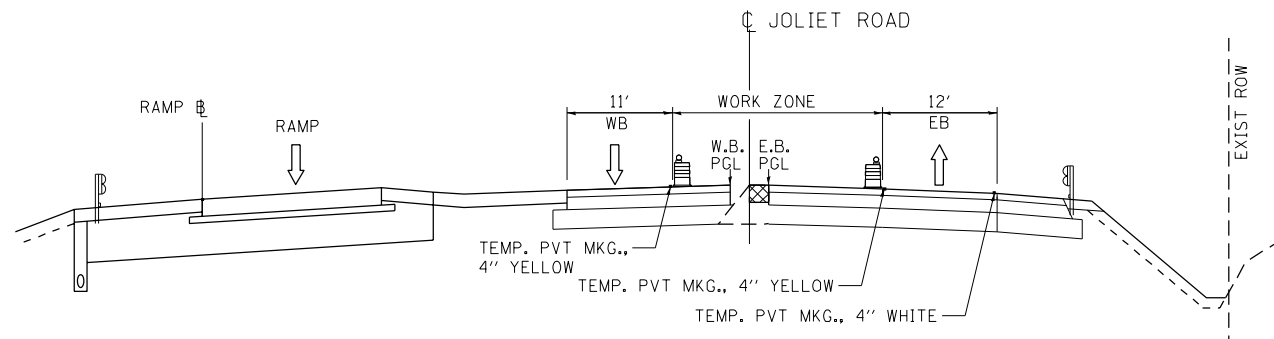
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STA. 108+26 TO STA. 110+25  
ROADWAY SECTION  
(LOOKING EAST)



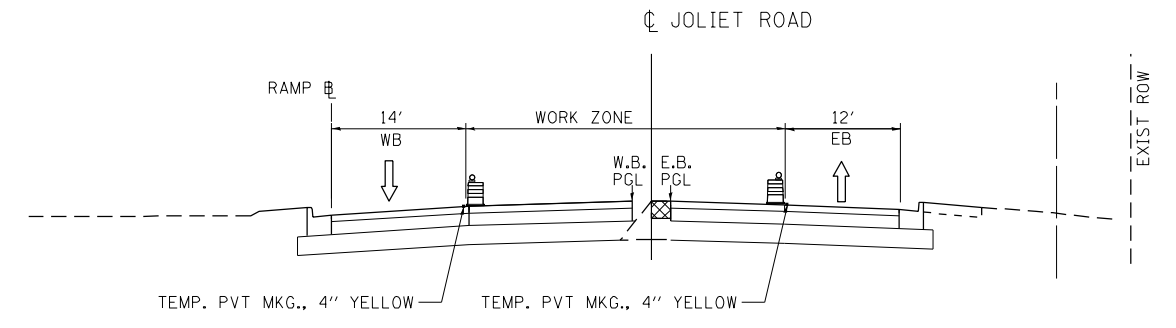
TYPICAL SECTION STAGE II  
STA. 104+25 TO STA. 106+74  
ROADWAY SECTION  
(LOOKING EAST)



TYPICAL SECTION STAGE II  
STA. 108+26 TO STA. 110+25  
ROADWAY SECTION  
(LOOKING EAST)



TYPICAL SECTION STAGE III  
STA. 104+25 TO STA. 106+74  
ROADWAY SECTION  
(LOOKING EAST)



TYPICAL SECTION STAGE III  
STA. 108+26 TO STA. 110+25  
ROADWAY SECTION  
(LOOKING EAST)

FOR TYPICAL SECTIONS ON BRIDGE  
SEE STRUCTURAL PLANS

- LEGEND**
- DRUM
  - TEMPORARY CONCRETE BARRIER
  - DIRECTION OF TRAVEL
  - TEMPORARY PAVEMENT

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 USER NAME = Millennium Professional Services

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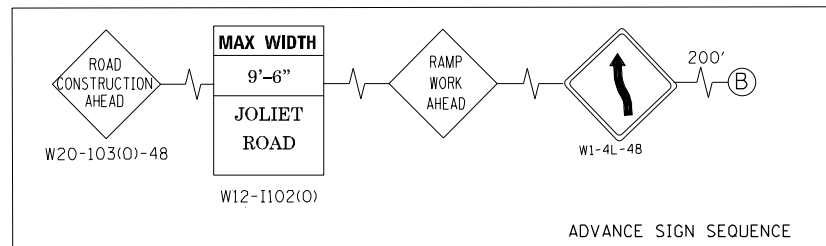
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**JOLIET ROAD OVER FLAG CREEK  
STAGING TYPICAL SECTIONS**

SCALE: N/A SHEET NO. 2 OF 2 SHEETS STA. N/A TO STA. N/A

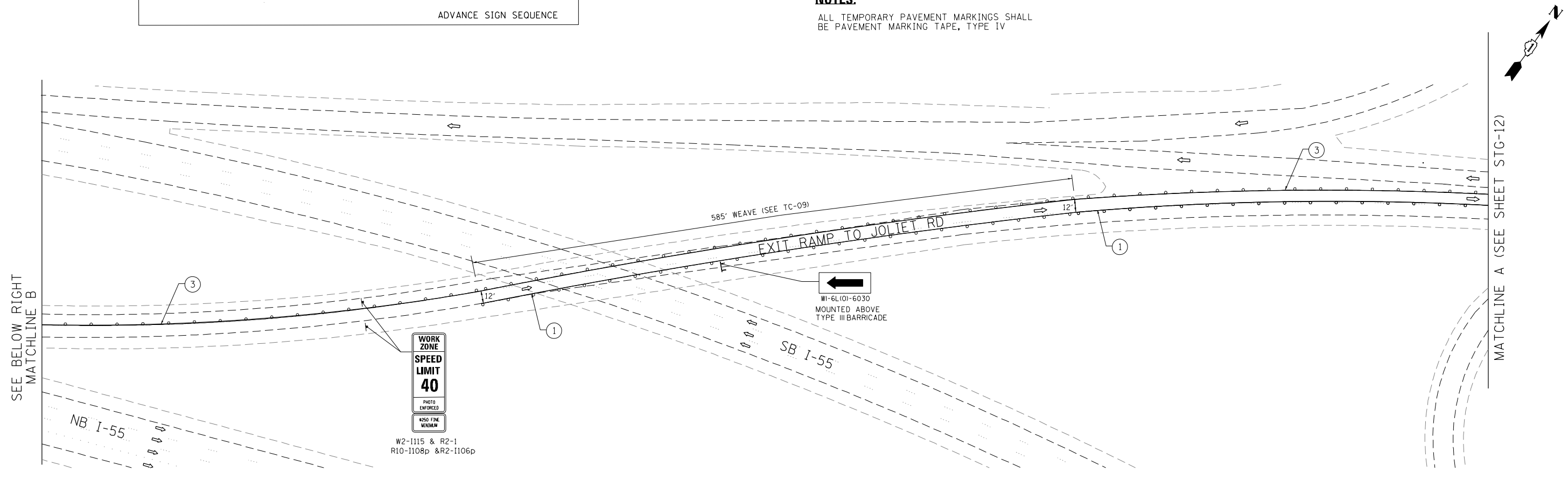
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FED. ROAD DIST. NO. 1 [ILLINOIS] FED. AID PROJECT			CONTRACT NO. 60N80	

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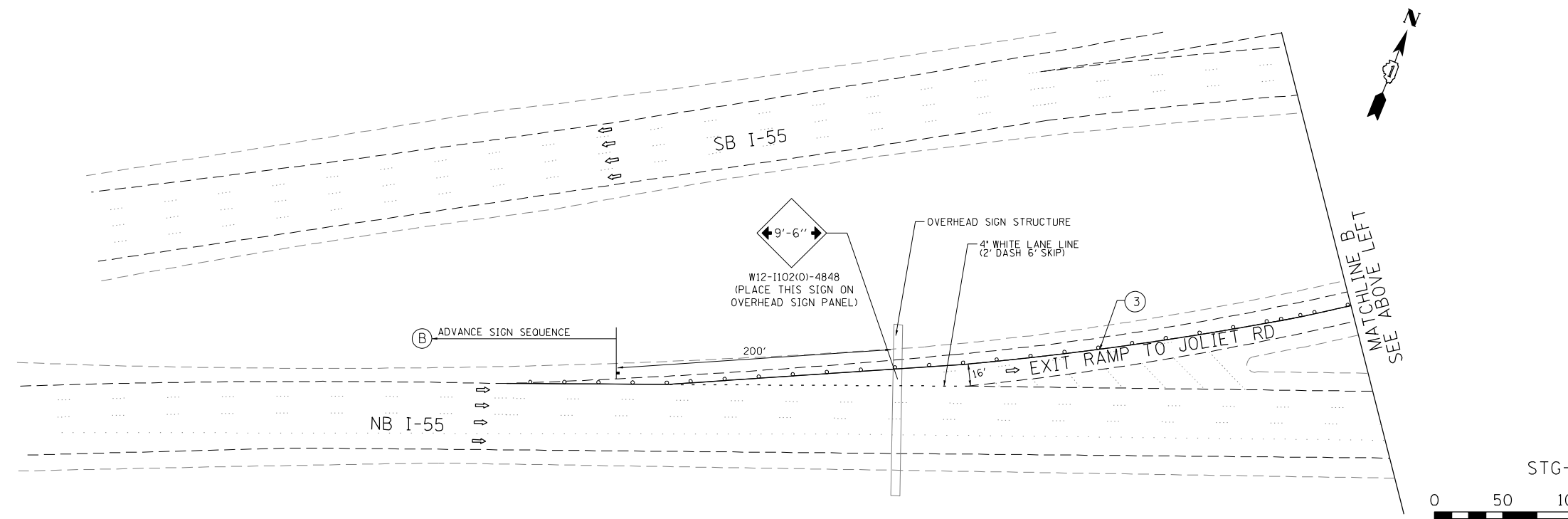
- ① PAVEMENT MARKING, LINE 4", SOLID WHITE LINE (TYP)
- ② PAVEMENT MARKING, LINE 6", SOLID WHITE LINE (TYP)
- ③ PAVEMENT MARKING, LINE 4", SOLID YELLOW LINE (TYP)
- ④ PAVEMENT MARKING, LINE 6", SKIP-DASH WHITE LINE, 6' SKIP, 2' DASH
- ⑤ PAVEMENT MARKING, LINE 4", SOLID YELLOW (2@11" C-C) TEMPORARY RAISED REFLECTIVE PAVEMENT MARKER, @ 40' C-C
- ⑥ PAVEMENT MARKING, LINE 8" SOLID WHITE LINE (TYP)

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



**LEGEND**

- IMPACT ATTENUATOR, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 2
- TYPE III BARRICADES
- DRUM/BARRICADE @ 100' C-C ALONG ROADWAY (TANGENT) AND 50' CENTERS ALONG TAPERS.
- TEMPORARY PAVEMENT
- FLOW OF TRAFFIC
- WORK AREA
- TEMPORARY TRAFFIC SIGN
- ARROW BOARD
- TEMPORARY CONCRETE BARRIER
- DIRECTION INDICATOR BARRICADE @ 20' C-C



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PLOT SCALE = 1/8"=1'-0"  
USER NAME = Millennium Professional Services

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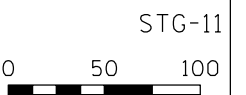
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CHECKED - TVN	REVISED -
DATE - 3/2/2020	REVISED -

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DEPARTMENT OF TRANSPORTATION**

**JOLIET ROAD OVER FLAG CREEK  
SUGGESTED STAGES OF CONSTRUCTION AND TRAFFIC CONTROL  
STAGE I**











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

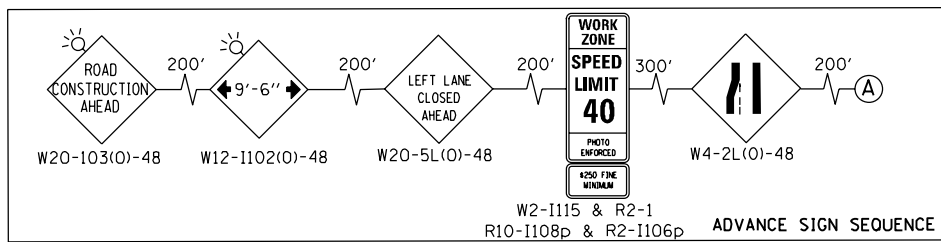
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3562	T-5-4B-R	COOK	92	15
CONTRACT NO. 60N80			FED. ROAD DIST. NO. 1 [ILLINOIS] FED. AID PROJECT	



STG-11

**LEGEND**

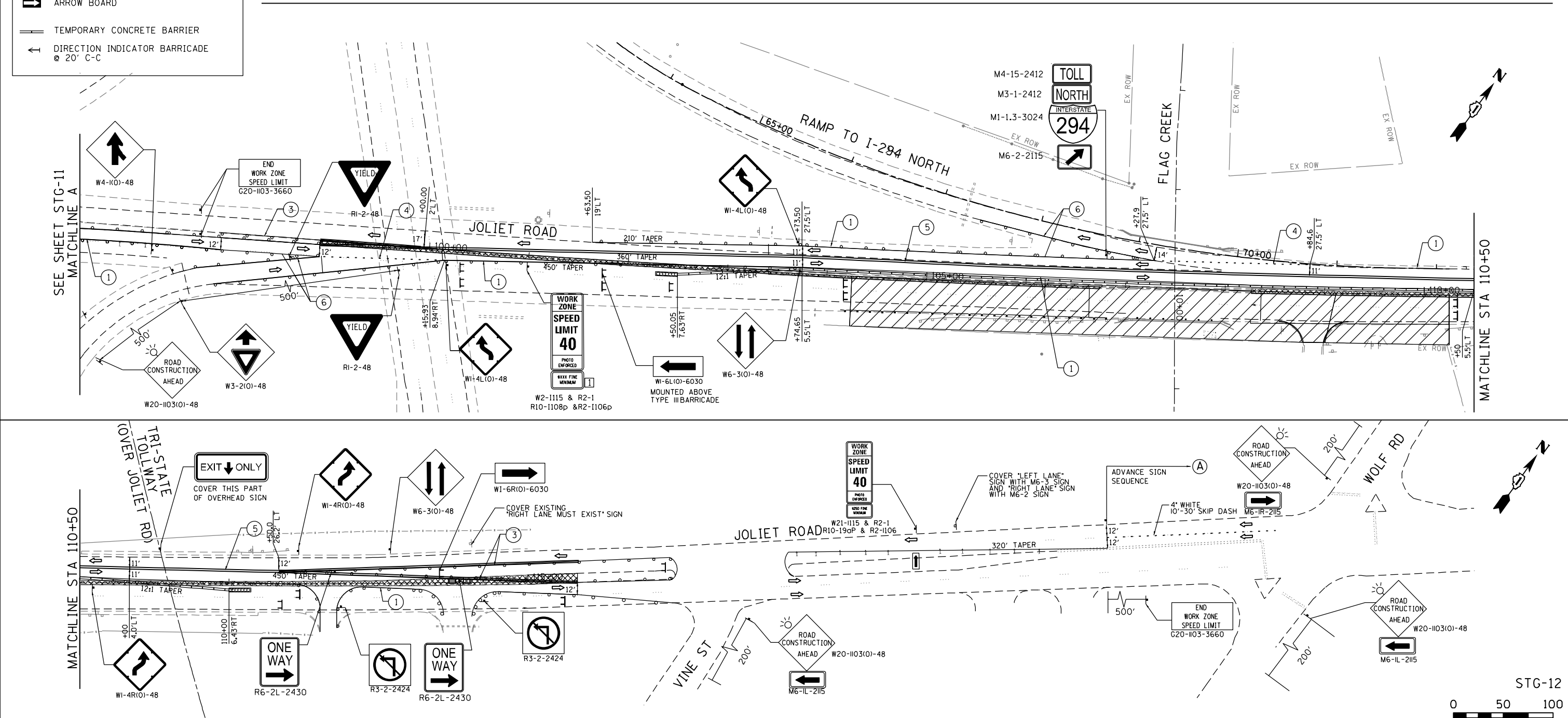
-  IMPACT ATTENUATOR, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 2
-  TYPE III BARRICADES
-  DRUM/BARRICADE @ 100' C-C ALONG ROADWAY (TANGENT) AND 50' CENTERS ALONG TAPERS.
-  TEMPORARY PAVEMENT
-  FLOW OF TRAFFIC
-  WORK AREA
-  TEMPORARY TRAFFIC SIGN
-  ARROW BOARD
-  TEMPORARY CONCRETE BARRIER
-  DIRECTION INDICATOR BARRICADE @ 20' C-C



- ① PAVEMENT MARKING, LINE 4", SOLID WHITE LINE (TYP)
- ② PAVEMENT MARKING, LINE 6", SOLID WHITE LINE (TYP)
- ③ PAVEMENT MARKING, LINE 4", SOLID YELLOW LINE (TYP)
- ④ PAVEMENT MARKING, LINE 6", SKIP-DASH WHITE LINE, 6' SKIP, 2' DASH
- ⑤ PAVEMENT MARKING, LINE 4", SOLID YELLOW (2@11"C-C) TEMPORARY RAISED REFLECTIVE PAVEMENT MARKER, @ 40' C-C
- ⑥ PAVEMENT MARKING, LINE 8" SOLID WHITE LINE (TYP)

**NOTES:**

ALL TEMPORARY PAVEMENT MARKINGS SHALL BE PAVEMENT MARKING TAPE, TYPE IV



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 PLOT SCALE = 1/80,000 / in.  
 USER NAME = Millennium Professional Services


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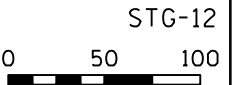
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CHECKED - TVN	REVISED -
DATE - 3/17/2020	REVISED -

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

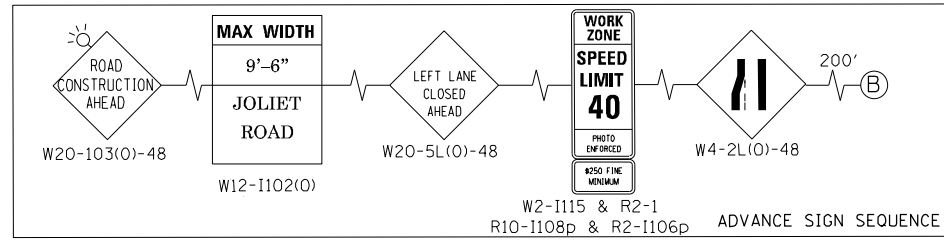
**JOLIET ROAD OVER FLAG CREEK**  
**SUGGESTED STAGES OF CONSTRUCTION AND TRAFFIC CONTROL**  
**STAGE 1**

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

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3562	T-5-4B-R	COOK	92	16
CONTRACT NO. 60N80			FED. ROAD DIST. NO. 1   ILLINOIS FED. AID PROJECT	

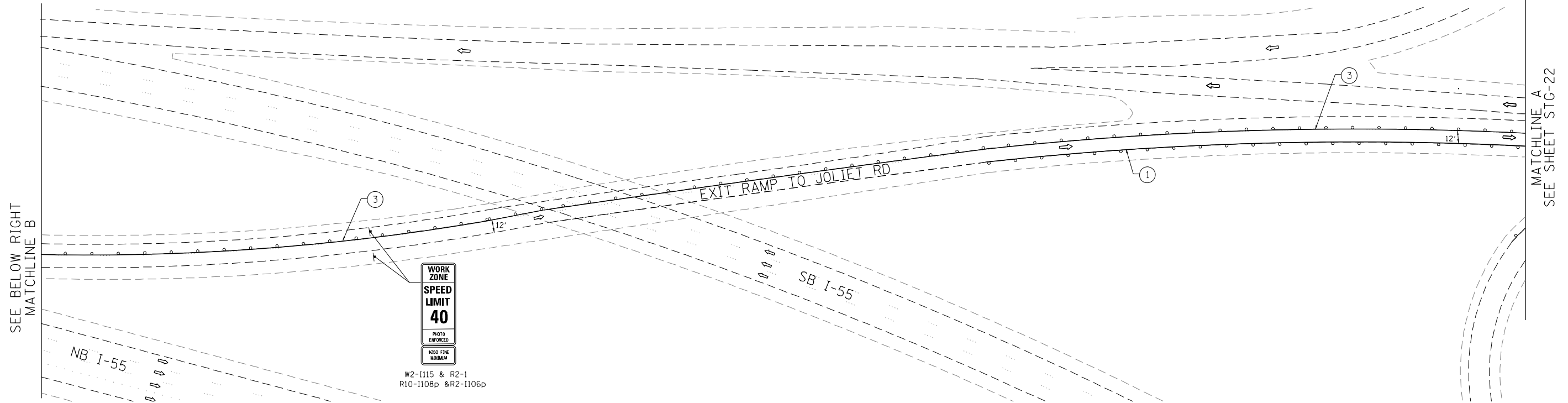


STG-12



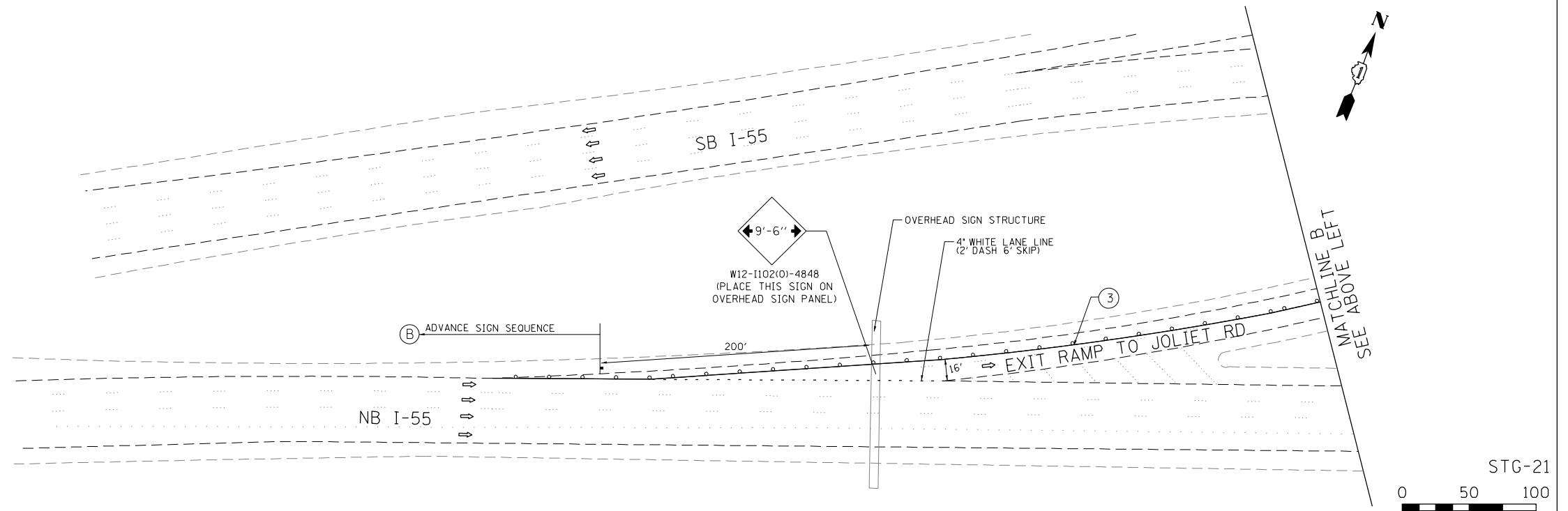
- ① PAVEMENT MARKING, LINE 4", SOLID WHITE LINE (TYP)
- ② PAVEMENT MARKING, LINE 6", SOLID WHITE LINE (TYP)
- ③ PAVEMENT MARKING, LINE 4", SOLID YELLOW LINE (TYP)
- ④ PAVEMENT MARKING, LINE 6", SKIP-DASH WHITE LINE, 6' SKIP, 2' DASH
- ⑤ PAVEMENT MARKING, LINE 4", SOLID YELLOW (2@11" C-C) TEMPORARY RAISED REFLECTIVE PAVEMENT MARKER, @ 40' C-C
- ⑥ PAVEMENT MARKING, LINE 8" SOLID WHITE LINE (TYP)

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



**LEGEND**

- IMPACT ATTENUATOR, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 2
- TYPE III BARRICADES
- DRUM/BARRICADE @ 100' C-C ALONG ROADWAY (TANGENT) AND 50' CENTERS ALONG TAPERS.
- TEMPORARY PAVEMENT
- FLOW OF TRAFFIC
- WORK AREA
- TEMPORARY TRAFFIC SIGN
- ARROW BOARD
- TEMPORARY CONCRETE BARRIER
- DIRECTION INDICATOR BARRICADE @ 20' C-C



FILE NAME = P:\2011\ME11007\_Ver\_Var\_Ph1\CADD\W015\_JolietRd\_FlagCrk\Shets\17-D160N80-sht-5stage21.dgn  
 PLOT SCALE = 1/8"=1'-0"  
 USER NAME = Millennium Professional Services

2600 Warrenville Road, Suite 203, Downers Grove, IL 60515  
 630.785.0110 voice, 630.839.2566 fax  
 www.millennia.pro

**MILLENNIA PROFESSIONAL SERVICES**

DESIGNED -	MG	REVISED -	
DRAWN -	MG/TVN	REVISED -	
CHECKED -	TVN	REVISED -	
DATE -	3/2/2020	REVISED -	

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**











**JOLIET ROAD OVER FLAG CREEK  
SUGGESTED STAGES OF CONSTRUCTION AND TRAFFIC CONTROL  
STAGE II**

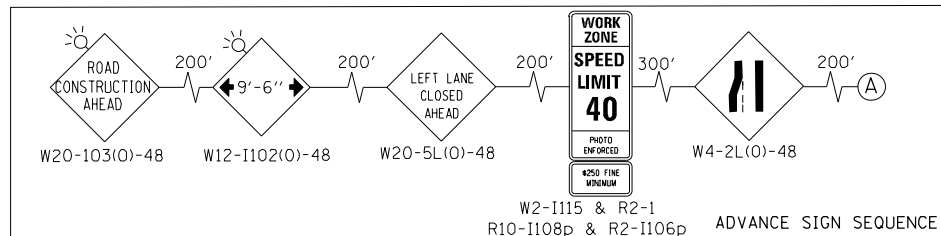
SCALE: 1"=50'    SHEET NO. 1 OF 2 SHEETS    STA.    TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3562	T-5-4B-R	COOK	92	17
CONTRACT NO.			60N80	
FED. ROAD DIST. NO. 1 [ILLINOIS] FED. AID PROJECT				

P:\2011\ME11007\_Ver\_Var\_Ph1\CADD\W015\_JolietRd\_FlagCrk\Shets\17-D160N80-sht-5stage21.dgn

**LEGEND**

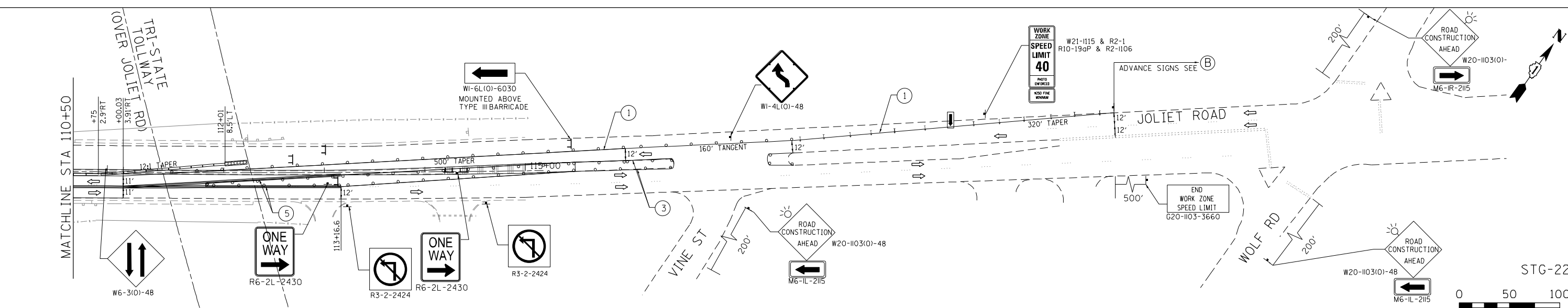
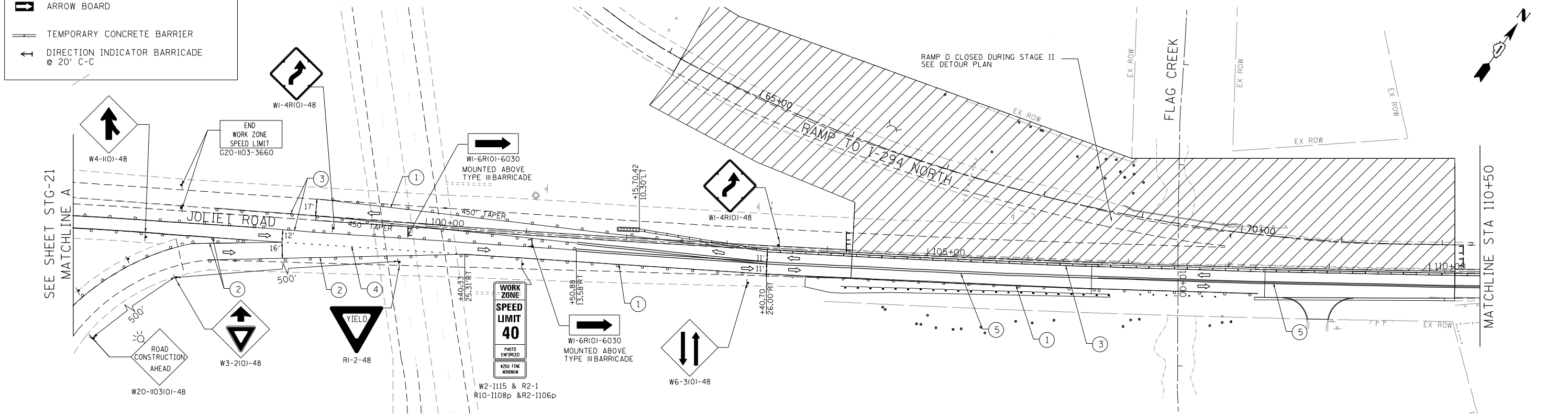
-  IMPACT ATTENUATOR, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 2
-  TYPE III BARRICADES
-  DRUM/BARRICADE @ 100' C-C ALONG ROADWAY (TANGENT) AND 50' CENTERS ALONG TAPERS.
-  TEMPORARY PAVEMENT
-  FLOW OF TRAFFIC
-  WORK AREA
-  TEMPORARY TRAFFIC SIGN
-  ARROW BOARD
-  TEMPORARY CONCRETE BARRIER
-  DIRECTION INDICATOR BARRICADE @ 20' C-C




**NOTES:**

ALL TEMPORARY PAVEMENT MARKINGS SHALL BE PAVEMENT MARKING TAPE, TYPE IV

- ① PAVEMENT MARKING, LINE 4", SOLID WHITE LINE (TYP)
- ② PAVEMENT MARKING, LINE 6", SOLID WHITE LINE (TYP)
- ③ PAVEMENT MARKING, LINE 4", SOLID YELLOW LINE (TYP)
- ④ PAVEMENT MARKING, LINE 6", SKIP-DASH WHITE LINE, 6' SKIP, 2' DASH
- ⑤ PAVEMENT MARKING, LINE 4", SOLID YELLOW (2@11" C-C) TEMPORARY RAISED REFLECTIVE PAVEMENT MARKER, @ 40' C-C
- ⑥ PAVEMENT MARKING, LINE 8" SOLID WHITE LINE (TYP)



FILE NAME = P:\2011\ME11007\_Ver-Ver-Ph1\CADD\W015\_JolietRd\_FlagCrk\Shets\18-D160N80-sh1-5stage22.dgn  
 PLOT SCALE = 1/80,000 / in.  
 USER NAME = Millennium Professional Services


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DRAWN -	MG/TVN	REVISED -	
CHECKED -	TVN	REVISED -	
DATE -	3/2/2020	REVISED -	

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

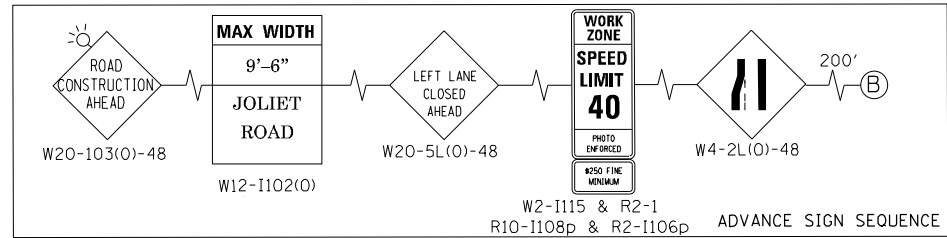
**JOLIET ROAD OVER FLAG CREEK  
SUGGESTED STAGES OF CONSTRUCTION AND TRAFFIC CONTROL  
STAGE II**

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

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3562	T-5-4B-R	COOK	92	18
CONTRACT NO. 60N80			FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT	

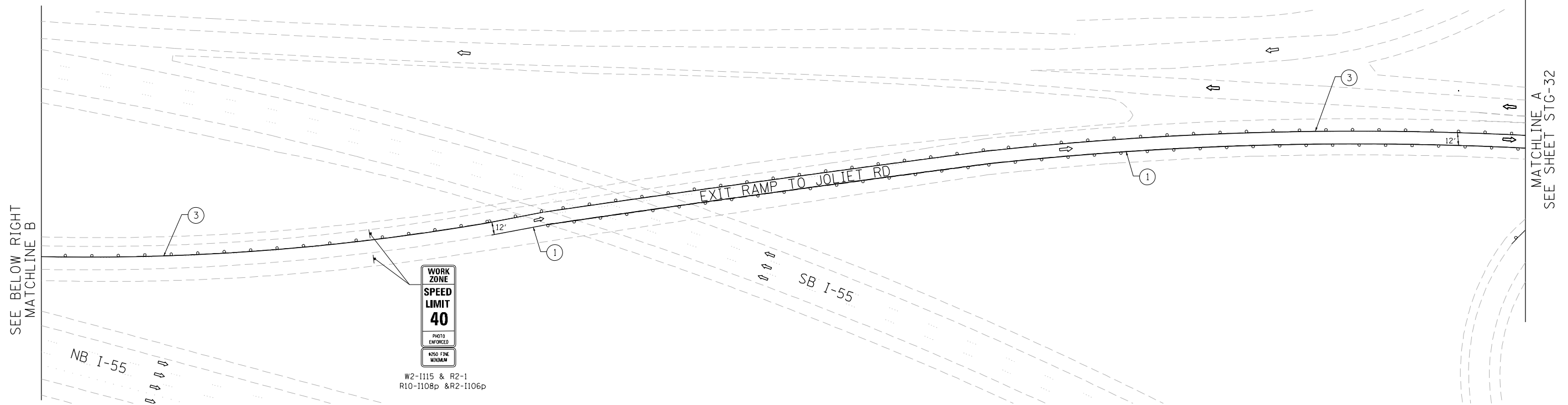
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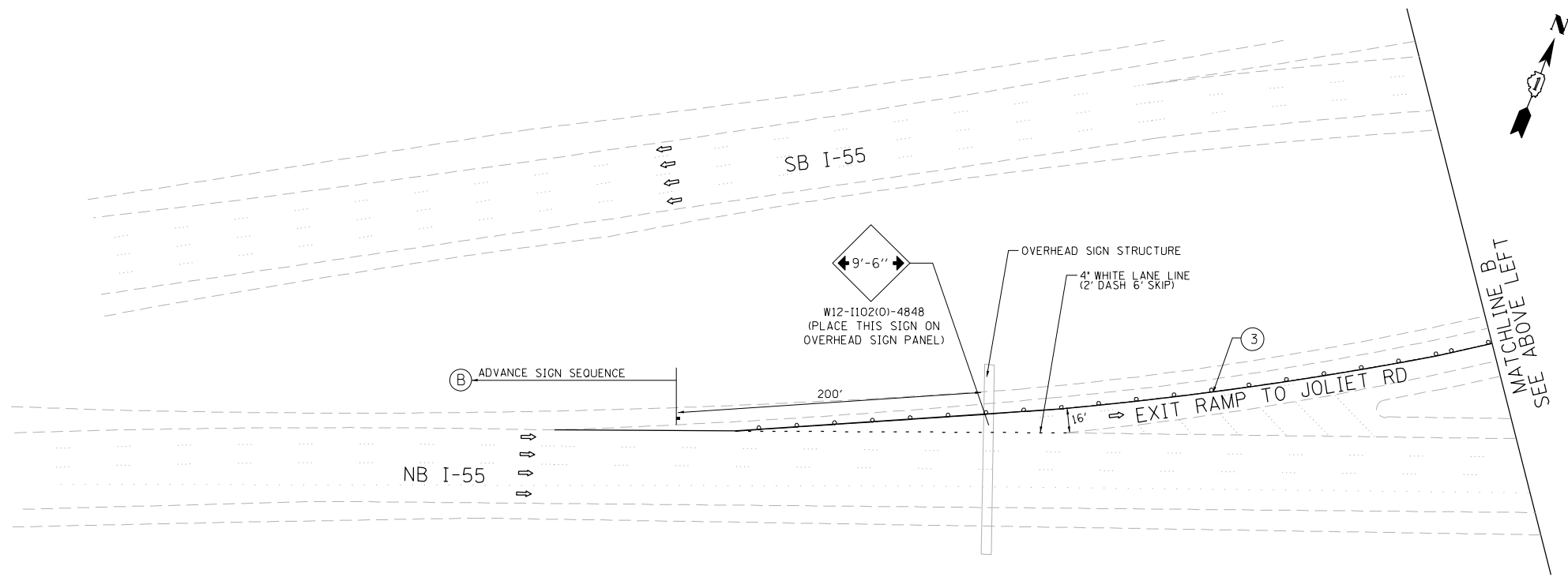
- ① PAVEMENT MARKING, LINE 4", SOLID WHITE LINE (TYP)
- ② PAVEMENT MARKING, LINE 6", SOLID WHITE LINE (TYP)
- ③ PAVEMENT MARKING, LINE 4", SOLID YELLOW LINE (TYP)
- ④ PAVEMENT MARKING, LINE 6", SKIP-DASH WHITE LINE, 6' SKIP, 2' DASH
- ⑤ PAVEMENT MARKING, LINE 4", SOLID YELLOW (2@11"C-C) TEMPORARY RAISED REFLECTIVE PAVEMENT MARKER, @ 40' C-C
- ⑥ PAVEMENT MARKING, LINE 8" SOLID WHITE LINE (TYP)

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



**LEGEND**

- IMPACT ATTENUATOR, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 2
- TYPE III BARRICADES
- DRUM/BARRICADE @ 100' C-C ALONG ROADWAY (TANGENT) AND 50' CENTERS ALONG TAPERS.
- TEMPORARY PAVEMENT
- FLOW OF TRAFFIC
- WORK AREA
- TEMPORARY TRAFFIC SIGN
- ARROW BOARD
- TEMPORARY CONCRETE BARRIER
- DIRECTION INDICATOR BARRICADE @ 20' C-C



FILE NAME = P:\2011\ME11007\_VerVar\_PhI\CADD\W015\_JolietRd\_FlagCrk\Shets\19-D16\N80-sht-Stage31.dgn  
 PLOT SCALE = 1/8"=1'-0"  
 USER NAME = Millennium Professional Services

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CHECKED -	TVN	REVISED -	
DATE -	3/2/2020	REVISED -	

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**


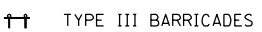


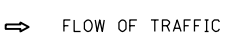



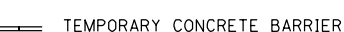
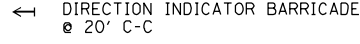
**JOLIET ROAD OVER FLAG CREEK  
 SUGGESTED STAGES OF CONSTRUCTION AND TRAFFIC CONTROL  
 STAGE III**

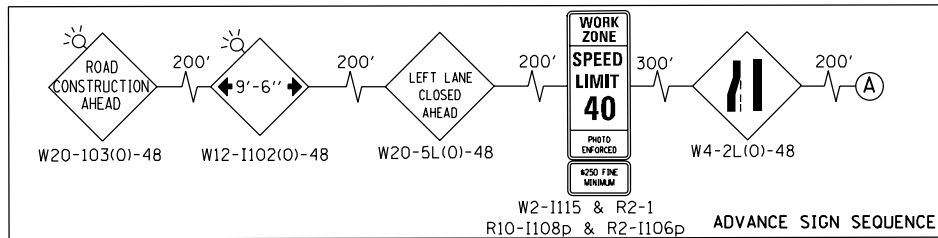
SCALE: 1"=50' SHEET NO. 1 OF 2 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3562	T-5-4B-R	COOK	92	19
FED. ROAD DIST. NO. 1 [ILLINOIS] FED. AID PROJECT			CONTRACT NO. 60N80	

P:\2011\ME11007\_VerVar\_PhI\CADD\W015\_JolietRd\_FlagCrk\Shets\19-D16\N80-sht-Stage31.dgn

**LEGEND**

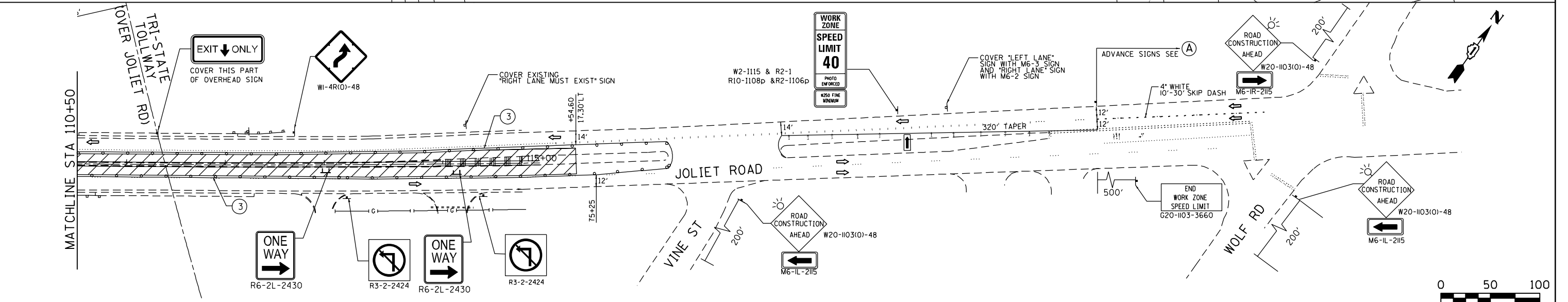
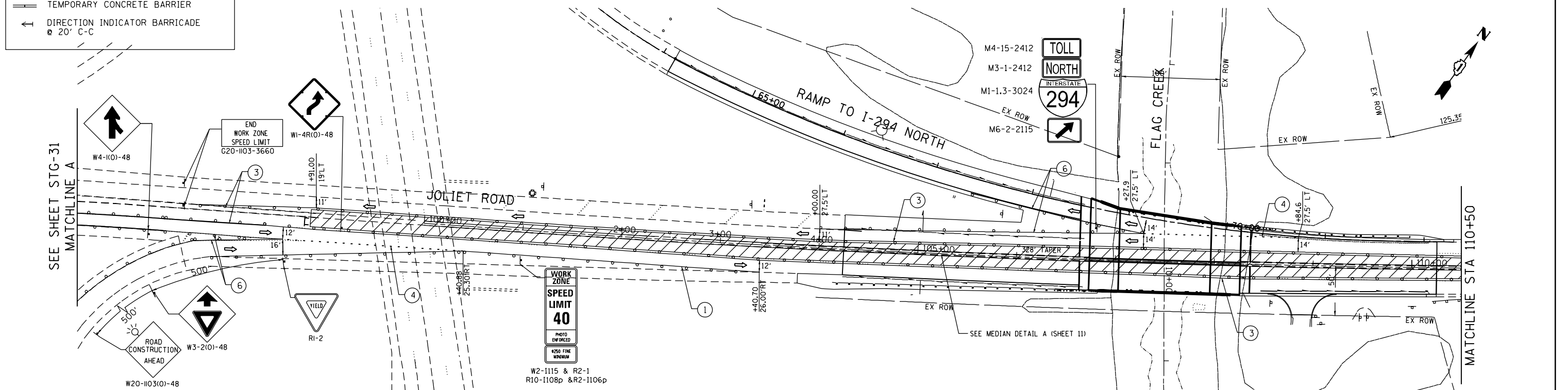
-  IMPACT ATTENUATOR, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 2
-  TYPE III BARRICADES
-  DRUM/BARRICADE @ 100' C-C ALONG ROADWAY (TANGENT) AND 50' CENTERS ALONG TAPERS.
-  TEMPORARY PAVEMENT
-  FLOW OF TRAFFIC
-  WORK AREA
-  TEMPORARY TRAFFIC SIGN
-  ARROW BOARD
-  TEMPORARY CONCRETE BARRIER
-  DIRECTION INDICATOR BARRICADE @ 20' C-C



**NOTES:**

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FILE NAME = P:\2011\ME11007\_Ver\_Ver\_Phi\IACADD\W015\_JolietRd\_FlagCrk\Shets\20-D160N80-shet-Stage32.dgn  
 PLOT SCALE = 1/80,000 / in.  
 USER NAME = Millennium Professional Services



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DRAWN - MG/TVN	REVISED -
CHECKED - TVN	REVISED -
DATE - 3/17/2020	REVISED -

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

**JOLIET ROAD OVER FLAG CREEK**  
**SUGGESTED STAGES OF CONSTRUCTION AND TRAFFIC CONTROL**  
**STAGE III**

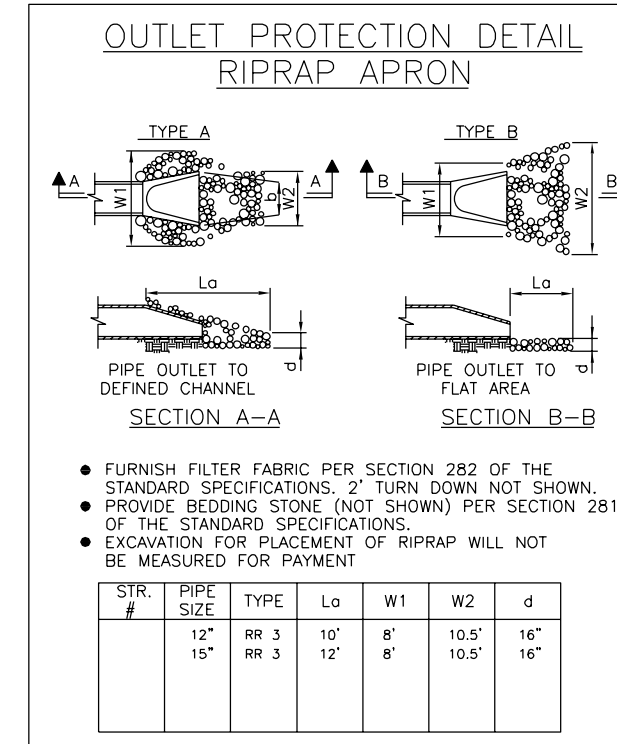
SCALE: 1"=50'    SHEET NO. 2 OF 2 SHEETS    STA.    TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3562	T-5-4B-R	COOK	92	20
FED. ROAD DIST. NO. 1 [ILLINOIS] FED. AID PROJECT			CONTRACT NO. 60N80	



## SOIL EROSION GENERAL NOTES

1. THE CONTRACTOR SHALL BE REQUIRED TO INSTALL AND MAINTAIN SILT FENCE AS INDICATED IN THE PLAN PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITIES WHICH WILL POTENTIALLY CREATE EROSION CONDITIONS.
2. IN ADDITION TO THE LOCATIONS INDICATED ON THE PLAN, SILT FENCE SHALL BE PLACED AROUND THE PERIMETER OF THE EARTH STOCKPILES. SEDIMENT CONTROL MEASURES MUST BE IN PLACE PRIOR TO THE BUILDING OR REMOVAL OF ANY STOCKPILE.
3. IF A STOCKPILE IS TO REMAIN IN PLACE FOR MORE THAN THREE DAYS, THEN SEDIMENT AND EROSION CONTROL SHALL BE PROVIDED FOR SUCH STOCKPILE.
4. EXISTING CULVERTS WITHIN THE DISTURBED LIMIT SHALL BE PROTECTED PRIOR TO ANY CONSTRUCTION ACTIVITIES COMMENCING UPSTREAM.
5. TREE PROTECTION SHALL BE INSTALLED ACCORDING TO THE PLAN PRIOR TO OTHER CONSTRUCTION ACTIVITIES.
6. PERMANENT SEEDING/SODDING SHALL BE IMPLEMENTED ACCORDING TO THE PLAN IN CONJUNCTION WITH CONSTRUCTION STAGING.
7. DOUBLE TEMPORARY EROSION CONTROL BARRIERS HAVE BEEN PROVIDED IN THE CONTRACT QUANTITIES, TO BE UTILIZED AT PERIMETER OF WETLAND AND OTHER ENVIRONMENTALLY SENSITIVE AREAS. WHEN EARTHWORK IS ADJACENT TO A WATERS OF U.S., SEDIMENT CONTROL MEASURES WILL BE IN PLACE SO THAT OVERLAND FLOW IS NOT ALLOWED TO CARRY SEDIMENT TO THE WATERS OF U.S.
8. THE CONTRACTOR SHALL MAKE INSPECTIONS A MINIMUM OF ONCE EVERY SEVEN DAYS OF THE FOLLOWING : 1) DISTURBED AREAS OF THE PROJECT SITE THAT HAVE NOT BEEN FULLY STABILIZED, 2) STRUCTURAL CONTROL MEASURES (SILT FENCE, ETC.) AND 3) LOCATIONS WHERE VEHICLES ENTER AND EXIT THE SITE. AN ADDITIONAL INSPECTION OF THE ITEMS LISTED ABOVE MUST BE MADE WITHIN TWENTY- FOUR (24) HOURS OF A 0.5-INCH OR GREATER RAINFALL OR EQUIVALENT SNOWFALL.
9. GRASS AREAS DISTURBED OR DAMAGED BY CONSTRUCTION ACTIVITIES SHALL BE RESTORED TO ORIGINAL CONDITIONS. GRASS AREAS SHALL BE SEEDED AND COVERED WITH EXCELSIOR BLANKET AS INDICATED ON THE PLANS OR IN THE SPECIAL PROVISIONS.
10. DUST CONTROL  
 (1) WHEN DUST BLOWING FROM CONSTRUCTION SITES MAY BECOME A TRAFFIC HAZARD OR A DANGER TO THE HEALTH OR COMFORT TO PERSONS DOWNWIND, IT SHALL BE CONTROLLED EITHER PERMANENTLY OR TEMPORARILY DEPENDING UPON THE STATE OF DEVELOPMENT OF THE SITE. DUST CONTROL MEASURES SHALL BE TAKEN WHEN REQUIRED BY THE GOVERNING AUTHORITY.  
 (2) DUST PROBLEMS FROM ACTIVE CONSTRUCTION AREAS SHALL BE KEPT UNDER CONTROL BY MEANS OF WATERING DRY SURFACES AND/OR THE APPLICATION OF CALCIUM CHLORIDE. APPLICATION AND REPETITION RATES SHALL BE AS NECESSARY FOR EFFECTIVE CONTROL.  
 (3) IN THE EVENT OF SEVERE DUST PROBLEMS, THE GOVERNING AUTHORITY MAY STOP SUCH DUST- PRODUCING ACTIVITIES UNTIL THE PROBLEM IS RESOLVED.  
 (4) CONTRACTOR SHALL BE RESPONSIBLE TO TAKE NECESSARY MEASURES TO CONTROL DUST SO THERE WILL BE NO DUST PROBLEMS FOR ADJACENT RESIDENTS CAUSED BY CONSTRUCTION ACTIVITIES.
11. CONSTRUCTION ACTIVITIES SHALL BE SCHEDULED TO MINIMIZE THE TIME SOIL IS EXPOSED AND UNPROTECTED. IN NO CASE SHALL THE EXISTING VEGETATION BE DESTROYED, REMOVED, OR DISTURBED MORE THAN FOURTEEN (14) CALENDAR DAYS PRIOR TO THE INITIATION OF IMPROVEMENTS.



FILE NAME = PA\2011\ME11007\_Ver\_Ver\_Phi\CADD\W015\_JolietRd\_FlagCrk\_Shts\21-0160N80-sht- Erosion Control Notes.dgn  
 PLOT SCALE = 1/8" = 1'-0" / in.  
 USER NAME = Millennium Professional Services



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DRAWN - MG/TVN	REVISED -
CHECKED - TVN	REVISED -
DATE - 3/17/2020	REVISED -

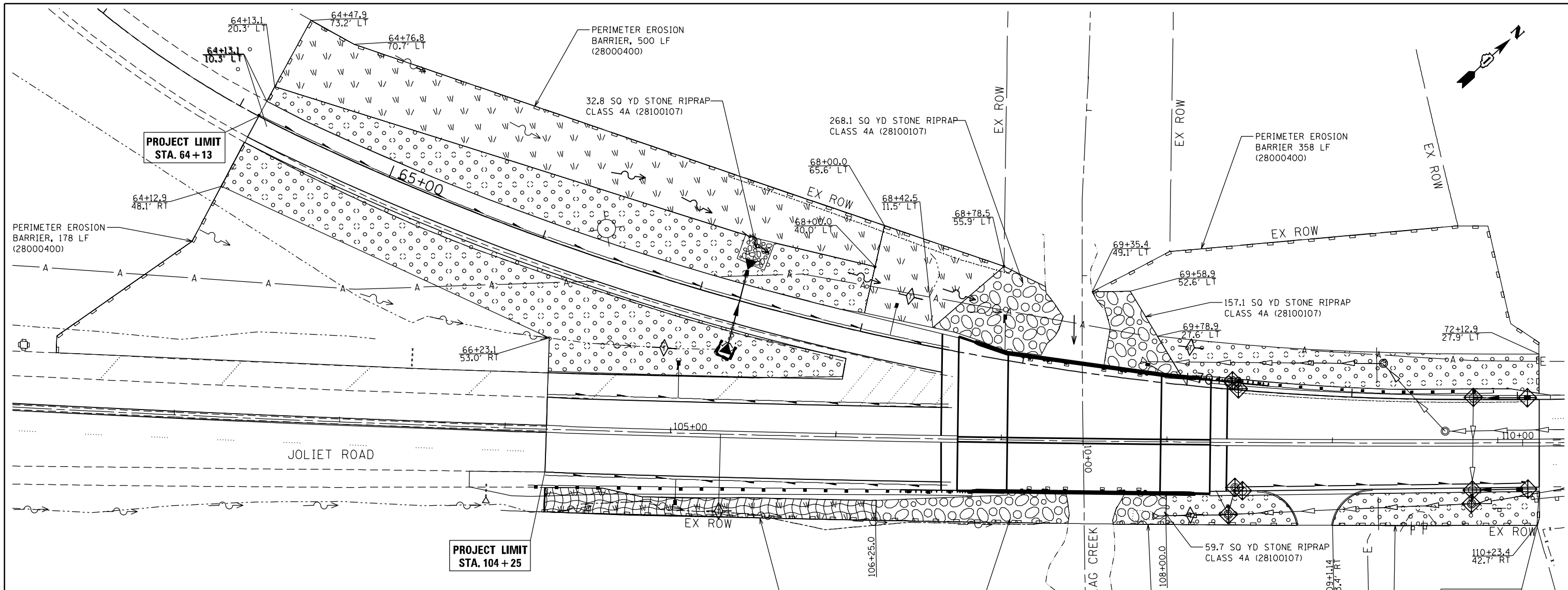
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**JOLIET ROAD OVER FLAG CREEK**  
**EROSION CONTROL GENERAL NOTES AND DETAILS**

SCALE: · N/A    SHEET NO. 1 OF 2 SHEETS    STA. N/A    TO STA. N/A

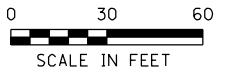
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3562	T-5-4B-R	COOK	92	21
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO. 60N80	

PA\2011\ME11007\_Ver\_Ver\_Phi\CADD\W015\_JolietRd\_FlagCrk\_Shts\21-0160N80-sht- Erosion Control Notes.dgn



EXISTING	LEGEND	PROPOSED
-----	STORM CULVERT R.O.W.	
	INLET AND PIPE PROTECTION (USING PERIMETER EROSION BARRIER, 28000400)	
	STONE RIPRAP, CLASS A4 (28100107)	
	INLET FILTERS(28000510)	
	STORM PIPE	
	PERIMETER EROSION BARRIER (28000400)	
	EROSION CONTROL BLANKET (25100630) WITH CLASS 4A MIXTURE SEEDING (25000312)	
	HEAVY EROSION CONTROL BLANKET (25100635) WITH CLASS 4A MIXTURE SEEDING (25000312)	
	EROSION CONTROL BLANKET (25100630) WITH CLASS 2A MIXTURE SEEDING (25000210)	
	SURFACE FLOW	
	DITCH FLOW	
	TEMPORARY DITCH CHECK (28000305)	

NOTE:  
 1. THE LABELED SEEDING AREA HAS COVERED THE MAXIMUM POTENTIAL AREA THAT COULD BE DISTURBED. FOR THOSE AREAS THAT ARE NOT DISTURBED BY CONSTRUCTION ACTIVITIES AND CONSTRUCTION EQUIPMENTS, THE SEEDING IS NOT NEEDED.  
 2. IF THE CONSTRUCTION ACTIVITY IS SCHEDULED TO CEASE FOR MORE THAN 15 CALENDAR DAYS, TEMPORARY EROSION CONTROL SEEDING SHALL BE APPLIED TO THE DISTURBED PERVIOUS AREA. TEMPORARY SEEDING SHALL CONSIST OF IDOT CLASS 7 SEED MIXTURE (114 LB/ACRE) AND WOOD FIBER MULCH (METHOD 2) CONTAINING A PRE-BLENDED CHEMICAL TACKIFIER.



FILE NAME = P:\2011\ME11007\_Ver-Var-PhI\CADD\W015\_JolietRd\_FlagCrk\Shts\22-D160N80-sht-Erosion Control Final Stage CW.dgn  
 PLOT SCALE = 60.0000 / 1" = 30.0000'  
 USER NAME = Millennia Professional Services

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CHECKED - TVN	REVISED -
DATE - 3/17/2020	REVISED -

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

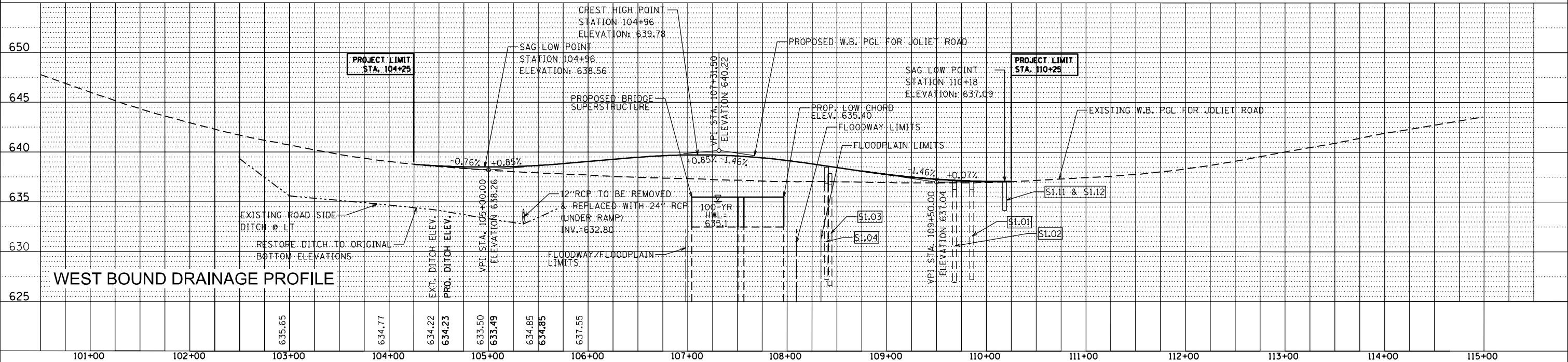
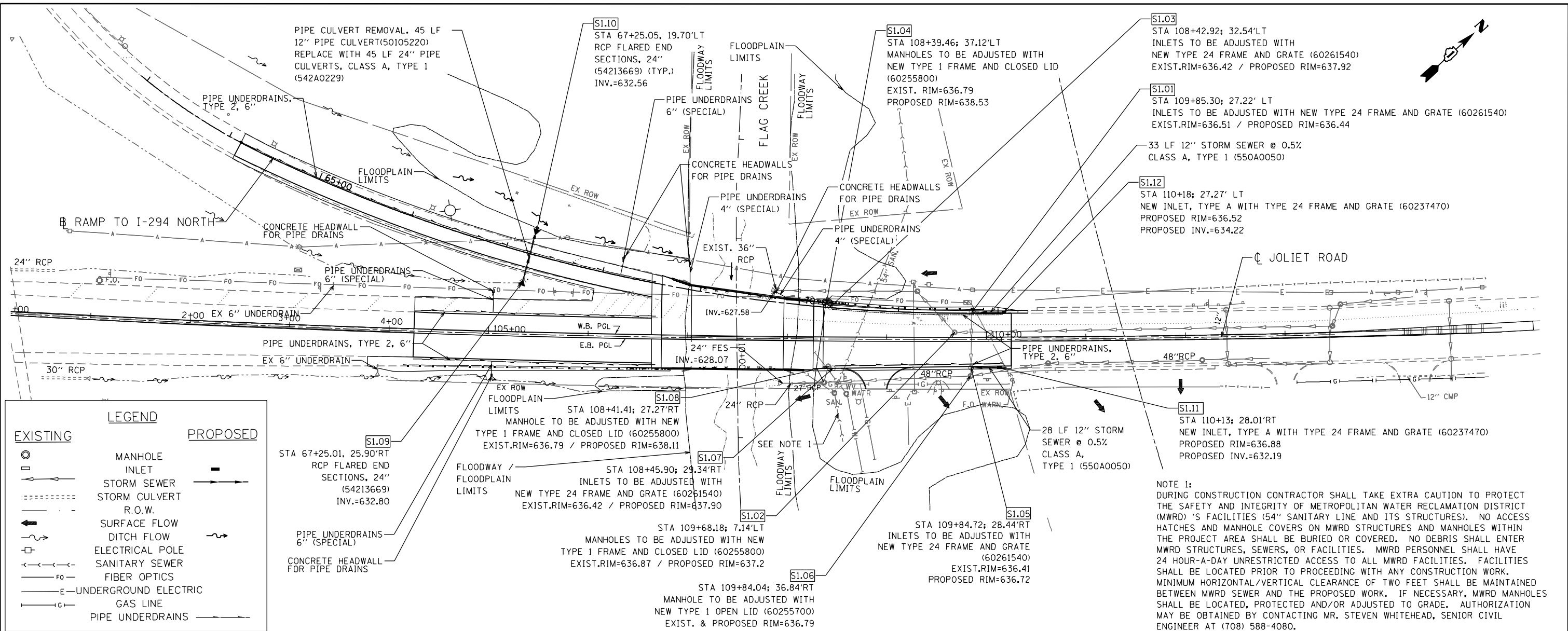
**JOLIET ROAD OVER FLAG CREEK**  
**EROSION CONTROL AND SEEDING PLAN**

SCALE: 1"=30' SHEET NO. 2 OF 2 SHEETS STA. N/A TO STA. N/A

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3562	T-5-4B-R	COOK	92	22
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO. 60N80	

P:\2011\ME11007\_Ver-Var-PhI\CADD\W015\_JolietRd\_FlagCrk\Shts\22-D160N80-sht-Erosion Control Final Stage CW.dgn

DATE	
BY	
PROFILE SURVEYED	
GRADES CHECKED	
NOTE BOOK	
STRUCTURE NOTATIONS	CHKD
NO.	

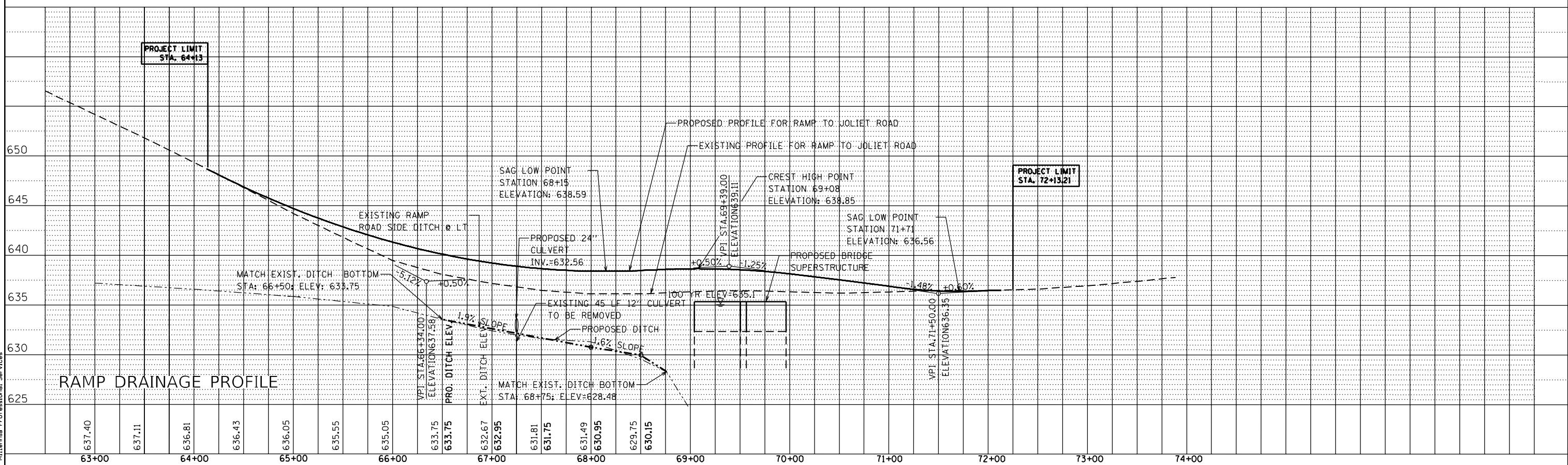
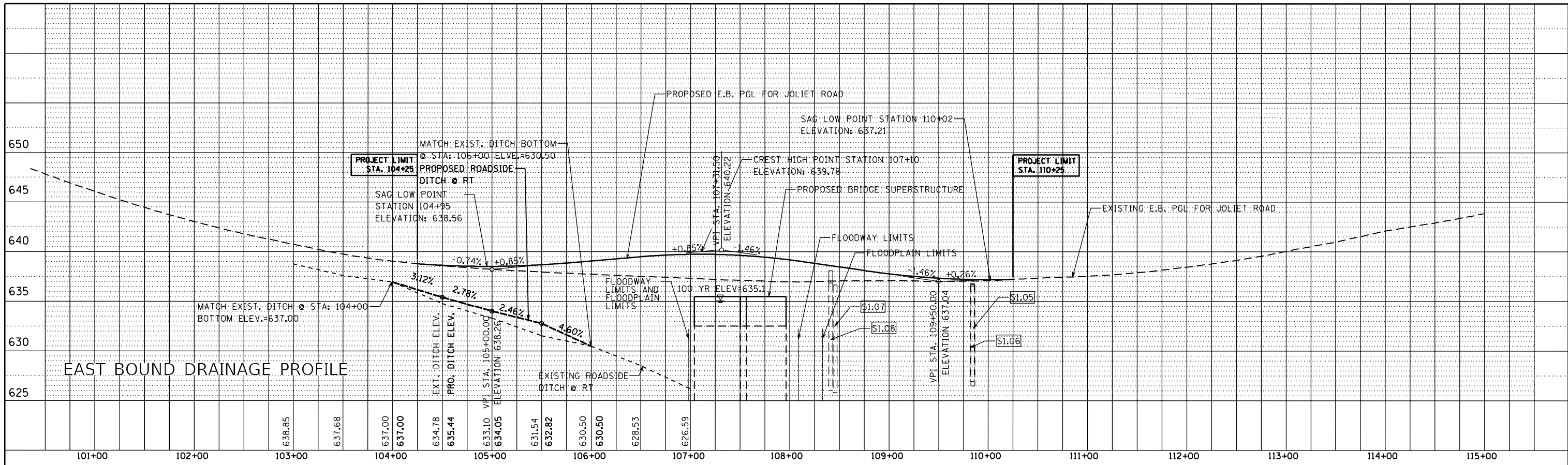


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 PLOT SCALE = 1/80.000000 / in.  
 USER NAME = Millennium Professional Services

 2600 Warrenville Road, Suite 203, Downers Grove, IL 60515 630.705.0110 voice, 630.839.3566 fax www.millennia.pro	DESIGNED - MG	REVISED -	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>JOLIET ROAD OVER FLAG CREEK</b> <b>DRAINAGE PLAN &amp; PROFILE</b>	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	DRAWN - MG	REVISED -			3562	T-5-4B-R	COOK	92	23
CHECKED - TVN	REVISED -	SCALE: 1"=50'			SHEET NO. 1 OF 2 SHEETS			STA. N/A TO STA. N/A	
DATE - 3/17/2020	REVISED -	FED. ROAD DIST. NO. 1			ILLINOIS FED. AID PROJECT			CONTRACT NO. 60N80	



PROFILE	SURVEYED	DATE
NOTE BOOK	GRADES CHECKED	
NO.	STRUCTURE NOTATIONS CHECKED	



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 PLOT SCALE = 1/80.000000 / in.  
 USER NAME = Millennium Professional Services

**MILLENNIA PROFESSIONAL SERVICES**  
 2600 Warrenville Road, Suite 203, Downers Grove, IL 60515  
 630.785.0110 voice, 630.839.2566 fax  
 www.mps-il.com

DESIGNED - -	REVISED -
DRAWN - -	REVISED -
CHECKED - -	REVISED -
DATE - 3/17/2020	REVISED -

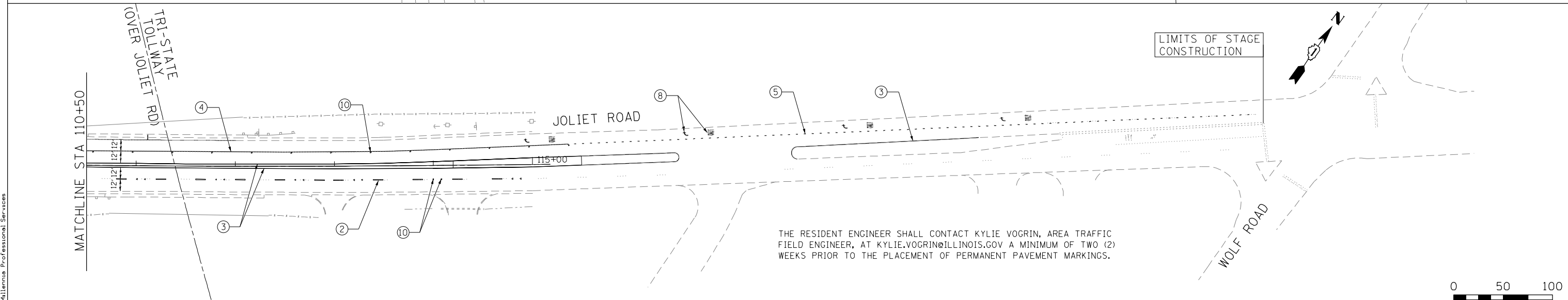
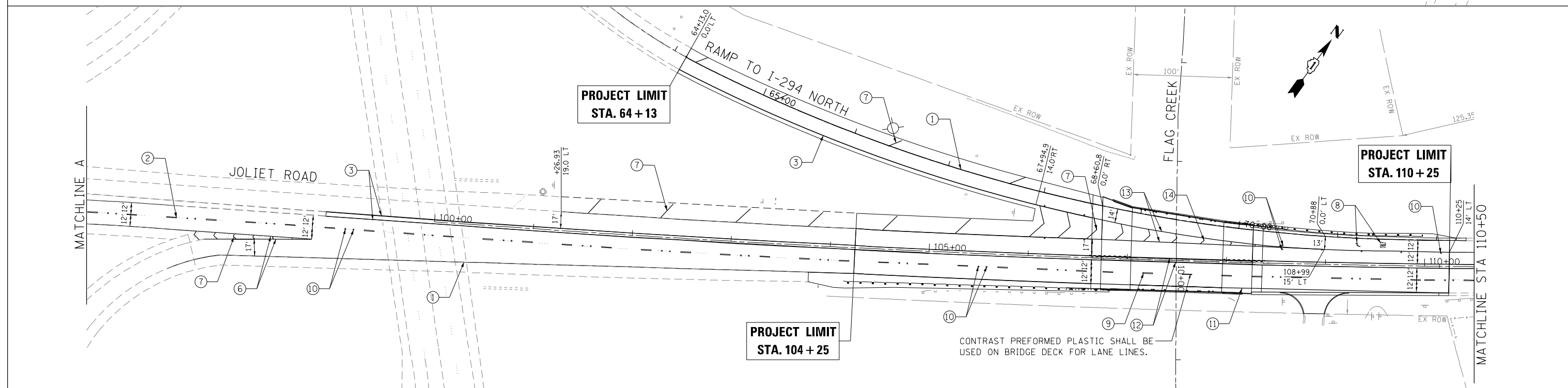
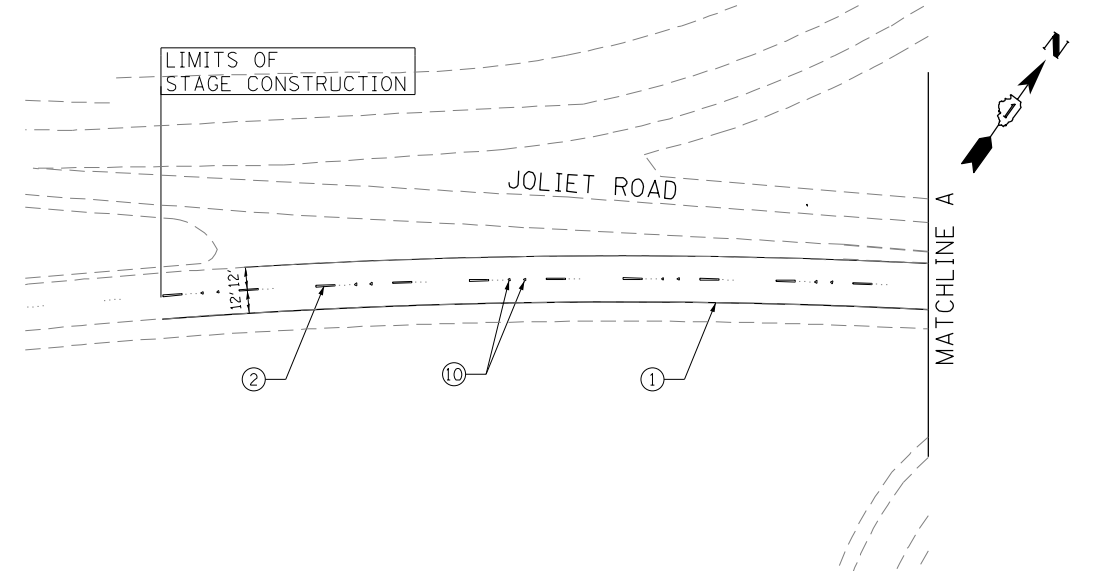
**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**JOLIET ROAD OVER FLAG CREEK  
 DRAINAGE PROFILE**  
 SCALE: 1"=50'H 1"=5'V SHEET NO. 2 OF 2 SHEETS STA. N/A TO STA. N/A

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3562	T-5-4B-R	COOK	92	24
CONTRACT NO. 60N80				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

**PAVEMENT MARKING LEGEND**

- ① THERMOPLASTIC PAVEMENT MARKING 4" SOLID WHITE LINE
- ② THERMOPLASTIC PAVEMENT MARKING 4" WHITE LANE LINE (10' DASH 30' SKIP)
- ③ THERMOPLASTIC PAVEMENT MARKING 4" SOLID YELLOW LINE
- ④ THERMOPLASTIC PAVEMENT MARKING 6" WHITE LINE
- ⑤ THERMOPLASTIC PAVEMENT MARKING 6" WHITE DOTTED LINE (3' DASH 9' SKIP)
- ⑥ THERMOPLASTIC PAVEMENT MARKING 8" SOLID WHITE LINE
- ⑦ THERMOPLASTIC PAVEMENT MARKING 12" WHITE DIAGONAL LINE
- ⑧ THERMOPLASTIC PAVEMENT MARKING LETTERS AND SYMBOLS (TYP)
- ⑨ PREFORMED PLASTIC PAVEMENT MARKING, TYPE B - LINE 7" (10' DASH 30' SKIP)
- ⑩ RAISED REFLECTIVE PAVEMENT MARKER (RAISED REFLECTIVE PAVEMENT MARKERS SHALL NOT BE USED ON THE BRIDGE DECK)
- ⑪ MODIFIED URETHANE PAVEMENT MARKING 4" SOLID WHITE LINE
- ⑫ MODIFIED URETHANE PAVEMENT MARKING 4" SOLID YELLOW LINE
- ⑬ MODIFIED URETHANE MARKING 8" SOLID WHITE LINE
- ⑭ MODIFIED URETHANE MARKING 12" WHITE DIAGONAL LINE



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 PLOT SCALE = 1/80,000 / in.  
 USER NAME = Millennium Professional Services

2600 Warrenville Road, Suite 203, Downers Grove, IL 60515  
 630.785.0110 voice, 630.839.2566 fax  
 www.millennia.pro  
**MILLENNIA PROFESSIONAL SERVICES**

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DRAWN - MG/TVN	REVISED -
CHECKED - TVN	REVISED -
DATE - 2/28/2020	REVISED -

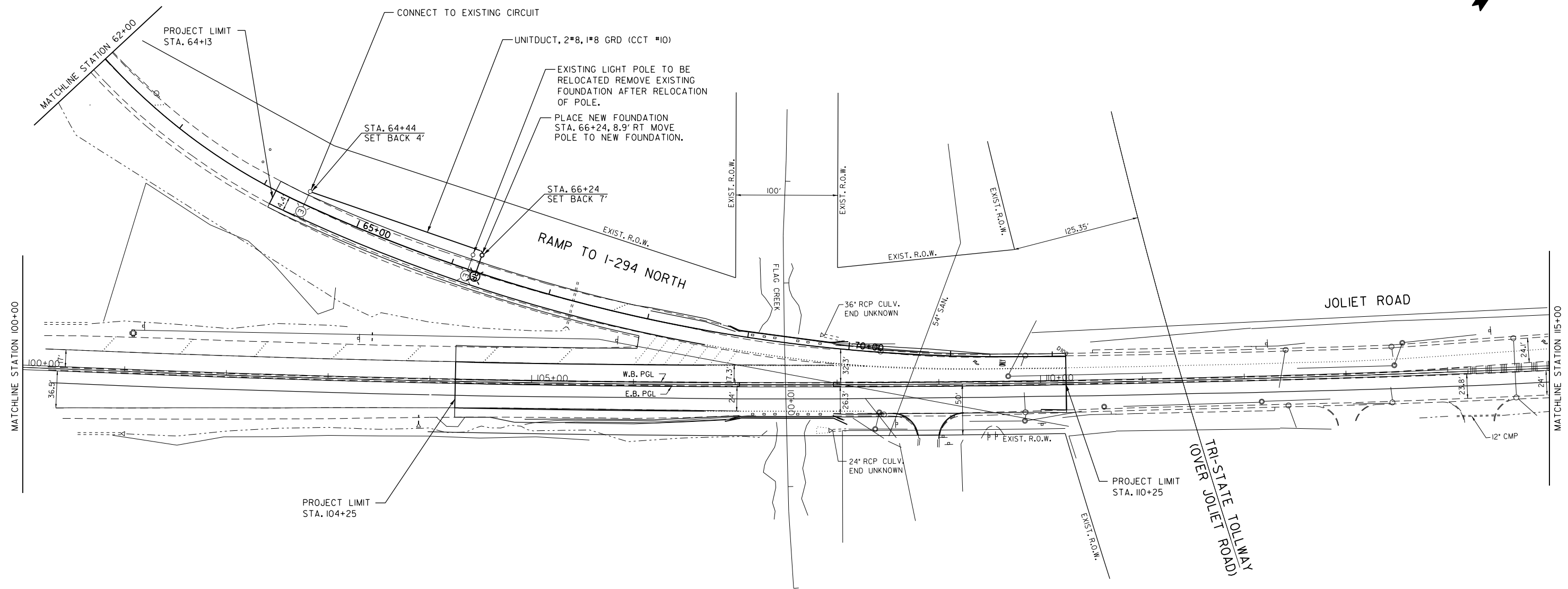
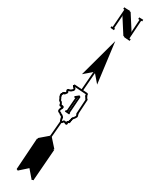
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**JOLIET ROAD OVER FLAG CREEK**  
**PAVEMENT MARKING PLAN**

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

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3562	T-5-4B-R	COOK	92	25
FED. ROAD DIST. NO. 1 [ILLINOIS] FED. AID PROJECT			CONTRACT NO. 60N80	





LIGHTING AND ELECTRICAL LEGEND	
SYMBOL	DESCRIPTION
	EXISTING SINGLE ARM GROUND MOUNTED LIGHT POLE UNIT.
	EXISTING SINGLE ARM GROUND MOUNTED LIGHT POLE UNIT TO BE REMOVED AND RELOCATED.
	UNIT DUCT, SIZE AS INDICATED ON THE PLAN.

**GENERAL NOTES:**

1. THE RELOCATION OF THE LIGHT POLE IS TO BE COMPLETED DURING STAGE-II WHEN RAMP-D TO I-294 NORTH IS CLOSED/DETOURED FOR RECONSTRUCTION.
2. THE EXISTING LIGHT POLES ARE POWERED AND MAINTAINED BY ILLINOIS TOLLWAY.



FILE NAME = K:\PROJECTS\Projects\_2013\Joliet Rd Flagg Creek CAD Sheets\SA\_09-17-2018\LP\_Relocation Plan.dgn

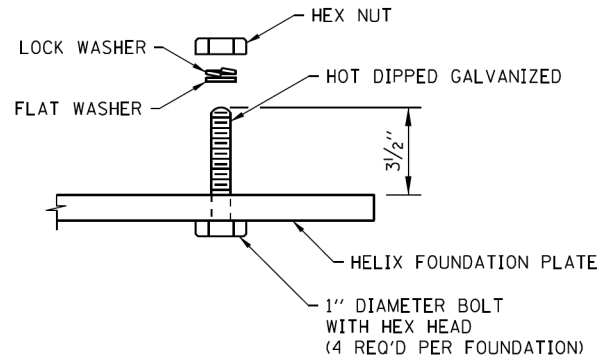
<p>GANDHI AND ASSOCIATES, INC. ENGINEERS AND PLANNERS 6015 N. NORTHWEST HIGHWAY SUITE 200 CHICAGO, ILLINOIS 60631 TEL: (773) 774-5910</p>	USER NAME = Shafe	DESIGNED - PV	REVISED -
		DRAWN - EA, SA	REVISED -
	PLOT SCALE = 100.0000' / 1" =	CHECKED - PV	REVISED -
	PLOT DATE = 4/4/2019	DATE - 01/23/2019	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

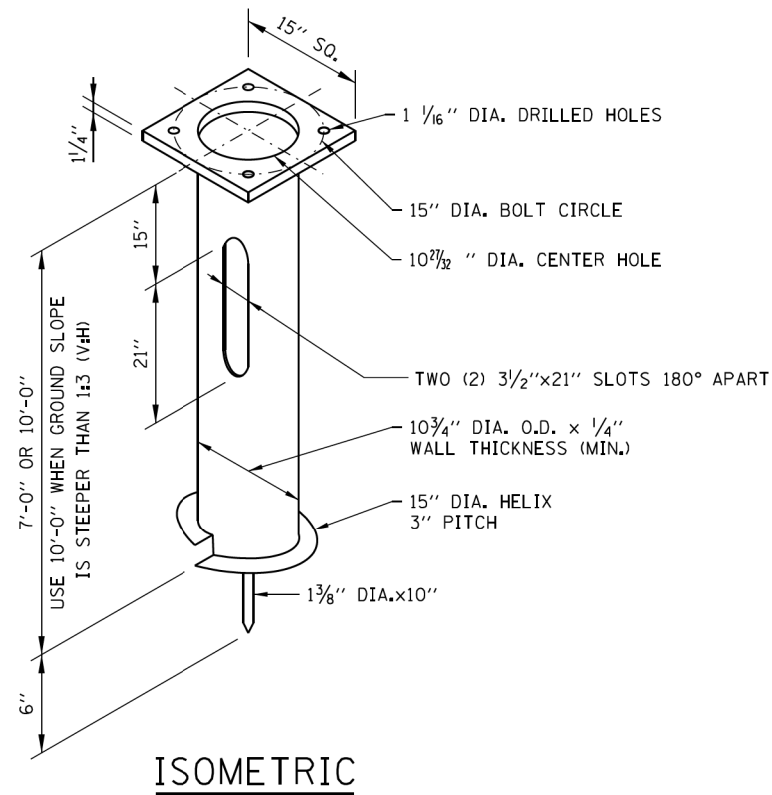
**JOLIET ROAD OVER FLAGG CREEK  
LIGHT POLE RELOCATION**

SCALE: 1"=50'      SHEET NO. OF 1 SHEETS 2      STA. 104+25 TO STA. 110+25

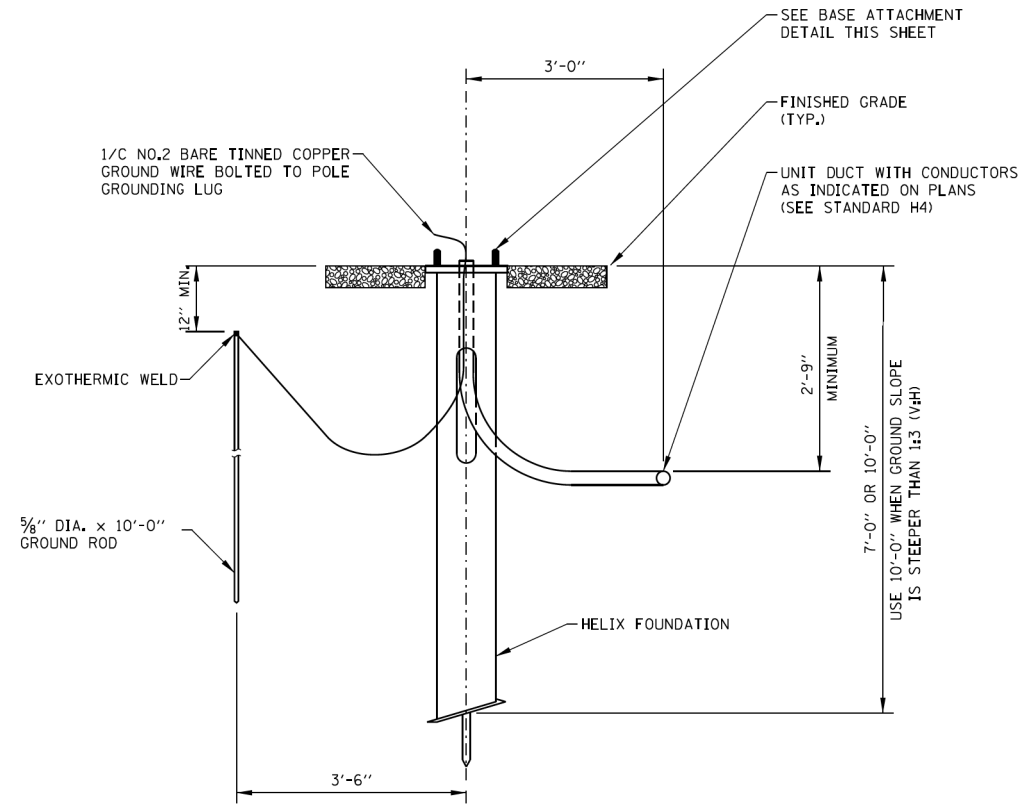
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3562	T-5-4B-R	COOK	92	26
CONTRACT NO. 60N80				
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT				



**BASE ATTACHMENT DETAIL**



**ISOMETRIC**



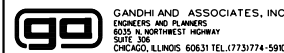
**ELEVATION**

**NOTES:**

1. AT LOCATIONS NOT SHIELDED BY GUARDRAIL, THE LIGHT POLE FOUNDATION SHALL BE FLUSH WITH SURROUNDING GRADE ON ALL SIDES. THE SURROUNDING AREA SHALL BE A LEVEL GRADED AREA CONSTRUCTED OF AGGREGATE SHOULDERS WITH FILTER FABRIC, TYPE B, 4".
2. PROVIDE SEEDING, POTASIUUM FERTILIZER NUTRIENT, AND EROSION CONTROL BLANKET AS REQUIRED.
3. THE TOP OF FOUNDATION SHALL BE AT THE SAME ELEVATION AS THE ADJACENT TOP OF GUTTER OR WHEN ADJACENT TO AGGREGATE SHOULDER, AT THE SAME ELEVATION AS THE OUTSIDE EDGE OF THE AGGREGATE SHOULDER SLOPED A MAXIMUM 6% AWAY FROM THE PAVED SHOULDER.
4. ALL SLOPES ARE EXPRESSED AS UNITS OF VERTICAL DISPLACEMENT TO UNITS OF HORIZONTAL DISPLACEMENT (V:H).
5. ALL GROUND MOUNTED LIGHT POLES SHALL BE PROVIDED WITH AN ACCEPTED FHWA BREAKAWAY BASE OR DEVICE PER THE ILLINOIS TOLLWAY SUPPLEMENTAL SPECIFICATIONS SECTION 1070.
6. FOR DETAILS OF FUSE HOLDER, POLE BASE WIRING AND CONDUCTOR SPLICE SEE STANDARD H2.
7. ALL REINFORCEMENT BARS SHALL BE EPOXY COATED.
8. ALL EQUIPMENT SHALL BE GROUNDED AND BONDED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND THE NATIONAL ELECTRICAL SAFETY CODE.
9. FOR ALL MEDIAN BARRIER FOUNDATIONS, THE ANCHOR BOLTS SHALL BE CENTERED AROUND THE MEDIAN BARRIER WALL CENTERLINE.

**ILLINOIS TOLLWAY - LIGHTING STANDARD FOUNDATION DETAILS - HELIX  
(GROUND MOUNTED UNITS)  
N.T.S**

FILE NAME = K:\PROJECTS\Projects 2013\Joliet Rd Flagg Creek\CAD Sheets\SA 09-17-2018\Illinois Tollway-Light Standard Foundation Details-Helix-Ground Mounted Unit.dgn



USER NAME = Shafe	DESIGNED - PV	REVISED -
PLOT SCALE = 100.0000' / 1"	DRAWN - EA, SA	REVISED -
PLOT DATE = 4/4/2019	CHECKED - PV	REVISED -
	DATE - 01/23/2019	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**JOLIET ROAD OVER FLAGG CREEK  
LIGHT POLE RELOCATION**

SCALE: 1"=50' SHEET NO. 2 OF 2 SHEETS STA. 104+25 TO STA. 110+25

F.A.U. RTE. 3562	SECTION T-5-4B-R	COUNTY COOK	TOTAL SHEETS 92	SHEET NO. 27
CONTRACT NO. 60N80				
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT				

Benchmark: Two inch (2") brass disk located west side on concrete core base to traffic signal on northeast corner of Wolf and Plainfield Rds.

Existing Structure: S.N. 016-0393 was originally constructed in 1959 as a two-span structure carrying two lanes of eastbound traffic, one lane of westbound traffic and one ramp lane to I-294 (Tri-State Tollway) Northbound over Flag Creek (F.A. Route 98 Section 207-0101-2B). In 1981, an overlay was added and the curbs and handrails were replaced with F-shaped parapets. In 2009, the concrete median was removed and replaced, eliminating the center longitudinal joint. The overall length is 94'-8" (back to back of abutments), and the overall out-to-out deck width varies from 85'-2 3/4" at the west abutment to 73'-5 3/4" at the east abutment (measured along back of abutments). The existing superstructure consists of a reinforced concrete deck supported on two-span 36" precast, prestressed concrete I-beams. The existing substructure consists of a reinforced concrete solid wall pier supported by a spread footing on rock and two reinforced concrete pile bent abutments supported on concrete piles. The existing superstructure shall be removed and replaced using stage construction to maintain one lane of traffic in each direction. The I-294 NB Entrance Ramp will be closed during Stage II construction.

**WATERWAY INFORMATION**

Drainage Area = 13.3 sq. mi		Exist. Low Grade Elevation 637.44 @ Sta. 99+70		Prop. Low Grade Elev. 637.44 @ Sta. 99+70		
Flood	Freq. Yr.	Discharge C.F.S.	Opening Sq. Ft.	Nat. H.W.E.	Head - Ft.	Headwater El.
	2	950	522.37	631.84	0.00	631.84
	10	1260	554.0	632.31	0.00	632.31
Design	50	2000	576.0	633.86	0.10	633.96
Base	100	2400	576.0	634.47	0.15	634.62
Overtopping	>500					
Max. Calc.	500	3350	576.0	635.63	0.32	635.95

10-Year Velocity through Existing Bridge = 2.27 fps  
 10-Year Velocity through Proposed Bridge = 2.27 fps

**NOTES:**

- For General Notes, Index of Sheets, Total Bill of Material and Profile Grade Lines, see Sheet S-02.
- For Stage Construction, see Sheets S-03 and S-04.

**DESIGN SCOUR ELEVATION TABLE**

Design Scour Elevations (ft.)			
	WV. Abut.	Pier	E. Abut.
Q100	630.72	615.88	630.78
Q500	630.72	614.29	630.78

**DESIGN SPECIFICATIONS**

New Construction:  
 2017 AASHTO LFRD Bridge Design Specifications, 8th Edition

Existing Substructure:  
 1995 FHWA Seismic Retrofitting Manual for Highway Bridges

**LOADING HL-93**

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

ORIGINAL CONSTRUCTION (1959)  
 HS20-44 & ALTERNATE

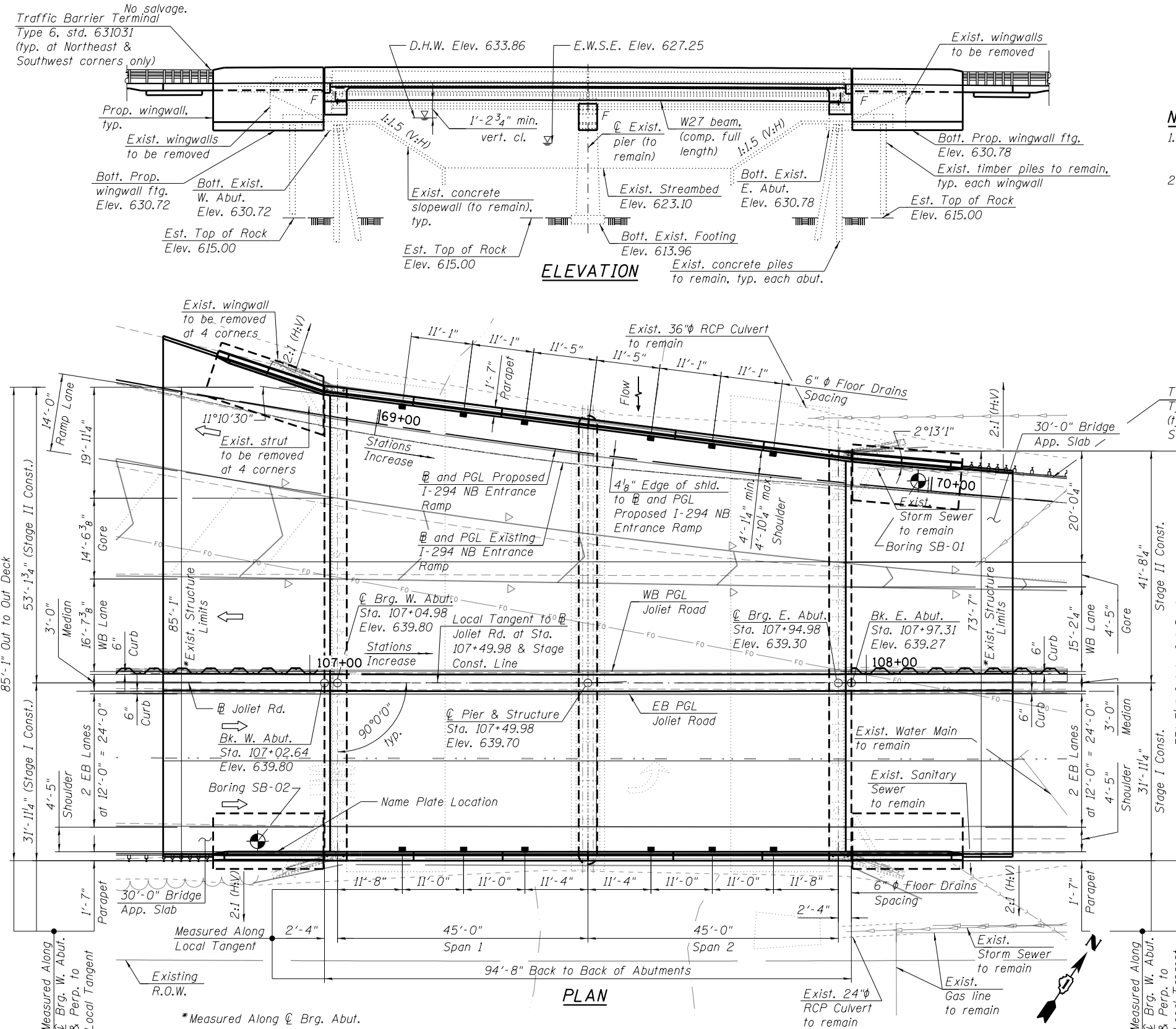
**DESIGN STRESSES**

FIELD UNITS  
 f<sub>c</sub> = 3,500 psi  
 f<sub>c</sub> = 4,000 psi (Superstructure Concrete)  
 f<sub>y</sub> = 60,000 psi (Reinforcement)  
 f<sub>y</sub> = 50,000 psi (M270 Grade 50)

EXISTING UNITS  
 f<sub>c</sub> = 3,500 psi  
 f<sub>y</sub> = 40,000 psi (Reinforcement)

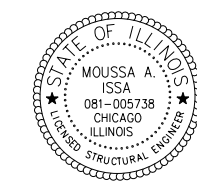
**SEISMIC DATA**

Seismic Performance Zone (SPZ) = 1  
 Design Spectral Acceleration at 1.0 sec. (SD1) = 0.089g  
 Design Spectral Acceleration at 0.2 sec. (SDS) = 0.157g  
 Soil Site Class = C

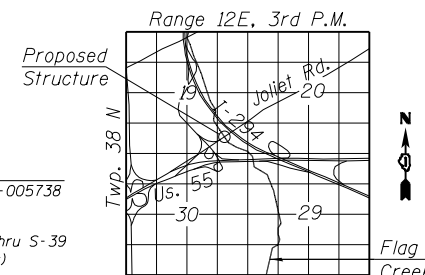


Traffic Barrier Terminal Type 6, std. 631031 (typ. at Northeast & Southwest corners only)

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



Signed: Moussa A. Issa, HBM IL. Lic. No. 081-005738 Expires 11-30-2020  
 Date: 4/30/2019 For Sheets S-01 Thru S-39 (Total of 39 Sheets)



**LOCATION SKETCH**

**LEGEND**

- Sanitary Sewer
- Soil Boring
- Fiber Optic
- Exist. Storm Sewer
- Wood and Brush
- Temporary Sheet Piling

**GENERAL PLAN AND ELEVATION JOLIET RD. OVER FLAG CREEK**

F.A.U. RTE. 3562  
 SEC. T-5-4BR(81)  
 COOK COUNTY  
 STATION 107+49.98  
 STRUCTURE NO. 016-0393

FILE PATH = P:\1111-532 IDOT PFBI\Item 8 Various\Various\Work Order\15 Joliet Rd. Over Flag Creek\CADD Sheets\Structural\0160393-02020-001-GenPlanAndElev.dgn

<b>HBM</b> ENGINEERING GROUP, LLC. 4415 WEST HARRISON STREET, SUITE 2131 HILLSDALE, IL 60162 PHONE: (708) 236-0900 FAX: (708) 236-0901	0160393-02020-001-GenPlanAndElev.dgn USER NAME = ken.drobant	DESIGNED - LAB, MA DRAWN - MA, KD	REVISED - REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SCALE: SHEET S-01 OF S-39 SHEETS STA. 107+49.98 TO STA.	F.A.U. RTE. 3562 SECTION T-5-4BR(81) COUNTY COOK TOTAL SHEETS 92 SHEET NO. 28	
	PLOT SCALE = 21/4" = 1' / in. PLOT DATE = 3/3/2020	CHECKED - MI, MAI DATE - 3/3/2020	REVISED - REVISED -				
							CONTRACT NO. 60N80
							ILLINOIS FED. AID PROJECT



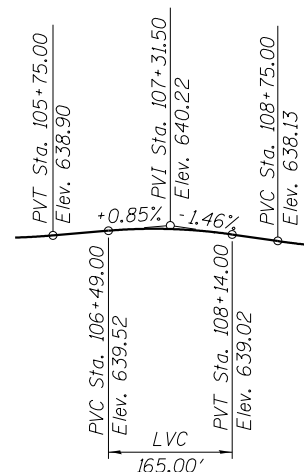
**GENERAL NOTES:**

- Fasteners shall be ASTM A325 Type 1, mechanically galvanized bolts. Bolts 7/8 in.  $\phi$ , holes 15/16 in.  $\phi$ , unless otherwise noted.
- Calculated weight of structural steel = 122,045 lbs. M270 Grade 50.  
Calculated weight of structural steel = 16,059 lbs. M270 Grade 36.
- No field welding is permitted except as specified in the contract documents.
- Reinforcement bars designated (E) shall be epoxy coated.
- If the Contractor elects to use cantilever forming brackets on the exterior beams or girders, the brackets shall be placed at the same locations as required for the hardwood blocks in Article 503.06(b) of the Standard Specifications. If additional cantilever forming brackets are required, hardwood blocking shall be wedged between the exterior and first interior beam at each of these additional bracket locations.
- 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.
- Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of 1/8 in. Adjustment shall be made either by grinding the surface or by shimming the bearings.
- Slipforming of parapets is not allowed.
- The Inorganic Zinc Rich Primer / Acrylic / Acrylic Paint System shall be used for shop and field painting of new structural steel except where otherwise noted. The color of the final finish coat for all interior steel surfaces shall be gray, Munsell No. 5B 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be Reddish Brown, Munsell No. 2.5YR 3/4.

STATION 107+49.98  
RE-BUILT 20-- BY  
STATE OF ILLINOIS  
F.A.U. RTE. 3562  
SEC. T-5-4BR(81)  
LOADING HL-93  
STRUCTURE NO. 016-0393

**NAME PLATE**

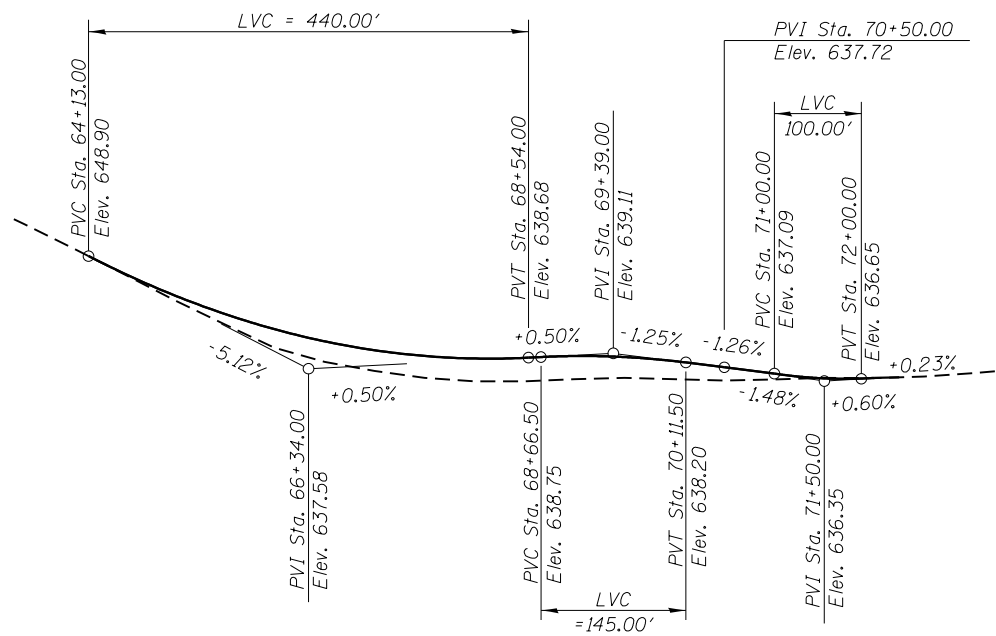
See Std. 515001  
Existing Name Plate shall be cleaned and relocated next to new Name Plate. Cost included with Name Plates.



**JOLIET RD. CURVE DATA**

PI STA. = 107+57.76  
 $\Delta = 4^\circ 32' 01''$  (LT)  
 $D = 0^\circ 20' 50''$   
 $R = 16,500.00'$   
 $T = 653.15'$   
 $L = 1,305.62'$   
 $E = 12.92'$   
 $e = NC$   
T.R. = NA  
S.E. RUN = NA  
P.C. STA. = 101+04.61  
P.T. STA. = 114+10.23

**PROFILE GRADE**  
(Joliet Road)



**PROFILE GRADE**

(along  $\square$  Joliet Road to I-294 NB Entrance Ramp)

**I-294 NB ENTRANCE  
PROP. CURVE DATA**

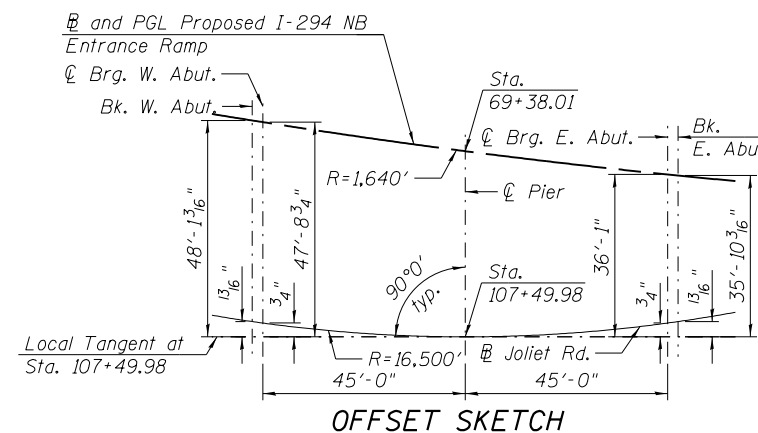
PI STA. = 68+02.68  
 $\Delta = 25^\circ 03' 38''$  (LT)  
 $D = 3^\circ 29' 37''$   
 $R = 1,640.00'$   
 $T = 364.49'$   
 $L = 717.32'$   
 $E = 40.02'$   
 $e = 3.2\%$   
T.R. = NA  
S.E. Run = 92.0'  
P.C. STA. = 64+38.19  
P.T. STA. = 71+55.51

**TOTAL BILL OF MATERIAL**

ITEM	UNIT	SUPER.	SUB.	TOTAL QUANTITY
Removal of Existing Superstructures	Each	1	-	1
Concrete Removal	Cu Yd	-	73.9	73.9
Structure Excavation	Cu Yd	-	341.8	341.8
Floor Drains	Each	12	-	12
Concrete Structures	Cu Yd	-	246.2	246.2
Concrete Superstructure	Cu Yd	287.1	-	287.1
Bridge Deck Grooving	Sq Yd	1,255	-	1,255
Protective Coat	Sq Yd	1,479	-	1,479
Concrete Superstructure (Approach Slab)	Cu Yd	238.4	-	238.4
Furnishing and Erecting Structural Steel	L Sum	1	-	1
Stud Shear Connectors	Each	6,255	-	6,255
Reinforcement Bars, Epoxy Coated	Pound	156,860	31,570	188,430
Bar Splicers	Each	592	64	656
Name Plates	Each	1	-	1
Anchor Bolts, 1"	Each	90	-	90
Temporary Sheet Piling	Sq Ft	-	946	946
Concrete Sealer	Sq Ft	-	1,575	1,575
Epoxy Crack Injection	Foot	-	23	23
Geocomposite Wall Drain	Sq Yd	-	179	179
Granular Backfill for Structures	Cu Yd	-	385	385
Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)	Sq Ft	-	59	59
Pipe Underdrains For Structures 4"	Foot	-	278	278

**INDEX OF SHEETS**

- S-01 General Plan and Elevation
- S-02 General Notes, Index of Sheets and Total Bill of Material
- S-03 Stage I Construction
- S-04 Stage II Construction
- S-05 Temporary Concrete Barrier for Stage Construction
- S-06 Removal Plan, Elevations and Details
- S-07 Top of Slab Elevations Layout
- S-08 Top of Slab Elevations (Sheet 1 of 3)
- S-09 Top of Slab Elevations (Sheet 2 of 3)
- S-10 Top of Slab Elevations (Sheet 3 of 3)
- S-11 Top of West Approach Slab Elevations
- S-12 Top of East Approach Slab Elevations
- S-13 Deck Plan
- S-14 Deck Cross Section
- S-15 West Diaphragm Elevations and Sections
- S-16 East Diaphragm Elevations and Sections
- S-17 Parapet Elevations and Details
- S-18 Deck Details, Bar List and Bill of Material
- S-19 West Approach Slab
- S-20 West Approach Slab Sections and Details
- S-21 East Approach Slab
- S-22 East Approach Slab Sections and Details
- S-23 Framing Plan and Beam Elevation
- S-24 Beam Moment and Reaction Tables
- S-25 Structural Steel Details
- S-26 Fixed Bearings
- S-27 West Abutment - Stage I Construction
- S-28 West Abutment - Stage II Construction
- S-29 Northwest Wingwall
- S-30 Southwest Wingwall
- S-31 East Abutment - Stage I Construction
- S-32 East Abutment - Stage II Construction
- S-33 Northeast Wingwall
- S-34 Southeast Wingwall
- S-35 Pier - Stage I Construction
- S-36 Pier - Stage II Construction
- S-37 Pier - Repairs
- S-38 Bar Splicer Assembly and Mechanical Splicer Details
- S-39 Soil Boring Logs



**OFFSET SKETCH**

FILE PATH = P:\1111-532 IDOT PBIB\Item 8 Various\Various\Work Order\15 Joliet Rd. Over-Flag Creek\CADD Sheets\Structural\0160393-020202-GenNote.dgn

<b>HBM</b> ENGINEERING GROUP, LLC. 4415 WEST HARRISON STREET, SUITE 231 HILLSDALE, IL 60162 PHONE: (708) 236-0900 FAX: (708) 236-0901	0160393-020202-02-GenNote.dgn	DESIGNED - MA	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL NOTES, INDEX OF SHEETS AND TOTAL BILL OF MATERIAL		F.A.U. RTE. 3562	SECTION T-5-4BR(81)	COUNTY COOK	TOTAL SHEETS 92	SHEET NO. 29
	USER NAME = ken.drobant	DRAWN - MA	REVISED -		STRUCTURE NO. 016-0393		CONTRACT NO. 60N80		ILLINOIS FED. AID PROJECT		
PLOT SCALE = 0:2.0000 '1' / in.	CHECKED - MI, MAI	REVISED -	DATE - 5/4/2020	SCALE:	SHEET S-02 OF S-39 SHEETS	STA. 107+49.98 TO STA.					

**STAGE I REMOVAL**

1. Install temporary concrete barrier as shown to locate construction work area on the north side of the existing structure.
2. Remove all existing concrete bridge deck, approach slabs and parapet within limits of Stage I Construction.
3. Remove existing 36" PPC I-Beams 1 through 5.
4. Install Temporary Sheet Piling at the abutments and remove existing upper portion of abutments and pier within limits of Stage I Construction as required.
5. Remove southwest and southeast wingwalls.

**STAGE I CONSTRUCTION**

The following construction items will be performed within the limits of Stage I Construction:

1. Perform Structural Repair of Concrete and Epoxy Crack Injection for pier.
2. Construct the upper portion of abutments and pier.
3. Construct southwest and southeast wingwalls.
4. Erect Girders 10 through 15.
5. Construct reinforced concrete deck, parapet, approach slabs and floor drains.
6. Perform bridge deck grooving for the bridge deck.
7. Apply protective coat for the bridge deck.
8. Place temporary pavement markings on the top of deck for staged traffic. See Traffic Control Plans.

**NOTES:**

Temporary Sheet Piling:

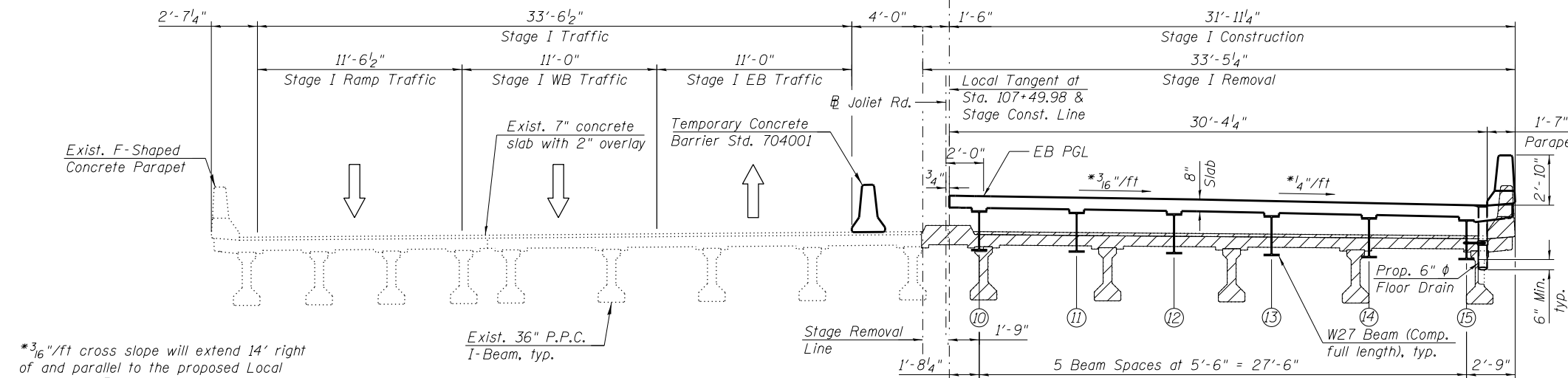
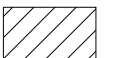
1. If the Contractor chooses to alter the temporary cantilevered sheet piling design requirements shown on the plans, a design submittal including plan details and calculations will be required for review and acceptance by the Engineer.
2. Hard driving may be encountered during the sheet piling installation. The Contractor shall provide the appropriate driving equipment for the soil conditions indicated on the boring logs.
3. There are existing utilities in the areas where proposed sheet piling will be installed. Contractor to locate all existing utilities per requirements of the special provisions. For overhead utilities and all other known utilities. See Roadway Plans, Drainage Plan & Profile. Cost included with Temporary Sheet Piling.

**BILL OF MATERIAL**

ITEM	UNIT	TOTAL
Temporary Sheet Piling	SQ FT	946

**LEGEND**

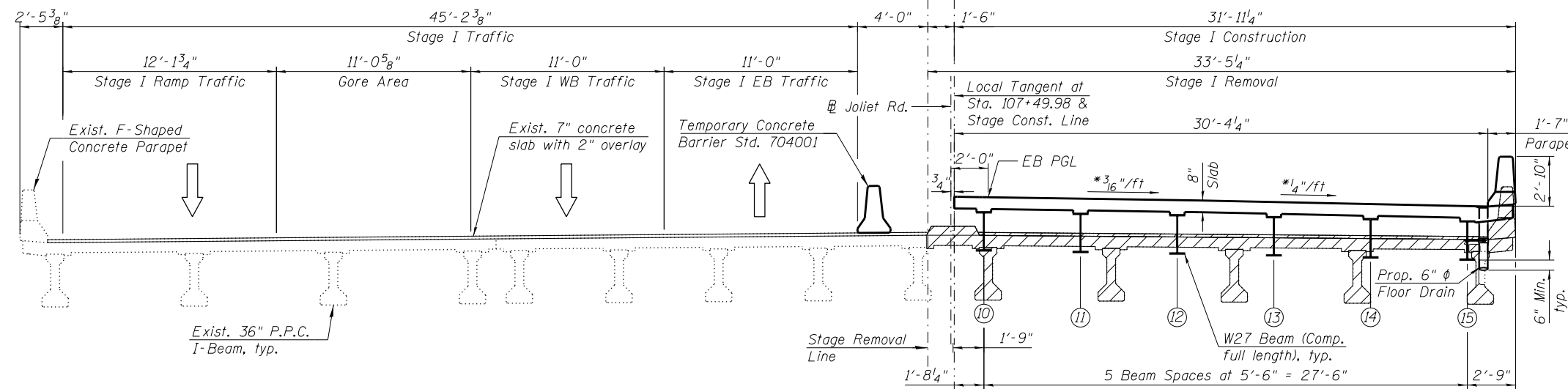
Removal Area



\* $\frac{3}{16}$ "/ft cross slope will extend 14' right of and parallel to the proposed Local Tangent to  $\bar{C}$  of Joliet Road at Sta. 107+49.98. The cross slope of remaining portion of Stage I Construction deck will be  $\frac{1}{4}$ "/ft.

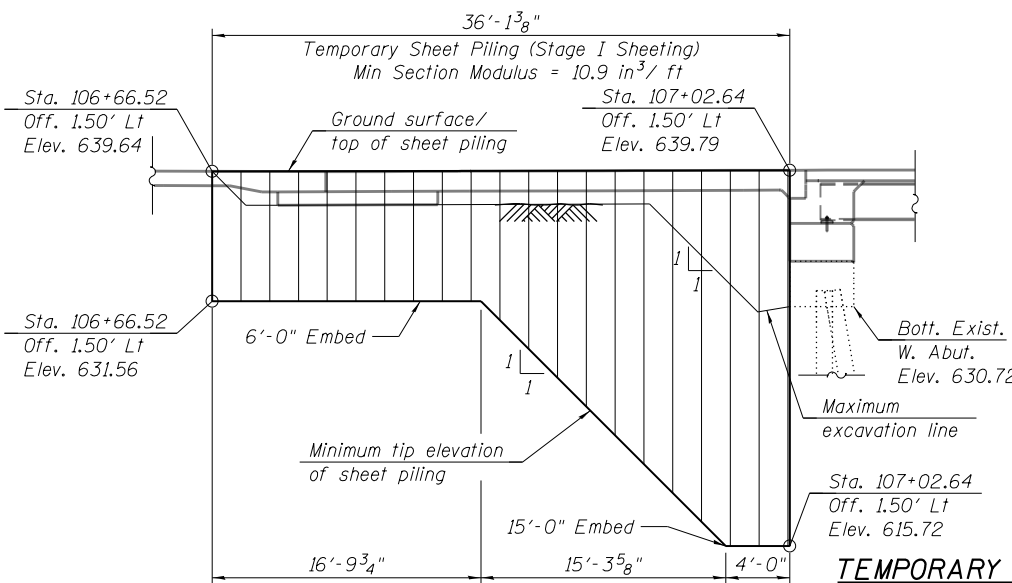
**STAGE I REMOVAL AND CONSTRUCTION**

(Looking Upstation at  $\bar{C}$  Brg. East Abutment)  
(All dimensions are measured along  $\bar{C}$  Brg. East Abutment and perpendicular to Local Tangent)



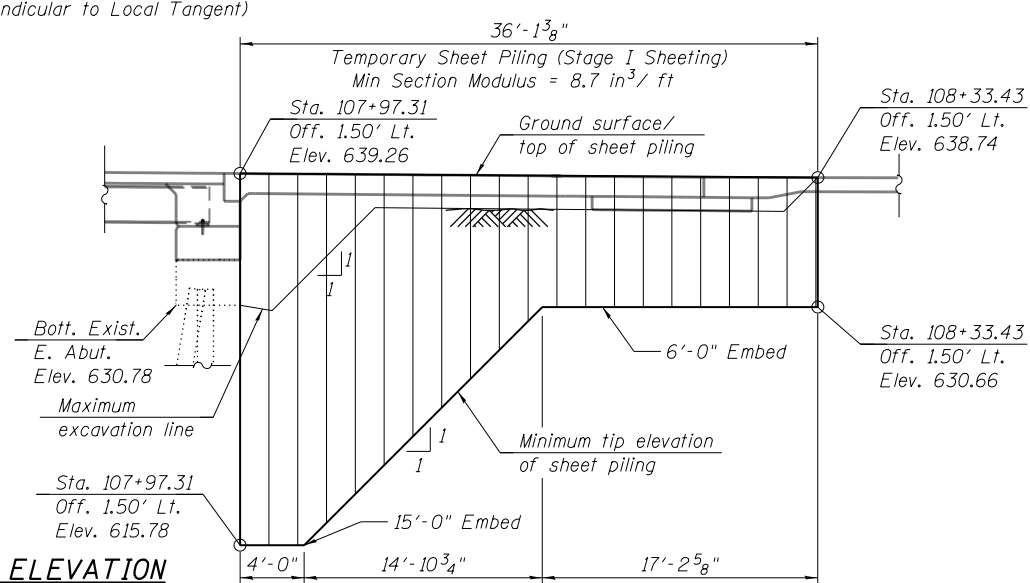
**STAGE I REMOVAL AND CONSTRUCTION**

(Looking Upstation at  $\bar{C}$  Brg. West Abutment)  
(All dimensions are measured along  $\bar{C}$  Brg. West Abutment and perpendicular to Local Tangent)

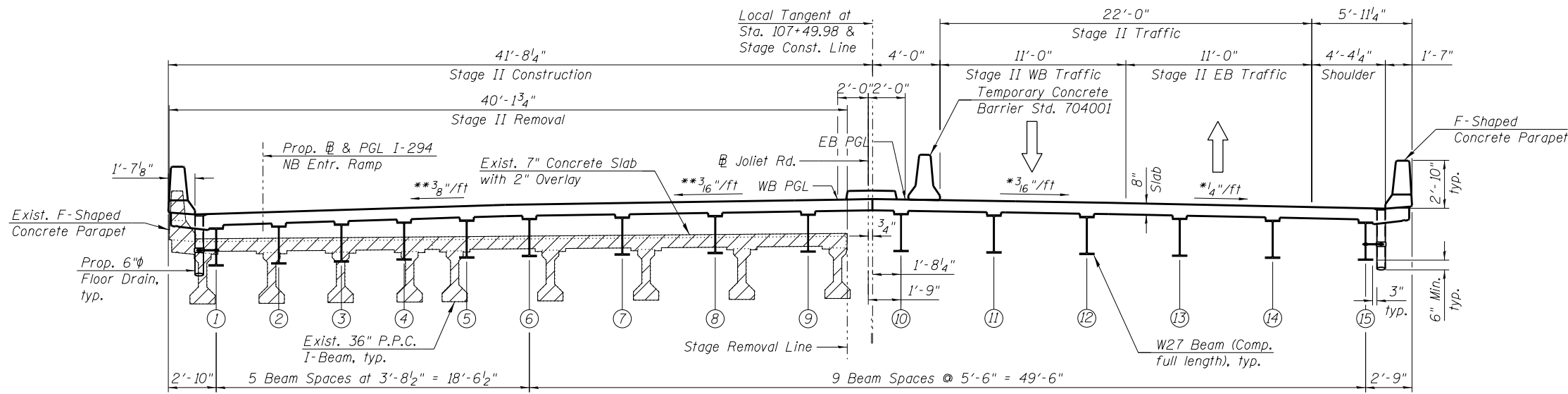


**TEMPORARY SHEET PILING ELEVATION**

(Looking North)

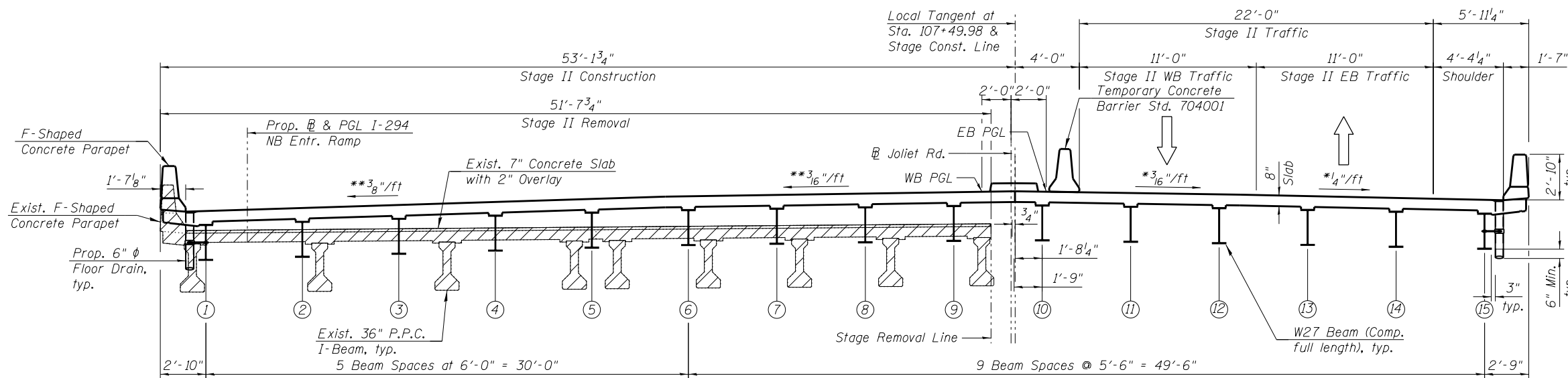


FILE PATH = P:\1111-532-1001-PTBIBI-Item B Various\Various\Work Order-#15 Joliet Rd. Over-Flag Creek\CADD Sheets\Structural\0160393-00000-003-StageIConst.dgn



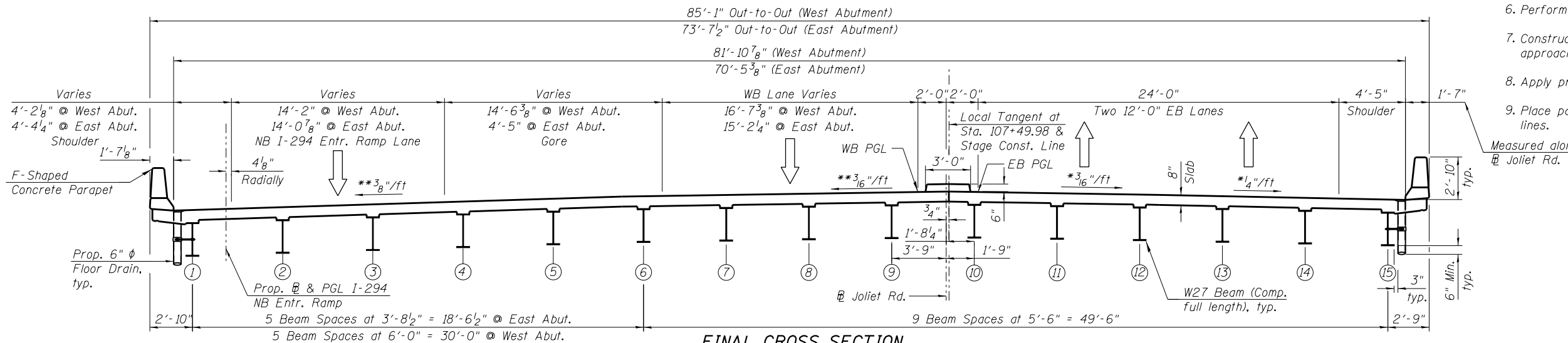
**STAGE II REMOVAL AND CONSTRUCTION**

(Looking Upstation at E. Brg. East Abutment)  
(See Note 2)



**STAGE II REMOVAL AND CONSTRUCTION**

(Looking Upstation at W. Brg. West Abutment)  
(See Note 2)



**FINAL CROSS SECTION**

(Looking Upstation)  
(See Note 2)

**NOTES:**

1. Median to be constructed in Stage II after completion of Stage II deck.
2. All dimensions are measured along C. Brg. Abutments and perpendicular to Local Tangent unless otherwise noted.

\* 3/16"/ft cross slope will extend 14' right of and parallel to the proposed Local Tangent for E. of Joliet Road at Sta. 107+49.98. The cross slope of remaining portion of Stage I Construction deck will be 1/4"/ft.

\*\* 3/16"/ft cross slope will extend 21'-9" left of and parallel to the proposed Local Tangent for E. of Joliet Road at Sta. 107+49.98. The cross slope of remaining portion of Stage II Construction deck will be 3/8"/ft.

**STAGE II REMOVAL**

1. Install temporary concrete barrier as shown to locate construction work area on the north side of the proposed structure.
2. Remove all existing concrete bridge deck, approach slabs and parapet within limits of Stage II Construction.
3. Remove existing 36" PPC I-Beams 6 through 14.
4. Remove existing upper portion of abutments and pier within limits of Stage II Construction as required.
5. Remove northwest and northeast wingwalls.

**STAGE II CONSTRUCTION**

The following construction items will be performed within the limits of Stage II Construction:

1. Perform Structural Repair of Concrete and Epoxy Crack Injection for pier.
2. Construct the upper portion of abutments and pier.
3. Construct northwest and northeast wingwalls.
4. Erect Girders 1 through 9.
5. Construct reinforced concrete deck, parapet, approach slabs and floor drains.
6. Perform bridge deck grooving for the bridge deck.
7. Construct Median for bridge spans and the median for the approaches.
8. Apply protective coat for the bridge deck.
9. Place pavement markings on the top of deck for traffic lines.

**LEGEND**

Removal Area



FILE PATH = P:\1111-532 IDOT PFBI Item 8 Various\Various\Work Order\15 Joliet Rd. Over Flag Creek\CADD Sheets\Structural\0160393-00000-004-StageIIConst.dgn

**HBM**  
ENGINEERING GROUP, LLC.  
4415 WEST HARRISON STREET, SUITE 231  
HILLSDALE, IL 60162  
PHONE: (708) 236-0900 FAX: (708) 236-0901

0160393-00000-004-StageIIConst.dgn  
USER NAME = ken.drobant  
PLOT SCALE = 8:0.0000 1' = 1 in.  
PLOT DATE = 3/3/2020

DESIGNED - MI, JG  
DRAWN - JJS, MA, KJD  
CHECKED - MI, JJS  
DATE - 3/3/2020

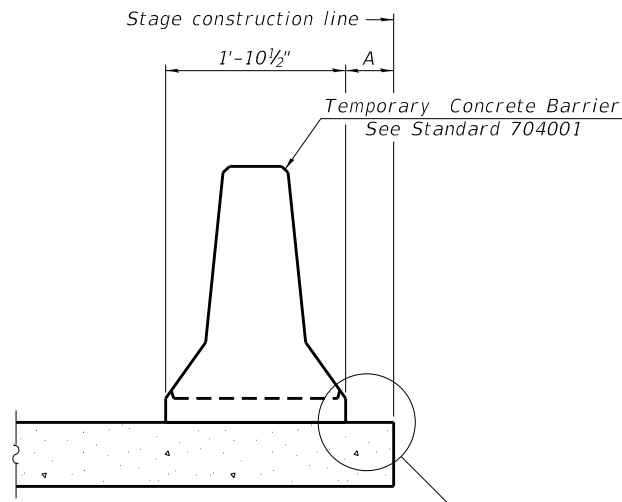
REVISED -  
REVISED -  
REVISED -  
REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**STAGE II CONSTRUCTION  
STRUCTURE NO. 016-0393**

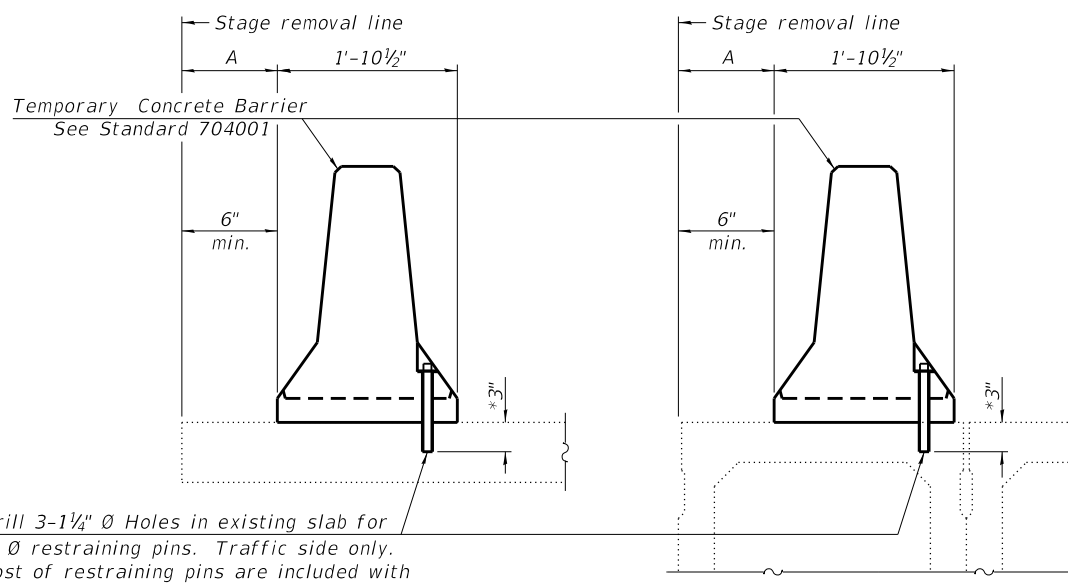
SCALE: SHEET S-04 OF S-39 SHEETS STA. 107+49.98 TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3562	T-5-4BR(81)	COOK	92	31
CONTRACT NO. 60N80				
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". See Detail I, II or III

NEW SLAB OR NEW DECK BEAM



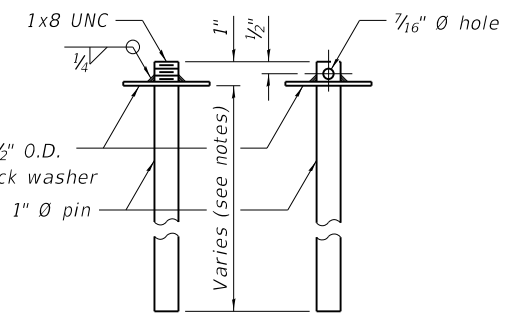
Drill 3-1 1/4" Ø Holes in existing slab for 1" Ø restraining pins. Traffic side only. Cost of restraining pins are included with Temporary Concrete Barrier. No restraint is required when "A" is greater than 3'-1".

EXISTING SLAB

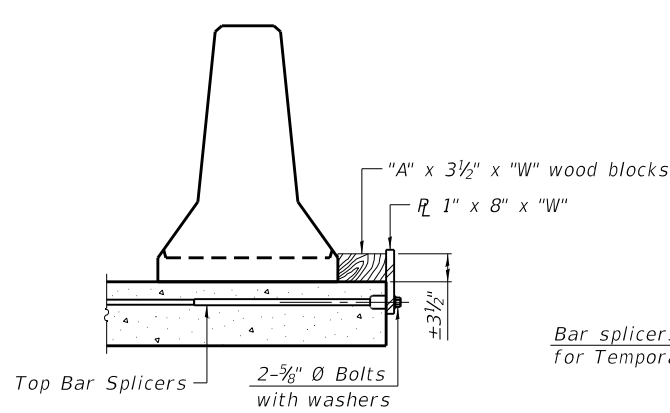
\* When hot-mix asphalt wearing surface is present, embedment shall be 3" plus the wearing surface depth.

EXISTING DECK BEAM

SECTIONS THRU SLAB OR DECK BEAM

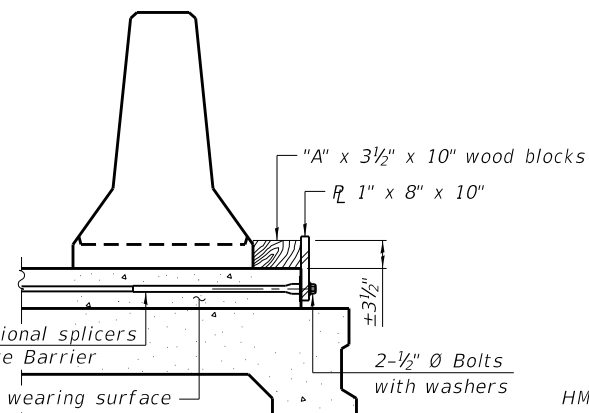


RESTRAINING PIN

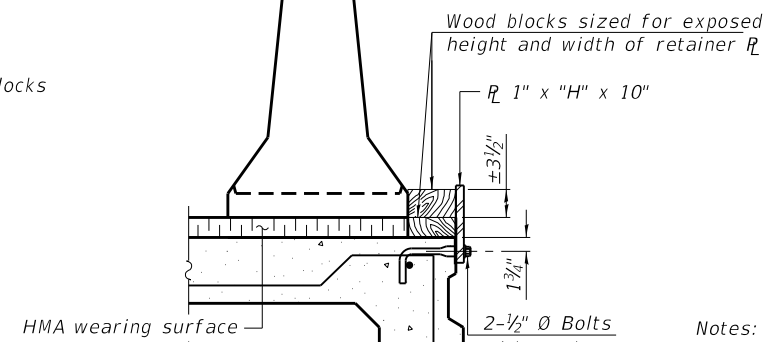


DETAIL I

Bar splicers and additional splicers for Temporary Concrete Barrier

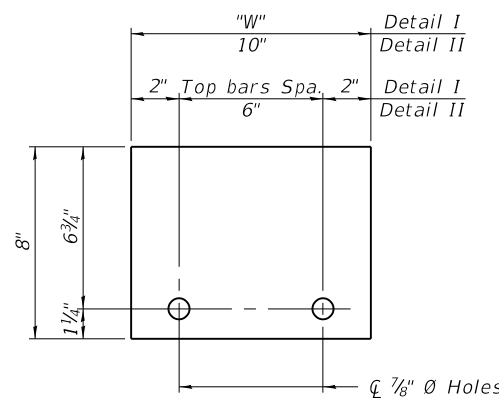


DETAIL II

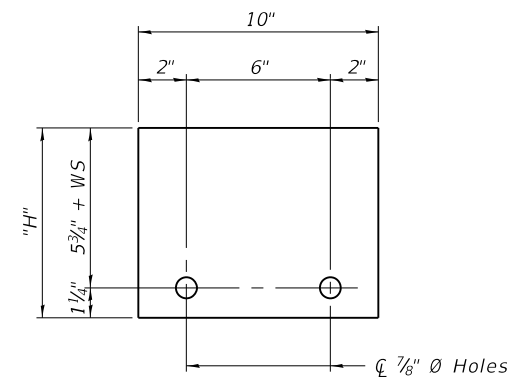


DETAIL III

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  $\bar{C}$  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

FILE PATH = P:\1111-532 IDOT PFBI\Item B Various\Various\Work Order\115 Joliet Rd, Over Flag Creek\CADD Sheets\Structural\0160393-0005-TempConcBarrier.dgn

**HBM**  
 ENGINEERING GROUP, LLC.  
 4415 WEST HARRISON STREET, SUITE 231  
 HILLSIDE, IL 60162  
 PHONE: (708) 236-0900 FAX: (708) 236-0901

0160393-00000-005-TempConcBarrier.dgn  
 USER NAME = ken.drobant  
 PLOT SCALE = 0:2.0000 '1' / in.  
 PLOT DATE = 3/3/2020

DESIGNED - MA  
 DRAWN - MA  
 CHECKED - MI, MAI  
 DATE - 3/3/2020

REVISED -  
 REVISED -  
 REVISED -  
 REVISED -

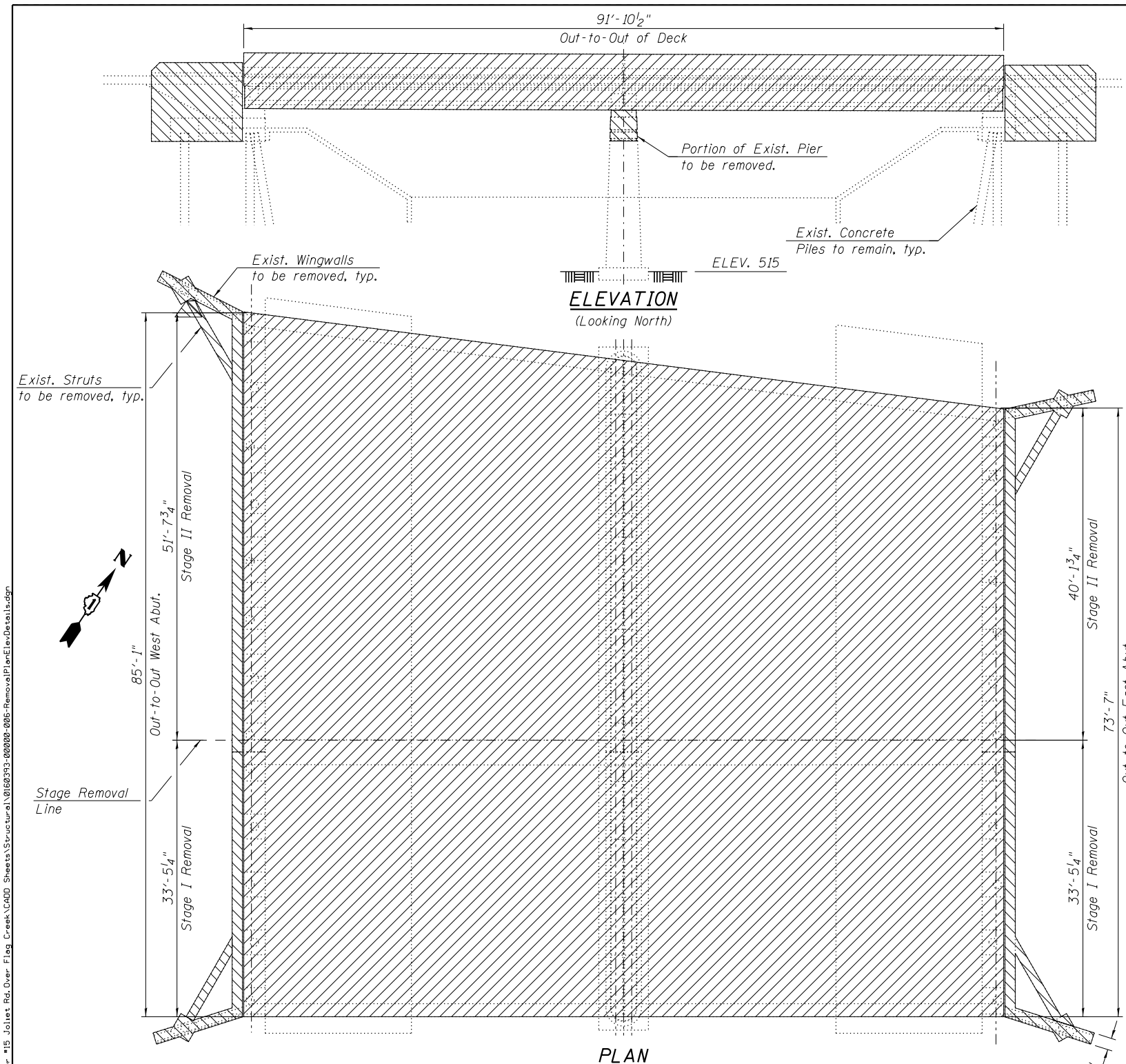
STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION  
 STRUCTURE NO. 016-0393

SCALE: SHEET S-05 OF S-39 SHEETS STA. 107+49.98 TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3562	T-5-4BR(81)	COOK	92	32
CONTRACT NO. 60N80				
ILLINOIS FED. AID PROJECT				

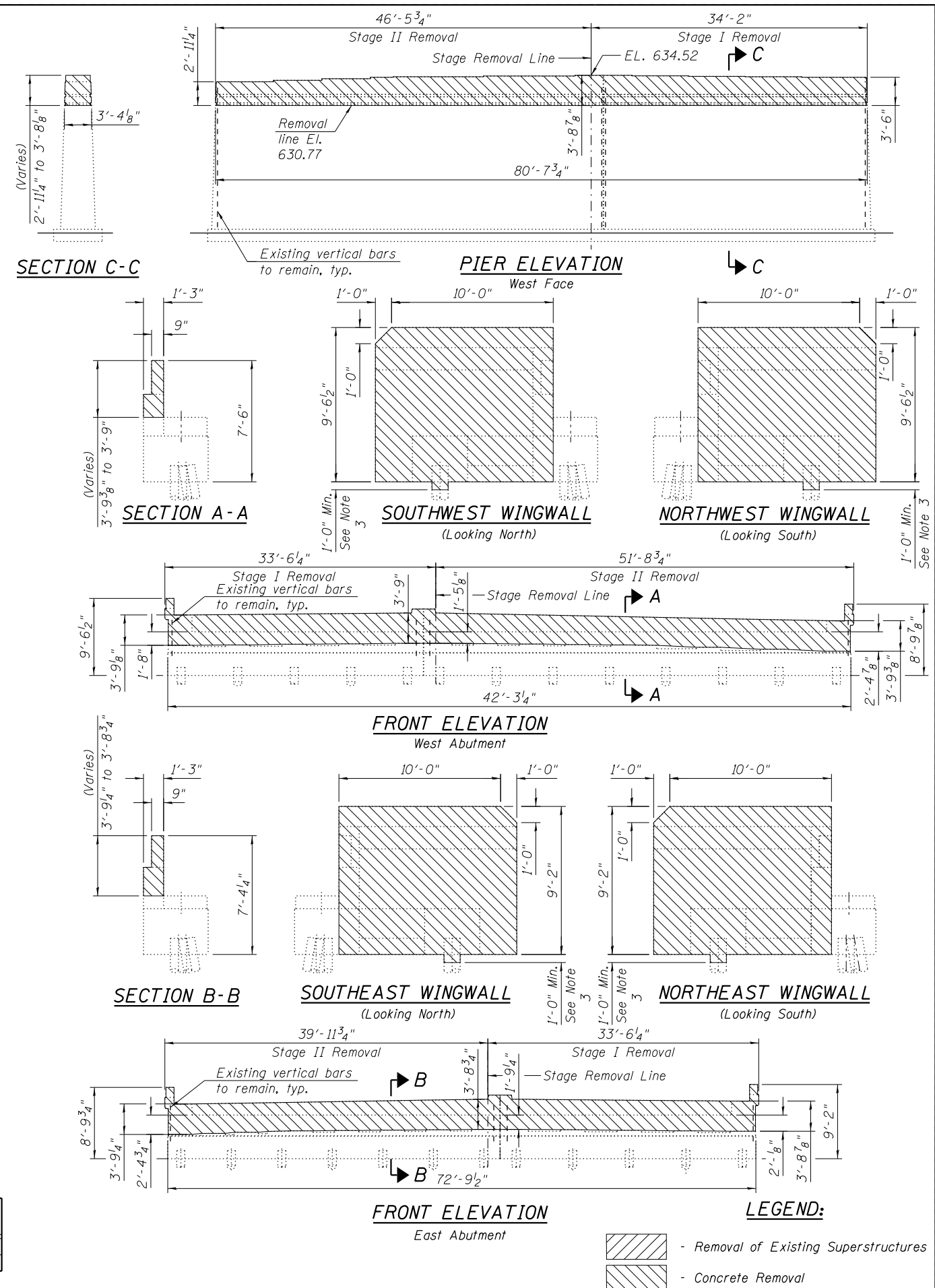
FILE PATH = P:\1111-532 IDOT PFBI Item B Various Vantash Work Order #15 Joliet Rd. Over Flag Creek VADDD Sheets\Structural\0160393-00000-006-RemovalPlanElevDetails.dgn



- NOTES:**
- Dimensions shown have been taken from historical design drawing and may not represent "as built" conditions. The Contractor must verify all dimensions in the field. Variation in the field dimensions shall not warrant additional compensation for Removal of Existing Superstructure.
  - Existing utilities in conflict with new construction shall be abandoned or relocated according to directions given on the Roadway Plans.
  - The removal of existing timber piles under existing wingwalls shall be performed to a depth at least 1 ft below the bottom elevation of proposed wingwalls footings. Cost included with Concrete Removal.

**BILL OF MATERIAL**

ITEM	UNIT	TOTAL
Removal of Existing Superstructures	Each	1
Concrete Removal	Cu Yd	73.9



**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**REMOVAL PLAN, ELEVATIONS AND DETAILS  
STRUCTURE NO. 016-0393**

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3562	T-5-4BR(81)	COOK	92	33

CONTRACT NO. 60N80  
ILLINOIS FED. AID PROJECT

**HBM**  
ENGINEERING GROUP, LLC.  
4415 WEST HARRISON STREET, SUITE 231  
HILLSIDE, IL 60162  
PHONE: (708) 236-0900 FAX: (708) 236-0901

0160393-00000-006-RemovalPlanElevDetails.dgn  
USER NAME = ken.drobant  
PLOT SCALE = 1/8" = 1'-0" in.  
PLOT DATE = 5/4/2020

DESIGNED - KJD  
DRAWN - KJD  
CHECKED - MI, MAI  
DATE - 5/4/2020

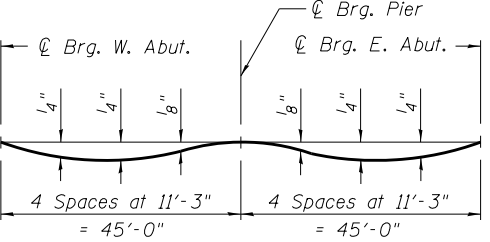
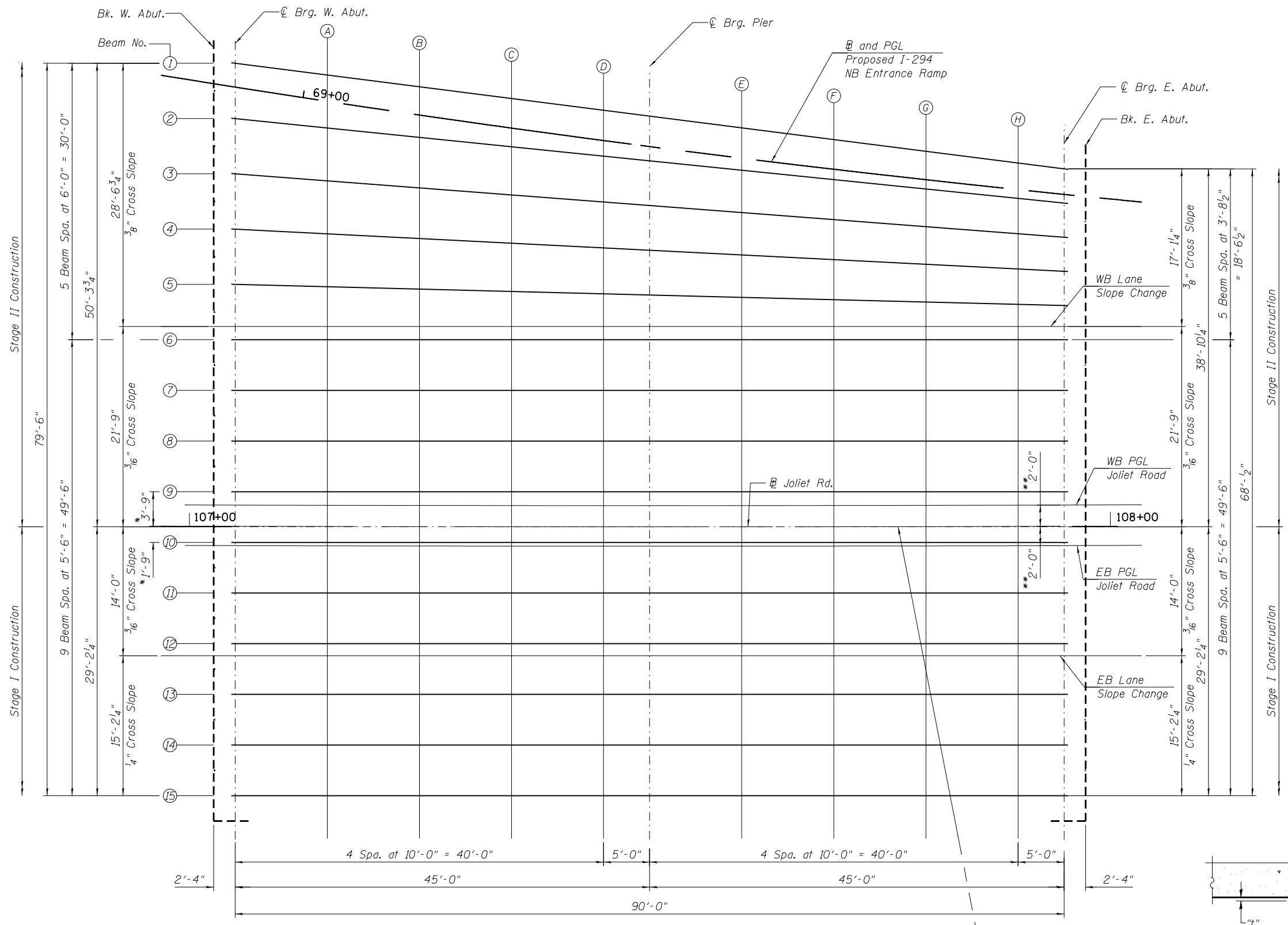
REVISED -  
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REVISED -  
REVISED -

SCALE: SHEET S-06 OF S-39 SHEETS STA. 107+49.98 TO STA.



**NOTES:**

1. All dimensions are measured along  $\bar{C}$  Brg. Abutments and perpendicular to Local Tangent unless otherwise noted.



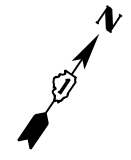
**DEAD LOAD DEFLECTION DIAGRAM**

(Includes weight of concrete only.)

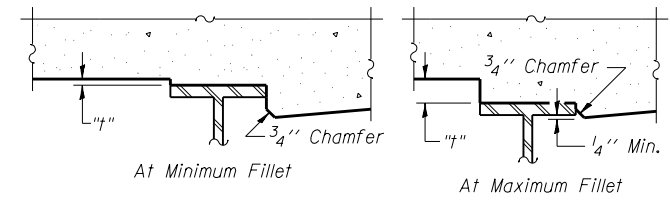
Note:  
The above deflections are not for use in the field if the Engineer is working from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection."

\* Measured to  $\bar{C}$  Joliet Rd along  $\bar{C}$  W. Abutment.  
\*\* Measured radially to  $\bar{C}$  Joliet Rd.

**PLAN**



Local Tangent to  $\bar{C}$  Joliet Rd. at Sta. 107+49.98 & Stage const. joint



To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown above. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on Sheets S-08 through S-10, minus slab thickness, equals the fillet heights "t" above top flange of beams.

**FILLET HEIGHTS**

FILE PATH = P:\1111-532-1001-PFB101-Item 8-Venous-Ventures\Work-Order-#15-Joliet Rd.-Over-Flag-Creek\CADD-Sheets\Structural\0160393-00000-007-TopSlabElev.dgn

**HBM**  
ENGINEERING GROUP, LLC.  
4415 WEST HARRISON STREET, SUITE 231  
HILLSIDE, IL 60162  
PHONE: (708) 236-0900 FAX: (708) 236-0901

0160393-00000-007-TopSlabElev.dgn  
USER NAME = ken.drobant  
PLOT SCALE = 12.0000 "/>

DESIGNED - LAB  
DRAWN - LAB, KJD  
CHECKED - MI, MAI  
DATE - 3/3/2020

REVISED -  
REVISED -  
REVISED -  
REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS LAYOUT  
STRUCTURE NO. 016-0393  
SCALE: SHEET S-07 OF S-39 SHEETS STA. 107+49.98 TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3562	T-5-4BR(81)	COOK	92	34
CONTRACT NO. 60N80				
ILLINOIS FED. AID PROJECT				

**BEAM 1**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. W. ABUT.	107+02.50	-50.54'	638.56	638.56
CL. BRG. W. ABUT.	107+04.84	-50.25'	638.58	638.58
A	107+14.87	-49.00'	638.61	638.63
B	107+24.90	-47.75'	638.64	638.67
C	107+34.93	-46.49'	638.65	638.67
D	107+44.96	-45.22'	638.65	638.65
CL. BRG. PIER	107+49.98	-44.58'	638.64	638.64
E	107+60.00	-43.31'	638.62	638.62
F	107+70.03	-42.02'	638.58	638.60
G	107+80.05	-40.74'	638.53	638.55
H	107+90.07	-39.44'	638.46	638.47
CL. BRG. E. ABUT.	107+95.08	-38.79'	638.43	638.43
BK. E. ABUT.	107+97.42	-38.49'	638.41	638.41

**B AND PGL PROPOSED I-294 NB ENTRANCE RAMP**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. W. ABUT.	107+02.50	-48.03'	638.64	638.64
CL. BRG. W. ABUT.	107+04.85	-47.67'	638.66	638.66
A	107+14.88	-46.15'	638.70	638.72
B	107+24.91	-44.68'	638.74	638.76
C	107+34.94	-43.28'	638.75	638.77
D	107+44.96	-41.93'	638.75	638.76
CL. BRG. PIER	107+49.98	-41.27'	638.74	638.74
E	107+60.00	-40.01'	638.72	638.72
F	107+70.02	-38.80'	638.68	638.69
G	107+80.04	-37.65'	638.63	638.64
H	107+90.07	-36.55'	638.55	638.56
CL. BRG. E. ABUT.	107+95.07	-36.02'	638.51	638.51
BK. E. ABUT.	107+97.41	-35.78'	638.49	638.49

**BEAM 2**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. W. ABUT.	107+02.51	-44.48'	638.75	638.75
CL. BRG. W. ABUT.	107+04.86	-44.25'	638.76	638.76
A	107+14.88	-43.26'	638.79	638.81
B	107+24.91	-42.26'	638.81	638.84
C	107+34.94	-41.25'	638.81	638.83
D	107+44.96	-40.24'	638.80	638.81
CL. BRG. PIER	107+49.98	-39.73'	638.79	638.79
E	107+60.00	-38.71'	638.76	638.77
F	107+70.02	-37.68'	638.72	638.73
G	107+80.04	-36.65'	638.66	638.67
H	107+90.06	-35.61'	638.58	638.59
CL. BRG. E. ABUT.	107+95.07	-35.08'	638.54	638.54
BK. E. ABUT.	107+97.41	-34.84'	638.52	638.52

**BEAM 3**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. W. ABUT.	107+02.53	-38.43'	638.94	638.94
CL. BRG. W. ABUT.	107+04.87	-38.25'	638.95	638.95
A	107+14.90	-37.51'	638.97	638.99
B	107+24.92	-36.77'	638.98	639.01
C	107+34.94	-36.02'	638.98	639.00
D	107+44.97	-35.26'	638.96	638.97
CL. BRG. PIER	107+49.98	-34.88'	638.94	638.94
E	107+60.00	-34.11'	638.90	638.91
F	107+70.02	-33.34'	638.85	638.86
G	107+80.04	-32.56'	638.78	638.80
H	107+90.05	-31.77'	638.70	638.71
CL. BRG. E. ABUT.	107+95.06	-31.38'	638.66	638.66
BK. E. ABUT.	107+97.40	-31.19'	638.63	638.63

**BEAM 4**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. W. ABUT.	107+02.55	-32.37'	639.13	639.13
CL. BRG. W. ABUT.	107+04.89	-32.25'	639.14	639.14
A	107+14.91	-31.77'	639.15	639.17
B	107+24.93	-31.28'	639.15	639.18
C	107+34.95	-30.78'	639.14	639.16
D	107+44.97	-30.28'	639.11	639.12
CL. BRG. PIER	107+49.98	-30.02'	639.10	639.10
E	107+59.99	-29.51'	639.05	639.05
F	107+70.01	-28.99'	638.99	639.00
G	107+80.03	-28.47'	638.91	638.93
H	107+90.04	-27.94'	638.82	638.83
CL. BRG. E. ABUT.	107+95.05	-27.67'	638.77	638.77
BK. E. ABUT.	107+97.39	-27.55'	638.75	638.75

**WB LANE SLOPE CHANGE**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. W. ABUT.	107+02.58	-21.68'	639.46	639.46
CL. BRG. W. ABUT.	107+04.92	-21.69'	639.46	639.46
A	107+14.93	-21.71'	639.47	639.48
B	107+24.94	-21.73'	639.45	639.48
C	107+34.96	-21.74'	639.42	639.44
D	107+44.97	-21.75'	639.38	639.39
CL. BRG. PIER	107+49.98	-21.75'	639.35	639.35
E	107+59.99	-21.75'	639.29	639.30
F	107+70.00	-21.74'	639.21	639.23
G	107+80.02	-21.72'	639.12	639.14
H	107+90.03	-21.70'	639.02	639.02
CL. BRG. E. ABUT.	107+95.04	-21.69'	638.96	638.96
BK. E. ABUT.	107+97.37	-21.68'	638.93	638.93

**BEAM 5**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. W. ABUT.	107+02.57	-26.31'	639.32	639.32
CL. BRG. W. ABUT.	107+04.90	-26.25'	639.33	639.33
A	107+14.92	-26.02'	639.33	639.35
B	107+24.94	-25.79'	639.33	639.35
C	107+34.95	-25.54'	639.31	639.32
D	107+44.97	-25.29'	639.27	639.28
CL. BRG. PIER	107+49.98	-25.17'	639.25	639.25
E	107+59.99	-24.91'	639.19	639.20
F	107+70.01	-24.65'	639.12	639.14
G	107+80.02	-24.38'	639.04	639.05
H	107+90.03	-24.10'	638.94	638.95
CL. BRG. E. ABUT.	107+95.04	-23.96'	638.89	638.89
BK. E. ABUT.	107+97.38	-23.89'	638.86	638.86

**BEAM 6**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. W. ABUT.	107+02.58	-20.24'	639.49	639.49
CL. BRG. W. ABUT.	107+04.92	-20.25'	639.49	639.49
A	107+14.93	-20.28'	639.49	639.51
B	107+24.95	-20.29'	639.47	639.50
C	107+34.96	-20.31'	639.45	639.46
D	107+44.97	-20.31'	639.40	639.41
CL. BRG. PIER	107+49.98	-20.31'	639.38	639.38
E	107+59.99	-20.31'	639.31	639.32
F	107+70.00	-20.30'	639.24	639.25
G	107+80.01	-20.29'	639.14	639.16
H	107+90.03	-20.26'	639.04	639.05
CL. BRG. E. ABUT.	107+95.03	-20.25'	638.98	638.98
BK. E. ABUT.	107+97.37	-20.24'	638.95	638.95

**BEAM 7**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. W. ABUT.	107+02.60	-14.74'	639.57	639.57
CL. BRG. W. ABUT.	107+04.94	-14.75'	639.57	639.57
A	107+14.94	-14.78'	639.57	639.59
B	107+24.95	-14.79'	639.56	639.58
C	107+34.96	-14.81'	639.53	639.55
D	107+44.97	-14.81'	639.49	639.49
CL. BRG. PIER	107+49.98	-14.81'	639.46	639.46
E	107+59.99	-14.81'	639.40	639.41
F	107+69.99	-14.80'	639.32	639.34
G	107+80.00	-14.79'	639.23	639.25
H	107+90.01	-14.76'	639.13	639.14
CL. BRG. E. ABUT.	107+95.02	-14.75'	639.07	639.07
BK. E. ABUT.	107+97.35	-14.74'	639.04	639.04

FILE PATH = P:\111-532-IDD-PTB\11-532-IDD-PTB\11-532-IDD-PTB\Creek\CADD\Sheets\Structural\0160393-0000-008-TopOfSlabElev.dgn



4415 WEST HARRISON STREET, SUITE 231  
HILLSIDE, IL 60162  
PHONE: (708) 236-0900 FAX: (708) 236-0901

0160393-0000-008-TopOfSlabElev.dgn  
USER NAME = ken.drabant  
PLOT SCALE = 0:2.0000 '1" = 1"  
PLOT DATE = 3/3/2020

DESIGNED - LAB  
DRAWN - LAB, KJD  
CHECKED - MI, MAI  
DATE - 3/3/2020

REVISED -  
REVISED -  
REVISED -  
REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS (SHEET 1 OF 3)  
STRUCTURE NO. 016-0393

SCALE: SHEET S-08 OF S-39 SHEETS STA. 107+49.98 TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3562	T-5-4BR(81)	COOK	92	35
CONTRACT NO. 60N80				
ILLINOIS FED. AID PROJECT				

**BEAM 8**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. W. ABUT.	107+02.62	-9.24'	639.66	639.66
CL. BRG. W. ABUT.	107+04.95	-9.25'	639.66	639.66
A	107+14.96	-9.28'	639.66	639.67
B	107+24.96	-9.29'	639.65	639.67
C	107+34.97	-9.31'	639.62	639.63
D	107+44.97	-9.31'	639.58	639.58
CL. BRG. PIER	107+49.98	-9.31'	639.55	639.55
E	107+59.98	-9.31'	639.49	639.49
F	107+69.99	-9.30'	639.41	639.42
G	107+79.99	-9.29'	639.32	639.34
H	107+90.00	-9.26'	639.21	639.22
CL. BRG. E. ABUT.	107+95.00	-9.25'	639.15	639.15
BK. E. ABUT.	107+97.34	-9.24'	639.13	639.13

**BEAM 9**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. W. ABUT.	107+02.63	-3.74'	639.74	639.74
CL. BRG. W. ABUT.	107+04.97	-3.75'	639.75	639.75
A	107+14.97	-3.78'	639.75	639.76
B	107+24.97	-3.79'	639.73	639.75
C	107+34.97	-3.81'	639.70	639.72
D	107+44.97	-3.81'	639.66	639.67
CL. BRG. PIER	107+49.98	-3.81'	639.63	639.63
E	107+59.98	-3.81'	639.57	639.58
F	107+69.98	-3.80'	639.49	639.51
G	107+79.98	-3.79'	639.40	639.42
H	107+89.99	-3.76'	639.30	639.31
CL. BRG. E. ABUT.	107+94.99	-3.75'	639.24	639.24
BK. E. ABUT.	107+97.32	-3.74'	639.21	639.21

**WB PGL JOLIET ROAD**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. W. ABUT.	107+02.64	-2.30'	639.77	639.77
CL. BRG. W. ABUT.	107+04.97	-2.30'	639.78	639.78
A	107+14.97	-2.30'	639.77	639.79
B	107+24.97	-2.30'	639.76	639.78
C	107+34.97	-2.30'	639.73	639.75
D	107+44.98	-2.30'	639.69	639.69
CL. BRG. PIER	107+49.98	-2.30'	639.66	639.66
E	107+59.98	-2.30'	639.60	639.61
F	107+69.98	-2.30'	639.52	639.54
G	107+79.98	-2.30'	639.43	639.45
H	107+89.98	-2.30'	639.33	639.34
CL. BRG. E. ABUT.	107+94.98	-2.30'	639.27	639.27
BK. E. ABUT.	107+97.32	-2.30'	639.24	639.24

**JOLIET ROAD**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. W. ABUT.	107+02.64	0.00'	639.80	639.80
CL. BRG. W. ABUT.	107+04.98	0.00'	639.81	639.81
A	107+14.98	0.00'	639.81	639.82
B	107+24.98	0.00'	639.79	639.81
C	107+34.98	0.00'	639.76	639.78
D	107+44.98	0.00'	639.72	639.73
CL. BRG. PIER	107+49.98	0.00'	639.69	639.69
E	107+59.98	0.00'	639.63	639.64
F	107+69.98	0.00'	639.55	639.57
G	107+79.98	0.00'	639.46	639.48
H	107+89.98	0.00'	639.36	639.37
CL. BRG. E. ABUT.	107+94.98	0.00'	639.30	639.30
BK. E. ABUT.	107+97.31	0.00'	639.27	639.27

**LOCAL TANGENT TO JOLIET ROAD AT STA. 107+49.98 & STAGE CONSTRUCTION JOINT**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. W. ABUT.	107+02.64	0.07'	639.80	639.80
CL. BRG. W. ABUT.	107+04.98	0.06'	639.81	639.81
A	107+14.98	0.04'	639.81	639.82
B	107+24.98	0.02'	639.79	639.81
C	107+34.98	0.01'	639.76	639.78
D	107+44.98	0.00'	639.72	639.73
CL. BRG. PIER	107+49.98	0.00'	639.69	639.69
E	107+59.98	0.00'	639.63	639.64
F	107+69.98	0.01'	639.55	639.57
G	107+79.98	0.03'	639.46	639.48
H	107+89.98	0.05'	639.36	639.37
CL. BRG. E. ABUT.	107+94.98	0.06'	639.30	639.30
BK. E. ABUT.	107+97.31	0.07'	639.27	639.27

**BEAM 10**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. W. ABUT.	107+02.65	1.76'	639.78	639.78
CL. BRG. W. ABUT.	107+04.98	1.75'	639.78	639.78
A	107+14.98	1.72'	639.78	639.80
B	107+24.98	1.71'	639.77	639.79
C	107+34.98	1.69'	639.74	639.75
D	107+44.98	1.69'	639.69	639.70
CL. BRG. PIER	107+49.98	1.69'	639.67	639.67
E	107+59.98	1.69'	639.60	639.61
F	107+69.97	1.70'	639.53	639.55
G	107+79.97	1.71'	639.44	639.46
H	107+89.97	1.74'	639.33	639.34
CL. BRG. E. ABUT.	107+94.97	1.75'	639.27	639.27
BK. E. ABUT.	107+97.30	1.76'	639.24	639.24

**EB PGL JOLIET ROAD**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. W. ABUT.	107+02.65	2.10'	639.77	639.77
CL. BRG. W. ABUT.	107+04.98	2.10'	639.78	639.78
A	107+14.98	2.10'	639.77	639.79
B	107+24.98	2.10'	639.76	639.78
C	107+34.98	2.10'	639.73	639.75
D	107+44.98	2.10'	639.69	639.69
CL. BRG. PIER	107+49.98	2.10'	639.66	639.66
E	107+59.98	2.10'	639.60	639.61
F	107+69.97	2.10'	639.52	639.54
G	107+79.97	2.10'	639.43	639.45
H	107+89.97	2.10'	639.33	639.34
CL. BRG. E. ABUT.	107+94.97	2.10'	639.27	639.27
BK. E. ABUT.	107+97.30	2.10'	639.24	639.24

**BEAM 11**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. W. ABUT.	107+02.66	7.26'	639.69	639.69
CL. BRG. W. ABUT.	107+05.00	7.25'	639.69	639.69
A	107+14.99	7.22'	639.69	639.71
B	107+24.99	7.21'	639.68	639.70
C	107+34.98	7.19'	639.65	639.67
D	107+44.98	7.19'	639.61	639.61
CL. BRG. PIER	107+49.98	7.19'	639.58	639.58
E	107+59.97	7.19'	639.52	639.53
F	107+69.97	7.20'	639.44	639.46
G	107+79.96	7.21'	639.35	639.37
H	107+89.96	7.24'	639.24	639.25
CL. BRG. E. ABUT.	107+94.96	7.25'	639.19	639.19
BK. E. ABUT.	107+97.29	7.26'	639.16	639.16

**BEAM 12**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. W. ABUT.	107+02.68	12.76'	639.61	639.61
CL. BRG. W. ABUT.	107+05.01	12.75'	639.61	639.61
A	107+15.00	12.72'	639.61	639.62
B	107+25.00	12.71'	639.59	639.61
C	107+34.99	12.69'	639.57	639.58
D	107+44.98	12.69'	639.52	639.53
CL. BRG. PIER	107+49.98	12.69'	639.50	639.50
E	107+59.97	12.69'	639.43	639.44
F	107+69.96	12.70'	639.36	639.37
G	107+79.95	12.71'	639.26	639.28
H	107+89.95	12.74'	639.16	639.17
CL. BRG. E. ABUT.	107+94.94	12.75'	639.10	639.10
BK. E. ABUT.	107+97.27	12.76'	639.07	639.07

FILE PATH = P:\1111-532-IDDOT-PFBIB-Item 8-Venous-Venture\Work-Order-115-Joliet Rd.-Div-Flag-Creek\CADD-Sheets\Structure\0160393-00000-009-TopOfSlabElev2.dgn



ENGINEERING GROUP, LLC.  
4415 WEST HARRISON STREET, SUITE 231  
HILLSDALE, IL 60162  
PHONE: (708) 236-0900 FAX: (708) 236-0901

0160393-00000-009-TopOfSlabElev2.dgn  
USER NAME = ken.drobant  
PLOT SCALE = 0:2.0000 '1"=1"  
PLOT DATE = 3/3/2020

DESIGNED - LAB  
DRAWN - LAB, KJD  
CHECKED - MI, MAI  
DATE - 3/3/2020

REVISED -  
REVISED -  
REVISED -  
REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS (SHEET 2 OF 3)  
STRUCTURE NO. 016-0393

SCALE: SHEET S-09 OF S-39 SHEETS STA. 107+49.98 TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3562	T-5-4BR(81)	COOK	92	36
CONTRACT NO. 60N80				
ILLINOIS FED. AID PROJECT				

**EB LANE SLOPE CHANGE**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. W. ABUT.	107+02.68	14.07'	639.59	639.59
CL. BRG. W. ABUT.	107+05.01	14.06'	639.59	639.59
A	107+15.01	14.04'	639.59	639.60
B	107+25.00	14.02'	639.57	639.59
C	107+34.99	14.01'	639.54	639.56
D	107+44.98	14.00'	639.50	639.51
CL. BRG. PIER	107+49.98	14.00'	639.48	639.48
E	107+59.97	14.00'	639.41	639.42
F	107+69.96	14.01'	639.34	639.35
G	107+79.95	14.03'	639.24	639.26
H	107+89.94	14.05'	639.14	639.15
CL. BRG. E. ABUT.	107+94.94	14.06'	639.08	639.08
BK. E. ABUT.	107+97.27	14.07'	639.05	639.05

**BEAM 13**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. W. ABUT.	107+02.69	18.26'	639.50	639.50
CL. BRG. W. ABUT.	107+05.03	18.25'	639.50	639.50
A	107+15.01	18.22'	639.50	639.52
B	107+25.00	18.21'	639.49	639.51
C	107+34.99	18.19'	639.46	639.47
D	107+44.98	18.19'	639.41	639.42
CL. BRG. PIER	107+49.98	18.19'	639.39	639.39
E	107+59.97	18.19'	639.33	639.33
F	107+69.95	18.20'	639.25	639.27
G	107+79.94	18.21'	639.16	639.18
H	107+89.93	18.24'	639.05	639.06
CL. BRG. E. ABUT.	107+94.93	18.25'	638.99	638.99
BK. E. ABUT.	107+97.26	18.26'	638.97	638.97

**BEAM 14**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. W. ABUT.	107+02.71	23.76'	639.38	639.38
CL. BRG. W. ABUT.	107+05.04	23.75'	639.39	639.39
A	107+15.03	23.72'	639.39	639.40
B	107+25.01	23.71'	639.37	639.39
C	107+35.00	23.69'	639.34	639.36
D	107+44.98	23.69'	639.30	639.31
CL. BRG. PIER	107+49.98	23.69'	639.27	639.27
E	107+59.96	23.69'	639.21	639.22
F	107+69.95	23.70'	639.13	639.15
G	107+79.93	23.71'	639.04	639.06
H	107+89.92	23.74'	638.94	638.95
CL. BRG. E. ABUT.	107+94.91	23.75'	638.88	638.88
BK. E. ABUT.	107+97.24	23.76'	638.85	638.85

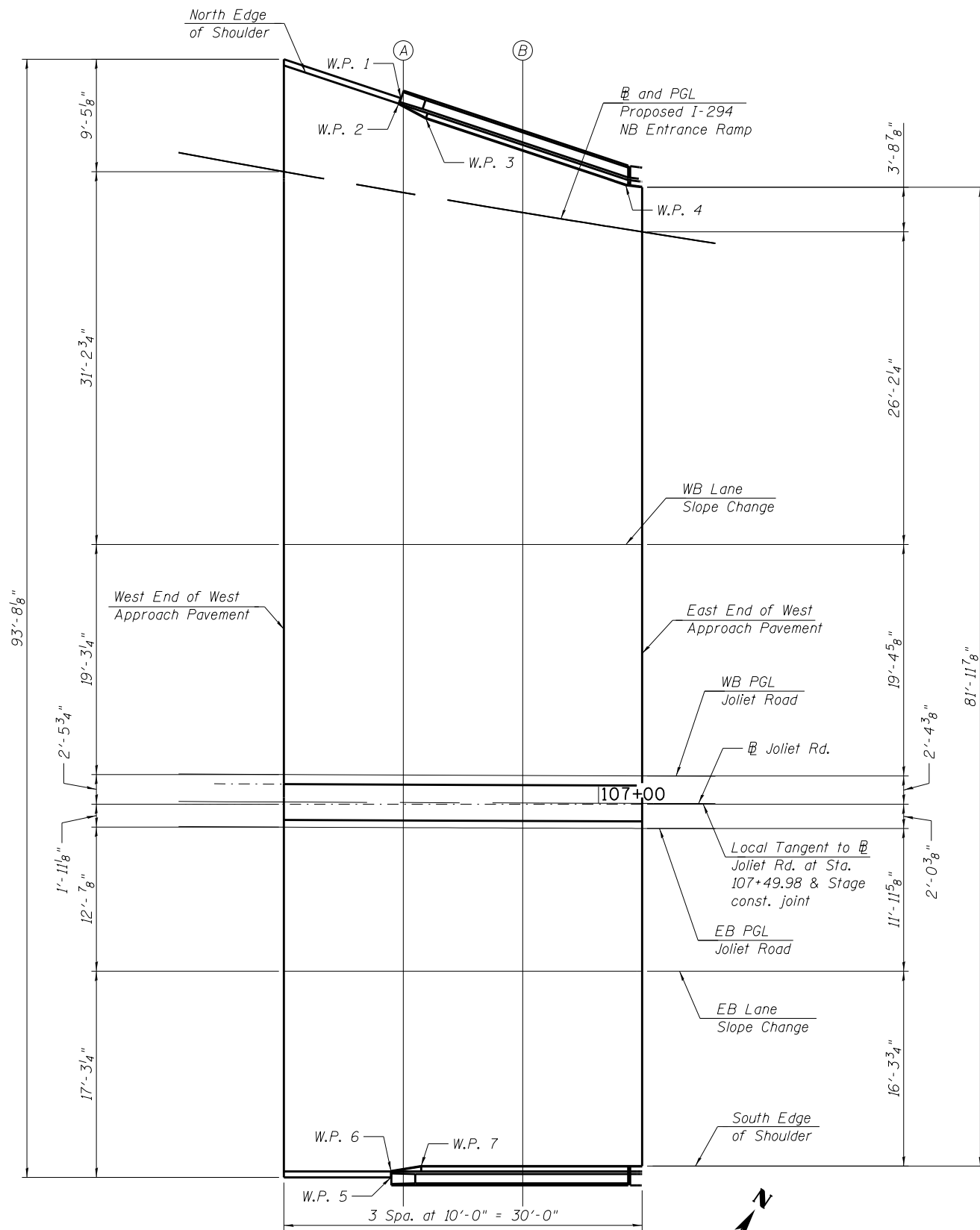
**BEAM 15**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. W. ABUT.	107+02.73	29.26'	639.27	639.27
CL. BRG. W. ABUT.	107+05.06	29.25'	639.27	639.27
A	107+15.04	29.22'	639.27	639.29
B	107+25.02	29.21'	639.26	639.28
C	107+35.00	29.19'	639.23	639.25
D	107+44.98	29.19'	639.19	639.19
CL. BRG. PIER	107+49.98	29.19'	639.16	639.16
E	107+59.96	29.19'	639.10	639.10
F	107+69.94	29.20'	639.02	639.04
G	107+79.92	29.21'	638.93	638.95
H	107+89.91	29.24'	638.82	638.83
CL. BRG. E. ABUT.	107+94.90	29.25'	638.76	638.76
BK. E. ABUT.	107+97.23	29.26'	638.74	638.74

FILE PATH = P:\111-532-1001-PTB\11-Item 8 (Various)Various\Work Order-#15 Joliet Rd, Over-Flag Creek\CADD Sheets\Structural\0160393-00000-010-TopOfSlabElev3.dgn

<b>HBM</b> ENGINEERING GROUP, LLC. 4415 WEST HARRISON STREET, SUITE 213 HILLSIDE, IL 60162 PHONE: (708) 236-0900 FAX: (708) 236-0901	0160393-00000-010-TopOfSlabElev3.dgn	DESIGNED - LAB	REVISED -	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>TOP OF SLAB ELEVATIONS (SHEET 3 OF 3)</b> <b>STRUCTURE NO. 016-0393</b>	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	USER NAME = ken.drobant	DRAWN - LAB, KJD	REVISED -			3562	T-5-4BR(81)	COOK	92	37
	PLOT SCALE = 0:2.0000 '1' / in.	CHECKED - MI, MAI	REVISED -			CONTRACT NO. 60N80				
	PLOT DATE = 3/3/2020	DATE - 3/3/2020	REVISED -			ILLINOIS FED. AID PROJECT				
SCALE:						SHEET S-10 OF S-39 SHEETS STA. 107+49.98 TO STA.				

FILE PATH = P:\1111-532-1001-PTBIBI-Item B Various\Various\Work Order-#15 Joliet Rd, Over-Flag Creek\CADD Sheets\Structural\0160393-00000-011-WestApprElev.dgn



**PLAN**  
West Approach

**NORTH EDGE OF SHOULDER**

Location	Station	Offset	Theoretical Grade Elevations
W. End West Appr. Pav't.	106+73.35	-62.23'	638.08
W.P. 1	106+83.18	-59.01'	638.22
W.P. 2	106+83.01	-58.50'	638.24
A	106+83.41	-58.30'	638.24
W.P. 3	106+85.30	-57.31'	638.28
B	106+93.46	-54.63'	638.39
W.P. 4	107+02.13	-51.78'	638.49
E. End West Appr. Pav't.	107+03.50	-51.61'	638.50

**WB AND PGL PROPOSED I-294 NB ENTRANCE RAMP**

Location	Station	Offset	Theoretical Grade Elevations
W. End West Appr. Pav't.	106+73.40	-52.80'	638.37
A	106+83.44	-51.10'	638.47
B	106+93.47	-49.46'	638.55
E. End West Appr. Pav't.	107+03.51	-47.87'	638.62

**WB LANE SLOPE CHANGE**

Location	Station	Offset	Theoretical Grade Elevations
W. End West Appr. Pav't.	106+73.54	-21.57'	639.35
A	106+83.64	-21.62'	639.39
B	106+93.64	-21.65'	639.42
E. End West Appr. Pav't.	107+03.58	-21.68'	639.43

**WB PGL JOLIET ROAD**

Location	Station	Offset	Theoretical Grade Elevations
W. End West Appr. Pav't.	106+73.63	-2.30'	639.69
A	106+83.63	-2.30'	639.73
B	106+93.63	-2.30'	639.76
E. End West Appr. Pav't.	107+03.64	-2.30'	639.77

**EB JOLIET ROAD**

Location	Station	Offset	Theoretical Grade Elevations
W. End West Appr. Pav't.	106+73.64	0.00'	639.72
A	106+83.64	0.00'	639.76
B	106+93.64	0.00'	639.79
E. End West Appr. Pav't.	107+03.64	0.00'	639.81

**LOCAL TANGENT TO EB JOLIET ROAD AT STA. 107+49.98 & STAGE CONSTRUCTION JOINT**

Location	Station	Offset	Theoretical Grade Elevations
W. End West Appr. Pav't.	106+73.64	0.18'	639.72
A	106+83.64	0.13'	639.76
B	106+93.64	0.10'	639.79
E. End West Appr. Pav't.	107+03.64	0.07'	639.81

**EB PGL JOLIET ROAD**

Location	Station	Offset	Theoretical Grade Elevations
W. End West Appr. Pav't.	106+73.65	2.10'	639.69
A	106+83.65	2.10'	639.73
B	106+93.65	2.10'	639.76
E. End West Appr. Pav't.	107+03.65	2.10'	639.77

**EB LANE SLOPE CHANGE**

Location	Station	Offset	Theoretical Grade Elevations
W. End West Appr. Pav't.	106+73.71	14.18'	639.50
A	106+83.70	14.13'	639.54
B	106+93.69	14.10'	639.57
E. End West Appr. Pav't.	107+03.68	14.07'	639.59

**SOUTH EDGE OF SHOULDER**

Location	Station	Offset	Theoretical Grade Elevations
W. End West Appr. Pav't.	106+73.79	31.45'	639.11
W.P. 5	106+82.73	31.41'	639.15
W.P. 6	106+82.73	30.87'	639.16
A	106+83.77	30.70'	639.17
W.P. 7	106+85.26	30.44'	639.18
B	106+93.75	30.41'	639.20
E. End West Appr. Pav't.	107+03.73	30.38'	639.22

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TOP OF WEST APPROACH SLAB ELEVATIONS  
STRUCTURE NO. 016-0393

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3562	T-5-4BR(81)	COOK	92	38

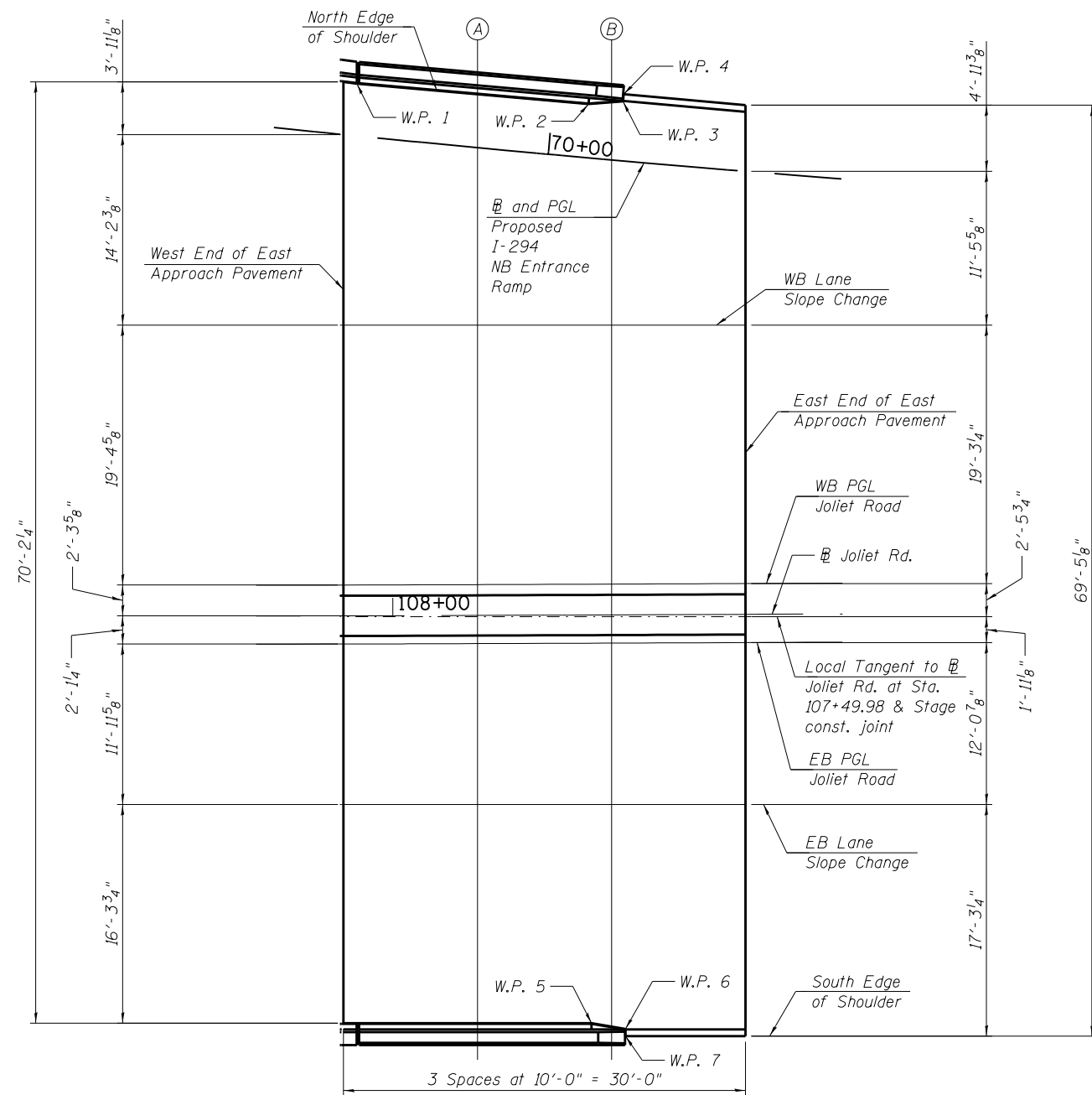
CONTRACT NO. 60N80  
ILLINOIS FED. AID PROJECT

**HBM**  
ENGINEERING GROUP, LLC.  
4415 WEST HARRISON STREET, SUITE 231  
HILLSDALE, IL 60162  
PHONE: (708) 236-0900 FAX: (708) 236-0901

0160393-00000-011-WestApprElev.dgn	DESIGNED - LAB	REVISED -
USER NAME = ken.drobant	DRAWN - LAB, KJD	REVISED -
PLOT SCALE = 12.00' / in.	CHECKED - MI, MAI	REVISED -
PLOT DATE = 3/3/2020	DATE - 3/3/2020	REVISED -

SCALE: SHEET S-11 OF S-39 SHEETS STA. 107+49.98 TO STA.

FILE PATH = P:\111-532-1001-PTBIBI-Item 8 Various\Various\Work Order-#15 Joliet Rd. Over Flag Creek\CADD Sheets\Structural\0160393-00000-012-EastApprElev.dgn



**PLAN**  
East Approach

**NORTH EDGE OF SHOULDER**

Location	Station	Offset	Theoretical Grade Elevations
W. End East Appr. Pav't.	107+96.42	-39.81'	638.35
W.P. 1	107+97.42	-39.68'	638.34
A	108+06.44	-38.86'	638.25
W.P. 2	108+14.75	-38.10'	638.15
B	108+16.46	-38.22'	638.12
W.P. 3	108+17.32	-38.29	638.11
W.P. 4	108+17.37	-38.82'	638.09
E. End East Appr. Pav't.	108+26.48	-37.98'	637.97

**WB AND PGL PROPOSED I-294 NB ENTRANCE RAMP**

Location	Station	Offset	Theoretical Grade Elevations
W. End East Appr. Pav't.	107+96.31	-21.68'	638.47
A	108+06.38	-21.65'	638.37
B	108+16.40	-21.62'	638.26
E. End East Appr. Pav't.	108+26.41	-21.57'	638.14

**WB LANE SLOPE CHANGE**

Location	Station	Offset	Theoretical Grade Elevations
W. End East Appr. Pav't.	107+96.37	-21.68'	638.91
A	108+06.38	-19.65'	638.78
B	108+16.38	-18.62'	638.64
E. End East Appr. Pav't.	108+26.39	-17.57'	638.49

**WB PGL JOLIET ROAD**

Location	Station	Offset	Theoretical Grade Elevations
W. End East Appr. Pav't.	107+96.32	-2.30'	639.25
A	108+06.32	-2.30'	639.12
B	108+16.32	-2.30'	638.98
E. End East Appr. Pav't.	108+26.32	-2.30'	638.84

**WB JOLIET ROAD**

Location	Station	Offset	Theoretical Grade Elevations
W. End East Appr. Pav't.	107+96.31	0.00'	639.28
A	108+06.31	0.00'	639.15
B	108+16.31	0.00'	639.01
E. End East Appr. Pav't.	108+26.31	0.00'	638.87

**LOCAL TANGENT TO WB JOLIET ROAD AT STA. 107+49.98 & STAGE CONSTRUCTION JOINT**

Location	Station	Offset	Theoretical Grade Elevations
W. End East Appr. Pav't.	107+96.31	0.07'	639.28
A	108+06.31	0.10'	639.15
B	108+16.31	0.13'	639.01
E. End East Appr. Pav't.	108+26.31	0.18'	638.87

**EB PGL JOLIET ROAD**

Location	Station	Offset	Theoretical Grade Elevations
W. End East Appr. Pav't.	107+96.30	2.10'	639.25
A	108+06.30	2.10'	639.12
B	108+16.30	2.10'	638.98
E. End East Appr. Pav't.	108+26.30	2.10'	638.84

**EB LANE SLOPE CHANGE**

Location	Station	Offset	Theoretical Grade Elevations
W. End East Appr. Pav't.	107+96.27	14.06'	639.06
A	108+06.26	14.10'	638.94
B	108+16.25	14.13'	638.80
E. End East Appr. Pav't.	108+26.24	14.18'	638.65

**SOUTH EDGE OF SHOULDER**

Location	Station	Offset	Theoretical Grade Elevations
W. End East Appr. Pav't.	107+96.22	30.38'	638.70
A	108+06.21	30.41'	638.57
W.P. 5	108+14.69	30.44'	638.45
B	108+16.19	30.70'	638.42
W.P. 6	108+17.23	30.87	638.40
W.P. 7	108+17.22	30.41'	638.39
E. End East Appr. Pav't.	108+26.16	30.45'	638.25

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TOP OF EAST APPROACH SLAB ELEVATIONS  
STRUCTURE NO. 016-0393

SCALE: SHEET S-12 OF S-39 SHEETS STA. 107+49.98 TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3562	T-5-4BR(81)	COOK	92	39
CONTRACT NO. 60N80				
ILLINOIS FED. AID PROJECT				

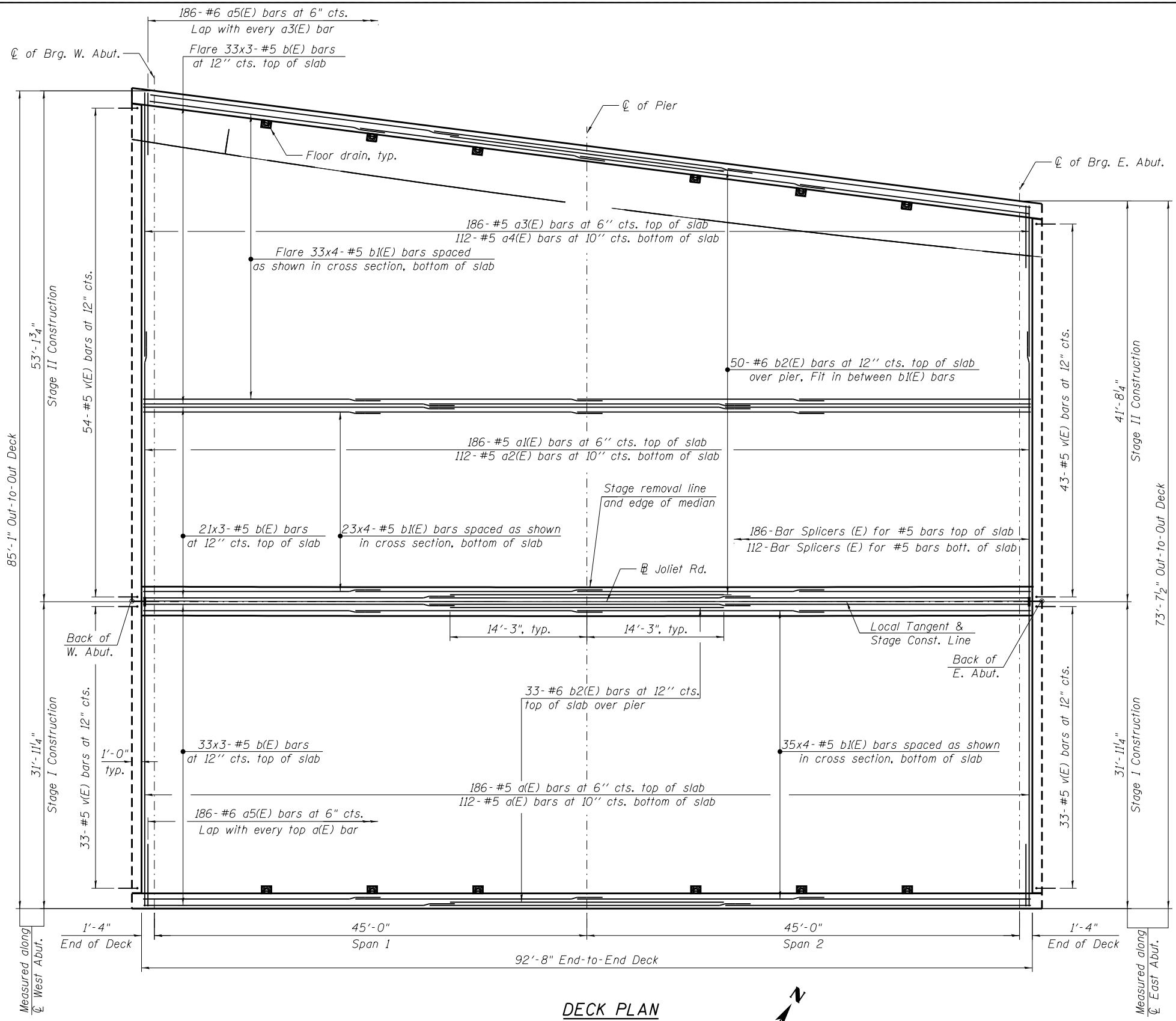
**HBM**  
ENGINEERING GROUP, LLC.  
4415 WEST HARRISON STREET, SUITE 231  
HILLSDALE, IL 60162  
PHONE: (708) 236-0900 FAX: (708) 236-0901

0160393-00000-012-EastApprElev.dgn  
USER NAME = ken.drobant  
PLOT SCALE = 12.00' / in.  
PLOT DATE = 3/3/2020

DESIGNED - LAB  
DRAWN - LAB, KJD  
CHECKED - MI, MAI  
DATE - 3/3/2020

REVISED -  
REVISED -  
REVISED -  
REVISED -





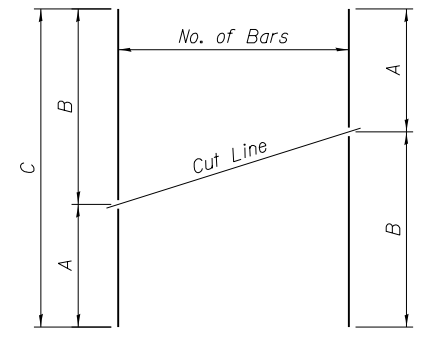
**DECK PLAN**

**NOTES:**

1. For superstructure details, floor drains, and Bill of Material, see Sheet S-18.
2. Bars noted thus, 21x3-#5 indicates 21 lines of bars with 3 lengths per line.
3. For deck cross section, see Sheet S-14.
4. For abutment diaphragm elevations and sections, see Sheets S-15 and S-16.
5. For Type F concrete parapet elevations, see Sheet S-17.
6. Space reinforcement to avoid floor drains.
7. For bar splicer detail, see Sheet S-38.
8. For Conduit Embedded in Structure, quantities and details, see Roadway Plans.

**MINIMUM BAR LAP**

(Deck Plan)  
 #5 bar = 3'-6"  
 #6 bar = 3'-7"



**SERIES OF BAR CUTTING DIAGRAM**

See table for dimensions. Make all cuts normal to bar axis

**BAR TABLE SCHEDULE**

Bar	No. of Sets Req'd	No. of Bars Per Set	A	B	C
a3(E)	1	93	16'-7"	28'-1"	44'-8"
a4(E)	1	56	12'-7"	24'-1"	36'-8"

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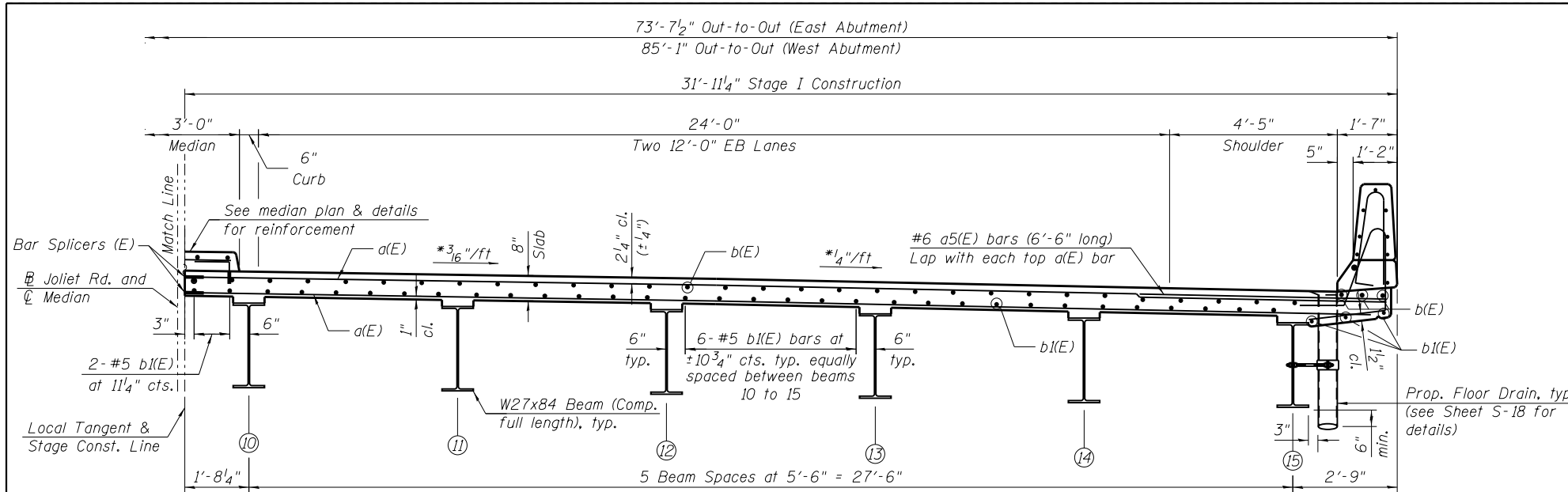
**HBM**  
 ENGINEERING GROUP, LLC.  
 4415 WEST HARRISON STREET, SUITE 231  
 HILLSIDE, IL 60162  
 PHONE: (708) 236-0900 FAX: (708) 236-0901

0160393-00000-013-Deck Plan.dgn	DESIGNED - MA	REVISED -
USER NAME = ken.drobant	DRAWN - MA	REVISED -
PLOT SCALE = 12x0.0000 1' = 1 in.	CHECKED - MI, MAI	REVISED -
PLOT DATE = 3/3/2020	DATE - 3/3/2020	REVISED -

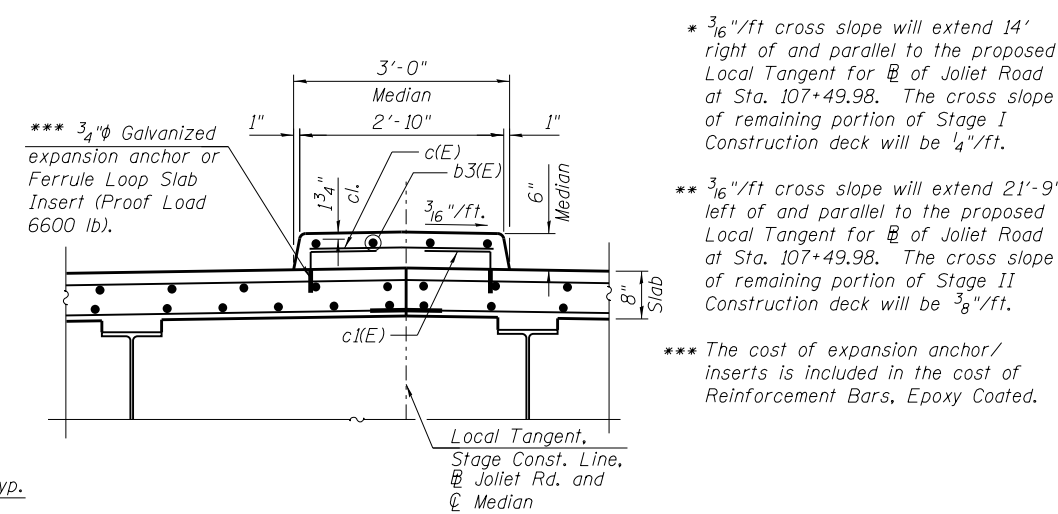
**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**DECK PLAN  
 STRUCTURE NO. 016-0393**  
 SCALE: SHEET S-13 OF S-39 SHEETS STA. 107+49.98 TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3562	T-5-4BR(81)	COOK	92	40
CONTRACT NO. 60N80			ILLINOIS FED. AID PROJECT	



**CROSS SECTION (NEAR MIDSPAN)**  
(Looking Upstation)

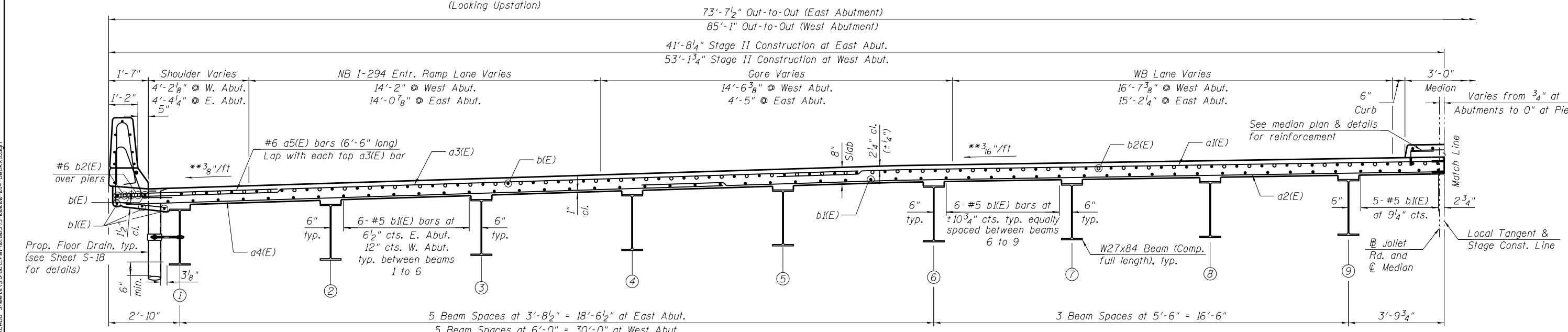


**MEDIAN DETAILS**  
(At C of pier, Sta. 107+49.98)  
(Median shall be constructed during Stage II Construction)

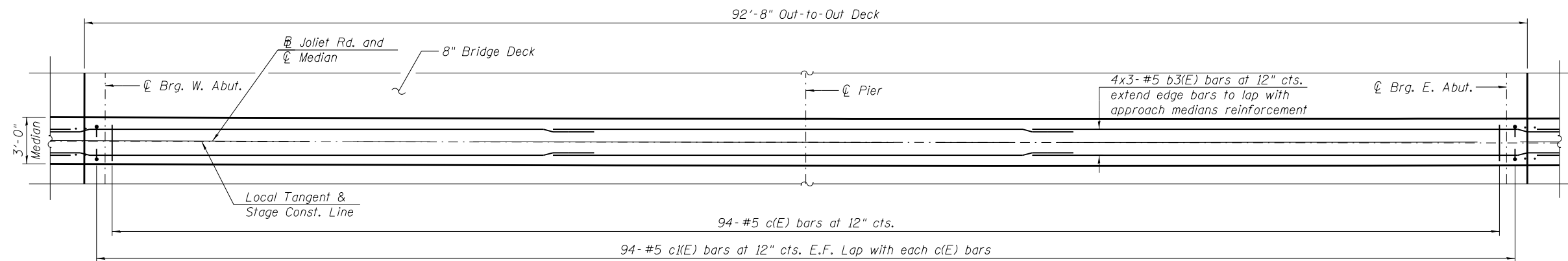
\*\*\* 3/16" /ft cross slope will extend 14' right of and parallel to the proposed Local Tangent for  $\text{CL}$  of Joliet Road at Sta. 107+49.98. The cross slope of remaining portion of Stage I Construction deck will be 1/4" /ft.

\*\*\* 3/16" /ft cross slope will extend 21'-9" left of and parallel to the proposed Local Tangent for  $\text{CL}$  of Joliet Road at Sta. 107+49.98. The cross slope of remaining portion of Stage II Construction deck will be 3/8" /ft.

\*\*\* The cost of expansion anchor / inserts is included in the cost of Reinforcement Bars, Epoxy Coated.



**CROSS SECTION (NEAR PIER)**  
(Looking Upstation)



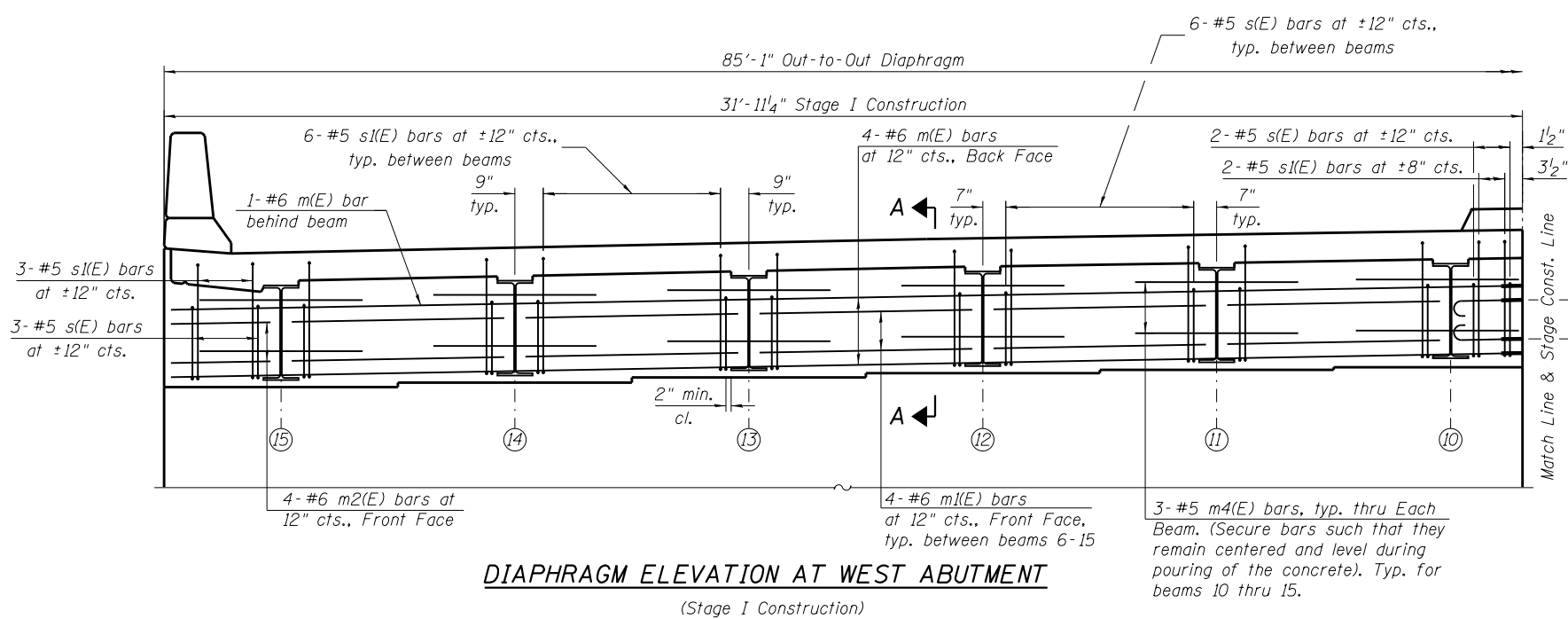
**MEDIAN PLAN**  
(Showing Reinforcement Layout)

**MINIMUM BAR LAP**  
(Median)  
#5 bar = 3'-6"

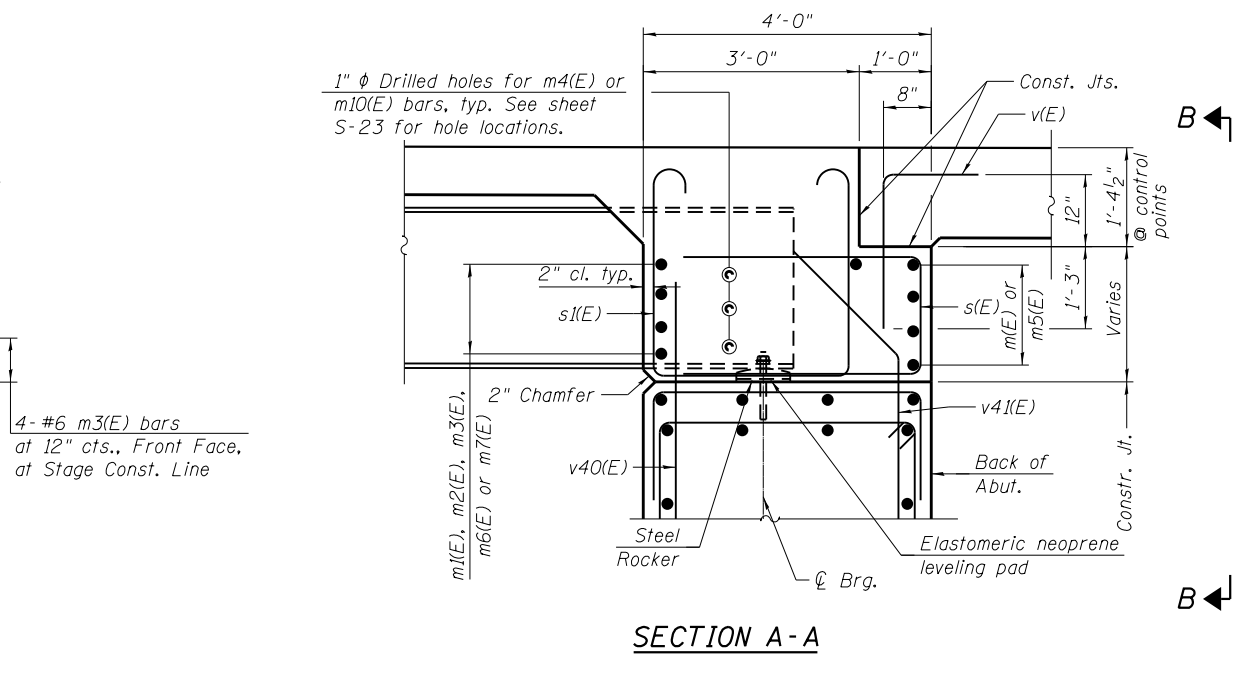


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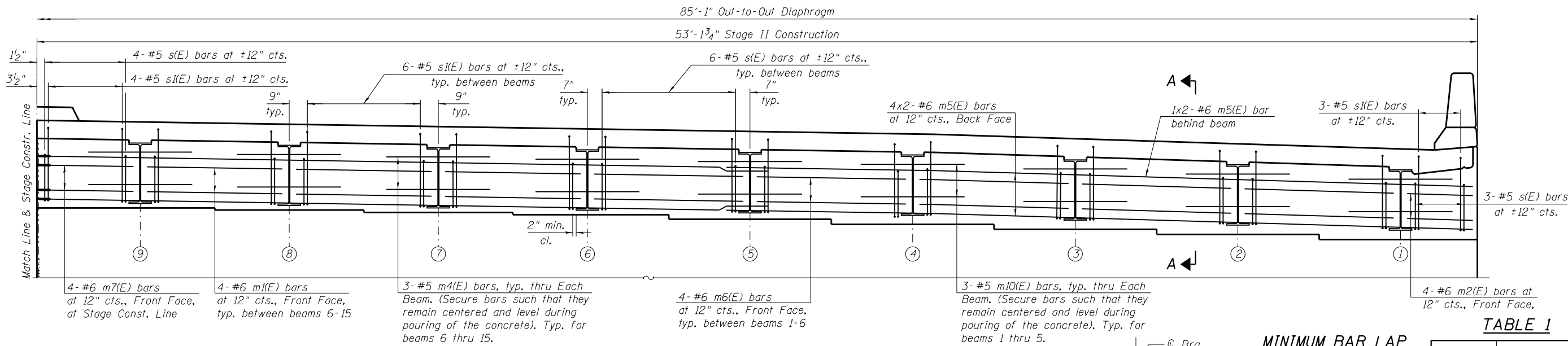
<b>HBM</b> ENGINEERING GROUP, LLC. 4415 WEST HARRISON STREET, SUITE 231 HILLSDALE, IL 60162 PHONE: (708) 236-0900 FAX: (708) 236-0901	0160393-02000-014-DeckXS.dgn USER NAME = ken.drabant PLOT SCALE = 4:8.0000 1" = 16' PLOT DATE = 3/3/2020	DESIGNED - MA DRAWN - MA CHECKED - MI, MAI DATE - 3/3/2020	REVISED - REVISED - REVISED - REVISED -	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>DECK CROSS SECTION</b> <b>STRUCTURE NO. 016-0393</b>	F.A.U. R.T.E. = 3562 SECTION = T-5-4BR(81) COUNTY = COOK TOTAL SHEETS = 92 SHEET NO. = 41 CONTRACT NO. 60N80	ILLINOIS FED. AID PROJECT
	SCALE: SHEET S-14 OF S-39 SHEETS STA. 107+49.98 TO STA.						



**DIAPHRAGM ELEVATION AT WEST ABUTMENT**  
(Stage I Construction)



**SECTION A-A**

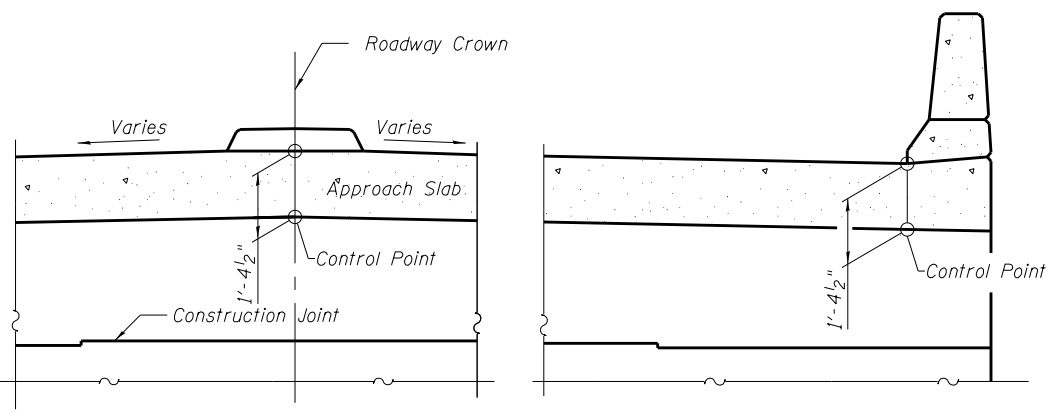


**DIAPHRAGM ELEVATION AT WEST ABUTMENT**  
(Stage II Construction)

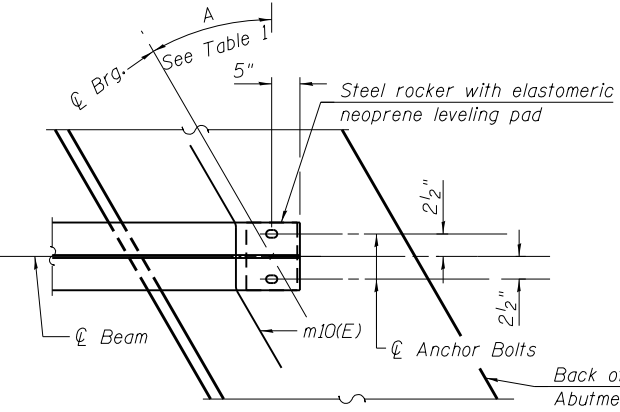
**MINIMUM BAR LAP**  
(Diaphragm)  
#6 bar = 4'-0"

**TABLE 1**

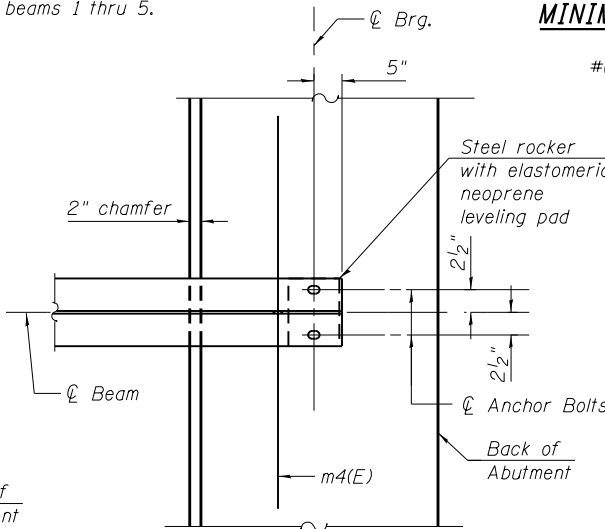
Girder No.	A
1	82°44'40"
2	84°11'4"
3	85°37'54"
4	87°5'5"
5	88°32'29"



**SECTION B-B**



**PARTIAL PLAN AT ABUTMENT**  
(Showing bottom flange of beams 1 thru 5)



**PARTIAL PLAN AT ABUTMENT**  
(Showing bottom flange of beams 6 thru 15)

- NOTES:**
1. Reinforcement bars in diaphragm are billed with superstructure on Sheet S-18.
  2. Concrete in diaphragm is included with Concrete Superstructure on Sheet S-18.
  3. For details of bars s(E), s1(E) and v(E) see Sheet S-18.
  4. The approach slab seat shall have a constant slope determined from the control points shown.
  5. For bearing details see Sheet S-26.

FILE PATH = P:\1111-532 IDOT PFBI\Item 8 Various\Various\Work Order-#15 Joliet Rd, Div- Flag Creek\CADD Sheets\Structural\0160393-00000-015-WestDia.dgn

**HBM**  
ENGINEERING GROUP, LLC.  
4415 WEST HARRISON STREET, SUITE 231  
HILLSIDE, IL 60162  
PHONE: (708) 236-0900 FAX: (708) 236-0901

0160393-00000-015-WestDia.dgn  
USER NAME = ken.drobant  
PLOT SCALE = 4:0.0000 '1' = in.  
PLOT DATE = 3/3/2020

DESIGNED - MA  
DRAWN - MA  
CHECKED - MI, MAI  
DATE - 3/3/2020

REVISED -  
REVISED -  
REVISED -  
REVISED -

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

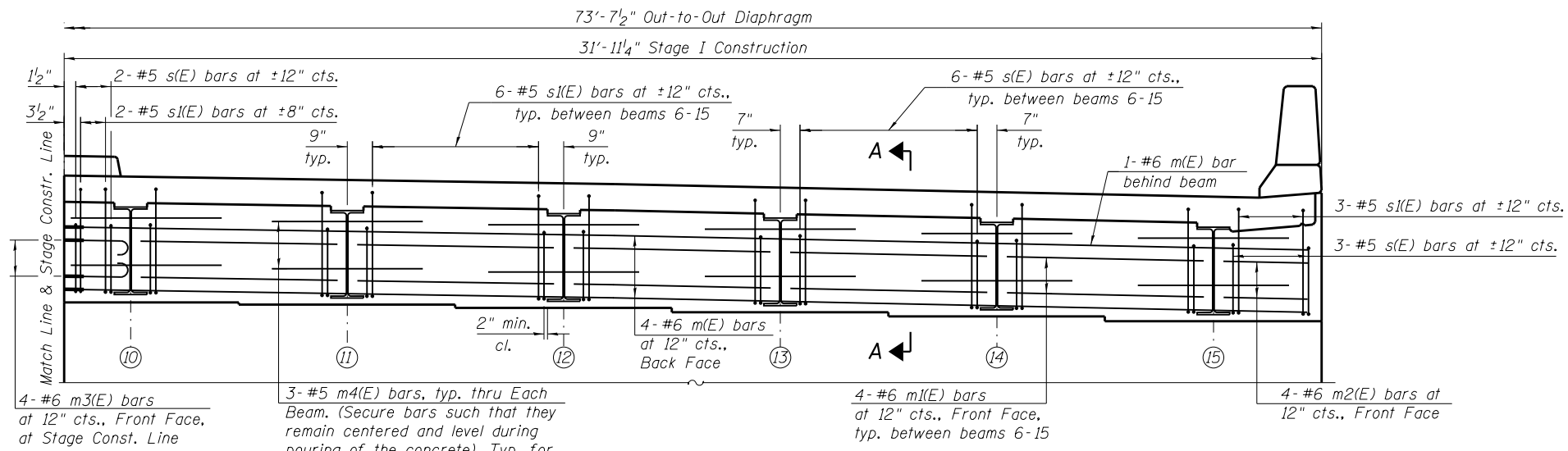
**WEST DIAPHRAGM ELEVATIONS AND SECTIONS**  
**STRUCTURE NO. 016-0393**

SCALE: SHEET S-15 OF S-39 SHEETS STA. 107+49.98 TO STA.

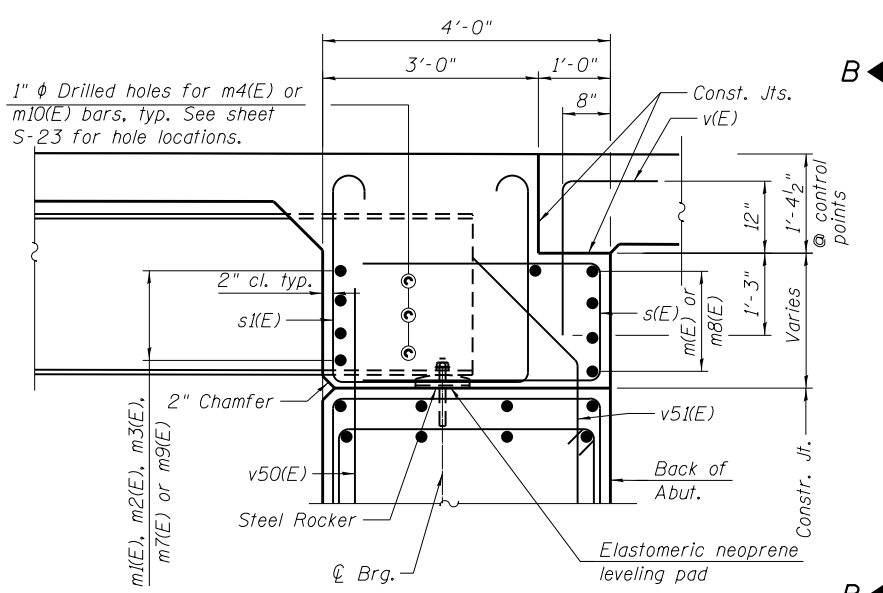
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3562	T-5-4BR(81)	COOK	92	42

CONTRACT NO. 60N80  
ILLINOIS FED. AID PROJECT

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**DIAPHRAGM ELEVATION AT EAST ABUTMENT**  
(Stage I Construction)

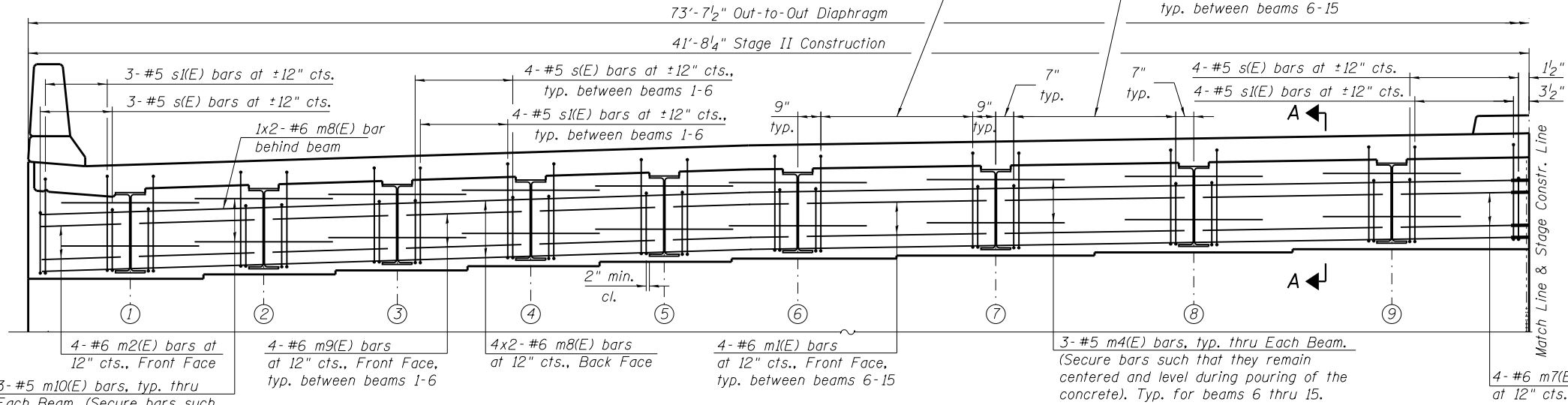


**SECTION A-A**

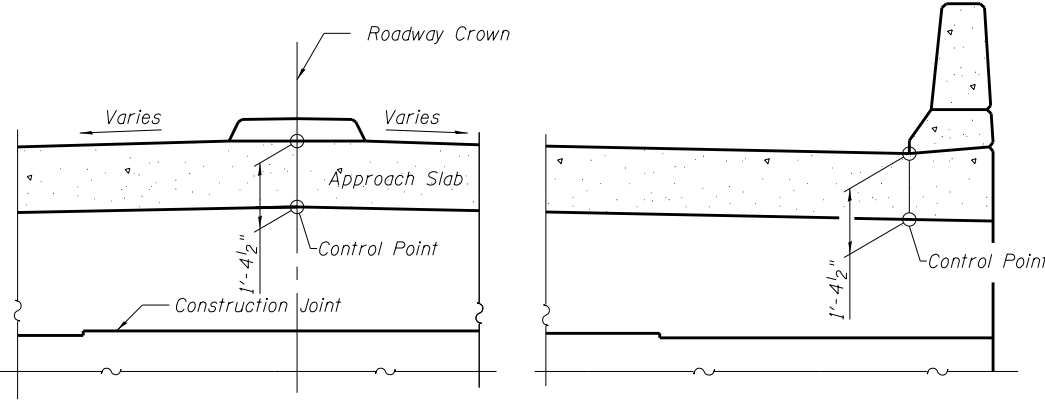
**NOTES:**

1. Reinforcement bars in diaphragm are billed with superstructure on Sheet S-18.
2. Concrete in diaphragm is included with Concrete Superstructure on Sheet S-18.
3. For details of bars s(E), s(E) and v(E) see Sheet S-18.
4. The approach slab seat shall have a constant slope determined from the control points shown.
5. For bearing details see Sheet S-26.

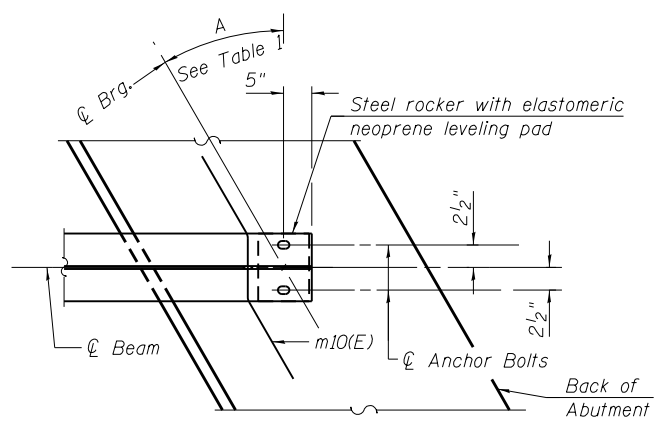
**MINIMUM BAR LAP**  
(Diaphragm)  
#6 bar = 4'-0"



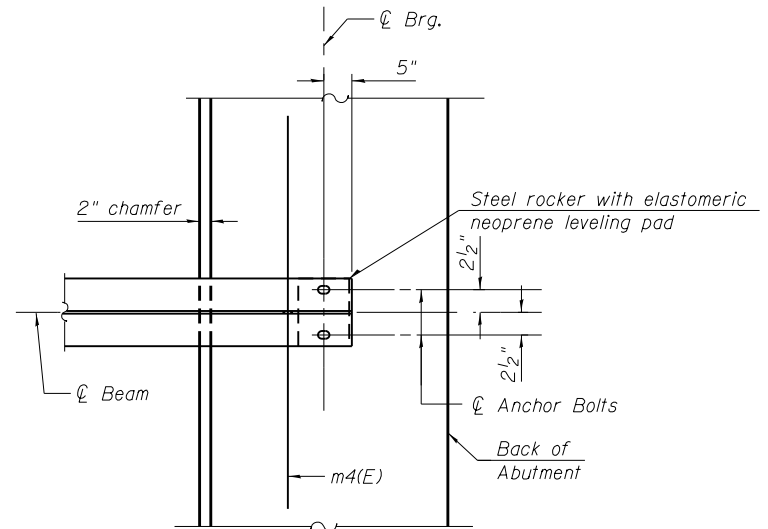
**DIAPHRAGM ELEVATION AT EAST ABUTMENT**  
(Stage II Construction)



**SECTION B-B**



**PARTIAL PLAN AT ABUTMENT**  
(Showing bottom flange of beams 1 thru 5)



**PARTIAL PLAN AT ABUTMENT**  
(Showing bottom flange of beams 6 thru 15)

**TABLE 1**

Girder No.	A
1	82°44'40"
2	84°11'4"
3	85°37'54"
4	87°5'5"
5	88°32'29"

**HBM**  
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4415 WEST HARRISON STREET, SUITE 231  
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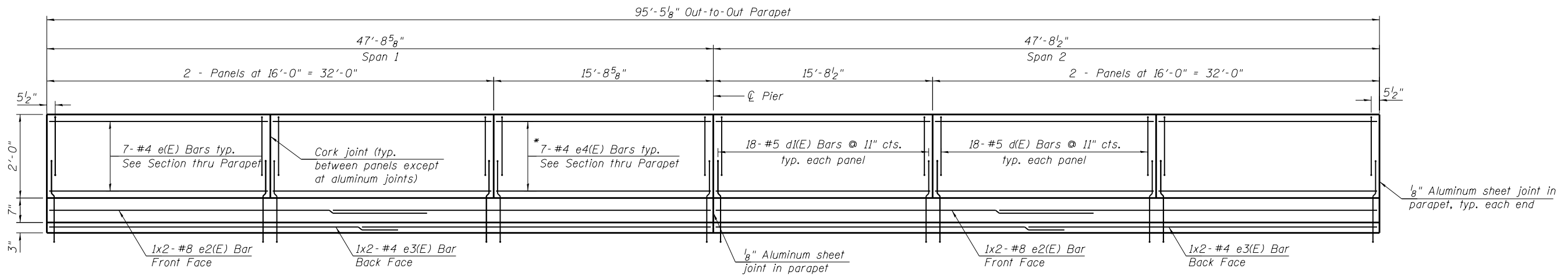
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USER NAME = ken.drobant  
PLOT SCALE = 4:8.0000 1" = 16'  
PLOT DATE = 3/3/2020

DESIGNED - MA  
DRAWN - MA  
CHECKED - MI, MAI  
DATE - 3/3/2020  
REVISED -  
REVISED -  
REVISED -  
REVISED -

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

**EAST DIAPHRAGM ELEVATIONS AND SECTIONS**  
**STRUCTURE NO. 016-0393**  
SCALE: SHEET S-16 OF S-39 SHEETS STA. 107+49.98 TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3562	T-5-4BR(81)	COOK	92	43
CONTRACT NO. 60N80				
ILLINOIS FED. AID PROJECT				

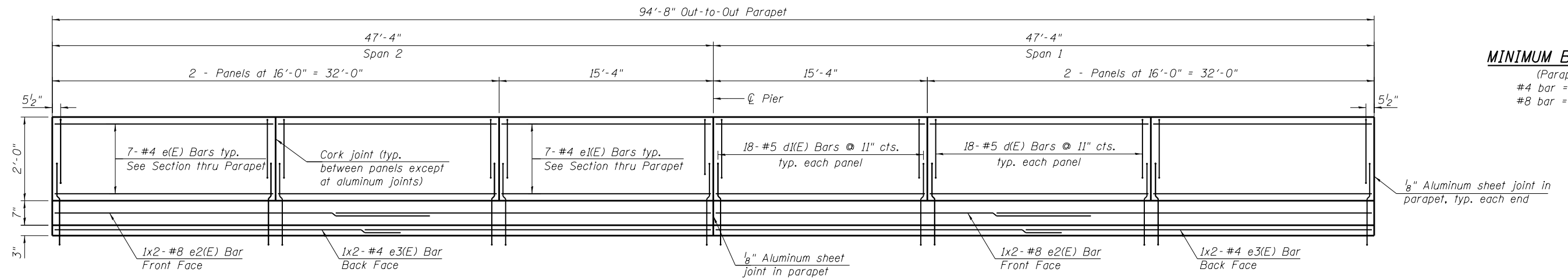


**INSIDE ELEVATION OF NORTH PARAPET**  
(Looking North)

\* Typical for both 15'-8<sup>5</sup>/<sub>8</sub>" & 15'-8<sup>1</sup>/<sub>2</sub>" Panels.

**NOTES:**

- For notes, and bill of material, see Sheet S-18.
- Portions of parapet on top of abutments are included in this sheet.



**INSIDE ELEVATION OF SOUTH PARAPET**  
(Looking South)

**MINIMUM BAR LAP**

(Parapet)  
#4 bar = 2'-8"  
#8 bar = 5'-11"

FILE PATH = P:\1111-532-0001-0017-Parapet.dgn

**HBM**  
ENGINEERING GROUP, LLC.  
4415 WEST HARRISON STREET, SUITE 231  
HILLSDALE, IL 60162  
PHONE: (708) 236-0900 FAX: (708) 236-0901

0160393-00000-017-Parapet.dgn  
USER NAME = ken.drabant  
PLOT SCALE = 8:0.0000 '1' / in.  
PLOT DATE = 3/3/2020

DESIGNED - MA	REVISED -
DRAWN - MA	REVISED -
CHECKED - MI, MAI	REVISED -
DATE - 3/3/2020	REVISED -

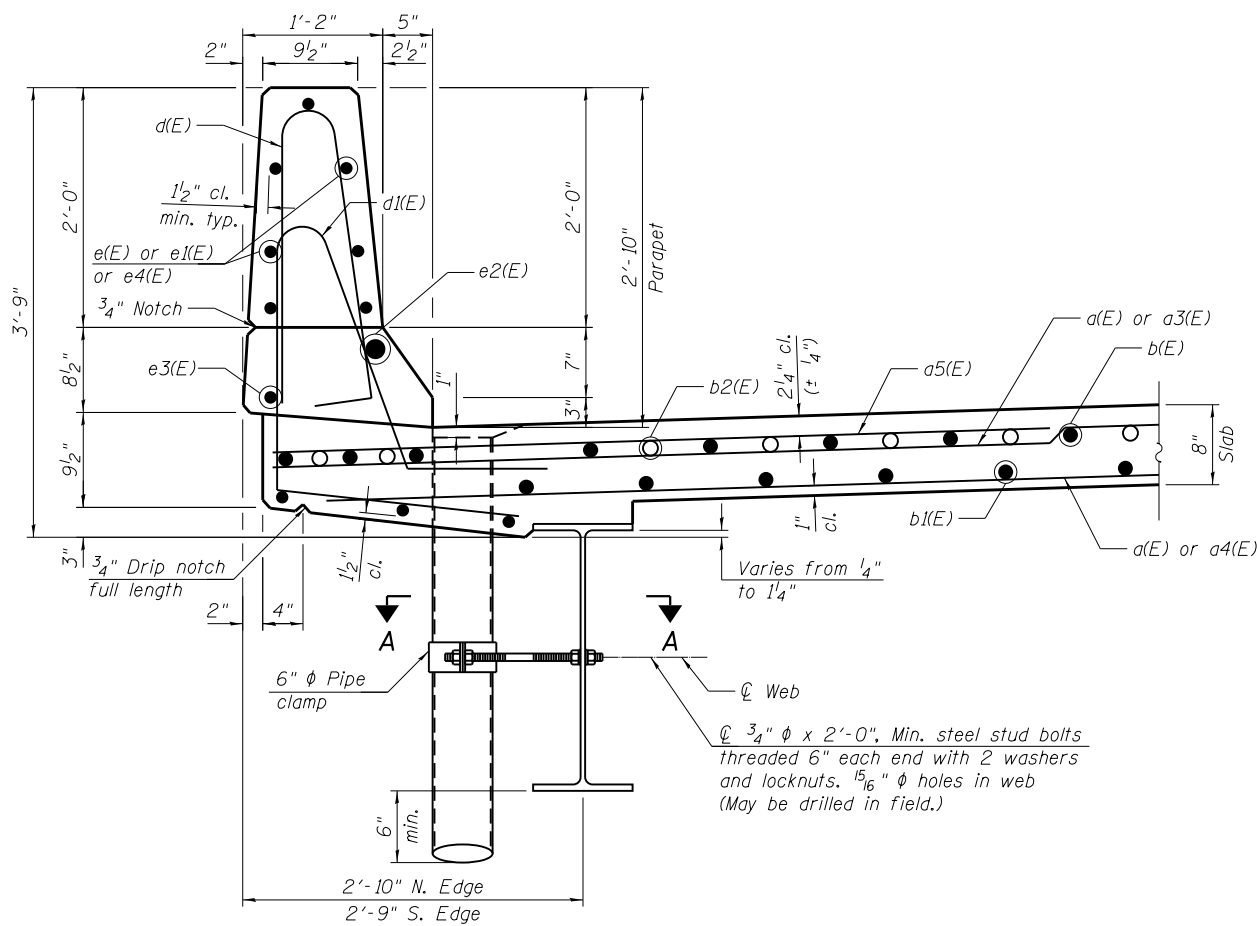
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**PARAPET ELEVATIONS AND DETAILS  
STRUCTURE NO. 016-0393**

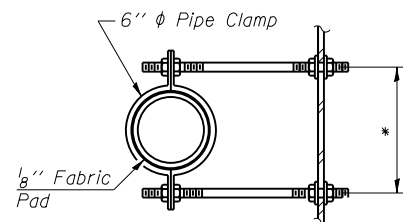
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F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 60N80			ILLINOIS FED. AID PROJECT	

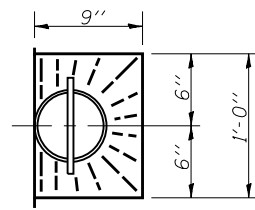
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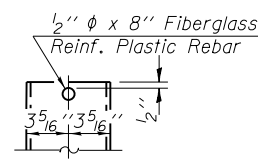
SECTION THRU PARAPET NEAR PIER



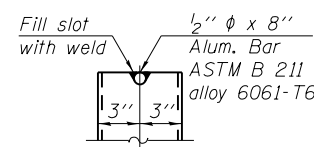
SECTION A-A  
\*Dimension as required by Pipe Clamp



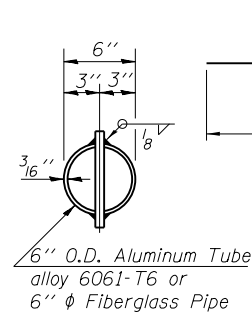
TOP PLAN



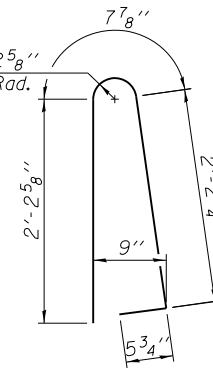
FIBERGLASS PIPE



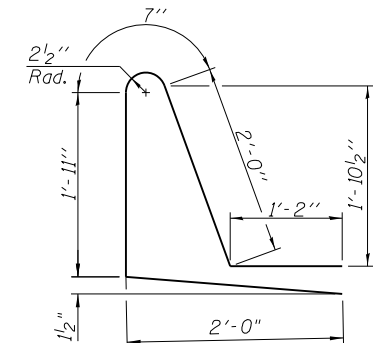
ALUMINUM TUBE



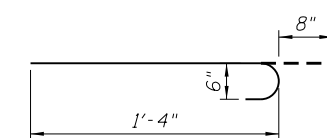
TOP PLAN  
(Showing Aluminum Tube)



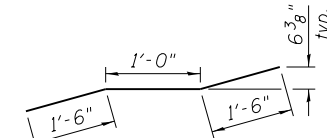
BAR d(E)



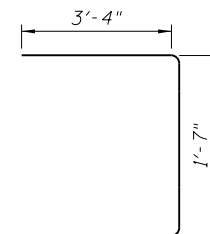
BAR d1(E)



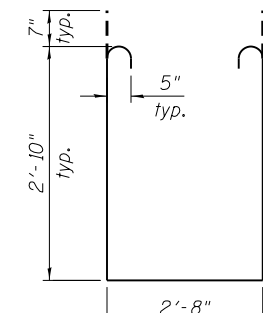
BAR m3(E)



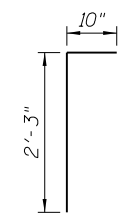
BAR m10(E)



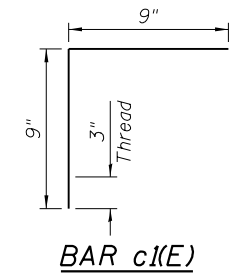
BAR s(E)



BAR s1(E)



BAR v(E)



BAR c1(E)

**NOTES:**

1. Drains shall be located clear of all diaphragms.
2. The exterior surfaces of the floor drains shall be painted according to Article 506 with the finish coat as specified. The exterior surfaces of the drains shall be cleaned according to Society of Protective Coatings Spec. SSPC-SP1 prior to painting.
3. Fiberglass pipe shall conform to ASTM D 2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum.
4. Galvanize clamping device according to AASHTO M232. Cost of clamping device and inserts is included with Floor Drains.
5. The 1/8" Aluminum sheet shall be ASTM B 209 alloy 3003-H14 and coated to minimize reaction with wet concrete. Cost included with Concrete Superstructure.
6. The Polyurethane Sealant shall be according to Article 1050.04 of the Std. Spec. and the color shall be gray.

**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a(E)	298	#5	31'-8"	—
a1(E)	186	#5	28'-0"	—
a2(E)	112	#5	32'-0"	—
a3(E)	93	#5	44'-8"	—
a4(E)	56	#5	36'-8"	—
a5(E)	372	#6	6'-6"	—
b(E)	261	#5	33'-4"	—
b1(E)	364	#5	25'-11"	—
b2(E)	83	#6	28'-6"	—
b3(E)	12	#5	35'-7"	—
c(E)	94	#5	2'-8"	—
c1(E)	188	#5	1'-6"	└
d(E)	216	#5	5'-7"	└
d1(E)	216	#5	7'-8"	└
e(E)	56	#4	15'-8"	—
e1(E)	14	#4	15'-0"	—
e2(E)	8	#8	27'-1"	—
e3(E)	8	#4	25'-0"	—
e4(E)	14	#4	15'-5"	—
m(E)	10	#6	31'-9"	—
m1(E)	64	#6	5'-0"	—
m2(E)	16	#6	2'-5"	—
m3(E)	8	#6	2'-0"	—
m4(E)	60	#5	4'-0"	—
m5(E)	10	#6	28'-6"	—
m6(E)	20	#6	5'-7"	—
m7(E)	8	#6	3'-6"	—
m8(E)	10	#6	22'-10"	—
m9(E)	20	#6	3'-4"	—
m10(E)	30	#5	4'-0"	—
s(E)	170	#5	8'-3"	└
s1(E)	170	#5	9'-6"	└
v(E)	163	#5	3'-1"	└
Floor Drains	Each		12	
Concrete Superstructure	Cu. Yd.		278.3	
Bridge Deck Grooving	Sq. Yd.		753	
Protective Coat	Sq. Yd.		907	
Reinforcement Bars, Epoxy Coated	Pound		63,330	

**HBM**  
ENGINEERING GROUP, LLC.  
4415 WEST HARRISON STREET, SUITE 213  
HILLSIDE, IL 60162  
PHONE: (708) 236-0900 FAX: (708) 236-0901

0160393-00000-018-DeckDetails.dgn  
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PLOT SCALE = 2:0.0000 '1' = 1"  
PLOT DATE = 3/3/2020

DESIGNED - MA  
DRAWN - MA  
CHECKED - MI, MAI  
DATE - 3/3/2020

REVISED -  
REVISED -  
REVISED -  
REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

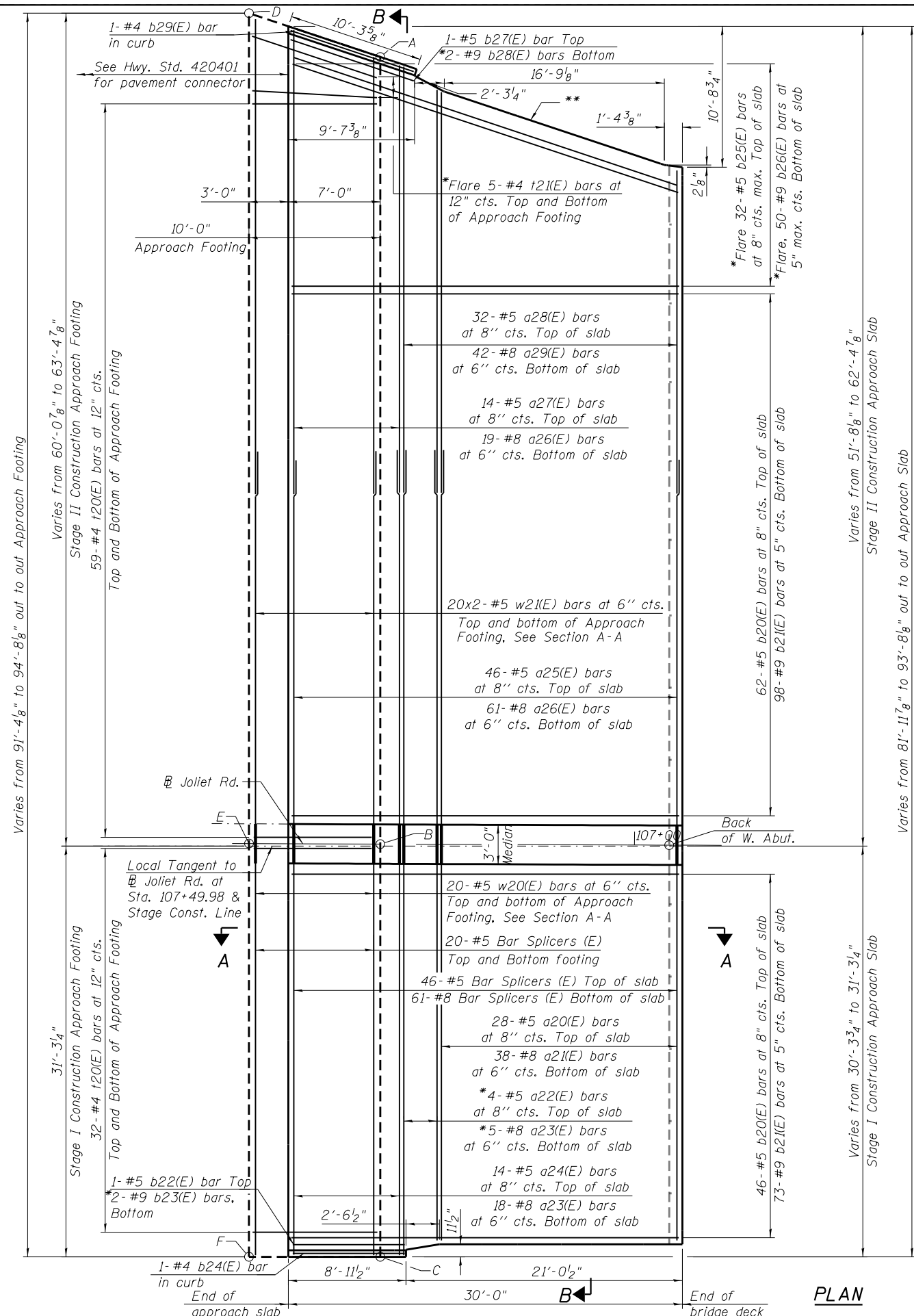
DECK DETAILS, BAR LIST AND BILL OF MATERIALS  
STRUCTURE NO. 016-0393

SCALE: SHEET S-18 OF S-39 SHEETS STA. 107+49.98 TO STA.

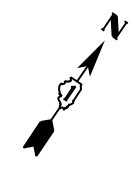
F.A.U. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3562	T-5-4BR(81)	COOK	92	45
				CONTRACT NO. 60N80
ILLINOIS FED. AID PROJECT				



FILE PATH = P:\1111-532 IDOT PFBI\Item B (Various) \Vantash\Work Order - #15 Joliet Rd. Over Flag Creek\CADD Sheets\Structural\0160393-00000-019-WestApprSlab.sht



PLAN



**NOTES:**

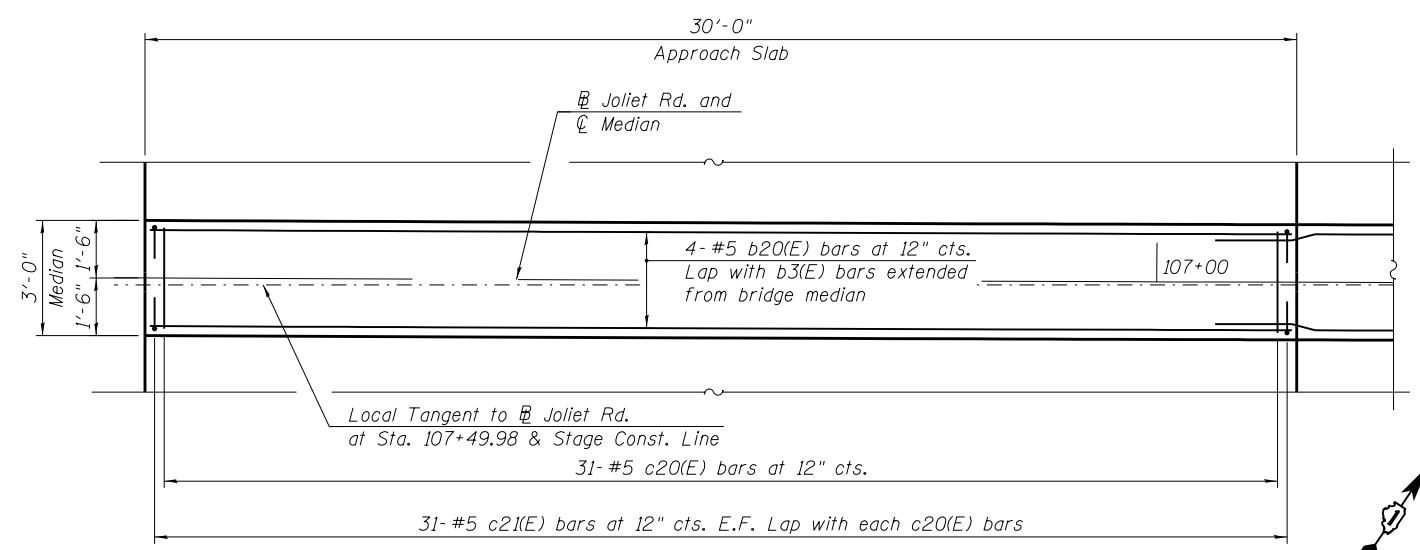
- 1. See Sheet S-20 for Sections A-A, B-B and median details.
- 2. a20(E) through a29(E) bar spacings measured along  $\perp$  Roadway.

**TOP AND BOTTOM ELEVATIONS FOR WEST APPROACH FOOTING**

Point	Top	Bottom
A	636.95	636.12
B	638.50	637.67
C	637.91	637.08
D	636.81	635.98
E	638.45	637.62
F	637.86	637.03

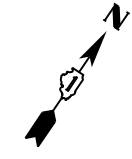
**MINIMUM BAR LAP**

(Approach)  
 #5 bar = 3'-6"  
 #8 bar = 5'-11"



**MEDIAN PLAN**  
(Showing Reinforcement Layout)

- \* Cut in field to fit.
- \*\* Prefomed Flexible Foam Expansion Joint Filler according to Article 1051.09 of the Standard Specifications; full depth of slab, full length of parapet. Typ. each parapet.



**HBM**  
 ENGINEERING GROUP, LLC.  
 4415 WEST HARRISON STREET, SUITE 231  
 HILLSIDE, IL 60162  
 PHONE: (708) 236-0900 FAX: (708) 236-0901

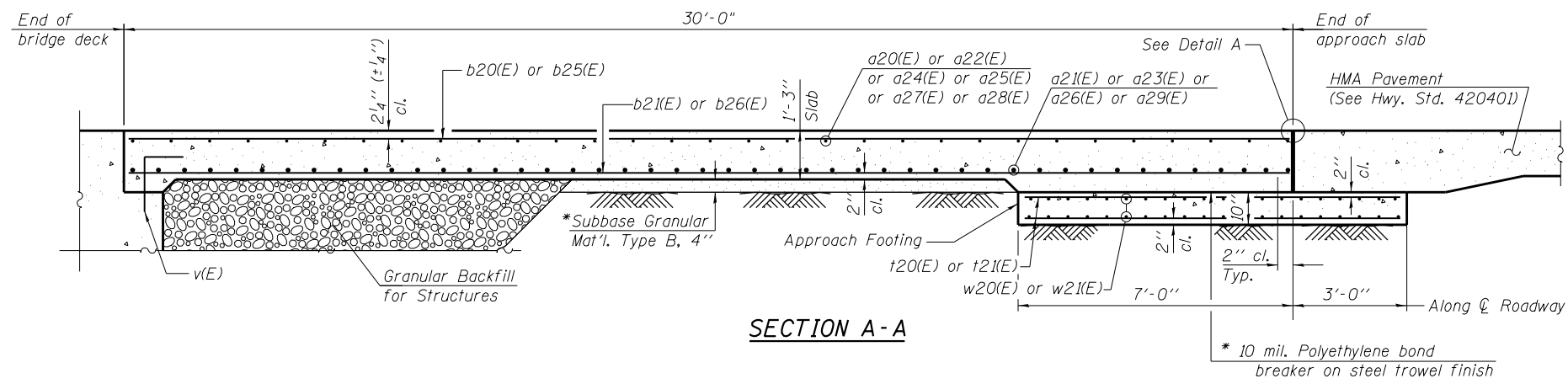
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PLOT DATE = 3/3/2020	DATE - 3/3/2020	REVISED -

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

**WEST APPROACH SLAB**  
**STRUCTURE NO. 016-0393**

SCALE: SHEET S-19 OF S-39 SHEETS STA. 107+49.98 TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3562	T-5-4BR(81)	COOK	92	46
CONTRACT NO. 60N80				
ILLINOIS FED. AID PROJECT				

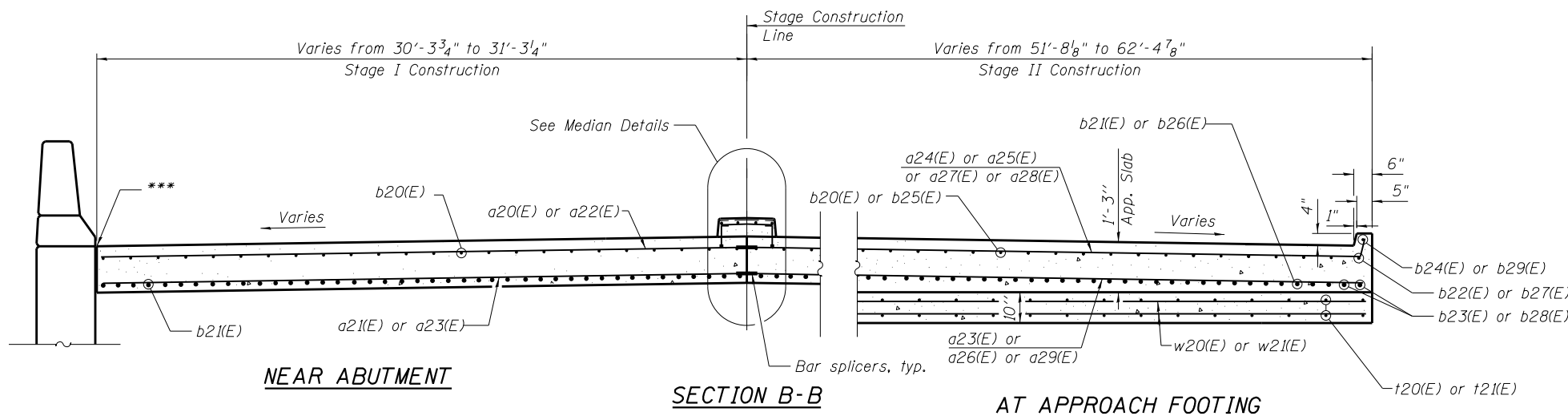


**SECTION A-A**

**NOTES:**

1. 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.
2. Approach slab concrete shall be paid for as Concrete Superstructure (Approach Slab).
3. Approach footing concrete shall be paid as Concrete Structures.
4. For v(E) bar details, see Sheet S-18.
5. The approach footing maximum applied bearing pressure (Qmax) = 2.0 ksf.
6. For bar splicer details, see Sheet S-38.
7. For Granular Backfill for Structures and drainage treatment details, see Sheet S-28.
8. Cost of excavation for approach footing included with Concrete Structures.

- \* Cost included with Concrete Superstructure (Approach Slab).
- \*\* The cost of expansion anchor/ inserts is included in the cost of Reinforcement Bars, Epoxy Coated.
- \*\*\* Preformed Flexible Foam Expansion Joint Filler according to Article 1051.09 of the Standard Specifications; full depth of slab, full length of parapet. Typ. each parapet.
- † Per manufacturer recommendations

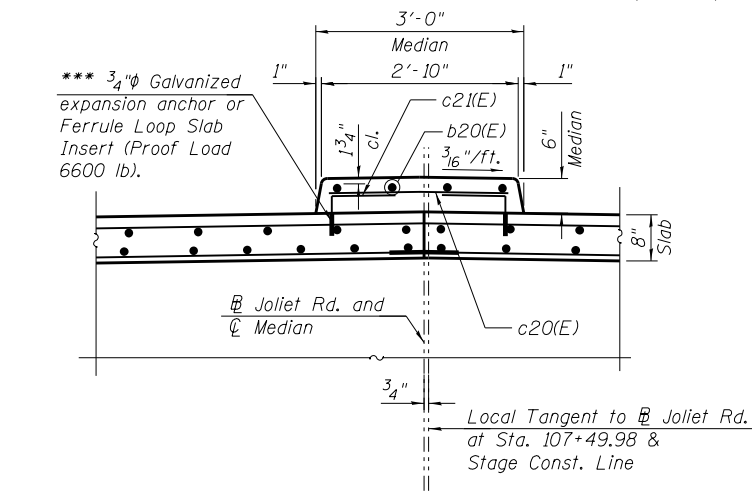


**NEAR ABUTMENT**

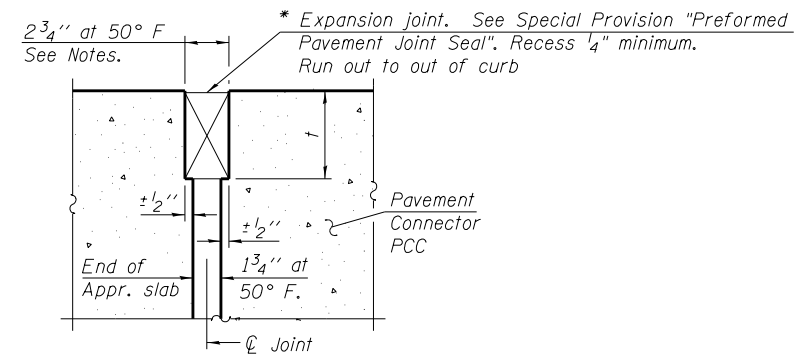
**SECTION B-B**

**AT APPROACH FOOTING**

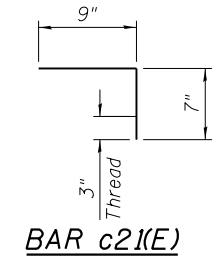
(See Plan for dimensions not shown)  
(Bars a23(E), a24(E), b22(E), and b23(E) occur over South End of Approach Footing)



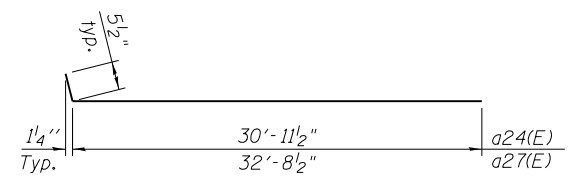
**MEDIAN DETAILS**



**DETAIL A**



**BAR c21(E)**



**BARS a24(E) and a27(E)**

**WEST APPROACH  
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a20(E)	28	#5	30'-1"	—
a21(E)	38	#8	30'-1"	—
a22(E)	4	#5	31'-0"	—
a23(E)	23	#8	31'-0"	—
a24(E)	14	#5	31'-5"	—
a25(E)	46	#5	32'-10"	—
a26(E)	80	#8	34'-1"	—
a27(E)	14	#5	33'-2"	—
a28(E)	32	#5	29'-1"	—
a29(E)	42	#8	30'-3"	—
b20(E)	112	#5	29'-8"	—
b21(E)	171	#9	29'-8"	—
b22(E)	1	#5	11'-2"	—
b23(E)	2	#9	11'-2"	—
b24(E)	1	#4	8'-8"	—
b25(E)	32	#5	31'-3"	—
b26(E)	50	#9	31'-3"	—
b27(E)	1	#5	12'-2"	—
b28(E)	2	#9	12'-2"	—
b29(E)	1	#4	10'-0"	—
c20(E)	31	#5	2'-8"	—
c21(E)	62	#5	1'-4"	—
t20(E)	182	#4	9'-8"	—
t21(E)	10	#4	10'-2"	—
w20(E)	40	#5	31'-0"	—
w21(E)	80	#5	33'-4"	—
Concrete Structures		Cu. Yd.	28.7	
Bridge Deck Grooving		Sq. Yd.	281	
Protective Coat		Sq. Yd.	296	
Concrete Superstructure (Approach Slab)		Cu. Yd.	132.9	
Reinforcement Bars, Epoxy Coated		Pound	52,890	

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**HBM**  
ENGINEERING GROUP, LLC.  
4415 WEST HARRISON STREET, SUITE 231  
HILLSDALE, IL 60162  
PHONE: (708) 236-0900 FAX: (708) 236-0901

0160393-020-WestAppr-SlabDetails.sht  
USER NAME = ken.drobant  
PLOT SCALE = 4:1 3/4" = 1"  
PLOT DATE = 3/3/2020

DESIGNED - MAA  
DRAWN - MAA  
CHECKED - MI, MAI  
DATE - 3/3/2020

REVISED -  
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REVISED -

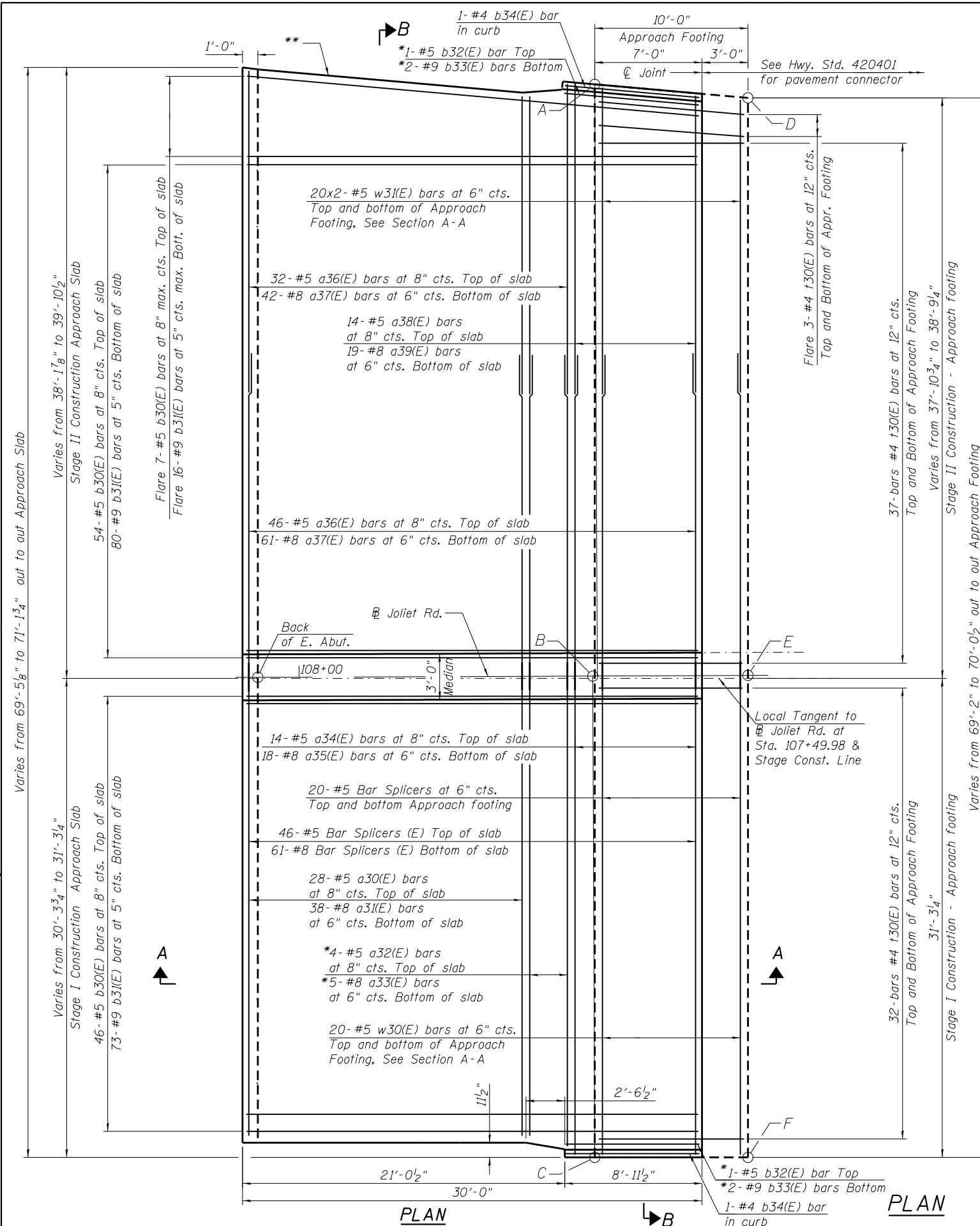
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**WEST APPROACH SLAB SECTIONS AND DETAILS  
STRUCTURE NO. 016-0393**

SCALE: SHEET S-20 OF S-39 SHEETS STA. 107+49.98 TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3562	T-5-4BR(81)	COOK	92	47
ILLINOIS FED. AID PROJECT			CONTRACT NO. 60N80	

FILE PATH = P:\1111-532 IDOT PBIBI Item B Various\Various\Work Order\15 Joliet Rd. Over Flag Creek\CADD Sheets\Structural\0160393-021-EastApprSlab.sht



PLAN

PLAN

**NOTES:**

- 1. See Sheet S-22 for Sections A-A, B-B and median details.
- 2. a30(E) through a39(E) bar spacings measured along  $\phi$  Roadway.

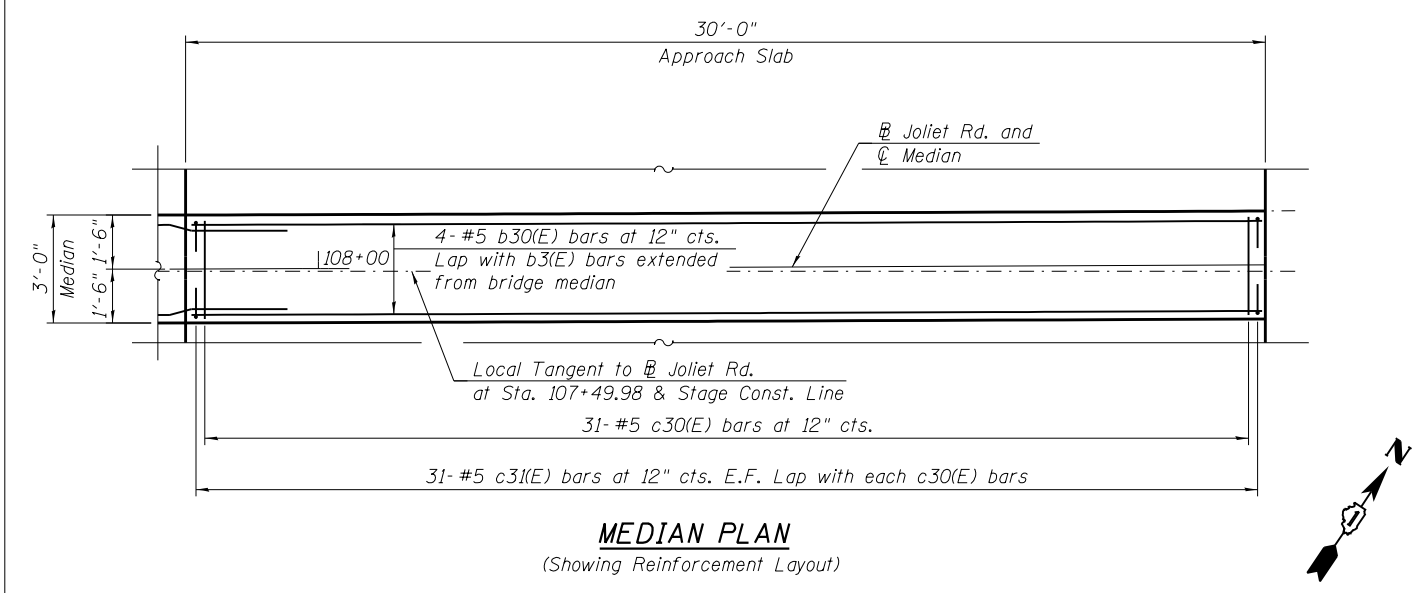
**TOP AND BOTTOM ELEVATIONS FOR EAST APPROACH FOOTING**

Point	Top	Bottom
A	636.85	636.02
B	637.72	636.89
C	637.13	636.30
D	636.72	635.88
E	637.57	636.74
F	636.99	636.15

(Approach)  
 #5 bar = 3'-6"  
 #8 bar = 5'-11"

**MINIMUM BAR LAP**

(Approach)  
 #5 bar = 3'-6"  
 #8 bar = 5'-11"



**MEDIAN PLAN**  
 (Showing Reinforcement Layout)

\* Cut in field to fit.

\*\* Preformed Flexible Foam Expansion Joint Filler according to Article 1051.09 of the Standard Specifications; full depth of slab, full length of parapet. Typ. each parapet.

**HBM**  
 ENGINEERING GROUP, LLC.  
 4415 WEST HARRISON STREET, SUITE 231  
 HILLSIDE, IL 60162  
 PHONE: (708) 236-0900 FAX: (708) 236-0901

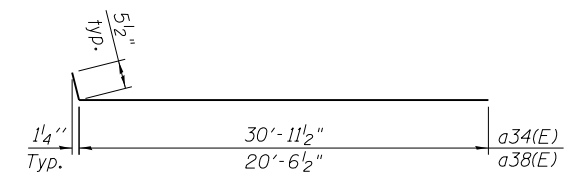
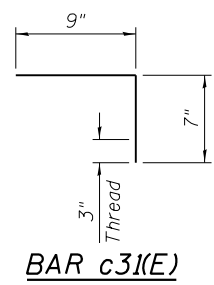
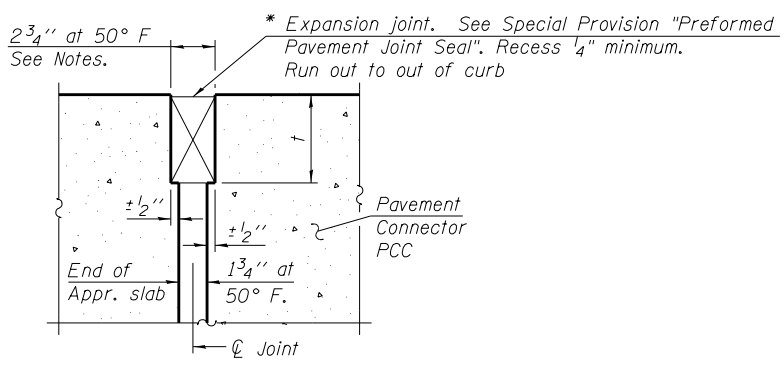
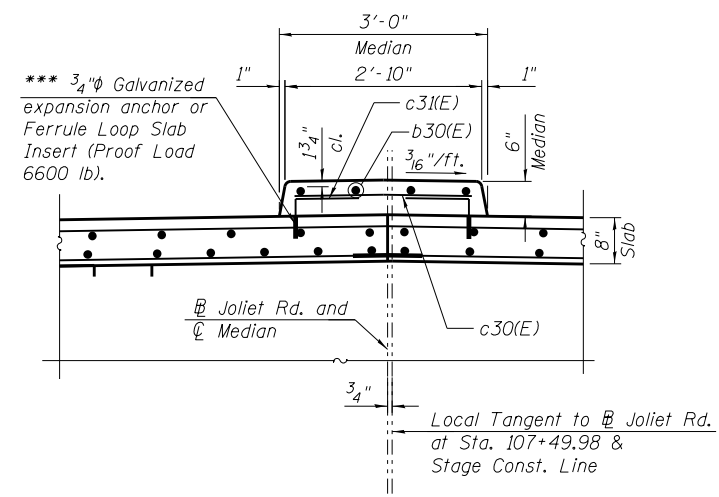
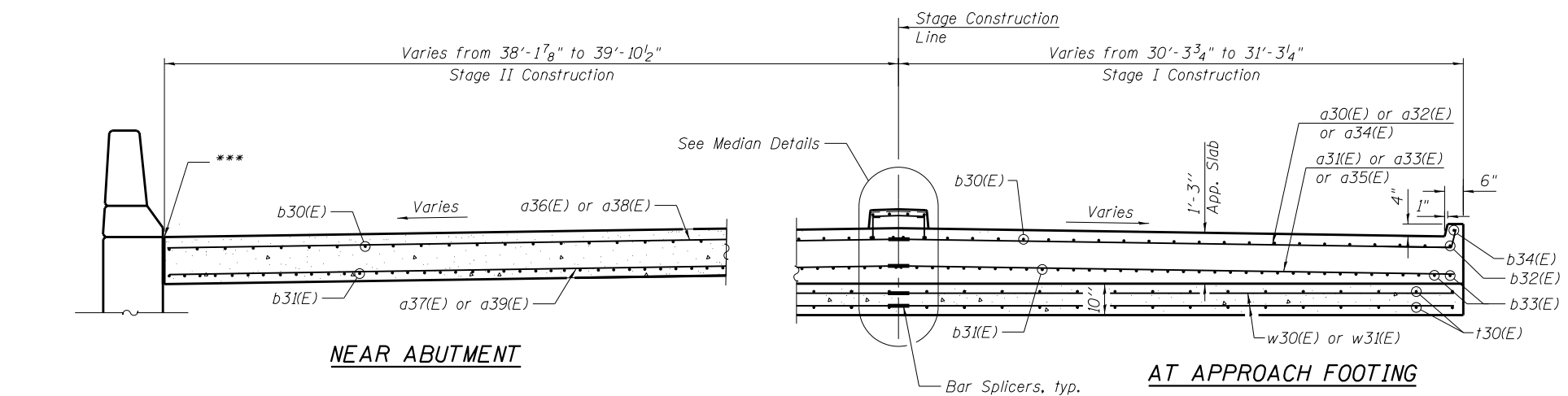
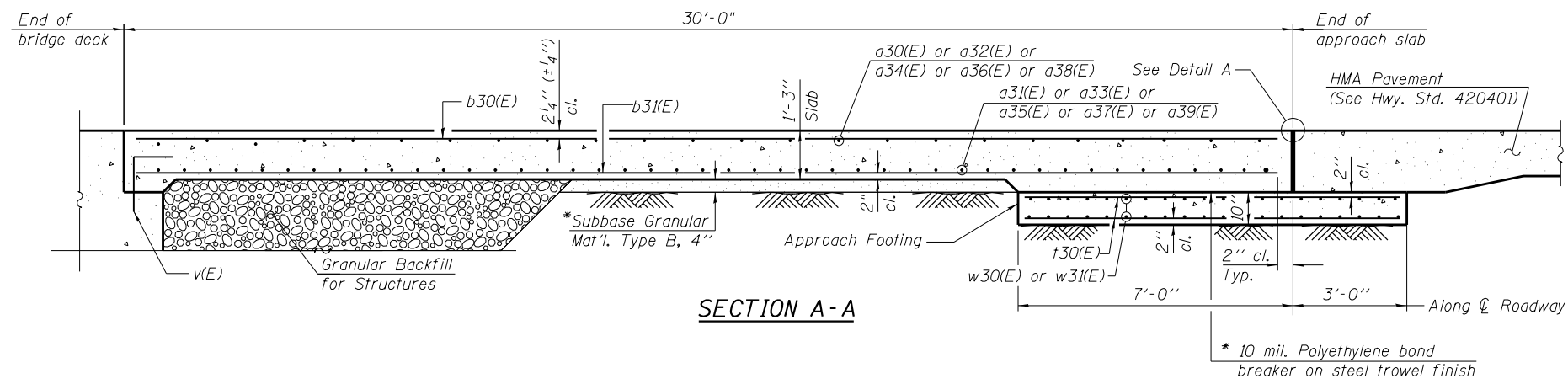
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PLOT DATE = 3/3/2020	DATE - 3/3/2020	REVISED -

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

**EAST APPROACH SLAB**  
**STRUCTURE NO. 016-0393**

SCALE: SHEET S-21 OF S-39 SHEETS STA. 107+49.98 TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3562	T-5-4BR(81)	COOK	92	48
CONTRACT NO. 60N80				
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.
  - Approach slab concrete shall be paid for as Concrete Superstructure (Approach Slab).
  - Approach footing concrete shall be paid as Concrete Structures.
  - Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.
  - For v(E) bar details, see Sheet S-18.
  - The approach footing maximum applied bearing pressure ( $Q_{max}$ ) = 2.0 ksf.
  - For bar splicer details, see Sheet S-38.
  - For Granular Backfill for Structures and drainage treatment details, see Sheet S-32.
  - Cost of excavation for approach footing included with Concrete Structures.
- \* Cost included with Concrete Superstructure (Approach Slab).
- \*\* The cost of expansion anchor/ inserts is included in the cost of Reinforcement Bars, Epoxy Coated.
- \*\*\* Preformed Flexible Foam Expansion Joint Filler according to Article 1051.09 of the Standard Specifications; full depth of slab, full length of parapet. Typ. each parapet.
- † Per manufacturer recommendations

**EAST APPROACH  
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a30(E)	28	#5	30'-1"	—
a31(E)	38	#8	30'-1"	—
a32(E)	4	#5	30'-6"	—
a33(E)	5	#8	30'-6"	—
a34(E)	14	#5	31'-5"	—
a35(E)	18	#8	31'-0"	—
a36(E)	78	#5	21'-7"	—
a37(E)	103	#8	22'-10"	—
a38(E)	14	#5	21'-0"	—
a39(E)	19	#8	21'-10"	—
b30(E)	111	#5	29'-8"	—
b31(E)	169	#9	29'-8"	—
b32(E)	2	#5	8'-8"	—
b33(E)	4	#9	8'-8"	—
b34(E)	2	#4	8'-8"	—
c30(E)	31	#5	2'-8"	—
c31(E)	62	#5	1'-4"	└
t30(E)	144	#4	9'-8"	—
w30(E)	40	#5	31'-0"	—
w31(E)	80	#5	21'-0"	—
			Concrete Structures	Cu. Yd. 21.5
			Bridge Deck Grooving	Sq. Yd. 221
			Protective Coat	Sq. Yd. 236
			Concrete Superstructure (Approach Slab)	Cu. Yd. 105.5
			Reinforcement Bars, Epoxy Coated	Pound 40,640

FILE PATH = P:\1111-532-1001-PTBIBI-Item B (Various) Vantash\Work Order #15 Joliet Rd. Over Flag Creek\CADD Sheets\Structural\0160393-00000-022-EastApprSlabDetails.sht

**NOTES:**

1. F.S. denotes beam field splice.
2. Load carrying components designated "NTR" shall conform to the Impact Testing Requirement, Zone 2.
3. All diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual diaphragms at pier may be temporarily disconnected to install bearing anchor rods.

**TOP OF BEAM ELEVATIONS**

(For fabrication only)

Beam	℄ Brg. W. Abut.	Pier	F.S.	℄ Brg. E. Abut.
1	637.78	637.85	637.83	637.63
2	637.97	638.00	637.97	637.75
3	638.16	638.15	638.11	637.87
4	638.35	638.30	638.26	637.98
5	638.53	638.46	638.40	638.10
6	638.70	638.59	638.52	638.19
7	638.78	638.67	638.61	638.28
8	638.87	638.76	638.70	638.36
9	638.96	638.84	638.78	638.45
10	638.99	638.88	638.82	638.48
11	638.90	638.79	638.73	638.40
12	638.82	638.70	638.64	638.31
13	638.71	638.60	638.54	638.20
14	638.59	638.48	638.42	638.09
15	638.48	638.37	638.31	637.97

**DIAPHRAGMS LENGTH**

(Measured Perpendicular to Local Tangent, ℄ to ℄ Beams)

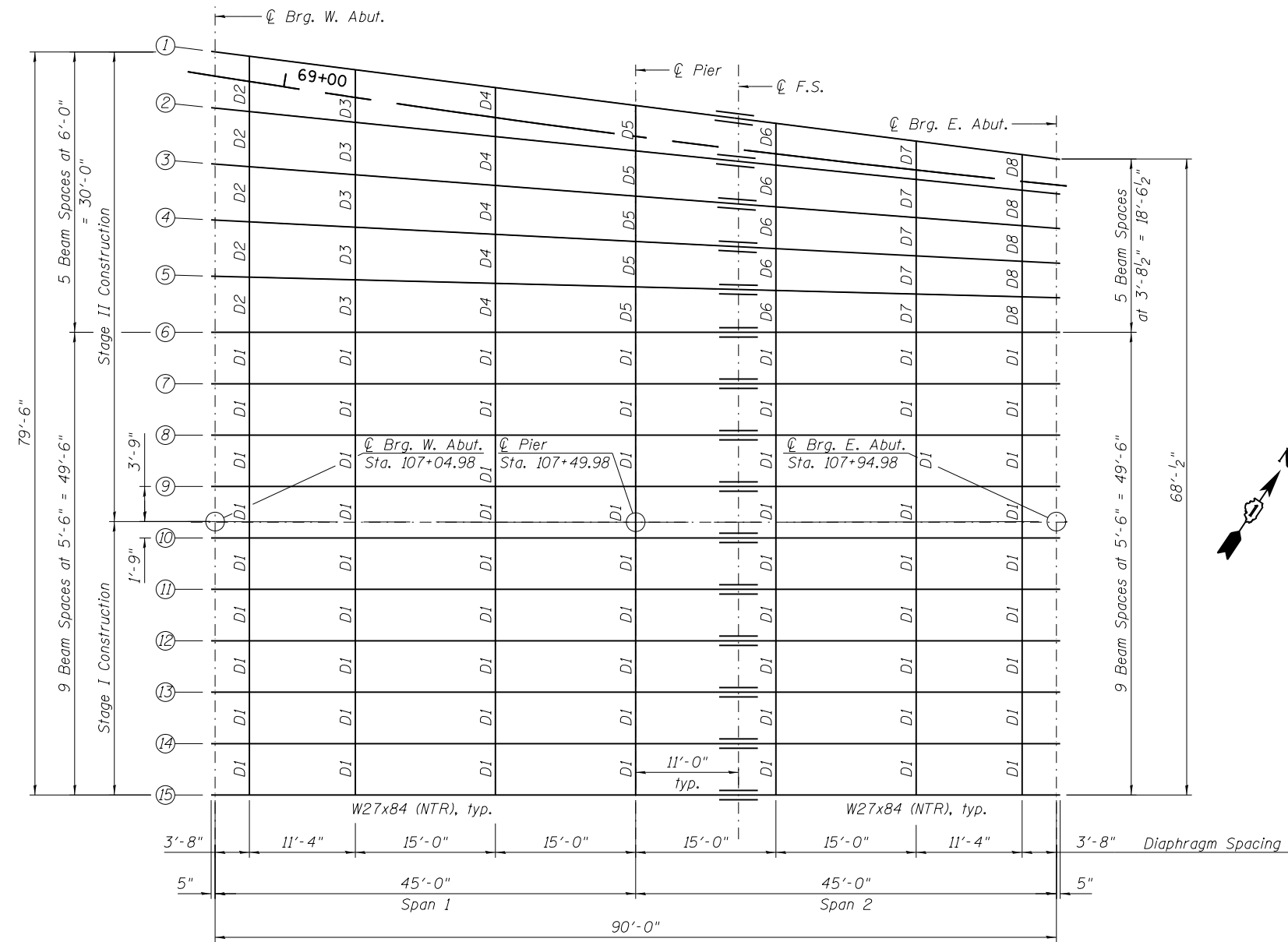
Diaphragm	Length
D1	5'-6"
D2	5'-10 <sup>7</sup> / <sub>8</sub> "
D3	5'-7 <sup>7</sup> / <sub>16</sub> "
D4	5'-2 <sup>13</sup> / <sub>16</sub> "
D5	4'-10 <sup>4</sup> / <sub>16</sub> "
D6	4'-5 <sup>11</sup> / <sub>16</sub> "
D7	4'-1 <sup>1</sup> / <sub>16</sub> "
D8	3'-9 <sup>9</sup> / <sub>8</sub> "

**GIRDER DIMENSIONS**

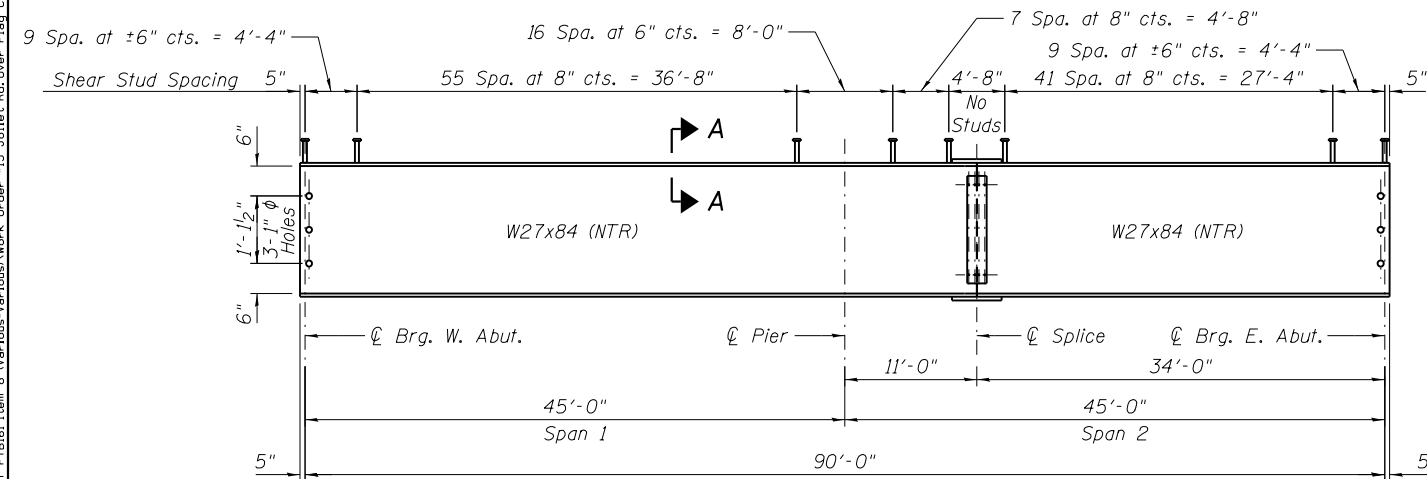
Beam	A	B	C	D	E
1	90'-8 <sup>3</sup> / <sub>4</sub> "	45'-4 <sup>3</sup> / <sub>8</sub> "	45'-4 <sup>3</sup> / <sub>8</sub> "	10'-7 <sup>5</sup> / <sub>8</sub> "	34'-8 <sup>3</sup> / <sub>4</sub> "
2	90'-5 <sup>5</sup> / <sub>8</sub> "	45'-2 <sup>13</sup> / <sub>16</sub> "	45'-2 <sup>13</sup> / <sub>16</sub> "	10'-9 <sup>3</sup> / <sub>16</sub> "	34'-5 <sup>9</sup> / <sub>16</sub> "
3	90'-3 <sup>3</sup> / <sub>8</sub> "	45'-1 <sup>1</sup> / <sub>16</sub> "	45'-1 <sup>1</sup> / <sub>16</sub> "	10'-10 <sup>7</sup> / <sub>16</sub> "	34'-3 <sup>3</sup> / <sub>8</sub> "
4	90'-1 <sup>3</sup> / <sub>8</sub> "	45'- <sup>1</sup> / <sub>16</sub> "	45'- <sup>1</sup> / <sub>16</sub> "	10'-11 <sup>5</sup> / <sub>16</sub> "	34'-1 <sup>3</sup> / <sub>8</sub> "
5	90'- <sup>3</sup> / <sub>8</sub> "	45'- <sup>3</sup> / <sub>16</sub> "	45'- <sup>3</sup> / <sub>16</sub> "	10'-11 <sup>13</sup> / <sub>16</sub> "	34'- <sup>3</sup> / <sub>8</sub> "

**SHEAR CONNECTOR SCHEDULE**

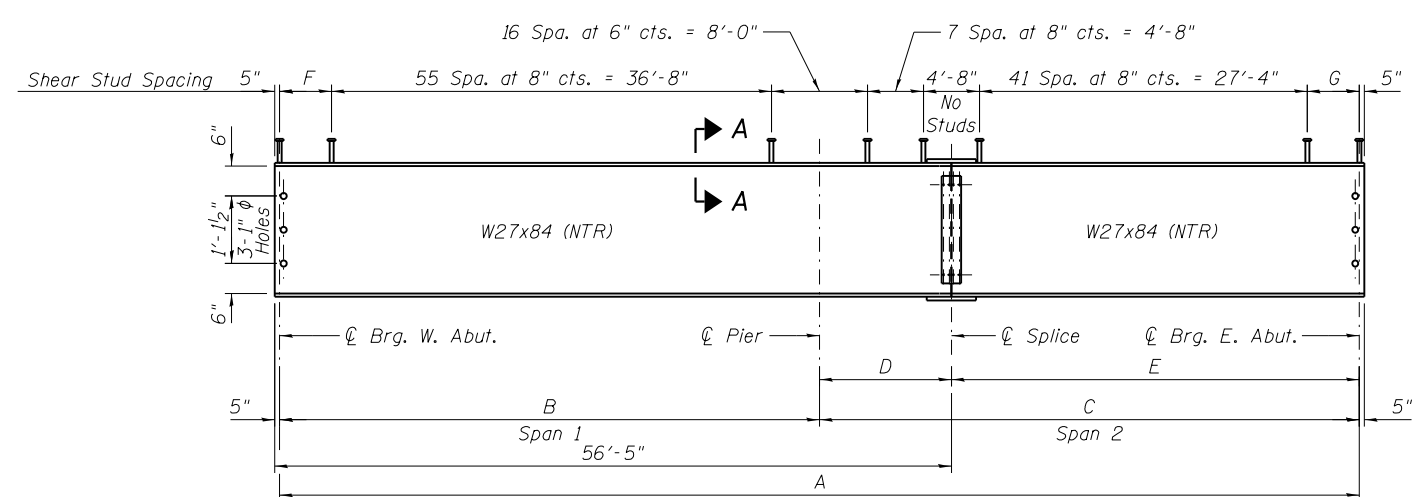
Beam	F	G
1	9 Spa. at ±6" cts. = 4'-3 <sup>15</sup> / <sub>16</sub> "	9 Spa. at ±6" cts. = 5'- <sup>3</sup> / <sub>4</sub> "
2	9 Spa. at ±6" cts. = 4'-4"	9 Spa. at ±6" cts. = 4'-9 <sup>9</sup> / <sub>16</sub> "
3	9 Spa. at ±6" cts. = 4'-4"	9 Spa. at ±6" cts. = 4'-7 <sup>7</sup> / <sub>16</sub> "
4	9 Spa. at ±6" cts. = 4'-4"	9 Spa. at ±6" cts. = 4'-5 <sup>3</sup> / <sub>8</sub> "
5	9 Spa. at ±6" cts. = 4'-4"	9 Spa. at ±6" cts. = 4'-4 <sup>3</sup> / <sub>8</sub> "



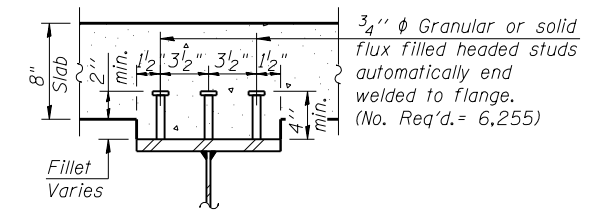
**FRAMING PLAN**



**BEAM ELEVATION**  
(Beams 6 thru 15)



**BEAM ELEVATION**  
(Beams 1 thru 5)



**SECTION A-A**

FILE PATH = P:\1111-532 IDOT PFBI\Item 8 Various\Various\Work Order\15 Joliet Rd, Over Flag Creek\CADD Sheets\Structural\0160393-023-FramingPlan.dgn

**HBM**  
ENGINEERING GROUP, LLC.  
4415 WEST HARRISON STREET, SUITE 231  
HILLSDALE, IL 60162  
PHONE: (708) 236-0900 FAX: (708) 236-0901

0160393-023-FramingPlan.dgn  
USER NAME = ken.drobant  
PLOT SCALE = 1/8" = 1'-0"  
PLOT DATE = 3/3/2020

DESIGNED - MA	REVISED -
DRAWN - MA	REVISED -
CHECKED - MI, MAI	REVISED -
DATE - 3/3/2020	REVISED -

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

**FRAMING PLAN AND BEAM ELEVATION**  
**STRUCTURE NO. 016-0393**

SCALE: SHEET S-23 OF S-39 SHEETS STA. 107+49.98 TO STA.

F.A.U. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3562	T-5-4BR(81)	COOK	92	50

CONTRACT NO. 60N80  
ILLINOIS FED. AID PROJECT

EXTERIOR GIRDER 1 MOMENT TABLE				
		0.4 Sp. 1	Pier	0.6 Sp. 2
$I_s$	(in <sup>4</sup> )	2,850	2,850	2,850
$I_c(n)$	(in <sup>4</sup> )	9,575	-	9,575
$I_c(3n)$	(in <sup>4</sup> )	7,027	-	7,027
$I_c(cr)$	(in <sup>4</sup> )	-	4,423	-
$S_s$	(in <sup>3</sup> )	213	213	213
$S_c(n)$	(in <sup>3</sup> )	355	-	355
$S_c(3n)$	(in <sup>3</sup> )	320	-	320
$S_c(cr)$	(in <sup>3</sup> )	-	266	-
$DC1$	(k/ft)	* 0.750	* 0.700	* 0.640
$M_{DC1}$	(k)	109	176	87
$DC2$	(k/ft)	0.150	0.150	0.150
$M_{DC2}$	(k)	13	26	13
$DW$	(k/ft)	** 0.212	** 0.184	** 0.155
$M_{DW}$	(k)	18	33	15
$M_{\frac{1}{2}} + IM$	(k)	342	247	297
$M_u$ (Strength I)	(k)	778	734	667
$\phi_r M_n$	(k)	1,804	1,322	1,810
$f_s$ DC1	(ksi)	6.13	9.89	4.90
$f_s$ DC2	(ksi)	0.49	1.19	0.50
$f_s$ DW	(ksi)	0.68	1.48	0.55
$f_s$ ( $\frac{1}{2} + IM$ )	(ksi)	11.56	11.14	10.04
$f_s$ (Service II)	(ksi)	22.32	27.05	19.01
$0.95R_n F_y$	(ksi)	47.50	47.50	47.50
$f_s$ (Total)(Strength I)	(ksi)	29.52	35.57	25.15
$\phi_r F_n$	(ksi)	-	-	-
$V_f$	(k)	30.80	34.86	33.76

EXTERIOR GIRDER 1 REACTION TABLE				
		W. Abut.	Pier	E. Abut.
$R_{DC1}$	(k)	13.45	38.95	10.99
$R_{DC2}$	(k)	3.41	6.92	3.54
$R_{DW}$	(k)	4.78	8.5	3.77
$R_{\frac{1}{2}} + IM$	(k)	53.45	73.52	59.37
$R_{Total}$	(k)	75.09	127.89	77.67

\* The un-factored non-composite dead load (DC1) is provided at the specified location. The actual DC1 for Girder 1 varies from 0.64 to 0.75 (kips/ft.).

\*\* The un-factored long-term composite future wearing surface load (DW) is provided at the specified location. The actual DW for Girder 1 varies from 0.155 to 0.212 (kips/ft.).

INTERIOR GIRDER 13 MOMENT TABLE				
		0.4 Sp. 1	Pier	0.6 Sp. 2
$I_s$	(in <sup>4</sup> )	2,850	2,850	2,850
$I_c(n)$	(in <sup>4</sup> )	9,579	-	9,579
$I_c(3n)$	(in <sup>4</sup> )	7,032	-	7,032
$I_c(cr)$	(in <sup>4</sup> )	-	4,423	-
$S_s$	(in <sup>3</sup> )	213	213	213
$S_c(n)$	(in <sup>3</sup> )	355	-	355
$S_c(3n)$	(in <sup>3</sup> )	320	-	320
$S_c(cr)$	(in <sup>3</sup> )	-	266	-
$DC1$	(k/ft)	0.680	0.680	0.680
$M_{DC1}$	(k)	97	173	97
$DC2$	(k/ft)	0.150	0.150	0.150
$M_{DC2}$	(k)	10	21	10
$DW$	(k/ft)	0.275	0.275	0.275
$M_{DW}$	(k)	23	47	23
$M_{\frac{1}{2}} + IM$	(k)	294	246	294
$M_u$ (Strength I)	(k)	684	743	684
$\phi_r M_n$	(k)	1,814	1,330	1,814
$f_s$ DC1	(ksi)	5.48	9.76	5.48
$f_s$ DC2	(ksi)	0.39	0.94	0.39
$f_s$ DW	(ksi)	0.88	2.11	0.88
$f_s$ ( $\frac{1}{2} + IM$ )	(ksi)	9.94	11.10	9.94
$f_s$ (Service II)	(ksi)	19.67	27.24	19.67
$0.95R_n F_y$	(ksi)	47.50	47.50	47.50
$f_s$ (Total)(Strength I)	(ksi)	26.04	35.97	26.04
$\phi_r F_n$	(ksi)	-	-	-
$V_f$	(k)	21.75	27.30	23.65

INTERIOR GIRDER 13 REACTION TABLE				
		W. Abut.	Pier	E. Abut.
$R_{DC1}$	(k)	12.25	38.54	12.25
$R_{DC2}$	(k)	2.88	5.89	2.88
$R_{DW}$	(k)	6.24	12.47	6.24
$R_{\frac{1}{2}} + IM$	(k)	90.87	71.26	58.32
$R_{Total}$	(k)	112.24	128.16	79.69

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

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

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

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

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

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

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

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

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

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

$M_{\frac{1}{2}} + IM$ : Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).

$M_u$  (Strength I): Factored design moment (kip-ft.).  
 $1.25 (M_{DC1} + M_{DC2}) + 1.5 M_{DW} + 1.75 M_{\frac{1}{2}} + IM$

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

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

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

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

$f_s$  ( $\frac{1}{2} + IM$ ): Un-factored stress at edge of flange for controlling steel flange due to vertical composite live load plus impact loads as calculated below (ksi).  
 $M_{\frac{1}{2}} + IM / S_c(n)$  or  $M_{\frac{1}{2}} + IM / S_c(cr)$  as applicable.

$f_s$  (Service II): Sum of stresses as computed below (ksi).  
 $f_{sDC1} + f_{sDC2} + f_{sDW} + 1.3 f_s (\frac{1}{2} + IM)$

$0.95R_n F_y$ : Composite stress capacity for Service II loading according to Article 6.10.4.2 (ksi).

$f_s$  (Total)(Strength I): Sum of stresses as computed below on non-compact section (ksi).  
 $1.25 (f_{sDC1} + f_{sDC2}) + 1.5 f_{sDW} + 1.75 f_s (\frac{1}{2} + IM)$

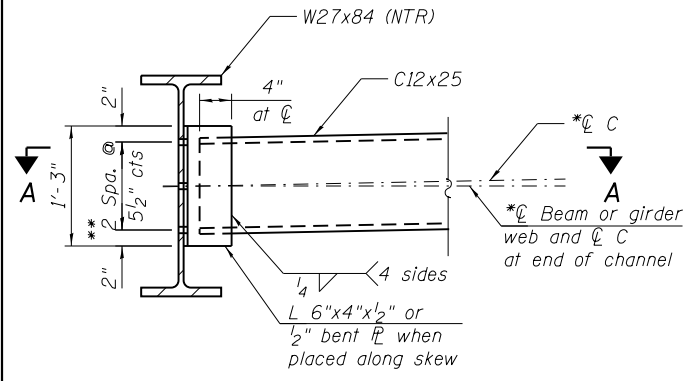
$\phi_r F_n$ : Non-Compact composite positive or negative stress capacity for Strength I loading according to Article 6.10.7 or 6.10.8 (ksi).

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

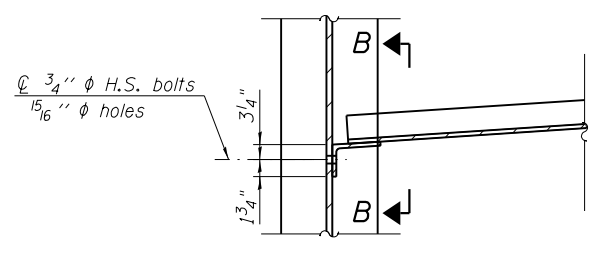
Note:  
 $M_{\frac{1}{2}}$  and  $R_{\frac{1}{2}}$  include the effects of centrifugal force and superelevation.

FILE PATH = P:\1111-532-IDDOT-PFBIBI-Item 8-Variou-Variou\Work-Order-#15-Joliet Rd., Over-Flag-Creek\CADD-Sheets\Structural\0160393-024-MomentReactionTbl.dgn

<b>HBM</b> ENGINEERING GROUP, LLC. 4415 WEST HARRISON STREET, SUITE 231 HILLSIDE, IL 60162 PHONE: (708) 236-0900 FAX: (708) 236-0901	0160393-024-MomentReactionTbl.dgn	DESIGNED - MA	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	<b>BEAM MOMENT AND REACTION TABLES</b> <b>STRUCTURE NO. 016-0393</b>	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	USER NAME = ken.drobant	DRAWN - MA	REVISED -			3562	T-5-4BR(81)	COOK	92	51
	PLOT SCALE = 0:2.0000 '1' = in.	CHECKED - MI, MAI	REVISED -			CONTRACT NO. 60N80				
	PLOT DATE = 3/3/2020	DATE - 3/3/2020	REVISED -			SCALE:	SHEET 5-24	OF 5-39 SHEETS	STA. 107+49.98	TO STA.



**INTERIOR DIAPHRAGM**  
(98 Required)



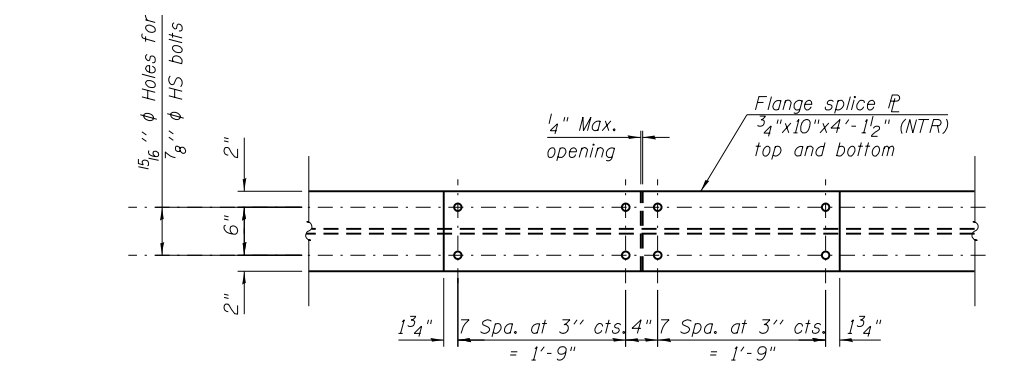
**SECTION A-A**

**NOTE:**

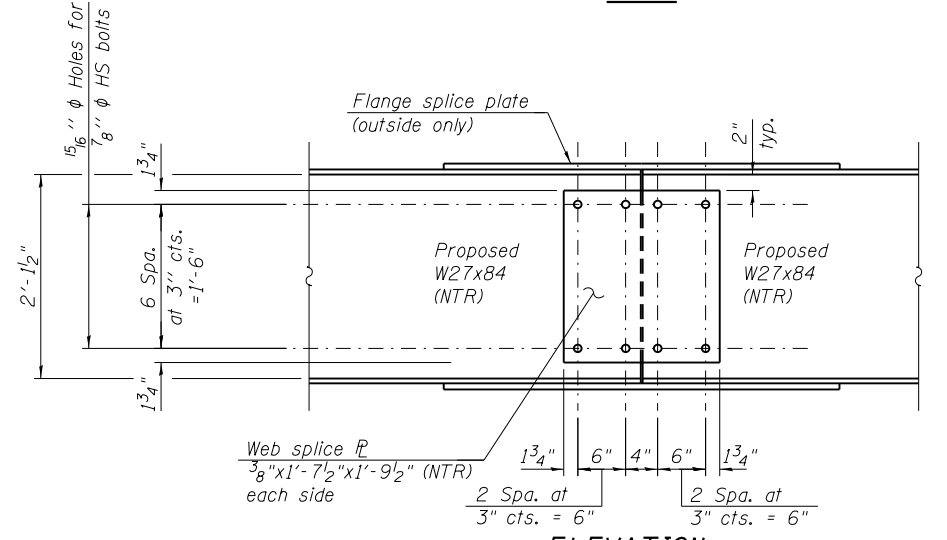
Two hardened washers required for each set of oversized holes.

\* Alternate channel C12x30 is permitted to facilitate material acquisition. Calculated weight of structural steel is based on the lighter section. The alternate, if utilized, shall be provided at no additional cost to the Department.

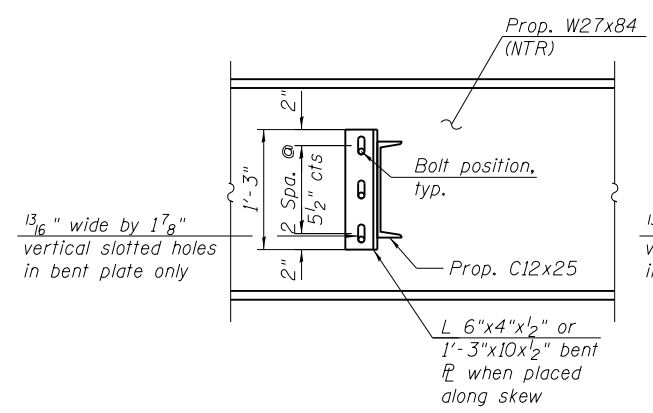
\*\* 3/4"  $\phi$  HS bolts, 1 5/16"  $\phi$  holes.



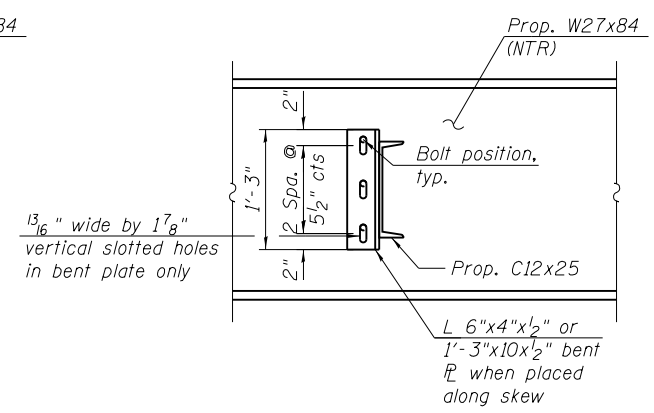
**PLAN**



**ELEVATION**  
**FIELD SPLICE DETAIL**  
(15 Required)



**SECTION B-B**  
At Beam 9 only  
before placing  
Stage 2 concrete slab



**SECTION B-B**  
At Beam 9 only  
after placing  
Stage 2 concrete slab

**SUGGESTED SEQUENCE OF CONSTRUCTION FOR INTERIOR DIAPHRAGMS AT STAGE CONSTRUCTION**

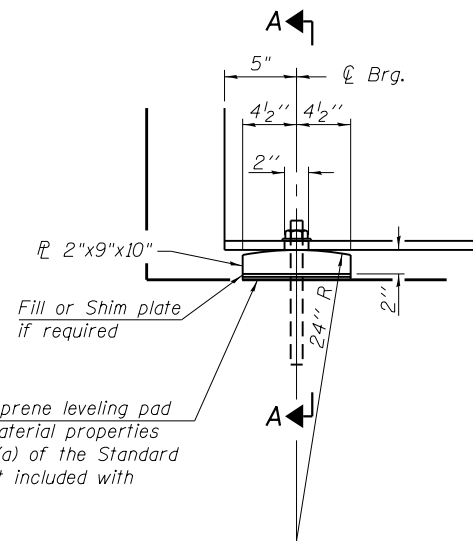
1. Prior to Stage 2 deck work, connect diaphragm to Beam 10. Bolts in slots of Beam 9 shall be finger tight until the Stage 2 pour is complete. Position slots so bolts start at one end with no concrete load and finish near the opposite end under deck load.
2. Set slab forms and place reinforcement.
3. Place Stage 2 concrete slab. Once Beam 9 deflects, tighten bolts as required.

**NOTE:**

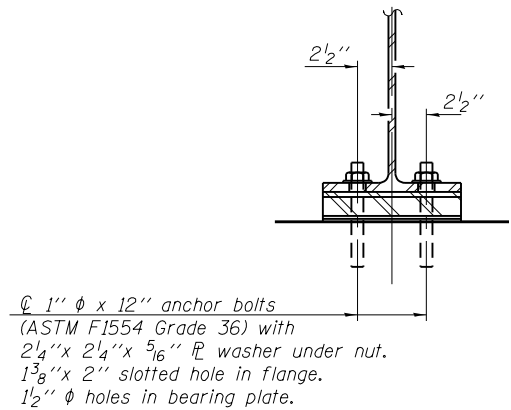
Load carrying components designated "NTR" shall conform to the Impact Testing Requirement, Zone 2.

FILE PATH = P:\1111-532-1001-PTBIB\Item B (Various) \Work Order - 115 Joliet Rd, Over-Flag Creek\CADD Sheets\Structural\0160393-00000-025-StructSteelDet.dgn



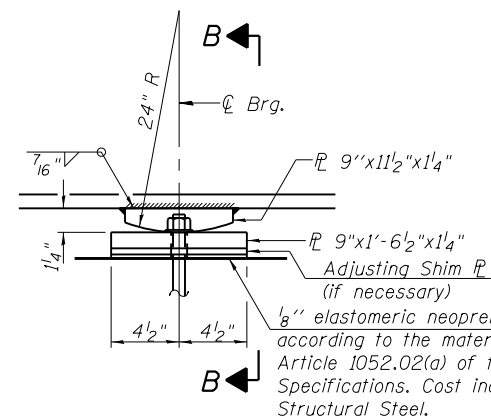


**ELEVATION AT ABUTMENT**



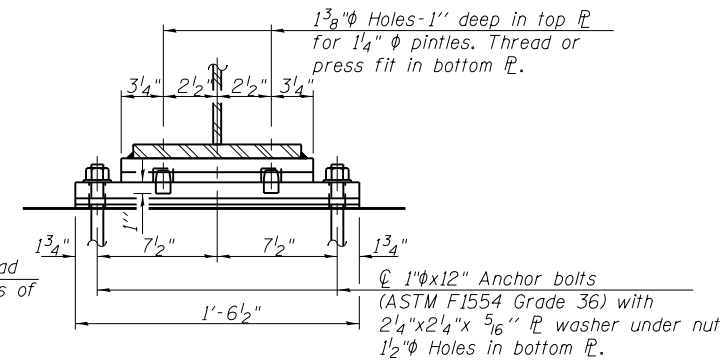
**SECTION A-A**

**INTEGRAL ABUTMENT FIXED BEARING**  
(30 Required)

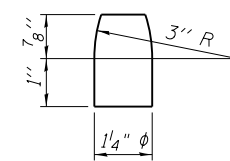


**ELEVATION AT PIER**

**PIER FIXED BEARING**  
(15 Required)



**SECTION B-B**



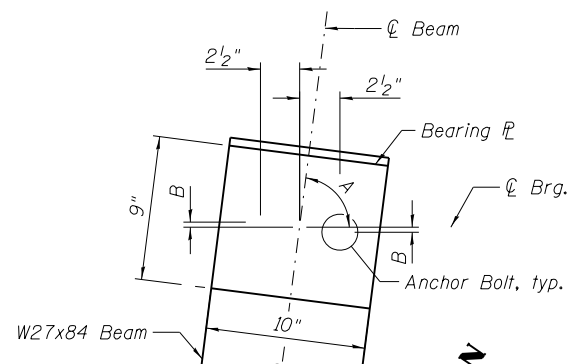
**PINTLE**

**FILL PLATE TABLE**

Beam	∅ Brg. W. Abut.	Pier	∅ Brg. E. Abut.
1	-	-	-
2	-	-	-
3	-	-	-
4	-	-	-
5	-	-	-
6	-	-	-
7	-	-	-
8	-	-	-
9	-	-	-
10	1/2"	-	3/8"
11	1/8"	-	-
12	-	-	-
13	-	-	-
14	-	-	-
15	-	-	-

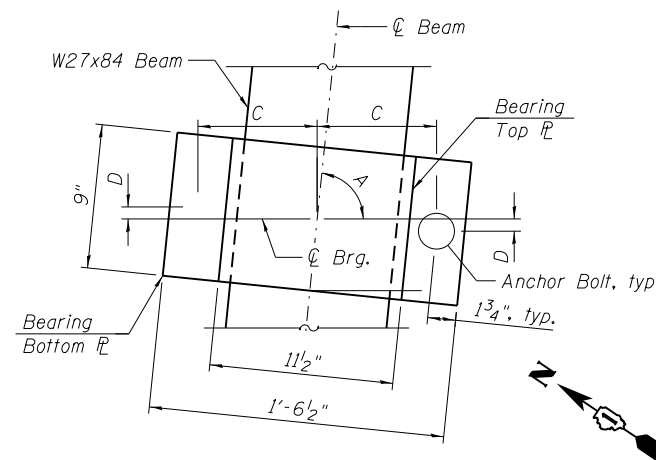
**NOTES:**

- Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
- Anchor bolts at all supports may be either cast in place or shall be installed as each member is erected unless an equivalent temporary means of lateral restraint is used.
- Anchor bolts shall be according to Article 521.06 of the Standard Specifications.
- Beams shall be braced for stability during erection and remain braced until deck is poured and cured.
- The structural steel plates and pintles of the Bearing Assembly shall conform to the requirements of AASHTO M270 Grade 50.
- Two 1/8" adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.



**ANCHOR BOLT LAYOUT PLAN**

(East Abutment shown)  
(West Abutment Opposite Hand)



**ANCHOR BOLT LAYOUT PLAN**

(At Pier)

**TABLE 1**

Girder No.	A	B	C	D
1	82°44'40"	5/16"	7 1/16"	15/16"
2	84°11'04"	1/4"	7 1/16"	3/4"
3	85°37'54"	3/16"	7 1/2"	9/16"
4	87°05'05"	1/8"	7 1/2"	3/8"
5	88°32'29"	1/16"	7 1/2"	3/16"
6 thru 15	90°00'00"	0"	7 1/2"	0"

**BILL OF MATERIAL**

Item	Unit	Total
Anchor Bolts, 1"	Each	90

FILE PATH = P:\1111-532 IDOT PBIB\Item B Various\Various\Work Order\15 Joliet Rd, Over Flag Creek\CADD Sheets\Structural\0160393-026-Bearings.dgn

**HBM**  
ENGINEERING GROUP, LLC.  
4415 WEST HARRISON STREET, SUITE 213  
HILLSIDE, IL 60162  
PHONE: (708) 236-0900 FAX: (708) 236-0901

0160393-026-Bearings.dgn  
USER NAME = ken.drabant  
PLOT SCALE = 0:2.0000 '1' / in.  
PLOT DATE = 3/3/2020

DESIGNED - JJS  
DRAWN - AI  
CHECKED - MI, MAI  
DATE - 3/3/2020  
REVISED -  
REVISED -  
REVISED -  
REVISED -

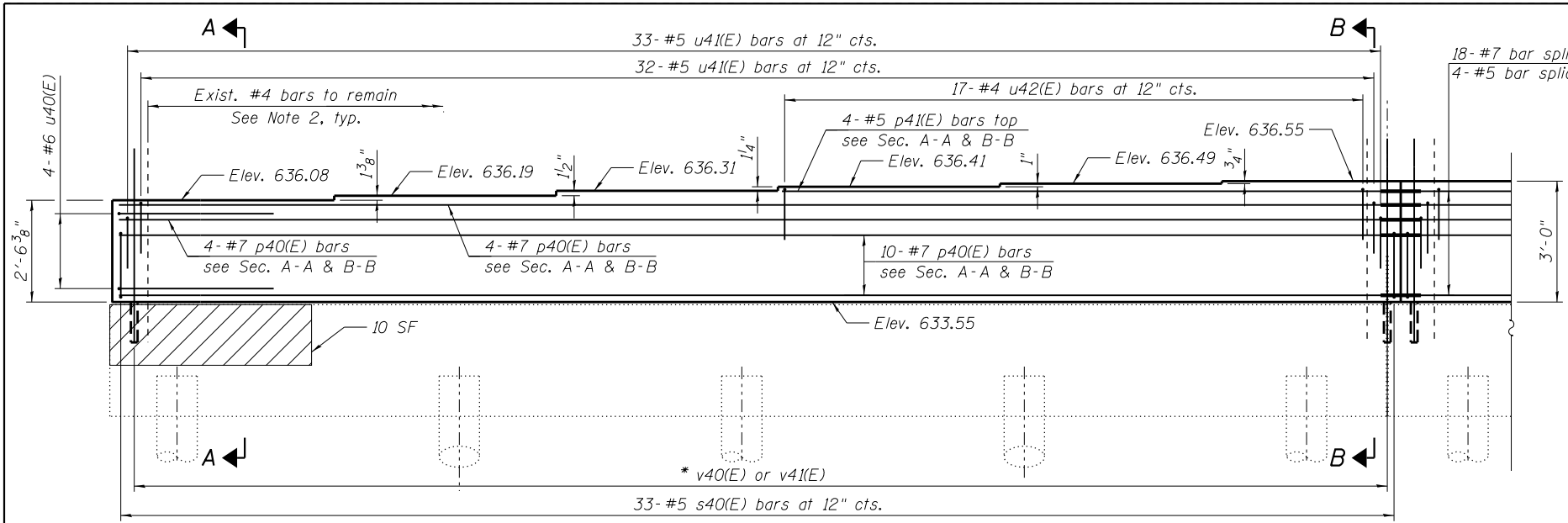
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

FIXED BEARINGS  
STRUCTURE NO. 016-0393

SCALE: SHEET S-26 OF S-39 SHEETS STA. 107+49.98 TO STA.

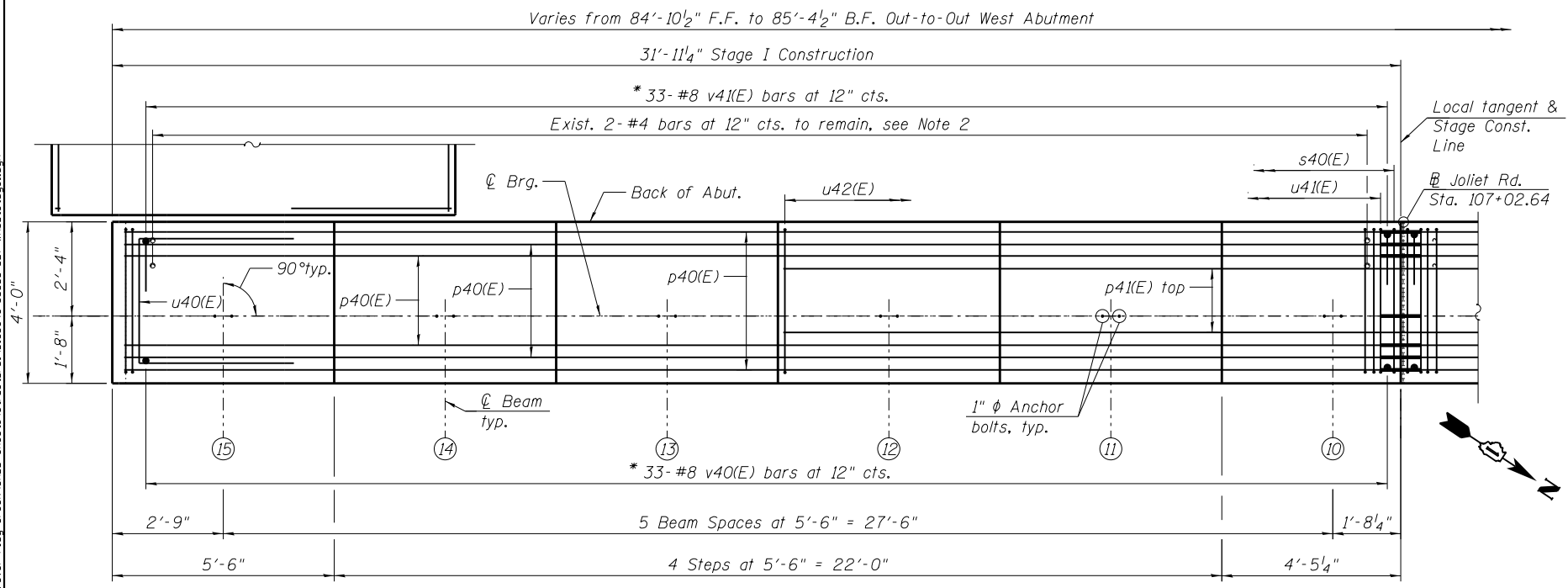
F.A.U. R.T.E. 3562 SECTION T-5-4BR(81) COUNTY COOK TOTAL SHEETS 92 SHEET NO. 53 CONTRACT NO. 60N80 ILLINOIS FED. AID PROJECT

FILE PATH = P:\111-532-1001-PTBIB\Item 8 Various\Work Order\115 Joliet Rd. Over Flag Creek\CADD Sheets\Structural\0160393-00000-027-WAbutStage1.dgn

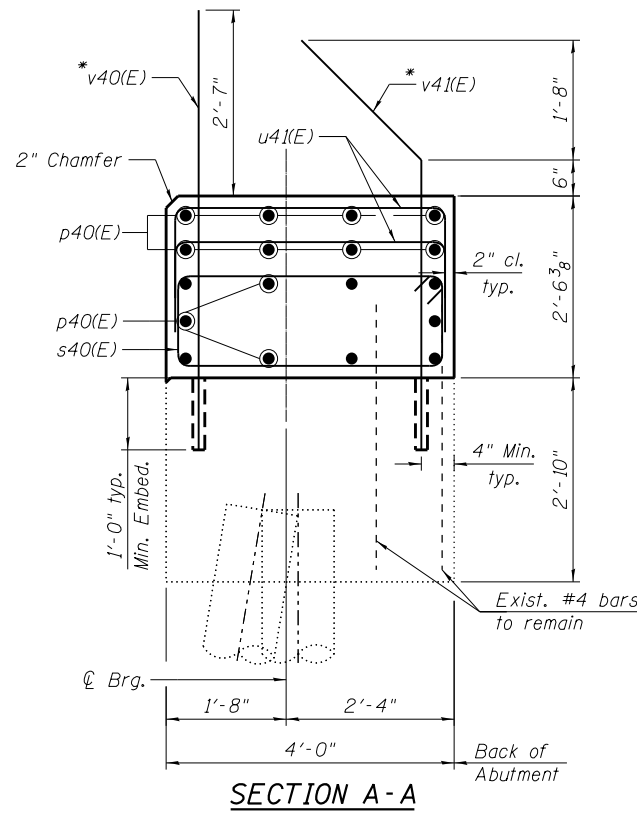
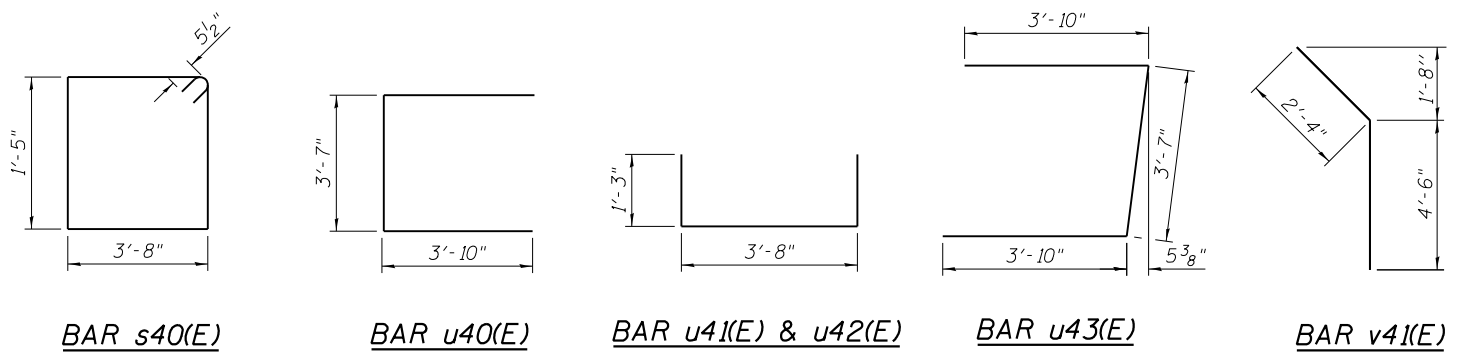


**ELEVATION**

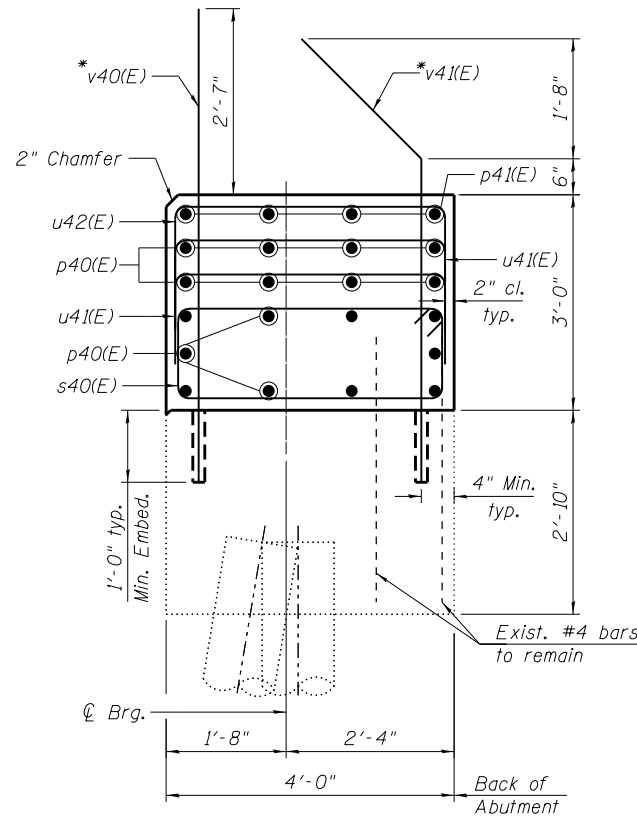
\* Order bar full length. Cut in field to fit.



**PLAN**



**SECTION A-A**



**SECTION B-B**

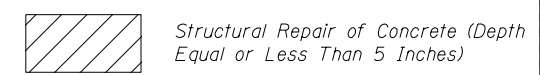
**NOTES:**

1. Bars v40(E) & v41(E) shall be drilled and grouted into existing concrete in accordance to Article 584 of Standard Specifications. Cost included with Concrete Structures.
2. Existing reinforcement bars extending into the removal area shall be cleaned, straightened and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cost included with Concrete Removal.
3. The presented elevations and limits of the existing abutment have been taken from historical design drawings and may not present "as-built" condition. All existing structure limits shall be field verified by the contractor and coordinated with the engineer prior to ordering materials, fabrication and construction of the proposed abutment extension.
4. Pour steps monolithically with cap.
5. Apply concrete sealer to all exposed concrete surfaces of the abutment.
6. Space reinforcement in cap to miss anchor bolts.

**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
p40(E)	18	#7	31'-8"	—
p41(E)	4	#5	15'-2"	—
p42(E)	20	#7	29'-6"	—
p43(E)	8	#7	23'-5"	—
p44(E)	4	#7	29'-1"	—
p45(E)	4	#5	11'-10"	—
s40(E)	87	#5	11'-1"	□
u40(E)	4	#6	11'-3"	┌
u41(E)	137	#5	6'-2"	┌
u42(E)	30	#4	6'-2"	┌
u43(E)	3	#6	11'-3"	┌
v40(E)	87	#8	6'-7"	—
v41(E)	87	#8	6'-10"	—
Structure Excavation			Cu. Yd.	49.4
Concrete Structures			Cu. Yd.	32.9
Reinforcement Bars, Epoxy Coated			Pound	8,350
Concrete Sealer			Sq. Ft.	475
Geocomposite Wall Drain			Sq. Yd.	65
Granular Backfill for Structures			Cu. Yd.	147
Pipe Underdrains for Structures 4"			Foot	85

**LEGEND**



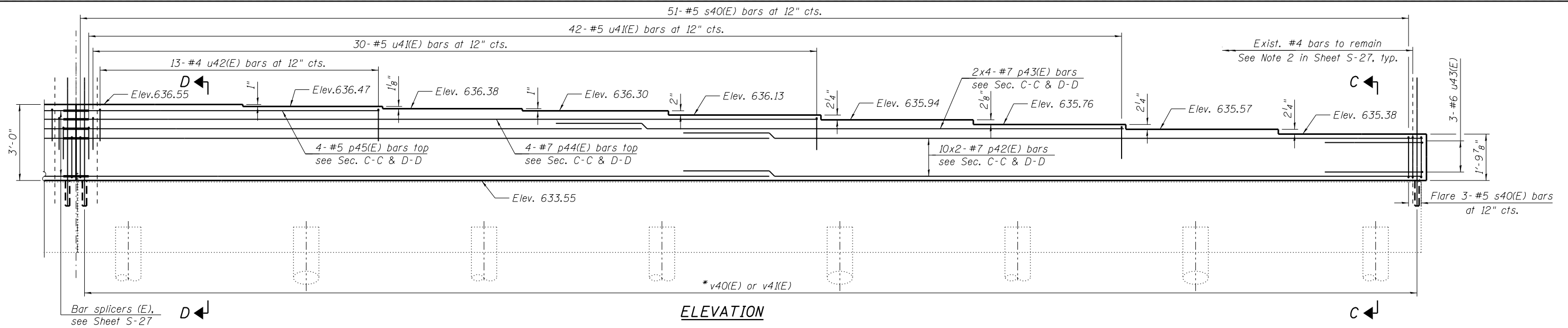
**HBM**  
ENGINEERING GROUP, LLC.  
4415 WEST HARRISON STREET, SUITE 231  
HILLSIDE, IL 60162  
PHONE: (708) 236-0900 FAX: (708) 236-0901

0160393-00000-027-WAbutStage1.dgn  
USER NAME = ken.drobant  
PLOT SCALE = 4/8" = 1' / in.  
PLOT DATE = 3/3/2020  
DESIGNED - MAA  
DRAWN - MAA, MA  
CHECKED - MI, MAI  
DATE - 3/3/2020  
REVISED -  
REVISED -  
REVISED -  
REVISED -

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

**WEST ABUTMENT - STAGE I CONSTRUCTION**  
**STRUCTURE NO. 016-0393**  
SCALE: SHEET S-27 OF 5-39 SHEETS STA. 107+49.98 TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3562	T-5-4BR(81)	COOK	92	54
CONTRACT NO. 60N80				
ILLINOIS FED. AID PROJECT				



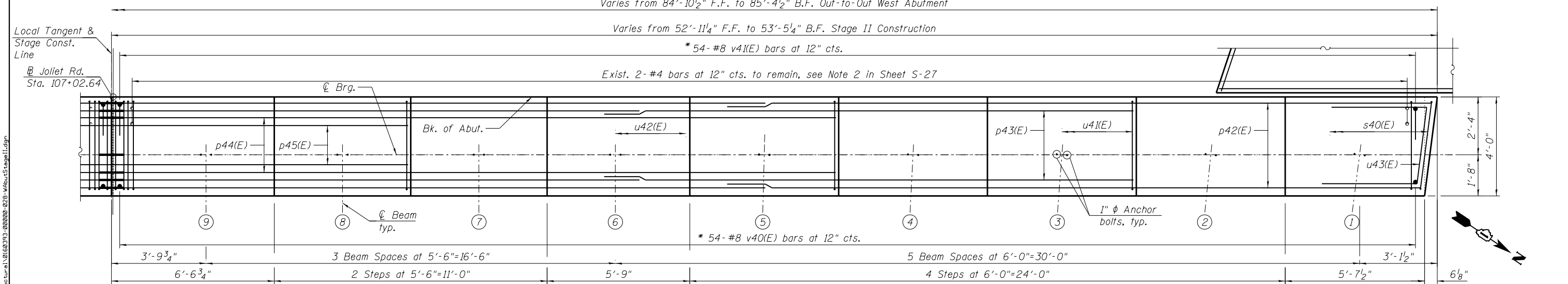
**ELEVATION**

Varies from 84'-10 1/2" F.F. to 85'-4 1/2" B.F. Out-to-Out West Abutment

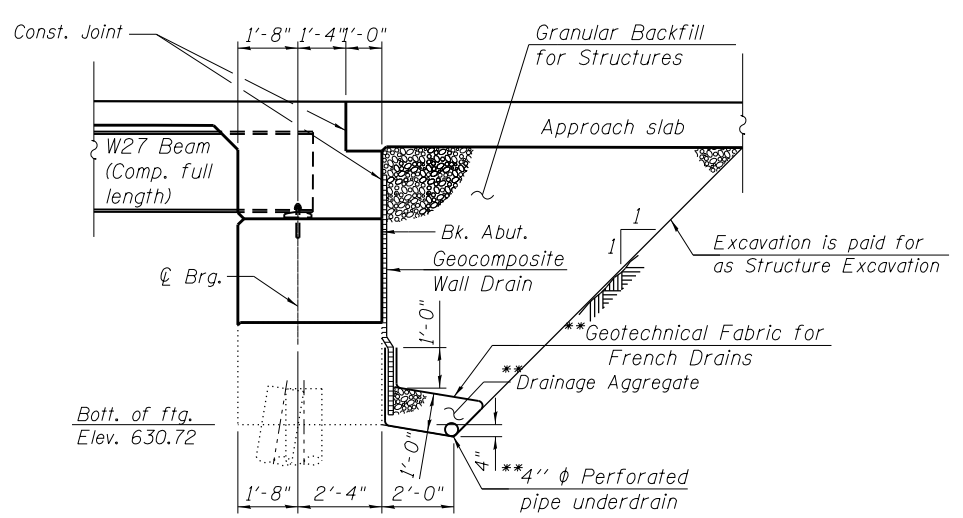
Varies from 52'-11 1/4" F.F. to 53'-5 1/4" B.F. Stage II Construction

\* 54-#8 v41(E) bars at 12" cts.

Exist. 2-#4 bars at 12" cts. to remain, see Note 2 in Sheet S-27

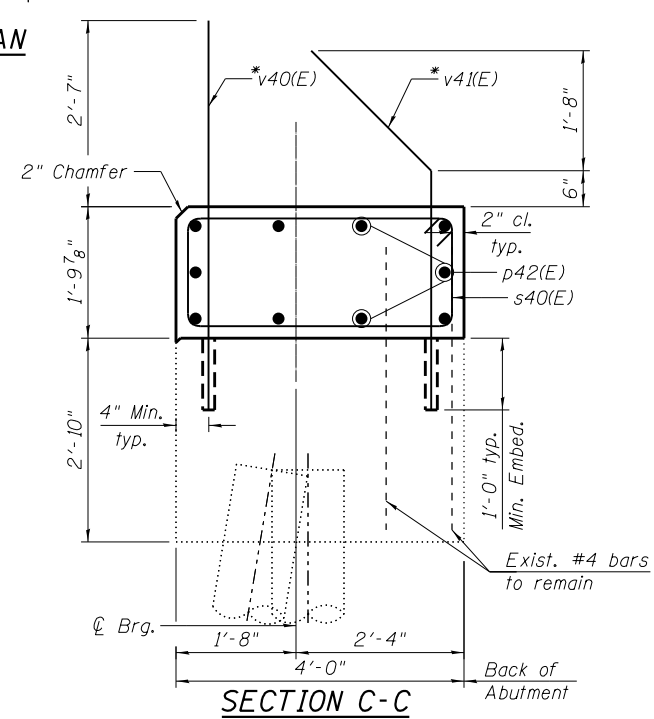


**PLAN**

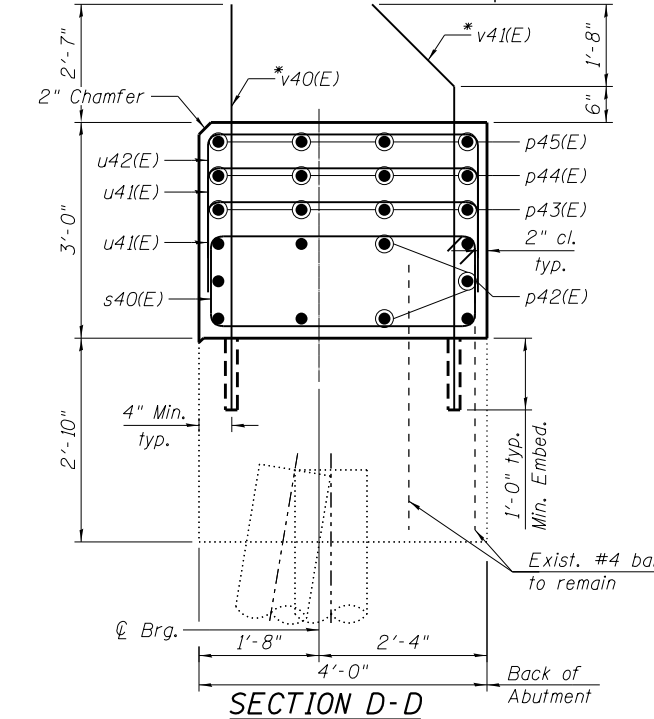


**INTEGRAL ABUTMENT - BACKFILL**  
(Horiz. dim. @ Rt. L's)

\*\*Included in the cost of "Pipe Underdrains for Structures."



**SECTION C-C**



**SECTION D-D**

- NOTES:**
1. For Bill of Material and additional notes, see Sheet S-27.
  2. Bars indicated thus 10x2-#7 etc. indicates 10 lines of bars with 2 lengths per line.
  3. For anchor bolt layout plan, see sheet S-26.

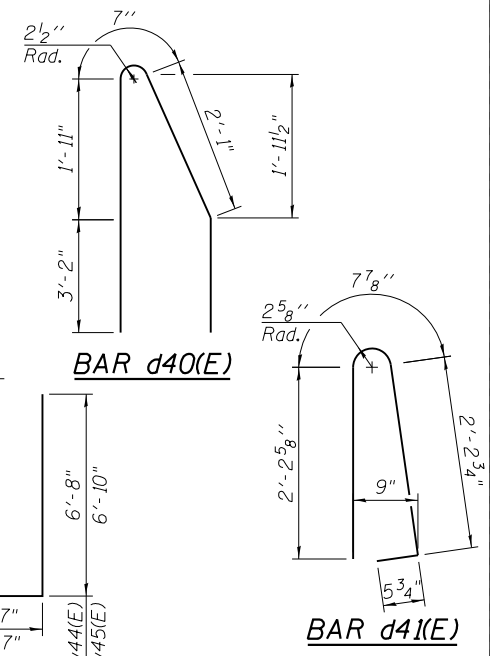
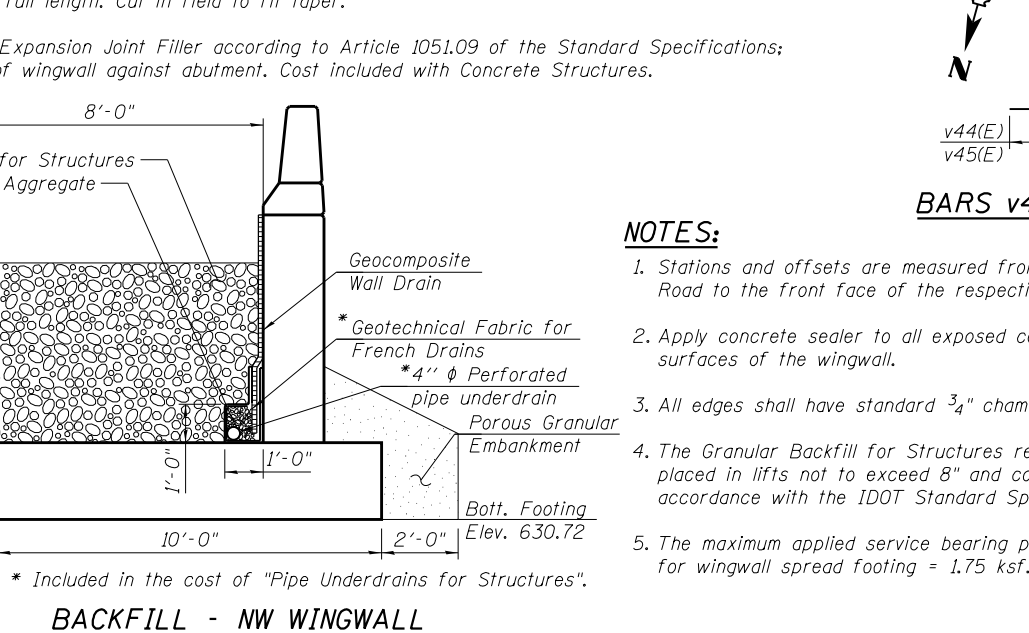
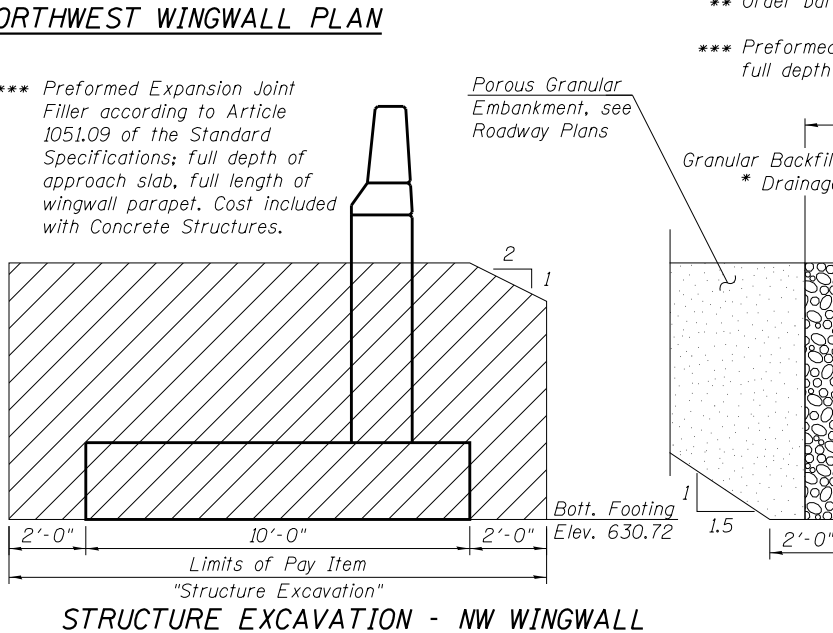
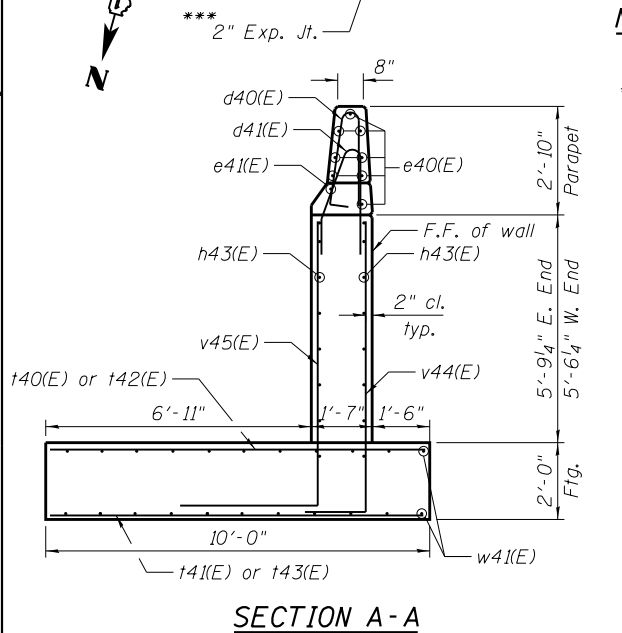
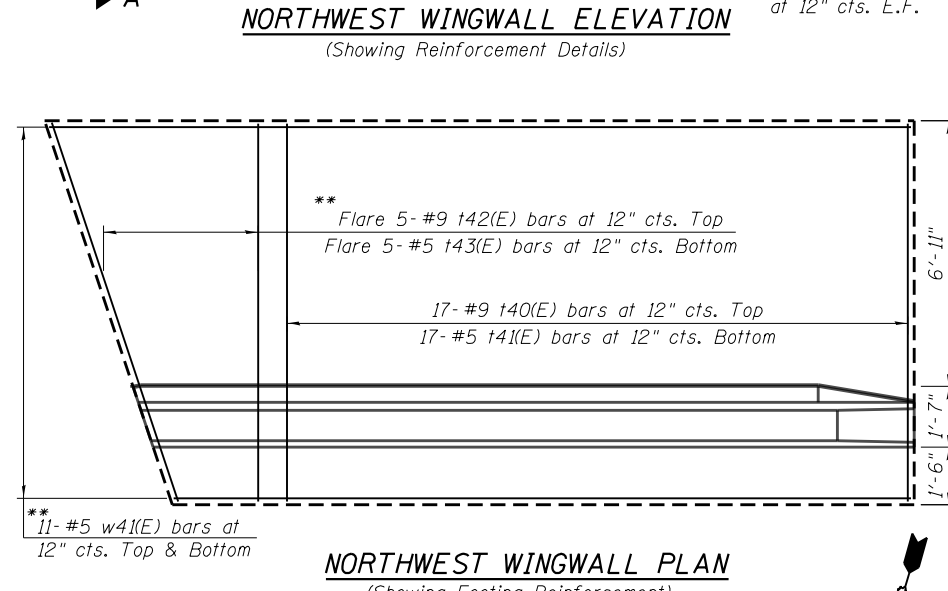
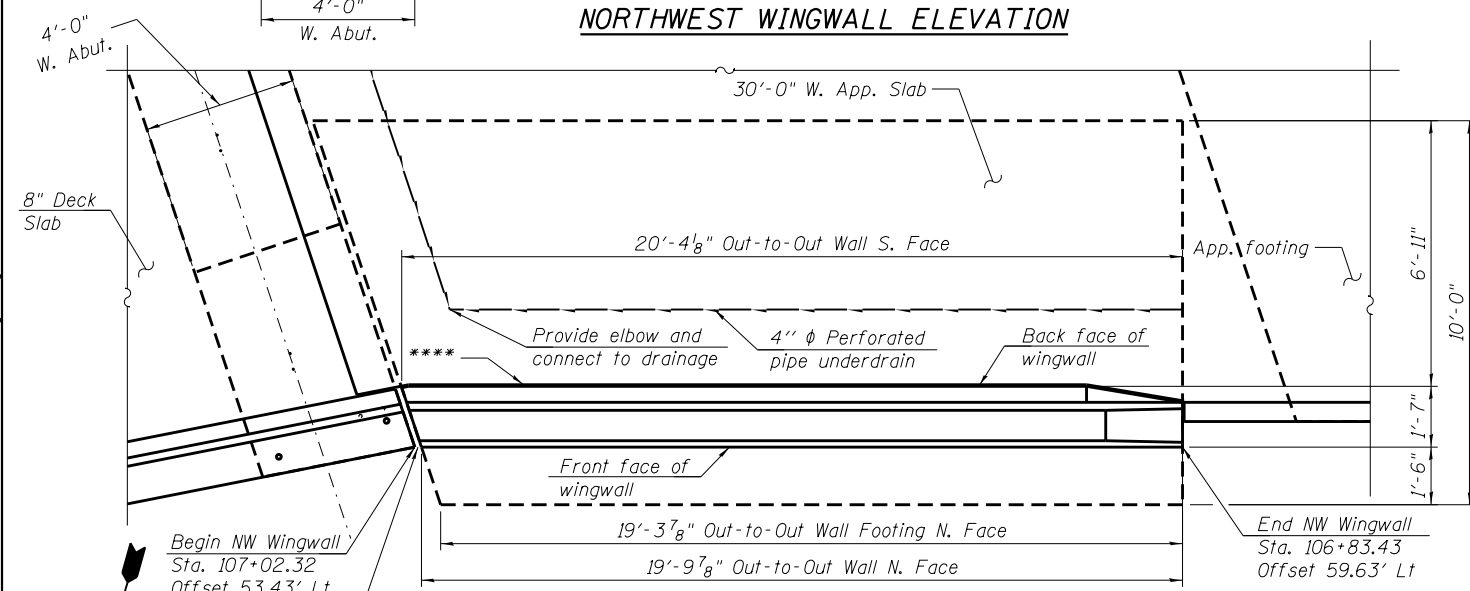
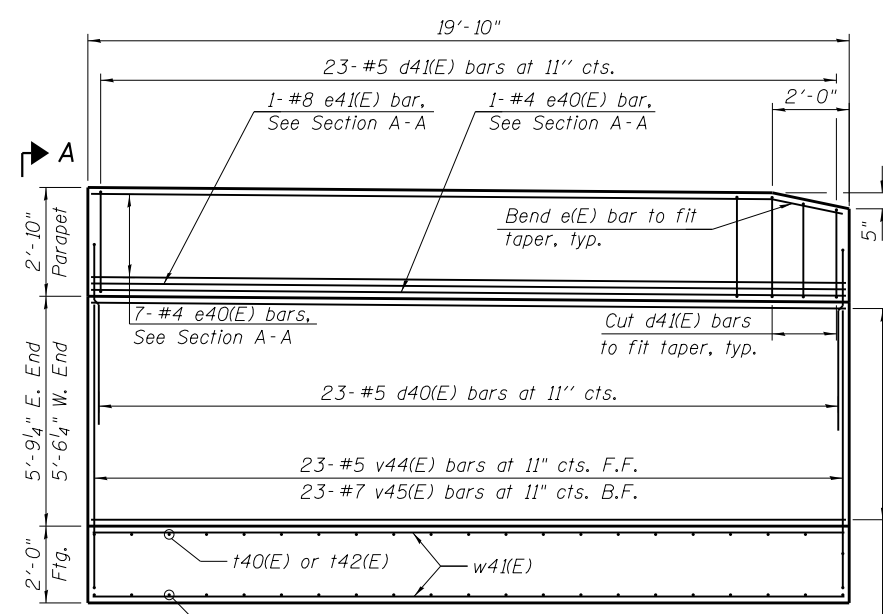
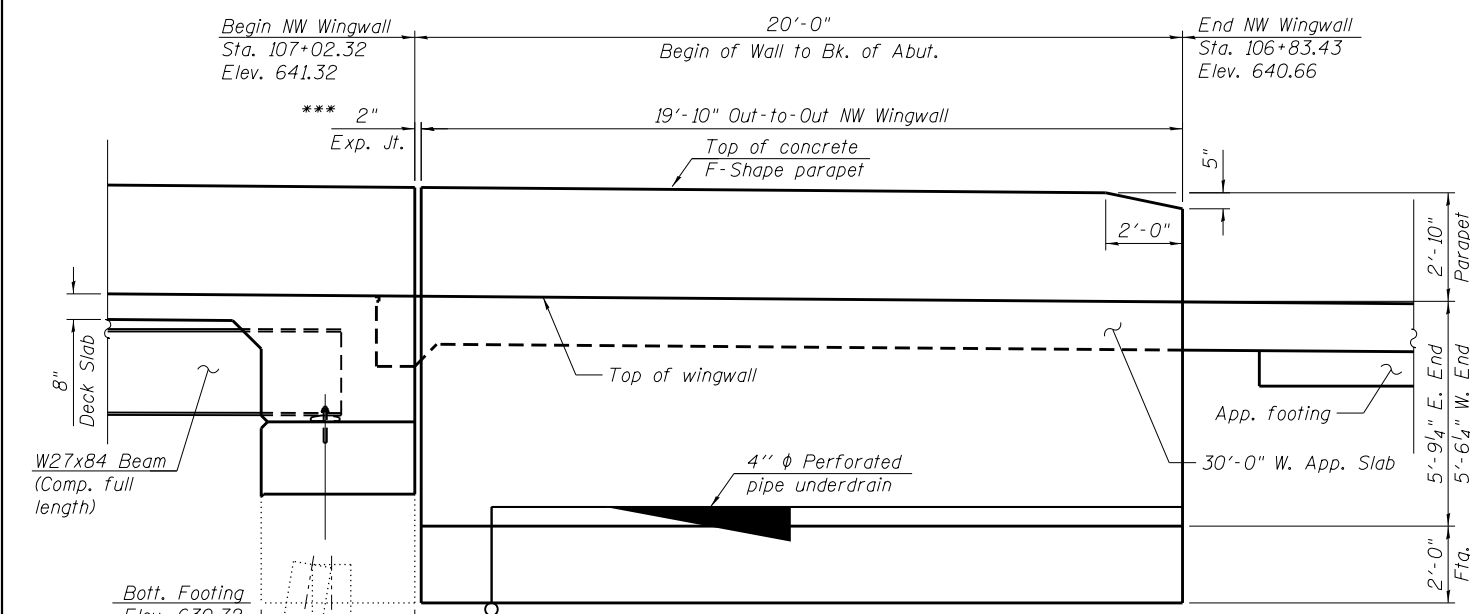
**MINIMUM BAR LAP**  
(Abutment)  
#7 bar = 5'-6"

FILE PATH = P:\1111-532 IDOT PFBI\Item 8 Various\Various\Work Order\15 Joliet Rd. Over Flag Creek\CADD Sheets\Structural\0160393-028-WAbutStageII.dgn

<b>HBM</b> ENGINEERING GROUP, LLC. 4415 WEST HARRISON STREET, SUITE 213 HILLSIDE, IL 60162 PHONE: (708) 236-0900 FAX: (708) 236-0901	0160393-028-WAbutStageII.dgn USER NAME = ken.drobant PLOT SCALE = 4:8.0000 1" = 10' PLOT DATE = 5/5/2020	DESIGNED - MAA DRAWN - MAA, MA CHECKED - MI, MAI DATE - 5/5/2020	REVISED - REVISED - REVISED - REVISED -	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>WEST ABUTMENT - STAGE II CONSTRUCTION</b> <b>STRUCTURE NO. 016-0393</b>	F.A.U. RTE. 3562 SECTION T-5-4BR(81) COUNTY COOK TOTAL SHEETS 92 SHEET NO. 55 CONTRACT NO. 60N80	ILLINOIS FED. AID PROJECT
	SCALE: SHEET S-28 OF S-39 SHEETS STA. 107+49.98 TO STA.				ILLINOIS FED. AID PROJECT		

**BILL OF MATERIAL**

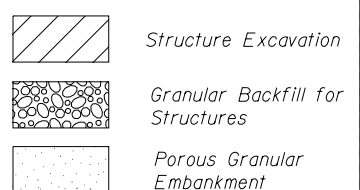
Bar	No.	Size	Length	Shape
d40(E)	23	#5	10'-11"	
d41(E)	23	#5	5'-7"	
e40(E)	8	#4	19'-6"	
e41(E)	1	#8	19'-6"	
h43(E)	14	#5	19'-6"	
v44(E)	23	#5	8'-6"	
v45(E)	23	#7	10'-5"	
t40(E)	17	#9	9'-6"	
t41(E)	17	#5	9'-6"	
t42(E)	5	#9	10'-0"	
t43(E)	5	#5	10'-0"	
w41(E)	22	#5	22'-1"	
Structure Excavation		Cu. Yd.	66	
Concrete Structures		Cu. Yd.	22.2	
Concrete Superstructure		Cu. Yd.	2.2	
Protective Coat		Sq. Yd.	10	
Reinforcement Bars, Epoxy Coated		Pound	2,990	
Concrete Sealer		Sq. Ft.	183	
Geocomposite Wall Drain		Sq. Yd.	14	
Granular Backfill for Structures		Cu. Yd.	31	
Pipe Underdrains for Structures 4"		Foot	30	



**NOTES:**

- Stations and offsets are measured from the Joliet Road to the front face of the respective wingwall.
- Apply concrete sealer to all exposed concrete surfaces of the wingwall.
- All edges shall have standard 3/4" chamfer.
- The Granular Backfill for Structures required shall be placed in lifts not to exceed 8" and compacted in accordance with the IDOT Standard Specifications.
- The maximum applied service bearing pressure (Qmax) for wingwall spread footing = 1.75 ksf.

**LEGEND:**

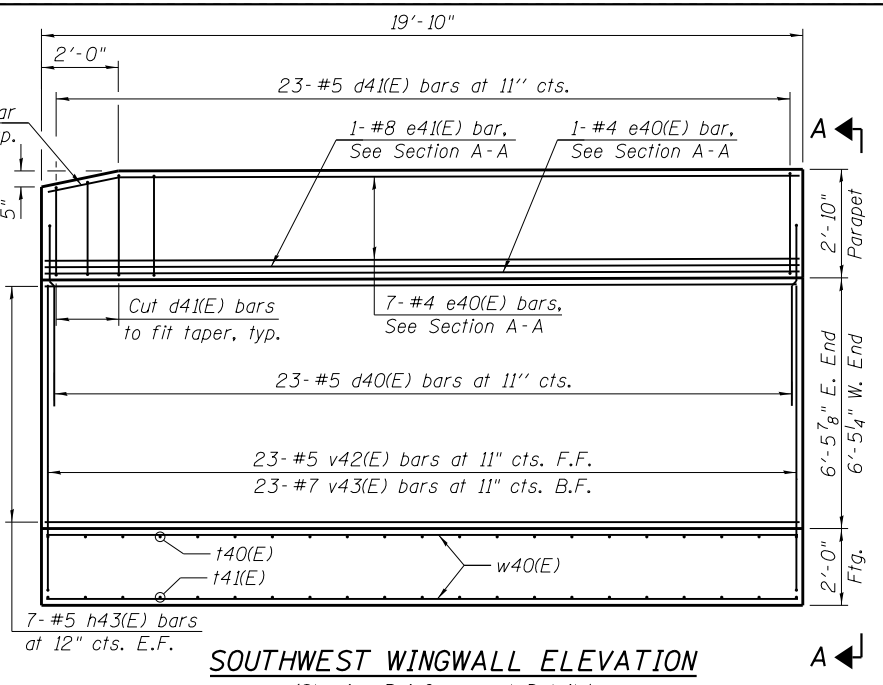
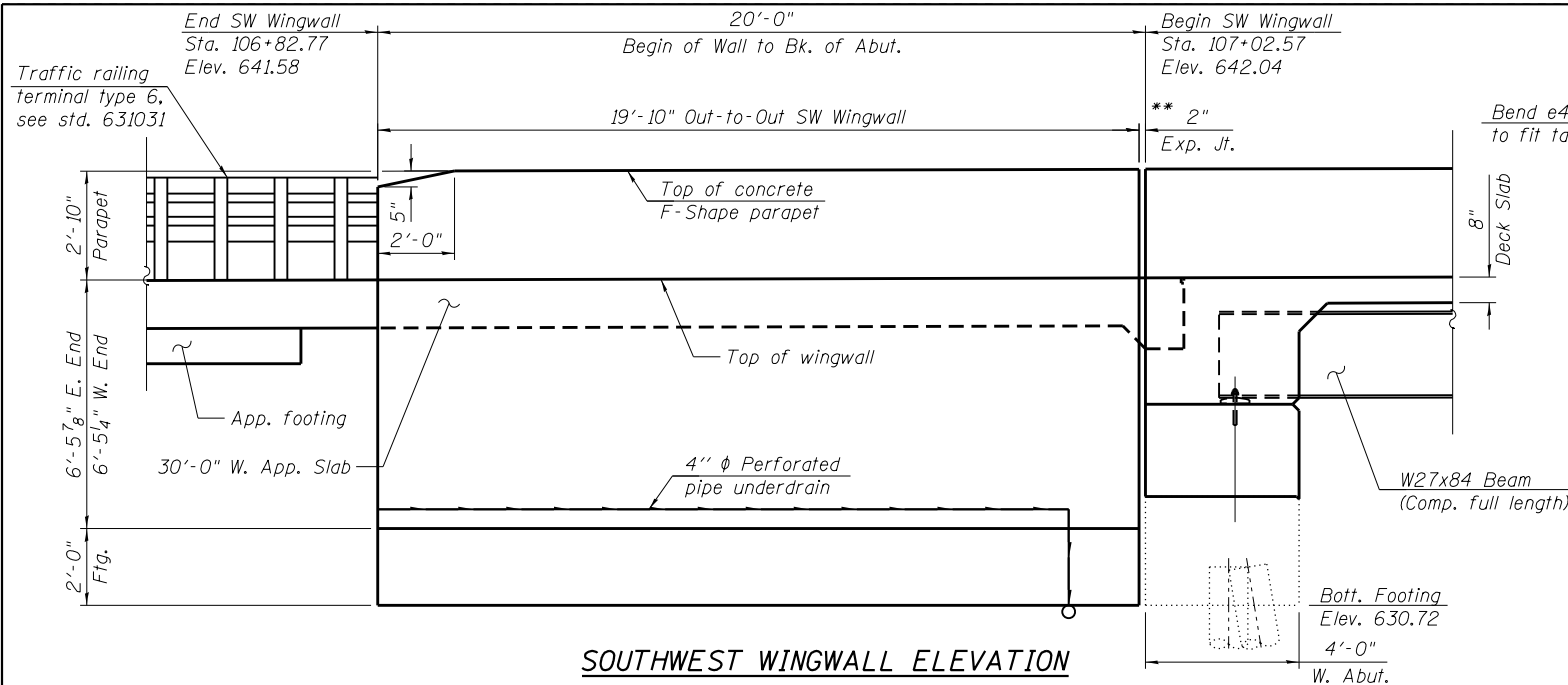


**MINIMUM BAR LAP**

(Wingwall)  
#5 bar = 3'-2"

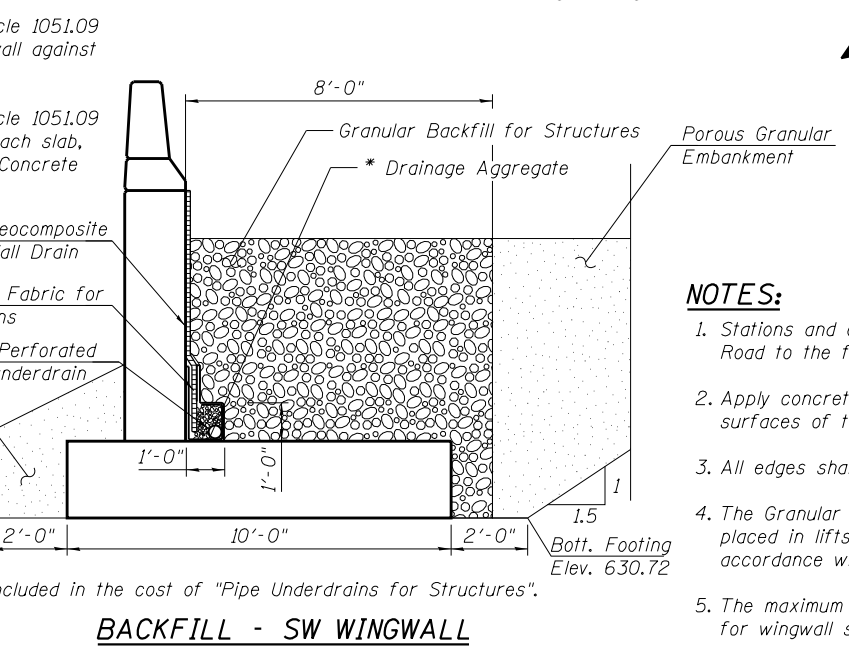
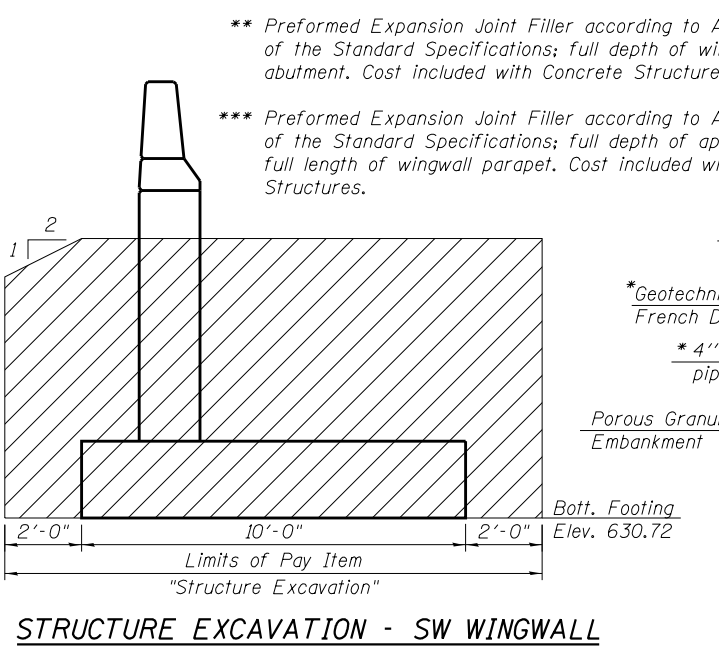
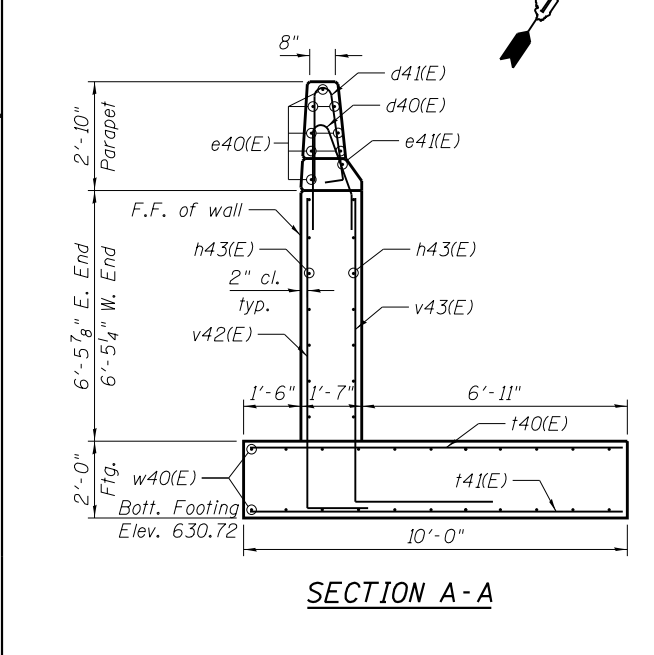
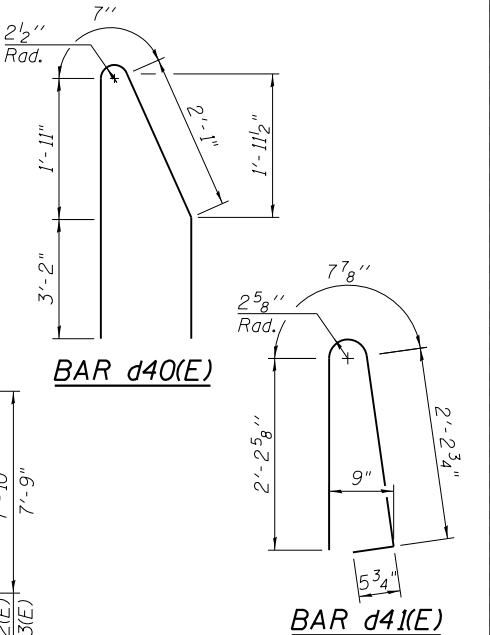
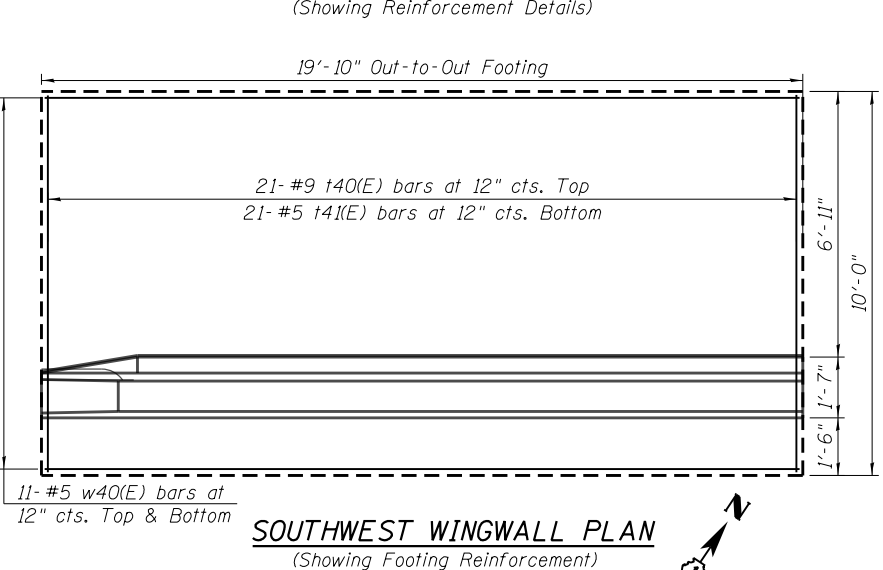
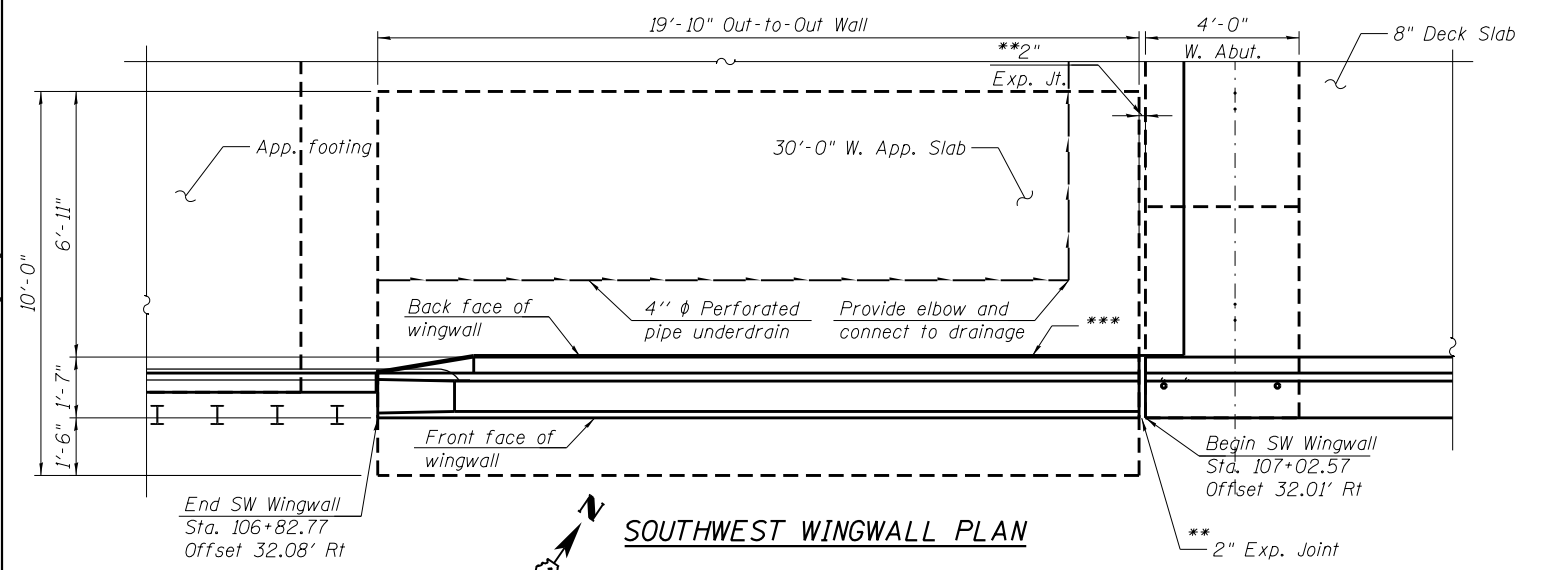
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<b>HBM</b> ENGINEERING GROUP, LLC. 4415 WEST HARRISON STREET, SUITE 231 HILLSIDE, IL 60162 PHONE: (708) 236-0900 FAX: (708) 236-0901	0160393-029-NW Wingwall.dgn USER NAME = ken.drabant PLOT SCALE = 5/8"=1'-0" PLOT DATE = 3/3/2020	DESIGNED - MA DRAWN - MA, MAA CHECKED - MI, MAI DATE - 3/3/2020	REVISED - REVISED - REVISED - REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	NORTHWEST WINGWALL STRUCTURE NO. 016-0393	SCALE: SHEET S-29 OF S-39 SHEETS STA. 107+49.98 TO STA.	F.A.U. R.T.E. 3562 SECTION T-5-4BR(81) COUNTY COOK TOTAL SHEETS 92 SHEET NO. 56 CONTRACT NO. 60N80	ILLINOIS FED. AID PROJECT
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**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
d40(E)	23	#5	10'-11"	
d41(E)	23	#5	5'-7"	
e40(E)	8	#4	19'-6"	
e41(E)	1	#8	19'-6"	
h43(E)	14	#5	19'-6"	
v42(E)	23	#5	9'-5"	
v43(E)	23	#7	11'-4"	
t40(E)	21	#9	9'-6"	
t41(E)	21	#5	9'-6"	
w40(E)	22	#5	19'-6"	
Structure Excavation		Cu. Yd.	67.8	
Concrete Structures		Cu. Yd.	22.2	
Concrete Superstructure		Sq. Yd.	2.2	
Protective Coat		Sq. Yd.	10	
Reinforcement Bars, Epoxy Coated		Pound	2,940	
Concrete Sealer		Sq. Ft.	185	
Geocomposite Wall Drain		Sq. Yd.	15	
Granular Backfill for Structures		Cu. Yd.	31	
Pipe Underdrains for Structures 4"		Foot	30	



**BARS v42(E) & v43(E)**

**NOTES:**

1. Stations and offsets are measured from the Joliet Road to the front face of the respective wingwall.
2. Apply concrete sealer to all exposed concrete surfaces of the wingwall.
3. All edges shall have standard 3/4" chamfer.
4. The Granular Backfill for Structures required shall be placed in lifts not to exceed 8" and compacted in accordance with the IDOT Standard Specifications.
5. The maximum applied service bearing pressure (Qmax) for wingwall spread footing = 1.75 ksf.

**MINIMUM BAR LAP**

(Wingwall)  
 #5 bar = 3'-2"

**LEGEND:**

- Structure Excavation
- Granular Backfill for Structures
- Porous Granular Embankment

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**HBM**  
 ENGINEERING GROUP, LLC.  
 4415 WEST HARRISON STREET, SUITE 231  
 HILLSIDE, IL 60162  
 PHONE: (708) 236-0900 FAX: (708) 236-0901

0160393-00000-030-SW Wingwall.dgn  
 USER NAME = ken.drobant  
 PLOT SCALE = 5:8.0000 1' = in.  
 PLOT DATE = 3/3/2020

DESIGNED - MA	REVISED -
DRAWN - MA, MAA	REVISED -
CHECKED - MI, MAI	REVISED -
DATE - 3/3/2020	REVISED -

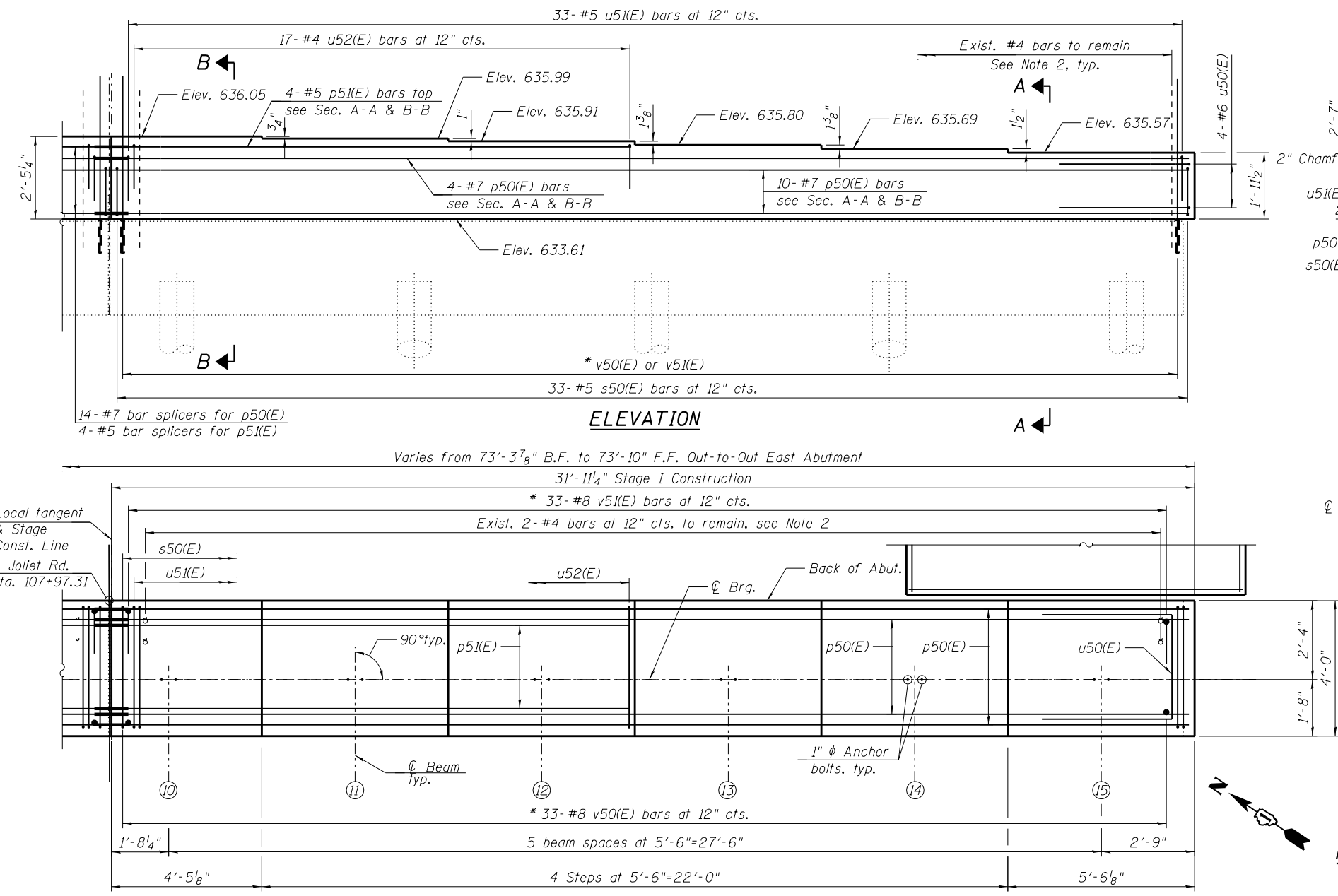
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**SOUTHWEST WINGWALL**  
**STRUCTURE NO. 016-0393**

SCALE: SHEET S-30 OF S-39 SHEETS STA. 107+49.98 TO STA.

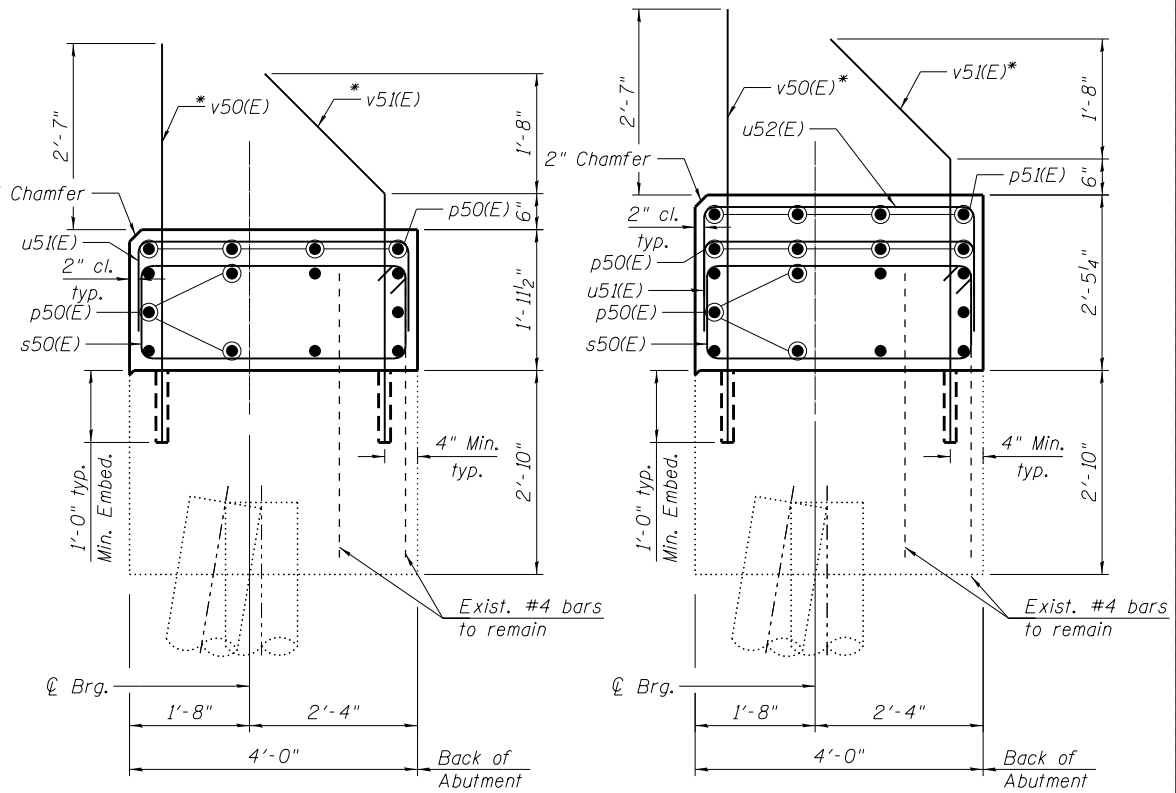
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CONTRACT NO. 60N80				
ILLINOIS FED. AID PROJECT				

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**ELEVATION**

**PLAN**



**SECTION A-A**

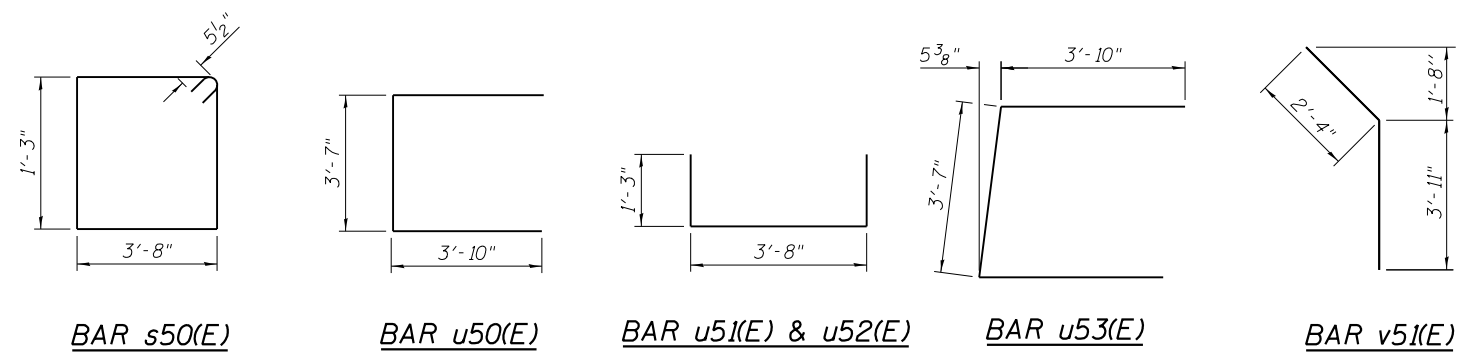
**SECTION B-B**

**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
p50(E)	14	#7	31'-8"	—
p51(E)	4	#5	15'-2"	—
p52(E)	20	#7	23'-8"	—
p53(E)	4	#7	29'-2"	—
p54(E)	4	#5	11'-9"	—
s50(E)	76	#5	10'-9"	□
u50(E)	4	#6	11'-3"	U
u51(E)	63	#5	6'-2"	U
u52(E)	30	#4	6'-2"	U
u53(E)	3	#6	11'-3"	U
v50(E)	76	#8	6'-0"	—
v51(E)	76	#8	6'-3"	—
Structure Excavation		Cu. Yd.	40.2	
Concrete Structures		Cu. Yd.	23.4	
Reinforcement Bars, Epoxy Coated		Pound	6,210	
Concrete Sealer		Sq. Ft.	373	
Geocomposite Wall Drain		Sq. Yd.	52	
Granular Backfill for Structures		Cu. Yd.	114	
Pipe Underdrains For Structures 4"		Foot	73	

**NOTES:**

1. Bars v50(E) & v51(E) shall be drilled and grouted into existing concrete in accordance to Article 584 of Standard Specifications. Cost included with Concrete Structures.
2. Existing reinforcement bars extending into the removal area shall be cleaned, straightened and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cost included with Concrete Removal.
3. The presented elevations and limits of the existing abutment have been taken from historical design drawings and may not present "as-built" condition. All existing structure limits shall be field verified by the contractor and coordinated with the engineer prior to ordering materials, fabrication and construction of the proposed abutment extension.
4. Pour steps monolithically with cap.
5. Apply concrete sealer to all exposed concrete surfaces of the abutment.
6. Space reinforcement in cap to miss anchor bolts.



**BAR s50(E)**      **BAR u50(E)**      **BAR u51(E) & u52(E)**      **BAR u53(E)**      **BAR v51(E)**

**HBM**  
ENGINEERING GROUP, LLC.  
4415 WEST HARRISON STREET, SUITE 213  
HILLSDALE, IL 60162  
PHONE: (708) 236-0900 FAX: (708) 236-0901

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PLOT SCALE = 4:8.0000 1" = 16'  
PLOT DATE = 3/3/2020

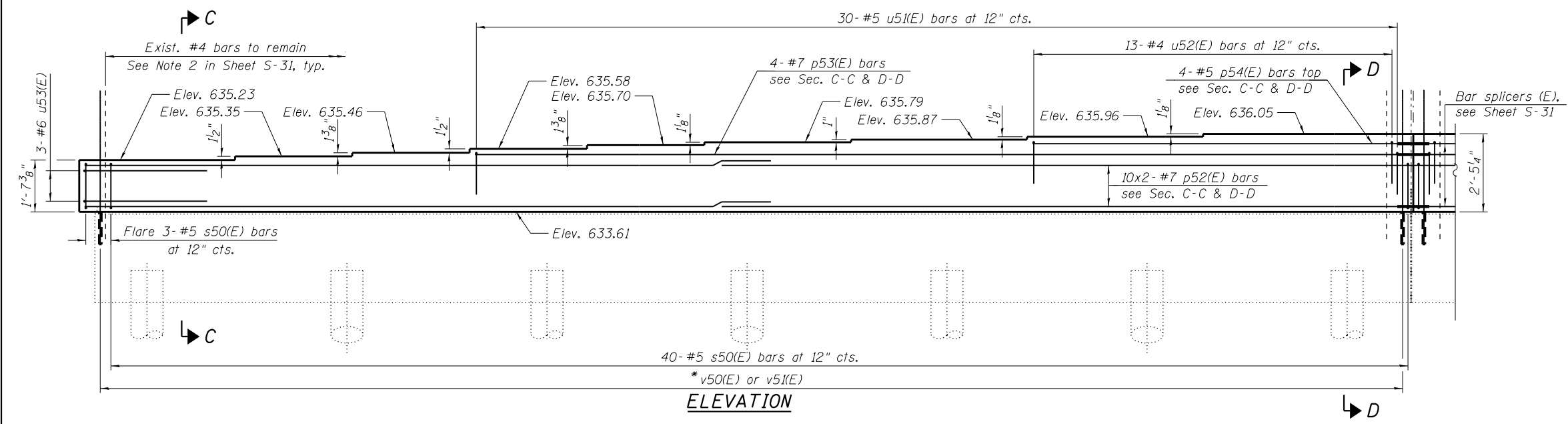
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DRAWN - MA      REVISED -  
CHECKED - MI, MAI      REVISED -  
DATE - 3/3/2020      REVISED -

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

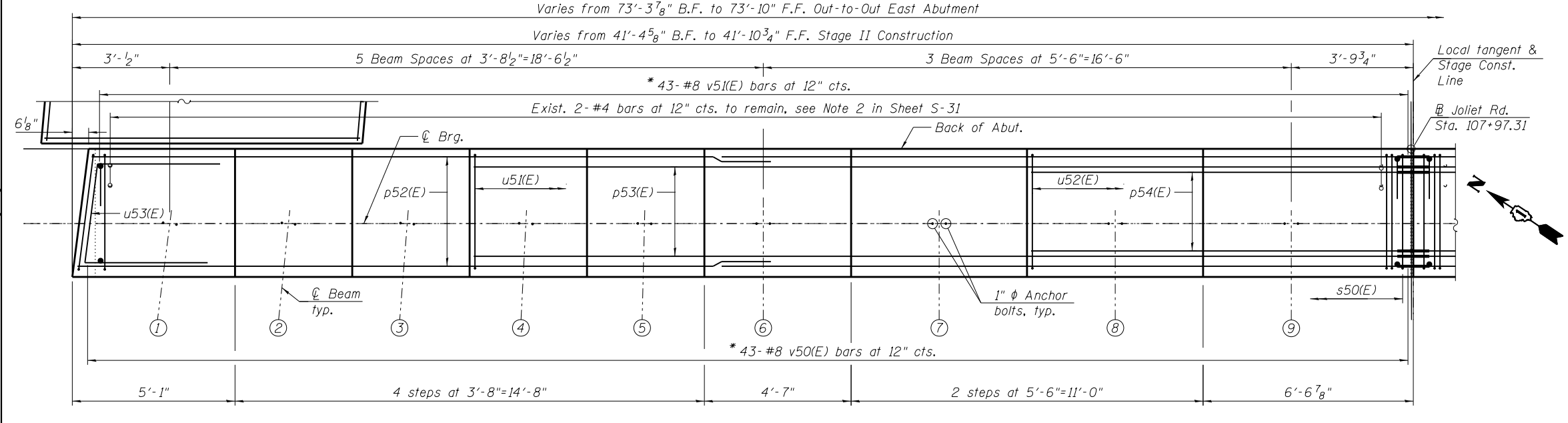
**EAST ABUTMENT - STAGE I CONSTRUCTION**  
**STRUCTURE NO. 016-0393**

SCALE: SHEET S-31 OF S-39 SHEETS STA. 107+49.98 TO STA.

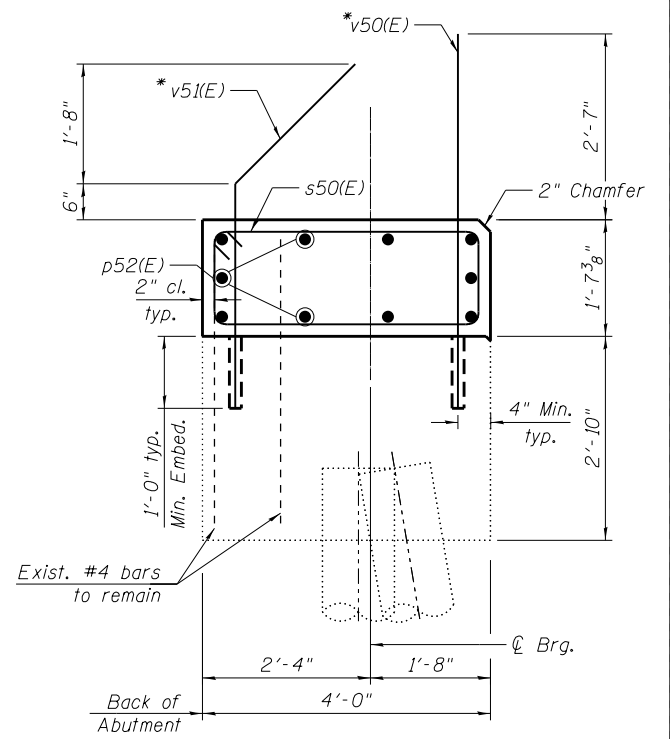
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3562	T-5-4BR(81)	COOK	92	58
<b>CONTRACT NO. 60N80</b>				
ILLINOIS FED. AID PROJECT				



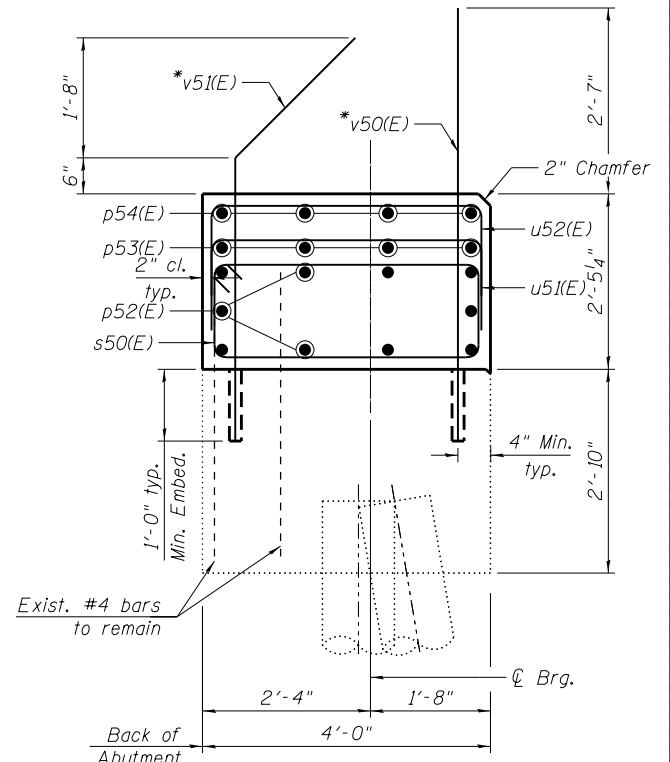
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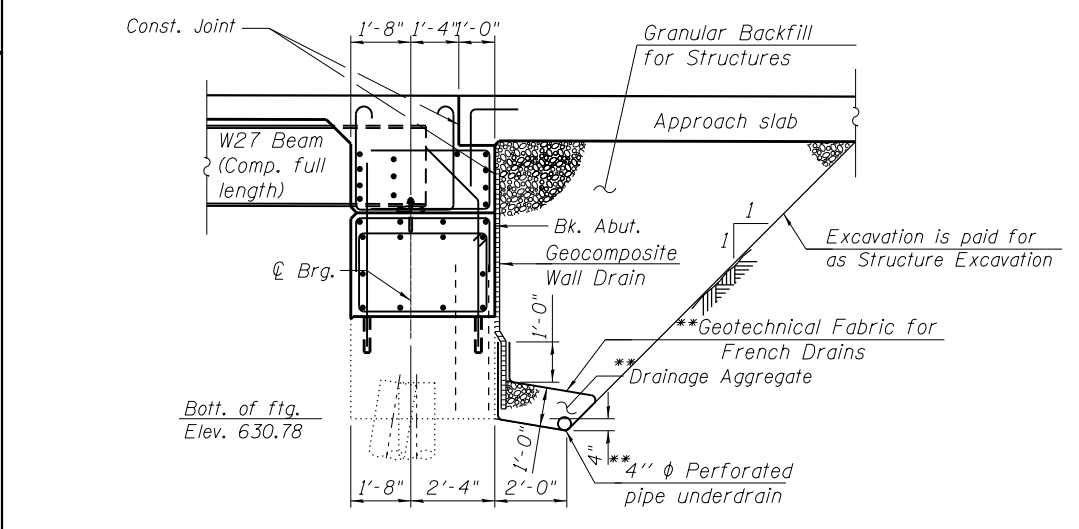
**PLAN**



**SECTION C-C**



**SECTION D-D**



**INTEGRAL ABUTMENT - BACKFILL**  
(Horiz. dim. @ Rt. L's)  
\*\*Included in the cost of "Pipe Underdrains for Structures".

\* Order bar full length. Cut in field to fit.

- NOTES:**
1. For Bill of Material and additional notes, see Sheet S-31.
  2. Bars indicated thus 10x2-#7 etc. indicates 10 lines of bars with 2 lengths per line.
  3. For anchor bolt layout plan, see sheet S-26.

**MINIMUM BAR LAP**  
(Abutment)  
#7 bar = 5'-6"

FILE PATH = P:\1111-532 IDOT PFBIBI Item 8 (Various) \Vantash\Work Order #15 Joliet Rd. Over Flag Creek\CADD Sheets\Structural\0160393-020206-032-AbutStageII.dgn

**HBM**  
ENGINEERING GROUP, LLC.  
4415 WEST HARRISON STREET, SUITE 231  
HILLSDALE, IL 60162  
PHONE: (708) 236-0900 FAX: (708) 236-0901

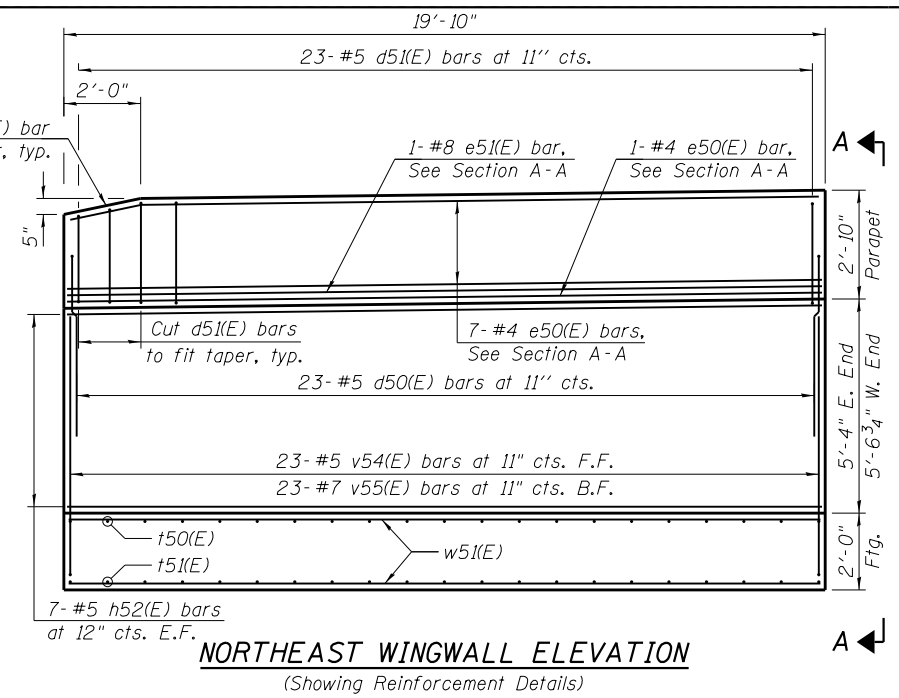
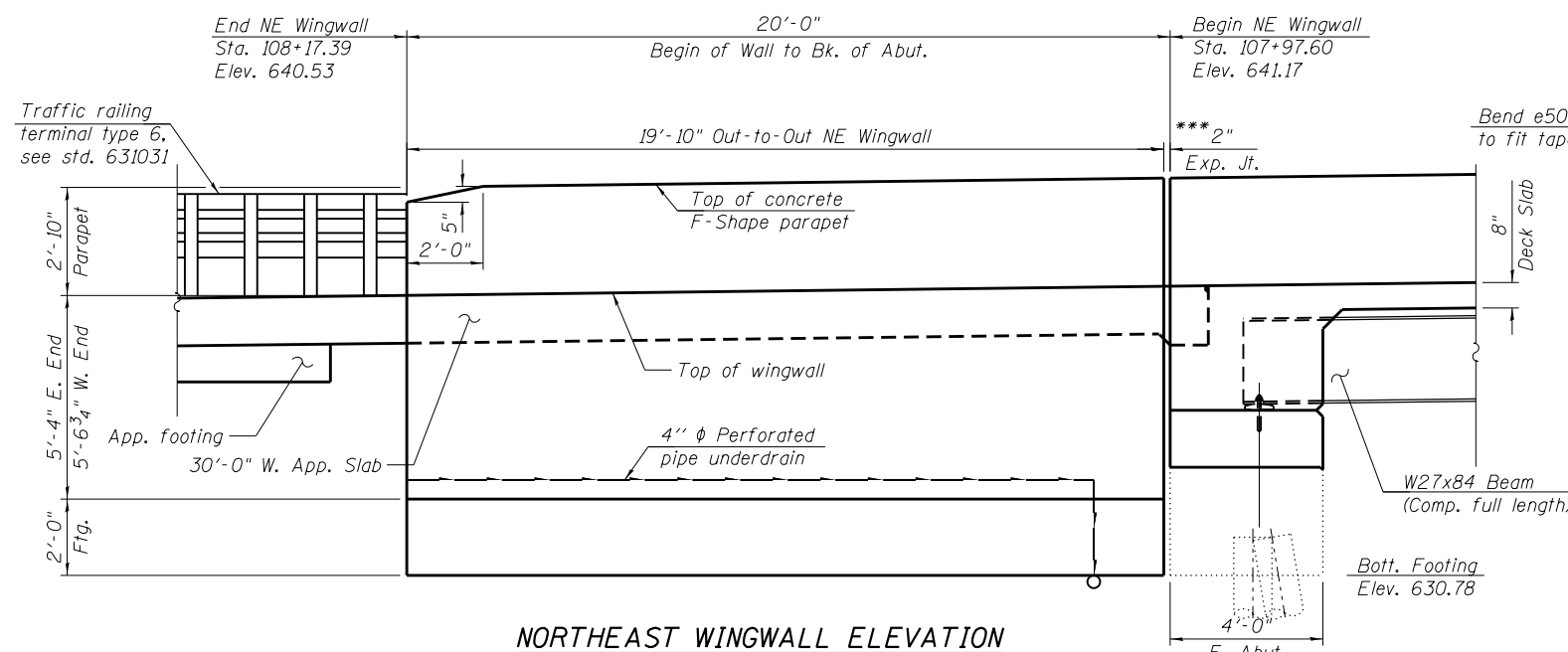
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USER NAME = ken.drobant	DRAWN - MA	REVISED -
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PLOT DATE = 5/5/2020	DATE - 5/5/2020	REVISED -

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

**EAST ABUTMENT - STAGE II CONSTRUCTION**  
**STRUCTURE NO. 016-0393**  
SCALE: SHEET S-32 OF S-39 SHEETS STA. 107+49.98 TO STA.

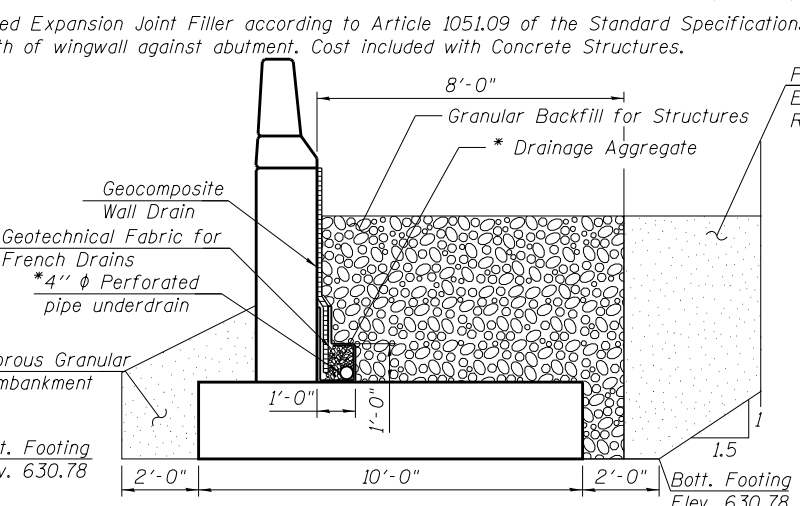
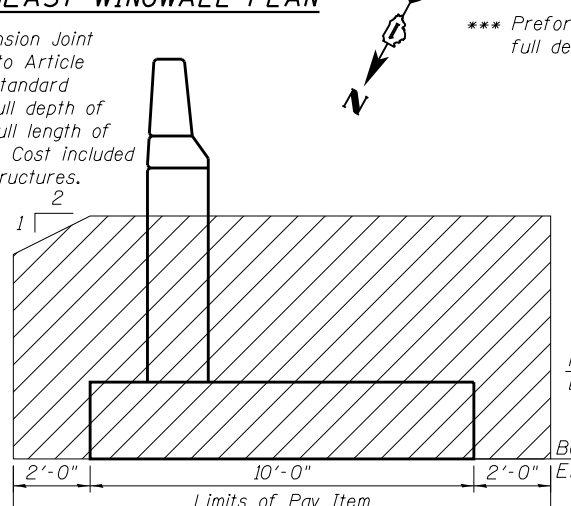
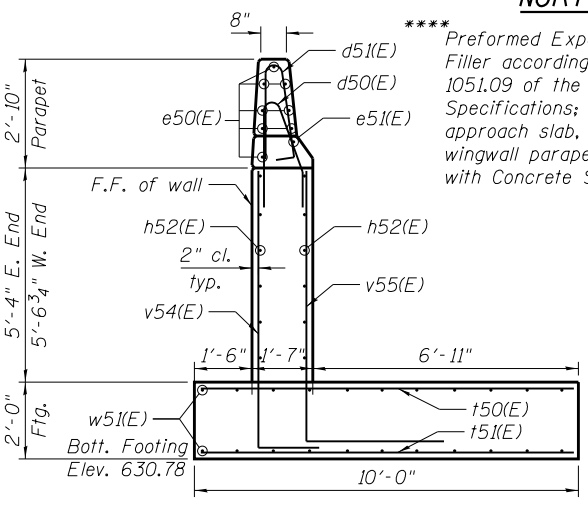
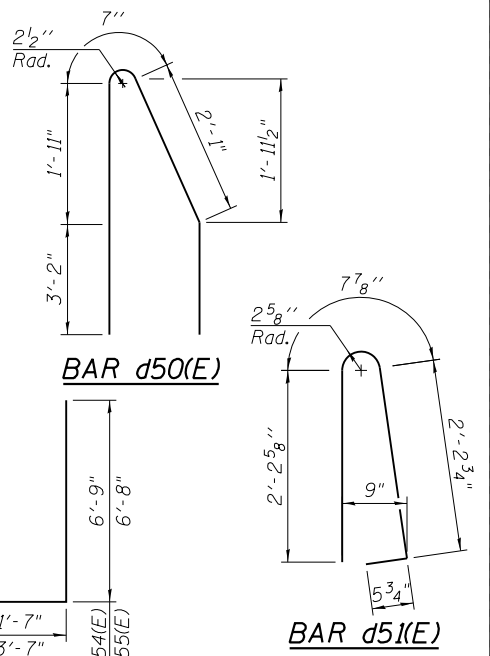
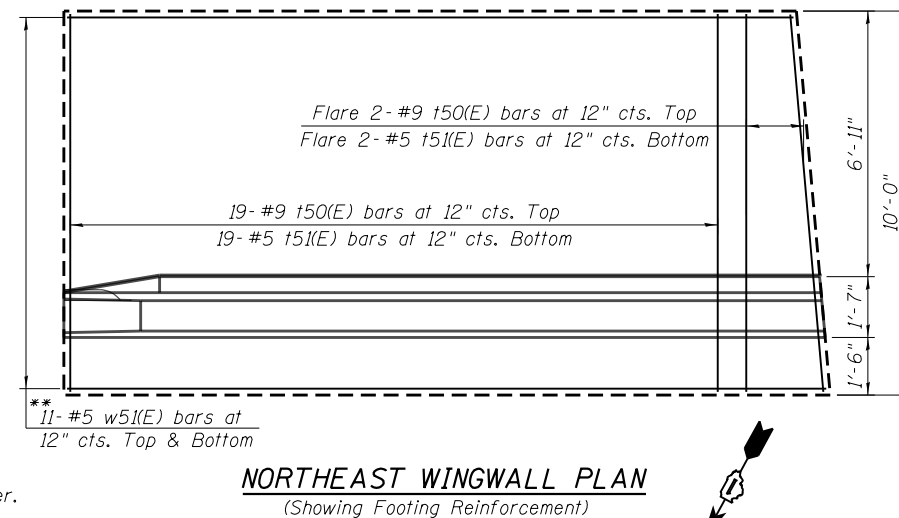
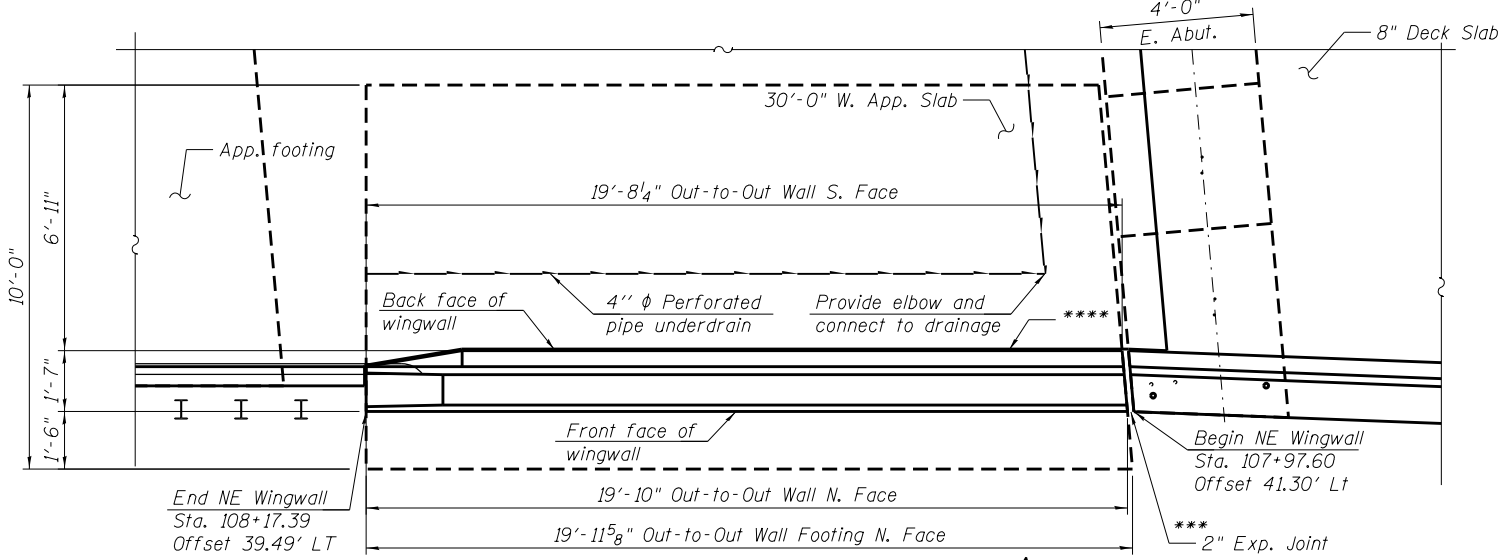
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3562	T-5-4BR(81)	COOK	92	59
CONTRACT NO. 60N80				
ILLINOIS FED. AID PROJECT				





**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
d50(E)	23	#5	10'-11"	
d51(E)	23	#5	5'-7"	
e50(E)	8	#4	19'-6"	
e51(E)	1	#8	19'-6"	
h52(E)	14	#5	19'-6"	
v54(E)	23	#5	8'-4"	
v55(E)	23	#7	10'-3"	
150(E)	21	#9	9'-6"	
151(E)	21	#5	9'-6"	
w51(E)	22	#5	19'-5"	
Structure Excavation		Cu. Yd.	57.7	
Concrete Structures		Cu. Yd.	20.9	
Concrete Superstructure		Cu. Yd.	2.2	
Protective Coat		Sq. Yd.	10	
Reinforcement Bars, Epoxy Coated		Pound	2,860	
Concrete Sealer		Sq. Ft.	175	
Geocomposite Wall Drain		Sq. Yd.	16	
Granular Backfill for Structures		Cu. Yd.	31	
Pipe Underdrains for Structures 4"		Foot	30	



- NOTES:**
- Stations and offsets are measured from the B Joliet Road to the front face of the respective wingwall.
  - Apply concrete sealer to all exposed concrete surfaces of the wingwall.
  - All edges shall have standard 3/4" chamfer.
  - The Granular Backfill for Structures required shall be placed in lifts not to exceed 8" and compacted in accordance with the IDOT Standard Specifications.
  - The maximum applied service bearing pressure (Qmax) for wingwall spread footing = 1.75 ksf.

**MINIMUM BAR LAP (Wingwall)**  
 #5 bar = 3'-2"

**LEGEND:**

	Structure Excavation
	Granular Backfill for Structures
	Porous Granular Embankment

FILE PATH = P:\1111-532 IDOT PFBI\Item 8 Various\Various\Work Order\115 Joliet Rd. Over Flag Creek\CADD Sheets\Structural\0160393-02020-033-NEWingwall.dgn

**HBM**  
 ENGINEERING GROUP, LLC.  
 4415 WEST HARRISON STREET, SUITE 231  
 HILLSIDE, IL 60162  
 PHONE: (708) 236-0900 FAX: (708) 236-0901

0160393-02020-033-NEWingwall.dgn  
 USER NAME = ken.drobant  
 PLOT SCALE = 5/8"=1'-0"  
 PLOT DATE = 3/3/2020

DESIGNED - MA  
 DRAWN - MA  
 CHECKED - MI, MAI  
 DATE - 3/3/2020

REVISED -  
 REVISED -  
 REVISED -  
 REVISED -

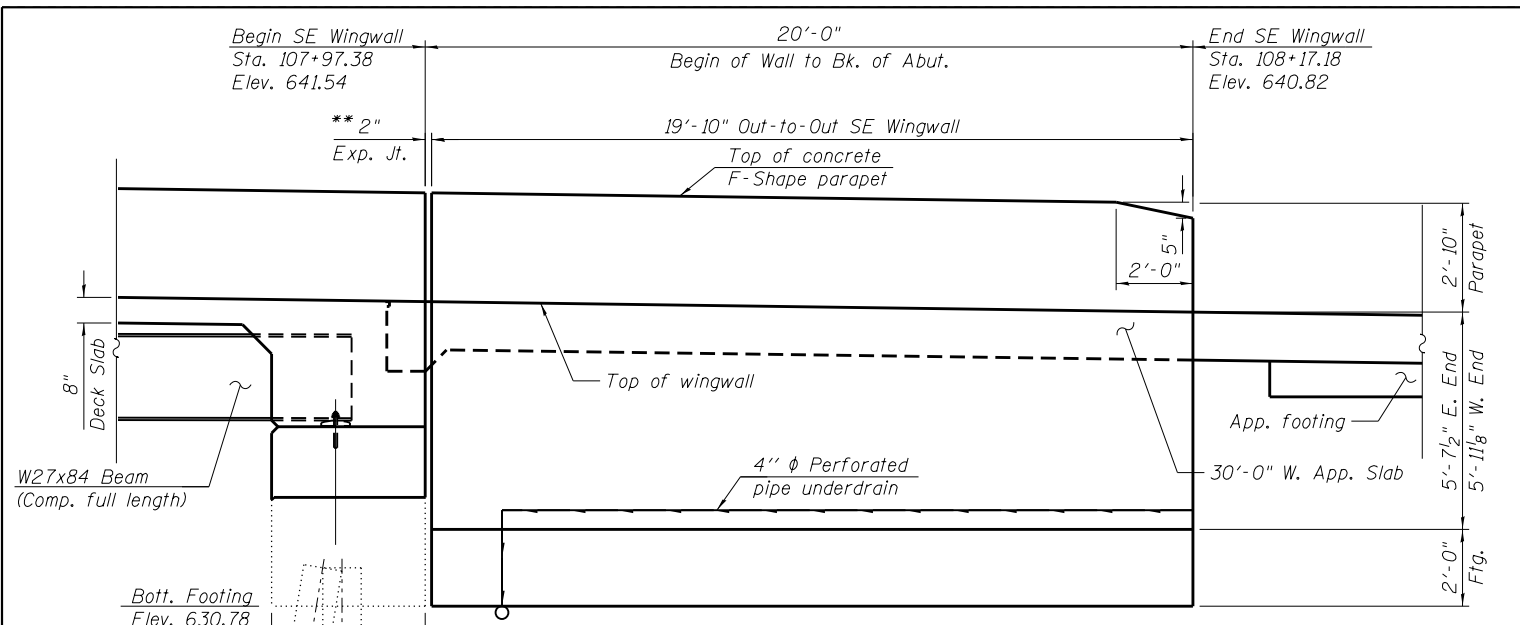
**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**NORTHEAST WINGWALL  
 STRUCTURE NO. 016-0393**

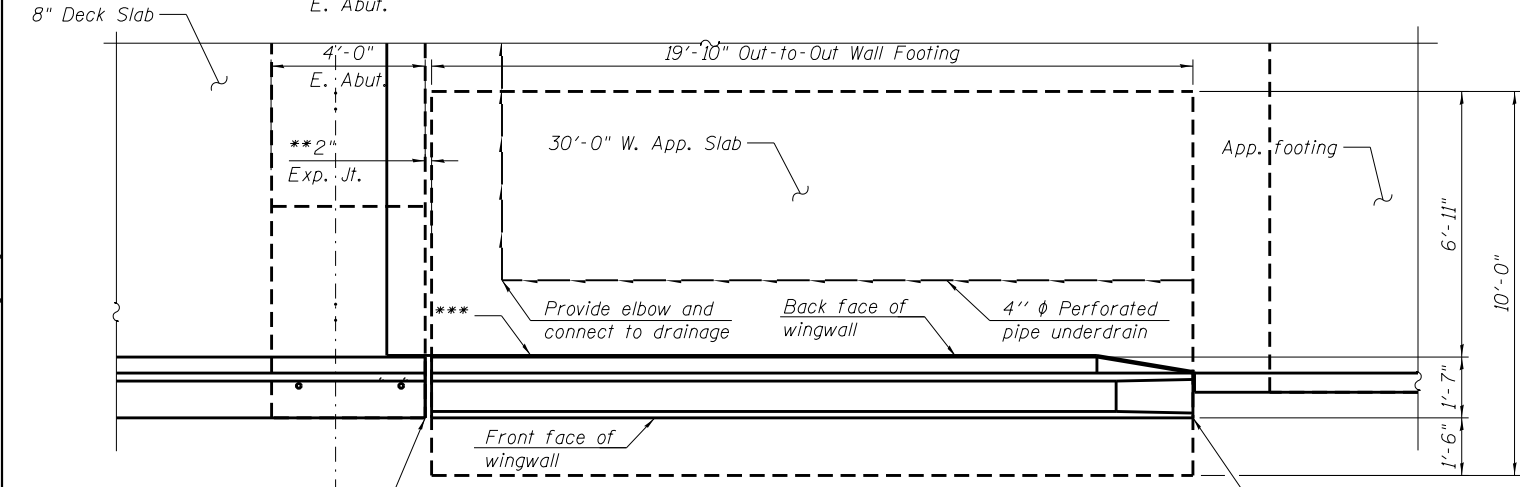
SCALE: SHEET S-33 OF S-39 SHEETS STA. 107+49.98 TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3562	T-5-4BR(81)	COOK	92	60

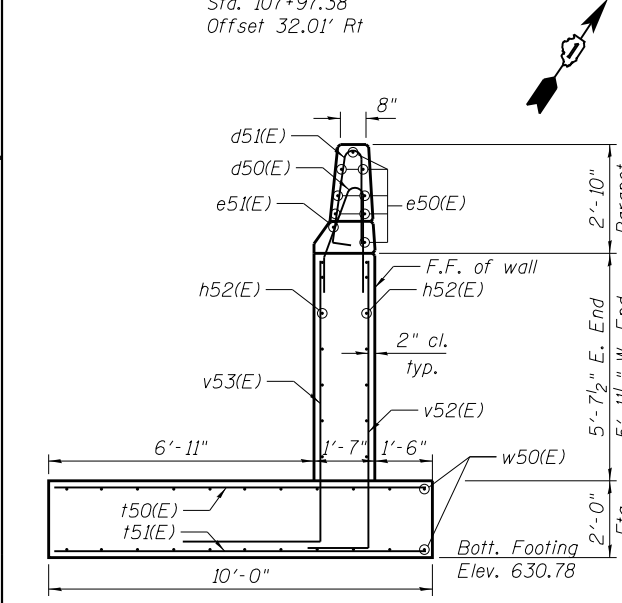
CONTRACT NO. 60N80  
 ILLINOIS FED. AID PROJECT



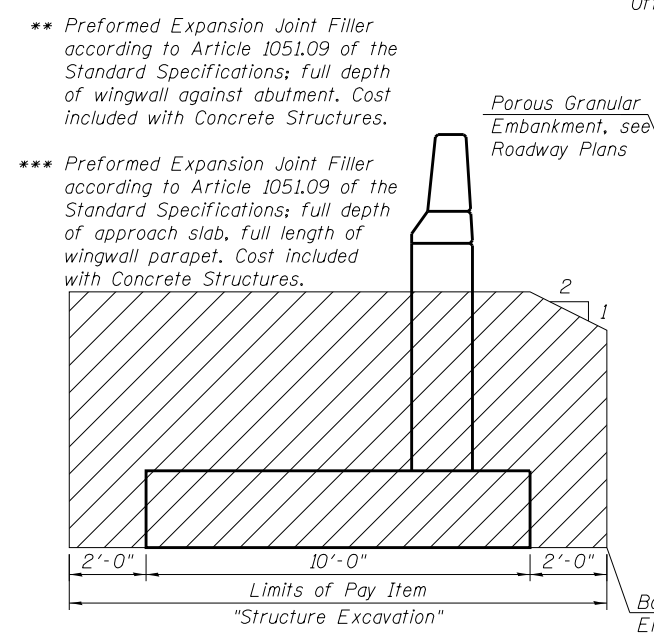
**SOUTHEAST WINGWALL ELEVATION**



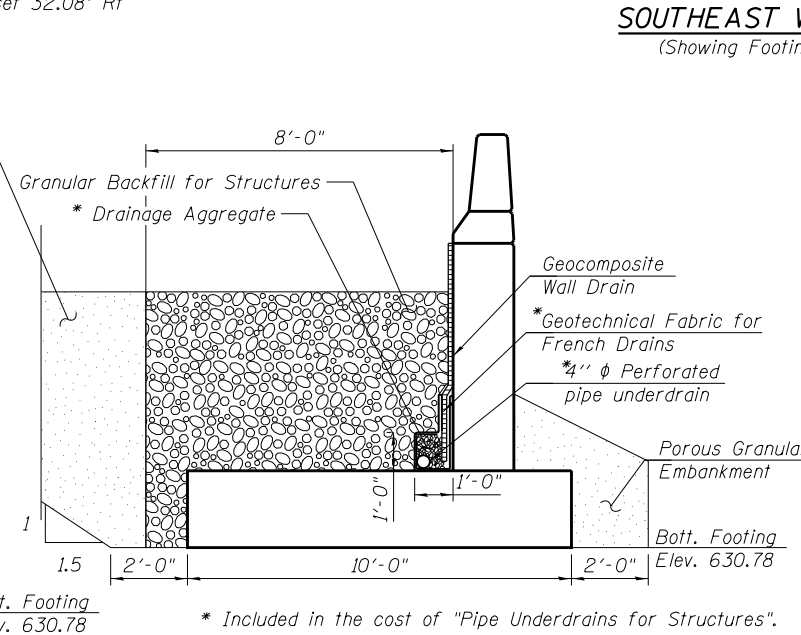
**SOUTHEAST WINGWALL PLAN**



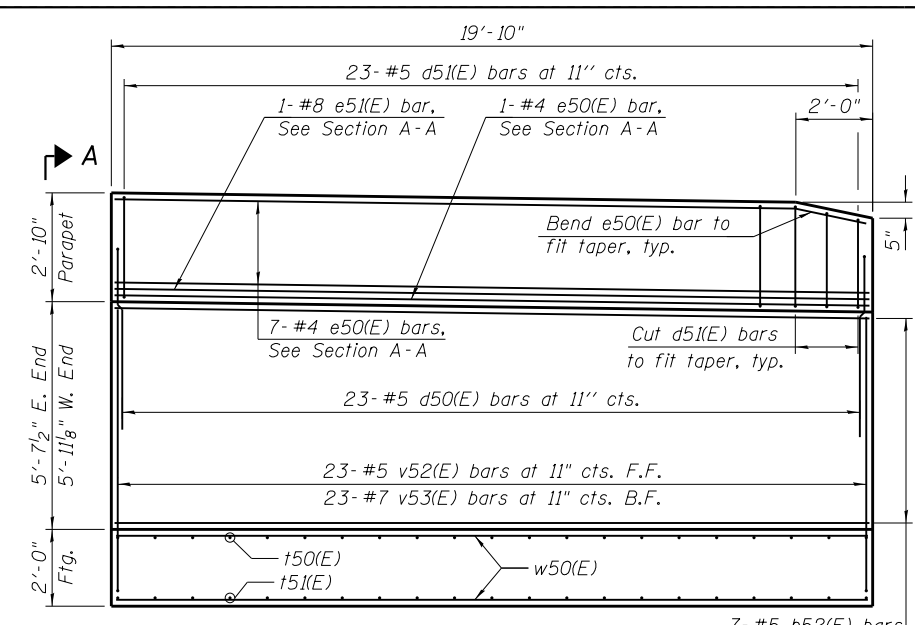
**SECTION A-A**



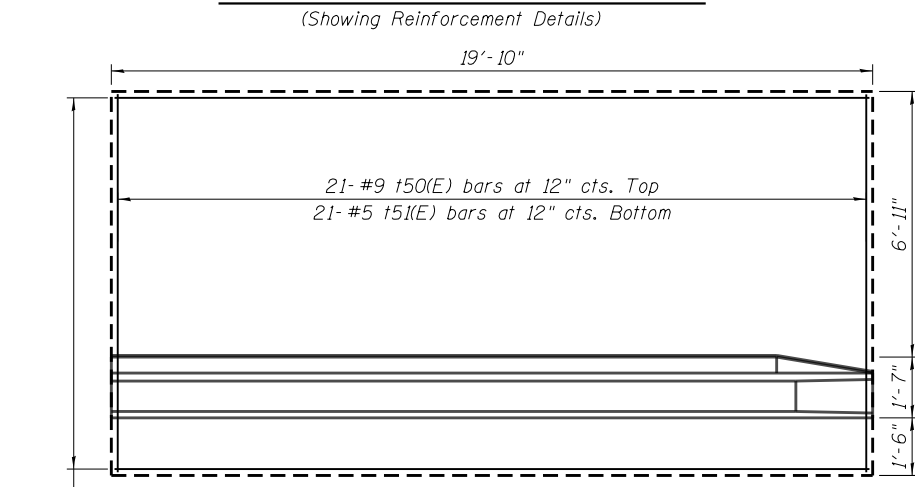
**STRUCTURE EXCAVATION - SE WINGWALL**



**BACKFILL - SE WINGWALL**

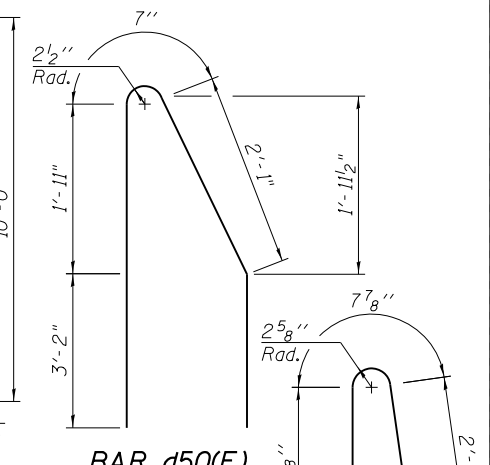


**SOUTHEAST WINGWALL ELEVATION (Showing Reinforcement Details)**



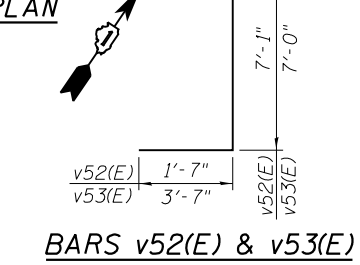
**SOUTHEAST WINGWALL PLAN (Showing Footing Reinforcement)**

BILL OF MATERIAL				
Bar	No.	Size	Length	Shape
d50(E)	23	#5	10'-11"	
d51(E)	23	#5	5'-7"	
e50(E)	8	#4	19'-6"	
e51(E)	1	#8	19'-6"	
h52(E)	14	#5	19'-6"	
v52(E)	23	#5	8'-8"	
v53(E)	23	#7	10'-7"	
t50(E)	21	#9	9'-6"	
t51(E)	21	#5	9'-6"	
w50(E)	22	#5	19'-4"	
Structure Excavation		Cu. Yd.	60.7	
Concrete Structures		Cu. Yd.	21.5	
Concrete Superstructure		Cu. Yd.	2.2	
Protective Coat		Sq. Yd.	10	
Reinforcement Bars, Epoxy Coated		Pound	2,880	
Concrete Sealer		Sq. Ft.	184	
Geocomposite Wall Drain		Sq. Yd.	17	
Granular Backfill for Structures		Cu. Yd.	31	
Pipe Underdrains for Structures 4"		Foot	30	



**BAR d50(E)**

**BAR d51(E)**



**BARS v52(E) & v53(E)**

**NOTES:**

1. Stations and offsets are measured from the Joliet Road to the front face of the respective wingwall.
2. Apply concrete sealer to all exposed concrete surfaces of the wingwall.
3. All edges shall have standard 3/4" chamfer.
4. The Granular Backfill for Structures required shall be placed in lifts not to exceed 8" and compacted in accordance with the IDOT Standard Specifications.
5. The maximum applied service bearing pressure (Qmax) for wingwall spread footing = 1.75 ksf.

**MINIMUM BAR LAP**

(Wingwall)  
#5 bar = 3'-2"

**LEGEND:**

	Structure Excavation
	Granular Backfill for Structures
	Porous Granular Embankment

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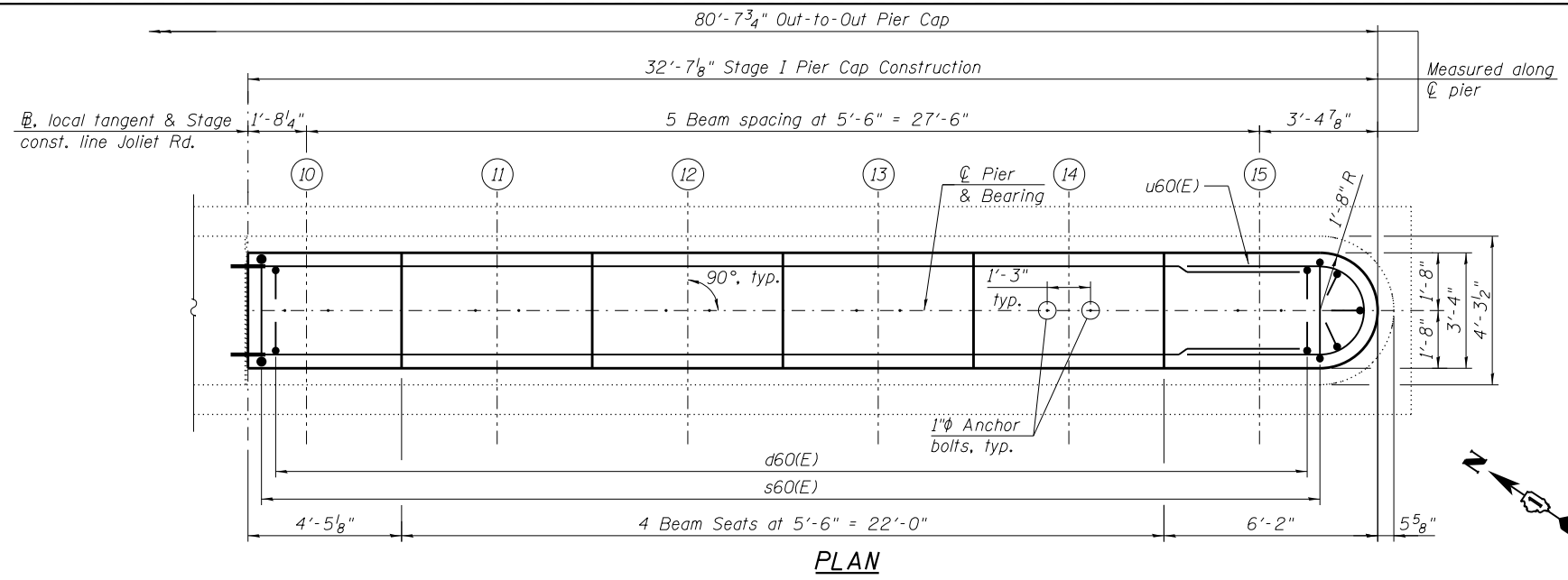
<b>HBM</b> ENGINEERING GROUP, LLC. 4415 WEST HARRISON STREET, SUITE 231 HILLSIDE, IL 60162 PHONE: (708) 236-0900 FAX: (708) 236-0901	0160393-02020-034-SEWingwall.dgn	DESIGNED - MA	REVISED -
	USER NAME = ken.drobant	DRAWN - MA	REVISED -
	PLOT SCALE = 5/8"=1' / in.	CHECKED - MI, MAI	REVISED -
	PLOT DATE = 3/3/2020	DATE - 3/3/2020	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

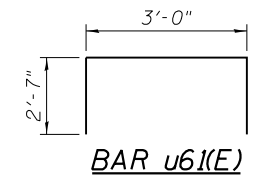
SOUTHEAST WINGWALL  
STRUCTURE NO. 016-0393

SCALE: SHEET S-34 OF 5-39 SHEETS STA. 107+49.98 TO STA.

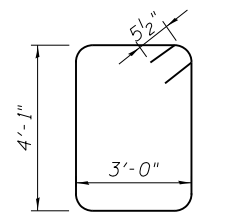
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3562	T-5-4BR(81)	COOK	92	61
CONTRACT NO. 60N80				
ILLINOIS FED. AID PROJECT				



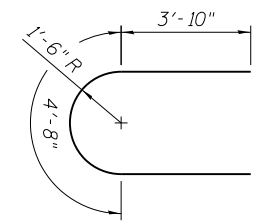
**PLAN**



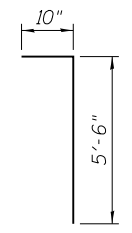
**BAR u61(E)**



**BAR s60(E)**



**BAR u60(E)**

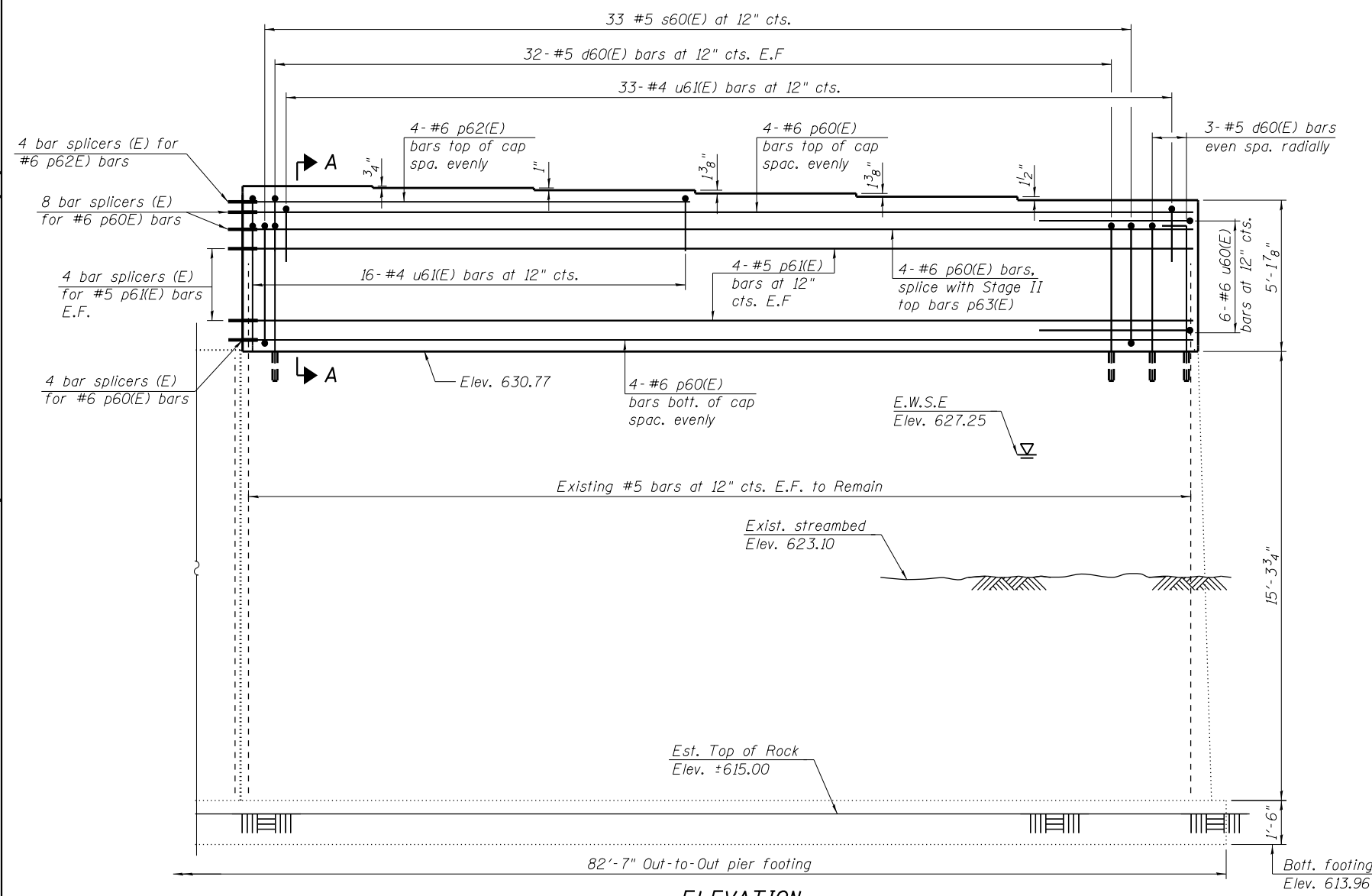


**BAR d60(E)**

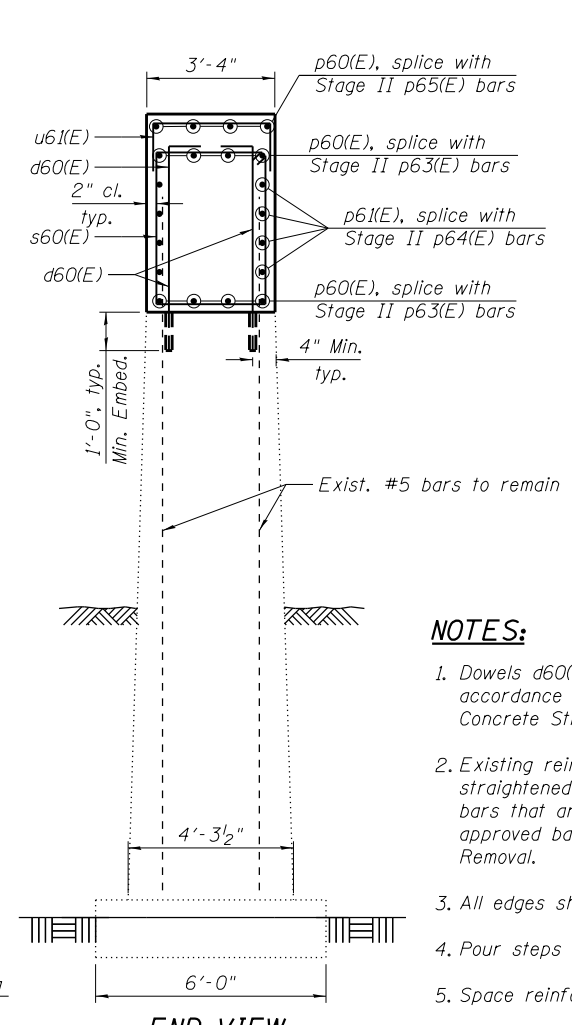
**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
d60(E)	166	#5	6'-4"	┌
p60(E)	12	#6	30'-9"	—
p61(E)	8	#5	30'-9"	—
p62(E)	4	#6	15'-2"	—
p63(E)	16	#6	25'-0"	—
p64(E)	16	#5	24'-8"	—
p65(E)	4	#6	32'-3"	—
p66(E)	4	#6	17'-4"	—
s60(E)	82	#5	15'-1"	┐
u60(E)	12	#6	12'-4"	┌
u61(E)	97	#4	8'-2"	┌
Concrete Structures			Cu. Yd.	52.9
Reinforcement Bars, Epoxy Coated			Pound	5,340
Epoxy Crack Injection			Foot	23
Structural Repair of Concrete (Depth Equal or Less Than 5 inches)			Sq. Ft.	59

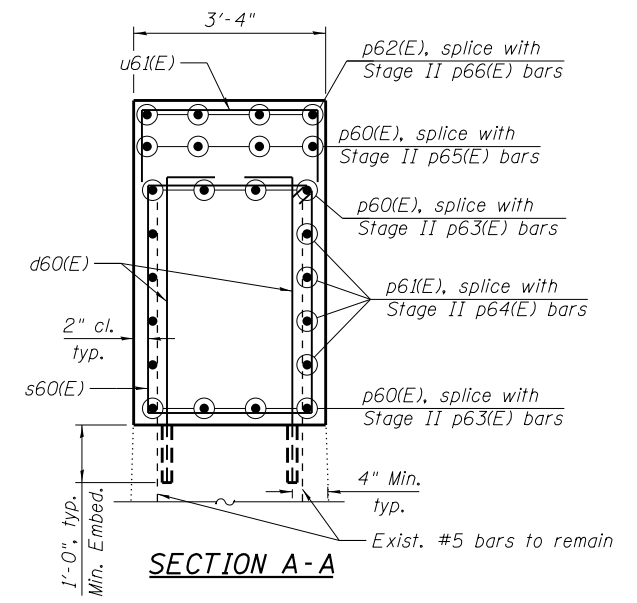
Girder No.	Seat Elevation
10	636.41
11	636.35
12	636.27
13	636.16
14	636.05
15	635.93



**ELEVATION**



**END VIEW**



**SECTION A-A**

**NOTES:**

- Dowels d60(E) shall be drilled and grouted into existing concrete in accordance to Article 584 of Standard Specifications. Cost included with Concrete Structures.
- Existing reinforcement bars extending into the removal area shall be cleaned, straightened and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cost included with Concrete Removal.
- All edges shall have 3/4" chamfer.
- Pour steps monolithically with cap.
- Space reinforcement in cap to miss anchor bolts.

FILE PATH = P:\1111-532 IDOT PFBIBI Item 8 Various\Various\Work Order\115 Joliet Rd, Over Flag Creek\CADD Sheets\Structural\0160393-035-Pier-StageI.dgn

**HBM**  
ENGINEERING GROUP, LLC.  
4415 WEST HARRISON STREET, SUITE 213  
HILLSDALE, IL 60162  
PHONE: (708) 236-0900 FAX: (708) 236-0901

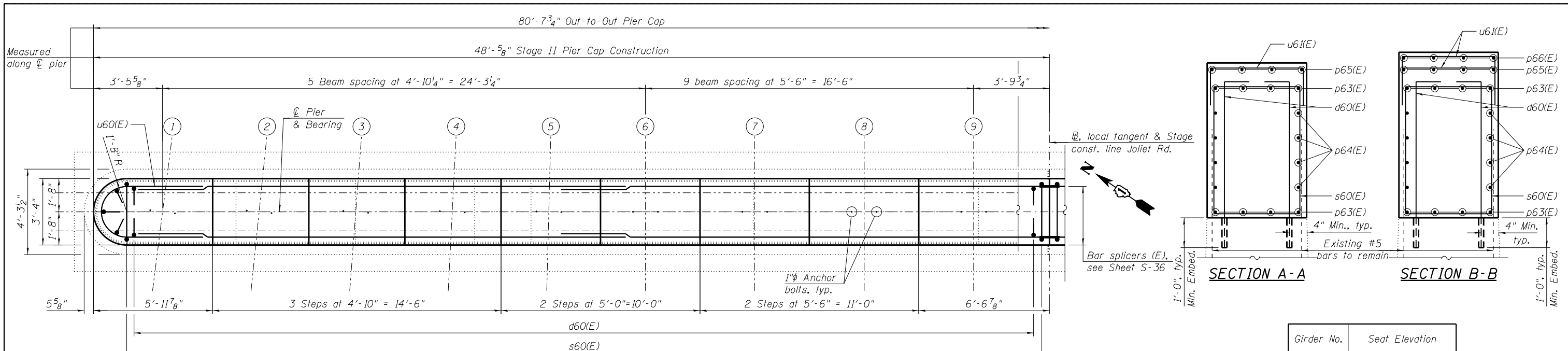
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PLOT SCALE = 5/8"=1'-0"	CHECKED - MI, MAI	REVISED -
PLOT DATE = 3/3/2020	DATE - 3/3/2020	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**PIER - STAGE I CONSTRUCTION  
STRUCTURE NO. 016-0393**

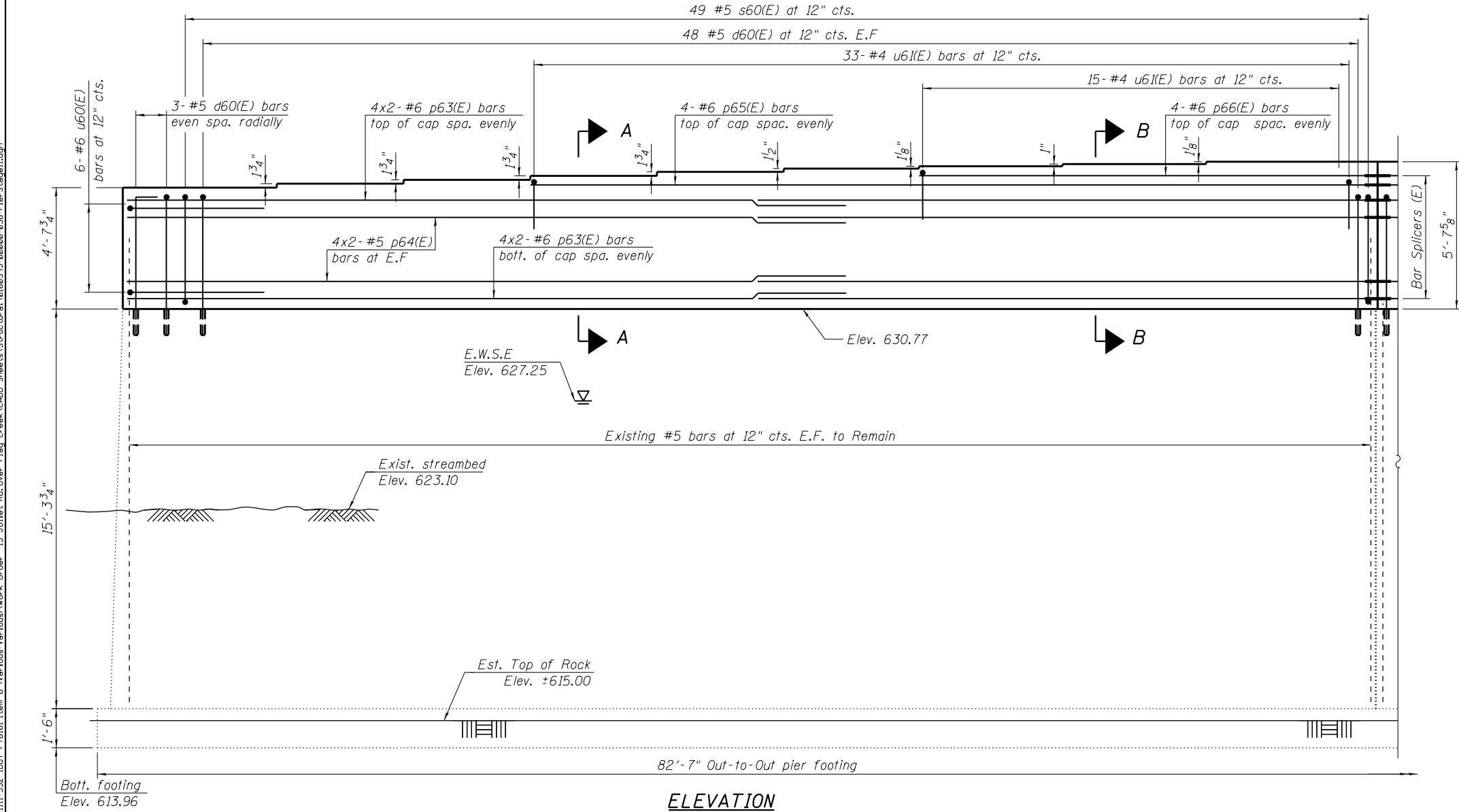
SCALE: SHEET S-35 OF S-39 SHEETS STA. 107+49.98 TO STA.

F.A.U. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3562	T-5-4BR(81)	COOK	92	62
CONTRACT NO. 60N80				
ILLINOIS FED. AID PROJECT				

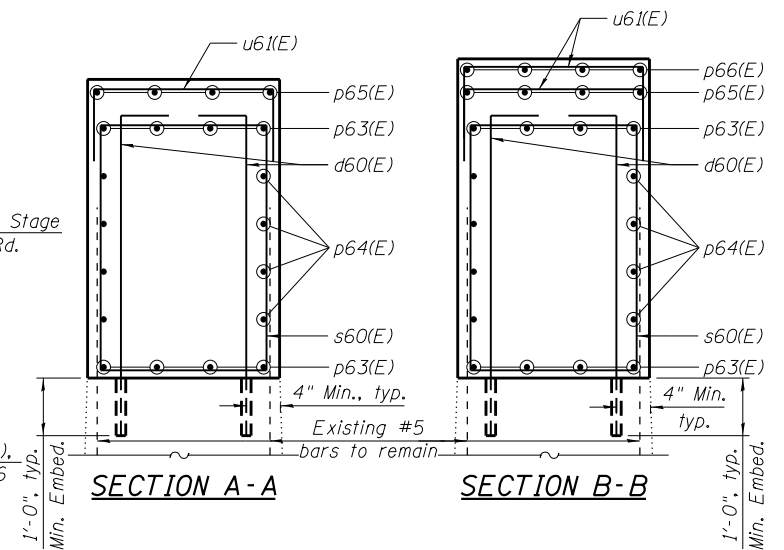


**PLAN**

49 #5 s60(E) at 12" cts.  
 48 #5 d60(E) at 12" cts. E.F.  
 33- #4 u61(E) bars at 12" cts.



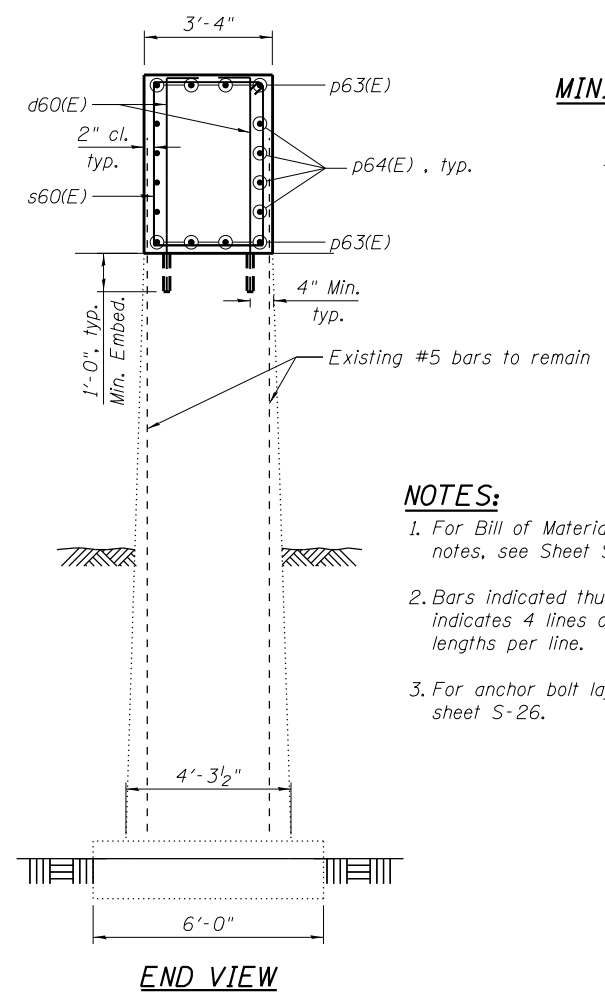
**ELEVATION**



**SECTION A-A**

**SECTION B-B**

Girder No.	Seat Elevation
1	635.42
2	635.57
3	635.72
4	635.87
5	636.02
6	636.15
7	636.24
8	636.32
9	636.41



**MINIMUM BAR LAP**

(Pier)  
 #5 bar = 3'-2"  
 #6 bar = 3'-10"

**NOTES:**

- For Bill of Material and additional notes, see Sheet S-35.
- Bars indicated thus 4x2-#5 etc. indicates 4 lines of bars with 2 lengths per line.
- For anchor bolt layout plan, see sheet S-26.

FILE PATH = P:\1111-532 IDOT PFBI Item B Various\Various\Work Order #15 Joliet Rd. Over Flag Creek\CADD Sheets\Structural\0160393-00000-036-Pier-StageII.dgn

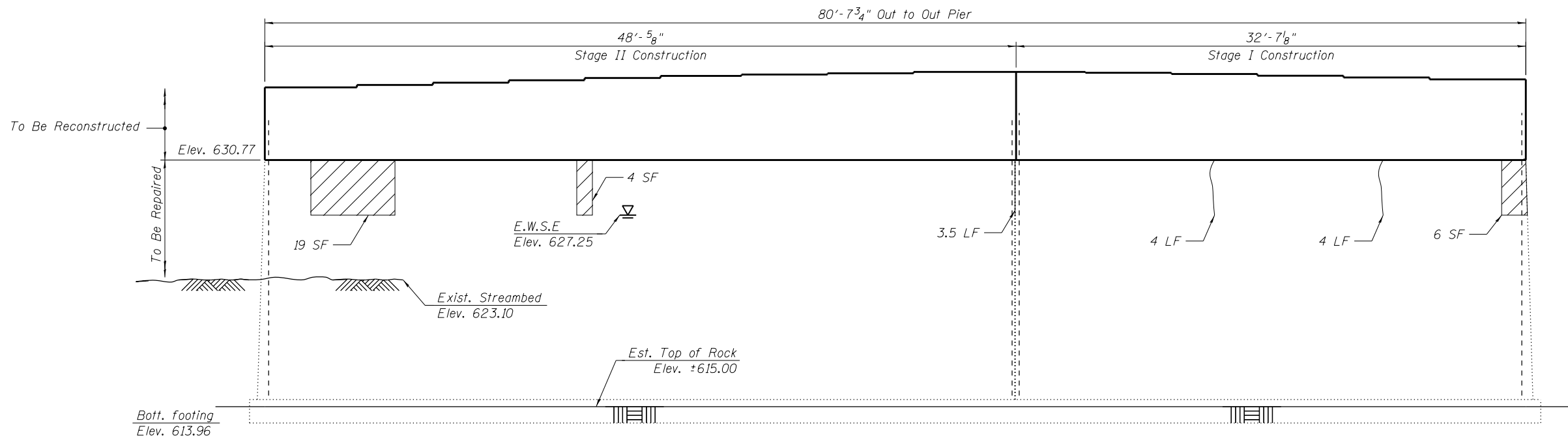
**HBM**  
 ENGINEERING GROUP, LLC.  
 4415 WEST HARRISON STREET, SUITE 231  
 HILLSIDE, IL 60162  
 PHONE: (708) 236-0900 FAX: (708) 236-0901

0160393-00000-036-Pier-StageII.dgn	DESIGNED - SK	REVISED -
USER NAME = ken.drobant	DRAWN - SK, MA	REVISED -
PLOT SCALE = 5:8.0000 '1' / in.	CHECKED - MI, MAI	REVISED -
PLOT DATE = 3/3/2020	DATE - 3/3/2020	REVISED -

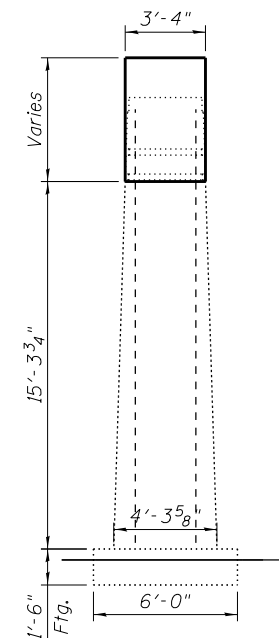
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**PIER - STAGE II CONSTRUCTION**  
**STRUCTURE NO. 016-0393**  
 SCALE: SHEET S-36 OF S-39 SHEETS STA. 107+49.98 TO STA.

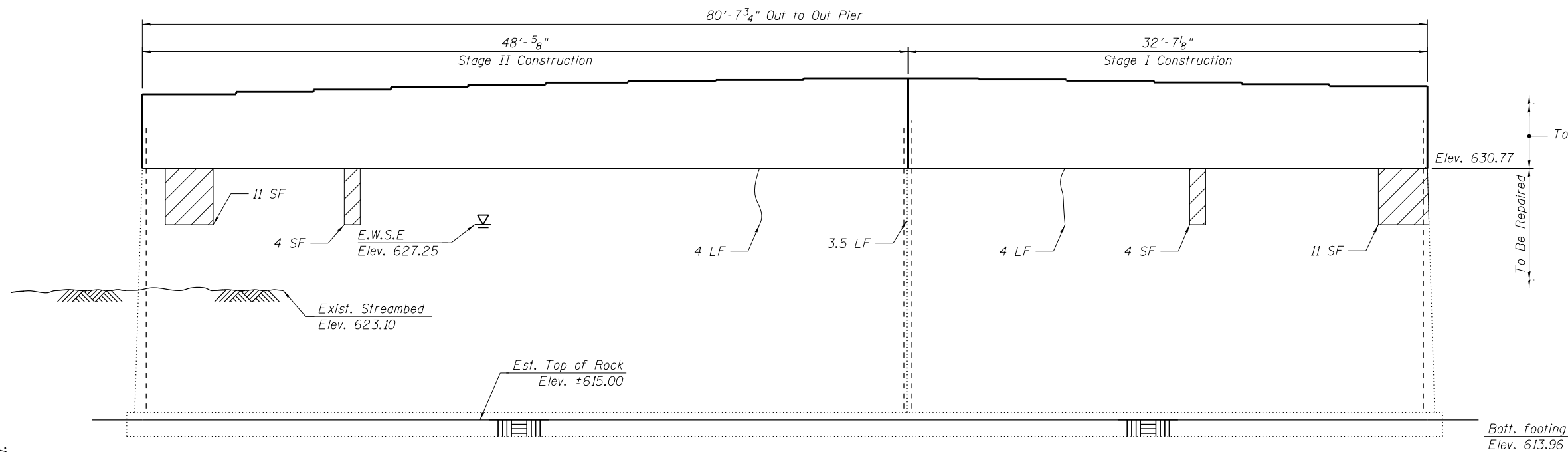
F.A.U. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3562	T-5-4BR(81)	COOK	92	63
CONTRACT NO. 60N80				
ILLINOIS FED. AID PROJECT				



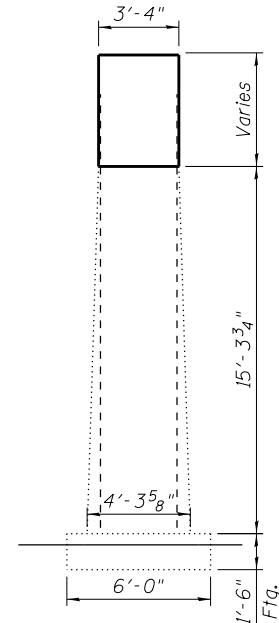
**ELEVATION - WEST**



**END VIEW - NORTH**



**ELEVATION - EAST**





**END VIEW - SOUTH**

**NOTES:**

- For additional notes, Bill of Material and details for the reconstructed portion, see Sheets S-35 & S-36.
- Quantities and limits shown are estimated for bidding purposes only. The actual areas to be repaired and the type(s) of repairs to be used will be determined by the Engineer in the field at the time of construction.
- Existing reinforcement bars extending into the removal area shall be cleaned, straightened and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cost included with Concrete Removal.

**LEGEND**

-  Epoxy Crack Injection
-  Structural Repair of Concrete (Depth Equal or Less Than 5 inches)
- SF - Square Foot
- LF - Linear Foot

FILE PATH = P:\1111-532 IDOT PFBIBI Item B Various\Various\Work Order\115 Joliet Rd, Over Flag Creek\CADD Sheets\Structural\0160393-037-PierRepairs.dgn

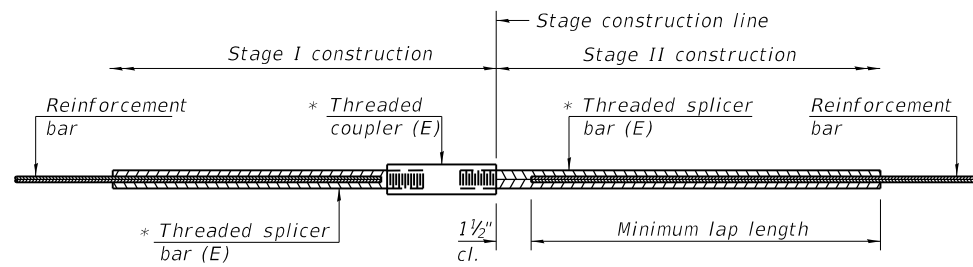
**HBM**  
ENGINEERING GROUP, LLC.  
4415 WEST HARRISON STREET, SUITE 231  
HILLSIDE, IL 60162  
PHONE: (708) 236-0900 FAX: (708) 236-0901

0160393-037-PierRepairs.dgn	DESIGNED - MA	REVISED -
USER NAME = ken.drobant	DRAWN - MA	REVISED -
PLOT SCALE = 8.00000' / in.	CHECKED - MI, MAI	REVISED -
PLOT DATE = 3/3/2020	DATE - 3/3/2020	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>PIER - REPAIRS STRUCTURE NO. 016-0393</b>	
SCALE:	SHEET S-37 OF S-39 SHEETS STA. 107+49.98 TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3562	T-5-4BR(81)	COOK	92	64
CONTRACT NO. 60N80				
ILLINOIS FED. AID PROJECT				

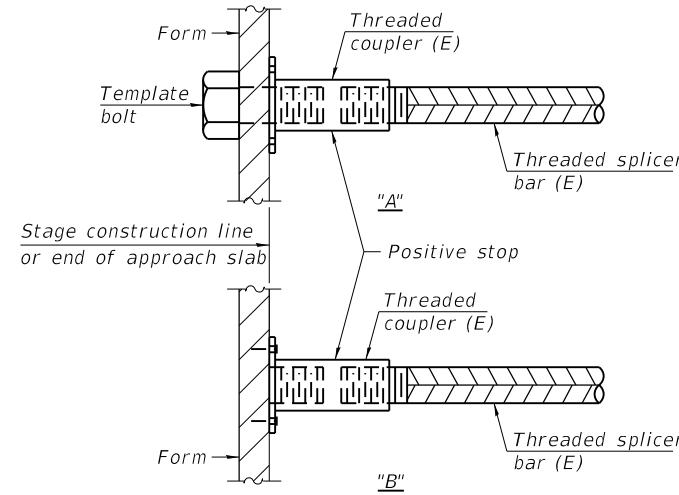


**STANDARD BAR SPLICER ASSEMBLY**

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

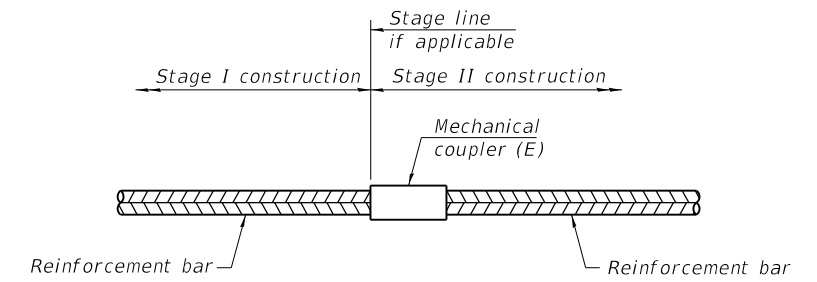
\* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Minimum lap length
Deck	#5	298	3'-6"
West Approach	#8	61	5'-11"
West Approach	#5	86	3'-6"
East Approach	#8	61	5'-11"
East Approach	#5	86	3'-6"
West Abutment	#5	4	3'-2"
West Abutment	#7	18	5'-6"
East Abutment	#5	4	3'-2"
East Abutment	#7	14	5'-6"
Pier	#5	8	3'-2"
Pier	#6	16	3'-10"



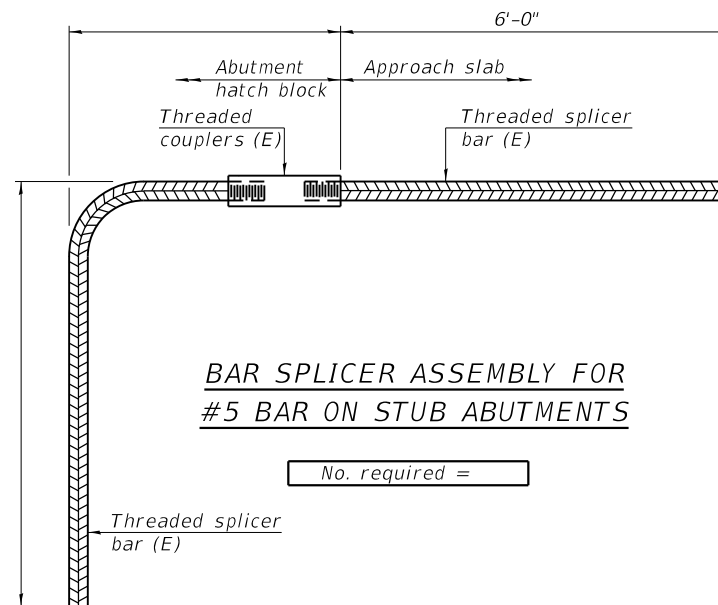
**INSTALLATION AND SETTING METHODS**

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



**STANDARD MECHANICAL SPLICER**

Location	Bar size	No. assemblies required



**BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS**

No. required =

**NOTES**

Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.  
 All reinforcement shall be lapped and tied to the splicer bars.  
 Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.  
 See approved list of bar splicer assemblies and mechanical splicers for alternatives.

FILE PATH = P:\1111-532-1001-PTBIBI-Item 8-Venous-Ventura\Work-Order-#15-Joliet-Ind.-Over-Flag-Creek\CADD-Sheets\Structural\0160393-02020-038-BarSplicer.dgn

BSD-1 2-17-2017

**HBM**  
 ENGINEERING GROUP, LLC.  
 4415 WEST HARRISON STREET, SUITE 231  
 HILLSIDE, IL 60162  
 PHONE: (708) 236-0900 FAX: (708) 236-0901

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 USER NAME = ken.drobant  
 PLOT SCALE = 0:2.0000 '1' / in.  
 PLOT DATE = 3/3/2020

DESIGNED - MAA  
 DRAWN - MAA  
 CHECKED - MI, MAI  
 DATE - 3/3/2020

REVISED -  
 REVISED -  
 REVISED -  
 REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS  
 STRUCTURE NO. 016-0393

SCALE: SHEET S-38 OF S-39 SHEETS STA. 107+49.98 TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3562	T-5-4BR(81)	COOK	92	65
CONTRACT NO. 60N80			ILLINOIS FED. AID PROJECT	



# BORING LOG SB-01

wangeng@wangeng.com  
1145 N Main Street  
Lombard, IL 60148  
Telephone: 630 953-9928  
Fax: 630 953-9938

Client: **HBM**  
Project: **Joilet Road over Flag Creek**  
Location: **Joilet Rd and I-294**

Datum: NGVD  
Elevation: 636.40 ft  
North: 1856718.71 ft  
East: 1102121.07 ft  
Station: 108+09.44  
Offset: 36.1984 Lt

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Cu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Cu (tsf)	Moisture Content (%)
636.23	23-inch thick, ASPHALT --PAVEMENT--														
635.3	10-inch thick, CONCRETE --PAVEMENT--														
	Loose, light brown SANDY GRAVEL --FILL--	1	X	3	4	5	NP	7							
		2	X	4	3	4	NP	6							
630.9	Medium dense to dense, black and brown GRAVELLY SANDY LOAM, trace silt seams	3	X	4	9	9	NP	11							
		4	X	8	16	19	NP	10							
625.9	Very stiff, gray SILTY CLAY, trace gravel	5	X	6	6	7	3.69 B	17							
	Loose to medium dense, gray SILTY LOAM, some fine sand, silt and clay laminations	6	X	3	3	6	0.90 B	23							
620.9	Stiff to very stiff, gray SILTY CLAY, trace to some gravel	7	X	3	7	9	2.54 B	16							
		8	X	11	8	17	1.64 B	15							
615.9	Dense to very dense, gray GRAVELLY SAND, trace dolostone fragments	9	X	22	10	20	NP	12							
	--AUGER REFUSAL--	10	X	4	50/5		NP	13							
612.0	Boring terminated at 23.50 ft	25													

### GENERAL NOTES

Begin Drilling **05-03-2013** Complete Drilling **05-03-2013**  
 Drilling Contractor **K&S** Drill Rig **CME TMR**  
 Driller **C&R** Logger **D. Wind** Checked by **CLM**  
 Drilling Method **3.25-inch IDA HSA, auto hammer, boring backfilled**  
**with lean grout upon completion**

### WATER LEVEL DATA

While Drilling  $\nabla$  **13.50 ft**  
 At Completion of Drilling  $\nabla$  **7.00 ft**  
 Time After Drilling **NA**  
 Depth to Water  $\nabla$  **NA**  
 The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.



# BORING LOG SB-02

wangeng@wangeng.com  
1145 N Main Street  
Lombard, IL 60148  
Telephone: 630 953-9928  
Fax: 630 953-9938

Client: **HBM**  
Project: **Joilet Road over Flag Creek**  
Location: **Joilet Rd and I-294**

Datum: NGVD  
Elevation: 638.25 ft  
North: 1856609.74 ft  
East: 1102055.07 ft  
Station: 106+90.75  
Offset: 28.5386 Rt

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Cu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Cu (tsf)	Moisture Content (%)
638.03	03-inch thick, ASPHALT --PAVEMENT--														
637.2	10-inch thick, CONCRETE --PAVEMENT--														
636.8	5-inch thick CRUSHED STONE --BASE COURSE--	1	X	2	2	5	2.25 P	17							
635.3	Very stiff, black SILTY CLAY, little gravel --FILL--	2	X	3	4	5	NP	16							
632.8	Loose, black and brown GRAVELLY SANDY LOAM	3	X	1	2	3	0.16 B	28							
630.3	Very soft, black SILTY CLAY LOAM, some gravel	4	X	6	7	9	NP	20							
	Medium dense, gray GRAVELLY SANDY LOAM, trace clay laminations	5	X	3	6	21	1.31 B	19							
626.8	Stiff to stiff, gray SILTY CLAY, trace gravel	6	X	7	15	16	NP	13							
625.3	Medium dense to very dense, brown and gray GRAVELLY SANDY LOAM to GRAVELLY SAND	7	X	2	7	5	NP	16							
		8	X	3	15	9	NP	17							
		9	X	50/4			NP	24							
	--AUGER REFUSAL--	10	X												
615.3	Boring terminated at 23.00 ft	25													

### GENERAL NOTES

Begin Drilling **05-03-2013** Complete Drilling **05-03-2013**  
 Drilling Contractor **K&S** Drill Rig **CME TMR**  
 Driller **C&R** Logger **D. Wind** Checked by **CLM**  
 Drilling Method **3.25-inch IDA HSA, auto hammer, boring backfilled**  
**with lean grout upon completion**

### WATER LEVEL DATA

While Drilling  $\nabla$  **16.00 ft**  
 At Completion of Drilling  $\nabla$  **10.00 ft**  
 Time After Drilling **NA**  
 Depth to Water  $\nabla$  **NA**  
 The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

FILE PATH = P:\1111-532-IDD1-PTBIBI-Item 8 (Various)Various\Work Order-#15 Joilet Rd, Over Flag Creek\CADD Sheets\Structural\0160203-020205-039-Boring.dgn



DESIGNED - MA  
DRAWN - MA  
CHECKED - MI, MAI  
DATE - 3/3/2020

REVISOR -  
REVISION -  
REVISOR -  
REVISION -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS  
STRUCTURE NO. 016-0393

SCALE: SHEET S-39 OF S-39 SHEETS STA. 107+49.98 TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3562	T-5-4BR(81)	COOK	92	66
CONTRACT NO. 60N80				
ILLINOIS FED. AID PROJECT				



# EARTHWORK SCHEDULE

STAGE 1					STAGE 2			
LOCATION	EARTH EXCAVATION (CU. YD.)	EARTH EXCAVATION ADJUSTED FOR SHRINKAGE (15%)	EMBANKMENT (CU. YD.)	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-)	EARTH EXCAVATION (CU. YD.)	EARTH EXCAVATION ADJUSTED FOR SHRINKAGE (15%)	EMBANKMENT (CU. YD.)	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-)
<b>JOLIET ROAD</b>								
STA. 104+00 TO 104+25	22.59	19.20	1.21	17.99	16.65	14.15	0.00	14.15
STA. 104+25 TO 104+50	44.38	37.72	2.50	35.23	37.47	31.85	9.51	22.33
STA. 104+50 TO 105+00	72.00	61.20	15.14	46.06	71.29	60.59	19.89	40.71
STA. 105+00 TO 105+50	40.86	34.73	19.14	15.59	44.73	38.02	2.11	35.91
STA. 105+50 TO 106+00	12.56	10.68	21.58	-10.90	15.08	12.82	14.98	-2.16
STA. 106+00 TO 106+50	0.00	0.00	44.00	-44.00	0.00	0.00	39.21	-39.21
STA. 106+50 TO 106+70	0.03	0.03	30.47	-30.45	0.00	0.00	21.81	-21.81
STA. 106+70 TO 106+82.64	0.02	0.02	11.32	-11.30	0.00	0.00	7.34	-7.34
STA. 106+82.64 TO 108+29.8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
STA. 108+29.8 TO 108+50	1.12	0.96	5.58	-4.62	0.11	0.09	7.81	-7.72
STA. 108+50 TO 108+91	1.82	1.55	19.01	-17.47	0.48	0.41	20.63	-20.22
STA. 108+91 TO 109+00	5.91	5.03	21.53	-16.50	5.25	4.46	19.42	-14.96
STA. 109+00 TO 109+50	1.54	1.31	2.22	-0.91	1.79	1.52	2.30	-0.78
STA. 109+50 TO 110+00	22.96	19.52	14.97	4.55	76.31	64.86	9.01	55.85
STA. 110+00 TO 110+25	48.87	41.54	7.46	34.08	102.28	86.94	0.49	86.45
STA. 110+25 TO 110+50	28.54	24.26	2.79	21.47	29.91	25.42	0.29	25.13
<b>RAMP D</b>								
STA. 64+13 TO 64+50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
STA. 64+50 TO 65+00	0.00	0.00	0.00	0.00	17.05	14.50	4.97	9.52
STA. 65+00 TO 65+50	0.00	0.00	0.00	0.00	12.64	10.74	20.34	-9.60
STA. 65+50 TO 66+00	0.00	0.00	0.00	0.00	3.89	3.31	57.42	-54.11
STA. 66+00 TO 66+50	0.00	0.00	0.00	0.00	2.81	2.39	123.47	-121.08
STA. 66+50 TO 67+00	0.00	0.00	0.00	0.00	8.13	6.91	162.10	-155.19
STA. 67+00 TO 67+25	0.00	0.00	0.00	0.00	12.17	10.34	160.34	-150.00
STA. 67+25 TO 67+50	0.00	0.00	0.00	0.00	17.81	15.14	113.75	-98.61
STA. 67+50 TO 68+00	0.00	0.00	0.00	0.00	24.16	20.54	127.30	-106.76
STA. 68+00 TO 68+50	0.00	0.00	0.00	0.00	50.27	42.73	215.26	-172.53
STA. 68+50 TO 68+55.68	0.00	0.00	0.00	0.00	68.09	57.88	234.92	-177.04
STA. 68+55.68 TO 68+71.38	0.00	0.00	0.00	0.00	4.68	3.98	17.61	-13.63
<b>TOTAL (JOLIET RD + RAMP D)</b>	<b>303.21</b>	<b>257.73</b>	<b>218.92</b>	<b>38.81</b>	<b>618.36</b>	<b>525.61</b>	<b>1394.68</b>	<b>-869.07</b>

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 PLOT SCALE = 2.0000' / 1" =  
 USER NAME = Millennium Professional Services



2600 Warrenville Road, Suite 203, Downers Grove, IL 60515  
 630.705.0110 voice, 630.839.2566 fax  
 www.millennia.pro  
**MILLENNIA PROFESSIONAL SERVICES**

DESIGNED - MG	REVISED -
DRAWN - MG/TVN	REVISED -
CHECKED - TVN	REVISED -
DATE - 3/17/2020	REVISED -

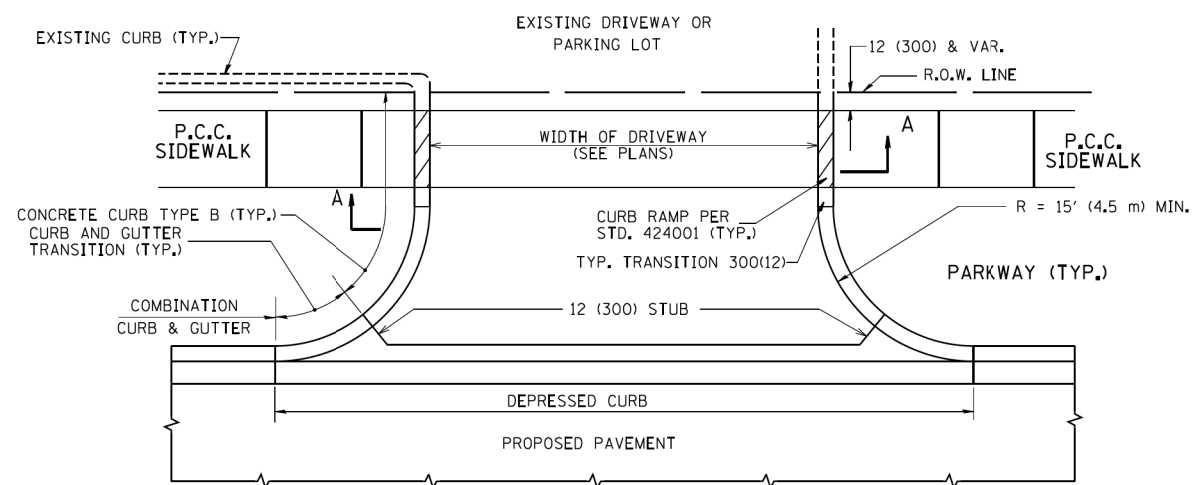
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**JOLIET ROAD OVER FLAG CREEK**  
**EARTHWORK SCHEDULE**

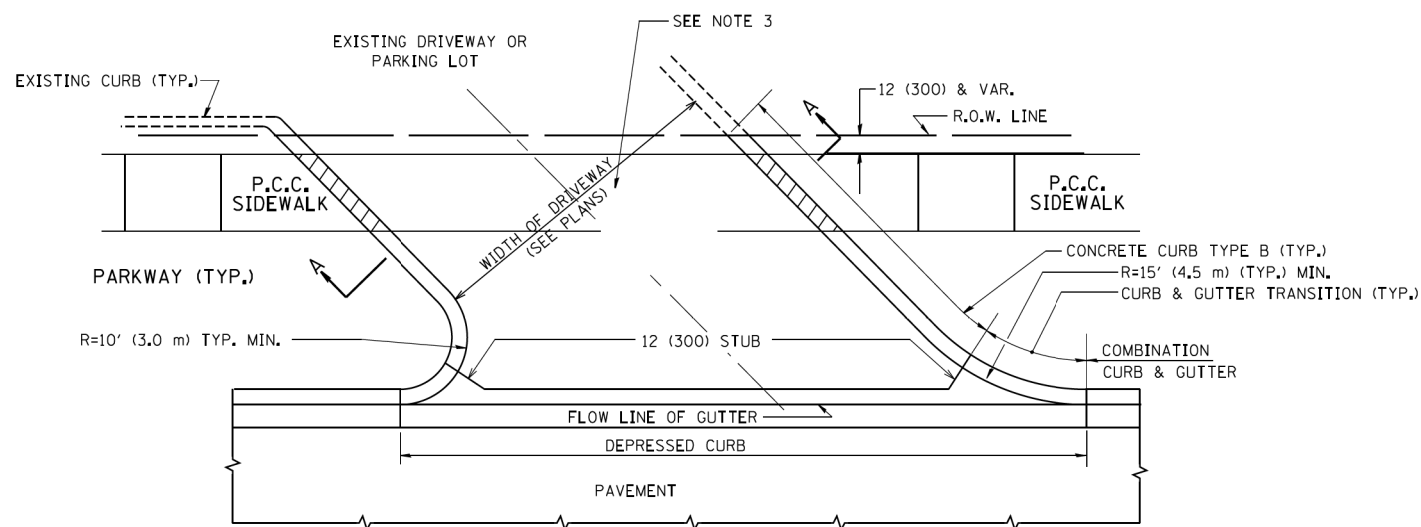
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F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3562	T-5-4B-R	COOK	92	67
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO. 60N80	

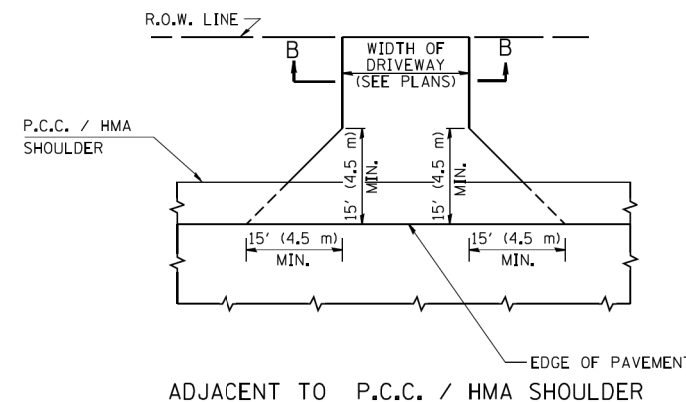
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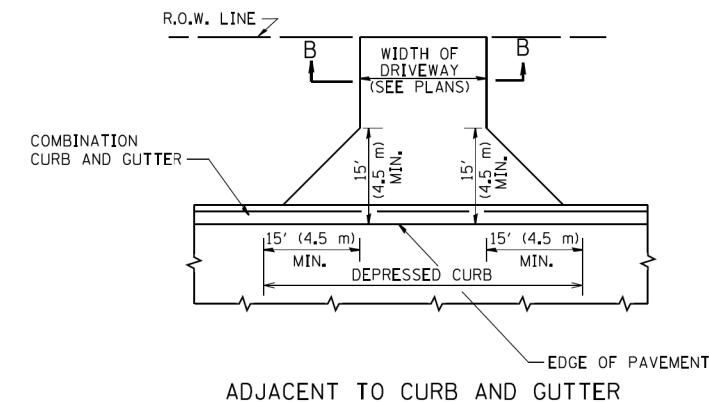
WITH CONCRETE CURB, TYPE B



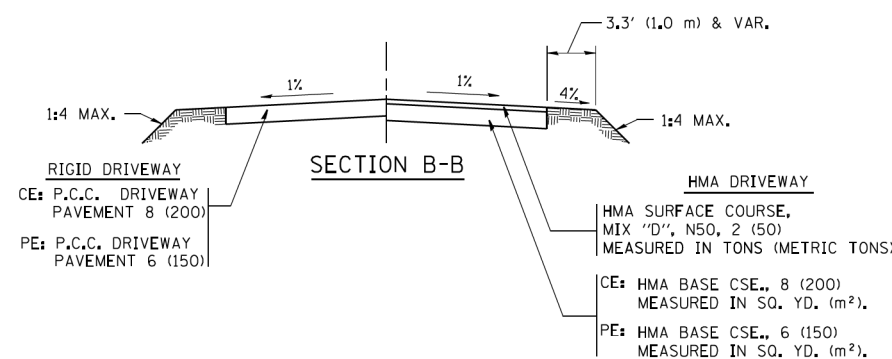
WITH CONCRETE CURB, TYPE B



ADJACENT TO P.C.C. / HMA SHOULDER



ADJACENT TO CURB AND GUTTER



RURAL FIELD ENTRANCE (FE)

HMA SURFACE COURSE, MIX 'D', N50, 2 (50) MEASURED IN TONS (METRIC TONS)

AGGREGATE BASE CSE., TYPE B, 8 (200) MEASURED IN SQ. YD. (m²)

**GENERAL NOTES:**

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

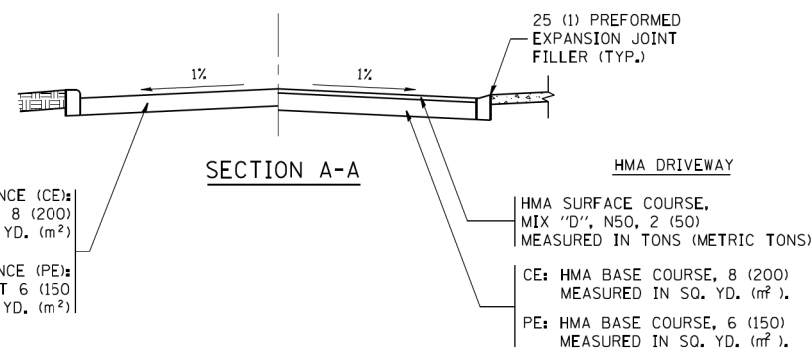
COMMERCIAL DRIVEWAYS SHALL BE CONSTRUCTED WITH CONCRETE CURB, TYPE B RETURNS EXCEPT WHEN THE SIDEWALK EDGE IS 4 FEET (1.2 METERS) OR LESS FROM THE BACK OF CURB, CONSTRUCT A FLARE DRIVEWAY WITHOUT CURB.

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

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

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

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



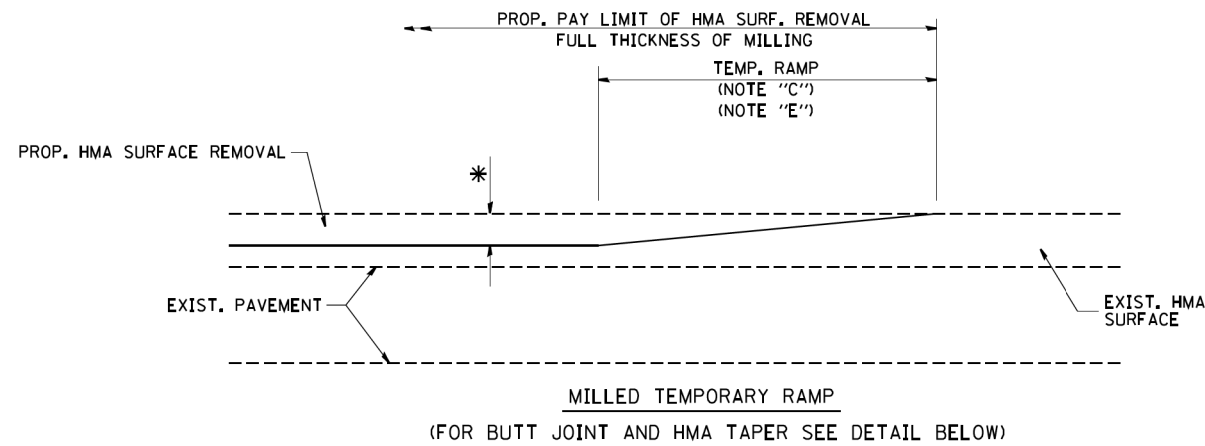
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		CHECKED -	REVISED - R. BORO 06-11-08
		DATE - 11-04-95	REVISED - R. BORO 09-06-11

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

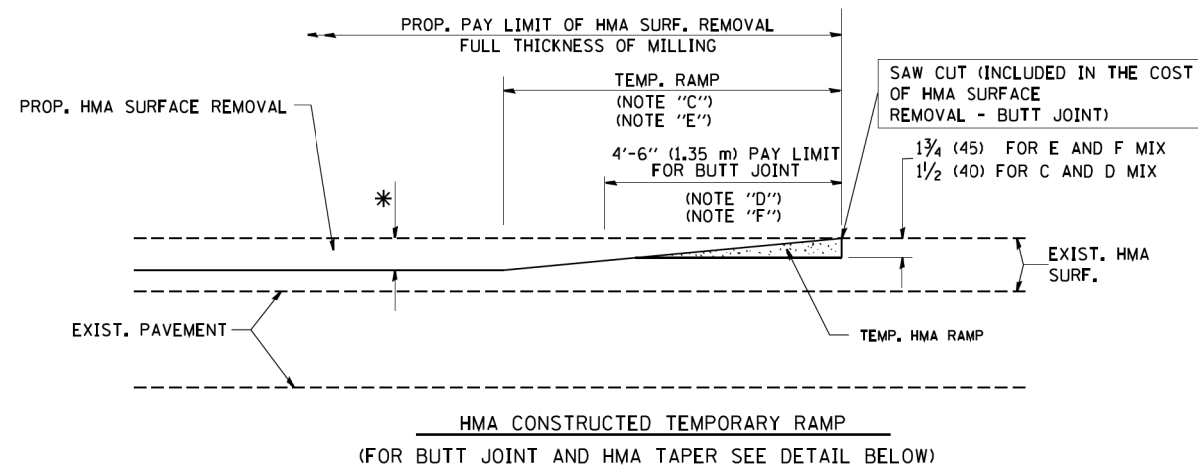
**DRIVEWAY DETAILS - DISTANCE BETWEEN R.O.W.  
AND FACE OF CURB & EDGE OF SHOULDER >= 15' (4.5 m)**

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

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3562	T-5-4B-R	COOK	92	68
BD0156-07 (BD-01)			CONTRACT NO. 60N80	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

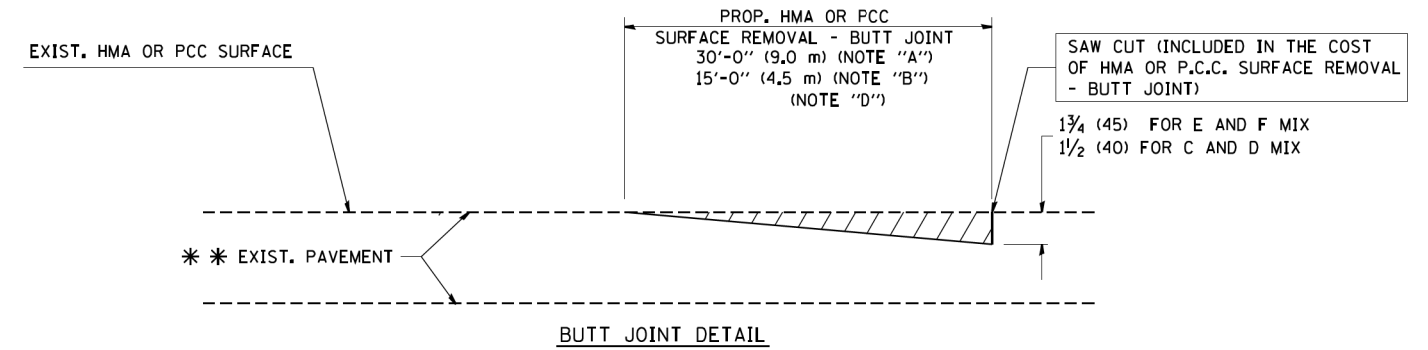


**OPTION 1**

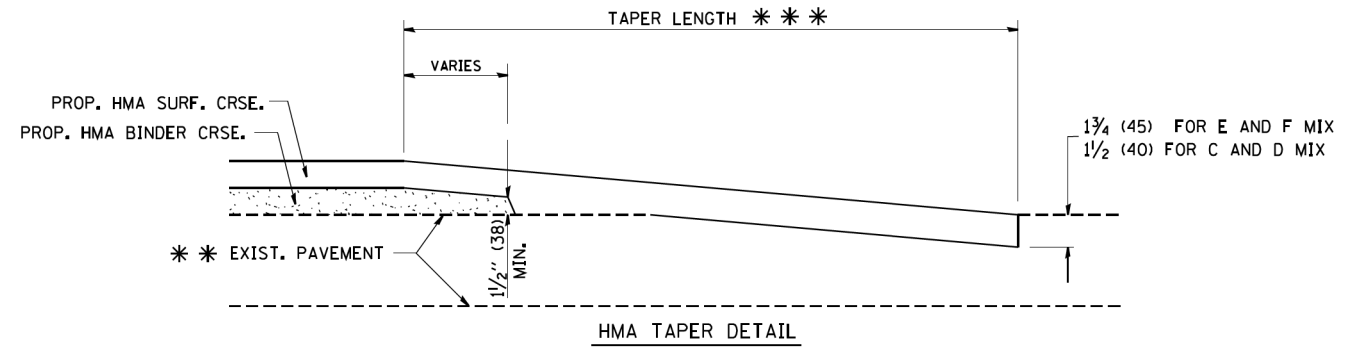


**OPTION 2**

**TYPICAL TEMPORARY RAMP**



**BUTT JOINT DETAIL**



**HMA TAPER DETAIL**

**TYPICAL BUTT JOINT AND HMA TAPER FOR RESURFACING ONLY**

\*\*\* PC CONCRETE, HMA OR HMA RESURFACED PAVEMENT.

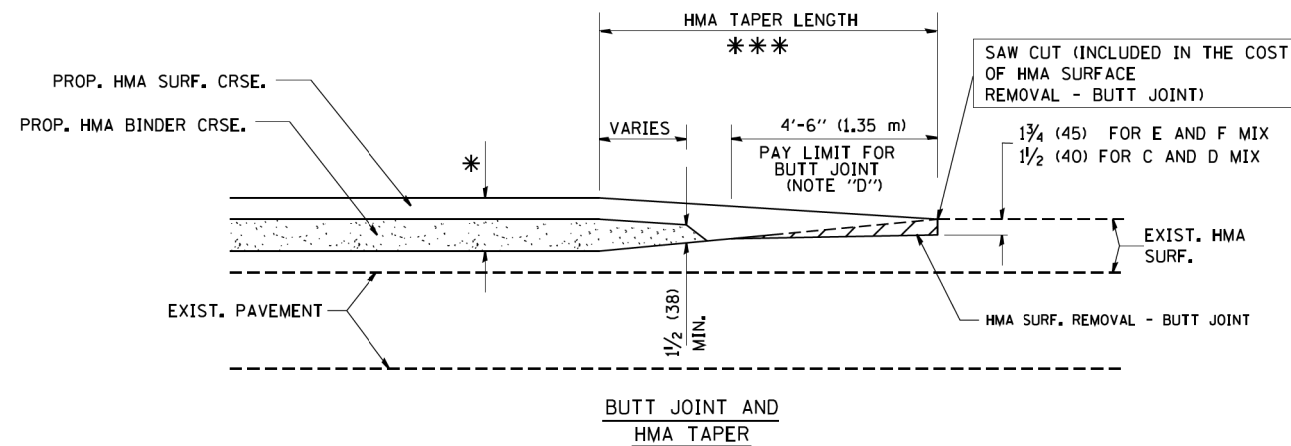
**NOTES**

- A: MAINLINE ROADWAYS AND MAJOR SIDE ROADS.
  - B: MINOR SIDE ROADS.
  - C: THE TEMP. RAMP SHALL BE CONSTRUCTED IMMEDIATELY UPON REMOVAL OF THE EXISTING HMA SURFACE.
  - D: THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED HMA COURSES.
  - E: TAPER THE TEMP. RAMP AT A RATE OF 3'-0" (900 mm) PER 1 INCH (25 mm) OF MILLING THICKNESS.
  - F: INSTALLATION AND REMOVAL OF THE 4'-6" (1.35 m) TEMP. RAMP IS INCLUDED IN COST OF HMA SURFACE REMOVAL - BUTT JOINT
  - G: SEE ARTICLE 406.08 AND 406.14 OF THE STANDARD SPECIFICATIONS FOR "HMA AND/OR PCC SURFACE REMOVAL, BUTT JOINT".
- \* SEE TYPICAL SECTIONS FOR MILLING THICKNESS.
- \*\*\* 20'-0" (6.1 m) PER 1 (25) RESURFACING (NOTE "A")  
10'-0" (3.0 m) PER 1 (25) RESURFACING (NOTE "B")

**BASIS OF PAYMENT:**

THE BUTT JOINT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD (SQUARE METER) FOR "HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT" OR FOR "PORTLAND CEMENT CONCRETE SURFACE REMOVAL - BUTT JOINT".

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



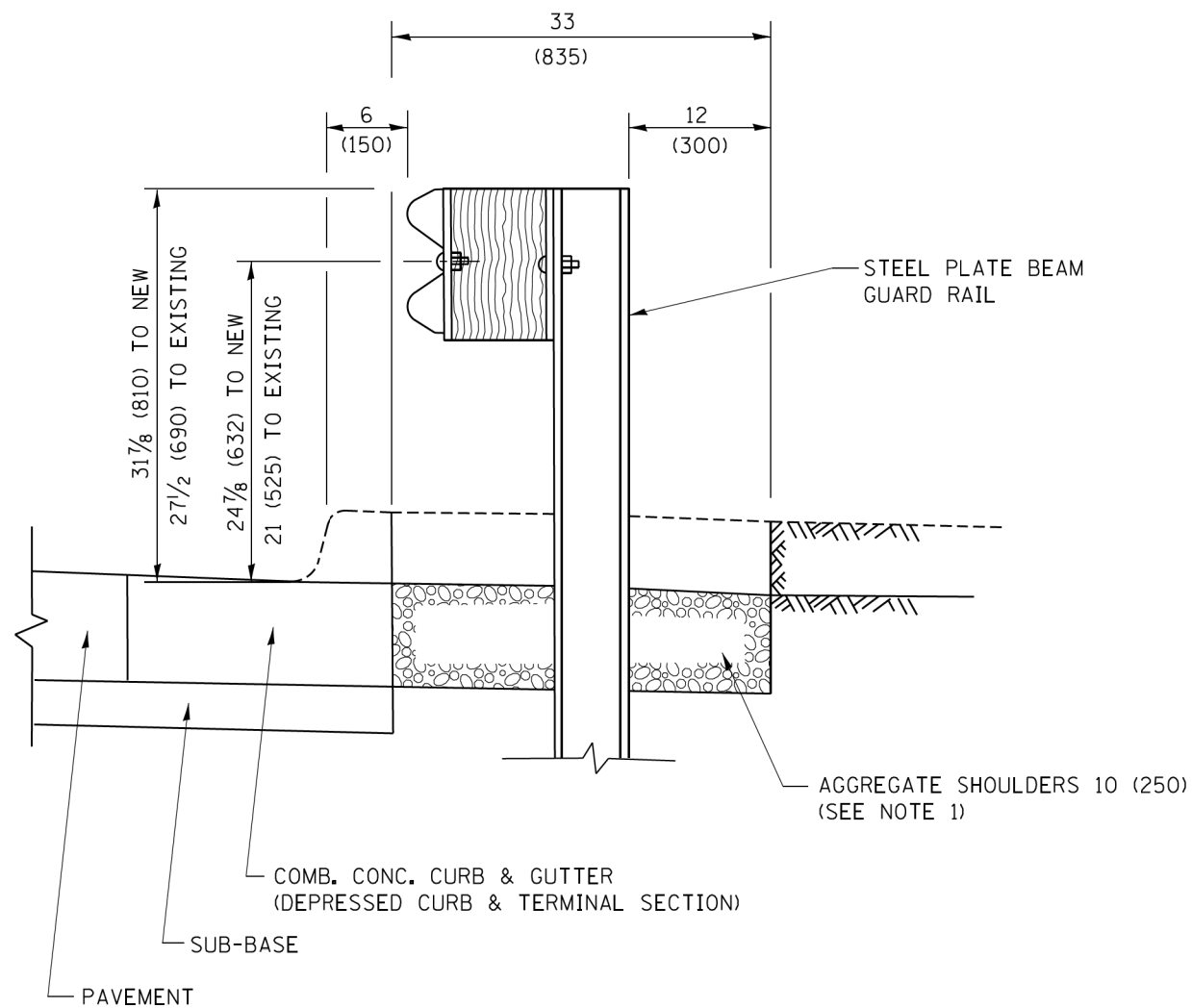
**TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING**

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		DRAWN -	REVISED - A. ABBAS 03-21-97
	PLOT SCALE = 50.0000' / IN.	CHECKED -	REVISED - M. GOMEZ 04-06-01
	PLOT DATE = 1/4/2008	DATE - 06-13-90	REVISED - R. BORO 01-01-07

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>BUTT JOINT AND HMA TAPER DETAILS</b>	
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS
STA.	TO STA.

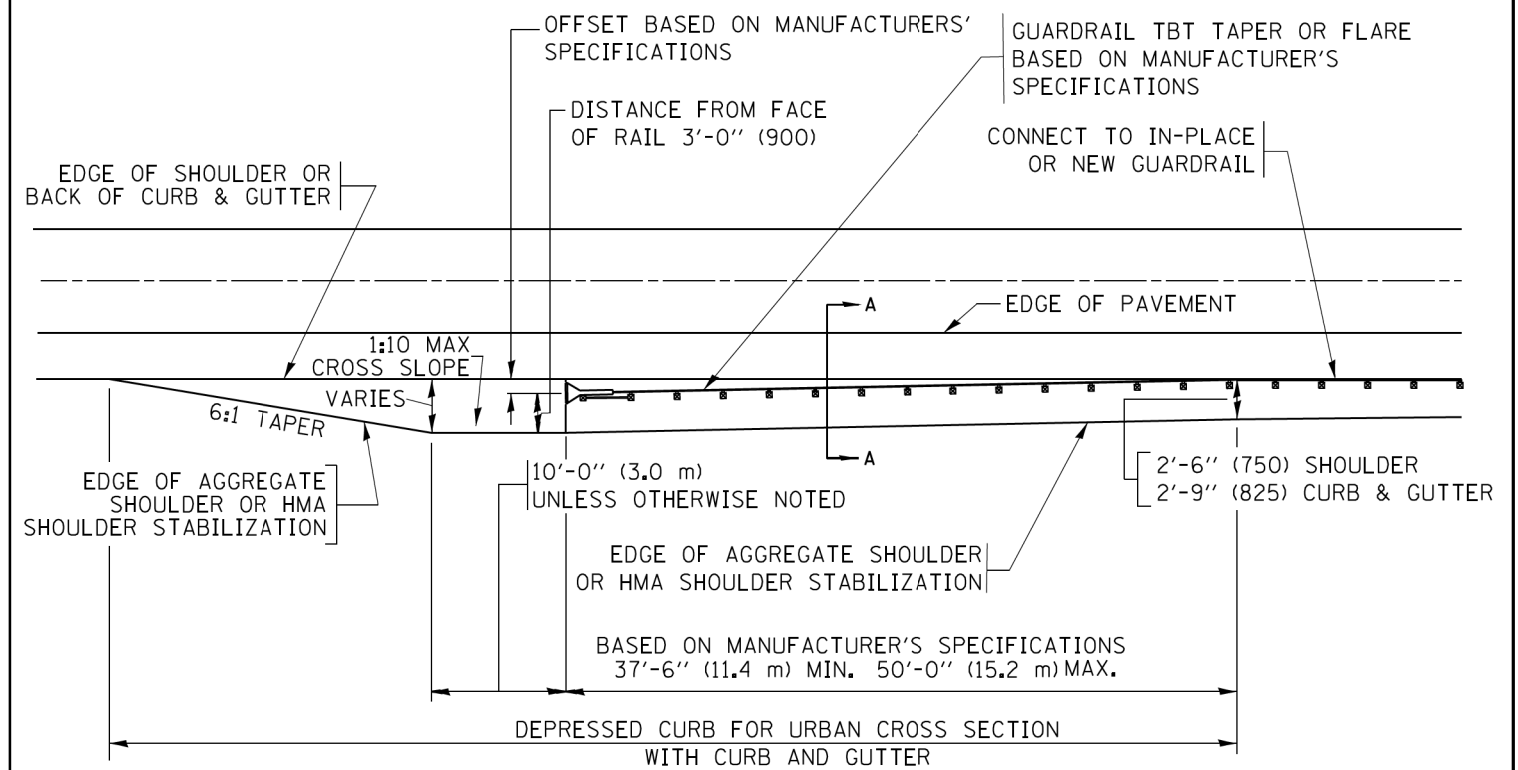
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3562	T-5-4B-R	COOK	92	69
<b>BD400-05 BD32</b>		CONTRACT NO. 60N80		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



SECTION A-A

- NOTES:
1. THE AGGREGATE SHOULDER, 10 (250) OR HMA SHOULDER, 6 (150) (IF REQUIRED) SHALL EXTEND UNDER THE TRAFFIC BARRIER TERMINAL.
  2. "EXISTING" GUARDRAIL REFERS TO CONNECTING TERMINAL SECTION TO GUARD RAILING PRIOR TO THE MIDWEST GUARDRAIL SYSTEM.
  3. THE CONTRACTOR SHALL VERIFY THE TYPE/HEIGHT OF GUARDRAIL IN-PLACE BEFORE ORDERING THE NEW TERMINAL SECTION. COST INCLUDED WITH THE COST OF THE TERMINAL. THE TERMINAL SECTION HEIGHT TO BE PLACED MUST MATCH THE HEIGHT OF THE IN-PLACE GUARDRAIL.

**DETAILS FOR STEEL PLATE BEAM  
GUARD RAIL ADJACENT TO CURB AND GUTTER  
[FOR ROADWAY SPEED 35 MPH (60 kmh) TO 45 MPH (70 kmh)]**



**DEPRESSED CURB AND GUTTER AND  
SHOULDER TREATMENT AT TBT TY. 1 SPL.**

AGGREGATE SHOULDER, 10 (250) WILL BE PAID ACCORDING TO SECTION 481.

HMA SHOULDERS 6 (150) (IF REQUIRED) WILL BE PAID ACCORDING TO SECTION 482.

COMB. CONC. C&G, STEEL PLATE BEAM GUARD RAIL AND TRAFFIC BARRIER TERMINAL, OF THE TYPE SPECIFIED WILL BE PAID FOR SEPARATELY.

TBT = TRAFFIC BARRIER TERMINAL  
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS)  
UNLESS OTHERWISE SHOWN.

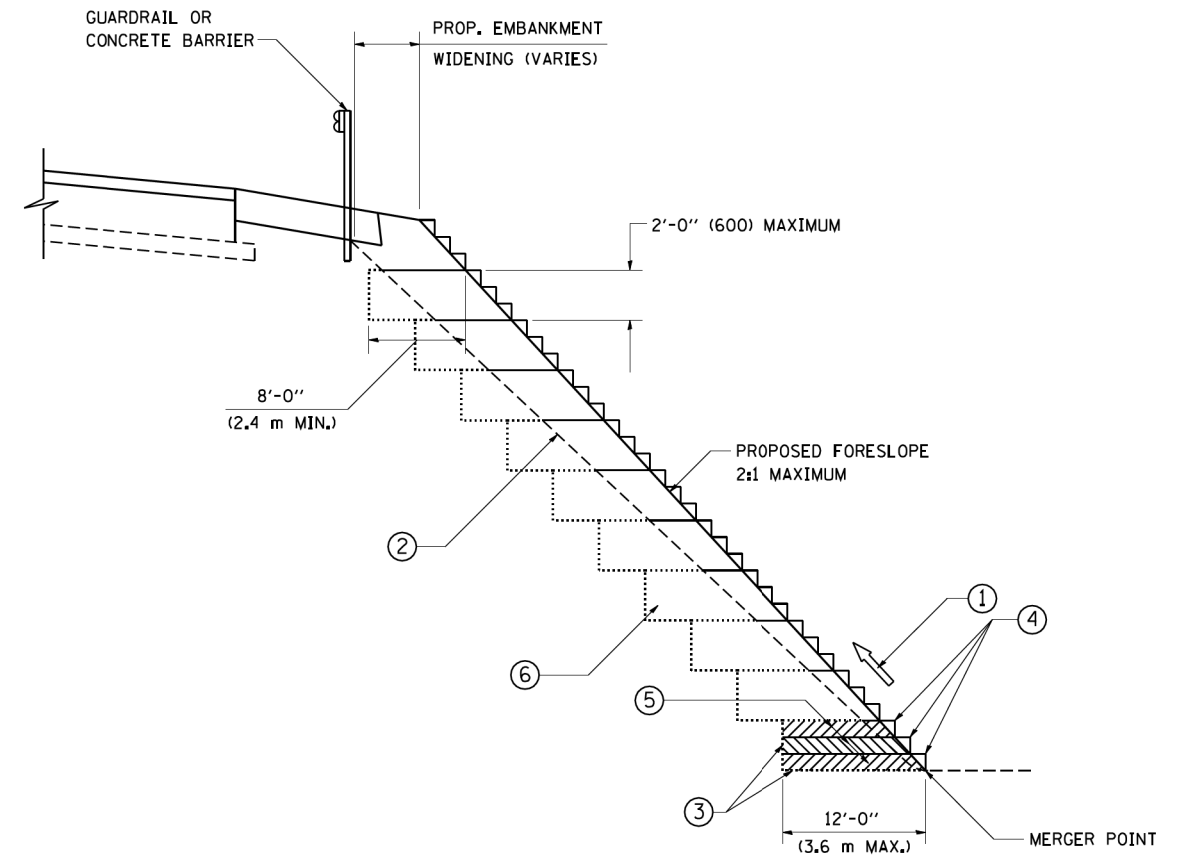
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Default	PLOT DATE = 12/21/2015	DATE - 09-22-90	REVISED - R. BORO 05-08-2015

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**DETAILS FOR DEPRESSED CURB & GUTTER AND  
SHOULDER TREATMENT AT TBT TY. 1 SPL.**

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

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3562	T-5-4B-R	COOK	92	70
BD600-10 (BD 34)		CONTRACT NO. 60N80		
ILLINOIS FED. AID PROJECT				



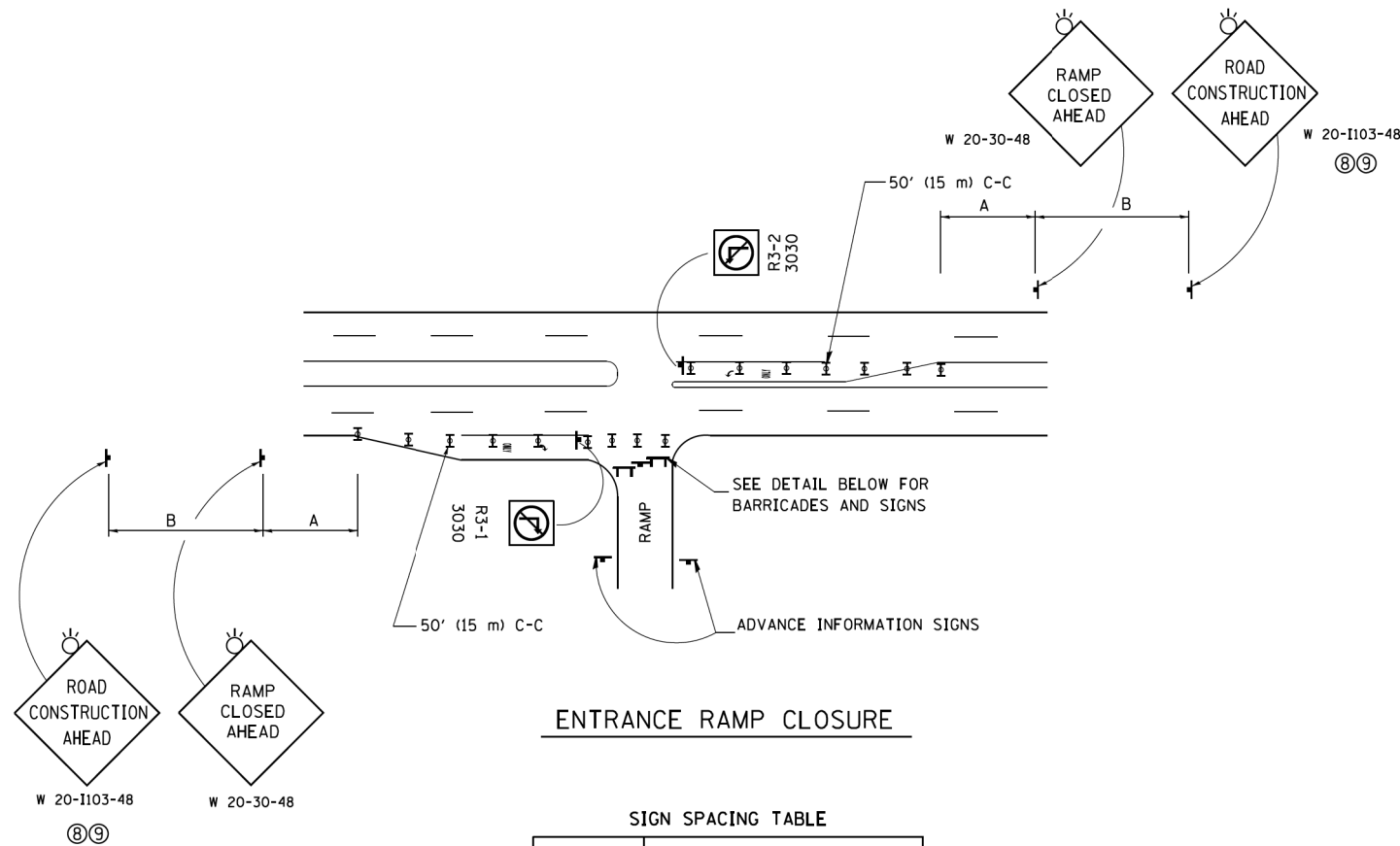
**TYPICAL BENCHING DETAIL  
FOR EMBANKMENT**

**NOTES:**

- ① CONSTRUCT SUCCEEDING BENCH CUTS AND EMBANKMENT PLACEMENT AND COMPACTION FROM BOTTOM TO TOP IN STAIRSTEP FASHION.
- ② EXISTING FORESLOPE PREPARED IN ACCORDANCE WITH ARTICLE 205.03 OF THE STANDARD SPECIFICATIONS.
- ③ BENCH CUT EXISTING SLOPE TYPICAL FOR EACH STEP.
- ④ TRIM TO FINAL SLOPE.
- ⑤ EQUAL 8-INCH (200) LIFTS OF EMBANKMENT COMPACTED IN ACCORDANCE WITH ARTICLE 205.05 OF THE STANDARD SPECIFICATIONS.
- ⑥ EXCAVATION OF BENCH CUTS WITHIN EXISTING EMBANKMENT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER CUBIC METER OR CUBIC YARD FOR "EARTH EXCAVATION". THIS PRICE WILL INCLUDE ALL LABOR AND MATERIAL, NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
- ⑦ SLOPES SHALL BE BENCHED ACCORDING TO THIS DETAIL WHEN THE SLOPE IS STEEPER THAN 4:1 AND THE HEIGHT IS GREATER THAN 5' (1.5 m).

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

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	PLOT SCALE = 50.0000' / IN.	CHECKED - S.E.B.	REVISED -		SCALE: NONE	SHEET NO. 1	OF 1	SHEETS	STA.	TO STA.	3562	T-5-4B-R	COOK	92
PLOT DATE = 1/4/2008	DATE - 06-16-04	REVISED -												
											<b>BD-51</b>		CONTRACT NO. 60N80	
													FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT	

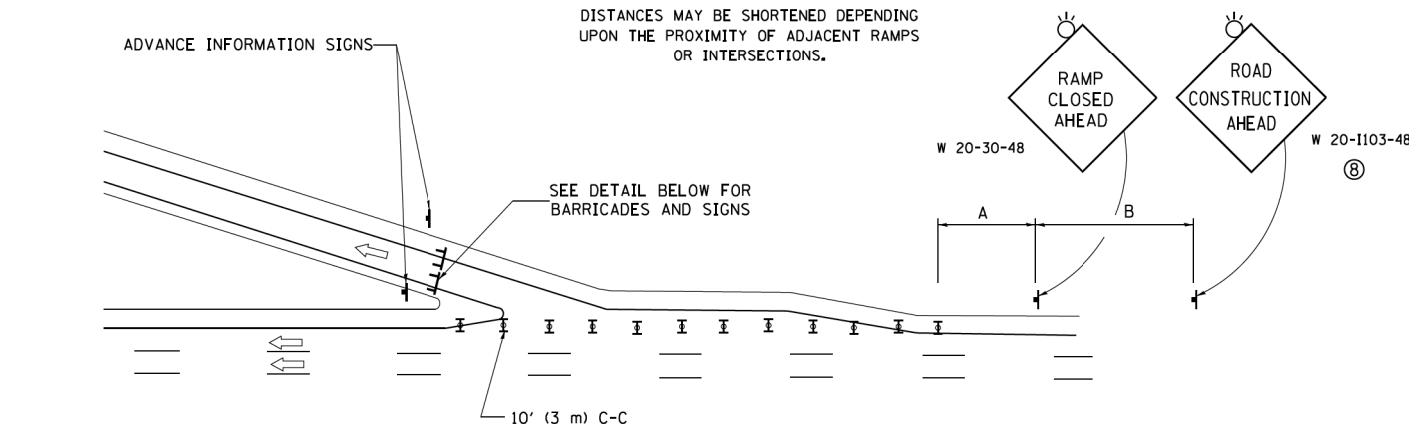


**ENTRANCE RAMP CLOSURE**

**SIGN SPACING TABLE**

FACILITY	DISTANCE BETWEEN SIGNS	
	A	B
EXPRESSWAY >24 HOURS	1000' (300 m)	1500' (450 m)
EXPRESSWAY ≤24 HOURS	500' (150 m)	500' (150 m)
ARTERIAL 55 MPH	500' (150 m)	500' (150 m)
ARTERIAL 50-45 MPH	350' (100 m)	350' (100 m)
ARTERIAL <45 MPH	200' (60 m)	200' (60 m)

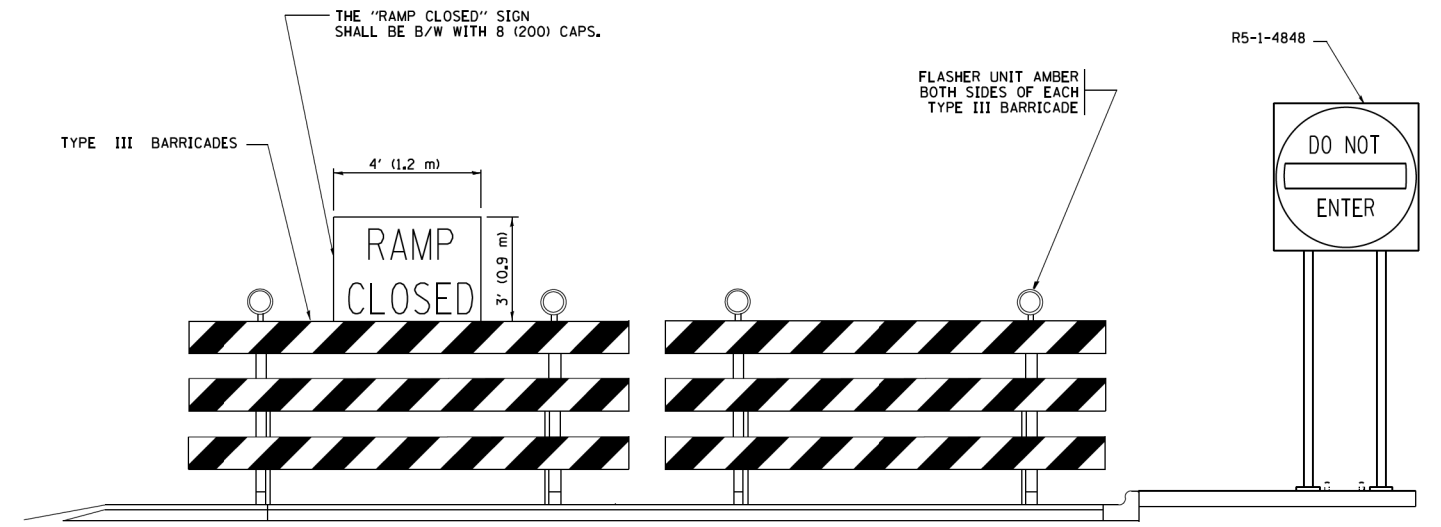
DISTANCES MAY BE SHORTENED DEPENDING UPON THE PROXIMITY OF ADJACENT RAMPS OR INTERSECTIONS.



**EXIT RAMP CLOSURE**

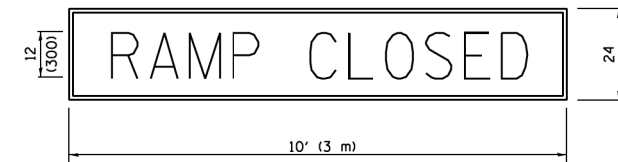
**SYMBOLS**

- ⊥ TYPE II BARRICADE OR DRUM
- ⊥ TYPE III BARRICADE WITH 2 FLASHING LIGHTS



**DETAIL FOR REQUIRED BARRICADES & SIGNS**

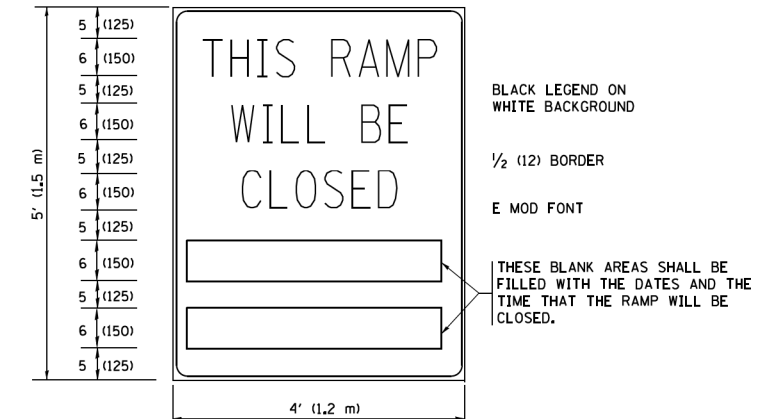
**RAMP CLOSURE ADVANCE WARNING SIGN**



BLACK LEGEND ON ORANGE BACKGROUND MOUNTED DIAGONALLY  
E MOD FONT  
1 (25) BORDER

THESE SIGNS ARE REQUIRED ON ALL THE EXIT GUIDE SIGNS FOR EXIT RAMPS THAT WILL BE CLOSED FOR MORE THAN FOUR (4) CONSECUTIVE DAYS.

**RAMP CLOSURE ADVANCE INFORMATION SIGN**



BLACK LEGEND ON WHITE BACKGROUND

1/2 (12) BORDER

E MOD FONT

THESE BLANK AREAS SHALL BE FILLED WITH THE DATES AND THE TIME THAT THE RAMP WILL BE CLOSED.

THESE SIGNS ARE REQUIRED ON BOTH SIDES OF THE RAMP, MINIMUM OF 1 WEEK IN ADVANCE OF THE CLOSURE.

THESE SIGNS SHALL BE FABRICATED AND PAID FOR ACCORDING TO THE TEMPORARY INFORMATION SIGNING SPECIAL PROVISION

**GENERAL NOTES:**

- ① CONES MAY BE SUBSTITUTED FOR DRUMS OR TYPE II BARRICADES DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (700) HIGH.
- ② VERTICAL BARRICADES SHALL NOT BE USED FOR RAMP CLOSURES.
- ③ A FLAGGER SHALL BE POSITIONED AT EACH CLOSED RAMP THAT IS OPEN TO CONSTRUCTION VEHICLES, PRECEDED BY A W20-7 FLAGGER WARNING SIGN.
- ④ ALL ROUTE MARKERS AND TRAILBLAZER ASSEMBLIES WHICH DIRECT MOTORISTS TO A CLOSED ENTRANCE RAMP SHALL BE COVERED WHEN THE RAMP IS CLOSED FOR MORE THAN FOUR (4) DAYS.
- ⑤ THE SIGNING AND BARRICADING WHICH IS REQUIRED BY THIS DETAIL SHALL BE INCLUDED IN THE COST OF TRAFFIC CONTROL AND PROTECTION (EXPRESSWAYS).
- ⑥ AUTHORIZATION FROM THE DISTRICT'S BUREAU OF TRAFFIC IS REQUIRED FOR ALL RAMP CLOSURES.
- ⑦ THE RAMP CLOSURE ADVANCE INFORMATION SIGNS SHALL BE ERECTED IF THE CLOSURE TIME EXCEEDS TWENTY-FOUR (24) HOURS. ADDITIONAL ADVANCE WARNING SIGNS ON EXIT GUIDE SIGNING WILL BE REQUIRED FOR EXIT RAMP CLOSURES THAT EXCEED FOUR (4) DAYS IN LENGTH.
- ⑧ ROAD CONSTRUCTION AHEAD SIGNS MAY BE OMITTED WHEN THIS DETAIL IS USED IN CONJUNCTION WITH OTHER TRAFFIC CONTROL THAT ALREADY INCLUDES A ROAD CONSTRUCTION AHEAD SIGN.
- ⑨ ARTERIAL ROAD CONSTRUCTION AHEAD SIGNS SHALL BE INSTALLED ON THE LEFT SIDE OF TRAFFIC IF THE MEDIAN IS MORE THAN 10 FT WIDE.

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

FILE NAME =	USER NAME = footemj	DESIGNED - D.W.S.	REVISED - S.P.B. 01-07
pw\1\084EBID\INTEG\illinois.gov\FWIDOT\Documents\DOT Offices\District 1\Projects\Dist		DRAWN - CADData\CADsheets\to08.dgn	REVISED - S.P.B. 12-09
Default	PLOT SCALE = 50,000' / in.	CHECKED -	REVISED - M.D. 06-13
	PLOT DATE = 11/27/2017	DATE - 02-83	REVISED - M.D. 01-18

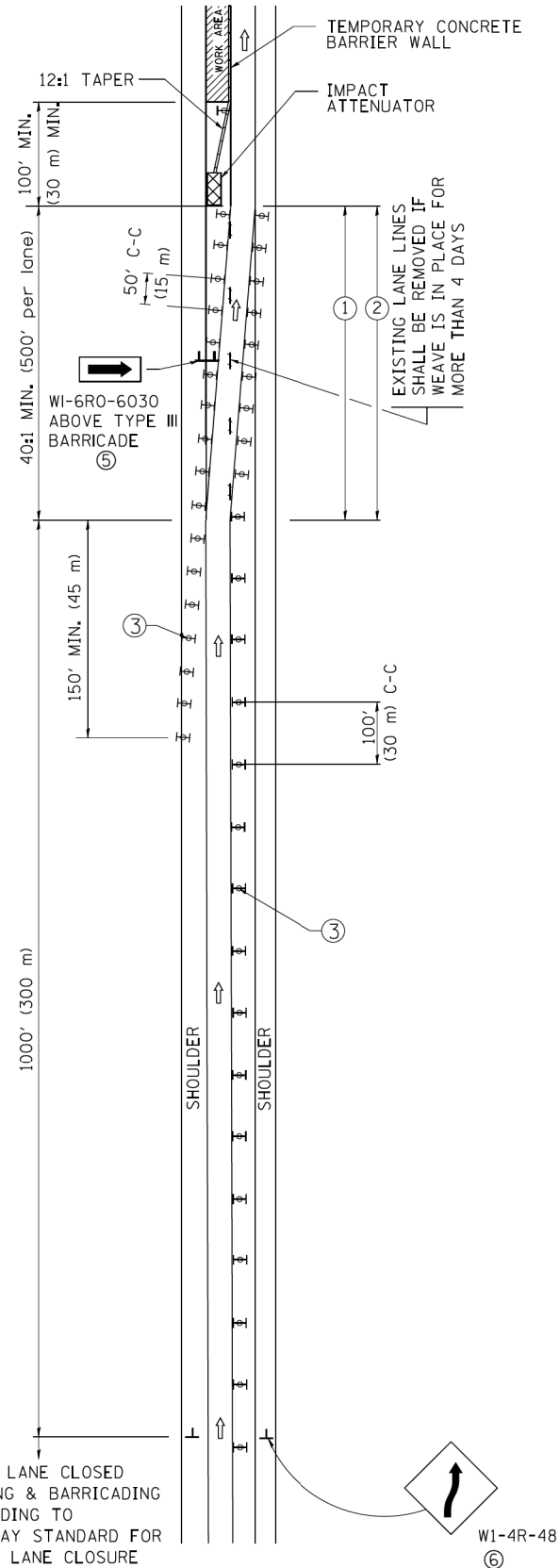
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**ENTRANCE AND EXIT RAMP  
CLOSURE DETAILS**

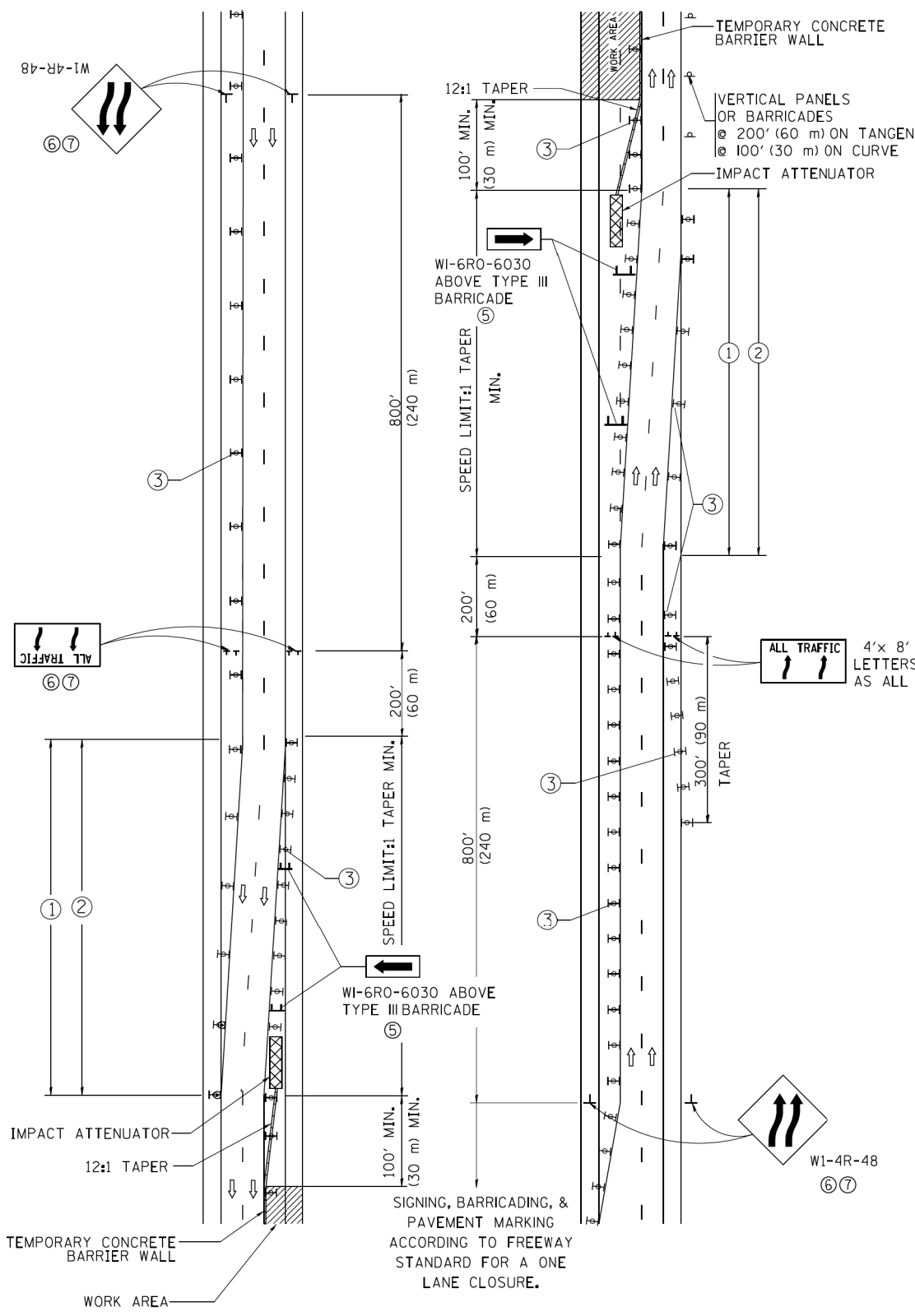
SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3562	T-5-4B-R	COOK	92	72
<b>TC-08</b>		<b>CONTRACT NO. 60N80</b>		
ILLINOIS FED. AID PROJECT				

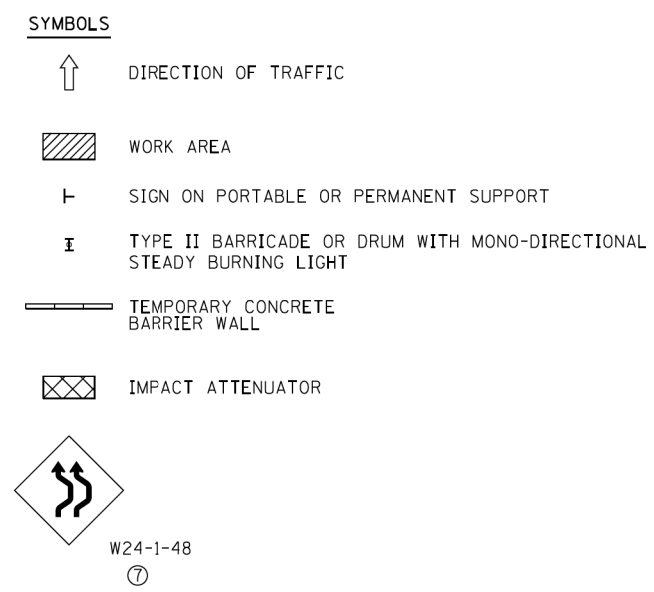
# SINGLE LANE WEAVE



# MULTI-LANE WEAVE



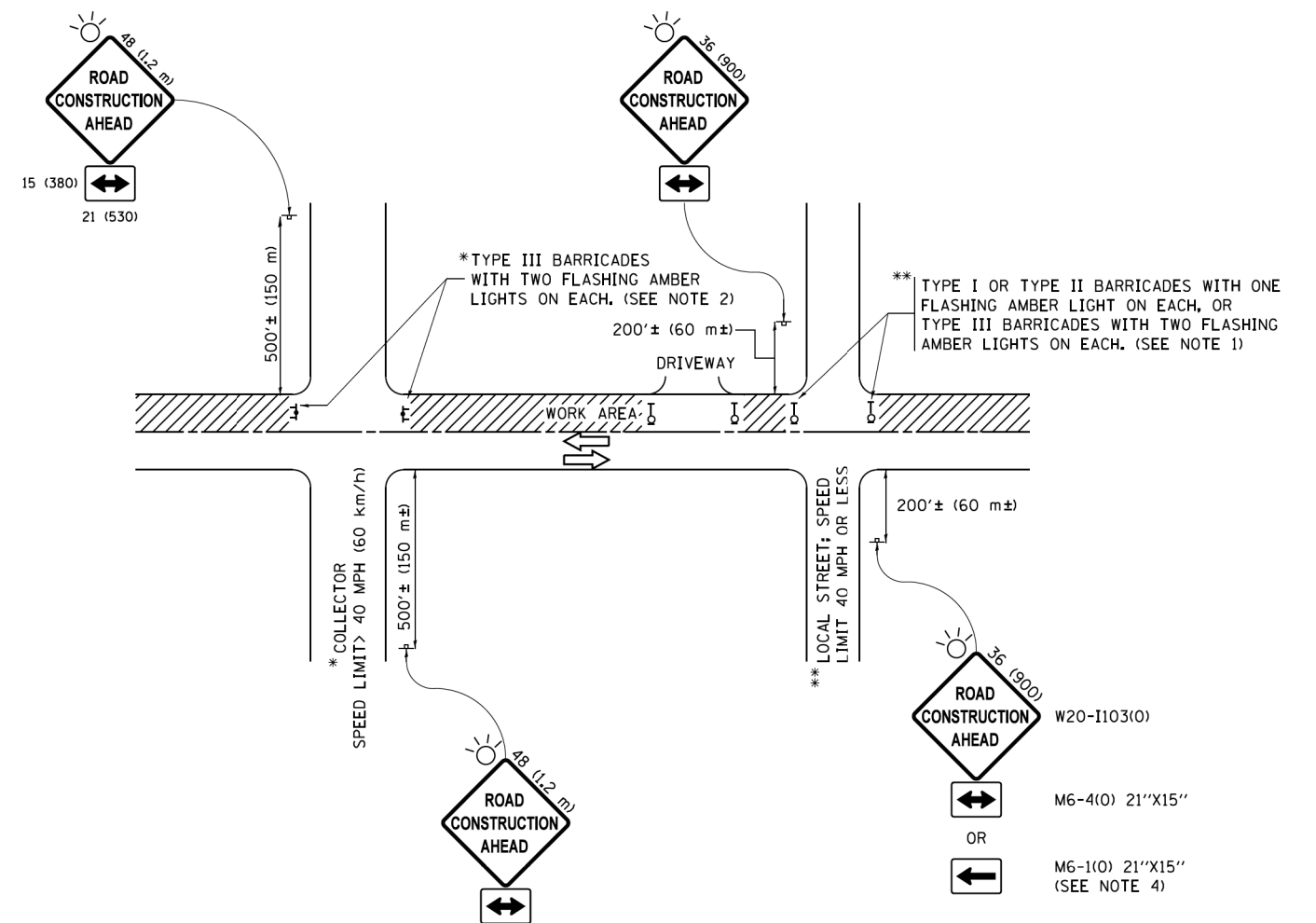
- ### GENERAL NOTES
- EXISTING CONFLICTING PAVEMENT MARKING LINES SHALL BE REMOVED. PAVEMENT MARKING REMOVAL SHALL NOT BE REQUIRED FOR SINGLE LANE WEAVES UNDER 4 DAYS IN DURATION.
  - CONTINUOUS REFLECTIVE TEMPORARY PAVEMENT MARKING TAPE SHALL BE PLACED THROUGHOUT THE TAPER AND FOR 300' (90 m) ALONG SIDE THE WORK AREA WHERE THE CLOSURE TIME IS GREATER THAN FOURTEEN DAYS. THE LEFT EDGE LINE SHALL BE YELLOW AND THE RIGHT EDGE LINE SHALL BE WHITE. FOR MULTI-LANE WEAVES LANE LINES SHALL BE 5 INCH, 10'-30' (3 m-9 m) SKIP DASH, WHITE.
  - PLASTIC DRUMS WITH STEADY BURN LIGHTS AT 50' (15 m) C-C SPACING IN TAPERS AND 100' (30 m) C-C SPACING IN TANGENTS.
  - ALL SIGNS SHALL BE POST MOUNTED IF THE CLOSURE TIME EXCEEDS FOUR DAYS.
  - TYPE III BARRICADES MAY BE OMITTED FOR SINGLE-LANE WEAVES UNDER 24-HOURS IN DURATION. W1-6 SIGNS WILL STILL BE REQUIRED. IF THE WIDTH OF OFFSET IS LESS THAN 6' THEN THE TYPE III BARRICADE WITH ATTACHED ARROW SIGN PANEL CAN BE ELIMINATED IN THE TAPER AREAS.
  - WHEN THE LENGTH OF THE SHIFTED SEGMENT (DISTANCE BETWEEN WEAVE POINTS) IS LESS THAN 1500', DOUBLE REVERSE CURVE SIGNS (W24-1) SHOULD BE USED INSTEAD OF THE REVERSE CURVE (W1-4) SIGNS. ARROWS ON THE 4'X8' "ALL TRAFFIC" SIGNS SHALL BE THE SAME SHAPE.
  - THE NUMBER OF ARROWS ON THESE SIGNS SHALL MATCH THE NUMBER OF LANES OPEN TO TRAFFIC.



ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

FILE NAME =	USER NAME = footemj	DESIGNED - DWS	REVISED - JAF 02-06	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>TRAFFIC CONTROL DETAILS FOR FREEWAY SINGLE &amp; MULTI-LANE WEAVE</b>			F.A.U. RTE. = 3562	SECTION = T-5-4B-R	COUNTY = COOK	TOTAL SHEETS = 92	SHEET NO. = 73
ca:\p\work\p\dot\footemj\d0108315\td09.sgn	PLOT SCALE = 50.000' / in.	DRAWN -	REVISED - SPB 01-07		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA. TO STA.	<b>TC-09</b>		CONTRACT NO. 60N80		
	PLOT DATE = 7/1/2013	CHECKED -	REVISED - SPB 12-09					<b>FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT</b>				
		DATE - 02-87	REVISED - MD 06-13									





**NOTES:**

1. SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
  - a) ONE "ROAD CONSTRUCTION AHEAD" SIGN 36 x 36 (900x900) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.
  - b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.
2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
  - a) ONE "ROAD CONSTRUCTION AHEAD" SIGN 48 x 48 (1.2 m x 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.
  - b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.
3. CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (710) IN HEIGHT.
4. WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).
5. WHEN WORK IS BEING PERFORMED ON A SIDE ROAD OR DRIVEWAY, FOLLOW THE APPLICABLE STANDARD(S). THE DIRECTIONAL ARROW (M6-1 OR M6-4) SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE TRAFFIC CONTROL SET-UP.
6. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAYS UNLESS OTHERWISE SPECIFIED IN THE PLANS OR BY THE ENGINEER.
7. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCLUDED IN THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

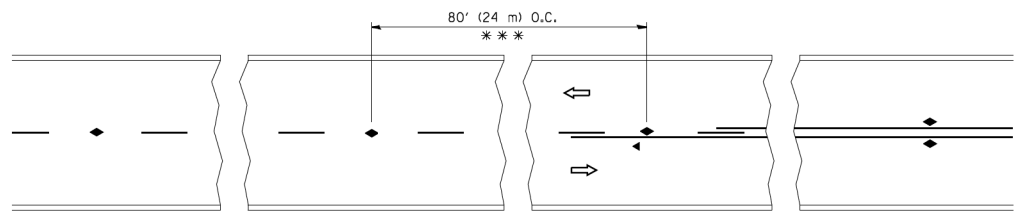
All dimensions are in inches (millimeters) unless otherwise shown.

FILE NAME =	USER NAME = footemj	DESIGNED - L.H.A.	REVISED - A. HOUSEH 10-15-96
pw\1\084EBID\INTEG\illinois.gov\FWIDOT\Documents\IDOT Offices\District 1\Projects\Dist		DRAWN	REVISED - T. RAMMACHER 01-06-00
	PLOT SCALE = 50,000' / 1" =	CHECKED -	REVISED - A. SCHUETZE 07-01-13
Default	PLOT DATE = 9/15/2016	DATE - 06-89	REVISED - A. SCHUETZE 09-15-16

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

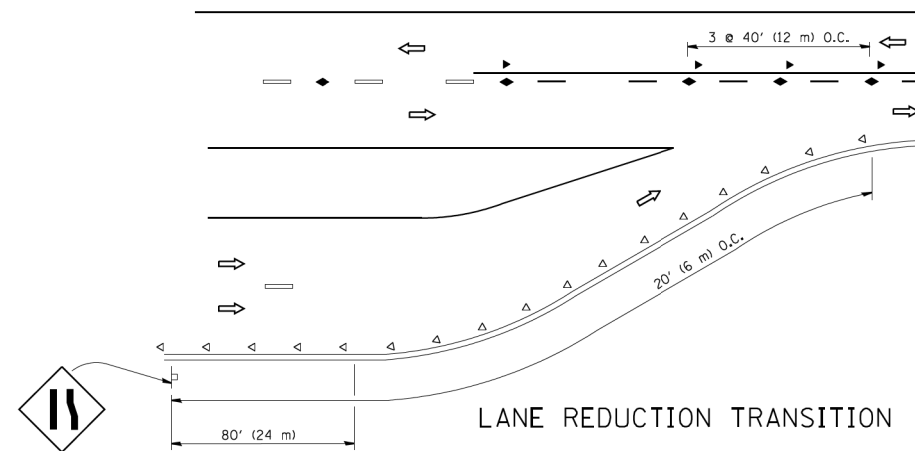
<b>TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS</b>			
SCALE: NONE	SHEET 1	OF 1 SHEETS	STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3562	T-5-4B-R	COOK	92	74
<b>TC-10</b>		<b>CONTRACT NO. 60N80</b>		
ILLINOIS FED. AID PROJECT				

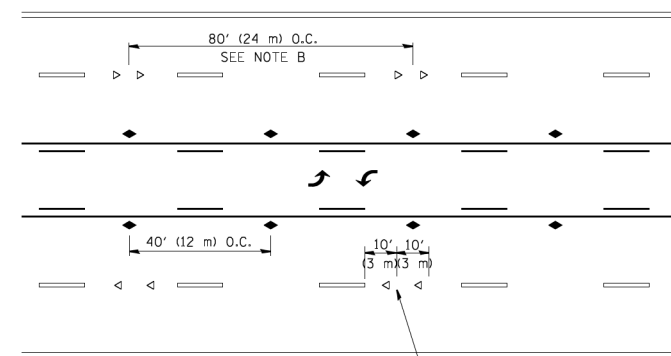


\*\*\* REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

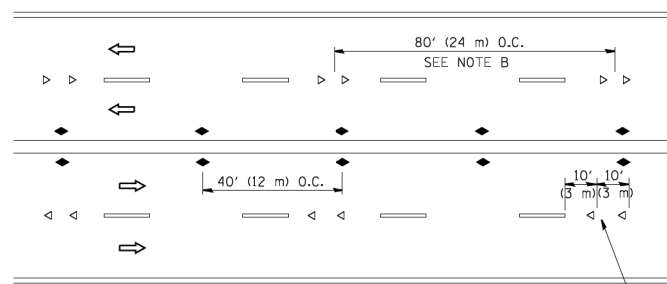
TWO-LANE/TWO-WAY



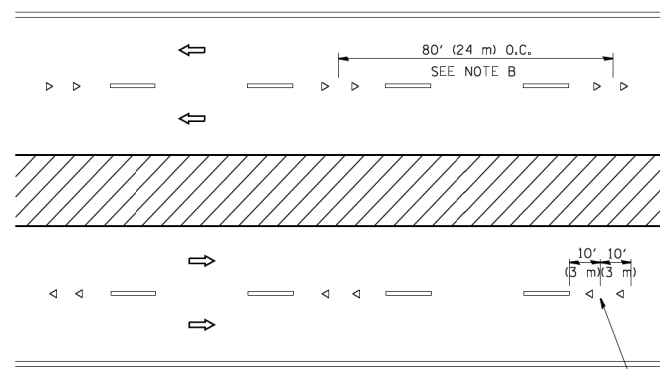
LANE REDUCTION TRANSITION



TWO-WAY LEFT TURN



MULTI-LANE/UNDIVIDED



MULTI-LANE/DIVIDED

GENERAL NOTES

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

SYMBOLS

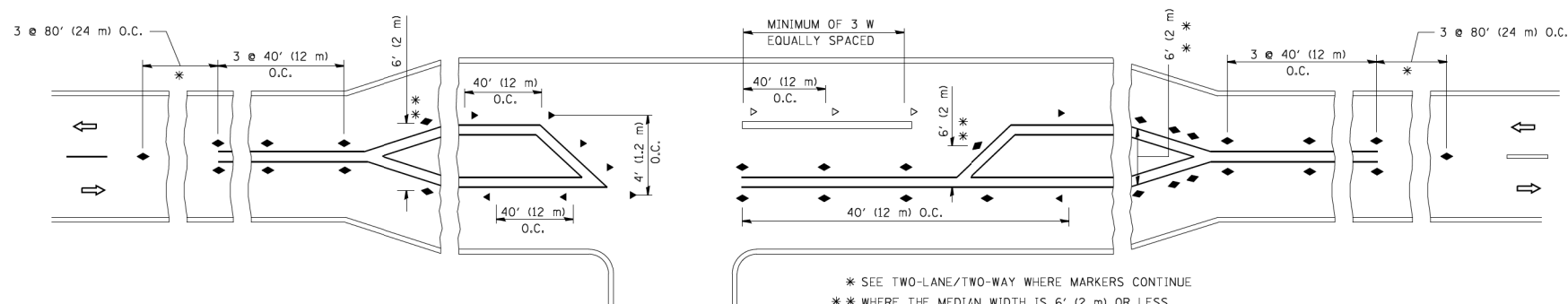
- YELLOW STRIPE
- WHITE STRIPE
- ◀ ONE-WAY AMBER MARKER
- ◁ ONE-WAY CRYSTAL MARKER (W/O)
- ◆ TWO-WAY AMBER MARKER

LANE MARKER NOTES

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

DESIGN NOTES

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



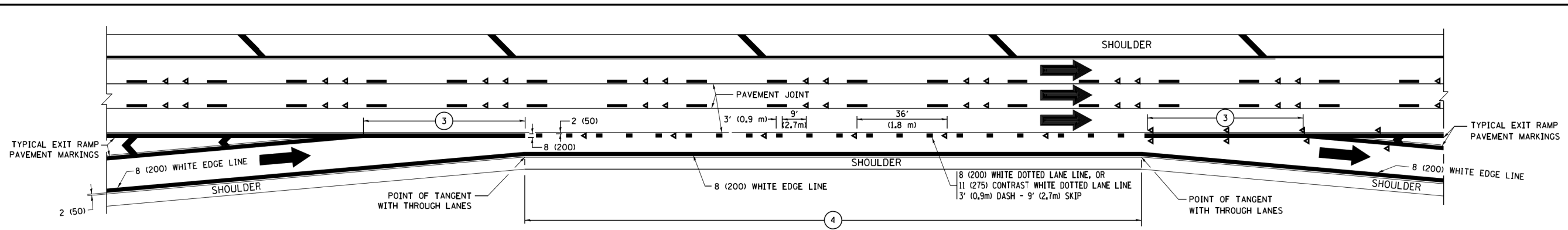
LEFT TURN

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

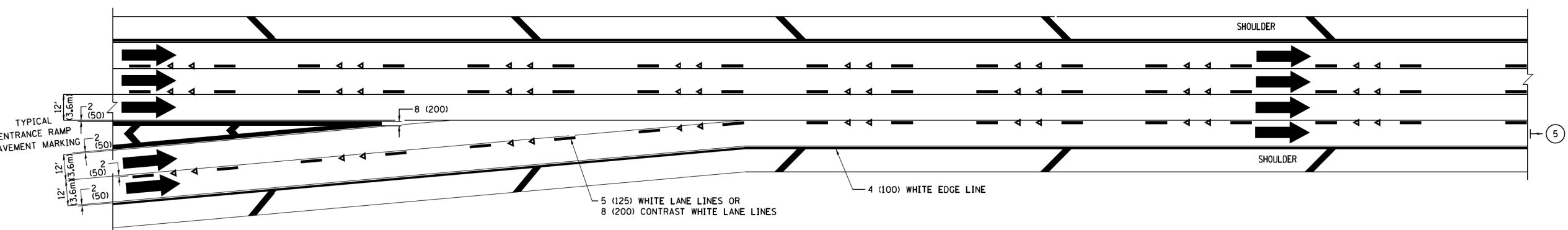
All dimensions are in inches (millimeters) unless otherwise shown.

FILE NAME =	USER NAME = lryso	DESIGNED -	REVISED - T. RAMMACHER 09-19-94	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)</b>			F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
ca:\pki\work\pki\dot\lryso\d0108315\tcl1.dgn		DRAWN -	REVISED - T. RAMMACHER 03-12-99					3562	T-5-4B-R	COOK	92	75
		PLOT SCALE = 50.000' / IN.	REVISED - T. RAMMACHER 01-06-00		<b>TC-11</b>			<b>CONTRACT NO. 60N80</b>				
		PLOT DATE = 3/2/2011	REVISED - C. JUCIUS 09-09-09		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			

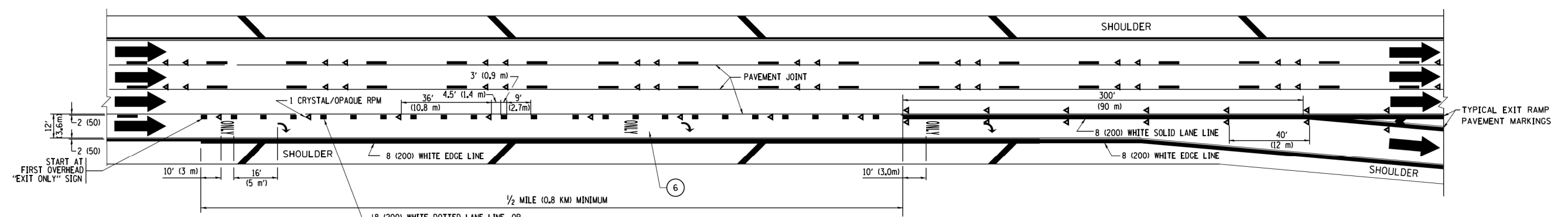




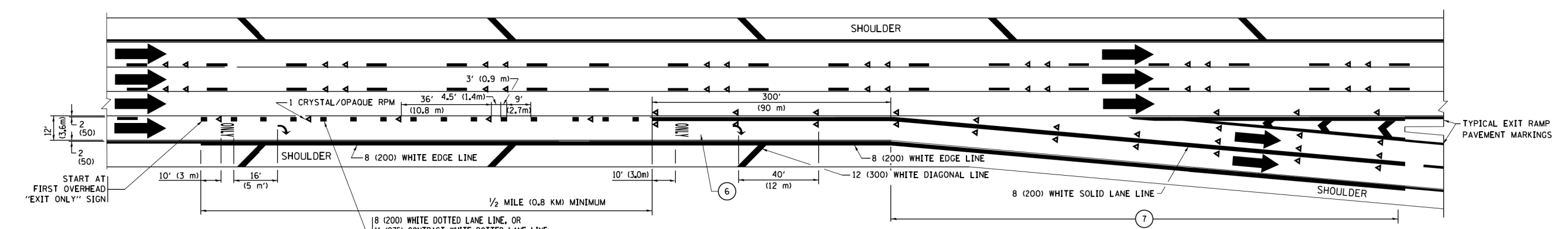
**AUXILIARY LANE MARKINGS**



**TWO LANE ENTRANCE RAMP WITH MERGE MARKINGS**



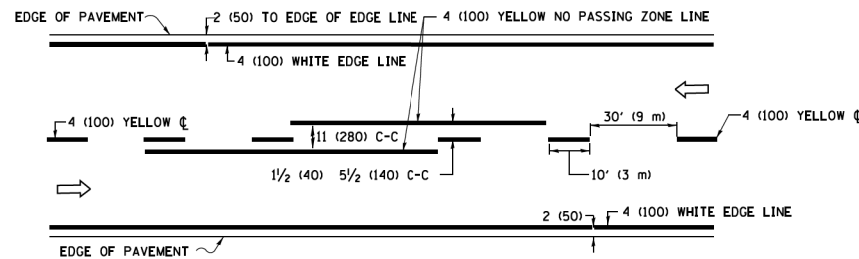
**EXIT ONLY LANE MARKINGS**



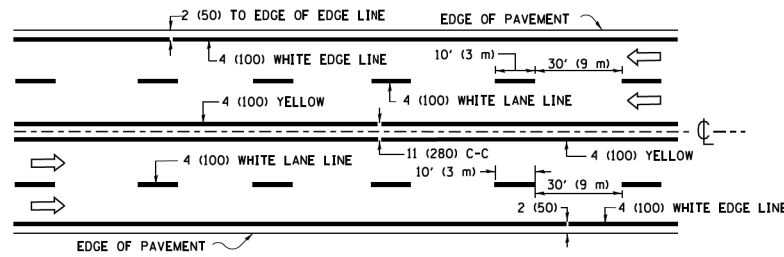
**EXIT ONLY WITH OPTION LANE MARKINGS**

- NOTES:**
- ③ OMIT WHEN LENGTH OF AUXILIARY LANE IS LESS THAN 500' (150 m).
  - ④ 8-INCH WIDE DOTTED LANE LINE MARKINGS SHALL BE USED WHEN THE LENGTH OF THE AUXILIARY LANE IS 2 MILES OR LESS.
  - ⑤ FOR TWO-LANE ENTRANCE RAMP, IF RIGHT LANE ENDS, USE TYPICAL ENTRANCE RAMP PAVEMENT MARKINGS.
  - ⑥ ONLY AND ARROWS EQUALLY SPACED, 500' (150 m) MAXIMUM SPACING. FULL SIZE LETTERS AND ARROW SHALL BE USED.
  - ⑦ CONTINUE 8" SOLID LANE LINE THROUGH EXIT TO END OF PAVED GORE.

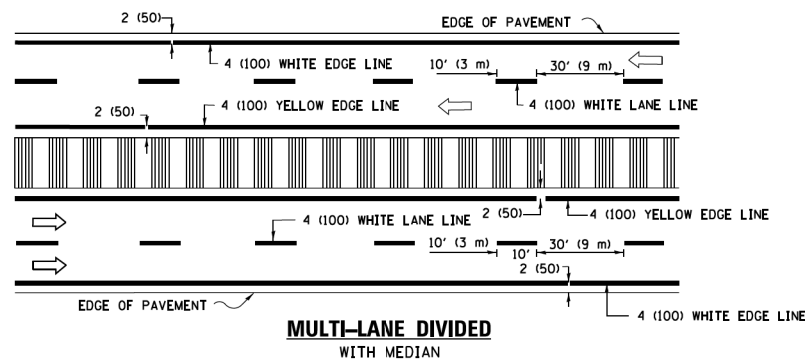
FILE NAME =	USER NAME = footemj	DESIGNED - D.W.S.	REVISED - J.A.F. 02-06	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>MULTI-LANE FREEWAY PAVEMENT MARKING DETAILS</b>			F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.		
pw\1\084EBID\INTEG\illinois.gov\FWIDOT\Documents\DOT Offices\District 1\Projects\Dist 1\CAD\CADData\CADsheets\tc12.dgn	DRAWN	CHECKED -	REVISED - S.P.B. 01-07		SCALE: NONE	SHEET 2	OF 2 SHEETS	STA.	TO STA.	3562	T-5-4B-R	COOK	92	77
Default	PLOT SCALE = 50,000' / in.	DATE - 01-90	REVISED - S.P.B. 01-10							<b>TC-12</b>				
	PLOT DATE = 9/6/2017		REVISED - M.D. 09-17							<b>CONTRACT NO. 60N80</b>				



**2-LANE ROADWAY**

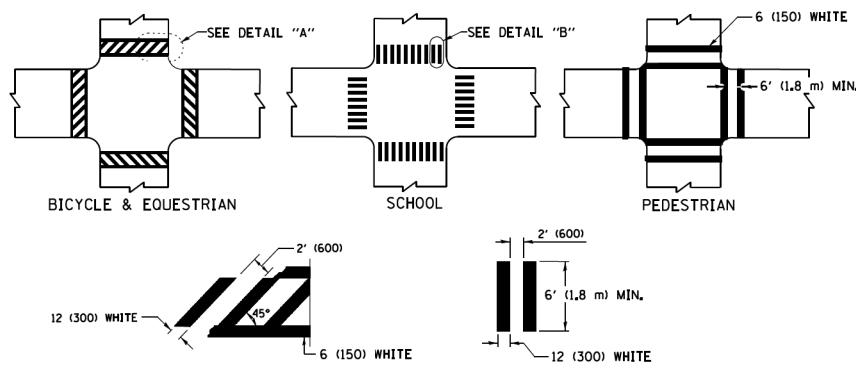


**MULTI-LANE UNDIVIDED**



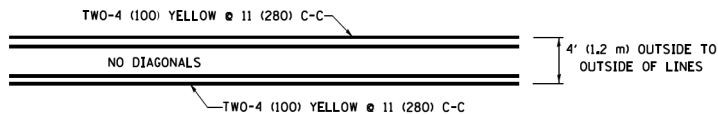
**MULTI-LANE DIVIDED WITH MEDIAN**

**TYPICAL LANE AND EDGE LINE MARKING**

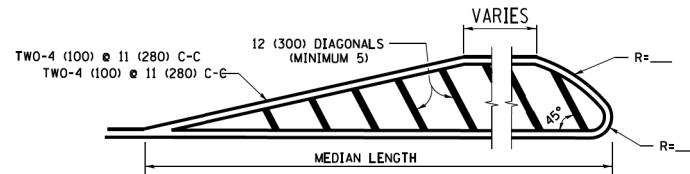


**DETAIL "A" TYPICAL CROSSWALK MARKING**

\* MARKINGS SHALL BE INSTALLED PARALLEL TO THE CENTERLINE OF THE ROAD WHICH IT CROSSES

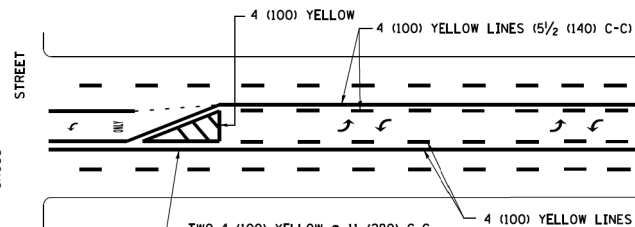


**4' (1.2 m) WIDE MEDIANS ONLY**



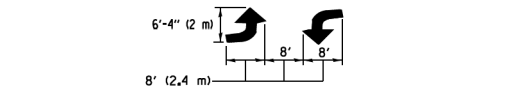
**MEDIANS OVER 4' (1.2 m) WIDE**

DIAGONAL LINE SPACING: 50' (15 m) C-C (LESS THAN 30MPH (50 km/h))  
75' (25 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h)  
150' (45 m) C-C (MORE THAN 45MPH (70 km/h))



**MEDIAN WITH TWO-WAY LEFT TURN LANE TYPICAL PAINTED MEDIAN MARKING**

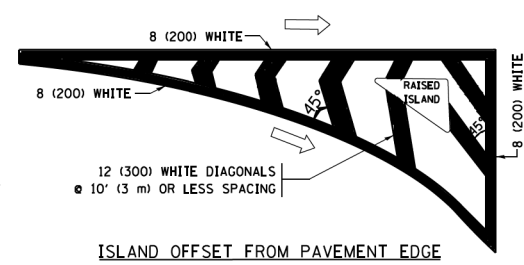
A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



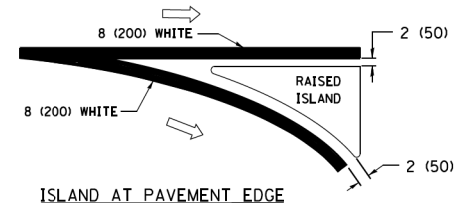
**TYPICAL LEFT (OR RIGHT) TURN LANE**

**TYPICAL TURN LANE MARKING**

FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.  
AREA = 15.6 SQ. FT. (1.5 m<sup>2</sup>) ONLY AREA = 20.8 SQ. FT. (1.9 m<sup>2</sup>)  
\* TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

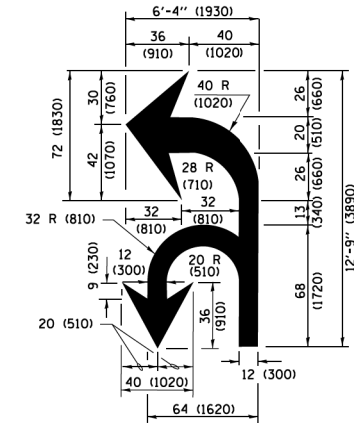


**ISLAND OFFSET FROM PAVEMENT EDGE**

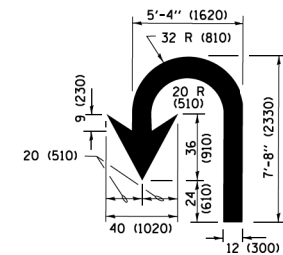


**ISLAND AT PAVEMENT EDGE**

**TYPICAL ISLAND MARKING**



**COMBINATION LEFT AND U-TURN**



**U-TURN**

**LANE REDUCTION TRANSITION**

\* LANE REDUCTION ARROWS REQUIRED AT SPEEDS OF 45 MPH OR GREATER OR WHEN SPECIFIED IN PLANS.

D(FT)	SPEED LIMIT
345	30
425	35
500	40
580	45
665	50
750	55

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING /REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 @ 4 (100)	SOLID SOLID	YELLOW YELLOW	5 1/2 (140) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MEDIANS IN YELLOW
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION 8' (2.4m) LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5 1/2 (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 @ 6 (150) 12 (300) @ 45° 12 (300) @ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (600) APART 2' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT, OTHERWISE, PLACE AT DESIRED STOPPING POINT, PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 @ 4 (100) WITH 12 (300) DIAGONALS @ 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS	SOLID	YELLOW; TWO WAY TRAFFIC WHITE; ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
CORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS @ 45°	SOLID	WHITE	DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h) 30' (9 m) C-C (OVER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES; "RR" IS 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF "RR" IS 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X"
SHOULDER DIAGONALS (REQUIRED FOR SHOULDERS ≥ 8')	12 (300) @ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h))
U TURN ARROW	SEE DETAIL	SOLID	WHITE	16.3 SF
2 ARROW COMBINATION LEFT AND U TURN	SEE DETAIL	SOLID	WHITE	30.4 SF

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

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

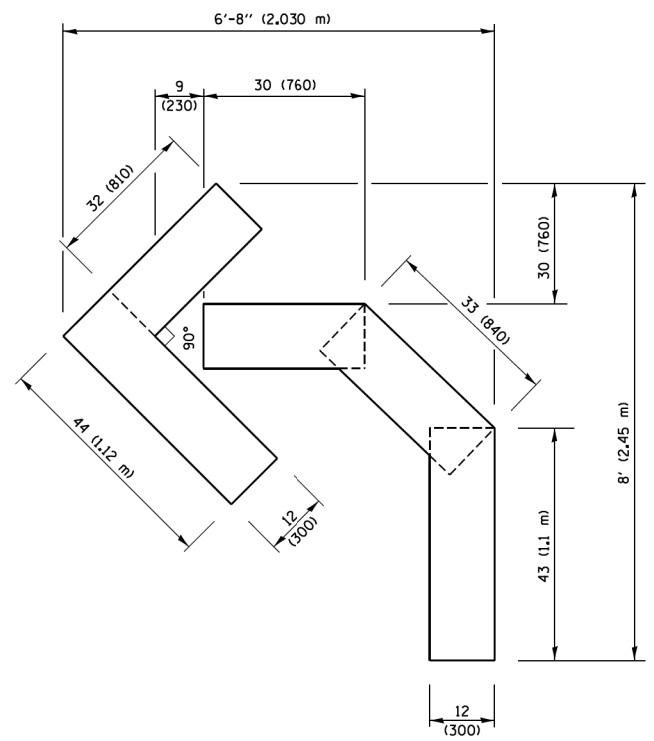
FILE NAME = W:\dststd\22x34\td13.dgn	USER NAME = luyee	DESIGNED - EVERS	REVISED - C. JUCIUS 09-09-09
		DRAWN -	REVISED - C. JUCIUS 07-01-13
	PLOT SCALE = 50,000 1" = 100'	CHECKED -	REVISED - C. JUCIUS 12-21-15
Default	PLOT DATE = 6/23/2017	DATE - 03-19-90	REVISED - C. JUCIUS 04-12-16

**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**

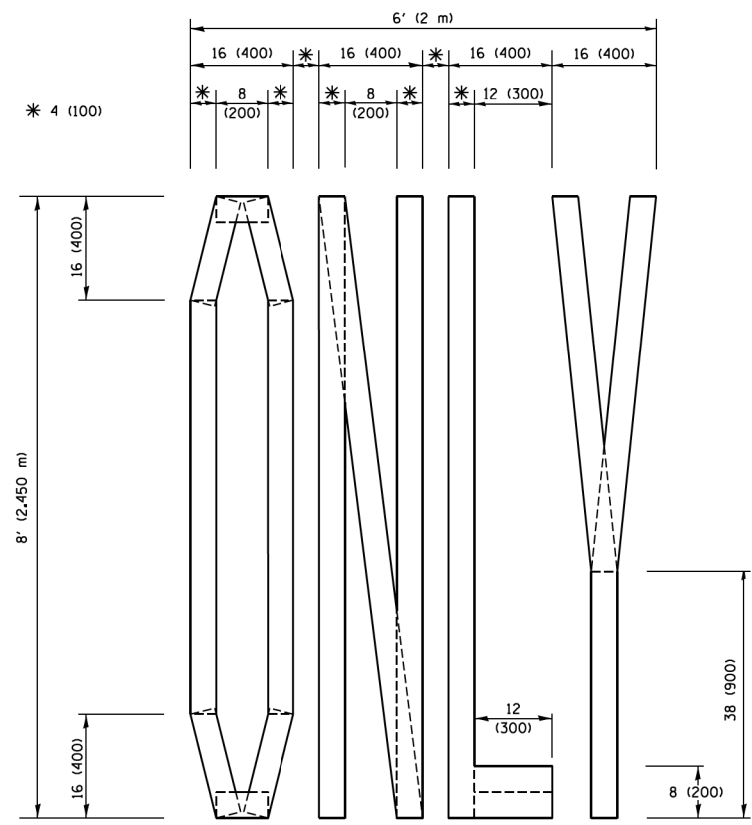
**DISTRICT ONE TYPICAL PAVEMENT MARKINGS**

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

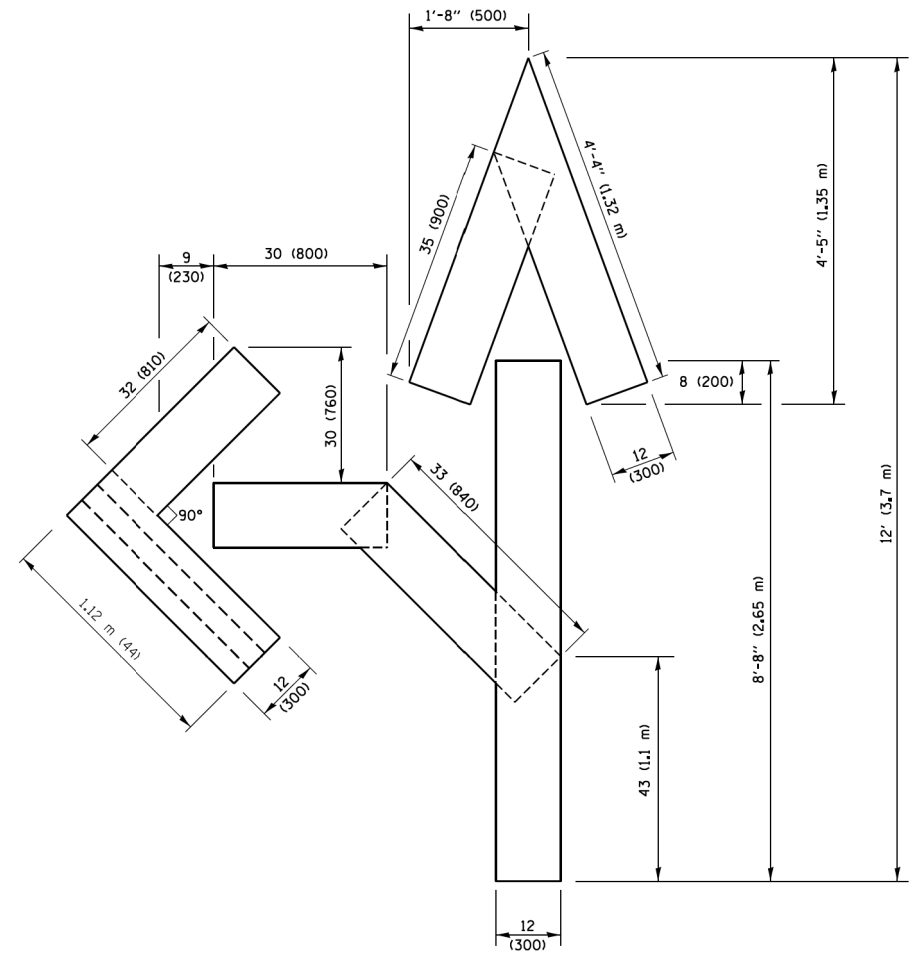
F.A.U. RTE. 3562	SECTION T-5-4B-R	COUNTY COOK	TOTAL SHEETS 92	SHEET NO. 78
<b>TC-13</b>		CONTRACT NO. 60N80	ILLINOIS FED. AID PROJECT	



**QUANTITY**  
 4 (100) LINE = 45.5 ft. (13.9 m)  
 15.2 sq. ft. (1.41 sq. m)

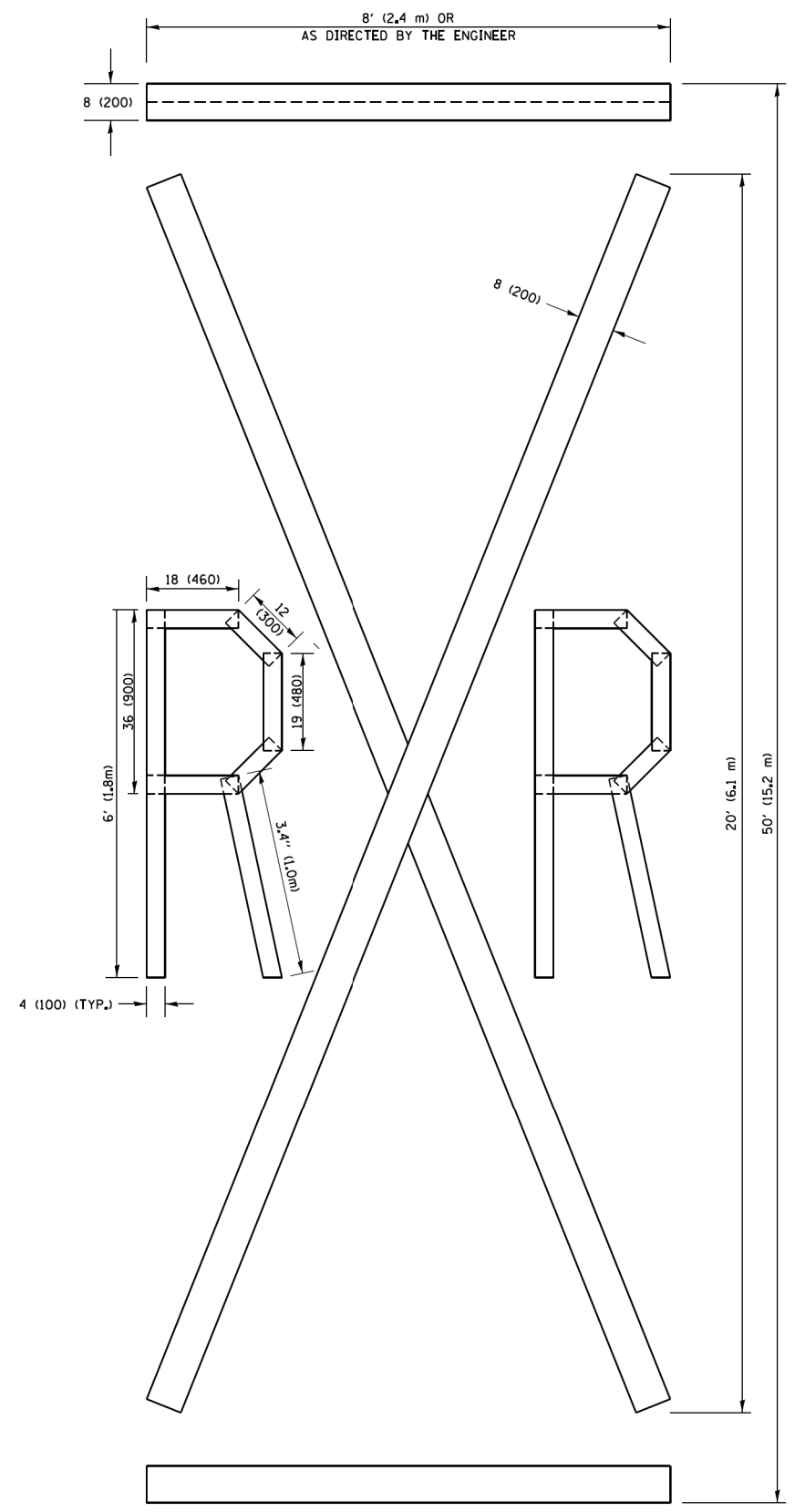


**QUANTITY**  
 4 (100) LINE = 64.1 ft. (19.5 m)  
 21.4 sq. ft. (1.99 sq. m)



**QUANTITY**  
 4 (100) LINE = 82.5 ft. (25.1 m)  
 27.5 sq. ft. (2.53 sq. m)

**NOTE:**  
 ALL QUANTITIES OF PLACEMENT ARE REPRESENTED IN LINEAR FEET OF 4" LINES TO MATCH THE 4" TEMPORARY TAPE PAY ITEM AND REPRESENTS THE TOTAL QUANTITY OF 4" TAPE REQUIRED.

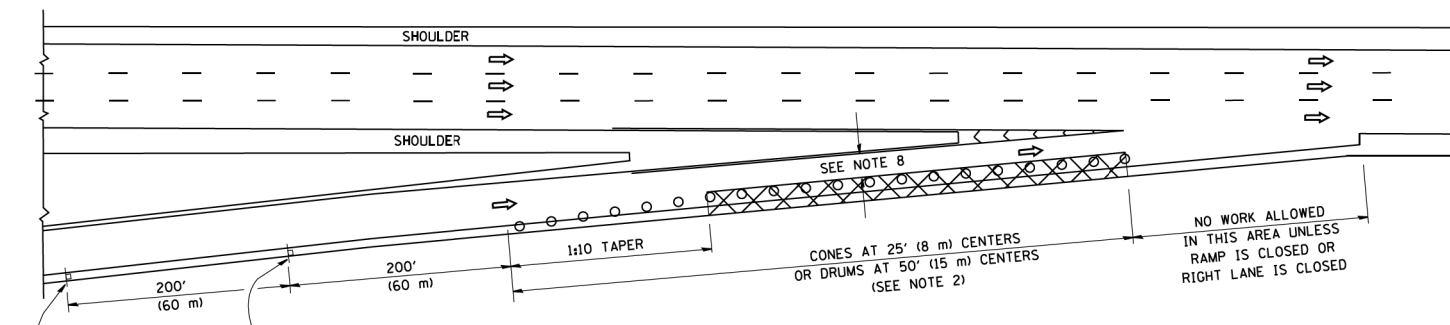


**QUANTITY**  
 4 (100) LINE = 225.9 ft. (68.9 m)  
 75.3 sq. ft. (6.99 sq. m)

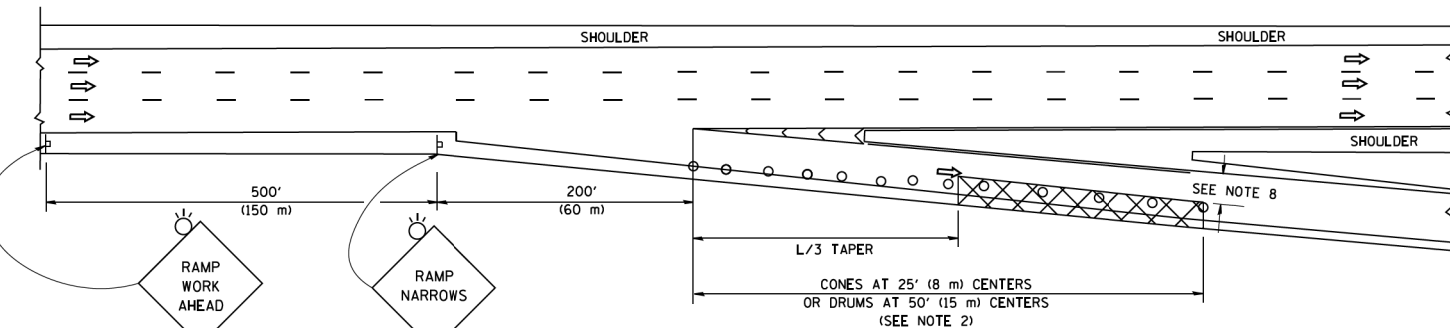
All dimensions are in inches (millimeters) unless otherwise shown.

FILE NAME =	USER NAME = footemj	DESIGNED -	REVISED -T. RAMMACHER 03-02-98	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>SHORT TERM PAVEMENT MARKING LETTERS AND SYMBOLS</b>			F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
pw\j\1084E81DINTEG\illinois.gov\FWIDOT\Documents\DOT Offices\District 1\Projects\Dist 1\CADD\cadd\CAD\cadd\to16.dgn	DRAWN	REVISED -E. GOMEZ 08-28-00	REVISED -E. GOMEZ 08-28-00					3562	T-5-4B-R	COOK	92	79
PLOT SCALE = 50,0000 / 1	CHECKED -	REVISED -E. GOMEZ 08-28-00	REVISED -E. GOMEZ 08-28-00		<b>TC-16</b>			<b>CONTRACT NO. 60N80</b>				
PLOT DATE = 9/15/2016	DATE - 09-18-94	REVISED -A. SCHUETZE 09-15-16	REVISED -A. SCHUETZE 09-15-16		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			

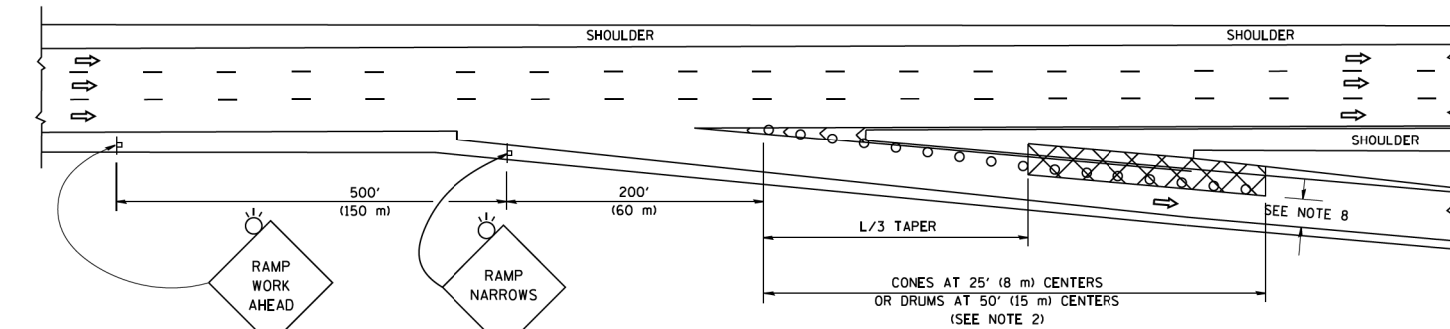
PARTIAL RAMP CLOSURE DETAILS



TYPICAL ENTRANCE RAMP



TYPICAL EXIT RAMP



TYPICAL EXIT RAMP

SYMBOLS

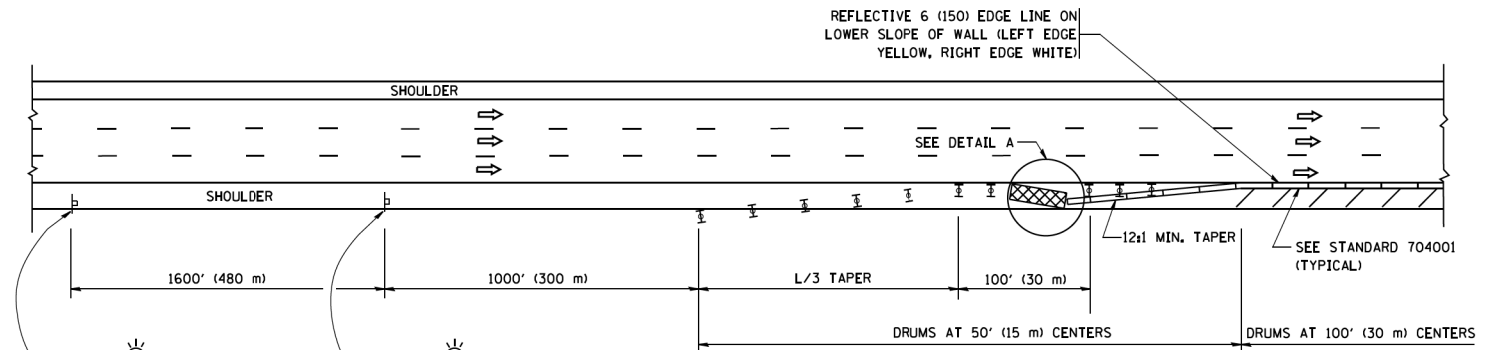
- ACTIVE WORK AREA
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- FLAGGER WITH CONTROL SIGN
- TYPE II BARRICADE OR DRUM
- CONE, DRUM OR BARRICADE
- IMPACT ATTENUATOR OF TYPE AND TEST LEVEL SPECIFIED

GENERAL NOTES

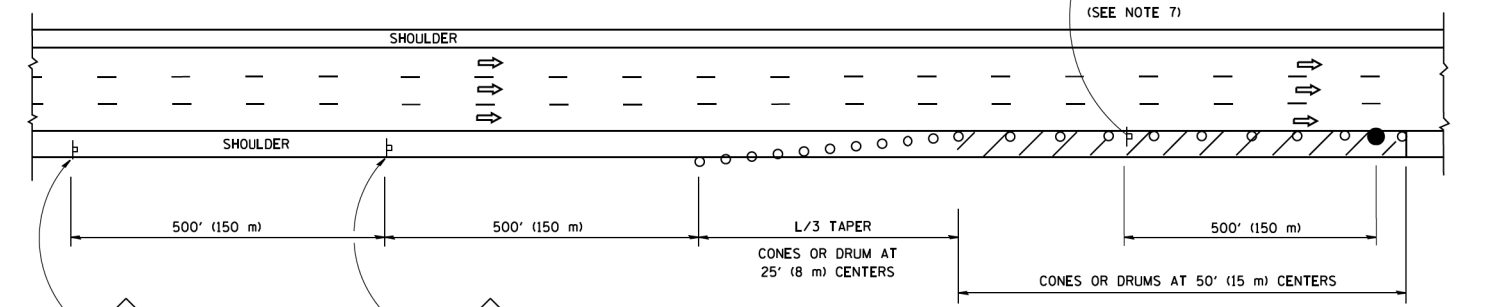
1. THE "L" DISTANCE EQUALS:
 

SPEED LIMIT	FORMULAS
45 mph (80 km/h) OR GREATER	METRIC ENGLISH L=0.65(W)(S) L=(W)(S)
W = WIDTH OF OFFSET IN FEET (METERS) S = NORMAL POSTED SPEED MPH (KM/H)	
2. TYPE II BARRICADES OR DRUMS ARE REQUIRED FOR ALL NIGHTTIME CLOSURES. TYPE II BARRICADES OR DRUMS WITH MONODIRECTIONAL STEADY BURN LIGHTS ARE REQUIRED FOR DELINEATING OBSTACLES, EXCAVATIONS, OR HAZARDS EXCEEDING 100 FT (30m) IN LENGTH AT NIGHT.
3. ALL SIGNS SHALL BE POST MOUNTED IF THE CLOSURE TIME EXCEEDS FOUR DAYS.
4. FLASHING LIGHTS SHALL BE USED DURING THE HOURS OF DARKNESS AND SHALL BE INSTALLED ABOVE THE FIRST TWO SETS OF SIGNS.
5. THE IMPACT ATTENUATOR, TEMPORARY IS NOT REQUIRED WHEN THE TEMPORARY CONCRETE BARRIER WALL IS PROTECTED BY OR IS TIED INTO THE EXISTING GUARDRAIL. IF OFFSET IS LESS THAN 5 FEET USE NARROW USE TYPE DEVICE TO MEET NCHRP350/MASH.
6. AUTHORIZATION FROM THE DISTRICT'S BUREAU OF TRAFFIC IS REQUIRED FOR ALL FREEWAY CLOSURES.
7. THE FLAGGER AND FLAGGER SIGN ARE REQUIRED AT THE ABOVE WORK SITES WHEN:
  - a. FOUR OR MORE WORK VEHICLES ENTER THE TRAFFIC LANES IN A ONE HOUR PERIOD.
  - b. THE WORK ACTIVITY REQUIRES FREQUENT ENCROACHMENT INTO THE LANE OPEN TO TRAFFIC.
 THE FLAGGER SHALL BE STATIONED APPROXIMATELY 100' (30 m) TO 200' (60 m) IN ADVANCE OF THE WORKERS.
8. 12' MIN. WIDTH TANGENT SECTION  
16' MIN. WIDTH CURVE SECTION.

SHOULDER CLOSURE DETAILS

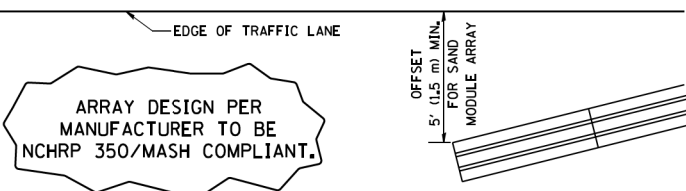


PERMANENT SHOULDER CLOSURE



DAYTIME SHOULDER CLOSURE

THIS DETAIL IS USED WHERE:  
1. VEHICLES, EQUIPMENT, WORKERS OR THEIR ACTIVITIES ENCROACH IN AN AREA CLOSER THAN 15' (4.5 m) TO THE EDGE OF PAVEMENT FOR A PERIOD IN EXCESS OF 15 MINUTES.



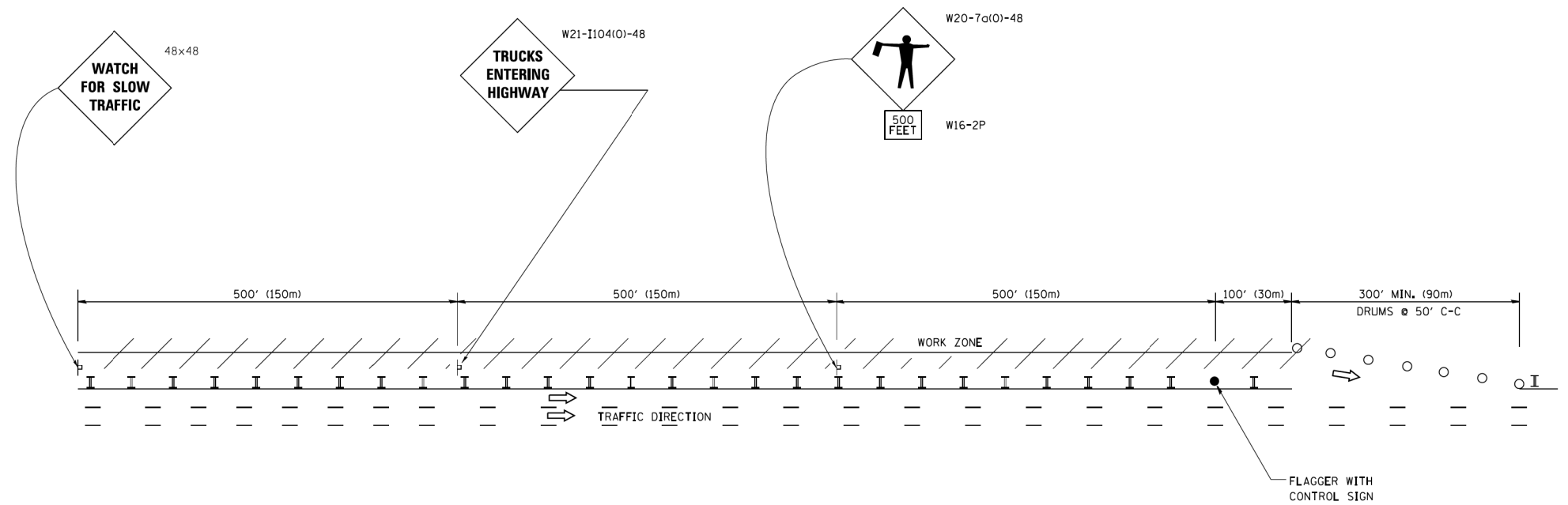
DETAIL "A"  
IMPACT ATTENUATOR, TEMPORARY  
(SEE NOTE 5)

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

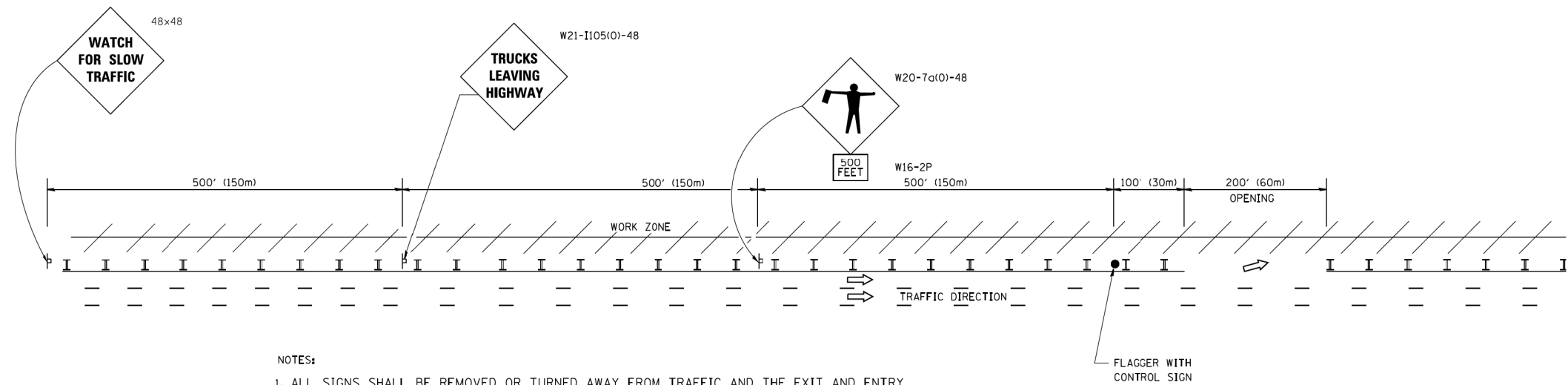
FILE NAME =	USER NAME = footemj	DESIGNED -	REVISED - S.P.B. 01-07	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>TRAFFIC CONTROL DETAILS FOR FREEWAY SHOULDER CLOSURES AND PARTIAL RAMP CLOSURES</b>	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
		DRAWN -	REVISED - S.P.B. 12-09			3562	T-5-4B-R	COOK	92	80	
		CHECKED -	REVISED - M.D. 06-13			<b>TC-17</b>		CONTRACT NO. 60N80			
		DATE - 11-96	REVISED - M.D. 01-18			SCALE: NONE		SHEET 1 OF 1 SHEETS		STA. TO STA.	

SIGNING FOR FLAGGING OPERATIONS AT WORK ZONE OPENINGS

WORK ZONE EXIT OPENING



WORK ZONE ENTRY OPENING



NOTES:


1. ALL SIGNS SHALL BE REMOVED OR TURNED AWAY FROM TRAFFIC AND THE EXIT AND ENTRY OPENINGS SHALL BE CLOSED WHEN THE FLAGGING OPERATION CEASES. NON OPERATING EQUIPMENT SHALL COMPLY WITH ARTICLE 701.11
2. WORK ZONE OPENINGS SHALL BE A MINIMUM OF ONE HALF MILE APART AND A MINIMUM OF ONE QUARTER MILE FROM ALL ENTRANCE AND EXIT RAMP.
3. EXITING THE WORK ZONE AT ANY PLACE OTHER THAN AT A WORK ZONE EXIT OPENING WILL BE PROHIBITED.
4. ALL VEHICLES SHALL ENTER THE WORK ZONE AT ENTRY OPENINGS, USING THEIR TURN SIGNALS TO WARN MOTORISTS
5. FLAGGERS SHALL NOT STOP TRAFFIC OR DIRECT TRAFFIC INTO AN ADJACENT LANE.


ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN


FILE NAME =	USER NAME = footemj	DESIGNED -	REVISED - J.A.F. 02-06	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>FREEWAY/EXPRESSWAY SIGNING FOR FLAGGING OPERATIONS AT WORK ZONE OPENINGS ON FREEWAYS/EXPRESSWAYS</b>	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
ca:\pwork\pwork\footemj\d0108315\tcl18.dgn	DRAWN -	REVISED - S.P.B. 01-07	3562			T-5-4B-R	COOK	92	81	
PLOT SCALE = 50.000' / in.	CHECKED -	REVISED - S.P.B. 12-09	<b>TC-18</b>			CONTRACT NO. 60N80				
PLOT DATE = 7/8/2013	DATE -	REVISED - M.D. 06-13	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT							
				SCALE: NONE		SHEET NO. 1 OF 1 SHEETS		STA. TO STA.		



**ROUTE MARKERS**

 FOR U.S. ROUTES  
M1-40-2424

 FOR ILLINOIS ROUTES  
M1-50-2424

 R.R. UNMARKED ROUTES  
SPECIAL 24" x 18" VARIABLE  
4" BLACK LETTERS ON WHITE  
REFLECTIVE BACKGROUND

**ARROWS SIGNS**

 M5-1L-2115


 M5-1R-2115

 M6-1-2115

 M6-1-2115

 M6-3-2115

**CARDINAL DIRECTION & DETOUR SIGNS**

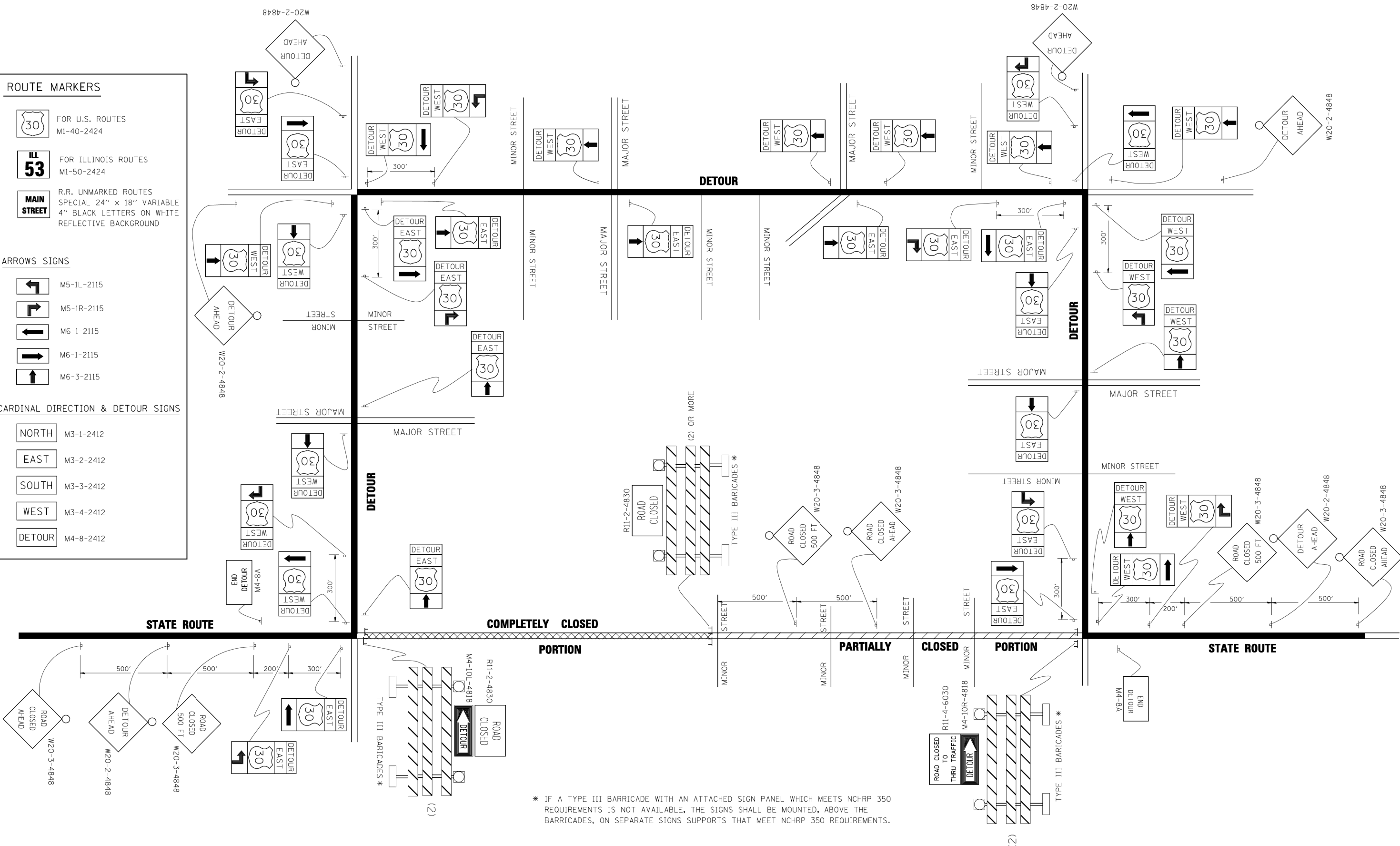
 NORTH M3-1-2412

 EAST M3-2-2412

 SOUTH M3-3-2412

 WEST M3-4-2412

 DETOUR M4-8-2412



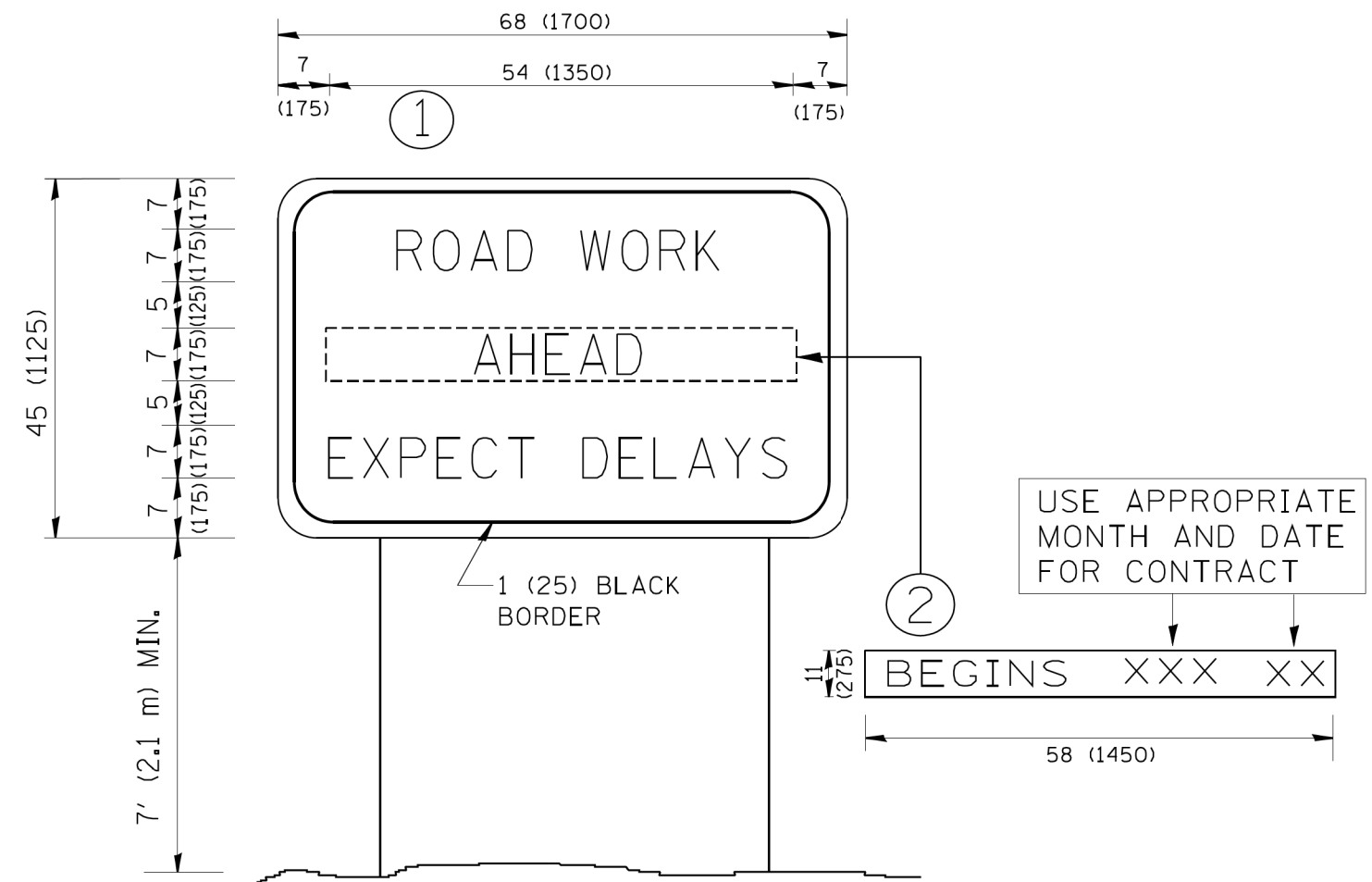
\* IF A TYPE III BARRICADE WITH AN ATTACHED SIGN PANEL WHICH MEETS NCHRP 350 REQUIREMENTS IS NOT AVAILABLE, THE SIGNS SHALL BE MOUNTED, ABOVE THE BARRICADES, ON SEPARATE SIGNS SUPPORTS THAT MEET NCHRP 350 REQUIREMENTS.

FILE NAME =	USER NAME = d-ivakosgn	DESIGNED -	REVISED - 10-18-02
c:\p\work\p\WIDOT\DRIVAKOSGN\0108315\1221.dgn		DRAWN -	REVISED - R. BORO 09-14-09
	PLOT SCALE = 49.9999' / IN.	CHECKED -	REVISED -
	PLOT DATE = 9/14/2009	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

DETOUR SIGNING FOR CLOSING STATE HIGHWAYS			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3562	T-5-4B-R	COOK	92	82
TC-21		CONTRACT NO. 60N80		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



**NOTES:**

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

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

FILE NAME = W:\diststd\22x34\tc22.dgn	USER NAME = gegl1enobt	DESIGNED - DRAWN -	REVISED - R. MIRS 09-15-97
	PLOT SCALE = 50.000 ' / IN.	CHECKED -	REVISED - T. RAMMACHER 02-02-99
	PLOT DATE = 1/4/2008	DATE -	REVISED - C. JUCIUS 01-31-07

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**ARTERIAL ROAD  
INFORMATION SIGN**

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

F.A.U. RTE. 3562	SECTION T-5-4B-R	COUNTY COOK	TOTAL SHEETS 92	SHEET NO. 83
TC-22		CONTRACT NO. 60N80		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



3.0" RADIUS, 0.5" BORDER, WHITE ON GREEN; REFLECTORIZED  
 "DRIVEWAY" D; "ENTRANCE" D; STANDARD ARROW CUSTOM 12.0" x 5.0"

**NOTES:**

1. HALF OF THE SIGNS WILL REQUIRE A LEFT HAND FACING ARROW.
2. TWO SIGNS SHALL BE USED AT EACH COMMERCIAL ENTRANCE PLACED BACK-TO-BACK; ONE WITH A RIGHT HAND ARROW (SHOWN) SHALL BE PLACED ON THE NEAR RIGHT SIDE THE DRIVEWAY AND ONE WITH A LEFT HAND ARROW SHALL BE PLACED ON THE FAR LEFT SIDE OF THE DRIVEWAY.
3. SIGNS TO BE PAID FOR AS ITEM "TEMPORARY INFORMATION SIGNING".

FILE NAME =	USER NAME = gaglianob	DESIGNED -	REVISED - C. JUCIUS 02-15-07
ca\pwork\pwork\gaglianob\d0108315\tp6.dgn		DRAWN -	REVISED -
		CHECKED -	REVISED -
		DATE -	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

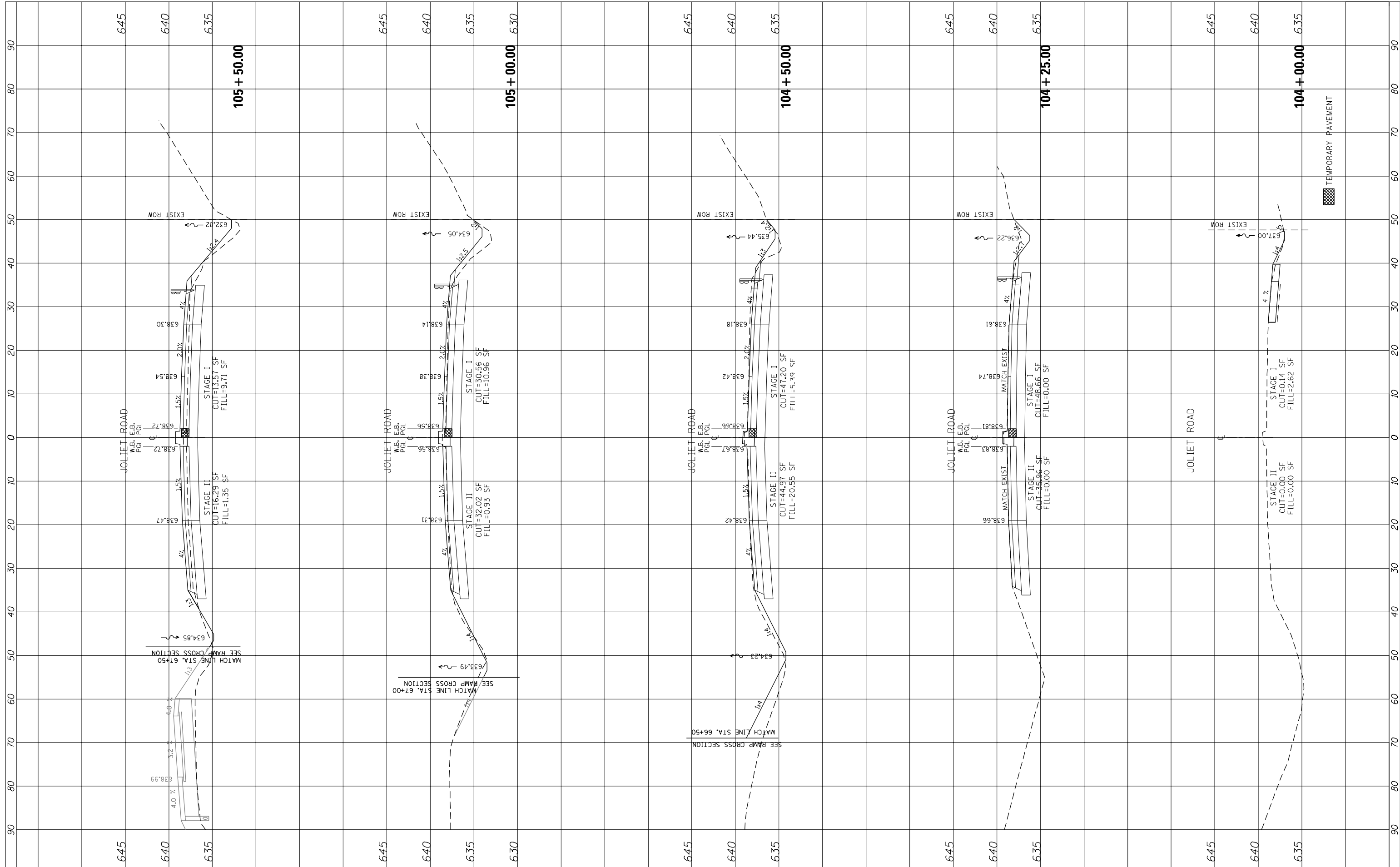
**DRIVEWAY ENTRANCE SIGNING**

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

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3562	T-5-4B-R	COOK	92	84
TC-26			CONTRACT NO. 60N80	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

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

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



FILE NAME =	USER NAME = jpham	DESIGNED - EG	REVISED -
P:\2011\ME11007_Var_Var_Phil\CADD\W015_JolietRd\Drawings\Shets\85-89-0160\80-shet-ssht..JolietRd.dwg	DRAWN - EG	CHECKED - TVN	REVISED -
MODELNAME#	PLOT SCALE = 20.0000' / in.	DATE - 05/09/2014	REVISED -
	PLOT DATE = 4/4/2019		

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

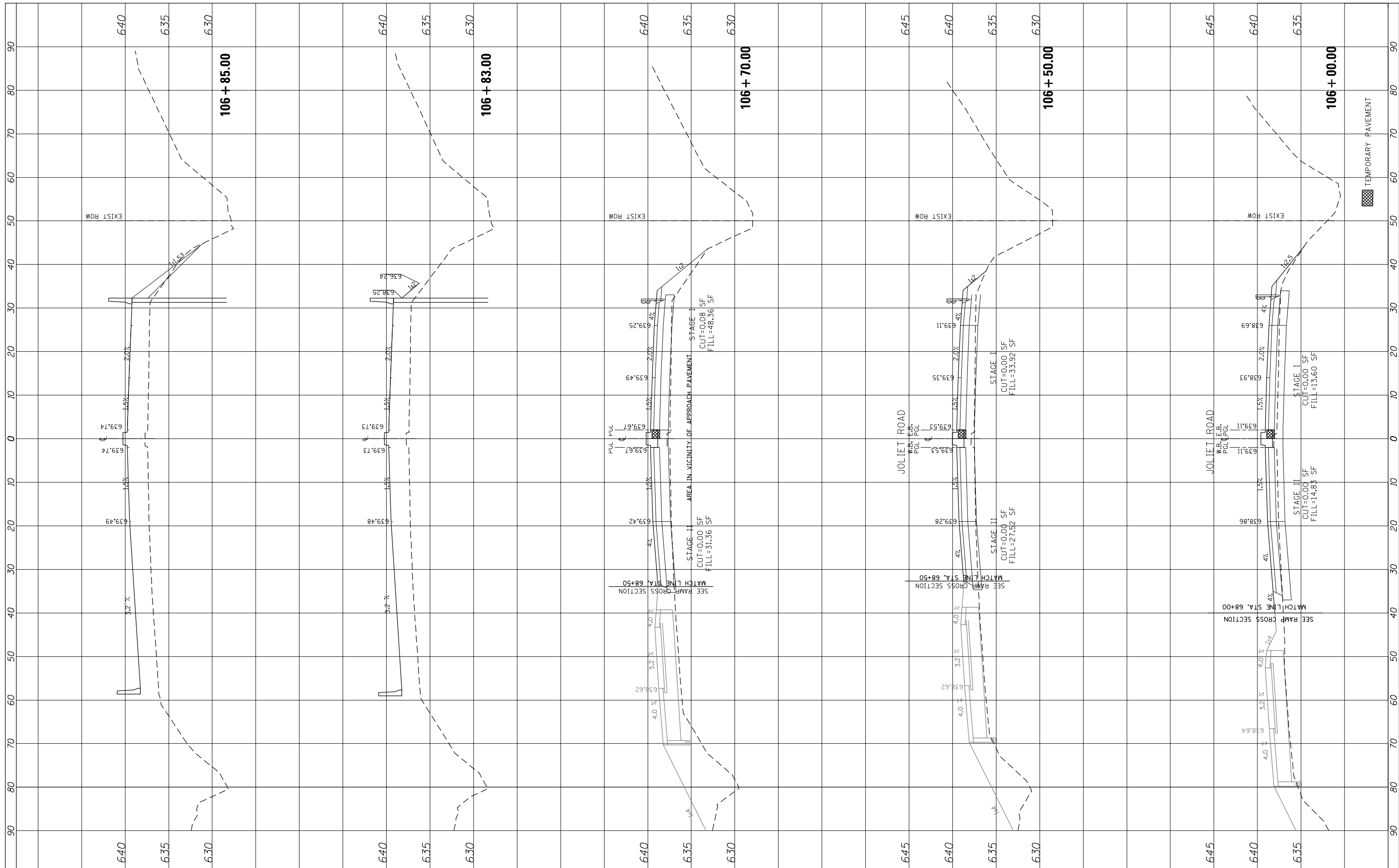
SCALE:	SHEET 1 OF 8 SHEETS	STA. 104+00.00 TO STA. 105+50.00
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**JOLIET ROAD  
CROSS-SECTIONS**

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3562	T-5-4BR	COOK	92	85
CONTRACT NO. 60N80			ILLINOIS FED. AID PROJECT	

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

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



FILE NAME =	USER NAME = jphm	DESIGNED -	REVISED -
P:\2011\ME11007_Var_Var_Phil\CADD\W015_JolietRd\FigCrk\Shets\85-89-0160\80-shet-ssht-JolietRd.dwg		DRAWN	REVISED -
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	PLOT DATE = 4/4/2019	DATE -	REVISED -

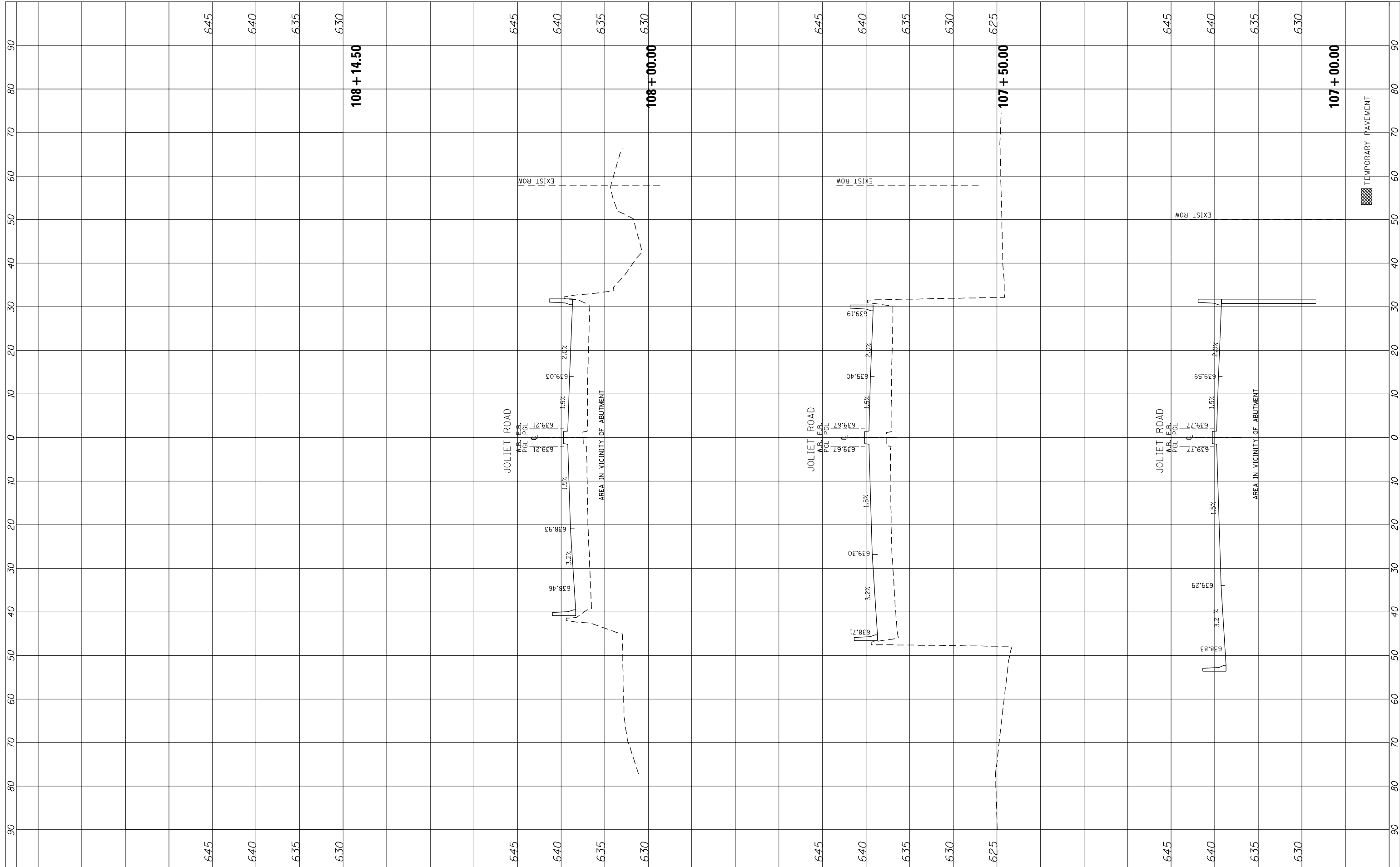
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

SCALE:		SHEET 2 OF 8 SHEETS		JOLIET ROAD	
				CROSS-SECTIONS	
STA. 106+00.00		TO STA. 106+70.00			

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3562	T-5-4BR	COOK	92	86
CONTRACT NO. 60N80			ILLINOIS FED. AID PROJECT	

FINAL SURVEY NO.	SURVEYED	BY	DATE
	PLOTTED		
	TEMPLATE		
	AREAS CHECKED		

ORIGINAL SURVEY NO.	SURVEYED	BY	DATE
	PLOTTED		
	TEMPLATE		
	AREAS CHECKED		



FILE NAME =	USER NAME = jpham	DESIGNED -	REVISED -
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\$MODELNAME\$	PLOT DATE = 4/4/2019	DATE -	REVISED -

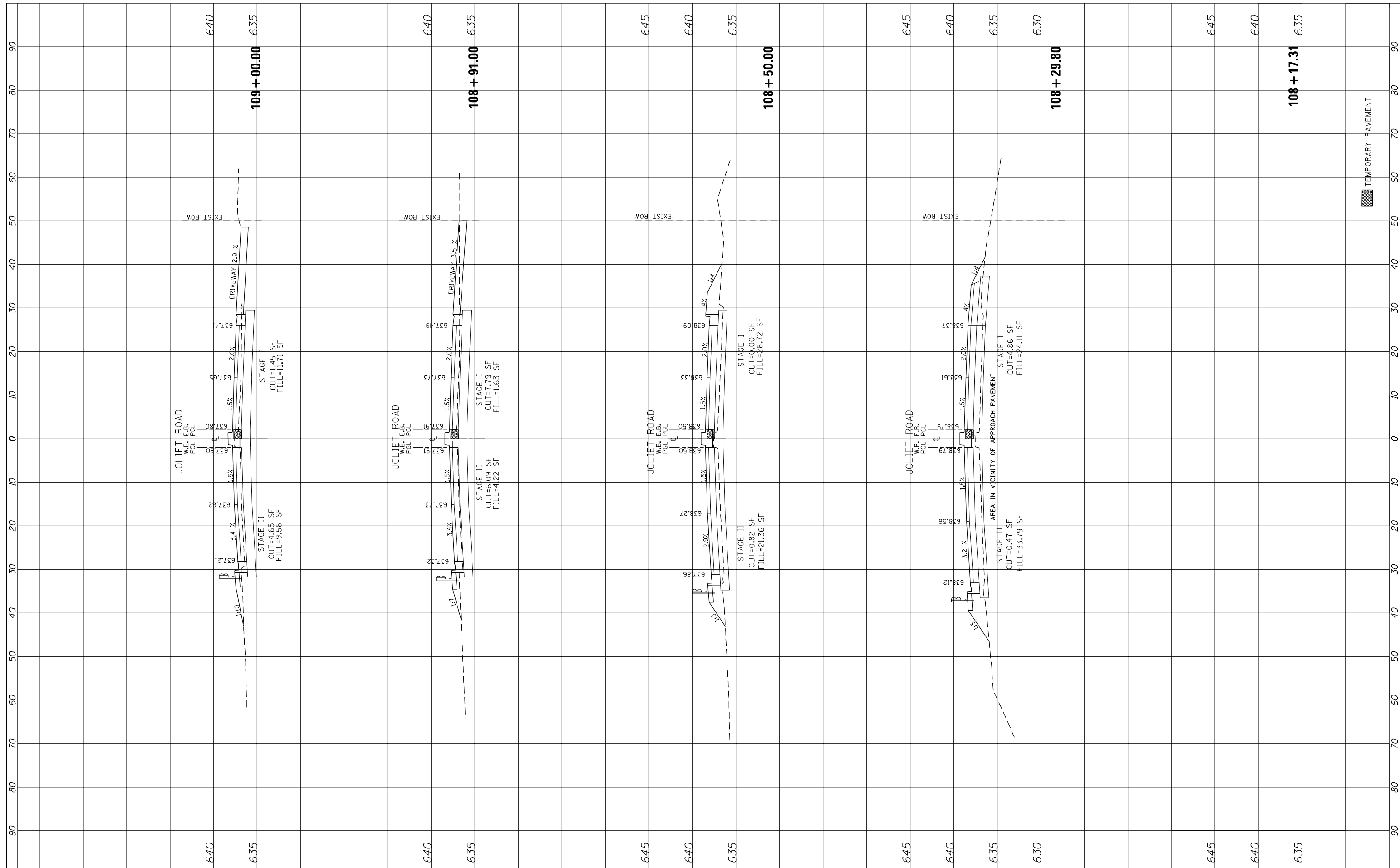
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

SCALE:		SHEET 3 OF 8 SHEETS		STA. 107+00.00 TO STA. 108+14.50	
		JOLIET ROAD CROSS-SECTIONS			

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3562	T-5-4BR	COOK	92	87
CONTRACT NO. 60N80			ILLINOIS FED. AID PROJECT	

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

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



FILE NAME =	USER NAME = jpham	DESIGNED -	REVISED -
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PLOT SCALE = 20.0000' / in.	CHECKED -		REVISED -
PLOT DATE = 4/4/2019	DATE -		REVISED -

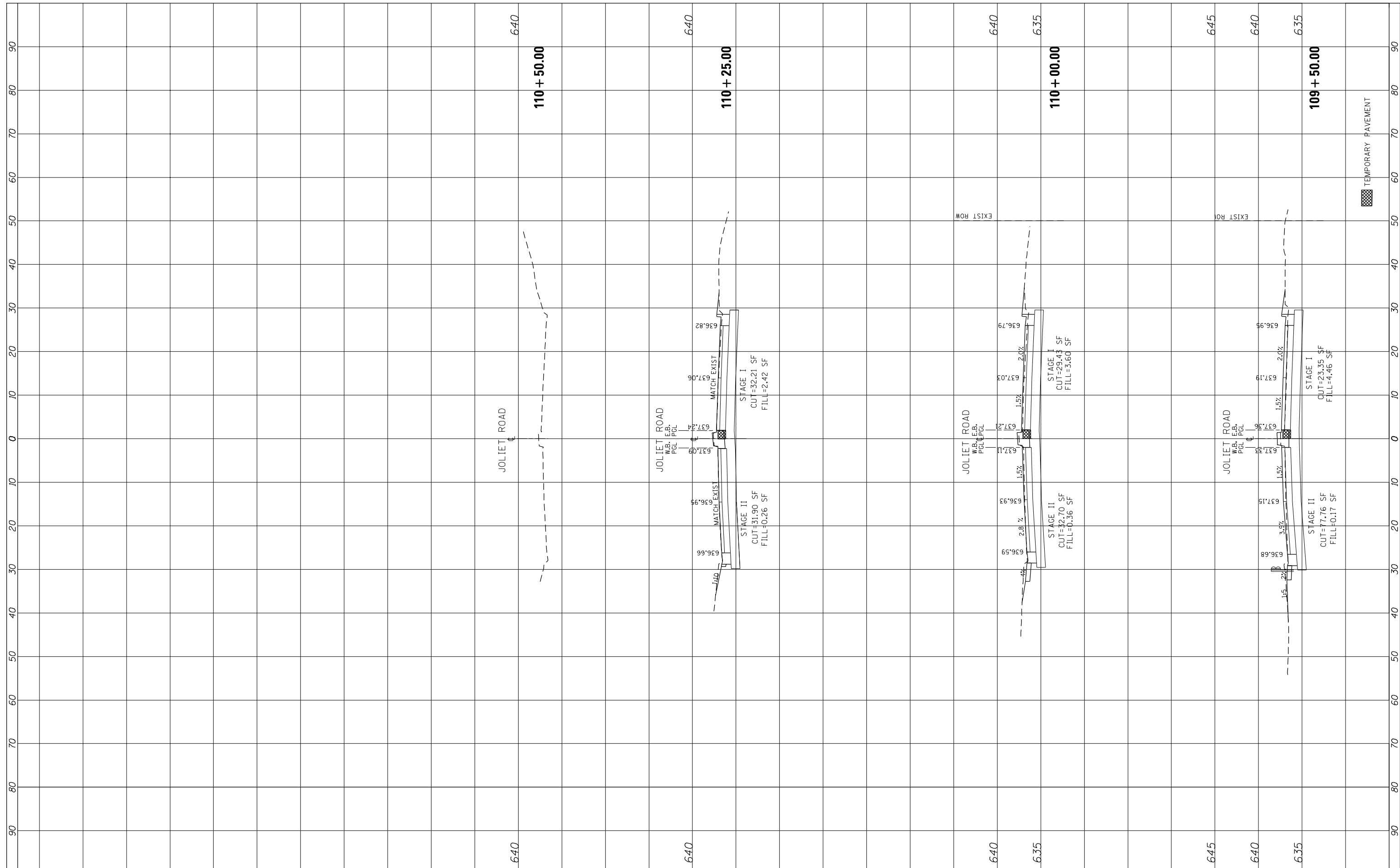
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>JOLIET ROAD CROSS-SECTIONS</b>	
SCALE:	SHEET 4 OF 8 SHEETS STA. 108+17.31 TO STA. 109+00.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3562	T-5-4BR	COOK	92	88
CONTRACT NO. 60N80			ILLINOIS FED. AID PROJECT	

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

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



FILE NAME =	USER NAME = jphm	DESIGNED -	REVISED -
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	PLOT SCALE = 20.0000' / in.	CHECKED -	REVISED -
\$MODELNAME\$	PLOT DATE = 4/4/2019	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

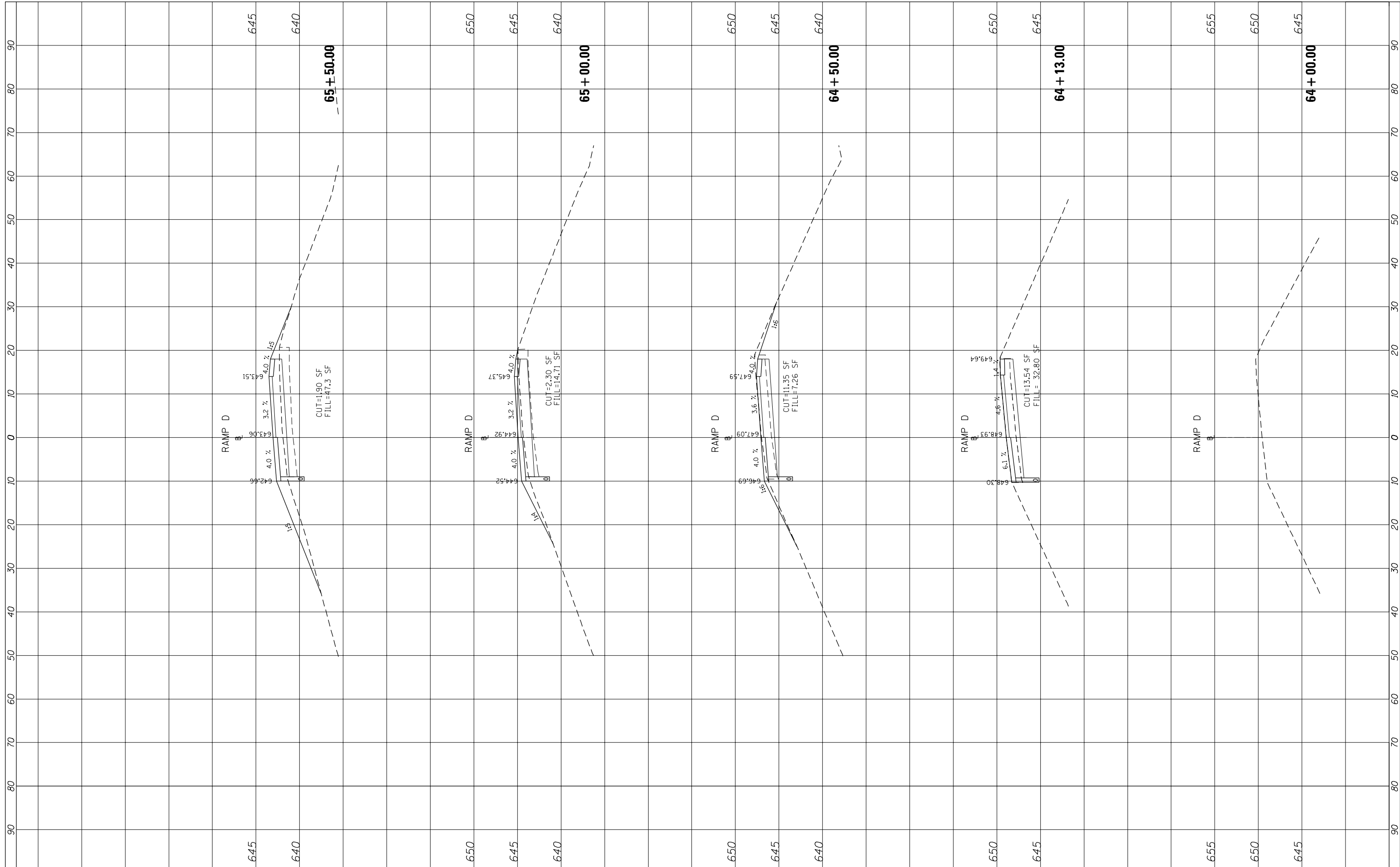
<b>JOLIET ROAD CROSS-SECTIONS</b>	
SCALE:	SHEET 5 OF 8 SHEETS STA. 109+50.00 TO STA. 110+50.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3562	T-5-4BR	COOK	92	89
CONTRACT NO. 60N80			ILLINOIS FED. AID PROJECT	



FINAL SURVEY NO.	SURVEYED	BY	DATE
	PLOTTED		
	TEMPLATE		
	AREAS CHECKED		

ORIGINAL SURVEY NO.	SURVEYED	BY	DATE
	PLOTTED		
	TEMPLATE		
	AREAS CHECKED		



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USER NAME = jpham  
 DESIGNED - MG  
 DRAWN - MG  
 CHECKED - TVN  
 DATE -

REVISED -  
 REVISED -  
 REVISED -  
 REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

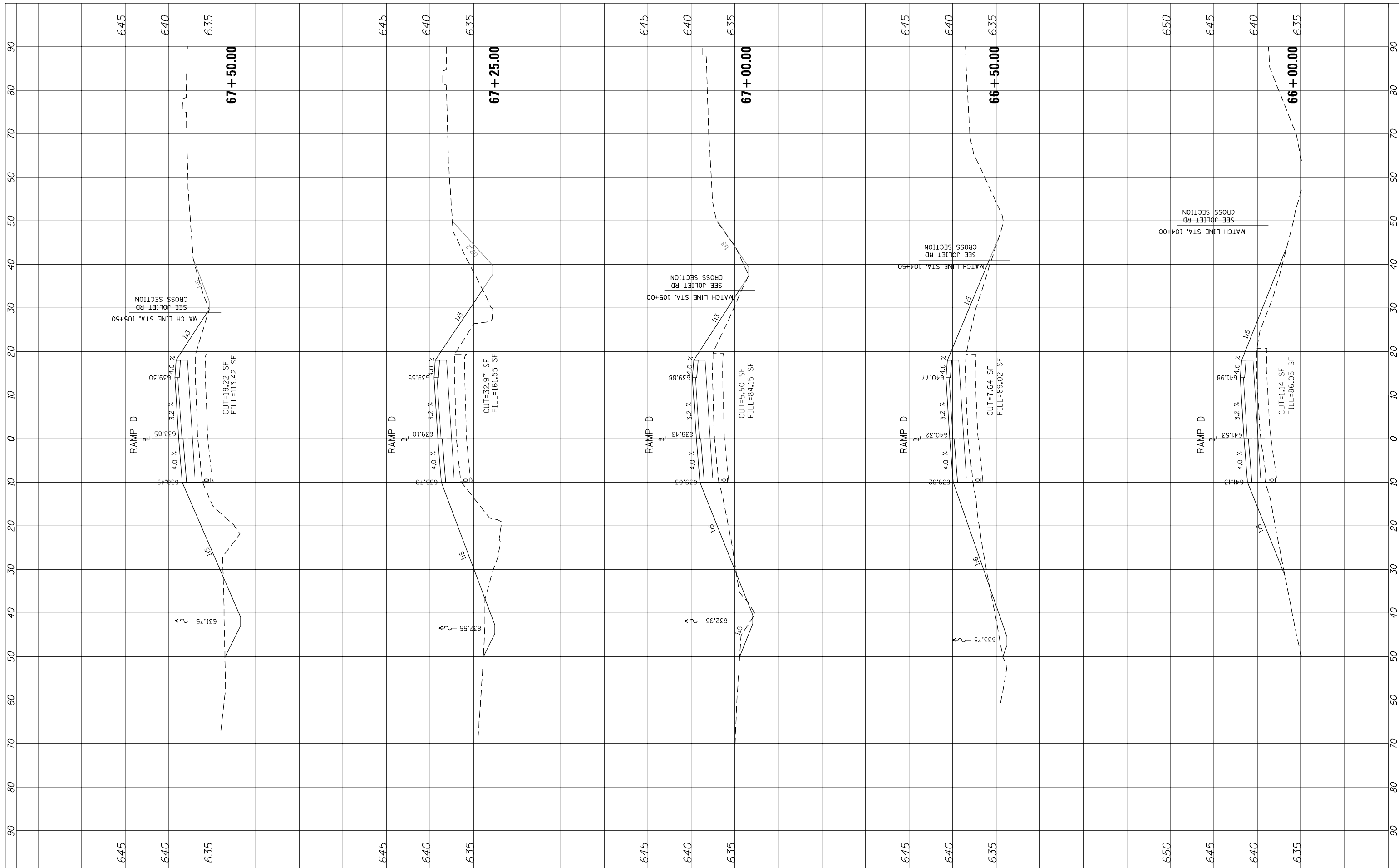
**RAMP D CROSS SECTIONS**

SCALE: SHEET 6 OF 8 SHEETS STA. 64+00.00 TO STA. 65+50.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3562	T-5-4B-R	COOK	92	90
CONTRACT NO. 60N80			ILLINOIS FED. AID PROJECT	

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

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



FILE NAME = P:\2011\ME11007\_Var-Var-PhII\CADD\W015\_JolietRd\FigCk\Shets\90-92-0160N80-shet-ssht\_RampD.dgn

USER NAME = jpham  
 PLOT SCALE = 20.0000' / in.  
 PLOT DATE = 4/4/2019

DESIGNED - MG  
 DRAWN - MG  
 CHECKED - TVN  
 DATE -

REVISED -  
 REVISED -  
 REVISED -  
 REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

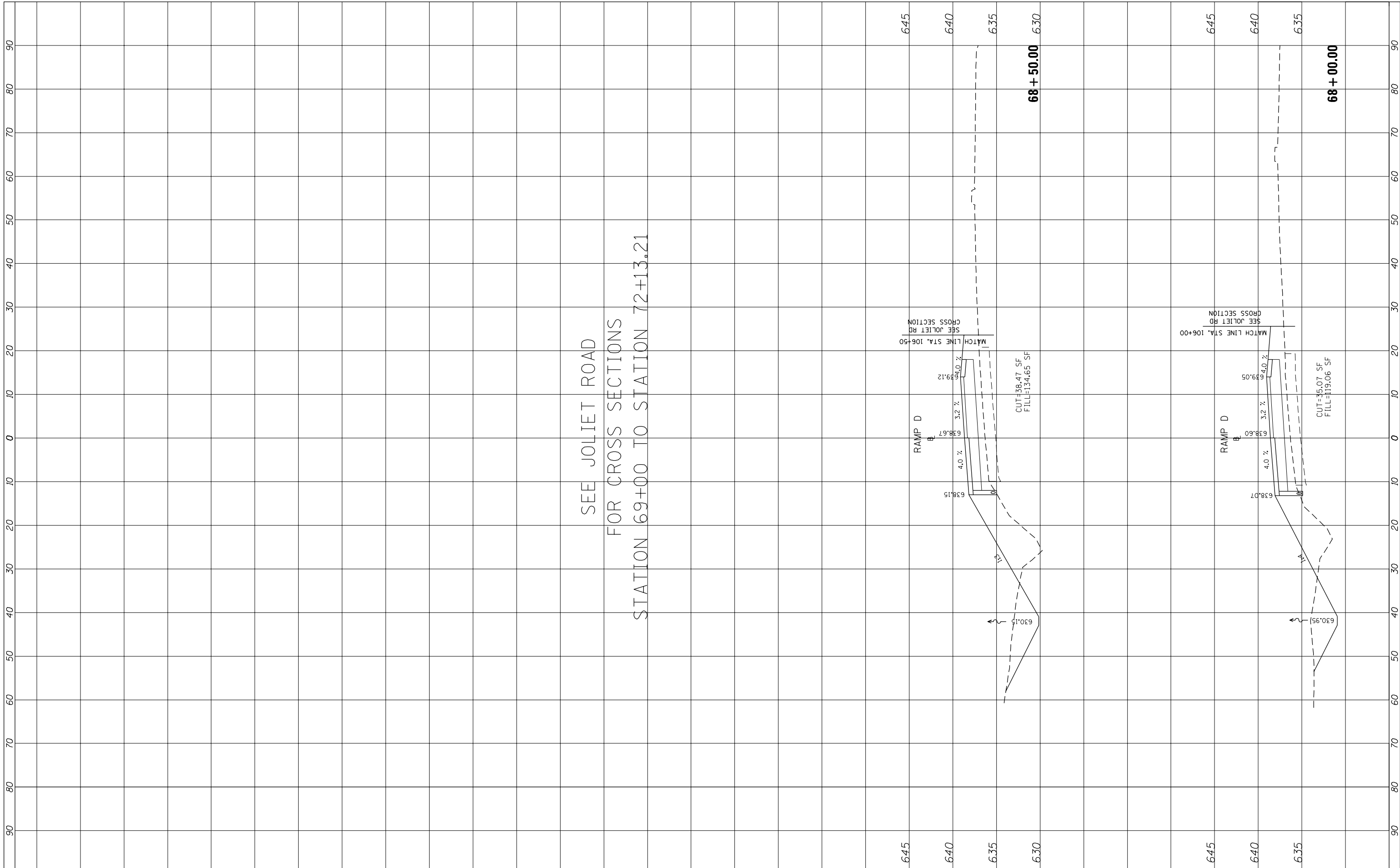
**RAMP D CROSS SECTIONS**

SCALE: SHEET 7 OF 8 SHEETS STA. 66+00.00 TO STA. 67+50.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3562	T-5-4B-R	COOK	92	91
ILLINOIS FED. AID PROJECT			CONTRACT NO. 60N80	

FINAL SURVEY NO.	SURVEYED PLOTTED AREAS CHECKED	BY	DATE

ORIGINAL SURVEY NO.	SURVEYED PLOTTED AREAS CHECKED	BY	DATE



SEE JOLIET ROAD  
FOR CROSS SECTIONS  
STATION 69+00 TO STATION 72+13.21

FILE NAME =	USER NAME = jpham	DESIGNED - MG	REVISED -
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	PLOT SCALE = 20.0000' / in.	CHECKED - TVN	REVISED -
\$MODELNAME\$	PLOT DATE = 4/4/2019	DATE -	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

RAMP D CROSS SECTIONS

SCALE: SHEET 8 OF 8 SHEETS STA. 68+00.00 TO STA. 68+50.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3562	T-5-4B-R	COOK	92	92
CONTRACT NO. 60N80			ILLINOIS FED. AID PROJECT	