FOR INDEX OF SHEETS AND STANDARDS SEE SHEET NO. 2

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	1
	ILLINOIS	CONTRACT NO. 62U90		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

08-02-2024 LETTING ITEM 014

DESIGN DESIGNATIONS:

EXISTING RAMP E	6,700 (2050) INTERSTATE RAMP
EXISTING RAMP F	<17,800 (2050) INTERSTATE RAMP

POSTED /DESIGN SPEEDS:

50 MPH /50 MPH
50 MPH /50 MPH

NPDES PERMIT INFORMATION

NPDES Disturbed
Area = 3.23 Acres

Approximate Location of Roadway is :
Longitude 87° 52' 11" W
Latitude 41° 59' 11" N

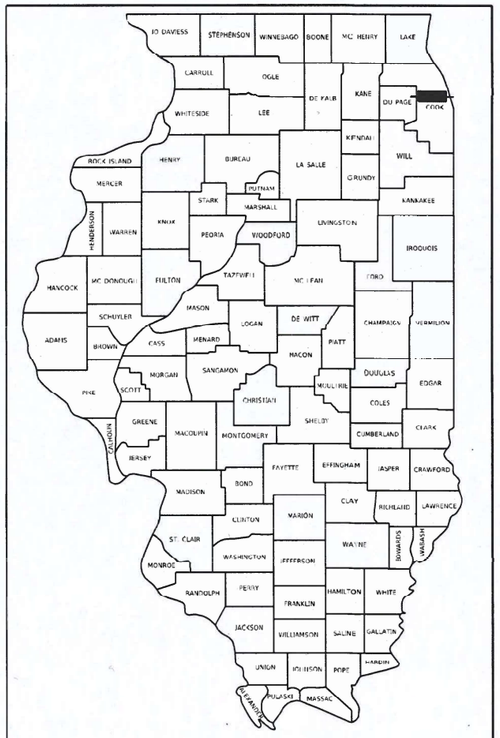
PROPOSED HIGHWAY PLANS

FAI ROUTE 190 (I-190)

SECTION FAI 90 23 TBR
PROJECT
WB I–190 ADVANCE
TOLL PLAZA 31 RELOCATION
COOK COUNTY

C–91–175–23

P-91-280-99
D-91-356-20

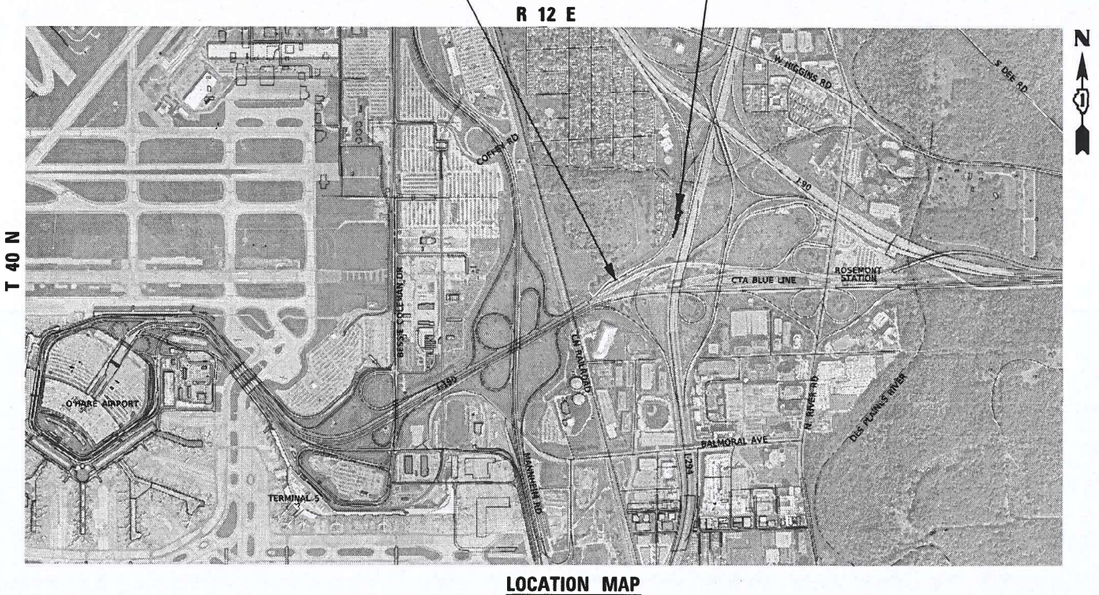


LOCATION OF SECTION INDICATED THUS: –

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

EXISTING TOLL PLAZA 31

PROPOSED TOLL PLAZA 31



LOCATION MAP
NOT TO SCALE
GROSS LENGTH = 130 FT. = 0.025 MILE
NET LENGTH = 130 FT. = 0.025 MILE

MICHAEL EICHTEN 062-050948 REGISTERED PROFESSIONAL ENGINEER OF ILLINOIS

Michael J Eichten 3/15/2024
MICHAEL J. EICHTEN, P.E. DATE
LICENSE EXPIRES 11 /30 /2025
SHEET RANGE: 1-49, 53-54, 212-231

GREGORY R. REILLY 062-061281 LICENSED PROFESSIONAL ENGINEER OF ILLINOIS

Gregory R Reilly 3/15/2024
GREGORY R. REILLY, P.E. DATE
LICENSE EXPIRES 11 /30 /2025
SHEET RANGE: 59-99, 101-114

MATTHEW J. LETOURNEAU 062-055763 LICENSED PROFESSIONAL ENGINEER OF ILLINOIS

3/15/2024
MATTHEW J. LETOURNEAU, P.E. DATE
LICENSE EXPIRES 11 /30 /2025
SHEET RANGE: 100

STATE OF ILLINOIS MOHSEN M. FARAHANY 81-5131 REGISTERED STRUCTURAL ENGINEER

Mohsen M Farahany 3/15/2024
MOHSEN M. FARAHANY, S.E. DATE
LICENSE EXPIRES 11 /30 /2024
SHEET RANGE: 55-56

100' 200' 300' — 1"= 100'
0 10' 20' 30' — 1"= 10'
0 50' 100' — 1"= 50'
0 50' 100' — 1"= 40'
0 50' 100' — 1"= 30'
0 50' 100' — 1"= 20'

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 EXCAVATORS
1–800–892–0123 OR 811
C.U.A.N.
CITY UTILITY ALERT NETWORK
1–312–744–7000

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED May 8th 2024 Joseph Ia
REGIONAL ENGINEER

June 28, 2024
ENGINEER OF DESIGN AND ENVIRONMENT

June 28, 2024
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

PROJECT MANAGER: MATTHEW ROTHENBERG, P.E.

CONTRACT NO. 62U90

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

REV-SEP

INDEX OF SHEETS

1	COVER SHEET
2	INDEX OF DRAWINGS, STANDARDS, GENERAL NOTES, AND COMMITMENTS
3-9	SUMMARY OF QUANTITIES
10	TYPICAL SECTIONS
11-14	SCHEDULE OF QUANTITIES
15-16	ALIGNMENT, TIES, AND BENCHMARKS
17	EXISTING TOLL PLAZA 31 AND SITE REMOVAL PLAN
18-19	TOLL PLAZA DEMOLITION PLANS
20	PROPOSED TOLL PLAZA 31 CIVIL PLAN
21-22	SITE PLAN AT EXISTING TOLL PLAZA 31
23-24	RAMP TOLL PLAZA PAVEMENT DETAILS
25-26	FENCING SYSTEM DETAILS
27	PROPOSED GRADING PLAN
28	SUGGESTED STAGES OF CONSTRUCTION AND TRAFFIC CONTROL PLAN - GENERAL NOTES AND NARRATIVE
29-30	SUGGESTED STAGES OF CONSTRUCTION AND TRAFFIC CONTROL PLAN - TYPICAL SECTIONS
31-42	SUGGESTED STAGES OF CONSTRUCTION AND TRAFFIC CONTROL PLAN
43	EROSION AND SEDIMENT CONTROL GENERAL NOTES AND SCHEDULES
44	TEMPORARY EROSION CONTROL AND TEMPORARY DRAINAGE PLAN
45	PERMANENT EROSION AND SEDIMENTATION CONTROL PLAN
46	DRAINAGE SCHEDULE
47	EXISTING DRAINAGE AND UTILITIES PLAN
48-49	PROPOSED DRAINAGE AND UTILITIES PLAN
50-54	UTILITY LOCATION PLANS (SUE)
55-56	PAVEMENT MARKING AND SIGNING PLANS
57-58	OVERHEAD SIGN STRUCTURE EXIT MONOTUBE TYPE (STEEL) AET
59-60	BORING LOGS
61-101	TOLL PLAZA ELECTRICAL PLANS
102	IDOT ITS PLANS
103-116	ROADWAY LIGHTING PLANS
117-213	TOLLWAY STANDARDS
214	DISTRICT ONE DETAILS
215-234	CROSS SECTIONS

GENERAL NOTES

1. ALL ELEVATIONS IN THE PLANS ARE BASED UPON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
2. A MINIMUM OF SEVENTY-TWO (72) HOURS BEFORE STARTING EXCAVATION, THE CONTRACTOR SHALL CALL J.U.L.I.E. AT (800) 892-0123 OR 811 TO HAVE THE LOCATION OF EXISTING UNDERGROUND UTILITIES MARKED IN THE FIELD.
3. THE CONTRACTOR MUST CALL THE IDOT ELECTRICAL MAINTENANCE CONTRACTOR TO LOCATE IDOT FACILITY CABLES.
4. PLAN DIMENSIONS AND DETAILS RELATIVE TO EXISTING PLANS ARE SUBJECT TO ROUTINE VARIATIONS. THE CONTRACTOR SHALL FIELD VERIFY EXISTING DIMENSIONS AND DETAILS AFFECTING NEW CONSTRUCTION AND MAKE NECESSARY APPROVED ADJUSTMENTS PRIOR TO CONSTRUCTION OR ORDERING OF MATERIALS. SUCH VARIATIONS SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATION FOR A CHANGE IN THE SCOPE OF THE WORK, HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED BASED UPON THE UNIT PRICE BID FOR THE WORK.
5. ALL ROADWAY WIDTHS AND RADII SHOWN ON THE PLANS ARE TO THE EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.
6. EXCEPT WHERE DESIGNATED OTHERWISE, THE LOCATIONS AND/OR DEPTHS OF UNDERGROUND UTILITIES SHOWN HAVE BEEN TAKEN FROM OFFICE RECORD INFORMATION FURNISHED BY THE UTILITY OWNERS AND THE SUE SURVEYS. ALL UNDERGROUND UTILITIES MUST BE CONSIDERED APPROXIMATE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UNDERGROUND OR SURFACE UTILITIES EVEN THOUGH THEY MAY NOT BE SHOWN IN THE PLANS. ANY UTILITY THAT IS DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE ENGINEER. THIS WORK SHALL BE AT THE CONTRACTOR'S EXPENSE.
7. DRAINAGE
   - I. STORM SEWER (WATER MAIN REQUIREMENTS) IS TO BE USED AT LOCATIONS WHERE LATERAL SEPARATION BETWEEN THE SEWER AND WATER MAIN IS LESS THAN 10 FT AND THE VERTICAL SEPARATION IS LESS THAN 1.5 FT. DUCTILE IRON PIPE WITH RUBBER GASKET JOINTS SHALL BE USED FOR ALL STORM SEWERS (WATER MAIN REQUIREMENTS).
   - II. THE OFFSETS AND TOP OF FRAME OR LID ELEVATIONS FOR CATCH BASINS ARE MEASURED TO THE EDGE OF STRUCTURE.
   - III. DRAINAGE GRADES SHALL BE VERIFIED IN FIELD PRIOR TO INSTALLATION OF DRAINAGE ITEMS.
   - IV. THE CONTRACTOR SHALL MAINTAIN DRAINAGE PATTERNS AT ALL TIMES DURING CONSTRUCTION.
8. THE DEPARTMENT HAS NOT OBTAINED ANY PERMITS FOR OFFSITE BORROW, WASTE, USE (BWU) AREAS. PRIOR TO WORKING IN BWU AREAS, IF THE CONTRACTOR CHOOSES TO USE ACTIVITIES REQUIRING PERMITS, IT IS THE CONTRACTOR'S RESPONSIBILITY TO SECURE THE PROPER PERMITS. IN ADDITION TO THE BORROW SITE REVIEW (BDE 2289) AND USE/WASTE SITE REVIEW (BDE 2290) SUBMITTALS, THE CONTRACTOR WILL NEED TO SUBMIT AN EROSION AND SEDIMENT CONTROL (ESC) PLAN FOR EVERY BWU SITE TO THE DEPARTMENT FOR ACCEPTANCE. GUIDELINES FOR ACCEPTABLE BWU PRACTICES CAN BE FOUND IN SECTION II.G.1 AND 2 OF THE SWPPP. THE CONTRACTOR SHALL FOLLOW THE ILLINOIS TOLLWAY SPECIAL PROVISIONS AND REQUIREMENTS FOR BWU AREAS WITHIN THE ILLINOIS TOLLWAY JURISDICTION. THE COST OF ALL MATERIALS AND LABOR NECESSARY TO COMPLY WITH THE ABOVE PROVISIONS TO PREPARE AND IMPLEMENT ESC PLANS WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED AS INCLUDED IN THE UNIT BID PRICES OF THE CONTRACT AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
9. IF ANY UNUSUAL MATERIALS ARE UNCOVERED OR THERE ARE SUSPICIONS OF EXISTING UNDERGROUND STORAGE TANKS, THE GENERAL CONTRACTOR IS REQUIRED TO HIRE AN ENVIRONMENTAL FIRM WITH AT LEAST FIVE (5) DOCUMENTED LEAKING UNDERGROUND STORAGE TANK (LUST) CLEANUPS OR THAT IS PREQUALIFIED IN HAZARDOUS WASTE BY THE DEPARTMENT TO REMEDIATE THE SOIL CONTAMINATION AND MONITOR FOR WORKER PROTECTION.
10. BACKFILLING STORM SEWER CONSTRUCTED UNDER THE ROADWAY SPECIFIED UNDER ARTICLE 550.07 (B, C) OF THE SSRBC WILL NOT BE ALLOWED.
11. THE CONTRACTOR SHALL COORDINATE WORK WITH UTILITIES IN ADVANCE OF WORKING IN THE VICINITY OF THEIR FACILITIES AND ALLOW SUFFICIENT TIME FOR THEM TO PERFORM ADJUSTMENTS TO THEIR FACILITIES IN ACCORDANCE WITH THE CONTRACTOR'S SCHEDULE. COORDINATION EFFORTS SHALL BE INCLUDED IN THE COST OF THE CONTRACT BID PRICE.
12. ALL SEWER AND WATER SERVICES CROSSED BY NEW STORM SEWERS SHALL BE PROPERLY LOCATED AND PROTECTED DURING CONSTRUCTION. ANY DAMAGE DONE TO SAID SERVICES NOT CONSIDERED TO BE IN CONFLICT WITH THE PROPOSED CONSTRUCTION SHALL BE REPAIRED BY THE CONTRACTOR AT HIS OWN EXPENSE.
13. THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT.
14. THE SCALE SHOWN ON THE DRAWINGS APPLIES ONLY TO FULL SIZE PLANS AND NOT TO THE REDUCED SIZE PLANS.
15. SEE SPECIAL PROVISIONS FOR DETAILED NOTES REGARDING THE FABRICATION OF THE PREFABRICATED REMOTE CONTROL BUILDING.
16. FENCE: EXISTING FENCE THAT HAS TO BE DISCONNECTED AND/OR REMOVED FOR THE CONTRACTOR'S OPERATION SHALL BE RECONNECTED AND / OR REPLACED BY THE CONTRACTOR IN KIND AT NO ADDITIONAL COST TO THE DEPARTMENT. TEMPORARY FENCE SHOULD BE INSTALLED IF EXISTING FENCE IS TO BE REMOVED BY THE CONTRACTOR IN ACCORDANCE WITH SECTION 664 OF THE STANDARD SPECIFICATIONS. ANY ROW-OF-WAY MARKERS DISTURBED BY THE CONTRACTOR'S OPERATION SHOULD BE REESTABLISHED BY A REGISTERED LAND SURVEYOR AT NO ADDITIONAL COST TO THE DEPARTMENT.
17. TREE CLEARING IS ONLY ALLOWED FROM NOVEMBER 1ST TO MARCH 30TH.

TOLLWAY STANDARDS

A4-05	BUTT JOINTS AND TEMPORARY ASPHALT WEDGE
A7-06	PAVEMENT JOINTS
A20-00	BENCHING DETAIL FOR EMBANKMENT WIDENING
B1-12	GUTTER AND CURB DETAILS
B3-10	TYPE G-2/G-3 GUTTER TRANSITION AT TRAFFIC BARRIER TERMINAL, TYPE T6
B5-04	CONCRETE FLUME DETAILS
B8-09	CATCH BASINS TYPE G AND TYPE G-3 MODIFIED, FRAMES AND GRATES
B9-04	SLOPED HEADWALLS TYPE I AND TYPE II
B19-02	EROSION PROTECTION
B24-09	PIPE UNDERDRAINS
C1-13	GALVANIZED STEEL PLATE BEAM GUARDRAIL
C6-11	SHOULDER WIDENING FOR TRAFFIC BARRIER TERMINAL, TYPE T1 (SPECIAL) TANGENT
C9-10	TRAFFIC BARRIER TERMINAL, TYPE T6
C11-07	TRAFFIC BARRIER TERMINAL, TYPE T10
D2-04	SYMBOLS AND PATTERNS
D4-09	ROADWAY DELINEATORS AND REFLECTORS
D6-11	PERMANENT PAVEMENT MARKINGS RAMPS
D10-03	TEMPORARY CONCRETE BARRIER WITH CROSS-BOLT CONNECTION
E1-07	CONSTRUCTION SIGNS
E3-10	SHOULDER CLOSURE DETAILS
E4-07	MAINTENANCE OF TRAFFIC REVERSE CURVE
E5-10	TEMPORARY GORE DETAILS
E6-08	CONTRACTOR ACCESS TO WORK AREA
F9-07	BREAKAWAY SIGN SUPPORT DETAILS
F11-06	MILEPOST MARKER
F13-09	OVERHEAD SIGN STRUCTURE MONOTUBE TYPE (STEEL) STRUCTURE MAINLINE DETAILS
F15-08	OVERHEAD SIGN STRUCTURE MONOTUBE TYPE (STEEL) STRUCTURE DETAILS FOR AET RAMP
H1-12	LIGHT STANDARD FOUNDATION
H2-10	LIGHT STANDARD DETAILS
H4-06	HEAVY-DUTY HANDHOLE AND BURIED WIRING DETAILS
H17-02	MAST ARM CABLE ASSEMBLY (SINGLE MAST ARM)
K1-13	EROSION CONTROL & LANDSCAPE
L1-06	FIBER OPTIC SYSTEM TYPICALS AND DRAWINGS

IDOT HIGHWAY STANDARDS

000001-08	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
420001-10	PAVEMENT JOINTS
602001-02	CATCH BASIN TYPE A
602701-02	MANHOLE STEPS
704001-08	TEMPORARY CONCRETE BARRIER
720001-01	SIGN PANEL MOUNTING DETAILS
720006-04	SIGN PANEL ERECTION DETAILS
782006-01	GUARDRAIL AND BARRIER WALL REFLECTOR MOUNTING DETAILS

DISTRICT 1 STANDARDS

BD-08	DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING

COMMITMENTS

NONE

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline.Ng	DESIGNED - JN	REVISED -
	DRAWN - JN	REVISED -
PLOT SCALE = 20.0000 ' / in.	CHECKED - MJE	REVISED -
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INDEX OF DRAWINGS, STANDARDS, GENERAL NOTES, AND COMMITMENTS

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

F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	2
		CONTRACT NO. 62U90		
		ILLINOIS	FED. AID PROJECT	

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	CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE 100% STATE ROADWAY 0044 URBAN	CONSTRUCTION CODE 100% STATE LIGHTING 0021 URBAN
*	20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	250	250	
*	20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	261	261	
*	20101400	NITROGEN FERTILIZER NUTRIENT	POUND	75	75	
*	20101600	POTASSIUM FERTILIZER NUTRIENT	POUND	213	213	
*	20101700	SUPPLEMENTAL WATERING	UNIT	28	28	
	20200100	EARTH EXCAVATION	CU YD	1,840	1,840	
	20201200	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU YD	700	700	
	20400800	FURNISHED EXCAVATION	CU YD	1,040	1,040	
	20800150	TRENCH BACKFILL	CU YD	119.2	119.2	
	21000310	GRANULAR EMBANKMENT, SPECIAL	CU YD	15	15	
	21001000	GEOTECHNICAL FABRIC FOR GROUND STABILIZATION	SQ YD	694	694	
*	25100115	MULCH, METHOD 2	ACRE	1.75	1.75	
*	25100630	EROSION CONTROL BLANKET	SQ YD	7,724	7,724	
*	25100635	HEAVY DUTY EROSION CONTROL BLANKET	SQ YD	3,409	3,409	

	CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE 100% STATE ROADWAY 0044 URBAN	CONSTRUCTION CODE 100% STATE LIGHTING 0021 URBAN
*	25200110	SODDING, SALT TOLERANT	SQ YD	554	554	
*	28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	10,686	10,686	
*	28001100	TEMPORARY EROSION CONTROL BLANKET	SQ YD	3,597	3,597	
	30300001	AGGREGATE SUBGRADE IMPROVEMENT	CU YD	700	700	
	31101200	SUBBASE GRANULAR MATERIAL, TYPE B 4"	SQ YD	41	41	
	40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	232	232	
	42001300	PROTECTIVE COAT	SQ YD	718	718	
	42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	361.0	361.0	
	44000100	PAVEMENT REMOVAL	SQ YD	1,563	1,563	
	44000300	CURB REMOVAL	FOOT	134	134	
	44000400	GUTTER REMOVAL	FOOT	732	732	
	44000600	SIDEWALK REMOVAL	SQ FT	822	822	
	44004250	PAVED SHOULDER REMOVAL	SQ YD	1,002	1,002	
	44201000	CLASS B PATCHES, TYPE IV, 12 INCH	SQ YD	149	149	

* DENOTES SPECIALTY ITEM

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline.Ng	DESIGNED - JN	REVISED -
	DRAWN - JN	REVISED -
PLOT SCALE = 2.0000 ' / in.	CHECKED - MJE	REVISED -
PLOT DATE = 5/1/2024	DATE - 5/3/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

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

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	3
		CONTRACT NO. 62U90		
	ILLINOIS	FED. AID PROJECT		

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				CONSTRUCTION CODE	
				100% STATE	100% STATE
				ROADWAY	LIGHTING
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	0044	0021
				URBAN	URBAN
44213204	TIE BARS 3/4"	EACH	102	102	
50300225	CONCRETE STRUCTURES	CU YD	67.4	67.4	
50300300	PROTECTIVE COAT	SQ YD	100.4	100.4	
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	22,280	22,280	
550A0360	STORM SEWERS, CLASS A, TYPE 2 15"	FOOT	173	173	
55100700	STORM SEWER REMOVAL 15"	FOOT	80	80	
59300100	CONTROLLED LOW-STRENGTH MATERIAL	CU YD	5	5	
60250200	CATCH BASINS TO BE ADJUSTED	EACH	1	1	
60255500	MANHOLES TO BE ADJUSTED	EACH	2	2	
60260100	INLETS TO BE ADJUSTED	EACH	5	5	
60500050	REMOVING CATCH BASINS	EACH	3	3	
60500305	FILLING INLETS	EACH	4	4	
63200310	GUARDRAIL REMOVAL	FOOT	578	578	
* 66900200	NON-SPECIAL WASTE DISPOSAL	CU YD	1,170	1,170	

				CONSTRUCTION CODE	
				100% STATE	100% STATE
				ROADWAY	LIGHTING
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	0044	0021
				URBAN	URBAN
* 66900530	SOIL DISPOSAL ANALYSIS	EACH	5	5	
* 66901001	REGULATED SUBSTANCES PRE-CONSTRUCTION PLAN	L SUM	1	1	
* 66901003	REGULATED SUBSTANCES FINAL CONSTRUCTION REPORT	L SUM	1	1	
* 66901005	ENGINEERED BARRIER	SQ YD	745	745	
* 66901006	REGULATED SUBSTANCES MONITORING	CAL DA	50	50	
67100100	MOBILIZATION	L SUM	1	1	
70301120	TEMPORARY PAVEMENT MARKING - LINE 4" - EPOXY	FOOT	17,899	17,899	
70301140	TEMPORARY PAVEMENT MARKING - LINE 8" - EPOXY	FOOT	3,065	3,065	
70600280	IMPACT ATTENUATORS, TEMPORARY (SEVERE USE,NARROW), TEST LEVEL 3	EACH	2	2	
70600370	IMPACT ATTENUATORS, RELOCATE (SEVERE USE, NARROW), TEST LEVEL 3	EACH	3	3	
* 72400310	REMOVE SIGN PANEL - TYPE 1	SQ FT	10	10	
* 72400320	REMOVE SIGN PANEL - TYPE 2	SQ FT	12	12	
* 72700100	STRUCTURAL STEEL SIGN SUPPORT - BREAKAWAY	POUND	1,926	1,926	
* 73000100	WOOD SIGN SUPPORT	FOOT	86	86	

* DENOTES SPECIALTY ITEM

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline.Ng	DESIGNED - JN	REVISED -	
	DRAWN - JN	REVISED -	
PLOT SCALE = 2.0000 ' / in.	CHECKED - MJE	REVISED -	
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: NONE | SHEET 2 OF 7 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	4
		CONTRACT NO. 62U90		
	ILLINOIS FED. AID PROJECT			

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	CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE 100% STATE ROADWAY 0044 URBAN	CONSTRUCTION CODE 100% STATE LIGHTING 0021 URBAN
*	73400100	CONCRETE FOUNDATIONS	CU YD	4.2	4.2	
*	73700100	REMOVE GROUND MOUNTED SIGN SUPPORT	EACH	4	4	
*	73700200	REMOVE CONCRETE FOUNDATION - GROUND MOUNT	EACH	4	4	
*	81800400	AERIAL CABLE, 4-1/C NO. 2 WITH MESSENGER WIRE	FOOT	608	608	
*	89502380	REMOVE EXISTING HANDHOLE	EACH	1	1	
	Z0007601	BUILDING REMOVAL NO. 1	L SUM	1	1	
	Z0013798	CONSTRUCTION LAYOUT	L SUM	1	1	
	Z0018500	DRAINAGE STRUCTURES TO BE CLEANED	EACH	4	4	
*	Z0049801	REMOVAL AND DISPOSAL OF FRIABLE ASBESTOS, BUILDING NO. 1	L SUM	1	1	
*	Z0049901	REMOVAL AND DISPOSAL OF NON-FRIABLE ASBESTOS, BUILDING NO. 1	L SUM	1	1	
	X0300266	WOODEN FENCE REMOVAL	FOOT	32	32	
	X0327070	REMOVE EXISTING FLAGPOLE	EACH	1	1	
*	X0327616	MAINTAINING ITS DURING CONSTRUCTION	CAL MO	10	10	
	X0350810	BOLLARD REMOVAL	EACH	5	5	

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE 100% STATE ROADWAY 0044 URBAN	CONSTRUCTION CODE 100% STATE LIGHTING 0021 URBAN
X4402805	ISLAND REMOVAL	SQ FT	1,321	1,321	
X5509900	ABANDON AND FILL EXISTING STORM SEWER	FOOT	120	120	
X5537500	STORM SEWERS TO BE CLEANED 6"	FOOT	119	119	
X5537800	STORM SEWERS TO BE CLEANED 12"	FOOT	104	104	
X5537900	STORM SEWERS TO BE CLEANED 15"	FOOT	478	478	
X5538200	STORM SEWERS TO BE CLEANED 24"	FOOT	28	28	
X5538400	STORM SEWERS TO BE CLEANED 30"	FOOT	123	123	
X5610651	ABANDON EXISTING WATER MAIN, FILL WITH CLSM	FOOT	557	557	
X5610706	WATER MAIN REMOVAL, 6"	FOOT	268	268	
X6700407	ENGINEER'S FIELD OFFICE, TYPE A (D1)	CAL MO	10	10	
JA000670	FIRE HYDRANTS REMOVAL	EACH	1	1	
JI201100	TREE STUMP REMOVAL	EACH	1	1	
JI211110	TOPSOIL EXCAVATION AND PLACEMENT	CU YD	1,430	1,430	
JI211126	TOPSOIL FURNISH AND PLACE, 6"	SQ YD	795	795	

* DENOTES SPECIALTY ITEM

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline.Ng	DESIGNED - JN	REVISED -
	DRAWN - JN	REVISED -
PLOT SCALE = 2.0000 ' / in.	CHECKED - MJE	REVISED -
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: NONE | SHEET 3 OF 7 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	5
		CONTRACT NO. 62U90		
	ILLINOIS	FED. AID PROJECT		

MODEL: Default
FILE NAME: pw:\\aecom-na-pw.bentley.com:AECOM_US19_NA\Documents\66658563-1-190900-CAD\910_CAD\WBVIB-TOLL\03_SHEETS\CIVIL\D162U90-Sht-5000.dgn

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE 100% STATE ROADWAY 0044 URBAN	CONSTRUCTION CODE 100% STATE LIGHTING 0021 URBAN
JI282010	SUBGRADE FILTER FABRIC	SQ YD	2,063	2,063	
JI406042	STONE MATRIX WARM MIX ASPHALT SURFACE COURSE, IL-9.5, N80	TON	92	92	
JI406107	ASPHALT TACK COAT	POUND	15,584	15,584	
JI420010	PORTLAND CEMENT CONCRETE PAVEMENT 12" (JOINTED)	SQ YD	88	88	
JI440015	HOT-MIX ASPHALT REMOVAL, VARIABLE DEPTH	SQ YD	758	758	
JI442905	DOWEL BARS 1 1/2"	EACH	40	40	
JI481070	AGGREGATE SHOULDERS SPECIAL, TYPE C	TON	51	51	
JI481130	AGGREGATE SHOULDERS WITH FILTER FABRIC, TYPE B 4"	SQ YD	220	220	
JI482104	WARM-MIX ASPHALT SHOULDERS (6 IN.)	SQ YD	1,445	1,445	
JI485010	TEMPORARY PAVEMENT, CLASS 1	SQ YD	930	930	
JI602115	CATCH BASINS, TYPE G-2, TYPE G-2 FRAME AND GRATE	EACH	3	3	
JI602182	CATCH BASINS, TYPE A, 4'-DIAMETER, TYPE G-2 FRAME AND GRATE	EACH	2	2	
JI606000	CONCRETE CURB TYPE C	FOOT	60.0	60.0	
JI606010	GUTTER, TYPE G-2	FOOT	509.5	509.5	

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE 100% STATE ROADWAY 0044 URBAN	CONSTRUCTION CODE 100% STATE LIGHTING 0021 URBAN
JI631110	TRAFFIC BARRIER TERMINAL, TYPE T1 (SPECIAL) TANGENT	EACH	1	1	
JI664405	ORNAMENTAL FENCE REMOVAL	FOOT	71	71	
JI680103	SLOPED HEADWALL TYPE I, 15"	EACH	1	1	
JI704001	TEMPORARY CONCRETE BARRIER, CROSS-BOLT CONNECTION	FOOT	2,337.5	2,337.5	
JI704006	RELOCATE TEMPORARY CONCRETE BARRIER, CROSS-BOLT CONNECTION	FOOT	4,487.5	4,487.5	
JI704016	RELOCATE TEMPORARY CONCRETE BARRIER, CROSS-BOLT CONNECTION, TO REMAIN IN PLACE	FOOT	400	400	
JI706282	IMPACT ATTENUATORS, TEMPORARY (SEVERE USE, NARROW), TEST LEVEL 3, TO REMAIN IN PLACE	EACH	1	1	
* JI781010	RAISED PAVEMENT LANE MARKER REFLECTOR	EACH	17	17	
* JIA20052	TREE SPECIAL, GLEDITSIA TRIACANTHOS INERMIS SKYLINE (SKYLINE THORNLESS COMMON HONEYLOCUST), 3" CALIPER, BALLED AND BURLAPPED	EACH	5	5	
* JIA20082	TREE, GYMNOCLADUS DIOICUS (KENTUCKY COFFEETREE), 1 ½" CALIPER, BALLED AND BURLAPPED	EACH	6	6	
JS107360	DUST CONTROL WATERING	UNIT	96	96	
JS120710	ENERGY ATTENUATOR	EACH	1	1	
JS120715	ENERGY ATTENUATOR CONCRETE PAD	SQ FT	120	120	
JS280020	MANAGEMENT OF EROSION AND SEDIMENT CONTROL	CAL MO	10	10	

* DENOTES SPECIALTY ITEM

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: NONE | SHEET 4 OF 7 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	6
		CONTRACT NO. 62U90		
		ILLINOIS	FED. AID PROJECT	

MODEL: Default
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	CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE 100% STATE ROADWAY 0044 URBAN	CONSTRUCTION CODE 100% STATE LIGHTING 0021 URBAN
*	JS280050	SILT FENCE	FOOT	2,388	2,388	
*	JS280051	RE-ERECT SILT FENCE	FOOT	597	597	
	JS280070	STABILIZED CONSTRUCTION ENTRANCE	SQ YD	890	890	
*	JS280120	TREE PROTECTION	FOOT	270	270	
	JS280140	TEMPORARY RIPRAP	TON	90	90	
*	JS280205	FILTER FABRIC INLET PROTECTION, COVER TYPE	EACH	1	1	
*	JS280210	FILTER FABRIC INLET PROTECTION, BASKET TYPE	EACH	13	13	
*	JS280305	TEMPORARY DITCH CHECKS	FOOT	230	230	
	JS601320	PIPE UNDERDRAINS, FABRIC LINED TRENCH 6"	FOOT	567	567	
*	JS630002	GALVANIZED STEEL PLATE BEAM GUARDRAIL, TYPE A 6 FOOT POSTS	FOOT	712.5	712.5	
*	JS631130	TRAFFIC BARRIER TERMINAL, TYPE T6	EACH	2	2	
*	JS631140	TRAFFIC BARRIER TERMINAL, TYPE T10	EACH	1	1	
	JS701010	MAINTENANCE OF TRAFFIC	L SUM	1	1	
*	JS720100	SIGN INSTALLATION, TYPE 1	SQ FT	30	30	
*	JS720110	SIGN INSTALLATION, TYPE 2	SQ FT	83	83	
*	JS720120	SIGN INSTALLATION, TYPE 3	SQ FT	168	168	
*	JS725000	TERMINAL MARKER - DIRECT APPLIED	EACH	2	2	
*	JS733630	OVERHEAD SIGN STRUCTURE, AET RAMP EXIT MONOTOBE TYPE (STEEL)	FOOT	117	117	
*	JS734F10	FOUNDATION FOR OVERHEAD SIGN STRUCTURE, RAMP MONOTUBE TYPE	CU YD	41.6	41.6	
	JS780JC1	GROOVING FOR RECESSED PAVEMENT MARKING LINES, 7" GROOVE	FOOT	243	243	
*	JS782014	GUARDRAIL BARRIER REFLECTORS, TYPE B	EACH	8	8	
*	JS782022	BARRIER WALL REFLECTORS, TYPE C	EACH	505	505	
*	JS804100	ELECTRIC SERVICE INSTALLATION	EACH	1		1
*	JS814002	HEAVY-DUTY HANDHOLE, TOLLWAY	EACH	1		1
*	JS816076	UNIT DUCT, WITH 4-1/C NO. 2 AND 1/C NO. 4 GROUND, 600V (XLP-TYPE USE), 2" DIA. CNC	FOOT	1,014		1,014
*	JS817212	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 8	FOOT	1,110		1,110
*	JS836001	LIGHT POLE FOUNDATION (ROADWAY) STEEL HELIX (7 FT.) OR CONCRETE	EACH	1		1
*	JS836002	LIGHT POLE FOUNDATION (ROADWAY) STEEL HELIX (10 FT)	EACH	3		3
*	JS842105	POLE FOUNDATION, REMOVED	EACH	3		3

* DENOTES SPECIALTY ITEM

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: | SHEET 5 OF 7 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	7
		CONTRACT NO. 62U90		
	ILLINOIS	FED. AID PROJECT		

REV-SEP

MODEL: Default
FILE NAME: pw:\\aecom-na-pw.bentley.com:AECOM DS19 NADocuments\606585631-190900-CADD910 CADWRIWB-TOLL\03 SHEETS\CIVILD162U90-SHT-SOQ.dgn

	CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE 100% STATE ROADWAY 0044 URBAN	CONSTRUCTION CODE 100% STATE LIGHTING 0021 URBAN
*	JT130100	DEMOLITION OF PLAZA CANOPY	L SUM	1		1
*	JT130200	REMOVAL OF PLAZA EQUIPMENT	L SUM	1		1
*	JT130775	NATURAL GAS SERVICE	EACH	1		1
*	JT130822	VIDEO POWER JUNCTION BOX MODEL A, NEMA 1	EACH	2		2
*	JT131320	SELF SUPPORTING COMMUNICATION TOWER FOUNDATION	L SUM	1		1
*	JT131321	SELF SUPPORTING COMMUNICATION TOWER STRUCTURAL STEEL	L SUM	1		1
*	JT131323	GROUNDING SYSTEM	L SUM	1		1
*	JT131330	COMMUNICATION TOWER REMOVAL	L SUM	1		1
*	JT131526	PLAZA ELECTRICAL WORK	L SUM	1		1
*	JT131593	CONTROL BUILDING FOUNDATION, 14' X 32'	EACH	1		1
*	JT131701	PRECAST COCNCRETE PLAZA CONTROL BUILDING, LOCATION 1	L SUM	1		1
*	JT132740	VES CAMERA WASH SYSTEM, SINGLE CABINET, NITROGEN GENERATOR	L SUM	1		1
*	JT132822	ITS SECURITY CCTV CAMERA	EACH	2		2
*	JT132823	ITS SECURITY CCTV CAMERA, FIXED	EACH	2		2

	CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE 100% STATE ROADWAY 0044 URBAN	CONSTRUCTION CODE 100% STATE LIGHTING 0021 URBAN
*	JT135100	CONCRETE FILLED PIPE BOLLARDS	EACH	3		3
*	JT160130	HANDHOLE FOR SINGLE MODE FIBER OPTIC CABLE, 36"x60"x36"	EACH	1		1
*	JT160217	LOCATE POST FOR FIBER OPTIC CABLE	EACH	1		1
*	JT160218	CABLE MARKER WARNING SIGN, WITH POST, FOR FIBER OPTIC CABLE	EACH	2		2
*	JT160323	FIBER OPTIC CABLE, SINGLE MODE, ARMORED, 48 FIBERS	FOOT	1560		1560
*	JT160510	FIBER OPTIC TRANSCEIVER, TYPE 1	EACH	8		8
*	JT160515	FIBER OPTIC TRANSCEIVER, TYPE 2	EACH	4		4
*	JT160540	FIBER OPTIC CONNECTOR, SC-LC, SINGLE MODE DUPLEX	EACH	12		12
*	JT160610	NETWORK EQUIPMENT, TYPE 1	EACH	1		1
*	JT160615	NETWORK EQUIPMENT, TYPE 2	EACH	1		1
	JT211A08	SUBGRADE AGGREGATE 9 IN.	CU YD	233	233	
	JT211A11	SUBGRADE AGGREGATE 12 IN.	CU YD	753	753	
*	JT250432	SEEDING, CLASS 2E SALT TOLERANT ROADSIDE MIX (SPECIAL)	ACRE	0.75	0.75	
*	JT250442	SEEDING, CLASS 4F NATIVE GRASS LOW PROFILE MIX (SPECIAL)	ACRE	1.75	1.75	

* DENOTES SPECIALTY ITEM

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: | SHEET 6 OF 7 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	8
		CONTRACT NO. 62U90		
		ILLINOIS	FED. AID PROJECT	

REV-SEP

MODEL: Default
FILE NAME: pw:\\aecom-na-pw.bentley.com:AECOM DS19 NADocuments\\60638563-190900-CADD910 CADWRIWB-TOLL\03 SHEETS\Civil\D162U90-SHT-SOQ.dgn

	CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE 100% STATE ROADWAY 0044 URBAN	CONSTRUCTION CODE 100% STATE LIGHTING 0021 URBAN
	JT301010	GRANULAR SUBBASE, SPECIAL	CU YD	10	10	
	JT420300	DIAMOND GRINDING FOR CONTINUOUSLY REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT AND SHOULDER (SPECIAL)	SQ YD	643	643	
	JT421391	CONTINUOUSLY REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT AND SHOULDER (SPECIAL)(13.25 IN.)	SQ YD	556	556	
	JT421510	SLEEPER SLAB	SQ YD	35	35	
	JT421971	PAVEMENT REINFORCEMENT (13.25 IN.)	SQ YD	556	556	
	JT546000	TELEVISION INSPECTION OF SEWER	FOOT	852	852	
	JT684015	ANTI-CLIMB ORNAMENTAL FENCE GATE, 10' HT, 6' PEDESTRIAN GATE	EACH	1	1	
	JT684020	ANTI-CLIMB ORNAMENTAL FENCE GATE, 10' HT, 12' DOUBLE VEHICULAR GATE	EACH	1	1	
	JT684030	ANTI-RAM BARRIER, TYPE K4	FOOT	63	63	
*	JT724221	REMOVE AND RELOCATE SIGN, TYPE 1	SQ FT	15	15	
*	JT724222	REMOVE AND RELOCATE SIGN, TYPE 2	SQ FT	32	32	
*	JT724223	REMOVE AND RELOCATE SIGN, TYPE 3	SQ FT	120	120	
*	JT780310	MULTI-POLYMER PAVEMENT MARKING - LINE 6"	FOOT	6,949	6,949	
*	JT780320	MULTI-POLYMER PAVEMENT MARKING - LINE 10"	FOOT	726	726	
*	JT780325	MULTI-POLYMER PAVEMENT MARKING - LINE 12"	FOOT	918	918	
	JT783005	WATERBLAST PAVEMENT MARKING REMOVAL WITH VACUUM RECOVERY	SQ FT	8,466	8,466	
	JT783007	RAISED PAVEMENT LANE MARKER REMOVAL	EACH	15	15	
	JT783009	RAISED PAVEMENT LANE MARKER, REFLECTOR REMOVAL	EACH	15	15	
*	JT810874	UNDERGROUND CONDUIT, COILABLE NONMETALLIC CONDUIT, SDR 11, 1 1/2" DIA.	FOOT	1,110		1,110
*	JT810876	UNDERGROUND CONDUIT, COILABLE NONMETALLIC CONDUIT, SDR 11, 2" DIA.	FOOT	585		585
*	JT810879	UNDERGROUND CONDUIT, COILABLE NONMETALLIC CONDUIT, SDR 11, 4" DIA.	FOOT	200		200
*	JT830048	GROUND MOUNTED LIGHT POLE, GALVANIZED STEEL, 22.5 FT., WITHOUT MAST ARM	EACH	1		1
*	JT844006	RELOCATE EXISTING LIGHTING UNIT, SPECIAL	EACH	3		3
*	JT846110	MAINTAIN LIGHTING SYSTEM	CAL MO	10		10
*	JT901056	LOCATOR TRACER WIRE	FOOT	800		800
*	JT901057	LOCATOR TRACER WIRE, DIRECTIONAL BORE	FOOT	310		310
		DECOMMISSIONING AND DISPOSAL OF SEWAGE SYSTEM	L SUM	1	1	
Ø	Z0076604	TRAINEES - TRAINING PROGRAM GRADUATE	HOUR	500	500	

* DENOTES SPECIALTY ITEM

Ø 0042

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

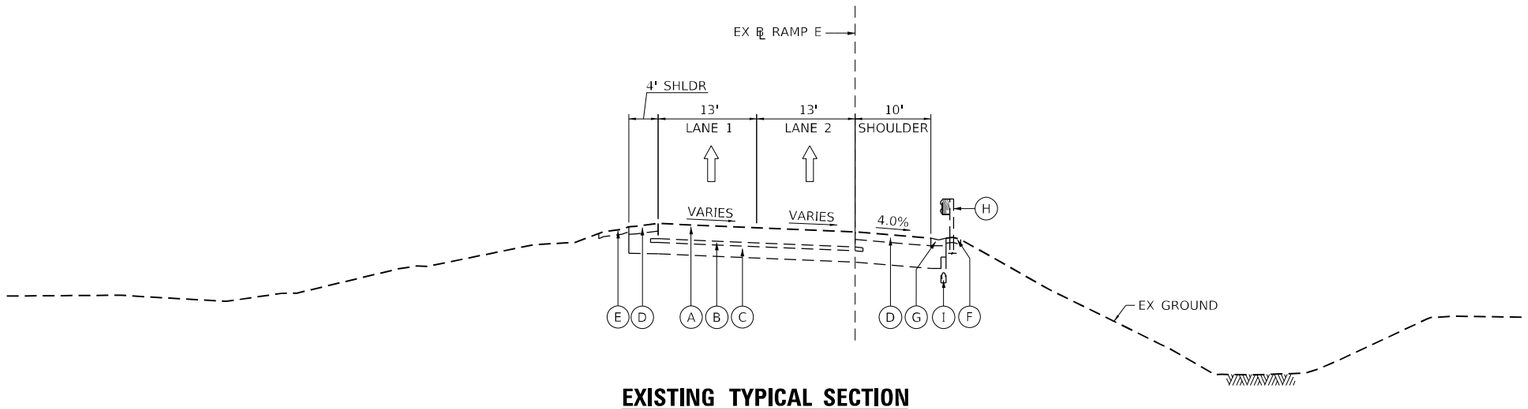
SUMMARY OF QUANTITIES

SCALE: | SHEET 7 OF 7 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	9
		CONTRACT NO. 62U90		
		ILLINOIS	FED. AID PROJECT	

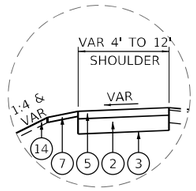
REV-SEP

MODEL: Default
FILE NAME: pw:\\aecom-na-pw.bentley.com:AECOM_0519_NADocuments\\60658563-1-190900-CAD910_CADWRIWB-TOLL\03_SHEETS\CivilD16\2U90-SHT-SOQ.dgn



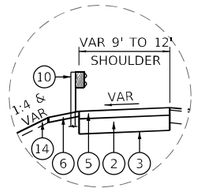
EXISTING TYPICAL SECTION

STA 521+71.15 TO STA STA 523+01.15 (PR ℄ RAMP E)



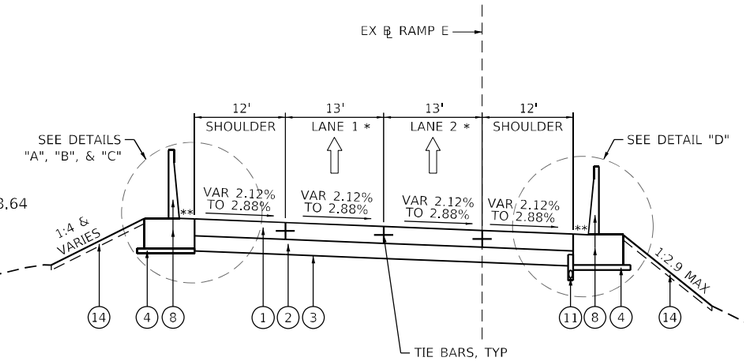
DETAIL A

STA 518+66.12 TO STA 520+27.38
STA 523+24.32 TO STA 526+43.72
(EX ℄ RAMP E)



DETAIL B

STA 520+27.36 TO STA 521+98.64
(EX ℄ RAMP E)



PROPOSED TOLL PLAZA

STA 521+86.15 TO STA STA 522+86.15 (PR ℄ RAMP E)

* PAVEMENT WIDTH TRANSITION BEGINS FROM STA 521+71.15 TO STA 521+86.15 AND FROM STA 522+86.15 TO STA 523+01.15

** BARRIER GUTTER SLOPE TO MATCH ADJACENT PAVEMENT CROSS SLOPE

TEMPORARY PAVING SECTION

NTS

TEMPORARY PAVEMENT, CLASS 1

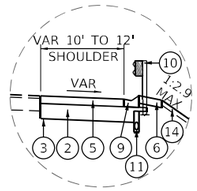
(AA) ASPHALT PAVEMENT, 6" (JI485010)

(BB) SUBGRADE AGGREGATE 9 IN (JT211A08)

OR

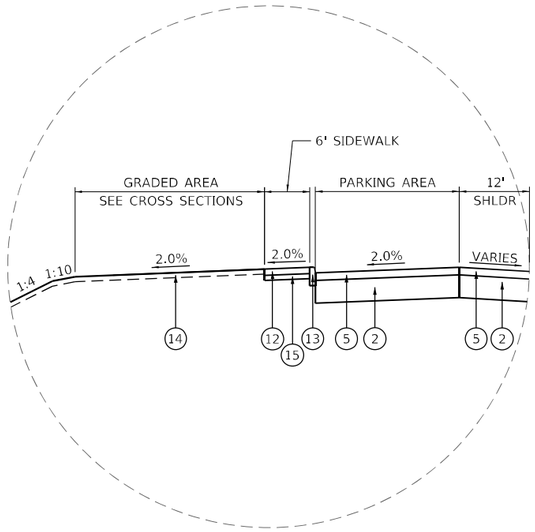
(AA) PORTLAND CEMENT CONCRETE PAVEMENT 10" (UNDOWELED) (JI485010)

(BB) SUBGRADE AGGREGATE 9 IN (JT211A08)



DETAIL D

STA 518+25.72 TO STA 521+97.97
STA 522+58.15 TO STA 525+47.49
(EX ℄ RAMP E)



DETAIL C

STA 522+65.08 TO STA 523+24.32 (EX ℄ RAMP E)

EXISTING LEGEND

(A) PORTLAND CEMENT CONCRETE PAVEMENT 12"

(B) STABILIZED SUBBASE - WMA, 3"

(C) SUBGRADE AGGREGATE SPECIAL, 9"
CAPPING AGGREGATE, 3" MIN (THICKNESS VARIES UNDER SHOULDERS)
POROUS GRANULAR EMBANKMENT, 6"

(D) WARM-MIX ASPHALT SHOULDERS (6 IN)

(E) AGGREGATE SHOULDERS WITH FILTER FABRIC, TYPE B, 4"

(F) AGGREGATE SHOULDERS SPECIAL, TYPE C

(G) GUTTER, TYPE G-2

(H) GALVANIZED STEEL PLATE BEAM GUARDRAIL, TYPE A

(I) PIPE UNDERDRAINS, FABRIC LINED TRENCH 6"

PROPOSED LEGEND

(1) CONTINUOUSLY REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT AND SHOULDER (SPECIAL) (13.25") (JT421391)
DIAMOND GRINDING FOR CONTINUOUSLY REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT AND SHOULDER (SPECIAL) (JT420300)
PAVEMENT REINFORCEMENT (13.25 IN) (JT421971)

(2) SUBGRADE AGGREGATE 12" (JT211A11)
CAPPING AGGREGATE, 3" (THICKNESS VARIES UNDER SHOULDERS)
POROUS GRANULAR EMBANKMENT, 9"

(3) SUBGRADE FILTER FABRIC (JI282010)

(4) GRANULAR SUBBASE, SPECIAL (4" MIN.) (JT301010)

(5) WARM-MIX ASPHALT SHOULDERS, (6 IN) (JI482104)

(6) AGGREGATE SHOULDERS SPECIAL, TYPE C (JI481070)

(7) AGGREGATE SHOULDERS WITH FILTER FABRIC, TYPE B 4" (JI481130)

(8) CONCRETE STRUCTURES (50300225)
(SEE STANDARD DRAWING F15 FOR BARRIER DETAILS)

(9) GUTTER, TYPE G-2 (JI606010)

(10) GALVANIZED STEEL PLATE BEAM GUARDRAIL, TYPE A 6 FOOT POSTS (JS630002)

(11) PIPE UNDERDRAINS, FABRIC LINED TRENCH 6" (JS601320)

(12) PCC SIDEWALK, 5 INCH (42400200)

(13) CONCRETE CURB TYPE C (JI606000)

(14) TOPSOIL FURNISH AND PLACE, 6" (JI211126)

(15) SUBBASE GRANULAR MATERIAL, TYPE B 4" (31101200)

TOLLWAY ASPHALT MIX TABLE

LOCATION	OPERATIONS	CODE NO.	ITEM	UNIT	VOIDS	TYPICAL THICKNESS	MIX TYPE
AS INDICATED BY DESIGN	CONSTRUCTION OF NEW WMA SHOULDERS	JI482104	WARM-MIX ASPHALT SHOULDERS (6 IN)	SQ YD	4% @ 70 GYR	1.75"	WARM-MIX ASPHALT SURFACE COURSE, MIX "D", IL-9.5, N70
					3% @ 50 GYR	4.25"	WARM-MIX ASPHALT BINDER COURSE, IL-19.0, N50
	TEMPORARY PAVEMENT (ASPHALT OPTION)	JI485010	TEMPORARY PAVEMENT, CLASS 1	SQ YD	4% @ 70 GYR	2"	WARM-MIX ASPHALT SURFACE COURSE, MIX "D", IL-9.5, N70
					3% @ 50 GYR	4"	WARM-MIX ASPHALT BINDER COURSE IL-19.0, N50

1. QUANTITIES OF WARM MIX ASPHALT MIXES ARE BASED ON THE UNIT WEIGHT OF 112.0 LB/SQ YD/IN.

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline.Ng	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 20.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

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

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	10
		CONTRACT NO. 62U90		
	ILLINOIS FED. AID PROJECT			

MODEL: Default
FILE NAME: :\\aecom-na-pw.bentley.com:AECOM_05\19_NA\Documents\60658563-1-190000-CAD\910_CAD\WB\VB-TOLL\03_SHEETS\CivilD\162U90-Sht-Typical-01.dgn

REMOVAL SCHEDULE

REMOVAL	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	TREE REMOVAL (OVER 15 UNITS DIAMETER)	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	PAVEMENT REMOVAL [**]	CURB REMOVAL	GUTTER REMOVAL	SIDEWALK REMOVAL	PAVED SHOULDER REMOVAL	GUARDRAIL REMOVAL	WOODEN FENCE REMOVAL	REMOVE EXISTING FLAGPOLE	BOLLARD REMOVAL	ISLAND REMOVAL	TREE STUMP REMOVAL	HOT-MIX ASPHALT REMOVAL, VARIABLE DEPTH	ORNAMENTAL FENCE REMOVAL
SHEET	UNIT	UNIT	SQ YD	SQ YD	FOOT	FOOT	SQ FT	SQ YD	FOOT	FOOT	EACH	EACH	SQ FT	EACH	SQ YD	FOOT
1	250	261	-	633	134	732	822	1,002	578	32	1	5	1,321	1	-	71
SITE PLAN	-	-	232	-	-	-	-	-	-	-	-	-	-	-	758	-
TOTAL	250	261	232	633	134	732	822	1,002	578	32	1	5	1,321	1	758	71

[**] SEE SUGGESTED STAGES OF CONSTRUCTION AND TRAFFIC CONTROL SCHEDULE FOR ADDITIONAL QUANTITY.

PAVEMENT MARKING SCHEDULE

PMK	RAISED PAVEMENT LANE MARKER REFLECTOR	MULTI-POLYMER PAVEMENT MARKING - LINE 6"	MULTI-POLYMER PAVEMENT MARKING - LINE 10"	MULTI-POLYMER PAVEMENT MARKING - LINE 12"	GROOVING FOR RECESSED PAVEMENT MARKING LINES, 7" GROOVE
SHEET	EACH	FOOT	FOOT	FOOT	FOOT
1	-	477	-	-	-
2	17	6472	726	918	243
TOTAL	17	6949	726	918	243

ROADWAY SCHEDULE

ROADWAY	GRANULAR EMBANKMENT, SPECIAL	SUBBASE GRANULAR MATERIAL, TYPE B 4"	PROTECTIVE COAT	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	CLASS B PATCHES, TYPE IV, 12 INCH	TIE BARS 3/4"	CONTROLLED LOW-STRENGTH MATERIAL	SUBGRADE FILTER FABRIC	STONE MATRIX WARM MIX ASPHALT SURFACE COURSE, IL-9.5, N80	ASPHALT TACK COAT	PORTLAND CEMENT CONCRETE PAVEMENT 12" (JOINTED)	DOWEL BARS 1 1/2"	AGGREGATE SHOULDERS SPECIAL, TYPE C	AGGREGATE SHOULDERS WITH FILTER FABRIC, TYPE B 4"	WARM-MIX ASPHALT SHOULDERS (6 IN.)	CONCRETE CURB TYPE C	GUTTER, TYPE G-2
SHEET	CU YD	SQ YD	SQ YD	SQ FT	SQ YD	EACH	CU YD	SQ YD	TON	POUND	SQ YD	EACH	TON	SQ YD	SQ YD	FOOT	FOOT
1	15	41	718	361.0	-	102	-	2,063	-	911	88	40	51	220	1,445	60.0	509.5
SITE PLAN	-	-	-	-	149	-	5	-	92	14,673	-	-	-	-	-	-	-
TOTAL	15	41	718	361.0	149	102	5	2,063	92	15,584	88	40	51	220	1,445	60.0	509.5

ROADWAY	TRAFFIC BARRIER TERMINAL, TYPE T1 (SPECIAL) TANGENT	ENERGY ATTENUATOR	ENERGY ATTENUATOR CONCRETE PAD	GALVANIZED STEEL PLATE BEAM GUARDRAIL, TYPE A 6 FOOT POSTS	TRAFFIC BARRIER TERMINAL, TYPE T6	TRAFFIC BARRIER TERMINAL, TYPE T10	TERMINAL MARKER - DIRECT APPLIED	GUARDRAIL BARRIER REFLECTORS, TYPE B	SUBGRADE AGGREGATE 12 IN.	GRANULAR SUBBASE, SPECIAL	DIAMOND GRINDING FOR CONTINUOUSLY REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT AND SHOULDER (SPECIAL)	CONTINUOUSLY REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT AND SHOULDER (SPECIAL)(13.25 IN.)	SLEEPER SLAB	PAVEMENT REINFORCEMENT (13.25 IN.)	ANTI-CLIMB ORNAMENTAL FENCE GATE, 10' HT, 6' PEDESTRIAN GATE	ANTI-CLIMB ORNAMENTAL FENCE GATE, 10' HT, 12' DOUBLE VEHICULAR GATE	ANTI -RAM BARRIER, TYPE K4
SHEET	EACH	EACH	SQ FT	FOOT	EACH	EACH	EACH	EACH	CU YD	CU YD	SQ YD	SQ YD	SQ YD	SQ YD	EACH	EACH	FOOT
1	1	-	-	712.5	2	1	2	8	753	10	643	556	35	556	1	1	63
SITE PLAN	-	1	120	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	1	1	120	712.5	2	1	2	8	753	10	643	556	35	556	1	1	63

AECOM
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	DRAWN - JN	REVISED -
PLOT SCALE = 20.0000 ' / in.	CHECKED - MJE	REVISED -
PLOT DATE = 6/18/2024	DATE - 6/21/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES

SCALE: NONE | SHEET 1 OF 4 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	11
		CONTRACT NO. 62U90		
		ILLINOIS	FED. AID PROJECT	

MODEL: Default
FILE NAME: pw:\\acom-na.bentley.com:AECOM_0519_NA\Documents\60685963-L-190-900-CAD-910_CADWBW-TOLL03_SHEETS\Civil\D1620U90-SHT-Schedule-01.dgn

SIGNING SCHEDULE

LOCATION	SIGN NO.	LEGEND / DESCRIPTION	SIGN TYPE	LOCATION (STATION / OFFSET)		SIGN PANEL DIMENSIONS WIDTH (FT)	SIGN PANEL DIMENSIONS HEIGHT (FT)	SIGN INSTALLATION, TYPE 1 (SQ FT)	SIGN INSTALLATION, TYPE 2 (SQ FT)	SIGN INSTALLATION, TYPE 3 (SQ FT)	REMOVE AND RELOCATE SIGN, TYPE 1 (SQ FT)	REMOVE AND RELOCATE SIGN, TYPE 2 (SQ FT)	REMOVE AND RELOCATE SIGN, TYPE 3 (SQ FT)	REMOVE SIGN PANEL - TYPE 1 (SQ FT)	REMOVE SIGN PANEL - TYPE 2 (SQ FT)	WOOD SIGN SUPPORT (FOOT)	STRUCTURAL STEEL SIGN SUPPORT - BREAKAWAY (POUND)	CONCRETE FOUNDATIONS (CU YD)	REMOVE GROUND MOUNTED SIGN SUPPORT (EACH)	REMOVE CONCRETE FOUNDATION - GROUND MOUNT (EACH)
	SB-294-BS-003-P	TOLL AHEAD, I-PASS OR PAY ONLINE	AET-IT3	409+04.81	11.24' RT	12.0	5.0	-	-	60	-	-		-	-	-	630	1.4	-	-
	EB-90-BS-004-RL	TOLL AHEAD, I-PASS OR PAY ONLINE	AET-IT3	515+99.77	18.02' RT	12.0	5.0	-	-	-	-	-	60	-	-	-	630	1.4	2	2
	WP-190-LP-001-RL	NO PARKING STANDING STOPPING, TOW AWAY ZONE	CUSTOM	519+44.33	16.03' RT	2.0	2.5	-	-	-	5	-	-	-	-	-	-	-	-	-
	WB-190-BS-002-RL	ALLSTATE ARENA, CASINO, NEXT RIGHT, MANNHEIM RD - NORTH	CUSTOM	59+43.53	59.54' LT	10.0	6.0	-	-	-	-	-	60	-	-	-	666	1.4	2	2
	WB-190-WP-003-P	PLAZA 31, CAR I-PASS $ X.XX, CAR ONLINE $ X.XX	AET-IT4	520+19.93	15.91' RT	6.0	4.0	-	-	24	-	-	-	-	-	32	-	-	-	-
	WB-190-CM-004-P	WARNING	OM3-L	522+18.53	43.54' LT	1.0	3.0	3	-	-	-	-	-	-	-	-	-	-	-	-
	WB-190-CM-005-P	PLAZA 31	P-IT4	522+19.67	31.80' LT	7.0	2.0	-	14	-	-	-	-	-	-	-	-	-	-	-
	WB-190-CM-006-P	I-PASS OR PAY ONLINE	AET-IT12	522+19.50	12.05' LT	20.0	3.0	-	-	60	-	-	-	-	-	-	-	-	-	-
	WB-190-CM-007-P	WARNING	OM3-R	522+18.03	13.47' RT	1.0	3.0	3	-	-	-	-	-	-	-	-	-	-	-	-
	WB-190-CM-008-P	WRONG WAY	R-IT21	522+52.91	11.89' LT	8.0	2.0	-	16	-	-	-	-	-	-	-	-	-	-	-
	WB-190-CM-009-P	DO NOT ENTER	R5-1	522+54.13	16.99' RT	3.0	3.0	9	-	-	-	-	-	-	-	-	-	-	-	-
	WB-190-CM-010-P	WRONG WAY	R5-1a	522+54.13	16.99' RT	2.0	3.0	6	-	-	-	-	-	-	-	-	-	-	-	-
	WB-190-CM-011-P	DO NOT ENTER	R5-1	522+54.19	42.41' LT	3.0	3.0	9	-	-	-	-	-	-	-	-	-	-	-	-
	WB-190-CM-012-P	WRONG WAY	R-IT21	552+54.19	42.41' LT	8.0	2.0	-	16	-	-	-	-	-	-	-	-	-	-	-
	WB-190-WP-013-P	PLAZA 31, AVOID FINES, 14 DAYS TO PAY, ILLINOISTOLLWAY.COM	P-IT17A	524+00.00	25.00' RT	6.0	4.0	-	-	24	-	-	-	-	-	-	-	-	-	-
	WB-190-LP-014-RL	TRUCKS USE RIGHT LANE	R4-5	521+44.92	18.06' RT	3.0	4.0	-	-	-	-	12	-	-	-	-	-	-	-	-
	WB-190-LP-015-RL	NO PARKING STANDING STOPPING, TOW AWAY ZONE	CUSTOM	521+44.92	18.06' RT	2.0	2.5	-	-	-	5	-	-	-	-	-	-	-	-	-
	WB-190-WP-016-RL	PLAZA 31, UNPAID TOLL?, 14 DAYS TO PAY ONLINE, ILLINOISTOLLWAY.COM	P-IT14A	526+50.00	25.00' RT	4.0	5.0	-	-	-	-	20	-	-	-	20	-	-	-	-
	WB-190-WP-017-RL	NO PARKING STANDING STOPPING, TOW AWAY ZONE	CUSTOM	526+50.00	25.00' RT	2.0	2.5	-	-	-	5	-	-	-	-		-	-	-	-
	WB-190-LP-022-R	WIDE LOAD	CUSTOM	535+26.40	16.65' RT	3.0	4.0	-	-	-	-	-	-	-	12	-	-	-	-	-
	WB-190-TS-024-R	NO PARKING STANDING STOPPING, TOW AWAY ZONE	CUSTOM	538+16.08	43.04' RT	2.0	2.5	-	-	-	-	-	-	5	-	-	-	-	-	-
	WB-190-TS-025-R	NO PARKING STANDING STOPPING, TOW AWAY ZONE	CUSTOM	538+53.72	47.53' RT	2.0	2.5	-	-	-	-	-	-	5	-	-	-	-	-	-
	WB-190-CM-032-R	CARS	CUSTOM	EX PLAZA CANOPY		4.0	2.0	REMOVAL OF SIGNS AT EXISTING TOLL PLAZA 31 TO BE PAID FOR UNDER DEMOLITION OF PLAZA CANOPY								-	-	-	-	-	
	WB-190-CM-033-R	I-PASS OR PAY ONLINE	AET-IT24	EX PLAZA CANOPY		4.0	5.0									-	-	-	-	-
	WB-190-CM-034-R	ONLY	CUSTOM	EX PLAZA CANOPY		4.0	2.0									-	-	-	-	-
	WB-190-CM-035-R	I-PASS OR PAY ONLINE	AET-IT24	EX PLAZA CANOPY		4.0	5.0									-	-	-	-	-
	WB-190-CM-036-R	PLAZA 31	CUSTOM	EX PLAZA CANOPY		7.0	2.0									-	-	-	-	-
	WB-190-BW-037-R	X	R-IT4	EX PLAZA CANOPY		3.0	2.0									-	-	-	-	-
	WB-190-BW-038-R	X	R-IT4	EX PLAZA CANOPY		3.0	2.0									-	-	-	-	-
	WB-190-BW-039-R	X	R-IT4	EX PLAZA CANOPY		3.0	2.0									-	-	-	-	-
	WB-190-BW-040-R	X	R-IT4	EX PLAZA CANOPY		3.0	2.0									-	-	-	-	-
	WB-190-BW-041-R	15 MPH RIGHT ARROW	P-IT5A	EX PLAZA CANOPY		1.5	2.0									-	-	-	-	-
	WB-190-BW-042-R	15 MPH, LEFT ARROW, RT ARROW	P-IT5C	EX PLAZA CANOPY		2.0	2.0									-	-	-	-	-
	WB-190-BW-043-R	15 MPH LEFT ARROW	P-IT5B	EX PLAZA CANOPY		1.5	2.0									-	-	-	-	-
	WB-190-BW-044-R	DO NOT STOP	R-IT19	EX PLAZA CANOPY		3.0	3.0									-	-	-	-	-
	WB-190-WP-045-P	RIGHT LANE ENDS	W9-1R	527+15.00	30' RT	4.0	4.0		16							18	-	-	-	-
		500 FT	W16-2P			2.5	2.0		5								-	-	-	-
	WB-190-WP-046-P	RIGHT LANE ENDS	W9-1R	532+03.54	42.33' LT	4.0	4.0		16							16				
							ROUNDED TOTAL	30	83	168	15	32	120	10	12	86	1,926	4.2	4	4

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PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES

SCALE: NONE | SHEET 2 OF 4 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	12
		CONTRACT NO. 62U90		
	ILLINOIS	FED. AID PROJECT		

MODEL: Default
FILE NAME: pw:\\acecom-na-pw.bentley.com:AECOM_0519_NA\Documents\60585833-190900-CAD1910_CAD\WB\WB-TOLL\03_SHEETS\ctwlID162U90-SHT-Schedule-02.dgn

EARTHWORK SCHEDULE

EARTHWORK SCHEDULE OF QUANTITIES									
EARTHWORK VOLUMES (CU YD)									
LOCATION			A	B	C (SEE NOTE 1)	D	E	F (SEE NOTE 2)	G	H
			EARTH EXCAVATION	ROCK EXCAVATION	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	STRUCTURE EXCAVATION	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL FOR STRUCTURES	SUITABLE EXCAVATION (ADJUSTED FOR SHRINKAGE %)	EMBANKMENT	EARTHWORK BALANCE EXCESS (+) OR SHORTAGE (-)
			20200100	NOT USED	20201200	NOT USED	NOT USED			
518+25.72	TO	518+50.00	13	-	-	-	-	11	4	7
518+50.00	TO	519+00.00	34	-	-	-	-	29	9	20
519+00.00	TO	519+50.00	47	-	-	-	-	40	32	8
519+50.00	TO	520+00.00	67	-	-	-	-	57	41	16
520+00.00	TO	520+50.00	95	-	-	-	-	81	39	42
520+50.00	TO	521+00.00	105	-	-	-	-	89	41	48
521+00.00	TO	521+50.00	98	-	-	-	-	83	59	24
521+50.00	TO	521+71.15	51	-	-	-	-	43	39	4
521+71.15	TO	521+98.15	80	-	45	-	-	68	83	-15
521+98.15	TO	522+20.15	64	-	74	-	-	54	108	-54
522+20.15	TO	522+36.15	46	-	54	-	-	39	125	-86
522+36.15	TO	522+52.15	46	-	54	-	-	39	162	-123
522+52.15	TO	522+58.15	17	-	20	-	-	14	62	-48
522+58.15	TO	523+00.00	120	-	140	-	-	102	454	-352
523+00.00	TO	523+05.00	12	-	17	-	-	10	55	-45
523+05.00	TO	523+25.15	38	-	68	-	-	32	163	-131
523+25.15	TO	523+50.00	49	-	83	-	-	42	118	-76
523+50.00	TO	524+00.00	88	-	84	-	-	75	115	-40
524+00.00	TO	524+04.88	11	-	-	-	-	9	6	3
524+04.88	TO	524+50.00	69	-	-	-	-	59	64	-5
524+50.00	TO	525+00.00	14	-	-	-	-	12	101	-89
525+00.00	TO	525+50.00	13	-	-	-	-	11	84	-73
525+50.00	TO	526+00.00	11	-	-	-	-	9	30	-21
526+00.00	TO	526+43.72	8	-	-	-	-	7	5	2
RAMPS E AND F TEMPORARY PAVEMENT INSTALLATION AND REMOVAL			224	-	-	-	-	190	224	-34
102+00.00	TO	102+22.33	3	-	-	-	-	3	1	2
102+22.33	TO	102+50.00	13	-	-	-	-	11	1	10
102+50.00	TO	102+75.00	10	-	-	-	-	9	1	8
105+00.00	TO	105+40.00	-	-	-	-	-	-	-	-
105+40.00	TO	105+50.00	-	-	-	-	-	-	-	-
105+50.00	TO	105+70.00	-	-	-	-	-	-	-	-
105+70.00	TO	106+00.00	-	-	-	-	-	-	-	-
106+00.00	TO	106+15.00	2	-	-	-	-	2	-	2
106+15.00	TO	106+49.64	18	-	-	-	-	15	1	14
106+49.64	TO	106+81.51	17	-	-	-	-	14	6	8
106+81.51	TO	107+00.00	6	-	-	-	-	5	7	-2
107+00.00	TO	107+09.75	3	-	-	-	-	3	4	-1
107+09.75	TO	107+33.21	4	-	-	-	-	3	17	-14
107+33.21	TO	107+50.00	1	-	-	-	-	1	19	-18
107+50.00	TO	107+70.00	-	-	-	-	-	-	22	-22
107+70.00	TO	107+85.00	1	-	-	-	-	1	13	-12
107+85.00	TO	108+00.00	2	-	-	-	-	2	12	-10
108+00.00	TO	108+50.00	12	-	-	-	-	10	18	-8
108+50.00	TO	109+00.00	16	-	-	-	-	14	1	13
109+00.00	TO	109+50.00	40	-	-	-	-	34	1	33
109+50.00	TO	110+00.00	31	-	-	-	-	26	7	19
110+00.00	TO	110+50.00	1	-	-	-	-	1	7	-6
ELECTRICAL CONDUIT INSTALLATION ALONG I-294			237	-	-	-	-	201	237	-36
ALLOWANCE VOLUME FOR UNDERCUT (25% OF FULL DEPTH PAVEMENT AREA)			-	-	61	-	-	-	-	-
TOTALS			1,837	-	700	-	-	1,561	2,598	-1,037

NOTES:

1. ESTIMATED SHRINKAGE FACTOR = 15%.

AGGREGATE SUBGRADE IMPROVEMENT FOR UNDERCUT

ALIGNMENT	START STATION	END STATION	LEFT OFFSET	RIGHT OFFSET	DEPTH (IN)	AREA (SQ FT)	AGGREGATE SUBGRADE IMPROVEMENT (CU YD)	GEOTECHNICAL FABRIC FOR GROUND STABILIZATION (SQ YD)
EX RAMP E	521+98.15	523+50.00	75' LT	45' LT	36	4614	639	513
ALLOWANCE (25% OF FULL DEPTH PAVEMENT AREA)					12	6504	61	181
						TOTAL	700	694

NOTES:

1. AGGREGATE SUBGRADE IMPROVEMENT (CU YD) HAS BEEN PROVIDED FOR USE AT THE LOCATIONS INDICATED FOR SOILS THAT TEND TO BE UNSTABLE AND/OR UNSUITABLE. THE ACTUAL NEED FOR REMOVAL AND REPLACEMENT WITH ASI WILL BE DETERMINED IN THE FIELD AT THE TIME OF CONSTRUCTION BY THE GEOTECHNICAL ENGINEER. ALL POTENTIALLY UNSTABLE SOILS SHOULD BE TESTED WITH A STATIC OR DYNAMIC CONE PENETROMETER AND TREATED IN ACCORDANCE WITH ARTICLE 301.04 OF THE SSRBC AND IDOT SUBGRADE STABILITY MANUAL. IF UNSTABLE AND/OR UNSUITABLE SOILS ARE NOT ENCOUNTERED, THEN THE QUANTITY SHALL BE DEDUCTED, AND NO ADDITIONAL COMPENSATION WILL BE DUE TO THE CONTRACTOR.

AECOM
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SCHEDULE OF QUANTITIES

SCALE: NONE | SHEET 3 OF 4 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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MODEL: Default
FILE NAME: c:\accom-na-bw.bentley.com:AECOM_0519_NA\Documents\60658563-1-190-900-CAD\910_CAD\WB\WB-TOLL\03_SHEETS\CivilD1\62U90-Sht-Schedule-03.dgn

EARTHWORK SCHEDULE

EARTHWORK SCHEDULE OF TOPSOIL QUANTITIES

LOCATION			V	W	X	Y
			EARTHWORK VOLUMES (CU YD)			
			TOPSOIL STRIPPING	SUITABLE TOPSOIL	TOPSOIL PLACEMENT	TOPSOIL BALANCE EXCESS (+) OR SHORTAGE (-)
518+25.72	TO	518+50.00	5	4	2	2
518+50.00	TO	519+00.00	21	18	15	3
519+00.00	TO	519+50.00	51	43	42	1
519+50.00	TO	520+00.00	69	59	58	1
520+00.00	TO	520+50.00	75	64	62	2
520+50.00	TO	521+00.00	75	64	62	2
521+00.00	TO	521+50.00	76	65	61	4
521+50.00	TO	521+71.15	35	30	28	2
521+71.15	TO	521+98.15	50	43	40	3
521+98.15	TO	522+20.15	45	38	36	2
522+20.15	TO	522+36.15	37	31	31	0
522+36.15	TO	522+52.15	40	34	34	-
522+52.15	TO	522+58.15	16	14	12	2
522+58.15	TO	523+00.00	106	90	72	18
523+00.00	TO	523+05.00	13	11	9	2
523+05.00	TO	523+25.15	46	39	32	7
523+25.15	TO	523+50.00	49	42	37	5
523+50.00	TO	524+00.00	97	82	83	-1
524+00.00	TO	524+04.88	13	11	11	0
524+04.88	TO	524+50.00	89	76	77	-1
524+50.00	TO	525+00.00	49	42	37	5
525+00.00	TO	525+50.00	46	39	37	2
525+50.00	TO	526+00.00	28	24	22	2
526+00.00	TO	526+43.72	9	8	5	3
102+00.00		102+22.33	6	5	5	0
102+22.33		102+50.00	8	7	6	1
102+50.00		102+75.00	7	6	7	-1
105+00.00		105+40.00	-	-	-	-
105+40.00		105+50.00	-	-	-	-
105+50.00		105+70.00	-	-	-	-
105+70.00		106+00.00	-	-	-	-
106+00.00		106+15.00	3	3	3	-0
106+15.00		106+49.64	22	19	27	-8
106+49.64		106+81.51	25	21	46	-25
106+81.51		107+00.00	13	11	31	-20
107+00.00		107+09.75	8	7	17	-10
107+09.75		107+33.21	22	19	39	-20
107+33.21		107+50.00	18	15	26	-11
107+50.00		107+70.00	17	14	27	-13
107+70.00		107+85.00	10	9	18	-10
107+85.00		108+00.00	11	9	19	-10
108+00.00		108+50.00	40	34	54	-20
108+50.00		109+00.00	63	54	63	-9
109+00.00		109+50.00	93	79	93	-14
109+50.00		110+00.00	89	76	89	-13
110+00.00		110+50.00	37	31	37	-6
ELECTRICAL CONDUIT INSTALLATION ALONG I-294			48	41	48	-7
TOTALS			1,680	1,428	1,560	-132

NOTES:

1. ESTIMATED SHRINKAGE FACTOR = 15%.
2. ALL TOPSOIL THAT IS STRIPPED SHALL BE STOCKPILED, SORTED, AND REUSED FOR THE PROPOSED LANDSCAPING IMPROVEMENTS. THE ACTUAL REMOVAL DEPTH AND THE QUANTITY OF TOPSOIL REMOVAL SHALL BE VERIFIED IN THE FIELD.

EARTHWORK SCHEDULE OF INCIDENTAL QUANTITIES

LOCATION			Z	AA	BB	CC	DD	EE
			EARTHWORK VOLUMES (CU YD)					
			STORM SEWER TRENCH	ITS EXCAVATION	INCIDENTAL EXCAVATION (MONOTUBE)	INCIDENTAL EXCAVATION (COMMUNICATION TOWER)	INCIDENTAL EXCAVATION (DECOMMISSIONING OF SEPTIC SYSTEM)	INCIDENTAL EXCAVATION (BUILDING DEMOLITION)
518+25.72	TO	526+43.72	180		30	15		
105+00.00	TO	110+50.00					480	70
TOTALS			180	-	30	15	480	70

EARTHWORK BILL OF MATERIAL SUMMARY TABLE

PAY ITEM NO.	PAY ITEM DESCRIPTION	ROUNDED TOTALS	UNITS	NOTES
20200100	EARTH EXCAVATION	1,840	CU YD	COLUMN A TOTAL
NOT USED	ROCK EXCAVATION	-	CU YD	COLUMN B TOTAL
20400800	FURNISHED EXCAVATION	1,040	CU YD	WHEN H<0, THEN H, ELSE 0
20201200	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	700	CU YD	COLUMN C TOTAL
NOT USED	STRUCTURE EXCAVATION	-	CU YD	COLUMN D TOTAL
JI211110	TOPSOIL EXCAVATION AND PLACEMENT	1,430	CU YD	WHEN X<W, THEN X OR WHEN X>W, THEN W
NOT USED	TOPSOIL EXCAVATION AND DISPOSAL	-	CU YD	W-X
JI211126	TOPSOIL FURNISH AND PLACE, 6"	795	SQ YD	WHEN X>W, THEN (X-W)/THICKNESS IN YARDS

1. PAY ITEM TOTALS ARE ROUNDED TO THE NEAREST 5 CU YD.

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline.Ng	DESIGNED - AFC	REVISED -	
	DRAWN - AFC	REVISED -	
PLOT SCALE = 20.0000 ' / in.	CHECKED - MJE	REVISED -	
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES

SCALE: NONE | SHEET 4 OF 4 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	14
		CONTRACT NO. 62U90		
	ILLINOIS	FED. AID PROJECT		

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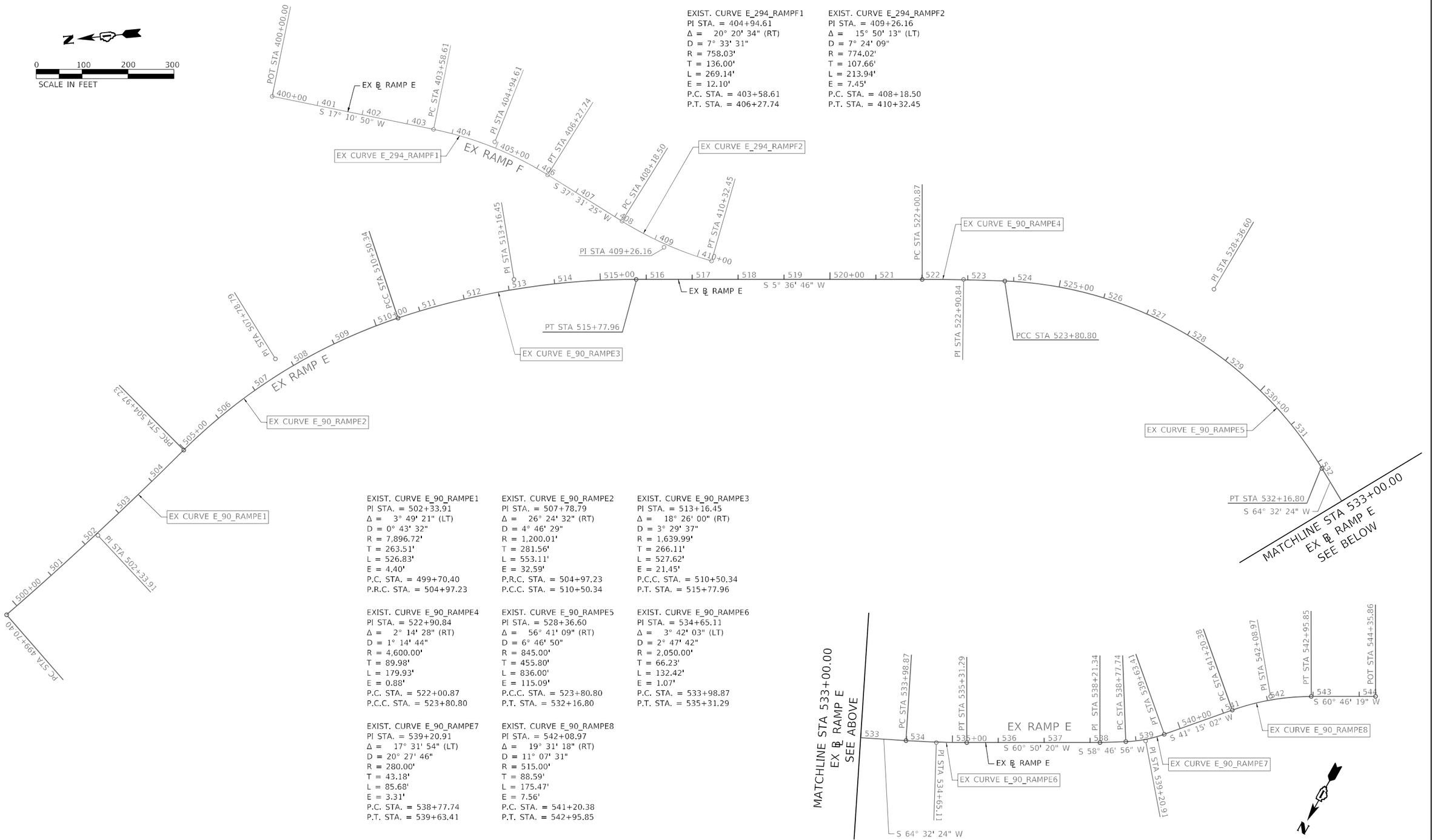

EXIST. CURVE E_294_RAMPF1
PI STA. = 404+94.61
Δ = 20° 20' 34" (RT)
D = 7° 33' 31"
R = 758.03'
T = 136.00'
L = 269.14'
E = 12.10'
P.C. STA. = 403+58.61
P.T. STA. = 406+27.74

EXIST. CURVE E_294_RAMPF2
PI STA. = 409+26.16
Δ = 15° 50' 13" (LT)
D = 7° 24' 09"
R = 774.02'
T = 107.66'
L = 213.94'
E = 7.45'
P.C. STA. = 408+18.50
P.T. STA. = 410+32.45

EXIST. CURVE E_90_RAMPE1
PI STA. = 502+33.91
Δ = 3° 49' 21" (LT)
D = 0° 43' 32"
R = 7,896.72'
T = 263.51'
L = 526.83'
E = 4.40'
P.C. STA. = 499+70.40
P.R.C. STA. = 504+97.23

EXIST. CURVE E_90_RAMPE2
PI STA. = 507+78.79
Δ = 26° 24' 32" (RT)
D = 4° 46' 29"
R = 1,200.01'
T = 281.56'
L = 553.11'
E = 32.59'
P.R.C. STA. = 504+97.23
P.C.C. STA. = 510+50.34

EXIST. CURVE E_90_RAMPE3
PI STA. = 513+16.45
Δ = 18° 26' 00" (RT)
D = 3° 29' 37"
R = 1,639.99'
T = 266.11'
L = 527.62'
E = 21.45'
P.C.C. STA. = 510+50.34
P.T. STA. = 515+77.96

EXIST. CURVE E_90_RAMPE4
PI STA. = 522+90.84
Δ = 2° 14' 28" (RT)
D = 1° 14' 44"
R = 4,600.00'
T = 89.98'
L = 179.93'
E = 0.88'
P.C. STA. = 522+00.87
P.C.C. STA. = 523+80.80

EXIST. CURVE E_90_RAMPE5
PI STA. = 528+36.60
Δ = 56° 41' 09" (RT)
D = 6° 46' 50"
R = 845.00'
T = 455.80'
L = 836.00'
E = 115.09'
P.C.C. STA. = 523+80.80
P.T. STA. = 532+16.80

EXIST. CURVE E_90_RAMPE6
PI STA. = 534+65.11
Δ = 3° 42' 03" (LT)
D = 2° 47' 42"
R = 2,050.00'
T = 66.23'
L = 132.42'
E = 1.07'
P.C. STA. = 533+98.87
P.T. STA. = 535+31.29

EXIST. CURVE E_90_RAMPE7
PI STA. = 539+20.91
Δ = 17° 31' 54" (LT)
D = 20° 27' 46"
R = 280.00'
T = 43.18'
L = 85.68'
E = 3.31'
P.C. STA. = 538+77.74
P.T. STA. = 539+63.41

EXIST. CURVE E_90_RAMPE8
PI STA. = 542+08.97
Δ = 19° 31' 18" (RT)
D = 11° 07' 31"
R = 515.00'
T = 88.59'
L = 175.47'
E = 7.56'
P.C. STA. = 541+20.38
P.T. STA. = 542+95.85

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AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline.Ng	DESIGNED - JN	REVISED -	
	DRAWN - JN	REVISED -	
PLOT SCALE = 200.0000 ' / in.	CHECKED - MJE	REVISED -	
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ALIGNMENT, TIES, AND BENCHMARK

SCALE: 1"=100' | SHEET 1 OF 2 SHEETS | STA. | TO STA.

F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	15
		CONTRACT NO. 62U90		
	ILLINOIS FED. AID PROJECT			

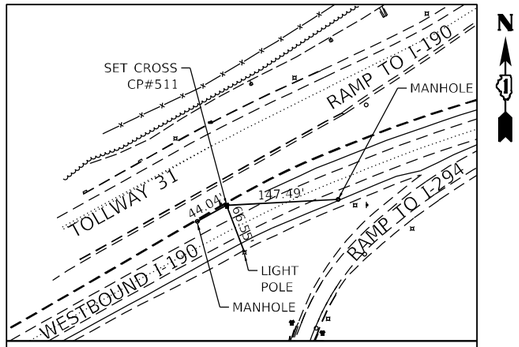
COORDINATE TABLES

EXISTING RAMP E				
POINT	CURVE	STATION	NORTHING	EASTING
PC	E_90_RAMPE1	499+70.40	1,940,143.9652	1,109,761.9902
PI	E_90_RAMPE1	502+33.91	1,939,929.1871	1,109,914.6637
PRC	E_90_RAMPE1/E_90_RAMPE2	504+97.23	1,939,725.0648	1,110,081.3157
PI	E_90_RAMPE2	507+78.79	1,939,506.9637	1,110,259.3805
PCC	E_90_RAMPE2/E_90_RAMPE3	510+50.34	1,939,232.4243	1,110,321.8567
PI	E_90_RAMPE3	513+16.45	1,938,972.9496	1,110,380.9047
PT	E_90_RAMPE3	515+77.96	1,938,708.1169	1,110,354.8774
PC	E_90_RAMPE4	522+00.87	1,938,088.1949	1,110,293.9524
PI	E_90_RAMPE4	522+90.84	1,937,998.6500	1,110,285.1521
PCC	E_90_RAMPE4/E_90_RAMPE5	523+80.80	1,937,909.5178	1,110,272.8568
PI	E_90_RAMPE5	528+36.60	1,937,457.9927	1,110,210.5716
PT	E_90_RAMPE5	532+16.80	1,937,262.0517	1,109,799.0361
PC	E_90_RAMPE6	533+98.87	1,937,183.7810	1,109,634.6438
PI	E_90_RAMPE6	534+65.11	1,937,155.3091	1,109,574.8442
PT	E_90_RAMPE6	535+31.29	1,937,123.0366	1,109,517.0070
PC	E_90_RAMPE7	538+77.74	1,936,952.4749	1,109,215.4897
PI	E_90_RAMPE7	539+20.91	1,936,930.0974	1,109,178.5660
PT	E_90_RAMPE7	539+63.41	1,936,897.6367	1,109,150.0983
PC	E_90_RAMPE8	541+20.38	1,936,779.6247	1,109,046.6029
PI	E_90_RAMPE8	542+08.97	1,936,713.0175	1,108,988.1890
PT	E_90_RAMPE8	542+95.85	1,936,669.7589	1,108,910.8755
POT		544+35.86	1,936,601.3913	1,108,788.6864

EXISTING RAMP F				
POINT	CURVE	STATION	NORTHING	EASTING
POT		400+00.00	1,939,457.9905	1,110,829.2441
PC	E_294_RAMPF1	403+58.61	1,939,115.3859	1,110,723.3170
PI	E_294_RAMPF1	404+94.61	1,938,985.4538	1,110,683.1443
PT	E_294_RAMPF1	406+27.74	1,938,877.5912	1,110,600.3081
PC	E_294_RAMPF2	408+18.50	1,938,726.2984	1,110,484.1185
PI	E_294_RAMPF2	409+26.16	1,938,640.9141	1,110,418.5453
PT	E_294_RAMPF2	410+32.45	1,938,540.8759	1,110,378.7624

BENCHMARKS		
MONUMENT	ELEVATION	DESCRIPTION
BM-W	644.237	SET SQUARE AT SOUTHWESTERLY CROSSING OF CONCRETE PEDESTAL OF ILLINOIS DEPARTMENT OF TRANSPORTATION (IDOT) TRAFFIC BOX NORTHERLY SIDE WESTBOUND I-190.
BM-BB	666.362	SET SQUARE ±12 FEET WESTERLY OF WESTERLY EXPANSION JOINT OF BRIDGE OVER I-294 ON CONCRETE WALL ON NORTHERLY SIDE OF WESTBOUND I-190.
BM-CC	664.374	SET SQUARE ON CONCRETE WALL OF NORTHERLY SHOULDER OF WESTBOUND I-190, ±250 EASTERLY OF CONTROL POINT 511.
BM-EE	626.306	SET SQUARE ON CONCRETE WALL OF RIGHT SHOULDER OF WESTBOUND I-190 UNDER OVERHEAD SIGN AND ±160 FEET EASTERLY OF CANADIAN RAILROAD TRACK BRIDGE.

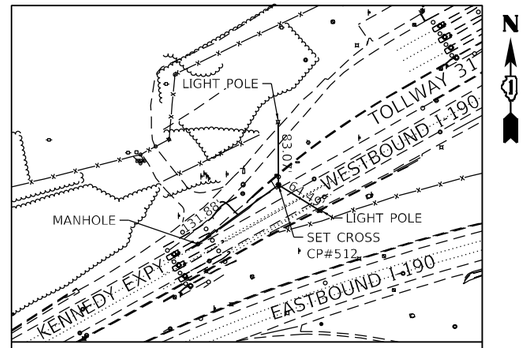
CONTROL POINT #511



N: 1937051.10 E: 1109581.69 EL: 657.50'

PROPOSED WB I-90: 366+80.46, -42.95'

CONTROL POINT #512



N: 1936777.63 E: 1109091.54 EL: 637.42'

PROPOSED WB I-90: 361+22.86, -34.16'

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline,Ng	DESIGNED - JN	REVISED -	
	DRAWN - JN	REVISED -	
PLOT SCALE = 200.0000 ' / in.	CHECKED - MJE	REVISED -	
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ALIGNMENT, TIES, AND BENCHMARK

SCALE: 1"=100' | SHEET 2 OF 2 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	16
		CONTRACT NO. 62U90		
	ILLINOIS	FED. AID PROJECT		

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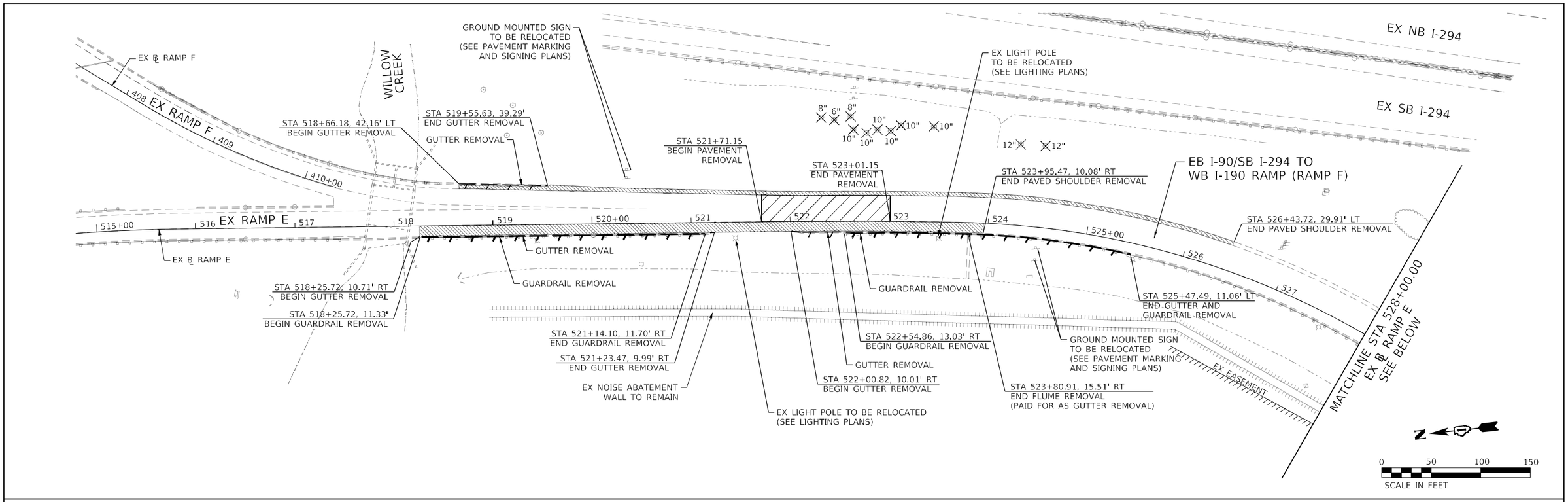

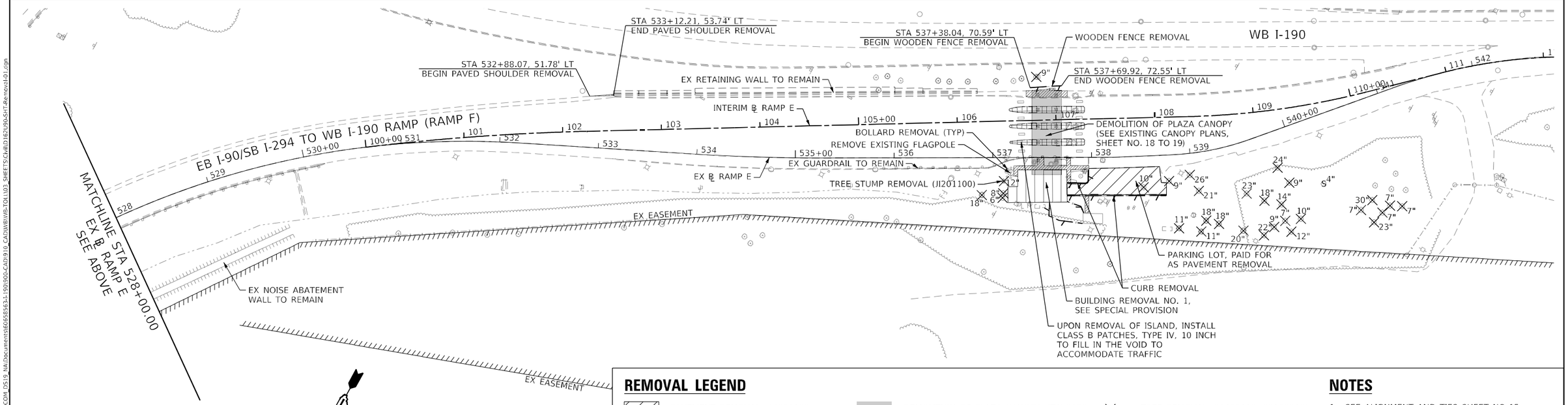

REMOVAL LEGEND

- PAVEMENT REMOVAL (44000100)
- PAVED SHOULDER REMOVAL (44004250)
- SIDEWALK REMOVAL (44000600)
- BUILDING REMOVAL (Z0007601)
- DEMOLITION OF PLAZA CANOPY (JT130100)
- ISLAND REMOVAL (X4402805)
- LINEAR REMOVAL
- TREE REMOVAL (20100110, 20100210)
- S SAPLING REMOVAL (NOT MEASURED FOR PAYMENT)

NOTES

1. SEE ALIGNMENT AND TIES SHEET NO.15 FOR CURVE DATA.
2. ALL STATIONS AND OFFSETS ARE MEASURED FROM EX ℄ RAMP E UNLESS OTHERWISE NOTED.
3. SEE SITE PLAN AT EXISTING TOLL PLAZA 31 SHEET NO. 22 FOR ADDITIONAL REMOVAL.

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CHICAGO, IL 60601-5276
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USER NAME = Jacqueline.Ng	DESIGNED - JN	REVISED -
	DRAWN - JN	REVISED -
PLOT SCALE = 100.0000 ' / in.	CHECKED - MJE	REVISED -
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING TOLL PLAZA 31 AND SITE REMOVAL PLAN

SCALE: 1"=50' | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	17
		CONTRACT NO. 62U90		
	ILLINOIS	FED. AID PROJECT		

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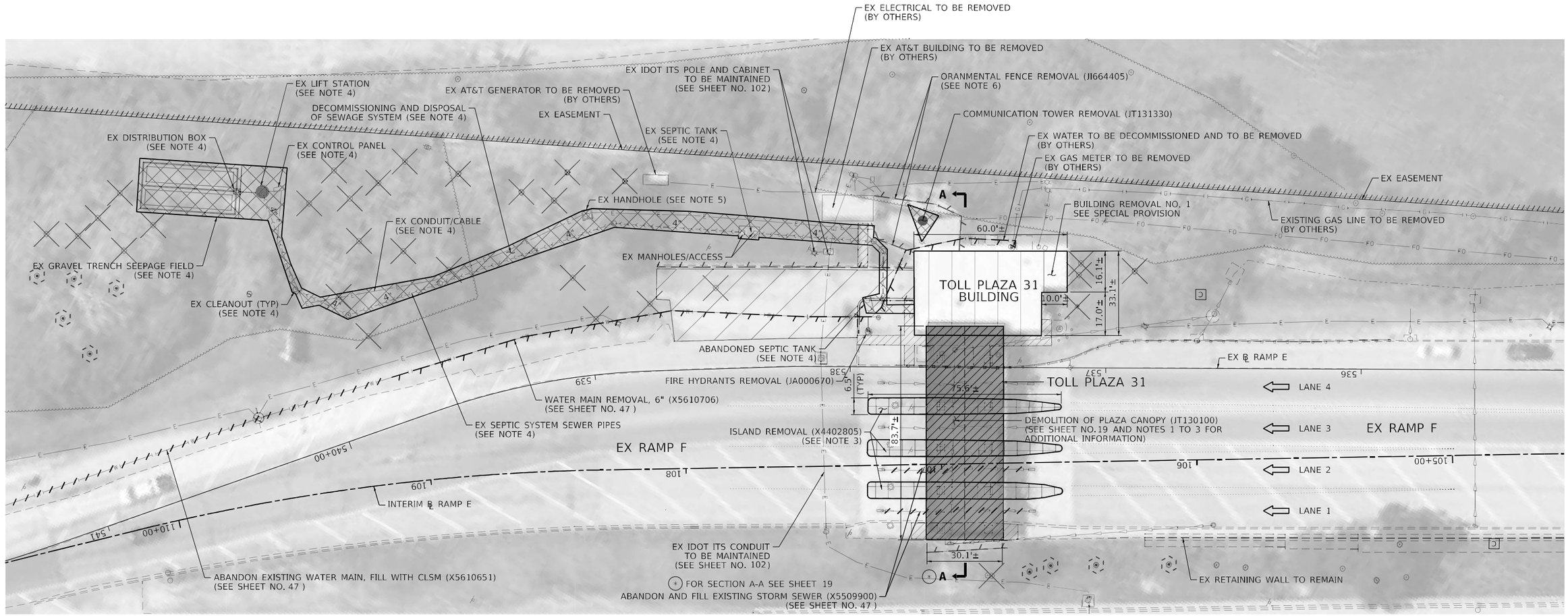

EXISTING TOLL PLAZA 31

LEGEND

- BUILDING REMOVAL
- DEMOLITION OF PLAZA CANOPY
- ISLAND REMOVAL
- DECOMMISSIONING AND DISPOSAL OF SEWAGE SYSTEM
- COMMUNICATION TOWER REMOVAL
- LINEAR REMOVAL
- ABANDON AND FILL
- TREE REMOVAL
- TREE PROTECTION

NOTES

1. THE EXISTING TOLL PLAZA 31 CANOPY STRUCTURE AND COLUMNS SHALL BE REMOVED IN ITS ENTIRETY. REFER TO SPECIAL PROVISIONS FOR DEMOLITION OF PLAZA CANOPY (JT130100).
2. THE CONTRACTOR SHALL TEST THE SITE FOR ASBESTOS, LEAD AND HAZARDOUS MATERIALS BEFORE COMMENCING ANY DEMOLITION OF THE CANOPY. REFER TO SPECIAL PROVISIONS FOR DEMOLTION OF PLAZA CANOPY (JT130100).
3. THE EXISTING EQUIPMENT ON THE CANOPY AND CONCRETE ISLAND SUCH AS THE METAL BOXES, WARNING LIGHTS, GATES, SIGNS, AND OTHER MISCELLANOUS ITEMS SHALL BE REMOVED. REFER TO SPECIAL PROVISIONS DEMOLITION OF PLAZA CANOPY (JT130100) AND REMOVAL OF PLAZA EQUIPMENT (JT130200) FOR ADDITIONAL INFORMATION.
4. THE EXISTING SEPTIC SYSTEMS FOR TOLL PLAZA 31 BUILDING SHALL BE REMOVED IN ITS ENTIRETY. REFER TO SPECIAL PROVISIONS DECOMMISSIONING AND DISPOSAL OF SEWAGE SYSTEM.
5. REMOVAL OF THE EXISTING ELECTRICAL HANDHOLE SHALL BE PAID UNDER REMOVE EXISTING HANDHOLE (89502380). SEE ELECTRICAL DEMOLITION PLAN.
6. ORNAMENTAL FENCE REMOVAL CONSISTS OF REMOVAL AND DISPOSAL OF EXISTING ANTI-CLIMB AND ANTI-RAM BARRIER FENCE SYSTEMS.
7. SEE REMOVAL PLAN SHEET NO. 17 AND TEMPORARY EROSION CONTROL SHEET NO. 44 FOR ADDITIONAL INFORMATION ON TREE REMOVAL AND PROTECTION.
8. CONTRACTOR SHALL COORDINATE ALL REMOVALS AND SALVAGE WITH THE TOLLWAY.

N

0 20 40 60
SCALE IN FEET

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline.Ng	DESIGNED - HA	REVISED -	
	DRAWN - HA	REVISED -	
PLOT SCALE = 40.000000 ' / in.	CHECKED - MJE	REVISED -	
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING DEMOLITION
TOLL PLAZA 31

SCALE: 1"=20' | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	18
		CONTRACT NO. 62U90		
	ILLINOIS FED. AID PROJECT			

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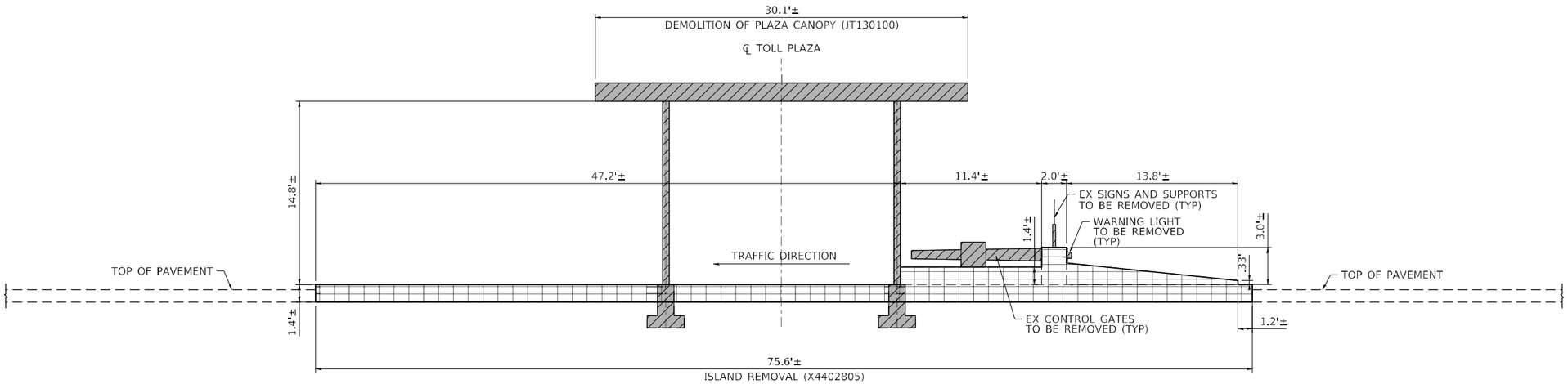
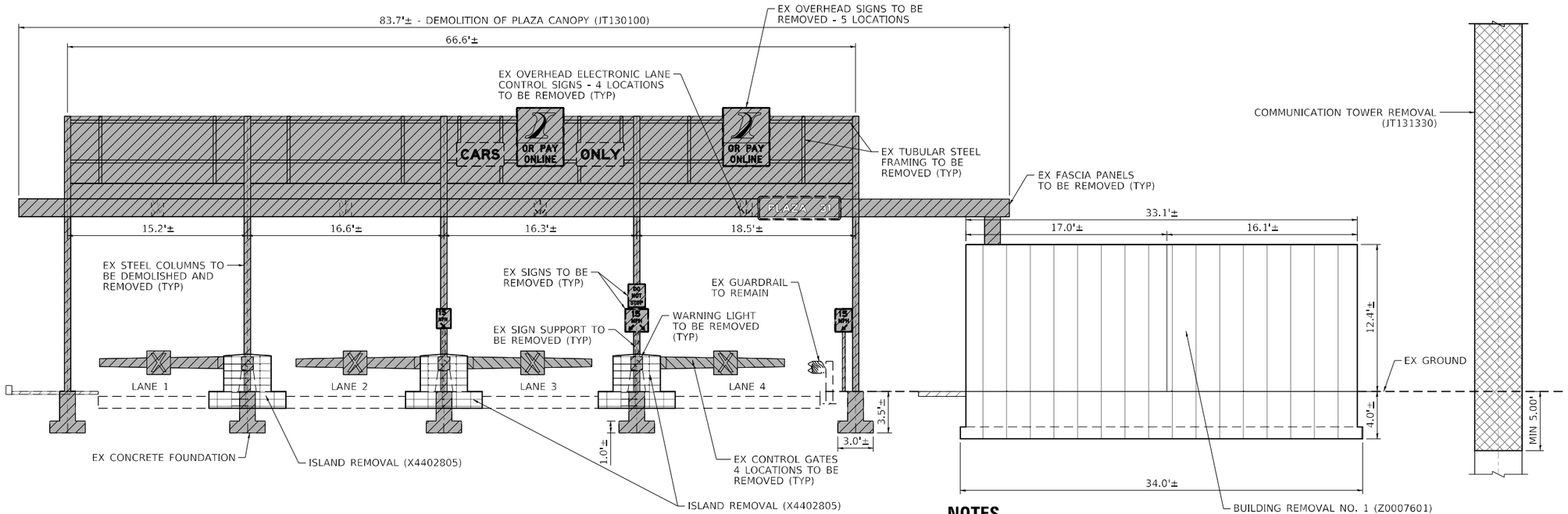


EXISTING TOLL PLAZA 31 – SOUTH ELEVATION

(NOT TO SCALE)



EXISTING TOLL PLAZA 31 – EAST ELEVATION

SECTION A-A FROM SHEET 18
(NOT TO SCALE)

LEGEND

- BUILDING REMOVAL NO. 1 (Z0007601)
- ISLAND REMOVAL (X4402805)
- DEMOLITION OF PLAZA CANOPY (JT130100)
- COMMUNICATION TOWER REMOVAL (JT131330)

NOTES

1. THE EXISTING TOLL PLAZA 31 CANOPY STRUCTURE AND COLUMNS SHALL BE REMOVED IN ITS ENTIRETY. REFER TO SPECIAL PROVISIONS FOR DEMOLITION OF PLAZA CANOPY (JT130100).
2. THE CONTRACTOR SHALL TEST THE SITE FOR ASBESTOS, LEAD AND HAZARDOUS MATERIALS BEFORE COMMENCING ANY DEMOLITION OF THE CANOPY. REFER TO SPECIAL PROVISIONS FOR DEMOLITION OF PLAZA CANOPY (JT130100).
3. THE EXISTING EQUIPMENT ON THE CANOPY AND CONCRETE ISLAND SUCH AS THE METAL BOXES, WARNING LIGHTS, GATES, SIGNS AND OTHER MISCELLANOUS ITEMS SHALL BE REMOVED. REFER TO SPECIAL PROVISIONS DEMOLITION OF PLAZA CANOPY (JT130100) AND REMOVAL OF PLAZA EQUIPMENT (JT130200) FOR ADDITIONAL INFORMATION.
4. CONTRACTOR SHALL COORDINATE ALL REMOVALS AND SALVAGE WITH THE TOLLWAY.

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline.Ng	DESIGNED - HA	REVISED -
	DRAWN - HA	REVISED -
PLOT SCALE = 10.000000 ' / in.	CHECKED - MJE	REVISED -
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING DEMOLITION ELEVATIONS
TOLL PLAZA 31

SCALE: 1"=20' | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	19
		CONTRACT NO. 62U90		
		ILLINOIS	FED. AID PROJECT	

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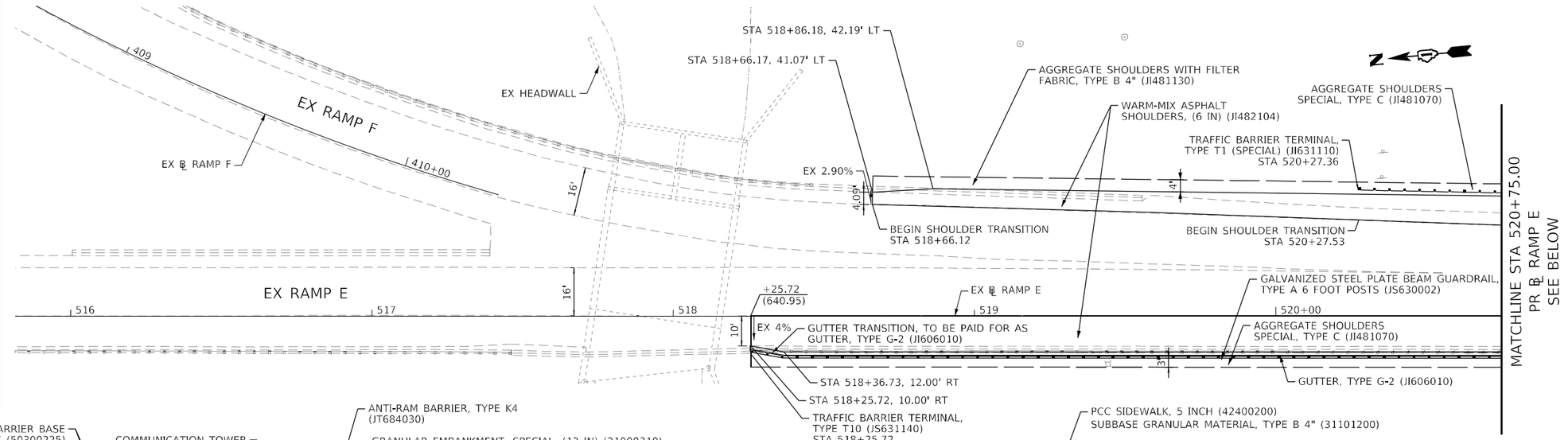
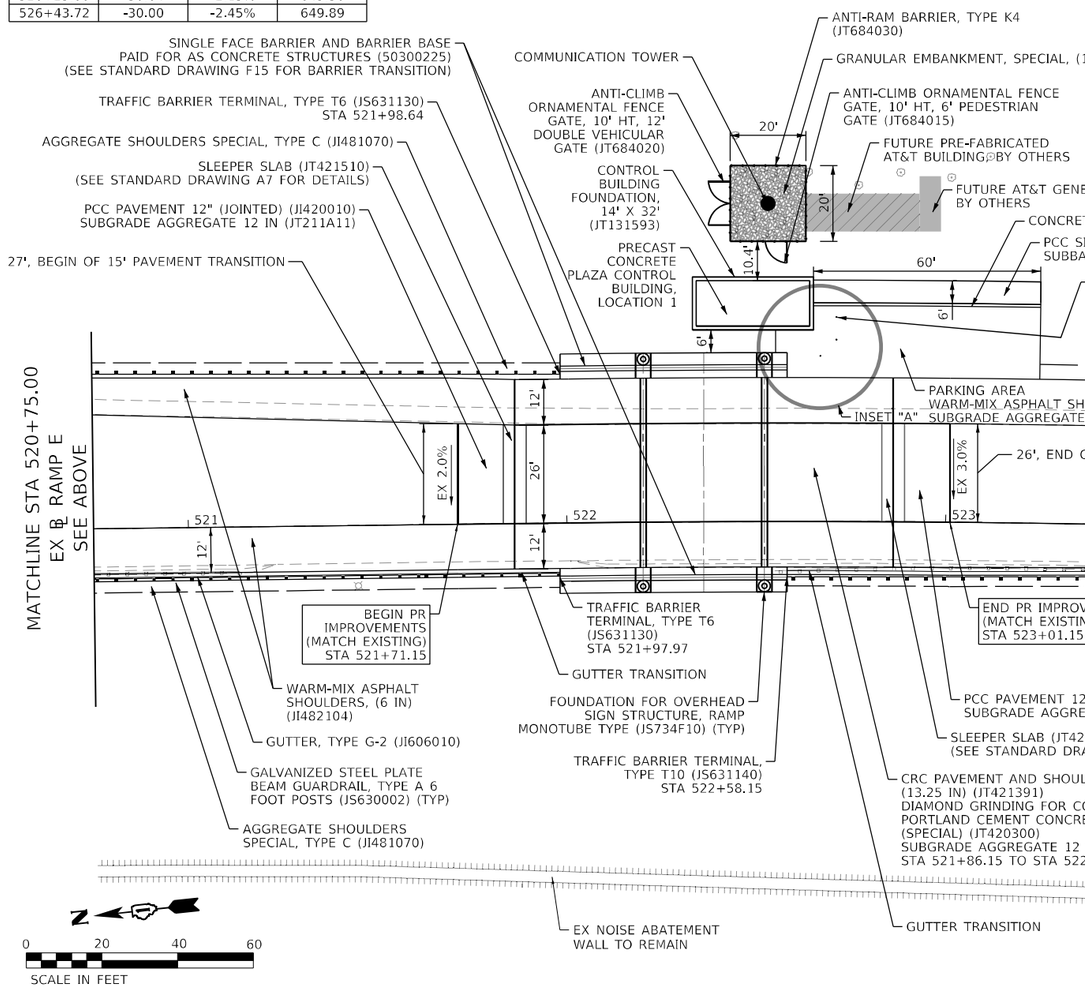
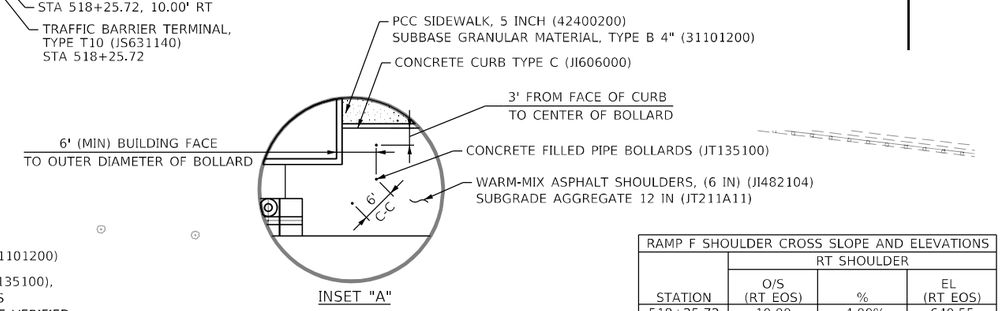
RAMP F SHOULDER CROSS SLOPE AND ELEVATIONS			
	LT SHOULDER		
STATION	O/S (LT EOS)	%	EL (LT EOS)
518+66.12	-41.07	-2.90%	640.31
518+75.00	-41.56	-3.39%	640.14
518+86.11	-42.19	-4.00%	639.91
520+27.53	-40.41	-4.00%	638.71
520+50.00	-40.13	-3.06%	638.74
520+75.00	-39.82	-2.02%	638.85
521+00.00	-39.50	-0.98%	639.00
521+25.00	-39.19	0.06%	639.26
521+50.00	-38.88	1.10%	639.61
521+71.48	-38.60	2.00%	639.95
523+00.91	-38.07	3.00%	642.61
523+25.00	-37.91	2.62%	643.15
523+50.00	-37.88	2.21%	643.68
523+75.00	-37.98	1.82%	644.24
524+00.00	-38.00	1.43%	644.84
524+10.71	-38.00	1.25%	645.08
524+25.00	-37.51	1.03%	645.36
524+50.00	-36.65	0.63%	645.93
524+75.00	-35.79	0.23%	646.51
525+00.00	-34.93	-0.17%	647.06
525+25.00	-34.07	-0.56%	647.52
525+50.00	-33.21	-0.96%	648.02
525+75.00	-32.35	-1.36%	648.52
526+00.00	-31.49	-1.76%	648.99
526+25.00	-30.64	-2.15%	649.50
526+43.72	-30.00	-2.45%	649.89







RAMP F SHOULDER CROSS SLOPE AND ELEVATIONS			
	RT SHOULDER		
STATION	O/S (RT EOS)	%	EL (RT EOS)
518+25.72	10.00	-4.00%	640.55
521+22.99	12.00	-4.00%	638.18
521+50.00	12.00	-2.88%	638.57
521+71.15	12.00	-2.00%	638.96
523+01.15	12.00	-3.00%	641.11
523+25.00	11.70	-3.37%	641.57
523+50.00	11.26	-3.52%	642.10
523+75.00	10.68	-3.95%	642.57
523+95.47	10.00	-4.59%	642.93

TOLL PLAZA PAVEMENT CROSS SLOPE AND ELEVATIONS																
	LT SHOULDER			LANE 1			LANE 2			PGL			RT SHOULDER		
STATION	O/S (LT EOS)	%	EL	O/S (LT EOP)	%	EL	O/S (LT EOL)	%	EL	O/S	%	EL	O/S (RT EOS)	%	EL
521+71.15	-38.55	2.00%	639.97	-26.55	2.00%	639.73	-13.65	2.00%	639.47	0.00	N/A	639.20	12.00	-2.00%	638.96
521+86.15	-38.00	2.12%	640.23	-26.00	2.12%	639.97	-13.00	2.12%	639.70	0.00	N/A	639.42	12.00	-2.12%	639.17
522+00.00	-38.00	2.22%	640.47	-26.00	2.22%	640.21	-13.00	2.22%	639.92	0.00	N/A	639.63	12.00	-2.22%	639.36
522+25.00	-38.00	2.41%	640.92	-26.00	2.41%	640.63	-13.00	2.41%	640.31	0.00	N/A	640.00	12.00	-2.41%	639.71
522+50.00	-38.00	2.61%	641.45	-26.00	2.61%	641.14	-13.00	2.61%	640.80	0.00	N/A	640.46	12.00	-2.61%	640.15
522+75.00	-38.00	2.80%	642.02	-26.00	2.80%	641.69	-13.00	2.80%	641.32	0.00	N/A	640.96	12.00	-2.80%	640.62
522+86.15	-38.00	2.88%	642.27	-26.00	2.88%	641.93	-13.00	2.88%	641.55	0.00	N/A	641.18	12.00	-2.88%	640.83
523+01.15	-38.00	3.00%	642.61	-26.00	3.00%	642.25	-13.00	3.00%	641.85	0.00	N/A	641.47	12.00	-3.00%	641.11

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = PIMSARNO	DESIGNED - OPS		REVISED -
	DRAWN - JN		REVISED -
PLOT SCALE = 40.0000 ' / in.	CHECKED - MJE		REVISED -
PLOT DATE = 6/18/2024	DATE - 6/21/2024		REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED TOLL PLAZA 31 CIVIL PLAN

SCALE: 1"=20' | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	20
		CONTRACT NO. 62U90		
		ILLINOIS	FED. AID PROJECT	

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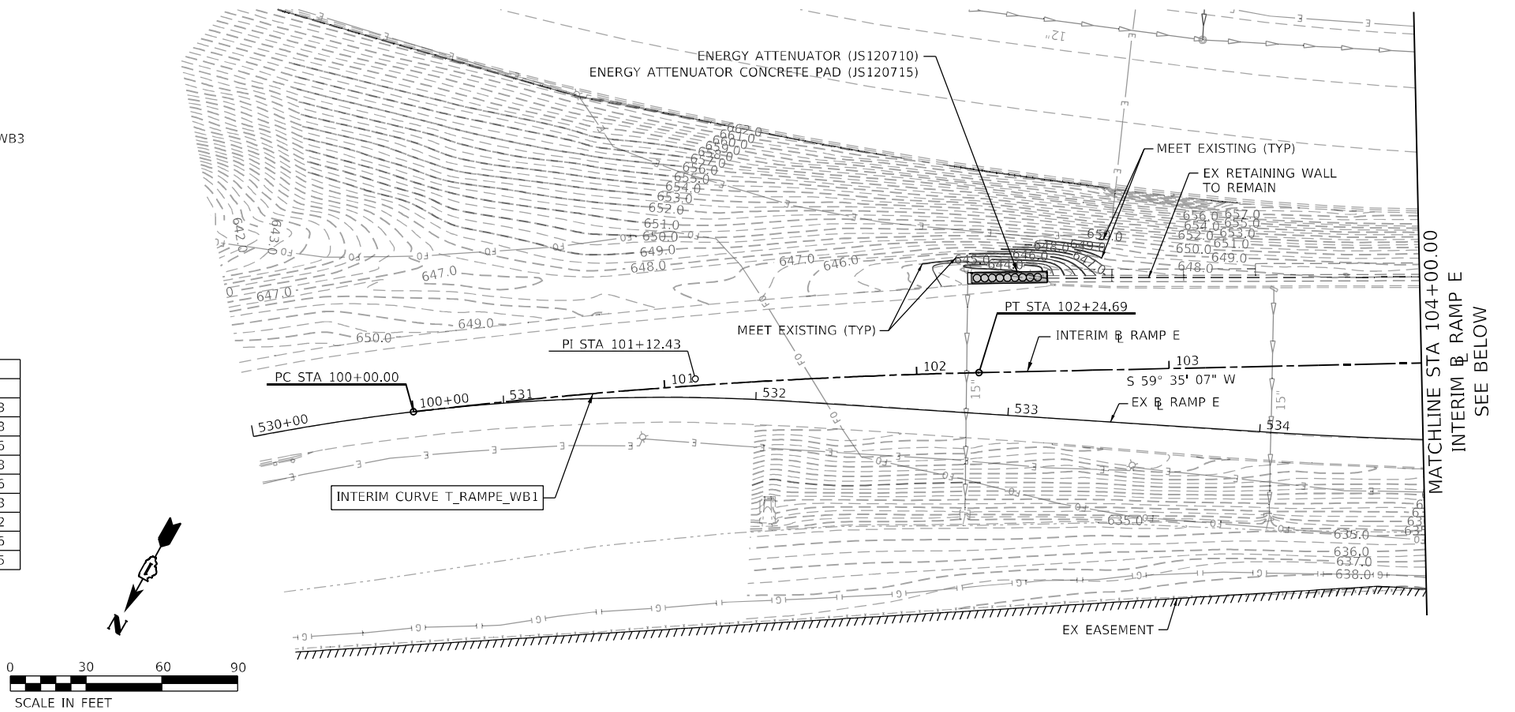
INTERIM CURVE T_RAMPE_WB1
PI STA. = 101+12.43
Δ = 5° 24' 00" (RT)
D = 2° 24' 12"
R = 2,384.00'
T = 112.43'
L = 224.69'
E = 2.65'
P.C. STA = 100+00.00
P.T. STA = 102+24.69

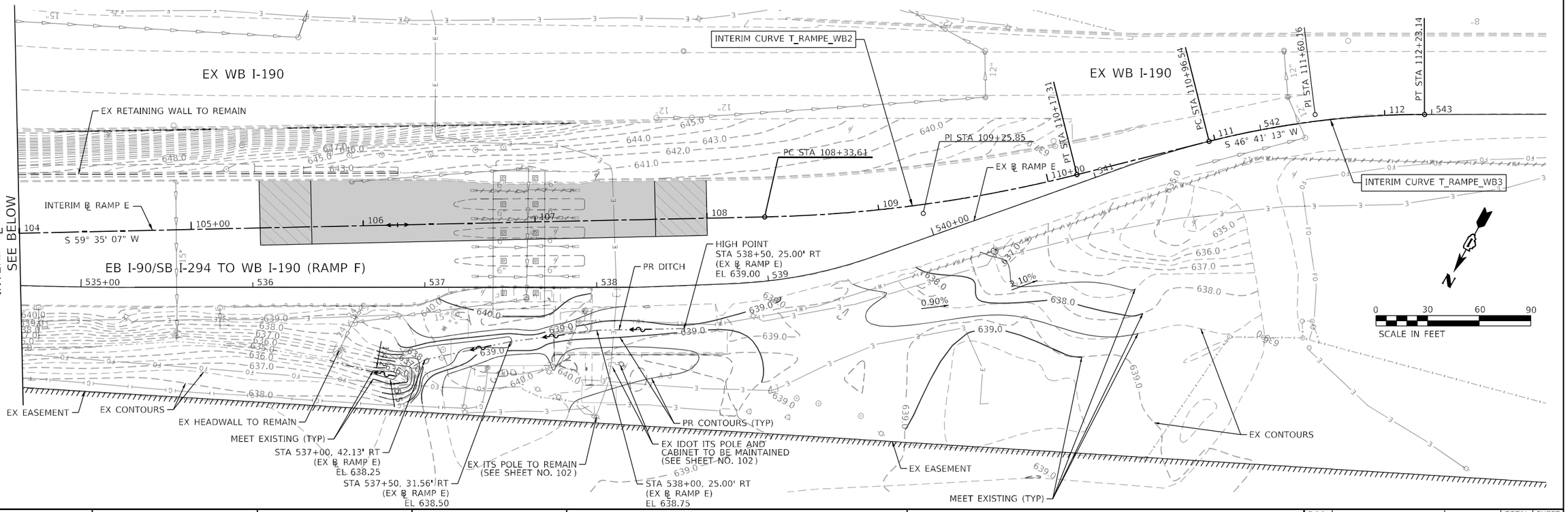
INTERIM CURVE T_RAMPE_WB2
PI STA. = 109+25.85
Δ = 12° 53' 54" (LT)
D = 7° 01' 18"
R = 816.00'
T = 92.24'
L = 183.70'
E = 5.20'
P.C. STA = 108+33.61
P.T. STA = 110+17.31

INTERIM CURVE T_RAMPE_WB3
PI STA. = 111+60.16
Δ = 14° 05' 06" (RT)
D = 11° 07' 31"
R = 515.00'
T = 63.62'
L = 126.60'
E = 3.92'
P.C. STA = 110+96.54
P.T. STA = 112+23.14

COORDINATE TABLE

INTERIM RAMP E				
POINT	CURVE	STATION	NORTHING	EASTING
PC	T_RAMPE_WB1	100+00.00	1,937,339.7674	1,109,930.2503
PI	T_RAMPE_WB1	101+12.43	1,937,273.9782	1,109,839.0808
PT	T_RAMPE_WB1	102+24.69	1,937,217.0609	1,109,742.1246
PC	T_RAMPE_WB2	108+33.61	1,936,908.7917	1,109,217.0008
PI	T_RAMPE_WB2	109+25.85	1,936,862.0954	1,109,137.4556
PT	T_RAMPE_WB2	110+17.31	1,936,798.8211	1,109,070.3413
PC	T_RAMPE_WB3	110+96.54	1,936,744.4687	1,109,012.6902
PI	T_RAMPE_WB3	111+60.16	1,936,700.8248	1,108,966.3976
PT	T_RAMPE_WB3	112+23.14	1,936,669.7589	1,108,910.8755





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AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

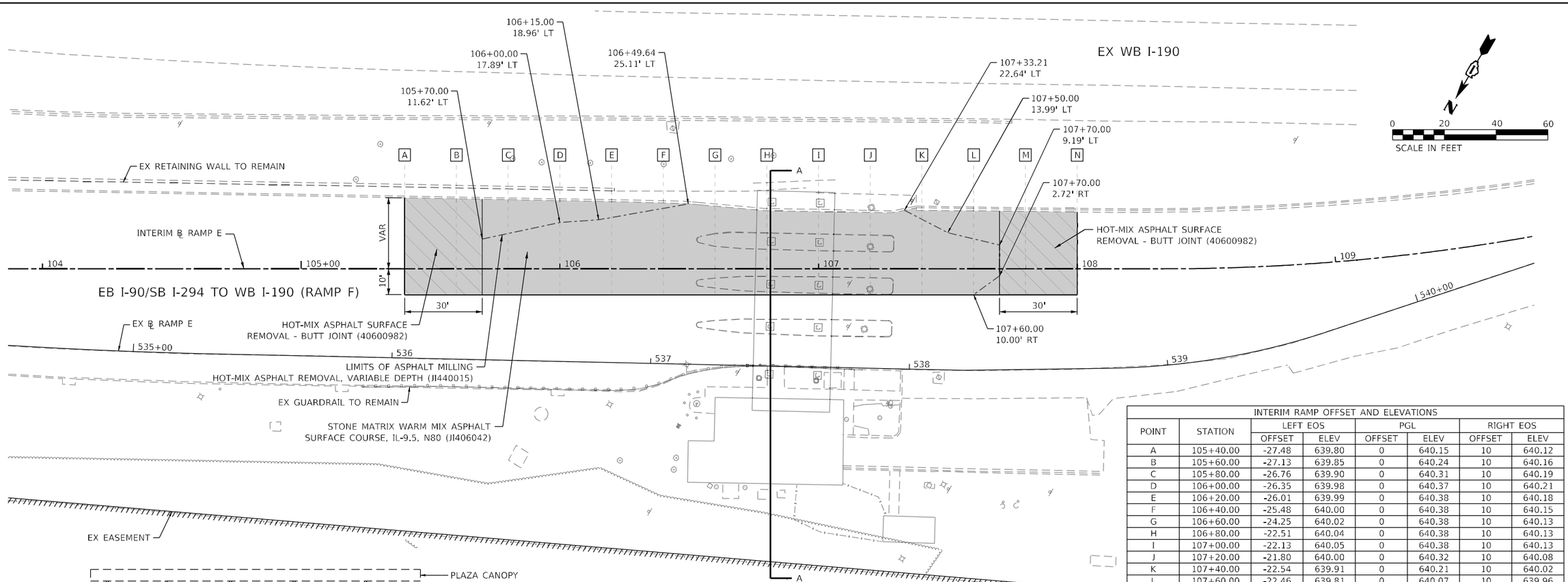
USER NAME = ChiuA	DESIGNED - AFC	REVISED -	
	DRAWN - AFC	REVISED -	
PLOT SCALE = 60.0000 ' / in.	CHECKED - MJE	REVISED -	
PLOT DATE = 5/9/2024	DATE - 5/3/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SITE PLAN
AT EXISTING TOLL PLAZA 31

SCALE: 1"=30' | SHEET 1 OF 2 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	21
		CONTRACT NO. 62U90		
	ILLINOIS	FED. AID PROJECT		



INTERIM RAMP OFFSET AND ELEVATIONS							
POINT	STATION	LEFT EOS		PGL		RIGHT EOS	
		OFFSET	ELEV	OFFSET	ELEV	OFFSET	ELEV
A	105+40.00	-27.48	639.80	0	640.15	10	640.12
B	105+60.00	-27.13	639.85	0	640.24	10	640.16
C	105+80.00	-26.76	639.90	0	640.31	10	640.19
D	106+00.00	-26.35	639.98	0	640.37	10	640.21
E	106+20.00	-26.01	639.99	0	640.38	10	640.18
F	106+40.00	-25.48	640.00	0	640.38	10	640.15
G	106+60.00	-24.25	640.02	0	640.38	10	640.13
H	106+80.00	-22.51	640.04	0	640.38	10	640.13
I	107+00.00	-22.13	640.05	0	640.38	10	640.13
J	107+20.00	-21.80	640.00	0	640.32	10	640.08
K	107+40.00	-22.54	639.91	0	640.21	10	640.02
L	107+60.00	-22.46	639.81	0	640.07	10	639.96
M	107+80.00	-22.26	639.69	0	639.91	10	639.89
N	108+00.00	-21.96	639.53	0	639.71	10	639.78

TOLLWAY ASPHALT MIX TABLE

LOCATION	OPERATIONS	CODE NO.	ITEM	UNIT	VOIDS	TYPICAL THICKNESS		MIX TYPE
EXISTING TOLL PLAZA 31	CONSTRUCTION OF WMA OVERLAY	JI406042	STONE MATRIX WARM MIX ASPHALT SURFACE COURSE, IL-9.5, N80	TON	3.5% @ 80 GYR	TOP LIFT	1.75"	STONE MATRIX WARM MIX ASPHALT SURFACE COURSE, IL-9.5, N80
						MIDDLE LIFT	1.5" TO 2.75"	
						BOTTOM LIFT	1.5" TO 3.0"	

PROPOSED LEGEND

1. HOT-MIX ASPHALT REMOVAL, VARIABLE DEPTH (JI440015)
2. STONE MATRIX WARM MIX ASPHALT SURFACE COURSE, IL-9.5, N80 (JI406042)
3. CLASS B PATCHES, TYPE IV, 12 INCH (44201000)
4. CONTROLLED LOW-STRENGTH MATERIAL (59300100)

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
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	DRAWN - JN	REVISED -	
PLOT SCALE = 40.0000 ' / in.	CHECKED - MJE	REVISED -	
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SITE PLAN
AT EXISTING TOLL PLAZA 31

SCALE: 1"=30' | SHEET 2 OF 2 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	22
		CONTRACT NO. 62U90		
	ILLINOIS	FED. AID PROJECT		

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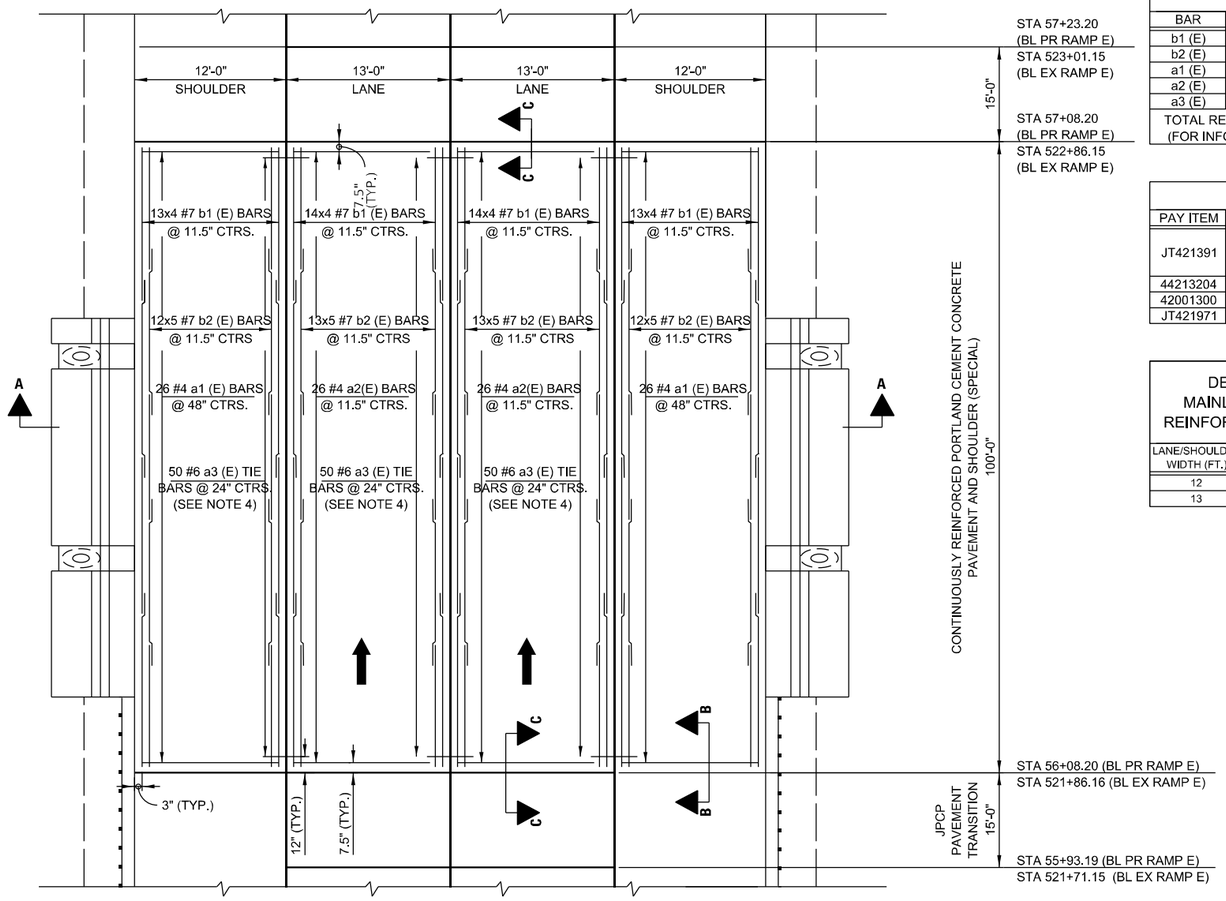


REBAR PLAN VIEW
FOR NEW OR RECONSTRUCTION PROJECTS
N.T.S.

REINFORCING BAR SCHEDULE					
BAR	NO.	SIZE	LAP (MIN.)	LENGTH	SHAPE
b1 (E)	216	#7	4'-5"	23'-6"	———
b2 (E)	250	#7	4'-5"	28'-3"	———
a1 (E)	52	#4		11'-9"	———
a2 (E)	52	#4		12'-9"	———
a3 (E)	200	#6		2'-6"	———
TOTAL REINFORCEMENT BARS, EPOXY COATED = 26,090 LBS. (FOR INFORMATION ONLY)					

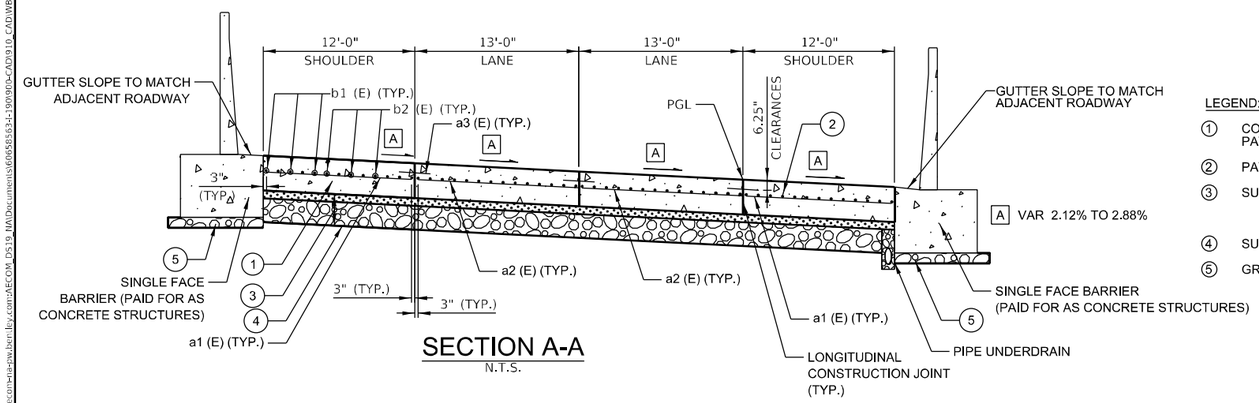
BILL OF MATERIALS			
PAY ITEM	SIZE	UNIT	TOTAL
JT421391	CONTINUOUSLY REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT AND SHOULDER (SPECIAL) (13.25 IN.)	SQ. YD.	556
44213204	TIE BARS 3/4"	EACH	102
42001300	PROTECTIVE COAT	SQ. YD.	556
JT421971	PAVEMENT REINFORCEMENT (13.25IN.)	SQ. YD.	556

SHOWN FOR INFORMATION ONLY
SEE ROADWAY SCHEDULE ON SHEET 11 FOR QUANTITIES

DESIGN TABLE FOR MAINLINE CRC PAVEMENT REINFORCEMENT (#7 BAR SIZE)		
LANE/SHOULDER WIDTH (FT.)	NO. OF BARS (EA.)	SPACING (IN.)
12	25	5¾
13	27	5¾

NOTES:

1. REINFORCING BARS DESIGNATED "E" SHALL BE EPOXY COATED.
2. REFER TO SPECIAL PROVISION FOR THE CLASS OF CONCRETE TO BE USED.
3. BARS INDICATED THUS MxN #7 ETC. INDICATES M LINES OF BARS WITH N LENGTHS PER LINE.
4. BARS AT LONGITUDINAL CONSTRUCTION JOINT BETWEEN ADJACENT LANES OR LANE AND SHOULDER.



SECTION A-A
N.T.S.

LEGEND:

1. CONTINUOUSLY REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT AND SHOULDER (SPECIAL) (13.25") (JT421391)
2. PAVEMENT REINFORCEMENT (13.25 IN.) (JT421971)
3. SUBGRADE AGGREGATE 12" (JT211A11)
   CAPPING AGGREGATE, 3" (THICKNESS VARIES UNDER SHOULDERS)
   POROUS GRANULAR EMBANKMENT, 9"
4. SUBGRADE FILTER FABRIC (JI282010)
5. GRANULAR SUBBASE, SPECIAL (4" MIN.) (JT301010)

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline.Ng	DESIGNED - OPS	REVISED -	
	DRAWN - OPS	REVISED -	
PLOT SCALE = 20.0000 ' / in.	CHECKED - MJE	REVISED -	
PLOT DATE = 5/1/2024	DATE - 5/3/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DETAILS: RAMP TOLL PLAZA PAVEMENT (M–RDY–418)

SCALE: NONE | SHEET 1 OF 2 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	23
		CONTRACT NO. 62U90		
		ILLINOIS	FED. AID PROJECT	

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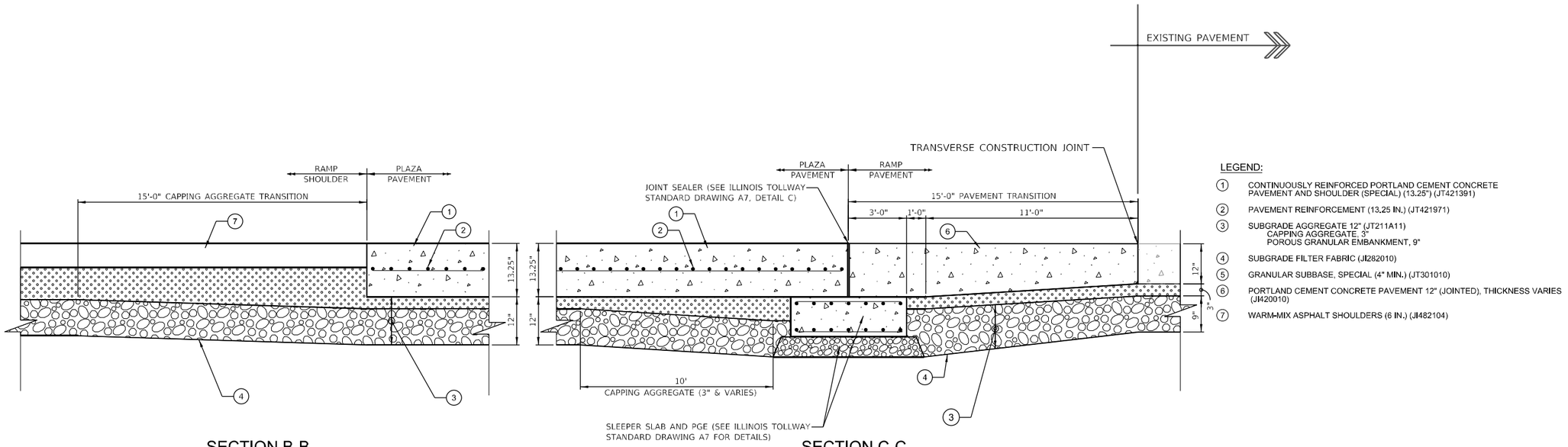
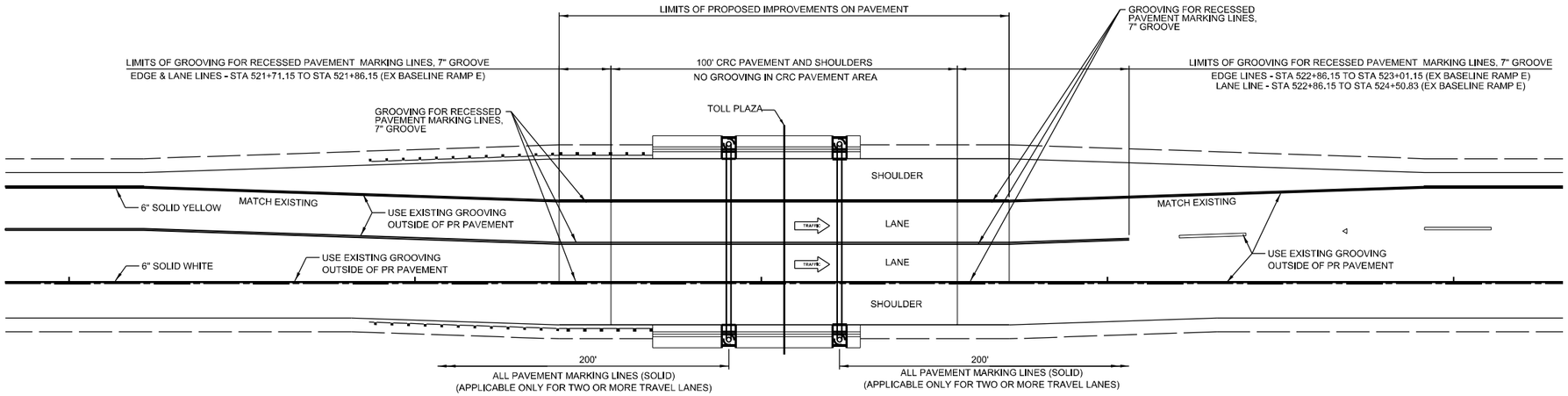


SECTION B-B
N.T.S.

PAVEMENT TRANSITION DETAIL
N.T.S.

SECTION C-C
N.T.S.



PAVEMENT MARKING DETAILS
FOR NEW OR RECONSTRUCTION PROJECTS
N.T.S.

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AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

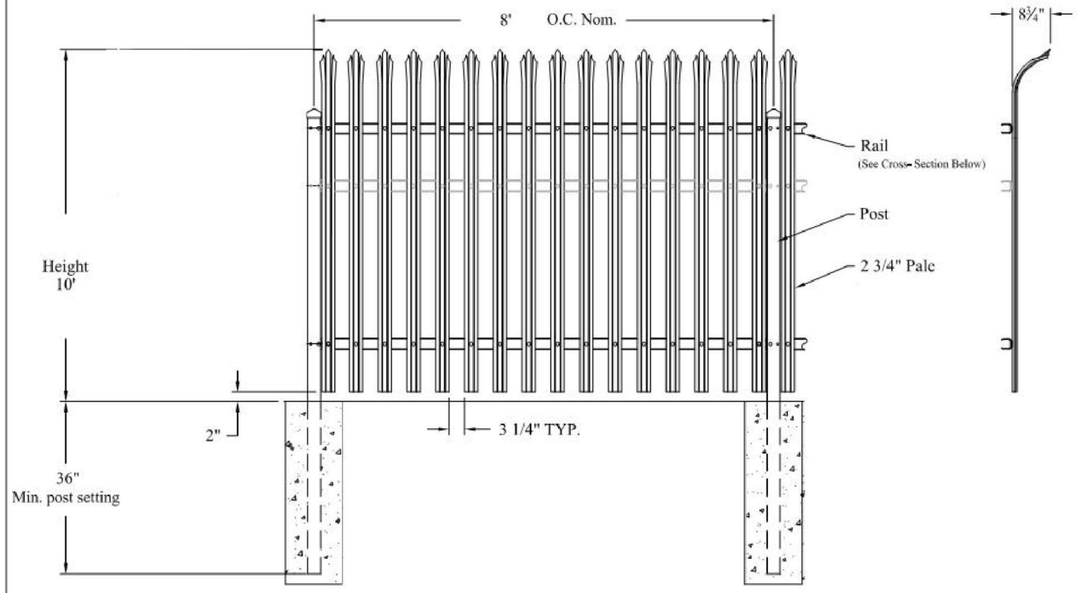
USER NAME = PIMSARNO	DESIGNED - JN	REVISED -
	DRAWN - JN	REVISED -
PLOT SCALE = 20.0000 ' / in.	CHECKED - MJE	REVISED -
PLOT DATE = 6/18/2024	DATE - 6/21/2024	REVISED -

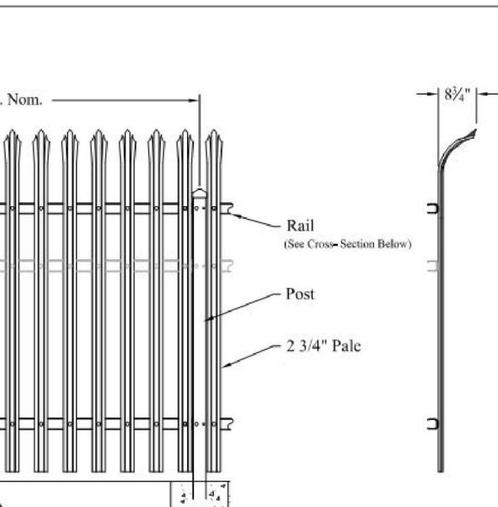
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

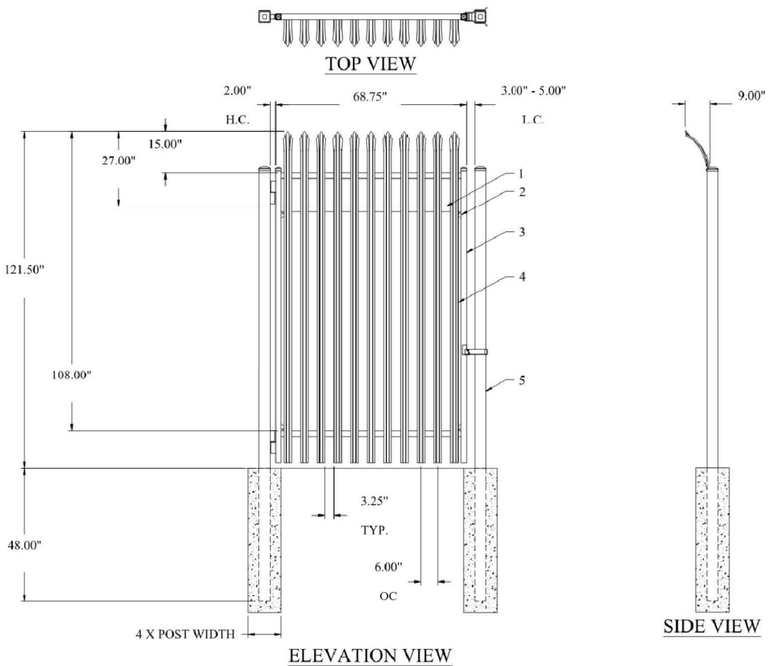
DETAILS: RAMP TOLL PLAZA PAVEMENT (M-RDY-418)

SCALE: NONE | SHEET 2 OF 2 SHEETS | STA. | TO STA.

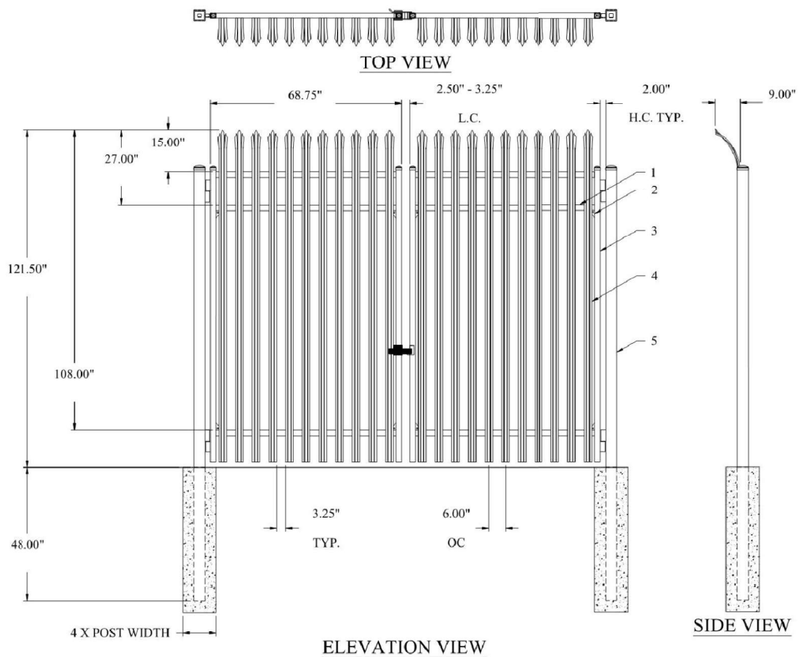
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	24
		CONTRACT NO. 62U90		
	ILLINOIS FED. AID PROJECT			







PEDESTRIAN GATE



VEHICULAR GATE

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline.Ng	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FENCING SYSTEM DETAILS
ANTI-CLIMB ORNAMENTAL FENCE 10'

SCALE: | SHEET 1 OF 2 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	25
		CONTRACT NO. 62U90		
	ILLINOIS	FED. AID PROJECT		

MODEL: Default
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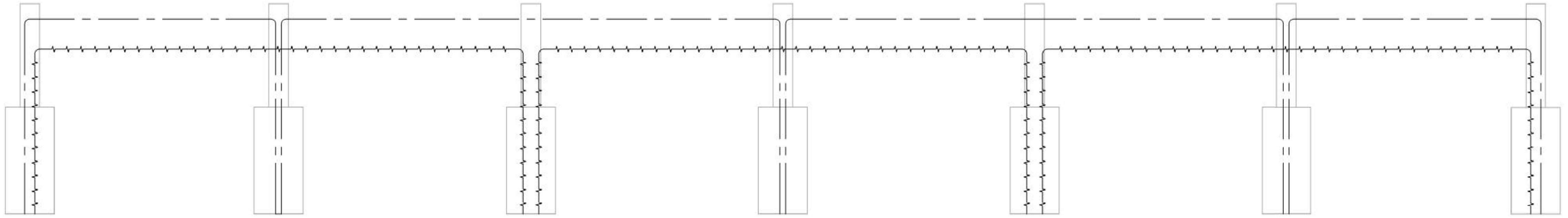
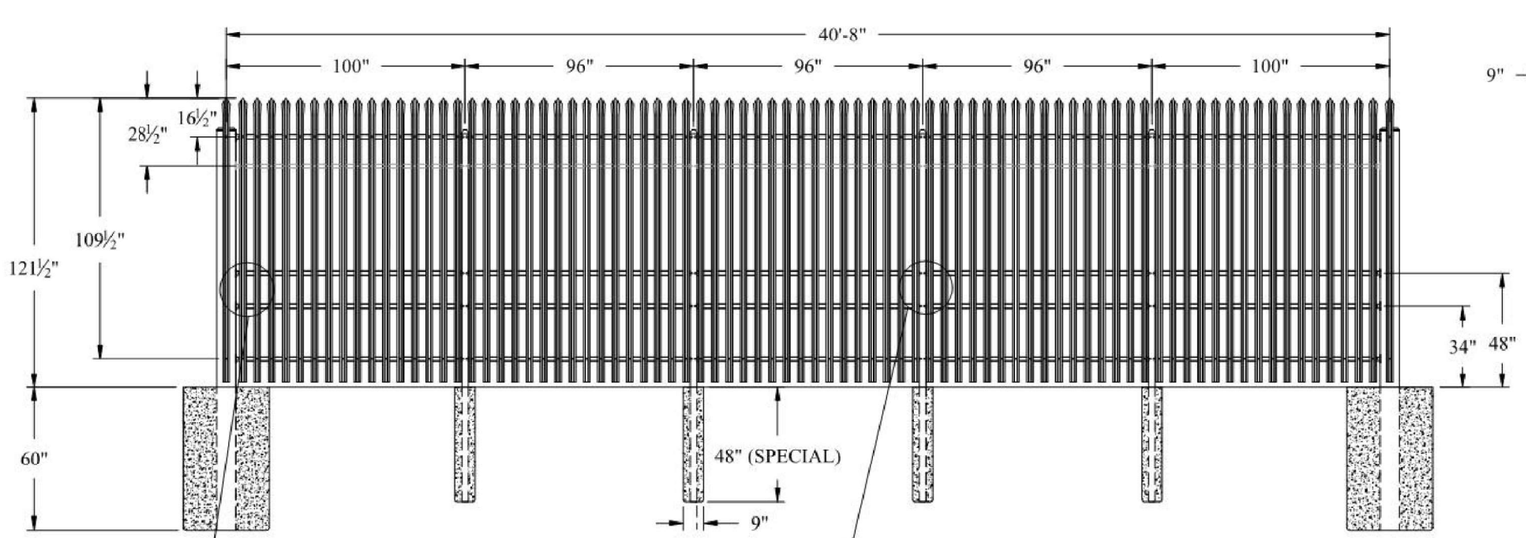
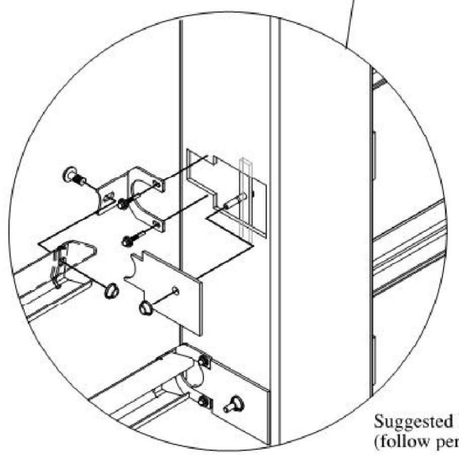


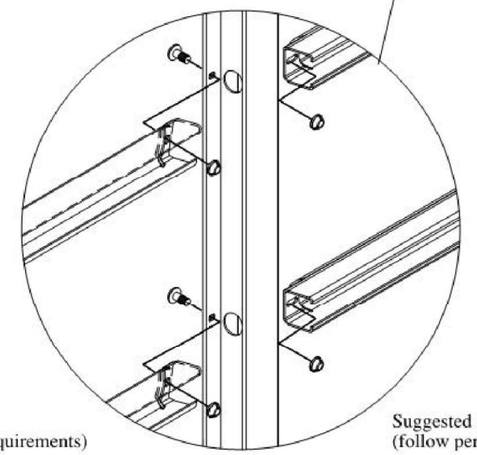
CABLE RUN ELEVATION



POST SPACING ELEVATION



Suggested Detail:
(follow per manufacturer requirements)



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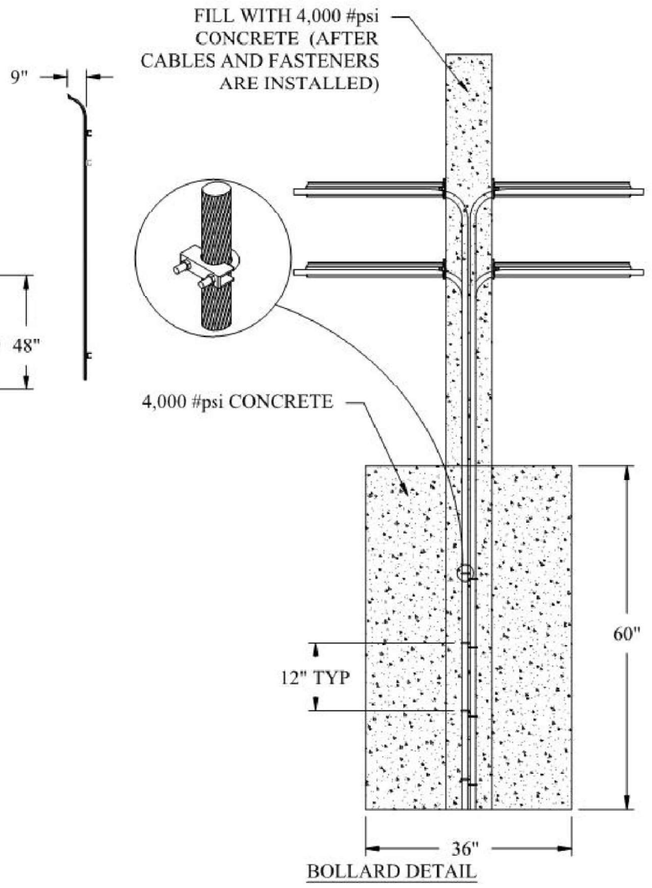
(follow per manufacturer requirements)



BOLLARD DETAIL

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline.Ng	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FENCING SYSTEM DETAILS
ANTI-RAM BARRIER, TYPE K4

SCALE: | SHEET 2 OF 2 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	26
		CONTRACT NO. 62U90		
	ILLINOIS	FED. AID PROJECT		

MODEL: Default
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ANTI-RAM BARRIER, TYPE K4
STA 522+63.02, 93.96' LT

COMMUNICATION TOWER
STA 522+53.21, 83.96' LT

ANTI-RAM BARRIER, TYPE K4
STA 522+63.04, 73.96' LT

ANTI-RAM BARRIER, TYPE K4
STA 522+43.42, 93.99' LT

CONTROL BUILDING FOUNDATION
STA 522+65.06, 64.59' LT

BEGIN PCC SIDEWALK
STA 522+65.07, 63.75' LT

ANTI-RAM BARRIER, TYPE K4
STA 522+43.36, 73.99' LT

END PCC SIDEWALK
STA 523+24.32, 63.75' LT

CONTROL BUILDING FOUNDATION
STA 522+33.50, 64.65' LT

END PARKING AREA
STA 523+24.32,
38.00' LT

CONTROL BUILDING FOUNDATION
STA 522+33.43, 50.65' LT

EX CONTOURS

CONTROL BUILDING FOUNDATION
STA 522+65.08, 50.59' LT

BEGIN PARKING AREA
STA 522+55.18, 44.58' LT

INSET "A"

PARKING AREA
STA 522+58.15, 38.00' LT

ANTI-CLIMB ORNAMENTAL
FENCE, 10' HEIGHT,
12' VEHICULAR GATE
(JT684020)

ANTI-RAM BARRIER, TYPE K4
(JT684030)

PRECAST CONCRETE
PLAZA CONTROL
BUILDING, LOCATION 1
(JT131701)

PR CONTOURS

EX RAMP F

EX RAMP E

CONTROL BUILDING
FOUNDATION (14' X 32')
(JT131593)

COMMUNICATION TOWER
SELF SUPPORTING COMMUNICATION TOWER STRUCTURAL STEEL (JT131321)
SELF SUPPORTING COMMUNICATION TOWER FOUNDATION (JT131320)

GRANULAR EMBANKMENT, SPECIAL (21000310)

ANTI-CLIMB ORNAMENTAL FENCE, 10' HEIGHT,
6' PEDESTRIAN GATE (JT684015)

FUTURE PRE-FABRICATED
AT&T BUILDING, BY OTHERS

FUTURE AT&T GENERATOR, BY OTHERS

PCC SIDEWALK, 5 INCH (42400200)

SUBBASE GRANULAR MATERIAL, TYPE B 4" (31101200)

CONCRETE CURB TYPE C (JI606000)

EX NB I-294

EX SB I-294

SCALE IN FEET
0 30 60 90

SEE INSET "A"

EX ℄ RAMP E

EB I-90/SB I-294 TO WB I-190 RAMP (RAMP F)

EX EASEMENT

518 519 520+00 521 522 523 524 525+00 526 527

EX HEADWALL EL 625.92±

STA 519+50, 44.4' RT
EL 628.18 (MEET EXISTING)

STA 520+50, 48.7' RT
EL 628.48

STA 521+00, 46.0' RT
EL 628.63

EX NOISE ABATEMENT
WALL TO REMAIN

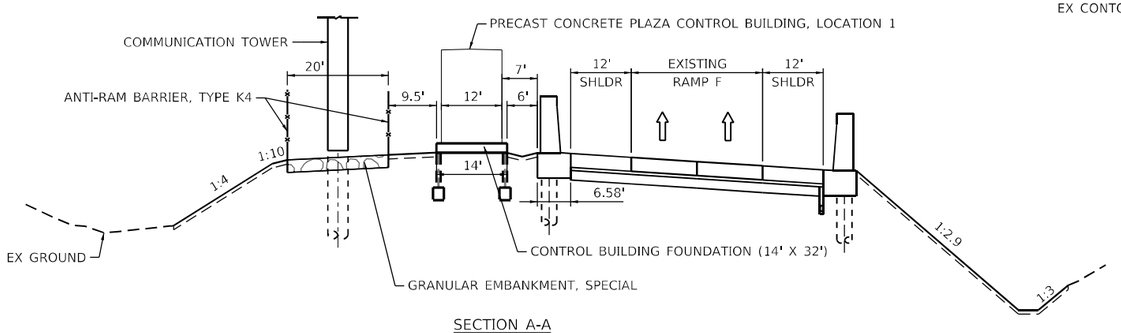
EX CONTOURS

PR CONTOURS

STA 524+00, 61.2' RT
EL 629.55

STA 524+50, 58.3' RT
EL 632.22 (MEET EXISTING)

PARKING AREA
WARM-MIX ASPHALT SHOULDERS, (6 IN) (JI482104)
SUBGRADE AGGREGATE 12 IN (JT211A11)



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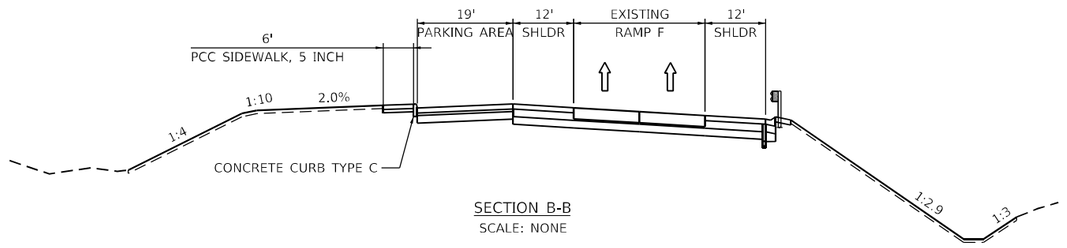
SCALE: NONE



SECTION B-B
SCALE: NONE

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = PIMSARNO	DESIGNED - JN	REVISED -
	DRAWN - JN	REVISED -
PLOT SCALE = 60.0000 ' / in.	CHECKED - MJE	REVISED -
PLOT DATE = 5/29/2024	DATE - 5/30/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED GRADING PLAN

SCALE: 1"=30' | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	27
		CONTRACT NO. 62U90		
		ILLINOIS	FED. AID PROJECT	

MODEL: Default
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SUGGESTED STAGES OF CONSTRUCTION AND TRAFFIC CONTROL PLAN GENERAL NOTES

1. THE SUGGESTED STAGES OF CONSTRUCTION AND TRAFFIC CONTROL PLANS SHALL SERVE AS A GUIDE FOR SAFE DIVERSION OF TRAFFIC DURING THE EXECUTION OF THIS CONTRACT. THE CONTRACTOR MAY MODIFY THE SUGGESTED STAGES OF CONSTRUCTION AND TRAFFIC CONTROL PLANS AT NO ADDITIONAL COST TO THE DEPARTMENT 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 AND THE DEPARTMENT FOR APPROVAL.
2. THE CONTRACTOR SHALL CONTACT THE EXPRESSWAYS TRAFFIC CONTROL SUPERVISOR AT (847) 705-4155 A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING WORK. ADDITIONALLY, THE CONTRACTOR SHALL CONTACT ILLINOIS DEPARTMENT OF TRANSPORTATION (IDOT) DISTRICT 1 BUREAU OF TRAFFIC AT (847) 705-4151 A MINIMUM OF 72 HOURS PRIOR TO ANY PLACEMENT OR RELOCATION OF MAINTENANCE OF TRAFFIC DEVICES. THE CONTRACTOR SHALL REGISTER AN ACCOUNT AT WWW.IDOTLCS.COM AND USE THE WEBSITE TO REQUEST LANE CLOSURES AND COORDINATE ANY STAGE CHANGES AND LANE CLOSURES.
3. THE CONTRACTOR SHALL CONTACT THE IDOT EXPRESSWAY TRAFFIC CONTROL SUPERVISOR DISTRICT ONE CARLOS MUNOZ AT CARLOS.MUNOZ@ILLINOIS.GOV A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING OF WORK.
4. THE CONTRACTOR SHALL COORDINATE ALL TRAFFIC CONTROL WORK WITH ILLINOIS TOLLWAY INCIDENT MANAGER, ANDREW MCKISSICK, AT (630) 241-6800 EXTENSION 4907.
5. THE CONTRACTOR SHALL PROVIDE 48 HOURS ADVANCE NOTICE TO THE ENGINEER OF ANY CONSTRUCTION WORK THAT MAY IMPACT ANY ILLINOIS TOLLWAY ITS DEVICES.

SUGGESTED STAGES OF CONSTRUCTION AND TRAFFIC CONTROL SCHEDULE

MOT	PAVEMENT REMOVAL [**]	TEMPORARY PAVEMENT MARKING - LINE 4" - EPOXY	TEMPORARY PAVEMENT MARKING - LINE 8" - EPOXY	IMPACT ATTENUATORS, TEMPORARY (SEVERE USE, NARROW), TEST LEVEL 3	IMPACT ATTENUATORS, RELOCATE (SEVERE USE, NARROW), TEST LEVEL 3	TEMPORARY PAVEMENT, CLASS 1	TEMPORARY CONCRETE BARRIER, CROSS-BOLT CONNECTION	RELOCATE TEMPORARY CONCRETE BARRIER, CROSS-BOLT CONNECTION	RELOCATE TEMPORARY CONCRETE BARRIER, CROSS-BOLT CONNECTION, TO REMAIN IN PLACE	IMPACT ATTENUATORS, TEMPORARY (SEVERE USE, NARROW), TEST LEVEL 3, TO REMAIN IN PLACE	BARRIER WALL REFLECTORS, TYPE C	SUBGRADE AGGREGATE 9 IN.	WATERBLAST PAVEMENT MARKING REMOVAL WITH VACUUM RECOVERY	RAISED PAVEMENT MARKER REMOVAL	RAISED PAVEMENT MARKER, REFLECTOR REMOVAL
SHEET	SQ YD	FOOT	FOOT	EACH	EACH	SQ YD	FOOT	FOOT	FOOT	EACH	EACH	CU YD	SQ FT	EACH	EACH
PRESTAGE - 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PRESTAGE - 2	-	-	-	1	-	410	825	-	-	-	66	103	-	-	-
STAGE 1 - 1	-	21	-	-	-	-	-	-	-	-	-	-	9	-	-
STAGE 1 - 2	-	3,820	1,071	1	-	520	1,012.5	825	-	-	147	130	1,646	15	15
STAGE 2 - 1	-	32	-	-	-	-	-	-	-	-	-	-	13	-	-
STAGE 2 - 2	410	3,888	652	-	1	-	-	1,787.5	-	-	143	-	2,062	-	-
STAGE 3 - 1	-	104	-	-	-	-	-	-	-	-	-	-	39	-	-
STAGE 3 - 2	520	3,994	492	-	1	-	-	1,462.5	-	-	117	-	1,737	-	-
STAGE 3 - 3	-	-	-	-	-	-	500	-	-	-	-	-	-	-	-
STAGE 4 - 1	-	-	-	-	-	-	-	-	-	-	-	-	24	-	-
STAGE 4 - 2	-	6,040	850	-	1	-	-	412.5	-	-	-	-	2,935	-	-
STAGE 4A	-	-	-	-	-	-	-	-	400	1	32	-	-	-	-
TOTAL	930	17,899	3,065	2	3	930	2,337.5	4,487.5	400	1	505	233	8,466	15	15

[**] SEE REMOVAL SCHEDULE FOR ADDITIONAL QUANTITY.

STAGING NARRATIVE

PRE-STAGE

TRAFFIC CONTROL:

CLOSE EXISTING RAMP E RIGHT SHOULDER FOLLOWING TRAFFIC CONTROL PLANS. MAINTAIN EXISTING TRAFFIC AND PAVEMENT MARKINGS ON ALL RAMPS AND LANES AS SHOWN ON THE PLANS.

CONSTRUCTION:

REMOVE GUARDRAIL, GUTTER, AND LIGHTING IN CONFLICT WITH TEMPORARY PAVEMENT.

CONSTRUCT TEMPORARY PAVEMENT AS SHOWN ON THE PLANS.

STAGE 1

TRAFFIC CONTROL:

REMOVE CONFLICTING EXISTING PAVEMENT MARKINGS AND PAVEMENT MARKING REFLECTORS AND SHIFT PROPOSED RAMP E TRAFFIC TO THE RIGHT AS SHOWN ON THE PLANS.

CONSTRUCTION:

CONSTRUCT PROPOSED RAMP E LEFT LANE PLAZA PAVEMENT AND LEFT SHOULDER.

CONSTRUCT TEMPORARY PAVEMENT AS SHOWN ON THE PLANS.

STAGE 2

TRAFFIC CONTROL:

REMOVE CONFLICTING EXISTING AND TEMPORARY PAVEMENT MARKINGS AND PAVEMENT MARKING REFLECTORS AND SHIFT PROPOSED RAMP E TRAFFIC TO THE LEFT AS SHOWN ON THE PLANS.

CONSTRUCTION:

REMOVE TEMPORARY PAVEMENT ALONG WEST SIDE OF PROPOSED RAMP E.

CONSTRUCT PROPOSED RAMP E RIGHT LANE PLAZA PAVEMENT, RIGHT SHOULDER, CONCRETE BARRIERS, OVERHEAD SIGN FOUNDATION, GUTTER, GUARDRAIL, AND PERMANENT GRADING AS SHOWN ON THE PLANS.

INSTALL PROPOSED DRAINAGE STRUCTURES ALONG THE RIGHT SHOULDER AS SPECIFIED ON THE PLANS. PERFORM GRADING OF EXISTING RIGHT DITCH ACCORDING TO THE CROSS SECTIONS SHOWN ON THE PLANS.

STAGE 3

TRAFFIC CONTROL:

REMOVE CONFLICTING TEMPORARY PAVEMENT MARKINGS AND PAVEMENT MARKING

REFLECTORS AND MAINTAIN 2 LANES OF TRAFFIC AS SHOWN ON THE PLANS.

MAINTAIN THE SAME TRAFFIC CONFIGURATION AT EXISTING TOLL PLAZA. UPON COMPLETION AND TESTING OF THE NEW ALL ELECTRONIC TOLL (AET) FOR A MINIMUM OF TWO WEEKS, SHIFT TRAFFIC ONTO THE FINAL LANE CONFIGURATION AND MAINTAIN TWO LANES OF TRAFFIC AT THE NEW AET THEN REDUCE AND DROP FROM 2 LANES TO 1 LANE NEAR THE EXISTING TOLL PLAZA AREA.

IF MAINTENANCE OF TRAFFIC IS REQUIRED FOR TOLLWAY FIBER AND UNDERGROUND CONDUIT INSTALLATION AND CONNECTION ALONG NB I-294., UTILIZE SUGGESTED STAGES OF CONSTRUCTION AND TRAFFIC CONTROL PLAN AS SHOWN ON SHEET 3 OF STAGE 3.

CONSTRUCTION:

REMOVE TEMPORARY PAVEMENT ALONG LEFT SIDE OF PROPOSED RAMP E.

CONSTRUCT GUTTER, GUARDRAIL, CONCRETE BARRIERS, TOLL PLAZA BUILDING, PARKING LOT, AND PERMANENT GRADING AS SHOWN ON THE PLANS.

REMOVE MEDIAN ISLAND AT EXISTING TOLL PLAZA. UPON REMOVAL OF MEDIAN ISLAND REMOVAL, MILL AND OVERLAY THE EXISTING PAVEMENT AND CONSTRUCT BUTT JOINTS AT LOCATIONS AS SPECIFIED ON THE PLANS TO ACCOMMODATE TRAFFIC IN THE NEXT STAGE.

CONNECT THE TOLLWAY FIBERS BETWEEN NEW TOLL PLAZA TO EXISTING HANDHOLE ALONG NB I-294 AS SHOWN ON ELECTRICAL SITE PLAN. UPON COMPLETION OF FIBER AND UNDERGROUND CONDUIT INSTALLATION AND CONNECTION, RESTORE IMPACTED GROUND TO ORIGINAL STATE PER THE EROSION CONTROL PLANS.

STAGE 4

TRAFFIC CONTROL:

MAINTAIN TWO LANES OF TRAFFIC FROM THE NEW TOLL PLAZA. SHIFT EX RAMP F TRAFFIC ONTO NEWLY OVERLAY PAVEMENT AT EXISTING TOLL PLAZA AND MAINTAIN ONE LANE OF TRAFFIC.

CONSTRUCTION:

REMOVE REMAINING ITEMS AT EXISTING TOLL PLAZA AND RE-STORE IMPACTED AREA AND PREFORM GRADING AS SHOWN IN GRADING PLAN AND CROSS SECTIONS.

REMOVE MEDIAN ISLAND AT EXISTING TOLL PLAZA. UPON REMOVAL OF MEDIAN ISLAND REMOVAL, MILL AND OVERLAY THE EXISTING PAVEMENT AND CONSTRUCT BUTT JOINTS AT REMAINING LOCATIONS AS SPECIFIED ON THE PLANS TO ACCOMMODATE TRAFFIC.

AT THE COMPLETION OF STAGE 4, INSTALL PERMANENT PAVEMENT MARKINGS AT LIMITS AS SHOWN ON THE PLANS AND RE-STRIPE PAVEMENT MARKING NEAR THE EXISTING TOLL PLAZA AREA TO ACCOMMODATE A LANE DROP AND INSTALL ALL NECESSARY SIGNAGE.

STAGE 4A

TRAFFIC CONTROL:

MAINTAIN TWO LANES OF TRAFFIC FROM THE NEW TOLL PLAZA. SHIFT EX RAMP F TRAFFIC ONTO COMPLETED OVERLAY PAVEMENT AT EXISTING TOLL PLAZA AND MAINTAIN ONE LANE OF TRAFFIC.

CONSTRUCTION:

SHIFT RIGHT TEMPORARY CONCRETE BARRIER TO REMAIN ALONG EX RAMP F AT LOCATION AS SPECIFIED ON PLANS.

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline.Ng	DESIGNED - APA	REVISED -
	DRAWN - APA	REVISED -
PLOT SCALE = 20.0000 ' / in.	CHECKED - MJE	REVISED -
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUGGESTED STAGES OF CONSTRUCTION AND TRAFFIC CONTROL PLAN GENERAL NOTES AND NARRATIVE

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

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	28
		CONTRACT NO. 62U90		
	ILLINOIS	FED. AID PROJECT		

MODEL: Default
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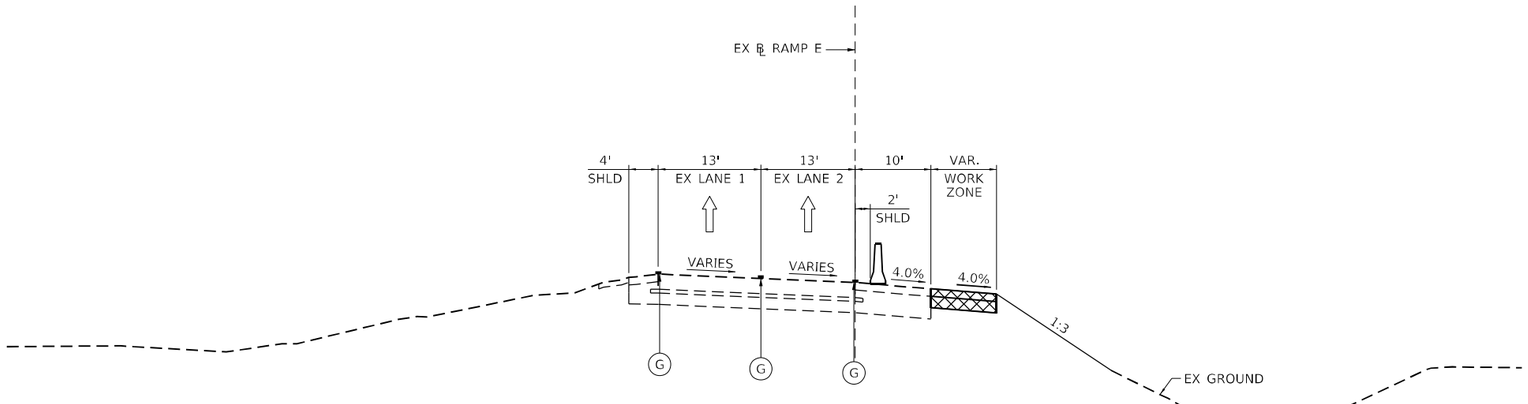
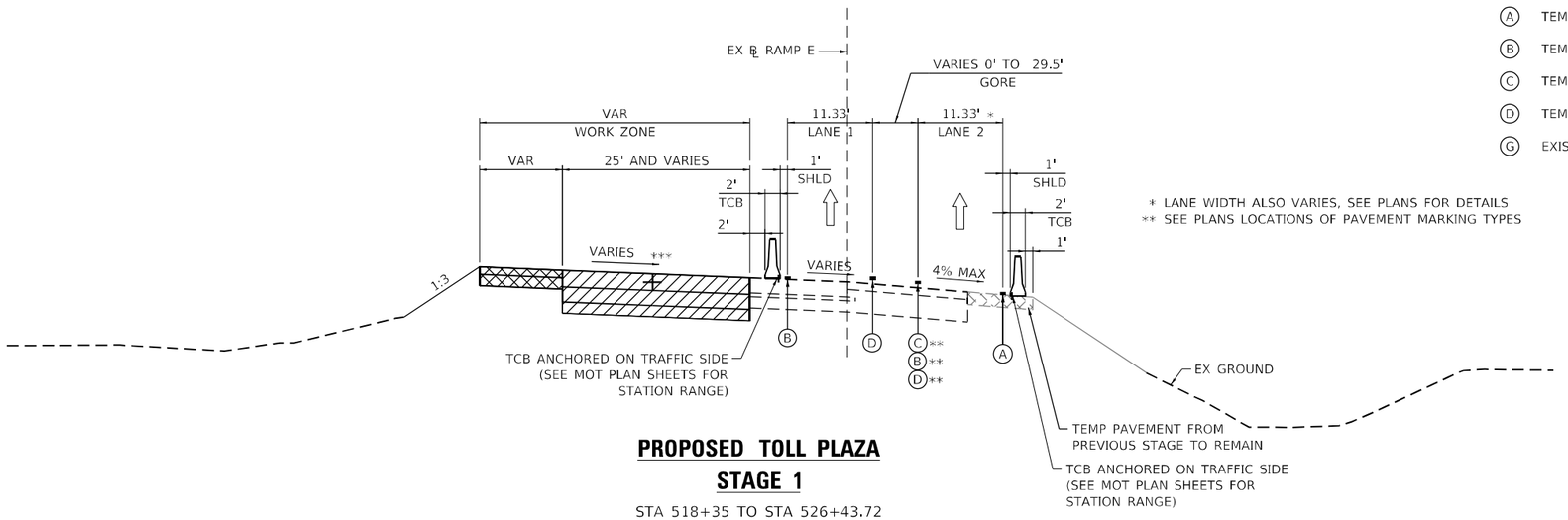


PROPOSED TOLL PLAZA
PRE–STAGE

STA 519+39.38 TO STA 525+47.49



* LANE WIDTH ALSO VARIES, SEE PLANS FOR DETAILS
** SEE PLANS LOCATIONS OF PAVEMENT MARKING TYPES

PROPOSED TOLL PLAZA
STAGE 1

STA 518+35 TO STA 526+43.72

WORK ZONE

TEMPORARY PAVEMENT, CLASS 1 (JI485010)

EXISTING PAVEMENT

COMPLETED PAVEMENT

DIRECTION OF TRAFFIC

TEMPORARY CONCRETE BARRIER, CROSS-BOLT CONNECTION (JI704006)

TYPE II BARRICADE OR DRUM WITH STEADY BURN MONO-DIRECTIONAL LIGHT

* FROM PREVIOUS STAGE TO REMAIN

PROPOSED TEMPORARY PAVEMENT MARKINGS AND TRAFFIC CONTROL DEVICES

(A) TEMPORARY PAVEMENT MARKING - LINE 4" - EPOXY (SOLID WHITE) (70301120)

(B) TEMPORARY PAVEMENT MARKING - LINE 4" - EPOXY (SOLID YELLOW) (70301120)

(C) TEMPORARY PAVEMENT MARKING - LINE 4" - EPOXY (WHITE 25' SKIP - 25' DASH) (70301120)

(D) TEMPORARY PAVEMENT MARKING - LINE 8" - EPOXY (SOLID WHITE) (70301140)

(G) EXISTING PAVEMENT MARKING

NOTES:

1. ALL STATIONING ARE MEASURED FROM EX ℄ RAMP E UNLESS OTHERWISE NOTED.

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	DRAWN - APA	REVISED -
PLOT SCALE = 20.0000 ' / in.	CHECKED - MJE	REVISED -
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -

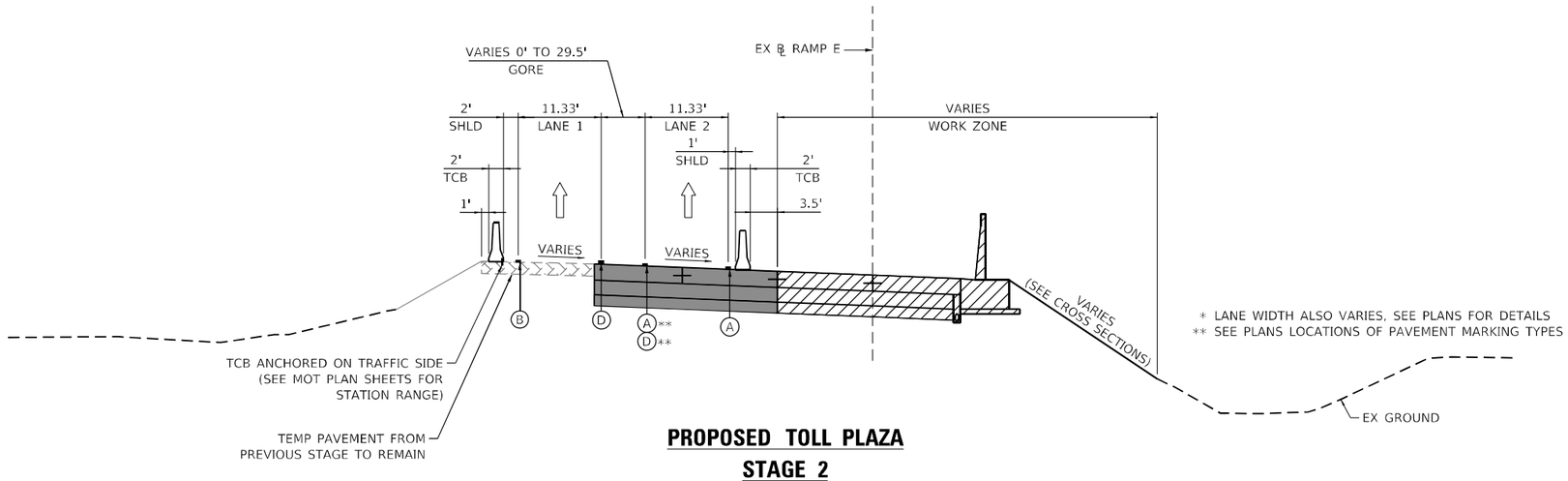
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUGGESTED STAGES OF CONSTRUCTION AND TRAFFI CONTROL PLAN
TYPICAL SECTIONS

SCALE: NONE | SHEET 1 OF 2 SHEETS | STA. | TO STA.

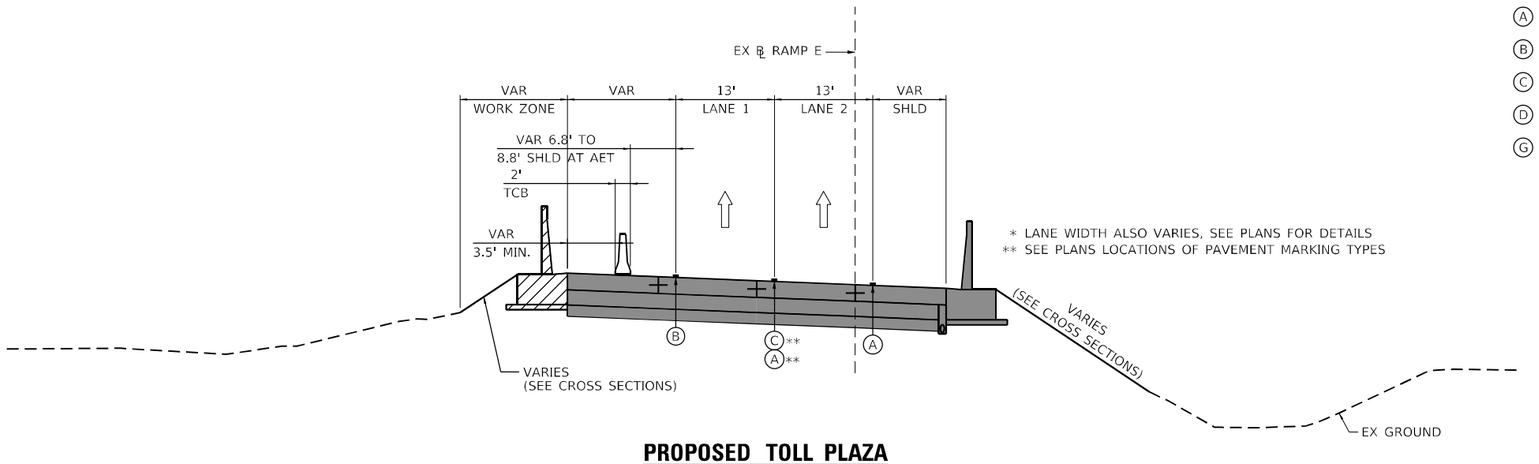
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	29
		CONTRACT NO. 62U90		
	ILLINOIS	FED. AID PROJECT		

MODEL: Default
FILE NAME: pw:\\aecom-us-pw.bentley.com:AECOM_DS19_NA\Documents\60658563-1-1\90000-CAD\910_CAD\WBV\B-TOLL\03_SHEETS\Civil\D162U90-SHT-Staging-Typical01.dgn



PROPOSED TOLL PLAZA
STAGE 2

STA 518+25 TO STA 525+45



PROPOSED TOLL PLAZA
STAGE 3

STA 518+35 TO STA 526+40

WORK ZONE

TEMPORARY PAVEMENT, CLASS 1 (JI485010)

EXISTING PAVEMENT

COMPLETED PAVEMENT

DIRECTION OF TRAFFIC

TEMPORARY CONCRETE BARRIER, CROSS-BOLT CONNECTION (JI704006)

TYPE II BARRICADE OR DRUM WITH STEADY BURN MONO-DIRECTIONAL LIGHT

* FROM PREVIOUS STAGE TO REMAIN

PROPOSED TEMPORARY PAVEMENT MARKINGS AND TRAFFIC CONTROL DEVICES

(A) TEMPORARY PAVEMENT MARKING - LINE 4" - EPOXY (SOLID WHITE) (70301120)

(B) TEMPORARY PAVEMENT MARKING - LINE 4" - EPOXY (SOLID YELLOW) (70301120)

(C) TEMPORARY PAVEMENT MARKING - LINE 4" - EPOXY (WHITE 25' SKIP - 25' DASH) (70301120)

(D) TEMPORARY PAVEMENT MARKING - LINE 8" - EPOXY (SOLID WHITE) (70301140)

(G) EXISTING PAVEMENT MARKING

NOTES:

1. ALL STATIONING ARE MEASURED FROM EX ℄ RAMP E UNLESS OTHERWISE NOTED.

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline.Ng	DESIGNED - APA	REVISED -	
	DRAWN - APA	REVISED -	
PLOT SCALE = 20.0000 ' / in.	CHECKED - MJE	REVISED -	
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUGGESTED STAGES OF CONSTRUCTION AND TRAFFI CONTROL PLAN
TYPICAL SECTIONS

SCALE: NONE | SHEET 2 OF 2 SHEETS | STA. | TO STA.

F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	30
		CONTRACT NO. 62U90		
	ILLINOIS	FED. AID PROJECT		

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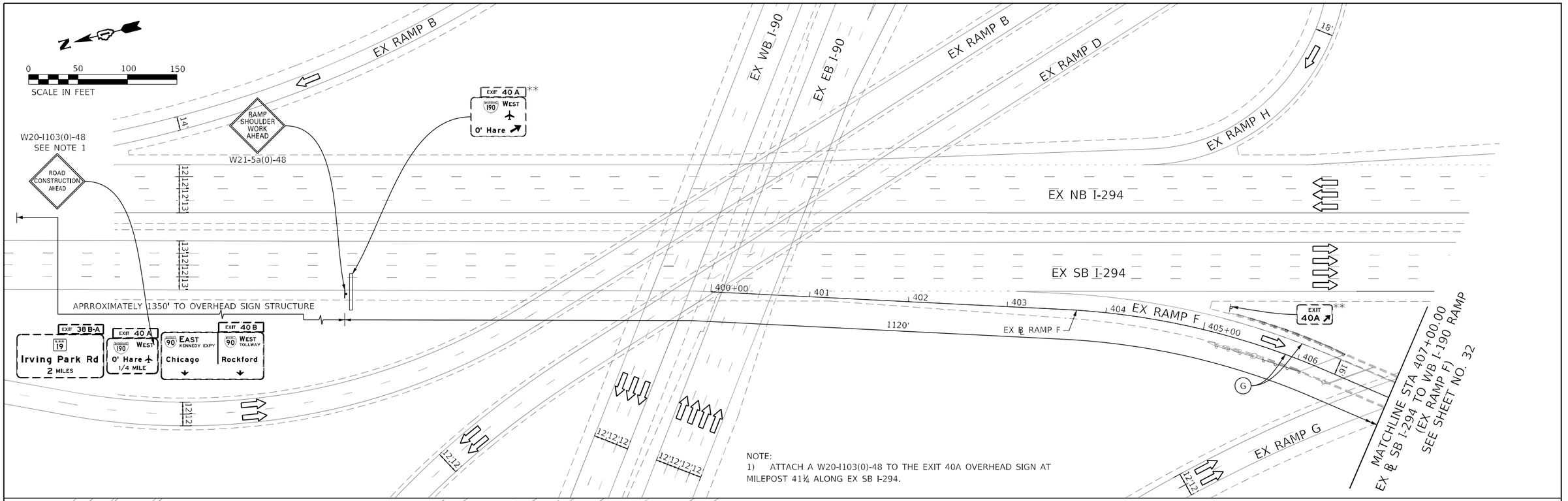

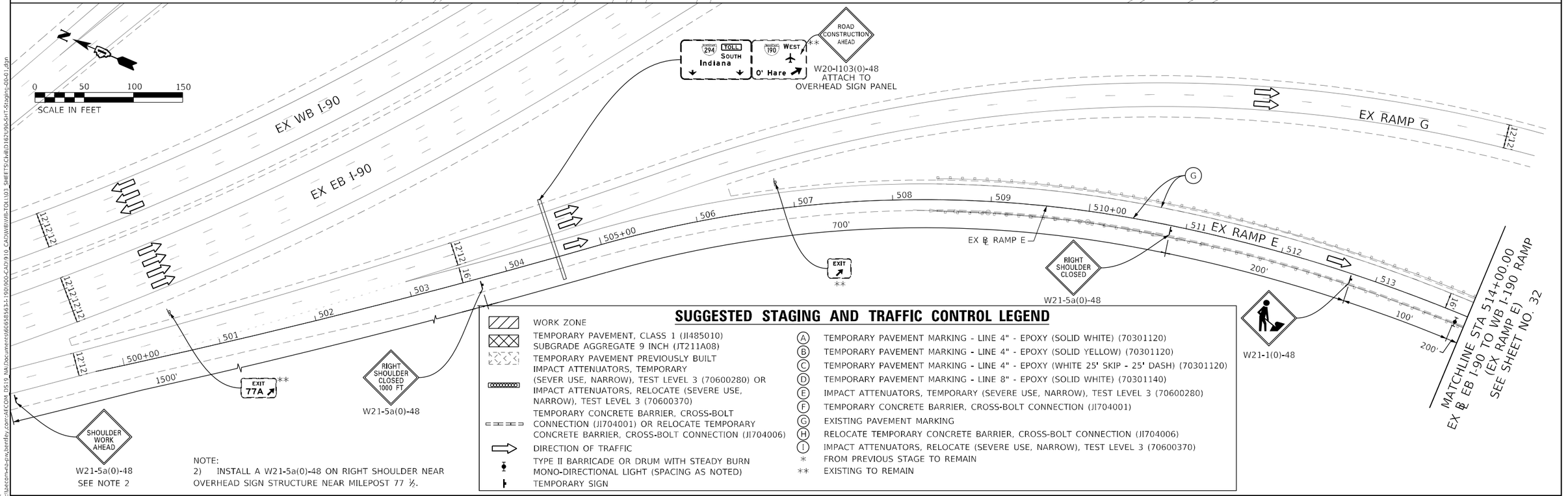

SUGGESTED STAGING AND TRAFFIC CONTROL LEGEND

- WORK ZONE
- TEMPORARY PAVEMENT, CLASS 1 (JI485010)
- SUBGRADE AGGREGATE 9 INCH (JT211A08)
- TEMPORARY PAVEMENT PREVIOUSLY BUILT
- IMPACT ATTENUATORS, TEMPORARY (SEVER USE, NARROW), TEST LEVEL 3 (70600280) OR IMPACT ATTENUATORS, RELOCATE (SEVERE USE, NARROW), TEST LEVEL 3 (70600370)
- TEMPORARY CONCRETE BARRIER, CROSS-BOLT CONNECTION (JI704001) OR RELOCATE TEMPORARY CONCRETE BARRIER, CROSS-BOLT CONNECTION (JI704006)
- DIRECTION OF TRAFFIC
- TYPE II BARRICADE OR DRUM WITH STEADY BURN MONO-DIRECTIONAL LIGHT (SPACING AS NOTED)
- TEMPORARY SIGN

(A) TEMPORARY PAVEMENT MARKING - LINE 4" - EPOXY (SOLID WHITE) (70301120)
(B) TEMPORARY PAVEMENT MARKING - LINE 4" - EPOXY (SOLID YELLOW) (70301120)
(C) TEMPORARY PAVEMENT MARKING - LINE 4" - EPOXY (WHITE 25' SKIP - 25' DASH) (70301120)
(D) TEMPORARY PAVEMENT MARKING - LINE 8" - EPOXY (SOLID WHITE) (70301140)
(E) IMPACT ATTENUATORS, TEMPORARY (SEVERE USE, NARROW), TEST LEVEL 3 (70600280)
(F) TEMPORARY CONCRETE BARRIER, CROSS-BOLT CONNECTION (JI704001)
(G) EXISTING PAVEMENT MARKING
(H) RELOCATE TEMPORARY CONCRETE BARRIER, CROSS-BOLT CONNECTION (JI704006)
(I) IMPACT ATTENUATORS, RELOCATE (SEVERE USE, NARROW), TEST LEVEL 3 (70600370)

* FROM PREVIOUS STAGE TO REMAIN
** EXISTING TO REMAIN

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

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	DRAWN - MAL	REVISED -	
PLOT SCALE = 100.0000 ' / in.	CHECKED - MJE	REVISED -	
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUGGESTED STAGES OF CONSTRUCTION AND TRAFFIC CONTROL PLAN
RAMP E / RAMP F – PRE-STAGE

SCALE: 1"=50' | SHEET 1 OF 12 SHEETS | STA. 000+00.00 | TO STA. 000+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	31
		CONTRACT NO. 62U90		
	ILLINOIS	FED. AID PROJECT		

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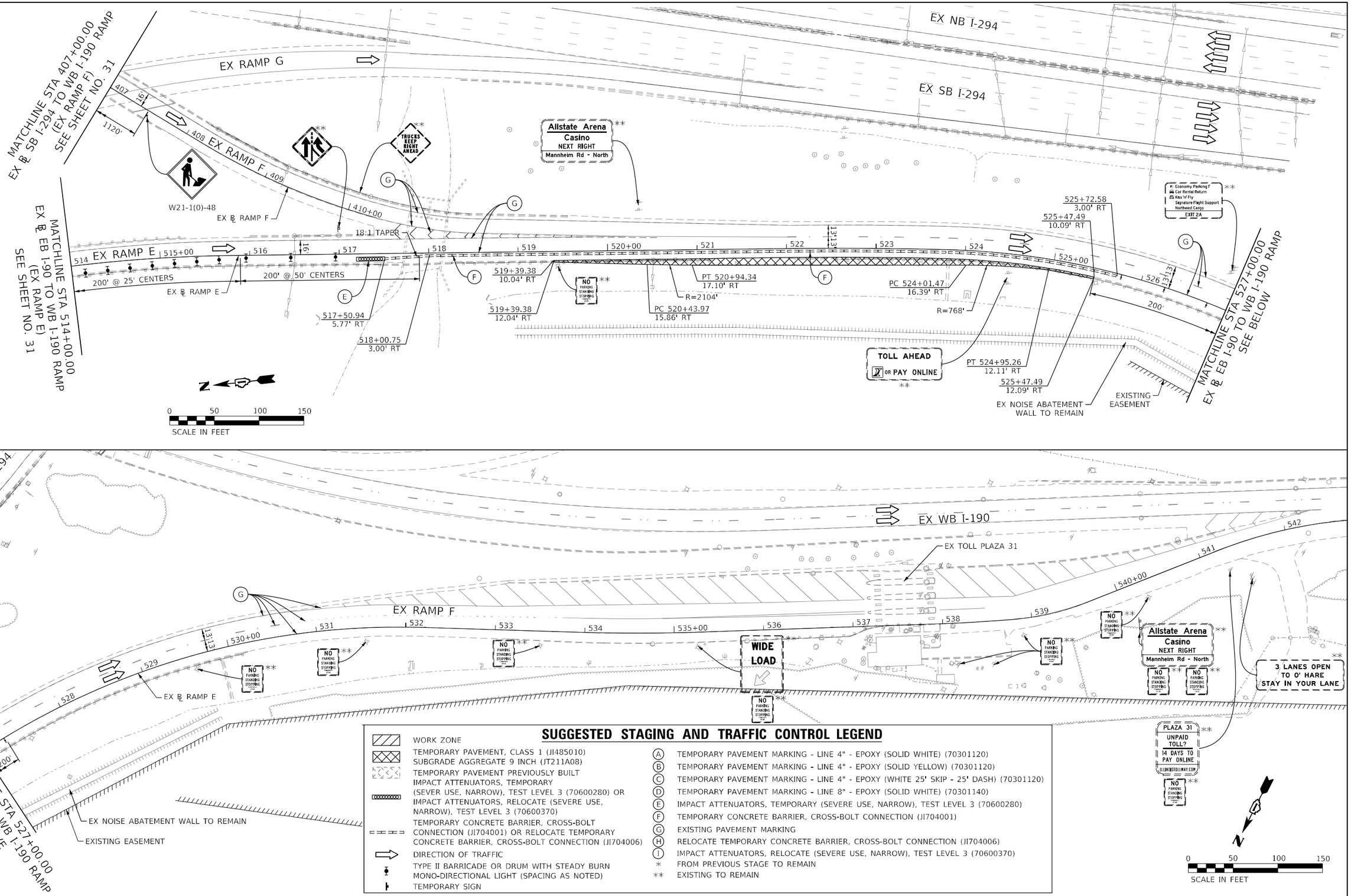

SUGGESTED STAGING AND TRAFFIC CONTROL LEGEND

- WORK ZONE
- TEMPORARY PAVEMENT, CLASS 1 (JI485010) SUBGRADE AGGREGATE 9 INCH (JT211A08)
- TEMPORARY PAVEMENT PREVIOUSLY BUILT
- IMPACT ATTENUATORS, TEMPORARY (SEVER USE, NARROW), TEST LEVEL 3 (70600280) OR IMPACT ATTENUATORS, RELOCATE (SEVERE USE, NARROW), TEST LEVEL 3 (70600370)
- TEMPORARY CONCRETE BARRIER, CROSS-BOLT CONNECTION (JI704001) OR RELOCATE TEMPORARY CONCRETE BARRIER, CROSS-BOLT CONNECTION (JI704006)
- DIRECTION OF TRAFFIC
- TYPE II BARRICADE OR DRUM WITH STEADY BURN MONO-DIRECTIONAL LIGHT (SPACING AS NOTED)
- TEMPORARY SIGN

- (A) TEMPORARY PAVEMENT MARKING - LINE 4" - EPOXY (SOLID WHITE) (70301120)
- (B) TEMPORARY PAVEMENT MARKING - LINE 4" - EPOXY (SOLID YELLOW) (70301120)
- (C) TEMPORARY PAVEMENT MARKING - LINE 4" - EPOXY (WHITE 25' SKIP - 25' DASH) (70301120)
- (D) TEMPORARY PAVEMENT MARKING - LINE 8" - EPOXY (SOLID WHITE) (70301140)
- (E) IMPACT ATTENUATORS, TEMPORARY (SEVERE USE, NARROW), TEST LEVEL 3 (70600280)
- (F) TEMPORARY CONCRETE BARRIER, CROSS-BOLT CONNECTION (JI704001)
- (G) EXISTING PAVEMENT MARKING
- (H) RELOCATE TEMPORARY CONCRETE BARRIER, CROSS-BOLT CONNECTION (JI704006)
- (I) IMPACT ATTENUATORS, RELOCATE (SEVERE USE, NARROW), TEST LEVEL 3 (70600370)
- * FROM PREVIOUS STAGE TO REMAIN
- ** EXISTING TO REMAIN

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

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	DRAWN - MAL	REVISED -	
PLOT SCALE = 100.0000 ' / in.	CHECKED - MJE	REVISED -	
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUGGESTED STAGES OF CONSTRUCTION AND TRAFFIC CONTROL PLAN
RAMP E / RAMP F – PRE-STAGE

SCALE: 1"=50' | SHEET 2 OF 12 SHEETS | STA. 000+00.00 TO STA. 000+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	32
		CONTRACT NO. 62U90		
		ILLINOIS	FED. AID PROJECT	

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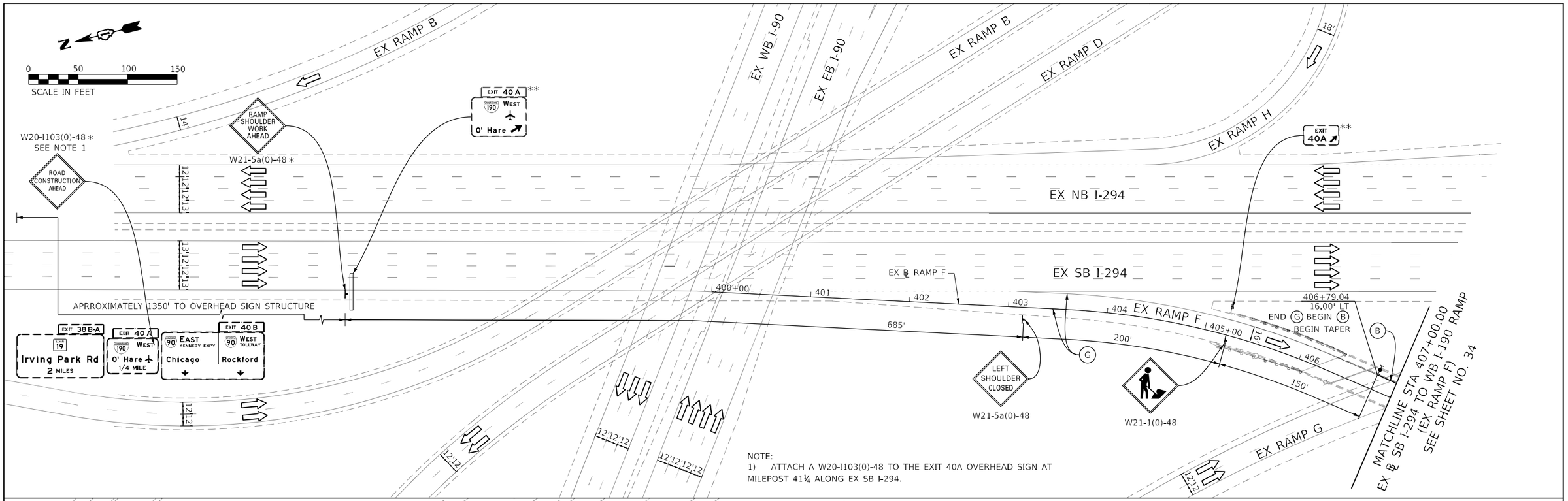

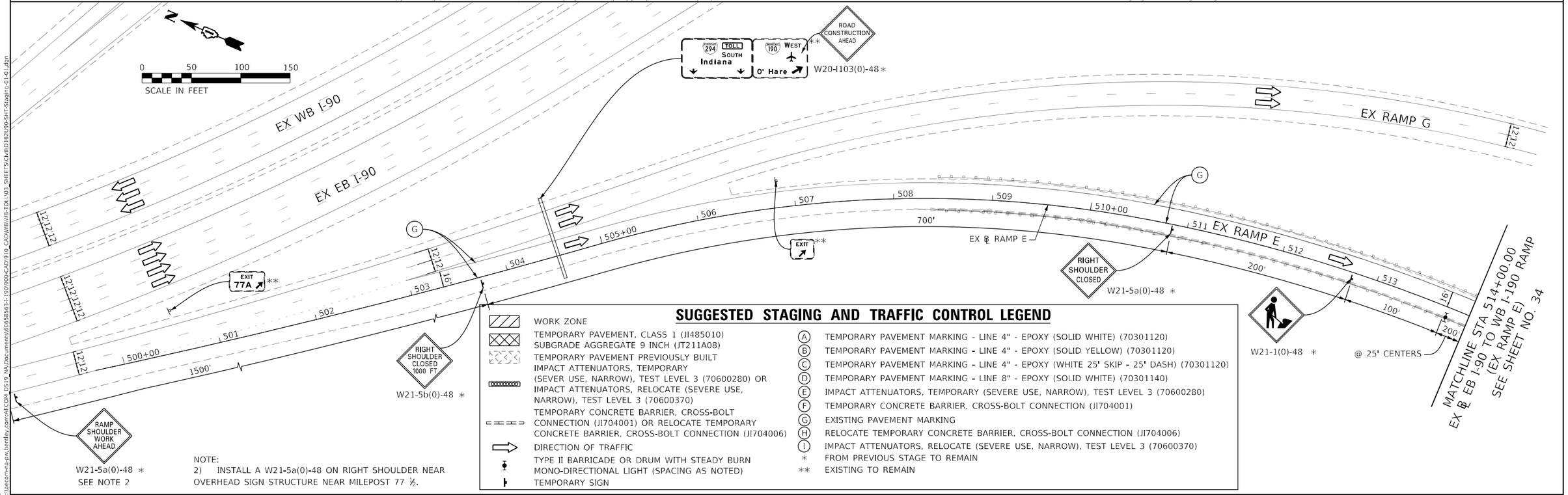

SUGGESTED STAGING AND TRAFFIC CONTROL LEGEND

- WORK ZONE
- TEMPORARY PAVEMENT, CLASS 1 (JI485010) SUBGRADE AGGREGATE 9 INCH (JT211A08)
- TEMPORARY PAVEMENT PREVIOUSLY BUILT
- IMPACT ATTENUATORS, TEMPORARY (SEVER USE, NARROW), TEST LEVEL 3 (70600280) OR IMPACT ATTENUATORS, RELOCATE (SEVERE USE, NARROW), TEST LEVEL 3 (70600370)
- TEMPORARY CONCRETE BARRIER, CROSS-BOLT CONNECTION (JI704001) OR RELOCATE TEMPORARY CONCRETE BARRIER, CROSS-BOLT CONNECTION (JI704006)
- DIRECTION OF TRAFFIC
- TYPE II BARRICADE OR DRUM WITH STEADY BURN MONO-DIRECTIONAL LIGHT (SPACING AS NOTED)
- TEMPORARY SIGN

(A) TEMPORARY PAVEMENT MARKING - LINE 4" - EPOXY (SOLID WHITE) (70301120)
(B) TEMPORARY PAVEMENT MARKING - LINE 4" - EPOXY (SOLID YELLOW) (70301120)
(C) TEMPORARY PAVEMENT MARKING - LINE 4" - EPOXY (WHITE 25' SKIP - 25' DASH) (70301120)
(D) TEMPORARY PAVEMENT MARKING - LINE 8" - EPOXY (SOLID WHITE) (70301140)
(E) IMPACT ATTENUATORS, TEMPORARY (SEVERE USE, NARROW), TEST LEVEL 3 (70600280)
(F) TEMPORARY CONCRETE BARRIER, CROSS-BOLT CONNECTION (JI704001)
(G) EXISTING PAVEMENT MARKING
(H) RELOCATE TEMPORARY CONCRETE BARRIER, CROSS-BOLT CONNECTION (JI704006)
(I) IMPACT ATTENUATORS, RELOCATE (SEVERE USE, NARROW), TEST LEVEL 3 (70600370)

* FROM PREVIOUS STAGE TO REMAIN
** EXISTING TO REMAIN

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline.Ng	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUGGESTED STAGES OF CONSTRUCTION AND TRAFFIC CONTROL PLAN
RAMP E / RAMP F – STAGE 1

SCALE: 1"=50' | SHEET 3 OF 12 SHEETS | STA. 000+00.00 TO STA. 000+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	33
		CONTRACT NO. 62U90		
	ILLINOIS	FED. AID PROJECT		

MODEL: Default
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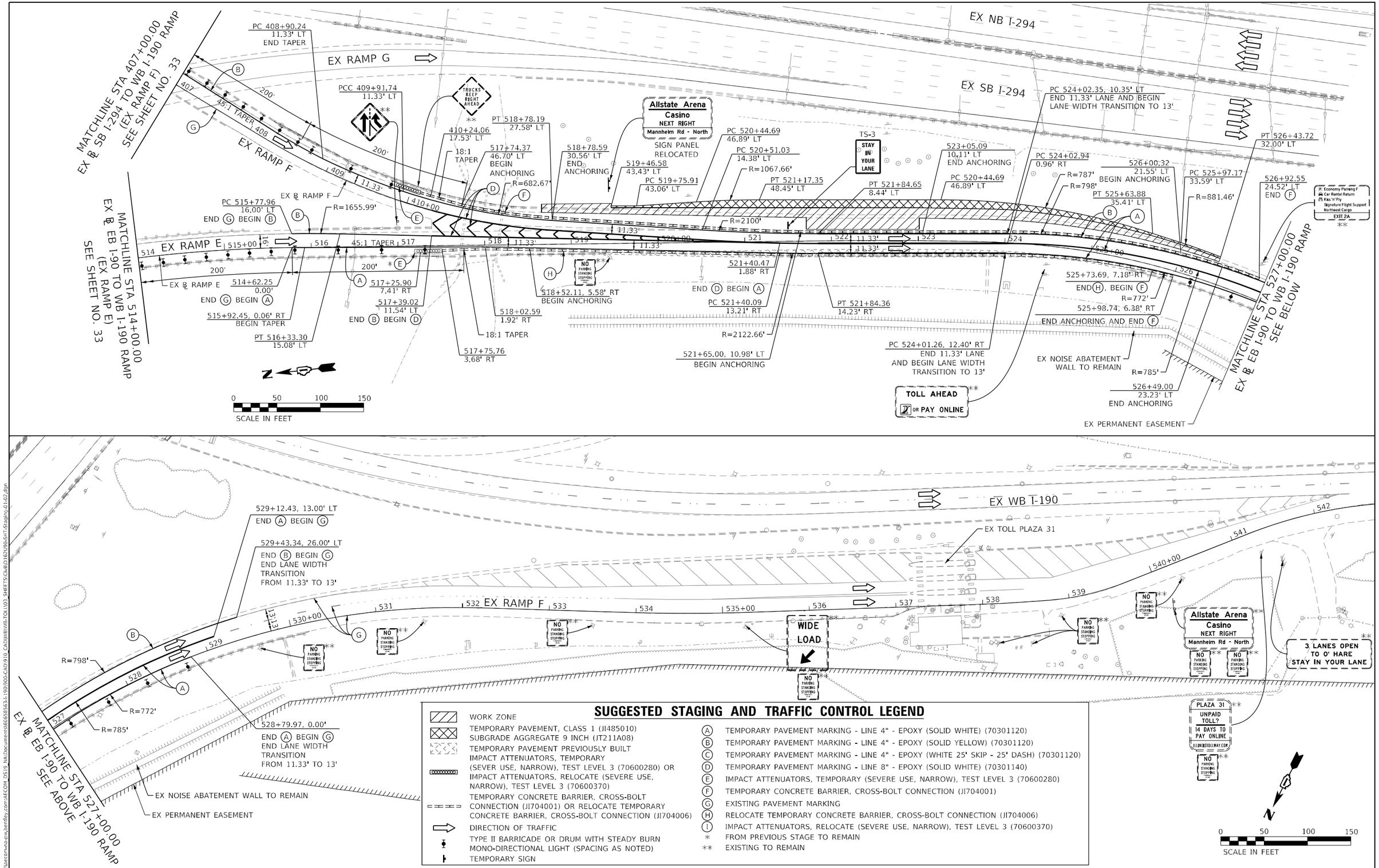

SUGGESTED STAGING AND TRAFFIC CONTROL LEGEND

- WORK ZONE
- TEMPORARY PAVEMENT, CLASS 1 (JI485010)
  SUBGRADE AGGREGATE 9 INCH (JT211A08)
- TEMPORARY PAVEMENT PREVIOUSLY BUILT
- IMPACT ATTENUATORS, TEMPORARY (SEVER USE, NARROW), TEST LEVEL 3 (70600280) OR IMPACT ATTENUATORS, RELOCATE (SEVERE USE, NARROW), TEST LEVEL 3 (70600370)
- TEMPORARY CONCRETE BARRIER, CROSS-BOLT CONNECTION (JI704001) OR RELOCATE TEMPORARY CONCRETE BARRIER, CROSS-BOLT CONNECTION (JI704006)
- DIRECTION OF TRAFFIC
- TYPE II BARRICADE OR DRUM WITH STEADY BURN MONO-DIRECTIONAL LIGHT (SPACING AS NOTED)
- TEMPORARY SIGN

(A) TEMPORARY PAVEMENT MARKING - LINE 4" - EPOXY (SOLID WHITE) (70301120)
(B) TEMPORARY PAVEMENT MARKING - LINE 4" - EPOXY (SOLID YELLOW) (70301120)
(C) TEMPORARY PAVEMENT MARKING - LINE 4" - EPOXY (WHITE 25' SKIP - 25' DASH) (70301120)
(D) TEMPORARY PAVEMENT MARKING - LINE 8" - EPOXY (SOLID WHITE) (70301140)
(E) IMPACT ATTENUATORS, TEMPORARY (SEVERE USE, NARROW), TEST LEVEL 3 (70600280)
(F) TEMPORARY CONCRETE BARRIER, CROSS-BOLT CONNECTION (JI704001)
(G) EXISTING PAVEMENT MARKING
(H) RELOCATE TEMPORARY CONCRETE BARRIER, CROSS-BOLT CONNECTION (JI704006)
(I) IMPACT ATTENUATORS, RELOCATE (SEVERE USE, NARROW), TEST LEVEL 3 (70600370)

* FROM PREVIOUS STAGE TO REMAIN
** EXISTING TO REMAIN

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline.Ng	DESIGNED - APA	REVISED -	
	DRAWN - MAL	REVISED -	
PLOT SCALE = 100.0000 ' / in.	CHECKED - MJE	REVISED -	
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUGGESTED STAGES OF CONSTRUCTION AND TRAFFIC CONTROL PLAN
RAMP E / RAMP F – STAGE 1

SCALE: 1"=50' | SHEET 4 OF 12 SHEETS | STA. 000+00.00 TO STA. 000+00.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	34
		CONTRACT NO. 62U90		
	ILLINOIS	FED. AID PROJECT		

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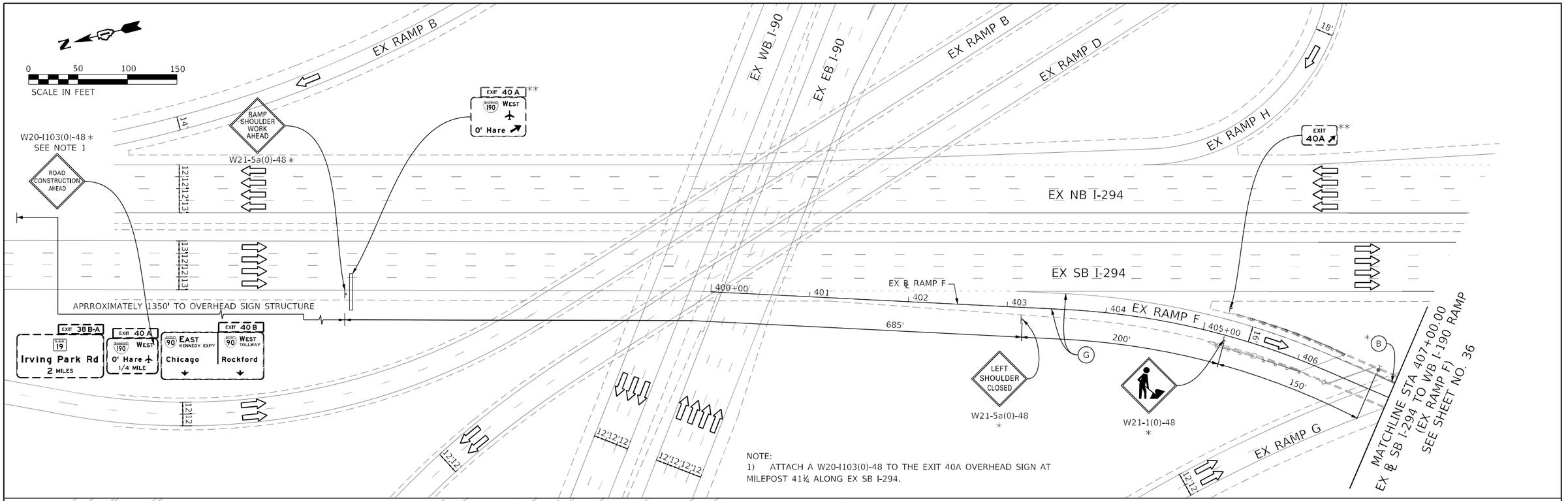

SUGGESTED STAGING AND TRAFFIC CONTROL LEGEND

- WORK ZONE
- TEMPORARY PAVEMENT, CLASS 1 (JI485010) SUBGRADE AGGREGATE 9 INCH (JT211A08)
- TEMPORARY PAVEMENT PREVIOUSLY BUILT
- IMPACT ATTENUATORS, TEMPORARY (SEVER USE, NARROW), TEST LEVEL 3 (70600280) OR IMPACT ATTENUATORS, RELOCATE (SEVERE USE, NARROW), TEST LEVEL 3 (70600370)
- TEMPORARY CONCRETE BARRIER, CROSS-BOLT CONNECTION (JI704001) OR RELOCATE TEMPORARY CONCRETE BARRIER, CROSS-BOLT CONNECTION (JI704006)
- DIRECTION OF TRAFFIC
- TYPE II BARRICADE OR DRUM WITH STEADY BURN MONO-DIRECTIONAL LIGHT (SPACING AS NOTED)
- TEMPORARY SIGN

(A) TEMPORARY PAVEMENT MARKING - LINE 4" - EPOXY (SOLID WHITE) (70301120)
(B) TEMPORARY PAVEMENT MARKING - LINE 4" - EPOXY (SOLID YELLOW) (70301120)
(C) TEMPORARY PAVEMENT MARKING - LINE 4" - EPOXY (WHITE 25' SKIP - 25' DASH) (70301120)
(D) TEMPORARY PAVEMENT MARKING - LINE 8" - EPOXY (SOLID WHITE) (70301140)
(E) IMPACT ATTENUATORS, TEMPORARY (SEVERE USE, NARROW), TEST LEVEL 3 (70600280)
(F) TEMPORARY CONCRETE BARRIER, CROSS-BOLT CONNECTION (JI704001)
(G) EXISTING PAVEMENT MARKING
(H) RELOCATE TEMPORARY CONCRETE BARRIER, CROSS-BOLT CONNECTION (JI704006)
(I) IMPACT ATTENUATORS, RELOCATE (SEVERE USE, NARROW), TEST LEVEL 3 (70600370)

* FROM PREVIOUS STAGE TO REMAIN
** EXISTING TO REMAIN

AECOM
303 EAST WACKER DRIVE, SUITE 1400
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PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline.Ng	DESIGNED - APA	REVISED -	
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PLOT SCALE = 100.0000 ' / in.	CHECKED - MJE	REVISED -	
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUGGESTED STAGES OF CONSTRUCTION AND TRAFFIC CONTROL PLAN
RAMP E / RAMP F – STAGE 2

SCALE: 1"=50' | SHEET 5 OF 12 SHEETS | STA. 000+00.00 | TO STA. 000+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	35
		CONTRACT NO. 62U90		
	ILLINOIS	FED. AID PROJECT		

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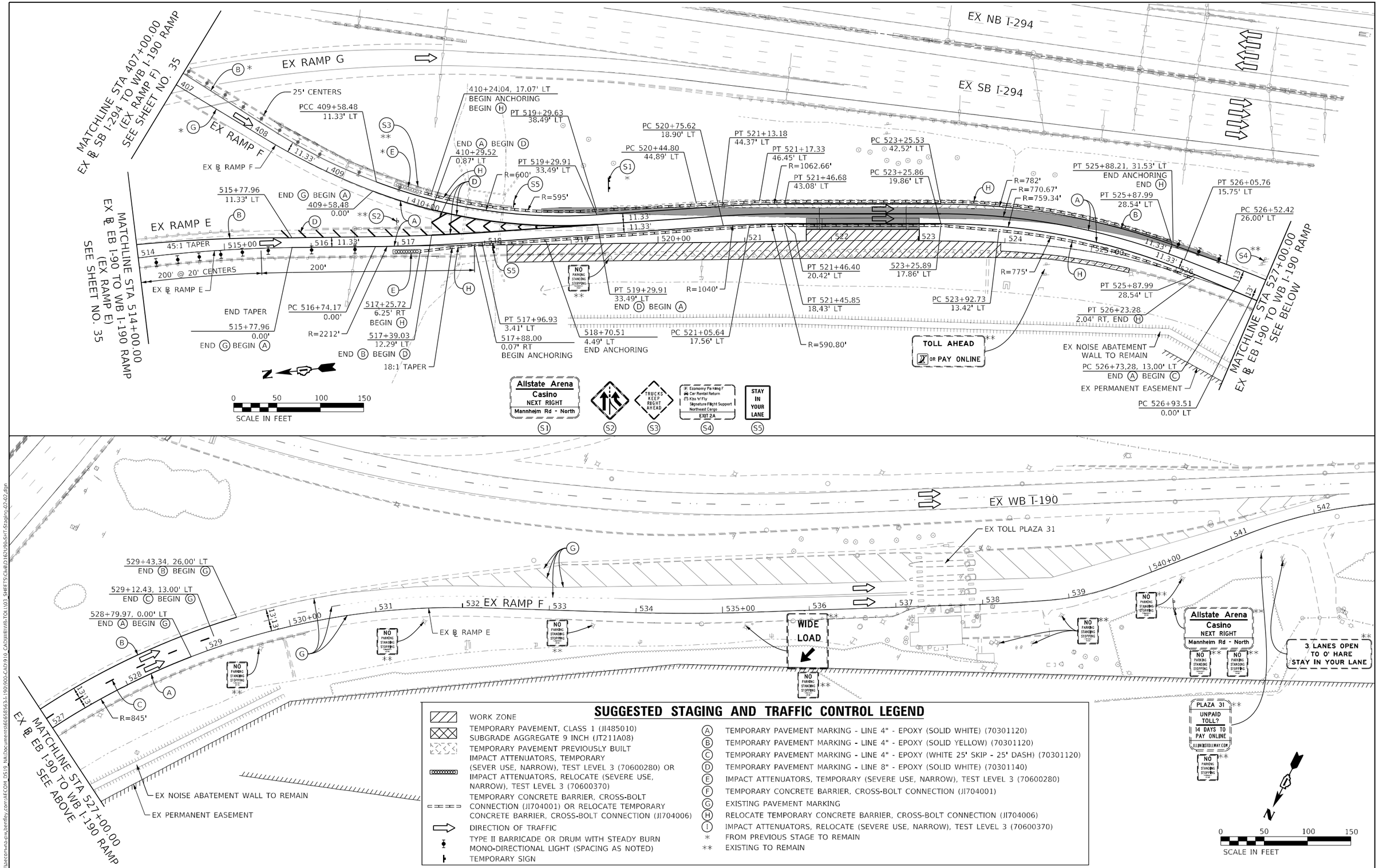

SUGGESTED STAGING AND TRAFFIC CONTROL LEGEND

- WORK ZONE
- TEMPORARY PAVEMENT, CLASS 1 (JI485010) SUBGRADE AGGREGATE 9 INCH (JT211A08)
- TEMPORARY PAVEMENT PREVIOUSLY BUILT
- IMPACT ATTENUATORS, TEMPORARY (SEVER USE, NARROW), TEST LEVEL 3 (70600280) OR IMPACT ATTENUATORS, RELOCATE (SEVERE USE, NARROW), TEST LEVEL 3 (70600370)
- TEMPORARY CONCRETE BARRIER, CROSS-BOLT CONNECTION (JI704001) OR RELOCATE TEMPORARY CONCRETE BARRIER, CROSS-BOLT CONNECTION (JI704006)
- DIRECTION OF TRAFFIC
- TYPE II BARRICADE OR DRUM WITH STEADY BURN MONO-DIRECTIONAL LIGHT (SPACING AS NOTED)
- TEMPORARY SIGN

- (A) TEMPORARY PAVEMENT MARKING - LINE 4" - EPOXY (SOLID WHITE) (70301120)
- (B) TEMPORARY PAVEMENT MARKING - LINE 4" - EPOXY (SOLID YELLOW) (70301120)
- (C) TEMPORARY PAVEMENT MARKING - LINE 4" - EPOXY (WHITE 25' SKIP - 25' DASH) (70301120)
- (D) TEMPORARY PAVEMENT MARKING - LINE 8" - EPOXY (SOLID WHITE) (70301140)
- (E) IMPACT ATTENUATORS, TEMPORARY (SEVERE USE, NARROW), TEST LEVEL 3 (70600280)
- (F) TEMPORARY CONCRETE BARRIER, CROSS-BOLT CONNECTION (JI704001)
- (G) EXISTING PAVEMENT MARKING
- (H) RELOCATE TEMPORARY CONCRETE BARRIER, CROSS-BOLT CONNECTION (JI704006)
- (I) IMPACT ATTENUATORS, RELOCATE (SEVERE USE, NARROW), TEST LEVEL 3 (70600370)
- * FROM PREVIOUS STAGE TO REMAIN
- ** EXISTING TO REMAIN

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

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	DRAWN - MAL	REVISED -	
PLOT SCALE = 100.0000 ' / in.	CHECKED - MJE	REVISED -	
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUGGESTED STAGES OF CONSTRUCTION AND TRAFFIC CONTROL PLAN
RAMP E / RAMP F – STAGE 2

SCALE: 1"=50' | SHEET 6 OF 12 SHEETS | STA. 000+00.00 TO STA. 000+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	36
		CONTRACT NO. 62U90		
	ILLINOIS	FED. AID PROJECT		

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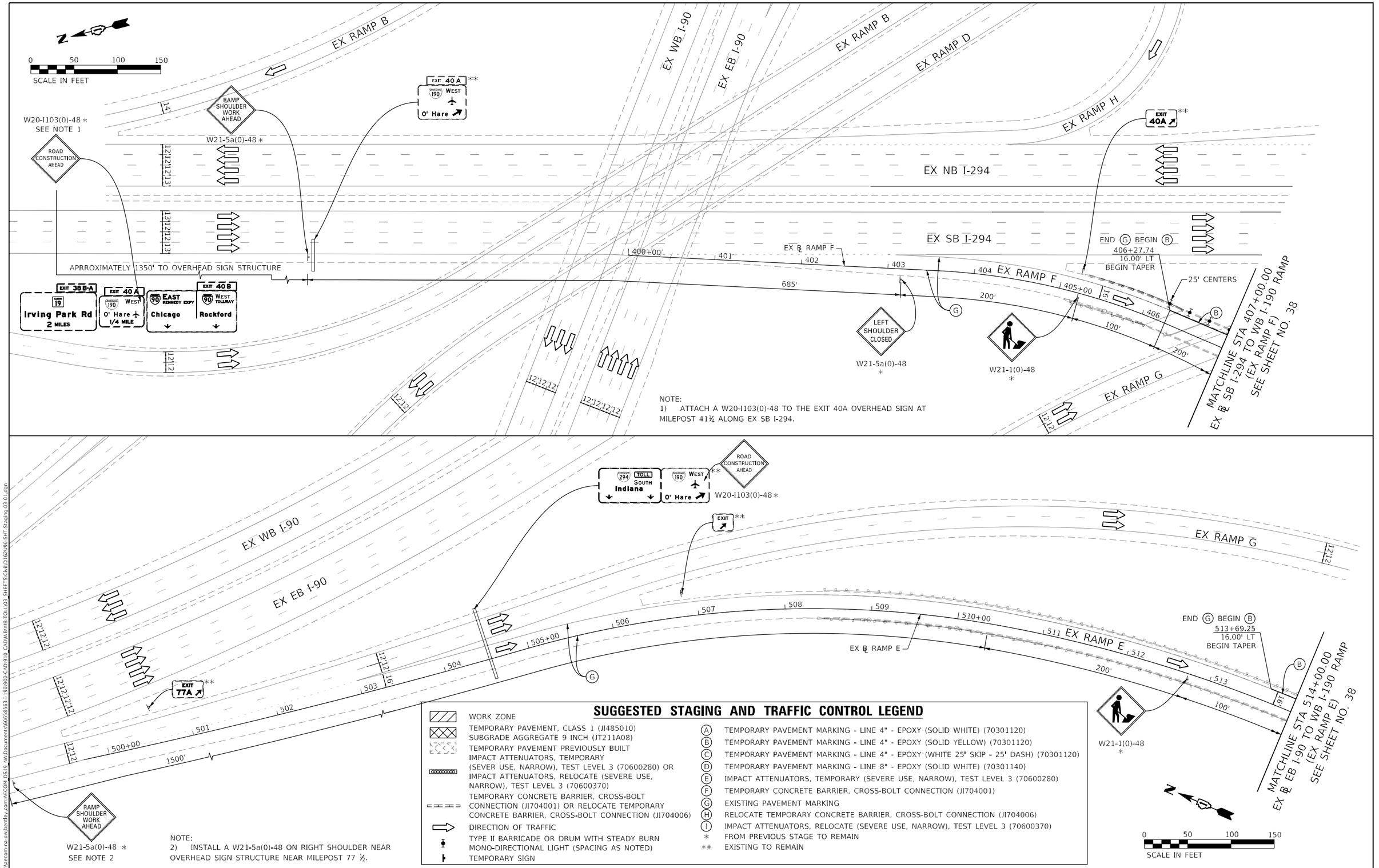

SUGGESTED STAGING AND TRAFFIC CONTROL LEGEND

- WORK ZONE
- TEMPORARY PAVEMENT, CLASS 1 (JI485010) SUBGRADE AGGREGATE 9 INCH (JT211A08)
- TEMPORARY PAVEMENT PREVIOUSLY BUILT
- IMPACT ATTENUATORS, TEMPORARY (SEVER USE, NARROW), TEST LEVEL 3 (70600280) OR IMPACT ATTENUATORS, RELOCATE (SEVERE USE, NARROW), TEST LEVEL 3 (70600370)
- TEMPORARY CONCRETE BARRIER, CROSS-BOLT CONNECTION (JI704001) OR RELOCATE TEMPORARY CONCRETE BARRIER, CROSS-BOLT CONNECTION (JI704006)
- DIRECTION OF TRAFFIC
- TYPE II BARRICADE OR DRUM WITH STEADY BURN MONO-DIRECTIONAL LIGHT (SPACING AS NOTED)
- TEMPORARY SIGN

(A) TEMPORARY PAVEMENT MARKING - LINE 4" - EPOXY (SOLID WHITE) (70301120)
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(C) TEMPORARY PAVEMENT MARKING - LINE 4" - EPOXY (WHITE 25' SKIP - 25' DASH) (70301120)
(D) TEMPORARY PAVEMENT MARKING - LINE 8" - EPOXY (SOLID WHITE) (70301140)
(E) IMPACT ATTENUATORS, TEMPORARY (SEVERE USE, NARROW), TEST LEVEL 3 (70600280)
(F) TEMPORARY CONCRETE BARRIER, CROSS-BOLT CONNECTION (JI704001)
(G) EXISTING PAVEMENT MARKING
(H) RELOCATE TEMPORARY CONCRETE BARRIER, CROSS-BOLT CONNECTION (JI704006)
(I) IMPACT ATTENUATORS, RELOCATE (SEVERE USE, NARROW), TEST LEVEL 3 (70600370)

* FROM PREVIOUS STAGE TO REMAIN
** EXISTING TO REMAIN

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline.Ng	DESIGNED - APA	REVISED -
	DRAWN - MAL	REVISED -
PLOT SCALE = 100.0000 ' / in.	CHECKED - MJE	REVISED -
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUGGESTED STAGES OF CONSTRUCTION AND TRAFFIC CONTROL PLAN
RAMP E / RAMP F – STAGE 3

SCALE: 1"=50' | SHEET 7 OF 12 SHEETS | STA. 000+00.00 TO STA. 000+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	37
		CONTRACT NO. 62U90		
	ILLINOIS	FED. AID PROJECT		

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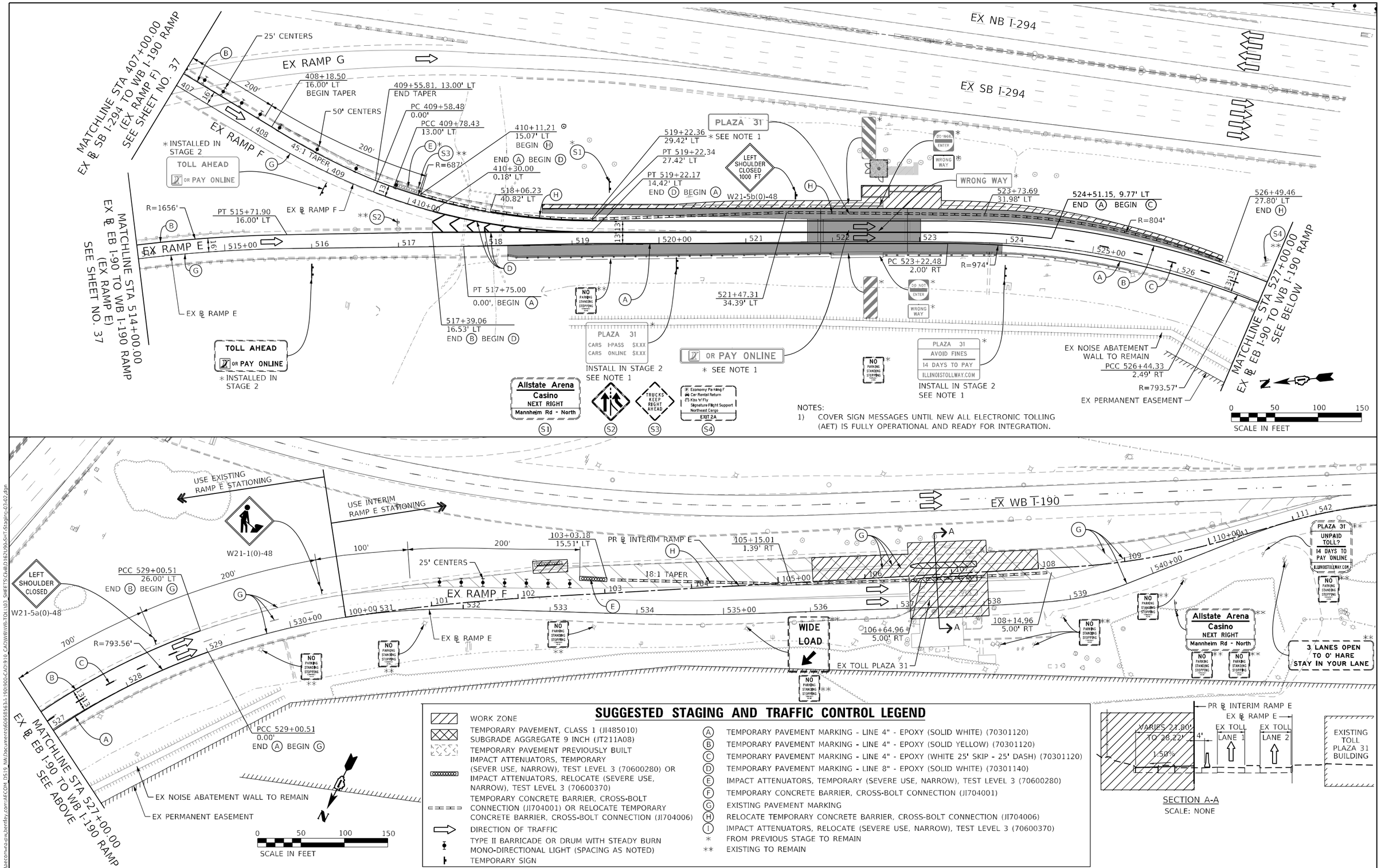

SUGGESTED STAGING AND TRAFFIC CONTROL LEGEND

- WORK ZONE
- TEMPORARY PAVEMENT, CLASS 1 (JI485010) SUBGRADE AGGREGATE 9 INCH (JT211A08)
- TEMPORARY PAVEMENT PREVIOUSLY BUILT
- IMPACT ATTENUATORS, TEMPORARY (SEVER USE, NARROW), TEST LEVEL 3 (70600280) OR IMPACT ATTENUATORS, RELOCATE (SEVERE USE, NARROW), TEST LEVEL 3 (70600370)
- TEMPORARY CONCRETE BARRIER, CROSS-BOLT CONNECTION (JI704001) OR RELOCATE TEMPORARY CONCRETE BARRIER, CROSS-BOLT CONNECTION (JI704006)
- DIRECTION OF TRAFFIC
- TYPE II BARRICADE OR DRUM WITH STEADY BURN MONO-DIRECTIONAL LIGHT (SPACING AS NOTED)
- TEMPORARY SIGN

- (A) TEMPORARY PAVEMENT MARKING - LINE 4" - EPOXY (SOLID WHITE) (70301120)
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- (F) TEMPORARY CONCRETE BARRIER, CROSS-BOLT CONNECTION (JI704001)
- (G) EXISTING PAVEMENT MARKING
- (H) RELOCATE TEMPORARY CONCRETE BARRIER, CROSS-BOLT CONNECTION (JI704006)
- (I) IMPACT ATTENUATORS, RELOCATE (SEVERE USE, NARROW), TEST LEVEL 3 (70600370)
- * FROM PREVIOUS STAGE TO REMAIN
- ** EXISTING TO REMAIN

SECTION A-A
SCALE: NONE

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PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUGGESTED STAGES OF CONSTRUCTION AND TRAFFIC CONTROL PLAN
RAMP E / RAMP F – STAGE 3

SCALE: 1"=50' | SHEET 8 OF 12 SHEETS | STA. 000+00.00 TO STA. 000+00.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	38
		CONTRACT NO. 62U90		
		ILLINOIS	FED. AID PROJECT	

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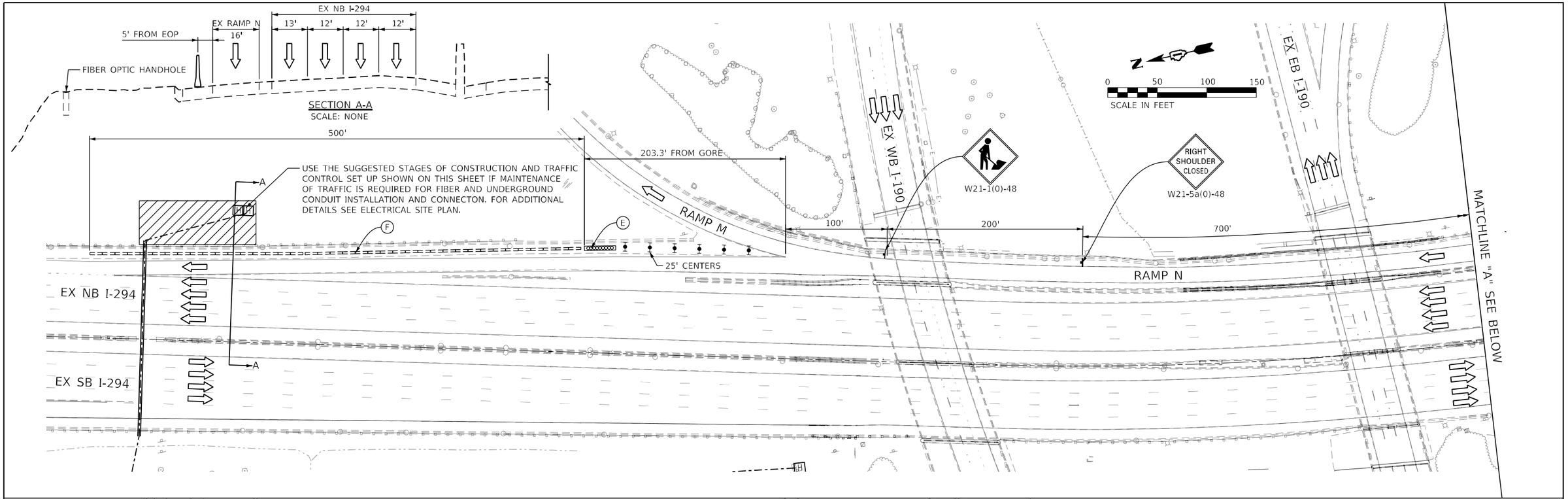

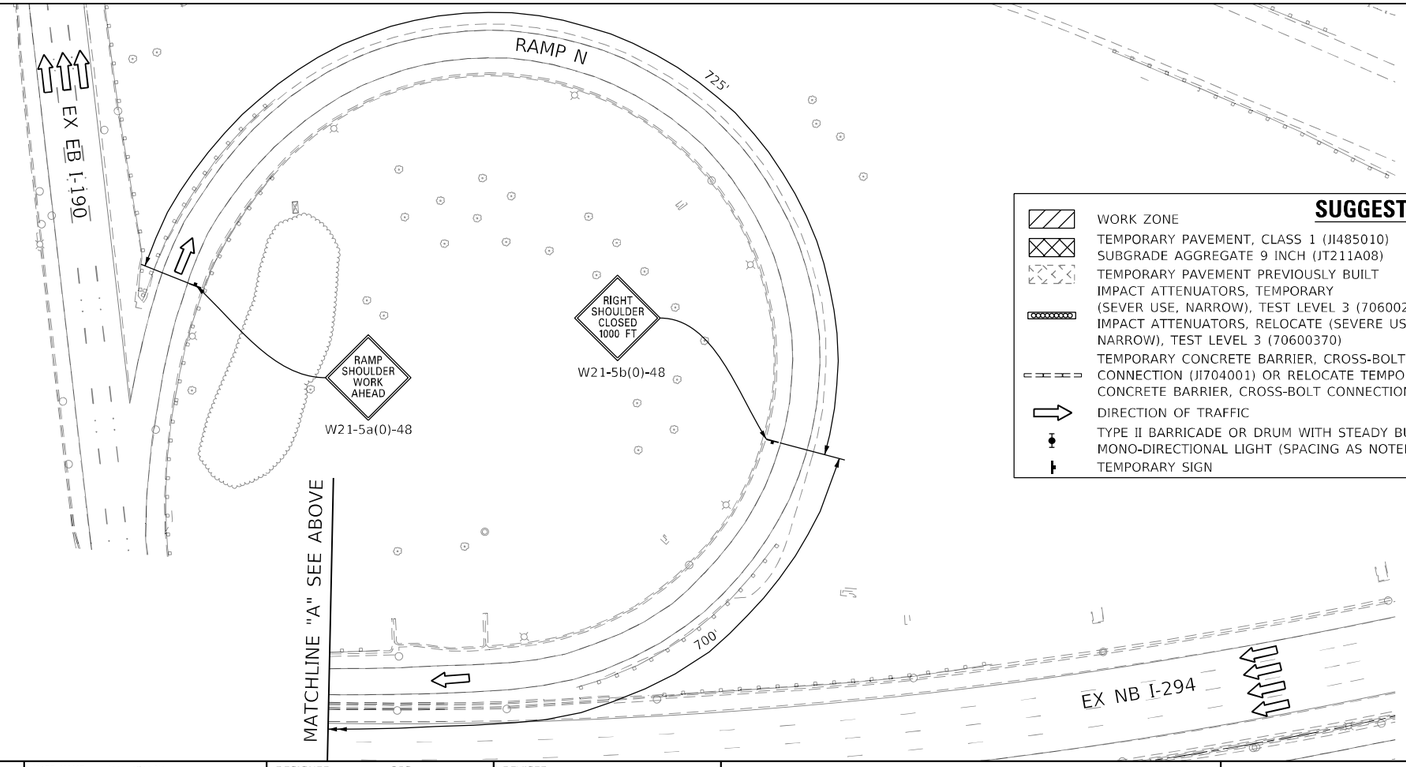

SUGGESTED STAGING AND TRAFFIC CONTROL LEGEND

- WORK ZONE
- TEMPORARY PAVEMENT, CLASS 1 (JI485010) SUBGRADE AGGREGATE 9 INCH (JT211A08)
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- (I) IMPACT ATTENUATORS, RELOCATE (SEVERE USE, NARROW), TEST LEVEL 3 (70600370)
- * FROM PREVIOUS STAGE TO REMAIN
- ** EXISTING TO REMAIN

0 50 100 150
SCALE IN FEET

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUGGESTED STAGES OF CONSTRUCTION AND TRAFFIC CONTROL PLAN
RAMP E / RAMP F – STAGE 3

SCALE: 1"=50' | SHEET 7 OF 12 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	39
		CONTRACT NO. 62U90		
		ILLINOIS	FED. AID PROJECT	

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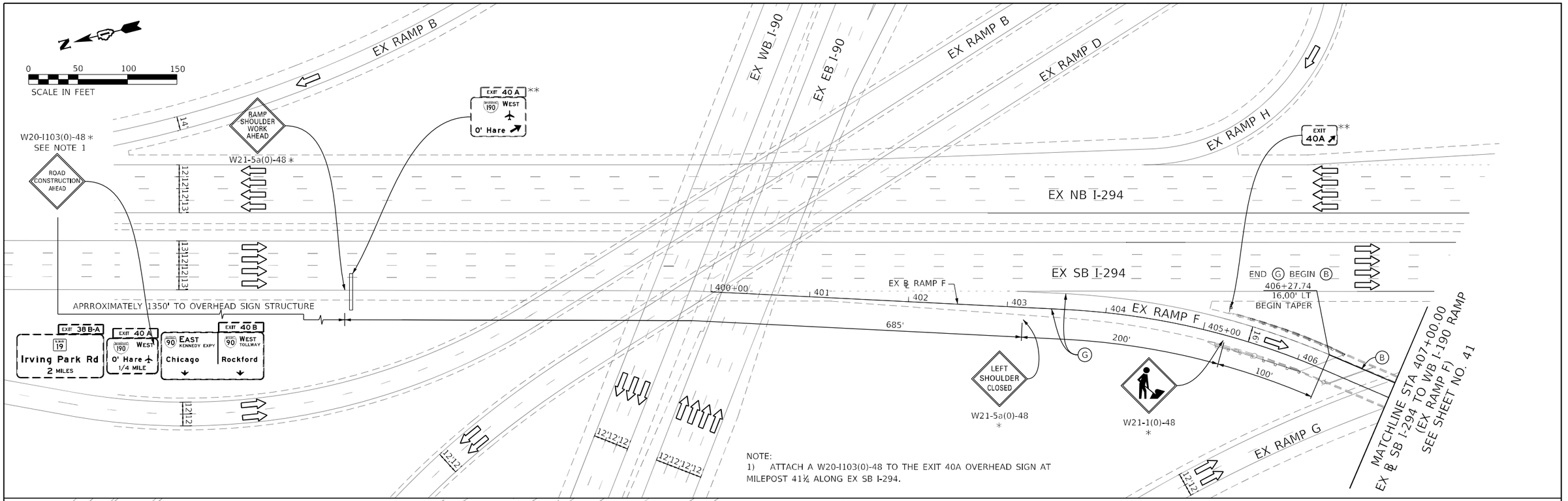

SUGGESTED STAGING AND TRAFFIC CONTROL LEGEND

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- TEMPORARY CONCRETE BARRIER, CROSS-BOLT CONNECTION (JI704001) OR RELOCATE TEMPORARY CONCRETE BARRIER, CROSS-BOLT CONNECTION (JI704006)
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PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUGGESTED STAGES OF CONSTRUCTION AND TRAFFIC CONTROL PLAN
RAMP E / RAMP F – STAGE 4

SCALE: 1"=50' | SHEET 9 OF 12 SHEETS | STA. 000+00.00 TO STA. 000+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	40
		CONTRACT NO. 62U90		
	ILLINOIS	FED. AID PROJECT		

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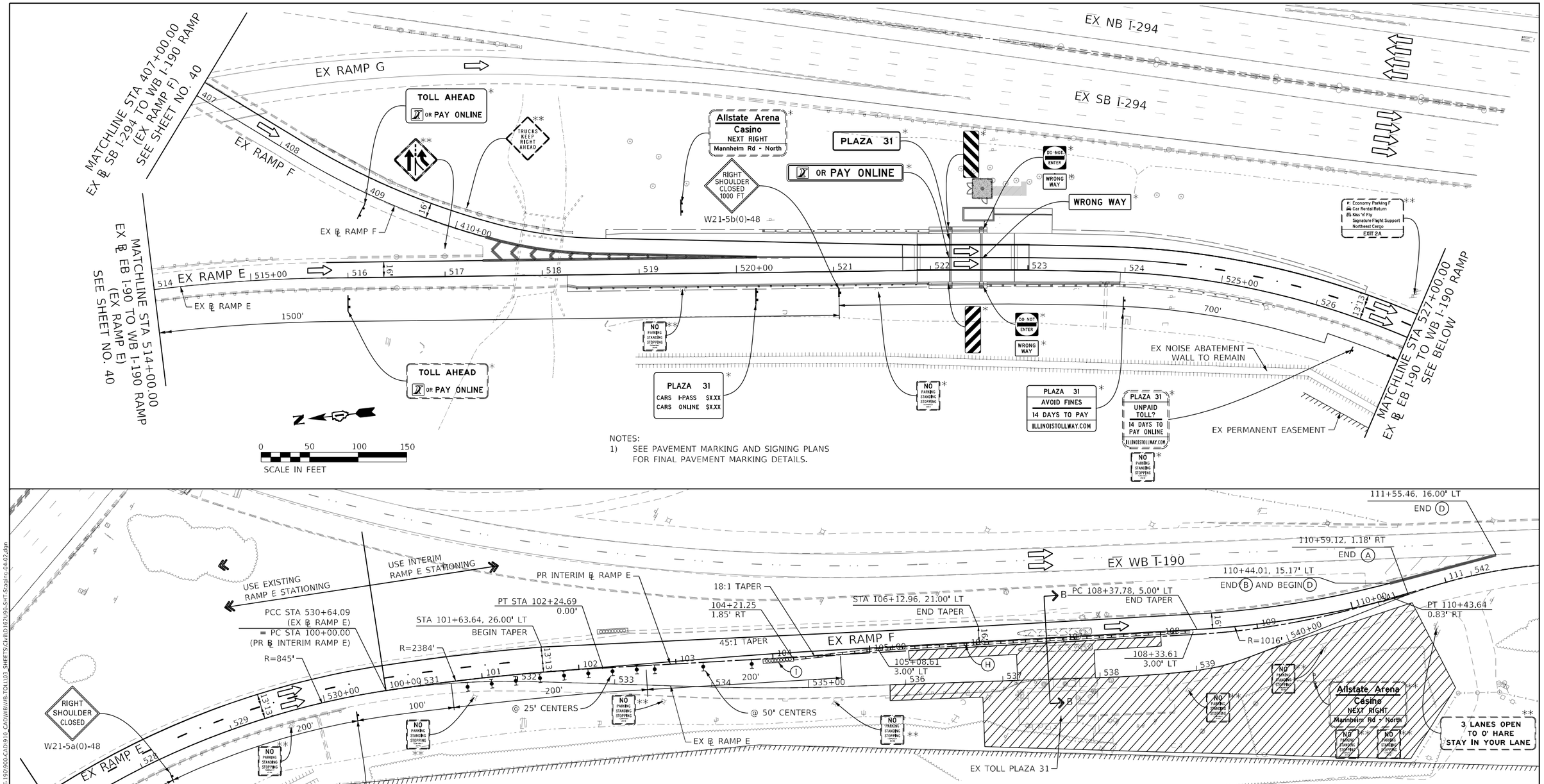

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- * FROM PREVIOUS STAGE TO REMAIN
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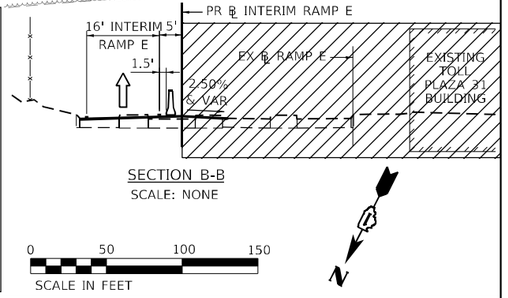

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PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUGGESTED STAGES OF CONSTRUCTION AND TRAFFIC CONTROL PLAN
RAMP E / RAMP F – STAGE 4

SCALE: 1"=50' | SHEET 9 OF 12 SHEETS | STA. 514+00.00 TO STA. 542+70.45

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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		CONTRACT NO. 62U90		
		ILLINOIS	FED. AID PROJECT	

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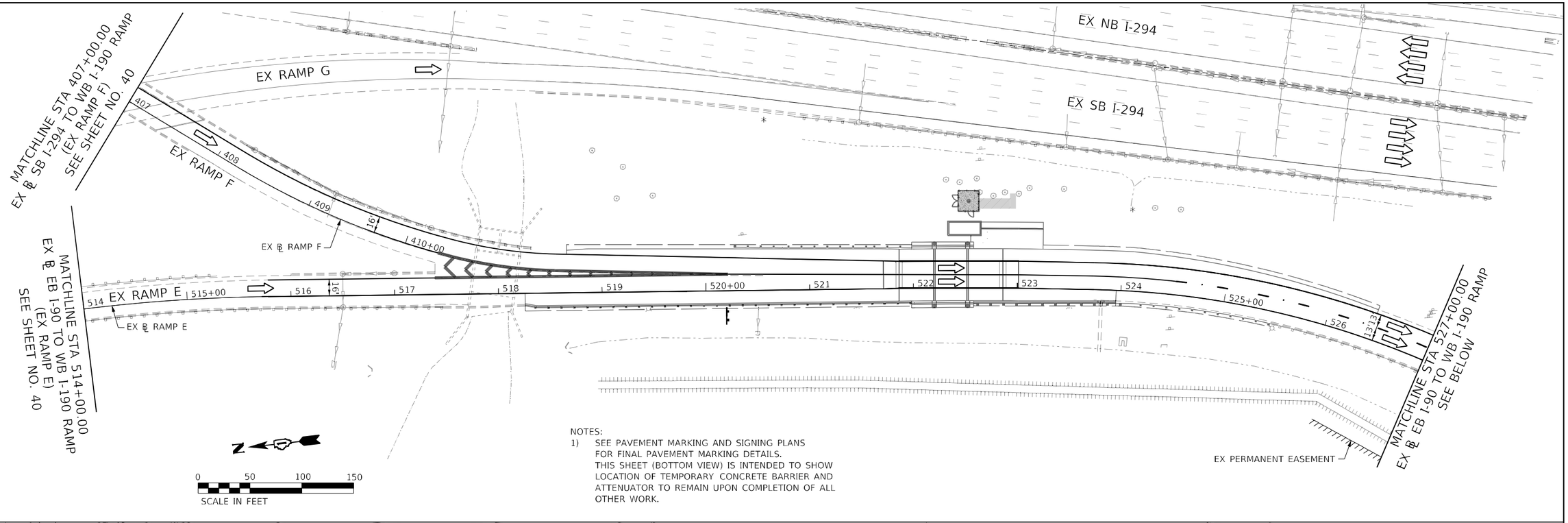

SUGGESTED STAGING AND TRAFFIC CONTROL LEGEND

- WORK ZONE
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- (I) IMPACT ATTENUATORS, RELOCATE (SEVERE USE, NARROW), TEST LEVEL 3 (70600370)
- * FROM PREVIOUS STAGE TO REMAIN
- ** EXISTING TO REMAIN

NOTES:
1) SEE PAVEMENT MARKING AND SIGNING PLANS FOR FINAL PAVEMENT MARKING DETAILS.

SCALE IN FEET

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUGGESTED STAGES OF CONSTRUCTION AND TRAFFIC CONTROL PLAN
RAMP E / RAMP F – STAGE 4A

SCALE: 1"=50' | SHEET 10 OF 12 SHEETS | STA. 514+00.00 TO STA. 542+70.45

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	42
		CONTRACT NO. 62U90		
	ILLINOIS	FED. AID PROJECT		

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EROSION AND SEDIMENT CONTROL GENERAL NOTES

1. FOR STANDARD EROSION AND SEDIMENT CONTROL GENERAL NOTES, SEE ILLINOIS TOLLWAY STANDARD K1 DRAWINGS.

2. THE CONTRACTOR SHALL PERFORM ALL WORK AS DIRECTED BY THE ENGINEER AND AS SHOWN IN THE ILLINOIS TOLLWAY STANDARD K1 DRAWINGS.

3. SHOULD IT BE NECESSARY TO REMOVE ANY EROSION OR SEDIMENT CONTROLS FOR CONSTRUCTION REASONS, THE CONTRACTOR SHALL FIRST OBTAIN PERMISSION FROM THE ENGINEER AND SHALL REPAIR OR REPLACE THE REMOVED CONTROLS THE SAME DAY. THE COST OF REMOVING AND RE-INSTALLING THE DEVICE SHALL BE INCLUDED IN THE CONTRACT.

4. THE CONTRACTOR SHALL CONFINE CONSTRUCTION ACTIVITIES WITHIN THE CONSTRUCTION LIMITS AS SHOWN ON THE PLANS. AREAS OUTSIDE THE SHOWN CONSTRUCTION LIMITS DISTURBED BY THE CONTRACTOR SHALL BE RESTORED AND STABILIZED AS DIRECTED BY THE ENGINEER AT THE CONTRACTOR'S EXPENSE.

5. EROSION AND SEDIMENT CONTROL ITEMS ARE CONSIDERED TO BE HIGH PRIORITY ITEMS ON THIS CONTRACT. THE CONTRACTOR WILL IMPLEMENT ALL PROVISIONS OF SPECIFICATION NECESSARY TO ASSURE THAT EROSION CONTROL ITEMS ARE CONSTRUCTED AND MAINTAINED IN A TIMELY MANNER.

6. THE CONTRACTOR WILL ASSUME RESPONSIBILITY FOR MAINTENANCE OF ALL SOIL EROSION CONTROL DURING CONSTRUCTION.

7. THE CONTRACTOR SHALL UTILIZE THE MAINTENANCE GUIDELINES OUTLINED IN THE SWPPP TO ENSURE GOOD AND EFFECTIVE OPERATING CONDITIONS OF THE MEASURES TO PROTECT STORMWATER QUALITY ON THE PROJECT.

8. ALL EROSION AND SEDIMENT CONTROL MEASURES WITHIN ILLINOIS TOLLWAY'S JURISDICTION SHALL BE MAINTAINED IN ACCORDANCE WITH THE ILLINOIS STATE TOLLWAY HIGHWAY AUTHORITY (ISTHA) EROSION CONTROL AND LANDSCAPE MANUAL FOUND ON THE ILLINOIS TOLLWAY WEBSITE AT https://www.illinoistollway.com/documents/20184/238191/A3Erosion+Sediment+Control+Landscape+Design+Criteria+Manual.pdf/6aeecec7-2551-4d08-bddc-3c830bd1d444?version=6.1&t=1709784971629&download=true. IN ADDITIONAL, THE CONTRACTOR MAY USE THE ILLINOIS DEPARTMENT OF TRANSPORTAION (IDOT) EROSION AND SEDIMENT CONTROL FIELD GUIDE FOR CONSTRUCTION INSPECTION FOUND ON THE CONSTRUCTION TAB AT https://idot.illinois.gov/content/dam/soi/en/web/idot/documents/transportation-system/manuals-guides-and-handbooks/highways/environment/erosion-and-sediment-control-field-guide-for-construction-inspection.pdf.

9. THE CONTRACTOR SHALL TREAT DISTURBED AND OTHER PROJECT AREAS TO CONTROL DUST. WATER SHALL BE APPLIED TO SUCH AREAS AS DIRECTED BY THE ENGINEER. CALCIUM CHLORIDE SHALL NOT BE USED FOR THIS PURPOSE. DUST SHALL BE CONTROLLED THROUGH A UNIFORM APPLICATION OF SPRAYED WATER IN A MANNER MEETING ENGINEER APPROVAL AND IN ACCORDANCE WITH THE CONTRACTOR'S DUST CONTROL PLAN SUBMITTED IN ACCORDANCE WITH ARTICLE 107.36 OF THE ILLINOIS TOLLWAY SUPPLEMENTAL SPECIFICATIONS. THE NUMBER OF APPLICATIONS AND THE AMOUNT OF WATER SHALL BE BASED ON FIELD AND WEATHER CONDITIONS.

10. DURING CONSTRUCTION OPERATIONS, WHEN ANY LOOSE MATERIAL IS DEPOSITED IN THE FLOW LINE OF DITCHES, GUTTERS OR DRAINAGE STRUCTURES SO THAT THE NATURAL FLOW OF WATER IS OBSTRUCTED, THE MATERIAL SHALL BE REMOVED AT THE CLOSE OF EACH WORKING DAY.

11. AT THE CONCLUSION OF CONSTRUCTION OPERATIONS, ALL DRAINAGE STRUCTURES SHALL BE FREE FROM DIRT AND DEBRIS. THE CONTRACTOR'S FAILURE TO PROVIDE THE ABOVE WILL PRECLUDE ANY POSSIBLE ADDED COMPENSATION REQUESTED DUE TO DELAYS OR UNSUITABLE MATERIAL CREATED AS A RESULT THEREOF.

12. LOCATIONS OF THE STABILIZED CONSTRUCTION ENTRANCE/EXITS SHALL BE DETERMINED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER. A NOMINAL QUANTITY FOR STABILIZED CONSTRUCTION ENTRANCE (JS280070) HAS BEEN PROVIDED FOR INSTALLING AND MAINTAINING ENTRANCES SUBJECT TO APPROVAL BY THE ENGINEER.

13. THE CONTRACTOR SHALL CHECK ALL EROSION AND SEDIMENT CONTROL MEASURES WEEKLY AND AFTER EACH RAINFALL, 0.5 INCHES OR GREATER IN A 24 HOUR PERIOD, OR EQUIVALENT SNOWFALL. DURING WINTER MONTHS, ALL MEASURES SHOULD BE CHECKED BY THE CONTRACTOR AFTER EACH SIGNIFICANT SNOWMELT.

14. THE CONTRACTOR SHALL PROVIDE THE RESIDENT ENGINEER A PLAN TO ENSURE THAT A STABILIZED FLOW LINE WILL BE PROVIDED DURING STORM SEWER CONSTRUCTION. THE USE OF A STABILIZED FLOW LINE BETWEEN INSTALLED STORM SEWER AND OPEN DISTURBANCE WILL REDUCE THE POTENTIAL FOR THE OFFSITE DISCHARGE OF SEDIMENT-BEARING WATERS, ESPECIALLY WHEN RAIN IS FORECASTED, SO THAT FLOW WILL NOT ERODE. LACK OF APPROVED PLAN OR FAILURE TO COMPLY WILL RESULT IN AN EROSION AND SEDIMENT CONTROL DEFICIENCY DEDUCTION.

15. TEMPORARY OR PERMANENT STABILIZATION SHALL BE INITIATED IMMEDIATELY UPON COMPLETION OF DISTURBANCE OR IF THE WORK AREA IS TO BE LEFT UNDISTURBED FOR 14 DAYS OR MORE.

16. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR PROLONG FINAL GRADING AND SHAPING SO THAT THE ENTIRE PROJECT CAN BE PERMANENTLY SEEDED AT ONE TIME.

17. THE PERMANENT VEGETATION PLAN SHALL BE USED ON ALL DISTURBED AREAS WHENEVER POSSIBLE. A QUANTITY FOR TEMPORARY STABILIZATION WITH STRAW MULCH (JS280150) HAS ALSO BEEN PROVIDED FOR TEMPORARY STABILIZATION OF ALL ANTICIPATED DISTURBED AREAS.

18. A NOMINAL QUANTITY FOR RE-ERECT SILT FENCE (JS280051) HAS BEEN PROVIDED. RE-ERECTION OF SILT FENCE SHALL BE AS APPROVED AND DIRECTED BY THE ENGINEER.

EROSION AND SEDIMENT CONTROL SEQUENCE OF CONSTRUCTION

THE FOLLOWING EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE INSTALLED PRIOR TO CLEARING AND GRADING:

1. INSTALL APPLICABLE STABILIZED CONSTRUCTION ENTRANCES TO ELIMINATE TRACKING OF SEDIMENT FROM CONSTRUCTION SITE INTO PUBLIC RIGHT-OF-WAYS. ALL STABILIZED COSNTRUCTION ENTRANCES SHALL BE APPROVED BY THE ENGINEER.
2. ERECT SILT FENCE AS SHOWN ON THE PLANS.
3. INSTALL INLET PROTECTION FOR THE EXISTING OPEN LID DRAINGE STRUCTURES.
4. TEMPORARY DITCH CHECKS SHALL BE INSTALLED WITHIN EXISTING UNDISTURBED DITCHES FOR EROSION AND SEDIMENT CONTROL DOWNSTREAM OF DITCH DISTURBANCE.

IMMEDIATELY UPON COMPLETION OF CLEARING OR GRADING OR WITHIN 14 DAYS OF LAST DISTURBANCE, THE FOLLOWING MEASURES SHALL BE IMPLEMENTED:

1. PROVIDE TEMPORARY STABILIZATION WITH STRAW MULCH OVER DISTURBED AREAS WHERE NO FURTHER WORK IS TO OCCUR FOR 14 DAYS OR LONGER THAT CANNOT BE STABILIZED WITH PERMANENT VEGETATIVE MEASURES.
2. PROVIDE PERMANENT SEEDING AND VEGETATION AS SHOWN ON THE PERMANENT EROSION AND SEDIMENT CONTROL PLANS BEFORE REMOVAL OF THE TEMPORARY EROSION CONTROL MEASURES.

THE FOLLOWING EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE IMPLEMENTED DURING CONSTRUCTION:

1. ERECT SILT FENCE AROUND TEMPORARY STOCKPILE AREAS.
2. INSTALL TEMPORARY DITCH CHECKS IMMEDIATELY AFTER PROPOSED DITCH GRADING IS COMPLETE. DITCH CHECKS SHALL BE LOCATED AS NOTED ON THE PLANS AND/OR AS DIRECTED BY THE ENGINEER.
3. DISCHARGED WATER FROM THE WORK AREA SHALL BE FILTERED. FILTERED WATER MUST BE VISIBILY CLEAR PRIOR TO LEAVING THE SITE.
4. MANAGEMENT OF EROSION AND SEDIMENT CONTROL SHOULD BE UTILIZED THROUGHOUT THE CONSTRUCTION PROCESS.
5. INSTALL INLET PROTECTION AT ALL PROPOSED CATCH BASINS IMMEDIATELY FOLLOWING INSTALLATION OF PROPOSED STORM SEWERS.

THE FOLLOWING MEASURES SHALL BE PROVIDED DURING THE CONTRACT ON AN AS NEEDED BASIS:

1. DUST CONTROL WATERING SHALL BE APPLIED TO CONTROL THE DUST RESULTING FROM CONSTRUCTION OPERATIONS.
2. STREET CLEANING AND SWEEPING SHALL BE PERFORMED DAILY, AS REQUIRED AND DIRECTED AND APPROVED BY THE ENGINEER.

TEMPORARY EROSION CONTROL SCHEDULE

ErosTemp	MANAGEMENT OF EROSION AND SEDIMENT CONTROL	DUST CONTROL WATERING	SILT FENCE	RE-ERECT SILT FENCE	STABILIZED CONSTRUCTION ENTRANCE	TREE PROTECTION	TEMPORARY RIPRAP	MULCH, METHOD 2	TEMPORARY EROSION CONTROL BLANKET	TEMPORARY EROSION CONTROL SEEDING	FILTER FABRIC INLET PROTECTION, COVER TYPE	FILTER FABRIC INLET PROTECTION, BASKET TYPE	TEMPORARY DITCH CHECKS
SHEET	CAL MO	UNIT	FOOT	FOOT	SQ YD	FOOT	TON	ACRE	SQ YD	POUND	EACH	EACH	FOOT
1	10	96	2,388	597	890	270	90	1.75	3,597	10,686	1	13	230
TOTAL	10	96	2,388	597	890	270	90	1.75	3,597	10,686	1	13	230

PERMANENT EROSION CONTROL SCHEDULE

	NITROGEN FERTILIZER NUTRIENT	POTASSIUM FERTILIZER NUTRIENT	SUPPLEMENTAL WATERING	EROSION CONTROL BLANKET	HEAVY DUTY EROSION CONTROL BLANKET	SODDING, SALT TOLERANT	SEEDING, CLASS 2E SALT TOLERANT ROADSIDE MIX (SPECIAL)	SEEDING, CLASS 4F NATIVE GRASS LOW PROFILE MIX (SPECIAL)	TREE SPECIAL, GLEDITSIA TRIACANTHOS INERMIS SKYLINE (SKYLINE THORNLESS COMMON HONEYLOCUST), 3" CALIPER, BALLED AND BURLAPPED	TREE, GYMNOCLADUS DIOICUS (KENTUCKY COFFEETREE), 1 1/2" CALIPER, BALLED AND BURLAPPED
SHEET	POUND	POUND	UNIT	SQ YD	SQ YD	SQ YD	ACRE	ACRE	EACH	EACH
1	75	213	28	7,724	3,409	554	0.75	1.75	5	6
TOTAL	75	213	28	7,724	3,409	554	0.75	1.75	5	6

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USER NAME = ChiuA	DESIGNED - ZND	REVISED -
	DRAWN - ZND	REVISED -
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PLOT DATE = 6/18/2024	DATE - 6/21/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLL PLAZA 31
EROSION AND SEDIMENT CONTROL GENERAL NOTES AND SCHEDULES

SCALE: 1"=50' | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	43
		CONTRACT NO. 62U90		
		ILLINOIS	FED. AID PROJECT	

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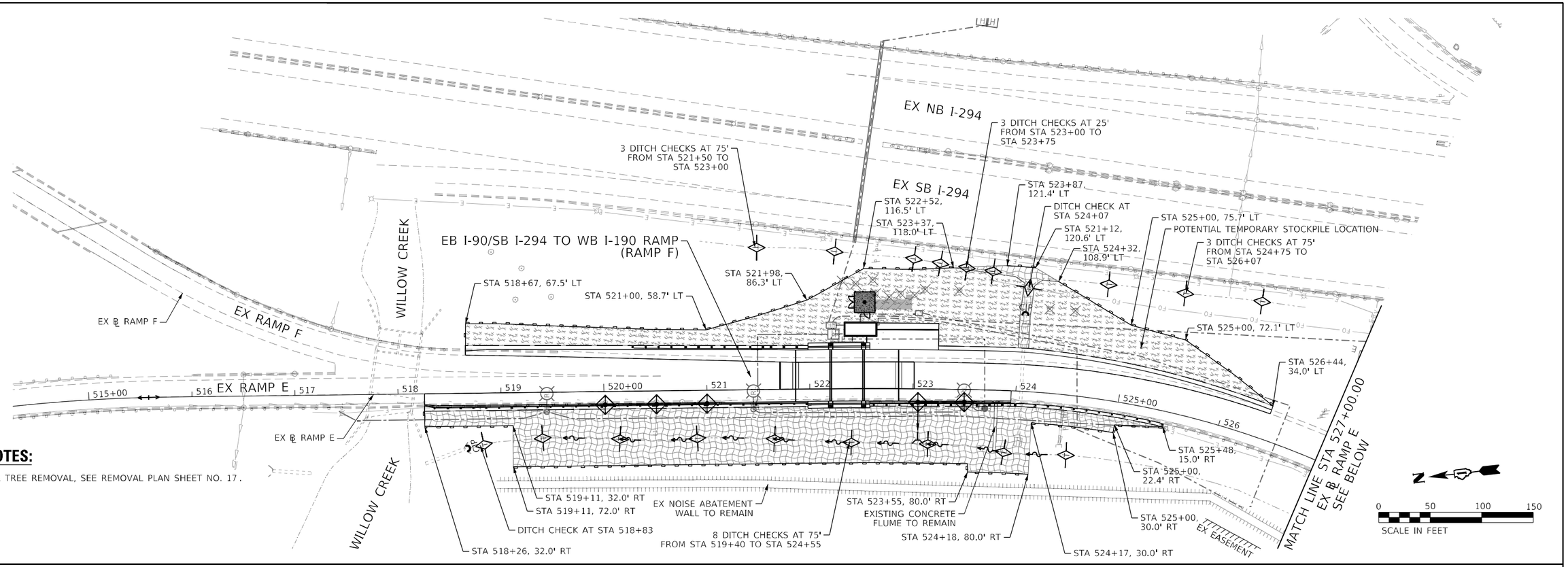
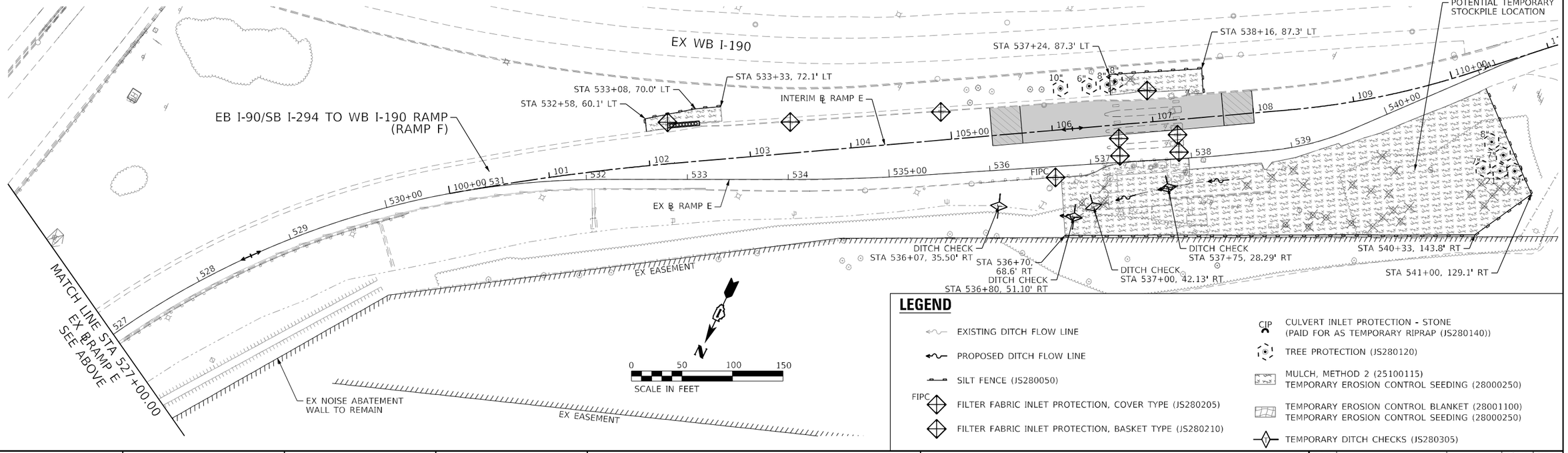


NOTES:

1. FOR TREE REMOVAL, SEE REMOVAL PLAN SHEET NO. 17.



LEGEND

- EXISTING DITCH FLOW LINE
- PROPOSED DITCH FLOW LINE
- SILT FENCE (JS280050)
- FIPC — FILTER FABRIC INLET PROTECTION, COVER TYPE (JS280205)
- FILTER FABRIC INLET PROTECTION, BASKET TYPE (JS280210)
- CIP — CULVERT INLET PROTECTION - STONE (PAID FOR AS TEMPORARY RIPRAP (JS280140))
- TREE PROTECTION (JS280120)
- MULCH, METHOD 2 (25100115) TEMPORARY EROSION CONTROL SEEDING (28000250)
- TEMPORARY EROSION CONTROL BLANKET (28001100) TEMPORARY EROSION CONTROL SEEDING (28000250)
- TEMPORARY DITCH CHECKS (JS280305)

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PLOT DATE = 6/18/2024	DATE - 6/21/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLL PLAZA 31
TEMPORARY EROSION AND SEDIMENTATION CONTROL PLAN

SCALE: 1"=50' | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	44
		CONTRACT NO. 62U90		
	ILLINOIS	FED. AID PROJECT		

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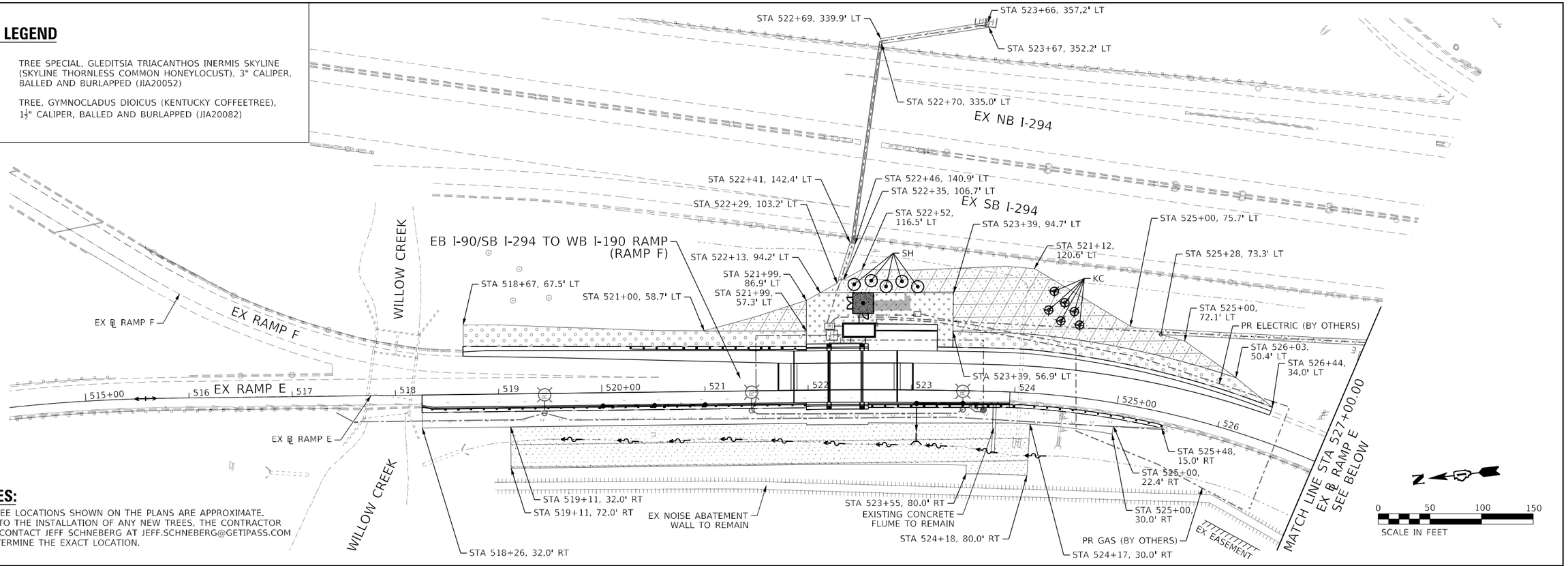
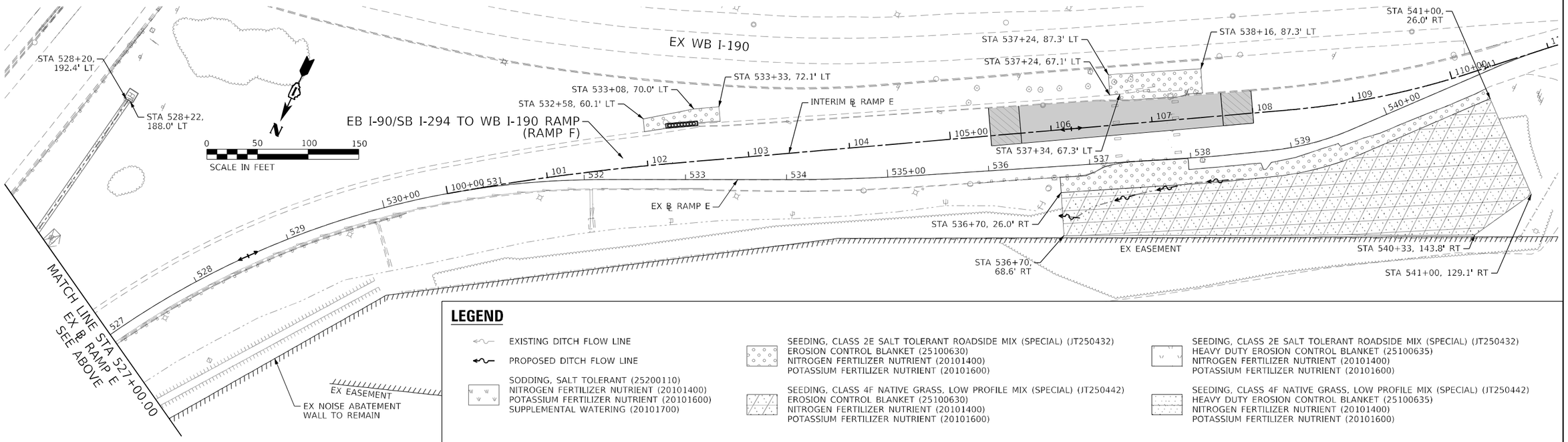
TREE LEGEND

SH	TREE SPECIAL, GLEDITSIA TRIACANTHOS INERMIS SKYLINE (SKYLINE THORNLESS COMMON HONEYLOCUST), 3" CALIPER, BALLED AND BURLAPPED (JIA20052)
KC	TREE, GYMNOCLADUS DIOICUS (KENTUCKY COFFEETREE), 1½" CALIPER, BALLED AND BURLAPPED (JIA20082)



NOTES:

1. THE TREE LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE. PRIOR TO THE INSTALLATION OF ANY NEW TREES, THE CONTRACTOR SHALL CONTACT JEFF SCHNEBERG AT JEFF.SCHNEBERG@GETIPASS.COM TO DETERMINE THE EXACT LOCATION.



LEGEND

- EXISTING DITCH FLOW LINE
- PROPOSED DITCH FLOW LINE
- SODDING, SALT TOLERANT (25200110) NITROGEN FERTILIZER NUTRIENT (20101400) POTASSIUM FERTILIZER NUTRIENT (20101600) SUPPLEMENTAL WATERING (20101700)
- SEEDING, CLASS 2E SALT TOLERANT ROADSIDE MIX (SPECIAL) (JT250432) EROSION CONTROL BLANKET (25100630) NITROGEN FERTILIZER NUTRIENT (20101400) POTASSIUM FERTILIZER NUTRIENT (20101600)
- SEEDING, CLASS 4F NATIVE GRASS, LOW PROFILE MIX (SPECIAL) (JT250442) EROSION CONTROL BLANKET (25100630) NITROGEN FERTILIZER NUTRIENT (20101400) POTASSIUM FERTILIZER NUTRIENT (20101600)
- SEEDING, CLASS 2E SALT TOLERANT ROADSIDE MIX (SPECIAL) (JT250432) HEAVY DUTY EROSION CONTROL BLANKET (25100635) NITROGEN FERTILIZER NUTRIENT (20101400) POTASSIUM FERTILIZER NUTRIENT (20101600)
- SEEDING, CLASS 4F NATIVE GRASS, LOW PROFILE MIX (SPECIAL) (JT250442) HEAVY DUTY EROSION CONTROL BLANKET (25100635) NITROGEN FERTILIZER NUTRIENT (20101400) POTASSIUM FERTILIZER NUTRIENT (20101600)

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLL PLAZA 31
PERMANENT EROSION AND SEDIMENTATION CONTROL PLAN

SCALE: 1"=50' | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	45
		CONTRACT NO. 62U90		
	ILLINOIS FED. AID PROJECT			

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EXISTING DRAINAGE AND UTILITIES STRUCTURE SCHEDULE

EXISTING DRAINAGE AND UTILITY STRUCTURE SCHEDULE

STRUCTURE NO.	STATION	OFFSET	BASELINE	CATCH BASINS TO BE ADJUSTED	MANHOLES TO BE ADJUSTED	INLETS TO BE ADJUSTED	REMOVING CATCH BASINS	FILLING INLETS	DRAINAGE STRUCTURES TO BE CLEANED	FIRE HYDRANTS REMOVAL
				(60250200)	(60255500)	(60260100)	(60500050)	(60500305)	(Z0018500)	(JA000670)
				EACH	EACH	EACH	EACH	EACH	EACH	EACH
E02	520+75.74	11.15' RT	EX BL RAMP E				1			
E03	520+01.17	11.06' RT	EX BL RAMP E				1			
E04	520+50.87	11.09' RT	EX BL RAMP E				1			
E05	532+80.48	56.65' LT	EX BL RAMP E						1	
E06	534+02.08	56.86' LT	EX BL RAMP E						1	
E07	535+55.10	61.18' LT	EX BL RAMP E						1	
E08	536+57.59	61.36' LT	EX BL RAMP E		1					
E09	537+60.36	69.16' LT	EX BL RAMP E			1				
E10	537+28.40	56.23' LT	EX BL RAMP E					1		
E11	537+28.77	39.91' LT	EX BL RAMP E					1		
E12	537+29.27	25.56' LT	EX BL RAMP E			1				
E13	537+29.24	6.41' LT	EX BL RAMP E			1				
E14	537+87.98	56.31' LT	EX BL RAMP E					1		
E15	537+87.57	40.31' LT	EX BL RAMP E					1		
E16	537+87.57	23.65' LT	EX BL RAMP E			1				
E17	537+87.84	6.30' LT	EX BL RAMP E			1				
E18	537+93.01	13.23' RT	EX BL RAMP E							1
E19	537+59.11	6.83' RT	EX BL RAMP E		1					
E20	536+64.34	10.72' RT	EX BL RAMP E	1						
E21	536+58.10	20.51' RT	EX BL RAMP E						1	
			TOTAL	1	2	5	3	4	4	1

EXISTING DRAINAGE AND UTILITIES PIPE SCHEDULE

EXISTING PIPE SCHEDULE

PIPE	TELEVISION INSPECTION OF SEWER	STORM SEWERS TO BE CLEANED					ABANDON AND FILL EXISTING STORM SEWER	STORM SEWER REMOVAL 15"	ABANDON EXISTING WATER MAIN, FILL WITH CLSM	WATER MAIN REMOVAL, 6"	TRENCH BACKFILL
		6"	12"	15"	24"	30"					
	(JT546000)	(X5537500)	(X5537800)	(X5537900)	(X5538200)	(X5538400)	(X5509900)	(55100700)	(X5610651)	(X5610706)	(20800150)
	FOOT	FOOT	FOOT	FOOT	FOOT	FOOT	FOOT	FOOT	FOOT	FOOT	CU YD
EP01	123					123					
EP02								25			14.4
EP03								50			29.4
EP04	26			26				5			0.0
EP05	96			96							
EP06	90			90							
EP07	88			88							
EP08	104		104								
EP09	76			76							
EP10							32				
EP11							32				
EP12	31	31									
EP13	31	31									
EP14							28				
EP15							28				
EP16	28	28									
EP17	29	29									
EP19	102			102							
EP20	12				12						
EP21	16				16						
EP22										268	0.0
EP23									557		
TOTAL	852	119	104	478	28	123	120	80	557	268	43.8

PROPOSED DRAINAGE AND UTILITIES STRUCTURE SCHEDULE

PROPOSED DRAINAGE STRUCTURE SCHEDULE

STRUCTURE NO.	STATION	OFFSET	BASELINE	PROPOSED RIM EL	N INVERT EL	W INVERT EL	E INVERT EL	S INVERT EL	CATCH BASINS, TYPE G-2, TYPE G-2 FRAME AND GRATE	CATCH BASINS, TYPE A, 4'-DIAMETER, TYPE G-2 FRAME AND GRATE	SLOPED HEADWALL TYPE I, 15"
									(JI602115)	(JI602182)	(JI680103)
				FT	FT	FT	FT	FT	EACH	EACH	EACH
101	520+01.11	12.00' RT	EX BL RAMP E	638.03				633.03	1		
102	521+00.00	12.00' RT	EX BL RAMP E	638.04	633.02				1		
103	520+50.90	12.00' RT	EX BL RAMP E	637.93	632.55	629.45± (EX)		632.55		1	
201	523+50.00	11.26' RT	EX BL RAMP E	642.10	636.33				1		
202	523+05.00	11.96' RT	EX BL RAMP E	641.17		630.45		635.90		1	
203	523+05.00	49.83' RT	EX BL RAMP E	-			629.75				1
								TOTAL	3	2	1

PROPOSED DRAINAGE PIPE SCHEDULE

PROPOSED PIPE SCHEDULE

PIPE	UPSTREAM STRUCTURE	DOWNSTREAM STRUCTURE	UPSTREAM INVERT EL	DOWNSTREAM INVERT EL	PIPE SLOPE (%)	STORM SEWERS, CLASS A, TYPE 2 15" (SEE NOTE 1)	TRENCH BACKFILL
						(550A0360)	(20800150)
						FOOT	CU YD
101	101	103	633.03	632.55	1.00%	48	23.4
102	102	103	633.02	632.55	1.00%	47	23.0
201	201	202	636.33	635.90	1.00%	43	23.4
202	202	203	630.45	629.75	2.00%	35	5.6
					TOTAL	173	75.4

PROPOSED PIPE UNDERDRAIN SCHEDULE

PROPOSED PIPE UNDERDRAIN SCHEDULE

PIPE UNDERDRAIN	BASELINE	UPSTREAM		DOWNSTREAM			PIPE UNDERDRAINS, FABRIC LINED TRENCH 6" (SEE NOTE 2)
		STATION	OFFSET	STRUCTURE	STATION	OFFSET	(JS601320)
							FOOT
PU01	EX BL RAMP E	518+26	11.00' RT	101	520+01	12.00' RT	176
PU02	EX BL RAMP E	520+01	13.00' RT	103	520+51	12.00' RT	49
PU03	EX BL RAMP E	521+00	13.00' RT	103	520+51	12.00' RT	48
PU04	EX BL RAMP E	523+05	12.90' RT	102	521+00	12.00' RT	204
PU05	EX BL RAMP E	523+50	12.22' RT	202	523+05	11.96' RT	44
PU06	EX BL RAMP E	523+95	11.00' RT	201	523+50	11.26' RT	46
						TOTAL	567

NOTES:

1. PROPOSED STORM SEWERS, CLASS A SHALL BE REINFORCED CONCRETE PIPE.
2. THE OFFSET SHOWN IN THE PROPOSED PIPE UNDERDRAIN SCHEDULE FOR PIPE UNDERDRAINS, FABRIC LINED TRENCH 6" IS AN APPROXIMATE LOCATION. SEE ILLINOIS TOLLWAY STANDARD B24-09 AND TYPICAL SECTIONS FOR DETAILS.

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PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES

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

F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	46
		CONTRACT NO. 62U90		
	ILLINOIS	FED. AID PROJECT		

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LEGEND

○	EXISTING CATCH BASIN	R	DRAINAGE STRUCTURE TO BE REMOVED
◎	EXISTING MANHOLE	C	DRAINAGE STRUCTURE TO BE CLEANED
▭	EXISTING INLET	ADJ	DRAINAGE STRUCTURE TO BE ADJUSTED
	EXISTING STORM SEWER	F	DRAINAGE STRUCTURE TO BE FILLED
	EXISTING PIPE UNDERDRAIN		STORM SEWER REMOVAL
	EXISTING CULVERT		ABANDON AND FILL EXISTING STORM SEWER
	EXISTING DITCH FLOW LINE		WATER MAIN REMOVAL
	EXISTING CONCRETE FLUME		ABANDON EXISTING WATER MAIN, FILL WITH CLSM
E00	EXISTING STRUCTURE NUMBER		
E00	EXISTING PIPE NUMBER		

EX SB I-294
EX 30" PIPE TO REMAIN
EP01
EB I-90/SB I-294 TO WB I-190 RAMP (RAMP F)
PORTIONS OF EX FLUME TO BE REMOVED SEE REMOVAL PLAN ON SHEET NO. 17
525+00
530+00
100+00
EX EASEMENT
EX NOISE ABATEMENT WALL TO REMAIN
EX HEADWALL TO REMAIN
EX CONCRETE FLUME TO REMAIN
MATCHLINE STA 531+00.00 EX ℄ RAMP E SEE BELOW
PR INTERIM ℄ RAMP E
WILLOW CREEK
EX ℄ RAMP F
409
EX RAMP F
410+00
520+00
EX ℄ RAMP E
EX RAMP E
E04
EP02
E02
E03
EP03
EP04
END STORM SEWER REMOVAL STA 520+50.64, 15.98' RT
EX HEADWALL TO REMAIN

PIPE SIZE	CONCRETE THRUST BLOCK			
INCH DIA	D	H	W	VOLUME (CY)
6	0.5	2.5	2.5	0.5

D IS THE DIMENSION INTO UNDISTURBED GROUND IN FEET
H IS HEIGHT OF THRUST BLOCK IN FEET
W IS WIDTH OF THRUST BLOCK IN FEET
ALL DIMENSIONS ARE MINIMUM.

EXISTING 6" WATER MAIN TO BE ABANDONED
CONCRETE THRUST BLOCK
PROPOSED CAP
PROPOSED PLUG
D
H
2' MIN
10' MINIMUM
EXISTING 6" WATER MAIN TO REMAIN
EXISTING VALVE
EXISTING 12" WATER MAIN TO REMAIN
EXISTING 6" WATER MAIN TO REMAIN

DETAIL "A"
SCALE: NONE

PR INTERIM ℄ RAMP E
MATCHLINE STA 531+00.00 EX ℄ RAMP E SEE ABOVE
EX ℄ RAMP E
EB I-90/SB I-294 TO WB I-190 RAMP (RAMP F)
CTA BLUE LINE
WB I-190
EP08
EP09
E09
EP15
EP14
E14
EP10
EP11
E10
E08
E05
E06
E07
EP05
EP06
EP07
E11
E12
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E15
EP16
E16
E17
EP19
E20
EP20
E21
EP12
EP13
EP21
EP17
E18
E19
EP22
EP23
EX IDOT ITS TO BE MAINTAINED SEE EXISTING IDOT ITS PLAN
EX ELECTRIC TO REMAIN
EX FIBER OPTIC TO REMAIN
CUT, CAP, PLUG AND BRACE EXISTING SERVICE SEE DETAIL "A"
SEE NOTE 2
EX EASEMENT
EX TP31 BUILDING
EX ELECTRIC TO REMAIN
EX ROW
EX CN ROW
CN RAILROAD
101
102
103
104
105+00
106
107
108
109
110+00
111
112
535+00
540+00
6"
EX TOLLWAY FIBER OPTIC TO BE REMOVED (BY OTHERS) (SEE SHEET NO. 64 FOR ADDITIONAL INFORMATION)
EX GAS LINE TO BE REMOVED (BY OTHERS - NICOR)
EX ELECTRIC METER TO BE REMOVED (BY OTHERS - COMED)
EX GAS METER TO BE REMOVED (BY OTHERS - NICOR)
EX BUILDING TO BE REMOVED (BY OTHERS - AT&T)
EX ELECTRIC TO BE REMOVED (BY OTHERS - COMED)
EX GENERATOR TO BE REMOVED (BY OTHERS - AT&T)
END WATER MAIN REMOVAL AND BEGIN ABANDON EXISTING WATER MAIN, FILL WITH CLSM AT STA 539+76, 18.3' RT
DECOMMISSIONING AND DISPOSAL OF SEWAGE SYSTEM (SEE SHEET NO. 18 FOR ADDITIONAL INFORMATION)

0 50 100 150
SCALE IN FEET

NOTES:

1. PRIOR TO BEGINNING CONSTRUCTION, THE CONTRACTOR MUST FIELD VERIFY HORIZONTAL AND VERTICAL POSITION OF ALL UTILITIES.
2. THE LOCATION OF THE EXISTING WATER MAIN AND VALVE VAULT ARE APPROXIMATED AND COMPLETENESS IS NOT GUARANTEED. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE EXACT LOCATION. THE ENGINEER MAY CHANGE WHERE TO CUT, CAP, AND BRACE BASED ON THE FIELD CONDITIONS. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR SUCH CHANGES.

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = ChiuA	DESIGNED - ZND	REVISED -	
	DRAWN - ZND	REVISED -	
PLOT SCALE = 100.0000 ' / in.	CHECKED - MJE	REVISED -	
PLOT DATE = 5/9/2024	DATE - 5/3/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLL PLAZA 31
EXISTING DRAINAGE AND UTILITY PLAN

SCALE: 1"=50' | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	47
		CONTRACT NO. 62U90		
		ILLINOIS	FED. AID PROJECT	

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LEGEND

- EXISTING CATCH BASIN
- EXISTING STORM SEWER
- EXISTING CULVERT
- EXISTING DITCH FLOW LINE
- EXISTING CONCRETE FLUME
- E00 EXISTING DRAINAGE STRUCTURE NUMBER
- (E00) EXISTING PIPE NUMBER
- PROPOSED CATCH BASIN
- PROPOSED STORM SEWER
- PROPOSED PIPE UNDERDRAIN 6"
- PROPOSED SLOPED HEADWALL
- 100 PROPOSED DRAINAGE STRUCTURE NUMBER
- (100) PROPOSED PIPE NUMBER

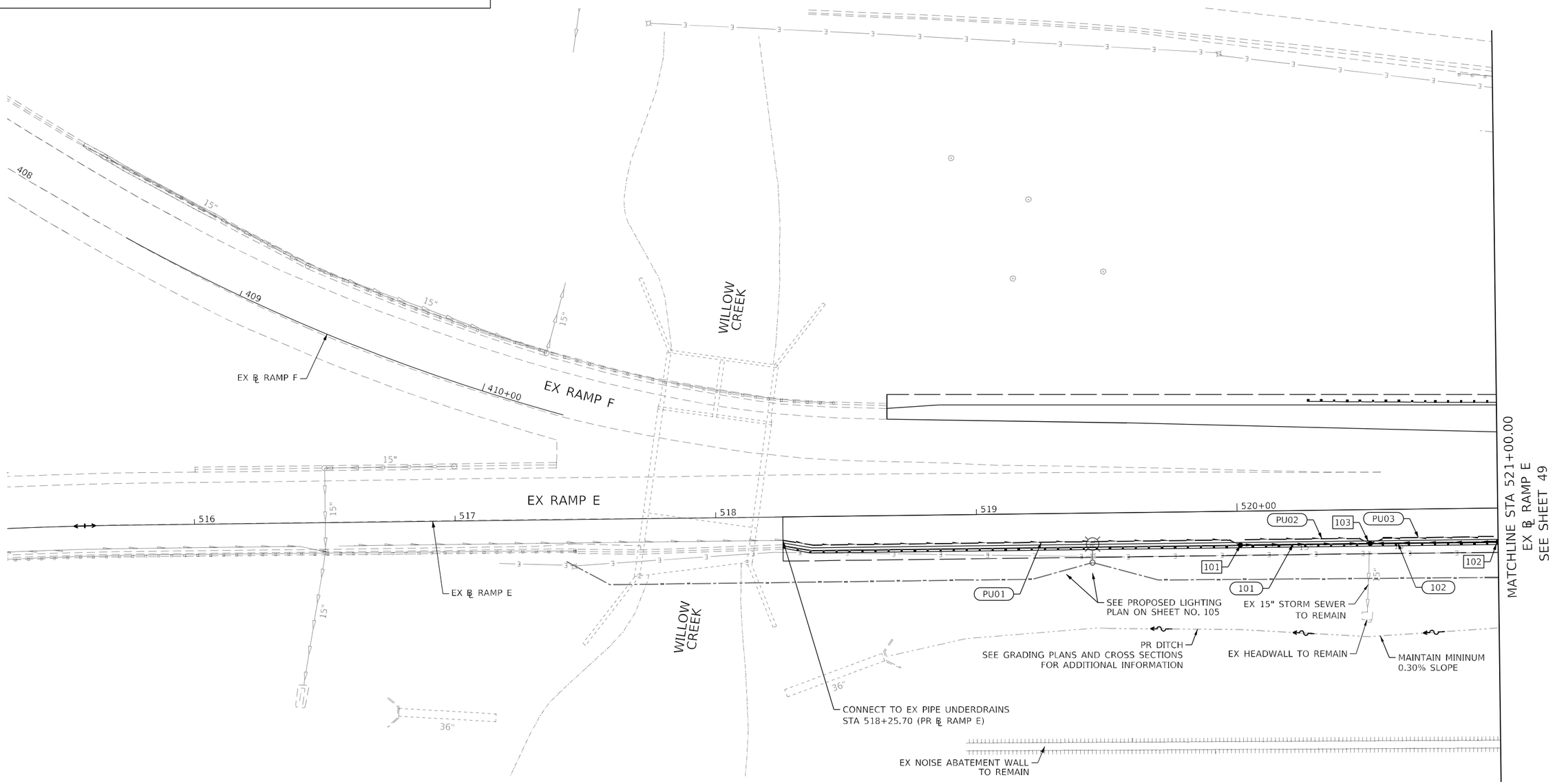
NOTES:

1. PROPOSED STORM SEWERS, CLASS A SHALL BE REINFORCED CONCRETE PIPE.
2. THE EXACT LOCATIONS OF THE PIPE UNDERDRAIN 6" ARE SHOWN AT AN EXAGGERATED OFFSET FOR DRAWING CLARITY. SEE ILLINOIS TOLLWAY STANDARD B24-09 AND TYPICAL SECTIONS FOR PIPE UNDERDRAIN LOCATIONS AND DETAILS.

N

0 20 40 60

SCALE IN FEET



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AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline.Ng	DESIGNED - ZND	REVISED -
	DRAWN - ZND	REVISED -
PLOT SCALE = 40.0000 ' / in.	CHECKED - MJE	REVISED -
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLL PLAZA 31
PROPOSED DRAINAGE AND UTILITY PLAN

SCALE: 1"=20' | SHEET 1 OF 2 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	48
		CONTRACT NO. 62U90		
	ILLINOIS	FED. AID PROJECT		

LEGEND

- EXISTING CATCH BASIN
- EXISTING STORM SEWER
- EXISTING CULVERT
- EXISTING DITCH FLOW LINE
- EXISTING CONCRETE FLUME
- E00 EXISTING DRAINAGE STRUCTURE NUMBER
- (E00) EXISTING PIPE NUMBER
- PROPOSED CATCH BASIN
- PROPOSED STORM SEWER
- PROPOSED PIPE UNDERDRAIN 6"
- PROPOSED SLOPED HEADWALL
- 100 PROPOSED DRAINAGE STRUCTURE NUMBER
- (100) PROPOSED PIPE NUMBER

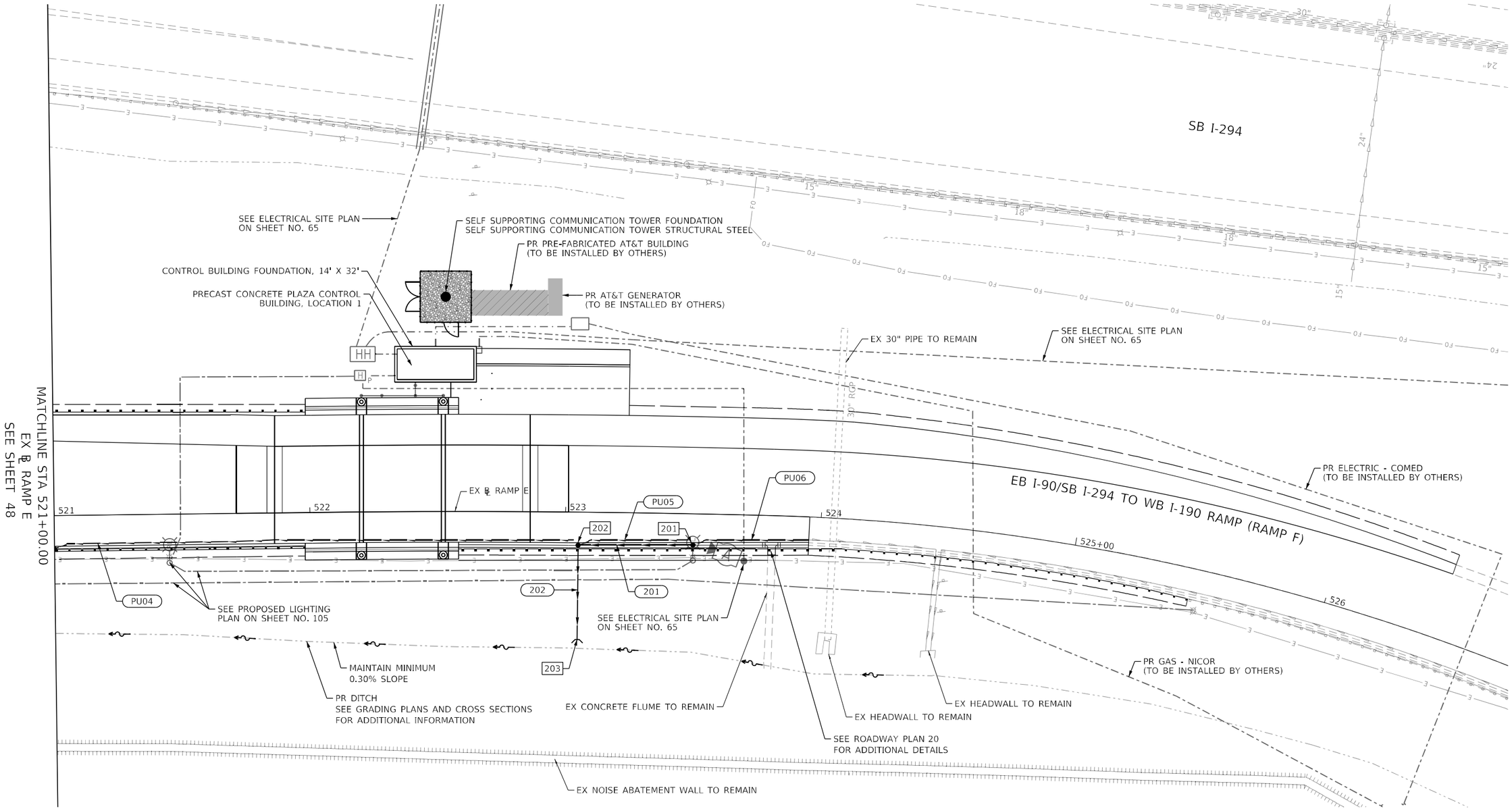
NOTES:

1. PROPOSED STORM SEWERS, CLASS A SHALL BE REINFORCED CONCRETE PIPE.
2. THE EXACT LOCATIONS OF THE PIPE UNDERDRAIN 6" ARE SHOWN AT AN EXAGGERATED OFFSET FOR DRAWING CLARITY. SEE ILLINOIS TOLLWAY STANDARD B24-09 AND TYPICAL SECTIONS FOR PIPE UNDERDRAIN LOCATIONS AND DETAILS.

N

0 20 40 60

SCALE IN FEET



AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = PIMSARNO	DESIGNED - ZND	REVISED -
	DRAWN - ZND	REVISED -
PLOT SCALE = 40.0000 ' / in.	CHECKED - MJE	REVISED -
PLOT DATE = 5/29/2024	DATE - 5/30/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLL PLAZA 31
PROPOSED DRAINAGE AND UTILITY PLAN

SCALE: 1"=20' | SHEET 2 OF 2 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	49
		CONTRACT NO. 62U90		
	ILLINOIS	FED. AID PROJECT		

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SAM®

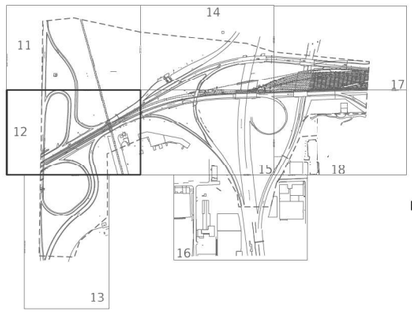
P-91-041-18-SUE.DGN	Designated By: GM/CK/JP
Scale: 1"=50'	Drafted By: JB/RP
Sheet: 12 of 25	Checked By: SW/LP
Date: 8/17/2020	WO No. 152 1018045328T

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

12

N

0 50 100 150
SCALE IN FEET
24x36 = 1":50'
11x17 = 1":100'

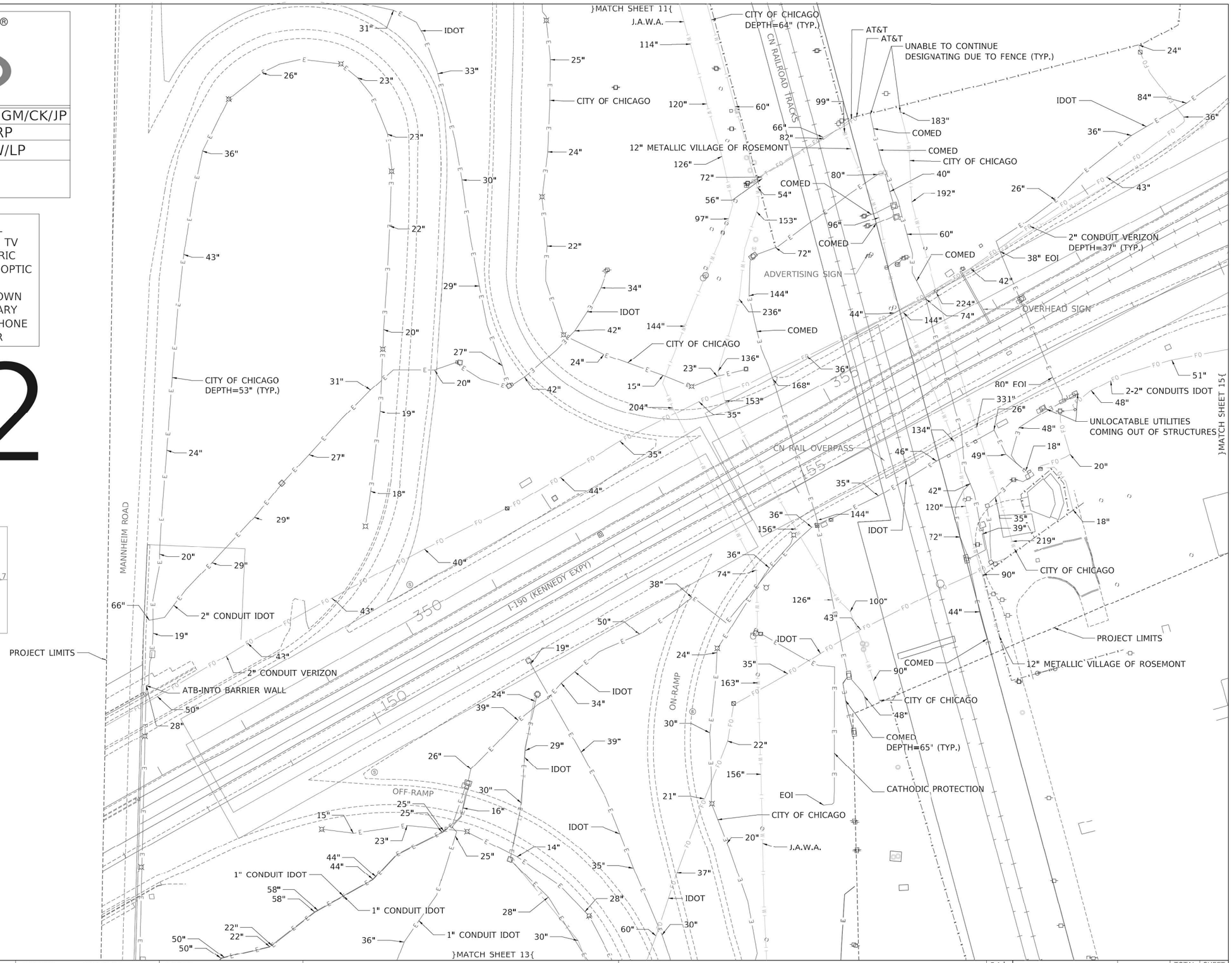


}SEE SHEET 9 FOR MORE DATA{

ILLINOIS
SCOTT A. WECHTER
REG. 62-042188
REGISTERED PROFESSIONAL ENGINEER

I, SCOTT A. WECHTER, CERTIFY TO THE ILLINOIS DEPARTMENT OF TRANSPORTATION THAT TO THE BEST OF MY KNOWLEDGE, INFORMATION, AND DELIEF, THE UTILITY INFORMATION DEPICTED BY SAM, LLC. ON THIS PLAN SHEET WAS OBTAINED AND COMPILED UNDER MY DIRECT SUPERVISION USING ACCEPTED PRACTICES AND PROCEDURES.

DATE: 8/17/2020
SCOTT A. WECHTER
PROJECT MANAGER SAM, LLC



USER NAME = UNTITLED	DESIGNED - G.M/C.K./J.P.	REVISED -	
	DRAWN - J.B./R.P.	REVISED -	
PLOT SCALE = 1":50'	CHECKED - S.W./L.P.	REVISED -	
PLOT DATE =	DATE - 8/17/2020	REVISED -	

MODEL: P-91-041-18-SUE.DGN
FILE NAME: P-91-041-18-SUE.DGN

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MANNHEIM ROAD
TO I-294

SCALE: 1"=50' | SHEET 1 OF 5 SHEETS | STA. 120+00 | TO STA. 160+00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 190 22 EW	COOK	234	50
		CONTRACT NO. 62U90		
		ILLINOIS	FED. AID PROJECT	

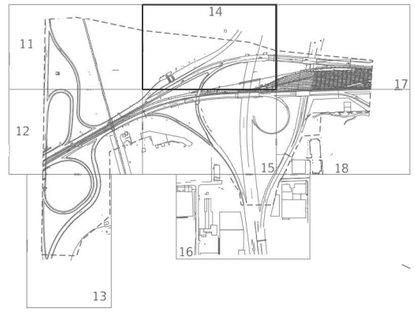
P-91-041-18-SUE.DGN	Designated By: GM/CK/JP
Scale: 1"=50'	Drafted By: JB/RP
Sheet: 14 of 25	Checked By: SW/LP
Date: 8/17/2020	WO No. 152 1018045328T

AERIAL
CABLE TV
ELECTRIC
FIBER OPTIC
GAS
UNKNOWN
SANITARY
TELEPHONE
WATER

0 50 100 150
SCALE IN FEET
24x36 = 1":50'
11x17 = 1":100'

N

14

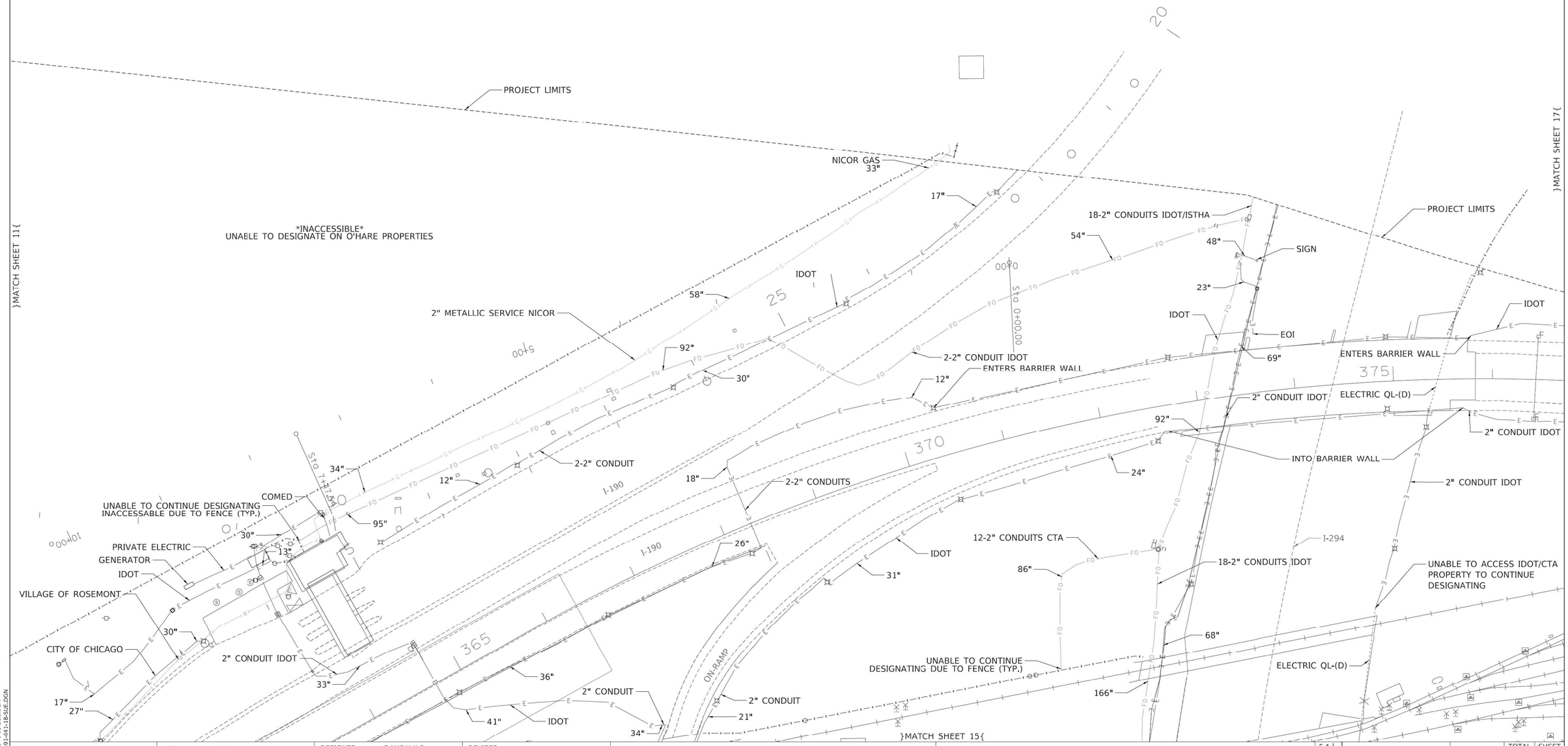


ILLINOIS
SCOTT A. WECHTER
REG. 62-042188
REGISTERED PROFESSIONAL ENGINEER

I, SCOTT A. WECHTER, CERTIFY TO THE ILLINOIS DEPARTMENT OF TRANSPORTATION THAT TO THE BEST OF MY KNOWLEDGE, INFORMATION, AND BELIEF, THE UTILITY INFORMATION DEPICTED BY SAM, LLC. ON THIS PLAN SHEET WAS OBTAINED AND COMPILED UNDER MY DIRECT SUPERVISION USING ACCEPTED PRACTICES AND PROCEDURES.

DATE: 8/17/2020

SCOTT A. WECHTER
PROJECT MANAGER SAM, LLC



USER NAME = UNTITLED	DESIGNED - G.M/C.K./J.P.	REVISED -	
	DRAWN - J.B./R.P.	REVISED -	
PLOT SCALE = 1":50'	CHECKED - S.W./L.P.	REVISED -	
PLOT DATE =	DATE - 8/17/2020	REVISED -	

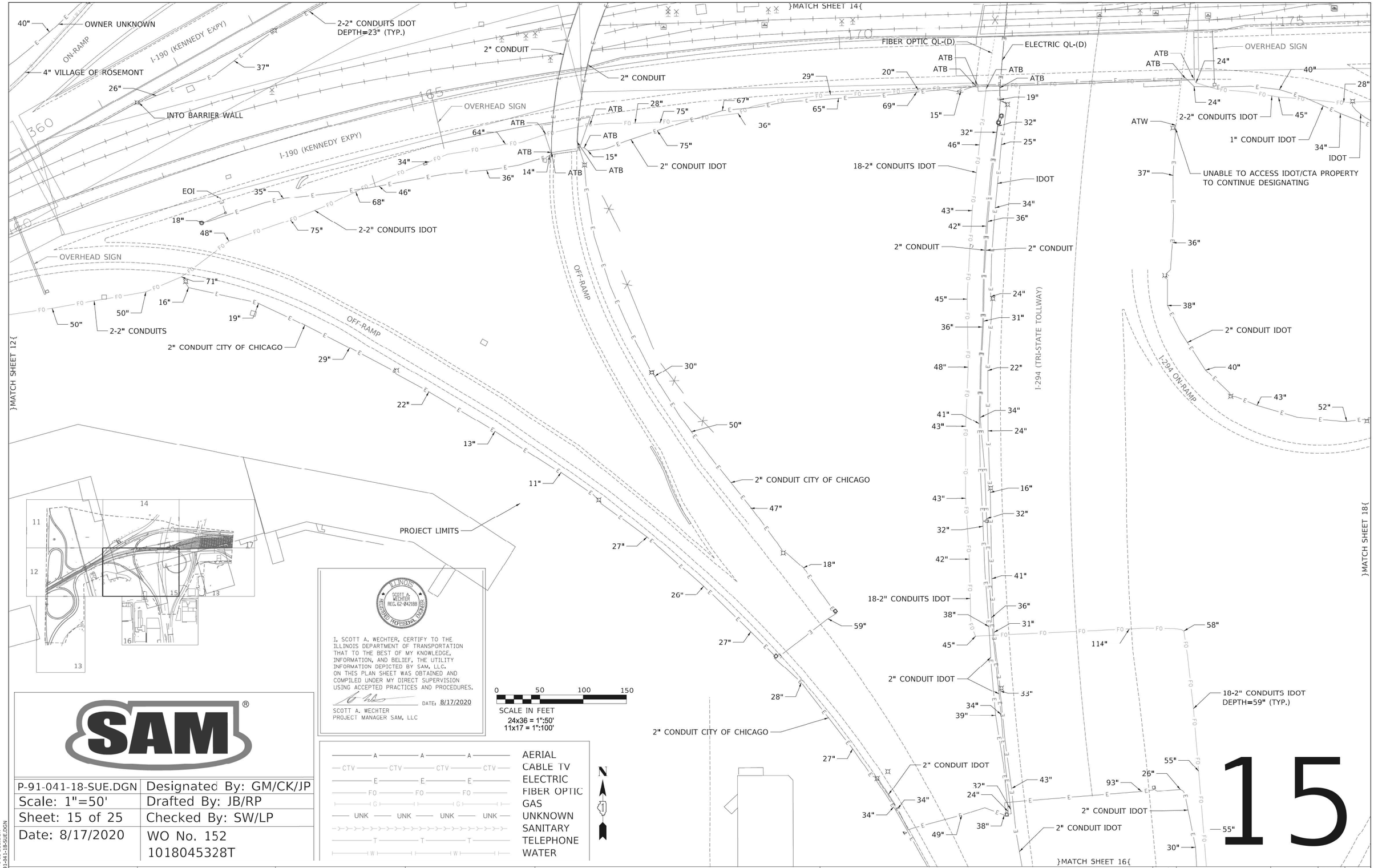
MODEL: P-91-041-18-SUE.DGN
FILE NAME: P-91-041-18-SUE.DGN

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MANNHEIM ROAD
TO I-294

SCALE: 1"=50' | SHEET 2 OF 5 SHEETS | STA. 363+50 | TO STA. 376+75

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 190 22 EW	COOK	234	51
		CONTRACT NO. 62U90		
	ILLINOIS	FED. AID PROJECT		



SAM®

P-91-041-18-SUE.DGN	Designated By: GM/CK/JP
Scale: 1"=50'	Drafted By: JB/RP
Sheet: 15 of 25	Checked By: SW/LP
Date: 8/17/2020	WO No. 152 1018045328T

MODEL: P-91-041-18-SUE.DGN
FILE NAME: P-91-041-18-SUE.DGN

USER NAME = UNTITLED	DESIGNED - G.M/C.K./J.P.	REVISED -	
	DRAWN - J.B./R.P.	REVISED -	
PLOT SCALE = 1":50'	CHECKED - S.W./L.P.	REVISED -	
PLOT DATE =	DATE - 8/17/2020	REVISED -	

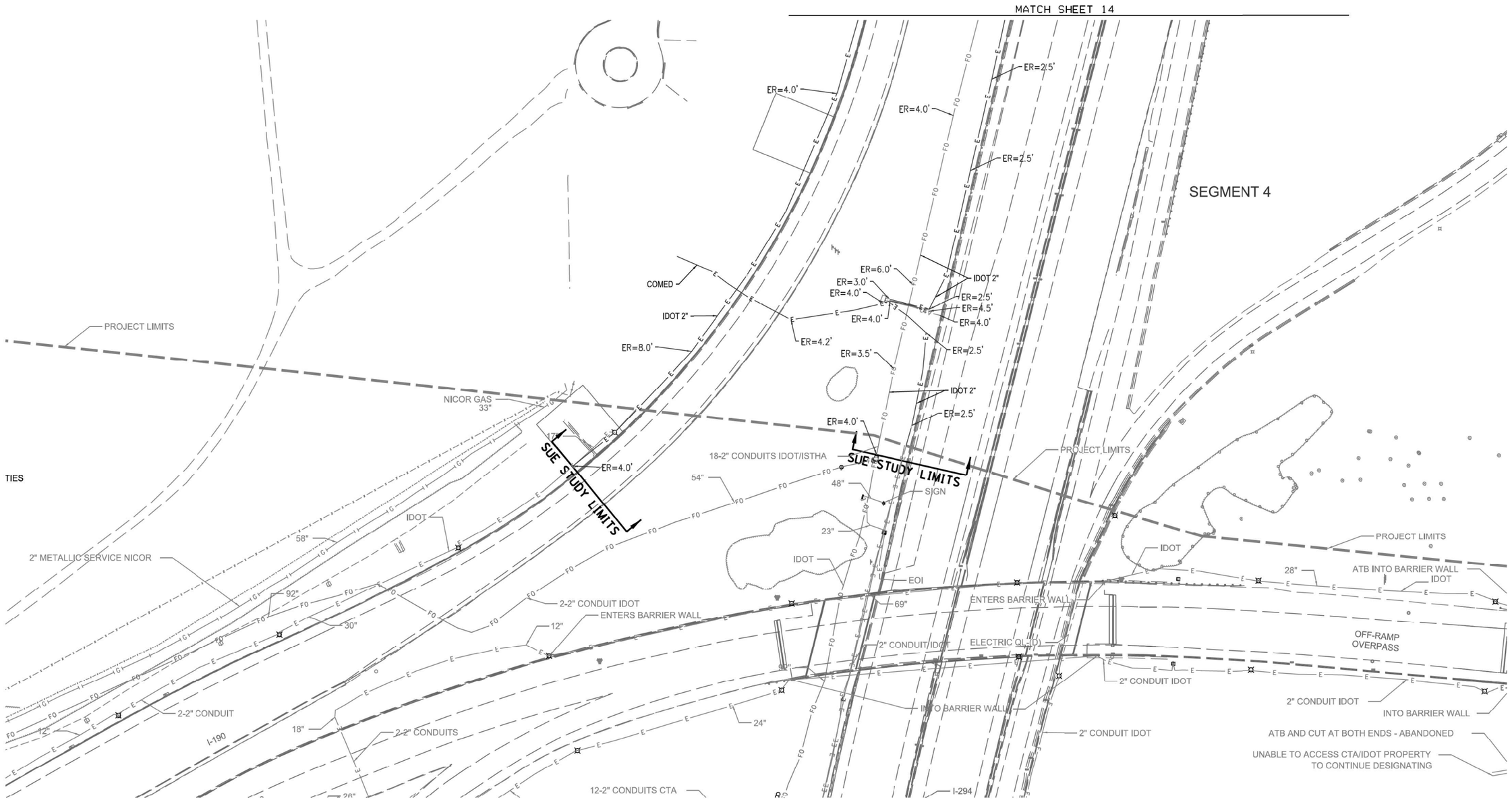
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MANNHEIM ROAD
TO I-294

SCALE: 1"=50' | SHEET 3 OF 5 SHEETS | STA. 160+00 | TO STA. 176+00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 190 22 EW	COOK	234	52
		CONTRACT NO. 62U90		
		ILLINOIS	FED. AID PROJECT	

15



SUE BOUNDARY LIMITS
UNKNOWN
TRAFFIC SIGNAL
SANITARY SEWER
CTV — CTV — CABLE TV
T — T — TELEPHONE
G — G — GAS
E — E — ELECTRIC
W — W — WATER
FO — FO — FIBER OPTIC
T2 TEST HOLE
FOI END OF INFORMATION

UTILITY OWNERS

GAS - NICOR / PEOPLES GAS
ELECTRIC - COMED / CITY OF CHICAGO
ELECTRIC - IDOT
FIBER OPTIC - IDOT - VERIZON - MCI
FIBER OPTIC - AT&T - LIGHTOWER
TELEPHONE - AT&T - VERIZON
CATV - COMCAST
WATER - VILLAGE OF ROSEMONT
WATER - CITY OF CHICAGO / JAWA
TRAFFIC SIGNAL - IDOT

UTILITIES SHOWN IN COLOR ON THESE PLANS AS DEPICTED IN THE LEGEND HAVE BEEN INVESTIGATED BY T2 IN ACCORDANCE WITH SUE INDUSTRY STANDARDS. ALL OTHER INFORMATION SHOWN HAS BEEN PROVIDED TO T2 BY OTHERS. T2'S SUE FIELD INVESTIGATION WAS PERFORMED 11/08/21 AND IS ONGOING. CHANGES TO UTILITIES AFTER 11/08/21 MAY HAVE BEEN MADE AND THEREFORE MAY RESULT IN VARIANCES FROM THIS PLAN. CONSIDERATION SHOULD BE GIVEN TO UPDATING THIS PLAN IF DEEMED ADVISABLE PRIOR TO FINAL DESIGN AND CONSTRUCTION.

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

ELECTRONIC READINGS (ER'S) ARE PROVIDED FOR INFORMATION ONLY. T2 DOES NOT GUARANTEE THE ACCURACY OF ELECTRONIC READINGS.

20 0 METERS 20 40
50 0 FEET 50 100

LICENSED PROFESSIONAL ENGINEER
KENNETH F. SLANINKA, Jr
062-055488
STATE OF ILLINOIS
signature
12/01/23
date
license expires 11-30-24

T2 utility engineers

CWA SURVEY
CLAASSEN, WHITE & ASSOCIATES, P.C.
LAND SURVEYORS
121 AIRPORT DRIVE, UNIT 1, JOLIET, ILLINOIS 60431
(815) 744-3720 claassenwhite@cwasurvey.com

T2 JOB NO. IL09520828.832
SUE PLAN PAGE: 13 OF 19

UTILITY QUALITY LEVEL 'A' = VISUALLY VERIFIED TEST HOLE
UTILITY QUALITY LEVEL 'B' = DESIGNATING/NON VISUALLY VERIFIED TEST HOLE
UTILITY QUALITY LEVEL 'C' = RESEARCH WITH SURVEY
UTILITY QUALITY LEVEL 'D' = RECORDS RESEARCH

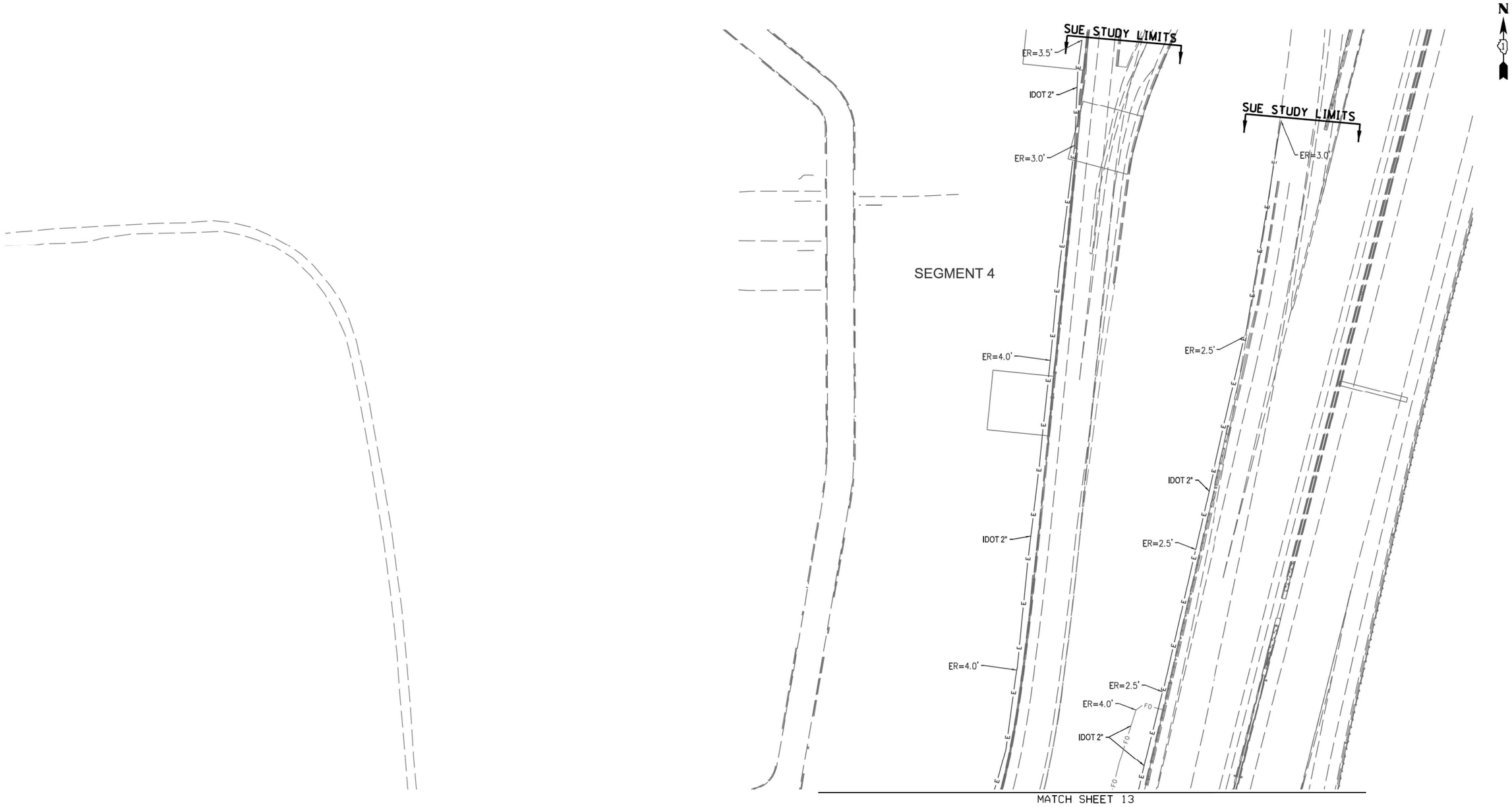
DESIGNED	TC/AA	REVISED
DRAWN	KLC	REVISED
CHECKED	KFS	REVISED
DATE	12/01/23	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

I-190
CHICAGO, IL

SHEET 4 OF 5 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 190 22 EW	COOK	234	53
		CONTRACT NO.	62U90	
FED. ROAD DIST. NO.	ILLINOIS	IDOT Project No.		



SUE BOUNDARY LIMITS
UNKNOWN
TRAFFIC SIGNAL
SANITARY SEWER
CABLE TV
TELEPHONE
GAS
ELECTRIC
WATER
FIBER OPTIC
T2 TEST HOLE
END OF INFORMATION

UTILITY OWNERS

GAS - NICOR / PEOPLES GAS
ELECTRIC - COMED / CITY OF CHICAGO
ELECTRIC - IDOT
FIBER OPTIC - IDOT - VERIZON - MCI
FIBER OPTIC - AT&T - LIGHTOWER
TELEPHONE - AT&T - VERIZON
CATV - COMCAST
WATER - VILLAGE OF ROSEMONT
WATER - CITY OF CHICAGO / JAWA
TRAFFIC SIGNAL - IDOT

UTILITIES SHOWN IN COLOR ON THESE PLANS AS DEPICTED IN THE LEGEND HAVE BEEN INVESTIGATED BY T2 IN ACCORDANCE WITH SUE INDUSTRY STANDARDS. ALL OTHER INFORMATION SHOWN HAS BEEN PROVIDED TO T2 BY OTHERS. T2'S SUE FIELD INVESTIGATION WAS PERFORMED 11/08/21 AND IS ONGOING. CHANGES TO UTILITIES AFTER 11/08/21 MAY HAVE BEEN MADE AND THEREFORE MAY RESULT IN VARIANCES FROM THIS PLAN. CONSIDERATION SHOULD BE GIVEN TO UPDATING THIS PLAN IF DEEMED ADVISABLE PRIOR TO FINAL DESIGN AND CONSTRUCTION.

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

ELECTRONIC READINGS (ER'S) ARE PROVIDED FOR INFORMATION ONLY. T2 DOES NOT GUARANTEE THE ACCURACY OF ELECTRONIC READINGS.

20 0 METERS 20 40
50 0 FEET 50 100

LICENSED PROFESSIONAL ENGINEER
KENNETH F. SLANINKA, Jr.
062-055488
STATE OF ILLINOIS
signature
12/01/23
date
license expires 11-30-24

T2 utility engineers

CWA SURVEY
CLAASSEN, WHITE & ASSOCIATES, P.C.
LAND SURVEYORS
121 AIRPORT DRIVE, UNIT 1, JOLIET, ILLINOIS 60431
(815) 744-3720 claassenwhite@cwasurvey.com

T2 JOB NO. IL09520828.832
SUE PLAN PAGE: 14 OF 19

UTILITY QUALITY LEVEL 'A' = VISUALLY VERIFIED TEST HOLE
UTILITY QUALITY LEVEL 'B' = DESIGNATING/NON VISUALLY VERIFIED TEST HOLE
UTILITY QUALITY LEVEL 'C' = RESEARCH WITH SURVEY
UTILITY QUALITY LEVEL 'D' = RECORDS RESEARCH

DESIGNED	TC/AA	REVISED
DRAWN	KLC	REVISED
CHECKED	KFS	REVISED
DATE	12/01/23	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

I-190
CHICAGO, IL

SHEET 5 OF 5 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 190 22 EW	COOK	234	54
		CONTRACT NO.	62U90	
FED. ROAD DIST. NO.	ILLINOIS	IDOT Project No.		

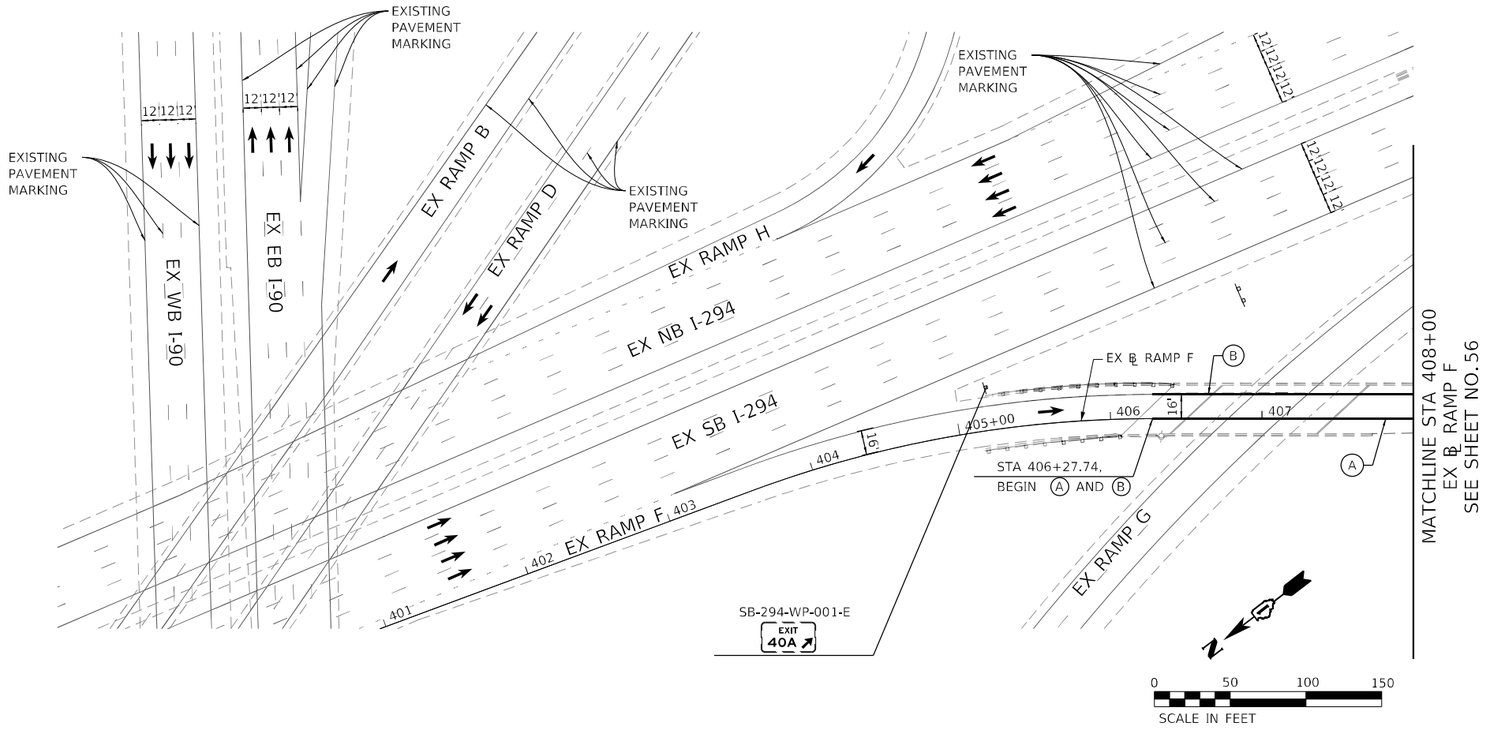
SIGNING SEQUENCE NUMBERING CODE

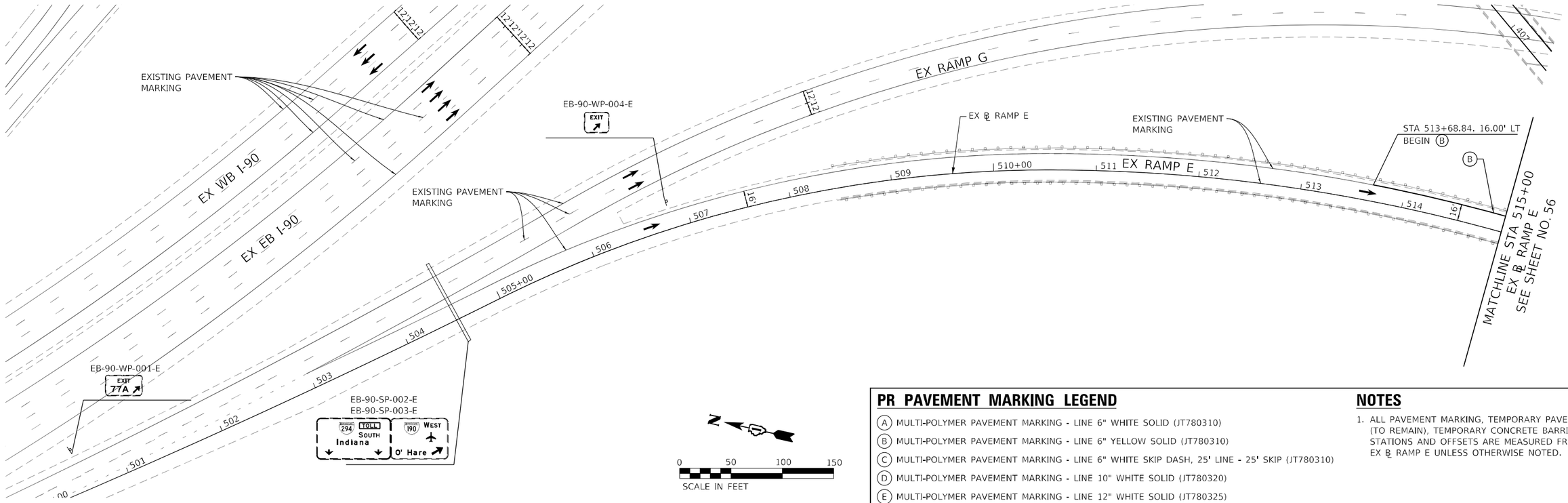
EB-190-SP-001-E

- DIRECTION OF TRAFFIC
  - EB - EASTBOUND
  - WB - WESTBOUND
- ROADWAY OR INTERCHANGE
  - 190 - INTERSTAGE HIGHWAY (I-190)
  - 294 - TRI-STATE TOLLWAY (I-294)
  - 90 - INTERSTATE HIGHWAY (I-90)
- ACTION
  - E - EXISTING TO REMAIN
  - P - PROPOSED
  - R - REMOVAL
  - RL - RELOCATE
- SIGN PANEL NUMBER
- MOUNTING TYPE
  - WP - WOOD POST
  - BS - BREAKAWAY STEEL
  - TS - TELESCOPING STEEL
  - BW - BARRIER WALL STAND
  - CM - CANOPY MOUNTED
  - LP - LIGHT POLE MOUNTED
  - MN - MONOTUBE MOUNTED
  - SP - SPAN TRUSS
  - CL - CANTILEVER
  - TG - TOLL GATE MOUNTED

SIGNING GENERAL NOTES

1. ALL SIGN SUPPORT, PANEL PLACEMENT AND MOUNTING SHALL BE IN ACCORDANCE WITH APPLICABLE PORTIONS OF SECTION F OF CURRENT ILLINOIS TOLLWAY STANDARD DRAWINGS.
2. ALL SIGNS SHALL CONFORM TO THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND THE ILLINOIS TOLLWAY'S ROADWAY SIGNING AND PAVEMENT MARKING GUIDELINES (RSPMG).
3. THE ACTUAL PROPOSED LOCATIONS FOR INSTALLATION OF THE SIGNS SHALL BE VERIFIED IN THE FIELD THE ENGINEER.





PR PAVEMENT MARKING LEGEND

- (A) MULTI-POLYMER PAVEMENT MARKING - LINE 6" WHITE SOLID (JT780310)
- (B) MULTI-POLYMER PAVEMENT MARKING - LINE 6" YELLOW SOLID (JT780310)
- (C) MULTI-POLYMER PAVEMENT MARKING - LINE 6" WHITE SKIP DASH, 25' LINE - 25' SKIP (JT780310)
- (D) MULTI-POLYMER PAVEMENT MARKING - LINE 10" WHITE SOLID (JT780320)
- (E) MULTI-POLYMER PAVEMENT MARKING - LINE 12" WHITE SOLID (JT780325)

NOTES

1. ALL PAVEMENT MARKING, TEMPORARY PAVEMENT (TO REMAIN), TEMPORARY CONCRETE BARRIER STATIONS AND OFFSETS ARE MEASURED FROM EX ℄ RAMP E UNLESS OTHERWISE NOTED.

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline.Ng	DESIGNED - JN	REVISED -	
	DRAWN - JN	REVISED -	
PLOT SCALE = 100.0000 ' / in.	CHECKED - MJE	REVISED -	
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING AND SIGNING PLANS

SCALE: 1"=50' | SHEET 1 OF 2 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	55
		CONTRACT NO. 62U90		
	ILLINOIS	FED. AID PROJECT		

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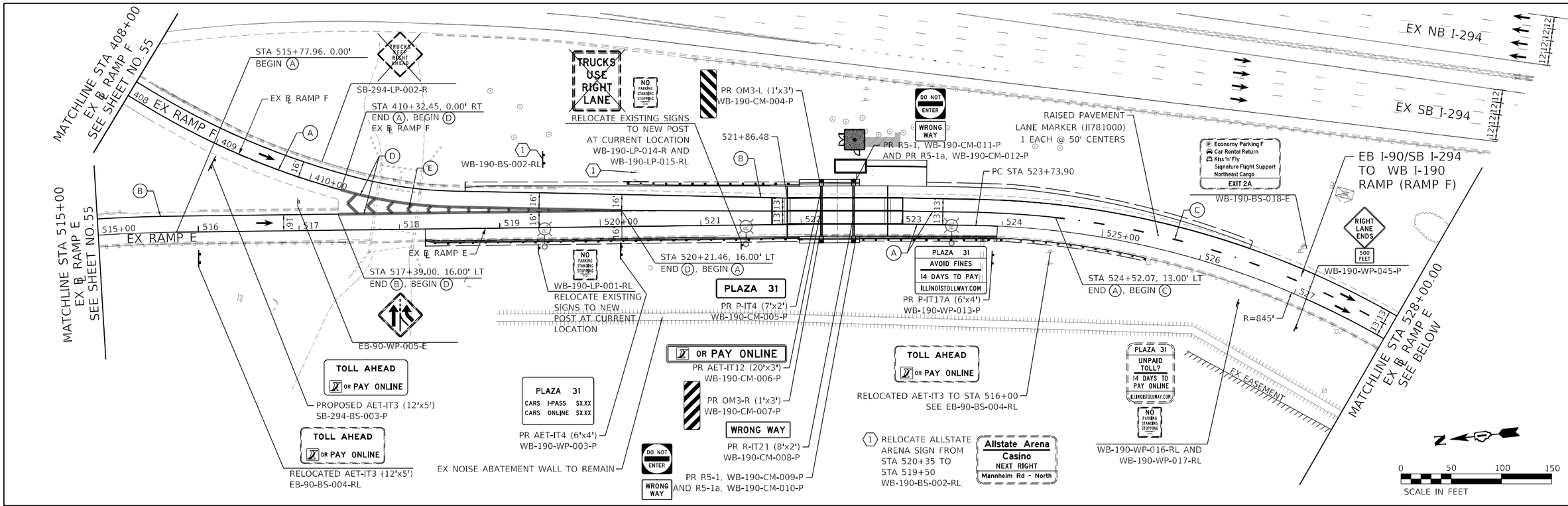

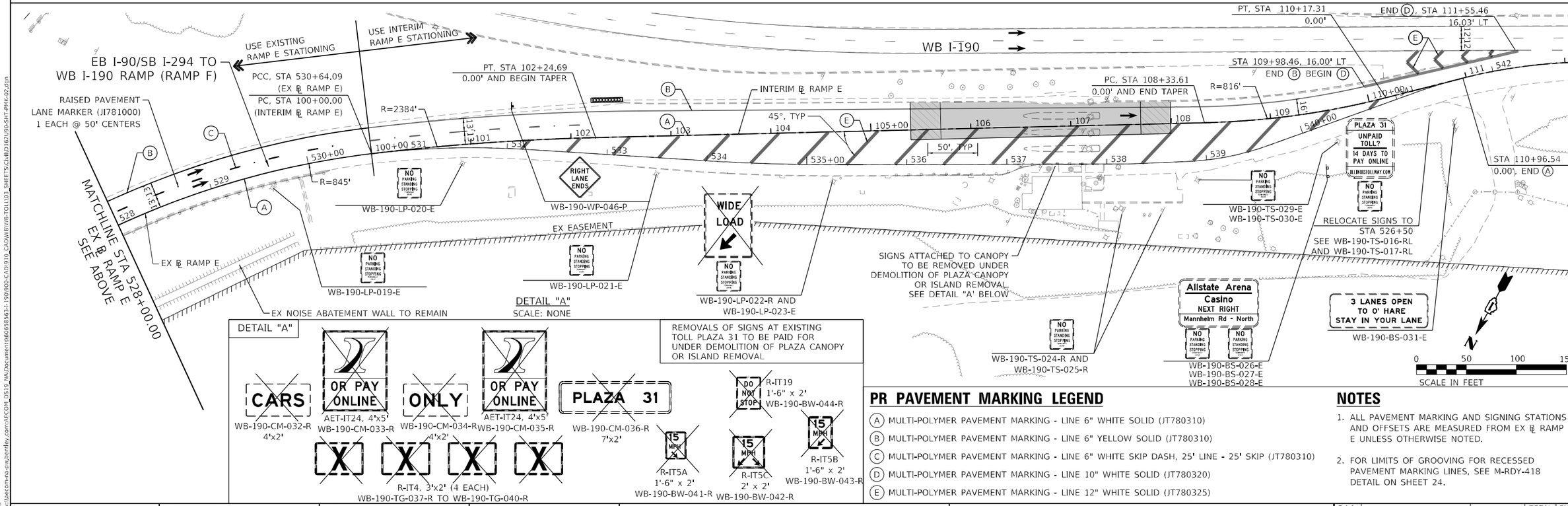

PR PAVEMENT MARKING LEGEND

- (A) MULTI-POLYMER PAVEMENT MARKING - LINE 6" WHITE SOLID (JT780310)
- (B) MULTI-POLYMER PAVEMENT MARKING - LINE 6" YELLOW SOLID (JT780310)
- (C) MULTI-POLYMER PAVEMENT MARKING - LINE 6" WHITE SKIP DASH, 25' LINE - 25' SKIP (JT780310)
- (D) MULTI-POLYMER PAVEMENT MARKING - LINE 10" WHITE SOLID (JT780320)
- (E) MULTI-POLYMER PAVEMENT MARKING - LINE 12" WHITE SOLID (JT780325)

NOTES

1. ALL PAVEMENT MARKING AND SIGNING STATIONS AND OFFSETS ARE MEASURED FROM EX ℄ RAMP E UNLESS OTHERWISE NOTED.
2. FOR LIMITS OF GROOVING FOR RECESSED PAVEMENT MARKING LINES, SEE M-RDY-418 DETAIL ON SHEET 24.

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = PIMSARNO	DESIGNED - JN	REVISED -	
	DRAWN - JN	REVISED -	
PLOT SCALE = 100.0000 ' / in.	CHECKED - MJE	REVISED -	
PLOT DATE = 6/18/2024	DATE - 5/3/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING AND SIGNING PLANS

SCALE: 1"=50' | SHEET 2 OF 2 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	56
		CONTRACT NO. 62U90		
		ILLINOIS	FED. AID PROJECT	

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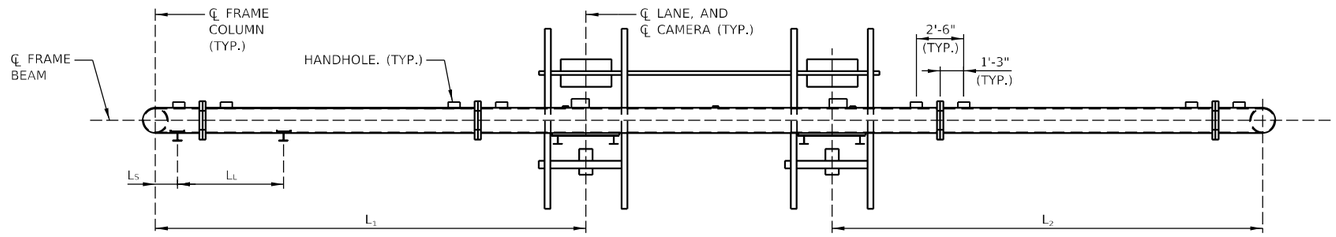
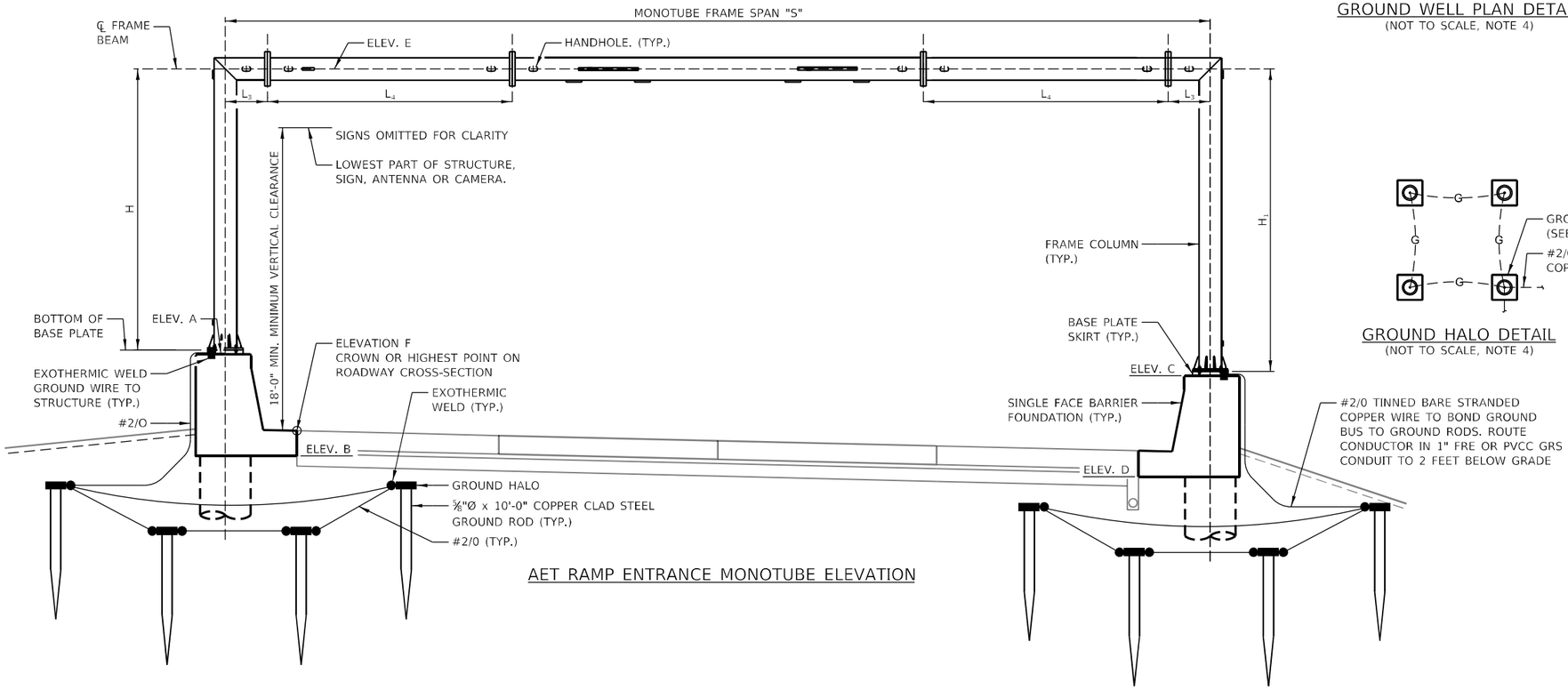
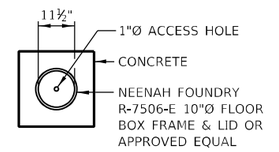


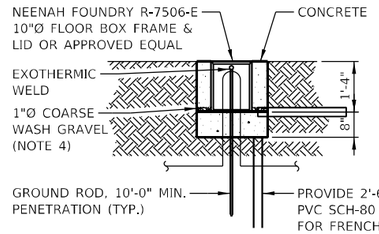
AET RAMP ENTRANCE MONOTUBE PLAN



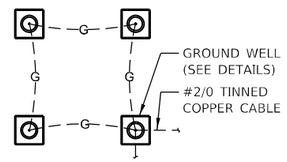
AET RAMP ENTRANCE MONOTUBE ELEVATION



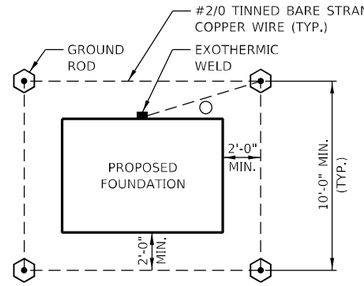
GROUND WELL PLAN DETAIL
(NOT TO SCALE, NOTE 4)



GROUND WELL ELEVATION DETAIL
(NOT TO SCALE, NOTE 4)



GROUND HALO DETAIL
(NOT TO SCALE, NOTE 4)



GROUNDING SCHEMATIC
(NOT TO SCALE)

SUMMARY

STRUCTURE NUMBER	STATION	SPAN "S" (FT.)	ELEVATIONS						PROPOSED MINIMUM VERTICAL CLEARANCE	SHEET 2 OF STANDARD F13								SHEET 6 OF STANDARD F15	FOUNDATION FOR OVERHEAD SIGN STRUCTURE		SINGLE FACE BARRIER	REINFORCEMENT BARS, EPOXY COATED (POUNDS)	PROTECTIVE COAT (SQ. YD.)
			A	B	C	D	E	F		L_S	L_L	L_1	L_2	L_3	L_4	H	H_1	"C"	CLASS SI CONCRETE (CU. YD.)	CLASS DS CONCRETE (CU. YD.)	CONCRETE STRUCTURES (CU. YD.)		
TS40.50T,SB(R)	522+20.15	58.5	645.38	639.33	644.10	638.10	662.33	640.83	18'-0"	1'-0"	4'-2"	22'-9"	22'-9"	2'-6"	14'-6½"	16'-8⅝"	18'-0"	10"	7.6	13.2	67.4	17,200	91.6
																		TOTAL	7.6	13.2	67.4	17,200	91.6

TOTAL BILL OF MATERIAL

PAY ITEM	DESCRIPTION	UNIT	TOTAL
50300225	CONCRETE STRUCTURES	CU YD	67.4
50300300	PROTECTIVE COAT	SQ YD	91.6
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	17,200
JS733630	OVERHEAD SIGN STRUCTURE, AET RAMP EXIT MONOTUBE TYPE (STEEL)	FOOT	58'-6"
JS734F10	FOUNDATION FOR OVERHEAD SIGN STRUCTURE, RAMP MONOTUBE TYPE	CU YD	20.8

NOTES:

1. WORK THIS SHEET WITH STANDARD F13 AND STANDARD F15.
2. GROUNDING SYSTEM SHALL BE PLACED WITHIN ILLINOIS TOLLWAY RIGHT-OF-WAY.
3. INSTALL MARKER TAPE DIRECTLY ABOVE GROUNDING ELECTRODE CONDUCTORS.
4. COARSE WASH GRAVEL SHALL BE CA-11 OF A QUALITY IN ACCORDANCE WITH SSRBC 1004.
5. THE COST OF ALL MATERIALS, EXOTHERMIC WELDING, GROUND WELL, GROUND RODS AND ALL OTHER ITEMS TO COMPLETE THE GROUNDING ELECTRODE SYSTEM SHALL BE INCLUDED IN PAY ITEM JS734F10 - FOUNDATION FOR OVERHEAD SIGN STRUCTURE, RAMP MONOTUBE TYPE.
6. GROUND RODS SHALL BE INSTALLED IN GROUND WELLS IN FINISHED GRADE UNLESS INSTALLED UNDER SHOULDERS OR PAVEMENT.

RME Rubinos & Mesia Engineers, Inc.
200 S. Michigan Avenue, Suite 1500, Chicago, IL 60604-2482

USER NAME = Jacqueline,Ng	DESIGNED - PAH	REVISED -
	DRAWN - PAH	REVISED -
PLOT SCALE = 0:2.000000 ':' / in.	CHECKED - JPM	REVISED -
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TS40.50T,SB(R) – RAMP F
OVERHEAD SIGN STRUCTURE ENTRANCE MONOTUBE TYPE (STEEL) AET

SCALE: | SHEET 1 OF 4 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	57
		CONTRACT NO. 62U90		
		ILLINOIS	FED. AID PROJECT	

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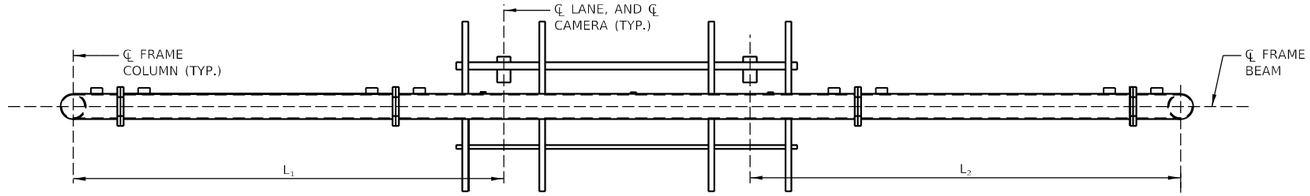
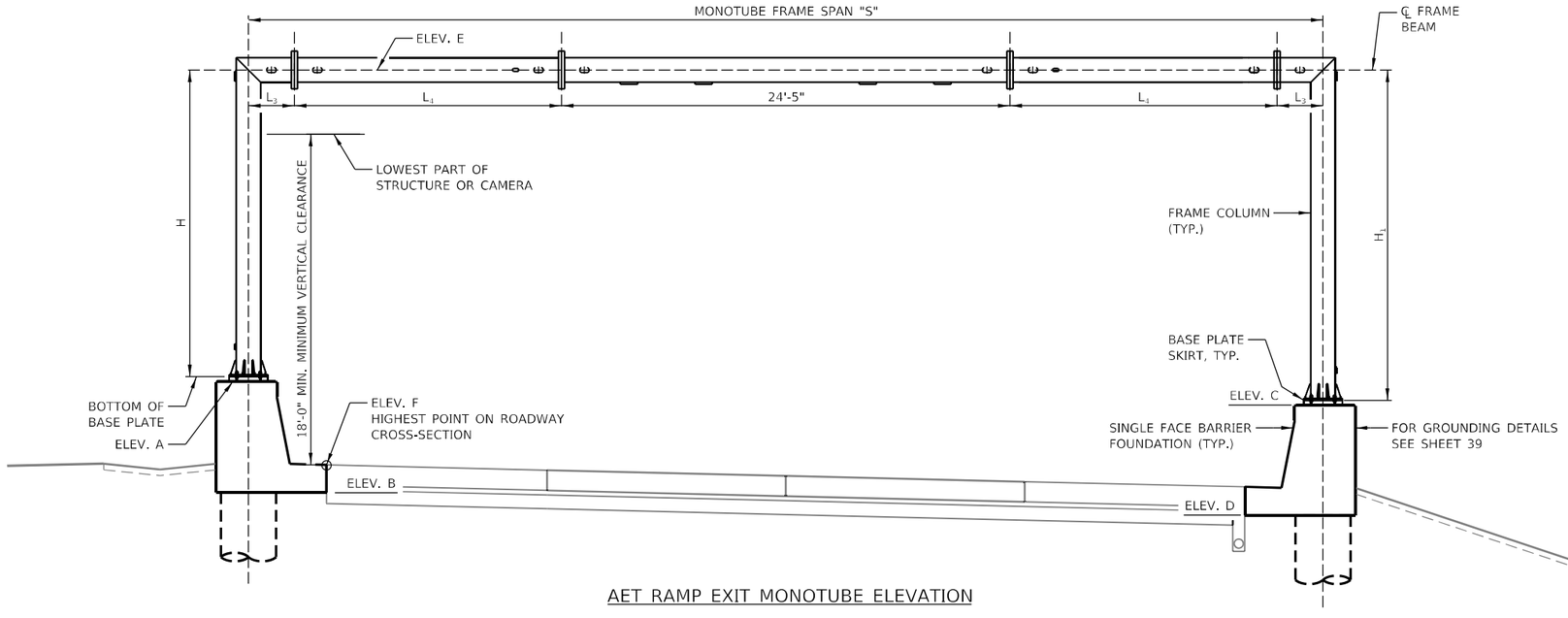


AET RAMP EXIT MONOTUBE PLAN



AET RAMP EXIT MONOTUBE ELEVATION

SUMMARY

STRUCTURE NUMBER	STATION	SPAN "S" (FT.)	ELEVATIONS						PROPOSED MINIMUM VERTICAL CLEARANCE	SHEET 2 OF STANDARD F13						SHEET 6 OF STANDARD F15	FOUNDATION FOR OVERHEAD SIGN STRUCTURE		SINGLE FACE BARRIER	REINFORCEMENT BARS, EPOXY COATED (POUNDS)	PROTECTIVE COAT (SQ. YD.)
			A	B	C	D	E	F		L_1	L_2	L_3	L_4	H	H_1	"C"	CLASS SI CONCRETE (CU. YD.)	CLASS DS CONCRETE (CU. YD.)	CONCRETE STRUCTURES (CU. YD.)		
TS40.50T,SB(R)	522+52.15	58.5	646.05	640.00	644.64	638.64	663.00	641.50	18'-6"	22'-9"	22'-9"	2'-6"	14'-6½"	16'-8⅜"	18'-1 1/16"	10"	7.6	13.2	-	5,080	8.8
																TOTAL	7.6	13.2	-	5,080	8.8

TOTAL BILL OF MATERIAL

PAY ITEM	DESCRIPTION	UNIT	TOTAL
50300300	PROTECTIVE COAT	SQ YD	8.8
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	5,080
JS733630	OVERHEAD SIGN STRUCTURE, AET RAMP EXIT MONOTUBE TYPE (STEEL)	FOOT	58'-6"
JS734F10	FOUNDATION FOR OVERHEAD SIGN STRUCTURE, RAMP MONOTUBE TYPE	CU YD	20.8

NOTE:
1. WORK THIS SHEET WITH STANDARD F13 AND STANDARD F15

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RME Rubinos & Mesia Engineers, Inc.
200 S. Michigan Avenue, Suite 1500, Chicago, IL 60604-2482

USER NAME = Jacqueline.Ng	DESIGNED - PAH	REVISED -	
	DRAWN - PAH	REVISED -	
PLOT SCALE = 0.200000 ':' / in.	CHECKED - JPM	REVISED -	
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TS40.50T,SB(R) – RAMP F
OVERHEAD SIGN STRUCTURE EXIT MONOTUBE TYPE (STEEL) AET

SCALE: | SHEET 2 OF 4 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	58
		CONTRACT NO. 62U90		
	ILLINOIS	FED. AID PROJECT		

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

BORING LOG OHS-59

WEI Job No.: KE225007

Client: AECOM
Project: I-190 Corridor from Bessie Coleman Drive to I-90
Location: Chicago, IL

Datum: NAVD 88
Elevation: 639.12 ft
North: 1938021.59 ft
East: 1110331.38 ft
Station:
Offset:

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	638.9	3-inch thick. black SILTY CLAY LOAM						
		--TOPSOIL--						
		Very stiff to hard, brown and gray SILTY CLAY to SILTY CLAY LOAM, trace gravel						
		--FILL--						
		--RDR 2--			1	5 6 8	3.00 P	16
			5		2	2 3 5	2.00 P	21
					3	3 5 6	4.51 B	17
	629.9	Stiff to hard, brown to gray SILTY CLAY to SILTY CLAY LOAM, trace to little gravel	10		4	4 6 6	NR	
		--RDR 2--			5	6 10 12	5.82 B	20
			15		6	5 7 8	3.28 B	18
					7	4 5 5	1.50 P	19
			20		8	2 4 5	1.64 B	27
		--wet spoon--			9	3 4 7	1.48 B	20
			25		10	3 3 4	1.39 B	13
					11	5 5 8	NR	
		--<0.5-inch wet sand seams--	30		12	5 9 13	2.79 B	17
	608.6	Very dense, gray SILT, trace gravel			13	13 29 29	NP	18
		--RDR 2--	35		14	22 37 42	NP	14
	603.6	Stiff to hard, gray SILTY CLAY LOAM to SILTY LOAM, trace gravel			15	9 10 10	8.28 B	11
		--RDR 2--	40		16	3 3 5	1.72 B	12

GENERAL NOTES

Begin Drilling: 12-08-2023 Complete Drilling: 12-08-2023
Drilling Contractor: Wang Testing Services Drill Rig: 21GeoA[96%]
Driller: AG&TC Logger: F. Bozga Checked by: JAB (-lab)
Drilling Method: 2.25" ID HSA; boring backfilled upon completion

WATER LEVEL DATA

While Drilling: 20.50 ft
At Completion of Drilling: 34.00 ft
Time After Drilling: NA
Depth to Water: NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC KE225007.GPJ WANGENG.GDT 1/15/24

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

BORING LOG OHS-59

WEI Job No.: KE225007

Client: AECOM
Project: I-190 Corridor from Bessie Coleman Drive to I-90
Location: Chicago, IL

Datum: NAVD 88
Elevation: 639.12 ft
North: 1938021.59 ft
East: 1110331.38 ft
Station:
Offset:

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
					17	11 14 17	5.99 B	15
	594.1		45		18	8 11 17	4.92 B	10
		Boring terminated at 45.00 ft	50					
			55					
			60					

GENERAL NOTES

Begin Drilling: 12-08-2023 Complete Drilling: 12-08-2023
Drilling Contractor: Wang Testing Services Drill Rig: 21GeoA[96%]
Driller: AG&TC Logger: F. Bozga Checked by: JAB (-lab)
Drilling Method: 2.25" ID HSA; boring backfilled upon completion

WATER LEVEL DATA

While Drilling: 20.50 ft
At Completion of Drilling: 34.00 ft
Time After Drilling: NA
Depth to Water: NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC KE225007.GPJ WANGENG.GDT 1/15/24

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RME Rubinos & Mesia Engineers, Inc.
200 S. Michigan Avenue, Suite 1500, Chicago, IL 60604-2482

USER NAME = phodina	DESIGNED - PAH	REVISED -
	DRAWN - PAH	REVISED -
PLOT SCALE = 0.2,000000 ':' / in.	CHECKED - JPM	REVISED -
PLOT DATE = 3/15/2024	DATE - 3/15/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TS40.50T,SB(R) – SOIL BORING LOG 1
OVERHEAD SIGN STRUCTURE ENTRANCE MONOTUBE TYPE (STEEL) AET

SCALE: | SHEET 3 OF 4 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	59
		CONTRACT NO. 62U90		
	ILLINOIS FED. AID PROJECT			

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

BORING LOG OHS-60

WEI Job No.: KE225007

Client AECOM
Project I-190 Corridor from Bessie Coleman Drive to I-90
Location Chicago, IL

Datum: NAVD 88
Elevation: 640.27 ft
North: 1938036.35 ft
East: 1110282.30 ft
Station:
Offset:

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	639.4	11-inch thick ASPHALT --PAVEMENT--						
	639.1	3-inch thick, crushed CONCRETE --PAVEMENT--			1	14 17 7	NP	16
	637.3	Medium dense, gray Gravelly LOAM; dry --FILL--						
		Very stiff, brown and gray SILTY CLAY, trace gravel --FILL-- --RDR 2--	5		2	5 6 6	2.38 B	18
					3	3 3 6	2.21 B	24
	632.3	Stiff to hard, brown to gray SILTY CLAY, trace gravel --RDR 2--	10		4	2 4 3	2.21 B	20
					5	4 7 8	5.00 B	19
			15		6	6 11 15	8.20 B	19
					7	3 7 8	4.89 B	20
			20		8	3 3 5	1.89 B	28
	618.8	Loose to medium dense, gray SILT; saturated --RDR 2--			9	2 4 4	NP	23
			25		10	3 5 9	NP	20
	614.8	Very stiff, gray SILTY CLAY to SILTY CLAY LOAM, trace gravel --RDR 2--			11	5 8 11	2.95 B	19
		--3-inch thick, gravelly sandy loam; wet--	30		12	4 8 8	2.87 B	15
					13	4 8 11	3.69 B	17
	607.3	Very dense, gray SILT; damp --RDR 2--	35		14	26 43 42	NP	14
					15	22 30 32	NP	14
	602.3	Very stiff to hard, gray SILTY CLAY LOAM, trace gravel --RDR 2--	40		16	11 8 10	2.79 B	13

WANGENGINC KE225007.GPJ WANGENG.GDT 1/15/24

GENERAL NOTES

Begin Drilling 12-04-2023 Complete Drilling 12-04-2023
Drilling Contractor Wang Testing Services Drill Rig 21GeoA[96%]
Driller AG&TC Logger F. Bozga Checked by JAB (-lab)
Drilling Method 2.25" ID HSA; boring backfilled upon completion

WATER LEVEL DATA

While Drilling ▽ 21.50 ft
At Completion of Drilling ▼ 18.00 ft
Time After Drilling NA
Depth to Water ▽ NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

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

BORING LOG OHS-60

WEI Job No.: KE225007

Client AECOM
Project I-190 Corridor from Bessie Coleman Drive to I-90
Location Chicago, IL

Datum: NAVD 88
Elevation: 640.27 ft
North: 1938036.35 ft
East: 1110282.30 ft
Station:
Offset:

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
					17	4 10 11	3.94 B	14
					18	8 14 14	4.25 P	14
	595.3	Boring terminated at 45.00 ft	45					
			50					
			55					
			60					

WANGENGINC KE225007.GPJ WANGENG.GDT 1/15/24

GENERAL NOTES

Begin Drilling 12-04-2023 Complete Drilling 12-04-2023
Drilling Contractor Wang Testing Services Drill Rig 21GeoA[96%]
Driller AG&TC Logger F. Bozga Checked by JAB (-lab)
Drilling Method 2.25" ID HSA; boring backfilled upon completion

WATER LEVEL DATA

While Drilling ▽ 21.50 ft
At Completion of Drilling ▼ 18.00 ft
Time After Drilling NA
Depth to Water ▽ NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

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RME Rubinos & Mesia Engineers, Inc.
200 S. Michigan Avenue, Suite 1500, Chicago, IL 60604-2482

USER NAME = phodina	DESIGNED - PAH	REVISED -	
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PLOT SCALE = 0:2.000000 ':' / in.	CHECKED - JPM	REVISED -	
PLOT DATE = 3/15/2024	DATE - 3/15/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TS40.50T,SB(R) – SOIL BORING LOG 2
OVERHEAD SIGN STRUCTURE ENTRANCE MONOTUBE TYPE (STEEL) AET

SCALE: | SHEET 4 OF 4 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	60
		CONTRACT NO. 62U90		
	ILLINOIS FED. AID PROJECT			

CONDUIT SIZES

1	RIGID METALLIC CONDUIT ¾"
2	RIGID METALLIC CONDUIT 1"
3	RIGID METALLIC CONDUIT 1¼"
4	RIGID METALLIC CONDUIT 1½"
5	RIGID METALLIC CONDUIT 2"
6	RIGID METALLIC CONDUIT 2½"
7	RIGID METALLIC CONDUIT 3"
9	RIGID METALLIC CONDUIT 4"
12	RIGID NON-METALLIC CONDUIT 1" SCHEDULE 40
15	RIGID NON-METALLIC CONDUIT 2" SCHEDULE 40
17	RIGID NON-METALLIC CONDUIT 3" SCHEDULE 40
18	NOT USED
19	RIGID NON-METALLIC CONDUIT 4" SCHEDULE 40
22	RIGID NON-METALLIC CONDUIT 1" SCHEDULE 80
24	RIGID NON-METALLIC CONDUIT 1½" SCHEDULE 80
25	RIGID NON-METALLIC CONDUIT 2" SCHEDULE 80
27	RIGID NON-METALLIC CONDUIT 3" SCHEDULE 80
29	RIGID NON-METALLIC CONDUIT 4" SCHEDULE 80
32	RIGID METALLIC CONDUIT PVC COATED 1"
33	RIGID METALLIC CONDUIT PVC COATED 1¼"
34	RIGID METALLIC CONDUIT PVC COATED 1½"
35	RIGID METALLIC CONDUIT PVC COATED 2"
37	RIGID METALLIC CONDUIT PVC COATED 3"
39	RIGID METALLIC CONDUIT PVC COATED 4"
40	1½" COILABLE PVC CABLE DUCT
41	RIGID NON-METALLIC CONDUIT 4" SCHEDULE 80 WITH 1" INNER DUCTS
42	1" COILABLE NON-METALLIC CONDUIT
43	2" COILABLE NON-METALLIC CONDUIT
44	4" COILABLE NON-METALLIC CONDUIT
45	3" COILABLE NON-METALLIC CONDUIT
46	1 1/2" COILABLE NON-METALLIC CONDUIT

TOLL EQUIPMENT WIRING CABLE/CONDUIT SCHEDULE

SYMBOL	CABLE DESCRIPTION	REMARKS
1	1-6PR #22 SHLD	NOTE 8
2	1-3/C #12 SHLD	NOTE 3
3	1-3PR #22 SHLD	NOTE 8
4	1-4/C #12 SHLD	NOTES 1 & 3
5	2-1/C #12, 1-1/C #12(GRD)	NOTE 1
6	1-1PR #14 SHLD (LOOP LEAD IN)	
7	1-1/C #14 (LOOP WIRE)	
8	1-1/C #6 BARE TINNED (GRD)	
9	1-7/C #12 SHLD	NOTE 3
10	1-3/C #12 SHLD	NOTE 3
11	2-1PR #22 SHLD	NOTE 1
12	1-2/C #12 SHLD	NOTE 3
13	1-2 PR #24 (RS 422)	NOTE 7
14	NOT USED	
15	1-COAXIAL ANTENNA CABLE	
16	1- 9/C #22 IND SHLD	
17	1-1/C #4/0 (GRD BARE TINNED COPPER CONDUCTOR)	
18	1-1/C #8 (GRD BARE TINNED COPPER CONDUCTOR)	
19	1-1/C #2 (GRD BARE TINNED COPPER CONDUCTOR)	
20	1-4PR #24 (CATEGORY 6)	
21	1-6 STRAND, SINGLE MODE FIBER OPTIC CABLE	ARMORED CABLE
22	1-24 STRAND, SINGLE MODE FIBER OPTIC CABLE	ARMORED CABLE
23	1-36 STRAND, SINGLE MODE FIBER OPTIC CABLE	ARMORED CABLE
24	1-48 STRAND, SINGLE MODE FIBER OPTIC CABLE	ARMORED CABLE
25	1-12PR #22 SHLD	
26	1-9/C #18 SHLD	NOTE 4
27	2-2/C #18 SHLD	NOTE 4
28	1-6PR #22 SHLD	
29	1-3PR #24 SHLD	NOTE 6
30	1-3/C #10 SHLD	
31	1-2PR #22 SHLD	
32	OEM CABLE (POWER AND VIDEO)	NOTE 10
33	1 - 1PR #22 SHLD (SENSE WIRE VES CAM)	
34 THRU 49	RESERVED FOR STANDARD DRAWINGS	
50	CAT6 CABLE	OUTDOOR RATED
51	SYNC CABLE, TWISTED PAIR # 24. BELDEN 89730	NOTE 11

TOLL EQUIPMENT WIRING CABLE/CONDUIT SCHEDULE

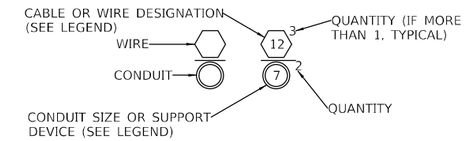
SYMBOL	CABLE DESCRIPTION	CONDUIT SIZE EXPOSED	CONDUIT SIZE EMBEDED OR UNDERGROUND	REMARKS
101	(4) 1/C #3/0 (1) 1/C #4 (GRD)		4"	
102	(4) 1/C 250 MCM (1) 1/C #1/0 (GRD)		4"	
103	(4) 1/C #2 (1) 1/C #8 (GRD)		2"	
104	(3) 1/C #10 (1) 1/C #10 (GRD)	1"	1"	
105	(4) 1/C #10 (1) 1/C #10 (GRD)	1"	1"	
106	(2) 1/C #12 (1) 1/C #12 (GRD)	1"	1"	
107	(4) 1/C #12 (1) 1/C #12 (GRD)	1"	1"	
108	(4) 1/C #12 (1) 1/C #12 (GRD)	1"	1"	
109	(5) 1/C #12 (1) 1/C #12 (GRD)	1"	1"	
110	(5) 1/C #12 (1) 1/C #12 (GRD)	1"	2"	
111	(6) 1/C #12 (1) 1/C #12 (GRD)	1"	1"	
112	(8) 1/C #12 (1) 1/C #12 (GRD)	1"	1"	
113	1" CABLE DUCT WITH (2) 1/C #12 (1) 1/C #12 (GRD)	1"	1"	
114	1" CABLE DUCT WITH (3) 4/C #12 (SHLD)	1"	1"	
115	(3) 1/C #2/0 & 1 #8 (GND)		4"	
116	(2) 1/C #8 (1) 1/C #8 (GRD) 600V			
117	(3) 1/C #250MCM 600V (1) 1/C #1/0 (GRD) 600V		3"	
118	(2) 1/C #4 (1) 1/C #8 (GRD) 600V		2"	
119	(1) 16 AWG 6C FPLR (6) 1PR #22 SHLD	1"	1"	SECURITY-CARD ACCESSS
120	(2) 1/C #16 SHIELDED PAIR	1"	1"	FIRE ALARM
121	(2) 1/C #10 (1) 1/C #10 (GRD)	1"	1"	
122	(3) 1/C #3/0 (1) 1/C #1/0 (GRD)		3"	
123	(3) 1/C #1/0 (1) 1/C #4 (GRD)		3"	
124	(1) 1/C #6 SHLD			NOTE 10
125	144 STRANDS SM, FIBER OPTIC			ARMORED CABLE
126	12 STRANDS SM, FIBER OPTIC			ARMORED CABLE
127	2#2, 1#6		2"	
128	2#1, 1#6		2"	
129	3#8, 1#8		2"	
130	2#6, 1#8		1¼"	

TOLL EQUIPMENT WIRING CABLE/CONDUIT SCHEDULE

SYMBOL	CABLE DESCRIPTION	CONDUIT SIZE EXPOSED	CONDUIT SIZE EMBEDED OR UNDERGROUND	REMARKS
131	48 STRANDS SM. FIBER OPTIC			ARMORED CABLE
132	(3) 1/C #1 (1) 1/C #8 (GRD)			
133	(3) 1/C #2 (1) 1/C #8 (GRD)			
134	(3) 1/C #4 (1) 1/C #8 (GRD)			
135	(3) 1/C #12	1"	1"	
136	(4) 1/C 500 MCM (1) 1/C #1/0 (GRD)			
137	(4) 1/C 500 MCM (1) 1/C #4 (GRD)			
138	1/C #12 LOCATE/TRACER WIRE			

NOTES:

1. MINIMUM SIZE OF EXPOSED CONDUIT IS ¾". MINIMUM SIZE OF EMBEDDED CONDUIT IS 1". EMBEDDED CONDUIT SHALL BE PVC COATED RIGID STEEL.
2. STANDARD AND QUANTUM LOOPS SHALL BE FURNISHED AND INSTALLED BY THE ILLINOIS TOLLWAY. LOOP LEAD-IN CABLING IS FURNISHED AND INSTALLED BY THE CONTRACTOR.
3. MULTI-CONDUCTOR SHIELDED CABLE #12 AWG FOR NORMAL AND UPS POWER, SHALL BE COLOR CODED AS SPECIFIED IN THE SPECIAL PROVISIONS OF THE CONTRACT.
4. MULTI-CONDUCTOR SHIELDED CABLE #14 AWG THROUGH #18 AWG FOR CONTROL USE SHALL BE COLOR CODED PER ICEA-NEC (K-2) STANDARD.
5. NOT USED
6. PROVIDE SPD PROTECTION ADAPTERS FOR ALL ANTENNA CABLES ENTERING BUILDING. IN-LINE ADAPTERS MUST BE INSTALLED AT ALL CONNECTIONS TO THE RACK, ELPAC AND IPASS EQUIPMENT. THE SPD PROTECTION ADAPTERS SHALL BE PHOENIX CONTACT (OR EQUIVALENT) "COAXTRAX SERIES" CATALOG NUMBER C-UFB-5DC/E.
7. PROVIDE SPD PROTECTION ADAPTERS FOR ALL RS-422 AND CATEGORY 6 CABLES ENTERING THE BUILDING. IN-LINE ADAPTERS MUST BE INSTALLED AT ALL CONNECTIONS TO THE CISCO SWITCH, ELPAC AND IPASS EQUIPMENT. THE SPD ADAPTER FOR RS-422 CABLES SHALL BE PHOENIX CONTACT (OR EQUIVALENT) DATATRAB D-UFB-V11/BS-B. THE SPD ADAPTER FOR CATEGORY 6 CABLES SHALL BE PHOENIX CONTACT (OR EQUIVALENT) DATATRAB D-LAN-CAT.6+.
8. PLENUM RATED CABLE INSTALLED IN EMBEDDED CONDUIT.
9. LANE VIOLATION CAMERA IS MOUNTED ON MONOTUBE.
10. PROVIDE SURGE PROTECTION DEVICE FOR ALL CABLES FROM EXTERNAL DEVICES ROUTED INTO THE PLAZA BUILDING INCLUDING ALL CAT6, ANTENNA AND POWER CABLES.
11. ANTENNA READER SYNC CABLE IN CONDUIT MUST BE INSTALLED BETWEEN TWO PLAZAS WHEN THEIR ANTENNAS ARE WITHIN 500FT. OF EACH OTHER.



DESIGNATION KEY

MODEL: TOLL EQUIPMENT WIRING
FILE NAME: pw:\\aecom-us-pw.bentley.com:aECOM D519 IMADocuments\606583\3-1909104-CAD910 CAD\WB\WB-TOLL103_SHEETS\Lighting\D162U90-SHT-Elec-TollPlaza-001.dgn

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USER NAME = Jacqueline,Ng	DESIGNED - UCM	REVISED -	
	DRAWN - CAM	REVISED -	
PLOT SCALE = 0.166667 ' / in.	CHECKED - GRR	REVISED -	
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CABLE /CONDUIT SCHEDULE AND GENERAL NOTES

SCALE: N.T.S. | SHEET 1 OF 41 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	61
		CONTRACT NO. 62U90		
		ILLINOIS	FED. AID PROJECT	

BILL OF MATERIALS

DESCRIPTION	UNIT	TOTAL
REMOVE EXISTING HANDHOLE	EACH	1
ELECTRIC SERVICE INSTALLATION	EACH	1
HEAVY-DUTY HANDHOLE, TOLLWAY	EACH	1
ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 8	FOOT	1110
LIGHT POLE FOUNDATION (ROADWAY) STEEL HELIX (7 FT) OR CONCRETE	EACH	1
REMOVAL OF PLAZA EQUIPMENT	L SUM	1
NATURAL GAS SERVICE	EACH	1
VIDEO POWER JUNCTION BOX MODEL A, NEMA 1	EACH	2
SELF SUPPORTING COMMUNICATION TOWER FOUNDATION	L SUM	1
SELF SUPPORTING COMMUNICATION TOWER STRUCTURAL STEEL	L SUM	1
GROUNDING SYSTEM	L SUM	1
PLAZA ELECTRICAL WORK	L SUM	1
CONTROL BUILDING FOUNDATION, 14' X 32'	EACH	1
PRECAST CONCRETE PLAZA CONTROL BUILDING, LOCATION 1	L SUM	1
VES CAMERA WASH SYSTEM, SINGLE CABINET, NITROGEN GENERATOR	L SUM	1
ITS SECURITY CCTV CAMERA	EACH	2
ITS SECURITY CCTV CAMERA, FIXED	EACH	2
CONCRETE FILLED PIPE BOLLARDS	EACH	3
HANDHOLE FOR SINGLE MODE FIBER OPTIC CABLE, 36"X60"X36"	EACH	1
LOCATE POST FOR FIBER OPTIC CABLE	EACH	1
CABLE MARKER WARNING SIGN, WITH POST, FOR FIBER OPTIC CABLE	EACH	2
FIBER OPTIC CABLE, SINGLE MODE, ARMORED, 48 FIBERS	FOOT	1560
FIBER OPTIC TRANSCEIVER, TYPE 1	EACH	8
FIBER OPTIC TRANSCEIVER, TYPE 2	EACH	4
FIBER OPTIC CONNECTOR, SC-LC, SINGLE MODE DUPLEX	EACH	12
NETWORK EQUIPMENT, TYPE 1	EACH	1
NETWORK EQUIPMENT, TYPE 2	EACH	1
UNDERGROUND CONDUIT, COILABLE NONMETALLIC CONDUIT, SDR 11, 1 1/2" DIA.	FOOT	1110
UNDERGROUND CONDUIT, COILABLE NONMETALLIC CONDUIT, SDR 11, 2" DIA.	FOOT	585
UNDERGROUND CONDUIT, COILABLE NONMETALLIC CONDUIT, SDR 11, 4" DIA.	FOOT	200
GROUND MOUNTED LIGHT POLE, GALVANIZED STEEL, 22.5 FT., WITHOUT MAST ARM	EACH	1
LOCATOR TRACER WIRE	FOOT	800
LOCATOR TRACER WIRE, DIRECTIONAL BORE	FOOT	310

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PLOT SCALE = 0.166667 ' / in.	CHECKED - GRR	REVISED -	
PLOT DATE = 5/29/2024	DATE - 5/30/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLL COLLECTION FACILITIES BILL OF MATERIALS

SCALE: N.T.S. | SHEET 2 OF 41 SHEETS | STA. | TO STA.

F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	62
		CONTRACT NO. 62U90		
	ILLINOIS FED. AID PROJECT			

MODEL: LEGEND
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LEGEND

- EXPOSED CONDUIT
- CONDUIT IN SLAB
- UNDERGROUND CONDUIT OR CABLE DUCT
- CONDUIT OR CABLE DUCT IN CASING
- HOME RUN TO PANEL AS NOTED
- INDICATES CIRCUIT TURNING DOWN
- INDICATES CIRCUIT TURNING UP
- GROUND ROD
- GROUNDING TRIAD
- EXPOSED GROUND CONDUCTOR (G)
- UNDERGROUND GROUND CONDUCTOR (G)
- 4'X4' HEAVY DUTY HANDHOLE (POWER) (H-P)
- 4'X4' HEAVY DUTY HANDHOLE (COMMUNICATIONS) (H-C)
- 36"X60"X36" COMPOSITE CONCRETE HANDHOLE (HH)

ARM LENGTH
MOUNTING HEIGHT
CIRCUIT NUMBER
S15-50-C1
TYPE A
DISTRIBUTION TYPE AS SPECIFIED ON THE PLANS

LIGHT STANDARD DESCRIPTION
LED LUMINAIRES

SYMBOL LIST

SYMBOL	DESCRIPTION
30 KVA 480-208Y/120V 3}, 4W	TRANSFORMER. 30 KVA DENOTES TRANSFORMER RATING. 480-208Y/120V DENOTES VOLTAGE. 3} DENOTES 3 PHASE. 4W DENOTES 4 WIRE.
(1)	LEGEND NUMBER FOR CABLE & CONDUIT. (SEE CABLE AND CONDUIT SCHEDULES).
1	MOTOR. NUMBER 1 DENOTES HORSEPOWER.
N E L ATS 260A 3P,4W	AUTOMATIC TRANSFER SWITCH (ATS). N DENOTES NORMAL SOURCE. E DENOTES EMERGENCY SOURCE. L DENOTES LOAD. 260A DENOTES 260 AMPERE ATS RATING. 3P DENOTES 3 POLE. 4W DENOTES 4 WIRE.
JB OR J	JUNCTION BOX.
60A	DISCONNECT SWITCH. 60A DENOTES 60 AMPERES.
50A	CIRCUIT BREAKER. 50A DENOTES 50 AMPERES.
200A 3PDT. SW.	MANUAL TRANSFER SWITCH. 200A DENOTES 200 AMPERES. 3PDT DENOTES 3 POLE DOUBLE-THROW.
WH	SELF CONTAINED UTILITY METERING.
G	STANDBY GENERATOR.
30A 2P	PANEL CIRCUIT BREAKER. 30A DENOTES 30 AMPERES. 2P DENOTES 2 POLES.
E	ELECTRICALLY HELD LIGHTING CONTACTOR.
C	MECHANICALLY HELD LIGHTING COIL.
CR	CONTROL RELAY COIL.
SPD WITH LP	TRANSIENT VOLTAGE SURGE SUPPRESSION WITH LIGHTNING PROTECTION

ABBREVIATIONS

ACM	AUTOMATIC COIN MACHINE
AET	ALL ELECTRONIC TOLL
AFF	ABOVE FINISH FLOOR
ATPM	AUTOMATIC TOLL PAYMENT MACHINE
ATS	AUTOMATIC TRANSFER SWITCH
AVI	AUTOMATED VEHICLE IDENTIFICATION
BF	BARRIER WARNING LIGHT
C/B	CIRCUIT BREAKER
CCTV	CLOSED CIRCUIT TELEVISION
CKT	CIRCUIT
CNC	COILABLE NON-METALLIC CONDUIT
DHH	DOUBLE HANDHOLE
FACP	FIRE ALARM CONTROL PANEL
FLPC	FRONT LICENSE PLATE CAMERA
GCS	GENERATOR CONTROL SWITCH
GFI	GROUND FAULT INTERRUPTER
HDPE	HIGH DENSITY POLYETHYLENE
HH	HANDHOLE
IPO	I-PASS ONLY
JB	JUNCTION BOX
LA	LIGHTNING ARRESTER
LC	LINE CONDITIONER
LCC	LANE CONTROLLER CABINET
LP	LIGHTNING PROTECTION
MCB	MAIN CIRCUIT BREAKER
MDP	MAIN DISTRIBUTION PANEL
MLO	MAIN LUG ONLY
MMF	MULTI-MODE FIBER
MSD	MAIN SERVICE DISCONNECT
MTS	MANUAL TRANSFER SWITCH
OCR	OPTICAL CHARACTER RECOGNITION
RLPC	REAR LICENSE PLATE CAMERA
SDR	STANDARD DIMENSION RATIO
SMF	SINGLE MODE FIBER
SPD	SURGE PROTECTION DEVICE
TOC	TRAFFIC OPERATION CENTER
TSIC	TERMINAL STRIP INTERCONNECT CENTER
UPS	UNINTERRUPTIBLE POWER SUPPLY
VES	VIOLATION ENFORCEMENT SYSTEM
WP	WEATHERPROOF

NOTE:

1. ALL TYPE 'B' FIXTURES SHALL BE MOUNTED AT THE SAME ELEVATION WITH A MINIMUM MOUNTING HEIGHT AS INDICATED.

WIRING DEVICE SCHEDULE

SYMBOL	DESCRIPTION	RATING	MFR. AND CAT. NO.	MOUNTING HEIGHT
1a OC	SINGLE-POLE SWITCH a-SWITCH LEG (LOWER CASE LETTER)	20A, 120V	HUBBELL #LHIR	4'-0"
X	DUPLEX RECEPTACLE X - CIRCUIT NUMBER	20A, 120V	HUBBELL #HBL5362	18" AS NOTED
X	QUAD RECEPTACLE X - CIRCUIT NUMBER	20A, 120V	(2) HUBBELL #HBL5362	18" AS NOTED
C	4P, 4W, WEATHERPROOF RECEPTACLE WITH SPRING DOOR, BACK BOX, & ANGLE ADAPTER	200A, 600V	CROUSE-HINDS "ARKTITE" SERIES #AREA20417	3'-0" ABOVE GRADE
B	4P, 4W, WEATHERPROOF RECEPTACLE WITH SPRING DOOR & BACK BOX	30A, 600V	CROUSE-HINDS "ARKTITE" SERIES #ARE3413	3'-0" ABOVE GRADE
WP GFI	DUPLEX RECEPTACLE WITH GROUND FAULT PROTECTION WP - IDENTIFIES WEATHERPROOF	20A, 120V	HUBBELL #GF5362SG	3'-0" ABOVE GRADE
A	3P, 3W, WEATHERPROOF RECEPTACLE	30A, 240V		3'-0" ABOVE GRADE

LIGHTING FIXTURE SCHEDULE

SYMBOL	DESCRIPTION	VOLTAGE	LAMPS	MFR. AND CAT. NO.	REMARKS
A	4' LED LOW PROFILE INDUSTRIAL LUMINAIRE	120 V	LED	H.E. WILLIAMS 96-4-L62/840-HIAFR-DRV-UNV	MOUNT 8' ABOVE FINISHED FLOOR
B	LED LOW PROFILE WALL PACK	120 V	LED	H.E. WILLIAMS VWPV-L30/740-TFT-DBZ-CGL-DIM-UNV	MOUNT 10'-0" ABOVE FINISHED GRADE NOTE 1
C	EMERGENCY LED LIGHT WITH NICKEL METAL HYBRIDE BATTERY	120 V	LED	H.E. WILLIAMS EMER/LED-WHT-SDT-D	MOUNT 8' ABOVE FINISHED FLOOR

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	DRAWN - CAM	REVISED -	
PLOT SCALE = 0.166667 ' / in.	CHECKED - GRR	REVISED -	
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LEGEND, SYMBOL LIST, ABBREVIATIONS AND EQUIPMENT SCHEDULES

SCALE: N.T.S. | SHEET 3 OF 41 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	63
		CONTRACT NO. 62U90		
	ILLINOIS	FED. AID PROJECT		

MODEL: LEGEND
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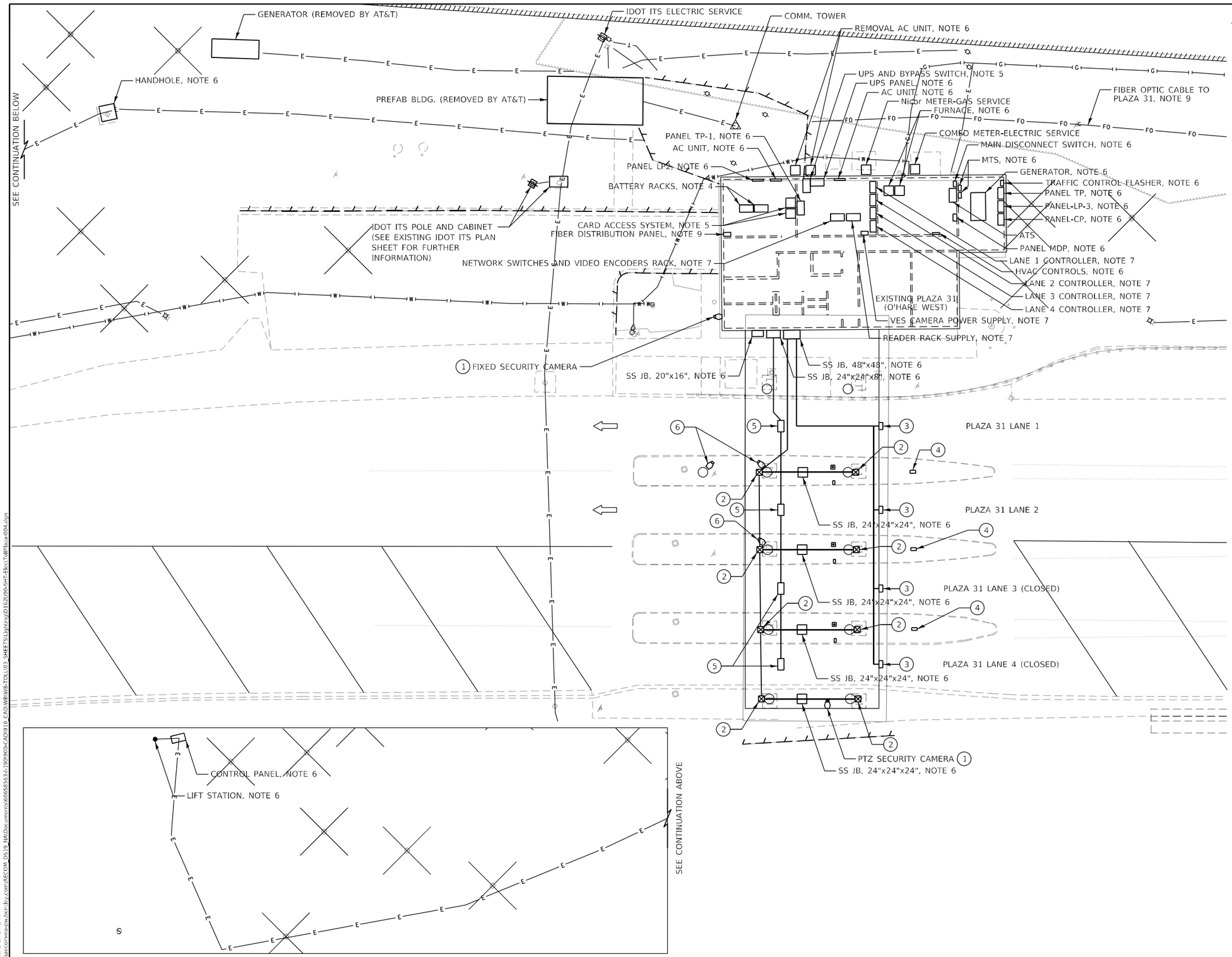

NOTES:

1. CONTRACTOR SHALL COORDINATE ALL EQUIPMENT REMOVALS AND SALVAGE WITH THE TOLLWAY.
2. ANY ITEMS REMOVED AND NOT PROPOSED TO BE SALVAGED SHALL BE DISPOSED OF BY THE CONTRACTOR.
3. AVI ANTENNA CONNECTORS SHALL NOT BE REMOVED FROM THE ANTENNA. CONTRACTOR SHALL CUT THE ANTENNA CABLE LEAVING A 3' LENGTH SALVAGED WITH THE ANTENNA.
4. CONTRACTOR SHALL REMOVE AND SALVAGE THE DC POWER PLANT COMPONENTS & BATTERIES IN THE 2-POST RACKS. THE RACKS SHALL BE DISPOSED BY THE CONTRACTOR.
5. EQUIPMENT TO BE REMOVED AND SALVAGED BY THE CONTRACTOR. SALVAGED EQUIPMENT SHALL BE DELIVERED TO THE TOLLWAY.
6. EQUIPMENT TO BE REMOVED AND DISPOSED BY THE CONTRACTOR.
7. EQUIPMENT TO BE REMOVED AND SALVAGED BY THE TOLLWAY AFTER THE NEW PL31 IS FULLY TESTED AND OPERATIONAL.
8. CONTRACTOR SHALL COORDINATE WITH ComEd AND Nicor FOR UTILITY SERVICE DISCONNECTION AND METER REMOVAL.
9. CONTRACTOR SHALL COORDINATE WITH TOLLWAY FIBER OPTIC MAINTENANCE CONTRACTOR FOR DISCONNECTION AND REMOVAL OF EXISTING (2) 48 STRAND SINGLE MODE FIBER OPTIC LATERALS TO THE BUILDING. FIBER SHALL BE REMOVED BY TOLLWAY FIBER OPTIC MAINTENANCE CONTRACTOR.

REMOVAL LEGEND:

1. REMOVE ANALOG SECURITY AND WATCHDOG CAMERAS
2. REMOVE HPS CANOPY LUMINAIRES
3. REMOVE LANE CONTROL SIGNAL
4. REMOVE BARRIER WARNING LIGHTS AND ALL ASSOCIATED HARDWARE
5. REMOVE AND SALVAGE AVI ANTENNAS
6. REMOVE AND SALVAGE VES CAMERA, IR ILLUMINATOR, & POST

N

SCALE IN FEET
0 10 20

MODEL: ELECTRICAL SITE PLAN
FILE NAME: //ewlakcon1nas1ew.ber.bjv.com:AECOM_DS19_IWA\Documents\60656363-1-190900-CAD\910_CAD\WBWB-TOLL03_SHEET%20Lighting\D1620900-SHT-ElecTollPlaza-004.dgn

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USER NAME = Jacqueline,Ng	DESIGNED - UCM	REVISED -	
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PLOT SCALE = 19.9999 ' / in.	CHECKED - GRR	REVISED -	
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ELECTRICAL REMOVAL PLAN

SCALE: 1"=10' | SHEET 4 OF 41 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	64
		CONTRACT NO. 62U90		
	ILLINOIS	FED. AID PROJECT		

EXISTING TOLLWAY 6 STRAND MULTI-MODE FIBER OPTIC CABLE IN (1) 1.25" DUCT

EXISTING TOLLWAY FIBER OPTIC DUCT PACKAGE (12) 1.25" DUCTS AND (6) 1.5" DUCTS

46 24 138

EXISTING AT&T HH

EXISTING ABANDONED TOLLWAY FIBER OPTIC DUCT PACKAGE (6) 1.25" DUCTS

EXISTING HH #600+88, SEE NOTE 8

EXISTING OVERHEAD SIGN TRUSS

I-294 NB

44 46 24 138

I-294 SB

OVERHEAD CONDUIT TRAY

46 24 138

CONCRETE PAD FOR GAS METER

CONCRETE FILLED PIPE BOLLARDS (TYP)

SELF SUPPORTING COMMUNICATION TOWER STRUCTURAL STEEL, FOUNDATION, AND GROUNDING SYSTEM

PLAZA 31

SEE NOTE 7

43 116

ComEd PAD MOUNTED TRANSFORMER

43 50

46 24 138

EXISTING HH #95, SEE NOTE 8

520+00

525+00

SEE NOTE 5

SEE LIGHTING PLANS FOR THIS CONDUIT CONNECTION

43 116

DATA LOGGER CAMERA ON ITS STEEL POLE STA. 523+70, 18' RT SEE NOTE 6

SEE NOTE 5

RAMP TO I-190 WB

TO ComEd SERVICE LOCATION

TO Nicor SERVICE LOCATION

SCALE IN FEET

0 30 60

NOTES:

1. SEE LEGEND SHEET FOR SYMBOL LEGEND.
2. SEE CABLE/CONDUIT SCHEDULE SHEET FOR CABLE TAGS.
3. ALL EMPTY CONDUITS UNDERGROUND OR ABOVE GRADE SHALL HAVE A PULL CORD.
4. UNDERGROUND CABLE/CONDUIT MARKING TAPE IS TO BE INSTALLED OVER UNDERGROUND CONDUITS.
5. RELOCATE EXISTING LIGHT POLE WITH LED LUMINAIRE (AS PER ROADWAY LIGHTING PLAN) AND INSTALL LIGHT POLE FOUNDATION (ROADWAY) STEEL HELIX (10 FT).
6. DATA LOGGER CAMERA SHALL BE INSTALLED ON STEEL ITS POLE. SEE CAMERA DETAILS.
7. PROVIDE (2) 6" SDR 11 HDPE OR PVC SCH. 80 SLEEVES, EACH SLEEVE SHALL HAVE;
   (1) 1 ½" CNC DUCT (SOLID GREEN)
   (1) 1 ½" CNC DUCT (GREEN/WHITE STRIPE)
   (1) 1 ½" CNC DUCT (BLACK/RED STRIPE)
8. CONTRACTOR SHALL COORDINATE WITH TOLLWAY FIBER OPTIC MAINTENANCE CONTRACTOR FOR ALL WORK NEAR EXISTING FIBER OPTIC HANDHOLES AND FACILITIES. THE CONTRACTOR SHALL REQUEST WATCH AND PROTECT FOR ROUTING CONDUIT AND FIBER INTO THE EXISTING HANDHOLES. ALL FIBER SPLICING TO THE EXISTING TOLLWAY BACKBONE FIBER SHALL BE PERFORMED BY THE TOLLWAY FIBER OPTIC MAINTENANCE CONTRACTOR. THE CONTRACTOR SHALL SUBMIT A FIBER SPLICE REQUEST 30 DAYS MINIMUM IN ADVANCE.
9. LOCATE/TRACER WIRE, LOCATE POSTS, AND CABLE MARKER POSTS SHALL BE INSTALLED FOR THE PROPOSED SINGLE MODE FIBER OPTIC CABLE RUNS PER ILLINOIS TOLLWAY STANDARD DRAWING L1 AND THE SPECIAL PROVISIONS.

MODEL: ELECTRICAL SITE PLAN
FILE NAME: pw:\\aecom-us-pw.bentley.com:aECOM D519 (MADocuments\606585863-1909004-CAD\910 CAD\WB\WB-TOLL03-SHEETS\Lighting\D162U90-SHT-ElecTrdlPlaza-005.dgn

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

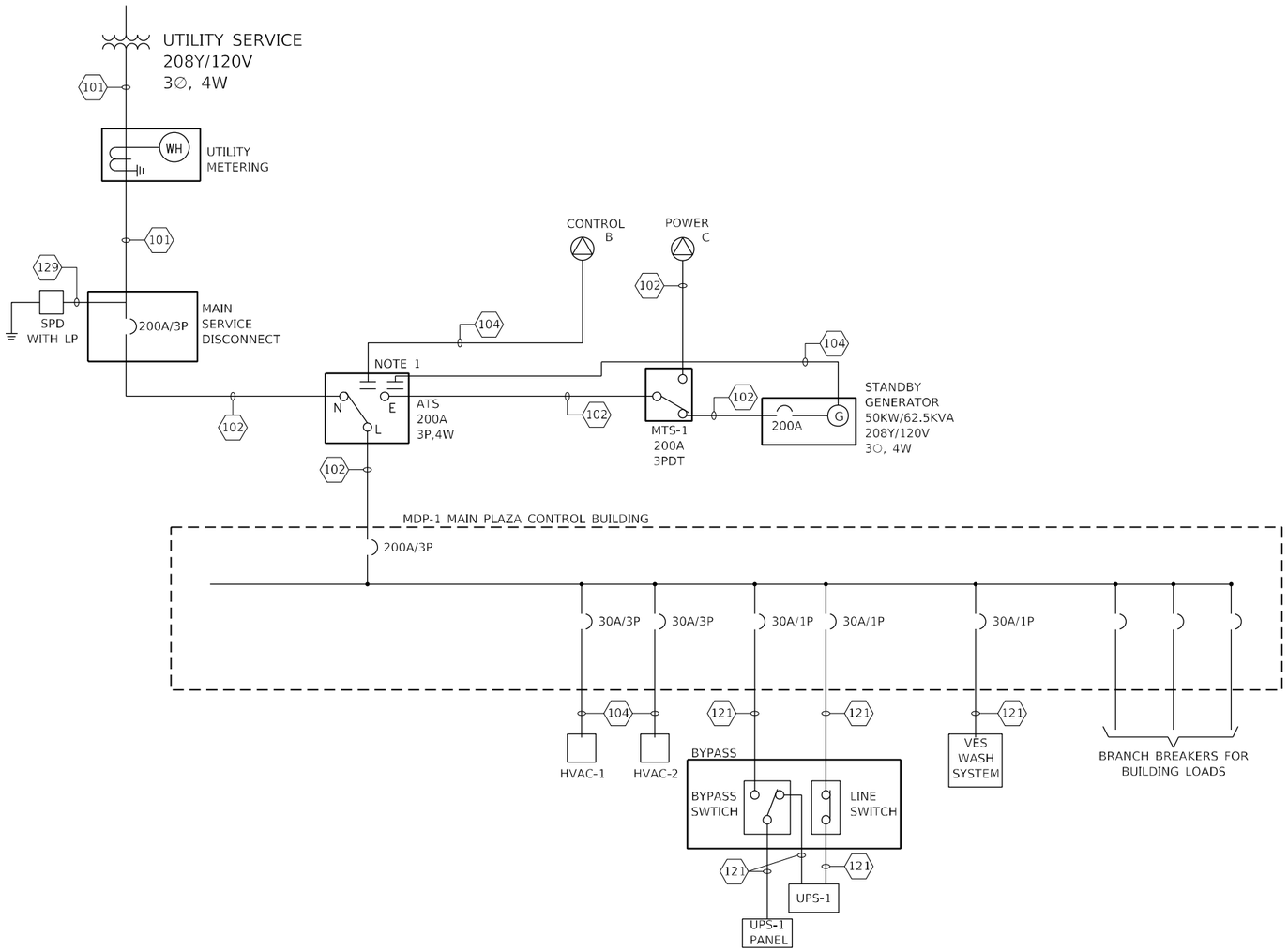
USER NAME = Jacqueline,Ng	DESIGNED - UCM	REVISED -	
	DRAWN - CAM	REVISED -	
PLOT SCALE = 59.9996 ' / in.	CHECKED - GRR	REVISED -	
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SITE PLAN

SCALE: 1"=30' | SHEET 5 OF 41 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	65
		CONTRACT NO. 62U90		
		ILLINOIS	FED. AID PROJECT	



SINGLE LINE DIAGRAM

NOTES:

1. CONTACT TO INITIATE ENGINE STARTING CONTROLS. PROVIDE ASCO FEATURES 7A1 AND 1PS1 IN ATS.
2. ALL CIRCUIT BREAKERS AND DISCONNECT SWITCHES ARE 3-POLE UNLESS NOTED OTHERWISE.
3. SEE CABLE/CONDUIT SCHEDULES SHEET FOR CABLE TAGS.
4. SEE ELECTRICAL LEGENDS, SYMBOLS, ABBREVIATIONS AND EQUIPMENT SCHEDULES SHEET.

MODEL: SINGLE LINE POWER
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AECOM
303 EAST WACKER DRIVE, SUITE 1400
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PHONE: (312) 373-7700 FAX: (312) 373-6800

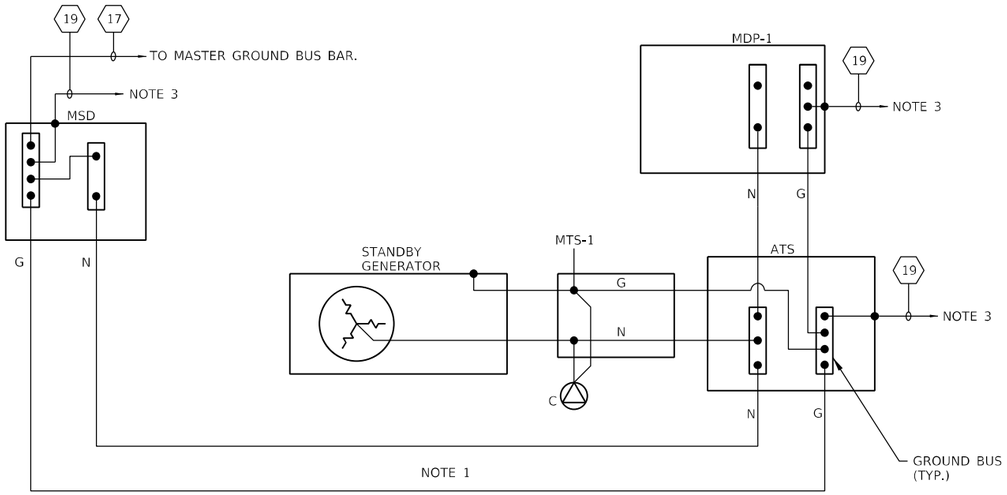
USER NAME = myersc	DESIGNED - UCM	REVISED -
	DRAWN - CAM	REVISED -
PLOT SCALE = 0.166667 ' / in.	CHECKED - GRR	REVISED -
PLOT DATE = 5/29/2024	DATE - 5/30/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SINGLE LINE POWER DIAGRAM

SCALE: N.T.S. | SHEET 6 OF 41 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	66
		CONTRACT NO. 62U90		
	ILLINOIS	FED. AID PROJECT		



CONTROL BUILDING EQUIPMENT

NOTES:

1. SEE CABLE/CONDUIT SCHEDULE SHEET FOR CABLE TAGS.
2. PROVIDE 3/4" SCHEDULE 40 PVC CONDUITS FOR GROUND CABLES CONNECTING UPS-1 AND LC-1 TO MASTER GROUND BUS BAR.
3. PROVIDE EXOTHERMIC CONNECTION TO INTERNAL PERIMETER BUS CONDUCTOR.
4. GROUNDING SHALL BE PER SPECIAL PROVISIONS.

MODEL: CONTROL BUILDING SCHEMATIC
FILE NAME: pw:\\aecom-us-pw.bentley.com:AECOM_DS19_NADDocuments\60658563-1-1909005-CAD\910_CAD\WB\WB-TOLL03_SHEETS\Lighting\D162U90-SHT-Elec-TollPlaza-007.dgn

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
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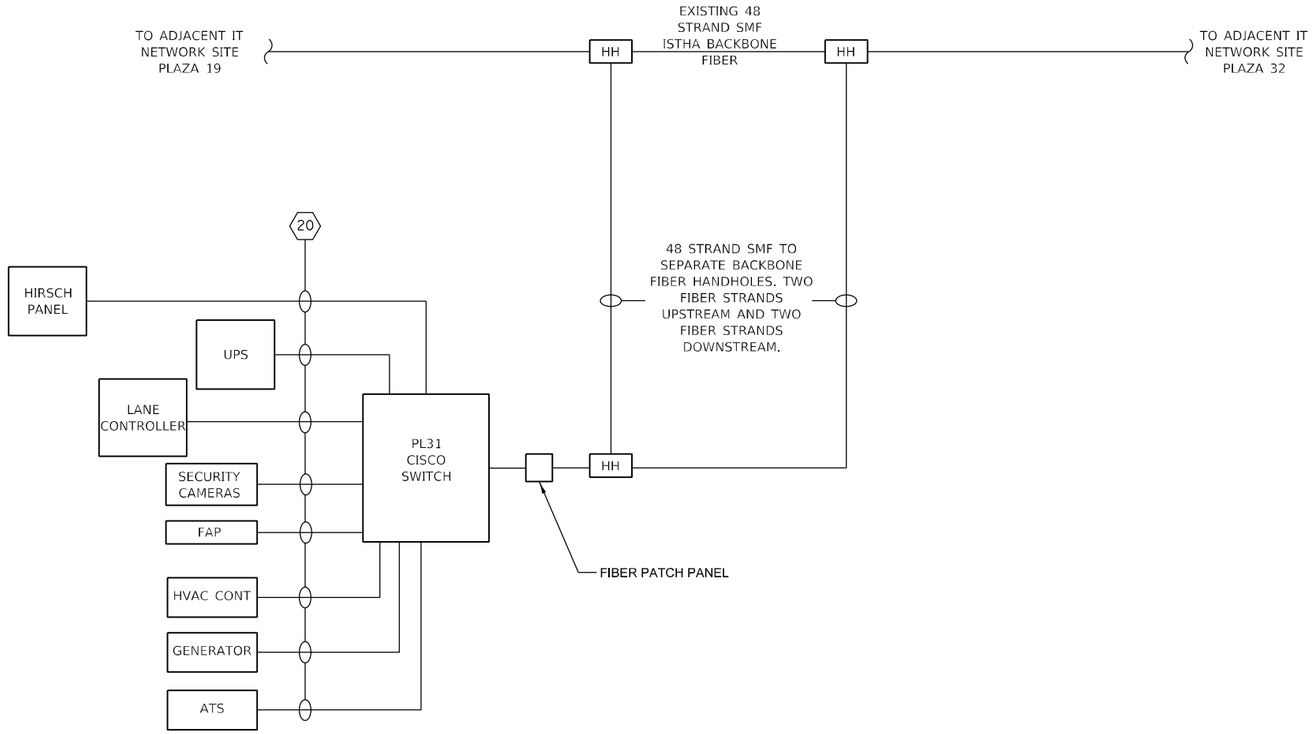
USER NAME = Jacqueline.Ng	DESIGNED - UCM	REVISED -
	DRAWN - CAM	REVISED -
PLOT SCALE = 0.166667 ' / in.	CHECKED - GRR	REVISED -
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GROUNDING SCHEMATIC

SCALE: N.T.S. | SHEET 7 OF 41 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	67
		CONTRACT NO. 62U90		
	ILLINOIS	FED. AID PROJECT		



SMF AND NETWORK CONNECTIVITY BETWEEN PLAZA 31 AND ADJACENT EXISTING PLAZAS

NOTES:

1. EQUIPMENT SHOWN ON THIS DRAWING MUST BE COORDINATED WITH THE ILLINOIS TOLLWAY IT DEPARTMENT.
2. ALL CABLING AND CONNECTORS REQUIRED SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR.
3. ALL FIBER OPTIC PATCH CORDS SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR.
4. ALL FIBER OPTIC SFP'S REQUIRED FOR TERMINATING FIBER OPTIC CABLES AT CISCO SWITCHES SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR.
5. PROVIDE IN-LINE SPD PROTECTION ADAPTERS FOR ALL CATEGORY 6 CABLES ENTERING THE BUILDING INCLUDING ALL CONNECTIONS TO THE CISCO SWITCH, EPAC, I-PASS EQUIPMENT AND RACK.

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	DRAWN - CAM	REVISED -	
PLOT SCALE = 0.166667 ' / in.	CHECKED - GRR	REVISED -	
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FIBER INTERCONNECTIONS BETWEEN PLAZAS

SCALE: N.T.S. | SHEET 8 OF 41 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	68
		CONTRACT NO. 62U90		
	ILLINOIS	FED. AID PROJECT		

MODEL: CONTROL BUILDING SCHEMATIC
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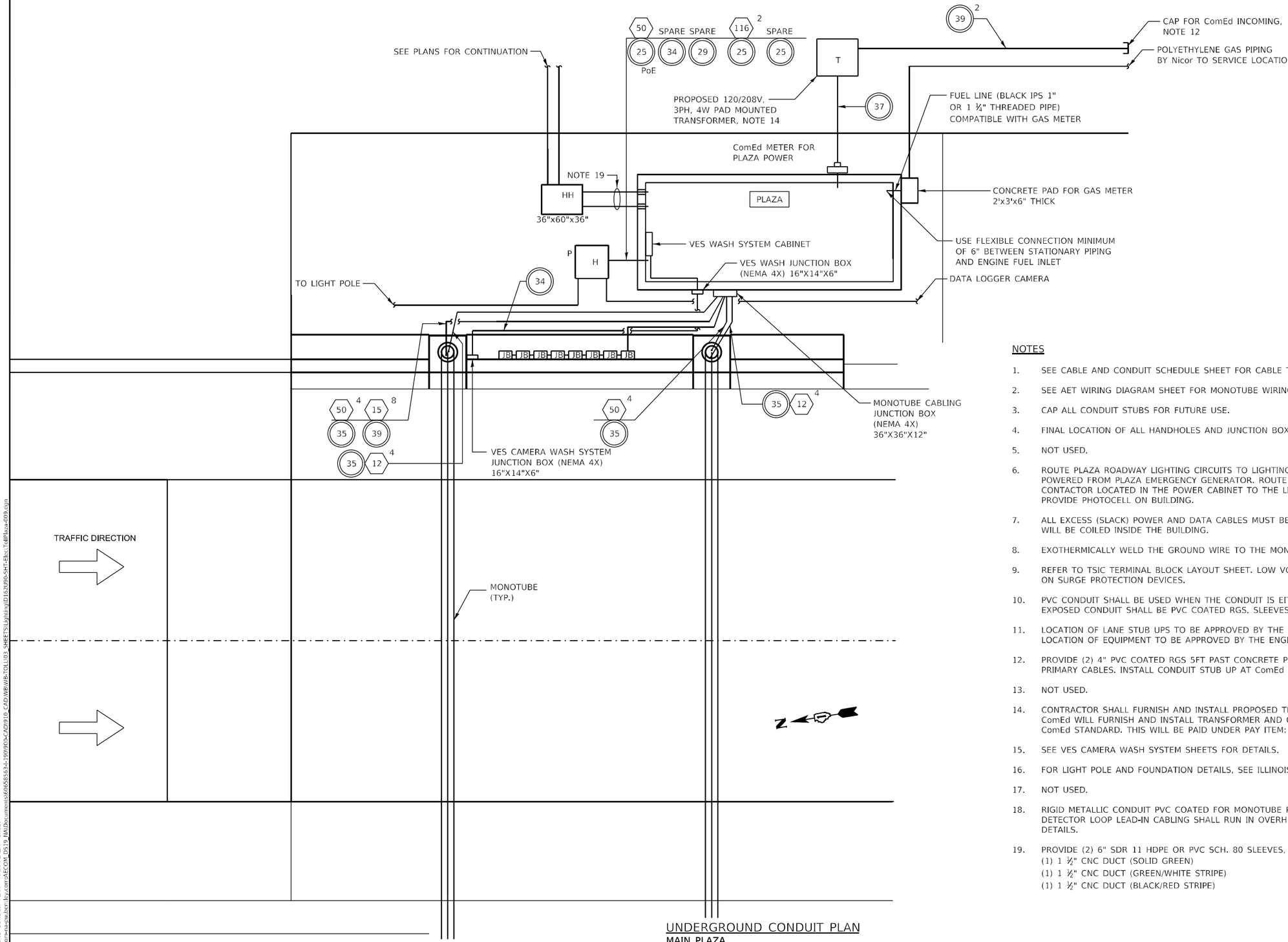

UNDERGROUND CONDUIT PLAN
MAIN PLAZA

NOTES

1. SEE CABLE AND CONDUIT SCHEDULE SHEET FOR CABLE TAGS.
2. SEE AET WIRING DIAGRAM SHEET FOR MONOTUBE WIRING.
3. CAP ALL CONDUIT STUBS FOR FUTURE USE.
4. FINAL LOCATION OF ALL HANDHOLES AND JUNCTION BOXES SHALL BE APPROVED BY THE ENGINEER.
5. NOT USED.
6. ROUTE PLAZA ROADWAY LIGHTING CIRCUITS TO LIGHTING CONTACTOR. THESE STAY ON PLAZA CIRCUITS, THAT ARE POWERED FROM PLAZA EMERGENCY GENERATOR. ROUTE 2-1/C #8 AND 1/C #8 GROUND WIRE FROM LIGHTING CONTACTOR LOCATED IN THE POWER CABINET TO THE LIGHT POLE FOR PLAZA LIGHTING CONTROL CIRCUIT. PROVIDE PHOTOCELL ON BUILDING.
7. ALL EXCESS (SLACK) POWER AND DATA CABLES MUST BE COILED IN THE HANDHOLE. NO EXCESS CABLE WILL BE COILED INSIDE THE BUILDING.
8. EXOTHERMICALLY WELD THE GROUND WIRE TO THE MONOTUBE'S BASE.
9. REFER TO TSIC TERMINAL BLOCK LAYOUT SHEET. LOW VOLTAGE WIRE FROM VES AND SECURITY CAMERAS LAND ON SURGE PROTECTION DEVICES.
10. PVC CONDUIT SHALL BE USED WHEN THE CONDUIT IS EITHER COVERED OR ENCASED IN CONCRETE. ANY EXPOSED CONDUIT SHALL BE PVC COATED RGS. SLEEVES SHALL BE USED WHEN CROSSING WALL FOUNDATIONS.
11. LOCATION OF LANE STUB UPS TO BE APPROVED BY THE ILLINOIS TOLLWAY PRIOR TO CONCRETE POUR. FINAL LOCATION OF EQUIPMENT TO BE APPROVED BY THE ENGINEER.
12. PROVIDE (2) 4" PVC COATED RGS 5FT PAST CONCRETE PAD UP TO ComEd TRANSFORMER FOR ComEd INCOMING PRIMARY CABLES. INSTALL CONDUIT STUB UP AT ComEd TRANSFORMER LOCATION.
13. NOT USED.
14. CONTRACTOR SHALL FURNISH AND INSTALL PROPOSED TRANSFORMER PAD AND CONDUIT/TRENCH FOR ComEd. ComEd WILL FURNISH AND INSTALL TRANSFORMER AND GROUND ROD/WIRING. ALL WORK SHALL CONFORM TO ComEd STANDARD. THIS WILL BE PAID UNDER PAY ITEM: JS804100 - ELECTRIC SERVICE INSTALLATION.
15. SEE VES CAMERA WASH SYSTEM SHEETS FOR DETAILS.
16. FOR LIGHT POLE AND FOUNDATION DETAILS, SEE ILLINOIS TOLLWAY STANDARD DRAWINGS H1 AND H2.
17. NOT USED.
18. RIGID METALLIC CONDUIT PVC COATED FOR MONOTUBE POWER/DATA/ANTENNA CABLING, VES WASH TUBING, AND DETECTOR LOOP LEAD-IN CABLING SHALL RUN IN OVERHEAD CONDUIT TRAY. SEE OVERHEAD CONDUIT TRAY DETAILS.
19. PROVIDE (2) 6" SDR 11 HDPE OR PVC SCH. 80 SLEEVES, EACH SLEEVE SHALL HAVE;
    (1) 1 ½" CNC DUCT (SOLID GREEN)
    (1) 1 ½" CNC DUCT (GREEN/WHITE STRIPE)
    (1) 1 ½" CNC DUCT (BLACK/RED STRIPE)

AECOM
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USER NAME = Jacqueline,Ng	DESIGNED - UCM	REVISED -	
	DRAWN - CAM	REVISED -	
PLOT SCALE = 0.1667 ' / in.	CHECKED - GRR	REVISED -	
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

UNDERGROUND/OVERHEAD CONDUIT PLAN – MAIN PLAZA

SCALE: N.T.S. | SHEET 9 OF 41 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	69
		CONTRACT NO. 62U90		
		ILLINOIS	FED. AID PROJECT	

MODEL: UNDERGROUND CONDUIT PLAN - MAIN PLAZA - Sheet
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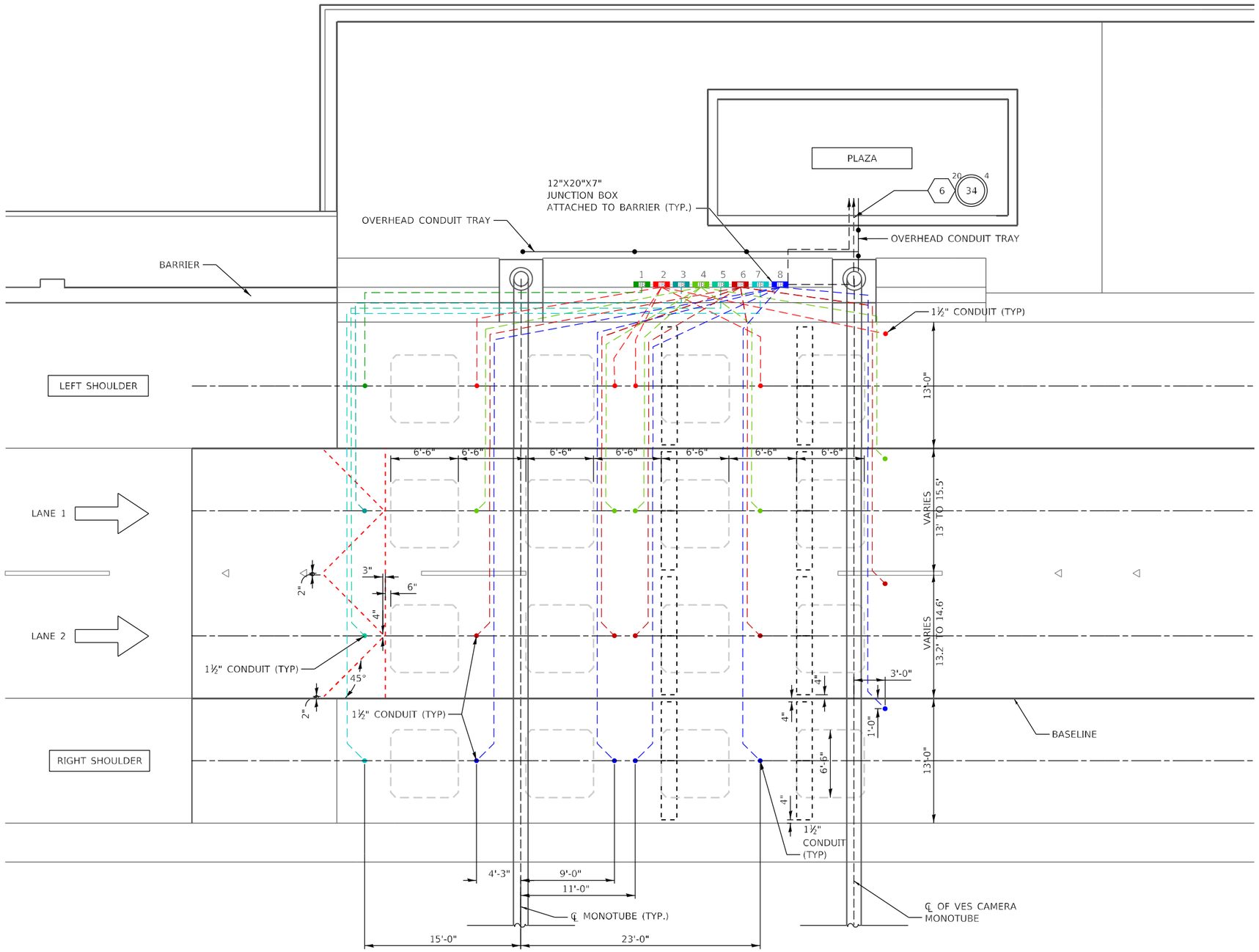

NOTES:

1. MINIMUM CONDUIT SIZE IS 1-1/2".
2. LOOP WIRE SPLICES ARE MADE IN JUNCTION BOXES.
3. CONDUITS FOR LOOPS ARE TO BE 1-1/2" RIGID GALVANIZED STEEL PVC COATED.
4. LOOPS PROVIDED AND INSTALLED BY THE ILLINOIS TOLLWAY. LOOPS PULLED BACK TO JUNCTION BOXES MOUNTED TO THE BARRIER WALL. SEE LOOP INSTALLATION DETAILS. CONTRACTOR SHALL COORDINATE WITH ILLINOIS TOLLWAY FOR PROVIDING SLOT OPENING, SAW CUTTING AND OTHER MISCELLANEOUS WORK REQUIRED FOR COMPLETE LOOP INSTALLATION.
5. VERIFY THE CONDUIT, MONOTUBES AND VES CAMERA POLE LOCATIONS WITH THE ILLINOIS TOLLWAY PRIOR TO BARRIER CONSTRUCTION.
6. EQUIPMENT LOCATIONS MUST BE VERIFIED BY THE ILLINOIS TOLLWAY PRIOR TO ANY CONSTRUCTION STARTING. LOCATION OF ALL LANE LOOPS AND LANE STUB UPS SHALL BE APPROVED BY THE ILLINOIS TOLLWAY BEFORE CONCRETE POUR CONTRACTOR TO COORDINATE WITH THE ENGINEER.
7. SEE CONDUIT ROUTING DETAILS.
8. CONTRACTOR IS TO PROVIDE ALL CONDUIT AND LOOP LEAD IN CABLE FROM BUILDING TO JUNCTION BOX MOUNTED TO THE BARRIER WALL. 3 FEET OF CABLE COILED IN JUNCTION BOX AT BARRIER WALL.
9. ALL LOOP DETECTORS SHALL BE IN THE CENTER OF THE STRIPED LANES.
10. CONDUITS AND CONDUIT STUB UPS SHOWN SHALL BE INSTALLED IN ALL LANES (TRAVEL LANES AND SHOULDERS).
11. LEAD EDGE OF LOOP 2 SHALL BE 6" DOWNSTREAM OF MONOTUBE CENTERLINE.
12. PIEZO AND QUANTUM SYSTEM LOOPS SHALL BE INSTALLED IN TRAVEL LANES ONLY.

2-LANE AET EQUIPMENT AND LOOP LAYOUT

(AET LANES-TWO LANE CONFIGURATION)

AECOM
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USER NAME = Jacqueline.Ng	DESIGNED - UCM	REVISED -	
	DRAWN - CAM	REVISED -	
PLOT SCALE = 0.1667 ' / in.	CHECKED - GRR	REVISED -	
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LOOP PLAN – AET 2–LANE LAYOUT

SCALE: N.T.S. | SHEET 10 OF 41 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	70
		CONTRACT NO. 62U90		
		ILLINOIS	FED. AID PROJECT	

MODEL: LOOP PLAN
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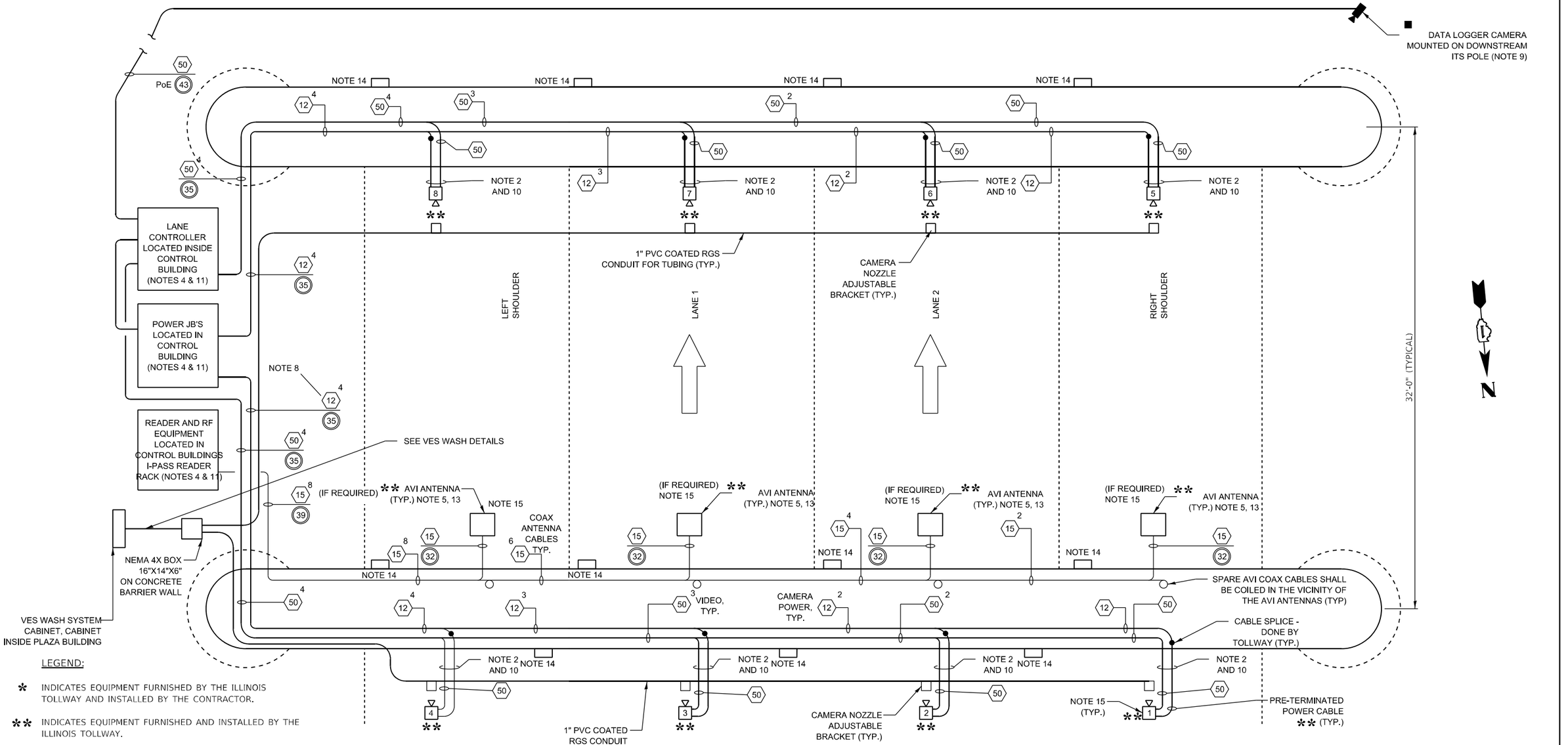
NOTES:

1. SEE CABLE/CONDUIT SCHEDULE AND NOTES SHEET FOR CABLE TAGS.
2. FRONT AND REAR VES CAMERA CABLES ARE PULLED BY THE CONTRACTOR INTO MONOTUBE AND POLE ARM. THE CONTRACTOR WHIPS UP ABOUT 10 FEET OF CABLE, LEAVING THE MAJORITY INSIDE THE MONOTUBE/POLE ARM. THE ILLINOIS TOLLWAY WILL PULL FROM THE JB/POLE ARM TO THE CAMERAS AND THEN TERMINATE.
3. VES CAMERA NUMBERING SCHEME BEGIN AT RIGHT SHOULDER AND ARE ORDERED SEQUENTIALLY (1, 2, 3, ... ETC) TO LEFT SHOULDER.
4. ALL CABINETS AND POWER PANEL LOCATED IN CONTROL BUILDING.
5. COAX FOR AVI ANTENNAS ROUTE THROUGH 2" TO 1" COUPLER (IF REQUIRED), THEN RUN IN 1" SEALTITE CONDUIT TO ANTENNA.
6. EQUIPMENT LOCATIONS MUST BE VERIFIED BY THE ILLINOIS TOLLWAY PRIOR TO CONSTRUCTION AND INSTALLATION.
7. NOT USED.
8. THIS CABLING IS USED TO POWER THE VES CAMERAS. THESE CABLES WILL RUN FROM A 24V DC POWER SUPPLY LOCATED IN THE VPJB.
9. DATA LOGGER CAMERA SHALL BE PLACED DOWNSTREAM OF THE EXITING MONOTUBE ON A NON-BREAKAWAY DEDICATED ITS POLE. DATA LOGGER CAMERA POWER AND SIGNAL WILL GO THROUGH CAT 6 ETHERNET CABLE. MOUNT DATA LOGGER CAMERA AT 20'.
10. 1.5" SEALTITE AND FITTINGS ARE FURNISHED BY THE CONTRACTOR AND INSTALLED BY THE ILLINOIS TOLLWAY.
11. ALL WIRING FROM CAMERAS/I-PASS ANTENNAS SHALL BE SURGE PROTECTED AS IT ENTERS PLAZA BUILDING. SURGE PROTECTION SHALL BE IN VES VPJB FOR CAMERAS AND IN COMMUNICATION ROOM FOR ANTENNA CABLE.
12. NOT USED.
13. NOT USED.
14. CONTRACTOR SHALL FURNISH AND INSTALL JUNCTION BOX 12"X12"X6" TYPE NEMA 4X, *(HOFFMAN A1212CHNFSS)* ON DOWNSTREAM SIDE OF THE ENTRANCE AND EXIT MONOTUBES FOR TERMINATION OF POWER AND COMMUNICATION CABLES. SEE STRUCTURAL DRAWINGS FOR LOCATION.
15. REAR PLATE CAMERAS ARE MOUNTED 2'-6" UPSTREAM FROM C/L OF MONOTUBE AND AVI ANTENNAS ARE MOUNTED 2'-6" DOWNSTREAM FROM C/L OF MONOTUBE.
16. NEMA 4X JUNCTION BOX, 12"x12"x6", SHALL BE INSTALLED ON BARRIER WALL. LOCATION TO BE VERIFIED WITH TOLLWAY PRIOR TO INSTALLATION.
17. CONDUIT GOES TO CONTROL BUILDING VIA OVERHEAD CONDUIT TRAY.



LEGEND:

* INDICATES EQUIPMENT FURNISHED BY THE ILLINOIS TOLLWAY AND INSTALLED BY THE CONTRACTOR.

** INDICATES EQUIPMENT FURNISHED AND INSTALLED BY THE ILLINOIS TOLLWAY.

■ INDICATES EQUIPMENT FURNISHED AND INSTALLED BY THE CONTRACTOR.

FRONT - REAR PLATE VES BLOCK WIRING DIAGRAM

AECOM
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USER NAME = Jacqueline,Ng	DESIGNED - UCM	REVISED -	
	DRAWN - CAM	REVISED -	
PLOT SCALE = 0.1667 ' / in.	CHECKED - GRR	REVISED -	
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -	

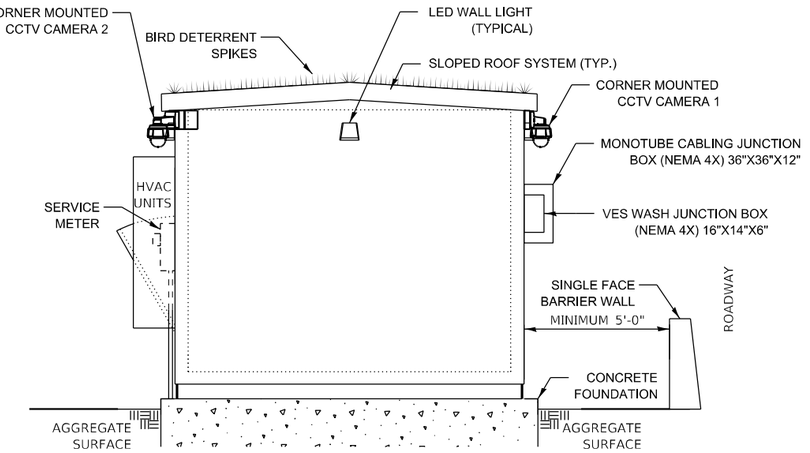
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WIRING DIAGRAM – AET 2–LANE LAYOUT

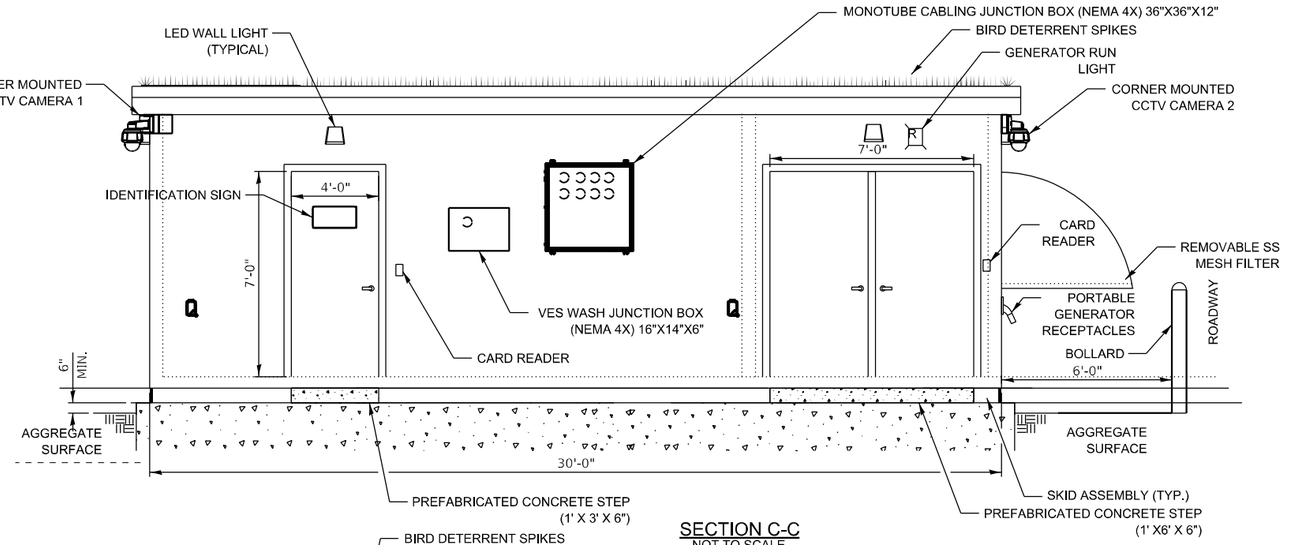
SCALE: N.T.S. | SHEET 11 OF 41 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	71
		CONTRACT NO. 62U90		
	ILLINOIS FED. AID PROJECT			

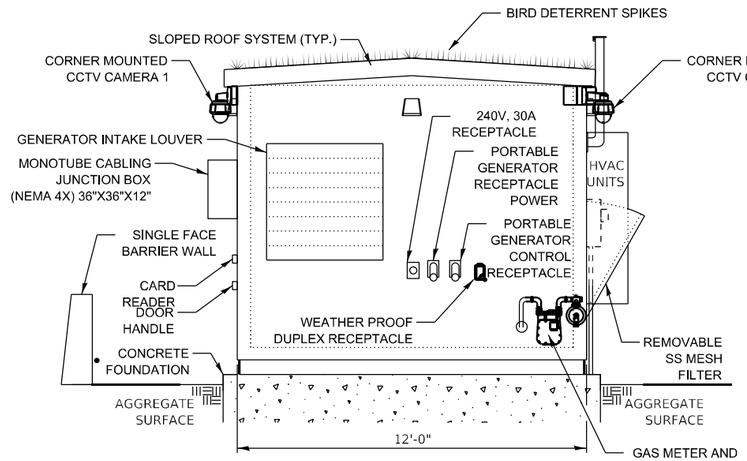
MODEL: WIRING DIAGRAM
FILE NAME: pw:\\aecom-ia-pw.bentley.com:AECOM_0519_NA\Documents\606058583-1-190900-CAD\910_CAD\WB\WB-TOLL03_SHEETS\Lighting\D162490-SHT-Elec_TollPlaza-011.dgn



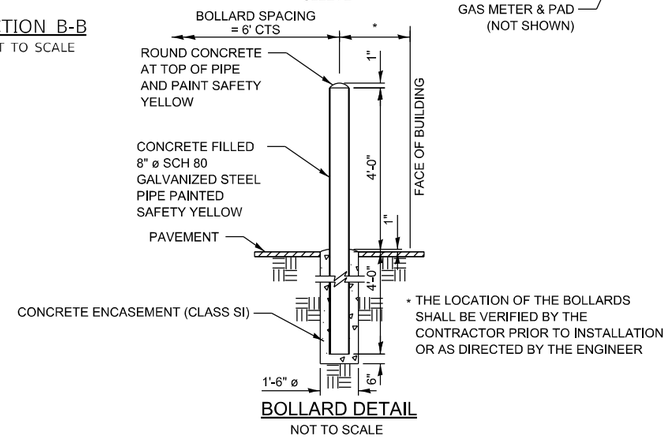
SECTION A-A
NOT TO SCALE



SECTION C-C
NOT TO SCALE

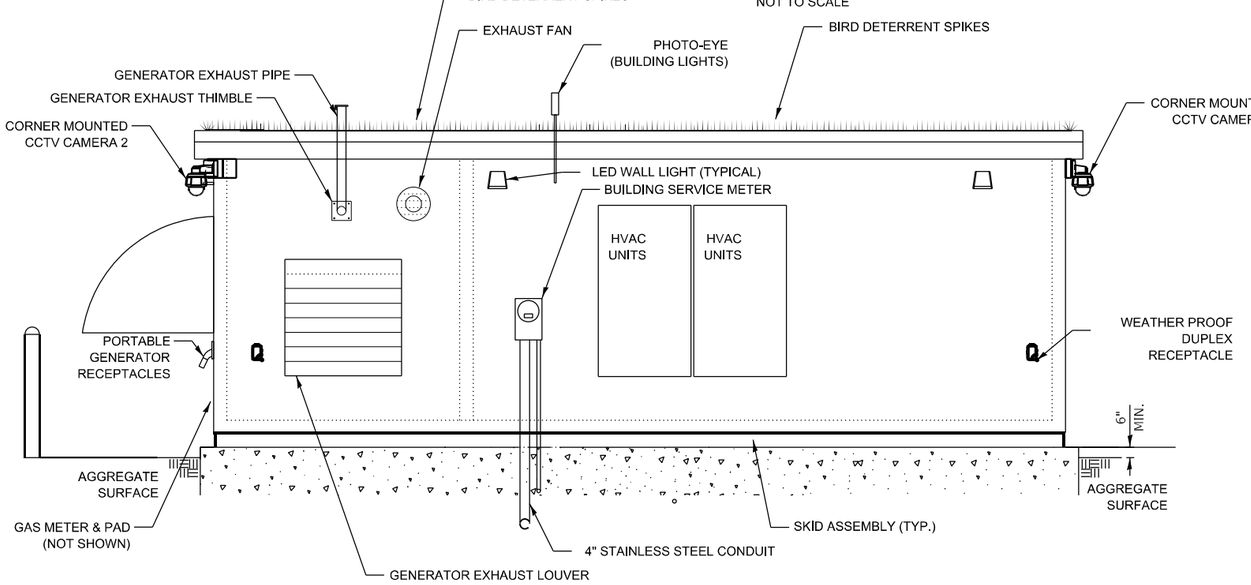


SECTION B-B
NOT TO SCALE



BOLLARD DETAIL
NOT TO SCALE

* THE LOCATION OF THE BOLLARDS SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO INSTALLATION OR AS DIRECTED BY THE ENGINEER



SECTION D-D
NOT TO SCALE

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7100 FAX: (312) 373-6800

USER NAME = myersc	DESIGNED - UCM	REVISED -
	DRAWN - CAM	REVISED -
PLOT SCALE = 0.1667 ' / in.	CHECKED - GRR	REVISED -
PLOT DATE = 5/29/2024	DATE - 5/30/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXTERIOR ELEVATIONS – MAIN PLAZA

SCALE: N.T.S. | SHEET 12 OF 41 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	72
		CONTRACT NO. 62U90		
	ILLINOIS FED. AID PROJECT			

MODEL: EXTERIOR ELEVATIONS
FILE NAME: pw:\\aecom-us-w.bentley.com:AECOM DS19 NA\Documents\60658563-1-190900-CAD\910_CAD\WB\WB-TOL\03_SHEETS\Lighting\D162U90-SHT-ElectTollPlaza-012.dgn

NOTES:

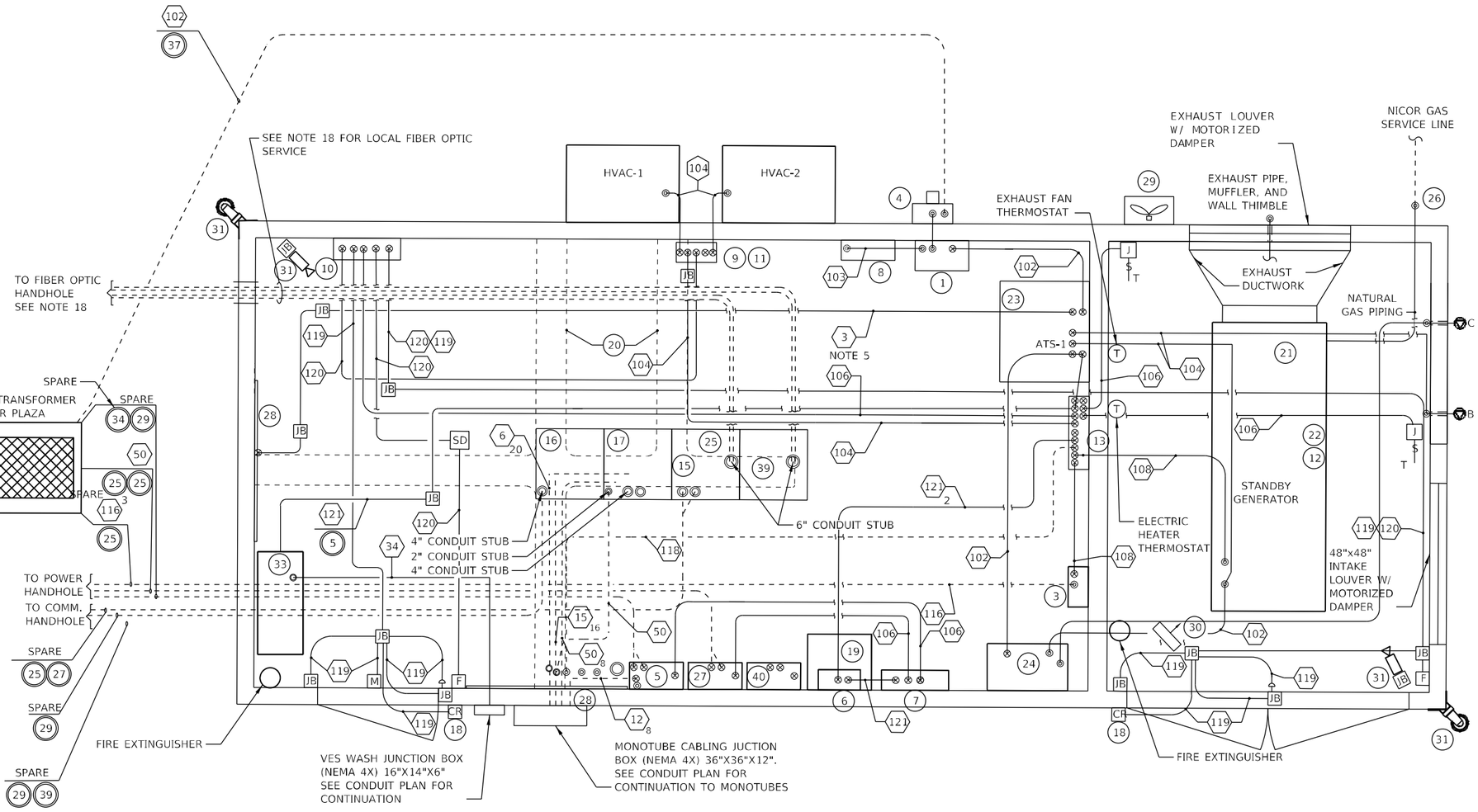
1. SEE CABLE/CONDUIT SCHEDULES SHEET FOR CABLE TAGS.
2. SEE SYSTEM POWER SINGLE LINE DIAGRAM SHEET FOR DETAILS.
3. SEE WALL ELEVATION SHEET FOR DETIALS.
4. DOOR ALARM SWITCH, SEE DETAIL ON CONTROL BUILDING MISCELLANEOUS DETAILS SHEET.
5. PROVIDE A 3 PAIR #22 SHIELDED CABLE FOR ATS ALARMS AND ROUTE TO TSIC BOARD. ALL CONTACT CLOSURES SHALL BE ROUTED TO TSIC.
6. THE LIGHTNING PROTECTION SYSTEM DEVICE SHALL BE CONNECTED TO THE LOAD SIDE OF THE UTILITY METER.
7. FOR ROADWAY LIGHTING. ROUTE TO 30A. CIRCUIT BREAKER.
8. ALL EXCESS (SLACK) POWER AND DATA CABLES MUST BE COILED IN THE HANDHOLE. NO EXCESS CABLES WILL BE COILED INSIDE THE CABINET.
9. NOT USED.
10. PVC SCH-80 CONDUIT INSIDE BUILDING SHALL BE USED WHEN THE CONDUIT IS EITHER COVERED OR ENCASED IN CONCRETE. TRANSITION SHALL BE ALLOWED. ANY EXPOSED CONDUIT SHALL BE PVC COATED RGS. SLEEVES SHALL BE USED WHEN DEEMED NECESSARY.
11. THE CABLE LENGTH FROM THE ANTENNA TO THE I-PASS READER SHALL NOT EXCEED 150 FEET FOR MAIN PLAZA.
12. PROVIDE A 3 PAIR #22 SHIELDED CABLE FOR SMOKE DETECTOR ALARM CONTACT AND ROUTE TO CARD READER EQUIPMENT.
13. PROVIDE AN ETHERNET CABLE FROM UPS AND FROM CARD READER PANEL TO LOCAL BACKBONE RACK. NETWORK SWITCHES TO BE PROCURED BY OTHERS.
14. TERMINATE ALARM CABLES ON TERMINAL BLOCK ON TSIC BOARD.
15. CONTRACTOR SHALL COORDINATE ALL WORK FOR UTILITY SERVICES WITH COMED AND NICOR.
16. POWER FRONT AND REAR VES CAMERAS FROM 24V DC VIDEO JUNCTION BOX #1 AND DATA LOGGER CAMERA FROM SECURITY VIDEO JUNCTION BOX #2. ALL POWER TO BE SURGE PROTECTED.

NOTES (CONT'D):

17. MOUNT PHOTOCELL 6" ABOVE TOP OF BUILDING POINTING TOWARDS NORTHEAST.
18. PROVIDE (2) 6" SDR 11 HDPE SLEEVES EACH. SLEEVE SHALL HAVE;
    (1) 1½" CNC DUCT (SOLID GREEN)
    (1) 1½" CNC DUCT (GREEN / WHITE STRIPE)
    (1) 1½" CNC DUCT (BLACK / RED STRIPE)
19. LOCATION OF (4) RACKS BE IN THE MIDDLE OF THE ROOM.
20. FOR SECURITY CAMERA, CONTRACTOR TO VERIFY CLEAR UNOBSTRUCTED LINE OF SIGHT TO THE ENTRANCE DOORS.

LEGEND

(1) MAIN SERVICE DISCONNECT 200A/3P
(3) LIGHTING CONTACTOR, TRANSFORMER, AND CIRCUIT BREAKER
(4) ELECTRIC UTILITY METER
(5) VIDEO JB POWER #1
(6) BYPASS SWITCH
(7) UPS-1 PANEL.
(8) LIGHTNING ARRESTER
(9) TEMPERATURE ALARM
(10) CARD READER PANEL
(11) HVAC CONTROL PANEL
(12) GENERATOR CONTROL PANEL
(13) MAIN DISTRIBUTION PANEL MDP-1
(15) 19" RACK LOCAL BACKBONE FIBER
(16) 19" RACK I-PASS READER
(17) 19" RACK LANE CONTROLLER RACK
(18) CARD READER
(19) UPS/LINE CONDITIONER. CONTRACTOR SHALL INSTALL THE 8KVA UPS, AS DIRECTED BY THE ENGINEER
(20) CABLE TRAY
(21) JACKET WATER HEATER
(22) BATTERY CHARGER
(23) ATS
(24) MTS-1 FOR GENERATOR POWER
(25) SMF DISTRIBUTION PANEL
(26) NICOR GAS SERVICE LINE
(27) VIDEO JB POWER #2
(28) TSIC BOARD
(29) SIDEWALL EXHAUST FAN W/ DAMPER
(30) ELECTRIC CEILING MOUNTED HEATER
(31) SECURITY CAMERA
(33) VES CAMERA WASH SYSTEM, SINGLE CABINET, NITROGEN GENERATOR
(39) 19" RACK (SPARE)
(40) VIDEO JB POWER #3



CONTROL BUILDING MAIN TOLL PLAZA EQUIPMENT LAYOUT
N.T.S.

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = myersc	DESIGNED - UCM	REVISED -	
	DRAWN - CAM	REVISED -	
PLOT SCALE = 0.1667 ' / in.	CHECKED - GRR	REVISED -	
PLOT DATE = 5/29/2024	DATE - 5/30/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONTROL BUILDING EQUIPMENT LAYOUT – MAIN PLAZA

SCALE: N.T.S. | SHEET 13 OF 41 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	73
		CONTRACT NO. 62U90		
	ILLINOIS FED. AID PROJECT			

MODEL: CONTROL BUILDING EQUIPMENT LAYOUT
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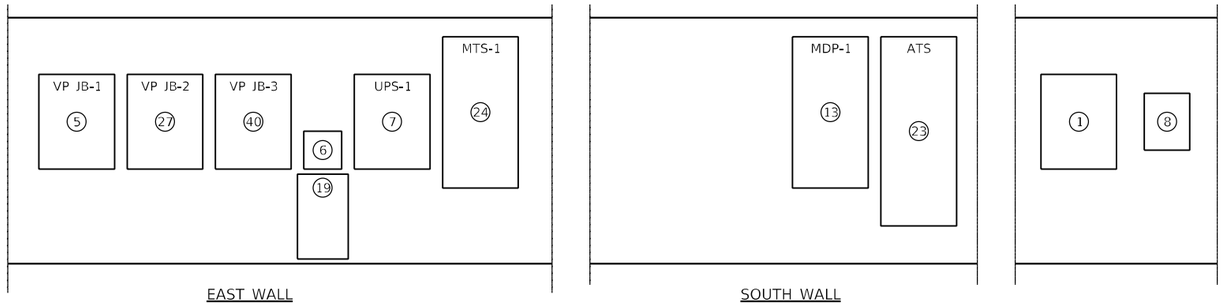

WALL ELEVATIONS

NOT TO SCALE

NOTE 2

EQUIPMENT LEGEND

ITEM	DESCRIPTION
1	MAIN SERVICE DISCONNECT 200A/3P
5	VIDEO JB POWER #1
6	BYPASS SWITCH.
7	UPS-1 PANEL.
8	LIGHTNING ARRESTOR SYSTEM
13	MAIN DISTRIBUTION PANEL (MDP-1), 208Y/120V, 3 PHASE, 4W 250 AMP, MAIN CIRCUIT BREAKER
19	UPS / LINE CONDITIONER CONTRACTOR SHALL INSTALL THE 8KVA UPS AS DIRECTED BY THE ENGINEER
23	ATS
24	MTS-1 FOR GENERATOR POWER
27	VIDEO JB POWER #2
40	VIDEO JB POWER #3

NOTES:

1. CONTRACTOR SHALL ROUTE ALL CONDUIT AS REQUIRED TO ALL PANELS, EQUIPMENT AND CONTROL DEVICES.

2. MINIMUM CLEARANCE BETWEEN CABINETS SHALL ALLOW THE DOORS TO OPEN 90 DEGREES MINIMUM.

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PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INTERIOR ELEVATIONS – CONTROL BUILDING

SCALE: N.T.S. | SHEET 14 OF 41 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	74
		CONTRACT NO. 62U90		
		ILLINOIS	FED. AID PROJECT	

MODEL: INTERIOR ELEVATIONS
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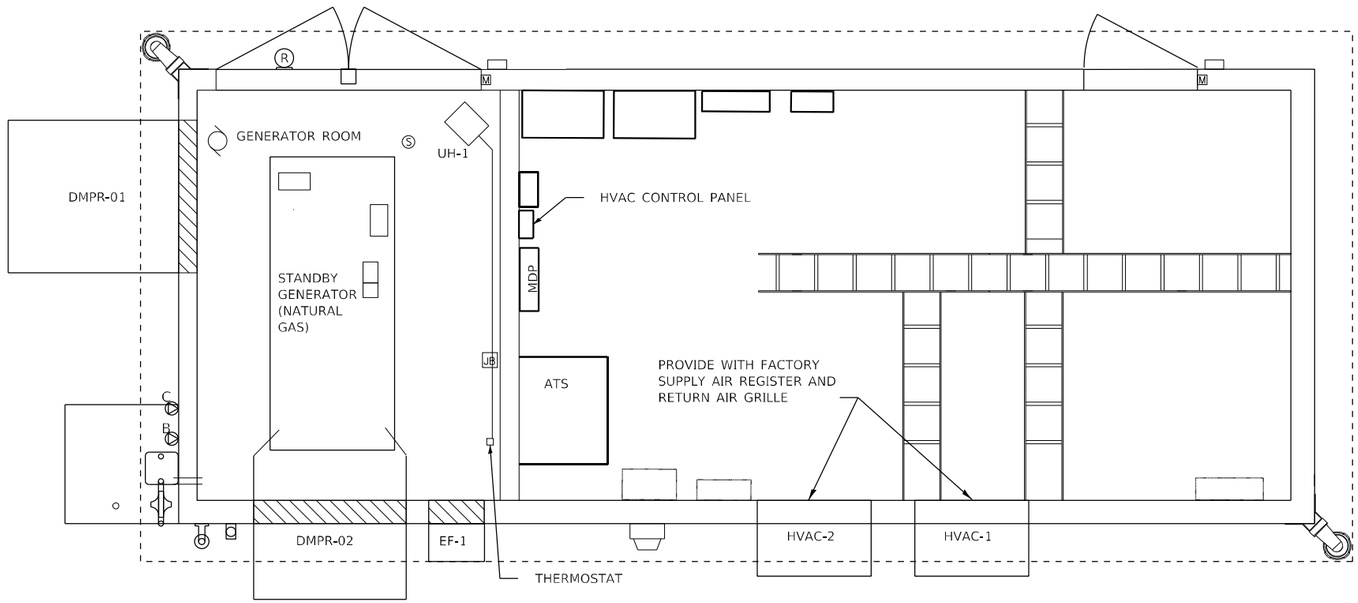

BUILDING MECHANICAL PLAN

NOTES

1. UNIT SHALL HAVE ARI CERTIFIED COILS, AIWCA RATED FANS, AND UL LISTED & LABELED ELECTRICAL COMPONENTS.
2. PROVIDE HVAC UNITS WITH FACTORY SUPPLY AND RETURN GRILLES.
3. HVAC PROVIDE LEAD/LAG THERMOSTAT CONTROLLER BARD MODEL #MC4001-AC WITH BASE ALARMS AND ETHERNET ACCESS.
4. ALL MANUFACTURERS AND PART NUMBERS ARE FOR REFERENCE. THE CONTRACTOR SHALL PROVIDE CALCULATIONS FOR HVAC AND HEATING SYSTEM BASED ON BUILDING CONSTRUCTION AND INTERNAL BUILDING LOADS.

ELECTRICAL ROOM

MARK	LOCATION	SERVES	NOM. TON	TOTAL AIRFLOW CFM	OUTSIDE AIRFLOW CFM	ESP (IN WG)	REFRIG. TYPE	COOLING DATA						HEATING DATA				ELECTRICAL DATA			MANUFACTURER/ MODEL NUMBER	REMARKS
								TOTAL CAP MBH	SENS CAP MBH	EAT (DEG F) DB	EAT (DEG F) WB	OUTDOOR TEMP (DEG F)	MIN. EER AT ARI CONDITIONS	CAP MBH	EAT (DEG F) DB	OUTDOOR TEMP (DEG F)	SUPPLEMENTAL HEATING (KW)	VOLTS	PH	HZ		
HVAC-01	OUTSIDE	BUILDING	4	1500	-	0.15	R410A	45.5	34.0	75	62	90	11	0	70	0	5	208	3	60	BARD WL4S2-B05TPXXXJ	
HVAC-02	OUTSIDE	BUILDING	4	1500	-	0.15	R410A	45.5	34.0	75	62	90	11	0	70	0	5	208	3	60	BARD WA4S3-B05TPXXXJ	

EXHAUST FAN AND DAMPERS

MARK	LOCATION	MAKE	MODEL	TYPE	CFM	ESP IN WG	FAN RPM	DRIVE TYPE	MOTOR DATA		NOTES
									HP	V / PH / HZ	
EF-1	GENERATOR ROOM	GREENHECK	CW-090HP-VG/AX	EXHAUST FAN	782	0.25	1725	DIRECT	1/6	115/ 1/ 60	WITH DAMPER AND ALUMINUM HOUSING, THERMOSTAT CONTROLLED

EXHAUST FAN AND DAMPERS

MARK	LOCATION	DESCRIPTION	TYPE	MAKE	MODEL	SIZE	ELECTRICAL	NOTES
							V / PH / HZ	
DMPR-01	GENERATOR ROOM	SUPPLY DAMPER	MOTORIZED DAMPER	GREENHECK	VCD-23	48" x 48"	115 / 1 / 60	LOUVERS FAIL OPEN ON LOSS OF POWER, INSTALL HOOD WITH SS MESH FILTER ON EXTERIOR
DMPR-02	GENERATOR ROOM	EXHAUST DAMPER	MOTORIZED DAMPER	GREENHECK	135 TLCD	48" x 48"	115 / 1 / 60	LOUVERS FAIL OPEN ON LOSS OF POWER, INSTALL PARTIAL HOOD WITH STAINLESS STEEL WIRE GRID

ELECTRIC UNIT HEATER SCHEDULE (UH)

MARK	ROOM	MAKE	MODEL	TYPE	CAPACITY (kW)	CFM	V / PH / HZ	NOTES
UH-1	GENERATOR	INDEECO	ULI	WALL MOUNTED	2KW/1.5KW	300	208 / 1 / 60	INCLUDE DISCONNECT

ABBREVIATION LEGEND

CFM - CUBIC FEET PER MINUTE

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PLOT SCALE = 0.1667 ' / in.	CHECKED - GRR	REVISED -	
PLOT DATE = 5/29/2024	DATE - 5/30/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MECHANICAL PLAN – MAIN PLAZA

SCALE: N.T.S. | SHEET 15 OF 41 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	75
		CONTRACT NO. 62U90		
	ILLINOIS	FED. AID PROJECT		

MODEL: MECHANICAL PLAN
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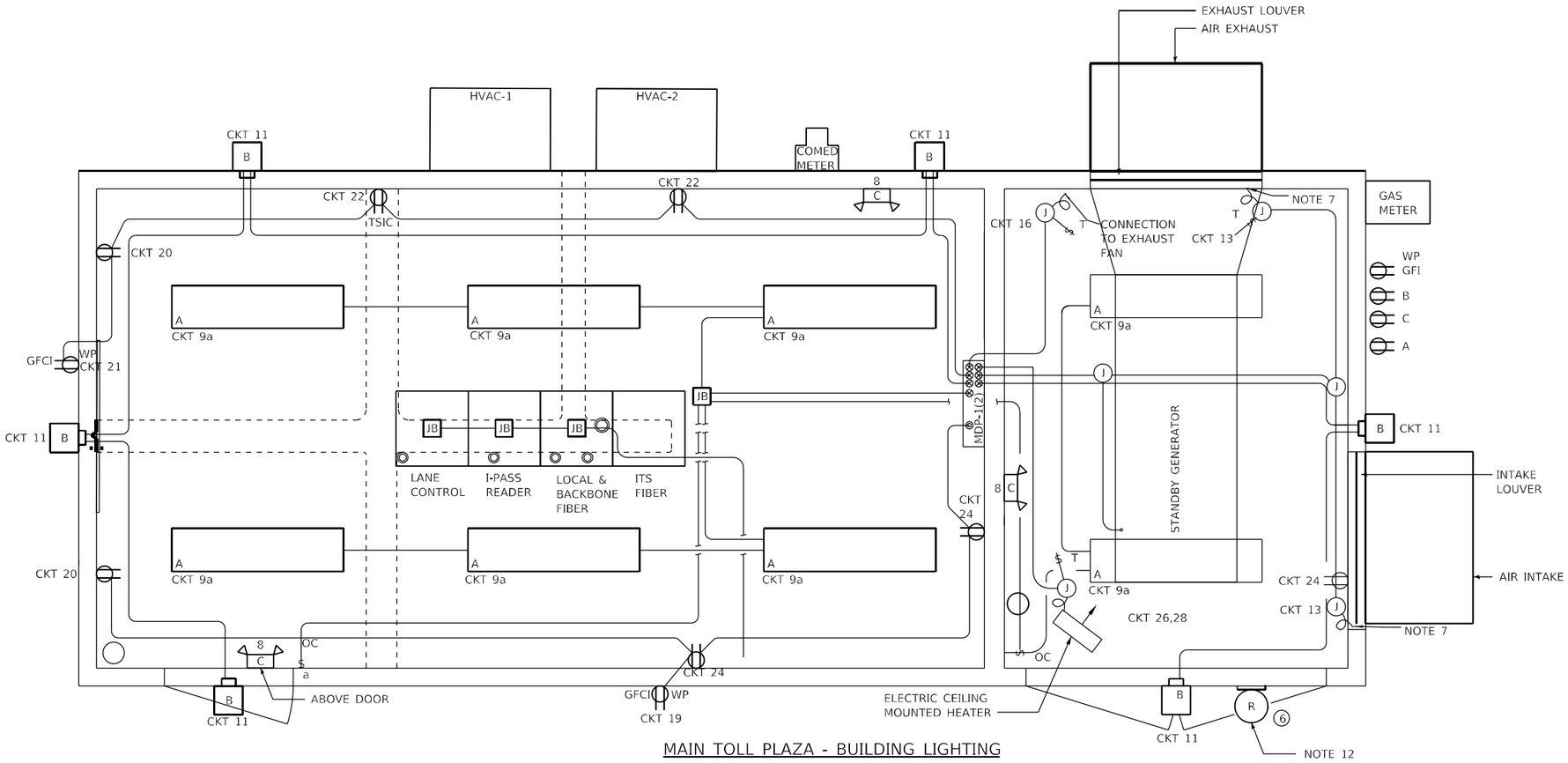


MAIN TOLL PLAZA - BUILDING LIGHTING AND RECEPTACLE PLAN

N.T.S.

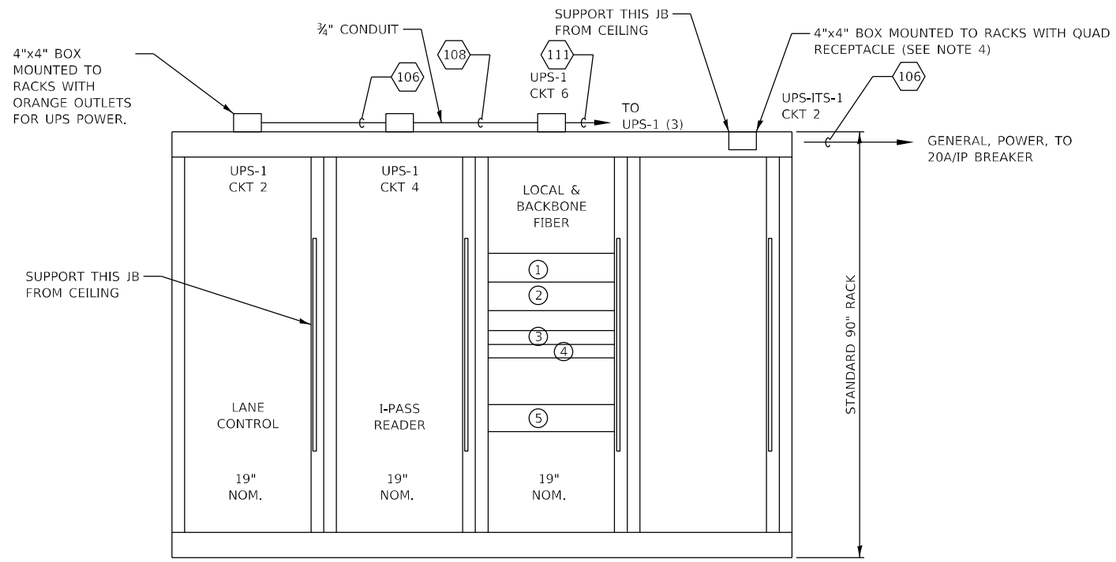
ROADWAY DIRECTION OF TRAVEL

NOTES:

1. SEE CABLE/CONDUIT SCHEDULES SHEET FOR CABLE TAGS.
2. RECEPTACLE AND LIGHTING CONDUIT SHALL BE ¾" WITH 2-1/C #12 AND 1/C #12 GRD, UNLESS OTHERWISE NOTED.
3. FOR PANEL SCHEDULES, SEE PANELBOARD SCHEDULES SHEET.
4. PROVIDE CONNECTION TO RECEPTACLES FOR THE EQUIPMENT RACKS AS SPECIFIED. THE PLUG STRIP SHALL BE MOUNTED TO THE SIDE OF THE CABINET AS DIRECTED BY THE ENGINEER.
5. FOR LIGHTING FIXTURE SCHEDULE, ELECTRICAL SYMBOLS, LEGEND, AND ABBREVIATIONS, SEE LEGEND SHEET.
6. LIGHTING AND RECEPTACLES SHALL BE FED FROM PANEL MDP-1.
7. PROVIDE CONNECTIONS TO THE MOTORIZED DAMPER AND GEN. CONTROL PANEL DAMPERS TO BE CONTROLLED FROM GEN. CONTROLLER.
8. CONNECT EMERGENCY BATTERY PACKS AHEAD OF LIGHTING CIRCUIT.
9. COMMUNICATION AND EQUIPMENT RACK SHALL BE AS FOLLOWS:
   I-PASS
   LANE CONTROL
   BACKBONE FIBER IT
10. CONTRACTOR SHALL COORDINATE FINAL RACK LAYOUT WITH THE ENGINEER AND THE ILLINOIS TOLLWAY.
11. NETWORK SWITCHES PROCURED AND INSTALLED BY CONTRACTOR.
12. RED INDICATOR LIGHT INSTALLED FACING THE ROADWAY AND ACTIVATED WHEN GENERATOR IS RUNNING.
13. SEE MISCELLANEOUS SCHEMATIC DIAGRAMS SHEET FOR EXTERIOR LIGHTING CONTROLS.

LEGEND:

1. FIBER-OPTIC CORNING RACK INTERCONNECT CENTER CCH-04U (4 RU)
2. FIBER-OPTIC CORNING RACK INTERCONNECT CENTER CCH-04U (4 RU)
3. NETWORK SWITCHES - (1 RU) NOTE 11
4. NETWORK SWITCHES - (1 RU) NOTE 11
5. COMMSCOPE MODULAR PATCH PANEL - (2 RU)
6. GENERATOR RUNNING LIGHT



COMMUNICATIONS AND EQUIPMENT RACK ELEVATION

N.T.S.

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USER NAME = Jacqueline,Ng	DESIGNED - UCM	REVISED -
	DRAWN - CAM	REVISED -
PLOT SCALE = 0.1667 ' / in.	CHECKED - GRR	REVISED -
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONTROL BUILDING LIGHTING AND RECEPTACLE PLAN – MAIN PLAZA

SCALE: N.T.S. | SHEET 16 OF 41 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	76
		CONTRACT NO. 62U90		
		ILLINOIS	FED. AID PROJECT	

MODEL: LIGHTING AND RECEPTACLE PLAN
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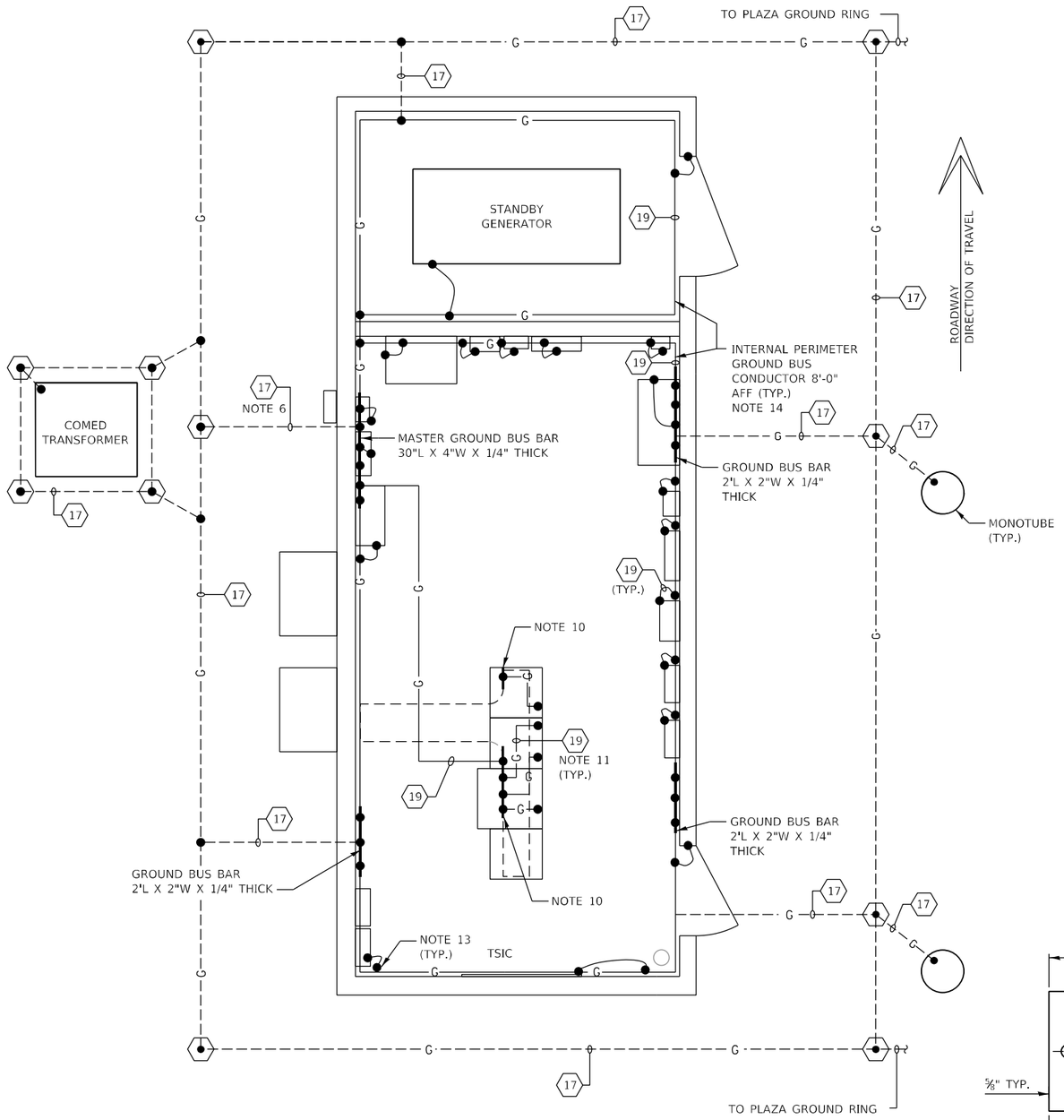
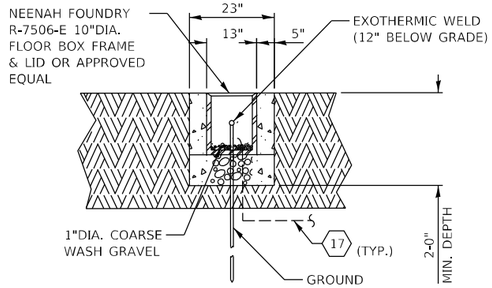


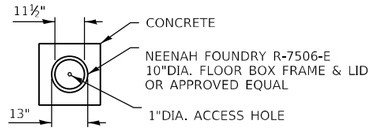
BUILDING ELECTRICAL GROUNDING LAYOUT

NOT TO SCALE



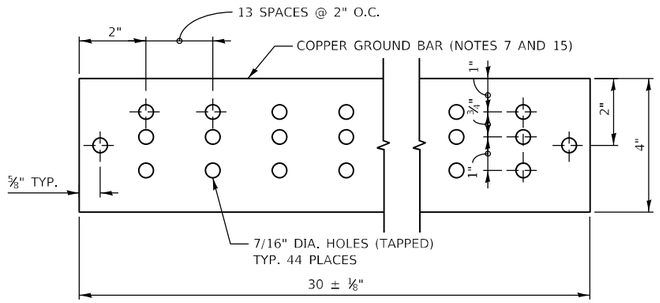
GROUND WELL ELEVATION DETAIL

NOT TO SCALE (NOTE 3)



GROUND WELL PLAN DETAIL

NOT TO SCALE (NOTE 3)

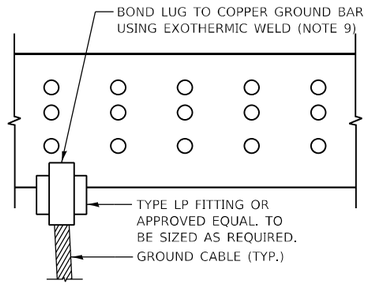


MASTER GROUND BUS BAR SUPPORT SPACING DETAIL

NOT TO SCALE

NOTES:

1. SEE CABLE/CONDUIT SCHEDULE SHEET FOR CABLE TAGS.
2. NOT USED
3. DETAIL SHOWS INSTALLATION IN UNPAVED AREA. WHEN INSTALLING IN A PAVED AREA, INCORPORATE GROUND WELL IN THE POUR.
4. GROUND WELLS ARE REQUIRED AT EVERY GROUND ROD.
5. SEE GROUNDING SCHEMATIC SHEET FOR MORE DETAILS.
6. PROVIDE 1" SCHEDULE 40 PVC CONDUIT FOR GROUND CABLES UNDER BUILDING (TYP.).
7. ALL COPPER GROUND BARS SHALL BE OF HARD DRAWN, COMMERCIALLY PURE, ELECTROLYTIC COPPER, FOR USE AS AN ELECTRICAL CONDUCTOR AND SHALL COMPLY WITH ASTM SPEC. B-187 OF LATEST DATE.
8. BOLTS, NUTS, & WASHERS USED FOR CONNECTION TO GROUND BUS BARS SHALL BE SOLID COPPER.
9. WELD PER MANUFACTURER SPECIFICATION (ERICO PRODUCTS OR BURNDY CORP.).
10. THE COPPER GROUND BUS BAR SHALL BE MOUNTED TO THE CABLE TRAY ABOVE EQUIPMENT RACKS.
11. PROVIDE A #2 AWG GROUND CABLE FROM THE FRAME OF EACH EQUIPMENT RACK TO THE GROUND BUS AS SHOWN. THE CABLE SHALL BE BOLTED TO THE RACK USING A SEAMLESS HEAVY DUTY COMPRESSION TERMINAL.
12. A FOUR INCH GAP SHALL BE PROVIDED BETWEEN THE THE ENDS OF THE TWO CONDUCTORS THAT MAKE UP THE INTERNAL PERIMETER GROUND BUS CONDUCTOR.
13. ALL EQUIPMENT LOCATED INSIDE THE BUILDING SHALL BE BONDED TO THE MAIN GROUND BUS OR THE INTERNAL PERIMETER GROUND CONDUCTOR WITH A #2 AWG GROUND CABLE. ALL CONNECTIONS MUST BE EXOTHERMICALLY WELDED.
14. THE INTERNAL PERIMETER GROUND BUS CONDUCTOR MUST BE INSTALLED HORIZONTALLY ALONG THE WALL APPROXIMATELY 8 FEET ABOVE FINISHED FLOOR. THE CONDUCTOR SHALL BE SUPPORTED 2 INCHES FROM THE WALL SURFACE ON INSULATED STANDOFFS. THE STANDOFFS SHALL BE INSTALLED AT INTERVALS AS NECESSARY TO KEEP THE CONDUCTOR SECURELY IN PLACE WITHOUT NOTICEABLE SAGS AND BENDS.
15. THE GROUND BUS BARS MUST BE MOUNTED APPROXIMATELY 8 FEET ABOVE FINISHED FLOOR AND MOUNTED TO WALL USING A MOUNTING BRACKET WITH INSULATOR.



MASTER GROUND BUS BAR CONNECTION DETAIL

NOT TO SCALE

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USER NAME = Jacqueline.Ng	DESIGNED - UCM	REVISED -	
	DRAWN - CAM	REVISED -	
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONTROL BUILDING GROUNDING DETAILS – MAIN PLAZA

SCALE: N.T.S. | SHEET 17 OF 41 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	77
		CONTRACT NO. 62U90		
	ILLINOIS FED. AID PROJECT			

MODEL: MAIN PLAZA
FILE NAME: pw:\\aecom-ua-pw.bentley.com:AECOM_DS19_NA\Documents\60656563-1-1909004-CAD\910-CAD\WB\WB-TOLL103_SHEETS\Lighting\D162U90-Sht-Elec-TollPlaza-017.dgn

PANELBOARD MDP-1
VOLTAGE 120/208V
PHASE/WIRE 3/4

MAINS 250A. MCB
BUS RATING 300A.
MOUNTING SURFACE

DESCRIPTION	CKT NO.	LOAD (WATTS) A	B	C	AMPS/ POLES	CKT BKR	CKT BKR	AMPS/ POLES	LOAD (WATTS) A	B	C	CKT NO.	DESCRIPTION
SPARE	1				20/1			30/1	6800			2	UPS-1 (8 KVA)
SPARE	3				20/1			20/1		200		4	LIGHTING CONTACTOR (CONTROL)
SPARE	5				20/1						2000	6	
EMERGENCY LIGHT	7	200			20/1			30/3	2000			8	HVAC UNITS
INTERIOR LIGHTS	9		400		20/1					2000		10	
EXTERIOR BUILDING LIGHTS	11			400	20/1						---	12	
MOTORIZED DAMPERS	13	180			20/1			60/2	----			14	SPARE
GEN. BATTERY CHARGER	15		160		20/1			20/1		400		16	EXHAUST FAN
GEN. JACKET WATER HTR.	17			1500	20/1			20/1			---	18	SPARE
EXTERIOR RECEPTACLE	19	400			20/1			20/1	400			20	INTERIOR RECEPTACLES
EXTERIOR RECEPTACLE	21		400		20/1			20/1		400		22	INTERIOR RECEPTACLES
SPARE	23			--	20/1			20/1			400	24	INTERIOR RECEPTACLES
SPARE	25	--			20/2			20/2	375			26	ELECTRIC CEILING MOUNTED HEATER
	27		--							375		28	
VES WASH SYSTEM (LOC 1)	29			2500	30/1			20/1			--	30	SPARE
SPARE	31	--			40/1			20/1	--			32	SPARE
ROADWAY LTG TRANSFORMER	33		960		20/2			20/1		--		34	SPARE
	35			960				20/1			--	36	SPARE
LINE CONDITIONER (LC-1)	37		--		30/1			20/1	--			38	SPARE
SPARE	39				20/1			20/1		--		40	SPARE
SPARE	41				20/1			20/1			--	42	SPARE
"A"		780			SUBTOTAL "A" = 10355				9575				"A"
"B"			1920		SUBTOTAL "B" = 5295					3375			"B"
"C"				5360	SUBTOTAL "C" = 7760						2400		"C"
TOTAL WATTS "A,B,C"		= 23.41 KW											

PANELBOARD UPS-1
VOLTAGE 120V.
PHASE/WIRE 1/2

MAINS 30A. 1P. MCB
BUS RATING 30A.
MOUNTING SURFACE

DESCRIPTION	CKT NO.	LOAD (WATTS)	AMPS/ POLES	CKT BKR	CKT BKR	AMPS/ POLES	LOAD (WATTS)	CKT NO.	DESCRIPTION
SPARE	1	--	20/1			20/1	400	2	RACK RECEPTACLE (LCC)
SPARE	3	--	20/1			20/1	400	4	RACK RECEPTACLE (I-PASS)
SPARE	5	--	20/1			20/1	400	6	RACK RECEPTACLE (FIBER)
VIDEO POWER JUNCTION BOX 3	7	400	20/1			20/1	200	8	CARD READER PANEL
VIDEO POWER JUNCTION BOX 1	9	500	20/1			20/1	--	10	SPARE
VIDEO POWER JUNCTION BOX 2	11	400	20/1			20/1	65	12	VIDEO POWER JUCTION BOX (DATA LOGGER)
SUBTOTAL "A"		1300					1465		
TOTAL WATTS "A,B"		= 2.8 KW							

MODEL: PANELBOARD SCHEDULES
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USER NAME = myersc	DESIGNED - UCM	REVISED -	
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PLOT SCALE = 0.1667 ' / in.	CHECKED - GRR	REVISED -	
PLOT DATE = 5/29/2024	DATE - 5/30/2024	REVISED -	

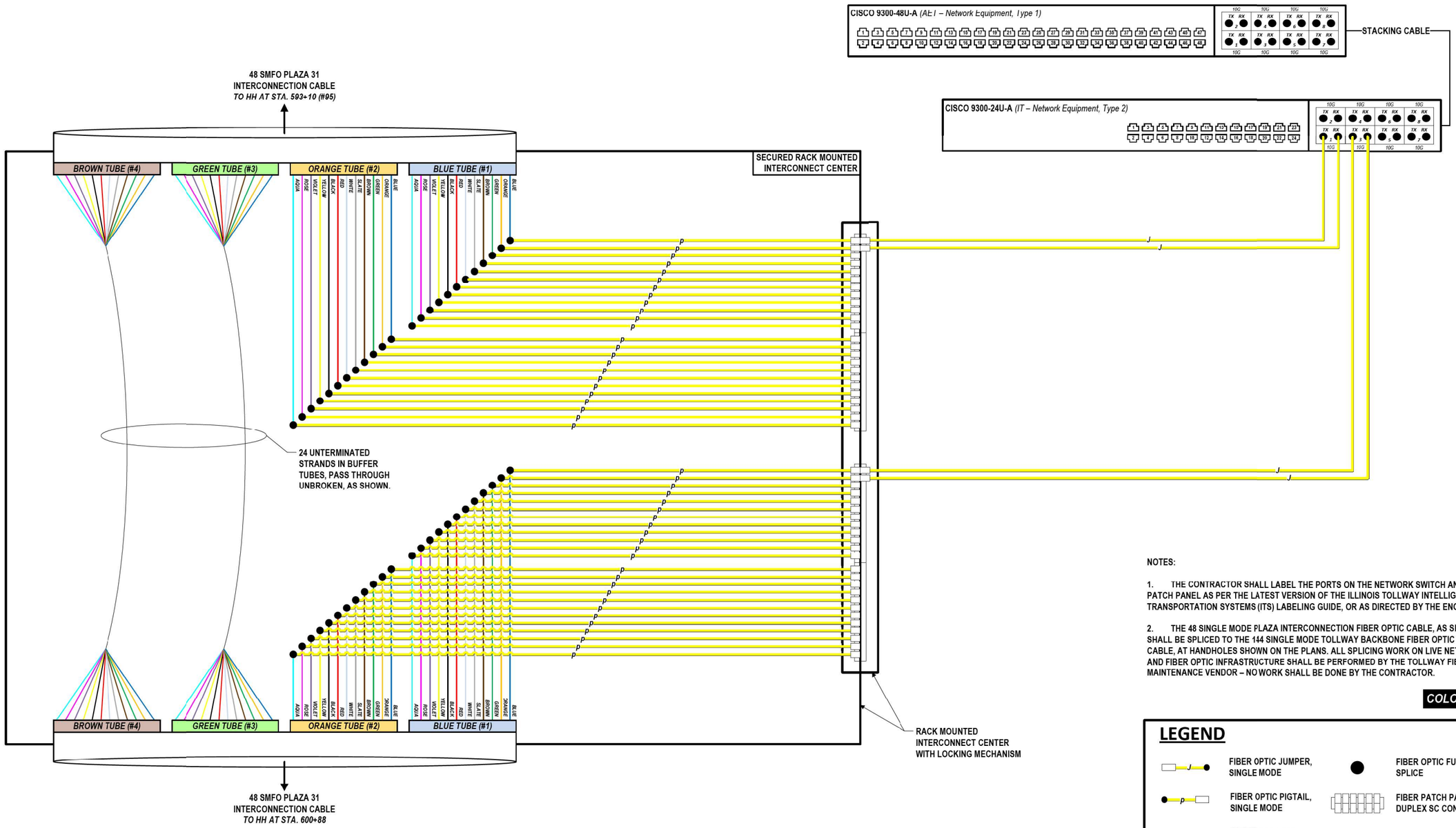
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PANELBOARD SCHEDULES – MAIN PLAZA

SCALE: N.T.S. | SHEET 18 OF 41 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	78
		CONTRACT NO. 62U90		
	ILLINOIS FED. AID PROJECT			

TOLL PLAZA NETWORK SWITCH CONNECTION DETAILS (PLAZA 31) – IT & AET NETWORK



NOTES:

1. THE CONTRACTOR SHALL LABEL THE PORTS ON THE NETWORK SWITCH AND THE PATCH PANEL AS PER THE LATEST VERSION OF THE ILLINOIS TOLLWAY INTELLIGENT TRANSPORTATION SYSTEMS (ITS) LABELING GUIDE, OR AS DIRECTED BY THE ENGINEER.

2. THE 48 SINGLE MODE PLAZA INTERCONNECTION FIBER OPTIC CABLE, AS SHOWN, SHALL BE SPLICED TO THE 144 SINGLE MODE TOLLWAY BACKBONE FIBER OPTIC TRUNK CABLE, AT HANDHOLES SHOWN ON THE PLANS. ALL SPLICING WORK ON LIVE NETWORK AND FIBER OPTIC INFRASTRUCTURE SHALL BE PERFORMED BY THE TOLLWAY FIBER OPTIC MAINTENANCE VENDOR – NO WORK SHALL BE DONE BY THE CONTRACTOR.

COLOR PLOT

LEGEND

- FIBER OPTIC JUMPER, SINGLE MODE
- FIBER OPTIC FUSION SPLICE
- FIBER OPTIC PIGTAIL, SINGLE MODE
- FIBER PATCH PANEL, DUPLEX SC CONNECTORS
- BARE FIBER LEFT COILED IN SPLICE TRAY

DASHED LINES DENOTE EXISTING EQUIPMENT AND INFRASTRUCTURE.

AECOM
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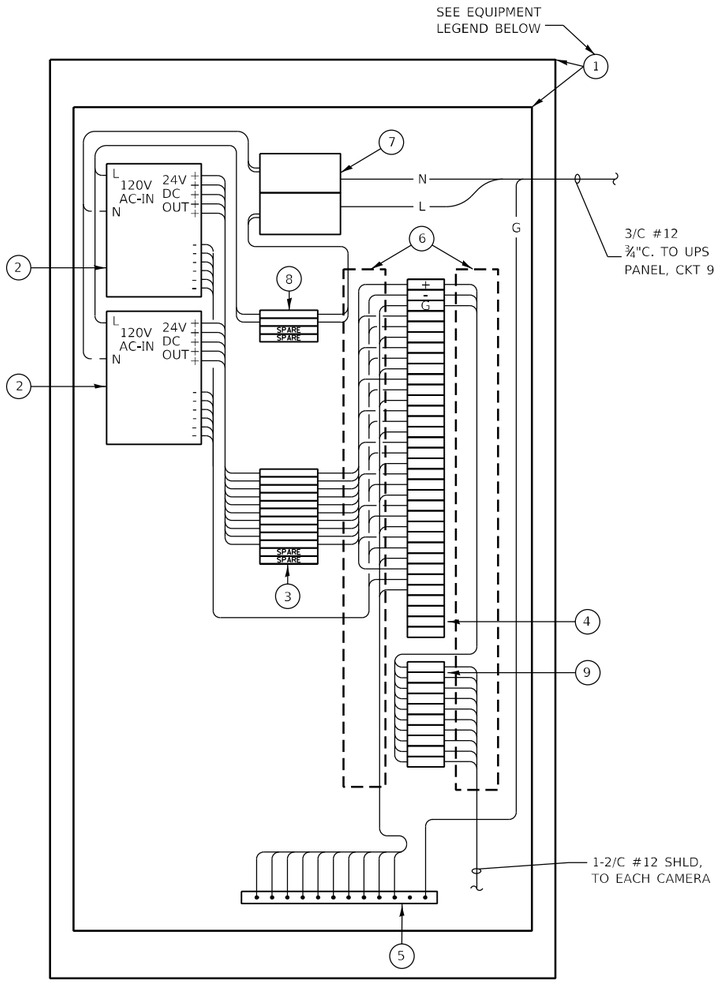
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLAZA 31 SWITCH CONNECTION DETAILS

SCALE: N.T.S. | SHEET 19 OF 41 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	79
		CONTRACT NO. 62U90		
	ILLINOIS FED. AID PROJECT			

MODEL: CONTROL BUILDING EQUIPMENT LAYOUT
FILE NAME: nw:\\aecom-ua-nw.bentley.com:AECOM_DS_19_NA\Documents\60658583-1\90900-CAD\910-CAD\WB\WB-TOLL03_SHEETS\Lighting\D162U90-Sht-Elec-TollPlaza-019.dgn



FRONT & REAR VES CAMERA
VIDEO POWER JUNCTION BOX
N.T.S.

VIDEO POWER JUNCTION BOX - MAIN PLAZA

EQUIPMENT LEGEND - VIDEO POWER JUNCTION BOX

ITEM	QUANTITY (SAMPLE)	DESCRIPTION
1	1	48"H X 24"W X 8"D NEMA 1 ENCLOSURE WITH 44"H X 22 ½"W BACK PANEL, HOFFMAN CATALOG NO. A-48N24BLP, WITH A-48N24MP PANEL.
2	2	POWER SUPPLY, 24VDC, TDK-LAMBDA NO. QM7FSDL 24/24DMS 24/24DMS 24/24DMS 24/24DMS 24/24DMS.
3	12	TERMINAL BLOCKS, FUSE SWITCH TYPE WITH BLOWN FUSE INDICATOR COMPLETE WITH 5 AMP FUSE, MOUNTING RAIL, ANCHORS, BARRIERS, MARKING STRIPS AND JUMPERS, ALLEN BRADLEY CATALOG NO. 1492-FB1M30-D1.
4	21	TERMINAL BLOCKS, ON POLE PANEL MOUNT BLOCK SCREW TERMINAL WITH WIRE CLAMP, ALLEN BRADLEY CATALOG NO. 1492-CD6.
5	1	GROUND BAR SYSTEM WITH INSULATED MOUNTING BRACKET, HOFFMAN CATALOG NO. PGS2K.
6	LOT	PANDUIT PLASTIC WIRING DUCT SNAP-IN SLOT DESIGN AND NON-SLIP COVER, 1"W X 1"H, CATALOG NO. F1X1LG6 WITH COVER C1LG6.
7	1	POWER DISTRIBUTION BLOCK MARATHON NO. 1322580.
8	4	SQUARE D, QOU 115 1P/15A BREAKER.
9	10	SURGE SUPPRESSOR MTL MODEL ZB24580.

NOTES:

1. LABEL JUNCTION BOX, TERMINAL STRIPS, AND ALL WIRE AND CABLES.
2. ROUTE 1-2/C #12 POWER CABLE TO EACH CAMERA.
3. ALL ELECTRICAL CABLES TO CAMERA SHALL HAVE SURGE PROTECTION.
4. CAT6 CABLE SHALL BE SURGE PROTECTED ON THE TSIC.

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

VIDEO POWER JUNCTION BOX DETAIL – MAIN PLAZA

SCALE: N.T.S. | SHEET 20 OF 41 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	80
		CONTRACT NO. 62U90		
		ILLINOIS	FED. AID PROJECT	

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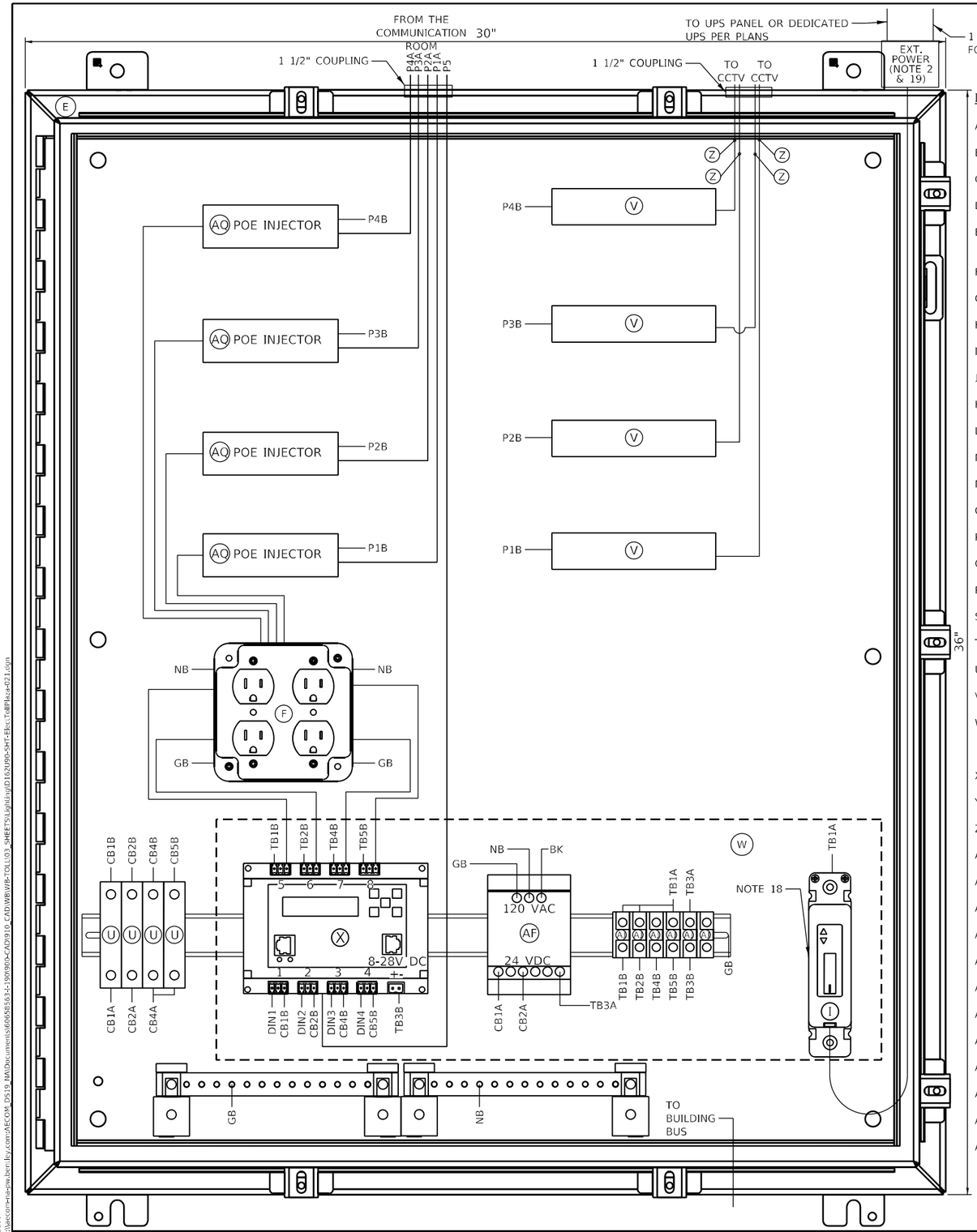

ITEM	DESCRIPTION
A	NOT USED
B	NOT USED
C	NOT USED
D	TWO (2) GROUNDING BAR SYSTEM HOFFMAN/PGS2K. BONDED OR SEPARATED AS REQUIRED.
E	NEMA 1, 36"H X 30"W X 12"D ENCLOSURE WITH 32" X 28.5" PANEL, HOFFMAN/A36N30DLP & A36N30MP
F	ONE QUAD 120V RECEPTACLE
G	NOT USED
H	NOT USED
I	120V, 1P, 30A CIRCUIT BREAKER WITH TERMINAL SHIELD EATON
J	NOT USED
K	NOT USED
L	NOT USED
M	NOT USED
N	NOT USED
O	NOT USED
P	NOT USED
Q	NOT USED
R	NOT USED
S	NOT USED
T	NOT USED
U	5A CIRCUIT BREAKER, ALLEN BRADLEY/1492-SPM1B050
V	AXIS SURGE SUPPRESSOR T8061, MOUNTED ON COMMON DIN RAIL AND GROUNDED
W	CLEAR PLEXIGLASS SAFETY COVER PANEL ENCOMPASSING ITEMS I, X, AF AND AJ (THE INSTALLER SHALL PERMANENTLY AFFIX A LABEL STATING "DANGER 480 VAC" OR "DANGER 240 VAC" OR "DANGER 120 VAC" FOR VOLTAGE AS FIELD CONDITIONS WARRANT.)
X	POWER CONTROLLER, 8-CHANNEL DIN ETHERNET RELAY DIGITAL LOGGERS/DIN 4
Y	NOT USED
Z	CATEGORY 6 CABLE, 23AWG, OUTDOOR RATED CABLE BELDEN/7953A
AA	NOT USED
AB	NOT USED
AC	NOT USED
AD	NOT USED
AE	NOT USED
AF	AC/DC POWER SUPPLY, 24VDC WAVETRONIX - CLICK-204
AG	NOT USED
AH	NOT USED
AI	NOT USED
AJ	TERMINAL BLOCK, ALLEN BRADLEY/1492-CD8
AP	#10 AWG
AQ	POE INJECTOR AXIS T8154 120VAC

NOTES:

1. ALL POWER WIRING SHALL BE RHH/RHW WITH WIRE TERMINALS OR TINNED.
2. CONTRACTOR TO VERIFY CORRECT TRANSFORMER TAPS ARE USED BASED ON INCOMING POWER SOURCE.
3. ALL CABLES AND EQUIPMENT SHALL BE PROPERLY DRESSED AND LABELED. ALL CONDUITS SHALL BE PROPERLY PLUGGED WITH DUCT SEAL PUTTY (RAINBOW TECHNOLOGIES OR EQUIVALENT).
4. EACH 120VAC OUTLET, OR (ITEM F, & AF) SHALL BE FED FROM A SEPARATE POWER CIRCUIT.
5. MOUNT ITEMS U, X, AF & AJ ON A 21 INCH CONTINUOUS SECTION OF DIN RAIL.
6. NOT USED
7. NOT USED
8. ALL BREAKERS SHALL BE LABELED (e.g. CAMERA-AC, CAMERA-DC, DIN RELAY-AC, DIN RELAY-DC, CELL MODEM-AC ETC.).
9. USE THE MOUNTING TABS ON THE IP RELAY UNIT TO MOUNT THE UNIT DIRECTLY TO THE DIN RAIL. REFER TO THE IP RELAY WIRING TABLE FOR WIRING DETAILS.
10. NOT USED
11. NOT USED
12. IP RELAY IS USED TO CONTROL POWER TO THE CAMERAS AND DETECTORS. ALL 120VAC CONNECTIONS ON ITEM X SHALL BE PROTECTED.
13. DIN RAIL SHALL BE INSTALLED AS ILLUSTRATED ON DRAWING. DIN RAIL SHALL BE GROUNDED TO THE GROUND BUS.
14. BOND NEUTRAL AND GROUND BUSES TOGETHER, WHEN REQUIRED. TIE THE ENCLOSURE INTO THE GROUND BUS.
15. THE PLEXIGLASS PANEL DENOTED BY THE DASHED LINE SHALL BE ATTACHED TO THE BACKPLATE WITH 4 MOUNTING STUDS.
16. ALL INTERNAL ENCLOSURE ROUTED AND TERMINATED CAT6 CABLE SHALL BE TEMPERATURE RATED.
17. ALL INTERNAL 24VAC, 120VAC AND ANY DC VOLTAGE POWER FEEDS USE #16 AWG CABLE.
18. PROVIDE WINDOW IN PMMA SHIELD FOR ACCESS TO BREAKER, MOUNT BREAKER FLUSH WITH PMMA SHIELD USING MOUNTING BRACKET.
19. 120V POWER COMES FROM THE BUILDING CIRCUIT PANEL.
20. WIFI COMMUNICATION SHALL BE DISABLED ON DIN ETHERNET RELAY.

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

VIDEO POWER JUNCTION BOX, MODEL A

SCALE: N.T.S. | SHEET 21 OF 41 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	81
		CONTRACT NO. 62U90		
		ILLINOIS	FED. AID PROJECT	

MODEL: M-ITS-2100
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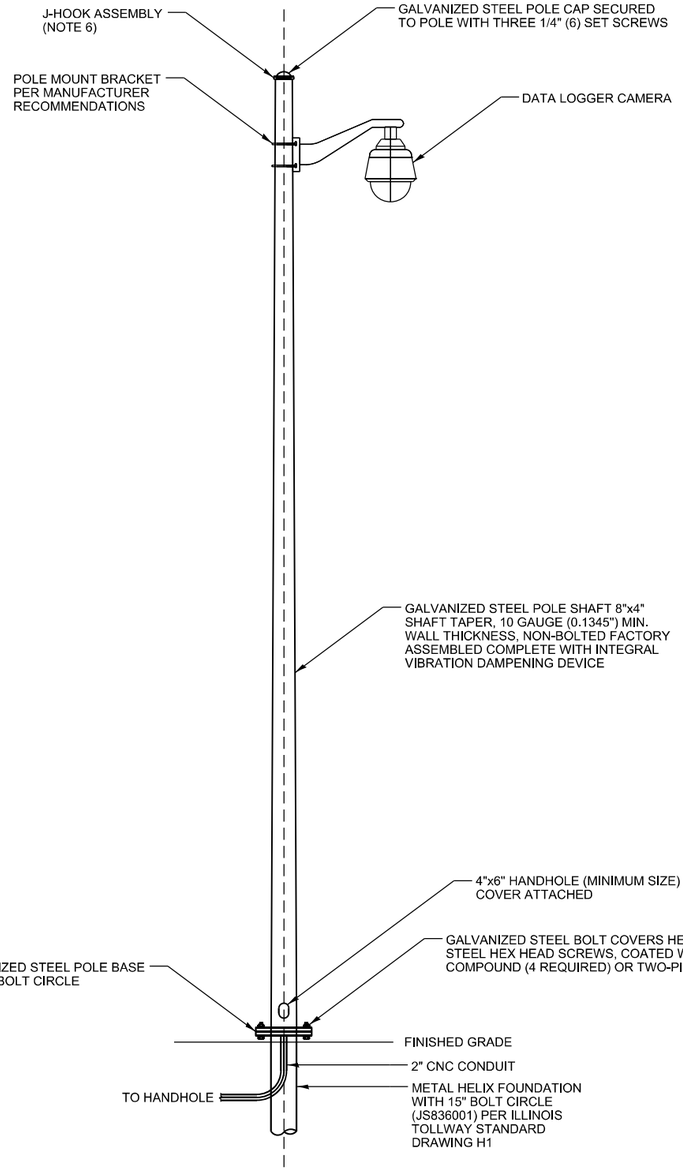
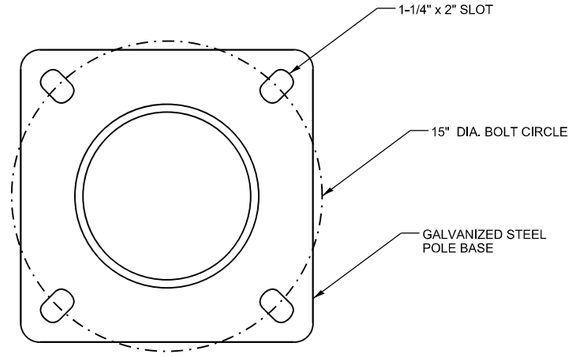


GROUND MOUNTED LIGHT POLE, GALVANIZED STEEL, 22.5', WITHOUT MAST ARM
NOT TO SCALE



GALVANIZED STEEL POLE BASE FOR 22.5' POLE
NOT TO SCALE

NOTES:

1. SEE CABLE/CONDUIT SCHEDULES SHEET FOR CABLE TAGS.
2. INSTALL CABLES BETWEEN THE PLAZA AND CAMERA PER MANUFACTURER'S RECOMMENDATIONS.
3. THE CAMERA'S FINAL MOUNTING LOCATION SHALL BE APPROVED BY THE ENGINEER PRIOR TO INSTALLATION.
4. THE COST FOR THE WORK TO FURNISH AND INSTALL THE CAMERA, CABLES, CONDUIT, AND ASSOCIATED MOUNTING HARDWARE ON THE POLE SHALL BE INCLUDED IN THE LUMP SUM PAY ITEM FOR ELECTRICAL WORK FOR THE PLAZA.
5. LOOP 3' OF CABLE FOR CAMERA IN POLE TO FACILITATE CAMERA MAINTENANCE.
6. THE J-HOOK SHALL BE WELDED IN PLACE TO THE SIDE OF THE POLE NEAR THE TOP OF THE POLE. THE CONTRACTOR SHALL PROVIDE A CUSTOM FLAT TOP POLE CAP THAT WILL FIT THE POLE WITH THE J-HOOK WELDED TO THE SIDE. THE POLE CAP SHALL BE SECURED TO THE POLE BY DRILLING AND INSERTING SET SCREWS.

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PLOT SCALE = 59.9996 ' / in.	CHECKED - GRR	REVISED -	
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -	

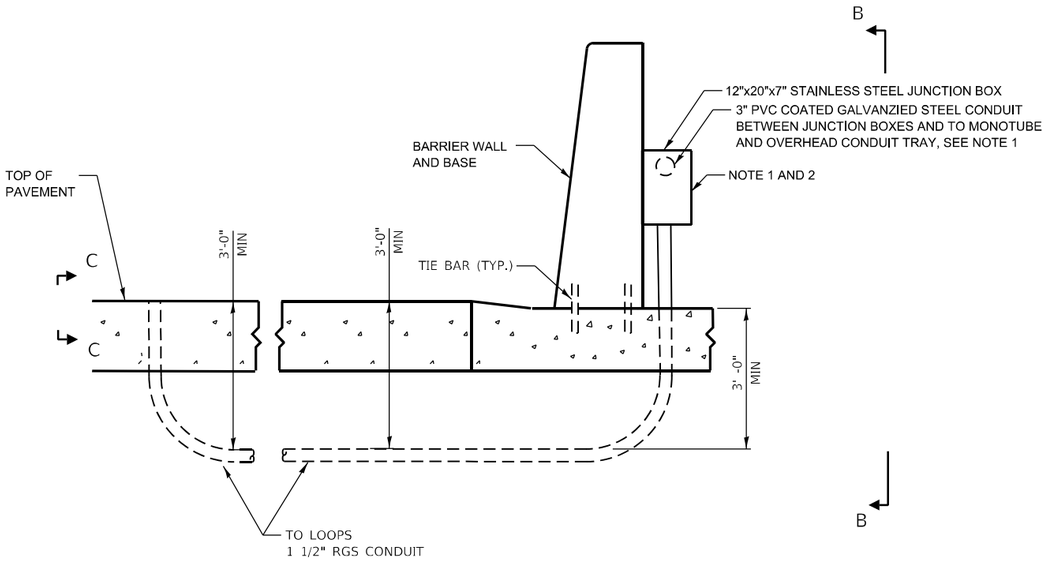
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GROUND MOUNTED DATA LOGGER CAMERA LIGHT POLE DETAILS

SCALE: N.T.S. | SHEET 22 OF 41 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	82
		CONTRACT NO. 62U90		
	ILLINOIS	FED. AID PROJECT		

MODEL: ELECTRICAL SITE PLAN
FILE NAME: pw:\\aecom-hia-pw.bentley.com:AECOM_DS19_NADDocuments\606585634-1909000-CADD\10_CAD\WB\WB-TOLL03_SHEETS\Lighting\D162U90-SHT-Elec-TollPlaza22.dgn

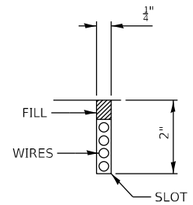


SECTION A-A
(LANE LOOP LAYOUT)

N.T.S.

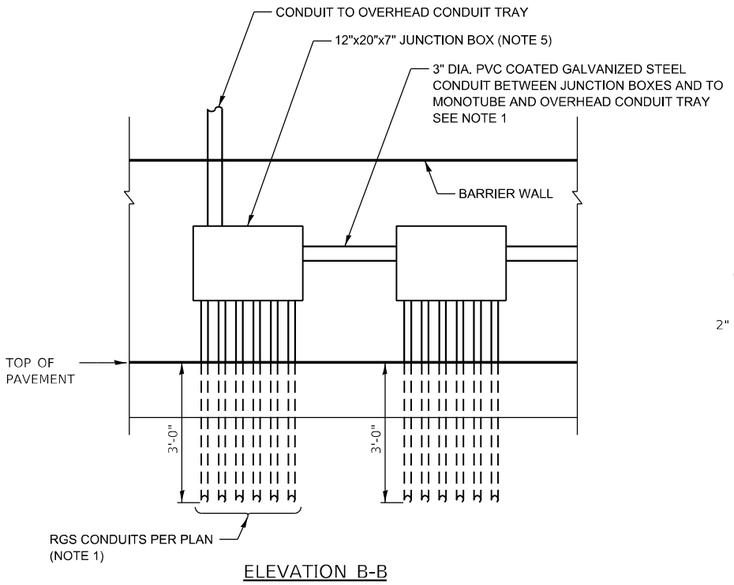
NOTES:

1. SEE LOOP LAYOUT SHEETS FOR MORE DETAILS.
2. THE REINFORCEMENT IS NOT SHOWN FOR CLARITY.
3. CONDUITS THAT STUB UP IN THE PAVEMENT ARE 1.5" FOR QUANTUM AND PIEZO STRIPS, 1 1/2" FOR ALL OTHERS UNLESS NOTED OTHERWISE. SEE LOOP LAYOUT DETAIL. CONDUIT BETWEEN JUNCTION BOXES SHALL BE 4" DIA.
4. ELECTRICAL CONTRACTOR MUST COORDINATE WITH ILLINOIS TOLLWAY AND PAVEMENT CONTRACTOR. NO CONCRETE POUR SHALL BE DONE BEFORE CONDUIT IS LAID OUT AND APPROVED BY THE ENGINEER.
5. JUNCTION BOXES MUST BE INSTALLED A MINIMUM OF 12" APART.



DETAIL OF
DETECTOR LOOP SLOT

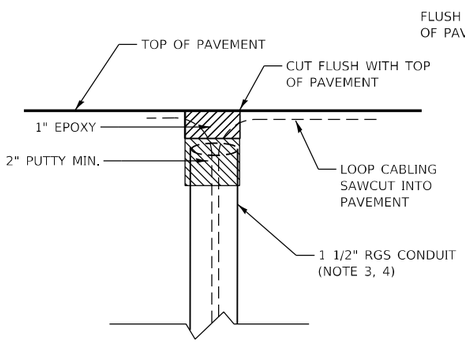
N.T.S.



ELEVATION B-B

JUNCTION BOX ATTACHED TO
BARRIER WALL-ELEVATION

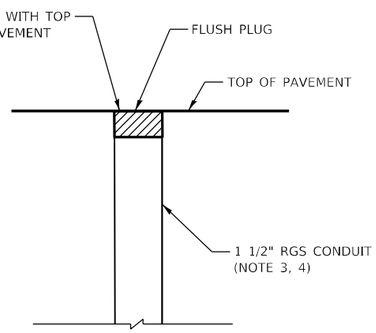
N.T.S.



SECTION C-C

LOOP INSTALLATION DETAILS

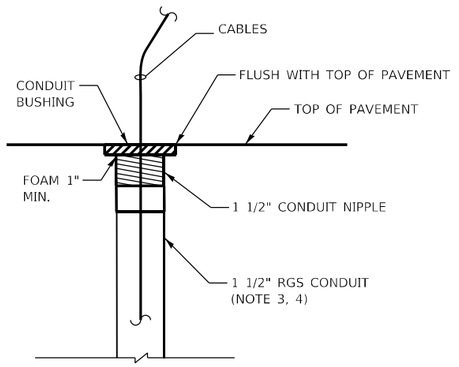
N.T.S.



SECTION C-C

PRIOR TO ROAD OR
ISLAND CONSTRUCTION

N.T.S.



SECTION C-C

EQUIPMENT ENDS AFTER
CABLE INSTALLATION

N.T.S.

AECOM
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LOOP JUNCTION BOX DETAIL

SCALE: N.T.S. | SHEET 23 OF 41 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	83
		CONTRACT NO. 62U90		
		ILLINOIS	FED. AID PROJECT	

MODEL: LOOP JUNCTION BOX
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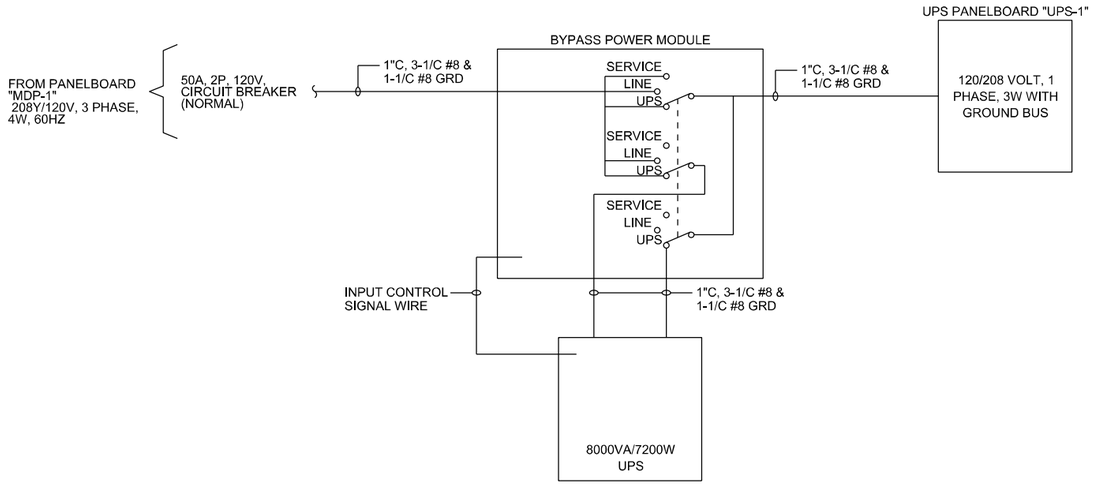
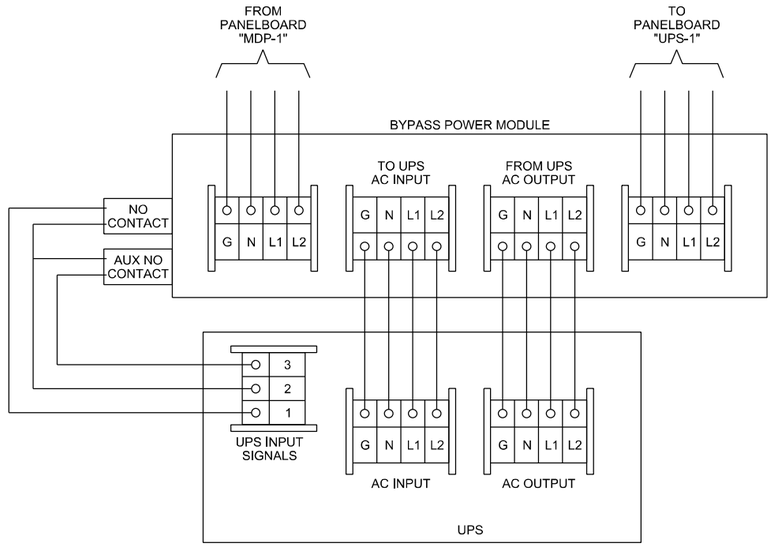


UPS SINGLE LINE DIAGRAM



BYPASS POWER MODULE WIRING DIAGRAM

NOTES:

1. INPUT AND OUTPUT VOLTAGE IS120/208 VOLT, 1 PHASE, 60 HERTZ, 3 WIRE.
2. CONDUIT SIZE SHOWN IS BASED ON TYPE THHN/THWN WIRE.
3. THE UPS AND EXTERNAL BYPASS POWER MODULE SHALL BE AS MANUFACTURED BY EATON.
4. VERIFY DETAILS WITH ILLINOIS TOLLWAY PRIOR TO PURCHASING EQUIPMENT.

AECOM
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PLOT SCALE = 0.166667 ' / in.	CHECKED - GRR	REVISED -	
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

UPS SINGLE LINE AND WIRING DIAGRAM

SCALE: N.T.S. | SHEET 24 OF 41 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	84
		CONTRACT NO. 62U90		
	ILLINOIS	FED. AID PROJECT		

MODEL: UPS SINGLE LINE AND WIRING
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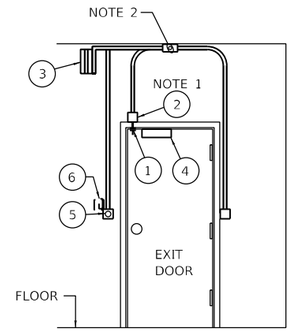

DOOR ALARM JUNCTION BOX DETAIL- SINGLE DOOR

NOT TO SCALE

EQUIPMENT LEGEND - DOOR ALARM

ITEM	DESCRIPTION
1	NORMALLY CLOSED (N.C. WHEN THE DOOR IS CLOSED) MAG REED CONTACT BUILT INTO DOOR FRAME. SENTROL 1078C OR 1078 SERIES. COIL CONTACT LEADS AND COMMUNICATION CABLE IN JUNCTION BOX.
2	JUNCTION BOX, 4" X 4" WITH BLANK COVER PLATE, AND ¾" CONDUIT TO CABLE TRAY.
3	MOTION DETECTOR
4	MAGNETIC DOOR LOCK
5	DOOR RELEASE BUTTON
6	CARD READER (EXTERIOR)

NOTES:

1. COIL 2 FEET CABLE IN BOX FOR TERMINATION BY THE ILLINOIS TOLLWAY UNLESS OTHERWISE NOTED.
2. ROUTE TO CARD READER PANEL, TERMINATION BY THE ILLINOIS TOLLWAY. 4-1PR #22 SHLD. CABLE IN ¾" CONDUIT.
3. MECHANICAL LOCKS SHALL BE SCHLAGE BRAND (OR APPROVED EQUAL) AND SECURED WITH A CONSTRUCTION KEY WITH THREE COPIES PROVIDED TO ILLINOIS TOLLWAY BUSINESS SYSTEMS.

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PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DOOR ALARMS DETAIL

SCALE: N.T.S. | SHEET 25 OF 41 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	85
		CONTRACT NO. 62U90		
	ILLINOIS	FED. AID PROJECT		

MODEL: DOOR ALARMS
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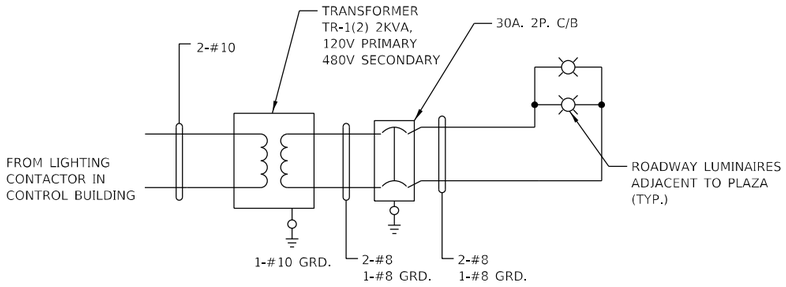
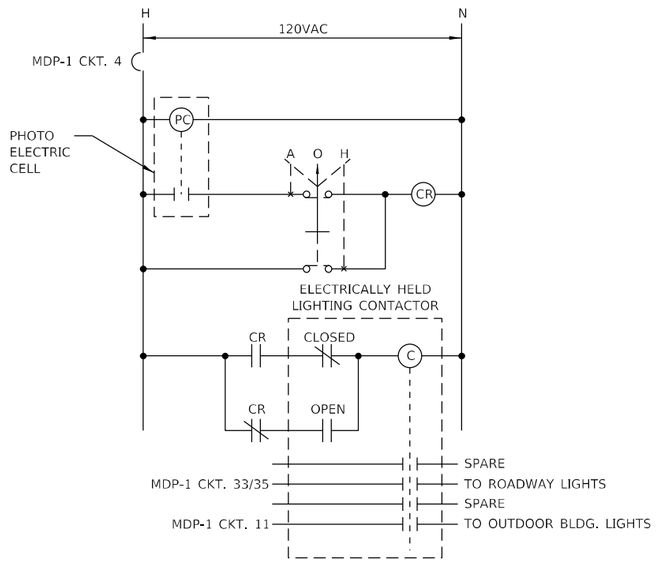


SCHEMATIC WIRING DIAGRAM
EMERGENCY ROADWAY PLAZA LIGHTING



LIGHTING CONTACTOR WIRING DIAGRAM

NOTES:

1. SEE SYMBOLS AND ABBREVIATIONS SHEET FOR LEGEND.
2. SEE PLANS FOR CABLE AND CONDUIT ROUTING.

MODEL: SCHEMATIC DIAGRAMS
FILE NAME: pw:\\aecom-na-pw.bentley.com:AECOM_DS19_NA\Documents\60658563-1-1909005-CAD910_CAD\WB\WB-TOLL03_SHEETS\Lighting\D162090-SHT-Elec-TollPlaza-026.dgn

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

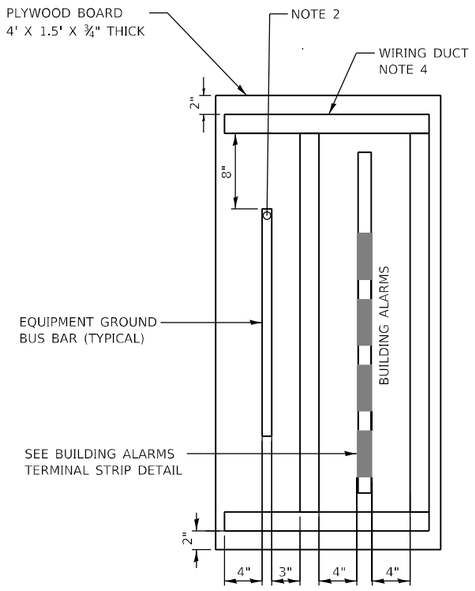
USER NAME = Jacqueline.Ng	DESIGNED - UCM	REVISED -	
	DRAWN - CAM	REVISED -	
PLOT SCALE = 0.166667 ' / in.	CHECKED - GRR	REVISED -	
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

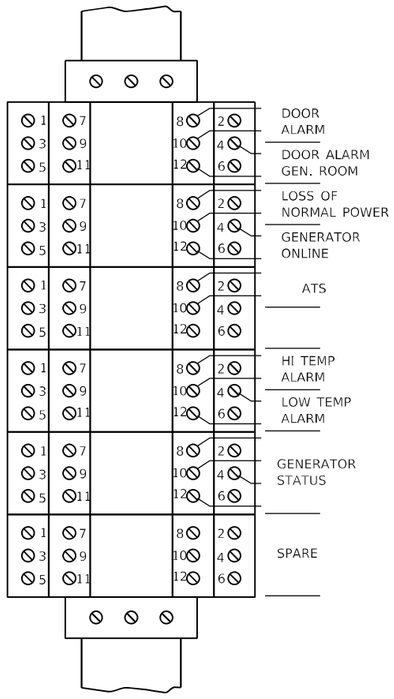
MISCELLANEOUS SCHEMATIC DIAGRAMS

SCALE: N.T.S. | SHEET 26 OF 41 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	86
		CONTRACT NO. 62U90		
	ILLINOIS FED. AID PROJECT			



TERMINAL STRIP INTERCONNECT CENTER (TSIC)
N.T.S. (SEE NOTE 1)



BUILDING ALARMS TERMINAL STRIP
N.T.S.

NOTES:

1. TERMINAL STRIP INTERCONNECT CENTER (TSIC) IS LOCATED IN THE CONTROL BUILDING. SEE BUILDING EQUIPMENT LAYOUT DRAWINGS, FOR LOCATION.
2. ROUTE #6 COPPER GROUND CABLE FROM GROUND BUS BAR TO INTERNAL PERIMETER GROUND BUS CONDUCTOR.
3. ALL EQUIPMENT SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR UNLESS OTHERWISE NOTED.
4. PROVIDE WIRE DUCT AS SHOWN ON THE DRAWING. WIRE DUCT SHALL BE PANDUIT PART NUMBER E2X3LG6 WITH COVER PART NUMBER C2LG6 AND CORNER STRIP PART NUMBER CSP3LG-Q.

3 PAIR DATA/COMMUNICATIONS CABLE COLOR CODE CHART	
PAIR NO.	MFGR'S COLOR CODE CHART COLOR COMBINATION
CABLE-1	
1	BLACK PAIRED WITH RED
2	BLACK PAIRED WITH WHITE
3	BLACK PAIRED WITH GREEN
3 PR. #22 CABLE WITH INDIVIDUALLY SHIELDED PAIRS SHALL BE BELDEN #88777 OR MANHATTAN #M43103.	

6 PAIR DATA/COMMUNICATIONS CABLE COLOR CODE CHART	
PAIR NO.	MFGR'S COLOR CODE CHART COLOR COMBINATION
CABLE-2	
1	BLACK PAIRED WITH RED
2	BLACK PAIRED WITH WHITE
3	BLACK PAIRED WITH GREEN
4	BLACK PAIRED WITH BLUE
5	BLACK PAIRED WITH YELLOW
6	BLACK PAIRED WITH BROWN
6 PR. #22 CABLE WITH INDIVIDUALLY SHIELDED PAIRS SHALL BE BELDEN #88778 OR MANHATTAN #M43106	

9 CONDUCTOR ALARM CABLE COLOR CODE CHART	
CONDUCTOR NO.	MFGR'S COLOR CODE CHART COLOR COMBINATION
CABLE-3	
1	BLACK
2	WHITE
3	RED
4	GREEN
5	ORANGE
6	BLUE
7	WHITE/BLACK
8	RED/BLACK
9	GREEN/BLACK
9 CONDUCTOR #22 SHIELDED CABLE SHALL BE BELDEN #83559.	

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	DRAWN - CAM	REVISED -	
PLOT SCALE = 0.1667 ' / in.	CHECKED - GRR	REVISED -	
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TSIC TERMINAL BLOCK LAYOUT MAIN PLAZA – AET LANES

SCALE: N.T.S. | SHEET 27 OF 41 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	87
		CONTRACT NO. 62U90		
	ILLINOIS FED. AID PROJECT			

MODEL: M-BUS-2532
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REVISES STANDARD DATED 10-31-02
COMPATIBLE LINITS AVAILABLE IN PASSPORT

9-12-08
C5286
PAGE 1 OF 6

3-PH RADIAL COMPT TR PAD - ESS (11)(23)(29)

SIZE OF TRANSFORMER

C5286.B 45 - 225kVA 120/208V
.C 112.5 - 300kVA 120/208V
.D 225 - 500kVA 120/208V
.E 750kVA 120/208V
.F 45 - 75kVA 277/480V
.G 112.5 - 300kVA 277/480V
.H 225 - 1000kVA 277/480V
.J 1500 - 2500kVA 277/480V
.K 500 - 750kVA 4kV
.L 1000 - 2500kVA 4kV

ITEM	CAT ID DESCRIPTION TABLE-1		CAT ID	UNIT	QUANTITY .B	.C	.D	.E	.F	.G	.H	.J	.K	.L
A	GROUNDING INSTALLATION C8550. .GO	(1)			1	1	1	1	1	1	1	1	1	1
B	WIRE,COPPER, OVERHEAD, BARE, 1/0, 19 STR, SOFT DRAWN TINNED, 3	(1)(2)	0000355082	FT	55	55	60	60	50	55	60	70	60	65
C	CONNECTOR, COMPRESSION, 1/0 OR 2/0 STR CU. RUN & TAP, EURNDY C	(2)	0000368545	EA	1	1	1	1	1	1	1	1	1	1

NOTES:

APPLICATION

- THIS STANDARD SHALL BE USED TO INSTALL AN ELECTRIC SERVICE STATION FOUNDATION FOR A 3Ø RADIAL-FEED COMPARTMENTAL TRANSFORMER AS DESCRIBED IN "ComEd's GENERAL TERMS AND CONDITIONS".

SUPPLEMENTARY MATERIAL

(1) WHEN BARE LEAD COVERED CABLES ARE LOCATED OR PLANNED WITHIN 200 FEET, REPLACE ITEM "B" WITH 1/0 LEAD CLAD COPPER CONDUCTOR (CAT ID 0000350809) AND SPECIFY GROUND RODS IN ACCORDANCE WITH C8550. ENGINEER TO SPECIFY WHEN THIS CONDITION EXISTS.

(2) WHEN JUNCTION CABINET IS USED, ADD ONE OF ITEM "C" AND ADD 15 FEET OF ITEM "B".

(3) STEEL PLATE NOT FURNISHED WITH STANDARD. ORDER FROM SYSTEMS SHOPS AT TECH CENTER OR LOCAL VENDOR.

INFORMATION

(11) CUSTOMER SHALL SUPPLY AND INSTALL ALL ITEMS WITHIN THIS STANDARD EXCEPT FOR THE GROUNDING MATERIAL.

(12) PRECAST ALTERNATIVES TO THIS POURED DESIGN MAY BE AVAILABLE. CONTACT DISTRIBUTION ENGINEERING DEPARTMENT FOR DETAILS.

(13) DO NOT PLACE CONDUITS UNDER THIS SECTION OF FOUNDATION IF AVOIDABLE.

(14) DO NOT DISTURB GROUND IN FOUNDATION AREA MORE THAN NECESSARY WHEN INSTALLING CONDUIT.

(15) PRIMARY AND SECONDARY CONDUIT MUST COME THROUGH FOUNDATION IN DESIGNATED AREAS.

(16) CONDUIT SHALL TERMINATE FLUSH WITH THE TOP OF THE FOUNDATION UNLESS OTHERWISE DESIGNATED.

(17) IF METAL CONDUIT IS USED, THE GROUNDING BUSHING SHALL NOT PROTRUDE ABOVE THE TOP OF THE FOUNDATION.

(18) AFTER PRIMARY AND SECONDARY CONDUITS ARE IN PLACE, BACKFILL WITH SCREENINGS, SAND OR FINE EXCAVATED MATERIAL. COMPACT THOROUGHLY BEFORE PLACING AGGREGATE AND POURING FOUNDATION.

(19) CONCRETE SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE APPLICABLE ACI CODE. IT SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS. AIR ENTRAINMENT SHALL BE 4 TO 7% OF THE VOLUME OF CONCRETE.

(20) TOP OF THE FOUNDATION SHALL BE SMOOTH AND LEVEL.

(21) GROUND GRID CONSISTS OF A CONTINUOUS COPPER GROUND LOOP. BRING ONE TAIL OF GROUND LOOP INTO EACH OPENING IN FOUNDATION. CONNECT GROUND CABLE (ITEM "B") TO GROUND RODS AS SHOWN IN C8550. CLOSE LOOP WITH COMPRESSION CONNECTOR (ITEM "C").

WHEN LEAD CLAD CABLE IS USED FOR THE GROUND CABLE, COVER THE ITEM "C" CONNECTION WITH MOISTURE SEALING COMPOUND AND PLASTIC TAPE AS SHOWN IN DETAIL-1.

(22) FINAL GRADE SHALL SLOPE AWAY FROM FOUNDATION. FINAL GRADE SHALL BE WELL DRAINED AT ALL TIMES.

(23) A JUNCTION CABINET IS REQUIRED IF SECONDARY CONDUIT SPACE REQUIREMENTS EXCEED LIMITS SPECIFIED IN TABLE-A. REFER TO PAGE 3 FOR DETAILS OF NECESSARY FOUNDATION.

(24) CONTACT DISTRIBUTION ENGINEERING DEPARTMENT FOR APPROVED SUPPLIERS OF JUNCTION CABINET. ALTERNATIVE DESIGNS MAY BE SUBMITTED FOR APPROVAL.

(25) CABINET SHALL BE ANCHORED TO THE FOUNDATION.

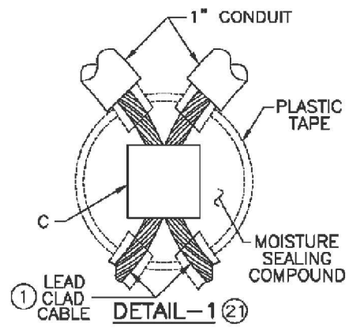
(26) ComEd WILL FURNISH AND INSTALL CABLE AND LUGS BETWEEN JUNCTION CABINET BUS AND TRANSFORMER SECONDARY TERMINALS.

(27) CUSTOMER SHALL NOT CONNECT THEIR CABLES TO BUS IN AREAS DESIGNATED AS ComEd POSITIONS.

(28) BUS BAR SHOWN CAN ACCOMMODATE A MAXIMUM OF 20 CABLES PER PHASE FROM CUSTOMER AND 10 CABLES PER PHASE FROM ComEd TRANSFORMER.

(29) CONSULT SPILL PREVENTION, CONTROL AND COUNTERMEASURES (SPCC) PROGRAM OR ENVIRONMENTAL SERVICES IF TOTAL OIL CAPACITY EQUAL TO OR EXCEEDING 1320 GALLONS EXISTS OR IS PLANNED AT ESS SITE.

30 FOR TRANSFORMER CLEARANCES REFER TO STANDARDS C5284, C5285, AND C7500.



DETAIL-1 (21)

ACAD

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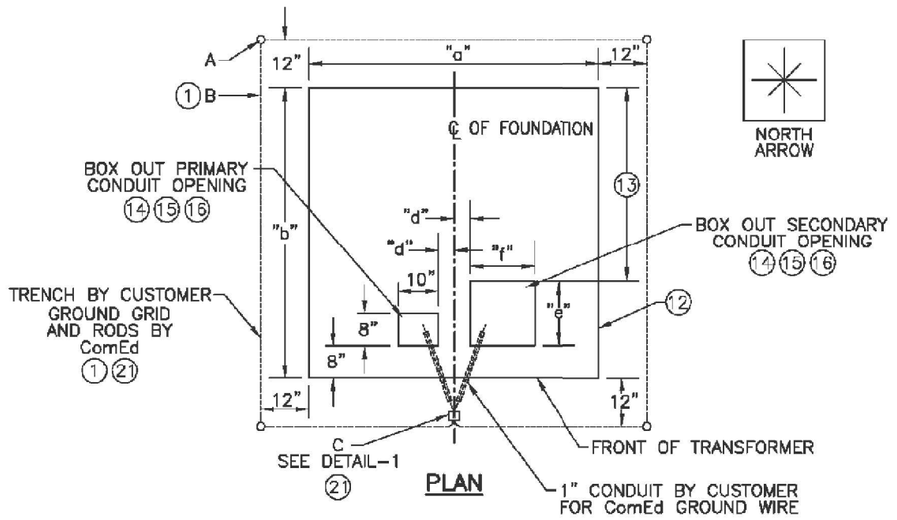
Exelon. Energy Delivery SYSTEM STANDARD

9-12-08
C5286
PAGE 2 OF 6



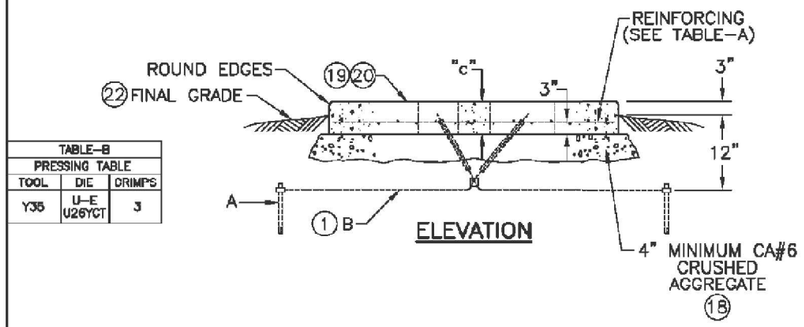


TABLE-B
PRESSING TABLE

TOOL	DIE	CRIMPS
Y35	U-E U26YCT	3

TABLE-A

C5286	TRANSFORMER kVA MIN	kVA MAX	MIN SEC VOLTAGE	DIMENSIONS a	b	c	d	e	f	SECONDARY CONDUIT FORMATIONS 3.5"	MAX NO. (23)	4"	MAX NO. (23)	REINFORCING (BARS BOTH WAYS)	ESTIMATING DATA REINFORCING BARS (FT)	CONCRETE (CU YD)
.B	45	225	208/120	6'-0"	5'-6"	6"	4"	14"	14"		4		4	#3 BARS 5" C.C.	159	.54
.C	112.5	300	208/120	6'-0"	5'-6"	6"	4"	14"	18"		6		6	#3 BARS 5" C.C.	159	.53
.D	225	500	208/120	7'-0"	6'-6"	6"	4"	18"	18"		9		9	#3 BARS 4" C.C.	259	.74
.E	750	750	208/120	7'-0"	6'-6"	6"	4"	18"	26.5"		16		12	#4 BARS 6" C.C.	174	.68
.F	45	75	480/277	5'-0"	5'-6"	6"	4"	14"	14"		4		4	#2 BARS 4" C.C.	142	.39
.G	112.5	300	480/277	6'-0"	5'-6"	6"	4"	14"	18"		6		6	#3 BARS 5" C.C.	159	.53
.H	225	1000	480/277	8'-0"	7'-0"	7"	4"	18"	18"		9		9	#4 BARS 5" C.C.	266	.94
.J	1500	2500	480/277	8'-6"	8'-6"	8"	4"	18"	26.5"		16		12	#4 BARS 5" C.C.	330	1.64
.K	500	750	4kV	7'-0"	6'-0"	6"	10"	8"	10"		2		2	#4 BARS 5" C.C.	196	.70
.L	1000	2500	4kV	8'-0"	8'-0"	8"	6"	14"	14"		4		4	#4 BARS 5" C.C.	292	1.51

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Exelon. Energy Delivery SYSTEM STANDARD

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303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline.Ng	DESIGNED - UCM	REVISED -	
	DRAWN - CAM	REVISED -	
PLOT SCALE = 0.1667 ' / in.	CHECKED - GRR	REVISED -	
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

COMED TRANSFORMER PAD DETAIL

SCALE: N.T.S. | SHEET 28 OF 41 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	88
		CONTRACT NO. 62U90		
	ILLINOIS FED. AID PROJECT			

MODEL: COMED TRANSFORMER PAD
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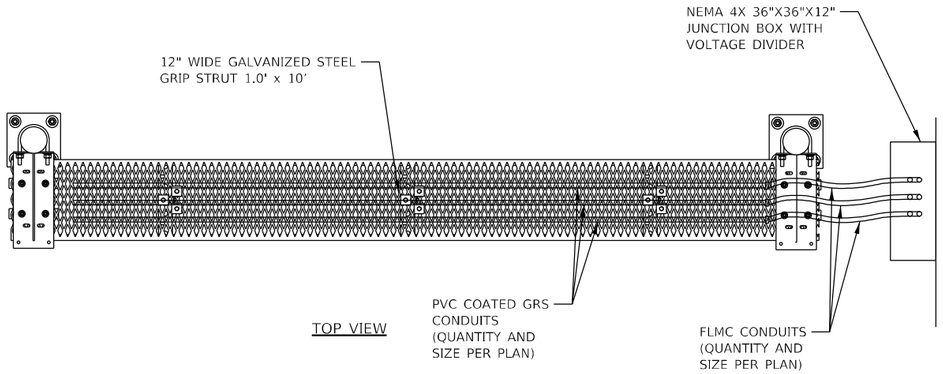
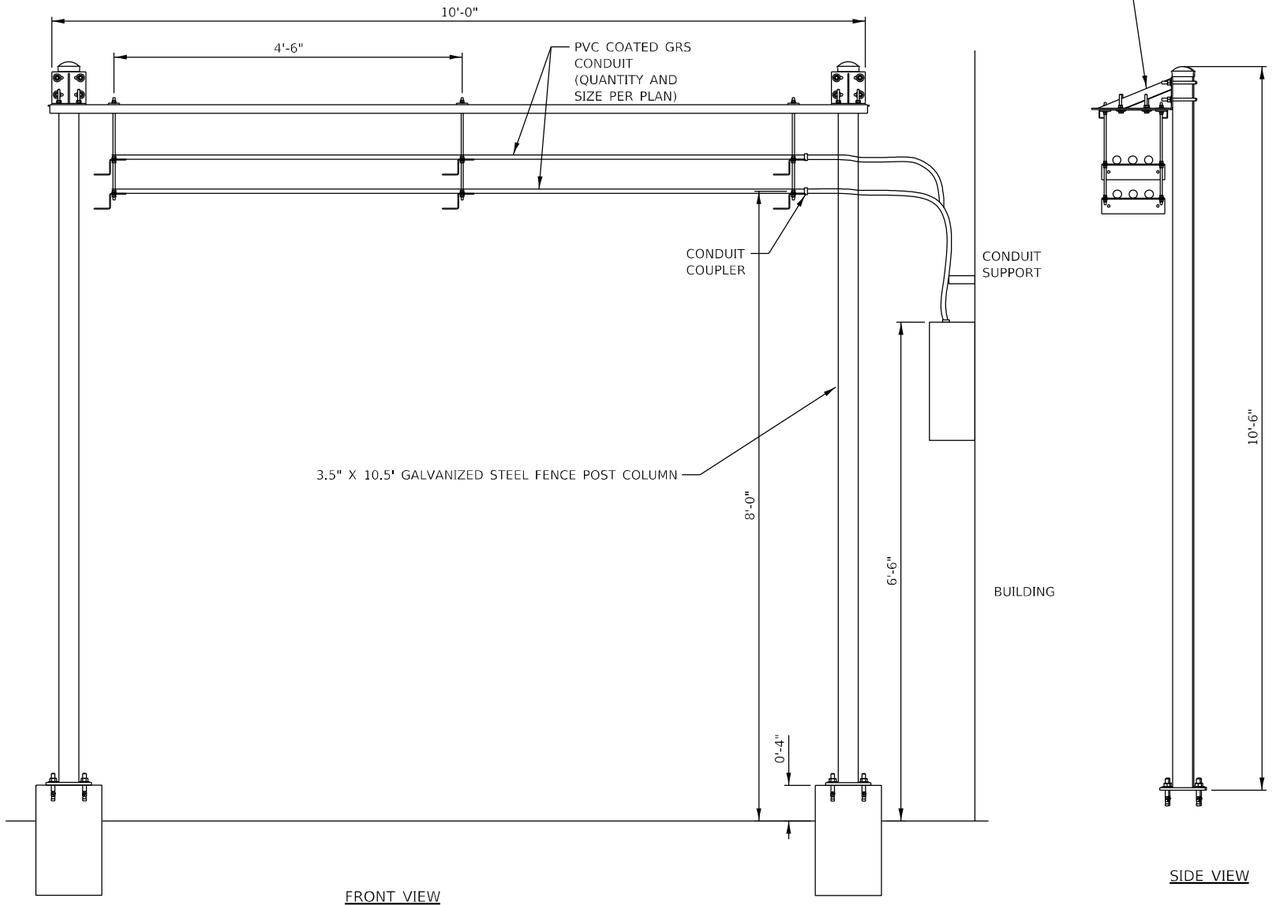


TOP VIEW

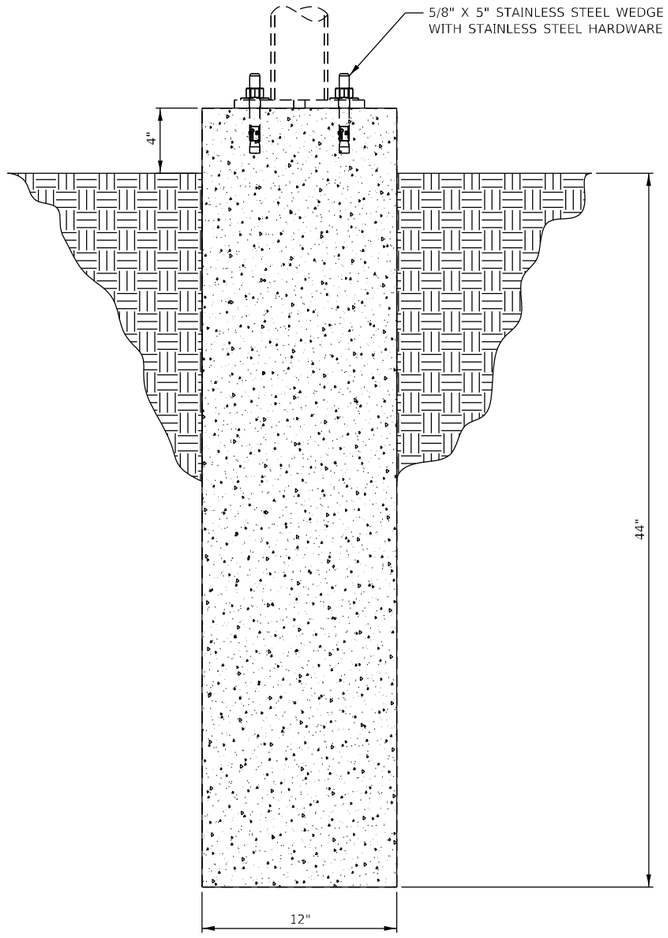
NOTES:

1. COST OF OVERHEAD CONDUIT TRAYS AND FOOTINGS ARE INCIDENTAL TO PLAZA ELECTRICAL WORK.
2. INSTALL CONDUIT TRAY AND FOOTINGS PER MANUFACTURER RECOMMENDATIONS
3. SECURE CONDUIT TO TRAY AND STRUCTURES AS REQUIRED BY CODE.

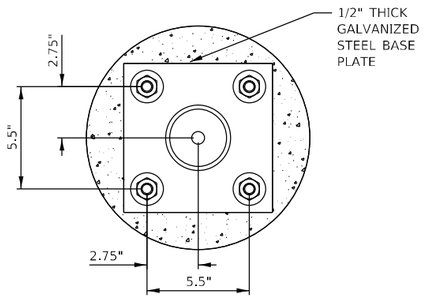


FRONT VIEW

SIDE VIEW



CONCRETE BASE PLATE FOOTING



BASE PLATE LAYOUT

MODEL: OVERHEAD CONDUIT
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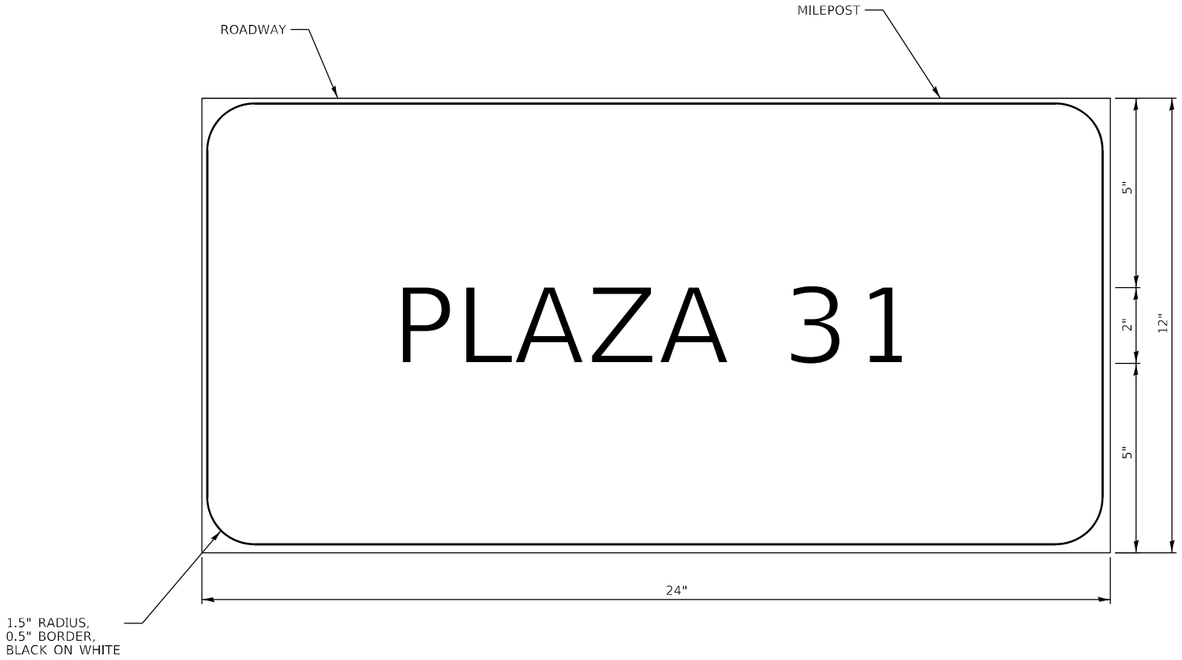
USER NAME = Jacqueline.Ng	DESIGNED - UCM	REVISED -	
	DRAWN - CAM	REVISED -	
PLOT SCALE = 0.1667 ' / in.	CHECKED - GRR	REVISED -	
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OVERHEAD CONDUIT TRAY

SCALE: N.T.S. | SHEET 29 OF 41 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	89
		CONTRACT NO. 62U90		
	ILLINOIS	FED. AID PROJECT		



TOLL PLAZA IDENTIFICATION SIGN

NOTES

1. IDENTIFICATION SIGN MATERIAL SHALL MEET THE REQUIREMENTS OF ARTICLE 720.02 OF THE STANDARD SPECIFICATIONS.

2. IDENTIFICATION SIGNS SHALL BE MOUNTED ONTO THE BUILDING USING BOLTS AND WASHERS ACCORDING TO ARTICLE 720.04 OF THE STANDARD SPECIFICATIONS.

MODEL: TOLL PLAZA
FILE NAME: p:\projects\na\new berlin_ky.com\AECOM D518 JNADocuments\60658531-190800-CAD\910_CAD\WB\WB-TOLL03_SHEETS\Lighting\d1162090-SHT-Elec-TollPlaza-030.dgn

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303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

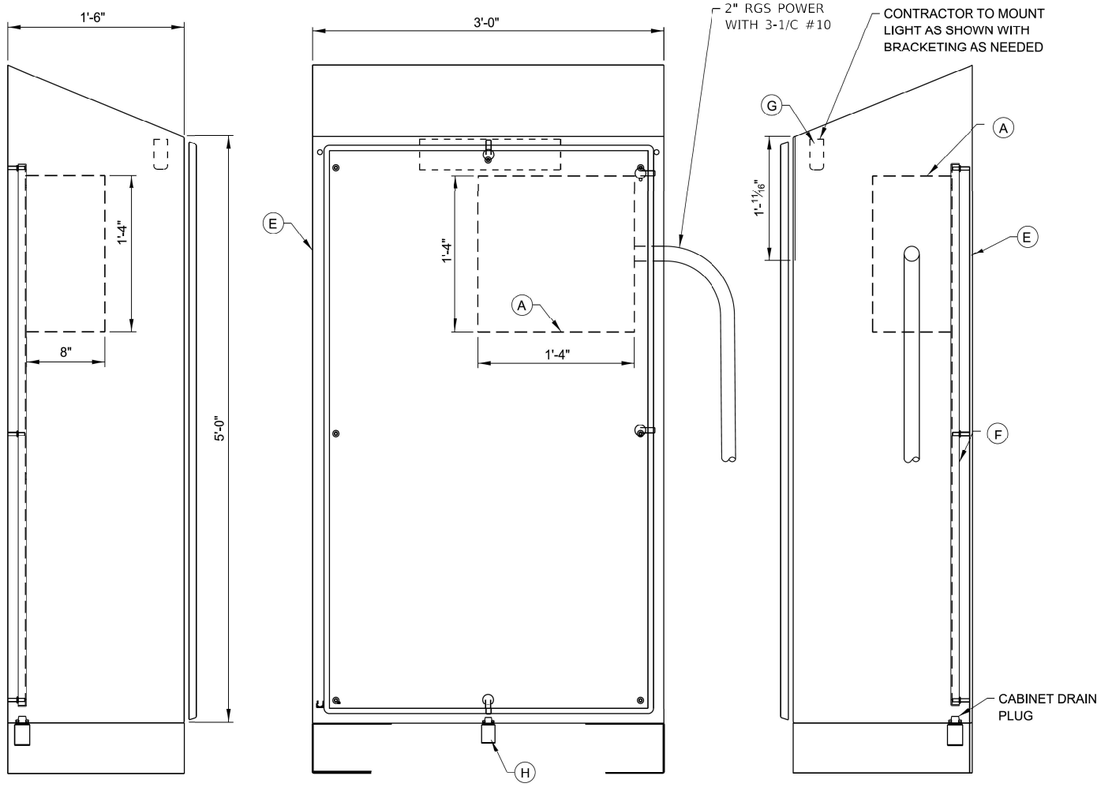
USER NAME = Jacqueline,Ng	DESIGNED - UCM	REVISED -	
	DRAWN - CAM	REVISED -	
PLOT SCALE = 0 3/16 ' / in.	CHECKED - GRR	REVISED -	
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLL PLAZA IDENTIFICATION SIGN

SCALE: N.T.S. | SHEET 30 OF 41 SHEETS | STA. | TO STA.

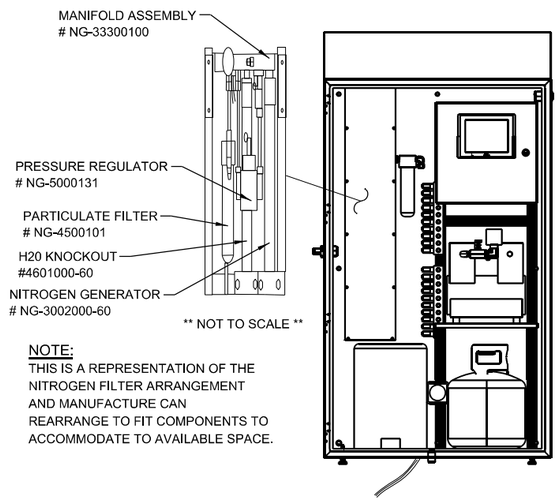
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	90
		CONTRACT NO. 62U90		
	ILLINOIS	FED. AID PROJECT		



MAIN ENCLOSURE

SCALE: 1 ½"=1'-0"

BILL OF MATERIALS COMPONENTS (OR APPROVED EQUAL)			
MARK NO.	QTY.	SPARE	DESCRIPTION
A	1		NEMA 4X STEEL ENCLOSURE - 16"H X 16"W X 8"D *(HOFFMAN CATALOG No. CSD16168SS)*
B	1		SUBPANEL FOR ENCLOSURE *(HOFFMAN CATALOG No. CP1616)*
D	1		GROUNDING BAR *(HOFFMAN CATALOG No. PGS2K)* (NOT ILLUSTRATED ON DRAWING)
E	1		NEMA 4X ENCLOSURE - 60"H X 36"W X 16"D *(HOFFMAN CATALOG No. WS603616SS), PAD LOCKING HANDLE KIT, (HOFFMAN CAT. No. WSHPL) & MOUNTING BRACKETS (HOFFMAN CAT. No. CMFKSS)*
F	1		SUBPANEL FOR NEMA 4X ENCLOSURE *(HOFFMAN CATALOG No. A60P36SS6)*
G	1		FLUORESCENT LIGHT FIXTURE FOR ENCLOSURE WITH 120VAC OUTLET *(HOFFMAN CATALOG No. LF120V15)* WITH DOOR SWITCH *(HOFFMAN CATALOG No. ALFSWD)*
H	1		SS VENT DRAIN *HOFFMAN CATALOG No. AVDR4SS4*



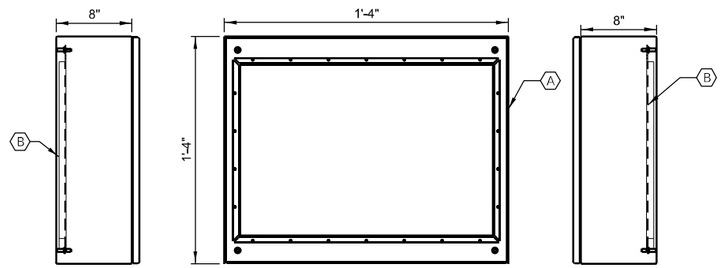
** NOT TO SCALE **

NOTE:
THIS IS A REPRESENTATION OF THE NITROGEN FILTER ARRANGEMENT AND MANUFACTURE CAN REARRANGE TO FIT COMPONENTS TO ACCOMMODATE TO AVAILABLE SPACE.

FOR COMPLETE ASSEMBLY USE ECD # NS-CMP-SY-I-0100 (OR APPROVED EQUAL)

VES WASH SYSTEM SINGLE CABINET INSIDE DETAILS

NOT TO SCALE



ELECTRICAL ENCLOSURE

SCALE: 1 ½"=1'-0"

NOTES:

1. MAXIMUM SYSTEM PRESSURE IS 80 PSI.
2. EXACT OPERATING PRESSURE TO BE DETERMINED.
3. FOR PRODUCT SUBSTITUTIONS SEE THE SPECIFICATIONS.
4. ALL CONDUITS, FITTINGS AND ENTRY POINTS INTO EACH OF THE ENCLOSURES SHALL BE PROPERLY SEALED WITH DUCT SEAL TO PREVENT MOISTURE ENTRY.

AECOM
303 EAST WACKER DRIVE, SUITE 1400
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PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = myersc	DESIGNED - UCM	REVISED -	
	DRAWN - CAM	REVISED -	
PLOT SCALE = 0.1667 ' / in.	CHECKED - GRR	REVISED -	
PLOT DATE = 5/29/2024	DATE - 5/30/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

VES WASH SYSTEM ENCLOSURE DETAIL

SCALE: N.T.S. | SHEET 31 OF 41 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	91
		CONTRACT NO. 62U90		
		ILLINOIS	FED. AID PROJECT	

MODEL: VES WASH SYSTEM ENCLOSURE
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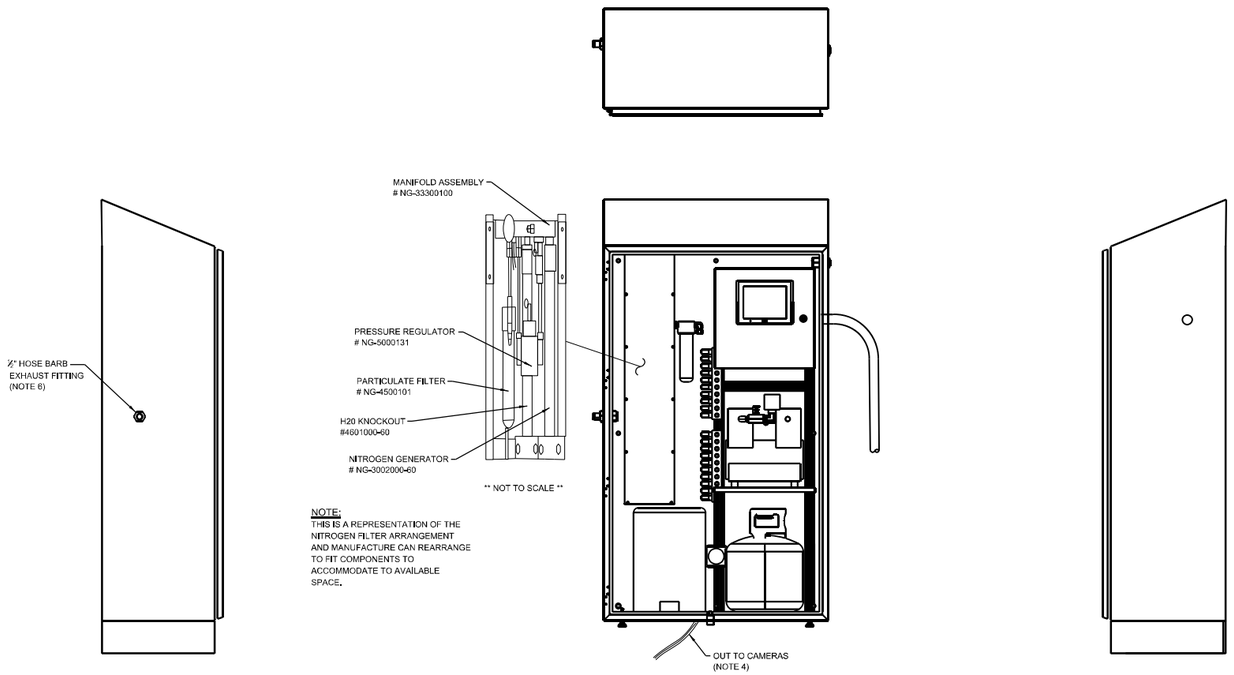

VES WASH SYSTEM SINGLE CABINET
INSIDE DETAILS
FOR COMPLETE ASSEMBLY USE ECD # NS-CMP-SY-I-0100 (OR APPROVED EQUAL)
NOT TO SCALE

NOTES:

1. 20A ,115VAC SERVICE REQUIRED.
2. WILL REQUIRE: LOCATION, IP ADDRESS AND LANE CONFIGURATION.
3. PNEUMATIC FITTINGS TO BE BRASS IN CONSTRUCTION AND MEET SOCIETY OF AUTOMOTIVE ENGINEERS (SAE) SPECIFICATIONS.
4. THE ⅜" NYLON TUBING MAY HAVE TO BE LONGER THAN 100'. TUBING MUST RUN CONTINUOUS FROM THE MANIFOLD VALVES IN THE VES CABINET TO THE CAMERA NOZZLE, WITHOUT ANY INTERMEDIATE SPLICES. CONTRACTOR TO DETERMINE THE ACTUAL LENGTH OF THE TUBING REQUIRED FOR EACH OF THE VES CAMERAS AT THE SITE. THE NYLON TUBES ARE INSIDE OF RGS CONDUIT.
5. ALL CONDUIT FITTINGS AND ENTRY POINTS INTO THE ENCLOSURE SHALL BE PROPERLY SEALED WITH DUCT SEAL TO PREVENT MOISTURE ENTRY.
6. EXHAUST TO FREE AIR.
7. THE VES WASH SYSTEM WITH NITROGEN GENERATOR IS PRODUCED BY ECD COMPANY WITH THE MODEL NUMBER: NS-CMP-SY-I-0100, AS ASSIGNED BY ECD (OR APPROVED EQUAL MODEL BY THE ILLINOIS TOLLWAY BUSINESS SYSTEMS). CONTRACTOR TO FABRICATE THE VES WASH SINGLE CABINET SYSTEM WITH NITROGEN GENERATOR IN COORDINATION WITH THE SYSTEM VENDOR, TO PROVIDE A COMPLETE FUNCTIONAL SYSTEM, AS SPECIFIED IN THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL VERIFY WITH THE VENDOR THAT ALL REQUIRED SYSTEM COMPONENTS FIT IN THE MAIN VES WASH CABINET AS SHOWN, IN COMPLIANCE WITH APPLICABLE CODES.
8. CONTRACTOR SHALL VERIFY THE NUMBER OF VES CAMERAS AT EACH INSTALLATION SITE, AS SHOWN ON THE PLANS, AND COORDINATE WITH THE SYSTEM VENDOR TO PROVISION THE VES WASH SYSTEM WITH THE REUQIRED NUMBER OF NITROGEN AND FLUID VALVES AT EACH INSTALLATION SITE.

MATERIALS LIST			
PART NO.	DESCRIPTION	MANUAL	QUANTITY
NS-CMP-SY-I-0100	COMPLETE ASSEMBLY	ECD	1
NS-SUB-SY-I-0100	NITROGEN GENERATOR	ECD	1
NG-ECD-00100	REPLACEMENT PARTICULATE FILTER	ECD	1
NG-ECD-00200	NITROGEN VALVE SYSTEM	ECD	1
NG-ECD-00201	LIQUID VALVE SYSTEM	ECD	1
NG-ECD-00300	LIQUID PUMP	ECD	1
NG-ECD-00350	LIQUID TANK	ECD	1
NG-ECD-01101	SYSTEM CONTROL	ECD	1
NG-ECD-00310	PNEUMATIC PUMP	ECD	1
NG-ECD-00311	NITROGEN TANK	ECD	1

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USER NAME = myersc	DESIGNED - UCM	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	VES WASH SYSTEM PANEL DETAIL
	DRAWN - CAM	REVISED -		
PLOT SCALE = 0.1667 ' / in.	CHECKED - GRR	REVISED -		
PLOT DATE = 5/29/2024	DATE - 5/30/2024	REVISED -		SCALE: N.T.S. SHEET 32 OF 41 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	92
		CONTRACT NO. 62U90		
	ILLINOIS	FED. AID PROJECT		

MODEL: WASH SYSTEM PANEL DETAIL
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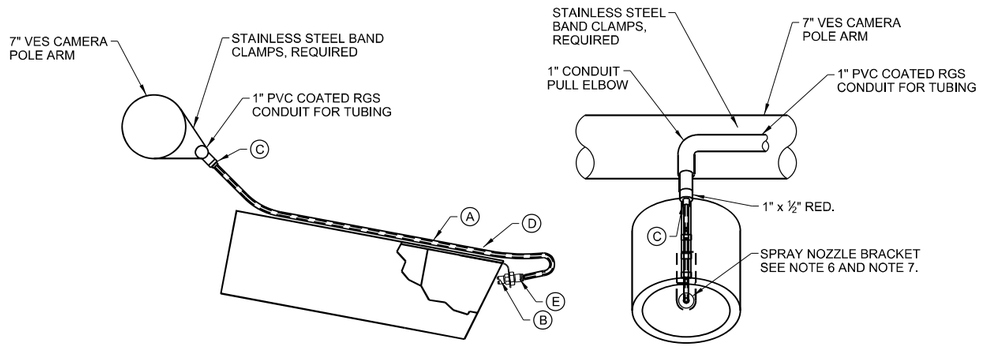
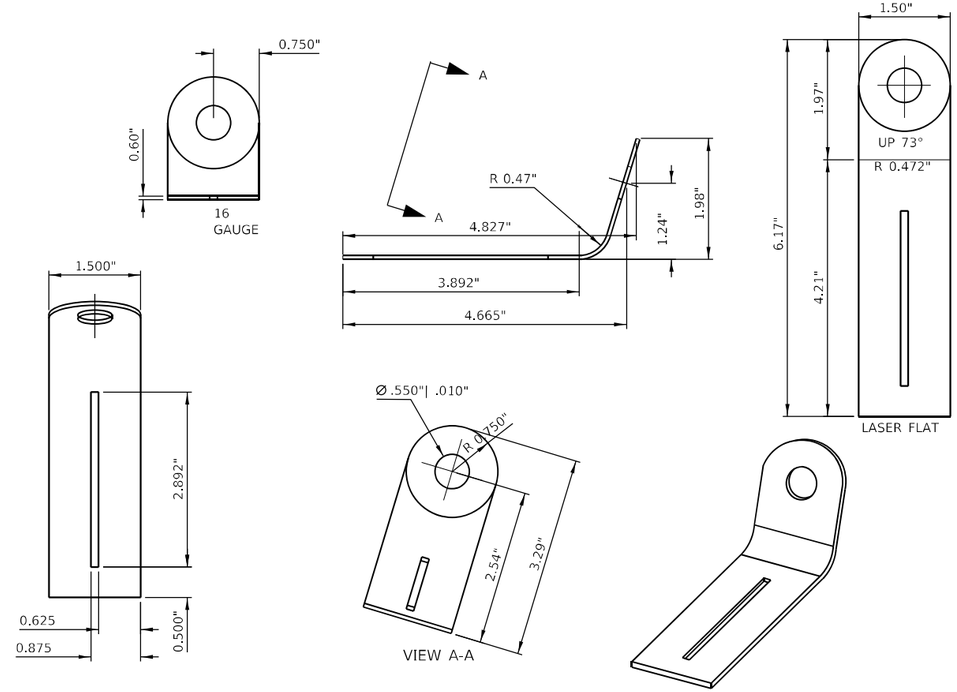
BILL OF MATERIAL COMPONENTS (OR APPROVED EQUAL)			
MARK NO.	QTY.	SPARE	DESCRIPTION
Ⓐ	AS REQUIRED PER CONTRACT	2 SPOOLS OF 150 FEET	SILICONE HOSE SLEEVE CONTINUOUS TUBING FROM VES WASH CABINET TO CAMERA. NO SPLICING ALLOWED. McMASTER-CARR CATALOG No. 7453K49
Ⓑ	AS REQUIRED PER CONTRACT	3	SPRAY NOZZLE GRAINGER CATALOG No. 1MDH2
Ⓒ	AS REQUIRED PER CONTRACT	3	MINIATURE CORROSION RESISTANT STRAIN RELIEF HUBBELL CATALOG No. SHC1021CR
Ⓓ	AS REQUIRED PER CONTRACT	3	ADJUSTABLE MOUNTING STRAP McMASTER-CARR CATALOG No. 7572K12 (50 PER PACK)
Ⓔ	AS REQUIRED PER CONTRACT	3	NOZZLE BULKHEAD FITTING (10 PACK) SMC FITTING CATALOG No. KQ2E07-35



NOZZLE DETAIL - VES CAMERA MONOTUBE
N.T.S.



VES CAMERA NOZZLE BRACKET DETAIL
N.T.S.

NOTES:

1. CAMERA NOZZLE BRACKET SHALL BE FABRICATED USING 12 GA. STAINLESS STEEL. CONTRACTOR TO SUBMIT SHOP DRAWINGS FOR APPROVAL.

2. CAMERA NOZZLE BRACKET SHALL BE ADJUSTABLE. STAINLESS STEEL NUT-BOLT COMBINATION SHALL BE USED FOR MOUNTING THE CAMERA NOZZLE BRACKET TO THE CAMERA LENS HOUSING. CONTRACTOR TO VERIFY THAT THE MOUNTING HARDWARE SECURELY HOLDS THE BRACKET BUT ALSO ALLOWS EASY ADJUSTMENT. CONTRACTOR SHALL SUBMIT INSTALLATION DRAWINGS CLEARLY IDENTIFYING PART NUMBERS USED FOR MOUNTING HARDWARE. INSTALLATION DRAWINGS SHALL ALSO INDICATE THE POSITION OF THE MOUNTING HARDWARE ON THE CAMERA NOZZLE BRACKET. THE INSTALLATION DRAWINGS SHALL BE APPROVED BY THE ILLINOIS TOLLWAY BEFORE INSTALLATION IN THE FIELD.

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	DRAWN - CAM	REVISED -	
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PLOT DATE = 5/29/2024	DATE - 5/30/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

VES WASH SYSTEM FLOW DIAGRAM AND SYSTEM

SCALE: N.T.S. | SHEET 33 OF 41 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	93
		CONTRACT NO. 62U90		
	ILLINOIS FED. AID PROJECT			

MODEL: VES WASH SYSTEM
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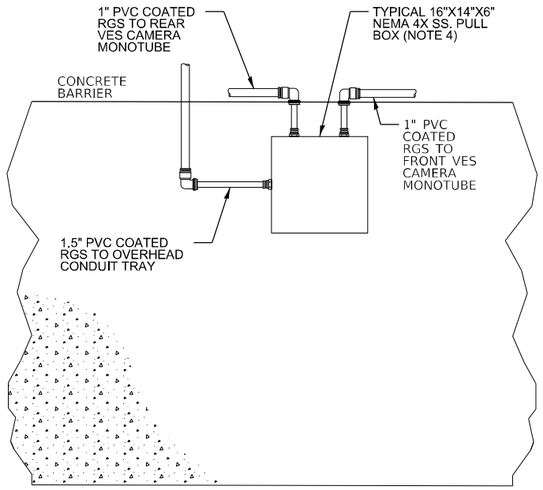
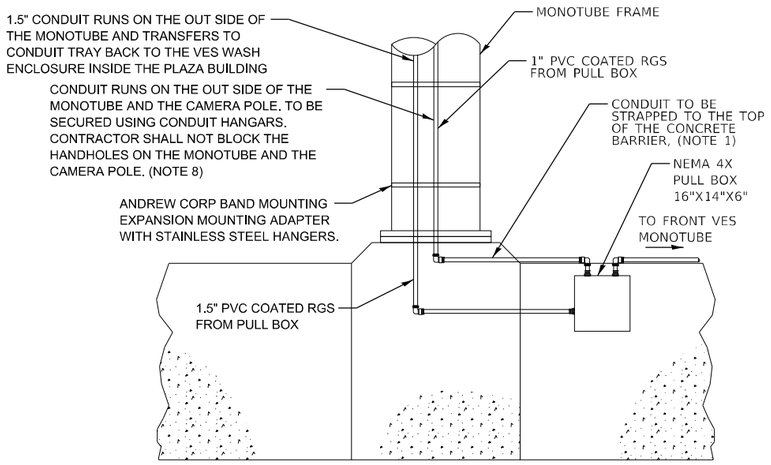
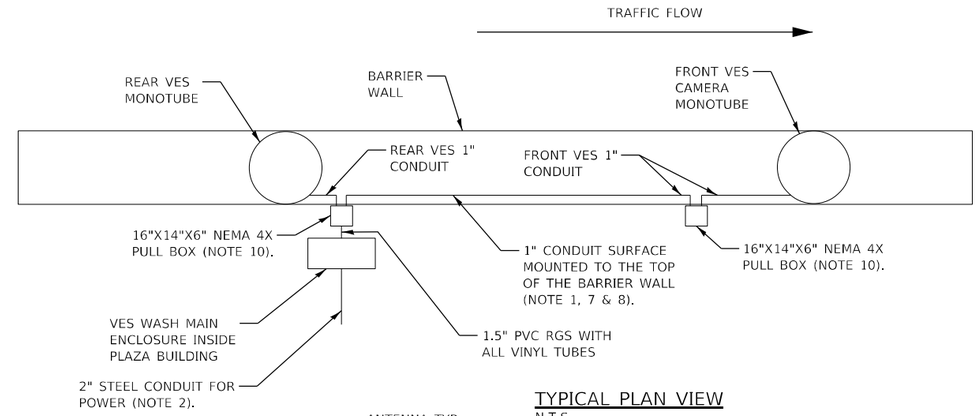


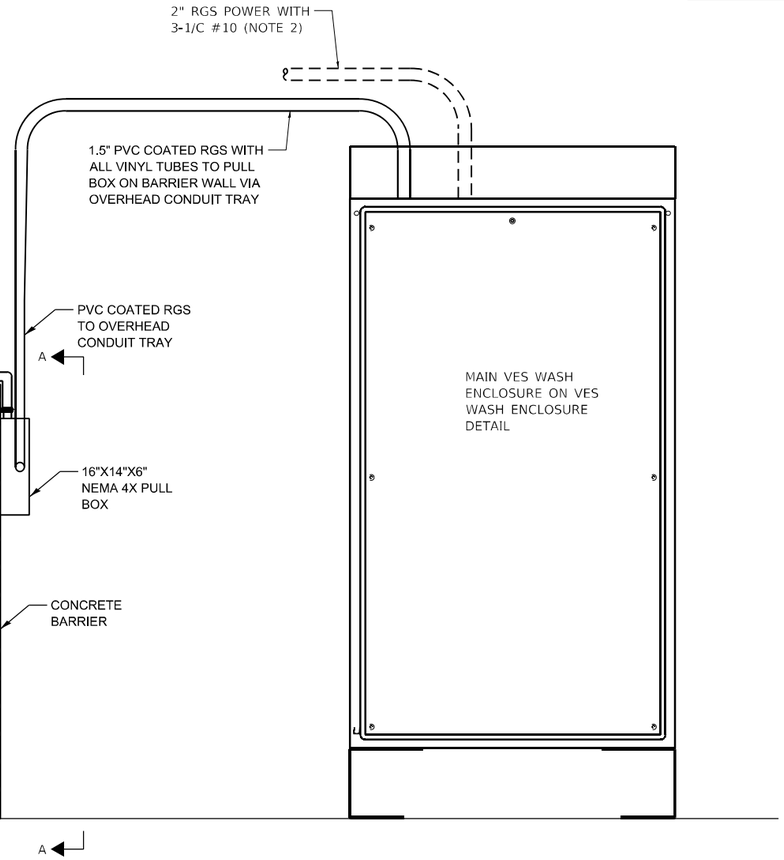
PARTIAL SECTION A-A
N.T.S.



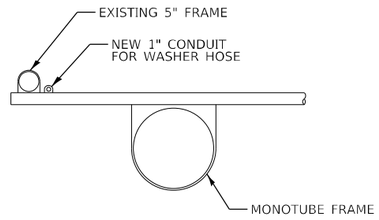
COLLECTION STRUCTURE CONDUIT DETAIL



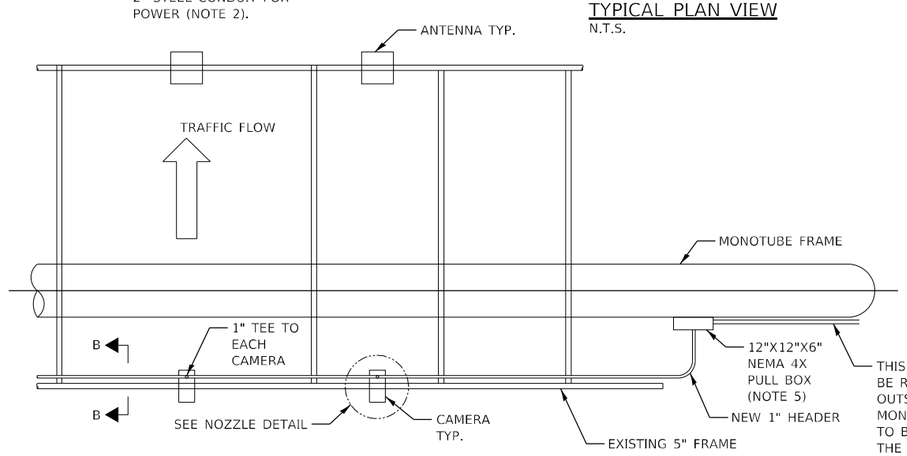
TYPICAL PLAN VIEW
N.T.S.



MAIN ENCLOSURE MOUNTING DETAIL
N.T.S.



SECTION B-B
N.T.S.



OVERHEAD TOLL LAYOUT
NOT TO SCALE
TYP REAR VES ILLUSTRATED

NOTES:

1. ALL CONDUIT ROUTING AND EQUIPMENT PLACEMENT IS THE RESPONSIBILITY OF THE CONTRACTOR. THE ROUTING AND PLACEMENT DEPICTED IS SUGGESTED ONLY. ACTUAL ENCLOSURE LOCATION WILL VARY BASED ON SITE CONDITIONS. THE CONTRACTOR SHALL COORDINATE EQUIPMENT LOCATION AND CONDUIT ROUTING WITH CONSTRUCTION ENGINEER AND ILLINOIS TOLLWAY ENGINEER.
2. THE POWER CONDUIT WILL RUN TO THE POWER PANEL INSIDE THE PLAZA BUILDING. THE NORMAL BREAKER PANEL WILL BE UTILIZED FOR THE VES WASH POWER SOURCE.
3. UNLESS OTHERWISE NOTED ALL CONDUIT IS PVC COATED RGS.
4. ONE (1) NEMA 4X 12"X12"X6" ENCLOSURE WILL BE PLACED ON THE REAR AND FRONT VES CAMERA MONOTUBE AND ONE (1) NEMA 4X 16"X14"X8" WILL BE PLACED ON THE BARRIER WALL AT EACH AET ZONE.
5. MONOTUBE MOUNTED NEMA 4X PULL BOXES LOCATION TO BE DETERMINED IN FIELD. PULL BOX TO BE SECURELY FASTENED TO THE CONCRETE BARRIER. AT LEAST 1' OF SPOOLED UP VINYL TUBING FOR EACH CAMERA WILL BE PLACED IN THE MONOTUBE PULL BOXES.
6. NOT USED.
7. CONDUITS FOR SPRAY TUBING SHALL BE SEALED ON BOTH ENDS TO PREVENT WATER FROM PENETRATING.
8. CONTRACTOR SHALL PROVIDE STRAIN RELIEF FOR WASHER TUBING IN POLES/MONOTUBES.
9. FINAL POSITION OF VES CAMERAS INSTALLED TO BE DETERMINED IN THE FIELD. NUMBER OF REAR VES CAMERAS SHOWN IS FOR ILLUSTRATION PURPOSES ONLY.
10. 16"x14"x6" NEMA 4X PULL BOXES FOR THE REAR AND FRONT VES CAMERA MONOTUBE SHALL BE SURFACE MOUNTED ON THE RIGHT SHOULDER BARRIER WALL, AWAY FROM TRAFFIC.
11. ALL CONDUITS, FITTINGS AND PENETRATIONS INTO EACH OF THE ENCLOSURES IN THE SYSTEM SHALL BE PROPERLY SEALED WITH ELECTRICAL PUTTY OR OTHER APPROVED SEALING METHODS TO PREVENT MOISTURE AND RODENT ENTRY.
12. CONTRACTOR MUST VERIFY THAT THERE SHALL BE SUFFICIENT ROOM FOR CABINET DOOR TO OPEN.

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USER NAME = myersc	DESIGNED - UCM	REVISED -	
	DRAWN - CAM	REVISED -	
PLOT SCALE = 0.1667 ' / in.	CHECKED - GRR	REVISED -	
PLOT DATE = 5/29/2024	DATE - 5/30/2024	REVISED -	

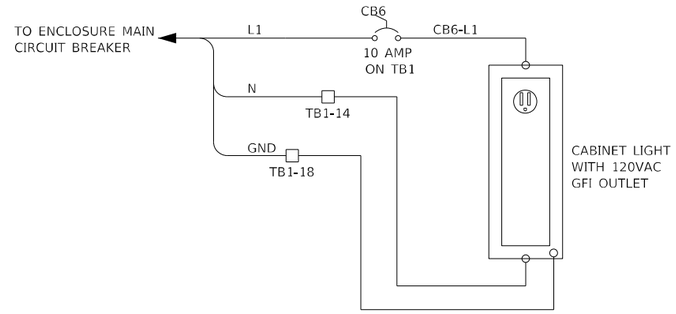
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

VES WASH SYSTEM SUGGESTED CONDUIT ROUTING

SCALE: N.T.S. | SHEET 34 OF 41 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	94
		CONTRACT NO. 62U90		
	ILLINOIS	FED. AID PROJECT		

MODEL: SUGGESTED CONDUIT ROUTING
FILE NAME: p:\bacen\pw\bentley.com\AECOM DS10 NA\Documents\60658563-1-190300-CAD\10_CAD\WRWB-TOLL\03_SHEETS\Lighting\d0162u90a-SHT-ElecTollPlaza-034.dgn



CABINET LIGHTING AND GFI OUTLET

NOTES:

1. ALL CABLING ON THIS DRAWING IS #12 AWG
2. MAIN BREAKER IS 25A. LOCATED ON TOP DIN RAIL.
3. THREE 1-C #10 CABLES WILL BE ROUTED FROM THE MDP TO THE VES POWER WASH ENCLOSURE. THE POWER FEED WILL BE INITIATED FROM THE NORMAL BREAKER PANEL. THE CONTRACTOR TO SUPPLY AND INSTALL A 30A BREAKER IN THE MDP PANEL. POWER IS 120VAC WITH A HOT, NEUTRAL AND GROUND. THIS POWER FEED WILL THEN TERMINATE ON THE MAIN 25A BREAKER IN THE VES POWER WASH ENCLOSURE.

MODEL: VES WASH SYSTEM
FILE NAME: p:\bkeem\acad\civil3d\AECOM DS10 NA\Documents\60658563-1-190300-CAD-910_CAD\WRWB-TOLL\03_SHEETS\Lighting\D16U90-SHT-ElecTollPlaza-035.dgn

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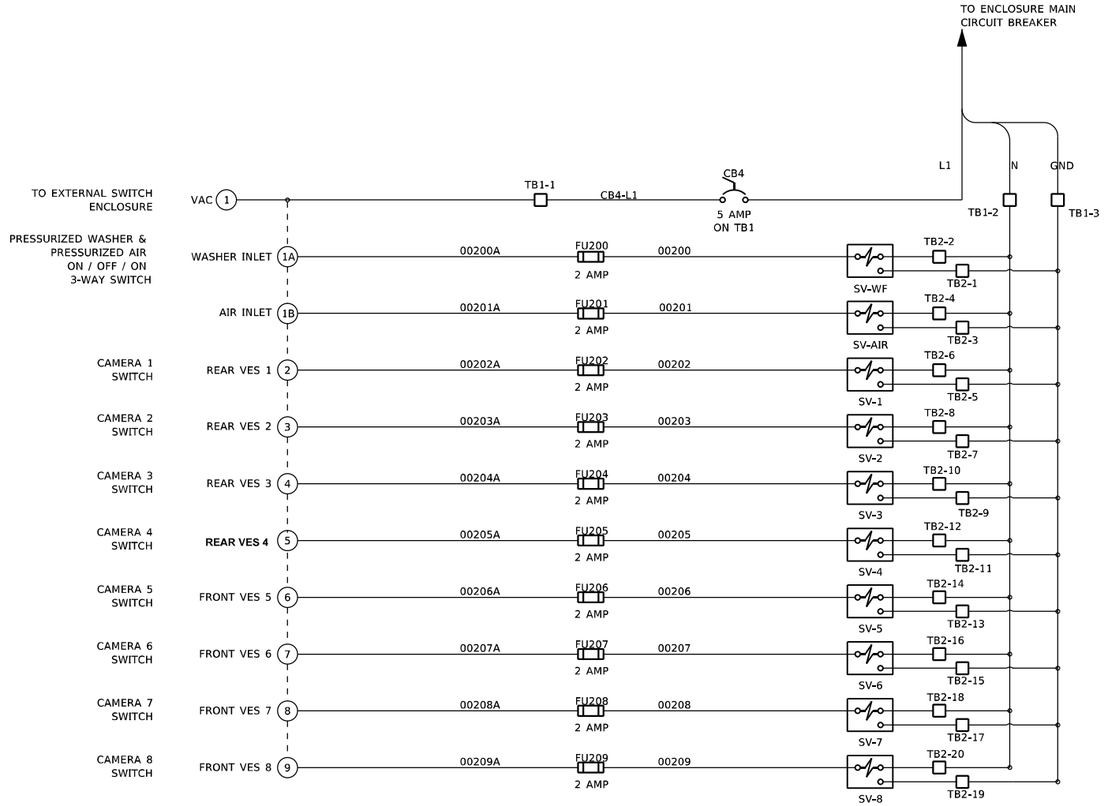
USER NAME = myersc	DESIGNED - UCM	REVISED -	
	DRAWN - CAM	REVISED -	
PLOT SCALE = 0.1667 ' / in.	CHECKED - GRR	REVISED -	
PLOT DATE = 5/29/2024	DATE - 5/30/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

VES WASH SYSTEM MISCELLANEOUS POWER WIRING DIAGRAM

SCALE: N.T.S. | SHEET 35 OF 41 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	95
		CONTRACT NO. 62U90		
	ILLINOIS	FED. AID PROJECT		



SWITCH CONFIGURATION

NOTES:

1. SCHEMATIC ILLUSTRATES TWO (2) LANE PLAZA WITH EIGHT (8) VES CAMERAS INSTALLED (4 REAR AND 4 FRONT VES).

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USER NAME = Jacqueline,Ng	DESIGNED - UCM	REVISED -	
	DRAWN - CAM	REVISED -	
PLOT SCALE = 0.1667 ' / in.	CHECKED - GRR	REVISED -	
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

VES WASH SYSTEM CONTROL SWITCH SCHEMATIC

SCALE: N.T.S. | SHEET 36 OF 41 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	96
		CONTRACT NO. 62U90		
		ILLINOIS	FED. AID PROJECT	

MODEL: VES WASH SYSTEM CONTROL
FILE NAME: pw:\\acconnect-us-nsw.bentley.com:ac\AECOM DS19_01\Documents\60658363-1-1909804-CAD\910 CAD\WB\WB-TOLL103_SHEETS\Lighting\D162U90-SHT-ELC-TxtPlaza-036.dgn

CONTROL BUILDING FOUNDATION STRUCTURAL GENERAL NOTES

CAST-IN-PLACE CONCRETE

1. ALL EXPOSED CONCRETE EDGES SHALL HAVE A 3/4" X 45° CHAMFER, EXCEPT WHERE SHOWN OTHERWISE. CHAMFER ON VERTICAL EDGES SHALL BE CONTINUED A MINIMUM OF ONE FOOT BELOW FINISHED GROUND LEVELS.
2. PROVIDE ONE INCH RADIUS AT BARRIER CORNERS UNLESS NOTED OTHERWISE.

REINFORCEMENT BARS

1. REINFORCEMENT BARS, INCLUDING EPOXY-COATED REINFORCEMENT BARS, SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M-31 (ASTM A706), GRADE 60, DEFORMED BARS
2. COVER FROM THE FACE OF CONCRETE TO FACE OF REINFORCEMENT BARS SHALL BE 3" FOR SURFACES FORMED AGAINST EARTH AND 2" FOR ALL OTHER SURFACES UNLESS OTHERWISE NOTED.
3. REINFORCEMENT BAR BENDING DETAILS SHALL BE IN ACCORDANCE WITH THE LATEST "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES", ACI 315.
4. REINFORCEMENT BAR BENDING DIMENSIONS ARE OUT TO OUT.
5. REINFORCEMENT BARS DESIGNATED (E) SHALL BE EPOXY COATED.
6. MINIMUM LAP SPLICE LENGTH SHALL CONFORM TO IDOT A.B.D. MEMO 15.4 UNLESS CONTROLLED BY DRAWING DETAILS.

DESIGN STRESSES

REINFORCED CONCRETE

f'c = COMPRESSIVE STRENGTH OF CONCRETE AT 14 DAYS (CLASS SI)= 3,500 P.S.I.
(FOUNDATIONS AND SLAB)
fy = YIELD STRENGTH OF REINFORCING BARS (GRADE 60)= 60,000 P.S.I.

MATERIAL USED FOR THIS PROJECT SHALL CONFORM TO IDOT MATERIAL SPECIFICATIONS AS DIRECTED ON THE PLANS AND/OR SPECIAL PROVISIONS. SEE SPECIAL PROVISIONS FOR MORE DETAILS.

FOUNDATION

MINIMUM UNCONFINED COMPRESSIVE STRENGTH, Qu, FOR ALL LAYERS OF COHESIVE SOILS (CLAYS) SHALL BE 1.25 T.S.F.

MINUMUM STANDARD PENETRATION TEST VALUE, N, FOR GRANULAR SOILS (SANDS) SHALL BE 10 BLOWS PER FOOT.

DESIGN SPECIFICATIONS

ILLINOIS STATE TOLL HIGHWAY AUTHORITY STRUCTURE DESIGN MANUAL, MARCH 2023.

AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 9TH EDITION, 2020

ILLINOIS DEPARTMENT OF TRANSPORTATION BRIDGE MANUAL, JANUARY 2023

CONSTRUCTION SPECIFICATIONS

ILLINOIS TOLLWAY SUPPLEMENTAL SPECIFICATIONS TO THE IDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION ADOPTED JANUARY 1, 2022, ISSUED MARCH 1, 2023.

IDOT SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS ADOPTED JANUARY 1, 2023.

IDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION ADOPTED JANUARY 1, 2022.

SEISMIC DATA

SEISMIC PERFORMANCE ZONE (SPZ) = 1
DESIGN SPECTRAL ACCELERATION AT 1.0 SEC. (S_{D1}) = 0.086g
DESIGN SPECTRAL ACCELERATION AT 0.2 SEC. (S_{D2}) = 0.150g
SOIL SITE CLASS = D

CONSTRUCTION

1. CONTRACTOR SHALL NOT SCALE DIMENSIONS FROM THE CONTRACT PLANS FOR CONSTRUCTION PURPOSES. SCALES SHOWN ARE FOR INFORMATION ONLY.
2. NO CONSTRUCTION JOINTS EXCEPT THOSE SHOWN ON THE PLANS SHALL BE ALLOWED UNLESS APPROVED BY THE ENGINEER.

CONSTRUCTION (CONT'D)

1. THE CONTRACTOR SHALL USE CARE WHEN EXCAVATING AROUND EXISTING FOUNDATIONS, ANY DAMAGE TO THE EXISTING STRUCTURE SHALL BE REPAIRED OR REPLACED AT NO ADDITIONAL COST TO THE ILLINOIS TOLLWAY.
2. CONTRACTOR SHALL COORDINATE WORK WITH THE CIVIL AND ELECTRICAL DRAWINGS AND VERIFY THE LOCATION OF ANCHOR BOLTS, PLATES, CAST-IN-PLACE ANGLES, SIZE AND LOCATION OF OPENINGS, EMBEDMENTS AND OTHER MISCELLANEOUS ITEMS BEFORE PLACEMENT OF CONCRETE. CONTRACTOR SHALL VERIFY LOCATION OF EXISTING AND PROPOSED UTILITIES AND ELECTRICAL CONDUIT AND CABLE PRIOR TO DRILLING CAISSONS.
3. PROTECTIVE COAT SHALL BE APPLIED TO THE TOP OF THE CONCRETE SLABS AND ON THE SIDE FACES OF THE FOUNDATION WALLS FOR A DEPTH OF 12" FROM TOP OF SLAB.
4. WHENEVER ANY MATERIAL IS DEPOSITED INTO A DRAINAGE SYSTEM OR DRAINAGE STRUCTURES, THE DEPOSITED MATERIAL SHALL BE REMOVED AT THE CLOSE OF EACH WORKING DAY. AT THE CONCLUSION OF CONSTRUCTION OPERATIONS, ALL DRAINAGE SYSTEMS AND STRUCTURES SHALL BE FREE FROM DIRT AND DEBRIS DEPOSITED DURING THE VARIOUS CONSTRUCTION OPERATIONS.

ABBREVIATIONS

ALT.	- ALTERNATE
AVE.	- AVENUE
B.F.	- BACK FACE
BK/	- BACK OF
℄	- BASELINE
X	- BEAM DESIGNATION
BTWN.	- BETWEEN
BOT.	- BOTTOM
B/	- BOTTOM OF
C.I.P.	- CASI IN PLACE
CTR.	- CENTER
CTS.	- CENTERS
℄	- CENTERLINE
CL.	- CLEAR
COL.	- COLUMN
CONC.	- CONCRETE
CONST.	- CONSTRUCTION
C.J.	- CONSTRUCTION JOINT
CU FT	- CUBIC FEET
CU YD	- CUBIC YARD
DIAG.	- DIAGONAL
DIA. OR ø	- DIAMETER
DIM.	- DIMENSION
DWL.	- DOWEL
DWG.	- DRAWING
EA.	- EACH
E.F.	- EACH FACE
E.W.	- EACH WAY
E.	- EAST
ELEV. OR EL.	- ELEVATION
EQ.	- EQUAL
EXIST.	- EXISTING
F.S.	- FAR SIDE
FT.	- FEET, FOOT
FTG.	- FOOTING
FDN.	- FOUNDATION
F.F.	- FRONT FACE
HT.	- HEIGHT
H.P.	- HIGH POINT
HORIZ.	- HORIZONTAL
IN.	- INCH
I.D.	- INSIDE DIAMETER
I.F.	- INSIDE FACE
JT.	- JOINT
K	- KIP
KSF	- KIPS PER SQUARE FOOT
KSI	- KIPS PER SQUARE INCH
L.F.	- LINEAR FOOT
L.L.	- LIVE LOAD
L.P.	- LOW POINT
L.S.	- LUMP SUM
MFR.	- MANUFACTURER
MAX.	- MAXIMUM
MIN.	- MINIMUM
N.S.	- NEAR SIDE
N.	- NORTH
N.B.L.	- NORTH BOUND LANE
NO.	- NUMBER
O.C.	- ON CENTER
OPP.	- OPPOSITE
O.D.	- OUTSIDE DIAMETER
O.F.	- OUTSIDE FACE
℄ OR PL.	- PLATE
PT.	- POINT
LB.	- POUND
PSF	- POUNDS PER SQUARE FOOT
PSI	- POUNDS PER SQUARE INCH
PCF	- POUNDS PER CUBIC FOOT
PCI	- POUNDS PER CUBIC INCH
PLF	- POUNDS PER LINEAR FOOT
P.P.C.	- PRECAST PRESTRESSED CONCRETE
P.J.F.	- PREFORMED JOINT FILLER
P.J.S.	- PREFORMED JOINT SEALER
P.G.L.	- PROFILE GRADE LINE
PROP.	- PROPOSED
QTY.	- QUANTITY
R	- RADIUS
REV.	- REVISION
RD.	- ROAD
SEC.	- SECTION
SHT.	- SHEET
SHLDR.	- SHOULDER
SIM.	- SIMILAR
S.	- SOUTH
S.B.L.	- SOUTH BOUND LANE
SPA.	- SPACES, SPACING
SPEC.	- SPECIFICATION
SQ.	- SQUARE
STD.	- STANDARD
STA.	- STATION
SQ FT	- SQUARE FEET
SQ IN	- SQUARE INCH
SQ YD	- SQUARE YARD
SYM.	- SYMMETRICAL
TEMP.	- TEMPORARY
THK.	- THICK, THICKNESS
T&B	- TOP AND BOTTOM
T/	- TOP OF
T/CONC.	- TOP OF CONCRETE
T/FDN.	- TOP OF FOUNDATION
T/FTG.	- TOP OF FOOTING
T/STL.	- TOP OF STEEL
TYP.	- TYPICAL
U.N.O.	- UNLESS NOTED OTHERWISE
V.I.F.	- VERIFY IN FIELD
VERT.	- VERTICAL
W.	- WEST
W/	- WITH
W.P.	- WORK POINT

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline,Ng	DESIGNED - UCM	REVISED -	
	DRAWN - CAM	REVISED -	
PLOT SCALE = 0.1667 ' / in.	CHECKED - GRR	REVISED -	
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -	

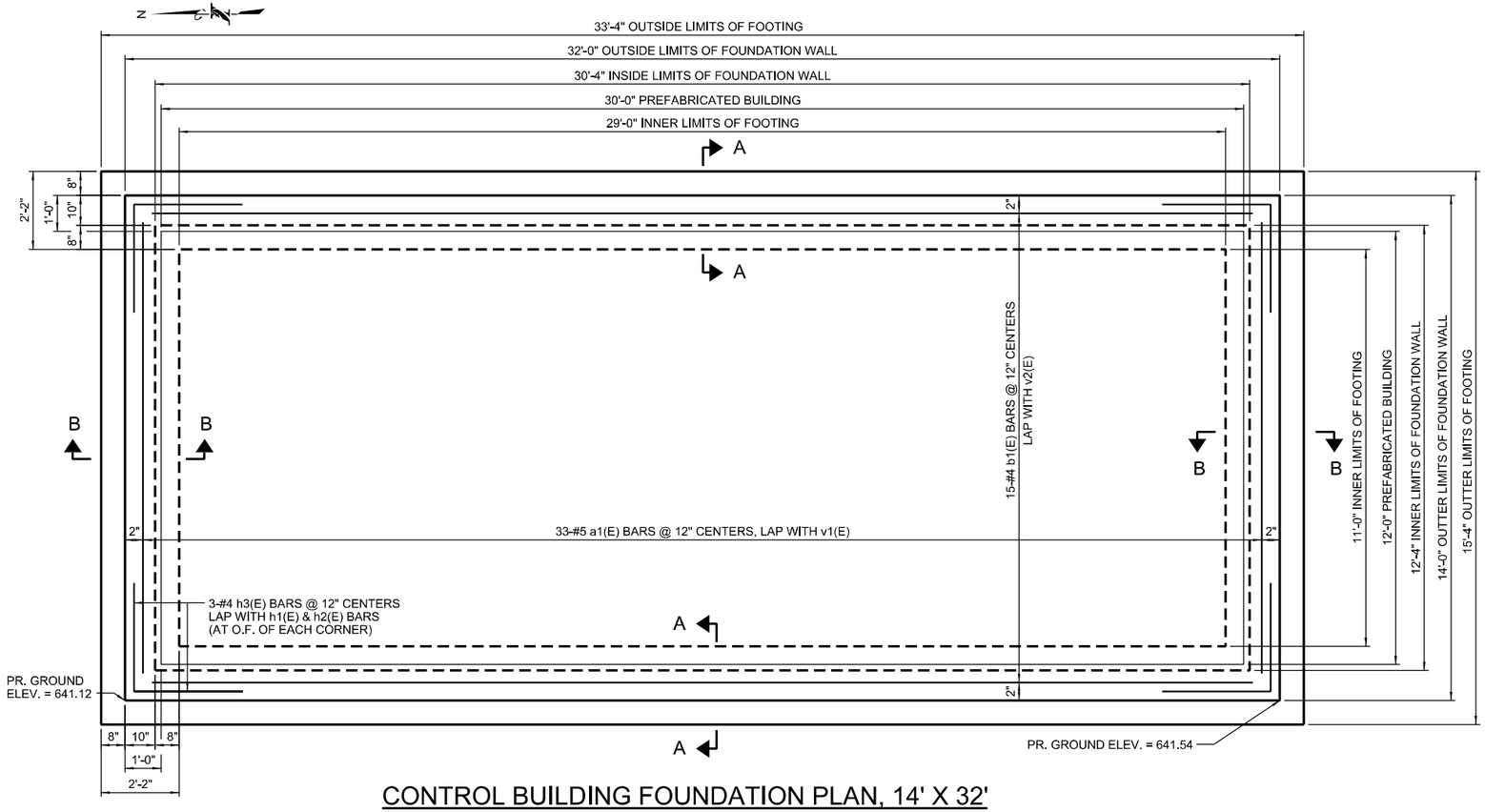
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLL PLAZA CONTROL BUILDING GENERAL NOTES

SCALE: N.T.S. | SHEET 37 OF 41 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	97
		CONTRACT NO. 62U90		
	ILLINOIS FED. AID PROJECT			

MODEL: YES WASH SYSTEM CONTROL
FILE NAME: pw:\\aecom-ima-pw.bentley.com:AECOM_0519_NA\Documents\606658363-190900-CAD\910_CAD\WB\WB-TOLL03_SHEETS-Lighting\D162090-SHT-Elec_TollPlaza-037.dgn



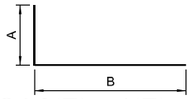
CONTROL BUILDING FOUNDATION PLAN, 14' X 32'

BILL OF MATERIALS

BAR	NO.	SIZE	LENGTH	SHAPE
a1(E)	33	#5	13'-8"	
b1(E)	15	#4	31'-8"	
h1(E)	12	#4	31'-7"	
h2(E)	12	#4	13'-7"	
h3(E)	12	#4	6'-0"	
n1(E)	88	#4	4'-10"	
n2(E)	66	#5	5'-1"	
n3(E)	30	#4	4'-10"	
v1(E)	66	#5	6'-7"	
v2(E)	30	#4	6'-6"	
w1(E)	6	#4	32'-10"	
w2(E)	6	#4	14'-10"	
REINFORCEMENT BARS, EPOXY COATED			POUND	2,710
CONTROL BUILDING FOUNDATION, 14'x32'			EACH	1

MINIMUM BAR LAPS

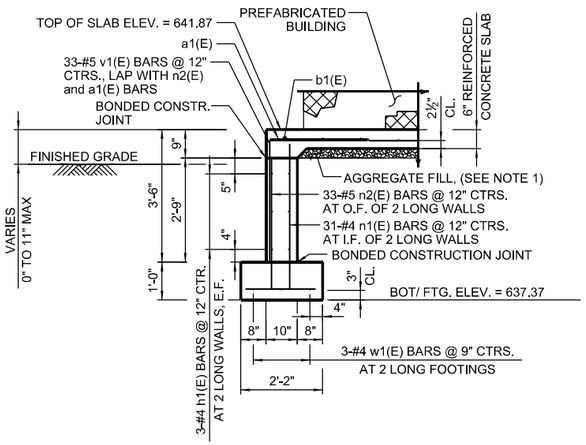
#4 BAR = 3'-0"
#5 BAR = 3'-2"



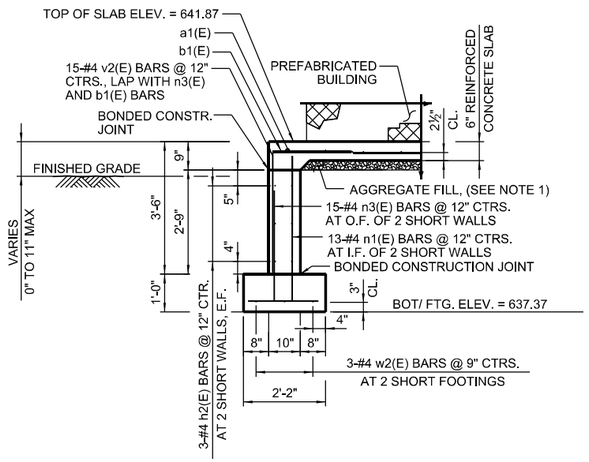
BARS h3(E), n1(E), n2(E), n3(E), v1(E), & v2(E)

VARIABLE DIMENSIONS

BAR	A	B
h3(E)	3'-0"	3'-0"
n1(E)	1'-0"	3'-10"
n2(E)	1'-1"	4'-0"
n3(E)	1'-1"	3'-9"
v1(E)	3'-3"	3'-4"
v2(E)	3'-3"	3'-3"



SECTION A-A



SECTION B-B

NOTES:

1. AGGREGATE FILL SHALL BE COMPACTED CA-6 AND A MINIMUM OF 6" THICK.
2. PREFABRICATED BUILDING TO BE SUPPORTED ON SPREAD FOOTINGS. ALLOWABLE SOIL BEARING PRESSURE OF 2000 PSF.
3. ALL FOOTING EXCAVATIONS SHALL BE INSPECTED AND APPROVED BY THE ENGINEER PRIOR TO PLACING CONCRETE. EXCAVATIONS SHALL BE FREE OF WATER AT ALL TIMES. REPLACE SOFT OR WEAKENED SOIL WITH COMPACTED CA-6.
4. NO ENGINEERED FILL SHALL BE PLACED UNTIL EXCAVATION BOTTOMS HAVE BEEN INSPECTED AND APPROVED BY THE ENGINEER.

   BACKFILLING:
   A. NO FILL OR BACKFILL SHALL BE SETTLED BY THE USE OF WATER.
   B. BOTH SIDES OF THE FOUNDATION WALL SHALL BE BACKFILLED SIMULTANEOUSLY SO AS TO PREVENT OVERTURNING OR LATERAL MOVEMENT OF THE WALLS.
5. FOR ELECTRICAL CONDUIT STUB UPS AND OTHER REQUIREMENTS FOR THESE STRUCTURES, SEE TOLL PLAZA ELECTRICAL DRAWINGS.
6. PAYMENT FOR CONCRETE, REINFORCEMENT BARS, EPOXY COATED, AND PROTECTIVE COAT IS INCLUDED WITH PAYMENT FOR CONTROL BUILDING FOUNDATION 14'x32'.

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CHICAGO, IL 60601-5276
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	DRAWN - CAM	REVISED -	
PLOT SCALE = 0.1667 ' / in.	CHECKED - GRR	REVISED -	
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -	

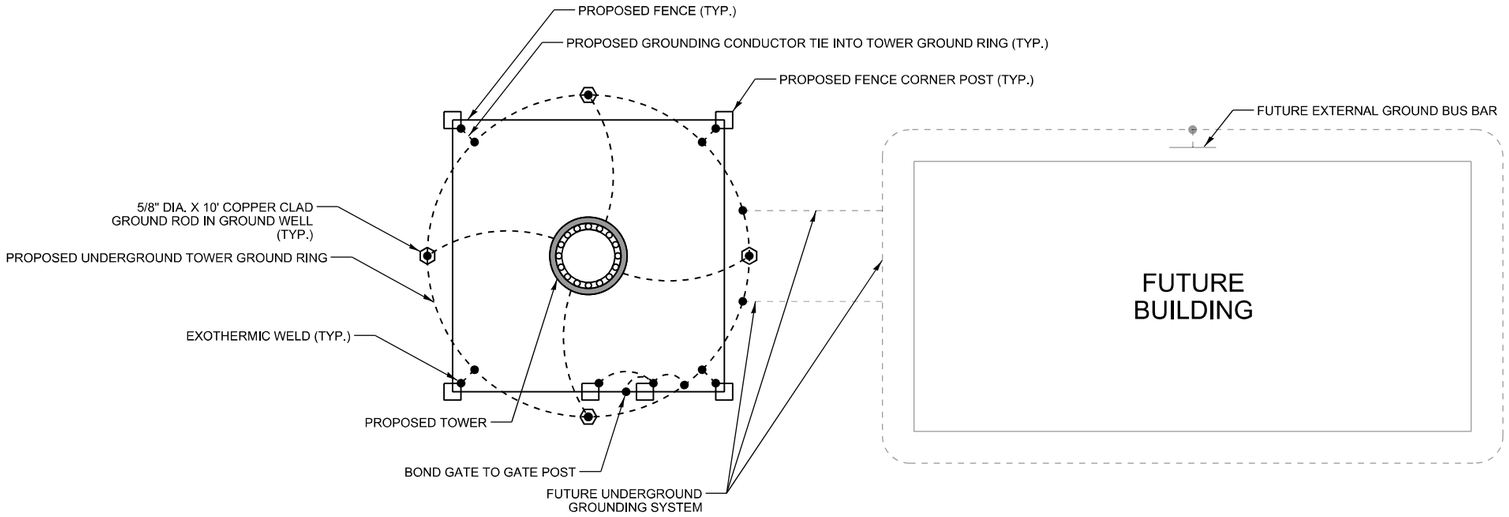
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLAZA CONTROL BUILDING CONCRETE FOUNDATION

SCALE: N.T.S. | SHEET 38 OF 41 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	98
		CONTRACT NO. 62U90		
		ILLINOIS	FED. AID PROJECT	

MODEL: PLAZA CONTROL BUILDING
FILE NAME: //aecomnas-pw.bentley.com:AECOM_DS19_1IA\Documents\60656353-1-190\90-CAD\910_CAD\WB\WB-TOLL\03_SHEET\Lilgnlup\D1620\90-SHT-Elec_TollPlaza-038.dgn



NOTES:

1. ALL FENCE GROUNDING AND BONDING SHALL BE INSTALLED AND IN COMPLIANCE WITH LOCALLY ADOPTED NEC AND MOTOROLA R-56 GUIDELINES AND STANDARDS.
2. THE FENCING GROUNDING SCHEME SHOWN IS FOR A TYPICAL COMMUNICATIONS SITE WITH A NEARBY INSTALLED PERIMETER FENCE SYSTEM. THE FUTURE BUILDING AND ITS GROUNDING SYSTEM ARE SHOWN FOR INFORMATION ONLY AND WILL NOT BE INCLUDED IN THIS CONTRACT.
3. ALL SITE FENCING, INCLUDING GATES, WITHIN (6 FT.) OF THE GROUNDING (EARTHING) ELECTRODE SYSTEM (SUCH AS BUILDING OR TOWER GROUND RING AND RADIAL GROUNDING CONDUCTORS), OR ANY METALLIC ITEM GROUNDED TO THE GROUNDING ELECTRODE SYSTEM, SHALL BE EFFECTIVELY BONDED TO THE EXTERNAL GROUNDING ELECTRODE SYSTEM.
4. EACH CORNER FENCE POST SHALL BE BONDED TO THE NEAREST LOCATION OF THE TOWER GROUND RING USING #2 AWG OR COARSER, BARE, SOLID OR STRANDED, TINNED, COPPER CONDUCTORS. THE GROUNDING CONDUCTORS SHALL BE BURIED TO THE SAME DEPTH AS THE TOWER GROUND RING, WHEREVER PRACTICAL.
5. THE GROUND RODS FOR THE TOWER GROUND RING SHALL BE INSTALLED AT LEAST 3 FT. FROM THE TOWER FOUNDATION.

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PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -

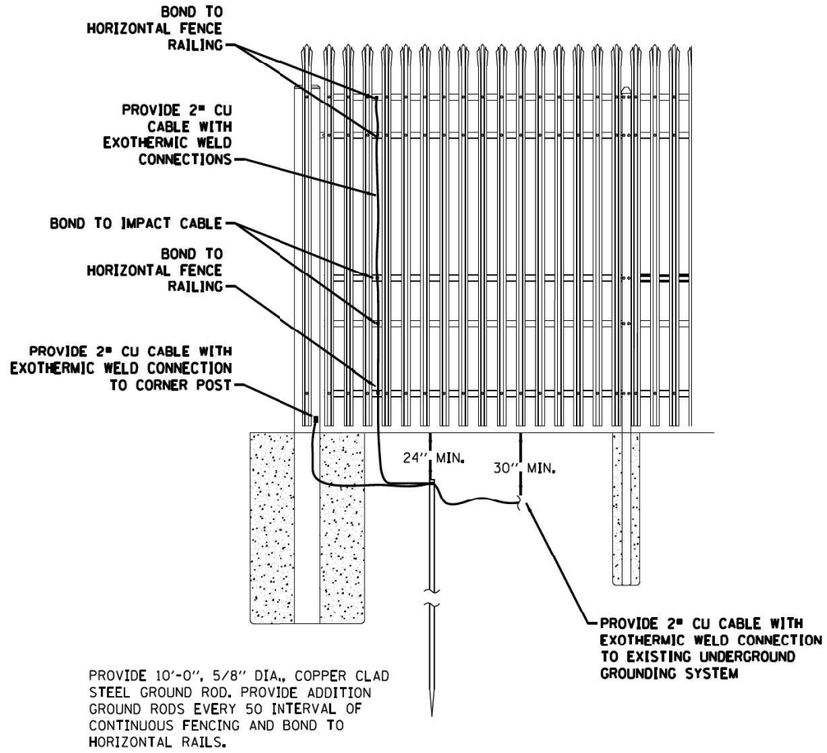
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

COMMUNICATION TOWER AND FENCE GROUNDING DETAIL

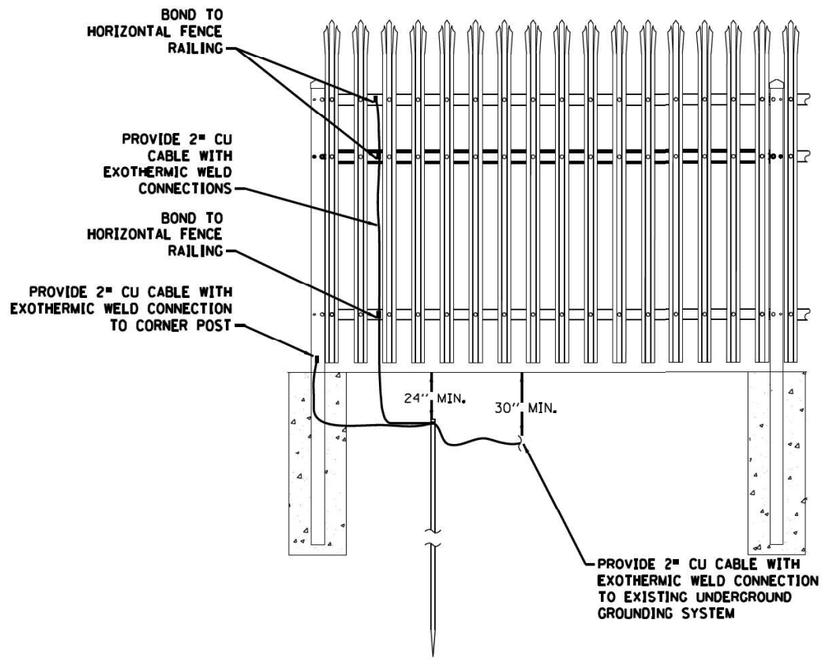
SCALE: N.T.S. | SHEET 39 OF 41 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	99
		CONTRACT NO. 62U90		
	ILLINOIS FED. AID PROJECT			

MODEL: PLAZA CONTROL BUILDING
FILE NAME: pw:\\aecom-ts-pw.bentley.com:AECOM_0519_NA\Documents\60605853-1-100900-CAD\910_CAD\WB\WB-TOLL03_SHEETS\Lighting\D162U90-SHT-Elec1Tdl1Plaza-039.dgn



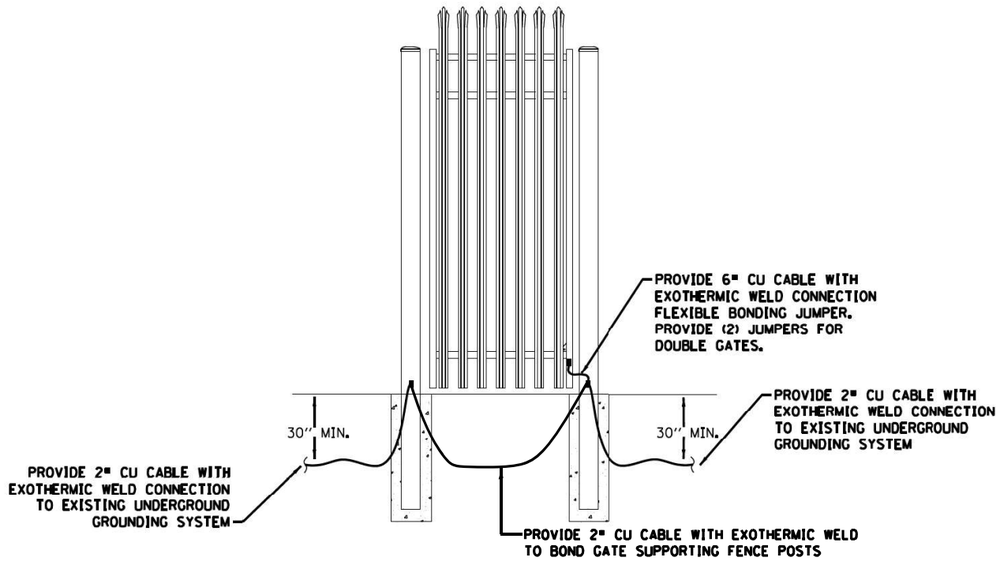
TYPICAL IMPACT FENCE GROUNDING AND BONDING DETAIL



TYPICAL SECURITY FENCE GROUNDING AND BONDING DETAIL

GENERAL NOTES:

1. ALL FENCE GROUNDING AND BONDING SHALL BE INSTALLED AND IN COMPLIANCE WITH LOCALLY ADOPTED NEC AND MOTOROLA R-56 GUIDELINES AND STANDARDS.
2. THE FENCING GROUNDING SCHEME SHOWN IS FOR A TYPICAL COMMUNICATIONS SITE WITH A NEARBY INSTALLED PERIMETER FENCE SYSTEM.
3. ALL SITE FENCING, INCLUDING GATES, WITHIN (25 FT.) OF THE GROUNDING (EARTHING) ELECTRODE SYSTEM (SUCH AS BUILDING OR TOWER GROUND RING AND RADIAL GROUNDING CONDUCTORS), OR ANY METALLIC ITEM GROUNDED TO THE GROUNDING ELECTRODE SYSTEM, SHALL BE EFFECTIVELY BONDED TO THE EXTERNAL GROUNDING ELECTRODE SYSTEM.
4. EACH CORNER FENCE POST SHALL BE BONDED TO THE NEAREST LOCATION OF THE TOWER GROUND RING USING #2 AWG OR COARSER, BARE, SOLID OR STRANDED, TINNED, COPPER CONDUCTORS. THE GROUNDING CONDUCTORS SHALL BE BURIED TO THE SAME DEPTH AS THE TOWER GROUND RING, WHEREVER PRACTICAL.



TYPICAL GATE GROUNDING AND BONDING DETAIL

AECOM
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CHICAGO, IL 60601-5276
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USER NAME = Jacqueline,Ng	DESIGNED - UCM	REVISED -	
	DRAWN - CAM	REVISED -	
PLOT SCALE = 0.1667 ' / in.	CHECKED - GRR	REVISED -	
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -	

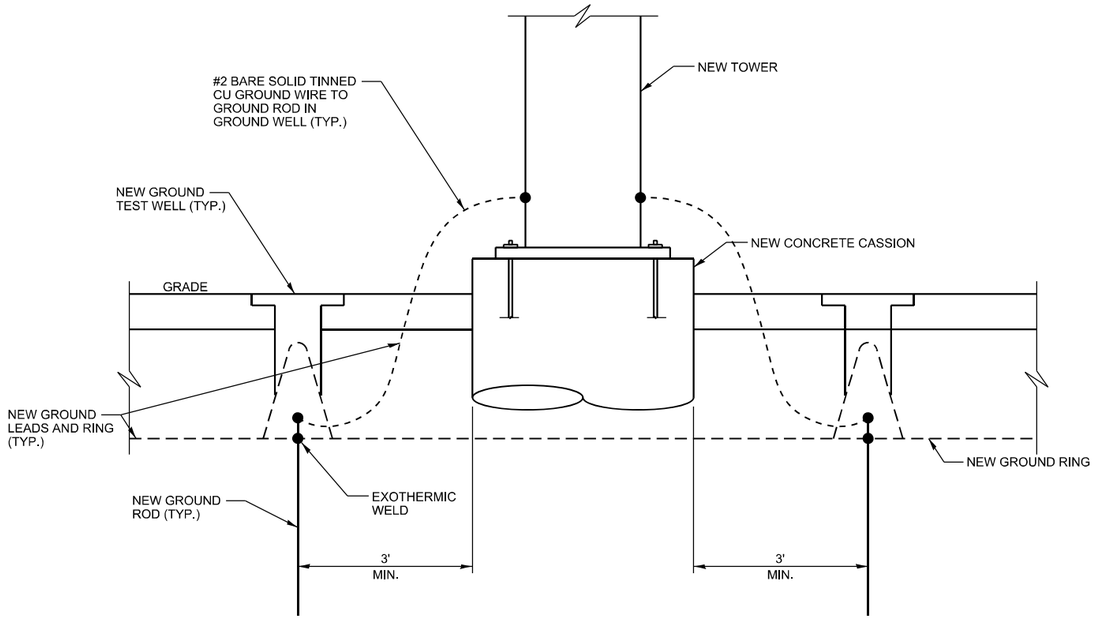
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

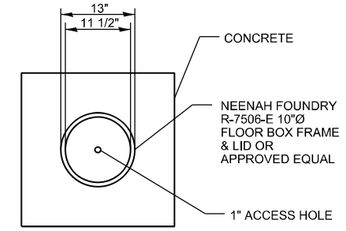
FENCE GROUNDING DETAIL

SCALE: N.T.S. | SHEET 40 OF 41 SHEETS | STA. | TO STA.

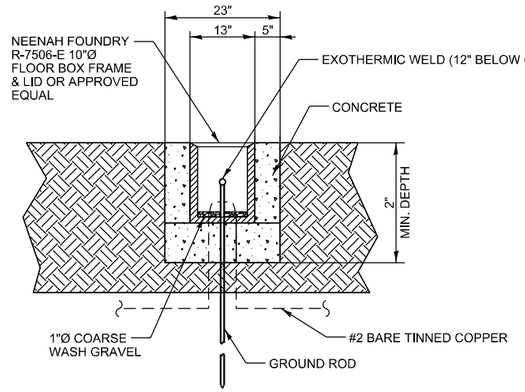
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	100
		CONTRACT NO. 62U90		
	ILLINOIS	FED. AID PROJECT		

MODEL: PLAZA CONTROL BUILDING
FILE NAME: p:\Projects\Illinois\Tollway\District 1\Design Phase\Contracts\62U90\CAD\WEB\B-TOLL103_CAD\910_CAD\WEB\B-TOLL103_SHEETS\Lighting\d1162U90-SHT-Elec-TollPlaza-040.dgn





GROUND WELL PLAN DETAIL
NOT TO SCALE



GROUND WELL ELEVATION DETAIL
NOT TO SCALE

NOTES:

1. DETAILS SHOW INSTALLATION IN UNPAVED AREA, WHEN INSTALLING IN A PAVED AREA, INCORPORATE GROUND WELL IN THE POUR.
2. GROUNDWELL IS REQUIRED AS SHOWN.
3. GROUNDING FOR THE COMMUNICATION TOWER SHALL BE PER MOTOROLA R-56 GUIDELINES AND STANDARDS.

MODEL: PLAZA CONTROL BUILDING
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303 EAST WACKER DRIVE, SUITE 1400
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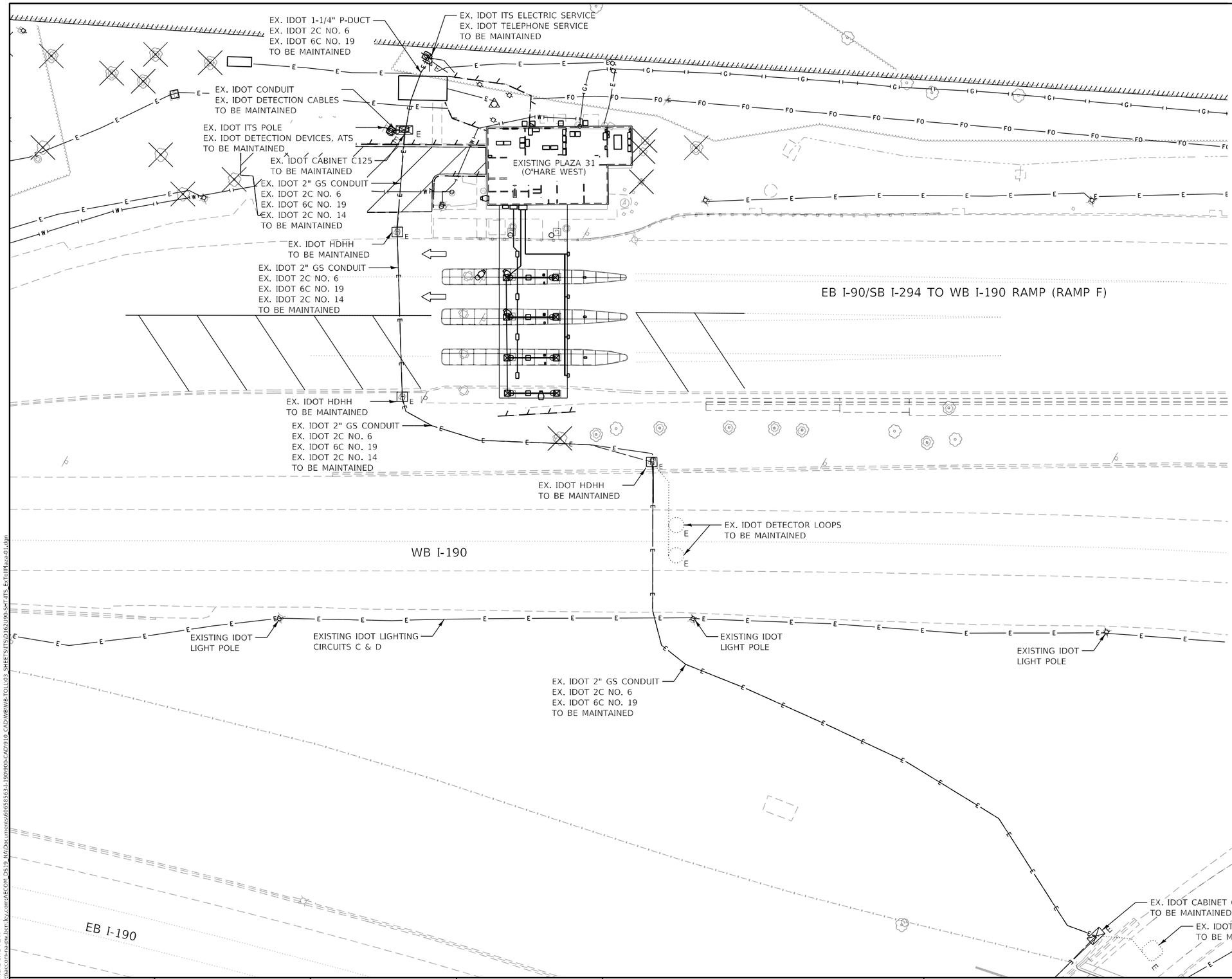
USER NAME = Jacqueline,Ng	DESIGNED - UCM	REVISED -	
	DRAWN - CAM	REVISED -	
PLOT SCALE = 0.1667 ' / in.	CHECKED - GRR	REVISED -	
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

COMMUNICATION TOWER DETAIL

SCALE: N.T.S. | SHEET 41 OF 41 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	101
		CONTRACT NO. 62U90		
	ILLINOIS FED. AID PROJECT			



NOTES:

1. EXISTING IDOT ITS PLAN SHEET DEPICTS EXISTING CONDITIONS AND WORK TO BE PERFORMED TO MAINTAIN EXISTING IDOT ITS INFRASTRUCTURE.

2. NOTATION FOR THE EXISTING IDOT ITS SHEET IS AS FOLLOWS:
   A) MAINTAINED: IDOT ITS INFRASTRUCTURE AND OPERATION IS TO BE MAINTAINED THROUGH THE CONTRACT PERIOD (UNLESS OTHERWISE NOTED). THIS WORK IS TO BE PERFORMED UNDER THE "MAINTAINING ITS DURING CONSTRUCTION" PAY ITEM.

3. THE EXISTING IDOT ITS INFRASTRUCTURE, AS DEPICTED ON THE PLANS, IS INTENDED TO INDICATE THE GENERAL EQUIPMENT INSTALLATIONS INVOLVED AND SHALL NOT BE CONSTRUED AS AN EXACT REPRESENTATION OF THE FIELD CONDITIONS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONFIRM AND ASCERTAIN THE EXACT CONDITION, SIZE, TYPE, QUANTITY, AND LOCATION OF THE EXISTING IDOT ITS EQUIPMENT IN THE FIELD. ANY DISCREPANCIES BETWEEN THE ACTUAL EXISTING IDOT ITS EQUIPMENT IN THE FIELD AND THE EXISTING IDOT ITS EQUIPMENT AS DEPICTED SHOWN ON THE PLANS SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE RESIDENT ENGINEER FOR RESOLUTION. FAILURE TO VERIFY THE CONDITIONS, DIMENSIONS, AND DETAILS OF THE EXISTING IDOT ITS EQUIPMENT SHALL NOT RELIEVE THE CONTRACTOR OF THEIR RESPONSIBILITY FOR PROVIDING SAFE, COMPLETE, AND FULLY FUNCTIONAL ITS INFRASTRUCTURE.

SYMBOLS LEGEND

E OR E	EXISTING DETECTOR LOOP
E	EXISTING SURVEILLANCE CONTROLLER CABINET
E	EXISTING SURVEILLANCE POLE
E	EXISTING ELECTRIC HANDHOLE
E	EXISTING UTILITY SERVICE CONNECTION, POLE MOUNTED
	EXISTING LIGHT POLE

ABBREVIATIONS

ATS	ATTACHED TO STRUCTURE
GS	GALVANIZED STEEL
HDHH	HEAVY-DUTY HANDHOLE
ITS	INTELLIGENT TRANSPORTATION SYSTEM

MODEL: ELECTRICAL SITE PLAN
FILE NAME: pw:\\aecom-us-pw.bentley.com:AECOM DS19 NA\Documents\60605653-190905-CADD\10 CAD\WB\WB-TOLL\03 -SHEETS\TSD\62U90-SHT-ITS_ExTollPlaza01.dgn

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USER NAME = Jacqueline,Ng	DESIGNED - PTJ	REVISED -	
	DRAWN - CAM	REVISED -	
PLOT SCALE = 40.0000 ' / in.	CHECKED - MJL	REVISED -	
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING IDOT ITS PLAN

SCALE: 1"=20' | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	102
		CONTRACT NO. 62U90		
	ILLINOIS FED. AID PROJECT			

GENERAL NOTES

1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ASCERTAIN EXISTING FIELD CONDITIONS BEFORE BIDDING THIS PROJECT.

2. PRIOR TO INSTALLATION OF NEW CABLE DUCT, CONDUITS, JUNCTION BOXES, LIGHT STANDARD FOUNDATIONS, AND APPURTENANCES, THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF EXISTING CONDUITS, CABLES, AND UNDERGROUND UTILITIES.

3. ALL NEW UNIT DUCT, CONDUIT, JUNCTION BOXES AND APPURTENANCES ARE ILLUSTRATED DIAGRAMMATICALLY. THE ACTUAL LOCATION IN THE FIELD SHALL MEET WITH APPROVAL OF THE ENGINEER. THE CONTRACTOR'S PROPOSED WORK SHALL NOT CONFLICT WITH EXISTING UTILITIES.

4. ELECTRICAL MATERIALS SHALL BE NEW AND OF THE TYPES OF KINDS APPROVED BY THE FOLLOWING ORGANIZATIONS:
   NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
   INSTITUTE OF ELECTRICAL AND ELECTRICS ENGINEERS
   ILLUMINATING ENGINEERING SOCIETY
   AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS
   U.S. DEPARTMENT OF TRANSPORTATION
   UNDERWRITERS LABORATORIES
   AMERICAN NATIONAL STANDARDS INSTITUTE
   INSULATED CABLE ENGINEERS ASSOCIATION

5. NO MATERIAL OR EQUIPMENT SHALL BE DELIVERED TO THE JOB SITE PRIOR TO SHOP DRAWING REVIEW AND APPROVAL BY THE ENGINEER. ANY MATERIAL OR EQUIPMENT DELIVERED TO THE JOB SITE VIOLATING THAT PROCEDURE SHALL BE REMOVED FROM THE JOB SITE AT THE CONTRACTOR'S EXPENSE.

6. CONTRACTOR SHALL ASSUME FULL MAINTENANCE OF THE EXISTING LIGHTING SYSTEM AS DESCRIBED UNDER SECTION 846 OF TOLLWAY SUPPLEMENTAL SPECIFICATIONS, "MAINTAIN LIGHTING SYSTEM".

7. ALL TEMPORARY AND PROPOSED LIGHTING EQUIPMENT SHALL NOT BE INSTALLED OUTSIDE THE TOLLWAY RIGHT OF WAY.

8. ALL ROADWAY LIGHTING SHALL BE ON ALTERNATING CIRCUITS.

9. ROADWAY LED PHOTOMETRIC DISTRIBUTIONS TO BE USED VARY DEPENDING ON LOCATION FOR SOME MANUFACTURERS. LABELS SHOWN ON THE PLANS ARE BASED ON THE LED LUMINAIRE PHOTOMETRIC DISTRIBUTION TABLE IN THE ILLINOIS TOLLWAY GUIDELINES FOR ROADWAY ILLUMINATION.

10. ELECTRICAL WORK SHALL CONFORM WITH NATIONAL CODES INCLUDING THE NATIONAL ELECTRIC CODE AND NATIONAL ELECTRIC SAFETY CODE, STATE, AND LOCAL CODES.

11. MULTI-CABLE DUCT AND/OR CONDUIT RUNS ARE TO BE INSTALLED IN COMMON TRENCH AS APPLICABLE.

12. CONDUIT AND CABLE DUCT SHALL BE POSITIONED IN THE FIELD TO AVOID UTILITY INTERFERENCE. CONTRACTOR TO VERIFY LOCATIONS.

13. ALL PITS USED FOR INSTALLING BORED AND PULLED CONDUIT UNDER EXISTING ROADWAYS WILL BE LOCATED FIVE (5) FEET MINIMUM CLEAR FROM THE EDGE OF SHOULDER AND PER SECTION 810 OF THE SUPPLEMENTAL SPECIFICATIONS. LOCATIONS OF THE CONDUIT CROSSING SHOWN ARE APPROXIMATE AND MAY BE SHIFTED AS NECESSARY TO MEET THE MINIMUM CLEARANCE REQUIREMENTS. THE PITS MUST BE ADEQUATELY GUARDED TO PROTECT THE MOTORIST. THE CONTRACTOR MUST SUBMIT PLANS FOR THE LOCATION AND SIZE OF THE PITS AND MAINTENANCE AND PROTECTION OF TRAFFIC AT THE SITE FOR APPROVAL OF THE ENGINEER. THIS MOT IS INCIDENTAL TO THE ROADWAY PAY ITEMS FOR ROADWAY LIGHTING.

14. ALL TEMPORARY WOOD POLES, LUMINAIRES, AERIAL CABLE, AND TEMPORARY UNIT DUCT HAS BEEN INDIVIDUALLY QUANTIFIED AND SHALL NOT BE INCLUDED FOR PAYMENT AS PART OF "MAINTAIN LIGHTING SYSTEM".

15. AERIAL CABLE SHALL BE INSTALLED WITH A MINIMUM CLEARANCE OF 20' ABOVE GRADE AND ROADWAYS.

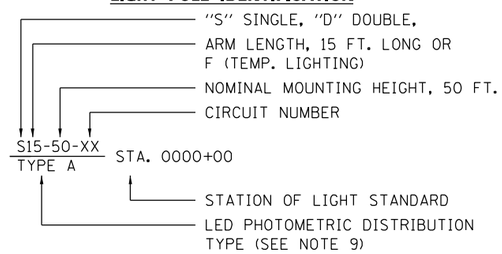
SYMBOLS LEGEND

- EXISTING LIGHT UNIT POLE TO REMAIN
- R — EXISTING LIGHT UNIT POLE TO BE REMOVED
- RR — EXISTING LIGHTING UNIT TO BE REMOVED AND RELOCATED
- RL — RELOCATED LIGHTING UNIT IN NEW LOCATION
- A — AERIAL CABLE, 4-1/C NO. 2 ALUMINUM WITH MESSENGER WIRE (UNLESS OTHERWISE NOTED)
- PROPOSED UNIT DUCT OR CONDUIT, AS NOTED ON PLANS
- PROPOSED RIGID STEEL CONDUIT PVC COATED ATTACHED TO STRUCTURE
- UNDERGROUND CONDUIT/UNIT DUCT UNDER ROADWAY, AS NOTED ON PLANS
- X — UNIT DUCT OR CONDUIT TAG. SEE CONDUIT/CABLE SYMBOL LEGEND FOR DESCRIPTION

CONDUIT/CABLE DESCRIPTION

- A — UNIT DUCT, WITH 2-1/C NO. 2 AND 1/C NO. 4 GROUND, 600V (XLP-TYPE USE), 2" DIA. CNC
- B — UNIT DUCT, WITH 4-1/C NO. 2 AND 1/C NO. 4 GROUND, 600V (XLP-TYPE USE), 2" DIA. CNC

LIGHT POLE IDENTIFICATION



AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline,Ng	DESIGNED - MAE	REVISED -
	DRAWN - CAM	REVISED -
PLOT SCALE = 2.0000 ' / in.	CHECKED - GRR	REVISED -
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROADWAY LIGHTING GENERAL NOTES, SYMBOLS & LEGEND

SCALE: N.T.S. | SHEET 1 OF 14 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	103
		CONTRACT NO. 62U90		
	ILLINOIS	FED. AID PROJECT		

MODEL: Roadway Lighting General Notes Symbols and Legend
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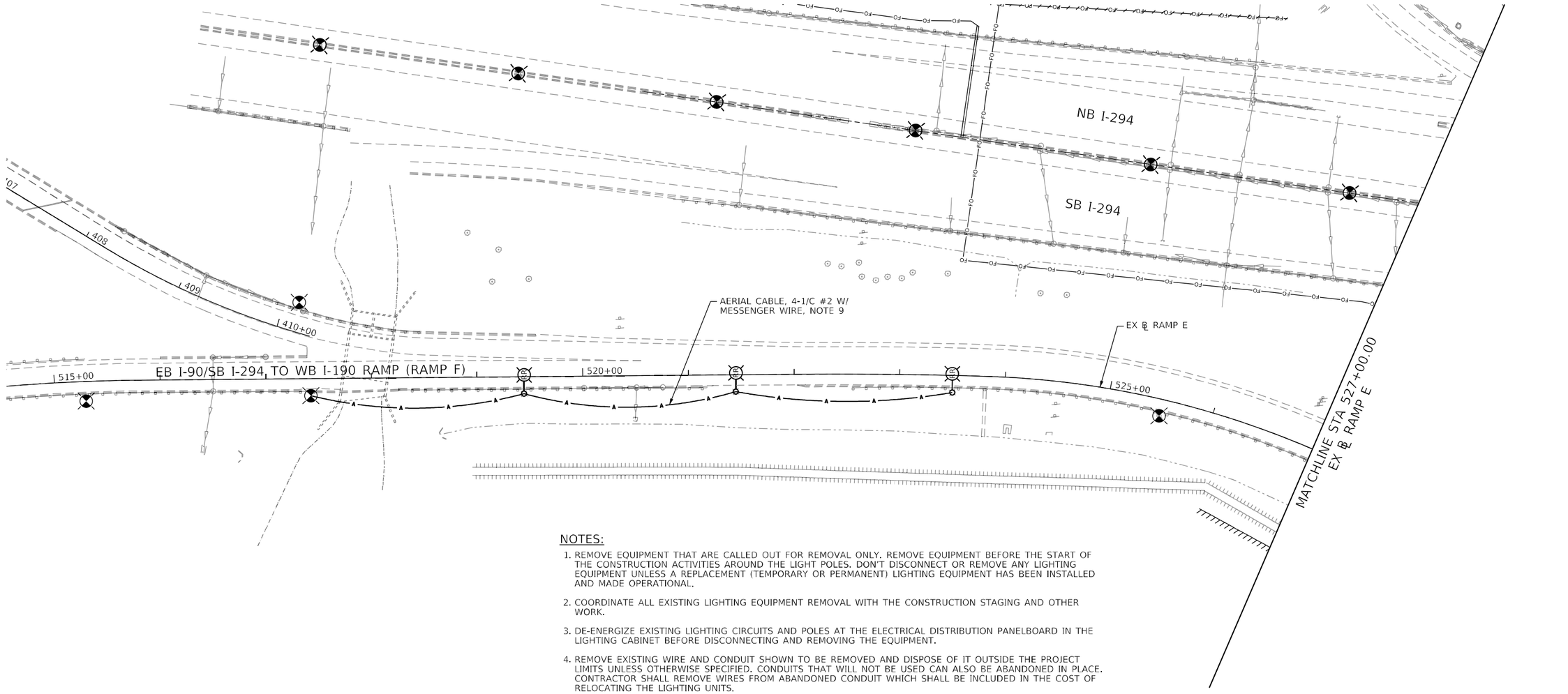

NOTES:

1. REMOVE EQUIPMENT THAT ARE CALLED OUT FOR REMOVAL ONLY. REMOVE EQUIPMENT BEFORE THE START OF THE CONSTRUCTION ACTIVITIES AROUND THE LIGHT POLES. DON'T DISCONNECT OR REMOVE ANY LIGHTING EQUIPMENT UNLESS A REPLACEMENT (TEMPORARY OR PERMANENT) LIGHTING EQUIPMENT HAS BEEN INSTALLED AND MADE OPERATIONAL.
2. COORDINATE ALL EXISTING LIGHTING EQUIPMENT REMOVAL WITH THE CONSTRUCTION STAGING AND OTHER WORK.
3. DE-ENERGIZE EXISTING LIGHTING CIRCUITS AND POLES AT THE ELECTRICAL DISTRIBUTION PANELBOARD IN THE LIGHTING CABINET BEFORE DISCONNECTING AND REMOVING THE EQUIPMENT.
4. REMOVE EXISTING WIRE AND CONDUIT SHOWN TO BE REMOVED AND DISPOSE OF IT OUTSIDE THE PROJECT LIMITS UNLESS OTHERWISE SPECIFIED. CONDUITS THAT WILL NOT BE USED CAN ALSO BE ABANDONED IN PLACE. CONTRACTOR SHALL REMOVE WIRES FROM ABANDONED CONDUIT WHICH SHALL BE INCLUDED IN THE COST OF RELOCATING THE LIGHTING UNITS.
5. RETURN ALL SALVAGEABLE LIGHTING EQUIPMENT TO TOLLWAY. PROPERLY PACKAGE AND TRANSPORT REMOVED EQUIPMENT TO THE TOLLWAY DESIGNATED YARD OR STORAGE FACILITY.
6. VERIFY ROUTING OF EXISTING CIRCUIT CONDUCTORS AND MAKE ANY NECESSARY ADJUSTMENTS TO KEEP THE EXISTING POLES OPERATIONAL AS INDICATED. THIS WORK IS COVERED UNDER MAINTAIN LIGHTING SYSTEM PAY ITEM. NO SEPARATE PAYMENT WILL BE MADE FOR MATERIALS OR LABOR.
7. REMOVE AND RELOCATE TOLLWAY LIGHTING UNITS TO NEW LOCATION AS SHOWN. INSTALL NEW FOUNDATION AND UNIT DUCT TO CONNECT POLES TO EXISTING CIRCUITS.
8. SEE PROPOSED LIGHTING PLANS FOR OTHER INFORMATION AND INCORPORATION OF EXISTING AND RELOCATED LIGHT POLES AND EQUIPMENT INTO THE FINAL PROPOSED LIGHTING SYSTEM.
9. FURNISH AND INSTALL AERIAL CABLES AS SHOWN TO TEMPORARILY WIRE RELOCATED PLAZA LIGHT POLES TO EXISTING ROADWAY LIGHTING CIRCUITS DURING CONSTRUCTION. REMOVE AERIAL CABLES AFTER THE PLAZA LIGHT POLES HAVE BEEN PERMANENTLY WIRED TO THE PLAZA POWER SOURCE.

N

SCALE IN FEET
0 50 100

MODEL: Default
FILE NAME: nw:\\aecom-ua-nw.ber-by.com:AECOM_DS19_NA\Documents\60658563-1-190900-CAD\910_CAD\WB-TOLL\03_SHEETS\Lighting\D162U90-SHT-ElecLight-002.dgn

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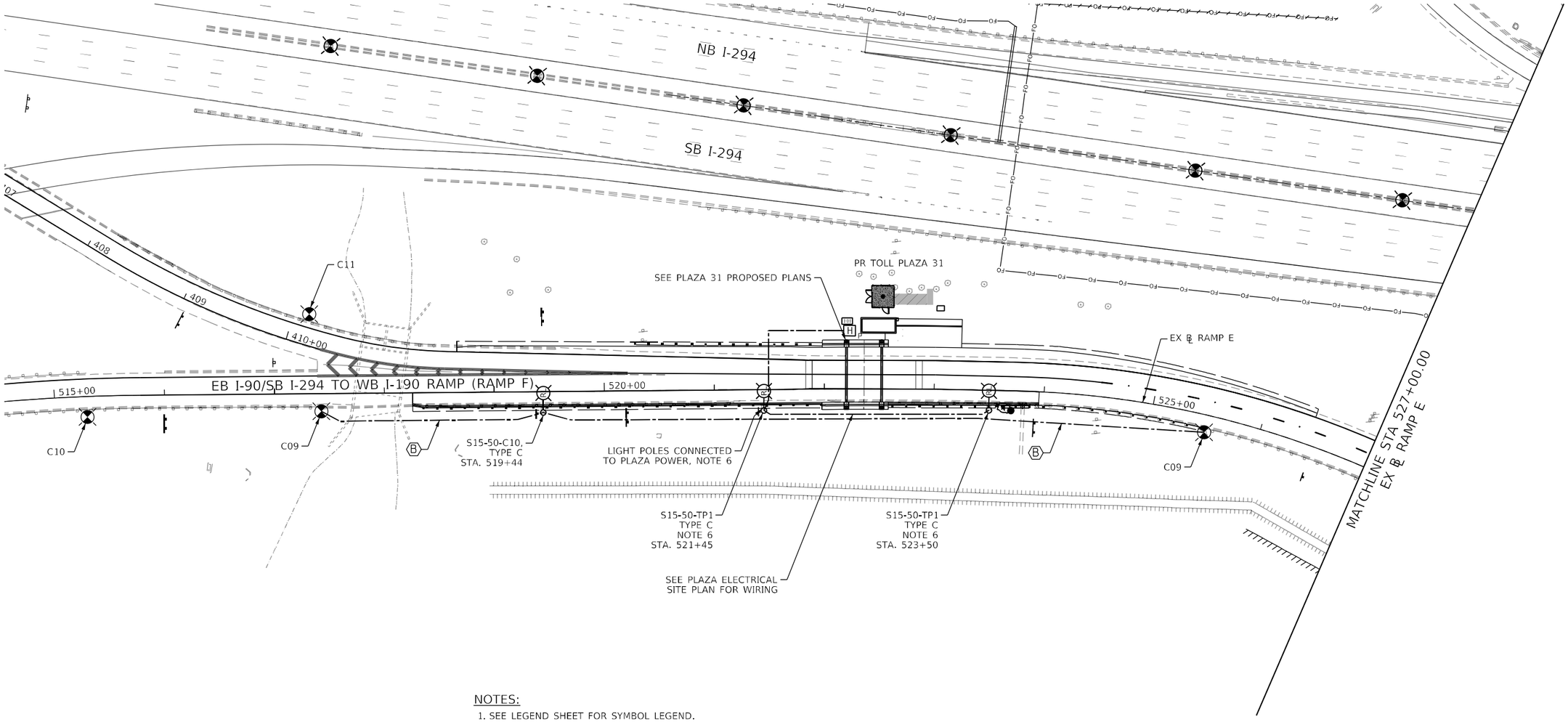
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLL PLAZA 31
LIGHTING TEMPORARY AND REMOVAL PLAN

SCALE: 1"=50' | SHEET 2 OF 14 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	104
		CONTRACT NO. 62U90		
	ILLINOIS FED. AID PROJECT			



NOTES:

1. SEE LEGEND SHEET FOR SYMBOL LEGEND.
2. SEE CABLE/CONDUIT SCHEDULE SHEET FOR CABLE TAGS.
3. ALL EMPTY CONDUITS UNDERGROUND OR ABOVE GRADE SHALL HAVE A PULL CORD.
4. UNDERGROUND CABLE/CONDUIT MARKING TAPE IS TO BE INSTALLED OVER UNDERGROUND CONDUITS.
5. GROUND MOUNTED LIGHT POLE, ALUMINUM, 50 FT., 15 FT. MAST ARM, LED LUMINAIRE (AS PER ROADWAY LIGHTING PLAN) AND LIGHT POLE FOUNDATION (ROADWAY) STEEL HELIX (10FT.).
6. LIGHT POLES ARE FED FROM PLAZA 31 ELECTRICAL PANELBOARDS. SEE TOLL PLAZA PLANS FOR ADDITIONAL INFORMATION.

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PLOT SCALE = 100.0000 ' / in.	CHECKED - GRR	REVISED -	
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLL PLAZA 31
PROPOSED LIGHTING PLAN

SCALE: 1"=50' | SHEET 3 OF 14 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	105
		CONTRACT NO. 62U90		
	ILLINOIS FED. AID PROJECT			

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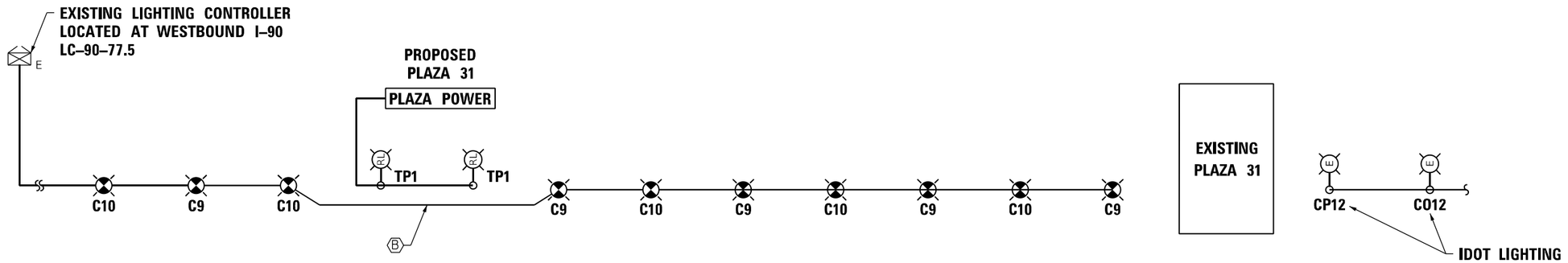

NOTES:

1. FOR GENERAL NOTES, LEGEND AND DESCRIPTION OF CABLE AND CONDUIT, SEE ROADWAY LIGHTING GENERAL NOTES, SYMBOLS AND LEGEND SHEET.
2. TOTAL LOAD IN WATTS ON LIGHTING CONTROLLER CONSOLE FOR HIGHWAY LIGHTING IS BASED ON 240 WATTS PER LED LUMINAIRE.
3. EXISTING TOLLWAY LIGHTING CONTROLLER CABINET IS LOCATED AT WESTBOUND I-90 SOUTH OF HIGGINS ROAD.
4. EXISTING IDOT LIGHTING UNITS CO12 AND CP12 ARE CONNECTED TO IDOT LIGHTING CONTROLLER CABINET 'C' LOCATED AT EB I-190 AT CN RR.

CONDUIT/CABLE DESCRIPTION

(A) UNIT DUCT, WITH 2-1/C NO. 2 AND 1/C NO. 4 GROUND, 600V (XLP-TYPE USE), 2" DIA. CNC

(B) UNIT DUCT, WITH 4-1/C NO. 2 AND 1/C NO. 4 GROUND, 600V (XLP-TYPE USE), 2" DIA. CNC

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	DRAWN - CAM	REVISED -	
PLOT SCALE = 2.0000 ' / in.	CHECKED - GRR	REVISED -	
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SINGLE LINE WIRING DIAGRAM

SCALE: N.T.S. | SHEET 4 OF 14 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	106
		CONTRACT NO. 62U90		
	ILLINOIS FED. AID PROJECT			

MODEL: Roadway Lighting General Notes Symbols and Legend
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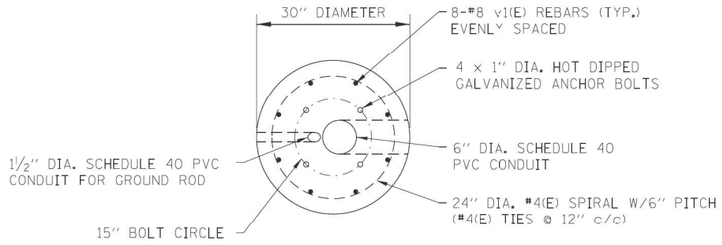

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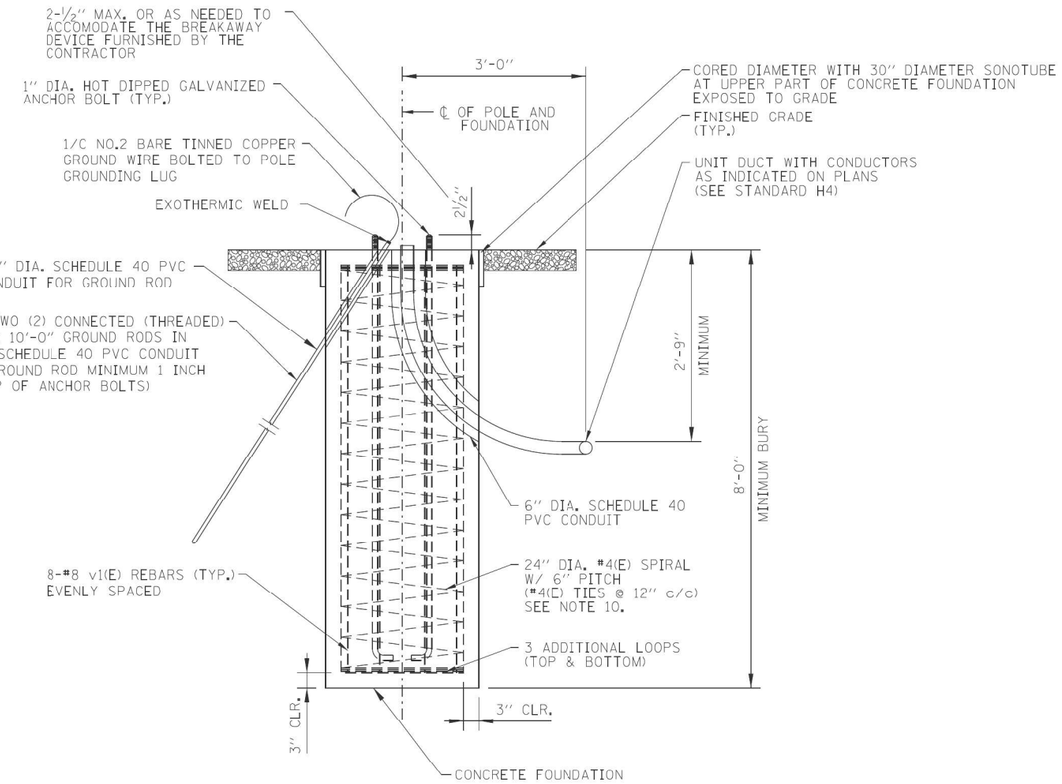


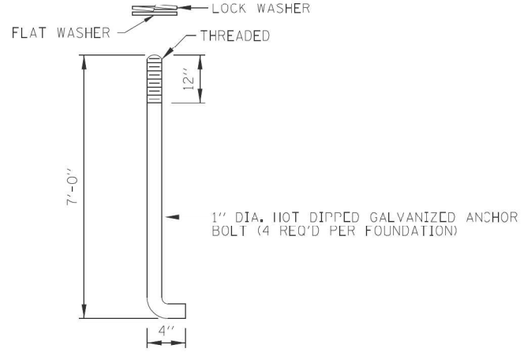
ELEVATION

NOTES:

1. AT LOCATIONS NOT SHIELDED BY A GUARDRAIL, THE LIGHT POLE FOUNDATION SHALL BE FLUSH WITH SURROUNDING AGGREGATE PAD AS DETAILED ON SHEETS 7 AND 8 OF THIS STANDARD. CROSS SLOPES OF THE AGGREGATE PAD SHALL BE PER THE FOLLOWING TABLE:

ADJACENT ROADWAY SIDESLOPE	REQUIRED CROSS SLOPE OF PAD
FORESLOPE 1:6H OR FLATTER	MATCH PROPOSED ROADWAY SIDESLOPE
FORESLOPE STEEPER THAN 1:6H	1:6H CROSS SLOPE
BACKSLOPE 1:4H OR FLATTER	MATCH PROPOSED ROADWAY SIDESLOPE
BACKSLOPE STEEPER THAN 1:4H	1:4H CROSS SLOPE

2. AGGREGATE PADS SHALL BE CONSTRUCTED OF AGGREGATE SHOULDERS WITH FILTER FABRIC, TYPE B, 4".
3. PROVIDE SEEDING, POTASSIUM FERTILIZER NUTRIENT, AND EROSION CONTROL BLANKET AS REQUIRED.
4. THE TOP OF FOUNDATION SHALL BE AT THE SAME ELEVATION AS THE GRADED AGGREGATE PAD AT THE CENTER OF THE LIGHT POLE WHEN SLOPED AS DESCRIBED IN NOTE 1.
5. ALL SLOPES ARE EXPRESSED AS UNITS OF VERTICAL DISPLACEMENT TO UNITS OF HORIZONTAL DISPLACEMENT (V:H).
6. ALL GROUND MOUNTED LIGHT POLES SHALL BE PROVIDED WITH AN ACCEPTED FHWA BREAKAWAY BASE OR DEVICE PER THE ILLINOIS TOLLWAY SUPPLEMENTAL SPECIFICATIONS SECTION 1070.
7. FOR DETAILS OF FUSE HOLDER, POLE BASE WIRING AND CONDUCTOR SPLICE SEE STANDARD H2.
8. ALL REINFORCEMENT BARS SHALL BE EPOXY COATED.
9. ALL EQUIPMENT SHALL BE GROUNDED AND BONDED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND THE NATIONAL ELECTRICAL SAFETY CODE.
10. FOR ALL MEDIAN BARRIER FOUNDATIONS, THE ANCHOR BOLTS SHALL BE CENTERED AROUND THE MEDIAN BARRIER WALL CENTERLINE.
11. ADJUST SPIRAL BAR SPACING AS NEEDED TO ACCOMMODATE CONDUIT ENTRANCE.



ANCHOR BOLT DETAIL

LIGHT STANDARD FOUNDATION DETAILS - CONCRETE
(GROUND MOUNTED UNITS)

APPROVED BY: Marco Nashif, CHIEF ENGINEERING OFFICER — DATE: 03/01/2024

DATE	REVISIONS
3-01-2024	REVISED THE BOLT PROJECTION DIMENSION FROM 3-½" TO 2-½". ADDED DETAILED NOTES TO ADDRESS THE GRADING CHANGES SURROUNDING THE LIGHT STANDARD FOUNDATION. REVISED DIMENSIONS OF THE MEDIAN BARRIER. REVISED ALL REFERENCES TO AGGREGATE FROM LEVEL. REVISED GRADING DETAILS.

Illinois Tollway

LIGHT STANDARD FOUNDATION

STANDARD H1-12

SHEET 1 OF 10

AECOM
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PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline,Ng	DESIGNED - MAE	REVISED -	
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PLOT SCALE = 2.0000 ' / in.	CHECKED - GRR	REVISED -	
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ILLINOIS TOLLWAY STANDARD DETAIL

SCALE: N.T.S. | SHEET 5 OF 14 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	107
		CONTRACT NO. 62U90		
		ILLINOIS	FED. AID PROJECT	

MODEL: Roadway Lighting General Notes Symbols and Legend
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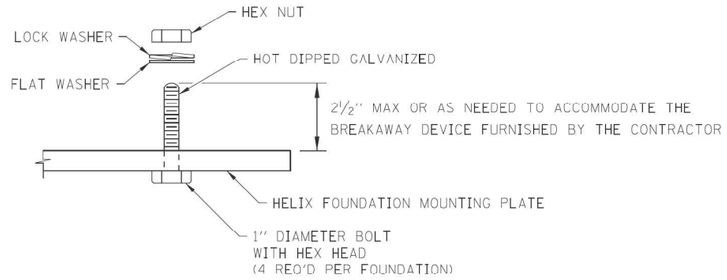
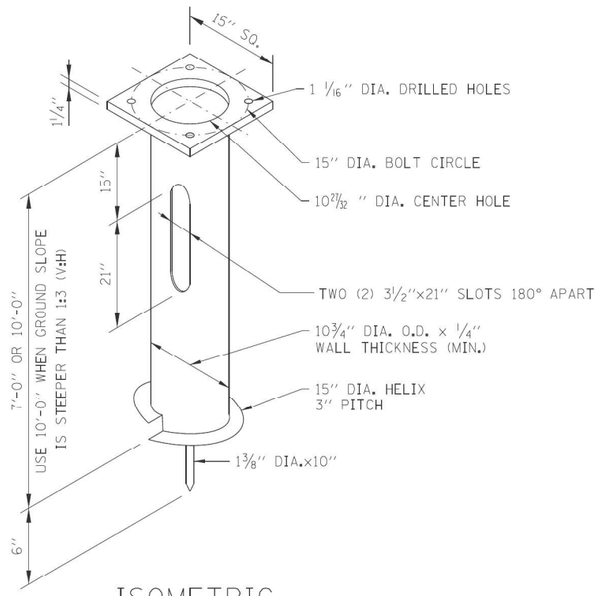


BASE ATTACHMENT DETAIL



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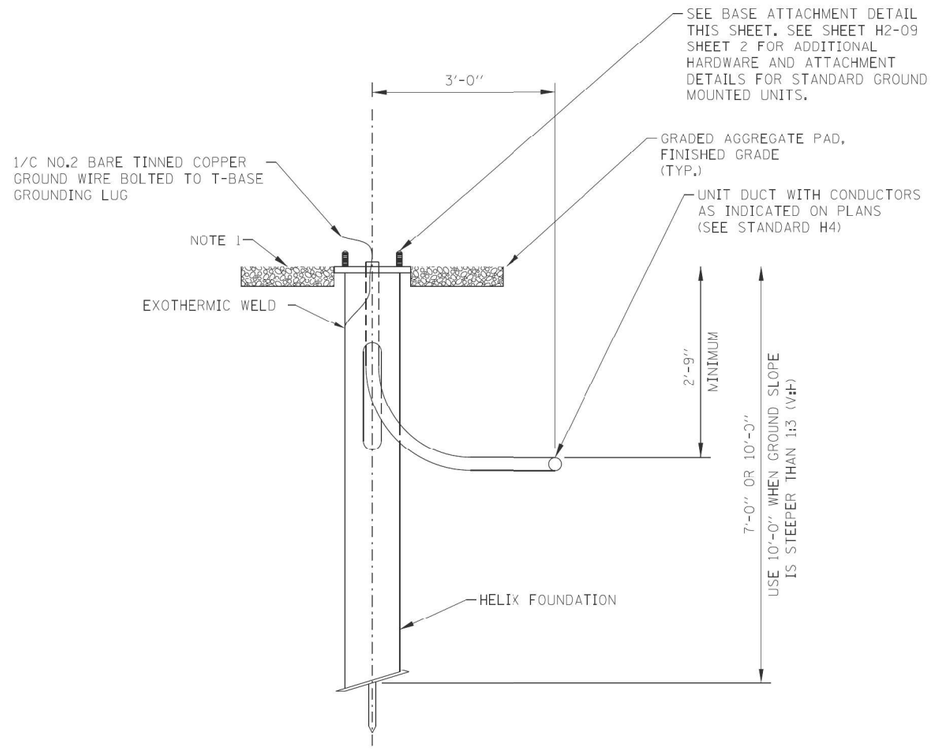

ELEVATION

APPROVED BY: Manar Nashif, CHIEF ENGINEERING OFFICER — DATE: 03/01/2024

LIGHT STANDARD FOUNDATION DETAILS - HELIX (GROUND MOUNTED UNITS)

NOTES:
SEE SHEET 1 OF THIS SERIES FOR NOTES.

SHEET 2 OF 10

Illinois Tollway

LIGHT STANDARD FOUNDATION

STANDARD H1-12

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ILLINOIS TOLLWAY STANDARD DETAIL

SCALE: N.T.S. | SHEET 6 OF 14 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	108
		CONTRACT NO. 62U90		
	ILLINOIS FED. AID PROJECT			

MODEL: Roadway Lighting General Notes Symbols and Legend
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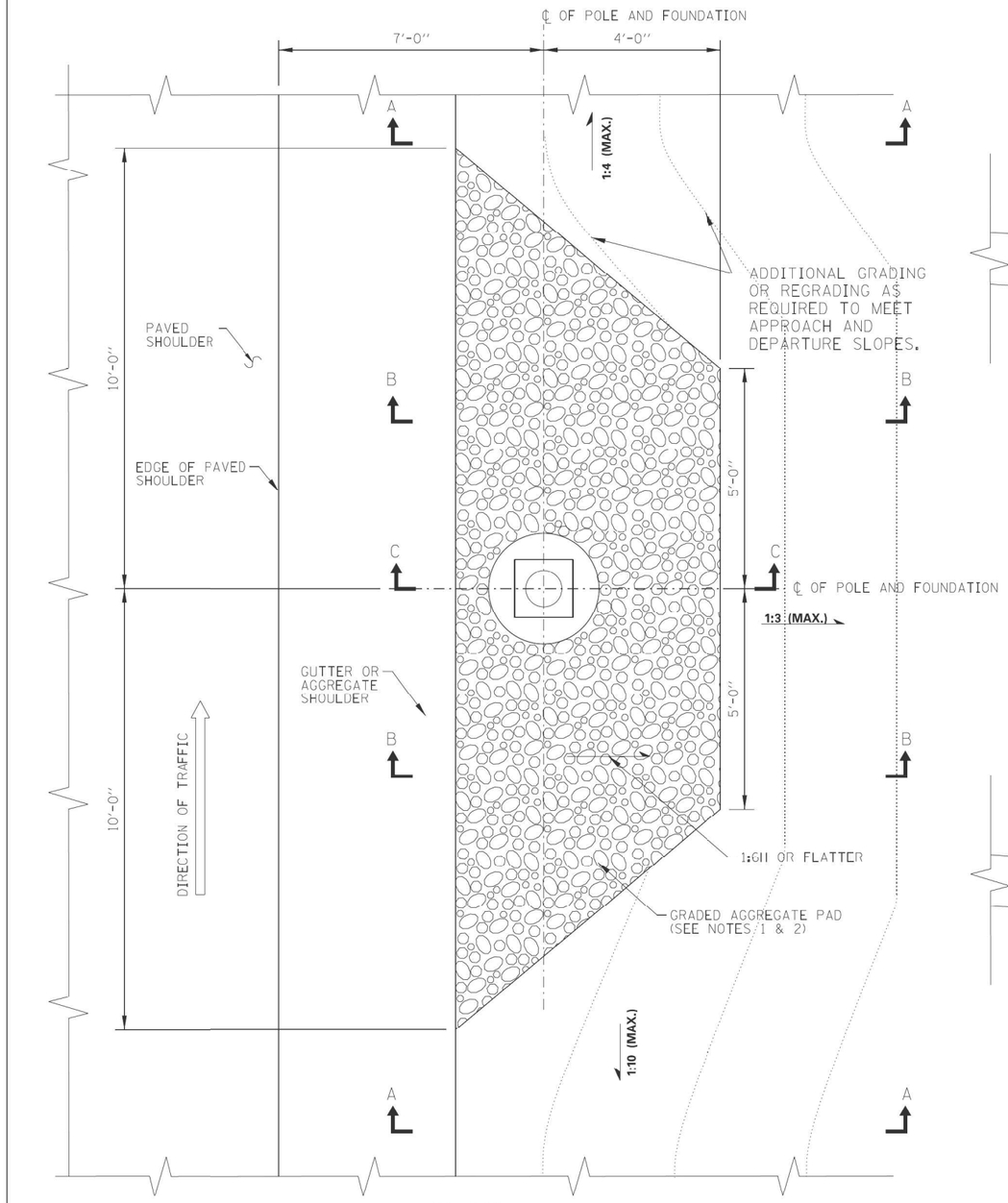

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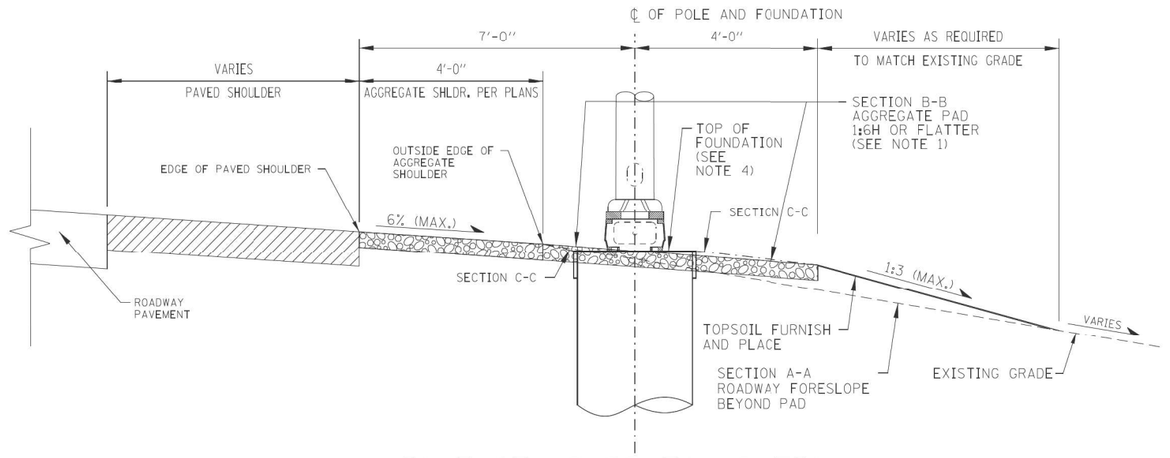
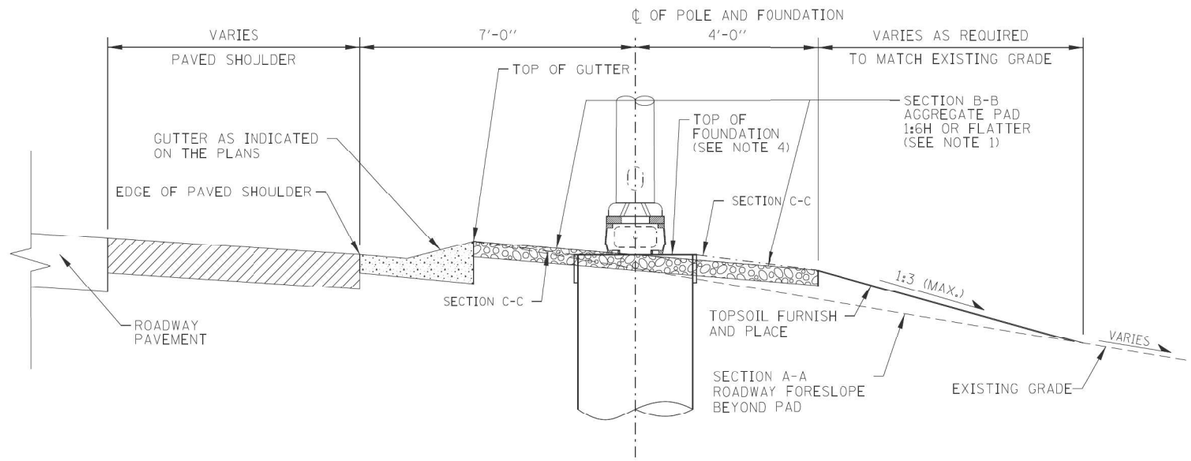


LIGHT STANDARD FOUNDATION
ADJACENT TO AGGREGATE SHOULDER



LIGHT STANDARD FOUNDATION
ADJACENT TO GUTTER

LIGHT STANDARD FOUNDATION DETAILS - GRADING W/ FORESLOPE (GROUND MOUNTED UNITS)

APPROVED BY: Marco Nashif, CHIEF ENGINEERING OFFICER — DATE: 03/01/2024

NOTE:
SEE SHEET 1 OF THIS SERIES FOR NOTES.

SHEET 7 OF 10

Illinois Tollway

LIGHT STANDARD FOUNDATION

STANDARD H1-12

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PHONE: (312) 373-7700 FAX: (312) 373-6800

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ILLINOIS TOLLWAY STANDARD DETAIL

SCALE: N.T.S. | SHEET 7 OF 14 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	109
		CONTRACT NO. 62U90		
		ILLINOIS	FED. AID PROJECT	

MODEL: Roadway Lighting General Notes Symbols and Legend
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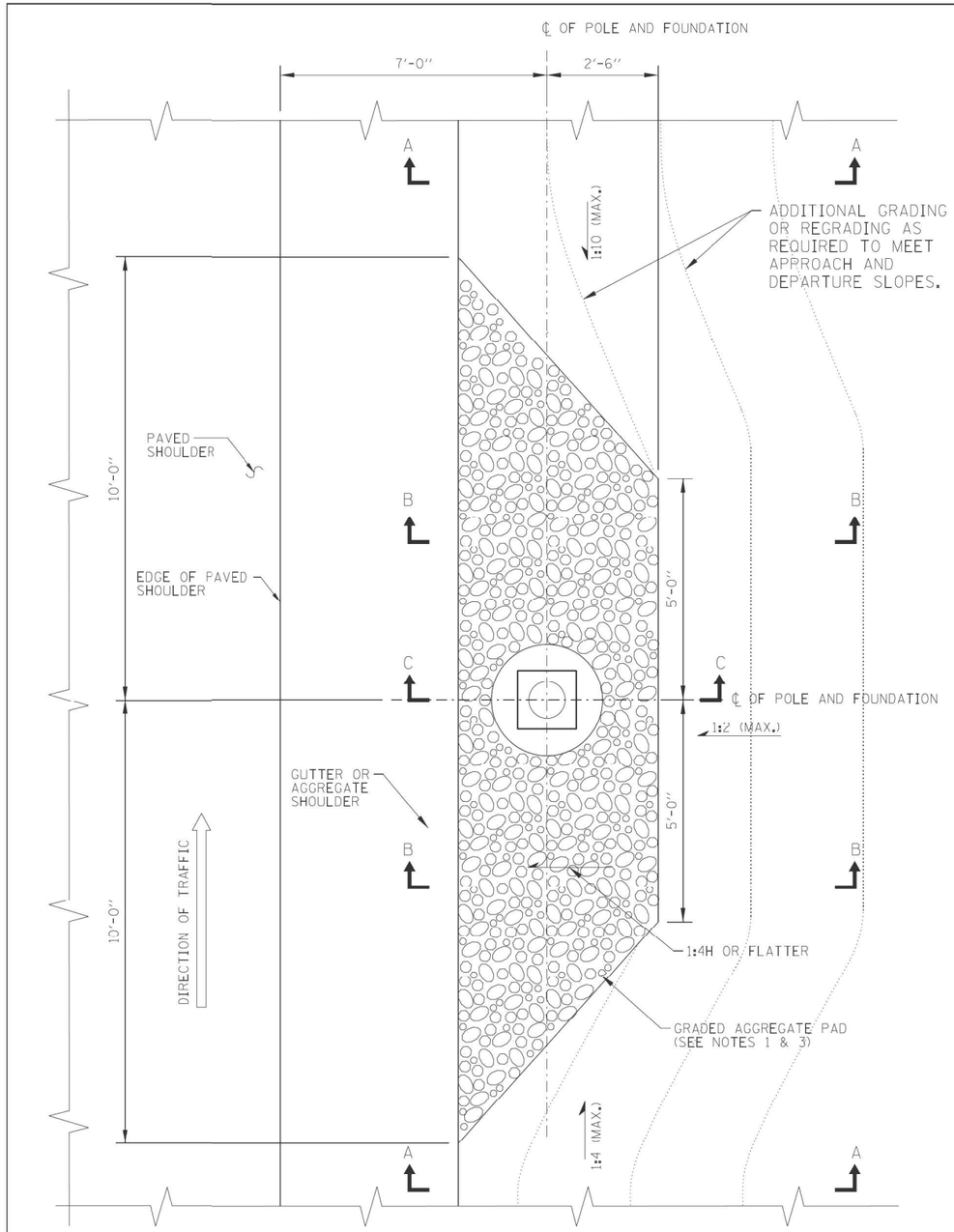

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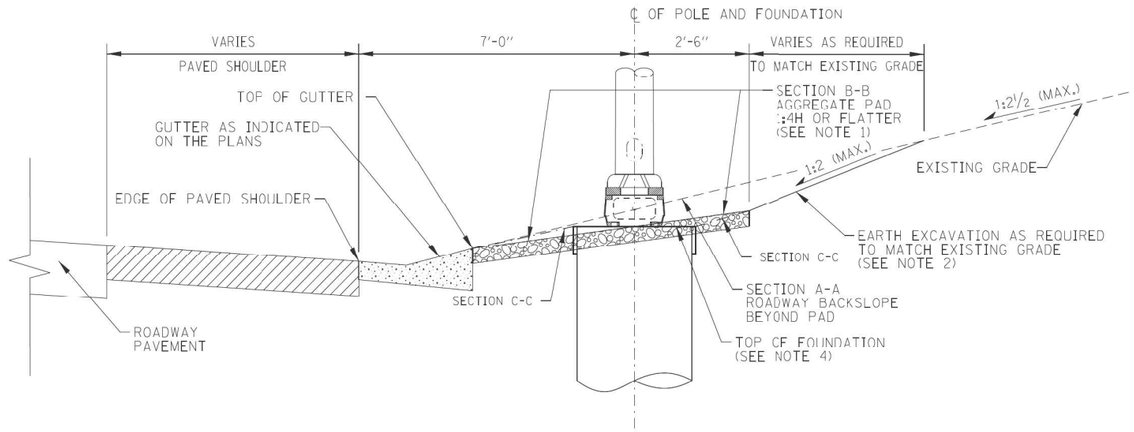

LIGHT STANDARD FOUNDATION
ADJACENT TO GUTTER

LIGHT STANDARD FOUNDATION DETAILS - GRADING W/ BACKSLOPE (GROUND MOUNTED UNITS)

APPROVED BY: Manar Nashif, CHIEF ENGINEERING OFFICER — DATE: 03/01/2024

NOTE:
SEE SHEET 1 OF THIS SERIES FOR NOTES.

SHEET 8 OF 10

Illinois Tollway

LIGHT STANDARD FOUNDATION

STANDARD H1-12

MODEL: Roadway Lighting General Notes Symbols and Legend
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AECOM
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CHICAGO, IL 60601-5276
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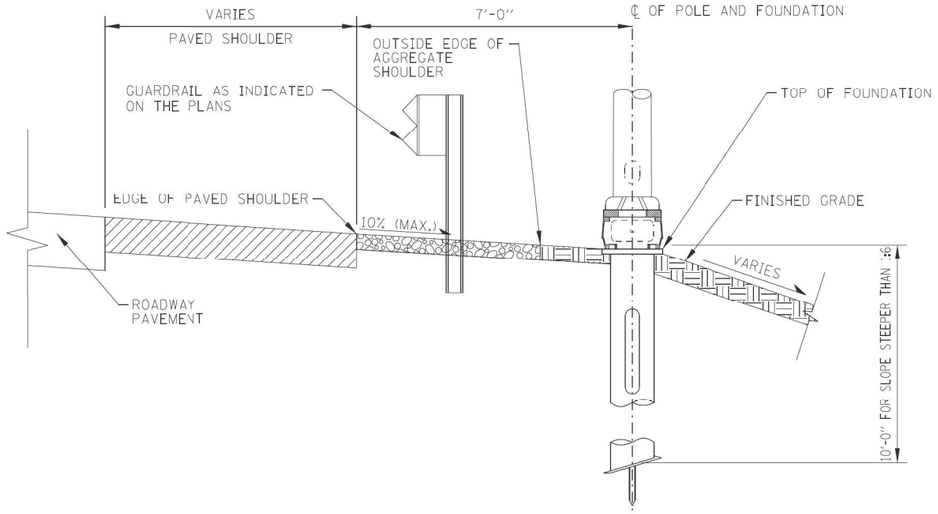
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

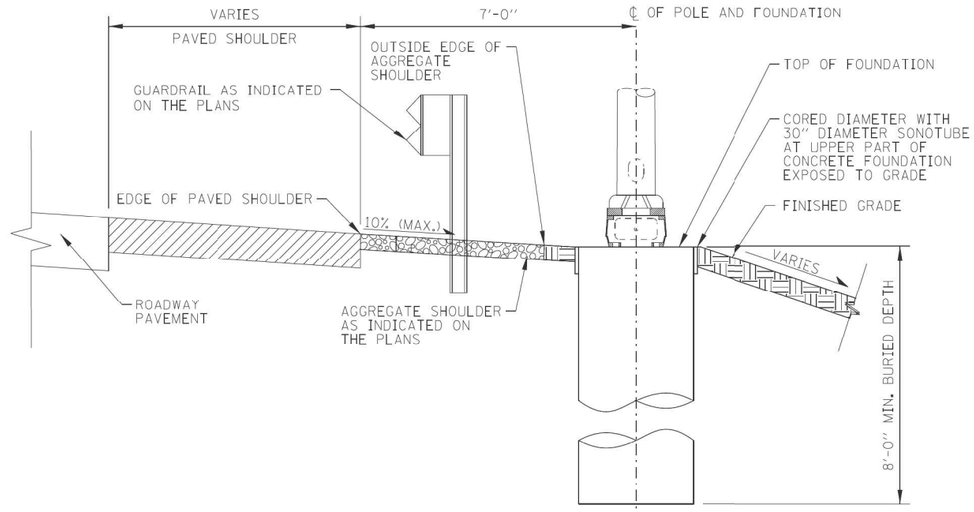
ILLINOIS TOLLWAY STANDARD DETAIL

SCALE: N.T.S. | SHEET 8 OF 14 SHEETS | STA. | TO STA.

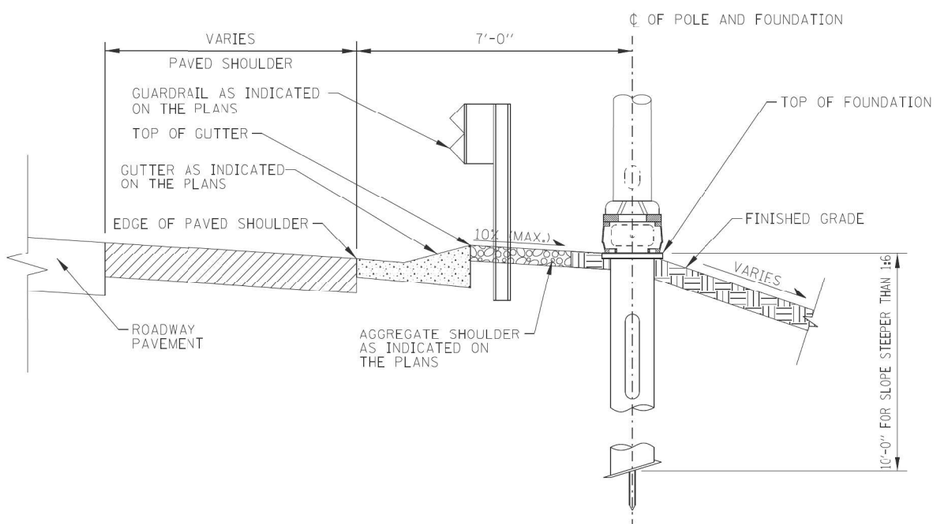
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	110
		CONTRACT NO. 62U90		
	ILLINOIS	FED. AID PROJECT		



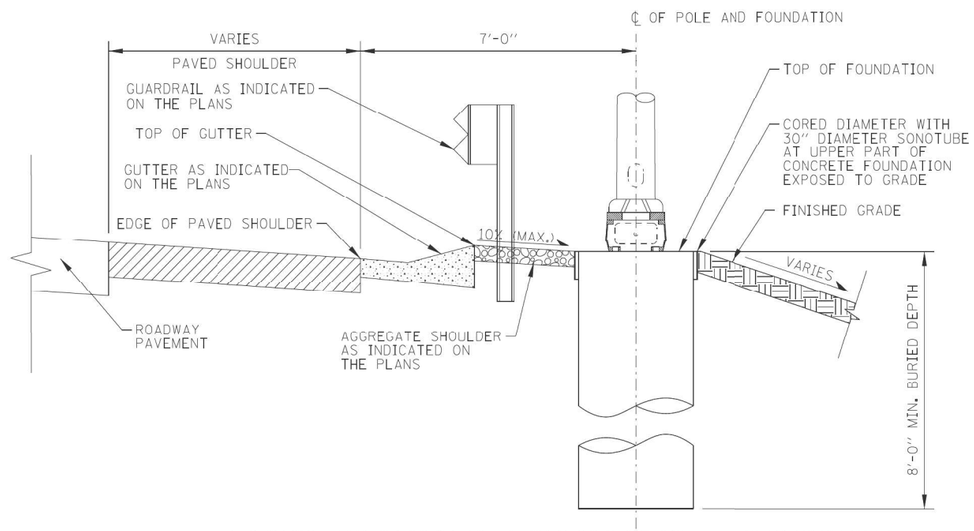
LIGHT STANDARD FOUNDATION - HELIX
ADJACENT TO AGGREGATE SHOULDER



LIGHT STANDARD FOUNDATION - CONCRETE
ADJACENT TO AGGREGATE SHOULDER



LIGHT STANDARD FOUNDATION - HELIX
ADJACENT TO GUTTER



LIGHT STANDARD FOUNDATION - CONCRETE
ADJACENT TO GUTTER

LIGHT STANDARD FOUNDATION DETAILS - ADJACENT TO GUARDRAIL
(GROUND MOUNTED UNITS)

APPROVED BY: Marco Nashif, CHIEF ENGINEERING OFFICER — DATE: 03/01/2024

NOTE:
SEE SHEET 1 OF THIS SERIES FOR NOTES.

SHEET 9 OF 10

Illinois Tollway

LIGHT STANDARD FOUNDATION

STANDARD H1-12

MODEL: Roadway Lighting General Notes Symbols and Legend
FILE NAME: pw:\\aecom-na-new.bentley.com:AECOM-DS19-NA\Documents\606585631-190980-CADD10-CADD\WB\TOLL\03-SHEETS\Lighting\D1620U0-SHT-ElecLight-0009.dgn

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

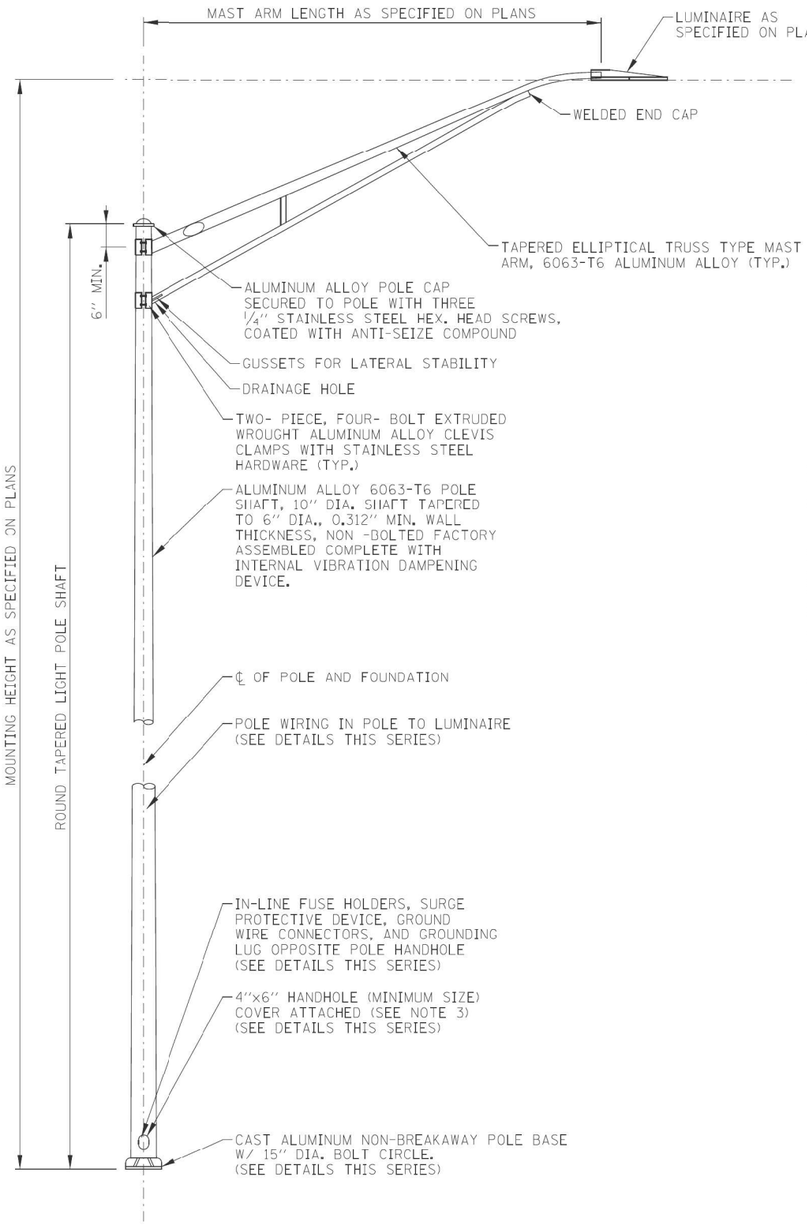
USER NAME = Jacqueline,Ng	DESIGNED - MAE	REVISED -	
	DRAWN - CAM	REVISED -	
PLOT SCALE = 2.0000 ' / in.	CHECKED - GRR	REVISED -	
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

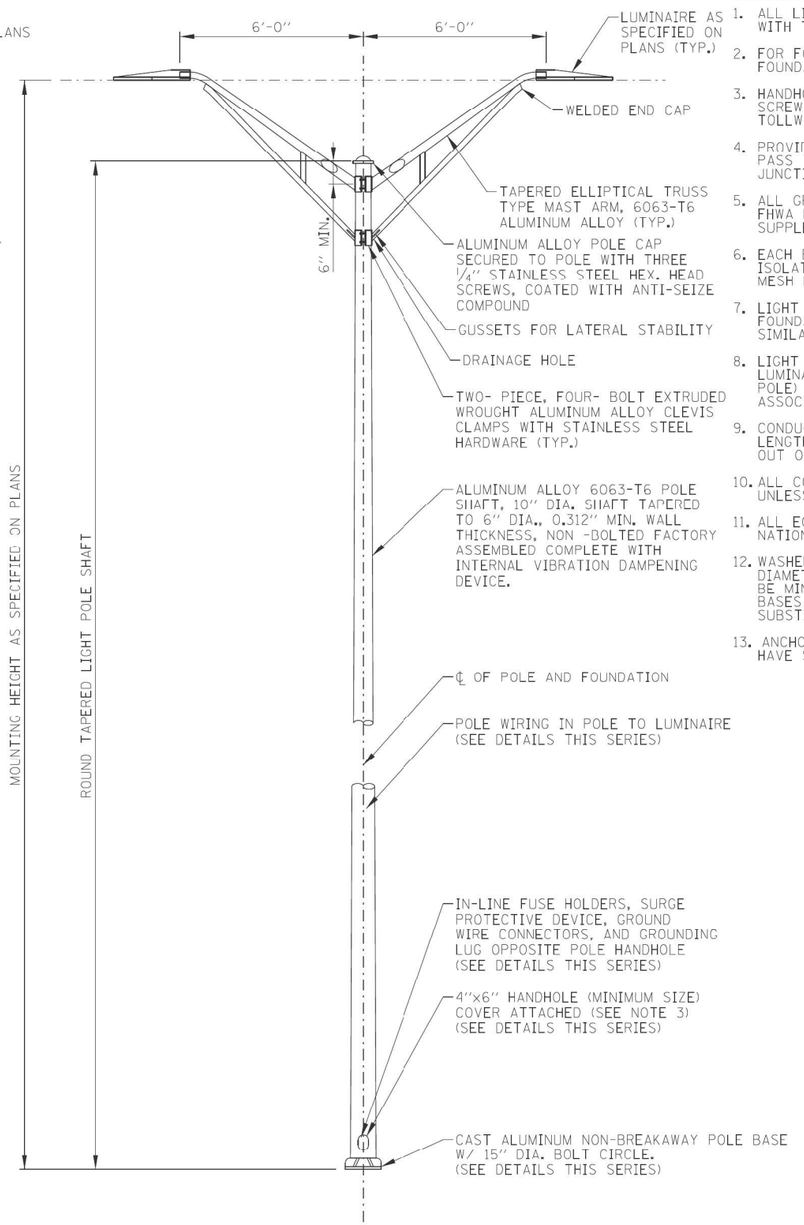
ILLINOIS TOLLWAY STANDARD DETAIL

SCALE: N.T.S. | SHEET 9 OF 14 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	111
		CONTRACT NO. 62U90		
		ILLINOIS	FED. AID PROJECT	



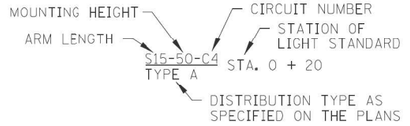
LIGHT STANDARD - SINGLE MAST ARM



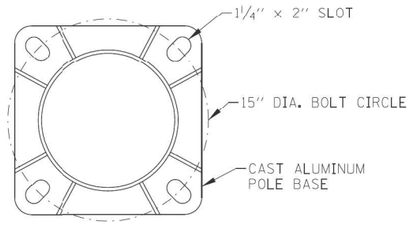
LIGHT STANDARD - TWIN MAST ARM

NOTES:

1. ALL LIGHT STANDARDS, BOTH NEW AND EXISTING, ARE SHOWN ON PLANS WITH THE SAMPLE DESCRIPTIONS SHOWN ON THIS SHEET.
2. FOR FOUNDATION DETAILS SEE STANDARD H1. FOR STRUCTURAL PARAPET FOUNDATION DETAILS, SEE STRUCTURAL PLANS.
3. HANDHOLE COVERS SHALL BE FASTENED USING TWO STAINLESS STEEL SCREWS WITH CAPTIVE STAINLESS STEEL NUTS OR INSERTS, PER ILLINOIS TOLLWAY SUPPLEMENTAL SPECIFICATION SECTION 1069.
4. PROVIDE A 24" LONG POLYETHYLENE TUBE TO PROTECT CABLES WHERE THEY PASS THROUGH THE GROMMETTED OPENING AT THE POLE/MAST ARM JUNCTION.
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. EACH BRIDGE MOUNTED LIGHT STANDARD SHALL BE PROVIDED WITH ISOLATION VIBRATION PADS, NUTS, WASHERS, LEVELING PLATE AND WIRE MESH FOR INSTALLATION ON THE FOUNDATION AS SHOWN ON THE PLANS.
7. LIGHT STANDARD WIRING DETAIL FOR INSTALLATION WITH CONCRETE FOUNDATION SHOWN. DETAIL FOR INSTALLATION WITH HELIX FOUNDATION IS SIMILAR.
8. LIGHT STANDARD WIRING DETAILS SHOWN FOR TWIN MAST ARM (2 LUMINAIRES PER POLE) INSTALLATIONS. SINGLE MAST ARM (1 LUMINAIRE PER POLE) INSTALLATIONS SHALL OMIT TWO (2) IN-LINE FUSE HOLDERS AND ASSOCIATED WIRING.
9. CONDUCTORS EXTENDED INTO LIGHT POLE BASE SHALL BE OF SUFFICIENT LENGTH TO WITHDRAW SPLICES AND/OR INSULATED JOINTS A MINIMUM 18" OUT OF THE POLE HANDHOLE.
10. ALL CONDUCTORS ORIGINATING IN POLE SHALL BE A 1/C NO. 10 AWG UNLESS OTHERWISE NOTED.
11. ALL EQUIPMENT SHALL BE GROUNDED AND BONDED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND THE NATIONAL ELECTRICAL SAFETY CODE.
12. WASHERS BETWEEN HEX NUTS AND POLE BASES SHALL BE 2.5" OUTER DIAMETER. WASHERS ON PARAPET OR MEDIAN MOUNTED LIGHT POLES SHALL BE MINIMUM 1/4" THICK. BENT OR DEFORMED WASHERS OR DAMAGED POLE BASES WILL NOT BE ACCEPTED. MULTIPLE STACKED WASHERS SHALL NOT BE SUBSTITUTED FOR APPROPRIATELY SIZED WASHERS.
13. ANCHOR BOLTS SHALL EXTEND OVER THE TOP OF HEX NUTS AND SHALL HAVE SUFFICIENT THREAD EXPOSED FOR LOCK NUT TABS TO MAKE CONTACT.



LIGHT STANDARD DESCRIPTION



POLE BASE

APPROVED BY: Manar Nashif, CHIEF ENGINEERING OFFICER — DATE: 03/01/2024

LIGHT STANDARD DETAILS

SHEET 1 OF 3

DATE	REVISIONS
3-01-2024	REMOVED REFERENCES TO HPS.
	REVISIONS TO NOTES. REVISED
	CALL-OUTS FOR LIGHT STANDARD
	MOUNTING DETAIL GROUND MOUNTED
	UNITS. REMOVED SURGE PROTECTORS
	AND ADDED A DEDICATED NEUTRAL.

Illinois Tollway

LIGHT STANDARD DETAILS

STANDARD H2-10

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline.Ng	DESIGNED - MAE	REVISED -	
	DRAWN - CAM	REVISED -	
PLOT SCALE = 2.0000 ' / in.	CHECKED - GRR	REVISED -	
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -	

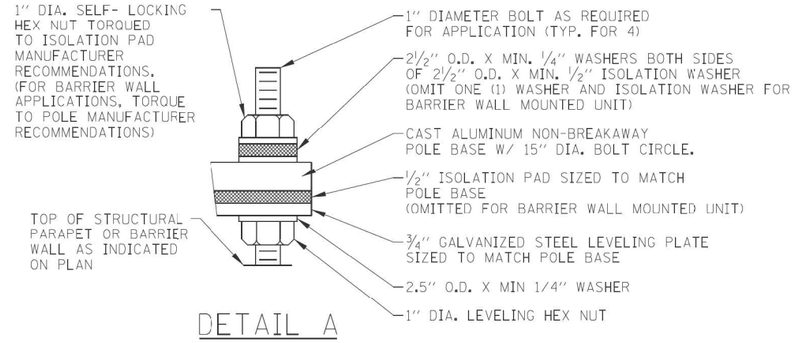
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ILLINOIS TOLLWAY STANDARD DETAIL

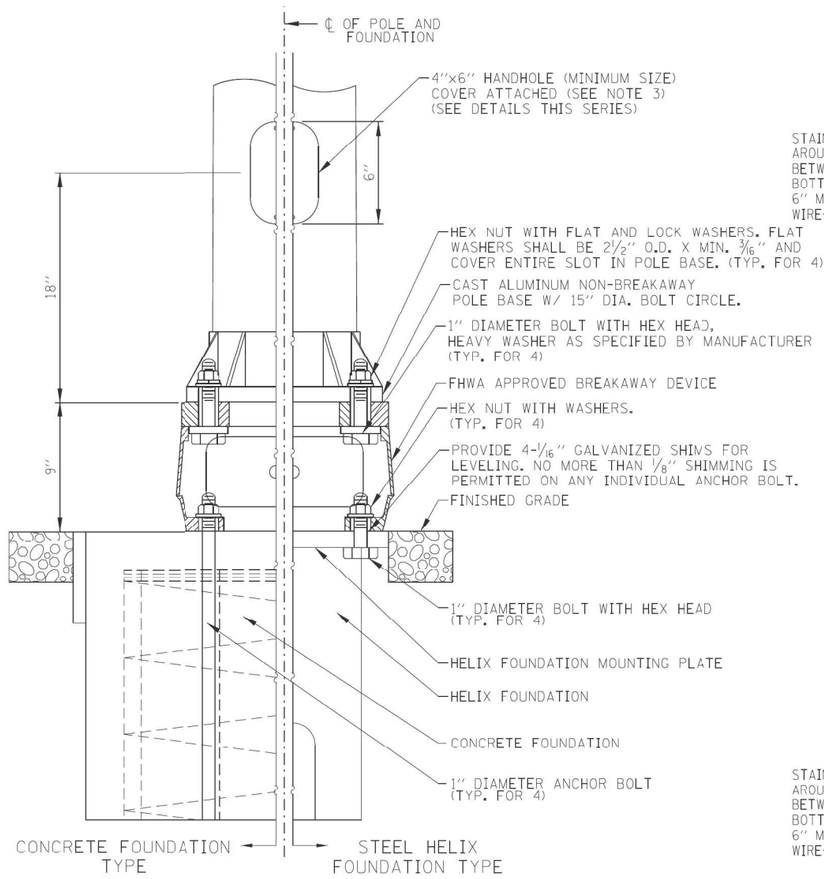
SCALE: N.T.S. | SHEET 10 OF 14 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	112
		CONTRACT NO. 62U90		
	ILLINOIS	FED. AID PROJECT		

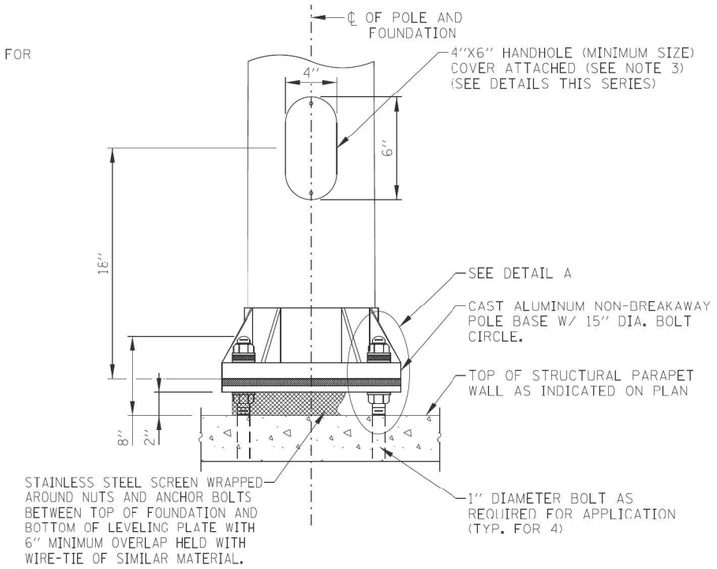
MODEL: Roadway Lighting General Notes Symbols and Legend
FILE NAME: pw:\\aecom-us-new.bentley.com:AECOM-DS19-NAIDocuments\606585631-190980-CADD\10-CADD\WB-TOLL\03-SHEETS\Lighting\D1620U90-SHT-ElecLight-d10.dgn



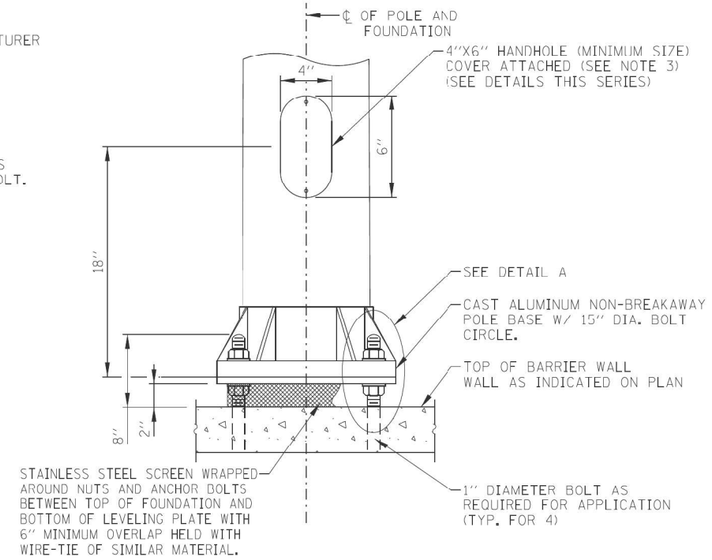
DETAIL A



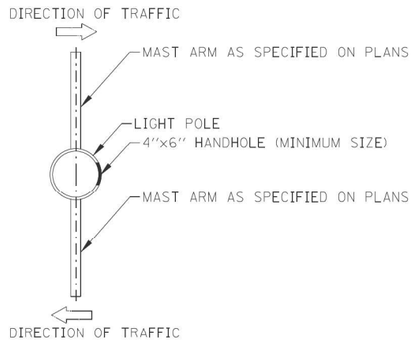
LIGHT STANDARD MOUNTING DETAIL
(GROUND MOUNTED UNITS)



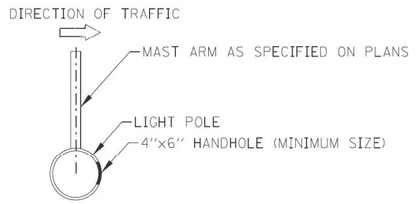
LIGHT STANDARD MOUNTING DETAIL
(BRIDGE MOUNTED UNITS)



LIGHT STANDARD MOUNTING DETAIL
(BARRIER WALL MOUNTED UNITS)



MEDIAN BARRIER WALL MOUNTED UNITS



SHOULDER GROUND AND STRUCTURAL PARAPET WALL MOUNTED UNITS

LIGHT STANDARD HANDHOLE ORIENTATION DETAIL

APPROVED BY:
CHIEF ENGINEERING OFFICER
DATE: 03/01/2024

LIGHT STANDARD MOUNTING DETAILS

NOTE:
SEE SHEET 1 OF THIS SERIES FOR NOTES.

SHEET 2 OF 3

Illinois Tollway

LIGHT STANDARD DETAILS

STANDARD H2-10

MODEL: Roadway Lighting General Notes Symbols and Legend
FILE NAME: pw:\\aecom-ha-pwbr-ley.com:AECOM DS19 MADocuments\60658583-1909100-CAD910 CAD\WB\WB-TOLL103_SHEETS\Lighting\D162U90-SHT-ElecLight-011.dgn

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

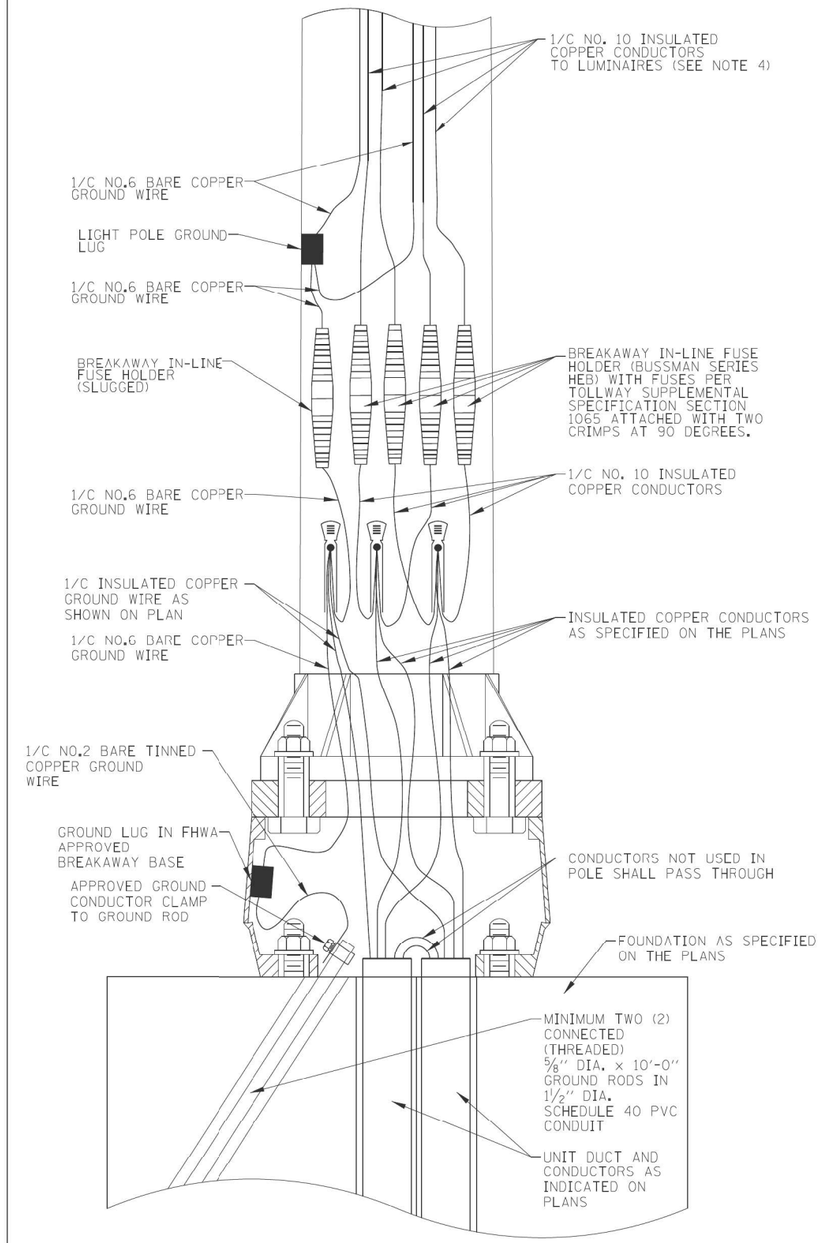
USER NAME = Jacqueline,Ng	DESIGNED - MAE	REVISED -	
	DRAWN - CAM	REVISED -	
PLOT SCALE = 2.0000 ' / in.	CHECKED - GRR	REVISED -	
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ILLINOIS TOLLWAY STANDARD DETAIL

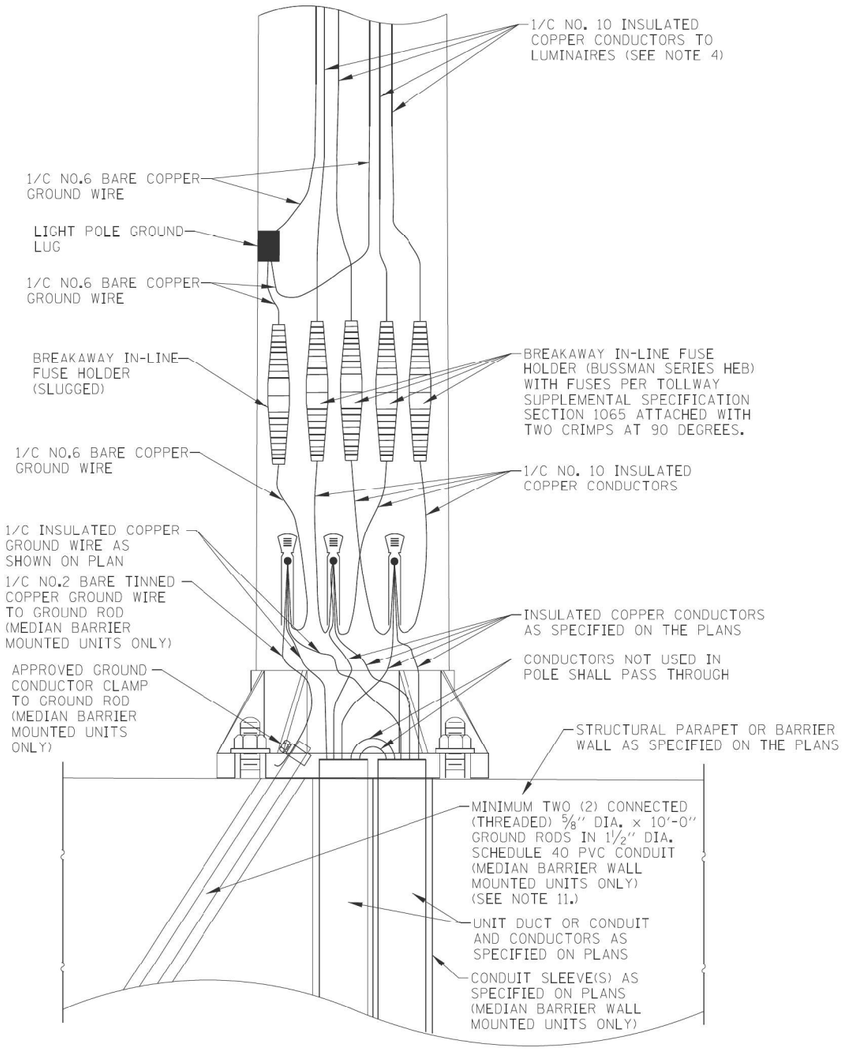
SCALE: N.T.S. | SHEET 11 OF 14 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	113
		CONTRACT NO. 62U90		
		ILLINOIS	FED. AID PROJECT	

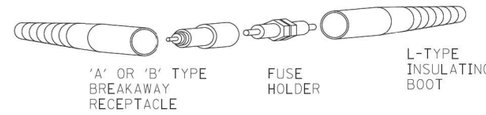


LIGHT STANDARD WIRING DETAIL (GROUND MOUNTED UNITS)

(SEE NOTES 7 & 8)



LIGHT STANDARD WIRING DETAIL (STRUCTURAL AND BARRIER WALL MOUNTED UNITS)



IN-LINE FUSE HOLDER WITH BREAKAWAY FEATURE DETAIL

APPROVED BY:
Manar Nashif
CHIEF ENGINEERING OFFICER
DATE: 03/01/2024

LIGHT STANDARD WIRING DETAILS

NOTE:
SEE SHEET 1 OF THIS SERIES FOR NOTES.

SHEET 3 OF 3

Illinois Tollway

LIGHT STANDARD DETAILS

STANDARD H2-10

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline,Ng	DESIGNED - MAE	REVISED -	
	DRAWN - CAM	REVISED -	
PLOT SCALE = 2.0000 ' / in.	CHECKED - GRR	REVISED -	
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ILLINOIS TOLLWAY STANDARD DETAIL

SCALE: N.T.S. | SHEET 12 OF 14 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	114
		CONTRACT NO. 62U90		
		ILLINOIS	FED. AID PROJECT	

MODEL: Roadway Lighting General Notes Symbols and Legend
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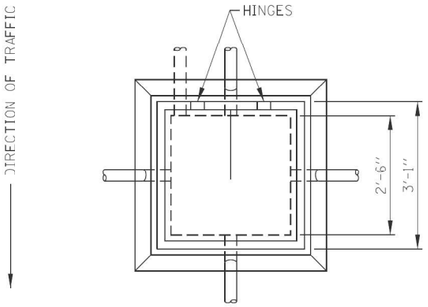


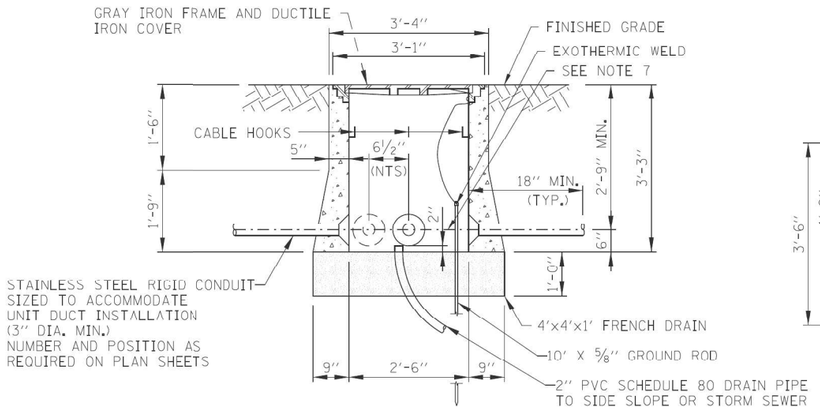
PLAN

EAST JORDAN
EJ 8216

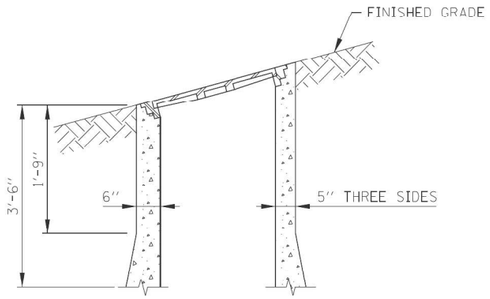
NEENAH
R-6662-PS

NOTES:

1. HEAVY-DUTY HANDHOLE LOCATED IN UNPAVED AREAS AND NOT SHIELDED BY GUARDRAIL SHALL BE CONSTRUCTED WITH THE TOP FLUSH WITH THE ADJACENT SLOPE.
2. HEAVY-DUTY HANDHOLE SHALL BE CONSTRUCTED IN NON-PAVED AREAS. THE FRAME AND HINGED COVER SHALL BE EITHER NEENAH FOUNDRY R-6662-PS WITH TYPE G LIFTING HANDLE OR EAST JORDAN IRON WORKS EJ 8216 WITH MPIC OR APPROVED EQUAL. THE HINGED COVER SHALL BE PROVIDED WITH A LIFT ASSIST MECHANISM. THERE SHALL BE TWO SETS OF HINGES AND THE DESIGN SHALL ALLOW FOR THE COVER TO OPEN > 90 DEGREES. THE COVER SHALL BE PROVIDED WITH A HOLD OPEN SAFETY ARM THAT CATCHES TO PREVENT ACCIDENTAL CLOSURE. THE COVER SHALL ALSO BE ABLE TO BE MADE FULLY REMOVABLE. THE FRAME COVER SHALL BE INSTALLED WITH THE HINGES TO THE SIDE FACING APPROACHING TRAFFIC.
3. AGGREGATE FOR FRENCH DRAIN SHALL BE PER ARTICLE 1003.04 OF THE STANDARD SPECIFICATIONS.
4. 10 FEET OF EXTRA CABLE SHALL BE COILED IN EACH HANDHOLE.
5. ALL METALLIC COMPONENTS OF THE HANDHOLE SHALL BE GROUNDED AND BONDED IN ACCORDANCE WITH THE ILLINOIS TOLLWAY SUPPLEMENTAL SPECIFICATIONS SECTION 814, THE NATIONAL ELECTRICAL CODE AND THE NATIONAL ELECTRICAL SAFETY CODE.
6. THE HANDHOLE COVER SHALL BE LETTERED "ELECTRIC". LETTERING SHALL BE 2" FLAT FACE GOTHIC AND BE FLUSH WITH THE SLIP RESISTANT SURFACE.
7. CONDUCTOR SPLICES SHALL BE MADE ONLY WITHIN ACCESSIBLE ABOVE GRADE LOCATIONS, SUCH AS WITHIN POLE BASES, JUNCTION BOXES AND WITHIN ENCLOSURES. BELOW GRADE CONDUCTOR SPLICING SHALL ONLY BE ACCEPTABLE AT THE APPROVAL OF THE TOLLWAY. IF A BELOW GRADE SPLICE IS APPROVED FOR USE BY THE TOLLWAY, THE SPLICES SHALL BE WATERPROOF OF THE RESIN EPOXY ENCAPSULATED TYPE.

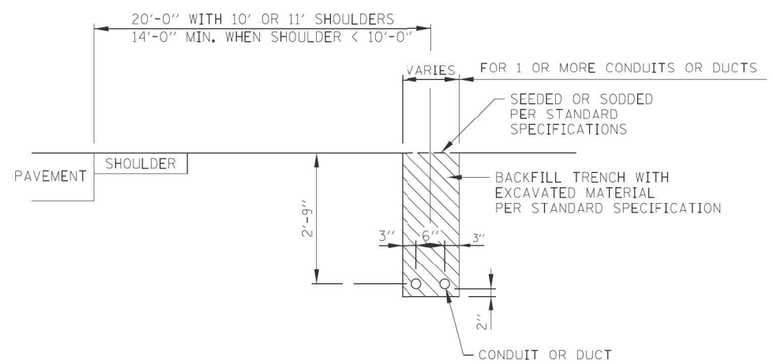


ELEVATION



SLOPE INSTALLATION

HEAVY-DUTY HANDHOLE DETAILS



TRENCHING FOR CONDUIT IN NON-PAVED AREAS

APPROVED BY: Marco Nashif, CHIEF ENGINEERING OFFICER — DATE: 03/01/2024

Illinois Tollway

DATE	REVISIONS
3-01-2024	REVISED TO REFERENCE DETAILS FOR BURIED WIRING. ADDED NOTE 7
3-01-2021	REMOVED SAND FROM CONDUIT TRENCH. GROUND ROD SHOWN IN ELEV. VIEW.
3-31-2017	REVISED NOTES.
	REMOVED GROUND ROD FROM DETAIL.

HEAVY-DUTY HANDHOLE AND BURIED WIRING DETAILS

STANDARD H4-06

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline.Ng	DESIGNED - MAE	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ILLINOIS TOLLWAY STANDARD DETAIL
	DRAWN - CAM	REVISED -		
PLOT SCALE = 2.0000 ' / in.	CHECKED - GRR	REVISED -		SCALE: N.T.S. SHEET 13 OF 14 SHEETS STA. TO STA.
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -		

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	115
		CONTRACT NO. 62U90		
		ILLINOIS	FED. AID PROJECT	

MODEL: Roadway Lighting General Notes Symbols and Legend
FILE NAME: pw:\\aecom-na-new.bentley.com:AECOM DS19 NA\Documents\60685563-i-190900-CADV910_CAD\WB\WB-TOLL\03-SHEETS\Lighting\D162U90-SHT-Elec-Light-013.dgn

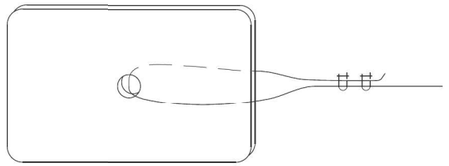
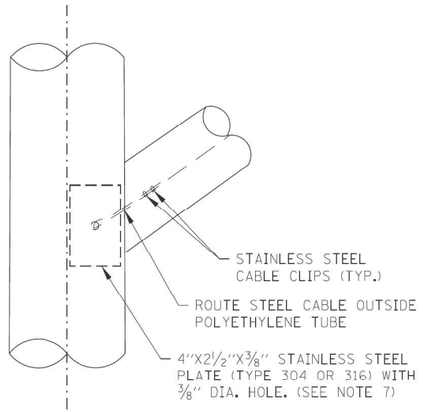
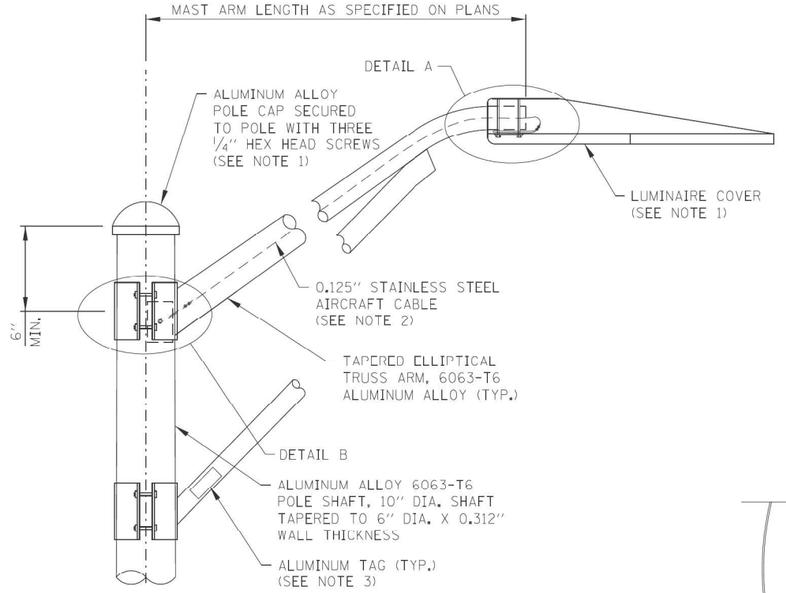


PLATE ATTACHMENT DETAIL

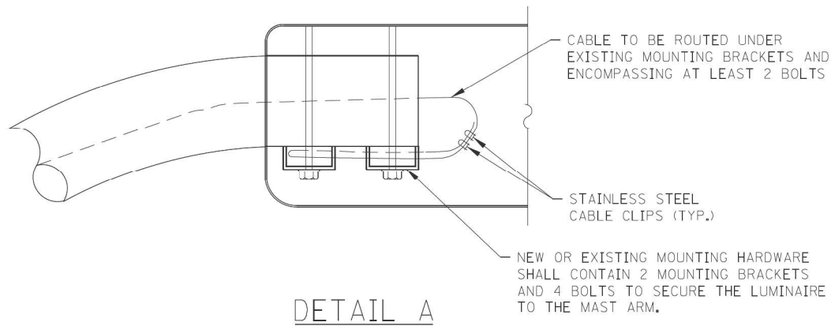


DETAIL B
(BRACKET CLAMPS OMITTED
FOR CLARITY)
N.T.S.



LIGHT STANDARD - TRUSS ARM
(SINGLE TRUSS ARM SHOWN, SINGLE MAST ARM SIMILAR)

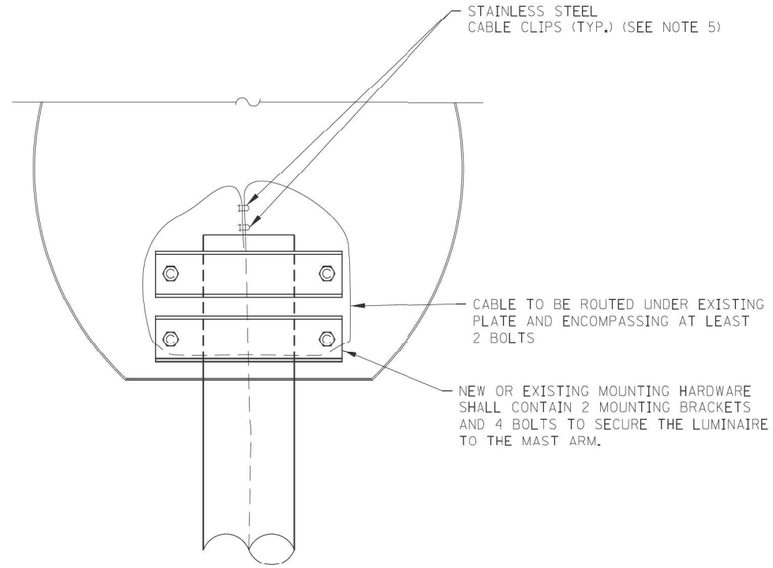
N.T.S.



DETAIL A
N.T.S.

NOTES:

1. POLE CAP TO BE REMOVED AND LUMINAIRE LID TO BE OPENED FOR PLACEMENT OF THE CABLE ASSEMBLY AND PUT BACK IN PLACE. NEW CAP SCREWS SHALL BE USED.
2. THE BREAKING STRENGTH OF THE ASSEMBLED CABLE SHALL BE 1,700 POUNDS MINIMUM. ALLOW FOR 9" TO 12" SLACK IN THE CABLE.
3. ALUMINUM TAG WITH POLE IDENTIFICATION NUMBERS AS PER SPECIAL PROVISIONS.
4. CONTRACTOR SHALL ROUTE CABLE WITHIN LUMINAIRE IN SUCH A WAY THAT IT DOES NOT BECOME PINCHED BETWEEN THE MAST ARM AND MOUNTING BRACKET.
5. CABLE LOOPS SHALL BE CLOSED SUCH THAT EACH END OF THE CABLE PASSES THROUGH CLIPS IN OPPOSING DIRECTIONS.
6. MINIMIZE SLACK WITHIN LUMINAIRE.
7. ALL PLATE EDGES SHALL BE SMOOTH.



BOTTOM VIEW
N.T.S.

APPROVED BY:
CHIEF ENGINEERING OFFICER
DATE: 03/01/2024

DATE	REVISIONS
3-01-2024	ADDED DETAILS REGARDING THE HARDWARE USED TO SECURE THE LUMINAIRE HOUSING.
3-01-2020	REVISED BRACKET AND ROUTING DETAILS.

Illinois Tollway

MAST ARM
CABLE ASSEMBLY
(SINGLE MAST ARM)

STANDARD H17-02

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline.Ng	DESIGNED - MAE	REVISED -	
	DRAWN - CAM	REVISED -	
PLOT SCALE = 2.0000 ' / in.	CHECKED - GRR	REVISED -	
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ILLINOIS TOLLWAY STANDARD DETAIL

SCALE: N.T.S. | SHEET 14 OF 14 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	116
		CONTRACT NO. 62U90		
	ILLINOIS	FED. AID PROJECT		

MODEL: Roadway Lighting General Notes Symbols and Legend
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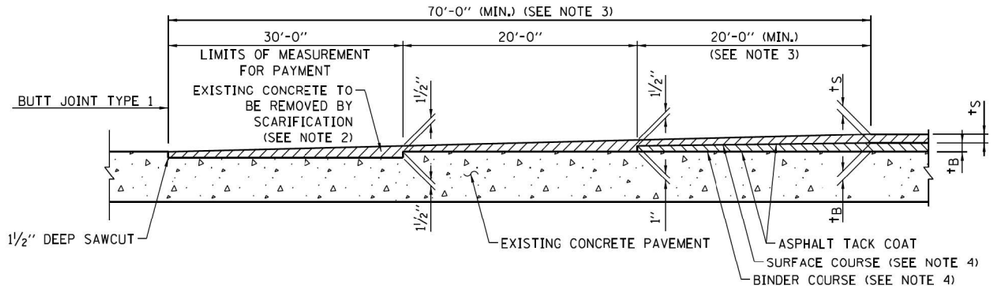
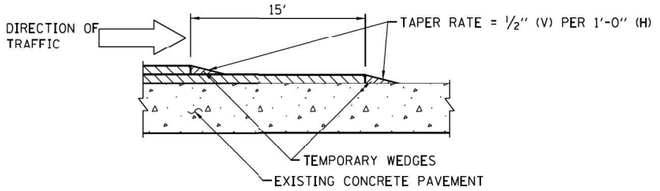


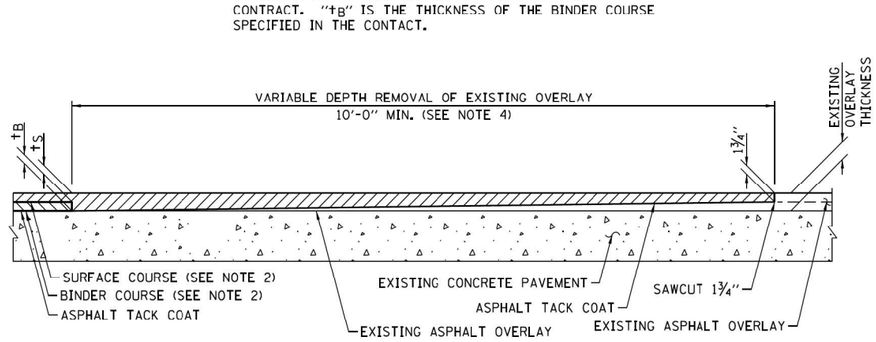
DETAIL OF BUTT JOINT, TYPE 1

NOTES FOR BUTT JOINT, TYPE 1

1. THE ABOVE WORK WILL BE PERFORMED AT THE ENDS OF ALL ASPHALT RESURFACING.
2. ONLY APPROVED SCARIFYING OR MILLING EQUIPMENT SHALL BE USED TO SCARIFY THE CONCRETE PAVEMENT.
3. REGARDLESS OF TYPE OF SURFACE MIX USED, NUMBER OR THICKNESS OF COURSES OR LAYERS, THE OVERLAY THICKNESS TRANSITION LENGTH SHALL BE BASED ON 1" IN 20' AND THE MINIMUM SURFACE LAYER THICKNESS SHALL BE 1½".
4. REFER TO THE CONTRACT DOCUMENTS FOR THE REQUIRED BINDER AND SURFACE COURSE MATERIALS. "tS" IS THE THICKNESS OF THE SURFACE COURSE SPECIFIED IN THE CONTRACT. "tB" IS THE THICKNESS OF THE BINDER COURSE SPECIFIED IN THE CONTACT.



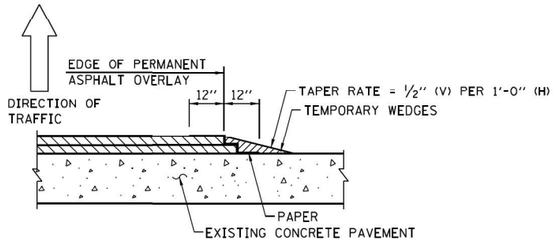
TEMPORARY ASPHALT WEDGE - TRANSVERSE



DETAIL OF BUTT JOINT, TYPE 2 AT EXISTING OVERLAY AREAS

NOTES FOR BUTT JOINT, TYPE 2

1. THE ABOVE WORK WILL BE PERFORMED AT THE ENDS OF ALL ASPHALT RESURFACING WHERE BUTT JOINTS EXIST.
2. REFER TO THE CONTRACT DOCUMENTS FOR THE REQUIRED BINDER AND SURFACE COURSE MATERIALS. "tS" IS THE THICKNESS OF THE SURFACE COURSE SPECIFIED IN THE CONTRACT. "tB" IS THE THICKNESS OF THE BINDER COURSE SPECIFIED IN THE CONTACT.
3. SAWCUT MAY BE ELIMINATED IF MILLING EQUIPMENT IS USED AND VERTICAL AND STRAIGHT SIDES ARE OBTAINED.
4. REGARDLESS OF TYPE OF SURFACE MIX USED, NUMBER OR THICKNESS OF COURSES OR LAYERS, THE OVERLAY THICKNESS TRANSITION LENGTH SHALL BE BASED ON 1" IN 20' AND THE MINIMUM SURFACE LAYER THICKNESS SHALL BE 1¾".



TEMPORARY ASPHALT WEDGE - LONGITUDINAL

NOTES FOR TEMPORARY ASPHALT WEDGE - LONGITUDINAL

1. UPON REMOVAL OF THE WEDGES, THE SURFACE COURSE SHALL BE SAWCUT PARALLEL TO THE JOINT TO PROVIDE A TRUE VERTICAL SURFACE.
2. REFER TO THE CONTRACT DOCUMENTS FOR THE REQUIRED BINDER AND SURFACE COURSE MATERIALS.

APPROVED BY: Paul Kovacs, CHIEF ENGINEERING OFFICER — DATE: 05/01/2009

DATE	REVISIONS
3-01-2018	ADDED DIRECTION ARROWS
3-31-2017	REMOVED PAY ITEM DESIGNATION FROM
	NOTES REVISED MIN t THICKNESS
	UPDATED BUTT JOINT TYPE 2
	ADDED TRAFFIC ARROWS

Illinois Tollway

BUTT JOINTS AND TEMPORARY ASPHALT WEDGE

STANDARD A4-05

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline,Ng	DESIGNED -	REVISED -
	DRAWN -	REVISED -
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PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLLWAY STANDARDS

SCALE: | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	117
		CONTRACT NO. 62U90		
		ILLINOIS	FED. AID PROJECT	

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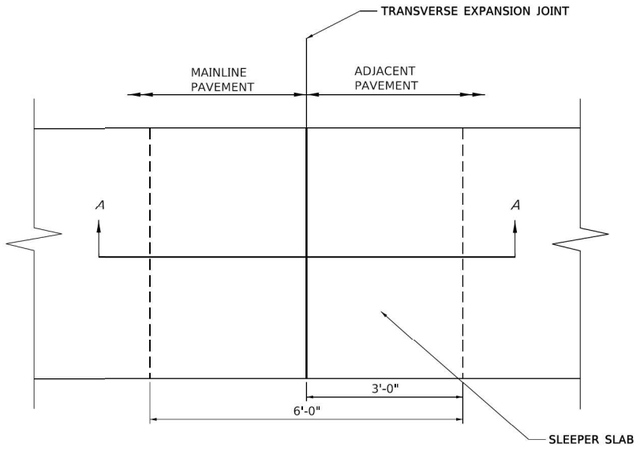
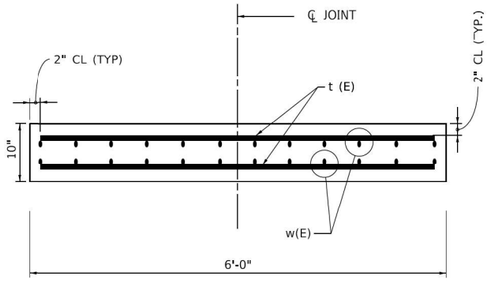


PLAN

SLEEPER SLAB NOTES

1. ADDITIONAL THICKNESS OF PAVEMENT SHALL BE INCLUDED IN THE COST OF THE PAY ITEM FOR THE PAVEMENT TYPE.
2. POLYETHYLENE SHEET AND AGGREGATE SUPPORTING THE SLEEPER SLAB SHALL BE INCLUDED IN THE COST OF SLEEPER SLAB.

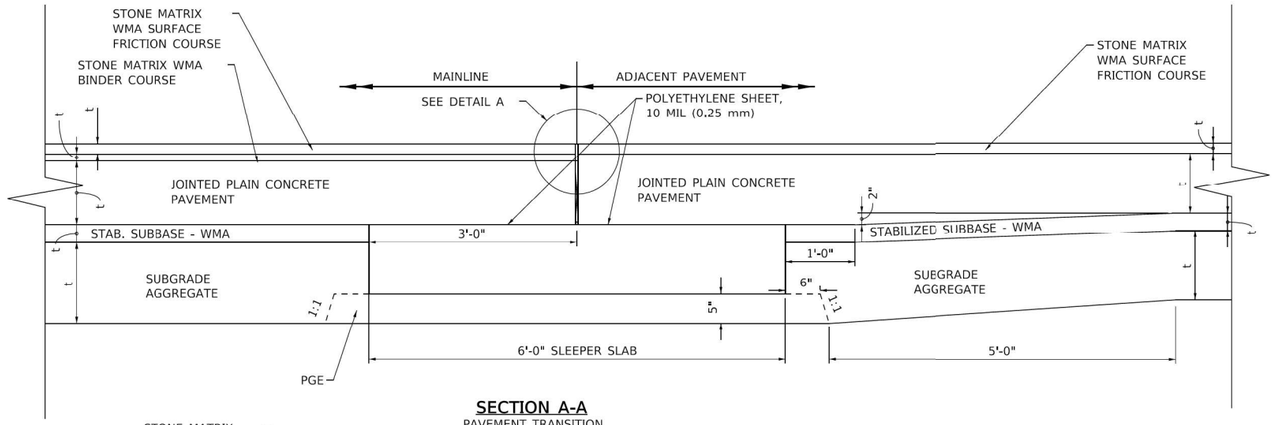


SLEEPER SLAB SECTION

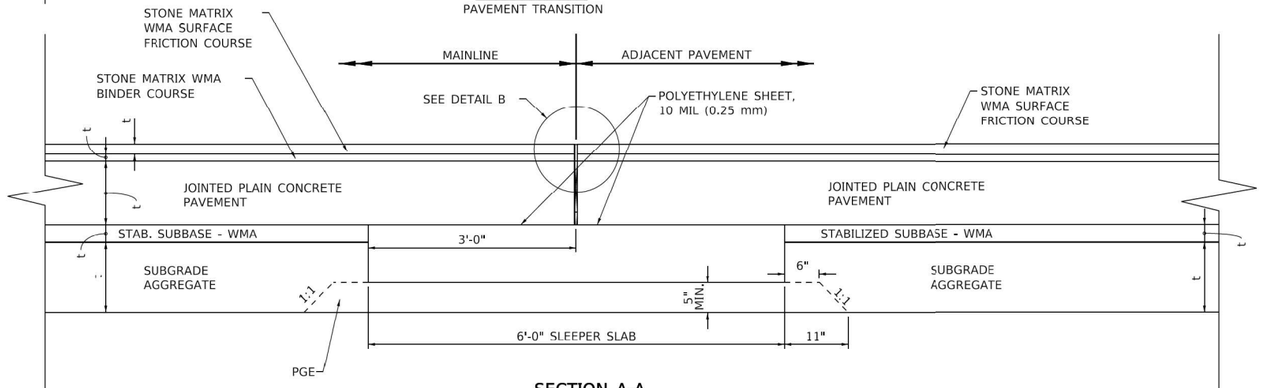
Bar	No.	Size	Length
t(E)	XX	#4	5'-8"
w(E)	XX	#5	XX

SLEEPER SLAB SECTION NOTES

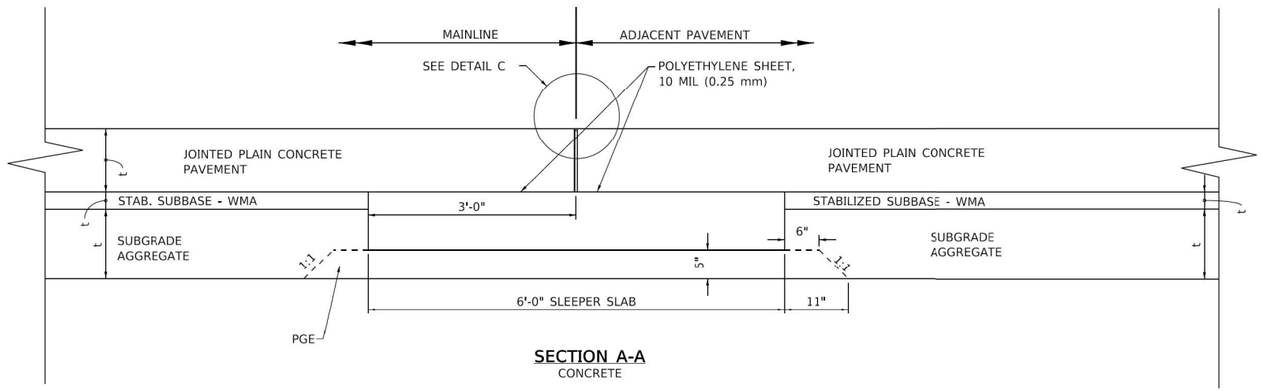
1. ℓ(E) BARS SHALL BE PLACED AT 12" CTS.
2. w(E) NUMBER AND LENGTH DEPEND ON WIDTH OF ROADWAY.
3. USE 2'-8" MIN LAP FOR #4 BARS. USE 4-0" MIN. LAP FOR #5 BARS.



SECTION A-A
PAVEMENT TRANSITION



SECTION A-A
ASPHALT OVERLAY



SECTION A-A
CONCRETE

REVISIONS	
DATE	DESCRIPTION
3-01-2022	REMOVED CAPPING AGG
3-01-2021	UPDATED NOTES
3-01-2020	REVISED TRANSVERSE EXPANSION JOINT
5-01-2017	MODIFIED JOINT DETAIL, REVISED NOTES
3-31-2017	ADDED TRANSVERSE EXPANSION JOINT
3-31-2016	REVISED 13" PAVE NOTE FOR DOWEL BAR

Illinois Tollway

PAVEMENT JOINTS

VERSION: 2022-03 | STANDARD: A7-06 | SHEET: 1 OF 2

APPROVED BY: Paul Kovacs, CHIEF ENGINEERING OFFICER — DATE: 02/17/2019

PLOT SCALE: 0.1667 ' / in. PAGE SIZE: 17x11(in.)

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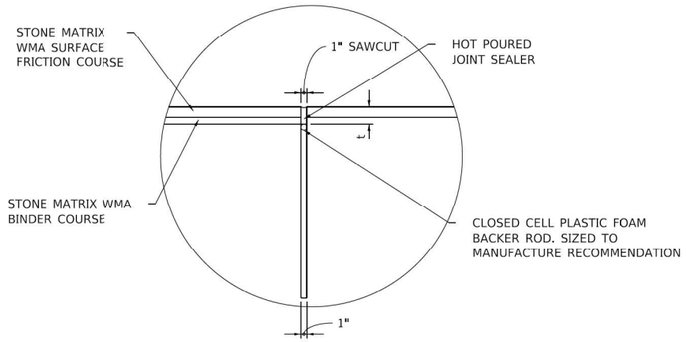
USER NAME = Jacqueline.Ng	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

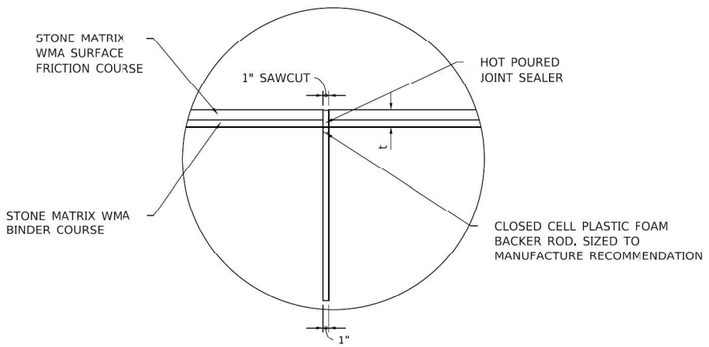
TOLLWAY STANDARDS

SCALE: | SHEET 1 OF 2 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	118
		CONTRACT NO. 62U90		
	ILLINOIS FED. AID PROJECT			



DETAIL A



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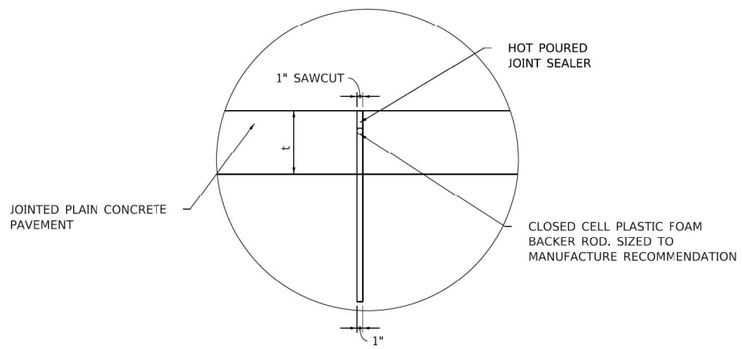

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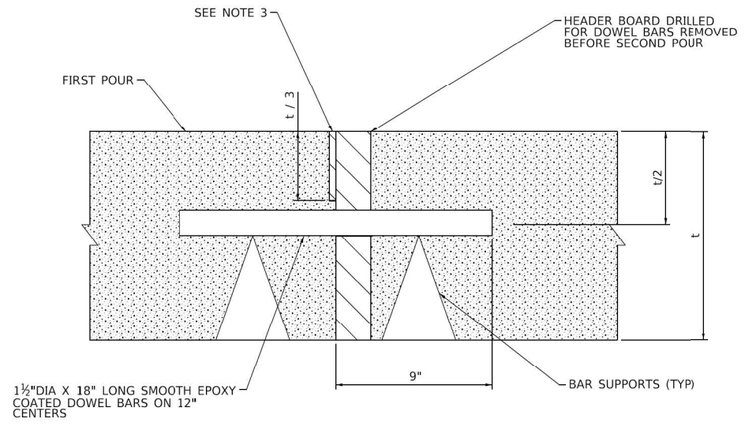

TRANSVERSE CONSTRUCTION JOINT
(JOINTED PLAIN CONCRETE PAVEMENT)

GENERAL NOTES:

1. ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SHOWN.
2. t = PAVEMENT THICKNESS.
3. A ⅜" WIDE SAW CUT SHALL BE PROVIDED AFTER THE SECOND POUR FOR PAVEMENT CRACK CONTROL. MINIMUM DEPTH SHALL BE t/3.

APPROVED BY: Paul Kovacs, CHIEF ENGINEERING OFFICER — DATE: 02/17/2019

Illinois Tollway

PAVEMENT JOINTS

VERSION:	STANDARD:	SHEET:
2022.03	A7-06	2 OF 2

AECOM
303 EAST WACKER DRIVE, SUITE 1400
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PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline,Ng	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLLWAY STANDARDS

SCALE: | SHEET 2 OF 2 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	119
		CONTRACT NO. 62U90		
		ILLINOIS	FED. AID PROJECT	

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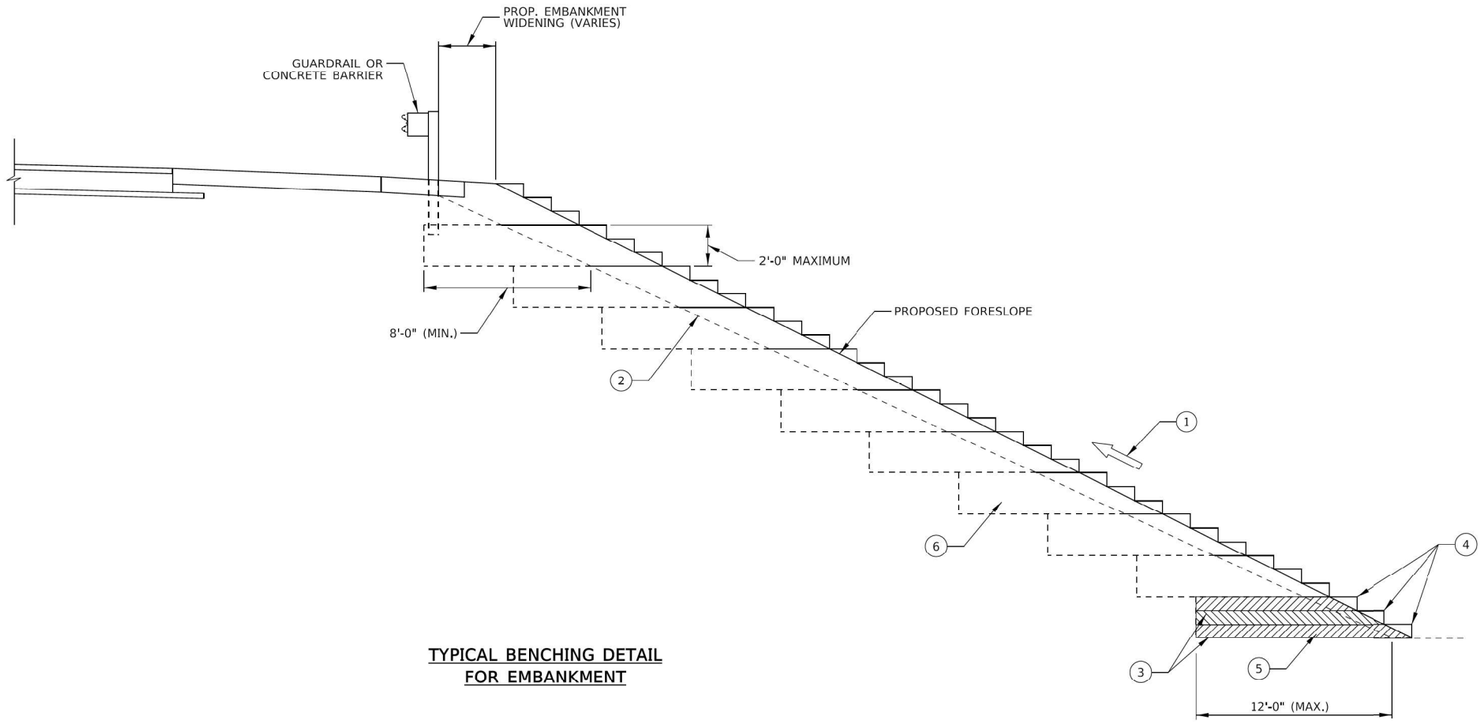

TYPICAL BENCHING DETAIL FOR EMBANKMENT

NOTES

1. CONSTRUCT SUCCEEDING BENCH CUTS AND EMBANKMENT PLACEMENT AND COMPACTION FROM BOTTOM TO TOP IN STAIR STEP 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 LIFTS OF EMBANKMENT COMPACTED IN ACCORDANCE WITH ARTICLE 205.03 OF THE STANDARD SPECIFICATIONS.
6. EXCAVATION OF BENCH CUTS FOR EMBANKMENT WIDENING WITHIN EXISTING EMBANKMENT WILL BE INCIDENTAL TO THE CONTRACTS EARTH EXCAVATION.
7. SLOPES SHALL BE BENCHED ACCORDING TO THIS DETAIL WHEN THE SLOPE IS STEEPER THAN 1:4(V:H) AND THE HEIGHT IS GREATER THAN 5'.
8. SOILS EXCAVATED FOR BENCHING THAT ARE TYPE 1 AND ARE TO BE DISPOSED OFF-SITE, SHALL BE PAID FOR AS NON-SPECIAL WASTE DISPOSAL, TYPE 1.

APPROVED BY: Manar Nashif
CHIEF ENGINEERING OFFICER
DATE: 03/01/2022

PLOT SCALE: 0.1667 ' / in. PAGE SIZE: 17x11(in.)

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REVISIONS	
DATE	DESCRIPTION

Illinois Tollway

BENCHING DETAIL FOR EMBANKMENT WIDENING

VERSION:	STANDARD:	SHEET:
2022-03	A20-00	1 OF 1

MODEL: Default
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AECOM
303 EAST WACKER DRIVE, SUITE 1400
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USER NAME = Jacqueline.Ng	DESIGNED -	REVISED -
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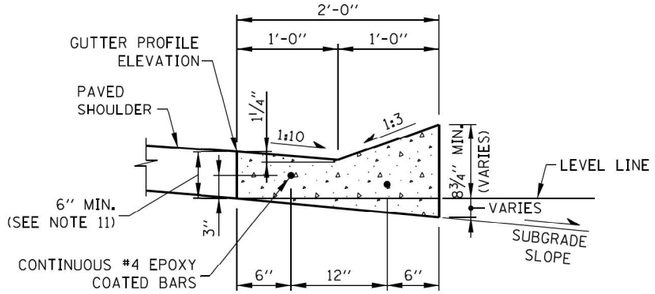
PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

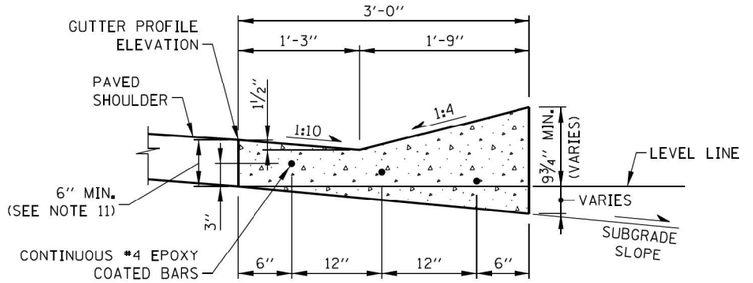
TOLLWAY STANDARDS

SCALE: | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	120
		CONTRACT NO. 62U90		
	ILLINOIS FED. AID PROJECT			



GUTTER, TYPE G-2



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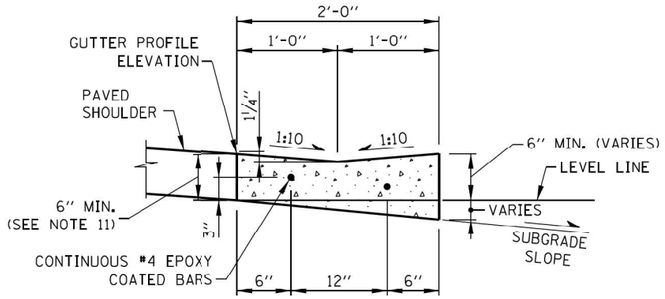

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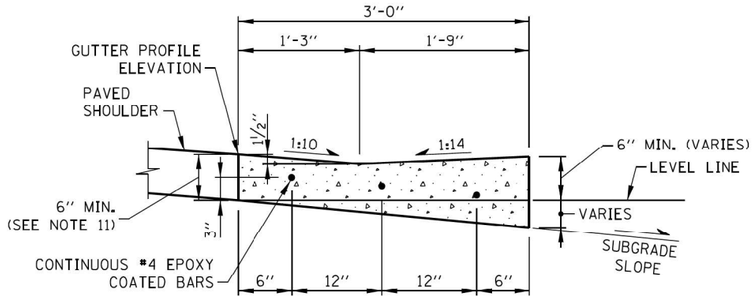

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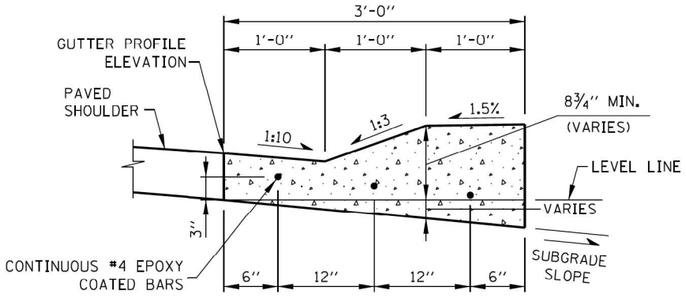
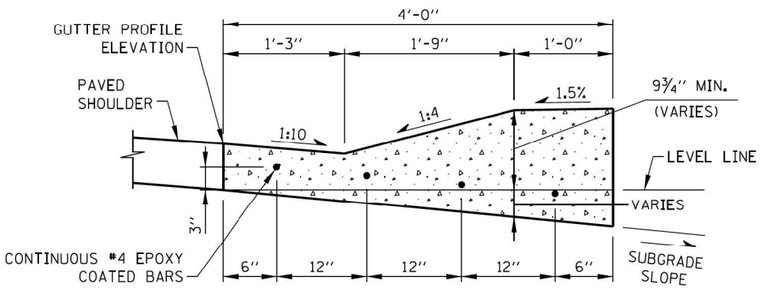


GUTTER, TYPE G-2N



GUTTER, TYPE G-3N

NOTES:

1. FOR CONCRETE CURB, TYPE C TRANSITIONS, THE LEADING ENDS OF CURB IN THE DIRECTION OF TRAFFIC SHALL BEGIN FLUSH WITH ADJACENT PAVEMENT OR SHOULDER SURFACE AND TRANSITION TO FULL HEIGHT AT THE RATE OF ONE INCH VERTICAL TO ONE FOOT HORIZONTAL.

2.

GUTTER TRANSITION DETAILS	STANDARD DRAWING
TRAFFIC BARRIER TERMINAL TYPE T1 (SPECIAL)	B-28
TRAFFIC BARRIER TERMINAL TYPE T1-A (SPECIAL)	B-29
TRAFFIC BARRIER TERMINAL TYPE T10	B-2
TRAFFIC BARRIER TERMINAL TYPE T6	B-3

3. ALL SLOPES ARE EXPRESSED AS UNITS OF VERTICAL DISPLACEMENT TO UNITS OF HORIZONTAL DISPLACEMENT (V:H).
4. REINFORCEMENT STEEL SHALL BE ACCURATELY PLACED AND FIRMLY HELD IN THE POSITION SPECIFIED USING EPOXY COATED STEEL CHAIRS. CHAIR SPACING SHALL NOT EXCEED 4'-0".
5. GUTTER REINFORCEMENT SHALL BE PLACED 3" ABOVE BOTTOM OF GUTTER FOLLOWING THE SUBGRADE SLOPE.
6. OTHER GUTTER AND CURB TRANSITION DETAILS WILL BE SHOWN ON THE PLANS.
7. CONTINUOUS #4 BARS SHALL BE LAPPED A MINIMUM OF 1'-1".
8. FOR CONCRETE GUTTER OVERLAYS, CRACK CONTROL JOINTS SHALL BE PLACED AT LOCATIONS OF UNDERLYING JOINTS AND WORKING CRACKS.
9. GUTTER CRACK CONTROL JOINTS TO ALIGN IN PROLONGATION WITH PCC SHOULDER JOINTS WHERE EXISTING. CRACK CONTROL JOINTS SHALL BE SEALED FULL DEPTH AND WIDTH IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.
10. EXPANSION JOINTS SHALL BE CONSTRUCTED IN GUTTER AT MAXIMUM JOINT SPACING OF 60'-0". SEE EXPANSION JOINT DETAIL ON SHEET 3 OF THIS STANDARD.
11. GUTTER DEPTH SHALL MATCH PAVED SHOULDER DEPTH.
12. THIS WORK WILL BE MEASURED FOR PAYMENT IN FEET ALONG THE FLOW LINE OF THE GUTTER, WHICH MEASUREMENT WILL INCLUDE DRAINAGE CASTINGS INCORPORATED WITHIN GUTTER.

APPROVED BY: Marco Nashif, CHIEF ENGINEERING OFFICER — DATE: 03/01/2024

Illinois Tollway

DATE	REVISIONS
03-01-2024	REMOVED CONCRETE GUTTER OVERLAY DETAIL.
03-01-2023	REVISED NOTE 10 AND USAGE OF CONCRETE CURB, TYPE C
03-01-2022	ADDED NEW G-2N & G-3N DETAILS
	REVISED CONC. GUTTER OVERLAY

GUTTER AND CURB DETAILS

STANDARD B1-12

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline,Ng	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLLWAY STANDARDS

SCALE: | SHEET 1 OF 3 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	121
		CONTRACT NO. 62U90		
		ILLINOIS	FED. AID PROJECT	

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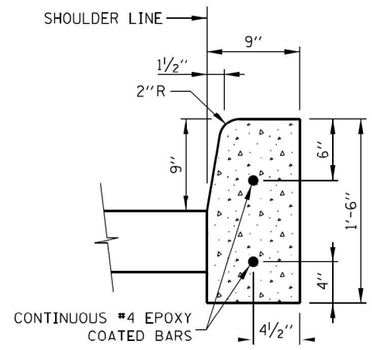
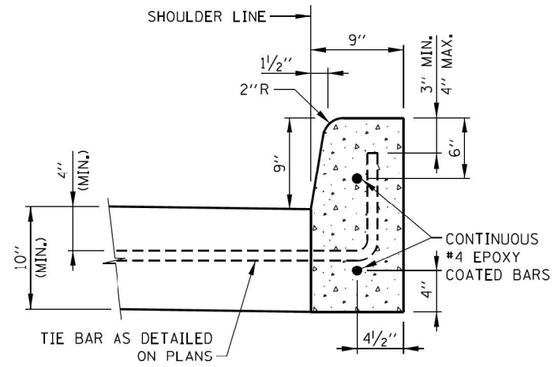


ADJACENT TO FLEXIBLE PAVEMENT



ADJACENT TO PCC PAVEMENT

CONCRETE CURB, TYPE C

(SEE NOTE 1)

NOTES:

1. CONCRETE CURB, TYPE C SHALL ONLY BE USED ALONG PLAZA PARKING AREAS, AT MAINTENANCE FACILITIES, OR IN CONJUNCTION WITH GUARDRAIL ON THE TAPERING APPROACH TO A NON-AET PLAZA.
2. SEE SHEET 1 OF THIS SERIES FOR ADDITIONAL NOTES.

APPROVED BY: Manar Nashif, CHIEF ENGINEERING OFFICER — DATE: 03/01/2024

SHEET 2 OF 3

Illinois Tollway

GUTTER AND CURB DETAILS

STANDARD B1-12

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline,Ng	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLLWAY STANDARDS

SCALE: | SHEET 2 OF 3 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	122
		CONTRACT NO. 62U90		
		ILLINOIS	FED. AID PROJECT	

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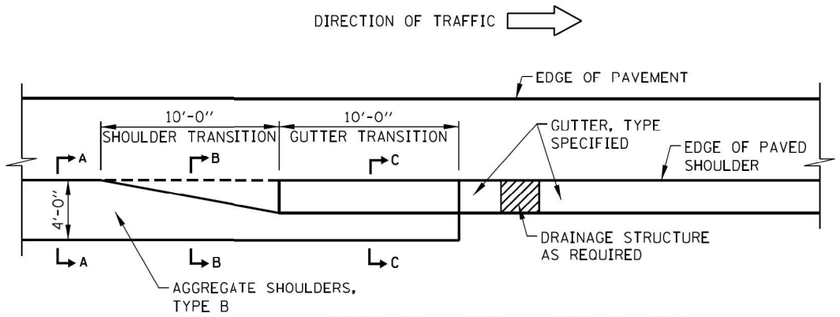
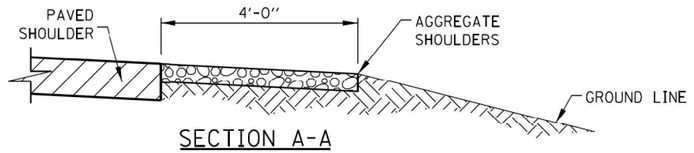
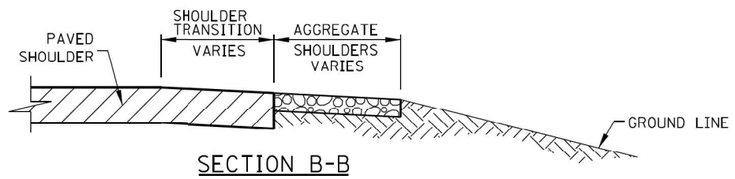


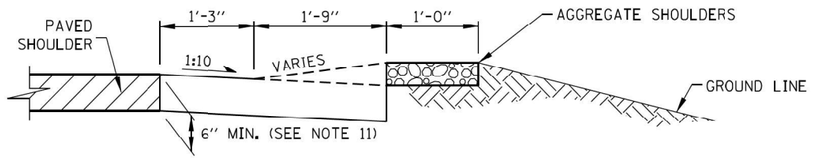
GUTTER TRANSITION TERMINATION



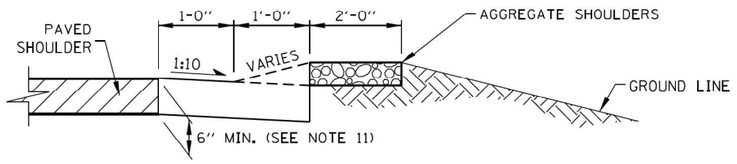
SECTION A-A



SECTION B-B
ASPHALT SHOULDER TRANSITION

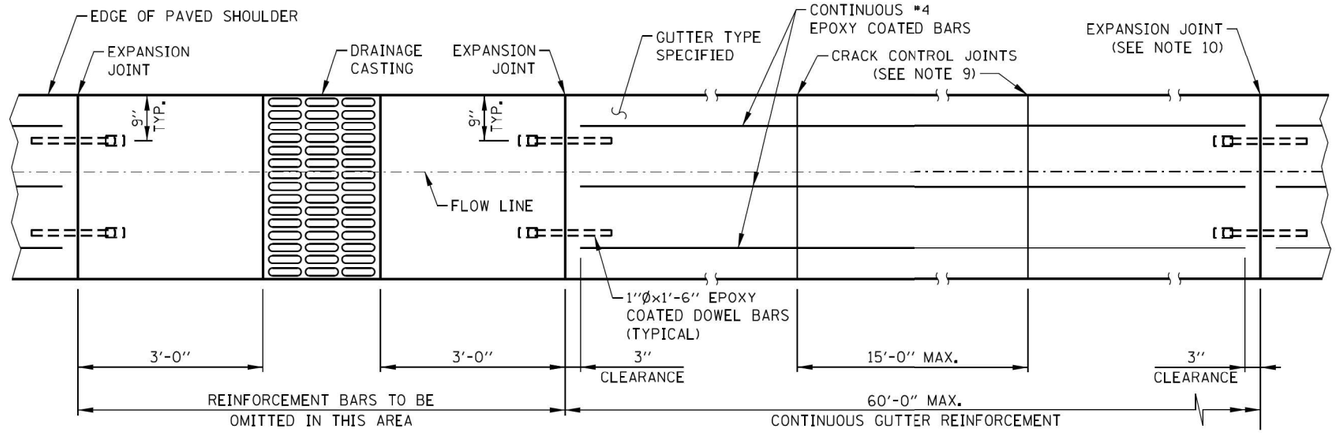


GUTTER, TYPE G-3 TRANSITION

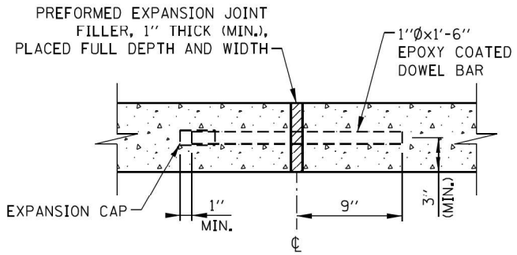


GUTTER, TYPE G-2 TRANSITION

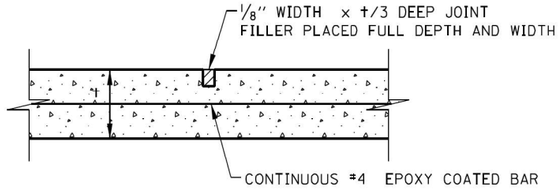
SECTION C-C



PLAN
GUTTER, TYPE G-2 OR GUTTER, TYPE G-3
(GUTTER, TYPE G-3 SHOWN)

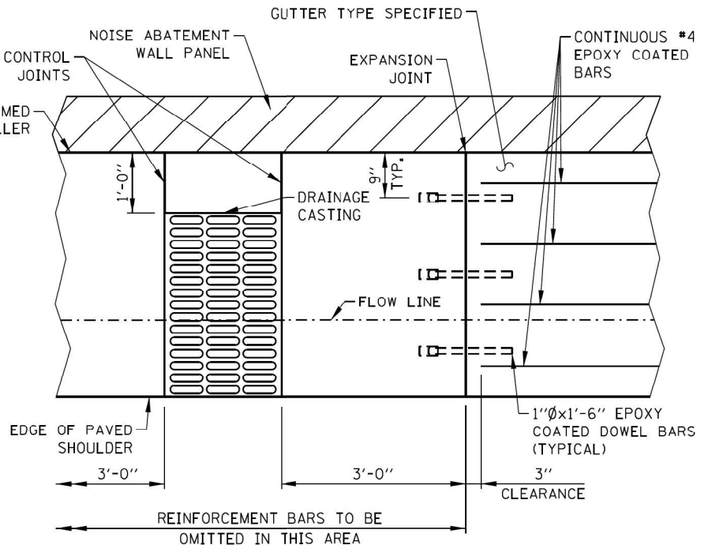


EXPANSION JOINT



CRACK CONTROL JOINT

CONTRACTION-CRACK CONTROL JOINTS
GUTTER, TYPE SPECIFIED



PLAN
GUTTER, TYPE G-2N OR GUTTER, TYPE G-3N
(GUTTER, TYPE G-3N SHOWN)

APPROVED BY: Manar Nashif, CHIEF ENGINEERING OFFICER
DATE: 03/01/2024

NOTE:
SEE SHEET 1 OF THIS SERIES FOR NOTES.

SHEET 3 OF 3

Illinois Tollway

GUTTER AND CURB DETAILS

STANDARD B1-12

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline.Ng	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLLWAY STANDARDS

SCALE: | SHEET 3 OF 3 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	123
		CONTRACT NO. 62U90		
	ILLINOIS	FED. AID PROJECT		

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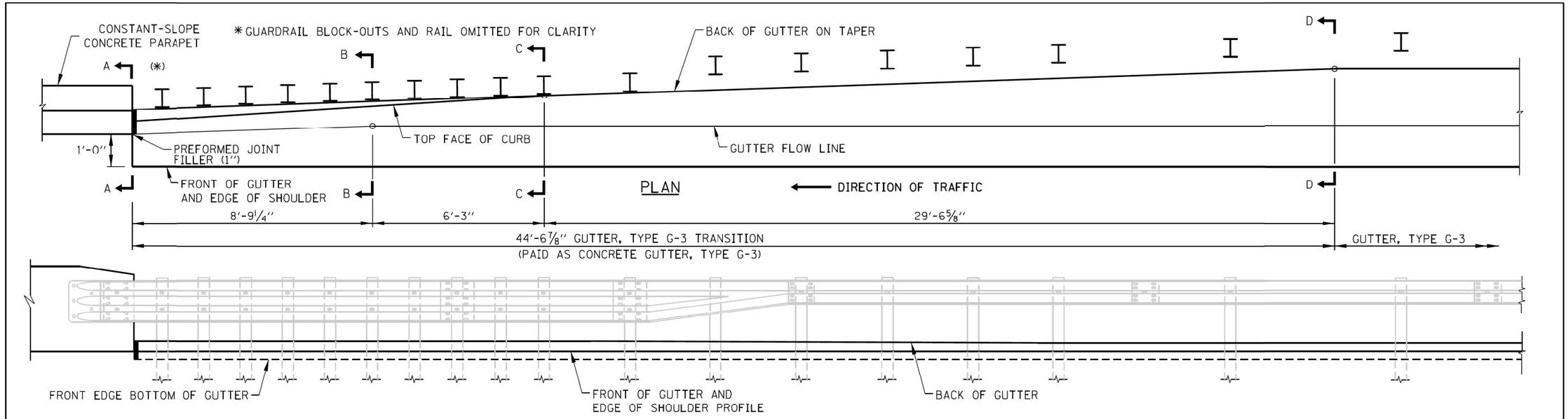

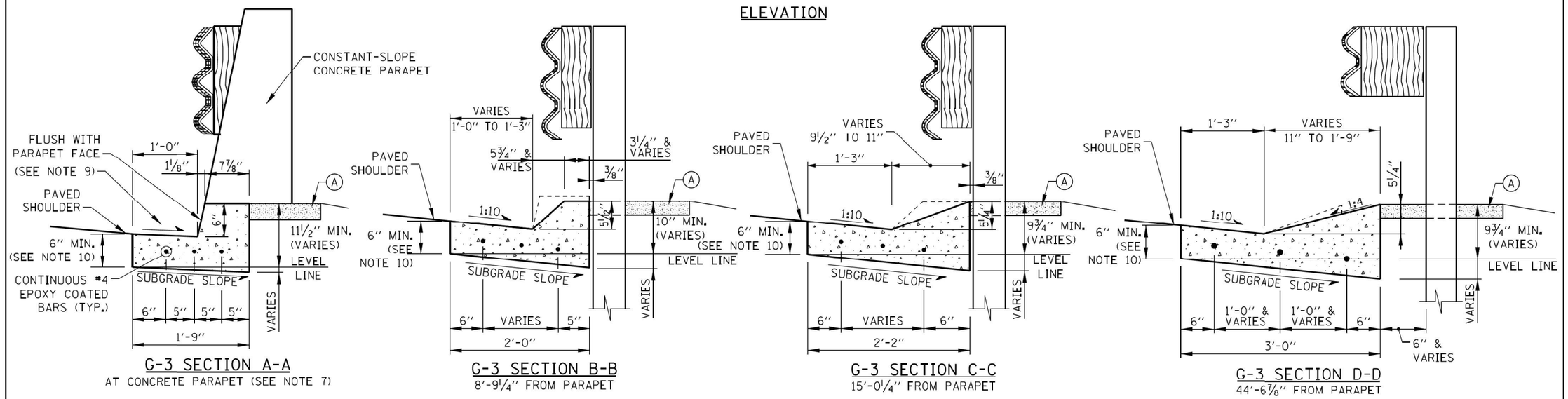

G-3 SECTION A-A
AT CONCRETE PARAPET (SEE NOTE 7)

G-3 SECTION B-B
8'-9 1/4" FROM PARAPET

G-3 SECTION C-C
15'-0 1/4" FROM PARAPET

G-3 SECTION D-D
44'-6 7/8" FROM PARAPET

GUTTER, TYPE G-3 TRANSITION AT TRAFFIC BARRIER TERMINAL, TYPE T6 TO CONSTANT-SLOPE CONCRETE PARAPET

GUTTER TRANSITION NOTES:

1. SLOPE TO MATCH ADJACENT SHOULDER SLOPE.
2. PROVIDE 1" EXPANSION JOINT WITH PREFORMED JOINT FILLER BETWEEN TRANSITION SECTION AND WINGWALL OR BARRIER WALL.
3. INSTALLATION ON CURVED WINGWALLS SIMILAR.
4. FOR DETAILS OF TRAFFIC BARRIER TERMINAL, TYPE T6, SEE ILLINOIS TOLLWAY STANDARD C9.
5. GUTTER TRANSITIONS SHALL BE CONSTRUCTED TO FIT THE STANDARD LOCATION OF THE TRAFFIC BARRIER TERMINAL, TYPE T6.
6. ALL SLOPES ARE EXPRESSED AS UNITS OF VERTICAL DISPLACEMENT TO UNITS OF HORIZONTAL DISPLACEMENT (V:H).
7. GUTTER SECTION SHOWN AT BARRIER WALL SHALL MATCH PROFILE AND VERTICAL FACE OF BARRIER. MODIFY GUTTER FACE TO MATCH OTHER BARRIER/PARAPET PROFILES.
8. CONTINUOUS #4 BARS SHALL BE LAPPED A MINIMUM OF 1'-1".
9. MATCH SHOULDER SLOPE IN FRONT OF PARAPET OR BARRIER.
10. GUTTER DEPTH SHALL MATCH PAVED SHOULDER DEPTH.

APPROVED BY: Manar Nashif, CHIEF ENGINEERING OFFICER — DATE: 03/01/2024

LEGEND

(A) AGGREGATE SHOULDERS SPECIAL, TYPE C

SHEET 1 OF 7

Illinois Tollway

DATE	REVISIONS
03-01-2024	ADDED NEW SHEET (4 OF 7)
03-01-2020	REVISED GUTTER TRANSITION LENGTH AND TAPER
03-01-2019	ADDED PG 1, 2 & 3 CONSTANT-SLOPE BARRIER & NOTE 10 (GUTTER DEPTH)
03-01-2019	REVISED G-2 GUTTER SHAPE

TYPE G-2/G-3 GUTTER TRANSITION AT TRAFFIC BARRIER TERMINAL, TYPE T6

STANDARD B3-10

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline.Ng	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLLWAY STANDARDS

SCALE: | SHEET 1 OF 7 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	124
		CONTRACT NO. 62U90		
		ILLINOIS	FED. AID PROJECT	

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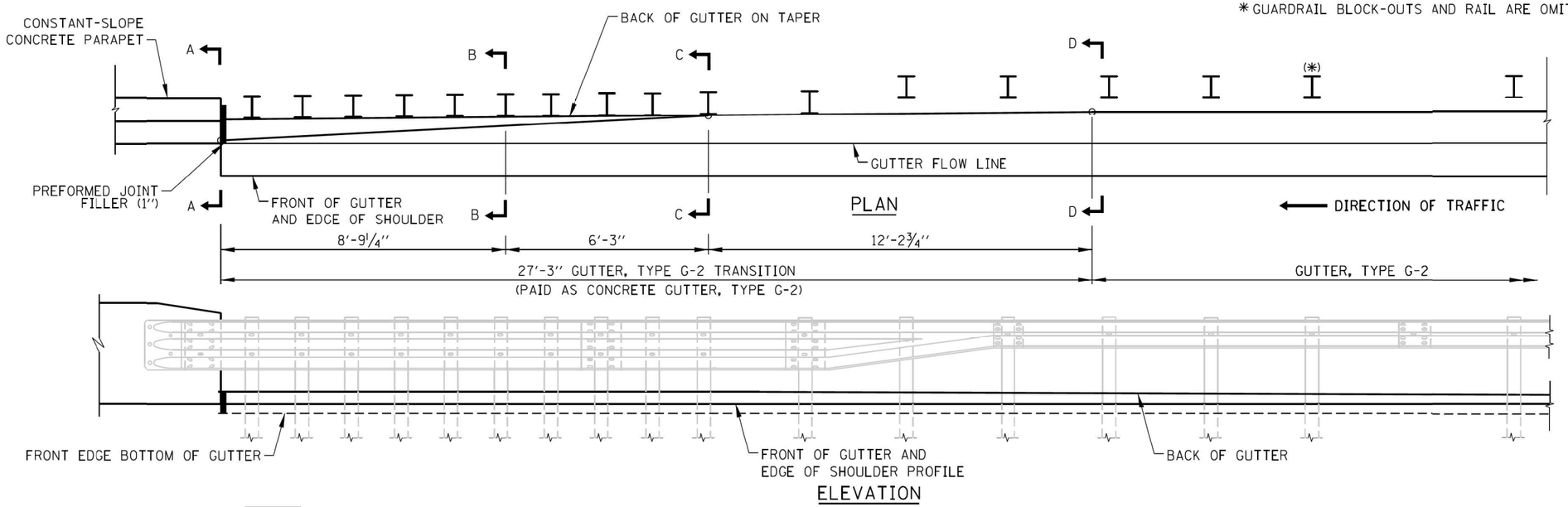
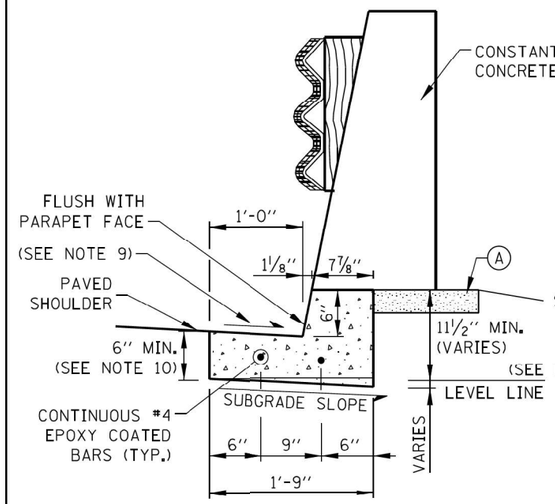
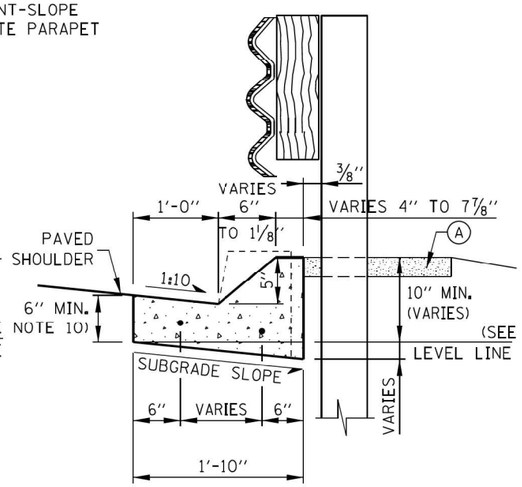
* GUARDRAIL BLOCK-OUTS AND RAIL ARE OMITTED FOR CLARITY

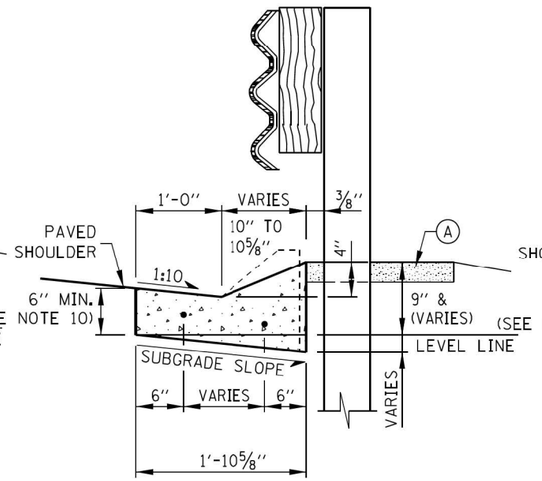




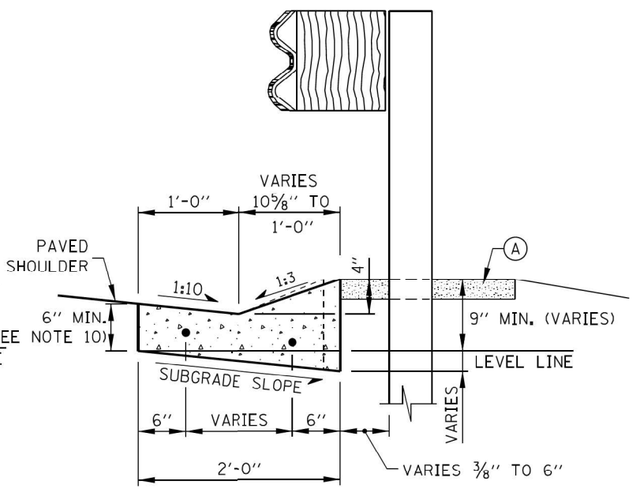
G-2 SECTION A-A
AT CONCRETE PARAPET
(SEE NOTE 8)



G-2 SECTION B-B
8'-9¼" FROM PARAPET



G-2 SECTION C-C
15'-0¼" FROM PARAPET



G-2 SECTION D-D
27'-3" FROM PARAPET

SHEET 2 OF 7

GUTTER, TYPE G-2 TRANSITION AT TRAFFIC BARRIER TERMINAL, TYPE T6 TO CONSTANT-SLOPE CONCRETE PARAPET

LEGEND

(A) AGGREGATE SHOULDERS SPECIAL, TYPE C

APPROVED BY: Manar Nashif, CHIEF ENGINEERING OFFICER — DATE: 03/01/2024

NOTE:
SEE SHEET 1 OF THIS SERIES FOR GUTTER TRANSITION NOTES.

Illinois Tollway

TYPE G-2/G-3 GUTTER TRANSITION AT TRAFFIC BARRIER TERMINAL, TYPE T6

STANDARD B3-10

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline.Ng	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLLWAY STANDARDS

SCALE: | SHEET 2 OF 7 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	125
		CONTRACT NO. 62U90		
	ILLINOIS FED. AID PROJECT			

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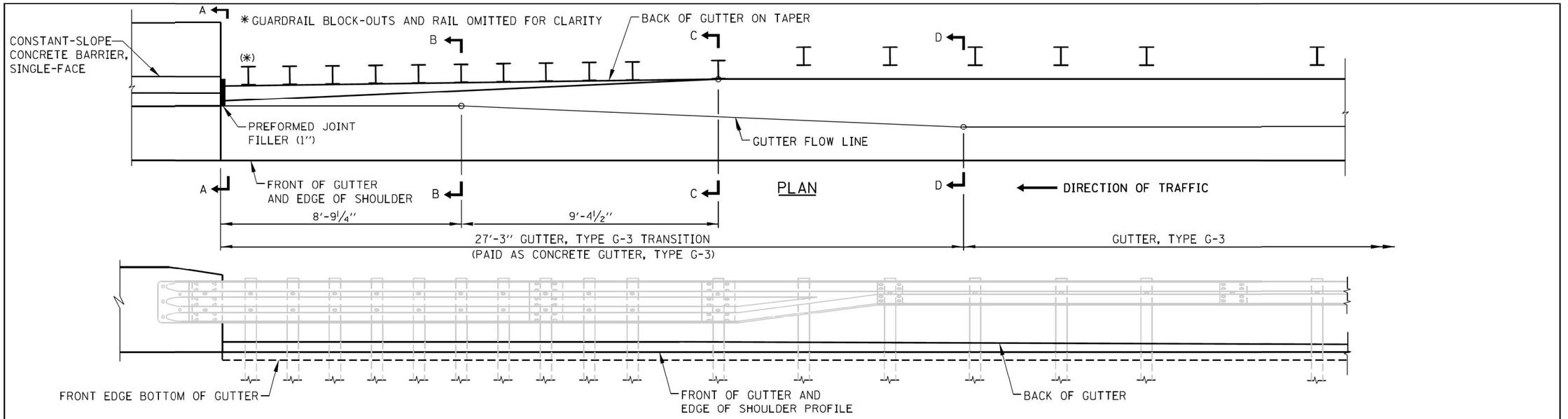

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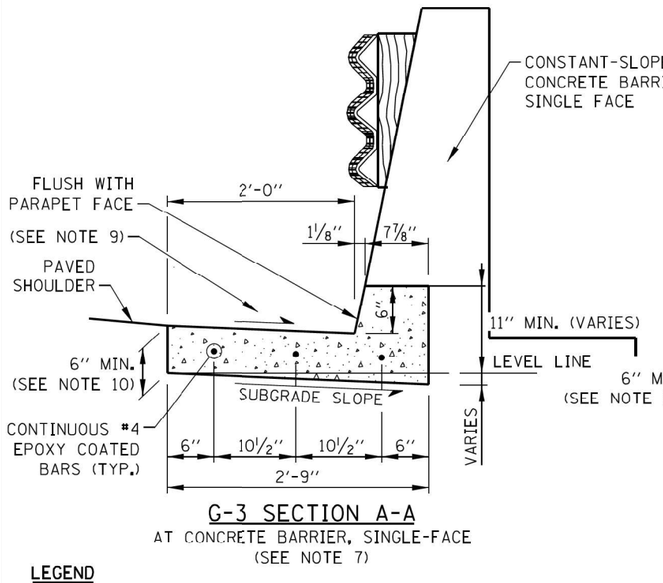
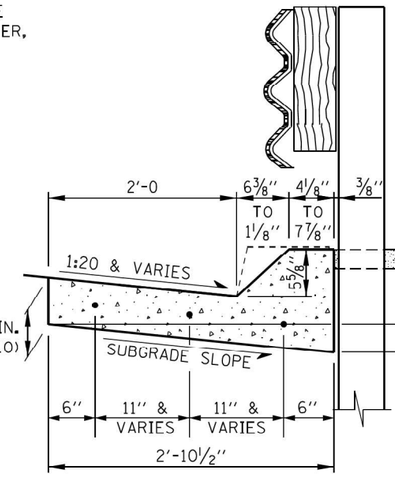
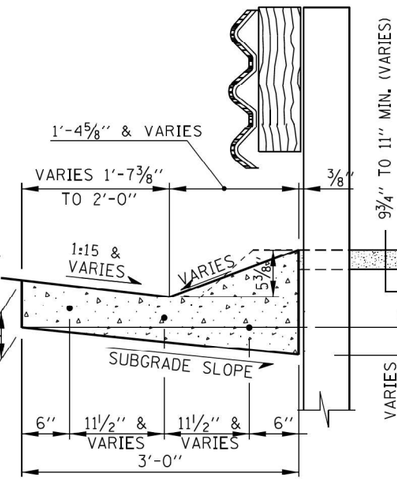


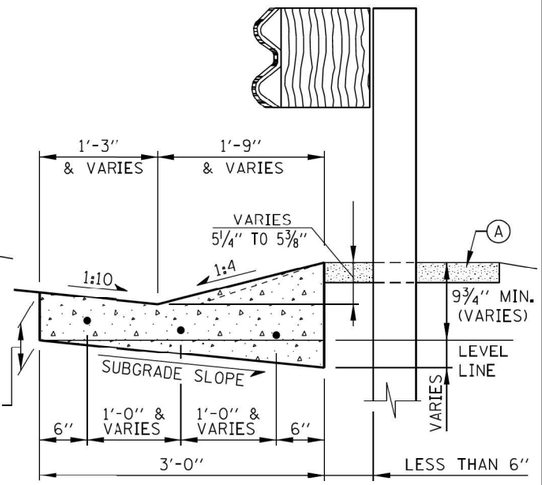
G-3 SECTION A-A
AT CONCRETE BARRIER, SINGLE-FACE
(SEE NOTE 7)



G-3 SECTION B-B
8'-9 1/4" FROM CONCRETE BARRIER



G-3 SECTION C-C
18'-1 3/4" FROM CONCRETE BARRIER



G-3 SECTION D-D
27'-3" FROM CONCRETE BARRIER

LEGEND

(A) AGGREGATE SHOULDERS SPECIAL, TYPE C

GUTTER, TYPE G-3 TRANSITION AT TRAFFIC BARRIER TERMINAL, TYPE T6, TO CONSTANT-SLOPE CONCRETE BARRIER, SINGLE FACE

NOTE:

SEE SHEET 1 OF THIS SERIES FOR GUTTER TRANSITION NOTES.

APPROVED BY: Manar Nashif, CHIEF ENGINEERING OFFICER — DATE: 03/01/2024

Illinois Tollway

TYPE G-2/G-3 GUTTER TRANSITION AT TRAFFIC BARRIER TERMINAL, TYPE T6

STANDARD B3-10

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline.Ng	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLLWAY STANDARDS

SCALE: | SHEET 3 OF 7 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	126
		CONTRACT NO. 62U90		
		ILLINOIS	FED. AID PROJECT	

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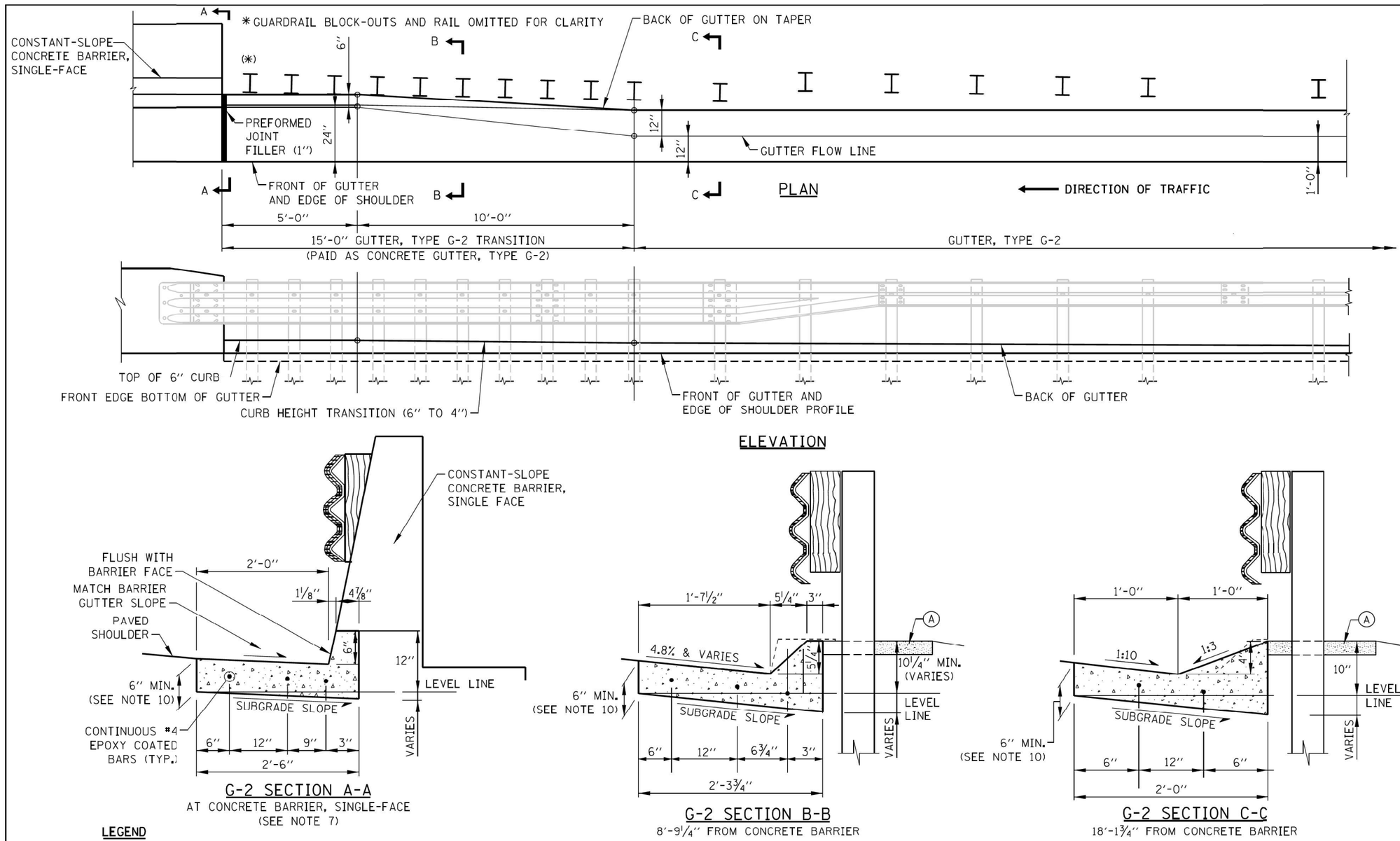

G-2 SECTION A-A
AT CONCRETE BARRIER, SINGLE-FACE
(SEE NOTE 7)

G-2 SECTION B-B
8'-9¼'' FROM CONCRETE BARRIER

G-2 SECTION C-C
18'-1¾'' FROM CONCRETE BARRIER

LEGEND

(A) AGGREGATE SHOULDERS SPECIAL, TYPE C

GUTTER, TYPE G-2 TRANSITION AT TRAFFIC BARRIER TERMINAL, TYPE T6, TO CONSTANT-SLOPE CONCRETE BARRIER, SINGLE FACE

NOTE:

SEE SHEET 1 OF THIS SERIES FOR GUTTER TRANSITION NOTES.

APPROVED BY: Manar Nashif, CHIEF ENGINEERING OFFICER — DATE: 03/01/2024

SHEET 4 OF 7

Illinois Tollway

TYPE G-2/G-3 GUTTER TRANSITION AT TRAFFIC BARRIER TERMINAL, TYPE T6

STANDARD B3-10

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline.Ng	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLLWAY STANDARDS

SCALE: | SHEET 4 OF 7 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	127
		CONTRACT NO. 62U90		
		ILLINOIS	FED. AID PROJECT	

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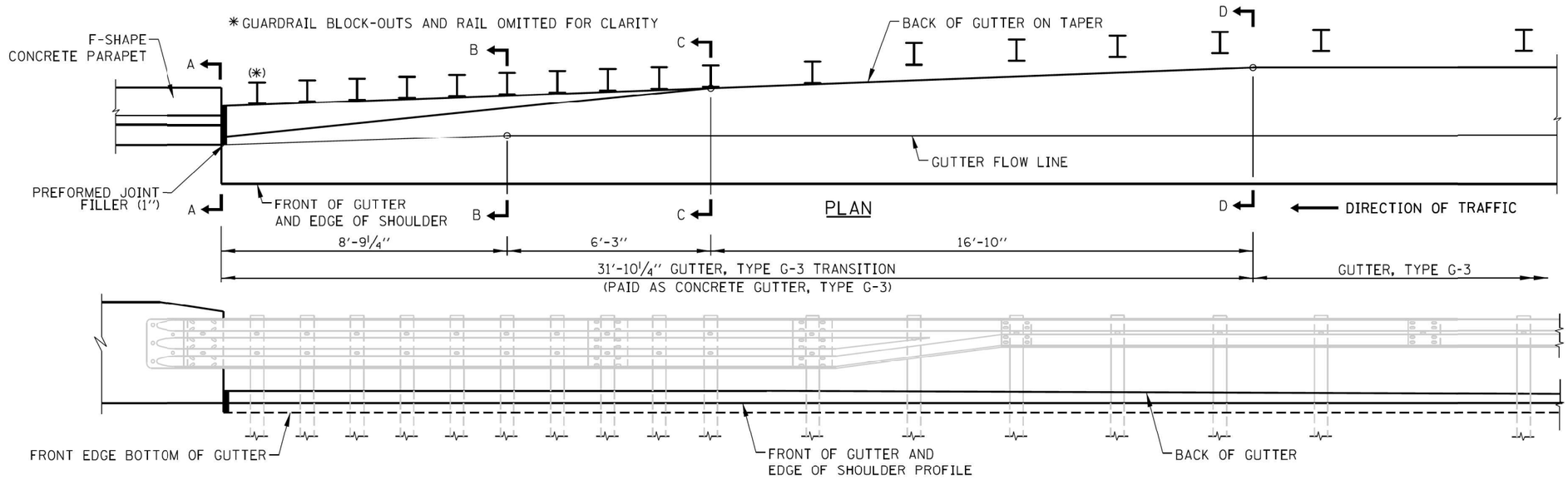
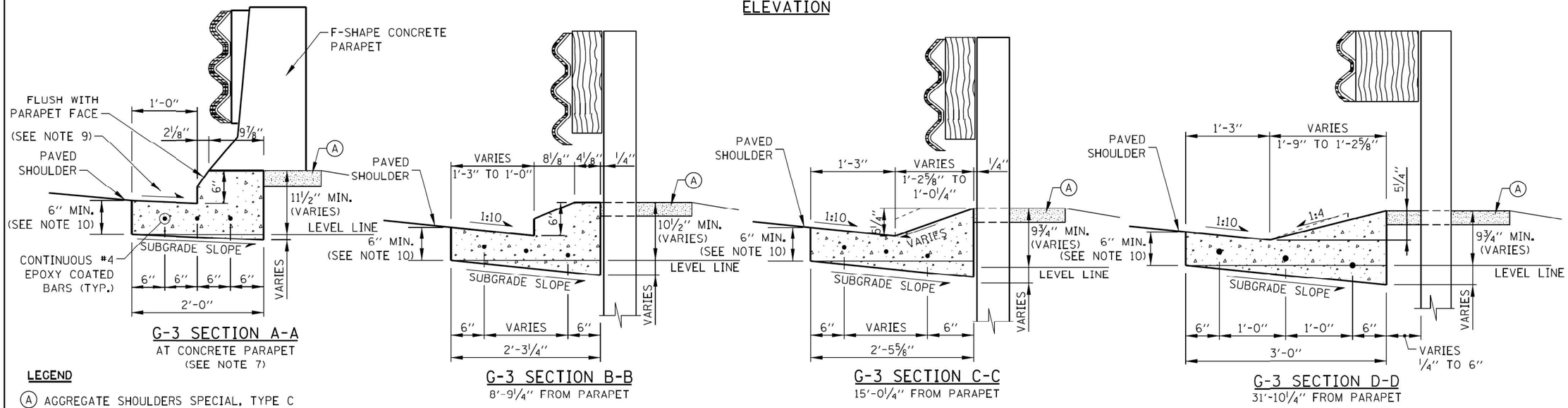


PLAN

ELEVATION



G-3 SECTION A-A
AT CONCRETE PARAPET
(SEE NOTE 7)

G-3 SECTION B-B
8'-9 1/4" FROM PARAPET

G-3 SECTION C-C
15'-0 1/4" FROM PARAPET

G-3 SECTION D-D
31'-10 1/4" FROM PARAPET

LEGEND

(A) AGGREGATE SHOULDERS SPECIAL, TYPE C

GUTTER, TYPE G-3 TRANSITION AT TRAFFIC BARRIER TERMINAL, TYPE T6 TO F-SHAPE CONCRETE PARAPET

SHEET 5 OF 7

NOTE:

SEE SHEET 1 OF THIS SERIES FOR GUTTER TRANSITION NOTES.

APPROVED BY: Manar Nashif, CHIEF ENGINEERING OFFICER — DATE: 03/01/2024

Illinois Tollway

TYPE G-2/G-3 GUTTER TRANSITION AT TRAFFIC BARRIER TERMINAL, TYPE T6

STANDARD B3-10

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline,Ng	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLLWAY STANDARDS

SCALE: | SHEET 5 OF 7 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	128
		CONTRACT NO. 62U90		
	ILLINOIS	FED. AID PROJECT		

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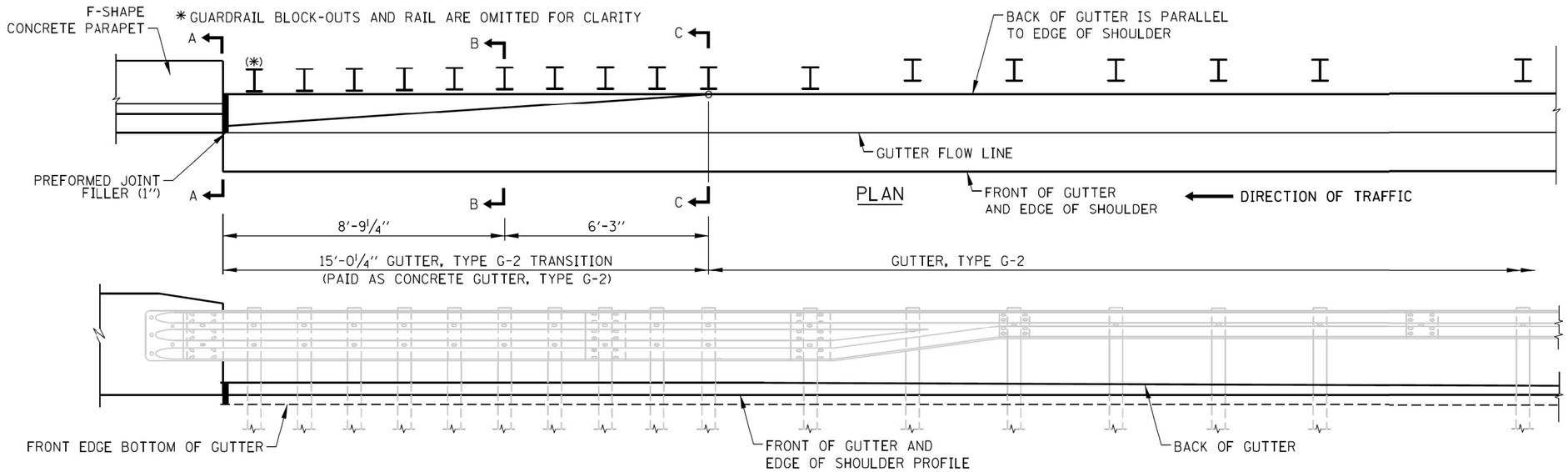
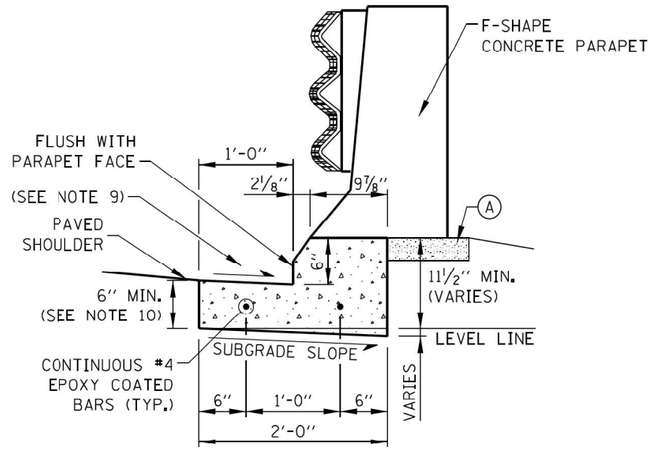
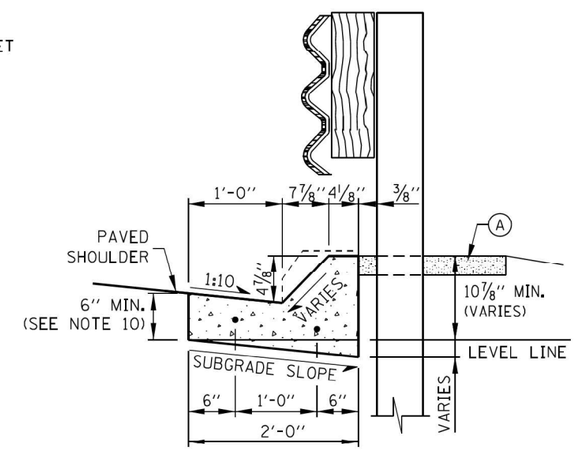


PLAN

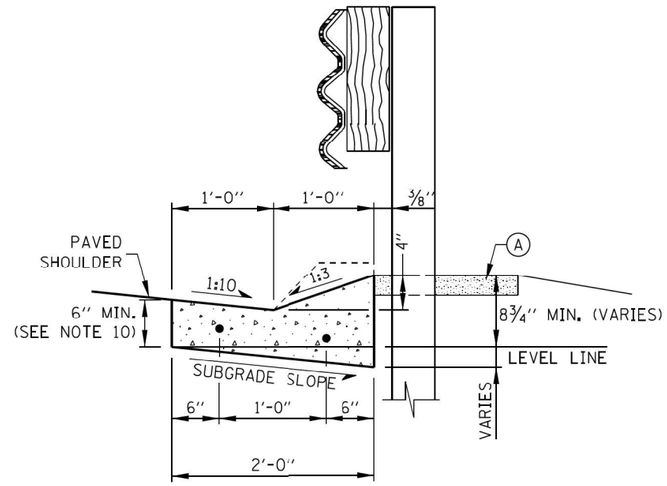
ELEVATION



G-2 SECTION A-A
AT CONCRETE PARAPET
(SEE NOTE 7)



G-2 SECTION B-B
8'-9 1/4" FROM PARAPET



G-2 SECTION C-C
15'-0 1/4" FROM PARAPET

GUTTER, TYPE G-2 TRANSITION AT TRAFFIC BARRIER TERMINAL, TYPE T6 TO F-SHAPE CONCRETE PARAPET

LEGEND

(A) AGGREGATE SHOULDERS SPECIAL, TYPE C

NOTE:

SEE SHEET 1 OF THIS SERIES FOR CUTTER TRANSITION NOTES.

APPROVED BY: Manar Nashif, CHIEF ENGINEERING OFFICER — DATE: 03/01/2024

Illinois Tollway

TYPE G-2/G-3 GUTTER TRANSITION AT TRAFFIC BARRIER TERMINAL, TYPE T6

STANDARD B3-10

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline.Ng	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLLWAY STANDARDS

SCALE: | SHEET 6 OF 7 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	129
		CONTRACT NO. 62U90		
		ILLINOIS	FED. AID PROJECT	

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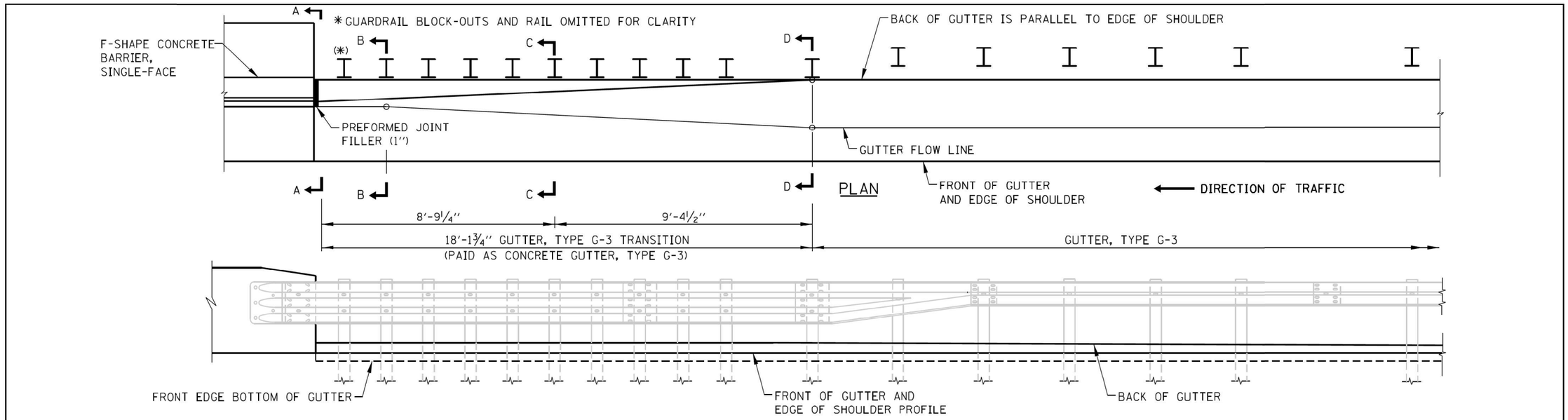
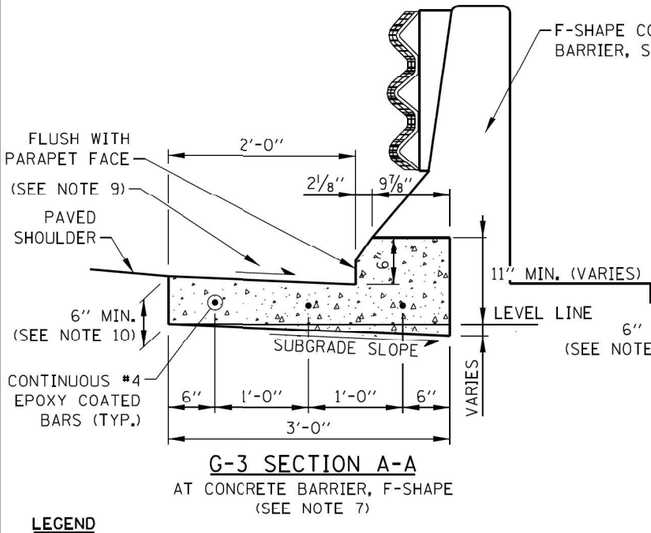
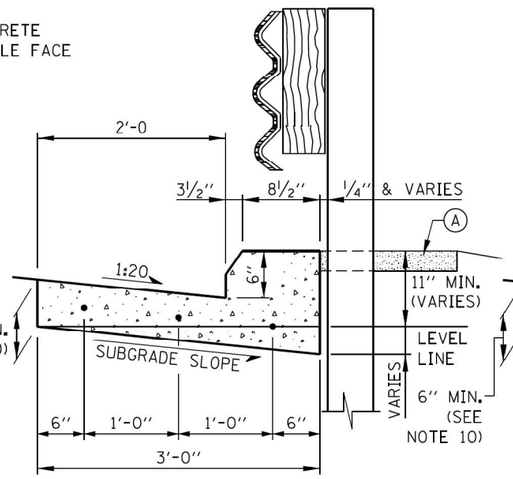


PLAN

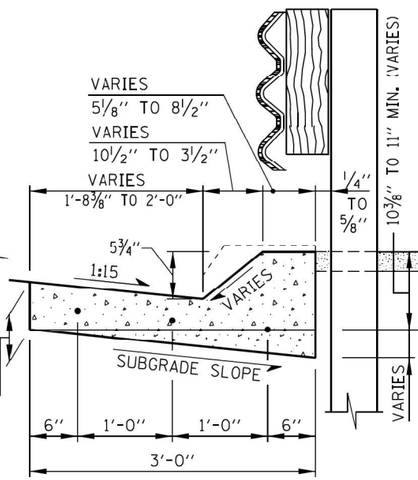
ELEVATION



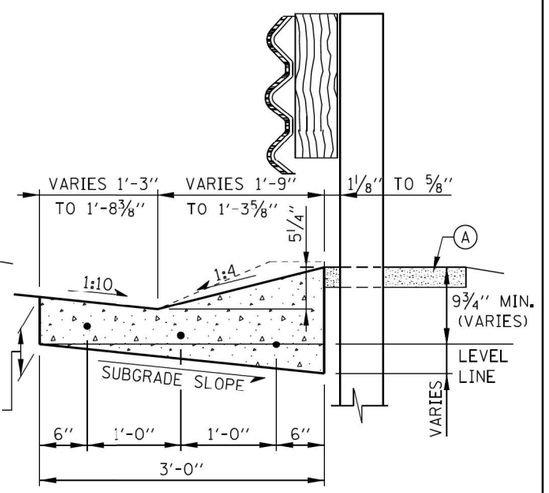
G-3 SECTION A-A
AT CONCRETE BARRIER, F-SHAPE
(SEE NOTE 7)



G-3 SECTION B-B
2'-6 1/4" FROM CONCRETE BARRIER



G-3 SECTION C-C
8'-9 1/4" FROM CONCRETE BARRIER



G-3 SECTION D-D
18'-1 3/4" FROM CONCRETE BARRIER

LEGEND

(A) AGGREGATE SHOULDERS SPECIAL, TYPE C

GUTTER, TYPE G-3 TRANSITION AT TRAFFIC BARRIER TERMINAL, TYPE T6, TO F-SHAPE CONCRETE BARRIER, SINGLE-FACE

SHEET 7 OF 7

NOTE:

SEE SHEET 1 OF THIS SERIES FOR GUTTER TRANSITION NOTES.

APPROVED BY: Manar Nashif, CHIEF ENGINEERING OFFICER — DATE: 03/01/2024

Illinois Tollway

TYPE G-2/G-3 GUTTER TRANSITION AT TRAFFIC BARRIER TERMINAL, TYPE T6

STANDARD B3-10

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline,Ng	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLLWAY STANDARDS

SCALE: | SHEET 7 OF 7 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	130
		CONTRACT NO. 62U90		
	ILLINOIS	FED. AID PROJECT		

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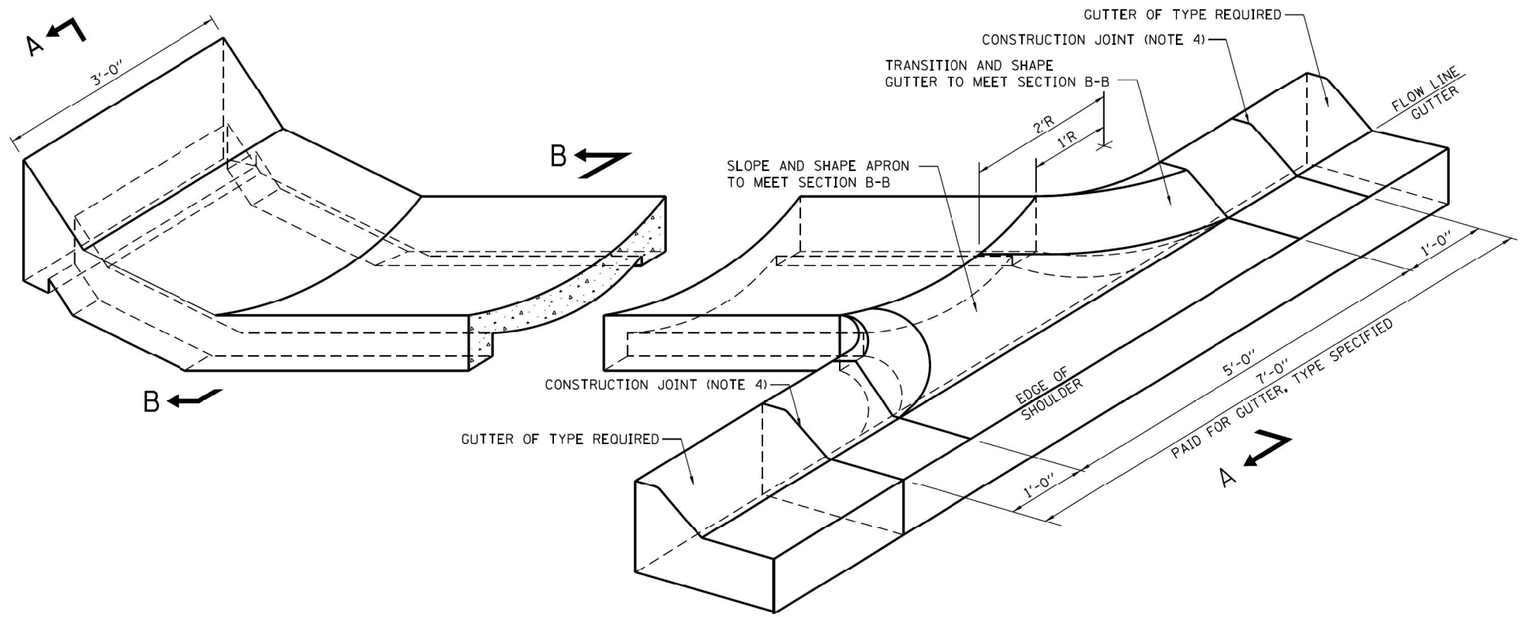
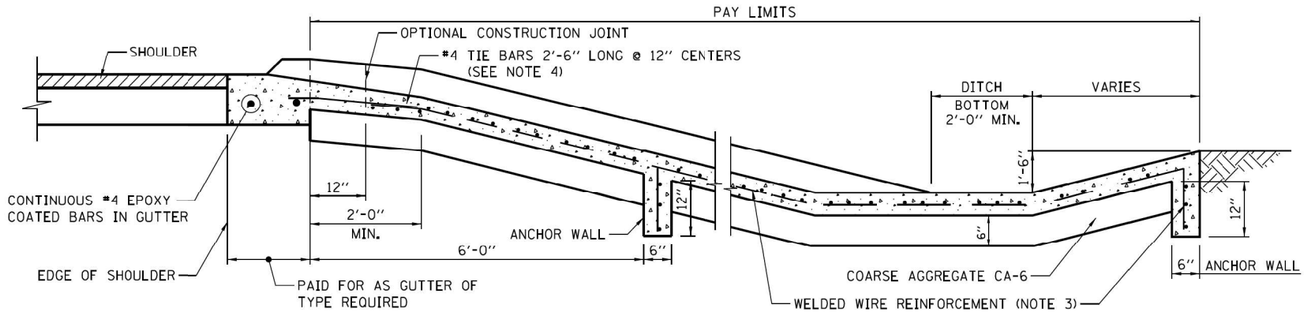


CONCRETE FLUME

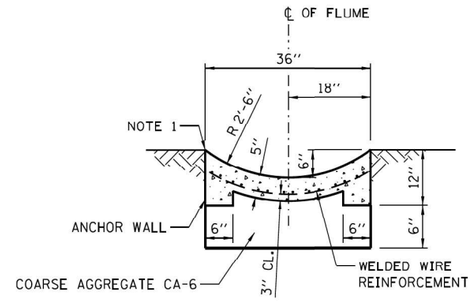
NOTES:

1. CONCRETE FLUMES SHALL BE CONSTRUCTED FLUSH WITH THE ADJACENT EXISTING OR PROPOSED SURFACES.
2. CLASS SI CONCRETE SHALL BE USED THROUGHOUT.
3. WELDED WIRE REINFORCEMENT SHALL BE EPOXY COATED 6x6 W4xW4, 58 LBS. PER 100 SQ. FT.
4. #4 EPOXY COATED TIE BARS 2'-6" LONG AT 12" O/C SHALL BE PROVIDED AT ALL CONSTRUCTION JOINTS.
5. EPOXY COATED EXPANDED METAL FABRIC OF EQUIVALENT STRENGTH MAY BE USED IN LIEU OF WELDED WIRE REINFORCEMENT SUBJECT TO ENGINEER'S APPROVAL.
6. THE LOCATION OF THE ANCHOR WALL MAY BE ADJUSTED AS DIRECTED BY THE ENGINEER.
7. THE MATERIALS AND CONSTRUCTION OF THE CONCRETE FLUME SHALL CONFORM TO THE APPLICABLE PORTIONS OF THE STANDARD SPECIFICATIONS.

PLAN



SECTION A-A
ADJACENT TO GUTTER



NOTE:
0.62 C.Y. CONCRETE / L.F.

SECTION B-B

APPROVED BY: Paul Kovacs, CHIEF ENGINEERING OFFICER — DATE: 02/07/2012

DATE	REVISIONS
03-01-2018	REVISED SECTION A-A TO INCLUDE COARSE AGGREGATE. NOTE 8 WAS REMOVED
03-31-2016	CHANGED TERMINOLOGY TO WELDED WIRE REINFORCEMENT
03-11-2015	DELETED CURB SECTION

Illinois Tollway

CONCRETE FLUME DETAILS

STANDARD B5-04

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline,Ng	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLLWAY STANDARDS

SCALE: | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	131
		CONTRACT NO. 62U90		
	ILLINOIS	FED. AID PROJECT		

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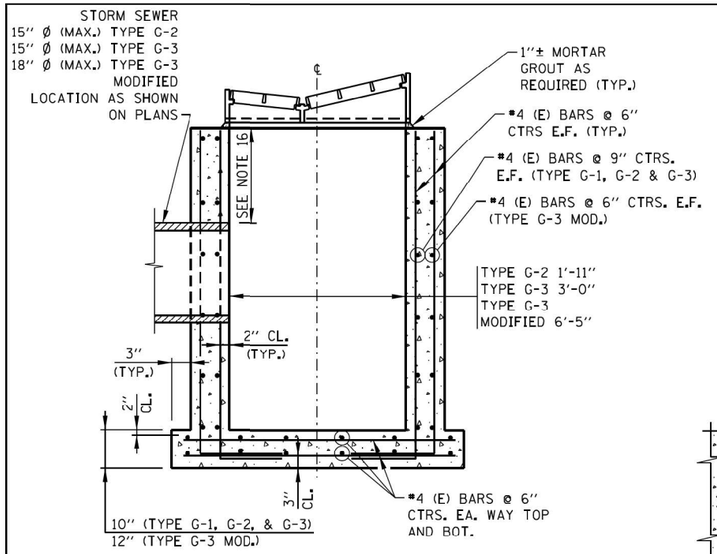
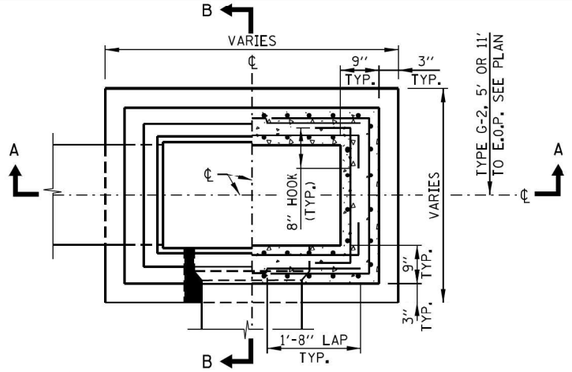
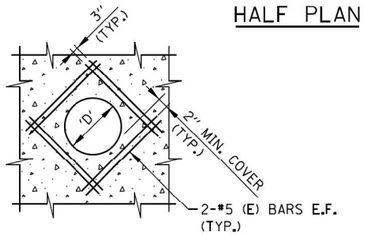


SECTION A-A

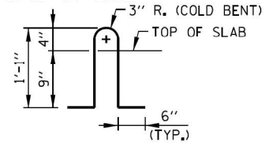


HALF PLAN

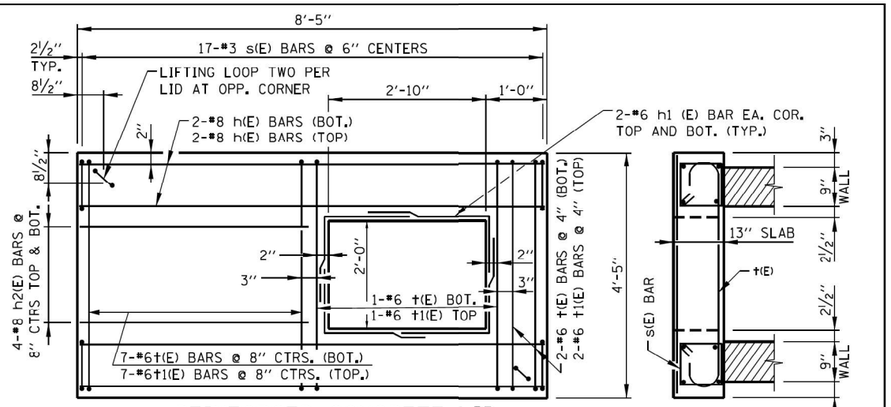


TYPICAL REINFORCEMENT AROUND STORM SEWER PIPE

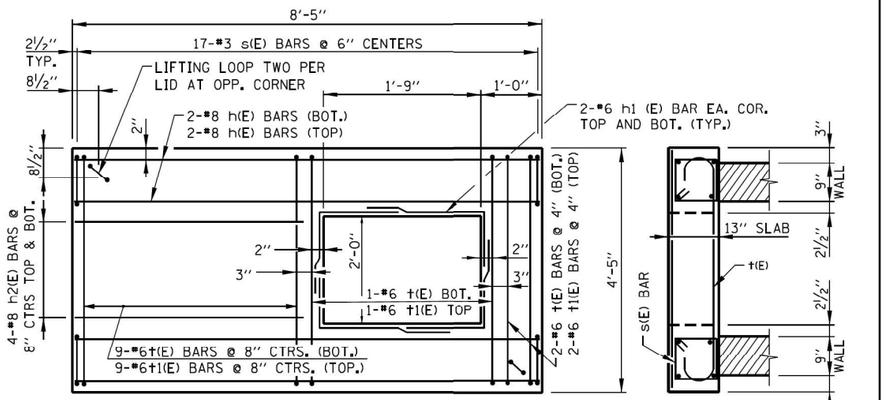
LIFTING LOOP TO BE ½"Ø x 270 KSI STRANDS TO BE BURNED AFTER PRECAST CONCRETE LID IS SET IN PLACE.



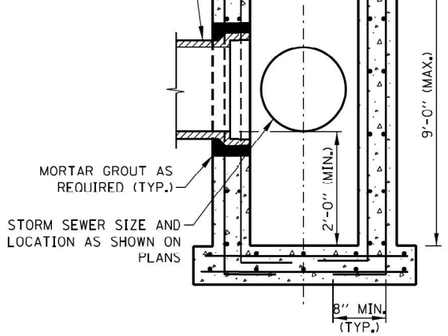
LIFTING LOOP DETAIL



REINFORCED CONCRETE LID
TYPE G-3 FRAME AND GRATE
CATCH BASIN,TYPE G-3, MODIFIED



REINFORCED CONCRETE LID
TYPE 20A FRAME AND GRATE
CATCH BASIN,TYPE G-3, MODIFIED



SECTION B-B

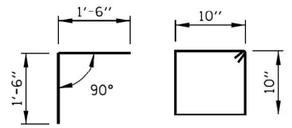
CATCH BASIN TYPE "G" SERIES

NOTE:

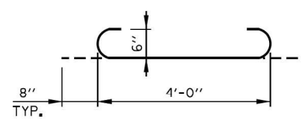
POSITION OF OPENING VARIES FROM 3'-2" TO 5'-4" MEASURED FROM BACK OF GUTTER LINE.

NOTES:

1. PRECAST CONCRETE UNITS WILL BE ACCEPTABLE PROVIDED THEY MEET ALL THE REQUIREMENTS AS SHOWN ON THIS DRAWING. BASE EXTENSION OF 3" NOT REQUIRED FOR PRECAST UNITS. FABRICATION DRAWINGS SHOWING PIPE OPENINGS, REINFORCEMENT AND OTHER PERTINENT DIMENSIONS WILL BE REQUIRED FOR EACH UNIT, FOR APPROVAL BY THE ENGINEER PRIOR TO FABRICATION.
2. CATCH BASIN, TYPE G-2 SHALL BE USED ALONG RAMPS WHERE GUTTER TYPE G-2 IS PROVIDED.
3. CATCH BASIN, TYPE G-3 SHALL BE USED WHERE GUTTER TYPE G-3 IS PROVIDED.
4. CATCH BASIN, TYPE G-3 MODIFIED SHALL BE USED IN PAVEMENT SECTIONS AND ON THE LOW SIDE OF SUPERELEVATED PAVEMENT.
5. CATCH BASIN, TYPE G-3 MODIFIED SHALL BE PROVIDED WITH A REINFORCED CONCRETE SLAB TOP AS DETAILED ON THIS DRAWING.
6. TYPE G-2 FRAME AND GRATE SHALL BE NEENAH R-3508-A2, EAST JORDAN IRON WORKS 7300 OR APPROVED EQUAL.
7. TYPE G-3 FRAME AND GRATE SHALL BE NEENAH INLET FOR ROLL TYPE CURB R-3501-U OR EAST JORDAN IRON WORKS 7545 OR APPROVED EQUAL.
8. TYPE G-3, MODIFIED FRAME AND GRATE SHALL BE NEENAH INLET FOR ROLL TYPE CURB SPECIAL R-3501-U1, EAST JORDAN IRON WORKS 7546 OR APPROVED EQUAL.
9. TYPE G-2, MODIFIED FRAME AND GRATE FOR ROLL TYPE CURB R-3508-B2 OR APPROVED EQUAL.
10. MORTAR OR SEALER SHALL BE USED WHEN A PRECAST REINFORCED CONCRETE LID IS USED.
11. REINFORCEMENT BARS DESIGNATED (E) SHALL BE EPOXY COATED.
12. E.O.P. = EDGE OF PAVEMENT.
13. ALL CONCRETE SHALL BE CLASS SI CONCRETE.
14. FRAME AND GRATE RIM ELEVATION AND OFFSET MEASURED AT THE EDGE OF SHOULDER.
15. THE CONTRACTOR SHALL CLEARLY MARK EACH CATCH BASIN WITH "ILLINOIS TOLLWAY", CONTRACT NUMBER, STRUCTURE NUMBER, PRODUCER NAME AND DATE OF MANUFACTURE. THIS INFORMATION SHALL BE MARKED ON THE OUTSIDE FACE OF THE STRUCTURE IN A VISIBLE SURFACE AS DESIGNATED BY THE ENGINEER. THE MARKING SHALL BE PAINTED/STAMPED IN THE STRUCTURE WITH WATERPROOF PAINT/INK OR RECESSED IN THE STRUCTURE BY 1/2". THE LETTERS SHALL BE CAPITALS, NOT LESS THAN 2 IN. AND NOT MORE THAN 3 IN. IN HEIGHT.
16. A MINIMUM OF 9" OF MONOLITHIC REINFORCED CONCRETE SHALL BE MAINTAINED ABOVE PIPE PENETRATION HOLES.



BAR h1(E) BAR s(E)



BAR t(E)

APPROVED BY: Manar Nashif, CHIEF ENGINEERING OFFICER DATE: 03/01/2024

SHEET 1 OF 4

Illinois Tollway

DATE	REVISIONS
03-01-2024	NOTED MAXIMUM PIPE SIZES ON SECTIONS A-A AND B-B (SHEET 1).
	REVISED NOTE 16 (SHEET 1), REVISED NOTE 11 (SHEETS 2 AND 3)

CATCH BASINS TYPE G AND TYPE G-3 MODIFIED, FRAMES AND GRATES

STANDARD B8-09

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline.Ng	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLLWAY STANDARDS

SCALE: | SHEET 1 OF 4 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	132
		CONTRACT NO. 62U90		
	ILLINOIS	FED. AID PROJECT		

MODEL: Default
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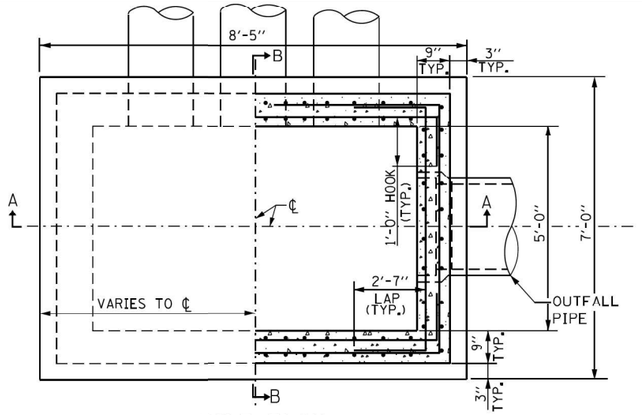
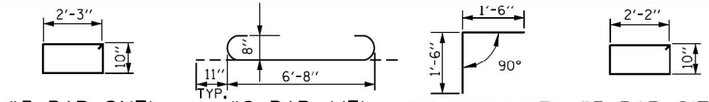
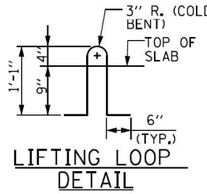


HALF PLAN

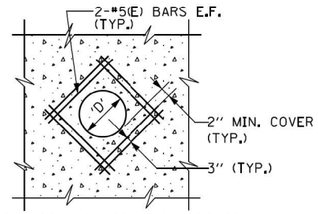
(24"-36" I.D. OUTFALL PIPE)



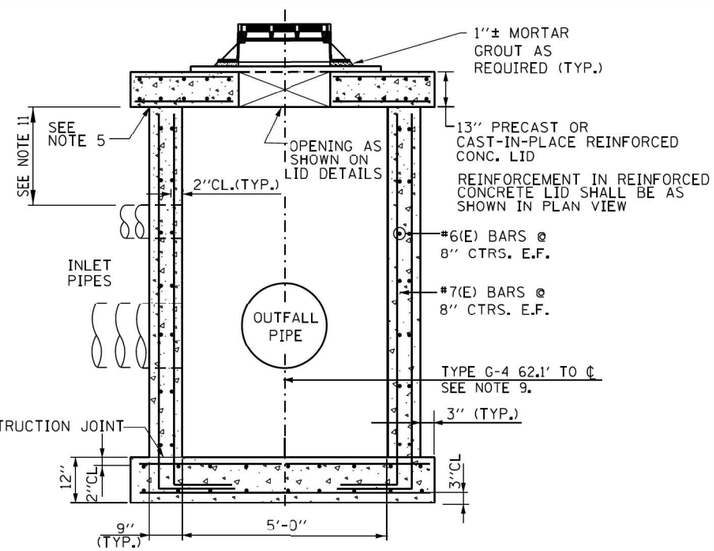


LIFTING LOOP DETAIL

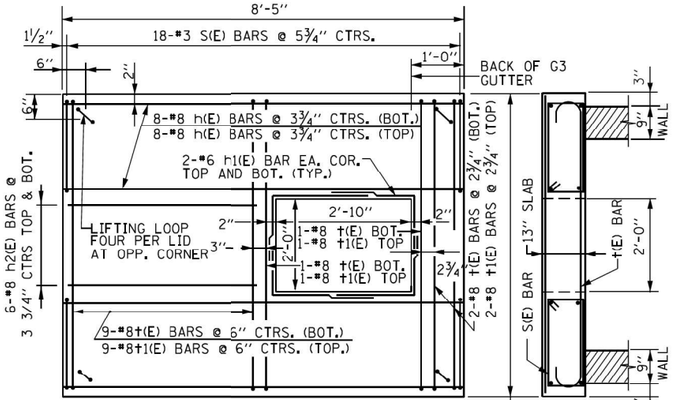
LIFTING LOOP TO BE ½"Ø x270ksi STRANDS TO BE BURNED AFTER PRECAST CONCRETE LID IS SET IN PLACE.



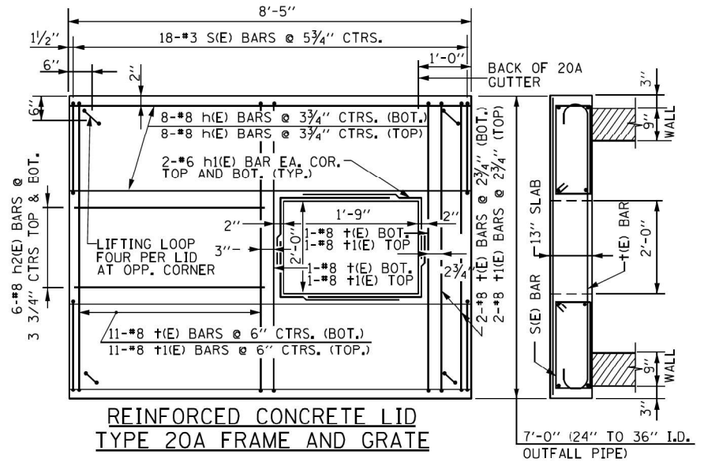
TYPICAL REINFORCEMENT AROUND STORM SEWER PIPE



SECTION B-B



REINFORCED CONCRETE LID TYPE G-3 FRAME AND GRATE

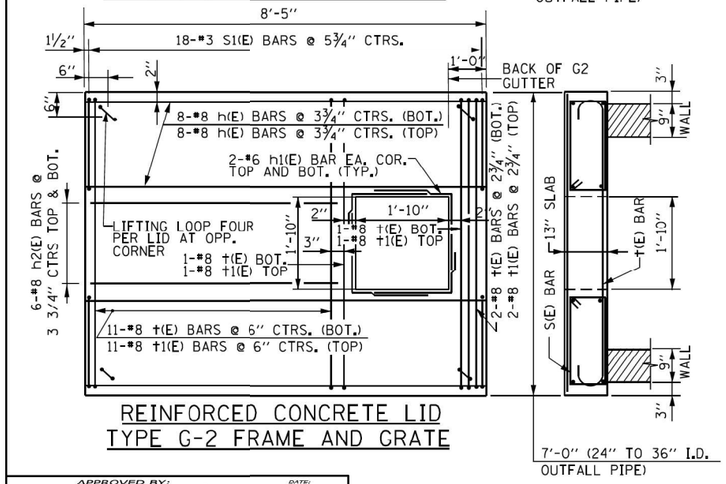


REINFORCED CONCRETE LID TYPE 20A FRAME AND GRATE

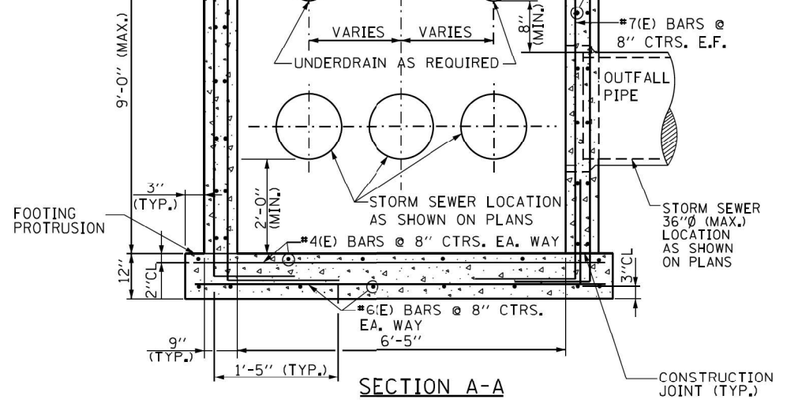
CATCH BASIN TYPE G-4

NOTES:

1. SEE SHEET 1 OF THIS SERIES FOR ADDITIONAL NOTES.
2. CATCH BASINS TYPE G-4 SHALL BE USED IN TANGENT SECTIONS AND ON THE LOW SIDE OF SUPERELEVATED PAVEMENT.
3. CATCH BASINS TYPE G-4 SHALL BE PROVIDED WITH A REINFORCED CONCRETE SLAB TOP AS DETAILED ON THIS DRAWING.
4. CATCH BASINS TYPE G-4 SHALL BE USED WHEN GUTTER, TYPE G-3 IS PROVIDED.
5. MORTAR OR SEALER SHALL BE USED WHEN A PRECAST REINFORCED CONCRETE LID IS USED.
6. FRAME AND GRATE RIM ELEVATION AND OFFSET MEASURED AT THE EDGE OF SHOULDER.
7. 36"Ø MAX. OUTFALL PIPE FOR TYPE G-4 CATCH BASIN.
8. ALL CONCRETE SHALL BE CLASS SI CONCRETE.
9. DISTANCE FROM ℄ OUTFALL PIPE TO ℄ ROADWAY TO BE VERIFIED BY ENGINEER.
10. THE CONTRACTOR SHALL CLEARLY MARK EACH CATCH BASIN WITH "ILLINOIS TOLLWAY", CONTRACT NUMBER, STRUCTURE NUMBER, PRODUCER NAME AND DATE OF MANUFACTURE. THIS INFORMATION SHALL BE MARKED ON THE OUTSIDE FACE OF THE STRUCTURE IN A VISIBLE SURFACE AS DESIGNATED BY THE ENGINEER. THE MARKING SHALL BE PAINTED/STAMPED IN THE STRUCTURE WITH WATERPROOF PAINT/INK OR RECESSED IN THE STRUCTURE BY 1/2". THE LETTERS SHALL BE CAPITALS, NOT LESS THAN 2 IN. AND NOT MORE THAN 3 IN. IN HEIGHT.
11. A MINIMUM OF 9" OF MONOLITHIC REINFORCED CONCRETE SHALL BE MAINTAINED ABOVE PIPE PENETRATION HOLES.



REINFORCED CONCRETE LID TYPE G-2 FRAME AND GRATE



SECTION A-A

APPROVED BY: Manar Nashif, CHIEF ENGINEERING OFFICER — DATE: 03/01/2024

Illinois Tollway

CATCH BASINS TYPE G AND TYPE G-3 MODIFIED, FRAMES AND GRATES

STANDARD B8-09

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline.Ng	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLLWAY STANDARDS

SCALE: | SHEET 2 OF 4 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	133
		CONTRACT NO. 62U90		
	ILLINOIS	FED. AID PROJECT		

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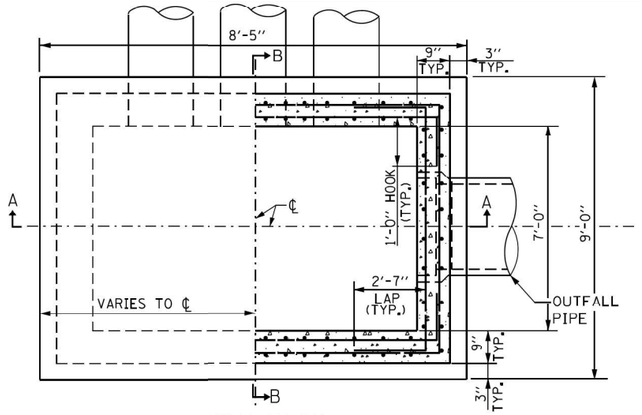
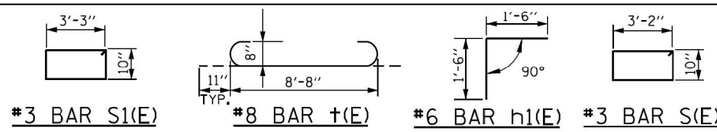
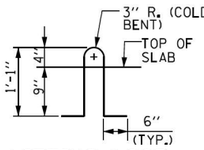


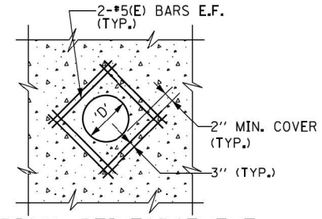
HALF PLAN (42"-54" I.D. OUTFALL PIPE)



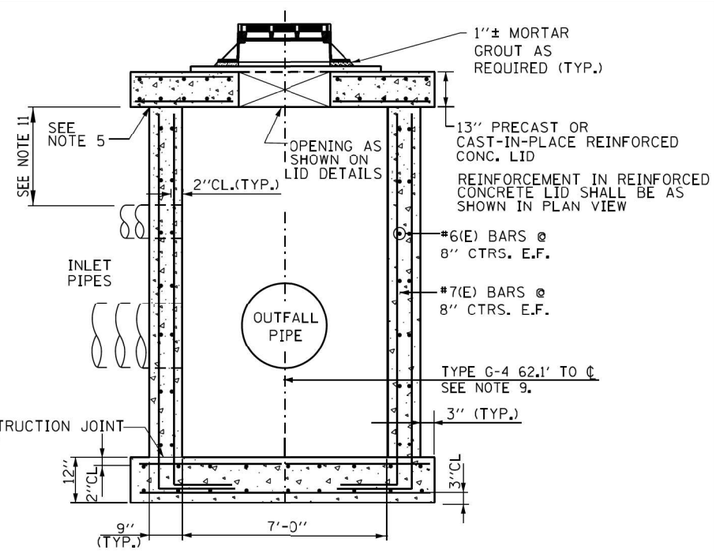


LIFTING LOOP DETAIL

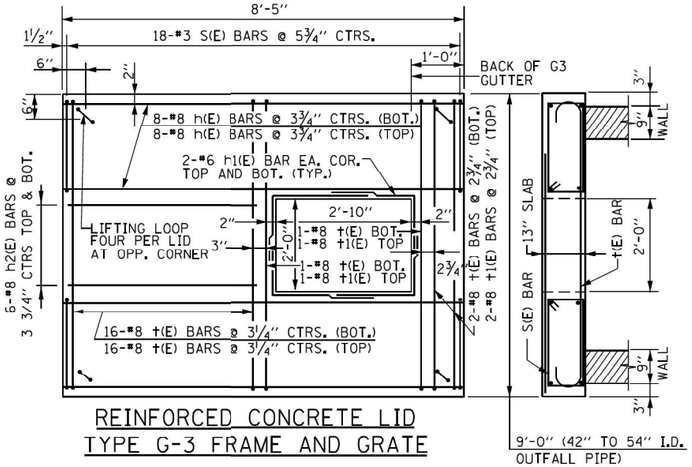
LIFTING LOOP TO BE ½"Ø×270Ksi STRANDS TO BE BURNED AFTER PRECAST CONCRETE LID IS SET IN PLACE.



TYPICAL REINFORCEMENT AROUND STORM SEWER PIPE

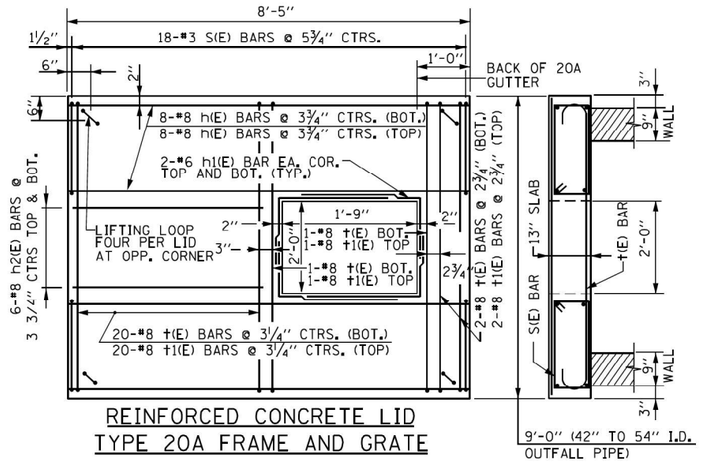


SECTION B-B



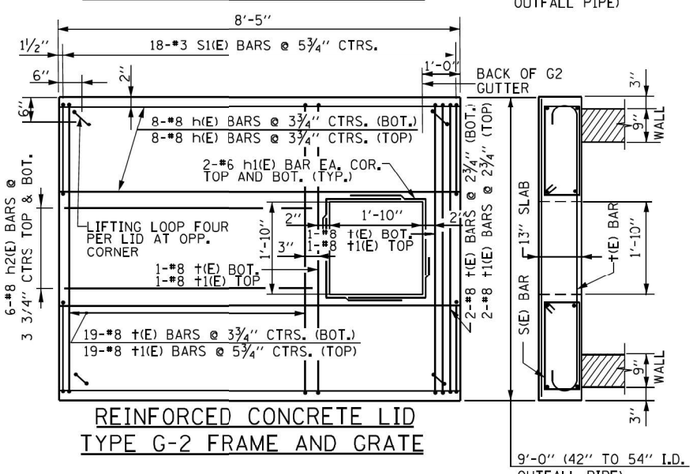
REINFORCED CONCRETE LID TYPE G-3 FRAME AND GRATE

9'-0" (42" TO 54" I.D. OUTFALL PIPE)



REINFORCED CONCRETE LID TYPE 20A FRAME AND GRATE

9'-0" (42" TO 54" I.D. OUTFALL PIPE)



REINFORCED CONCRETE LID TYPE G-2 FRAME AND GRATE

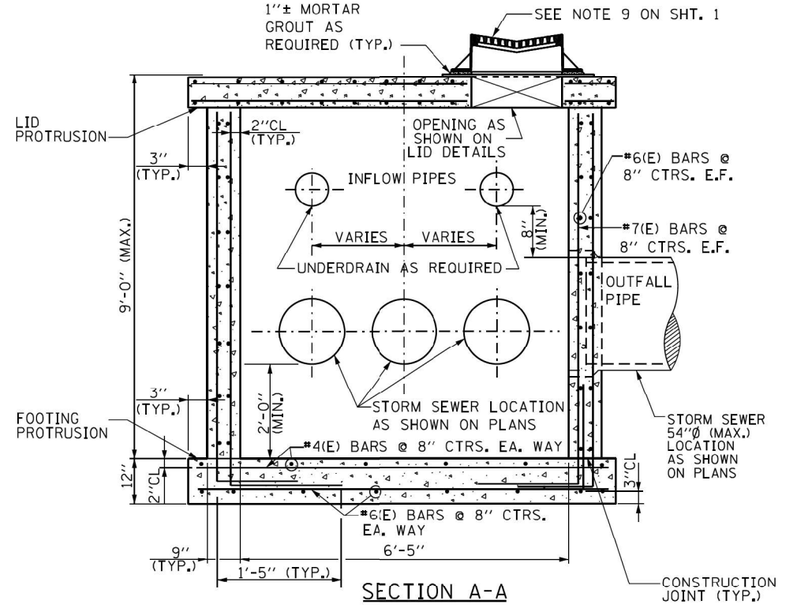
9'-0" (42" TO 54" I.D. OUTFALL PIPE)

APPROVED BY: Manar Nashif, CHIEF ENGINEERING OFFICER — DATE: 03/01/2024

CATCH BASIN TYPE G-5

NOTES:

1. SEE SHEET 1 OF THIS SERIES FOR ADDITIONAL NOTES.
2. CATCH BASINS TYPE G-5 SHALL BE USED IN TANGENT SECTIONS AND ON THE LOW SIDE OF SUPERELEVATED PAVEMENT.
3. CATCH BASINS TYPE G-5 SHALL BE PROVIDED WITH A REINFORCED CONCRETE SLAB TOP AS DETAILED ON THIS DRAWING.
4. CATCH BASINS TYPE G-5 SHALL BE USED WHEN GUTTER, TYPE G-3 IS PROVIDED.
5. MORTAR OR SEALER SHALL BE USED WHEN A PRECAST REINFORCED CONCRETE LID IS USED.
6. FRAME AND GRATE RIM ELEVATION AND OFFSET MEASURED AT THE EDGE OF SHOULDER.
7. 54"Ø MAX. OUTFALL PIPE FOR TYPE G-5 CATCH BASIN.
8. ALL CONCRETE SHALL BE CLASS SI CONCRETE.
9. DISTANCE FROM ℄ OUTFALL PIPE TO ℄ ROADWAY TO BE VERIFIED BY ENGINEER.
10. THE CONTRACTOR SHALL CLEARLY MARK EACH CATCH BASIN WITH "ILLINOIS TOLLWAY", CONTRACT NUMBER, STRUCTURE NUMBER, PRODUCER NAME AND DATE OF MANUFACTURE. THIS INFORMATION SHALL BE MARKED ON THE OUTSIDE FACE OF THE STRUCTURE IN A VISIBLE SURFACE AS DESIGNATED BY THE ENGINEER. THE MARKING SHALL BE PAINTED/STAMPED IN THE STRUCTURE WITH WATERPROOF PAINT/INK OR RECESSED IN THE STRUCTURE BY 1/2". THE LETTERS SHALL BE CAPITALS, NOT LESS THAN 2 IN. AND NOT MORE THAN 3 IN. IN HEIGHT.
11. A MINIMUM OF 9" OF MONOLITHIC REINFORCED CONCRETE SHALL BE MAINTAINED ABOVE PIPE PENETRATION HOLES.



SECTION A-A

SHEET 3 OF 4

Illinois Tollway

CATCH BASINS TYPE G AND TYPE G-3 MODIFIED, FRAMES AND GRATES

STANDARD B8-09

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AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

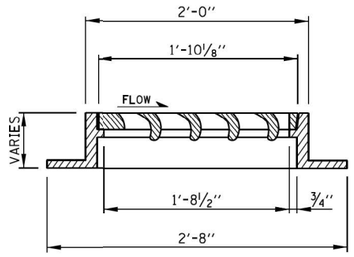
USER NAME = Jacqueline,Ng	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

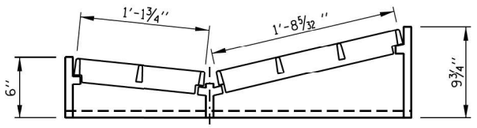
TOLLWAY STANDARDS

SCALE: | SHEET 3 OF 4 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	134
		CONTRACT NO. 62U90		
		ILLINOIS	FED. AID PROJECT	



SECTION T-T



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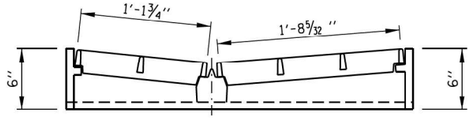
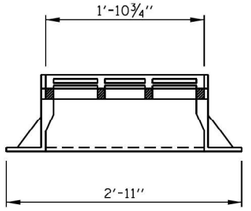
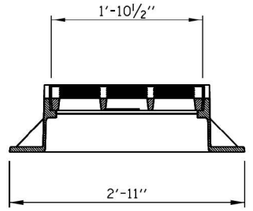


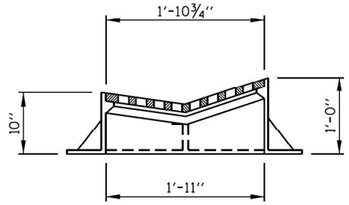
SECTION W-W



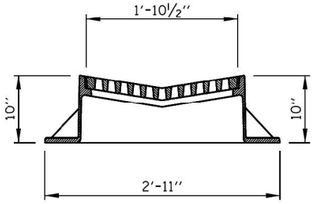
SECTION Y-Y



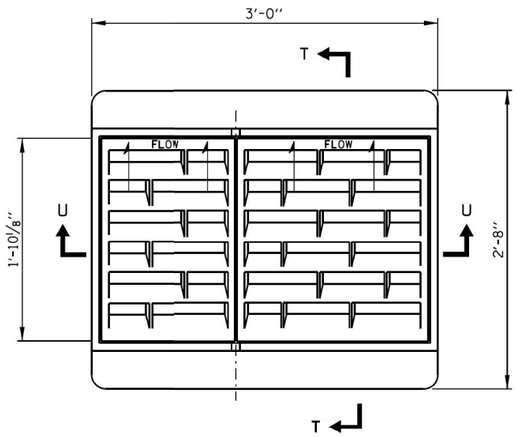
SECTION S-S



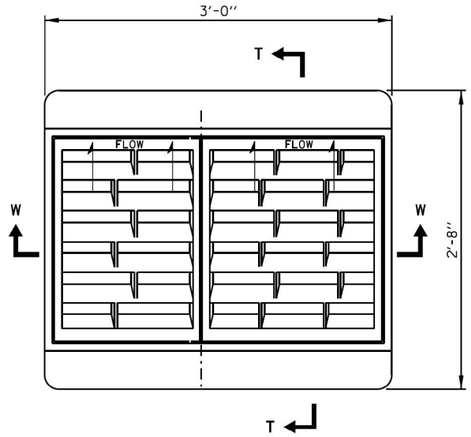
SECTION Z-Z



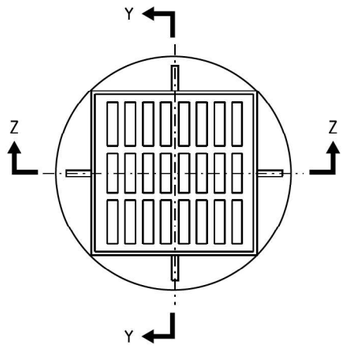
SECTION V-V



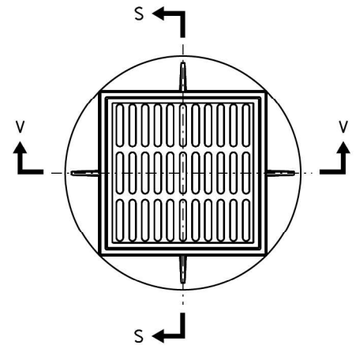
TYPE C-3 FRAME & CRATE



TYPE G-3, MODIFIED
FRAME & GRATE



TYPE G-2 FRAME & GRATE



TYPE G-2 MODIFIED
FRAME & GRATE

SHEET 4 OF 4

NOTE:
SEE SHEET 1 OF THIS SERIES FOR NOTES.

APPROVED BY: Manar Nashif, CHIEF ENGINEERING OFFICER — DATE: 03/01/2024

Illinois Tollway

CATCH BASINS TYPE G AND TYPE G-3 MODIFIED, FRAMES AND GRATES

STANDARD B8-09

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline.Ng	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLLWAY STANDARDS

SCALE: | SHEET 4 OF 4 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	135
		CONTRACT NO. 62U90		
	ILLINOIS FED. AID PROJECT			

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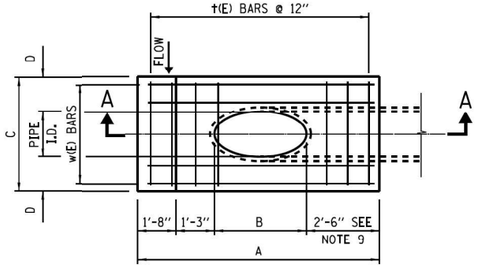
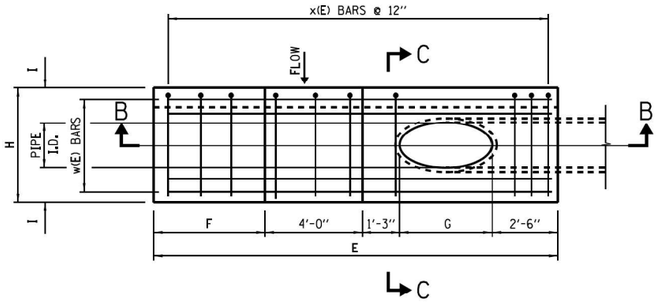
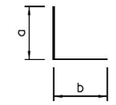


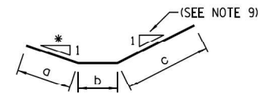
PLAN I



PLAN II



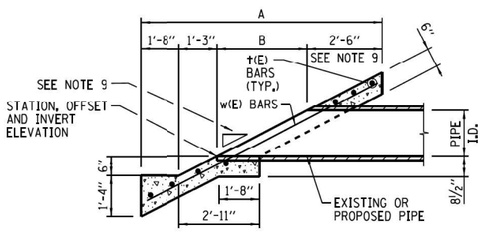
x(E) BARS



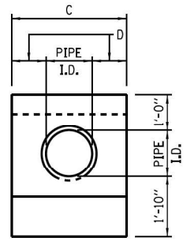
w(E) BARS

NOTES:

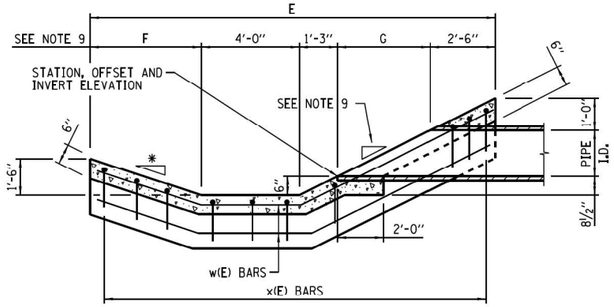
1. SLOPED HEADWALL TYPES I AND II SHALL BE CONSTRUCTED FLUSH WITH EXISTING OR PROPOSED SLOPE.
2. CLASS SI CONCRETE SHALL BE USED THROUGHOUT.
3. ALL REINFORCEMENT BARS SHOWN SHALL BE EPOXY COATED (E).
4. BAR BENDING DETAILS ARE DIMENSIONED OUT TO OUT OF BARS.
5. ALL EXPOSED EDGES SHALL HAVE A ¾" CHAMFER. CHAMFER ON VERTICAL EDGES SHALL BE CONTINUED A MINIMUM OF ONE FOOT BELOW THE FINISHED GROUND LINE.
6. COVER FROM THE FACE OF CONCRETE TO FACE OF REINFORCEMENT BARS SHALL BE 3" FOR SURFACES FORMED AGAINST EARTH AND 2" FOR ALL OTHER SURFACES UNLESS OTHERWISE SHOWN.
7. CARE SHALL BE EXERCISED IN REMOVING ANY LENGTH OF EXISTING PIPE SO THE REMAINING PIPE IS UNDAMAGED AND FULLY FUNCTIONING.
8. ALL SLOPES ARE EXPRESSED AS UNITS OF VERTICAL DISPLACEMENT TO UNITS OF HORIZONTAL DISPLACEMENT (V:H).
9. SLOPED HEADWALLS, TYPES I AND II TO BE USED ONLY FOR SLOPES STEEPER THAN 1:3. DIMENSIONS AND QUANTITIES SHOWN ARE BASED ON A 1:2.5 SLOPE (EXISTING AND PROPOSED).
10. I.D. DENOTES INSIDE DIAMETER OF PIPE. O.D. DENOTES OUTSIDE DIAMETER OF PIPE.



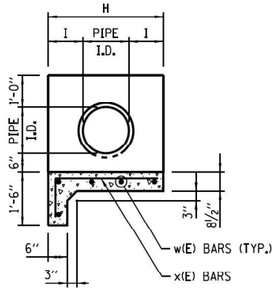
SECTION A-A



ELEVATION



SECTION B-B



SECTION C-C

* MATCH EXISTING OR PROPOSED SLOPE. SEE NOTE 9

TABLES FOR DIMENSIONS, REINFORCEMENT AND QUANTITIES FOR ONE SLOPED HEADWALL TYPE I

SLOPED HEADWALL DIMENSION TABLE - TYPE I				
PIPE I.D.	A	B	C	D
6"	6'-8"	1'-3"	2'-6"	1'-0"
12"	7'-11"	2'-6"	3'-0"	1'-0"
15"	8'-7"	3'-2"	3'-9"	1'-3"
18"	9'-2"	3'-9"	4'-6"	1'-6"

PIPE I.D.	REINFORCEMENT BARS		
	MARK(E)	NO. & SIZE	LENGTH
6"	†6	7-#4	2'-2"
	w6	4-#4	6'-8"
12"	†12	7-#4	2'-8"
	w12	4-#4	8'-2"
15"	†15	7-#4	3'-5"
	w15	4-#4	8'-11"
18"	†18	7-#4	4'-2"
	w18	4-#4	9'-6"

DESIGN NO.	INSIDE DIA. OF PIPE	CONC. 1 HDWL. (CU. YD.)	REINF. BARS. 1 HDWL. (POUND)
F-6-2	6"	0.5	29
F-12-2	12"	0.6	35
F-15-2	15"	0.8	40
F-18-2	18"	1.0	45

SLOPED HEADWALL TYPE I

TABLES FOR DIMENSIONS, REINFORCEMENT AND QUANTITIES FOR ONE SLOPED HEADWALL TYPE II

SLOPED HEADWALL DIMENSION TABLE - TYPE II					
PIPE I.D.	E	F	G	H	I
12"	14'-0"	3'-9"	2'-6"	3'-0"	1'-0"
15"	14'-8"	3'-9"	3'-2"	3'-9"	1'-3"
18"	15'-3"	3'-9"	3'-9"	4'-6"	1'-6"

PIPE I.D.	REINFORCEMENT BARS					
	MARK(E)	NO. & SIZE	LENGTH	a	b	c
12"	x12	10-#4	3'-6"	2'-6"	1'-0"	---
	w12	5-#4	14'-4"	3'-10"	4'-0"	6'-6"
15"	x15	10-#4	4'-3"	3'-3"	1'-0"	---
	w15	5-#4	15'-1"	3'-10"	4'-0"	7'-3"
18"	x18	10-#4	5'-0"	4'-0"	1'-0"	---
	w18	5-#4	15'-8"	3'-10"	4'-0"	7'-10"

DESIGN NO.	INSIDE DIA. OF PIPE	CONC. 1 HDWL. (CU. YD.)	REINF. BARS. 1 HDWL. (POUND)
E-12-2	12"	1.2	75
E-15-2	15"	1.6	82
E-18-2	18"	1.7	89

SLOPED HEADWALL TYPE II

APPROVED BY: Paul Kovacs, CHIEF ENGINEERING OFFICER — DATE: 02/07/2012

DATE	REVISIONS
03-31-2017	REVISED REINFORCEMENT BARS, TABLES
03-11-2015	REVISED REINFORCEMENT BARS, TABLES
03-31-2014	REVISED CONCRETE QUANTITIES
	REINFORCEMENT STEEL

Illinois Tollway

SLOPED HEADWALLS TYPE I AND TYPE II

STANDARD B9-04

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline.Ng	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLLWAY STANDARDS

SCALE: | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	136
		CONTRACT NO. 62U90		
	ILLINOIS	FED. AID PROJECT		

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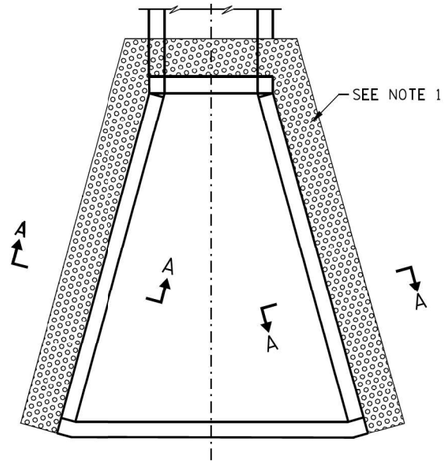
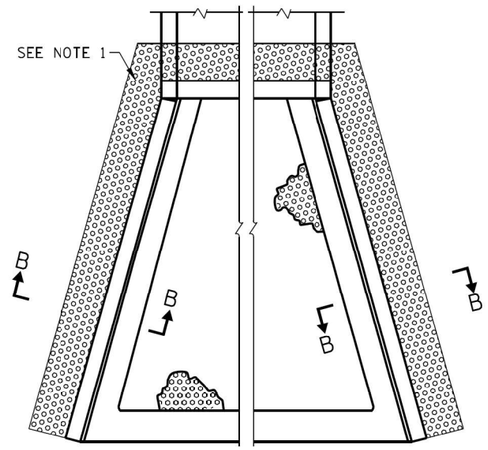
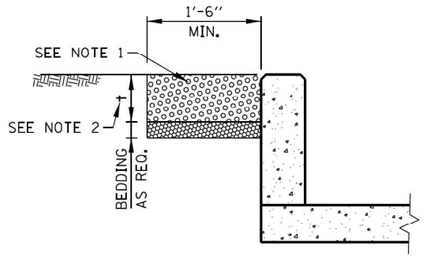


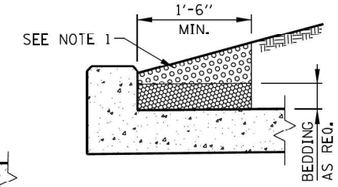
PLAN-0° SKEW, H ≤ 4'



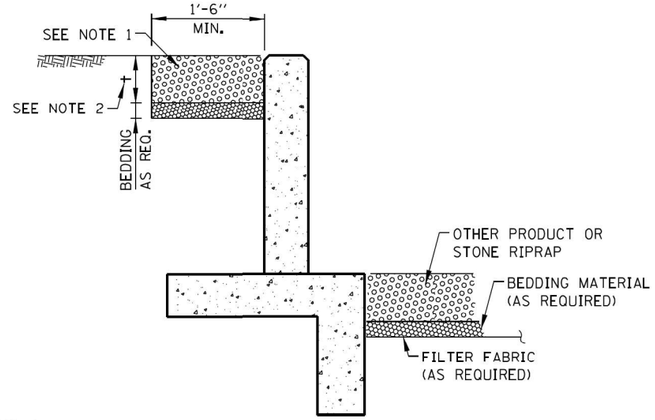
PLAN-0° SKEW, H ≤ 8'



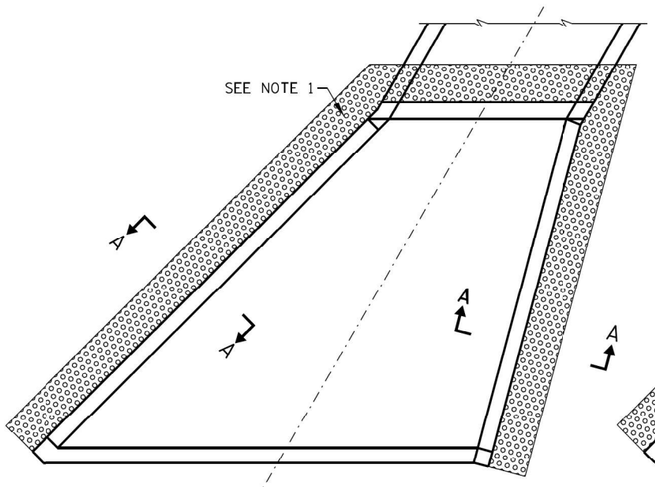
SECTION A-A



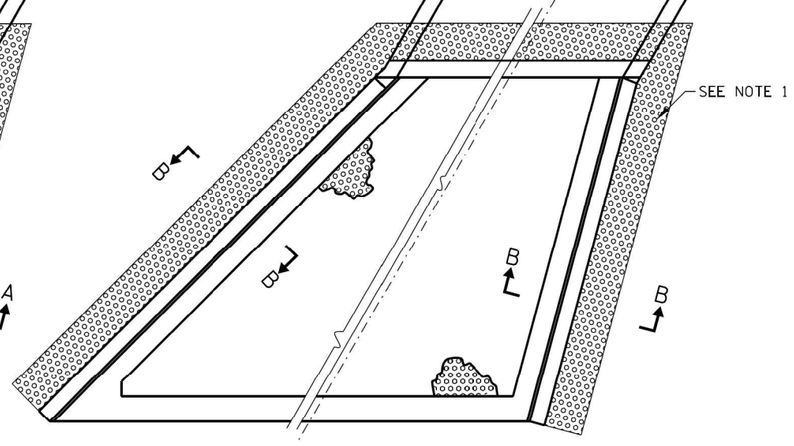
SECTION AT HEADWALL



SECTION B-B



PLAN-SKEW, H ≤ 4'



PLAN-SKEW, H ≤ 8'

NOTES:

1. THE PREFERRED METHOD FOR ACHIEVING EROSION PROTECTION AT END SECTIONS SHOULD BE THROUGH THE USE OF PRODUCTS THAT PROMOTE REVEGETATION WITHIN THE AREA OF CONCERN.
2. THICKNESS "t" WILL BE DETERMINED BY THE MANUFACTURER'S RECOMMENDATION FOR THE PRODUCT USED.
3. EROSION PROTECTION PLACEMENT SHALL BE INSTALLED FLUSH WITH ADJACENT GRADE.
4. FOR USE WITH STANDARDS B10 TO B18.
5. STONE RIPRAP SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS AND DRAINAGE DESIGN MANUAL.

APPROVED BY: Paul Kovacs, CHIEF ENGINEERING OFFICER — DATE: 03/01/2010

DATE	REVISIONS
03-11-2015	REVISED NOTES
03-01-2010	REVISED EROSION PROTECTION AND NOTES

Illinois Tollway

EROSION PROTECTION

STANDARD B19-02

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline.Ng	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLLWAY STANDARDS

SCALE: | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	137
		CONTRACT NO. 62U90		
	ILLINOIS FED. AID PROJECT			

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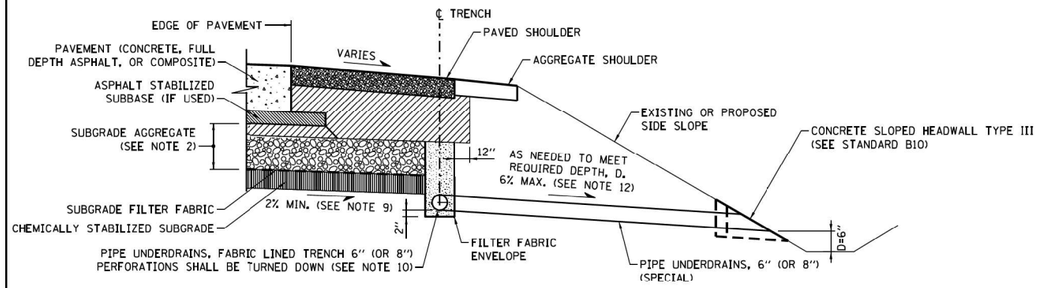
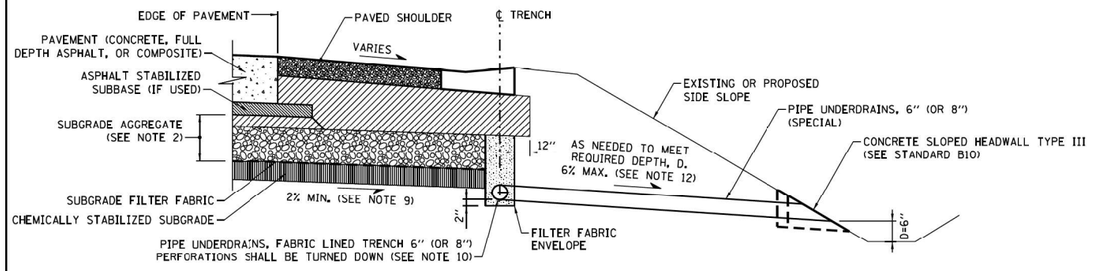
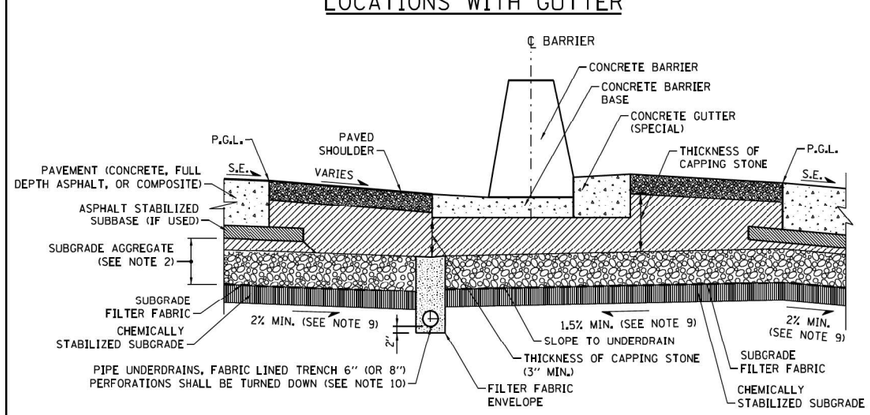


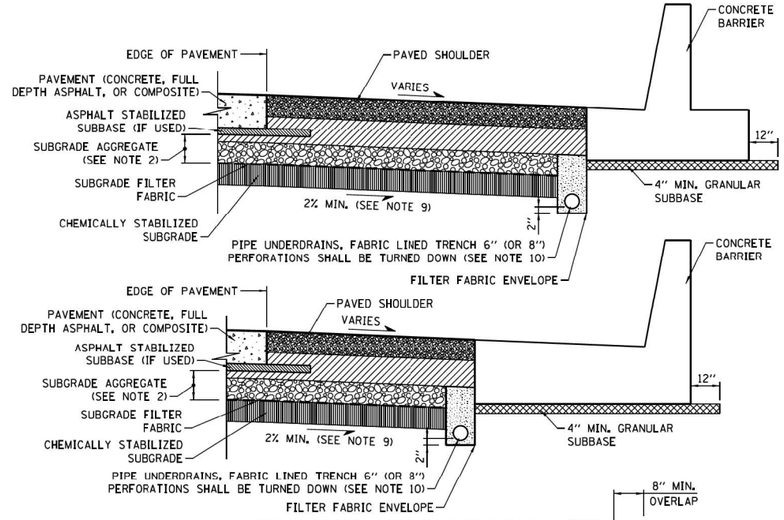
LOCATIONS WITHOUT GUTTER



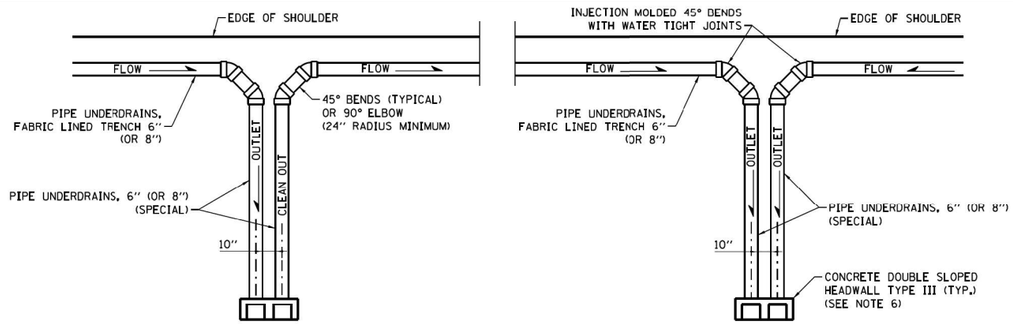
LOCATIONS WITH GUTTER



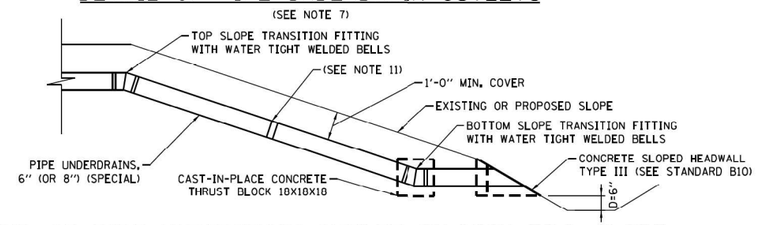
LOCATIONS WITH VARIABLE HEIGHT DOUBLE FACE BARRIER



LOCATIONS WITH BARRIER



DETAIL OF PIPE UNDERDRAIN OUTLETS

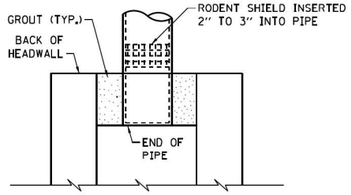


DETAIL OF PIPE UNDERDRAIN OUTLET ON HIGH FILL SLOPE

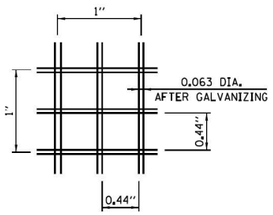
NOTES FOR PIPE UNDERDRAIN

1. FOR NEW CONSTRUCTION OR WIDENING PROJECTS, THE PIPE UNDERDRAIN INSTALLATION SHALL OCCUR AFTER SUBGRADE HAS BEEN PREPARED AND AFTER LIFT OF PGE BASE IS PLACED AND BEFORE 3" AND VARIES CA-6 CAPPING STONE IS PLACED. FOR PAVEMENT RUBBLIZATION PROJECTS, THE PIPE UNDERDRAIN SHALL BE INSTALLED PRIOR TO RUBBLIZATION.
2. SUBGRADE AGGREGATE SHALL CONSIST OF A 3" AND VARIES CA-6 CAP ABOVE A PGE BASE, THICKNESS AS NOTED IN THE PLANS.
3. ON SUPERELEVATED CURVES PLACE LONGITUDINAL UNDERDRAIN ON LOW SIDE ONLY.
4. IN AREAS WHERE ROADWAY LONGITUDINAL GRADE IS LESS THAN 0.5%, DIMENSION WILL INCREASE AS NECESSARY TO MAINTAIN MINIMUM 0.5% SLOPE IN PIPE UNDERDRAIN.
5. IF 500' MAXIMUM DISTANCE IS EXCEEDED, PIPE UNDERDRAIN SHALL BE INCREASED TO 8" DIAMETER AND TRENCH WIDTH INCREASED TO 16".
6. AT OUTLET LOCATIONS, PIPE UNDERDRAINS SHALL SEPARATE SUFFICIENTLY TO PROVIDE SPACE FOR TWO CONCRETE SLOPED HEADWALLS, OR TWO PIPES CAN RUN PARALLEL INTO A DOUBLE SLOPED HEADWALL.
7. IN AREAS WHERE A CLOSED DRAINAGE SYSTEM EXISTS, THE PIPE UNDERDRAIN, 6" (OR 8") (SPECIAL) SHALL DRAIN TO THE NEAREST CATCH BASIN. THE UPPER END OF A RUN ON GRADE SHALL ALSO BE CONNECTED TO A CATCH BASIN TO BE USED AS A CLEANOUT.
8. THE OUTLET END OF THE SUBDRAIN SHALL BE PROTECTED BY A PERMANENT RODENT SHIELD. THE RODENT SHIELD SHALL HAVE THE CONFIGURATION SHOWN AND BE CONSTRUCTED FROM HOT DIP GALVANIZED STEEL INDUSTRIAL WIRE CLOTH 3x3 MESH. 0.063"x0.063" WIRE SIZE IN ACCORDANCE WITH AASHTO M232 (ASTM A153).
9. BOTTOM OF SUBGRADE AGGREGATE SLOPE FROM ROADWAY PROFILE GRADE SHALL NOT BE LESS THAN 1.5% TOWARD THE PIPE UNDERDRAIN IN SUPERELEVATED SECTIONS.
10. A CA 16 BACKFILLED TRENCH SHALL BE USED WITH THE INSTALLATION OF A PIPE UNDERDRAIN SYSTEM, EXCEPT THE PERCENT PASSING THE NO. 16 (1.18 mm) SIEVE SHALL BE 4 ± 4 PERCENT.
11. ALL JOINTS IN SLOPE DRAIN SYSTEM SHALL BE WATERTIGHT WITH A WELDED INTERNAL CYLINDER ON THE SPIGOT END OF THE PIPE. FIELD JOINTS SHALL BE WRAPPED WITH A DOUBLE WIDE MARMAC COUPLER, OR EQUIVALENT.
12. IF REQUIRED PIPE UNDERDRAIN SLOPE EXCEEDS 6%, PIPE UNDERDRAIN OUTLET ON HIGH FILL SLOPE DETAIL SHALL APPLY.

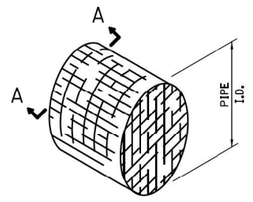
MAXIMUM ALLOWABLE DRAINAGE DISTANCE TO OUTLET OR SEPARATION DISTANCE BETWEEN OUTLETS	
ROADWAY PROFILE GRADE (%)	DISTANCE
≤ 1	250 FT.
BETWEEN 1 AND 2	375 FT.
≥ 2	500 FT. (NOTE 5)



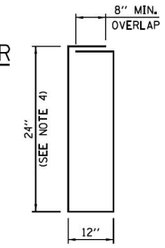
RODENT SHIELD PLACEMENT



SECTION A-A



DETAIL OF RODENT SHIELD



FILTER FABRIC ENVELOPE

APPROVED BY: Paul Kovacs, CHIEF ENGINEERING OFFICER — DATE: 06/01/2009

Illinois Tollway

DATE	REVISIONS
03-01-2021	ADDED DETAIL FOR BARRIER
03-01-2020	ADDED COMPOSITE PAVEMENT AS OPTION
03-01-2019	REVISED PIPE UNDERDRAIN OUTLETS
	ADDED DETAIL FOR HIGH FILL SLOPE

PIPE UNDERDRAINS

STANDARD B24-09

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline.Ng	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLLWAY STANDARDS

SCALE: | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	138
		CONTRACT NO. 62U90		
	ILLINOIS FED. AID PROJECT			

MODEL: Default
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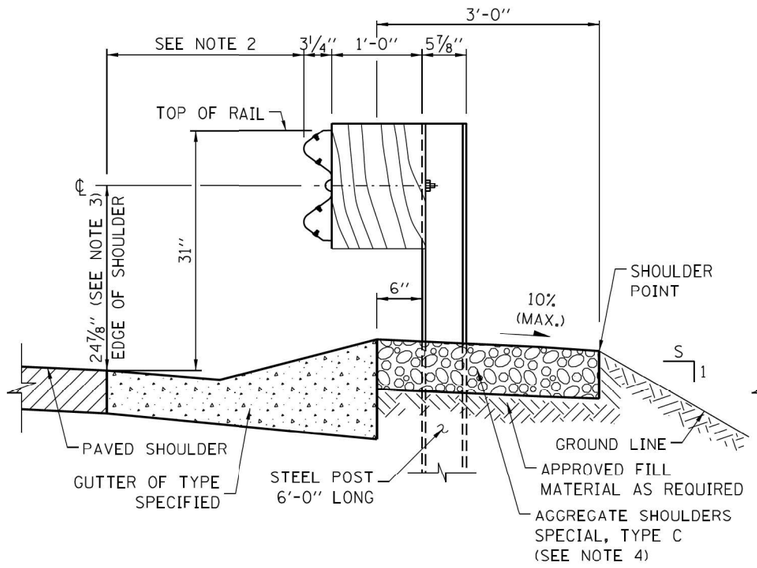
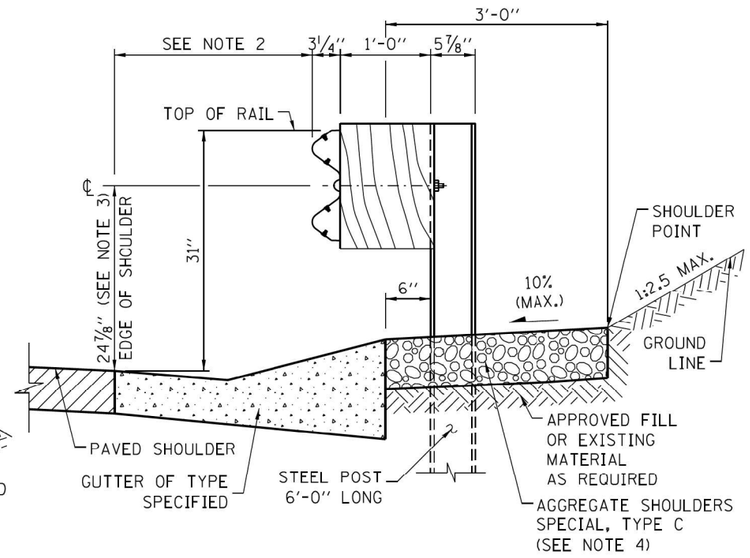
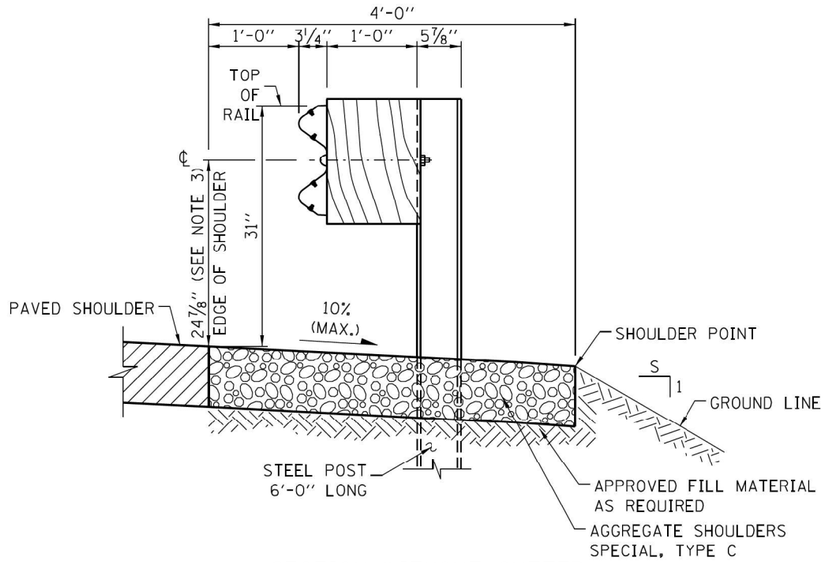


FILL SECTION WITH GUTTER



CUT SECTION WITH GUTTER



SECTION WITHOUT GUTTER

NOTES:

1. 1'-0" OFFSET FROM EDGE OF PAVED SHOULDER TO FACE OF RAIL IS TYPICAL FOR ALL INSTALLATIONS WITHOUT GUTTER EXCEPT AS OTHERWISE DETAILED IN THE PLAN DRAWINGS.
2. WHERE GUTTERS SUCH AS TYPE G-2, G-3 ARE REQUIRED IN FRONT OF THE GUARDRAIL, THE POSTS SHALL BE LOCATED 6" BEHIND THE GUTTER, OR AS OTHERWISE DETAILED IN THE PLANS. THE OFFSET FROM THE EDGE OF SHOULDER TO THE FACE OF THE GUARDRAIL SHALL BE AS SHOWN ON STANDARD B28.
3. THE 24 7/8" TYPICAL RAIL HEIGHT IS MEASURED FROM EXISTING SURFACE 1'-0" IN FRONT OF RAIL, OR FROM EDGE OF SHOULDER/EDGE OF GUTTER WHEN EDGE IS MORE THAN 1'-0" IN FRONT OF RAIL TO CENTER OF RAIL.
4. WHERE GUTTER IS PROPOSED WITH GUARDRAIL, A 6" MINIMUM THICKNESS OF AGGREGATE SHOULDERS SPECIAL, TYPE C SHALL BE PLACED BEHIND GUTTER. FOR GUARDRAIL WITHOUT GUTTER, AGGREGATE SHOULDER, TYPE C, OF THE SAME THICKNESS AS PAVED SHOULDER SHALL BE PLACED FROM THE EDGE OF PAVED SHOULDER SLOPING AWAY TO A 6" MIN. THICKNESS.
5. GUARDRAIL POSTS SHALL NOT BE ATTACHED TO ANY STRUCTURE.
6. PLASTIC BLOCK-OUTS SHALL NOT BE ALLOWED AS A SUBSTITUTE FOR WOOD BLOCK-OUTS ON NEW INSTALLATIONS.
7. ALL SLOPES ARE EXPRESSED AS UNITS OF VERTICAL DISPLACEMENT TO UNITS OF HORIZONTAL DISPLACEMENTS (V:H).
8. UNDER NO CIRCUMSTANCES SHALL AN EXISTING GUARDRAIL, THAT WAS DESIGNED USING A PREVIOUS STANDARD, BE EXTENDED, ATTACHED TO OR MODIFIED IN ANYWAY FROM ITS ORIGINAL DESIGN. IF ANY MODIFICATION IS REQUIRED AND A PROPER BARRIER WARRANT HAS BEEN COMPLETED, THE ENTIRE BARRIER INSTALLATION SHALL BE COMPLETELY REMOVED AND REPLACED WITH A NEW SYSTEM THAT CONFORMS TO THE CURRENT STANDARD.
9. THE MGS GUARDRAIL SYSTEM WITH STANDARD POST SPACING HAS BEEN PERFORMANCE-TESTED FOR TL-3 CRASH WORTHINESS UNDER PROCEDURES DEFINED IN THE AASHTO MANUAL FOR ASSESSING SAFETY HARDWARE (MASH). OTHER VARIATIONS OF THE MGS GUARDRAIL SYSTEM HAVE BEEN PERFORMANCE-TESTED FOR TL-3 CRASH WORTHINESS UNDER PROCEDURES OUTLINED IN THE NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM (NCHRP) REPORT 350. NO MODIFICATION TO THIS STANDARD DRAWING SHALL BE PERMITTED.
10. GUARDRAIL POSTS SHALL NOT BE INSTALLED IN CONCRETE OR ASPHALT PAVEMENT. WHEN NECESSARY USE LEAVE-OUT DETAIL ON SHEET 3 OF 4 OF THIS SERIES.

GUARDRAIL INSTALLATION DETAILS

APPROVED BY: Marza Nashif, CHIEF ENGINEERING OFFICER — DATE: 03/01/2024

Illinois Tollway

DATE	REVISIONS
3-01-2024	REMOVE 9' POSTS AND REQUIRE FULL WIDTH AGGREGATE SHOULDER
3-01-2021	CHANGED DRAINAGE CONFLICTS TO OMITTED POST, SHEET 4
3-01-2020	MODIFIED NOTE 11 AND HEADING OF TABLE 2B

GALVANIZED STEEL PLATE BEAM GUARDRAIL

STANDARD C1-13

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline.Ng	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLLWAY STANDARDS

SCALE: | SHEET 1 OF 4 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	139
		CONTRACT NO. 62U90		
	ILLINOIS	FED. AID PROJECT		

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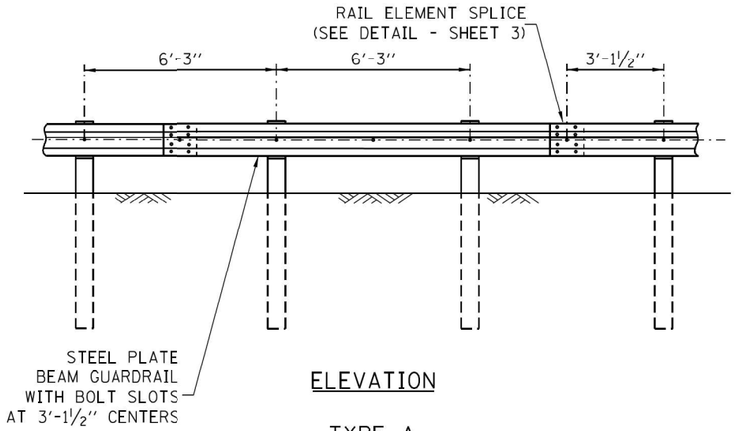
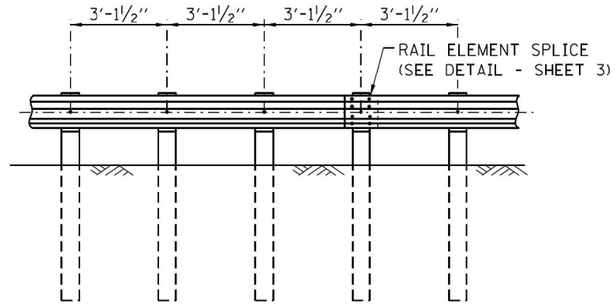


ELEVATION

TYPE A

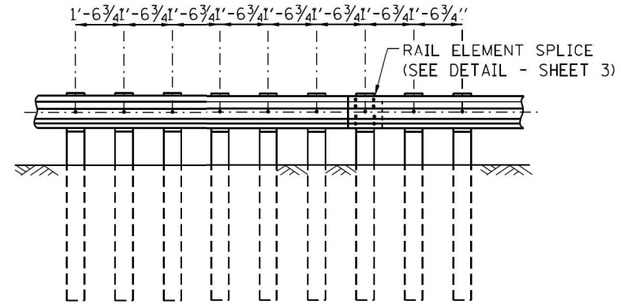
6'-3" TYPICAL POST SPACING



ELEVATION

TYPE B

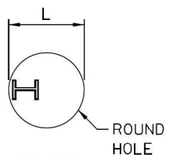
3'-1½" ½ POST SPACING



ELEVATION

TYPE C

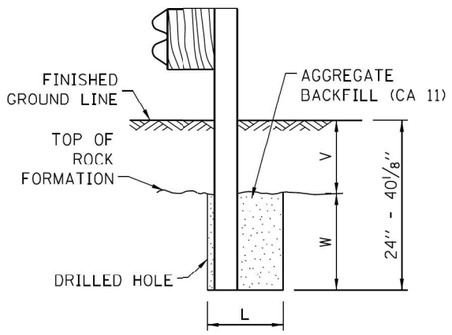
1'-6¾" ¼ POST SPACING



PLAN

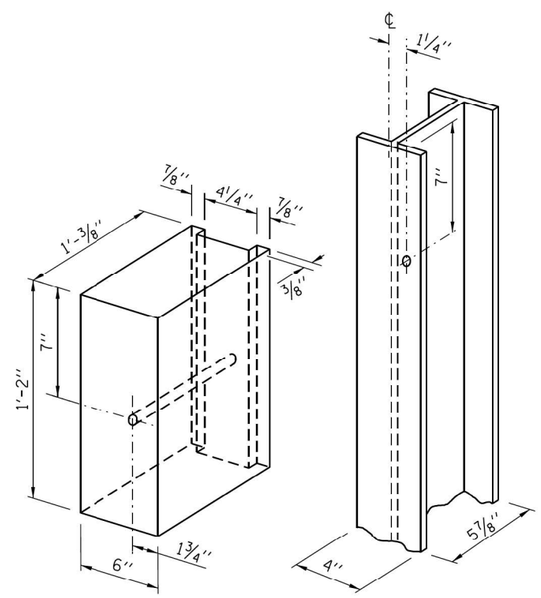
TABLE 1		
V	W	L
0 - 16⅛"	24"	21"
> 16⅛" - 28⅛"	12"	8"
> 28⅛" - 40⅛"	12" - 0 (*)	8"

* V + W = 40⅛"



ELEVATION

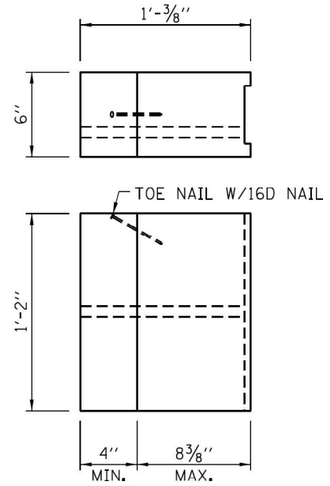
FOOTING FOR POST WHEN ROCK FORMATION IS ENCOUNTERED



NOTES:

ALL HOLES 3/4" DIA.

WOOD BLOCK-OUT AND STEEL POST DETAILS



TWO-PIECE WOOD BLOCK-OUT OPTION

APPROVED BY: Manar Nashif, CHIEF ENGINEERING OFFICER — DATE: 03/01/2024

SHEET 2 OF 4

Illinois Tollway

GALVANIZED STEEL PLATE BEAM GUARDRAIL

STANDARD C1-13

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline.Ng	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLLWAY STANDARDS

SCALE: | SHEET 2 OF 4 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	140
		CONTRACT NO. 62U90		
		ILLINOIS	FED. AID PROJECT	

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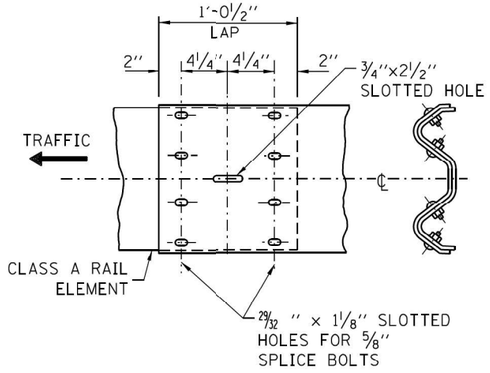
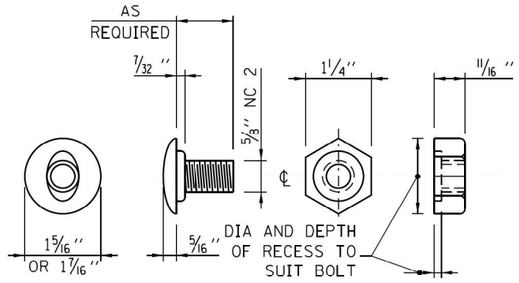
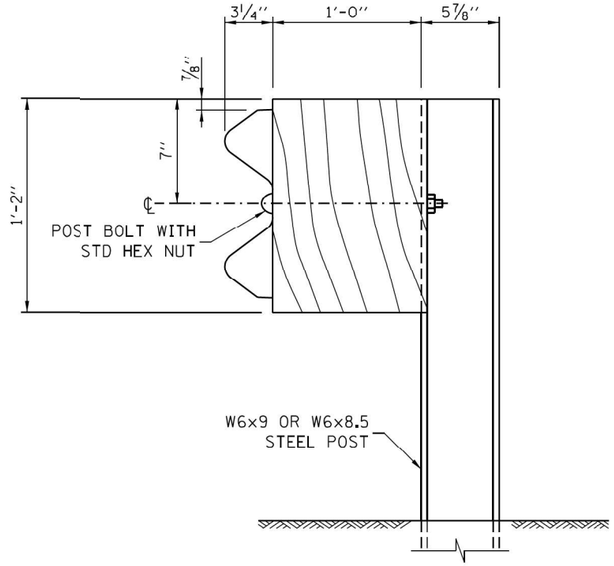


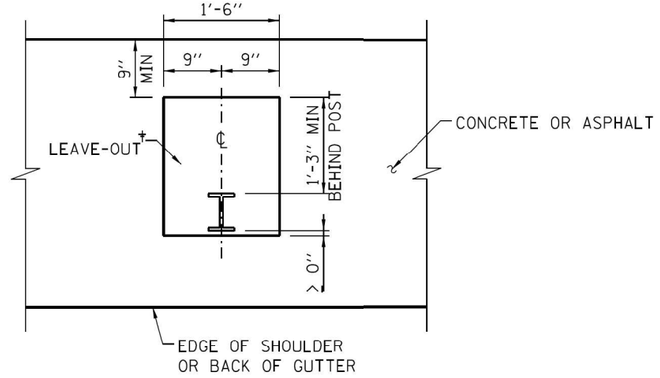
RAIL ELEMENT SPLICE



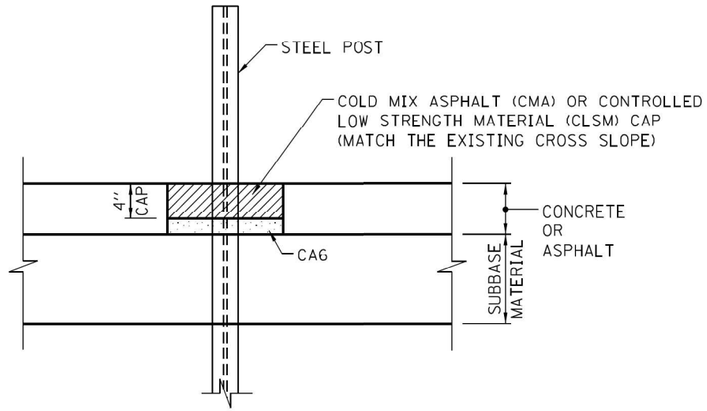
POST OR SPLICE BOLT & NUT



STEEL POST CONSTRUCTION



PLAN



ELEVATION

LEAVE-OUTS

† THE AREA AROUND THE POST THAT IS EITHER OMITTED FROM THE NEW CONSTRUCTION OR REMOVED FROM THE EXISTING CONCRETE OR ASPHALT.

APPROVED BY: Marwan Nashif, CHIEF ENGINEERING OFFICER — DATE: 03/01/2024

Illinois Tollway

GALVANIZED STEEL PLATE BEAM GUARDRAIL

STANDARD C1-13

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline.Ng	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLLWAY STANDARDS

SCALE: | SHEET 3 OF 4 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	141
		CONTRACT NO. 62U90		
	ILLINOIS FED. AID PROJECT			

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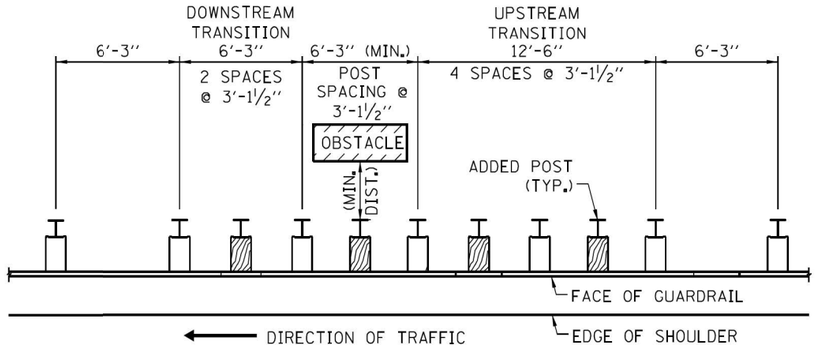
TABLE 2A
BARRIER CLEARANCE DISTANCE (MGS)
NEW CONSTRUCTION/RECONSTRUCTION

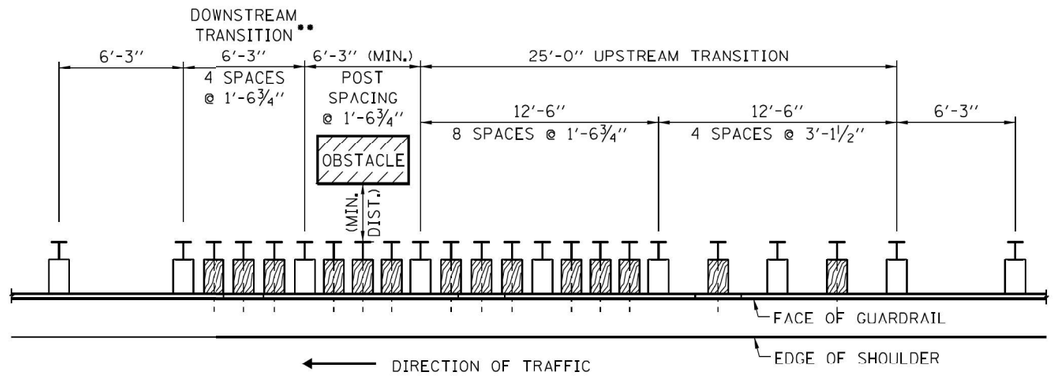
GUARDRAIL SYSTEM	POST SPACING	MINIMUM DISTANCE
TYPE A	6'-3"	39"
TYPE B ½ POST SPACING	3'-1 ½"	34"
TYPE C ¼ POST SPACING	1'-6 ¾"	26"

TABLE 2B
BARRIER CLEARANCE DISTANCE (MGS)
REHABILITATION

GUARDRAIL SYSTEM	POST SPACING	MINIMUM DISTANCE		
		EXISTING BREAKAWAY LIGHT POLES	ALL OTHER OBSTACLES	
			EXISTING GUARDRAIL	ALL NEW GUARDRAIL
TYPE A	6'-3"	20"	28"	39"
TYPE B ½ POST SPACING	3'-1 ½"	N/A	23"	34"
TYPE C ¼ POST SPACING	1'-6 ¾"	N/A	14"	26"



TRANSITION TO ½-POST SPACING



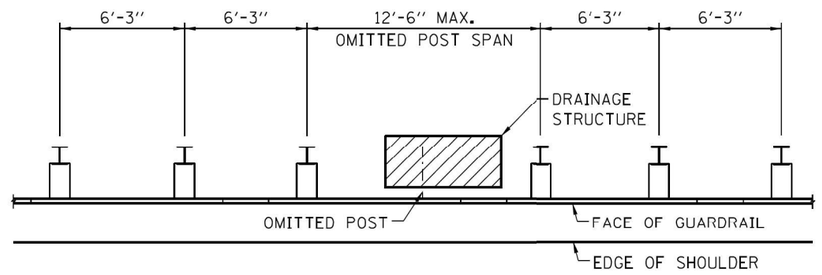
TRANSITION TO ¼-POST SPACING

** WHEN LENGTH OF OBSTACLES IS 1'-3" OR LESS, THE DOWNSTREAM TRANSITION SHALL BE OMITTED.

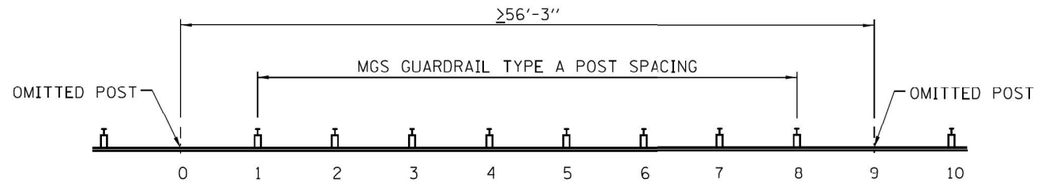
POST SPACING TRANSITIONS

NOTE: NO MODIFICATIONS OF ANY KIND TO THE TRANSITION POST SPACING ARE ALLOWED.

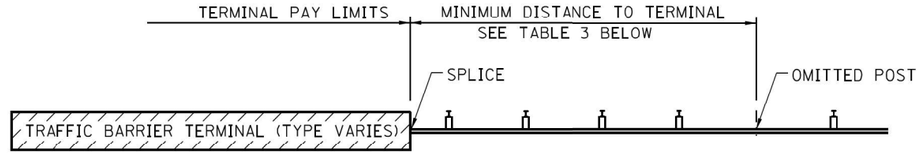
APPROVED BY: Marsa Nashif, CHIEF ENGINEERING OFFICER — DATE: 03/01/2024



TYPE A GUARDRAIL-DRAINAGE STRUCTURE CONFLICT
ONE POST OMITTED



MINIMUM ALLOWED DISTANCE BETWEEN OMITTED POSTS



MINIMUM DISTANCE TO TERMINAL FROM OMITTED POST

NOTES:

A. THE OMISSION OF A SINGLE SUPPORT POST WITHIN THE GUARDRAIL SPAN IS PERMITTED WHEN A CONFLICT EXISTS. THE MINIMUM DISTANCE BETWEEN TWO OMITTED POSTS IS 56'-3".

B. GUARDRAIL POSTS SHALL NOT BE SET BACK TO AVOID CONFLICTS WITH A DRAINAGE SUBSURFACE UTILITY.

C. THIS DETAIL ALSO APPLIES TO OTHER UNDERGROUND CONFLICTS.

D. THE OMISSION OF A SUPPORT POST IS NOT PERMITTED WITHIN A GUARDRAIL INSTALLATION WITH GUTTER.

TABLE 3
MINIMUM DISTANCE FROM
OMITTED POST TO TERMINAL LIMIT

TRAFFIC BARRIER TERMINAL	MIN. DISTANCE
TBT TYPE T1 (SP) OR TBT TYPE T1-A (SP)	15'-7½"
TBT TYPE T6 OR TBT TYPE T6B	28'-1½"
TBT TYPE T2	53'-1½"

Illinois Tollway

GALVANIZED STEEL PLATE
BEAM GUARDRAIL

STANDARD C1-13

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline,Ng	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLLWAY STANDARDS

SCALE: | SHEET 4 OF 4 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	142
		CONTRACT NO. 62U90		
		ILLINOIS	FED. AID PROJECT	

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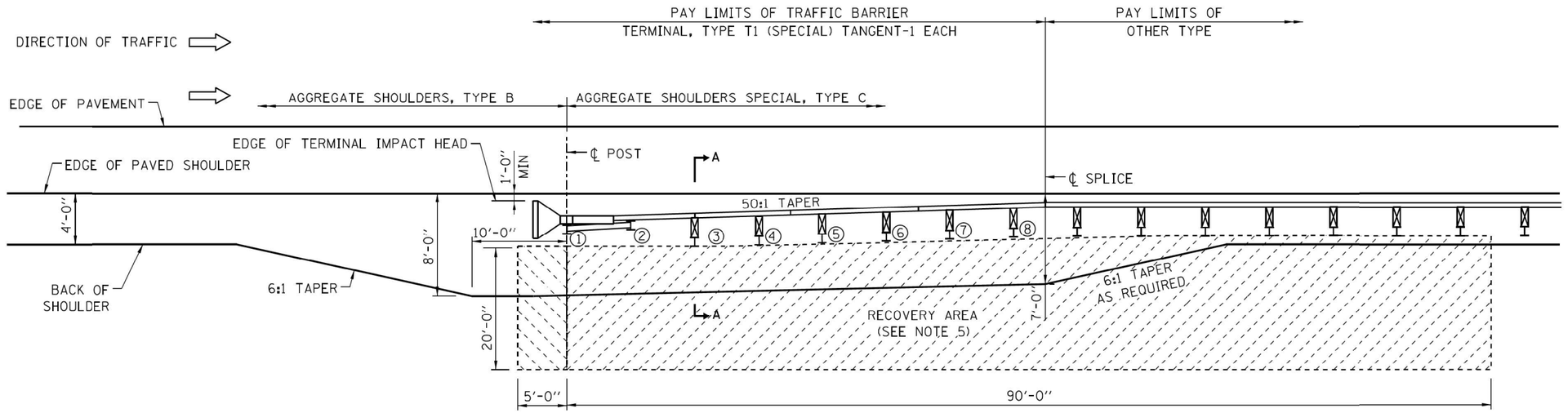
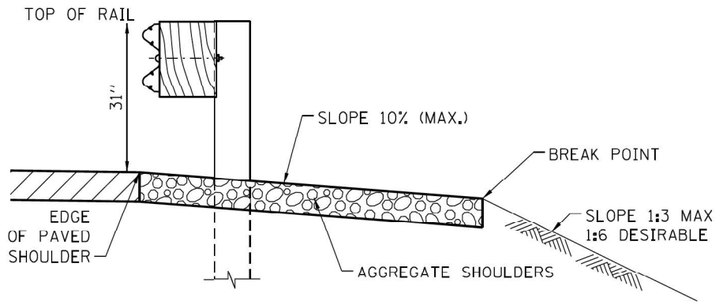


SHOULDER WIDENING TRANSITION - WITHOUT GUTTER FOR TRAFFIC BARRIER TERMINAL, TYPE T1 (SPECIAL) TANGENT



SECTION A-A

GENERAL NOTES:

1. ALL SLOPE RATIOS ARE EXPRESSED AS UNITS OF VERTICAL DISPLACEMENT TO UNITS OF HORIZONTAL DISPLACEMENT (V:H).
2. REFERENCE ILLINOIS TOLLWAY STANDARD DRAWING B28 FOR GUTTER TRANSITION, AND MINIMUM DISTANCE FROM EDGE OF PAVED SHOULDER TO FACE OF RAIL.
3. UNDER NO CIRCUMSTANCES SHALL AN EXISTING TERMINAL, THAT WAS DESIGNED USING A PREVIOUS STANDARD, BE ATTACHED TO OR MODIFIED IN ANY WAY FROM ITS ORIGINAL DESIGN. IF ANY MODIFICATION IS REQUIRED AND A PROPER BARRIER WARRANT HAS BEEN COMPLETED, THE ENTIRE BARRIER INSTALLATION SHALL BE COMPLETELY REMOVED AND REPLACED WITH A NEW SYSTEM THAT CONFORMS TO THE CURRENT STANDARD.
4. TRAFFIC BARRIER TERMINAL SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S DETAILS AND SPECIFICATIONS.
5. NO ABOVE-GROUND ROADSIDE OBSTACLE OF ANY TYPE-FIXED OR BREAKAWAY, EITHER TEMPORARY OR PERMANENT SHALL BE ALLOWED WITHIN THIS RECOVERY AREA.
6. ON TANGENT ROADWAY: TRAFFIC BARRIER TERMINAL SHALL BE INSTALLED AT A 50:1 TAPER MEASURED FROM EDGE OF TRAVELED WAY.
   ON CURVED ROADWAY: THE EDGE OF THE TERMINAL IMPACT HEAD SHALL BE OFFSET A DISTANCE FROM A POINT ON THE BACK OF THE CURVED EDGE OF PAVED SHOULDER AS SHOWN IN TABLE 1. NO CURVED W-BEAM SECTIONS ARE PERMITTED WITHIN THE TERMINAL PAY LIMITS. THE TERMINAL SHALL BE LAID OUT IN A STRAIGHT LINE.
7. TERMINAL POSTS SHALL NOT BE INSTALLED IN CONCRETE OR ASPHALT. WHEN NECESSARY USE LEAVE-OUT DETAIL SHOWN ON ILLINOIS TOLLWAY STANDARD DRAWING C1.
8. THE TERMINAL SYSTEM HAS BEEN PERFORMANCE-TESTED FOR CRASHWORTHINESS UNDER PROCEDURES DEFINED IN AASHTO MASH. NO MODIFICATION TO THIS STANDARD DRAWING SHALL BE PERMITTED.
9. WHEN GUTTER IS PRESENT, DRAINAGE STRUCTURES SHALL NOT BE INSTALLED WITHIN THE TERMINAL LIMITS, BUT SHALL BE INSTALLED UPSTREAM AND DOWNSTREAM OF THE TERMINAL AS REQUIRED.

APPROVED BY: Paul Kovacs, CHIEF ENGINEERING OFFICER — DATE: 07/01/2009

SHEET 1 OF 2

DATE	REVISIONS
3-01-2020	ADDED MOD. TO TABLE 1 & PLAN NOTE
3-01-2019	REVISED NOTES FOR MASH
3-31-2017	REVISED NOTES
3-31-2016	COMBINED G-3 & G-2
3-11-2015	REVISED NOTES
03-31-14	REVISED RECOVERY AREA DIMENSION

Illinois Tollway

SHOULDER WIDENING FOR TRAFFIC BARRIER TERMINAL, TYPE T1 (SPECIAL) TANGENT

STANDARD C6-11

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline,Ng	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLLWAY STANDARDS

SCALE: | SHEET 1 OF 2 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	143
		CONTRACT NO. 62U90		
		ILLINOIS	FED. AID PROJECT	

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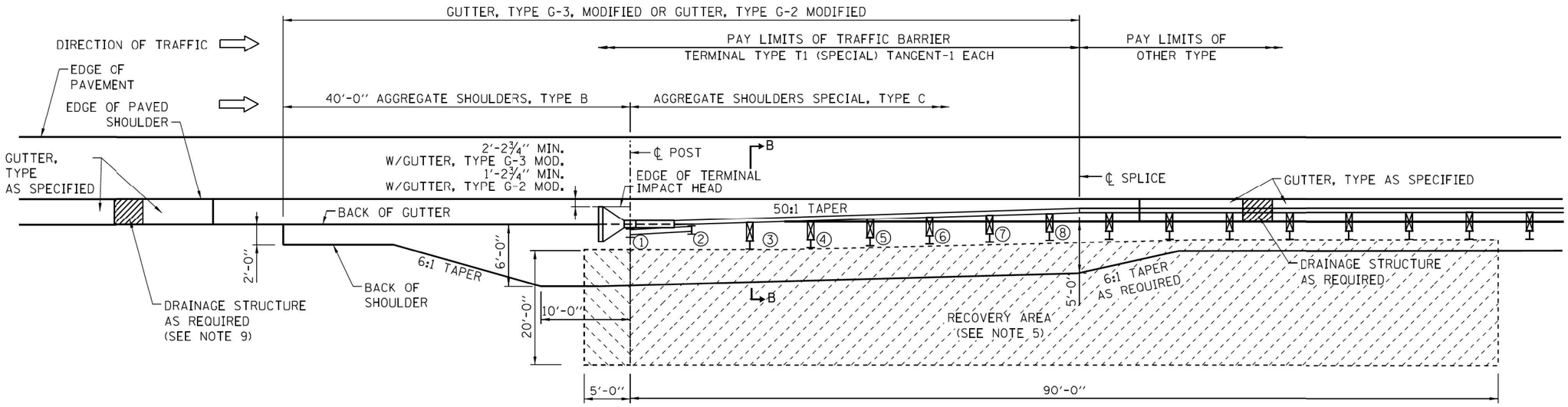
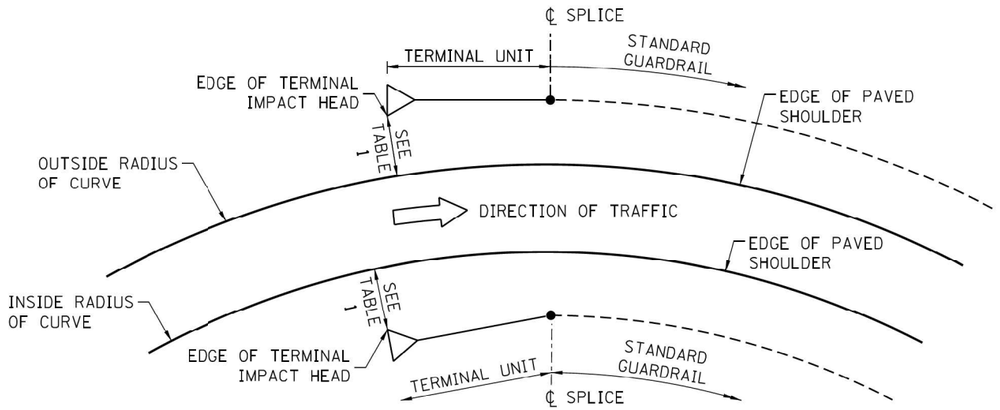
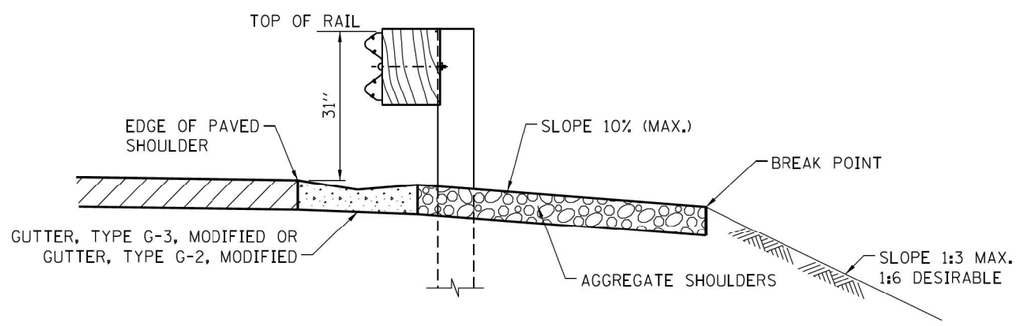


SHOULDER WIDENING TRANSITION - WITH GUTTER, TYPE G-3 OR TYPE G-2 FOR TRAFFIC BARRIER TERMINAL, TYPE T1 (SPECIAL) TANGENT



CURVED ROADWAY
TRAFFIC BARRIER TERMINAL PLACEMENT



SECTION B-B

TABLE 1

LATERAL OFFSET DIMENSION TO EDGE OF TERMINAL IMPACT HEAD		
	INSIDE RADIUS OF CURVE	OUTSIDE RADIUS OF CURVE
NO GUTTER	1'-0"	1'-0" *
GUTTER, TYPE G-2, MOD.	1'-2¾"	1'-2¾" MIN. *
GUTTER, TYPE G-3, MOD.	2'-2¾"	2'-2¾" MIN. *

(*) OFFSET DISTANCE WILL VARY BASED ON RADIUS OF HORIZONTAL CURVE AND THE TERMINAL BEING INSTALLED IN A STRAIGHT LINE.

APPROVED BY: Paul Kovacs, CHIEF ENGINEERING OFFICER — DATE: 07/01/2009

NOTES:
SEE SHEET 1 OF THIS SERIES FOR NOTES.

SHEET 2 OF 2

Illinois Tollway

SHOULDER WIDENING FOR TRAFFIC BARRIER TERMINAL, TYPE T1 (SPECIAL) TANGENT

STANDARD C6-11

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

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	DRAWN -	REVISED -
PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLLWAY STANDARDS

SCALE: | SHEET 2 OF 2 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	144
		CONTRACT NO. 62U90		
	ILLINOIS	FED. AID PROJECT		

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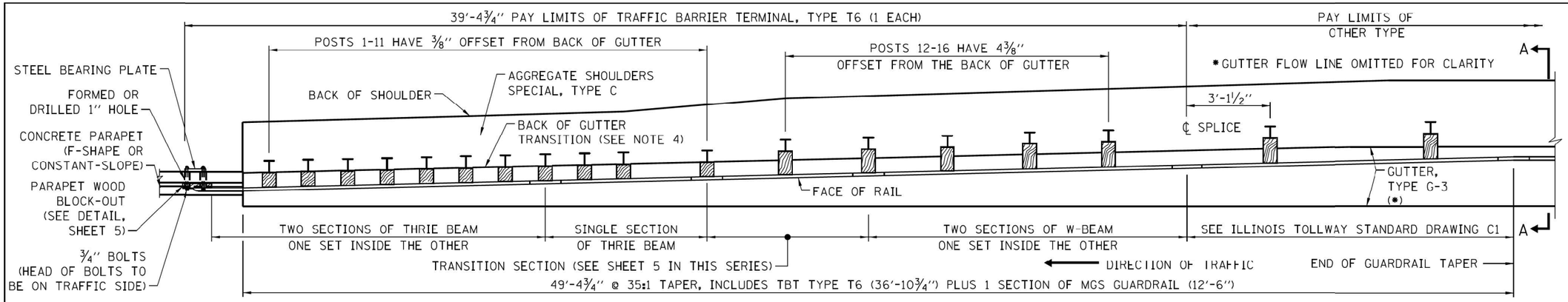

NOTES:

1. SEE ILLINOIS TOLLWAY STANDARD DRAWING C1 FOR DETAILS OF GUARDRAIL NOT SHOWN.
2. THRIE BEAM RAIL SHALL BE BOLTED TO BLOCK-OUT AT ALL POSTS.
3. THE TRAFFIC BARRIER TERMINAL, TYPE T6 IS TYPICALLY UTILIZED TO ATTACH GALVANIZED STEEL PLATE BEAM GUARDRAIL AT THE UPSTREAM END OF THE BRIDGES CONCRETE PARAPET, WHERE A ROADSIDE GUTTER IS TO BE INSTALLED.
4. SEE ILLINOIS TOLLWAY STANDARD DRAWING B3 FOR GUTTER TRANSITION AT TRAFFIC BARRIER TERMINAL, TYPE T6.
5. UNDER NO CIRCUMSTANCES SHALL AN EXISTING TERMINAL. THAT WAS DESIGNED USING A PREVIOUS STANDARD, BE ATTACHED TO OR MODIFIED IN ANYWAY FROM ITS ORIGINAL DESIGN. IF ANY MODIFICATION IS REQUIRED AND A PROPER WARRANT HAS BEEN COMPLETED, THE ENTIRE BARRIER INSTALLATION SHALL BE COMPLETELY REMOVED AND REPLACED WITH A NEW SYSTEM THAT CONFORMS TO THE CURRENT STANDARD.
6. TRAFFIC BARRIER TERMINAL, TYPE T6 SHALL BE IN ACCORDANCE WITH THE ILLINOIS TOLLWAY'S DETAILS AND SPECIFICATIONS. NO MODIFICATIONS SHALL BE PERMITTED.
7. TERMINAL POSTS SHALL NOT BE INSTALLED IN CONCRETE OR ASPHALT PAVEMENTS. WHEN NECESSARY USE LEAVE-OUT DETAIL PER ILLINOIS TOLLWAY STANDARD DRAWING C1.
8. TERMINAL POSTS TO BE INSTALLED PERPENDICULAR TO BACK OF GUTTER.
9. THE TERMINAL SYSTEM HAS BEEN PERFORMANCE-TESTED FOR CRASHWORTHINESS UNDER PROCEDURES DEFINED IN AASHTO MASH. NO MODIFICATION TO THIS STANDARD DRAWING SHALL BE PERMITTED.
10. TERMINAL BARRIER CLEARANCE DISTANCE SHALL CONFORM WITH TABLE 2 ON ILLINOIS TOLLWAY STANDARD DRAWING C1.
11. LEAVE-OUT DIMENSION BEHIND POSTS 1-6, SHALL BE A MINIMUM OF 4".
12. WHEN GUTTER IS PRESENT, DRAINAGE STRUCTURES SHALL NOT BE INSTALLED WITHIN THE TERMINAL LIMITS, BUT SHALL BE INSTALLED UPSTREAM AND DOWNSTREAM OF THE TERMINAL AS REQUIRED.

APPROVED BY: Paul Kovacs, CHIEF ENGINEERING OFFICER — DATE: 07/01/2009

FOR PARAPET (SAFETY SHAPE) WITH GUTTER, TYPE G-3

SHEET 1 OF 5

DATE	REVISIONS
3-01-2020	REVISED LENGTH OF THRIE BEAM
	REVISED LENGTH OF POSTS
3-01-2019	UPDATED NOTES FOR
	CONSTANT-SLOPE CONCRETE BARRIER
3-31-2017	ADDED DRAINAGE STRUCTURE NOTE
3-31-2016	REVISED SHOULDER SECTION
3-11-2015	REVISED NOTES AND ADDED DETAIL.
3-31-2014	REVISED NOTES.

Illinois Tollway

TRAFFIC BARRIER TERMINAL, TYPE T6

STANDARD C9-10

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline,Ng	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLLWAY STANDARDS

SCALE: | SHEET 1 OF 5 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	145
		CONTRACT NO. 62U90		
		ILLINOIS	FED. AID PROJECT	

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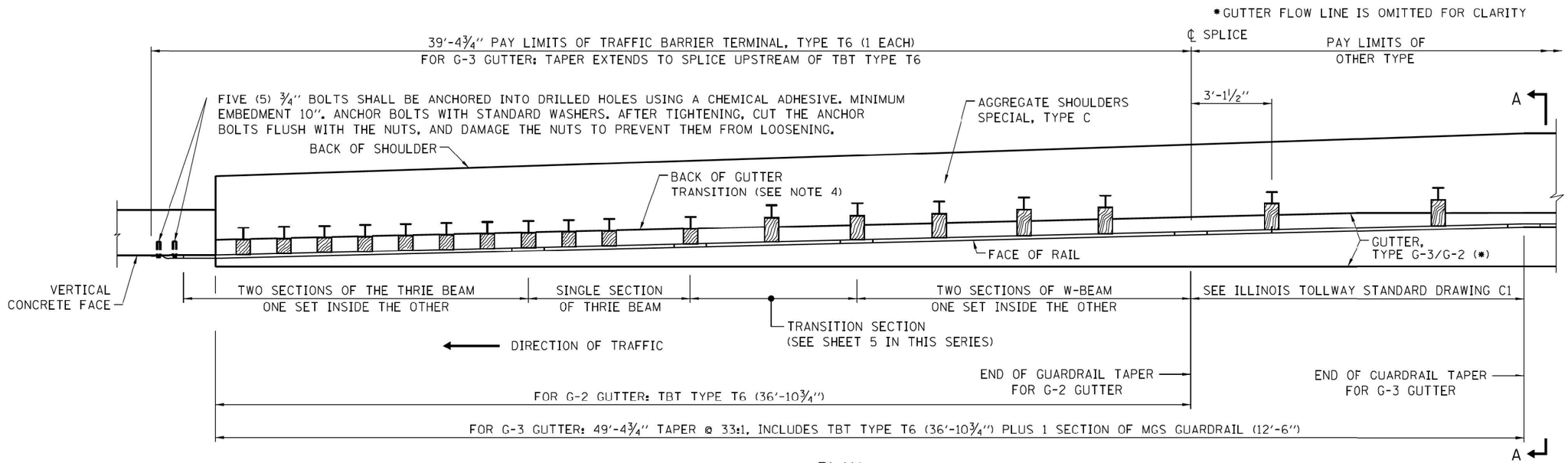
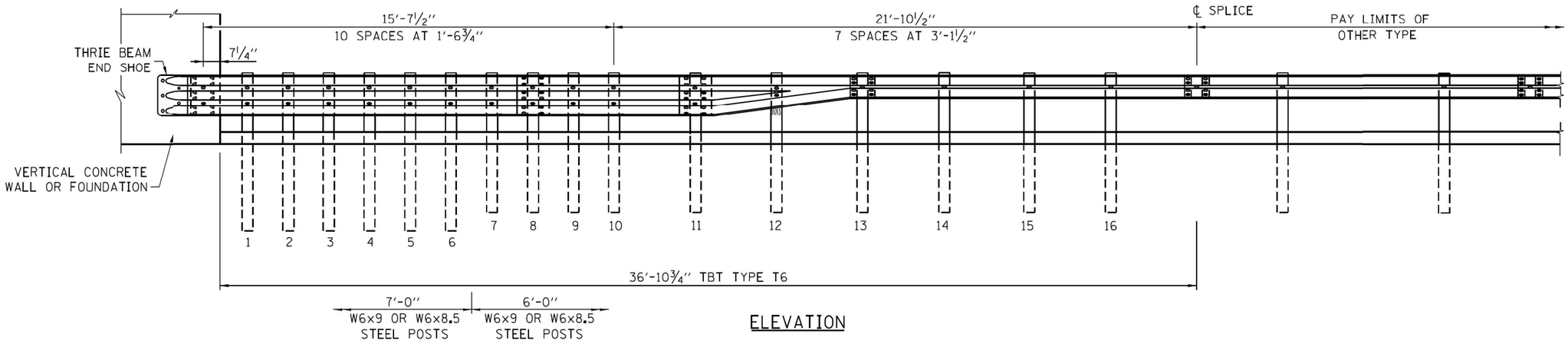


PLAN



ELEVATION

FOR OTHER VERTICAL CONCRETE WALL/FOUNDATION WITH GUTTER

APPROVED BY: Paul Kovacs, CHIEF ENGINEERING OFFICER — DATE: 07/01/2009

NOTE:
SEE SHEET 1 OF THIS SERIES FOR NOTES AND SECTION A-A.

Illinois Tollway

TRAFFIC BARRIER TERMINAL, TYPE T6

STANDARD C9-10

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline.Ng	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLLWAY STANDARDS

SCALE: | SHEET 2 OF 5 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	146
		CONTRACT NO. 62U90		
		ILLINOIS	FED. AID PROJECT	

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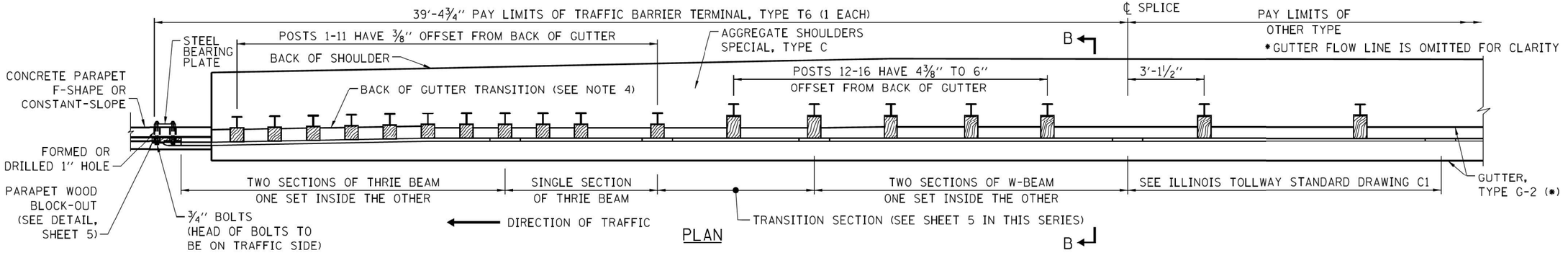

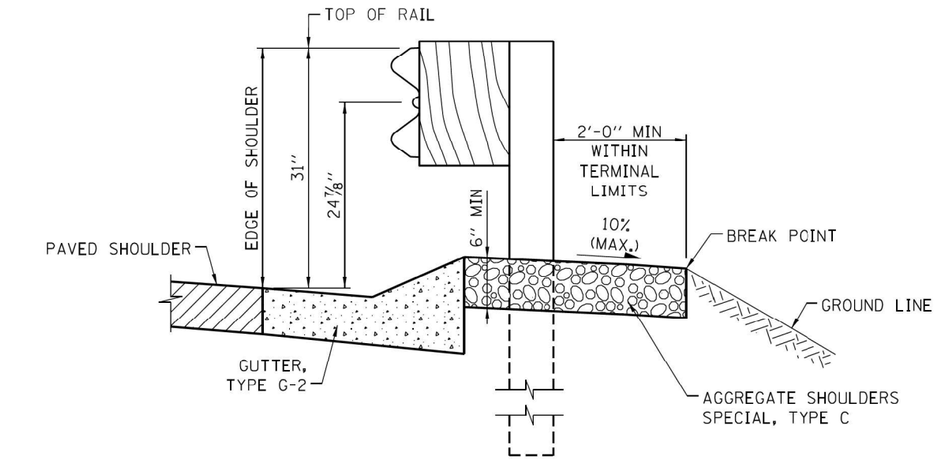

SECTION B-B
WITH GUTTER, TYPE G-2

FOR PARAPET (SAFETY SHAPE)
WITH GUTTER, TYPE G-2

APPROVED BY: Paul Kovacs, CHIEF ENGINEERING OFFICER — DATE: 07/01/2009

NOTE:
SEE SHEET 1 OF THIS SERIES FOR NOTES.

Illinois Tollway

TRAFFIC BARRIER TERMINAL TYPE T6

STANDARD C9-10

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline,Ng	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLLWAY STANDARDS

SCALE: | SHEET 3 OF 5 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	147
		CONTRACT NO. 62U90		
	ILLINOIS	FED. AID PROJECT		

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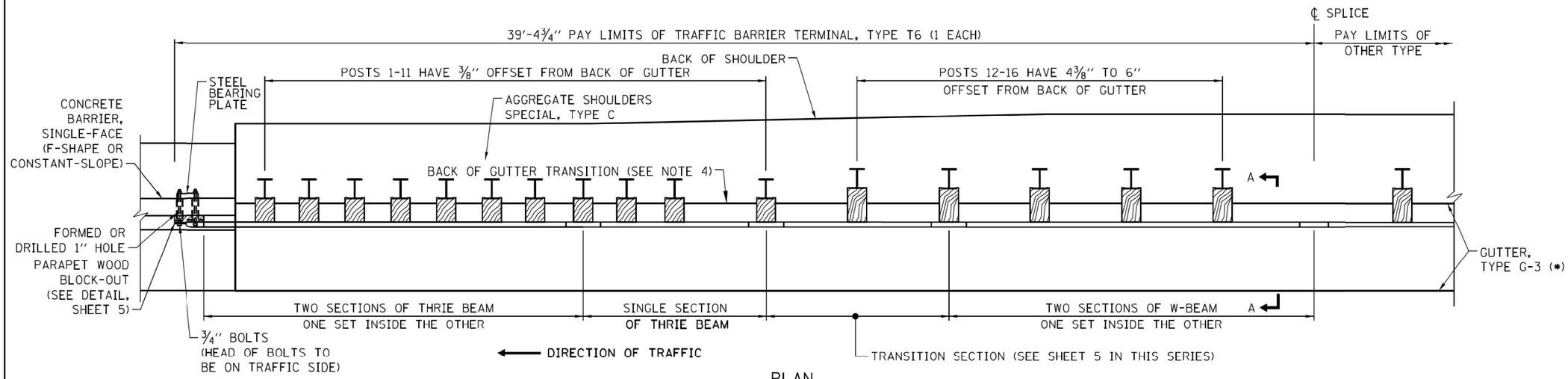
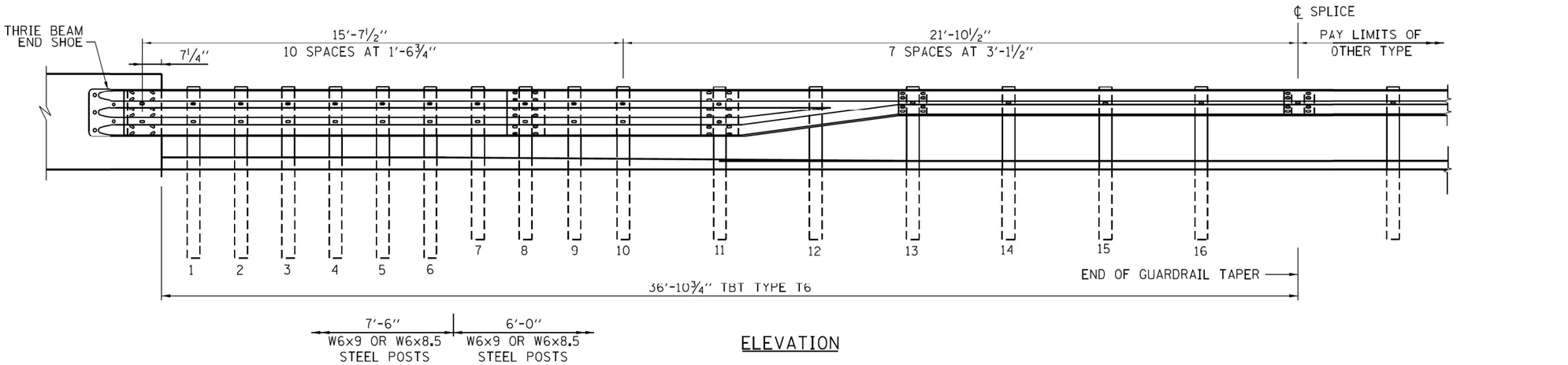
*GUTTER FLOW LINE IS OMITTED FOR CLARITY



PLAN



ELEVATION

FOR CONCRETE BARRIER, SINGLE-FACE W/ GUTTER, TYPE G-3

APPROVED BY: Paul Kovacs, CHIEF ENGINEERING OFFICER — DATE: 02/07/2012

NOTE:
SEE SHEET 1 OF THIS SERIES FOR GUTTER TRANSITION NOTES AND SECTION A-A.

Illinois Tollway

TRAFFIC BARRIER TERMINAL, TYPE T6

STANDARD C9-10

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline.Ng	DESIGNED -	REVISED -
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PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLLWAY STANDARDS

SCALE: | SHEET 4 OF 5 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	148
		CONTRACT NO. 62U90		
	ILLINOIS	FED. AID PROJECT		

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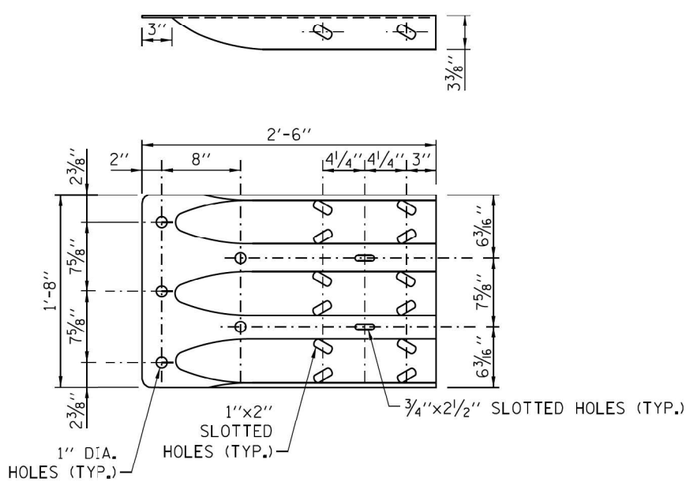
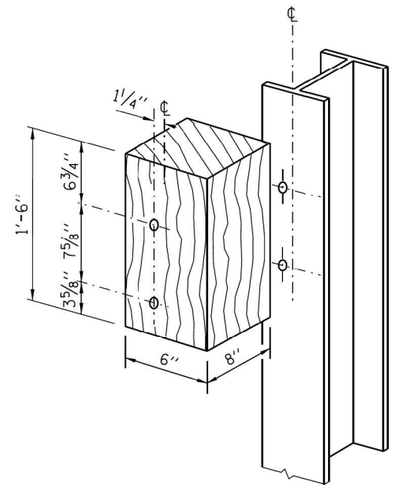
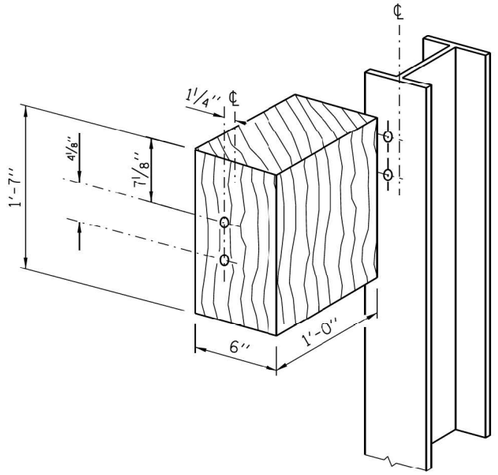


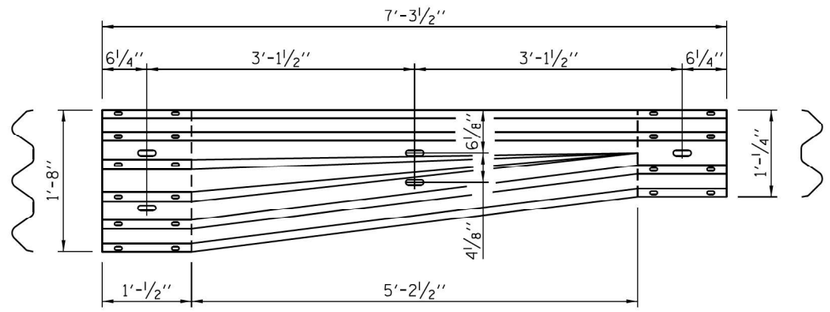
THRIE BEAM END SHOE DETAIL



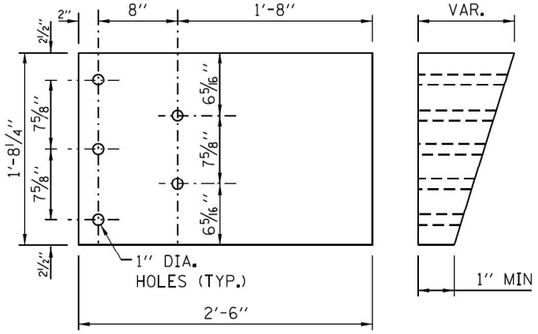
POSTS 1-11 WOOD BLOCK-OUT DETAIL



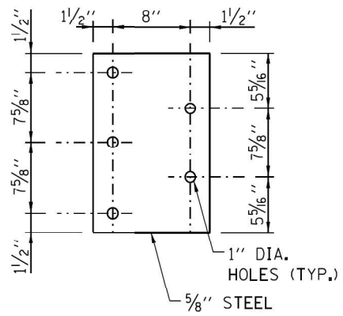
POST 12 WOOD BLOCK-OUT DETAIL
(SEE ILLINOIS TOLLWAY STANDARD DRAWING C1
FOR POST 13-16 BLOCKOUTS)



TRANSITION SECTION
(10 GAUGE RAIL ELEMENT)



PARAPET WOOD BLOCK-OUT DETAIL



PARAPET STEEL BEARING PLATE DETAIL
(5 EACH INDIVIDUAL 5''x5''x⅝'' STEEL
PLATES WITH CENTERED 1'' HOLES MAY BE
SUBSTITUTED FOR THE PLATE SHOWED.)

SHEET 5 OF 5

APPROVED BY: Paul Kovacs
CHIEF ENGINEERING OFFICER
DATE: 07/01/2009

NOTE:
SEE SHEET 1 OF THIS SERIES FOR NOTES.

Illinois Tollway

TRAFFIC BARRIER TERMINAL,
TYPE T6

STANDARD C9-10

MODEL: Default
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AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline.Ng	DESIGNED -	REVISED -
	DRAWN -	REVISED -
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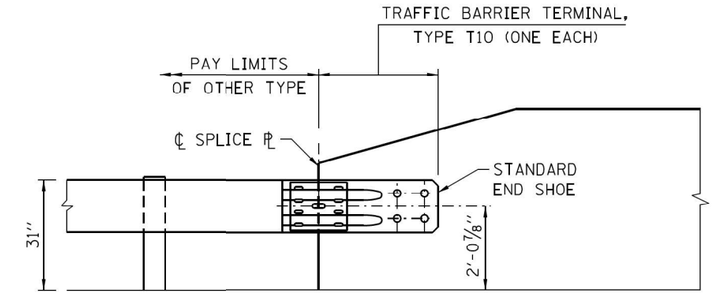
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

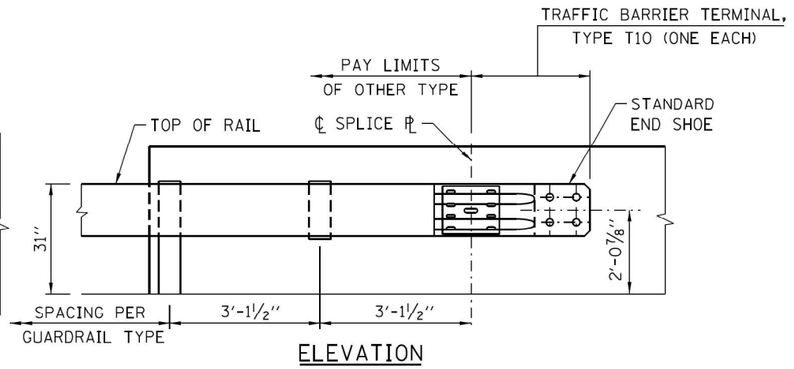
TOLLWAY STANDARDS

SCALE: | SHEET 5 OF 5 SHEETS | STA. | TO STA.

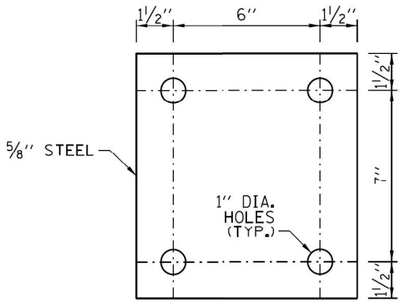
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	149
		CONTRACT NO. 62U90		
	ILLINOIS FED. AID PROJECT			



ELEVATION

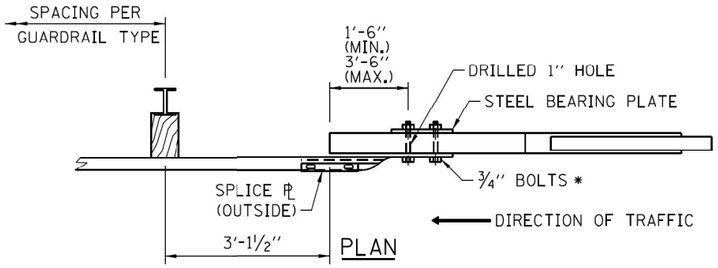


ELEVATION



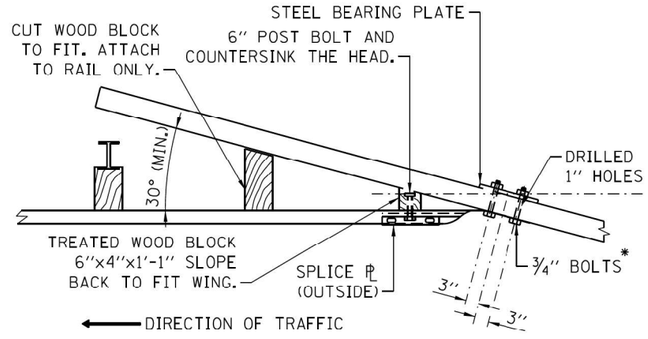
PARAPET STEEL BEARING PLATE DETAIL

(4 EACH INDIVIDUAL 5"x5"x5/8" STEEL PLATES WITH CENTERED HOLES MAY BE SUBSTITUTED FOR THE PLATE SHOWN)



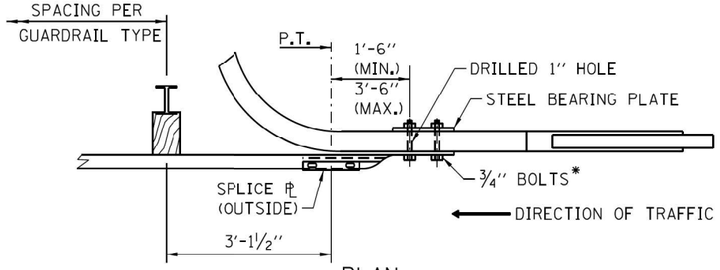
PLAN

TANGENT WING



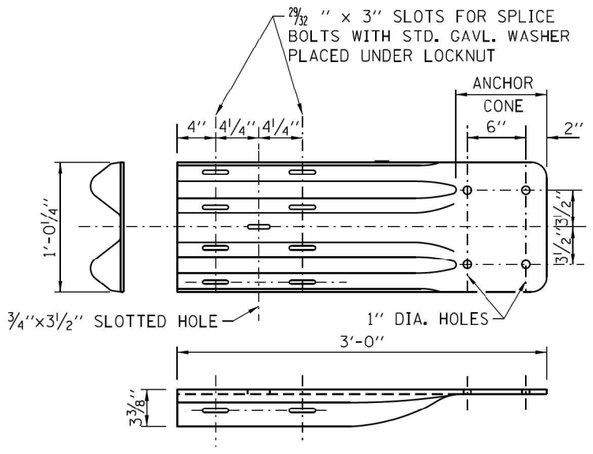
PLAN

FLARED WING



PLAN

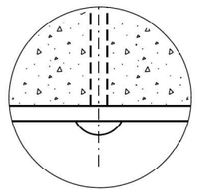
CURVED WING



END SHOE

GENERAL NOTE:

* HEAD OF BOLT TO BE ON TRAFFIC SIDE. SEE DETAIL "A"



DETAIL "A"

NOTES:

1. SEE ILLINOIS TOLLWAY STANDARD DRAWING C1 FOR DETAILS OF GUARDRAIL NOT SHOWN.
2. THE 24 7/8" TYPICAL RAIL HEIGHT IS MEASURED FROM EXISTING SURFACE 1'-0" IN FRONT OF RAIL, OR FROM EDGE OF SHOULDER/EDGE OF GUTTER WHEN EDGE IS MORE THAN 1'-0" IN FRONT OF RAIL TO CENTER OF RAIL.
3. THE TRAFFIC BARRIER TERMINAL, TYPE T10 IS TYPICALLY UTILIZED TO CONNECT GALVANIZED STEEL PLATE BEAM GUARDRAIL TO THE DEPARTING END OF AN EXISTING BRIDGE CONCRETE WING WALL OR PARAPET.
4. UNDER NO CIRCUMSTANCES SHALL AN EXISTING TERMINAL, THAT WAS DESIGNED USING A PREVIOUS STANDARD, BE ATTACHED TO OR MODIFIED IN ANYWAY FROM ITS ORIGINAL DESIGN. IF ANY MODIFICATION IS REQUIRED AND A PROPER BARRIER WARRANT HAS BEEN COMPLETED, THE ENTIRE BARRIER INSTALLATION SHALL BE COMPLETELY REMOVED AND REPLACED WITH A NEW SYSTEM THAT CONFORMS TO THE CURRENT STANDARD.
5. TRAFFIC BARRIER TERMINAL SHALL BE IN ACCORDANCE WITH THE ILLINOIS TOLLWAY'S DETAILS AND SPECIFICATIONS. NO MODIFICATIONS SHALL BE PERMITTED.
6. WHEN END SHOE IS ATTACHED TO A BRIDGE PARAPET WHICH HAS AN EXPANSION JOINT, THE BOLTS SHALL BE PROVIDED WITH A LOCKNUT OR DOUBLE NUT AND SHALL BE TIGHTENED ONLY TO A POINT THAT WILL ALLOW GUARDRAIL MOVEMENT.
7. THE ANCHOR CONE SHALL BE SET FLUSH WITH THE SURFACE OF THE CONCRETE.
8. EXTERNALLY THREADED STUDS PROTRUDING FROM THE SURFACE OF THE CONCRETE SHALL NOT BE PERMITTED.
9. WHEN WING WALL THICKNESS IS GREATER THAN 18" OR NOT ACCESSIBLE TO THE BACK SIDE, 4-3/4" BOLTS SHALL BE ANCHORED INTO DRILLED HOLES, USING A CHEMICAL ADHESIVE. MINIMUM EMBEDMENT SHALL BE 10". ANCHOR BOLTS WITH STANDARD WASHER SHALL BE USED. AFTER TIGHTENING, CUT THE ANCHOR BOLTS FLUSH WITH THE NUTS, AND DAMAGE THE NUTS TO PREVENT THEM FROM LOOSENING.

APPROVED BY: Paul Kovacs, CHIEF ENGINEERING OFFICER — DATE: 07/01/2009

DATE	REVISIONS
3-31-2017	REV'D ELEV PARAPET & FL WING ANGLE
3-31-2016	REVISED FLARED WING ANGLE.
3-11-2015	REVISED NOTES.
3-31-2014	REVISED NOTES.
2-07-2012	REVISED BOLT NOTE, ADDED DETAIL "A" AND REVISED NOTES.
1-01-2011	REVISED END SHOE HEIGHT ATTACHMENT
3-01-2010	REVISED NOTES, ADDED END SHOE AND PARAPET BEARING PLATE DETAIL.

Illinois Tollway

TRAFFIC BARRIER TERMINAL, TYPE T10

STANDARD C11-07

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline.Ng	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLLWAY STANDARDS

SCALE: | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	150
		CONTRACT NO. 62U90		
	ILLINOIS FED. AID PROJECT			

MODEL: Default
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SURVEY AND ROADWAY ITEMS

EXISTING	PROPOSED	
		CONSTRUCTION JOINT W/DOWEL BARS
		BENCHMARK
		CANTILEVER SIGN STRUCTURE
		BUTTERFLY SIGN STRUCTURE
		DOUBLE COLUMN GROUND MOUNTED SIGN
		SINGLE COLUMN GROUND MOUNTED SIGN
		SPAN TYPE SIGN STRUCTURE
		TRIPLE COLUMN GROUND MOUNTED SIGN
		RUMBLE STRIP

DRAINAGE AND UTILITY ITEMS; ROADWAY LIGHTING AND SIGNS

EXISTING	PROPOSED	
		BOX CULVERT WITH HEADWALL
		CABLE IN DUCT W/O GROUND
		LOW POINT
P		OVERHEAD ELECTRICAL
T		OVERHEAD TELEPHONE
		PIPE CULVERT
		LAKE OR POND
		QUARRY
		STREAM
		SWAMP
	A	CABLE OR CONDUIT TAG
E	E	ELECTRICAL MANHOLE
LD	LD	LIGHT-DUTY BOX
		ROADWAY LUMINAIRE
		STEEL TOWER
T	T	TELEPHONE MANHOLE
		UNDERPASS LUMINAIRE
		WATER POINT
W	W	WATERMAIN VALVE VAULT
W	W	WATER WELL
		WOOD POLE

APPROVED BY: Paul Kovacs, CHIEF ENGINEERING OFFICER — DATE: 07/01/2009

SHEET 1 OF 4

Illinois Tollway

DATE	REVISIONS
3-31-2016	UPDATED DITCH CHECK SYMBOL
3-11-2015	ADDED NEW SYMBOL
11-01-2012	ADDED NEW SYMBOLS
7-01-2009	REVISED SYMBOL & PATTERNS

SYMBOLS AND PATTERNS

STANDARD D2-04

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

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PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLLWAY STANDARDS

SCALE: | SHEET 1 OF 4 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	151
		CONTRACT NO. 62U90		
	ILLINOIS	FED. AID PROJECT		

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EROSION & SEDIMENT CONTROL, LANDSCAPING ITEMS

EXISTING	PROPOSED	
		CLEARING & GRADING LIMITS (LIMITS OF CONSTRUCTION)
		DIVERSION DIKE
		DRAINAGE DIVIDE
		DRAINAGE PATH
		SEDIMENT BASIN AGGREGATE BERM
	CIP	CULVERT INLET PROTECTION-STONE
		CULVERT INLET PROTECTION-FENCE
	DB	DEWATERING BASIN
	FIPB	FILTER FABRIC INLET PROTECTION, BASKET TYPE
	FIPC	FILTER FABRIC INLET PROTECTION, COVER TYPE
	FB FB	FLOTATION BOOM
	IC	INITIAL CONSTRUCTION ITEM
	RIP	RECTANGULAR INLET PROTECTION
		TEMPORARY ROCK CHECK DAM
	T	TEMPORARY DITCH CHECK
		SEDIMENT BASIN
		SILT FENCE
	SSF	SUPER SILT FENCE
		STABILIZED CONSTRUCTION ENTRANCE
		STONE OUTLET STRUCTURE SEDIMENT TRAP
		STREAM DIVERSION
		TEMPORARY PIPE SLOPE DRAIN
		TEMPORARY RIPRAP
	TS	TEMPORARY SWALE
	TR	TREES AND STUMP
		TREE PROTECTION
		TEMPORARY STREAM CROSSING

PROPOSED	
	EROSION CONTROL BLANKET
	OVER SEEDING CLASS B1
	OVER SEEDING CLASS B2
	SEEDING CLASS A1
	SEEDING CLASS A2
	SEEDING CLASS A3
	SEEDING CLASS A4
	SEEDING CLASS A5
	SEEDING CLASS A6
	SEEDING CLASS D1
	SODDING (SALT TOLERANT)
	TEMPORARY GROUND COVER
	TURF REINFORCEMENT MAT

APPROVED BY: Paul Kovacs, CHIEF ENGINEERING OFFICER — DATE: 07/01/2009

Illinois Tollway

SYMBOLS AND PATTERNS

STANDARD D2-04

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLLWAY STANDARDS

SCALE: | SHEET 2 OF 4 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	152
		CONTRACT NO. 62U90		
	ILLINOIS	FED. AID PROJECT		

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ELECTRICAL AND MECHANICAL ITEMS

HOME RUN TO PANEL AS NOTED	
INDICATES CIRCUIT TURNING DOWN	
INDICATES CIRCUIT TURNING UP	
GROUND ROD	
GROUNDING TRIAD	
--KVA --Φ--Y/--V --Φ, --W	TRANSFORMER
--	MOTOR
ATS ---A -P,-W	AUTOMATIC TRANSFER SWITCH (ATS)
JB OR (J)	JUNCTION BOX
--A	DISCONNECT SWITCH
--A	CIRCUIT BREAKER
--A --- SW.	MANUAL TRANSFER SWITCH
WH	SELF CONTAINED UTILITY METERING

(G)	STANDBY GENERATOR
--A -P	PANEL CIRCUIT BREAKER
(C)	MECHANICALLY HELD LIGHTING COIL
(CR)	CONTROL RELAY COIL
$	SINGLE-POLE SWITCH
	DUPLEX RECEPTACLE
C	4P, 4W, WEATHERPROOF RECEPTACLE WITH SPRING DOOR, BACK BOX, & ANGLE ADAPTER
B	4P, 4W, WEATHERPROOF RECEPTACLE WITH SPRING DOOR & BACK BOX
GFI	DUPLEX RECEPTACLE WITH GROUND FAULT PROTECTION
A	CONTROL BUILDING LIGHTING 1' X 4' INDUSTRIAL FLUORESCENT FIXTURE, PORCELAIN REFLECTOR, ELECTRONIC BALLAST.
B	COMPACT WALL-MOUNTED LOW WATTAGE HPS FIXTURE WITH WIRE GUARD & SINGLE FACTORY INSTALLED FUSE
C	EMERGENCY LIGHT UNIT WITH 2-6 VOLT, 12 WATT SEALED BEAM HALOGEN LAMPS WITH WALL MOUNTING BRACKET
D	LANE LIGHTING - HEAVY DUTY ALUMINUM HOUSING WITH ENCLOSED REFLECTOR & TEMPERED GLASS LENS W/AUTO REGULATOR BALLAST. ASYMMETRIC PATTERN
--	WIRE
--	CONDUIT

EXISTING	PROPOSED	
A	**A**	COMPRESSED AIR (A)
AR	**AR**	ACID RESISTANT WASTE OR DRAIN
ARV	**ARV**	ACID RESISTANT VENT
DS	**DS**	STORM SEWER (DOWNSPOUT)
G	**G**	GAS LINE
HG	**HG**	HOT GAS BYPASS LINE (HG)
HHWR	**HHWR**	HEATING HOT WATER RETURN (HHWR)
HHWS	**HHWS**	HEATING HOT WATER SUPPLY (HHWS)
IA	**IA**	DRY COMPRESSED AIR (IA-INSTRUMENT AIR)
P	**P**	PROCESS WATER ("P" WATER) LINE
PW	**PW**	PROTECTED WATER OR PLANT WATER (PW)
RD	**RD**	REFRIGERANT DISCHARGE LINE (RD)
RS	**RS**	REFRIGERANT SUCTION LINE (RS)
V	**V**	VENT LINE (V)

APPROVED BY: Paul Kovacs, CHIEF ENGINEERING OFFICER — DATE: 07/01/2009

NOTE:

ALL SYMBOLS AND PATTERNS ON THIS DRAWING ARE PROPOSED UNLESS OTHERWISE NOTED.

Illinois Tollway

SYMBOLS AND PATTERNS

STANDARD D2-04

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline,Ng	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLLWAY STANDARDS

SCALE: | SHEET 3 OF 4 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	153
		CONTRACT NO. 62U90		
	ILLINOIS	FED. AID PROJECT		

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ELECTRICAL AND MECHANICAL ITEMS

CFM OR CFM — QUANTITY AND DIRECTION OF THE AIR FLOW

X OR X — DUCT SIZE (FIRST FIGURE SIZE OF SHOWN, SECOND FIGURE SIZE OF SIDE NOT SHOWN.)

SUPPLY DUCT SECTION

OR — RETURN OR EXHAUST DUCT SECTION

D OR D — DUCT DROPS IN THE DIRECTION OF FLOW

R OR R — DUCT RISES IN THE DIRECTION OF FLOW

OR — TURNING VANES

CFM OR CFM — 8" THROAT DIAMETER CEILING DIFFUSER; AIR FLOW -- 100 CFM

OR — BALANCING OR VOLUME DAMPER

M OR M — MOTOR OPERATED DAMPER

FLEXIBLE DUCT

FIRE DAMPER

A — SOUND ATTENUATOR

ZONE DAMPER

FLEXIBLE CONNECTION AT FAN OR EQUIPMENT

EXTRACTOR

OR — SPLITTER DAMPER

B — PLUG VALVE WITH MEMORY STOP (BALANCING)

PLUG VALVE

S — SOLENOID VALVE

TEMPERATURE CONTROL VALVE

THREE-WAY TEMPERATURE CONTROL VALVE DIAPHRAGM

THREE-WAY TEMPERATURE CONTROL VALVE TOP VIEW

PRESSURE REDUCING VALVE (NOS = INITIAL AND FINAL PRESSURE - PSIG)

PRV — AIR PRESSURE REDUCING STATION (NO. CORRESPONDS WITH AIR PRESSURE REDUCER SCHEDULE)

SAFETY VALVE (NOS. = PRESSURE SETTING - PSIG)

FLOAT OPERATED VALVE

QC — QUICK COUPLING (QC)

UH — HORIZONTAL UNIT HEATER (NO. CORRESPONDS WITH UNIT HEATER SCHEDULE)

UH — VERTICAL UNIT HEATER (NO. CORRESPONDS WITH UNIT HEATER SCHEDULE)

UH — CABINET TYPE UNIT HEATER (NO. CORRESPONDS WITH UNIT HEATER SCHEDULE)

T — THERMOSTAT OR ROOM TEMPERATURE SENSOR

GATE VALVE

FLOW SWITCH

GPM — VENTURI FLOW METER AND FLOW TO BE INDICATED

CONNECTION BETWEEN NEW AND EXISTING

GLOBE VALVE

BUTTERFLY VALVE

CHECK VALVE

ANGLE GATE VALVE

CONCENTRIC REDUCER

ECCENTRIC REDUCER

ORIFICE FLANGE

CROSSOVER

PIPE GUIDE

EXPANSION JOINT (SLIP TYPE)

EXPANSION JOINT (BELLOWS TYPE)

AIR ELIMINATOR (AIR VENT)

PIPE CAP

STRAIGHT CROSS

90° ELBOW

90° ELBOW TURNED DOWN

90° ELBOW TURNED UP

SIDE OUTLET ELBOW TURNED DOWN

SIDE OUTLET ELBOW TURNED UP

LATERAL

TEE

TEE OUTLET UP

TEE OUTLET DOWN

UNION

STRAINER

X — PIPE ANCHOR

THERMOMETER (NOS. = RANGE IN DEGREES FAHRENEIT)

PRESSURE, VACUUM OR COMPOUND GAUGE

SHEET 4 OF 4

APPROVED BY: Paul Kovacs, CHIEF ENGINEERING OFFICER — DATE: 07/01/2009

NOTE:

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Illinois Tollway

SYMBOLS AND PATTERNS

STANDARD D2-04

AECOM
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CHICAGO, IL 60601-5276
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLLWAY STANDARDS

SCALE: | SHEET 4 OF 4 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	154
		CONTRACT NO. 62U90		
	ILLINOIS	FED. AID PROJECT		

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PERMANENT DELINEATION SPACING					
		MAINLINE		RAMP	
	REFLECTORS	TANGENT	CURVE	TANGENT	CURVE
*	GUARDRAIL	100′	100′	100′	100′ (R >= 1,050′) 50′ (R < 1,050′)
*	BARRIER WALL (DOUBLE FACE)	100′	100′	100′	100′ (R >= 1,050′) 50′ (R < 1,050′)
*	BARRIER WALL (SINGLE FACE)	100′	100′	100′	100′ (R >= 1,050′) 50′ (R < 1,050′)
	SHOULDER NARROWING	3 @ 15′	3 @ 15′	3 @ 15′	3 @ 15′
	BRIDGE APPROACHES	3 @ 15′	3 @ 15′	3 @ 15′	3 @ 15′
*	BRIDGE OR RETAINING WALL PARAPET	50′	50′	50′	50′
*	CRASHWORTHY NOISE ABATEMENT WALL OR RETAINING WALL AT EDGE OF SHOULDER	100′	100′	100′	100′ (R >= 1,050′) 50′ (R < 1,050′)
	ROADWAY DELINEATORS	MAINLINE		RAMP	
		TANGENT	CURVE	TANGENT	CURVE
	POST MOUNTED DELINEATOR	200′	200′	200′ **	TABLE A **
	POST MOUNTED DELINEATOR (RAMP TAPERS AND TANGENTS)	100′ **	100′ **	NA	NA
	TEMPORARY DELINEATION SPACING				
		TANGENT	REVERSE CURVE	SHIFT	TAPER
	TEMPORARY CONCRETE BARRIER	50′	25′	25′	25′

* WHEN ADJACENT SHOULDER IS USED AS A TRAVELED LANE, USE SPACING REQUIREMENTS AS SHOWN FOR TEMPORARY DELINEATION.

** RED REFLECTORS SHALL BE INSTALLED (FACING OPPOSITE TRAFFIC FLOW) ALONG EXIT RAMPS AND ADJACENT TO THE RIGHT SIDE OF TANGENTS AND TAPERS OF DECELERATION LANES AS INDICATED ON THE INTERCHANGE RAMP PLACEMENT PLAN (SEE SHEET 2).

TABLE A	
REFLECTOR SPACING ON RAMP - CURVES	
RADIUS OF CURVE (FT.)	SPACING ALONG CURVE (FT.)
LESS THAN 1050	50
1050-1299	100
1300-1999	125
2000-2999	150
3000-3999	175
MORE THAN 3999	200

APPROVED BY: Marcus Nashif, CHIEF ENGINEERING OFFICER — DATE: 03/01/2024

GENERAL NOTES:

1. EMERGENCY TURNAROUNDS DELINEATION - THE FOLLOWING DELINEATION SHOULD BE INSTALLED ON THE LEFT SIDE OF THE PAVEMENT APPROACHING EMERGENCY TURNAROUNDS.
   A. ONE-HALF OF A MILE IN ADVANCE OF THE EMERGENCY TURNAROUNDS ONE WHITE REFLECTOR UNIT OVER THREE AMBER REFLECTOR UNITS.
   B. ONE-FOURTH OF A MILE IN ADVANCE OF THE EMERGENCY TURNAROUNDS ONE WHITE REFLECTOR UNIT OVER TWO AMBER REFLECTOR UNITS.
   C. AT A POINT NEAR THE INTERSECTION OF THE EDGE OF THE LEFT SHOULDER AND NEAR EDGE OF THE EMERGENCY TURNAROUNDS ONE WHITE REFLECTOR UNIT OVER ONE AMBER REFLECTOR UNIT.
2. ALL REFLECTORS FACING OPPOSITE TRAFFIC FLOW SHALL BE RED.

NOTES FOR ROADWAY DELINEATORS, POST MOUNTED INSTALLATION:

1. A. MAINLINE-SINGLE WHITE REFLECTOR UNITS SHALL BE PLACED CONTINUOUSLY ON THE RIGHT AND SINGLE AMBER REFLECTOR UNITS SHALL BE PLACED ON THE LEFT ON MAIN LINE SECTIONS WITHOUT BARRIER WALL.
   B. RAMPS-SINGLE REFLECTOR UNITS SHALL BE PLACED ON THE OUTSIDE OF ALL CURVED SECTIONS OF RAMPS, SINGLE WHITE SHALL BE PLACED ON THE RIGHT SIDE AND AMBER ON THE LEFT SIDE. THE DELINEATORS SHALL BE OVERLAPPED FOR A SHORT DISTANCE TO CLEARLY INDICATE WHERE DELINEATION ON ONE SIDE OF THE RAMP ENDS AND DELINEATION ON THE OTHER SIDE APPEARS.
   C. DOUBLE WHITE REFLECTOR UNITS SHALL BE PLACED ON THE RIGHT AT ALL ACCELERATION AND DECELERATION LANES.
   D. TWO RED REFLECTORS SHALL BE INSTALLED ON THE BACK SIDE (FACING OPPOSITE TRAFFIC FLOW) OF ALL DELINEATOR POSTS ALONG EXIT RAMPS AND ALONG THE RIGHT SIDE OF TANGENTS AND TAPERS OF DECELERATION LANES.
2. REFLECTORS SHALL BE MOUNTED ON SUPPORTS SUCH THAT THE TOP OF REFLECTORS IS FOUR FEET ABOVE THE ROADWAY EDGE AND TWO FEET OUTSIDE THE OUTER EDGE OF THE PAVED SHOULDER OR TWO FEET MINIMUM AND SIX FEET MAXIMUM OUTSIDE THE BACKS OF CURBS OR GUTTERS.
3. IN ALL CASES, THE COLOR OF THE REFLECTORS SHALL BE THE SAME AS THE ADJACENT EDGE LINE EXCEPT AS SPECIFIED IN GENERAL NOTES.
4. POST MOUNTED REFLECTORS SHALL BE PLACED CONTINUOUSLY AS NOTED ABOVE IN CONJUNCTION WITH GUARDRAIL INSTALLED.
5. THE PLACEMENT OF ROADWAY DELINEATOR "CIRCULAR REFLECTORS" SHALL BE USED FOR ALL MINOR PROJECTS WHICH HAVE A LENGTH OF LESS THAN 5 MILES. THE PLACEMENT OF ROADWAY DELINEATOR "RECTANGULAR REFLECTORS" SHALL BE USED FOR ALL MAJOR PROJECTS WHICH HAVE A LENGTH GREATER THAN 5 MILES. ALL ROADWAY DELINEATORS WITHIN A ROADWAY SEGMENT SHALL BE OF THE SAME TYPE.

NOTES FOR GUARDRAIL AND BARRIER WALL REFLECTOR:

1. REFLECTORS TYPE B AND TYPE C SHALL HAVE REFLECTIVE SURFACE ON ONE SIDE ONLY. WHERE DOUBLE BACK REFLECTOR IS INDICATED, A SECOND RED REFLECTOR SHALL BE INSTALLED.

Illinois Tollway

DATE	REVISIONS
3-01-2024	ADDED DETAIL FOR REFLECTOR AT NAW & RETAINING WALL
3-01-2023	ADDED WRONG-WAY REFLECTORS TO EXIT RAMPS AND RELATED NOTES
3-01-2019	CHANGED BARRIER TO CONSTANT-SLOPE SHAPE

ROADWAY DELINEATORS AND REFLECTORS

STANDARD D4-09

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline,Ng	DESIGNED -	REVISED -
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PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLLWAY STANDARDS

SCALE: | SHEET 1 OF 3 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	155
		CONTRACT NO. 62U90		
		ILLINOIS	FED. AID PROJECT	

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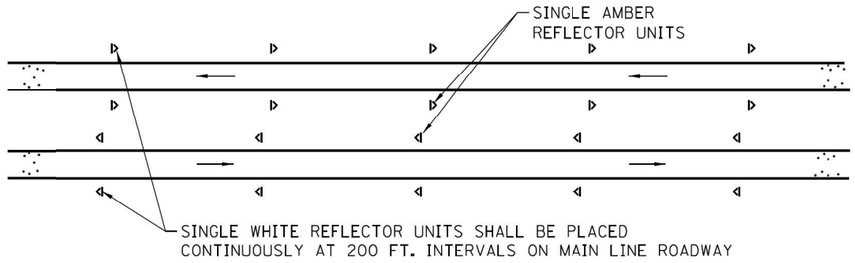
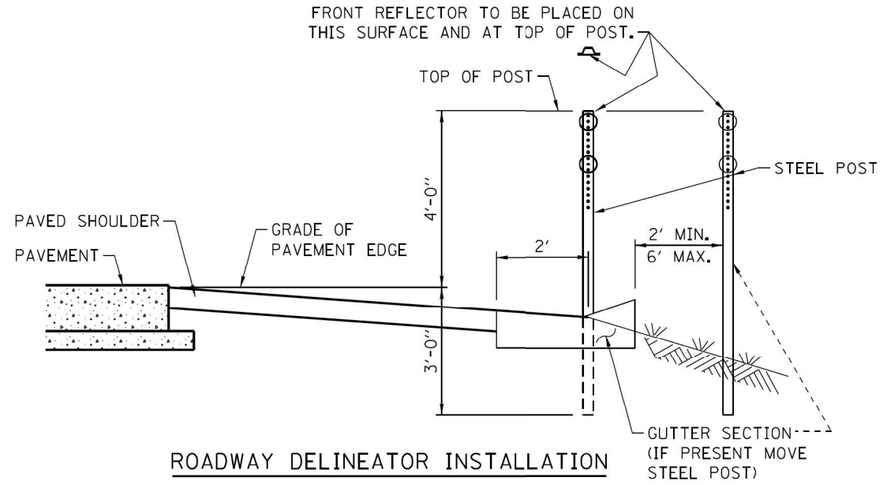
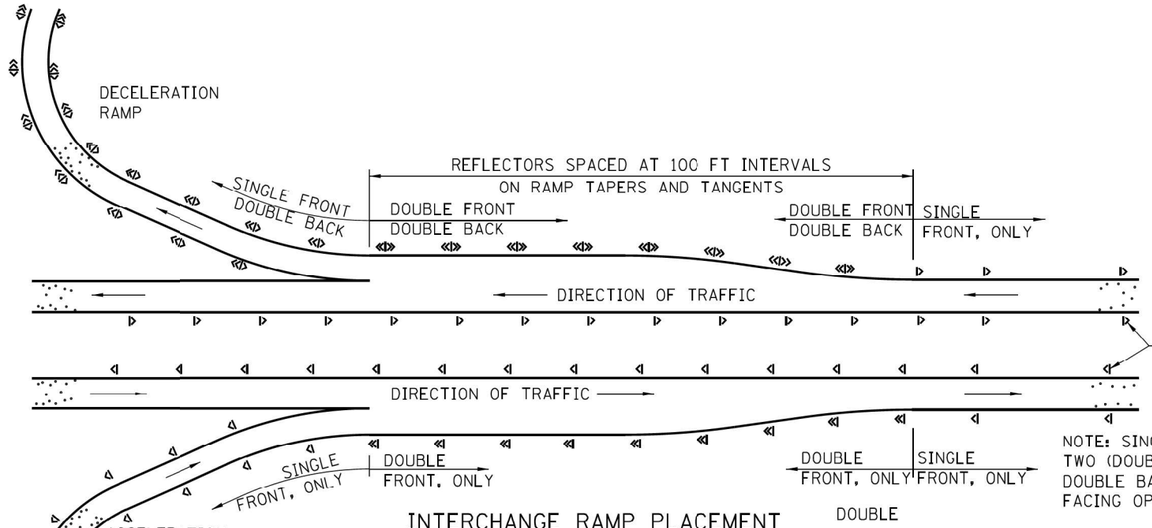


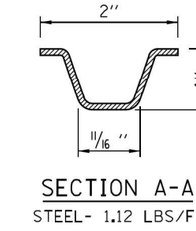
TANGENT PLACEMENT



ROADWAY DELINEATOR INSTALLATION



INTERCHANGE RAMP PLACEMENT

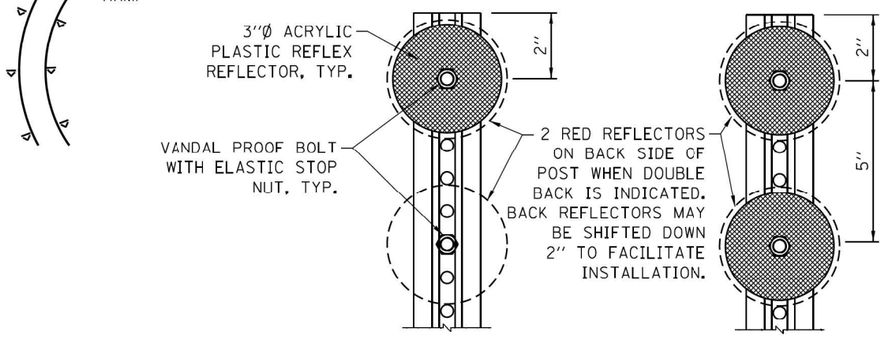


SECTION A-A

STEEL- 1.12 LBS/FT.

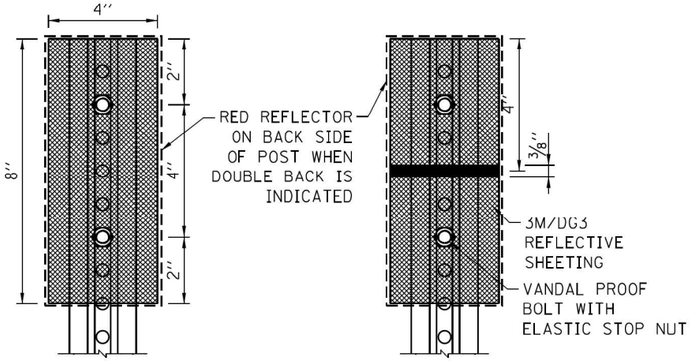
NOTE: SINGLE/DOUBLE FRONT INDICATES ONE (SINGLE) OR TWO (DOUBLE) REFLECTORS FACING APPROACHING TRAFFIC. DOUBLE BACK INDICATES TWO RED REFLECTORS FACING OPPOSITE TRAFFIC FLOW.

STEEL POST



SINGLE FRONT DOUBLE FRONT

CIRCULAR REFLECTORS



SINGLE FRONT DOUBLE FRONT

RECTANGULAR REFLECTORS

NOTE:
SEE SHEET 1 OF THIS SERIES FOR NOTES.

APPROVED BY: Marwan Nashif, CHIEF ENGINEERING OFFICER DATE: 03/01/2024

SHEET 2 OF 3

Illinois Tollway

ROADWAY DELINEATORS AND REFLECTORS

STANDARD D4-09

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline.Ng	DESIGNED -	REVISED -
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PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLLWAY STANDARDS

SCALE: | SHEET 2 OF 3 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	156
		CONTRACT NO. 62U90		
	ILLINOIS FED. AID PROJECT			

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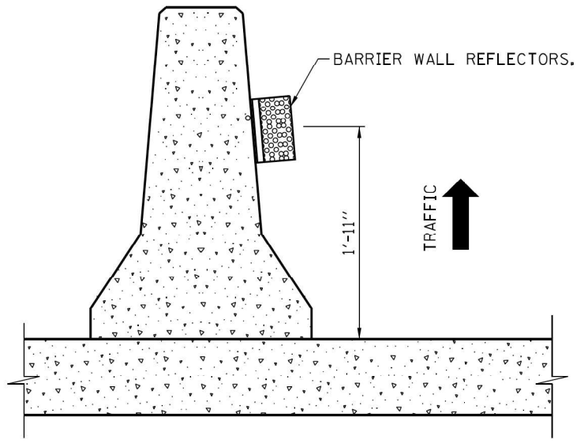
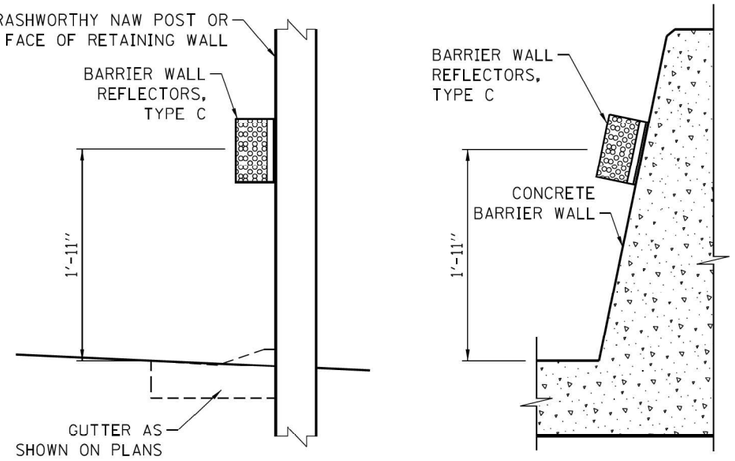
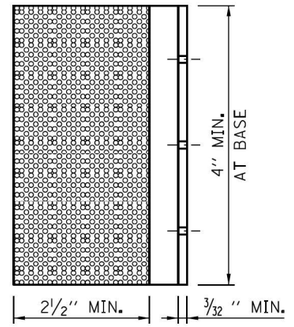


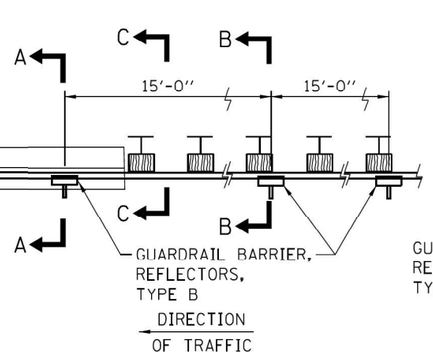
CROSS-SECTION
TEMPORARY CONCRETE BARRIER



VERTICAL WALL, BARRIER OR PARAPET
REFLECTOR INSTALLATION



REFLECTOR, TYPE C



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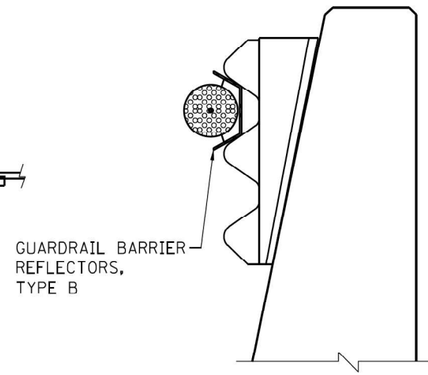
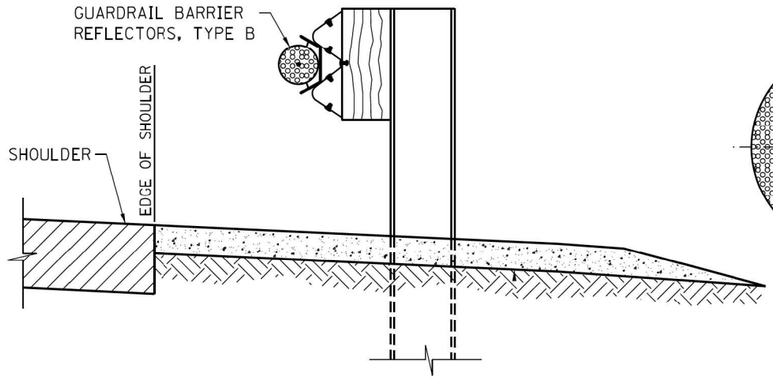
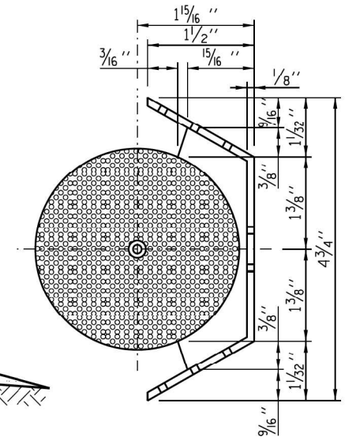


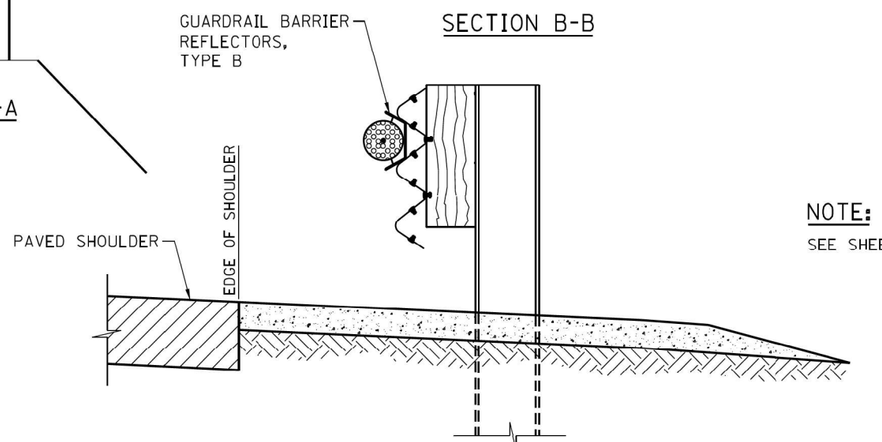
SECTION A-A



SECTION B-B



REFLECTOR, TYPE B



SECTION C-C

REFLECTOR INSTALLATION ON GUARDRAIL
AT BRIDGE APPROACHES

ALSO SEE SHEET 1 IN THIS SERIES
FOR ADDITIONAL INFORMATION

NOTE:
SEE SHEET 1 OF THIS SERIES FOR NOTES.

APPROVED BY: Marwa Mashlaf, CHIEF ENGINEERING OFFICER
DATE: 03/01/2024

SHEET 3 OF 3

Illinois Tollway

ROADWAY DELINEATORS
AND REFLECTORS

STANDARD D4-09

AECOM
303 EAST WACKER DRIVE, SUITE 1400
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PHONE: (312) 373-7700 FAX: (312) 373-6800

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLLWAY STANDARDS

SCALE: | SHEET 3 OF 3 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	157
		CONTRACT NO. 62U90		
	ILLINOIS FED. AID PROJECT			

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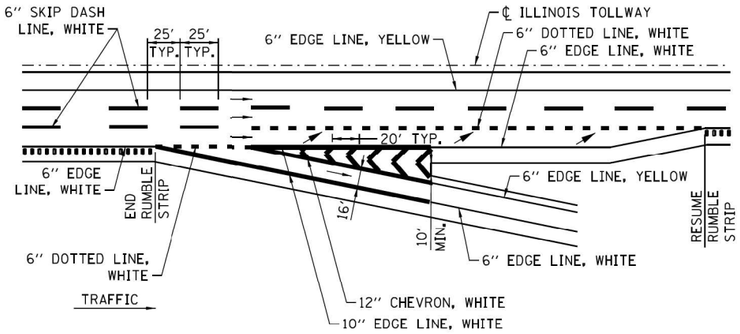
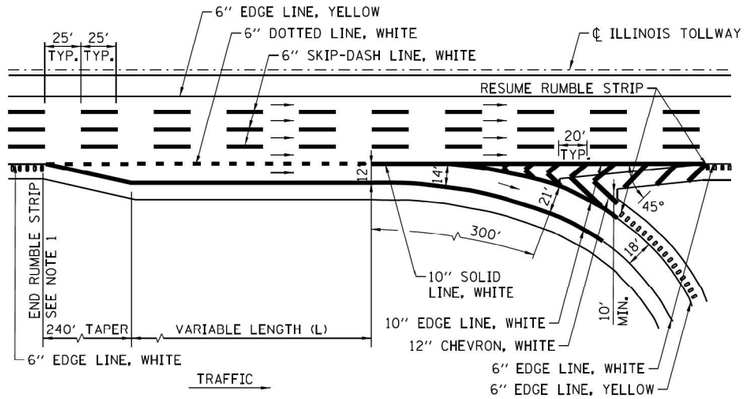
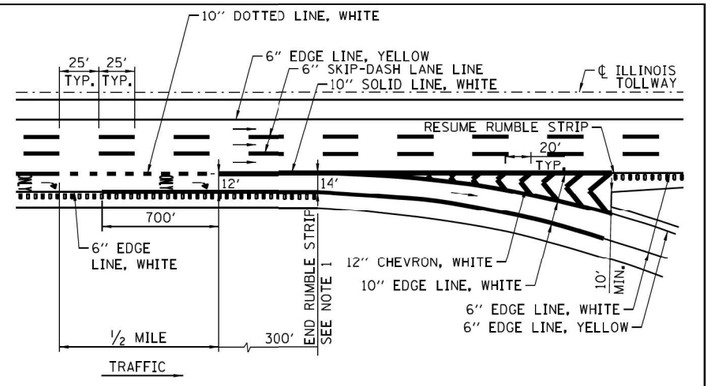


EXIT - SINGLE LANE RAMP
LANE THREE TERMINATION

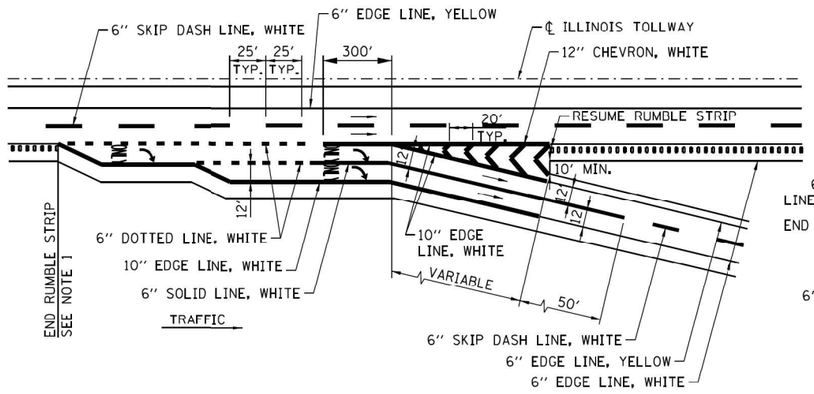


EXIT - SINGLE LANE LOOP RAMP - PARALLEL TYPE

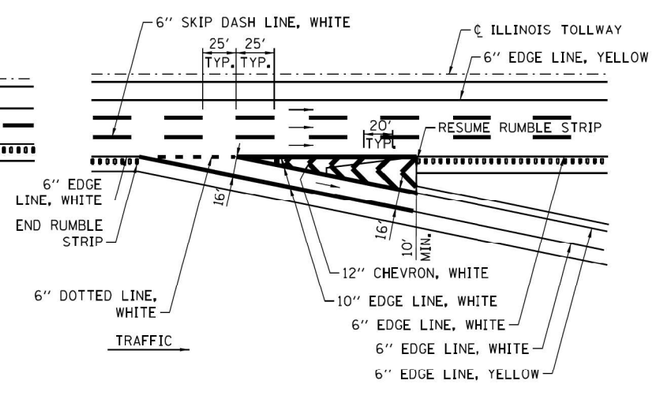
SEE SHEET 4 FOR SPEED REDUCTION MARKINGS



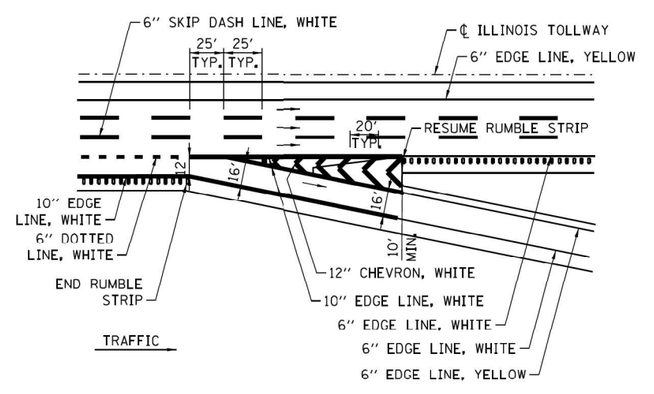
EXIT - SINGLE LANE RAMP - LANE DROP



EXIT - TWO LANE PARALLEL RAMP



EXIT - SINGLE LANE RAMP - TAPER TYPE



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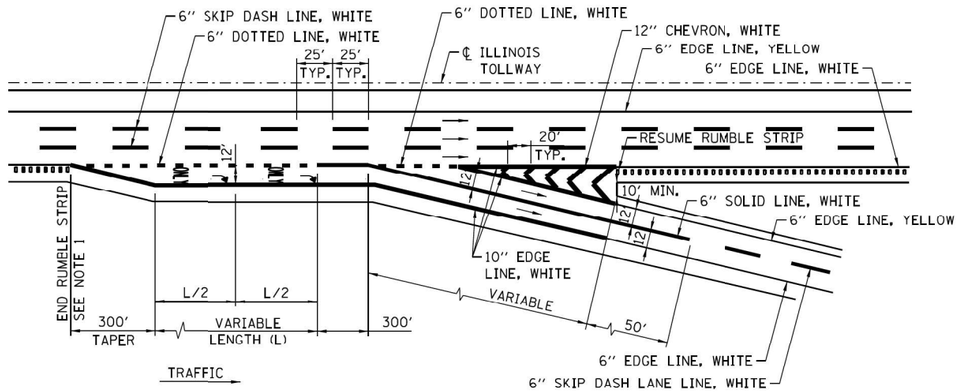
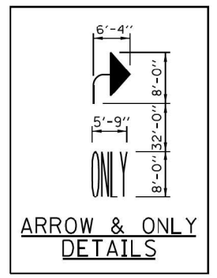


EXIT - TWO LANE RAMP



ARROW & ONLY DETAILS

NOTE:

PAVEMENT MARKING LETTERS AND SYMBOLS-ONLY AND ARROW ARE TO BE TYPICALLY PLACED AT ½ MILE EXIT ONLY GUIDE SIGN, AT GORE EXIT GUIDE SIGN AND APPROXIMATELY HALFWAY BETWEEN THE TWO.

GENERAL NOTES:

1. RUMBLE STRIPS SHALL BE INSTALLED BETWEEN THE THEORETICAL GORE AND TAPER WHEN LENGTHS (L) OF AUXILIARY LANES, ACCELERATION LANES OR DECELERATION LANES, ARE GREATER THAN 1000'.
2. ROADWAY MARKING MATERIALS TO BE USED ON FINISHED CONCRETE SURFACE AND ASPHALT SURFACE SHALL BE AS SHOWN ON THE PLANS.
3. ALL LANE LINES AND EDGE LINES SHALL BE GROOVED.
4. GORE STRIPING (CHEVRON) SHALL BE SURFACE APPLIED.
5. LETTERS AND SYMBOL MARKING SHALL BE SURFACE APPLIED.
6. DOTTED LINES SHALL CONSIST OF 3' LINE AND 9' GAPS.
7. PAVEMENT MARKINGS SHALL NOT BE GROOVED ON THE CONTINUOUSLY REINFORCED CONCRETE (CRC) PAVEMENT SECTION AT TOLL PLAZAS.

APPROVED BY: Marwan Nashif, CHIEF ENGINEERING OFFICER — DATE: 03/01/2023

DATE	REVISIONS
3-31-2023	ADD 6" DOTTED LINE ACROSS EXIT & ENTRANCE RAMP TAPERS. ADDED NOTE 7.
3-01-2022	REVISED EDGE LINES TO 6"

Illinois Tollway

PERMANENT PAVEMENT MARKINGS RAMPS

STANDARD D6-11

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline.Ng	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLLWAY STANDARDS

SCALE: | SHEET 1 OF 4 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	158
		CONTRACT NO. 62U90		
	ILLINOIS FED. AID PROJECT			

MODEL: Default
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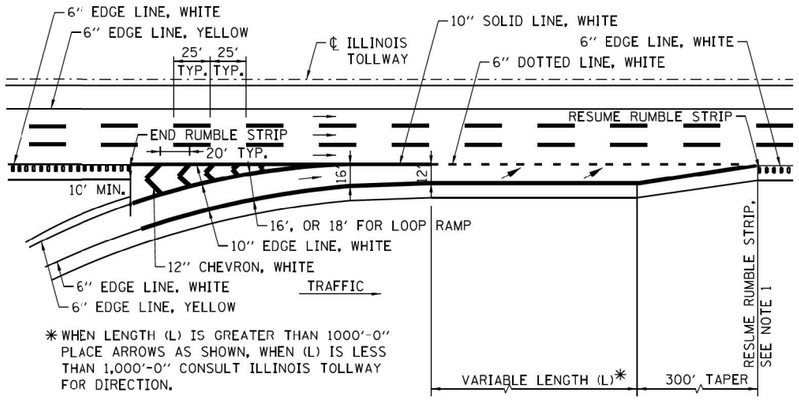
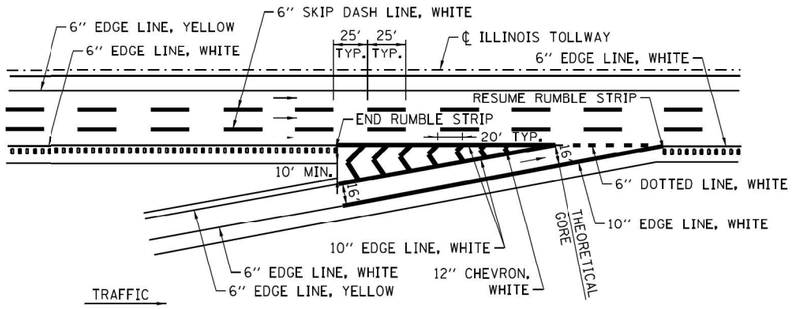
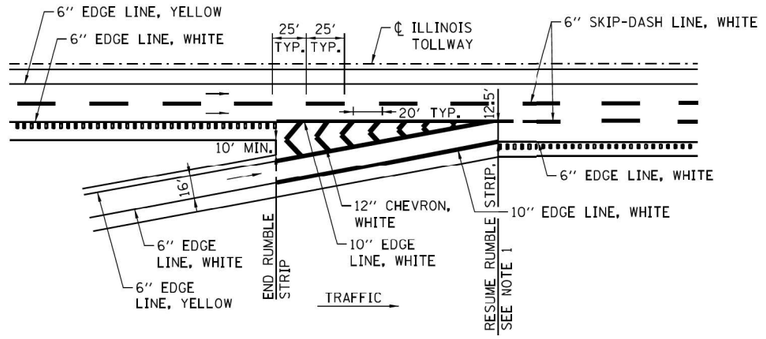


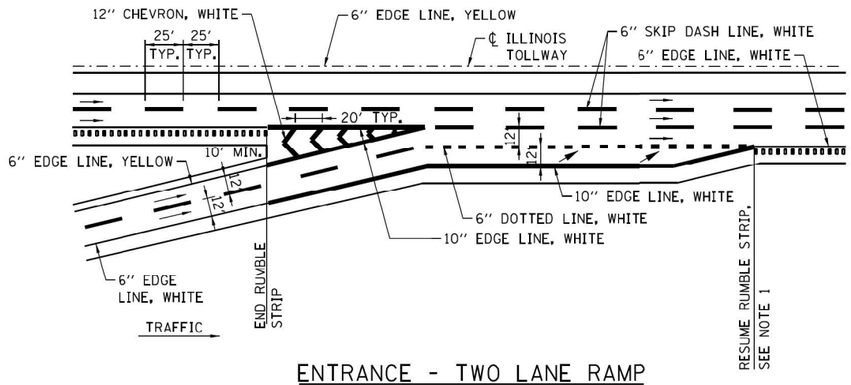
ENTRANCE - SINGLE LANE RAMP - PARALLEL TYPE



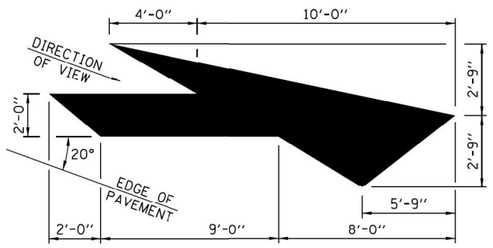
ENTRANCE - SINGLE LANE RAMP - TAPER TYPE



ENTRANCE - SINGLE LANE RAMP
WITH ADDED MAINLINE LANE

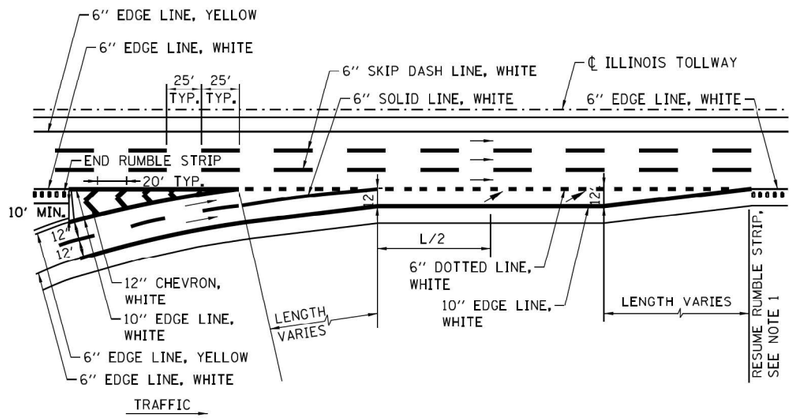


ENTRANCE - TWO LANE RAMP
WITH ADDED MAINLINE LANE

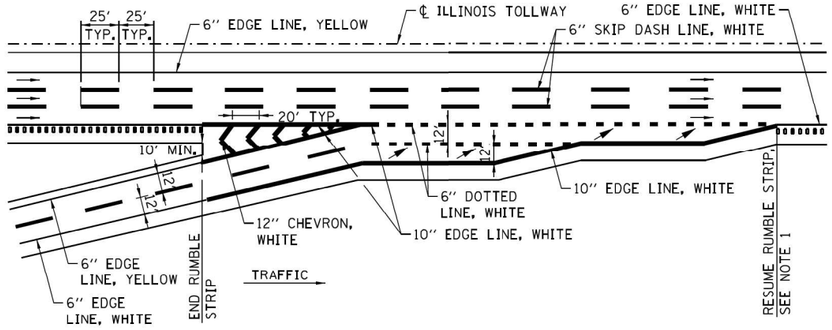


LANE-REDUCTION ARROW

RIGHT LANE-REDUCTION ARROW SHOWN.
USE MIRROR IMAGE FOR LEFT LANE.



ENTRANCE - TWO LANE RAMP



ENTRANCE - TWO LANE PARALLEL RAMP

SHEET 2 OF 4

APPROVED BY: Marco Nashif, CHIEF ENGINEERING OFFICER — DATE: 03/01/2023

SEE SHEET 1 IN THIS SERIES FOR GENERAL NOTES.

Illinois Tollway

PERMANENT PAVEMENT MARKINGS
RAMPS

STANDARD D6-11

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline.Ng	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLLWAY STANDARDS

SCALE: | SHEET 2 OF 4 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	159
		CONTRACT NO. 62U90		
	ILLINOIS FED. AID PROJECT			

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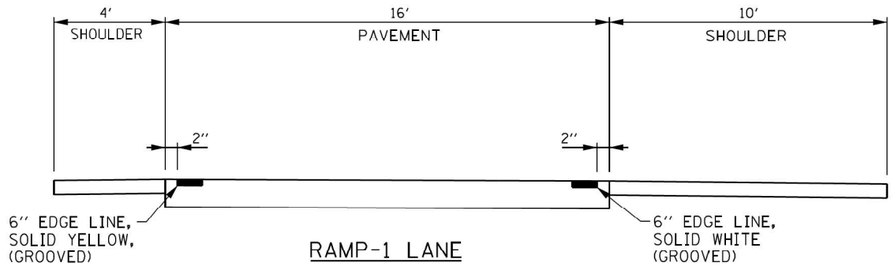
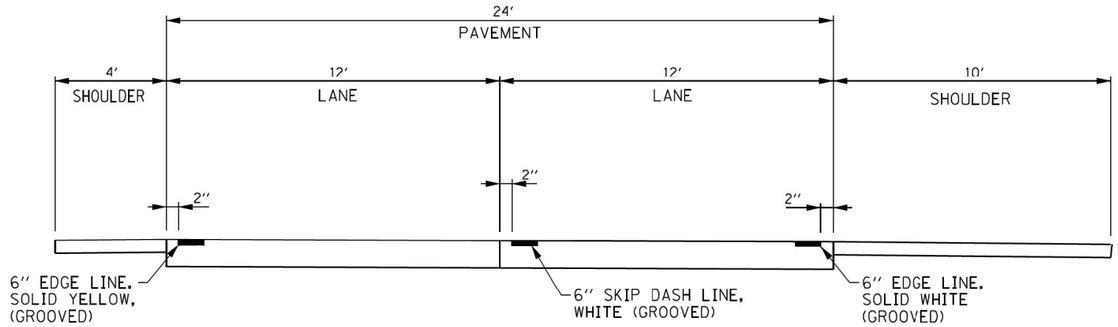
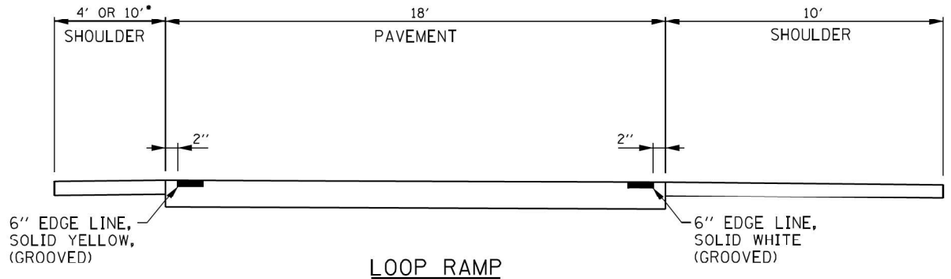


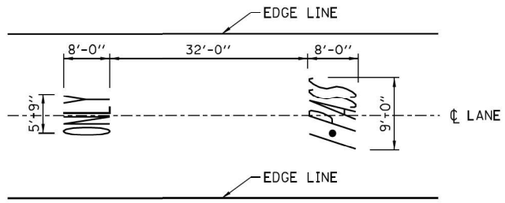
RAMP-1 LANE



RAMP-2 LANES



LOOP RAMP



IPO LANE PAVEMENT MARKING

• RUMBLE STRIP SHALL BE ADDED WHEN ALONG EXIT LOOP RAMP AND LEFT SHOULDER IS 10′ WIDE

APPROVED BY: Marcus Nashif, CHIEF ENGINEERING OFFICER — DATE: 03/01/2023

SEE SHEET 1 IN THIS SERIES FOR GENERAL NOTES.

SHEET 3 OF 4

Illinois Tollway

PERMANENT PAVEMENT MARKINGS
RAMPS

STANDARD D6-11

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline,Ng	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLLWAY STANDARDS

SCALE: | SHEET 3 OF 4 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	160
		CONTRACT NO. 62U90		
		ILLINOIS	FED. AID PROJECT	

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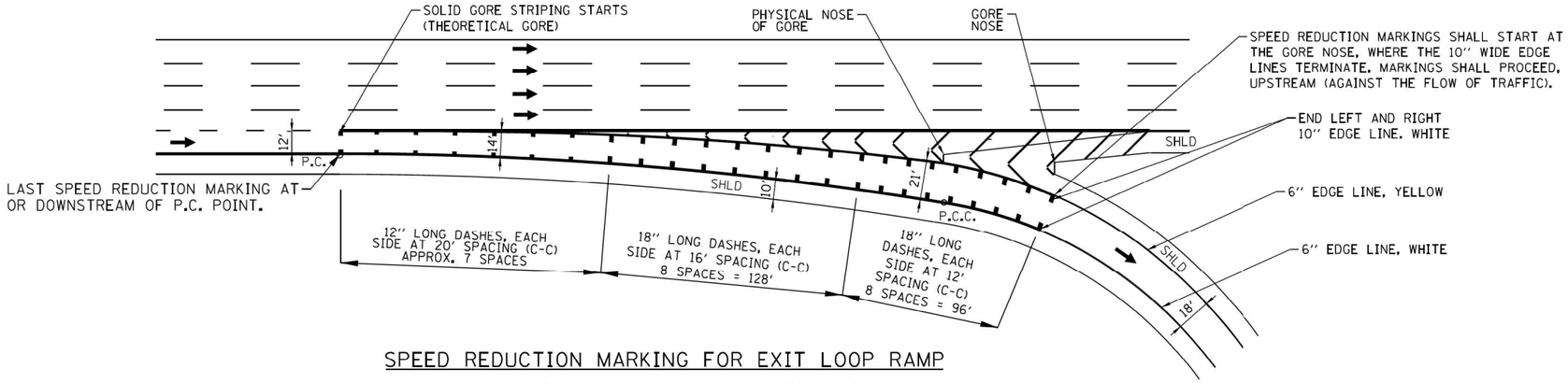
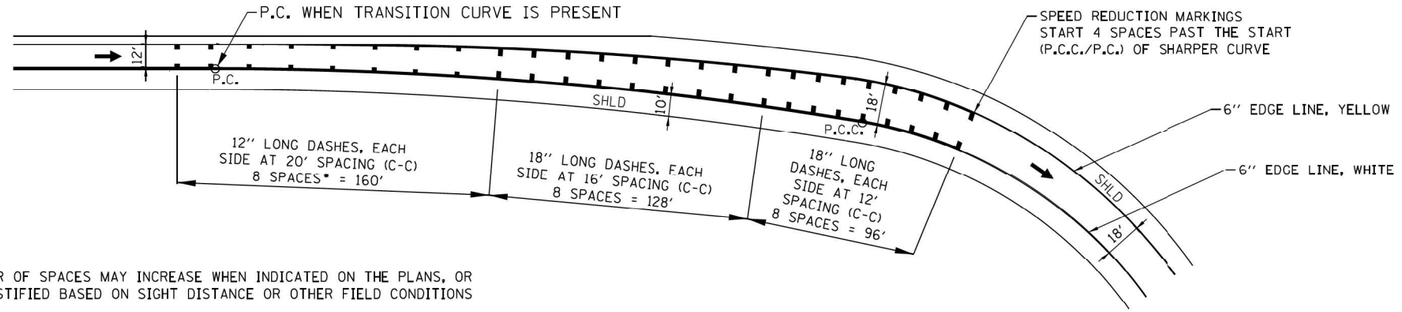


SPEED REDUCTION MARKING FOR EXIT LOOP RAMP

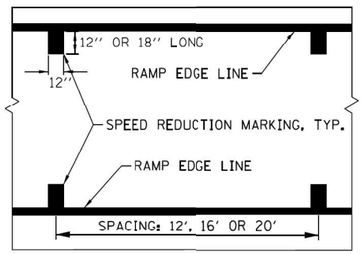
SINGLE LANE, FROM PARALLEL TYPE EXIT



* NUMBER OF SPACES MAY INCREASE WHEN INDICATED ON THE PLANS, OR WHEN JUSTIFIED BASED ON SIGHT DISTANCE OR OTHER FIELD CONDITIONS

SPEED REDUCTION MARKING FOR EXIT LOOP RAMP

SINGLE LANE, FROM C-D ROAD



SPEED REDUCTION MARKING DETAIL

SPEED REDUCTION MARKING NOTES:

SR-1. SPEED REDUCTION MARKINGS SHALL BE WHITE IN COLOR, BE 12'' WIDE AND BE PLACED PERPENDICULAR TO THE EDGE LINE. THE MARKINGS SHALL TOUCH THE EDGE LINE AND EXTEND INTO THE LANE BY THE LENGTH INDICATED. THE MARKINGS ARE NOT GROOVED INTO THE PAVEMENT.

SR-2. SPACINGS SHALL VARY FROM LONGER SPACES TO SHORTER SPACES IN THE DIRECTION OF TRAFFIC. THE SPACES SHALL BE MEASURED ALONG THE RAMP BASELINE AND SHALL BE AS INDICATED ON THE DETAIL.

SR-3. SPEED REDUCTION MARKINGS SHALL ONLY BE USED ON EXIT LOOP RAMPS. PAYMENT FOR SPEED REDUCTION MARKINGS WILL BE FOR PAVEMENT MARKING LINE, 12'' OF THE PERMANENT PAVEMENT MARKING TYPE USED ON THE RAMP.

SR-4. THIS DETAIL SHOWS PLACEMENT OF SPEED REDUCTION MARKINGS. FOR PLACEMENT AND TYPE OF EDGE LINES AND OTHER RAMP PAVEMENT MARKINGS, REFER TO OTHER DETAILS ON THE STANDARD DRAWINGS AND PLANS.

APPROVED BY: Marcus Nashif, CHIEF ENGINEERING OFFICER — DATE: 03/01/2023

Illinois Tollway

PERMANENT PAVEMENT MARKINGS
RAMPS

STANDARD D6-11

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline,Ng	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLLWAY STANDARDS

SCALE: | SHEET 4 OF 4 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	161
		CONTRACT NO. 62U90		
		ILLINOIS	FED. AID PROJECT	

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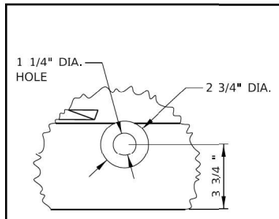
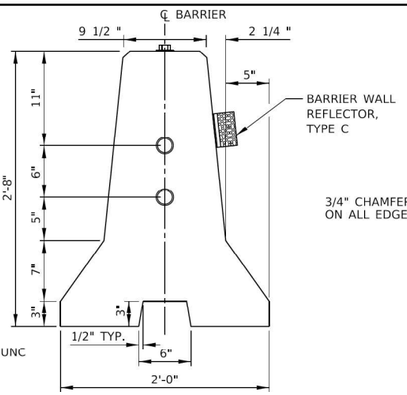
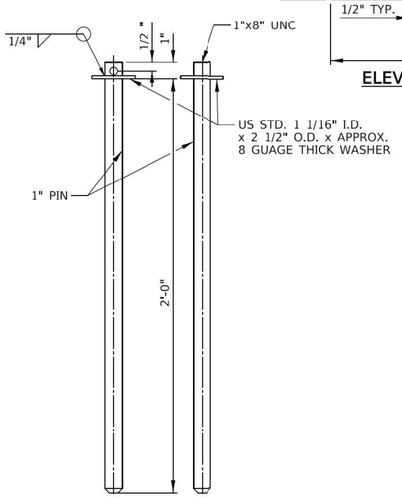


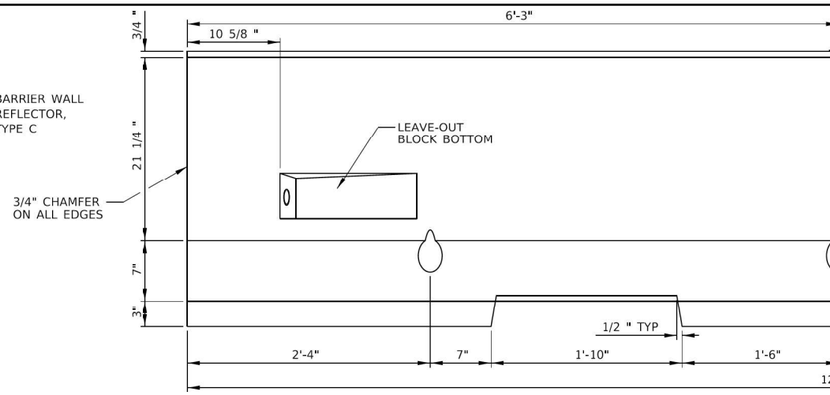
DETAIL A
TYP 6 PLACES



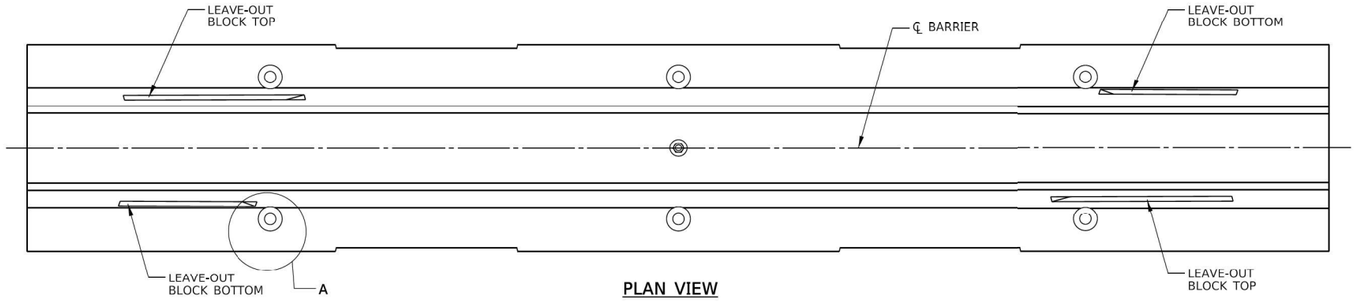
ELEVATION VIEW END



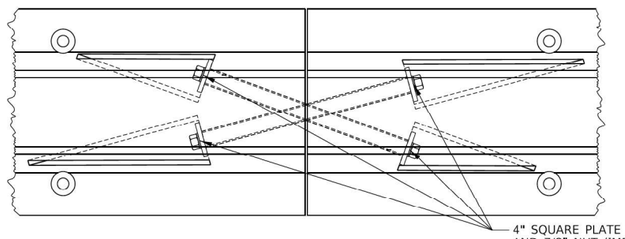
ANCHOR PIN
(END MAY BE BEVELED 1/4" MAX.)



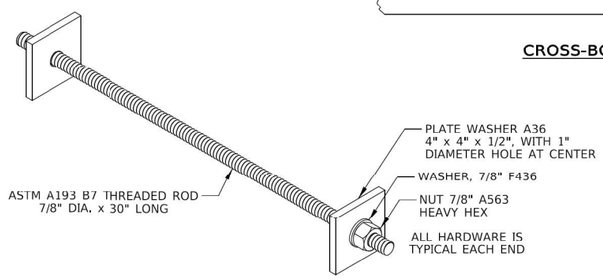
ELEVATION VIEW



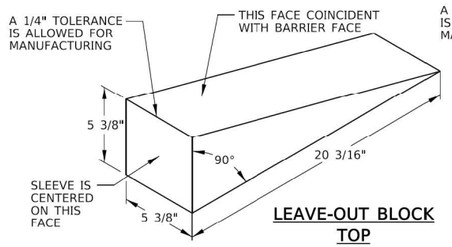
PLAN VIEW



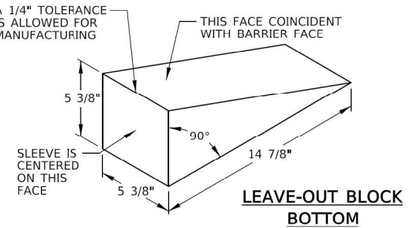
CROSS-BOLT CONNECTION DETAIL



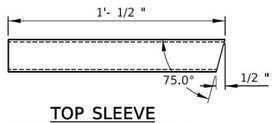
CROSS-BOLT CONNECTION HARDWARE
2 SETS OF HARDWARE NEEDED FOR EACH BARRIER



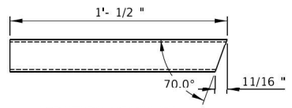
LEAVE-OUT BLOCK TOP



LEAVE-OUT BLOCK BOTTOM



TOP SLEEVE
PIPE, 1-1/2" SCH. 40 PVC



BOTTOM SLEEVE
PIPE, 1-1/2" SCH. 40 PVC

NOTES

1. EACH F SHAPE BARRIER UNIT SHALL BE CLEARLY MARKED WITH "IL TOLLWAY F SHAPE", THE PRODUCER'S MARK AND THE DATE OF MANUFACTURE. THE MARKING SHALL BE RECESSED IN THE BARRIER BY 1/2" OR PAINTED THEREON WITH WATERPROOF PAINT/INK.
2. THE INSERT FOR THE 1/2" BOLT AT THE TOP OF THE BARRIER SHALL BE CAPABLE OF 3000 LB PULL-OUT STRENGTH.
3. AT LOCATICNS WHERE THE BARRIER SEPARATES OPPOSING FLOWS OF TRAFFIC, TYPE C REFLECTORS SHALL BE ON BOTH SIDES OF BARRIER. SEE STANDARD D4 FOR DIMENSIONS OF TYPE C REFLECTOR.
4. ALL EXPOSED CONCRETE EDGES SHALL HAVE A 3/4" CHAMFER, EXCEPT WHERE SHOWN OTHERWISE.
5. REINFORCEMENT BARS SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M-31 (ASTM A706), GRADE 60, DEFORMED BARS.
6. REINFORCEMENT BAR BENDING DETAILS SHALL BE IN ACCORDANCE WITH THE LATEST "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES, ACI 315.
7. REINFORCEMENT BAR BENDING DIMENSIONS ARE OUT TO OUT.
8. COVER (CL.) IS 1-1/2" UNLESS OTHERWISE INDICATED.
9. CONCRETE SHALL BE PORTLAND CEMENT CONCRETE, CLASS PS (4000 PSI).
10. TWO OF EACH LEAVE-OUT BLOCK AND TWO OF EACH SLEEVE NEEDED FOR EACH BARRIER.

APPROVED BY: Marco Nashif, CHIEF ENGINEERING OFFICER — DATE: 03/01/2023

Illinois Tollway

REVISIONS	
DATE	DESCRIPTION
03-01-2023	ADDED DIMENSION & LEAVE-OUT BLOCKS
	TO SECTION C-C. MOVED DETAIL B.
03-01-2022	REVISED NOTE 2.
03-01-2021	LEAVE-OUT BLOCKS ADDED TO ELEV.
	VIEW-END, AND TEXT TO PLAN VIEW.
	LEAVE-OUT BLOCK TOLERANCE ADDED.

TEMPORARY CONCRETE BARRIER WITH CROSS-BOLT CONNECTION

VERSION: 2023-03 | STANDARD: D10-03 | SHEET: 1 OF 2

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline.Ng	DESIGNED -	REVISED -
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PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLLWAY STANDARDS

SCALE: | SHEET 1 OF 2 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	162
		CONTRACT NO. 62U90		
	ILLINOIS	FED. AID PROJECT		

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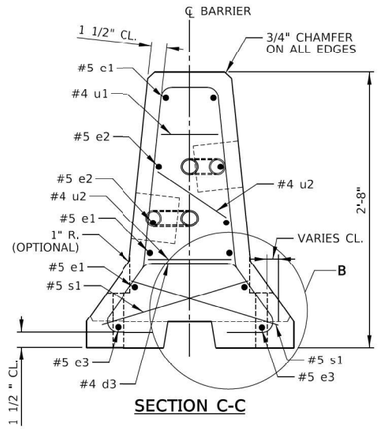
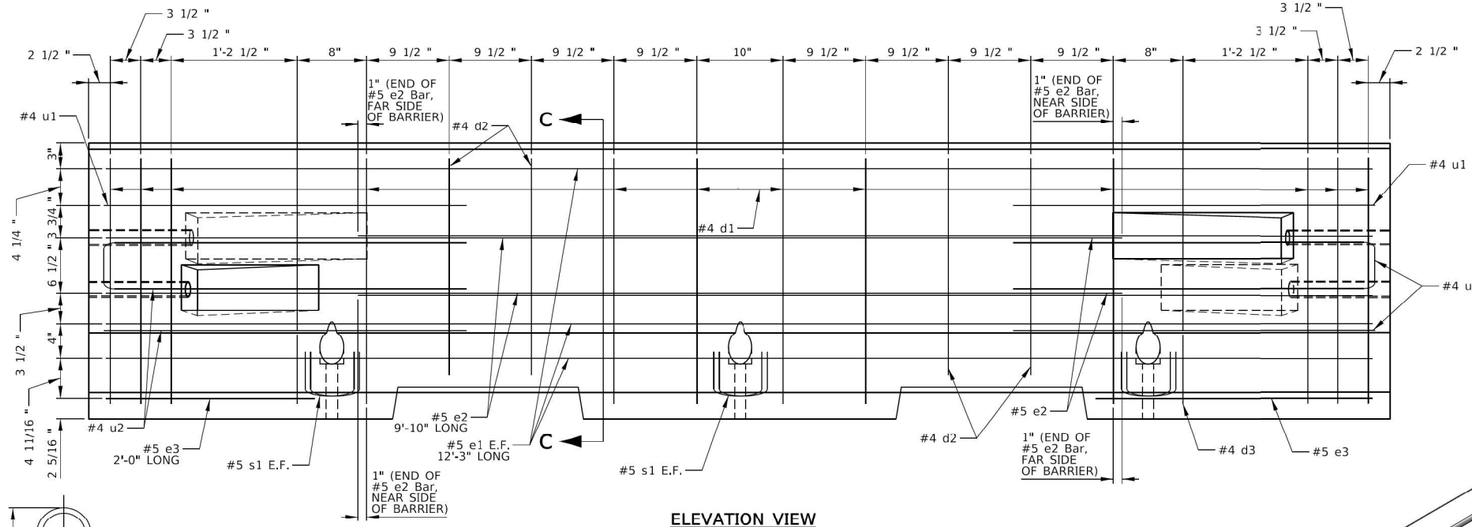
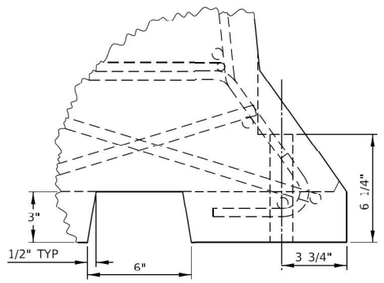


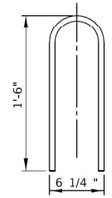
SECTION C-C



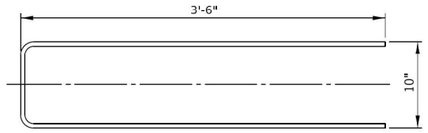
ELEVATION VIEW
(REINFORCEMENT)



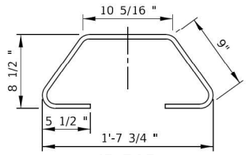
DETAIL B



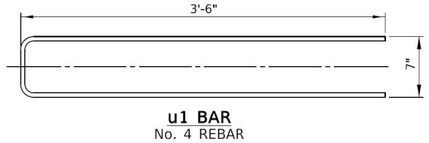
s1 BAR
No. 5 REBAR



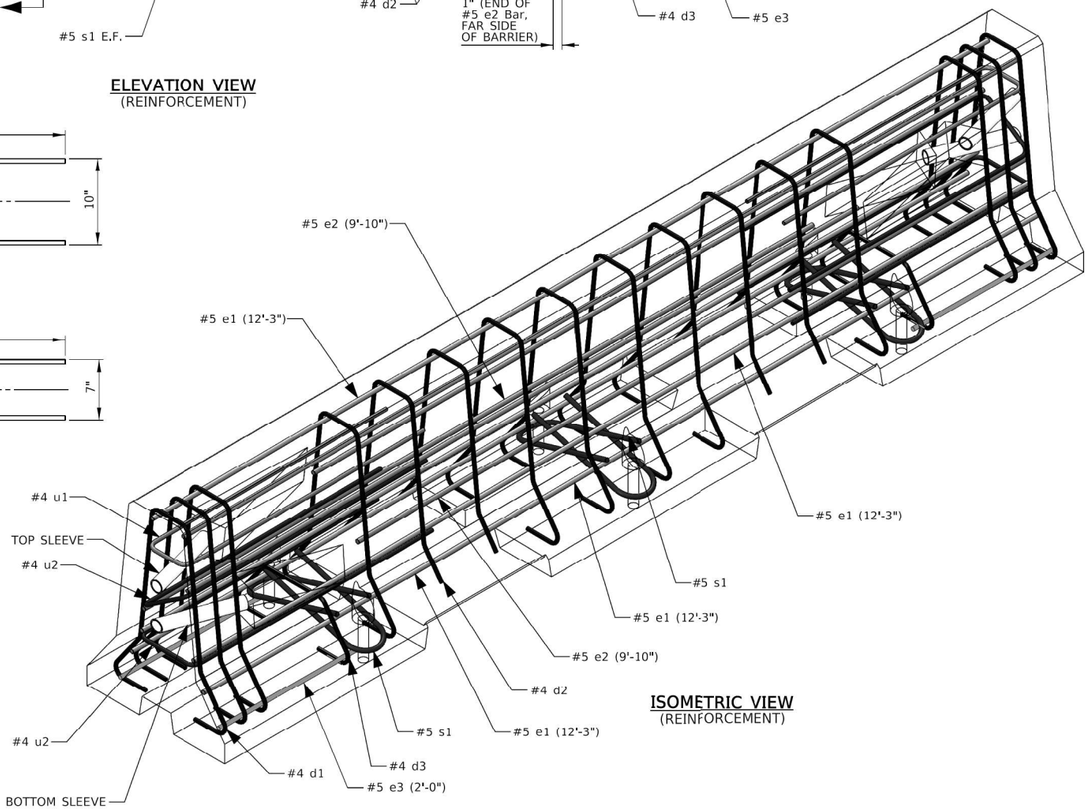
u2 BAR
No. 4 REBAR



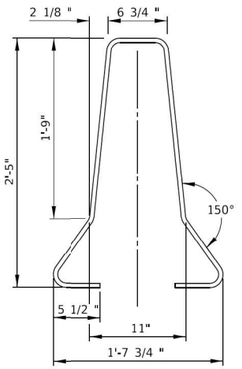
d3 BAR
No. 4 REBAR



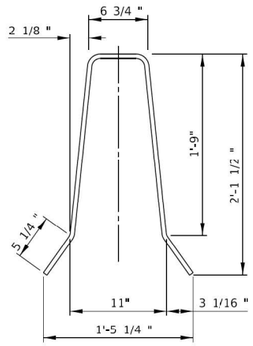
u1 BAR
No. 4 REBAR



ISOMETRIC VIEW
(REINFORCEMENT)



d1 BAR
No. 4 REBAR



d2 BAR
No. 4 REBAR

APPROVED BY:
CHIEF ENGINEERING OFFICER
DATE: 03/01/2023

Illinois Tollway

TEMPORARY CONCRETE BARRIER WITH CROSS-BOLT CONNECTION

VERSION:	STANDARD:	SHEET:
2023-03	D10-03	2 OF 2

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline.Ng	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -

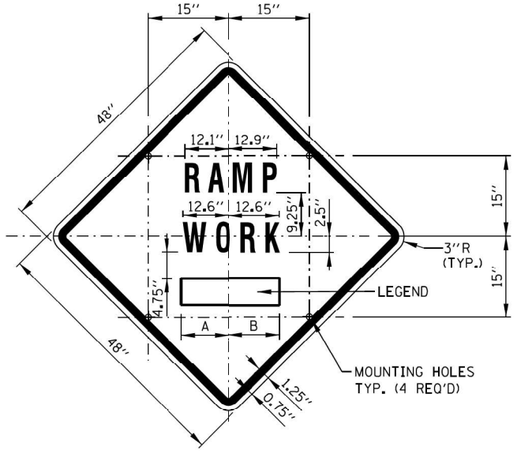
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLLWAY STANDARDS

SCALE: | SHEET 2 OF 2 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	163
		CONTRACT NO. 62U90		
		ILLINOIS	FED. AID PROJECT	

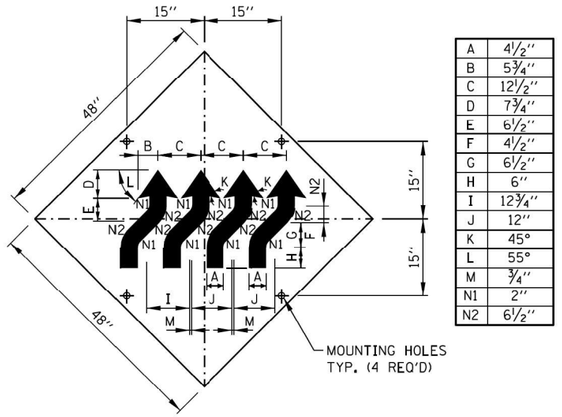
MODEL: Default
FILE NAME: pw:\\aecomnetpw.bentley.com:AECOM_0519_IMADocuments\606585831-190910-CADD10_CAD\WBWIB-TOLL\03_SHEETS\CivilD162U90-SHT-TollStandards-D10-03-02.dgn



SIGN NO.	LEGEND	A	B
TS-2A	AHEAD	15.50''	15.50''
TS-2B	500 FT	14.25''	15.13''
TS-2C	1000 FT	14.88'' ∠2	15.75'' ∠2
TS-2D	1500 FT	14.88'' ∠2	15.75'' ∠2
TS-2E	½ MILE	15.75'' ∠3	15.75'' ∠3
TS-2F	1 MILE	13.06''	13.06''

SIGN TS-2 (O)

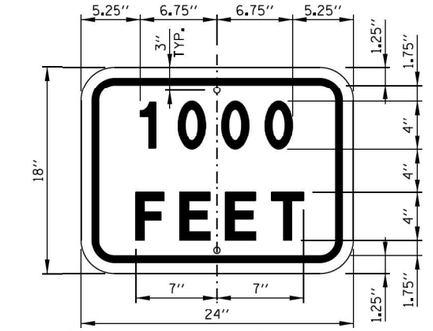
COLOR: BACKGROUND - FLUORESCENT ORANGE (O)
BORDER AND SYMBOL - BLACK
SIZE: 48''x48''
LETTERING: 7'' FEDERAL SERIES D
MOUNTING HOLES: 7/16'' DIA., 4 HOLES SPACED AS SHOWN



A	4½''
B	5¾''
C	12½''
D	7¾''
E	6½''
F	4½''
G	6½''
H	6''
I	12¾''
J	12''
K	45°
L	55°
M	¾''
N1	2''
N2	6½''

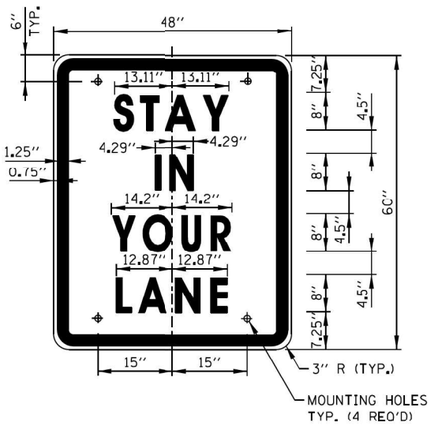
SIGN W1-4dR (O)

COLOR: BACKGROUND-FLUORESCENT ORANGE (O)
TYPE A REFLECTIVE
SHEETING PER STANDARD
SPECIFICATIONS (✳A)
BORDER AND LETTERS-BLACK
SIZE: 48''x48''
MOUNTING HOLES: 7/16'' DIA., 4 HOLES SPACED AS SHOWN.



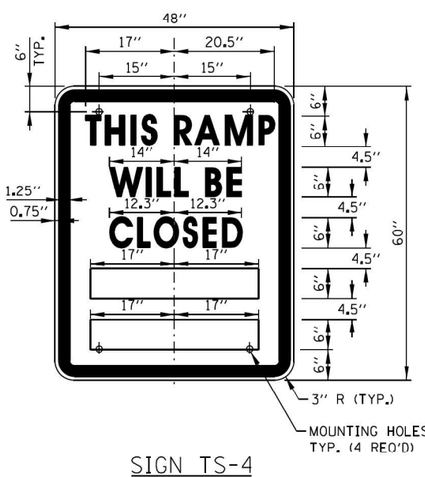
SUPPLEMENTAL PLATE (O)

COLOR: BACKGROUND - FLUORESCENT ORANGE (O)
BORDER AND LETTERS - BLACK
SIZE: 24''x18''
LETTERING: 4'' FEDERAL SERIES D
MOUNTING HOLES: 7/16'' DIA., 2 HOLES SPACED AS SHOWN



SIGN TS-3

COLOR: BACKGROUND - WHITE (REFLECTORIZED) (✳A)
BORDER AND LETTERS - BLACK
SIZE: 48''x60''
LETTERING: LEGEND - 8'' FEDERAL SERIES D
MOUNTING HOLES: 7/16'' DIA., 4 HOLES, SPACED AS SHOWN

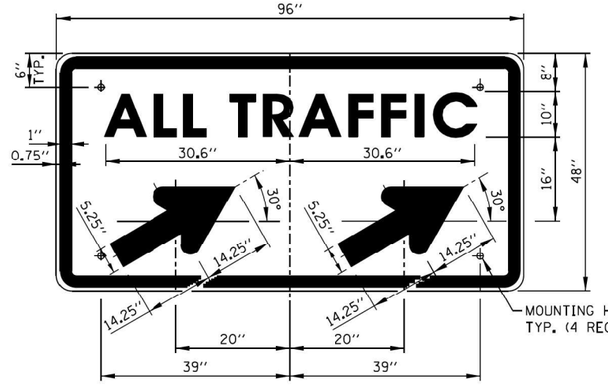


SIGN TS-4

COLOR: BACKGROUND - WHITE (REFLECTORIZED)(✳A)
BORDER AND LETTERS - BLACK
SIZE: 48''x60''
LETTERING: LEGEND - 6'' FEDERAL SERIES C
MOUNTING HOLES: 7/16'' DIA., 4 HOLES, SPACED AS SHOWN

RAMP CLOSURE ADVANCE INFORMATION SIGN

THE VARIABLE MESSAGE WITH DATES FOR THE BOTTOM TWO LINES SHALL BE DETERMINED BY THE ENGINEER AND GIVEN TO THE CONTRACTOR BEFORE THE REQUIRED FIELD ERECTION DATE.



SIGN TS-5a & TS-5b

COLOR: BACKGROUND - WHITE (REFLECTORIZED)(✳A)
BORDER AND LETTERS - BLACK
ARROW - BLACK
SIZE: 96''x48''
LETTERING: 10'' FEDERAL SERIES D
MOUNTING HOLES: 7/16'' DIA., 4 HOLES, SPACED AS SHOWN
NOTE: SIGN TS-5a IS SHOWN, SUBSTITUTE LEGEND "➘" FOR "➘➘" FOR SIGN TS-5b

NOTES:

1. ALL LETTERING IS DESIGNATED BY SIZE AND SERIES IN ACCORDANCE WITH THE LATEST EDITION OF "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKINGS" AS PUBLISHED BY THE U.S. DEPARTMENT OF TRANSPORTATION. LETTERING SPACING SHALL BE IN ACCORDANCE WITH THIS GUIDE EXCEPT WHERE NOTED.
2. SYMBOLS AND ARROWS SHALL CONFORM TO THE DETAILS SHOWN IN THE LATEST EDITION OF "STANDARD HIGHWAY SIGNS" AS PUBLISHED BY THE U.S. DEPARTMENT OF TRANSPORTATION.
3. SEE THE CONTRACT REQUIREMENTS FOR ADDITIONAL NOTES AND SPECIFICATIONS.
   (O) FLUORESCENT ORANGE REFLECTIVE SHEETING PER THE STANDARD SPECIFICATIONS.
   (✳A) - REFLECTIVE SHEETING PER THE STANDARD SPECIFICATIONS.
4. DIMENSIONS INDICATED THUS ∠ ARE BASED ON A REDUCTION IN STANDARD LETTERING SPACING AS SHOWN BELOW:
   ∠1 SPACING REDUCED BY 25%
   ∠2 SPACING REDUCED BY 40%
   ∠3 SPACING REDUCED BY 50%

APPROVED BY: Paul Kovacs, CHIEF ENGINEERING OFFICER — DATE: 05/01/2009

DATE	REVISIONS
3-01-2019	REMOVED STANDARD IDOT SIGNS,
	REVISED WZSL ASSEMBLY. ADDED
	WZSL TRANSITION
3-31-2017	REVISED END WZSL SIGN COLOR
3-11-2015	REVISED NOTES

Illinois Tollway

CONSTRUCTION SIGNS

STANDARD E1-07

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline.Ng	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLLWAY STANDARDS

SCALE: | SHEET 1 OF 2 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	164
		CONTRACT NO. 62U90		
	ILLINOIS	FED. AID PROJECT		

MODEL: Default
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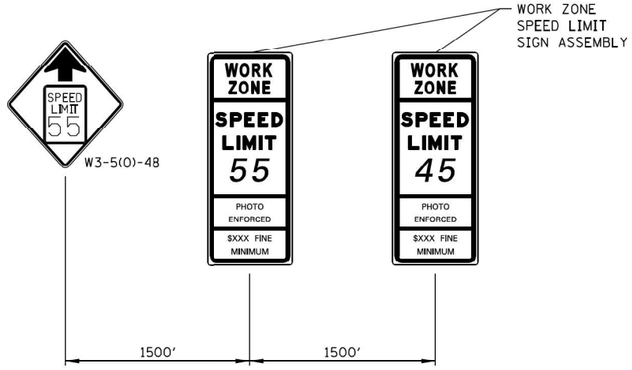
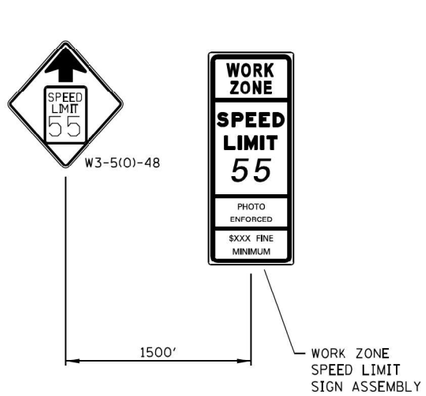
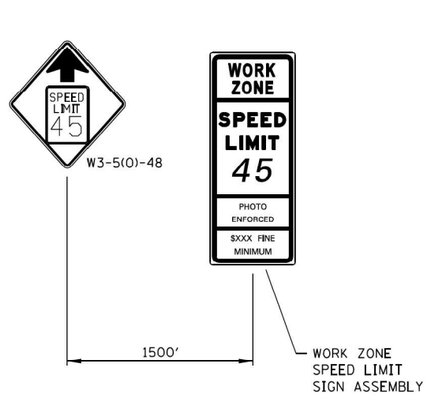


70 MPH TO 45 MPH

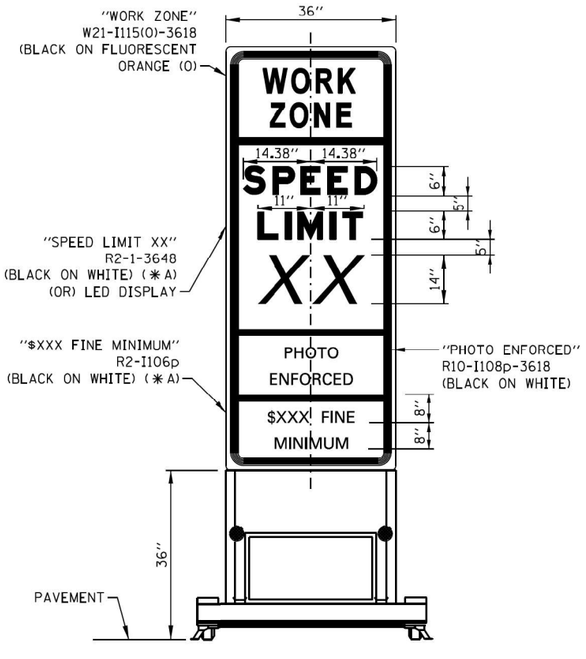


70 MPH TO 55 MPH

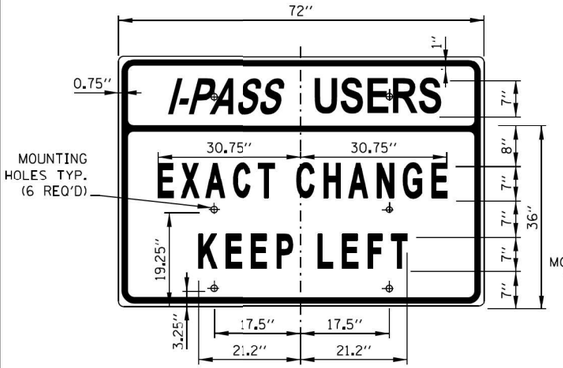


60 MPH TO 45 MPH

WORK ZONE SPEED LIMIT TRANSITION SIGNAGE

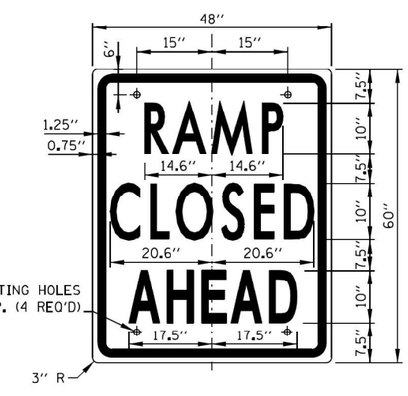


WORK ZONE SPEED LIMIT SIGN ASSEMBLY



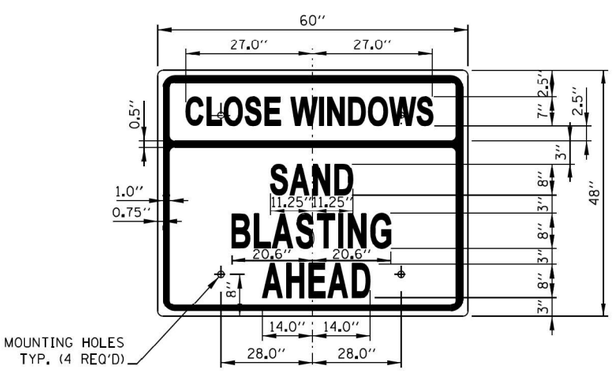
SIGN TS-7

COLOR: BACKGROUND - WHITE (REFLECTORIZED) (* A)
BORDER AND LETTERS - BLACK
SIZE: 72"x36"
LETTERING: 7" FEDERAL SERIES C
MOUNTING HOLES: 7/16" DIA., 4 HOLES SPACED AS SHOWN



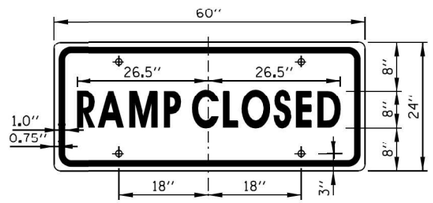
SIGN TS-9

COLOR: BACKGROUND - WHITE (REFLECTORIZED) (* A)
BORDER AND LETTERS - BLACK
SIZE: 48"x60"
LETTERING: 10" FEDERAL SERIES C
MOUNTING HOLES: 7/16" DIA., 4 HOLES SPACED AS SHOWN



SIGN TS-10 (O)

COLOR: BACKGROUND - FLUORESCENT ORANGE (O)
BORDER AND LETTERS - BLACK
SIZE: 60"x48"
LETTERING: 8" FEDERAL SERIES C, 7" FEDERAL SERIES B
MOUNTING HOLES: 7/16" DIA., 4 HOLES SPACED AS SHOWN



SIGN TS-6

COLOR: BACKGROUND - WHITE (REFLECTORIZED) (* A)
BORDER AND LETTERS - BLACK
SIZE: 60"x24"
LETTERING: 8" FEDERAL SERIES C
MOUNTING HOLES: 7/16" DIA., 4 HOLES SPACED AS SHOWN

APPROVED BY: Paul Kovacs, CHIEF ENGINEERING OFFICER — DATE: 05/01/2009

NOTE:
SEE SHEET 1 OF THIS SERIES FOR NOTES.

Illinois Tollway

CONSTRUCTION SIGNS

STANDARD E1-07

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline.Ng	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -

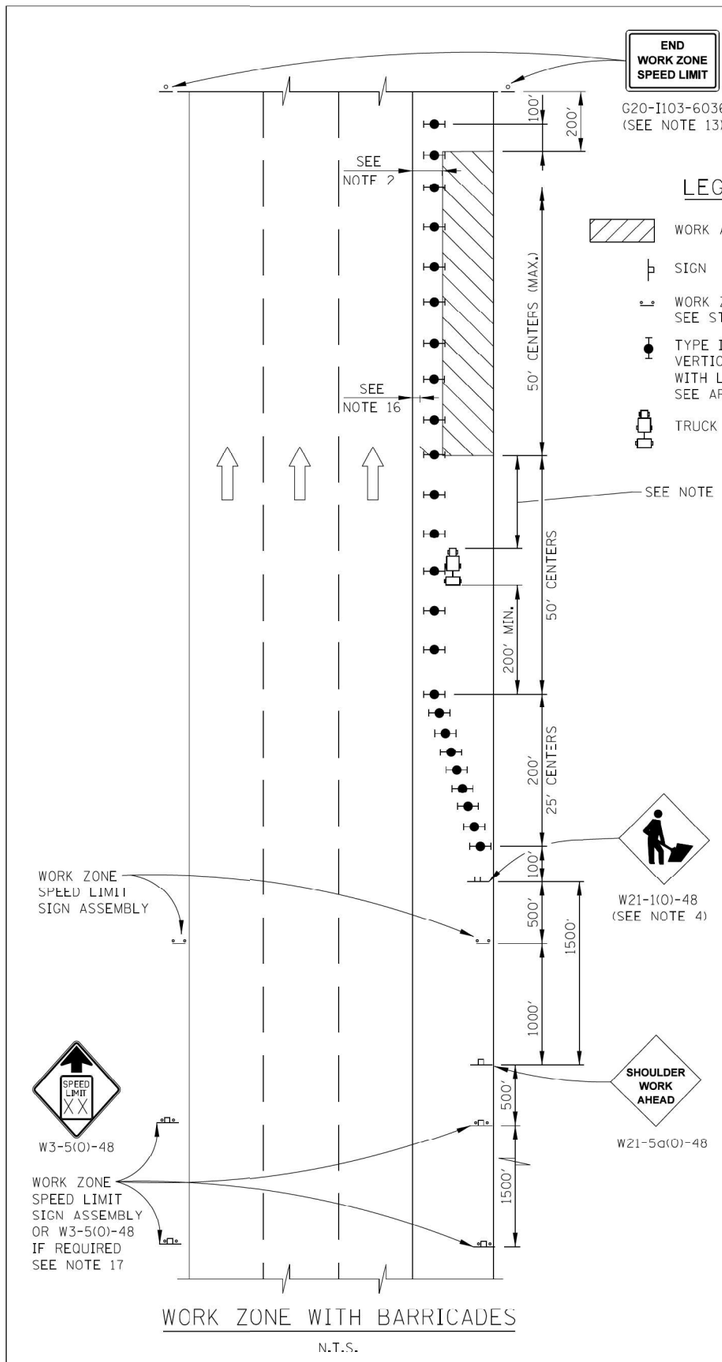
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLLWAY STANDARDS

SCALE: | SHEET 2 OF 2 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	165
		CONTRACT NO. 62U90		
	ILLINOIS	FED. AID PROJECT		

MODEL: Default
FILE NAME: pw:\\aecom-ims-pw.bentley.com:AECOM_DS19_NA\Documents\60658563-1-190910-CAD910_CAD\WB\B-TOLL\03-SHEETS\ctwlid162190-SHT-TollStandards-E1-07-02.dgn

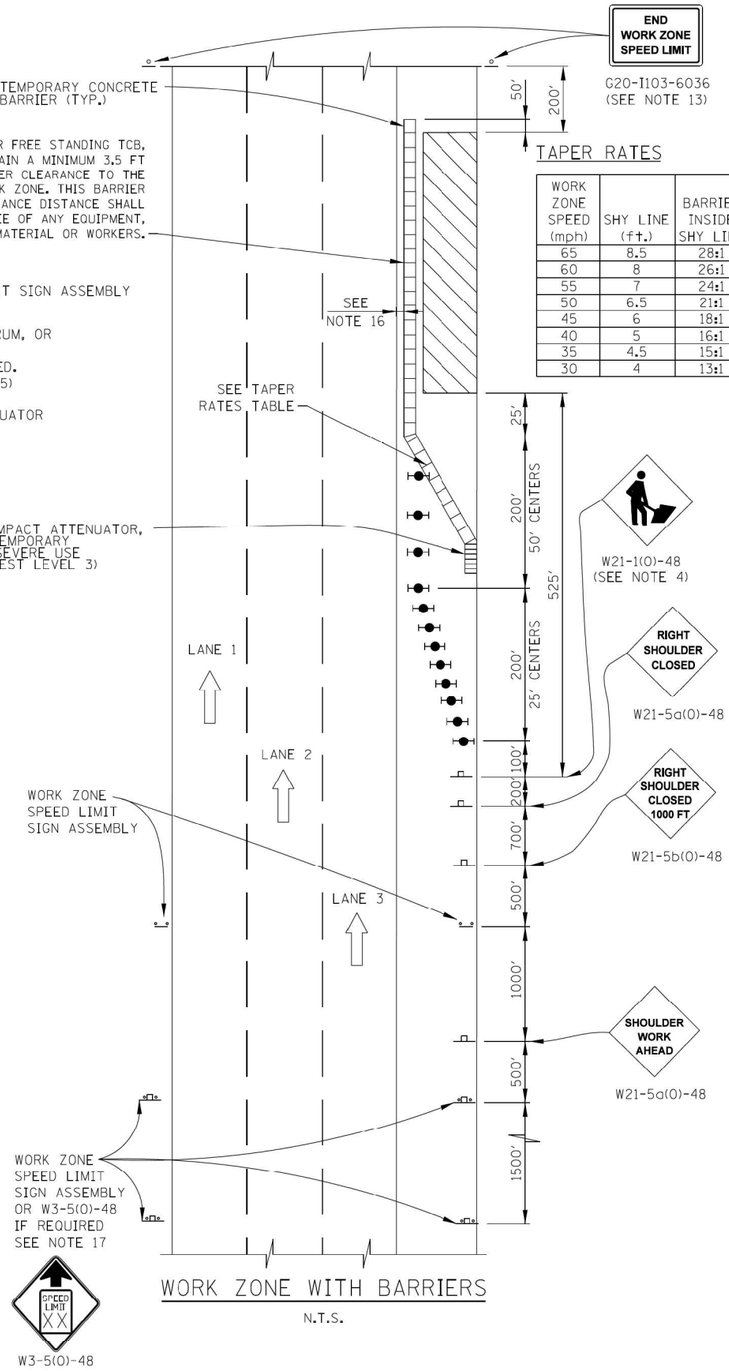


WORK ZONE WITH BARRICADES

N.T.S.

LEGEND

- WORK AREA
- SIGN
- WORK ZONE SPEED LIMIT SIGN ASSEMBLY SEE STANDARD E1
- TYPE II BARRICADE, DRUM, OR VERTICAL BARRICADE WITH LIGHT IF REQUIRED. SEE ARTICLE 701.05(a)(5)
- TRUCK MOUNTED ATTENUATOR



WORK ZONE WITH BARRIERS

N.T.S.

TAPER RATES

WORK ZONE SPEED (mph)	SHY LINE (ft.)	BARRIER INSIDE SHY LINE	BARRIER AT OR BEYOND SHY LINE
65	8.5	28:1	19:1
60	8	26:1	18:1
55	7	24:1	16:1
50	6.5	21:1	14:1
45	6	18:1	12:1
40	5	16:1	10:1
35	4.5	15:1	9:1
30	4	13:1	8:1

GENERAL NOTES:

1. THE SHOULDER SHALL BE CLOSED WHEN A WORK ACTIVITY REQUIRING 15 OR MORE MINUTES IS PERFORMED AT A DISTANCE WHICH IS LESS THAN 15 FEET BUT NO CLOSER THAN 2 FEET FROM THE EDGE OF TRAVELED WAY.
2. THE ADJACENT EXTERIOR LANE SHALL BE CLOSED WHEN WORK IS PERFORMED WITHIN 2 FEET FROM THE EDGE OF TRAVELED WAY.
3. THE CHANNELIZING DEVICES WHICH SEPARATE THE WORK SPACE FROM THE ADJACENT TRAVEL LANE SHALL BE SPACED AT 25' FOR (200 FEET) AND AT A MAXIMUM OF 50' FOR ALL ADDITIONAL DEVICES.
4. WHEN THE WORK SITE IS UNATTENDED, SUBSTITUTE - "SHOULDER WORK AHEAD" SIGN.
5. WORKER SIGNS OR SHOULDER WORK SIGNS AND CHANNELIZATION DEVICES ARE PLACED ONLY ON THE SIDE OF THE ROADWAY ON WHICH THE ACTIVITY IS PERFORMED.
6. FOR SHOULDER CLOSURE EXTENDING OVERNIGHT, BARRICADE TYPE II SHALL BE USED. SEE ARTICLE 701.05(a)(5) FOR BARRICADE LIGHT REQUIREMENTS
7. FOR SHORT TERM CLOSURE (SUNRISE TO ONE HOUR BEFORE SUNSET) NOT EXTENDING INTO DARKNESS, CONES MAY BE USED.
8. ONE WORK ZONE SPEED LIMIT SIGN ASSEMBLY SHALL BE PLACED AT A DISTANCE OF 500' TO 2,500' MAXIMUM IN ADVANCE OF WORKERS THROUGHOUT THE SHOULDER CLOSURE. MOVING OPERATIONS MAY REQUIRE CONTINUOUS ADJUSTMENT OF THE SIGN ASSEMBLY LOCATION TO MAINTAIN THE ABOVE INTERVAL.
9. AN ADDITIONAL SIGN ASSEMBLY SHALL BE PLACED 500' BEYOND THE LAST ENTRANCE RAMP FOR EACH INTERCHANGE THAT FALLS WITHIN THE 2,500'.
10. THE SIGN ASSEMBLY SHALL BE PLACED NO CLOSER THAN 500' TO ANY OTHER SIGN.
11. THE WORK ZONE SPEED LIMIT SIGNS AND SIGN ASSEMBLY SHALL BE PROMPTLY REMOVED OR COVERED WHEN SHOULDER CLOSURE IS REMOVED.
12. ALL CONFLICTING SPEED LIMIT SIGNS SHALL BE COVERED OR REMOVED.
13. "END WORK ZONE SPEED LIMIT" SIGNS SHALL BE IN PLACE ONLY WHEN THE EXISTING POSTED SPEED > 55MPH.
14. FOR SHOULDER REPAIRS OR REPLACEMENT THE CHANNELIZING DEVICES SHALL BE PLACED AT THE EDGE OF PAVEMENT WHENEVER THE WORK ACTIVITIES RESULT IN A DROP OFF AT THE EDGE OF PAVEMENT.
15. ANY UNATTENDED OBSTACLE OR EXCAVATION LEFT ON THE SHOULDER OVERNIGHT SHALL BE IN COMPLIANCE WITH THE ROADWAY TRAFFIC CONTROL AND COMMUNICATIONS MANUAL.
16. A 1'-0" MINIMUM/2'-0" DESIRABLE SHY DISTANCE SHALL BE PROVIDED, MEASURED BETWEEN EDGE OF PAVEMENT LANE MARKING TO THE EDGE OF THE TRAFFIC CONTROL DEVICE.
17. SEE STANDARD E1 FOR ADDITIONAL SIGNAGE REQUIRED WHEN WORK ZONE SPEED LIMIT IS REDUCED BY MORE THAN 10 MPH.
18. IN WORK ZONES WITH NO POSITIVE PROTECTION, A TRUCK MOUNTED ATTENUATOR SHALL BE PROVIDED WITH A BUFFER AREA BETWEEN THE FRONT OF THE TMA AND WORKERS OR EQUIPMENT. THE BUFFER AREA SHALL BE 200' UNLESS OTHERWISE DETERMINED. WHERE WORKERS OR EQUIPMENT ARE PRESENT BEYOND THE WORK AREA, AN ADDITIONAL TMA SHALL BE PROVIDED FOR EACH WORK AREA IS DEFINED AS STARTING AT THE END OF THE BUFFER AREA, EXTENDING 1000 FEET BEYOND THIS POINT.

APPROVED BY: Marco Nashif, CHIEF ENGINEERING OFFICER — DATE: 03/01/2024

DATE	REVISIONS
3-01-2024	REVISED NOTE 1, 2 AND 6. ADDED
	CALLOUT FOR NOTE 2. REDUCED
	WORK ZONE HATCH
3-01-2021	DELETED WORK ZONE PUBLIC
	INFORMATION SIGN

Illinois Tollway

SHOULDER CLOSURE DETAILS

STANDARD E3-10

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline,Ng	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLLWAY STANDARDS

SCALE: | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	166
		CONTRACT NO. 62U90		
		ILLINOIS	FED. AID PROJECT	

MODEL: Default
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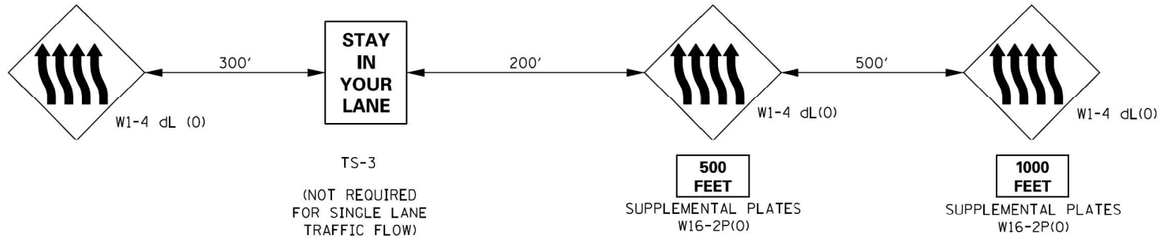


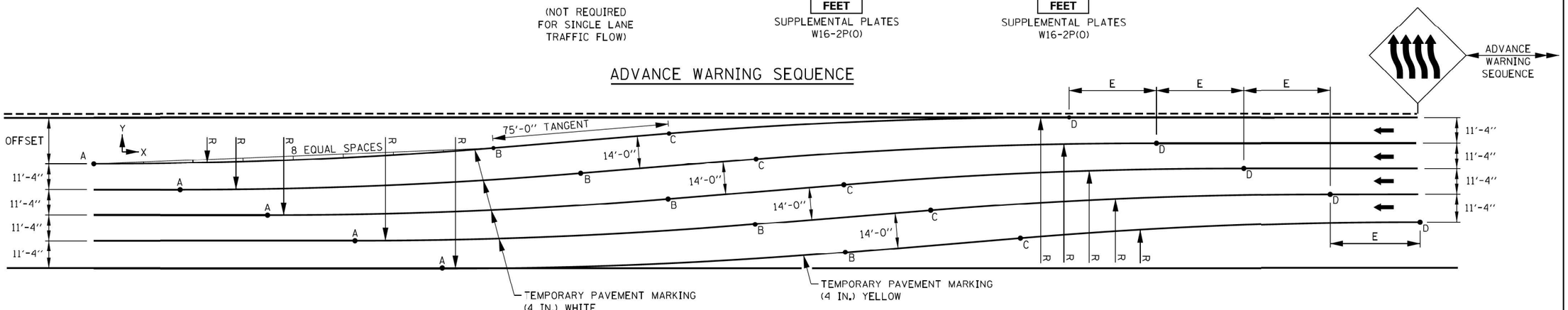
TS-3

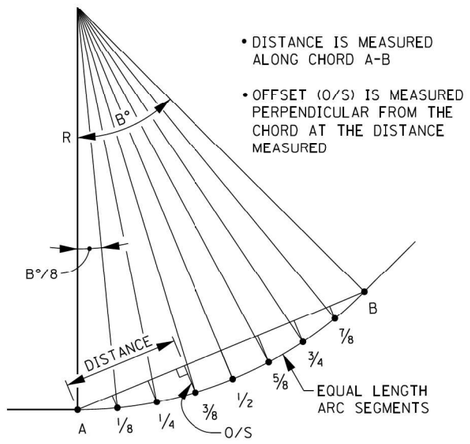
(NOT REQUIRED FOR SINGLE LANE TRAFFIC FLOW)

500 FEET
SUPPLEMENTAL PLATES
W16-2P(0)

1000 FEET
SUPPLEMENTAL PLATES
W16-2P(0)

ADVANCE WARNING SEQUENCE





CHORD OFFSET SKETCH

GENERAL NOTES:

1. REVERSE CURVE INFORMATION CAN BE USED FOR SINGLE LANE OR MULTILANE TRAFFIC FLOWS, SHIFTING RIGHT TO LEFT (AS SHOWN) OR LEFT TO RIGHT BY CHANGING TO THE APPROPRIATE ADVANCE WARNING SEQUENCE.
2. THE REVERSE CURVE SHALL NOT BE USED OUTSIDE THE ACTIVITY AREA. LANE SHIFTS IN ADVANCE OF OR ON THE APPROACH TO THE ACTIVITY AREA SHALL BE IMPLEMENTED WITH A SHIFT RATE OF 65:1.
3. LANE SHIFTS FOR DEPARTURES OUT OF THE ACTIVITY AREA SHALL BE IMPLEMENTED WITH A SHIFT RATE OF 65:1.

APPROVED BY: Paul Kovacs, CHIEF ENGINEERING OFFICER — DATE: 02/07/2012

DATE	REVISIONS
3-31-2017	REVISED TABLE DATA ON SHEET 2.
3-31-2016	REVISED TABLE DATA ON SHEET 2.
3-11-2015	REVISED NOTES AND ADDED RADIUS DIMENSIONS TO TABLES.
3-31-2014	REVISED CURVE DATA PER MPH AND REVISED NOTES.

SHEET 1 OF 2

Illinois Tollway

MAINTENANCE OF TRAFFIC REVERSE CURVE

STANDARD E4-07

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline,Ng	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLLWAY STANDARDS

SCALE: | SHEET 1 OF 2 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	167
		CONTRACT NO. 62U90		
	ILLINOIS	FED. AID PROJECT		

MODEL: Default
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TYPE I (45 MPH) (RADIUS: 2100')

			POINT LAY-OUT								CHORD OFFSET DATA							
OFFSET	E	B	A		B		C		D		1/8 & 7/8		1/4 & 3/4		3/8 & 5/8		1/2	
			X	Y	X	Y	X	Y	X	Y	O/S	DIST	O/S	DIST	O/S	DIST	O/S	DIST
10	50.23	3.06	0	0	112.2	3.0	187.1	7.0	299.2	10.0	0.3	14.0	0.6	28.0	0.7	42.1	0.7	56.1
12	44.94	3.43	0	0	125.6	3.8	200.4	8.2	326.0	12.0	0.4	15.7	0.7	31.4	0.9	47.1	0.9	62.8
14	40.96	3.77	0	0	138.0	4.5	212.8	9.5	350.8	14.0	0.5	17.3	0.9	34.5	1.1	51.8	1.1	69.0
16	37.86	4.08	0	0	149.5	5.3	224.3	10.7	373.9	16.0	0.6	18.7	1.0	37.4	1.2	56.1	1.3	74.8
18	35.34	4.38	0	0	160.4	6.1	235.2	11.9	395.6	18.0	0.7	20.1	1.2	40.1	1.4	60.2	1.5	80.3
20	33.26	4.66	0	0	170.7	7.0	245.5	13.0	416.2	20.0	0.8	21.4	1.3	42.7	1.6	64.1	1.7	85.4
22	31.50	4.93	0	0	180.5	7.8	255.3	14.2	435.8	22.0	0.9	22.6	1.5	45.2	1.8	67.8	1.9	90.4
24	30.00	5.19	0	0	189.9	8.6	264.6	15.4	454.6	24.0	0.9	23.8	1.6	47.5	2.0	71.3	2.2	95.1
26	28.68	5.44	0	0	199.0	9.4	273.6	16.6	472.6	26.0	1.0	24.9	1.8	49.8	2.2	74.7	2.4	99.6
28	27.53	5.67	0	0	207.7	10.3	282.3	17.7	489.9	28.0	1.1	26.0	1.9	52.0	2.4	78.0	2.6	104.0
30	26.51	5.90	0	0	216.0	11.1	290.6	18.9	506.7	30.0	1.2	27.0	2.1	54.1	2.6	81.1	2.8	108.2
32	25.59	6.13	0	0	224.2	12.0	298.7	20.0	522.9	32.0	1.3	28.0	2.3	56.1	2.8	84.2	3.0	112.2
34	24.76	6.34	0	0	232.0	12.9	306.6	21.1	538.6	34.0	1.4	29.0	2.4	58.1	3.0	87.1	3.2	116.2
36	24.02	6.55	0	0	239.7	13.7	314.2	22.3	553.8	36.0	1.5	30.0	2.6	60.0	3.2	90.0	3.4	120.0
38	23.33	6.76	0	0	247.1	14.6	321.6	23.4	568.7	38.0	1.6	30.9	2.7	61.9	3.4	92.8	3.7	123.8
40	22.71	6.96	0	0	254.3	15.5	328.8	24.5	583.1	40.0	1.7	31.8	2.9	63.7	3.6	95.5	3.9	127.4
42	22.13	7.15	0	0	261.4	16.3	335.8	25.7	597.2	42.0	1.8	32.7	3.1	65.4	3.8	98.2	4.1	131.0
44	21.60	7.34	0	0	268.3	17.2	342.7	26.8	611.0	44.0	1.9	33.6	3.2	67.2	4.0	100.8	4.3	134.4
46	21.11	7.53	0	0	275.0	18.1	349.4	27.9	624.4	46.0	2.0	34.4	3.4	68.9	4.2	103.3	4.5	137.8
48	20.65	7.71	0	0	281.6	19.0	356.0	29.0	637.6	48.0	2.1	35.2	3.6	70.5	4.5	105.8	4.7	141.1
50	20.22	7.89	0	0	288.1	19.9	362.4	30.1	650.5	50.0	2.2	36.1	3.7	72.2	4.7	108.3	5.0	144.4
52	19.82	8.06	0	0	294.4	20.7	368.7	31.3	663.1	52.0	2.3	36.9	3.9	73.7	4.9	110.7	5.2	147.6
54	19.44	8.23	0	0	300.6	21.6	374.9	32.4	675.5	54.0	2.4	37.6	4.1	75.3	5.1	113.0	5.4	150.7
56	19.09	8.40	0	0	306.7	22.5	380.9	33.5	687.7	56.0	2.5	38.4	4.2	76.8	5.3	115.3	5.6	153.8
58	18.76	8.56	0	0	312.7	23.4	386.9	34.6	699.6	58.0	2.6	39.2	4.4	78.3	5.5	117.6	5.9	156.8
60	18.44	8.73	0	0	318.6	24.3	392.7	35.7	711.4	60.0	2.7	39.9	4.6	79.8	5.7	119.8	6.1	159.8

TYPE II (50-55 MPH) (RADIUS: 3100')

			POINT LAY-OUT								CHORD OFFSET DATA							
OFFSET	E	B	A		B		C		D		1/8 & 7/8		1/4 & 3/4		3/8 & 5/8		1/2	
			X	Y	X	Y	X	Y	X	Y	O/S	DIST	O/S	DIST	O/S	DIST	O/S	DIST
10	58.28	2.63	0	0	142.5	3.3	217.4	6.7	359.9	10.0	0.4	17.8	0.6	35.6	0.8	53.4	0.8	71.3
12	52.30	2.94	0	0	158.9	4.1	233.8	7.9	392.8	12.0	0.4	19.9	0.8	39.7	1.0	59.6	1.0	79.5
14	47.80	3.22	0	0	174.1	4.9	249.0	9.1	423.1	14.0	0.5	21.8	0.9	43.5	1.1	65.3	1.2	87.1
16	44.25	3.48	0	0	188.3	5.7	263.1	10.3	451.4	16.0	0.6	23.5	1.1	47.1	1.3	70.6	1.4	94.2
18	41.38	3.73	0	0	201.6	6.6	276.4	11.4	478.0	18.0	0.7	25.2	1.2	50.4	1.5	75.6	1.6	100.8
20	38.99	3.96	0	0	214.2	7.4	289.0	12.6	503.2	20.0	0.8	26.8	1.4	53.6	1.7	80.4	1.9	107.2
22	36.96	4.18	0	0	226.2	8.3	301.0	13.7	527.2	22.0	0.9	28.3	1.5	56.6	1.9	84.9	2.1	113.2
24	35.22	4.40	0	0	237.7	9.1	312.5	14.9	550.1	24.0	1.0	29.7	1.7	59.5	2.1	89.2	2.3	118.9
26	33.70	4.60	0	0	248.7	10.0	323.5	16.0	572.1	26.0	1.1	31.1	1.9	62.2	2.3	93.3	2.5	124.4
28	32.36	4.80	0	0	259.3	10.9	334.0	17.1	593.3	28.0	1.2	32.4	2.0	64.9	2.5	97.3	2.7	129.8
30	31.16	4.99	0	0	269.5	11.7	344.2	18.3	613.8	30.0	1.3	33.7	2.2	67.4	2.8	101.2	2.9	134.9
32	30.10	5.17	0	0	279.4	12.6	354.1	19.4	633.6	32.0	1.4	34.9	2.4	69.9	3.0	104.9	3.2	139.9
34	29.13	5.35	0	0	289.0	13.5	363.7	20.5	652.7	34.0	1.5	36.2	2.5	72.3	3.2	108.5	3.4	144.7
36	28.25	5.52	0	0	298.4	14.4	373.0	21.6	671.4	36.0	1.6	37.3	2.7	74.7	3.4	112.0	3.6	149.4
38	27.45	5.69	0	0	307.4	15.3	382.1	22.7	689.5	38.0	1.7	38.5	2.9	76.9	3.6	115.4	3.8	153.9
40	26.72	5.86	0	0	316.3	16.2	390.9	23.8	707.1	40.0	1.8	39.6	3.0	79.1	3.8	118.7	4.0	158.3
42	26.04	6.02	0	0	324.9	17.1	399.5	24.9	724.3	42.0	1.9	40.6	3.2	81.3	4.0	122.0	4.3	162.7
44	25.41	6.17	0	0	333.3	18.0	407.9	26.0	741.1	44.0	2.0	41.7	3.4	83.4	4.2	125.1	4.5	166.9
46	24.83	6.32	0	0	341.5	18.9	416.1	27.1	757.6	46.0	2.1	42.7	3.5	85.5	4.4	128.2	4.7	171.0
48	24.29	6.47	0	0	349.6	19.8	424.1	28.2	773.6	48.0	2.2	43.7	3.7	87.5	4.6	131.3	4.9	175.1
50	23.78	6.62	0	0	357.4	20.7	431.9	29.3	789.4	50.0	2.3	44.7	3.9	89.5	4.8	134.2	5.2	179.0
52	23.31	6.76	0	0	365.2	21.6	439.6	30.4	804.8	52.0	2.4	45.7	4.0	91.4	5.1	137.2	5.4	182.9
54	22.86	6.91	0	0	372.7	22.5	447.2	31.5	819.9	54.0	2.5	46.6	4.2	93.3	5.3	140.0	5.6	186.7
56	22.44	7.04	0	0	380.2	23.4	454.6	32.6	834.8	56.0	2.6	47.6	4.4	95.2	5.5	142.8	5.9	190.5
58	22.05	7.18	0	0	387.5	24.3	461.9	33.7	849.4	58.0	2.7	48.5	4.6	97.0	5.7	145.6	6.1	194.1
60	21.67	7.31	0	0	394.7	25.2	469.1	34.8	863.7	60.0	2.8	49.4	4.7	98.8	5.9	148.3	6.3	197.7

TYPE III (60-65 MPH) (RADIUS: 4400')

			POINT LAY-OUT								CHORD OFFSET DATA							
OFFSET	E	B	A		B		C		D		1/8 & 7/8		1/4 & 3/4		3/8 & 5/8		1/2	
			X	Y	X	Y	X	Y	X	Y	O/S	DIST	O/S	DIST	O/S	DIST	O/S	DIST
10	67.06	2.29	0	0	175.6	3.5	250.5	6.5	426.1	10.0	0.4	21.9	0.7	43.9	0.8	65.8	0.9	87.8
12	60.34	2.54	0	0	195.3	4.3	270.2	7.7	465.5	12.0	0.5	24.4	0.8	48.8	1.0	73.2	1.1	97.7
14	55.24	2.78	0	0	213.5	5.2	288.4	8.8	501.8	14.0	0.6	26.7	1.0	53.4	1.2	80.1	1.3	106.8
16	51.22	3.00	0	0	230.4	6.0	305.3	10.0	535.7	16.0	0.7	28.8	1.1	57.6	1.4	86.4	1.5	115.2
18	47.95	3.21	0	0	246.3	6.9	321.2	11.1	567.5	18.0	0.8	30.8	1.3	61.6	1.6	92.4	1.7	123.2
20	45.22	3.41	0	0	261.4	7.8	336.3	12.2	597.7	20.0	0.9	32.7	1.5	65.4	1.8	98.1	1.9	130.8
22	42.90	3.59	0	0	275.8	8.6	350.6	13.4	626.4	22.0	0.9	34.5	1.6	69.0	2.0	103.5	2.2	137.9
24	40.91	3.77	0	0	289.5	9.5	364.3	14.5	653.8	24.0	1.0	36.2	1.8	72.4	2.2	108.6	2.4	144.8
26	39.16	3.94	0	0	302.6	10.4	377.5	15.6	680.1	26.0	1.1	37.8	2.0	75.7	2.4	113.6	2.6	151.4
28	37.62	4.11	0	0	315.3	11.3	390.1	16.7	705.4	28.0	1.2	39.4	2.1	78.9	2.7	118.3	2.8	157.8
30	36.24	4.27	0	0	327.5	12.2	402.3	17.8	729.9	30.0	1.3	41.0	2.3	81.9	2.9	122.9	3.1	163.9
32	35.01	4.42	0	0	339.4	13.1	414.2	18.9	753.5	32.0	1.4	42.4	2.5	84.9	3.1	127.4	3.3	169.8
34	33.90	4.57	0	0	350.8	14.0	425.6	20.0	776.4	34.0	1.5	43.9	2.6	87.8	3.3	131.7	3.5	175.6
36	32.88	4.72	0	0	362.0	14.9	436.7	21.1	798.7	36.0	1.6	45.3	2.8	90.6	3.5	135.8	3.7	181.1
38	31.95	4.86	0	0	372.8	15.8	447.5	22.2	820.4	38.0	1.7	46.6	3.0	93.3	3.7	139.9	4.0	186.6
40	31.10	5.00	0	0	383.4	16.7	458.1	23.3	841.4	40.0	1.8	47.9	3.1	95.9	3.9	143.9	4.2	191.9
42	30.31	5.13	0	0	393.7	17.6	468.4	24.4	862.0	42.0	1.9	49.2	3.3	98.5	4.1	147.8	4.4	197.0
44	29.59	5.26	0	0	403.7	18.6	478.4	25.4	882.1	44.0	2.0	50.5	3.5	101.0	4.4	151.5	4.6	202.1
46	28.91	5.39	0	0	413.5	19.5	488.2	26.5	901.7	46.0	2.1	51.7	3.7	103.5	4.6	155.2	4.9	207.0
48	28.28	5.52	0	0	423.1	20.4	497.8	27.6	920.9	48.0	2.2	52.9	3.8	105.9	4.8	158.8	5.1	211.8
50	27.68	5.64	0	0	432.6	21.3	507.2	28.7	939.7	50.0	2.3	54.1	4.0	108.2	5.0	162.4	5.3	216.5
52	27.13	5.76	0	0	441.8	22.2	516.4	29.8	958.2	52.0	2.4	55.3	4.2	110.6	5.2	165.9	5.6	221.2
54	26.61	5.88	0	0	450.8	23.2	525.4	30.8	976.3	54.0	2.5	56.4	4.3	112.8	5.4	169.3	5.8	225.7
56	26.12	6.00	0	0	459.7	24.1	534.3	31.9	994.0	56.0	2.6	57.5	4.5	115.0	5.6	172.6	6.0	230.2
58	25.65	6.11	0	0	468.4	25.0	543.0	33.0	1011.5	58.0	2.7	58.6	4.7	117.2	5.9	175.9	6.3	234.6
60	25.21	6.22	0	0	477.0	25.9	551.6	34.1	1028.6	60.0	2.8	59.7	4.9	119.4	6.1	179.1	6.5	238.9

APPROVED BY:
Paul Kovacs
CHIEF ENGINEERING OFFICER
DATE: 02/07/2012

SHEET 2 OF 2

Illinois Tollway

MAINTENANCE OF TRAFFIC
REVERSE CURVE

STANDARD E4-07

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline,Ng	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -

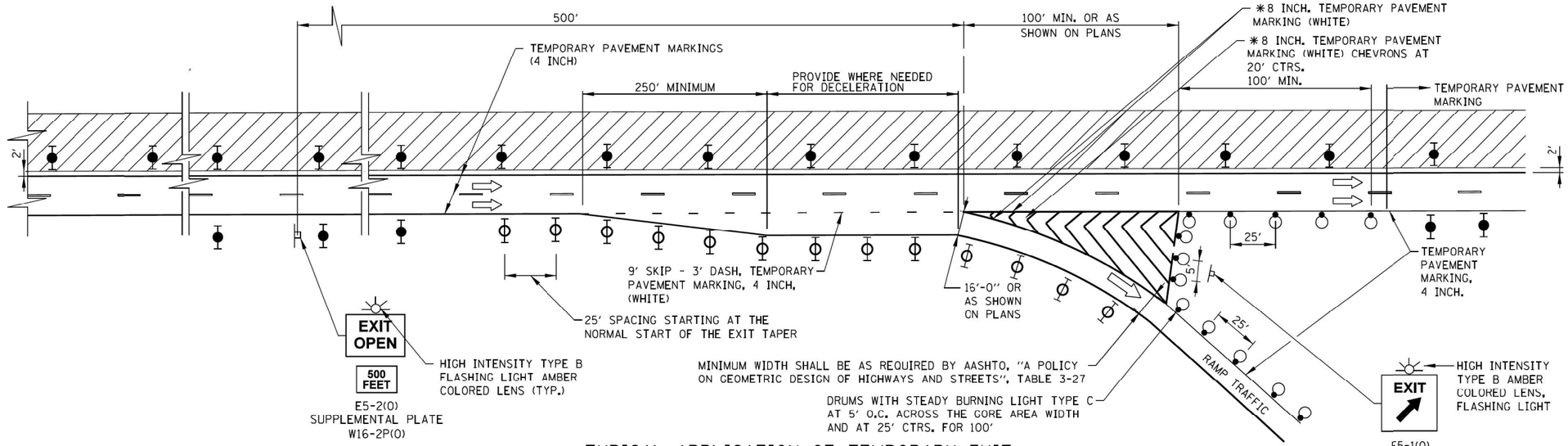
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLLWAY STANDARDS

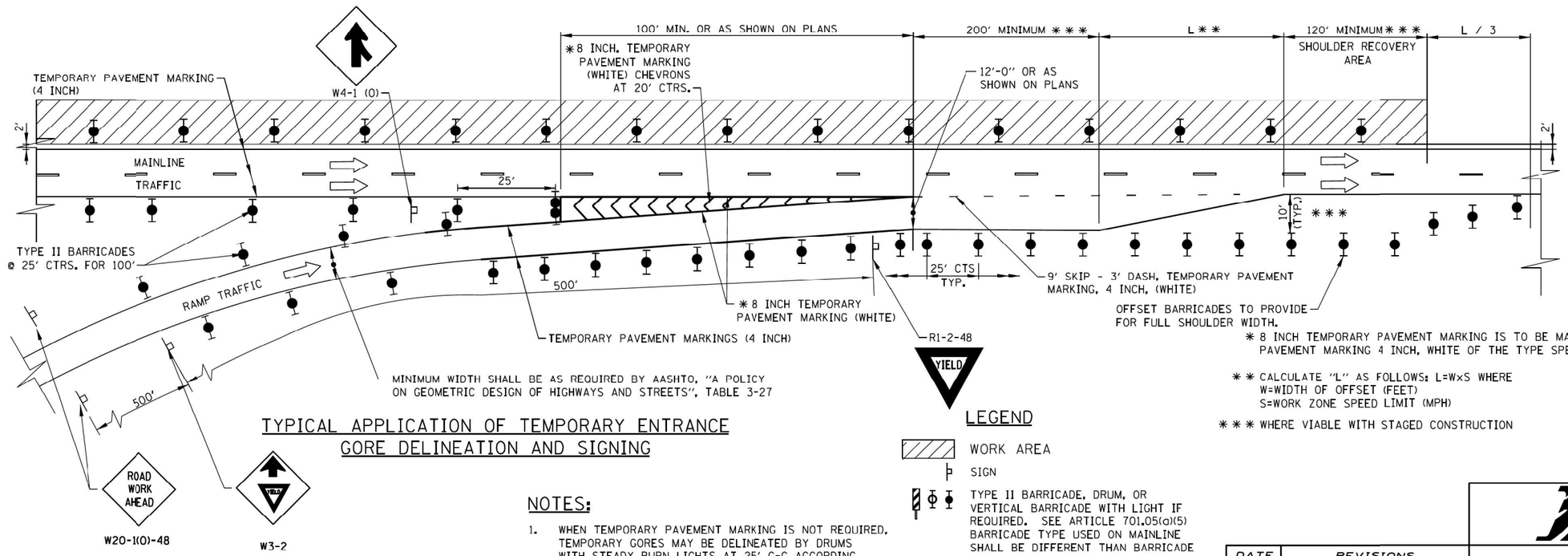
SCALE: | SHEET 2 OF 2 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	168
		CONTRACT NO. 62U90		
	ILLINOIS	FED. AID PROJECT		

MODEL: Default
FILE NAME: p:\pwidacc\chi-aecom01\projects\60658563\1-190900-CAD\910_CAD\WB\WB-TOLL\03_SHEETS\CivilID162U90-SHT-TollStandards-E4-07-02.dgn



TYPICAL APPLICATION OF TEMPORARY EXIT GORE DELINEATION AND SIGNING



TYPICAL APPLICATION OF TEMPORARY ENTRANCE GORE DELINEATION AND SIGNING

* 8 INCH TEMPORARY PAVEMENT MARKING IS TO BE MADE OF 2-TEMPORARY PAVEMENT MARKING 4 INCH, WHITE OF THE TYPE SPECIFIED.

* * CALCULATE "L" AS FOLLOWS: L=WxS WHERE
W=WIDTH OF OFFSET (FEET)
S=WORK ZONE SPEED LIMIT (MPH)

* * * WHERE VIABLE WITH STAGED CONSTRUCTION

NOTES:

1. WHEN TEMPORARY PAVEMENT MARKING IS NOT REQUIRED, TEMPORARY GORES MAY BE DELINEATED BY DRUMS WITH STEADY BURN LIGHTS AT 25' C-C ACCORDING TO THE CONFIGURATIONS SHOWN.
2. THE TAPER LENGTHS ARE MINIMUMS. EXISTING ACCELERATION, DECELERATION, AND TAPER LENGTHS SHOULD BE PRESERVED TO THE EXTENT POSSIBLE.

LEGEND

- WORK AREA
- SIGN
- TYPE II BARRICADE, DRUM, OR VERTICAL BARRICADE WITH LIGHT IF REQUIRED. SEE ARTICLE 701.05(a)(5) BARRICADE TYPE USED ON MAINLINE SHALL BE DIFFERENT THAN BARRICADE TYPE USED ON TAPER.
- DRUM WITH LIGHT IF REQUIRED SEE ARTICLE 701.05(a)(5)
- TYPE III BARRICADE

APPROVED BY: Manar Nashif, CHIEF ENGINEERING OFFICER — DATE: 03/01/2023

SHEET 1 OF 2

Illinois Tollway

DATE	REVISIONS
3-01-2023	REVISED DRUM W/LIGHT ARTICLE NO.,
	REVISED SKIP DASH, REVISED RAMP
	MINIMUM WIDTH NOTE
3-01-2020	PROVIDED DETAILS FOR INSIDE AND
	OUTSIDE WORK ZONES, PROVIDED ACCEL.
	& DECEL. DISTANCE WHERE VIABLE

TEMPORARY GORE DETAILS

STANDARD E5-10

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline.Ng	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLLWAY STANDARDS

SCALE: | SHEET 1 OF 2 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	169
		CONTRACT NO. 62U90		
		ILLINOIS	FED. AID PROJECT	

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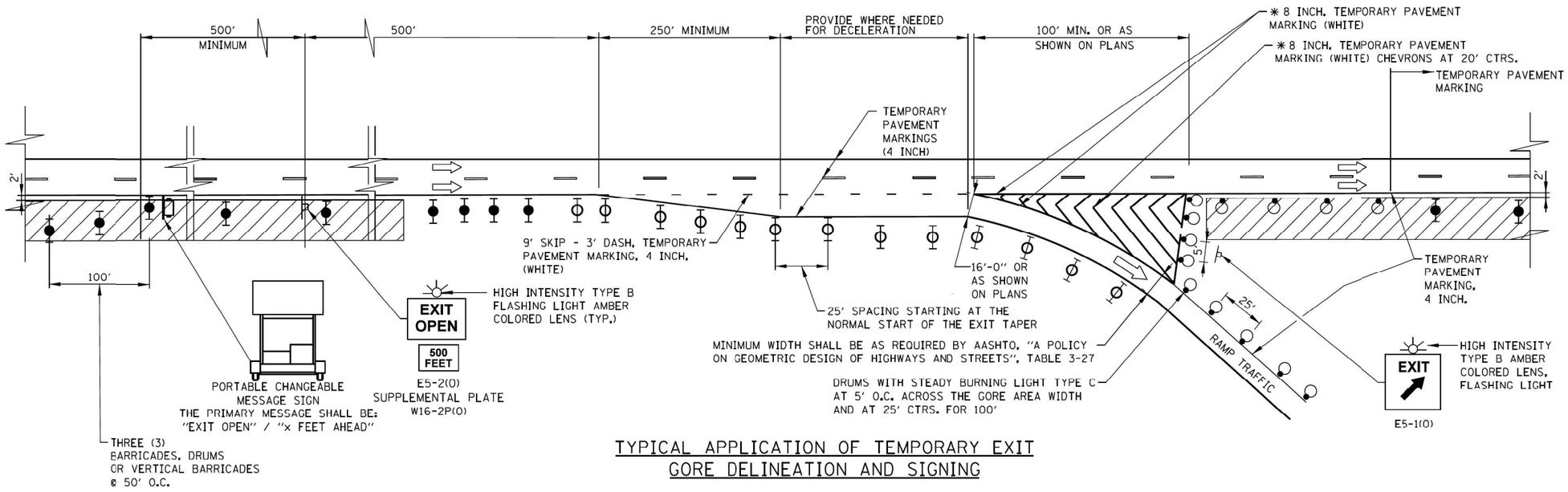
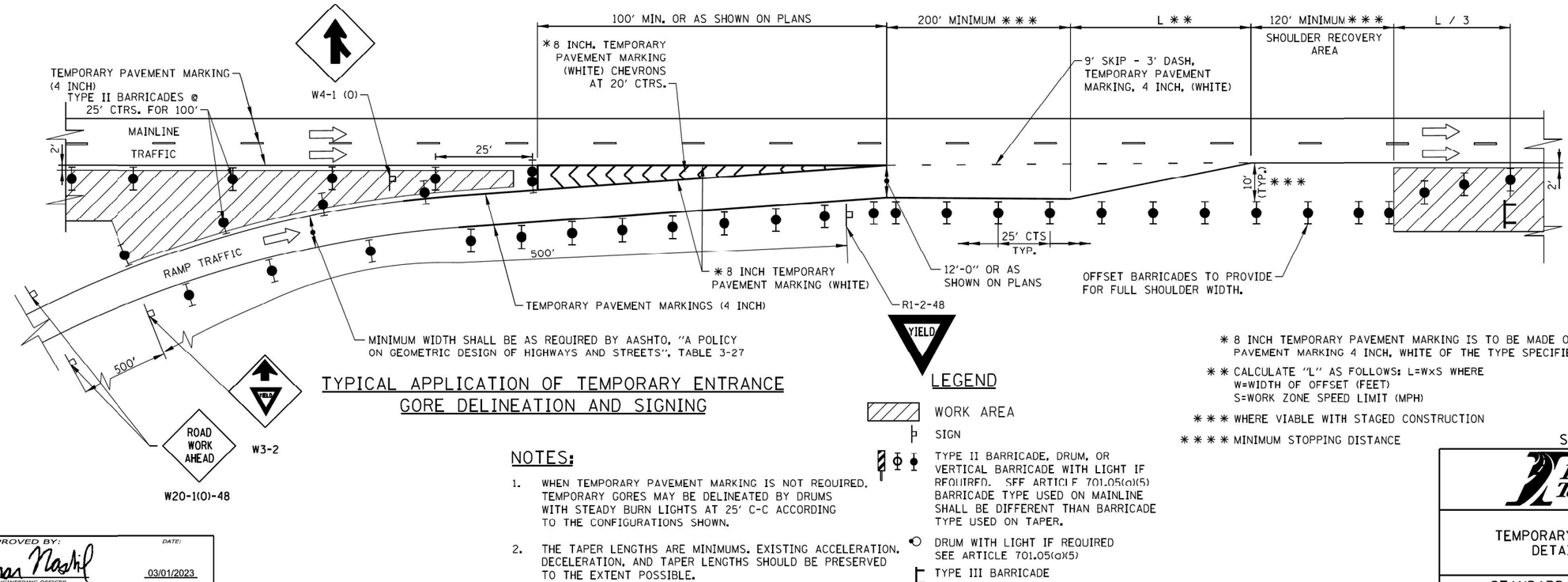


TYPICAL APPLICATION OF TEMPORARY EXIT GORE DELINEATION AND SIGNING



TYPICAL APPLICATION OF TEMPORARY ENTRANCE GORE DELINEATION AND SIGNING

NOTES:

1. WHEN TEMPORARY PAVEMENT MARKING IS NOT REQUIRED, TEMPORARY GORES MAY BE DELINEATED BY DRUMS WITH STEADY BURN LIGHTS AT 25' C-C ACCORDING TO THE CONFIGURATIONS SHOWN.
2. THE TAPER LENGTHS ARE MINIMUMS. EXISTING ACCELERATION, DECELERATION, AND TAPER LENGTHS SHOULD BE PRESERVED TO THE EXTENT POSSIBLE.

LEGEND

- WORK AREA
- SIGN
- TYPE II BARRICADE, DRUM, OR VERTICAL BARRICADE WITH LIGHT IF REQUIRED. SEE ARTICLE 701.05(a)(5) BARRICADE TYPE USED ON MAINLINE SHALL BE DIFFERENT THAN BARRICADE TYPE USED ON TAPER.
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* 8 INCH TEMPORARY PAVEMENT MARKING IS TO BE MADE OF 2-TEMPORARY PAVEMENT MARKING 4 INCH, WHITE OF THE TYPE SPECIFIED.

* * CALCULATE "L" AS FOLLOWS: L=WxS WHERE W=WIDTH OF OFFSET (FEET) S=WORK ZONE SPEED LIMIT (MPH)

* * * WHERE VIABLE WITH STAGED CONSTRUCTION

* * * * MINIMUM STOPPING DISTANCE

APPROVED BY: Marcos Mashl, CHIEF ENGINEERING OFFICER — DATE: 03/01/2023

Illinois Tollway

TEMPORARY GORE DETAILS

STANDARD E5-10

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = jacqueline.Ng	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLLWAY STANDARDS

SCALE: | SHEET 2 OF 2 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	170
		CONTRACT NO. 62U90		
	ILLINOIS	FED. AID PROJECT		

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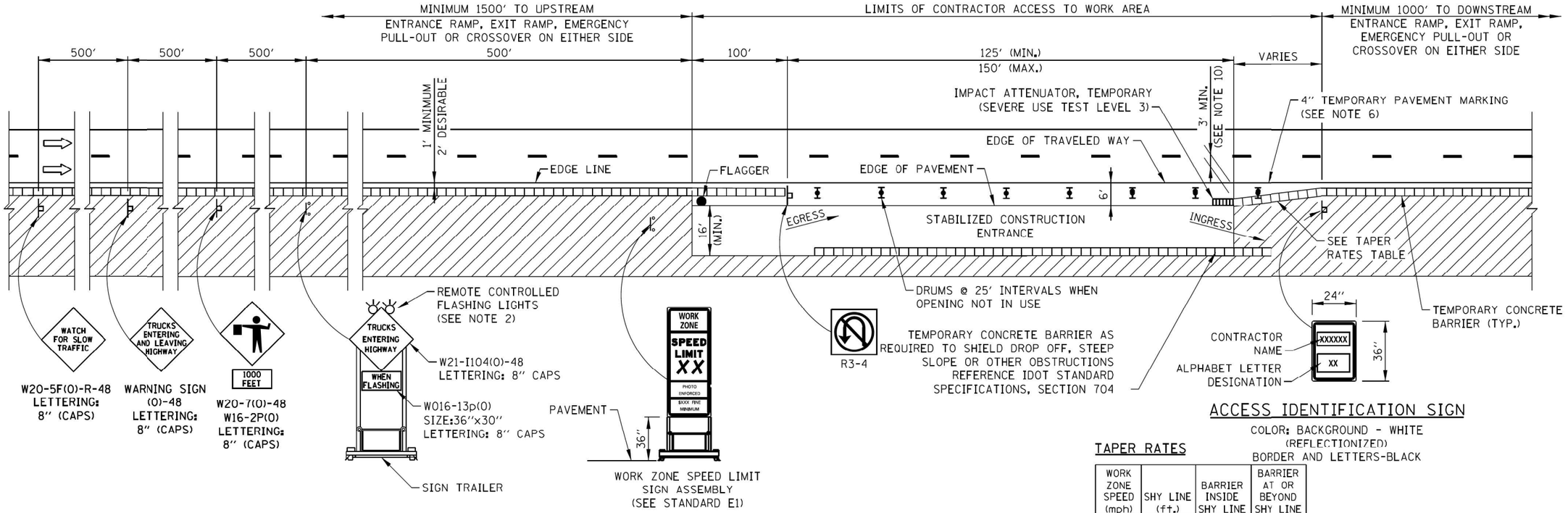

CONTRACTOR ACCESS TO WORK AREA WITH BARRIER WALL

ACCESS IDENTIFICATION SIGN

COLOR: BACKGROUND - WHITE (REFLECTIONIZED)
BORDER AND LETTERS-BLACK

TAPER RATES

WORK ZONE SPEED (mph)	SHY LINE (ft.)	BARRIER INSIDE SHY LINE	BARRIER AT OR BEYOND SHY LINE
65	8.5	28:1	19:1
60	8	26:1	18:1
55	7	24:1	16:1
50	6.5	21:1	14:1
45	6	18:1	12:1
40	5	16:1	10:1
35	4.5	15:1	9:1
30	4	13:1	8:1

LEGEND

- FLAGGER
- SPOTTER
- CONSTRUCTION SIGN ON SUPPORT PER ILLINOIS TOLLWAY STANDARD UNLESS NOTED
- DIRECTION OF TRAFFIC FLOW
- WORK AREA
- DRUM WITH LIGHT IF REQUIRED. SEE ARTICLE 701.05(a)(5)
- TRUCK MOUNTED ATTENUATOR (TMA) (ROLL WITH MOVING OPERATION)

NOTES:

1. SIGNS DESIGNATED FOR THIS ACCESS TO WORK AREA SHALL BE COVERED OR TURNED AWAY FROM THE TRAFFIC WHEN THE FLAGGER IS NOT ON STATION AND THE ACCESS OPENINGS ARE NOT IN USE.
2. THE FLASHING WARNING LIGHT SHALL MEET THE REQUIREMENTS OF ILLINOIS TOLLWAY SUPPLEMENTAL SPECIFICATIONS AND BE OPERATED BY THE FLAGGER REMOTELY. THE LIGHTS SHALL BE FLASHING ONLY WHEN A VEHICLE IS ENTERING THE ILLINOIS TOLLWAY.
3. WHEN THREE LANES OR MORE ARE OPENED TO TRAFFIC, ADVANCE WARNING SIGNS AND ASSEMBLIES SHALL BE PROVIDED ON BOTH SIDES OF TRAVELED WAY.
4. WHEN CONTRACTOR ACCESS TO WORK AREA IS ON OPPOSITE SIDE FROM SHOWN, ALL INSTALLATIONS ARE MIRROR IMAGE.
5. FOR NIGHTTIME OPERATIONS, TEMPORARY LIGHTING OF CONSTRUCTION ACCESS TO WORK AREA SHALL BE PROVIDED.
6. TEMPORARY PAVEMENT MARKINGS SHALL BE REPLACED AS OFTEN AS NECESSARY TO DELINEATE OPENINGS.
7. IF POSSIBLE, LANE CLOSURES SHALL BE UTILIZED TO ELIMINATE THE MERGING OF CONSTRUCTION TRAFFIC INTO THROUGH TRAFFIC LANES.
8. A 1'-0" MINIMUM/2'-0" DESIRABLE SHY DISTANCE SHALL BE PROVIDED, MEASURED BETWEEN EDGE OF PAVEMENT LANE MARKING TO THE EDGE OF THE TRAFFIC CONTROL DEVICES.
9. "TRUCKS ENTERING HIGHWAY" SIGN MAY BE SUPPORTED BY OPTIONAL POST OR STAND MOUNTED DEVICES WHEN POSITIONED BEHIND TEMPORARY CONCRETE BARRIER.
10. A TEMPORARY EXCEPTION TO THE 3' MINIMUM CLEARANCE BETWEEN EDGE OF TRAVELED WAY AND EDGE OF ATTENUATOR MAY BE REQUESTED FOR PCC PAVING OPERATIONS WHEN THIS CONFIGURATION DOES NOT PROVIDE 4' OF CLEARANCE BETWEEN BACK OF ATTENUATOR AND THE PROPOSED EDGE OF THE LANE BEING CONSTRUCTED IN THE CURRENT STAGE. THE DURATION OF REDUCED CLEARANCE SHALL BE LIMITED TO 24 HOURS.
11. CONTRACTOR ACCESS LOCATIONS SHALL BE SPACED NO CLOSER THAN 2,600 FEET BETWEEN AREAS, EXCEPT FOR BRIDGE WORK WHERE 1 ACCESS LOCATION MAY BE PROVIDED ON EACH SIDE OF THE STRUCTURE. AT THESE LOCATIONS, ONLY 1 ACCESS LOCATION AT A TIME WILL BE ALLOWED TO BE OPEN FOR USE.
12. EXITING THE WORK ZONE AT ANY PLACE OTHER THAN AT WORK ZONE EXIT OPENING WILL BE PROHIBITED.
13. ALL VEHICLES SHALL USE THEIR TURN SIGNALS TO WARN MOTORISTS WHEN ENTERING AND EXITING THE WORK ZONE OPENINGS.
14. FLAGGERS SHALL NOT STOP TRAFFIC OR DIRECT TRAFFIC INTO AN ADJACENT LANE.
15. IN WORK ZONES WITH NO POSITIVE PROTECTION, A TRUCK MOUNTED ATTENUATOR (TMA) SHALL BE PROVIDED WITH A BUFFER AREA BETWEEN THE FRONT OF THE TMA AND WORKERS OR EQUIPMENT. THE BUFFER AREA SHALL BE 200' UNLESS OTHERWISE DETERMINED. WHERE WORKERS OR EQUIPMENT ARE PRESENT BEYOND THE WORK AREA, AN ADDITIONAL TMA SHALL BE PROVIDED FOR EACH WORK AREA. A WORK AREA IS DEFINED AS STARTING AT THE END OF THE BUFFER AREA, EXTENDING 1000 FEET BEYOND THIS POINT.

APPROVED BY: Marza Nashif, CHIEF ENGINEERING OFFICER — DATE: 03/01/2024

SHEET 1 OF 2

Illinois Tollway

DATE	REVISIONS
3-01-2024	ADDED NOTE 15 IN CALLOUT
3-01-2023	REVISED DRUM W/LIGHT ARTICLE NO.
3-01-2020	CLARIFIED TMA REQUIREMENTS & UPDATED BARRICADE LIGHT REQ.
3-01-2019	ADDED SHEET FOR DETAILS WITHOUT BARRIER WALL

CONTRACTOR ACCESS TO WORK AREA

STANDARD E6-08

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline,Ng	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLLWAY STANDARDS

SCALE: | SHEET 1 OF 2 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	171
		CONTRACT NO. 62U90		
		ILLINOIS	FED. AID PROJECT	

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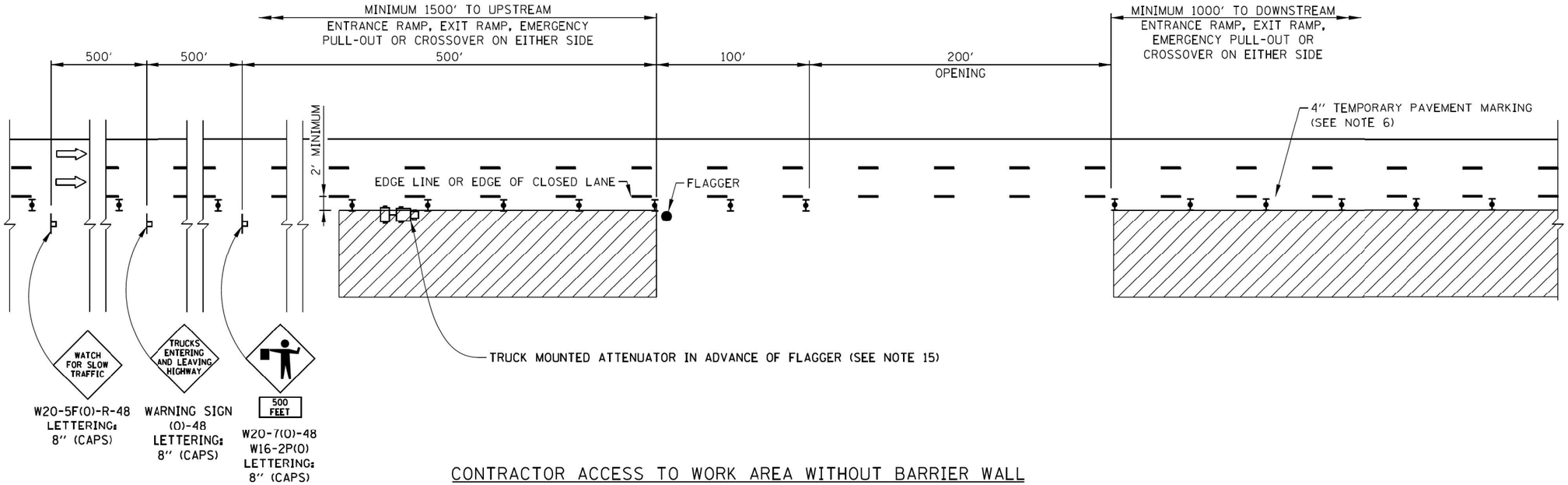
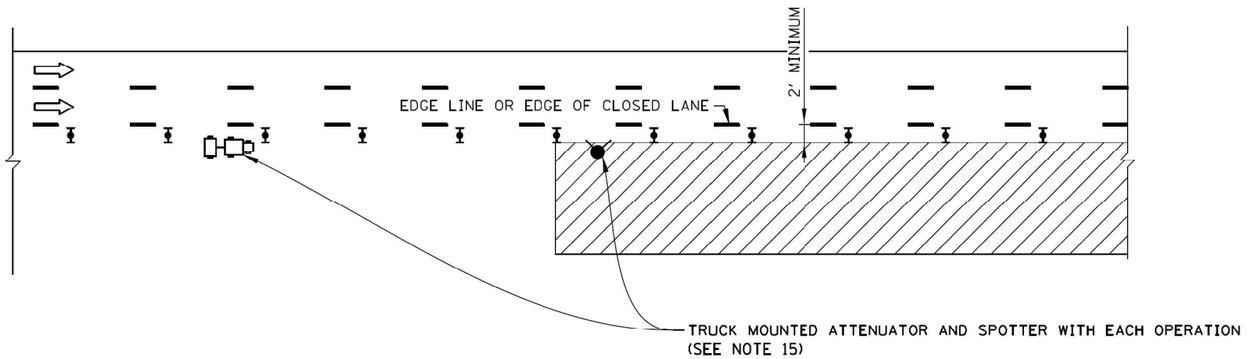


CONTRACTOR ACCESS TO WORK AREA WITHOUT BARRIER WALL

LEGEND

- FLAGGER
- SPOTTER
- CONSTRUCTION SIGN ON SUPPORT PER ILLINOIS TOLLWAY STANDARD UNLESS NOTED
- DIRECTION OF TRAFFIC FLOW
- WORK AREA
- DRUM WITH LIGHT IF REQUIRED. SEE ARTICLE 701.05(a)(5)
- TRUCK MOUNTED ATTENUATOR (TMA) (ROLL WITH MOVING OPERATION)



SPOTTER AND TMA AT WORK AREA

APPROVED BY: Manar Nashif, CHIEF ENGINEERING OFFICER — DATE: 03/01/2024

SHEET 2 OF 2

Illinois Tollway

CONTRACTOR ACCESS TO WORK AREA

STANDARD E6-08

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline.Ng	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLLWAY STANDARDS

SCALE: | SHEET 2 OF 2 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	172
		CONTRACT NO. 62U90		
		ILLINOIS	FED. AID PROJECT	

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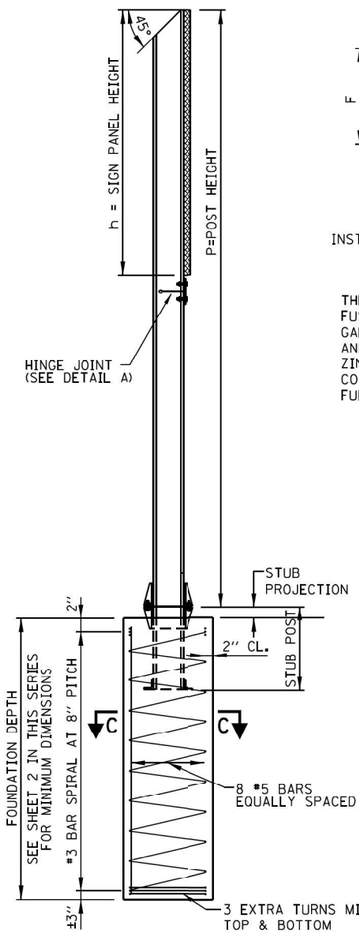


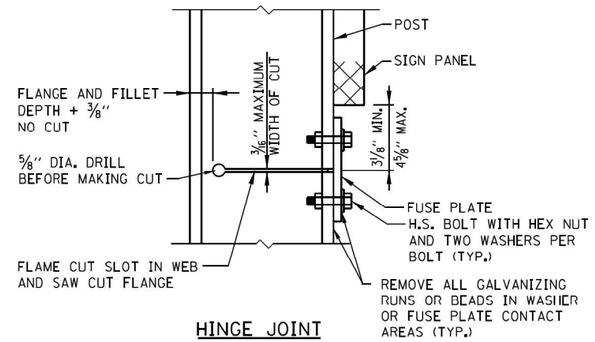
SIDE ELEVATION
POST & FOUNDATION

FUSE PLATE DETAIL
INSTALL WITH NOTCHES TOWARDS BASE

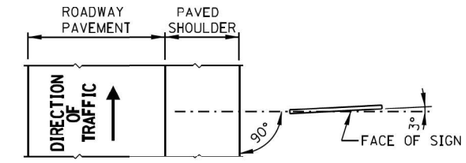
G & H DIM. TABLE		
BOLT DIA.	G	H
1/2"	2"	1 1/8"
5/8"	2 1/4"	1 1/4"
3/4"	2 1/2"	1 3/8"
7/8"	2 3/4"	1 1/2"
1"	3"	1 5/8"
1 1/8"	3 1/4"	1 3/4"
1 1/4"	3 1/2"	1 7/8"

FABRICATORS NOTES

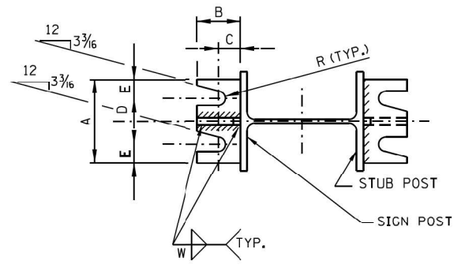
THE SLOT AND THE 5/8" DIA. HOLE IN THE WEB AND THE FUSE PLATE BOLT HOLES IN THE FLANGE SHALL BE MADE BEFORE GALVANIZING. POST FLANGE SHALL BE SAW CUT AFTER GALVANIZING AND BARE METAL SURFACES SHALL BE COATED WITH AN APPROVED ZINC SOLDER OR ZINC-RICH PAINT. THESE SURFACES SHALL NOT BE COATED UNTIL THE FUSE PLATE IS INSTALLED AND BOLTS FULLY TIGHTENED.



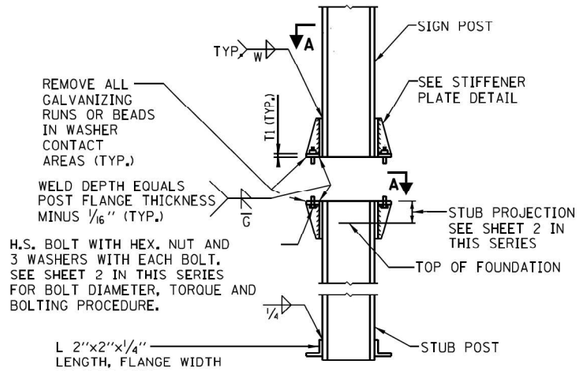
HINGE JOINT
DETAIL A



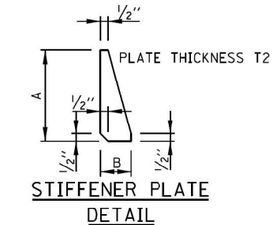
LOCATION SKETCH



SEC. A-A

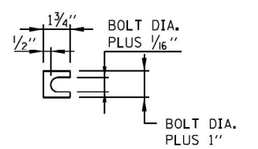


ELEVATION
SIGN POST & STUB POST



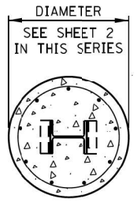
STIFFENER PLATE
DETAIL

SEE SHEET 2 IN THIS
SERIES FOR DIMENSIONS

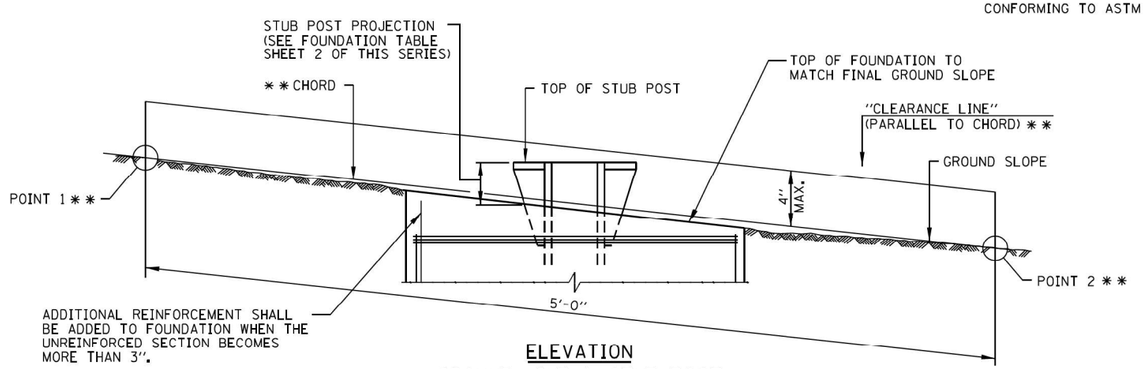


SHIM DETAIL

FURNISH 2-.012" THICK AND 2-.032" THICK SHIMS PER POST. SHIMS SHALL BE FABRICATED FROM BRASS SHIM STOCK CONFORMING TO ASTM B36.



SEC. C-C



ELEVATION
GROUND LINE & STUB POST

* * FOR ALL "POINT 1" AND "POINT 2"LOCATIONS, "CLEARANCE LINE" MUST BE AT OR ABOVE TOP OF STUB POST.

GENERAL NOTES

DESIGN: 2015 AASHTO LRFD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS, 1ST EDITION, WITH 2020 INTERIM REVISIONS, INSTRUCTIONS AND INFORMATION

CONSTRUCTION: STANDARD SPECIFICATIONS AND THE SPECIAL PROVISIONS.

LOADING: FOR 120 MPH WIND VELOCITY PLUS 14% GUST FACTOR NORMAL TO SIGN.

CONTROLLING LOAD COMBINATION (EXTREME 1) PER AASHTO: 1.1DC + 1.0W

DESIGN STRESSES:
STRUCTURAL STEEL - PER AASHTO 36,000 P.S.I.
REINFORCING STEEL - 60,000 P.S.I.
CLASS SI CONCRETE - 3,500 P.S.I.

FOUNDATION:
MINIMUM UNCONFINED COMPRESSIVE STRENGTH, Qu FOR ALL LAYERS FOR COHESIVE SOILS (CLAYS) SHALL BE 1.25 TON/SQ.FT.

WELDING: ALL WELDING TO BE CONTINUOUS UNLESS OTHERWISE SHOWN. ALL WELDING TO BE DONE IN ACCORDANCE WITH CURRENT AWS SPECIFICATIONS, AND STANDARD SPECIFICATIONS.

MATERIALS: ALL STRUCTURAL STEEL SHALL CONFORM TO ASTM A992 AND LRFD SPECIFICATIONS. ALL PLATES SHALL CONFORM TO ASTM A572-GR50.

ALL HIGH STRENGTH STEEL BOLTS, NUTS AND WASHERS SHALL CONFORM TO STANDARD SPECIFICATIONS.

HIGH STRENGTH STEEL BOLTS, NUTS AND HARDENED WASHERS SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO M232.

HIGH STRENGTH BOLTS IN BASE PLATES SHALL BE TIGHTENED TO THE TORQUE SHOWN ON SHEET 2 IN THIS SERIES.

AFTER FABRICATION, THE POST, FUSE PLATE, BASE PLATE AND UPPER 6" OF STUB POST SHALL BE HOT - DIP GALVANIZED ACCORDING TO ASTM M111, EXCEPT AS NOTED UNDER FABRICATOR NOTES.

APPROVED BY: Manar Nashif
CHIEF ENGINEERING OFFICER
DATE: 03/01/2023

DATE	REVISIONS
3-01-2023	REV. POST W6x15 & W16x45 AND W10x22
	MAX. POST SPACE FOR 8'-6" SIGN DEPTH
3-01-2021	UPDATE DESIGN LOADING, CRITERIA AND
	ADDED TABLES FOR SIGN SPACING
3-01-2019	CLARIFIED DESIGN STRESS FOR SOIL
	PRESSURE

Illinois Tollway

BREAKAWAY SIGN SUPPORT DETAILS

STANDARD F9-07

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline,Ng	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLLWAY STANDARDS

SCALE: | SHEET 1 OF 5 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	173
		CONTRACT NO. 62U90		
	ILLINOIS	FED. AID PROJECT		

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POST	FOUNDATION TABLE												BASE CONNECTION DATA TABLE									
	FOUNDATION			REINFORCEMENT							STUB POST			BOLT SIZE AND TORQUE	A	B	C	D	E	T1	T2	W	R
	DIA.	MIN. DEPTH	CY.* CONC.	VERTICAL BARS			BAR SPIRALS			LBS.**	STUB LGTH.	STUB PROJECTION	LBS.***										
				NO.	SIZE	LGTH.	SIZE	O.D.	LGTH.														
W6x9	2'-0"	6'-0"	.70	8	#5	5'-9"	#3	20½"	79'	78	2'-3"	3"	44	⅝" ø x 3¼" LG. TORQUE = 450" #	6"	2¼"	1¼"	3½"	1¼"	¾"	½"	¼"	11/32 "
W6x15	2'-0"	6'-0"	.70	8	#5	5'-9"	#3	20½"	79'	78	2'-6"	3"	71										
W8x18	5¼"	2¾"	1¼"	⅜"	½"ø x 1¾"		⅝"ø x 2"		¾"ø x 2"		¾"ø x 2"	¾"ø x 2"	¾"ø x 2"	¾" ø x 2"	¾"ø x 2"	⅞"ø x 2¼"	⅞"ø x 2¼"						
W10x22	5¾"	2¾"	1½"	½"	½"ø x 1½"		⅝"ø x 2"		¾"ø x 2¼"		¾"ø x 2¼"	⅞"ø x 2¼"	⅞"ø x 2¼"	⅞"ø x 2¼"	⅞"ø x 2¼"	⅞"ø x 2¼"	⅞"ø x 2¼"	⅞"ø x 2¼"	1"ø x 2½"				
W10x26	5¾"	2¾"	1½"	⅝"	½"ø x 2"		⅝"ø x 2¼"		¾"ø x 2½"		¾"ø x 2½"	⅞"ø x 2½"	1"ø x 2¾"	1"ø x 2¾"	1"ø x 2¾"	1"ø x 2¾"	1"ø x 2¾"	1"ø x 2¾"	1"ø x 2¾"				
W12x26	6½"	3½"	1½"	⅝"	---		---		---		---	---	⅞"ø x 2½"	---	---	1"ø x 2½"	1"ø x 2½"	1"ø x 2½"	1"ø x 2½"				
W14x30	6¾"	3½"	1⅝"	½"	½"ø x 2"		½"ø x 2"		⅝"ø x 2"		¾"ø x 2¼"	¾"ø x 2¼"	⅞"ø x 2½"	⅞"ø x 2½"	1"ø x 2½"	1"ø x 2½"	1"ø x 2½"	1"ø x 2½"	1"ø x 2½"				
W14x38	6¾"	3½"	1⅝"	½"	---		½"ø x 2"		⅝"ø x 2¼"		⅝"ø x 2¼"	¾"ø x 2½"	⅞"ø x 2½"	⅞"ø x 2½"	1"ø x 2½"	1¼"ø x 3"	1¼"ø x 3"	1¼"ø x 3"	1¼"ø x 3"				
W16x45	7"	3½"	1¾"	½"	---		---		---		⅝"ø x 2¼"	¾"ø x 2½"	⅞"ø x 2½"	⅞"ø x 2½"	1"ø x 2¾"	1"ø x 2¾"	1⅛"ø x 3"	1¼"ø x 3"					
W6x9	2'-0"	6'-0"	.70	8	#5	5'-9"	#3	20½"	79'	78	2'-3"	3"	44	¾" ø x 3¾" LG. TORQUE = 750" #	6"	2½"	1⅜"	3¼"	1⅜"	1"	½"	5/16"	13/32 "
W6x15	2'-0"	6'-0"	.70	8	#5	5'-9"	#3	20½"	79'	78	2'-6"	3"	71										
W8x18	5¼"	2¾"	1¼"	⅜"	½"ø x 1¾"		⅝"ø x 2"		¾"ø x 2"		¾"ø x 2"	¾"ø x 2"	¾"ø x 2"	¾" ø x 2"	¾"ø x 2"	⅞"ø x 2¼"	⅞"ø x 2¼"						
W10x22	5¾"	2¾"	1½"	½"	½"ø x 1½"		⅝"ø x 2"		¾"ø x 2¼"		¾"ø x 2¼"	⅞"ø x 2¼"	⅞"ø x 2¼"	⅞"ø x 2¼"	⅞"ø x 2¼"	⅞"ø x 2¼"	⅞"ø x 2¼"	⅞"ø x 2¼"	1"ø x 2½"				
W10x26	5¾"	2¾"	1½"	⅝"	½"ø x 2"		⅝"ø x 2¼"		¾"ø x 2½"		¾"ø x 2½"	⅞"ø x 2½"	1"ø x 2¾"	1"ø x 2¾"	1"ø x 2¾"	1"ø x 2¾"	1"ø x 2¾"	1"ø x 2¾"	1"ø x 2¾"				
W12x26	6½"	3½"	1½"	⅝"	---		---		---		---	---	⅞"ø x 2½"	---	---	1"ø x 2½"	1"ø x 2½"	1"ø x 2½"	1"ø x 2½"				
W14x30	6¾"	3½"	1⅝"	½"	½"ø x 2"		½"ø x 2"		⅝"ø x 2"		¾"ø x 2¼"	¾"ø x 2¼"	⅞"ø x 2½"	⅞"ø x 2½"	1"ø x 2½"	1"ø x 2½"	1"ø x 2½"	1"ø x 2½"	1"ø x 2½"				
W14x38	6¾"	3½"	1⅝"	½"	---		½"ø x 2"		⅝"ø x 2¼"		⅝"ø x 2¼"	¾"ø x 2½"	⅞"ø x 2½"	⅞"ø x 2½"	1"ø x 2½"	1¼"ø x 3"	1¼"ø x 3"	1¼"ø x 3"	1¼"ø x 3"				
W16x45	7"	3½"	1¾"	½"	---		---		---		⅝"ø x 2¼"	¾"ø x 2½"	⅞"ø x 2½"	⅞"ø x 2½"	1"ø x 2¾"	1"ø x 2¾"	1⅛"ø x 3"	1¼"ø x 3"					
W16x45	3'-0"	9'-6"	2.23	8	#5	8'-3"	#3	32½"	162'	130	3'-6"	2½"	233	⅞" ø x 4" LG. TORQUE = 950" #	7"	2¾"	1½"	4"	1½"	1"	¾"	⅜"	15/32 "
W14x30	3'-0"	8'-6"	1.90	8	#5	7'-0"	#3	32½"	145'	113	3'-0"	2½"	150										
W14x38	3'-0"	9'-0"	2.09	8	#5	7'-9"	#3	32½"	153'	122	3'-6"	2½"	208										
W16x45	3'-0"	9'-6"	2.23	8	#5	8'-3"	#3	32½"	162'	130	3'-6"	2½"	233	1" ø x 4½" LG. TORQUE = 1100" #	7½"	3"	1¾"	4"	1¾"	1¼"	¾"	⅜"	17/32 "

- QUANTITY OF CLASS SI CONCRETE CONSISTS OF ALL CONCRETE NECESSARY FOR ONE FOUNDATION. (CUBIC YARDS)

** THIS INCLUDES REINFORCEMENT BARS AND SPIRAL HOOPING REQUIRED FOR ONE FOUNDATION.

*** INCLUDES WEIGHT OF STUB POST WITH ANGLES, GUSSETS, BASE PLATES, BOLTS, NUTS, WASHERS, PLUS BASE PLATES AND GUSSETS ON MAIN POST, PLUS FUSE PLATE (IF ANY) WITH BOLTS, NUTS AND WASHERS. (ONE POST)

EQUIVALENT TORQUE VALUES

450" # = 37.5' #
750" # = 62.5' #
950" # = 79.2' #
1100" # = 91.7' #

PROCEDURE FOR ASSEMBLY OF BASE CONNECTION:

1. ASSEMBLE POST TO STUB WITH H.S. BOLTS AND ONE OF THE THREE FLAT WASHERS ON EACH BOLT BETWEEN PLATES AS SHOWN.
2. SHIMS MAY BE USED BETWEEN PLATES TO LEVEL POST.
3. TIGHTEN BOLTS IN BASE PLATE IN A SYSTEMATIC ORDER TO THE REQUIRED TORQUE.
4. LOOSEN EACH BOLT AND RETIGHTEN TO THE REQUIRED TORQUE IN SAME ORDER AS INITIAL TIGHTENING.
5. BURR OR CENTER PUNCH THREADS AT JUNCTURE OF BOLT AND NUT TO PREVENT NUT FROM LOOSENING.

POST	FUSE PLATE DATA TABLE				FUSE PLATE BOLT SIZE TABLE										
					SIGN PANEL HEIGHT (h)										
	J	K	L	T3	4'	5'	6'	7'	8'	9'	10'	11'	12'	13'	14'
W6x9	4"	2¼"	⅞"	¼"	½"ø x 1½"	½"ø x 1½"	½"ø x 1½"	---	---	---	---	---	---	---	---
W6x15	6"	3½"	1¼"	⅜"	⅝"ø x 2"	⅝"ø x 2"	¾"ø x 2"	¾"ø x 2"	¾"ø x 2"	¾"ø x 2"	¾"ø x 2"	¾"ø x 2"	---	---	---
W8x18	5¼"	2¾"	1¼"	⅜"	½"ø x 1¾"	⅝"ø x 2"	¾"ø x 2"	¾"ø x 2"	¾"ø x 2"	¾"ø x 2"	¾"ø x 2"	⅞"ø x 2¼"	⅞"ø x 2¼"	---	---
W10x22	5¾"	2¾"	1½"	½"	½"ø x 1½"	⅝"ø x 2"	¾"ø x 2¼"	¾"ø x 2¼"	⅞"ø x 2¼"	⅞"ø x 2¼"	⅞"ø x 2¼"	⅞"ø x 2¼"	⅞"ø x 2¼"	⅞"ø x 2¼"	1"ø x 2½"
W10x26	5¾"	2¾"	1½"	⅝"	½"ø x 2"	⅝"ø x 2¼"	¾"ø x 2½"	¾"ø x 2½"	⅞"ø x 2½"	1"ø x 2¾"	1"ø x 2¾"	1"ø x 2¾"	1"ø x 2¾"	1"ø x 2¾"	1"ø x 2¾"
W12x26	6½"	3½"	1½"	⅝"	---	---	---	---	---	⅞"ø x 2½"	---	---	1"ø x 2½"	1"ø x 2½"	1"ø x 2½"
W14x30	6¾"	3½"	1⅝"	½"	½"ø x 2"	½"ø x 2"	⅝"ø x 2"	¾"ø x 2¼"	¾"ø x 2¼"	⅞"ø x 2½"	⅞"ø x 2½"	1"ø x 2½"	1"ø x 2½"	1"ø x 2½"	1"ø x 2½"
W14x38	6¾"	3½"	1⅝"	½"	---	½"ø x 2"	⅝"ø x 2¼"	⅝"ø x 2¼"	¾"ø x 2½"	⅞"ø x 2½"	⅞"ø x 2½"	1"ø x 2½"	1¼"ø x 3"	1¼"ø x 3"	1¼"ø x 3"
W16x45	7"	3½"	1¾"	½"	---	---	---	⅝"ø x 2¼"	¾"ø x 2½"	⅞"ø x 2½"	⅞"ø x 2½"	1"ø x 2¾"	1"ø x 2¾"	1⅛"ø x 3"	1¼"ø x 3"

POST	FUSE PLATE DATA TABLE				FUSE PLATE BOLT SIZE TABLE										
					SIGN PANEL HEIGHT (h)										
	J	K	L	T3	15'	16'	17'	18'	19'	20'	21'	22'	23'	24'	---
W6x9	4"	2¼"	⅞"	¼"	---	---	---	---	---	---	---	---	---	---	---
W6x15	6"	3½"	1¼"	⅜"	---	---	---	---	---	---	---	---	---	---	---
W8x18	5¼"	2¾"	1¼"	⅜"	---	---	---	---	---	---	---	---	---	---	---
W10x22	5¾"	2¾"	1½"	½"	1"ø x 2½"	---	---	---	---	---	---	---	---	---	---
W10x26	5¾"	2¾"	1½"	⅝"	1"ø x 2¾"	1"ø x 2¾"	1"ø x 2¾"	---	---	---	---	---	---	---	---
W12x26	6½"	3½"	1½"	⅝"	1"ø x 2½"	1"ø x 2½"	1⅛"ø x 3"	1¼"ø x 3"	---	---	---	---	---	---	---
W14x30	6¾"	3½"	1⅝"	½"	1"ø x 2½"	1"ø x 2½"	1⅛"ø x 3"	1¼"ø x 3"	1¼"ø x 3"	---	---	---	---	---	---
W14x38	6¾"	3½"	1⅝"	½"	1¼"ø x 3"	1¼"ø x 3"	1¼"ø x 3"	1¼"ø x 3"	1¼"ø x 3"	1¼"ø x 3"	1¼"ø x 3"	1¼"ø x 3"	1¼"ø x 3"	---	---
W16x45	7"	3½"	1¾"	½"	1¼"ø x 3"	1¼"ø x 3"	1¼"ø x 3"	1¼"ø x 3"	1¼"ø x 3"	1¼"ø x 3"	1¼"ø x 3"	1¼"ø x 3"	1¼"ø x 3"	1¼"ø x 3"	---

PROCEDURE FOR FUSE PLATE BOLT TIGHTENING:

ALL FRICTION FUSE BOLTS SHALL BE TIGHTENED IN THE SHOP AS APPROVED BY THE ENGINEER ACCORDING TO ONE OF THE FOLLOWING METHODS:

1. TURN-OF-NUT TIGHTENING,
2. TIGHTENING BY USE OF A DIRECT TENSION INDICATOR.

THE ABOVE METHODS OF INSTALLATION AND TIGHTENING SHALL CONFORM TO THE LATEST ISSUE OF THE SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A-325 OR A-490 BOLTS, FOR SLIP - CRITICAL CONNECTIONS AS ISSUED BY THE RESEARCH COUNCIL ON RIVETED AND BOLTED STRUCTURAL JOINTS OF THE ENGINEERING FOUNDATION.

TIGHTENING SHALL BE TO SUCH A DEGREE AS TO OBTAIN THE FOLLOWING MINIMUM RESIDUAL TENSION IN EACH BOLT.

BOLT DIA.	MIN. RESIDUAL BOLT TENSION	BOLT DIA.	MIN. RESIDUAL BOLT TENSION	BOLT DIA.	MIN. RESIDUAL BOLT TENSION
½"	12,050	⅞"	39,250	1¼"	71,700
⅝"	19,200	1"	51,500		
¾"	28,400	1⅛"	56,450		

APPROVED BY: Manar Nashif, CHIEF ENGINEERING OFFICER — DATE: 03/01/2023

Illinois Tollway

BREAKAWAY SIGN SUPPORT DETAILS

STANDARD F9-07

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline,Ng	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLLWAY STANDARDS

SCALE: | SHEET 2 OF 5 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	174
		CONTRACT NO. 62U90		
	ILLINOIS	FED. AID PROJECT		

MODEL: Default
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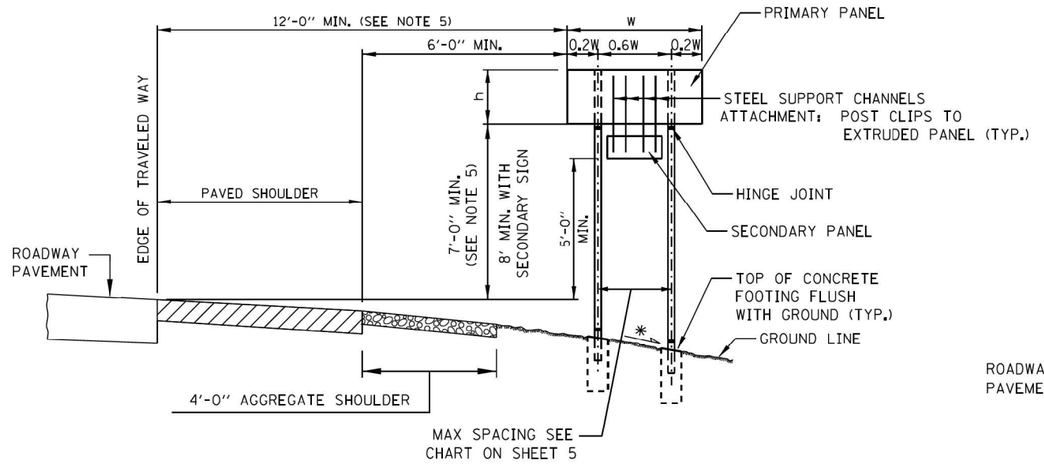
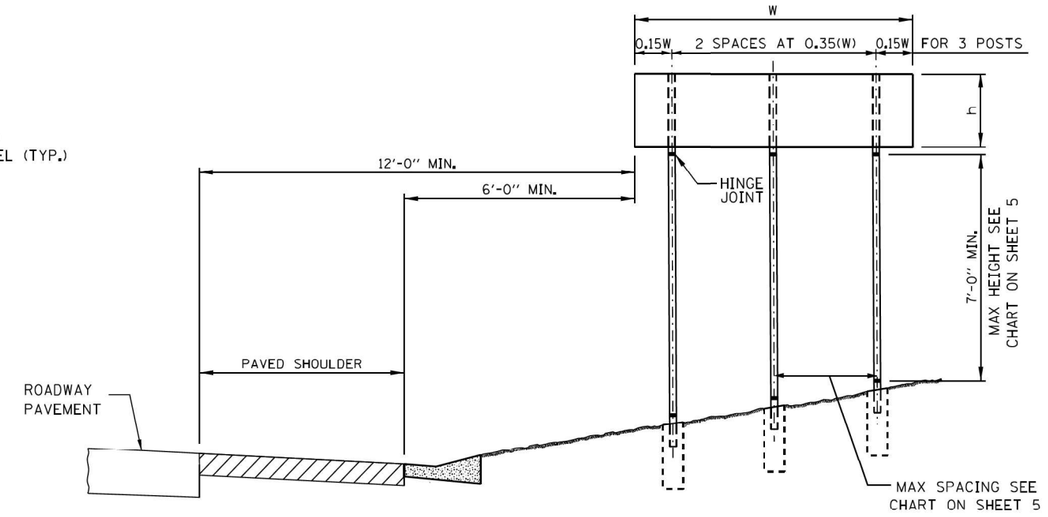
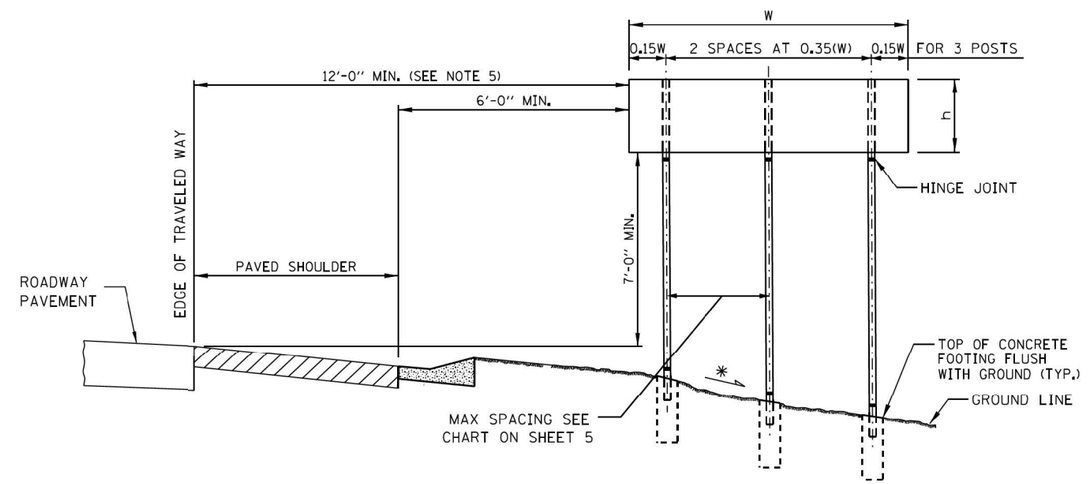


CONDITION 1 - SIGN INSTALLATION

(*) FORESLOPE 1:6 (V:H) OR FLATTER



CONDITION 3 - SIGN INSTALLATION



CONDITION 2 - SIGN INSTALLATION

(*) FORESLOPE 1:6 (V:H) OR FLATTER

NOTES:

1. SEE SIGN INSTALLATION SCHEDULE IN CONTRACT PLANS FOR DIMENSIONS.
2. THE DIMENSIONS OF ALL POSTS FOR GROUND MOUNTED SIGNS ARE BASED ON DESIGN CROSS SECTIONS. THE CONTRACTOR SHALL VERIFY REQUIRED POST LENGTHS IN THE FIELD, PRIOR TO SUBMITTING SHOP DRAWINGS AND POST FABRICATION TO MAINTAIN THE CLEARANCES SHOWN.
3. SIGN FOUNDATION ELEVATIONS TO BE BASED ON FINISHED SLOPES.
4. ANY ADDITIONAL SIGN TO BE ADDED LATER MUST BE SUPPORTED BY THE EXISTING SIGN PANEL AND NOT THE SIGN POST. MINIMUM CLEARANCES SHALL BE MAINTAINED.
5. SIGNS THAT ARE PLACED WELL OUTSIDE THE CLEAR ZONE MAY BE INSTALLED WITH A MINIMUM HEIGHT OF 5 FEET, MEASURED VERTICALLY FROM THE BOTTOM OF THE SIGN TO THE HORIZONTAL ELEVATION OF THE NEAR EDGE OF TRAVELED ROADWAY.
6. MINIMUM HEIGHT OF LOWEST POST SHALL BE 7'-0" MEASURED BETWEEN STUB PROJECTION AND HINGE JOINT.
7. FOR TWO POSTS SPACED LESS THAN 7 FEET APART, EACH POST SHALL HAVE A MASS LESS THAN 18 lb/ft.
8. WHEN THE TOTAL COMBINED WEIGHT OF THE TWO POSTS LOCATED WITHIN 7 FEET OF EACH OTHER EXCEEDS 600 lbs., THE SIGN SHALL BE PLACED WELL OUTSIDE THE CLEAR ZONE OR BE SHIELDED FROM VEHICULAR IMPACT.

UNSHIELDED SLOPE

APPROVED BY: Manar Nashif, CHIEF ENGINEERING OFFICER — DATE: 03/01/2023

Illinois Tollway

BREAKAWAY SIGN SUPPORT DETAILS

STANDARD F9-07

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline.Ng	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLLWAY STANDARDS

SCALE: | SHEET 3 OF 5 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	175
		CONTRACT NO. 62U90		
	ILLINOIS FED. AID PROJECT			

MODEL: Default
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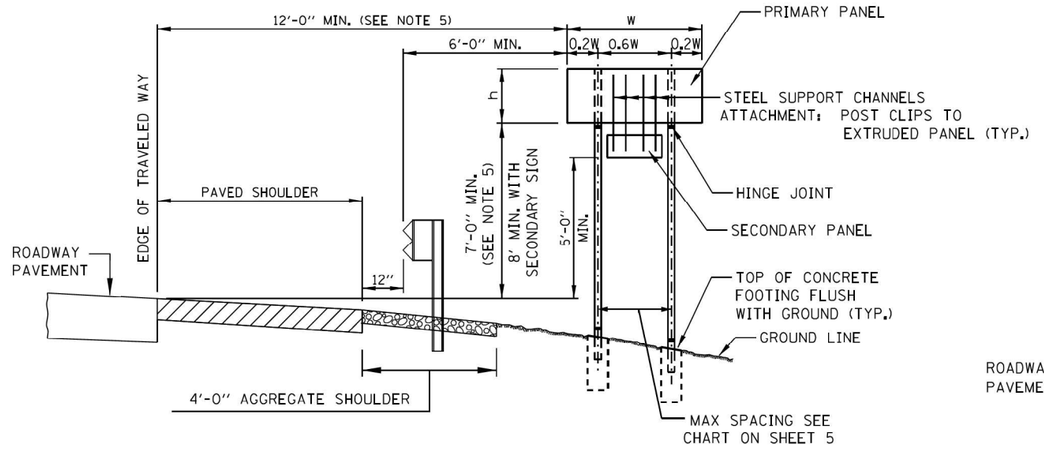
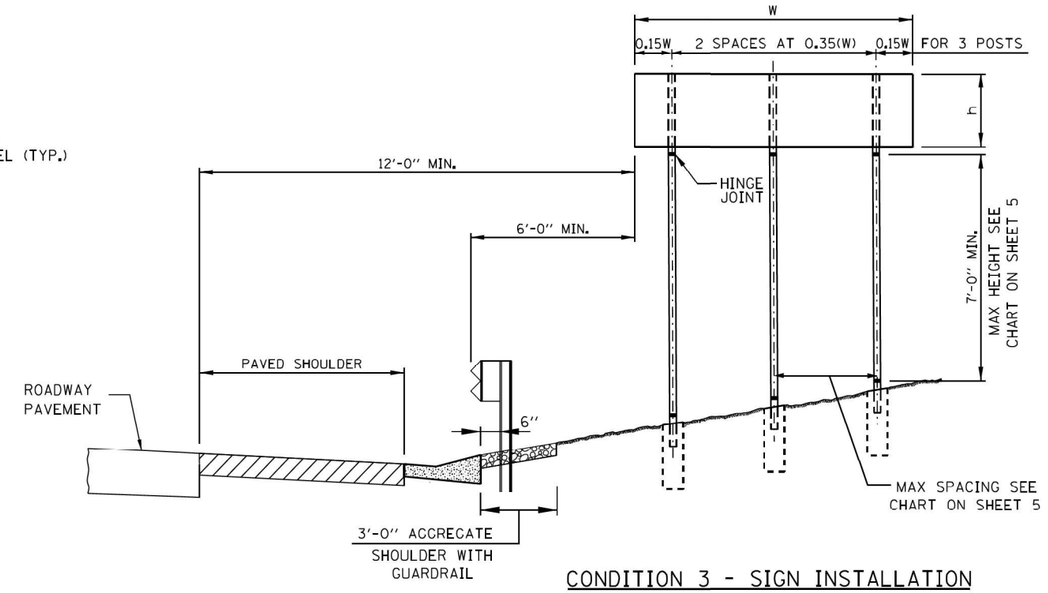
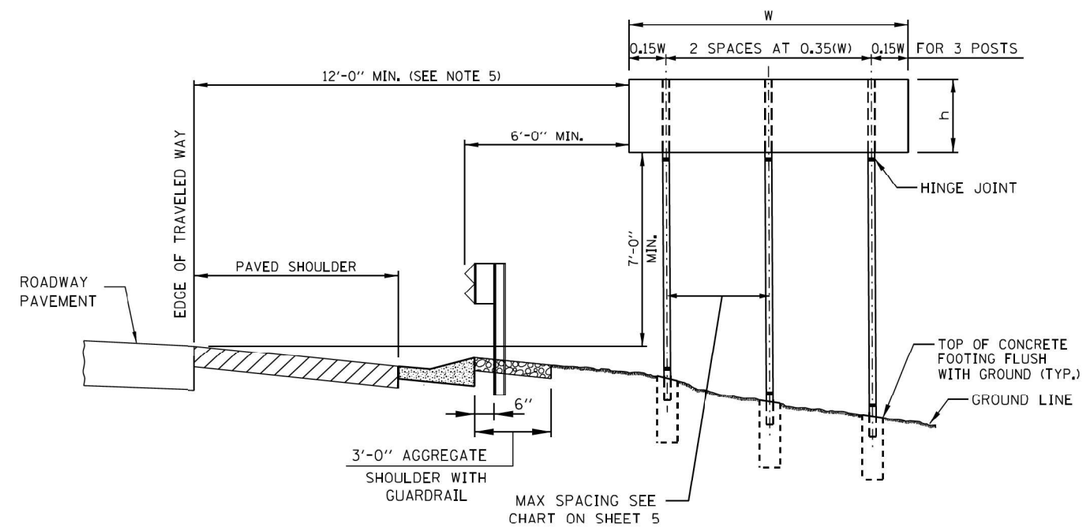


CONDITION 1 - SIGN INSTALLATION



CONDITION 3 - SIGN INSTALLATION



CONDITION 2 - SIGN INSTALLATION

NOTES:

1. SEE SIGN INSTALLATION SCHEDULE IN CONTRACT PLANS FOR DIMENSIONS.
2. THE DIMENSIONS OF ALL POSTS FOR GROUND MOUNTED SIGNS ARE BASED ON DESIGN CROSS SECTIONS. THE CONTRACTOR SHALL VERIFY REQUIRED POST LENGTHS IN THE FIELD, PRIOR TO SUBMITTING SHOP DRAWINGS AND POST FABRICATION TO MAINTAIN THE CLEARANCES SHOWN.
3. SIGN FOUNDATION ELEVATIONS TO BE BASED ON FINISHED SLOPES.
4. ANY ADDITIONAL SIGN TO BE ADDED LATER MUST BE SUPPORTED BY THE EXISTING SIGN PANEL AND NOT THE SIGN POST. MINIMUM CLEARANCES SHALL BE MAINTAINED.
5. SIGNS THAT ARE PLACED WELL OUTSIDE THE CLEAR ZONE MAY BE INSTALLED WITH A MINIMUM HEIGHT OF 5 FEET, MEASURED VERTICALLY FROM THE BOTTOM OF THE SIGN TO THE HORIZONTAL ELEVATION OF THE NEAR EDGE OF TRAVELED ROADWAY.
6. MINIMUM HEIGHT OF LOWEST POST SHALL BE 7'-0" MEASURED BETWEEN STUB PROJECTION AND HINGE JOINT.
7. FOR TWO POSTS SPACED LESS THAN 7 FEET APART, EACH POST SHALL HAVE A MASS LESS THAN 18 lb/ft.
8. WHEN THE TOTAL COMBINED WEIGHT OF THE TWO POSTS LOCATED WITHIN 7 FEET OF EACH OTHER EXCEEDS 600 lbs., THE SIGN SHALL BE PLACED WELL OUTSIDE THE CLEAR ZONE OR BE SHIELDED FROM VEHICULAR IMPACT.

SHIELDED SLOPE

APPROVED BY: Marco Nashif, CHIEF ENGINEERING OFFICER — DATE: 03/01/2023

Illinois Tollway

BREAKAWAY SIGN SUPPORT DETAILS

STANDARD F9-07

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline.Ng	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLLWAY STANDARDS

SCALE: | SHEET 4 OF 5 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	176
		CONTRACT NO. 62U90		
	ILLINOIS FED. AID PROJECT			

MODEL: Default
FILE NAME: nw:\\aecom-hasbrouck-ny.com:AECOM_DS19_NADDocuments\60658563-1-1909DG-CAD\910_CAD\WB-TOLL03_SHEETS\CWBD1620DG-SHT-TollStandards-F9-07-04.dgn

POST SIZE W6x15	SIGN DEPTH						
	4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"
CLEAR HEIGHT	POST MAX SPACING						
6'-0"	11'-6"	9'-0"	7'-0"	6'-0"	5'-0"	4'-0"	3'-6"
8'-0"	8'-0"	6'-6"	5'-6"	4'-6"	3'-6"	3'-0"	-
10'-0"	6'-0"	5'-0"	4'-0"	3'-6"	3'-0"	-	-
12'-0"	4'-6"	4'-0"	3'-6"	3'-0"	-	-	-
14'-0"	3'-6"	3'-0"	-	-	-	-	-
16'-0"	3'-0"	-	-	-	-	-	-

POST SIZE W6x9	SIGN DEPTH		
	4'-0"	5'-0"	6'-0"
CLEAR HEIGHT	POST MAX SPACING		
6'-0"	5'-6"	4'-0"	3'-0"
8'-0"	4'-0"	3'-0"	-
10'-0"	3'-0"	-	-
12'-0"	-	-	-

POST SIZE W14x30	SIGN DEPTH															
	4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"	15'-0"	16'-0"	17'-0"	18'-0"	19'-0"
CLEAR HEIGHT	POST MAX SPACING															
6'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	11'-6"	10'-0"	8'-0"	6'-6"	5'-6"	4'-6"	4'-0"	3'-6"	3'-0"
8'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	11'-0"	9'-6"	8'-0"	6'-6"	5'-6"	4'-6"	4'-0"	3'-6"	3'-0"	-
10'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	10'-6"	9'-0"	7'-6"	6'-6"	5'-6"	4'-6"	4'-0"	3'-6"	3'-0"	-	-
12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	10'-0"	8'-6"	7'-6"	6'-6"	5'-6"	4'-6"	4'-0"	3'-6"	3'-0"	-	-	-
14'-0"	12'-0"	12'-0"	11'-0"	9'-6"	8'-6"	7'-6"	6'-6"	5'-6"	5'-0"	4'-0"	3'-6"	3'-0"	-	-	-	-
16'-0"	12'-0"	11'-0"	9'-6"	8'-0"	7'-0"	6'-0"	5'-6"	4'-6"	4'-0"	3'-6"	3'-0"	-	-	-	-	-
18'-0"	10'-6"	9'-0"	8'-0"	7'-0"	6'-0"	5'-6"	4'-6"	4'-0"	3'-6"	3'-0"	-	-	-	-	-	-
20'-0"	8'-6"	7'-6"	6'-6"	6'-0"	5'-0"	4'-6"	4'-0"	3'-6"	3'-0"	-	-	-	-	-	-	-
22'-0"	7'-6"	6'-6"	6'-0"	5'-0"	4'-6"	4'-0"	3'-6"	3'-0"	3'-0"	-	-	-	-	-	-	-
24'-0"	6'-6"	5'-6"	5'-0"	4'-6"	4'-0"	3'-6"	3'-0"	-	-	-	-	-	-	-	-	-
26'-0"	5'-6"	5'-0"	4'-6"	4'-0"	3'-6"	3'-0"		-	-	-	-	-	-	-	-	-
28'-0"	5'-0"	4'-6"	4'-0"	3'-6"	3'-0"	-	-	-	-	-	-	-	-	-	-	-
30'-0"	4'-6"	4'-0"	3'-6"	3'-0"	-	-	-	-	-	-	-	-	-	-	-	-

POST SIZE W14x38	SIGN DEPTH																			
	4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"	15'-0"	16'-0"	17'-0"	18'-0"	19'-0"	20'-0"	21'-0"	22'-0"	23'-0"	24'-0"
CLEAR HEIGHT	POST MAX SPACING																				
6'-0"	-	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	10'-6"	9'-0"	7'-6"	6'-6"	5'-6"	5'-0"	4'-6"	4'-0"	3'-6"	3'-0"	-
8'-0"	-	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	11'-6"	10'-0"	8'-6"	7'-6"	6'-6"	5'-6"	4'-6"	4'-0"	3'-6"	3'-0"	3'-0"	-	-
10'-0"	-	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	11'-0"	9'-6"	8'-6"	7'-6"	6'-6"	5'-6"	4'-6"	4'-0"	3'-6"	3'-0"	3'-0"	-	-	-
12'-0"	-	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	10'-6"	9'-0"	8'-0"	7'-0"	6'-0"	5'-6"	4'-6"	4'-0"	3'-6"	3'-0"	3'-0"	-	-	-	-
14'-0"	-	12'-0"	12'-0"	12'-0"	11'-6"	10'-0"	9'-0"	8'-0"	7'-0"	6'-0"	5'-6"	4'-6"	4'-0"	3'-6"	3'-0"	-	-	-	-	-	-
16'-0"	-	12'-0"	12'-0"	11'-0"	9'-6"	8'-6"	7'-6"	6'-6"	6'-0"	5'-6"	4'-6"	4'-0"	3'-6"	-	-	-	-	-	-	-	-
18'-0"	-	12'-0"	10'-6"	9'-6"	8'-6"	7'-6"	6'-6"	6'-0"	5'-0"	4'-6"	4'-0"	3'-6"	-	-	-	-	-	-	-	-	-
20'-0"	-	10'-6"	9'-0"	8'-0"	7'-0"	6'-6"	5'-6"	5'-0"	4'-6"	4'-0"	3'-6"	3'-0"	-	-	-	-	-	-	-	-	-
22'-0"	-	9'-0"	8'-0"	7'-0"	6'-6"	5'-6"	5'-0"	4'-6"	4'-0"	3'-6"	3'-0"	3'-0"	-	-	-	-	-	-	-	-	-
24'-0"	-	7'-6"	7'-0"	6'-0"	5'-6"	5'-0"	4'-6"	4'-0"	3'-6"	3'-0"	3'-0"	-	-	-	-	-	-	-	-	-	-
26'-0"	-	6'-6"	6'-0"	5'-6"	5'-0"	4'-6"	4'-0"	3'-6"	3'-0"	3'-0"	-	-	-	-	-	-	-	-	-	-	-
28'-0"	-	6'-0"	5'-6"	5'-0"	4'-6"	4'-0"	3'-6"	3'-0"	3'-0"	-	-	-	-	-	-	-	-	-	-	-	-
30'-0"	-	5'-6"	5'-0"	4'-6"	4'-0"	3'-6"	3'-0"	3'-0"	-	-	-	-	-	-	-	-	-	-	-	-	-

POST SIZE W16x45	SIGN DEPTH																			
	4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"	15'-0"	16'-0"	17'-0"	18'-0"	19'-0"	20'-0"	21'-0"	22'-0"	23'-0"	24'-0"
CLEAR HEIGHT	POST MAX SPACING																				
6'-0"	-	-	-	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	11'-0"	10'-0"	9'-0"	7'-6"	6'-6"	6'-0"	5'-0"	4'-6"	4'-0"	3'-6"
8'-0"	-	-	-	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	11'-6"	10'-0"	8'-6"	7'-6"	6'-6"	5'-6"	5'-0"	4'-6"	4'-0"	3'-6"	3'-0"
10'-0"	-	-	-	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	11'-0"	10'-0"	8'-6"	7'-6"	6'-6"	5'-6"	5'-0"	4'-6"	4'-0"	3'-6"	3'-0"	-
12'-0"	-	-	-	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	11'-0"	9'-6"	8'-6"	7'-6"	6'-6"	5'-6"	5'-0"	4'-6"	4'-0"	3'-6"	3'-0"	-	-
14'-0"	-	-	-	12'-0"	12'-0"	12'-0"	12'-0"	10'-6"	9'-0"	8'-0"	7'-0"	6'-6"	5'-6"	5'-0"	4'-6"	4'-0"	3'-6"	3'-0"	-	-	-
16'-0"	-	-	-	12'-0"	12'-0"	11'-6"	10'-0"	9'-0"	8'-0"	7'-0"	6'-6"	5'-6"	5'-0"	4'-0"	4'-0"	3'-6"	3'-0"	-	-	-	-
18'-0"	-	-	-	12'-0"	11'-0"	10'-0"	9'-0"	8'-0"	7'-0"	6'-0"	5'-6"	5'-0"	4'-6"	4'-0"	3'-6"	3'-0"	-	-	-	-	-
20'-0"	-	-	-	10'-6"	9'-6"	8'-6"	7'-6"	7'-0"	6'-0"	5'-6"	5'-0"	4'-6"	4'-0"	3'-6"	3'-0"	-	-	-	-	-	-
22'-0"	-	-	-	9'-0"	8'-6"	7'-6"	6'-6"	6'-0"	5'-6"	5'-0"	4'-6"	4'-0"	3'-6"	3'-0"	-	-	-	-	-	-	-
24'-0"	-	-	-	8'-0"	7'-6"	6'-6"	6'-0"	5'-6"	5'-0"	4'-6"	4'-0"	3'-6"	3'-0"	-	-	-	-	-	-	-	-
26'-0"	-	-	-	7'-0"	6'-6"	6'-0"	5'-6"	5'-0"	4'-6"	4'-0"	3'-6"	3'-0"	3'-0"	-	-	-	-	-	-	-	-
28'-0"	-	-	-	6'-6"	6'-0"	5'-6"	5'-0"	4'-6"	4'-0"	3'-6"	3'-0"	3'-0"	-	-	-	-	-	-	-	-	-
30'-0"	-	-	-	5'-6"	5'-0"	4'-6"	4'-6"	4'-0"	3'-6"	3'-0"	3'-0"	-	-	-	-	-	-	-	-	-	-

POST SIZE W12x26	SIGN DEPTH														
	4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"	15'-0"	16'-0"	17'-0"	18'-0"
CLEAR HEIGHT	POST MAX SPACING														
6'-0"	-	-	-	-	-	12'-0"	-	-	8'-0"	6'-6"	5'-6"	4'-6"	4'-0"	3'-0"	3'-0"
8'-0"	-	-	-	-	-	10'-6"	-	-	6'-6"	5'-6"	4'-6"	4'-0"	3'-0"	-	-
10'-0"	-	-	-	-	-	8'-6"	-	-	5'-6"	4'-6"	4'-0"	3'-0"	-	-	-
12'-0"	-	-	-	-	-	7'-0"	-	-	4'-6"	4'-0"	3'-0"	-	-	-	-
14'-0"	-	-	-	-	-	6'-0"	-	-	4'-0"	3'-0"	-	-	-	-	-
16'-0"	-	-	-	-	-	5'-0"	-	-	3'-6"	3'-0"	-	-	-	-	-
18'-0"	-	-	-	-	-	4'-0"	-	-	3'-0"	-	-	-	-	-	-
20'-0"	-	-	-	-	-	3'-6"	-	-	-	-	-	-	-	-	-
22'-0"	-	-	-	-	-	3'-0"	-	-	-	-	-	-	-	-	-
24'-0"	-	-	-	-	-	3'-0"	-	-	-	-	-	-	-	-	-

POST SIZE W10x26	SIGN DEPTH													
	4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"	15'-0"	16'-0"	17'-0"
CLEAR HEIGHT	POST MAX SPACING													
6'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	11'-6"	9'-6"	8'-0"	7'-0"	6'-0"	5'-0"	4'-0"	3'-6"	3'-0"
8'-0"	12'-0"	12'-0"	12'-0"	12'-0"	10'-6"	9'-0"	7'-6"	6'-6"	5'-6"	5'-0"	4'-0"	3'-6"	3'-0"	-
10'-0"	12'-0"	12'-0"	12'-0"	10'-0"	8'-6"	7'-6"	6'-0"	5'-6"	4'-6"	4'-0"	3'-6"	3'-0"	-	-
12'-0"	12'-0"	11'-6"	9'-6"	8'-0"	7'-0"	6'-0"	5'-0"	4'-6"	4'-0"	3'-6"	3'-0"	-	-	-
14'-0"	11'-0"	9'-0"	8'-0"	7'-0"	6'-0"	5'-0"	4'-6"	4'-0"	3'-6"	3'-0"	-	-	-	-
16'-0"	9'-0"	7'-6"	6'-6"	5'-6"	5'-0"	4'-6"	4'-0"	3'-6"	3'-0"	-	-	-	-	-
18'-0"	7'-6"	6'-6"	5'-6"	5'-0"	4'-0"	3'-6"	3'-6"	3'-0"	-	-	-	-	-	-
20'-0"	6'-6"	5'-6"	5'-0"	4'-0"	3'-6"	3'-0"	3'-0"	-	-	-	-	-	-	-
22'-0"	5'-6"	4'-6"	4'-0"	3'-6"	3'-0"	3'-0"	-	-	-	-	-	-	-	-
24'-0"	4'-6"	4'-0"	3'-6"	3'-0"	3'-0"	-	-	-	-	-	-	-	-	-
26'-0"	4'-0"	3'-6"	3'-0"	3'-0"	-	-	-	-	-	-	-	-	-	-
28'-0"	3'-6"	3'-0"	3'-0"	-	-	-	-	-	-	-	-	-	-	-
30'-0"	3'-0"	3'-0"	-	-	-	-	-	-	-	-	-	-	-	-

POST SIZE W10x22	SIGN DEPTH											
	4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"	15'-0"
CLEAR HEIGHT	POST MAX SPACING											
6'-0"	12'-0"	12'-0"	12'-0"	12'-0"	10'-6"	9'-0"	7'-6"	6'-0"	5'-0"	4'-0"	3'-6"	3'-0"
8'-0"	12'-0"	12'-0"	11'-0"	10'-0"	8'-6"	7'-0"	6'-0"	5'-0"	4'-0"	3'-6"	3'-0"	-
10'-0"	12'-0"	11'-6"	9'-6"	8'-0"	6'-6"	5'-6"	5'-0"	4'-0"	3'-6"	3'-0"	-	-
12'-0"	11'-0"	9'-0"	7'-6"	6'-6"	5'-6"	4'-6"	4'-0"	3'-6"	3'-0"	-	-	-
14'-0"	9'-0"	7'-6"	6'-6"	5'-6"	4'-6"	4'-0"	3'-6"	3'-0"	-	-	-	-
16'-0"	7'-0"	6'-0"	5'-0"	4'-6"	4'-0"	3'-6"	3'-0"	-	-	-	-	-
18'-0"	6'-0"	5'-0"	4'-6"	4'-0"	3'-6"	3'-0"	-	-	-	-	-	-
20'-0"	5'-0"	4'-6"	4'-0"	3'-6"	3'-0"	-	-	-	-	-	-	-
22'-0"	4'-6"	3'-6"	3'-6"	3'-0"	-	-	-	-	-	-	-	-
24'-0"	3'-6"	3'-0"	3'-0"	-	-	-	-	-	-	-	-	-
26'-0"	3'-0"	3'-0"	-	-	-	-	-	-	-	-	-	-
28'-0"	3'-0"	-	-	-	-	-	-	-	-	-	-	-

POST SIZE W8x18	SIGN DEPTH								
	4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"
CLEAR HEIGHT	POST MAX SPACING								
6'-0"	12'-0"	12'-0"	10'-6"	8'-6"	7'-0"	5'-6"	4'-6"	4'-0"	3'-0"
8'-0"	12'-0"	10'-0"	8'-0"	6'-6"	5'-6"	4'-6"	4'-0"	3'-0"	-
10'-0"	9'-6"	7'-6"	6'-6"	5'-0"	4'-6"	3'-6"	3'-0"	-	-
12'-0"	7'-6"	6'-0"	5'-0"	4'-0"	3'-6"	3'-0"	-	-	-
14'-0"	6'-0"	5'-0"	4'-0"	3'-6"	3'-0"	-	-	-	-
16'-0"	5'-0"	4'-0"	3'-6"	3'-0"	-	-	-	-	-
18'-0"	4'-0"	3'-6"	3'-0"	-	-	-	-	-	-
20'-0"	3'-6"	3'-0"	-	-	-	-	-	-	-
22'-0"	3'-0"	-	-	-	-	-	-	-	-

APPROVED BY:
Manar Nashif
CHIEF ENGINEERING OFFICER
DATE: 03/01/2023

NOTES:

1. CLEAR HEIGHT SHALL BE TAKEN AS THE DISTANCE BETWEEN THE STUB PROJECTION AND THE BOTTOM OF THE SIGN PANEL.

SHEET 5 OF 5

Illinois Tollway

BREAKAWAY SIGN SUPPORT DETAILS

STANDARD F9-07

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline,Ng	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -

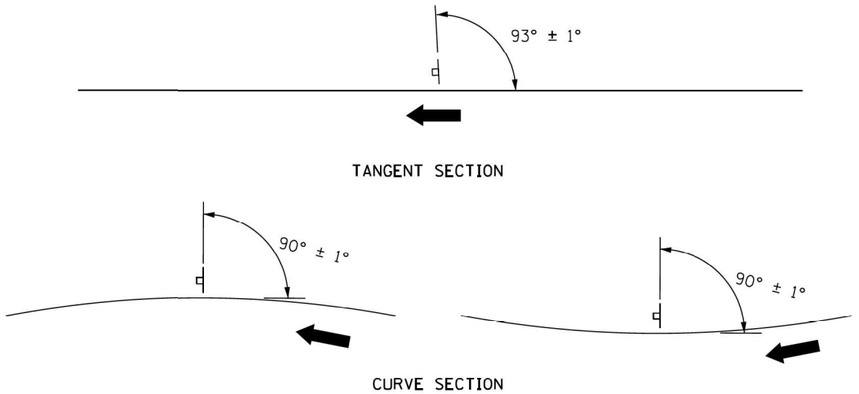
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLLWAY STANDARDS

SCALE: | SHEET 5 OF 5 SHEETS | STA. | TO STA.

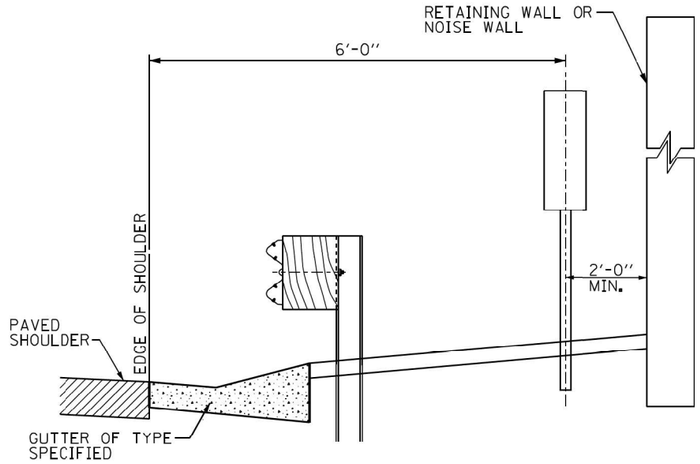
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	177
		CONTRACT NO. 62U90		
	ILLINOIS FED. AID PROJECT			

MODEL: Default
FILE NAME: pw:\\aecom-ims-pw.ber-ily.com:AECOM_0519_NA\Documents\60605863-190900-CAD910_CAD\WB\WB-TOLL03_SHEETS\CIVIL\D1620904-SHT-TOLLStandards-F9-07-05.dgn



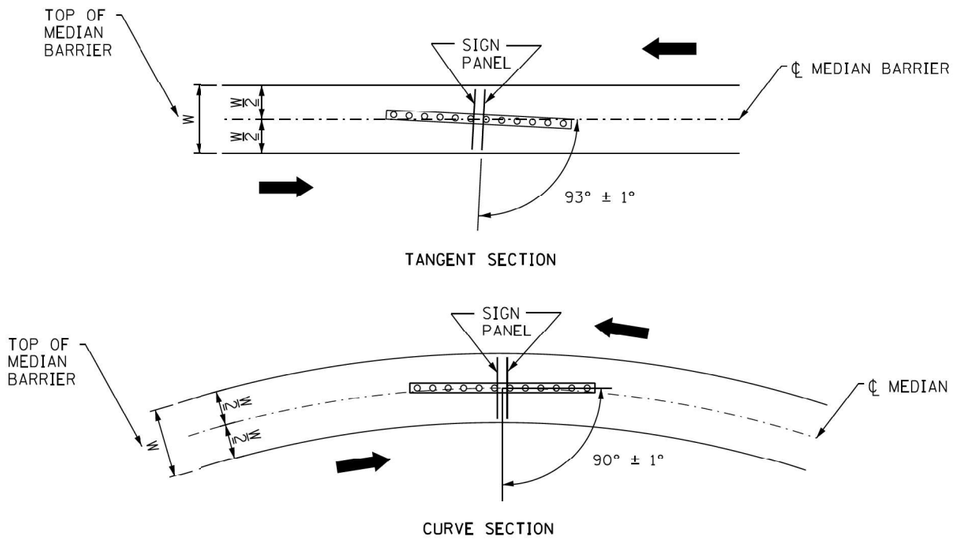
GROUND MOUNT SIGN POSITIONING

NOT TO SCALE



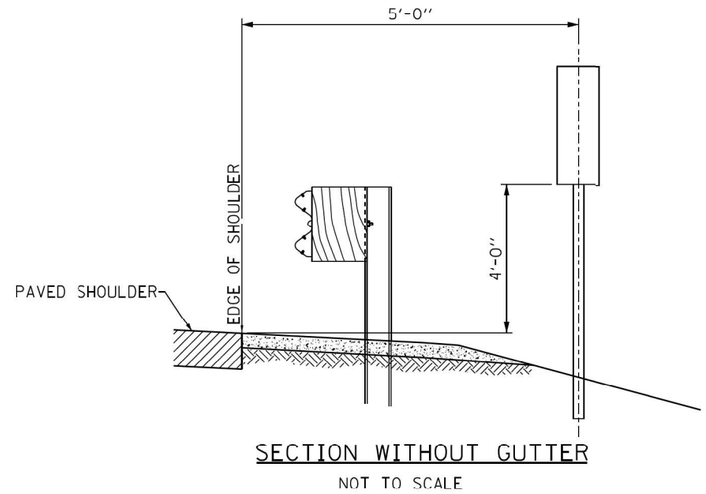
SECTION WITH GUTTER

NOT TO SCALE



MEDIAN BARRIER SIGN POSITIONING

NOT TO SCALE



SECTION WITHOUT GUTTER

NOT TO SCALE

LEGEND:

DIRECTION OF TRAFFIC

SHEET 1 OF 2

APPROVED BY: Paul Kovacs, CHIEF ENGINEERING OFFICER — DATE: 04/06/2009

DATE	REVISIONS
2-13-2020	REVISED BARRIER MOUNT DETAIL AND GENERAL NOTES, ADDED MILEPOST HEIGHT FROM EDGE OF SHOULDER.
3-01-2019	REMOVED "LIGHT POLE/SIGN STRUCTURE MOUNTE DETAIL."
3-31-2016	REVISED BOLT NOTE.

Illinois Tollway

MILEPOST MARKER

STANDARD F11-06

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline.Ng	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -

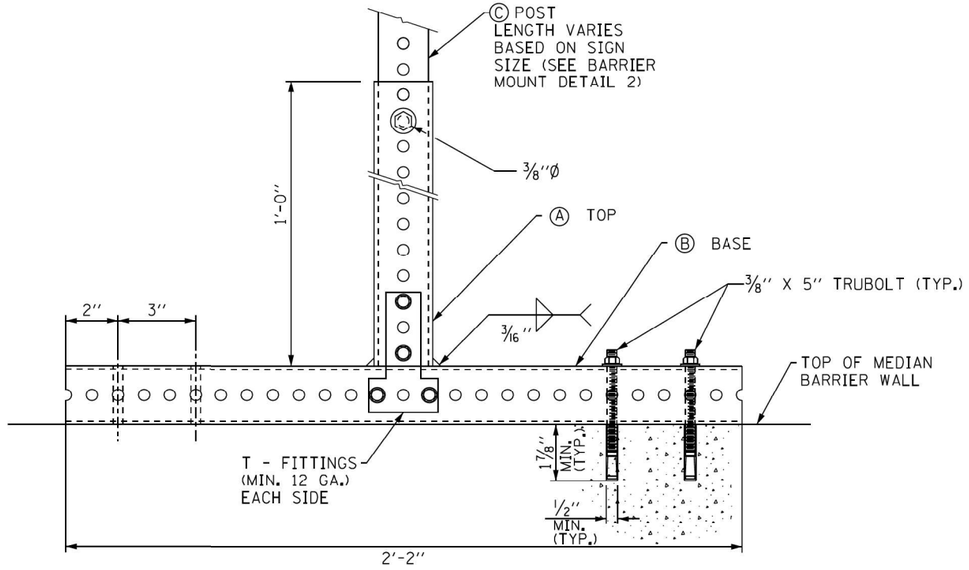
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLLWAY STANDARDS

SCALE: | SHEET 1 OF 2 SHEETS | STA. | TO STA.

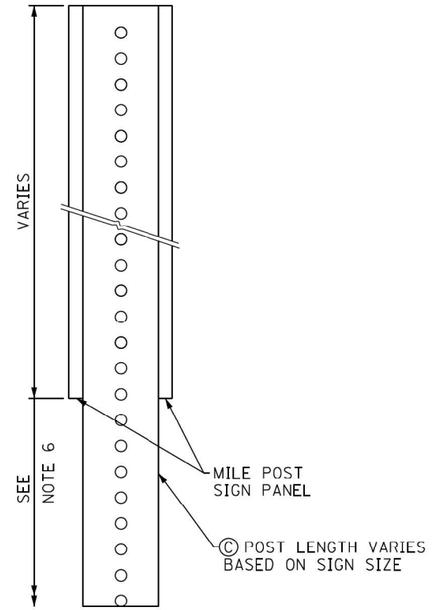
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	178
		CONTRACT NO. 62U90		
	ILLINOIS FED. AID PROJECT			

MODEL: Default
FILE NAME: nw:\\aecom-us-nw.ber-lky.com:AECOM_DS_19_NA\Documents\60658563-1-1909100-CAD\910_CAD\WB\WB-TOLL103_SHEETS\DWD162U90-SHT-TollStandards-F11-06-01.dgn



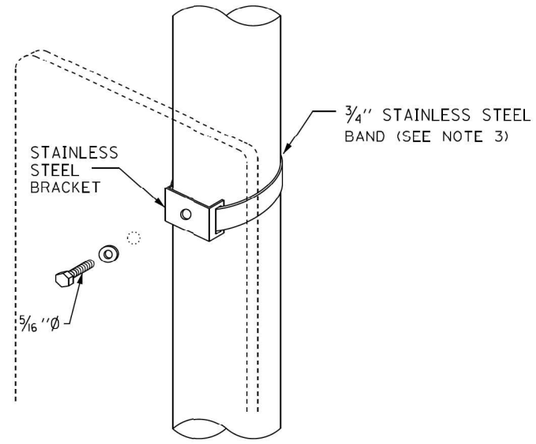
BARRIER MOUNT DETAIL

NOT TO SCALE



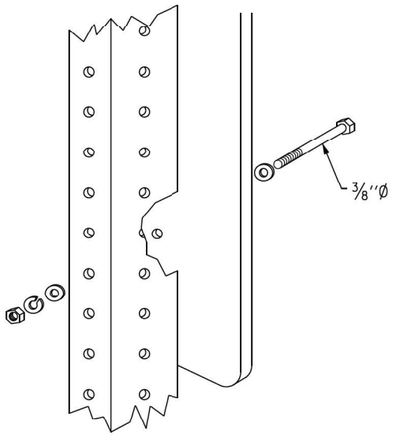
BARRIER MOUNT DETAIL 2

NOT TO SCALE



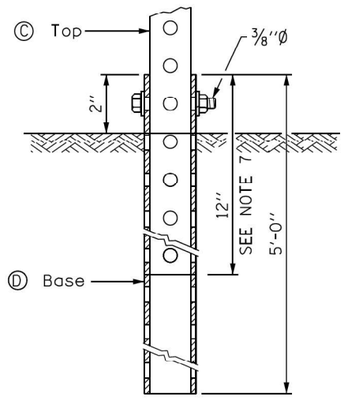
LIGHT POLE/SIGN STRUCTURE MOUNT DETAIL

NOT TO SCALE



TELESCOPING STEEL POSTS

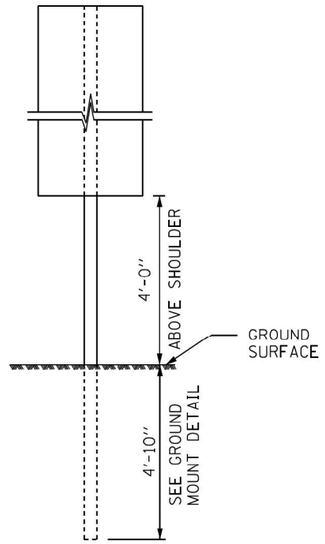
NOT TO SCALE



GROUND MOUNT DETAIL

NOT TO SCALE

Ⓐ	2 1/4" x 2 1/4" x 1'-0" (12 GA.)
Ⓑ	2 1/4" x 2 1/4" x 2'-2" (12 GA.)
Ⓒ	2" x 2" x VARIES (12 GA.)
Ⓓ	2 1/4" x 2 1/4" x 5'-0" (12 GA.)



ONE POST INSTALLATION

NOT TO SCALE

APPROVED BY: Paul Kovacs
CHIEF ENGINEERING OFFICER
DATE: 04/06/2009

GENERAL NOTES:

1. ALL ANCHOR BOLTS FOR MEDIAN BARRIER MOUNT DETAIL SHALL BE 3/8" DIA. RED HEAD "TRUBOLT" OR APPROVED EQUAL.
2. ALL DIMENSIONS ARE IN INCHES UNLESS SHOWN OTHERWISE.
3. FOLLOWING ARE THE STEPS FOR FASTENING THE MILEPOST MARKER SIGN PANEL. ALL MOUNTING DETAILS SHOWN ON THIS SHEET APPLY:
   a. CENTER ALL FASTENERS ON THE SIGN PANEL.
   b. START AND FINISH THE FASTENER SPACING USING A MINIMUM OF 3" TO A MAXIMUM OF 6" FROM THE TOP AND BOTTOM EDGE OF THE SIGN PANEL.
   c. THE DISTANCE BETWEEN SUCCESSIVE FASTENERS SHALL NOT EXCEED 2'-0".
4. CENTER THE 5/16" DIA. BOLT IN THE MIDDLE OF THE SIGN.
5. USE THE SAME ATTACHMENT FOR BACK TO BACK MILEPOST MARKER SIGN.
6. DISTANCE FROM THE GROUND TO THE BOTTOM OF THE MILEPOST MARKER SIGN SHALL BE A MINIMUM OF 4'-0" REGARDLESS OF BARRIER TYPE.
7. THE TOP SECTION SHALL BE TELESCOPED INTO THE BASE SECTION 12 INCHES AND FASTENED TOGETHER.
8. FOR ATTACHMENT TO BRIDGE PARAPET USE BARRIER WALL MOUNT DETAIL. ONLY ONE PANEL REQUIRED WHEN ATTACHED TO PARAPET ALONG OUTSIDE SHOULDER.
9. BASE AND POST ASSEMBLY SHALL BE HOT DIP GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH AASHTO M111 OR AS SPECIFIED IN THE SPECIAL PROVISION.

Illinois Tollway

MILEPOST MARKER

STANDARD F11-06

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline.Ng	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLLWAY STANDARDS

SCALE: | SHEET 2 OF 2 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	179
		CONTRACT NO. 62U90		
		ILLINOIS	FED. AID PROJECT	

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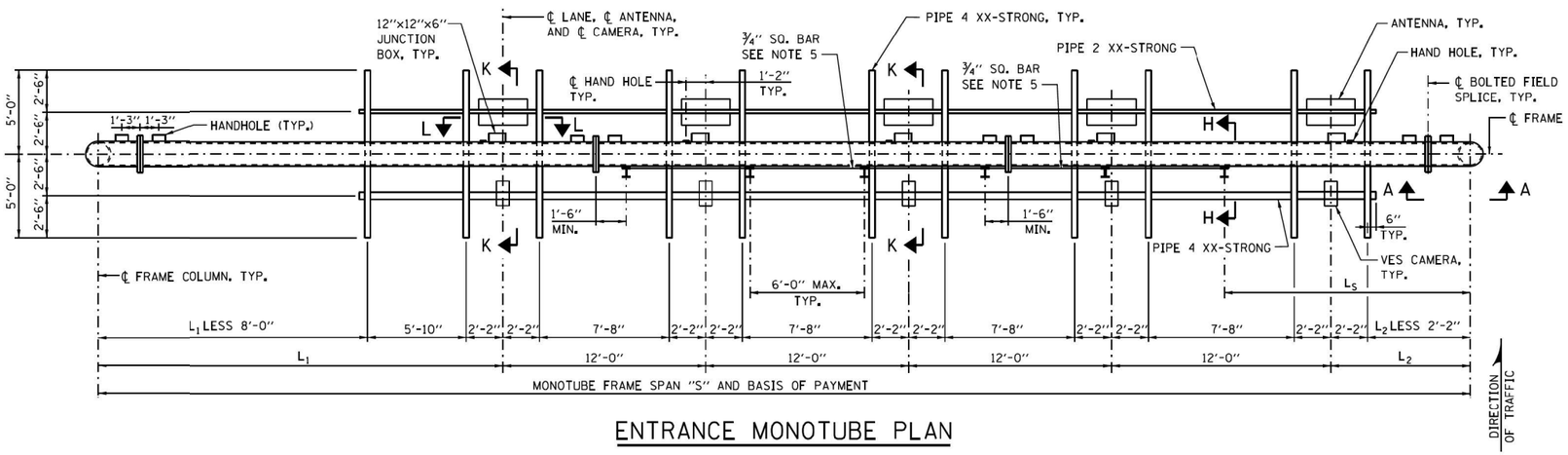
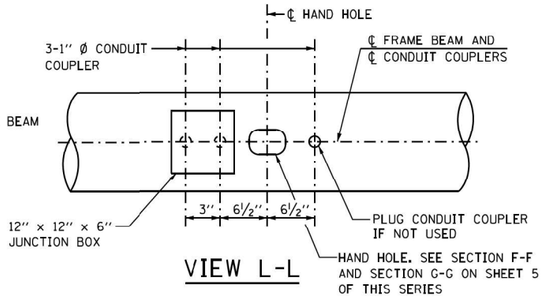
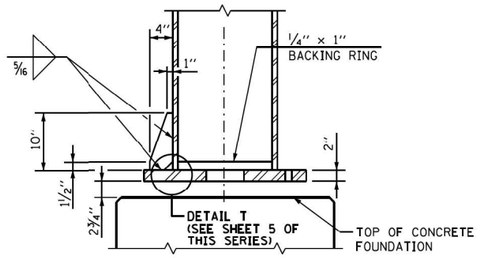


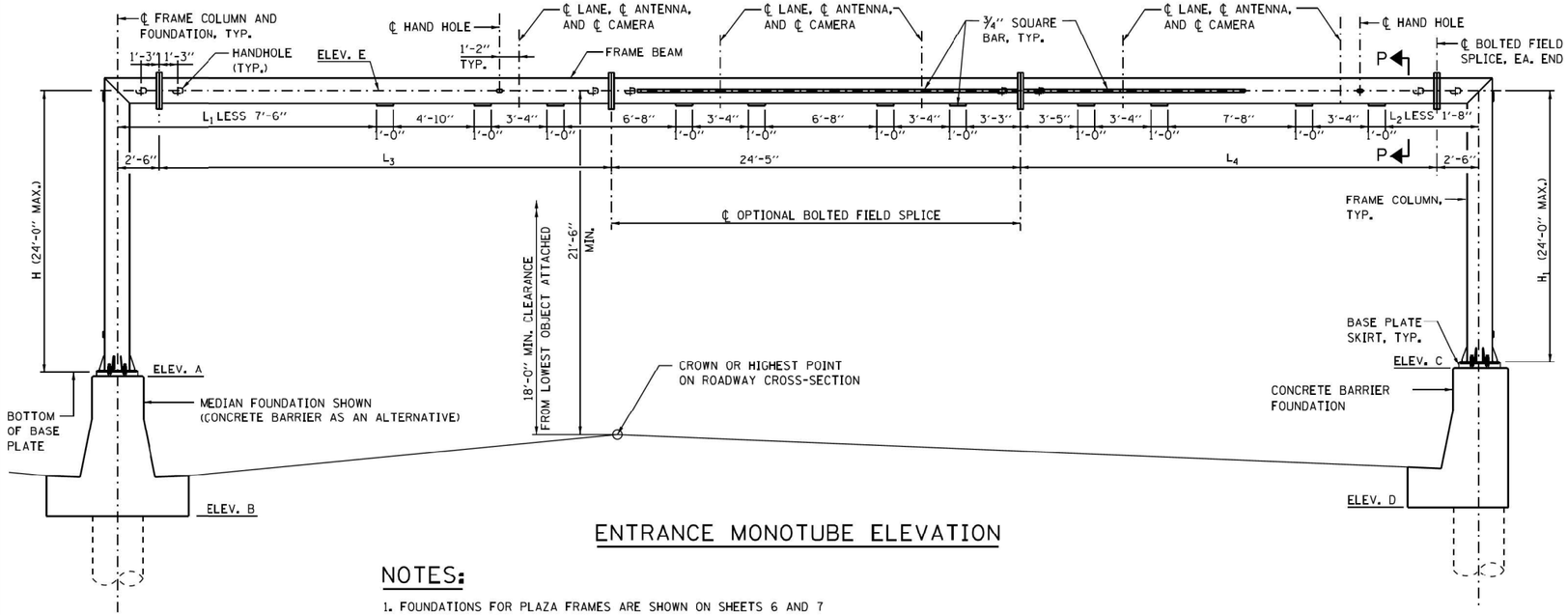
ENTRANCE MONOTUBE PLAN



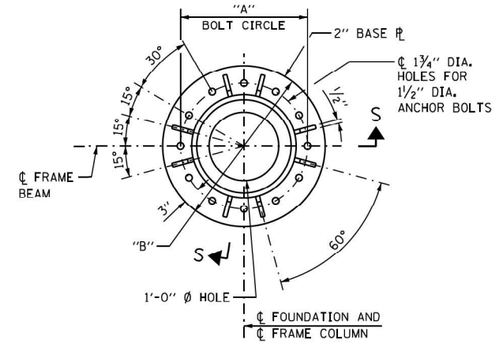
VIEW L-L



SECTION S-S



ENTRANCE MONOTUBE ELEVATION



BASE PLATE PLAN MONOTUBE FRAMES

NOTES:

1. FOUNDATIONS FOR PLAZA FRAMES ARE SHOWN ON SHEETS 6 AND 7 OF THIS SERIES.
2. FOR SECTIONS A-A, H-H, K-K, BASE PLATE SKIRT AND HAND HOLE DETAILS, SEE SHEET 5 OF THIS SERIES.
3. FOR SECTION P-P SEE SHEET 4 OF THIS SERIES.
4. PROVIDE CAMBER AT MIDSPAN OF STRUCTURE.
5. DISCONTINUE ¾" SQUARE BAR TO ALLOW ½" Ø U-BOLT INSTALLATION.
6. WORK THIS SHEET WITH, OVERHEAD SIGN STRUCTURES ENTRANCE/EXIT MONOTUBE TYPE (STEEL) MAINLINE SUMMARY AND TOTAL BILL OF MATERIAL SHEET.

MONOTUBE FRAME TABLE

TYPE	SPAN "S"	FRAME COLUMN	FRAME BEAM	CAMBER	"A"	"B"
I	≤70'	HSS 16x0.500	HSS 16x0.500	2¾"	1'-8"	2'-2"
II	71'-80'	HSS 18x0.500	HSS 18x0.500	4"	1'-10"	2'-4"
III	81'-90'	HSS 18x0.500	HSS 18x0.500	4½"	1'-10"	2'-4"

APPROVED BY: Manar Nashif, CHIEF ENGINEERING OFFICER — DATE: 03/01/2024

SHEET 2 OF 8

Illinois Tollway

OVERHEAD SIGN STRUCTURE
MONOTUBE TYPE (STEEL)
MAINLINE STRUCTURE DETAILS

STANDARD F13-09

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline.Ng	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLLWAY STANDARDS

SCALE: | SHEET 1 OF 4 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	180
		CONTRACT NO. 62U90		
	ILLINOIS FED. AID PROJECT			

MODEL: Default
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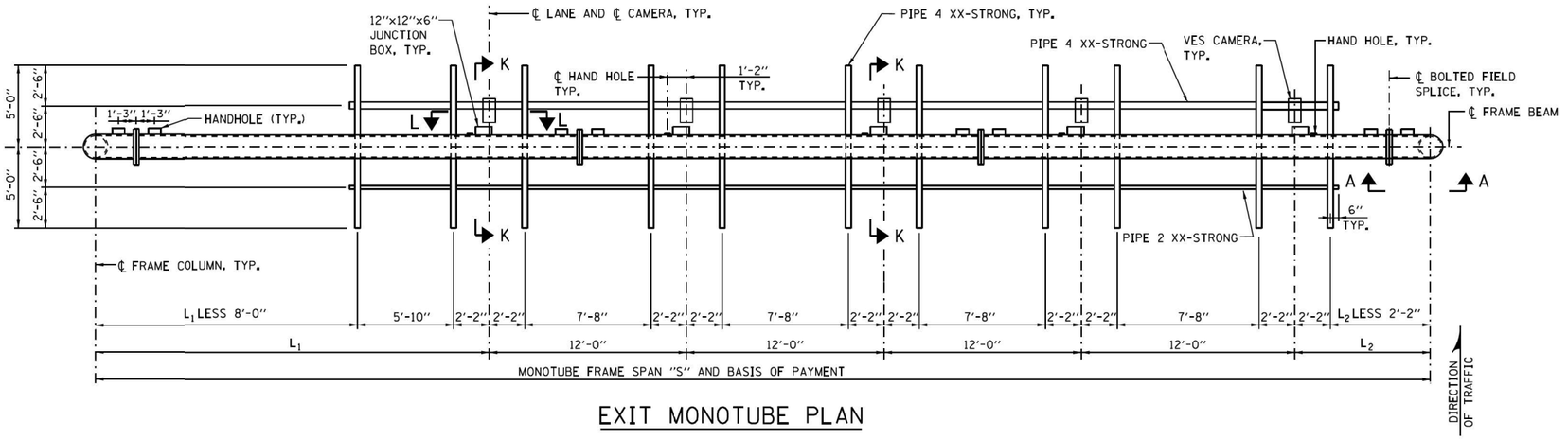
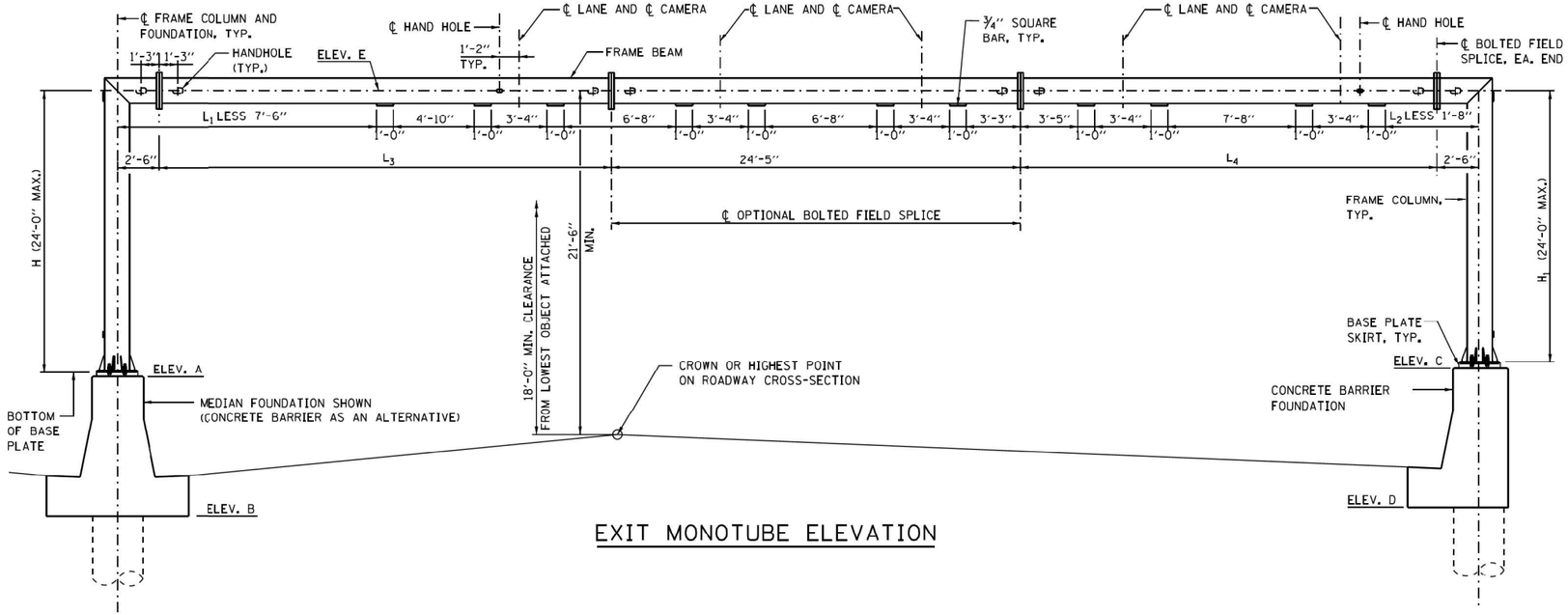


EXIT MONOTUBE PLAN



EXIT MONOTUBE ELEVATION

NOTES:

1. SEE SHEET 2 OF THIS SERIES FOR MONOTUBE FRAME TABLE, VIEW L-L, BASE PLATE DETAIL, AND ADDITIONAL NOTES.
2. WORK THIS SHEET WITH, OVERHEAD SIGN STRUCTURES EXIT MONOTUBE TYPE (STEEL) SUMMARY AND TOTAL BILL OF MATERIAL SHEET.

APPROVED BY: Manar Moshil, CHIEF ENGINEERING OFFICER — DATE: 03/01/2024

SHEET 3 OF 8

Illinois Tollway

OVERHEAD SIGN STRUCTURE MONOTUBE TYPE (STEEL) MAINLINE STRUCTURE DETAILS

STANDARD F13-09

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline.Ng	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLLWAY STANDARDS

SCALE: | SHEET 2 OF 4 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	181
		CONTRACT NO. 62U90		
		ILLINOIS	FED. AID PROJECT	

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GENERAL NOTES:

1. SEE THE ILLINOIS TOLLWAY STRUCTURE DESIGN MANUAL FOR MINIMUM VERTICAL CLEARANCE.
2. AFTER ADJUSTMENTS TO LEVEL FRAME BEAM AND ENSURE ADEQUATE VERTICAL CLEARANCE. TIGHTEN ALL TOP AND LEVELING NUTS AGAINST THE BASE PLATE WITH A MINIMUM TORQUE OF 200 LB.-FT. THEN PLACE STAINLESS STEEL MESH AROUND THE PERIMETER OF THE BASE PLATE. SECURE TO BASE PLATE WITH STAINLESS STEEL BANDING.
3. REINFORCEMENT BARS DESIGNATED "(E)" SHALL BE EPOXY COATED.

STRUCTURAL STEEL:

1. MATERIAL FOR THE HSS MONOTUBE FRAME SHALL CONFORM TO THE REQUIREMENT OF ASTM A500 GRADE B OR GRADE C. OTHER STRUCTURAL STEEL SHAPES AND PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A36, UNLESS NOTED OTHERWISE.
2. PIPES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A53 GRADE B.
3. ANCHOR BOLTS SHALL CONFORM TO THE REQUIREMENTS OF ASTM F1554 (AASHTO M314) GRADE 55, WITH A MINIMUM TENSILE STRENGTH OF 75,000 PSI. INSTALLATION AND INSPECTION OF ANCHOR BOLTS SHALL COMPLY WITH ILLINOIS TOLLWAY SPECIAL PROVISION "INTELLIGENT TRANSPORTATION SYSTEMS GANTRY FRAME "STEEL". ANCHORS SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 (AASHTO M232). SEE SHEET 6 OF THIS SERIES FOR GALVANIZED LENGTH.
4. U-BOLTS SHALL BE STAINLESS STEEL AND SHALL CONFORM TO ASTM 193, CLASS I, GRADE B8 (AISI TYPE 304). WASHERS FOR U-BOLTS SHALL CONFORM TO ASTM A240. TYPE 302. NUTS FOR U-BOLTS SHALL CONFORM TO ASTM A194 (AASHTO M292), GRADE 8F (AISI TYPE 303).
5. BOLTS (EXCLUDING ANCHOR BOLTS AND U-BOLTS) SHALL BE HIGH STRENGTH AND SHALL CONFORM TO THE REQUIREMENTS OF ASTM A325 (AASHTO M164). THEY SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 (AASHTO M232).
6. NUTS SHALL CONFORM TO ASTM A563 GRADE DH AND GALVANIZED ACCORDING TO ASTM A153 (AASHTO M232).
7. HARDENED STEEL WASHERS SHALL CONFORM TO ASTM F436 AND GALVANIZED ACCORDING TO ASTM A153 (AASHTO M232).
8. HSS FOR MONOTUBE FRAME, PIPES, STRUCTURAL STEEL SHAPES AND PLATES SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A123 AFTER FABRICATION.
8. THE MONOTUBE FRAME BEAM, COLUMNS, BASE PLATE MATERIAL, AND SPLICES ARE CONSIDERED TENSION MEMBERS AND SHALL CONFORM TO THE IMPACT TESTING REQUIREMENT, ZONE 2.
10. WELDING SHALL BE PERFORMED BY CERTIFIED WELDERS USING E70-XX ELECTRODES, AND SHALL CONFORM TO AWS D1.1-08 "STRUCTURAL WELDING CODE - STEEL". ALL WELDS ON ARCHITECTURAL EXPOSED STEEL (AES) MEMBERS ARE TO BE GROUND SMOOTH AND FILLED.

DESIGN LOADING:

WIND LOAD CRITERIA:
BASIC WIND SPEED = 120 M.P.H.
G = 1.14
I_F = 1.00
K_Z = 1.00
SIGN PANEL = 50 P.S.F.
COLUMN/BEAM = 35 P.S.F.

SIGN DEAD LOAD = 3 P.S.F.

ICE = 3 P.S.F. (APPLIED WITH A FACTOR OF 1.0 FOR STRENGTH I ONLY)

EQUIPMENT LOADS:

CAMERA ASSEMBLY W/MOUNTING HARDWARE	40 LB.
ANTENNA W/MOUNTING HARDWARE	24 LB.

DESIGN STRESSES FOR REINFORCED CONCRETE:

f'c = COMPRESSIVE STRENGTH OF CONCRETE AT 14 DAYS (CLASS SI)	= 3,500 P.S.I.
f'c = COMPRESSIVE STRENGTH OF CONCRETE AT 14 DAYS (CLASS DS)	= 4,000 P.S.I.
fy = YIELD STRENGTH OF REINFORCEMENT BARS (GRADE 60)	= 60,000 P.S.I.

FOUNDATION:

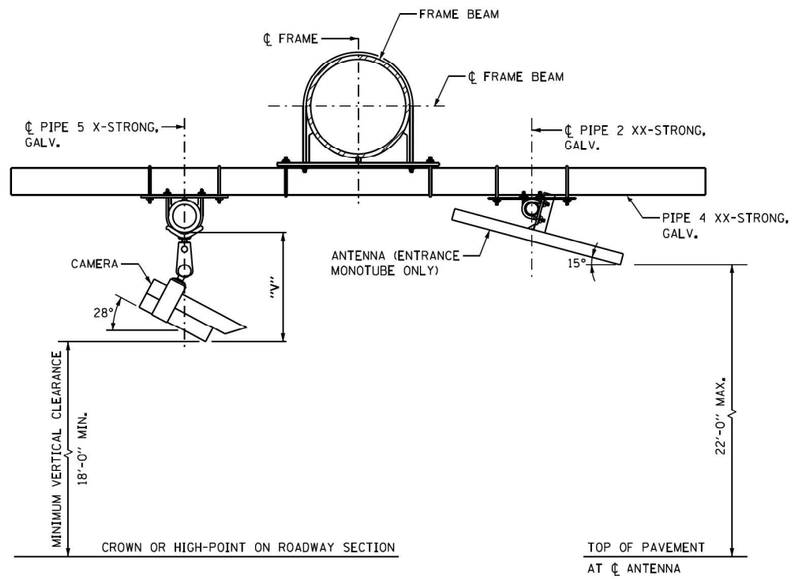
MINIMUM UNCONFINED COMPRESSIVE STRENGTH, Qu FOR ALL LAYERS OF COHESIVE SOILS (CLAYS) SHALL BE 1.25 TON/SQ.FT. AT PLAZA FRAMES.

DESIGN SPECIFICATIONS:

1. ILLINOIS TOLLWAY STRUCTURE DESIGN MANUAL, LATEST EDITION.
2. AASHTO LRFD SPECIFICATION FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS, 1ST EDITION.
3. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 9TH EDITION, 2020.
4. ILLINOIS DEPARTMENT OF TRANSPORTATION BRIDGE MANUAL, JANUARY 2012

CONSTRUCTION SPECIFICATIONS:

1. ILLINOIS TOLLWAY SUPPLEMENTAL SPECIFICATIONS TO THE ILLINOIS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION.
2. ILLINOIS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION.



SECTION P-P

NOTE:

VERIFY DIMENSION "V" WITH CAMERA MANUFACTURER.

APPROVED BY: Manar Nashif, CHIEF ENGINEERING OFFICER — DATE: 03/01/2024

SHEET 4 OF 8

Illinois Tollway

OVERHEAD SIGN STRUCTURE
MONOTUBE TYPE (STEEL)
MAINLINE STRUCTURE DETAILS

STANDARD F13-09

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline,Ng	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLLWAY STANDARDS

SCALE: | SHEET 3 OF 4 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	182
		CONTRACT NO. 62U90		
	ILLINOIS	FED. AID PROJECT		

MODEL: Default
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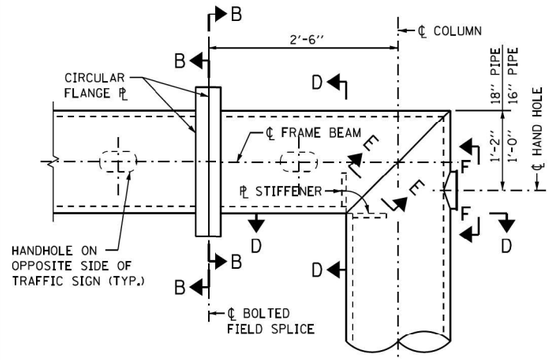
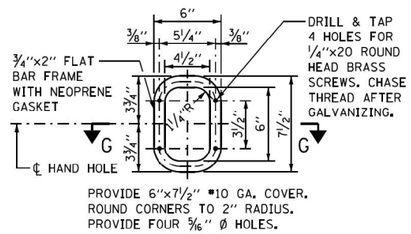
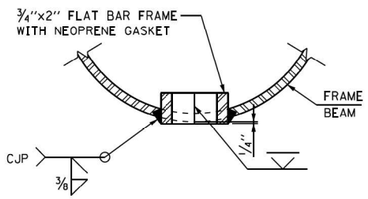


SECTION A-A

(SEE SHEET 1 OF THIS SERIES FOR LOCATION)



SECTION F-F



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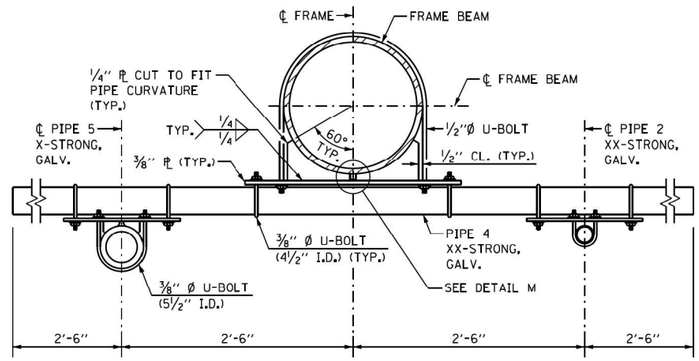
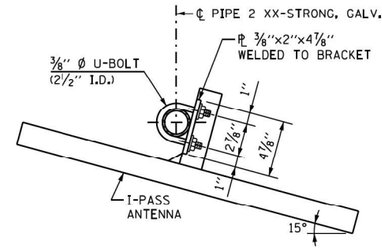
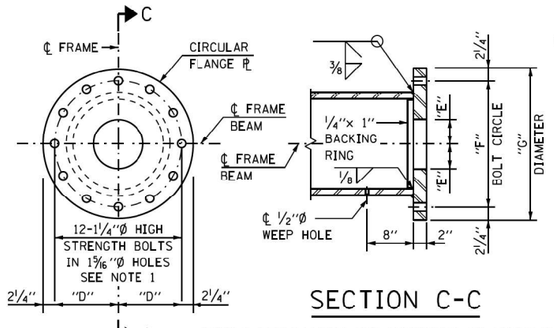


SECTION K-K



ANTENNA HANGER

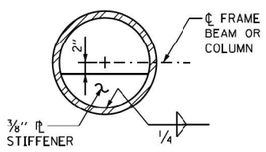


FRAME BEAM	"D"	"E"	"F"	"G"
HSS 16x0.500	10"	6"	1'-8"	2'-0 1/2"
HSS 18x0.500	11"	6"	1'-10"	2'-2 1/2"

SECTION C-C

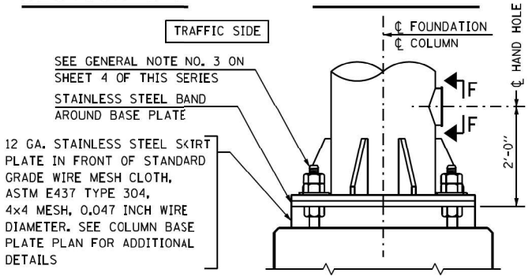
SECTION B-B

NOTE 1: INSTALLATION AND INSPECTION OF SPLICE BOLTS SHALL COMPLY WITH ILLINOIS TOLLWAY SPECIAL PROVISION "INTELLIGENT TRANSPORTATION SYSTEMS GANTRY FRAME (STEEL)".

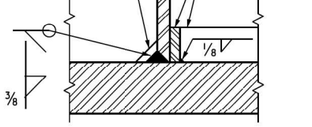


SECTION D-D

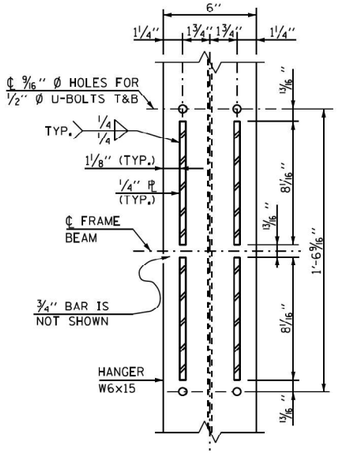
SECTION E-E



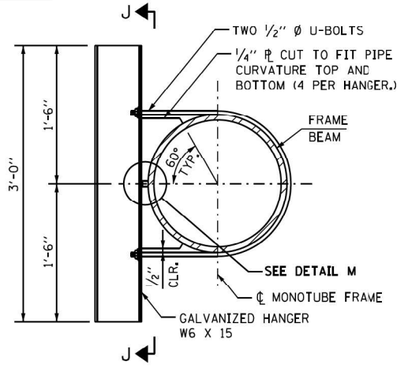
COLUMN BASE



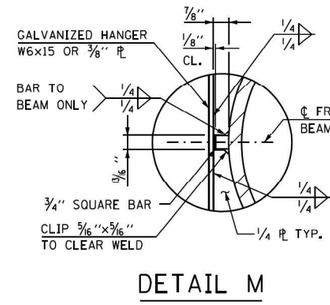
DETAIL T



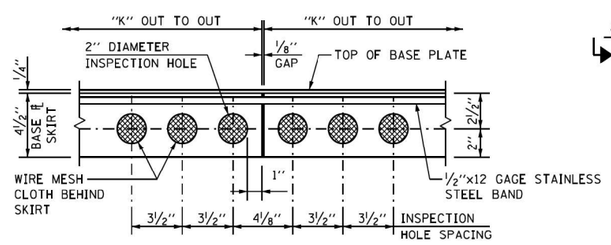
SECTION J-J



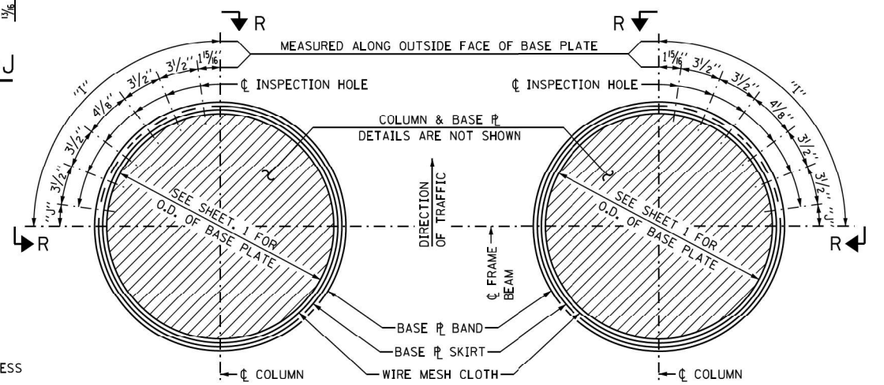
SECTION H-H (SIGN HANGER)



DETAIL M



VIEW R-R (BASE PLATE SKIRT)



LEFT BASE PLATE

RIGHT BASE PLATE

COLUMN BASE PLATE PLAN

FRAME COLUMN	"I"	"J"	"K"
HSS 16x0.500	1'-8 7/16"	3/8"	6'-9 9/16"
HSS 18x0.500	1'-10"	1 5/16"	7'-3 3/8"

APPROVED BY: Manar Nashif, CHIEF ENGINEERING OFFICER — DATE: 03/01/2024

Illinois Tollway

OVERHEAD SIGN STRUCTURE
MONOTUBE TYPE (STEEL)
MAINLINE STRUCTURE DETAILS

STANDARD F13-09

SHEET 5 OF 8

MODEL: Default
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AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

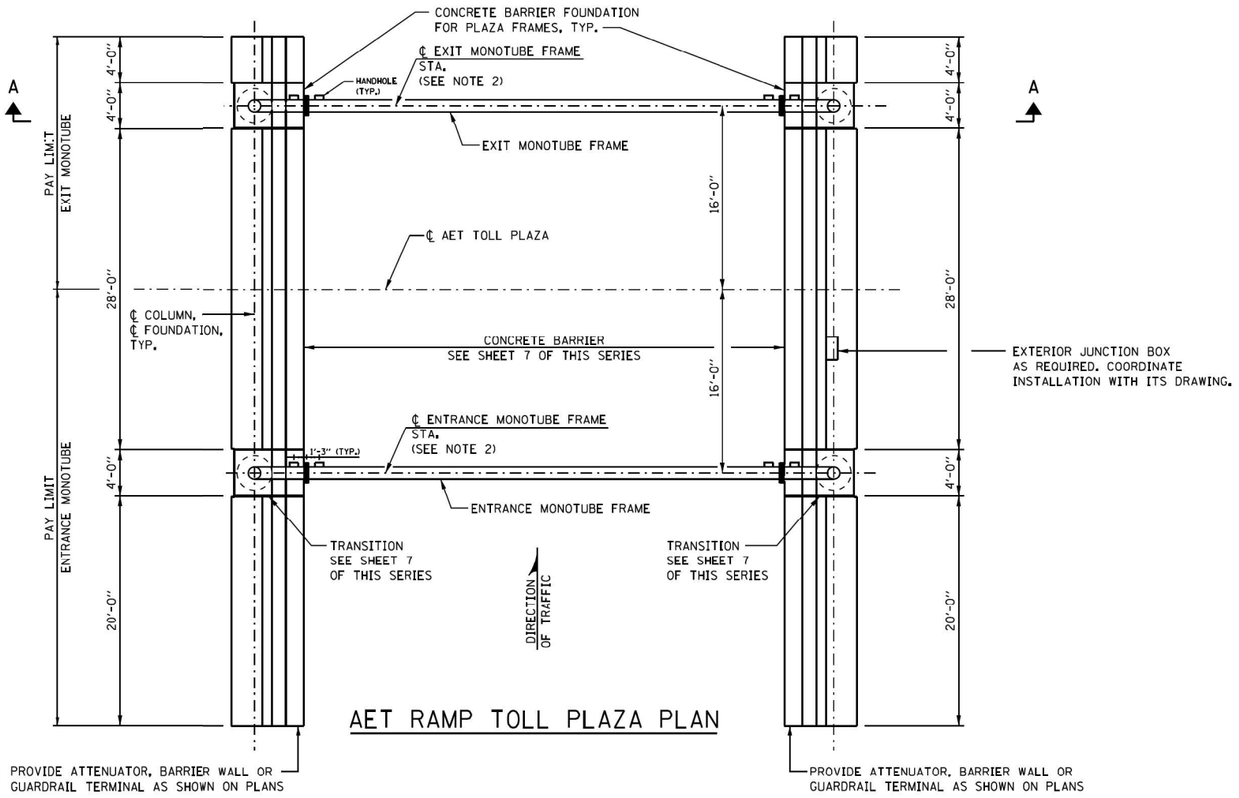
USER NAME = Jacqueline,Ng	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLLWAY STANDARDS

SCALE: | SHEET 4 OF 4 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	183
		CONTRACT NO. 62U90		
	ILLINOIS	FED. AID PROJECT		



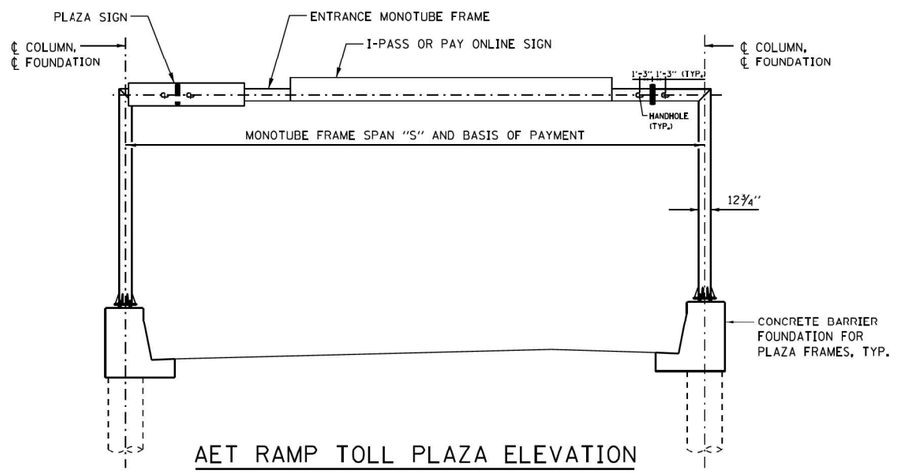
AET RAMP TOLL PLAZA PLAN

SIGN TABLE

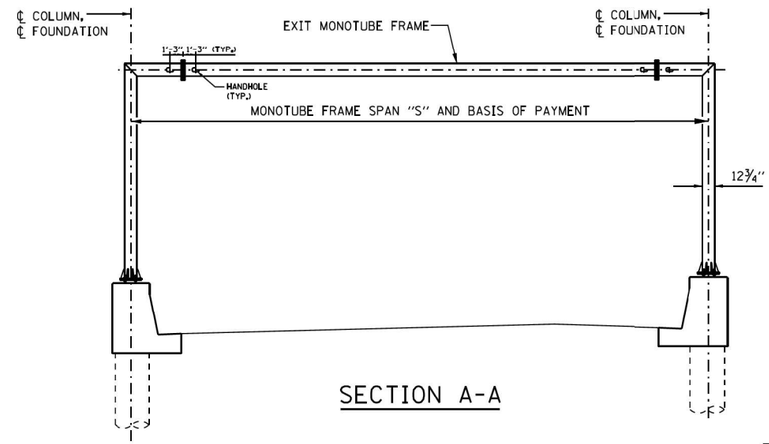
SIGN	MAXIMUM AREA	MAXIMUM LENGTH
PLAZA SIGN	24 S.F.	8'-0"
I-PASS OR PAY ONLINE SIGN	60 S.F.	20'-0"

NOTE:

1. SEE CONTRACT PLANS FOR SIGN SIZE AND LOCATION.
2. PROVIDE ENTRANCE AND EXIT MONOTUBE FRAME STATIONS IN CONTRACT PLANS.



AET RAMP TOLL PLAZA ELEVATION



SECTION A-A

SHEET 1 OF 7

APPROVED BY: Manar Nashif, CHIEF ENGINEERING OFFICER — DATE: 03/01/2024

DATE	REVISIONS
3-01-2024	ADDED NOTE FOR BARRIER PAYMENT
	CLARIFIED PAY ITEMS FOR MONOTUBES
3-01-2023	CHANGE HORZ. PIPE TO 4XX-STRONG,
	PIPE & REV. NUMBER OF v(E) BARS
3-01-2022	REV. STRUCT. STEEL NOTES 1 & 4,
	CAMERA SUPPORT & UPDATE LOADS.

Illinois Tollway

OVERHEAD SIGN STRUCTURE
MONOTUBE TYPE (STEEL)
STRUCTURE DETAILS
FOR AET RAMP

STANDARD F15-08

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline,Ng	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLLWAY STANDARDS

SCALE: | SHEET 1 OF 6 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	184
		CONTRACT NO. 62U90		
		ILLINOIS	FED. AID PROJECT	

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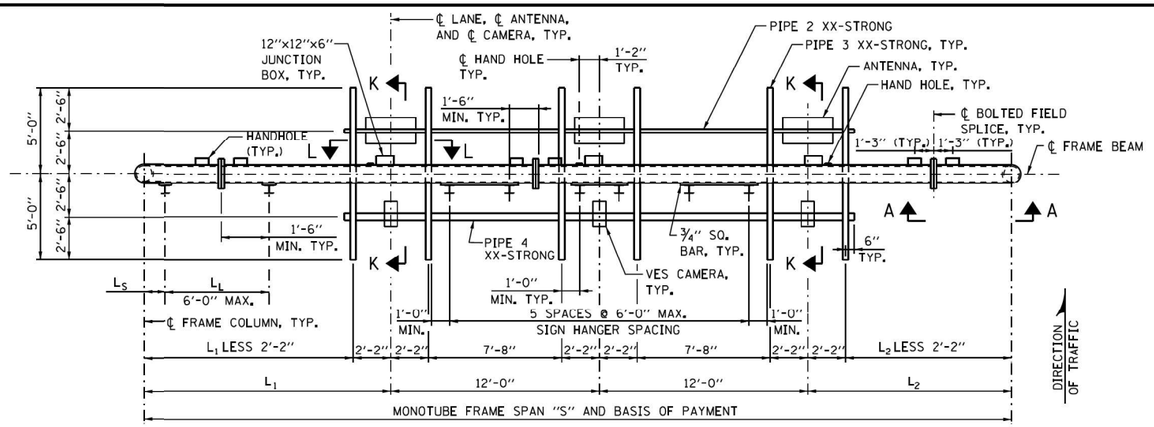
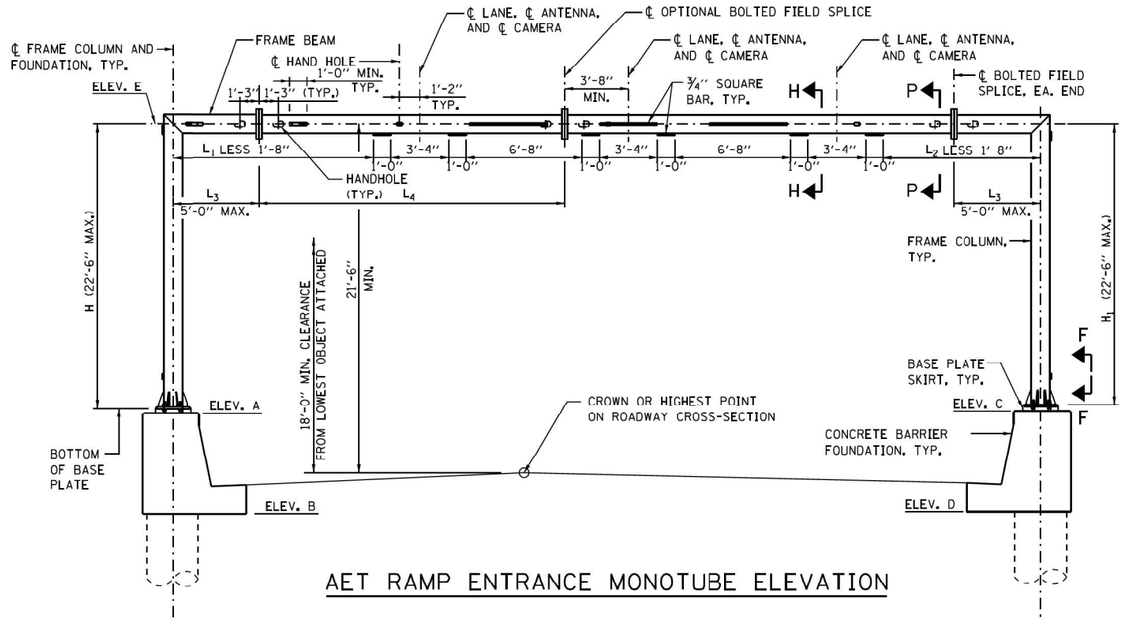
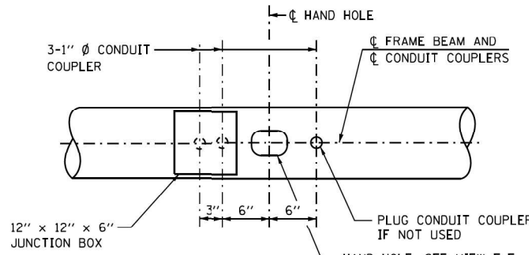


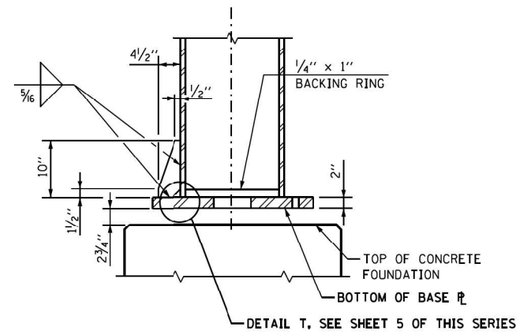
AET RAMP ENTRANCE MONOTUBE PLAN



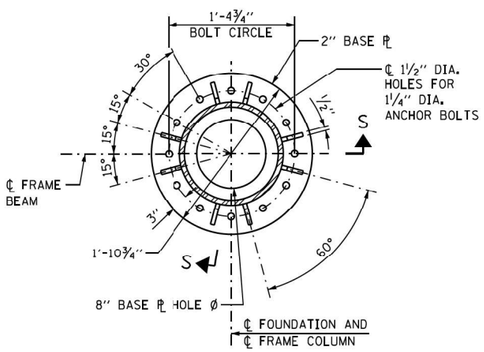
AET RAMP ENTRANCE MONOTUBE ELEVATION



VIEW L-L



SECTION S-S



BASE PLATE PLAN
ENTRANCE AND EXIT MONOTUBE

NOTES:

1. FOUNDATIONS FOR MONOTUBE FRAMES ARE SHOWN ON SHEET 6 OF THIS SERIES.
2. SEE SHEET 5 OF THIS SERIES FOR SECTIONS A-A, G-G, H-H, K-K, VIEW F-F AND BASE PLATE SKIRT.
3. SEE SHEET 4 OF THIS SERIES FOR SECTION P-P.
4. PROVIDE CAMBER AT MIDSPAN OF STRUCTURE.
5. LOCATE OPTIONAL BOLTED FIELD SPLICE NEAR MIDSPAN.
6. WORK THIS SHEET WITH, OVERHEAD SIGN STRUCTURE ENTRANCE MONOTUBE TYPE (STEEL) AET RAMP SUMMARY AND TOTAL BILL OF MATERIAL SHEET.

ENTRANCE MONOTUBE FRAME TABLE

SPAN "S"	FRAME COLUMN	FRAME BEAM	CAMBER
50' MAX.	HSS 12.75x0.500	HSS 12.75x0.500	1¾"

SEE ILLINOIS TOLLWAY STANDARD DRAWING F13 FOR SPANS GREATER THAN 50'.

APPROVED BY: Manar Nashif, CHIEF ENGINEERING OFFICER
DATE: 03/01/2024

SHEET 2 OF 7

Illinois Tollway

OVERHEAD SIGN STRUCTURE
MONOTUBE TYPE (STEEL)
STRUCTURE DETAILS
FOR AET RAMP

STANDARD F15-08

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline.Ng	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLLWAY STANDARDS

SCALE: | SHEET 2 OF 6 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	185
		CONTRACT NO. 62U90		
	ILLINOIS	FED. AID PROJECT		

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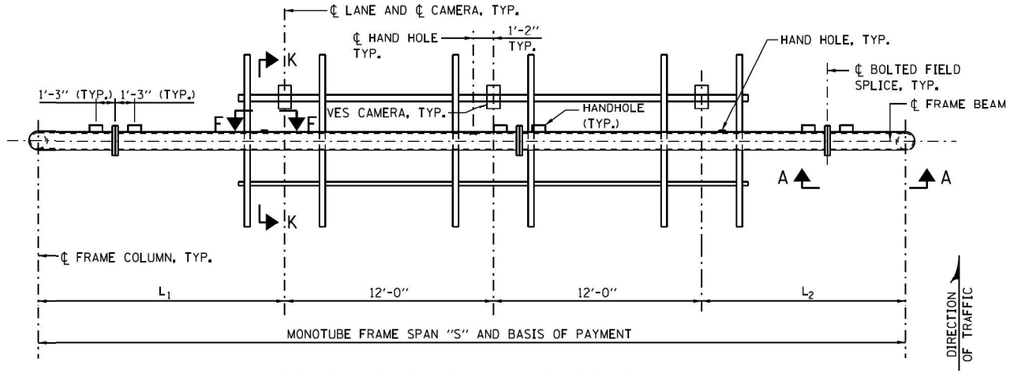
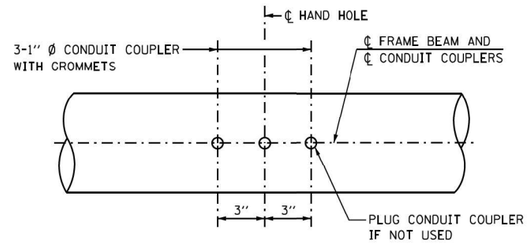


AET RAMP EXIT MONOTUBE PLAN

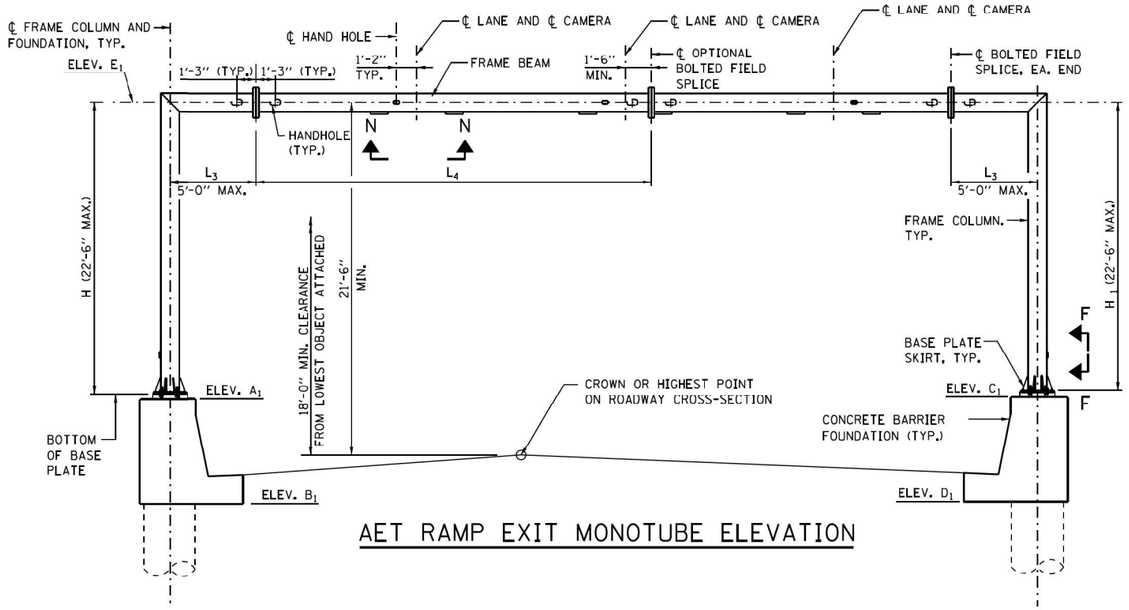


VIEW N-N (CONDUIT COUPLER DETAIL)

EXIT MONOTUBE FRAME TABLE

SPAN "S"	FRAME COLUMN	FRAME BEAM	CAMBER
50' MAX.	HSS 12.75x0.500	HSS 12.75x0.500	1¾"

SEE STANDARD F13 FOR SPANS GREATER THAN 50'.



AET RAMP EXIT MONOTUBE ELEVATION

NOTES:

1. SEE SHEET 2 OF THIS SERIES FOR SECTION S-S, BASE ℄ PLAN AND ADDITIONAL NOTES.
2. SEE SHEET 4 OF THIS SERIES FOR SECTION O-O.
3. SEE SHEET 5 OF THIS SERIES FOR SECTIONS A-A AND G-G, AND BASE PLATE SKIRT.
4. WORK THIS SHEET WITH, OVERHEAD SIGN STRUCTURE EXIT MONOTUBE TYPE (STEEL) AET RAMP SUMMARY AND TOTAL BILL OF MATERIAL SHEET.

APPROVED BY: Manar Nashif, CHIEF ENGINEERING OFFICER — DATE: 03/01/2024

Illinois Tollway

OVERHEAD SIGN STRUCTURE
MONOTUBE TYPE (STEEL)
STRUCTURE DETAILS
FOR AET RAMP

STANDARD F15-08

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline.Ng	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLLWAY STANDARDS

SCALE: | SHEET 3 OF 6 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	186
		CONTRACT NO. 62U90		
		ILLINOIS	FED. AID PROJECT	

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GENERAL NOTES:

1. AFTER ADJUSTMENTS TO LEVEL FRAME BEAM AND ENSURE ADEQUATE VERTICAL CLEARANCE, TIGHTEN ALL TOP AND LEVELING NUTS AGAINST THE BASE PLATE WITH A MINIMUM TORQUE OF 200 LB.-FT. THEN PLACE STAINLESS STEEL MESH AROUND THE PERIMETER OF THE BASE PLATE. SECURE TO BASE PLATE WITH STAINLESS STEEL BANDING.

2. REINFORCEMENT BARS DESIGNATED "(E)" SHALL BE EPOXY COATED.

STRUCTURAL STEEL:

1. MATERIAL FOR THE HSS MONOTUBE FRAME SHALL CONFORM TO THE REQUIREMENTS OF ASTM A500 GRADE B OR C. BASE PLATE AND STIFFENER PLATE SHALL CONFORM TO ASTM A709 GRADE 50. OTHER STRUCTURAL STEEL SHAPES AND PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A36, UNLESS NOTED OTHERWISE.

2. PIPES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A53 GRADE B.

3. ANCHOR BOLTS SHALL CONFORM TO THE REQUIREMENTS OF ASTM F1554 (AASHTO M314) GRADE 55, WITH A MINIMUM TENSILE STRENGTH OF 75,000 PSI. INSTALLATION AND INSPECTION OF ANCHOR BOLTS SHALL COMPLY WITH ILLINOIS TOLLWAY SPECIAL PROVISION "INTELLIGENT TRANSPORTATION SYSTEMS GANTRY FRAME "STEEL". ANCHORS SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 (AASHTO M232). SEE SHEET 6 OF THIS SERIES FOR GALVANIZED LENGTH.

4. U-BOLTS SHALL BE STAINLESS STEEL AND SHALL CONFORM TO ASTM 193, CLASS 1, GRADE B8 (AISI TYPE 304). WASHERS FOR U-BOLTS SHALL CONFORM TO ASTM A240, TYPE 302. NUTS FOR U-BOLTS SHALL CONFORM TO ASTM A194 (AASHTO M292), GRADE 8F (AISI TYPE 303).

5. BOLTS (EXCLUDING ANCHOR BOLTS AND U-BOLTS) SHALL BE HIGH STRENGTH STEEL BOLTS.

6. HSS FOR MONOTUBE FRAME, PIPES, STRUCTURAL STEEL SHAPES AND PLATES SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A123 AFTER FABRICATION.

7. THE MONOTUBE FRAME BEAM, COLUMNS, BASE PLATE MATERIAL, AND SPLICES ARE CONSIDERED TENSION MEMBERS AND SHALL CONFORM TO THE IMPACT TESTING REQUIREMENT, ZONE 2.

DESIGN LOADING:

WIND LOAD CRITERIA
- BASIC WIND SPEED = 120 M.P.H.
- G = 1.14
- I_F = 1.00
- K_Z = 1.00
- SIGN PANEL 50 P.S.F.
- COLUMN/BEAM 35 P.S.F.

SIGN DEAD LOAD = 3 P.S.F.

ICE = 3 P.S.F. (APPLIED WITH A FACTOR OF 1.0 FOR STRENGTH I ONLY)

EQUIPMENT LOADS:

CAMERA ASSEMBLY W/MOUNTING HARDWARE	40 LB.
ANTENNA W/MOUNTING HARDWARE	24 LB.

DESIGN STRESSES FOR REINFORCED CONCRETE:

f'c = COMPRESSIVE STRENGTH OF CONCRETE (CLASS SI)	= 3,500 P.S.I.
f'c = COMPRESSIVE STRENGTH OF CONCRETE (CLASS DS)	= 4,000 P.S.I.
fy = YIELD STRENGTH OF REINFORCEMENT BARS (GRADE 60)	= 60,000 P.S.I.

FOUNDATION:

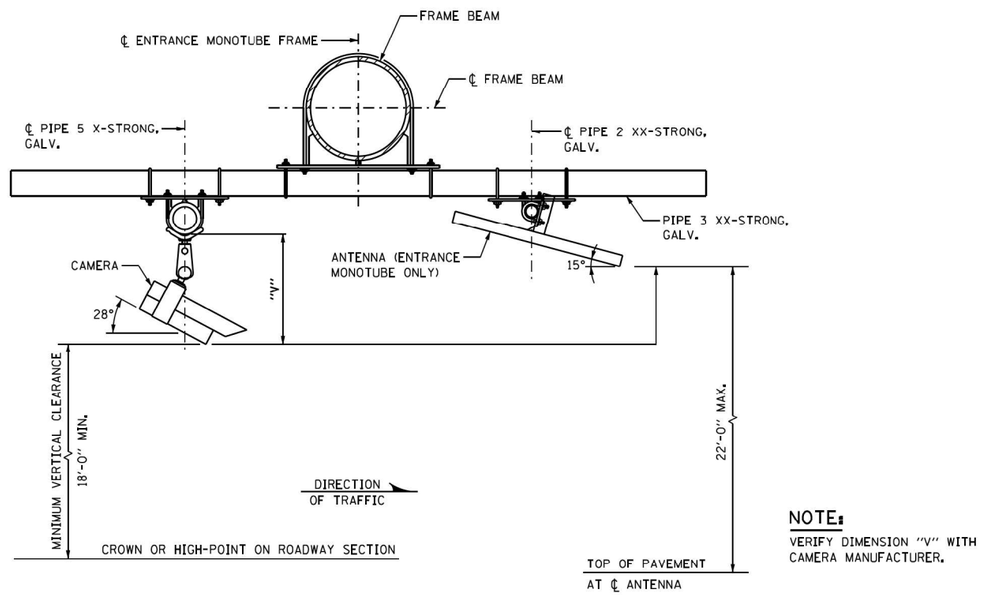
MINIMUM UNCONFINED COMPRESSIVE STRENGTH, Qu FOR ALL LAYERS OF COHESIVE SOILS (CLAYS) SHALL BE 1.25 TON/SQ.FT. AT MONOTUBE FRAMES.

DESIGN SPECIFICATIONS:

1. ILLINOIS TOLLWAY STRUCTURE DESIGN MANUAL, LATEST EDITION.
2. AASHTO LRFD SPECIFICATION FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS, 1ST EDITION.
3. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 9TH EDITION, 2020.
4. ILLINOIS DEPARTMENT OF TRANSPORTATION BRIDGE MANUAL, JANUARY 2012.

CONSTRUCTION SPECIFICATIONS:

1. ILLINOIS TOLLWAY SUPPLEMENTAL SPECIFICATIONS TO THE ILLINOIS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION.
2. ILLINOIS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION.



SECTION P-P

NOTE:
VERIFY DIMENSION "V" WITH CAMERA MANUFACTURER.

APPROVED BY: Manar Nashif, CHIEF ENGINEERING OFFICER — DATE: 03/01/2024

SHEET 4 OF 7

Illinois Tollway

OVERHEAD SIGN STRUCTURE
MONOTUBE TYPE (STEEL)
STRUCTURE DETAILS
FOR AET RAMP

STANDARD F15-08

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline,Ng	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLLWAY STANDARDS

SCALE: | SHEET 4 OF 6 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	187
		CONTRACT NO. 62U90		
	ILLINOIS	FED. AID PROJECT		

MODEL: Default
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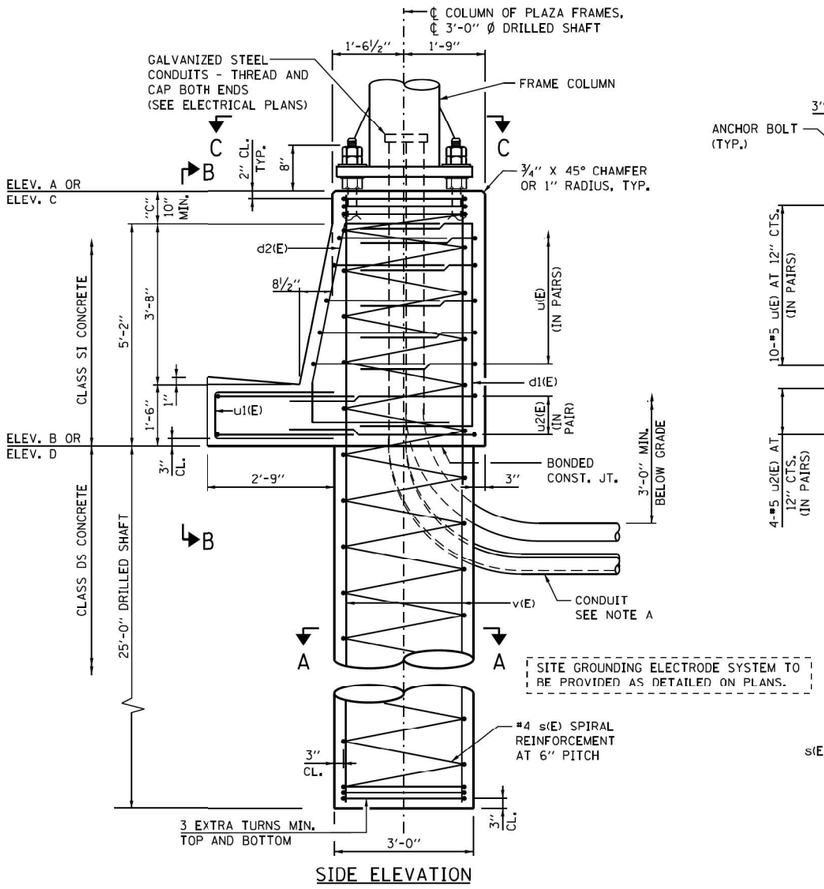
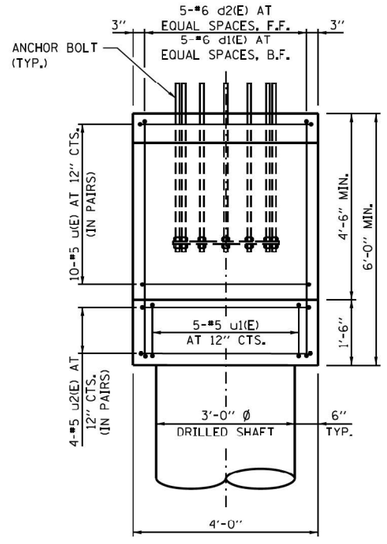
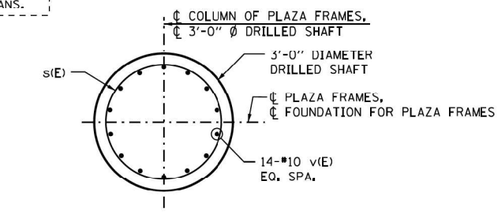


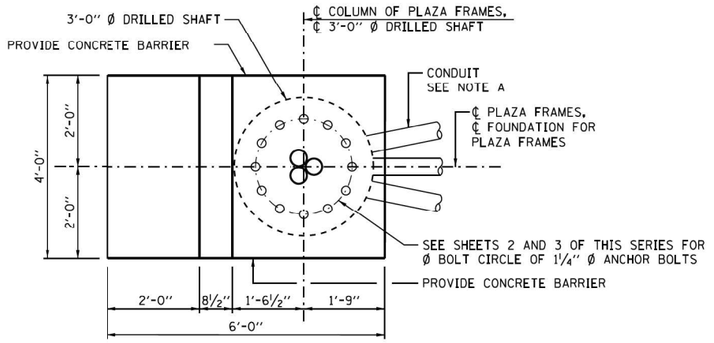
SIDE ELEVATION



VIEW B-B



SECTION A-A



VIEW C-C

CONCRETE BARRIER FOUNDATION FOR PLAZA FRAMES

NOTE A:

1. COORDINATE CONDUIT SIZE, LOCATION AND QUANTITY WITH ELECTRICAL PLANS. PROVIDE CONDUIT COUPLERS AS REQUIRED.
2. CONDUITS SHALL BE PLACED TO MISS REINFORCEMENT. CUTTING OF REINFORCEMENT SHALL NOT BE ALLOWED.

NOTE B:

PROTECTIVE COAT SHALL BE APPLIED TO THE TRAFFIC AND TOP FACES OF THE BARRIER AND TOP OF GUTTER

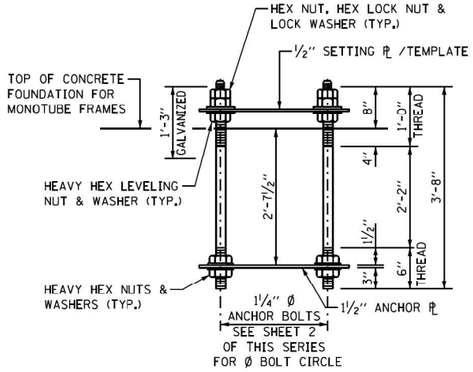
FOUNDATION NOTE:

THE FOUNDATION DETAILS SHOWN ARE BASED ON THE PRESENCE OF MOSTLY COMMON COHESIVE SOIL CONDITIONS (SILTY OR SANDY CLAY), WITH AN AVERAGE UNCONFINED COMPRESSIVE STRENGTH (QU) > 1.25 TON/SQ. FT. WHICH MUST BE DETERMINED BY PREVIOUS SOIL INVESTIGATIONS AT THE JOB SITE. WHEN OTHER CONDITIONS ARE INDICATED, THE BORING DATA SHALL BE INCLUDED IN THE PLANS AND THE FOUNDATION DIMENSIONS SHOWN SHALL BE THE RESULT OF SITE SPECIFIC DESIGNS. IF CONDITIONS ENCOUNTERED IN THE FIELD ARE DIFFERENT THAN THOSE INDICATED, THE CONTRACTOR SHALL NOTIFY THE ENGINEER TO DETERMINE IF THE FOUNDATION DIMENSIONS NEED TO BE MODIFIED.

LEGEND:

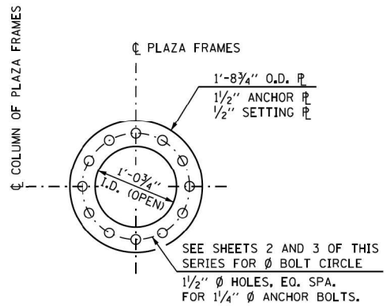
F.F. - FRONT FACE
B.F. - BACK FACE
CTS. - CENTERS

APPROVED BY: Marco Nashif, CHIEF ENGINEERING OFFICER
DATE: 03/01/2024

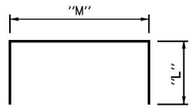


ANCHOR BOLT ASSEMBLY

FRAME COLUMN	ANCHOR BOLT
HSS 12.75x0.500	12

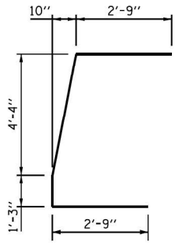


ANCHOR ℄ / SETTING ℄



BAR	"L"	"M"	
d1(E)	2'-9"	5'-7"	**
u(E)	2'-9"	3'-8"	
u1(E)	3'-3"	1'-1"	
u2(E)	3'-10"	3'-8"	

BARS d1(E), u(E), u1(E) AND u2(E)



BAR d2(E)

BAR LIST-ONE FOUNDATION

	BAR	NO.	SIZE	LENGTH	SHAPE
**	d1(E)	5	#6	11'-1"	
**	d2(E)	5	#6	11'-2"	
*	s(E)	1	#4	30'-7"	
**	v(E)	14	#10	30'-7"	
	u(E)	10	#5	9'-2"	
	u1(E)	5	#5	7'-7"	
	u2(E)	4	#5	11'-4"	

* THE LENGTH OF SPIRAL SHOWN IS THE HEIGHT OF SPIRAL, COMPUTED USING "C" = 10". ADJUST LENGTH ACCORDINGLY IF "C" IS GREATER THAN 10".

** BAR LENGTH IS COMPUTED USING "C" = 10". ADJUST BAR LENGTH ACCORDINGLY IF "C" IS GREATER THAN 10".

ESTIMATED QUANTITY

ITEM	UNIT	CONCRETE BARRIER FDN.
CLASS SI CONCRETE	CU. YD.	3.8
CLASS DS CONCRETE	CU. YD.	6.6
REINFORCEMENT BARS, EPOXY COAT	POUND	2,540
PROTECTIVE COAT	SQ. YD.	4.4

NOTE:

QUANTITIES FOR CONCRETE BARRIER FOUNDATION ARE DETERMINED USING "C" = 10". IF DIMENSION "C" IS GREATER THAN 10", ADJUST QUANTITIES ACCORDINGLY.

SHEET 6 OF 7

Illinois Tollway

OVERHEAD SIGN STRUCTURE
MONOTUBE TYPE (STEEL)
STRUCTURE DETAILS
FOR AET RAMP

STANDARD F15-08

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline,Ng	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLLWAY STANDARDS

SCALE: | SHEET 5 OF 6 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	188
		CONTRACT NO. 62U90		
		ILLINOIS	FED. AID PROJECT	

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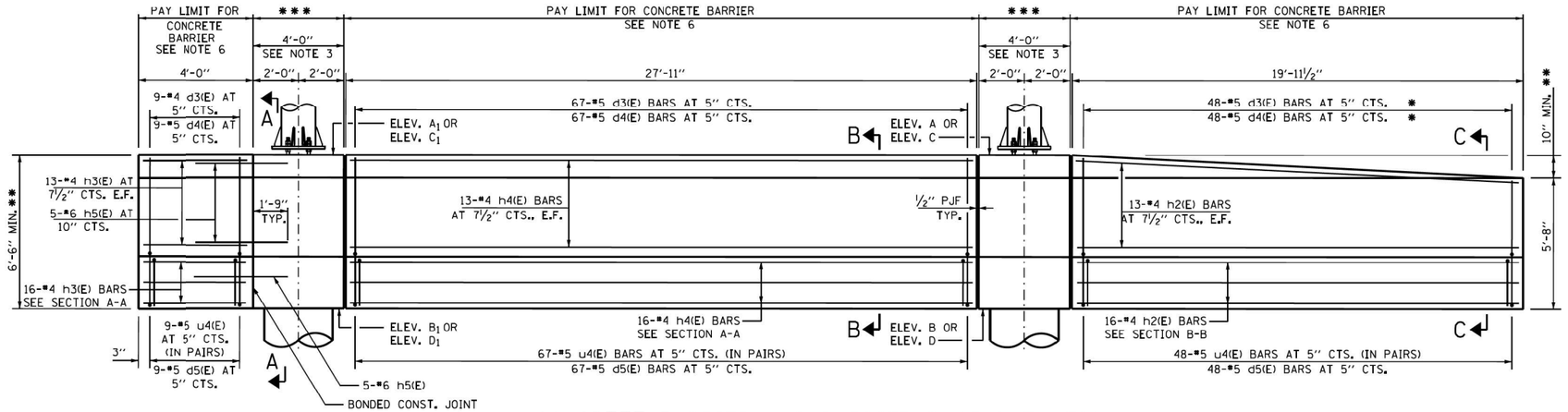


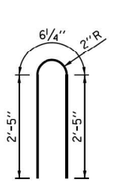
CONCRETE BARRIER AND BARRIER BASE ELEVATION

INSIDE FACE OF RIGHT BARRIER IS SHOWN
(MIRROR ELEVATION OF LEFT BARRIER)

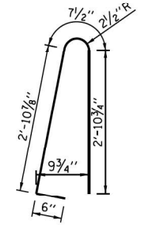
* CUT IN FIELD AS REQUIRED TO FIT TAPER
** BASED ON DIMENSION "C" = 10"
*** PAY LIMIT FOR FOUNDATION FOR OVERHEAD SIGN STRUCTURE

BAR LIST - FOR ONE BARRIER

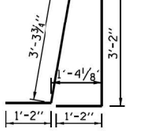
BAR	NO.	SIZE	LENGTH	SHAPE
d3(E)	124	#4	5'-5"	
d4(E)	124	#5	7'-0"	
d5(E)	124	#5	9'-10"	
h2(E)	29	#4	19'-7"	
h3(E)	29	#4	3'-8"	
h4(E)	29	#4	27'-7"	
h5(E)	10	#6	3'-9"	
u4(E)	248	#5	9'-3"	



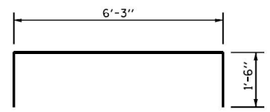
BAR d3(E)



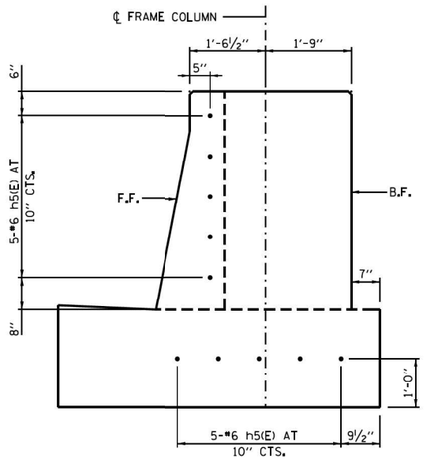
BAR d4(E)



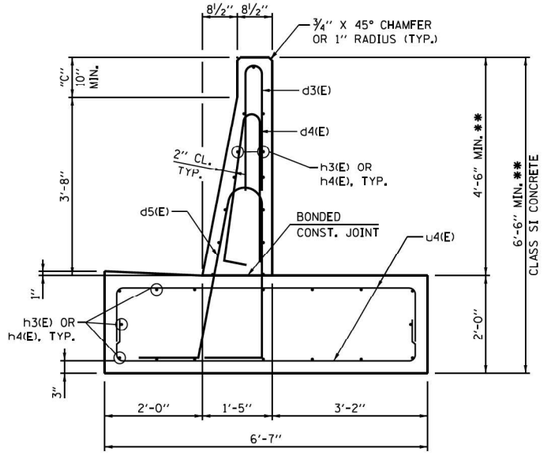
BAR d5(E)



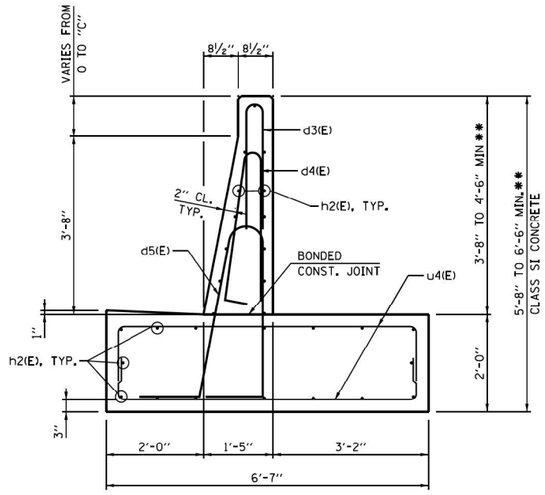
BAR u4(E)



SECTION A-A



SECTION B-B



SECTION C-C

NOTES:

1. PROTECTIVE COAT SHALL BE APPLIED TO THE TRAFFIC AND TOP FACES OF THE BARRIER, GUTTER AND TO THE ENTRANCE SIDE FACE (AT THE BEGINNING OF THE RAMP PLAZA PAVEMENT) FOR THE FULL HEIGHT OF THE BARRIER.
2. ELECTRICAL JUNCTION BOXES SHALL BE EXTERIOR MOUNTED ON THE BACK FACE OF BARRIER.
3. FOR CONCRETE BARRIER FOUNDATION DETAILS FOR MONOTUBE FRAMES, SEE SHEET 6 OF THIS SERIES.
4. QUANTITIES FOR CONCRETE BARRIER ARE DETERMINED USING "C" = 10". IF DIMENSION "C" IS GREATER THAN 10", ADJUST QUANTITIES ACCORDINGLY.
5. SEE OVERHEAD SIGN STRUCTURE ENTRANCE MONOTUBE TYPE (STEEL) AET RAMP SUMMARY AND TOTAL BILL OF MATERIAL IN CONTACT PLANS FOR COMPLETE BILL OF MATERIAL.
6. CONCRETE BARRIER AND BASE DETAILED ON THIS SHEET WILL BE PAID FOR UNDER THE ITEMS: CONCRETE STRUCTURES, REINFORCEMENT BARS, EPOXY COATED AND PROTECTIVE COAT.
7. CONCRETE BARRIER LOCATED OUTSIDE THE LIMITS SHOWN ON THESE SHEETS WILL BE PAID FOR SEPARATELY.

ESTIMATED QUANTITY

(FOR ONE CONCRETE BARRIER)

ITEM	UNIT	ENETERANCE MONOTUBE	EXIT MONOTUBE	TOTAL
CONCRETE STRUCTURES	CU. YD.	22.0	11.7	33.7
REINFORCEMENT BARS, EPOXY COATED	POUND	3,945	2,115	6,060
PROTECTIVE COAT	SQ. YD.	26.9	14.5	41.4

APPROVED BY: Marco Nashif, CHIEF ENGINEERING OFFICER
DATE: 03/01/2024

SHEET 7 OF 7

Illinois Tollway

OVERHEAD SIGN STRUCTURE
MONOTUBE TYPE (STEEL)
STRUCTURE DETAILS
FOR AET RAMP

STANDARD F15-08

MODEL: Default
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AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline,Ng	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLLWAY STANDARDS

SCALE: | SHEET 6 OF 6 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	189
		CONTRACT NO. 62U90		
		ILLINOIS	FED. AID PROJECT	

GENERAL NOTES - EROSION CONTROL & LANDSCAPE

1. THE WORK DESCRIBED ON THESE DRAWINGS IS AN INTEGRAL PART OF THE STORM WATER POLLUTION PREVENTION PLAN USED TO OBTAIN AN NPDES PERMIT FROM IEPA FOR THE CONSTRUCTION OF THIS PROJECT.

2. THE PURPOSE OF THE EROSION AND SEDIMENT CONTROL MEASURES INCLUDED FOR THIS PROJECT IS TO LIMIT THE SEDIMENT POLLUTION IMPACT OF ANY STORM WATER DISCHARGES THAT ORIGINATE ON THIS SITE OR OFF-SITE FLOWS THAT FLOW OVER THE DISTURBED AREAS.

3. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT SEDIMENT TRANSPORT OFF THE SITE IS REDUCED BY A COMBINATION OF MINIMIZATION OF EROSION AT THE SOURCE AND INSTALLATION OF SPECIFIC MEASURES TO CONTROL OR REDUCE THE TRANSPORT OF SEDIMENT.

4. A COPY OF THE EROSION AND SEDIMENT CONTROL PLAN, NOI, SWPPP AND ALL ASSOCIATED REVISIONS, ANY OTHER DOCUMENTS REFERENCED, AND INSPECTION LOG BEING IMPLEMENTED BY THE CONTRACTOR SHALL BE ON THE CONSTRUCTION SITE AT ALL TIMES.

5. TO THE MAXIMUM EXTENT POSSIBLE EROSION SHALL BE MINIMIZED AT THE SOURCE. ALL FLOWS ORIGINATING OFF THE CONSTRUCTION SITE SHALL BE DIVERTED AROUND DISTURBED AREAS OR SHALL BE CONVEYED THROUGH THE SITE IN A MANNER THAT UNTREATED ON-SITE RUNOFF SHALL BE MINIMIZED AND DOES NOT MIX WITH THE OFF-SITE RUNOFF.

6. ALL RUNOFF ORIGINATING ON DISTURBED AREAS ASSOCIATED WITH THIS PROJECT SHALL PASS THROUGH ONE OR MORE MEASURES THAT SHALL MINIMIZE THE OFF-SITE SEDIMENT IMPACTS OF THE CONSTRUCTION ACTIVITY.

7. THE CONTRACTOR SHALL INSTALL INITIAL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES PRIOR TO BEGINNING ANY ACTIVITIES WHICH WILL POTENTIALLY CAUSE ERODIBLE CONDITIONS.

8. ALL PERMANENT SEDIMENT BASINS, PERMANENT STORM WATER CONTROL MEASURES, PERIMETER SILT FENCE, AND RUNOFF CONTROL MEASURES REQUIRED TO KEEP OFF-SITE RUNOFF FROM FLOWING OVER THE CONSTRUCTION AREA SHALL BE INSTALLED BEFORE CLEARING AND STRIPPING OF THE SITE PROCEEDS.

9. PRIOR TO PROCEEDING WITH EARTHWORK ON A PROJECT THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER A PROPOSED EROSION AND SEDIMENT CONTROL SCHEDULE FOR REVIEW AND APPROVAL.

10. A MAXIMUM OF 10 ACRES IS ALLOWED TO BE IN SOME STAGE OF GRADING AT A SINGLE TIME. ADDITIONAL AREAS (UP TO 10 ACRES) MAY BE CLEARED BUT SHALL NOT BE STRIPPED OF VEGETATION UNTIL THE GRADED AREAS HAVE BEEN PROTECTED FROM EROSION THROUGH INSTALLATION OF EITHER TEMPORARY OR PERMANENT MEASURES. WHENEVER POSSIBLE, THE GRADING SHALL BE COMPLETED TO THE DESIGN GRADE AND THE PERMANENT VEGETATION PLAN IMPLEMENTED PRIOR TO STARTING GRADING ACTIVITIES ON THE NEXT SITE.

    A. WHEN BALANCING EARTHWORK (BORROW FROM A CUT USED AS FILL AT A LOCATION DISTANT FROM THE CUT) THE CHIEF ENGINEER MAY ALLOW MORE THAN 10 ACRES OF CONSTRUCTION WORK AREAS AND STORAGE AREAS.

    B. WHERE NEW INTERCHANGES ARE BEING CONSTRUCTED THE ALLOWABLE AREA BEING GRADED MAY BE LARGER THAN 10 ACRES WHEN THE CONTRACT DRAWINGS AND SWPPP DEFINE SUCH INCREASES.

    C. VARIATIONS TO THE ABOVE MAY BE CONSIDERED BY THE CHIEF ENGINEER UNDER ALL THE FOLLOWING CONDITIONS:

    • IF THE CONTRACTOR FALLS BEHIND SCHEDULE THROUGH NO FAULT OF HIS OWN.

    • THE CONTRACTOR SHALL PRESENT A SCHEDULE DEMONSTRATING THE NEED FOR SUCH VARIATION IN ORDER TO COMPLETE THE WORK ON TIME.

    • THE CONTRACTOR SHALL COMPLY WITH ALL OTHER CONTRACT AND PERMIT REQUIREMENTS.

11. STABILIZATION OF DISTURBED AREAS SHALL, AT A MINIMUM, BE INITIATED IMMEDIATELY WHENEVER ANY CLEARING, GRADING, EXCAVATING, OR OTHER EARTH DISTURBING ACTIVITIES HAVE PERMANENTLY CEASED ON ANY PORTION OF THE SITE, OR TEMPORARILY CEASED ON ANY PORTION OF THE SITE AND SHALL NOT RESUME FOR A PERIOD EXCEEDING 14 CALENDAR DAYS. STABILIZATION OF DISTURBED AREAS SHALL BE INITIATED WITHIN 1 WORKING DAY OF PERMANENT OR TEMPORARY CESSATION OF EARTH DISTURBING ACTIVITIES AND SHALL BE COMPLETED AS SOON AS POSSIBLE BUT NOT LATER THAN 14 DAYS FROM THE INITIATION OF STABILIZATION WORK IN AN AREA. WHERE THE INITIATION OF STABILIZATION MEASURES IS PRECLUDED BY SNOW COVER, STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE. THE ENGINEER MAY REQUIRE THAT CRITICAL LOCATIONS BE STABILIZED IMMEDIATELY, AND THE CONTRACTOR SHALL IMPLEMENT TEMPORARY STABILIZATION MEASURES TO THESE AREAS WITHIN 24 HOURS OF SUCH DIRECTIVE, PURSUANT TO ILLINOIS TOLLWAY SUPPLEMENTAL SPECIFICATION ARTICLE 280.15(C), TO ESTABLISH TEMPORARY COVER.

12. STABILIZATION OF CUT OR FILL SLOPES WITH TEMPORARY OR PERMANENT EROSION CONTROL MEASURES IS REQUIRED WHENEVER THE CUT OR FILL ACTIVITY REACHES 15 FEET VERTICALLY OR THE FINISHED SLOPE EQUALS 50 FEET, WHICHEVER IS MORE RESTRICTIVE. ONCE THE STABILIZATION MEASURES ARE INSTALLED, THE PLACEMENT OF FILL OR EXCAVATION ACTIVITIES ARE ALLOWED TO PROCEED.

13. THE CONTRACTOR SHALL DESIGNATE ONE OF HIS EMPLOYEES AS EROSION AND SEDIMENT CONTROL MANAGER. THIS PERSON SHALL BE RESPONSIBLE FOR IMPLEMENTATION OF THE EROSION AND SEDIMENT CONTROL PLAN ON ALL DISTURBED AREAS. THIS PERSON SHALL POSSESS THE NECESSARY TRAINING AND CERTIFICATION ON EROSION AND SEDIMENT CONTROL MEASURES FOR ACCEPTANCE BY THE ILLINOIS TOLLWAY. THIS EMPLOYEE IS TO HAVE THE AUTHORITY TO CARRY OUT THE IMPLEMENTATION OF ANY INSTRUCTIONS CONCERNING THE EROSION AND SEDIMENT CONTROL PLAN GIVEN BY THE ENGINEER. INSPECTIONS MAY BE REDUCED TO ONCE PER MONTH WHEN CONSTRUCTION ACTIVITIES HAVE CEASED DUE TO FROZEN CONDITIONS. WEEKLY INSPECTIONS SHALL RECOMMENCE WHEN CONSTRUCTION ACTIVITIES ARE RESUMED. SEE TOLLWAY SUPPLEMENTAL SPECIFICATIONS, SECTION 280.02(3).

14. ALL MEASURES SHALL BE INSPECTED BY THIS INDIVIDUAL AND THE ENGINEER ON A REGULAR BASIS (AT LEAST ONCE EVERY 7 DAYS) AND AFTER ANY RAINFALL EVENT GREATER THAN 0.5 INCHES, OR EQUIVALENT SNOWMELT (I.E. + 5").

15. SEDIMENT TRAPS, SEDIMENT BASINS, DITCHES, SILT FENCES, FENCES, STONE OUTLET STRUCTURES, EARTH BERMS, ETC. SHALL BE MAINTAINED DURING THE CONSTRUCTION SEASON AS WELL AS THE WINTER MONTHS AND OTHER TIMES WHEN THE PROJECT IS CLOSED DOWN. TRAPS SHALL BE CLEANED WHEN THEY ARE 50% FILLED. SILT FENCE AND STONE OUTLET STRUCTURES SHALL HAVE SEDIMENT REMOVED WHEN IT REACHES 50% THE HEIGHT OF THE CONTROL DEVICE. THESE SPOILS SHALL BE REMOVED TO AN APPROVED SITE.

16. SALVAGED TOPSOIL SHALL BE PLACED ON WELL DRAINED LAND AWAY FROM INTERMITTENT AND LIVE STREAMS OR WETLANDS WITH THE APPROPRIATE RUNOFF CONTROL AND SEDIMENT CONTROL MEASURES INSTALLED AROUND THE STORAGE SITE. SALVAGED TOPSOIL SHALL BE STABILIZED WITH STRAW MULCH IMMEDIATELY AFTER SHAPING OF THE PILE IN ACCORDANCE WITH THE ILLINOIS TOLLWAY SUPPLEMENTAL SPECIFICATIONS. SILT FENCE SHALL BE PROVIDED AT THE PERIMETER OF THE STOCKPILE.

17. MATERIALS EXCAVATED FOR THE CONSTRUCTION OR CLEAN OUT OF SEDIMENT CONTROLS SHALL NOT BE STOCKPILED IN THE VICINITY OF THE CONTROL MEASURE. IT SHALL BE PLACED IN AN EMBANKMENT OR WASTED AS DIRECTED BY THE ENGINEER.

18. EXCAVATION TO BE USED FOR EMBANKMENTS SHALL NOT BE STOCKPILED UNLESS PERIMETER CONTROLS ARE UTILIZED, WHEN THIS MATERIAL IS STOCKPILED FOR THE CONVENIENCE OF THE CONTRACTOR THE COST OF PROVIDING THE CONTROLS ARE THE RESPONSIBILITY OF THE CONTRACTOR. IF THE MATERIAL IS STOCKPILED AT THE DIRECTION OF THE ENGINEER THE ILLINOIS TOLLWAY SHALL ASSUME THE COSTS OF THE CONTROLS. TEMPORARY SOIL STOCKPILE LOCATIONS SHALL BE APPROVED BY THE ENGINEER PRIOR TO TOPSOIL REMOVAL OR OTHER GRADING OPERATIONS BEING PERFORMED.

19. SEDIMENT LADEN DEWATERING DISCHARGE SHALL BE DIRECTED TO AN APPROVED SEDIMENT TRAPPING MEASURE PRIOR TO RELEASE FROM THE SITE.

20. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE CONSIDERED TEMPORARY. THESE MEASURES SHALL BE REMOVED BY THE CONTRACTOR AS DESIGNATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER. DISTURBED AREAS SHALL BE RESTORED UPON REMOVAL.

21. WHEN THE CONTRACTOR REQUESTS A CHANGE TO POSTPONE COMPLETION OF THE EXCAVATION OF A SPECIFIC AREA AS A CONTINUOUS OPERATION AND PLACING THE TOPSOIL AS DEFINED IN THE STANDARD SPECIFICATIONS, THE ENGINEER MAY ALLOW THE CONTRACTOR TO STABILIZE THE AREA USING TEMPORARY STABILIZATION WITH STRAW MULCH PROVIDED THE FOLLOWING CONDITIONS ARE MET:

    A. ALL AREAS BEING STABILIZED ARE 1:3 (V:H) SLOPES OR FLATTER.

    B. THE COST OF PREPARING THE SEED BED AND STABILIZING THE AREA WITH TEMPORARY STABILIZATION WITH STRAW MULCH IS THE RESPONSIBILITY OF THE CONTRACTOR.

    C. ALL REQUIRED SEDIMENT CONTROL MEASURES FOR THE SECTION OF ROAD IN QUESTION HAVE BEEN INSTALLED AND ARE BEING MAINTAINED.

22. THE CONTRACTOR SHALL CONDUCT HIS OPERATIONS IN ACCORDANCE WITH THE STANDARD DRAWINGS AND SPECIAL PROVISION (SP) 111, STORM WATER POLLUTION PREVENTION PLAN INCLUDING CONTROLS AND SPILL PREVENTION-MATERIAL MANAGEMENT PRACTICES. THE CONTRACTOR AND ALL SUBCONTRACTORS SHALL SIGN THE CONTRACTOR'S CERTIFICATION STATEMENT. LIST THE MATERIALS OR SUBSTANCES EXPECTED TO BE PRESENT ON-SITE IN THE INVENTORY FOR POLLUTION PREVENTION PLAN AND SHALL NAME TWO ADDITIONAL INDIVIDUALS TO ASSIST IN SPILL PREVENTION AND CLEAN UP AT THE PRECONSTRUCTION CONFERENCE. THE CONTRACTOR SHALL SUBMIT THE SUBMITTAL ITEMS SPECIFIED IN S.P. 111.2, STORM WATER POLLUTION PREVENTION PLAN, WHICH SHALL BE INCORPORATED INTO AND BECOME PART OF THE SWPPP.

23. AT THE TIME OF THE PRECONSTRUCTION CONFERENCE, THE CONTRACTOR SHALL SUBMIT FOR APPROVAL THE PROPOSED CONCRETE TRUCK WASHOUT LOCATIONS AS REQUIRED IN SPECIAL PROVISION 111. RUNOFF FROM WASH AREAS SHALL BE CONTAINED IN DESIGNATED AREAS SO THAT RUNOFF DOES NOT REACH THE STORM SEWER OR DITCH SYSTEMS. WASHOUT WATER SHALL BE TAKEN TO AN APPROVED DISCHARGE LOCATION.

24. IF AN ALTERNATIVE SIZE DITCH CHECK IS PROPOSED BY THE CONTRACTOR FOR USE ON THE PROJECT, A CONTRACT DITCH CHECK SPACING SHALL BE RECALCULATED BY THE CONTRACTOR IN ACCORDANCE WITH THE ILLINOIS TOLLWAY EROSION AND SEDIMENT CONTROL, LANDSCAPE DESIGN CRITERIA MANUAL. ANY RESULTING QUANTITY CHANGES SHALL BE APPROVED BY THE ENGINEER PRIOR TO START OF WORK.

25. ALL ABOVE GRADE, UN-SHIELDED SOIL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE LOCATED OUTSIDE THE CLEAR ZONE. THE CONTRACTOR SHALL REVIEW THE LOCATIONS OF ALL MEASURES AND PERFORM A BARRIER WARRANT ANALYSIS, IF NECESSARY, TO ENSURE ROADSIDE OBSTACLES ARE NOT CREATED.

26. ALL SLOPES ARE EXPRESSED AS UNITS OF VERTICAL DISPLACEMENT TO UNITS OF HORIZONTAL DISPLACEMENT (V:H).

27. THE CONTRACTOR SHALL REFER TO SECTION 280.02 OF THE ILLINOIS TOLLWAY SUPPLEMENTAL SPECIFICATIONS FOR PENALTIES FOR NON-CONFORMANCE.

APPROVED BY: Manar Nashif
CHIEF ENGINEERING OFFICER
DATE: 03/01/2024

Illinois Tollway

REVISIONS	
DATE	DESCRIPTION
03-01-2024	UPDATED CADD FORMAT, REPLACED REGIONAL WITH NATIONWIDE IN NOTE 34, REPLACED ROOT BALL WITH ROOT FLARE IN SHEET 13.

EROSION CONTROL AND LANDSCAPE

VERSION: 2024-03 | STANDARD: K1-13 | SHEET: 1 OF 13

AECOM
303 EAST WACKER DRIVE, SUITE 1400
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USER NAME = Jacqueline.Ng	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLLWAY STANDARDS

SCALE: | SHEET 1 OF 9 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	190
		CONTRACT NO. 62U90		
	ILLINOIS	FED. AID PROJECT		

MODEL: Default
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GENERAL NOTES - EROSION CONTROL & LANDSCAPE

28. THE EROSION AND SEDIMENT CONTROLS SHOWN IN THE PLANS REPRESENT THE MINIMUM REQUIREMENTS. ADDITIONAL MEASURES MAY BE REQUIRED BY THE ENGINEER OR REPRESENTATIVES OF REGULATORY OR PERMITTING AGENCIES. ANY EMERGENCY CONTROL MEASURES REQUESTED BY A REGULATORY OR PERMITTING AGENCY MUST BE INSTALLED IMMEDIATELY.

29. SOIL DISTURBANCE SHALL BE CONDUCTED IN SUCH A MANNER AS TO MINIMIZE EROSION. SOIL STABILIZATION MEASURES SHALL CONSIDER THE TIME OF YEAR, SITE CONDITIONS, AND THE USE OF TEMPORARY AND/OR PERMANENT MEASURES. TO THE MAXIMUM EXTENT POSSIBLE, EROSION SHALL BE MINIMIZED AT ITS SOURCE.

30. TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES SHALL BE CONSTRUCTED AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER. ANY DEVIATION FROM THE TEMPORARY EROSION AND SEDIMENT CONTROL PLAN OR SCHEDULE SHALL BE AT THE DISCRETION OF THE ENGINEER.

31. UNLESS OTHERWISE INDICATED, ALL STABILIZATION AND STRUCTURAL PRACTICES AND OTHER CONTROL MEASURES SPECIFIED IN THE SWPPP SHALL BE CONSTRUCTED ACCORDING TO THE MINIMUM STANDARDS OF THE ILLINOIS TOLLWAY SUPPLEMENTAL SPECIFICATIONS AND THE ILLINOIS URBAN MANUAL (LATEST EDITION).

32. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO INFORM ANY SUBCONTRACTORS WHO PERFORM WORK ON THE PROJECT OF THE REQUIREMENTS OF THE SWPPP AND ILR10 PERMIT ISSUED BY THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY (IF APPLICABLE).

33. THE CONDITION OF THE CONSTRUCTION SITE FOR WINTER SHUTDOWN SHALL BE ADDRESSED EARLY IN THE FALL GROWING SEASON SO THAT DISTURBED AREAS MAY BE STABILIZED WITH TEMPORARY AND/OR PERMANENT VEGETATIVE COVER FOR EROSION CONTROL. AREAS TO BE WORKED AND DISTURBED BEYOND THE END OF THE GROWING SEASON MUST INCORPORATE TEMPORARY STABILIZATION MEASURES THAT DO NOT RELY ON VEGETATIVE COVER SUCH AS EROSION CONTROL BLANKET.

34. IF THE PROJECT REQUIRES PERMIT(S) FROM THE UNITED STATES ARMY CORPS OF ENGINEERS (USACE 404 PERMIT) AND THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY (IEPA 401 WATER QUALITY CERTIFICATION THROUGH THE USACE NATIONWIDE PERMIT), IF APPLICABLE, THE PERMIT APPLICATION WILL BE SUBMITTED TO THE USACE AND IEPA BY THE ILLINOIS TOLLWAY. THE CONTRACTOR SHALL NOT DISTURB OR OTHERWISE IMPACT JURISDICTIONAL WETLANDS OR WATERWAYS UNTIL THESE PERMITS ARE RECEIVED AND PROVIDED TO THE CONTRACTOR. NO REMOVALS, TEMPORARY OR PERMANENT CONSTRUCTION ACTIVITIES, OR OTHER WORK THAT WOULD IMPACT THESE RESOURCES, IS ALLOWED UNTIL THESE PERMITS ARE OBTAINED. ON PROJECTS WHICH INCLUDE IN-STREAM WORK, NO WORK IS ALLOWED BEYOND THE PERMITTED AREA.

35. PERMANENT LANDSCAPE ITEMS SHALL BE IMPLEMENTED IN CONJUNCTION WITH CONSTRUCTION STAGING. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR PROLONG FINAL GRADING SO THAT THE ENTIRE PROJECT CAN BE PERMANENTLY STABILIZED AT ONE TIME.

36. FOR THE DURATION OF THE PROJECT, THE CONTRACTOR SHALL PROTECT ALL ON-SITE, ADJACENT AND/OR DOWNSTREAM SEWERS, DITCHES, AND WATERCOURSES FROM CONTAMINATION BY WATERBORNE SILTS, SEDIMENTS, FUELS, SOLVENTS, DETERGENTS, LUBRICANTS, OR OTHER TOXIC OR HAZARDOUS POLLUTANTS ORIGINATING FROM ANY WORK DONE ON OR IN SUPPORT OF THE PROJECT.

37. TEMPORARY STABILIZED CONSTRUCTION ENTRANCES, GRAVELED ROADS, ACCESS DRIVES, AND PARKING AREAS OF SUFFICIENT WIDTH AND LENGTH SHALL BE PROVIDED TO PREVENT SOIL FROM BEING TRACKED ONTO PUBLIC OR PRIVATE ROADWAYS. THE LOCATIONS OF ALL STABILIZED ENTRANCES ARE SUBJECT TO APPROVAL BY THE ENGINEER. SUGGESTED OR POTENTIAL LOCATIONS MAY BE SHOWN ON THE PLANS.

APPROVED BY: Marian Nashif
CHIEF ENGINEERING OFFICER
DATE: 03/01/2024

Illinois Tollway

EROSION CONTROL AND LANDSCAPE

VERSION:	STANDARD:	SHEET:
2024-03	K1-13	2 OF 13

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline.Ng	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLLWAY STANDARDS

SCALE: | SHEET 2 OF 9 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	191
		CONTRACT NO. 62U90		
		ILLINOIS	FED. AID PROJECT	

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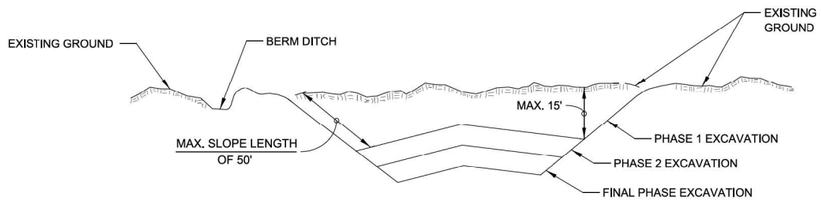


NOTES:

1. ALL CUT SLOPES SHALL BE EXCAVATED AND STABILIZED (PLACE TOPSOIL, PREPARE SEEDBED, APPLY SEED, PROTECT SLOPE WITH MULCH OR EROSION BLANKET) AS THE WORK PROGRESSES.

2. CONSTRUCTION SEQUENCE:

   A. EXCAVATE AND STABILIZE BERM, SIDE AND OUTLET DITCHES, PROVIDE SEDIMENT TRAPS FOR DITCHES.

   B. PERFORM PHASE 1 EXCAVATION AND STABILIZE SLOPES WITH PERMANENT SEEDING.

   C. PERFORM PHASE 2 EXCAVATION AND STABILIZE SLOPES WITH PERMANENT SEEDING. OVER SEED PHASE 1 SLOPES, IF REQUIRED.

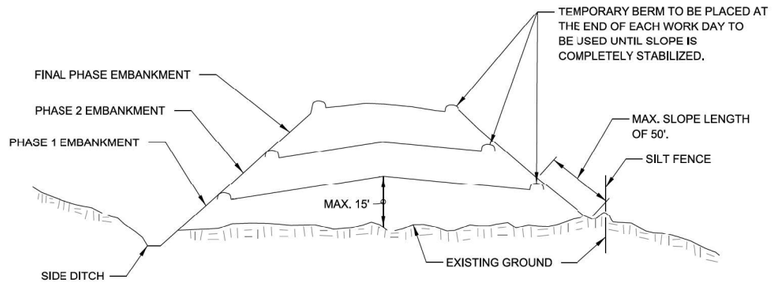
   D. PERFORM FINAL PHASE EXCAVATION, DRESS, SEED AND MULCH SLOPES WITH PERMANENT SEEDING, STABILIZE SURFACE DRAIN DITCHES. OVER SEED PHASE 1 & 2 SLOPES, IF REQUIRED, AS DETERMINED BY THE ENGINEER.

3. IF PERMANENT SEEDING CANNOT BE PLACED DUE TO CONTRACT REQUIREMENTS REGARDING PLANTING SEASONS, THE CUT SLOPE IS TO HAVE TOPSOIL PLACED AND SEEDING PREPARED PRIOR TO USING TEMPORARY STABILIZATION WITH STRAW MULCH OR TEMPORARY SEEDING WITH EROSION BLANKET.

4. THE CONTRACTOR HAS THE OPTION OF DELAYING TOPSOIL SEEDING BEYOND THE 15 FOOT LIMITATION. IF THIS OPTION IS CHOSEN, THE CUT SLOPE MUST BE "TEMPORARY STABILIZED" AT NO COST TO THE ILLINOIS TOLLWAY.

5. ONCE THE EXCAVATION WITHIN A SPECIFIC AREA HAS BEGUN, THE OPERATION SHALL BE CONTINUOUS FROM STRIPPING THROUGH THE COMPLETION OF THE GRADING AND PLACEMENT OF SLOPE STABILIZATION MEASURES. ANY INTERRUPTIONS IN THE OPERATION OF 14 DAYS OR MORE MUST BE APPROVED BY THE ENGINEER. ANY VIOLATION OF THIS REQUIREMENT WILL RESULT IN THE CONTRACTOR ASSUMING THE RESPONSIBILITY OF PLACING TEMPORARY STABILIZATION AT HIS OWN COST AND EXPENSE.

EXCAVATION PHASING PLAN - CUT SECTION



NOTES:

1. THE EMBANKMENT WILL BE MADE IN STAGES NOT TO EXCEED 15' IN HEIGHT OR 50' IN SLOPE LENGTH. THE EMBANKMENT SLOPES WILL BE STABILIZED USING TEMPORARY MEASURES BEFORE BEGINNING NEXT STAGE.

2. AT THE END OF EACH WORK DAY TEMPORARY BERMS (EARTH) AND TEMPORARY PIPE SLOPE DRAINS WILL BE CONSTRUCTED ALONG THE TOP EDGE(S) OF THE EMBANKMENT TO INTERCEPT SURFACE RUNOFF.

3. CONSTRUCTION SEQUENCE:

   A. EXCAVATE AND STABILIZE SIDE DITCH AND/OR INSTALL PROPOSED PERIMETER CONTROLS AT THE TOE OF SLOPE.

   B. PLACE PHASE 1 EMBANKMENT AND STABILIZE WITH TEMPORARY SEEDING AND MULCH.

   C. PLACE PHASE 2 EMBANKMENT AND STABILIZE WITH TEMPORARY SEEDING AND MULCH.

   D. PLACE FINAL PHASE EMBANKMENT AND STABILIZE WITH PERMANENT VEGETATIVE PLAN ON THE ENTIRE SLOPE.

4. ONCE THE PLACEMENT OF FILL WITHIN A SPECIFIC AREA HAS BEGUN, THE OPERATION SHALL BE CONTINUOUS FROM STRIPPING THROUGH THE COMPLETION OF THE GRADING AND PLACEMENT OF PERMANENT VEGETATIVE PLAN. ANY INTERRUPTIONS IN THE OPERATION OF 14 DAYS OR MORE MUST BE APPROVED BY THE ENGINEER. ANY VIOLATION OF THIS REQUIREMENT WILL RESULT IN THE CONTRACTOR ASSUMING THE RESPONSIBILITY OF PLACING TEMPORARY STABILIZATION AT HIS OWN COST AND EXPENSE.

EMBANKMENT PHASING PLAN - FILL SECTION

APPROVED BY: Marian Mashif
CHIEF ENGINEERING OFFICER
DATE: 03/01/2024

Illinois Tollway

EROSION CONTROL AND LANDSCAPE

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STATE OF ILLINOIS
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TOLLWAY STANDARDS

SCALE: | SHEET 3 OF 9 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	192
		CONTRACT NO. 62U90		
		ILLINOIS	FED. AID PROJECT	

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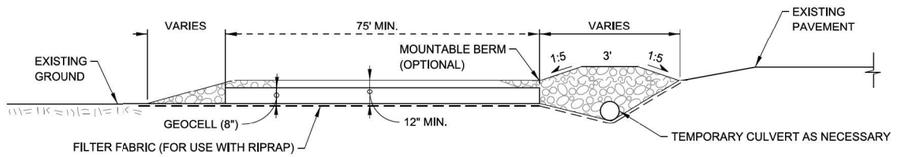

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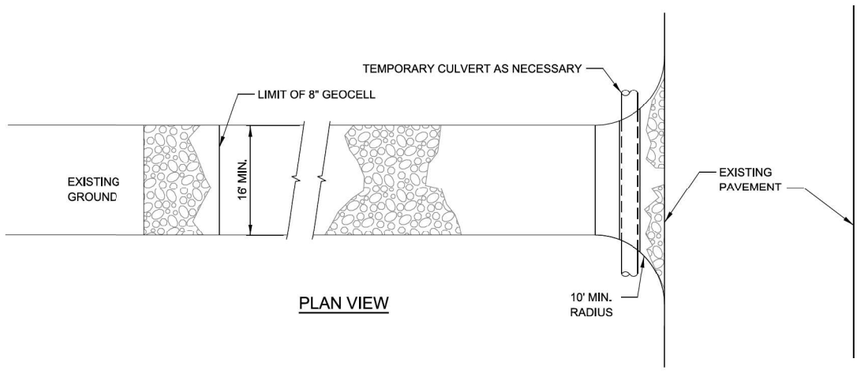
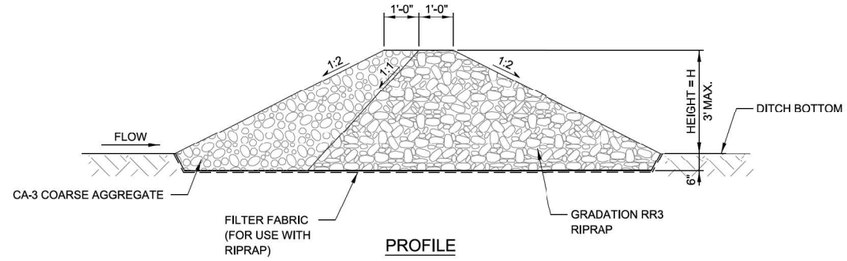


PLAN VIEW

NOTES:

1. STONE
   A. STONE SIZE - CA-3
   B. LENGTH - AS REQUIRED, BUT NOT LESS THAN 75'.
   C. THICKNESS - NOT LESS THAN 4" ABOVE TOP OF GEOCELL.
2. WIDTH - 16' MINIMUM FOR ONE WAY TRAFFIC; 24' MINIMUM FOR TWO-WAY TRAFFIC; BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.
3. GEOCELL NOT LESS THAN 8" IN DEPTH WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
4. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 1:5 SLOPES WILL BE PERMITTED.
5. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH SHALL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEAN OUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHT-OF-WAY SHALL BE REMOVED IMMEDIATELY.
6. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER HEAVY USE AND EACH RAINFALL EVENT.
7. TO BE USED TO REDUCE OR ELIMINATE TRACKING OF SEDIMENT ONTO PUBLIC STREETS. PLACE AT ALL POINTS OF CONSTRUCTION INGRESS AND EGRESS. DISTURBED AREAS TO BE RESTORED UPON REMOVAL.

STABILIZED CONSTRUCTION ENTRANCE
STANDARD SYMBOL



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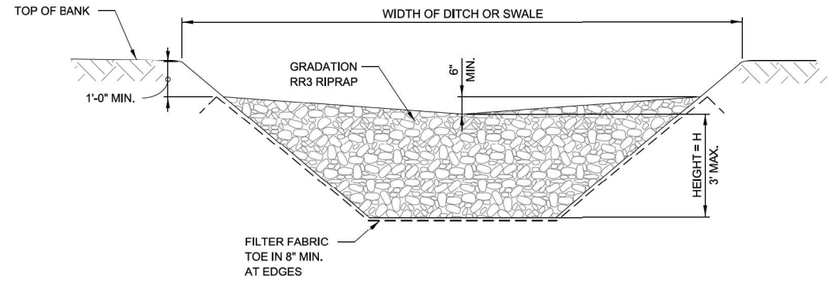

CROSS SECTION
CENTERLINE LOOKING DOWNSTREAM

NOTES:

1. FOR LOCATIONS AND HEIGHTS OF ROCK CHECK DAMS REFER TO CONSTRUCTION DRAWINGS.
2. TEMPORARY ROCK CHECK DAMS SHALL BE REPLACED WHEN THEY CEASE TO FUNCTION AS INTENDED DUE TO WASHOUT OR CONSTRUCTION TRAFFIC DAMAGE.
3. SEDIMENT SHALL BE REMOVED WHEN IT REACHES 50% OF DAM HEIGHT. THIS PRACTICE IS NOT A SUBSTITUTE FOR MAJOR PERIMETER TRAPPING SUCH AS A TEMPORARY SEDIMENT TRAP OR BASIN.
4. SPACING BETWEEN DAMS SHALL BE SUCH THAT THE TOE OF THE UPSTREAM DAM IS AT THE SAME ELEVATION AS TOP OF RIPRAP AT THE CENTER OF THE DOWNSTREAM DAM.
5. WHEN A TEMPORARY ROCK CHECK DAM IS IN THE CLEAR ZONE, IT MUST BE MADE TRAVERSABLE TO AN ERRANT VEHICLE. THE MAXIMUM UNSHIELDED TRANSVERSE SLOPE ALLOWED TO FACE TRAFFIC SHALL BE 1:10 (V:H) AND THE MAXIMUM TRANSVERSE FACING AWAY FROM TRAFFIC SHALL BE 1:4 (V:H). AN UNSHIELDED TEMPORARY ROCK CHECK DAM SHALL HAVE AN ADDITIONAL LAYER OF CA-3 COURSE AGGREGATE (6" MIN.) PLACED ON THE DOWNSTREAM SIDE OF THE ROCK CHECK DAM. THE FILTER FABRIC SHALL BE PLACED ALONG THE ENTIRE BASE OF THE TEMPORARY ROCK CHECK DAM.

TEMPORARY ROCK CHECK DAM
STANDARD SYMBOL

APPROVED BY: Manar Nashif
CHIEF ENGINEERING OFFICER
DATE: 03/01/2024

Illinois Tollway

EROSION CONTROL AND LANDSCAPE

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2024-03	K1-13	5 OF 13

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STATE OF ILLINOIS
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TOLLWAY STANDARDS

SCALE: | SHEET 4 OF 9 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	193
		CONTRACT NO. 62U90		
	ILLINOIS	FED. AID PROJECT		

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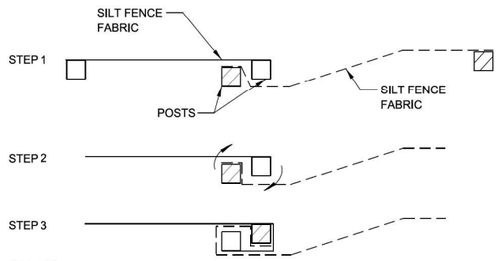
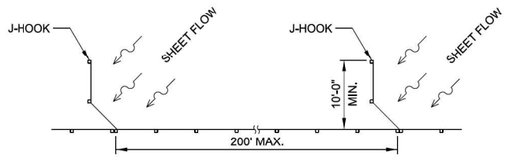


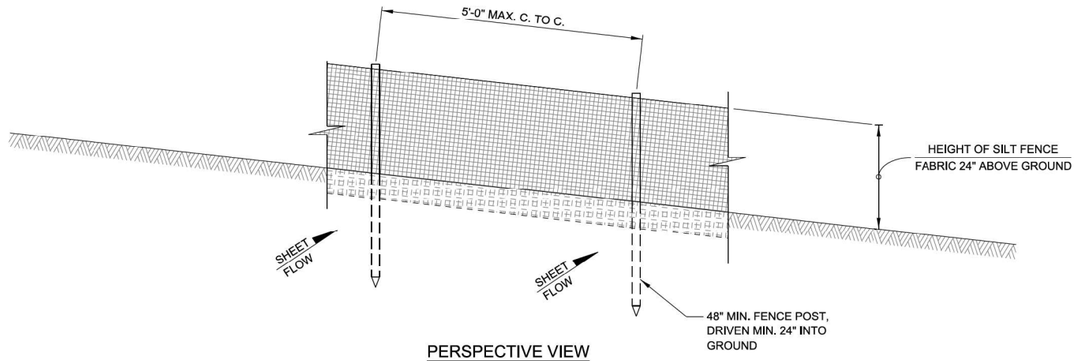
NOTES:

1. PLACE THE END POST OF THE SECOND FENCE INSIDE THE END POST OF THE FIRST FENCE.
2. ROTATE BOTH POSTS AT LEAST 180 DEGREES IN A CLOCKWISE DIRECTION TO CREATE A TIGHT SEAL WITH THE FABRIC MATERIAL.
3. DRIVE BOTH POSTS A MINIMUM OF 24" INTO THE GROUND.

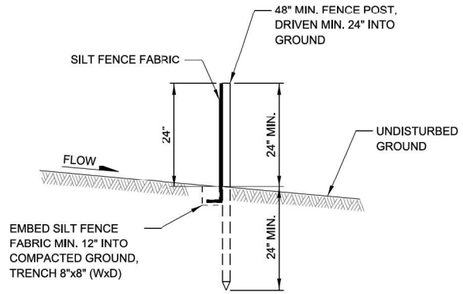
ATTACHING TWO SILT FENCES



SILT FILTER J-HOOK PLACEMENT



PERSPECTIVE VIEW

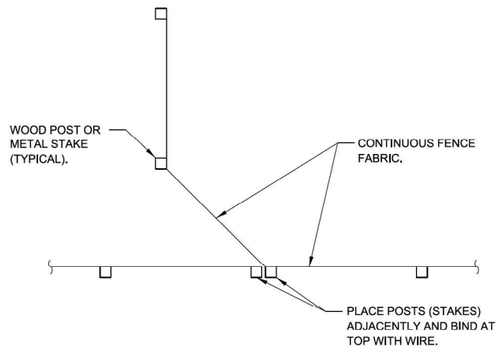


SECTION

NOTES:

1. SILT FENCE FABRIC TO BE FASTENED SECURELY TO FENCE POSTS.
2. WHEN TWO SECTIONS OF SILT FENCE FABRIC ADJOIN EACH OTHER THEY SHALL BE SECURELY FASTENED PER THE DETAIL ATTACHING TWO SILT FENCES.
3. MAINTENANCE SHALL BE PERFORMED AS NEEDED. SILT BUILD UP AGAINST FENCE SHALL BE REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE, OR WHEN SILT REACHES 50% OF FENCE HEIGHT.
4. SUPPORT POSTS SHALL BE 2" X 2" NOMINAL HARDWOOD, 2" SCHEDULE 40 STEEL PIPE OR STEEL SUPPORT POSTS OF A STANDARD T OR U SECTION WEIGHING NOT LESS THAN 1.33 POUNDS PER LINEAL FOOT.
5. THIS DEVICE IS TO CONTROL SHEET FLOW ONLY. DO NOT USE FOR CONCENTRATED FLOWS, DRAINAGE CHANNELS, ABOVE OR BELOW DRAINAGE PIPES.

SILT FENCE (SF)
STANDARD SYMBOL



J-HOOK

APPROVED BY: Manar Nashif
CHIEF ENGINEERING OFFICER
DATE: 03/01/2024

Illinois Tollway

EROSION CONTROL AND LANDSCAPE

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STATE OF ILLINOIS
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TOLLWAY STANDARDS

SCALE: | SHEET 5 OF 9 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	194
		CONTRACT NO. 62U90		
	ILLINOIS	FED. AID PROJECT		

MODEL: Default
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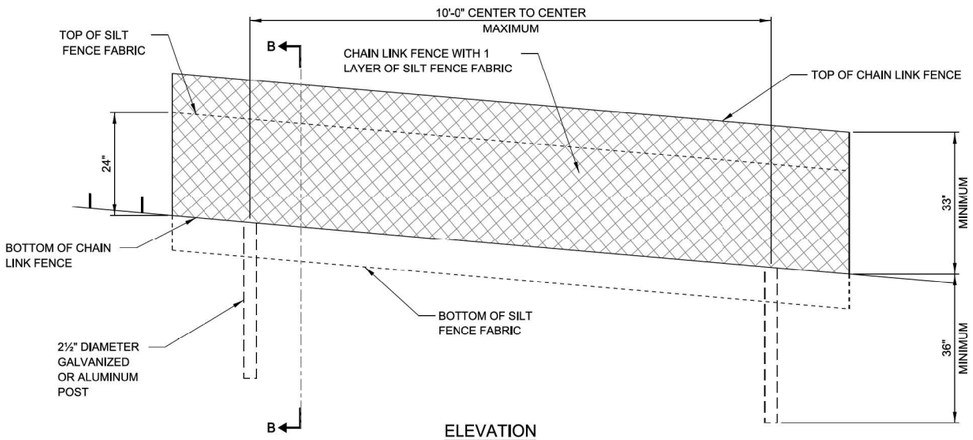
NOTES:

1. FENCING SHALL BE 36" IN HEIGHT AND CONSTRUCTED IN ACCORDANCE WITH ILLINOIS TOLLWAY STANDARD DRAWING D1, RIGHT-OF-WAY FENCE, TYPE 1. THE SPECIFICATION FOR A 6' FENCE SHALL BE USED, SUBSTITUTING 36" FABRIC AND 6' LENGTH POSTS.
2. CHAIN LINK FENCE SHALL BE FASTENED SECURELY TO THE FENCE POSTS WITH WIRE TIES. THE LOWER TENSION WIRE, BRACE AND TRUSS RODS, DRIVER ANCHORS AND POST CAPS ARE NOT REQUIRED. PULL POSTS, CORNER POSTS, HORIZONTAL BRACING AND TIE RODS ARE NOT REQUIRED.
3. SILT FENCE FABRIC SHALL BE FASTENED SECURELY TO THE CHAIN LINK FENCE WITH TIES SPACED EVERY 24" AT THE TOP AND MID SECTION.
4. WHEN TWO SECTIONS OF SILT FENCE FABRIC ADJOIN EACH OTHER, THEY SHALL BE OVERLAPPED 2' HORIZONTALLY.
5. MAINTENANCE SHALL BE PERFORMED AS NEEDED. SILT BUILD-UP AGAINST FENCE SHALL BE REMOVED WHEN SILT REACHES 50% OF FENCE HEIGHT.
6. SUPER SILT FENCE IS TO BE USED TO PROTECT ENVIRONMENTALLY SENSITIVE AREAS AND CONTROL SEDIMENT RUNOFF FROM CONSTRUCTION SITES WHEN ADDITIONAL REINFORCEMENT IS REQUIRED DUE TO SLOPE OF SITE OR VOLUME OF STORM WATER RUNOFF.



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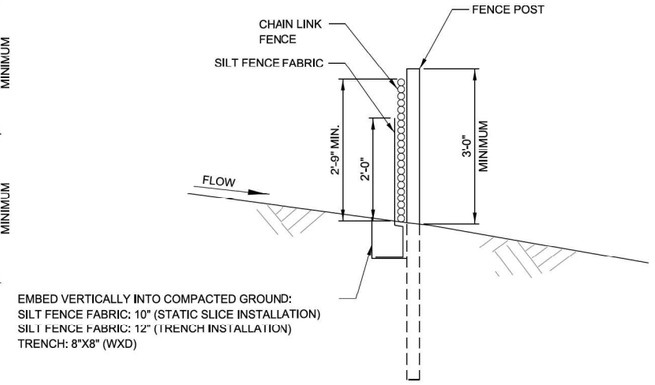


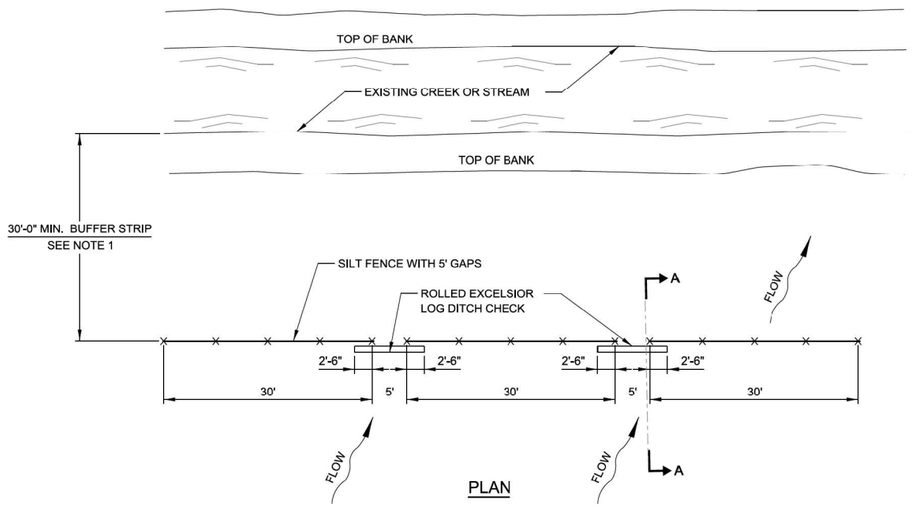
SECTION B-B

SUPER SILT FENCE (SSF)
STANDARD SYMBOL

SSF

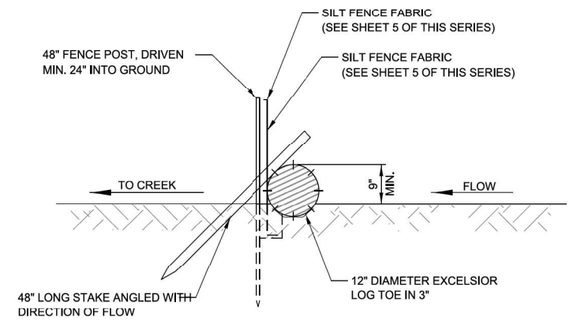
NOTES:

1. A MINIMUM 50' WIDE VEGETATED BUFFER STRIP SHALL BE PRESERVED AND/OR RE-ESTABLISHED WHERE POSSIBLE ALONG EXISTING CHANNELS.
   A. FOR ANY WATERS OF THE U.S. DETERMINED TO BE A HIGH-QUALITY AQUATIC RESOURCE, THE BUFFER MUST BE A MINIMUM OF 100'.
   B. FOR ANY WATERS OF THE U.S. THAT DO NOT QUALIFY AS WETLAND (FOR EXAMPLE LAKES, RIVERS, PONDS, ETC.), THE BUFFER MUST BE A MINIMUM OF 50' FROM THE ORDINARY HIGH WATER MARK (OHWM).
   C. FOR ANY JURISDICTIONAL WETLAND, THE BUFFER MUST BE A MINIMUM OF 50'.
2. THE 5' GAPS IN THE SILT FENCE AND THE 12" DIAMETER TEMPORARY DITCH CHECKS ARE TO ALLOW FLOODWATER FLOW INTO THE CREEK FROM THE SITE WITHOUT DAMAGE TO THE SILT FENCE.
3. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND SILT SHALL BE REMOVED WHEN IT REACHES 50% OF ROLL HEIGHT. WHEN THE ROLLED EXCELSIOR LOG IS REDUCED TO 50% OF ROLL HEIGHT IT SHALL BE REPLACED.



PLAN

CREEK BUFFER STRIP AND SILT FENCE



SECTION A-A

APPROVED BY: Manar Nashif
CHIEF ENGINEERING OFFICER
DATE: 03/01/2024

Illinois Tollway

EROSION CONTROL AND LANDSCAPE

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TOLLWAY STANDARDS

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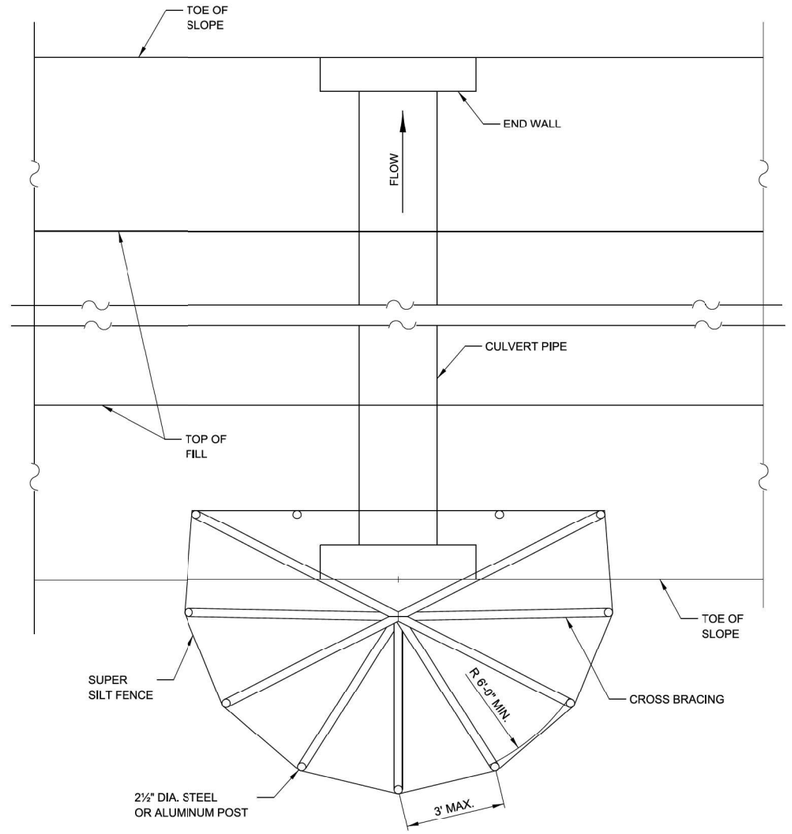


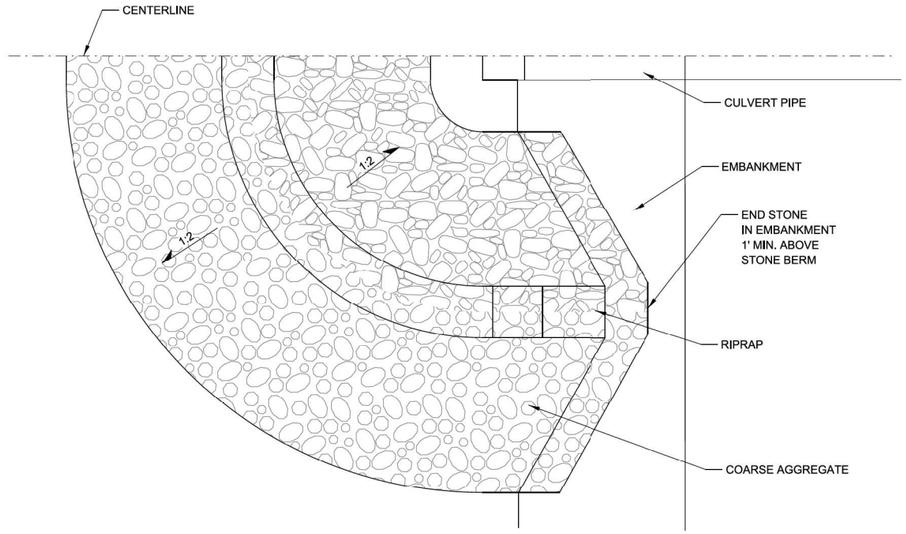
PLAN VIEW

NOTES:

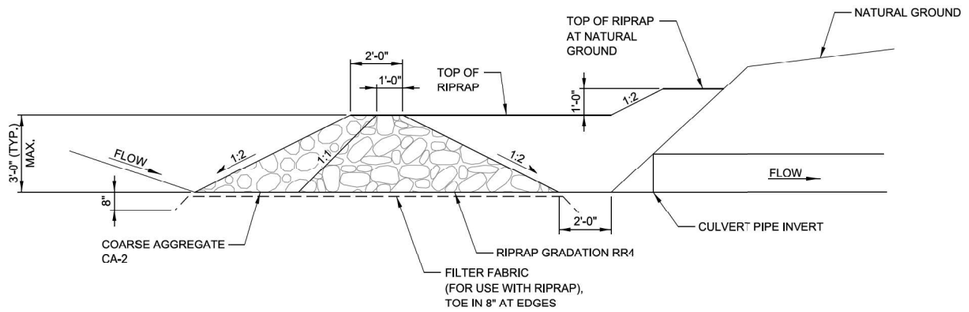
1. CONSTRUCT SUPER SILT FENCE PER SHEET 6 IN THIS SERIES, EXCEPT THE MAXIMUM POST SPACING SHALL BE 3 FEET, THE PLACEMENT OF THE SUPER SILT FENCE SHALL BE A MINIMUM OF 6 FEET FROM THE CULVERT IN THE DIRECTION OF INCOMING FLOW AND THE TOPS OF POSTS SHALL BE CROSS BRACED.
2. MAINTENANCE SHALL BE PERFORMED AS NEEDED. SEDIMENT SHALL BE REMOVED WHEN IT REACHES 50% OF THE FENCE HEIGHT.
3. THE CULVERT INLET PROTECTION AND SEDIMENT SHALL BE REMOVED WHEN CONSTRUCTION IS COMPLETE.
4. THE CULVERT INLET PROTECTION FENCE TO BE MEASURED AND PAID FOR AS SUPER SILT FENCE.

CULVERT INLET PROTECTION - FENCE

STANDARD SYMBOL



HALF PLAN VIEW



CENTERLINE CROSS SECTION

NOTES:

1. MAINTENANCE SHALL BE PERFORMED AS NEEDED. SEDIMENT SHALL BE REMOVED WHEN IT REACHES 50% OF THE STONE HEIGHT.
2. THE CULVERT INLET PROTECTION AND SEDIMENT SHALL BE REMOVED WHEN CONSTRUCTION IS COMPLETE.
3. THE CULVERT INLET PROTECTION - STONE TO BE MEASURED AND PAID FOR AS TEMPORARY RIPRAP.

CULVERT INLET PROTECTION - STONE

STANDARD SYMBOL

CIP

APPROVED BY: Manar Nashif
CHIEF ENGINEERING OFFICER
DATE: 03/01/2024

Illinois Tollway

EROSION CONTROL AND LANDSCAPE

VERSION:	STANDARD:	SHEET:
2024-03	K1-13	8 OF 13

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline,Ng	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLLWAY STANDARDS

SCALE: | SHEET 7 OF 9 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	196
		CONTRACT NO. 62U90		
	ILLINOIS FED. AID PROJECT			

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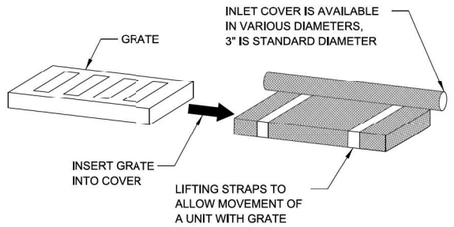
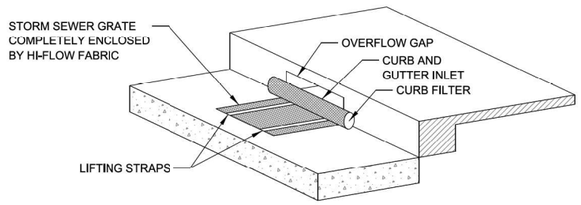


GRATE AND COVER DETAIL



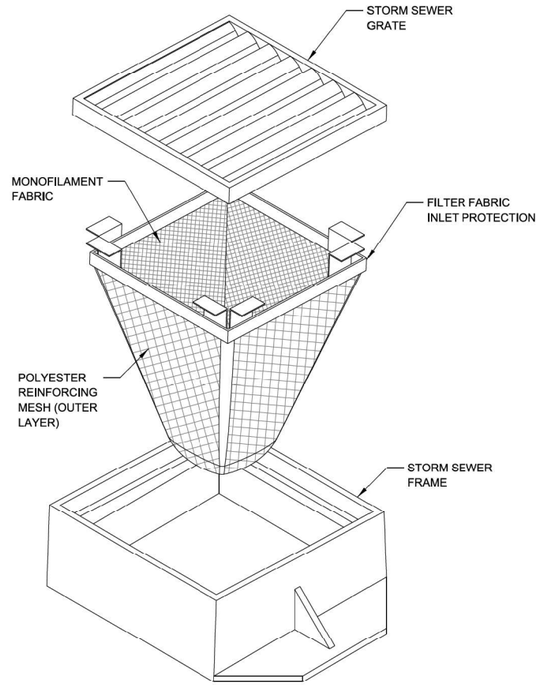
NOTES:

1. COVER TYPE INLET PROTECTION SHALL CONSIST OF FABRIC SLEEVE AND, IF NECESSARY, CURB FILTER.
2. DEVICE SHALL BE EQUIPPED WITH AN OVERFLOW GAP SO DRAINAGE TO INLET IS NOT COMPLETELY BLOCKED IF DEVICE IS FULL OF SILT.
3. MAINTENANCE SHALL BE PERFORMED AS NEEDED. REMOVE SILT FROM FABRIC INSERT WHEN SEDIMENT ACCUMULATES, THE FILTER BECOMES CLOGGED, AND/OR PERFORMANCE IS COMPROMISED. WHEN THERE IS EVIDENCE OF SEDIMENT ACCUMULATION ADJACENT THE INLET PROTECTION MEASURE, THE DEPOSITED SEDIMENT SHALL BE REMOVED BY THE END OF THE SAME BUSINESS DAY IN WHICH IT IS FOUND OR BY THE END OF THE FOLLOWING BUSINESS DAY IF REMOVAL THE SAME BUSINESS DAY IS NOT FEASIBLE.
4. STORM SEWER GRATE SHALL BE COMPLETELY ENCLOSED BY FABRIC.
5. GRATE AND FILTER ARE TO BE SET SECURELY BACK IN FRAME.

FILTER FABRIC INLET PROTECTION - COVER TYPE

STANDARD SYMBOL

FIPC



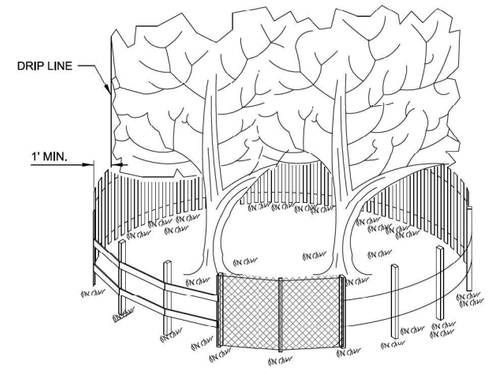
NOTES:

1. MONOFILAMENT FABRIC INLET PROTECTION SHALL CONSIST OF INLET BASKET, FRAME AND FABRIC INSERT.
2. DEVICE SHALL BE EQUIPPED WITH AN OVERFLOW FEATURE SO DRAINAGE TO INLET IS NOT COMPLETELY BLOCKED IF DEVICE IS FULL OF SILT.
3. INLET BASKET IS AVAILABLE TO FIT ROUND, RECTANGULAR, BEEHIVE OR CURB INLET CASTINGS.
4. MAINTENANCE SHALL BE PERFORMED AS NEEDED. REMOVE SILT FROM FABRIC INSERT WHEN 50% OF CAPACITY IS REACHED. REMOVE SILT FROM INTERIOR AND EXTERIOR OF INLET COVER WHEN 50% OF COVER HEIGHT IS REACHED. WHEN THERE IS EVIDENCE OF SEDIMENT ACCUMULATION ADJACENT THE INLET PROTECTION MEASURE, THE DEPOSITED SEDIMENT SHALL BE REMOVED BY THE END OF THE SAME BUSINESS DAY IN WHICH IT IS FOUND OR BY THE END OF THE FOLLOWING BUSINESS DAY IF REMOVAL THE SAME BUSINESS DAY IS NOT FEASIBLE.

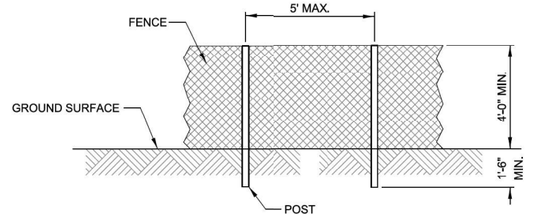
FILTER FABRIC INLET PROTECTION - BASKET TYPE

STANDARD SYMBOL

FIPB



SIDE VIEW



POST AND FENCE DETAIL

NOTES:

1. THE FENCE SHALL BE LOCATED 1 FOOT MINIMUM OUTSIDE THE DRIP LINE OF THE TREE TO BE SAVED AND IN NO CASE CLOSER THAN 5 FEET TO THE TRUNK OF ANY TREE.
2. THE FENCE SHALL BE HIGH VISIBILITY PLASTIC OR WOOD LATH SNOW FENCE TO CLEARLY DELINEATE THE PROTECTION AREA.
3. USED TO PROTECT TREES FROM DISTURBANCE AND FROM EQUIPMENT TRAVELING OVER THE ROOT ZONE.

TREE PROTECTION

STANDARD SYMBOL

TP

APPROVED BY: Manar Nashif
CHIEF ENGINEERING OFFICER
DATE: 03/01/2024

Illinois Tollway

EROSION CONTROL AND LANDSCAPE

VERSION:	STANDARD:	SHEET:
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLLWAY STANDARDS

SCALE: | SHEET 8 OF 9 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	197
		CONTRACT NO. 62U90		
		ILLINOIS	FED. AID PROJECT	

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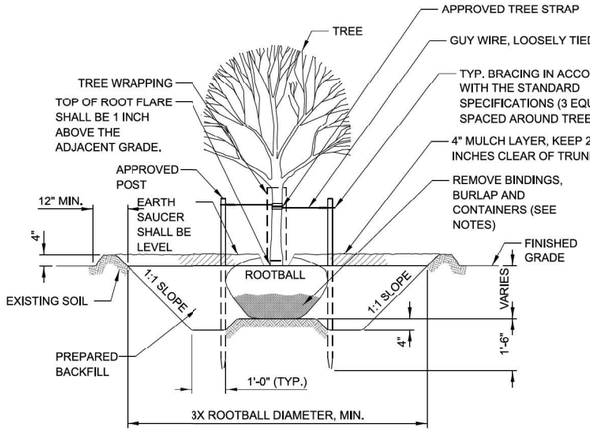
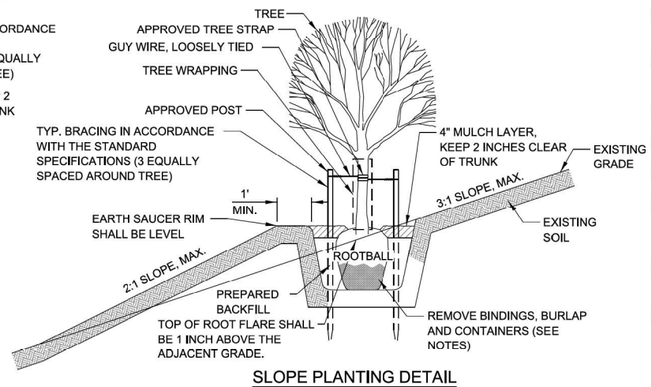
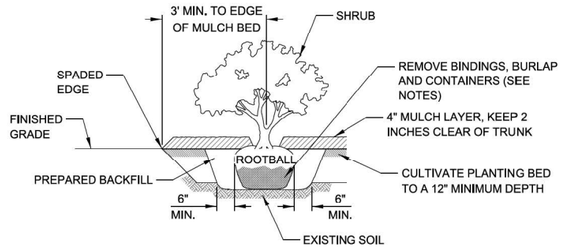


DECIDUOUS TREE PLANTING DETAIL

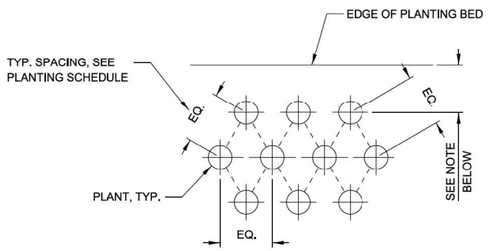


SLOPE PLANTING DETAIL



SHRUB PLANTING DETAIL

EVERGREEN TREE PLANTING DETAIL



PLAN

NOTES:

OFFSET OF PLANTS FROM EDGE OF PLANTING AREA SHALL BE EQUAL TO HALF OF THE PLANT SPACING REQUIREMENT FOR EACH PLANT SPECIES AS SHOWN IN THE PLANTING SCHEDULE, OR 3' MINIMUM, UNLESS OTHERWISE INDICATED.

SHRUB AND GROUND COVER SPACING DETAIL

PLANTING NOTES:

1. MARK THE LOCATIONS OF ALL UNDERGROUND UTILITIES BEFORE BEGINNING WORK. FLAG OR STAKE THE ALIGNMENT OF UTILITY LINES THROUGH TREE AND SHRUB PLANTING BEDS TO CONFIRM REQUIRED OFFSETS. REPORT ANY CONFLICTS TO THE ENGINEER IMMEDIATELY FOR RESOLUTION.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION AND PROTECTION OF ALL UNDERGROUND, SURFACE AND OVERHEAD UTILITIES REGARDLESS OF LOCATION OR LACK OF LOCATION ON PLANS.
3. PLANTING PLANS ARE DIAGRAMMATIC. PLANT LOCATIONS SHALL BE REVIEWED BY THE CONTRACTOR AND ENGINEER AND OR ILLINOIS TOLLWAY LANDSCAPE ARCHITECT AND ADJUSTED IN THE FIELD AS NECESSARY PRIOR TO PLANTING.
4. TREES SHALL BE LOCATED CLEAR OF ROADWAY PAVEMENT EDGES, SIXTY (60) FEET MINIMUM.
5. TREE AND SHRUB PLANTINGS SHALL NOT BLOCK ACCESS TO GATES IN FENCES, HYDRANTS ON NOISE WALLS OR OTHER SERVICE ACCESS DOORS.
6. TREES PLANTED IN TURF AREAS SHALL BE LOCATED TEN (10) FEET MINIMUM CLEAR FROM THE EDGE OF PLANTING BEDS.
7. TREE AND SHRUB PLANTINGS SHALL BE OFFSET FROM UTILITY LINES, PIPES AND STRUCTURES A MINIMUM OF 10 FEET AND AS REQUIRED BY UTILITY PROVIDERS. TREES SHALL BE LOCATED TEN (10) FEET MINIMUM CLEAR FROM FENCES, WALLS, BRIDGES AND OTHER STRUCTURES. THIS DISTANCE SHALL BE INCREASED, PER THE PROJECTED MATURE TREE CANOPY SIZE, TO PREVENT OVERHANGING LIMBS ON HIGHWAYS AND BRIDGES.
8. THE VERTICAL CLEAR DISTANCE BETWEEN DITCH BOTTOMS, PLANTINGS AND PLANTING BEDS SHALL BE THREE (3) FEET MINIMUM AND NINE (9) FEET MINIMUM HORIZONTAL DISTANCE FOR DITCHES LESS THAN THREE (3) FEET DEEP.
9. PERFORM PERCOLATION TESTS WITHIN PLANTING AREAS, - ONE TEST PER AREA OR 1000 SF OF PLANTING BED, MAX. EXCAVATE A 12 INCH X 12 INCH X 12 INCH PIT AND FILL WITH WATER. RECORD THE PER HOUR RATE OF WATER DISPERSAL FROM THE PIT. IF PERCOLATION IS LESS THAN 2 INCHES PER HOUR, CONTACT THE ENGINEER FOR FURTHER INSTRUCTIONS. RELOCATE PLANTINGS AS INSTRUCTED BY THE ENGINEER. RESTORE PIT TO SURROUNDING CONDITION.
10. PRUNING SHALL ONLY BE DONE IN ACCORDANCE WITH THE SPECIFICATIONS. IMPROPERLY PRUNED PLANTING WILL BE REJECTED AND REPLACEMENTS SHALL IMMEDIATELY BE MADE BY THE CONTRACTOR.
11. SCARIFY THE SIDES OF PLANTING PITS TO LOOSEN SOIL PRIOR TO PLANTING.
12. WHEN INDICATED ON PLANS, TREE WRAPPING SHALL BE INSTALLED ON ALL DECIDUOUS TREES TO PROTECT FROM DEER AND RODENT DAMAGE. WRAPPING SHALL BE ANCHORED TO GROUND AND EXTEND UP TO LOWEST BRANCH. WRAPPING PLACEMENT SHALL NOT BEAR AGAINST OR INHIBIT GROWTH OF TRUNK OR LOWEST BRANCH.
13. TOP OF ROOT FLARE SHALL BE APPROXIMATELY ONE (1) INCH ABOVE ADJACENT FINISHED GRADE. REMOVE DEBRIS AND MULCH FROM AROUND ROOT COLLAR.
14. SHRUB PLANTINGS, UNLESS OTHERWISE NOTED, SHALL BE PLANTED IN MULCHED BEDS. THE EDGE OF THE MULCHED BEDS SHALL EXTEND A MINIMUM OF THREE (3) FEET BEYOND THE CENTERS OF THE PERIPHERAL PLANTS IN THE BED. THE EDGE OF THE MULCHED BED FOR SHRUB PLANTINGS ADJACENT TO A WALL, FENCE, GUARDRAIL, OR OTHER FIXED OBJECT SHALL EXTEND TO THE OBJECT. THE PERIPHERAL PLANTS IN THE BED SHALL BE PLANTED FIVE (5) FEET CLEAR OF THE OBJECT. WHEN A TREE IS LOCATED IN A SHRUB BED, THE MINIMUM DISTANCE BETWEEN THE TREE AND THE ADJACENT SHRUB SHALL BE SIX (6) FEET.
15. ALL FACILITIES AND LANDSCAPE AREAS ON AND OFF SITE DISTURBED BY CONSTRUCTION SHALL BE RESTORED TO ORIGINAL CONDITION.
16. ALL TREE SUPPORTS INCLUDING STAKES AND GUY WIRES, BRACING STRAPS AND ANCHORS SHALL BE REMOVED AFTER ONE (1) YEAR OR AS DIRECTED BY THE ENGINEER.
17. REMOVE ALL BINDING MATERIALS, CONTAINERS, AND MARKING TAPES FROM PLANTINGS PRIOR TO BACKFILLING. REMOVE SYNTHETIC BURLAP ENTIRELY, REMOVE NATURAL BURLAP, TWINE, AND WIRE BASKETS FROM THE TOP HALF OF ROOT BALLS. THE LOWER HALF OF NATURAL BURLAP SHALL BE FOLDED TOWARD THE BOTTOM OF THE ROOT BALL.
18. PLANTINGS SHALL BE INSTALLED PLUMB WITH THE BEST SIDE FACING THE PRIMARY VIEWING DIRECTION.
19. PLANTS SHALL COMPLY WITH ANSI Z60.1, LATEST EDITION, AND SHALL BE WELL FORMED WITH FULL FOLIAGE MASS. PLANTS SHALL BE HEALTHY, VIGOROUS, FREE OF DISEASE, INSECT PESTS AND THEIR EGGS. BASIS OF PLANT REJECTION INCLUDES BUT IS NOT LIMITED TO: PLANT IS MORE THAN 10% DEAD, ROOT BOUND, IMPROPERLY PRUNED, EXHIBITS DISPROPORTIONAL GROWTH PATTERN OR DOES NOT MEET SPECIFIED SIZE REQUIREMENTS.
20. DO NOT DISTURB OR DAMAGE ROOT BALL WHEN PLANTING. DO NOT ALLOW AIR POCKETS TO FORM WHEN BACKFILLING PLANTING PITS. WHEN PIT IS HALF FULL OF SOIL, LIGHTLY TAMP, WATER THOROUGHLY. ADD REMAINING SOIL AND WATER FURTHER UNTIL SOIL IS COMPLETELY CONSOLIDATED AND NO MORE WATER IS ABSORBED.
21. PREPARED BACKFILL SHALL CONSIST OF EQUAL PARTS TOPSOIL, COMPOST AND EXISTING SITE SOIL SUITABLE FOR PLANT GROWTH. TOPSOIL SHALL COMPLY WITH SECTION 211 OF THE SPECIFICATIONS.
22. THE CONTRACTOR SHALL COMPLETE FORM A-37 TO DOCUMENT MILESTONE DATES ASSOCIATED WITH PLANT INSTALLATION AND ESTABLISHMENT AS REQUIRED BY THE ILLINOIS TOLLWAY.

APPROVED BY: Marco Mashif, CHIEF ENGINEERING OFFICER — DATE: 03/01/2024

Illinois Tollway

EROSION CONTROL AND LANDSCAPE

VERSION:	STANDARD:	SHEET:
2024-03	K1-13	13 OF 13

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLLWAY STANDARDS

SCALE: | SHEET 9 OF 9 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	198
		CONTRACT NO. 62U90		
	ILLINOIS FED. AID PROJECT			

MODEL: Default
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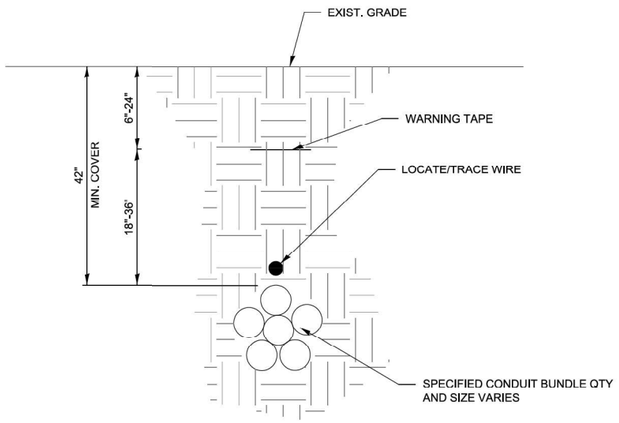
TYPES OF BURY

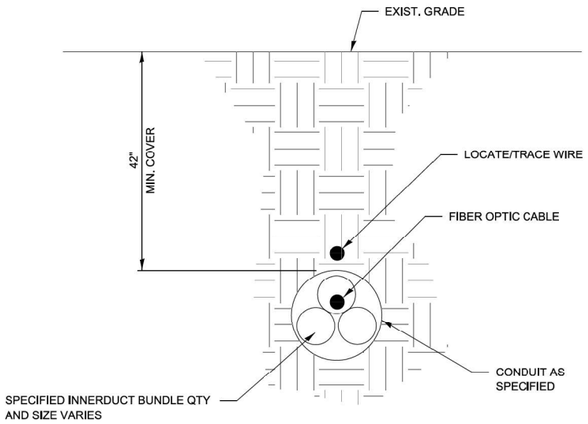
CABLE AND CONDUIT
BORED, TRENCHED, AND PLOWED

GENERAL NOTES:

1. UNDERGROUND CONDUIT SHALL BE PLACED AT 42" MINIMUM COVER UNLESS OTHERWISE SPECIFIED ON THE PLANS.
2. UNDERGROUND CONDUIT SHALL BE PLACED AT 48" MINIMUM COVER UNDER STREAM, CREEK AND DRAINAGE DITCHES UNLESS OTHERWISE SPECIFIED ON THE PLANS.
3. IF WHILE LOWERING THE CONDUIT THERE IS NOT ENOUGH SLACK, ADDITIONAL CONDUIT SHALL BE ADDED. EMPTY CONDUITS CAN BE CUT AND HAVE NEW CONDUIT FUSED OR COMPRESSION COUPLED ON. CONDUITS WITH FIBER INSTALLED SHALL BE RING CUT WITH A TUBE CUTTER SO AS NOT TO DAMAGE THE FIBER.
4. CONDUIT USED ABOVE GROUND SHALL BE STAINLESS STEEL OR FIBERGLASS REINFORCED EPOXY (FRE) CONDUIT. UNDERGROUND CASINGS SHALL BE FRE PER THE SPECIAL PROVISIONS OR HDPE.
5. LOCATE/TRACE WIRE SHALL BE DIRECT BURIED WITH EVERY CONDUIT BUNDLE PATH AS CLOSE TO THE CENTER OF THE CONDUITS AS POSSIBLE. LOCATE/TRACE WIRE SHALL NOT BE INSTALLED IN A CONDUIT WITHOUT APPROVAL OF THE ENGINEER.
6. WHEN AN OPTIC FIBER CONDUIT SEPARATES FROM A CONDUIT BUNDLE OR DUCT BANK, AN ADDITIONAL LOCATE WIRE SHALL BE INSTALLED WITH THAT SEPARATE CONDUIT PATH GOING BACK TO THE PREVIOUS HANDHOLE.
7. ALL LOCATE/TRACE WIRE WILL BE TESTED PER SPECIFICATIONS PRIOR TO ANY FIBER BEING INSTALLED.
8. ALL UNUSED CONDUIT SHALL HAVE 1200 LB MULE TAPE INSTALLED FOR FUTURE USE.



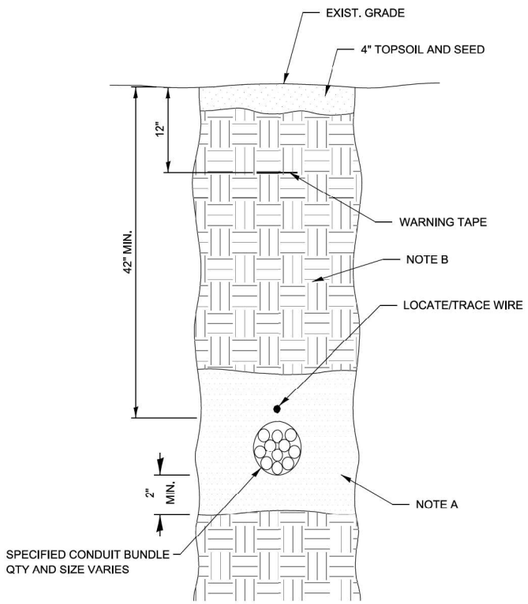
PLOWED CONDUIT BUNDLES
QTY VARIES



BORED CONDUIT WITH FIBER OPTIC CABLE AND/OR MULTIPLE INNERDUCTS AS REQUIRED

NOTE:

THE PICTURE ABOVE IS A CONCEPT LAYOUT.



CONSTRUCTION NOTES TRENCHED CONDUIT BUNDLES

A. A MINIMUM OF 2" OF SAND SHALL BE PLACED UNDER THE CONDUIT. SAND SHALL TRANSITION TO BACKFILL ACCORDING TO NOTE B 4" ABOVE CONDUIT.

B. BACKFILL SHALL BE ACCORDING TO ARTICLE 810.04 OF THE STANDARD SPECIFICATIONS.

TRENCHED CONDUIT BUNDLES

APPROVED BY: Manar Nashif, CHIEF ENGINEERING OFFICER — DATE: 03/01/2024

REVISIONS	
DATE	DESCRIPTION
03-01-2024	MODIFIED PROFILE VIEW TO INCLUDE TRACER WIRE. MODIFIED SIDE VIEW TO INCLUDE A REFERENCE TO NOTE 2. REMOVED AND MODIFIED NOTES. UPDATED THE GENERAL NOTES SECTION. MODIFIED DETAILS.

Illinois Tollway

FIBER OPTIC SYSTEM TYPICALS AND DRAWINGS

VERSION: 2024-03 | STANDARD: L1-06 | SHEET: 1 OF 15

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190	FAI 90 23 TBR	COOK	234	199
		CONTRACT NO. 62U90		
	ILLINOIS FED. AID PROJECT			

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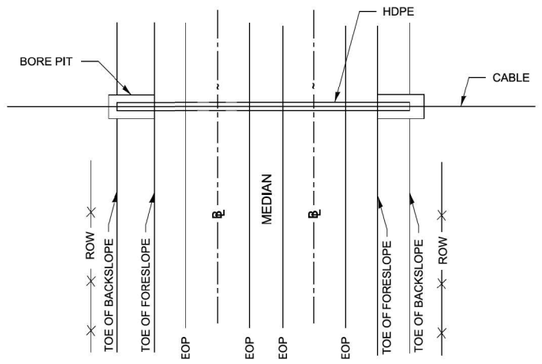
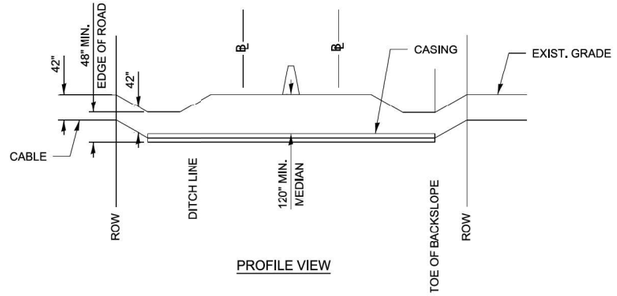
TYPICAL ROAD CROSSINGS



PLAN VIEW

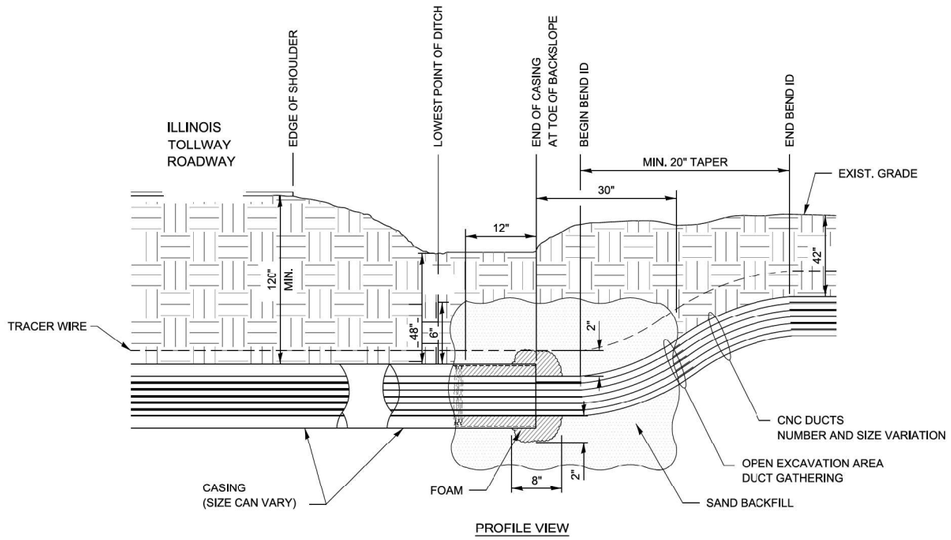


PROFILE VIEW

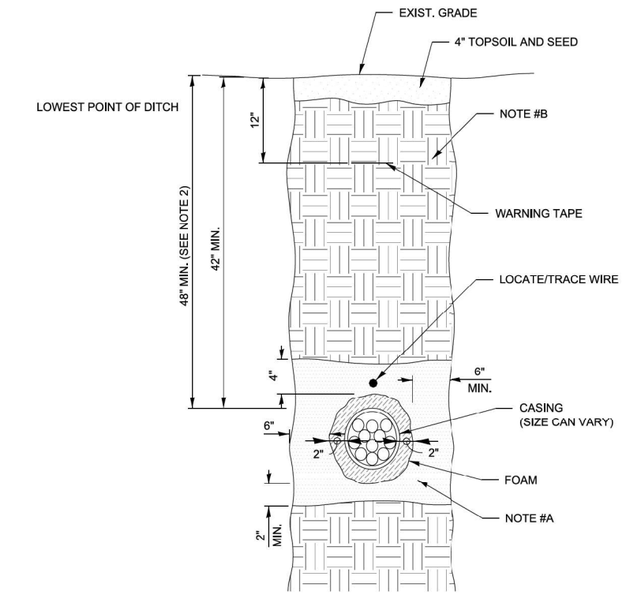
TYPICAL ROAD CROSSING

GENERAL NOTES:

1. UNDERGROUND CONDUIT SHALL BE PLACED AT 42" MINIMUM COVER UNLESS OTHERWISE SPECIFIED ON THE PLANS.
2. UNDERGROUND CONDUIT SHALL BE PLACED AT 48" MINIMUM COVER UNDER STREAM, CREEK AND DRAINAGE DITCHES UNLESS OTHERWISE SPECIFIED ON THE PLANS.
3. THE MINIMUM COVER UNDER A PUBLIC ROADWAY, ILLINOIS TOLLWAY HIGHWAY AND RAMPS SHALL BE 120" OR SUCH GREATER DEPTH AS MAY BE REQUIRED TO CLEAR THE PAVEMENT STRUCTURE.
4. IF WHILE LOWERING THE DUCTS, THERE IS NOT ENOUGH SLACK IN THE DUCTS, ADDITIONAL DUCT SHALL BE ADDED. EMPTY DUCTS CAN BE CUT AND HAVE NEW DUCT FUSED OR COMPRESSION COUPLED ON. DUCTS WITH FIBER INSTALLED SHALL BE RING CUT WITH A TUBE CUTTER SO AS NOT TO DAMAGE THE FIBER.
5. HDPE CASING SHALL EXTEND FROM TOE OF BACK SLOPE TO TOE OF BACK SLOPE UNLESS OTHERWISE APPROVED.
6. BORE AND RECEIVING PITS SHALL BE A MINIMUM OF 30 FEET FROM THE EDGE OF SHOULDER ON TOLL HIGHWAYS UNLESS OTHERWISE APPROVED.
7. TOP OF CASING SHALL BE A MINIMUM OF 48" BELOW THE DESIGNED DITCH GRADES ON EACH SIDE OF HIGHWAY.
8. ENDS OF ALL CASING SHALL BE FOAM PLUGGED. (ARNCO HYDRA-SEAL S-60 OR ENGINEER APPROVED EQUAL).
9. PITS FOR BORING ARE NOT PERMITTED IN THE HIGHWAY MEDIAN.
10. CONDUIT USED ABOVE GROUND SHALL BE STAINLESS STEEL OR FIBERGLASS REINFORCED EPOXY (FRE) CONDUIT. UNDERGROUND CASINGS SHALL BE FRE PER THE SPECIAL PROVISIONS OR HDPE.
11. HANDHOLES SHALL BE INSTALLED ON BOTH SIDES OF ANY STREAM, CREEK, OR RAILROAD CROSSING.
12. BORE HOLES SHALL BE LIMITED TO THE MINIMUM DIAMETER NECESSARY FOR INSTALLATION OF THE DUCT BUNDLE OR CASING.



PROFILE VIEW



SIDE VIEW

CONSTRUCTION NOTES TRENCHED HDPE BUNDLES

A. A MINIMUM OF 2" OF SAND SHALL BE PLACED UNDER THE CONDUIT. SAND SHALL TRANSITION TO BACKFILL ACCORDING TO NOTE B 4" ABOVE CONDUIT.

B. BACKFILL SHALL BE ACCORDING TO ARTICLE 810.04 OF THE STANDARD SPECIFICATIONS.

APPROVED BY: Manar Nashif
CHIEF ENGINEERING OFFICER
DATE: 03/01/2024

Illinois Tollway

FIBER OPTIC SYSTEM
TYPICALS AND DRAWINGS

VERSION:	STANDARD:	SHEET:
2024-03	L1-06	2 OF 15

MODEL: Default
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AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

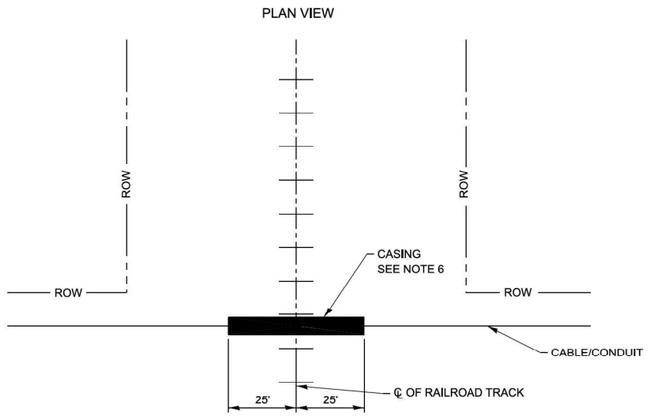
TOLLWAY STANDARDS

SCALE: | SHEET 2 OF 15 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	200
		CONTRACT NO. 62U90		
		ILLINOIS	FED. AID PROJECT	

OUTSIDE PLANT TYPICAL BORES

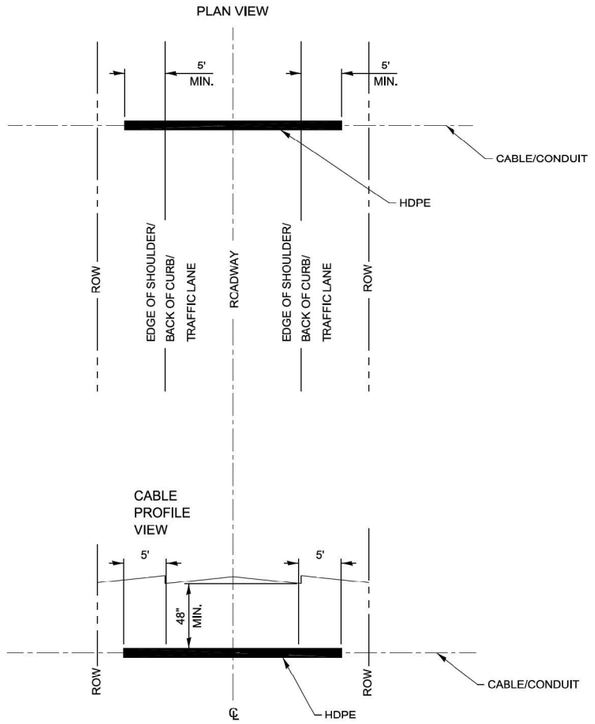
TYPICAL RAILROAD BORE OR JACK



NOTES FOR RAILROAD BORE OR JACK

1. CASING SHALL EXTEND 25 FT. EACH SIDE OF ℄ OF OUTERMOST TRACK OR AS DICTATED BY RAILROAD PERMIT.
2. R.R. BALLAST SHALL NOT BE DISTURBED.
3. BORE AND RECEIVING PITS SHALL NOT BE EXCAVATED CLOSER THAN 10 FT. FROM THE TOE OF SLOPE ON EACH SIDE OF TRACK.
4. ENDS OF ALL CASING SHALL BE FOAM PLUGGED (ARNCO HYDRA-SEAL S-60 OR ENGINEER APPROVAL EQUAL). SEE SHEET 2 OF THIS SERIES.
5. ALL OPERATIONS SHALL MEET REGULATING AGENCY REQUIREMENTS.
6. CASING AS REQUIRED BY CUSTOMER OR RAILROAD OWNER.
7. DEPTH FROM TOP OF CASING TO TOP OF RR TIE MAY BE GREATER THAN 66" AS REQUIRED BY RAILROAD OWNER, NEVER LESS THAN 66".

TYPICAL CITY ST. AND DRIVEWAY BORE OR JACK



NOTES FOR CITY STREET AND DRIVEWAY BORE OR JACK

1. HDPE SHALL EXTEND 5 FT. EACH SIDE OF EDGE OF SHOULDER/BACK OF CURB.
2. BORE AND RECEIVING PITS SHALL NOT BE EXCAVATED WITHIN 5 FT. OF EDGE OF SHOULDER/BACK OF CURB.
3. ENDS OF ALL HDPE SHALL BE FOAM PLUGGED. (ARNCO HYDRA-SEAL S-60 OR ENGINEER APPROVED EQUAL). SEE SHEET 2 OF THIS SERIES.
4. ALL OPERATIONS SHALL MEET REGULATING AGENCY REQUIREMENTS.

APPROVED BY: Manar Nashif
CHIEF ENGINEERING OFFICER
DATE: 03/01/2024

Illinois Tollway

FIBER OPTIC SYSTEM
TYPICALS AND DRAWINGS

VERSION:	STANDARD:	SHEET:
2024-03	L1-06	3 OF 15

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLLWAY STANDARDS

SCALE: | SHEET 3 OF 15 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	201
		CONTRACT NO. 62U90		
	ILLINOIS FED. AID PROJECT			

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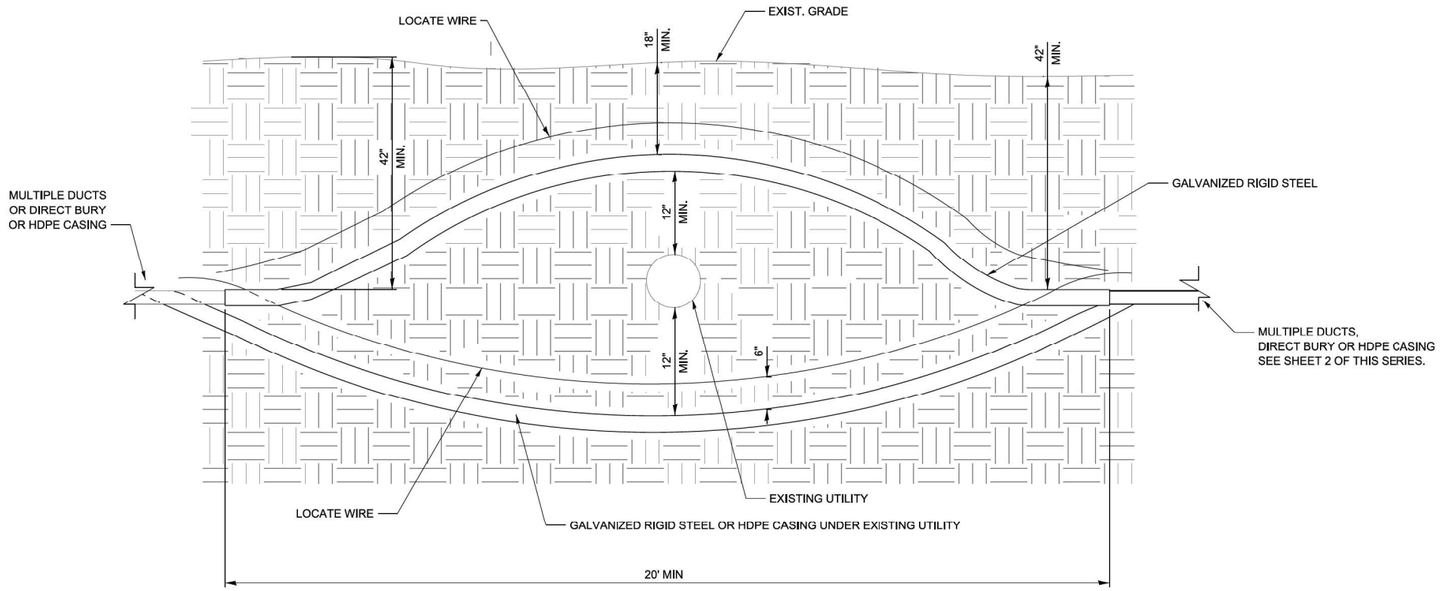
UTILITY AVOIDANCE DETAIL

NOTES:

1. IF 18" MIN COVER CANNOT BE ACHIEVED, HDPE(S) MUST BE PLACED UNDER EXISTING UTILITY.
2. 12" MIN SEPARATION MUST BE ADHERED TO BETWEEN GALVANIZED RIGID STEEL/CASING HDPE AND EXISTING UTILITY.
3. NO DIRECT BURY UNDER ANY EXISTING UTILITY. ALL CROSSINGS SHALL BE VISUALLY VERIFIED.
4. MINIMUM 18" TO 24" SEPARATION FOR OIL, GAS UTILITY BETWEEN PIPE AND CONDUIT (OR AS REQUIRED BY UTILITY OWNER).
5. IF CROSSING AN EXISTING UTILITY, SHOULD BE CONSTRUCTED AS CLOSE TO 90° AS POSSIBLE.



APPROVED BY: Manar Nashif, CHIEF ENGINEERING OFFICER — DATE: 03/01/2024

Illinois Tollway

FIBER OPTIC SYSTEM TYPICALS AND DRAWINGS

VERSION:	STANDARD:	SHEET:
2024-03	L1-06	4 OF 15

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLLWAY STANDARDS

SCALE: | SHEET 4 OF 15 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	202
		CONTRACT NO. 62U90		
	ILLINOIS	FED. AID PROJECT		

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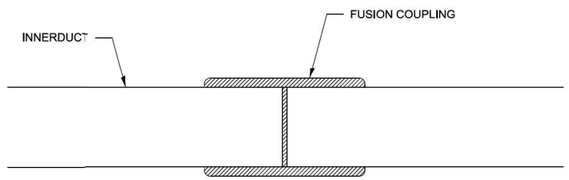
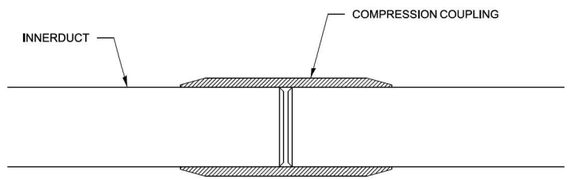
COUPLINGS DETAILS

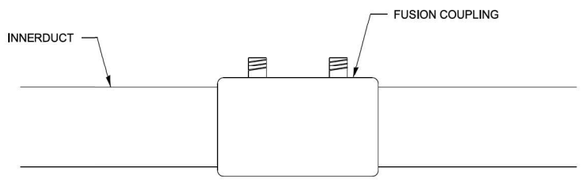




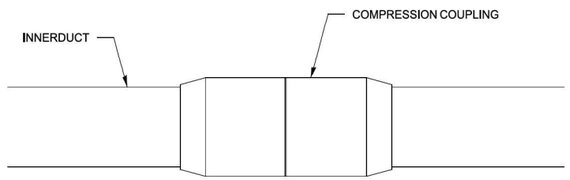
NOTE:

IN A PROPER ELECTROFUSION JOINT, MOLTEN MATERIAL FLOWS TO THE COLD ZONE WHERE IT SOLIDIFIES AND FREEZES OFF THE ESCAPE PATH. WITH THE MOLTEN MATERIAL CONTAINED, MELT PENETRATION WILL BUILD INTERFACE PRESSURE. WIRE WINDINGS WILL FLOW IN A DESIGNED AND CONTROLLED PATTERN AND A PROPER BONDING OF MATERIALS CAN BE OBTAINED.

PROPER FUSION DETAIL



COMPRESSION COUPLING DETAIL



GENERAL NOTES

1. FUSION COUPLING SHALL BE USED FOR ALL NEW INSTALLATION OF DUCT.
2. COMPRESSION COUPLING SHALL BE RESTRICTED TO THE USE ON EXISTING DUCT FOR ACTIONS AS REPAIRS AND DUCT INTERCEPTIONS. INSTALL COMPRESSION COUPLINGS PER MANUFACTURER RECOMMENDATIONS.

FUSION STANDARD JOINING PROCEDURES

1. SHALL INSTALL PER FUSION COUPLING MANUFACTURER RECOMMENDATIONS.
2. THE PIPE SHALL HAVE A SQUARE EVEN CUT.
3. REMOVE ANY BURRS OR SHAVING FROM THE PIPE ENDS THAT MAY HAVE DEVELOPED DURING THE CUTTING PROCESS.
4. CLEAN PIPE ENDS INSIDE AND OUT WITH A CLEAN CLOTH TO REMOVE ANY DIRT OR CONTAMINANTS.
5. PIPE PREPARATION AND CONTAMINATION ARE VERY IMPORTANT CONSIDERATIONS IN THE ELECTROFUSION PROCESS. THEREFORE, CAREFUL ATTENTION SHALL BE GIVEN TO PROPER SCRAPING AND CLEANING PROCEDURES.
6. SCRAPE PIPE ENDS TO REMOVE ANY OXIDATION OR SURFACE CONTAMINATION. FOR BEST RESULTS, SECURE TOOL ON PIPE AND MAKE TWO REVOLUTIONS.
7. DISCONNECT LEADS FROM FITTING. CLAMPING DEVICE SHALL REMAIN IN PLACE TO SECURE PIPE AND FITTING DURING THE RECOMMENDED COOLING TIME. AFTER REMOVING CLAMP, ADDITIONAL COOLING TIME SHALL BE ALLOWED BEFORE SUBJECTING THE JOINT TO BENDING, BURYING, PRESSURE TESTING, OR SIMILAR HANDLING AND BACKFILL STRESS.

   NOTE: IN THE EVENT OF OUT-OF-ROUND PIPE, IT IS IMPORTANT TO ASSURE AN ADEQUATE AND EVEN SCRAPE IS ACHIEVED AROUND THE ENTIRE CIRCUMFERENCE OF THE PIPE. A RUBBER PIPE STOPPER CAN BE PLACED IN THE END OF THE PIPE TO AID IN ROUNDING THE AREA TO BE SCRAPED.
8. MULTIPLE DUCTS FUSION SHALL BE STAGGERED AND AFTER COMPLETION SHALL BE BOUND TOGETHER WITH TY-STRAPS (AT 5' SPACING) SO TO OCCUPY MINIMUM POSSIBLE SPACE AND THEN BACKFILLED.

APPROVED BY: Manar Nashif
CHIEF ENGINEERING OFFICER
DATE: 03/01/2024

Illinois Tollway

FIBER OPTIC SYSTEM
TYPICALS AND DRAWINGS

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DEPARTMENT OF TRANSPORTATION

TOLLWAY STANDARDS

SCALE: | SHEET 5 OF 15 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	203
		CONTRACT NO. 62U90		
	ILLINOIS	FED. AID PROJECT		

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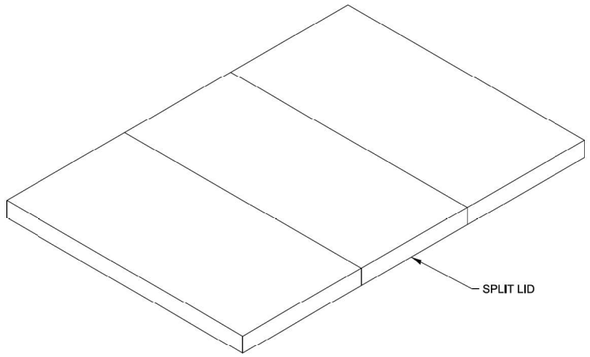
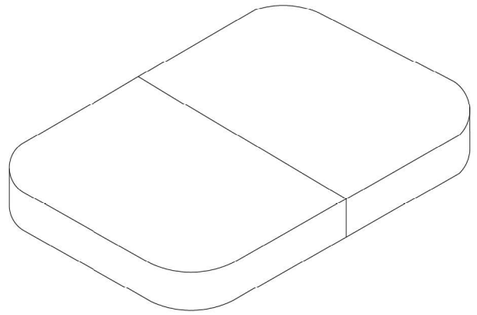
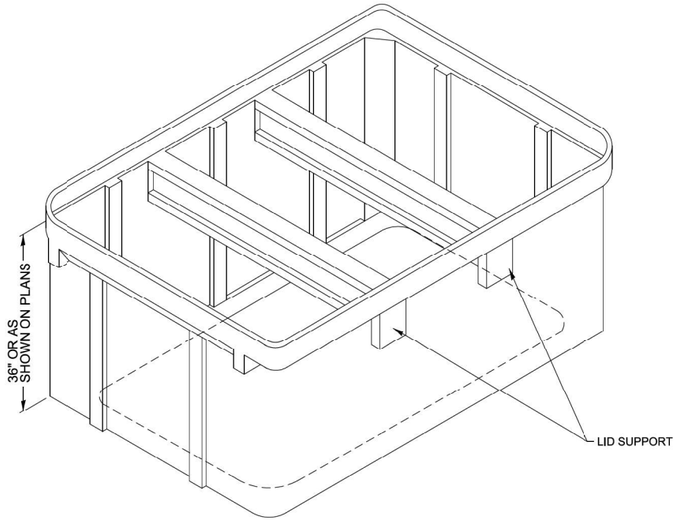
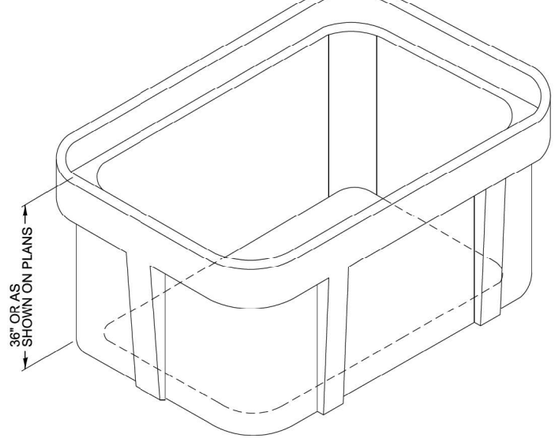
HANDHOLE









NOTE:

1. NO CORING/DRILLING OR ALTERATION OF HANDHOLE SHALL BE ALLOWED.

48"x72" HANDHOLE

3 SECTION SPLIT LID
(PG STYLE LARGE BOX)

5 OR MORE DUCTS

36"x60" HANDHOLE

2 SECTION SPLIT LID
LESS THAN 5 DUCTS

APPROVED BY: Manar Nashif
CHIEF ENGINEERING OFFICER
DATE: 03/01/2024

Illinois Tollway

FIBER OPTIC SYSTEM
TYPICALS AND DRAWINGS

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TOLLWAY STANDARDS

SCALE: | SHEET 6 OF 15 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	204
		CONTRACT NO. 62U90		
	ILLINOIS FED. AID PROJECT			

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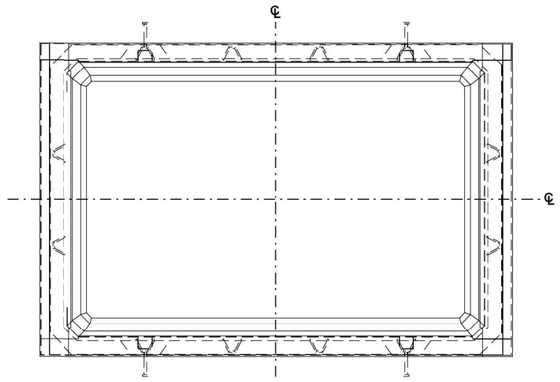
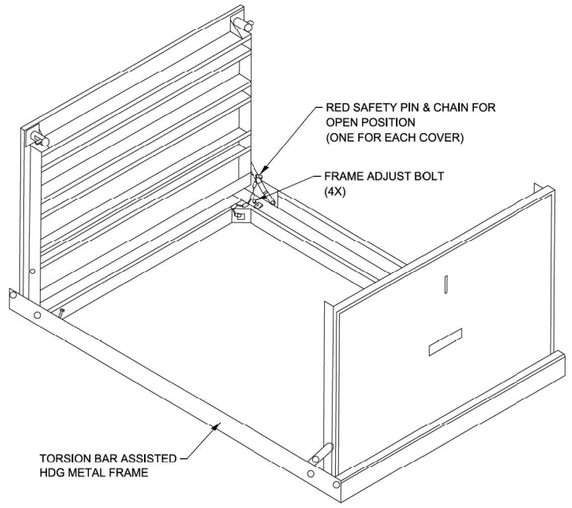
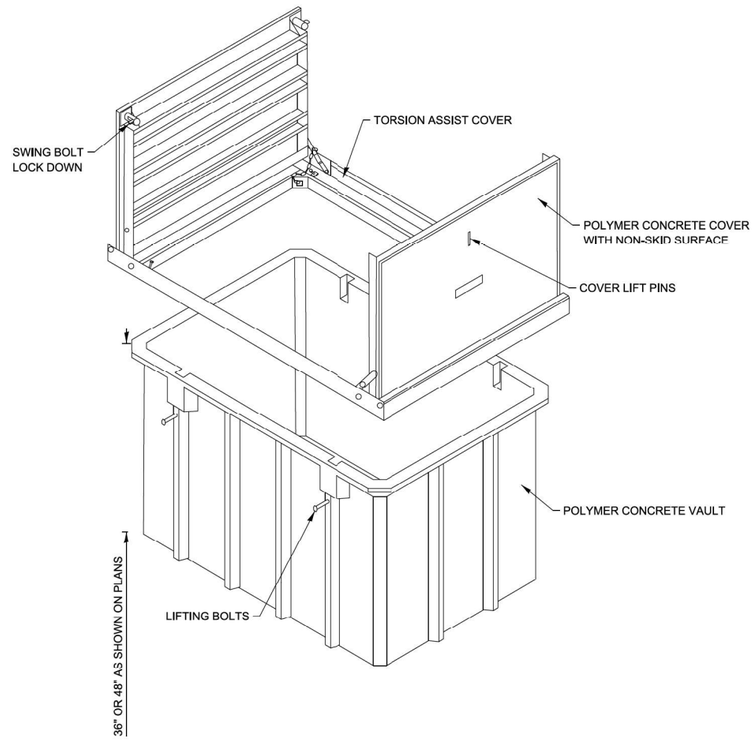
HANDHOLE

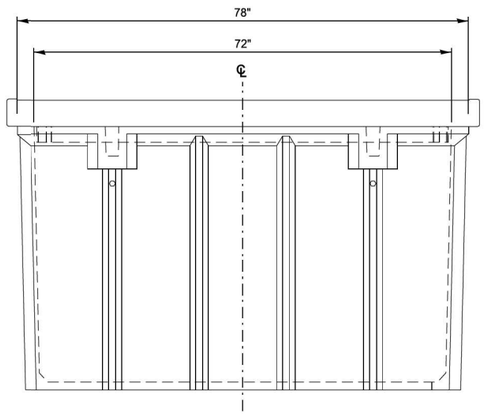


TOP VIEW

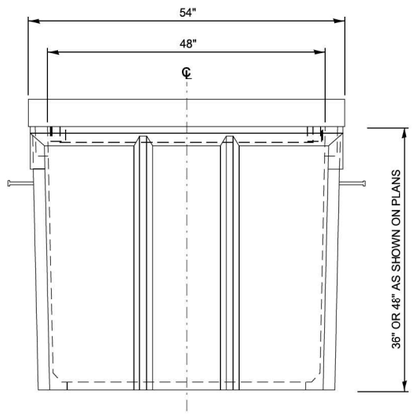


TORSION ASSIST COVER





SIDE VIEW



END VIEW

48"X 72" TORSION ASSIST

FOR FIBER OPTIC CABLE SPLICE LOCATIONS
AND SLOPES GREATER THAN OR EQUAL TO 1:4

NOTE:

1. NO CORING/DRILLING OR ALTERATION OF HANDHOLE SHALL BE ALLOWED

APPROVED BY: Manar Nashif
CHIEF ENGINEERING OFFICER
DATE: 03/01/2024

Illinois Tollway

FIBER OPTIC SYSTEM
TYPICALS AND DRAWINGS

VERSION:	STANDARD:	SHEET:
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TOLLWAY STANDARDS

SCALE: | SHEET 7 OF 15 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	205
		CONTRACT NO. 62U90		
	ILLINOIS	FED. AID PROJECT		

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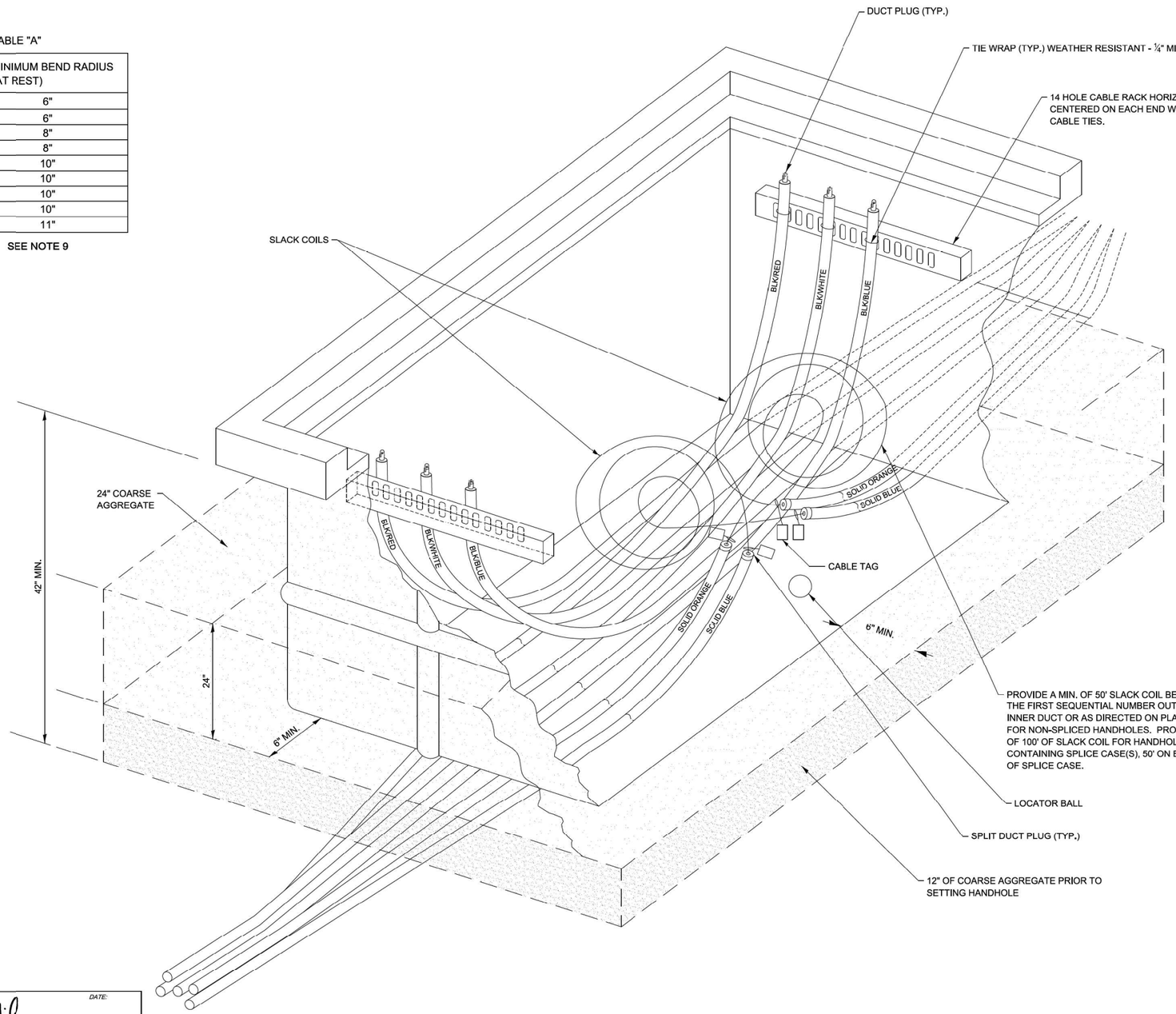
HDPE AND FIBER OPTIC CABLE PLACEMENT IN HANDHOLE

TABLE "A"

FIBER COUNT	MINIMUM BEND RADIUS (AT REST)
24F	6"
48F	6"
72F	8"
96F	8"
144F	10"
188F	10"
288F	10"
432F	10"
864F	11"

SEE NOTE 9



SAMPLE CABLE TAG

NOTES:

1. FIBER OPTIC CABLES SHALL HAVE A CABLE I.D. TAG ON BOTH SIDES OF THE SLACK COIL IDENTIFYING THE OWNER, DUCT COLOR, CABLE COUNT, AND DIRECTION.
2. COLOR NOTED ON INNERDUCTS IS FOR REFERENCE ONLY.
3. COIL FIBER CABLE IN HANDHOLE ENSURING THAT THE BEND RADIUS MEETS THE VALUES IN TABLE "A".
4. EACH FIBER CABLE COIL SHALL BE TIED TOGETHER IN A SINGLE TIGHT BUNDLE.
5. EACH FIBER COIL BUNDLE SHALL BE COILED TIGHTLY ENOUGH THAT IT IS NOT COMPRESSED WHEN THE HANDHOLE LID IS CLOSED.
6. FIBER SPLICE CONTAINER SHALL BE PLACED IN THE HANDHOLE ALLOWING FOR EASY ACCESS AND LABELED WITH OWNER, END LOCATIONS, FIBER TYPE, AND FIBER COUNT.
7. FIBER CONDUIT SHALL EXTEND INTO THE HANDHOLE 12 TO 18 INCHES WITH THE END TURNED UP AND SEALED TO MINIMIZE WATER ENTERING THE CONDUIT. SPARE CONDUITS SHALL EXTEND TO CABLE RACK ON OPPOSITE WALL.
8. MANUFACTURER'S SPECIFICATIONS OF MINIMUM BEND RADIUS SUPERCEDE TABLE "A".
9. LOCATOR BALL SHALL BE PLACES IN HANDHOLES CONTAINING A SPLICE ENCLOSURE. PLACE LOCATOR BALL IN THE MIDDLE OF HANDHOLE.

APPROVED BY: Manar Nashif
CHIEF ENGINEERING OFFICER
DATE: 03/01/2024

Illinois Tollway

FIBER OPTIC SYSTEM TYPICALS AND DRAWINGS

VERSION:	STANDARD:	SHEET:
2024-03	L1-06	8 OF 15

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline.Ng	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLLWAY STANDARDS

SCALE: | SHEET 8 OF 15 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	206
		CONTRACT NO. 62U90		
		ILLINOIS	FED. AID PROJECT	

MODEL: Default
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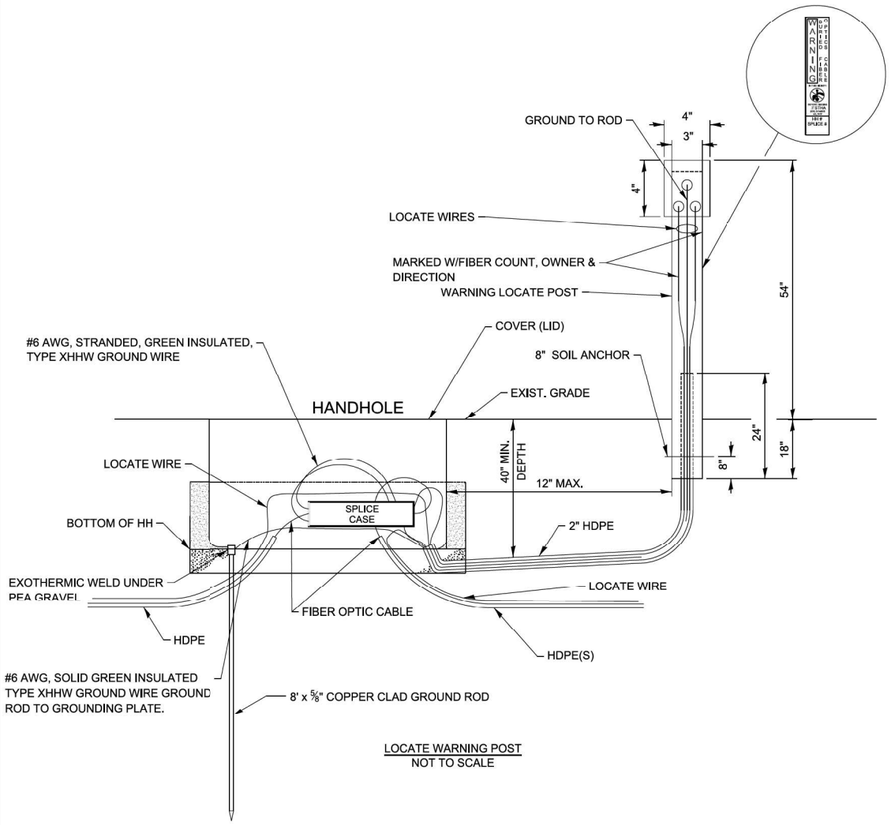
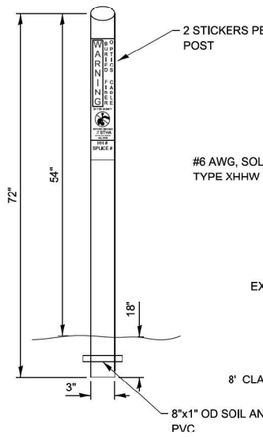
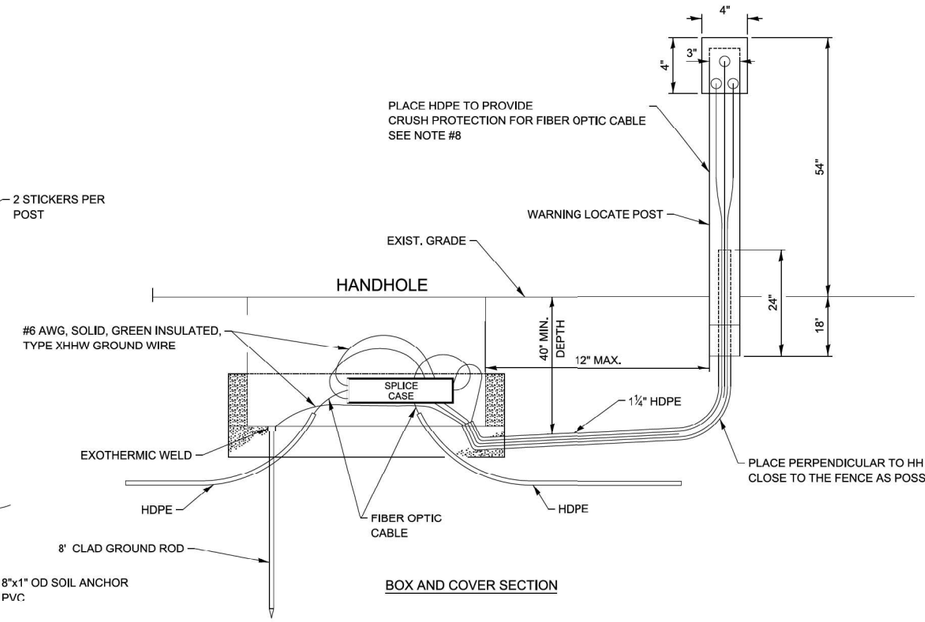
FIBER HANDHOLE SITE DETAIL AND GROUNDING



LOCATE WARNING POST
NOT TO SCALE



WARNING POST



BOX AND COVER SECTION

GENERAL NOTES

1. LOCATE WARNING POST SHALL BE PLACED 1 FOOT FROM HANDHOLE OR AT FENCE LINE OR RIGHT-OF-WAY LINE IF POSSIBLE.
2. AREA AROUND THE HANDHOLE SHALL BE BACKFILLED ONLY TO THE TOP OF THE BOX. FLUSH TO EXISTING GRADE.
3. COIL FIBER CABLE IN HANDHOLE ENSURING THAT THE BEND RADIUS SHALL NOT EXCEED VALUES LISTED IN TABLE A ON SHEET 8.
4. INSTALL GROUND ROD & EXOTHERMIC WELD AS PER MANUFACTURER'S INSTRUCTIONS. PLACE THE #6 GROUND WIRE (TYPE XHHW, SOLID, GREEN INSULATED) THAT HAS BEEN ATTACHED TO THE GROUND ROD AND TO THE CENTER LUG OF THE LOCATE POST.
5. BACKFILL MATERIAL SHALL BE COMPACTED TO THE SATISFACTION OF THE ENGINEER.
6. GROUND WIRE SHALL BE BONDED TO BOTH SHEATHS OF ARMORED FIBER OPTIC CABLE IN THE SPLICE ENCLOSURE USING #6 GROUND STRANDED, GREEN INSULATED WIRE. EACH GROUND SHALL BE ISOLATED WITHIN THE ENCLOSURE.
7. INSTALL 2" HDPE CONDUIT FROM HANDHOLE TO WARNING POST TO ALLOW GROUNDING CABLE AND LOCATE TRACE WIRES TO BE INSTALLED.
8. NO HANDHOLES WILL BE ALLOWED IN PAVED ROADWAYS OR SHOULDERS.
9. THE TOPS OF ALL HANDHOLES SHALL BE FLUSH WITH THE EXISTING GRADE.
10. A WATER PROOF SEALING SIMPLEX DUCT PLUG SHALL BE INSTALLED AROUND THE FIBER OPTIC TO SEAL AROUND THE CONDUIT. A WATER PROOF SEALING PLUG SHALL BE INSTALLED IN ALL VACANT CONDUIT.
11. ANY WORK IN AN EXISTING SINGLE MODE HANDHOLE OR INVOLVING AN EXISTING SINGLE MODE DUCT AND FIBER SHALL BE COORDINATED WITH THE TOLLWAY FIBER OPTIC CONTRACTOR. USING A-36 PROCESS.
12. FOR ALL SPLICE AND HANDHOLE, NUMBER DECALS SHALL BE APPLIED AFTER INSTALLATION IS COMPLETED.
13. PLACEMENT OF SIGNS IS PREFERRED OVER POSTS. SIGNS SHALL BE USED ON LOCATIONS WHERE FENCE IS VISIBLE FROM ROAD. POSTS SHALL ONLY BE USED WHERE SIGN WOULD NOT BE VISIBLE FROM ROAD.

APPROVED BY: Marian Mashif
CHIEF ENGINEERING OFFICER
DATE: 03/01/2024

Illinois Tollway

FIBER OPTIC SYSTEM TYPICALS AND DRAWINGS

VERSION:	STANDARD:	SHEET:
2024-03	L1-06	9 OF 15

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLLWAY STANDARDS

SCALE: | SHEET 9 OF 15 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	207
		CONTRACT NO. 62U90		
		ILLINOIS	FED. AID PROJECT	

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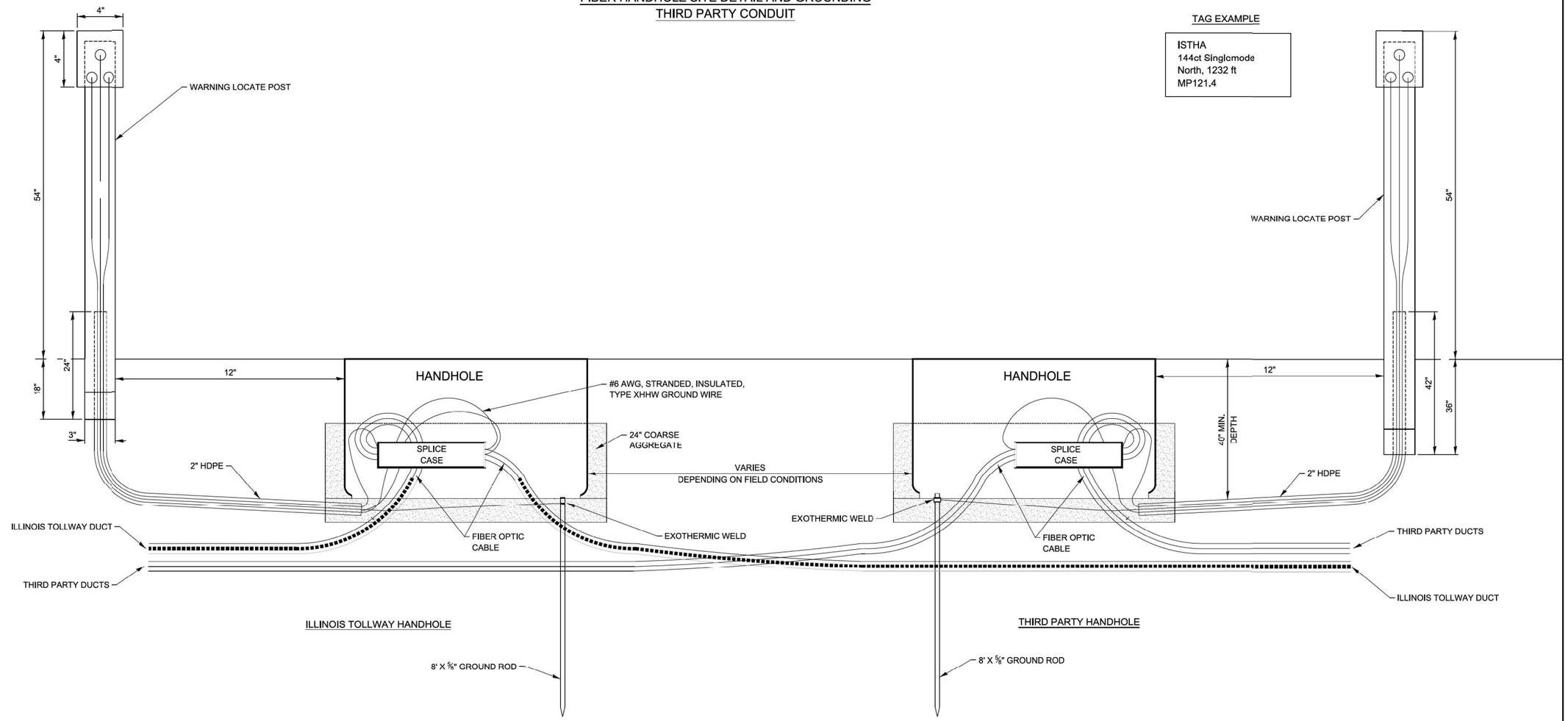
FIBER HANDHOLE SITE DETAIL AND GROUNDING
THIRD PARTY CONDUIT



TAG EXAMPLE

ISTHA
144ct Singlemode
North, 1232 ft
MP121.4

NOTES:

1. WARNING LOCATE POST SHALL BE PLACED 1 FOOT FROM HANDHOLE OR AT FENCE LINE IF POSSIBLE.
2. AREA AROUND HANDHOLE SHALL BE BACKFILLED ONLY TO THE TOP OF THE BOX FLUSH TO EXISTING GRADE.
3. INSTALL GROUND ROD & EXOTHERMIC WELD AS PER MANUFACTURER'S INSTRUCTIONS. PLACE THE #6 GROUND WIRE (TYPE XHHW, SOLID, GREEN INSULATED) THAT HAS BEEN ATTACHED TO THE GROUND ROD ON THE CENTER LUG OF THE WARNING LOCATE POST.
4. GROUND WIRE SHALL BE BONDED TO BOTH SHEATHS OF ARMORED FIBER OPTIC CABLE IN THE SPLICE ENCLOSURE USING #6 STRANDED GREEN INSULATED TYPE XHHW GROUND WIRE. EACH GROUND SHALL BE ISOLATED WITHIN THE ENCLOSURE.
5. PLACE HDPE OVER FIBER OPTIC CABLE TO PROVIDE CRUSH PROTECTION EXTEND HDPE 1' INSIDE HANDHOLE.
6. NO HANDHOLES SHALL BE ALLOWED IN PAVED ROADWAYS OR SHOULDERS.
7. THE TOPS OF ALL HANDHOLES SHALL BE FLUSH WITH THE EXISTING GRADE UNLESS THE SLOPE IS GREATER THEN 1:4, IF SO, THE HANDHOLE SHALL BE PLACED LEVEL WITH THE EARTH GRADED AROUND IT SO NO PART OF THE SIDES OF THE HANDHOLE IS EXPOSED.
8. A WARNING LOCATE POST SHALL BE INSTALLED AT ALL HANDHOLES.
9. LOCATE WIRE SHALL BE TESTED FROM HANDHOLE TO HANDHOLE PRIOR TO ANY FIBER BEING INSTALLED IN CONDUIT.
10. LOCATE WIRES SHALL BE TAGGED INSIDE LOCATE POST. THE TAG SHALL SHOW THE FIBER OWNER, FIBER COUNT, FIBER TYPE, DIRECTION (N,S,E,W), DISTANCE TO NEXT LOCATE POST, AND MILE POST AT THAT LOCATION.

APPROVED BY: Manar Nashif
CHIEF ENGINEERING OFFICER
DATE: 03/01/2024

Illinois Tollway

FIBER OPTIC SYSTEM TYPICALS AND DRAWINGS

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLLWAY STANDARDS

SCALE: | SHEET 10 OF 15 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	208
		CONTRACT NO. 62U90		
		ILLINOIS	FED. AID PROJECT	

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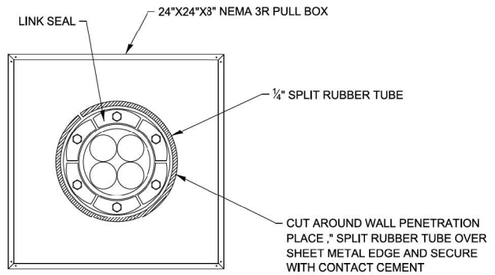
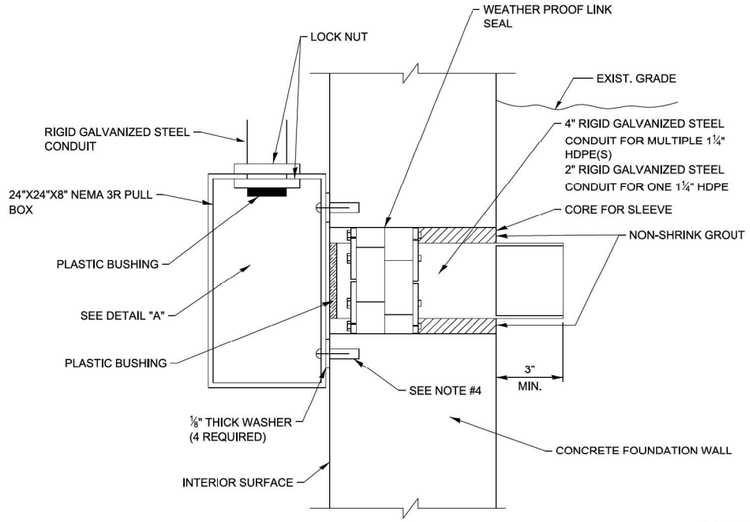


DETAIL A

FRONT VIEW
BELOW GRADE
BUILDING ENTRANCE PULL BOX

WALL PENETRATION DETAIL

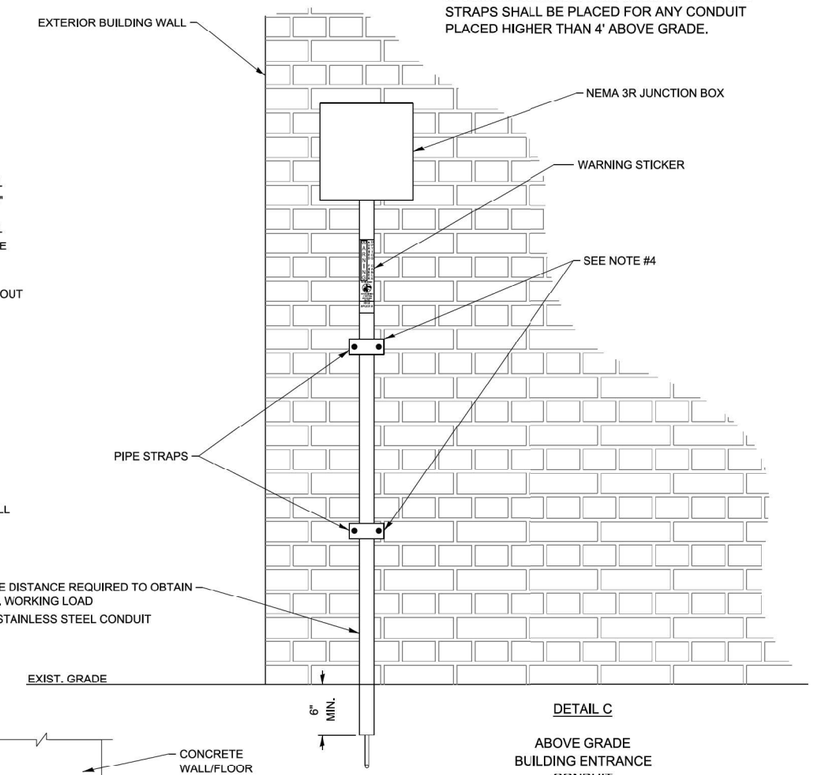


DETAIL B

SIDE VIEW
BELOW GRADE
BUILDING ENTRANCE PULL BOX

NOTE:

THE MAXIMUM PIPE STRAP SPACING SHALL BE 30" MAX. VERTICAL AND 18" HORIZONTAL MAXIMUM DISTANCE. A MINIMUM OF TWO PIPE STRAPS SHALL BE PLACED FOR ANY CONDUIT PLACED HIGHER THAN 4' ABOVE GRADE.

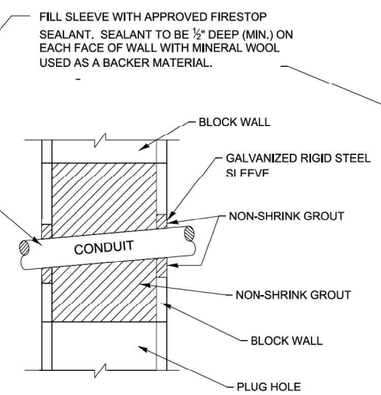


DETAIL C

ABOVE GRADE
BUILDING ENTRANCE
CONDUIT

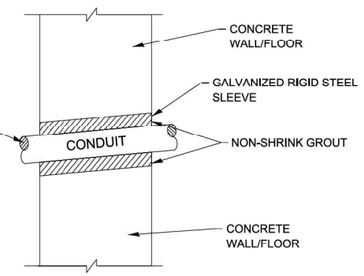
DETAIL D

ABOVE GRADE
BUILDING ENTRANCE PULL BOX



DETAIL E

BLOCK WALL PENETRATION



DETAIL F

CONCRETE WALL/FLOOR PENETRATION BUILDING PENETRATIONS SPECIFIED AS DETAIL F MAY BE A COMBINATION OF POURED OR HOLLOW CONCRETE BLOCK WITH A BRICK EXTERIOR. IF HOLLOW BLOCK IS ENCOUNTERED COMPLETE INSTALLATION PER DETAIL E THIS SHEET.

GENERAL NOTES:

1. ALL PENETRATIONS SHALL UTILIZE EXISTING UNUSED BUILDING PENETRATIONS TO THE MAXIMUM EXTENT POSSIBLE.
2. ALL EXTERIOR MATERIALS SHALL BE STAINLESS STEEL UNLESS OTHERWISE NOTED.
3. ALL ANCHORS SHALL BE INSTALLED IN SOUND CONCRETE OR MASONRY.
4. USE APPROVED MASONRY ANCHOR.
5. ALL CONDUITS ENTERING THE BUILDING SHALL BE PITCHED AWAY FROM BUILDING.

APPROVED BY: Manar Nashif
CHIEF ENGINEERING OFFICER
DATE: 03/01/2024

Illinois Tollway

FIBER OPTIC SYSTEM
TYPICALS AND DRAWINGS

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLLWAY STANDARDS

SCALE: | SHEET 11 OF 15 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	209
		CONTRACT NO. 62U90		
	ILLINOIS FED. AID PROJECT			

MODEL: Default
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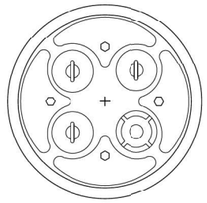
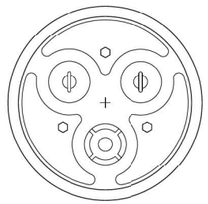
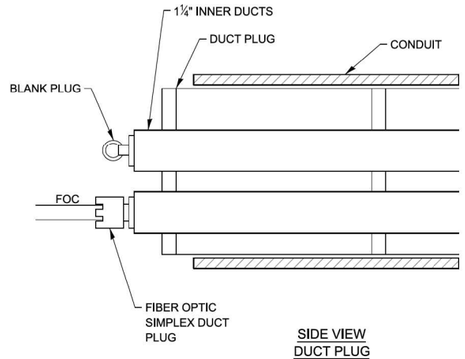
UNDERGROUND PENETRATION DETAIL



FRONT VIEW
QUAD DUCT PLUG

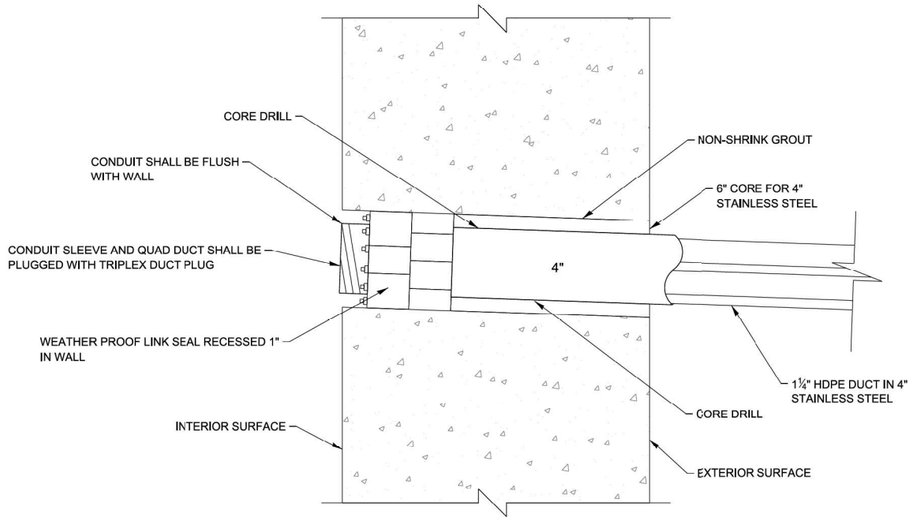


FRONT VIEW
DUCT PLUG



SIDE VIEW
DUCT PLUG

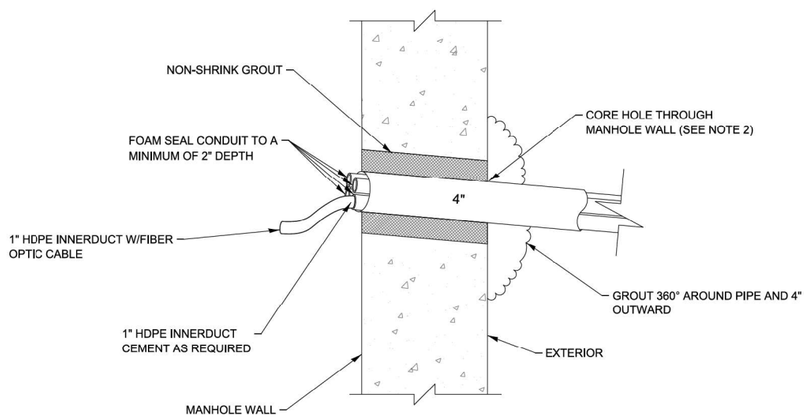
DUCT PLUG DETAIL
NOT TO SCALE



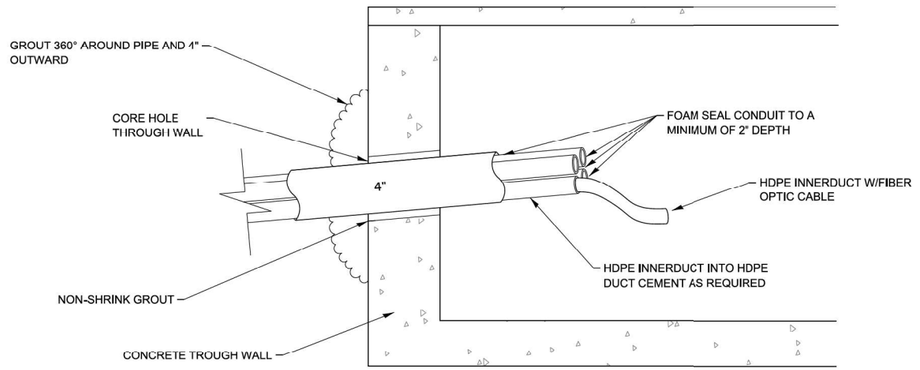
BELOW GRADE PENETRATION BUILDING
NOT TO SCALE

GENERAL NOTES:

1. STAINLESS STEEL CONDUIT EXTENDING THROUGH FOUNDATION WALL SHALL BE ONE CONTINUOUS PIECE (NO COUPLINGS), SQUARE WITH BUILDING AT A SLIGHT ANGLE TO THE EXTERIOR TO PREVENT WATER SEEPAGE.
2. MANHOLE CORES SHALL NOT BE THROUGH MANHOLE CONE.



MANHOLE PENETRATION DETAIL
NOT TO SCALE



CONCRETE TROUGH PENETRATION
NOT TO SCALE

APPROVED BY:
CHIEF ENGINEERING OFFICER
DATE: 03/01/2024

Illinois Tollway

FIBER OPTIC SYSTEM
TYPICALS AND DRAWINGS

VERSION:	STANDARD:	SHEET:
2024-03	L1-06	12 OF 15

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLLWAY STANDARDS

SCALE: | SHEET 12 OF 15 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	210
		CONTRACT NO. 62U90		
		ILLINOIS	FED. AID PROJECT	

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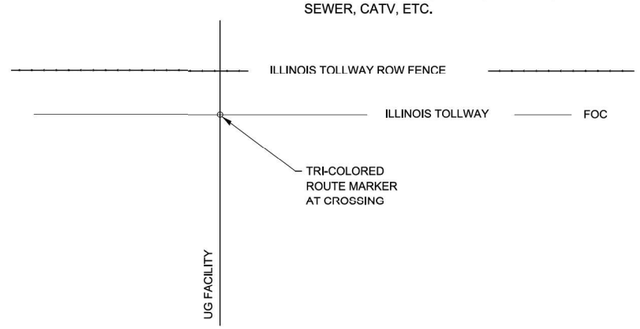
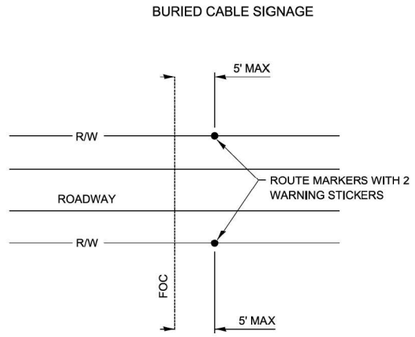
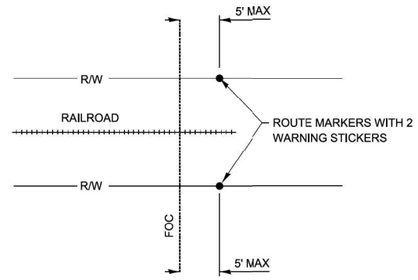


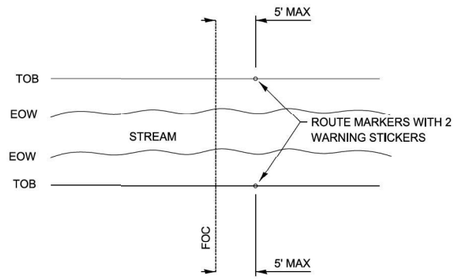
FACILITY CROSSING
FIG. 1



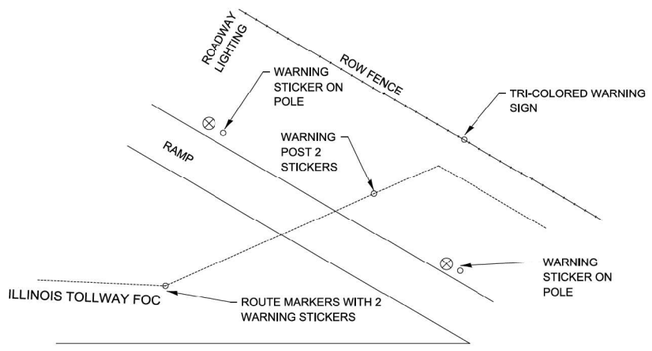
TYPICAL MARKER PLACEMENT AT ROAD AND BRIDGE CROSSING
FIG. 2



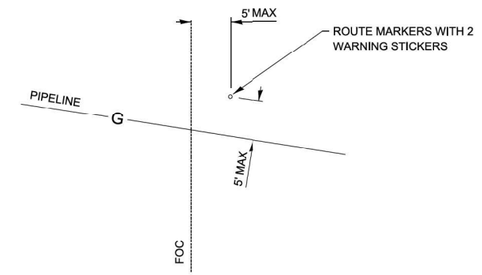
TYPICAL MARKER PLACEMENT AT RAILROAD CROSSING
FIG. 3



TYPICAL MARKER PLACEMENT AT RIVER,
CREEK & DRAINAGE DITCH CROSSING
FIG. 4



ON/OFF RAMP CROSSING
FIG. 5



TYPICAL MARKER PLACEMENT AT PIPELINE CROSSING
FIG. 6

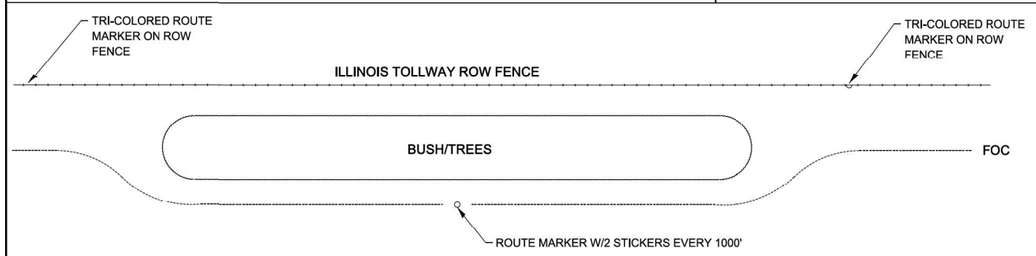
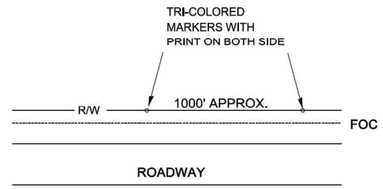


FIG. 7



TYPICAL MARKER PLACEMENT
TO BE PLACED NEXT TO R.O.W. FENCE LINE
FIG. 8

GENERAL NOTES:

1. MAINTAIN A MINIMUM DISTANCE OF 5' FROM ANY UTILITY POLE OR PEDESTAL SIGN, MARKER POLE, OR ANY OTHER STRUCTURE.
2. WARNING MARKERS SHALL BE PLACED AT 1000' INTERVALS AND AT CHANGES IN CABLE LOCATION/DIRECTION OR AT CROSSING POINT OF OTHER UNDERGROUND FACILITIES. THE CONTRACTOR SHALL ADJUST EXCAVATION AS NECESSARY TO AVOID HIDDEN OBSTACLES AND TO MAINTAIN MAXIMUM DISTANCE FROM THE EDGE OF PAVEMENT. ALL DEVIATIONS SHALL BE APPROVED BY THE ENGINEER.

APPROVED BY: Manar Nashif
CHIEF ENGINEERING OFFICER
DATE: 03/01/2024

Illinois Tollway

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		CONTRACT NO. 62U90		
		ILLINOIS	FED. AID PROJECT	

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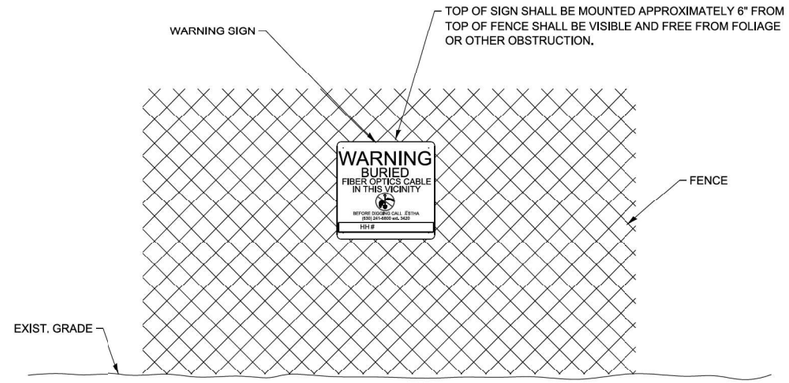
ROUTE MARKER INSTALLATION PROCEDURE

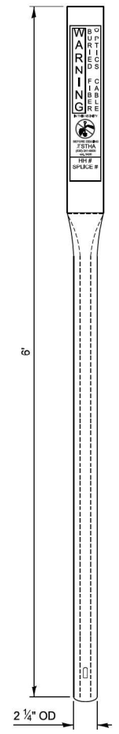


FENCE MOUNTED WARNING SIGN

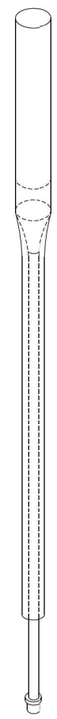
NOT TO SCALE

INSTALLATION OF WARNING POST:

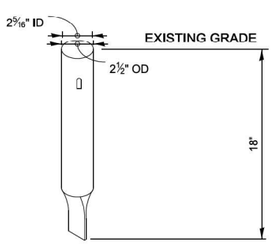
1. INSTALL WARNING POST ACCORDING TO MANUFACTURERS INSTRUCTIONS AND RECOMMENDATIONS.
2. PLACEMENT OF POST SHALL NOT INTERFERE WITH THE REMOVAL OF HANDHOLE LIDS
3. WARNING SIGN SHALL BE ATTACHED TO ROW FENCE WHEREVER POSSIBLE. UV STABILIZED BLACK NYLON CABLE TIES (14" LENGTH, .30" WIDTH, 120 LBS TENSILE STRENGTH), (4 EA.) 3 WRAPS EACH TIE, SHALL BE USED TO ATTACH WARNING SIGN TO FENCE.
4. SEE SHEET 15 OF THIS SERIES FOR FIBER WARNING LABEL AND WARNING SIGN DETAILS.



POST



DRIVER



SOIL ANCHOR

APPROVED BY: Manar Nashif, CHIEF ENGINEERING OFFICER — DATE: 03/01/2024

Illinois Tollway

FIBER OPTIC SYSTEM
TYPICALS AND DRAWINGS

VERSION:	STANDARD:	SHEET:
2024-03	L1-06	14 OF 15

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline.Ng	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLLWAY STANDARDS

SCALE: | SHEET 14 OF 15 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	212
		CONTRACT NO. 62U90		
		ILLINOIS	FED. AID PROJECT	

MODEL: Default
FILE NAME: pw:\\aecom-us-pw.bentley.com:AECOM_DS19_IMADocuments\60658363-1909\01-CAD\910_CAD\WB\WB-TOLL03_SHEETS\Civil\D1624090-SHT-Tollllstandards-L1-06-14.dgn

FIBER WARNING LABEL & WARNING SIGN DETAILS

FENCE SIGN

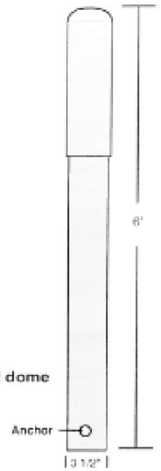
ISTHA

Products provided by:

ACP INTERNATIONAL

Part #: SA-ISTHA
Size: 12" T X 9" W
Material: Polyethyene
Color: Black text with Orange bkgd, with white
Holes: 4 - 3/16"

Part #: PP6-ISTHA
Size: 6'
Material: Polydome
Color: Orange Post and dome



ROUTE MARKER POST

ROUTE MARKER POST

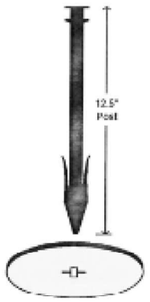
ROUTE MARKER POST DECAL

Part #: PTP466000-ISTHA - 4" X 6,000', 6MIL Orange with black text

WARNING TAPE

FLUSH DISC MARKER

Part #: FMM-6-ISTHA
Size: 6"
Material: Clear .125 Lexan
Color: Black text with Orange bkgd
Holes: center for 12.5 plastic anchor



Part #: D-314-ISTHA
Size: 14" x 3"
Material: Decal
Color: Orange with black text, Black "Warning" panel with white text, White no dig
Scale: Shown @ 50%

NOTE:

SIGN AND LABEL SHOWN IS AVAILABLE THROUGH ACP INTERNATIONAL. ALTERNATE SIGN LABELS SHALL BE SUBMITTED FOR APPROVAL BY THE ENGINEER.

APPROVED BY: Manar Nashif
CHIEF ENGINEERING OFFICER
DATE: 03/01/2024

Illinois Tollway

FIBER OPTIC SYSTEM
TYPICALS AND DRAWINGS

VERSION:	STANDARD:	SHEET:
2024-03	L1-06	15 OF 15

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline,Ng	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOLLWAY STANDARDS

SCALE: | SHEET 15 OF 15 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	213
		CONTRACT NO. 62U90		
	ILLINOIS FED. AID PROJECT			

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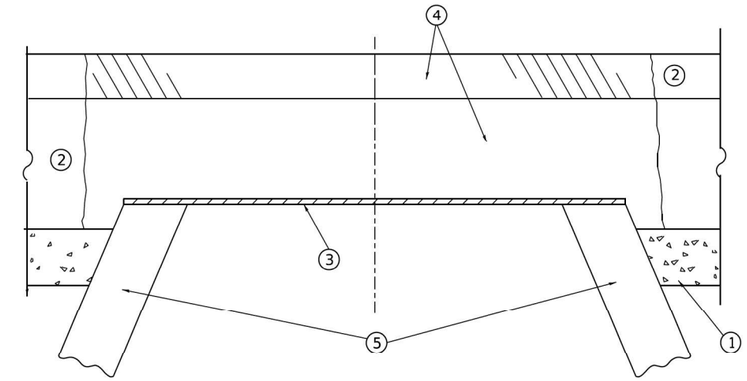

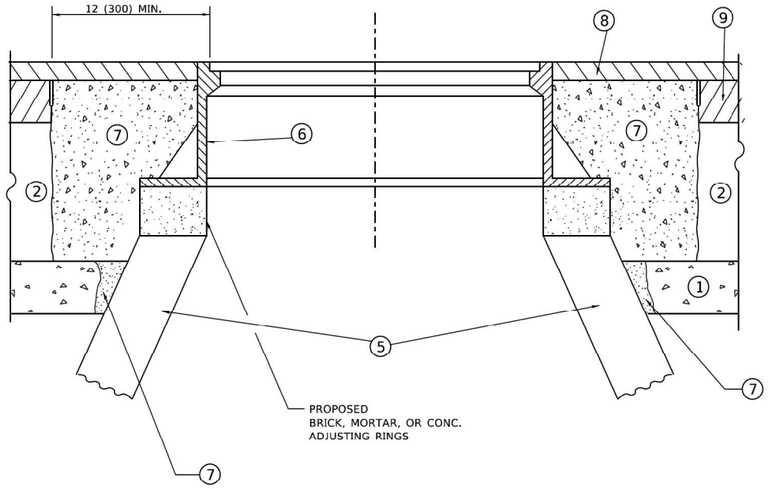

DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING

NOTES

1. EXISTING BROKEN FRAMES AND LIDS SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR AND SHALL BE REPLACED AS DIRECTED BY THE ENGINEER. REPLACEMENT FRAMES AND LIDS WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS UNLESS A SEPARATE PAY ITEM HAS BEEN PROVIDED.

2. IF THE EXISTING LIDS ARE OPEN, THE FRAME WILL BE ADJUSTED TO THE ELEVATION OF THE MILLED PAVEMENT SURFACE PRIOR TO THE MILLING OPERATION. THE FRAME WILL NOT BE REMOVED AND COVERED BY THE METAL PLATE.

3. CITY OF CHICAGO CASTINGS ARE THE PROPERTY OF THE CITY AND THE CONTRACTOR SHALL NOTIFY THE CITY FOR REMOVAL AND DISPOSITION OF THE CASTINGS.

4. THE METAL PLATE USED TO COVER THE STRUCTURE SHALL REMAIN THE PROPERTY OF THE CONTRACTOR.

5. THE CONTRACTOR SHALL REMOVE ALL TRAFFIC CONTROL DEVICES BY THE END OF EACH WORK SHIFT.

CONSTRUCTION PROCEDURES

STAGE 1 (BEFORE PAVEMENT MILLING)

A) REMOVE A MINIMUM OF 12 (300) OF THE PAVEMENT FROM AROUND THE STRUCTURE.

B) REMOVE THE EXISTING FRAME AND LID FROM THE STRUCTURE.

C) COVER THE STRUCTURE OPENING WITH A 36 (900) DIAMETER METAL PLATE.

D) BACKFILL WITH CRUSHED STONE AND HMA SURFACE MIX APPROVED BY THE ENGINEER. (MIN. 3 (80) HMA TO REMAIN AFTER MILLING).

STAGE 2 (AFTER PAVEMENT MILLING)

A) REMOVE THE HMA SURFACE MIX AND CRUSHED STONE.

B) INSTALL THE FRAME AND LID; ADJUST THE FRAME TO ITS FINAL SURFACE ELEVATION.

C) THE SURROUNDING SPACE SHALL BE FILLED WITH CLASS PP-2* CONCRETE TO THE ELEVATION OF THE SURFACE OF THE EXISTING BASE COURSE OR THE BINDER COURSE.

*UNLESS OTHERWISE SPECIFIED IN THE PLANS.

THE PROCEDURE EXPLAINED ABOVE SHALL CONFORM TO THE APPLICABLE PORTIONS OF SECTIONS 353, 406, 602, AND 603 OF THE STANDARD SPECIFICATIONS EXCEPT THAT "THE CONTRACTOR SHALL ADJUST THE STRUCTURES TO THE FINISHED PAVEMENT ELEVATION NO MORE THAN 5 CALENDAR DAYS PRIOR TO PLACEMENT OF THE FINAL LIFT OF SURFACE UNLESS APPROVED BY THE ENGINEER."

LEGEND

1. SUB-BASE GRANULAR MATERIAL
2. EXISTING PAVEMENT
3. 36 (900) DIAMETER METAL PLATE
4. PROPOSED CRUSHED STONE AND HMA SURFACE MIX
5. EXISTING STRUCTURE
6. FRAME AND LID (SEE NOTES)
7. CLASS PP-2* CONCRETE
8. PROPOSED HMA SURFACE COURSE
9. PROPOSED HMA BINDER COURSE

LOCATION OF STRUCTURES

THE CONTRACTOR WILL BE REQUIRED TO KEEP A RECORD OF THE LOCATIONS OF THE BURIED STRUCTURES ACCORDING TO THE STATION AND DISTANCE LEFT OR RIGHT OF THE CENTERLINE OF PAVEMENT. UPON COMPLETION OF THE WORK, THE CONTRACTOR WILL DELIVER THE RECORD TO THE ENGINEER.

BASIS OF PAYMENT

1. REMOVING FRAMES AND LIDS ON DRAINAGE AND UTILITY STRUCTURES IN THE PAVEMENT PRIOR TO MILLING, AND ADJUSTING TO FINAL GRADE PRIOR TO PLACING THE SURFACE COURSE, WILL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR "FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)."

2. THIS WORK WILL NOT BE PAID FOR WHEN DRAINAGE AND UTILITY STRUCTURES ARE SPECIFIED FOR PAYMENT AS STRUCTURE RECONSTRUCTION.

3. NEW FRAMES AND LIDS, WHEN SPECIFIED, WILL BE PAID FOR SEPARATELY.

4. WHEN STRUCTURES ARE TO BE ADJUSTED OR RECONSTRUCTED, THE LOWERING AND RAISING OF THE FRAMES AND LIDS WILL NOT BE PAID FOR SEPARATELY BUT WILL BE INCLUDED IN THE COST OF THE CORRESPONDING PAY ITEM.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

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USER NAME = Lawrence,DeManche	DESIGNED - R. SHAH	REVISED - R. BORO 03-09-11	
	DRAWN -	REVISED - R. BORO 12-06-11	
PLOT SCALE = 100.0000 ' / In.	CHECKED -	REVISED - K. SMITH 11-18-22	
PLOT DATE = 9/15/2023	DATE - 10-25-94	REVISED - K. SMITH 09-15-23	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

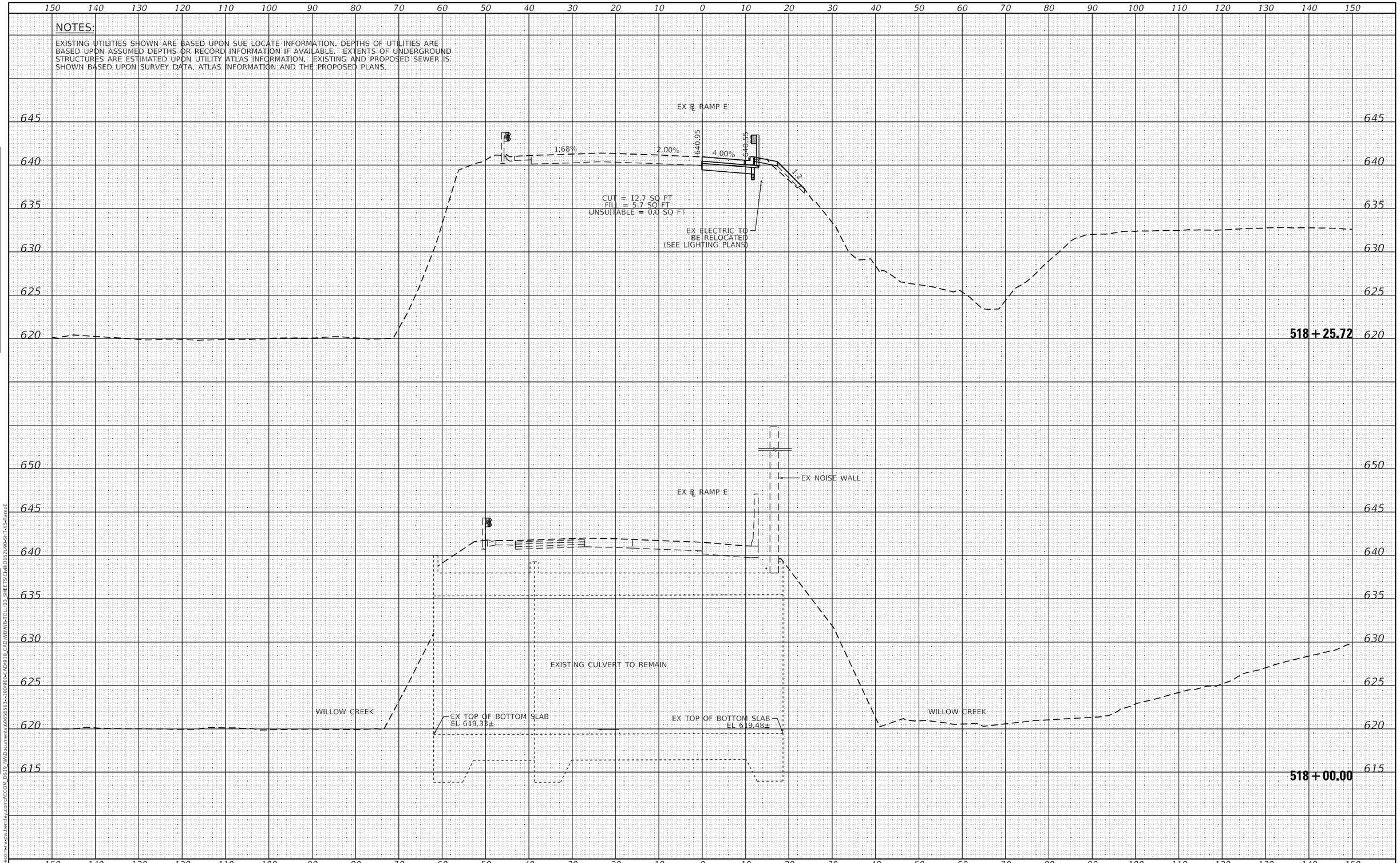
DETAILS FOR
FRAMES AND LIDS ADJUSTMENT WITH MILLING

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			234	214
	BD600-03 (BD-08)	CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			

NOTES:

EXISTING UTILITIES SHOWN ARE BASED UPON SUE LOCATE INFORMATION. DEPTHS OF UTILITIES ARE BASED UPON ASSUMED DEPTHS OR RECORD INFORMATION IF AVAILABLE. EXTENTS OF UNDERGROUND STRUCTURES ARE ESTIMATED UPON UTILITY ATLAS INFORMATION. EXISTING AND PROPOSED SEWER IS SHOWN BASED UPON SURVEY DATA, ATLAS INFORMATION AND THE PROPOSED PLANS.



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

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

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AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline,Ng	DESIGNED - AFC	REVISED -	
	DRAWN - AFC	REVISED -	
PLOT SCALE = 20.0000 ' / in.	CHECKED - MJE	REVISED -	
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RAMP F
CROSS SECTIONS

SCALE: | SHEET 1 OF 9 SHEETS | STA. 518+00.00 | TO STA. 518+25.72

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	215
		CONTRACT NO. 62U90		
		ILLINOIS	FED. AID PROJECT	

NOTES:

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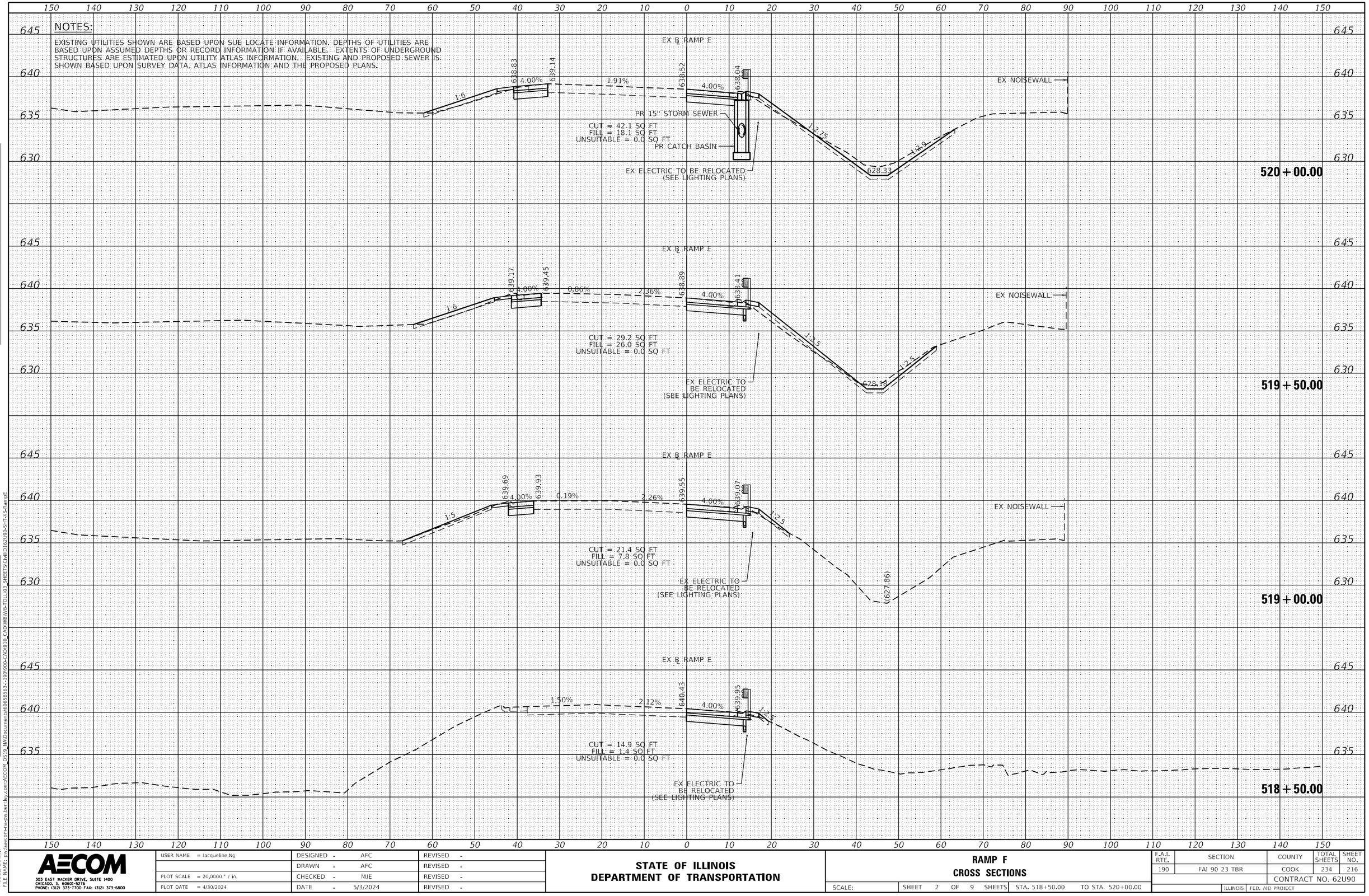

AECOM 303 EAST WACKER DRIVE, SUITE 1400 CHICAGO, IL 60601-5276 PHONE: (312) 373-7700 FAX: (312) 373-6800	USER NAME = jacqueline.Ng	DESIGNED - AFC	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	RAMP F CROSS SECTIONS
		DRAWN - AFC	REVISED -		
	PLOT SCALE = 20.0000 ' / in.	CHECKED - MJE	REVISED -		SCALE:
	PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -		SHEET 2 OF 9 SHEETS STA. 518+50.00 TO STA. 520+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	216
		CONTRACT NO. 62U90		
		ILLINOIS	FED. AID PROJECT	

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

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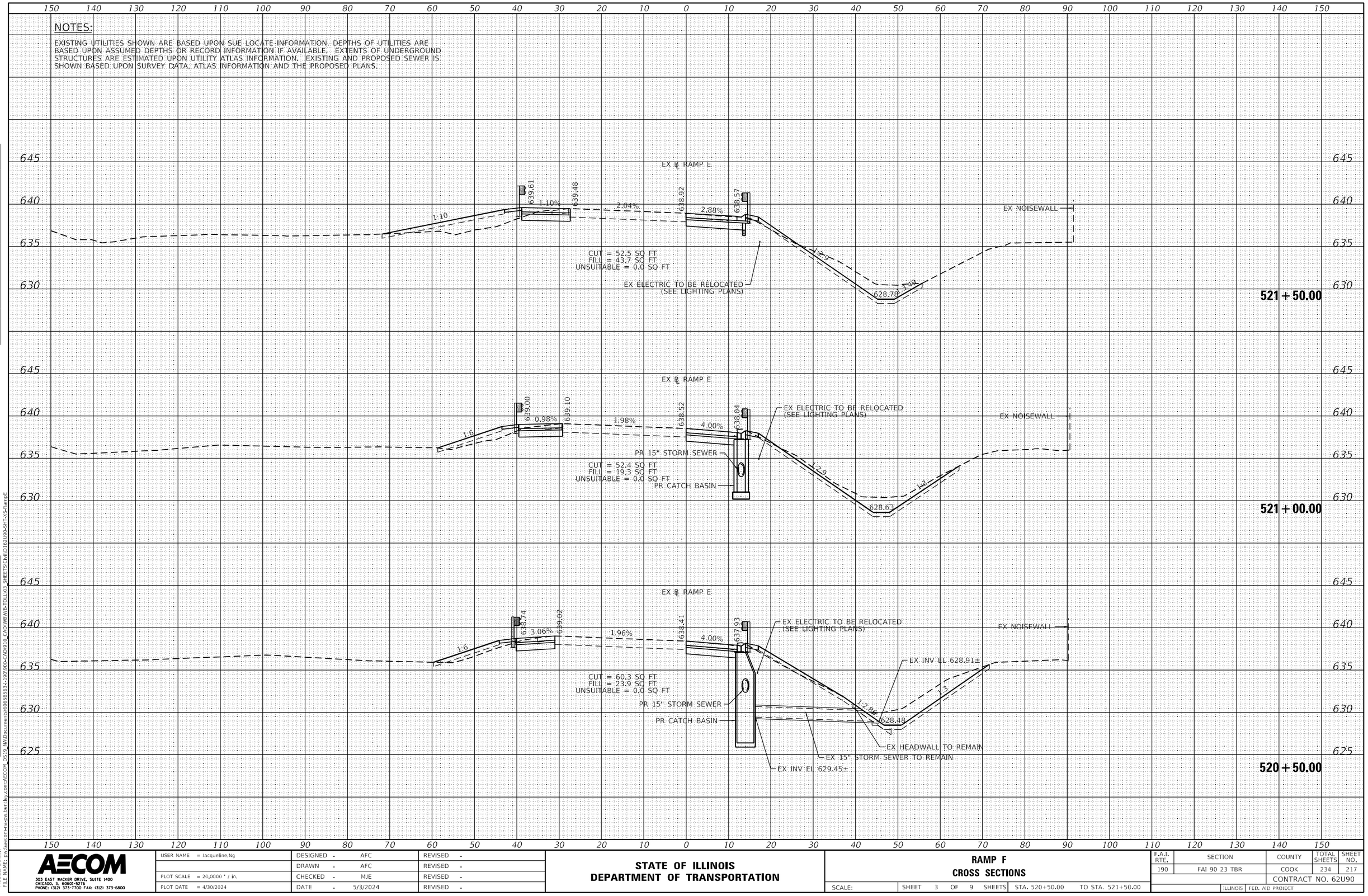
NOTES:

EXISTING UTILITIES SHOWN ARE BASED UPON SUE LOCATE INFORMATION. DEPTHS OF UTILITIES ARE BASED UPON ASSUMED DEPTHS OR RECORD INFORMATION IF AVAILABLE. EXTENTS OF UNDERGROUND STRUCTURES ARE ESTIMATED UPON UTILITY ATLAS INFORMATION. EXISTING AND PROPOSED SEWER IS SHOWN BASED UPON SURVEY DATA, ATLAS INFORMATION AND THE PROPOSED PLANS.



AECOM 303 EAST WACKER DRIVE, SUITE 1400 CHICAGO, IL 60601-5276 PHONE: (312) 373-7700 FAX: (312) 373-6800	USER NAME = Jacqueline.Ng	DESIGNED - AFC	REVISED -
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	PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RAMP F
CROSS SECTIONS

SCALE: | SHEET 3 OF 9 SHEETS | STA. 520+50.00 | TO STA. 521+50.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	217
		CONTRACT NO. 62U90		
	ILLINOIS FED. AID PROJECT			

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

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

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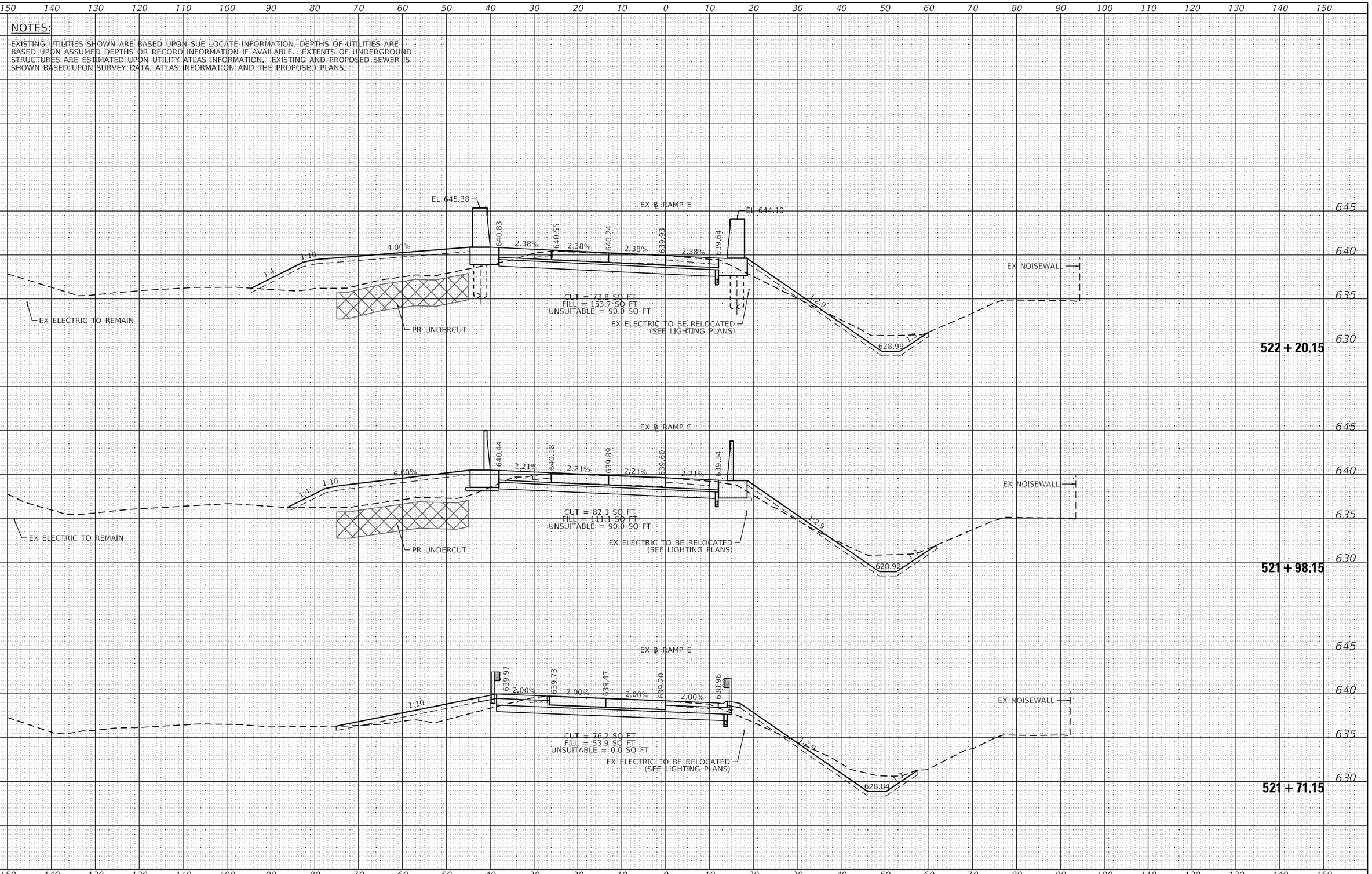
NOTES:

EXISTING UTILITIES SHOWN ARE BASED UPON SUE LOCATE INFORMATION. DEPTHS OF UTILITIES ARE BASED UPON ASSUMED DEPTHS OR RECORD INFORMATION IF AVAILABLE. EXTENTS OF UNDERGROUND STRUCTURES ARE ESTIMATED UPON UTILITY ATLAS INFORMATION. EXISTING AND PROPOSED SEWER IS SHOWN BASED UPON SURVEY DATA, ATLAS INFORMATION AND THE PROPOSED PLANS.



USER NAME = Jacqueline,Ng	DESIGNED - AFC	REVISED -	
	DRAWN - AFC	REVISED -	
PLOT SCALE = 20.0000 ' / in.	CHECKED - MJE	REVISED -	
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -	

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RAMP F
CROSS SECTIONS

SCALE: | SHEET 4 OF 9 SHEETS | STA. 521+71.15 | TO STA. 522+20.15

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	218
		CONTRACT NO. 62U90		
		ILLINOIS	FED. AID PROJECT	

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

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NOTES:

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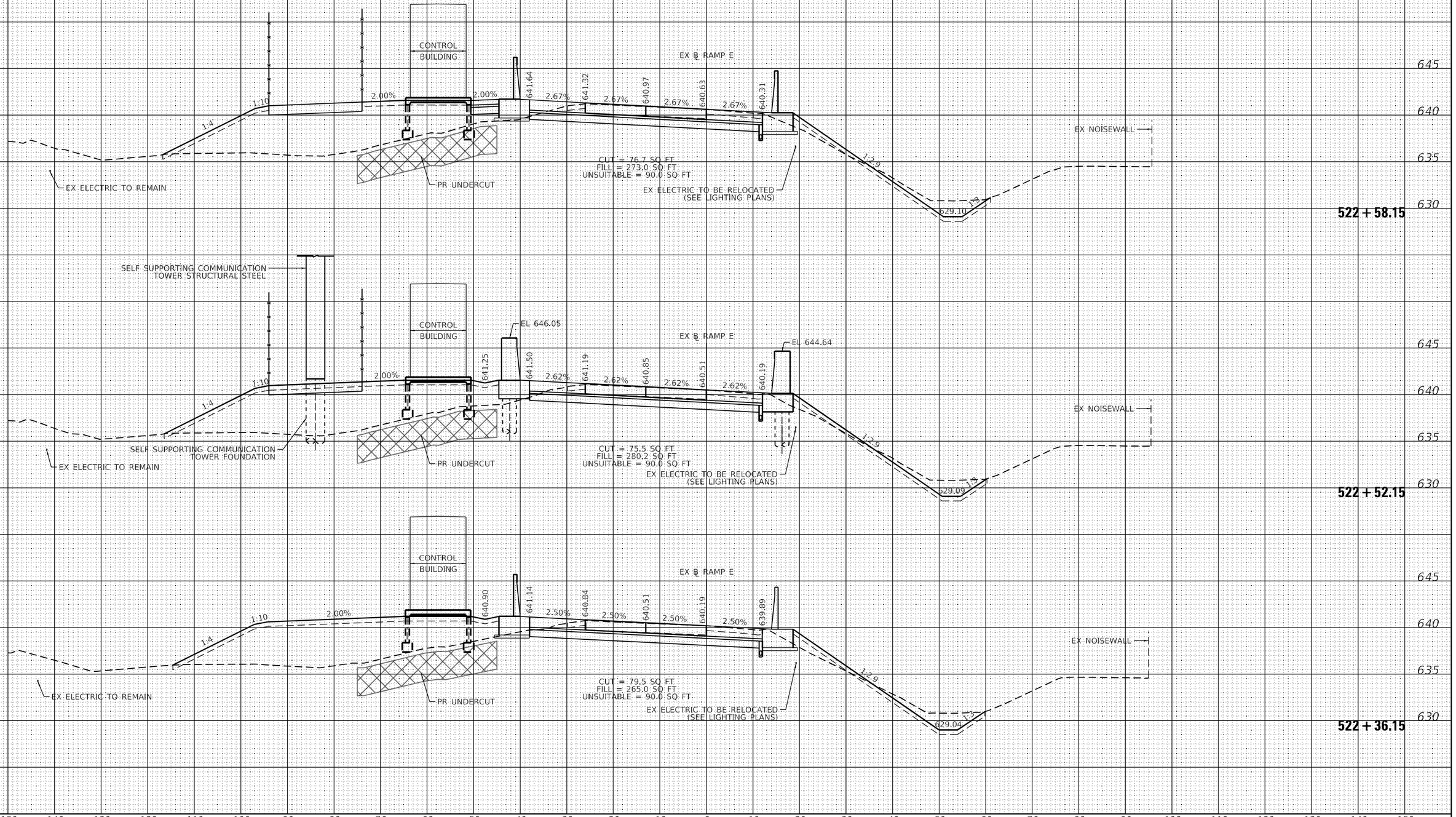

AECOM 303 EAST WACKER DRIVE, SUITE 1400 CHICAGO, IL 60601-5276 PHONE: (312) 373-7700 FAX: (312) 373-6800	USER NAME = Jacqueline,Ng	DESIGNED - AFC	REVISED -
		DRAWN - AFC	REVISED -
	PLOT SCALE = 20.0000 ' / in.	CHECKED - MJE	REVISED -
	PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RAMP F
CROSS SECTIONS

SCALE: | SHEET 5 OF 9 SHEETS | STA. 522+36.15 | TO STA. 522+58.15

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	219
		CONTRACT NO. 62U90		
		ILLINOIS	FED. AID PROJECT	

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

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

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NOTES:

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AECOM 303 EAST WACKER DRIVE, SUITE 1400 CHICAGO, IL 60601-5276 PHONE: (312) 373-7700 FAX: (312) 373-6800	USER NAME = Jacqueline,Ng	DESIGNED - AFC	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	RAMP F CROSS SECTIONS
		DRAWN - AFC	REVISED -		
	PLOT SCALE = 20.0000 ' / in.	CHECKED - MJE	REVISED -		SCALE:
	PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -		SHEET 6 OF 9 SHEETS STA. 523+00.00 TO STA. 523+25.15

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	220
		CONTRACT NO. 62U90		
		ILLINOIS	FED. AID PROJECT	

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

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

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NOTES:

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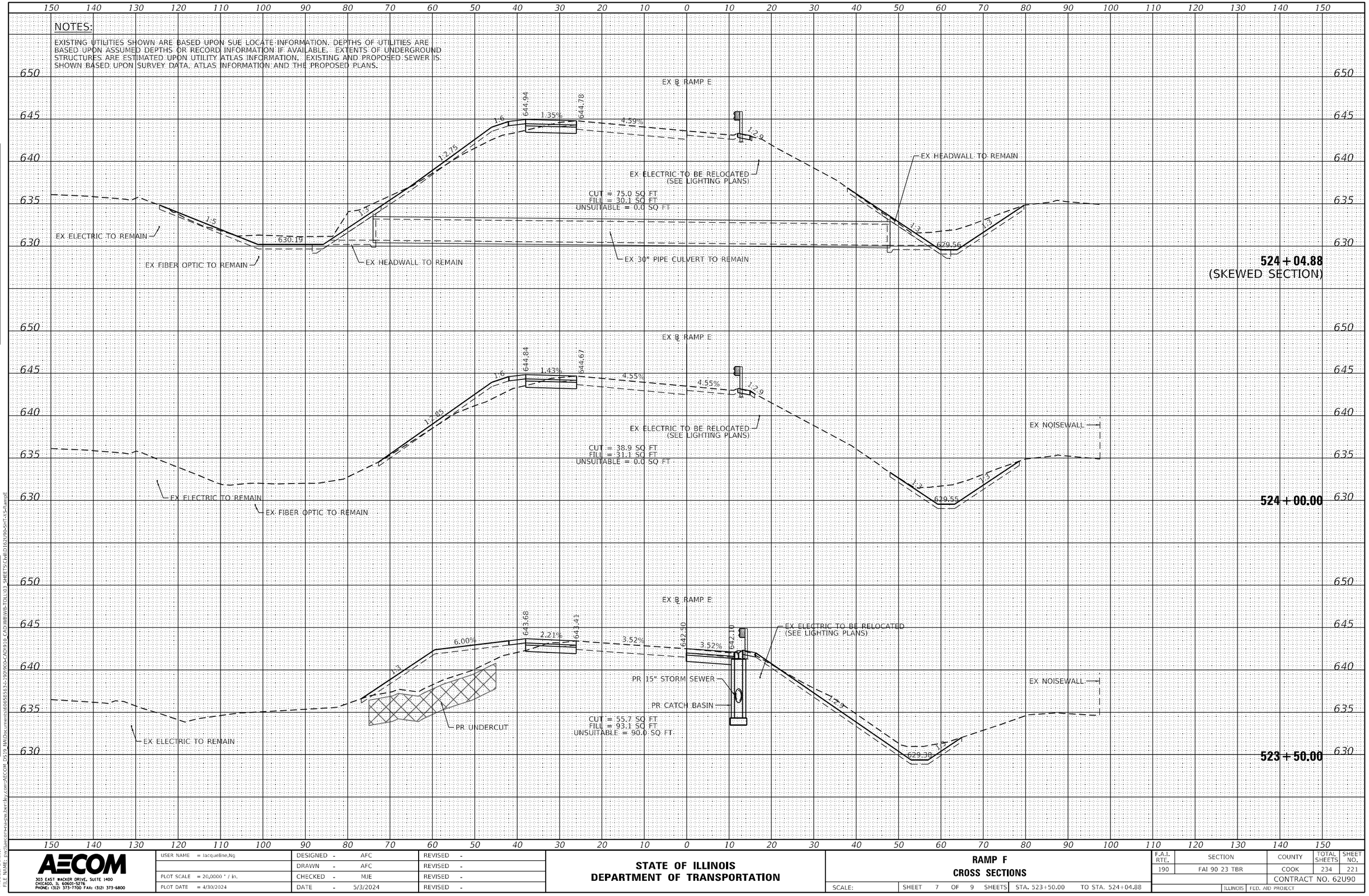

AECOM 303 EAST WACKER DRIVE, SUITE 1400 CHICAGO, IL 60601-5276 PHONE: (312) 373-7700 FAX: (312) 373-6800	USER NAME = Jacqueline,Ng	DESIGNED - AFC	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	RAMP F CROSS SECTIONS
		DRAWN - AFC	REVISED -		
	PLOT SCALE = 20.0000 ' / in.	CHECKED - MJE	REVISED -		SCALE:
	PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -		SHEET 7 OF 9 SHEETS STA. 523+50.00 TO STA. 524+04.88

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	221
		CONTRACT NO. 62U90		
		ILLINOIS	FED. AID PROJECT	

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

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

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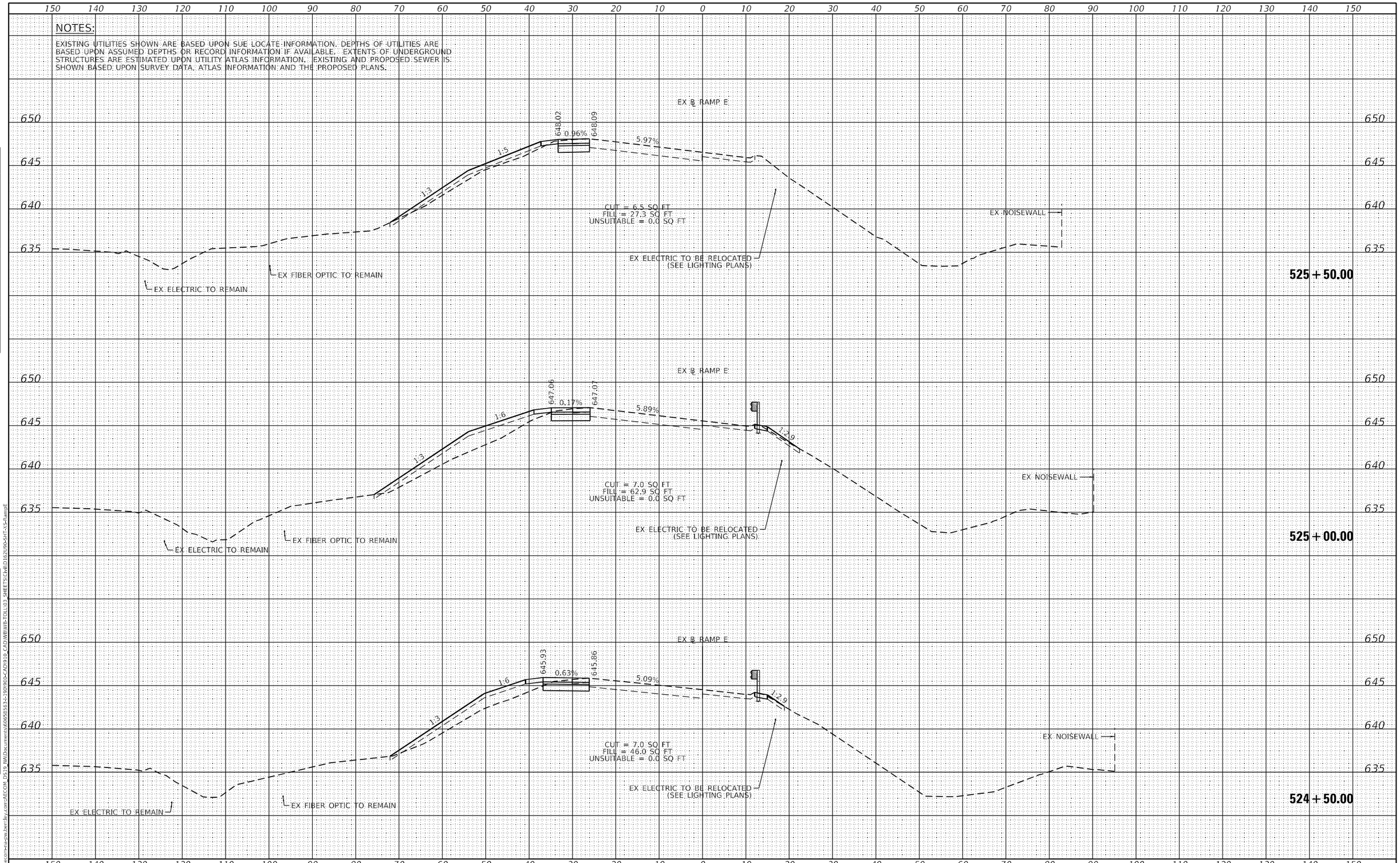
NOTES:

EXISTING UTILITIES SHOWN ARE BASED UPON SUE LOCATE INFORMATION. DEPTHS OF UTILITIES ARE BASED UPON ASSUMED DEPTHS OR RECORD INFORMATION IF AVAILABLE. EXTENTS OF UNDERGROUND STRUCTURES ARE ESTIMATED UPON UTILITY ATLAS INFORMATION. EXISTING AND PROPOSED SEWER IS SHOWN BASED UPON SURVEY DATA, ATLAS INFORMATION AND THE PROPOSED PLANS.



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

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

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AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline,Ng	DESIGNED - AFC	REVISED -	
	DRAWN - AFC	REVISED -	
PLOT SCALE = 20.0000 ' / in.	CHECKED - MJE	REVISED -	
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RAMP F
CROSS SECTIONS

SCALE: | SHEET 8 OF 9 SHEETS | STA. 524+50.00 TO STA. 525+50.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	222
		CONTRACT NO. 62U90		
	ILLINOIS	FED. AID PROJECT		

NOTES:

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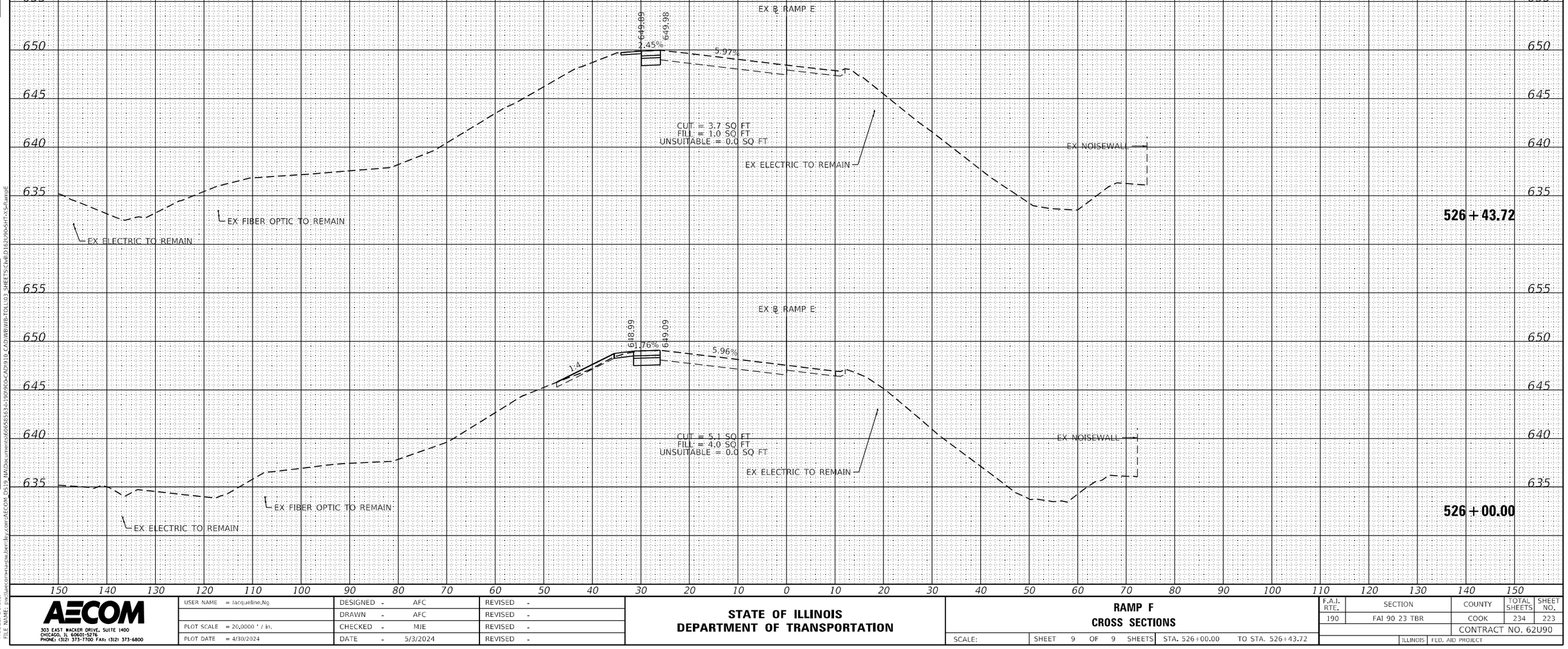

AECOM 303 EAST WACKER DRIVE, SUITE 1400 CHICAGO, IL 60601-5276 PHONE: (312) 373-7700 FAX: (312) 373-6800	USER NAME = Jacqueline.Ng	DESIGNED - AFC	REVISED -
		DRAWN - AFC	REVISED -
	PLOT SCALE = 20.0000 ' / in.	CHECKED - MJE	REVISED -
	PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RAMP F
CROSS SECTIONS

SCALE: | SHEET 9 OF 9 SHEETS | STA. 526+00.00 | TO STA. 526+43.72

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	223
		CONTRACT NO. 62U90		
		ILLINOIS	FED. AID PROJECT	

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

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

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NOTES:

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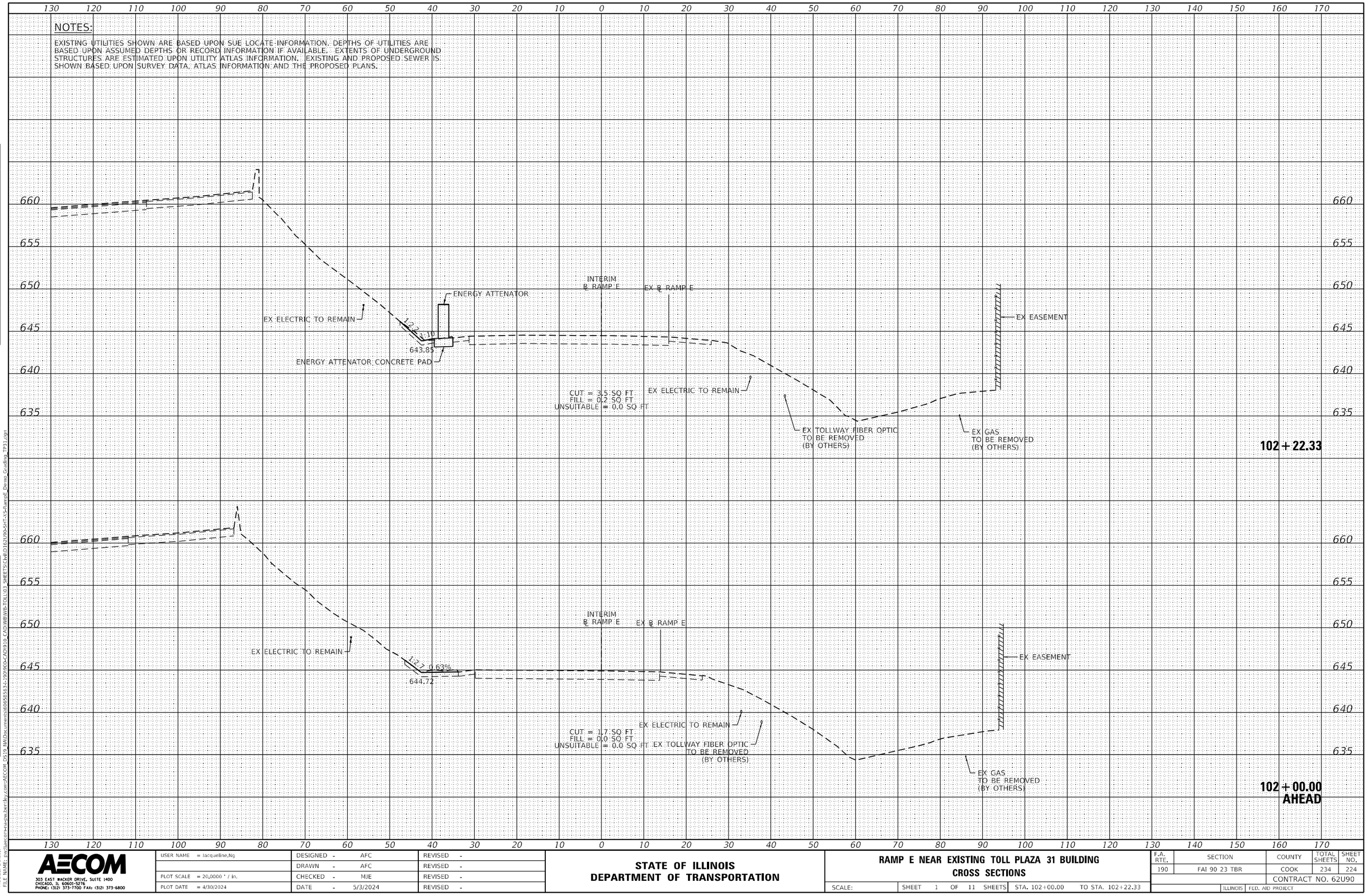

FINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

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

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AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline.Ng	DESIGNED - AFC	REVISED -	
	DRAWN - AFC	REVISED -	
PLOT SCALE = 20.0000 ' / in.	CHECKED - MJE	REVISED -	
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RAMP E NEAR EXISTING TOLL PLAZA 31 BUILDING
CROSS SECTIONS

SCALE: | SHEET 1 OF 11 SHEETS | STA. 102+00.00 | TO STA. 102+22.33

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	224
		CONTRACT NO. 62U90		
	ILLINOIS FED. AID PROJECT			

NOTES:

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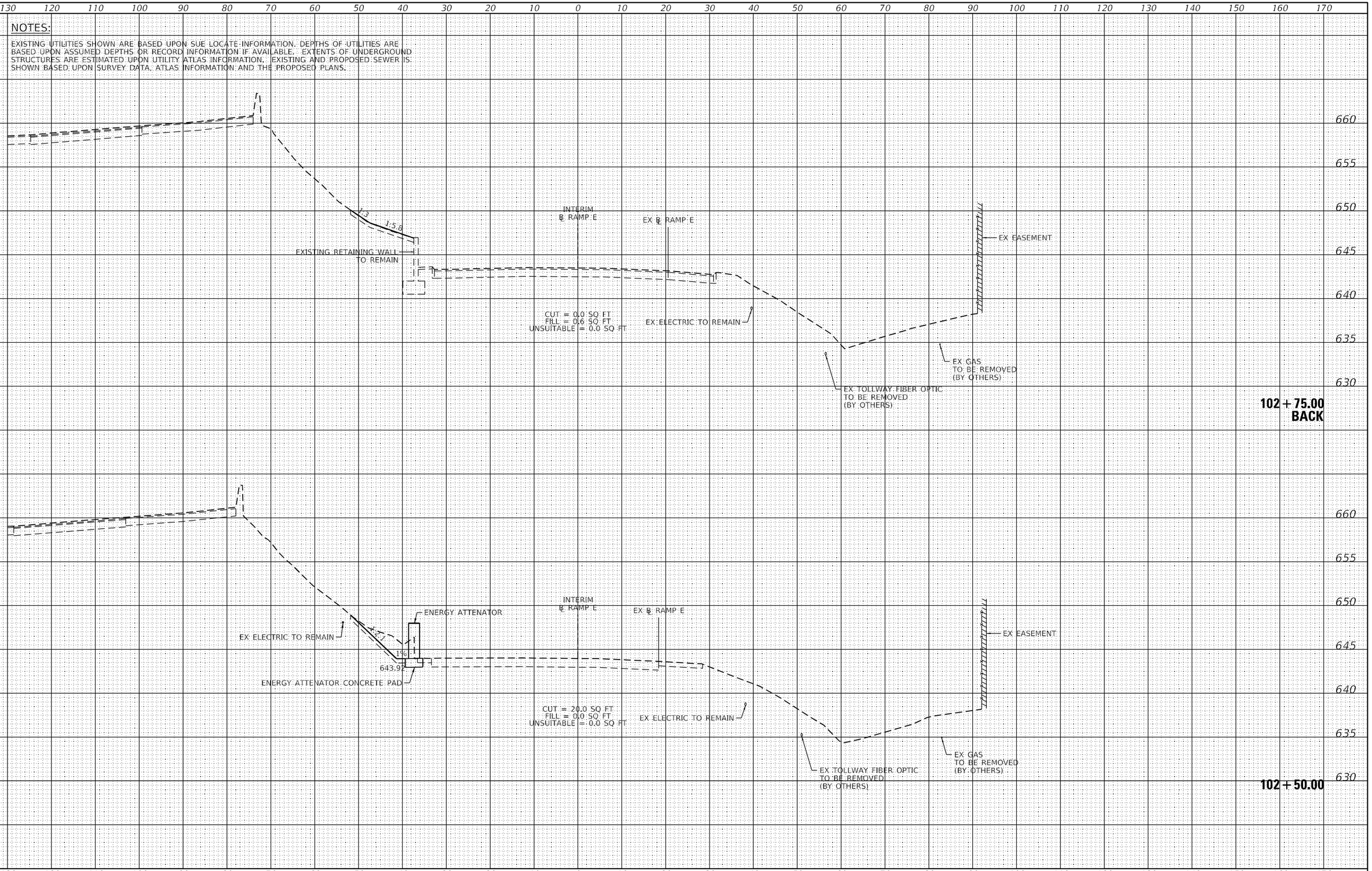

FINAL SURVEY / ORIGINAL SURVEY
NOTE BOOK
NO.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
DATE
BY

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AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline,Ng	DESIGNED - AFC	REVISED -	
	DRAWN - AFC	REVISED -	
PLOT SCALE = 20.0000 ' / in.	CHECKED - MJE	REVISED -	
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RAMP E NEAR EXISTING TOLL PLAZA 31 BUILDING
CROSS SECTIONS

SCALE: | SHEET 2 OF 11 SHEETS | STA. 102+50.00 | TO STA. 102+75.00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	225
		CONTRACT NO. 62U90		
		ILLINOIS	FED. AID PROJECT	

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130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170

655 650 645 640 635 630

EXISTING RETAINING WALL TO REMAIN

639.80

1.26%

640.15

0.30%

640.12

INTERIM ℄ RAMP E

EX ℄ RAMP E

EX EASEMENT

EX GUARDRAIL TO REMAIN

EX ELECTRIC TO REMAIN

CUT = 0.0 SQ FT
FILL = 0.0 SQ FT
UNSUITABLE = 0.0 SQ FT

EX GAS TO BE REMOVED (BY OTHERS)

EX TOLLWAY FIBER OPTIC TO BE REMOVED (BY OTHERS)

105 + 40.00

655 650 645 640 635 630

EXISTING RETAINING WALL TO REMAIN

INTERIM ℄ RAMP E

EX ℄ RAMP E

EX EASEMENT

CUT = 0.0 SQ FT
FILL = 0.0 SQ FT
UNSUITABLE = 0.0 SQ FT

EX ELECTRIC TO REMAIN

EX GAS TO BE REMOVED (BY OTHERS)

EX TOLLWAY FIBER OPTIC TO BE REMOVED (BY OTHERS)

105 + 00.00 AHEAD

130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170

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

MODEL: Default
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AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline,Ng	DESIGNED - AFC	REVISED -	
	DRAWN - AFC	REVISED -	
PLOT SCALE = 20.0000 ' / in.	CHECKED - MJE	REVISED -	
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RAMP E NEAR EXISTING TOLL PLAZA 31 BUILDING
CROSS SECTIONS

SCALE: | SHEET 3 OF 11 SHEETS | STA. 105+00.00 TO STA. 105+40.00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	226
		CONTRACT NO. 62U90		
		ILLINOIS	FED. AID PROJECT	

NOTES:

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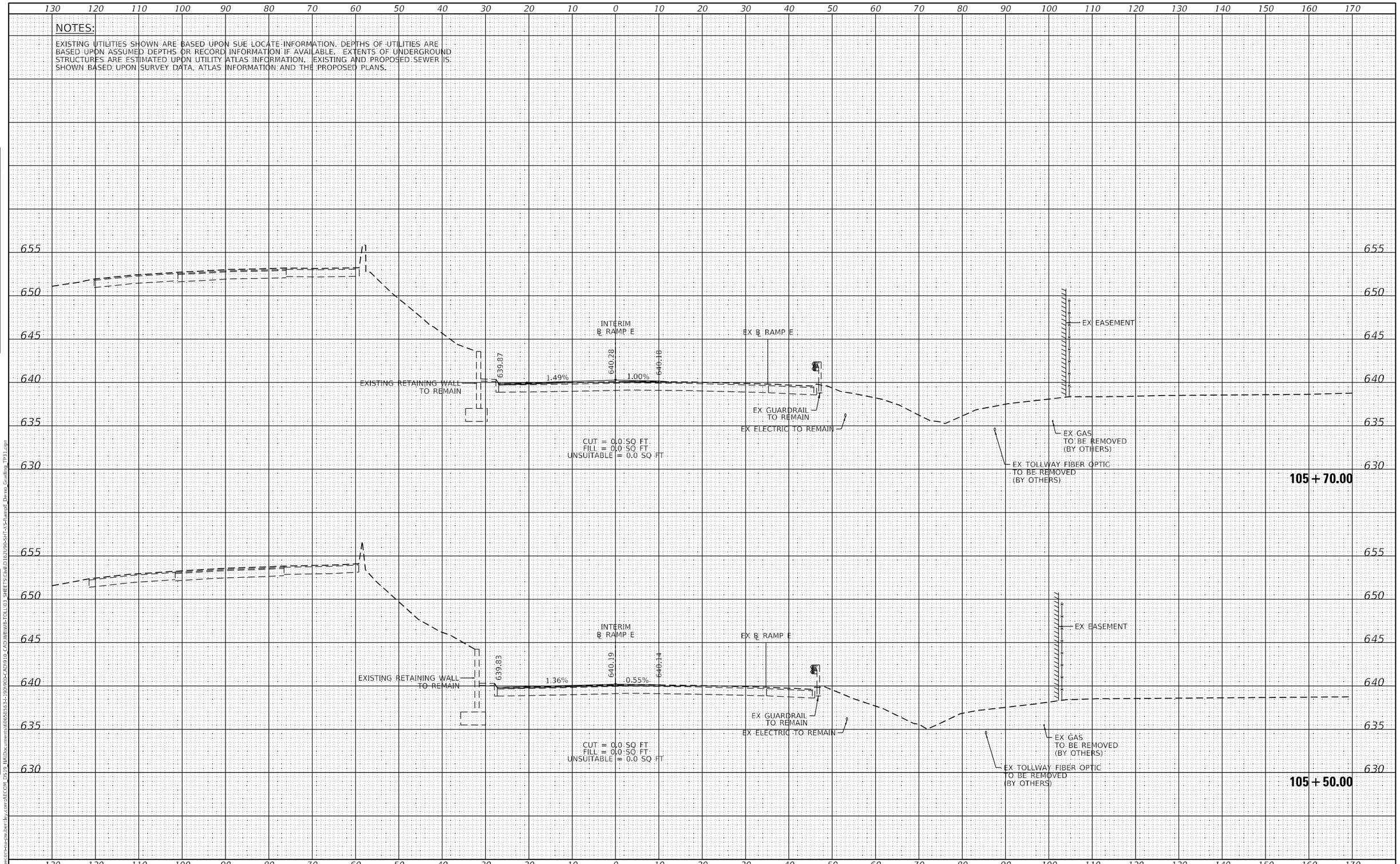

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AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline,Ng	DESIGNED - AFC	REVISED -	
	DRAWN - AFC	REVISED -	
PLOT SCALE = 20.0000 ' / in.	CHECKED - MJE	REVISED -	
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RAMP E NEAR EXISTING TOLL PLAZA 31 BUILDING
CROSS SECTIONS

SCALE: | SHEET 4 OF 11 SHEETS | STA. 105+50.00 TO STA. 105+70.00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	227
		CONTRACT NO. 62U90		
		ILLINOIS	FED. AID PROJECT	

NOTES:

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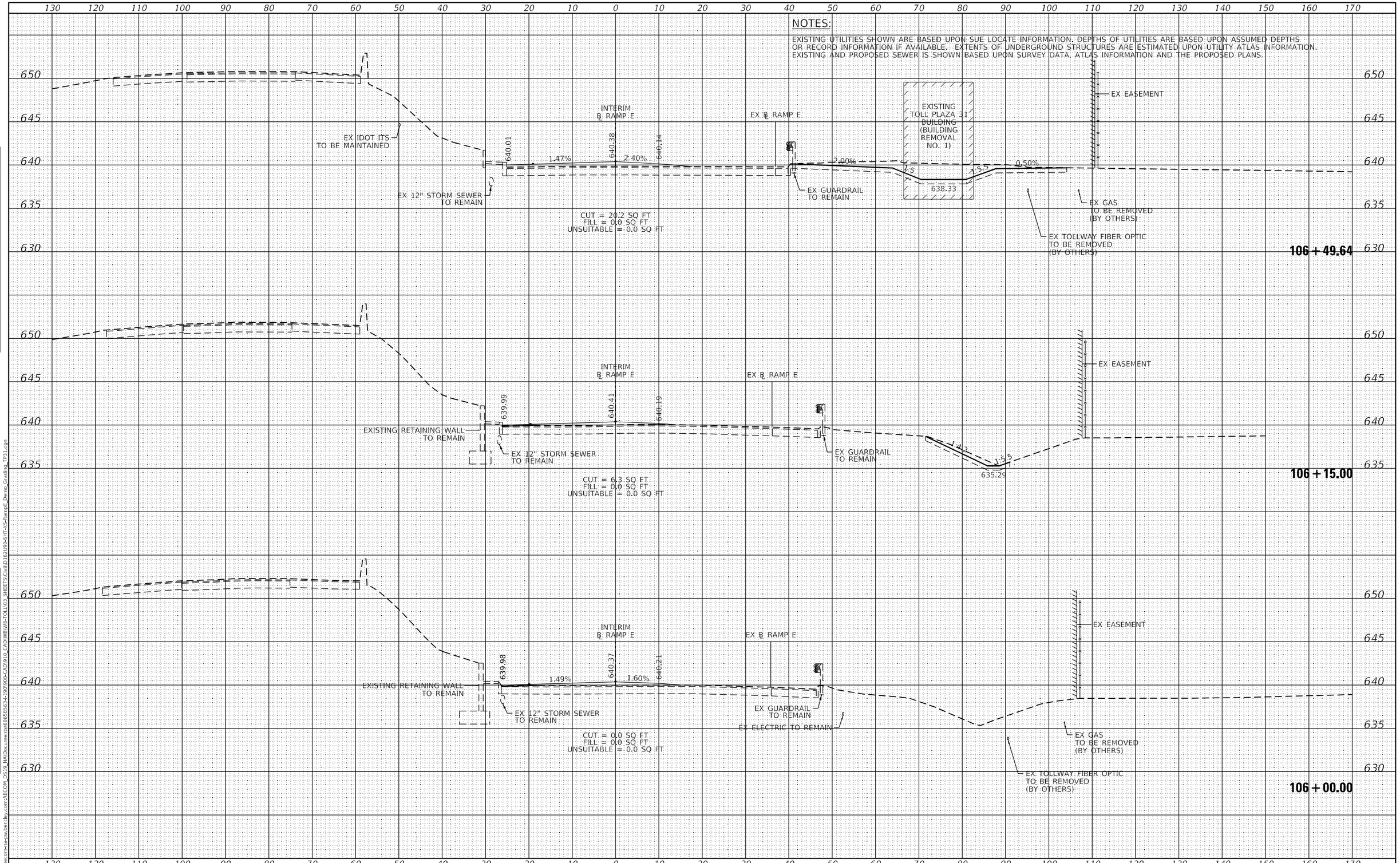

FINAL SURVEY	NOTE BOOK	NO.	SURVEYED	PLOTTED	TEMPLATE	AREAS	AREAS CHECKED	BY	DATE
ORIGINAL SURVEY	NOTE BOOK	NO.	SURVEYED	PLOTTED	TEMPLATE	AREAS	AREAS CHECKED	BY	DATE

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AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline,Ng	DESIGNED - AFC	REVISED -	
	DRAWN - AFC	REVISED -	
PLOT SCALE = 20.0000 ' / in.	CHECKED - MJE	REVISED -	
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RAMP E NEAR EXISTING TOLL PLAZA 31 BUILDING
CROSS SECTIONS

SCALE: | SHEET 5 OF 11 SHEETS | STA. 106+00.00 | TO STA. 106+49.64

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	228
		CONTRACT NO. 62U90		
		ILLINOIS	FED. AID PROJECT	

NOTES:

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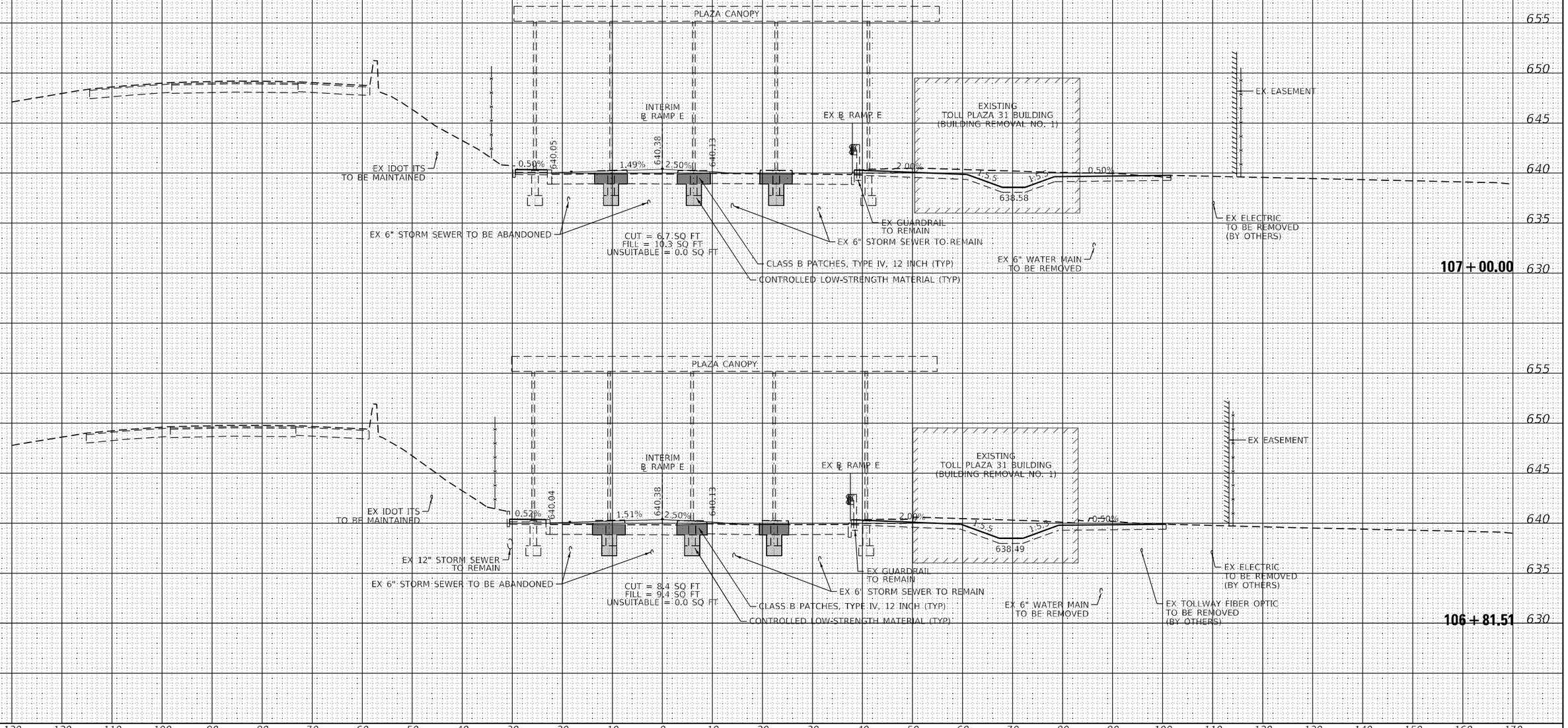

FINAL SURVEY	NOTE BOOK	NO.	BY	DATE

SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED

ORIGINAL SURVEY	NOTE BOOK	NO.	BY	DATE

SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED

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AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = jacqueline,Ng	DESIGNED - AFC	REVISED -	
	DRAWN - AFC	REVISED -	
PLOT SCALE = 20.0000 ' / in.	CHECKED - MJE	REVISED -	
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RAMP E NEAR EXISTING TOLL PLAZA 31 BUILDING
CROSS SECTIONS

SCALE: | SHEET 6 OF 11 SHEETS | STA. 106+81.51 TO STA. 107+00.00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	229
		CONTRACT NO. 62U90		
		ILLINOIS	FED. AID PROJECT	

NOTES:

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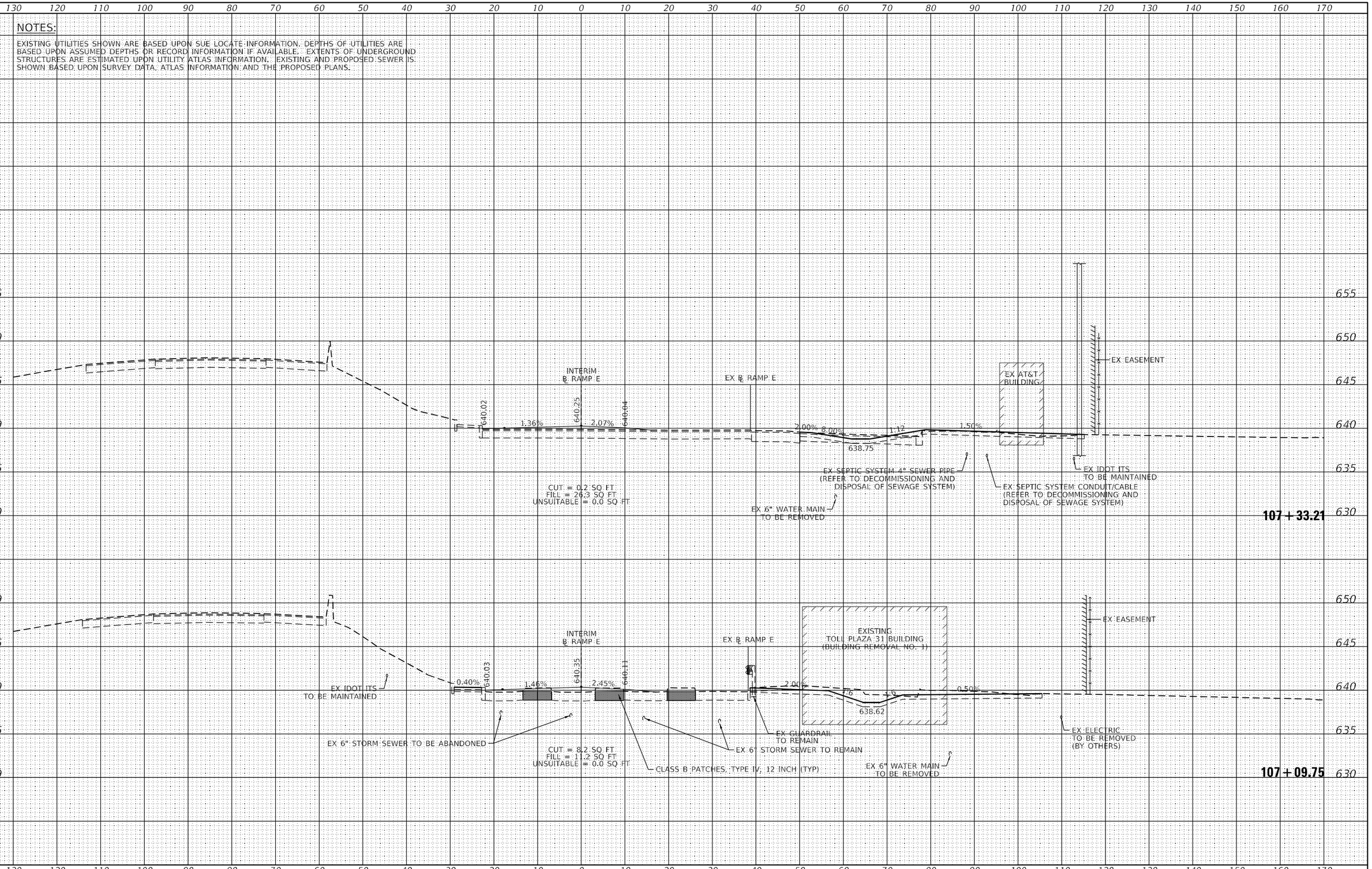

FINAL SURVEY	ORIGINAL SURVEY		
NOTE BOOK	NOTE BOOK		
NO.	NO.		
SURVEYED	SURVEYED	01"	DATE
PLOTTED	PLOTTED		
TEMPLATE	TEMPLATE		
AREAS	AREAS		
AREAS CHECKED	AREAS CHECKED		

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AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline,Ng	DESIGNED - AFC	REVISED -	
	DRAWN - AFC	REVISED -	
PLOT SCALE = 20.0000 ' / in.	CHECKED - MJE	REVISED -	
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RAMP E NEAR EXISTING TOLL PLAZA 31 BUILDING
CROSS SECTIONS

SCALE: | SHEET 7 OF 11 SHEETS | STA. 107+09.75 | TO STA. 107+33.21

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	230
		CONTRACT NO. 62U90		
		ILLINOIS	FED. AID PROJECT	

NOTES:

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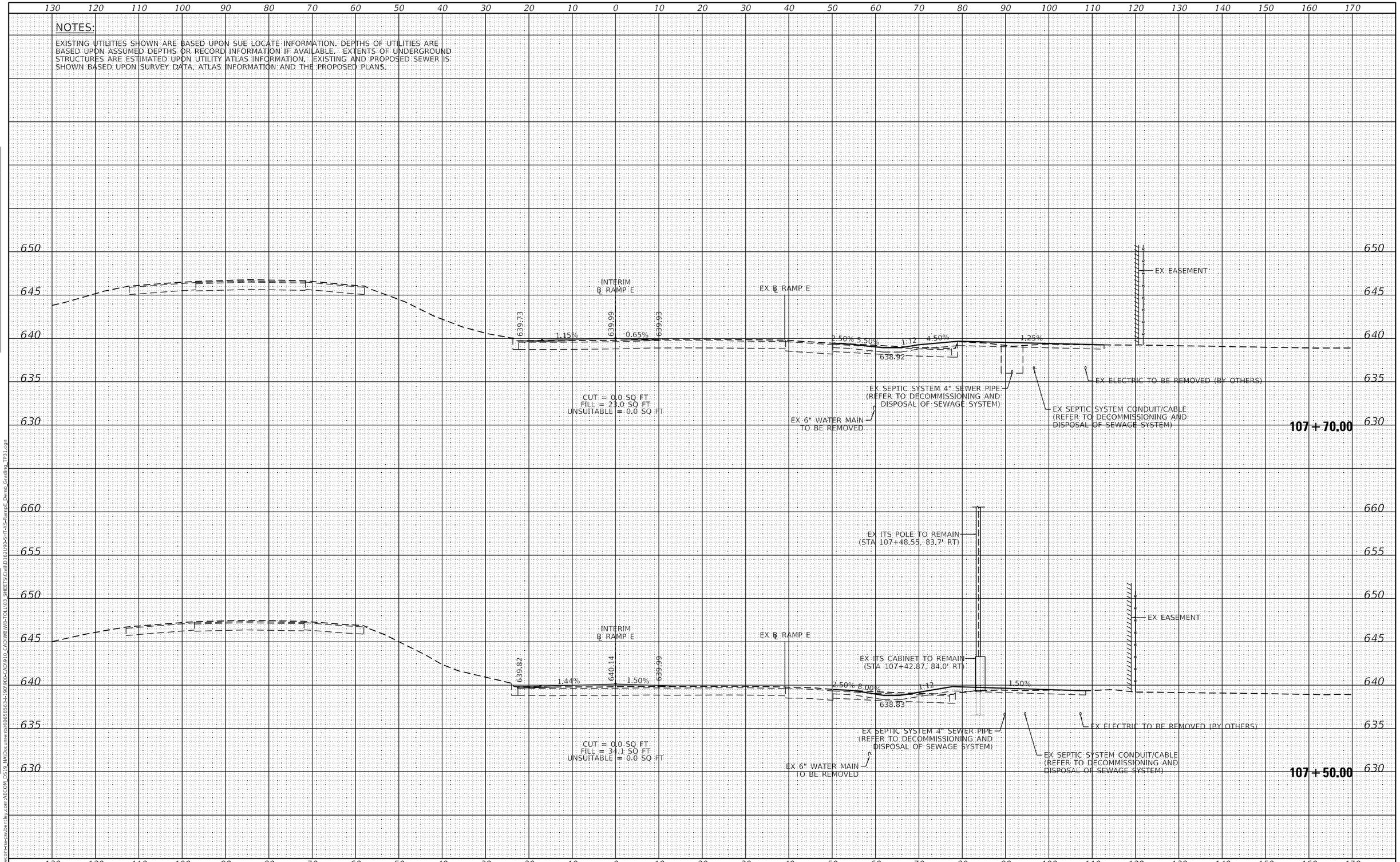

AECOM 303 EAST WACKER DRIVE, SUITE 1400 CHICAGO, IL 60601-5276 PHONE: (312) 373-7700 FAX: (312) 373-6800	USER NAME = jacqueline.Ng	DESIGNED - AFC	REVISED -
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	PLOT SCALE = 20.0000 ' / in.	CHECKED - MJE	REVISED -
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RAMP E NEAR EXISTING TOLL PLAZA 31 BUILDING
CROSS SECTIONS

SCALE: | SHEET 8 OF 11 SHEETS | STA. 107+50.00 TO STA. 107+70.00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	231
		CONTRACT NO.		
		ILLINOIS	FED. AID PROJECT	

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

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

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INTERIM
℄ RAMP E

EX ℄ RAMP E

EX EASEMENT

EX 12" STORM SEWER
TO REMAIN

CUT = 6.9 SQ FT
FILL = 0.0 SQ FT
UNSUITABLE = 0.0 SQ FT

2.77%

0.50%

638.70

EX ELECTRIC TO REMAIN

EX SEPTIC SYSTEM 4" SEWER PIPE
(REFER TO DECOMMISSIONING AND
DISPOSAL OF SEWAGE SYSTEM)

EX 6" WATER MAIN
TO BE REMOVED

EX SEPTIC SYSTEM CONDUIT/CABLE
(REFER TO DECOMMISSIONING AND
DISPOSAL OF SEWAGE SYSTEM)

108 + 50.00

INTERIM
℄ RAMP E

EX ℄ RAMP E

EX EASEMENT

639.53

639.71

639.76

0.8%

0.70%

2.50%

4.50%

4.50%

0.64%

0.99%

0.91%

638.92

EX 12" STORM SEWER
TO REMAIN

CUT = 5.3 SQ FT
FILL = 18.7 SQ FT
UNSUITABLE = 0.0 SQ FT

EX SEPTIC SYSTEM 4" SEWER PIPE
(REFER TO DECOMMISSIONING AND
DISPOSAL OF SEWAGE SYSTEM)

EX 6" WATER MAIN
TO BE REMOVED

EX ELECTRIC TO BE REMOVED (BY OTHERS)

EX SEPTIC SYSTEM CONDUIT/CABLE
(REFER TO DECOMMISSIONING AND
DISPOSAL OF SEWAGE SYSTEM)

108 + 00.00

INTERIM
℄ RAMP E

EX ℄ RAMP E

EX EASEMENT

639.64

639.86

639.86

0.99%

0.03%

2.50%

4.50%

4.50%

1.00%

639.00
(HP)

EX 12" STORM SEWER
TO REMAIN

CUT = 0.2 SQ FT
FILL = 21.1 SQ FT
UNSUITABLE = 0.0 SQ FT

EX SEPTIC SYSTEM 4" SEWER PIPE
(REFER TO DECOMMISSIONING AND
DISPOSAL OF SEWAGE SYSTEM)

EX 6" WATER MAIN
TO BE REMOVED

EX ELECTRIC TO BE REMOVED
(BY OTHERS)

EX SEPTIC SYSTEM CONDUIT/CABLE
(REFER TO DECOMMISSIONING AND
DISPOSAL OF SEWAGE SYSTEM)

107 + 85.00

130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170

650 645 640 635 630

FINAL SURVEY	SURVEYED	DATE
	PLOTTED	
NOTE BOOK	TEMPLATE	11"
NO.	AREAS	22"
	AREAS CHECKED	

ORIGINAL SURVEY	SURVEYED	DATE
	PLOTTED	
NOTE BOOK	TEMPLATE	11"
NO.	AREAS	22"
	AREAS CHECKED	

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AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline,Ng	DESIGNED - AFC	REVISED -	
	DRAWN - AFC	REVISED -	
PLOT SCALE = 20.0000 ' / in.	CHECKED - MJE	REVISED -	
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

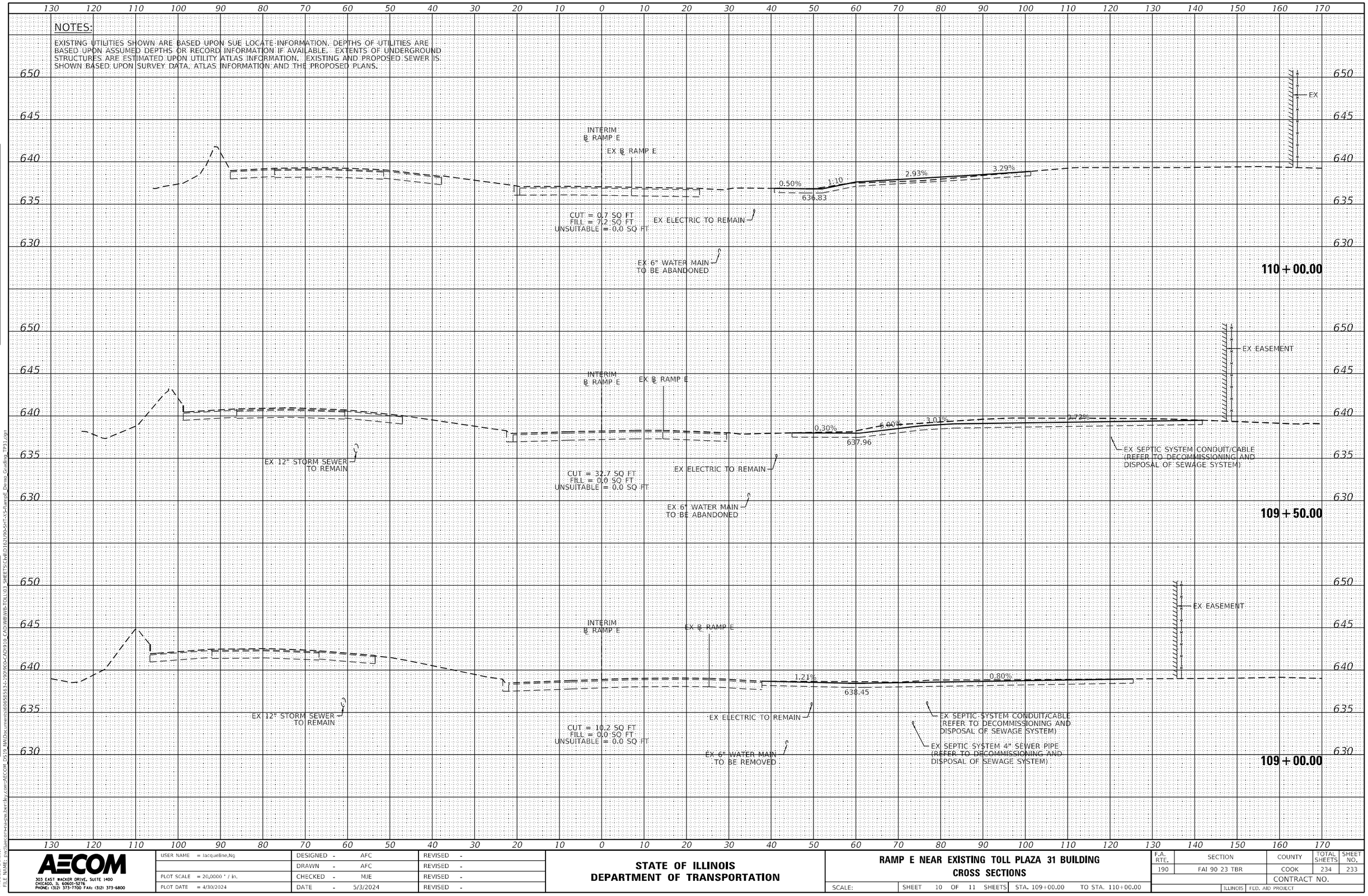
RAMP E NEAR EXISTING TOLL PLAZA 31 BUILDING
CROSS SECTIONS

SCALE: | SHEET 9 OF 11 SHEETS | STA. 107+85.00 | TO STA. 108+50.00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	232
		CONTRACT NO.		
		ILLINOIS	FED. AID PROJECT	

NOTES:

EXISTING UTILITIES SHOWN ARE BASED UPON SUE LOCATE INFORMATION. DEPTHS OF UTILITIES ARE BASED UPON ASSUMED DEPTHS OR RECORD INFORMATION IF AVAILABLE. EXTENTS OF UNDERGROUND STRUCTURES ARE ESTIMATED UPON UTILITY ATLAS INFORMATION. EXISTING AND PROPOSED SEWER IS SHOWN BASED UPON SURVEY DATA, ATLAS INFORMATION AND THE PROPOSED PLANS.



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

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AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

USER NAME = Jacqueline.Ng	DESIGNED - AFC	REVISED -	
	DRAWN - AFC	REVISED -	
PLOT SCALE = 20.0000 ' / in.	CHECKED - MJE	REVISED -	
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

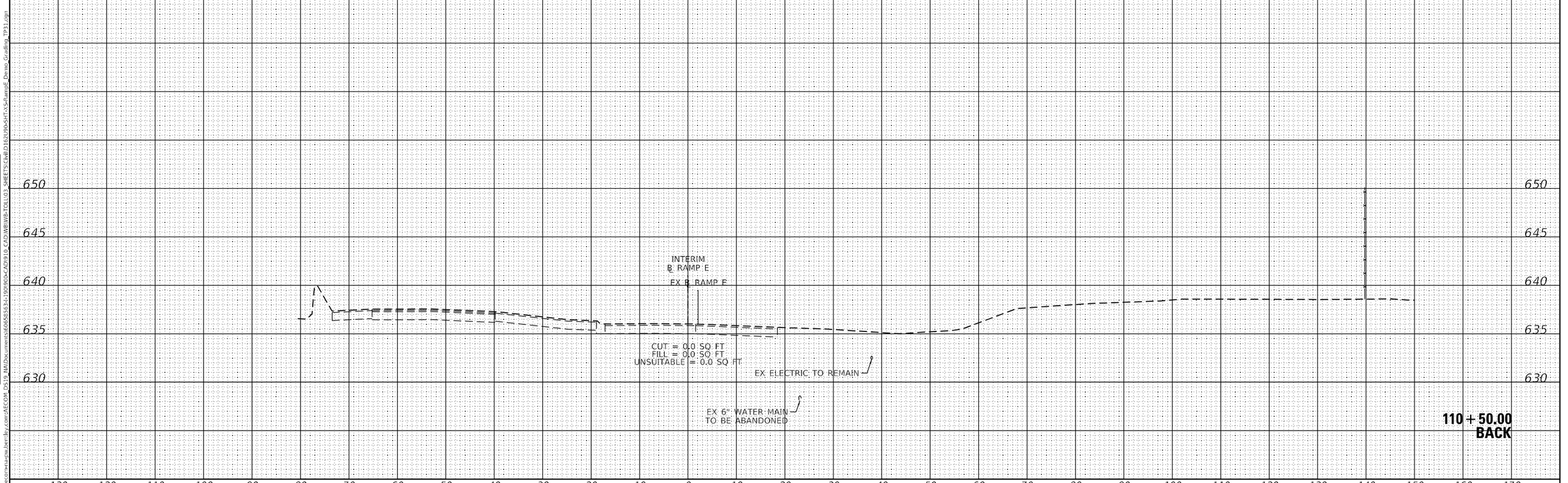
RAMP E NEAR EXISTING TOLL PLAZA 31 BUILDING
CROSS SECTIONS

SCALE: | SHEET 10 OF 11 SHEETS | STA. 109+00.00 | TO STA. 110+00.00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	233
		CONTRACT NO.		
		ILLINOIS	FED. AID PROJECT	

NOTES:

EXISTING UTILITIES SHOWN ARE BASED UPON SUE LOCATE INFORMATION. DEPTHS OF UTILITIES ARE BASED UPON ASSUMED DEPTHS OR RECORD INFORMATION IF AVAILABLE. EXTENTS OF UNDERGROUND STRUCTURES ARE ESTIMATED UPON UTILITY ATLAS INFORMATION. EXISTING AND PROPOSED SEWER IS SHOWN BASED UPON SURVEY DATA, ATLAS INFORMATION AND THE PROPOSED PLANS.



USER NAME = jacqueline,Ng	DESIGNED - AFC	REVISED -	
	DRAWN - AFC	REVISED -	
PLOT SCALE = 20.0000 ' / in.	CHECKED - MJE	REVISED -	
PLOT DATE = 4/30/2024	DATE - 5/3/2024	REVISED -	

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RAMP E NEAR EXISTING TOLL PLAZA 31 BUILDING
CROSS SECTIONS

SCALE: | SHEET 11 OF 11 SHEETS | STA. 110+50.00 | TO STA. 110+50.00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	FAI 90 23 TBR	COOK	234	234
		CONTRACT NO.		
	ILLINOIS	FED. AID PROJECT		

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

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

MODEL: Default
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