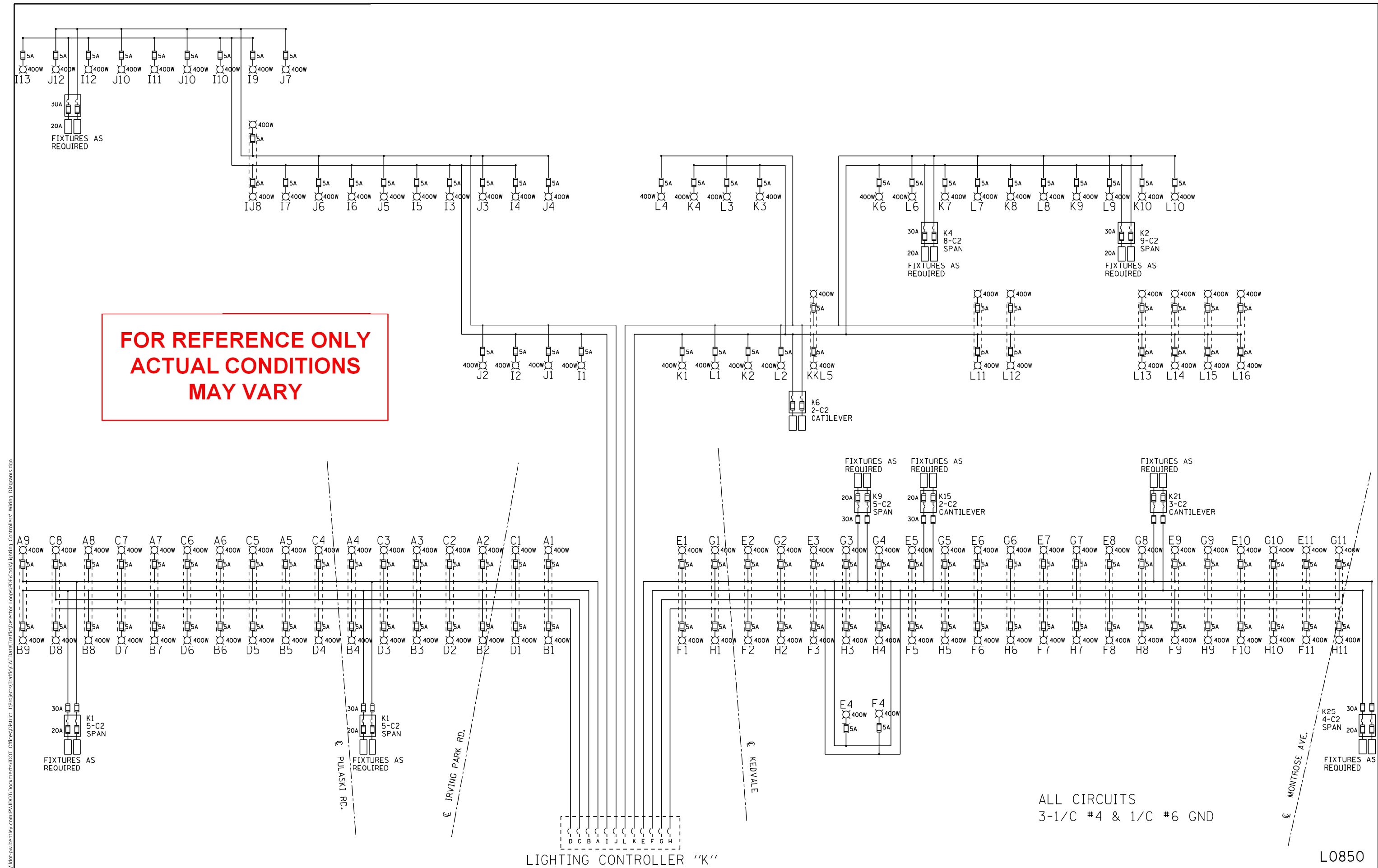


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FOR REFERENCE ONLY
ACTUAL CONDITIONS
MAY VARY

ALL CIRCUITS
3-1/C #4 & 1/C #6 GND

LIGHTING CONTROLLER "K"

L0850

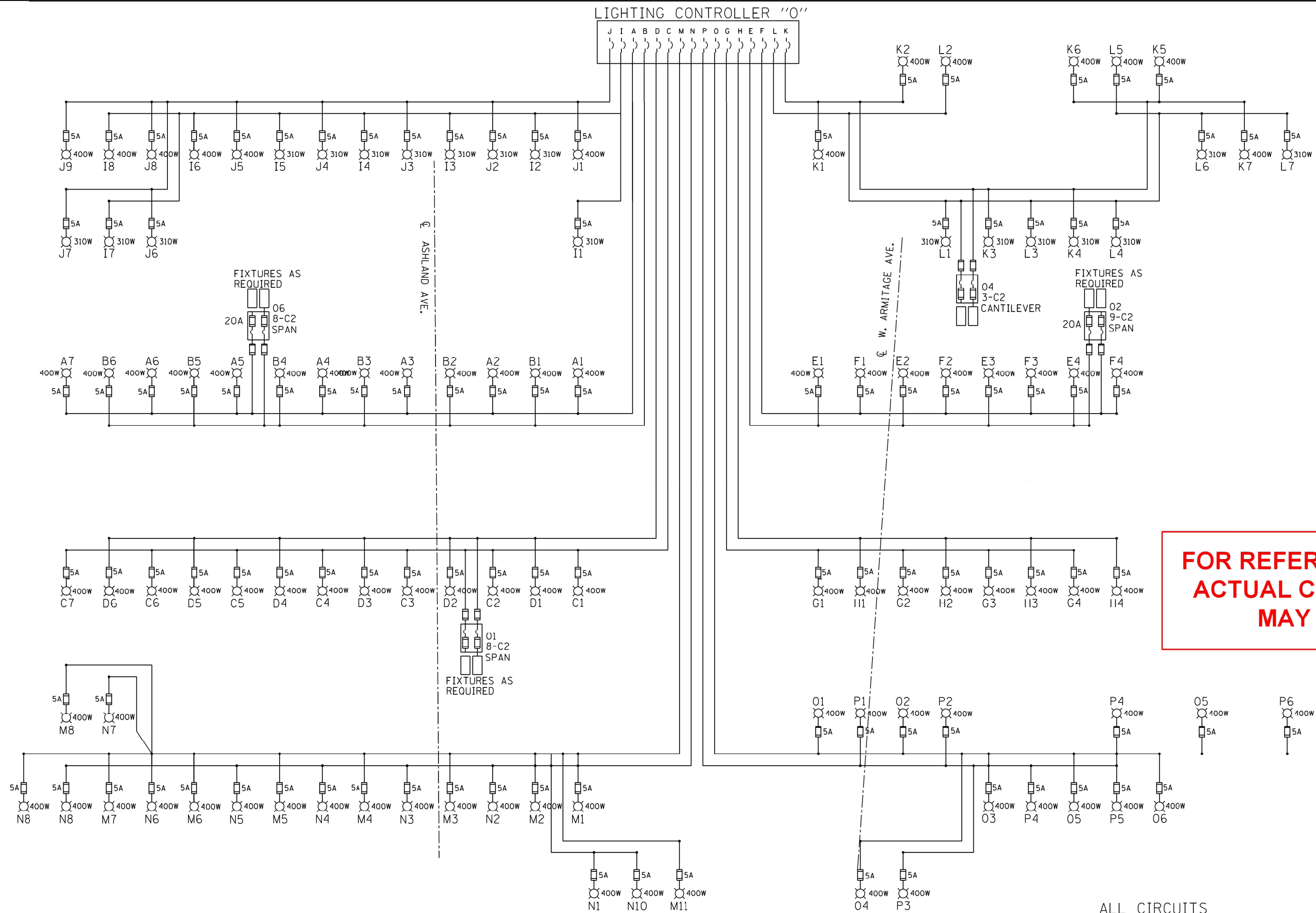
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	DRAWN - G.M.	REVISED -
PLOT SCALE = 40,4000 ' / in.	CHECKED - R.T.	REVISED -
PLOT DATE = 8/8/2023	DATE - 08/08/2023	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WIRING DIAGRAM LIGHTING CONTROLLER "K"			
SCALE:	SHEET 2 OF 9 SHEETS	STA.	TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	2020-005-BR	COOK	908	201
CONTRACT NO. 62K73				
ILLINOIS FED. AID PROJECT				

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USER NAME = gonzalo.meza
PLOT SCALE = 40,4000' / in.
PLOT DATE = 8/8/2023

DESIGNED - R.T.
DRAWN - G.M.
CHECKED - R.T.
DATE - 08/08/2023

REVISED -
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WIRING DIAGRAM
LIGHTING CONTROLLER "O"

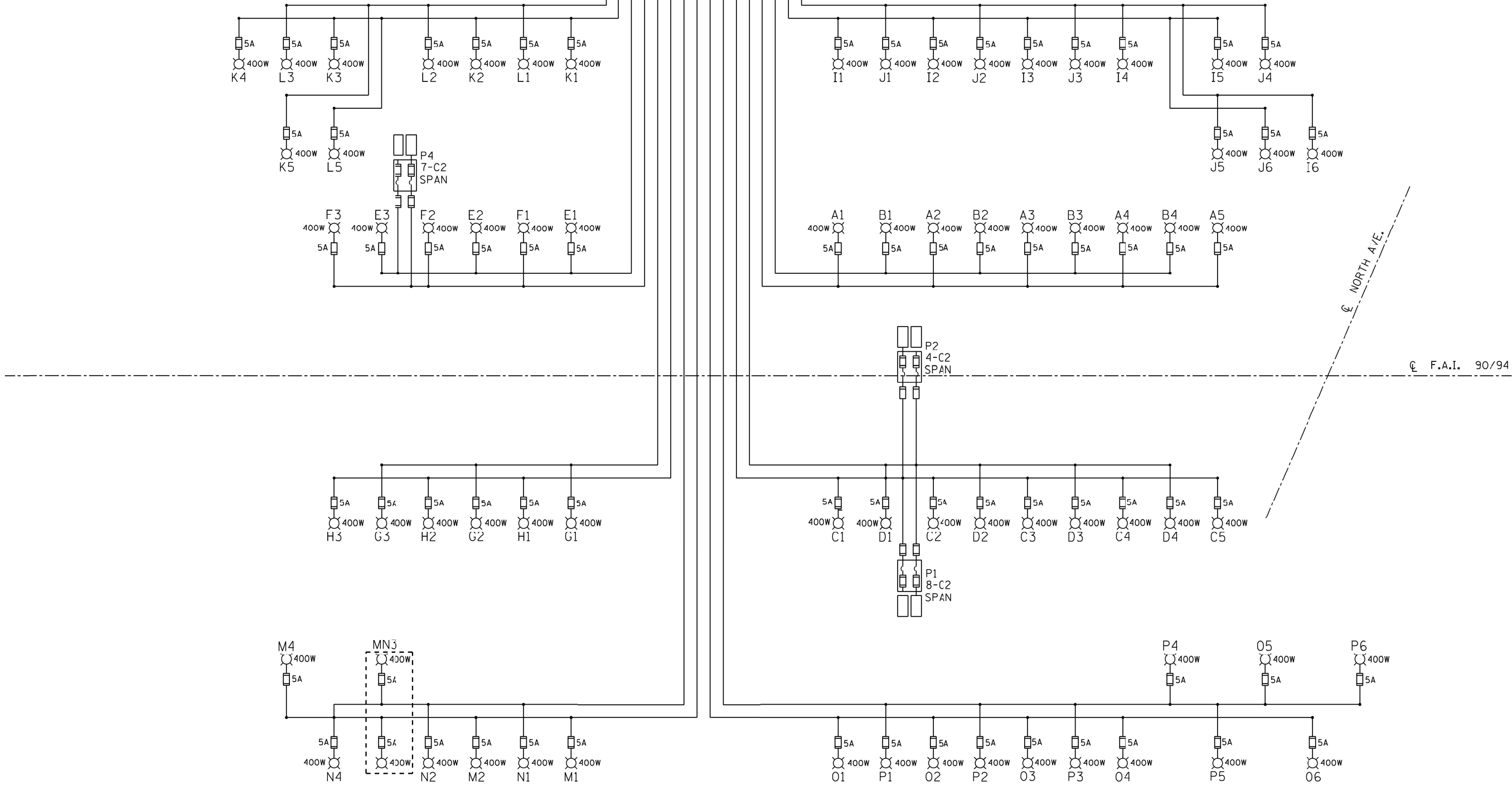
SCALE: SHEET 6 OF 9 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	2020-005-BR	COOK	908	205
CONTRACT NO. 62K73				
ILLINOIS FED. AID PROJECT				

L0860

LIGHTING CONTROLLER "P"

FOR REFERENCE ONLY
ACTUAL CONDITIONS
MAY VARY



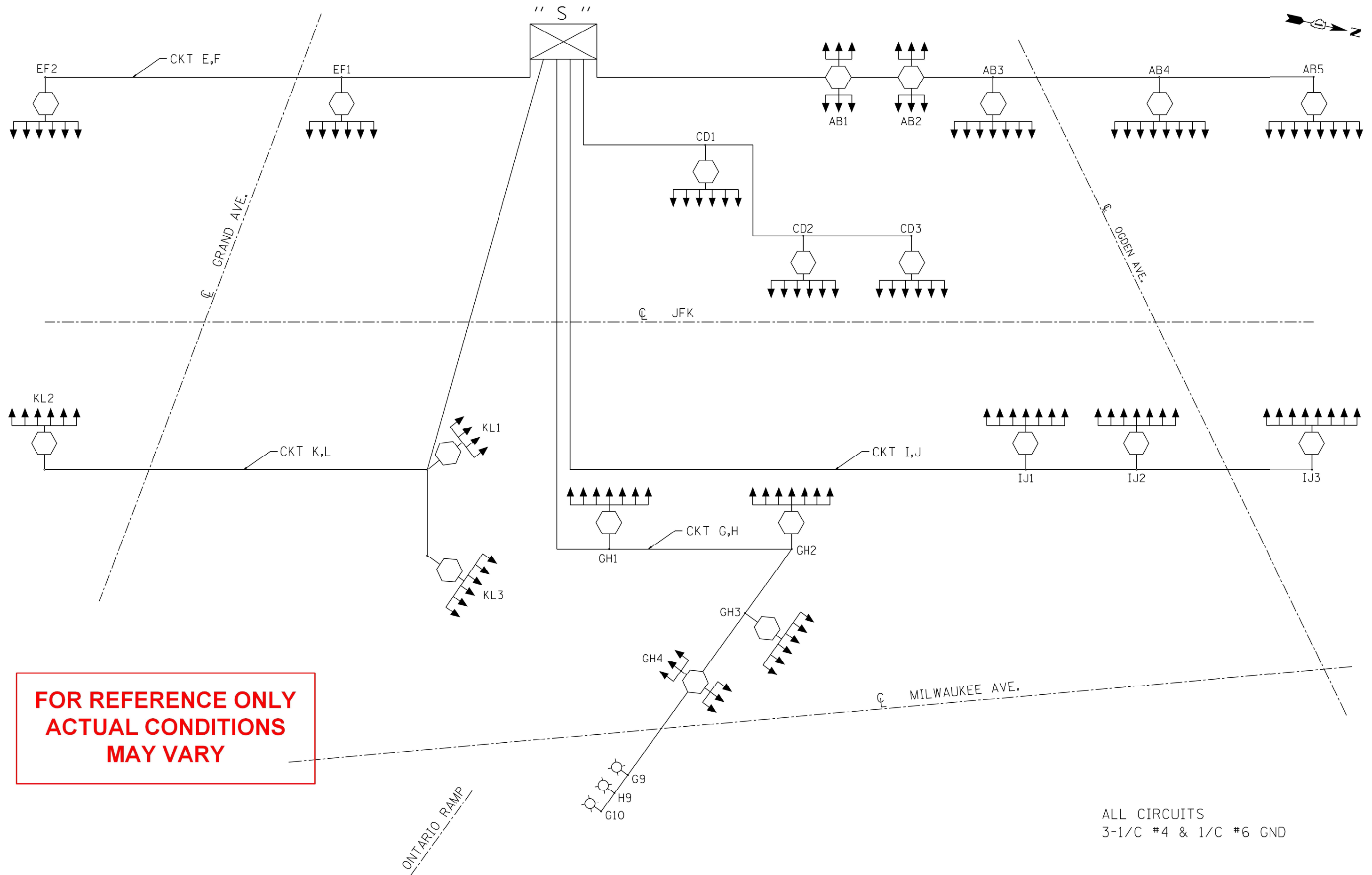
ALL CIRCUITS
3-1/C #4 & 1/C #6 GND

L0863

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	USER NAME = gonzalo.meza	DESIGNED - R.T.	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	WIRING DIAGRAM LIGHTING CONTROLLER "P"			F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 40.4000 ' / in.	DRAWN - G.M.	REVISED -					90/94	2020-005-BR	COOK	908	206
	PLOT DATE = 8/8/2023	CHECKED - R.T.	REVISED -					CONTRACT NO. 62K73				
		DATE - 08/08/2023	REVISED -					ILLINOIS FED. AID PROJECT				
					SCALE:	SHEET 7 OF 9 SHEETS	STA.	TO STA.				

MODEL: Default
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ALL CIRCUITS
3-1/C #4 & 1/C #6 GND

L0867

USER NAME = gonzalo.meza
PLOT SCALE = 40.0000 ' / in.
PLOT DATE = 8/8/2023

DESIGNED - R.T.
DRAWN - G.M.
CHECKED - R.T.
DATE - 08/08/2023

REVISED -
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WIRING DIAGRAM
LIGHTING CONTROLLER "S"

SCALE: SHEET 9 OF 9 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	2020-005-BR	COOK	908	208
CONTRACT NO. 62K73				
ILLINOIS FED. AID PROJECT				

GENERAL NOTES

1. ELECTRICAL CONDUIT SHALL BE INSTALLED A MINIMUM OF 30" BELOW GRADE.
2. FIBER OPTIC CONDUIT SHALL BE INSTALLED A MINIMUM OF 42" BELOW GRADE.
3. CONDUIT CROSSING OVER/UNDER OTHER UTILITIES SHALL MAINTAIN A SEPARATION OF AT LEAST 12 INCHES OR AS SPECIFIED BY OWNING UTILITY.
4. PROPOSED CONDUIT ROUTES SHOWN ON THE PLANS ARE SCHEMATIC ONLY. CONTRACTOR TO VERIFY EXACT ROUTE WITH ENGINEER.
5. ALL ABANDONED CABLES AND CONDUIT SHALL COMPLY WITH NEC REQUIREMENTS.

CONDUIT COUPLER

1. THE CONTRACTOR SHALL INSTALL A CONDUIT COUPLER AT THE JOINT LOCATIONS IN THE CONCRETE PARAPET ON THE BRIDGE CAPABLE OF ACCEPTING THE LONGITUDINAL MOVEMENT. ALL METALLIC PARTS OF THE COUPLING SHALL BE MADE OF STAINLESS STEEL OR AS APPROVED BY THE ENGINEER. ANY NON-STAINLESS METAL SHALL BE HOT DIP GALVANIZED AND COATED TO PREVENT REACTION WITH THE CONCRETE.
2. THE CONTRACTOR SHALL INSTALL COUPLINGS AT ALL BRIDGE EXPANSION JOINTS AND SHALL BE RESPONSIBLE TO DETERMINE THE PROPER NUMBER OF COUPLINGS REQUIRED. SEE STRUCTURAL DRAWINGS FOR THE EXPANSION JOINT LOCATIONS.

ABBREVIATIONS AND ACRONYMS

NOTATION	DESCRIPTION
ATS	ATTACHED TO STRUCTURE
CHH	COMMUNICATION HANDHOLE
CNC	COILABLE NONMETALLIC CABLE
DMS	DYNAMIC MESSAGE SIGN
EB	EASTBOUND
ECC	ELECTRICAL CABLE IN CONDUIT
EHH	ELECTRICAL HANDHOLE
ELEC	ELECTRICAL
EOP	EDGE OF PAVEMENT
EOS	EDGE OF SHOULDER
EOT	EDGE OF TRAVEL WAY
(E)	EXISTING
FO	FIBER OPTIC
FT.	FEET
GND	GROUND
(GRN)	GREEN
GS	GALVANIZED STEEL
GSC	GALVANIZED STEEL CONDUIT (RIGID)
HDHH	HEAVY-DUTY HANDHOLE
HH	HANDHOLE
(I)	INSTALL
IN.	INCHES
ITS	INTELLIGENT TRANSPORTATION SYSTEMS
MM	MULTIMODE
NB	NORTHBOUND
PGSC	PVC COATED GALVANIZED STEEL CONDUIT
(R)	REMOVE
ROW	RIGHT-OF-WAY
SM	SINGLE MODE
SB	SOUTHBOUND
STA.	STATION
TEMP	TEMPORARY
WB	WESTBOUND

ITS PLAN LEGEND

EXISTING	PROPOSED	DESCRIPTION
		CONDUIT
		FIBER OPTIC CABLE IN CONDUIT
		BARRIER WALL EMBEDDED JUNCTION BOX
		ELECTRICAL CABLE IN CONDUIT
		STRUCTURE-MOUNTED JUNCTION BOX
		HEAVY-DUTY HANDHOLE (COMMUNICATIONS)
		HEAVY-DUTY HANDHOLE (ELECTRICAL)
		HEAVY-DUTY HANDHOLE (MIXED USE)
		INDUCTION LOOP
		RAMP METER SIGNAL ASSEMBLY OR FLASHER ASSEMBLY
		GROUND MOUNTED CABINET
		LIGHTING CONTROLLER CABINET
		UTILITY SERVICE POLE

MODEL: Default
FILE NAME: 202002160831.Cadd\Design\160831\I-94\ITS.dgn

ITS SCHEDULE 62K73				
LOCATION	FIBER OPTIC CABLE IN CONDUIT 96 FIBERS SINGLE MODE	FIBER OPTIC CABLE IN CONDUIT 12 FIBERS SINGLE MODE	FIBER OPTIC SPLICE-LATERAL	REMOVAL OF FIBER OPTIC CABLE
	FOOT	FOOT	EACH	FOOT
STA 465+00 TO STA 480+00	1510			1500
STA 525+00 TO STA 540+00	1510			1500
STA 540+00 TO STA 555+00	1510			1500
STA 615+00 TO STA 630+00	1510			1500
TOTAL	6040			6000
TOTAL +5%	6340			6300

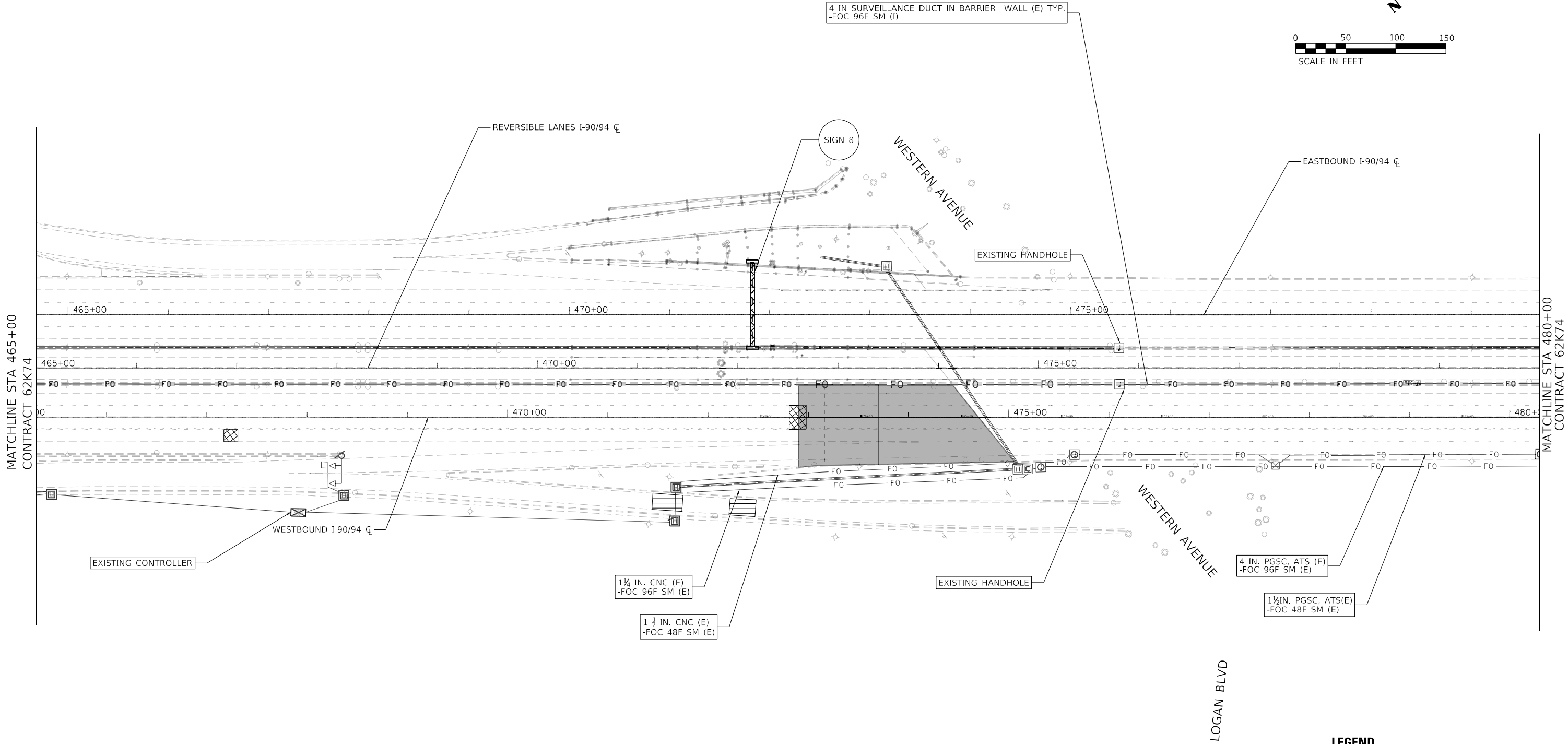
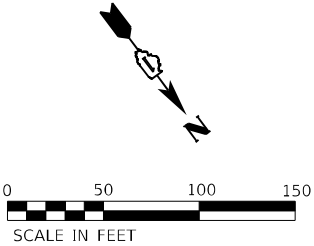
CONCRETE BARRIER SCHEDULE 62K73		
LOCATION	CONCRETE BARRIER REMOVAL	CONCRETE BARRIER TRANSITION
	FOOT	FOOT
STA 337+57.11 TO STA 337+72.79	15.7	15.7
TOTAL	15.7	15.7

MAINTAINING ITS DURING CONSTRUCTION 62K73	
LOCATION	MAINTAINING ITS DURING CONSTRUCTION
	Ca l Mo
ALL THE PROJECT	12
TOTAL	12

ELECTRIC SCHEDULE 62K73						
LOCATION	UNDERGROUND CONDUIT GALVANIZED STEEL 4" DIA.	JUNCTION BOX TYPE J 41" X 12" X 9"	JUNCTION BOX STAINLESS STEEL ATTACHED TO STRUCTURE 24" X 24" X 10"	JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 12" X 12" X 4"	ELECTRIC CABLE IN CONDUIT 600 V (XLP-TYPE USE) 1/C NO.8	ELECTRIC CABLE IN CONDUIT 600 V (XLP-TYPE USE) 1/C NO.6
	FOOT	EACH	EACH	EACH	FOOT	FOOT
STA 337+67.47		1				
STA 337+67.47			1			
STA 337+75.94 TO STA 337+99.44	55.6					
STA 337+67.47				1		
STA 337+75.94 TO STA 337+99.44						
SUBTOTAL	55.6	1		1	80	240
TOTAL +5%	60				85	252
TOTAL	60	1	1	1	85	252

CONDUIT COUPLER 62K73	
LOCATION	CONDUIT COUPLER
	EACH
EVERY JOINT ON BRIDGE DECKS	50
TOTAL	50

MODEL: Default
FILE NAME: \\2021\6083\Cadd\Design\Plan\62K73-sh-Schedule.dgn



NOTES:

- 1 MAINTAIN THE EXISTING IDOT ITS ITEMS THAT WILL BE AFFECTED BY THE CONSTRUCTION WORK UNTIL THE NEW INFRASTRUCTURE AND CABLES ARE INSTALLED IN THE LOCATIONS AS INDICATED IN THE PROPOSED ITS PLAN SHEETS. THIS ITS MAINTENANCE WORK SHALL BE INCLUDED IN THE COST OF THE "MAINTAINING ITS DURING CONSTRUCTION" PAY ITEM.

LEGEND

PATCH LOCATION

BRIDGE APPROACH PAVEMENT

MODEL: Sheet 13 of 23
FILE NAME: 2020-005-BR-62K73-CADD-Design-Plan-62K73-sh-ts.dgn



745 McClintock Drive
Suite 210
Burr Ridge, IL 60527
Ph: 773-851-4788
Fax: 773-239-3728

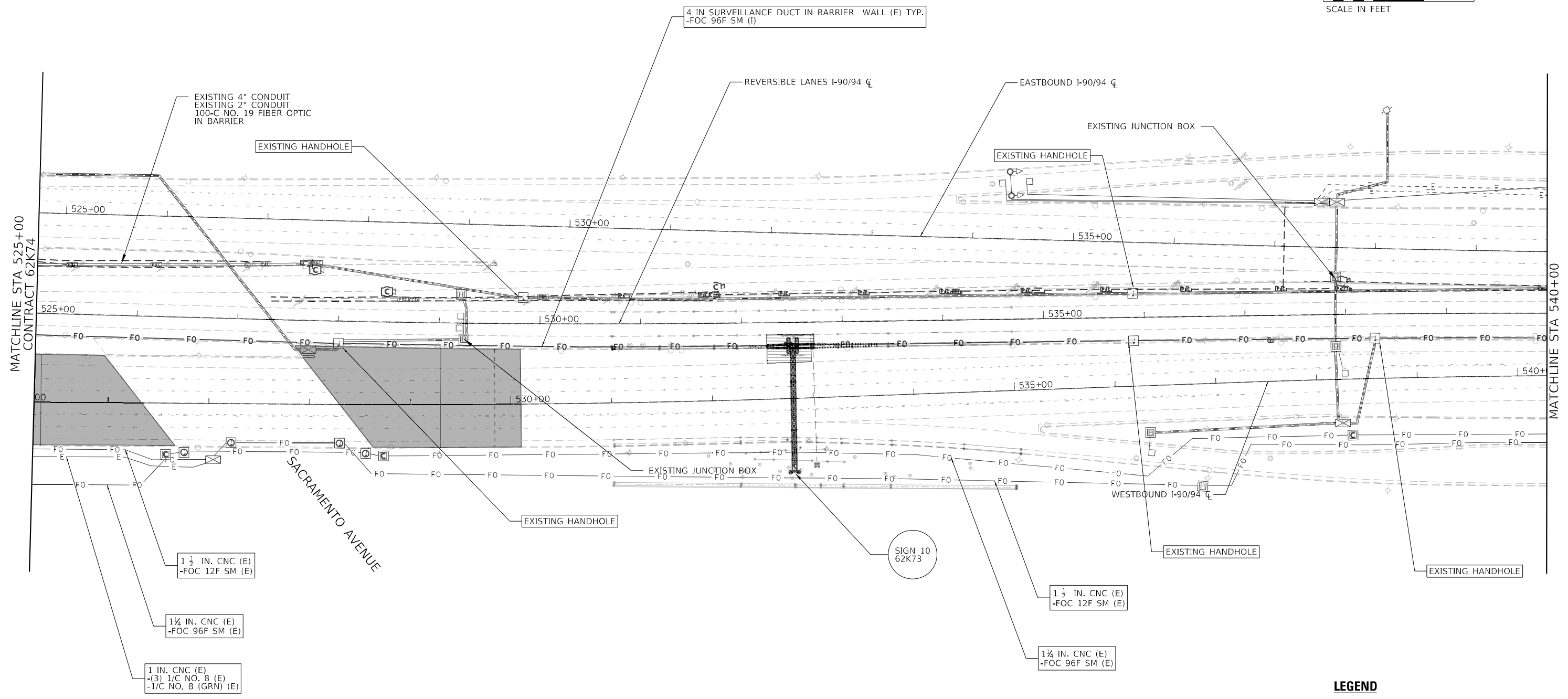
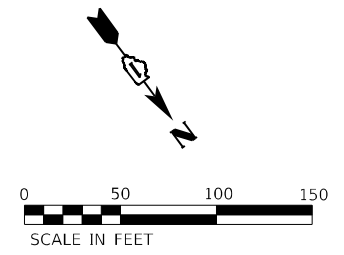
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	DRAWN - IG	REVISED -
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PLOT DATE =	DATE - 04/29/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED ITS PLAN
I-90/94

SCALE: 1"=50' SHEET 1 OF 4 SHEETS STA. 465+00 TO STA. 480+00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	2020-005-BR	COOK	908	211
CONTRACT NO. 62K73				
ILLINOIS FED. AID PROJECT				



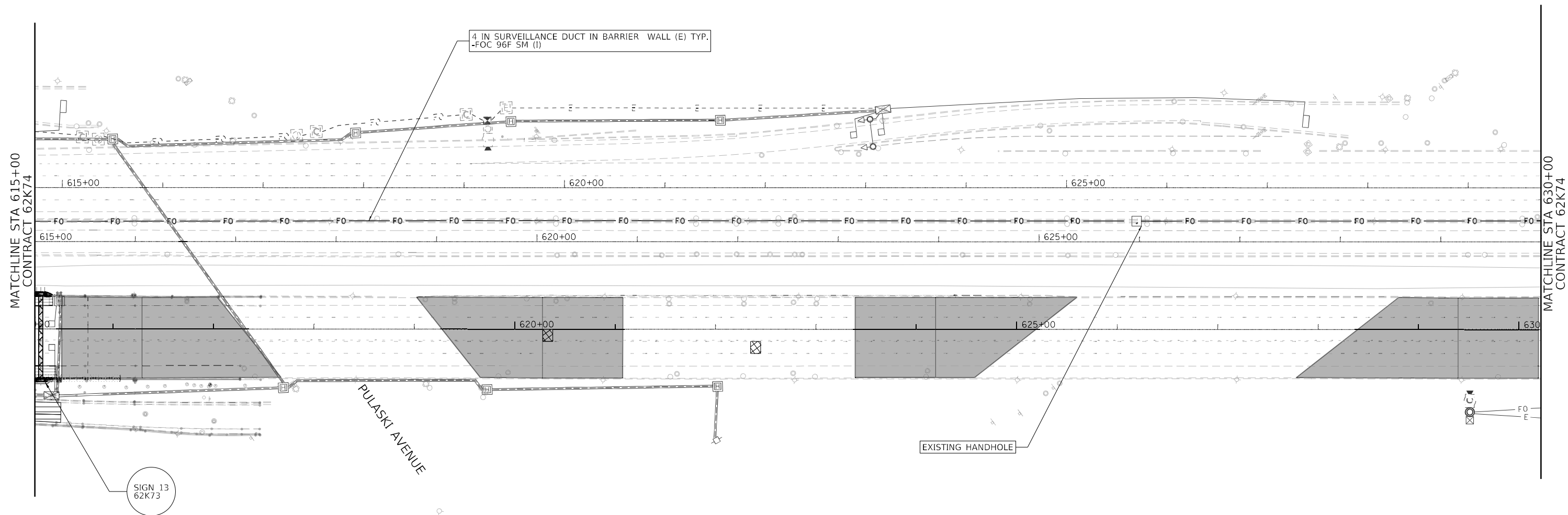
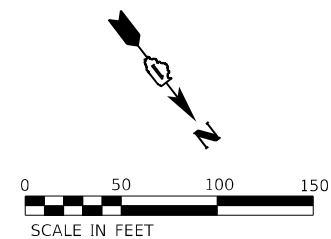
- NOTES:
- 1 MAINTAIN THE EXISTING IDOT ITS ITEMS THAT WILL BE AFFECTED BY THE CONSTRUCTION WORK UNTIL THE NEW INFRASTRUCTURE AND CABLES ARE INSTALLED IN THE LOCATIONS AS INDICATED IN THE PROPOSED ITS PLAN SHEETS. THIS ITS MAINTENANCE WORK SHALL BE INCLUDED IN THE COST OF THE "MAINTAINING ITS DURING CONSTRUCTION" PAY ITEM.

LEGEND



	PATCH LOCATION
	BRIDGE APPROACH PAVEMENT

MODEL: Sheet 17 62K73
FILE NAME: 20200502 66833 CaddDesign\BentD\62K73-sh-ts.dgn

<div><div>ABNA</div><div>DESIGN FIRM REG. 184020117</div></div> <div>745 McClintock Drive Suite 210 Burr Ridge, IL 60527 Ph: 773-851-4788 Fax: 773-239-3728</div>	USER NAME =		DESIGNED - HH		REVISED -		STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION						PROPOSED ITS PLAN I-90/94						F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	DRAWN - IG		CHECKED - HH		REVISED -														90/94	2020-005-BR	COOK	908	212
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	PLOT DATE =						SCALE: 1"=50'		SHEET 2		OF 4		SHEETS		STA. 525+00		TO STA. 540+00		ILLINOIS		FED. AID PROJECT		

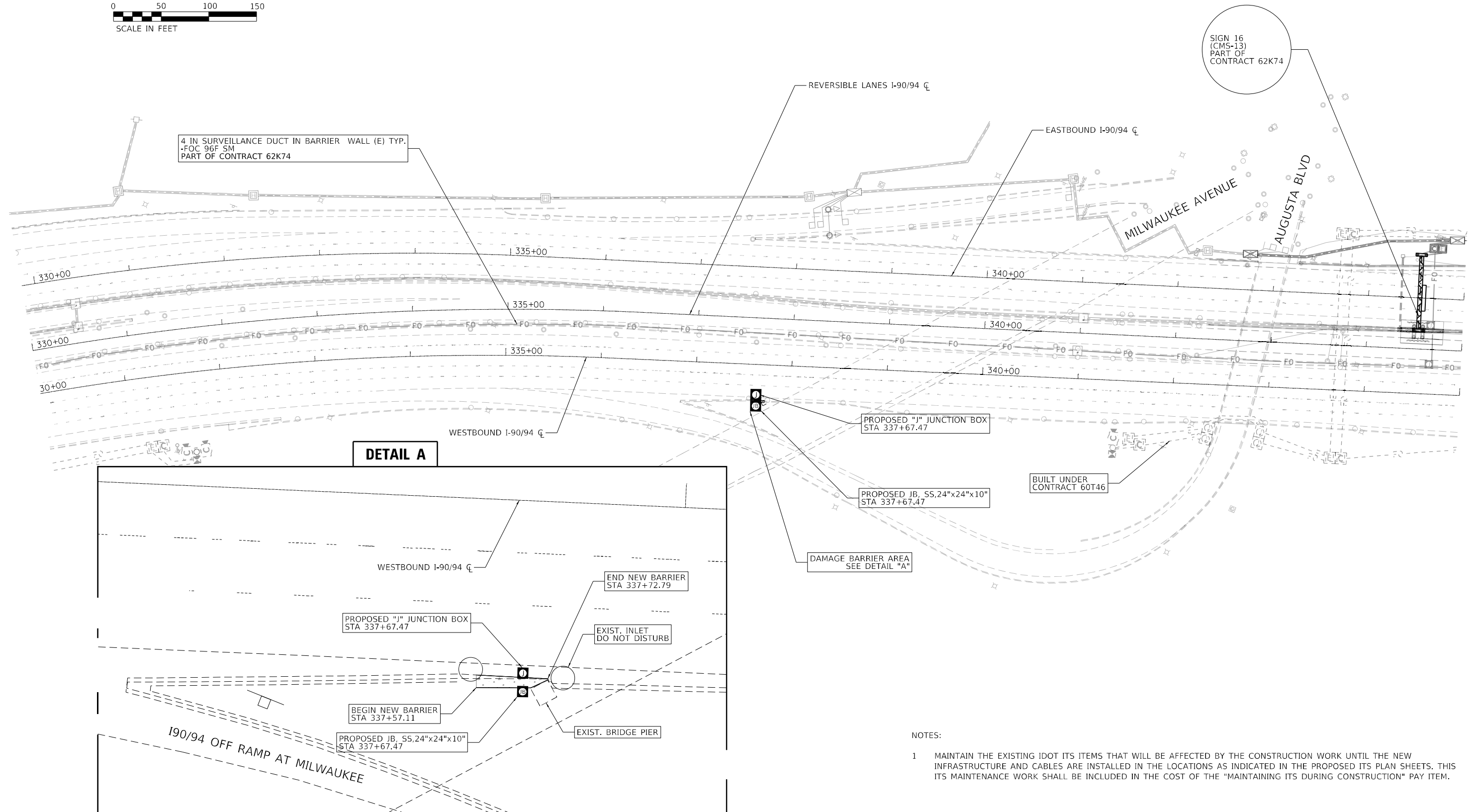
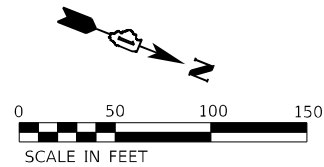


LEGEND

-  PATCH LOCATION
-  BRIDGE APPROACH PAVEMENT

NOTES:

- 1 MAINTAIN THE EXISTING IDOT ITS ITEMS THAT WILL BE AFFECTED BY THE CONSTRUCTION WORK UNTIL THE NEW INFRASTRUCTURE AND CABLES ARE INSTALLED IN THE LOCATIONS AS INDICATED IN THE PROPOSED ITS PLAN SHEETS. THIS ITS MAINTENANCE WORK SHALL BE INCLUDED IN THE COST OF THE "MAINTAINING ITS DURING CONSTRUCTION" PAY ITEM.



NOTES:

- 1 MAINTAIN THE EXISTING IDOT ITS ITEMS THAT WILL BE AFFECTED BY THE CONSTRUCTION WORK UNTIL THE NEW INFRASTRUCTURE AND CABLES ARE INSTALLED IN THE LOCATIONS AS INDICATED IN THE PROPOSED ITS PLAN SHEETS. THIS ITS MAINTENANCE WORK SHALL BE INCLUDED IN THE COST OF THE "MAINTAINING ITS DURING CONSTRUCTION" PAY ITEM.

MODEL: Sheet 3
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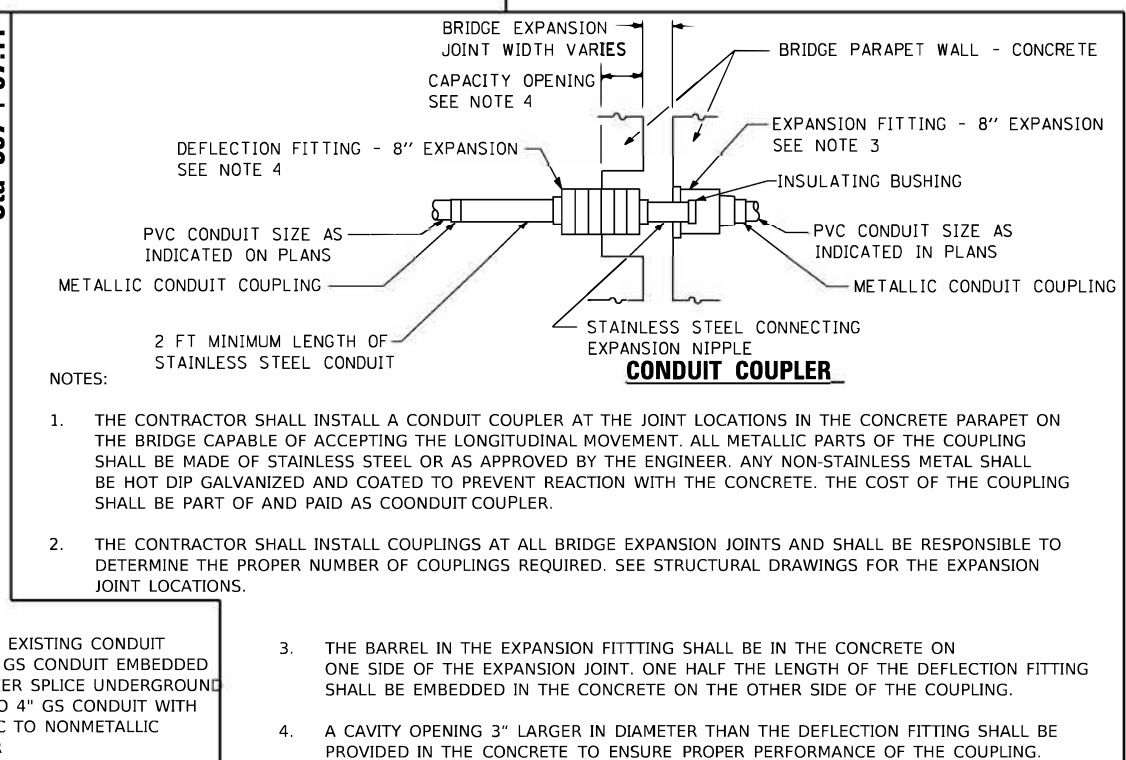
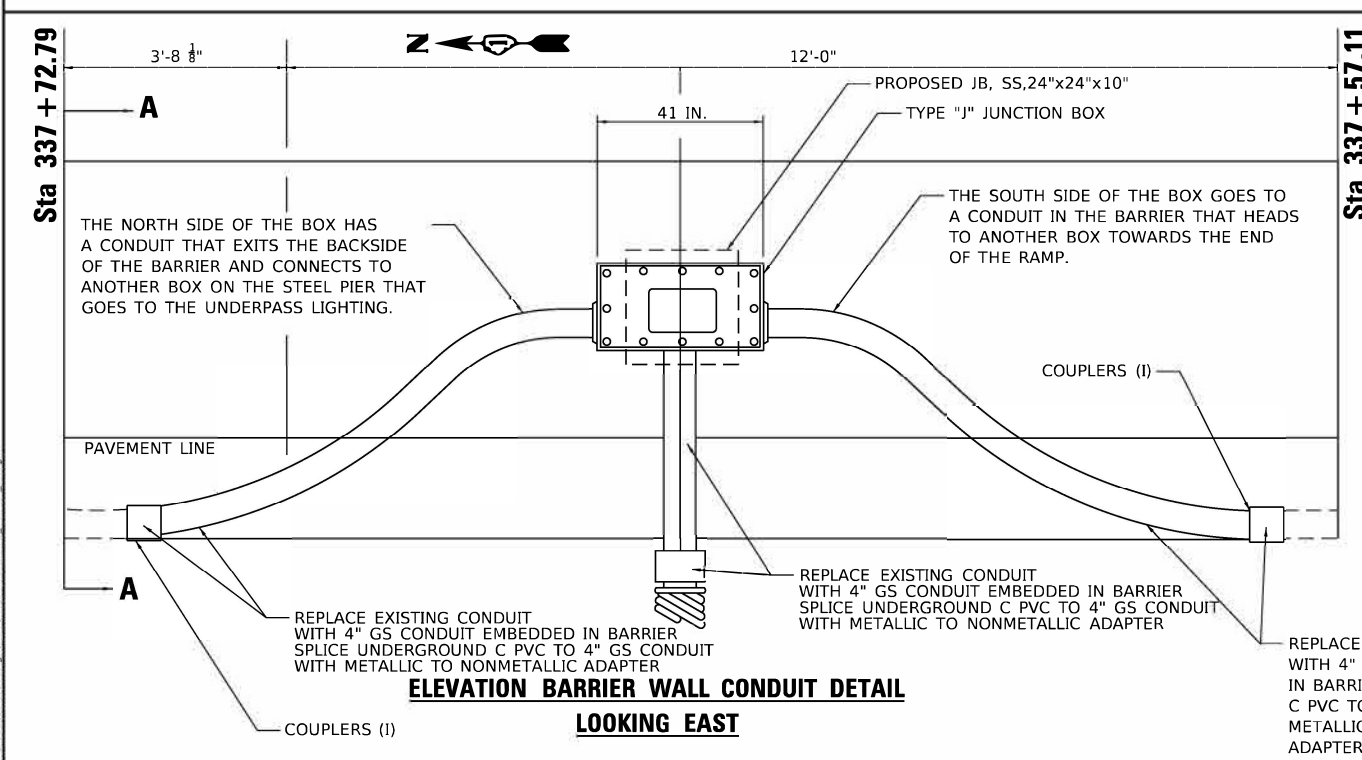
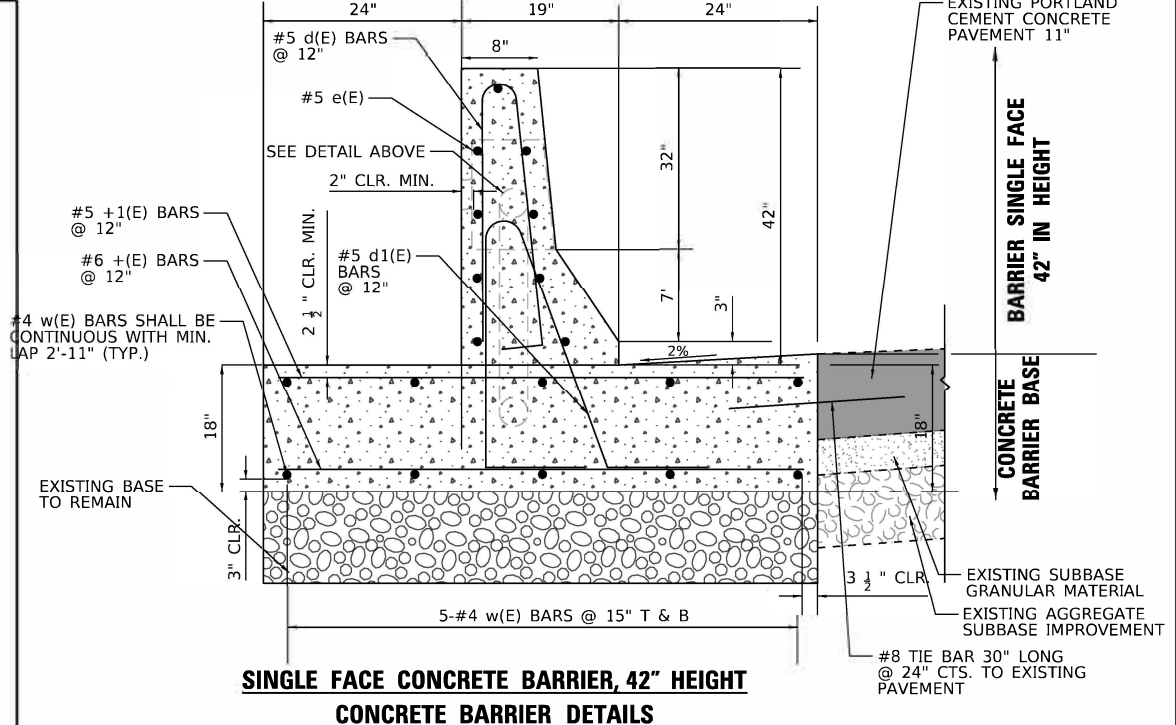
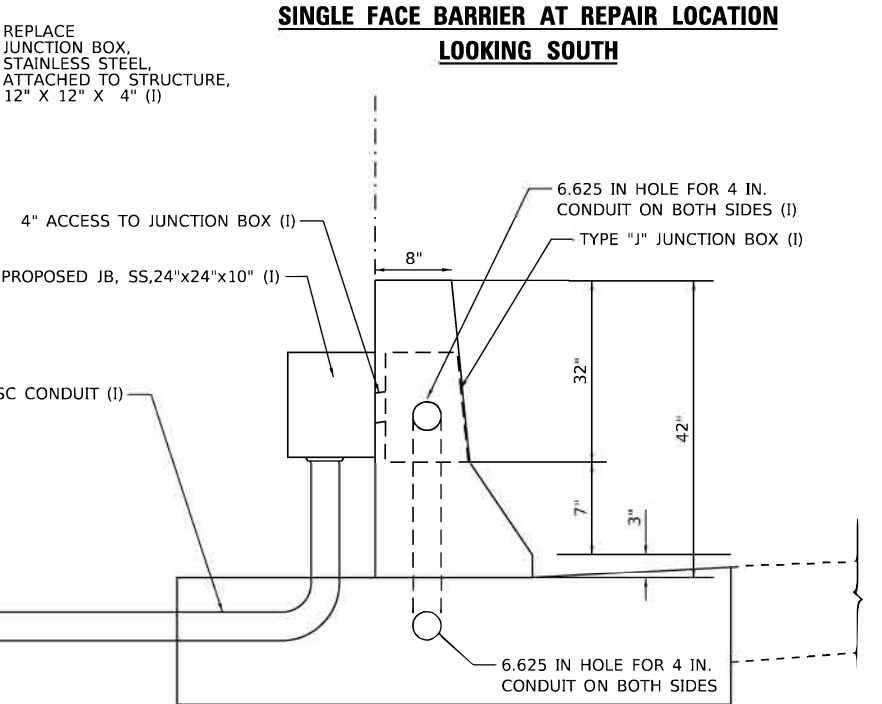
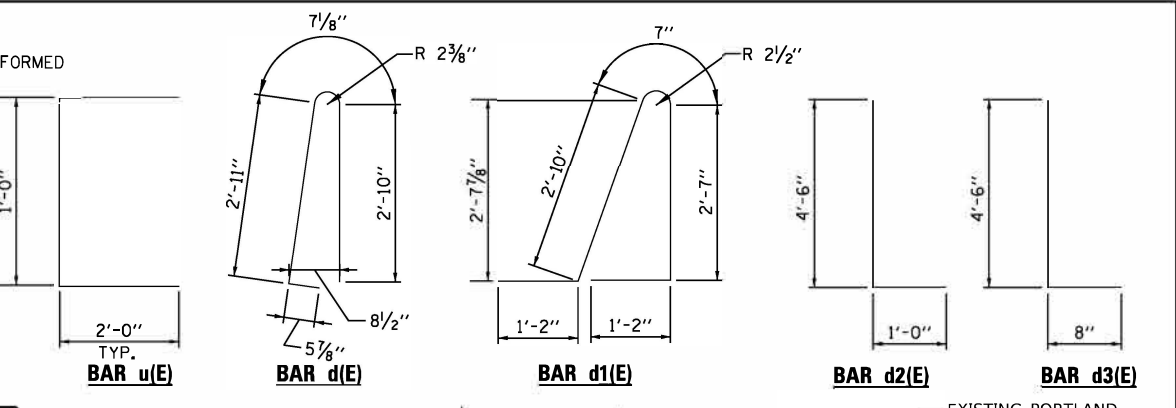
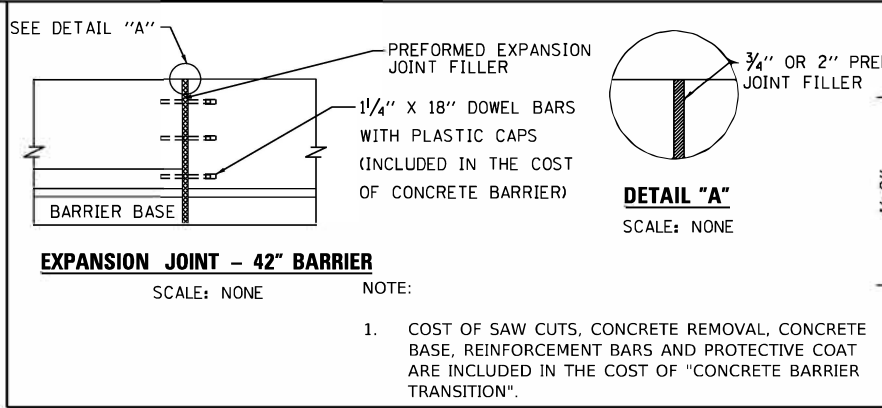
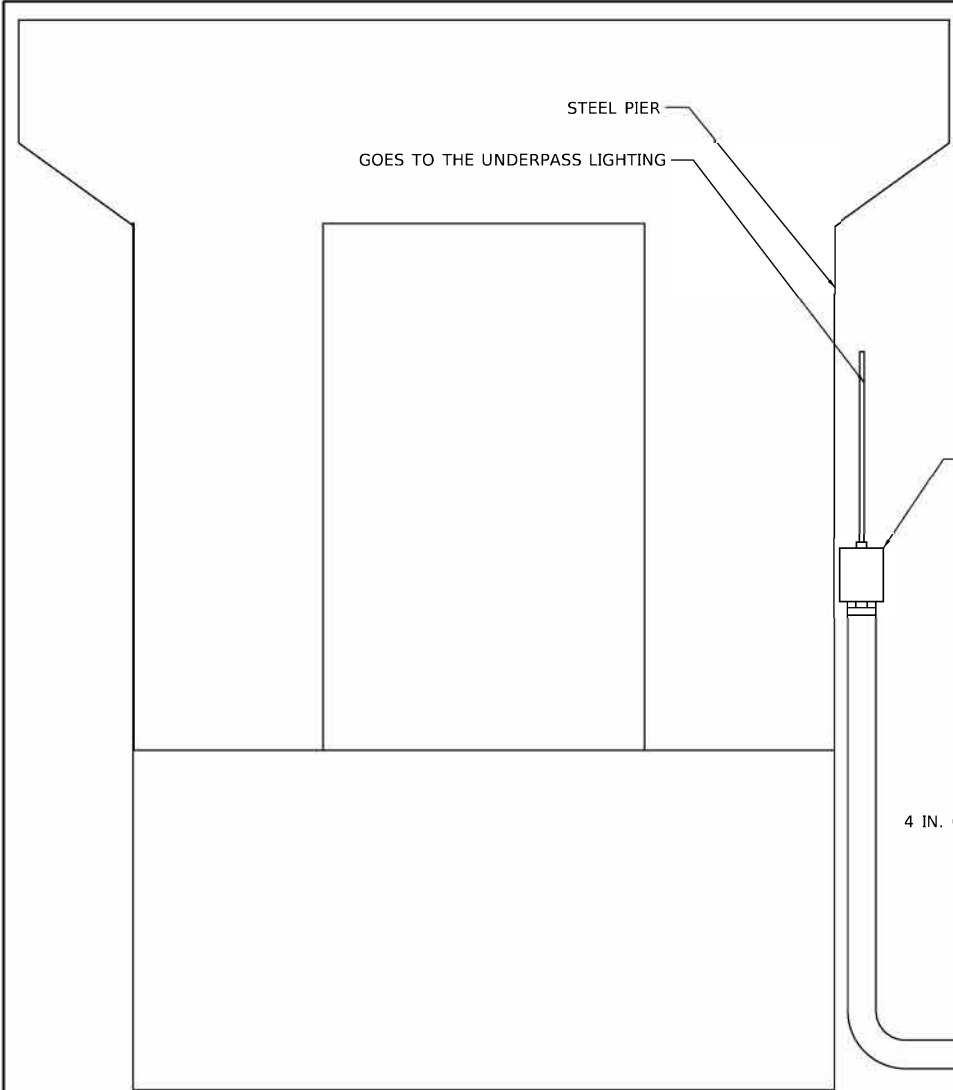
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	DRAWN - IG	REVISED -
PLOT SCALE =	CHECKED - HH	REVISED -
PLOT DATE =	DATE - 04/29/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED BARRIER REPAIR AT JUNCTION BOX
I-90/94

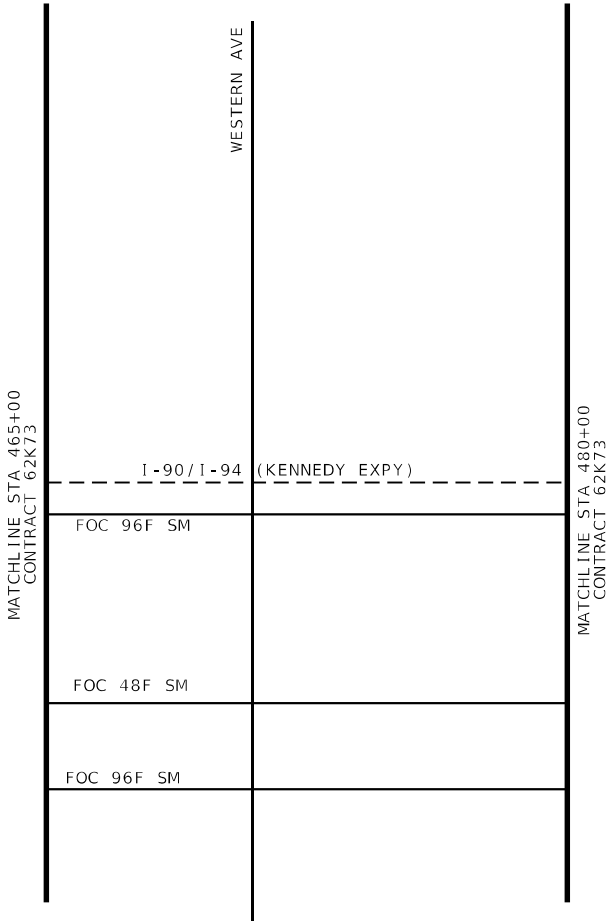
SCALE: 1"=50' SHEET 1 OF 1 SHEETS STA. 330+00 TO STA. 650+00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	2020-005-BR	COOK	908	215
CONTRACT NO. 62K73				
ILLINOIS FED. AID PROJECT				



BAR	NO.	SIZE	LENGTH	SHAPE
d(E)	17	#5	6'-10"	
e(E)	9	#5	15'-4"	
d1(E)	17	#5	8'-4"	
+1(E)	17	#5	5'-3"	
+1(E)	17	#6	5'-3"	
w(E)	10	#4	15'-4"	
ITEM		UNIT		QUANTITY
REINFORCEMENT BAR EPOXY COATED		POUND		750

BILL OF MATERIAL CONCRETE BARRIER

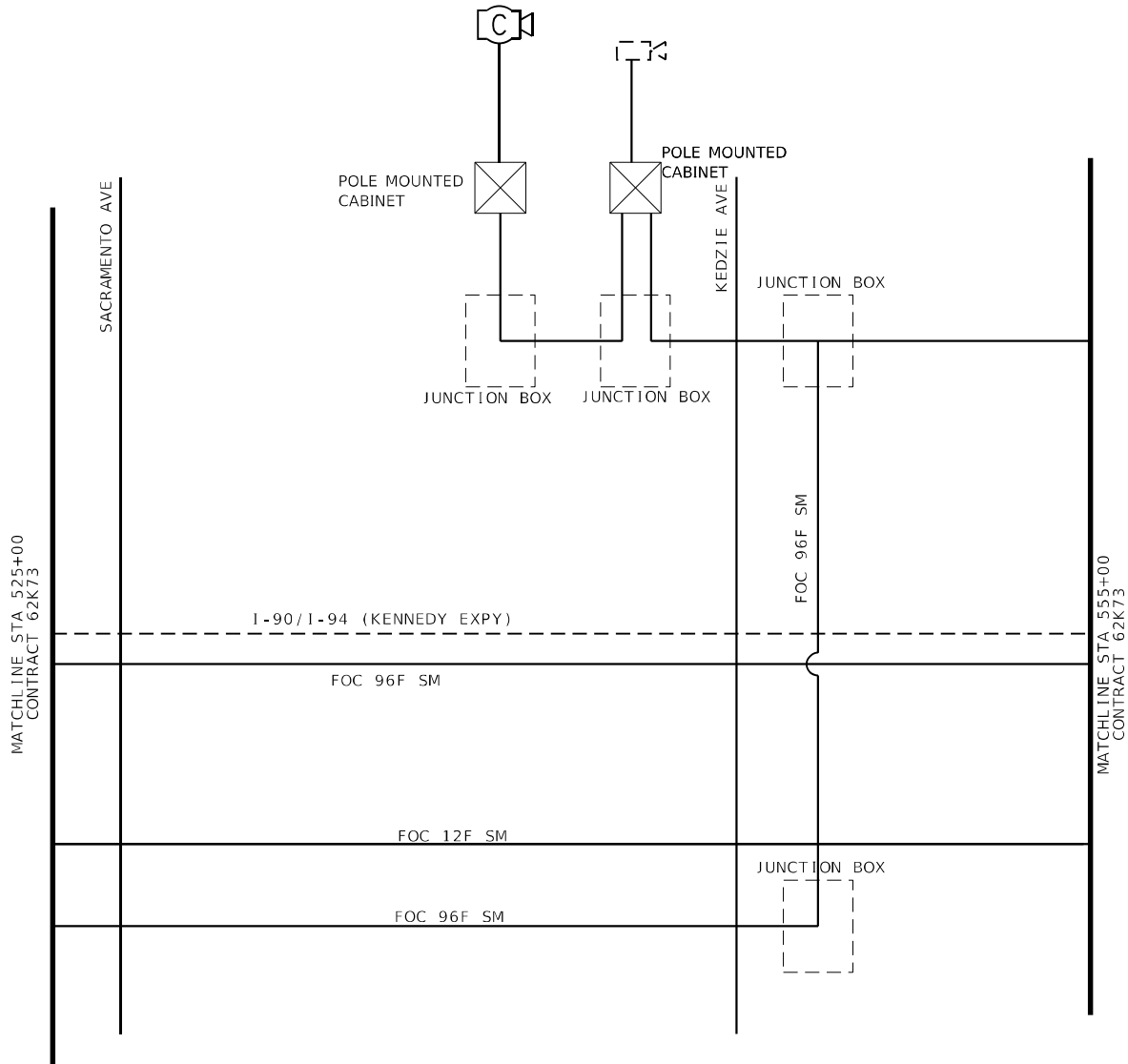


EXISTING	PROPOSED	
		FIBER OPTIC CABLE
		POLE MOUNTED CABINET
		GROUND MOUNTED CABINET
		HANDHOLE

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MODEL: Default
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EXISTING	PROPOSED	
		FIBER OPTIC CABLE
		POLE MOUNTED CABINET
		GROUND MOUNTED CABINET
		HANDHOLE



Model: Default
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ABNA
DESIGN FIRM REG. 184202117

745 McClintock Drive
Suite 210
Burr Ridge, IL 60527
Ph: 773-851-4798
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USER NAME	=	DESIGNED	-	HH	REVISED	-
DRAWN	-	IG	REVISED	-		
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

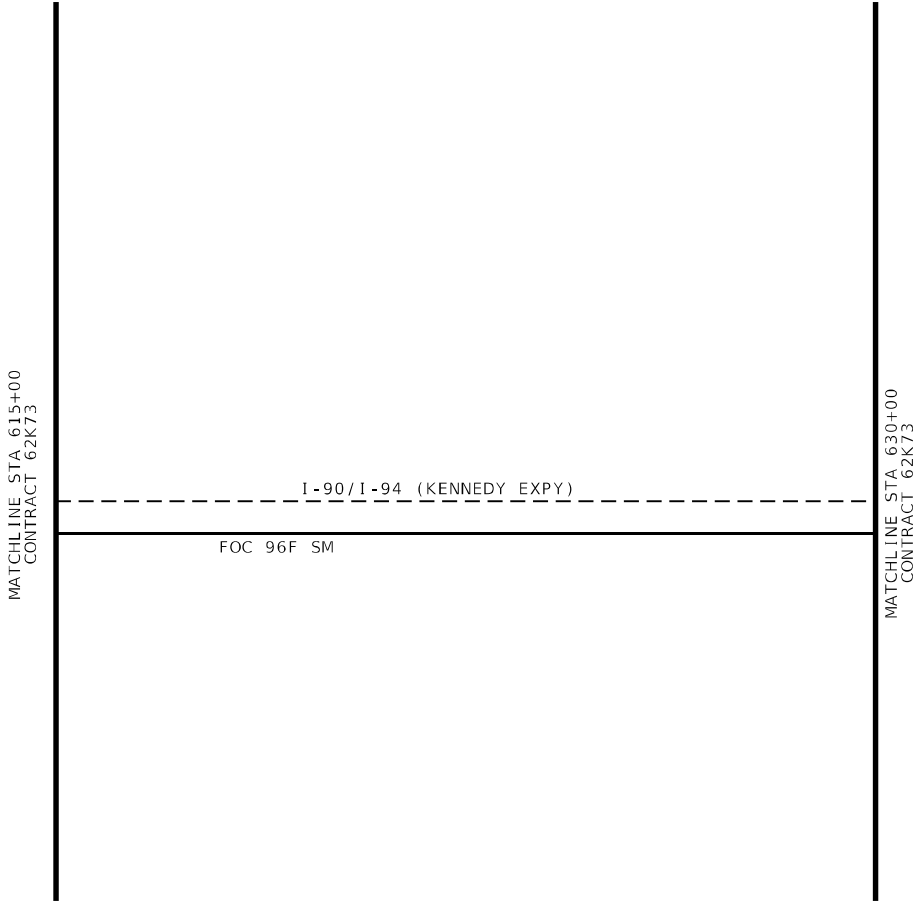
ITS PLANS FIBER OPTIC CABLE DIAGRAM
I-90/94

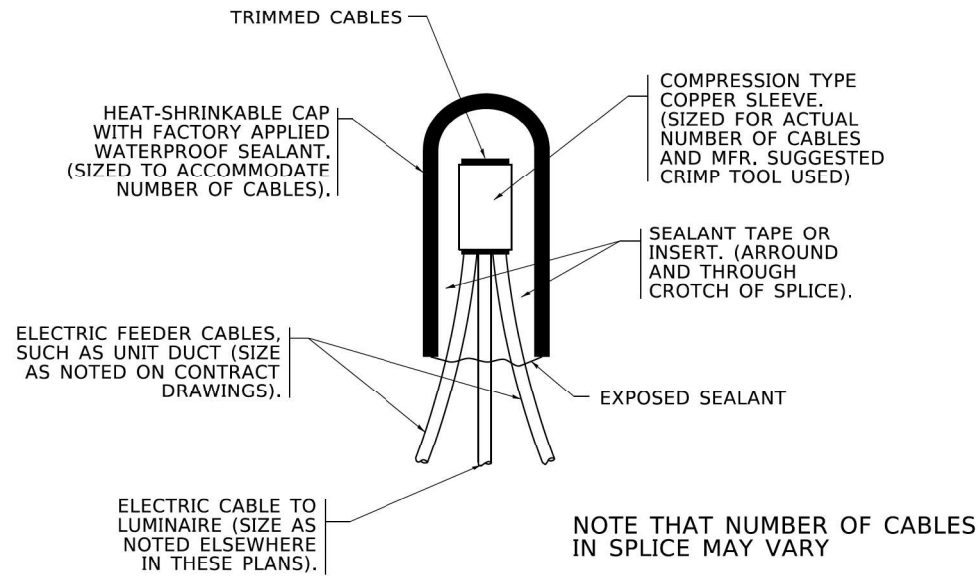
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SHEET 3 OF 3 SHEETS

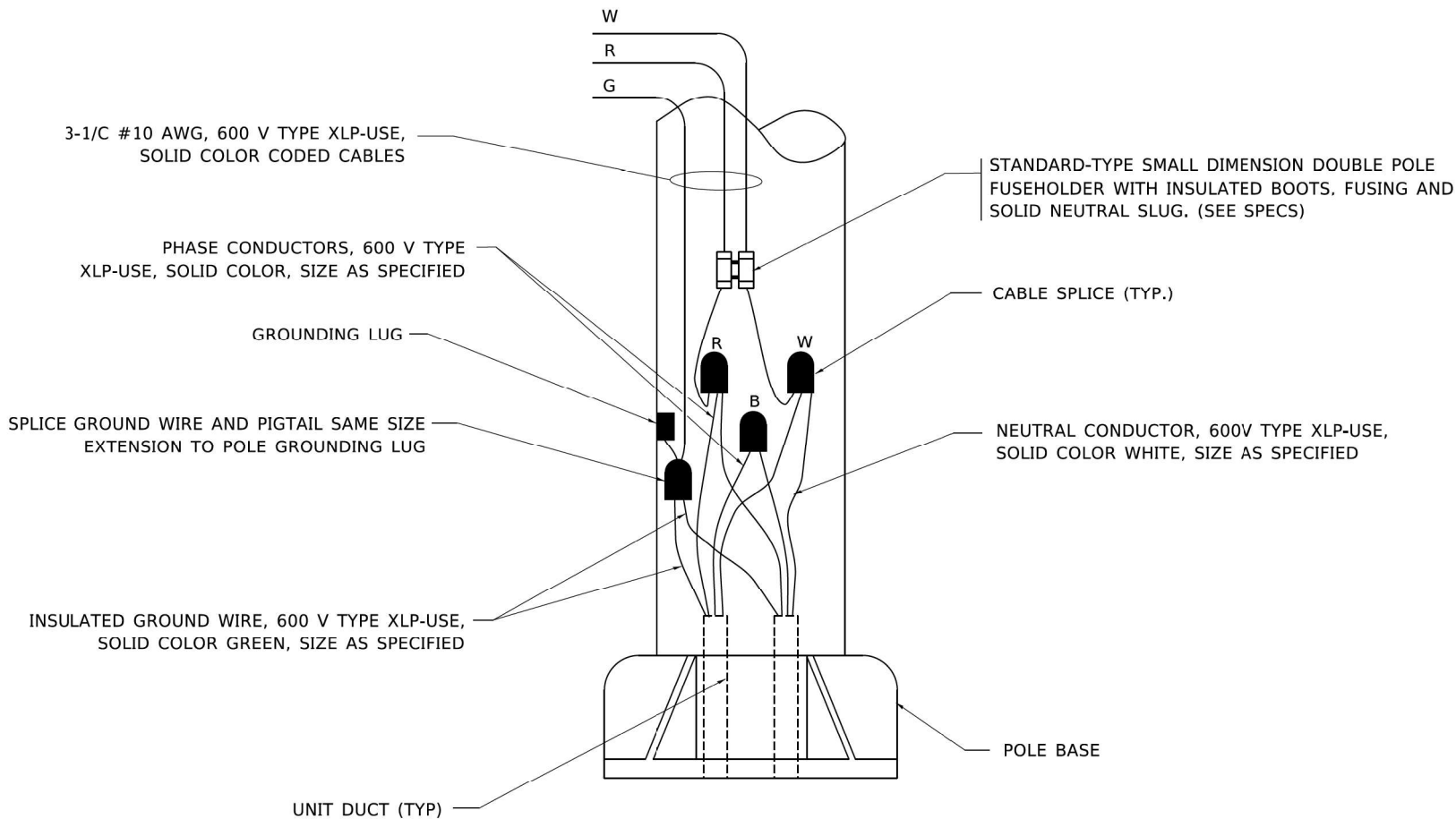
STA. 615+00 TO STA. 630+00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	2020-005-BR	COOK	908	219
CONTRACT NO. 62K73				
		ILLINOIS	FED. AID PROJECT	

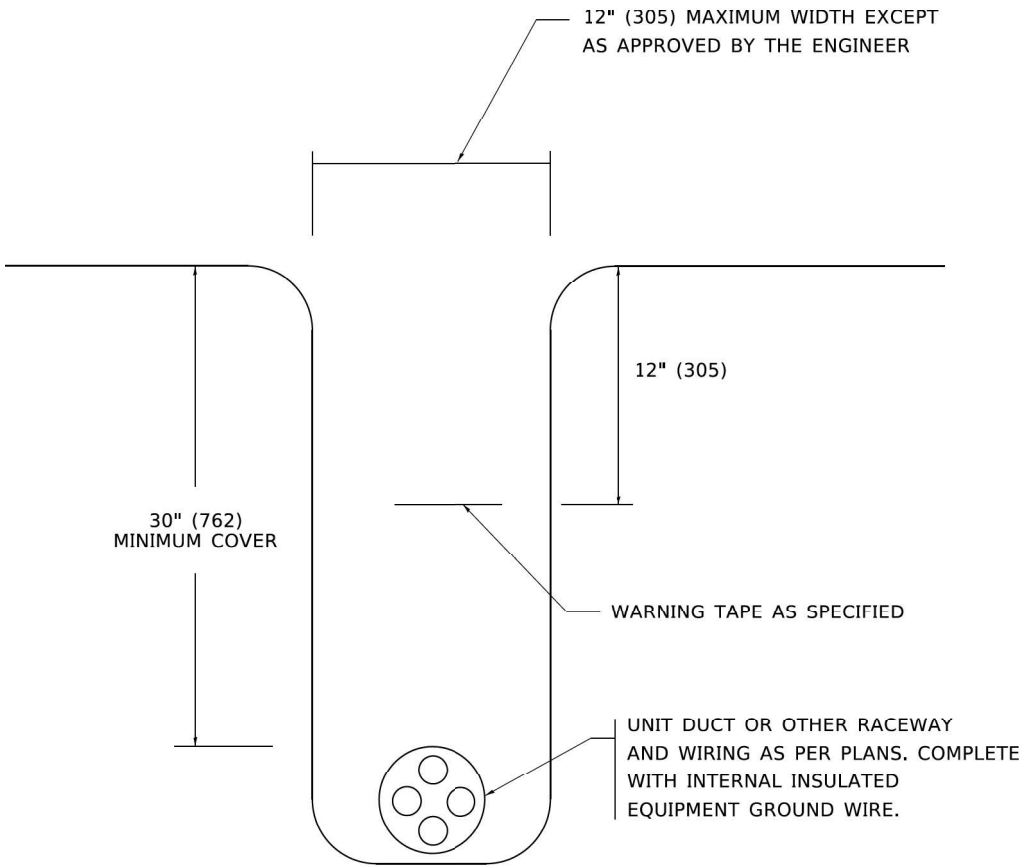




TYPICAL SPLICE DETAIL
N.T.S.



POLE WIRING DETAIL
N.T.S.



TYPICAL WIRING IN TRENCH DETAIL
N.T.S.

MODEL: Default
FILE NAME: 202002160831.CaddDesign\Bentley\2020-005-BR_702.dgn



ABNA
DESIGN FIRM REG. 184J002117

745 McClintock Drive
Suite 210
Burr Ridge, IL 60527
Ph: 773-681-1788
Fax: 773-239-3728

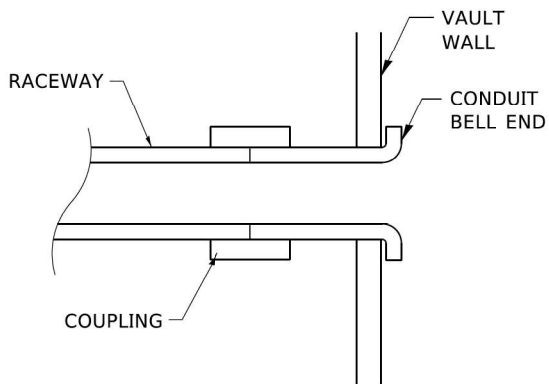
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DRAWN - IG	REVISED -	
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PLOT DATE =	DATE - 04/29/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

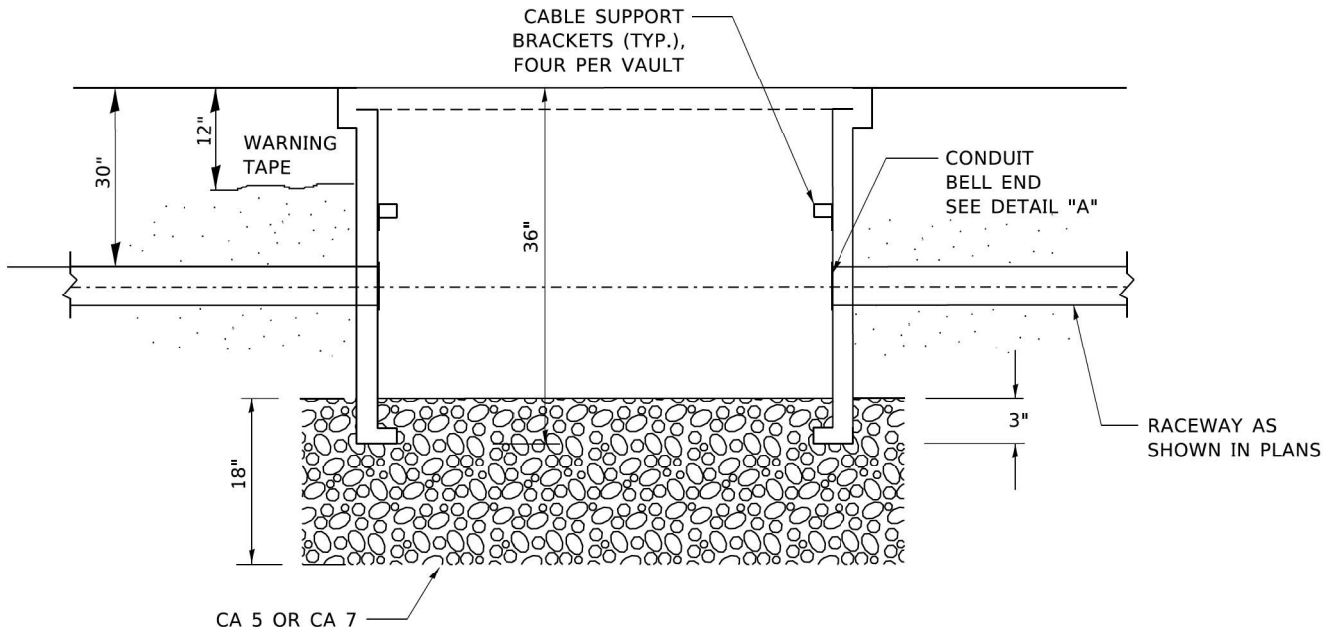
MISC. ELECTRICAL DETAILS				
SHEET A				
SCALE: NTS	SHEET 1	OF 1	SHEETS	STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	2020-005-BR	COOK	908	220
BE 702		CONTRACT NO. 62K73		
		ILLINOIS	FED. AID PROJECT	

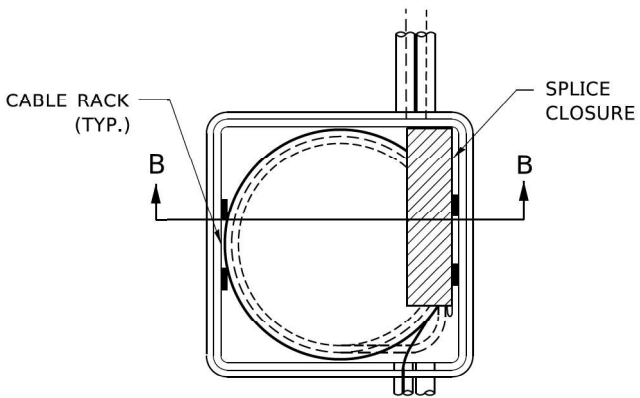
COMMUNICATIONS VAULT LOAD RATINGS			
COMPONENT	ANSI TIER	LOADING	
		DESIGN	TEST
BOX	22	22,500 lbs.	37,750 lbs.
COVER	22	22,500 lbs.	37,750 lbs.



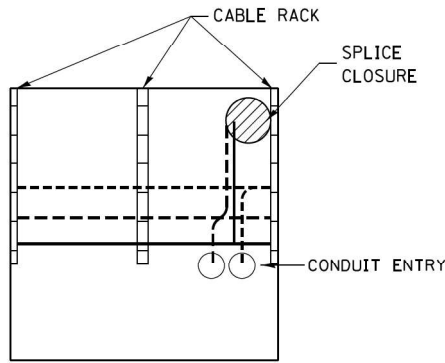
DETAIL A



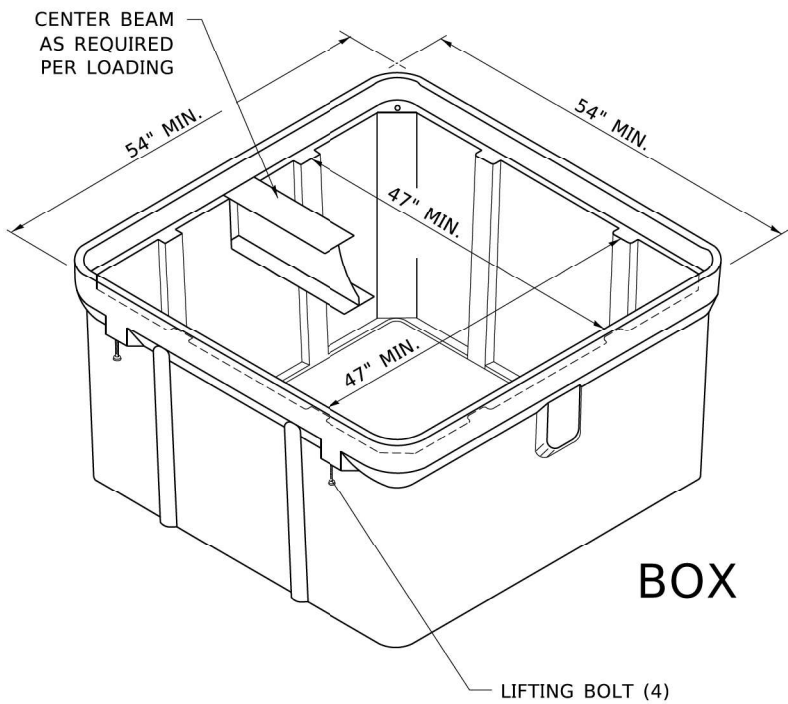
SECTION A-A



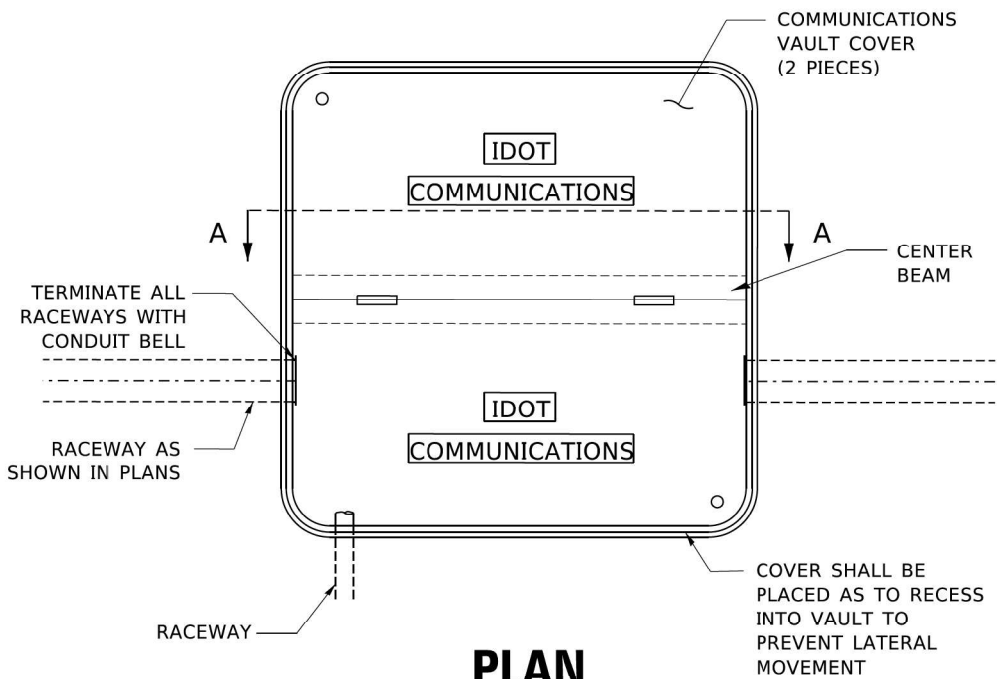
TOP VIEW



SECTION B-B



ISOMETRIC



PLAN

- NOTES:
- BOX SHALL HAVE AN OPEN BASE.
 - ALL OPENINGS IN STRUCTURE MUST BE MACHINED AT TIME OF FABRICATION OR PUNCH DRIVEN AT TIME OF PLACEMENT, IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS.
 - FIELD PLACEMENT OF COMMUNICATIONS VAULT SHALL BE AS DIRECTED BY THE ENGINEER.
 - ALL DIMENSIONS ARE MINIMUM AND A LARGER SIZE HANDHOLE MAY BE USED, WITH THE APPROVAL OF THE ENGINEER, TO FACILITATE USING A MANUFACTURER'S STANDARD PRODUCT.

MODEL: Default
FILE NAME: 202002160831_CaddDesign\Bentley\2020-005-BR_705.dgn



745 McClintock Drive
Suite 210
Burr Ridge, IL 60527
Ph: 773-693-1788
Fax: 773-239-3728

USER NAME =	DESIGNED - HH	REVISED -
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PLOT SCALE =	CHECKED - HH	REVISED -
PLOT DATE =	DATE - 04/29/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

COMMUNICATION VAULT, COMPOSITE CONCRETE

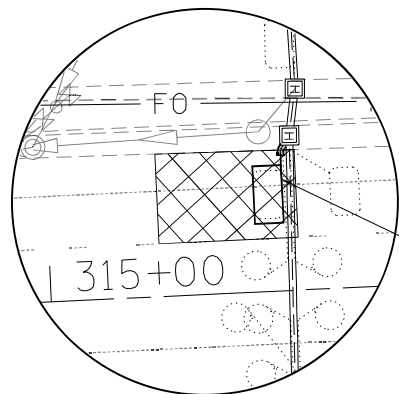
SCALE: NTS SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	2020-005-BR	COOK	908	221
BE 705		CONTRACT NO. 62K73		
		ILLINOIS FED. AID PROJECT		

ITS INDUCTION LOOP REPLACEMENT SCHEDULE

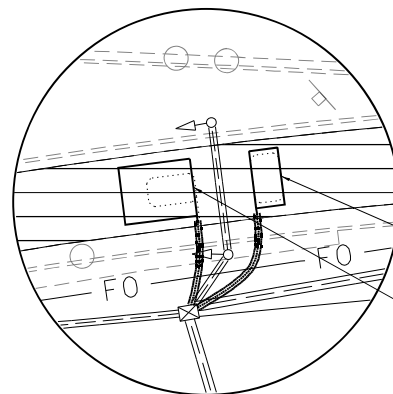
LOCATION	STA	OFFSET	UNDRGRD C GALVS 2	UNDRGRD C CNC 1 1/4	DET LOOP T1	EC C LEAD 18 4C TW SH	PREF INDUCTION LOOP
			FOOT	FOOT	FOOT	FOOT	FOOT
OGDEN AVENUE	315+49.16 323+47.32 323+59.94	26' L 78' R 76' R	0	55	102	55	42
E/O NORTH AVENUE	380+45.18 381+45.88	59' R 45' R	0	110	0	110	42
NORTH AVENUE	389+54.50 389+81.54 389+94.45	47' R 57' R 56' R	0	86	102	86	0
NORTH ARMITAGE AVENUE	418+51.18 420+06.89 420+19.64	53' R 51' R 50' R	0	338	60	338	42
WEBSTER AVE	438+69.05 438+74.37	119' R 20' R	23	12	0	12	67
NORTH WESTERN AVENUE	471+13.25 471+27.01 471+36.87	139' R 140' R 149' R	0	42	42	42	60
NORTH CALIFORNIA AVENUE	511+41.35 516+73.97 516+76.08	160' R 63' R 139' R	66	9	54	9	99
SACRAMENTO AVENUE	535+80.73 536+04.49 536+08.57	127' R 115' R 130' R	0	46	0	46	102
KIMBALL AVENUE	552+05.50 552+07.51 561+35.41 561+63.52 561+64.66 563+61.36 563+63.82 563+75.49	131' R 119' R 106' R 57' R 33' R 133' R 126' R 131' R	115	35	144	35	25
ADDISON STREET	583+86.31 583+98.15 584+37.71 586+75.85 587+69.15	160' R 162' R 133' R 150' R 144' R	125	112	92	112	50
KEELER AVENUE	639+53.13 639+64.12 639+65.97	170' R 174' R 169' R	22	0	102	0	0
TOTAL			351	845	698	845	529

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FILE NAME: \\naahajobfiles\2022\6041\WO 2 - Loops\WO 2\Documents\from DLZ\Files Received 2023\10\20\CADD_Sheets\016K73\016K73-51T-000 schedule.dgn



DETAIL 'A'

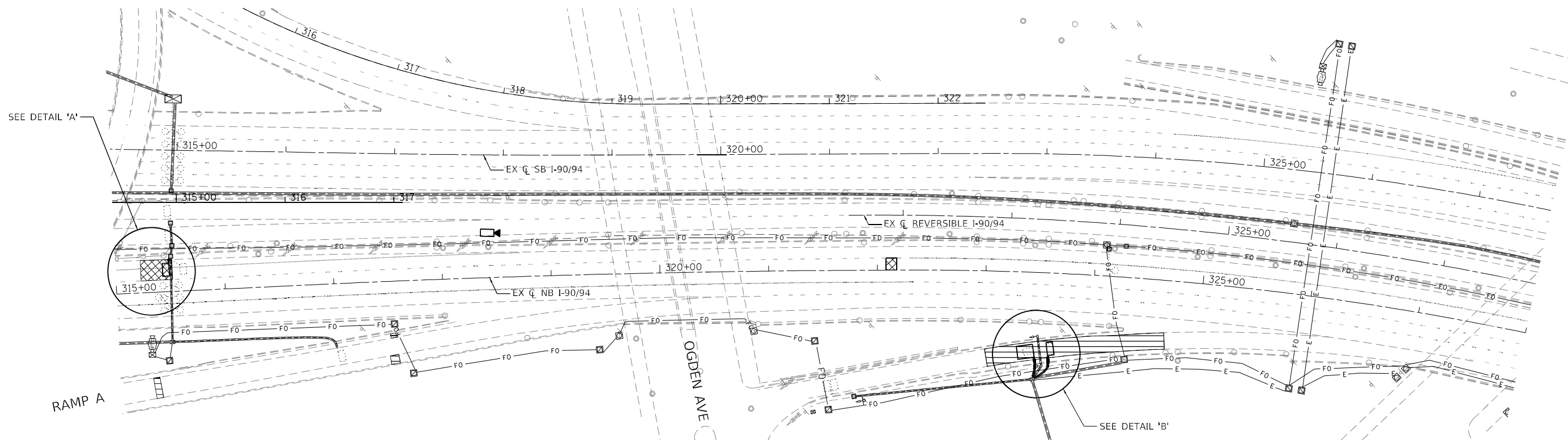
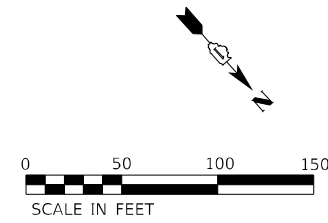
PREFORMED INDUCTION LOOP (6' x 12')
7' - ELECTRIC CABLE IN CONDUIT, LEAD IN, NO. 18 4/C, TWISTED, SHIELDED
7' - UNDERGROUND CONDUIT, COILABLE NONMETALLIC CONDUIT, 1 1/4" DIA.



DETAIL 'B'

DETECTOR LOOP, TYPE 1 (6' x 12')
28' - ELECTRIC CABLE IN CONDUIT, LEAD IN, NO. 18 4/C, TWISTED, SHIELDED
28' - UNDERGROUND CONDUIT, COILABLE NONMETALLIC CONDUIT, 1 1/4" DIA.

DETECTOR LOOP, TYPE 1 (15' x 12')
20' - ELECTRIC CABLE IN CONDUIT, LEAD IN, NO. 18 4/C, TWISTED, SHIELDED
20' - UNDERGROUND CONDUIT, COILABLE NONMETALLIC CONDUIT, 1 1/4" DIA.



FOR RAMP METER LOOPS:

1. EACH INDUCTION LOOP SHALL HAVE ITS OWN 4C #18 TWISTED SHIELD LEAD-IN CABLE TO CABINET.
2. EACH LOOP LEAD-IN SHALL BE IDENTIFIED AND PERMANENTLY COLOR CODED IN THE COREHOLE, HANDHOLE, AND CABINETS THRU WHICH THEY ENTER OR PASS AND TAGGED WITH THE CORRECT NOMENCLATURE.
3. INDUCTION LOOPS SHALL NOT BE CONNECTED IN SERIES WITH OTHER LOOPS.
4. REFER TO TY-ITSC-400 SERIES TYPICALS.

LEGEND

PER PLAN	EXISTING	PROPOSED	ITEM
			ROUND INDUCTION LOOP
			INDUCTION LOOP
			HANDHOLE
			CONTROLLER CABINET
			JUNCTION BOX
			HEAVY DUTY HANDHOLE
			SIGNAL POST
			SERVICE INSTALLATION
			UNDERGROUND CONDUIT, GALVANIZED STEEL
			UNDERGROUND CONDUIT, COILABLE NON-METALIC
			PATCH LOCATION
			BRIDGE APPROACH PAVEMENT

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ITS INDUCTION LOOP REPLACEMENT PLANS
OGDEN AVE INSTALLATION

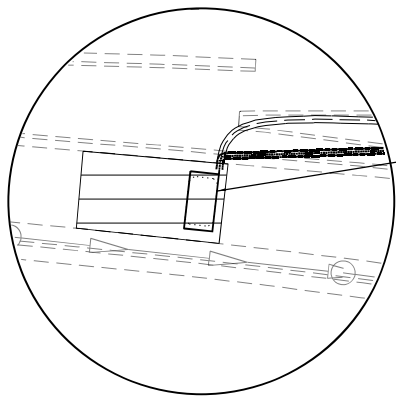
SCALE: 1"=50' SHEET 1 OF 11 SHEETS STA. 315+00 TO STA. 328+00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	2020-005-BR	COOK	908	223
CONTRACT NO. 62K73				
ILLINOIS FED. AID PROJECT				

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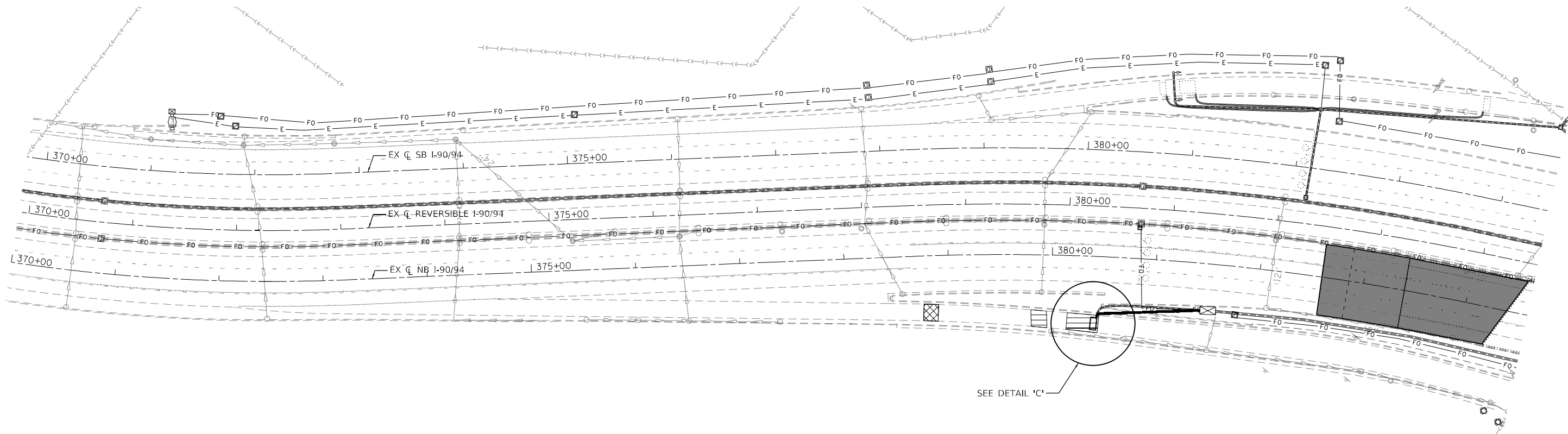
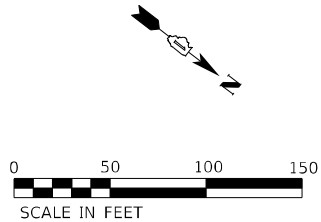
ABNA
DESIGN FIRM REG. 1842002117
745 McClintock Drive
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Burr Ridge, IL 60527
Ph: 773-581-4788
Fax: 773-239-3728

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PLOT DATE =	CHECKED - JMO	REVISED -
	DATE - 04/29/2024	REVISED -



DETAIL 'C'

PREFORMED INDUCTION LOOP (6' x 12')
110' - ELECTRIC CABLE IN CONDUIT, LEAD IN, NO. 18 4/C, TWISTED, SHEILDED
110' - UNDERGROUND CONDUIT, COILABLE NONMETALLIC CONDUIT, 1 1/4" DIA.



- FOR RAMP METER LOOPS:
1. EACH INDUCTION LOOP SHALL HAVE ITS OWN 4C #18 TWISTED SHIELD LEAD-IN CABLE TO CABINET.
 2. EACH LOOP LEAD-IN SHALL BE IDENTIFIED AND PERMANENTLY COLOR CODED IN THE COREHOLE, HANDHOLE, AND CABINETS THRU WHICH THEY ENTER OR PASS AND TAGGED WITH THE CORRECT NOMENCLATURE.
 3. INDUCTION LOOPS SHALL NOT BE CONNECTED IN SERIES WITH OTHER LOOPS.
 4. REFER TO TY-ITSC-400 SERIES TYPICALS.

LEGEND

PER PLAN	EXISTING	PROPOSED	ITEM
			ROUND INDUCTION LOOP
			INDUCTION LOOP
			HANDHOLE
			CONTROLLER CABINET
			JUNCTION BOX
			HEAVY DUTY HANDHOLE
			SIGNAL POST
			SERVICE INSTALLATION
			UNDERGROUND CONDUIT, GALVANIZED STEEL
			UNDERGROUND CONDUIT, COILABLE NON-METALIC
			PATCH LOCATION
			BRIDGE APPROACH PAVEMENT

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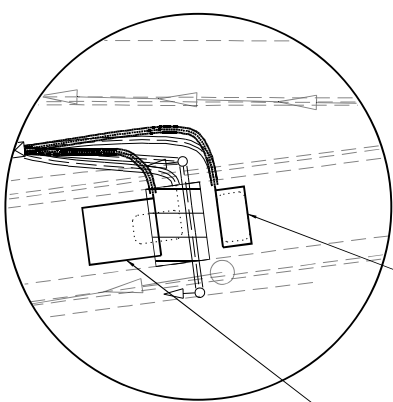
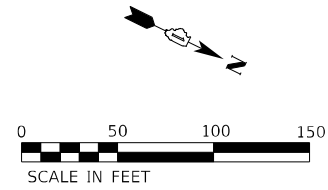
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DRAWN - MSU	REVISED -	
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PLOT DATE =	DATE - 04/29/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ITS INDUCTION LOOP REPLACEMENT PLANS
NORTH AVE INSTALLATION

SCALE: 1"=50' SHEET 2 OF 11 SHEETS STA. 370+00 TO STA. 385+00

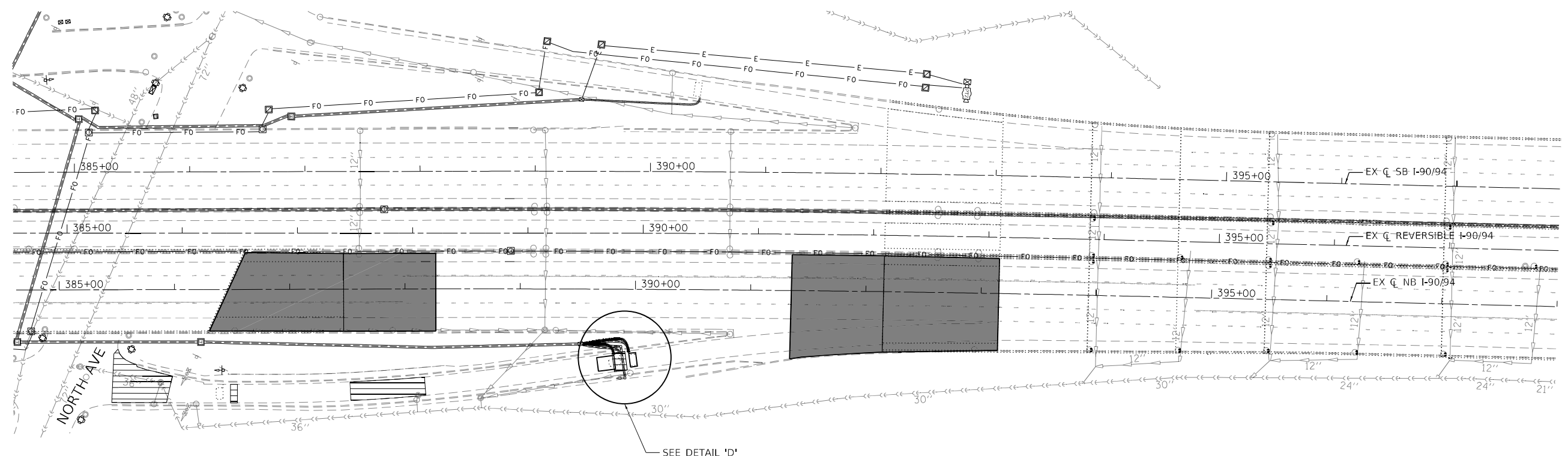
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	2020-005-BR	COOK	908	224
CONTRACT NO. 62K73				
ILLINOIS FED. AID PROJECT				



DETECTOR LOOP, TYPE 1 (6' x 12')
51' - ELECTRIC CABLE IN CONDUIT, LEAD IN. NO. 18 4/C, TWISTED, SHEILDED
51' - UNDERGROUND CONDUIT, COILABLE NONMETALLIC CONDUIT, 1 1/4" DIA.

DETAIL 'D'

DETECTOR LOOP, TYPE 1 (15' x 12')
35' - ELECTRIC CABLE IN CONDUIT, LEAD IN. NO. 18 4/C, TWISTED, SHEILDED
35' - UNDERGROUND CONDUIT, COILABLE NONMETALLIC CONDUIT, 1 1/4" DIA.



- FOR RAMP METER LOOPS:
1. EACH INDUCTION LOOP SHALL HAVE ITS OWN 4C #18 TWISTED SHIELD LEAD-IN CABLE TO CABINET.
 2. EACH LOOP LEAD-IN SHALL BE IDENTIFIED AND PERMANENTLY COLOR CODED IN THE COREHOLE, HANDHOLE, AND CABINETS THRU WHICH THEY ENTER OR PASS AND TAGGED WITH THE CORRECT NOMENCLATURE.
 3. INDUCTION LOOPS SHALL NOT BE CONNECTED IN SERIES WITH OTHER LOOPS.
 4. REFER TO TY-ITSC-400 SERIES TYPICALS.

LEGEND

PER PLAN	EXISTING	PROPOSED	ITEM
			ROUND INDUCTION LOOP
			INDUCTION LOOP
			HANDHOLE
			CONTROLLER CABINET
			JUNCTION BOX
			HEAVY DUTY HANDHOLE
			SIGNAL POST
			SERVICE INSTALLATION
			UNDERGROUND CONDUIT, GALVANIZED STEEL
			UNDERGROUND CONDUIT, COILABLE NON-METALIC
			PATCH LOCATION
			BRIDGE APPROACH PAVEMENT

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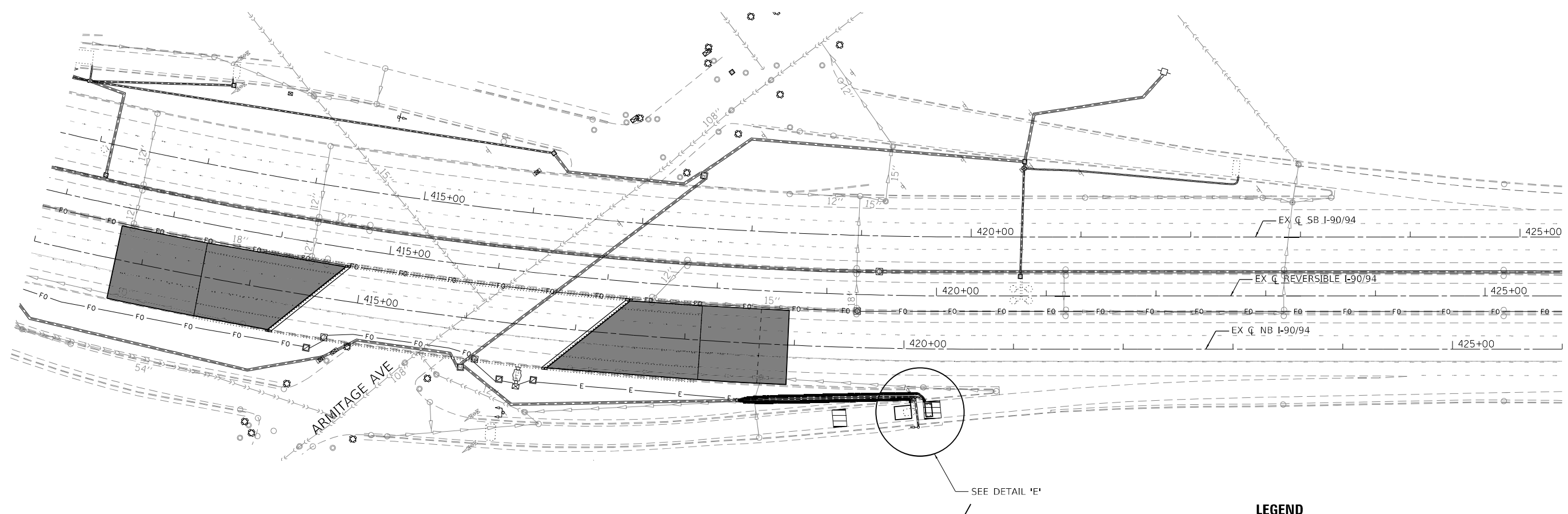
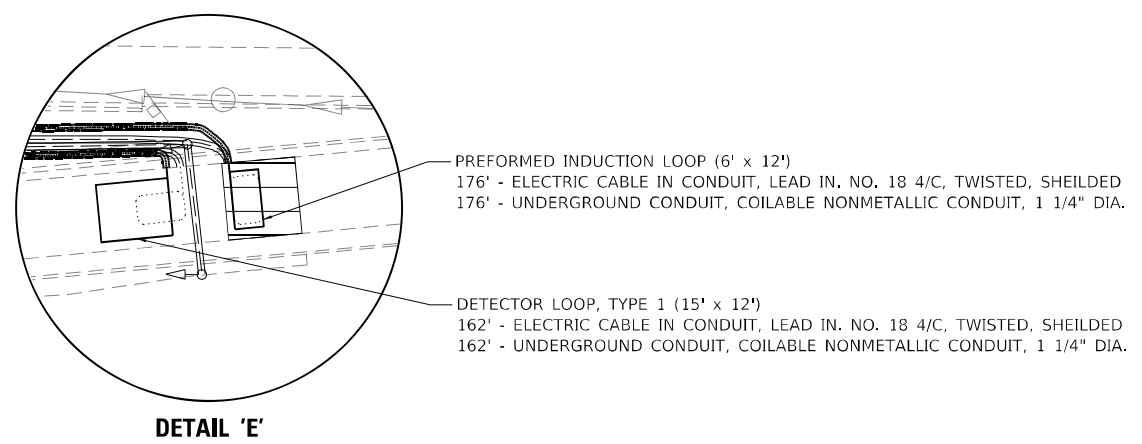
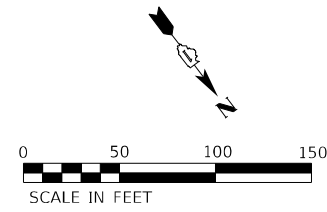
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PLOT DATE =	DATE - 04/29/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ITS INDUCTION LOOP REPLACEMENT PLANS
NORTH AVE INSTALLATION

SCALE: 1"=50' SHEET 3 OF 11 SHEETS STA. 385+00 TO STA. 398+00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	2020-005-BR	COOK	908	225
CONTRACT NO. 62K73				
ILLINOIS FED. AID PROJECT				



- FOR RAMP METER LOOPS:
1. EACH INDUCTION LOOP SHALL HAVE ITS OWN 4C #18 TWISTED SHIELD LEAD-IN CABLE TO CABINET.
 2. EACH LOOP LEAD-IN SHALL BE IDENTIFIED AND PERMANENTLY COLOR CODED IN THE COREHOLE, HANDHOLE, AND CABINETS THRU WHICH THEY ENTER OR PASS AND TAGGED WITH THE CORRECT NOMENCLATURE.
 3. INDUCTION LOOPS SHALL NOT BE CONNECTED IN SERIES WITH OTHER LOOPS.
 4. REFER TO TY-ITSC-400 SERIES TYPICALS.

LEGEND	
PER PLAN	PROPOSED

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Suite 210
Burr Ridge, IL 60527
Ph: 773-851-4788
Fax: 773-239-3728

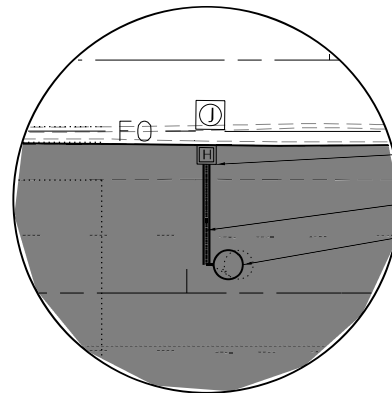
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

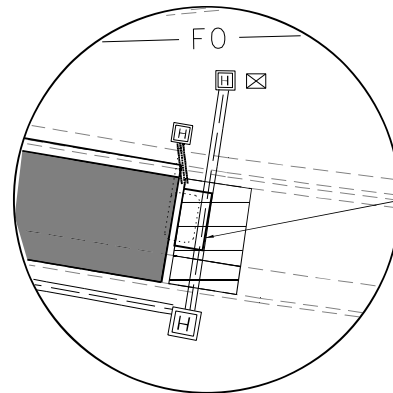
ITS INDUCTION LOOP REPLACEMENT PLANS
ARMITAGE AVE INSTALLATION

SCALE: 1"=50' SHEET 4 OF 11 SHEETS STA. 412+00 TO STA. 426+00

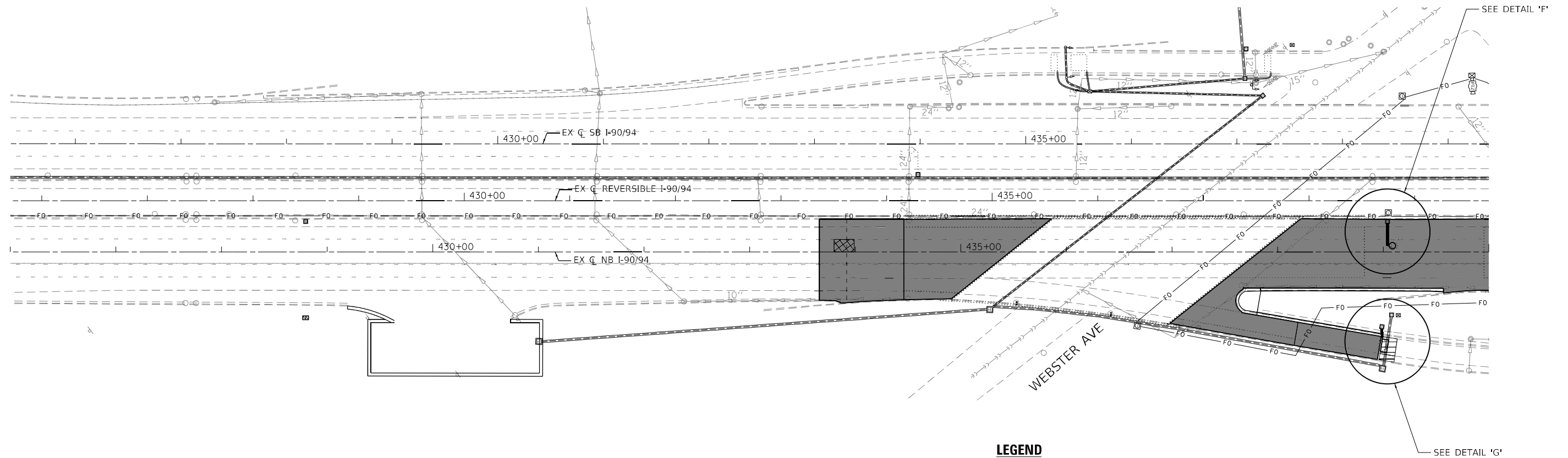
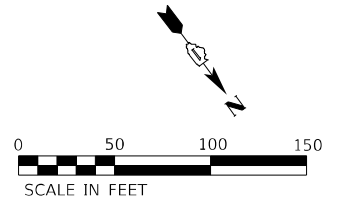
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90/94	2020-005-BR	COOK	908	226
CONTRACT NO. 62K73				
ILLINOIS FED. AID PROJECT				



DETAIL 'F'



DETAIL 'G'



FOR RAMP METER LOOPS:

1. EACH INDUCTION LOOP SHALL HAVE ITS OWN 4C #18 TWISTED SHIELD LEAD-IN CABLE TO CABINET.
2. EACH LOOP LEAD-IN SHALL BE IDENTIFIED AND PERMANENTLY COLOR CODED IN THE COREHOLE, HANDHOLE, AND CABINETS THRU WHICH THEY ENTER OR PASS AND TAGGED WITH THE CORRECT NOMENCLATURE.
3. INDUCTION LOOPS SHALL NOT BE CONNECTED IN SERIES WITH OTHER LOOPS.
4. REFER TO TY-ITSC-400 SERIES TYPICALS.

LEGEND	
PER PLAN	EXISTING

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ITS INDUCTION LOOP REPLACEMENT PLANS
WEBSTER AVE INSTALLATION

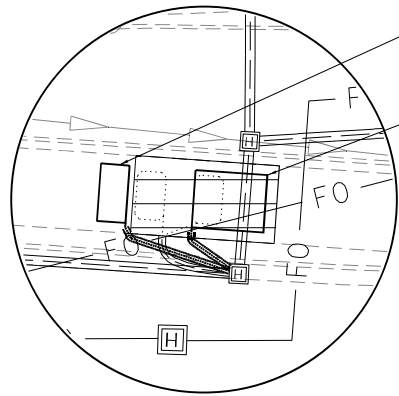
SCALE: 1"=50' SHEET 5 OF 11 SHEETS STA. 426+00 TO STA. 440+00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	2020-005-BR	COOK	908	227
CONTRACT NO. 62K73				
ILLINOIS FED. AID PROJECT				

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745 McClintock Drive
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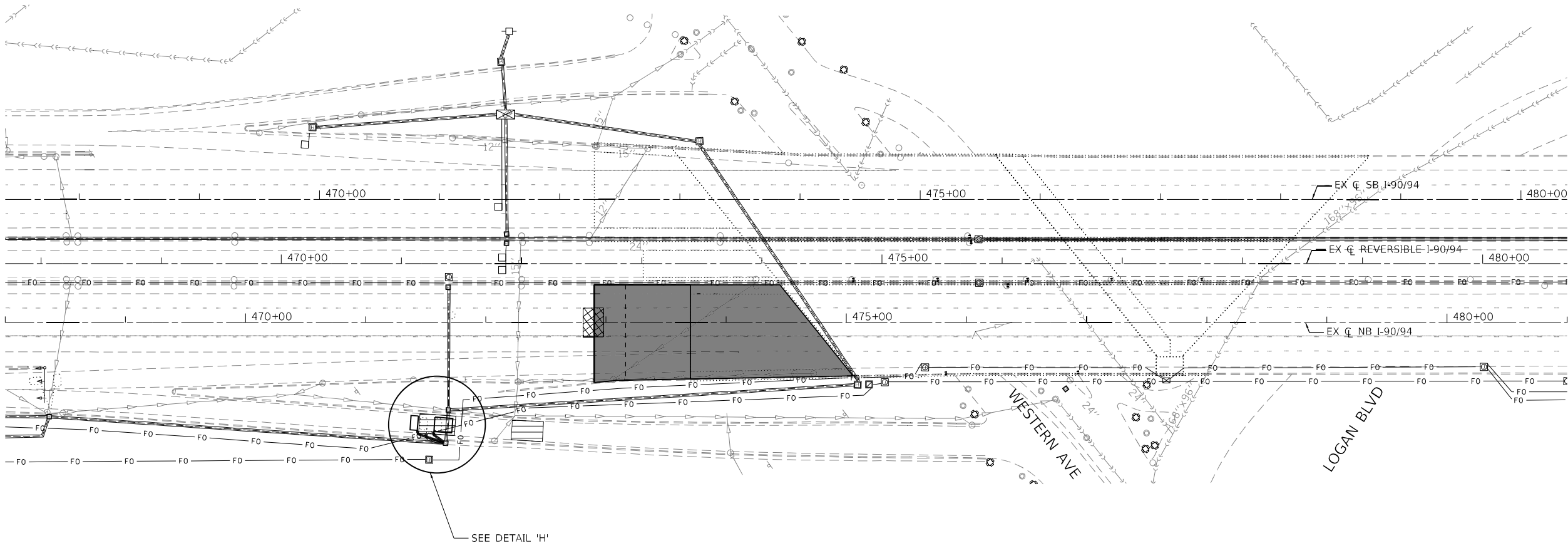
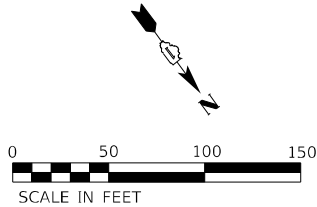
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DETAIL 'H'

DETECTOR LOOP, TYPE 1 (6' x 12')
27' - ELECTRIC CABLE IN CONDUIT, LEAD IN. NO. 18 4/C, TWISTED, SHEIDED
27' - UNDERGROUND CONDUIT, COILABLE NONMETALLIC CONDUIT, 1 1/4" DIA.

PREFORMED INDUCTION LOOP (15' x 12')
15' - ELECTRIC CABLE IN CONDUIT, LEAD IN. NO. 18 4/C, TWISTED, SHEIDED
15' - UNDERGROUND CONDUIT, COILABLE NONMETALLIC CONDUIT, 1 1/4" DIA.



LEGEND

PER PLAN	EXISTING	PROPOSED	ITEM
			ROUND INDUCTION LOOP
			INDUCTION LOOP
			HANDHOLE
			CONTROLLER CABINET
			JUNCTION BOX
			HEAVY DUTY HANDHOLE
			SIGNAL POST
			SERVICE INSTALLATION
			UNDERGROUND CONDUIT, GALVANIZED STEEL
			UNDERGROUND CONDUIT, COILABLE NON-METALIC
			PATCH LOCATION
			BRIDGE APPROACH PAVEMENT

FOR RAMP METER LOOPS:

1. EACH INDUCTION LOOP SHALL HAVE ITS OWN 4C #18 TWISTED SHIELD LEAD-IN CABLE TO CABINET.
2. EACH LOOP LEAD-IN SHALL BE IDENTIFIED AND PERMANENTLY COLOR CODED IN THE COREHOLE, HANDHOLE, AND CABINETS THRU WHICH THEY ENTER OR PASS AND TAGGED WITH THE CORRECT NOMENCLATURE.
3. INDUCTION LOOPS SHALL NOT BE CONNECTED IN SERIES WITH OTHER LOOPS.
4. REFER TO TY-ITSC-400 SERIES TYPICALS.

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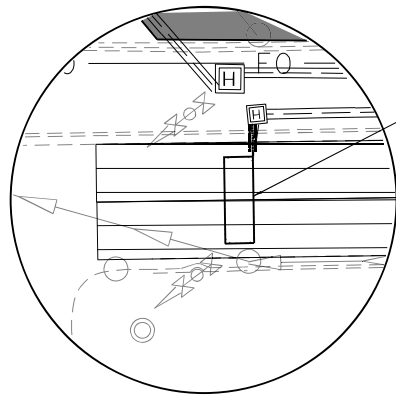
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PLOT DATE =	DATE - 04/29/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ITS INDUCTION LOOP REPLACEMENT PLANS
WESTERN AVE/LOGAN BLVD INSTALLATION

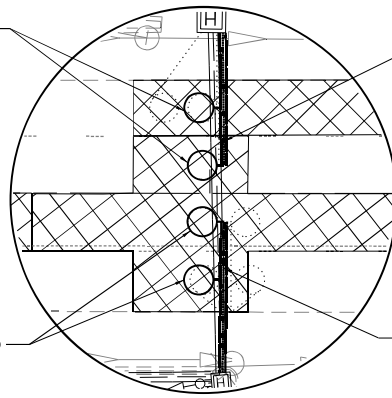
SCALE: 1"=50' SHEET 6 OF 11 SHEETS STA. 468+00 TO STA. 481+00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	2020-005-BR	COOK	908	228
CONTRACT NO. 62K73				
ILLINOIS FED. AID PROJECT				



DETAIL 'I'

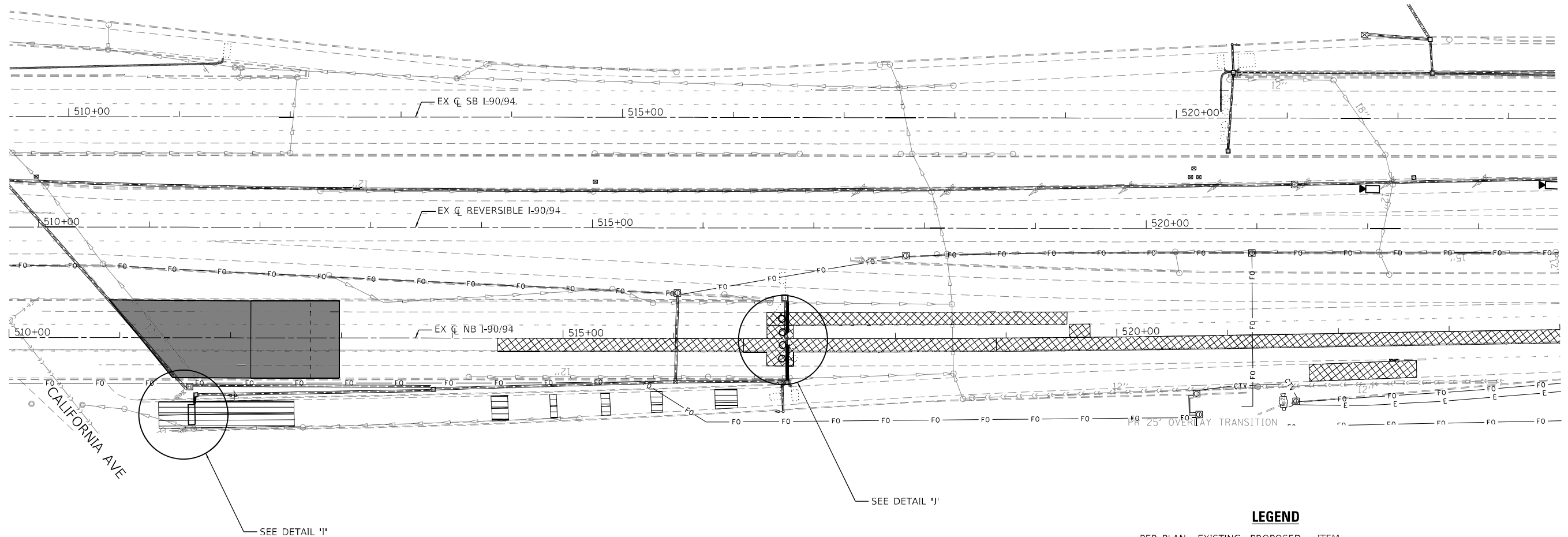
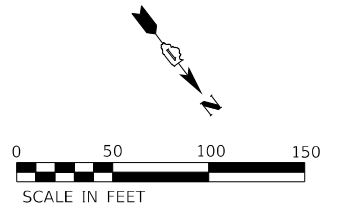
PREFORMED INDUCTION LOOP (6' DIA)



DETAIL 'J'

32' - UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.

34' - UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.



FOR RAMP METER LOOPS:

1. EACH INDUCTION LOOP SHALL HAVE ITS OWN 4C #18 TWISTED SHIELD LEAD-IN CABLE TO CABINET.
2. EACH LOOP LEAD-IN SHALL BE IDENTIFIED AND PERMANENTLY COLOR CODED IN THE COREHOLE, HANDHOLE, AND CABINETS THRU WHICH THEY ENTER OR PASS AND TAGGED WITH THE CORRECT NOMENCLATURE.
3. INDUCTION LOOPS SHALL NOT BE CONNECTED IN SERIES WITH OTHER LOOPS.
4. REFER TO TY-ITSC-400 SERIES TYPICALS.

LEGEND

PER PLAN	EXISTING	PROPOSED	ITEM
			ROUND INDUCTION LOOP
			INDUCTION LOOP
			HANDHOLE
			CONTROLLER CABINET
			JUNCTION BOX
			HEAVY DUTY HANDHOLE
			SIGNAL POST
			SERVICE INSTALLATION
			UNDERGROUND CONDUIT, GALVANIZED STEEL
			UNDERGROUND CONDUIT, COILABLE NON-METALIC
			PATCH LOCATION
			BRIDGE APPROACH PAVEMENT

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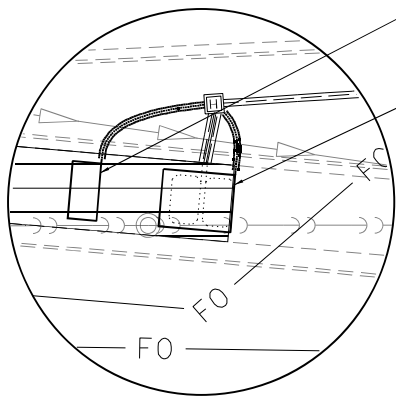
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DRAWN - MSU	REVISED -	
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PLOT DATE =	DATE - 04/29/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

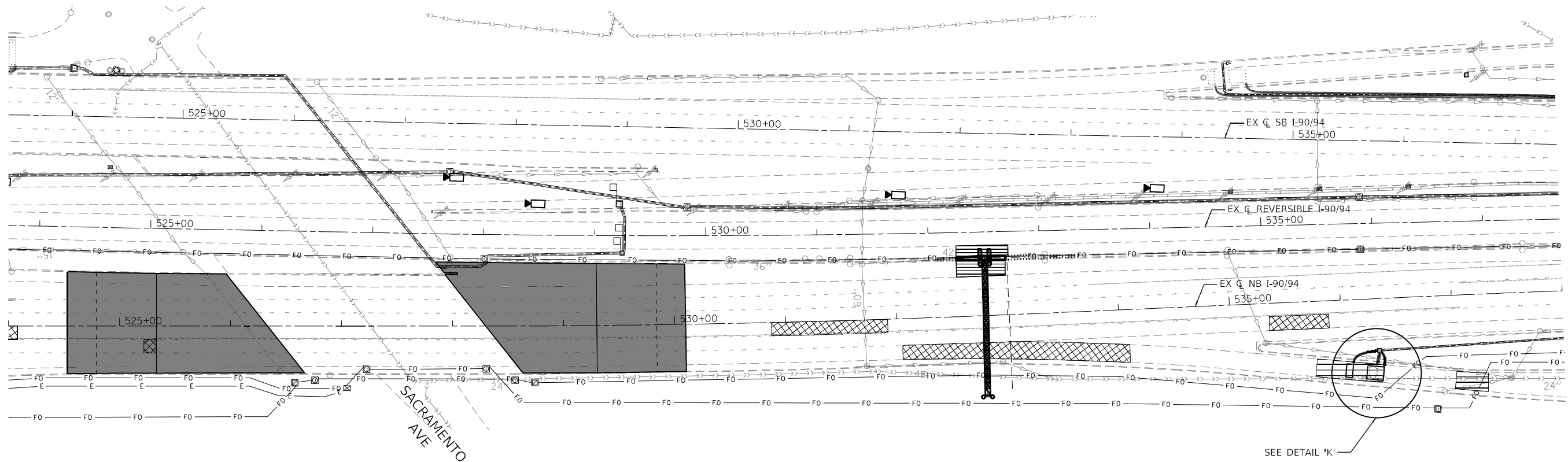
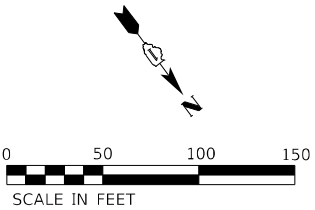
ITS INDUCTION LOOP REPLACEMENT PLANS
CALIFORNIA AVE INSTALLATION

SCALE: 1"=50' SHEET 7 OF 11 SHEETS STA. 510+00 TO STA. 524+00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	2020-005-BR	COOK	908	229
CONTRACT NO. 62K73				
ILLINOIS FED. AID PROJECT				



DETAIL 'K'



FOR RAMP METER LOOPS:

1. EACH INDUCTION LOOP SHALL HAVE ITS OWN 4C #18 TWISTED SHIELD LEAD-IN CABLE TO CABINET.
2. EACH LOOP LEAD-IN SHALL BE IDENTIFIED AND PERMANENTLY COLOR CODED IN THE COREHOLE, HANDHOLE, AND CABINETS THRU WHICH THEY ENTER OR PASS AND TAGGED WITH THE CORRECT NOMENCLATURE.
3. INDUCTION LOOPS SHALL NOT BE CONNECTED IN SERIES WITH OTHER LOOPS.
4. REFER TO TY-ITSC-400 SERIES TYPICALS.

LEGEND

PER PLAN	EXISTING	PROPOSED	ITEM
			ROUND INDUCTION LOOP
			INDUCTION LOOP
			HANDHOLE
			CONTROLLER CABINET
			JUNCTION BOX
			HEAVY DUTY HANDHOLE
			SIGNAL POST
			SERVICE INSTALLATION
			UNDERGROUND CONDUIT, GALVANIZED STEEL
			UNDERGROUND CONDUIT, COILABLE NON-METALIC
			PATCH LOCATION
			BRIDGE APPROACH PAVEMENT

MODEL: Default
FILE NAME: \\na1\cib\162226041\WO 2 (Loops)\WO 2\Documents\from DLZ\Files Received 2023\10-20\CA00_Sheets\162K73\162K73-SHT-PLN-03a 510a.dgn



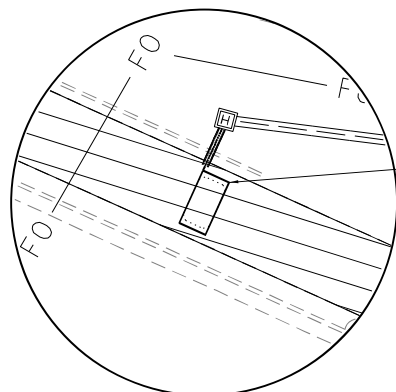
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DRAWN - MSU	REVISED -	
PLOT SCALE =	CHECKED - JMO	REVISED -
PLOT DATE =	DATE - 04/29/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ITS INDUCTION LOOP REPLACEMENT PLANS
SACRAMENTO AVE INSTALLATION

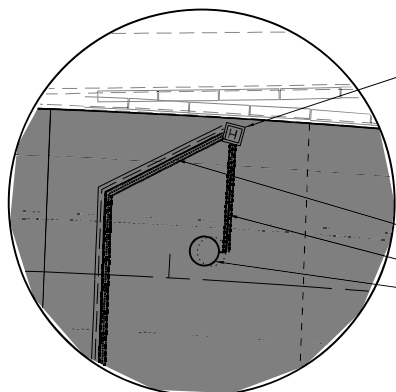
SCALE: 1"=50' SHEET 8 OF 11 SHEETS STA. 524+00 TO STA. 538+00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	2020-005-BR	COOK	908	230
CONTRACT NO. 62K73				
ILLINOIS FED. AID PROJECT				



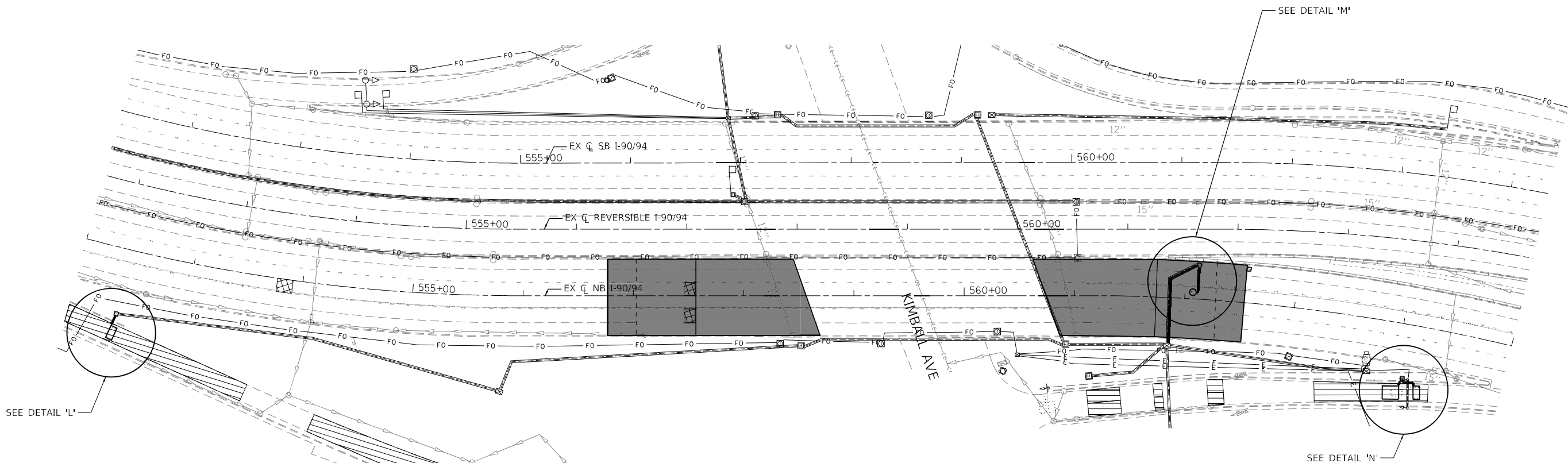
DETAIL 'L'

DETECTOR LOOP, TYPE 1 (6' x 12')
12' - ELECTRIC CABLE IN CONDUIT, LEAD IN, NO. 18 4/C, TWISTED, SHEILDED
12' - UNDERGROUND CONDUIT, COILABLE NONMETALLIC CONDUIT, 1 1/4" DIA.



DETAIL 'M'

REBUILD EXISTING HANDHOLE
90' - UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.
25' - UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.
PREFORMED INDUCTION LOOP (6' DIA)



SEE DETAIL 'L'

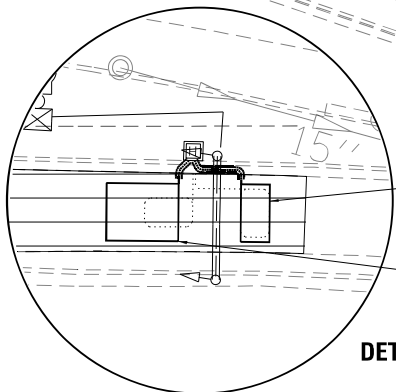
SEE DETAIL 'N'

LEGEND

PER PLAN	EXISTING	PROPOSED	ITEM
			ROUND INDUCTION LOOP
			INDUCTION LOOP
			HANDHOLE
			CONTROLLER CABINET
			JUNCTION BOX
			HEAVY DUTY HANDHOLE
			SIGNAL POST
			SERVICE INSTALLATION
			UNDERGROUND CONDUIT, GALVANIZED STEEL
			UNDERGROUND CONDUIT, COILABLE NON-METALLIC
			PATCH LOCATION
			BRIDGE APPROACH PAVEMENT

FOR RAMP METER LOOPS:

1. EACH INDUCTION LOOP SHALL HAVE ITS OWN 4C #18 TWISTED SHIELD LEAD-IN CABLE TO CABINET.
2. EACH LOOP LEAD-IN SHALL BE IDENTIFIED AND PERMANENTLY COLOR CODED IN THE COREHOLE, HANDHOLE, AND CABINETS THRU WHICH THEY ENTER OR PASS AND TAGGED WITH THE CORRECT NOMENCLATURE.
3. INDUCTION LOOPS SHALL NOT BE CONNECTED IN SERIES WITH OTHER LOOPS.
4. REFER TO TY-ITSC-400 SERIES TYPICALS.



DETAIL 'N'

DETECTOR LOOP, TYPE 1 (6' x 12')
15' - ELECTRIC CABLE IN CONDUIT, LEAD IN, NO. 18 4/C, TWISTED, SHEILDED
15' - UNDERGROUND CONDUIT, COILABLE NONMETALLIC CONDUIT, 1 1/4" DIA.

DETECTOR LOOP, TYPE 1 (15' x 12')
8' - ELECTRIC CABLE IN CONDUIT, LEAD IN, NO. 18 4/C, TWISTED, SHEILDED
8' - UNDERGROUND CONDUIT, COILABLE NONMETALLIC CONDUIT, 1 1/4" DIA.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ITS INDUCTION LOOP REPLACEMENT PLANS
KIMBALL AVE INSTALLATION

SCALE: 1"=50' SHEET 9 OF 11 SHEETS STA. 552+00 TO STA. 565+00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	2020-005-BR	COOK	908	231
CONTRACT NO. 62K73				
ILLINOIS FED. AID PROJECT				

MODEL: Default
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DATE: 04/29/2024

ABNA
DESIGN FIRM REG. 164202117
745 McClintock Drive
Suite 210
Burr Ridge, IL 60527
Ph: 773-861-4788
Fax: 773-239-3728

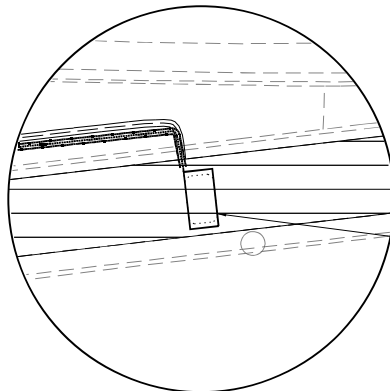
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DRAWN - MSU	REVISED -	
PLOT SCALE =	CHECKED - JMO	REVISED -
PLOT DATE =	DATE - 04/29/2024	REVISED -

57' - UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.
68' - UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.

PREFORMED INDUCTION LOOP (6' DIA)

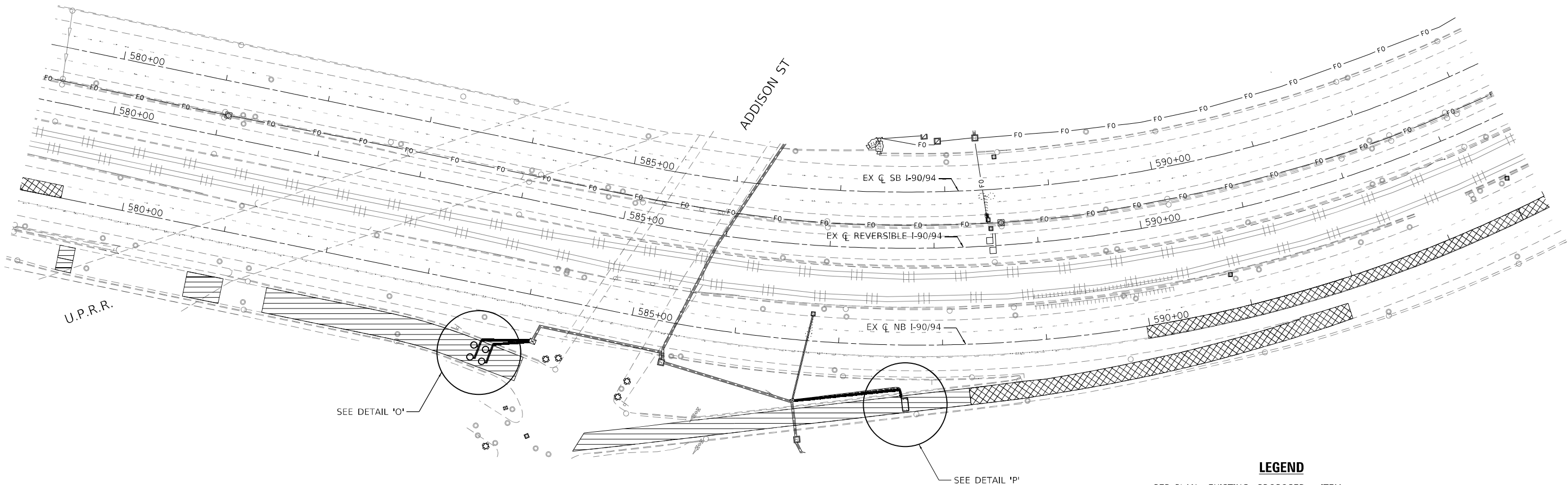
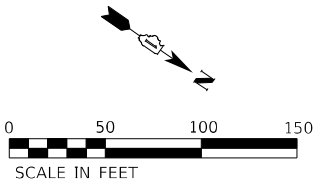
DETECTOR LOOP, TYPE 1 (6' DIA)

DETAIL 'O'



DETAIL 'P'

DETECTOR LOOP, TYPE 1 (6' x 12')
112' - ELECTRIC CABLE IN CONDUIT, LEAD IN. NO. 18 4/C, TWISTED, SHEILDED
112' - UNDERGROUND CONDUIT, COILABLE NONMETALLIC CONDUIT, 1 1/4" DIA.



LEGEND

PER PLAN	EXISTING	PROPOSED	ITEM
			ROUND INDUCTION LOOP
			INDUCTION LOOP
			HANDHOLE
			CONTROLLER CABINET
			JUNCTION BOX
			HEAVY DUTY HANDHOLE
			SIGNAL POST
			SERVICE INSTALLATION
			UNDERGROUND CONDUIT, GALVANIZED STEEL
			UNDERGROUND CONDUIT, COILABLE NON-METALIC
			PATCH LOCATION
			BRIDGE APPROACH PAVEMENT

FOR RAMP METER LOOPS:

1. EACH INDUCTION LOOP SHALL HAVE ITS OWN 4C #18 TWISTED SHIELD LEAD-IN CABLE TO CABINET.
2. EACH LOOP LEAD-IN SHALL BE IDENTIFIED AND PERMANENTLY COLOR CODED IN THE COREHOLE, HANDHOLE, AND CABINETS THRU WHICH THEY ENTER OR PASS AND TAGGED WITH THE CORRECT NOMENCLATURE.
3. INDUCTION LOOPS SHALL NOT BE CONNECTED IN SERIES WITH OTHER LOOPS.
4. REFER TO TY-ITSC-400 SERIES TYPICALS.

MODEL: Default
FILE NAME: \\na1\al\cbl\ba2022\6041\WO 2 (Loops)\WO 2\Documents\from DLZ\Files Received 2023\10-20\CAADD_Sheets\16K\73\10162K73-SHT-210-213-565-A.dgn



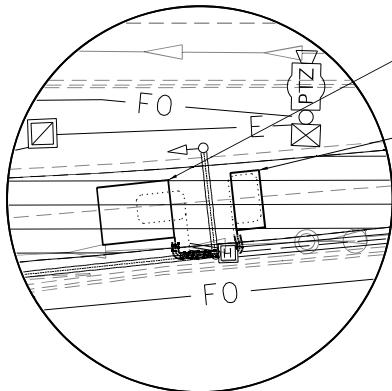
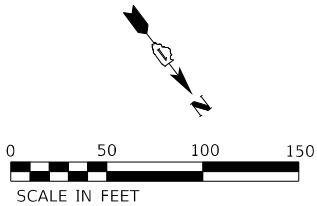
USER NAME =	DESIGNED - JMO	REVISED -
DRAWN - MSU	REVISED -	
PLOT SCALE =	CHECKED - JMO	REVISED -
PLOT DATE =	DATE - 04/29/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ITS INDUCTION LOOP REPLACEMENT PLANS
ADDISON ST INSTALLATION

SCALE: 1"=50' SHEET 10 OF 11 SHEETS STA. 579+00 TO STA. 594+00

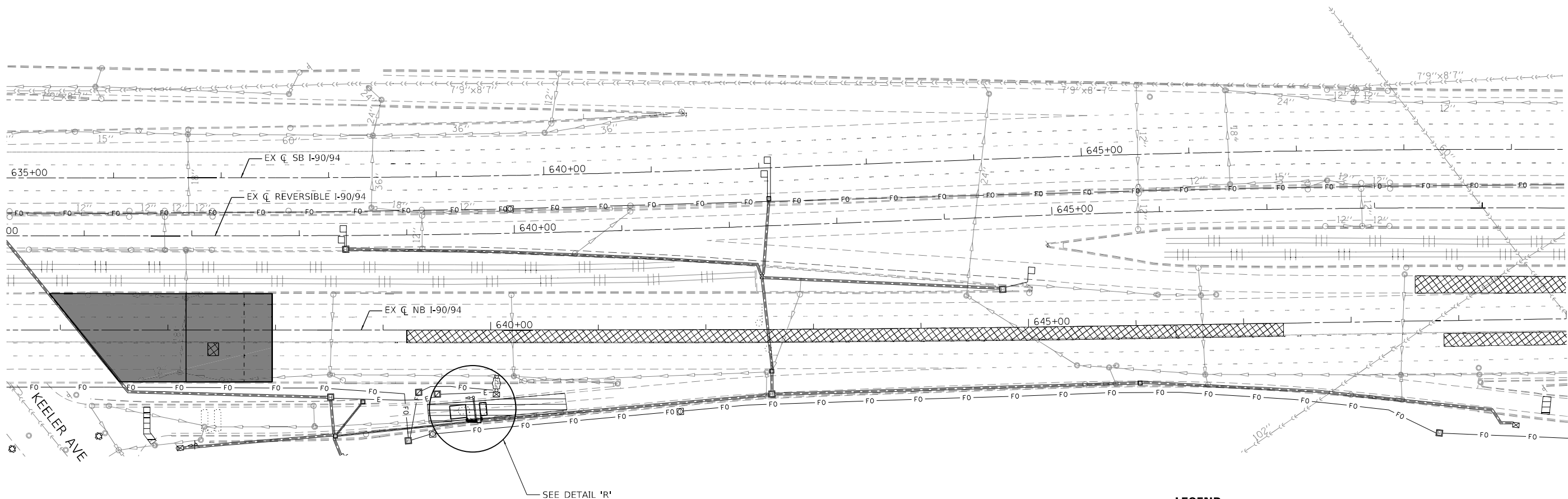
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	2020-005-BR	COOK	908	232
CONTRACT NO. 62K73				
ILLINOIS FED. AID PROJECT				



DETECTOR LOOP, TYPE 1 (15' x 12')
15' - ELECTRIC CABLE IN CONDUIT, LEAD IN, NO. 18 4/C, TWISTED, SHEILDED
15' - UNDERGROUND CONDUIT, COILABLE NONMETALLIC CONDUIT, 1 1/4" DIA.

DETECTOR LOOP, TYPE 1 (6' x 12')
7' - ELECTRIC CABLE IN CONDUIT, LEAD IN, NO. 18 4/C, TWISTED, SHEILDED
7' - UNDERGROUND CONDUIT, COILABLE NONMETALLIC CONDUIT, 1 1/4" DIA.

DETAIL 'R'



LEGEND

PER PLAN	EXISTING	PROPOSED	ITEM
○	○	○	ROUND INDUCTION LOOP
□	□	□	INDUCTION LOOP
⊠	⊠	⊠	HANDHOLE
⊞	⊞	⊞	CONTROLLER CABINET
⊠	⊠	⊠	JUNCTION BOX
⊠	⊠	⊠	HEAVY DUTY HANDHOLE
⊠	⊠	⊠	SIGNAL POST
⊠	⊠	⊠	SERVICE INSTALLATION
—	—	—	UNDERGROUND CONDUIT, GALVANIZED STEEL
—	—	—	UNDERGROUND CONDUIT, COILABLE NON-METALIC
			PATCH LOCATION
			BRIDGE APPROACH PAVEMENT

FOR RAMP METER LOOPS:

1. EACH INDUCTION LOOP SHALL HAVE ITS OWN 4C #18 TWISTED SHIELD LEAD-IN CABLE TO CABINET.
2. EACH LOOP LEAD-IN SHALL BE IDENTIFIED AND PERMANENTLY COLOR CODED IN THE COREHOLE, HANDHOLE, AND CABINETS THRU WHICH THEY ENTER OR PASS AND TAGGED WITH THE CORRECT NOMENCLATURE.
3. INDUCTION LOOPS SHALL NOT BE CONNECTED IN SERIES WITH OTHER LOOPS.
4. REFER TO TY-ITSC-400 SERIES TYPICALS.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ITS INDUCTION LOOP REPLACEMENT PLANS
KEELER AVE INSTALLATION

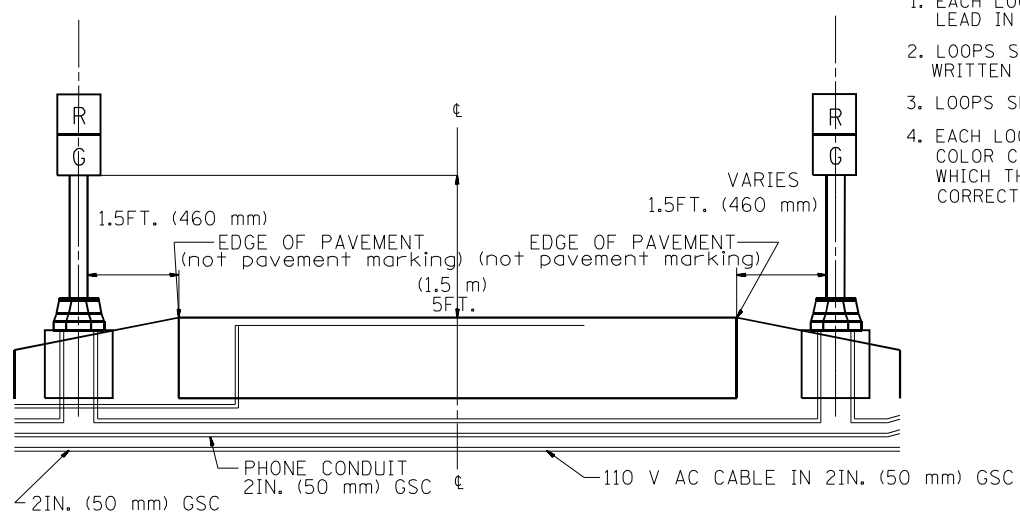
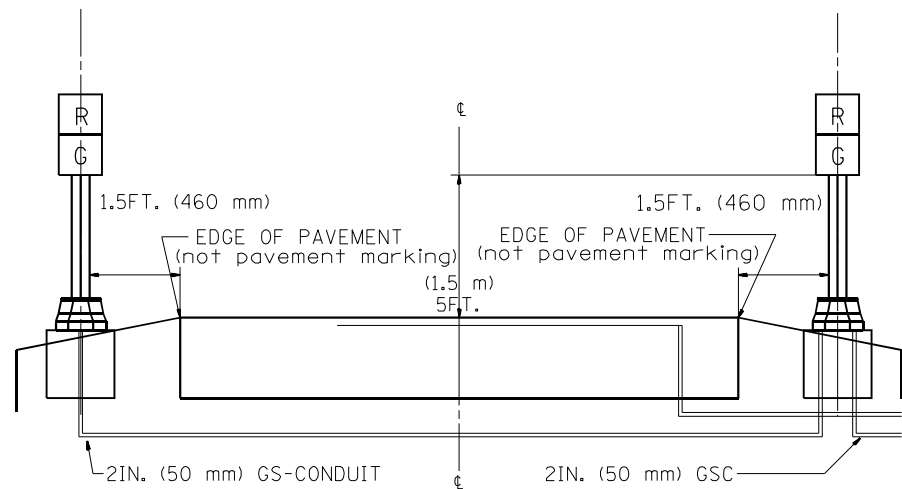
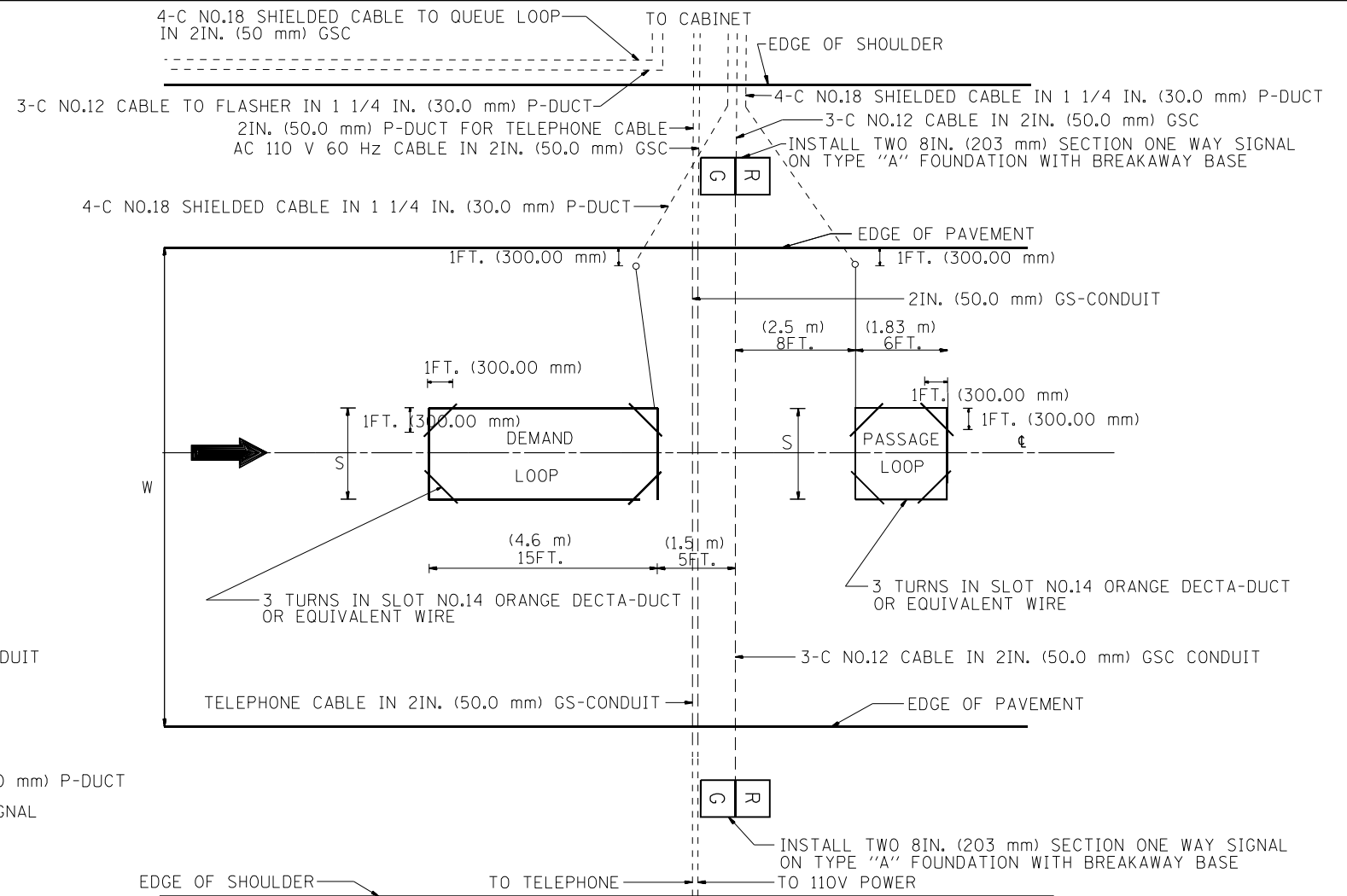
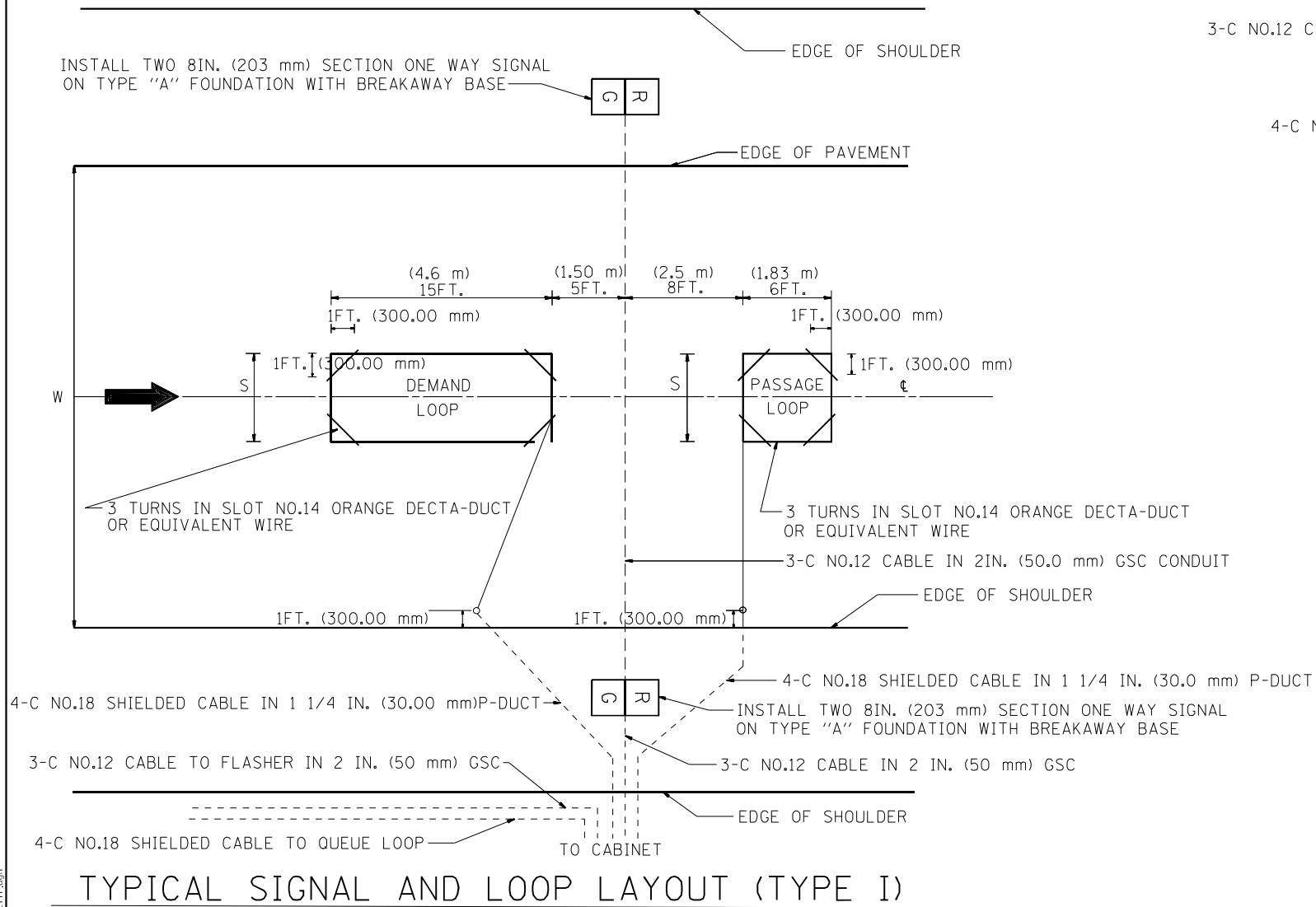
SCALE: 1"=50' SHEET 11 OF 11 SHEETS STA. 635+00 TO STA. 650+00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	2020-005-BR	COOK	908	233
CONTRACT NO. 62K73				
ILLINOIS FED. AID PROJECT				

MODEL: Default
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USER NAME =	DESIGNED - JMO	REVISED -
DRAWN - MSU	REVISED -	
PLOT SCALE =	CHECKED - JMO	REVISED -
PLOT DATE =	DATE - 04/29/2024	REVISED -

MODEL: Default
FILE: \\lanonon-dot-illinois.gov\PIWDOT\Documents\DOT Offices\District 1\Projects\Traffic Systems Center\CADD\at\Electrical\Typical\TSC\TY1.dgn



NOTES

1. EACH LOOP SHALL BE SPICED TO A 4-C NO.18 TWISTED SHIELDED LEAD IN WHEN 45 m (150FT.) OR MORE FROM CABINET.
2. LOOPS SHALL BE SPICED IN HANDHOLES ONLY, OTHERWISE WRITTEN PERMISSION SHALL BE OBTAINED FROM TSC ENGINEER.
3. LOOPS SHALL NOT BE SPICED IN SERIES.
4. EACH LOOP LEAD IN SHALL BE IDENTIFIED AND PERMANENTLY COLOR CODED IN THE COREHOLE, HANDHOLE & CABINETS THRU WHICH THEY ENTER OR PASS AND TAGGED WITH THE CORRECT NOMENCLATURES.

NOTE:
ALL SIGNALS & FOUNDATIONS SHALL BE FIELD
LOCATED FOR ACTUAL SITE AND TRAFFIC CONDITIONS.

TABLE 1	
WIDTH (W)	WIDTH (S)
12' (3.7 m)	8' (2.5 m)
13' (4.0 m)	9' (2.8 m)
14' (4.3 m)	10' (3.1 m)
15' (4.6 m)	11' (3.4 m)
16' (4.9 m)	12' (3.7 m)
17' (5.2 m)	13' (4.0 m)
18' (5.5 m)	14' (4.3 m)
19' (5.8 m)	15' (4.6 m)
20' (6.1 m)	18' (4.9 m)
21' (6.4 m)	17' (5.2 m)
22' (6.7 m)	18' (5.5 m)
23' (7.0 m)	19' (5.8 m)
24' (7.3 m)	20' (6.1 m)
25' (7.6 m)	21' (6.4 m)

SECTION (TYPE I)

SECTION (TYPE II)

USER NAME = mezag	DESIGNED - R.L.	REVISED - 06-94
PLOT SCALE = 100,000' / in.	DRAWN - G.M.	REVISED - 09-96
PLOT DATE = 6/11/2019	CHECKED - R.L.	REVISED - 02-98
	DATE - 06-22-94	REVISED - 04/18, J.G.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
TRAFFIC SYSTEMS CENTER

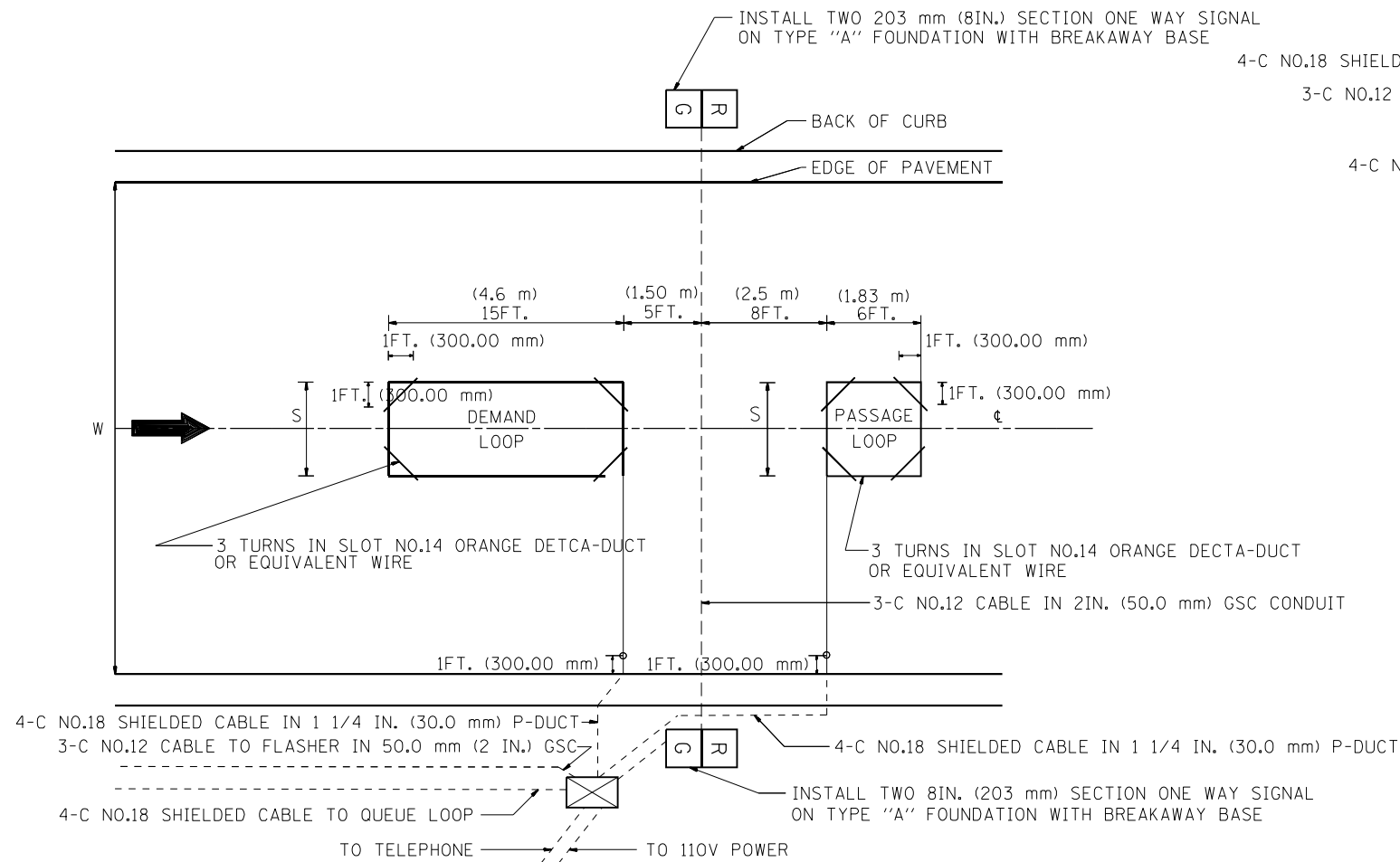
TYPICAL RAMP METERING
INSTALLATION TYPE I & II
(FOR RAMP WITHOUT CURBS & GUTTERS)

SCALE: NONE SHEET 1 OF 6 SHEETS STA. TO STA.

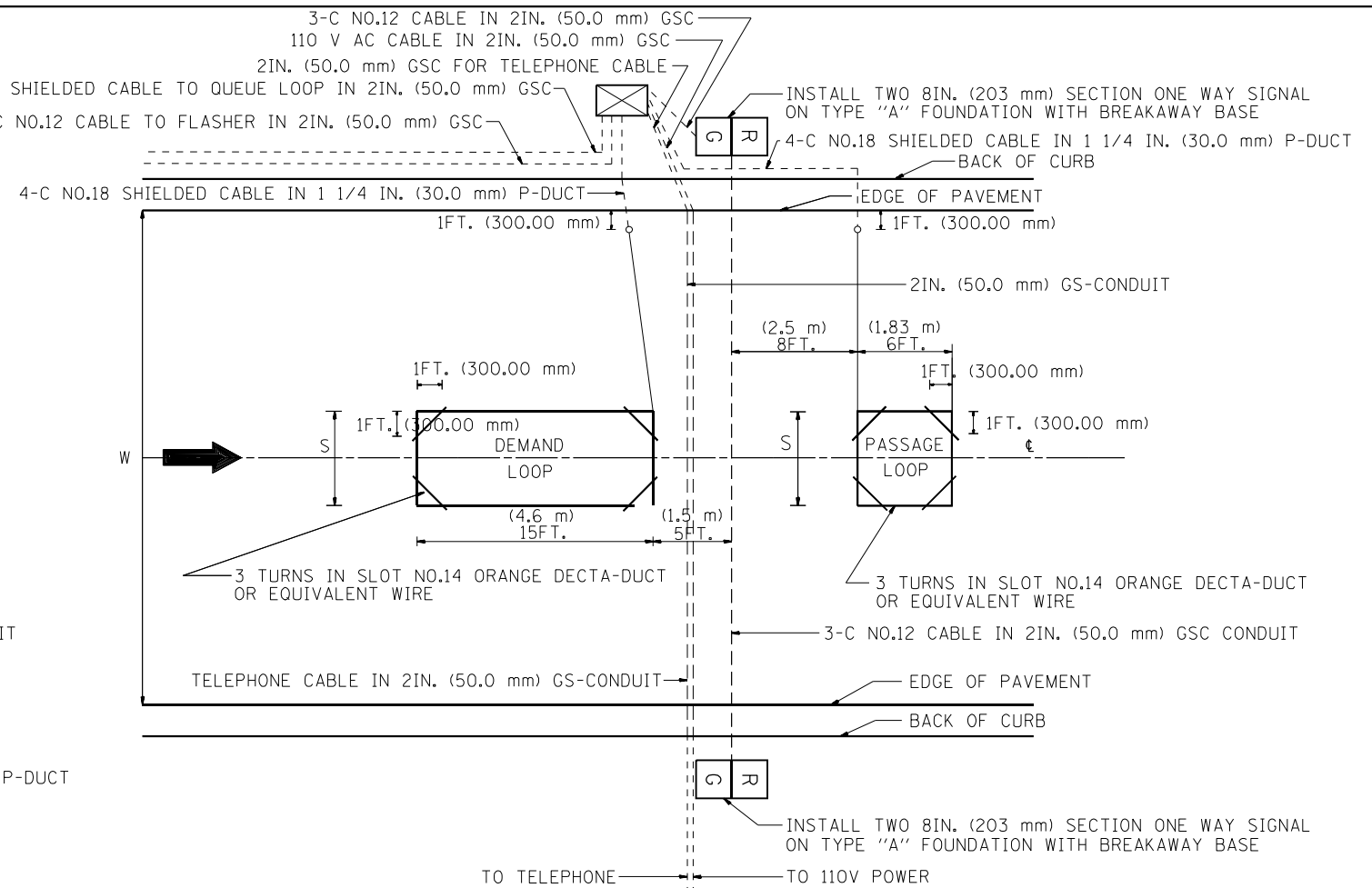
F&J RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	2020-005-BR	COOK	908	234
CONTRACT NO. 62K73				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

TRAFFIC SYSTEMS CENTER (TY-1TSC-400#1)

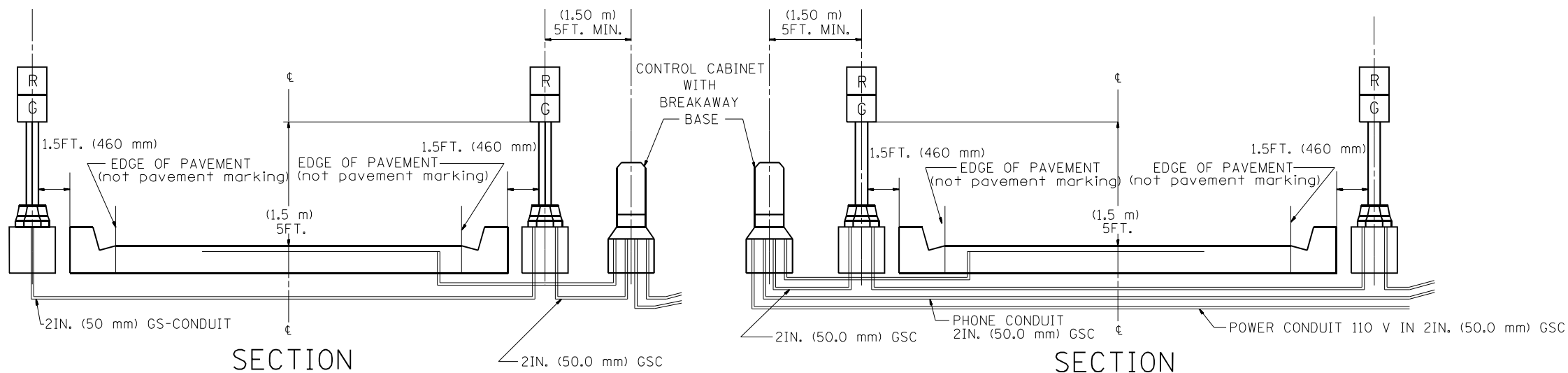
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TYPICAL SIGNAL AND LOOP LAYOUT (TYPE I)



TYPICAL SIGNAL AND LOOP LAYOUT (TYPE II)



NOTES:

1. EACH LOOP SHALL BE SPLICED TO A 4-C NO.18 TWISTED SHIELDED LEAD IN WHEN 150FT. (45 m) OR MORE FROM CABINET.
2. LOOPS SHALL BE SPLICED IN HANDHOLES ONLY, OTHERWISE WRITTEN PERMISSION SHALL BE OBTAINED FROM TSC ENGINEER.
3. LOOPS SHALL NOT BE SPLICED IN SERIES.
4. EACH LOOP LEAD IN SHALL BE IDENTIFIED AND PERMANENTLY COLOR CODED IN THE COREHOLE, HANDHOLE & CABINETS THRU WHICH THEY ENTER OR PASS AND TAGGED WITH THE CORRECT NOMENCLATURES.

TABLE 1	
WIDTH (W)	WIDTH (S)
12' (3.7 m)	8' (2.5 m)
13' (4.0 m)	9' (2.8 m)
14' (4.3 m)	10' (3.1 m)
15' (4.6 m)	11' (3.4 m)
16' (4.9 m)	12' (3.7 m)
17' (5.2 m)	13' (4.0 m)
18' (5.5 m)	14' (4.3 m)
19' (5.8 m)	15' (4.6 m)
20' (6.1 m)	18' (4.9 m)
21' (6.4 m)	17' (5.2 m)
22' (6.7 m)	18' (5.5 m)
23' (7.0 m)	19' (5.8 m)
24' (7.3 m)	20' (6.1 m)
25' (7.6 m)	21' (6.4 m)

USER NAME = mezag	DESIGNED - R.L.	REVISED - 06/94
	DRAWN - G.M.	REVISED - 09/96
PLOT SCALE = 100,0000' / in.	CHECKED - R.L.	REVISED - 02/98
PLOT DATE = 6/11/2019	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
TRAFFIC SYSTEMS CENTER

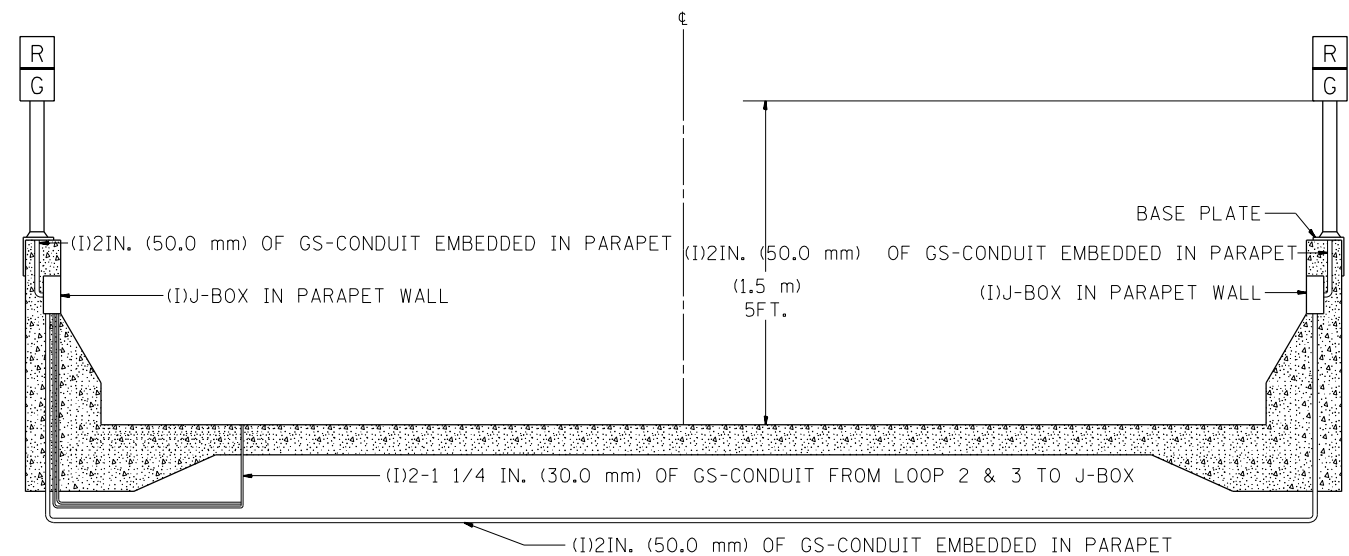
TYPICAL RAMP METERING
INSTALLATION TYPE I & II
(WITH CURB & GUTTER)

SCALE: NONE SHEET 2 OF 6 SHEETS STA. TO STA.

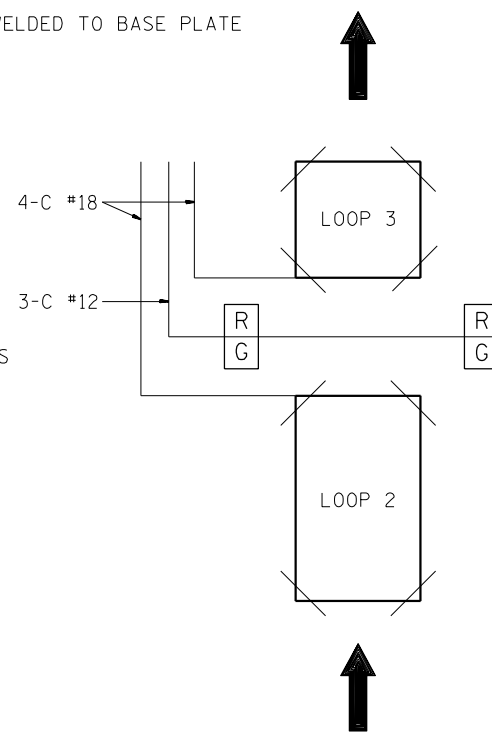
F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	2020-005-BR	COOK	908	235
CONTRACT NO. 62K73				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

TRAFFIC SYSTEMS CENTER (TY-1TSC-400#2)

TYPICAL LOOP LAYOUT

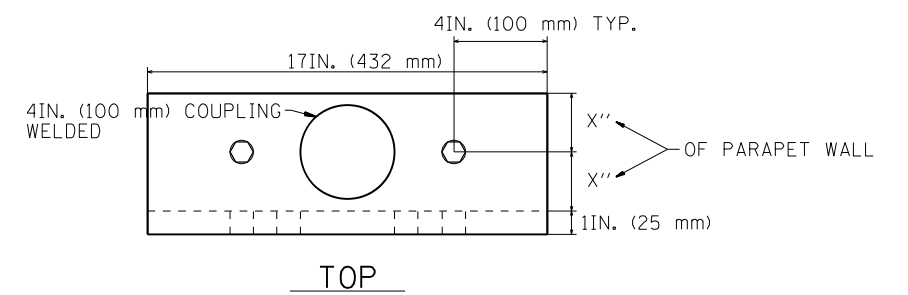


SECTION

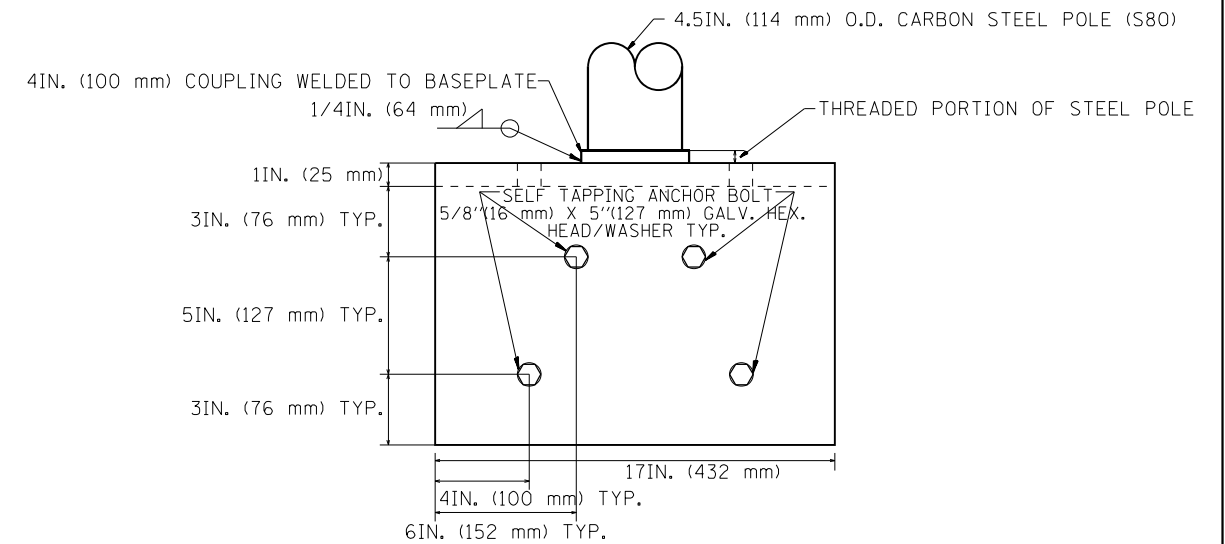


WIRING DIAGRAM

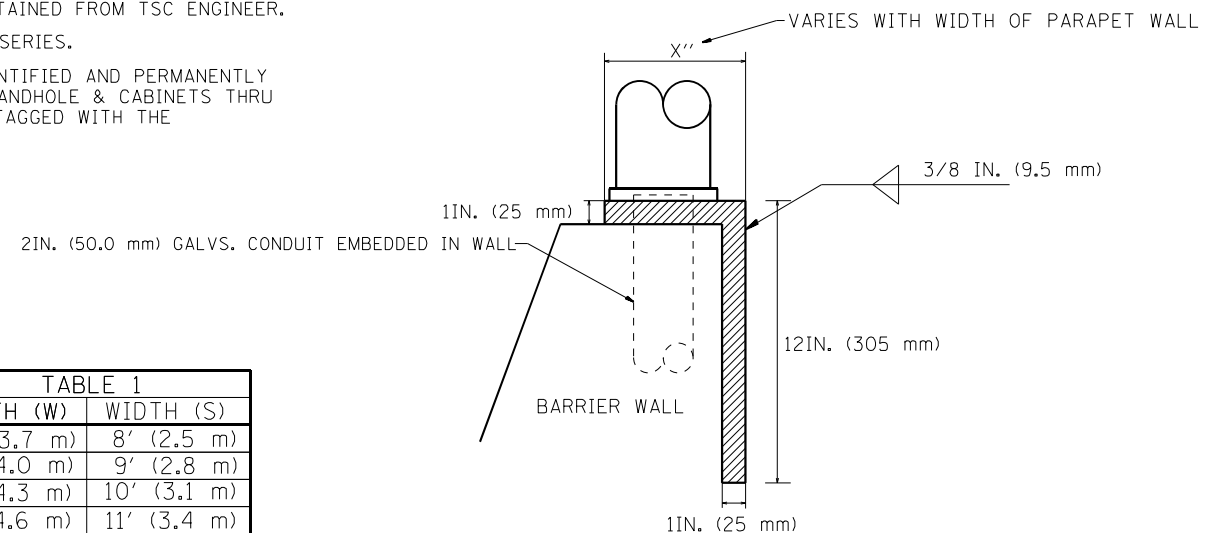
- NOTES
1. EACH LOOP SHALL BE SPLICED TO A 4-C NO.18 TWISTED SHIELDED LEAD IN WHEN 150FT. (45 m) OR MORE FROM CABINET.
 2. LOOPS SHALL BE SPLICED IN HANDHOLES OR J-BOX ONLY, OTHERWISE WRITTEN PERMISSION SHALL BE OBTAINED FROM TSC ENGINEER.
 3. LOOPS SHALL NOT BE SPLICED IN SERIES.
 4. EACH LOOP LEAD IN SHALL BE IDENTIFIED AND PERMANENTLY COLOR CODED IN THE COREHOLE, HANDHOLE & CABINETS THRU WHICH THEY ENTER OR PASS AND TAGGED WITH THE CORRECT NOMENCLATURES.



TOP

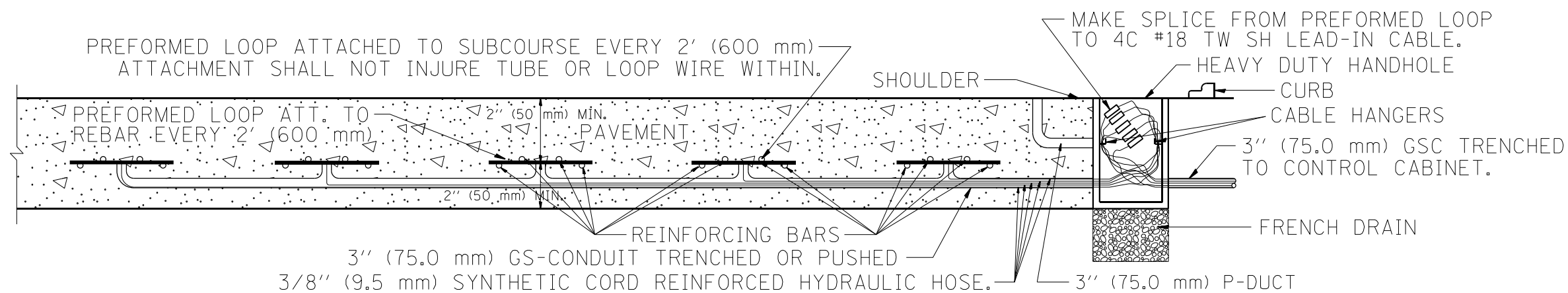
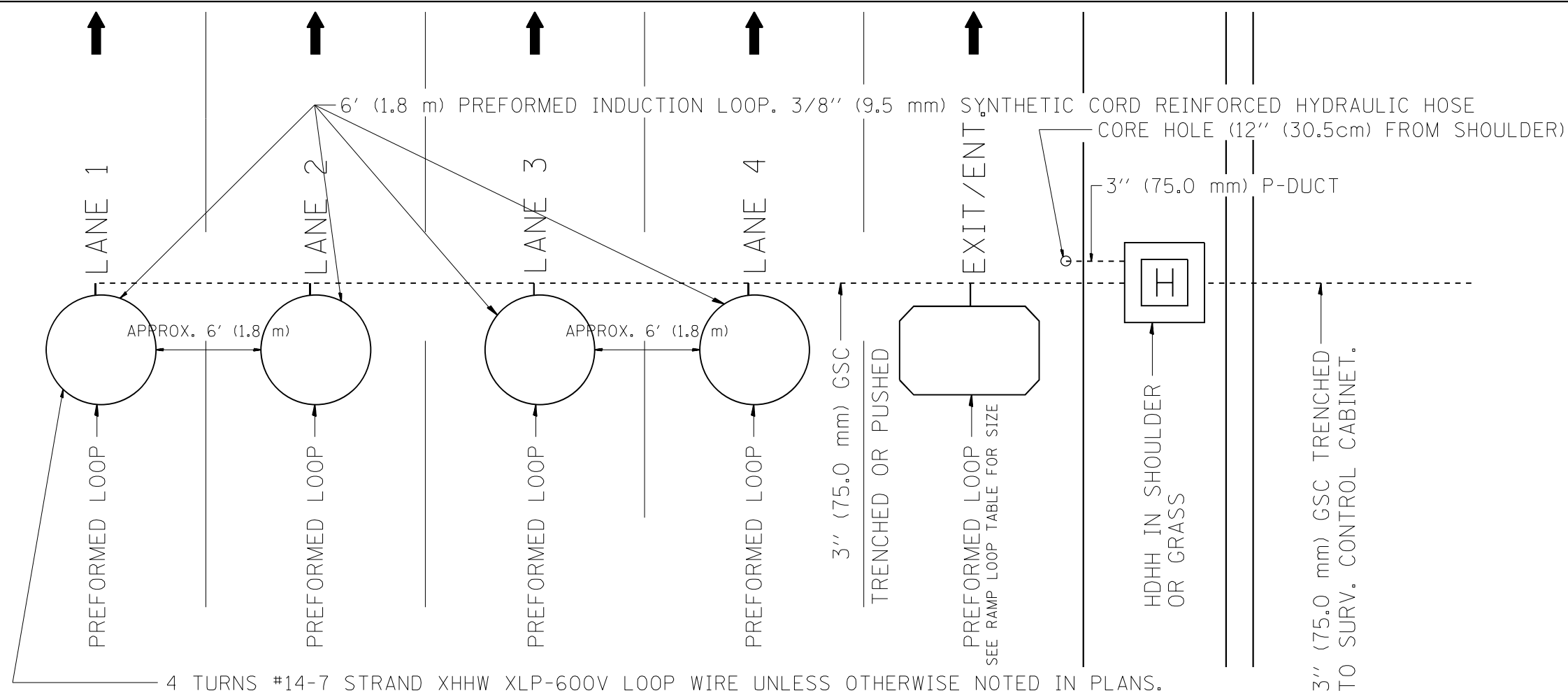


FRONT



SIDE

WIDTH (W)	WIDTH (S)
12' (3.7 m)	8' (2.5 m)
13' (4.0 m)	9' (2.8 m)
14' (4.3 m)	10' (3.1 m)
15' (4.6 m)	11' (3.4 m)
16' (4.9 m)	12' (3.7 m)
17' (5.2 m)	13' (4.0 m)
18' (5.5 m)	14' (4.3 m)
19' (5.8 m)	15' (4.6 m)
20' (6.1 m)	18' (4.9 m)
21' (6.4 m)	17' (5.2 m)
22' (6.7 m)	18' (5.5 m)
23' (7.0 m)	19' (5.8 m)
24' (7.3 m)	20' (6.1 m)
25' (7.6 m)	21' (6.4 m)

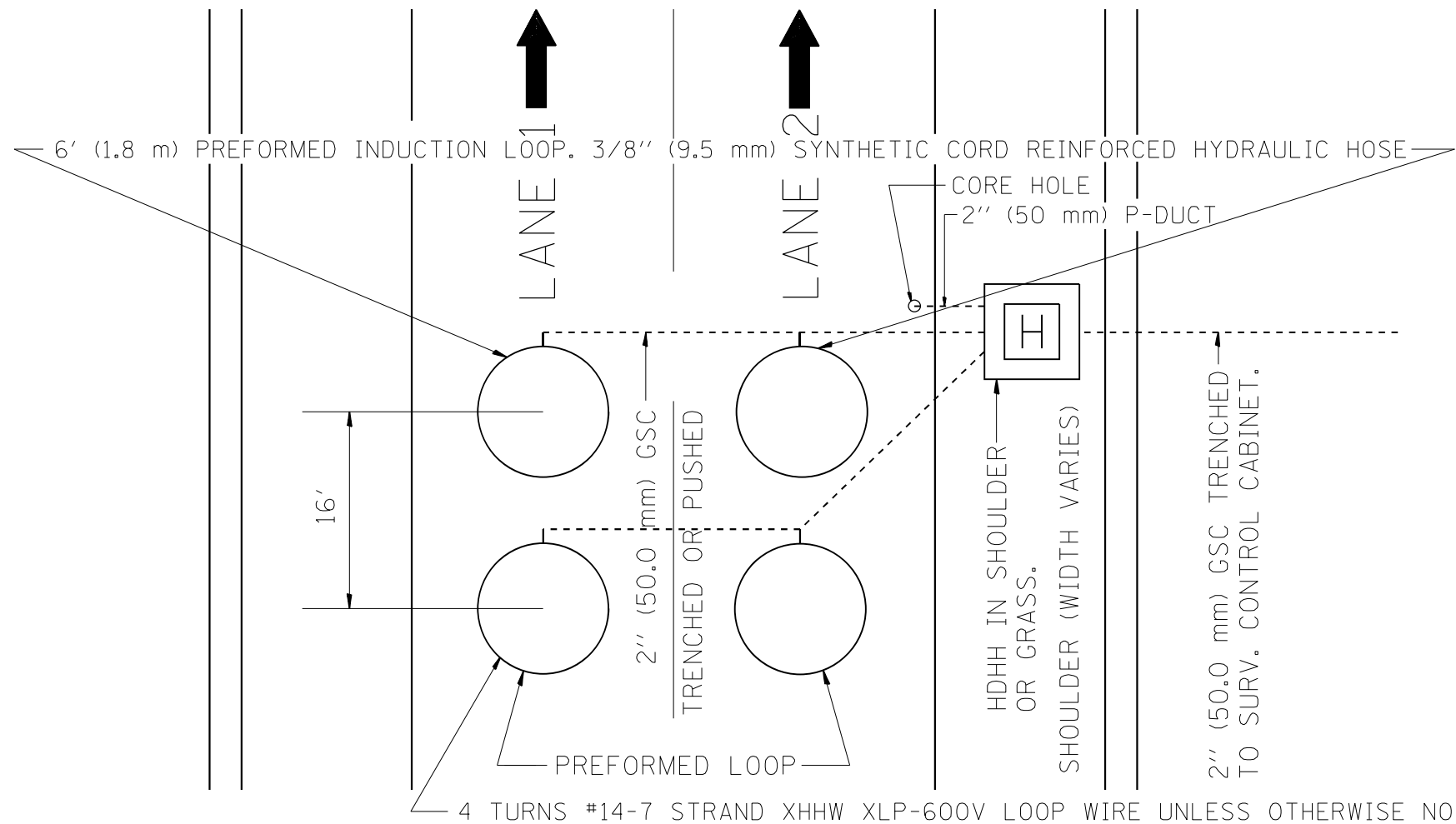


NOTES:

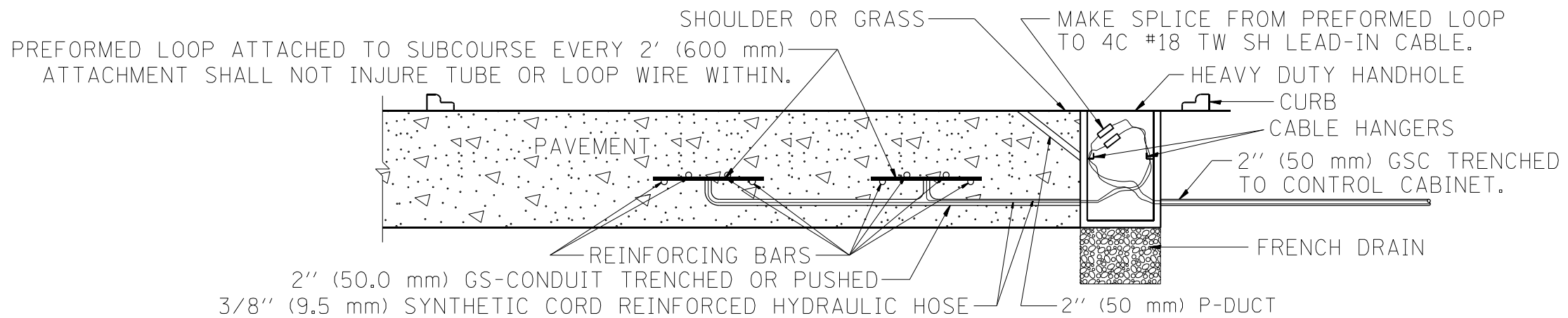
- 1.- EACH INDUCTION LOOP SHALL HAVE ITS OWN LEAD-IN CABLE TO CABINET.
- 2.- INDUCTION LOOPS SHALL NOT BE CONNECTED IN SERIES WITH OTHER LOOPS.
- 3.- LOOPS LOCATED OVER 1000' (300 m) FROM CABINET SHALL REQUIRE 5 TURNS OF #14 WIRE.
- 4.- FOR LANES 1 AND 3 WRAP LOOPS CLOCKWISE, FOR LANE 2 AND 4 WRAP LOOP COUNTER CLOCKWISE.
- 5.- FOR COUNT STATIONS WHICH HAVE MORE THAN 3 LANES, A 3" (75 mm) GSC SHALL BE USED.
- 6.- COREHOLE SHALL BE FILLED WITH DUCT SEAL. JOINT SEALER (OZ GEDNEY DOZSEAL 230 OR BETTER) SHALL BE ADDED AFTER DUCT SEAL.

FILE NAME: D:\NEW\2004\005-00

TRAFFIC SYSTEMS CENTER (TY-1TSC-418#19A)



TYPICAL 2 LANE SPEED COUNT, CLASSIFICATION STATION IN NEW CONCRETE PAVEMENT



LOOP INSTALLATION IN NEW CONCRETE PAVEMENT

NOTES:

- 1.- EACH INDUCTION LOOP SHALL HAVE ITS OWN 4C #18 TWISTED SHIELD LEAD-IN CABLE TO CABINET.
- 2.- INDUCTION LOOPS SHALL NOT BE CONNECTED IN SERIES WITH OTHER LOOPS.
- 3.- LOOPS LOCATED OVER 1000' (300 m) FROM CABINET SHALL REQUIRE 5 TURNS OF #14 WIRE.
- 4.- FOR LANE 1 WRAP LOOPS CLOCKWISE, FOR LANE 2 WRAP LOOP COUNTER CLOCKWISE.
- 5.- COREHOLE SHALL BE FILLED WITH DUCT SEAL. JOINT SEALER (OZ GEDNEY DOZSEAL 230 OR BETTER) SHALL BE ADDED AFTER DUCT SEAL.

MODEL: Default
FILE: \\nslc\p\dot\anonymous\dot\illinois.gov\PIWDOT\Documents\DOT Office\District 1\Projects\Traffic Systems Center\CAD\Drawings\Electrical\Typical\TSC\TY-1TSC-418#20.dgn

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	DRAWN - G.M.	REVISED -
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PLOT DATE = 6/25/2019	DATE - 06/25/2010	REVISED -

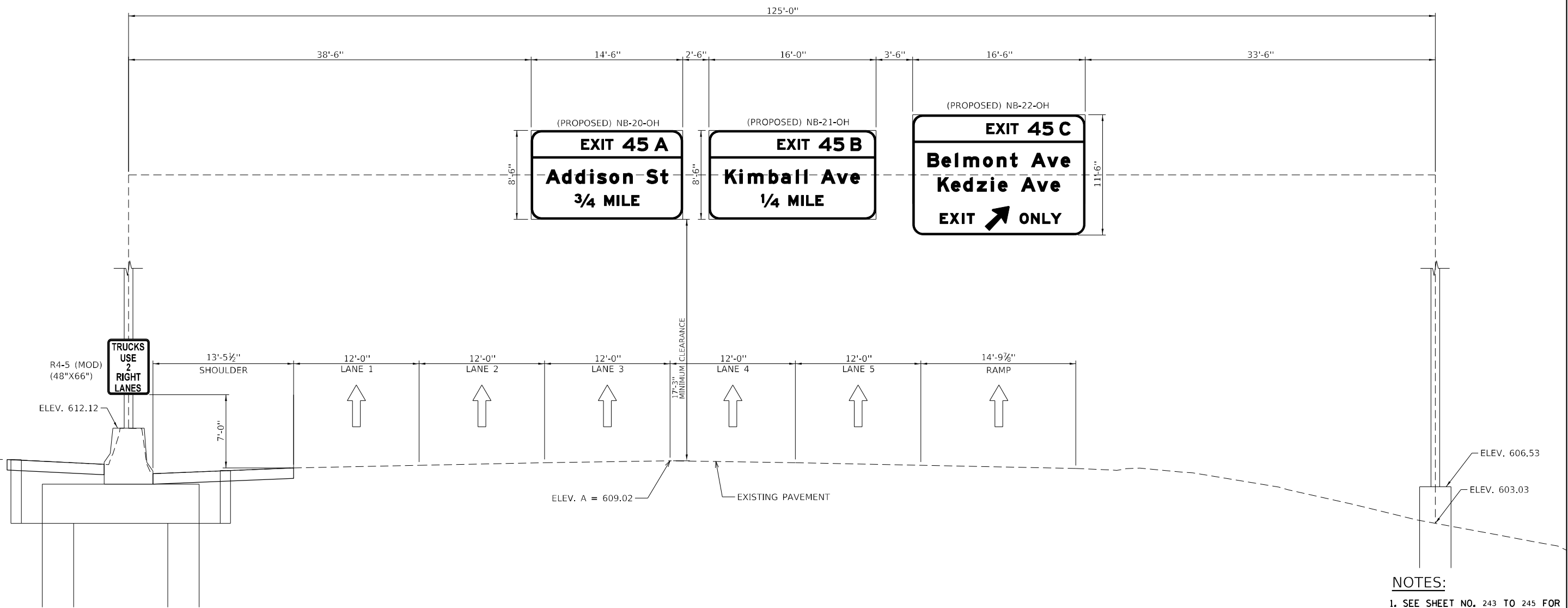
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
TRAFFIC SYSTEMS CENTER

PREFORMED LOOP TYPICAL INSTALLATION NEW CONCRETE PAVEMENT			
SCALE: NONE	SHEET 6	OF 6 SHEETS	STA. TO STA.

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	2020-005-BR	COOK	908	239
CONTRACT NO. 62K73				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

TRAFFIC SYSTEMS CENTER (TY-1TSC-418#20)

FILE NAME = p:\1\VAN\01\PM\INT01\Personas.com\Illinois State Documents\IDOT\HBM Task Order\Work Order 12 1/2 1-98&dash94 Sign Replacements\40 - Design\CAD\Signs\Sheets\062K73.1-98 Sign-10.dgn



- NOTES:
1. SEE SHEET NO. 243 TO 245 FOR OVERHEAD SIGN PANEL DETAILS
 2. FINAL ELEVATION OF CENTERLINE OF TRUSS TO BE DETERMINED BY SIGN TRUSS DESIGNER
 3. ALL HORIZONTAL DIMENSIONS ARE MEASURED ALONG C OF TRUSS

SIGN 10 STA 532+80.56 (NB) - PROPOSED SIGN TRUSS MOUNT
(1S016I094L046.0)



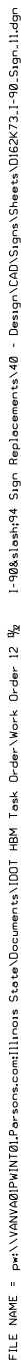
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PLOT DATE =	DATE - 04/29/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES - SIGN PANEL ELEVATIONS
SIGN 10 S.N. 1S016I094L046.0-000

SHEET OF SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	2020-005-BR	COOK	908	240
CONTRACT NO. 62K73				
ILLINOIS FED. AID PROJECT				

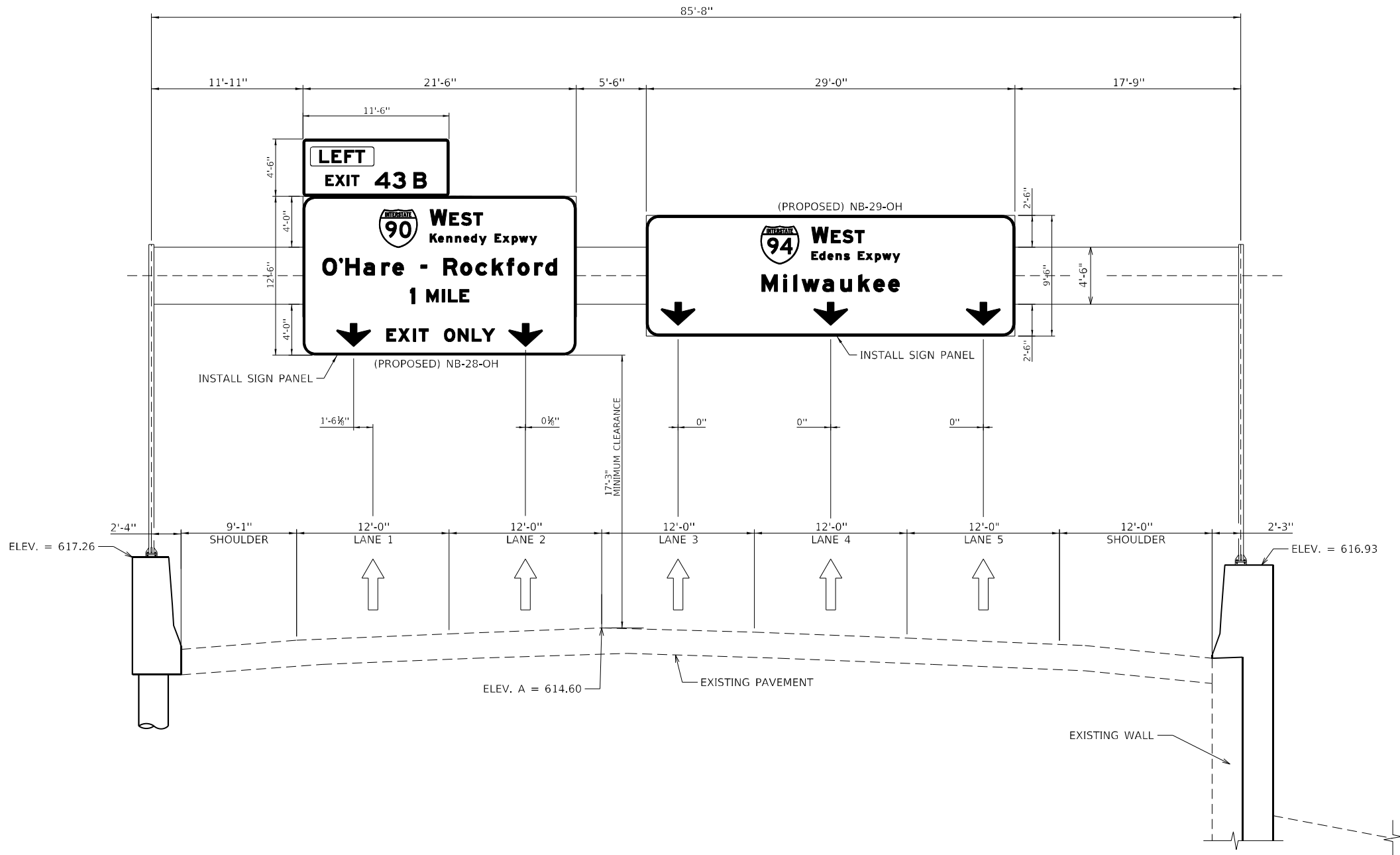


(15016I094L045.8)

1. SEE SHEET NO. 243 TO 245 FOR OVERHEAD SIGN PANEL DETAILS
2. FINAL ELEVATION OF CENTERLINE OF TRUSS TO BE DETERMINED BY SIGN TRUSS DESIGNER
3. ALL HORIZONTAL DIMENSIONS ARE MEASURED ALONG ϕ OF TRUSS

FILE NAME = p

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SIGN 13 STA 615+28.04 (NB) - PROPOSED SIGN TRUSS MOUNT
(1S016I094L044.6)

- NOTES:
- 1. SEE SHEET NO. 243 TO 245 FOR OVERHEAD SIGN PANEL DETAILS
 - 2. ALL HORIZONTAL DIMENSIONS ARE MEASURED ALONG C OF TRUSS



USER NAME = p0071240	DESIGNED - RDP	REVISED -
	CHECKED - CSP	REVISED -
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PLOT DATE =	DATE - 04/29/2024	REVISED -

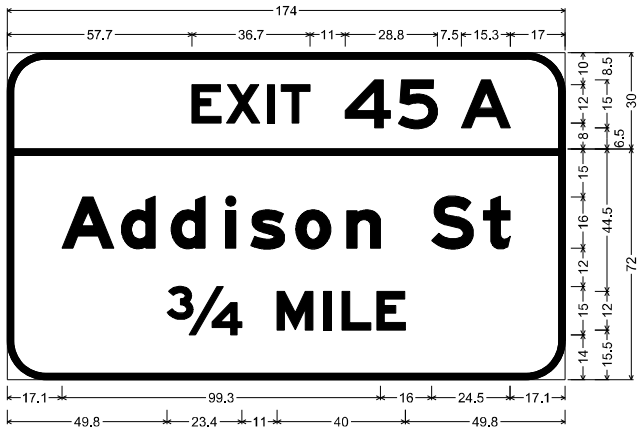
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES - SIGN PANEL ELEVATIONS
SIGN 13 S.N. 1S016I094L044.6-000

SHEET OF SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	2020-005-BR	COOK	908	242
CONTRACT NO. 62K73				
ILLINOIS FED. AID PROJECT				

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E1-5P(3)_138x30;
12.0" Radius, 2.0" Border, White on, Green;
"EXIT", E 2K; "45", E 2K; "A", E 2K;

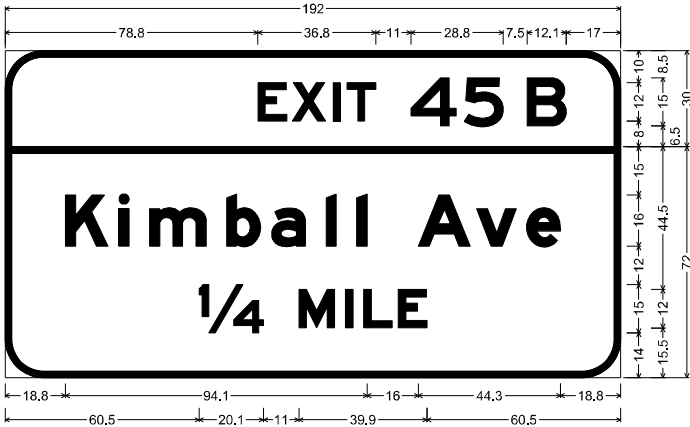
E1-3a/FREEWAY/1 DESTINATION;
12.0" Radius, 2.0" Border, White on, Green;
"Addison St", E Mod 2K; "¾", E Mod 2K; "MILE", E Mod 2K;
Table of letter and object lefts

E	X	I	T	4	5	A
57.7	68.4	81.2	85.4	105.4	122.1	141.7
A	d	d	i	s	o	n
17.1	35.6	51.2	68.1	76.0	90.0	105.9
¾	M	I	L	E		
49.8	84.2	98.7	104.5	115.3		

STRUCTURE NUMBER	1S016I094L046.0-000
WIDTH x HEIGHT	14'-6" x 8'-6"
BORDER WIDTH	2"
CORNER RADIUS	12"
MOUNTING	OVERHEAD
BACKGROUND	TYPE: REFLECTIVE - ZZ
	COLOR: GREEN
LEGEND/BORDER	TYPE: REFLECTIVE - ZZ
	COLOR: WHITE

SYMBOL	ROT	X	Y	WID	HT
AR_TYPE A	315	-	-	22.3	35.6

NOTE:
ALL ARROWS (DOWN OR 45°) USED
ON OVERHEAD SIGNS SHALL BE
DEMOUNTABLE AND INCLUDED IN
THE COST OF THE SIGN PANEL.

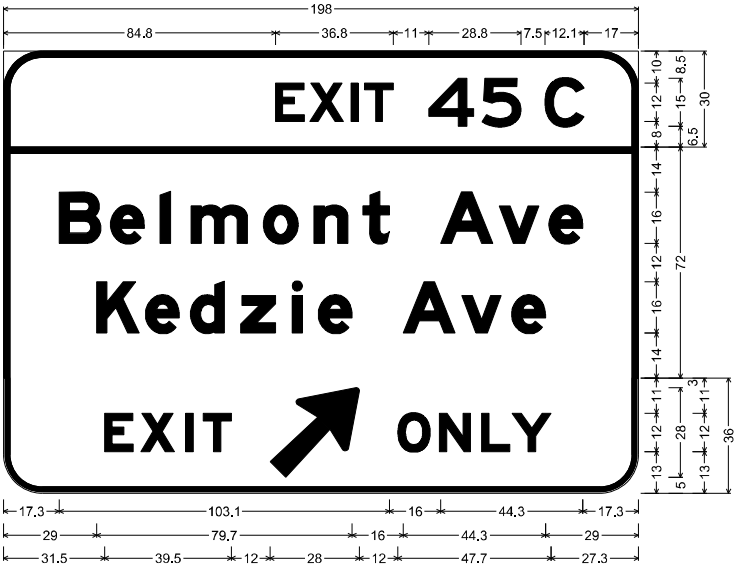


E1-5P(3)_138x30;
12.0" Radius, 2.0" Border, White on, Green;
"EXIT", E 2K; "45", E 2K; "B", E 2K;

E1-3a/FREEWAY/1 DESTINATION;
12.0" Radius, 2.0" Border, White on, Green;
"Kimball Ave", E Mod 2K; "¼", E Mod 2K; "MILE", E Mod 2K;
Table of letter and object lefts

E	X	I	T	4	5	B
78.8	89.5	102.3	106.6	126.6	143.2	162.9
K	i	m	b	a	i	A
18.8	35.4	45.0	69.0	83.1	100.1	109.7
¼	M	I	L	E		
60.5	91.6	106.1	111.8	122.6		

STRUCTURE NUMBER	1S016I094L046.0-000
WIDTH x HEIGHT	16'-0" x 8'-6"
BORDER WIDTH	2"
CORNER RADIUS	12"
MOUNTING	OVERHEAD
BACKGROUND	TYPE: REFLECTIVE - ZZ
	COLOR: GREEN
LEGEND/BORDER	TYPE: REFLECTIVE - ZZ
	COLOR: WHITE



E1-5P(3)_138x30;
12.0" Radius, 2.0" Border, White on, Green;
"EXIT", E 2K; "45", E 2K; "C", E 2K;

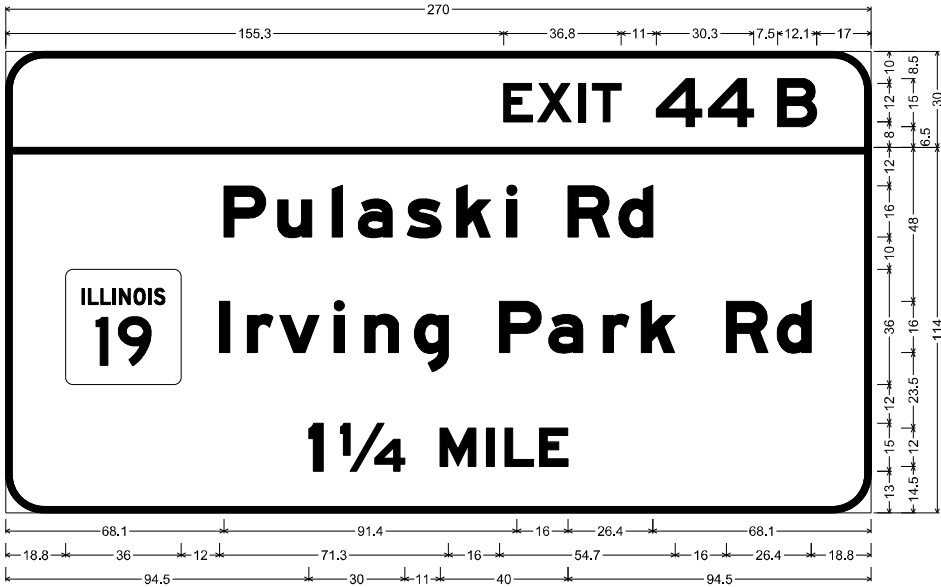
E1-3a/FREEWAY/1 DESTINATION;
12.0" Radius, 2.0" Border, White on, Green;
"Belmont Ave", E Mod 2K; "Kedzie Ave", E Mod 2K;
Table of letter and object lefts

E	X	I	T	4	5	C
84.8	95.5	108.3	112.6	132.6	149.2	168.9
B	e	i	m	o	n	A
17.3	33.3	48.8	58.4	81.0	96.8	112.0
K	e	d	z	i	e	A
29.0	44.2	58.3	74.0	90.0	98.1	124.7
E	X	I	T	O	N	L
31.5	42.8	56.7	62.2	83.0	123.0	135.9

STRUCTURE NUMBER	1S016I094L046.0-000
WIDTH x HEIGHT	16'-6" x 11'-6"
BORDER WIDTH	2"
CORNER RADIUS	12"
MOUNTING	OVERHEAD
BACKGROUND	TYPE: REFLECTIVE - ZZ
	COLOR: GREEN
LEGEND/BORDER	TYPE: REFLECTIVE - ZZ
	COLOR: WHITE



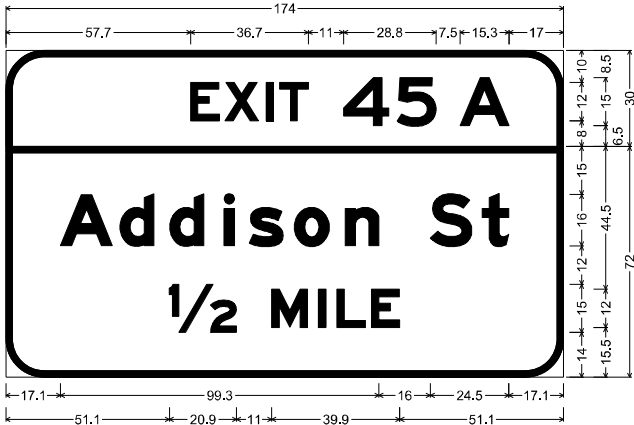
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E1-5P(3)_138x30;
12.0" Radius, 2.0" Border, White on, Green;
"EXIT", E 2K; "44", E 2K; "B", E 2K;
E1-3a/FREEWAY/1 DESTINATION;
12.0" Radius, 2.0" Border, White on, Green;
"Pulaski Rd", E Mod 2K; "Irving Park Rd", E Mod 2K; "1 1/4", E Mod 2K; "MILE", E Mod 2K;
Table of letter and object lefts

E	X	I	T	4	4	B						
155.3	166.0	178.9	183.1	203.1	219.3	240.9						
P	u	I	a	s	k	i	R	d				
68.1	84.9	101.9	110.0	125.2	140.8	156.3	175.5	191.3				
18.8	66.8	75.4	85.5	102.4	112.0	127.6	154.1	169.5	186.4	198.3	224.8	240.7
1	1/4	M	I	L	E							
94.5	104.4	135.5	150.0	155.8	166.6							

STRUCTURE NUMBER	1S016I094L045.8-000
WIDTH x HEIGHT	22'-6" x 12'-0"
BORDER WIDTH	2"
CORNER RADIUS	12"
MOUNTING	OVERHEAD
BACKGROUND	TYPE: REFLECTIVE - ZZ
	COLOR: GREEN
LEGEND/BORDER	TYPE: REFLECTIVE - ZZ
	COLOR: WHITE



E1-5P(3)_138x30;
12.0" Radius, 2.0" Border, White on, Green;
"EXIT", E 2K; "45", E 2K; "A", E 2K;
E1-3a/FREEWAY/1 DESTINATION;
12.0" Radius, 2.0" Border, White on, Green;
"Addison St", E Mod 2K; "1/2", E Mod 2K; "MILE", E Mod 2K;
Table of letter and object lefts

E	X	I	T	4	5	A		
57.7	68.4	81.2	85.4	105.4	122.1	141.7		
A	d	d	i	s	o	n	S	t
17.1	35.6	51.2	68.1	76.0	90.0	105.9	132.4	148.6
½	M	I	L	E				
51.1	83.0	97.5	103.3	114.1				

STRUCTURE NUMBER	1S016I094L045.8-000
WIDTH x HEIGHT	14'-6" x 8'-6"
BORDER WIDTH	2"
CORNER RADIUS	12"
MOUNTING	OVERHEAD
BACKGROUND	TYPE: REFLECTIVE - ZZ
	COLOR: GREEN
LEGEND/BORDER	TYPE: REFLECTIVE - ZZ
	COLOR: WHITE



E1-5P(3)_138x30;
12.0" Radius, 2.0" Border, White on, Green;
"EXIT", E 2K; "45", E 2K; "B", E 2K;
E1-3a/FREEWAY/1 DESTINATION;
12.0" Radius, 2.0" Border, White on, Green;
"Kimball Ave", E Mod 2K; Arrow A-13.33UC - 29.3" 45';
Table of letter and object lefts

E	X	I	T	4	5	B				
108.8	119.5	132.4	136.6	156.6	173.2	192.9				
K	i	m	b	a	I	I	A	v	e	↗
16.3	32.9	42.5	66.5	80.6	97.6	107.2	126.4	144.6	160.1	182.7

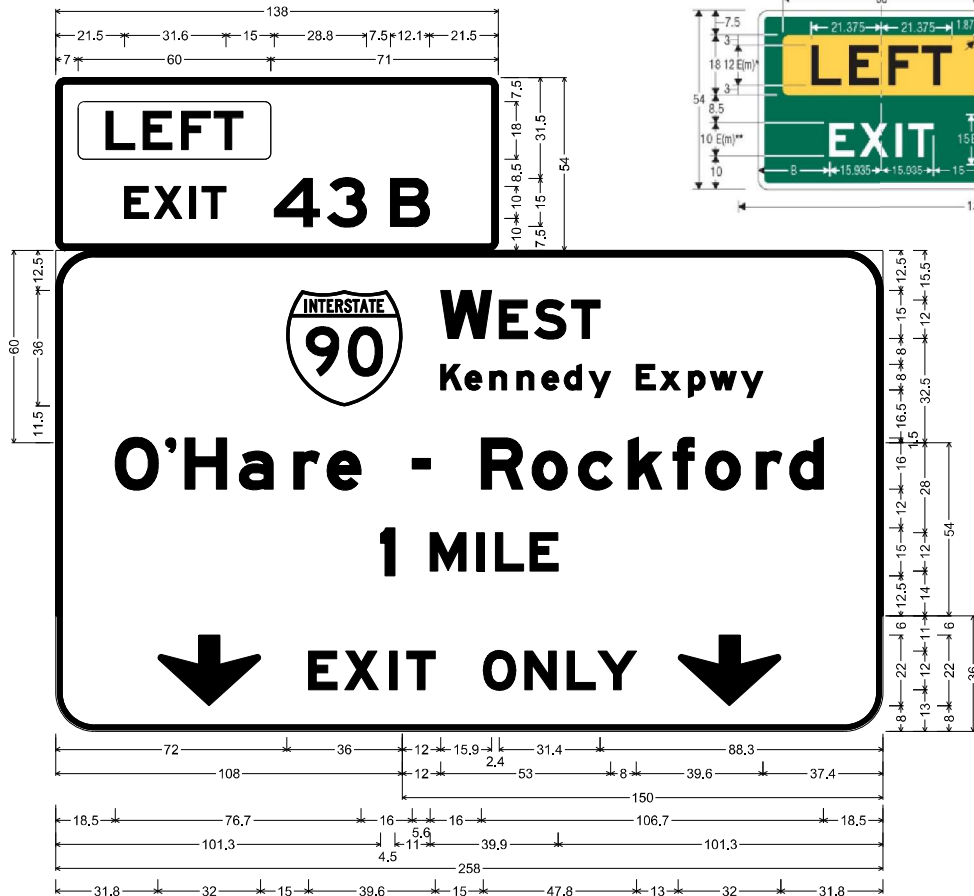
STRUCTURE NUMBER	1S016I094L045.8-000
WIDTH x HEIGHT	18'-6" x 6'-6"
BORDER WIDTH	2"
CORNER RADIUS	12"
MOUNTING	OVERHEAD
BACKGROUND	TYPE: REFLECTIVE - ZZ
	COLOR: GREEN
LEGEND/BORDER	TYPE: REFLECTIVE - ZZ
	COLOR: WHITE

SYMBOL	ROT	X	Y	WID	HT
AR_TYPE A	315	-	-	22.3	35.6

NOTE:
ALL ARROWS (DOWN OR 45°) USED
ON OVERHEAD SIGNS SHALL BE
DEMOUNTABLE AND INCLUDED IN
THE COST OF THE SIGN PANEL.



FILE NAME = p:\1\VAN\AQIP\INT0\parsons.com\Illinois State Documents\DDT-HBM Task Order\Work Order 12 .fig 1-908.alash94_Sign_Replacements\40 - Design\CAD\Signs\Sheets\90_Signing.sht.BLDgn



E1-5bP(3)_138x54;
3.0" Radius, 2.0" Border, White on, Green;
Rounded Rectangle 1.9" Radius Yellow;
"EXIT", E 2K 120% spacing; "43", E 2K; "B", E 2K;

E6-3/OVERHEAD/1 DESTINATION/2 ARROWS;
12.0" Radius, 2.0" Border, White on, Green;

E6-3/OVERHEAD/1 DESTINATION/2 ARROWS;
12.0" Radius, 2.0" Border, White on, Green;
"W EST", E Mod 2K; "Kennedy Expwy", E Mod 2K;

E6-3/OVERHEAD/1 DESTINATION/2 ARROWS;
12.0" Radius, 2.0" Border, White on, Green;
"O'Hare - Rockford", E Mod 2K; "1", E Mod 2K; "MILE", E Mod 2K;

E11-1f_222x36;
12.0" Radius, 1.5" Border, 0.5" Indent, Black on, Yellow;
Down Arrow 22.0" 270"; "EXIT", E Mod 2K specified length; "ONLY", E Mod 2K specified length; Down Arrow 22.0" 270';
Table of letter and object lefts

7.0						
E	X	I	T	4	3	B
21.5	30.6	41.7	45.6	68.1	84.7	104.4
72.0						
W	E	S	T			
12.0	30.3	41.3	52.9			
K	e	n	e	d	y	E
12.0	19.6	27.4	35.8	43.6	50.8	73.0
O	'	H	a	r	e	-
18.5	34.2	40.3	57.2	74.2	84.6	111.2
1	M	I	L	E		
101.3	116.8	131.3	137.0	147.8		
31.8	E	X	I	T	O	N
78.8	90.1	104.1	109.5	133.4	146.3	159.4
					Y	
					169.0	194.2

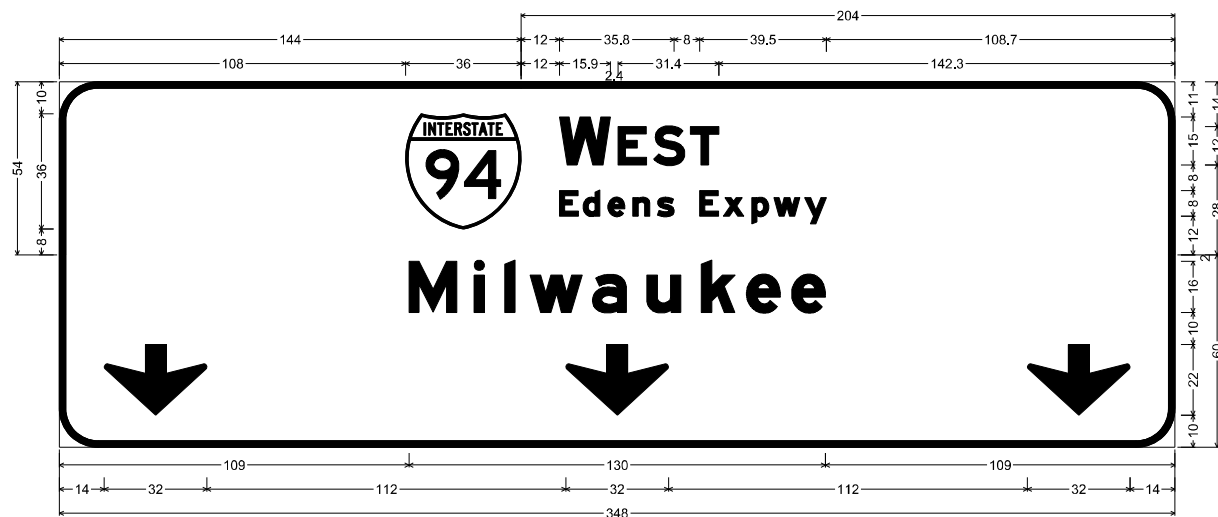
DETAILS

"LEFT" PLAQUE DETAIL DESIGN



STRUCTURE NUMBER	1S016I094L044.6-000
WIDTH x HEIGHT	11'-6" x 4'-6" (UPPER)
BORDER WIDTH	2"
CORNER RADIUS	3"
MOUNTING	OVERHEAD
BACKGROUND	TYPE: REFLECTIVE - ZZ
	COLOR: GREEN
LEGEND/BORDER	TYPE: REFLECTIVE - ZZ
	COLOR: WHITE

STRUCTURE NUMBER	1S016I094L044.6-000
WIDTH x HEIGHT	21'-6" x 12'-6" (LOWER)
BORDER WIDTH	2"
CORNER RADIUS	12"
MOUNTING	OVERHEAD
BACKGROUND	TYPE: REFLECTIVE - ZZ
	COLOR: GREEN
LEGEND/BORDER	TYPE: REFLECTIVE - ZZ
	COLOR: WHITE



E6-3/OVERHEAD/1 DESTINATION/2 ARROWS;
12.0" Radius, 2.0" Border, White on, Green;

E6-3/OVERHEAD/1 DESTINATION/2 ARROWS;
12.0" Radius, 2.0" Border, White on, Green;
"W EST", E Mod 2K; "Edens Expwy", E Mod 2K;

E6-3/OVERHEAD/1 DESTINATION/2 ARROWS;
12.0" Radius, 2.0" Border, White on, Green;
"Milwaukee", E Mod 2K; Down Arrow 22.0" 270'; Down Arrow 22.0" 270'; Down Arrow 22.0" 270';
Table of letter and object lefts

108.0						
W	E	S	T			
12.0	30.3	41.3	52.9			
E	d	n	s	E	x	p
12.0	19.4	27.1	34.9	42.5	55.8	63.1
M	i	l	w	a	u	k
109.0	129.4	139.0	146.8	166.3	183.3	200.2
					e	e
					214.3	228.4
14.0	158.0	302.0				

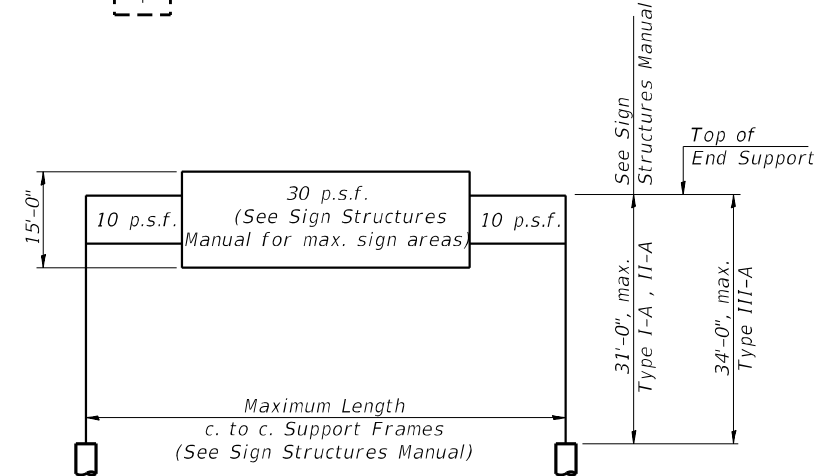
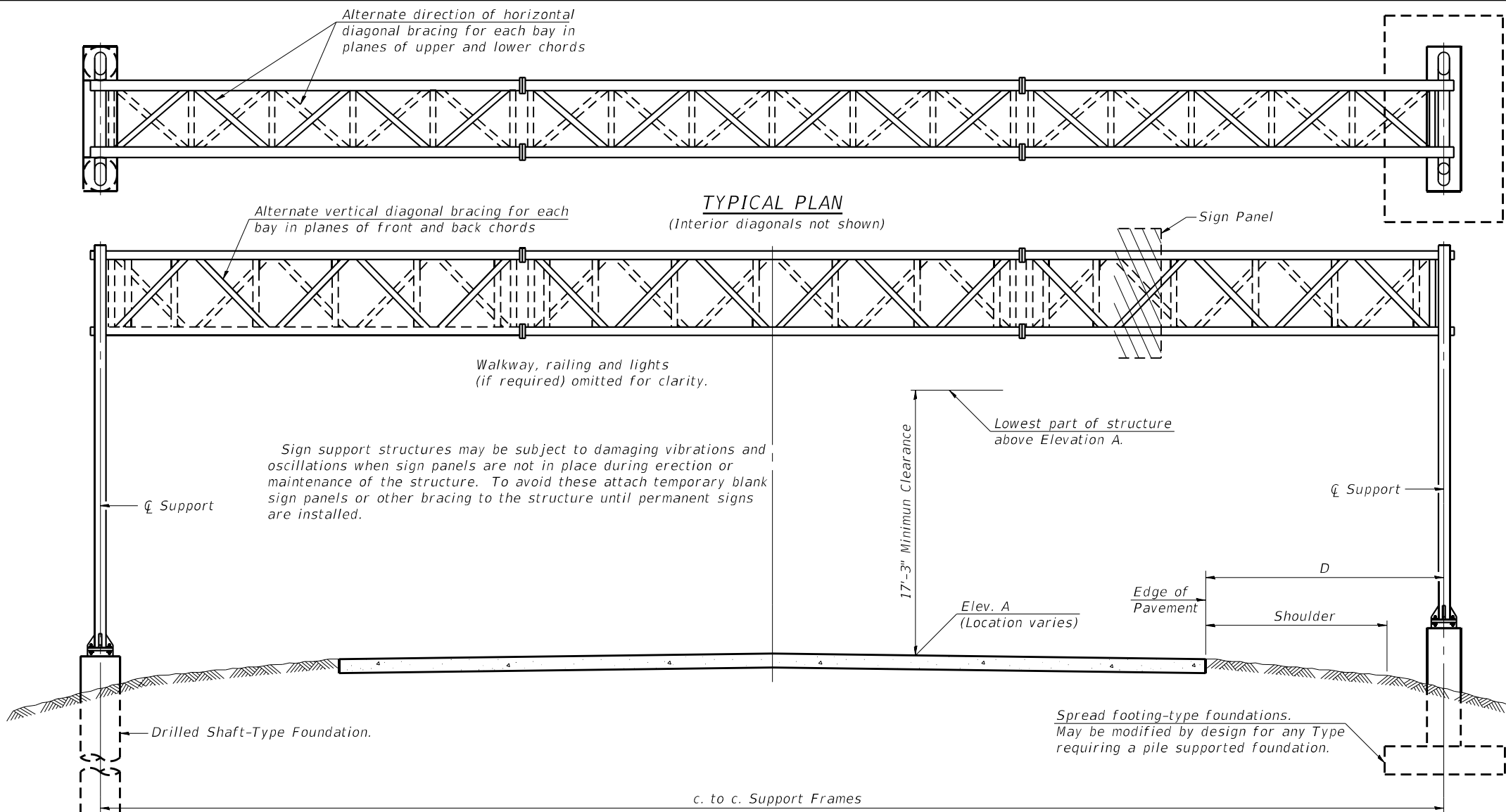
STRUCTURE NUMBER	1S016I094L044.6-000
WIDTH x HEIGHT	29'-0" x 9'-6"
BORDER WIDTH	2"
CORNER RADIUS	12"
MOUNTING	OVERHEAD
BACKGROUND	TYPE: REFLECTIVE - ZZ
	COLOR: GREEN
LEGEND/BORDER	TYPE: REFLECTIVE - ZZ
	COLOR: WHITE

SYMBOL	ROT	X	Y	WID	HT
AR_DOWN	0	-	-	32	22

NOTE:
ALL ARROWS (DOWN OR 45°) USED
ON OVERHEAD SIGNS SHALL BE
DEMOUNTABLE AND INCLUDED IN
THE COST OF THE SIGN PANEL.



MODEL: Default
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DESIGN WIND LOADING DIAGRAM

Parameters shown are basis for I.D.O.T. Standards and Sign Manual Tables. Installations not within dimensional limits shown require special analysis for all components.

TYPICAL ELEVATION

(Looking at Face of Signs**)

Elev. A = Elevation at point of minimum clearance to sign, walkway support or truss.

Sign #	Structure Number	Station	Design Truss Type	c. to c. Supports	Elev. A	Dim D.	Height of Tallest Sign	Total Sign Area
Sign 10	1S0161094L046.0	532+80.56 NB	II-A	125'-0"	609.02	34'-4 5/8"	11'-6"	449 Sq. Ft.
Sign 11	1S0161094L045.8	546+71.72 NB	III-A	116'-0"	616.08	38'-2 3/4"	12'-0"	513.5 Sq. Ft.

**Looking upstation for structures with signs both sides.

* If M270 Gr. 50W (M222) steel is proposed, chemistry for plate to be used shall first be approved by the Engineer as suitable for galvanizing and welding.



Signed Dr. Moussa A. Issa, S.E. Il. Lic. No. 081-005738
Expires 11-30-2024

Date 04/29/2024 FOR SHEETS OSGI-01 THRU OSGI-24 (TOTAL OF 24 SHEETS)

GENERAL NOTES

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

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

LOADING: 90 M.P.H. WIND VELOCITY

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

DESIGN STRESSES:
Field Units
f'c = 3,500 p.s.i.
fy = 60,000 p.s.i. (reinforcement)

WELDING: All welds to be continuous unless otherwise shown. All welding to be done in accordance with current AWS D1.1 and D1.2 Structural Welding Codes (Steel and Aluminum) and the Standard Specifications.

MATERIALS: Aluminum Alloys as shown throughout plans. All Structural Steel Pipe shall be ASTM A53 Grade B or A500 Grade B or C. If A500 pipe is substituted for A53, then the outside diameter shall be as detailed and wall thickness greater than or equal to A53. All Structural Steel Plates and Shapes shall conform to AASHTO M270 Gr. 36, Gr. 50 or Gr. 50W*. Stainless steel for shims, sleeves and handhole covers shall be ASTM A240, Type 302 or 304, or another alloy suitable for exterior exposure and acceptable to the Engineer.

The steel pipe and stiffening ribs at the base plate for the column shall have a minimum longitudinal Charpy V-Notch (CVN) energy of 15 lb.-ft. at 40° F. (Zone 2) before galvanizing.

FASTENERS FOR ALUMINUM TRUSSES: All bolts noted as "high strength" must satisfy the requirements of AASHTO M164 (ASTM A325), or approved alternate, and must have matching lock nuts. Threaded studs for splices (if Members interfere) must satisfy the requirements of ASTM A449, ASTM A193, Grade B7, or approved alternate, and must have matching lock nuts. Bolts and lock nuts not required to be high strength must satisfy the requirements of ASTM A307. All bolts and lock nuts must be hot dip galvanized per AASHTO M232. The lock nuts must have nylon or steel inserts. A stainless steel flat washer conforming to ASTM A240 Type 302 or 304, is required under both head and nut or under both nuts where threaded studs are used. High strength bolt installation shall conform to Article 505.04 (f) (2)d of the IDOT Standard Specifications for Road and Bridge Construction. Rotational capacity ("ROCAP") testing of bolts will not be required.

U-BOLTS AND EYEBOLTS: U-Bolts and Eyebolts must be produced from ASTM A276 Type 304, 304L, 316 or 316L, Condition A, cold finished stainless steel, or an equivalent material acceptable to the Engineer. All nuts for U-Bolts and Eyebolts must be lock nuts equivalent to ASTM A307 with nylon or steel inserts and hot dip galvanized per AASHTO M232. A stainless steel flat washer conforming to ASTM A240, Type 302 or 304, is required under each U-Bolt and Eyebolt lock nut.

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

ANCHOR RODS: Shall conform to ASTM F1554 Gr. 105.

CONCRETE SURFACES: All concrete surfaces above an elevation 6" below the lowest final ground line at each foundation shall be cleaned and coated with Concrete Sealer in accordance with the Standard Specifications.

REINFORCEMENT BARS: Reinforcement Bars designated (E) shall be epoxy coated in accordance with the Standard Specifications.

FOUNDATIONS: The contract unit price for Concrete Foundations and Drilled Shaft Concrete Foundations shall include reinforcement bars complete in place.

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Concrete Barrier Removal	Foot	88.0
Structure Excavation	Cu Yd	93.5
Temporary Soil Retention System	Sq Ft	784
Concrete Barrier Transition	Foot	66
Overhead Sign Structure - Span, Type II-A (4'-6" X 5'-3")	Foot	125
Overhead Sign Structure - Span, Type III-A (5'-0" X 7'-0")	Foot	116
Drilled Shaft Concrete Foundations	Cu Yd	108.5
Remove Overhead Sign Structure - Span	Each	2

05-A-1

2-17-2017

HBM
ENGINEERING GROUP, LLC

USER NAME =	DESIGNED - KJD	REVISED -
	CHECKED - MI	REVISED -
PLOT SCALE =	DRAWN - KJD	REVISED -
PLOT DATE =	DATE - 04/29/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES - GENERAL PLAN &
ELEVATION - ALUMINUM TRUSS & STEEL SUPPORTS

SHEET OSGI-01 OF OSGI-24 SHEETS

FAI RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	2020-005-BR	COOK	908	246
CONTRACT NO. 62K73				
ILLINOIS		FED. AID PROJECT		

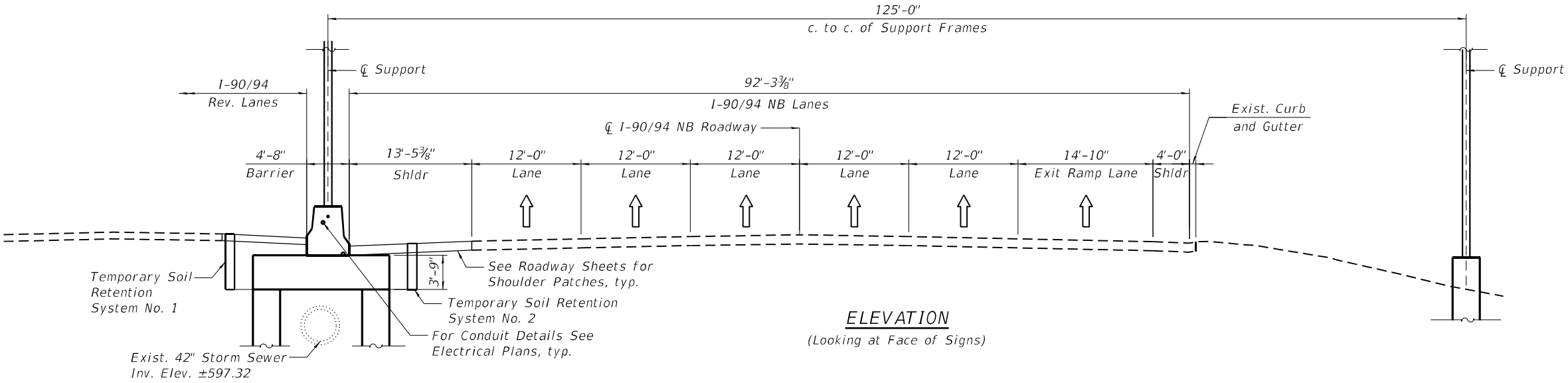
Benchmark: TBM "B" Square cut on top of SW edge of "Exit 45C" overhead sign along I-90/I-94 Belmont ave. exit ramp at Station 533+03.13 OFFSET 65.73 RT. measured along CL NB I-90/94. Elev. 607.49.

NOTES:

1. Stations that are shown are with respect to the NB 190/94 baseline.
2. The contractor shall establish a local version of the NB Baseline based on the dimension shown on this plan. The stationing shall be with respect to the center line of existing sign truss as shown. The offset of the baseline shall be measured from existing features as shown.
3. The contractor shall exercise extreme caution during installation of TSRS and construction of the proposed foundations to avoid damage to electrical utilities, existing drainage structures and pipes. Any damage to the existing electrical utilities, drainage structures and pipes at this location shall be repaired by the contractor at no additional cost to the Department.
4. The Contractor shall locate CL and top of existing sewer pipe in the vicinity of the proposed foundation prior to drilling or boring the proposed foundation. The Contractor shall Inform the RE of any discrepancy between the plans and existing conditions. This work shall be included in the cost of Earth Excavation.

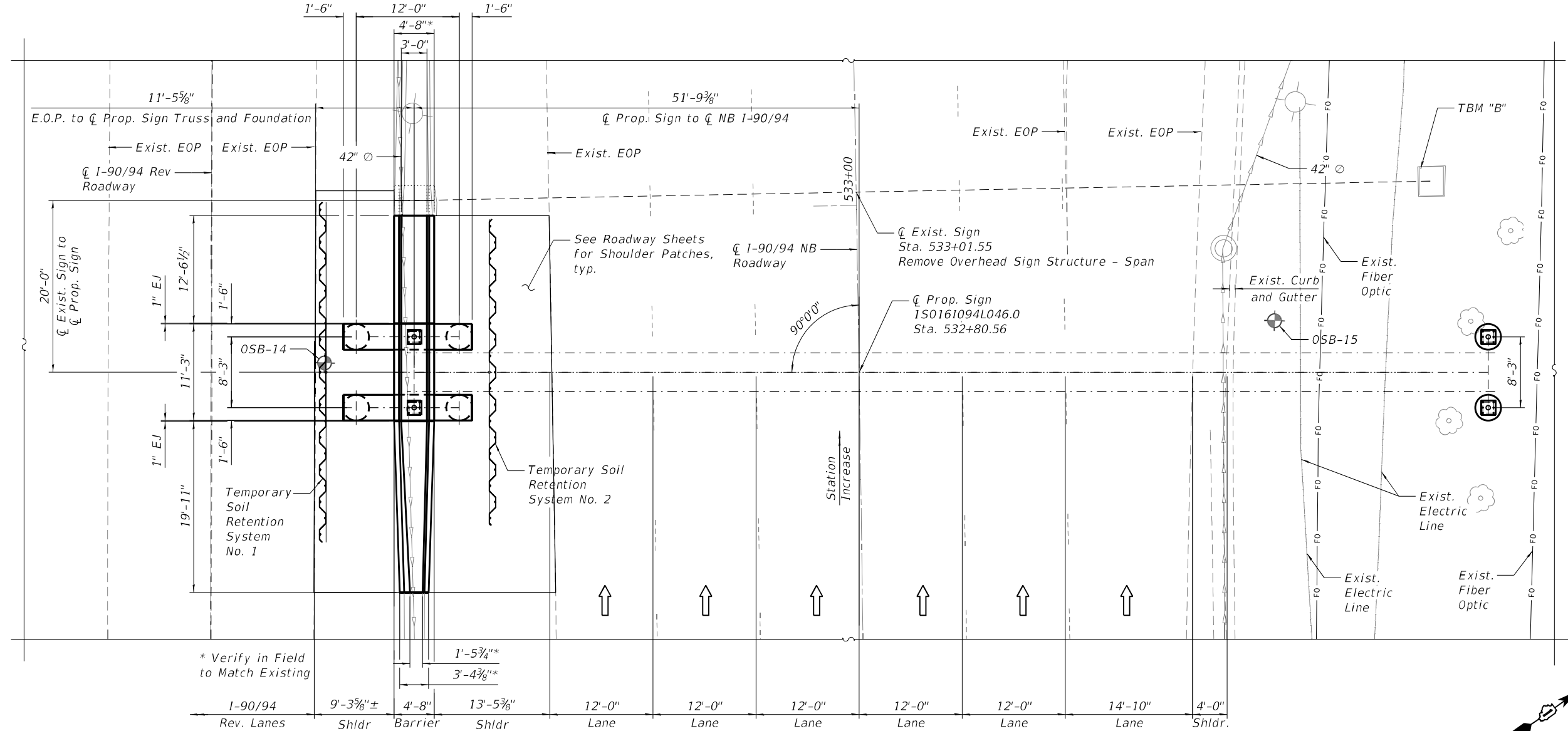
LEGEND

- Soil Boring
- Temporary Soil Retention System
- Catch Basin
- Light Pole
- Underground Combined Storm Sewer
- Exist. Storm Sewer



ELEVATION

(Looking at Face of Signs)



PLAN

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION
SN 1S0161094L046.0 (SIGN 10)

SHEET OSG1-02 OF OSG1-24 SHEETS

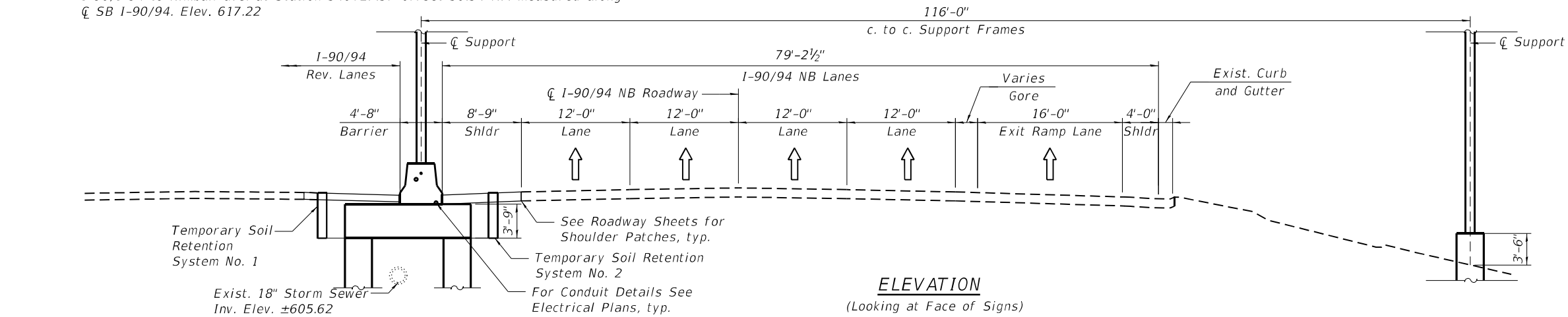
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	2020-005-BR	COOK	908	247
CONTRACT NO. 62K73				
ILLINOIS FED. AID PROJECT				

MODEL: Default
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5/3/2024 1:11:50 PM

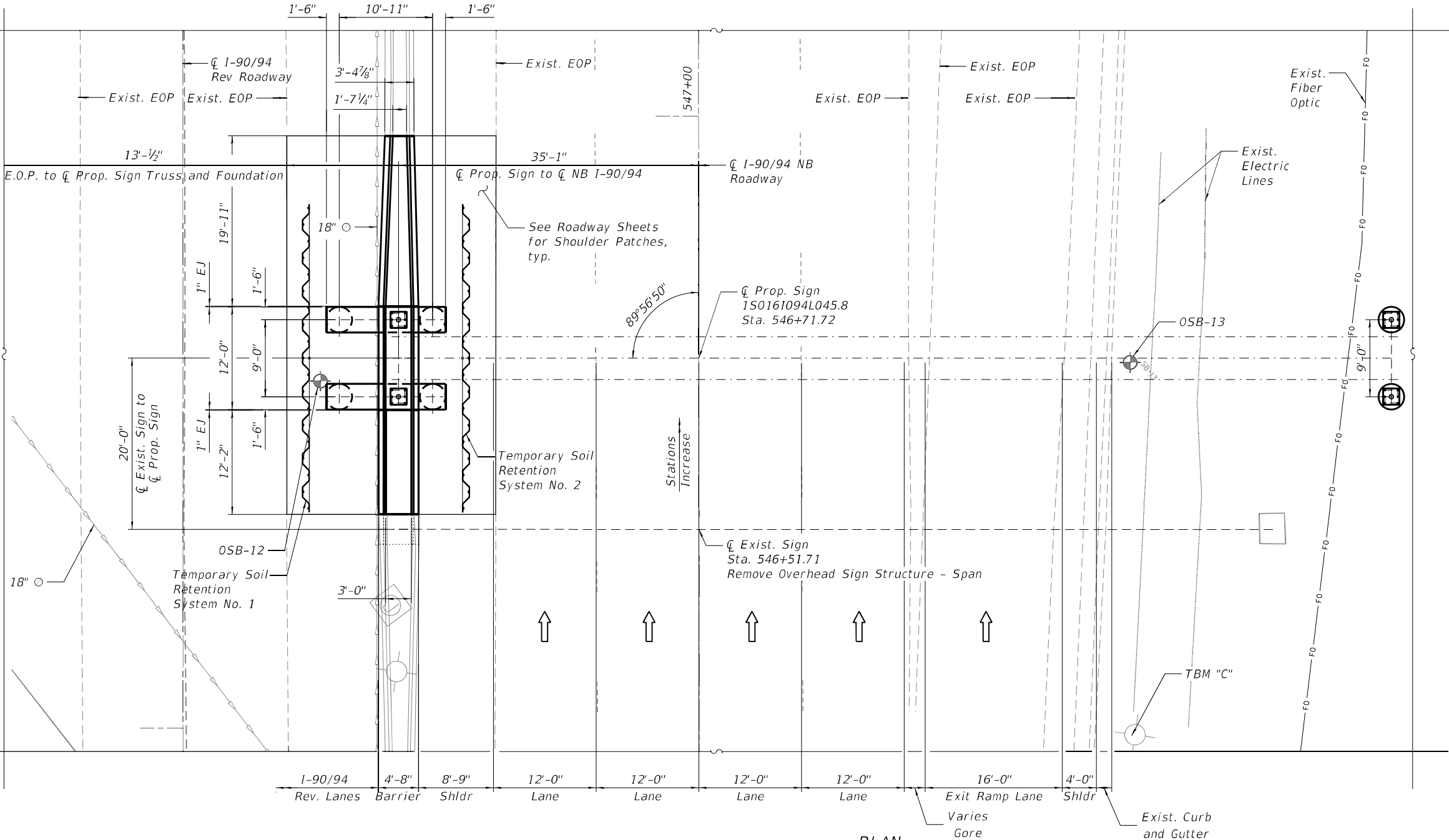
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USER NAME =	DESIGNED - KJD	REVISED -
PLOT SCALE =	CHECKED - MI	REVISED -
PLOT DATE =	DRAWN - KJD	REVISED -
	DATE - 04/29/2024	REVISED -

Benchmark: TBM "C" Top of SW bolt of light pole (Pole # LM4) along exit ramp from I-90/I-94 to Kimball ave. at Station 546+27.57 Offset 50.54 RT. measured along CL SB I-90/94. Elev. 617.22



ELEVATION
(Looking at Face of Signs)



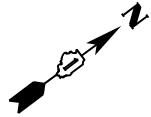
PLAN

NOTES:

1. Stations that are shown are with respect to the NB I90/94 baseline.
2. The contractor shall establish a local version of the NB Baseline based on the dimension shown on this plan. The stationing shall be with respect to the center line of existing sign truss as shown. The offset of the baseline shall be measured from existing features as shown.
3. The contractor shall exercise extreme caution during installation of TSRS and construction of the proposed foundations to avoid damage to electrical utilities, existing drainage structures and pipes. Any damage to the existing electrical utilities, drainage structures and pipes at this location shall be repaired by the contractor at no additional cost to the Department.
4. The Contractor shall locate CL and top of existing sewer pipe in the vicinity of the proposed foundation prior to drilling or boring the proposed foundation. The Contractor shall inform the RE of any discrepancy between the plans and existing conditions. This work shall be included in the cost of Earth Excavation.

LEGEND

- Soil Boring
- Temporary Soil Retention System
- Exist. Storm Sewer
- Light Pole
- Junction Box



MODEL: Default
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5/3/2024 5:11:52 PM

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PLOT DATE =	DATE - 04/29/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION
SN 1S016I094L045.8 (SIGN 11)

SHEET OSG1-03 OF OSG1-24 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	2020-005-BR	COOK	908	248
CONTRACT NO. 62K73				
ILLINOIS FED. AID PROJECT				

MODEL: Default
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5/3/2024 1:12:26 PM



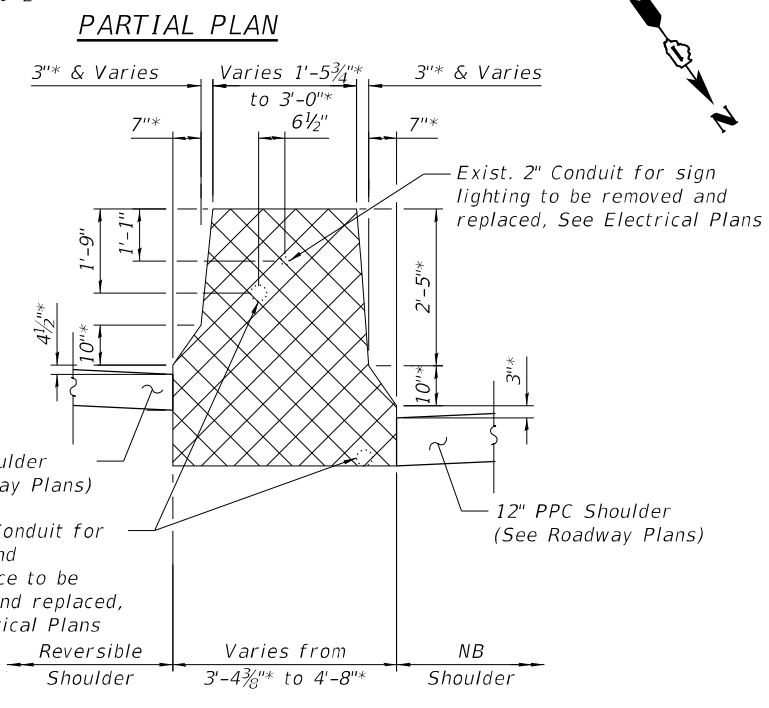
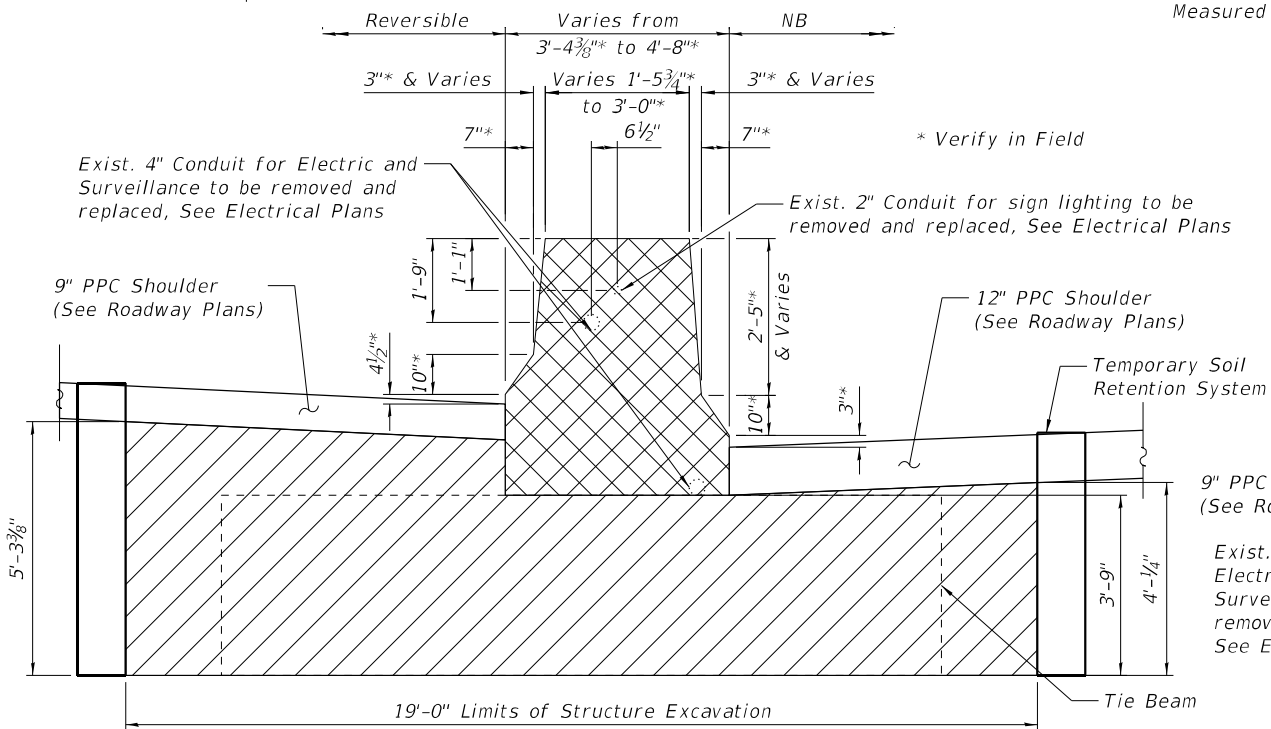
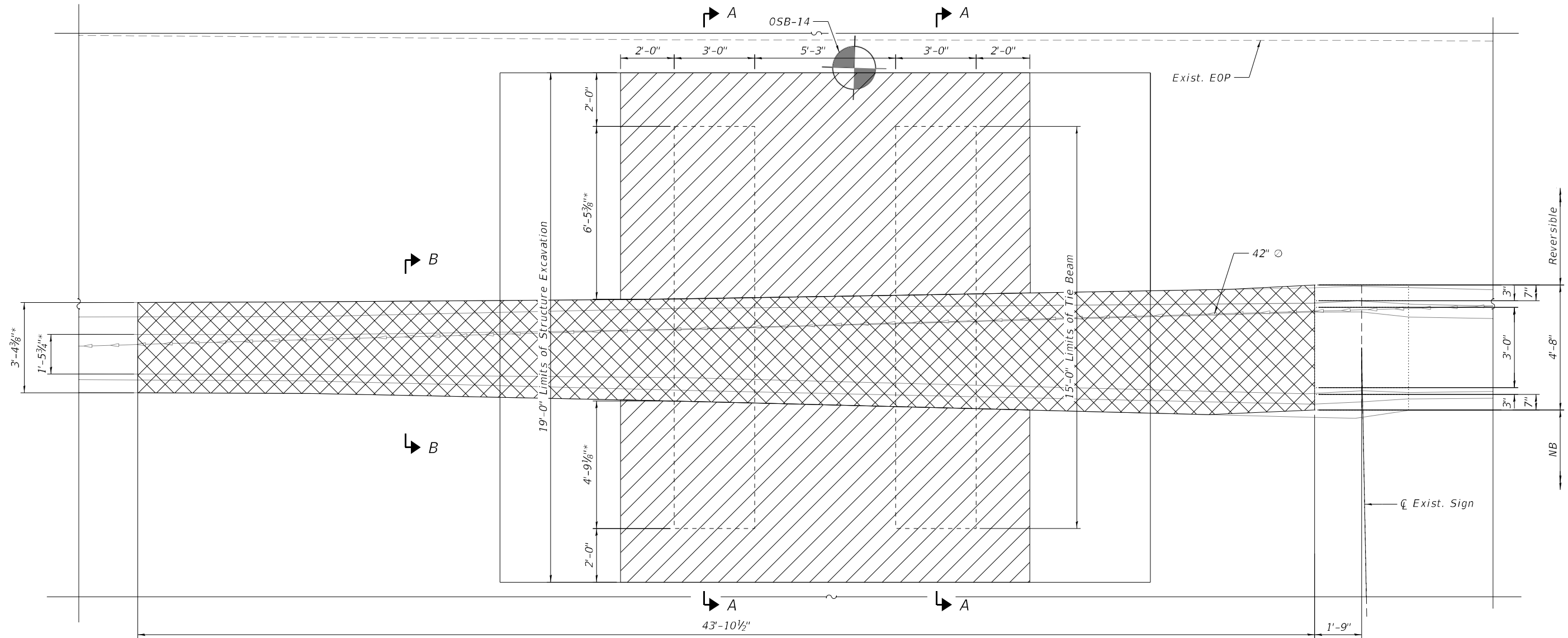
USER NAME =	DESIGNED - KJD	REVISED -
CHECKED - MI	REVISED -	
PLOT SCALE =	DRAWN - KJD	REVISED -
PLOT DATE =	DATE - 04/29/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

REMOVAL DETAILS FOR EXISTING MEDIAN
SN 1S0161094L046.0 (SIGN 10)

SHEET OSG1-04 OF OSG1-24 SHEETS

FAI RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	2020-005-BR	COOK	908	249
CONTRACT NO. 62K73				
ILLINOIS FED. AID PROJECT				



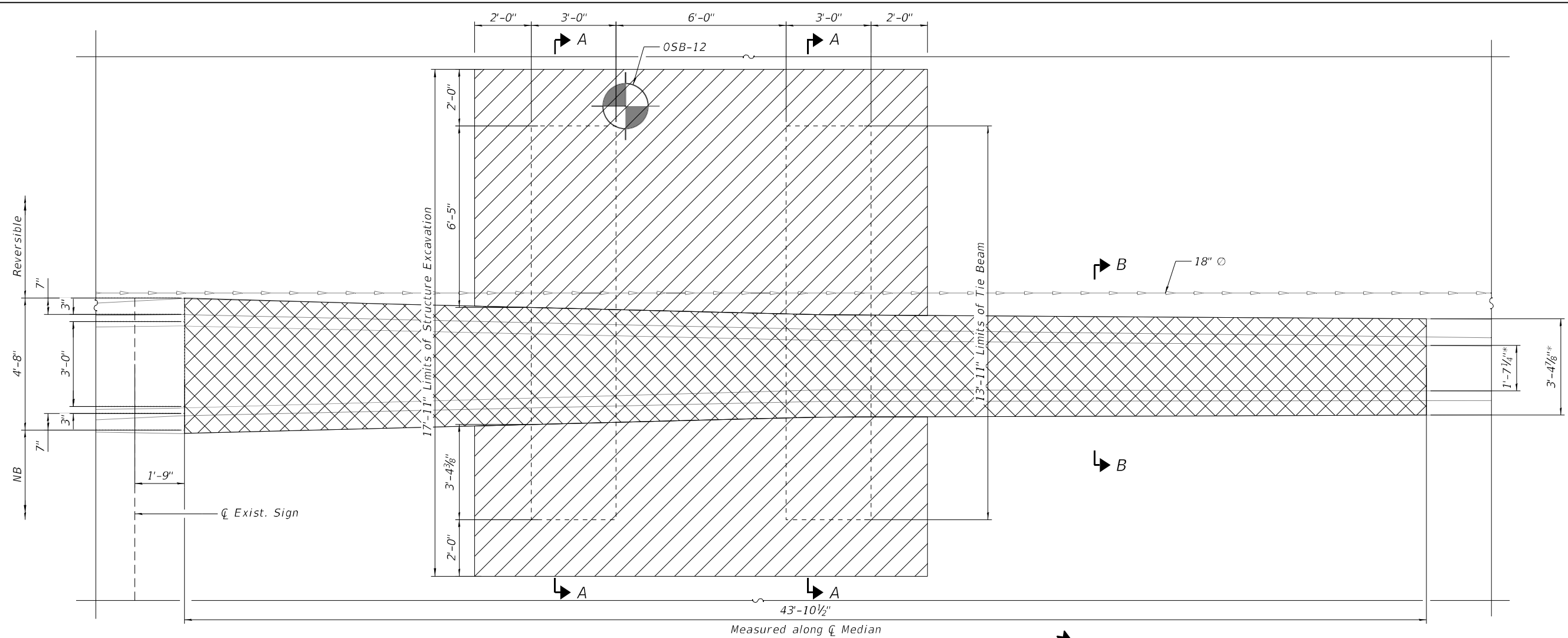
BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Concrete Barrier Removal	Foot	44
Structure Excavation	Cu Yd	50.0

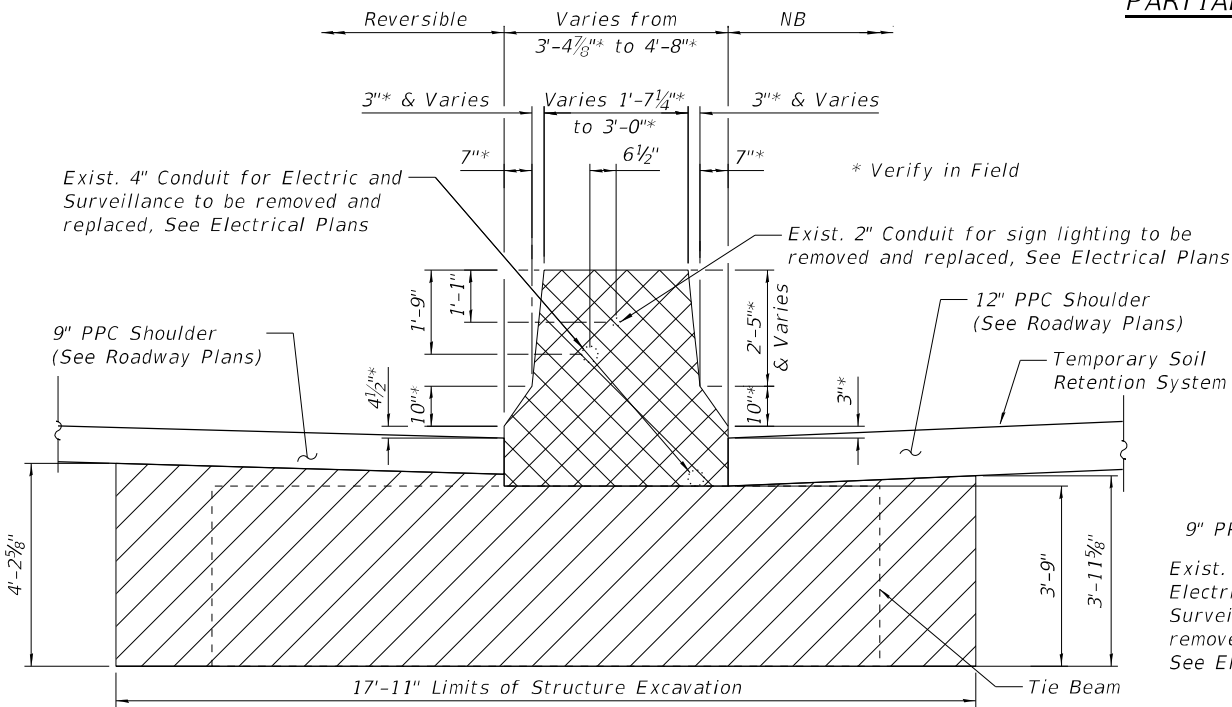
LEGEND

- Concrete Removal
- Structure Excavation
- Exist. Storm Sewer

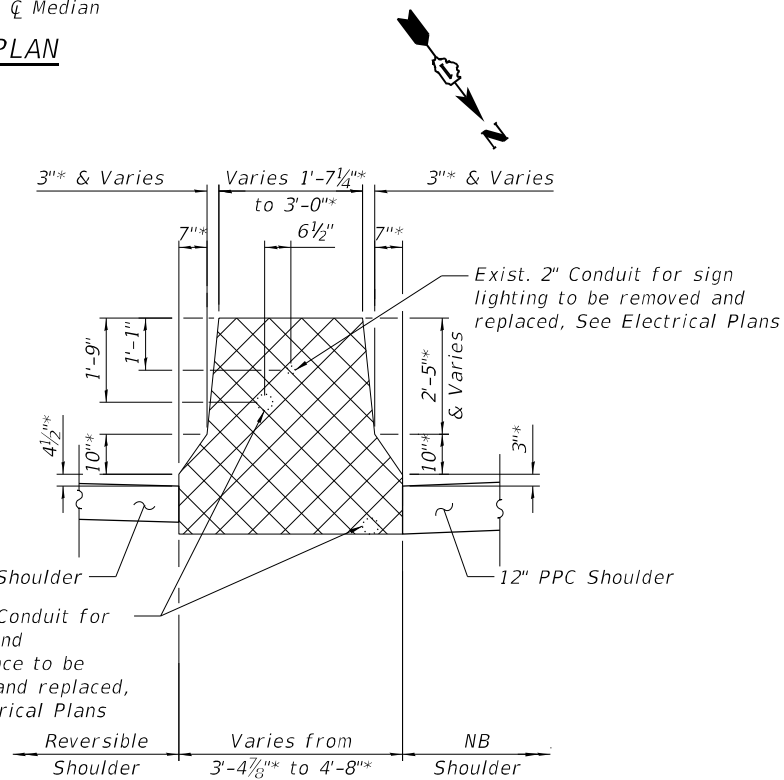
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5/3/2024 1:12:34 PM



PARTIAL PLAN



SECTION A-A



SECTION B-B

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Concrete Barrier Removal	Foot	44
Structure Excavation	Cu Yd	43.5

LEGEND



Concrete Removal



Structure Excavation



Exist. Storm Sewer



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PLOT DATE =	DATE - 04/29/2024	REVISED -

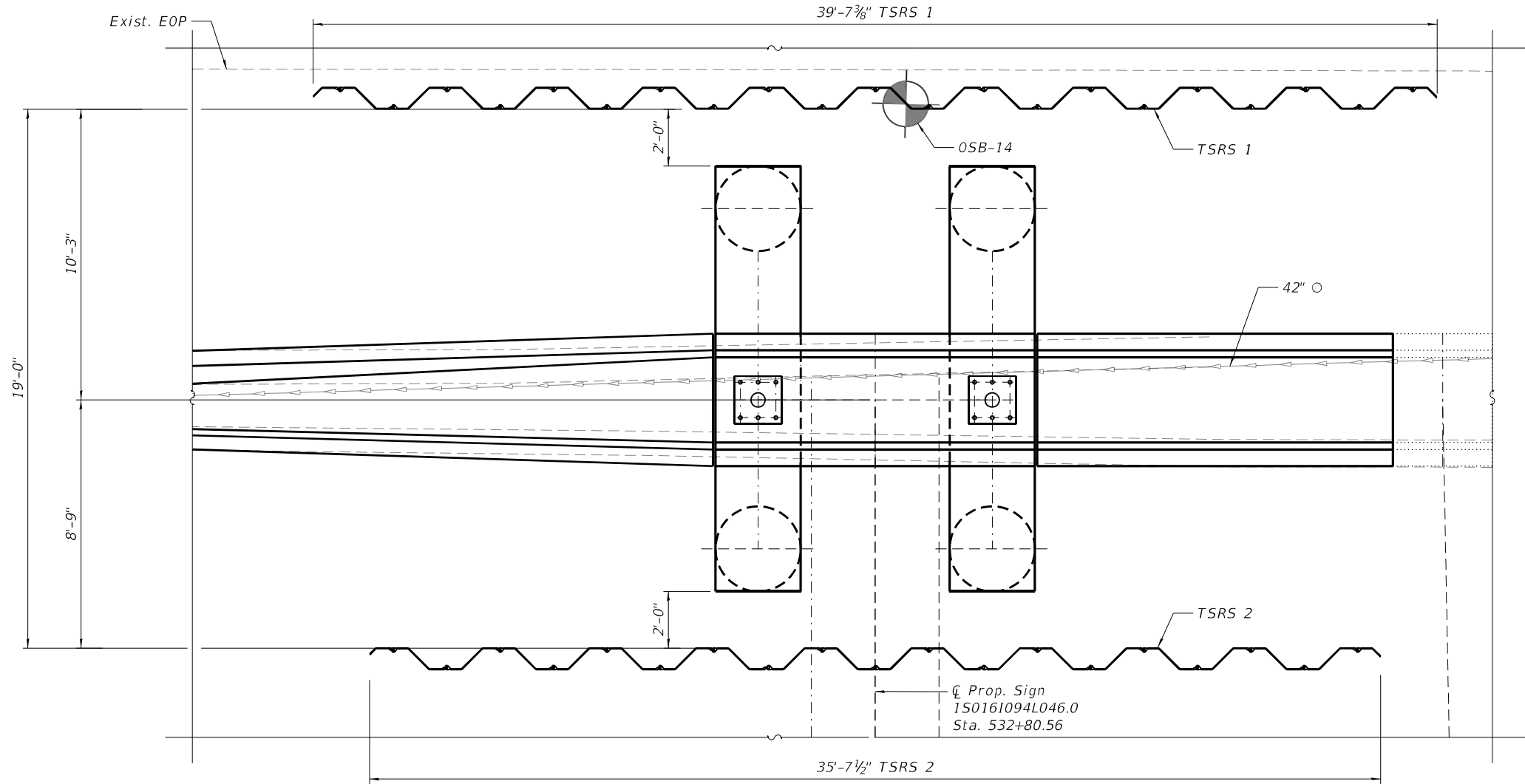
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

REMOVAL DETAILS FOR EXISTING MEDIAN
SN 1S016I094L045.8 (SIGN 11)

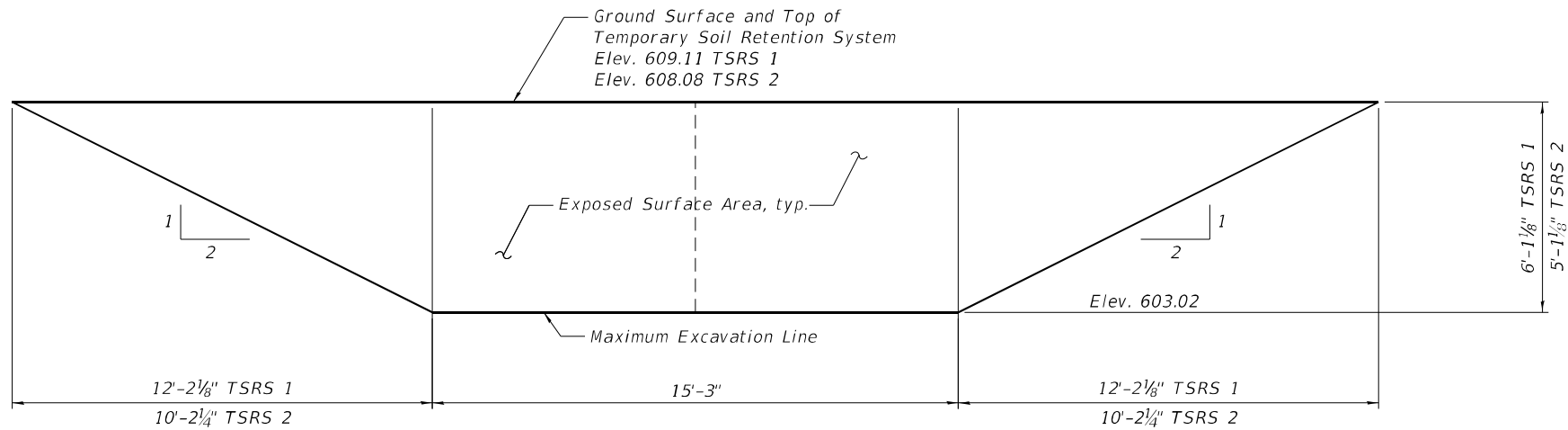
SHEET OSG1-05 OF OSG1-24 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	2020-005-BR	COOK	908	250
CONTRACT NO. 62K73				
ILLINOIS FED. AID PROJECT				

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PARTIAL PLAN AT TEMPORARY SOIL RETENTION SYSTEM



TEMPORARY SOIL RETENTION SYSTEM

BILL OF MATERIAL

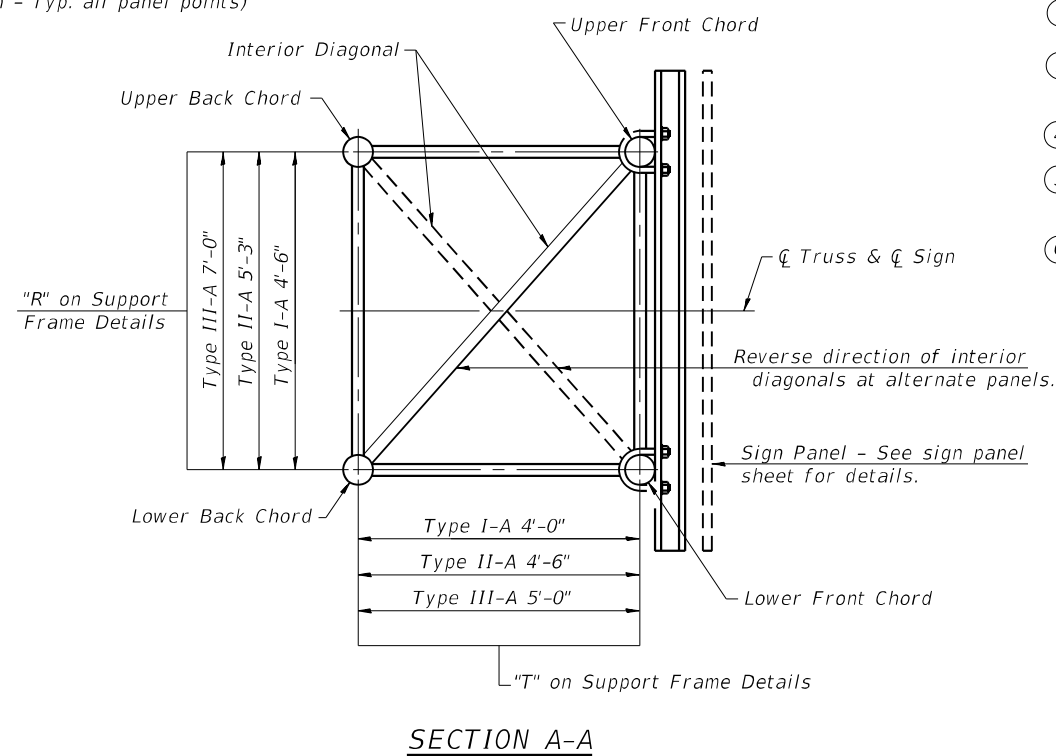
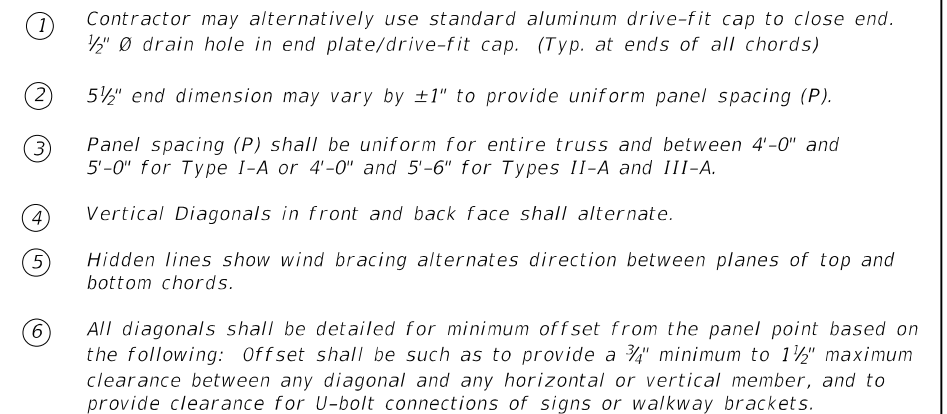
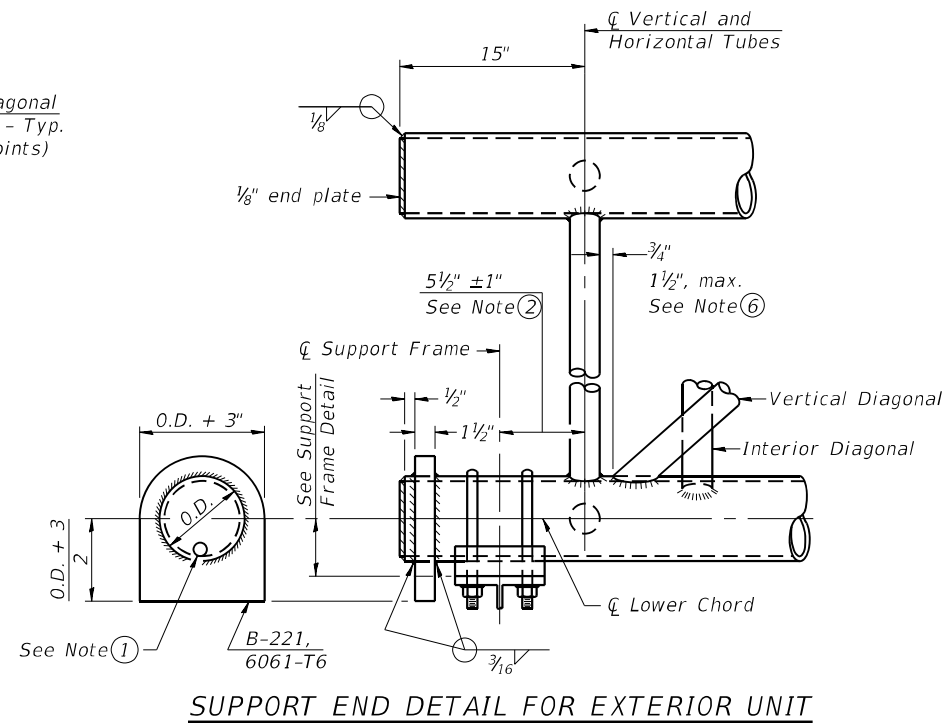
ITEM	UNIT	QUANTITY
Temporary Soil Retention System	Sq Ft	423

NOTES:

1. A cantilevered sheet piling design does not appear feasible and additional members or other retention systems may be necessary. The Contractor shall submit a temporary soil retention system design including plan details and calculations for review and acceptance by the Engineer.
2. The maximum allowable excavation slope is 1:2 (V:H).

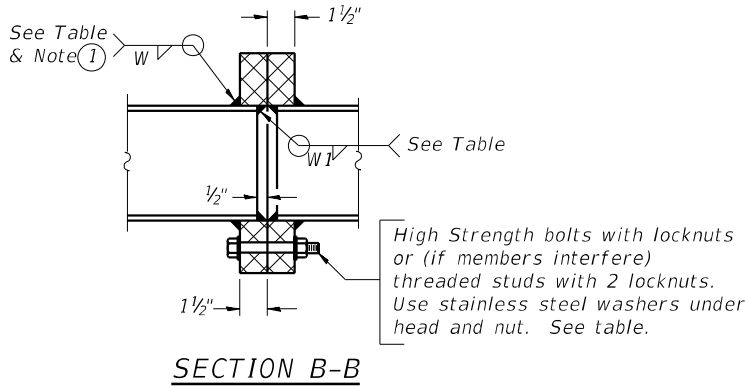
LEGEND

- Soil Boring
- Temporary Soil Retention System
- Exist. Storm Sewer

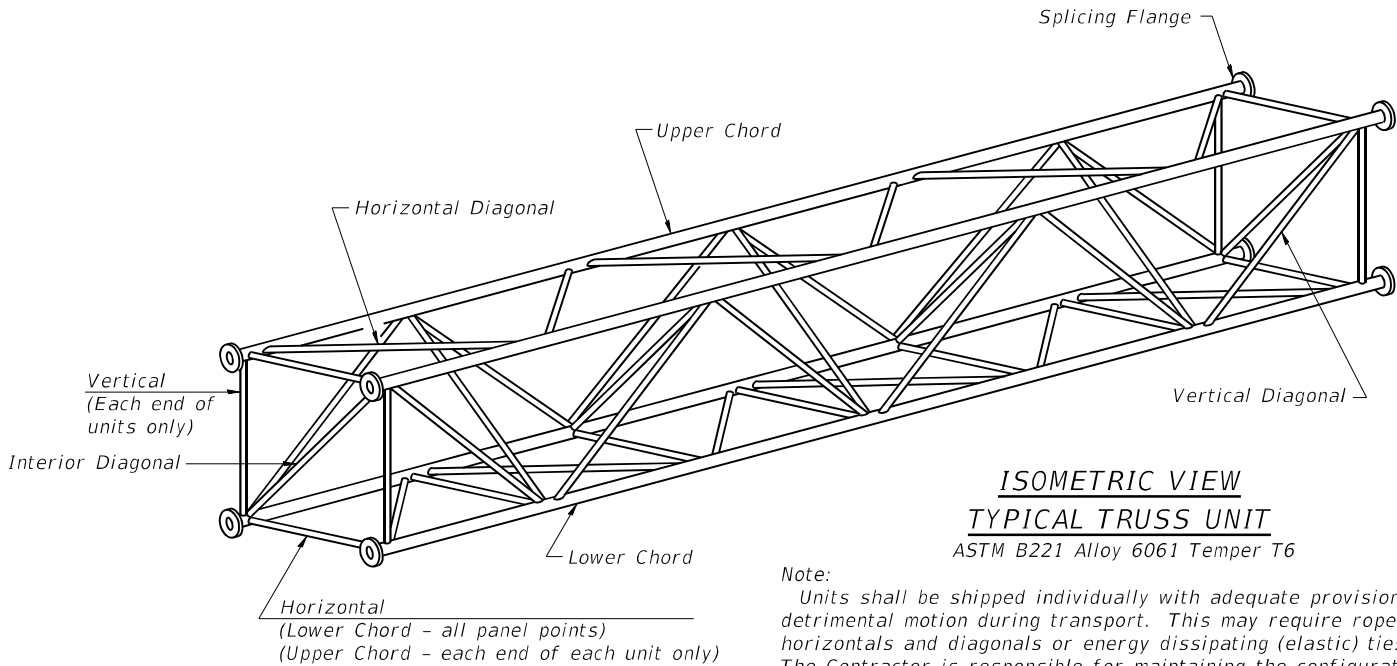


TRUSS UNIT TABLE

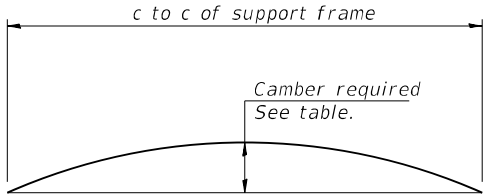
Sign #	Structure Number	Station	Truss Design Type	Exterior Units (2)			Interior Unit				Upper and Lower Chord		Verticals; Horizontals; Vertical,		Camber at Midspan	Splicing Flange					
				No. Panels	Unit Lgth.(Le)	Panel Lgth.(P)	No. Req'd	No. Panels	Unit Lgth. (Li)	Panel Lgth.(P)	O.D.	Wall	O.D.	Wall		Bolts		Weld Size		A	B
																No./Splice	Dia.	W	W1		
Sign 10	1S0161094L046.0	532+80.56 NB	II-A	6	32'-0"	5'-0 1/4"	2	6	31'-4 1/2"	5'-0 1/4"	7"	3/8"	3"	5/16"	4 1/2"	8	1"	7/16"	5/16"	11 1/2"	15"
Sign 11	1S0161094L045.8	546+71.72 NB	III-A	8	39'-4 1/2"	4'-8 1/4"	1	8	38'-9"	4'-8 1/4"	8 1/2"	1/2"	3 1/2"	5/16"	3 1/8"	8	1 1/4"	9/16"	7/16"	13"	16 1/2"



- ① Splicing Flanges shall be attached to each truss unit with the truss shop assembled to camber shown. Truss units shall be in proper alignment and flange surfaces shall be shop bolted into full contact before welding. Sufficient external welds or tacks shall be made to secure flanges until remaining welds are made after disassembly. Adjacent flanges shall be "match marked" to insure proper field assembly.

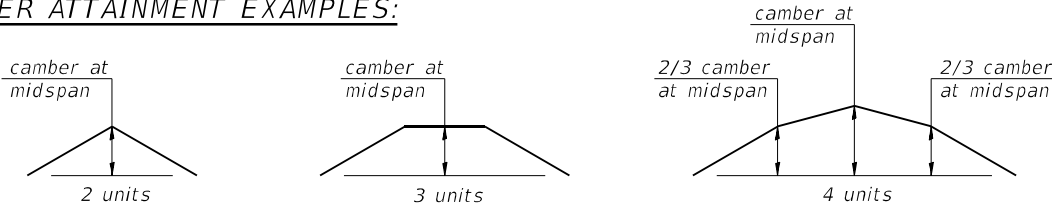


Note:
Units shall be shipped individually with adequate provision to prevent detrimental motion during transport. This may require ropes between horizontals and diagonals or energy dissipating (elastic) ties to the vehicle. The Contractor is responsible for maintaining the configuration and protection of the units.

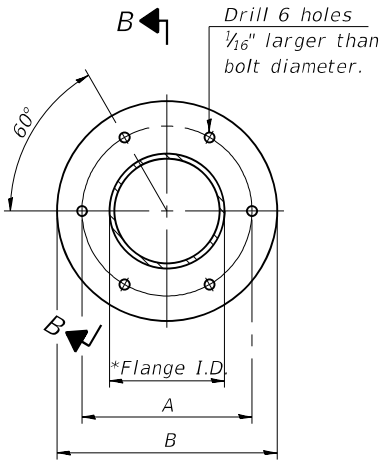


CAMBER DIAGRAM
Camber curve shown is theoretical. Actual camber attained by slope changes at splices between units.

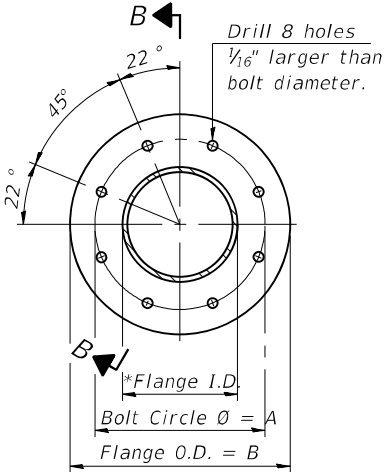
CAMBER ATTAINMENT EXAMPLES:



Camber shown is for fabrication only, measured with truss fully supported. (No-load condition)



TRUSS TYPES I-A, II-A, & III-A



TRUSS TYPES II-A & III-A
SPLICING FLANGES
ASTM B221, Alloy 6061-T6
or ASTM B209, Alloy 6061-T651
*To fit O.D. of Chord with maximum gap of 1/16".

054-A-2

2-17-2017

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PLOT DATE =	DATE - 04/29/2024	REVISED -

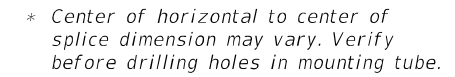
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES - ALUMINUM TRUSS DETAILS
FOR TRUSS TYPES II-A AND III-A

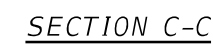
SHEET OSG1-09 OF OSG1-24 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	2020-005-BR	COOK	908	254
CONTRACT NO. 62K73				
ILLINOIS FED. AID PROJECT				

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PLAN DETAIL "C"
 @ Span at @ Chord Splice



MODEL: Default
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2-17-2017

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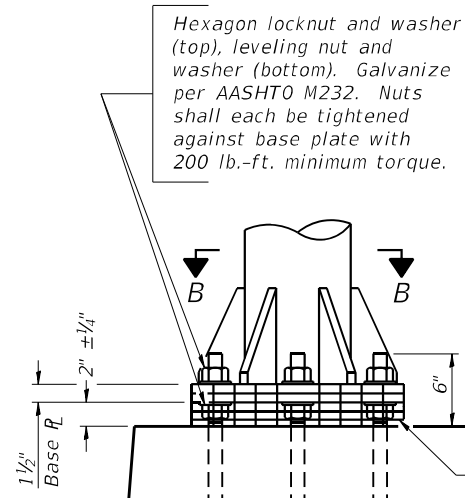
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PLOT SCALE =	CHECKED - MI	REVISED -
PLOT DATE =	DRAWN - KJD	REVISED -
	DATE - 04/29/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES
SUPPORT FRAME FOR TYPE II-A ALUMINUM TRUSS- DETAILS

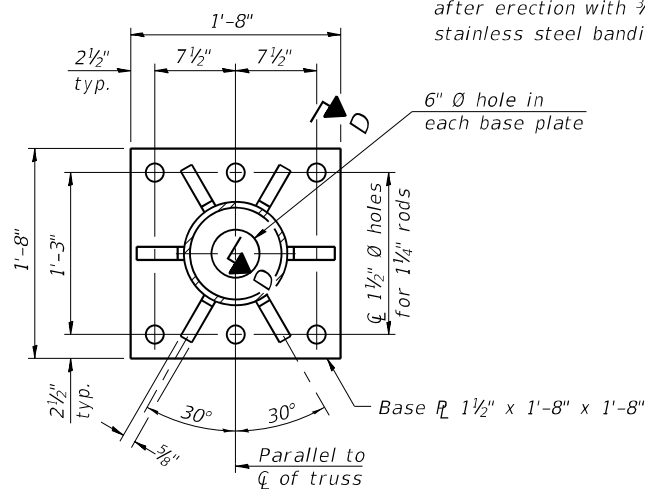
SHEET OSG1-12 OF OSG1-24 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	2020-005-BR	COOK	908	257
CONTRACT NO. 62K73				
ILLINOIS FED. AID PROJECT				



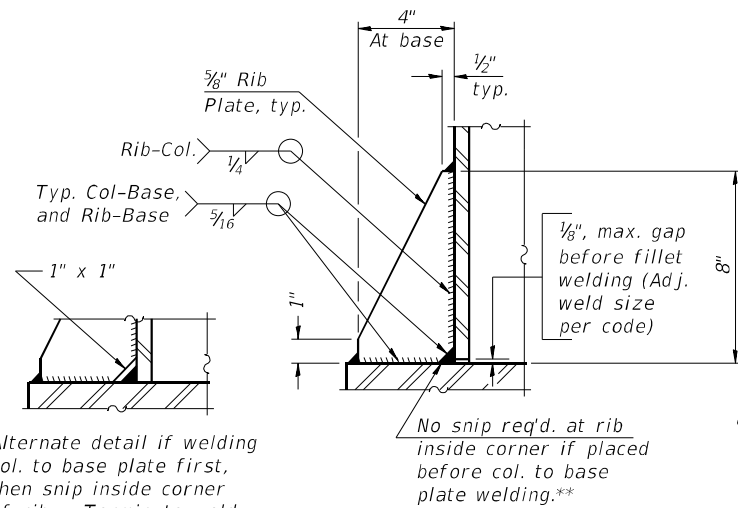
DETAIL B

Ribs shall be cut to fit slope of pipe.



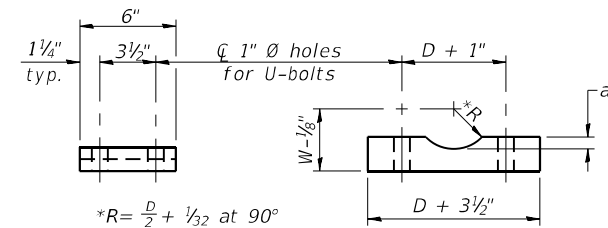
SECTION B-B

Stainless Steel Standard Grade Wire Cloth, 3" wide, 1/4" maximum opening with a minimum wire diameter of AWG. No. 16 with a minimum 2" lap. Secure to base plate after erection with 3/4" stainless steel banding.



SECTION D-D

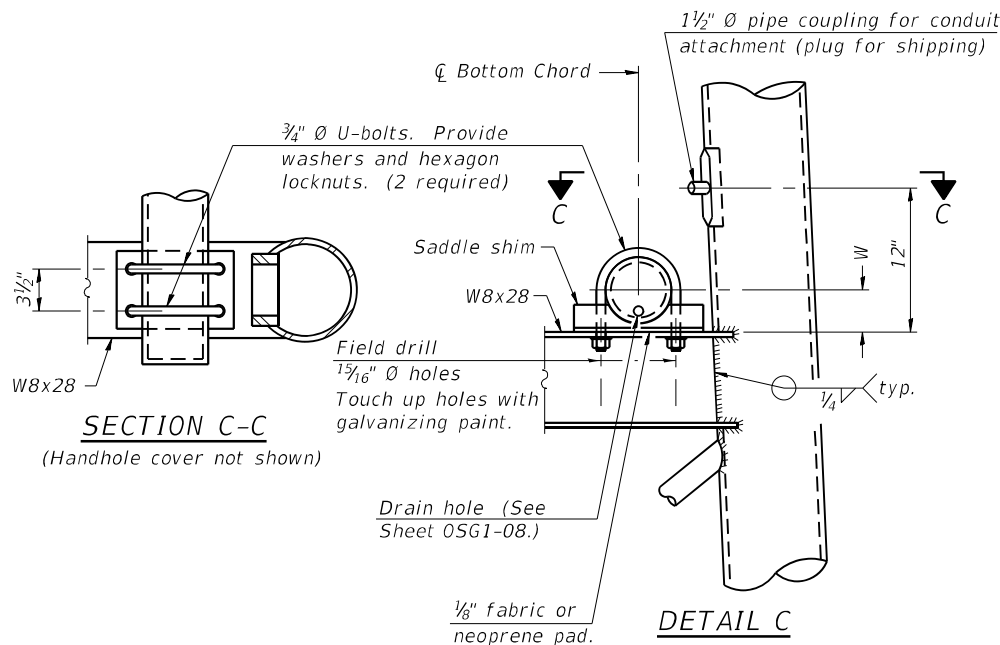
** Alternate detail if welding col. to base plate first, then snip inside corner of ribs. Terminate weld on rib 1/4" from snip.



SADDLE SHIM DETAIL

ASTM B26 Alloy 356-F
or
ASTM B209 Alloy 6061-T651
(4 required per sign truss)

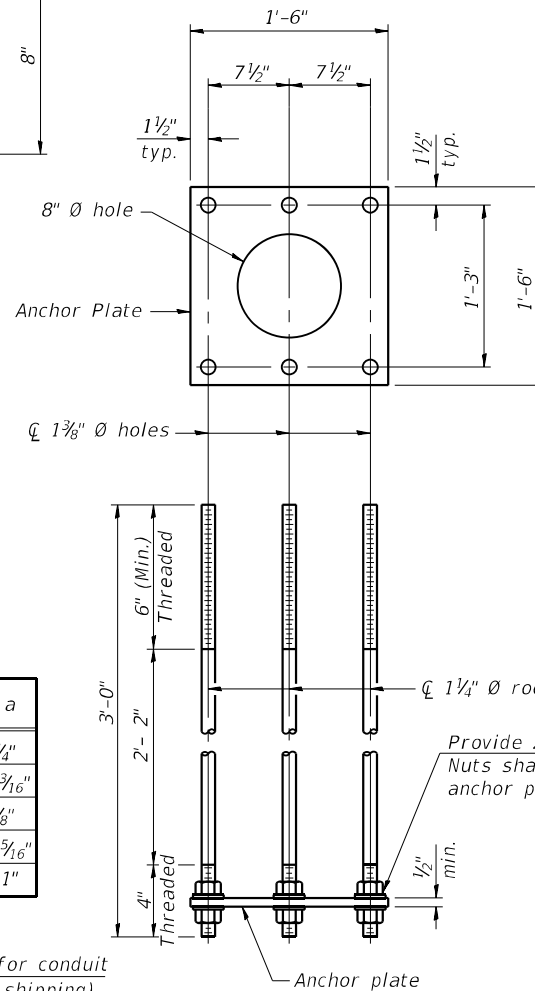
Truss Chord Nominal Dia.	a
5"	3/4"
5 1/2"	1 3/16"
6"	7/8"
6 1/2"	1 5/16"
7"	1"



SECTION C-C

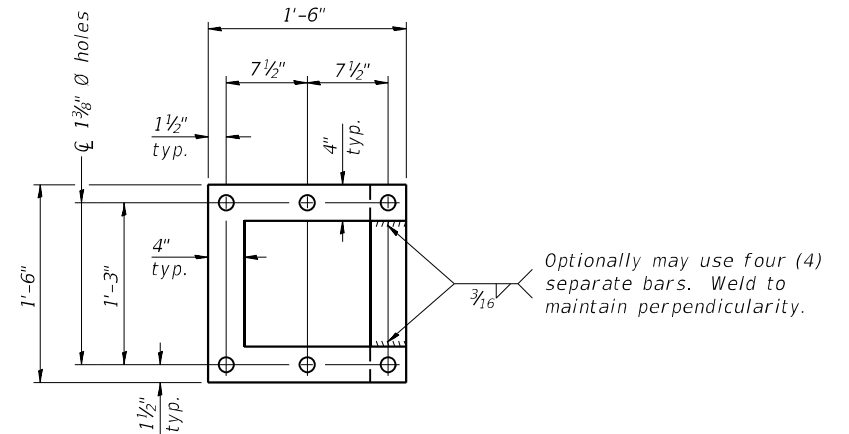
(Handhole cover not shown)

DETAIL C



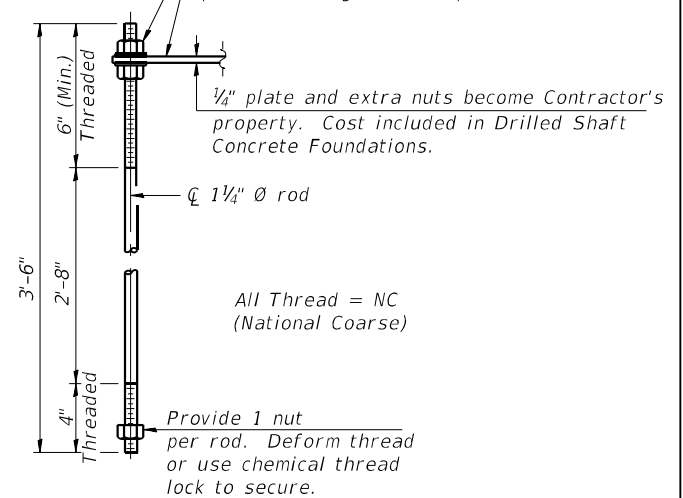
ANCHOR ROD DETAIL
Spread Footing Foundation

Anchor rods shall conform to ASTM F1554 Grade 105. Galvanize upper 12" minimum per AASHTO M232. No welding shall be permitted on rods.



POSITIONING PLATE(S)

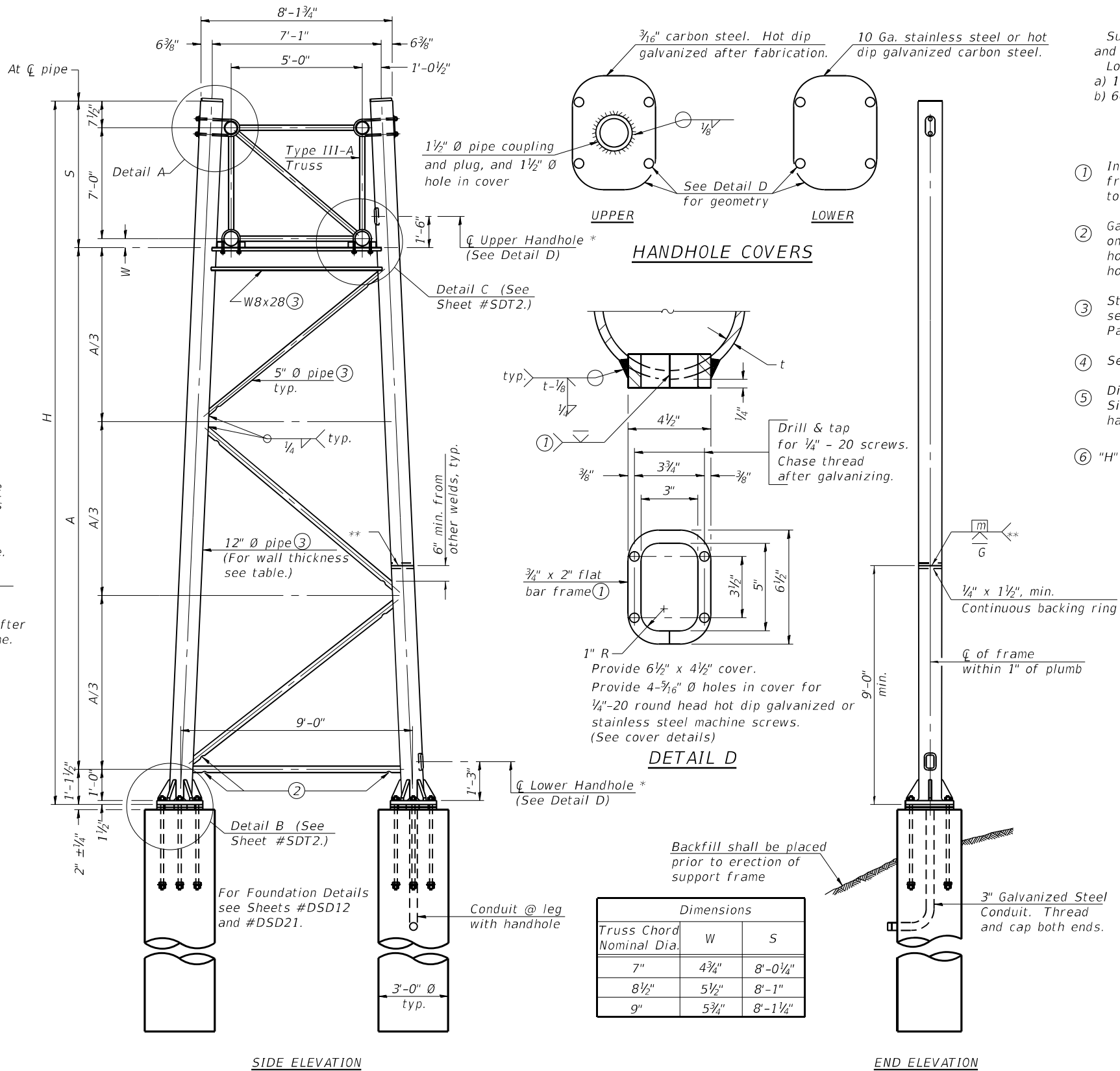
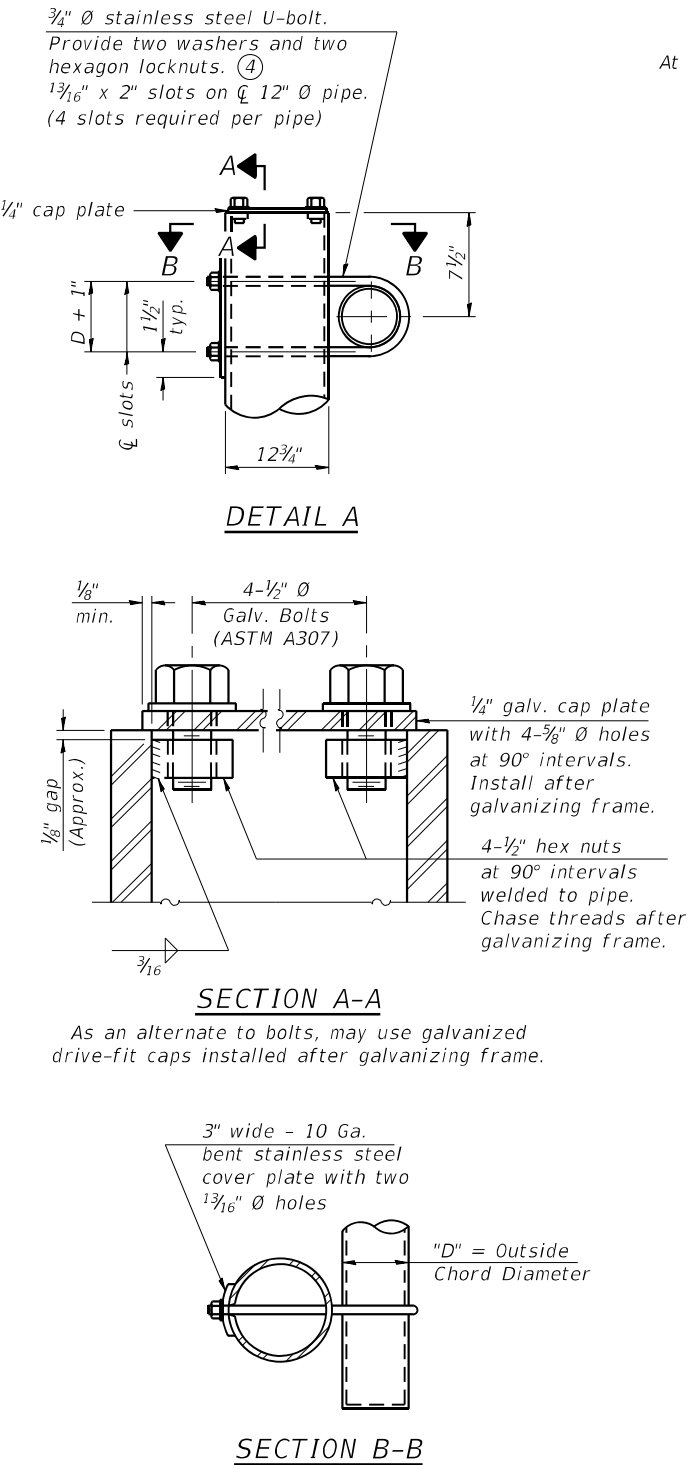
At each location, provide 1/4" thick positioning plate(s) and six (6) additional nuts to be used with leveling nuts to maintain anchor bolts position during concrete placement.



ANCHOR ROD DETAIL
Drilled Shaft Foundation

10" Ø PIPE SUPPORT FRAME DETAILS

MODEL: Default
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5/3/2024 1:13:23 PM



- Support Design Loads: See Sheet OSG1-01 for design and loading criteria.
Load combinations checked include deadload plus:
a) 100% wind normal to sign, 20% parallel to sign
b) 60% wind normal to sign, 30% parallel to sign
- In lieu of fabricated handhole frame as shown, may cut from 2" plate (rolling direction vertical). All cut faces to be ground to ANSI Roughness of 500 μ in or less.
 - Galvanizing vent holes of adequate size shall be provided on underside at each end of bracing pipes. Alternately, holes may be provided in wall of pipe column. All vent holes shall be drilled and de-burred, typ.
 - Steel pipe, plate, carbon steel handhole covers and rolled sections shall be hot dip galvanized after fabrication. Painting is not permitted. See Sheet OSG1-01.
 - See General Notes for fasteners.
 - Dimensions shown are based on selection criteria in the Sign Structures Manual. Nonstandard applications must have dimensions verified or amended as appropriate.
 - "H" based on 15'-0" or actual sign height, whichever is greater.

TRUSS SUPPORT DETAILS

(12" \varnothing Pipe-Type III-A Truss)

** One butt welded joint is allowed only on one post per support frame. If used, weld procedure must be pre-approved by Engineer and joint shall receive 100% RT or UT (tension criteria) at Contractor's expense.

054-A-8a

2-17-2017

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PLOT DATE =	DATE - 04/29/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES - SUPPORT FRAME
FOR TYPE III-A ALUMINUM TRUSS

Sign #	Structure Number	Station	Support		Truss Type	Pipe Wall Thickness	H/⑥	A
			Left	Right				
Sign 11	IS0161094L045.8	546+71.72 NB	X		III-A	0.5" (XS)	26'-6 1/8"	17'-3 5/8"
				X		0.5" (XS)	34'-2 7/8"	25'-0 3/8"

SHEET OSG1-13 OF OSG1-24 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	2020-005-BR	COOK	908	258
CONTRACT NO. 62K73				
ILLINOIS FED. AID PROJECT				

MODEL: Default
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5/3/2024 1:13:24 PM

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2-17-2017



USER NAME =	DESIGNED - KJD	REVISED -
	CHECKED - MI	REVISED -
PLOT SCALE =	DRAWN - KJD	REVISED -
PLOT DATE =	DATE - 04/29/2024	REVISED -

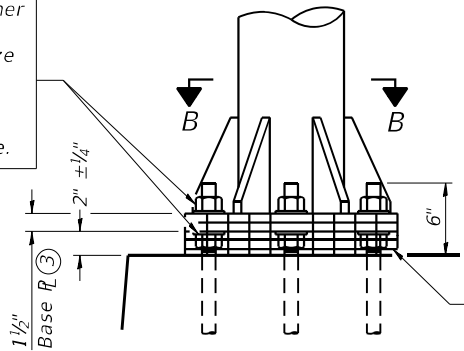
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES
SUPPORT FRAME FOR TYPE III-A ALUMINUM TRUSS

SHEET OSG1-14 OF OSG1-24 SHEETS

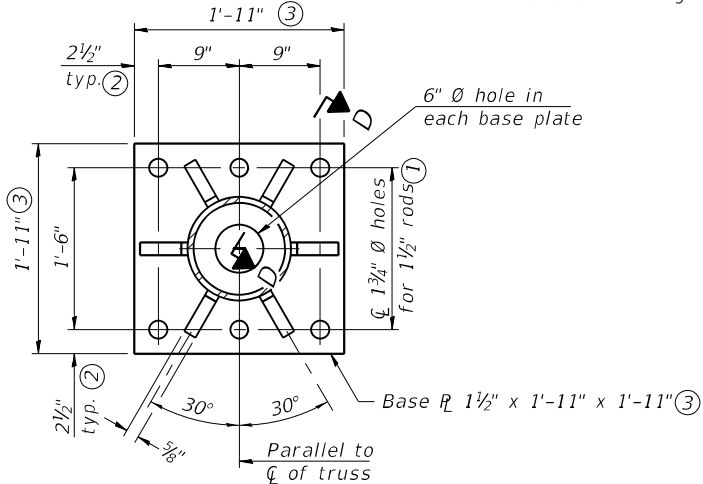
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	2020-005-BR	COOK	908	259
CONTRACT NO. 62K73				
ILLINOIS		FED. AID PROJECT		

Hexagon locknut and washer (top), leveling nut and washer (bottom). Galvanize per AASHTO M232. Nuts shall each be tightened against base plate with 200 lb.-ft. minimum torque.

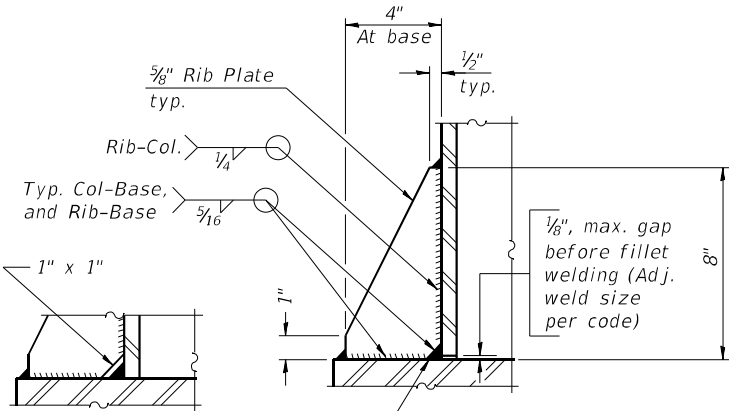


DETAIL B
Ribs shall be cut to fit slope of pipe.

Stainless Steel Standard Grade Wire Cloth, 3" wide, 1/4" maximum opening with a minimum wire diameter of AWG. No. 16 with a minimum 2" lap. Secure to base plate after erection with 3/4" stainless steel banding.



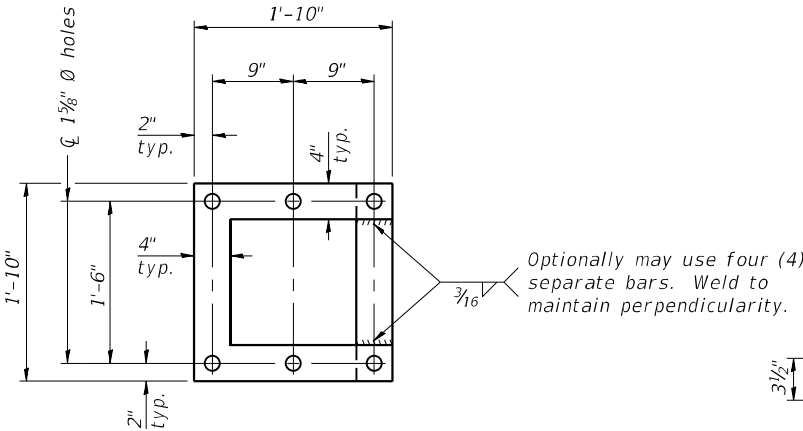
SECTION B-B



** Alternate detail if welding col. to base plate first, then snip inside corner of ribs. Terminate weld on rib 1/4" from snip.

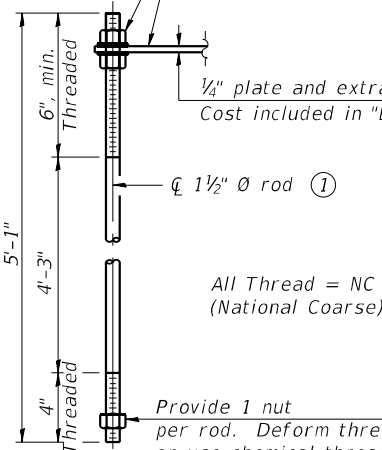
SECTION D-D

No snip req'd. at rib inside corner if placed before col. to base plate welding.**



POSITIONING PLATE(S)

At each location, provide 1/4" thick positioning plate(s) and six (6) additional nuts to be used with leveling nuts to maintain anchor bolts position during concrete placement.



All Thread = NC
(National Coarse)

Provide 1 nut per rod. Deform thread or use chemical thread lock to secure.

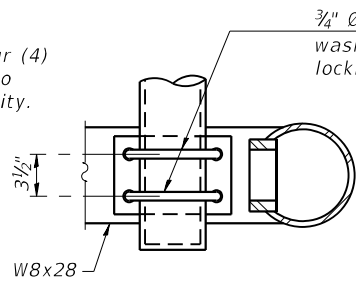
ANCHOR ROD DETAIL

Anchor rods shall conform to ASTM F1554 Grade 105 Galvanize upper 12" minimum per AASHTO M232. No welding shall be permitted on rods.

TYPE III-A TRUSS
12" Ø PIPE SUPPORT FRAME DETAILS

Notes:
For Type III-A Truss spans greater than 150 ft, and up to 160 ft.:

- ① 1 3/4" Ø rod, 2" Ø holes
- ② 2 3/4" edge distance
- ③ Base R 1 5/8" x 1'-11 1/2" x 1'-11 1/2"



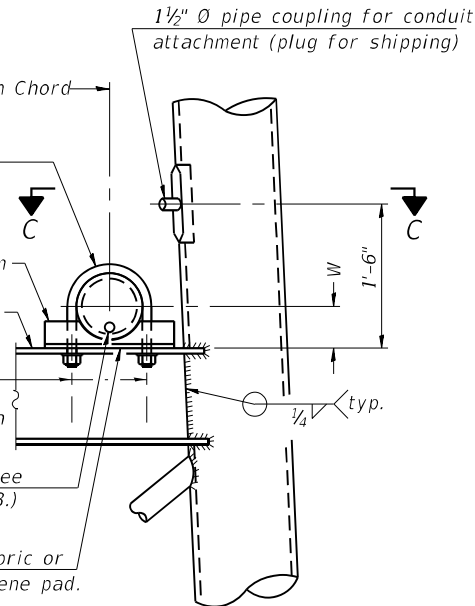
SECTION C-C
(Handhole cover not shown)

3/4" Ø U-bolts. Provide washers and hexagon locknuts. (2 required)

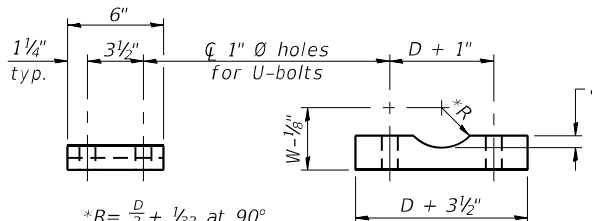
Field drill 1 3/16" Ø holes
Touch up holes with galvanizing paint.

Drain hole (See Sheet OSG1-08.)

1/8" fabric or neoprene pad.



DETAIL C



*R = D/2 + 1/32 at 90°

D = Outside Diameter of Chord.
For W, see Sheet #SAT2.

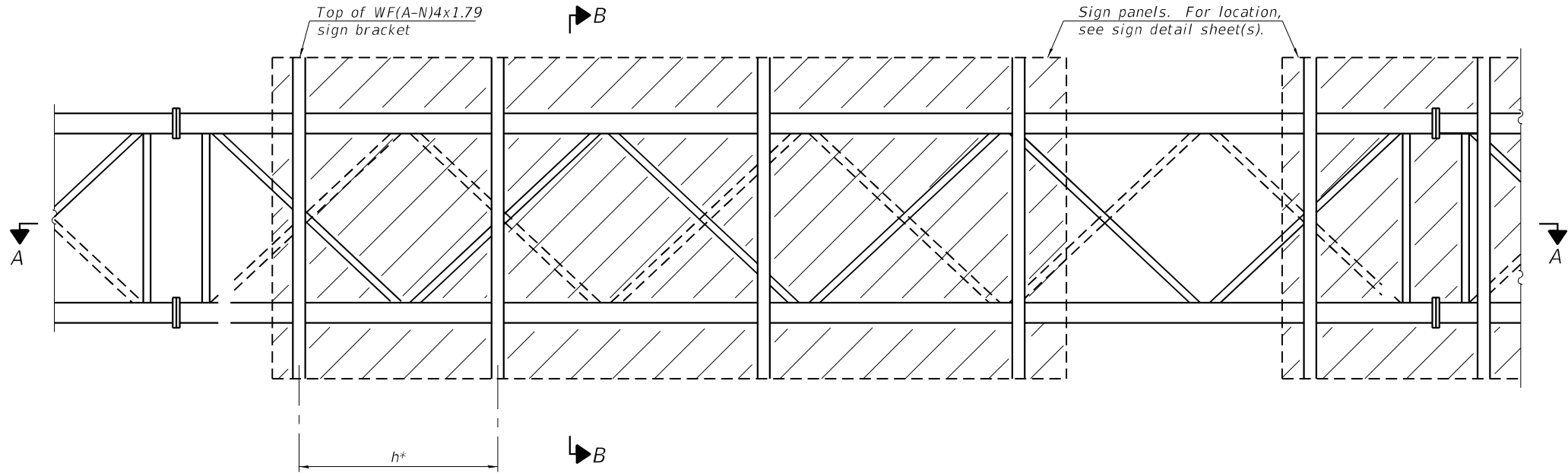
Truss Chord Nominal Dia.	a
7"	1"
8 1/2"	1 1/4"
9"	1 3/8"

SADDLE SHIM DETAIL

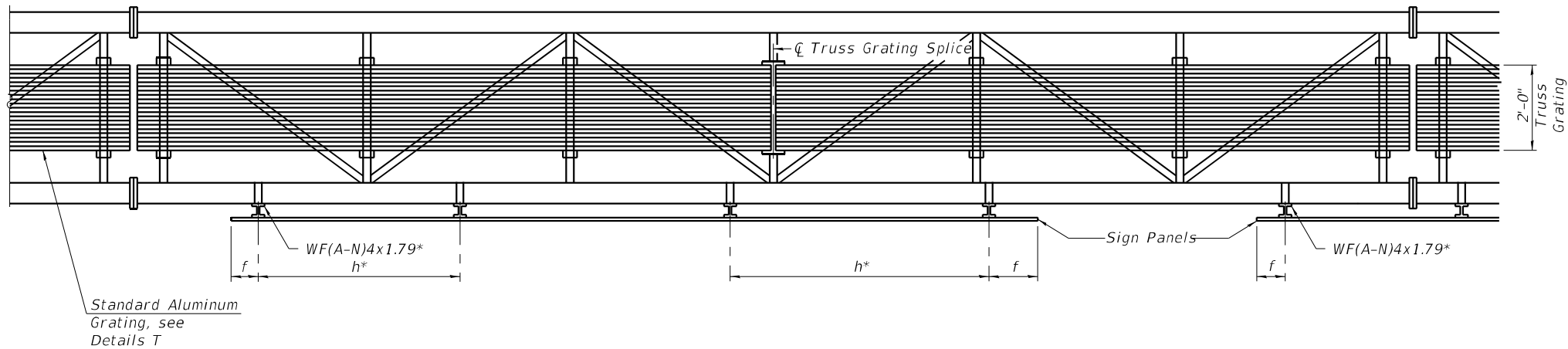
ASTM B26 Alloy 356-F

or

ASTM B209 Alloy 6061-T651
(4 required per sign truss)



TYPICAL FRONT ELEVATION



SECTION A-A

Place all sign brackets as close to panel points as practical.

BRACKET TABLE

WF(A-N)4x1.79 ASTM B308, Alloy 6061-T6		
Sign Width		Number Brackets Required
Greater Than	Less Than or Equal To	
	8'-0"	2
8'-0"	14'-0"	3
14'-0"	20'-0"	4
20'-0"	26'-0"	5
26'-0"	32'-0"	6

* Space sign brackets WF(A-N)4x1.79 for efficiency and within limits shown:

f = 12" maximum, 4" minimum (End of sign to \varnothing of nearest bracket)
h = 6'-0" maximum (\varnothing to \varnothing sign support brackets, WF(A-N)4x1.7

Notes:
For Detail T and Section B-B, see Sheet OSG1-16.
Truss grating to facilitate inspection shall run full length (center to center of support frames) 12"± on overhead trusses. Cost of truss grating is included in "Overhead Sign Structure".
Truss Grating width dimensions are nominal and may vary 1/2"± based on available standard widths.

05-A-9-NW

4-1-2020

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	CHECKED - MI	REVISED -
PLOT SCALE =	DRAWN - KJD	REVISED -
PLOT DATE =	DATE - 04/29/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

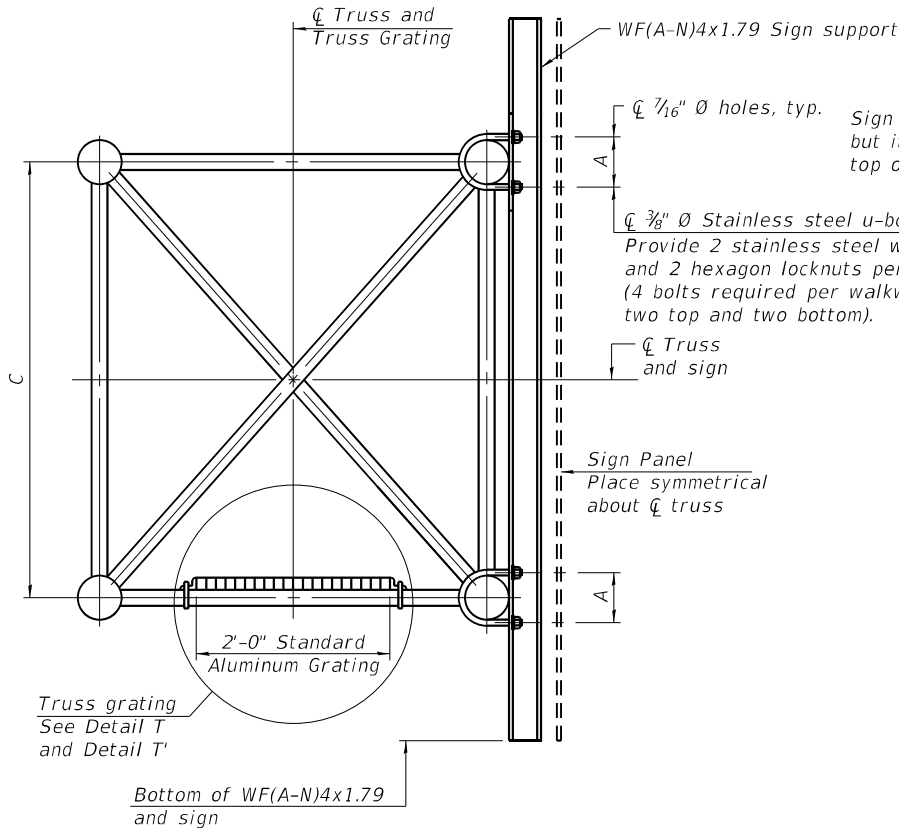
OVERHEAD SIGN STRUCTURES
ALUMINUM WALKWAY DETAILS

SHEET OSG1-15 OF OSG1-24 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	2020-005-BR	COOK	908	260
CONTRACT NO. 62K73				
		ILLINOIS	FED. AID PROJECT	

MODEL: Default
FILE NAME: P:\2004-825 PTB\95-014 HBM\WO# 16 I-90 OHSS\NB (HBM) OHSS\Signs 10, 11\Sheet Files\NB1-62K73-515-WalkwayDetails.dgn
5/3/2024 1:13:25 PM

MODEL: Default
FILE NAME: P:\2004-825 PTB\195-014 HBM\WO# 16 I-90 OHSS\NB (HBM) OHSS\Signs 10, 11\Sheet Files\NB1-62K73-516-WalkwayDetails1.dgn
5/3/2024 1:13:33 PM



SECTION B-B

SPECIFICATIONS FOR STANDARD ALUMINUM GRATING

Main Bearing Bars shall be 3/16" x 1 1/2" on 1 3/16" centers and conform to ASTM B221 Alloy 6061-T6.

Cross bars shall be 3/16" x 1 1/2" on 4" centers and conform to ASTM B221 Alloy 6063-T5 or 6061-T6.

OR

Aluminum Grating with modified "t" sections for main bearing bars shall meet the following requirements:

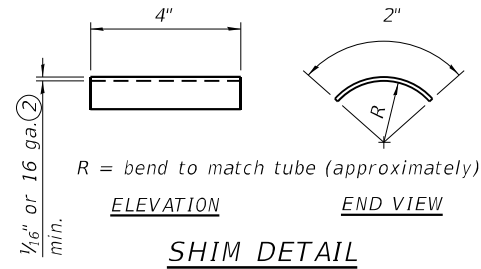
Main bars shall conform to ASTM B221 Alloy 6061-T6 and have a minimum section modulus equal to 0.0705 in.³ per bar, a depth of 1 1/2", spaced on 1 3/16" centers.

Cross bars shall conform to ASTM B221 Alloy 6063-T5 or T-42 and spaced on 4" centers.

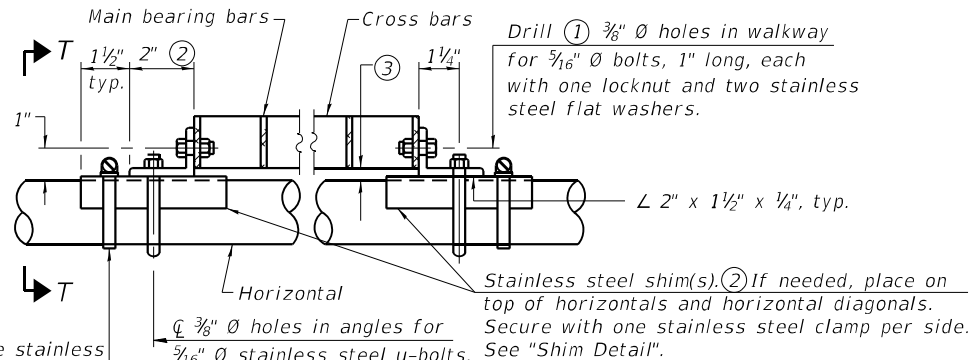
Sign #	Structure Number	Station	A	C
Sign 10	1S0161094L046.0	532+80.56 NB	8"	5'-3"
Sign 11	1S0161094L045.8	546+71.72 NB	9 1/2"	7'-0"

Sign shall be even with the top of the bracket, but it may extend no more than 6" above the top of the bracket for field adjustments.

3/8" Ø Stainless steel u-bolts.
Provide 2 stainless steel washers and 2 hexagon locknuts per bolt. (4 bolts required per walkway bracket, two top and two bottom).

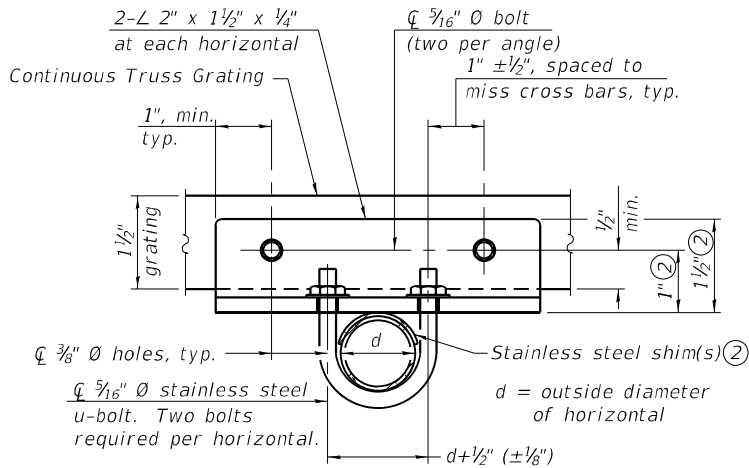


- Drilling holes in grating may be done in shop or field, based on Contractor's preference and subject to accurate alignment.
- Stainless steel shims shall be placed as shown in Detail T if needed to compensate for alignment variations between horizontal and diagonal pipes beyond adjustment provided by angles. Thicker shims may be used subject to shims performing properly.
- Tube to grating gap may vary from 0 to 1/2", max. to align walkway, allow for camber, etc.

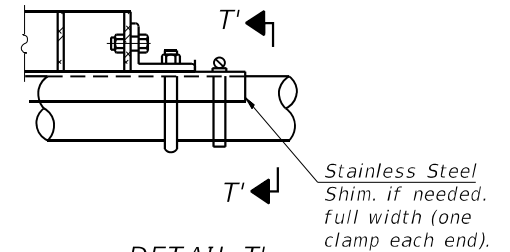


DETAIL T

(Continuous Truss grating)



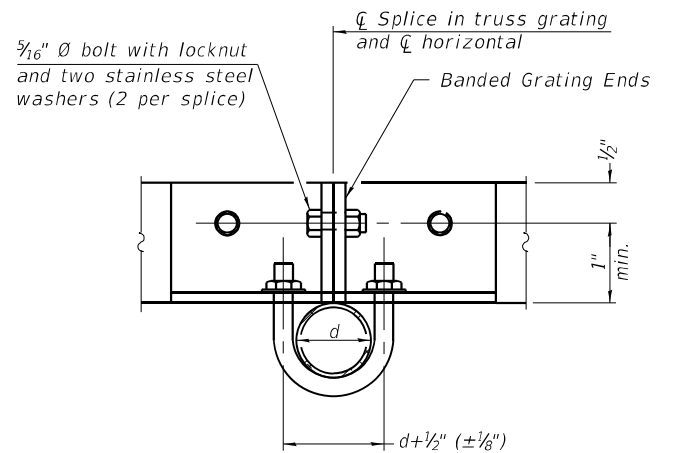
SECTION T-T



DETAIL T'

(Truss grating splice)

Details not shown same as Detail T. Alternate materials may be used subject to the Engineer's review and approval.



SECTION T'-T'

05-A-10-NW

4-1-2020

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OVERHEAD SIGN STRUCTURES
ALUMINUM WALKWAY DETAILS

SHEET OSG1-16 OF OSG1-24 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	2020-005-BR	COOK	908	261
CONTRACT NO. 62K73				
ILLINOIS FED. AID PROJECT				

MODEL: Default
FILE NAME: P:\2004-825 PTB\95-014 HBM\WO# 16 I-90 OHSS\NB (HBM) OHSS\Signs 10, 11\Sheet Files\NB1-62K73-S17-DrilledShaftDetails_Sign10.dgn

054-F3 2-17-2017



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PLOT DATE =	DATE - 04/29/2024	REVISED -

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OVERHEAD SIGN STRUCTURES
DRILLED SHAFT DETAILS - SN 1S016I094L046.0 (SIGN 10)

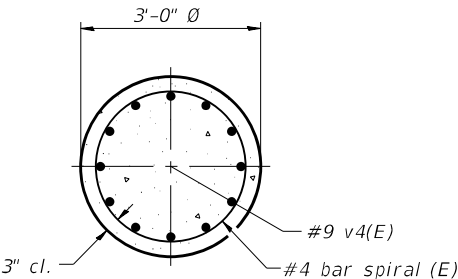
SHEET OSG1-17 OF OSG1-24 SHEETS

FAI RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	2020-005-BR	COOK	908	262
CONTRACT NO. 62K73				
		ILLINOIS	FED. AID PROJECT	

BAR LIST - EACH FOUNDATION

Bar	Number	Size	Length	Shape
v4(E)	24	#9	F less 5"	—
#4 bar spiral (E) - see Side Elevation				

NOTES:
The foundation dimensions shown are based on the presence of mostly cohesive soils with an average Unconfined Compressive Strength (Q_u) of at least 1.25 tsf, which must be determined by previous soil investigations at the jobsite. When other conditions are indicated, the boring data will be included in the plans and the foundation dimensions shown will be the result of site specific designs.
If the conditions encountered are different than those indicated, the Contractor shall notify the Engineer to determine if the foundation dimensions need to be modified. If dimensions "B" or "F" are revised by more than 12" by the Contractor, "as-built" plans shall be prepared and submitted to the District Bureau of Operations for future reference.
No sonotubes or decomposable forms shall be used below the lower conduit entrance.
Permanent metal forms or other shielding may not be left in place below that elevation without the Engineer's written permission.
Concrete shall be placed monolithically, without construction joints.
Backfill shall be placed per Article 502 of Standard Specification and prior to erection of support column.
A normal surface finish followed by a Concrete Sealer application will be required on concrete surfaces above the lowest elevation 6" below finished ground line. Cost included in Drilled Shaft Concrete Foundation.



SECTION A-A

DETAILS FOR 10" Ø SUPPORT FRAME
TYPE I-A or II-A TRUSS

Sign #	Structure Number	Station	Left Foundation				Right Foundation					Class DS Concrete (Cu. Yds.)
			Elevation Top	Elevation Bottom	B	F	Elevation Top	Elevation Bottom	A	B	F	
Sign 10	1S016I094L046.0	532+80.56 NB	-	-	-	-	606.53	582.03	3'-6"	21'-0"	24'-6"	12.90

MODEL: Default
FILE NAME: P:\2004-825 PTB\95-014 HBM\WO# 16 I-90 OHSS\NB (HBM) OHSS\Signs 10, 11\Sheet Files\NB1-62K73-S18-DrilledShaftDetails_Sign11.dgn

054-F4

2-17-2017



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PLOT SCALE =	DRAWN - KJD	REVISED -
PLOT DATE =	DATE - 04/29/2024	REVISED -

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OVERHEAD SIGN STRUCTURES
DRILLED SHAFT DETAILS - SN 1S016I094L045.8 (SIGN 11)

SHEET OSG1-18 OF OSG1-24 SHEETS

FAI RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	2020-005-BR	COOK	908	263
CONTRACT NO. 62K73				
ILLINOIS		FED. AID PROJECT		

BAR LIST - EACH FOUNDATION

Bar	Number	Size	Length	Shape
v4(E)	24	#9	F less 5"	—
#4 bar spiral (E) - see Side Elevation				

NOTES:

The foundation dimensions shown are based on the presence of mostly cohesive soils with an average Unconfined Compressive Strength (Q_u) of at least 1.25 tsf, which must be determined by previous soil investigations at the jobsite. When other conditions are indicated, the boring data will be included in the plans and the foundation dimensions shown will be the result of site specific designs.

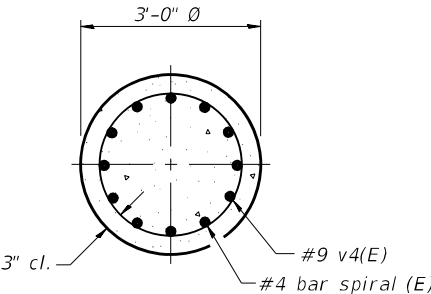
If the conditions encountered are different than those indicated, the Contractor shall notify the Engineer to determine if the foundation dimensions need to be modified. If dimensions "B" or "F" are revised by more than 12" by the Contractor, "as-built" plans shall be prepared and submitted to the District Bureau of Operations for future reference.

No sonotubes or decomposable forms shall be used below the lower conduit entrance. Permanent metal forms or other shielding may not be left in place below that elevation without the Engineer's written permission.

Concrete shall be placed monolithically, without construction joints.

Backfill shall be placed per Article 502 of Standard Specification and prior to erection of support column.

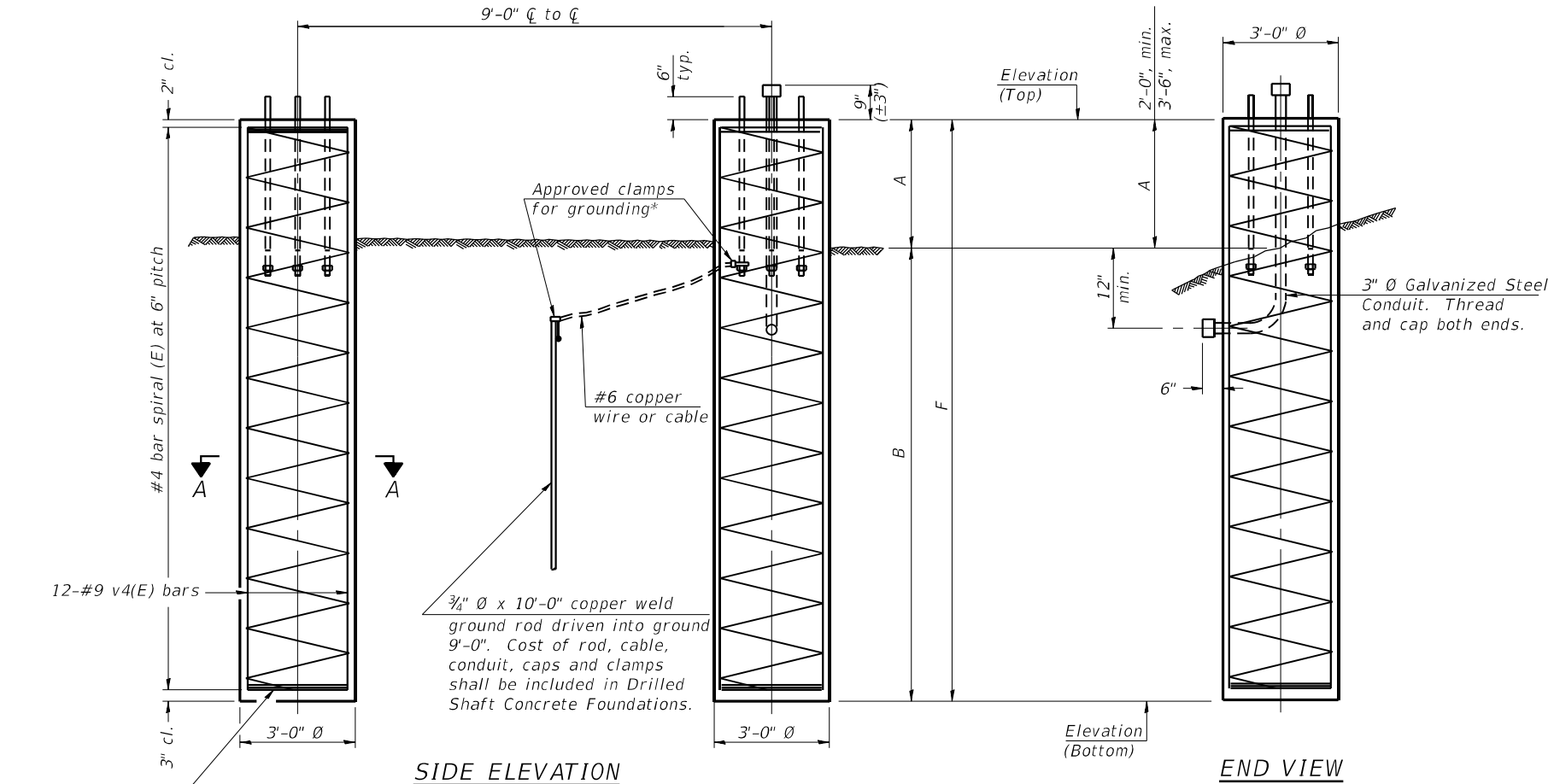
A normal surface finish followed by a Concrete Sealer application will be required on concrete surfaces above the lowest elevation 6" below finished ground line. Cost included in Drilled Shaft Concrete Foundation.



SECTION A-A

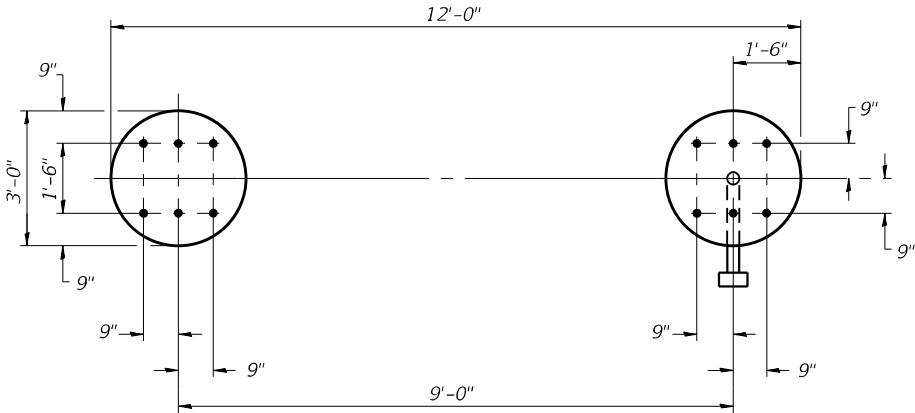
DETAILS FOR 12" Ø SUPPORT FRAME
TYPE III-A TRUSS

Sign #	Structure Number	Station	Left Foundation				Right Foundation					Class DS Concrete (Cu. Yds.)
			Elevation Top	Elevation Bottom	B	F	Elevation Top	Elevation Bottom	A	B	F	
Sign 11	1S016I094L045.8	546+71.72 NB	-	-	-	-	611.05	582.55	3'-6"	25'-0"	28'-6"	15.00



SIDE ELEVATION

END VIEW



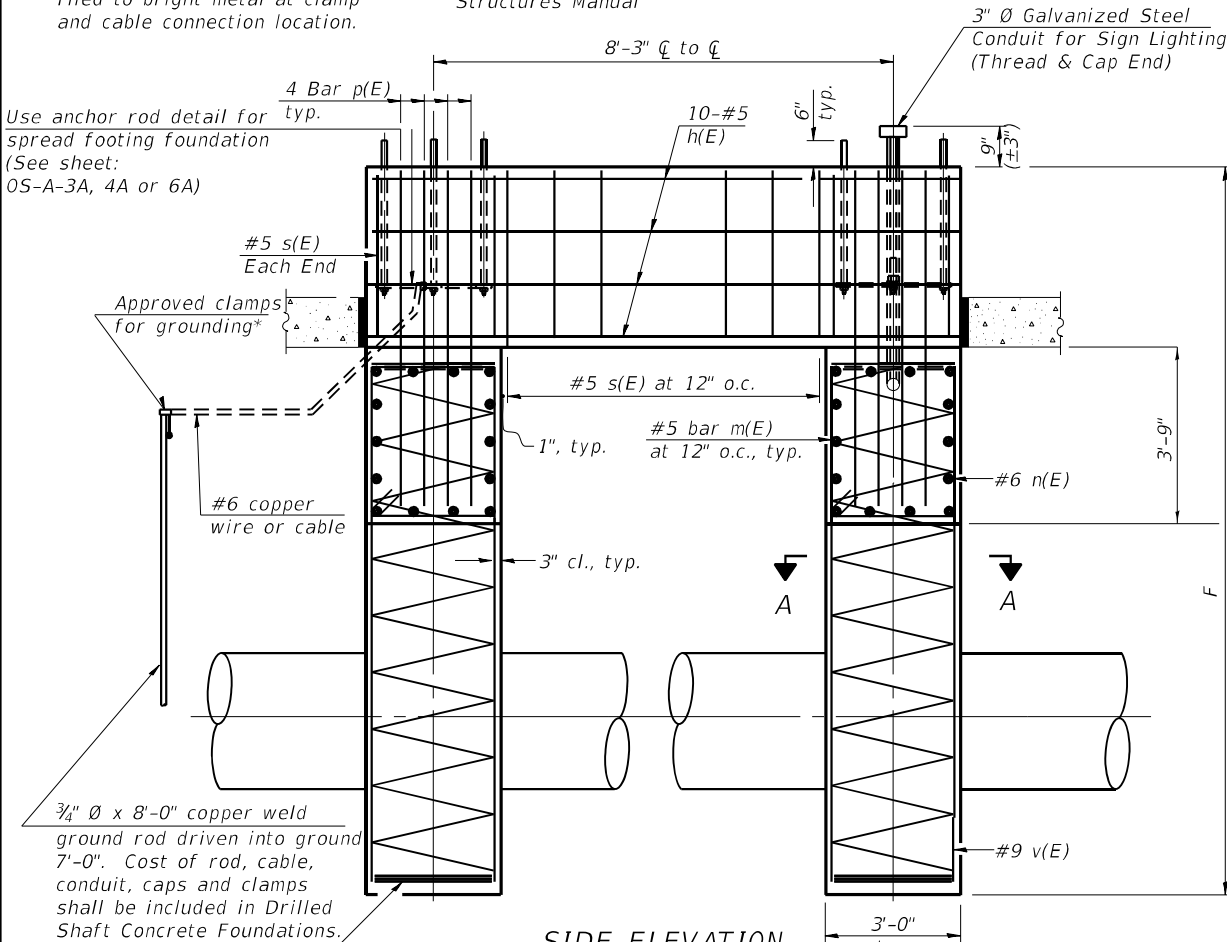
PLAN

For anchor rod size and placement,
see Support Frame Detail Sheet.

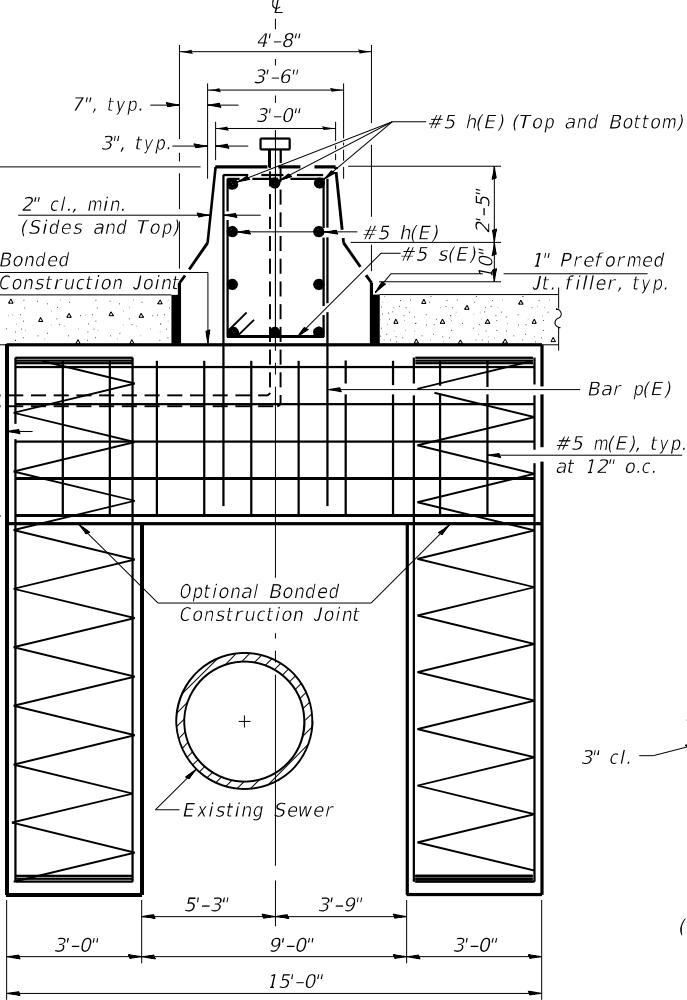
* Anchor rod shall be ground or
filed to bright metal at clamp
and cable connection location.

* Anchor rod shall be ground or filed to bright metal at clamp and cable connection location.

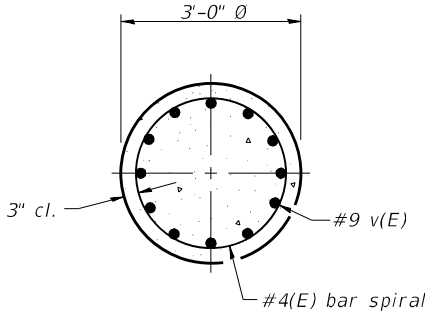
** B = 1/2 the depth given in the Sign Structures Manual



SIDE ELEVATION



END VIEW
(Anchor rods not shown)



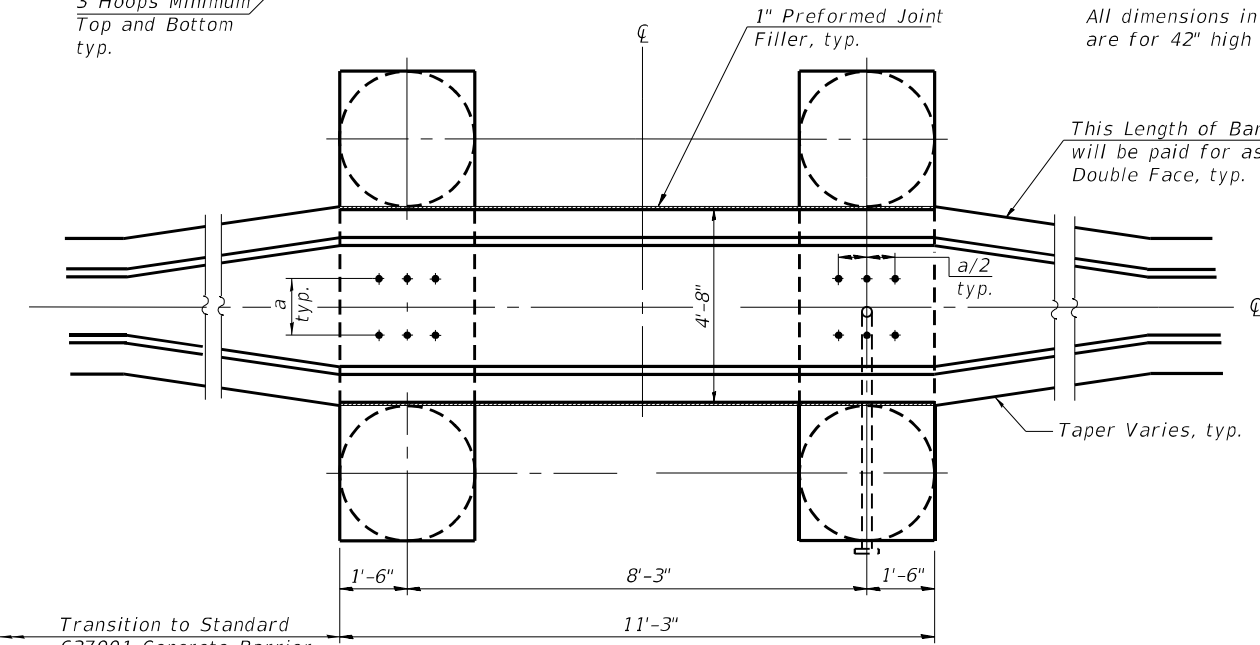
SECTION A-A
(Typical for 4 Shafts)

BAR LIST - EACH FOUNDATION

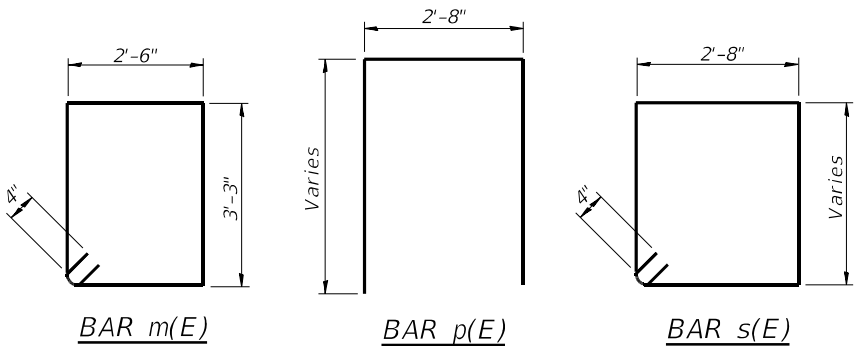
Bar	Number	Size	Length	Shape
h(E)	10	#5	M less 4"	—
s(E)	Varies	#5	Varies	□
v(E)	48	#9	B less 0'-5"	—
m(E)	22	#5	12'-0"	□
n(E)	28	#6	10'-0"	—
p(E)	8	#5	Varies	⌐

#4 Bar Spiral - See Side Elevation

Pipe Support Frames	cc	M	a	a/2
10"Ø	8'-3"	11'-3"	1'-3"	7 1/2"



PLAN



Sign #	Structure Number	Station	Left Foundation				Right Foundation				Class DS Concrete (Cu. Yds.)
			Elevation Top	Elevation Bottom	B	F	Elevation Top	Elevation Bottom	B	F	
Sign 10	1S0161094L046.0	532+80.56 NB	612.12	585.77	21'-0"	26'-4 1/4"	-	-	-	-	39.1

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OVERHEAD SIGN STRUCTURES MEDIAN SUPPORT
FOUNDATION DETAILS II - SN 1S0161094L046.0 (SIGN 10)

FAI RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	2020-005-BR	COOK	908	264
CONTRACT NO. 62K73				
ILLINOIS FED. AID PROJECT				

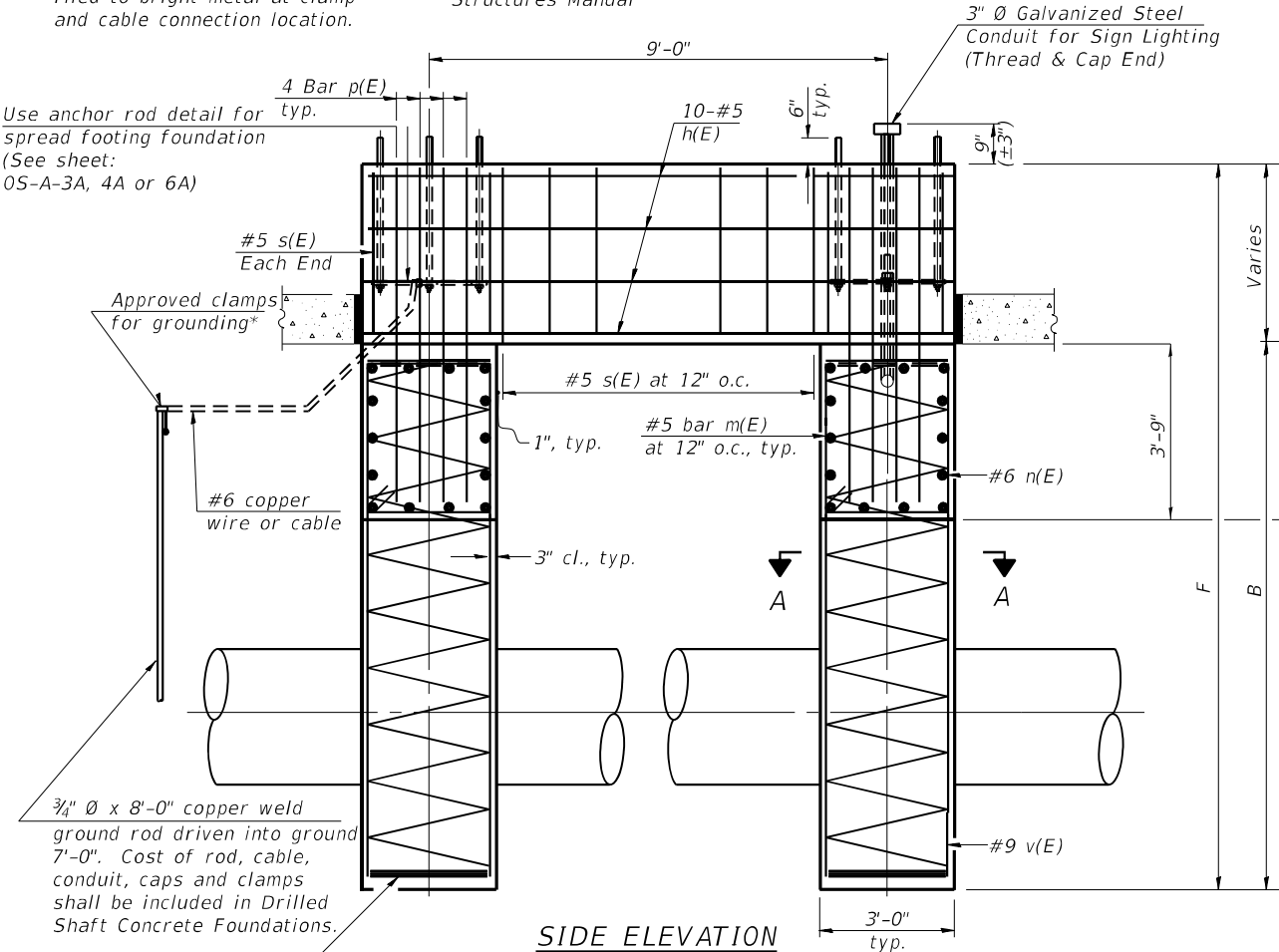
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PLOT DATE =	DRAWN - KJD	REVISED -
	DATE - 04/29/2024	REVISED -

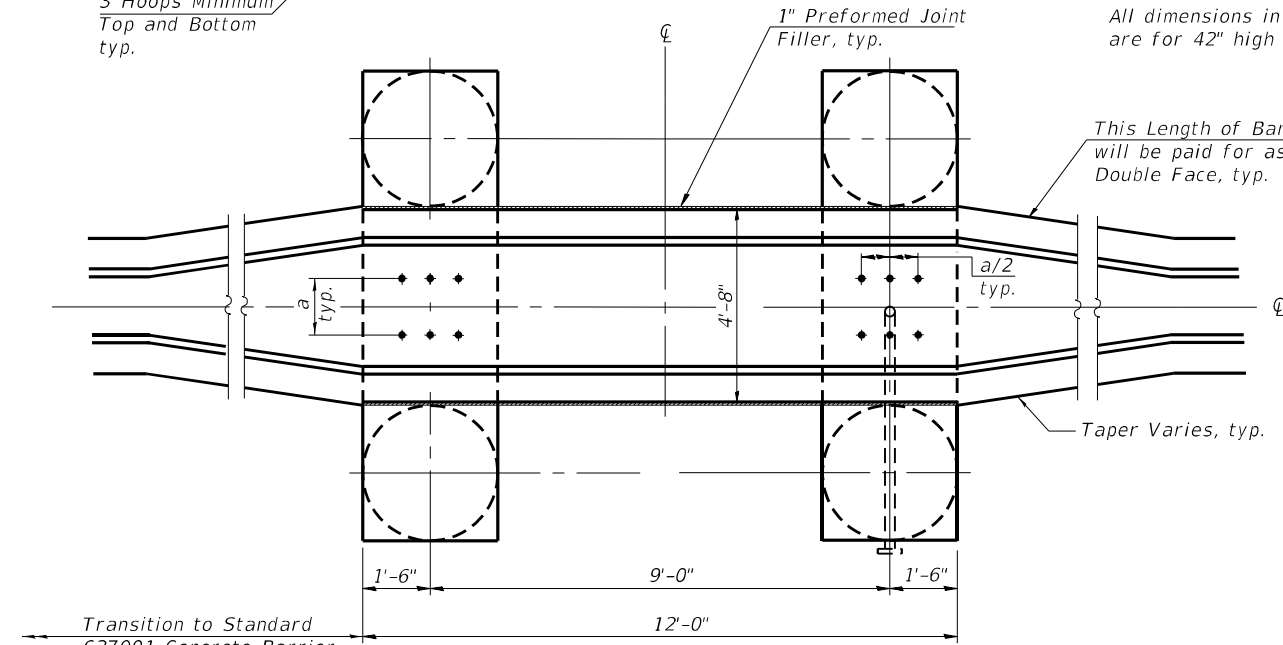
SHEET OSG1-19 OF OSG1-24 SHEETS

* Anchor rod shall be ground or filed to bright metal at clamp and cable connection location.

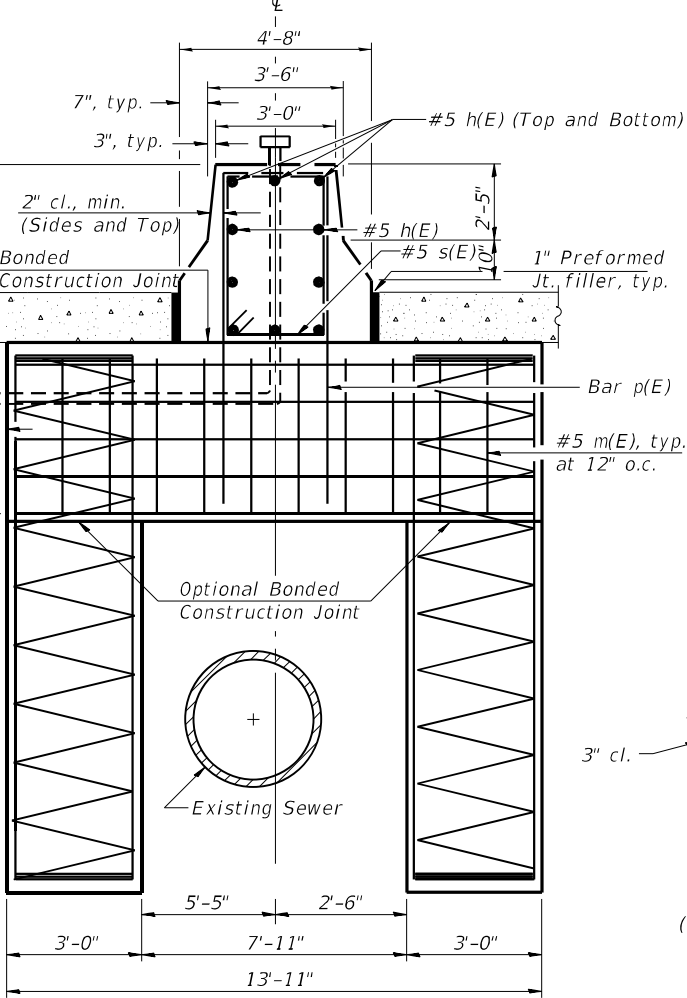
** B = 1/2 the depth given in the Sign Structures Manual



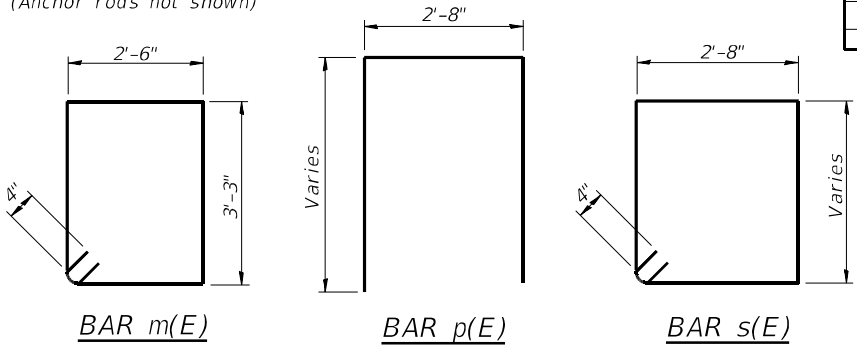
SIDE ELEVATION



PLAN



END VIEW
(Anchor rods not shown)



SECTION A-A
(Typical for 4 Shafts)

BAR LIST - EACH FOUNDATION

Bar	Number	Size	Length	Shape
h(E)	10	#5	M less 4"	—
s(E)	Varies	#5	Varies	□
v(E)	48	#9	B less 0'-5"	—
m(E)	22	#5	12'-0"	□
n(E)	28	#6	10'-0"	—
p(E)	8	#5	Varies	⌈
#4 Bar Spiral - See Side Elevation				

Pipe Support Frames	cc	M	a	a/2
12"Ø	9'-0"	12'-0"	1'-6"	9"

Sign #	Structure Number	Station	Left Foundation				Right Foundation				Class DS Concrete (Cu. Yds.)
			Elevation Top	Elevation Bottom	B	F	Elevation Top	Elevation Bottom	B	F	
Sign 11	1S0161094L045.8	546+71.72 NB	618.78	589.28	25'-0"	29'-6"	-	-	-	-	41.5

MODEL: Default
FILE NAME: P:\2004-825 PTB\95-014 HBM\WO# 16 I-90 OHSS\NB (HBM) OHSS\Signs 10, 11\Sheet Files\NB1-62K73-S20-DrilledShaftDetailsI_Sign11.dgn
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PLOT DATE =	DRAWN - KJD	REVISED -
	DATE - 04/29/2024	REVISED -

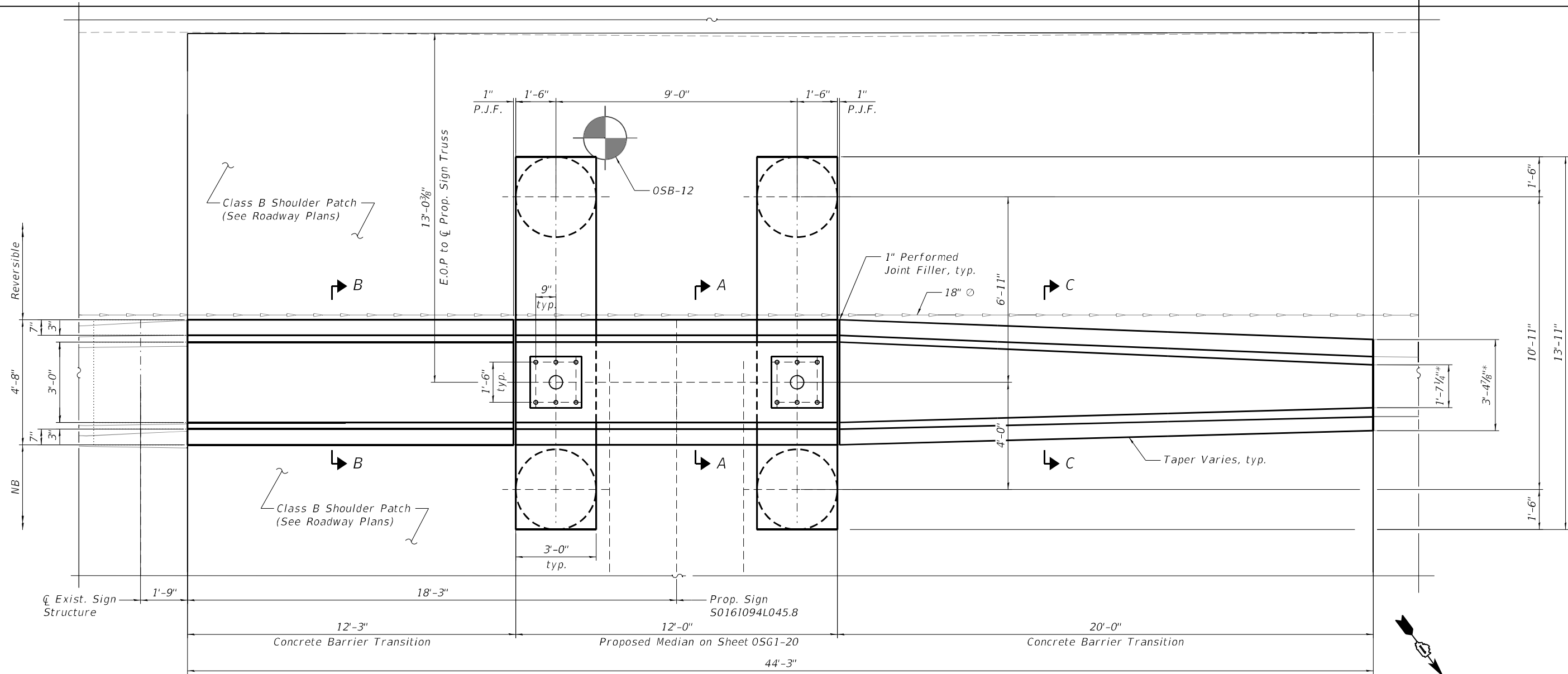
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURES MEDIAN SUPPORT
FOUNDATION DETAILS II - SN 1S0161094L045.8 (SIGN 11)

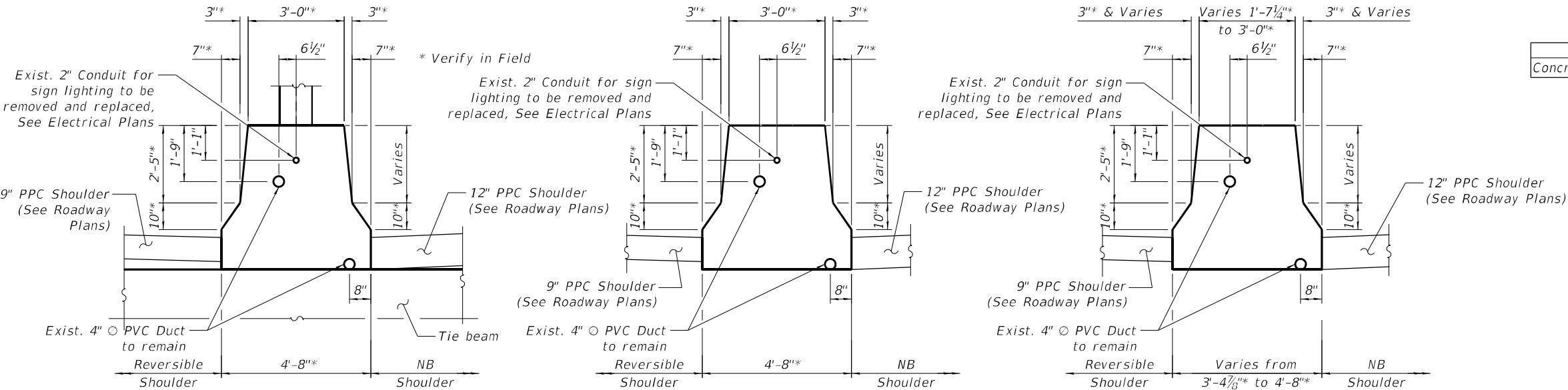
SHEET OSG1-20 OF OSG1-24 SHEETS

FAI RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	2020-005-BR	COOK	908	265
CONTRACT NO. 62K73				
ILLINOIS FED. AID PROJECT				

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5/3/2024 1:14:26 PM



PARTIAL PLAN



SECTION A-A

SECTION B-B

SECTION C-C

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Concrete Barrier Transition	Foot	33



USER NAME =	DESIGNED - KJD	REVISED -
PLOT SCALE =	CHECKED - MI	REVISED -
PLOT DATE =	DRAWN - KJD	REVISED -
	DATE - 04/29/2024	REVISED -

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MEDIAN BARRIER ADDITIONAL SECTIONS AND DETAILS
SN 1S016I094L045.8 (SIGN 11)

SHEET OSG1-22 OF OSG1-24 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	2020-005-BR	COOK	908	267
CONTRACT NO. 62K73				
ILLINOIS FED. AID PROJECT				



GSI Job No. 19079-B

SOIL BORING LOG

Page 1 of 1

Date 10/19/21

PROJECT PTB 185-012, WO #32

LOCATION I-90 & I-94 Tollway

COUNTY Cook DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

CLIENT	HBM	D E P T H	B L O W S	U C S Q u	M O I S T	D R Y D I S T I B U T I Y	Surface Water Elev. _____ ft	D E P T H	B L O W S	U C S Q u	M O I S T	D R Y D I S T I B U T I Y
BORING NO.	OSB-14						Stream Bed Elev. _____ ft					
Northing	1920385						Groundwater Elev.: _____					
Easting	1155368						First Encounter _____ Dry ft					
Ground Surface Elev.	608.3	ft					Upon Completion _____ Dry ft					
		(ft)	(/6")	(tsf)	(%)	(pcf)	After _____ Hrs. _____ ft	(ft)	(/6")	(tsf)	(%)	(pcf)
10.0" CONCRETE	607.4						CLAY LOAM-brown & gray-stiff to very stiff (continued)					
CRUSHED STONE-loose (Fill)		5						4				
		7		5				5	2.50	20		
		5						6	B			
CLAY LOAM-dark brown & gray spotted black-very stiff to hard (Fill)	605.3											
		4						2				
		6	2.50	21				3	0.90	23		
		10	B					4	B			
		-5						-25				
							CLAY LOAM-gray-soft to medium stiff					
		3						3				
		3	2.00	24				2	0.50	24		
		8	P					3	P			
becoming gray @ -8.0'												
		6						2				
		7	4.00	11				3	0.25	27		
		7	P					4	P			
		-10						-30				
							End Of Boring @ -30.0'. Boring backfilled with cuttings.					
		4										
		4	3.10	17								
		5	B									
		3										
		5	2.60	14								
		4	B									
		-15						-35				
SILTY CLAY-black-stiff	592.8											
		3										
		5	1.40	29								
		8	B									
CLAY LOAM-brown & gray-stiff to very stiff	590.3											
		3										
		6	2.90	16								
		7	B									
		-20						-40				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206), GP-Geoprobe Hand Auger BBS, from 137 (Rev. 8-99)



GSI Job No. 19079-B

SOIL BORING LOG

Page 1 of 1

Date 11/1/21

PROJECT PTB 185-012, WO #32

LOCATION I-90 & I-94 Tollway

COUNTY Cook DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

CLIENT	HBM	D E P T H	B L O W S	U C S Q u	M O I S T	D R Y D I S T I B U T I Y	Surface Water Elev. _____ ft	D E P T H	B L O W S	U C S Q u	M O I S T	D R Y D I S T I B U T I Y
BORING NO.	OSB-15						Stream Bed Elev. _____ ft					
Northing	1920478						Groundwater Elev.: _____					
Easting	1155428						First Encounter _____ Dry ft					
Ground Surface Elev.	608.0	ft					Upon Completion _____ Dry ft					
		(ft)	(/6")	(tsf)	(%)	(pcf)	After _____ Hrs. _____ ft	(ft)	(/6")	(tsf)	(%)	(pcf)
10.0" TOPSOIL-black	607.2						CLAY LOAM-brown & gray-very stiff (continued)					
CRUSHED ASPHALT & STONE-medium dense (Fill)		8						4				
		15		4				4	2.00	23		
		12						7	P			
CLAY LOAM-brown & gray spotted black-stiff to very stiff (Fill)	605.0											
		5						2				
		9	1.50	17				3	3.50	24		
		11	P					6	B			
		-5						-25				
							CLAY-gray-medium stiff					
		2						2				
		4	1.50	24				2	0.80	19		
		3	B					4	B			
		2						3				
		3	1.50	21				3	0.50	24		
		10	B					4	P			
		-10						-30				
							End Of Boring @ -30.0'. Boring backfilled with cuttings.					
		4										
		5	2.10	22								
		8	B									
		3										
		5	1.90	21								
		12	B									
		-15						-35				
		4										
		7	2.60	19								
		7	B									
CLAY LOAM-brown & gray-very stiff	590.0											
		3										
		4	2.70	19								
		6	B									
		-20						-40				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206), GP-Geoprobe Hand Auger BBS, from 137 (Rev. 8-99)

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USER NAME =	DESIGNED - KJD	REVISED -
CHECKED - MI	REVISED -	
PLOT SCALE =	DRAWN - KJD	REVISED -
PLOT DATE =	DATE - 04/29/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORINGS I

SHEET OSG1-23 OF OSG1-24 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	2020-005-BR	COOK	908	268
CONTRACT NO. 62K73				
ILLINOIS FED. AID PROJECT				



GSI Job No. 19079-B

SOIL BORING LOG

Page 1 of 1

Date 10/19/21

PROJECT PTB 185-012, WO #32

LOCATION I-90 & I-94 Tollway

COUNTY Cook DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

CLIENT	HBM	D E P T H	B L O W S	U C S Q u	M O I S T	D R Y D I S T I T Y	Surface Water Elev. _____ ft	D E P T H	B L O W S	U C S Q u	M O I S T	D R Y D I S T I T Y
BORING NO.	OSB-12						Stream Bed Elev. _____ ft					
Northing	1921207						Groundwater Elev.: _____					
Easting	1154249						First Encounter _____ Dry ft					
Ground Surface Elev.	614.6	ft					Upon Completion _____ Dry ft					
		(ft)	(/6")	(tsf)	(%)	(pcf)	After _____ Hrs. _____ ft	(ft)	(/6")	(tsf)	(%)	(pcf)
10.0" CONCRETE	613.8						CLAY LOAM-dark brown & gray-stiff to very stiff (Fill) (continued)		5			
CRUSHED STONE-dense (Fill)		10							6	1.20	22	
		20		7					7	B		
		13										
	611.6						591.6					
CLAY LOAM-dark brown & gray-stiff to very stiff (Fill)		1					SILTY CLAY-black-stiff		4			
		4	2.00	18					4	1.00	27	
		6	B						6	P		
		-5							-25			
							589.1					
		5					CLAY LOAM-brown & gray-stiff		3			
		6	3.00	16					6	1.10	26	
		7	B						7	B		
		4							5			
		5	2.75	18					4	1.00	26	
		7	B				584.6		8	P		
		-10					End Of Boring @ -30.0'. Boring backfilled with cuttings.					
		4										
		6	2.30	19								
		7	B									
		6										
		6	2.50	18								
		10	B									
		-15							-35			
		3										
		5	3.00	18								
		11	B									
		7										
		5	2.00	18								
		50/3"	B									
		-20							-40			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206), GP-Geoprobe Hand Auger BBS, from 137 (Rev. 8-99)



GSI Job No. 19079-B

SOIL BORING LOG

Page 1 of 1

Date 11/1/21

PROJECT PTB 185-012, WO #32

LOCATION I-90 & I-94 Tollway

COUNTY Cook DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

CLIENT	HBM	D E P T H	B L O W S	U C S Q u	M O I S T	D R Y D I S T I T Y	Surface Water Elev. _____ ft	D E P T H	B L O W S	U C S Q u	M O I S T	D R Y D I S T I T Y
BORING NO.	OSB-13						Stream Bed Elev. _____ ft					
Northing	1921284						Groundwater Elev.: _____					
Easting	1154304						First Encounter _____ Dry ft					
Ground Surface Elev.	614.8	ft					Upon Completion _____ Dry ft					
		(ft)	(/6")	(tsf)	(%)	(pcf)	After _____ Hrs. _____ ft	(ft)	(/6")	(tsf)	(%)	(pcf)
8.0" SANDY TOPSOIL (Fill)	614.1						CLAY LOAM-brown & gray spotted black-stiff to hard (Fill) (continued)					
CLAY LOAM-brown & gray spotted black-stiff to hard (Fill)		6							4			
		11	4.50	11					5	2.00	22	
		12	P						5	P		
		7							7			
		9	4.50	15					8	3.30	21	
		8	P						7	B		
		-5							-25			
							589.3					
		3					SANDY CLAY LOAM with Stone-very stiff (Fill)		8			
		4	2.00	20					6	3.50	17	
		5	B						5	B		
							586.8					
		2					CLAY LOAM-brown & gray-medium stiff		3			
		7	3.50	16					2	0.60	24	
		6	B						2	B		
		-10					584.8		-30			
							End Of Boring @ -30.0'. Boring backfilled with cuttings.					
		4										
		6	2.20	18								
		5	B									
		4										
		6	1.30	20								
		7	B									
		-15							-35			
		4										
		4	3.50	21								
		4	B									
		4										
		4	3.00	19								
		4	B									
		-20							-40			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206), GP-Geoprobe Hand Auger BBS, from 137 (Rev. 8-99)

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PLOT DATE =	DATE - 04/29/2024	REVISED -

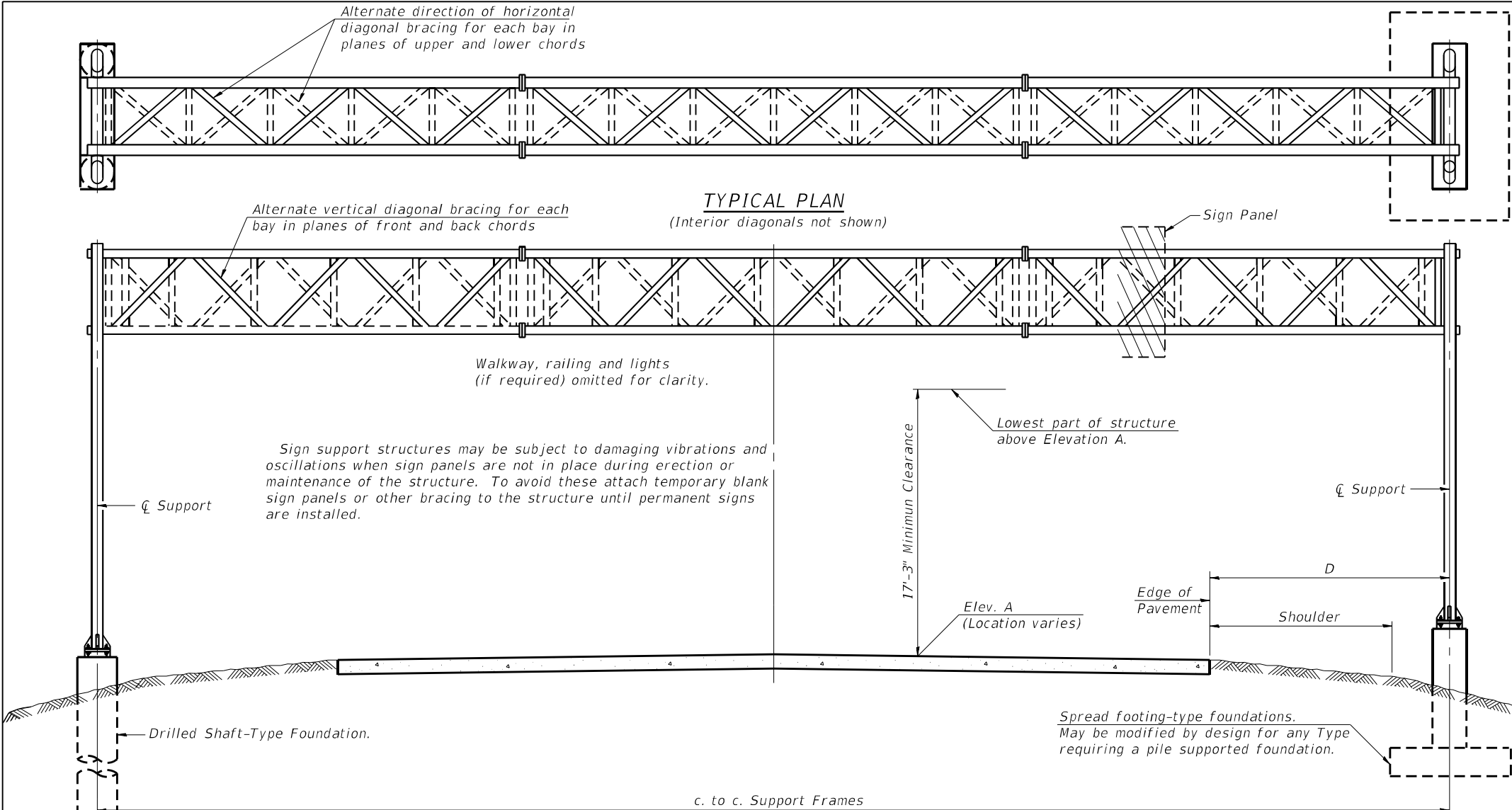
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORINGS II

SHEET OSG1-24 OF OSG1-24 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	2020-005-BR	COOK	908	269
CONTRACT NO. 62K73				
ILLINOIS FED. AID PROJECT				

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GENERAL NOTES

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

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

LOADING: 90 M.P.H. WIND VELOCITY

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

DESIGN STRESSES:
Field Units
 $f'c = 3,500$ p.s.i.
 $f_y = 60,000$ p.s.i. (reinforcement)

WELDING: All welds to be continuous unless otherwise shown. All welding to be done in accordance with current AWS D1.1 and D1.2 Structural Welding Codes (Steel and Aluminum) and the Standard Specifications.

MATERIALS: Aluminum Alloys as shown throughout plans. All Structural Steel Pipe shall be ASTM A53 Grade B or A500 Grade B or C. If A500 pipe is substituted for A53, then the outside diameter shall be as detailed and wall thickness greater than or equal to A53. All Structural Steel Plates and Shapes shall conform to AASHTO M270 Gr. 36, Gr. 50 or Gr. 50W*. Stainless steel for shims, sleeves and handhole covers shall be ASTM A240, Type 302 or 304, or another alloy suitable for exterior exposure and acceptable to the Engineer.
The steel pipe and stiffening ribs at the base plate for the column shall have a minimum longitudinal Charpy V-Notch (CVN) energy of 15 lb.-ft. at 40° F. (Zone 2) before galvanizing.

FASTENERS FOR ALUMINUM TRUSSES: All bolts noted as "high strength" must satisfy the requirements of AASHTO M164 (ASTM A325), or approved alternate, and must have matching lock nuts. Threaded studs for splices (if Members interfere) must satisfy the requirements of ASTM A449, ASTM A193, Grade B7, or approved alternate, and must have matching lock nuts. Bolts and lock nuts not required to be high strength must satisfy the requirements of ASTM A307. All bolts and lock nuts must be hot dip galvanized per AASHTO M232. The lock nuts must have nylon or steel inserts. A stainless steel flat washer conforming to ASTM A240 Type 302 or 304, is required under both head and nut or under both nuts where threaded studs are used. High strength bolt installation shall conform to Article 505.04 (f) (2)d of the IDOT Standard Specifications for Road and Bridge Construction. Rotational capacity ("ROCAP") testing of bolts will not be required.

U-BOLTS AND EYEBOLTS: U-Bolts and Eyebolts must be produced from ASTM A276 Type 304, 304L, 316 or 316L, Condition A, cold finished stainless steel, or an equivalent material acceptable to the Engineer. All nuts for U-Bolts and Eyebolts must be lock nuts equivalent to ASTM A307 with nylon or steel inserts and hot dip galvanized per AASHTO M232. A stainless steel flat washer conforming to ASTM A240, Type 302 or 304, is required under each U-Bolt and Eyebolt lock nut.

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

ANCHOR RODS: Shall conform to ASTM F1554 Gr. 105.

CONCRETE SURFACES: All concrete surfaces above an elevation 6" below the lowest final ground line at each foundation shall be cleaned and coated with Concrete Sealer in accordance with the Standard Specifications.

REINFORCEMENT BARS: Reinforcement Bars designated (E) shall be epoxy coated in accordance with the Standard Specifications.

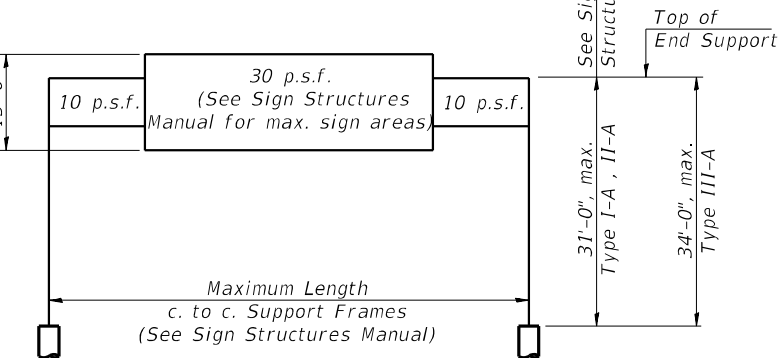
FOUNDATIONS: The contract unit price for Concrete Foundations and Drilled Shaft Concrete Foundations shall include reinforcement bars complete in place.

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
CONCRETE BARRIER REMOVAL	Foot	21
CONCRETE REMOVAL	Cu. Yd.	3.2
STRUCTURE EXCAVATION	Cu. Yd.	7
CONCRETE BARRIER TRANSITION	Foot	9
OVERHEAD SIGN STRUCTURE SPAN TYPE I-A (4'-0" X 4'-6")	Foot	86
CONCRETE FOUNDATIONS	Cu. Yd.	18.1
DRILLED SHAFT CONCRETE FOUNDATIONS	Cu. Yd.	15.3
REMOVE OVERHEAD SIGN STRUCTURE - SPAN	Each	1
TEMPORARY SOIL RETENTION SYSTEM	Sq. Ft.	92

DESIGN WIND LOADING DIAGRAM

Parameters shown are basis for I.D.O.T. Standards and Sign Manual Tables. Installations not within dimensional limits shown require special analysis for all components.



TYPICAL ELEVATION

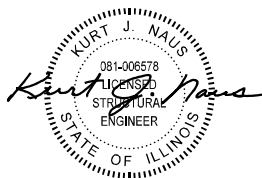
(Looking at Face of Signs**)

Sign #	Structure Number	Station	Design Truss Type	c. to c. Supports	Elev. A	Dim. D	Height of Tallest Sign	Total Sign Area
Sign 13	1S0161094L044.6	615+28.04 (NB)	I-A	85'-8"	614.60	14.25'	12'-6"	596.00

**Looking upstation for structures with signs both sides.

* If M270 Gr. 50W (M222) steel is proposed, chemistry for plate to be used shall first be approved by the Engineer as suitable for galvanizing and welding.

Benchmarks: TBM "D" Top of SE bolt of overhead sign foundation along I-90/I-94 past Irving Park & Pulaski exit ramp at Station 615+44.99 Offset 49.96' RT measured along \bar{C} NB I-90/94. Elev. 617.85. (Sign 13)



EXPIRATION DATE 11-30-2024
DATE: 04-29-2024

For Sheets OSG2-01 thru OSG2-14 (Total of 14 Sheets)



Alfred Benesch & Company
35 West Wacker Drive, Suite 3300
Chicago, Illinois 60601
312-565-0450 Job No. 10805.03

05-A-1

2-17-2023

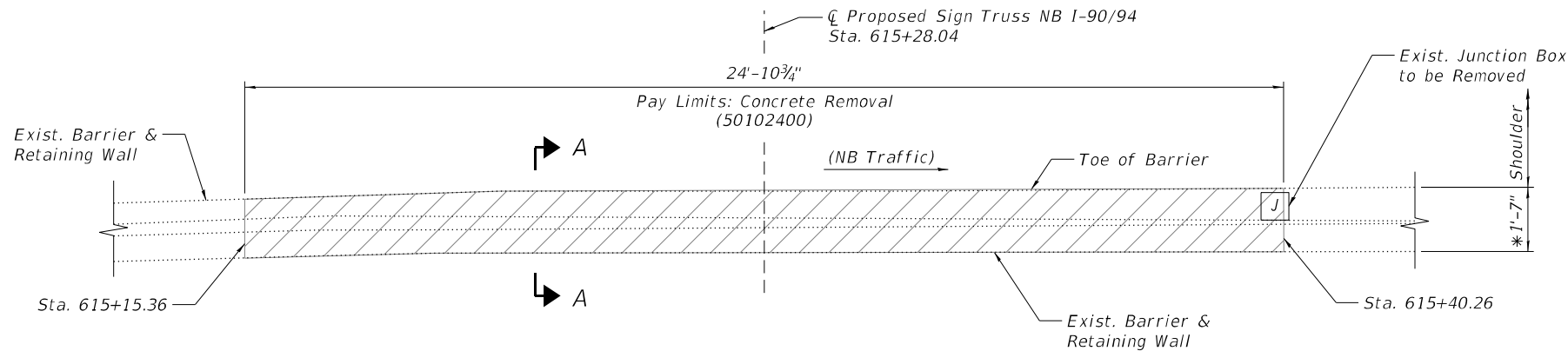
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN & ELEVATION - ALUMINUM TRUSS & STEEL SUPPORTS
SN 1S0161094L44.6

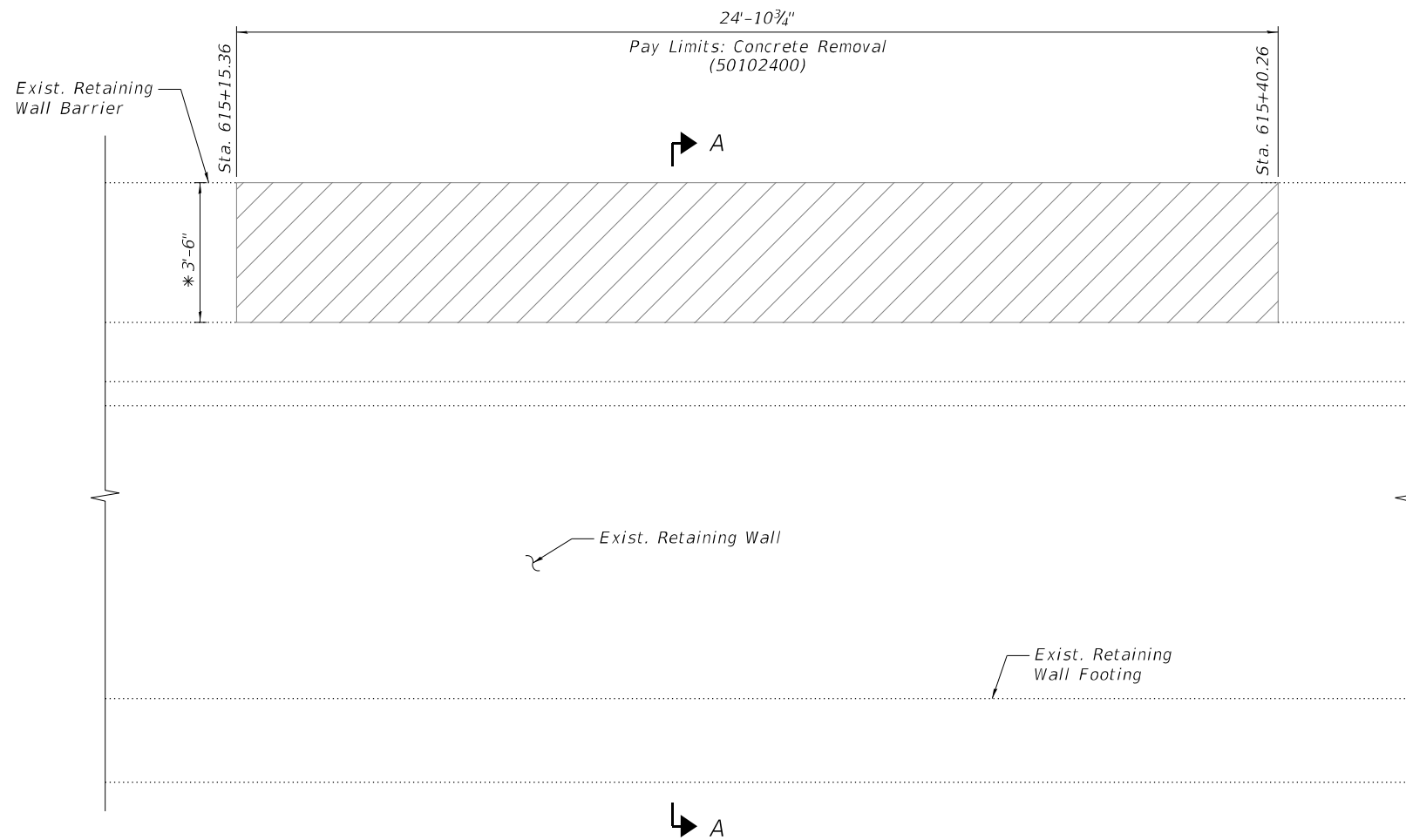
SHEET OSG2-01 OF OSG2-14 SHEETS

FAI RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	2020-005-HB	COOK	908	270
CONTRACT NO. 62K73				
ILLINOIS FED. AID PROJECT				

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PLAN
(Existing Shoulder and Retaining Wall not shown for Clarity)



ELEVATION

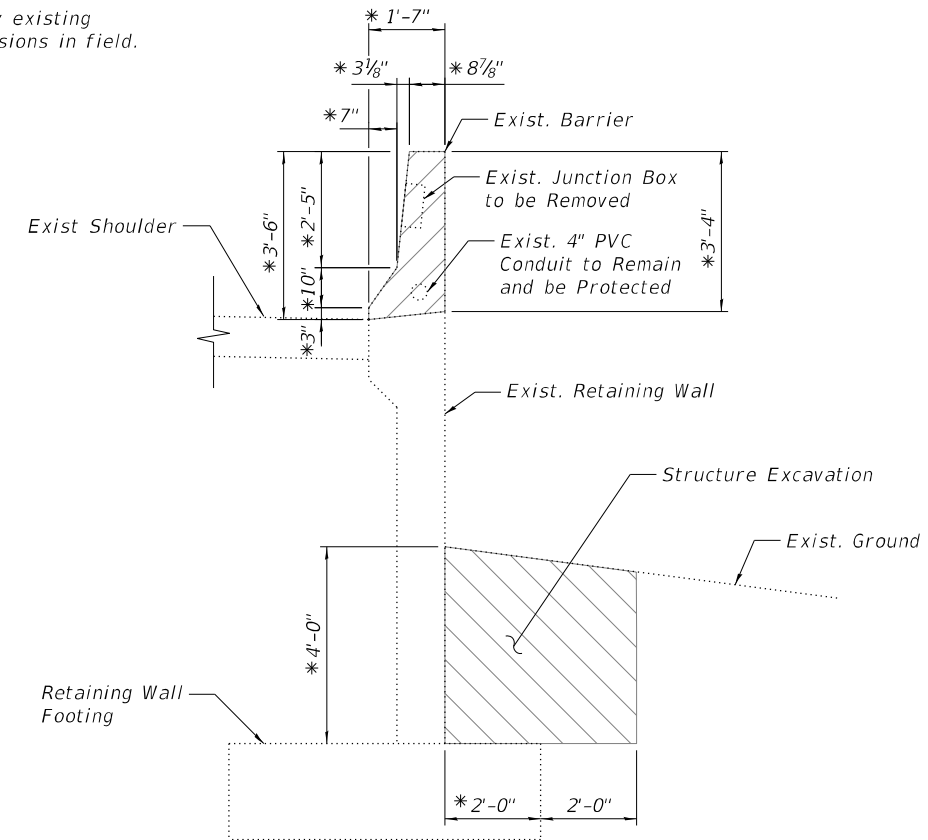
RETAINING WALL REMOVAL AT I-90/94
SIGN TRUSS FOUNDATION - SIGN 13 - 1S016I094L044.6

Note:
Work this Sheet with Sheet OSG2-11.

LEGEND

- Concrete Removal
- Structure Excavation

* Verify existing dimensions in field.



SECTION A-A

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Concrete Removal	Cu. Yd.	3.2
Structure Excavation	Cu. Yd.	7



Alfred Benesch & Company
35 West Wacker Drive, Suite 3300
Chicago, Illinois 60601
312-565-0450 Job No. 10805.03

USER NAME = kkenney	DESIGNED - WKK	REVISED -
	CHECKED - JHG	REVISED -
PLOT SCALE = N/A	DRAWN - RMG	REVISED -
PLOT DATE = 5/1/2024	CHECKED - WKK	REVISED -

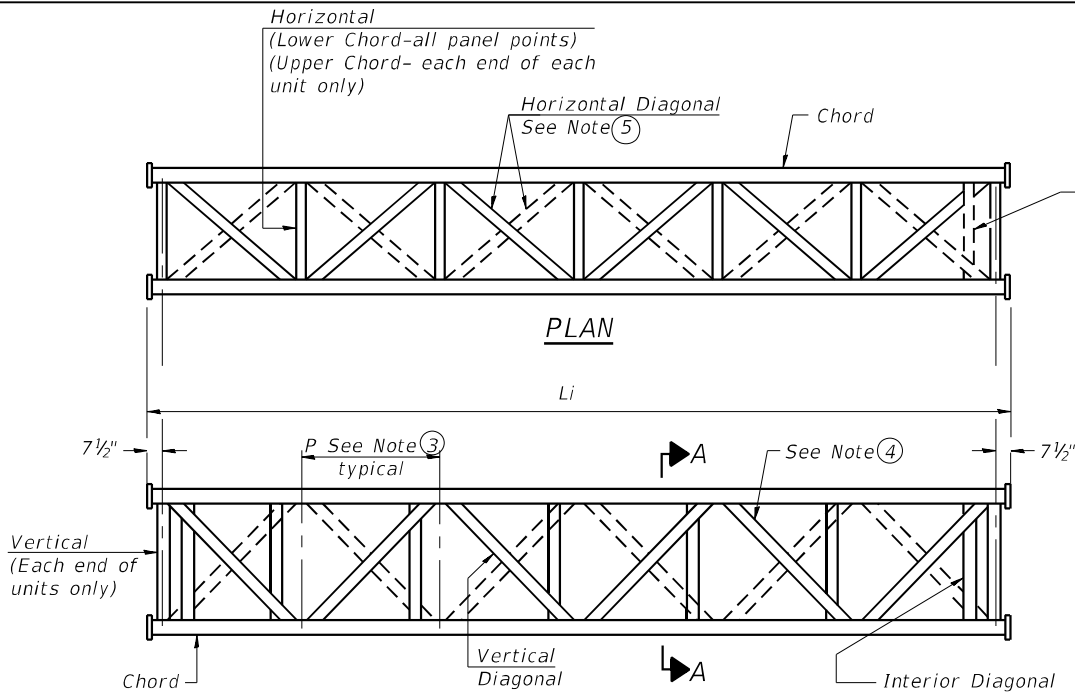
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RETAINING WALL REMOVAL DETAILS
SN 1S016I094L044.6

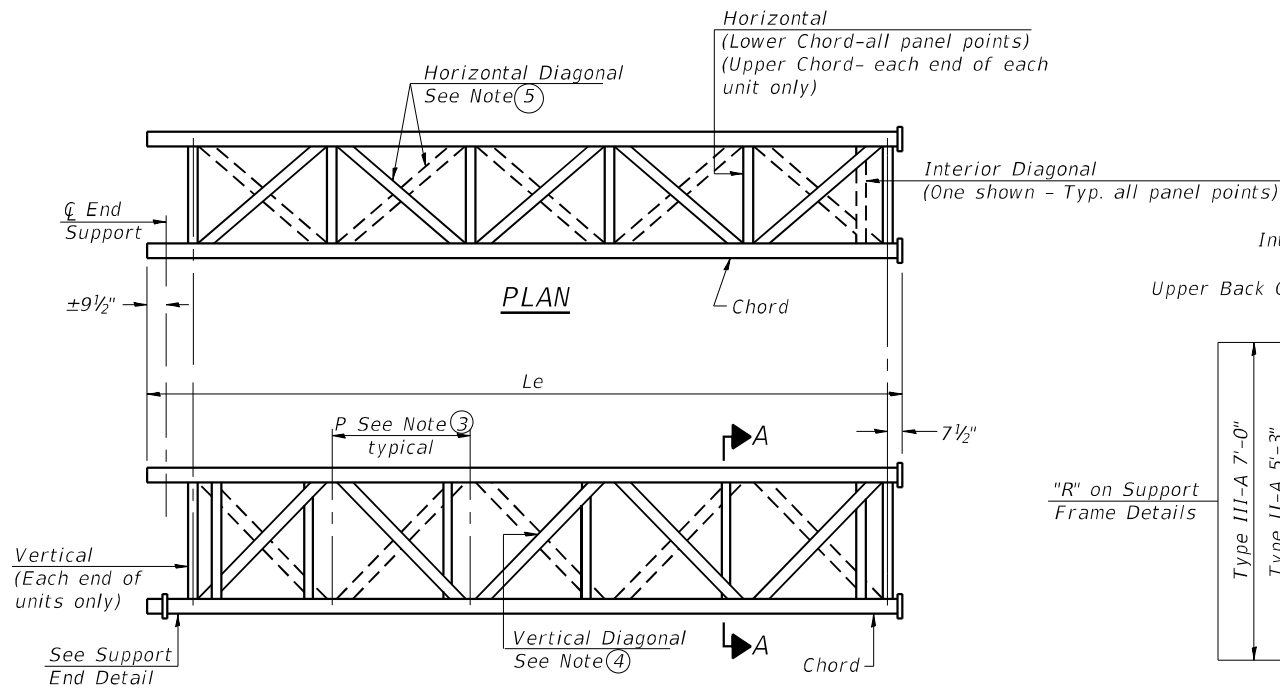
SHEET OSG2-03 OF OSG2-14 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	2020-005-HB	COOK	908	272
CONTRACT NO. 62K73				
ILLINOIS FED. AID PROJECT				

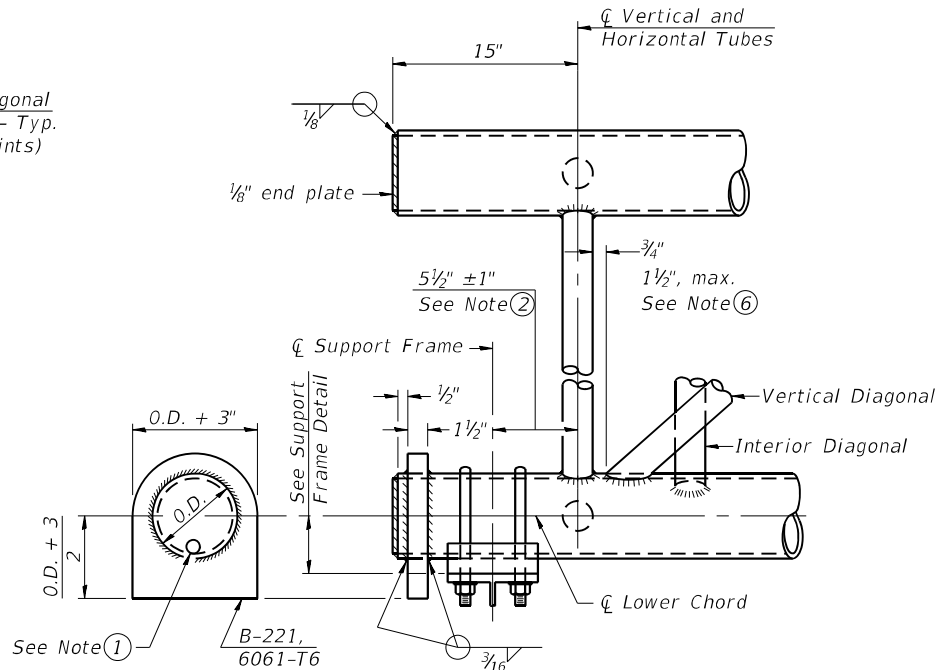
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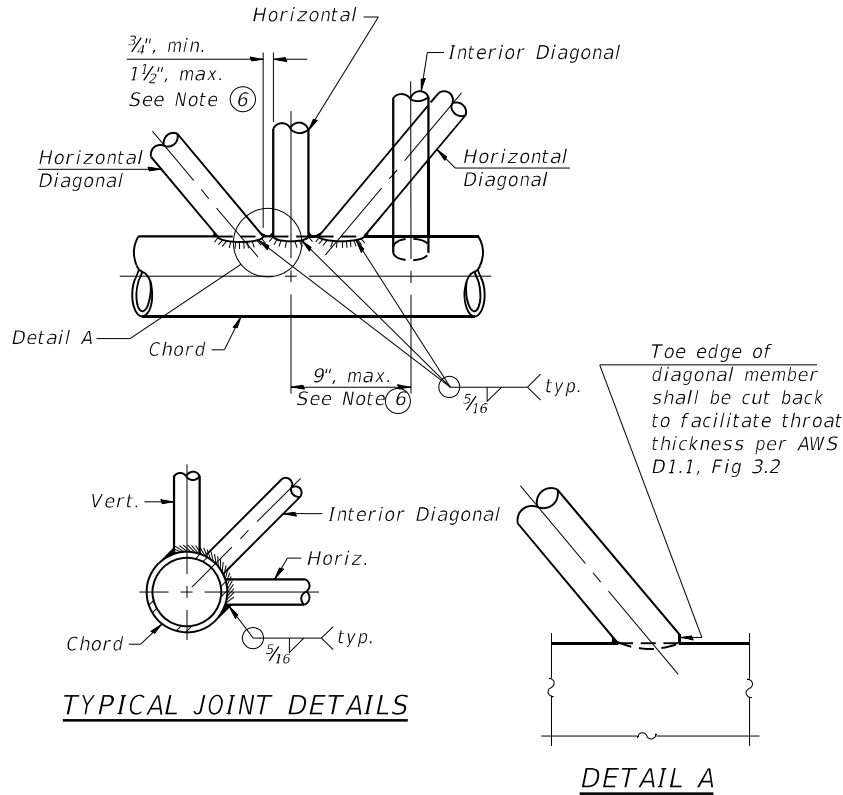
ELEVATION
TYPICAL INTERIOR UNIT
Even number of panels/interior unit required.



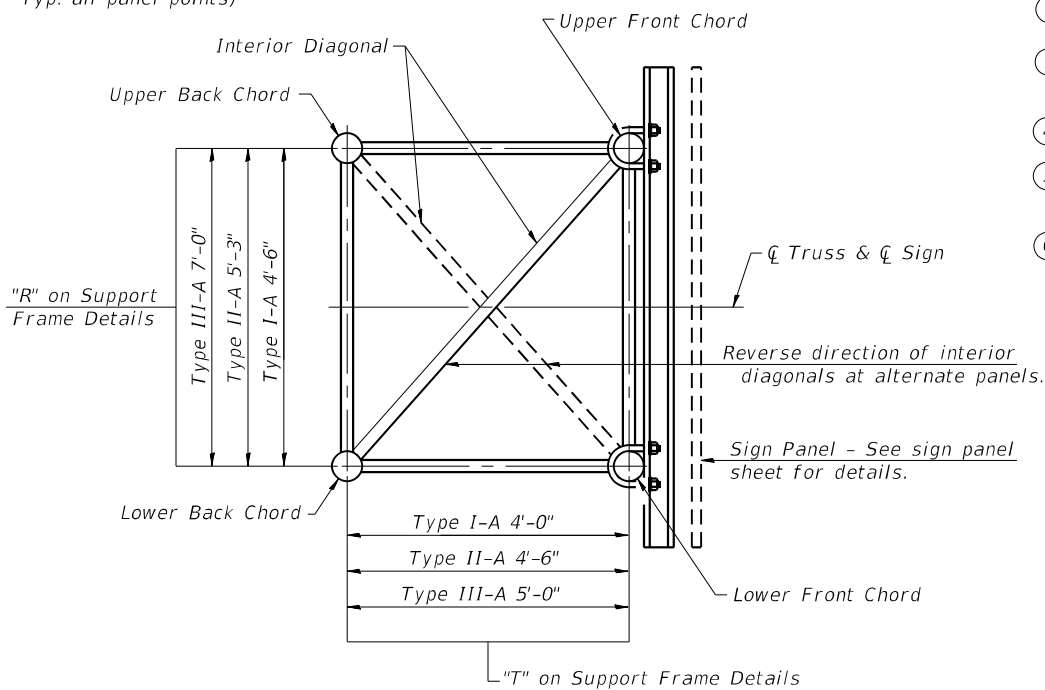
ELEVATION
TYPICAL EXTERIOR UNIT
Even or odd number of panels/exterior units allowed.



SUPPORT END DETAIL FOR EXTERIOR UNIT



TYPICAL JOINT DETAILS



SECTION A-A

- Contractor may alternatively use standard aluminum drive-fit cap to close end. 1/2" Ø drain hole in end plate/drive-fit cap. (Typ. at ends of all chords)
- 5 1/2" end dimension may vary by ±1" to provide uniform panel spacing (P).
- Panel spacing (P) shall be uniform for entire truss and between 4'-0" and 5'-0" for Type I-A or 4'-0" and 5'-6" for Types II-A and III-A.
- Vertical Diagonals in front and back face shall alternate.
- Hidden lines show wind bracing alternates direction between planes of top and bottom chords.
- All diagonals shall be detailed for minimum offset from the panel point based on the following: Offset shall be such as to provide a 3/4" minimum to 1 1/2" maximum clearance between any diagonal and any horizontal or vertical member, and to provide clearance for U-bolt connections of signs or walkway brackets.



Alfred Benesch & Company
35 West Wacker Drive, Suite 3300
Chicago, Illinois 60601
312-565-0450 Job No. 108005-03

05-A-2

2-17-2023

USER NAME =	kkenny	DESIGNED -	WKK	REVISED -	
CHECKED -	JHG	REVIS			
PLOT SCALE =	N/A	DRAWN -	RMG	REVISED -	
PLOT DATE =	5/1/2024	CHECKED -	WKK	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

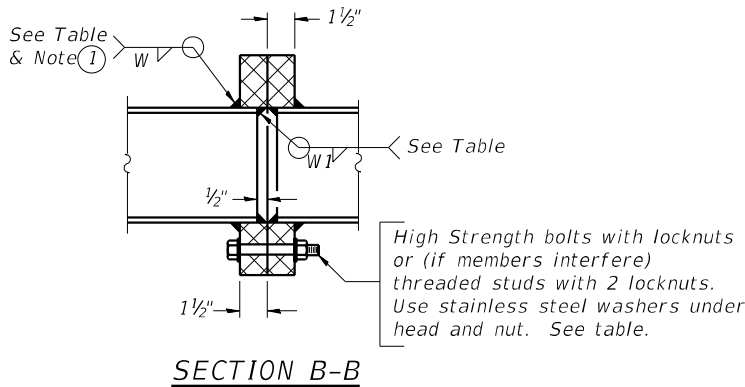
ALUMINUM TRUSS DETAILS FOR
TRUSS TYPES I-A, II-A AND III-A (1 OF 2)

SHEET OSG2-04 OF OSG2-14 SHEETS

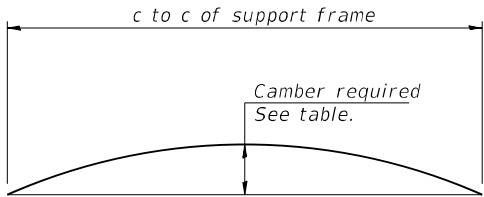
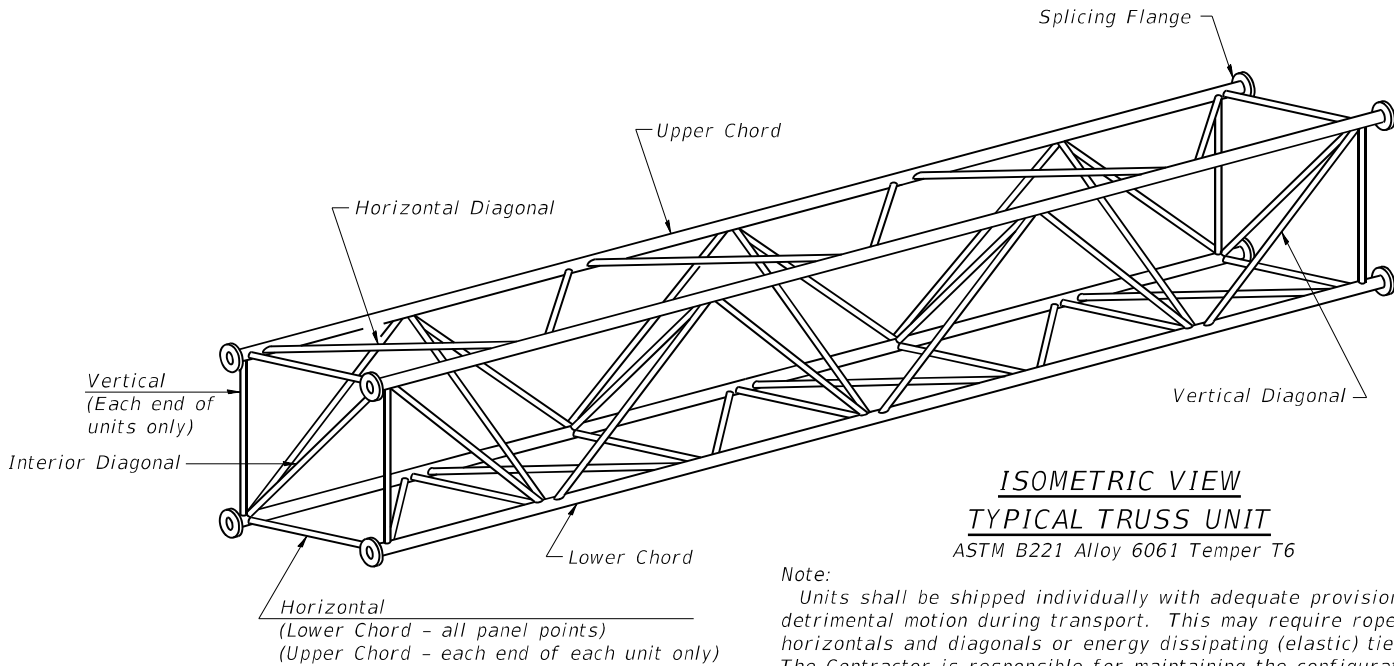
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90/94	2020-005-HB	COOK	908	273
CONTRACT NO. 62K73				
ILLINOIS FED. AID PROJECT				

TRUSS UNIT TABLE

Sign #	Structure Number	Station	Design Truss Type	Exterior Units (2)			Interior Unit				Upper & Lower Chord		Verticals; Horizontals; Vertical, Horizontal, and Interior Diagonals	Camber at Midspan	Splicing Flange						
				No. Panels per Unit	Unit Lgth.(Le)	Panel Lgth.(P)	No. Req'd.	No. Panels per Unit	Unit Lgth.(Li)	Panel Lgth.(P)	O.D.	Wall			Bolts		Weld Sizes		A	B	
															No./Splice	Dia.	W	W1			
13	1S0161094L044.6	615+28.04 (NB)	I-A	6	29'-4½"	4'-7"	1	6	28'-9"	4'-7"	5"	⅝ ₁₆ "	2½"	⅝ ₁₆ "	2½"	6	⅞"	⅝ ₁₆ "	¼"	8¾"	11¾"



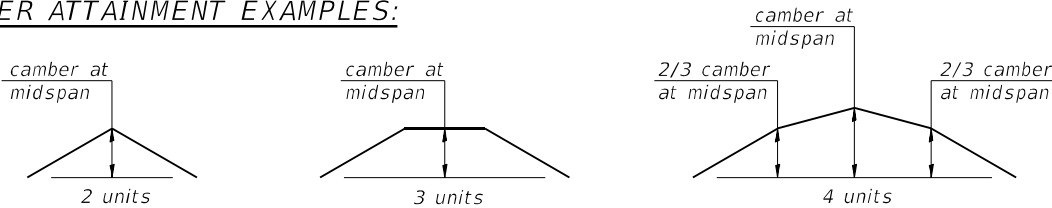
- ① Splicing Flanges shall be attached to each truss unit with the truss shop assembled to camber shown. Truss units shall be in proper alignment and flange surfaces shall be shop bolted into full contact before welding. Sufficient external welds or tacks shall be made to secure flanges until remaining welds are made after disassembly. Adjacent flanges shall be "match marked" to insure proper field assembly.



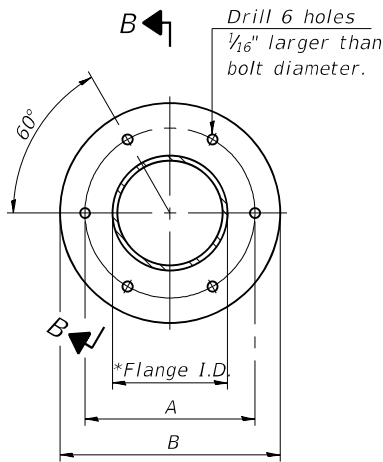
CAMBER DIAGRAM

Camber curve shown is theoretical. Actual camber attained by slope changes at splices between units.

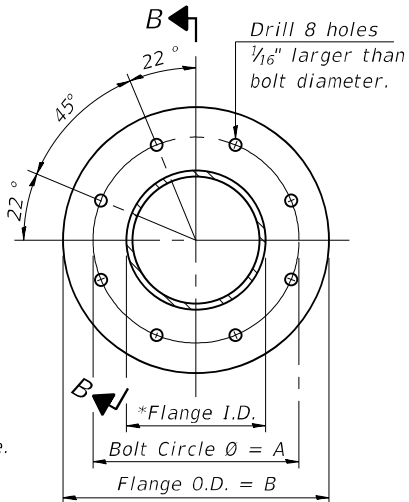
CAMBER ATTAINMENT EXAMPLES:



Camber shown is for fabrication only, measured with truss fully supported. (No-load condition)



TRUSS TYPES I-A, II-A, & III-A



TRUSS TYPES II-A & III-A

SPLICING FLANGES

ASTM B221, Alloy 6061-T6
or ASTM B209, Alloy 6061-T651
*To fit O.D. of Chord with maximum gap of ⅛".

MODEL: Default
FILE NAME: pw:\Benesch-pw-bentley.com\benesch-pw-q\Documents\108005\10805.03\Eng_Docs_Phase_II\Overhead_Span_Sign_Structures\Final\Sign_13\OSG2-05_alum_truss_det_002.dgn



Alfred Benesch & Company
35 West Wacker Drive, Suite 3300
Chicago, Illinois 60601
312-565-0450 Job No. 10805.03

0S4-A-2

2-17-2017

USER NAME = kkeny	DESIGNED - WKK	REVISED -
CHECKED - JHG	REVISED -	
PLOT SCALE = N/A	DRAWN - RMG	REVISED -
PLOT DATE = 5/1/2024	CHECKED - WKK	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

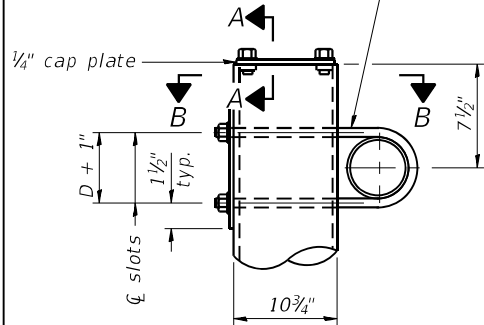
ALUMINUM TRUSS DETAILS FOR
TRUSS TYPES I-A, II-A AND III-A (2 OF 2)

SHEET OSG2-05 OF OSG2-14 SHEETS

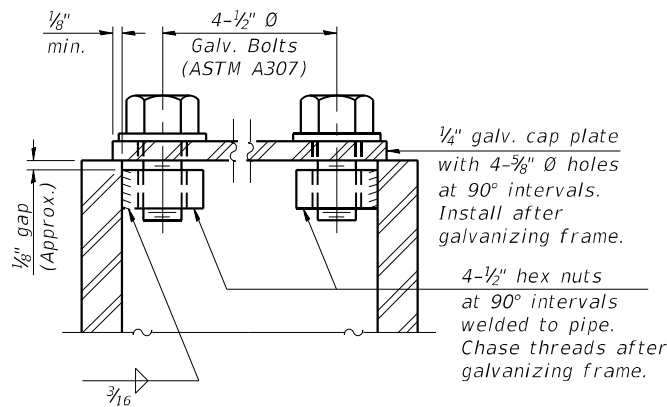
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	2020-005-HB	COOK	908	274
CONTRACT NO. 62K73				
ILLINOIS FED. AID PROJECT				

MODEL: Default
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$\frac{3}{4}$ " \varnothing stainless steel U-bolt.
Provide two washers and two
hexagon locknuts. ④
 $1\frac{3}{16}$ " x 2" slots on \varnothing 10" \varnothing pipe.
(4 slots required per pipe)

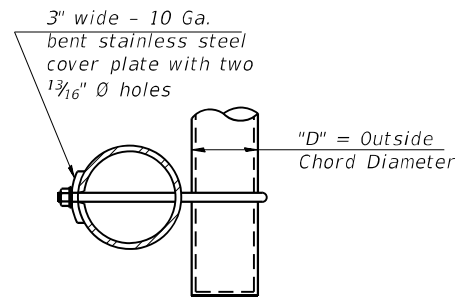


DETAIL A

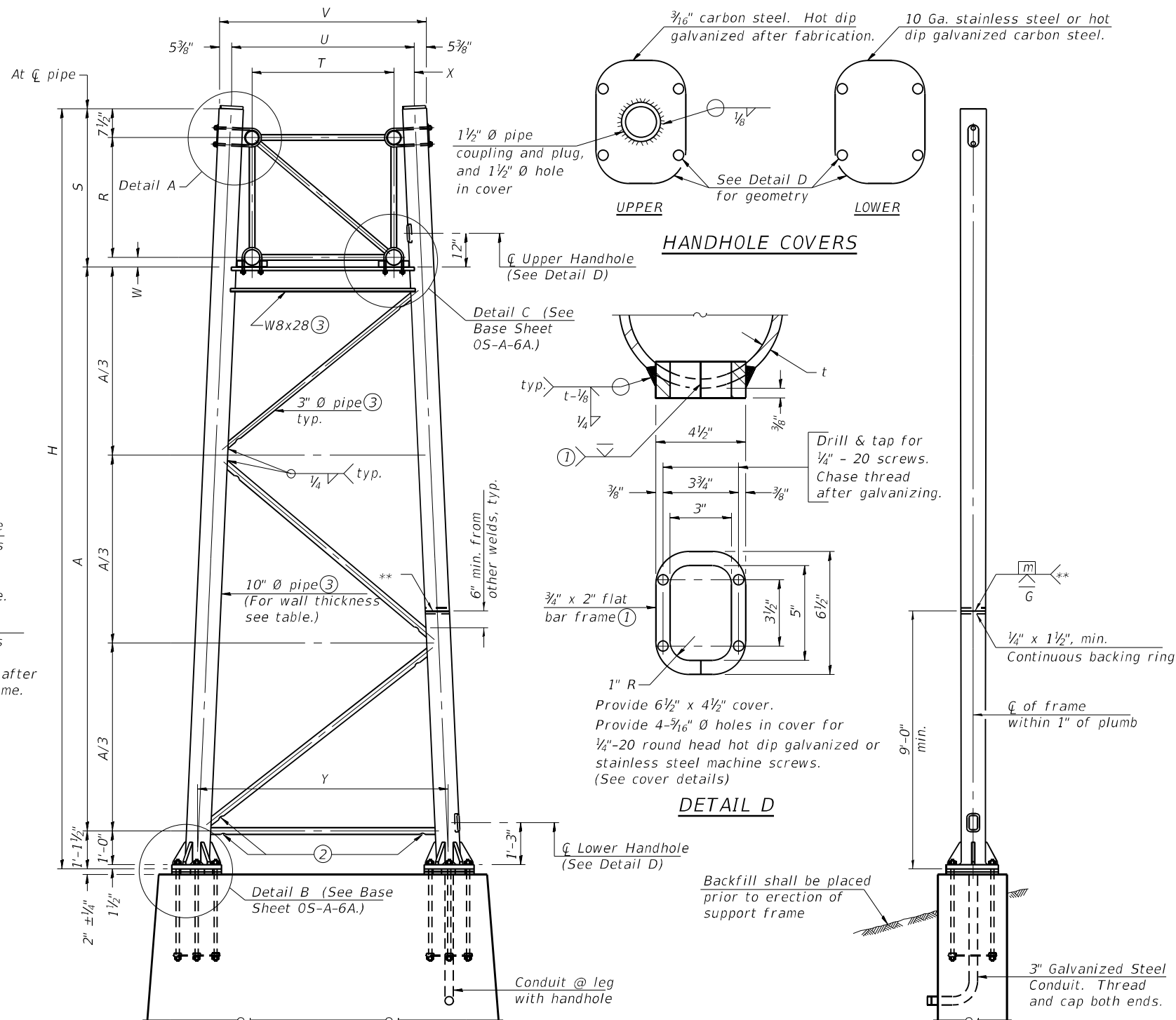


SECTION A-A

As an alternate to bolts, may use galvanized
drive-fit caps installed after galvanizing frame.



SECTION B-B



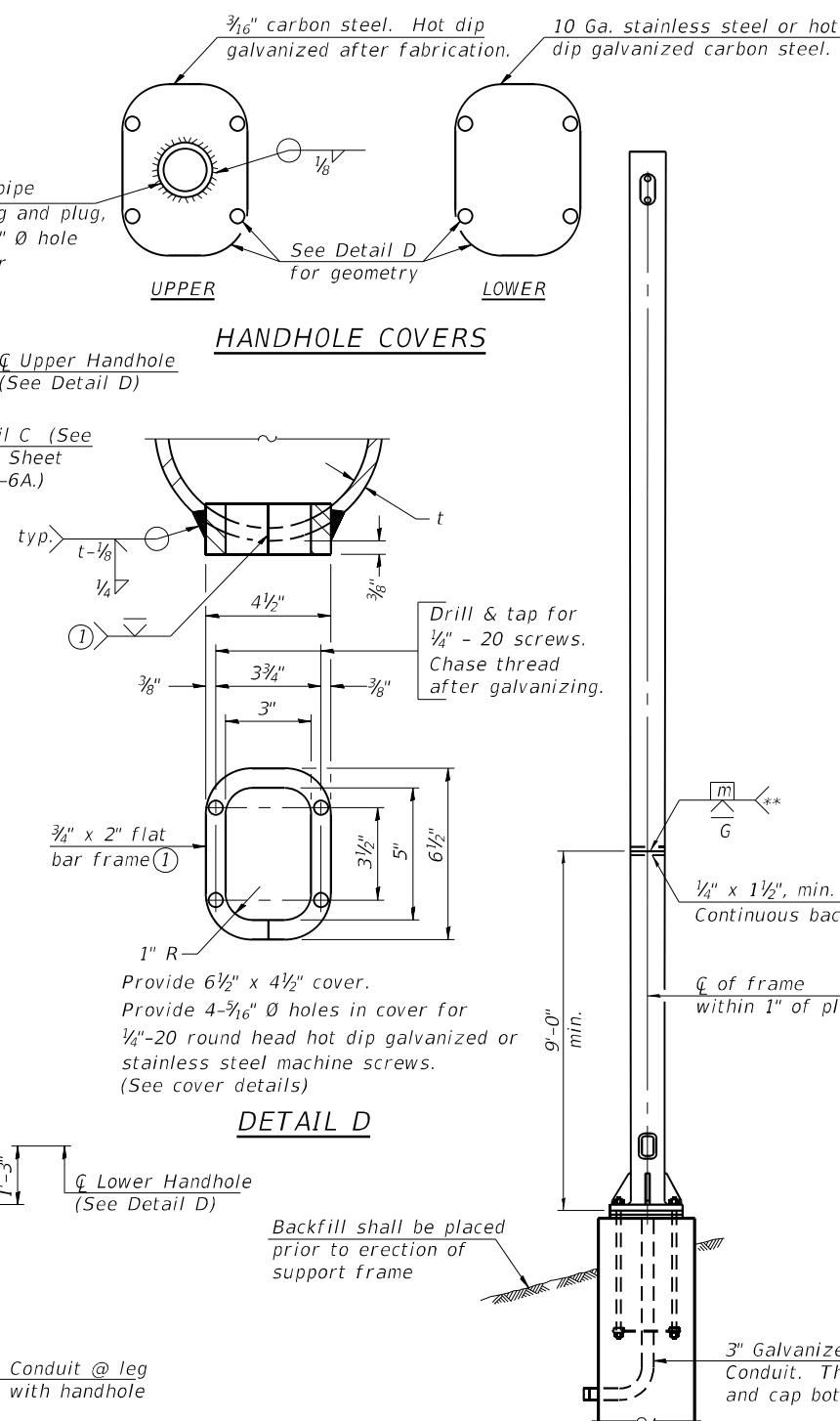
For Foundation Details, see sheets OSG2-11 and OSG2-12.

SIDE ELEVATION

10" \varnothing PIPE TRUSS SUPPORT FRAME

** One butt welded joint is allowed only on one post per
support frame. If used, weld procedure must be pre-
approved by Engineer and joint shall receive 100%
RT or UT (tension criteria) at Contractor's expense.

HANDHOLE COVERS



DETAIL D

END ELEVATION

Support Design Loads: See Base Sheet OS-A-1 for design
and loading criteria.

Load combinations checked include deadload plus:
a) 100% wind normal to sign, 20% parallel to sign
b) 60% wind normal to sign, 30% parallel to sign

- ① In lieu of fabricated handhole frame as shown, may cut
from 2" plate (rolling direction vertical). All cut faces
to be ground to ANSI Roughness of 500 μ in or less.
- ② Galvanizing vent holes of adequate size shall be provided
on underside at each end of bracing pipes. Alternately,
holes may be provided in wall of pipe column. All vent
holes shall be drilled and de-burred, typ.
- ③ Steel pipe, plate, carbon steel handhole covers and rolled
sections shall be hot dip galvanized after fabrication.
Painting is not permitted. See Base Sheet OS-A-1.
- ④ See General Notes for fasteners.
- ⑤ Dimensions shown are based on selection criteria in the
Sign Structures Manual. Nonstandard applications must
have dimensions verified or amended as appropriate.
- ⑥ "H" based on 15'-0" or actual sign height, whichever is
greater.

Truss Type	Dimensions							
	R	S	T	U	V	W	X	Y
I-A	4'-6"	5'-5 $\frac{1}{2}$ "	4'-0"	5'-6"	6'-4 $\frac{3}{4}$ "	4"	9"	8'-3"
II-A ⑤	5'-3"	6'-3 $\frac{1}{4}$ "	4'-6"	6'-1"	6'-11 $\frac{3}{4}$ "	4 $\frac{3}{4}$ "	9 $\frac{1}{2}$ "	8'-3"

Sign #	Structure Number	Station	Support		Truss Type	Pipe Wall Thickness	H ⑥	A
			Left	Right				
Sign 13	150161094L044.6	615+28.04 (NB)	✓		I-A	0.279"	29.17'	22.59'
Sign 13	150161094L044.6	615+28.04 (NB)		✓	I-A	0.279"	29.50'	22.92'



Alfred Benesch & Company
35 West Wacker Drive, Suite 3300
Chicago, Illinois 60601
312-565-0450 Job No. 10805.03

OS-A-6

2-17-2017

USER NAME =	kkenny	DESIGNED -	WKK	REVISED -	
		CHECKED -	JHG	REVISED -	
PLOT SCALE =	N/A	DRAWN -	RMG	REVISED -	
PLOT DATE =	5/1/2024	CHECKED -	WKK	REVISED -	

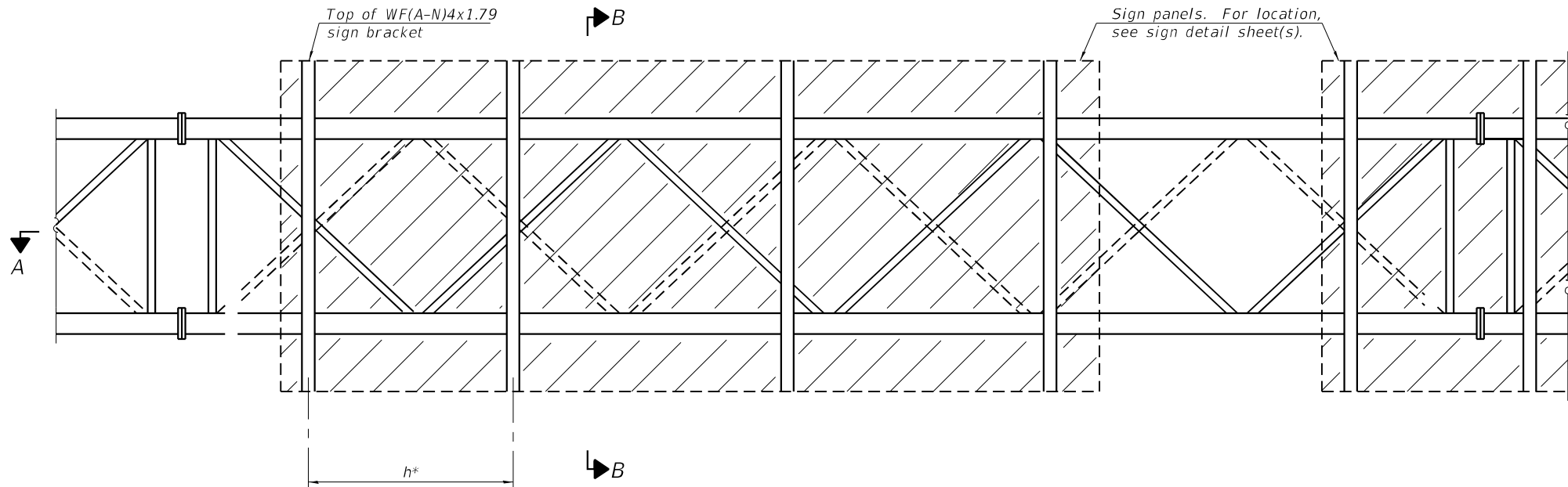
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPPORT FRAME FOR ALUMINUM TRUSS
SN 150161094L044.6 (1 OF 2)

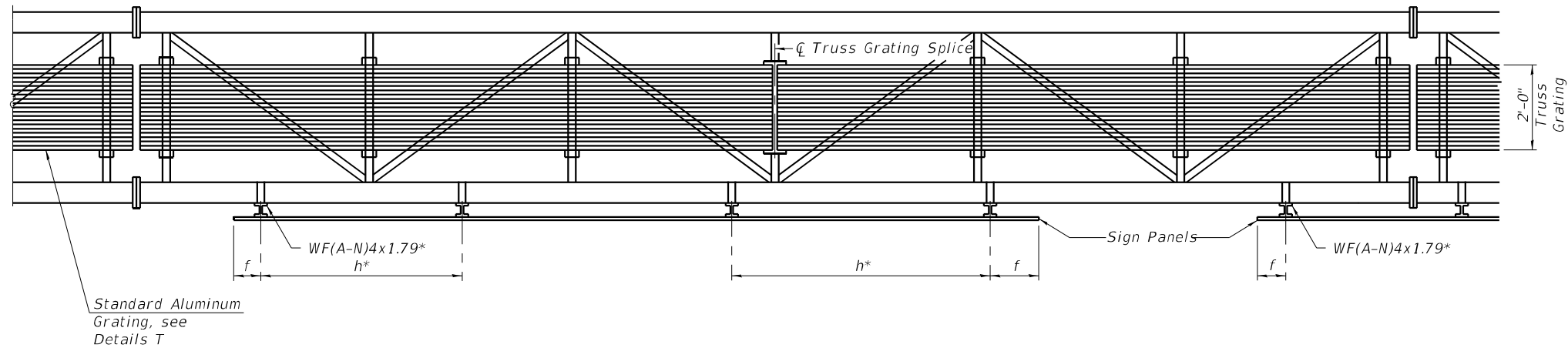
SHEET OSG2-07 OF OSG2-14 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	2020-005-HB	COOK	908	276
CONTRACT NO. 62K73				
ILLINOIS FED. AID PROJECT				

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TYPICAL FRONT ELEVATION



SECTION A-A

Place all sign brackets as close to panel points as practical.

BRACKET TABLE

WF(A-N)4x1.79 ASTM B308, Alloy 6061-T6		
Sign Width		Number Brackets Required
Greater Than	Less Than or Equal To	
	8'-0"	2
8'-0"	14'-0"	3
14'-0"	20'-0"	4
20'-0"	26'-0"	5
26'-0"	32'-0"	6

* Space sign brackets WF(A-N)4x1.79 for efficiency and within limits shown:

f = 12" maximum, 4" minimum (End of sign to \bar{C} of nearest bracket)
h = 6'-0" maximum (\bar{C} to \bar{C} sign support brackets, WF(A-N)4x1.7

Notes:
For Detail T and Section B-B, see Base Sheet OS-A-10-NW.
Truss grating to facilitate inspection shall run full length (center to center of support frames) 12"± on overhead trusses.
Cost of truss grating is included in "Overhead Sign Structure".
Truss Grating width dimensions are nominal and may vary 1/2"± based on available standard widths.



Alfred Benesch & Company
35 West Wacker Drive, Suite 3300
Chicago, Illinois 60601
312-565-0450 Job No. 108005.03

OS-A-9-NW

4-1-2020

USER NAME =	kkenny	DESIGNED -	WKK	REVISED -	
CHECKED -	JHG	REVIS			
PLOT SCALE =	N/A	DRAWN -	RMG	REVISED -	
PLOT DATE =	5/1/2024	CHECKED -	WKK	REVISED -	

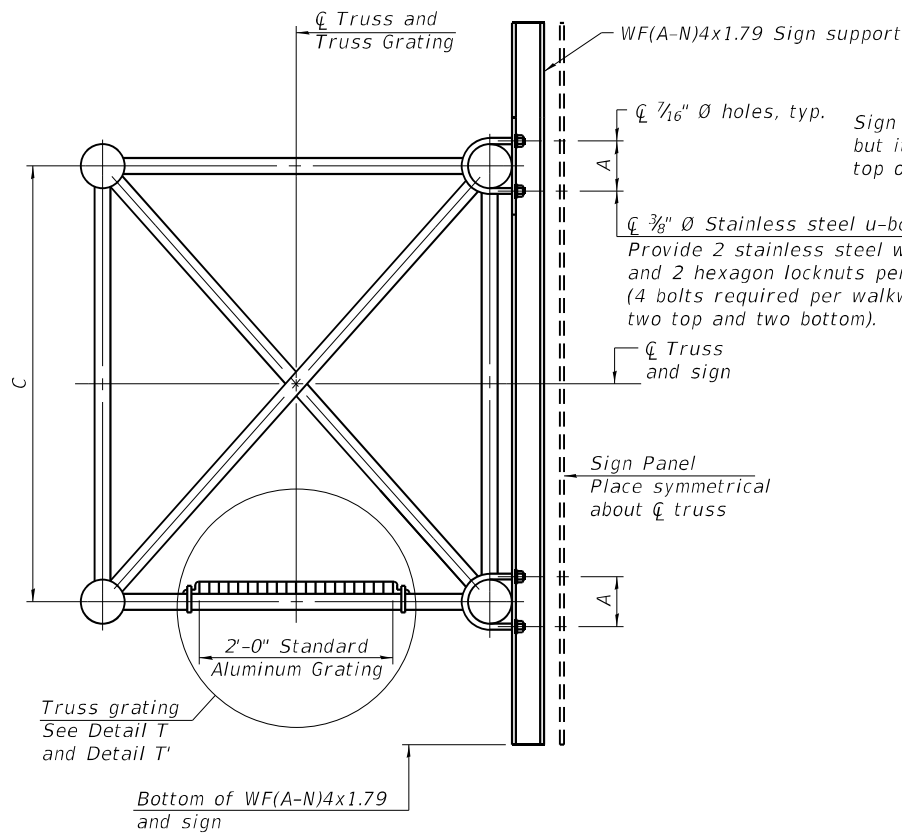
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ALUMINUM WALKWAY DETAILS
SN 1S016I094L044.6 (1 OF 2)

SHEET OSG2-09 OF OSG2-14 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	2020-005-HB	COOK	908	278
CONTRACT NO. 62K73				
ILLINOIS FED. AID PROJECT				

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SECTION B-B

SPECIFICATIONS FOR STANDARD ALUMINUM GRATING

Main Bearing Bars shall be $\frac{3}{16}$ " x $1\frac{1}{2}$ " on $1\frac{3}{16}$ " centers and conform to ASTM B221 Alloy 6061-T6.

Cross bars shall be $\frac{3}{16}$ " x $1\frac{1}{2}$ " on 4" centers and conform to ASTM B221 Alloy 6063-T5 or 6061-T6.

OR

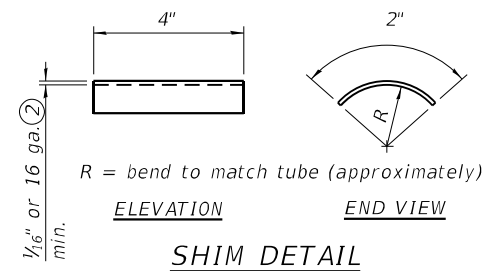
Aluminum Grating with modified "t" sections for main bearing bars shall meet the following requirements:

Main bars shall conform to ASTM B221 Alloy 6061-T6 and have a minimum section modulus equal to 0.0705 in.³ per bar, a depth of $1\frac{1}{2}$ ", spaced on $1\frac{3}{16}$ " centers.

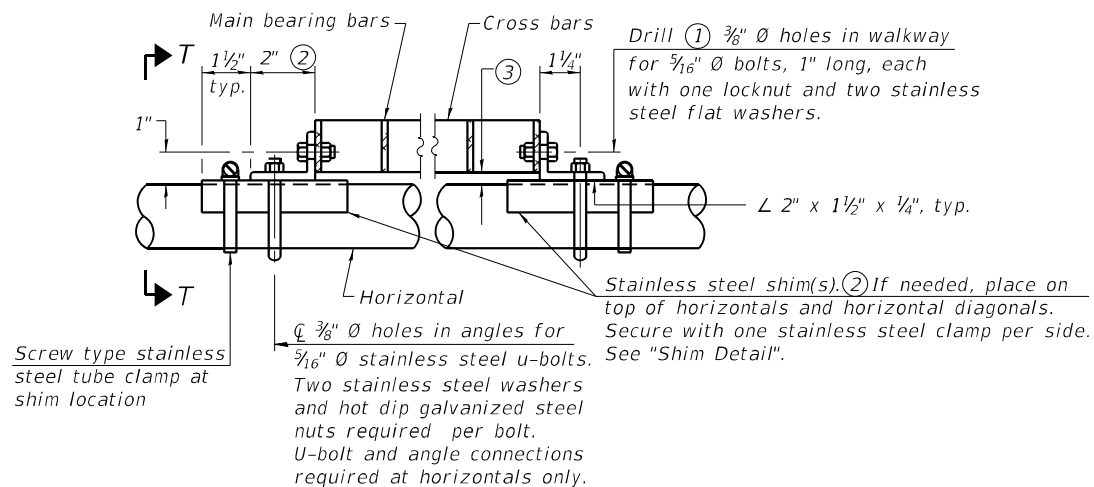
Cross bars shall conform to ASTM B221 Alloy 6063-T5 or T-42 and spaced on 4" centers.

Sign #	Structure Number	Station	A	C
Sign 13	1S016I094L044.6	615+28.04 (NB)	5 $\frac{3}{8}$ "	4'-6"

Sign shall be even with the top of the bracket, but it may extend no more than 6" above the top of the bracket for field adjustments.

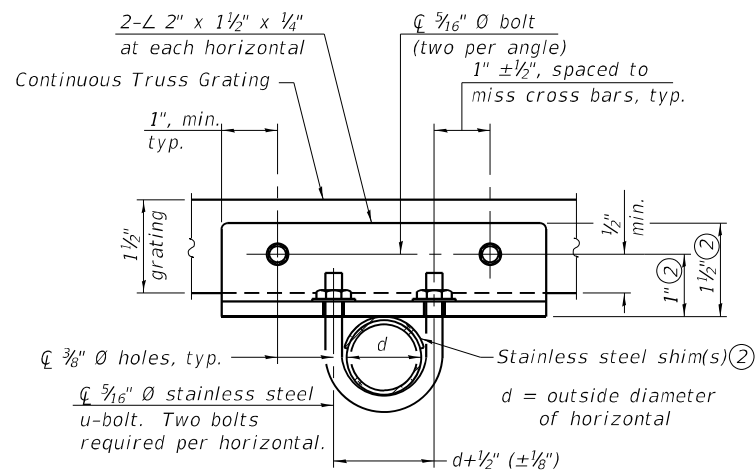


- Drilling holes in grating may be done in shop or field, based on Contractor's preference and subject to accurate alignment.
- Stainless steel shims shall be placed as shown in Detail T if needed to compensate for alignment variations between horizontal and diagonal pipes beyond adjustment provided by angles. Thicker shims may be used subject to shims performing properly.
- Tube to grating gap may vary from 0 to $\frac{1}{2}$ ", max. to align walkway, allow for camber, etc.

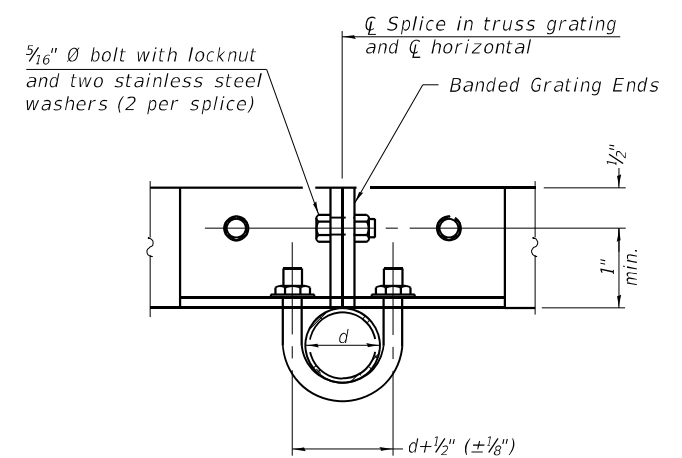


DETAIL T

(Continuous Truss grating)



SECTION T-T



SECTION T'-T'



Alfred Benesch & Company
35 West Wacker Drive, Suite 3300
Chicago, Illinois 60601
312-565-0450 Job No. 108005-03

05-A-10-NW

4-1-2020

USER NAME = kkenny	DESIGNED - WKK	REVISED -
CHECKED - JHG	REVISIONS -	
PLOT SCALE = N/A	DRAWN - RMG	REVISED -
PLOT DATE = 5/1/2024	CHECKED - WKK	REVISED -

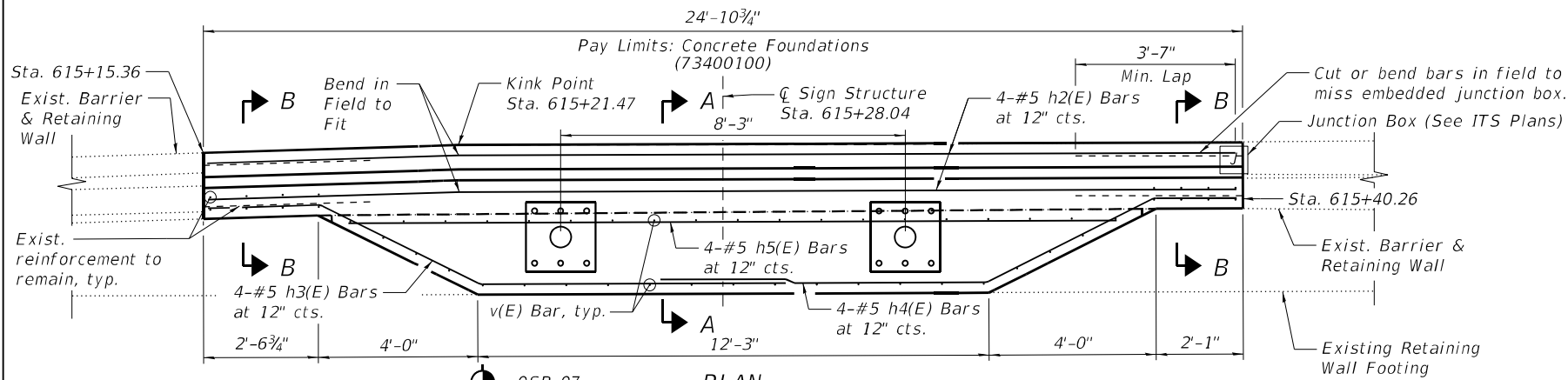
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ALUMINUM WALKWAY DETAILS
SN 1S016I094L044.6 (2 OF 2)

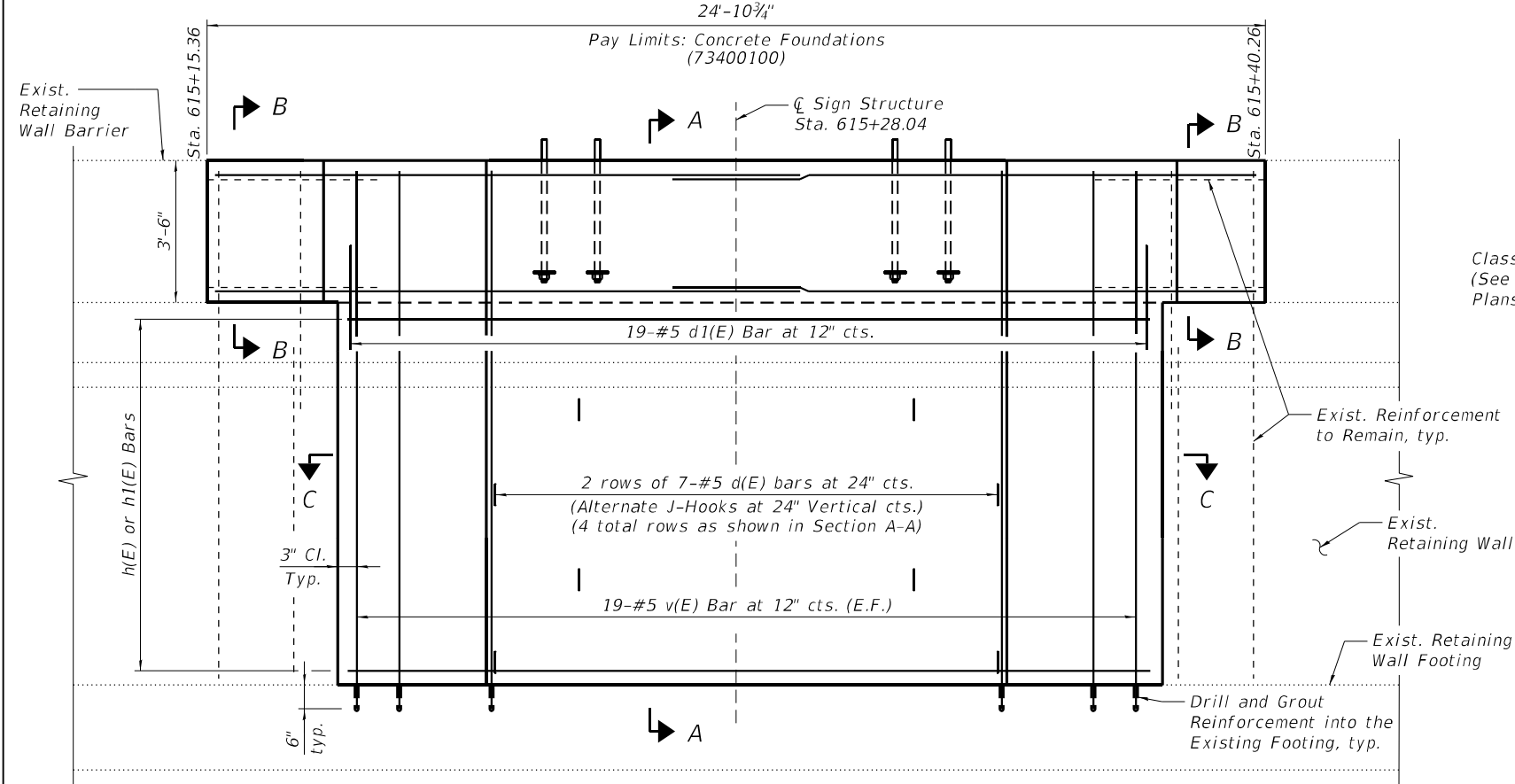
SHEET OSG2-10 OF OSG2-14 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	2020-005-HB	COOK	908	279
CONTRACT NO. 62K73				
ILLINOIS FED. AID PROJECT				

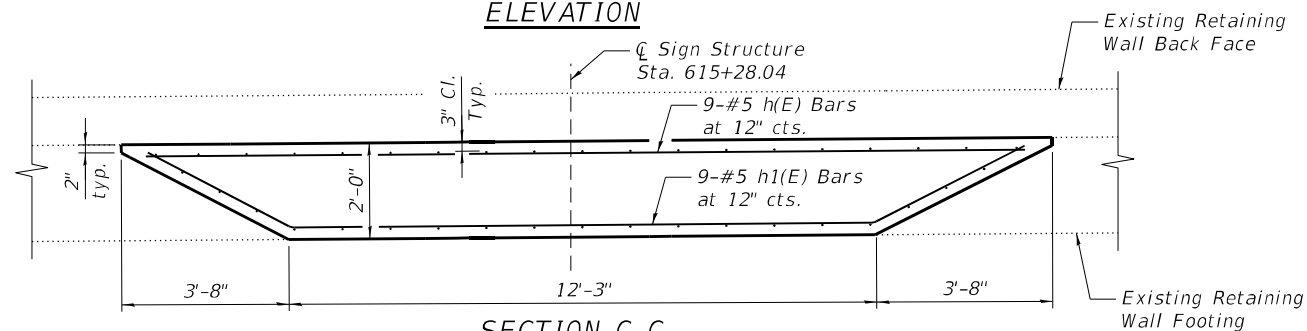
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PLAN
(Class B Patch for Shoulder not shown for Clarity - See Roadway Plans)



ELEVATION



SECTION C-C

RETAINING WALL AT I-90/94
SIGN TRUSS FOUNDATION - SIGN 13 - 150161094L044.6

NOTES:

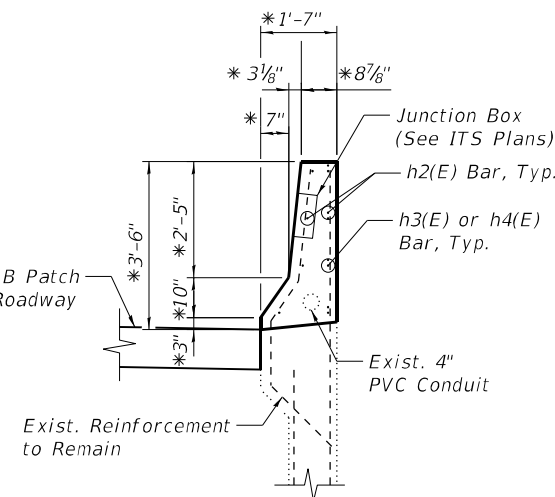
1. Reinforcement bars, dowels, and drilling and grouting are included with pay item "Concrete Foundations".
2. Boring Locations are not shown to scale.
3. Work this sheet with Sheet OSG2-03.
4. The contractor shall exercise caution during removal and construction of the proposed foundations and Temp. Soil Retention System in order to avoid damaging the existing utilities, traffic signals, and existing drainage structures and pipes.

BILL OF MATERIAL

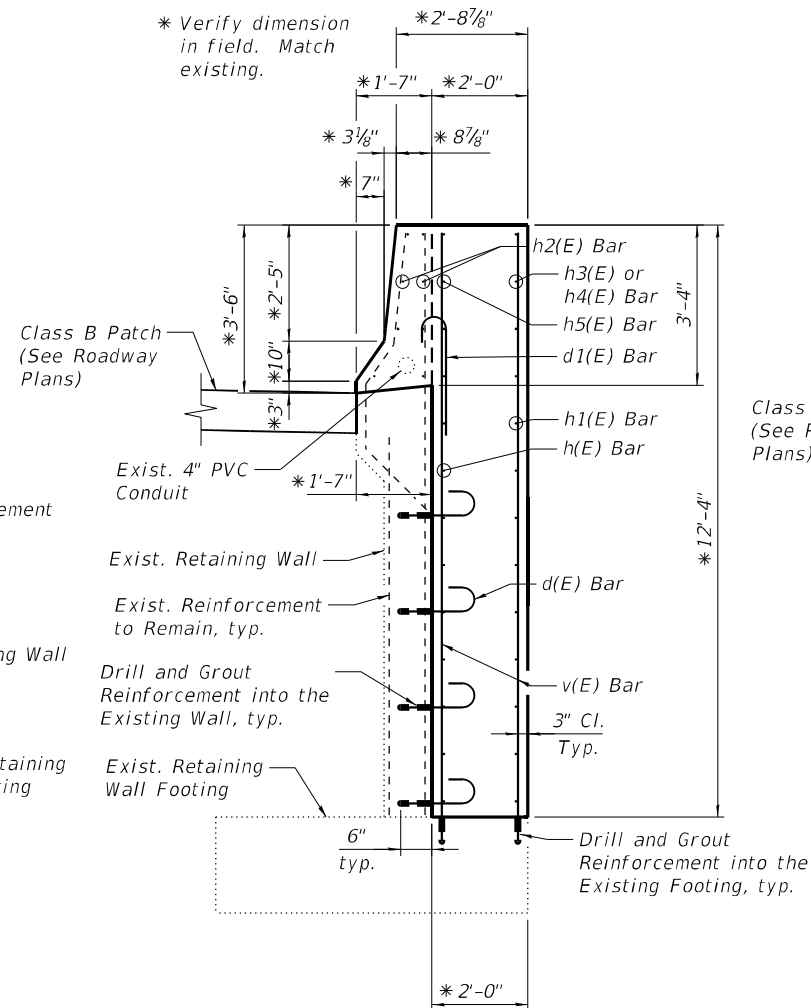
Bar	No.	Size	Length	Shape
d(E)	14	#5	2'-1"	
d1(E)	19	#5	3'-7"	
h(E)	9	#5	19'-3"	
h1(E)	9	#5	20'-0"	
h2(E)	8	#5	24'-7"	
h3(E)	4	#5	14'-10"	
h4(E)	4	#5	14'-4"	
h5(E)	4	#5	19'-3"	
v(E)	38	#5	12'-8"	
Reinforcement Bars, Epoxy Coated			Pound	1380
Concrete Foundations			Cu. Yd.	18.1

MINIMUM BAR LAP

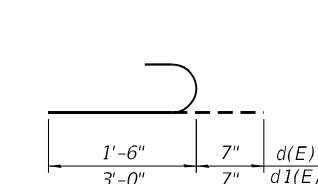
#5 Bar = 3'-7"



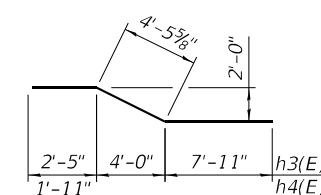
SECTION B-B



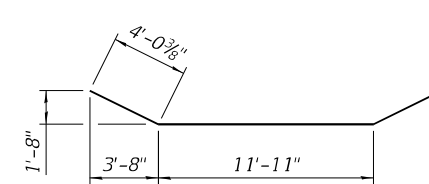
SECTION A-A



d(E) and d1(E) BARS



h3(E) and h4(E) BAR



h1(E) BAR

benesch
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Chicago, Illinois 60601
312-565-0450 Job No. 10805.03

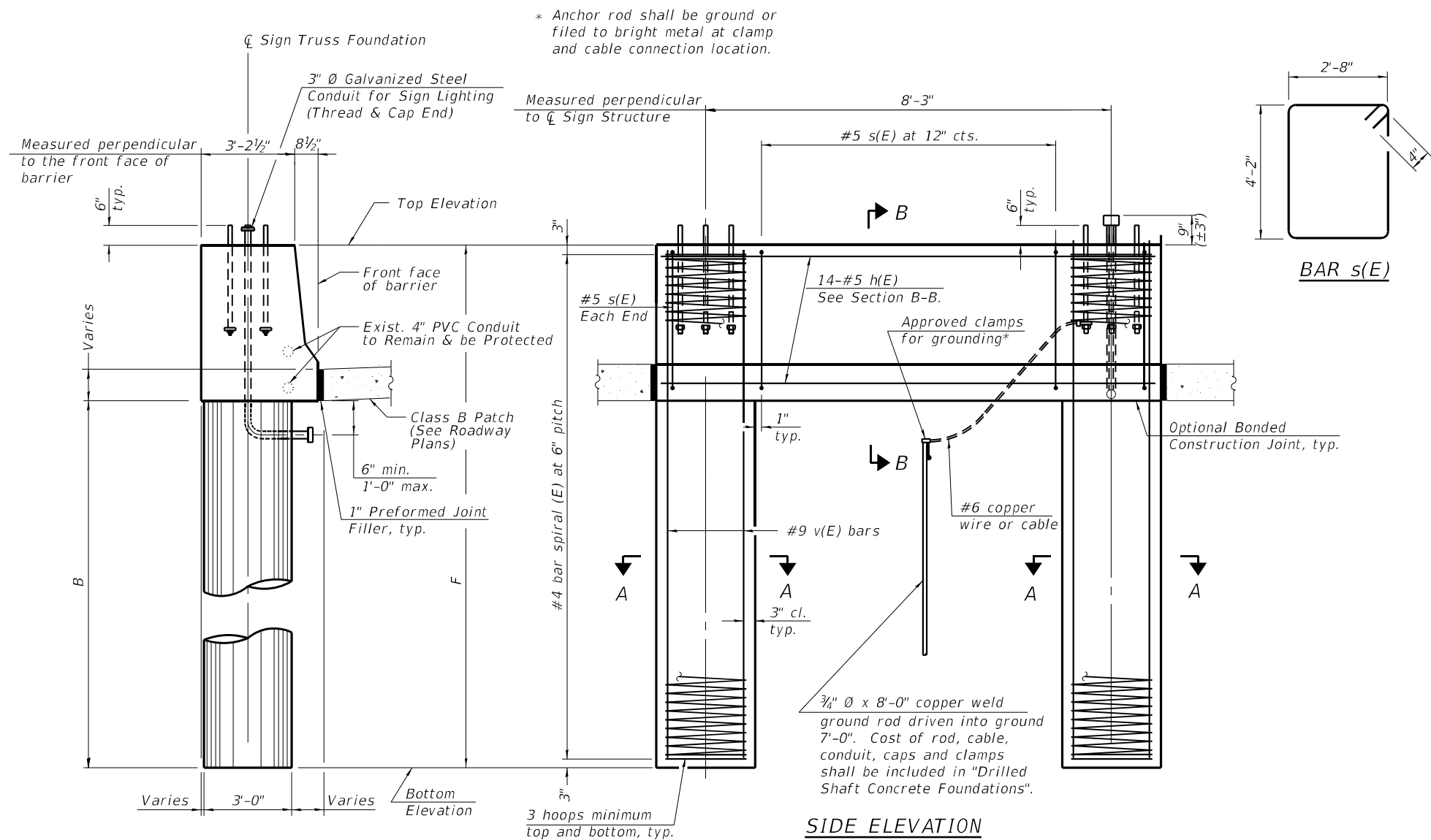
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PLOT SCALE =	N/A	DRAWN -	RMG	REVISED -	
PLOT DATE =	5/1/2024	CHECKED -	WKK	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RETAINING WALL SUPPORT FOUNDATION DETAILS
SN 150161094L044.6

SHEET OSG2-11 OF OSG2-14 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	2020-005-HB	COOK	908	280
CONTRACT NO. 62K73				
ILLINOIS FED. AID PROJECT				



NOTES:

The foundation dimensions shown are based on the presence of mostly cohesive soils with an average Unconfined Compressive Strength (Qu) of at least 1.25 tsf, which must be determined by previous soil investigations at the jobsite. When other conditions are indicated, the boring data will be included in the plans and the foundation dimensions shown will be the result of site specific designs.

If the conditions encountered are different than those indicated, the Contractor shall notify the Engineer to determine if the foundation dimensions need to be modified. If dimensions "B" or "F" are revised by more than 12" by the Contractor, "as-built" plans shall be prepared and submitted to the District Bureau of Operations for future reference.

No sonotubes or decomposable forms shall be used below the lower conduit entrance. Permanent metal forms or other shielding may not be left in place below that elevation without the Engineer's written permission.

Concrete shall be placed monolithically, without construction joints.

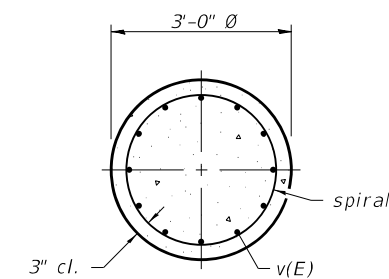
Backfill shall be placed per Article 502 of Standard Specification and prior to erection of support column.

A normal surface finish followed by a Concrete Sealer application will be required on concrete surfaces above the lowest elevation 6" below finished ground line. Cost included in Drilled Shaft Concrete Foundation.

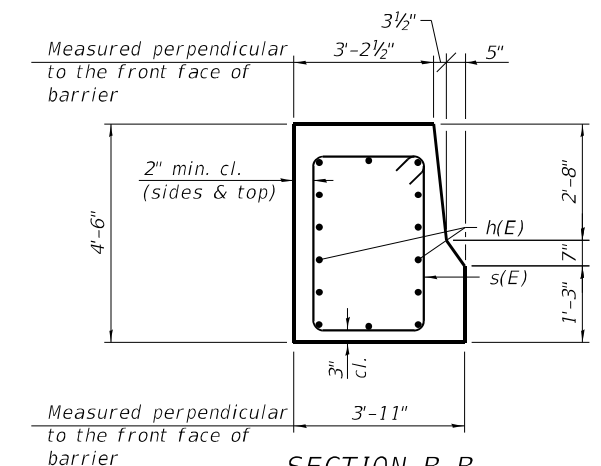
BAR LIST - EACH FOUNDATION

Bar	Number	Size	Length	Shape
h(E)	14	#5	10'-11"	—
s(E)	8	#5	14'-4"	□
v(E)	24	#9	20'-7"	—
#4(E) bar spiral. See Side Elevation				

SECTION A-A



SECTION B-B



PLAN

(Dimensions are measured parallel or perpendicular to the C of Sign Structure U.N.O.)



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312-565-0450 Job No. 10805.03

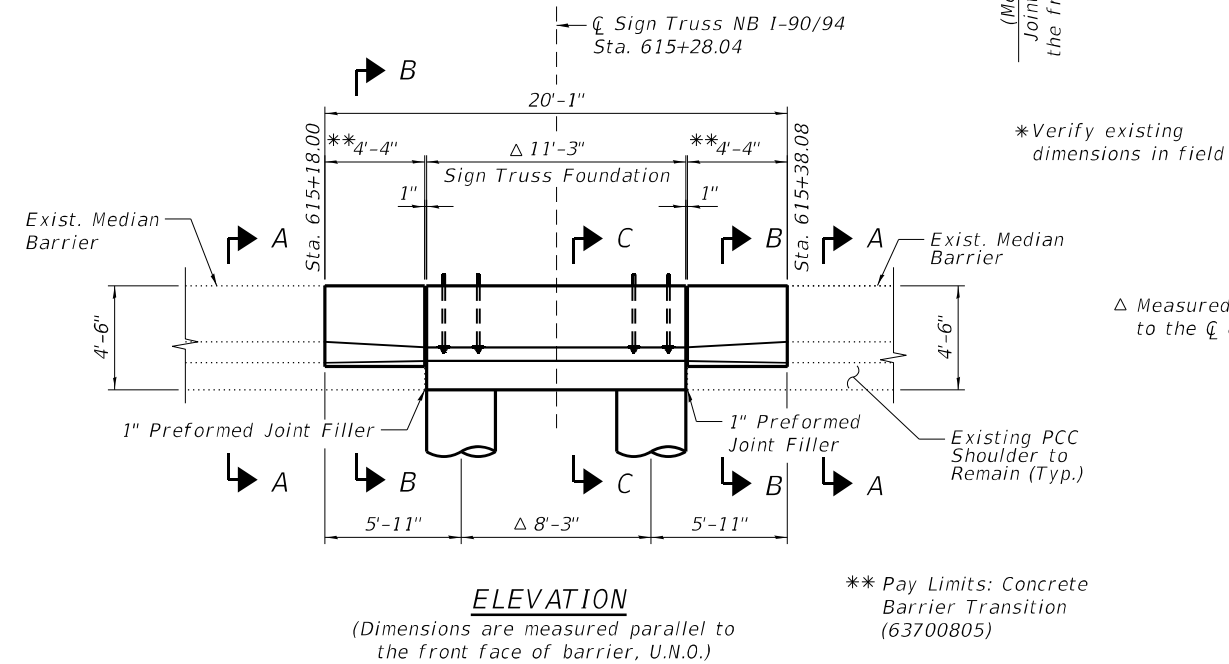
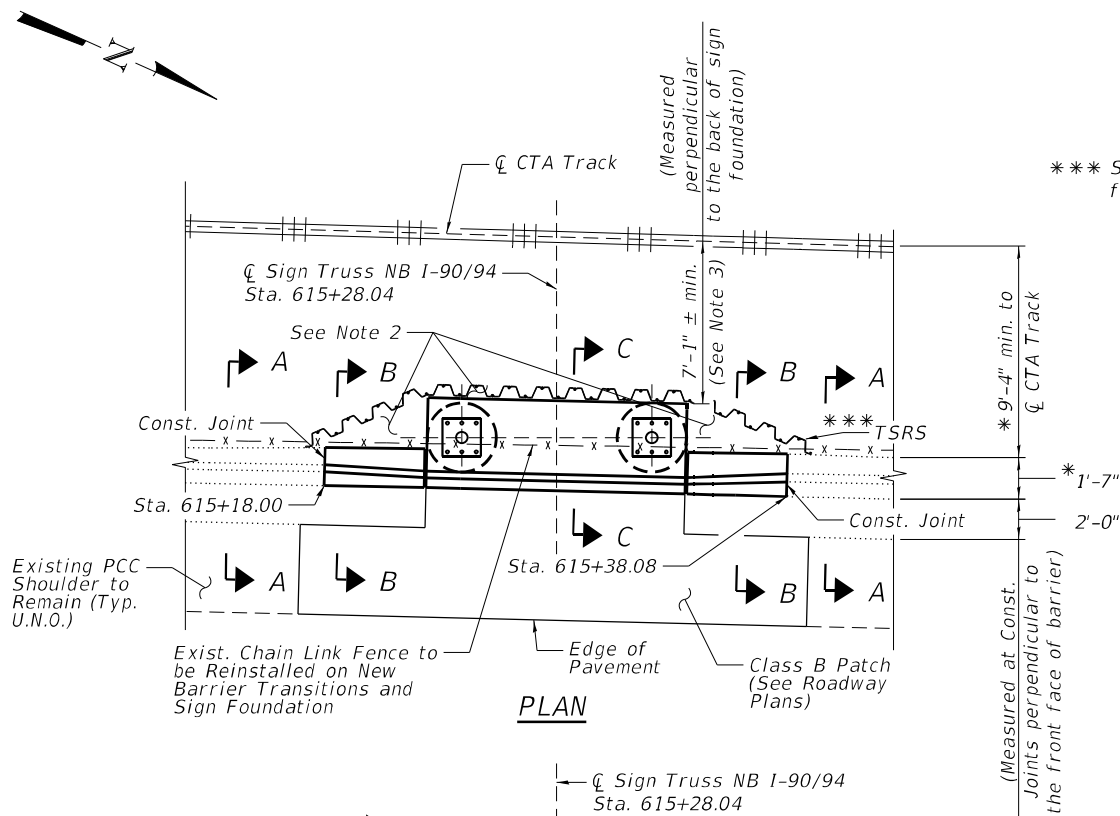
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PLOT SCALE =	N/A	DRAWN -	RMG	REVISED -	
PLOT DATE =	5/1/2024	CHECKED -	WKK	REVISED -	

MEDIAN SUPPORT FOUNDATION DETAILS
SN 1S016I094L044.6

SHEET OSG2-12 OF OSG2-14 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	2020-005-HB	COOK	908	281
		CONTRACT NO. 62K73		
UNION		FED. AID PROJECT		

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**MEDIAN BARRIER TRANSITIONS AT
I-90/94 SIGN TRUSS FOUNDATION - SIGN 13 - 1S016I094L044.6 (N.T.S.)**

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Concrete Barrier Transition	FOOT	9



Alfred Benesch & Company
35 West Wacker Drive, Suite 3300
Chicago, Illinois 60601
312-565-0450 Job No. 10805.03

USER NAME =	kkenny	DESIGNED -	WKK	REVISED -	
PLOT SCALE =	N/A	CHECKED -	JHG	REVISED -	
PLOT DATE =	5/1/2024	DRAWN -	RMG	REVISED -	
		CHECKED -	WKK	REVISED -	

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**MEDIAN BARRIER TRANSITION DETAILS
SN 1S016I094L044.6**

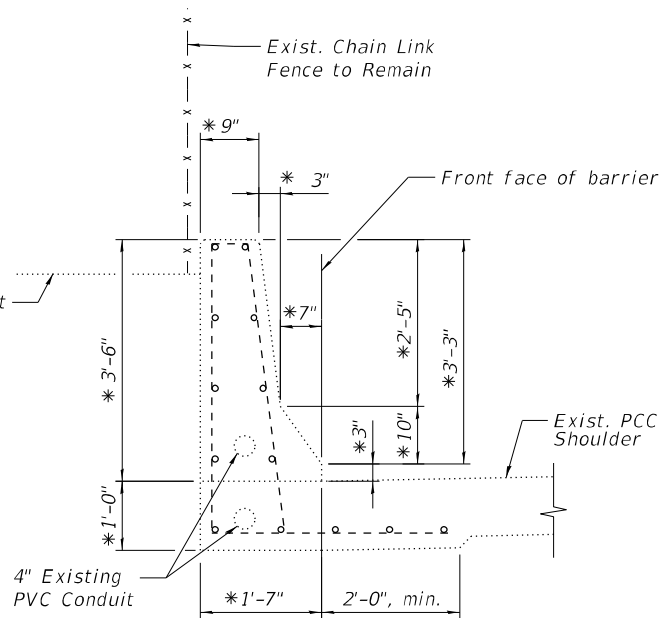
SHEET OSG2-13 OF OSG2-14 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	2020-005-HB	COOK	908	282
CONTRACT NO. 62K73				
ILLINOIS FED. AID PROJECT				

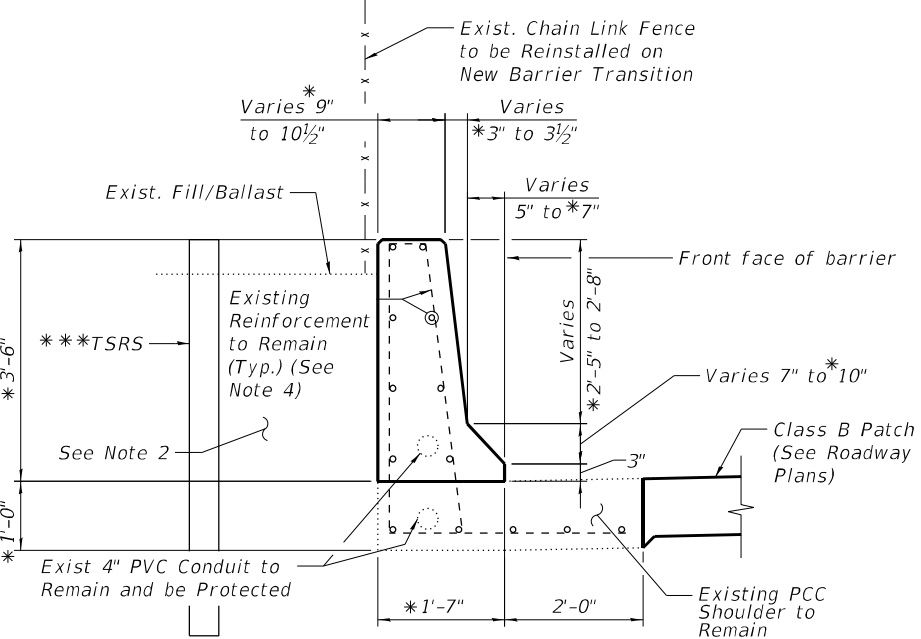
*** See Sheet OSG2-02
for TSRS Limits.

Exist. Fill/Ballast

SECTION A-A



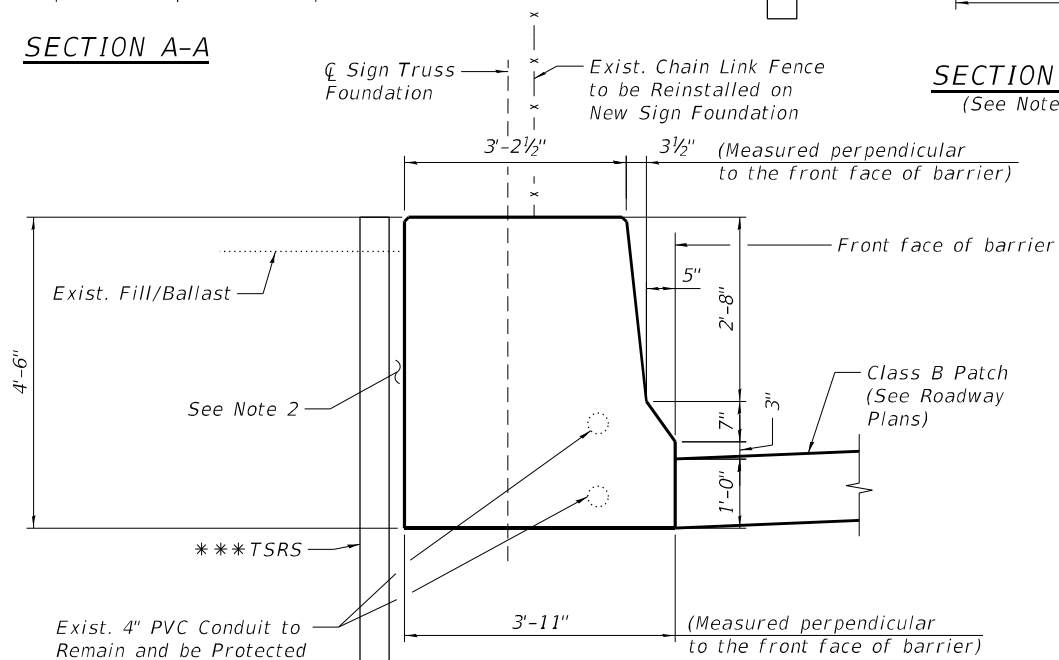
**SECTION B-B
(See Note 5)**



Exist. Chain Link
Fence to Remain

Exist. Chain Link Fence
to be Reinstalled on
New Sign Foundation

SECTION C-C



NOTES:

- Work this sheet with Sheets OSG2-02 and OSG2-12.
- Existing Fill/Ballast removed to construct median barrier transitions and sign foundation shall be placed and compacted behind the completed median barrier transitions and sign foundation to the original Fill/Ballast elevation. Cost included with "Concrete Barrier Transition".
- See Special Provision "CTA Flagging and Coordination" for all work to be done by the Contractor on, over, or in close proximity to the CTA right-of-way and adjacent track.
- Existing reinforcement bars shall be cleaned and incorporated into the proposed concrete barrier transitions. See Sheet OSG2-02 for additional information.
- The Concrete Barrier Transitions shall be constructed according to Section 637 of the IDOT Standard Specifications. A Protective Coat shall be applied to the top and vertical surfaces of the Concrete Barrier Transitions exposed to traffic according to Article 637.10 of the IDOT Standard Specifications. Cost included with "Concrete Barrier Transition".

MODEL: Default
FILE NAME: pw:\\benesch-pw-bentley.com\\benesch-pw-q\\Documents\\108005\\10805.03\\Eng_Docs_Phase_1\\Overhead_Span_Sign_Structures\\Final\\Sign_13\\OSG2-14_bor_logs.dgn



SOIL BORING LOG

GSI Job No. 19079-B
Page 1 of 1
Date 10/23/21

PROJECT PTB 185-012, WO #32
LOCATION I-90 & I-94 Tollway
COUNTY Cook DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic
CLIENT HBM
BORING NO. OSB-06
Northing 1925551
Easting 1149260
Ground Surface Elev. 613.9 ft

DEPTH H S	B L O W S	U C S Q _u	M O I S T	P E N E T R A T I O N	Surface Water Elev. _____ ft Stream Bed Elev. _____ ft	DEPTH H S	B L O W S	U C S Q _u	M O I S T	P E N E T R A T I O N
(ft)	(/6")	(tsf)	(%)	(pcf)		(ft)	(/6")	(tsf)	(%)	(pcf)
10.0" CONCRETE	613.1				CLAY LOAM-brown & gray-medium stiff to stiff (Fill)					
CRUSHED ASPHALT & STONE-very dense (Fill)	15					1				
	50/3"	6				3	1.20	21		
						4	B			
CLAY LOAM-brown & gray-stiff to very stiff (Fill)	610.9				becoming gray @ -23.0'					
	5					1				
	7	2.80	19			2	0.80	25		
	6	B				2	B			
	-5					-25				
	4					3				
	3	1.70	20			2	0.60	22		
	4	B				3	B			
	4					2				
	6	2.00	17			6	1.00	22		
	5	B				5	B			
	-10				End Of Boring @ -30.0'. Boring backfilled with cuttings.	583.9	-30			
	4									
	4	3.50	19							
	7	P								
	5									
	13	3.10	16							
	9	B				-35				
	-15									
SILTY CLAY-brown & gray-stiff to very stiff (Fill)	598.4									
	3									
	5	2.00	26							
	6	P								
	4									
	5	1.70	26							
	4	B				-40				
	-20									

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206), GP-Geoprobe Hand Auger BBS, from 137 (Rev. 8-99)



Alfred Benesch & Company
35 West Wacker Drive, Suite 3300
Chicago, Illinois 60601
312-565-0450 Job No. 10805.03

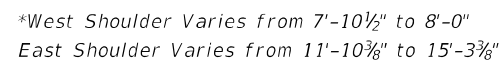
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DEPARTMENT OF TRANSPORTATION

SOIL BORING LOG
SN 1S016I094L044.6

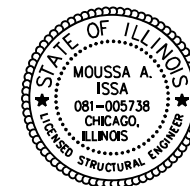
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	2020-005-HB	COOK	908	283
		CONTRACT NO. 62K73		
ILLINOIS		FED. AID PROJECT		

S.N. 016-0135 was originally built in 1958. The bridge was widened between 1990 and 1993, and expansion joint repairs were performed in 2013. The structure has a back-to-back abutment length of 248'-0 $\frac{1}{4}$ " and an out-to-out deck width that varies from 70'-9 $\frac{3}{8}$ " to 74'-3 $\frac{7}{8}$ ". The superstructure consists of a 7 $\frac{1}{2}$ " thick reinforced concrete deck supported on three span continuous steel beams of span lengths 70'-0 $\frac{1}{16}$ ", 103'-0 $\frac{0}{8}$ ", and 70'-0 $\frac{1}{16}$ ". The substructure consists of reinforced concrete abutments and piers supported on reinforced concrete drilled shafts.

No salvage.

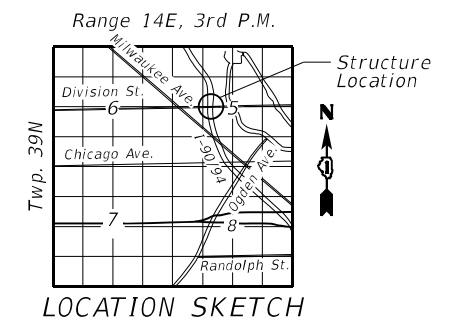


PLAN



Signed Moussa A. Issa
Dr. Moussa A. Issa, S.E. Expires 11-30-2024 II. Lic. No. 081-005738
Date 04/29/2024
For Sheets S01-01 thru S01-22

1. All stations are to the CL I-90/94 NB Roadway and taken from existing plans.
2. No future wearing surface is allowed.



F.A.I. ROUTE 90/94
SECTION 2020-005-BR
COOK COUNTY
STATION 161+34.77
S.N. 016-0135 (NB)

USER NAME	=	DESIGNED	-	LAB, HMI	REVISED	-
		CHECKED	-	MI	REVISED	-
PLOT SCALE	=	DRAWN	-	LAB, HMI	REVISED	-
PLOT DATE	=	DATE	-	4/29/2024	REVISED	-

STRUCTURE NO. 016-0135 (NB)

SHEET S01-01 OF S01-22 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	2020-005-BR	COOK	908	284
		CONTRACT NO. 62K73		
ILLINOIS		FED. AID PROJECT		

GENERAL NOTES:

1.

Reinforcement bars designated (E) shall be epoxy coated.
2.

Calculated weight of Structural Steel = 1,000 lb (M270 Grade 36)
100 lb (M270 Grade 50)
3.

Plan dimensions and details relative to the existing structure have been taken from existing plans and are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work; however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
4.

Bars noted thus, 3x2-#5, indicates 3 lines of #5 bars with 2 lengths of bars per line.
5.

All exposed concrete edges shall have a ¾"x45° chamfer except where shown otherwise.
6.

Existing reinforcement bars extending into the removal area shall be cleaned, straightened and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cost included with Concrete Removal.
7.

For SMA overlay on Approach Slab, see Roadway Sheets.
8.

Protective Coat shall be applied to the top of reconstructed transverse joint areas, top and inside faces of parapets, and top of Latex Concrete Overlay.
9.

Joint openings shall be adjusted according to Article 520.04 of the Standard Specifications when the deck is poured at an ambient temperature other than 50°F.
10.

Prior to pouring the new concrete deck for expansion joint reconstruction and deck slab repairs, all heavy or loose rust, loose mill scale, and other loose or potentially detrimental foreign material shall be removed from the surfaces in contact with concrete. Tightly adhered paint may remain unless otherwise noted. Removal shall be accomplished by methods that will not damage the steel and the cost will be included in the pay item covering removal of the existing concrete. As directed by the Engineer, existing construction accessories welded to the top flange of beams and girders shall be removed. The weld areas shall be ground flush and inspected for cracks using magnetic particle testing (MT) or dye penetrant testing (PT) by qualified personnel approved by the Engineer. Any cracks that cannot be removed by grinding ¼" deep shall be identified and reported to the Bureau of Bridges and Structures for further dispositions. The cost of removing welded accessories, grinding and inspecting weld areas and grinding cracks will be paid for according to Article 109.04 of the Standard Specifications.
11.

The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.
12.

Existing structural steel that will be in contact with new structural steel shall be cleaned and painted prior to erection as required by the Special Provision "Cleaning and Painting Contact Surface Areas of Existing Steel Structures".
13.

All new structural steel shall be hot-dip galvanized. See Special Provisions for "Hot Dip Galvanizing for Structural Steel".
14.

Fasteners shall be ASTM F 3125 Grade A325 Type 1. Fasteners shall be hot dip galvanized. See Special Provision for "Hot Dip Galvanizing for Structural Steel." Bolts ¾ in. diameter, holes 13⁄16 in. diameter, unless otherwise noted.
15.

The Contractor is responsible to remove, support and reinstall all existing electrical conduits interfering with the work. See special provision "Protection and Maintenance of Existing Underpass Luminaires".
16.

The Contractor shall exercise extreme caution during Concrete Removal to avoid damaging the steel beams and diaphragms to remain. Any damage to the existing steel beams and/or diaphragms to remain caused by the Contractor in the performance of his/her work shall be repaired by the Contractor, to the satisfaction of the Engineer, at no cost to the Department.
17.

The Contractor is responsible to protect the existing conduit and junction box embedded in the parapet during concrete removal and construction. Any damage to the existing conduit and junction box shall be repaired by the Contractor at no additional cost to the Department.
18.

Where underpass lighting is present on the structure, the Contractor shall adjust the Protective Shielding to ride above the existing lighting fixtures in order to maintain the existing level of lighting on the roadway underneath. Details shall be approved by the Engineer before installation.
19.

Any adjustment done to the Protective Shield System must not change the load carrying capacity (or containment specifications) as indicated in the Standard Specifications. Cost of adjusting shielding is including in the cost of Protective Shield,or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
20.

No field welding is permitted except as specified in the contract documents.
21.

Adjacent I-90/94 reversible bridge is not shown throughout the plans for clarity.

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- S01-02

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- S01-06

Deck Repair Plan
- S01-07

S. Abut. Joint Removal & Reconstruction (Sht. 1 of 3)
- S01-08

S. Abut. Joint Removal & Reconstruction (Sht. 2 of 3)
- S01-09

S. Abut. Joint Removal & Reconstruction (Sht. 3 of 3)
- S01-10

N. Abut. Joint Removal & Reconstruction (Sht. 1 of 3)
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N. Abut. Joint Removal & Reconstruction (Sht. 2 of 3)
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Framing Plan
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South Abutment Repairs
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- S01-19

Pier 1 Repairs
- S01-20

Pier 2 Repairs
- S01-21

Slope Wall Repairs
- S01-22

Bar Splicer Assembly and Mechanical Splicer Details

SCOPE OF WORK

1.

Provide Protective shield within limits indicated on the plans.
2.

Scarify ¾" from the bridge deck slab.
3.

Perform Deck Slab Repairs.
4.

Reconstruct Expansion Joints at the South and North abutments and install new preformed joint strip seals.
5.

Apply a 3" Bridge Deck Latex Concrete Overlay on Bridge Deck.
6.

Perform ¼" Diamond Grinding to top of bridge deck and abutment hatched block.
7.

Apply 2" Stone-Matrix Asphalt (SMA) Overlay on the approach Slabs, see Roadway Plans.
8.

Perform Bridge Deck Grooving (Longitudinal) on traffic lanes.
9.

Apply protective coat to the top of reconstructed transverse joint areas, top and inside faces of parapets, and top of Latex Concrete Overlay.
10.

Replace diaphragm as shown on the plans.
11.

Perform structural concrete repairs and epoxy crack injection for the abutments and piers as noted on the plans.
12.

Perform Slope Wall repairs.

GENERAL NOTES (CONT.)

22.

The Contractor shall contact Chandra Libby, the Director of City of Chicago Department of Family Support Services (DFSS) at 312-746-5443 or Chandra.Libby@cityofchicago.org to coordinate the relocation of persons and their personal belongings under the bridges.
23.

The intent of the temporary fence is to deny access of any unauthorized personnel under the bridge during construction. Actual fence installations may vary from what is shown on the plans. All fence installations must be approved by the Engineer.
24.

Concrete Sealer shall be applied to the designated areas of the abutments.
25.

Prior to the application of the Concrete Sealer, the Contractor shall clean all existing debris from the abutment seats. The method of debris removal shall not damage the existing concrete and shall be approved by the Engineer. See special provision for Debris Removal.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Porous Granular Embankment	Cu Yd	-	16	16
Concrete Removal	Cu Yd	29.6	-	29.6
Slope Wall Removal	Sq Yd	-	51	51
Protective Shield	Sq Yd	877	-	877
Concrete Superstructure	Cu Yd	32.3	-	32.3
Protective Coat	Sq Yd	2,116	-	2,116
Furnishing And Erecting Structural Steel	Pound	1,000	-	1,000
Reinforcement Bars, Epoxy Coated	Pound	4,660	-	4,660
Bar Splicers	Each	36	-	36
Slope Wall - 4 Inch	Sq Yd	-	51	51
Preformed Joint Seal 2 1/2"	Foot	245	-	245
Preformed Joint Strip Seal	Foot	146	-	146
Concrete Sealer	Sq Ft	-	605	605
Epoxy Crack Injection	Foot	-	27	27
Slope Wall Crack Sealing	Foot	-	49	49
Bridge Deck Grooving (Longitudinal)	Sq Yd	1,305	-	1,305
Protect And Maintain Existing Underpass Luminaire	L Sum	-	0.04	0.04
Approach Slab Repair (Full Depth)	Sq Yd	49	-	49
Approach Slab Repair (Partial Depth)	Sq Yd	49	-	49
Structural Steel Removal	Pound	1,000	-	1,000
Structural Steel Repair	Pound	100	-	100
Bridge Deck Latex Concrete Overlay, 3 Inches	Sq Yd	1,844	-	1,844
Bridge Deck Scarification 3/4"	Sq Yd	1,844	-	1,844
Structural Repair Of Concrete (Depth Equal To Or Less Than 5 Inches)	Sq Ft	-	118	118
Structural Repair Of Concrete (Depth Greater Than 5 Inches)	Sq Ft	-	50	50
Deck Slab Repair (Full Depth, Type I)	Sq Yd	0.6	-	0.6
Deck Slab Repair (Full Depth, Type II)	Sq Yd	23.6	-	23.6
Diamond Grinding (Bridge Section)	Sq Yd	1,891	-	1,891
Locks for Gates	Each	-	4	4

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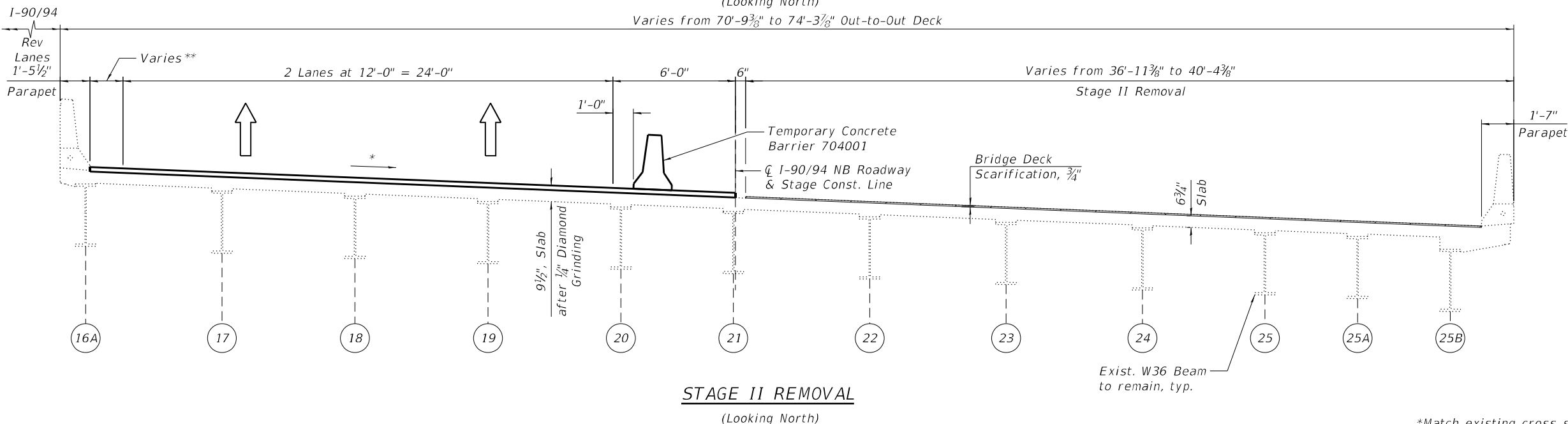
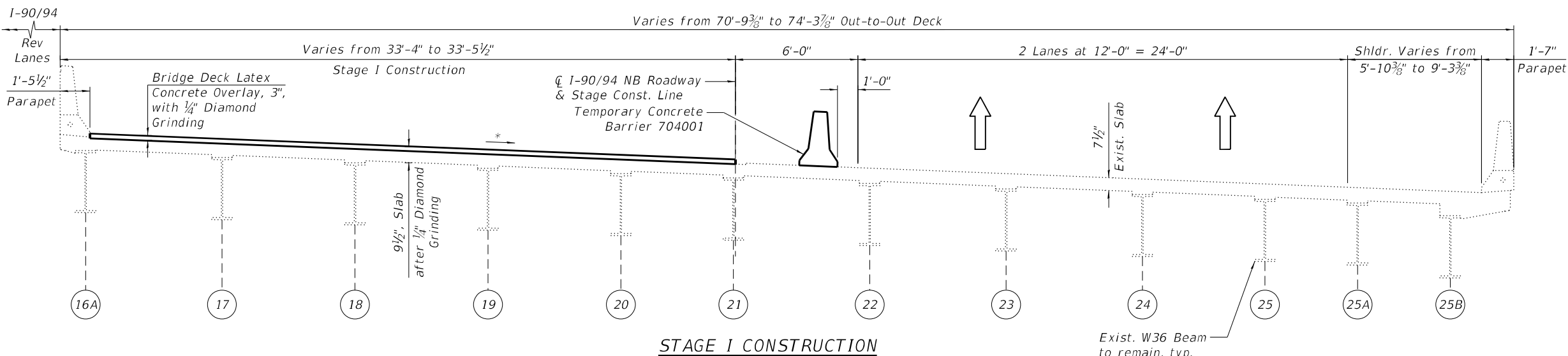
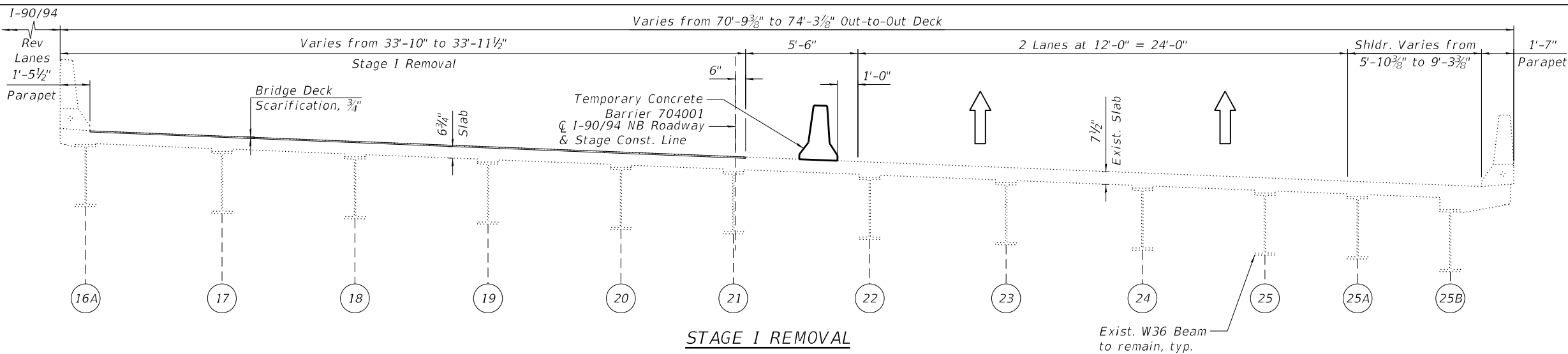
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES, INDEX OF SHEETS & TBOM
STRUCTURE NO. 016-0135 (NB)

SHEET S01-02 OF S01-22 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	2020-005-BR	COOK	908	285
CONTRACT NO. 62K73				
		ILLINOIS	FED. AID PROJECT	

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STAGE I REMOVAL

1. Install temporary concrete barrier as shown to locate traffic on the east side of the existing structure.
2. Perform $\frac{3}{4}$ " bridge deck scarification.
3. Remove areas of existing deck for full-depth deck slab repairs at locations shown in the plans.
4. Remove portions of bridge concrete deck/approach slab adjacent to expansion joints at the abutments.
5. Remove existing longitudinal preformed joint seal between west parapet and reversible lane parapet.

STAGE I CONSTRUCTION

1. Perform bridge deck slab repairs.
2. Reconstruct expansion joints and install new preformed joint strip seals within the limits of Stage I Construction.
3. Perform Structural Repair of Concrete and Epoxy Crack Injection for abutments and Piers.
4. Apply 3" Bridge Deck Latex Concrete Overlay.
5. Perform $\frac{1}{4}$ " Diamond Grinding to bridge deck and abutment hatched block.
6. Perform Bridge Deck Grooving (Longitudinal) for the 3" Bridge Deck Latex Concrete Overlay and reconstructed abutment expansion joint areas.
7. Apply 2" Stone-Matrix Asphalt (SMA) Overlay to the approach slab and taper into existing roadway. See Roadway Plans.
8. Apply protective coat to top and inside faces of west parapet, reconstructed abutment expansion joints and to the surfaces of the new overlay.
9. Perform slope wall repairs as shown on the plans.
10. Replace existing longitudinal preformed joint seal between west parapet and reversible lane parapet.

STAGE II REMOVAL

1. Install temporary concrete barrier as shown to locate traffic on the west side of the existing structure.
2. Perform $\frac{3}{4}$ " bridge deck scarification.
3. Remove areas of existing deck for full-depth deck slab repairs at locations shown in the plans.
4. Remove portions of bridge concrete deck/approach slab adjacent to expansion joints at the abutments.

*Match existing cross slopes
**Varies from 1'-10 $\frac{1}{2}$ " to 2'-0"



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PLOT DATE	=	DATE	-	4/29/2024	REVISED	-

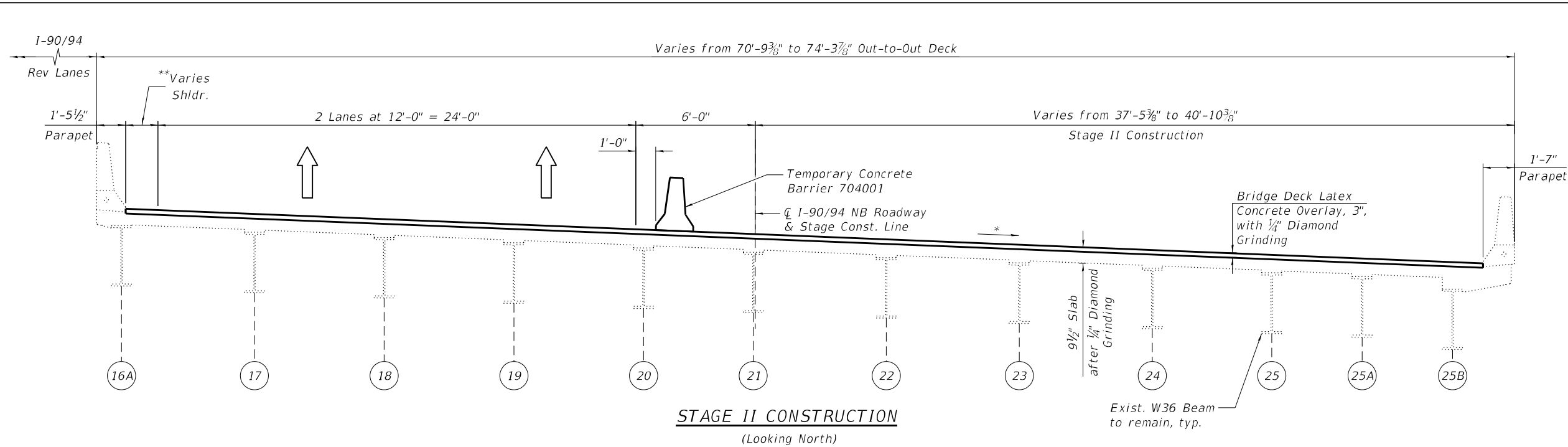
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DEPARTMENT OF TRANSPORTATION

STAGE CONSTRUCTION (SHEET 1 OF 2)
STRUCTURE NO. 016-0135 (NB)

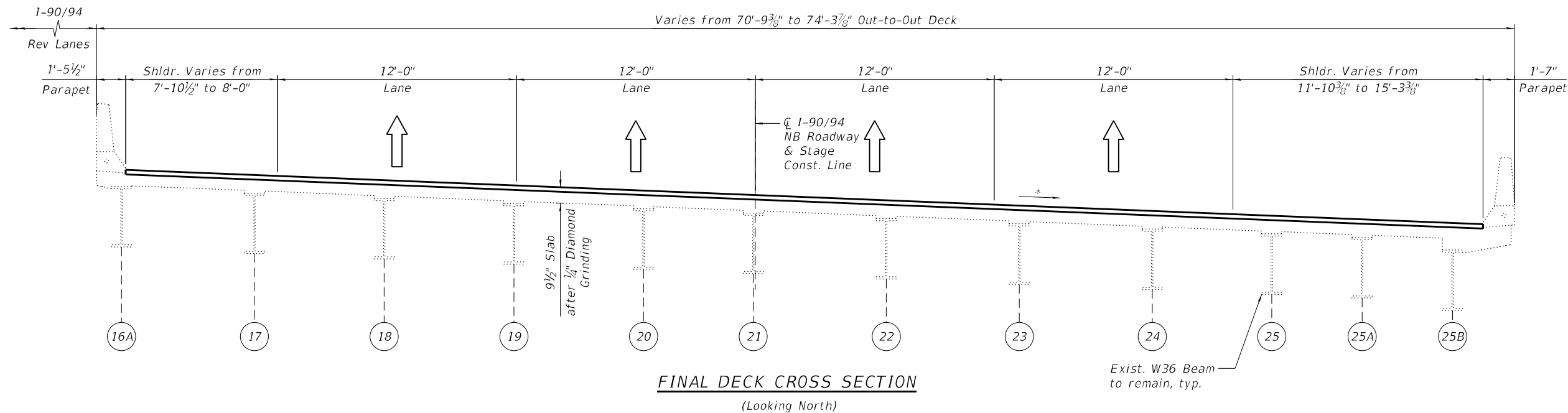
SHEET S01-03 OF S01-22 SHEETS

FA.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	2020-005-BR	COOK	908	286
CONTRACT NO. 62K73				
ILLINOIS FED. AID PROJECT				

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STAGE II CONSTRUCTION
(Looking North)



FINAL DECK CROSS SECTION
(Looking North)

STAGE II CONSTRUCTION

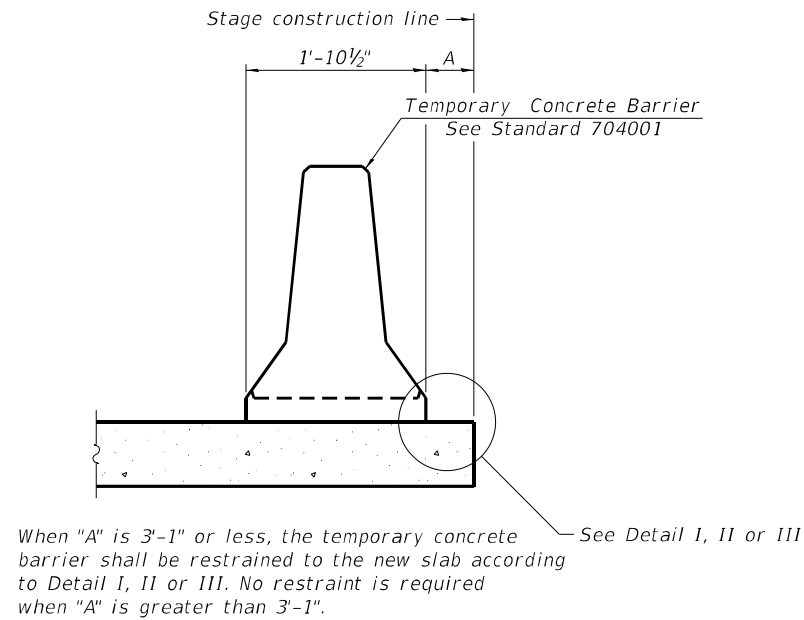
1. Perform bridge deck slab repairs.
2. Reconstruct expansion joints and install new preformed joint strip seals within the limits of Stage II Construction.
3. Perform Structural Repair of Concrete and Epoxy Crack Injection for abutments and Piers.
4. Apply 3" Bridge Deck Latex Concrete Overlay.
5. Perform 1/4" Diamond Grinding to bridge deck and abutment hatched block.
6. Perform Bridge Deck Grooving (Longitudinal) for the 3" Bridge Deck Latex Concrete Overlay and reconstructed abutment expansion joint areas.
7. Apply 2" Stone-Matrix Asphalt (SMA) Overlay to the approach slab and taper into existing roadway. See Roadway Plans.
8. Apply protective coat to top and inside faces of east parapet, reconstructed abutment expansion joints and to the surfaces of the new overlay.
9. Replace diaphragm as shown in the plans.
10. Perform slope wall repairs as shown on the plans.

*Match existing cross slopes
**Varies from 1'-10¹/₂" to 2'-0"

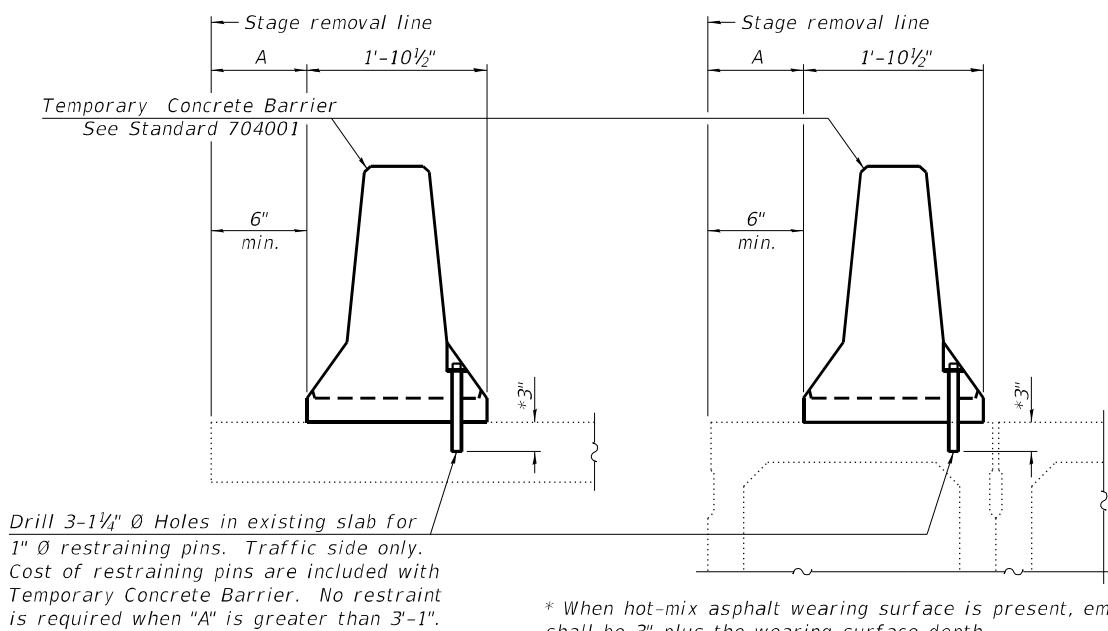
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	2020-005-BR	COOK	908	287
CONTRACT NO. 62K73				
ILLINOIS FED. AID PROJECT				

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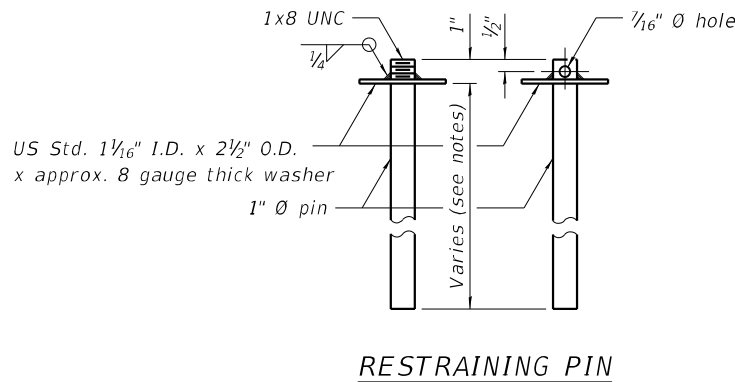


NEW SLAB OR NEW DECK BEAM

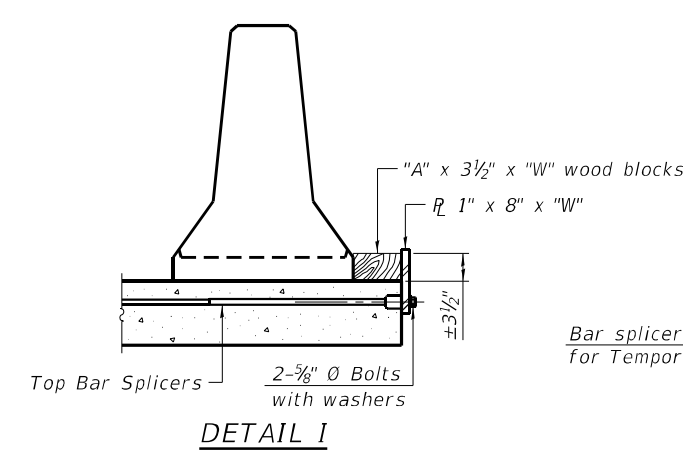


EXISTING SLAB

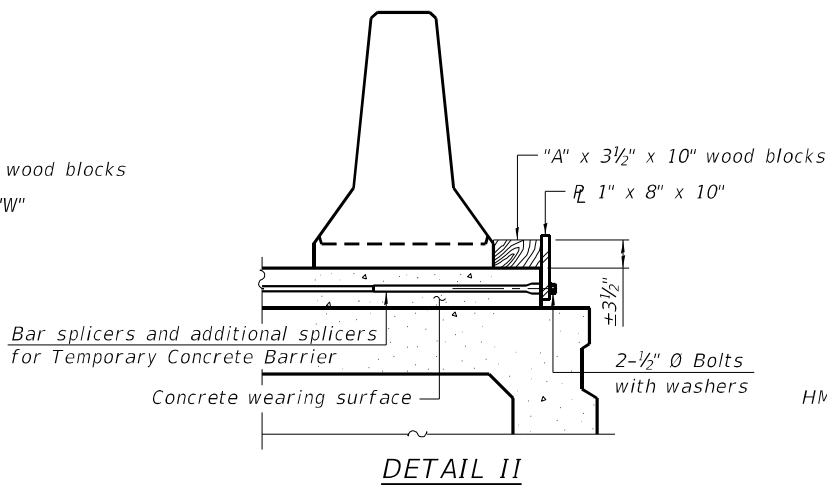
EXISTING DECK BEAM



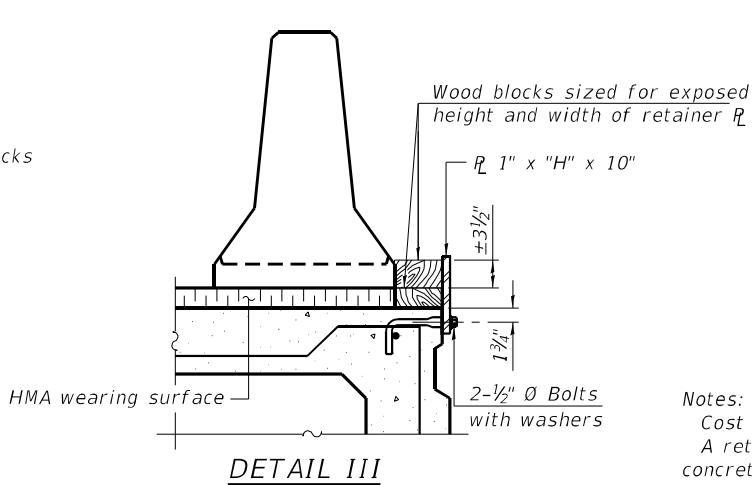
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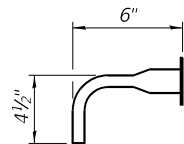
DETAIL I



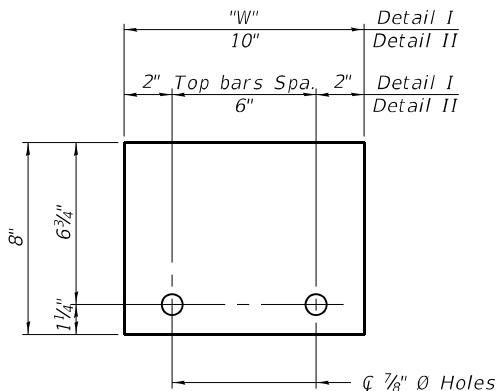
DETAIL II



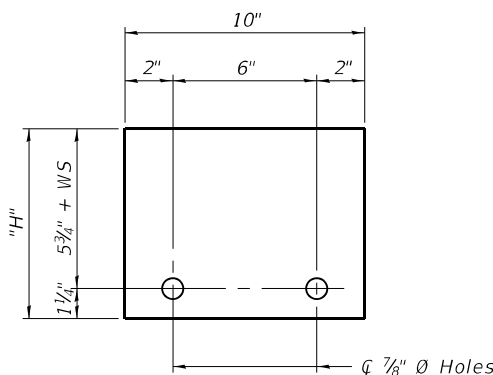
DETAIL III



BAR SPLICER FOR #4 BAR - DETAIL III



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



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

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

Detail I - Installation for a new bridge deck or bridge slab.

Detail II - Installation for a new deck beam with an initial concrete wearing surface. Additional bar splicers shall be provided at 6'-0" centers and paired with the bar splicers of the concrete wearing surface reinforcement to accommodate the installation of the retainer assemblies. The cost of the additional bar splicers is included with the concrete wearing surface.

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

RAILING CRITERIA

NCHRP 350 Test Level	3
Railing Weight (plf)	440

R-27

10-12-2021

HBM
ENGINEERING GROUP, LLC

USER NAME =	DESIGNED - JML AMS	REVISED -
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PLOT DATE =	DATE - 4/29/2024	REVISED -

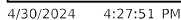
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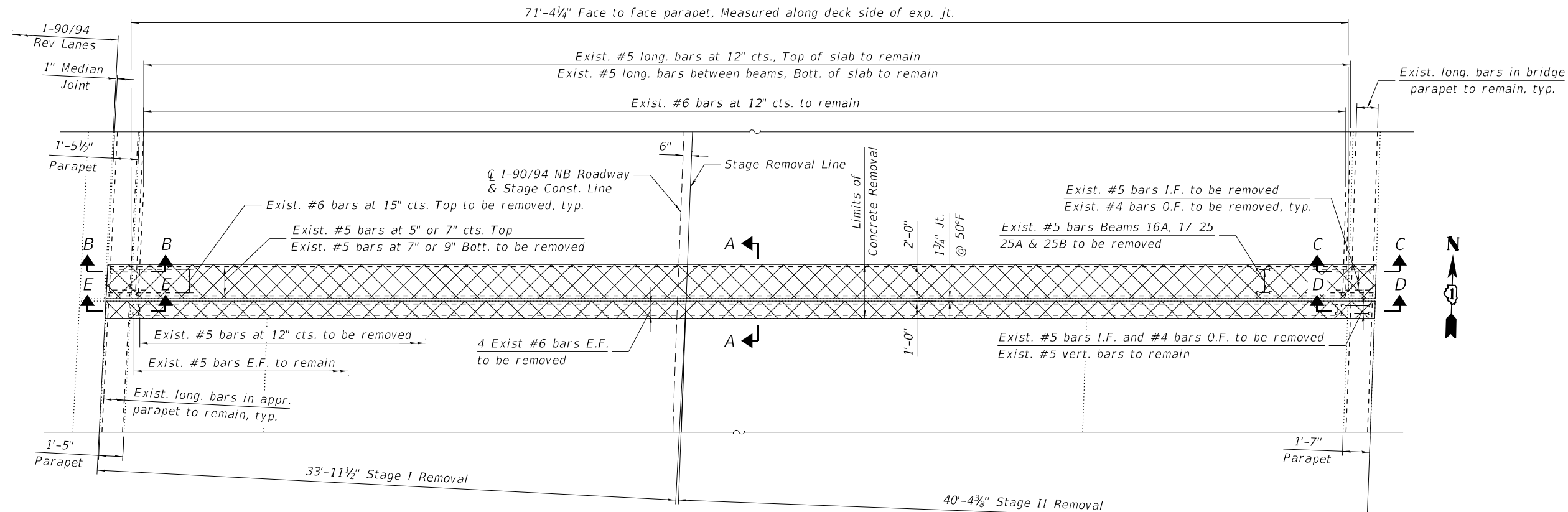
TEMPORARY CONCRETE BARRIER
STRUCTURE NO. 016-0135 (NB)

SHEET S01-05 OF S01-22 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	2020-005-BR	COOK	908	288
CONTRACT NO. 62K73				
ILLINOIS FED. AID PROJECT				

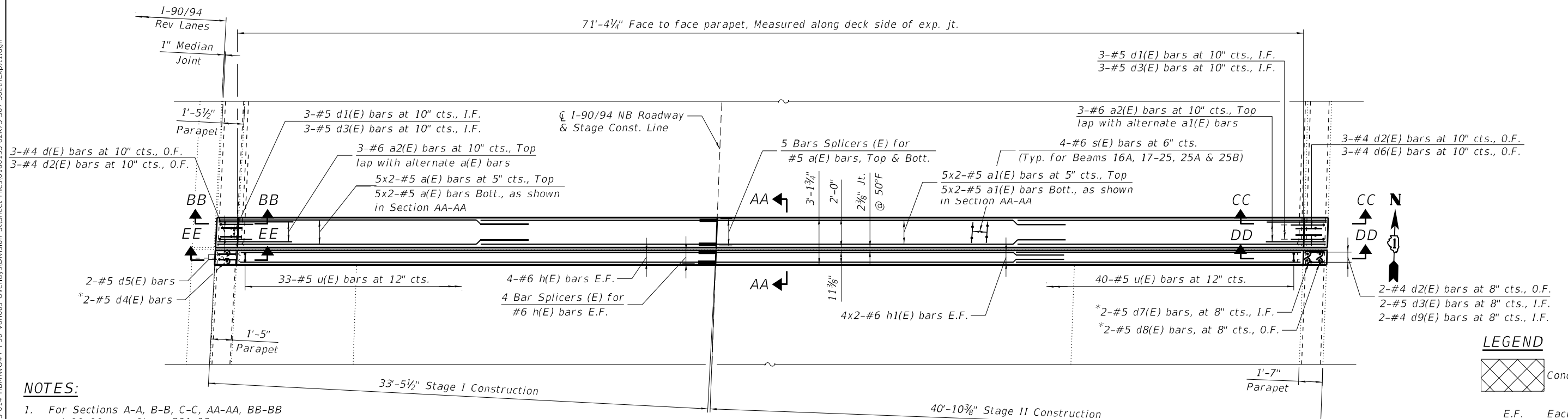
ITEM	UNIT	QUANTITY
Protective Coat	Sq Yd	2,063
Preformed Joint Seal 2 1/2"	Foot	245
Bridge Deck Grooving (Longitudinal)	Sq Yd	1,305
Approach Slab Repair (Full Depth)	Sq Yd	49
Approach Slab Repair (Partial Depth)	Sq Yd	49
Bridge Deck Latex Concrete Overlay, 3 Inches	Sq Yd	1,844
Bridge Deck Scarification 3/4"	Sq Yd	1,844
Deck Slab Repair (Full Depth, Type I)	Sq Yd	0.6
Deck Slab Repair (Full Depth, Type II)	Sq Yd	23.6
Diamond Grinding (Bridge Section)	Sq Yd	1,891





SOUTH ABUTMENT JOINT REMOVAL PLAN

*Epoxy grout #5 d4(E), d7(E) and d8(E) bars in 9" min. holes according to Section 584 of the Standard Specifications



NOTES:

- For Sections A-A, B-B, C-C, AA-AA, BB-BB and CC-CC, see Sheet S01-08.
- For Sections D-D, E-E, DD-DD and EE-EE, Bar Diagrams, additional Notes and Bill of Material, see Sheet S01-09.

LEGEND



E.F. Each Face
I.F. Inside Face
O.F. Outside Face

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USER NAME =	DESIGNED - JML AMS	REVISED -
	CHECKED - MI	REVISED -
PLOT SCALE =	DRAWN - JML AMS	REVISED -
PLOT DATE =	DATE - 4/29/2024	REVISED -

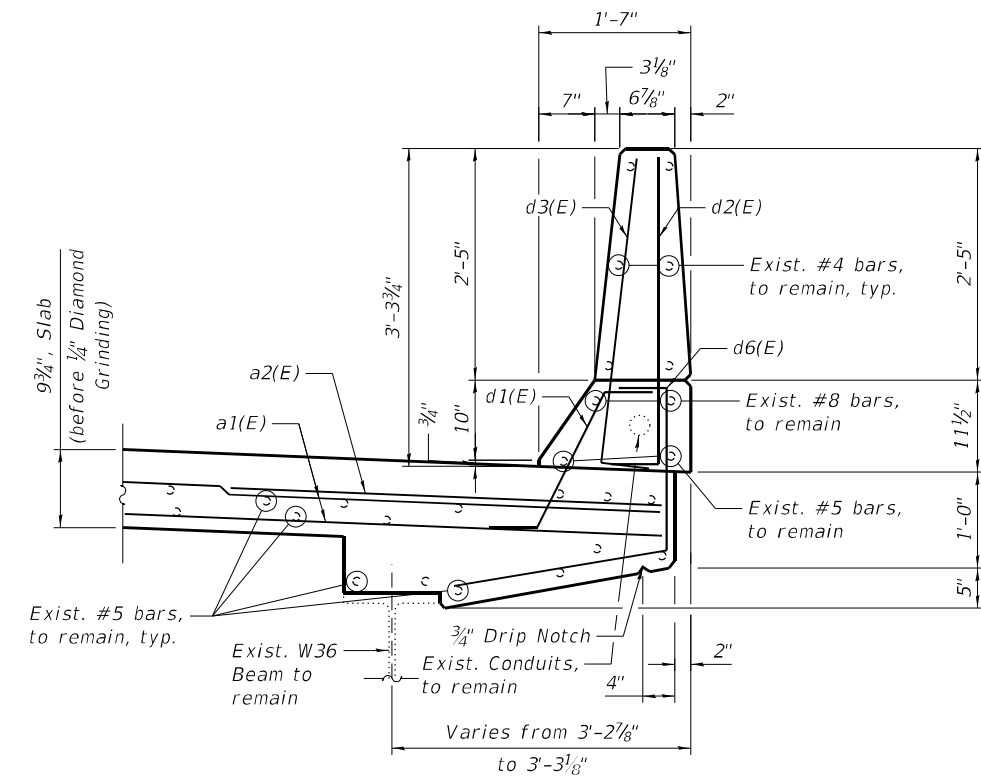
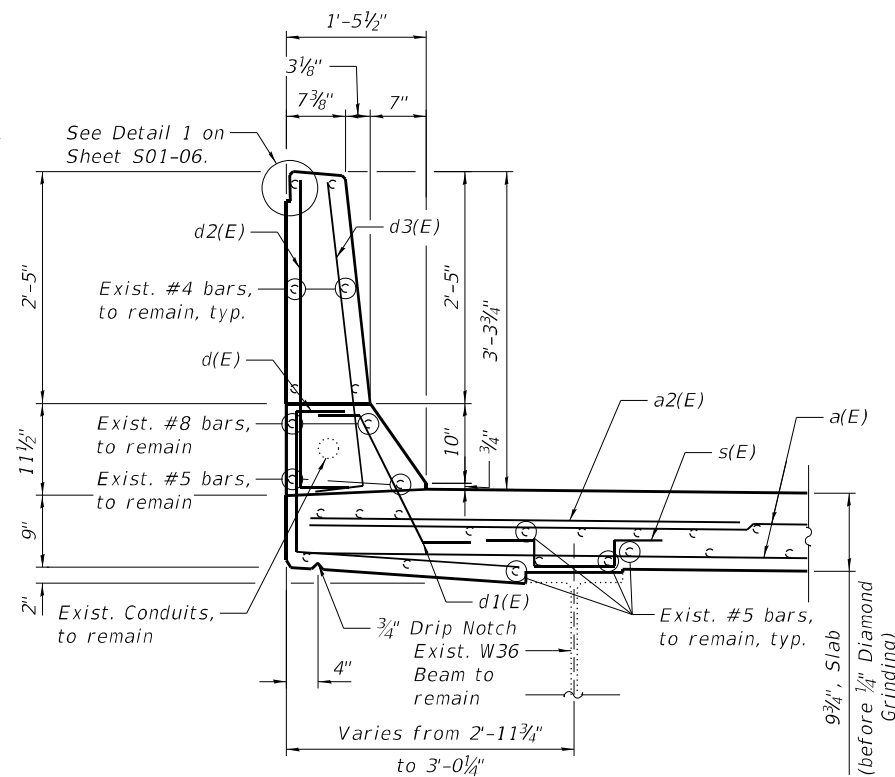
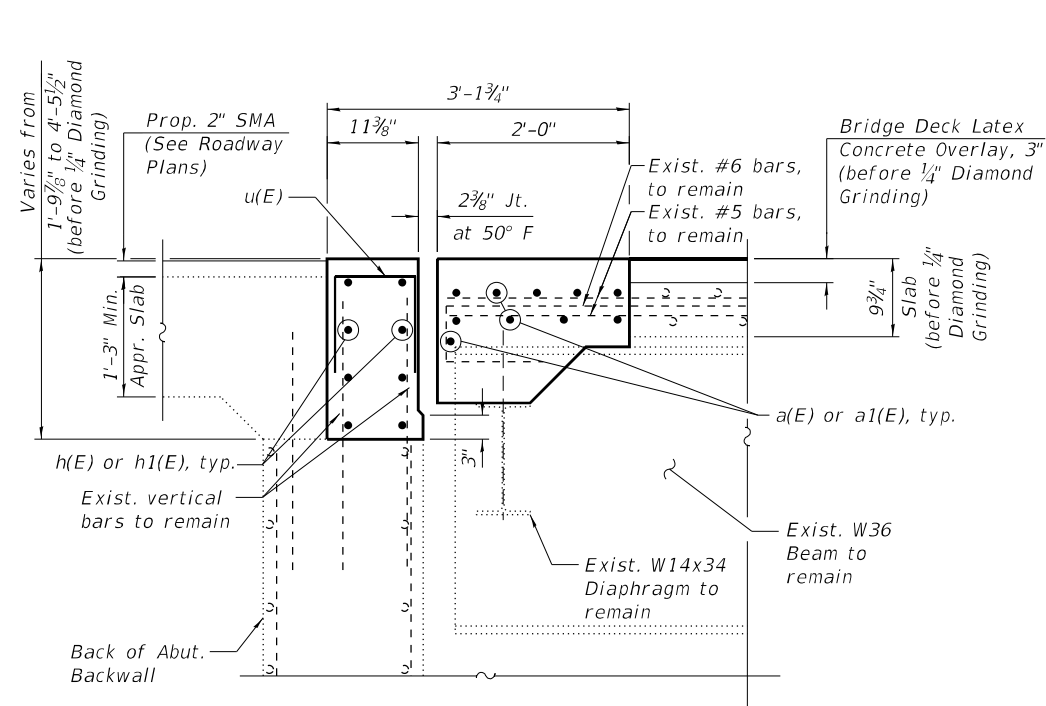
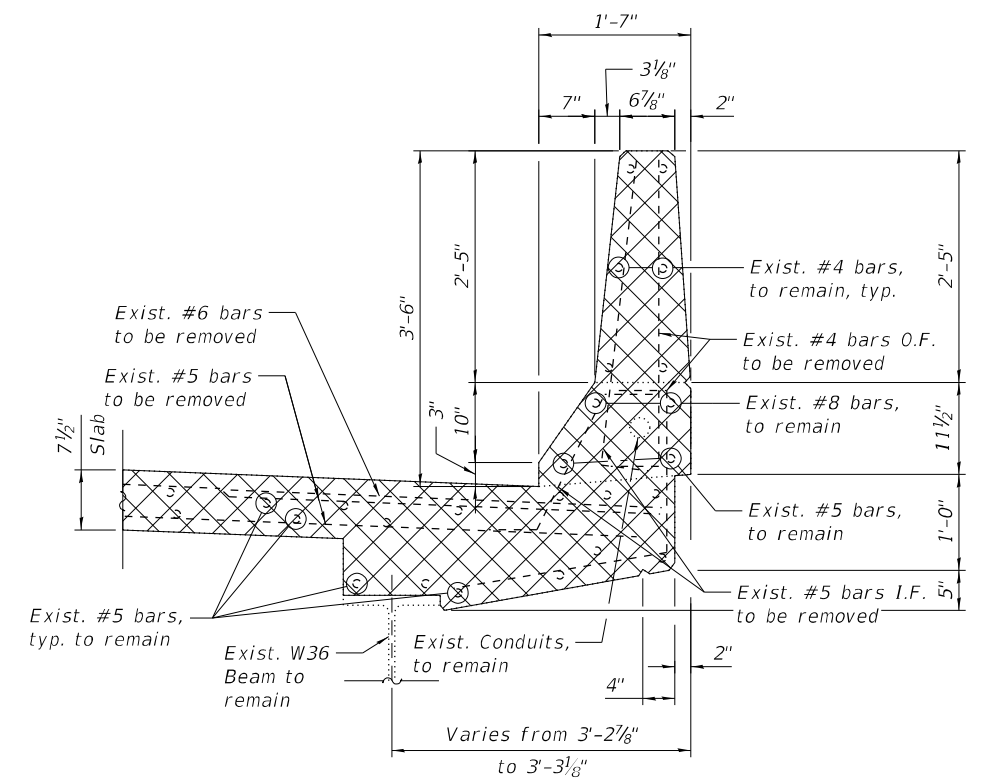
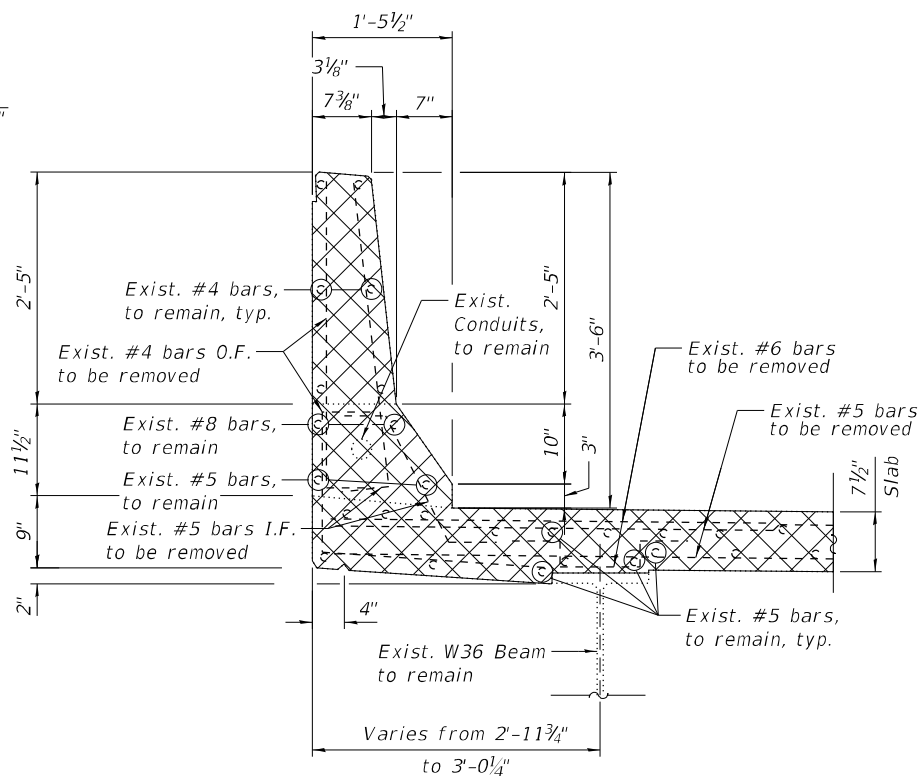
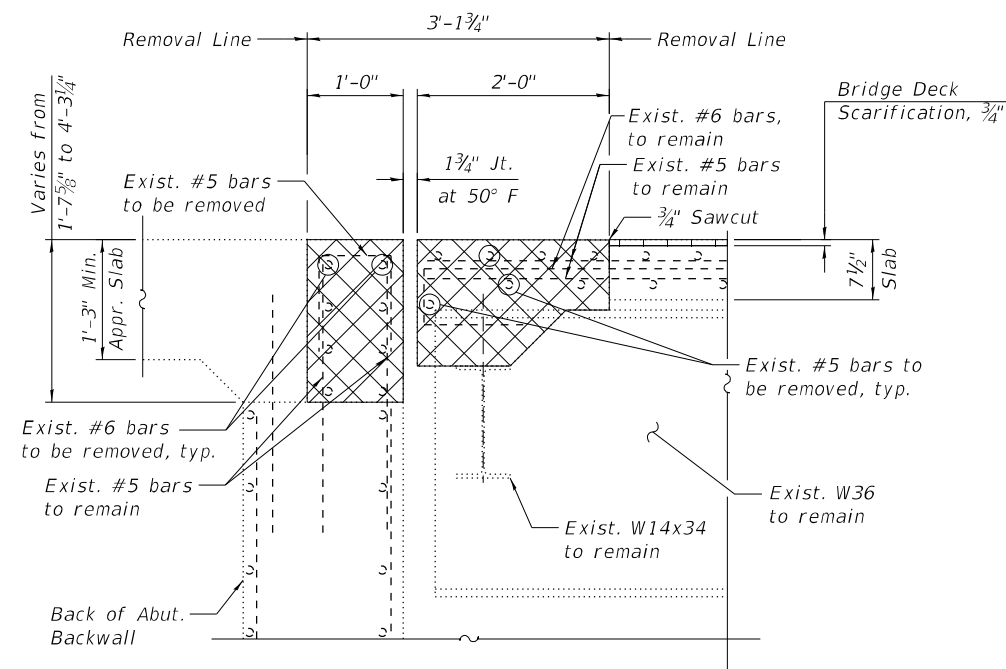
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**S. ABUT. JOINT REMOVAL & RECONSTRUCTION (SHT. 1 OF 3)
STRUCTURE NO. 016-0135 (NB)**

SHEET S01-07 OF S01-22 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	2020-005-BR	COOK	908	290
CONTRACT NO. 62K73				
ILLINOIS FED. AID PROJECT				

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PLOT DATE	=	DRAWN	-	JML AMS	REVISED	-
		DATE	-	4/29/2024	REVISED	-

DESIGNED	-	JML AMS	REVISED	-
CHECKED	-	MI	REVISED	-
DRAWN	-	JML AMS	REVISED	-
DATE	-	4/29/2024	REVISED	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

S. ABUT. JOINT REMOVAL & RECONSTRUCTION (SHT. 3 OF 3)
STRUCTURE NO. 016-0135 (NB)

SHEET S01-09 OF S01-22 SHEETS

ILLINOIS FED. AID PROJECT

BILL OF MATERIAL

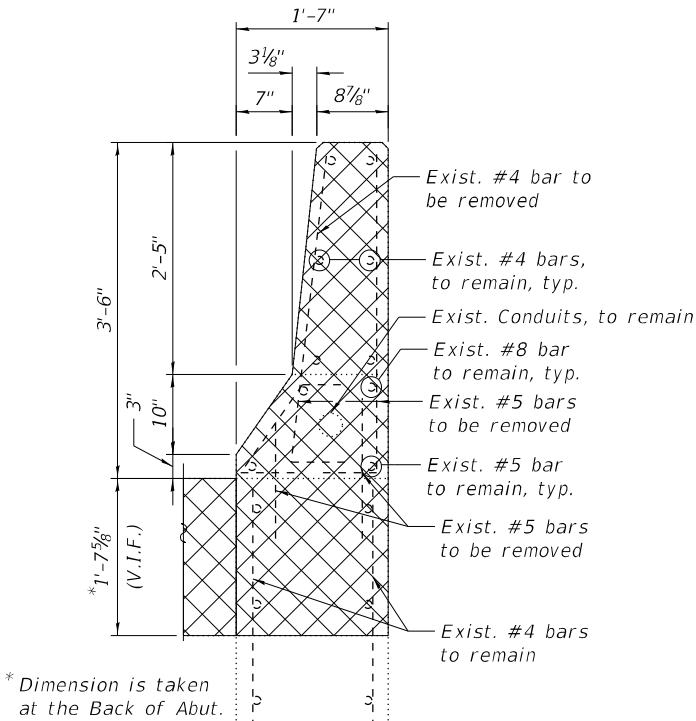
Bar	No.	Size	Length	Shape
a(E)	20	#5	18'-5"	=====
a1(E)	20	#5	22'-1"	=====
a2(E)	6	#6	6'-6"	=====
d(E)	3	#4	3'-10"	└─┘
d1(E)	6	#5	2'-7"	└─┘
d2(E)	8	#4	3'-8"	└─┘
d3(E)	8	#5	3'-8"	└─┘
d4(E)	2	#5	2'-9"	└─┘
d5(E)	2	#5	4'-8"	└─┘
d6(E)	3	#4	4'-3"	└─┘
d7(E)	2	#5	5'-8"	└─┘
d8(E)	2	#5	5'-6"	└─┘
d9(E)	2	#5	2'-0"	└─┘
h(E)	8	#6	31'-9"	=====
h1(E)	16	#6	21'-4"	=====
s(E)	48	#6	3'-1"	└─┘
u(E)	73	#5	3'-3"	└─┘
Concrete Removal			Cu Yd	14.8
Concrete Superstructure			Cu Yd	16.1
Protective Coat			Sq Yd	27
Reinforcement Bars, Epoxy Coated			Pound	2,390

MIN. BAR LAPS

#5	3'-6"
#6	4'-0"

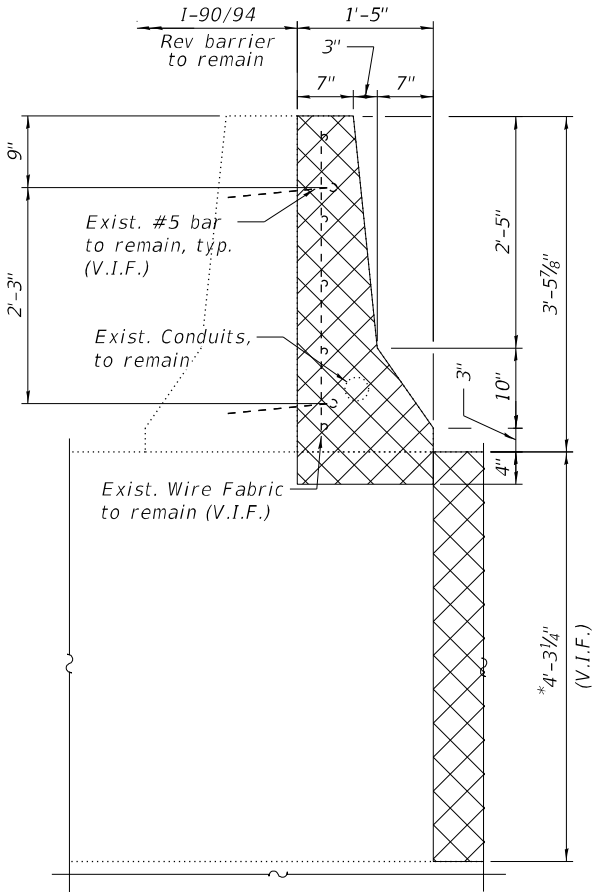
NOTES:

- For legend, see Sheet S01-07.
- For preformed joint strip seal details, see Sheet S01-13.
- For bar splicer assembly details, see Sheet S01-22.
- Removal and disposal of the existing expansion joints is included with Concrete Removal.
- Epoxy grout d4(E), d7(E) and d8(E) bars according to Article 584 of the Standard Specifications. Drill to miss existing reinforcement. Cost included with Concrete Superstructure.



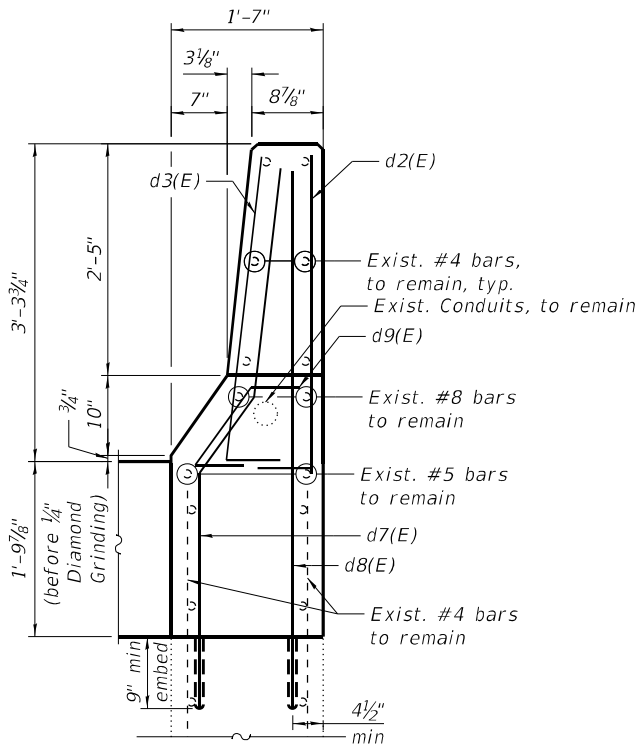
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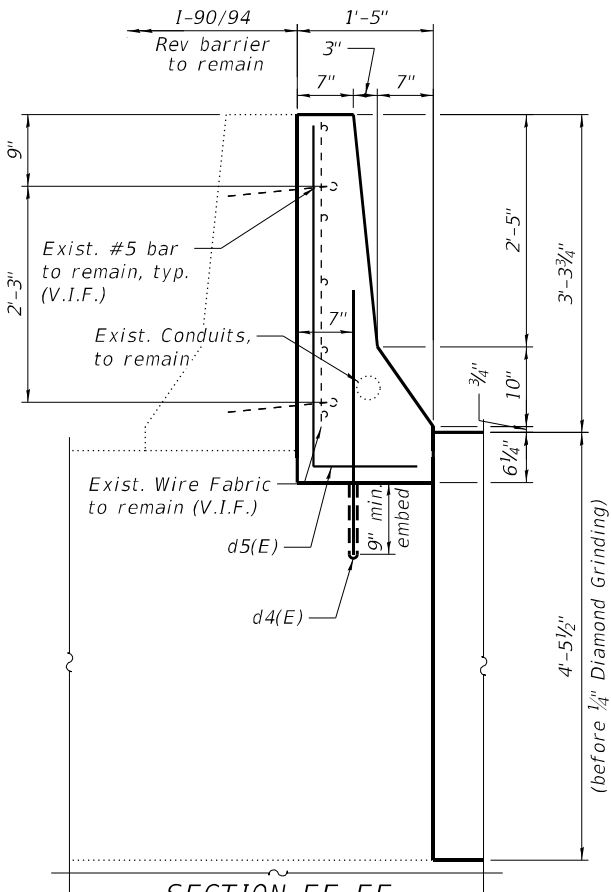
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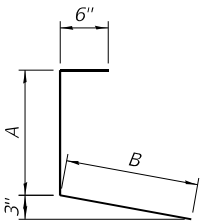
SECTION DD-DD

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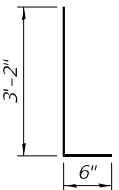
SECTION EE-EE

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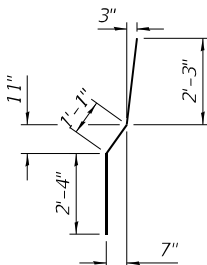


BARS d(E) & d6(E)

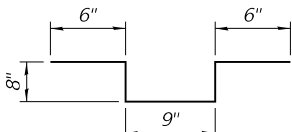
BARS	A	B
d(E)	1'-5"	1'-11"
d6(E)	1'-8"	2'-1"



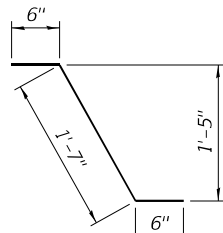
BARS d2(E) & d3(E)



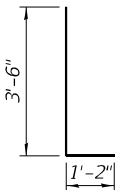
BAR d7(E)



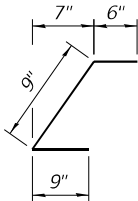
BAR s(E)



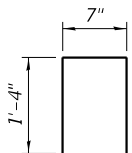
BAR d1(E)



BAR d5(E)

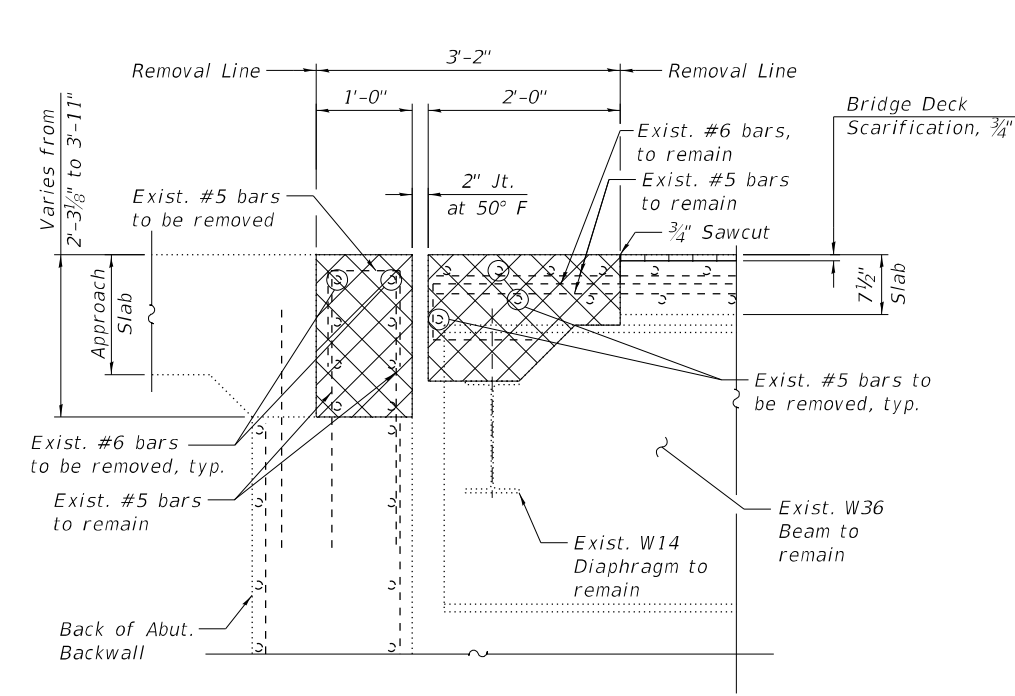


BAR d9(E)

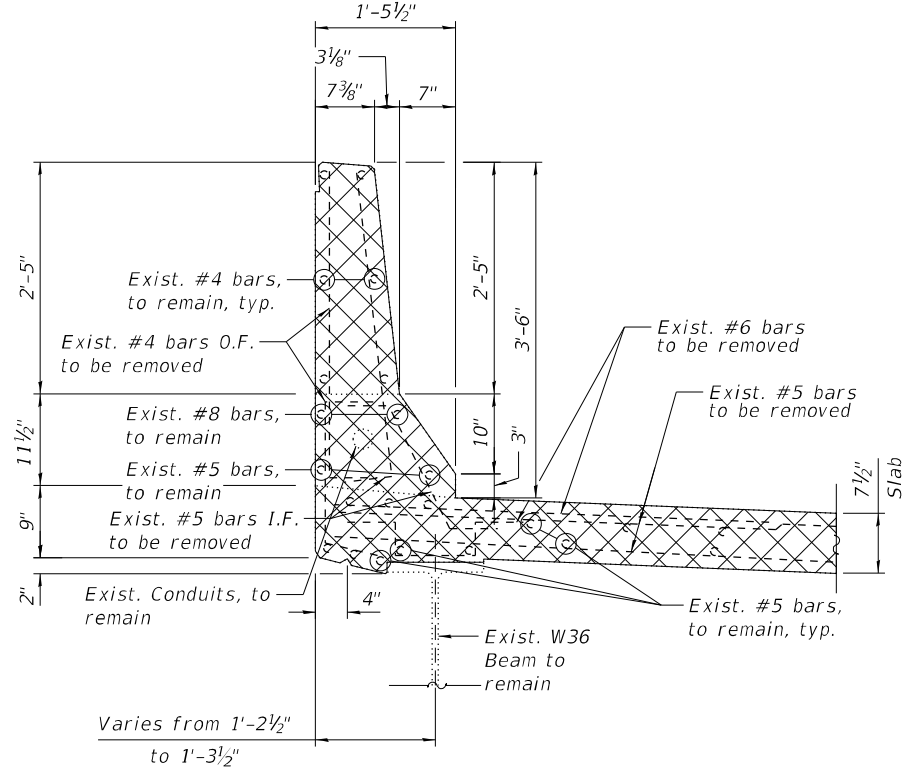


BAR u(E)

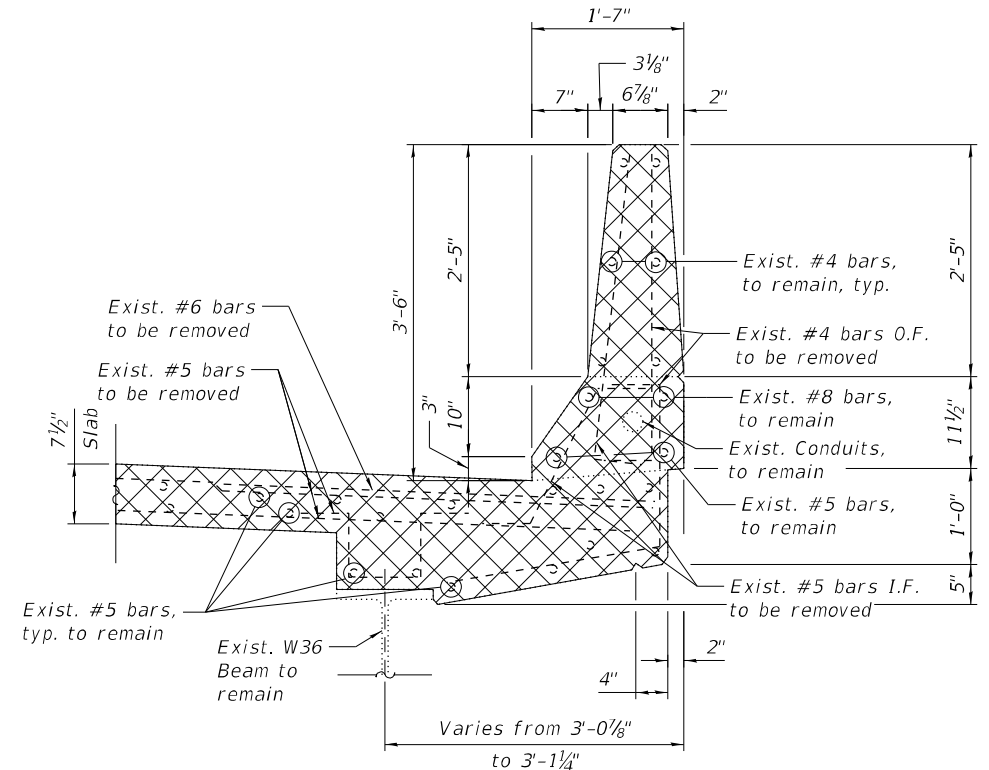
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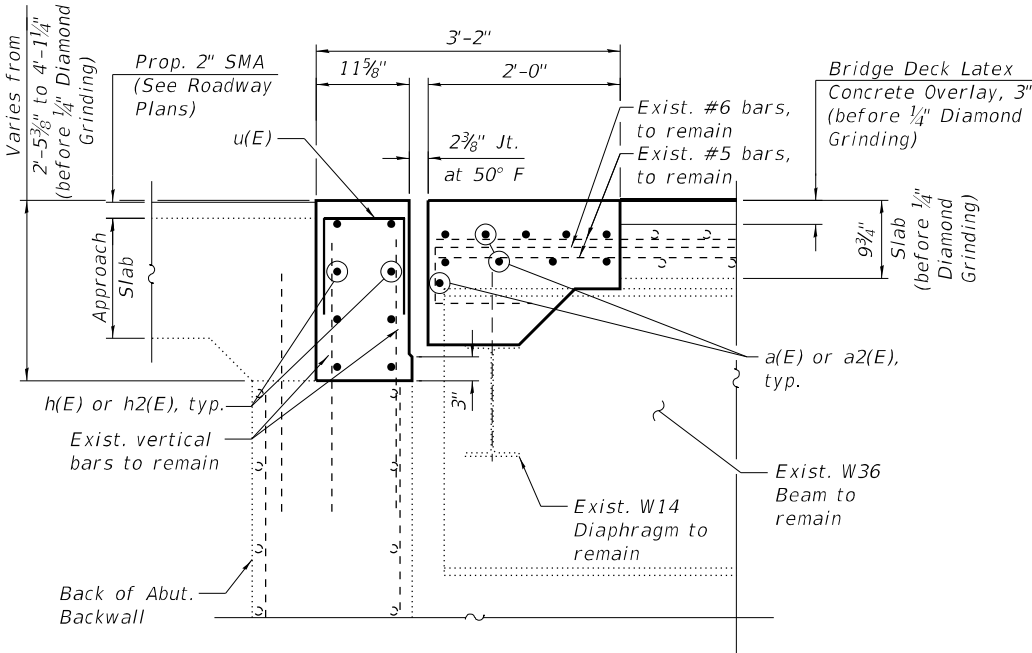
SECTION A-A



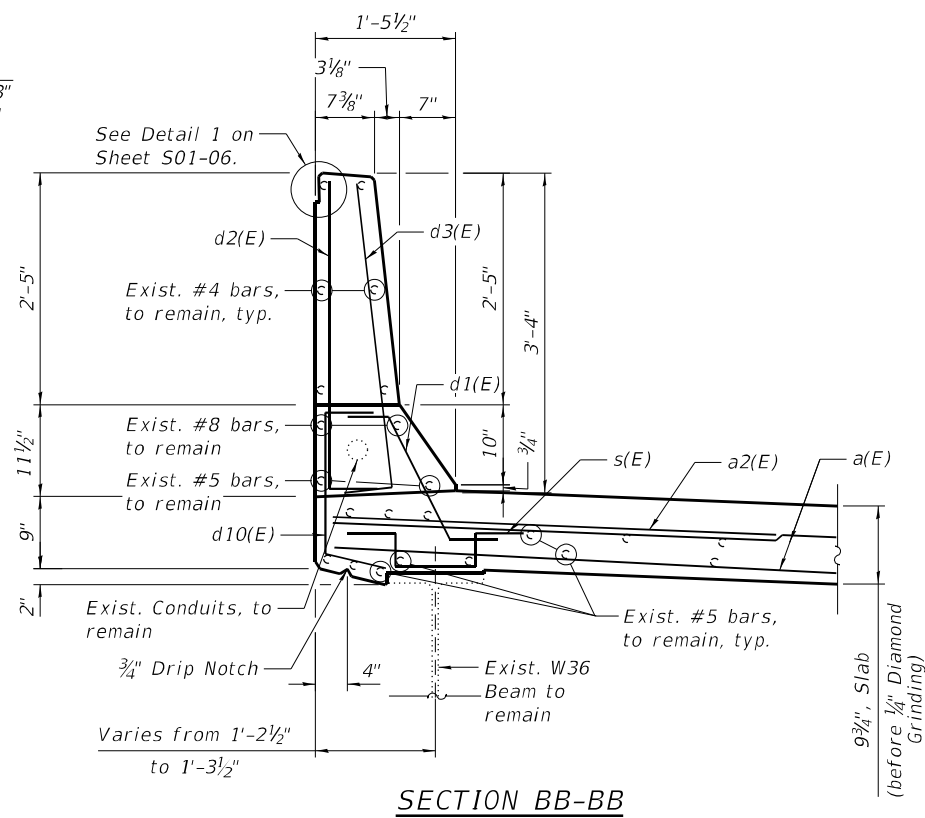
SECTION B-B



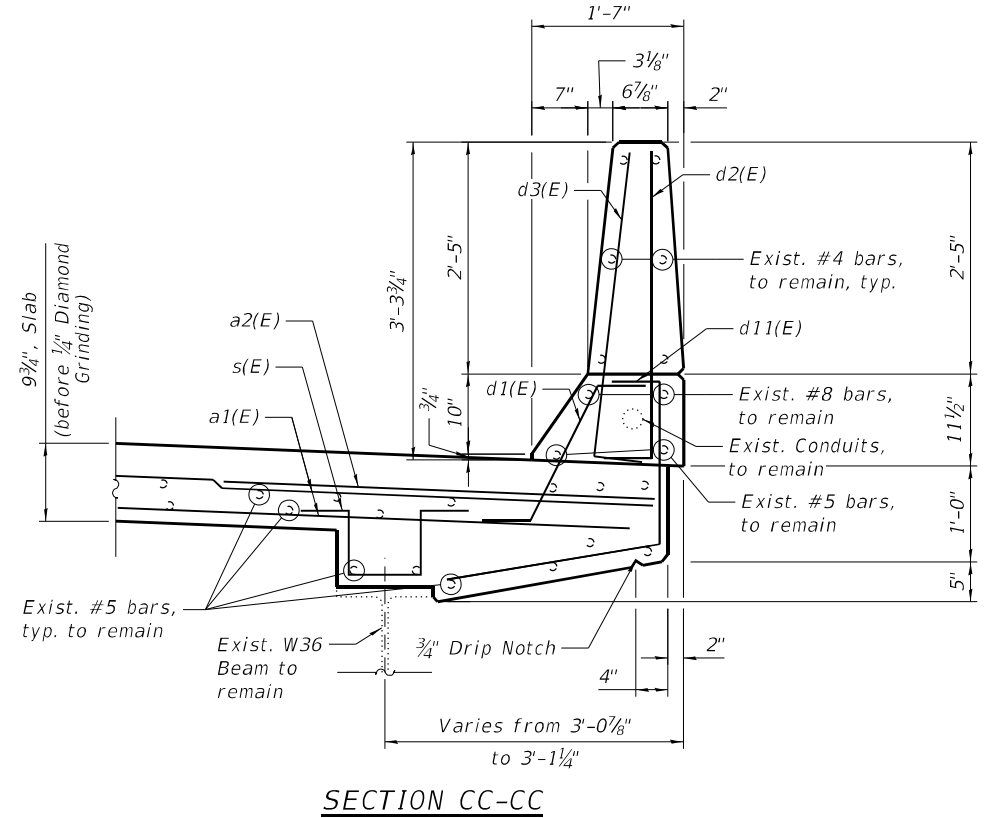
SECTION C-C



SECTION AA-AA



SECTION BB-BB



SECTION CC-CC

NOTES:

- For legend, see Sheet S01-10.
- For Bar Diagrams, additional Notes and Bill of Material, see Sheet S01-12.

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PLOT DATE =	DATE - 4/29/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

N. ABUT. JOINT REMOVAL & RECONSTRUCTION (SHT. 2 OF 3)
STRUCTURE NO. 016-0135 (NB)

SHEET S01-11 OF S01-22 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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ILLINOIS FED. AID PROJECT				

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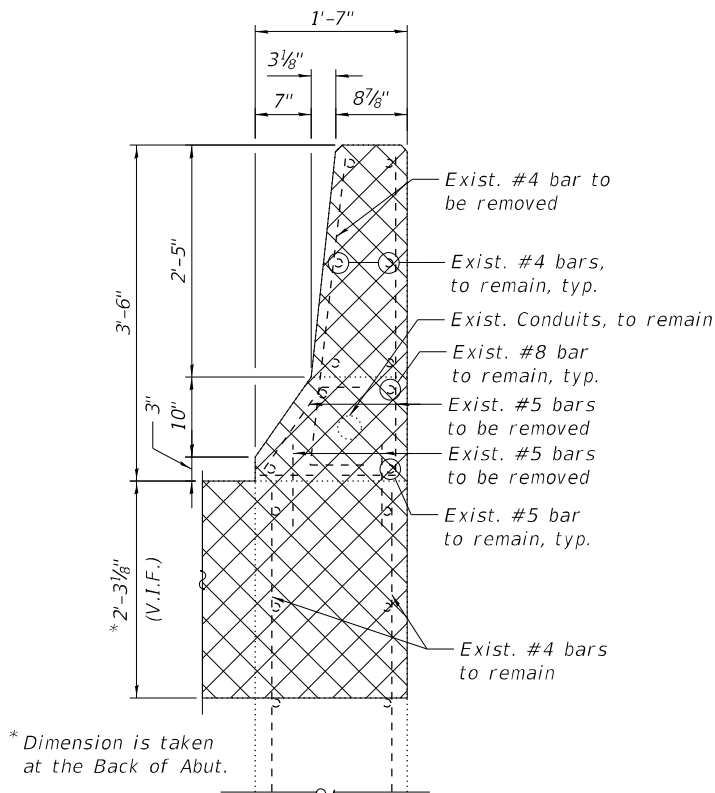
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

N. ABUT. JOINT REMOVAL & RECONSTRUCTION (SHT. 3 OF 3)
STRUCTURE NO. 016-0135 (NB)

SHEET S01-12 OF S01-22 SHEETS

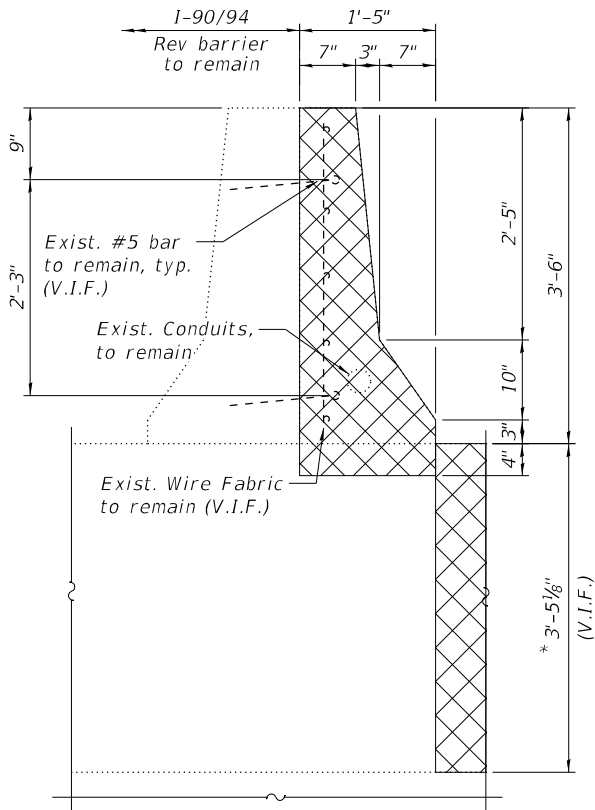
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
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a2(E)	6	#6	6'-6"	—
a3(E)	20	#5	20'-6"	—
d1(E)	6	#5	2'-7"	┐
d2(E)	8	#4	3'-8"	┐
d3(E)	8	#5	3'-8"	┐
d4(E)	2	#5	2'-9"	—
d5(E)	2	#5	4'-8"	┐
d9(E)	2	#5	2'-0"	┐
d10(E)	3	#4	3'-2"	┐
d11(E)	3	#4	3'-11"	┐
d12(E)	2	#5	6'-4"	—
d13(E)	2	#5	6'-6"	┐
h(E)	8	#6	31'-9"	—
h2(E)	8	#6	35'-10"	—
s(E)	48	#6	3'-1"	┐
u(E)	70	#5	3'-3"	┐
Concrete Removal			Cu Yd	14.8
Concrete Superstructure			Cu Yd	16.2
Protective Coat			Sq Yd	26
Reinforcement Bars, Epoxy Coated			Pound	2,270



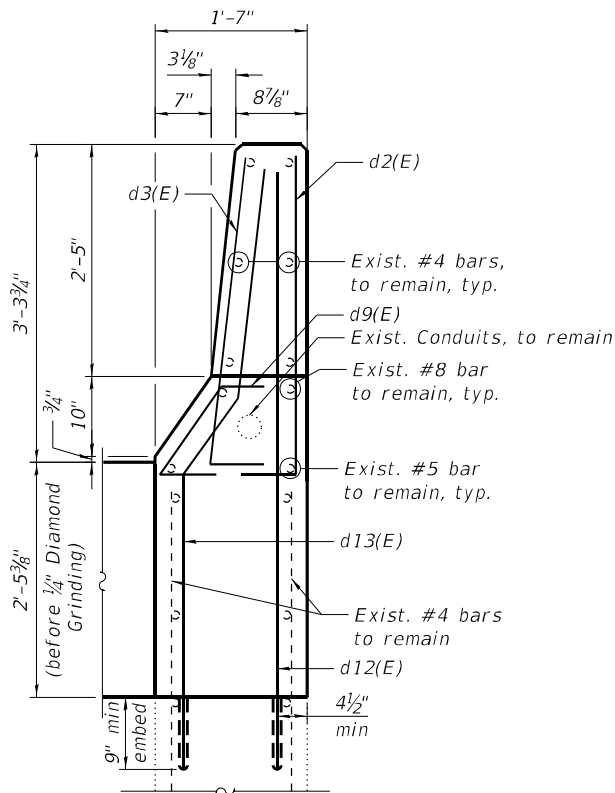
SECTION D-D

(Reinforcement in the pour strip not shown for clarity)



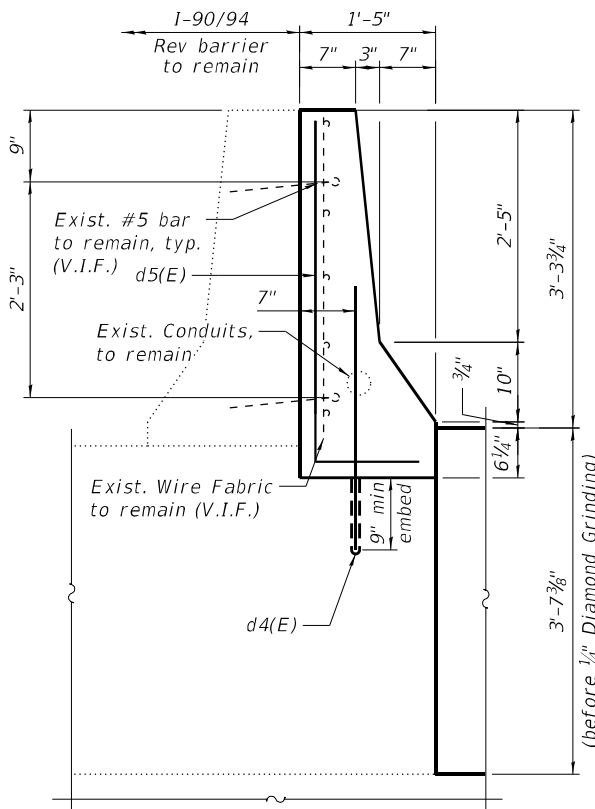
SECTION E-E

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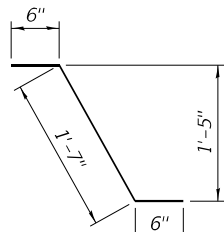
SECTION DD-DD

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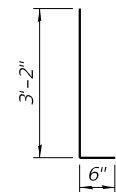


SECTION EE-EE

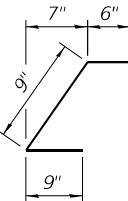
(Reinforcement in the pour strip not shown for clarity)



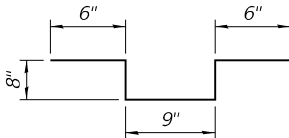
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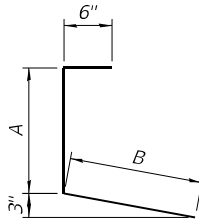
BARS d2(E) & d3(E)



BAR d9(E)

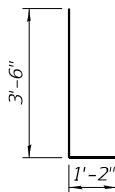


BAR s(E)

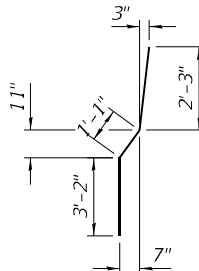


BARS d10(E) & d11(E)

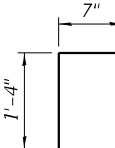
BARS	A	B
d12(E)	1'-5"	1'-3"
d13(E)	1'-8"	1'-11"



BAR d5(E)



BAR d13(E)



BAR u(E)

MIN. BAR LAPS

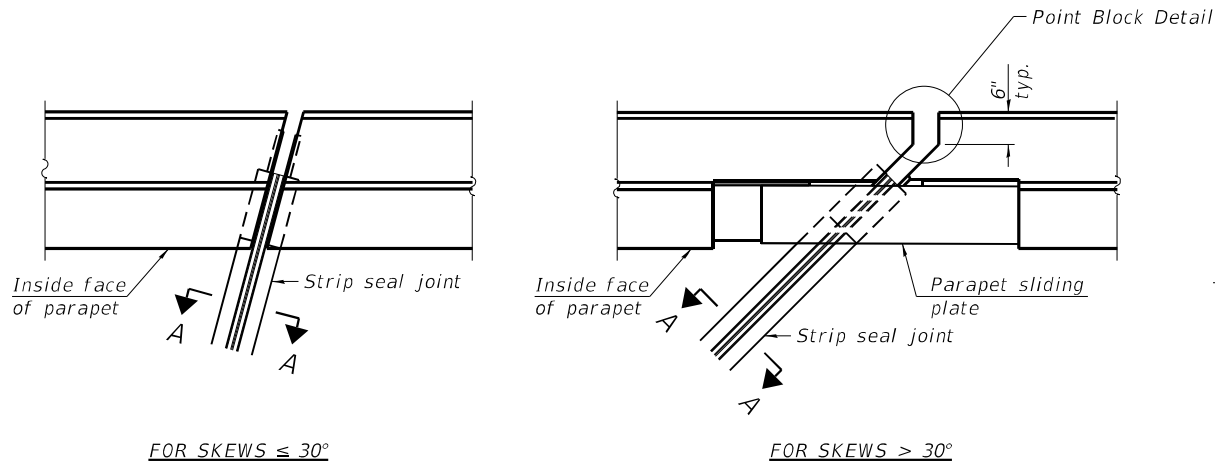
#5	3'-6"
#6	4'-0"

NOTES:

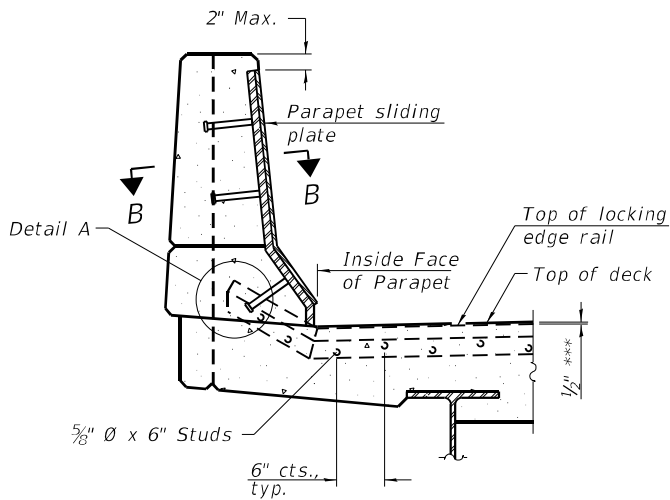
- For legend, see Sheet S01-10.
- For preformed joint strip seal details, see Sheet S01-13.
- For bar splicer assembly details, see Sheet S01-22.
- Removal and disposal of the existing expansion joints is included with Concrete Removal.
- Epoxy grout d4(E), d12(E) and d13(E) bars according to Article 584 of the Standard Specifications. Drill to miss existing reinforcement. Cost included with Concrete Superstructure.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	2020-005-BR	COOK	908	295
CONTRACT NO. 62K73				
ILLINOIS FED. AID PROJECT				

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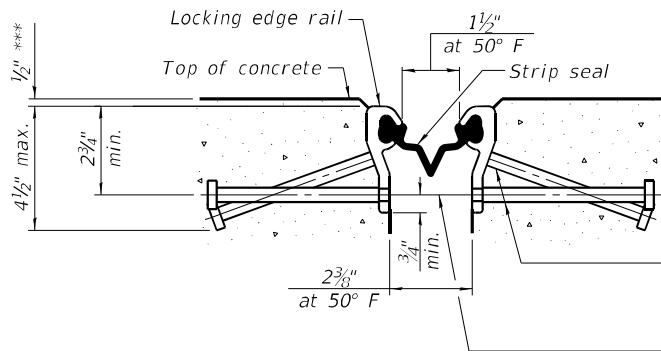


PLAN AT PARAPET



ELEVATION AT PARAPET

(Skews $> 30^\circ$ shown. Skews $\leq 30^\circ$ similar except as shown in plan view.)



SHOWING ROLLED RAIL JOINT

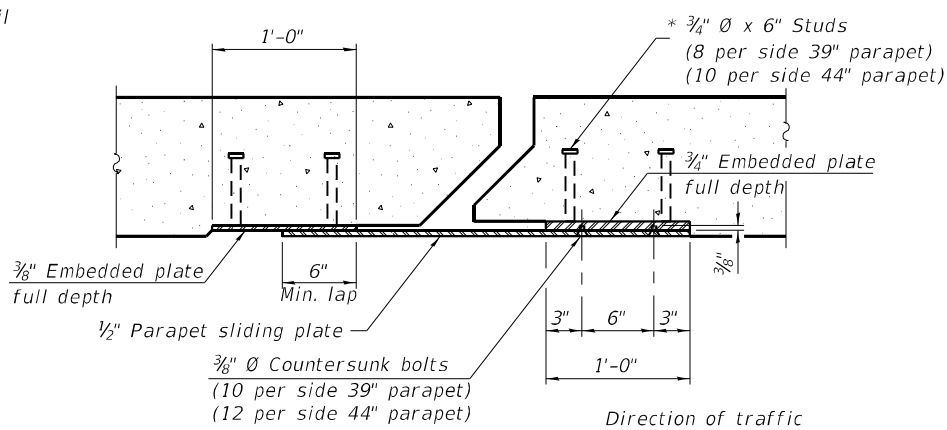
* 5/8" ϕ x 6" studs @ 6" cts. (alternate angled/bent studs with horizontal studs)

3/8" ϕ threaded rods in 7/16" ϕ holes at $\pm 4'-0"$ cts. for holding the proper joint opening based on the temperature during the deck pour. Place to miss studs. All rods shall be burned, or sawed off flush with the plates after concrete is set.

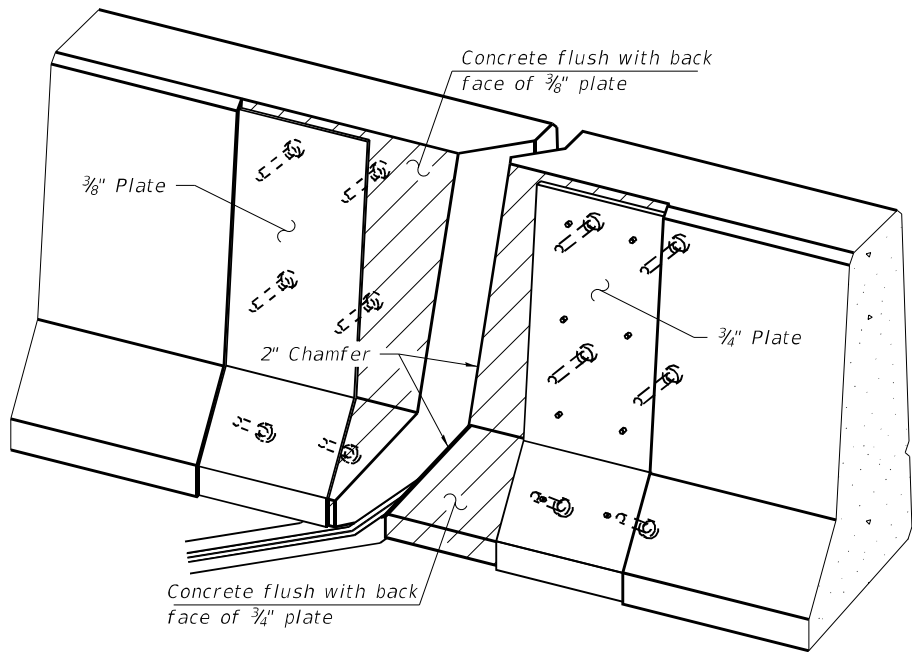
SECTION A-A

* Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.

*** Before 1/4" Diamond Grinding

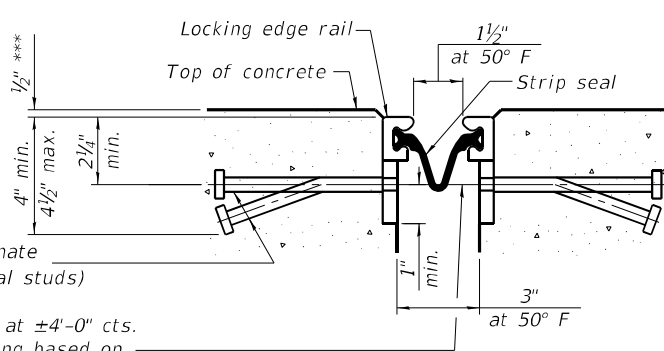


SECTION B-B

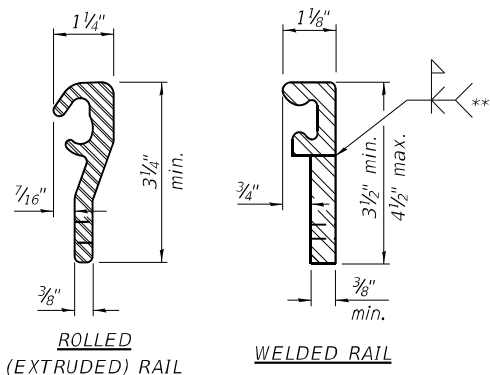


TRIMETRIC VIEW

(Showing embedded plates only)

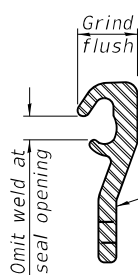


SHOWING WELDED RAIL JOINT



LOCKING EDGE RAILS

** Back gouge not required if complete joint penetration is verified by mock-up.



LOCKING EDGE RAIL SPLICE

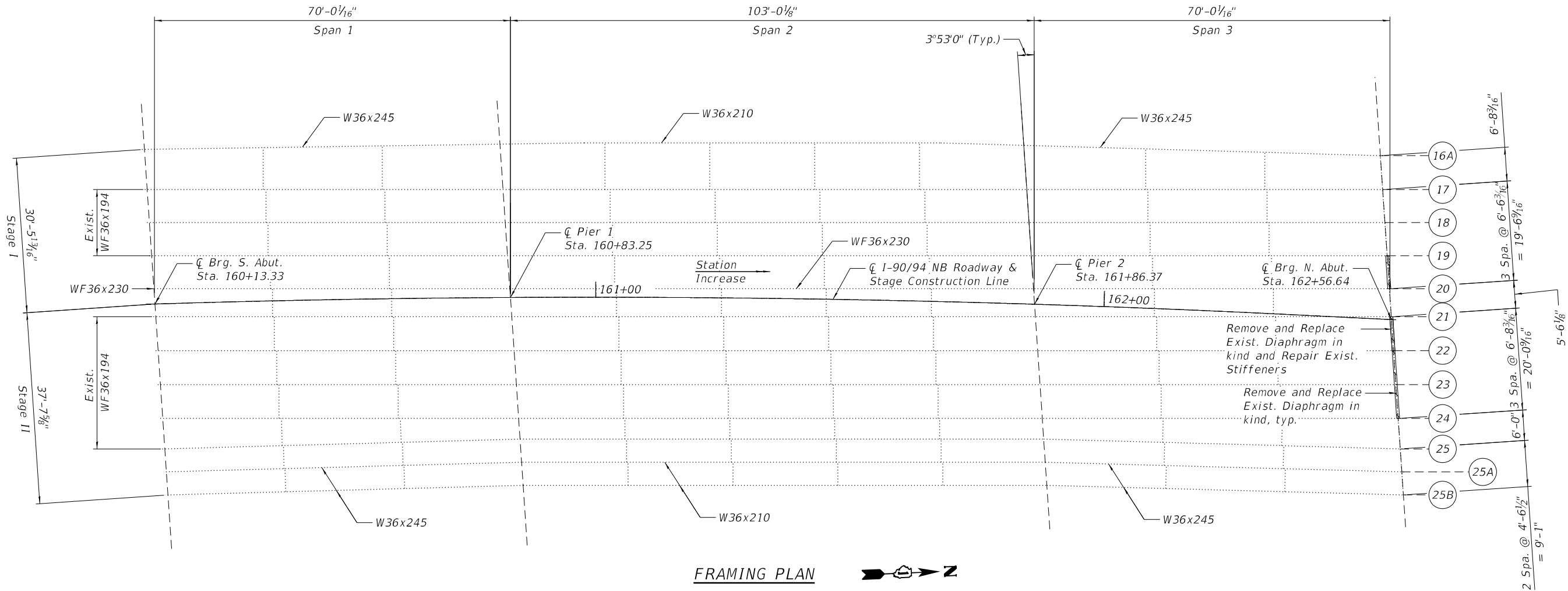
The inside of the locking edge rail groove shall be free of weld residue. Rolled rail shown, welded rail similar.

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	146

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Furnishing And Erecting Structural Steel	Pound	1,000
Structural Steel Removal	Pound	1,000
Structural Steel Repair	Pound	100

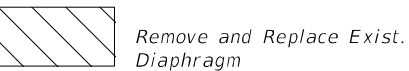


FRAMING PLAN

NOTES:

- All work is to be performed utilizing stage construction. See Sheets S01-03 and S01-04 for details.
- For Diaphragm Removal and Replacement Details and Exist. Stiffeners Repair, see Sheets S01-15 and S01-16.

LEGEND



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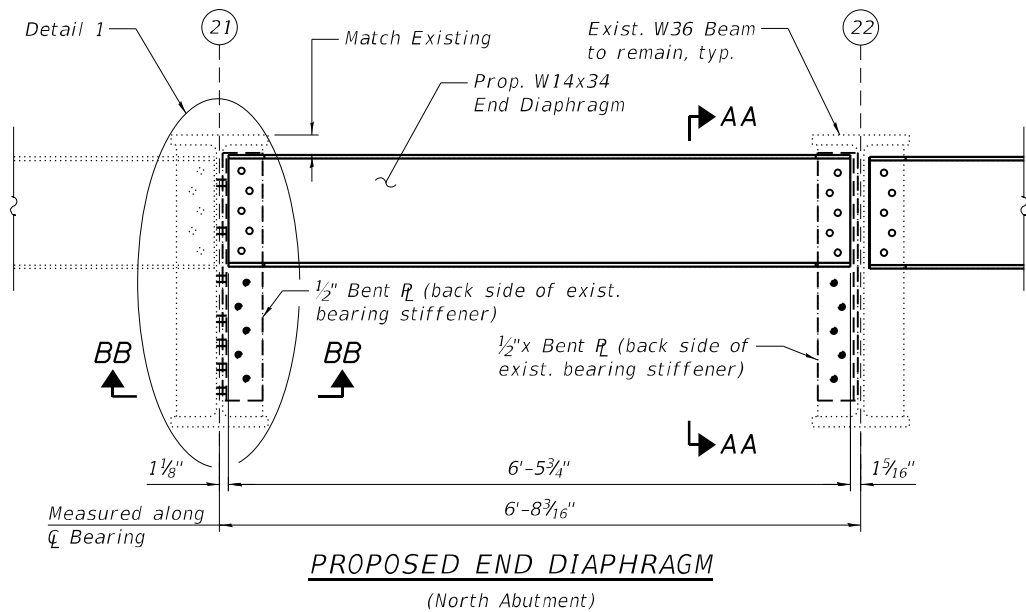
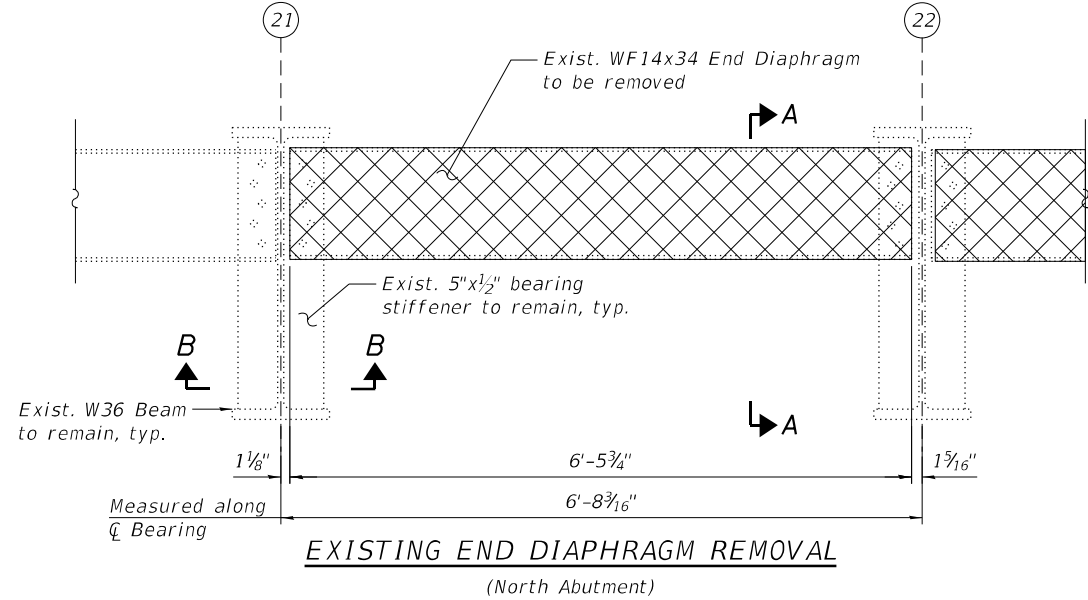
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FRAMING PLAN
STRUCTURE NO. 016-0135 (NB)

SHEET S01-14 OF S01-22 SHEETS

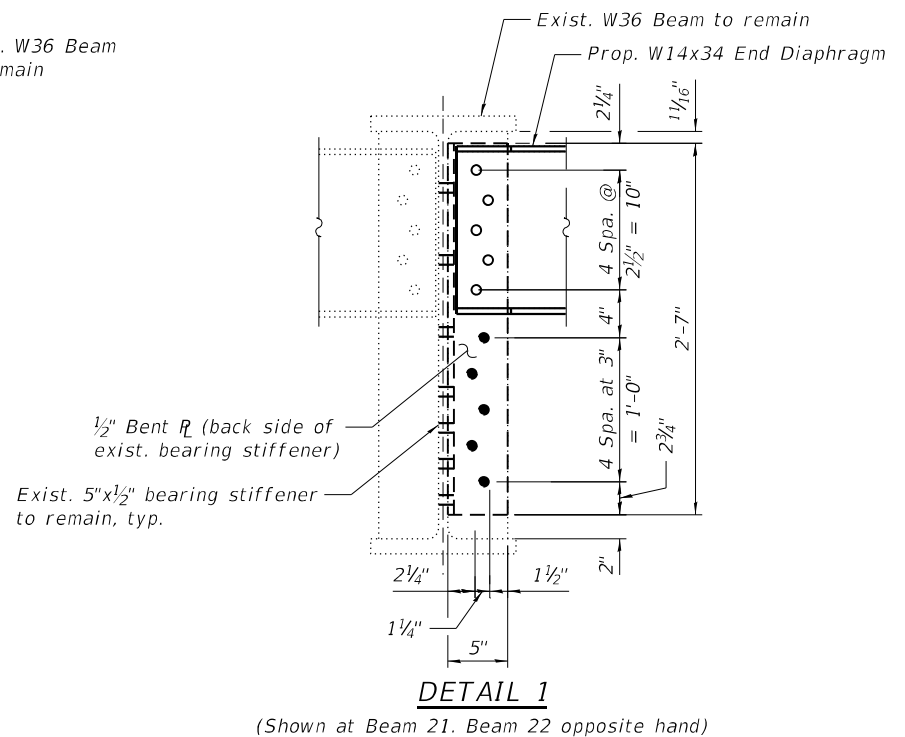
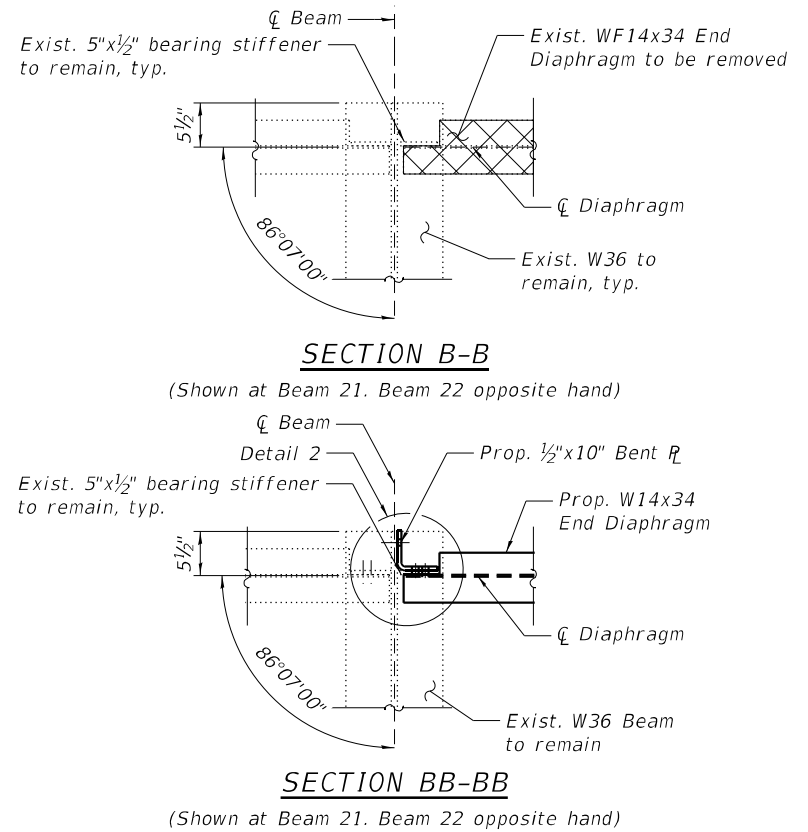
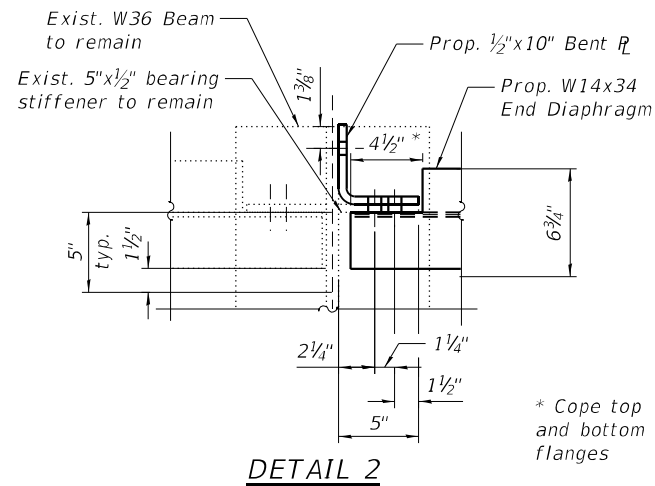
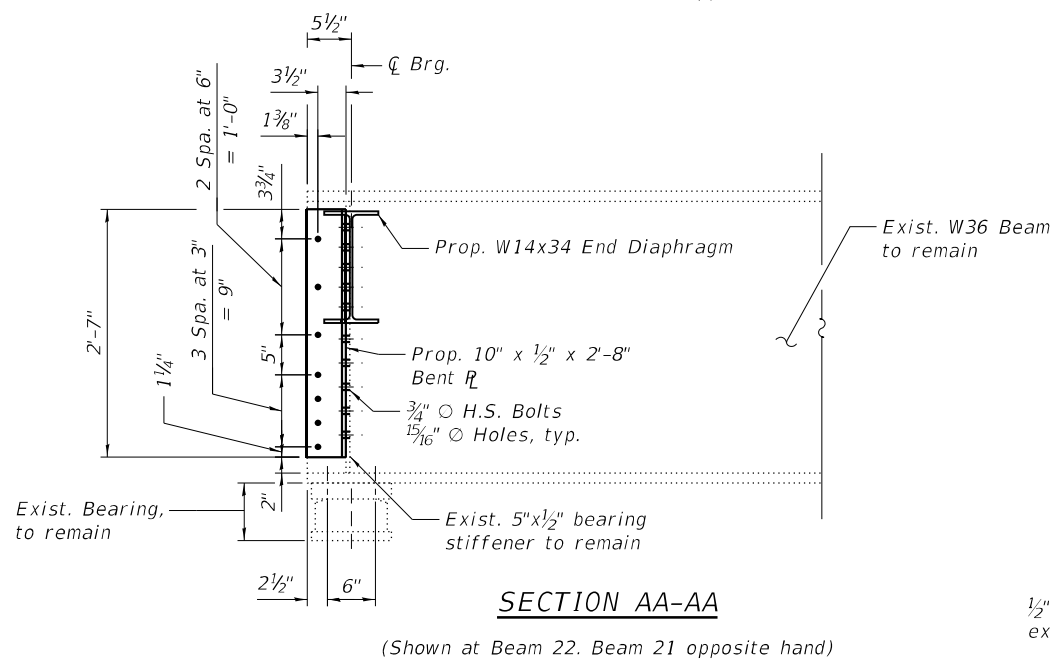
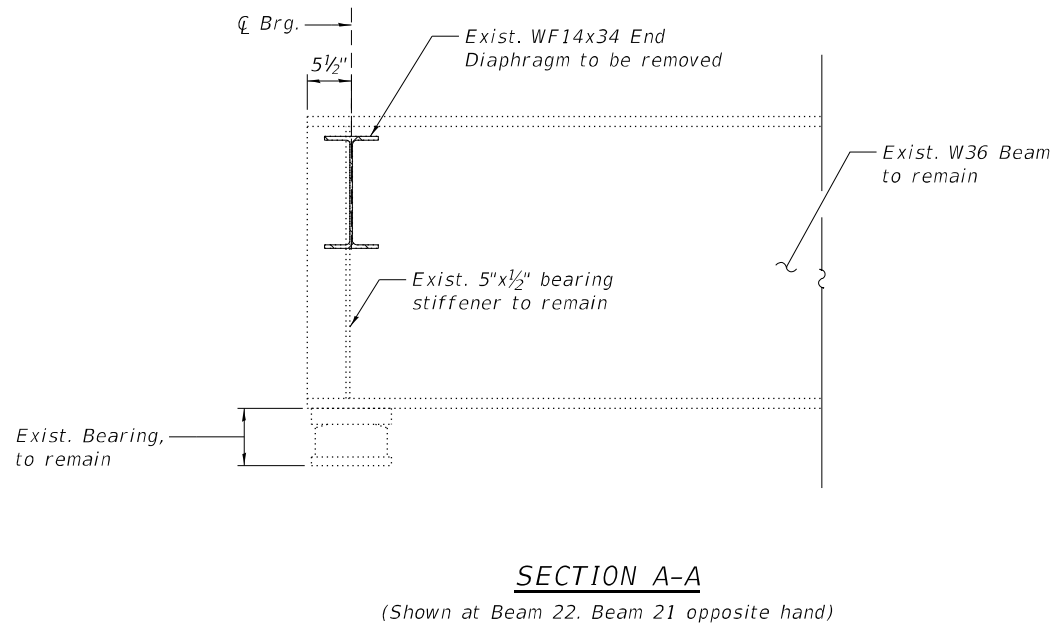
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90/94	2020-005-BR	COOK	908	297
CONTRACT NO. 62K73				
ILLINOIS FED. AID PROJECT				

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NOTES:

- For location of Diaphragm Removal/Replacement and Bill of Material, see Sheet S01-14.
- All structural steel for the bearing stiffener repair plates shall be AASHTO M270 Grade 50. All structural steel for diaphragms and associated connection plates may be AASHTO M270 Grade 36.
- Diaphragm connection holes shall be 15/16" for 3/4" bolts. Two hardened washers shall be required at diaphragm connections. Fasteners shall be high strength bolts.
- All proposed bearing stiffener repair plates, bolts, nuts, washers and associated field-drilling shall be paid for as Structural Steel Repairs. The proposed diaphragm shall be paid for as Furnishing and Erecting Structural Steel.
- Holes in new steel shall be field drilled using existing steel as template.
- No field welding shall be permitted.



LEGEND

- Structural Steel Removal
- Field drill holes in new steel using existing steel as template
- Shop drill holes in new steel. Use new steel as template to field drill holes in existing steel.

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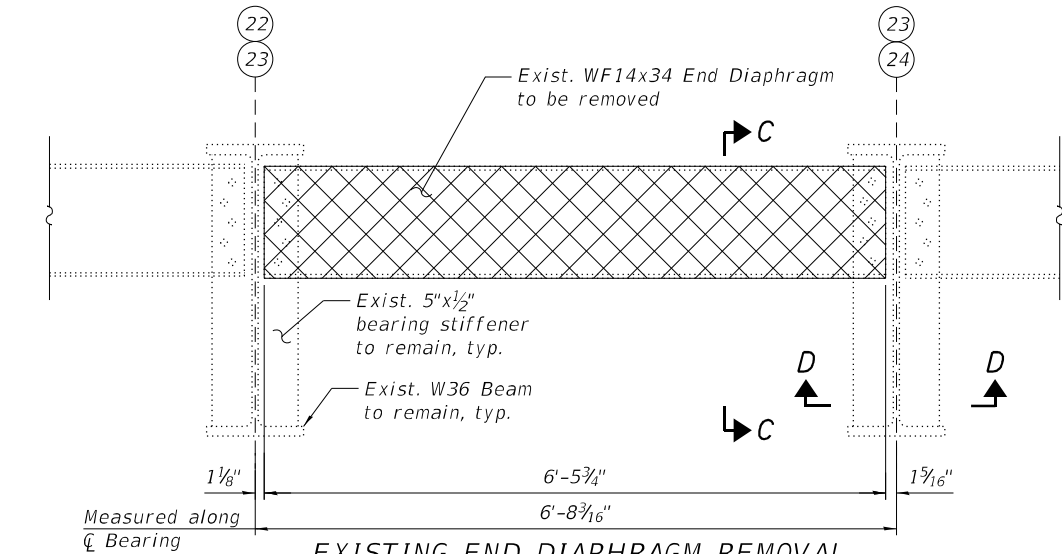
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STRUCTURAL STEEL REPAIR DETAILS (SHEET 1 OF 2)
STRUCTURE NO. 016-0135 (NB)

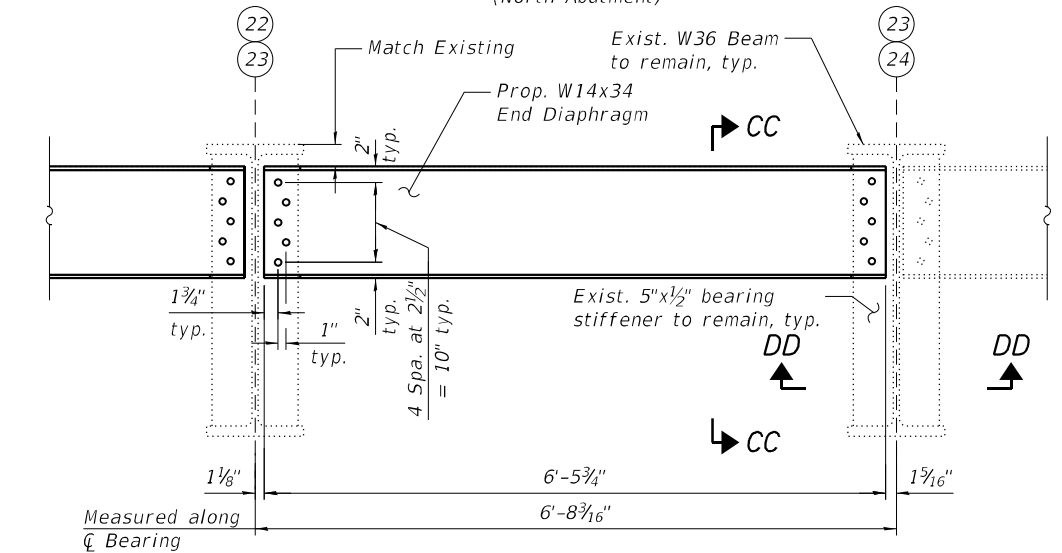
SHEET S01-15 OF S01-22 SHEETS

FA.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 62K73				
ILLINOIS FED. AID PROJECT				

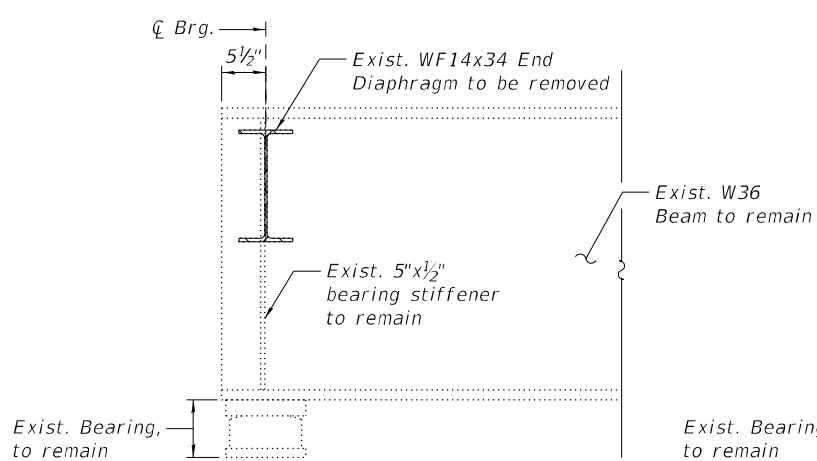
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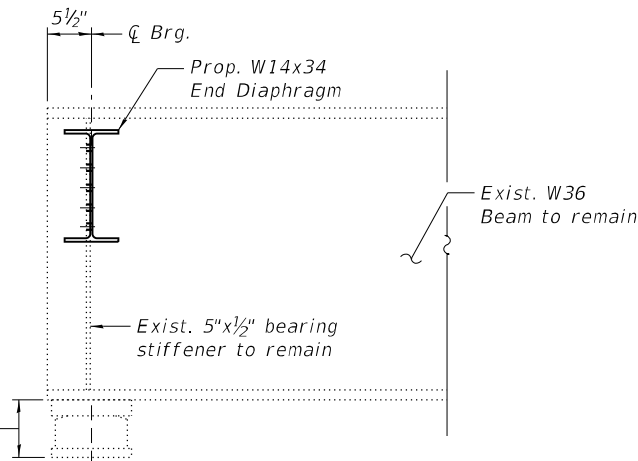
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(North Abutment)



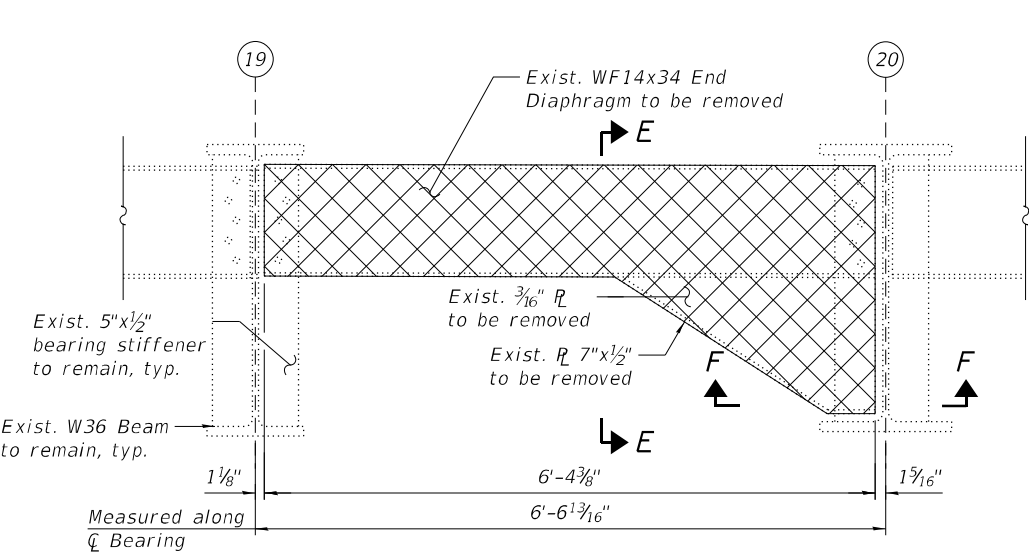
PROPOSED END DIAPHRAGM
(North Abutment)
(Beams 23-24 shown, Beams 22-23 similar)



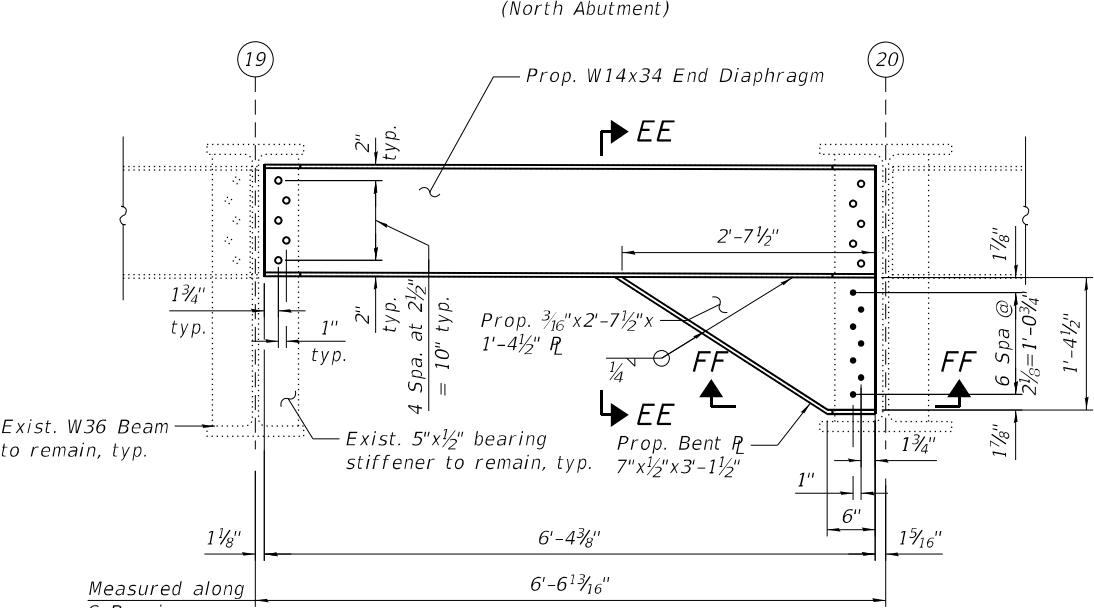
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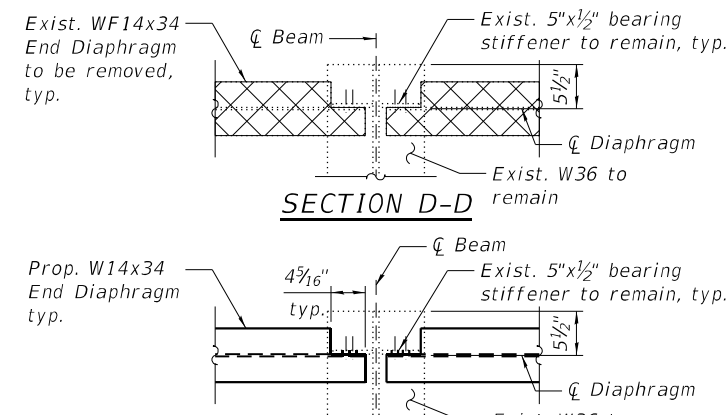
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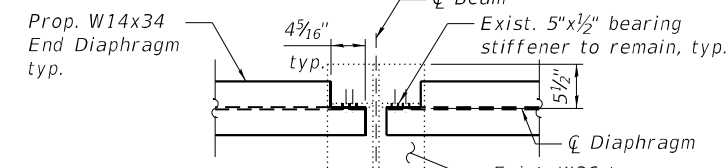
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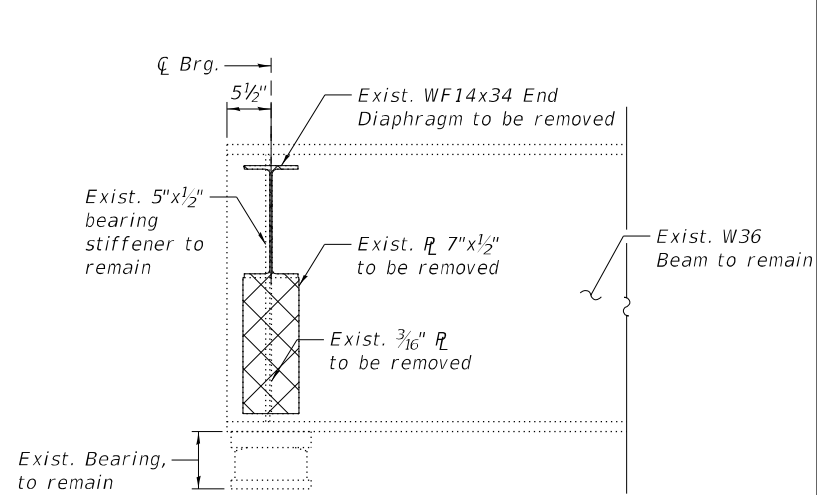
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(North Abutment)



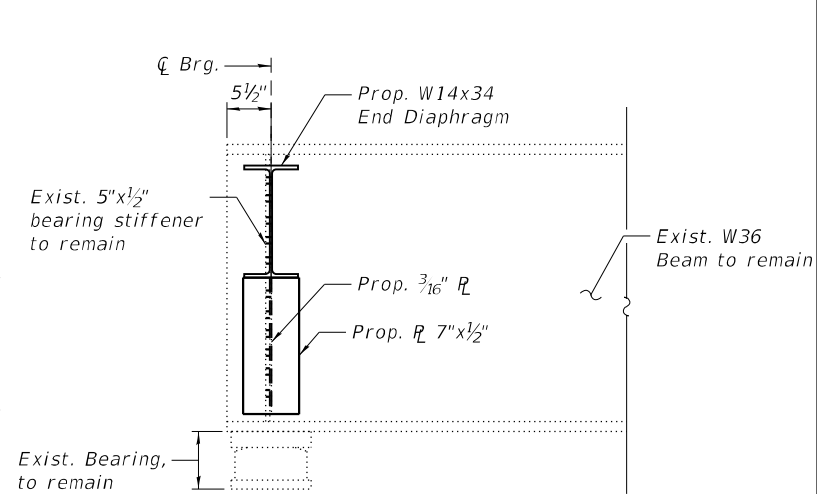
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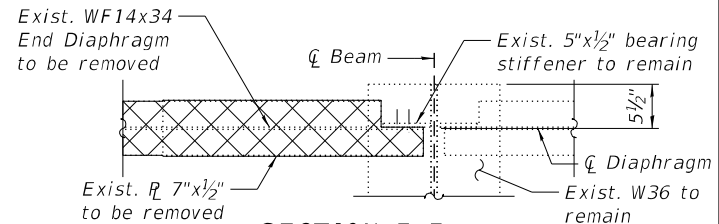
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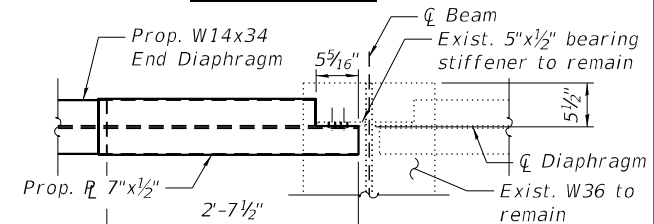
SECTION E-E



SECTION EE-EE



SECTION F-F



SECTION FF-FF

LEGEND



Structural Steel Removal

Field drill holes in new steel using existing steel as template

Shop drill holes in new steel. Use new steel as template to field drill holes in existing steel.

NOTE:

- For notes, see Sheet S01-15.

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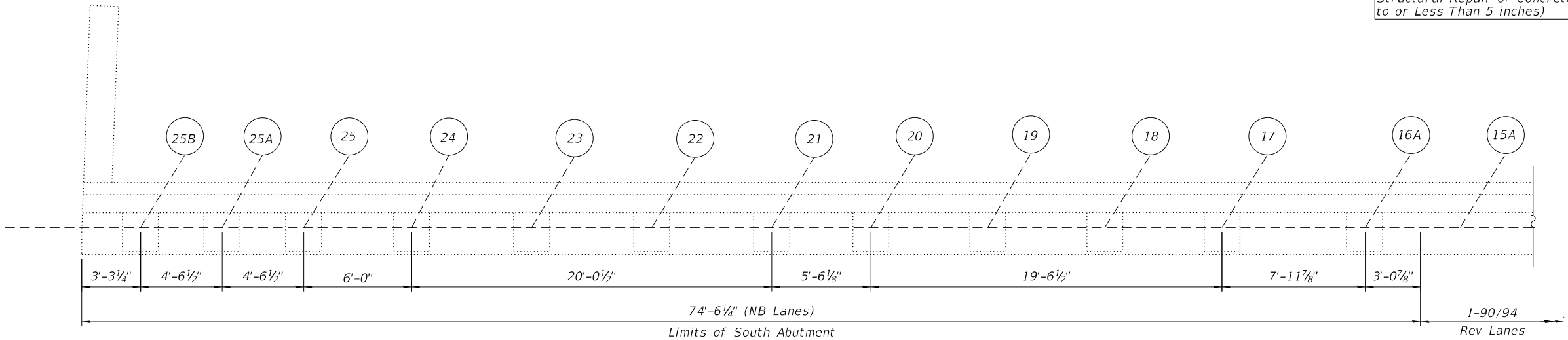
STRUCTURAL STEEL REPAIR DETAILS (SHEET 2 OF 2)
STRUCTURE NO. 016-0135 (NB)

SHEET S01-16 OF S01-22 SHEETS

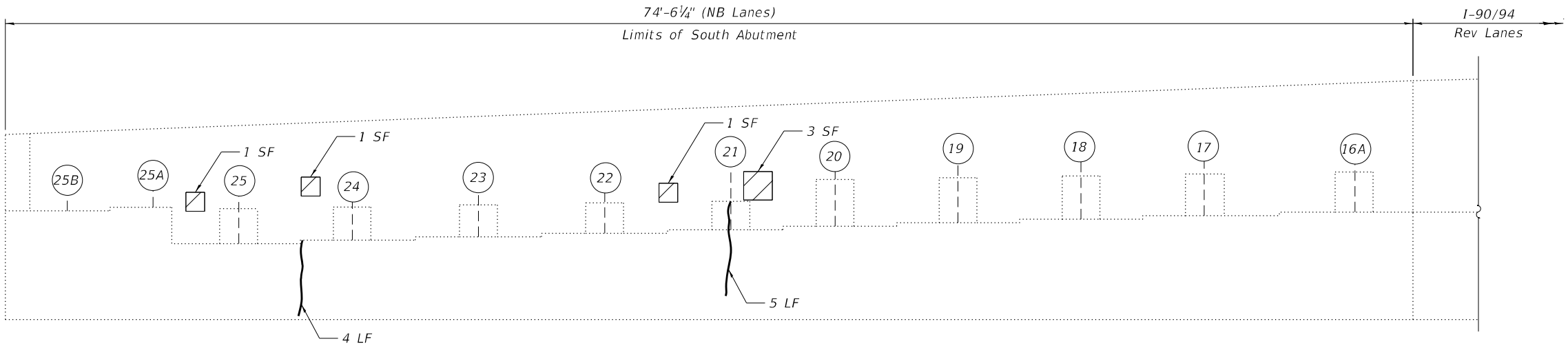
FAI RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	2020-005-BR	COOK	908	299
CONTRACT NO. 62K73				
ILLINOIS FED. AID PROJECT				

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Concrete Sealer	Sq Ft	311
Epoxy Crack Injection	Foot	9
Structural Repair of Concrete (Depth Equal to or Less Than 5 inches)	Sq Ft	6



SOUTH ABUTMENT PLAN



SOUTH ABUTMENT ELEVATION

(Looking South)

NOTES:

- Quantities and limits shown are estimated for bidding purposes only. The actual areas to be repaired, and the type(s) of repairs to be used, will be determined by the Engineer in the field at the time of construction.
- Concrete Sealer is to be applied to the abutment seats and the bottom 2 feet of the abutment backwall.
- For Slope Wall repairs, see Sheet S01-21.

LEGEND



Structural Repair of Concrete (Depth Equal to or Less than 5 inches)



Epoxy Crack Injection (Width > 0.06")

SF

Square Foot

LF

Linear Foot

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SOUTH ABUTMENT REPAIRS
STRUCTURE NO. 016-0135 (NB)

SHEET S01-17 OF S01-22 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	2020-005-BR	COOK	908	300
CONTRACT NO. 62K73				
ILLINOIS FED. AID PROJECT				