

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

FAU RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2742	2024-990-RS,SW	COOK	42	1
		ILLINOIS	CONTRACT NO. 62X15	

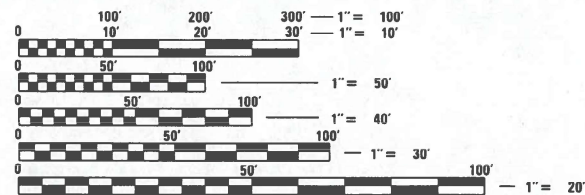
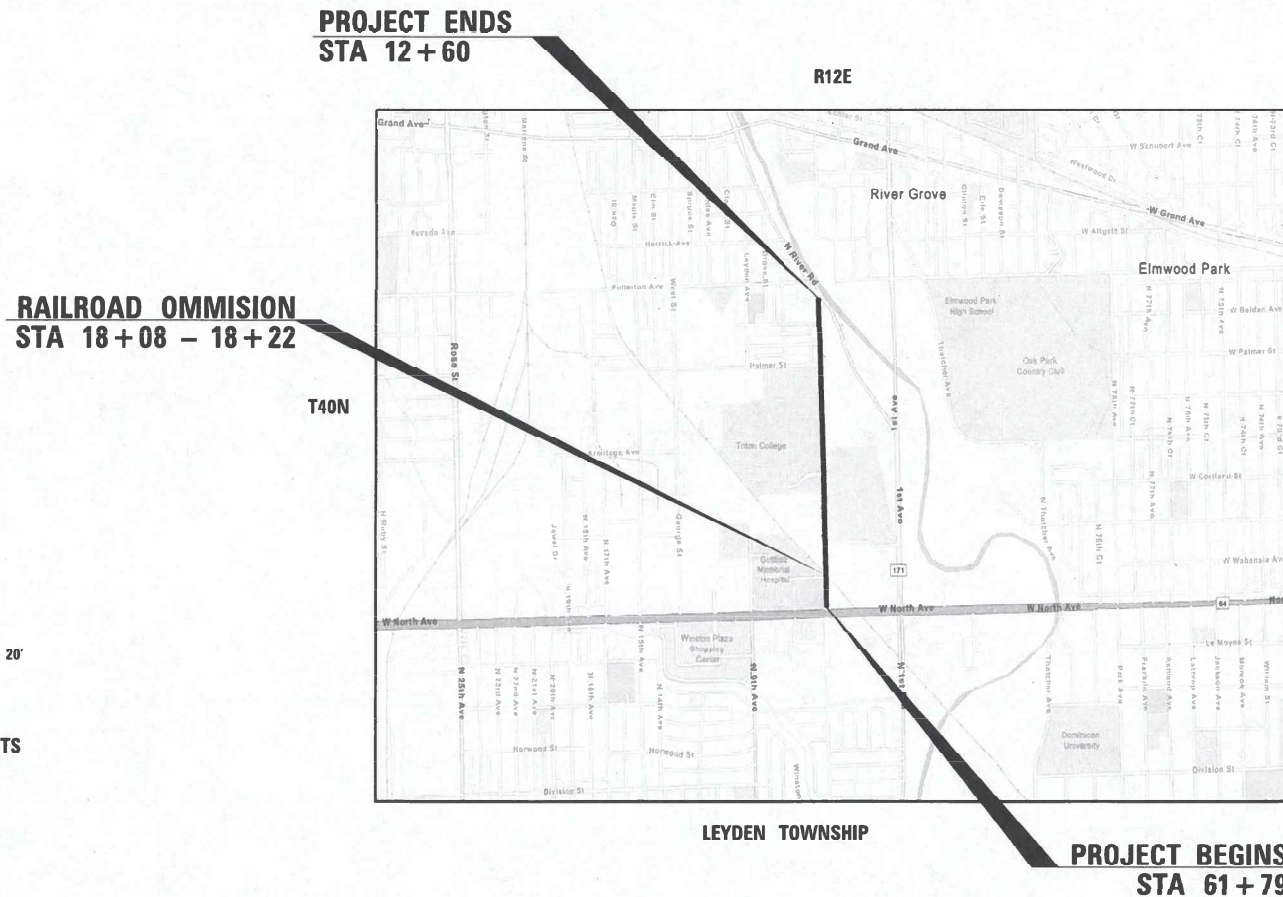
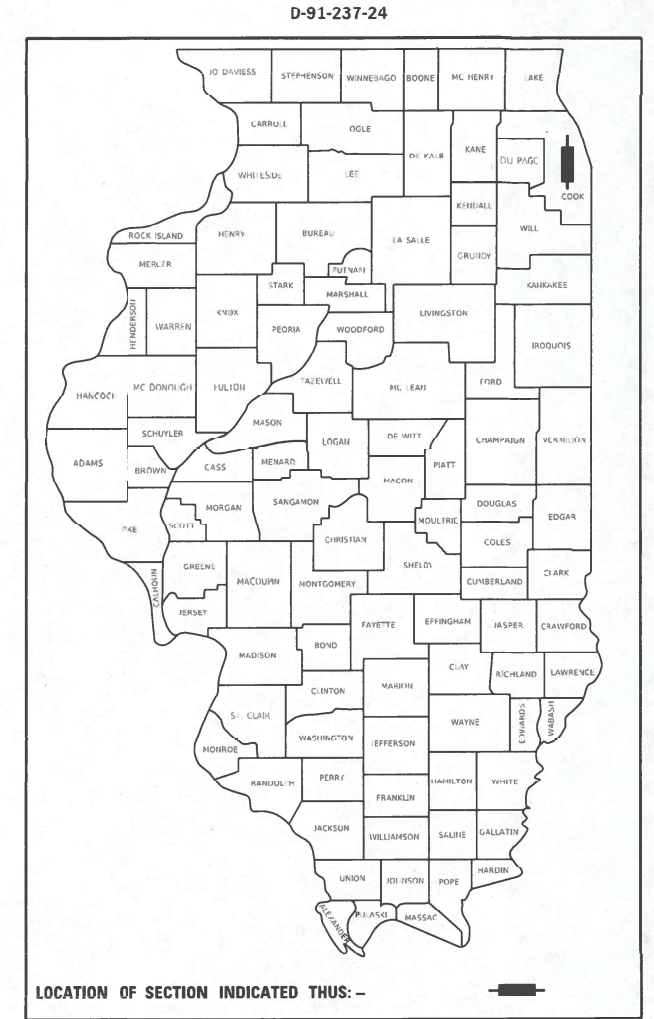
FOR INDEX OF SHEETS AND HIGHWAY STANDARDS, SEE SHEET NO. 2

THIS PROJECT IS LOCATED IN THE VILLAGES OF RIVER GROVE & MELROSE PARK

**PROPOSED  
HIGHWAY PLANS**  
FAU ROUTE 2742: 5TH AVENUE  
N RIVER ROAD TO IL 64 (NORTH AVENUE)  
SECTION: 2024-990-RS,SW  
PROJECT: STP-ML0A(796)  
DESIGNED OVERLAY, SMART OVERLAY, ADA IMPROVEMENTS  
COOK COUNTY  
C-91-298-24

**TRAFFIC DATA**

2023 ADT = 12,400 VPD  
POSTED SPEED LIMIT = 35 MPH  
MAJOR COLLECTOR



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

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

PROJECT ENGINEER: LUKASZ POCIECHA (847) 705-4255  
PROJECT MANAGER: VESELIN VELICHKOV

CONTRACT NO. 62X15

GROSS LENGTH = 4,921 FT. = 0.93 MILE  
NET LENGTH = 4,907 FT. = 0.93 MILE

PROFESSIONAL ENGINEER  
ALEXANDER CARL LANE, P.E.  
IL. LIC. NO. 062-063261  
OF ILLINOIS

*Alex Lane*  
ALEXANDER CARL LANE, P.E.  
IL. LIC. NO. 062-063261  
EXP: 11/30/2025  
DATE: 10/8/2024

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SUBMITTED Oct 16 20 24  
Janet [Signature]  
REGIONAL ENGINEER

December 6, 2024  
[Signature]  
ENGINEER OF DESIGN AND ENVIRONMENT

December 6, 2024  
[Signature]  
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

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OF THE STATE OF ILLINOIS

INFRASTRUCTURE  
ENGINEERING | INCORPORATED  
1 South Wacker | Suite 2650 | Chicago, IL 60606  
P 312.425.5560 | F 312.425.5564 | www.infrastructure-eng.com  
CONTACT: ALEXANDER LANE (312) 477-0620





PAY ITEM NUMBER	DESIGNATION	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE		
				URBAN		80% FEDERAL 20% STA TE
				0005 ROADWAY	0021 TRAFFIC SIGNAL	
70102632	TRAFFIC CONTROL AND PROTECTION, STANDARD 701602	L SUM	1	1		
70102634	TRAFFIC CONTROL AND PROTECTION, STANDARD 701611	L SUM	1	1		
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1	1		
70102640	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	1	1		
70300100	SHORT TERM PAVEMENT MARKING	FOOT	6,396	6,396		
70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SQ FT	2,132	2,132		
70300211	TEMPORARY PAVEMENT MARKING LETTERS AND SYMBOLS - PAINT	SQ FT	1,720	1,720		
70300221	TEMPORARY PAVEMENT MARKING - LINE 4" - PAINT	FOOT	33,908	33,908		
70300241	TEMPORARY PAVEMENT MARKING - LINE 6" - PAINT	FOOT	4,198	4,198		
70300261	TEMPORARY PAVEMENT MARKING - LINE 12" - PAINT	FOOT	2,640	2,640		
70300281	TEMPORARY PAVEMENT MARKING - LINE 24" - PAINT	FOOT	1,890	1,890		
* 78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	860	860		
* 78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	16,954	16,954		
* 78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	2,099	2,099		
* 78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	1,320	1,320		
* 78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	945	945		
* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	498	498		
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	286	286		
78300202	PAVEMENT MARKING REMOVAL - WATER BLASTING	SQ FT	10,770	10,770		
* 81028200	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA	FOOT	61		61	
* 81400200	HEAVY-DUTY HANDHOLE	EACH	1		1	
* 85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	2		2	
* 87301215	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	752		752	

\* = SPECIALTY ITEM

PAY ITEM NUMBER	DESIGNATION	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE		
				URBAN		80% FEDERAL 20% STA TE
				0005 ROADWAY	0021 TRAFFIC SIGNAL	
* 87301225	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	487		487	
87301305	ELECTRIC CABLE IN CONDUIT, LEAD-IN NO. 14 1 PAIR	FOOT	364		364	
* 87301900	ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	40		40	
* 87900200	DRILL EXISTING HANDHOLE	EACH	5		5	
* 88102717	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2		2	
88600100	DETECTOR LOOP TYPE 1	FOOT	105		105	
* X8860105	DETECTOR LOOP REPLACEMENT	FOOT	1,463		1,463	
* 89500200	RELOCATE EXISTING PEDESTRIAN SIGNAL HEAD	EACH	4		4	
* 89502350	REMOVE AND REINSTALL ELECTRIC CABLE FROM CONDUIT	FOOT	107		107	
* 89502376	REBUILD EXISTING HANDHOLE	EACH	5		5	
89502380	REMOVE EXISTING HANDHOLE	EACH	1		1	
X0320050	CONSTRUCTION LAYOUT (SPECIAL)	L SUM	1	1		
* X1400367	PEDESTRIAN SIGNAL POST, 10 FT.	EACH	4		4	
* X1400423	REMOVE EXISTING PEDESTRIAN PUSH BUTTON	EACH	6		6	
* X1400450	REBUILD EXISTING HEAVY-DUTY HANDHOLE	EACH	3	3		
X1700087	REMOVE AND RE-ERECT BLOCK WALL	L SUM	1.0	1.0		
X4060996	TEMPORARY RAMP (SPECIAL)	SQ YD	477	477		
X4400501	COMBINATION CURB AND GUTTER REMOVAL AND REPLACEMENT LESS THAN OR EQUAL TO 10 FEET	FOOT	74	74		
X4400503	COMBINATION CURB AND GUTTER REMOVAL AND REPLACEMENT GREATER THAN 10 FEET	FOOT	2,367	2,367		
X5537800	STORM SEWERS TO BE CLEANED 12"	FOOT	918		918	
X6030310	FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)	EACH	30	30		
X6700407	ENGINEER'S FIELD OFFICE, TYPE A (D1)	CAL MO	12	12		
* X8100863	INTERCEPT EXISTING CONDUIT	EACH	1		1	
* X8760200	ACCESSIBLE PEDESTRIAN SIGNALS	EACH	10		10	
* X8780012	CONCRETE FOUNDATION, TYPE A 12-INCH DIAMETER	FOOT	16		16	

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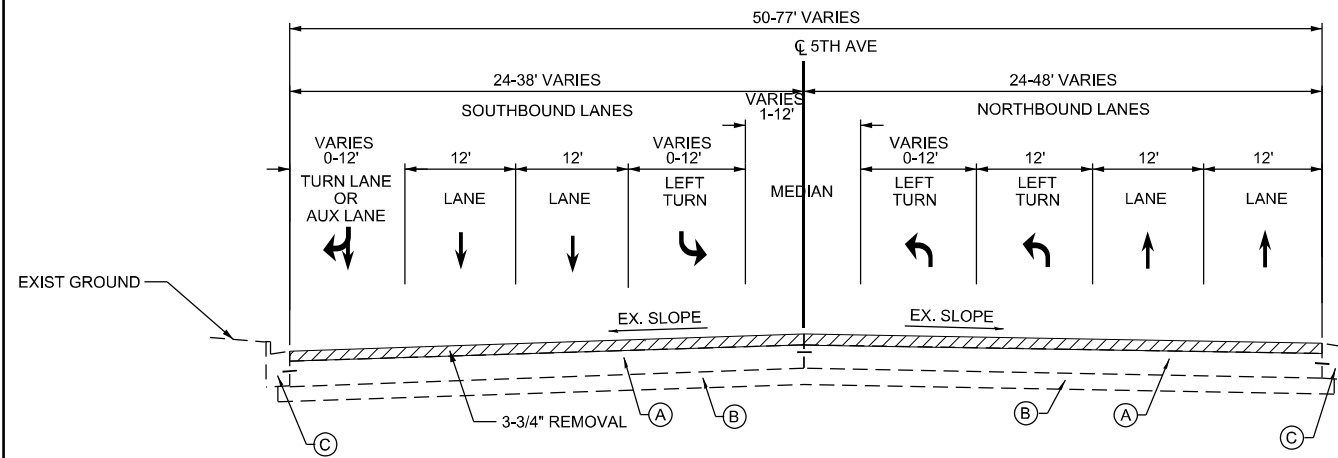
<p><b>INFRASTRUCTURE ENGINEERING</b> INCORPORATED 1 South Wacker   Suite 2650   Chicago, IL 60606 P 312.425.9580   F 312.425.9584   www.infrastructure-eng.com</p>	USER NAME = ALane	DESIGNED - JCS	REVISED -
	PLOT SCALE = 20.0000" / 1"	DRAWN - JCS	REVISED -
		CHECKED - ACL	REVISED -
		DATE - 10/08/2024	

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES	
5TH AVE [DES PLAINES RIVER RD TO IL 64 (NORTH AVE)]	
SCALE: NTS	STA. TO STA.

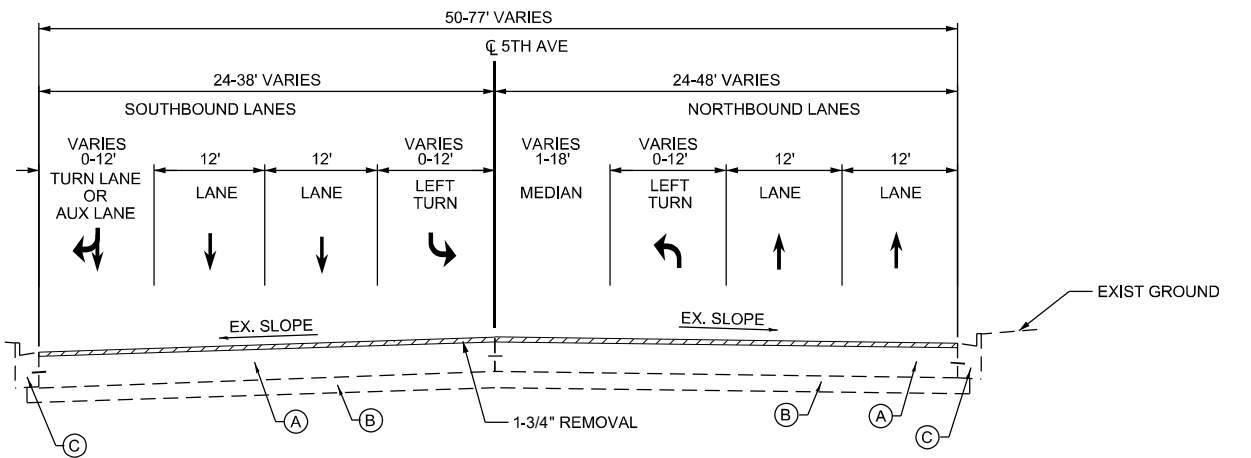
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2742	2024-990-RS,SW	COOK	42	4
CONTRACT NO. 62X15				
ILLINOIS   FED. AID PROJECT				





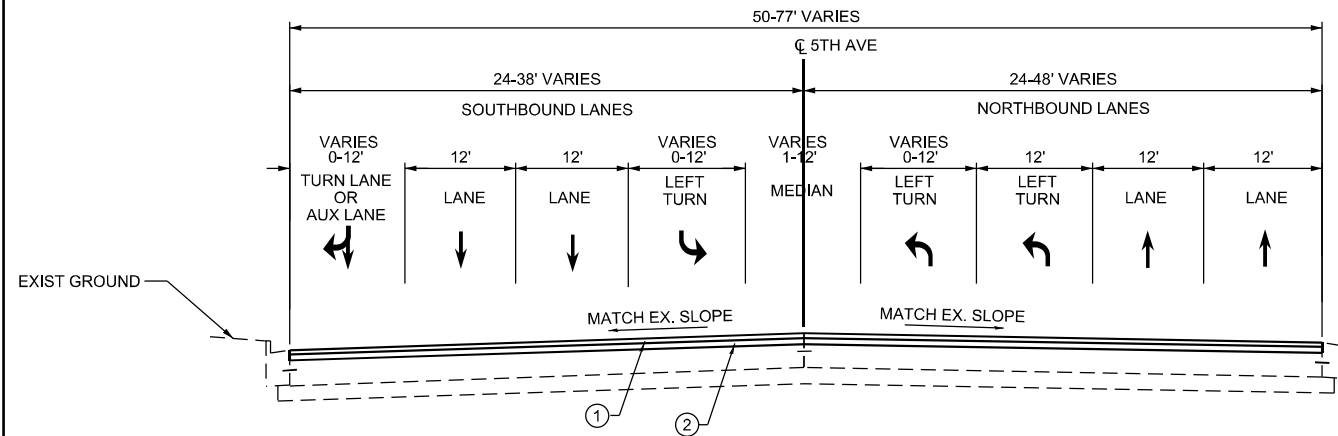
**EXISTING TYPICAL CROSS SECTION**

STA. 12+60 TO STA. 18+08  
 OMISSION AT RAILROAD - STA. 18+08 TO 18+22  
 STA. 18+22 TO STA. 33+32



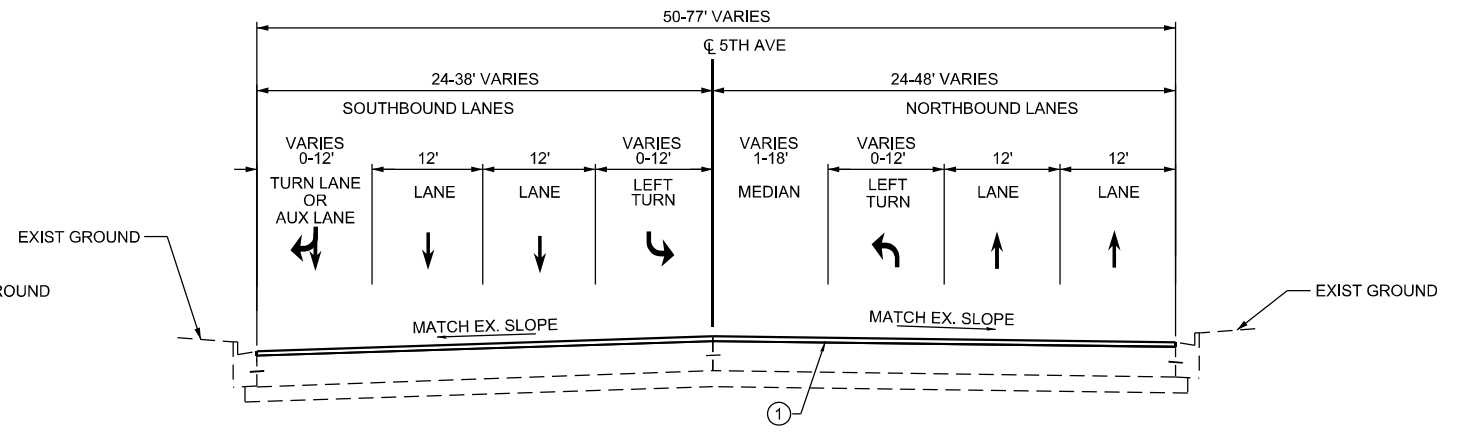
**EXISTING TYPICAL CROSS SECTION**

STA. 33+32 TO STA. 61+79



**PROPOSED TYPICAL CROSS SECTION**

DESIGN OVERLAY  
 THE LONGITUDINAL JOINT SEALANT SHALL BE PLACED OVER THE BINDER  
 STA. 12+60 TO STA. 18+08  
 OMISSION AT RAILROAD - STA. 18+08 TO 18+22  
 STA. 18+22 TO STA. 33+32



**PROPOSED TYPICAL CROSS SECTION**

SMART OVERLAY  
 THE LONGITUDINAL JOINT SEALANT SHALL BE PLACED OVER THE MILLED SURFACE  
 STA. 33+32 TO STA. 61+79

**LEGEND**

- (A) EXISTING HOT-MIX ASPHALT, +/- 11-1/2"
- (B) EXISTING P.C.C. BASE COURSE, +/- 9"
- (C) EXISTING COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24
- ① HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "D", N70, 1 3/4"
- ② HOT-MIX ASPHALT BINDER COURSE, IL-9.5, N70, 2"

HOT-MIX ASPHALT REMOVAL

**NOTES**

1. THE CONTRACTOR SHALL MILL FIRST THEN PATCH.

HOT-MIX ASPHALT MIXTURE REQUIREMENTS		AIR VOIDS @ Ndes	QUALITY MANAGEMENT PROGRAM (QMP)
MIXTURE TYPE			
SMART OVERLAY			
HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "D", N70, 1-3/4"		4.0% @ 70 GYR	QCP
DESIGNED OVERLAY			
HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "D", N70, 1-3/4"		4.0% @ 70 GYR	QCP
HOT-MIX ASPHALT BINDER COURSE, IL-9.5, N70, 2"		4.0% @ 70 GYR	QCP
PATCHING			
CLASS D PATCHES (HMA BINDER IL-19.0)		4.0% @ 70 GYR	QC/QA
DRIVEWAYS			
HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "D", N50, 2"		4.0% @ 50 GYR	QC/QA
HOT-MIX ASPHALT BASE COURSE, 8" (HMA BINDER IL-19.0)		4.0% @ 50 GYR	QC/QA
TEMPORARY RAMP, SPECIAL			
HOT-MIX ASPHALT BINDER COURSE, IL-9.5, N70, VARIABLE DEPTH		4.0% @ 70 GYR	QC/QA

QMP DESIGNATION: QUALITY CONTROL / QUALITY ASSURANCE (QAQC); QUALITY CONTROL FOR PERFORMANCE (QCP); PAY FOR PERFORMANCE (PFP)

**MIXTURE REQUIREMENT NOTES:**

1. THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE MIXTURE QUANTITIES IS 112 LBS/SQ YD/IN.
2. THE "AC TYPE" FOR POLYMERIZED HMA MIXES SHALL BE "SBS/SBR PG 76 -22" AND FOR NON-POLYMERIZED HMA THE "AC TYPE" SHALL BE "PG 64 -22" UNLESS MODIFIED BY RECLAIMED MATERIALS SPECIFICATIONS.

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 PLOT DATE: 11/13/2024



USER NAME = ALane  
 DESIGNED - JCS  
 DRAWN - JCS  
 CHECKED - ACL  
 DATE - 11/13/2024

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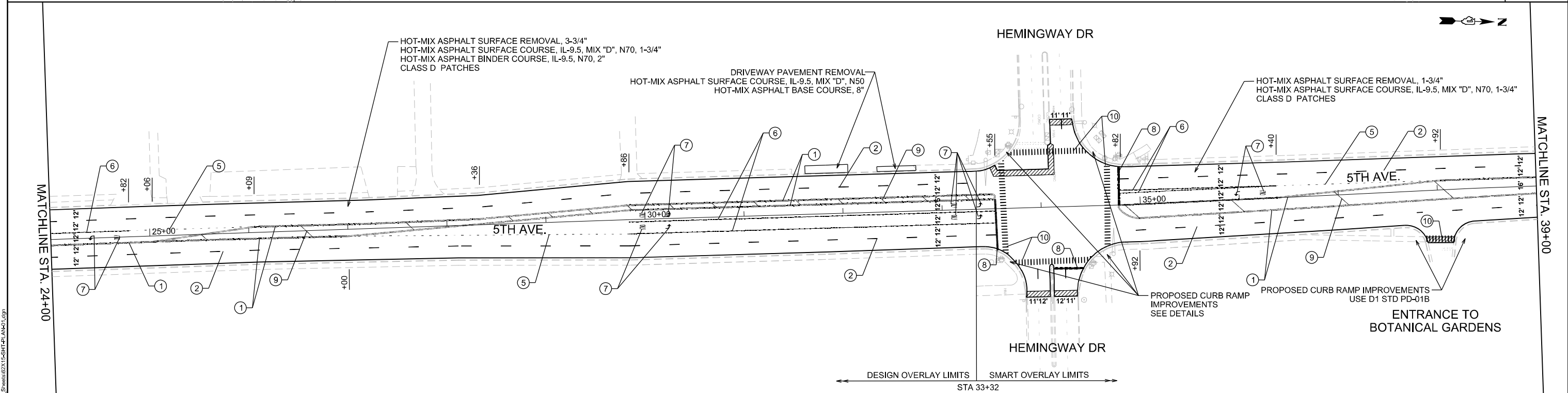
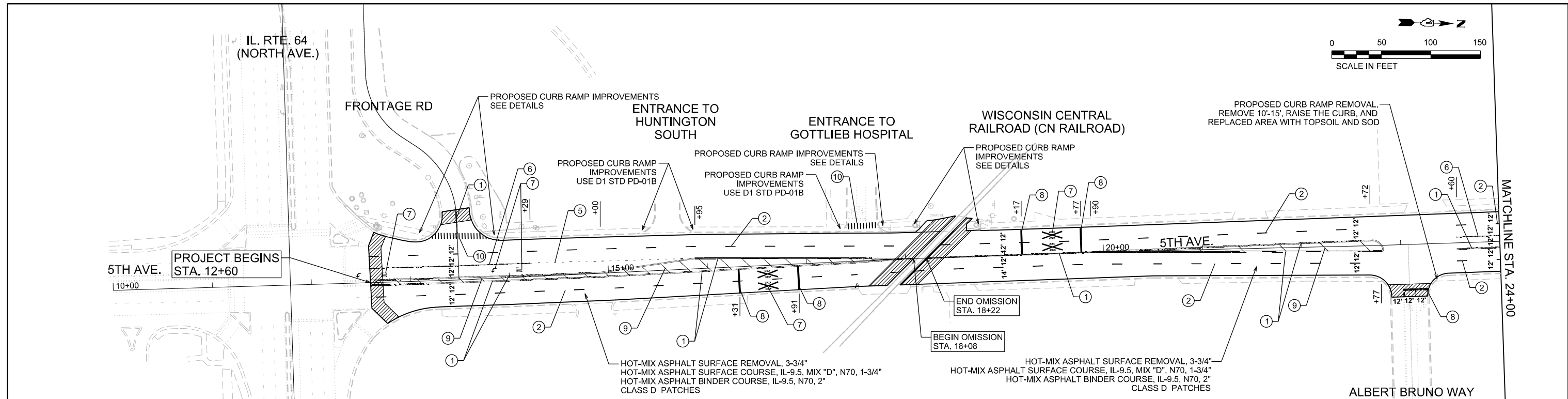
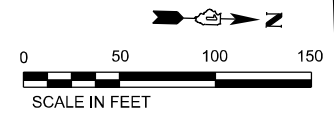
**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**TYPICAL SECTIONS  
 5TH AVE [DES PLAINES RIVER RD TO IL 64 (NORTH AVE)]**

SCALE: 1" = 10'

STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2742	2024-990-RS, SW	COOK	41	6
CONTRACT NO. 62X15				
ILLINOIS		FED. AID PROJECT		



**PAVEMENT MARKING LEGEND**

- ① LINE 4", DOUBLE SOLID YELLOW, 2 @ 11" C-C - (TYP)
- ② LINE 4", SKIP-DASH, WHITE (10' LINE - 30' SPACE) - LANE LINES (TYP)
- ③ NOT USED
- ④ NOT USED
- ⑤ LINE 6", SKIP-DASH, WHITE (2' LINE - 6' SPACE) - DOTTED LINES (TYP)
- ⑥ LINE 6", SOLID WHITE - TURN LANE MARKING (TYP)
- ⑦ LETTERS & SYMBOLS, SOLID WHITE (TYP)
- ⑧ LINE 24", SOLID, WHITE - STOP LINES (TYP)
- ⑨ LINE 12", SOLID, YELLOW - DIAGONAL @ 45 DEG. @ 75' C-C (5 MINIMUM) (TYP)
- ⑩ LINE 12", SOLID, WHITE - CONTINENTAL CROSSWALK (TYP)

**LEGEND**

- HMA SURFACE REMOVAL BUTT JOINT, 4.5'

**NOTES:**

1. LIMIT OF RESURFACING ON THE SIDE STREET THROUGHOUT THE PROJECT SHALL BE TO THE RADIUS RETURN, UNLESS OTHERWISE SHOWN ON THE PLANS, OR AS DIRECTED BY THE RESIDENT ENGINEER/TECHNICIAN.
2. ALL FINAL PAVEMENT MARKINGS SHALL BE THERMOPLASTIC PAVEMENT MARKINGS (OF THE EXTRUDED TYPE) ON HMA PAVEMENT.
3. ALL FINAL PAVEMENT MARKINGS SHALL BE PLACED IN ACCORDANCE WITH TC-13 "DISTRICT ONE TYPICAL PAVEMENT MARKINGS" STANDARD DETAIL.
4. ALL RAISED REFLECTIVE PAVEMENT MARKERS SHALL BE PLACED IN ACCORDANCE WITH TC-11 "TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)" STANDARD DETAIL.

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PLOT SCALE = 100,000' / in.	DRAWN - JCS	REVISED -
	CHECKED - ACL	REVISED -
	DATE - 11/13/2024	

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**ROADWAY AND PAVEMENT MARKING PLANS  
5TH AVE [DES PLAINES RIVER RD TO IL 64 (NORTH AVE)]**

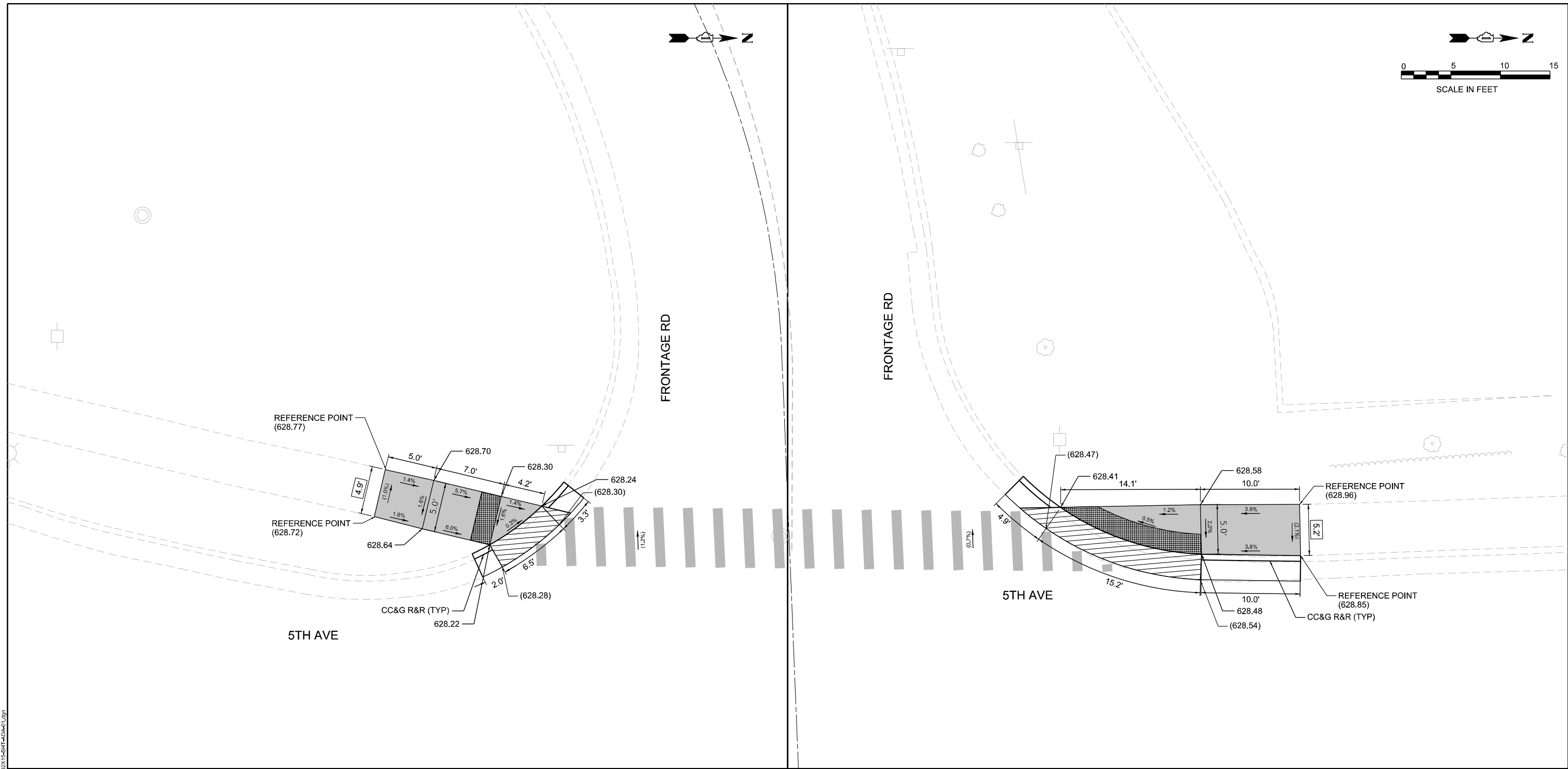
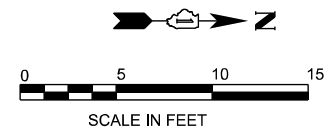
SCALE: 1" = 50'

STA. TO STA.

F.A.U. RTE. 2742	SECTION 2024-990-RS, SW	COUNTY COOK	TOTAL SHEETS 41	SHEET NO. 7
CONTRACT NO. 62X15				
		ILLINOIS	FED. AID PROJECT	







REFERENCE BENCHMARK: 1001, ELEV. 630.17  
 BENCHMARK: NORTH EAST BOLT AT FIRE HYDRANT  
 LOCATION: SOUTH SIDE OF FRONTAGE ROAD WEST OF 5TH AVENUE.

**LEGEND**

xx.xx'	EXISTING LENGTH
( )	EXISTING ELEVATION / SLOPE
[Solid Gray Box]	PROPOSED SIDEWALK
[Cross-hatched Box]	DETECTABLE WARNINGS
[Diagonal Hatched Box]	SIDEWALK REMOVAL REPLACE WITH TOPSOIL AND SOD
[Dashed Line Box]	DEPRESSED CURB AND GUTTER
[Solid Line Box]	PROPOSED SIDE CURB
[X-hatched Box]	PAVEMENT REMOVAL

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DRAWN - JCS	REVISIONS -	
PLOT SCALE = 10,000:1' / in.	CHECKED - ACL	REVISED -
DATE - 10/08/2024		

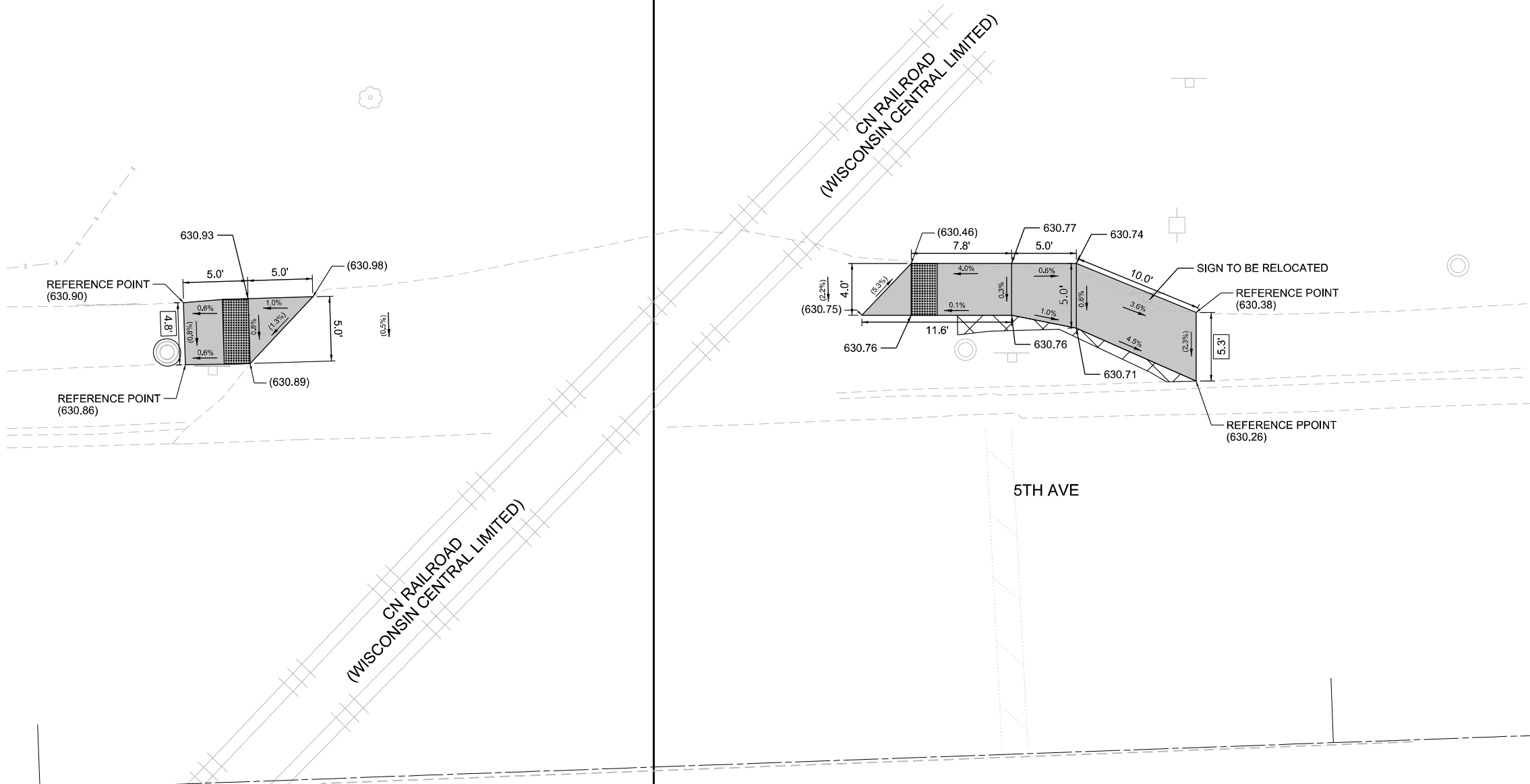
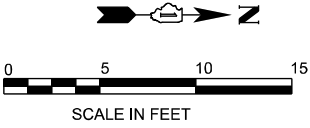
**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**ADA RAMP DETAILS  
 5TH AVE AND FRONTAGE RD**

SCALE: 1" = 10'      STA.      TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2742	2024-990-RS, SW	COOK	42	9
CONTRACT NO. 62X15				
		ILLINOIS	FED. AID PROJECT	





REFERENCE BENCHMARK: 1718, ELEV. 630.995  
 BENCHMARK: "X" CUT IN SIDEWALK  
 LOCATION: NORTHWEST CORNER OF 5TH AVENUE AND ENTRANCE TO HOSPITAL

**LEGEND**

- xx.xx' EXISTING LENGTH
- ( ) EXISTING ELEVATION / SLOPE
- PROPOSED SIDEWALK
- DETECTABLE WARNINGS
- SIDEWALK REMOVAL REPLACE WITH TOPSOIL AND SOD
- DEPRESSED CURB AND GUTTER
- PROPOSED SIDE CURB
- PAVEMENT REMOVAL

MODEL: D:\info\... INFRASTRUCTURE ENGINEERING INCORPORATED

	USER NAME = ALane	DESIGNED - JCS	REVISED -
1 South Wacker   Suite 2650   Chicago, IL 60606	PLOT SCALE = 10,000'1" / in.	DRAWN - JCS	REVISED -
P 312.425.9598   F 312.475.9598   www.infrastructure-eng.com		CHECKED - ACL	REVISED -
		DATE - 10/08/2024	

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

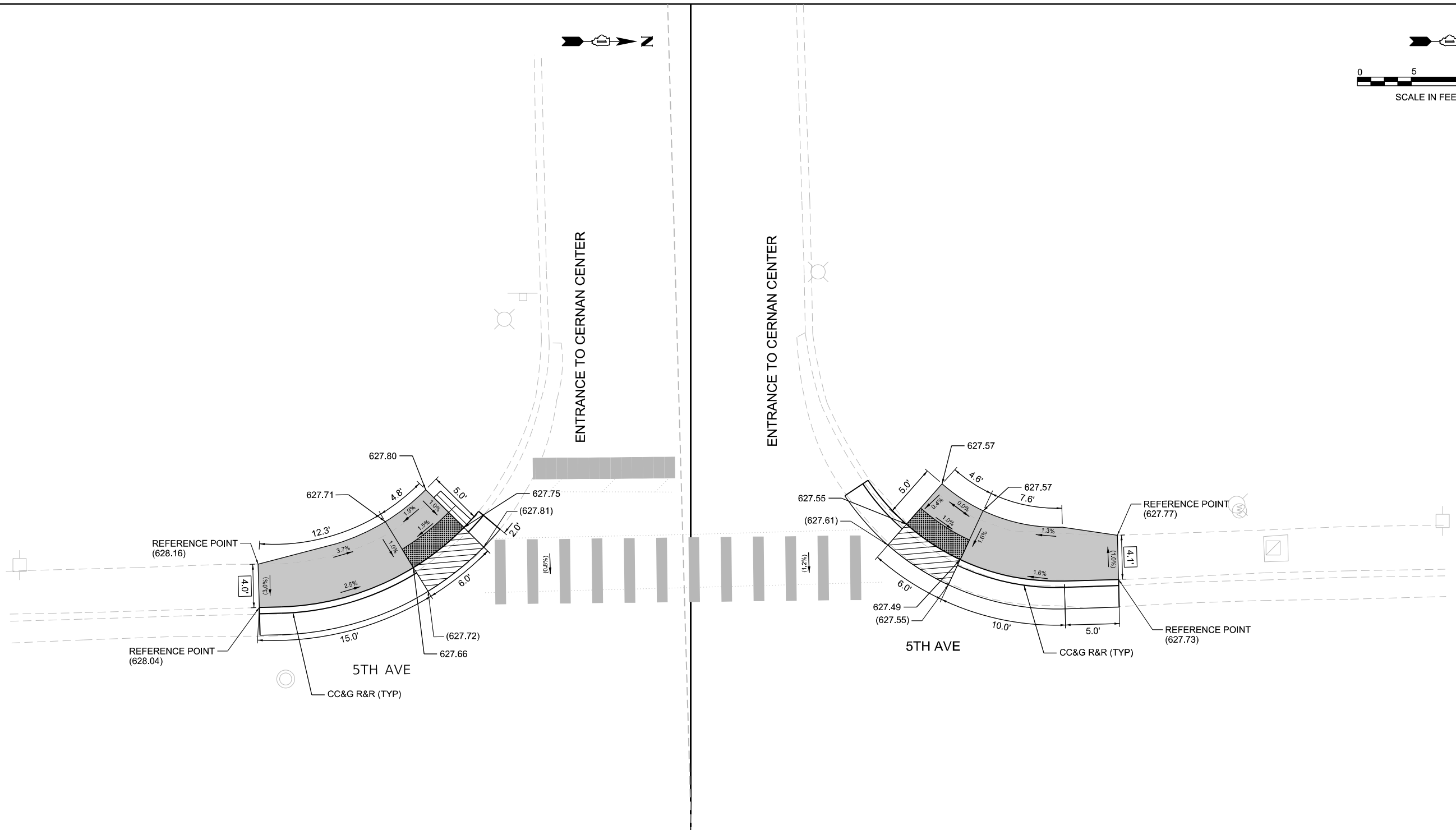
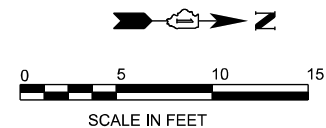
**ADA RAMP DETAILS  
5TH AVE AND CN RAILROAD**

SCALE: 1" = 10'      STA.      TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2742	2024-990-RS, SW	COOK	42	11
CONTRACT NO. 62X15				
ILLINOIS FED. AID PROJECT				







REFERENCE BENCHMARK: 2809, ELEV. 628.054  
 BENCHMARK: "□" SQUARE AT NE CORNER BUS STOP PLATFORM  
 LOCATION: NORTHWEST CORNER OF 5TH AVENUE AND ENTRANCE TO CERNAN

**LEGEND**

xx.xx'	EXISTING LENGTH
( )	EXISTING ELEVATION / SLOPE
[Solid Gray Box]	PROPOSED SIDEWALK
[Grid Pattern Box]	DETECTABLE WARNINGS
[Cross-hatch Pattern Box]	SIDEWALK REMOVAL REPLACE WITH TOPSOIL AND SOD
[Diagonal Line Pattern Box]	DEPRESSED CURB AND GUTTER
[Double Line Box]	PROPOSED SIDE CURB
[X-hatch Pattern Box]	PAVEMENT REMOVAL

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**INFRASTRUCTURE ENGINEERING INCORPORATED**  
 1 South Wacker | Suite 2650 | Chicago, IL 60606  
 P 312.425.9598 | F 312.425.9594 | www.infrastructure-eng.com

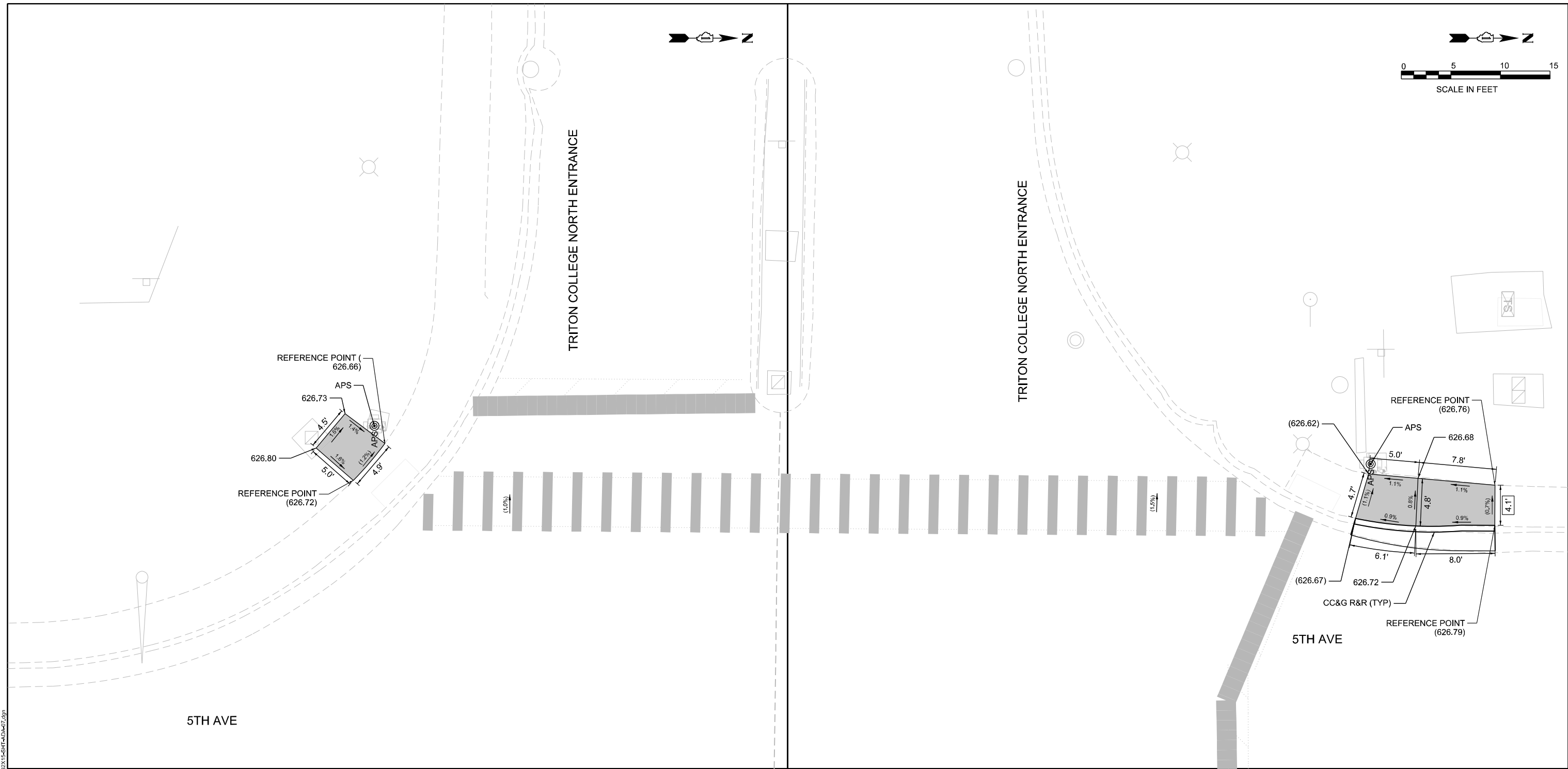
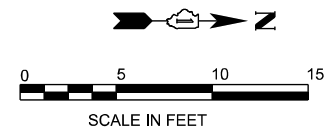
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PLOT SCALE = 10,000'1" / in.	DRAWN - JCS	REVISED -
DATE - 10/08/2024	CHECKED - ACL	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**ADA RAMP DETAILS  
 5TH AVE AND ENTRANCE TO CERNAN CENTER**

SCALE: 1" = 10'      STA.      TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2742	2024-990-RS, SW	COOK	42	14
CONTRACT NO. 62X15				
ILLINOIS FED. AID PROJECT				



REFERENCE BENCHMARK: 2851, ELEV. 627.759  
 BENCHMARK: "□" SQUARE AT SW CORNER TCB  
 LOCATION: NORTHWEST CORNER OF 5TH AVENUE AND ENTRANCE TO TRITON

**LEGEND**

xx.xx'	EXISTING LENGTH
( )	EXISTING ELEVATION / SLOPE
[Solid Grey]	PROPOSED SIDEWALK
[Grid Pattern]	DETECTABLE WARNINGS
[Cross-hatch Pattern]	SIDEWALK REMOVAL REPLACE WITH TOPSOIL AND SOD
[Diagonal Lines]	DEPRESSED CURB AND GUTTER
[Single Line]	PROPOSED SIDE CURB
[X Pattern]	PAVEMENT REMOVAL

MODEL: D:\p\inf\...  
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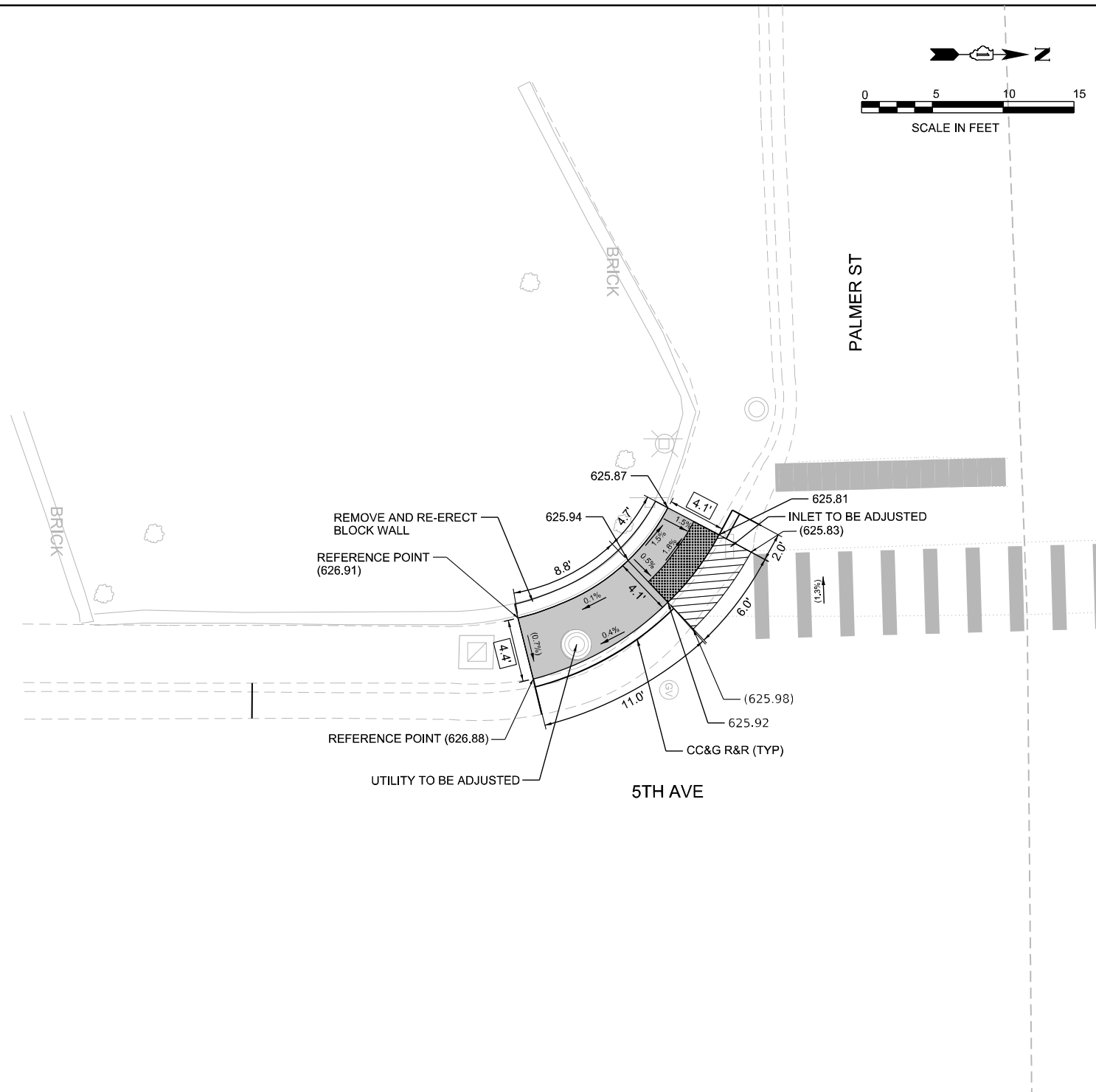
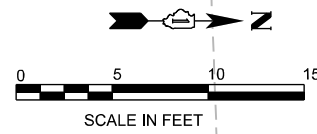
 <b>INFRASTRUCTURE ENGINEERING</b> <small>1 South Wacker   Suite 2650   Chicago, IL 60606          P 312.425.9598   F 312.425.9594   www.infrastructure-eng.com</small>	USER NAME = ALane	DESIGNED - JCS	REVISED -
	PLOT SCALE = 10,000'1" / in.	DRAWN - JCS	REVISED -
		CHECKED - ACL	REVISED -
		DATE - 11/13/2024	

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**ADA RAMP DETAILS  
 5TH AVE AND TRITON COLLEGE NORTH ENTRANCE**

SCALE: 1" = 10'      STA.      TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2742	2024-990-RS, SW	COOK	41	15
CONTRACT NO. 62X15				
		ILLINOIS	FED. AID PROJECT	

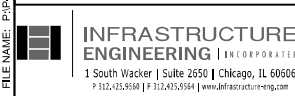


REFERENCE BENCHMARK: 3305, ELEV. 627.456  
 BENCHMARK: NW BOLT OF FIRE HYDRANT  
 LOCATION: NORTHWEST CORNER OF 5TH AVENUE AND PALMER STREET

**LEGEND**

- xx.xx' EXISTING LENGTH
- ( ) EXISTING ELEVATION / SLOPE
- PROPOSED SIDEWALK
- DETECTABLE WARNINGS
- SIDEWALK REMOVAL REPLACE WITH TOPSOIL AND SOD
- DEPRESSED CURB AND GUTTER
- PROPOSED SIDE CURB
- PAVEMENT REMOVAL

MODEL: D:\p\h\h\...  
 FILE NAME: P:\R22\22-4875-00\DOT\_Various\_Phases\_2\RTB\_2024\03\W0\_21\_62X1BD\GN\CADD\_Sheets\62X1P5\5TH-40-48.dgn



USER NAME = ALane	DESIGNED - JCS	REVISED -
DRAWN - JCS	REVISIONS -	
CHECKED - ACL	REVISIONS -	
DATE - 10/08/2024		

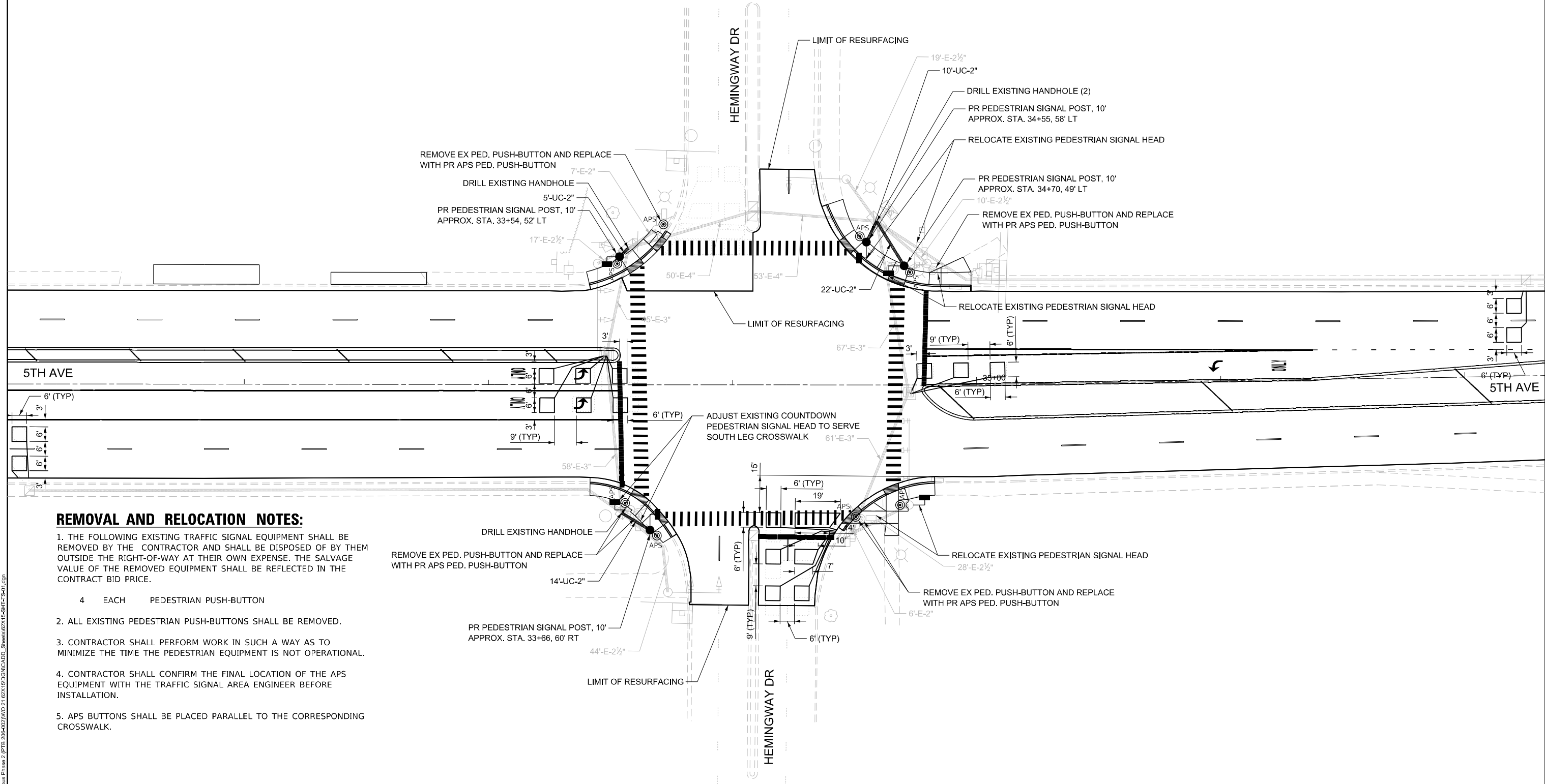
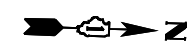
PLOT SCALE = 10,000'1" / in.
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**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

<b>ADA RAMP DETAILS</b>	
<b>5TH AVE AND PALMER ST</b>	
SCALE: 1" = 10'	STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2742	2024-990-RS,SW	COOK	42	16
CONTRACT NO. 62X15				
ILLINOIS FED. AID PROJECT				





**REMOVAL AND RELOCATION NOTES:**

1. THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR OWN EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.
  - 4 EACH PEDESTRIAN PUSH-BUTTON
2. ALL EXISTING PEDESTRIAN PUSH-BUTTONS SHALL BE REMOVED.
3. CONTRACTOR SHALL PERFORM WORK IN SUCH A WAY AS TO MINIMIZE THE TIME THE PEDESTRIAN EQUIPMENT IS NOT OPERATIONAL.
4. CONTRACTOR SHALL CONFIRM THE FINAL LOCATION OF THE APSS EQUIPMENT WITH THE TRAFFIC SIGNAL AREA ENGINEER BEFORE INSTALLATION.
5. APSS BUTTONS SHALL BE PLACED PARALLEL TO THE CORRESPONDING CROSSWALK.

MODEL: D:\p1\1\2742\2742-RS-SW\2742-RS-SW-TrafficSignal\2742-RS-SW-TrafficSignal.dwg  
 FILE NAME: 2742-RS-SW-TrafficSignal.dwg  
 PLOT SCALE: 1/4" = 1'-0"

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USER NAME = Notte	DESIGNED - NFO	REVISED -
PLOT SCALE = 40,0000' / in.	DRAWN - NFO	REVISED -
	CHECKED - ACL	REVISED -
	DATE - 11/13/2024	

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC SIGNAL INSTALLATION PLAN  
5TH AVE AND HEMINGWAY DR**

SCALE: 1" = 20'      STA.      TO STA.

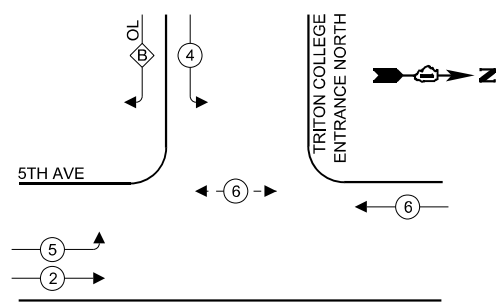
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2742	2024-990-RS, SW	COOK	41	17
CONTRACT NO. 62X15				
		ILLINOIS	FED. AID PROJECT	

**TS 3690  
EAGLE**





### EXISTING CONTROLLER SEQUENCE



### LEGEND

- ← ⊛ → PROTECTED PHASE
- ← ⊛ - - ⊛ → PROTECTED/PERMITTED PHASE
- ← ⊛ ⊛ → PEDESTRIAN PHASE
- ← ⊛ OL → OVERLAP

### EXISTING PHASE DESIGNATION DIAGRAM

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
B	= 4	+ 5

### SCHEDULE OF QUANTITIES

DESCRIPTION	UNIT	TOTAL
REMOVE EXISTING PEDESTRIAN PUSH BUTTON	EACH	2
INTERCEPT EXISTING CONDUIT	EACH	1
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	10
HEAVY-DUTY HANDHOLE	EACH	1
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	672
ACCESSIBLE PEDESTRIAN SIGNALS	EACH	2
DETECTOR LOOP, TYPE I	FOOT	105
DETECTOR LOOP REPLACEMENT	FOOT	364
REMOVE EXISTING HANDHOLE	EACH	1
RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL 1	EACH	1

### TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS

EQUIPMENT TYPE	QUANTITY	UNIT WATTAGE	TOTAL WATTAGE
SIGNAL HEAD 1 OR 3-SECTION	8	11	88
4-SECTION	-	14	-
5-SECTION	2	13	26
PROGRAMMABLE 3-SECTION	-	22	-
4-SECTION	-	32	-
5-SECTION	-	28	-
PEDESTRIAN SIGNAL CONTROLLER	2	15	30
MASTER CONTROLLER	1	150	150
UPS	1	25	25
DETECTION RADAR OR VIDEO	-	20	-
BLANK-OUT SIGN	-	25	-
NETWORK SWITCH II OR III	-	35	-
CELLULAR MODEM	-	15	-
TOTAL UPS SIZING			319
UPS CHARGING	1	225	225
BATTERY HEATER MAT	1	180	180
CABINET HEATER	1	200	200
FLASHER	-	15	-
LED STREET NAME SIGN	-	120	-
LUMINAIRE	-	240	-
TOTAL SERVICE WIRE SIZING			924

### ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION

201 W. CENTER CT,  
SCHAUMBURG, IL 60196

### ENERGY SUPPLY:

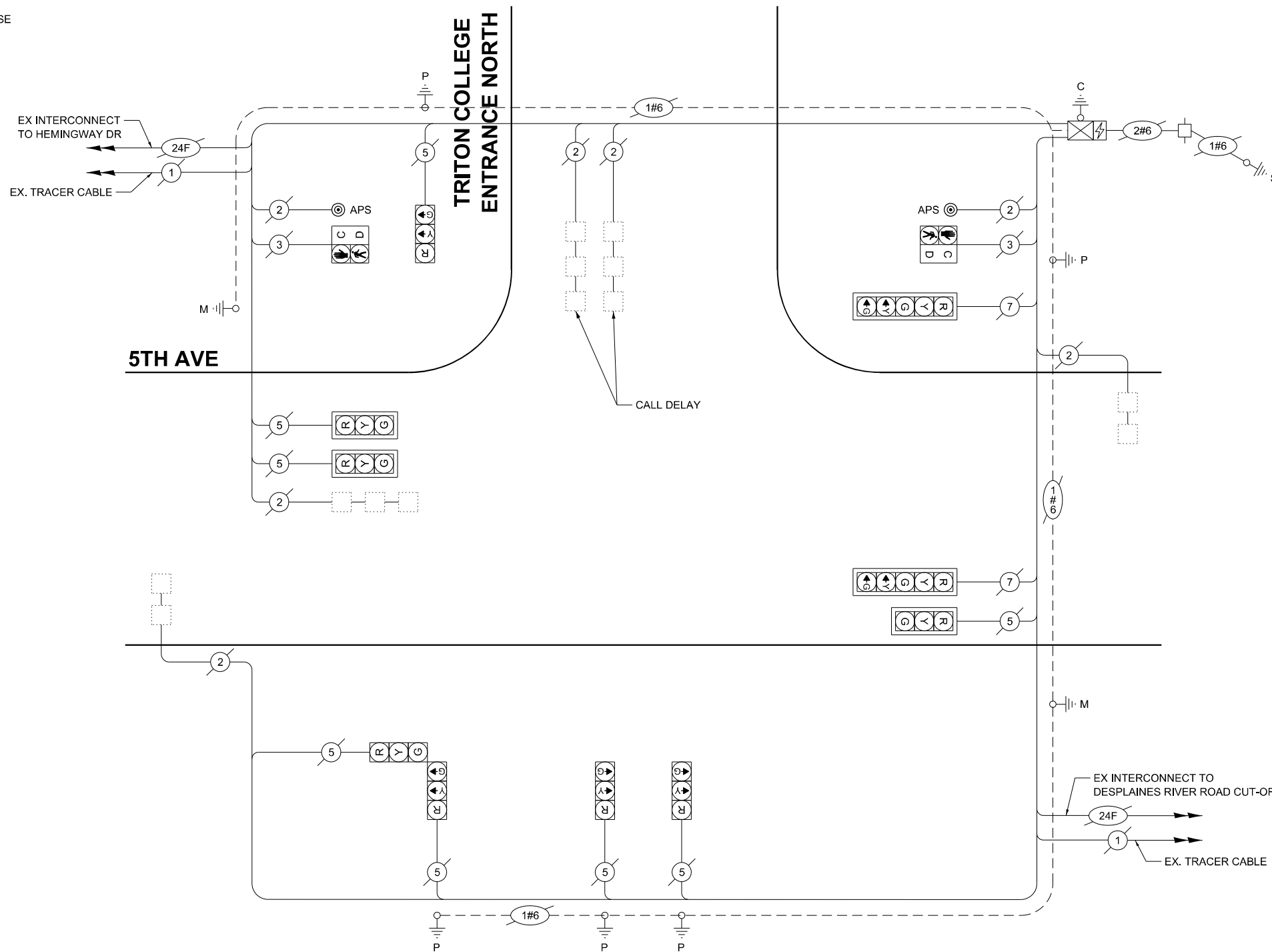
CONTACT: ERIKA IRBY

PHONE: (779)-231-0633

COMPANY: COMMONWEALTH EDISON

ACCOUNT NUMBER:

METER NUMBER:



### CABLE PLAN (NOT TO SCALE)

TS 3685  
EAGLE

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SOQ, CABLE PLAN, PHASE DIAGRAM  
5TH AVE AND TRITON COLLEGE NORTH ENTRANCE

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2742	2024-990-RS, SW	COOK	41	20
CONTRACT NO. 62X15				

SCALE: 1" = 20'

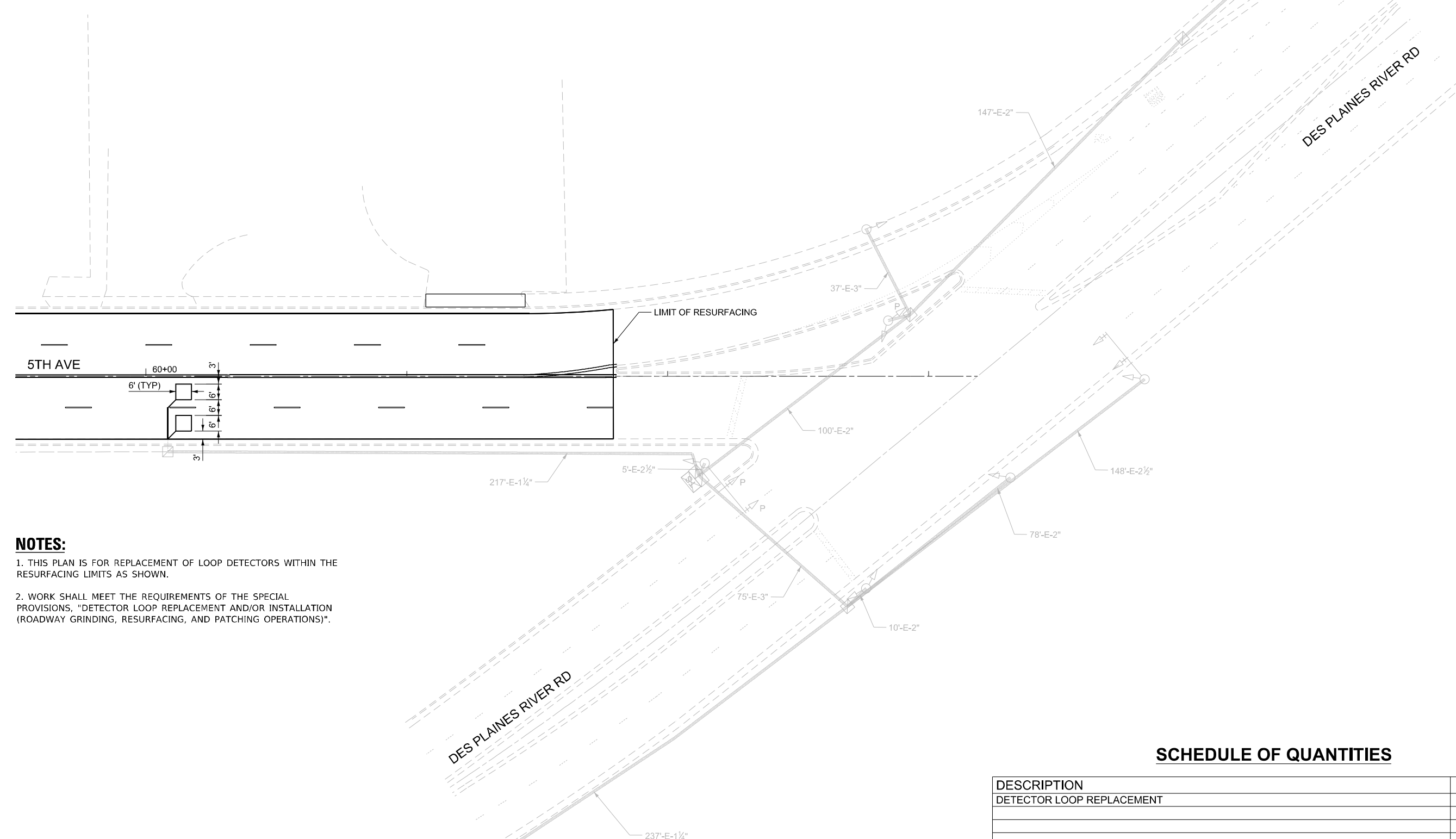
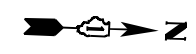
STA. TO STA.

ILLINOIS FED. AID PROJECT

MODEL: D:\ch14... FILE NAME: P:\2022\2024-990-RS\DOT\_Vehicle Phase 2 (RTB 20240201)\WD 21 62X15\BGN\CADD\_Sheets\62X15-SHT-20.dgn

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1 South Wacker | Suite 2650 | Chicago, IL 60606  
P 312.425.9598 | F 312.425.9594 | www.infrastructure-eng.com

USER NAME = Alane	DESIGNED - NFO	REVISED -
PLOT SCALE = 2,000' = 1" IN.	DRAWN - NFO	REVISED -
	CHECKED - ACL	REVISED -
	DATE - 11/13/2024	



**NOTES:**

1. THIS PLAN IS FOR REPLACEMENT OF LOOP DETECTORS WITHIN THE RESURFACING LIMITS AS SHOWN.
2. WORK SHALL MEET THE REQUIREMENTS OF THE SPECIAL PROVISIONS, "DETECTOR LOOP REPLACEMENT AND/OR INSTALLATION (ROADWAY GRINDING, RESURFACING, AND PATCHING OPERATIONS)".

**SCHEDULE OF QUANTITIES**

DESCRIPTION	UNIT	TOTAL
DETECTOR LOOP REPLACEMENT	FOOT	70

**TS 3690  
EAGLE 5K**

MODEL: D:\p1\m...  
 FILE NAME: P:\R22\22-4875-40\DOT\_Various\_Phases\_2\PTB\_2024-03\W0 21\_62X15\BDC\NCADD\_Sheets\62X15-SHT-5C-21.dgn

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 1 South Wacker | Suite 2650 | Chicago, IL 60606  
 P 312.425.9598 | F 312.425.9598 | www.infrastructure-eng.com

USER NAME = Notte	DESIGNED - NFO	REVISED -
PLOT SCALE = 40,0000' / in.	DRAWN - NFO	REVISED -
DATE - 11/13/2024	CHECKED - ACL	REVISED -

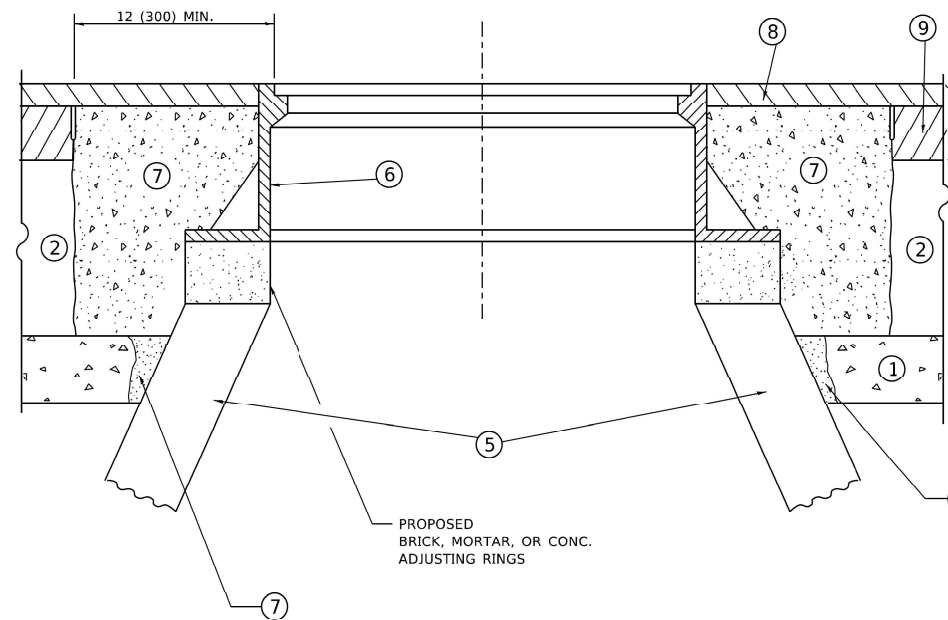
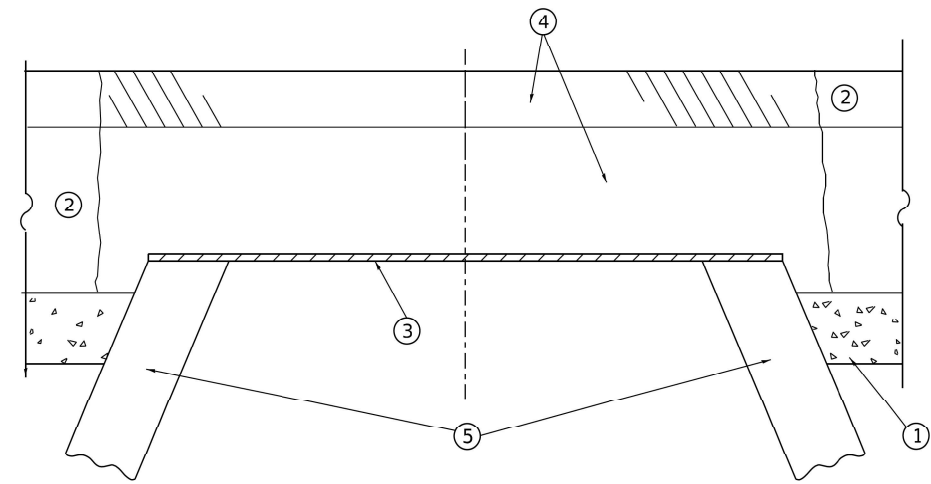
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**DETECTOR LOOP REPLACEMENT PLAN  
5TH AVE AND DES PLAINES RIVER RD**

SCALE: 1" = 20'      STA.      TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2742	2024-990-RS,SW	COOK	41	21
CONTRACT NO. 62X15				
ILLINOIS		FED. AID PROJECT		





**DETAILS FOR FRAMES AND LIDS ADJUSTMENT  
WITH MILLING**

**NOTES**

1. EXISTING BROKEN FRAMES AND LIDS SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR AND SHALL BE REPLACED AS DIRECTED BY THE ENGINEER. REPLACEMENT FRAMES AND LIDS WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS UNLESS A SEPARATE PAY ITEM HAS BEEN PROVIDED.
2. IF THE EXISTING LIDS ARE OPEN, THE FRAME WILL BE ADJUSTED TO THE ELEVATION OF THE MILLED PAVEMENT SURFACE PRIOR TO THE MILLING OPERATION. THE FRAME WILL NOT BE REMOVED AND COVERED BY THE METAL PLATE.
3. CITY OF CHICAGO CASTINGS ARE THE PROPERTY OF THE CITY AND THE CONTRACTOR SHALL NOTIFY THE CITY FOR REMOVAL AND DISPOSITION OF THE CASTINGS.
4. THE METAL PLATE USED TO COVER THE STRUCTURE SHALL REMAIN THE PROPERTY OF THE CONTRACTOR.
5. THE CONTRACTOR SHALL REMOVE ALL TRAFFIC CONTROL DEVICES BY THE END OF EACH WORK SHIFT.

**CONSTRUCTION PROCEDURES**

**STAGE 1 (BEFORE PAVEMENT MILLING)**

- A) REMOVE A MINIMUM OF 12 (300) OF THE PAVEMENT FROM AROUND THE STRUCTURE.
- B) REMOVE THE EXISTING FRAME AND LID FROM THE STRUCTURE.
- C) COVER THE STRUCTURE OPENING WITH A 36 (900) DIAMETER METAL PLATE.
- D) BACKFILL WITH CRUSHED STONE AND HMA SURFACE MIX APPROVED BY THE ENGINEER. (MIN. 3 (80) HMA TO REMAIN AFTER MILLING).

**STAGE 2 (AFTER PAVEMENT MILLING)**

- A) REMOVE THE HMA SURFACE MIX AND CRUSHED STONE.
- B) INSTALL THE FRAME AND LID; ADJUST THE FRAME TO ITS FINAL SURFACE ELEVATION.
- C) THE SURROUNDING SPACE SHALL BE FILLED WITH CLASS PP-2\* CONCRETE TO THE ELEVATION OF THE SURFACE OF THE EXISTING BASE COURSE OR THE BINDER COURSE.

\* UNLESS OTHERWISE SPECIFIED IN THE PLANS.

THE PROCEDURE EXPLAINED ABOVE SHALL CONFORM TO THE APPLICABLE PORTIONS OF SECTIONS 353, 406, 602, AND 603 OF THE STANDARD SPECIFICATIONS EXCEPT THAT "THE CONTRACTOR SHALL ADJUST THE STRUCTURES TO THE FINISHED PAVEMENT ELEVATION NO MORE THAN 5 CALENDAR DAYS PRIOR TO PLACEMENT OF THE FINAL LIFT OF SURFACE UNLESS APPROVED BY THE ENGINEER."

**LEGEND**

- |  |                               |
|--|-------------------------------|
| ① SUB-BASE GRANULAR MATERIAL                 | ⑥ FRAME AND LID (SEE NOTES)   |
| ② EXISTING PAVEMENT                          | ⑦ CLASS PP-2* CONCRETE        |
| ③ 36 (900) DIAMETER METAL PLATE              | ⑧ PROPOSED HMA SURFACE COURSE |
| ④ PROPOSED CRUSHED STONE AND HMA SURFACE MIX | ⑨ PROPOSED HMA BINDER COURSE  |
| ⑤ EXISTING STRUCTURE                         |                               |

**LOCATION OF STRUCTURES**

THE CONTRACTOR WILL BE REQUIRED TO KEEP A RECORD OF THE LOCATIONS OF THE BURIED STRUCTURES ACCORDING TO THE STATION AND DISTANCE LEFT OR RIGHT OF THE CENTERLINE OF PAVEMENT. UPON COMPLETION OF THE WORK, THE CONTRACTOR WILL DELIVER THE RECORD TO THE ENGINEER.

**BASIS OF PAYMENT**

1. REMOVING FRAMES AND LIDS ON DRAINAGE AND UTILITY STRUCTURES IN THE PAVEMENT PRIOR TO MILLING, AND ADJUSTING TO FINAL GRADE PRIOR TO PLACING THE SURFACE COURSE, WILL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR "FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)."
2. THIS WORK WILL NOT BE PAID FOR WHEN DRAINAGE AND UTILITY STRUCTURES ARE SPECIFIED FOR PAYMENT AS STRUCTURE RECONSTRUCTION.
3. NEW FRAMES AND LIDS, WHEN SPECIFIED, WILL BE PAID FOR SEPARATELY.
4. WHEN STRUCTURES ARE TO BE ADJUSTED OR RECONSTRUCTED, THE LOWERING AND RAISING OF THE FRAMES AND LIDS WILL NOT BE PAID FOR SEPARATELY BUT WILL BE INCLUDED IN THE COST OF THE CORRESPONDING PAY ITEM.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

MODEL: Default  
FILE NAME: W:\Bids\2023\2310b08.dgn

USER NAME = Lawrence.DeManche	DESIGNED - R. SHAH	REVISED - R. BORO 03-09-11
	DRAWN -	REVISED - R. BORO 12-06-11
PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED - K. SMITH 11-18-22
PLOT DATE = 9/15/2023	DATE - 10-25-94	REVISED - K. SMITH 09-15-23

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

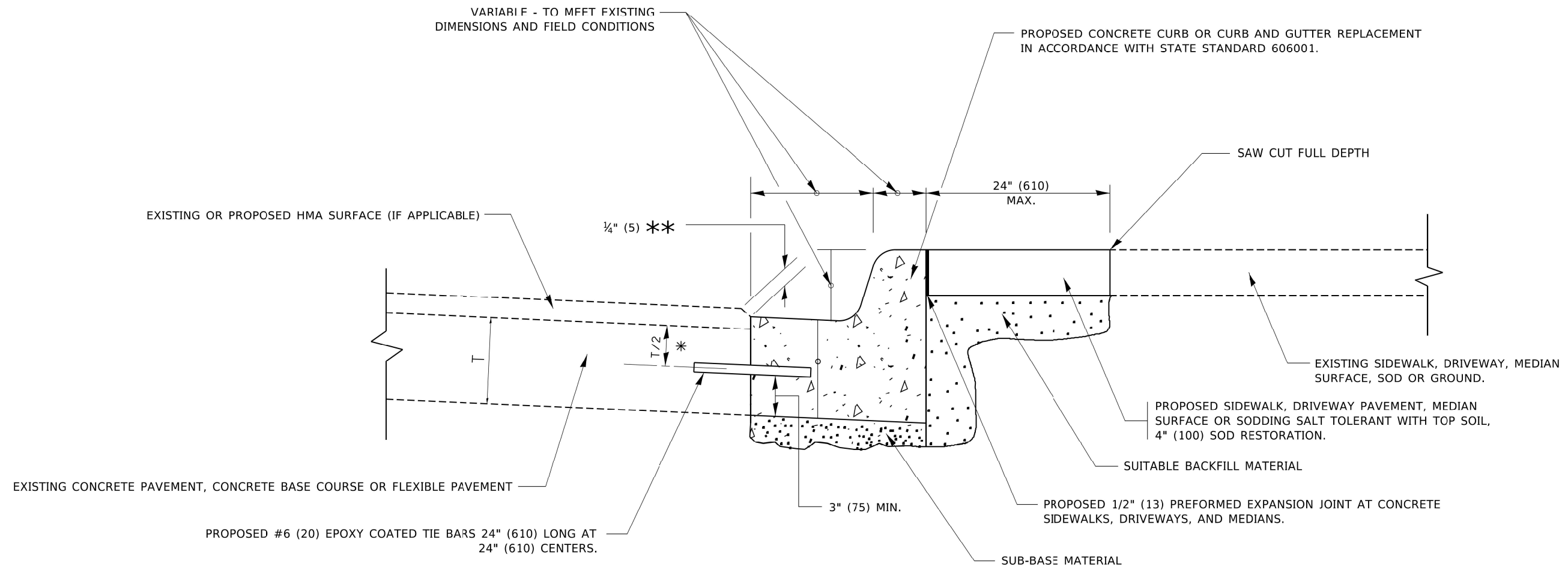
**DETAILS FOR  
FRAMES AND LIDS ADJUSTMENT WITH MILLING**

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

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2742	2024-990-RS,SW	COOK	42	23
BD600-03 (BD-08)		CONTRACT NO. 62X15		
ILLINOIS FED. AID PROJECT				







- \* 3" (75) MINIMUM FROM TOP AND BOTTOM OF THE CONCRETE PAVEMENT OR BASE COURSE.
- \*\* IF THE FINAL SURFACE OF THE PAVEMENT IS CONCRETE, THE GUTTER IS TO BE FLUSH WITH THE PAVEMENT.

# CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

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

MDE - Default - Proj\p12019\15328PM\11erefor...  
 FILE NAME: Proj\p12019\15328PM\11erefor...

USER NAME = footemj	DESIGNED - A. HOUSEH	REVISED - A. ABBAS 03-21-97
	DRAWN -	REVISED - M. GOMEZ 01-22-01
PLOT SCALE = 50.0000' / in.	CHECKED -	REVISED - R. BORO 12-15-09
PLOT DATE = 7/11/2019	DATE - 03-11-94	REVISED - K. SMITH 07-11-19

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

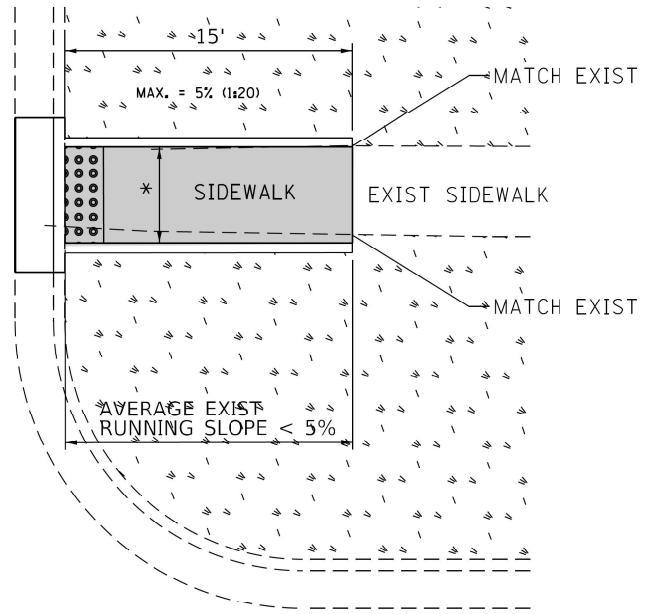
<b>CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT</b>			
SCALE: NONE	SHEET 1	OF 1 SHEETS	STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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<b>BD600-06 (BD-24)</b>		CONTRACT NO. 62X15		
ILLINOIS FED. AID PROJECT				

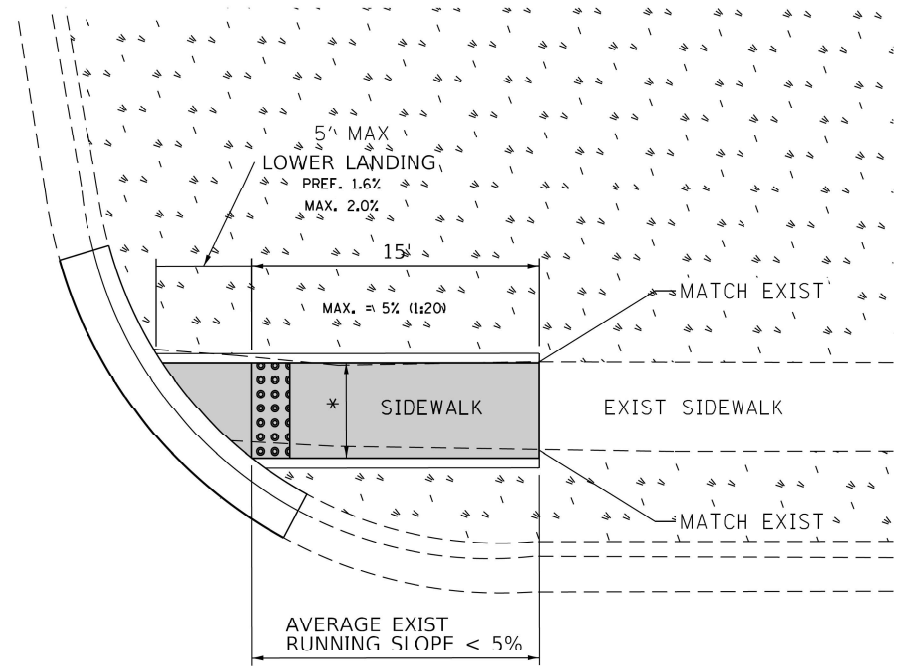


ADA DETAIL FOR SINGLE PERPENDICULAR CURB RAMPS W/ EXIST. 5% OR LESS RUN. SLOPE

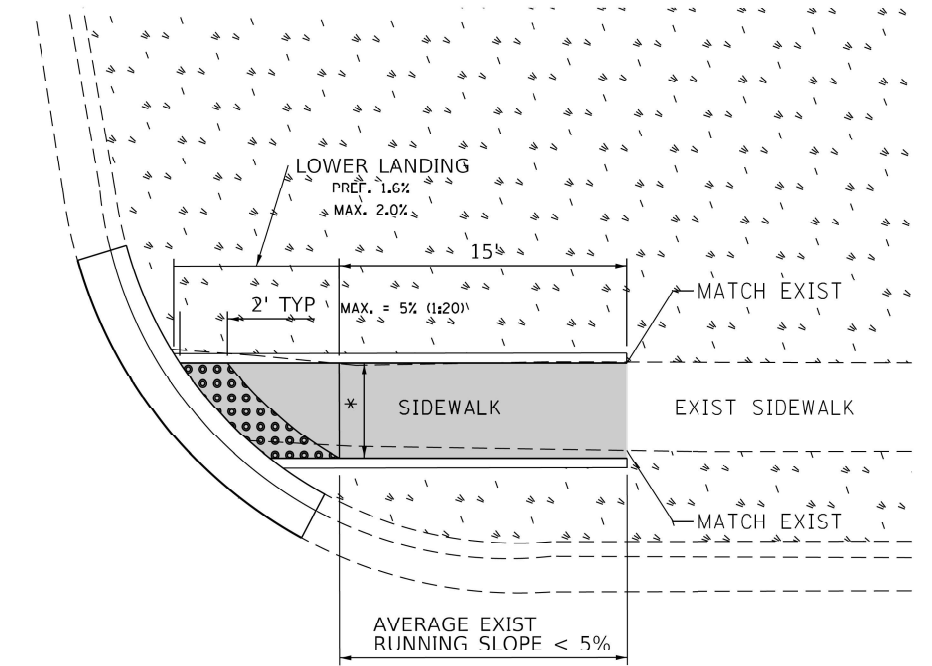
PD-01A



PD-01B



PD-01C



- DESIGNER NOTES:**
- 1) ALL CROSS SLOPES ARE PREFERRED 1.6% (1:64), MAXIMUM 2% (1:50).
  - 2) SIDEWALK REALIGNMENT WILL REQUIRE DETAILED DESIGN.
  - 3) AREAS SURROUNDED BY PCC/ASPHALT, BUILDINGS, OR ARE NEAR TO DRIVEWAYS, REALIGNED SIDEWALK, UTILITY AND SIGNAL POLES, OR WHEN PRIVATE SIDEWALK TIES IN, WILL REQUIRE DETAILED SURVEY AND DESIGN.
  - 4) ALL BRICK CORNERS WILL REQUIRE SUPERVISOR APPROVAL BEFORE USING PROJECT DETAILS

**LEGEND**

PROPOSED SIDE CURB  
 EXIST. GRASS  
 PROPOSED SIDEWALK  
 DETECTABLE WARNINGS

- CONSTRUCTION NOTES:**
- 1) ALL CROSS SLOPES ARE PREFERRED 1.6% (1:64), MAXIMUM 2% (1:50) EXCEPT WHEN TRANSITIONING TO EXISTING SIDEWALK
- \* MATCH EXISTING SIDEWALK WIDTH

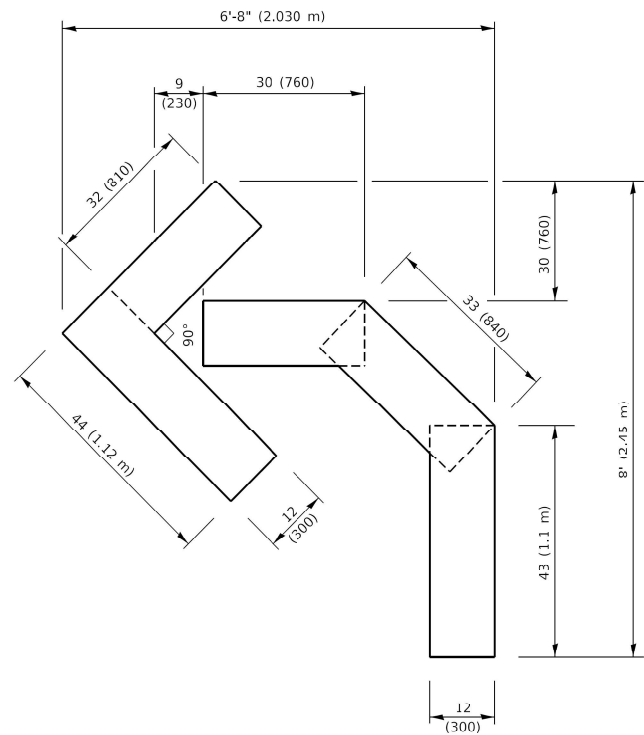
FILE NAME =	USER NAME = ldezmar	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>PROJECT DETAIL FOR SINGLE PERPENDICULAR CURB RAMPS (PD-01)</b>				F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S:\WP\PLANPREP\SQUAD\1\Des_RL\Typical ADA details\Typical-ADA-sht-plan.dgn	DRAWN - RL 11/12/2019	REVISIONS -	REVISIONS -						2742	2024-990-RS, SW	COOK	42	27
Default	PLOT SCALE = 10,0000' / 1"	CHECKED -	REVISIONS -		PD-01				CONTRACT NO. 62X15				
	PLOT DATE = 12/17/2019	DATE -	REVISIONS -		SCALE: SHEET OF SHEETS STA. TO STA.				ILLINOIS FED. AID PROJECT				





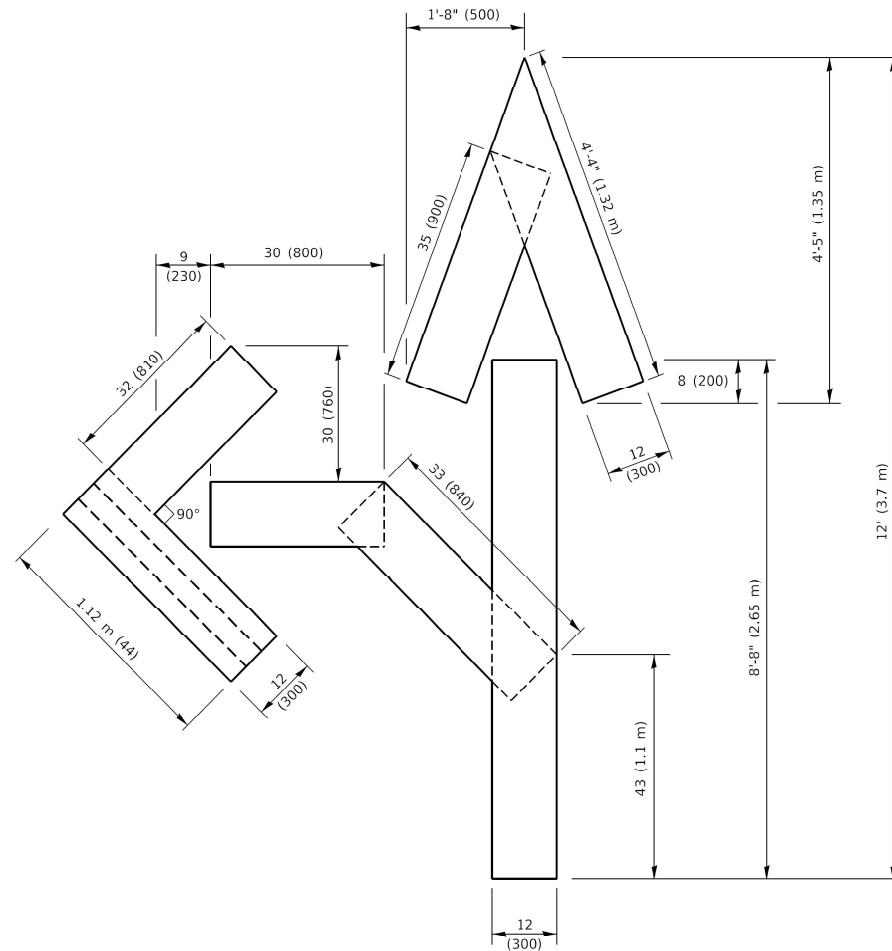






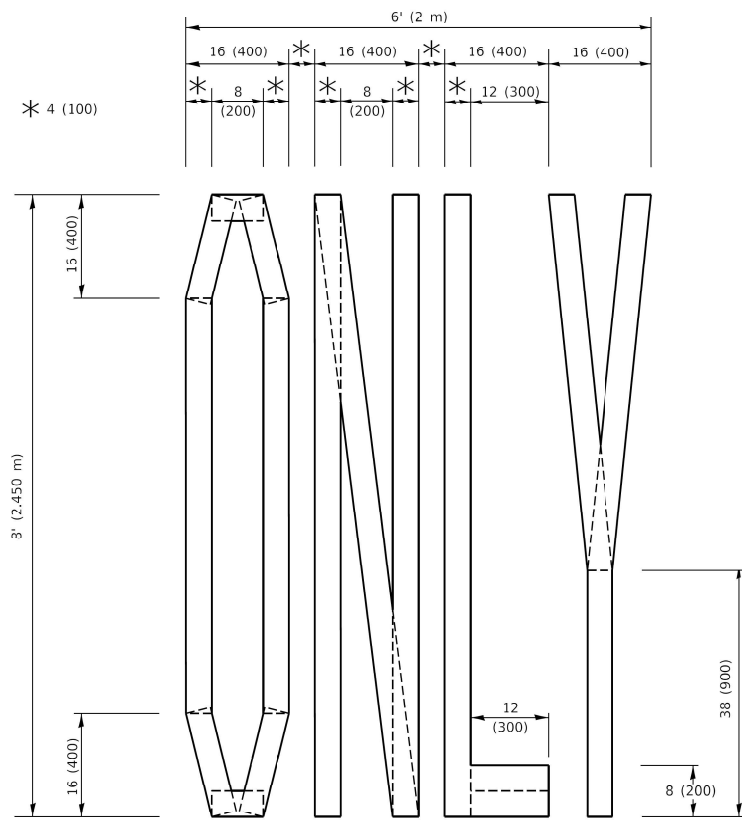
**QUANTITY**

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



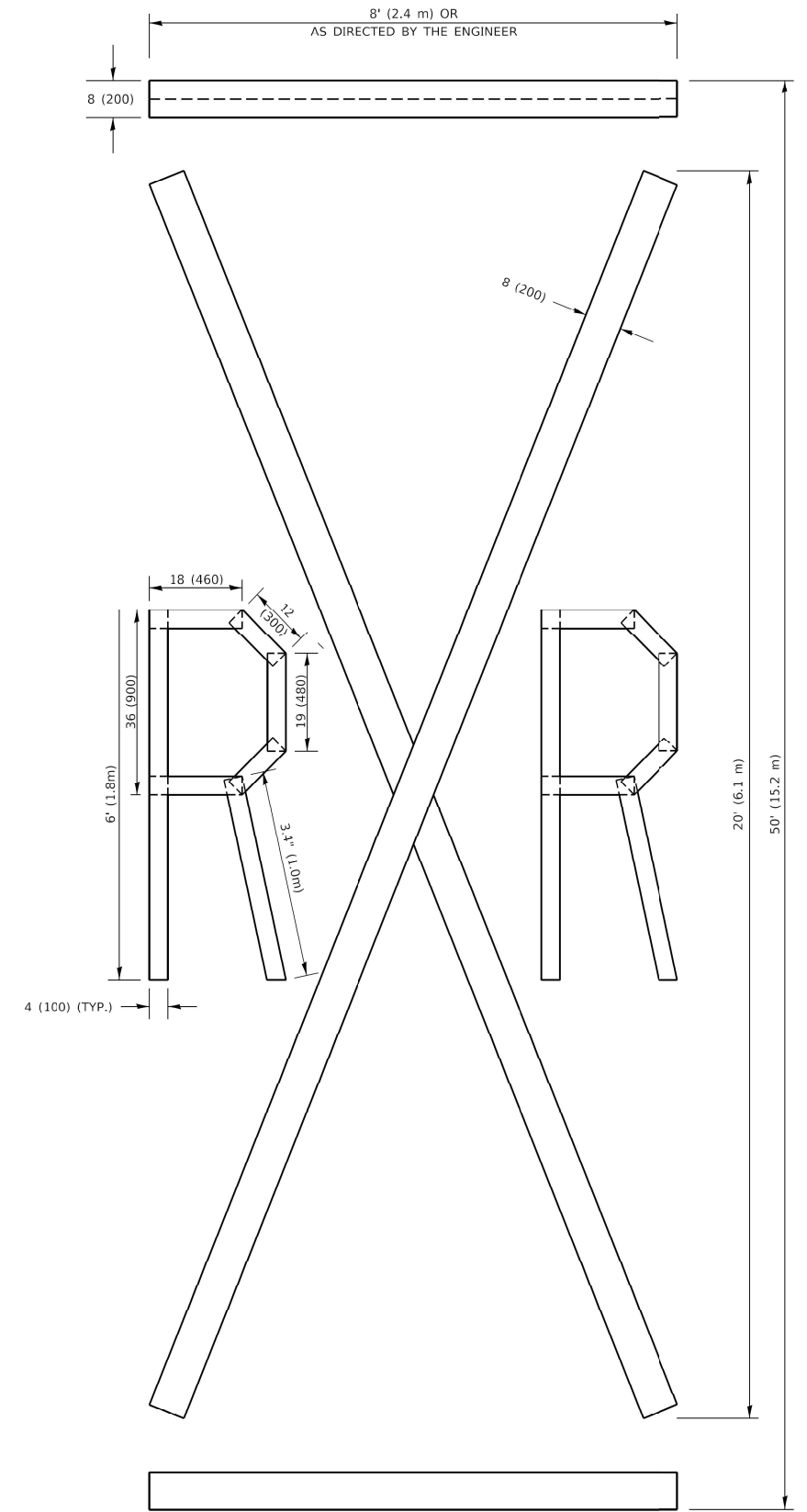
**QUANTITY**

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



**QUANTITY**

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



**QUANTITY**

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

**NOTE:**

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

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

MODEL: Default  
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USER NAME = footemj	DESIGNED -	REVISED - T. RAMMACHER 03-02-98
PLOT SCALE = 50.0068" / in.	DRAWN -	REVISED - E. GOMEZ 08-28-00
PLOT DATE = 3/4/2019	CHECKED -	REVISED - E. GOMEZ 08-28-00
	DATE - 09-18-94	REVISED - A. SCHUETZE 09-15-16

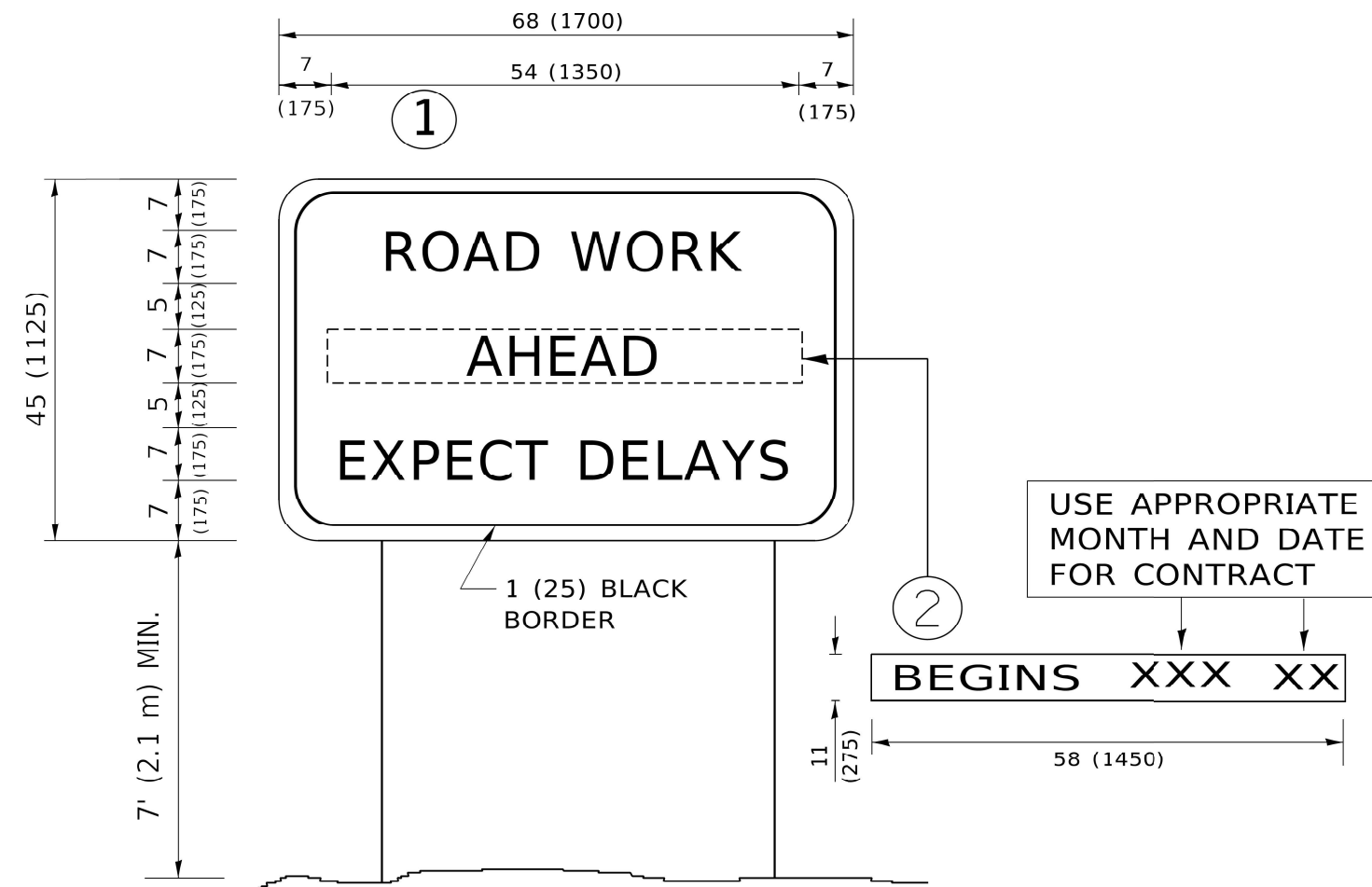
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SHORT TERM PAVEMENT MARKING LETTERS AND SYMBOLS**

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

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2742	2024-990-RS,SW	COOK	42	32
<b>TC-16</b>		CONTRACT NO. 62X15		
ILLINOIS FED. AID PROJECT				





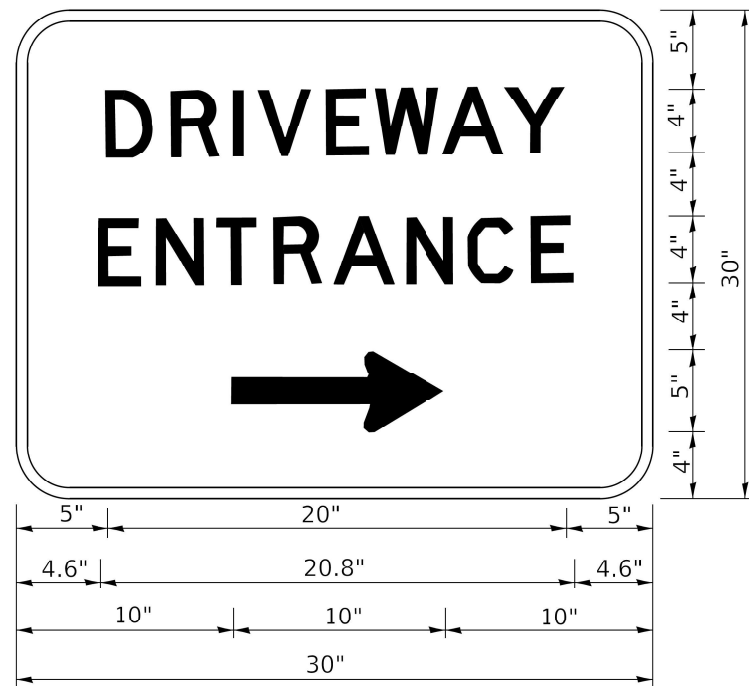
**NOTES:**

1. USE BLACK LETTERING ON ORANGE BACKGROUND.
2. ERECT SIGNS IN ADVANCE OF THE LOCATION FOR THE "ROAD CONSTRUCTION AHEAD" SIGN AT LOCATIONS AS DIRECTED BY THE ENGINEER.
3. ERECT SIGN ① WITH INSTALLED PANEL ② ONE WEEK PRIOR TO THE START OF CONSTRUCTION.
4. REMOVE PANEL ② SOON AFTER THE START OF CONSTRUCTION.
5. SEE SPECIAL PROVISION FOR "TEMPORARY INFORMATION SIGNING" FOR ADDITIONAL INFORMATION.
6. ONE SIGN ASSEMBLY EQUALS 25.70 SQ. FT. (2.3 SQ. M.)
7. SHALL BE PAID FOR AS TEMPORARY INFORMATION SIGNING.

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

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 PROJECT: 2024-990-RS, SW

USER NAME = footemj	DESIGNED -	REVISED - R. MIRS 09-15-97	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>ARTERIAL ROAD INFORMATION SIGN</b>		F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
PLOT SCALE = 50.0000" / in.	DRAWN -	REVISED - R. MIRS 12-11-97		SCALE: NONE	SHEET 1	OF 1 SHEETS	2742	2024-990-RS, SW	COOK	42	33
PLOT DATE = 3/4/2019	CHECKED -	REVISED - T. RAMMACHER 02-02-99		TO STA.		<b>TC-22</b>		CONTRACT NO. 62X15			
	DATE -	REVISED - C. JUCIUS 01-31-07		ILLINOIS		FED. AID PROJECT					



3.0" RADIUS, 0.5" BORDER, WHITE ON GREEN; REFLECTORIZED  
 "DRIVEWAY" D; "ENTRANCE" D; STANDARD ARROW CUSTOM 12.0" x 5.0"

NOTES:

1. HALF OF THE SIGNS WILL REQUIRE A LEFT HAND FACING ARROW.
2. TWO SIGNS SHALL BE USED AT EACH COMMERCIAL ENTRANCE PLACED BACK-TO-BACK: ONE WITH A RIGHT HAND ARROW (SHOWN) SHALL BE PLACED ON THE NEAR RIGHT SIDE THE DRIVEWAY AND ONE WITH A LEFT HAND ARROW SHALL BE PLACED ON THE FAR LEFT SIDE OF THE DRIVEWAY.
3. SIGNS TO BE PAID FOR AS ITEM "TEMPORARY INFORMATION SIGNING".

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PLOT SCALE = 50.0000' / in.	DRAWN -	REVISED -
PLOT DATE = 8/6/2021	CHECKED -	REVISED -
	DATE -	REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

DRIVEWAY ENTRANCE SIGNING

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

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2742	2024-990-RS,SW	COOK	42	34
<b>TC-26</b>			CONTRACT NO. 62X15	
ILLINOIS FED. AID PROJECT				

# TRAFFIC SIGNAL LEGEND

(NOT TO SCALE)

ITEM	EXISTING	PROPOSED	ITEM	EXISTING	PROPOSED	ITEM	EXISTING	PROPOSED
CONTROLLER CABINET			HANDHOLE -SQUARE -ROUND			SIGNAL HEAD -(P) PROGRAMMABLE SIGNAL HEAD		
COMMUNICATION CABINET			HEAVY DUTY HANDHOLE -SQUARE -ROUND			SIGNAL HEAD WITH BACKPLATE -(P) PROGRAMMABLE SIGNAL HEAD -(RB) RETROREFLECTIVE BACKPLATE		
MASTER CONTROLLER			DOUBLE HANDHOLE			PEDESTRIAN SIGNAL HEAD AT RAILROAD INTERSECTIONS		
MASTER MASTER CONTROLLER			JUNCTION BOX			PEDESTRIAN SIGNAL HEAD WITH COUNTDOWN TIMER		
UNINTERRUPTABLE POWER SUPPLY			RAILROAD CANTILEVER MAST ARM			ILLUMINATED SIGN "NO LEFT TURN"/"NO RIGHT TURN"		
SERVICE INSTALLATION -(P) POLE MOUNTED			RAILROAD FLASHING SIGNAL			NUMBER OF CONDUCTORS, ELECTRIC CABLE NO. 14, UNLESS NOTED OTHERWISE. ALL DETECTOR LOOP CABLE TO BE SHIELDED		
SERVICE INSTALLATION -(G) GROUND MOUNTED -(GM) GROUND MOUNTED METERED			RAILROAD CROSSING GATE			GROUND CABLE IN CONDUIT, NO. 6 SOLID COPPER (GREEN)		
TELEPHONE CONNECTION			RAILROAD CROSSBUCK			ELECTRIC CABLE IN CONDUIT, TRACER NO. 14 1/C		
STEEL MAST ARM ASSEMBLY AND POLE			RAILROAD CONTROLLER CABINET			COAXIAL CABLE		
ALUMINUM MAST ARM ASSEMBLY AND POLE			UNDERGROUND CONDUIT (UC), GALVANIZED STEEL			VENDOR CABLE		
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE			TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE			COPPER INTERCONNECT CABLE, NO. 18, 3 PAIR TWISTED, SHIELDED		
SIGNAL POST -(BM) BARREL MOUNTED - TEMPORARY			SYSTEM ITEM			FIBER OPTIC CABLE -NO. 62.5/125, MM12F -NO. 62.5/125, MM12F SM12F -NO. 62.5/125, MM12F SM24F		
WOOD POLE			INTERSECTION ITEM			GROUND ROD -(C) CONTROLLER -(M) MAST ARM -(P) POST -(S) SERVICE		
GUY WIRE			REMOVE ITEM					
SIGNAL HEAD			RELOCATE ITEM					
SIGNAL HEAD WITH BACKPLATE			ABANDON ITEM					
SIGNAL HEAD OPTICALLY PROGRAMMED			CONTROLLER CABINET AND FOUNDATION TO BE REMOVED					
FLASHER INSTALLATION -(FS) SOLAR POWERED			MAST ARM POLE AND FOUNDATION TO BE REMOVED					
PEDESTRIAN SIGNAL HEAD			SIGNAL POST AND FOUNDATION TO BE REMOVED					
PEDESTRIAN PUSH BUTTON -(APS) ACCESSIBLE PEDESTRIAN PUSH BUTTON			DETECTOR LOOP, TYPE I					
RADAR DETECTION SENSOR			PREFORMED DETECTOR LOOP					
VIDEO DETECTION CAMERA			SAMPLING (SYSTEM) DETECTOR					
RADAR/VIDEO DETECTION ZONE			INTERSECTION AND SAMPLING (SYSTEM) DETECTOR					
PAN, TILT, ZOOM (PTZ) CAMERA			QUEUE AND SAMPLING (SYSTEM) DETECTOR					
EMERGENCY VEHICLE LIGHT DETECTOR			WIRELESS DETECTOR SENSOR					
CONFIRMATION BEACON			WIRELESS ACCESS POINT					
WIRELESS INTERCONNECT								
WIRELESS INTERCONNECT RADIO REPEATER								

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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

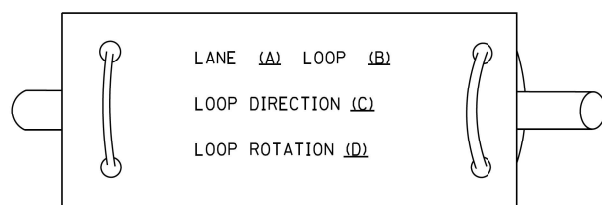
<b>DISTRICT ONE</b>			
<b>STANDARD TRAFFIC SIGNAL DESIGN DETAILS</b>			
SCALE: NONE	SHEET 1	OF 7 SHEETS	STA. TO STA.

F.A.U. RTE. 2742	SECTION 2024-990-RS, SW	COUNTY COOK	TOTAL SHEETS 42	SHEET NO. 35
<b>TS-05</b>			CONTRACT NO. 62X15	
ILLINOIS FED. AID PROJECT				

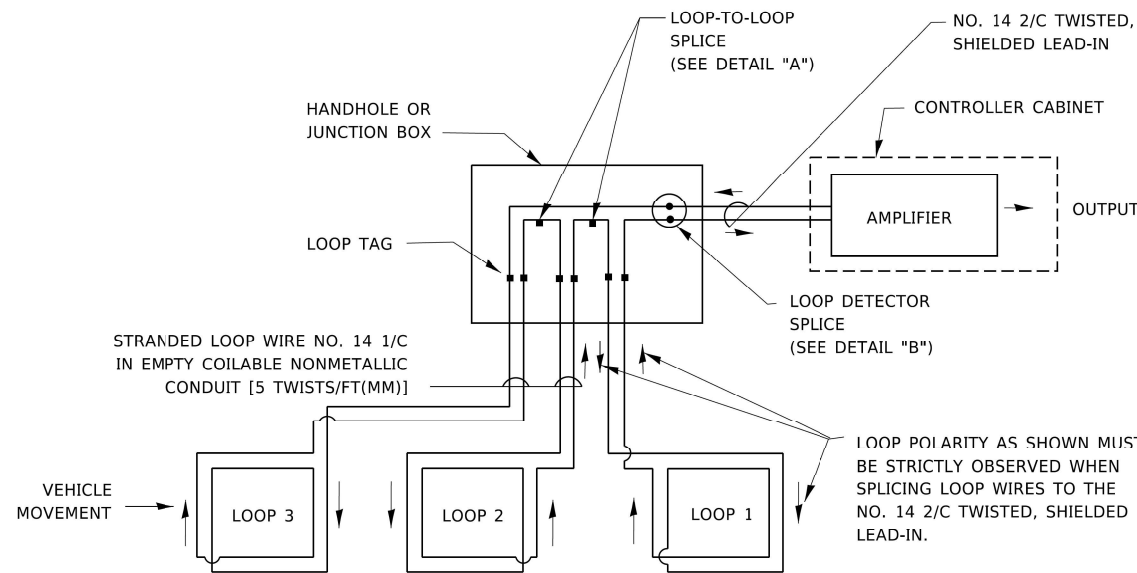
**LOOP DETECTOR NOTES**

1. EACH PAIR OF LOOP WIRES SHALL BE PLACED IN A SEPARATE EMPTY COILABLE NONMETALLIC CONDUIT FROM THE EDGE OF PAVEMENT TO THE HANDHOLE. SPACING BETWEEN THE HOLES DRILLED IN THE PAVEMENT SHALL NOT BE LESS THAN 6" (150 mm). EMPTY COILABLE NONMETALLIC CONDUIT SHALL BE INCLUDED IN THE COST OF THE LOOP WIRE.
2. THE NUMBER OF LOOP TURNS SHALL BE AS RECOMMENDED BY THE AMPLIFIER MANUFACTURER. ALL ADJACENT SIDES OF THE LOOPS SHALL BE INSTALLED IN SUCH A WAY THAT THE CURRENT FLOW IS IN THE SAME DIRECTION TO REINFORCE ITS MAGNETIC FIELDS FOR SMALL VEHICLE DETECTION.
3. EACH LOOP LEAD-IN SHALL BE IDENTIFIED AND PERMANENTLY TAGGED IN THE HANDHOLE. EACH LEAD-IN CABLE TAG SHALL INDICATE THE LOCATION OF THE LOOP, LOOP ROTATION (CLOCKWISE/COUNTERCLOCKWISE), LOOP LEAD-IN DIRECTION (IN OR OUT), LOOP CABLE NUMBER AND LOCATION IN CABINET, AND NUMBER OF TURNS IN THE DETECTOR LOOPS IN WATER PROOF INK AS INDICATED ON THE DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAIL. THE CONTRACTOR SHALL MARK LOOP LOCATIONS ON RECORD DRAWINGS AND PRESENT TO THE ENGINEER AFTER FINAL INSPECTION. LOOPS SHALL BE MARKED BY LANE AND LOOP NUMBER. SEE DETAIL BELOW.
4. ALL LOOP CABLE SHALL BE FASTENED WITH PLASTIC TIE WRAP TO THE HANDHOLE HOOKS.
5. IN ASPHALT PAVEMENT, LOOPS SHOULD BE PLACED IN THE BINDER AND DIVESHOLES MARKED AT THE CURB WITH A SAW-CUT. THE SAW-CUT SHALL BE CUT IN ACCORDANCE WITH LOCAL AND E.P.A. DUST CONTROL REQUIREMENTS. DETECTOR LOOP(S) SHALL NOT BE INSTALLED IN WET CONDITIONS AND THE SAW-CUTS MUST BE FREE OF DEBRIS AND RESIDUE SUCH AS DUST AND WATER WHICH IS TO BE ACHIEVED BY THE USE OF COMPRESSED AIR, WIRE BRUSHING AND HEAT DRYING ACCORDING TO SEALANT MANUFACTURER REQUIREMENTS. THE DETECTOR WIRE SHALL BE HELD IN PLACE BY THE USE OF FORM WEDGES. WEDGES SHALL BE SPACED NO MORE THAN 18" (450 mm) APART.
6. LOOP SPLICES SHALL BE SOLDERED USING A SOLDERING IRON. BLOW TORCHES OR OTHER DEVICES WHICH OXIDIZE COPPER CABLE SHALL NOT BE ALLOWED FOR SOLDERING OPERATIONS. SEE DETAIL BELOW RIGHT.
7. PREFORMED DETECTOR LOOPS SHALL BE USED, AS SHOWN ON THE PLANS, WHERE NEW CONCRETE PAVEMENT IS PROPOSED. THE INSTALLATION OF PREFORMED LOOPS SHALL BE IN ACCORDANCE WITH THE DISTRICT 1 SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER.

**LOOP LEAD-IN CABLE TAG**

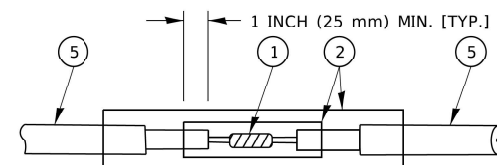


- A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

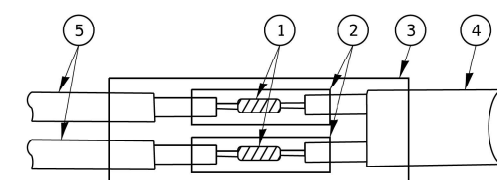


**DETECTOR LOOP WIRING SCHEMATIC**

- LOOPS SHALL BE SPLICED IN SERIES. SAW-CUTS SHALL BE A MINIMUM WIDTH OF 5/16" (8 mm).
- SAW-CUT DEPTHS SHALL BE 3" (75 mm). IF IN CONCRETE,
- THE SAW-CUT DEPTH SHALL BE TO THE TOP OF THE REINFORCEMENT.
- LOOP CORNERS SHALL BE DRILLED WITH A 2" (50 mm) DIAMETER CORE.

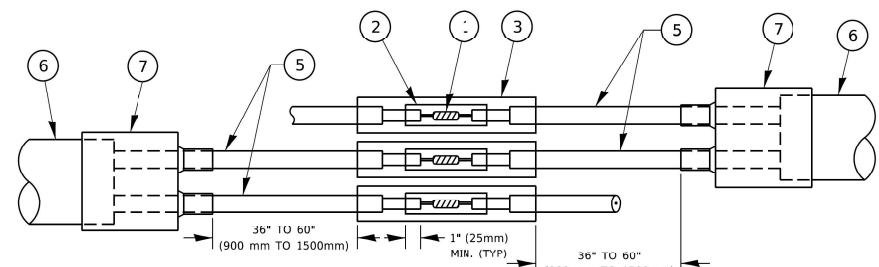


DETAIL "A"  
LOOP-TO-LOOP SPLICE

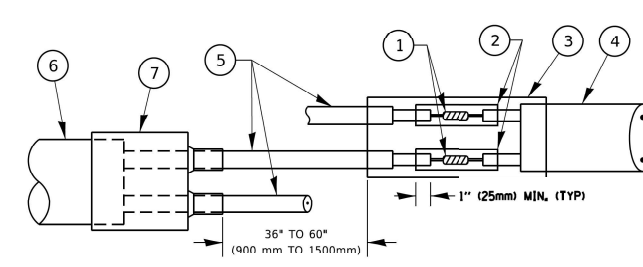


DETAIL "B"  
LOOP-TO-CONTROLLER SPLICE

**TYPE I LOOP**



DETAIL "A"  
LOOP-TO-LOOP SPLICE



DETAIL "B"  
LOOP-TO-CONTROLLER SPLICE

**PREFORMED LOOP**

**LOOP DETECTOR SPLICE**

- 1 WESTERN UNION SPLICE SOLDERED WITH ROSIN CORE FLUX. ALL EXPOSED SURFACES OF THE SOLDER SHALL BE SMOOTH. THE WESTERN UNION SPLICES SHALL BE STAGGERED.
- 2 WCSMW 30/100 HEAT SHRINK TUBE, MINIMUM LENGTH 3" (75 mm), UNDERWATER GRADE.
- 3 WCS 200/750 HEAT SHRINK TUBE, MINIMUM LENGTH 6" (150 mm), UNDERWATER GRADE.
- 4 NO. 14 2/C TWISTED, SHIELDED CABLE.
- 5 LOOP CONDUCTOR WITH FLEXIBLE PLASTIC TUBE. PREFORMED LOOP
- 6 XL POLYOLEFIN 2 CONDUCTOR
- 7 BREAKOUT SEALS. TYCO CBR-2 OR APPROVED EQUAL

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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

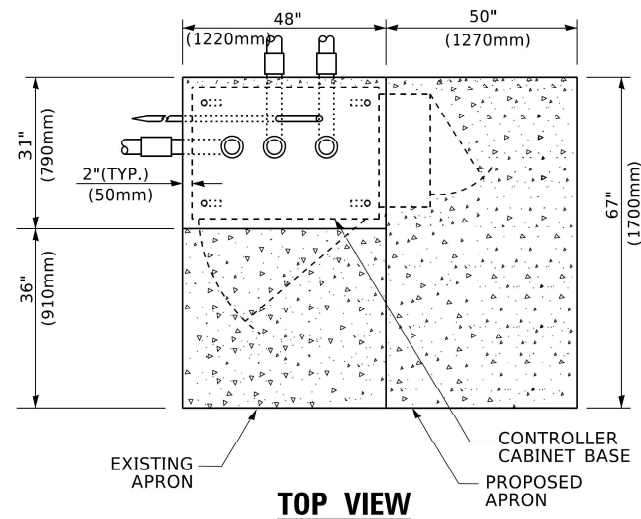
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STANDARD TRAFFIC SIGNAL DESIGN DETAILS**

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

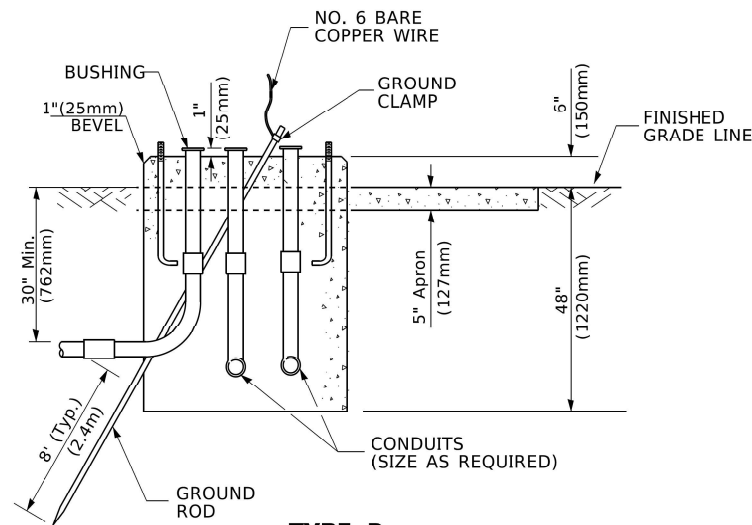
F.A.U. RTE. 2742	SECTION 2024-990-RS, SW	COUNTY COOK	TOTAL SHEETS 42	SHEET NO. 36
TS-05		CONTRACT NO. 62X15		
ILLINOIS FED. AID PROJECT				



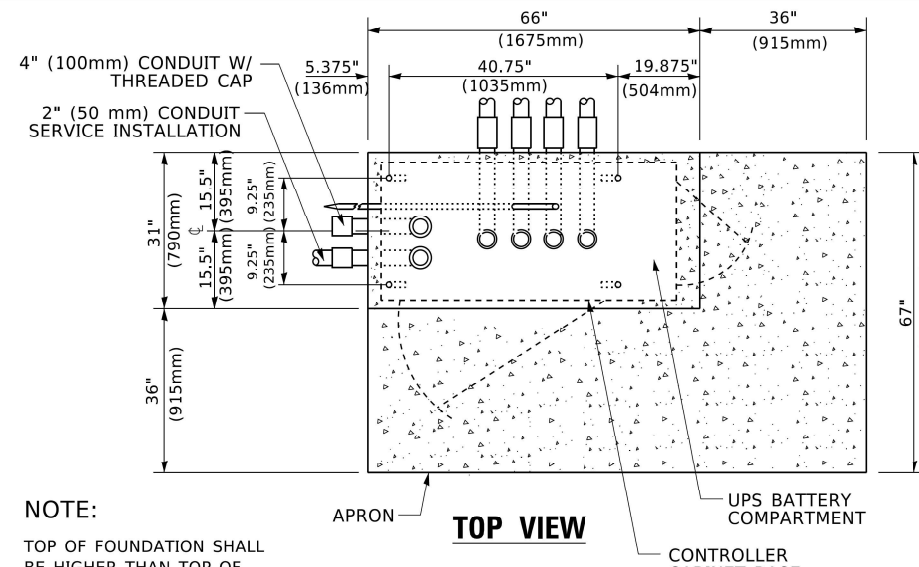




**TOP VIEW**



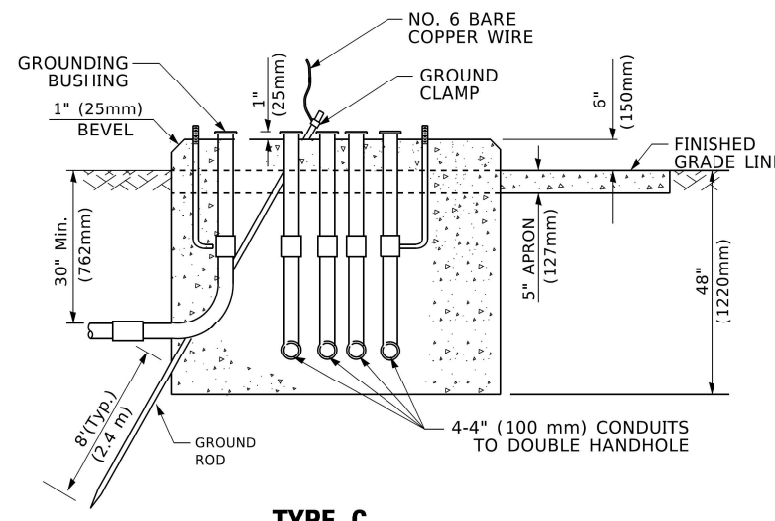
**TYPE D  
FOR GROUND MOUNTED  
CONTROLLER CABINET  
AND UPS BATTERY CABINET**



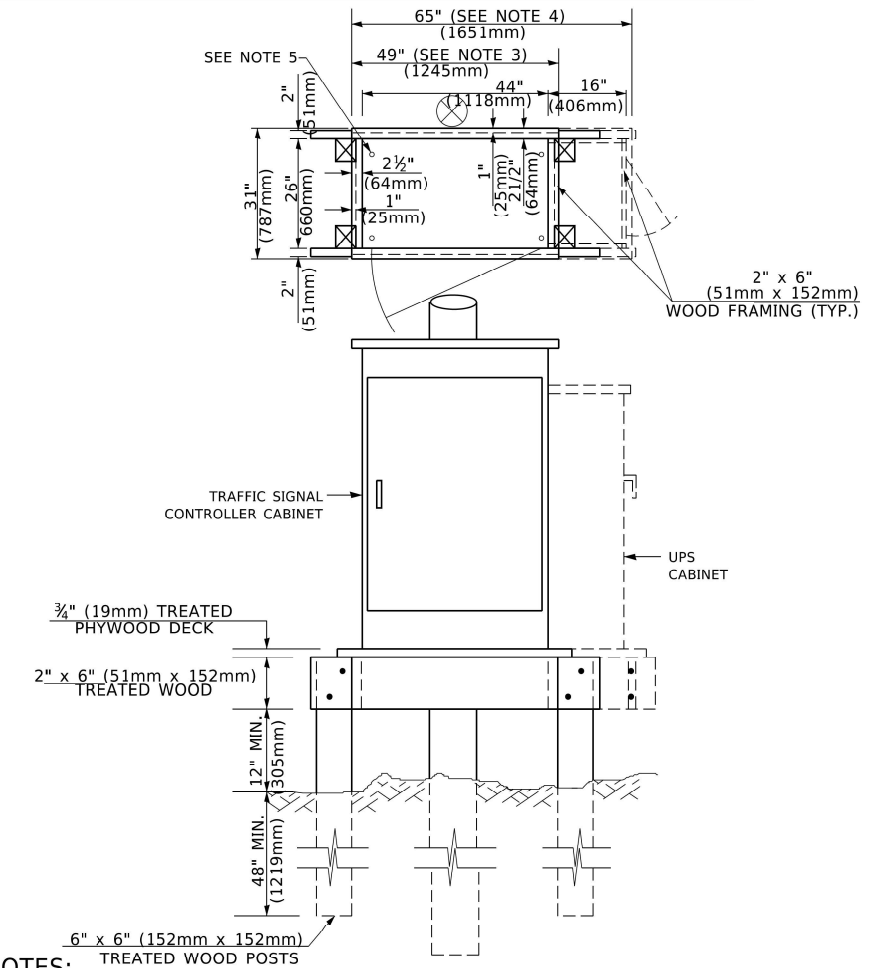
**TOP VIEW**

**NOTE:**

TOP OF FOUNDATION SHALL BE HIGHER THAN TOP OF DOUBLE HANDHOLE



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



**NOTES:**

1. BASED ON CONTROLLER CABINET TYPE IV WITH BASE DIMENSIONS OF 26" x 44" (660mm x 1118mm). ADJUST PLATFORM SIZE TO FIT CABINET BASE DIMENSIONS BEING SUPPLIED.
2. BASED ON UNINTERRUPTIBLE POWER SUPPLY CABINET WITH BASE DIMENSIONS OF 16" x 25" (406mm x 635mm). ADJUST PLATFORM SIZE TO FIT CABINET BASE DIMENSIONS BEING SUPPLIED.
3. PLATFORM SIZE FOR CONTROLLER CABINET TYPE IV.
4. PLATFORM SIZE FOR CONTROLLER CABINET TYPE IV AND UNINTERRUPTIBLE POWER SUPPLY CABINET.
5. DRILLED HOLES THROUGH THE PLATFORM BASE TO MATCH THE CONTROLLER CABINET BOLT TEMPLATE. FASTEN THE CONTROLLER CABINET TO THE PLATFORM WITH CARRIAGE BOLTS, WASHERS AND NUTS.
6. FASTEN ALL SUPPORT WOOD FRAMING TO THE WOOD POSTS WITH 2 LAG SCREWS FOR EACH CONNECTION.

**TEMPORARY SIGNAL CONTROLLER  
WOOD SUPPORT PLATFORM**

CABLE SLACK LENGTH	FEET	METER
HANDHOLE	6.5	2.0
DOUBLE HANDHOLE	13.0	4.0
SIGNAL POST	2.0	0.6
MAST ARM	2.0	0.6
CONTROLLER CABINET	1.5	0.5
FIBER OPTIC AT CABINET	13.0	4.0
ELECTRIC SERVICE AT (CABINET OR SERVICE LOCATION)	1.5	0.5
GROUND CABLE (SIGNAL POST, MAST ARM, CABINET)	1.5	0.5
GROUND CABLE (BETWEEN FRAME AND COVER)	5.0	1.6

**CABLE SLACK**

VERTICAL CABLE LENGTH	FEET	METER
MAST ARM POLE ( MAST ARM MOUNTED SIGNAL HEAD)		
(L = MAST ARM LENGTH - DISTANCE TO SIGNAL HEAD FROM END OF ARM)	20.0+L	6.0+L
BRACKET MOUNTED (MAST ARM POLE OR SIGNAL POLE)	13.0	4.0
PEDESTRIAN PUSH BUTTON	6.0	2.0
SERVICE INSTALLATION POLE MOUNT TO SERVICE DROP	13.5	4.1
SERVICE INSTALLATION POLE MOUNT TO GROUND	13.5	4.1
SERVICE INSTALLATION GROUND MOUNT	6.0	2.0
FOUNDATION (SIGNAL POST, MAST ARM POLE, CONTROLLER CABINET, SERVICE-GROUND MOUNT)	3.0	1.0

**VERTICAL CABLE LENGTH**

FOUNDATION	DEPTH
TYPE A - Signal Post	4'-0" (1.2m)
TYPE C - CONTROLLER W/ UPS	4'-0" (1.2m)
TYPE D - CONTROLLER	4'-0" (1.2m)
SERVICE INSTALLATION, GROUND MOUNT, TYPE A - SQUARE	4'-0" (1.2m)

**DEPTH OF FOUNDATION**

Mast Arm Length	① Foundation Depth	Foundation Diameter	Spiral Diameter	Quantity of Rebars	Size of Rebars
Less than 30' (9.1 m)	10'-0" (3.0 m)	30" (750mm)	24" (600mm)	8	6(19)
Greater than or equal to 30' (9.1 m) and less than 40' (12.2 m)	13'-6" (4.1 m)	30" (750mm)	24" (600mm)	8	6(19)
Greater than or equal to 40' (12.2 m) and less than 50' (15.2 m)	11'-0" (3.4 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 50' (15.2 m) and up to 55' (16.8 m)	13'-0" (4.0 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 56' (16.8 m) and less than 65' (19.8 m)	15'-0" (4.6 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 65' (19.8 m) and less than 75' (22.9 m)	21'-0" (6.4 m)	42" (1060mm)	36" (900mm)	16	8(25)
Greater than or equal to 75' (22.9 m) and up to 85' (25.9 m)	25'-0" (7.6 m)	42" (1060mm)	36" (900mm)	16	8(25)

**NOTES:**

1. These foundation depths are for sites which have cohesive soils (clayey silt, sandy clay, etc.) along the length of the shaft, with an average Unconfined Compressive Strength (UCS) > 1.0 tsf (100 kpa). This strength shall be verified by boring data prior to construction or with testing by the Engineer during foundation drilling. The Bureau of Bridges & Structures should be contacted for a revised design if other conditions are encountered.
2. Combination mast arm assemblies under 55 feet (16.8 m) shall use 36" (900 mm) diameter foundations.
3. Combination mast arm assemblies under 56 feet (16.8 m) through 75 feet (22.9 m) shall use 42" (1060 mm) diameter foundations.
4. For mast arm assemblies with dual arms refer to state standard 878001..

**DEPTH OF MAST ARM FOUNDATIONS, TYPE E**

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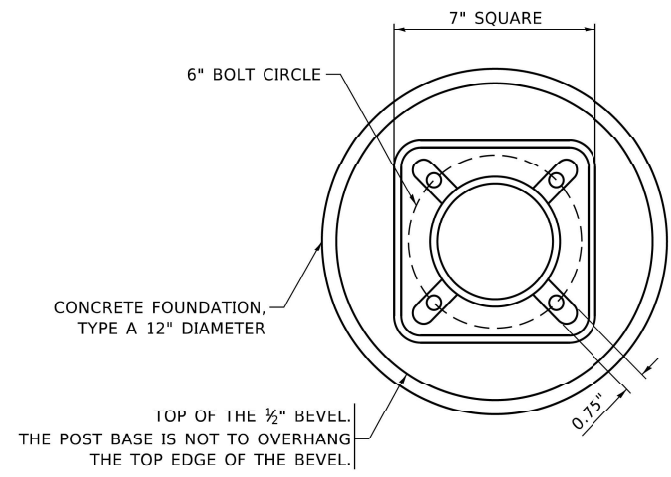
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>DISTRICT ONE</b>			
<b>STANDARD TRAFFIC SIGNAL DESIGN DETAILS</b>			
SCALE: NONE	SHEET 5	OF 7 SHEETS	STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2742	2024-990-RS, SW	COOK	42	39
<b>TS-05</b>		CONTRACT NO. 62X15		
ILLINOIS FED. AID PROJECT				

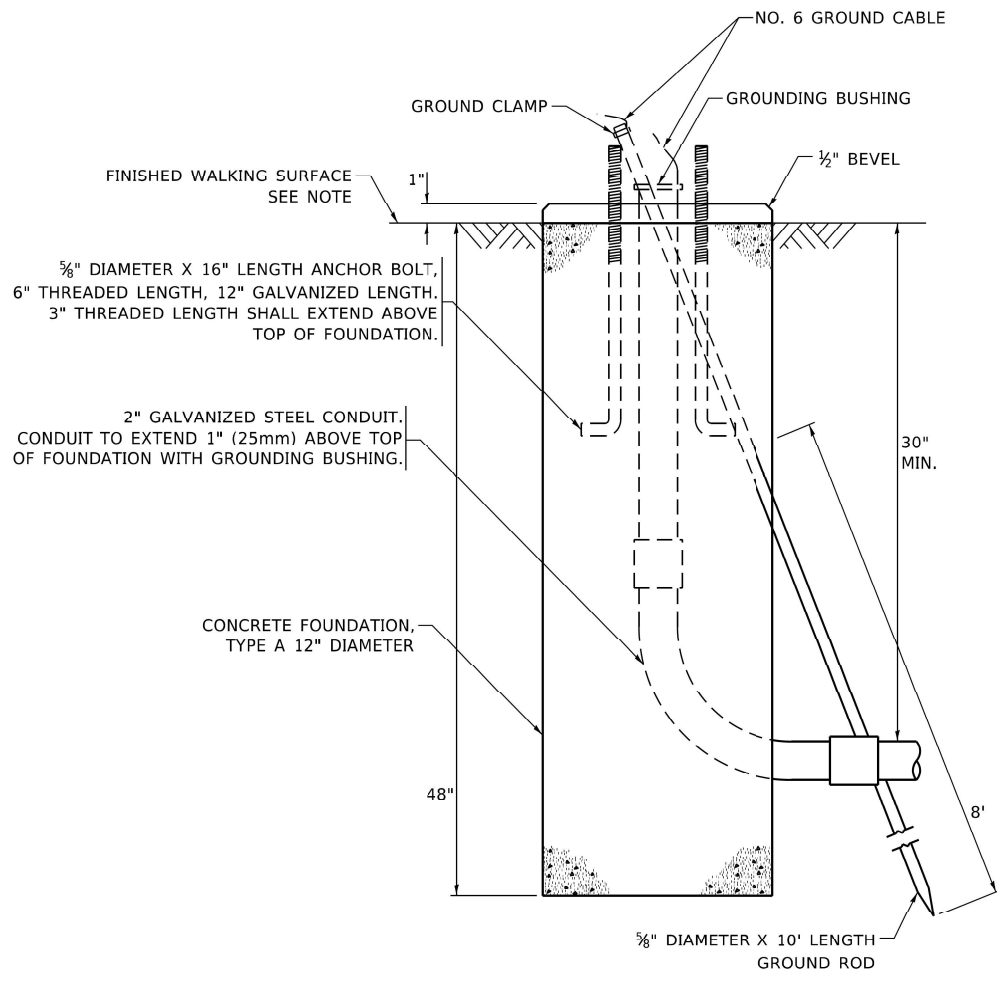




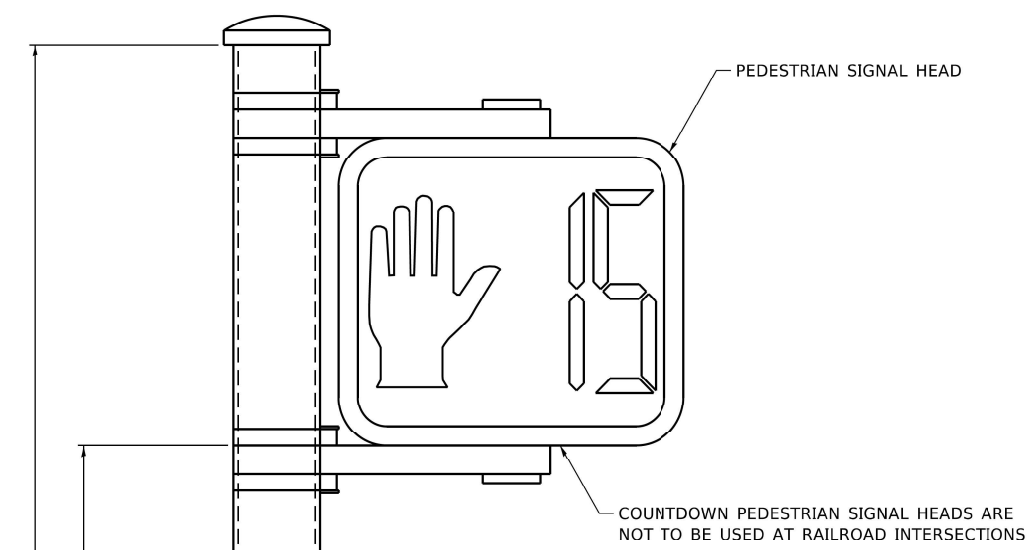


**BOLT PATTERN**

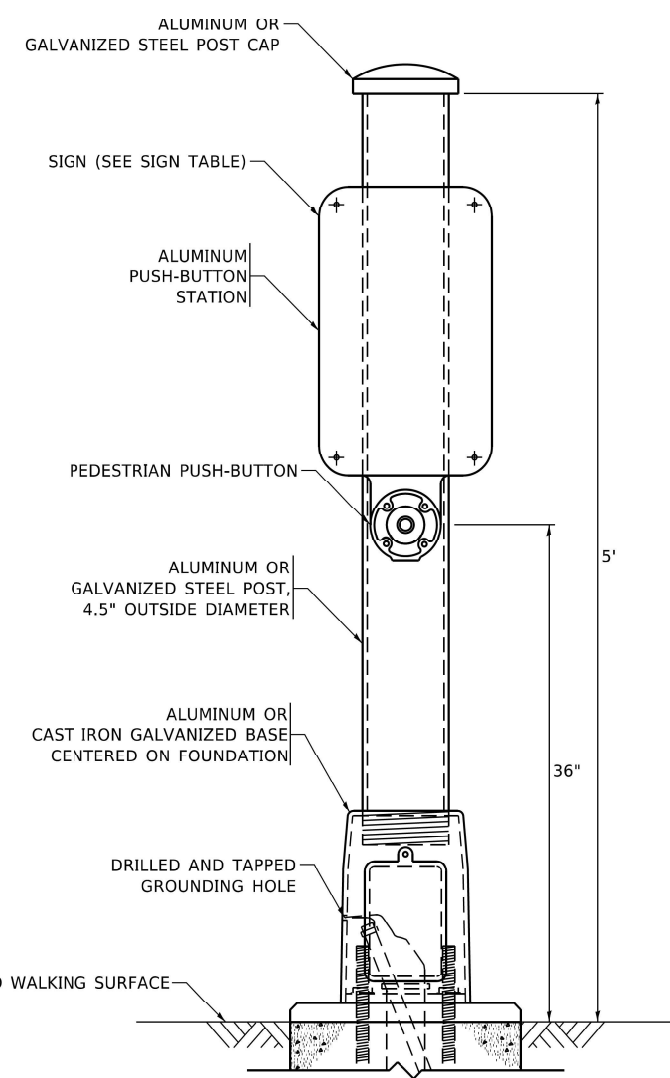
**NOTE:**  
1. IF THE PEDESTRIAN SIGNAL POST FOUNDATION IS INSTALLED WITHIN OR BEHIND A BARRIER CURB, THE TOP OF THE FOUNDATION SHALL BE INSTALLED FLUSH WITH THE TOP OF THE BARRIER CURB.



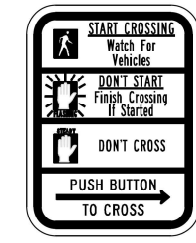
**CONCRETE FOUNDATION, TYPE A 12-INCH DIAMETER**



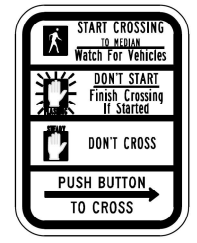
**PEDESTRIAN SIGNAL POST, 10 FT.**



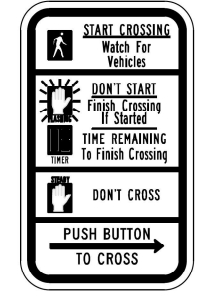
**PEDESTRIAN SIGNAL POST, 5 FT.**



**R10-3b**



**R10-3d**



**R10-3e**

**SIGN TABLE**

SIGN	DIMENSIONS
R10-3b (RAILROAD ONLY)	9" X 12"
R10-3d (RAILROAD ONLY)	9" X 12"
R10-3e	9" X 12"

**NOTES:**  
1. THE SIGN PANELS SHALL BE TYPE AP SHEETING.  
2. THE ARROW ON SIGNS FOR PUSH-BUTTONS SERVING TWO DIRECTIONS ON THE SAME PHASE SHALL BE BI-DIRECTIONAL.  
3. THE SIGN FOR DUAL-CALL PUSH-BUTTONS SHALL HAVE NO ARROW.

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	DATE - 10-15-2018	REVISED -

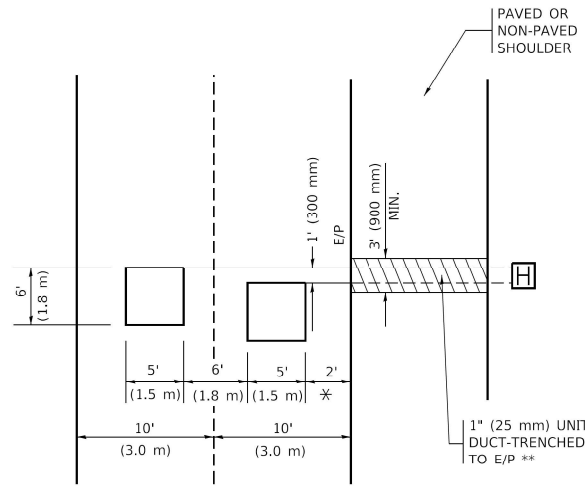
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>DISTRICT ONE</b>			
<b>STANDARD TRAFFIC SIGNAL DESIGN DETAILS</b>			
SCALE: NONE	SHEET 7	OF 7 SHEETS	STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2742	2024-990-RS,SW	COOK	42	41
<b>TS-05</b>		CONTRACT NO. 62X15		
ILLINOIS FED. AID PROJECT				

**LOOPS NEXT TO SHOULDERS**

PROVIDE A PAVEMENT REPLACEMENT NOTE WHICH SHOULD EQUAL 3' (900 mm) X WIDTH OF PAVED SHOULDER.

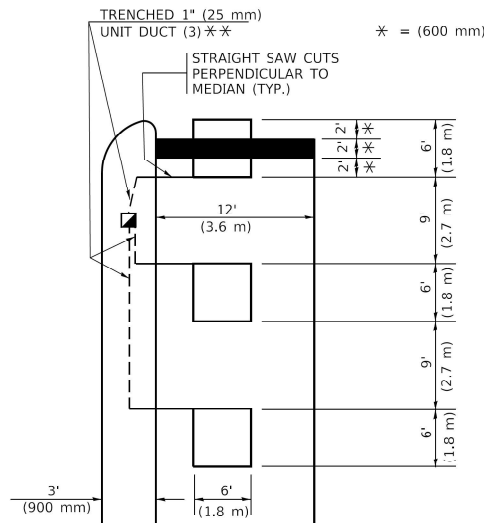


\* = (600 mm)

\*\* UNIT DUCT IS TO BE SHOWN ON PLAN SHEETS BUT SHALL NOT BE INCLUDED IN THE PAY ITEMS.

**LEFT TURN LANES WITH MEDIANS**  
**VOLUME DENSITY ("FAR OUT" DETECTION)**  
**ON SAME APPROACH**  
**(PROTECTED / PERMITTED LEFT TURN PHASING)**

HANDHOLE LOCATION MAY VARY DEPENDING ON GEOMETRICS AND DESIGN OF TRAFFIC SIGNALS. HEAVY-DUTY HANDHOLES TO BE USED WHEN THE MEDIAN IS MOUNTABLE. REFER TO STANDARD 814001 TO ENSURE THAT HANDHOLE FITS IN MEDIAN.

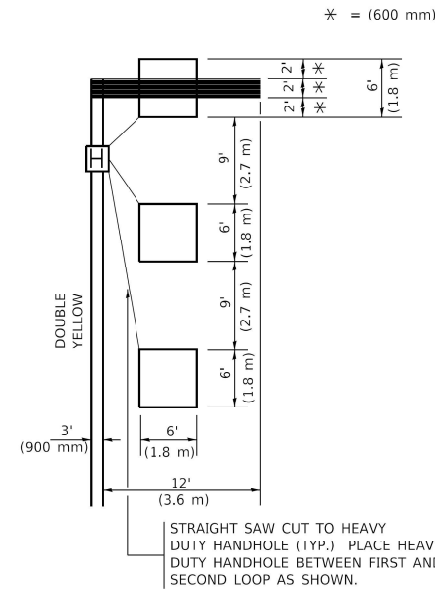


\* = (600 mm)

\*\* UNIT DUCT IS TO BE SHOWN ON PLAN SHEETS BUT SHALL NOT BE INCLUDED IN THE PAY ITEMS.

NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

**LEFT TURN LANES WITHOUT MEDIANS**  
**VOLUME DENSITY ("FAR OUT" DETECTION)**  
**ON SAME APPROACH**  
**(PROTECTED / PERMITTED LEFT TURN PHASING)**



\* = (600 mm)

NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

**NOTES:**

**VEHICLES LOOP DETECTORS**

- \* ALL LEAD IN CABLE SHALL BE TWO CONDUCTOR NO. 14 TWISTED, SHIELDED.
- \* EACH DETECTOR LOOP SHALL HAVE ITS OWN SAW CUT FROM THE LOOP TO THE EDGE OF PAVEMENT OR TO A HANDHOLE IN THE PAVEMENT.
- \* EACH DETECTOR LOOP SHALL HAVE ITS OWN ONE INCH (25 mm) UNIT DUCT BETWEEN THE EDGE OF PAVEMENT AND THE FIRST HANDHOLE OR JUNCTION BOX. EACH UNIT DUCT RUN SHALL BE SHOWN ON THE PLANS BY THE DESIGNER, BUT SHALL NOT BE PAID FOR SEPARATELY. THIS ITEM IS INCIDENTAL TO THE PAY ITEM FOR DETECTOR LOOPS.
- \* ONE DIMENSION OF ALL DETECTOR LOOPS SHALL BE SIX FEET (1.8 m)
- \* EACH LANE OF NON-LOCKING, PRESENCE DETECTION AND EACH LANE OF A DOUBLE LEFT TURN LANE REQUIRES A SEPARATE INDUCTIVE LOOP DETECTOR AND LEAD IN CABLE.
- \* WHEN NON-LOCKING, PRESENCE DETECTION IS USED, MORE THAN ONE LOOP PER LANE IS REQUIRED BEHIND THE STOP BAR (i.e. 1-1/2, 1-3/4, 2).
- \* WHEN SYSTEM LOOPS ARE REQUIRED ON AN APPROACH OF AN INTERSECTION, THE LOOPS USED FOR VOLUME DENSITY AND INTERSECTION TIMING SHALL ALSO BE USED AS SYSTEM DETECTORS. EACH ONE OF THESE TYPE OF LOOPS REQUIRES A SEPARATE TWO CONDUCTOR NO. 14 TWISTED SHIELDED CABLE AND A SEPARATE INDUCTIVE LOOP DETECTOR WHEN NEW CONTROLLERS ARE UTILIZED. THE DESIGNER SHALL LABEL THESE TYPES OF LOOPS AS "INTERSECTION AND SAMPLING (SYSTEM) DETECTORS" ON THE SIGNAL LAYOUT. THE INTERCONNECT PLAN AND THE SYSTEM CABLE PLAN. WHEN AN EXISTING CONTROLLER IS UTILIZED FOR THIS TYPE OF DETECTION, THE PAY ITEM "INDUCTIVE LOOP DETECTOR WITH SYSTEM OUTPUT" SHOULD BE USED.

**PLACEMENT OF DETECTORS**

THE FOLLOWING FIGURES REPRESENT THE MOST COMMON DETECTOR LOOP LOCATIONS AND SIZES. ADJUSTMENTS WILL BE NECESSARY FOR SPECIFIC GEOMETRIC CONSIDERATIONS.

LOCATIONS AND DEMENSIONS OF DETECTOR LOOPS ARE REQUIRED ON ALL SIGNAL LAYOUT PLAN SHEETS.

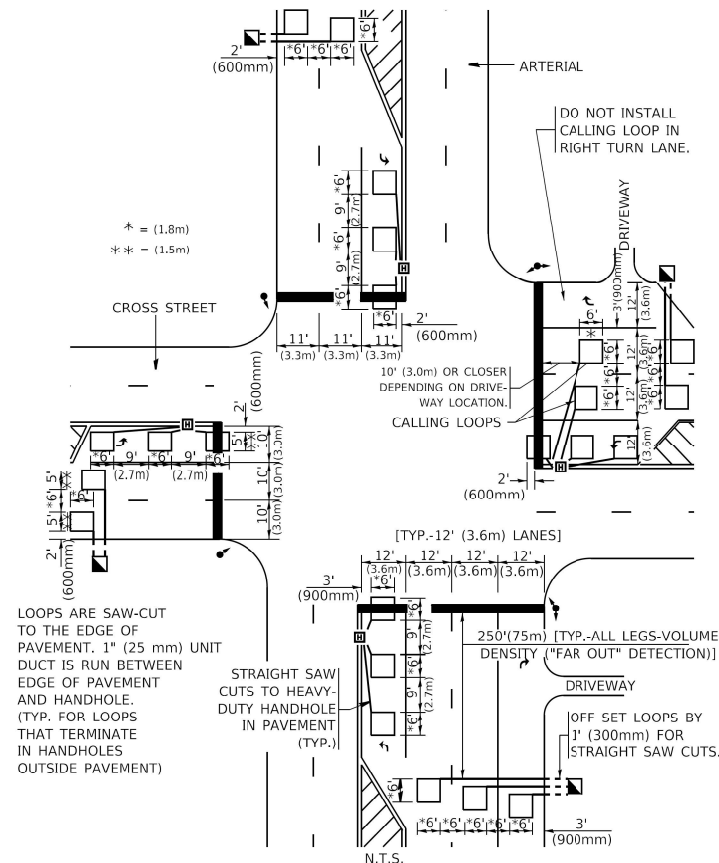
"FAR OUT" DETECTION REFERS TO LOCKING, PRESENCE TYPE DETECTION LOCATED IN THRU LANES, RIGHT TURN LANES, AND RIGHT TURN LANE TAPER AREAS (IF APPLICABLE), USUALLY 250' (75 m) IN ADVANCE OF STOP BARS. "UPTIGHT" DETECTION REFERS TO NON-LOCKING PRESENCE TYPE DETECTION LOCATED IN ALL LANES AND 10'-15' (3.0 m-4.5 m) BEHIND THE CROSSING STREET'S EDGE OF PAVEMENT EXTENDED.

**NOTE:**

ALL DETAILS AND NOTES SHOWN ARE FROM THE I.D.O.T. DISTRICT 1 TRAFFIC SIGNAL DESIGN GUIDELINES DATED JANUARY 1995

THIS DRAWING HAS BEEN PREPARED TO ASSIST THE RESIDENT ENGINEER FOR ALL ROADWAY RESURFACING OR S.M.A.R.T. PROJECTS WHERE THE DIMENSIONS ARE NOT SHOWN ON THE PLANS AND THE FINAL LOCATIONS FOR CROSSWALKS OR STOP BARS ARE NOT DETERMINED.

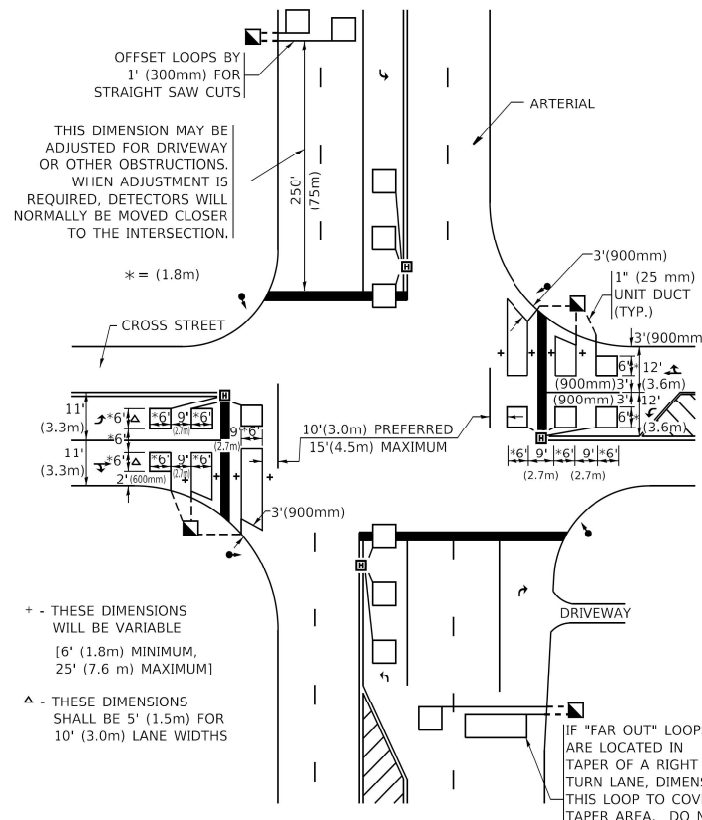
**ARTERIAL-VOLUME DENSITY ("FAR OUT" DETECTION)**  
**CROSS STREET-NON VOLUME DENSITY ("FAR OUT" DETECTION)**



LOOPS ARE SAW-CUT TO THE EDGE OF PAVEMENT. 1" (25 mm) UNIT DUCT IS RUN BETWEEN EDGE OF PAVEMENT AND HANDHOLE. (TYP. FOR LOOPS THAT TERMINATE IN HANDHOLES OUTSIDE PAVEMENT)

**DETAIL 1**  
N.T.S.

**ARTERIAL-VOLUME DENSITY ("FAR OUT" DETECTION)**  
**CROSS STREET-NON VOLUME DENSITY ("UPTIGHT" PRESENCE DETECTION)**



THIS DIMENSION MAY BE ADJUSTED FOR DRIVEWAY OR OTHER OBSTRUCTIONS. WHEN ADJUSTMENT IS REQUIRED, DETECTORS WILL NORMALLY BE MOVED CLOSER TO THE INTERSECTION.

\* - THESE DIMENSIONS WILL BE VARIABLE [6' (1.8m) MINIMUM, 25' (7.6 m) MAXIMUM]

▲ - THESE DIMENSIONS SHALL BE 5' (1.5m) FOR 10' (3.0m) LANE WIDTHS

IF "FAR OUT" LOOPS ARE LOCATED IN TAPER OF A RIGHT TURN LANE, DIMENSION THIS LOOP TO COVER TAPER AREA. DO NOT COVER THE LEFT TURN LANE OR LEFT TURN LANE TAPER.

**DETAIL 2**  
N.T.S.

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

**DISTRICT 1 - DETECTOR LOOP INSTALLATION**  
**DETAILS FOR ROADWAY RESURFACING**

USER NAME = footemj	DESIGNED -	REVISED -
PLOT SCALE = 50.0000" / in.	DRAWN -	REVISED -
PLOT DATE = 3/4/2019	CHECKED - R.K.F.	REVISED -
	DATE -	REVISED -

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

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2742	2024-990-RS,SW	COOK	42	42
TS-07		CONTRACT NO. 62X15		