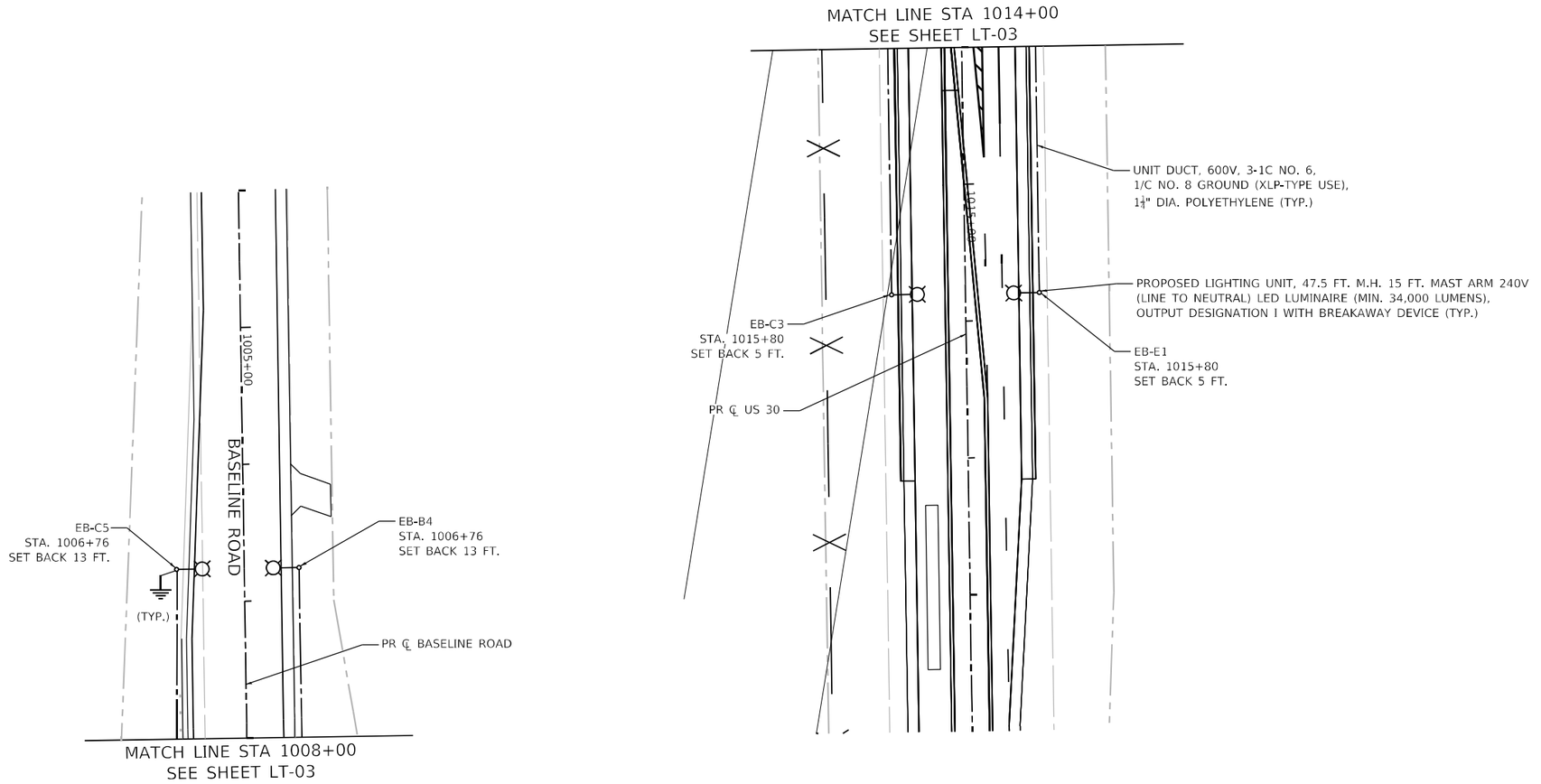

NOTES:

1. FOR GENERAL NOTES AND LEGEND, SEE SHEET LT-01.
2. UCGS STANDS FOR UNDERGROUND CONDUIT GALVANIZED STEEL.
3. SET BACK IS FROM FACE OF CURB TO CENTER OF LIGHT POLE. WHERE THERE IS NO CURB SET BACK IS FROM EDGE OF PAVEMENT TO CENTER OF LIGHT POLE.

FILE NAME: C:\IL62M71-sht-light-04.dgn
PLOT DRIVER: \HRG_IL_DOT_pdf.tbl,plt.cfg
PEN TABLE: \HRG_IL_DOT_pentable.tbl

AMES Engineering, Inc.
CONSULTING ENGINEERS
6330 Belmont Road, Suite 4B
Downers Grove, IL 60516

USER NAME = mdeitche	DESIGNED - BL	REVISED -
	DRAWN - SR	REVISED -
PLOT SCALE = $SCALE$	CHECKED - MH	REVISED -
PLOT DATE = 3/6/2026	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IDOT DISTRICT 1 PROPOSED LIGHTING PLAN
IL 47/US 30 AT BASELINE ROAD

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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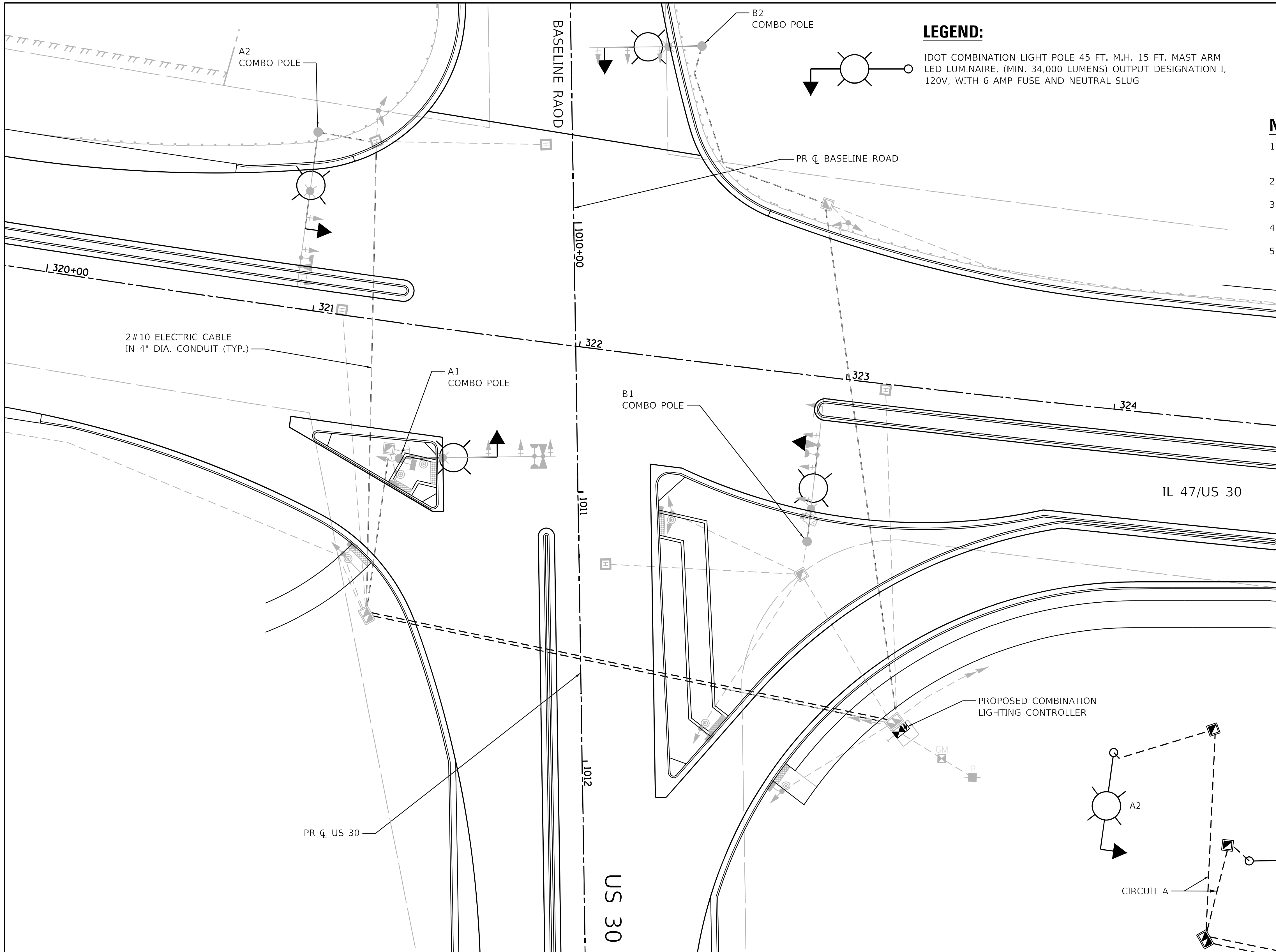
		CONTRACT NO. 62M71		
	ILLINOIS	FED. AID PROJECT		



LEGEND:

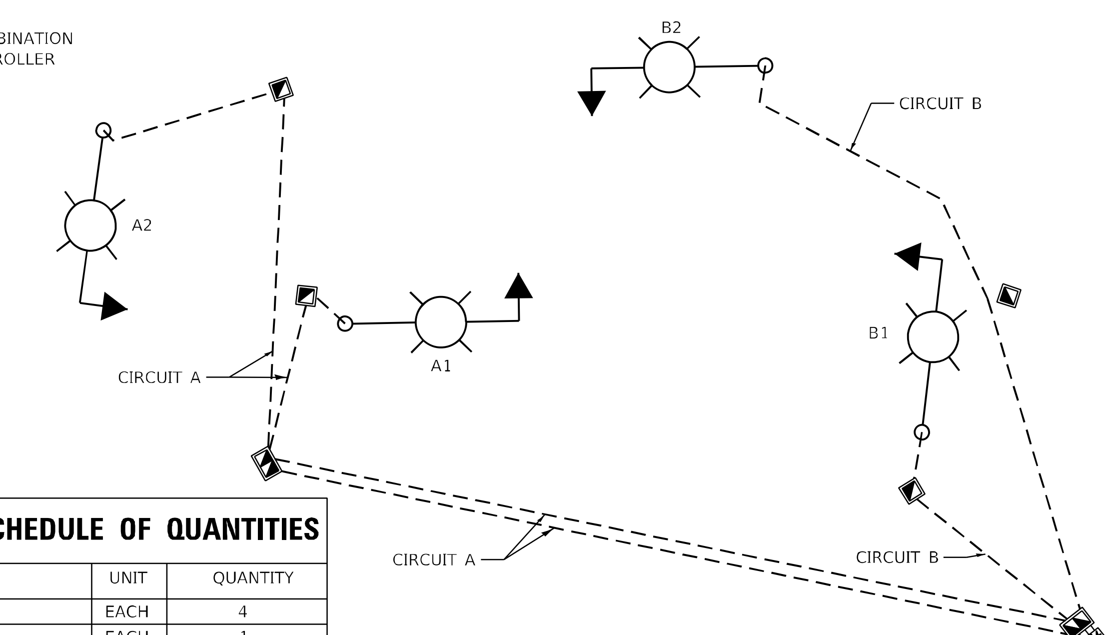
IDOT COMBINATION LIGHT POLE 45 FT. M.H. 15 FT. MAST ARM LED LUMINAIRE, (MIN. 34,000 LUMENS) OUTPUT DESIGNATION I, 120V, WITH 6 AMP FUSE AND NEUTRAL SLUG

N

0 20 40 60
SCALE IN FEET

NOTES:

1. THE COMBO LIGHTING CIRCUITING SHALL NOT BE CONNECTED TO THE ROADWAY LIGHTING CIRCUITS.
2. LUMINAIRES ARE POWERED FROM IDOT TRAFFIC CONTROLLER. SEE DETAIL BE-240.
3. THE COMBO LIGHTING CABLE AND SIGNAL CABLES SHALL BE IN SHARED CONDUIT.
4. SEE TRAFFIC PLANS FOR LOCATION OF COMBO POLES, HANDHOLES AND CONDUIT.
5. CIRCUIT DECALS SHALL NOT BE INSTALLED ON COMBO POLES. CIRCUITING DECALS SHOWN IN FOR GUIDANCE ONLY.



ONE LINE DIAGRAM

IDOT DISTRICT 1 COMBO LIGHTING SCHEDULE OF QUANTITIES

DESCRIPTION	UNIT	QUANTITY
LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION I	EACH	4
COMBINATION LIGHTING CONTROLLER	EACH	1
LUMINAIRE SAFETY CABLE ASSEMBLY	EACH	4
ELECTRIC CABLE IN CONDUIT, 600 V, (XLP TYPE USE) 1/C NO. 10	FOOT	1960

LT-04A

FILE NAME: C:\D62M71\sht-light-04A.dgn
PLOT DRIVER: HRG\IL_DOT_pdf_bw.pltcfg
PEN TABLE: HRG\IL_DOT_pentable.tbl

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6330 Belmont Road, Suite 4B
Downers Grove, IL 60516

USER NAME = mdeitche	DESIGNED - BL	REVISED -
	DRAWN - SR	REVISED -
PLOT SCALE = $SCALE$	CHECKED - MH	REVISED -
PLOT DATE = 3/6/2026	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

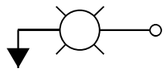
IDOT DISTRICT 1 PROPOSED LIGHTING COMBINATION PLAN
IL 47/US 30 AT BASELINE ROAD

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

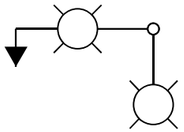
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	2020-198-W&T	KANE\KENDALL	531	302

CONTRACT NO. 62M71
ILLINOIS | FED. AID PROJECT

LEGEND:



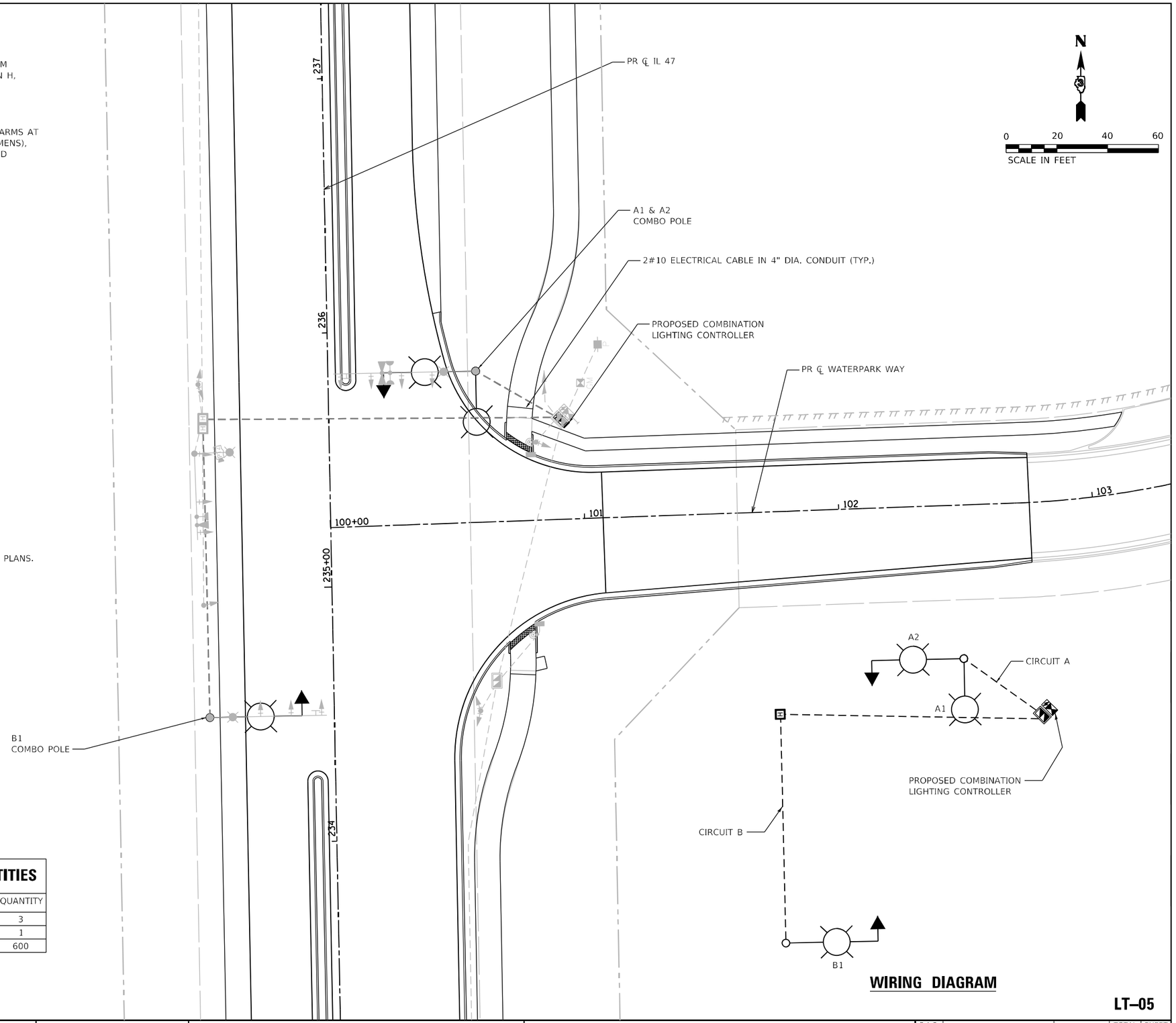
IDOT COMBINATION LIGHT POLE 45 FT. M.H. 15 FT. MAST ARM LED LUMINAIRE, (MIN. 25,000 LUMENS) OUTPUT DESIGNATION H, 120V, WITH 6 AMP FUSE AND NEUTRAL SLUG



IDOT COMBINATION LIGHT POLE 45 FT. M.H. 2-15 FT. MAST ARMS AT 90 DEGREES APART TWO LUMINAIRES, LED, (MIN. 25000 LUMENS), OUTPUT DESIGNATION H, 120V, WITH TWO 6 AMP FUSES AND NEUTRAL SLUGS

NOTES:

1. LUMINAIRES ARE POWERED FROM IDOT TRAFFIC CONTROLLER. SEE SHEET LT-17.
2. THE COMBO LIGHTING CABLE AND SIGNAL CABLES SHALL BE IN SHARED CONDUIT.
3. SEE TRAFFIC PLANS FOR LOCATION OF COMBO POLES, HANDHOLES AND CONDUIT.
4. CIRCUIT DECALS SHALL NOT BE INSTALLED ON COMBO POLES. CIRCUITING DECALS SHOWN IN FOR GUIDANCE ONLY.
5. FOR REMOVAL OF EXISTING COMBINATION LIGHTING, SEE TRAFFIC SIGNAL REMOVAL PLANS.



WIRING DIAGRAM

IDOT DISTRICT 3 COMBO LIGHTING SCHEDULE OF QUANTITIES

DESCRIPTION	UNIT	QUANTITY
LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION H	EACH	3
COMBINATION LIGHTING CONTROLLER	EACH	1
ELECTRIC CABLE IN CONDUIT, 600V, (XLP TYPE USE) 1/C NO. 10	FOOT	600

LT–05

FILE NAME: C:\DIR2MTH-shts\light-05.dgn
PLOT DRIVER: \HRG_IL_DOT.pdf.b+.pltcfg
PEN TABLE: HRG_IL_DOT.pentable.tbl

AMES Engineering, Inc.
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6330 Belmont Road, Suite 4B
Downers Grove, IL 60516

USER NAME = mdeitche	DESIGNED - BL	REVISED -
	DRAWN - SR	REVISED -
PLOT SCALE = $SCALES	CHECKED - MH	REVISED -
PLOT DATE = 3/6/2026	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IDOT DISTRICT 3 PROPOSED LIGHTING COMBINATION PLAN
IL 47 AT WATERPARK WAY

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	2020-198-W&T	KANE\KENDALL	531	303
		CONTRACT NO. 62M71		
	ILLINOIS	FED. AID PROJECT		

LEGEND:

IDOT COMBINATION LIGHT POLE 45 FT. M.H. 15 FT. MAST ARM LED LUMINAIRE, (MIN. 29,037 LUMENS) OUTPUT DESIGNATION H, 120V, WITH 6 AMP FUSE AND NEUTRAL SLUG

IDOT COMBINATION LIGHT POLE 45 FT. M.H. 2-15 FT. MAST ARMS AT 90 DEGREESS APART TWO LUMINAIRES, LED, (MIN. 29,037 LUMENS), OUTPUT DESIGNSTION H, 120V, WITH TWO 6 AMP FUSES AND NEUTRAL SLUGS

N

0 20 40 60

SCALE IN FEET

IDOT DISTRICT 3 COMBO LIGHTING SCHEDULE OF QUANTITIES

DESCRIPTION	UNIT	QUANTITY
LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION H	EACH	6
COMBINATION LIGHTING CONTROLLER	EACH	1
ELECTRIC CABLE IN CONDUIT, 600V, (XLP TYPE USE) 1/C NO. 10	FOOT	1130

IL 47/US 30

PR ℄ IL 47

PR ℄ GALENA ROAD

GALENA ROAD

2#10 ELECTRICAL CABLE IN 4" DIA. CONDUIT

A2 & A3 COMBO POLE

A1 COMBO POLE

2#10 ELECTRICAL CABLE IN 4" DIA. CONDUIT

2#10 ELECTRICAL CABLE IN 4" DIA. CONDUIT

B1 & B2 COMBO POLE

PROPOSED COMBINATION LIGHTING CONTROLLER

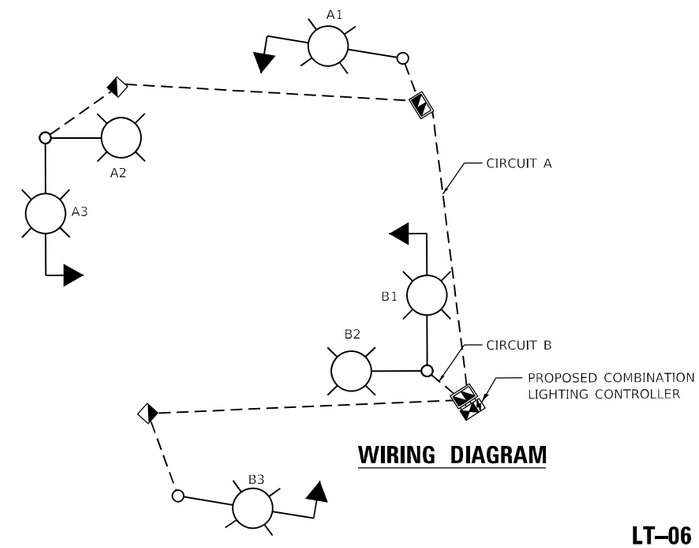
NOTE 6

2#10 ELECTRICAL CABLE IN 4" DIA. CONDUIT

B3 COMBO POLE

97 98 99 100+00 101 102 103

252 261 260+00 259



WIRING DIAGRAM

NOTES:

1. LUMINAIRES ARE POWERED FROM IDOT TRAFFIC CONTROLLER. SEE SHEET LT-17.
2. THE COMBO LIGHTING CABLE AND SIGNAL CABLES SHALL BE IN SHARED CONDUIT.
3. SEE TRAFFIC PLANS FOR LOCATION OF COMBO POLES, HANDHOLES AND CONDUIT.
4. CIRCUIT DECALS SHALL NOT BE INSTALLED ON COMBO POLES. CIRCUITING DECALS SHOWN IN FOR GUIDANCE ONLY.
5. FOR REMOVAL OF EXISTING COMBINATION LIGHTING, SEE TRAFFIC SIGNAL REMOVAL PLANS.
6. THE CONTRACTOR SHALL COORDINATE WITH THE ELECTRIC UTILITY COMPANY REGARDING THE REMOVAL OF EXISTING MAST ARM AND LUMINAIRE ATTACHED TO UTILITY POLE.

LT–06

FILE NAME: C:\DI62M7\t-sht-light-06.dgn
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PEN TABLE: HRG_IL_DOT_pentable.tbl

AMES Engineering, Inc.
CONSULTING ENGINEERS
6330 Belmont Road, Suite 4B
Downers Grove, IL 60516

USER NAME = mdeitche	DESIGNED - BL	REVISED -
	DRAWN - SR	REVISED -
PLOT SCALE = $SCALES	CHECKED - MH	REVISED -
PLOT DATE = 3/6/2026	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IDOT DISTRICT 3 PROPOSED LIGHTING COMBINATION PLAN
IL 47 AT GALENA ROAD

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

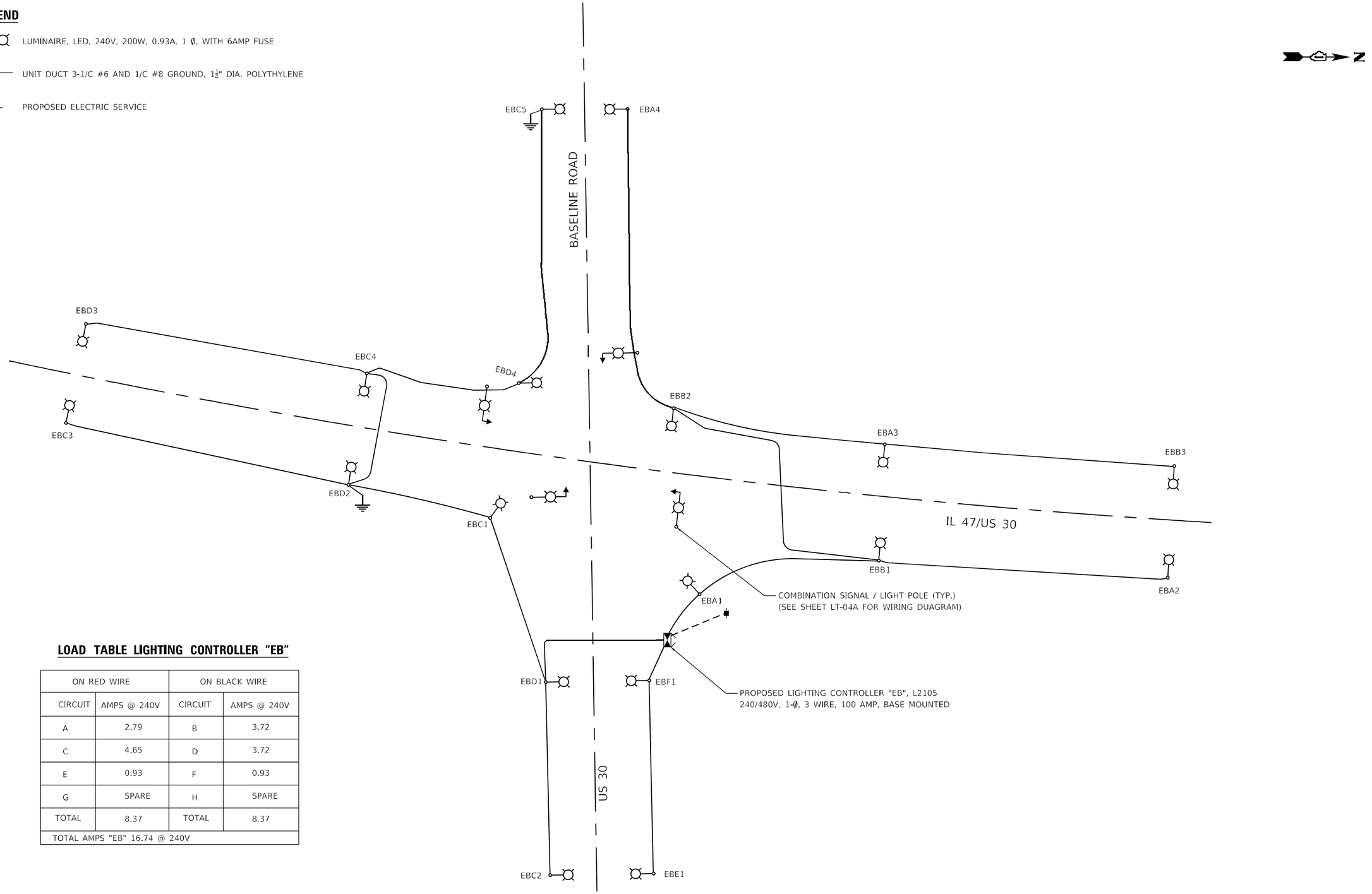
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	2020-198-W&T	KANE\KENDALL	531	304
		CONTRACT NO. 62M71		
		ILLINOIS	FED. AID PROJECT	

LEGEND

LUMINAIRE, LED, 240V, 200W, 0.93A, 1 Ø, WITH 6AMP FUSE

UNIT DUCT 3-1/C #6 AND 1/C #8 GROUND, $1\frac{1}{4}$" DIA. POLYTHYLENE

PROPOSED ELECTRIC SERVICE



LOAD TABLE LIGHTING CONTROLLER "EB"

ON RED WIRE		ON BLACK WIRE	
CIRCUIT	AMPS @ 240V	CIRCUIT	AMPS @ 240V
A	2.79	B	3.72
C	4.65	D	3.72
E	0.93	F	0.93
G	SPARE	H	SPARE
TOTAL	8.37	TOTAL	8.37
TOTAL AMPS "EB" 16.74 @ 240V			

LT–07

FILE NAME: D:\D62M71-sht-light-07.dgn
PLOT DRIVER: /HRC_IL_DOT_pdf_bw.prtcfg
PEN TABLE: HRC_IL_DOT_pentable.tbl

AMES Engineering, Inc.
CONSULTING ENGINEERS
6330 Belmont Road, Suite 4B
Downers Grove, IL 60516

USER NAME = mdeitche	DESIGNED - BL	REVISED -
	DRAWN - SR	REVISED -
PLOT SCALE = $SCALE$	CHECKED - MH	REVISED -
PLOT DATE = 3/6/2026	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IDOT DISTRICT 1 SINGLE LINE DIAGRAM
IL 47/US 30 AT BASELINE ROAD

SCALE: NONE | SHEET 1 OF 1 SHEETS | STA. N/A | TO STA. N/A

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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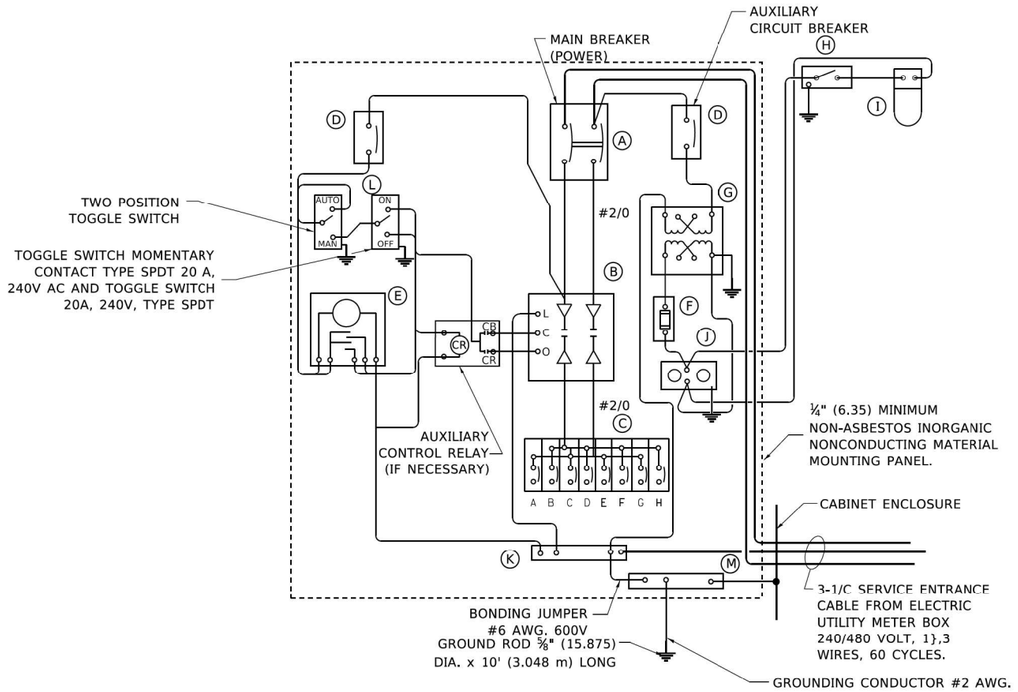
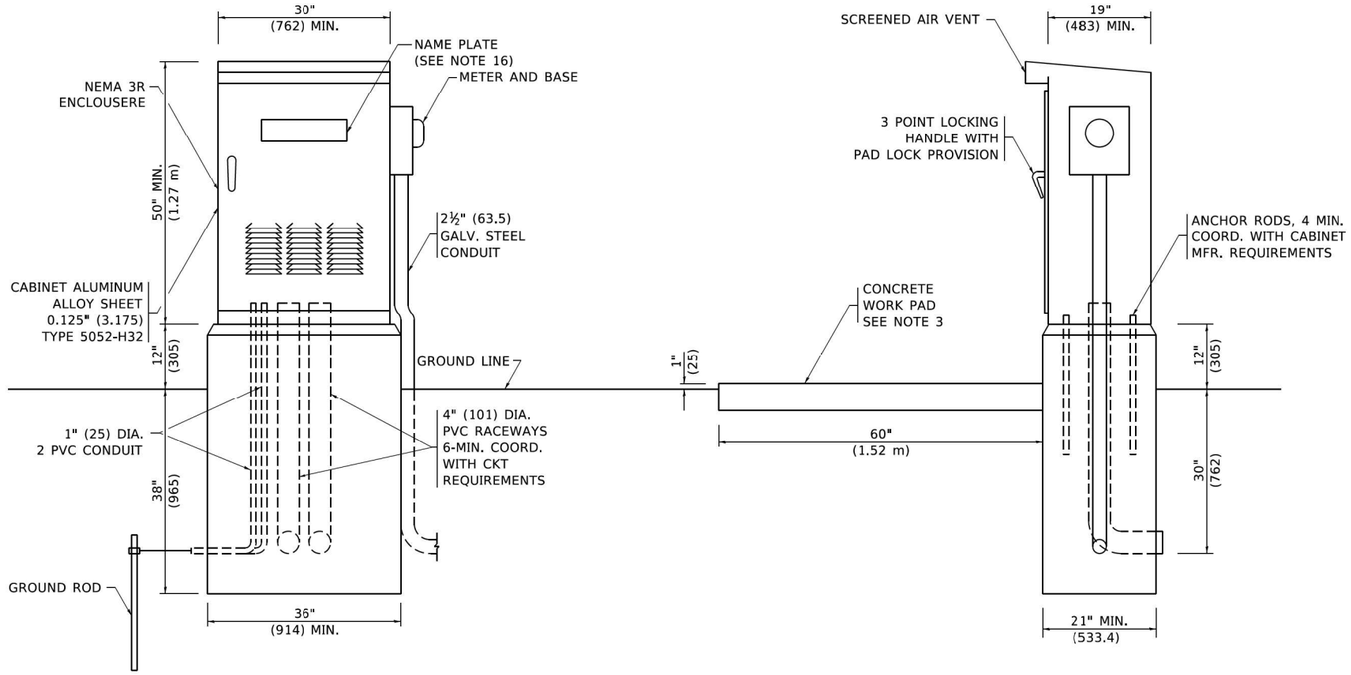
		CONTRACT NO. 62M71		
	ILLINOIS	FED. AID PROJECT		



PANEL WIRING DIAGRAM

PANEL EQUIPMENT

BILL OF MATERIAL		
ITEM	QUANTITY	DESCRIPTION
A	1	MAIN CIRCUIT BREAKER, 2 POLE. 600 VOLT 100 AMP. FRAME, 100 AMP. NON-INTERCHANGEABLE TRIP INTERRUPTING RATING NEMA-22000 AMP. AT 480 VOLT.
B	1	REMOTE CONTROL SWITCH, ELECTRICALLY OPERATED, MECHANICALLY HELD, 2 POLE, SINGLE THROW, 100 AMP., 600 VOLTS CONTROL CIRCUIT 240 VOLT.
C	8	CIRCUIT BREAKERS, 1 POLE, 100AMP. FRAME, 50 AMP. NON-INTERCHANGEABLE TRIP INTERRUPTING RATING NEMA-10,000 AMP. AT 240 V.
D	2	CONTROL CIRCUIT-CIRCUIT BREAKER. 1 POLE, 240 V., 100 AMP. FRAME, 15 AMP. NON-INTERCHANGEABLE TRIP INTERRUPTING RATING NEMA-5000 AMP. AT 240 V.
E	1	ASTRONOMIC MICROPROCESSOR-BASED 2-CHANNEL CONTROLLER (TIME SWITCH).
F	1	20 AMP, 120 VOLT FUSE.
G	1	1.5 KVA, SINGLE PHASE, ENCAPSULATED TRANSFORMER 240 X 480 / 120 X 240 VOLT, 60 Hz.
H	1	SPST 20A SWITCH ON DOOR, TO TURN LIGHT ON WHEN DOOR IS OPEN,
I	1	INCANDESCENT LIGHTING FIXTURE ENCLOSED AND GASKETED WITH 60 WATT, 120 V. LAMP.
J	1	20 AMP, 120 VOLT, DUPLEX RECEPTACLE, GFCI.
K	1	COPPER GROUND BUS 1#4" (6.35) X 1" (25.4) X 12" (304.8 mm) LONG MOUNTED ON PANEL WITH LUGS AND 4 SPARE LUGS
L	1	TOGGLE SWITCHES MOUNTED IN 4" (101.6) X 4" (101.6 mm) BOX.
M	1	COPPER GROUND BUS 1#4" (6.35) X 1" (25.4) X 12" (304.8 mm) LONG MOUNTED ON PANEL WITH LUGS AND SPARE LUGS.



NOTES

1. ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
2. FOUNDATION SIZE SHALL BE COORDINATED WITH CABINET SIZE AND MFR.
3. IN FRONT OF CONTROL CABINET DOOR, REMOVE VEGETATION AND 2'' (50.8 mm) TOP SOIL, LEVEL THE AREA AND ON TOP, PLACE LENGTH WISE PARALLEL TO CONTROL CABINET, A CONCRETE PAD 36'' (914.4 mm) x 60" (18.288 m) x 4'' (101 mm) MIN. SIZE. THE COST OF LABOR AND MATERIALS ARE INCLUDED IN THE COST OF THE CONTROLLER.
4. DOOR SHALL BE CONSTRUCTED FROM SAME TYPE OF MATERIAL AND THICKNESS AS CABINET.
5. DOOR SHALL BE EQUIPPED WITH THREE POINT LATCHING MECHANISM WITH NYLON ROLLERS AT TOP THE BOTTOM.
6. DOOR HINGE SHALL BE A HEAVY GAUGE CONTINUOUS HINGE WITH A 1#4" (6.35 mm) DIA. STAINLESS STEEL HINGE PIN.
7. ALL EXTERNAL HARDWARE SHALL BE STAINLESS STEEL.
8. CONTROL WIRING TO BE #12 AWG, 600V, TYPE "SIS" GRAY SWITCH BOARD WIRE, STRANDED COPPER.
9. METER BOX SHALL BE MOUNTED ON THE SIDE OF CONTROL CABINET, NEAR TO THE SERVICE POLE.
10. CABINETS SHALL BE PRIMED AND PAINTED AS SPECIFIED.
11. THE HEADS OF CONNECTORS SCREWS SHALL BE PAINTED WHITE FOR NEUTRAL BAR CONNECTION AND GREEN FOR GROUND BAR CONNECTORS.
12. ALL WIRING WITHIN THE CABINET SHALL BE COLOR CODED AS INDICATED.
    R = RED BL = BLUEW = WHITE
    B = BLACK Y = YELLOW G = GREEN
13. PROVIDE SEALING GROMMETS FOR ALL OPEN WIRING EXTENDED FROM DEVICES IN BOXES OR CABINETS WITHIN THE CONTROL CABINET.
14. ALL WIRING SHALL BE NEATLY DRESSED AND SUPPORTED.
15. THE CONTROLLER SHALL BE CONSTRUCTED TO U.L. STD. 508 AND BEAR THE U.L. LABEL "ENCLOSED INDUSTRIAL CONTROL PANEL".
16. 12" (304.8) X 16" (406.4 mm) STAINLESS STEEL EXTERIOR NAMEPLATE SHALL BE ENGRAVED TO "STATE OF ILLINOIS LIGHTING CONTROLS" UNLESS OTHERWISE SPECIFIED.

LT–08

AMES Engineering, Inc.
CONSULTING ENGINEERS
6330 Belmont Road, Suite 4B
Downers Grove, IL 60516

USER NAME = footemj	DESIGNED -	REVISED - 08-20-04
	DRAWN -	REVISED -
PLOT SCALE = 50.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 4/19/2019	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IDOT DISTRICT 1 LIGHTING CONTROLLER
SINGLE DOOR

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		KANE\KENDALL	531	306
	BE–215	CONTRACT NO. 62M71		
	ILLINOIS FED. AID PROJECT			

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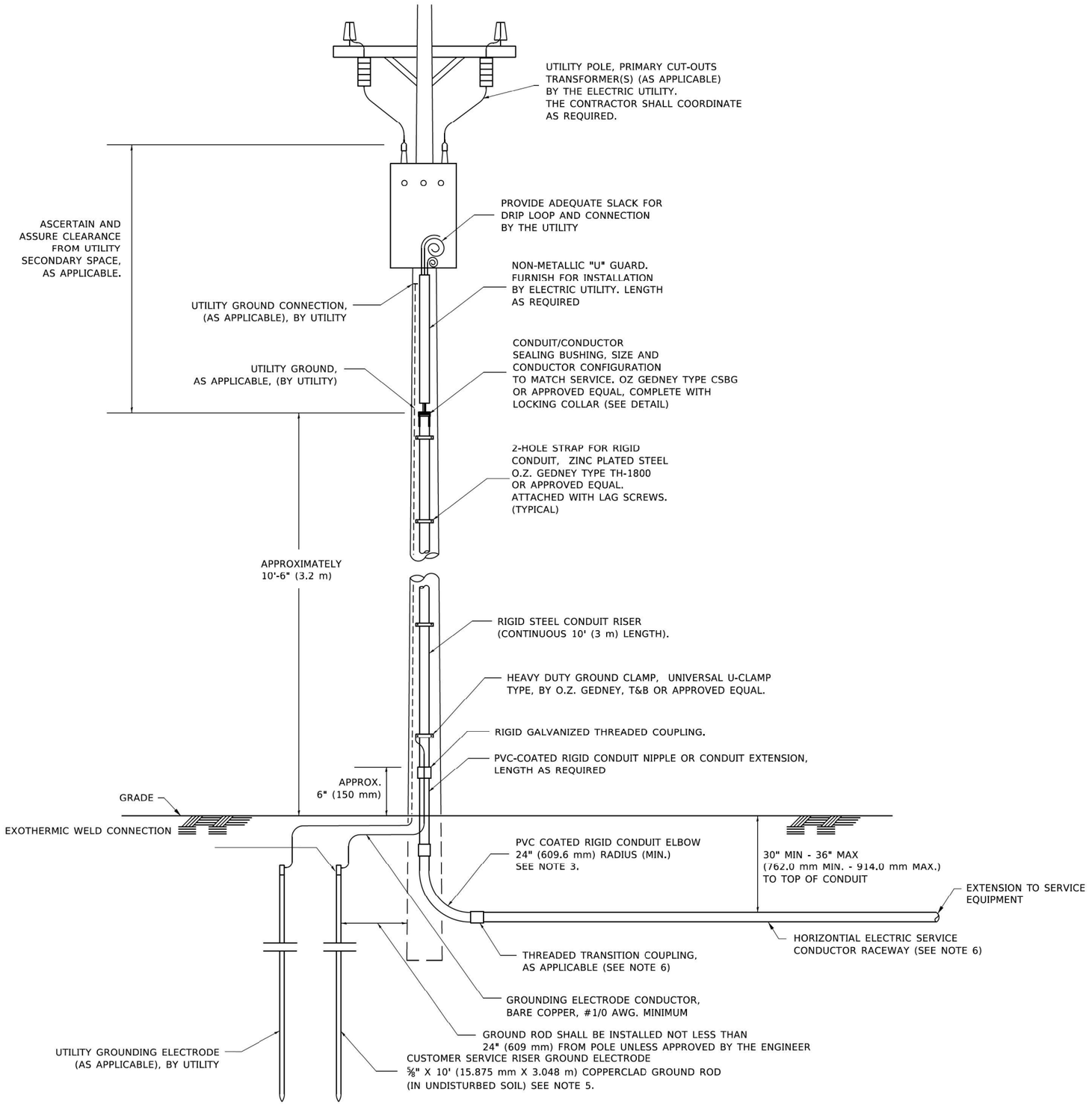
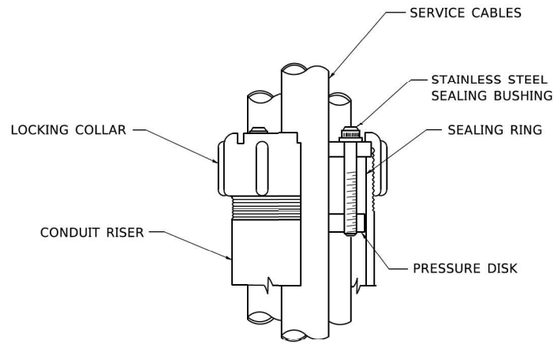


APPLICATION

THIS DETAIL APPLIES FOR LOW VOLTAGE ELECTRIC SERVICE (660 V OR LESS) FROM AN OVERHEAD UTILITY SUPPLY TO SEPERATLY-MOUNTED SERVICE EQUIPMENT.

NOTES

1. SERVICE VOLTAGE SHALL BE AS INDICATED ELSEWHERE IN THE DRAWINGS.
2. UNLESS OTHERWISE INDICATED, ITEMS AND WORK SHALL BE INCLUDED AND PAID AS PART OF THE ELECTRIC UTILITY SERVICE INSTALLATION PAY ITEM.
3. CONDUIT AND CONNECTOR DIAMETER SHALL MATCH THE DIAMETER OF THE SERVICE CONDUCTOR RACEWAY AS INDICATED ON THE PLANS.
4. PVC COATED RACEWAYS AND ACCESSORIES SHALL BE CAREFULLY INSTALLED WITH MFR RECOMMENDED TOOLS AND PROCEDURES TO AVOID DAMAGE. ANY DAMAGE SHALL BE REPAIRED WITH COMPATIBLE PVC TOUCH-UP MATERIAL TO THE SATISFACTION OF THE ENGINEER OR THE DAMAGED MATERIAL SHALL BE REPLACED AT NO ADDITIONAL COST.
5. THE CONTRACTOR SHALL OBTAIN INSPECTION AND APPROVAL BY THE ENGINEER OF SERVICE RISER GROUND ELECTRODE, RISER ELBOW, NIPPLE AND CONNECTION TO SERVICE CONDUCTOR RACEWAY EXTENSION BEFORE BACKFILL AND SHALL ALSO OBTAIN INSPECTION OF SERVICE RISER AND SEALING BUSHING BEFORE UTILITY "U" GUARD INSTALLATION AND SERVICE CONNECTION.
6. THE HORIZONTAL ELECTRIC SERVICE CONDUCTOR RACEWAY SHALL BE AS INDICATED AND SHALL BE MEASURED SEPARATELY FOR PAYMENT. WHEN THE RACEWAY IS PVC-COATED RIGID GALVANIZED STEEL, THE COUPLING SHALL BE THE SAME. WHEN THE RACEWAY IS PVC CONDUIT (IN CONCRETE), THE COUPLING SHALL BE A METALIC TO NON METALIC ADAPTER. WHEN THE RACEWAY IS ENCASED IN CONCRETE, THE CONCRETE SHALL EXTEND TO COVER THE COUPLING.
7. PLANS AND DETAILS INDICATE THE GENERAL NATURE AND REQUIREMENTS. THEY DO NOT SHOW EVERY ACCESSORY AND ATTACHMENT, AND THEY DO NOT RELIEVE THE CONTRACTOR OF THE REQUIREMENTS OF THE SPECIFICATIONS AND SPECIAL PROVISIONS TO ASCERTAIN UTILITY REQUIREMENTS AND TO COORDINATE ACCORDINGLY, FURNISHING ALL ITEMS AND WORK NOT PROVIDED BY THE UTILITY, BUT NECESSARY FOR A COMPLETE SERVICE INSTALLATION IS REQUIRED AND SHALL BE INCLUDED IN THE ELECTRIC UTILITY SERVICE INSTALLATION PAY ITEM.



SEALING BUSHING DETAIL

LT–09

AMES Engineering, Inc.
CONSULTING ENGINEERS
6330 Belmont Road, Suite 4B
Downers Grove, IL 60516

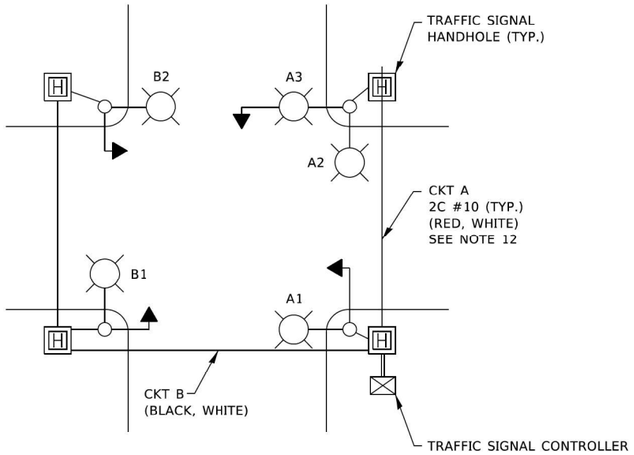
USER NAME = footemj	DESIGNED -	REVISED - 03-03-06	
	DRAWN -	REVISED -	
PLOT SCALE = 50.0000 ' / in.	CHECKED - MEA	REVISED -	
PLOT DATE = 4/19/2019	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IDOT DISTRICT 1 ELECTRIC SERVICE INSTALLATION
AERIAL, REMOTE DISCONNECT

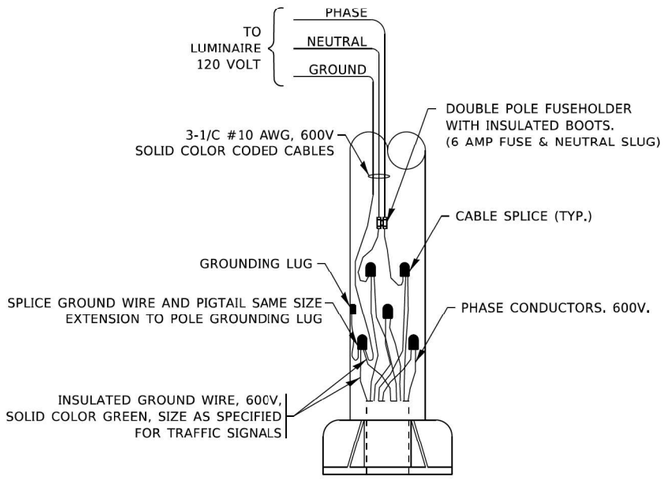
SCALE: NONE | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		KANE\KENDALL	531	307
	BE–220	CONTRACT NO. 62M71		
		ILLINOIS	FED. AID PROJECT	



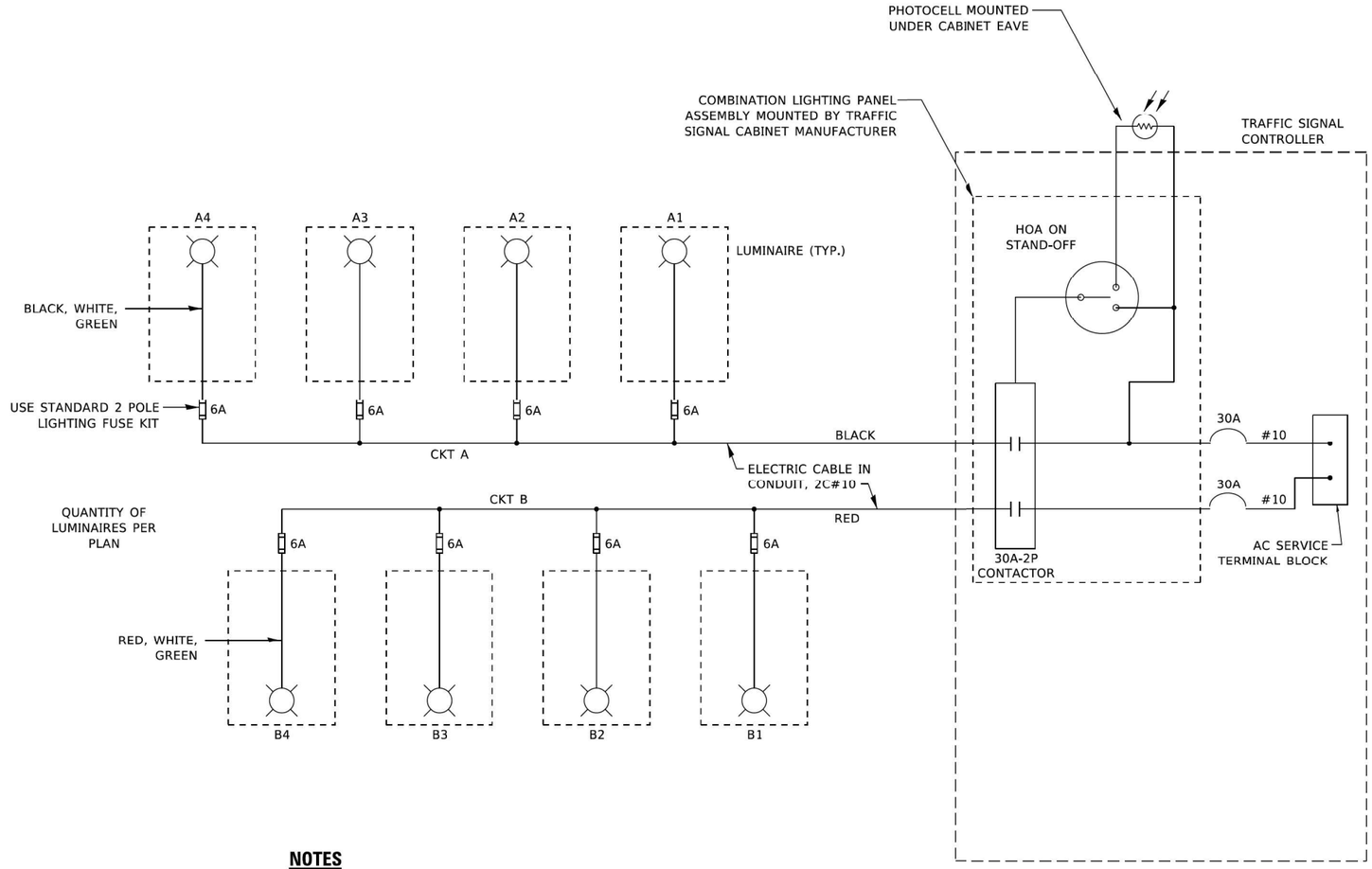
TYPICAL LIGHTING CIRCUIT

(NOT TO SCALE)



COMBINATION POLE WIRING DETAIL

(NOT TO SCALE)



NOTES

1. 4 LUMINAIRES PER CIRCUIT, MAXIMUM.
2. TWO #10 (XLP-TYPE USE) CABLES TO BE USED FOR LIGHTING CIRCUITS.
3. ROUTE LIGHTING CIRCUITS IN TRAFFIC SIGNAL CONDUIT SYSTEM.
4. ALL SPLICES AND CONNECTIONS FOR ROADWAY LIGHTING SHALL BE AT POLE BASE ONLY.
5. FOR LIGHTING CIRCUITS, CONNECT TWO CIRCUIT BREAKERS TO AC SERVICE TERMINAL BLOCK.
6. ALL WIRING SHALL BE NEATLY DRESSED, IDENTIFIED BY TAGS, AND SUPPORTED. (UNDERGROUND SPLICING OF LIGHTING CONDUCTORS IS NOT PERMITTED).
7. THE H.O.A. SWITCH SHALL BE LABELED AS "LIGHTING CONTROL" WITH THE POSITIONS "AUTO", "OFF" AND "TEST" WITH ENGRAVED NAME PLATES.
8. LIGHTING CONNECTED TO UPS BYPASS CIRCUIT.
9. COMBINATION LIGHTING MUST BE INSTALLED PRIOR TO SIGNAL TURN ON.
10. LUMINAIRE VOLTAGE SHALL BE 120V
11. POLE WIRING & FUSE KITS ARE INCLUDED IN THE LUMINAIRE PAY ITEM.
12. THE UNDERGROUND EQUIPMENT GROUND WIRE IS SHOWN IN THE TRAFFIC SIGNAL PLANS AND IS INCLUDED IN THE SIGNAL PLANS. IT IS SHARED GROUND BETWEEN SIGNALS AND LIGHTING.

LT–10

MODEL: Default
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AMES Engineering, Inc.
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6330 Belmont Road, Suite 4B
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USER NAME = demanchelt	DESIGNED - RT	REVISED - T.G. 4/12/2017	
	DRAWN -	REVISED - R. TOMSONS 3/22/18	
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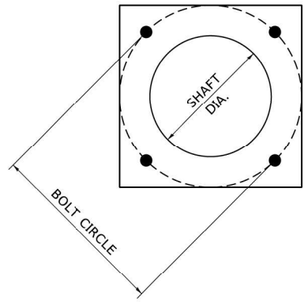
PLOT DATE = 5/5/2022	DATE - 08/18/2014	REVISED - T.G. 5/05/2022	

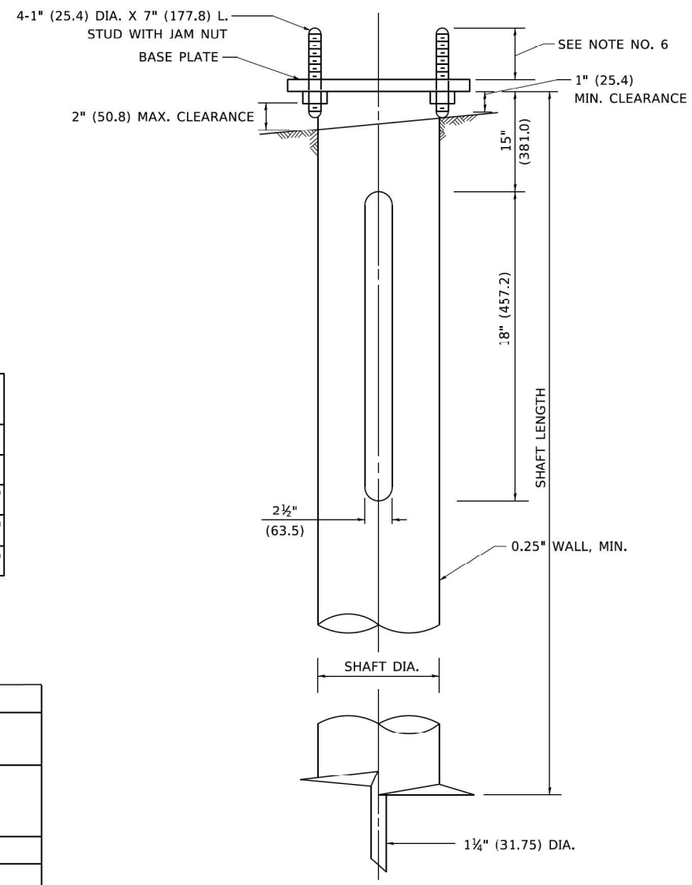
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IDOT DISTRICT 1 COMBINATION LIGHTING, TRAFFIC SIGNAL SCHEMATIC

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		KANE\KENDALL	531	308
	BE–240	CONTRACT NO. 62M71		
	ILLINOIS FED. AID PROJECT			





HELIX FOUNDATION SIZE

POLE MOUNTING HEIGHT	BOLT CIRCLE	SHAFT DIAMETER	SHAFT LENGTH	BASEPLATE
30 FT.	11½"	8⅝"	6 FT.	12"x12"x1"
31 FT.-35 FT.	11½"	8⅝"	6 FT.	12"x12"x1"
36 FT.-40FT.	15"	8⅝"	6 FT.	15"x15"x1¼"
41 FT.-45 FT.	15"	8⅝"	6 FT.	15"x15"x1¼"
46 FT.-50 FT.	15"	10"	8 FT.	15"x15"x1¼"

METAL HELIX FOUNDATION MATERIALS

ITEM	MATERIAL REQUIREMENT
BASEPLATE	AASHTO M 270M, GRADE 36 (M270M, GRADE 250)
SHAFT	ASTM A 252, GRADE 2 (PHOSPHOROUS 0.04% MAXIMUM, SULFUR 0.05% MAXIMUM)
HELIX SCREW	AASHTO M 183 (ASTM A 635)
PILOT POINT	AASHTO M 270 (ASTM A 575)
ANCHOR RODS/STUDS	AASHTO M 314 (ASTM F 1554)
HEXAGON NUTS	AASHTO M 291M (ASTM A 563) GRADE DH, OR AASHTO M 292 (ASTM A 194) GRADE 2H
WASHERS	AASHTO M 293 (ASTM F 436)

NOTES

1. ALL DIMENSION IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
2. ALL MATERIAL SHALL BE GALVINIZED ACCORDING TO AASHTO M111, UNLESS OTHERWISE SPECIFIED.
3. ALL WELDS SHALL BE CONTINUOUS AND NOT LESS THAN 1#4" (6.35 mm) FILLET WELDS. THE WELDED FOUNDATION SHALL BE CAPABLE OF WITHSTANDING 10,000 FT/LBS (13558.18 n.m) OF INSTALLATION TORQUE APPLIED ABOUT THE AXIS OF THE FOUNDATION.
4. THE HELIX FOUNDATION SHAFT SHALL BE INSTALLED VERTICAL AND THE BASE PLATE SHALL BE IN LEVEL. THE BREAKAWAY COUPLINGS AND HARDWARE SHALL NOT BE USED TO ALIGN THE POLE INSTALLATION.
5. THE CABLE TRENCH SHALL BE BACKFILLED AND FIRMLY COMPACTED BEFORE THE INSTALLATION OF THE LIGHT POLE.
6. THE CONTRACTOR SHALL COORDINATE EXTENSION OF ANCHOR BOLTS ABOVE TOP OF THE BASE PLATE WITH THE BREAKAWAY DEVICE MANUFACTURER'S REQUIREMENTS.
7. ANY VOIDS WITHIN THE METAL FOUNDATION SHALL BE FILLED WITH FINE AGGREGATE.
8. METAL FOUNDATIONS SHALL BE INSTALLED IN UNDISTURBED SOIL. PREDRILLING A PILOT HOLE AND/OR BACKFILLING AROUND THE FOUNDTION IS NOT ALLOWED.
9. THE METAL FOUNDATION SHALL NOT BE INSTALLED TO A TORQUE WHICH EXCEEDS THE MANUFACTURER'S MAXIMUM TORQUE RATING NOR SHALL IT BE INSTALLED TO AN INSTALLATION TORQUE VALUE OF LESS THAN 3,500 FT LB (4,750 KNM). METAL FOUNDATIONS THAT ARE NOT INSTALLED TO FULL INSTALLATION DEPTH OR DO NOT ACHIEVE THE MINIMUM INSTALLATION TORQUE SHALL BE REMOVED AND REPLACED WITH A CONCRETE FOUNDATION AT NO ADDITIONAL COST.
10. THE BASEPLATE SHALL BE PERPENDICULAR TO THE SHAFT AXIS (± 1°) AND THE HOLE CENTERLINE SHALL BE CONCENTRIC (± 0.188) TO THE SHAFT AXIS.
11. THE PILOT POINT AND SHAFT AXIS SHALL BE CONCENTRIC (± 0.125) AND IN LINE (± 2°).
12. THE BASEPLATE SHALL BE STAMPED WITH THE MANUFACTURERS NAME AND DATE OF MANUFACTURE.

LT–11

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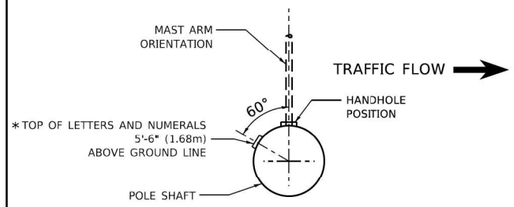
USER NAME = footemj	DESIGNED -	REVISED -
	DRAWN - DLB	REVISED -
PLOT SCALE = 50.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 4/19/2019	DATE - 02-27-07	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

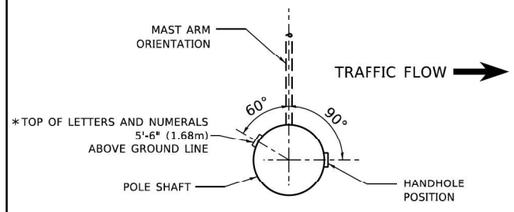
IDOT DISTRICT 1 LIGHT POLE FOUNDATION, METAL

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		KANE\KENDALL	531	309
	BE-305	CONTRACT NO. 62M71		
	ILLINOIS FED. AID PROJECT			



POSITION OF HANDHOLE AND POLE NUMBER FOR SINGLE MAST ARM POLES MOUNTED ON BRIDGE PARAPET OR BARRIER WALL



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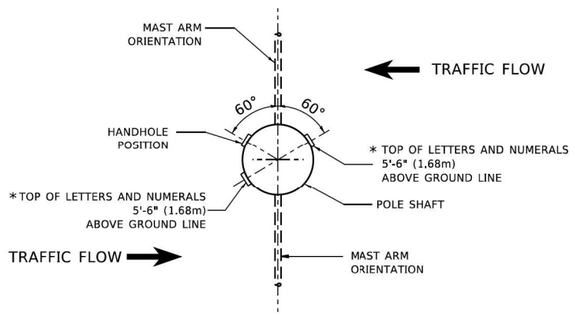
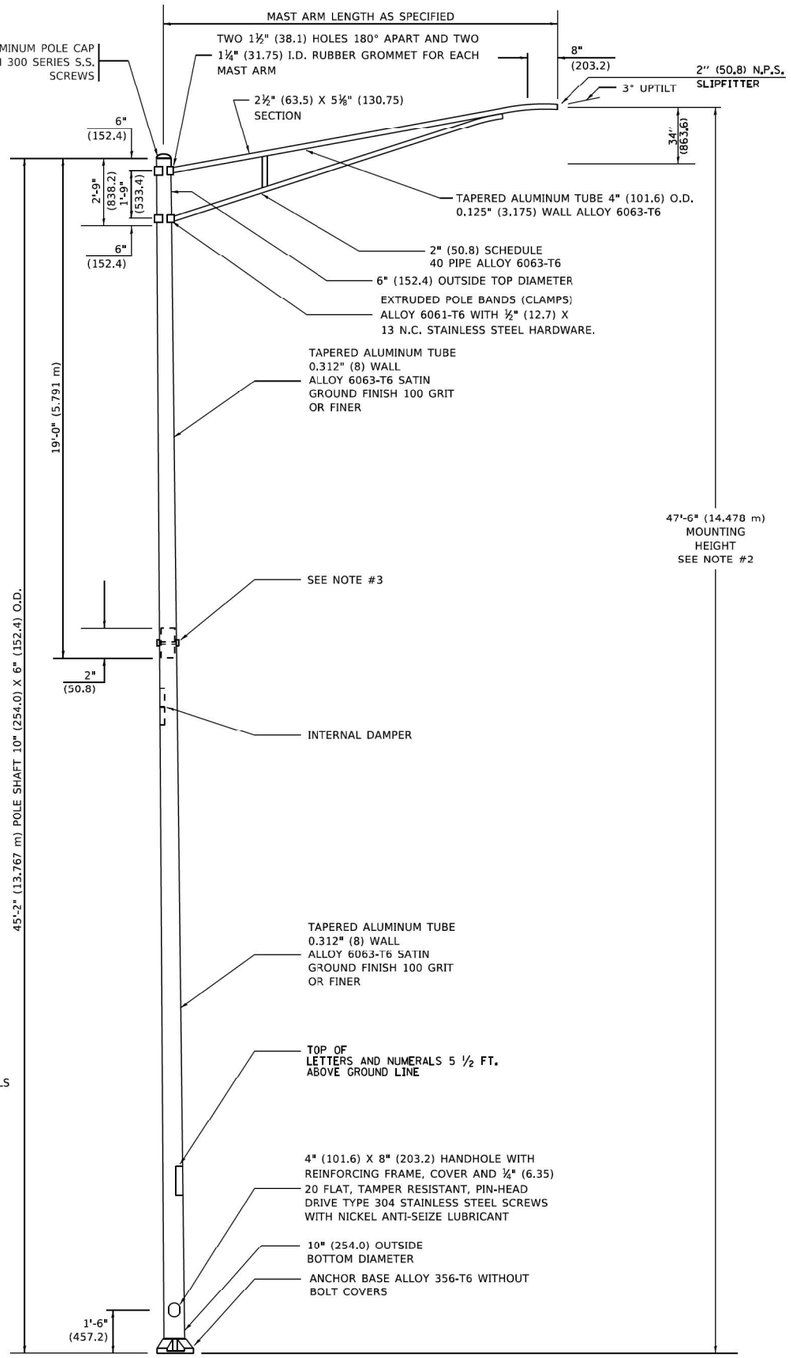
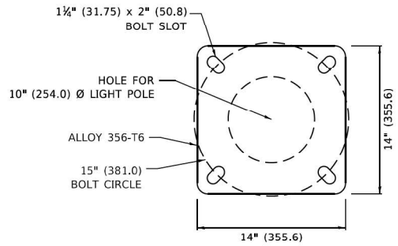


POSITION OF HANDHOLE AND POLE NUMBER FOR TWIN MAST ARM POLES



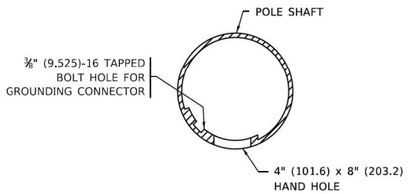
NOTES

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



LIGHT POLE BASE PLATE DETAIL

15 INCH (381.0) BOLT CIRCLE



HANDHOLE DETAIL

(N.T.S.)

LT–12

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USER NAME = Lawrence.DeManche	DESIGNED -	REVISED - R. TOMSONS 01-18-13	
	DRAWN -	REVISED - R. TOMSONS 03-18-15	
PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED - TG 06-13-22	
PLOT DATE = 12/19/2023	DATE -	REVISED - R. TOMSONS 12-19-23	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IDOT DISTRICT 1 ALUMINUM LIGHT POLE
47'–6" (14.478 m) MOUNTING HEIGHT

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		KANE\KENDALL	531	310
	BE-400	CONTRACT NO. 62M71		
		ILLINOIS FED. AID PROJECT		

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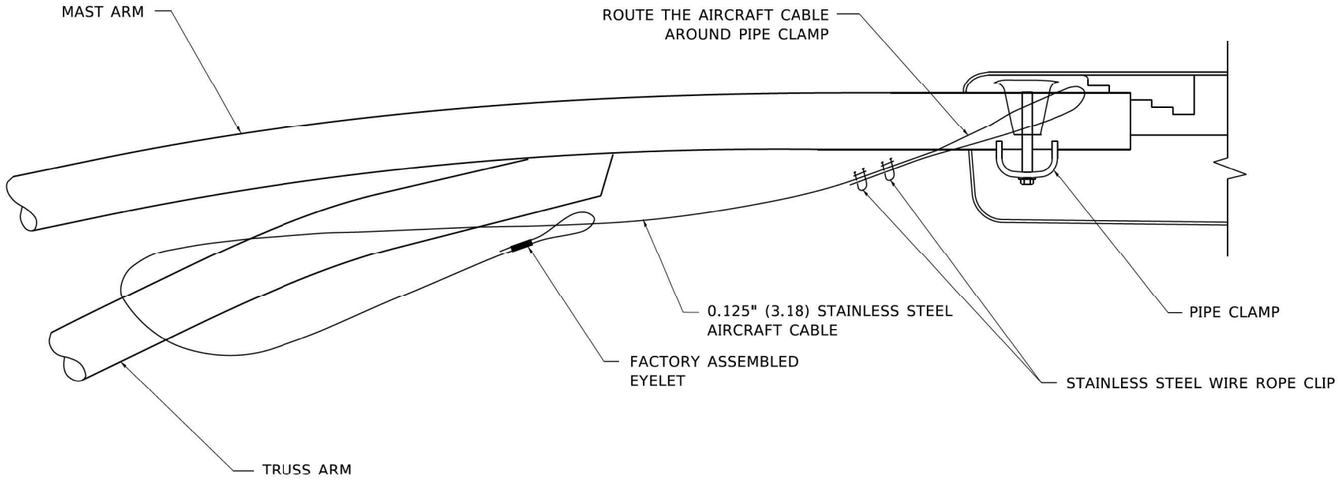
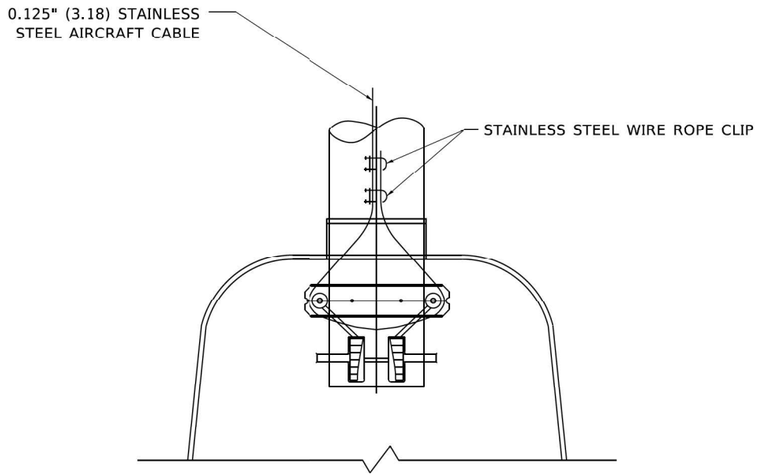
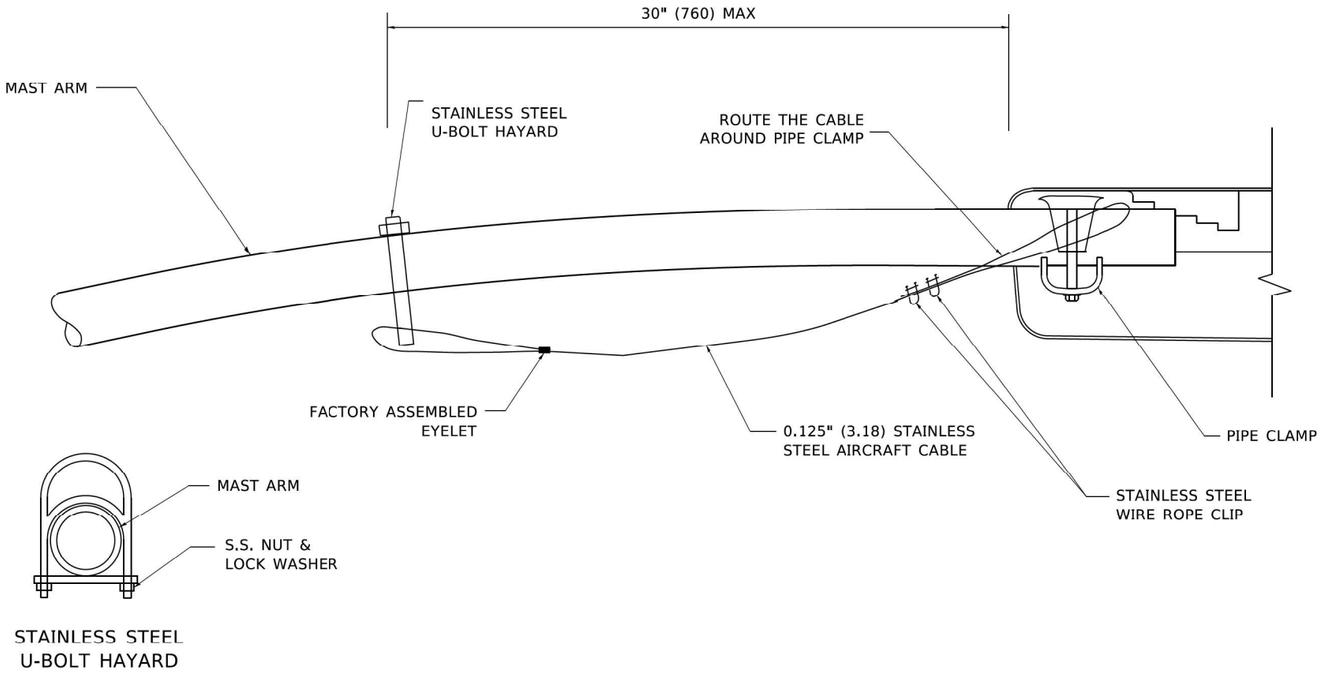


SIDE VIEW (TRUSS ARM)
N.T.S.



BOTTOM VIEW
N.T.S.



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

NOTES:

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

LT–13

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	DRAWN -	REVISED -
PLOT SCALE = 50.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 4/19/2019	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IDOT DISTRICT 1 LUMINAIRE SAFETY CABLE ASSEMBLY

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		KANE\KENDALL	531	311
	BE–701	CONTRACT NO. 62M71		
		ILLINOIS	FED. AID PROJECT	

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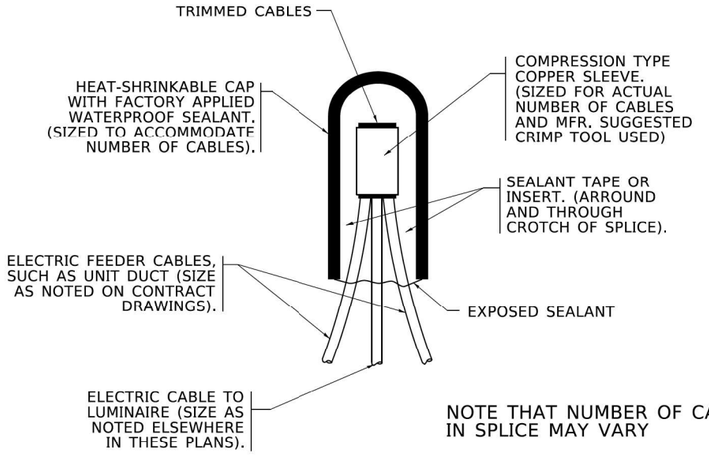
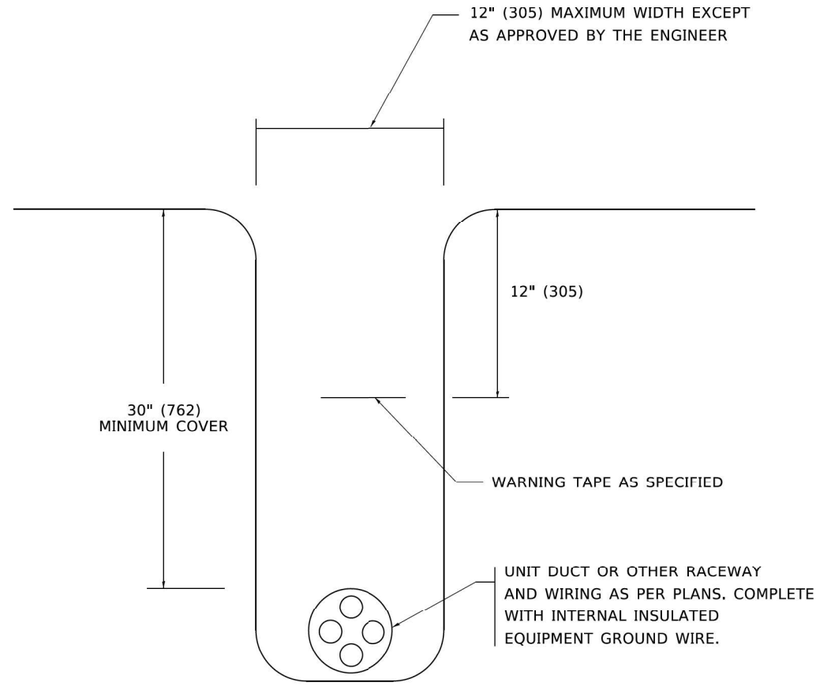


NOTE THAT NUMBER OF CABLES IN SPLICE MAY VARY

TYPICAL SPLICE DETAIL

N.T.S.



TYPICAL WIRING IN TRENCH DETAIL

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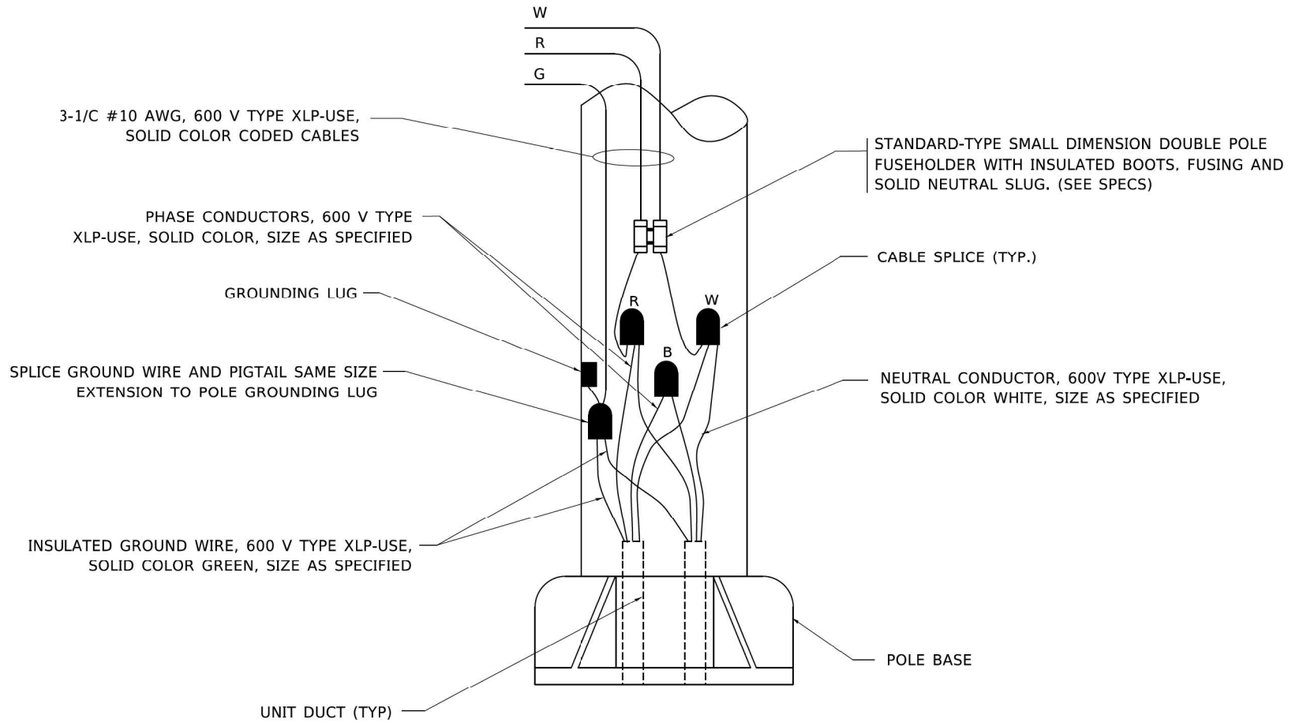

POLE WIRING DETAIL

N.T.S.

LT–14

AMES Engineering, Inc.
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	DRAWN -	REVISED -
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PLOT DATE = 3/2/2020	DATE - 08/08/2003	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IDOT DISTRICT 1 MISC. ELECTRICAL DETAILS
SHEET A

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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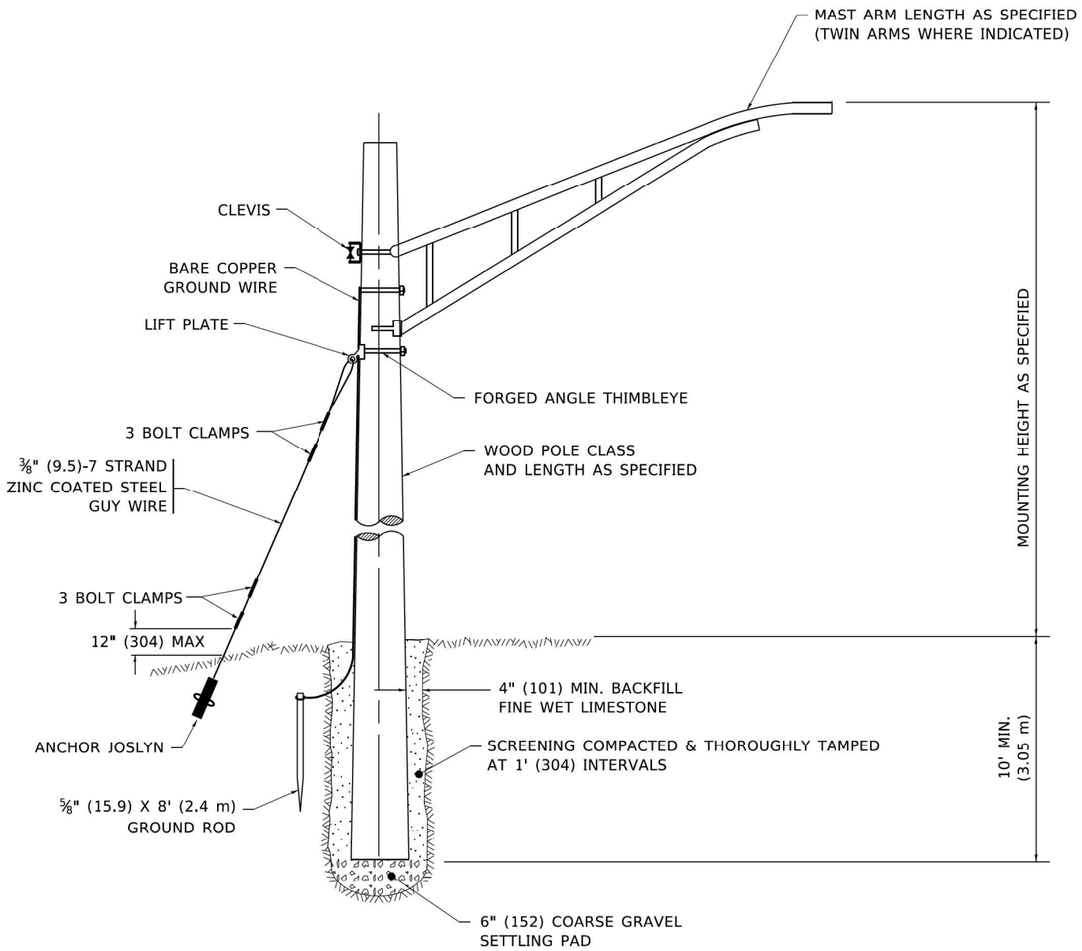
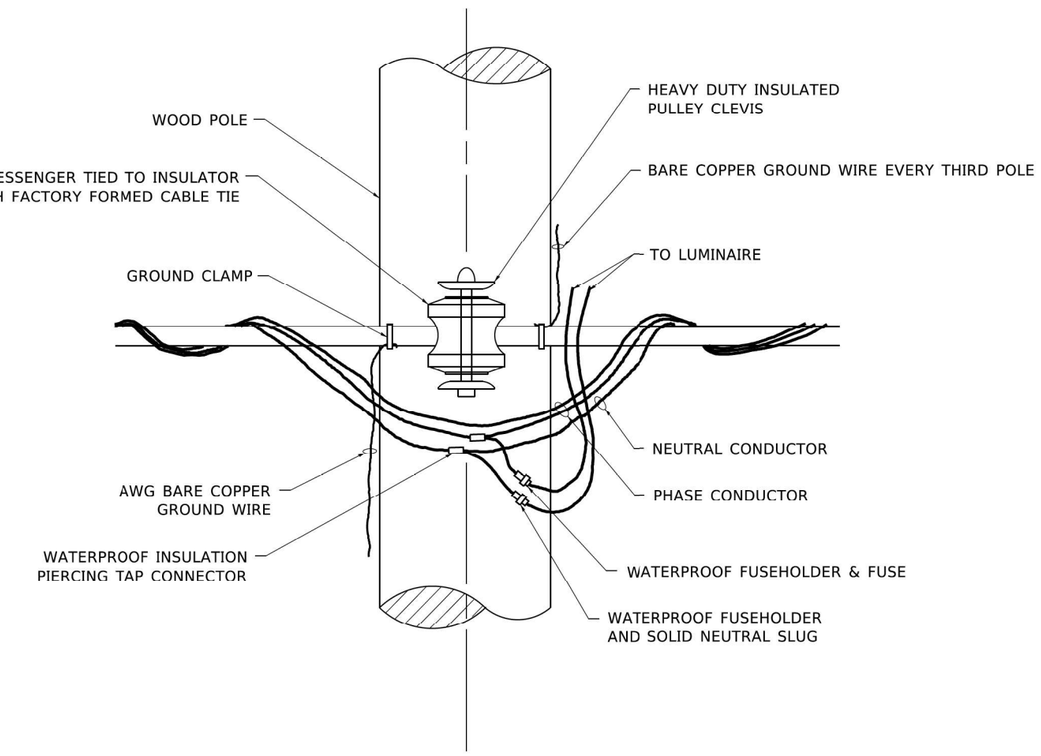


TEMPORARY LIGHT POLE DETAIL



TEMPORARY LIGHT POLE ATTACHMENT DETAIL

NOTE:

1. ALL DIMENSIONS IN INCHES (MILLIMETERS) UNLESS OTHERWISE INDICATED.
2. MAST ARM SHALL BE RATED FOR THE SPECIFIED MOUNTING HEIGHT.

LT–15

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CONSULTING ENGINEERS
6330 Belmont Road, Suite 4B
Downers Grove, IL 60516

USER NAME = footemj	DESIGNED -	REVISED - 08-08-03
	DRAWN -	REVISED - R.T. 07-26-16
PLOT SCALE = 50.0010 ' / In.	CHECKED -	REVISED -
PLOT DATE = 4/19/2019	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IDOT DISTRICT 1 TEMPORARY LIGHT POLE DETAILS

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		KANE\KENDALL	531	313
	BE–800	CONTRACT NO. 62M71		
	ILLINOIS FED. AID PROJECT			

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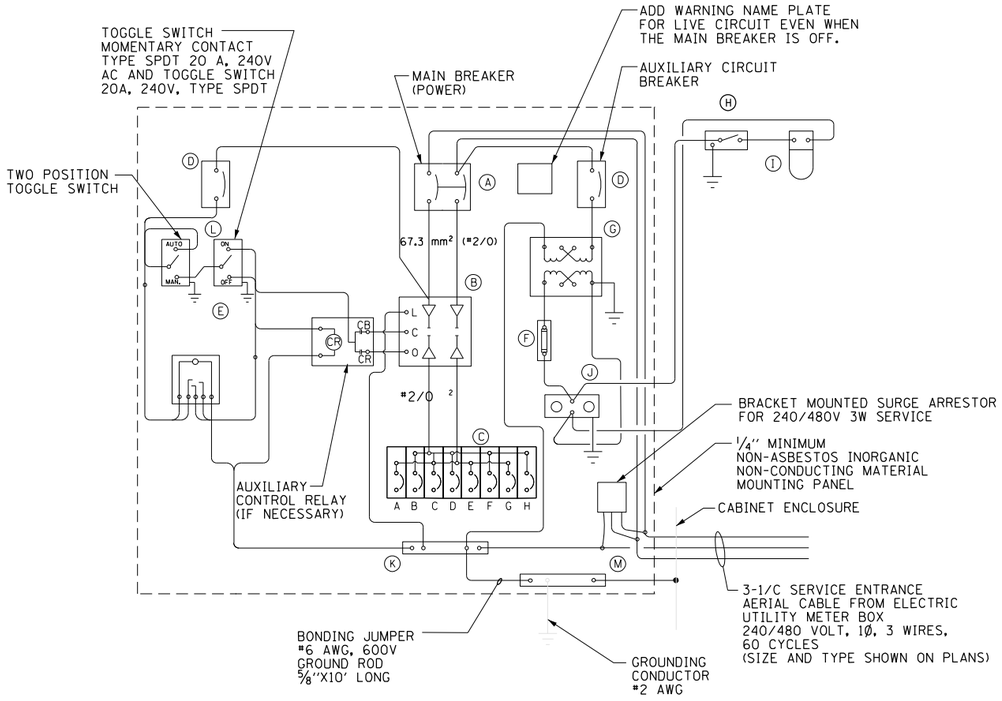
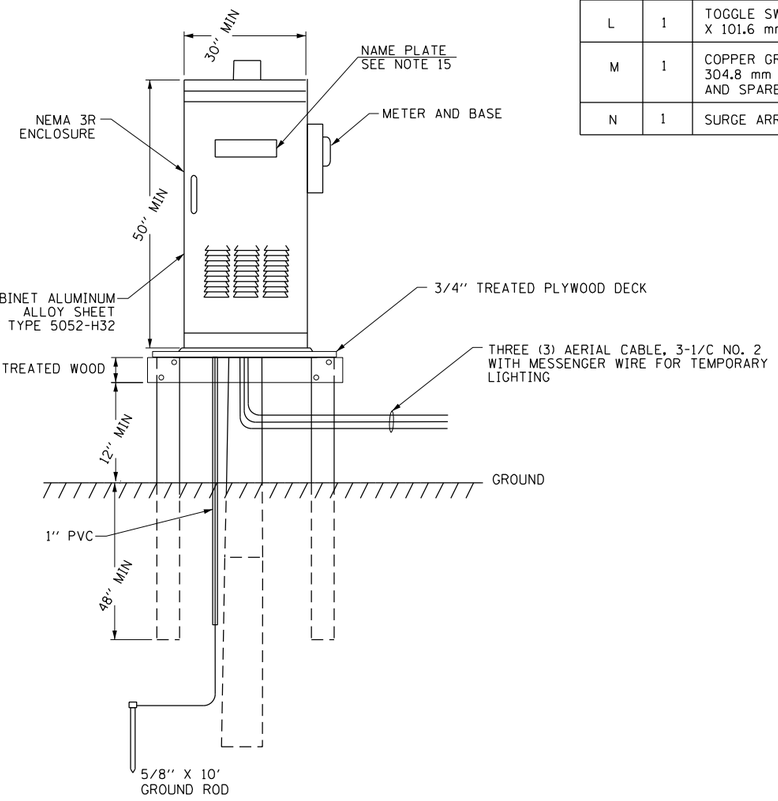


WIRING DIAGRAM



NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.
2. WOOD PLANK SUPPORT SIZE SHALL BE COORDINATED WITH CABINET SIZE.
3. DOOR SHALL BE CONSTRUCTED FROM SAME TYPE OF MATERIAL AND THICKNESS AS CABINET.
4. DOOR SHALL BE EQUIPPED WITH THREE POINT LATCHING MECHANISM WITH NYLON ROLLERS AT TOP THE BOTTOM.
5. DOOR HINGE SHALL BE A HEAVY GAUGE CONTINUOUS HINGE WITH A 6.35 mm (1/4") DIA. STAINLESS STEEL HINGE PIN.
6. ALL EXTERNAL HARDWARE SHALL BE STAINLESS STEEL.
7. CONTROL WIRING TO BE #12 AWG, 600V, TYPE "SIS" GRAY SWITCH BOARD WIRE, STRANDED COPPER.
8. METER BOX SHALL BE MOUNTED ON THE SIDE OF CONTROL CABINET, NEAR TO THE SERVICE POLE.
9. CABINETS SHALL HAVE AN ALUMINUM FINISH.
10. THE HEADS OF CONNECTORS SCREWS SHALL BE PAINTED WHITE FOR NEUTRAL BAR CONNECTION AND GREEN FOR GROUND BAR CONNECTORS.
11. ALL WIRING WITHIN THE CABINET SHALL BE COLOR CODED AS INDICATED.
    R = RED BL = BLUE W = WHITE
    B = BLACK Y = YELLOW G = GREEN
12. PROVIDE SEALING GROMMETS FOR ALL OPEN WIRING EXTENDED FROM DEVICES IN BOXES OR CABINETS WITHIN THE CONTROL CABINET.
13. ALL WIRING SHALL BE NEATLY DRESSED AND SUPPORTED.
14. THE CONTROLLER SHALL BE CONSTRUCTED TO U.L. STD. 508 AND BEAR THE U.L. LABEL "ENCLOSED INDUSTRIAL CONTROL PANEL".
15. 304.8 mm (12") X 406.4 mm (16") STAINLESS STEEL EXTERIOR NAMEPLATE SHALL BE ENGRAVED TO "LIGHTING CONTROLS" UNLESS OTHERWISE SPECIFIED.
16. SERVICE DISCONNECT SHOULD HAVE UL LABEL AND THE EQUIPMENT SHOULD BE SUITABLE FOR SERVICE ENTRANCE EQUIPMENT.
17. BASED ON LIGHTING CONTROLLER CABINET, ADJUST PLATFORM SIZE TO FIT CABINET BASE DIMENSIONS.
18. 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.
19. FASTEN ALL SUPPORT WOOD FRAMING TO THE WOOD POSTS WITH 2 LAG SCREWS FOR EACH CONNECTION.

PANEL EQUIPMENT

BILL OF MATERIAL

ITEM	QTY.	DESCRIPTION
A	1	MAIN CIRCUIT BREAKER, 2 POLE, 600 VOLT 100AMP. FRAME, 100AMP. NON-INTERCHANGEABLE TRIP INTERRUPTING RATING NEMA-22000 AMP. AT 480 VOLT.
B	1	REMOTE CONTROL SWITCH, ELECTRICALLY OPERATED, MECHANICALLY HELD, 2 POLE, SINGLE THROW, 100 AMP., 600 VOLTS CONTROL CIRCUITS 240 VOLT, ASCO 920.
C	8	CIRCUIT BREAKERS, 1 POLE, 240V., 100AMP. FRAME 50AMP. NON-INTERCHANGEABLE TRIP INTERRUPTING RATING NEMA-22,000 AMP. AT 240 V.
D	2	CONTROL CIRCUIT-CIRCUIT BREAKER, 1 POLE, 240 V., 100AMP. FRAME, 15AMP. NON-INTERCHANGEABLE TRIP INTERRUPTING RATING NEMA-22,000 AMP. AT 240 V.
E	1	A STRONOMIC MICRO PROCESSOR BASED 2 CHANNEL CONTROLLER [TIME SWITCH]
F	1	20A., 120V FUSE
G	1	1.5KVA. SINGLE PHASE, ENCAPSULATED TRANSFORMER 240X480/120X240 VOLT, 60 HZ
H	1	SPST 20A SWITCH ON DOOR, TO TURN LIGHT ON WHEN DOOR IS OPEN.
I	1	INCANDESCENT LIGHTING FIXTURE ENCLOSED AND GASKETED WITH 60 WATT, 120 V. LAMP.
J	1	20 A., 120 V., DUPLEX RECEPTACLE, GFCI.
K	1	COPPER NEUTRAL BUS 6.35 mm (1/4") X 25.4 mm (1") X 304.8 mm (12") LONG MOUNTED ON PANEL WITH LUGS AND 4 SPARE LUGS.
L	1	TOGGLE SWITCHES MOUNTED IN 101.6 mm (4") X 101.6 mm (4") BOX.
M	1	COPPER GROUND BUS 6.35 mm (1/4") X 25.4 (1") 304.8 mm (12") LONG MOUNTED ON PANEL WITH LUGS AND SPARE LUGS.
N	1	SURGE ARRESTOR

LT-16

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USER NAME = mdeitche	DESIGNED - BL	REVISED -	
	DRAWN - SR	REVISED -	
PLOT SCALE = $SCALE$	CHECKED - MH	REVISED -	
PLOT DATE = 3/6/2026	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IDOT DISTRICT 1 TEMPORARY LIGHTING CONTROLLER
IL 47/US 30 AT BASELINE ROAD

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	2020-198-W&T	KANE\KENDALL	531	314
		CONTRACT NO. 62M71		
	ILLINOIS	FED. AID PROJECT		

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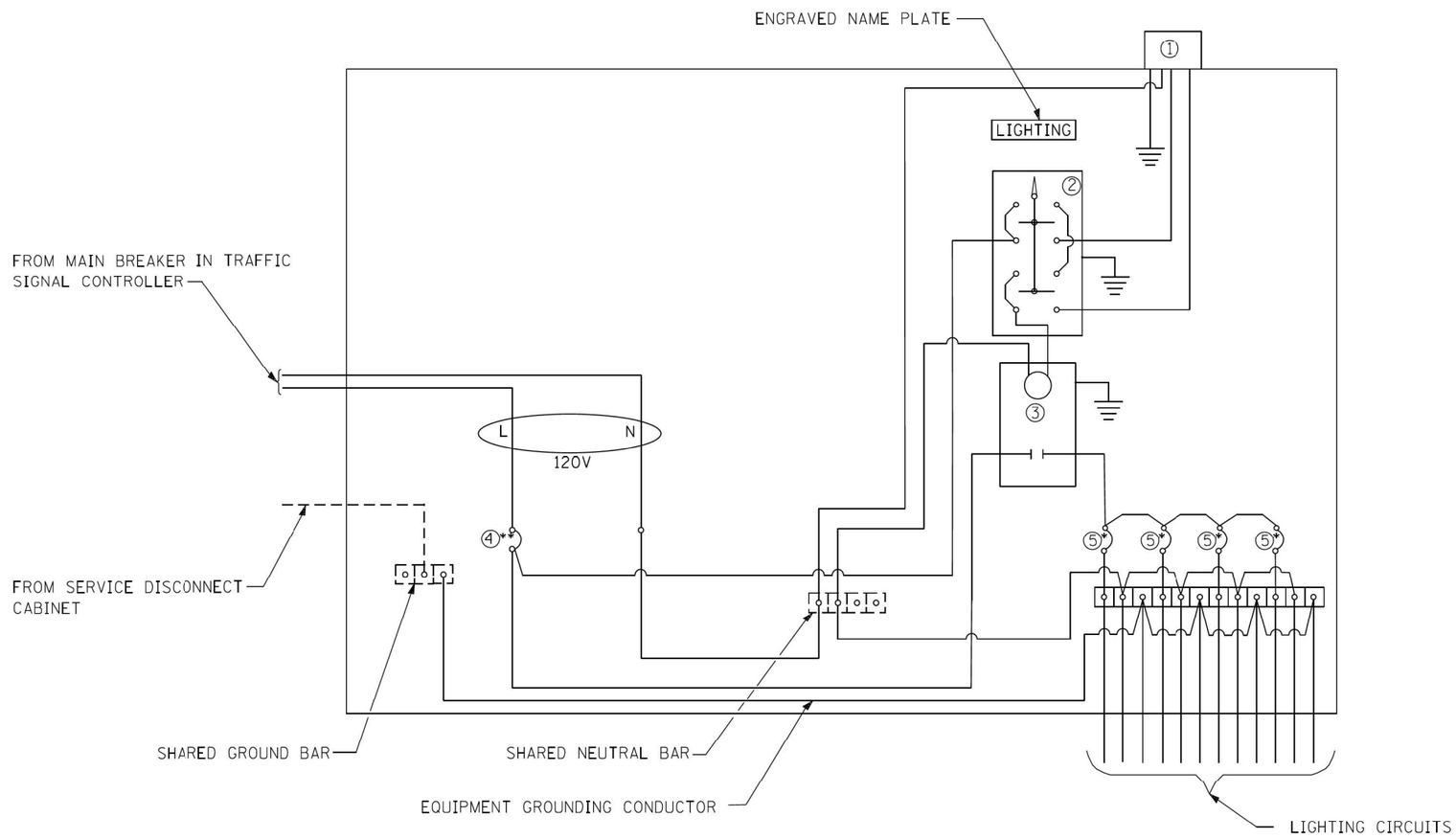

LEGEND

- Ground connected to shared ground bar.
- ---- Indicates shared with traffic signal controller equipment.
- ① Photocell with integral surge arrester.
- ② HAND-OFF-AUTO selector switch.
- ③ 30 amp. 1 pole electrically held contactor.
- ④ 20 amp. 1 pole, circuit breaker
- ⑤ 15 amp. 1 pole, branch breaker
- * Quantity of branch breakers shall depend on the combination lighting circuit diagram or as directed by the engineer.
- ** Size larger as needed.

COMBINATION LIGHTING CONTROLLER WIRING DIAGRAM

GENERAL NOTES

All control installation components shall be U.L. listed.

All wiring shall be neatly dressed, identified by tags, and supported.

The circuit breaker shall be clearly labeled for lighting according to Article 1068.01(f) of the Standard Specifications.

Install under eave photocell on traffic signal controller cabinet per Article 1068.01(e)(2) of the Standard Specifications.

All lighting euipment shall be installed on a side mounted insulated subpanel per Article 1068.01(e)(9) of the Standard Specifications on the lower right hand side of the traffic signal controller or as directed by the engineer.

Provide an engraved stainless steel nameplate on the sub panel reading "LIGHTING".

DATE	REVISIONS
10/13/14	NEW DETAIL
01/07/17	CHANGE MAIN CB TO 20A

COMBINATION LIGHTING CONTROLLER DETAIL

LT-17

FILE NAME: c:\D62M71-sht-light17.dgn
PLOT DRIVER: /IRG_IL_DOT_pdf_bw.pltcfg
PEN TABLE: IRG_IL_DOT_pentable.tbl

AMES Engineering, Inc.
CONSULTING ENGINEERS
6330 Belmont Road, Suite 4B
Downers Grove, IL 60516

USER NAME = mdeitche	DESIGNED - BL	REVISED -	
	DRAWN - SR	REVISED -	
PLOT SCALE = $SCALE$	CHECKED - MH	REVISED -	
PLOT DATE = 3/6/2026	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IDOT DISTRICT 3 COMBINATION LIGHTING CONTROLLER DETAIL

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	2020-198-W&T	KANE\KENDALL	531	315
		CONTRACT NO. 62M71		
		ILLINOIS	FED. AID PROJECT	

Illinois Department of Transportation

Luminaire Performance Table

Project

Date	Contract Number	Section Number	County
05/21/25	62M71	2020-198-W&T	Kendall

Marked Route Number	Municipality
IL 47 JERICHO RD TO GALENA RD	YORKVILLE

Roadway

Lane Width (see note 4)	Number and Direction of lanes	Median Width	Surface Classification	Q-Zero Value
12	4	N/A	R3	0.07

Structure

Mounting Height	Arm Length	Set-Back (see note 1)	Number of Luminaries
45	15	5	N/A

Luminaire

Description	Transverse Distribution	Lateral Distribution
ROADWAY, OUTPUT DESIGNATION H	TYPE III OR TYPE IV	Short

Total Light Loss Factor (LLF)	B-U-G Rating	Shields	Dimming Protocol
0.7	U=0	N/A	0-10V

Layout

Spacing	Configuration
170FT.	Opposite

Performance (see notes 5 and 6)

Average Illuminance, E_{AVE} (fc)	Uniformity Ratio, E_{AVE}/E_{MIN}
1.8	3

Average Luminance, L_{AVE} (cd/m^2)	Uniformity Ratio, L_{AVE}/L_{MIN}	Uniformity Ratio, L_{MAX}/L_{MIN}	Veiling Luminance Ratio, L_V/L_{AVE}
N/A	N/A	N/A	N/A

Light Tresspass (see notes 5 and 7)

Distance to ROW (behind pole)	Max. Horizontal Illuminance at ROW, E_H	Max. Vertical Illuminance at ROW, E_V
N/A	N/A	N/A

Notes

1. Set-Back is from Edge of Pavement (white line).
2. Lighting calculations shall be performed with all luminaires oriented toward and perpendicular to the roadway.
3. Performance requirements shall be the minimum acceptable standards of photometric performance for the luminaire, based on the given conditions listed above.
4. Lane width is the width of each **individual** lane, not to be confused with total roadway width.
5. Compliance with performance criteria shall be held to one significant digit.
6. Photometric calculations for roadways shall be performed with a total light loss factor of 0.7
7. Light trespass calculations shall be performed with a total light loss factor of 1.0 and with horizontal calculations performed at grade and vertical calculations performed with calculation points located three feet above grade.
8. Luminaire performance table is intended to define the luminaire and does not necessarily match any specific roadway geometry, mounting height, setback, or arm length.

Printed 05/21/25

BDE 5630 (Rev. 06/06/24)

AMES Engineering, Inc.
CONSULTING ENGINEERS
6330 Belmont Road, Suite 4B
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USER NAME = mdeliche	DESIGNED - BL	REVISED -
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PLOT SCALE = $SCALES	CHECKED - MH	REVISED -
PLOT DATE = 3/6/2026	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IDOT DISTRICT 3 LUMINAIRE PERFORMANCE TABLE
IL–47 AT WATERPARK WAY & GALENA ROAD

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	2020-198-W&T	KANE\KENDALL	531	316
		CONTRACT NO. 62M71		
		ILLINOIS	FED. AID PROJECT	

FILE NAME: c:\DI62M71-sht-light-lib.dgn
PLOT DRIVER: /HRG_L_IDOT_pdf_bw.plotcfg
PEN TABLE: HRG_L_IDOT_pentable.tbl

TRAFFIC SIGNAL LEGEND

ITEM	EXISTING	PROPOSED
Traffic Signal Cabinet		
Uninterruptable Power Supply		
Communication Cabinet	CC	CC
Master Controller	MC	MC
Master Master Controller	MMC	MMC
Service Installation -(P) Pole Mounted	P	P
Service Installation -(G) Ground Mounted -(GM) Ground Mounted Metered	G GM	G GM
Cellular Modem	CM	CM
Telephone Connection	T	T
Steel Mast Arm Assembly and Pole		
Aluminum Mast Arm Assembly and Pole		
Steel Combination Mast Arm Assembly and Pole with Luminaire		
Signal Post -(BM) Barrel Mounted - Temporary		BM
Wood Pole		
Guy Wire		
Signal Head		
Signal Head with Backplate		
Signal Head - Programmable	P P	P P
Flasher Installation -(FS) Solar Powered	F FS	F FS
Pedestrian Signal Head		
Pedestrian Push Button -(APS) Accessible Pedestrian Push Button	APS	APS
Radar Detection Sensor	R	R
Video Detection Camera	V	V
Radar/Video Detection Zone		
Pan, Tilt, Zoom (PTZ) Camera	PTZ	PTZ
Emergency Vehicle Light Detector		
Confirmation Beacon		
Wireless Interconnect		
Wireless Interconnect Radio Repeater	ERR	RR
Wireless Access Point		

ITEM	EXISTING	PROPOSED
Handhole -Square -Round		
Double Handhole		
Heavy Duty Handhole -Square -Round	H	H
Junction Box	J	J
Railroad Cantilever Mast Arm		
Railroad Flashing Signal		
Railroad Crossing Gate		
Railroad Crossbuck		
Railroad Controller Bungalow	R/R	R/R
Underground Conduit (UC), Galvanized Steel		
Temporary Span Wire, Tether Wire, and Cable		
System Item	S	SP
Intersection Item	I	IP
Removal Item		R
Relocate Item		RL
Abandon Item		A
Controller Cabinet and Foundation to be Removed		RCF
Mast Arm Pole and Foundation to be Removed		RMF
Signal Post and Foundation to be Removed		RPF
Detector Loop, Type I		
Preformed Detector Loop	P	P
Wireless Detector Sensor	W	W

ITEM	EXISTING	PROPOSED
Signal Head -(P) Programmable Signal Head -(EV) Elongated Visors	R Y G P EV	R Y G P EV
Signal Head with Backplate -(RB) Retroreflective Backplate -(P) Programmable Signal Head -(EV) Elongated Visors	R Y G RB P EV	R Y G RB P EV
Pedestrian Signal Head with Countdown Timer	C D	C D
Illuminated LED Sign "NO LEFT TURN"/"NO RIGHT TURN"		
Electric Cable, Signal, No. 14 - 2/C, 3/C, 5/C, 7/C	5	5
Electric Cable, Lead-In, No. 14, 1 Pair	1P	1P
Service Cable, 2/C - No. 2, No. 4, No. 6	2#2 2#4 2#6	2#2 2#4 2#6
Ground Cable No. 6 Solid Copper (Green), 1/C	1#6	1#6
Electric Cable, Tracer, No. 14, 1/C	1	1
Electric Cable, Railroad, No. 14, 3/C	Railroad No. 14 3/C 3	Railroad No. 14 3/C 3
Electric Cable, Street Name Sign No. 14, 3/C, Type SOOW	SOOW 3	SOOW 3
Vendor Cable	V	V
Emergency Vehicle Priority Line Sensor Cable, No. 20, 3/C	3#20	3#20
Outdoor Rated Network Cable	ONC	ONC
Fiber Optic Cable -12F: 12 Multimode -24F: 12 Multimode / 12 Single Mode -36F: 12 Multimode / 24 Single Mode -24SM: 24 Single Mode -48SM: 48 Single Mode	12F 24F 36F 24SM 48SM	24F 36F 24SM 48SM
Ground Rod -(C) Controller -(M) Mast Arm -(P) Post -(S) Service	C M P S	C M P S

TS SHT NO. 1

USER NAME = bvan.plascencia	DESIGNED - IP	REVISED -	
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

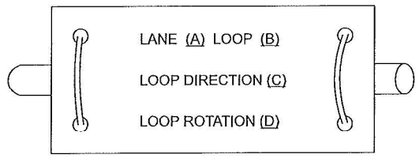
DISTRICT 1
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: NTS | SHEET 1 OF 7 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	2020-198-W&T	KANE/KENDALL	531	317
	TS-01	CONTRACT NO. 62M71		
		ILLINOIS	FED. AID PROJECT	

DETECTOR LOOP NOTES:

1. LOOPS SHALL BE SPLICED IN SERIES.
2. SAW-CUTS SHALL BE A MINIMUM WIDTH OF 5/16" AT A DEPTH OF 3". IF IN CONCRETE, THE SAW-CUT DEPTH SHALL BE TO THE TOP OF THE REINFORCEMENT.
3. LOOP CORNERS SHALL BE DRILLED WITH A 7" DIAMETER CORE.
4. EACH PAIR OF LOOP WIRES SHALL BE PLACED IN A SEPARATE EMPTY COILABLE NON-METALLIC CONDUIT FROM THE EDGE OF PAVEMENT TO THE HANDHOLE. SPACING BETWEEN THE HOLES DRILLED IN THE PAVEMENT SHALL NOT BE LESS THAN 6". EMPTY COILABLE NON-METALLIC CONDUIT SHALL BE INCLUDED IN THE COST OF THE DETECTOR LOOP PAY ITEM.
5. 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.
6. EACH LEAD-IN CABLE SHALL BE IDENTIFIED AND PERMANENTLY TAGGED IN THE HANDHOLE. EACH LEAD-IN CABLE TAG SHALL INDICATE THE LOCATION OF THE LOOP, LOOP NUMBER, LOOP DIRECTION (IN OR OUT), AND LOOP ROTATION (CLOCKWISE/COUNTERCLOCKWISE) IN WATER PROOF INK. SEE DETECTOR LOOP LEAD-IN CABLE TAG DETAIL. THE CONTRACTOR SHALL MARK THE LOOP LOCATIONS ON THE RECORD DRAWINGS AND PRESENT THEM TO THE ENGINEER AFTER THE FINAL INSPECTION.
7. ALL LOOP CABLE SHALL BE FASTENED WITH PLASTIC TIE WRAP TO THE HANDHOLE HOOKS.
8. IN ASPHALT PAVEMENT, LOOPS SHOULD BE PLACED IN THE BINDER AND THE DIVE HOLES 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" APART.
9. 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.
10. PREFORMED DETECTOR LOOPS SHALL BE USED 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.



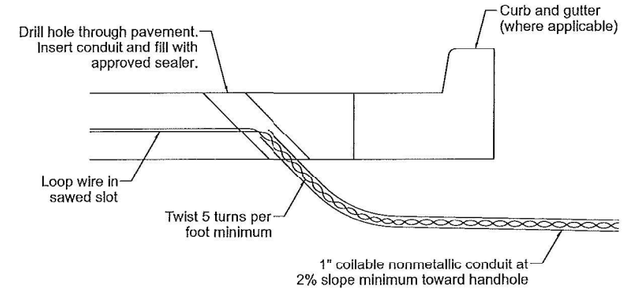
A. Lane 1 is the lane closest to the centerline of the roadway.

B. Loop #1 is the loop closest to the intersection.

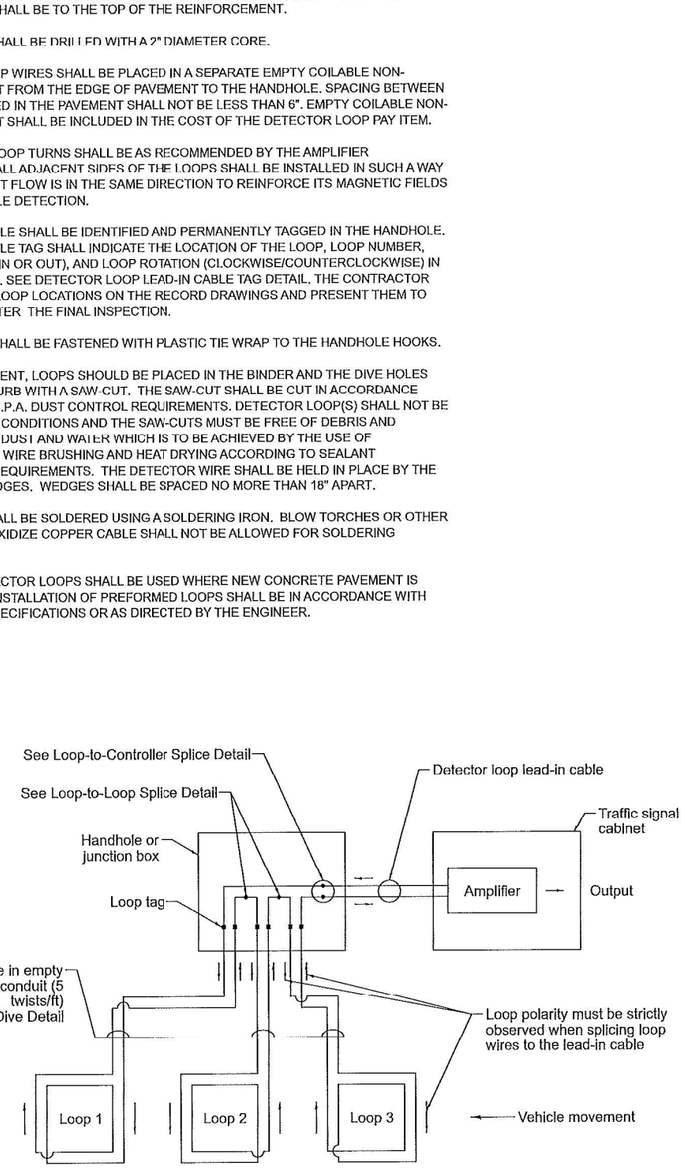
C. Label loop cable "in" or loop cable "out".

D. Label loop cable clockwise or loop cable counterclockwise.

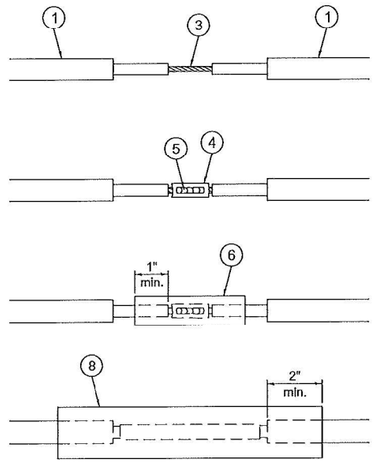
DETECTOR LOOP LEAD–IN CABLE TAG



DETECTOR LOOP DIVE DETAIL



DETECTOR LOOP WIRING SCHEMATIC



LOOP–TO–LOOP SPLICE DETAIL

(1) Detector loop cable.

(2) Detector loop lead-in cable

(3) Bare conductors twisted together.

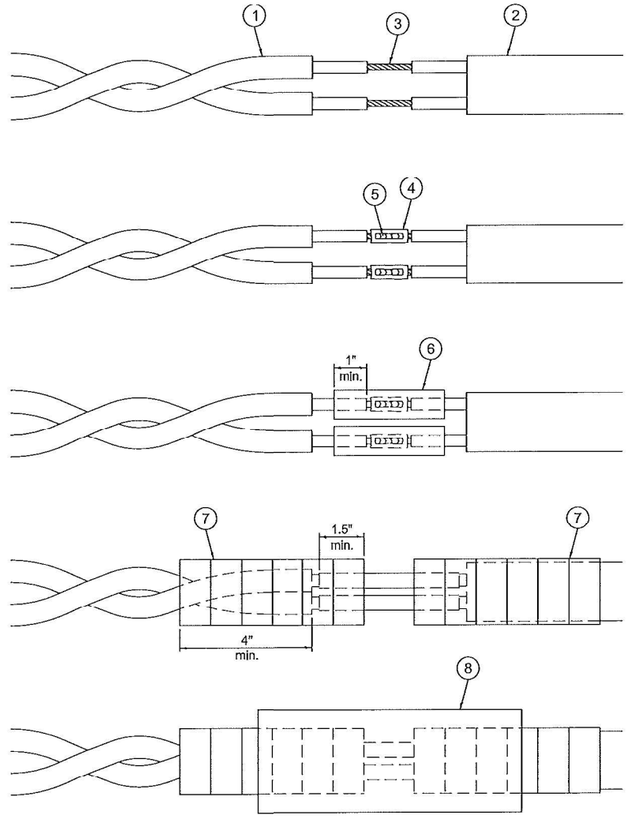
(4) Butt splice crimp connector.

(5) Splice soldered with rosin core flux. All exposed surfaces of the solder shall be smooth. The splices shall be staggered.

(6) WCSMW 30/100 heat shrink tube, 3" minimum length, underwater grade.

(7) Self-infused, silicone electrical tape tightly wrapped around cables.

(8) WCS 200/750 heat shrink tube, 8" minimum length, underwater grade.



LOOP–TO–CONTROLLER SPLICE DETAIL

TS SHT NO. 2

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DISTRICT 1
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

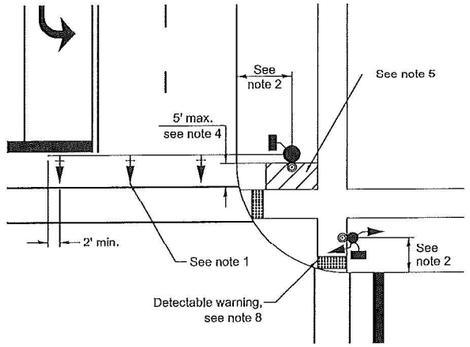
SCALE: NTS | SHEET 2 OF 7 SHEETS | STA. | TO STA.

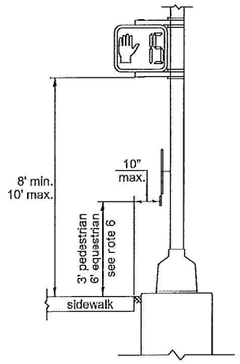
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	2020-198-W&T	KANE/KENDALL	531	318
	TS-01	CONTRACT NO. 62M71		
	ILLINOIS	FED. AID PROJECT		

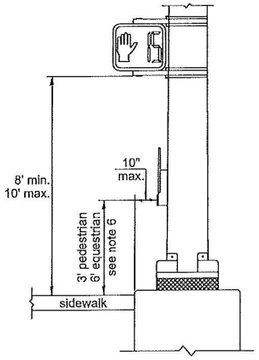
NOTES:

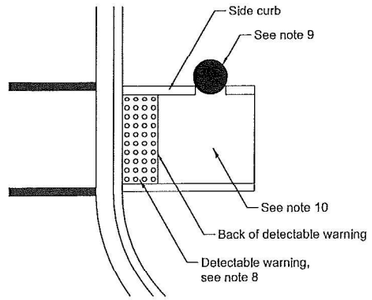
1. THE MAST ARM MOUNTED SIGNAL HEADS SHALL BE CENTERED ON THE LANES OR AS SHOWN ON THE TRAFFIC SIGNAL PLANS.
2. REFER TO THE TRAFFIC SIGNAL EQUIPMENT OFFSET MINIMUMS TABLE.
3. A 4' MINIMUM UNOBSTRUCTED PEDESTRIAN ACCESS ROUTE SHALL BE MAINTAINED.
4. THE PUSH-BUTTON SHALL BE LOCATED 5' OR LESS FROM THE OUTSIDE EDGE OF THE MARKED CROSSWALK FARTHEST FROM THE INTERSECTION FOR THE CROSSWALK THAT THE PUSH-BUTTON CONTROLS.
5. IF THE MAST ARM POLE OR SIGNAL POST WHERE THE PUSH-BUTTON IS TO BE INSTALLED IS NOT IMMEDIATELY ADJACENT TO THE SIDEWALK, PROVIDE A FIRM, STABLE, AND SLIP RESISTANT SURFACE UP TO THE MAST ARM POLE OR SIGNAL POST. THE MINIMUM PAVED AREA IN FRONT OF THE PUSH-BUTTON SHALL BE 2.5' X 4'. IF THIS DOES NOT MEET THE REQUIREMENT STATED IN NOTE 3, A SEPARATE PEDESTRIAN SIGNAL POST SHALL BE INSTALLED TO PLACE THE PUSH-BUTTON ADJACENT TO THE SIDEWALK SURFACE.
6. THE HEIGHT OF THE PEDESTRIAN PUSH-BUTTON SHALL BE 36". IF APPROVED BY THE AREA TRAFFIC SIGNAL ENGINEER, THE PUSH-BUTTON MAY BE LOCATED AT A HEIGHT BETWEEN 30" AND 42". THE HEIGHT OF THE EQUESTRIAN PUSH-BUTTON SHAL BE 72" OR AS DIRECTED BY THE ENGINEER.
7. THE FACE OF THE PUSH-BUTTON SHALL BE PARALLEL TO THE CROSSWALK IT CONTROLS.
8. THE PUSH-BUTTON SHALL BE LOCATED BEHIND THE DETECTABLE WARNING.
9. WHERE A PUSH-BUTTON IS BEING INSTALLED ON A MAST ARM POLE OR SIGNAL POST ADJACENT TO THE PEDESTRIAN ACCESS ROUTE, THE PROPOSED FOUNDATION SHALL BE INSTALLED WITHIN THE SIDE CURB IN ORDER TO MEET THE 10" REACH REQUIREMENT.
10. THE SIDEWALK PANEL IN FRONT OF THE PUSH-BUTTON SHALL HAVE A SLOPE LESS THAN 5%.
11. WHERE TWO PEDESTRIAN PUSH-BUTTONS ARE PROVIDED ON THE SAME CORNER, THEY SHALL BE 10' OR MORE APART. EXCEPTION: IN ALTERATIONS WHERE TECHNICALLY INFEASIBLE TO PROVIDE 10' SEPARATION BETWEEN PUSH-BUTTONS ON THE SAME CORNER.
12. CORRESPONDING PEDESTRIAN EQUIPMENT (SIGNAL HEAD AND PUSH-BUTTON) SHALL BE INSTALLED ON THE SAME POST CLOSEST TO THE CROSSWALK IT CONTROLS.
13. PEDESTRIAN SIGNAL HEADS INSTALLED ON MAST ARM POLES OR SIGNAL POSTS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING (INCLUDING BRACKETS) NOT LESS THAN 8' OR MORE THAN 10' ABOVE SIDEWALK LEVEL. PEDESTRIAN SIGNAL HEADS INSTALLED ON PEDESTRIAN SIGNAL POSTS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING (INCLUDING BRACKETS) NOT LESS THAN 8' ABOVE SIDEWALK LEVEL. THE PEDESTRIAN SIGNAL HEADS SHALL BE POSITIONED AND ADJUSTED TO PROVIDE MAXIMUM VISIBILITY AT THE BEGINNING OF THE CONTROLLED CROSSWALK.
14. THE LOCATIONS OF THE PEDESTRIAN PUSH-BUTTONS AND PEDESTRIAN SIGNAL HEADS SHALL MEET THE REQUIREMENTS OF THE MUTCD, PROWAG, AND THE REQUIREMENTS ON THIS DETAIL SHEET.

TRAFFIC SIGNAL MAST ARM AND SIGNAL POST

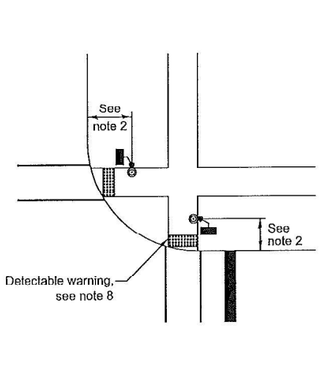


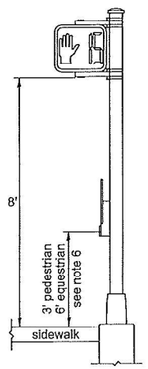


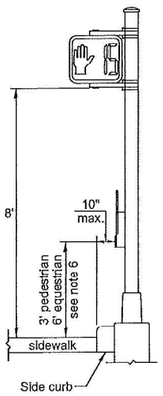




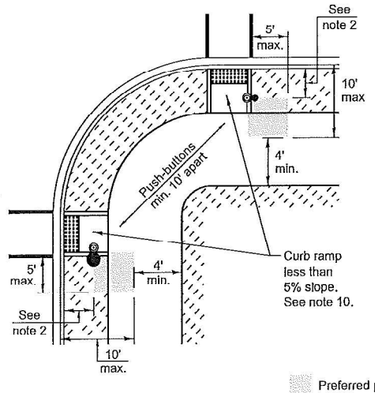
PEDESTRIAN SIGNAL POST

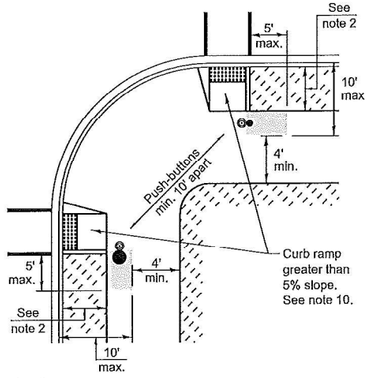






PUSH-BUTTON LOCATIONS





Preferred push-button location

TRAFFIC SIGNAL EQUIPMENT	BARRIER CURB (MINIMUM DISTANCE FROM THE BACK OF CURB TO THE CENTER OF THE FOUNDATION)	SHOULDER / NON-BARRIER CURB (MINIMUM DISTANCE FROM THE EDGE LINE OF THE RIGHT-MOST LANE TO THE CENTER OF THE FOUNDATION)
Mast arm assembly and pole	6'	Shoulder width + 2', minimum 10'
Signal post	4'	Shoulder width + 2', minimum 10'
Pedestrian signal post	4'	4' - See note 2
Temporary wood pole	6'	Shoulder width + 2', minimum 10'
Traffic signal cabinet	6' - See Note 3	Shoulder width + 6', minimum 16' - See note 3
Service cabinet	6' - See Note 3	Shoulder width + 6', minimum 16' - See note 3

TRAFFIC SIGNAL EQUIPMENT OFFSET MINIMUMS

NOTES:

1. CONTACT THE AREA TRAFFIC SIGNAL ENGINEER FOR ASSISTANCE LOCATING THE TRAFFIC SIGNAL EQUIPMENT WHEN THERE ARE CONFLICTS AND THE MINIMUM OFFSET DISTANCES CANNOT BE MET.
2. MINIMUM DISTANCE FROM THE BACK OF THE DETECTABLE WARNING.
3. MINIMUM DISTANCE TO THE ROADWAY SIDE OF THE FOUNDATION.
4. ANY CHANGES TO THE OFFSETS OF THE FOUNDATIONS FROM THE MINIMUM DISTANCES LISTED IN THE "TRAFFIC SIGNAL EQUIPMENT OFFSET" TABLE AND THE TRAFFIC SIGNAL PLAN COULD AFFECT THE PLACEMENT OF THE TRAFFIC SIGNAL HEADS, PEDESTRIAN SIGNAL HEADS, AND THE PEDESTRIAN PUSH-BUTTONS. THE SIGNAL HEAD PLACEMENT ON THE MAST ARMS SHALL REMAIN AS PER THE TRAFFIC SIGNAL PLAN AND THE "TRAFFIC SIGNAL MAST ARM AND SIGNAL POST" DETAIL ABOVE. THE PROPOSED MAST ARM LENGTHS MAY NEED TO BE REVISED TO MEET THESE REQUIREMENTS. THE LOCATIONS OF THE PEDESTRIAN PUSH-BUTTONS AND PEDESTRIAN SIGNAL HEADS SHALL MEET THE REQUIREMENTS OF THE MUTCD, PROWAG, AND THE REQUIREMENTS ON THIS DETAIL SHEET.

TS SHT NO. 3

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT 1
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: NTS | SHEET 3 OF 7 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	2020-198-W&T	KANE/KENDALL	531	319
	TS-01	CONTRACT NO. 62M71		
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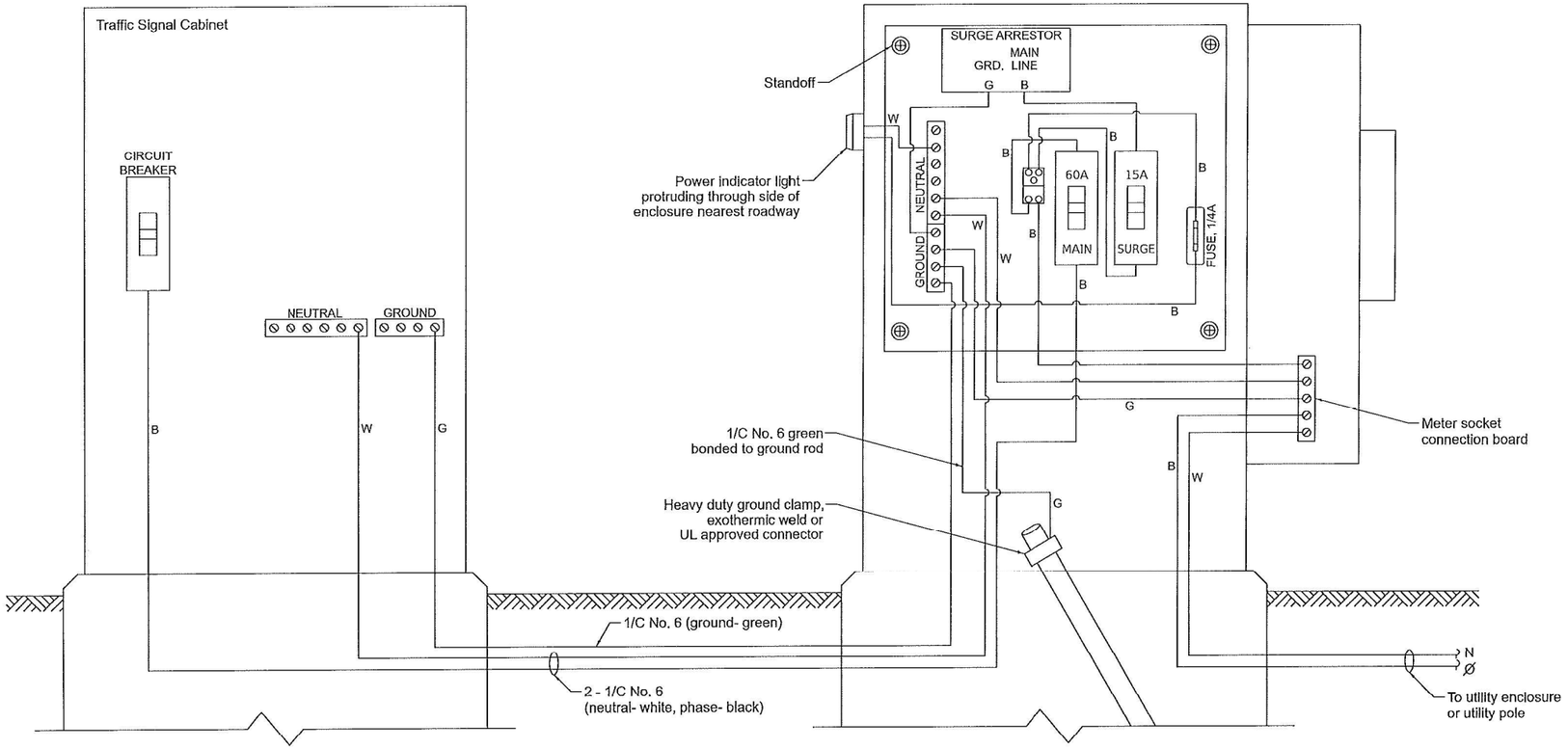
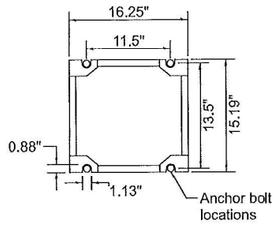


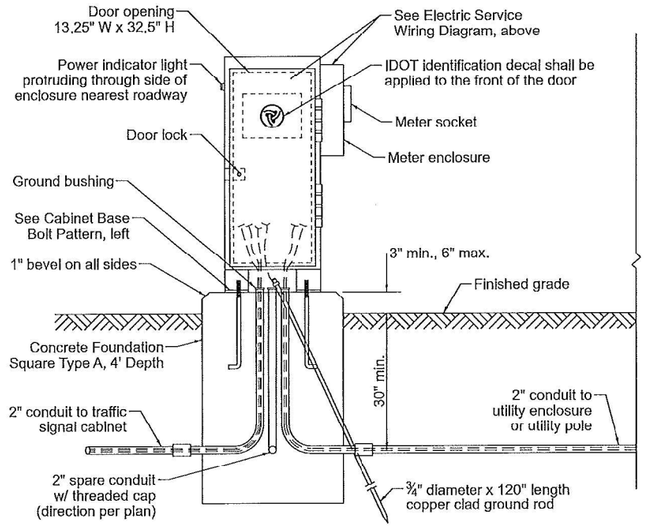
ELECTRIC SERVICE WIRING DIAGRAM IN GROUND MOUNTED SERVICE CABINET

NOTES:

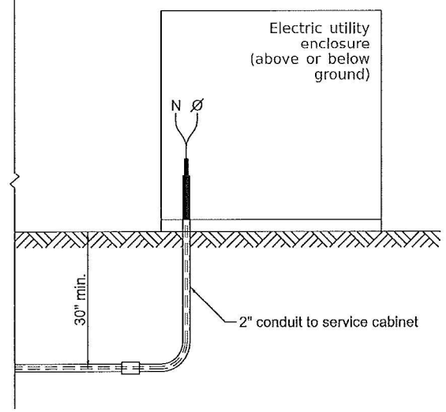
1. THE GROUND MOUNTED SERVICE CABINET IS TO BE LOCATED BETWEEN THE TRAFFIC SIGNAL CABINET AND THE UTILITY CONNECTION, PREFERABLY 20' TO 50' FROM THE TRAFFIC SIGNAL CONTROLLER CABINET.
2. ELECTRIC SERVICE PANELS SHALL BE CONSTRUCTED TO UL STD. 508, INDUSTRIAL CONTROL PANEL, AND CARRY THE UL LABEL.
3. ALL WIRING SHALL BE NEATLY DRESSED AND SUPPORTED.
4. THE METER SOCKET IS TO BE PROVIDED BY THE CONTRACTOR. THE METER IS TO BE PROVIDED BY THE UTILITY COMPANY.



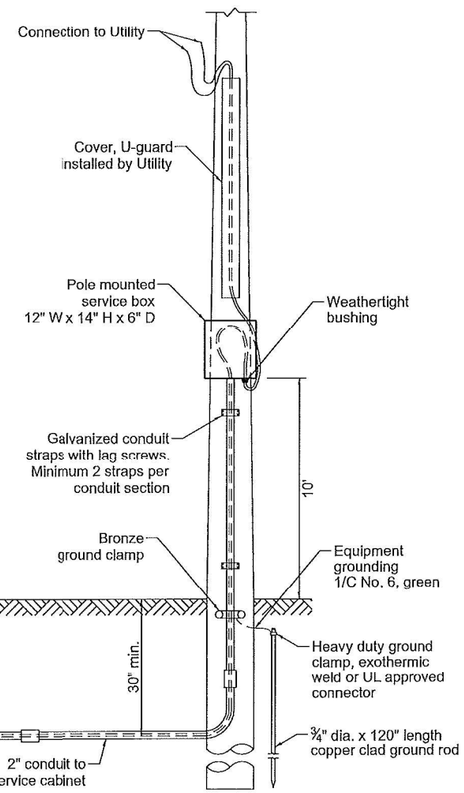
CABINET BASE BOLT PATTERN



SERVICE INSTALLATION – GROUND MOUNTED WITH METER



CONNECTION TO UTILITY ENCLOSURE



CONNECTION TO UTILITY POLE

TS SHT NO. 4

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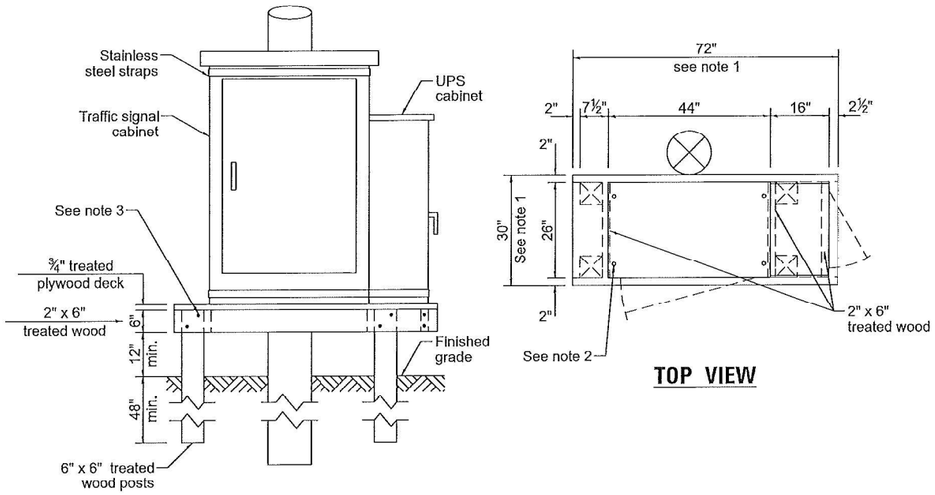
	CHECKED - NB/KK	REVISED -	
PLOT DATE =	DATE - 10/15/2025	REVISED -	

DISTRICT 1
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: NTS | SHEET 4 OF 7 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	2020-198-W&T	KANE/KENDALL	531	320
	TS-01	CONTRACT NO. 62M71		
		ILLINOIS FED. AID PROJECT		

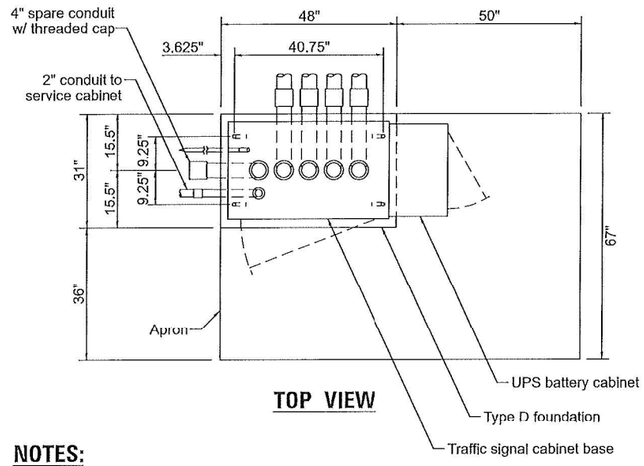


TOP VIEW

NOTES:

1. THE PLATFORM SIZE IS BASED ON A TRAFFIC SIGNAL CABINET TYPE IV WITH BASE DIMENSIONS OF 26" x 44" AND UNINTERRUPTABLE POWER SUPPLY CABINET WITH BASE DIMENSIONS OF 16" x 25". ADJUST THE PLATFORM SIZE TO FIT THE BASE DIMENSIONS OF THE CABINET SUPPLIED.
2. DRILLED HOLES THROUGH THE PLATFORM ARE TO MATCH THE TRAFFIC SIGNAL CABINET BOLT TEMPLATE. THE CABINET SHALL BE FASTENED TO THE PLATFORM WITH CARRIAGE BOLTS, WASHERS, AND NUTS.
3. ALL WOOD SUPPORT FRAMING SHALL BE FASTENED TO THE WOOD POSTS WITH 2 LAG SCREWS FOR EACH CONNECTION.

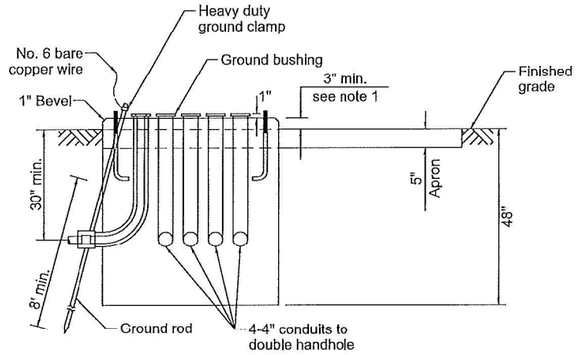
TEMPORARY TRAFFIC SIGNAL CABINET WOOD SUPPORT PLATFORM



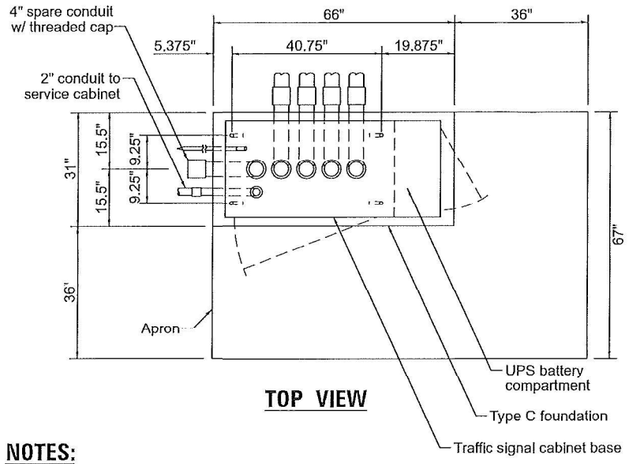
TOP VIEW

NOTES:

1. THE TOP OF THE FOUNDATION SHALL BE HIGHER THAN THE TOP OF THE DOUBLE HANDHOLE.



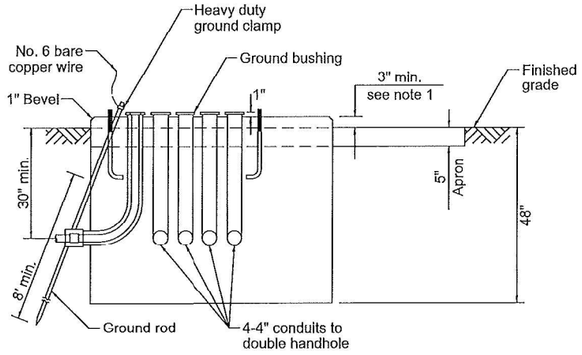
TYPE D FOUNDATION TYPE IV AND TYPE V TRAFFIC SIGNAL CABINET AND UPS BATTERY CABINET



TOP VIEW

NOTES:

1. THE TOP OF THE FOUNDATION SHALL BE HIGHER THAN THE TOP OF THE DOUBLE HANDHOLE.



TYPE C FOUNDATION SUPER P AND SUPER R TRAFFIC SIGNAL CABINETS

MAST ARM LENGTH	Foundation Depth	Foundation Diameter	Spiral Diameter	Quantity of Rebars	Size of Rebars
Less than 30'	10'	30"	24"	8	#6
Greater than or equal to 30' and less than 40'	13.5'	30"	24"	8	#6
	11'	36"	30"	12	#7
Greater than or equal to 40' and less than 50'	13'	36"	30"	12	#7
Greater than or equal to 50' and up to 55'	15'	36"	30"	12	#7
Greater than or equal to 56' and less than 65'	21'	42"	36"	16	#8
Greater than or equal to 65' and up to 75'	25'	42"	36"	16	#8

DEPTH OF MAST ARM FOUNDATIONS, TYPE E

FOUNDATION	DEPTH
Type A - Signal post, service cabinet	4'
Type C - Traffic signal cabinet with UPS	4'
Type D - Traffic signal cabinet	4'

DEPTH OF FOUNDATIONS TYPES A, C & D

TYPE E FOUNDATION NOTES:

1. FOR STANDARD AND COMBINATION MAST ARM ASSEMBLIES. FOUNDATION DEPTHS FOR STANDARD DUAL MAST ARMS WITH THE LONGEST ARM LENGTH UP TO AND INCLUDING 55' SHALL BE INCREASE BY 1' OF THAT SHOWN IN THE TABLE, BASED ON THE LONGER OF THE TWO ARMS.
2. SEE STATE STANDARD 878001 CONCRETE FOUNDATION DETAILS FOR MORE INFORMATION.

VERTICAL CABLE	LENGTH
Mast arm mounted signal head (L = mast arm length - distance to signal head from end of arm)	20'+L
Bracket mounted signal head (mast arm pole or signal pole)	13'
Pedestrian signal head	10'
Pedestrian push button	6'
Service installation pole mount to service drop	13.5'
Service installation pole mount to ground	13.5'
Service installation ground mount	6'
Foundation (signal post, mast arm, traffic signal cabinet, service cabinet)	3'

VERTICAL CABLE LENGTH

CABLE SLACK	LENGTH
Handhole	6.5'
Double handhole	13'
Signal post	2'
Mast arm	2'
Traffic signal cabinet or service cabinet	1.5'
Fiber optic cable at traffic signal cabinet	13'
Ground cable at signal post, mast arm, or cabinet	1.5'
Ground cable at handhole or double handhole	6.5'
Ground cable between handhole frame and cover	5'

CABLE SLACK LENGTH

TS SHT NO. 5

USER NAME = lovan.plascencia	DESIGNED - IP	REVISED -	
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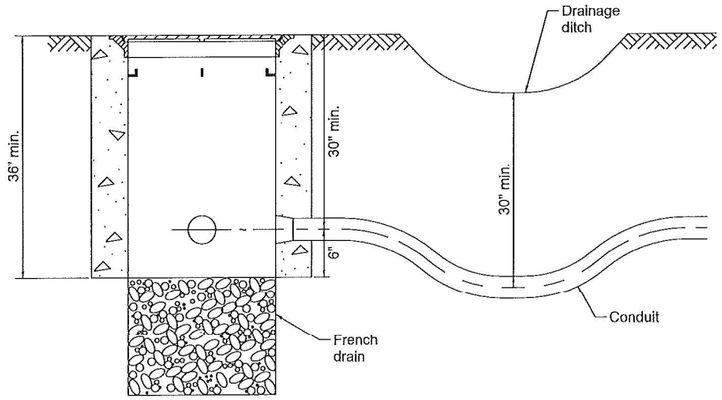
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT 1
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

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

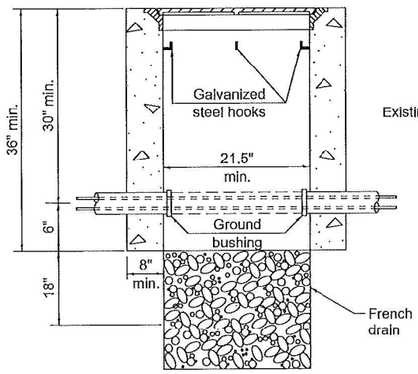
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	2020-198-W&T	KANE/KENDALL	531	321
	TS 01	CONTRACT NO. 62M71		
	ILLINOIS FED. AID PROJECT			

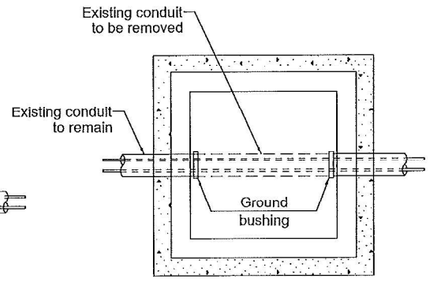


NOTES:

1. THE CONDUIT DEPTH SHALL BE A MINIMUM OF 30" BELOW THE BOTTOM OF THE DRAINAGE DITCH OR ANY SLOPING GROUND.
2. THE MINIMUM CONDUIT DEPTH APPLIES TO ALL CONDUIT PLACED UNDER ROADWAY PAVEMENT, MULTI-USE PATHS, SIDEWALKS AND SOIL SURFACES.
3. THE MINIMUM CONDUIT DEPTH APPLIES TO ALL HANDHOLES, HEAVY DUTY HANDHOLES AND DOUBLE HANDHOLES.

HANDHOLE WITH MINIMUM CONDUIT DEPTH



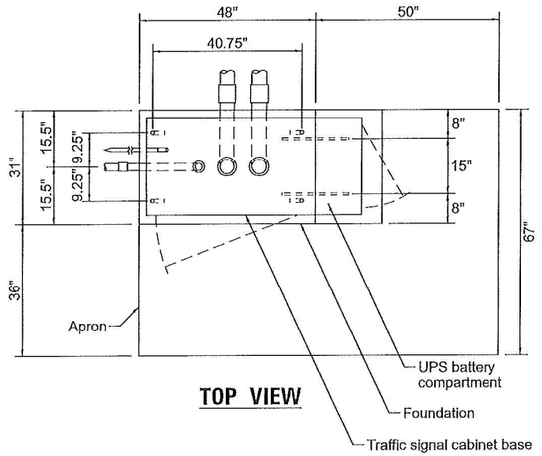


TOP VIEW

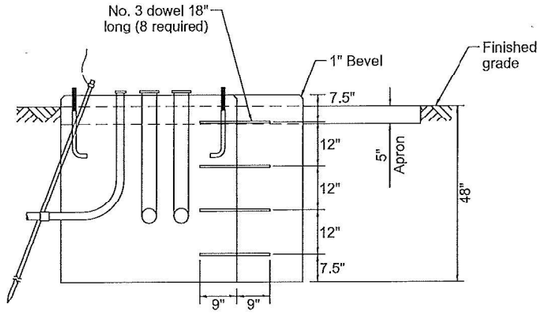
NOTES:

1. HANDHOLE CONSTRUCTED PER STATE STANDARD 814001.
2. REMOVAL OF THE EXISTING CONDUIT FROM THE HANDHOLE AND THE INSTALLATION OF THE CONDUIT BUSHINGS SHALL BE INCLUDED WITH THE COST OF THE HANDHOLE.

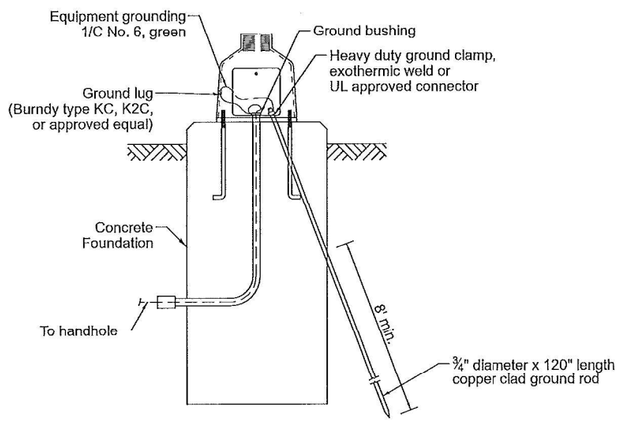
HANDHOLE TO INTERCEPT EXISTING CONDUIT



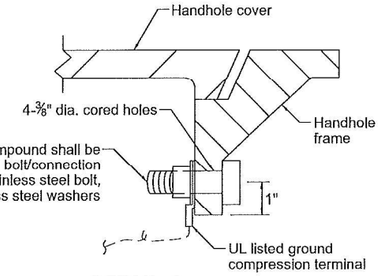
TOP VIEW



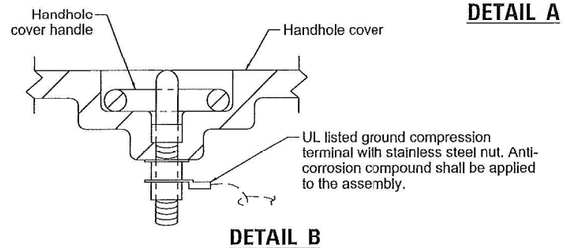
MODIFY EXISTING TYPE "D" FOUNDATION TO TYPE "C" FOUNDATION



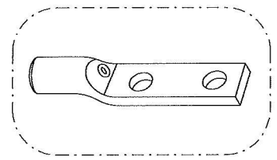
MAST ARM / POST GROUNDING DETAIL



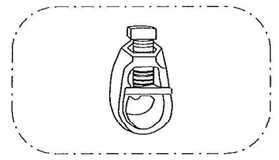
DETAIL A



DETAIL B



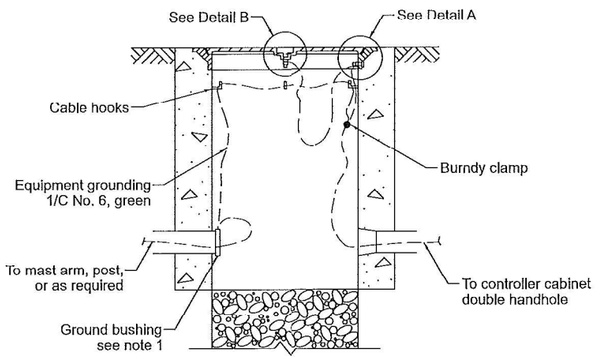
Heavy-Duty Compression Terminal
(Burndy Type YGHA or approved equal)



¾" Heavy-Duty Ground Rod Clamp
Bronze or Copper, UL Approved
(Burndy Type GRC or approved equal)

NOTES:

1. CONDUIT THAT HAS BEEN DRILLED INTO AN EXISTING HANDHOLE WILL REQUIRE A GROUND BUSHING FOR THE CONDUIT TO BE PROPERLY GROUNDED.
2. GROUND CABLE SHALL BE LOOPED OVER HOOKS IN THE HANDHOLES. 6.5' OF SLACK SHALL BE PROVIDED IN SINGLE AND DOUBLE HANDHOLES. 5' OF SLACK SHALL BE PROVIDED BETWEEN THE FRAME AND COVER.



HANDHOLE GROUNDING DETAIL

TS SHT NO. 6

USER NAME = loven.plascencia	DESIGNED - IP	REVISED -	
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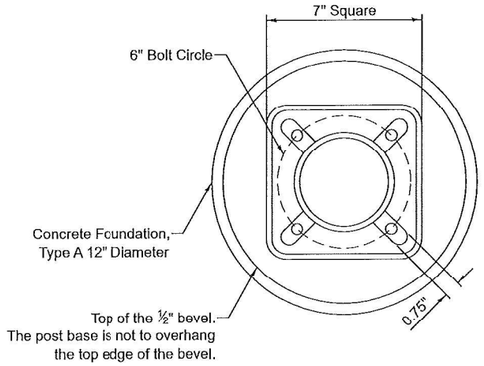
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT 1
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

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

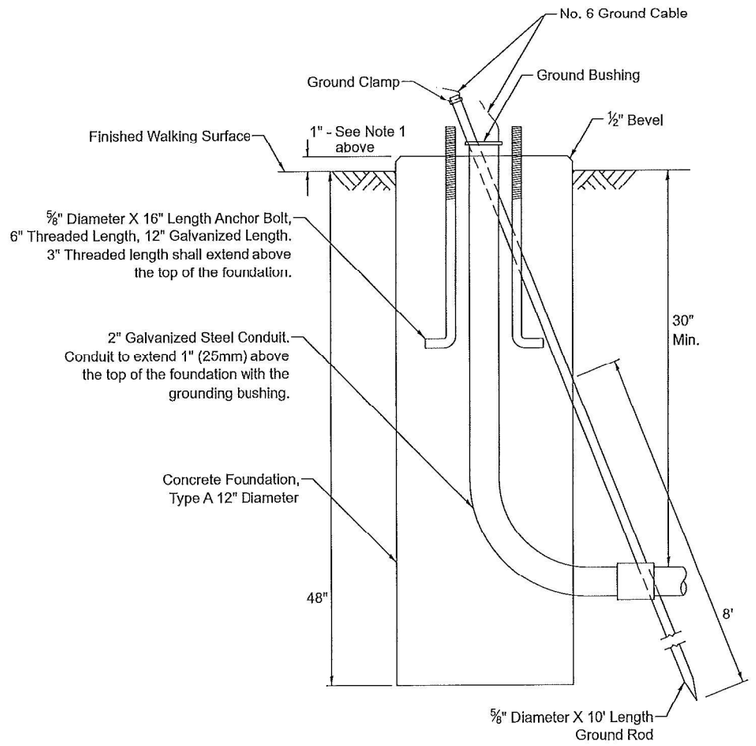
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	2020-198-W&T	KANE/KENDALL	531	322
	TS-01	CONTRACT NO. 62M71		
	ILLINOIS FED. AID PROJECT			



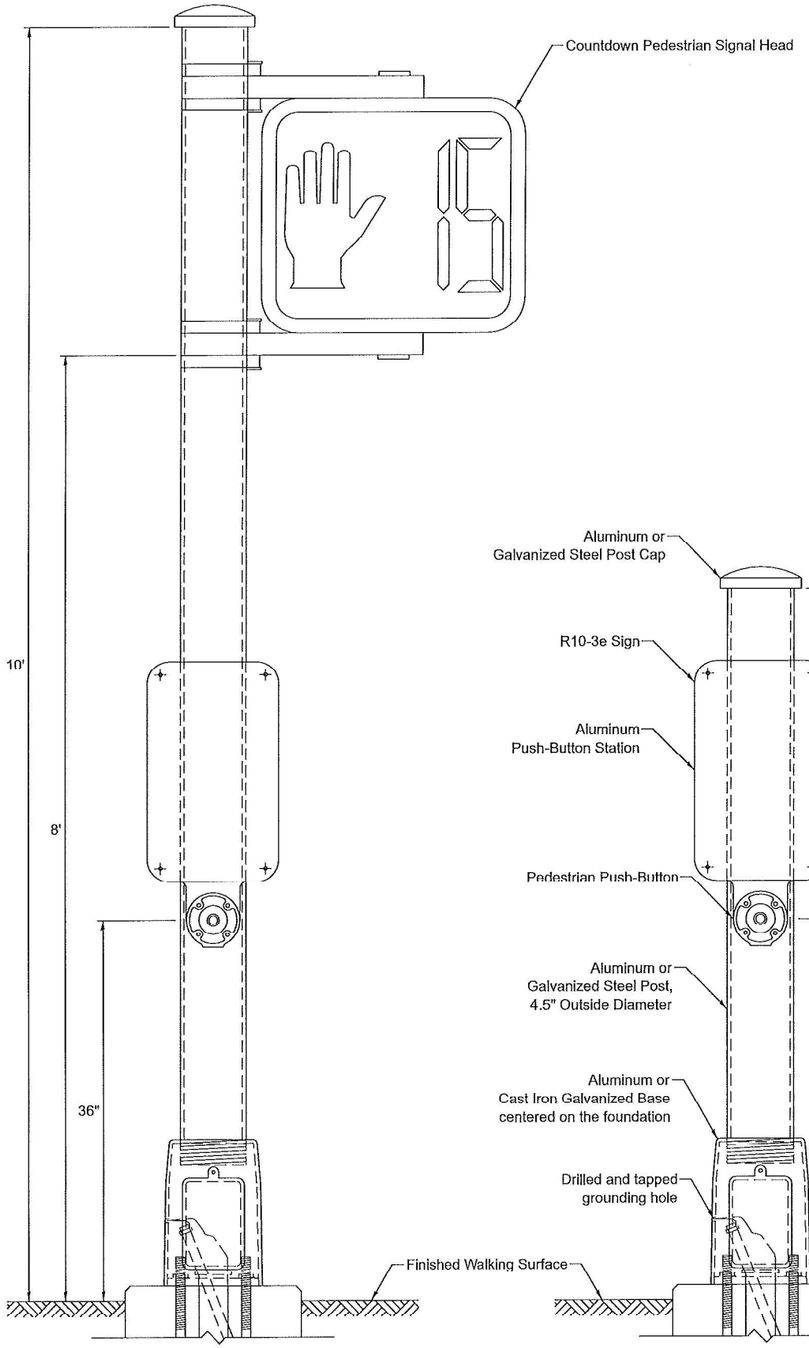
BOLT PATTERN

NOTES:

1. IF THE PEDESTRIAN SIGNAL POST FOUNDATION IS INSTALLED WITHIN A SIDEWALK CURB, THE TOP OF THE FOUNDATION SHALL BE INSTALLED FLUSH WITH THE TOP OF THE SIDEWALK CURB.

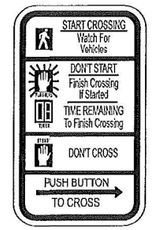


CONCRETE FOUNDATION, TYPE A 12-INCH DIAMETER



PEDESTRIAN SIGNAL POST, 10 FT.

PEDESTRIAN SIGNAL POST, 5 FT.



R10-3e
9" X 15"

W10-I101
18" X 24"

SIGN NOTES:

1. THE SIGN PANELS SHALL BE TYPE AP SHEETING.
2. WHEN SIGN R10-3e IS INSTALLED AT MEDIANS WHERE ONLY ONE PUSH-BUTTON IS BEING USED FOR BOTH DIRECTIONS, THE ARROW SHALL BE BI-DIRECTIONAL.
3. SIGN W10-I101 IS REQUIRED FOR EACH PEDESTRIAN SIGNAL HEAD AT RAILROAD INTERSECTIONS.

TS SHT NO. 7

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

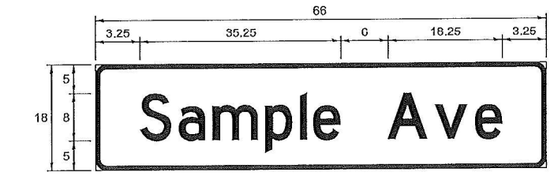
DISTRICT 1
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

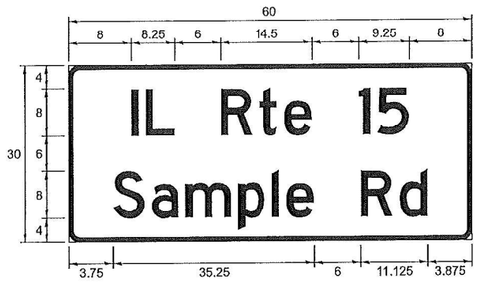
SCALE: NTS | SHEET 7 OF 7 SHEETS | STA. | TO STA.

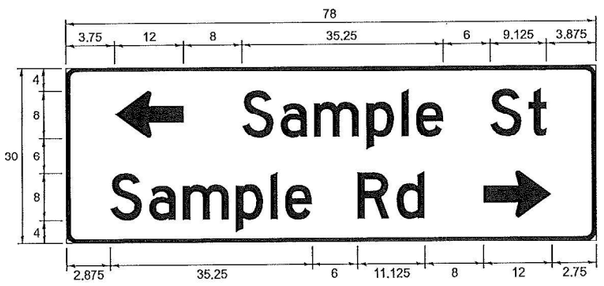
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	2020-198-W&T	KANE/KENDALL	531	323
	TS-01	CONTRACT NO. 62M71		
	ILLINOIS FED. AID PROJECT			

SIGN PANEL – TYPE 1 OR TYPE 2

ALL DIMENSIONS ARE IN INCHES UNLESS NOTED OTHERWISE







DESIGN SERIES	AREA (SQ FT)	SIGN PANEL TYPE	SHEETING TYPE	QTY REQUIRED
C OR D	-	1 OR 2	ZZ	-

COMMON STREET NAME ABBREVIATIONS

NAME	ABBREVIATION	LENGTH (INCH)	
		SERIES "C"	SERIES "D"
Avenue	Ave	15	18.25
Boulevard	Blvd	17.125	20
Circle	Cir	11.125	13
Court	Ct	8.25	9.625
Drive	Dr	8.625	10.125
Highway	Hwy	18.375	22
Illinois	IL	7	8.25
Lane	Ln	9.125	10.75
Parkway	Pkwy	23.375	27.375
Place	Pl	7.125	7.75
Road	Rd	9.625	11.125
Route	Rte	12.625	14.5
Street	St	8	9.125
Terrace	Ter	12.625	14.625
Trail	Tr	7.75	9.125
United States	US	10.375	12.25

GENERAL NOTES

1. WHERE MAST ARM MOUNTED STREET NAME SIGNS ARE SPECIFIED, THE MAST ARM ASSEMBLY AND POLES SHALL BE DESIGNED TO SUPPORT THE LOADINGS CALLED FOR ONSTANDARDS 877001, 877002, 877006, 877011 AND 877012, AS APPLICABLE, PLUS TWO SIGN PANELS 2'-6" x 8'-0" MOUNTED AS SHOWN. THE DESIGN SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CURRENT "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS" AS PUBLISHED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS FOR 80 M.P.H. WIND VELOCITY.
2. ALL SIGNS SHALL CONSIST OF A WHITE LEGEND AND BORDER (TYPE ZZ SHEETING) ON A GREEN BACKGROUND (TYPE ZZ SHEETING)
3. THE SIGN LENGTH SHALL BE IN 6-INCH INCREMENTS, BUT THE OVERALL LENGTH SHALL NOT EXCEED 8'-0". ALL BORDERS SHALL BE 3/4" WIDE. CORNER RADIUS SHALL BE 1-7/8". THE SPACING BETWEEN THE WORDS SHOULD BE 6", BUT MAY BE REDUCED TO 5" WHEN SPACING IS CRITICAL. THE SPACING BETWEEN THE LEFT OR RIGHT ARROW AND THE ADJACENT WORD SHOULD BE 8", BUT MAY BE REDUCED TO 6" WHEN SPACING IS CRITICAL. A MINIMUM OF 2-1/2" SHALL BE INCLUDED BETWEEN THE WORD AND THE RIGHT AND LEFT EDGES OF THE SIGN.
4. THE PREFERRED METHOD FOR THE SIGN DESIGN IS TO USE THE SERIES "D" ALPHABET ON A ONE-LINE SIGN THAT IS 18" IN HEIGHT AND A MAXIMUM OF 8'-0" IN WIDTH. IF SERIES "D" DOES NOT FIT ON A 8"-0" SIGN, THEN SERIES "C" SHOULD BE TRIED. IF SERIES "C" DOES NOT FIT ON A ONE-LINE 8'-0" SIGN, A 30" HEIGHT TWO-LINE SIGN CAN BE USED. THE CROSSROAD DESIGNATION (I.E. STREET, AVENUE, ETC.) SHALL BE SPELLED OUT ON THE SECOND LINE, IF THE ABBREVIATION CANNOT FIT ON THE FIRST LINE.
5. LED ILLUMINATED STREET NAME SIGNS CAN BE USED IN PLACE OF REGULAR SIGN PANELS BUT ANY SPECIAL WORDING AND SYMBOLOGY MUST BE APPROVED BY THE DEPARTMENT. GENERAL DESIGN REQUIREMENTS AS LISTED ABOVE (COLOR, FONT, SIZE, ETC.) MUST BE FOLLOWED.
6. SIGNFIX ALUMINUM CHANNEL FRAMING SYSTEM SHALL BE USED FOR ALL SIGNS ATTACHED TO SIGNAL POLES AND POSTS.

LOCAL SUPPLIERS:

- J.O. HERBERT COMPANY, INC
  MIDLOTHIAN, VA
- WESTERN REMAC, INC.
  WOODRIDGE, IL

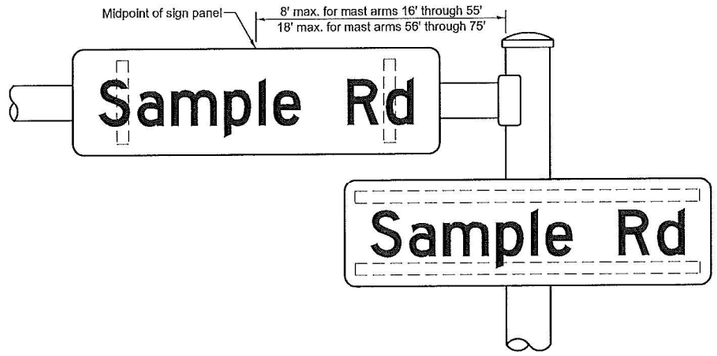
PARTS LISTING:

-SIGN CHANNEL	PART #HPN053 (MED. CHANNEL)
-SIGN SCREWS	1/4" x 14 x 1" H.W.H. #3 SELF TAPPING WITH NEOPRENE WASHER
-BRACKETS	PART #HPN034 (UNIVERSAL) CHANNEL CLAMPS WITH STAINLESS STEEL STRAPPING

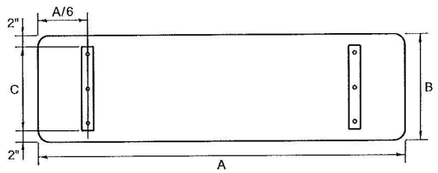
OTHER BRANDS OF MOUNTING HARDWARE ARE ACCEPTABLE, BASED UPON THE DEPARTMENT'S APPROVAL AND COMPATIBILITY WITH THE CHANNEL/BRACKET OF THE ABOVE PRODUCT.

MOUNTING LOCATIONS

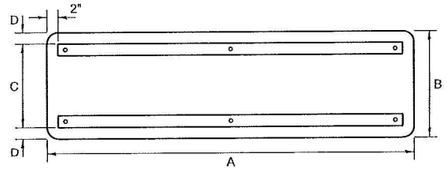
ARM OR POLE MOUNTED



SUPPORTING CHANNELS



A	B	C
Var.	18"	14"
Var.	30"	26"



A	B	C	D
Var.	18"	12"	3"
Var.	30"	22"	4"

STANDARD ALPHABETS SPACING CHART

MEASUREMENTS BASED ON 8" UPPER CASE LETTER HEIGHT

FHWA SERIES "C"				FHWA SERIES "D"			
CHARACTER	LEFT SPACING (INCH)	WIDTH (INCH)	RIGHT SPACING (INCH)	CHARACTER	LEFT SPACING (INCH)	WIDTH (INCH)	RIGHT SPACING (INCH)
A	0.240	5.122	0.240	A	0.240	6.804	0.240
B	0.880	4.482	0.480	B	0.960	5.446	0.400
C	0.720	4.482	0.720	C	0.800	5.446	0.800
D	0.880	4.482	0.720	D	0.960	5.446	0.800
E	0.880	4.082	0.480	E	0.960	4.962	0.400
F	0.880	4.082	0.240	F	0.960	4.962	0.240
G	0.720	4.482	0.720	G	0.800	5.446	0.800
H	0.880	4.482	0.880	H	0.960	5.446	0.960
I	0.880	1.120	0.880	I	0.960	1.280	0.960
J	0.240	4.082	0.880	J	0.240	5.122	0.960
K	0.880	4.482	0.480	K	0.960	5.604	0.400
L	0.880	4.082	0.240	L	0.960	4.962	0.240
M	0.880	5.284	0.880	M	0.960	6.244	0.960
N	0.880	4.482	0.880	N	0.960	5.446	0.960
O	0.720	4.722	0.720	O	0.800	5.684	0.800
P	0.880	4.482	0.720	P	0.960	5.446	0.240
Q	0.720	4.722	0.720	Q	0.800	5.684	0.800
R	0.880	4.482	0.480	R	0.960	5.446	0.400
S	0.480	4.482	0.480	S	0.400	5.446	0.400
T	0.240	4.082	0.240	T	0.240	4.962	0.240
U	0.880	4.482	0.880	U	0.960	5.446	0.960
V	0.240	4.962	0.240	V	0.240	6.084	0.240
W	0.240	6.084	0.240	W	0.240	7.124	0.240
X	0.240	4.722	0.240	X	0.400	5.446	0.400
Y	0.240	5.122	0.240	Y	0.240	6.884	0.240
Z	0.480	4.482	0.480	Z	0.400	5.446	0.400
a	0.320	3.842	0.640	a	0.400	4.562	0.720
b	0.720	4.082	0.480	b	0.800	4.802	0.480
c	0.480	4.002	0.240	c	0.480	4.722	0.240
d	0.480	4.082	0.720	d	0.480	4.802	0.800
e	0.480	4.082	0.320	e	0.480	4.722	0.320
f	0.320	2.480	0.160	f	0.320	2.882	0.160
g	0.480	4.082	0.720	g	0.480	4.802	0.800
h	0.720	4.082	0.640	h	0.800	4.722	0.720
i	0.720	1.120	0.720	i	0.800	1.280	0.800
j	0.000	2.320	0.720	j	0.000	2.642	0.800
k	0.720	4.322	0.160	k	0.800	5.122	0.160
l	0.720	1.120	0.720	l	0.800	1.280	0.800
m	0.720	6.724	0.640	m	0.800	7.926	0.720
n	0.720	4.082	0.640	n	0.800	4.722	0.720
o	0.480	4.082	0.480	o	0.480	4.682	0.480
p	0.720	4.082	0.480	p	0.800	4.802	0.480
q	0.480	4.082	0.720	q	0.480	4.802	0.800
r	0.720	2.642	0.160	r	0.800	3.042	0.160
s	0.320	3.362	0.240	s	0.320	3.762	0.240
t	0.080	2.882	0.080	t	0.080	3.202	0.080
u	0.640	4.082	0.720	u	0.720	4.722	0.800
v	0.160	4.722	0.160	v	0.160	5.684	0.160
w	0.160	7.524	0.160	w	0.160	9.046	0.160
x	0.000	5.202	0.000	x	0.000	6.244	0.000
y	0.160	4.962	0.160	y	0.160	6.004	0.160
z	0.240	3.362	0.240	z	0.240	4.002	0.240
1	0.720	1.680	0.880	1	0.800	2.000	0.960
2	0.480	4.482	0.480	2	0.800	5.446	0.800
3	0.480	4.482	0.480	3	1.440	5.446	0.800
4	0.240	4.962	0.720	4	0.160	6.004	0.960
5	0.480	4.482	0.480	5	0.800	5.446	0.800
6	0.720	4.482	0.720	6	0.800	5.446	0.800
7	0.240	4.482	0.720	7	0.560	5.446	0.560
8	0.480	4.482	0.480	8	0.800	5.446	0.800
9	0.480	4.482	0.480	9	0.800	5.446	0.800
0	0.720	4.722	0.720	0	0.800	5.684	0.800
-	0.240	2.802	0.240	-	0.240	2.802	0.240

TS SHT NO. 8

USER NAME = jovan.plascencia	DESIGNED - IP	REVISED -	
	DRAWN - IP	REVISED -	
	CHECKED - NB	REVISED -	
PLOT DATE =	DATE - 10/15/2025	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT 1
MAST ARM MOUNTED STREET NAME SIGNS

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	2020-198-W&T	KANE/KENDALL	531	324
	TS-02	CONTRACT NO. 62M71		
	ILLINOIS	FED. AID PROJECT		

GENERAL NOTES FOR DISTRICT 3 AND CITY OF YORKVILLE TRAFFIC SIGNALS

1. THE CONTRACTOR SHALL CONTACT THE CITY OF YORKVILLE 630-553-8527 A MINIMUM OF 72 HOURS PRIOR TO BEGINNING WORK.

2. THE TRAFFIC SIGNAL SECTION AT THE ILLINOIS DEPARTMENT OF TRANSPORTATION, DISTRICT 3 SHALL BE NOTIFIED AT 815-434-8506 A MINIMUM 72 HOURS PRIOR TO TURNING ON ANY FLASHER OR CONTROLLER UNITS.

3. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO BEGINNING CONSTRUCTION. U.U.L.I.E. 800-892-01231.

4. THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE POSSIBLE PRESENCE OF CITY OF YORKVILLE-OWNED UNDERGROUND ELECTRICAL CABLE WITHIN THE LIMITS OF THE PROPOSED IMPROVEMENT. THE CONTRACTOR SHALL REQUEST THE CITY OF YORKVILLE TO LOCATE THE UNDERGROUND FACILITIES, PROVIDING A MINIMUM OF 72 HOURS NOTICE. THE CITY IS A MEMBER OF J.U.L.I.E.

5. THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE POSSIBLE PRESENCE OF YORKVILLE-BRISTOL SANITARY DISTRICT-OWNED UNDERGROUND SANITARY SEWER WITHIN THE LIMITS OF THE PROPOSED IMPROVEMENT. THE CONTRACTOR SHALL REQUEST THE DISTRICT TO LOCATE THE UNDERGROUND FACILITIES, PROVIDING A MINIMUM OF 72 HOURS NOTICE. THE SANITARY DISTRICT IS NOT A MEMBER OF J.U.L.I.E.

6. THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE PRESENCE OF DEPARTMENT-OWNED UNDERGROUND ELECTRICAL CABLE WITHIN THE LIMITS OF THE PROPOSED IMPROVEMENT. THE CONTRACTOR SHALL REQUEST THE ILLINOIS DEPARTMENT OF TRANSPORTATION IN OTTAWA (815-434-8506) TO LOCATE THE UNDERGROUND FACILITIES. A MINIMUM OF 72 HOURS NOTICE. THE DEPARTMENT IS NOT A MEMBER OF J.U.L.I.E.

7. ALL DAMAGE TO CITY OF YORKVILLE, YORKVILLE-BRISTOL SANITARY DISTRICT, OR DEPARTMENT OWNED UNDERGROUND FACILITIES CAUSED BY THE CONTRACTOR SHALL BE REPAIRED TO THE SATISFACTION OF THE OWNER AT THE CONTRACTOR'S EXPENSE. THIS SHALL INCLUDE ALL TEMPORARY REPAIR REQUIRED TO KEEP THE FACILITY OPERATIONAL WHILE MATERIAL IS BEING OBTAINED TO MAKE PERMANENT REPAIRS SPLICE OF ELECTRICAL CABLE SHALL NOT BE ALLOWED. ELECTRIC CABLE BE REPLACED FROM POLE OR CONTROLLER.

8. THE CONTRACTOR IS RESPONSIBLE FOR THE COST OF UNCOVERING OR HAND DIGGING AROUND UTILITIES AS NECESSARY, INCIDENTAL TO THE CONDUIT PAY ITEM.

9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING UTILITY PROPERTY DURING CONSTRUCTION OPERATIONS AS OUTLINED IN ARTICLE 107.31 OF THE STANDARD SPECIFICATIONS. A MINIMUM OF 48 HOURS ADVANCE NOTICE IS REQUIRED FOR NON-EMERGENCY WORK.

10. ABANDONED UNDERGROUND UTILITIES THAT CONFLICT WITH CONSTRUCTION SHALL BE DISPOSED OF OUTSIDE THE LIMITS OF THE RIGHT OF WAY ACCORDING TO ARTICLE 202.03 OF THE STANDARD SPECIFICATION AND AS DIRECTED BY THE ENGINEER. THIS WORK SHALL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE COST OF EARTH EXCAVATION.

11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ELECTRICAL SERVICE FOR THE TRAFFIC SIGNALS AND LIGHTING. THE CONTRACTOR SHALL CONTACT THE UTILITY COMPANY PRIOR TO BEGINNING WORK TO OBTAIN THE UTILITY COMPANY'S REQUIREMENTS FOR THE SERVICE INSTALLATION.

12. THE CONTRACTOR SHALL ARRANGE FOR A FACTORY OR SUPPLIER REPRESENTATIVE TO BE PRESENT AT THE INTERSECTION WHEN THE SIGNAL IS TURNED ON. THIS COST SHALL BE INCLUDED IN THE COST OF THE TRAFFIC SIGNAL CONTROLLER PAY ITEM.

13. THE MAST ARMS SHALL BE LOCATED A MINIMUM OF 6' FROM THE FACE OF CURB OR A MINIMUM 18' FROM THE EDGE OF PAVEMENT TO THE FACE OF FOUNDATION WHERE THERE IS NO CURB, UNLESS OTHERWISE DIRECTED BY THE ENGINEER. IN CURB AREA, PROVIDE A MINIMUM 6' FROM CURB FACE. SIGNAL POLE LOCATION SHALL NOT INTERFERE WITH SIDEWALK OR SHARED-USE PATH.

14. TRAFFIC SIGNAL HEADS SHALL BE PROPERLY COVERED PRIOR TO INTERSECTION TURN-ON OR AS DIRECTED BY THE ENGINEER. THIS COST SHALL BEINCLUDED WITH THE COST OF THE ASSOCIATED TRAFFIC SIGNAL PAY ITEMS.

15. ALL CONDUIT IN TRENCH SHALL BE P.V.C.. ALL CONDUIT PUSHED MAY BE P.V.C. OR GALVANIZED STEEL. CONDUIT ATTACHED TO STRUCTURES SHALL BE GALVANIZED STEEL.

16. A 1/4' DIAMETER CONTINUOUS RODENT RESISTANT NYLON ROPE SHALL BE FURNISHED AND LEFT IN PLACE IN ALL CONDUITS BETWEEN HANDHOLES AND FOUNDATION OF CONTROLLER. THIS COST SHALL BE INCLUDED IN THE COST OF THE CONDUIT PAY ITEMS.

17. THE PROPOSED TRAFFIC SIGNAL CONTROLLER CABINET SHALL BE FURNISHED WITH A MANUAL CONTROL SWITCH AND MANUAL CONTROL CORD WITHIN THE POLICE DOOR COMPARTMENT. THIS WORK SHALL BE INCLUDED IN THE COST OF THE CONTROLLER CABINET PAY ITEM.

18. THE SURGE PROTECTOR IN THE CONTROLLER CABINET SHALL HAVE AN INDICATOR LIGHT.

19. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR PLACING CONDUIT AT A GREATER THAN 2' MINIMUM DEPTH TO AVOID OBSTACLES SUCH AS UNDERGROUND UTILITIES.

20. ALL MAST ARM MOUNTED SIGNAL HEADS ON AN INDIVIDUAL MAST ARM SHALL BE MOUNTED SO THAT THE RED INDICATIONS ARE LEVEL WITH EACH OTHER AND MAINTAIN A MINIMUM 16.5' CLEARANCE FROM THE HIGHEST POINT OF THE ROADWAY.

GENERAL NOTES (CONT'D)

21. THE ELECTRICAL CONDUCTORS FOR ALL TRAFFIC SIGNAL HEADS SHALL BE SOLID, SOFT COPPER.

22. DOUBLE FUSE HOLDERS AND SURGE ARRESTORS ARE TO BE SUPPLIED AND INSTALLED BY THE CONTRACTOR IN THE BASE OF THE COMBINATION MAST ARM, WHICH SHALL BE INCLUDED IN THE LIGHT FIXTURE PAY ITEM. THE LIGHT FIXTURE ON THE COMBINATION MAST ARM SHALL BE ATTACHED TO A 15' ARM UNLESS SPECIFICALLY STATED OTHERWISE ELSEWHERE IN THE PLANS OR AS DIRECTED BY THE ENGINEER.

23. BACKPLATES SHALL BE LOUVERED, FORMED PLASTIC WITH FLUORESCENT YELLOW, TYPE AZ SHEETING APPLIED TO THE FACE OF THE BACKPLATE.

24. THE DOUBLE HANDHOLE SHALL BE FURNISHED WITH RECESSED, INTEGRAL, HINGED LIDS.

25. ALL THREADS OF BOLTS USED IN THE ASSEMBLY OF TRAFFIC SIGNAL COMPONENTS SHALL BE COATED WITH A NON-LEAD BASED ANTI-SEIZE VAIL COMPOUND, SIMILAR TO LEAD PLATE, PRIOR TO ASSEMBLY. ALL MAST ARM POLE BASES SHALL BE PROTECTED BY A STAINLESS STEEL MESH SCREENING AROUND THE BASE BOLTS TO PREVENT RODENT ENTRY. THE MESH SHALL BE SECURED TO THE BASE BY STAINLESS STEEL BANDING WHICH IS INCLUDED IN THE INDIVIDUAL MAST ARM ASSEMBLY PAY ITEM.

26. THE CONTROLLER CABINET SHALL BE PLACED SO THAT A TECHNICIAN MAY SEE THE INTERSECTION OVER THE TOP OF THE CABINET WHILE WATCHING THE COMPONENTS IN THE CABINET. THE BOTTOM OF THE CONTROLLER CABINET SHALL BE A MINIMUM OF I' ABOVE THE NEAREST HANDHOLE GRADE.

27. THE ELEVATION OF THE TOP OF THE DOUBLE HANDHOLE SHALL BE LESS THAN THE ELEVATION OF THE TOP OF THE CONTROLLER FOUNDATION.

28. SIGN PANELS, SIGN PANEL ASSEMBLIES, AND LIGHTING UNITS, REMOVED BY THE CONTRACTOR SHALL BE DELIVERED TO THE YORKVILLE PUBLIC WORKS YARD AT 610 TOWER LANE.

29. ALL TRAFFIC SIGNALS SHALL HAVE 12-INCH SINGLE LED LENSES.

30. ALL TRAFFIC SIGNAL HEADS SHALL BE 12-INCH POLYCARBONATE.

31. ALL TRAFFIC CONTROL AND OTHER ADVISORY SIGNS NEEDED FOR CONSTRUCTION ARE TO BE FURNISHED BY THE CONTRACTOR IN ACCORDANCE WITH SECTION 701 OF THE STANDARD SPECIFICATION.

32. THE CONTRACTOR SHALL PROVIDE 3 FEET OF SLACK CABLE IN EACH TRAFFIC SIGNAL STRUCTURE, MAST ARM, POST, CONTROLLER, AND HANDHOLES. THE SLACK, WHICH IS IN ADDITION TO THE VERTICAL LENGTH OF CABLE DEFINED IN THE SPECIFICATIONS, SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT FOR EACH CABLE. THESE REQUIREMENTS SHALL BE IN ADDITION TO THE EXTRA CABLE REQUIREMENTS AS SPECIFIED IN SECTIONS 871 AND 873 OF THE STANDARD SPECIFICATION.

33. THE DOUBLE HANDHOLE SHALL HAVE A 13 FEET OF SLACK IN EACH CABLE NEATLY WOUND ON THE HOOKS. THE CABLE SHALL BE PAID FOR AT ITS REPAIRS REQUIRED TO KEEP THE FACILITY OPERATIONAL WHILE MATERIAL IS BEING OBTAINED TO MAKE PERMANENT REPAIRS. SPLICING OF INDIVIDUAL UNIT PRICE. ELECTRICAL CABLE SHALL NOT BE ALLOWED. ELECTRIC CABLE SHALL BE REPLACED FROM POLE TO POLE OR CONTROLLER.

34. ALL HARDWARE SHALL BE TIGHTENED AND WELL SECURED. CABLES SHALL BE NEATLY WOUND IN HANDHOLES. CABLES SHALL BE NEATLY TRAINED IN THE CONTROLLER CABINET.

35. THE CONTRACTOR SHALL PROVIDE A SELF- ADHERED PHASE DIAGRAM ON THE INSIDE OF THE CONTROLLER CABINET DOOR.

36. ALL TRAFFIC SIGNAL WIRING SHALL EXTEND FROM CONTROLLER TO SIGNAL. SPLICES IN JUNCTION BOXES AND HANDHOLES WILL NOT BE ALLOWED.

37. ALL VEHICLE AND PEDESTRIAN SIGNAL HEADS SHALL HAVE POLYCARBONATE BLACK HOUSING AND BLACK BRACKETS.

38. ALL UNINTERRUPTABLE POWER SUPPLIES SHALL BE EQUIPPED WITH ALPHA GUARD MONITORS.

39. ALL GROUNDING MATERIALS FOR THE TRAFFIC SIGNAL CONCRETE FOUNDATIONS SHALL REFER TO SECTION 806 OF THE STANDARD SPECIFICATIONS.

40. ALL AREAS DISTURBED BY THE CONTRACTOR SHALL BE RESTORED WITH SEED OR SOD TO THE SATISFACTION OF THE ENGINEER. SEEDING OR SODDING SHALL NOT BE PERMITTED AT ANY TIME WHEN THE GROUND IS FROZEN. WET, OR IN AN UNTILLABLE CONDITION.

41. THE FIBER OPTIC CABLE SHALL BE LABELED WITH DIRECTION AND ASSIGNMENT NUMBER.

42. ALL WORK PERFORMED RELATIVE TO THIS IMPROVEMENT SHALL COMPLY WITH ALL APPLICABLE RULES AND REGULATIONS OF O.S.H.A.

43. THE QUANTITIES PROVIDED IN THE PLANS ARE INTENDED AS A GUIDE FOR THE CONTRACTOR IN DETERMINING THE SCOPE OF WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING ALL MATERIAL QUANTITIES AND EVALUATING SITE CONDITION. NO CLAIMS FOR EXTRA WORK WILL BE AWARDED UNLESS ORDERED IN WRITING BY THE ENGINEER.

44. DETECTOR LOOPS IN THE SAME LANE SHALL BE WOUND CLOCKWISE AND COUNTERCLOCKWISE IN ALTERNATING ORDER. LOOPS IN ADJACENT LANES BE GALVANIZED STEEL. SHALL BE WOUND ALL THE SAME.

GENERAL NOTES (CONT'D)

45. ALL DETECTOR LOOP AMPLIFIERS SHALL BE CARD RACK MOUNTED AND FURNISHED WITH PLASTIC TAGS LABELED WITH RESPECTIVE PHASES AND DIRECTION AS LISTED IN THE DETECTOR LOOP CHART. A MINIMUM TAG SIZE OF 3/8" X 3/4" IS REQUIRED. TAGS SHALL BE MADE OF MATERIAL THAT DOES NOT ALLOW WRITING TO FADE OVER TIME.

46. THE LENGTH OF DETECTOR LOOP CABLE FROM THE CURB TO THE JUNCTION BOX OR HANDHOLE IS INCLUDED IN THE DETECTOR LOOP PAY ITEM.

47. LIGHT FIXTURES ARE TO BE 400 WATT HIGH PRESSURE SODIUM, PHOTO-CELL CONTROL.

48. ALL TRAFFIC SIGNAL CONTROL EQUIPMENT SHALL BE ECONOLITE.

49. ALL PUSH-BUTTONS SHALL BE THE CAMPBELL COMPANY 4EVR PUSH-BUTTONS.

50. THE CONTRACTOR SHALL CONTACT THE ILLINOIS DEPARTMENT OF TRANSPORTATION (815-434-8506) 72 HOURS PRIOR TO LOOP DETECTOR PLACEMENT SO THAT THEY MAY BE PRESENT WHEN THEY ARE LAID OUT.

51. IDOT D3 WILL PROVIDE DEPARTMENT OWNED CELL MODEM FOR IL 47 AND WATERPARK WAY AND IL 47 AND GALENA TO GET CABINET DATA AND PTZ VIDEO BACK TO D3 OTTAWA.

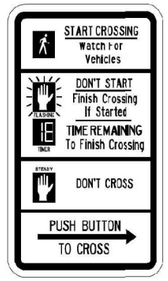
APS PUSHBUTTON SIGNING OPTIONS

AT INTERSECTIONS WITH PEDESTRIAN SIGNALS

R10-3

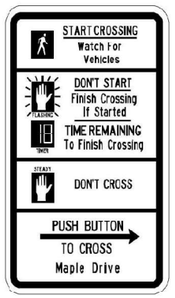
OR

R10-3a



R10-3e

OR



R10-3i
(WITH STREET NAME)

AT INTERSECTIONS WHERE PEDESTRIAN SIGNALS ARE NOT USED & PEDESTRIANS PROCEED ON GREEN SIGNAL INDICATION

R10-4

OR

R10-4a

TS SHT NO. 9

AMES Engineering, Inc. CONSULTING ENGINEERS 6330 Belmont Road, Suite 4B Downers Grove, IL 60516	USER NAME = mdeitche	DESIGNED - TM	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL NOTES FOR TRAFFIC SIGNALS
		DRAWN - SR	REVISED -		
	PLOT SCALE = $SCALE$	CHECKED - TM	REVISED -		SCALE: SHEET OF SHEETS STA. TO STA.
	PLOT DATE = 3/6/2026	DATE - 05-30-2025	REVISED -		

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	2020-198-W&T	KANE	531	325
		CONTRACT NO. 62M71		
	ILLINOIS FED. AID PROJECT			

GENERAL NOTES FOR DISTRICT 3
AND CITY OF YORKVILLE TEMPORARY TRAFFIC SIGNALS

1. THE CONTRACTOR SHALL PROVIDE AND INSTALL EQUIPMENT WITH RESPECT TO THE SPAN WIRE MOUNTED TRAFFIC SIGNAL INSTALLATION. THIS SHALL INCLUDE ALL CABLES, SIGNAL AND PEDESTRIAN HEADS, CONDUIT, PUSH-BUTTONS, CONTROLLER AND CABINET AND ALL OTHER PERIPHERAL EQUIPMENT.

2. ALL CONTROL EQUIPMENT FOR THE TEMPORARY TRAFFIC SIGNALS SHALL BE FURNISHED BY THE CONTRACTOR UNLESS OTHERWISE STATED ON THE PLANS. ON PROJECTS WITH MULTIPLE TEMPORARY TRAFFIC SIGNAL INSTALLATIONS, ALL CONTROLLERS SHALL BE THE SAME MANUFACTURER BRAND AND MODEL NUMBER WITH CURRENT SOFTWARE INSTALLED.

3. DETECTION AT TEMPORARY TRAFFIC SIGNALS SHALL BE INCLUDED FOR ALL APPROACHES OF THE INTERSECTION UNLESS INDICATED OTHERWISE ON THE PLANS. THE CONTRACTOR SHALL PLACE THE DETECTORS INTO OPERATION TO THE SATISFACTION OF THE ENGINEER.

4. THE TEMPORARY TRAFFIC SIGNAL HEADS SHALL BE PLACED AS INDICATED ON THE PLANS OR DIRECTED BY THE ENGINEER.

5. ALL EXISTING STREET NAME AND INTERSECTION REGULATORY SIGNS SHALL BE REMOVED FROM EXISTING POLES, RELOCATED, AND SECURELY FASTENED TO THE SIGNAL SPAN WIRE OR WOOD POLE AS DIRECTED BY THE ENGINEER.

6. THE SPAN WIRE MOUNTED TEMPORARY SIGNAL HEADS SHALL MAINTAIN A UNIFORM 18' CLEARANCE OVER THE ROADWAY.

7. ALL SIGNAL HEADS ON AN INDIVIDUAL SPAN WIRE SHALL BE MOUNTED SO THAT THE "RED" INDICATIONS ARE LEVEL WITH EACH OTHER.

8. TEMPORARY WOOD POLES SHALL BE LOCATED A MINIMUM OF 6' FROM THE FACE OF CURB OR A MINIMUM 18' FROM THE EDGE OF PAVEMENT WHERE THERE IS NO CURB, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

9. ALL TEMPORARY WOOD POLES SHOULD BE INSTALLED SO THAT A MINIMUM OF 32 FEET OF POLE IS ABOVE THE EXISTING PAVEMENT ELEVATION ADJACENT TO THE POLE. A SUFFICIENT LENGTH OF POLE SHALL BE BURIED AND BACK GUYED TO ALLOW THE INSTALLATION TO WITHSTAND A 10 M.P.H.SUSTAINED WIND LOADING.

10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CHECKING THE WOOD POLE LOCATIONS BEFORE ORDERING TO DETERMINE IF LONGER POLES ARE REQUIRED.

11. ONLY CONTROLLERS SUPPLIED BY ONE OF THE DISTRICT APPROVED CLOSED LOOP EQUIPMENT MANUFACTURERS WILL BE APPROVED FOR USE AT TEMPORARY SIGNAL LOCATIONS. ALL CONTROLLERS USED FOR TEMPORARY TRAFFIC SIGNALS SHALL BE FULLY ACTUATED NEMA MICROPROCESSOR BASED WITH RS232 DATA ENTRY PORTS COMPATIBLE WITH EXISTING MONITORING SOFTWARE APPROVED BY !DOT DISTRICT 3,INSTALLED IN A NEMA TS2 CABINET. ONLY ONE BRAND OF CONTROLLER WILL BE ACCEPTED FOR ANY ONE CONTRACT.

12. ALL CONTROLLERS USED FOR TEMPORARY TRAFFIC SIGNALS SHALL MEET OR EXCEED THE REQUIREMENTS OF SECTION 857 OF THE STANDARD SPECIFICATIONS AND THE TRAFFIC SIGNAL SPECIAL PROVISIONS TESTING. WITH REGARDS TO INTERNAL TIME BASE COORDINATION, PREEMPTION, AND

13. ALL TRAFFIC SIGNAL SECTIONS AND PEDESTRIAN SIGNAL SECTIONS SHALL BE LED AND 12" DIAMETER. HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS DIRECTED BY THE ENGINEER. PEDESTRIAN SIGNALS SHALL INCLUDE SOLID INTERNATIONAL SYMBOLS. PEDESTRIAN SIGNALS WITH COUNTDOWN TIMERS SHALL BE USED WHEN THE EXISTING INSTALLATION UTILIZES COUNTDOWN TYPE OR AS DIRECTED BY THE ENGINEER. COUNTDOWN TYPE PEDESTRIAN SIGNALS ARE NOT TO BE INSTALLED AT A RAILROAD INTERSECTION. THE CONTRACTOR SHALL FURNISH ENOUGH CABLE SLACK TO RELOCATE HEADS TO ANY POSITION ON THE SPAN WIRE FOR STAGING AND AS DIRECTED BY THE ENGINEER. THE TEMPORARY TRAFFIC SIGNAL SHALL REMAIN IN OPERATION DURING ALL SIGNAL HEAD RELOCATIONS. EACH TEMPORARY TRAFFIC SIGNAL HEAD SHALL HAVE ITS OWN CABLE FROM THE CONTROLLER CABINET TO THE SIGNAL HEAD. THIS WORK, INCLUDING ALL SIGNAL HEAD RELOCATIONS AS DIRECTED BY THE ENGINEER, SHALL BE INCLUDED IN THE TEMPORARY TRAFFIC SIGNAL PAY ITEM.

14. THE TEMPORARY TRAFFIC SIGNAL SHALL HAVE THE SIGNAL HEAD DISPLAYS, SIGNAL HEAD PLACEMENTS AND CONTROLLER PHASING MATCH THE EXISTING TRAFFIC SIGNAL, AT THE TIME OF THE TURN ON, IF NO TRAFFIC STAGING IS IN PLACE OR WILL NOT BE STAGED ON THE DAY OF THE TURN ON.

15. UNINTERRUPTABLE POWER SUPPLY IUPSI SYSTEMS SHALL BE INSTALLED AND MADE OPERATIONAL AT TEMPORARY TRAFFIC SIGNAL INSTALLATIONS WHERE UPS IS INSTALLED AT THE EXISTING TRAFFIC SIGNAL, TEMPORARY TRAFFIC SIGNALS AT RAILROAD INTERSECTIONS, AND TEMPORARY TRAFFIC SIGNALS AT INTERSECTIONS WITH FIRE STATION ACTUATED EMERGENCY VEHICLE PRE-EMPTION, OR WHEN INDICATED ON THE PLANS.

16. TRAFFIC SIGNAL MANAGEMENT SYSTEMS SHALL BE MAINTAINED IN OPERATION AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER. REQUIRED EQUIPMENT SHALL BE AS SHOWN ON THE PLANS AND THE CONTRACTOR SHALL PLACE THE EQUIPMENT IN OPERATION TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE TRAFFIC SIGNAL MANAGEMENT SYSTEM.

17. ALL LABOR AND MATERIALS REQUIRED TO COMPLY WITH THESE REQUIREMENTS SHALL BE CONSIDERED INCLUDED IN THE PRICE FOR TEMPORARY TRAFFIC SIGNAL INSTALLATION.

18. THE CONTRACTOR SHALL CONTACT THE SIGNAL SECTION AT !DOT 1-815-434-8506 BEFORE INSTALLING THE TEMPORARY SIGNAL.

APS PUSHBUTTON PLACEMENT DETAILS

FIGURE 1: APS PUSHBUTTON LOCATION AREAS - INTERSECTION CORNER

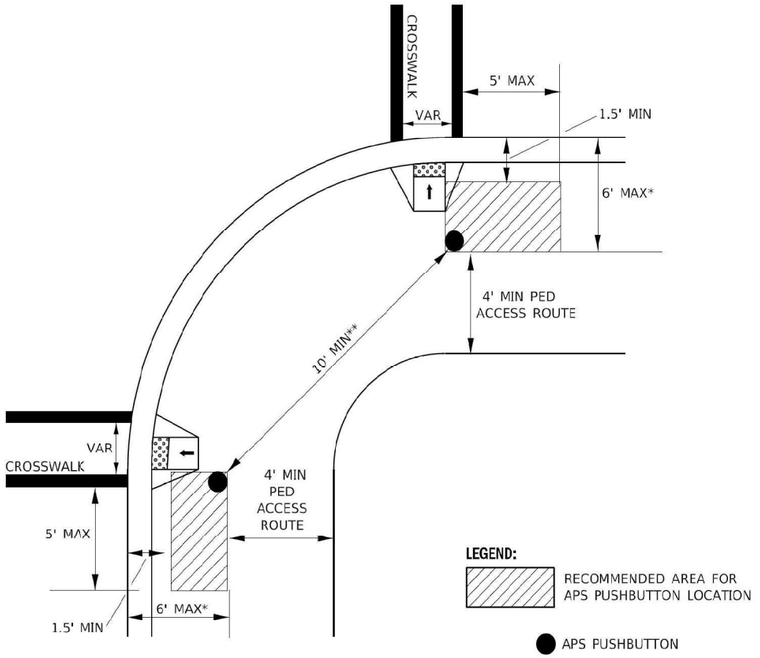


FIGURE 2: APS PUSHBUTTON LOCATION AREAS - CORNER ISLAND

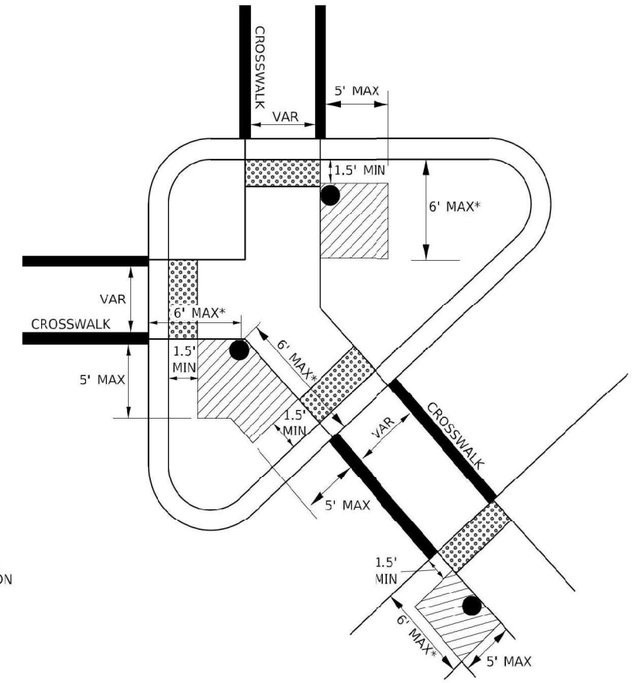


FIGURE 1 NOTES:

APS PUSHBUTTON SHOULD NOT BE GREATER THAN 5 FT. FROM THE OUTSIDE EDGE OF THE MARKED CROSSWALK FARTHEST FROM THE INTERSECTION.

APS PUSHBUTTON SHALL NOT BE FARTHER FROM THE CROSSWALK THAN THE STOP LINE, IF PRESENT.

GENERAL NOTES

(*) PUSHBUTTONS SHALL BE LOCATED BETWEEN 1.5' TO 6' BACK FROM EDGE OF CURB, SHOULDER OR PAVEMENT. WHERE THERE ARE CONSTRAINTS TO MAKE IT IMPRACTICAL TO INSTALL WITHIN THIS RANGE, THE PUSHBUTTON SHOULD NOT BE FURTHER THAN 10' FROM EDGE OF CURB, SHOULDER OR PAVEMENT.

(**) PUSHBUTTONS LOCATED IN THE SAME CORNER OF INTERSECTION SHALL BE 10-FT APART. WHERE PHYSICAL CONSTRAINTS MAKE IT IMPRACTICAL TO PROVIDE THIS SEPARATION, THEY MAY BE PLACED CLOSED TOGETHER OR MOUNTED ON THE SAME POST. IN THIS CASE, EACH APS PUSHBUTTON SHALL BE PROVIDED WITH A SPEECH WALK MESSAGE FOR THE WALKING PERSON INDICATION AND A SPEECH PUSHBUTTON INFORMATION MESSAGE.

VERTICAL HEIGHT OF THE APS PUSHBUTTONS SHALL BE LOCATED BETWEEN 30" TO 42" (36' PREFERRED) ABOVE THE PATHWAY ELEVATION. SEE HWY STND 876001.

PUSHBUTTONS SHALL BE LOCATED WITHIN TEN (10) INCHES OF THE PEDESTRIAN ACCESS ROUTE. WHEN REQUIRED, EXTENSIONS SHALL BE INSTALLED TO COMPLY WITH THIS REQUIREMENT. THE COST OF INSTALLING THE EXTENSION SHALL BE CONSIDERED AS INCLUDED IN THE COST OF THE ACCESSIBLE PEDESTRIAN SIGNAL.

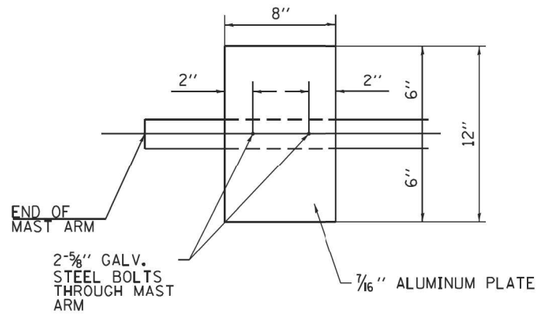
SEE ACCESSIBLE PEDESTRIAN SIGNALS (BDE) SPECIAL PROVISION FOR REQUIREMENTS NOT SHOWN IN THIS DETAIL.

FIGURE 2 NOTES:

LARGER ISLANDS MAY REQUIRE THE USE OF THREE APS PUSHBUTTONS WITHIN THE ISLAND IN ORDER TO MEET PLACEMENT RECOMMENDATIONS.

APS PUSHBUTTONS SHALL NOT BE GREATER THAN 5-FT FROM THE OUTSIDE EDGE OF THE MARKED CROSSWALK FARTHEST FROM THE INTERSECTION.

APS PUSHBUTTON SHALL NOT BE FARTHER FROM THE CROSSWALK THAN THE STOP LINE, IF PRESENT.



DAMPENING PLATE DETAIL

(TOP VIEW) INCIDENTAL TO MAST ARM QUANTITY

DAMPENING DEVICE SHALL CONSIST OF A 24'' x 30'' TYPE I, UNPAINTED ALUMINUM SIGN STOCK MOUNTED HORIZONTALLY ON TOP OF MAST ARM WITH THE 30'' LENGTH PERPENDICULAR TO THE ARM. COST OF DAMPENING DEVICE SHALL BE INCLUDED IN THE MAST ARM PAY ITEM.

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CONSULTING ENGINEERS
6330 Belmont Road, Suite 4B
Downers Grove, IL 60516

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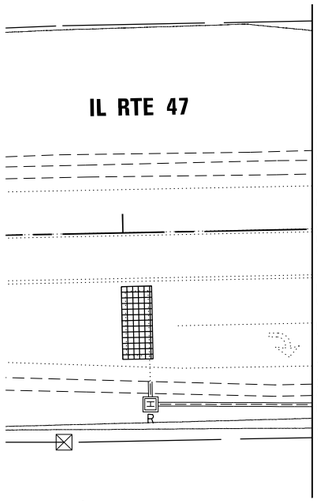
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES FOR TEMPORARY TRAFFIC SINGALS AND TRAFFIC SIGNAL DETAILS

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

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	2020-198-W&T	KANE	531	326
		CONTRACT NO. 62M71		
		ILLINOIS FED. AID PROJECT		



REMOVAL AND RELOCATION NOTES:

THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE ILLINOIS DEPARTMENT OF TRANSPORTATION, AND SHALL BE DELIVERED BY THE CONTRACTOR TO IDOT DISTRICT 3'S TRAFFIC SIGNAL MAINTENANCE CONTRACTOR'S MAIN FACILITY.

1 EACH CONTROLLER AND CABINET (COMPLETE)

THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

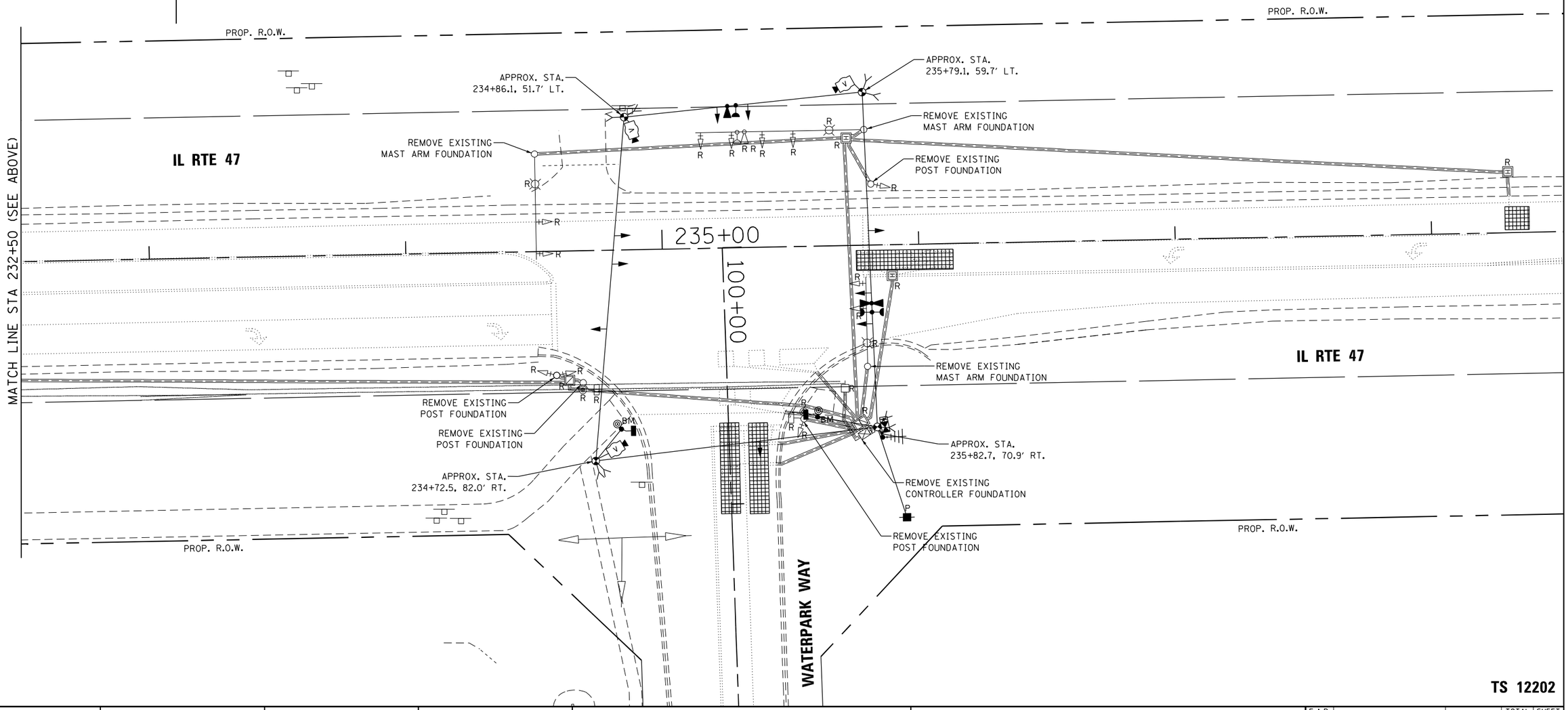
3 EACH STEEL COMBINATION MAST ARM ASSEMBLY AND POST
4 EACH TRAFFIC SIGNAL POST
8 EACH 3-SECTION SIGNAL HEAD
4 EACH 5-SECTION SIGNAL HEAD
2 EACH PEDESTRIAN SIGNAL HEAD
2 EACH PEDESTRIAN PUSH-BUTTON
1 EACH SERVICE INSTALLATION
12 EACH TRAFFIC SIGNAL BACKPLATE

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR AND SHALL REMAIN THE PROPERTY OF THE AGENCY LISTED BELOW. THE CONTRACTOR SHALL SAFELY STORE AND ARRANGE FOR THE PICK UP OF ALL THE EQUIPMENT TO BE RETURNED TO THE LISTED AGENCY.

VILLAGE OF YORKVILLE
ERIC DHUSE
630-553-4370

2 EACH CONFIRMATION BEACON
2 EACH LIGHT DETECTOR
1 EACH LIGHT DETECTOR AMPLIFIER
1 EACH OPTICOM CARD

N
0 20 40 60
SCALE IN FEET



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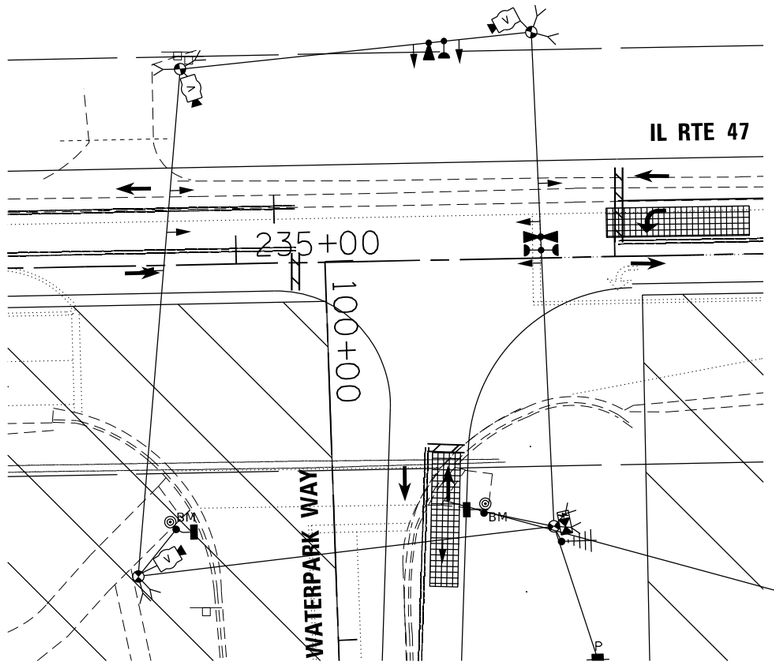
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

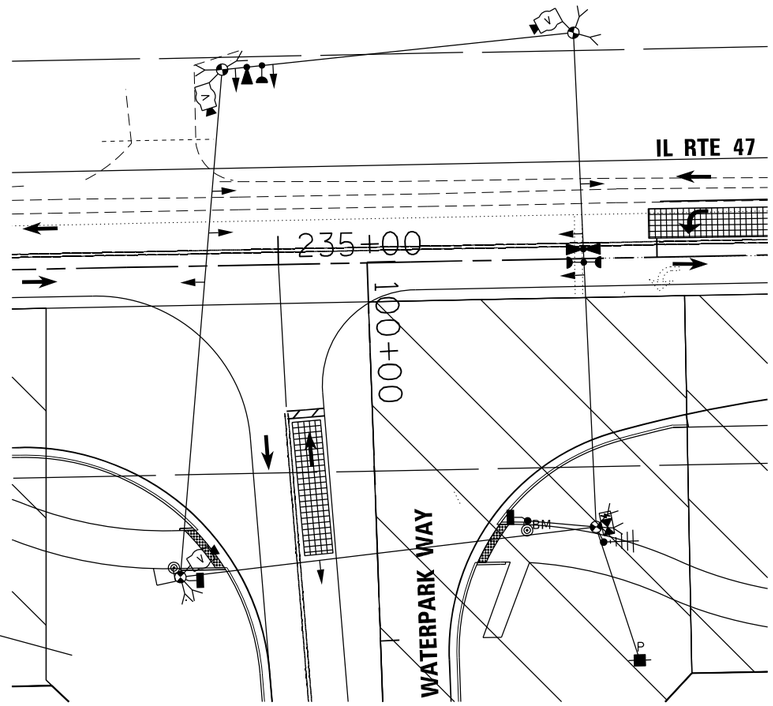
TEMPORARY TRAFFIC SIGNAL INSTALLATION PLAN
IL RTE 47 AND WATERPARK WAY

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

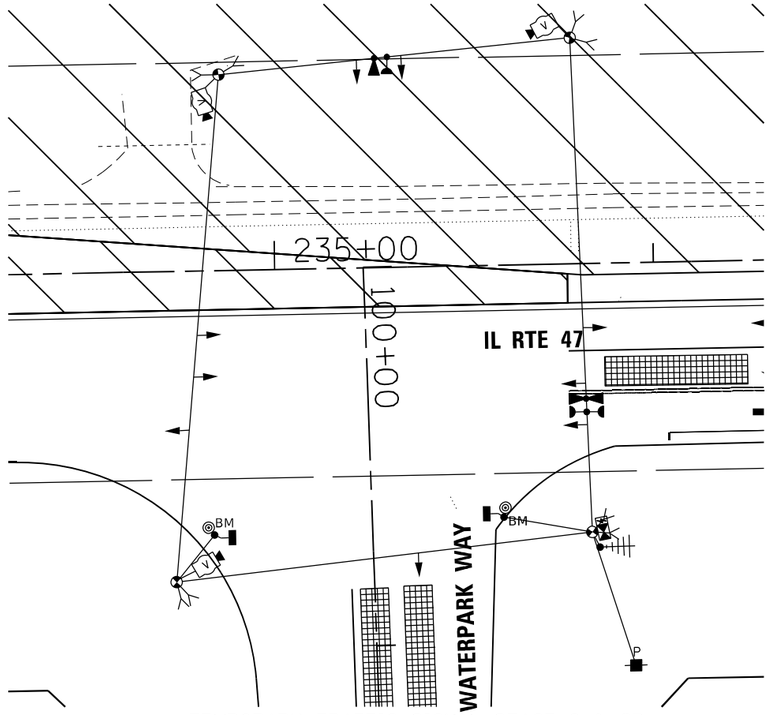
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	2020-198-W&T	KANE	531	327
		CONTRACT NO. 62M71		
	ILLINOIS FED. AID PROJECT			



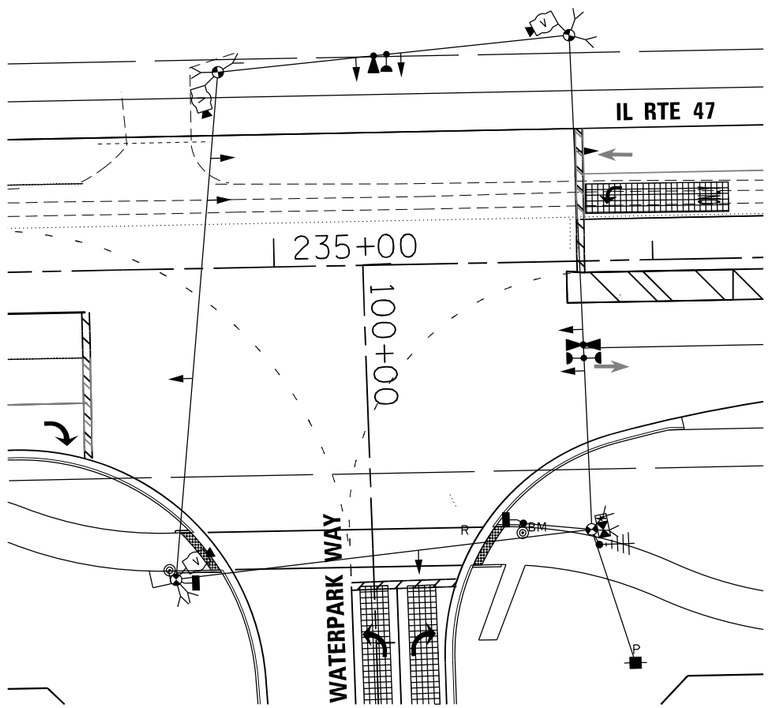
TEMPORARY TRAFFIC SIGNAL STAGE 1



TEMPORARY TRAFFIC SIGNAL STAGE 1B



TEMPORARY TRAFFIC SIGNAL STAGE 2 & 2B



TEMPORARY TRAFFIC SIGNAL STAGE 3

N

0 20 40 60

SCALE IN FEET

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNAL INSTALLATION
STAGE CONSTRUCTION PLAN
IL RTE 47 AND WATERPARK WAY

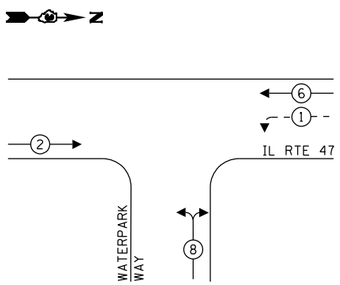
SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			531	328
		CONTRACT NO.		
	ILLINOIS	FED. AID PROJECT		

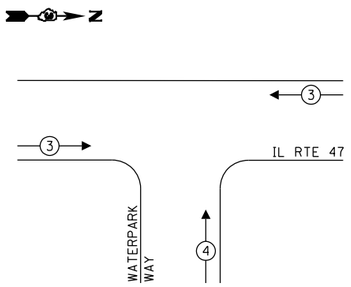
STAGES 1 & 1B
TEMPORARY CONTROLLER SEQUENCE

LEGEND:

- PROTECTED PHASE
- PROTECTED/PERMITTED PHASE
- PEDESTRIAN PHASE
- OL OVERLAP



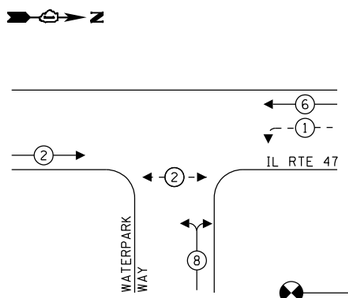
STAGES 1, 2 & 3
TEMPORARY EMERGENCY VEHICLE PREEMPTION SEQUENCE

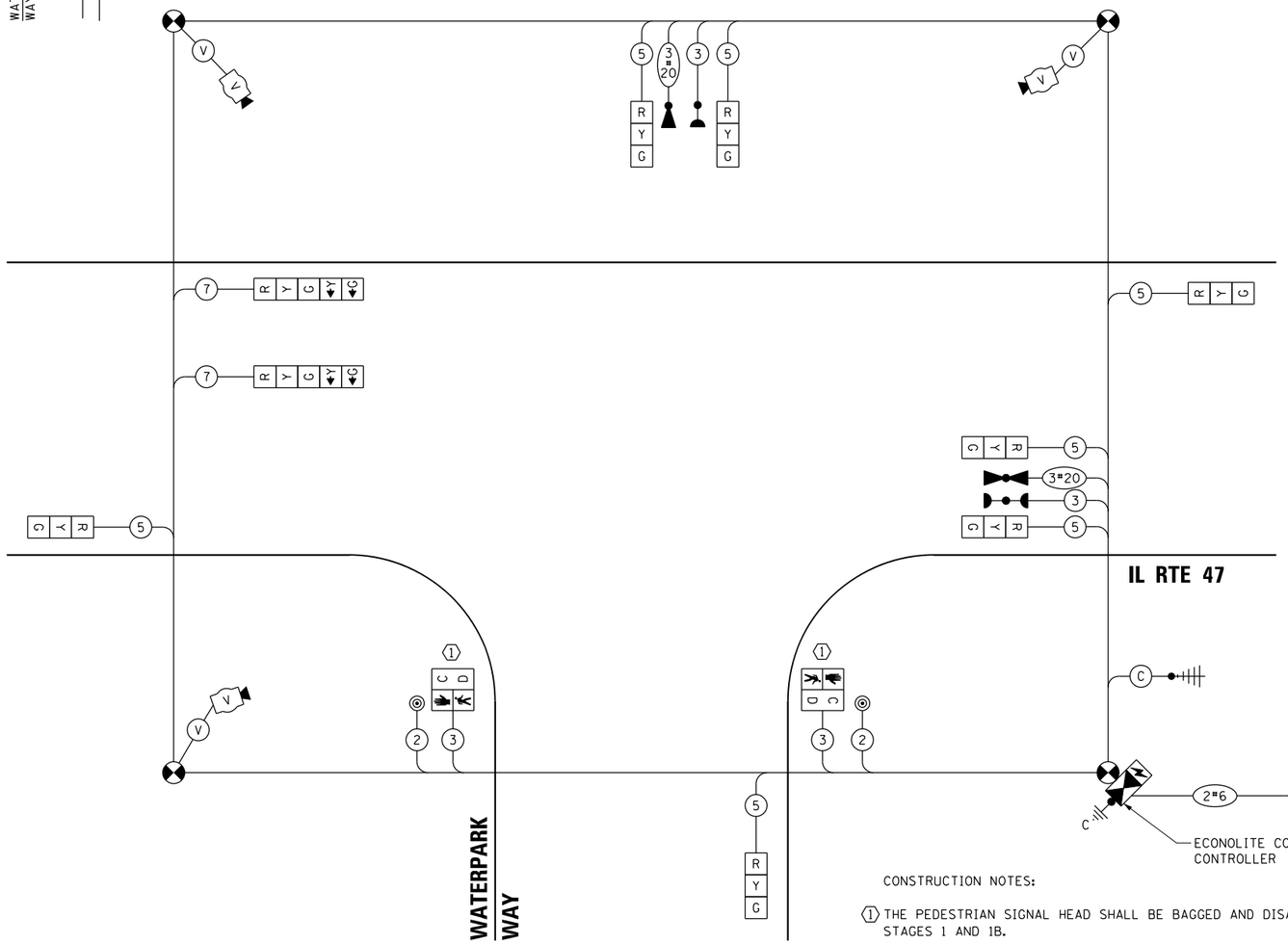


STAGES 2 & 3
TEMPORARY CONTROLLER SEQUENCE

LEGEND:

- PROTECTED PHASE
- PROTECTED/PERMITTED PHASE
- PEDESTRIAN PHASE
- OL OVERLAP





CONSTRUCTION NOTES:

(1) THE PEDESTRIAN SIGNAL HEAD SHALL BE BAGGED AND DISABLED DURING STAGES 1 AND 1B.

TEMPORARY CABLE PLAN
(NOT TO SCALE)

TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. OF LAMPS	LED WATTAGE	MAIN LINE % OPERATION	SIDE STREET% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	10	11	40	10	55.0
(YELLOW)	10	20	4	1	10.0
(GREEN)	10	12	36	9	54.0
PERMISSIVE ARROW	4	10	8	2	4.0
PED. SIGNAL	2	20	80	20	40.00
CONTROLLER	1	100	80	20	100.00
UPS	1	25	80	20	25.00
VIDEO SYSTEM	1	150	80	20	150.00
LUMINAIRE	-	-	-	-	-
			TOTAL =	TOTAL =	438.0

ENERGY COSTS TO:

ILLINOIS DEPARTMENT OF TRANSP., DIST. 3
700 E NORRIS DRIVE
OTTAWA, ILLINOIS 61350

ENERGY SUPPLY: CONTACT: KELLY GONZALEZ
PHONE: (630) 723-2127
COMPANY: COMMONWEALTH EDISON
ACCOUNT NUMBER: 0412123025

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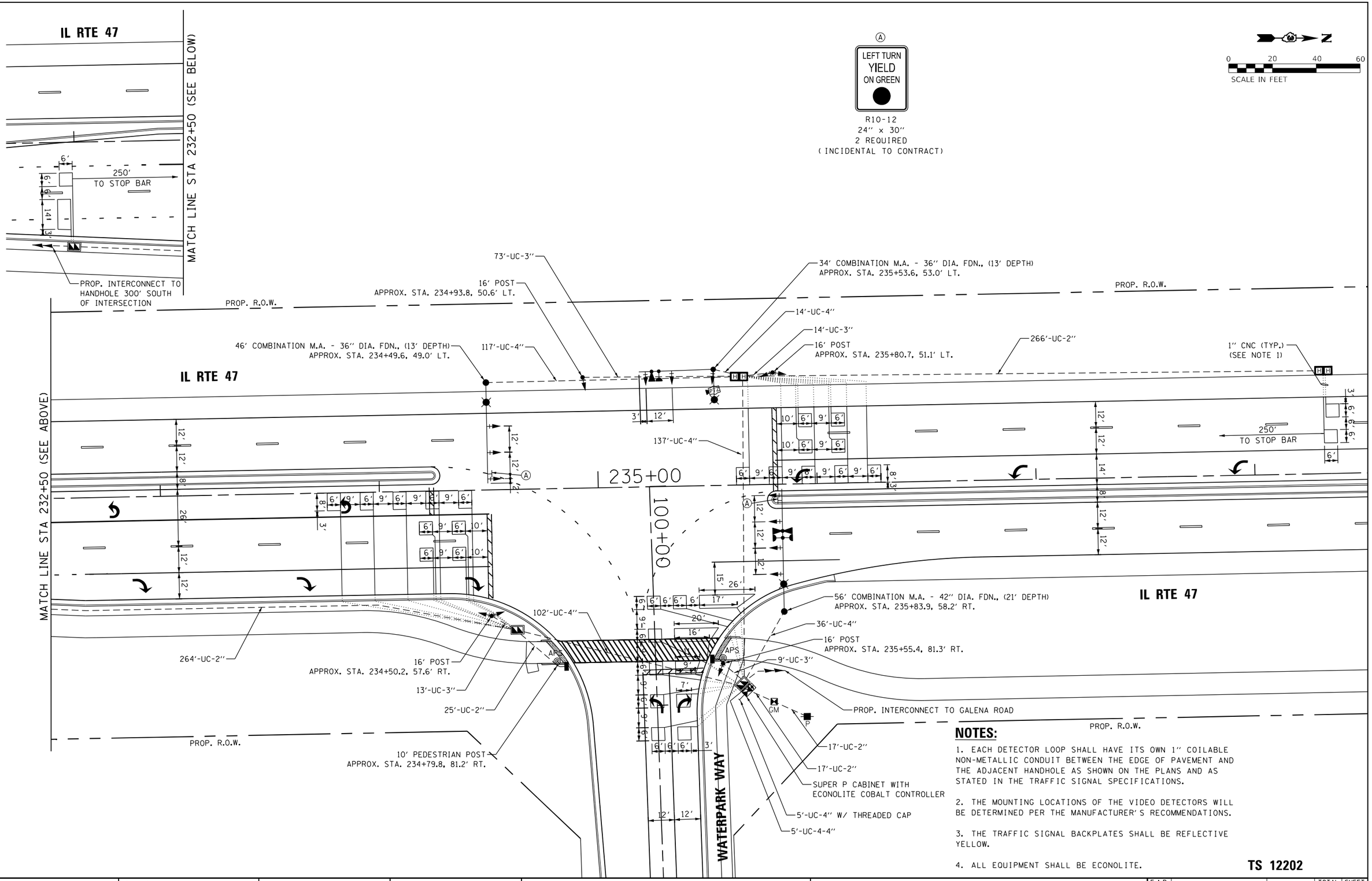
PLOT DATE = 3/6/2026	DATE - 05-30-2025	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ALL STAGES TEMP. CABLE PLAN, TEMPORARY PHASE DESIGNATION DIAGRAM, AND TEMPORARY EMERGENCY VEHICLE PREEMPTION SEQUENCE
IL RTE 47 AND WATERPARK WAY

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

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	2020-198-W&T	KANE	531	329
		CONTRACT NO. 62M71		
		ILLINOIS FED. AID PROJECT		



NOTES:

1. EACH DETECTOR LOOP SHALL HAVE ITS OWN 1" COILABLE NON-METALLIC CONDUIT BETWEEN THE EDGE OF PAVEMENT AND THE ADJACENT HANDHOLE AS SHOWN ON THE PLANS AND AS STATED IN THE TRAFFIC SIGNAL SPECIFICATIONS.

2. THE MOUNTING LOCATIONS OF THE VIDEO DETECTORS WILL BE DETERMINED PER THE MANUFACTURER'S RECOMMENDATIONS.

3. THE TRAFFIC SIGNAL BACKPLATES SHALL BE REFLECTIVE YELLOW.

4. ALL EQUIPMENT SHALL BE ECONOLITE.

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PLOT DATE = 3/6/2026	DATE - 05-30-2025	REVISED -

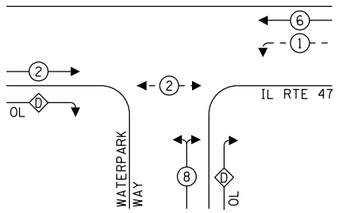
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL INSTALLATION PLAN
IL RTE 47 AND WATERPARK WAY

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

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	2020-198-W&T	KANE	531	330
		CONTRACT NO. 62M71		
	ILLINOIS FED. AID PROJECT			

PROPOSED CONTROLLER SEQUENCE



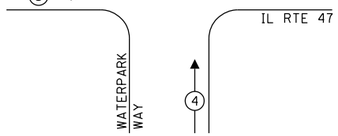
LEGEND:

- PROTECTED PHASE
- PROTECTED/PERMITTED PHASE
- PEDESTRIAN PHASE
- OL — OVERLAP

RIGHT TURN OVERLAP PHASE DESIGNATION:

OVERLAP LETTER		PERMISSIVE PHASE		PROTECTED PHASE
A	=	2	+	8
D	=	8		

PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE



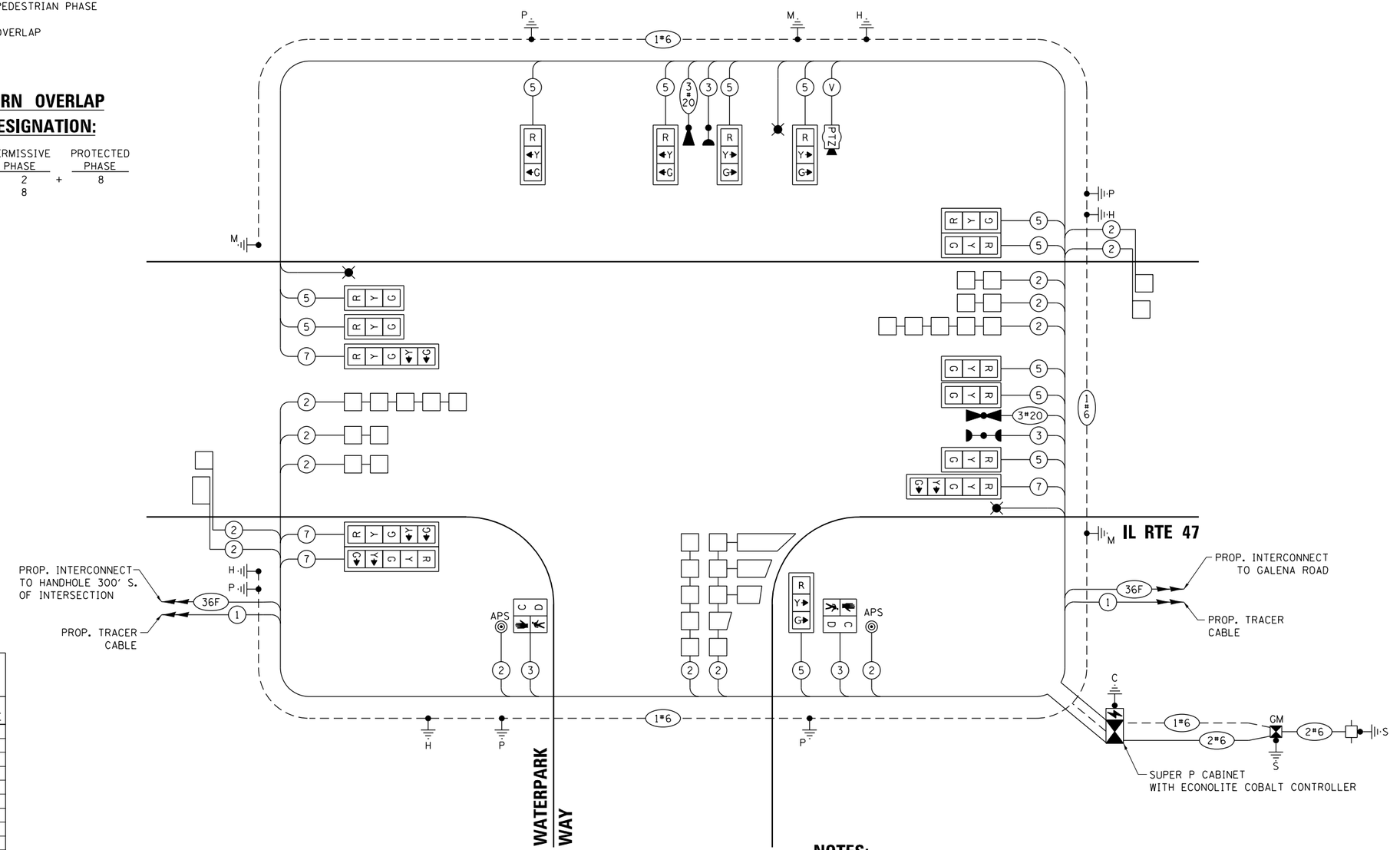
TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. OF LAMPS	LED WATTAGE	MAIN LINE % OPERATION	SIDE STREET% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	16	11	40	10	88.0
(YELLOW)	16	20	4	1	16.0
(GREEN)	16	12	36	9	86.4
PERMISSIVE ARROW	8	10	6	2	8.0
PED. SIGNAL	2	20	80	20	40.00
CONTROLLER	1	100	80	20	100.00
UPS	1	25	80	20	25.00
VIDEO SYSTEM	-	150	80	20	-
LUMINAIRE	-	-	-	-	-
			TOTAL =	TOTAL =	363.4

ENERGY COSTS TO:

ILLINOIS DEPARTMENT OF TRANSP., DIST. 3
700 E NORRIS DRIVE
OTTAWA, ILLINOIS 61350

ENERGY SUPPLY: CONTACT: KELLY GONZALEZ
PHONE: (630) 723-2127
COMPANY: COMMONWEALTH EDISON
ACCOUNT NUMBER: 0412123025



CABLE PLAN
(NOT TO SCALE)

NOTES:

1. ALL BALLS AND ARROWS NEED A LENS COVER.

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CABLE PLAN, PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE
IL RTE 47 AND WATERPARK WAY

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

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	2020-198-W&T	KANE	531	331
		CONTRACT NO. 62M71		
	ILLINOIS FED. AID PROJECT			

SIGN PANEL – TYPE 1 OR TYPE 2

ALL DIMENSIONS ARE IN INCHES UNLESS NOTED OTHERWISE

DESIGN SERIES	AREA (SQ FT)	SIGN PANEL TYPE	SHEETING TYPE	QTY. REQUIRED
D	13.75	2	ZZ	2

DESIGN SERIES	AREA (SQ FT)	SIGN PANEL TYPE	SHEETING TYPE	QTY. REQUIRED
D	9.75	2	ZZ	2

NOTE: FOR ADDITIONAL DESIGN AND INSTALLATION INFORMATION PLEASE SEE DISTRICT ONE MAST ARM MOUNTED STREET NAME SIGNS DETAIL.

GENERAL NOTES FOR TRAFFIC SIGNALS

1. ALL CONDUIT IN TRENCH SHALL BE P.V.C. GALVANIZED STEEL OR SCHEDULE 80 SHALL BE USED UNDER PAVEMENT, STABILIZED SHOULDER, PAVED MEDIAN, PAVED DRIVEWAY, CURB AND/OR GUTTER, AND SIDEWALK. CONDUIT ATTACHED TO STRUCTURE SHALL BE GALVANIZED STEEL.

2. BACKPLATES SHALL BE POLYCARBONATE, LOUVERED FORMED BACKPLATES WITH FLOURESCENT YELLOW SHEETING.

3. THE ELEVATION OF THE TOP OF THE DOUBLE HANDHOLE SHALL BE LESS THAN THE ELEVATION OF THE TOP OF THE CONTROLLER FOUNDATION. THE DOUBLE HANDHOLES INSTALLED CLOSE TO THE ROADWAY SHALL OPEN UP TOWARDS THE ROADWAY SO THE ELECTRICAL MAINTAINER IS NOT EXPOSED TO TRAFFIC WHEN WORKING.

4. AFTER MILLING, THE CONTRACTOR IS RESPONSIBLE FOR MARKING THE DETECTOR LOOP DIVE HOLES. THE INSTALLATION OF DIVE HOLES AND CORRESPONDING CONDUIT FOR DETECTOR LOOP INSTALLATION SHALL BE INCLUDED IN THE COST OF DETECTOR LOOP, TYPE 1 PAY ITEM.

5. ALL TRAFFIC SIGNAL CONTROLLERS SHALL INCLUDE NTCIP AND THE VIDEO DETECTION SHALL USE VIDEO G.

6. THE MAINLINE STOP BAR DETECTOR LOOPS SHALL BE GREEN EXTENDED SO THE DETECTOR LOOPS DETECT WHEN THERE IS A QUEUE OF TRAFFIC ONLY. AFTER THE QUEUE OF TRAFFIC IS DONE, THE DETECTOR LOOP SHALL NOT EXTEND TIME ANYMORE.

7. TEMPORARY SIGNAL HEADS SHALL BE RELOCATED AS NECESSARY TO LINE UP WITH STAGE TRAFFIC LANES. DO NOT INSTALL HEADS THAT BLOCK OPPOSING TRAFFIC HEADS. WHEN POSSIBLE PLACE TEMPORARY SIGNALS IN FRONT OF EXISTING TRAFFIC SIGNALS. THIS WORK WILL BE INCLUDED IN THE COST OF TEMPORARY TRAFFIC SIGNAL INSTALLATION.

SCHEDULE OF QUANTITIES

ITEM DESCRIPTION	UNITS	TOTAL QTY.
SIGN PANEL - TYPE 1	SQ FT	13.5
SIGN PANEL - TYPE 2	SQ FT	19.5
SERVICE INSTALLATION - GROUND MOUNTED, METERED	EACH	1
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	589
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	109
UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	426
DOUBLE HANDHOLE, PORTLAND CEMENT CONCRETE	EACH	2
DOUBLE HEAVY-DUTY HANDHOLE	EACH	2
UNINTERRUPTABLE POWER SUPPLY, EXTENDED	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	199
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	551
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	2438
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	579
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	2060
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	72
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	645
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	4
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE, 34 FT.	EACH	1
STEEL CAMBINATION MAST ARM ASSEMBLY AND POLE, 46 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE, 56 FT.	EACH	1
CONCRETE FOUNDATION, TYPE A	FOOT	20
CONCRETE FOUNDATION, TYPE C	FOOT	4
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	26
CONCRETE FOUNDATION, TYPE E 42-INCH DIAMETER	FOOT	21
SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	5
SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	6
SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	2
SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	2
PEDESTRIAN SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2
TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC, SPECIAL	EACH	16
INDUCTIVE LOOP DETECTOR	EACH	12
• LIGHT DETECTOR	EACH	2
• LIGHT DETECTOR AMPLIFIER	EACH	1
TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	37
REMOVE EXISTING HANDHOLE	EACH	5
REMOVE EXISTING DOUBLE HANDHOLE	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	9
• EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	335
CAT 5 ETHERNET CABLE	FOOT	234
PEDESTRIAN SIGNAL POST, 10 FT.	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE SUPER P CABINET (SPECIAL)	EACH	1
ETHERNET SWITCH	EACH	1
ACCESSIBLE PEDESTRIAN SIGNALS	EACH	2
CONCRETE FOUNDATION, TYPE A, 12-INCH DIAMETER	FOOT	4
LED SIGNAL FACE, LENS COVER	EACH	53
CLOSED CIRCUIT TELEVISION DOME CAMERA, HD	EACH	1
PERMANENT TRAFFIC SIGNAL TIMING	EACH	1
TEMPORARY TRAFFIC SIGNAL TIMING	EACH	1
CENTRAC SWITCH	EACH	1
CENTRACS SERVER SOFTWARE	EACH	1

• 100% COST TO THE CITY OF YORKVILLE

ALTERNATE A: PCC PAVEMENT

PREFORMED DETECTOR LOOP	FOOT	1593

ALTERNATE B: HMA PAVEMENT

DETECTOR LOOP, TYPE 1	FOOT	1593

TS SHT NO. 17

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Downers Grove, IL 60516

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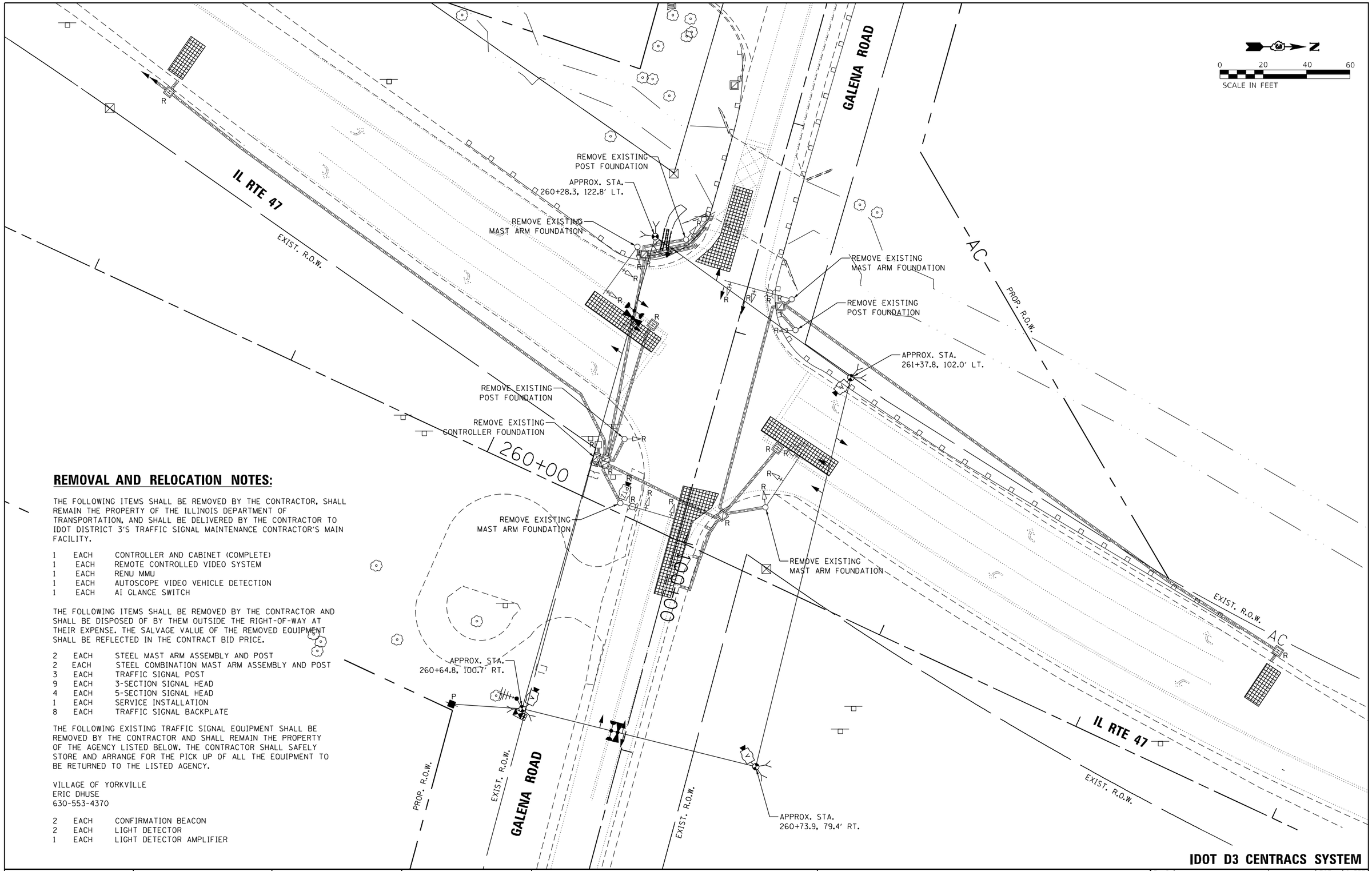
PLOT DATE = 3/6/2026	DATE - 05-30-2025	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MAST ARM MOUNTED STREET NAME SIGNS AND SCHEDULE OF QUANTITIES
IL RTE 47 AND WATERPARK WAY

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

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	2020-198-W&T	KANE	531	332
		CONTRACT NO. 62M71		
	ILLINOIS	FED. AID PROJECT		



REMOVAL AND RELOCATION NOTES:

THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE ILLINOIS DEPARTMENT OF TRANSPORTATION, AND SHALL BE DELIVERED BY THE CONTRACTOR TO IDOT DISTRICT 3'S TRAFFIC SIGNAL MAINTENANCE CONTRACTOR'S MAIN FACILITY.

1	EACH	CONTROLLER AND CABINET (COMPLETE)
1	EACH	REMOTE CONTROLLED VIDEO SYSTEM
1	EACH	RENU MMU
1	EACH	AUTOSCOPE VIDEO VEHICLE DETECTION
1	EACH	AI GLANCE SWITCH

THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

2	EACH	STEEL MAST ARM ASSEMBLY AND POST
2	EACH	STEEL COMBINATION MAST ARM ASSEMBLY AND POST
3	EACH	TRAFFIC SIGNAL POST
9	EACH	3-SECTION SIGNAL HEAD
4	EACH	5-SECTION SIGNAL HEAD
1	EACH	SERVICE INSTALLATION
8	EACH	TRAFFIC SIGNAL BACKPLATE

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR AND SHALL REMAIN THE PROPERTY OF THE AGENCY LISTED BELOW. THE CONTRACTOR SHALL SAFELY STORE AND ARRANGE FOR THE PICK UP OF ALL THE EQUIPMENT TO BE RETURNED TO THE LISTED AGENCY.

VILLAGE OF YORKVILLE
ERIC DHUSE
630-553-4370

2	EACH	CONFIRMATION BEACON
2	EACH	LIGHT DETECTOR
1	EACH	LIGHT DETECTOR AMPLIFIER

TS SHT NO. 17

IDOT D3 CENTRACS SYSTEM

AMES Engineering, Inc.
CONSULTING ENGINEERS
6330 Belmont Road, Suite 4B
Downers Grove, IL 60516

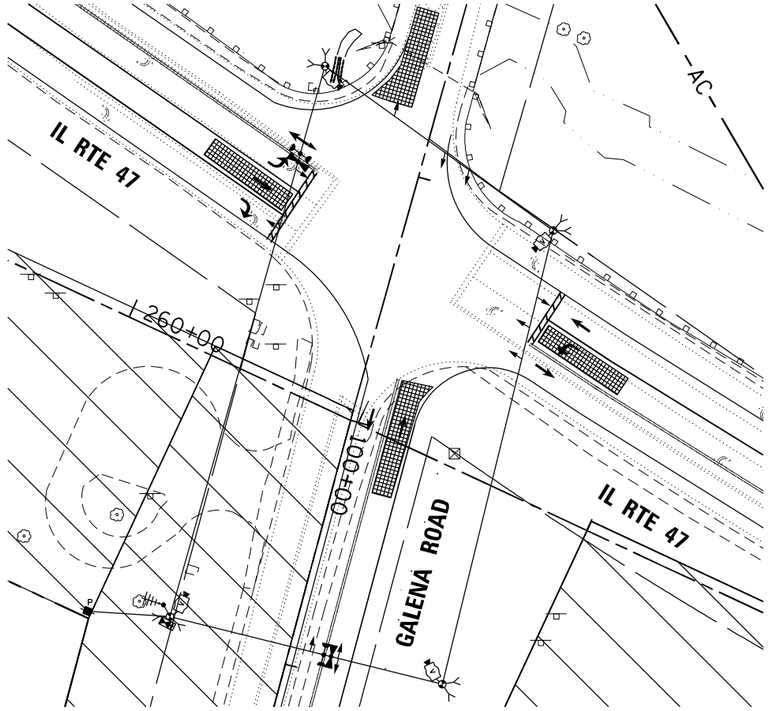
USER NAME = mdeitche	DESIGNED - TM	REVISED -	
	DRAWN - TM	REVISED -	
PLOT SCALE = $SCALE$	CHECKED - AS	REVISED -	
PLOT DATE = 3/6/2026	DATE - 05-30-2025	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

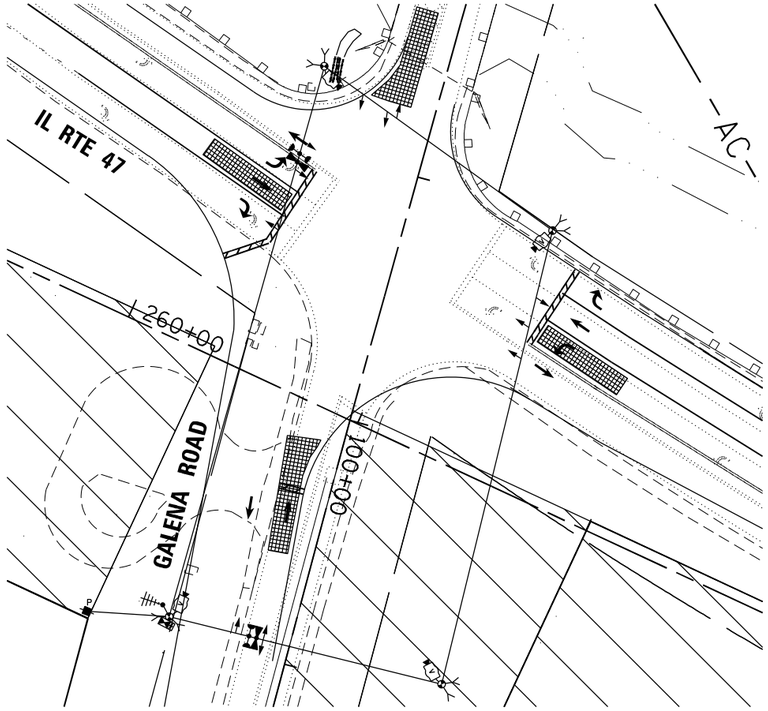
TEMPORARY TRAFFIC SIGNAL INSTALLATION PLAN AND REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT PLAN IL RTE 47 AND GALENA ROAD

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

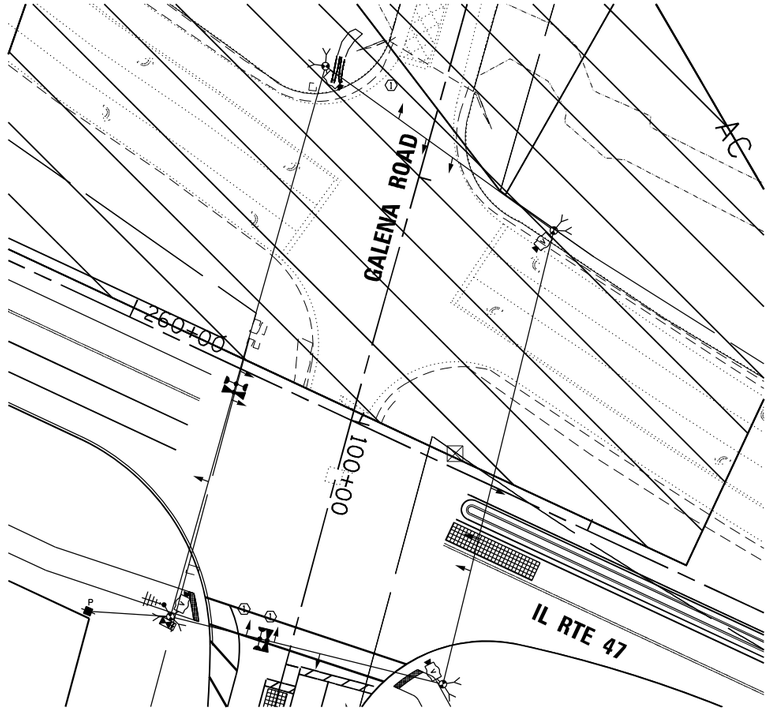
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	2020-198-W&T	KANE	531	333
		CONTRACT NO. 62M71		
	ILLINOIS FED. AID PROJECT			



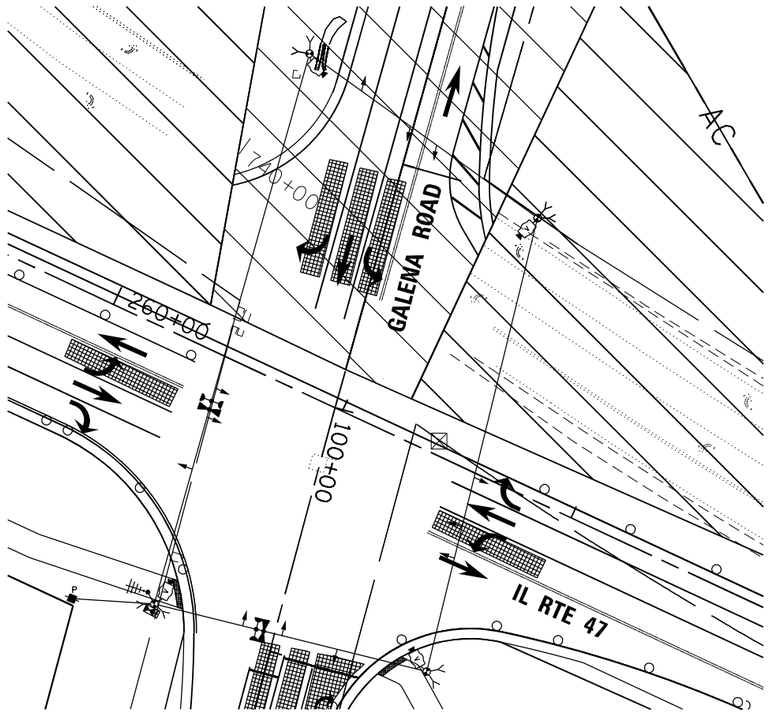
TEMPORARY TRAFFIC SIGNAL STAGE 1



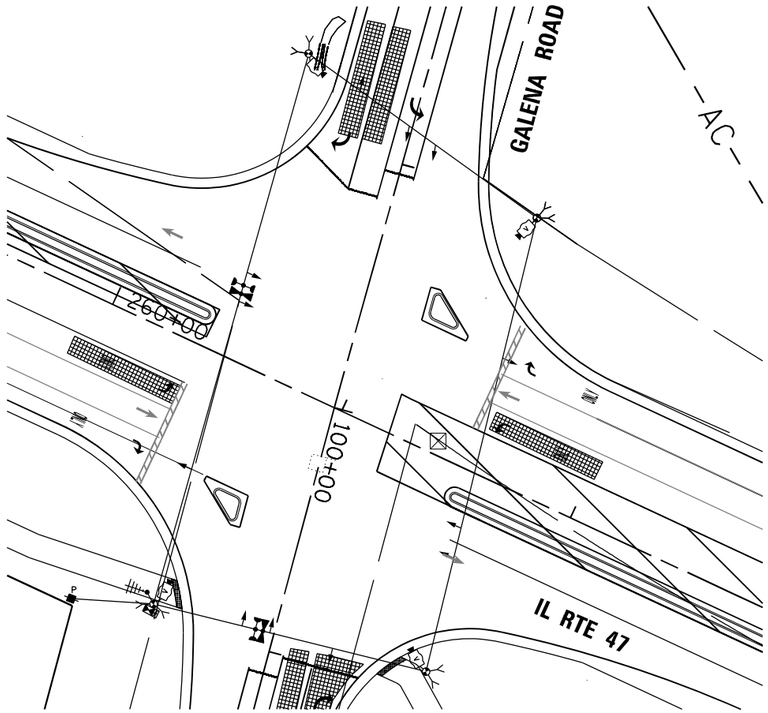
TEMPORARY TRAFFIC SIGNAL STAGE 1b



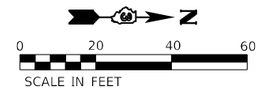
TEMPORARY TRAFFIC SIGNAL PRESTAGE 2



TEMPORARY TRAFFIC SIGNAL STAGE 2 & 2b



TEMPORARY TRAFFIC SIGNAL STAGE 3



IDOT D3 CENTRACS SYSTEM

TS SHT NO. 18

AMES Engineering, Inc.
CONSULTING ENGINEERS
6330 Belmont Road, Suite 4B
Downers Grove, IL 60516

USER NAME = mdeitche	DESIGNED - TM	REVISED -
	DRAWN - TM	REVISED -
PLOT SCALE = $SCALE$	CHECKED - AS	REVISED -
PLOT DATE = 3/6/2026	DATE - 05-30-2025	REVISED -

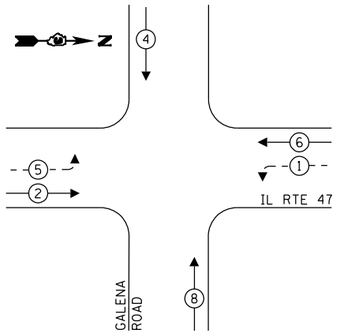
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNAL INSTALLATION
STAGE CONSTRUCTION PLAN
IL RTE 47 AND GALENA ROAD

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

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	2020-198-W&T	KANE	531	334
		CONTRACT NO. 62M71		
	ILLINOIS FED. AID PROJECT			

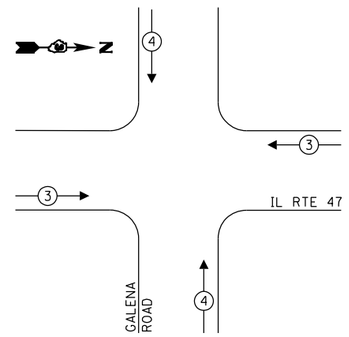
STAGES 1, 2 & 3
TEMPORARY CONTROLLER SEQUENCE



LEGEND:

- PROTECTED PHASE
- PROTECTED/PERMITTED PHASE
- PEDESTRIAN PHASE
- OL — OVERLAP

STAGES 1, 2 & 3
TEMPORARY EMERGENCY VEHICLE PREEMPTION SEQUENCE



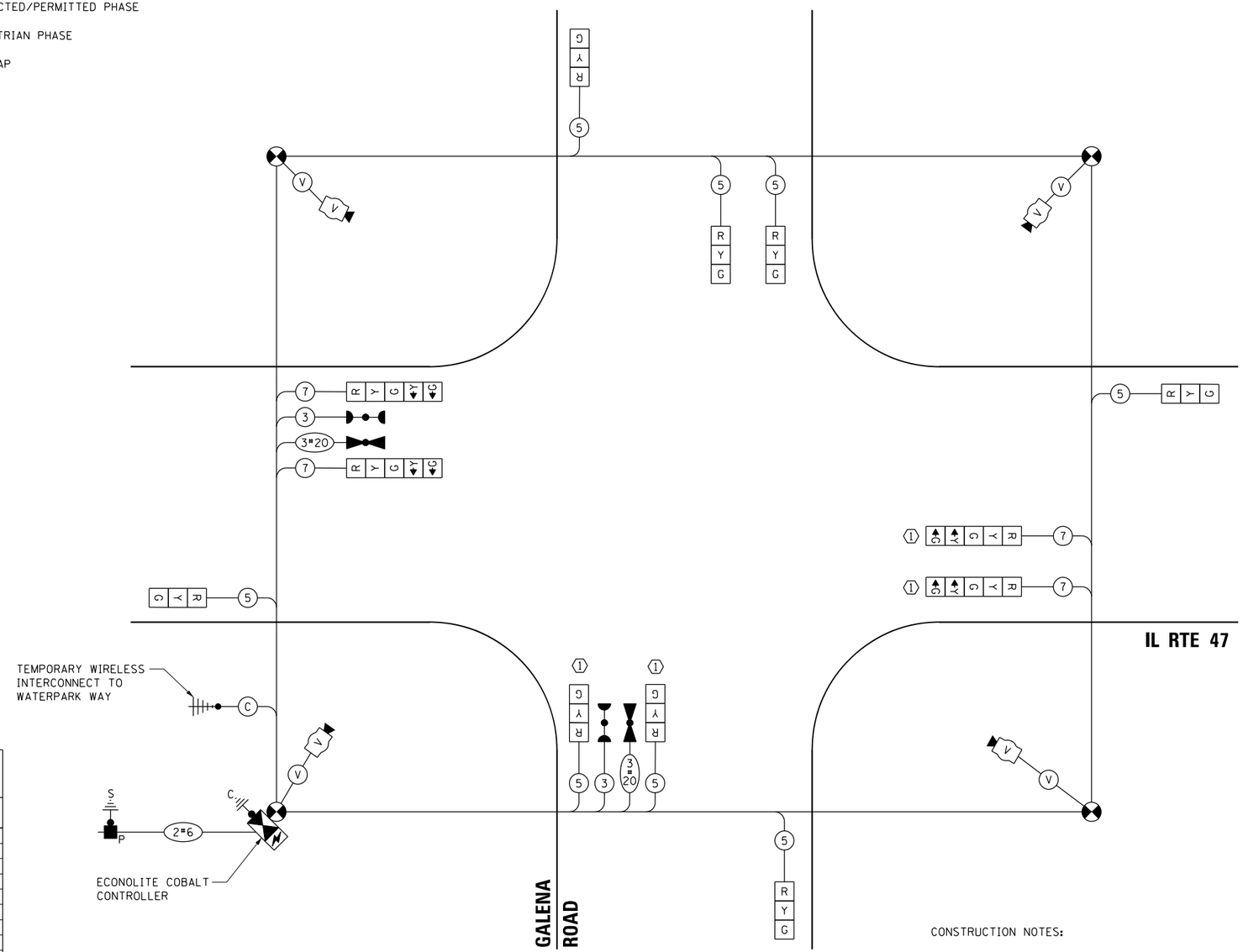
TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. OF LAMPS	LED WATTAGE	MAIN LINE % OPERATION	SIDE STREET% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	12	11	40	10	66.0
(YELLOW)	12	20	4	1	12.0
(GREEN)	12	12	36	9	64.8
PERMISSIVE ARROW	8	10	8	2	8.0
PED. SIGNAL	-	20	80	20	
CONTROLLER	1	100	80	20	100.00
UPS	1	25	80	20	25.00
VIDEO SYSTEM	1	150	80	20	150.00
LUMINAIRE	-	-	-	-	-
			TOTAL =	TOTAL =	425.8

ENERGY COSTS TO:

ILLINOIS DEPARTMENT OF TRANSP., DIST. 3
700 E NORRIS DRIVE
OTTAWA, ILLINOIS 61350

ENERGY SUPPLY: CONTACT: KELLY GONZALEZ
PHONE: (630) 723-2127
COMPANY: COMMONWEALTH EDISON
ACCOUNT NUMBER: 7076242111



TEMPORARY CABLE PLAN
(NOT TO SCALE)

CONSTRUCTION NOTES:

(1) THE SIGNAL HEAD AND LEFT TURNS SHALL BE BAGGED AND DISABLED DURING STAGES 1, 1B AND PRE-STAGE 2.

TS SHT NO. 23

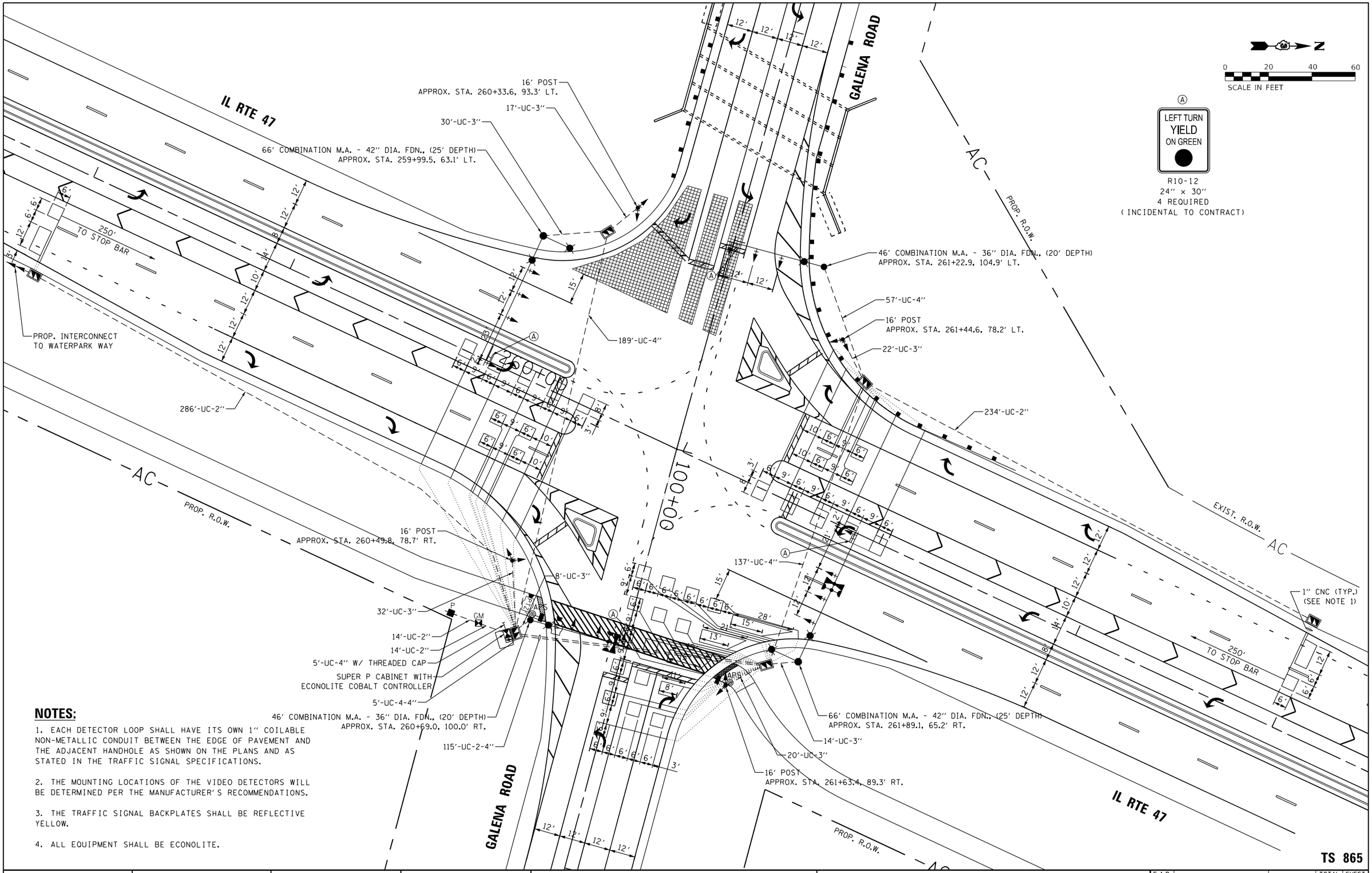
TS 865

AMES Engineering, Inc. CONSULTING ENGINEERS 6330 Belmont Road, Suite 4B Downers Grove, IL 60516	USER NAME = mdestche	DESIGNED - TM	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
		DRAWN - TM	REVISED -	
	PLOT SCALE = $SCALE$	CHECKED - AS	REVISED -	
	PLOT DATE = 3/6/2026	DATE - 05-30-2025	REVISED -	

ALL STAGES TEMPORARY CABLE PLAN, TEMPORARY PHASE DESIGNATION DIAGRAM, AND TEMPORARY EMERGENCY VEHICLE PREEMPTION SEQUENCE
IL RTE 47 AND GALENA ROAD

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

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	2020-198-W&T	KANE	531	335
		CONTRACT NO. 62M71		
		ILLINOIS FED. AID PROJECT		



NOTES:

1. EACH DETECTOR LOOP SHALL HAVE ITS OWN 1" COILABLE NON-METALLIC CONDUIT BETWEEN THE EDGE OF PAVEMENT AND THE ADJACENT HANDHOLE AS SHOWN ON THE PLANS AND AS STATED IN THE TRAFFIC SIGNAL SPECIFICATIONS.

2. THE MOUNTING LOCATIONS OF THE VIDEO DETECTORS WILL BE DETERMINED PER THE MANUFACTURER'S RECOMMENDATIONS.

3. THE TRAFFIC SIGNAL BACKPLATES SHALL BE REFLECTIVE YELLOW.

4. ALL EQUIPMENT SHALL BE ECONOLITE.

TS SHT NO. 24

TS 865

AMES Engineering, Inc. CONSULTING ENGINEERS 6330 Belmont Road, Suite 4B Downers Grove, IL 60516	USER NAME = mdeitche	DESIGNED - TM	REVISED -
		DRAWN - TM	REVISED -
	PLOT SCALE = $SCALE$	CHECKED - AS	REVISED -
	PLOT DATE = 3/6/2026	DATE - 05-30-2025	REVISED -

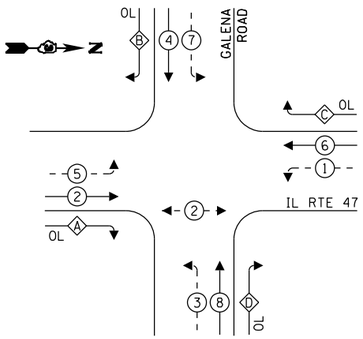
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL INSTALLATION PLAN
IL RTE 47 AND GALENA ROAD

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

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	2020-198-W&T	KANE	531	336
		CONTRACT NO. 62M71		
		ILLINOIS FED. AID PROJECT		

PROPOSED CONTROLLER SEQUENCE



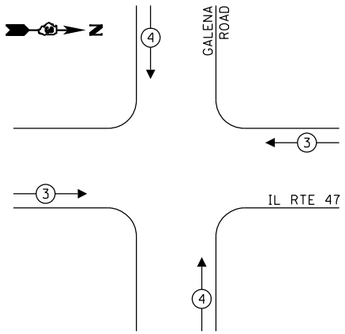
LEGEND:

- PROTECTED PHASE
- PROTECTED/PERMITTED PHASE
- PEDESTRIAN PHASE
- OL — OVERLAP

RIGHT TURN OVERLAP PHASE DESIGNATION:

OVERLAP LETTER		PROTECTED PHASE
A	=	3
B	=	5
C	=	7
D	=	1

PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE



TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. OF LAMPS	LED WATTAGE	MAIN LINE % OPERATION	SIDE STREET% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	22	11	40	10	121.0
(YELLOW)	22	20	4	1	22.0
(GREEN)	22	12	36	9	118.8
PERMISSIVE ARROW	32	10	8	2	32.0
PED. SIGNAL	2	20	80	20	40.00
CONTROLLER	1	100	80	20	100.00
UPS	1	25	80	20	25.00
VIDEO SYSTEM	-	150	80	20	-
LUMINAIRE	-	-	-	-	-
			TOTAL =	TOTAL =	458.8

ENERGY COSTS TO:

ILLINOIS DEPARTMENT OF TRANSP., DIST. 3
700 E NORRIS DRIVE
OTTAWA, ILLINOIS 61350

ENERGY SUPPLY: CONTACT: KELLY GONZALEZ
PHONE: (630) 723-2127
COMPANY: COMMONWEALTH EDISON
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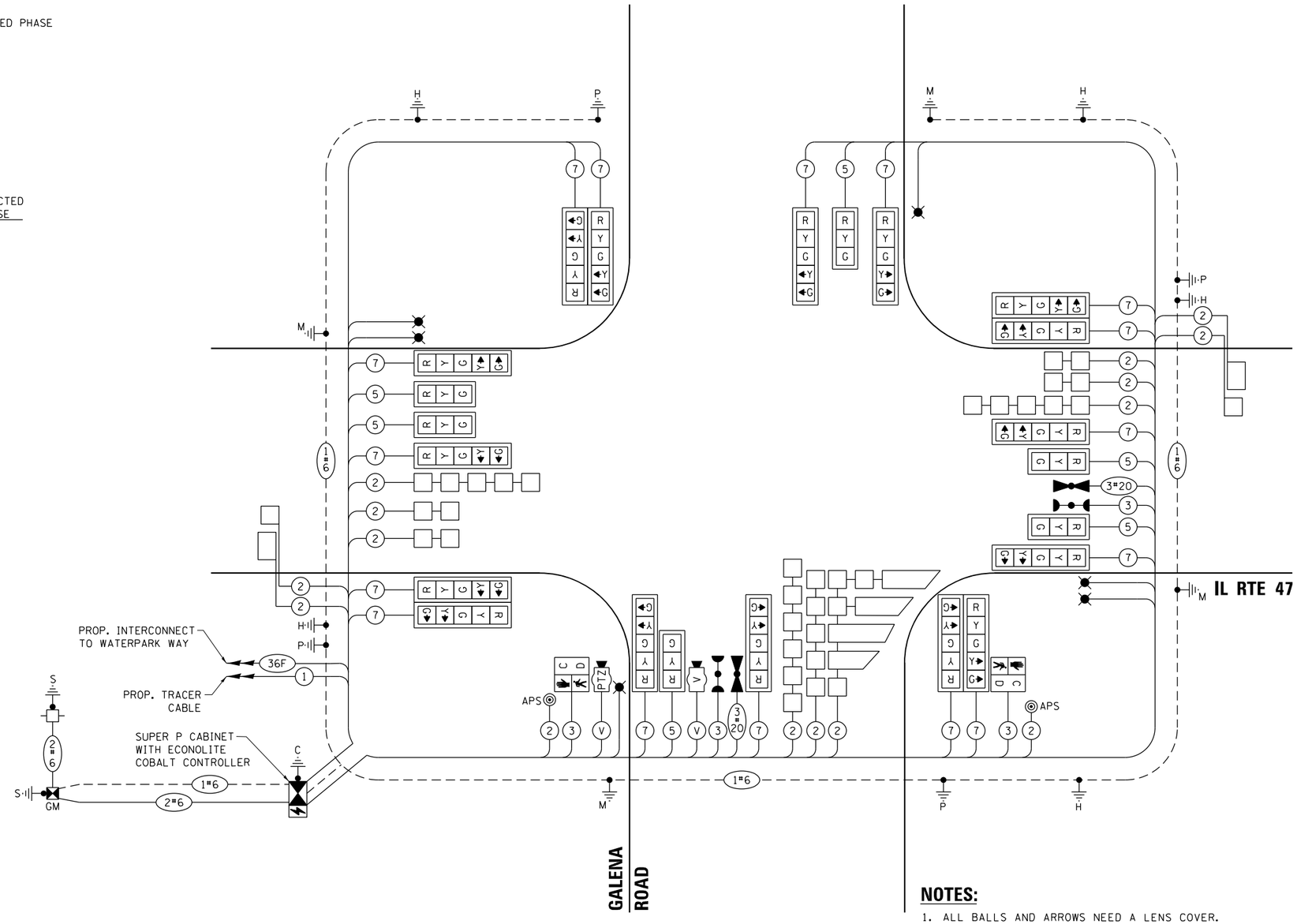


CABLE PLAN
(NOT TO SCALE)

NOTES:
1. ALL BALLS AND ARROWS NEED A LENS COVER.

TS SHT NO. 25

TS 865

AMES Engineering, Inc.
CONSULTING ENGINEERS
6330 Belmont Road, Suite 4B
Downers Grove, IL 60516

USER NAME = mdeitche	DESIGNED - TM	REVISED -
	DRAWN - TM	REVISED -
PLOT SCALE = $SCALE$	CHECKED - AS	REVISED -
PLOT DATE = 3/6/2026	DATE - 05-30-2025	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

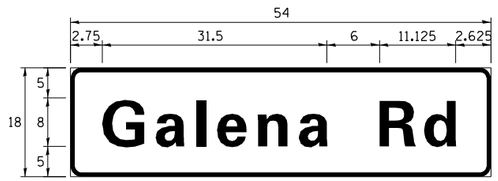
CABLE PLAN, PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE
IL RTE 47 AND GALENA ROAD

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

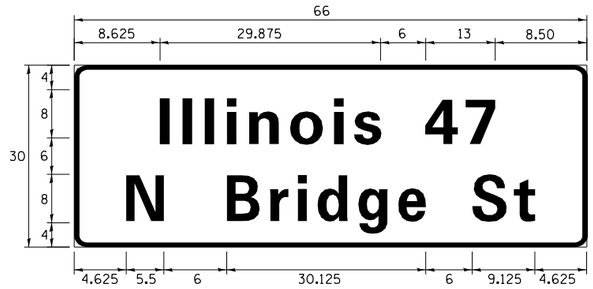
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	2020-198-W&T	KANE	531	337
		CONTRACT NO. 62M71		
	ILLINOIS FED. AID PROJECT			

SIGN PANEL – TYPE 1 OR TYPE 2

ALL DIMENSIONS ARE IN INCHES UNLESS NOTED OTHERWISE



DESIGN SERIES	AREA (SQ FT)	SIGN PANEL TYPE	SHEETING TYPE	QTY. REQUIRED
D	6.75	1	ZZ	2



DESIGN SERIES	AREA (SQ FT)	SIGN PANEL TYPE	SHEETING TYPE	QTY. REQUIRED
D	6.75	1	ZZ	2

NOTE: FOR ADDITIONAL DESIGN AND INSTALLATION INFORMATION PLEASE SEE DISTRICT ONE MAST ARM MOUNTED STREET NAME SIGNS DETAIL.

GENERAL NOTES FOR TRAFFIC SIGNALS

1. ALL CONDUIT IN TRENCH SHALL BE P.V.C. GALVANIZED STEEL OR SCHEDULE 80 SHALL BE USED UNDER PAVEMENT, STABILIZED SHOULDER, PAVED MEDIAN, PAVED DRIVEWAY, CURB AND/OR GUTTER, AND SIDEWALK. CONDUIT ATTACHED TO STRUCTURE SHALL BE GALVANIZED STEEL.

2. BACKPLATES SHALL BE POLYCARBONATE, LOUVERED FORMED BACKPLATES WITH FLOURESCENT YELLOW SHEETING.

3. THE ELEVATION OF THE TOP OF THE DOUBLE HANDHOLE SHALL BE LESS THAN THE ELEVATION OF THE TOP OF THE CONTROLLER FOUNDATION. THE DOUBLE HANDHOLES INSTALLED CLOSE TO THE ROADWAY SHALL OPEN UP TOWARDS THE ROADWAY SO THE ELECTRICAL MAINTAINER IS NOT EXPOSED TO TRAFFIC WHEN WORKING.

4. AFTER MILLING, THE CONTRACTOR IS RESPONSIBLE FOR MARKING THE DETECTOR LOOP DIVE HOLES. THE INSTALLATION OF DIVE HOLES AND CORRESPONDING CONDUIT FOR DETECTOR LOOP INSTALLATION SHALL BE INCLUDED IN THE COST OF DETECTOR LOOP, TYPE 1 PAY ITEM.

5. ALL TRAFFIC SIGNAL CONTROLLERS SHALL INCLUDE NTCIP AND THE VIDEO DETECTION SHALL USE VIDEO G.

6. THE MAINLINE STOP BAR DETECTOR LOOPS SHALL BE GREEN EXTENDED SO THE DETECTOR LOOPS DETECT WHEN THERE IS A QUEUE OF TRAFFIC ONLY. AFTER THE QUEUE OF TRAFFIC IS DONE, THE DETECTOR LOOP SHALL NOT EXTEND TIME ANYMORE.

7. TEMPORARY SIGNAL HEADS SHALL BE RELOCATED AS NECESSARY TO LINE UP WITH STAGE TRAFFIC LANES. DO NOT INSTALL HEADS THAT BLOCK OPPOSING TRAFFIC HEADS. WHEN POSSIBLE PLACE TEMPORARY SIGNALS IN FRONT OF EXISTING TRAFFIC SIGNALS. THIS WORK WILL BE INCLUDED IN THE COST OF TEMPORARY TRAFFIC SIGNAL INSTALLATION.

SCHEDULE OF QUANTITIES

	ITEM DESCRIPTION	UNITS	TOTAL QTY.
	SIGN PANEL - TYPE 1	SQ FT	27
	SERVICE INSTALLATION - GROUND MOUNTED, METERED	EACH	1
	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	548
	UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	143
	UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	638
	DOUBLE HANDHOLE	EACH	6
	UNINTERRUPTABLE POWER SUPPLY, EXTENDED	EACH	1
	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	212
	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	548
	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	1,379
	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	3,720
	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	2,512
	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	44
	ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	740
	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	4
	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE, 46 FT.	EACH	2
	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE, 66 FT.	EACH	2
	CONCRETE FOUNDATION, TYPE A	FOOT	16
	CONCRETE FOUNDATION, TYPE C	FOOT	4
	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	40
	CONCRETE FOUNDATION, TYPE E 42-INCH DIAMETER	FOOT	50
	SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	6
	SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	8
	SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	8
	PEDESTRIAN SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2
	TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC, SPECIAL	EACH	22
	INDUCTIVE LOOP DETECTOR	EACH	13
•	LIGHT DETECTOR	EACH	2
•	LIGHT DETECTOR AMPLIFIER	EACH	1
	TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	34
	REMOVE EXISTING HANDHOLE	EACH	7
	REMOVE EXISTING DOUBLE HANDHOLE	EACH	1
	REMOVE EXISTING CONCRETE FOUNDATION	EACH	8
•	EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	318
	CAT 5 ETHERNET CABLE	FOOT	78
	VIDEO VEHICLE DETECTION SYSTEM, SINGLE APPROACH	EACH	1
	FULL-ACTUATED CONTROLLER AND TYPE SUPER P CABINET (SPECIAL)	EACH	1
	ETHERNET SWITCH	EACH	1
	ACCESSIBLE PEDESTRIAN SIGNALS	EACH	2
	LED SIGNAL FACE, LENS COVER	EACH	98
	CLOSED CIRCUIT TELEVISION DOME CAMERA, HD	FOOT	1
	PERMANENT TRAFFIC SIGNAL TIMING	EACH	1
	TEMPORARY TRAFFIC SIGNAL TIMING	EACH	1
	CENTRAC SWITCH	EACH	1

• 100% COST TO KENDALL COUNTY

ALTERNATE A: PCC PAVEMENT

	PREFORMED DETECTOR LOOP	FOOT	2365

ALTERNATE B: HMA PAVEMENT

	DETECTOR LOOP, TYPE 1	FOOT	2365

TS SHT NO. 26

TS 865

AMES Engineering, Inc.
CONSULTING ENGINEERS
6330 Belmont Road, Suite 4B
Downers Grove, IL 60516

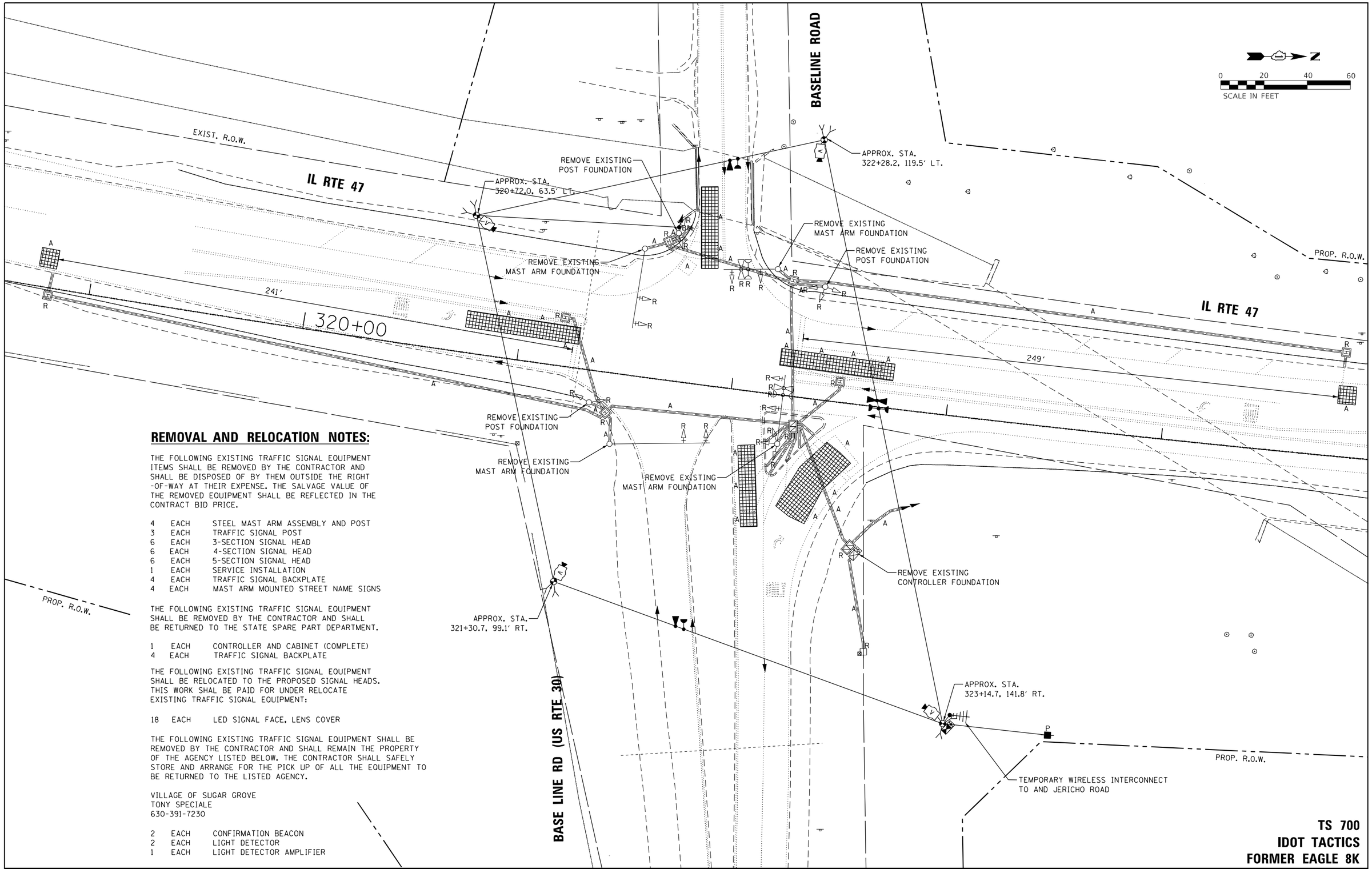
USER NAME = mdestche	DESIGNED - TM		REVISED -
	DRAWN - TM		REVISED -
PLOT SCALE = $SCALE$	CHECKED - AS		REVISED -
PLOT DATE = 3/6/2026	DATE - 05-30-2025		REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MAST ARM MOUNTED STREET NAME SIGNS AND SCHEDULE OF QUANTITIES
IL RTE 47 AND GALENA ROAD

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

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	2020-198-W&T	KANE	531	338
		CONTRACT NO. 62M71		
	ILLINOIS	FED. AID PROJECT		



REMOVAL AND RELOCATION NOTES:

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT -OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

4	EACH	STEEL MAST ARM ASSEMBLY AND POST
3	EACH	TRAFFIC SIGNAL POST
6	EACH	3-SECTION SIGNAL HEAD
6	EACH	4-SECTION SIGNAL HEAD
6	EACH	5-SECTION SIGNAL HEAD
1	EACH	SERVICE INSTALLATION
4	EACH	TRAFFIC SIGNAL BACKPLATE
4	EACH	MAST ARM MOUNTED STREET NAME SIGNS

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE RETURNED TO THE STATE SPARE PART DEPARTMENT.

1	EACH	CONTROLLER AND CABINET (COMPLETE)
4	EACH	TRAFFIC SIGNAL BACKPLATE

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE RELOCATED TO THE PROPOSED SIGNAL HEADS. THIS WORK SHAL BE PAID FOR UNDER RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT:

18	EACH	LED SIGNAL FACE, LENS COVER

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR AND SHALL REMAIN THE PROPERTY OF THE AGENCY LISTED BELOW. THE CONTRACTOR SHALL SAFELY STORE AND ARRANGE FOR THE PICK UP OF ALL THE EQUIPMENT TO BE RETURNED TO THE LISTED AGENCY.

VILLAGE OF SUGAR GROVE
TONY SPECIALE
630-391-7230

2	EACH	CONFIRMATION BEACON
2	EACH	LIGHT DETECTOR
1	EACH	LIGHT DETECTOR AMPLIFIER

TS SHT NO. 23

TS 700
IDOT TACTICS
FORMER EAGLE 8K

AMES Engineering, Inc.
CONSULTING ENGINEERS
6330 Belmont Road, Suite 4B
Downers Grove, IL 60516

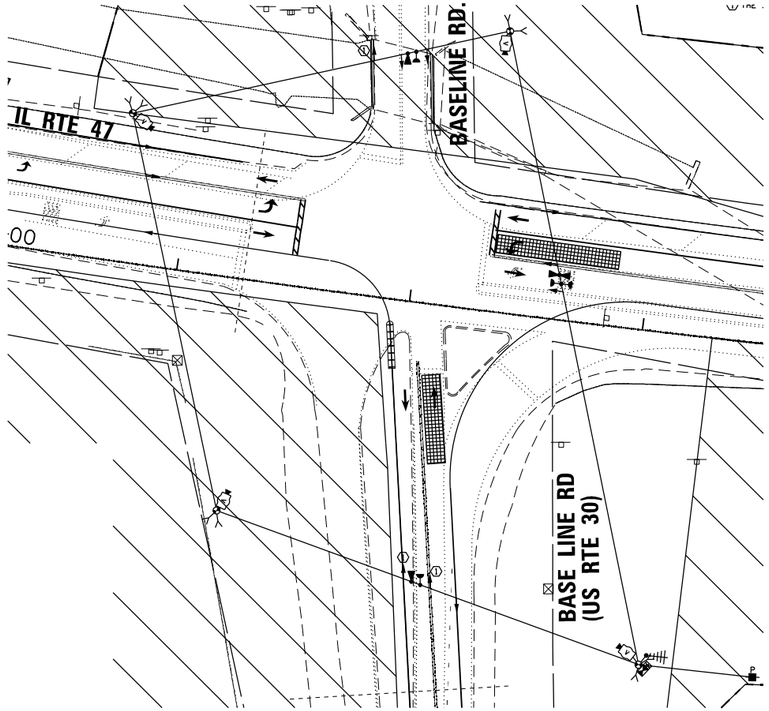
USER NAME = mdeitche	DESIGNED - TM	REVISED -	
	DRAWN - YM	REVISED -	
PLOT SCALE = $SCALE$	CHECKED - AS	REVISED -	
PLOT DATE = 3/6/2026	DATE - 05-30-2025	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

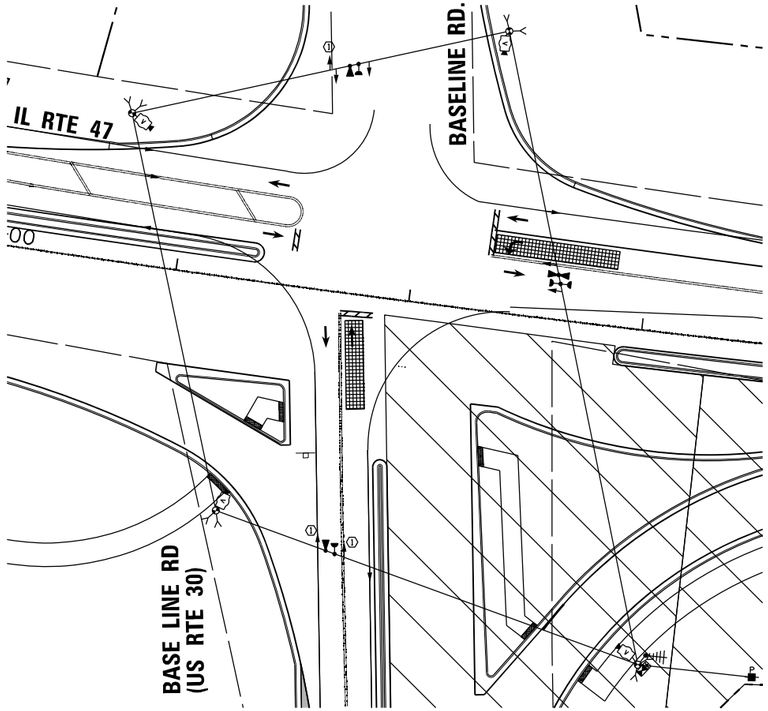
TEMPORARY TRAFFIC SIGNAL INSTALLATION PLAN AND REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT PLAN
IL RTE 47 AND BASELINE RD /BASE LINE RD (US RTE 30)

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

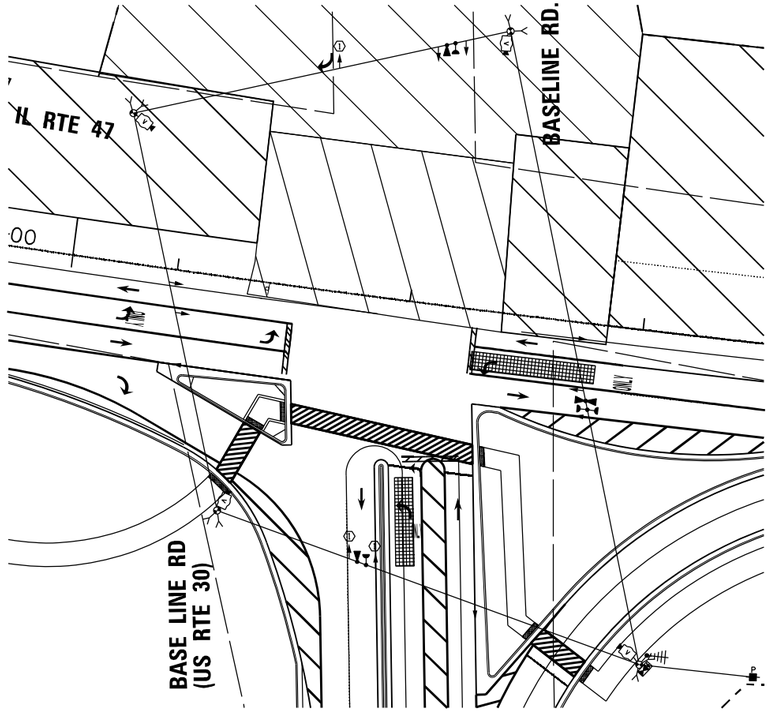
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	2020-198-W&T	KANE	531	339
		CONTRACT NO. 62M71		
	ILLINOIS FED. AID PROJECT			



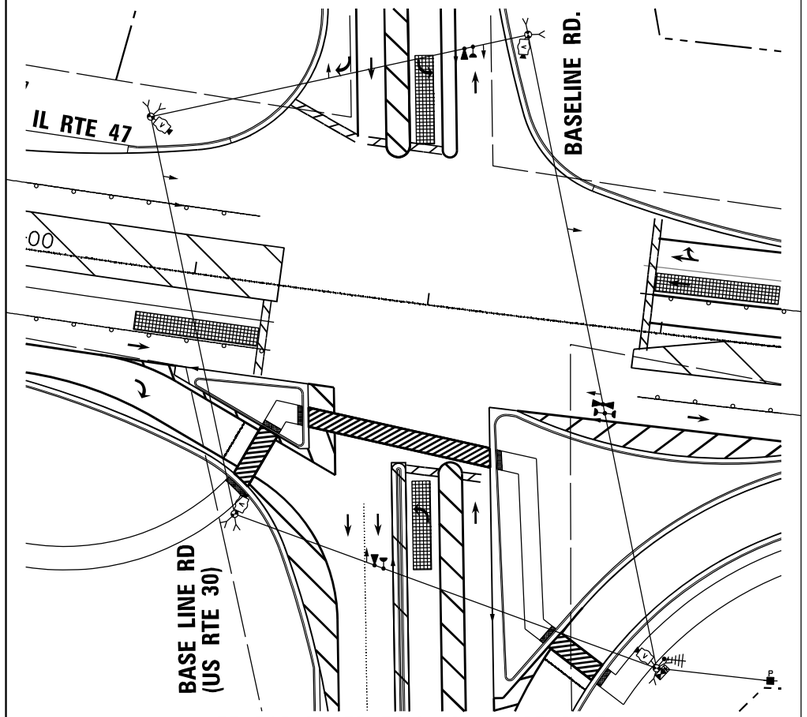
TEMPORARY TRAFFIC SIGNAL STAGE 1



TEMPORARY TRAFFIC SIGNAL STAGE 1B AND 1C



TEMPORARY TRAFFIC SIGNAL PRESTAGE 2 & 2



TEMPORARY TRAFFIC SIGNAL STAGE 3

CONSTRUCTION NOTES:

(1) THE SIGNAL HEAD SHALL BE BAGGED AND DISABLED DURING THIS STAGE.

TS 700
IDOT TACTICS
FORMER EAGLE 8K

TS SHT NO. 27

AMES Engineering, Inc.
CONSULTING ENGINEERS
6330 Belmont Road, Suite 4B
Downers Grove, IL 60516

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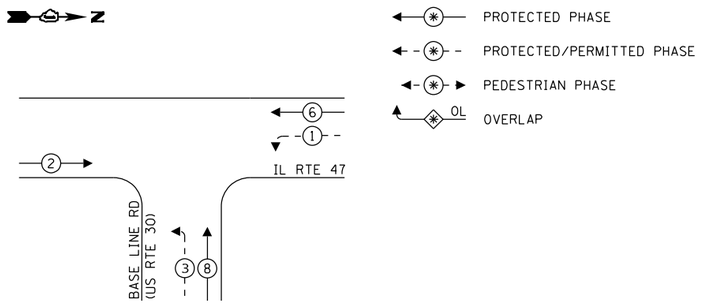
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNAL INSTALLATION
STAGE CONSTRUCTION PLAN
IL RTE 47 AND BASELINE ROAD /BASE LINE RD (US RTE 30)

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

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	2020-198-W&T	KANE	531	340
		CONTRACT NO. 62M71		
		ILLINOIS	FED. AID PROJECT	

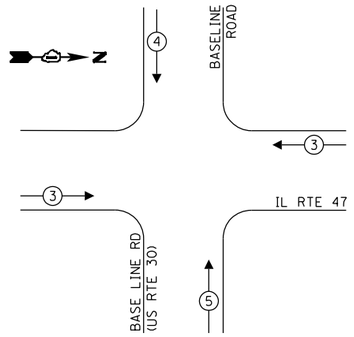
STAGES 1 & 2
TEMPORARY CONTROLLER SEQUENCE



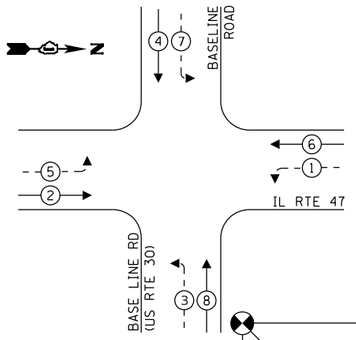
LEGEND:

- PROTECTED PHASE
- PROTECTED/PERMITTED PHASE
- PEDESTRIAN PHASE
- OL OVERLAP

STAGES 1, 2 & 3
TEMPORARY EMERGENCY VEHICLE PREEMPTION SEQUENCE

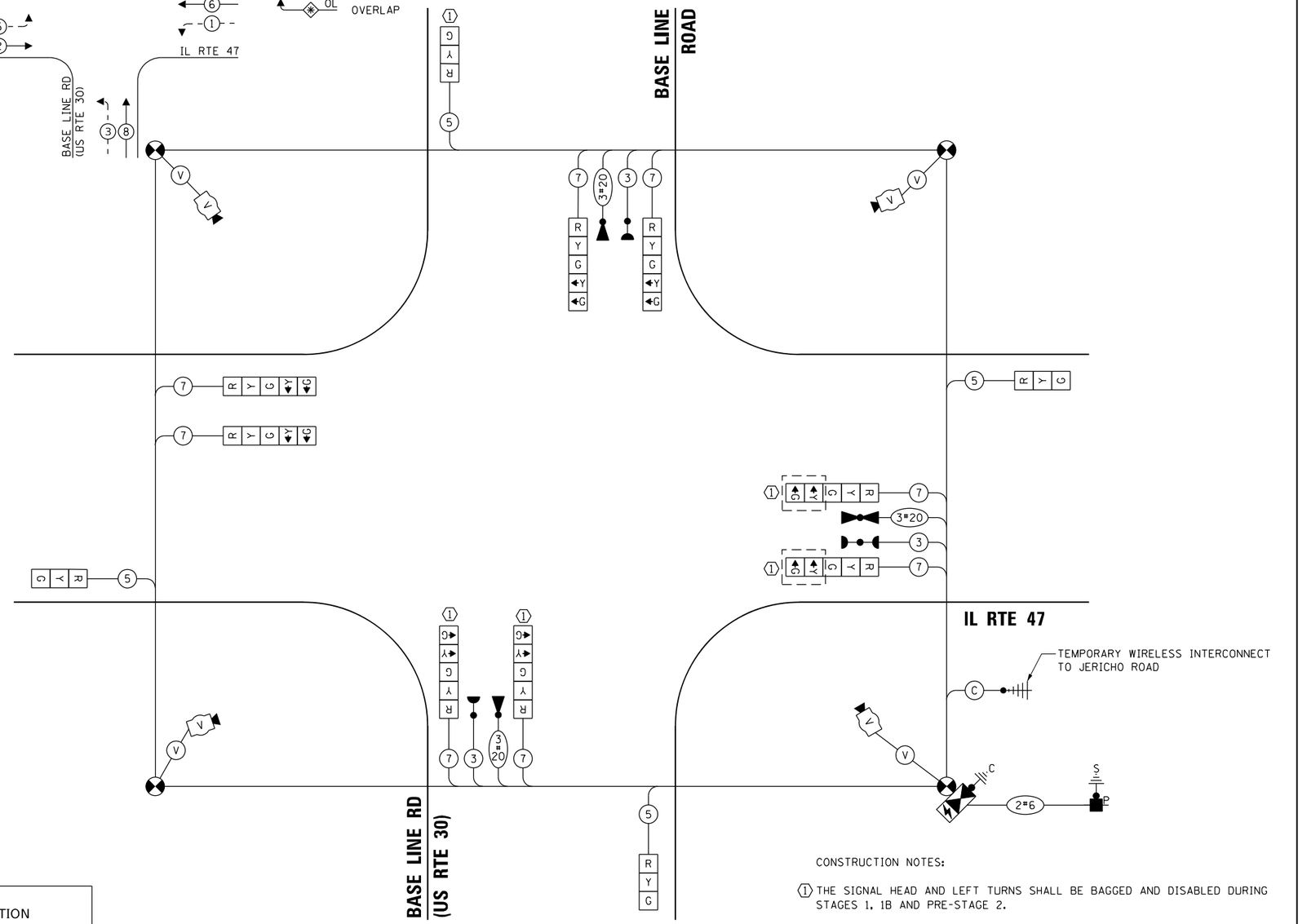


STAGE 3
TEMPORARY CONTROLLER SEQUENCE



LEGEND:

- PROTECTED PHASE
- PROTECTED/PERMITTED PHASE
- PEDESTRIAN PHASE
- OL OVERLAP



CONSTRUCTION NOTES:

1. THE SIGNAL HEAD AND LEFT TURNS SHALL BE BAGGED AND DISABLED DURING STAGES 1, 1B AND PRE-STAGE 2.

TEMPORARY CABLE PLAN
(NOT TO SCALE)

TS 700
IDOT TACTICS
FORMER EAGLE 8K

TS SHT NO. 31

TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS

EQUIPMENT TYPE	QUANTITY	UNIT WATTAGE	TOTAL WATTAGE
SIGNAL HEAD 1 OR 3-SECTION	4	11	44
4-SECTION	-	14	-
5-SECTION	8	13	104
PROGRAMMABLE 3-SECTION	-	22	-
4-SECTION	-	32	-
5-SECTION	-	28	-
PEDESTRIAN SIGNAL	-	15	-
CONTROLLER	1	150	150
MASTER CONTROLLER	-	100	-
UPS	1	25	25
DETECTION RADAR OR VIDEO	4	20	80
BLANK-OUT SIGN	-	25	-
NETWORK SWITCH II OR III	-	35	-
CELLULAR MODEM	-	15	-
TOTAL UPS SIZING			403
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			1008

ENERGY COSTS TO:
ILLINOIS DEPARTMENT OF TRANSPORTATION
201 W. CENTER COURT
SCHAUMBURG, IL 60196

ENERGY SUPPLY: CONTACT: JAMIE GADDIS
PHONE: (630) 294-4732
COMPANY: COMED
ACCOUNT NUMBER: 5777485000
METER NUMBER: ---

AMES Engineering, Inc.
CONSULTING ENGINEERS
6330 Belmont Road, Suite 4B
Downers Grove, IL 60516

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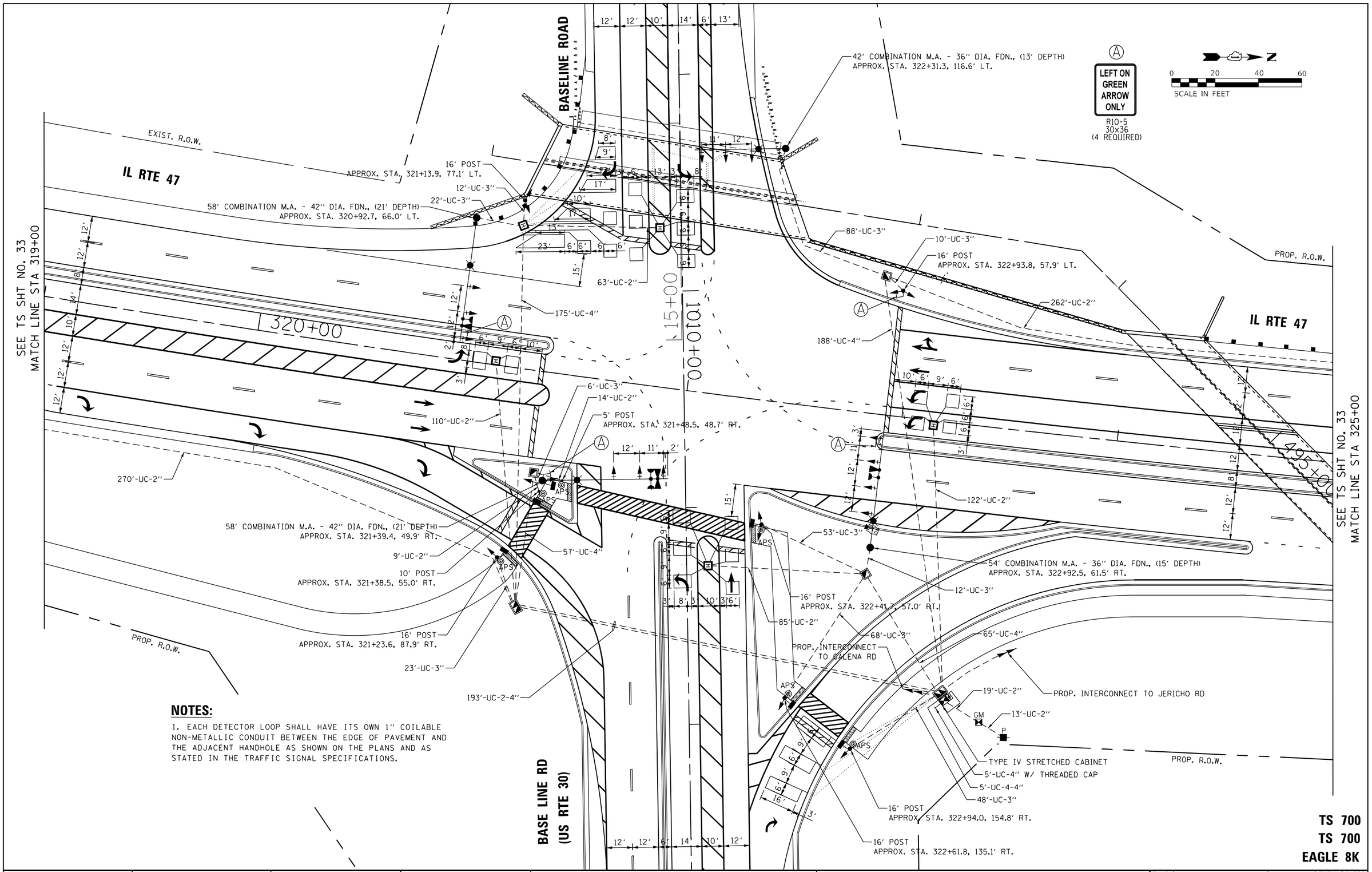
PLOT SCALE = $SCALE$	CHECKED - AS	REVISED -
PLOT DATE = 3/6/2026	DATE - 05-30-2025	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ALL STAGES TEMPORARY CABLE PLAN, TEMPORARY PHASE DESIGNATION DIAGRAM, AND TEMPORARY EMERGENCY VEHICLE PREEMPTION SEQUENCE
IL RTE 47 AND BASE LINE ROAD /US RTE 30

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

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	2020-198-W&T	KANE	531	341
		CONTRACT NO. 62M71		
	ILLINOIS FED. AID PROJECT			



NOTES:

1. EACH DETECTOR LOOP SHALL HAVE ITS OWN 1" COILABLE NON-METALLIC CONDUIT BETWEEN THE EDGE OF PAVEMENT AND THE ADJACENT HANDHOLE AS SHOWN ON THE PLANS AND AS STATED IN THE TRAFFIC SIGNAL SPECIFICATIONS.

AMES Engineering, Inc.
CONSULTING ENGINEERS
6330 Belmont Road, Suite 4B
Downers Grove, IL 60516

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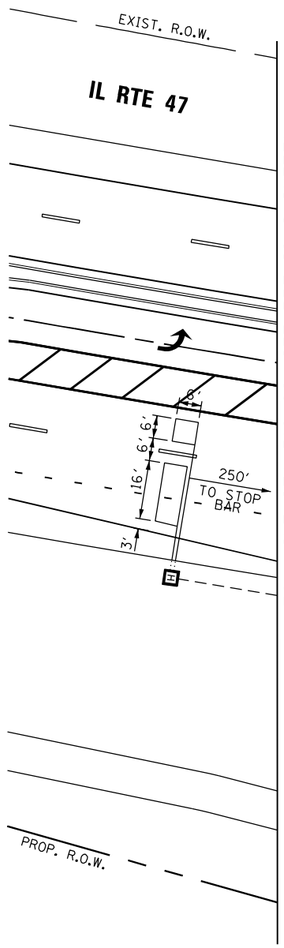
PLOT DATE = 3/6/2026	DATE - 05-30-2025	REVISED -

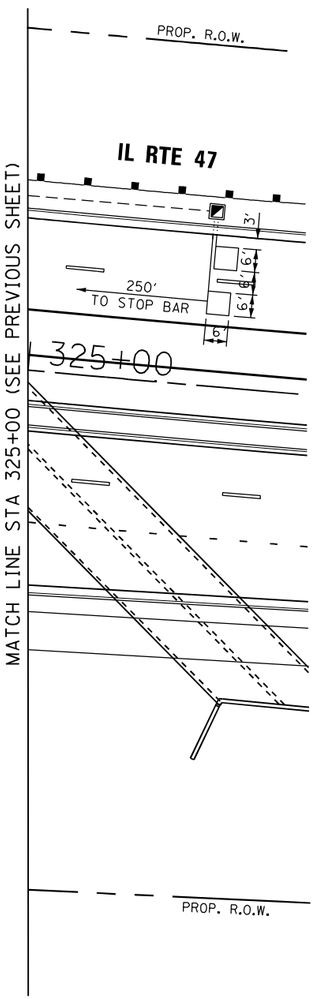
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL INSTALLATION PLAN – SHEET 1 OF 2
IL RTE 47 AND BASE LINE ROAD /US RTE 30

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

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	2020-198-W&T	KANE	531	342
		CONTRACT NO. 62M71		
		ILLINOIS FED. AID PROJECT		





TS SHT NO. 33

TS 700
TS 700
EAGLE 8K

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CONSULTING ENGINEERS
6330 Belmont Road, Suite 4B
Downers Grove, IL 60516

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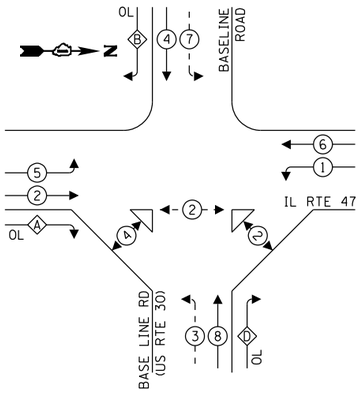
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL INSTALLATION PLAN – SHEET 2 OF 2
IL RTE 47 AND BASE LINE ROAD /US RTE 30

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

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	2020-198-W&T	KANE	531	343
		CONTRACT NO. 62M71		
	ILLINOIS FED. AID PROJECT			

PROPOSED CONTROLLER SEQUENCE



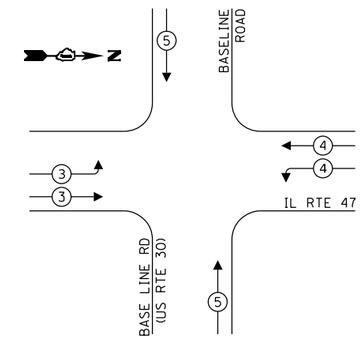
LEGEND:

- PROTECTED PHASE
- PROTECTED/PERMITTED PHASE
- PEDESTRIAN PHASE
- OL OVERLAP

RIGHT TURN OVERLAP PHASE DESIGNATION:

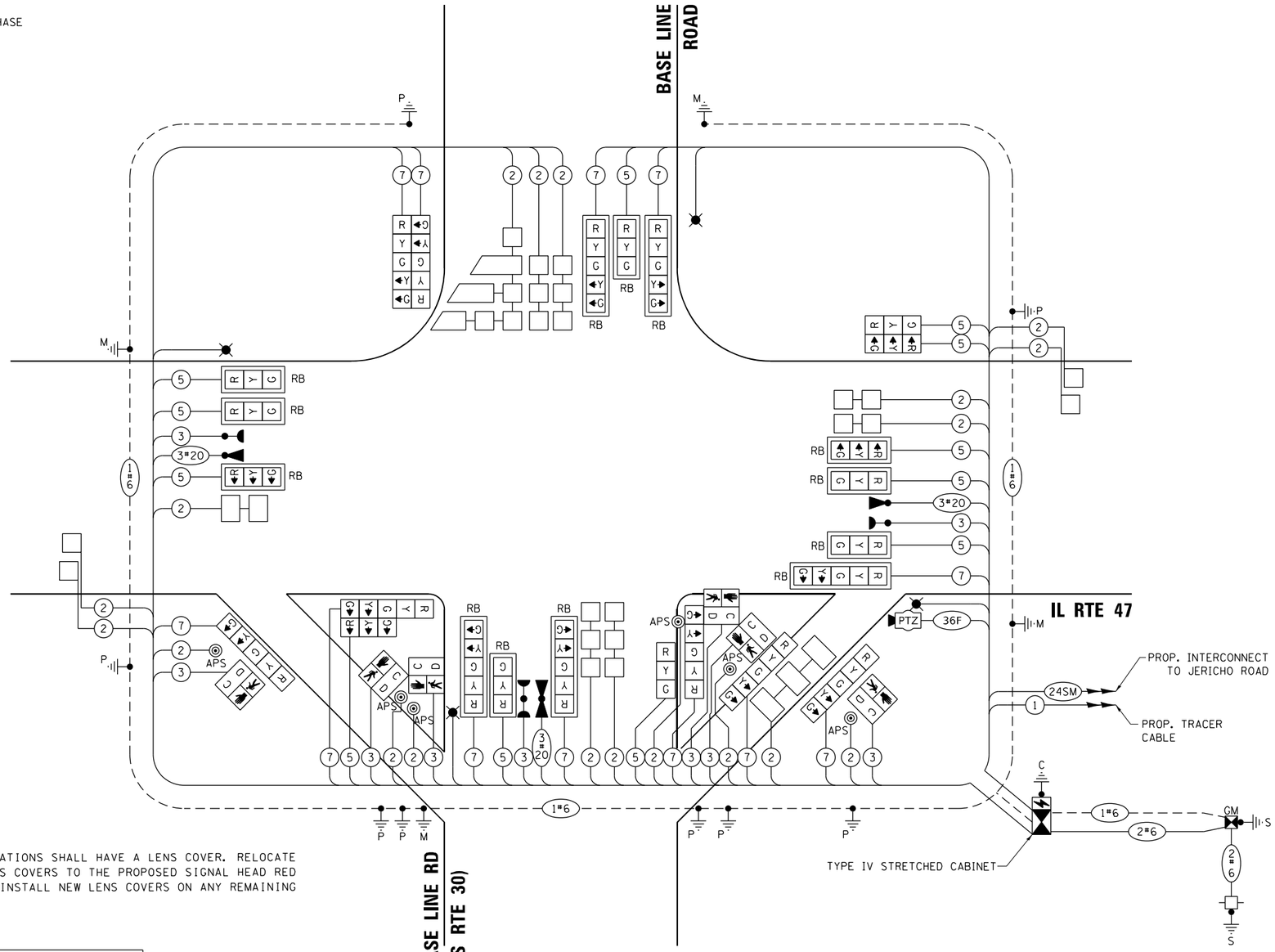
OVERLAP LETTER		PERMISSIVE PHASE		PROTECTED PHASE
A	=	2	+	3
B	=	4	+	5
D	=	8	+	1

PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE



TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS

EQUIPMENT TYPE	QUANTITY	UNIT WATTAGE	TOTAL WATTAGE
SIGNAL HEAD 1 OR 3-SECTION	11	11	121
4-SECTION	-	14	-
5-SECTION	12	13	156
PROGRAMMABLE 3-SECTION	-	22	-
4-SECTION	-	32	-
5-SECTION	-	28	-
PEDESTRIAN SIGNAL	6	15	90
CONTROLLER	1	150	150
MASTER CONTROLLER	-	100	-
UPS	1	25	25
DETECTION RADAR OR VIDEO	-	20	-
BLANK-OUT SIGN	-	25	-
NETWORK SWITCH II OR III	1	35	35
CELLULAR MODEM	-	15	-
TOTAL UPS SIZING			577
UPS CHARGING	1	225	225
BATTERY HEATER MAT	1	180	180
CABINET HEATER	1	200	200
FLASHER	-	15	-
LED STREET NAME SIGN	-	120	-
LUMINAIRE	4	240	960
TOTAL SERVICE WIRE SIZING			2142



CABLE PLAN
(NOT TO SCALE)

NOTES:

1. ALL RED INDICATIONS SHALL HAVE A LENS COVER. RELOCATE ALL EXISTING LENS COVERS TO THE PROPOSED SIGNAL HEAD RED INDICATIONS AND INSTALL NEW LENS COVERS ON ANY REMAINING RED INDICATIONS.

ENERGY COSTS TO:
ILLINOIS DEPARTMENT OF TRANSPORTATION
201 W CENTER COURT
SCHAUMBURG, IL 60196

ENERGY SUPPLY: CONTACT: JAMIE GADDIS
PHONE: (630) 294-4732
COMPANY: COMED
ACCOUNT NUMBER: 5777485000
METER NUMBER: ---

TS SHT NO. 34

TS 700
TS 700
EAGLE 8K

AMES Engineering, Inc.
CONSULTING ENGINEERS
6330 Belmont Road, Suite 4B
Downers Grove, IL 60516

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

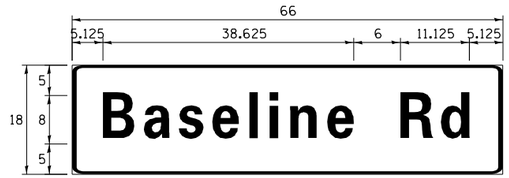
CABLE PLAN, PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE
IL RTE 47 AND BASE LINE ROAD /US RTE 30

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

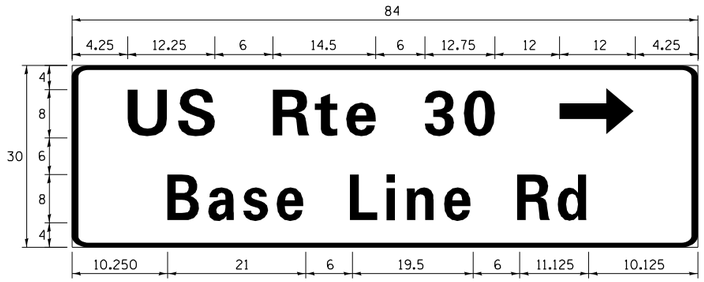
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	2020-198-W&T	KANE	531	344
		CONTRACT NO. 62M71		
		ILLINOIS FED. AID PROJECT		

SIGN PANEL – TYPE 1 OR TYPE 2

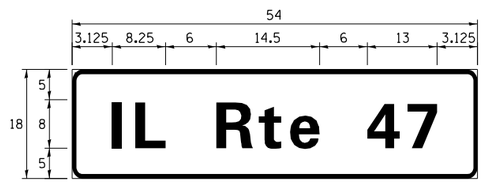
ALL DIMENSIONS ARE IN INCHES UNLESS NOTED OTHERWISE



DESIGN SERIES	AREA (SQ FT)	SIGN PANEL TYPE	SHEETING TYPE	QTY. REQUIRED
D	8.25	1	ZZ	2



DESIGN SERIES	AREA (SQ FT)	SIGN PANEL TYPE	SHEETING TYPE	QTY. REQUIRED
D	17.5	2	ZZ	1



DESIGN SERIES	AREA (SQ FT)	SIGN PANEL TYPE	SHEETING TYPE	QTY. REQUIRED
D	6.75	1	ZZ	2

NOTE: FOR ADDITIONAL DESIGN AND INSTALLATION INFORMATION PLEASE SEE DISTRICT ONE MAST ARM MOUNTED STREET NAME SIGNS DETAIL.

SCHEDULE OF QUANTITIES

ITEM DESCRIPTION	UNITS	TOTAL QTY.
SIGN PANEL - TYPE 1	SQ FT	30
SIGN PANEL - TYPE 2	SQ FT	17.5
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	966
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	349
UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	891
HANDHOLE	EACH	5
HEAVY-DUTY HANDHOLE	EACH	5
DOUBLE HANDHOLE	EACH	2
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	1,300
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	2,368
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	3,437
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	3,510
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	4,353
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	51
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	1,206
TRAFFIC SIGNAL POST, 16 FT.	EACH	6
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE, 42 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE, 54 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE, 58 FT.	EACH	2
CONCRETE FOUNDATION, TYPE A	FOOT	28
CONCRETE FOUNDATION, TYPE C	FOOT	4
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	28
CONCRETE FOUNDATION, TYPE E 42-INCH DIAMETER	FOOT	42
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	7
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	3
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	7
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	5
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	6
TRAFFIC SIGNAL BACKPLATE, RETROREFLECTIVE	EACH	12
INDUCTIVE LOOP DETECTOR	EACH	13
DETECTOR LOOP, TYPE I	EACH	1286
• LIGHT DETECTOR	FOOT	3
• LIGHT DETECTOR AMPLIFIER	EACH	1
TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	15
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	39
REMOVE EXISTING HANDHOLE	EACH	7
REMOVE EXISTING DOUBLE HANDHOLE	EACH	2
REMOVE EXISTING CONCRETE FOUNDATION	EACH	8
• EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3C	FOOT	1,054
OUTDOOR RATED NETWORK CABLE	FOOT	153
NETWORK SWITCH	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV STRETCHED CABINET (SPECIAL)	EACH	1
SERVICE INSTALLATION - GROUND MOUNTED, METERED	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1
FIBER OPTIC INTERCONNECT CENTER, 24 PORT	EACH	1
ACCESSIBLE PEDESTRIAN SIGNALS	EACH	6
TEMPORARY TRAFFIC SIGNAL TIMING	EACH	1
PEDESTRIAN SIGNAL POST, 5'	EACH	1
CONCRETE FOUNDATION, TYPE A, 12-INCH DIAMETER	FOOT	4
LED SIGNAL FACE, LENS COVER	EACH	10

• 100% COST TO THE CITY OF YORKVILLE

TS SHT NO. 35

TS 700
TS 700
EAGLE 8K

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MAST ARM MOUNTED STREET NAME SIGNS AND SCHEDULE OF QUANTITIES
IL RTE 47 AND BASE LINE ROAD /US RTE 30

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

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	2020-198-W&T	KANE	531	345
		CONTRACT NO. 62M71		
		ILLINOIS FED. AID PROJECT		

REMOVAL AND RELOCATION NOTES:

THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

4	EACH	MAST ARM ASSEMBLY AND POST
4	EACH	TRAFFIC SIGNAL POST
8	EACH	3-SECTION SIGNAL HEAD
4	EACH	5-SECTION SIGNAL HEAD
1	EACH	SERVICE INSTALLATION

THE FOLLOWING ITEMS SHALL BE RELOCATED TO THE TEMPORARY SIGNAL INSTALLATION AND THEN RELOCATED TO THE PROPOSED TRAFFIC SIGNAL CABINET:

1	EACH	MASTER CONTROLLER

THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE RETURNED TO THE STATE SPARE PART DEPARTMENT.

1	EACH	CABINET

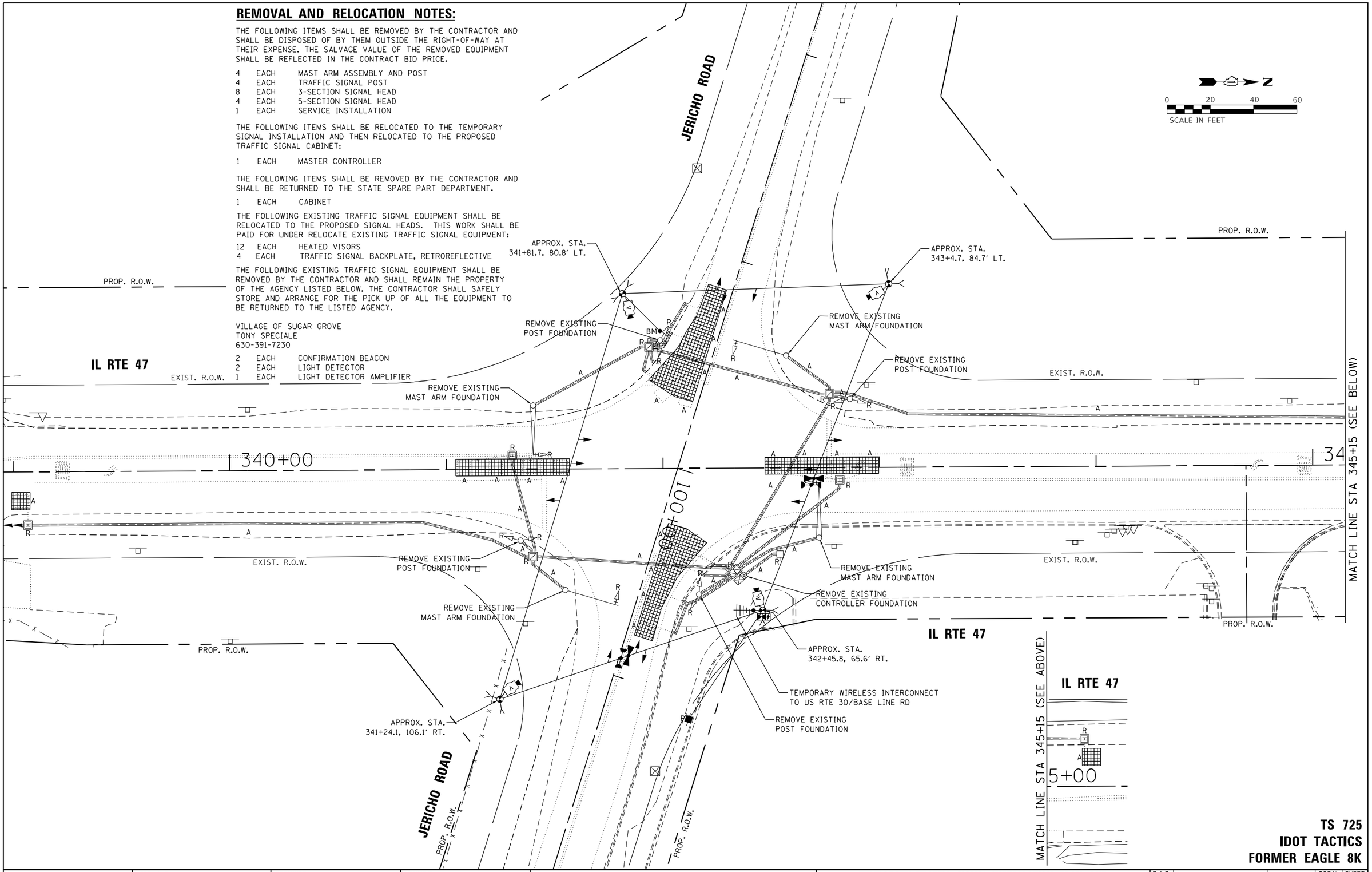
THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE RELOCATED TO THE PROPOSED SIGNAL HEADS. THIS WORK SHALL BE PAID FOR UNDER RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT:

12	EACH	HEATED VISORS
4	EACH	TRAFFIC SIGNAL BACKPLATE, RETROREFLECTIVE

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR AND SHALL REMAIN THE PROPERTY OF THE AGENCY LISTED BELOW. THE CONTRACTOR SHALL SAFELY STORE AND ARRANGE FOR THE PICK UP OF ALL THE EQUIPMENT TO BE RETURNED TO THE LISTED AGENCY.

VILLAGE OF SUGAR GROVE
TONY SPECIALE
630-391-7230

2	EACH	CONFIRMATION BEACON
2	EACH	LIGHT DETECTOR
1	EACH	LIGHT DETECTOR AMPLIFIER



TS SHT NO. 30

TS 725
IDOT TACTICS
FORMER EAGLE 8K

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CONSULTING ENGINEERS
6330 Belmont Road, Suite 4B
Downers Grove, IL 60516

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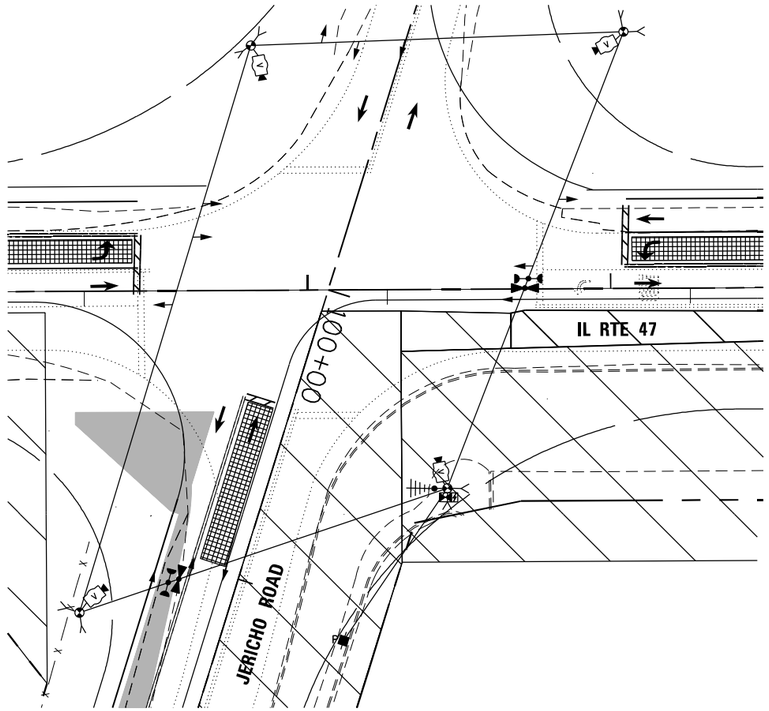
PLOT DATE = 3/6/2026	DATE - 05-30-2025	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

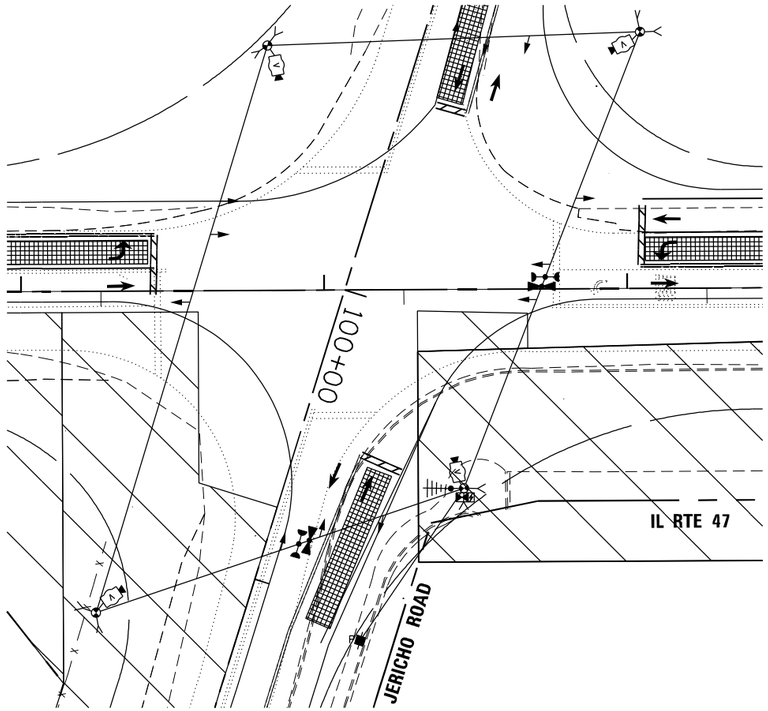
TEMPORARY TRAFFIC SIGNAL INSTALLATION PLAN AND REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT PLAN
IL RTE 47 AND JERICHO ROAD

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

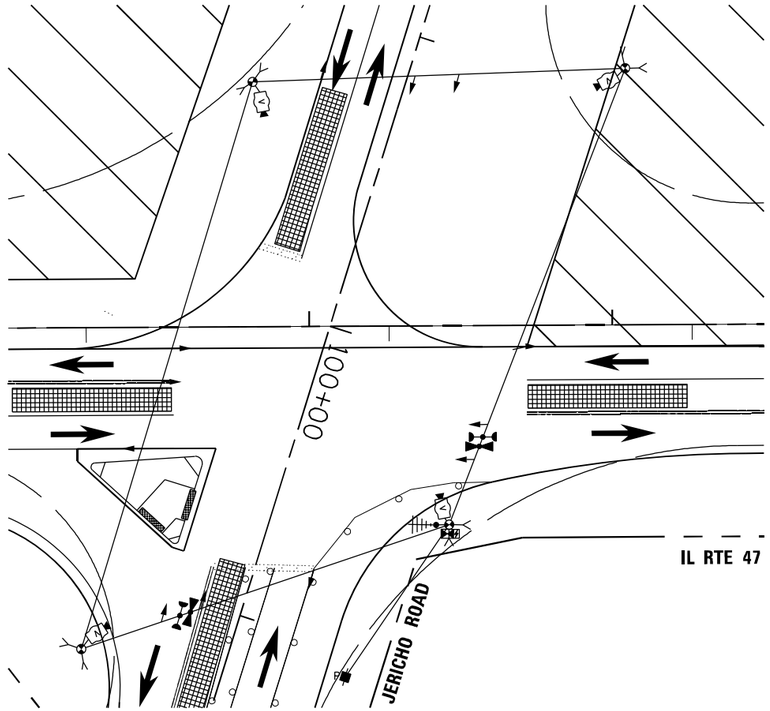
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	2020-198-W&T	KANE	531	346
		CONTRACT NO. 62M71		
	ILLINOIS FED. AID PROJECT			



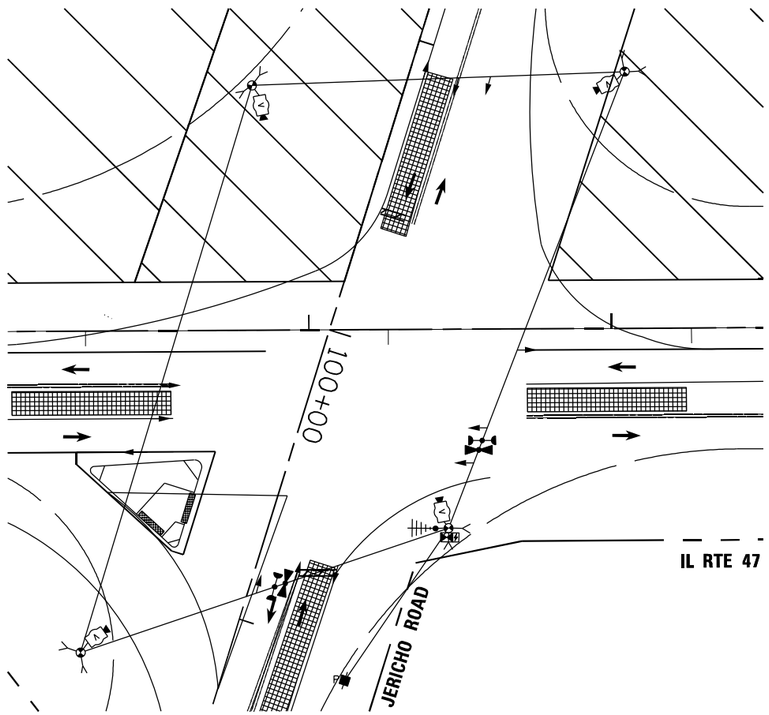
TEMPORARY TRAFFIC SIGNAL STAGE 1



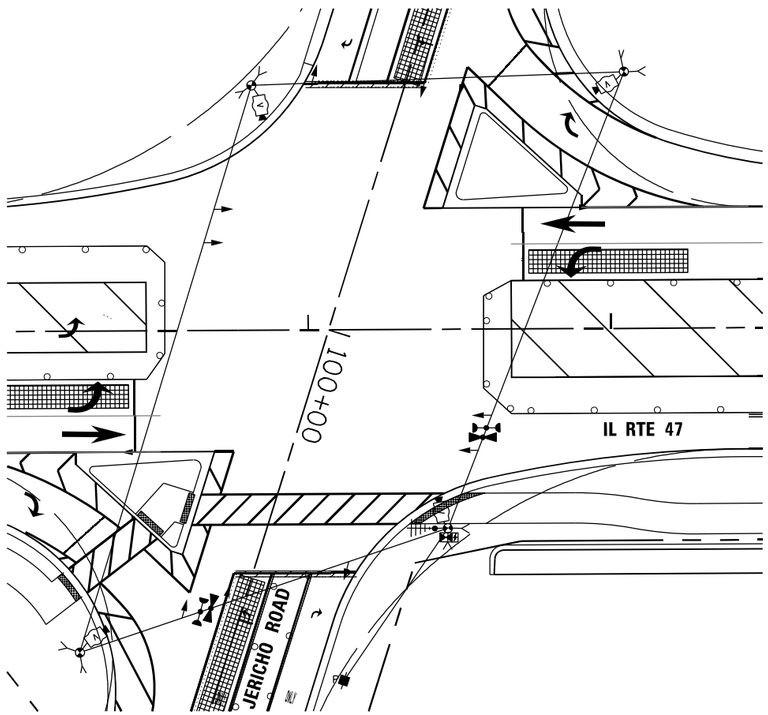
TEMPORARY TRAFFIC SIGNAL STAGE 1b



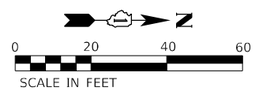
TEMPORARY TRAFFIC SIGNAL STAGE 2



TEMPORARY TRAFFIC SIGNAL STAGE 2b



TEMPORARY TRAFFIC SIGNAL STAGE 3



TS 725
IDOT TACTICS
FORMER EAGLE 8K

TS SHT NO. 31

AMES Engineering, Inc.
CONSULTING ENGINEERS
6330 Belmont Road, Suite 4B
Downers Grove, IL 60516

USER NAME = mdeitche	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = $SCALE$	CHECKED -	REVISED -
PLOT DATE = 3/6/2026	DATE - 05-30-2025	REVISED -

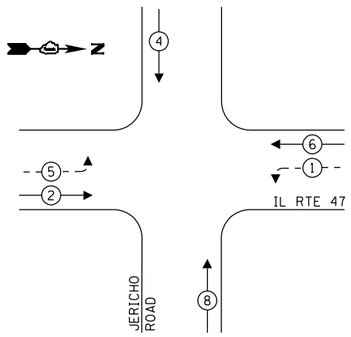
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNAL INSTALLATION
STAGE CONSTRUCTION PLAN
IL RTE 47 AND JERICHO ROAD

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

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	2020-198-W&T	KANE	531	347
		CONTRACT NO. 62M71		
	ILLINOIS	FED. AID PROJECT		

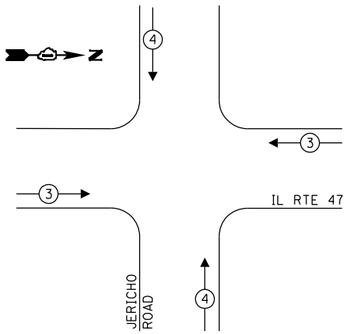
STAGES 1 & 3
TEMPORARY CONTROLLER SEQUENCE



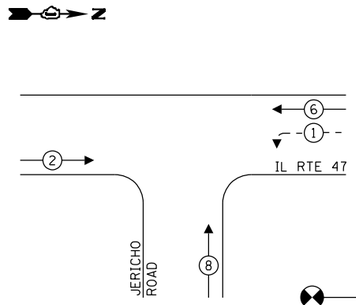
LEGEND:

- PROTECTED PHASE
- PROTECTED/PERMITTED PHASE
- PEDESTRIAN PHASE
- OL OVERLAP

STAGES 1, 2 & 3
TEMPORARY EMERGENCY VEHICLE PREEMPTION SEQUENCE

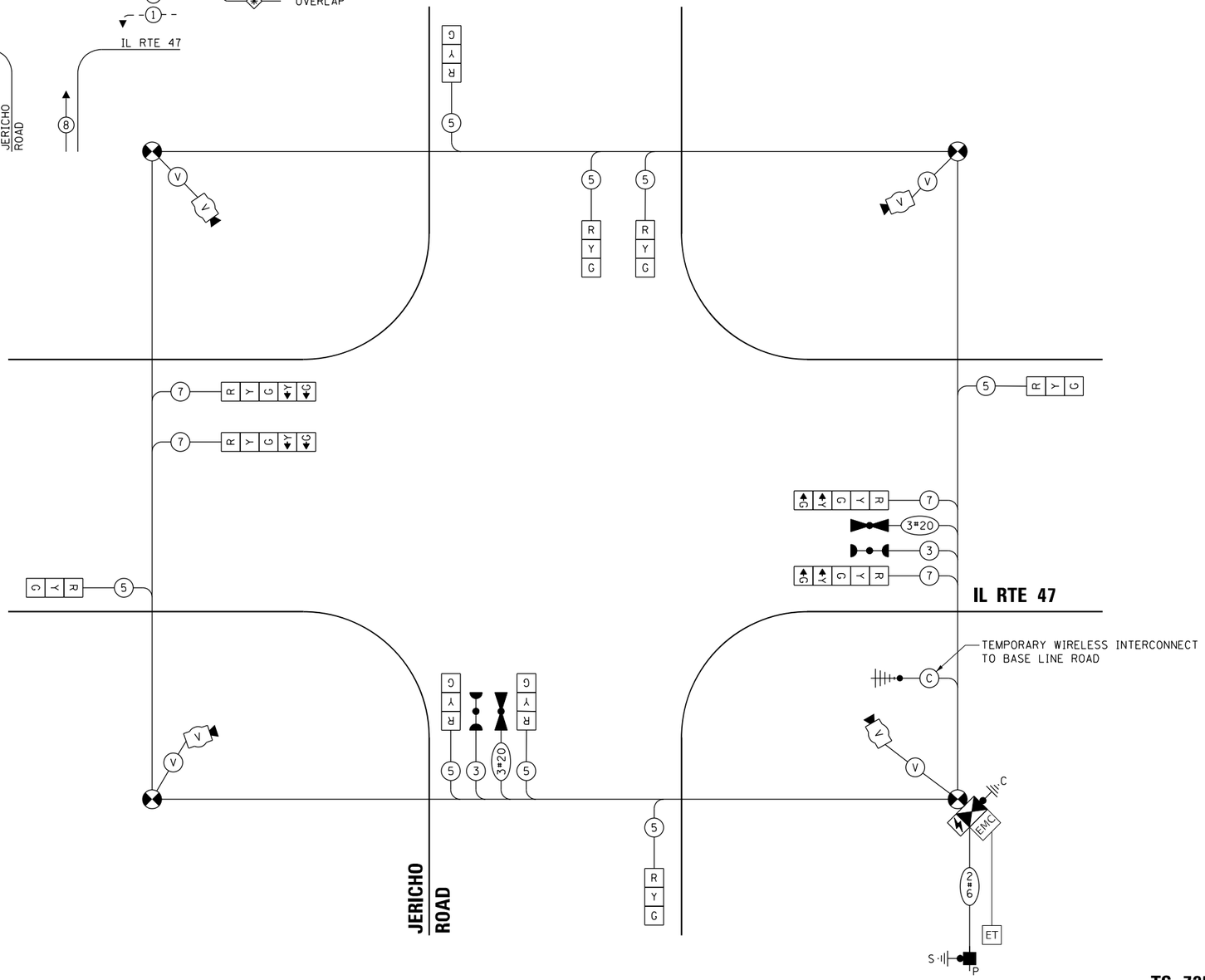


STAGES 2 & 2B
TEMPORARY CONTROLLER SEQUENCE



LEGEND:

- PROTECTED PHASE
- PROTECTED/PERMITTED PHASE
- PEDESTRIAN PHASE
- OL OVERLAP



TEMPORARY CABLE PLAN
(NOT TO SCALE)

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	4	13	52
PROGRAMMABLE 3-SECTION	-	22	-
4-SECTION	-	32	-
5-SECTION	-	28	-
PEDESTRIAN SIGNAL	-	15	-
CONTROLLER	1	150	150
MASTER CONTROLLER	1	100	100
UPS	1	25	25
DETECTION RADAR OR VIDEO	4	20	80
BLANK-OUT SIGN	-	25	-
NETWORK SWITCH II OR III	-	35	-
CELLULAR MODEM	-	15	-
TOTAL UPS SIZING			495
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			1100

ENERGY COSTS TO:
ILLINOIS DEPARTMENT OF TRANSPORTATION
201 W CENTER COURT
SCHAUMBURG, IL 60196

ENERGY SUPPLY: CONTACT: CASSIE EVANS
PHONE: (773) 241-0741
COMPANY: COMED
ACCOUNT NUMBER: 7076242111
METER NUMBER: ---

TS SHT NO. 32

AMES Engineering, Inc.
CONSULTING ENGINEERS
6330 Belmont Road, Suite 4B
Downers Grove, IL 60516

USER NAME = mdeitche	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = $SCALE$	CHECKED -	REVISED -
PLOT DATE = 3/6/2026	DATE - 05-30-2025	REVISED -

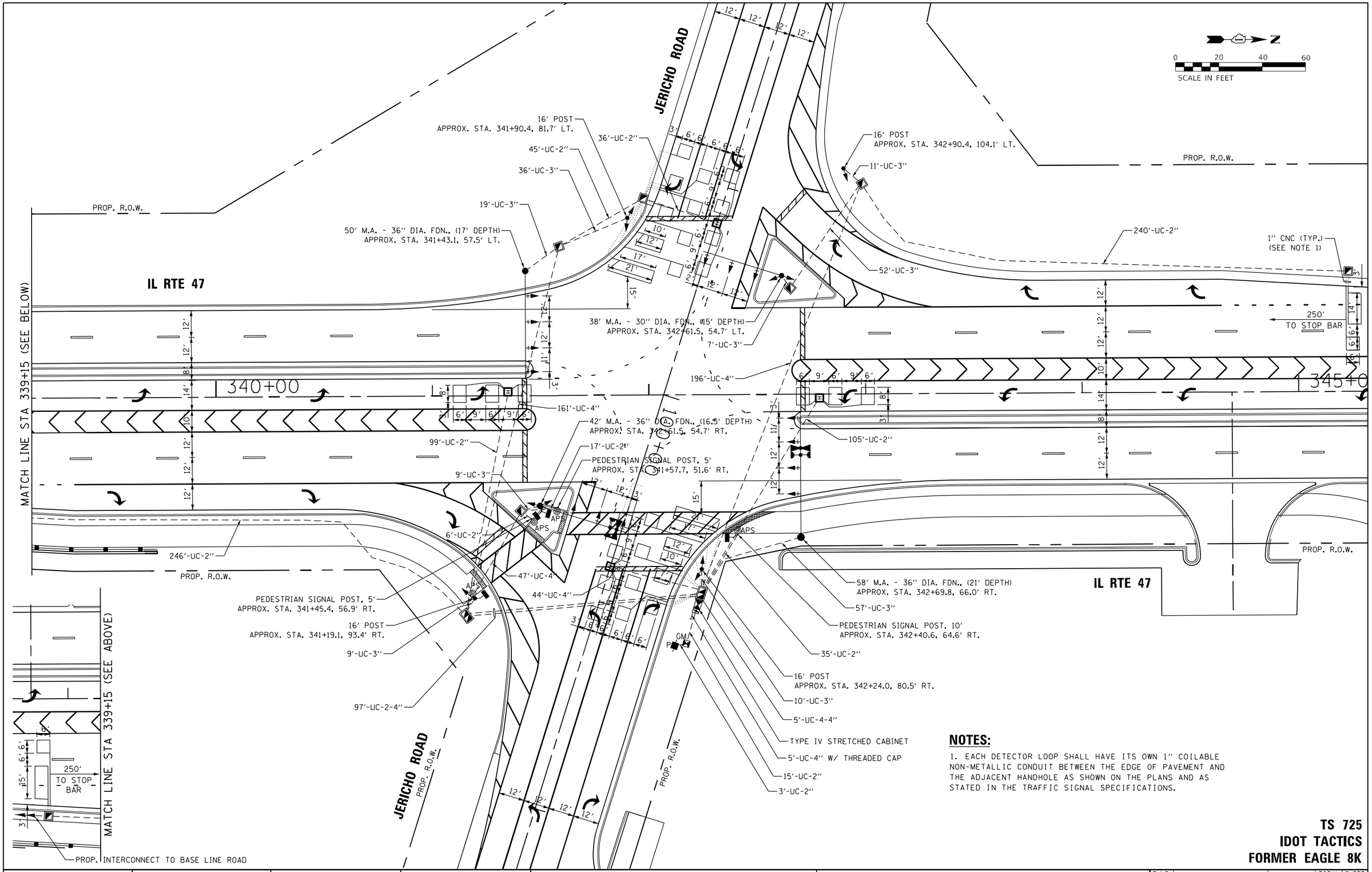
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ALL STAGES TEMPORARY CABLE PLAN, TEMPORARY PHASE DESIGNATION DIAGRAM, AND TEMPORARY EMERGENCY VEHICLE PREEMPTION SEQUENCE
IL RTE 47 AND JERICHO ROAD

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

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	2020-198-W&T	KANE	531	348
		CONTRACT NO. 62M71		
		ILLINOIS FED. AID PROJECT		

TS 725
IDOT TACTICS
FORMER EAGLE 8K



NOTES:

1. EACH DETECTOR LOOP SHALL HAVE ITS OWN 1" COILABLE NON-METALLIC CONDUIT BETWEEN THE EDGE OF PAVEMENT AND THE ADJACENT HANDHOLE AS SHOWN ON THE PLANS AND AS STATED IN THE TRAFFIC SIGNAL SPECIFICATIONS.

TS SHT NO. 33

TS 725
IDOT TACTICS
FORMER EAGLE 8K

AMES Engineering, Inc.
CONSULTING ENGINEERS
6330 Belmont Road, Suite 4B
Downers Grove, IL 60516

USER NAME = mdeitche	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = $SCALE$	CHECKED -	REVISED -
PLOT DATE = 3/6/2026	DATE - 05-30-2025	REVISED -

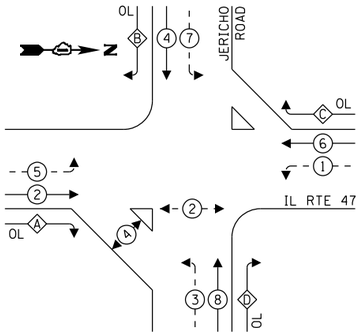
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL INSTALLATION PLAN
IL RTE 47 AND JERICHO ROAD

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

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	2020-198-W&T	KANE	531	349
		CONTRACT NO. 62M71		
	ILLINOIS FED. AID PROJECT			

PROPOSED CONTROLLER SEQUENCE



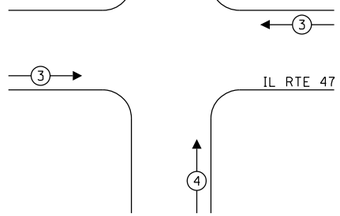
LEGEND:

- PROTECTED PHASE
- PROTECTED/PERMITTED PHASE
- PEDESTRIAN PHASE
- OL OVERLAP

RIGHT TURN OVERLAP PHASE DESIGNATION:

OVERLAP LETTER		PERMISSIVE PHASE		PROTECTED PHASE
A	=	2	+	3
B	=	4	+	5
C	=	6	+	7
D	=	8	+	1

PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE

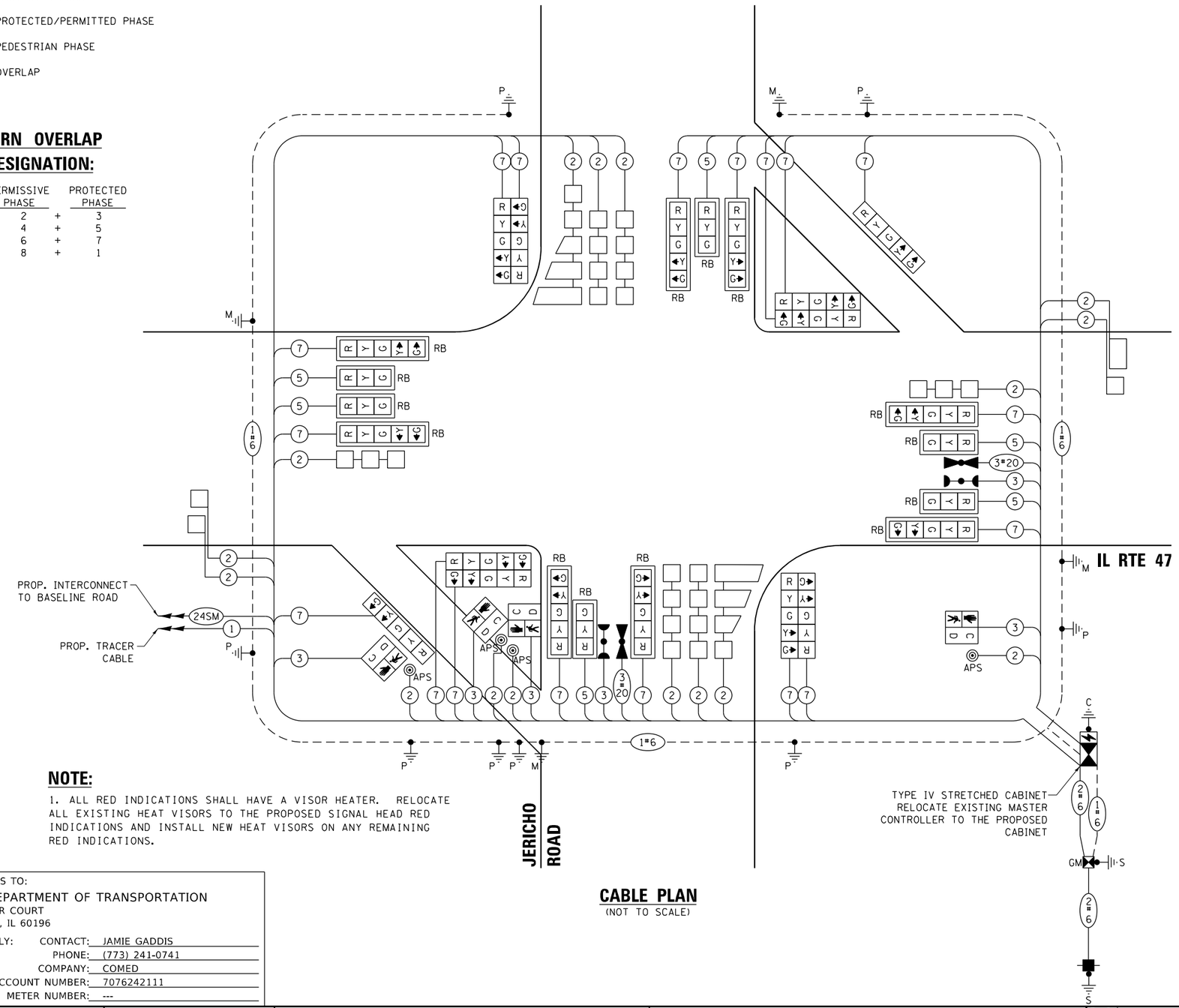


TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS

EQUIPMENT TYPE	QUANTITY	UNIT WATTAGE	TOTAL WATTAGE
SIGNAL HEAD 1 OR 3-SECTION	6	11	66
4-SECTION	-	14	-
5-SECTION	18	13	234
PROGRAMMABLE 3-SECTION	-	22	-
4-SECTION	-	32	-
5-SECTION	-	28	-
PEDESTRIAN SIGNAL	4	15	60
CONTROLLER	1	150	150
MASTER CONTROLLER	1	100	100
UPS	1	25	25
DETECTION RADAR OR VIDEO	-	20	-
BLANK-OUT SIGN	-	25	-
NETWORK SWITCH II OR III	1	35	35
CELLULAR MODEM	1	15	15
TOTAL UPS SIZING			685
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			1290

ENERGY COSTS TO:
ILLINOIS DEPARTMENT OF TRANSPORTATION
201 W CENTER COURT
SCHAUMBURG, IL 60196

ENERGY SUPPLY: CONTACT: JAMIE GADDIS
PHONE: (773) 241-0741
COMPANY: COMED
ACCOUNT NUMBER: 7076242111
METER NUMBER: ---



NOTE:

1. ALL RED INDICATIONS SHALL HAVE A VISOR HEATER. RELOCATE ALL EXISTING HEAT VISORS TO THE PROPOSED SIGNAL HEAD RED INDICATIONS AND INSTALL NEW HEAT VISORS ON ANY REMAINING RED INDICATIONS.

CABLE PLAN
(NOT TO SCALE)

TS 725
IDOT TACTICS
FORMER EAGLE 8K

TS SHT NO. 34

AMES Engineering, Inc.
CONSULTING ENGINEERS
6330 Belmont Road, Suite 4B
Downers Grove, IL 60516

USER NAME = mdeitche	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = $SCALE$	CHECKED -	REVISED -
PLOT DATE = 3/6/2026	DATE - 05-30-2025	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

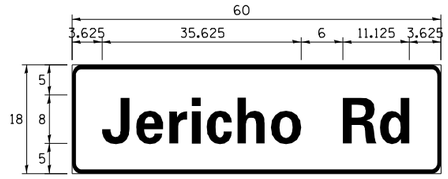
CABLE PLAN, PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE
IL RTE 47 AND JERICHO ROAD

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

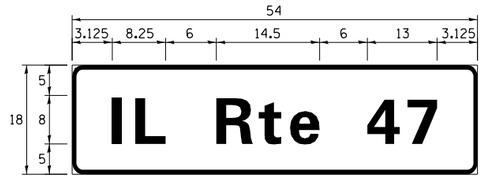
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	2020-198-W&T	KANE	531	350
		CONTRACT NO. 62M71		
		ILLINOIS FED. AID PROJECT		

SIGN PANEL – TYPE 1 OR TYPE 2

ALL DIMENSIONS ARE IN INCHES UNLESS NOTED OTHERWISE



DESIGN SERIES	AREA (SQ FT)	SIGN PANEL TYPE	SHEETING TYPE	QTY. REQUIRED
D	7.5	1	ZZ	2



DESIGN SERIES	AREA (SQ FT)	SIGN PANEL TYPE	SHEETING TYPE	QTY. REQUIRED
D	6.75	1	ZZ	2

NOTE: FOR ADDITIONAL DESIGN AND INSTALLATION INFORMATION PLEASE SEE DISTRICT ONE MAST ARM MOUNTED STREET NAME SIGNS DETAIL.

SCHEDULE OF QUANTITIES

ITEM DESCRIPTION	UNITS	TOTAL QTY.
SIGN PANEL - TYPE 1	SQ FT	28.5
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	891
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	210
UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	623
HANDHOLE	EACH	7
HEAVY-DUTY HANDHOLE	EACH	4
DOUBLE HANDHOLE	EACH	2
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	634
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	1,051
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	1,288
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	4,499
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	3,281
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	67
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	1,077
TRAFFIC SIGNAL POST, 16 FT.	EACH	4
STEEL MAST ARM ASSEMBLY AND POLE, 38 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 42 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 50 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 58 FT.	EACH	1
CONCRETE FOUNDATION, TYPE A	FOOT	20
CONCRETE FOUNDATION, TYPE C	FOOT	4
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	69.5
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	6
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	10
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	8
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	4
TRAFFIC SIGNAL BACKPLATE, RETROREFLECTIVE	EACH	12
INDUCTIVE LOOP DETECTOR	EACH	12
DETECTOR LOOP, TYPE I	FOOT	1084
• LIGHT DETECTOR	EACH	2
• LIGHT DETECTOR AMPLIFIER	EACH	1
TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	12
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	21
REMOVE EXISTING HANDHOLE	EACH	7
REMOVE EXISTING DOUBLE HANDHOLE	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	9
• EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	396
CELLULAR MODEM	EACH	1
SERVICE INSTALLATION - GROUND MOUNTED, METERED	EACH	1
PEDESTRIAN SIGNAL POST, 10'	EACH	1
PEDESTRIAN SIGNAL POST, 5'	EACH	2
NETWORK SWITCH	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV STRETCHED CABINET (SPECIAL)	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1
TEMPORARY TRAFFIC SIGNAL TIMING	EACH	1
FIBER OPTIC INTERCONNECT CENTER, 24 PORT	EACH	1
LED SIGNAL FACE, VISOR HEATER	EACH	12
ACCESSIBLE PEDESTRIAN SIGNALS	EACH	4
CONCRETE FOUNDATION, TYPE A, 12-INCH DIAMETER	FOOT	12

• 100% COST TO THE KANE COUNTY

TS SHT NO. 35

TS 725
IDOT TACTICS
FORMER EAGLE 8K

AMES Engineering, Inc.
CONSULTING ENGINEERS
6330 Belmont Road, Suite 4B
Downers Grove, IL 60516

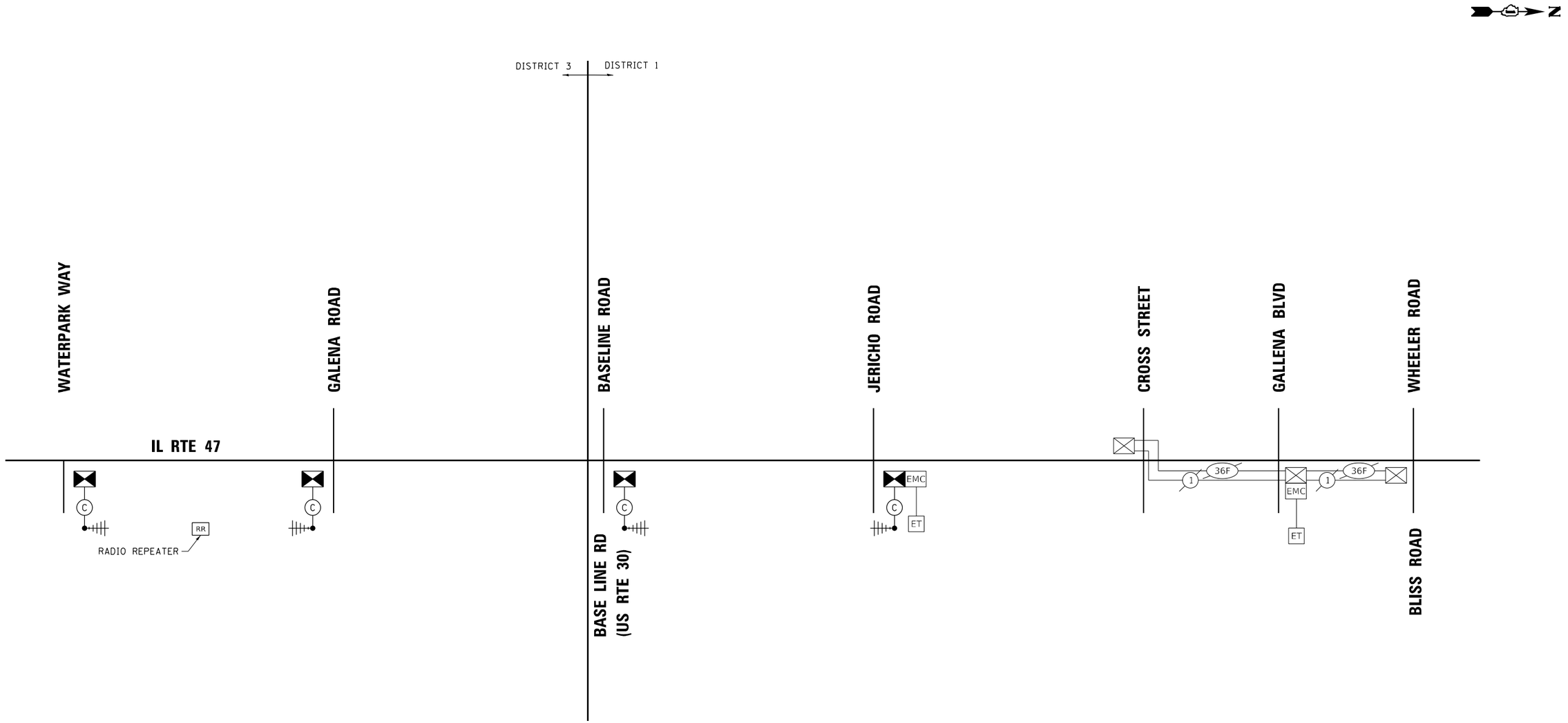
USER NAME = mdeitche	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = $SCALE$	CHECKED -	REVISED -
PLOT DATE = 3/6/2026	DATE - 05-30-2025	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MAST ARM MOUNTED STREET NAME SIGNS AND SCHEDULE OF QUANTITIES
IL RTE 47 AND JERICHO ROAD

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

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	2020-198-W&T	KANE	531	351
		CONTRACT NO. 62M71		
	ILLINOIS	FED. AID PROJECT		



TS SHT NO. 36

IDOT D3 CENTRACS SYSTEM AND IDOT D1 EAGLE 8K AND EAGLE 50

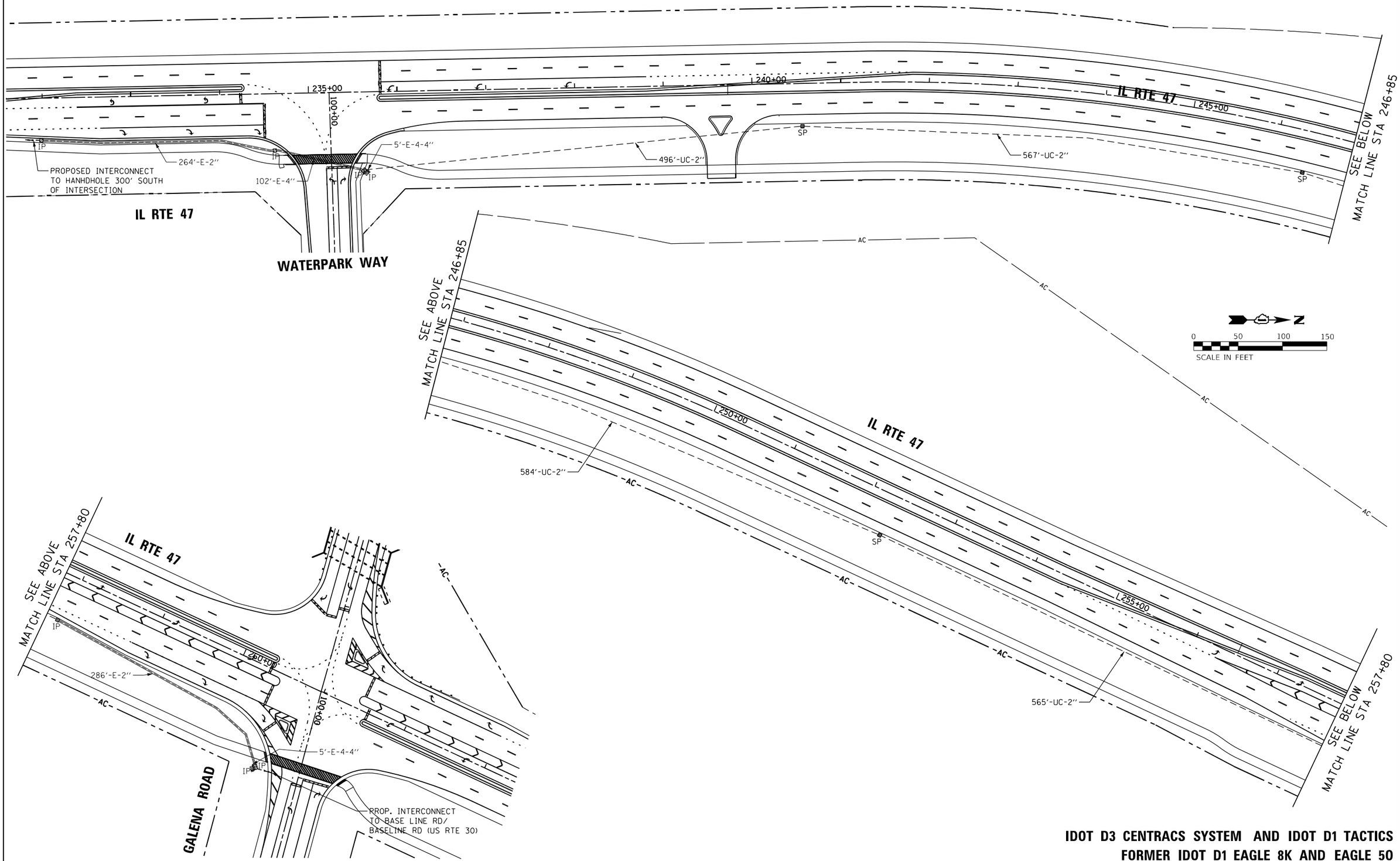
AMES Engineering, Inc. CONSULTING ENGINEERS 6330 Belmont Road, Suite 4B Downers Grove, IL 60516	USER NAME = mdeitche	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = $SCALE$	CHECKED -	REVISED -
	PLOT DATE = 3/6/2026	DATE - 05-30-2025	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY INTERCONNECT SCHEMATIC
IL RTE 47 FROM WATERPARK WAY TO JERICHO ROAD

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

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	2020-198-W&T	KANE	531	352
		CONTRACT NO. 62M71		
	ILLINOIS FED. AID PROJECT			



TS SHT NO. 37

IDOT D3 CENTRACS SYSTEM AND IDOT D1 TACTICS
FORMER IDOT D1 EAGLE 8K AND EAGLE 50

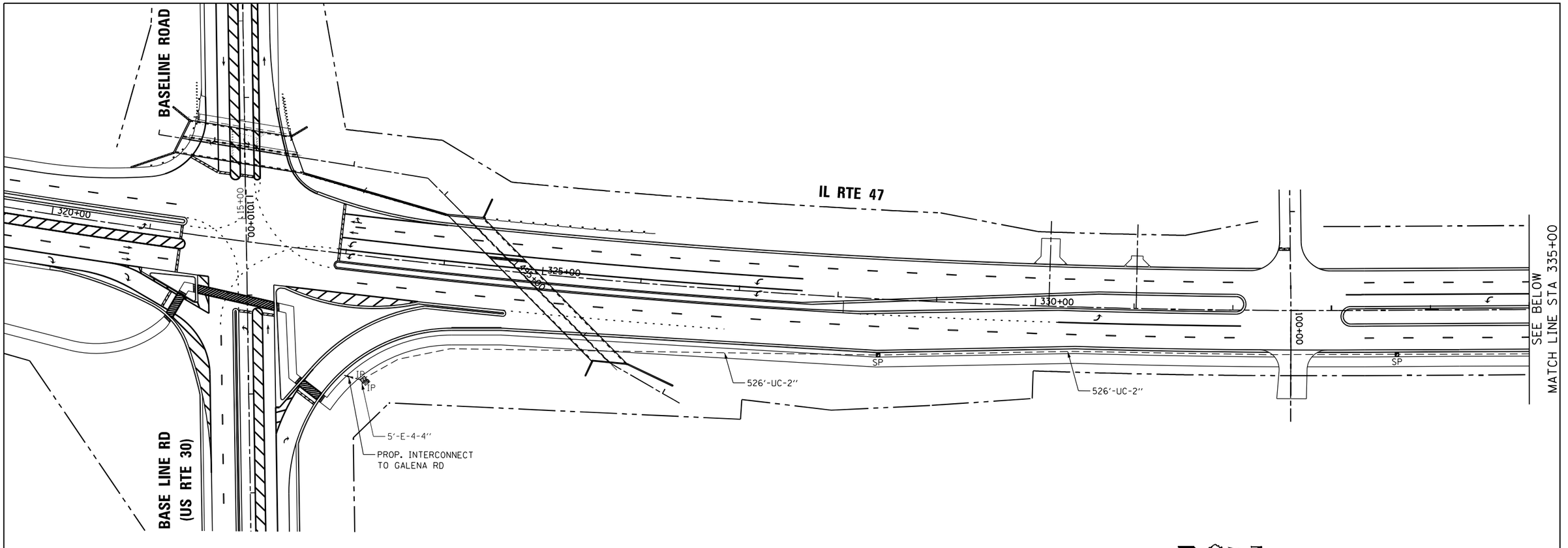
AMES Engineering, Inc. CONSULTING ENGINEERS 6330 Belmont Road, Suite 4B Downers Grove, IL 60516	USER NAME = mdeitche	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = $SCALE$	CHECKED -	REVISED -
	PLOT DATE = 3/6/2026	DATE - 05-30-2025	REVISED -

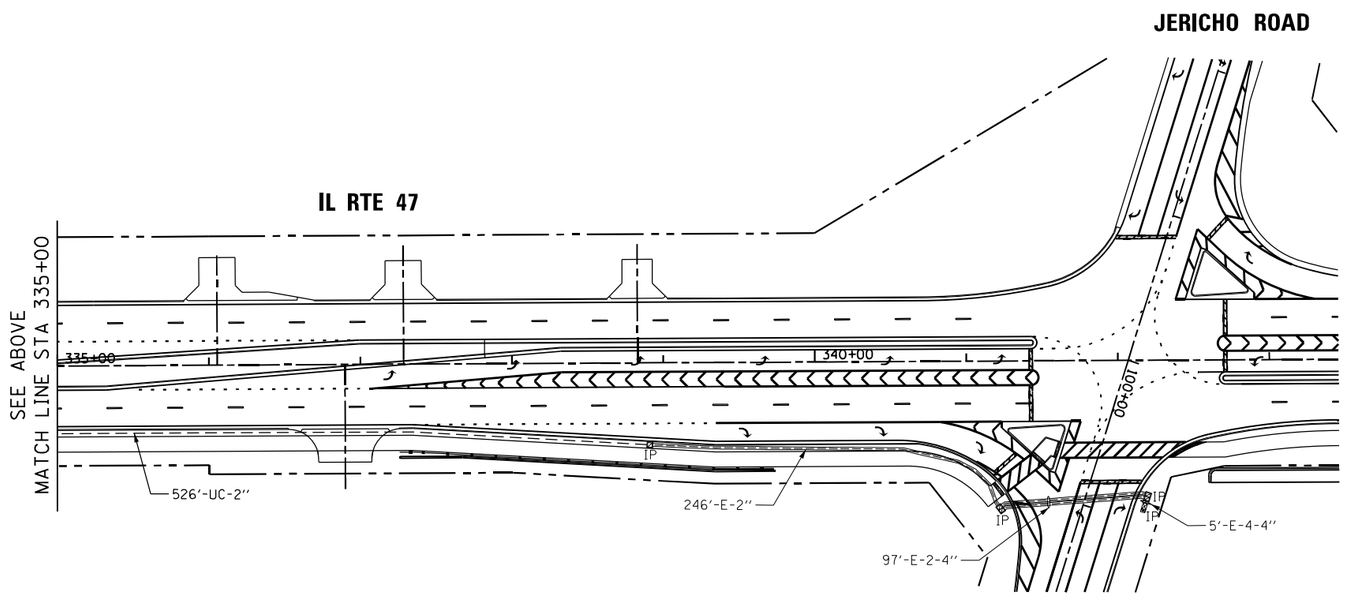
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INTERCONNECT PLAN – SHEET 1 OF 2
IL RTE 47 FROM WATERPARK WAY TO GALENA ROAD

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

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	2020-198-W&T	KANE	531	353
		CONTRACT NO. 62M71		
	ILLINOIS FED. AID PROJECT			





TS SHT NO. 38

IDOT D3 CENTRACS SYSTEM AND IDOT D1 TACTICS
FORMER IDOT D1 EAGLE 8K AND EAGLE 50

AMES Engineering, Inc.
CONSULTING ENGINEERS
6330 Belmont Road, Suite 4B
Downers Grove, IL 60516

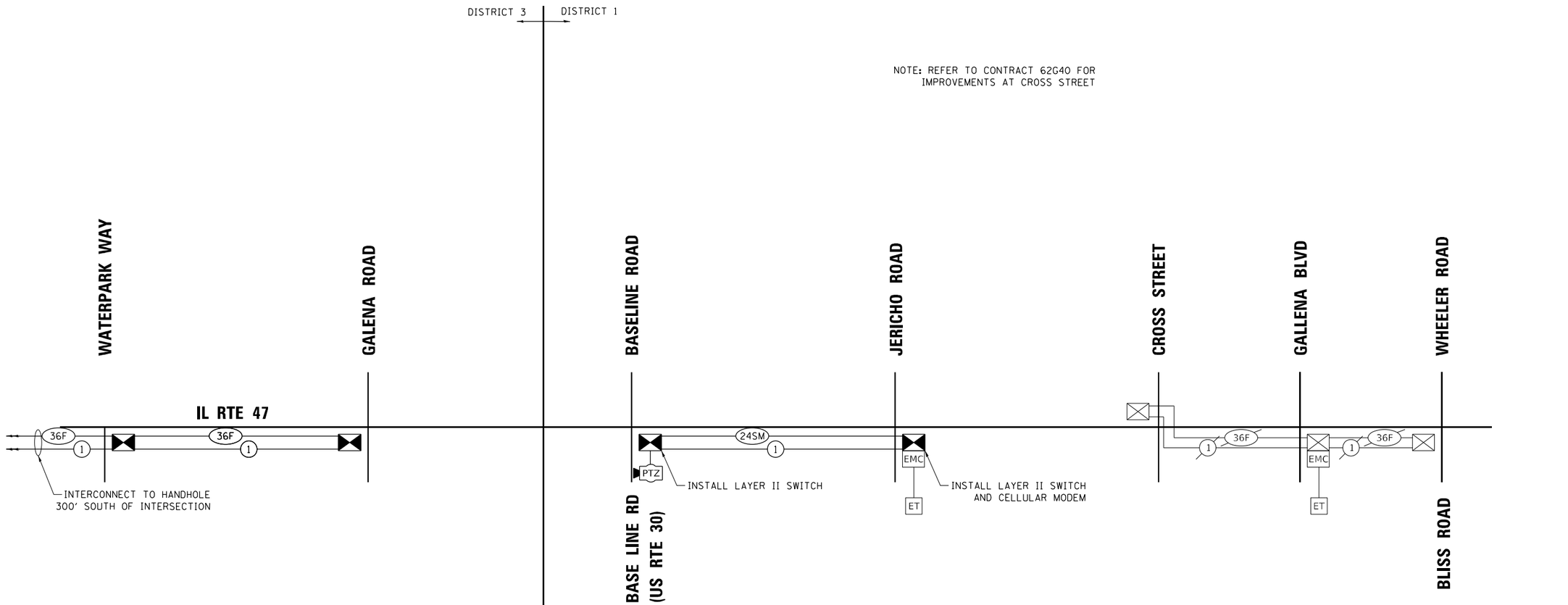
USER NAME = mdeitche	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = $SCALE$	CHECKED -	REVISED -
PLOT DATE = 3/6/2026	DATE - 05-30-2025	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INTERCONNECT PLAN – SHEET 2 OF 2
IL RTE 47 FROM US RTE 30 TO JERICHO ROAD

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

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	2020-198-W&T	KANE	531	354
		CONTRACT NO. 62M71		
	ILLINOIS FED. AID PROJECT			



SCHEDULE OF QUANTITIES

ITEM DESCRIPTION	UNITS	TOTAL QTY.
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	2,212
HANDHOLE	EACH	3
TRANSCEIVER - FIBER OPTIC	EACH	2
ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C	FOOT	2,178
FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM24F	FOOT	2,212
RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL 2	EACH	2

EAGLE 8K SCHEDULE OF QUANTITIES

ITEM DESCRIPTION	UNITS	TOTAL QTY.
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	7,650
HANDHOLE	EACH	13
TRANSCEIVER - FIBER OPTIC	EACH	2
ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C	FOOT	1,935
FIBER OPTIC CABLE IN CONDUIT, 24 FIBERS, SINGLE MODE	FOOT	1,952
RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL 2	EACH	2

TS SHT NO. 39

IDOT D3 CENTRACS SYSTEM AND IDOT TACTICS
FORMER IDOT D1 EAGLE 8K AND EAGLE 50

AMES Engineering, Inc.
CONSULTING ENGINEERS
6330 Belmont Road, Suite 4B
Downers Grove, IL 60516

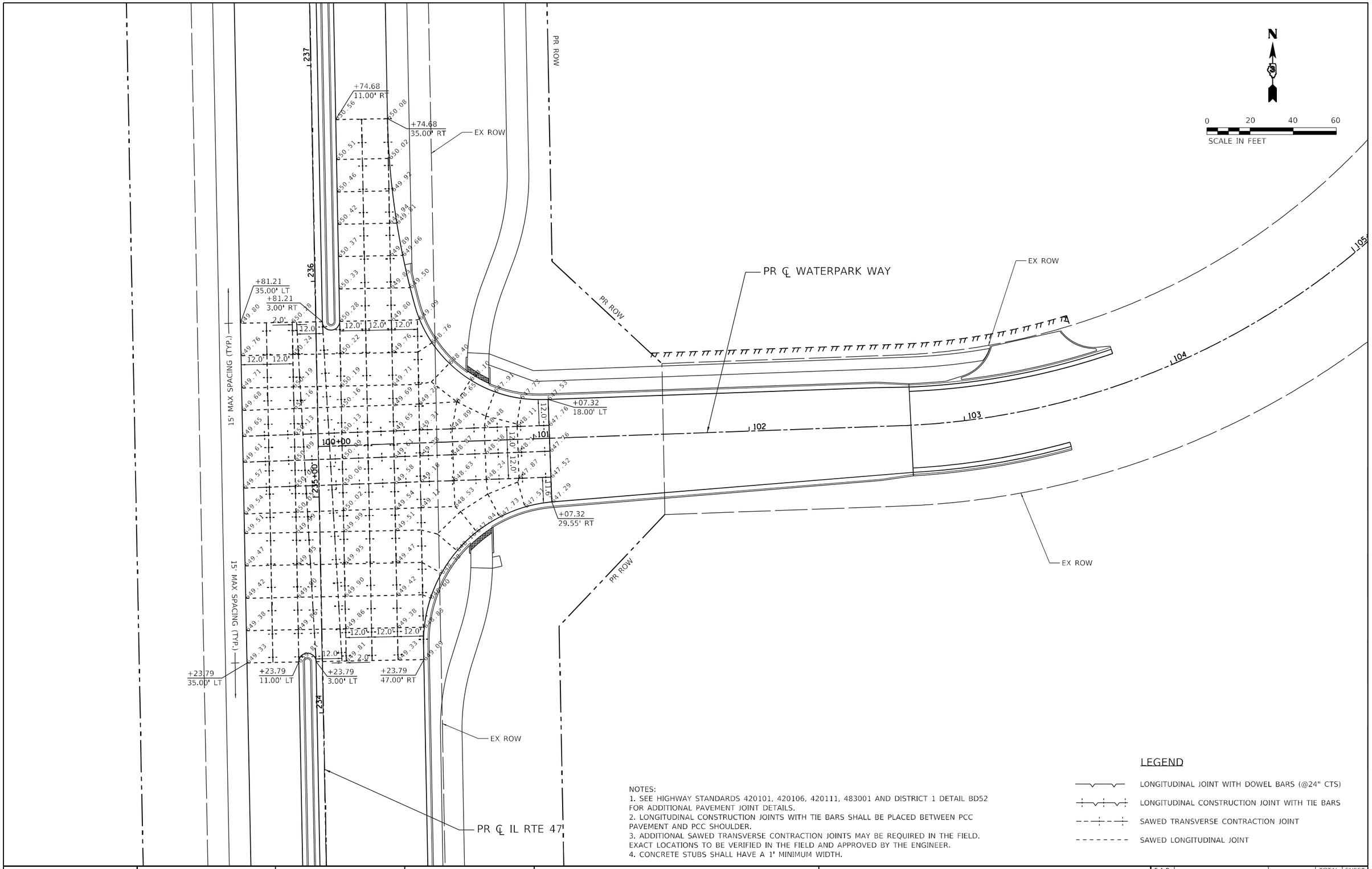
USER NAME = mdeitche	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = $SCALE$	CHECKED -	REVISED -
PLOT DATE = 3/6/2026	DATE - 05-30-2025	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INTERCONNECT SCHEMATIC AND SCHEDULE OF QUANTITIES
IL RTE 47 FROM BOOMBAH BLVD TO WHEELER RD/BLISS RD

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

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	2020-198-W&T	KANE	531	355
		CONTRACT NO. 62M71		
	ILLINOIS FED. AID PROJECT			



NOTES:
1. SEE HIGHWAY STANDARDS 420101, 420106, 420111, 483001 AND DISTRICT 1 DETAIL BD52 FOR ADDITIONAL PAVEMENT JOINT DETAILS.
2. LONGITUDINAL CONSTRUCTION JOINTS WITH TIE BARS SHALL BE PLACED BETWEEN PCC PAVEMENT AND PCC SHOULDER.
3. ADDITIONAL SAWED TRANSVERSE CONTRACTION JOINTS MAY BE REQUIRED IN THE FIELD. EXACT LOCATIONS TO BE VERIFIED IN THE FIELD AND APPROVED BY THE ENGINEER.
4. CONCRETE STUBS SHALL HAVE A 1' MINIMUM WIDTH.

LEGEND

- LONGITUDINAL JOINT WITH DOWEL BARS (@24" CTS)
- LONGITUDINAL CONSTRUCTION JOINT WITH TIE BARS
- SAWED TRANSVERSE CONTRACTION JOINT
- SAWED LONGITUDINAL JOINT

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	DRAWN - DMS	REVISED -
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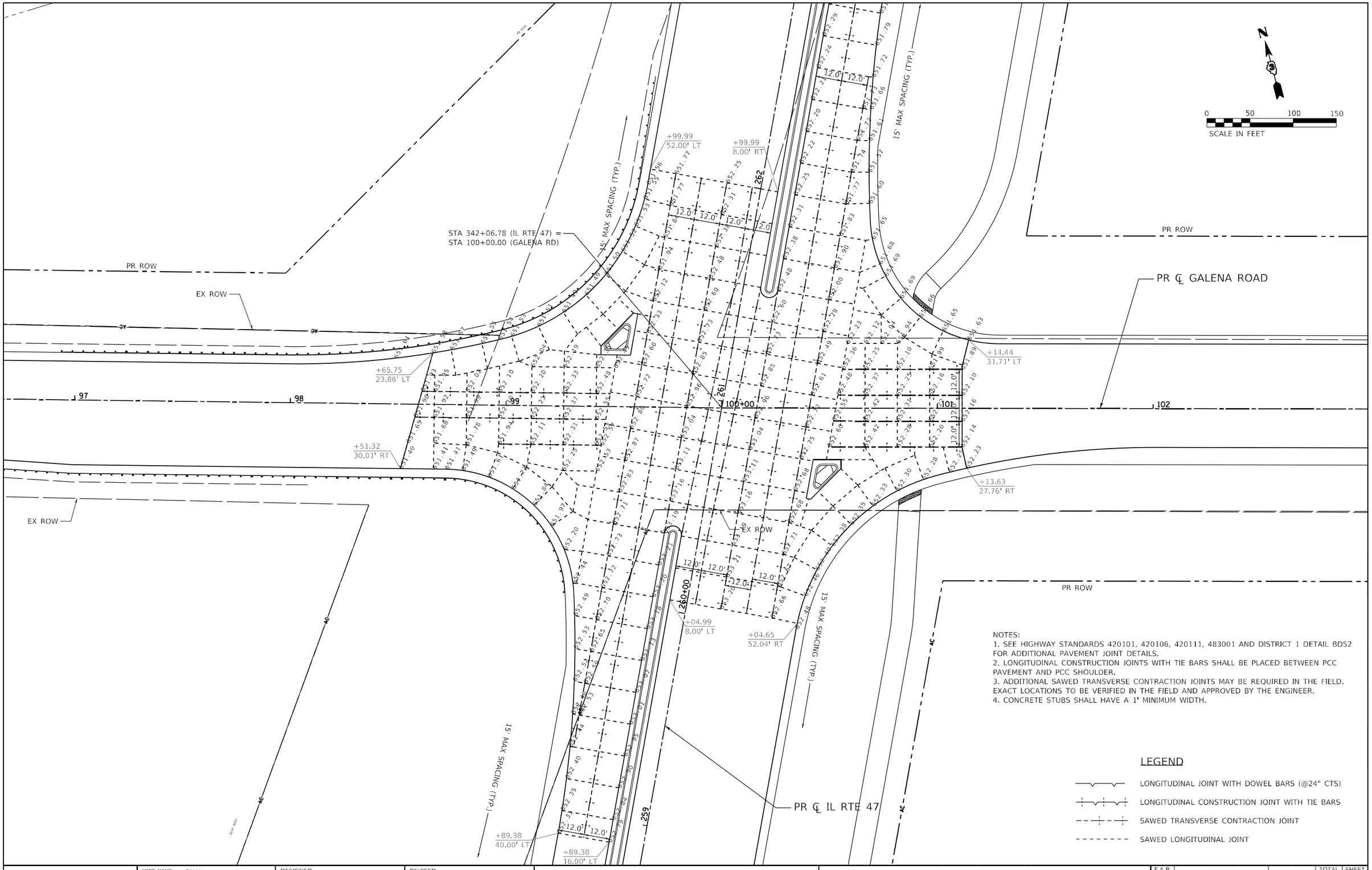
PLOT DATE = 3/6/2026	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INTERSECTION DETAIL
IL ROUTE 47 & WATERPARK WAY

SCALE: 1"=20' | SHEET 1 OF 7 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	2020-198-W&T	KANE/KENDALL	531	356
		CONTRACT NO. 62M71		
	ILLINOIS	FED. AID PROJECT		



NOTES:
1. SEE HIGHWAY STANDARDS 420101, 420106, 420111, 483001 AND DISTRICT 1 DETAIL BD52 FOR ADDITIONAL PAVEMENT JOINT DETAILS.
2. LONGITUDINAL CONSTRUCTION JOINTS WITH TIE BARS SHALL BE PLACED BETWEEN PCC PAVEMENT AND PCC SHOULDER.
3. ADDITIONAL SAWED TRANSVERSE CONTRACTION JOINTS MAY BE REQUIRED IN THE FIELD. EXACT LOCATIONS TO BE VERIFIED IN THE FIELD AND APPROVED BY THE ENGINEER.
4. CONCRETE STUBS SHALL HAVE A 1' MINIMUM WIDTH.

LEGEND

- LONGITUDINAL JOINT WITH DOWEL BARS (@24" CTS)
- LONGITUDINAL CONSTRUCTION JOINT WITH TIE BARS
- SAWED TRANSVERSE CONTRACTION JOINT
- SAWED LONGITUDINAL JOINT

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	DRAWN - DMS	REVISED -
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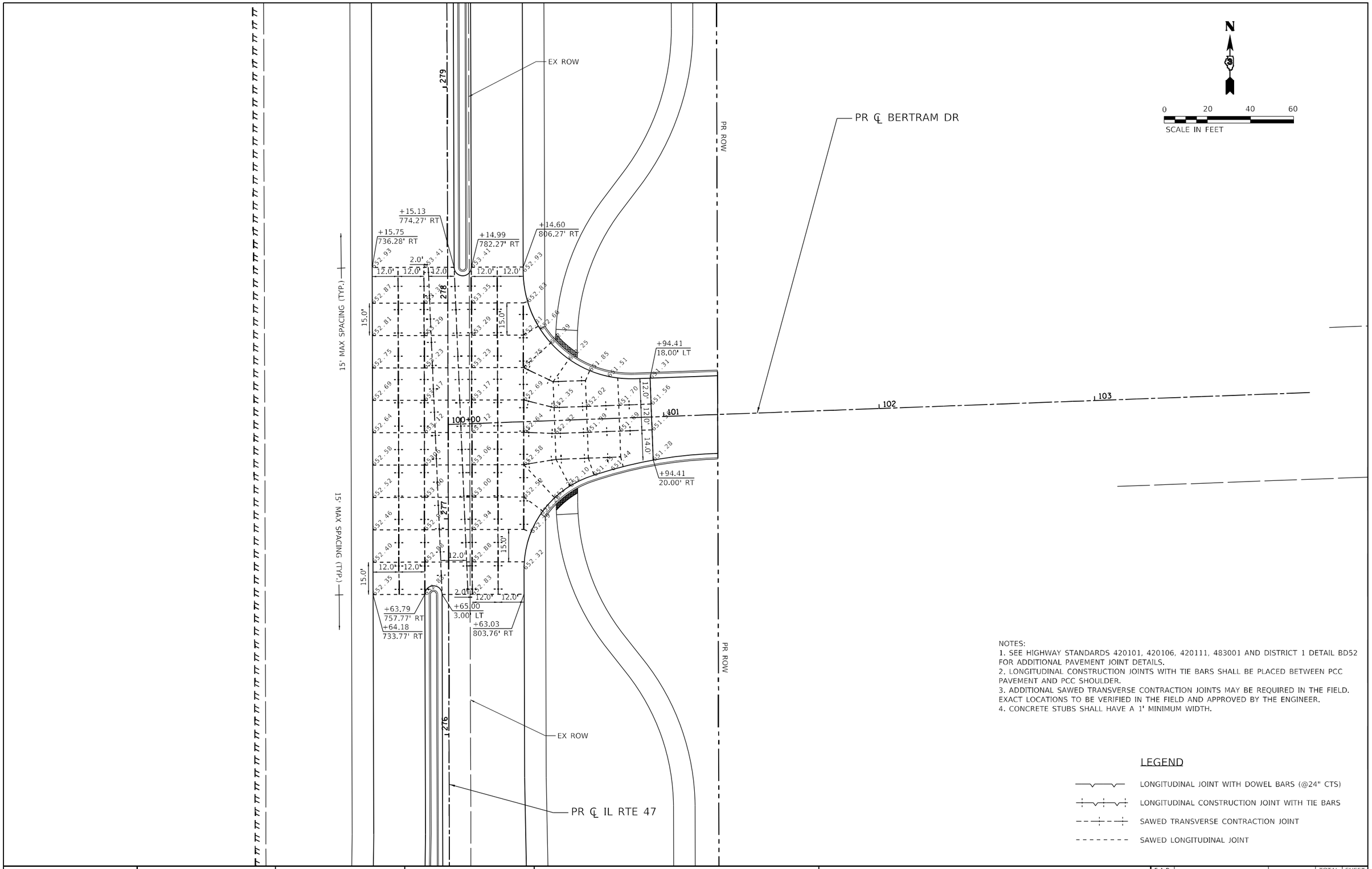
PLOT DATE = 3/6/2026	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INTERSECTION DETAIL
IL ROUTE 47 & GALENA ROAD

SCALE: 1"=20' | SHEET 2 OF 7 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	2020-198-W&T	KANE/KENDALL	531	357
		CONTRACT NO. 62M71		
	ILLINOIS	FED. AID PROJECT		



NOTES:
1. SEE HIGHWAY STANDARDS 420101, 420106, 420111, 483001 AND DISTRICT 1 DETAIL BD52 FOR ADDITIONAL PAVEMENT JOINT DETAILS.
2. LONGITUDINAL CONSTRUCTION JOINTS WITH TIE BARS SHALL BE PLACED BETWEEN PCC PAVEMENT AND PCC SHOULDER.
3. ADDITIONAL SAWED TRANSVERSE CONTRACTION JOINTS MAY BE REQUIRED IN THE FIELD. EXACT LOCATIONS TO BE VERIFIED IN THE FIELD AND APPROVED BY THE ENGINEER.
4. CONCRETE STUBS SHALL HAVE A 1' MINIMUM WIDTH.

LEGEND

- LONGITUDINAL JOINT WITH DOWEL BARS (@24" CTS)
- LONGITUDINAL CONSTRUCTION JOINT WITH TIE BARS
- SAWED TRANSVERSE CONTRACTION JOINT
- SAWED LONGITUDINAL JOINT

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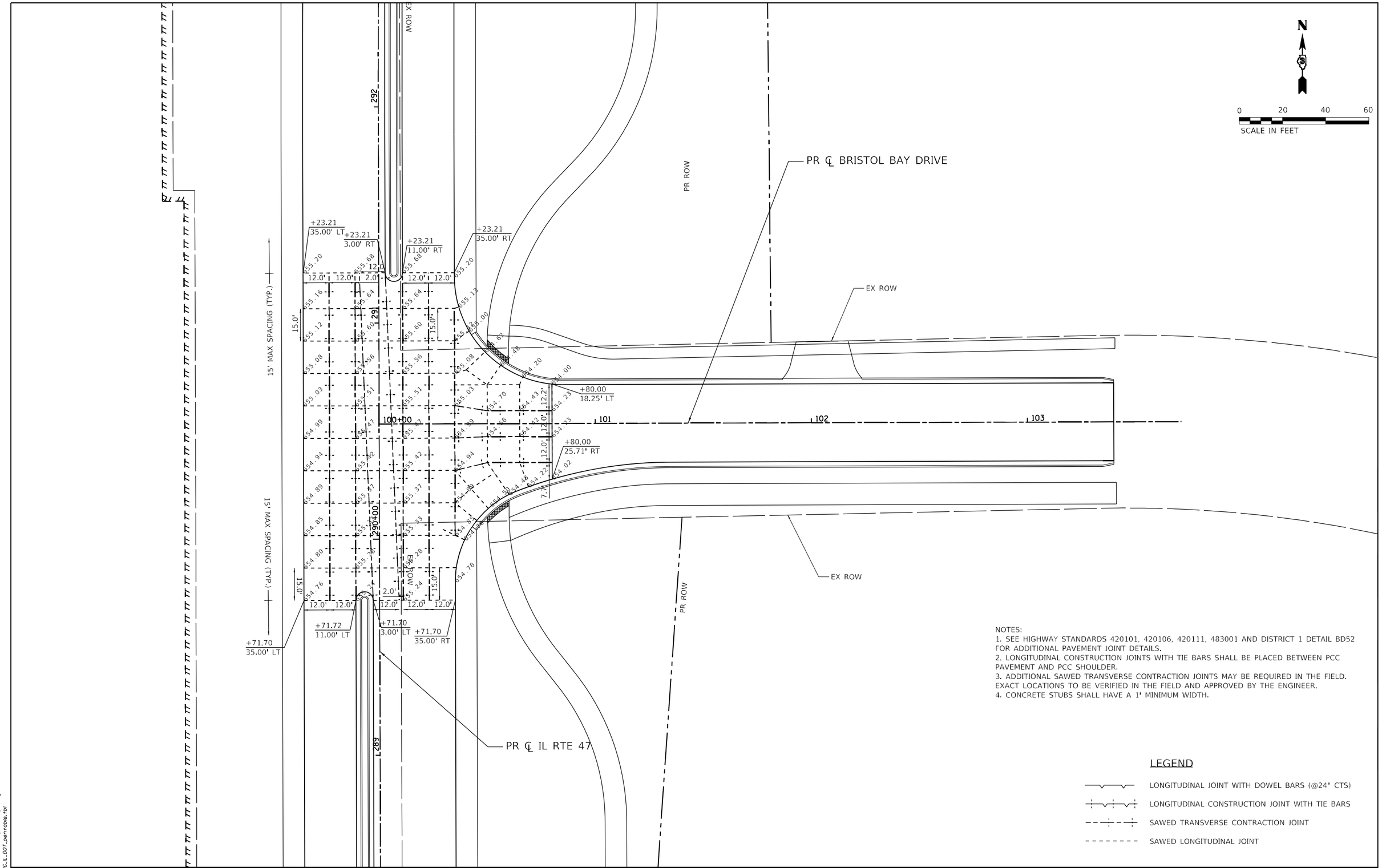
PLOT DATE = 3/6/2026	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INTERSECTION DETAIL
IL ROUTE 47 & BERTRAM DRIVE

SCALE: 1"=20' | SHEET 3 OF 7 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	2020-198-W&T	KANE/KENDALL	531	358
		CONTRACT NO. 62M71		
	ILLINOIS FED. AID PROJECT			



NOTES:
1. SEE HIGHWAY STANDARDS 420101, 420106, 420111, 483001 AND DISTRICT 1 DETAIL BD52 FOR ADDITIONAL PAVEMENT JOINT DETAILS.
2. LONGITUDINAL CONSTRUCTION JOINTS WITH TIE BARS SHALL BE PLACED BETWEEN PCC PAVEMENT AND PCC SHOULDER.
3. ADDITIONAL SAWED TRANSVERSE CONTRACTION JOINTS MAY BE REQUIRED IN THE FIELD. EXACT LOCATIONS TO BE VERIFIED IN THE FIELD AND APPROVED BY THE ENGINEER.
4. CONCRETE STUBS SHALL HAVE A 1' MINIMUM WIDTH.

LEGEND

- LONGITUDINAL JOINT WITH DOWEL BARS (@24" CTS)
- LONGITUDINAL CONSTRUCTION JOINT WITH TIE BARS
- SAWED TRANSVERSE CONTRACTION JOINT
- SAWED LONGITUDINAL JOINT

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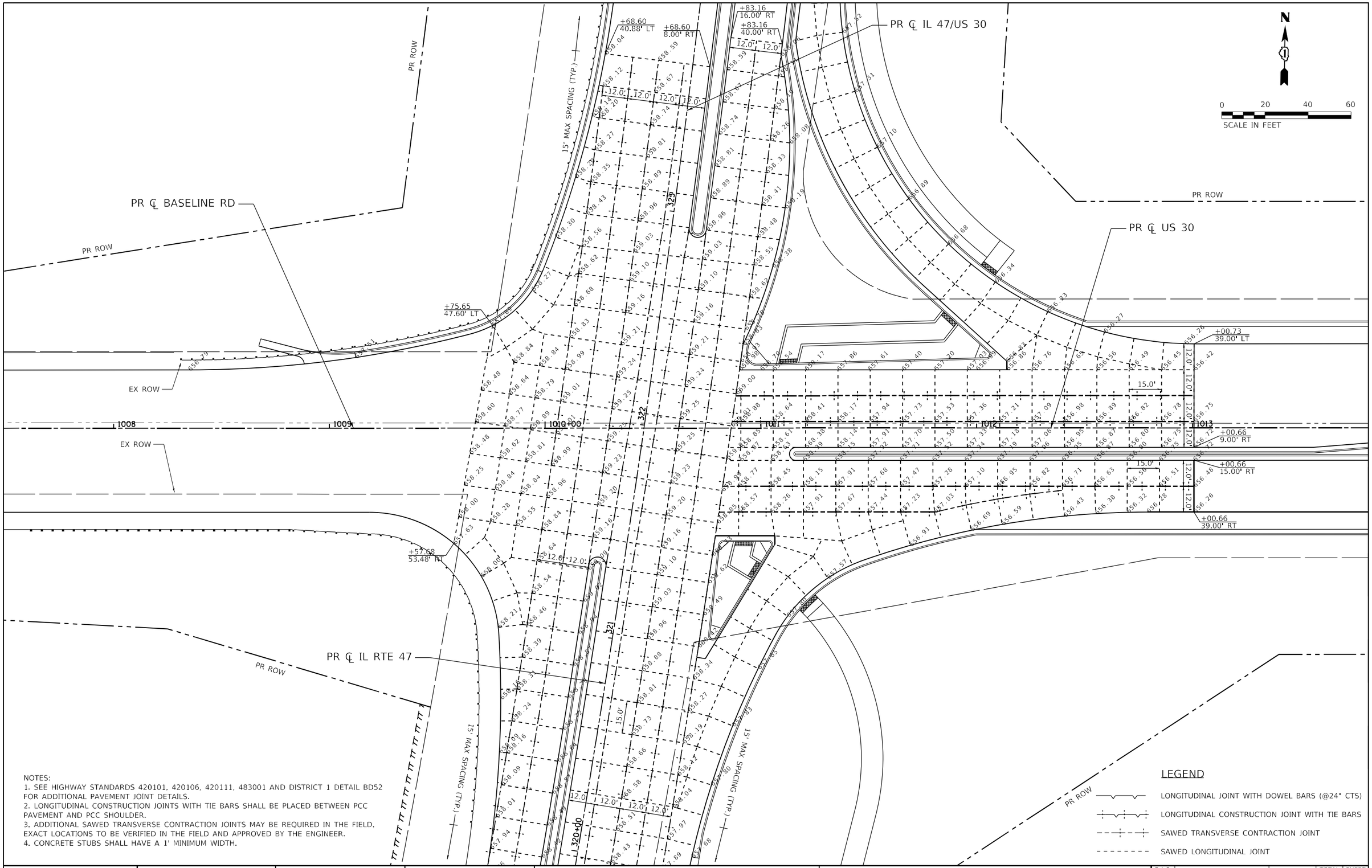
PLOT DATE = 3/6/2026	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INTERSECTION DETAIL
IL ROUTE 47 & BRISTOL BAY DRIVE

SCALE: 1"=20' | SHEET 4 OF 7 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	2020-198-W&T	KANE/KENDALL	531	359
		CONTRACT NO. 62M71		
		ILLINOIS	FED. AID PROJECT	



NOTES:
1. SEE HIGHWAY STANDARDS 420101, 420106, 420111, 483001 AND DISTRICT 1 DETAIL BD52 FOR ADDITIONAL PAVEMENT JOINT DETAILS.
2. LONGITUDINAL CONSTRUCTION JOINTS WITH TIE BARS SHALL BE PLACED BETWEEN PCC PAVEMENT AND PCC SHOULDER.
3. ADDITIONAL SAWED TRANSVERSE CONTRACTION JOINTS MAY BE REQUIRED IN THE FIELD. EXACT LOCATIONS TO BE VERIFIED IN THE FIELD AND APPROVED BY THE ENGINEER.
4. CONCRETE STUBS SHALL HAVE A 1' MINIMUM WIDTH.

LEGEND

- LONGITUDINAL JOINT WITH DOWEL BARS (@24" CTS)
- LONGITUDINAL CONSTRUCTION JOINT WITH TIE BARS
- SAWED TRANSVERSE CONTRACTION JOINT
- SAWED LONGITUDINAL JOINT

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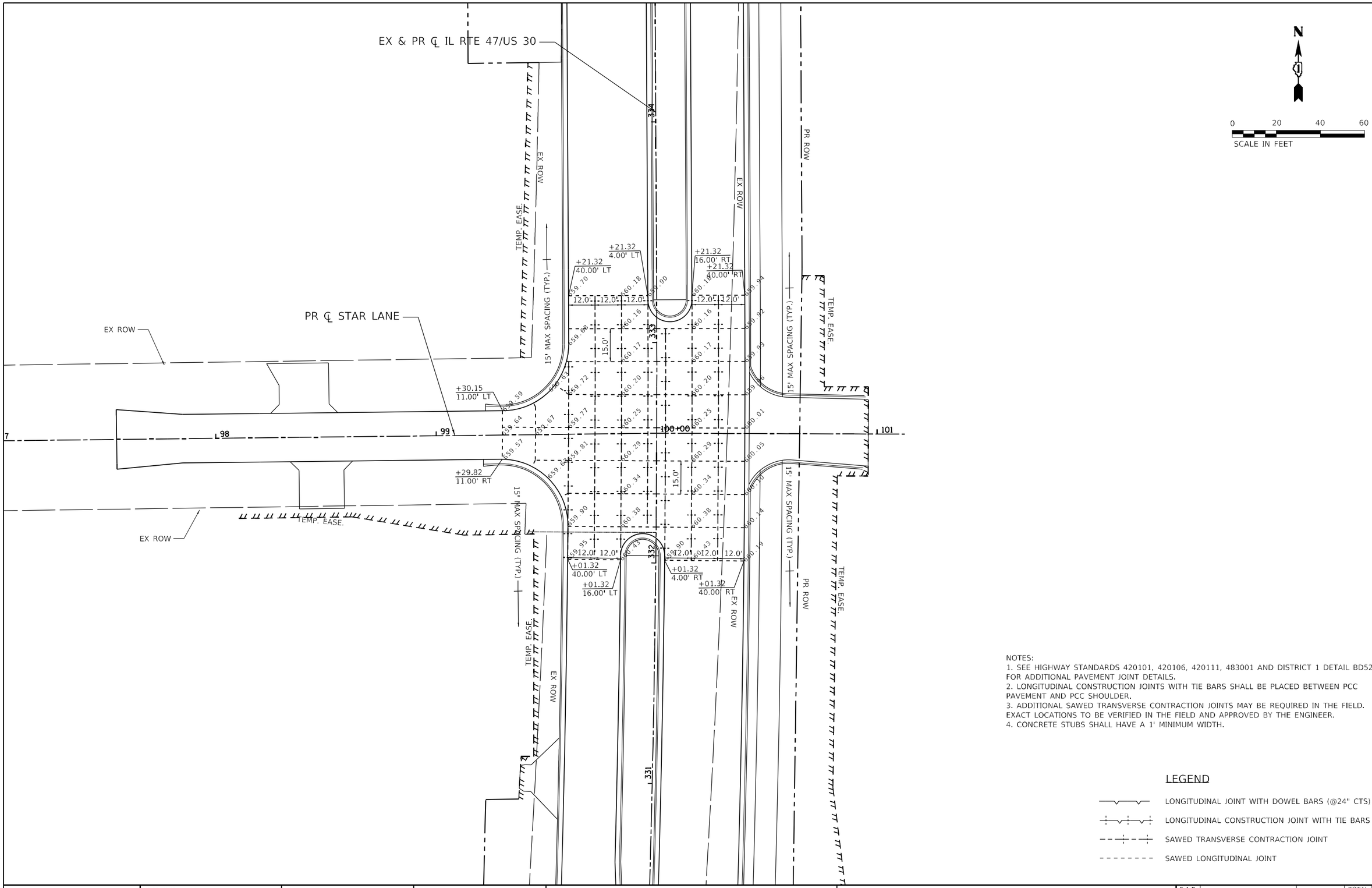
PLOT SCALE = $SCALE$	CHECKED -	REVISED -
PLOT DATE = 3/6/2026	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INTERSECTION DETAIL
IL ROUTE 47 & US30/BASELINE ROAD

SCALE: 1"=20' | SHEET 5 OF 7 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	2020-198-W&T	KANE/KENDALL	531	360
		CONTRACT NO. 62M71		
		ILLINOIS	FED. AID PROJECT	



NOTES:
1. SEE HIGHWAY STANDARDS 420101, 420106, 420111, 483001 AND DISTRICT 1 DETAIL BD52 FOR ADDITIONAL PAVEMENT JOINT DETAILS.
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LEGEND

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- LONGITUDINAL CONSTRUCTION JOINT WITH TIE BARS
- SAWED TRANSVERSE CONTRACTION JOINT
- SAWED LONGITUDINAL JOINT

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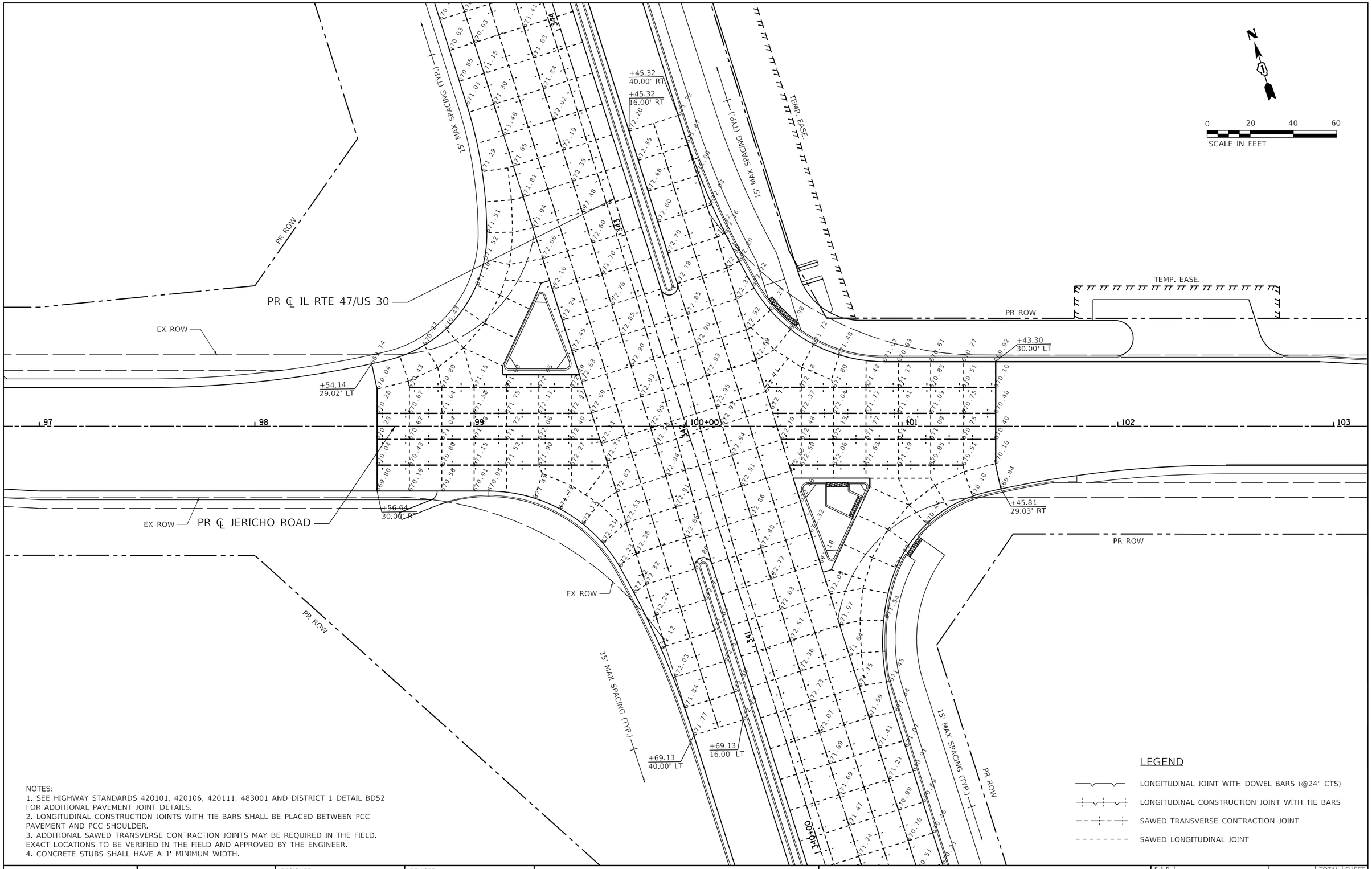
PLOT SCALE = $SCALES	CHECKED -	REVISED -
PLOT DATE = 3/6/2026	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INTERSECTION DETAIL
IL ROUTE 47 & STAR LANE

SCALE: 1"=20' | SHEET 6 OF 7 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	2020-198-W&T	KANE/KENDALL	531	361
		CONTRACT NO. 62M71		
		ILLINOIS	FED. AID PROJECT	



NOTES:
1. SEE HIGHWAY STANDARDS 420101, 420106, 420111, 483001 AND DISTRICT 1 DETAIL BD52 FOR ADDITIONAL PAVEMENT JOINT DETAILS.
2. LONGITUDINAL CONSTRUCTION JOINTS WITH TIE BARS SHALL BE PLACED BETWEEN PCC PAVEMENT AND PCC SHOULDER.
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- LONGITUDINAL CONSTRUCTION JOINT WITH TIE BARS
- SAWED TRANSVERSE CONTRACTION JOINT
- SAWED LONGITUDINAL JOINT

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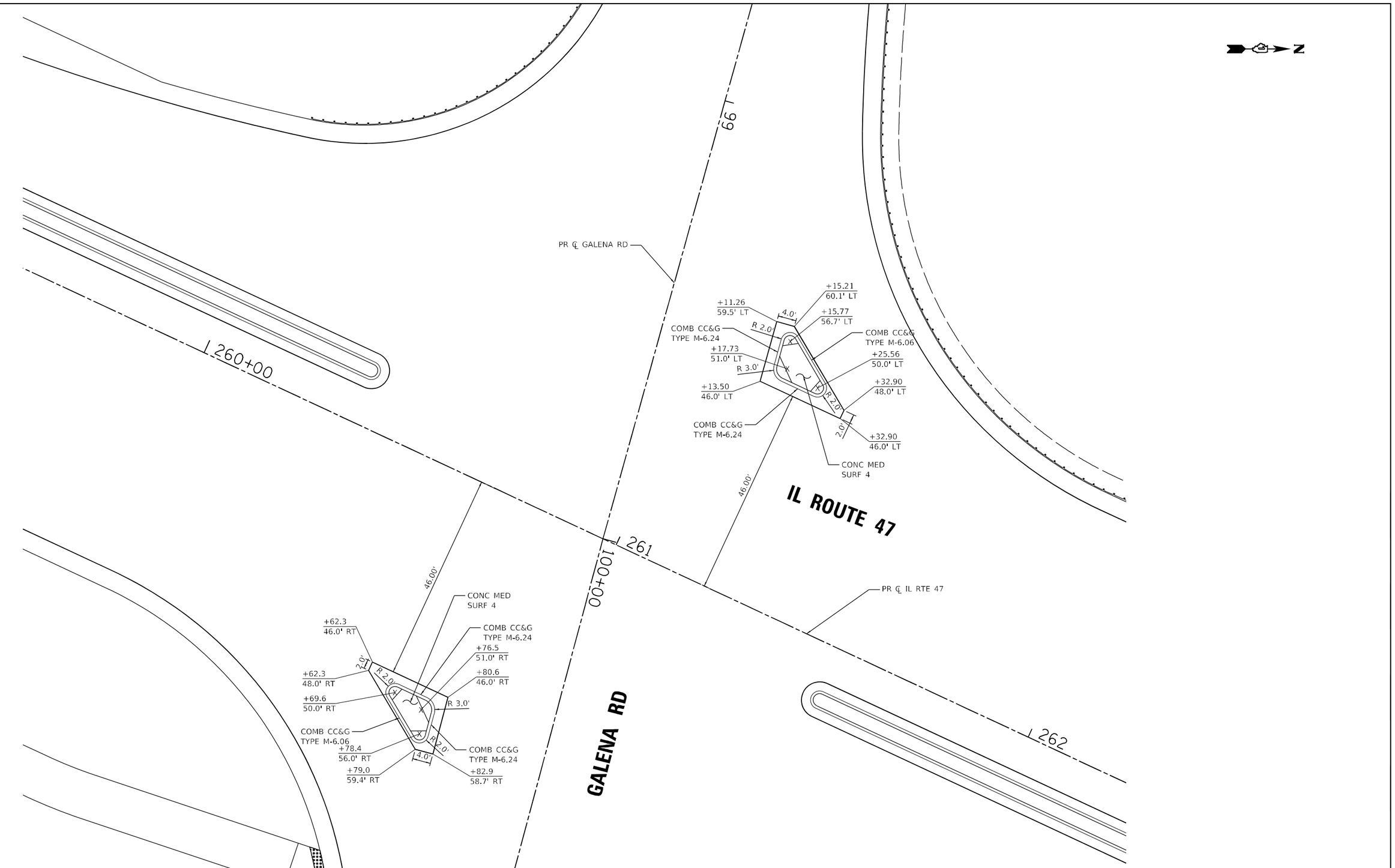
PLOT DATE = 3/6/2026	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INTERSECTION DETAIL
IL ROUTE 47 & JERICHO ROAD

SCALE: 1"=20' | SHEET 7 OF 7 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	2020-198-W&T	KANE/KENDALL	531	362
		CONTRACT NO. 62M71		
		ILLINOIS	FED. AID PROJECT	



IL ROUTE 47 & GALENA RD

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	DRAWN - DMS	REVISED -
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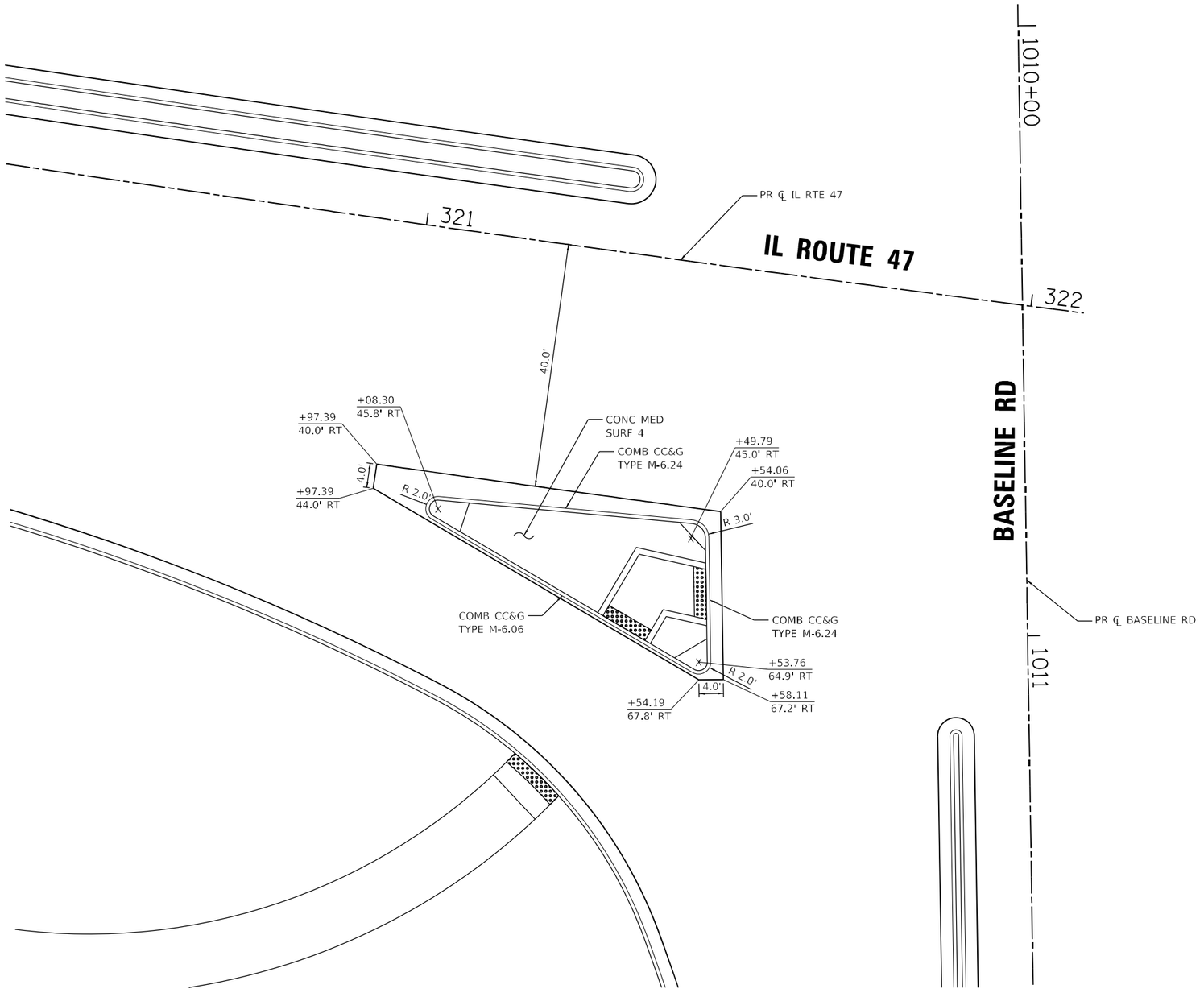
PLOT DATE = 3/6/2026	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ISLAND DETAILS
ILLINOIS ROUTE 47

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	2020-198-W&T	KANE/KENDALL	531	363
		CONTRACT NO. 62M71		
	ILLINOIS FED. AID PROJECT			



IL ROUTE 47 & BASELINE RD

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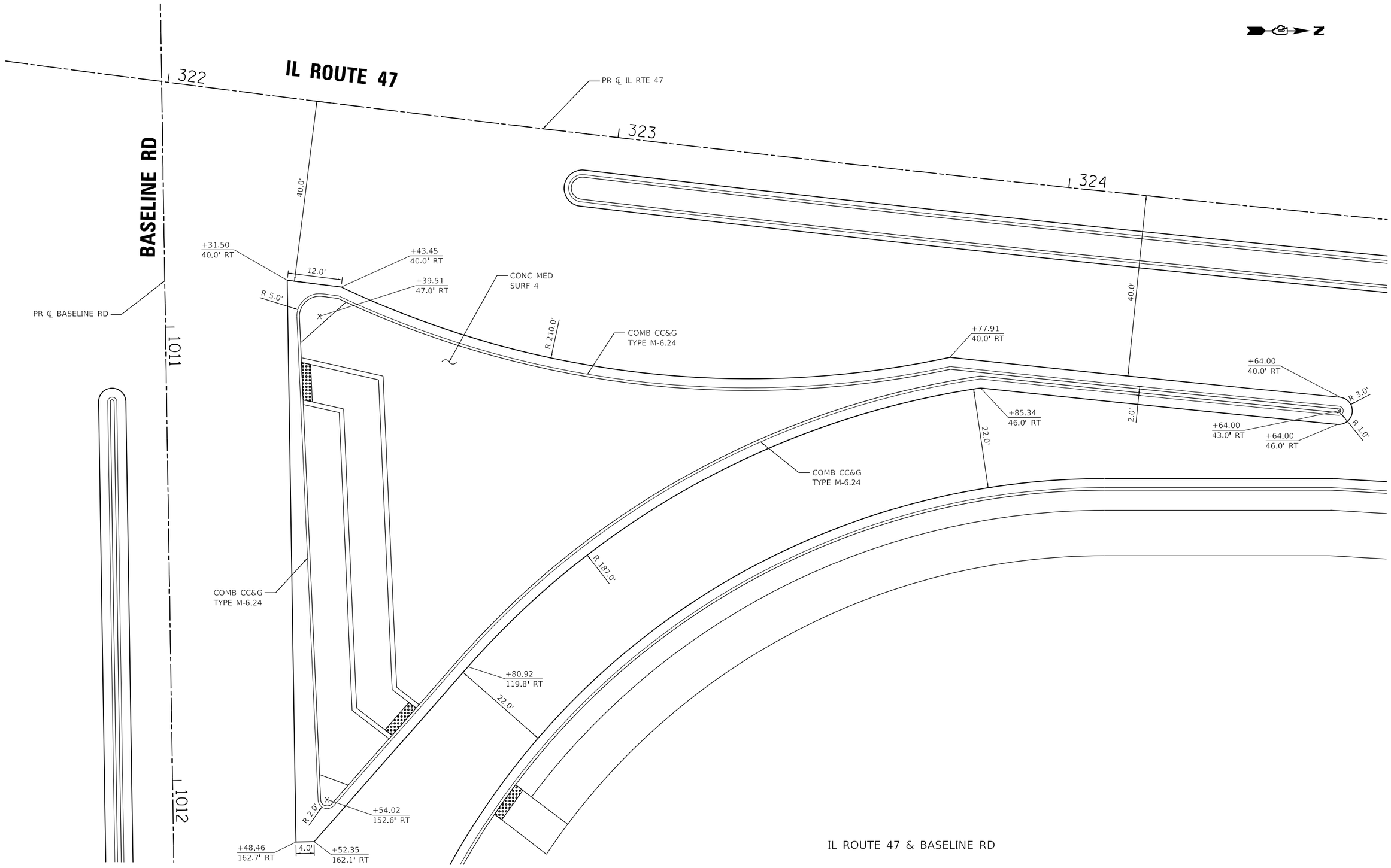
PLOT DATE = 3/6/2026	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ISLAND DETAILS
ILLINOIS ROUTE 47

SCALE: 1"=10' | SHEET 2 OF 4 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	2020-198-W&T	KANE/KENDALL	531	364
		CONTRACT NO. 62M71		
	ILLINOIS	FED. AID PROJECT		



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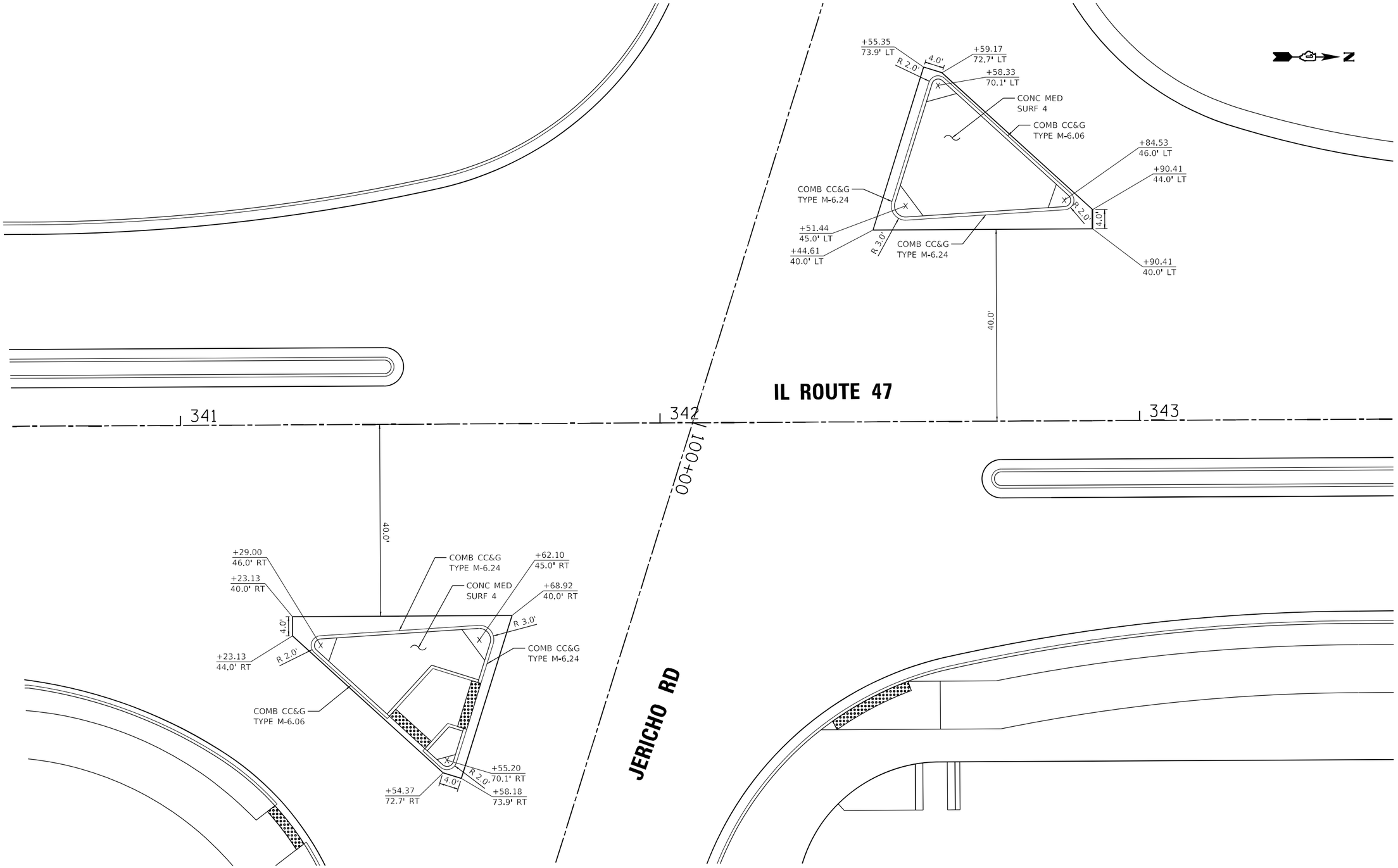
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ISLAND DETAILS
ILLINOIS ROUTE 47

SCALE: 1"=10' | SHEET 3 OF 4 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	2020-198-W&T	KANE/KENDALL	531	365
		CONTRACT NO. 62M71		
	ILLINOIS FED. AID PROJECT			



IL ROUTE 47 & JERICHO RD

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	DRAWN - DMS	REVISED -
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PLOT DATE = 3/6/2026	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ISLAND DETAILS
ILLINOIS ROUTE 47

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	2020-198-W&T	KANE/KENDALL	531	366
		CONTRACT NO. 62M71		
		ILLINOIS	FED. AID PROJECT	

Benchmark:
Brass disk in the southwest wing wall at Galena Road bridge over Rob Roy Creek immediately west of Illinois Route 47.
Elevation: 650.97 (NAVD 88)

Existing Structure:
Structure No. 047-3018 built in 1964, under Section 32 B MFT, as a single span precast prestressed concrete deck beam structure measuring 39'-0" back-to-back of abutments and 37'-4½" out-to-out of deck. The superstructure was replaced with precast prestressed concrete deck beams in 2001 under Section 01-00069-00-BR.
Existing structure to be removed and replaced while traffic is detoured durng Stage II.

Traffic Control:
Road will be closed. Traffic will be detoured.

No salvage

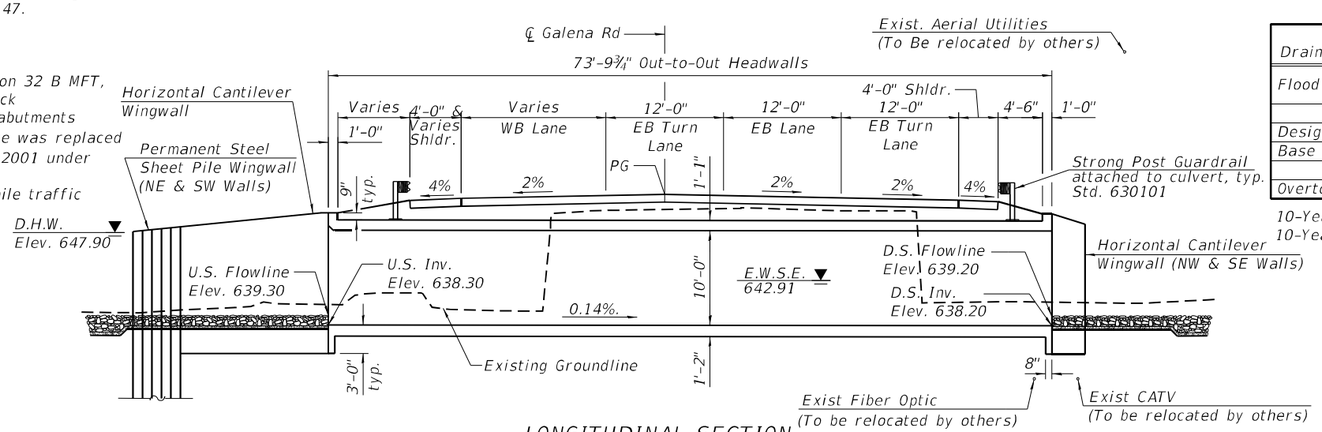
APPROVED
For Structural Adequacy Only
Engineer of Bridges & Structures

WATERWAY INFORMATION

Drainage Area = 8.6 sq. mi. — Exist. Low Grade Elev. 649.96 @ Sta. 97+87.4 — Prop. Low Grade Elev. 651.40 @ Sta. 98+41.0

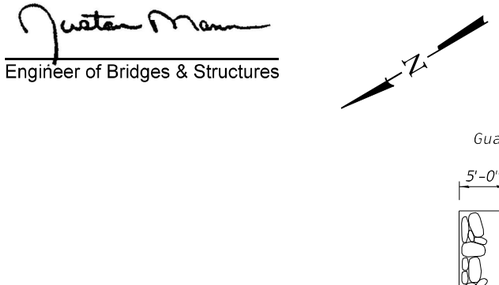
Flood	Freq. Yr.	Q C.F.S.	Opening Ft² Exist.	Opening Ft² Prop.	Nat. H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
	10	512	201	281	647.1	0.3	0.0	647.4	647.1
Design	50	861	232	310	647.9	0.4	0.0	648.3	647.9
Base	100	1,030	239	321	648.2	0.4	0.0	648.6	648.2
	200	1,179	246	324	648.4	0.3	0.0	648.7	648.4
Overtopping	500	1,384	251	324	648.7	0.6	0.0	649.3	648.7

10-Year Outlet Velocity from Existing Structure = 2.4 fps
10-Year Outlet Velocity from Proposed Structure = 1.8 fps



LONGITUDINAL SECTION

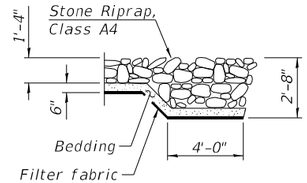
(Looking East)
(Dimensions are at right angles to ℄ Roadway)



PROFILE GRADE

(along ℄ Galena Rd.)

PLAN



SECTION A-A

LOADING HL-93

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

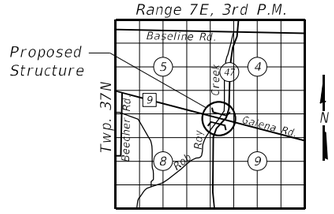
DESIGN SPECIFICATIONS

2024 AASHTO LRFD Bridge Design Specifications, 10th Edition

DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)



LOCATION SKETCH

LEGEND

- Soil Boring Location
- A — Aerial Utility
- CTV — Cable TV
- FO — FiberOptic

**Due to differential settlement concerns, existing closed abutment footings shall be removed in their entirety.

STATE OF ILLINOIS — ANDREW E. UNDERWAGER — 081-006218 — CHICAGO, IL — LICENSED STRUCTURAL ENGINEER

Andrew E. Underwager, S.E. 02/23/2026
License Number: 081-006218
My license renewal date is November 30, 2026.

GENERAL PLAN AND ELEVATION
GALENA ROAD OVER ROB ROY CREEK
F.A.U. RTE. 2502 - SEC. 2020-198-W&T
KENDALL COUNTY
STATION 98+39.00
STRUCTURE NO. 047-3180

HRGreen.com
Illinois Professional Design Firm # 184-001322

USER NAME = Jeff.helmer	DESIGNED - AEU	REVISED -	
	CHECKED - AEU	REVISED -	
PLOT SCALE =	DRAWN - WJH	REVISED -	
PLOT DATE = 3/2/2026	CHECKED - AEU	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. 1 OF 10 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2502	2020-198-W&T	KENDALL	531	367
		CONTRACT NO. 62M71		
		ILLINOIS FED. AID PROJECT		

FILE NAME: 047-3180-62M71-00-GPE.dgn
PLOT DRIVER: HRG_IL_001.pdf.bw.ptrstg
PEN TABLE: HRG_IL_001_pentable.tbl

GENERAL NOTES

1. Layout of riprap may be varied to suit ground conditions in the field as directed by the Engineer.

2. Excavation and backfill will not be paid for separately, but will be included in the unit price for the associated item per Article 502.13 of the Standard Specifications.

TOTAL BILL OF MATERIALS

ITEM	UNIT	TOTAL
Stone Riprap, Class A4	Sq.Yd.	277
Filter Fabric	Sq.Yd.	277
Removal of Existing Structures	Each	1
Reinforcement Bars	Pound	75,980
Name Plates	Each	1
Permanent Sheet Piling	Sq.Ft.	770
Concrete Box Culverts	Cu.Yd.	382.8
Geocomposite Wall Drain	Sq.Yd.	360
Strong Post Guardrail Attached to Culvert	Foot	85
Membrane Waterproofing System for Buried Structures	Sq.Yd.	360

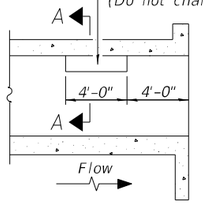
INDEX OF SHEETS

STATION 98+39
BUILT BY
STATE OF ILLINOIS
F.A.U. 2502 – SEC. 2020-198-W&T
LOADING HL-93
STRUCTURE NO. 047-3180

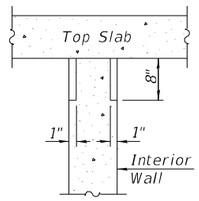
NAME PLATE

See Std. 515001

Notch formed by rough finished board attached to and removed with form work, each interior wall. (Do not chamfer).



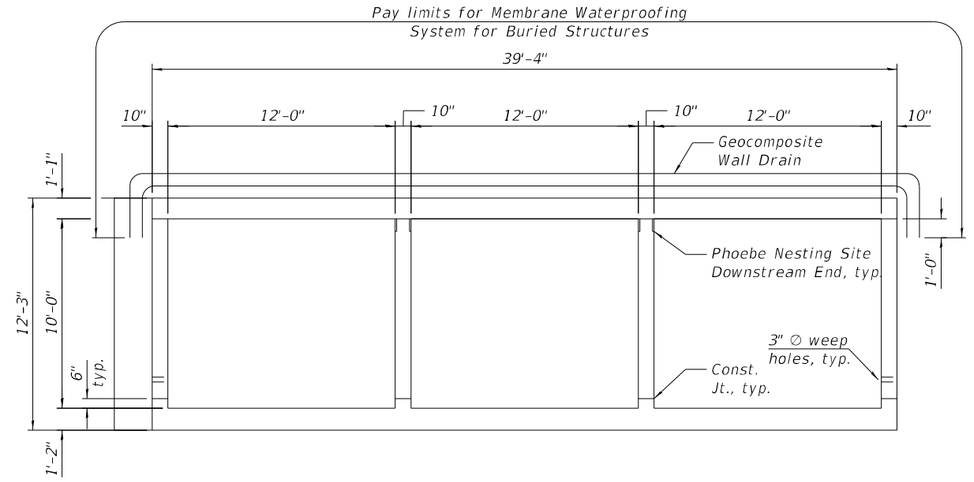
LONGITUDINAL SECTION



SECTION A-A

PHOEBE NESTING SITE DETAILS

(Downstream End Only)



SECTION THRU BARREL

(@ Rt. L's to ℄ Structure)

Note:
Geocomposite wall drain shall be according to Section 591 of the Standard Specifications, except that concrete nails shall not be used in areas where it overlaps Membrane Watrproofing System for Buried Structures.

FILE NAME: 047-3180-62M71-002-Gen01.dgn
PLOT DRIVER: HRG_IL_DOT_pdf_bw.pltcfg
PEN TABLE: HRG_IL_DOT_pentable.tbl

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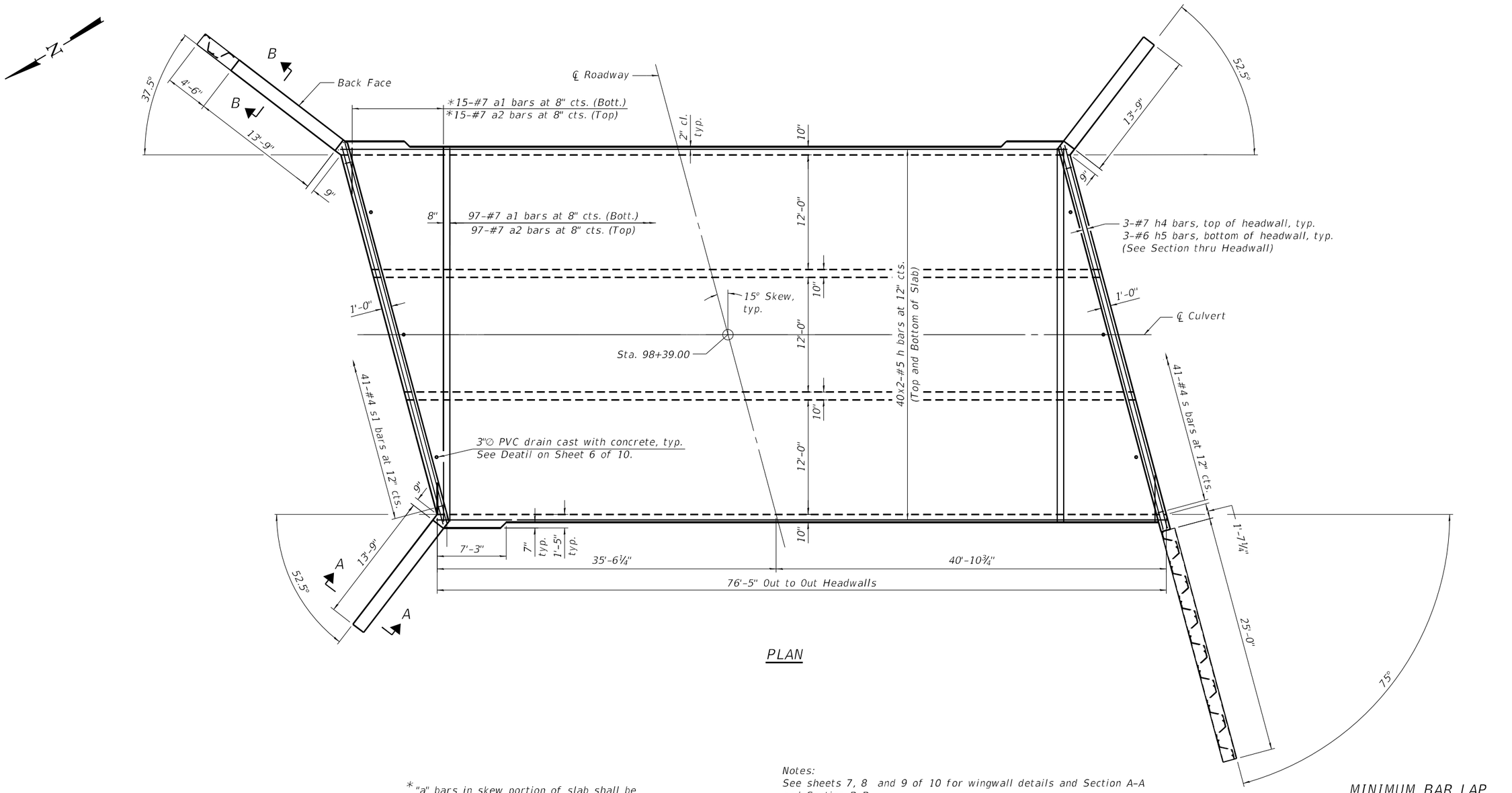
USER NAME = Jeff.helmer	DESIGNED – RAT	REVISED -
	CHECKED – AEU	REVISED -
PLOT SCALE =	DRAWN – WJH	REVISED -
PLOT DATE = 3/2/2026	CHECKED – AEU	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL DATA
STRUCTURE NO. 047–3180
SHEET NO. 2 OF 10 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2505	(61 & 108) W&R-1	KENDALL	531	368
		CONTRACT NO. 62M71		
	ILLINOIS	FED. AID PROJECT		



PLAN

* "a" bars in skew portion of slab shall be ordered full length and cut to fit. Balance of bar to be used in opposite end of culvert.

Notes:
See sheets 7, 8 and 9 of 10 for wingwall details and Section A-A and Section B-B.
A distance of half the length of the wingwall but not less than six feet of the barrel shall be poured monolithically with the wingwalls.
Bars indicated thus 40x2-#5 etc. indicates 40 lines of bars with 2 lengths per line.

MINIMUM BAR LAP
#5 bars = 2'-7"

FILE NAME: 047-3180-62M71-003-Culvert Top Slab.dgn
PLOT DRIVER: HRG_IL_DOT_pdf.bwptcfg
PEN TABLES: HRG_IL_DOT_pentable.tbl

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USER NAME = Jeff.helmer	DESIGNED - RAT	REVISED -
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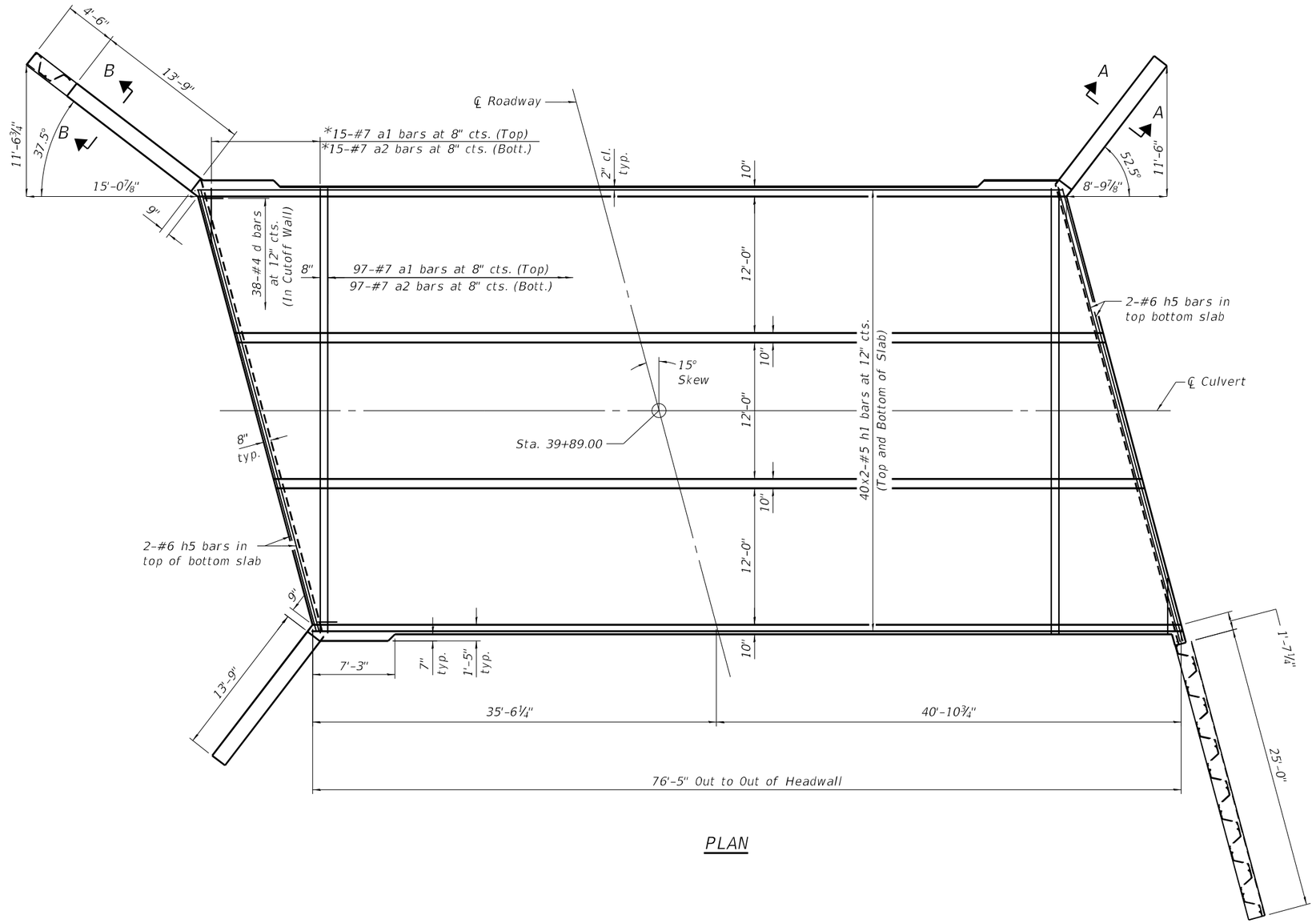
PLOT SCALE =	DRAWN - WJH	REVISED -
PLOT DATE = 3/2/2026	CHECKED - AEU	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CULVERT DETAILS – TOP SLAB
STRUCTURE NO. 047-3180
SHEET NO. 3 OF 10 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2505	(61 & 108) W&R-1	KENDALL	531	369
		CONTRACT NO. 62M71		
	ILLINOIS	FED. AID PROJECT		



PLAN

* "a" bars in skew portion of slab shall be ordered full length and cut to fit. Balance of bar to be used in opposite end of culvert.

Notes:
See sheets 7, 8 and 9 of 10 for wingwall details and Section A-A and Section B-B.
A distance of half the length of the wingwall but not less than six feet of the barrel shall be poured monolithically with the wingwalls.
Bars indicated thus 40x2-#5 etc. indicates 20 lines of bars with 2 lengths per line.

MINIMUM BAR LAP
#5 bars = 2'-7"

FILE NAME: 047-3180-62M71-004-Culvert Bottom Slab.dgn
PLOT DRIVER: HRG_IL_D01_pdf_bw.htcfg
PEN TABLE: HRG_IL_D01_pentable.tbl

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	CHECKED – AEU	REVISED -	
PLOT SCALE =	DRAWN – WJH	REVISED -	
PLOT DATE = 3/2/2026	CHECKED – AEU	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CULVERT DETAILS – BOTTOM SLAB
STRUCTURE NO. 047–3180
SHEET NO. 4 OF 10 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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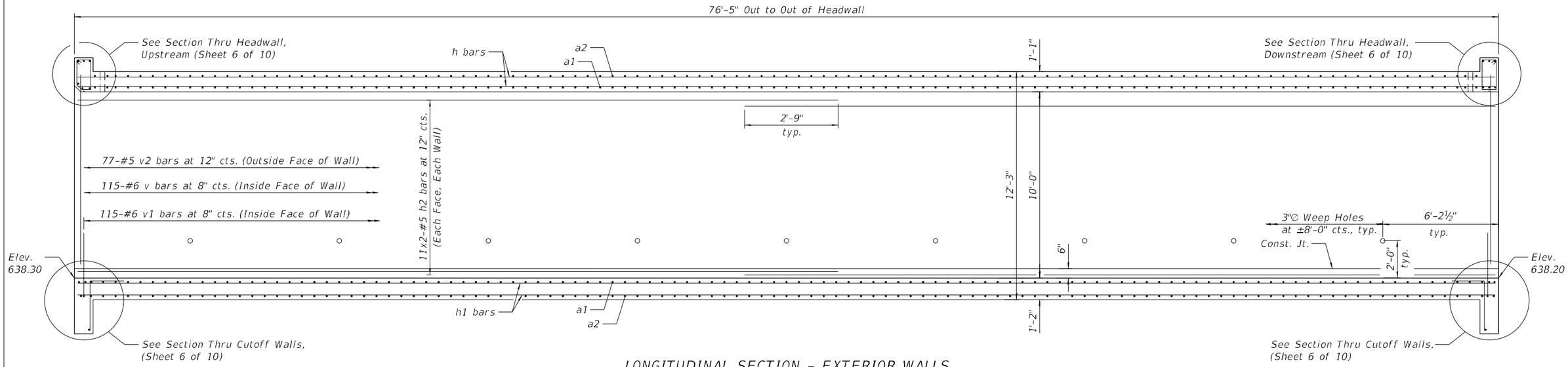
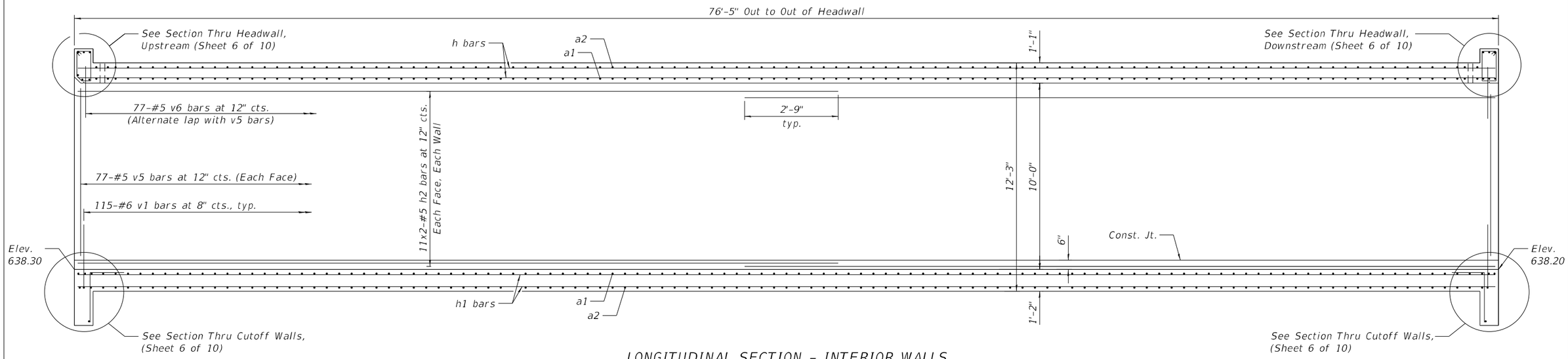
		CONTRACT NO. 62M71		
	ILLINOIS FED. AID PROJECT			



LONGITUDINAL SECTION – EXTERIOR WALLS

(Dimensions along CL Culvert)



LONGITUDINAL SECTION – INTERIOR WALLS

(Dimensions along CL Culvert)

FILE NAME: 047-3180-62M71-005-Culvert Sections.dgn
PLOT DRIVER: HRG_IL_DOT_pdf_bwithcfg
PEN TABLE: HRG_IL_DOT_pentable.tbl

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	CHECKED – AEU	REVISED -	
PLOT SCALE =	DRAWN – WJH	REVISED -	
PLOT DATE = 3/2/2026	CHECKED – RAT	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CULVERT DETAILS
STRUCTURE NO. 047–3180
SHEET NO. 5 OF 10 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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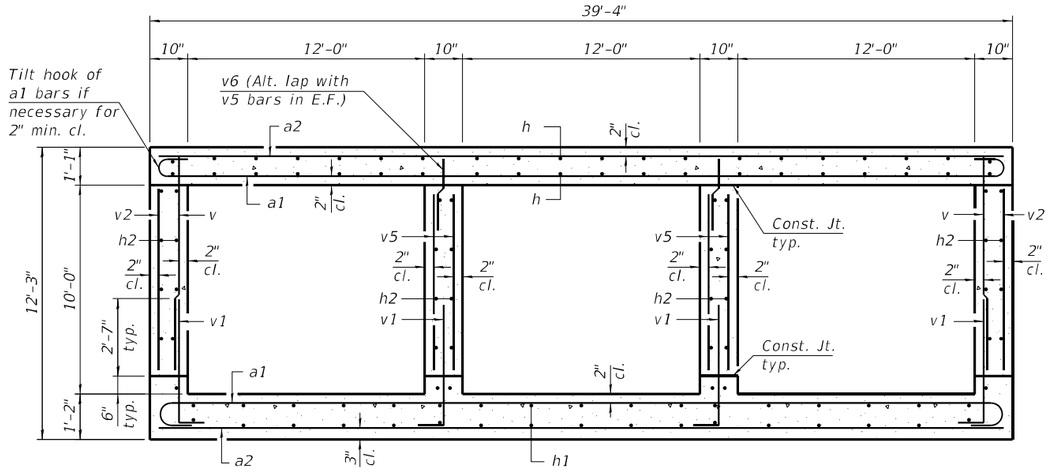
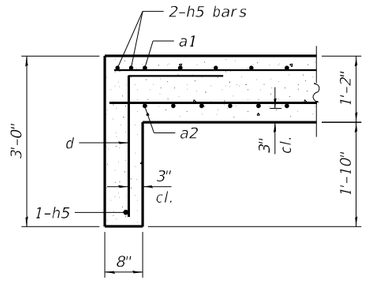
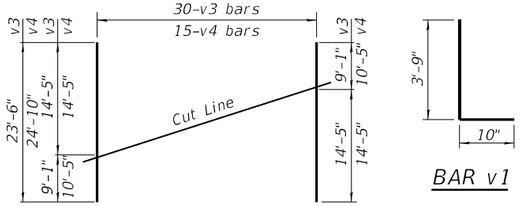
		CONTRACT NO. 62M71		
	ILLINOIS	FED. AID PROJECT		



SECTION THRU BARREL



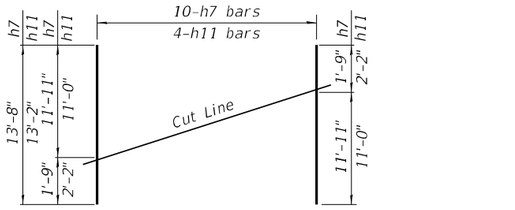
SECTION THRU CUTOFF WALLS



FIELD CUTTING DIAGRAM

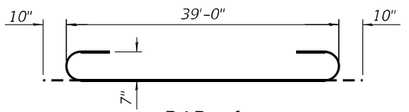
Order v3 and v4 bars shown full length. Cut as shown and use remainder of bars in opposite wingwall.

BAR v1

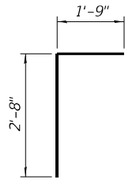


FIELD CUTTING DIAGRAM

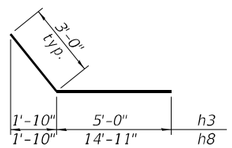
Order h7 and h11 bars shown full length. Cut as shown and use remainder of bars in opposite wingwall.



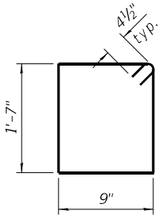
BAR a1



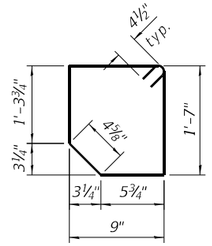
BAR d



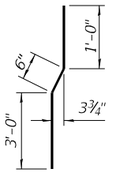
BARS h3 & h8



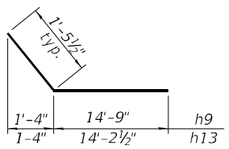
BAR s



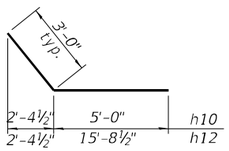
BAR s1



BAR v6

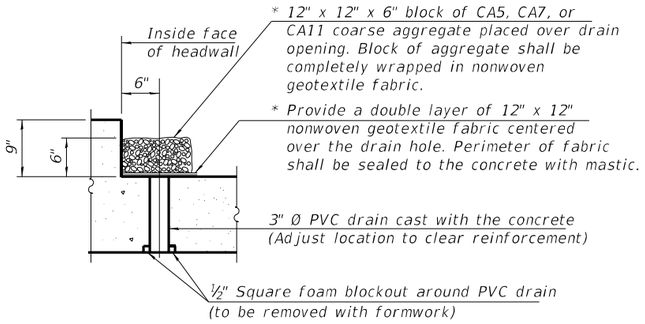


BARS h9 & h13



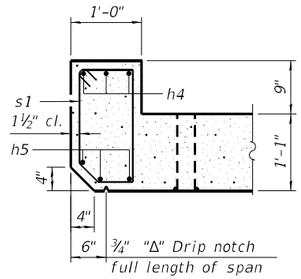
BARS h10 & h12

* Nonwoven geotextile fabric shall conform to the requirements of Article 1080.01 of the Standard Specifications. The minimum weight of the fabric shall be 6 ounces per square yard.

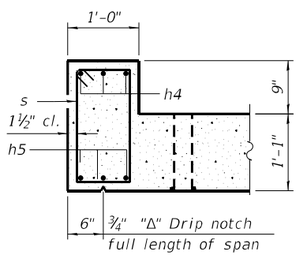


DRAIN DETAIL

(All costs associated with furnishing and constructing the above drain detail will not be measured for payment but shall be included in the contract unit price for the associated work.)



UPSTREAM



DOWNSTREAM

SECTION THRU HEADWALL

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a1	224	#7	40'-8"	
a2	224	#7	39'-0"	
d	76	#4	4'-5"	
h	160	#5	39'-1"	
h1	160	#5	39'-1"	
h2	176	#5	39'-5"	
h3	56	#8	8'-0"	
h4	6	#7	40'-5"	
h5	12	#6	40'-5"	
h6	34	#4	14'-2"	
h7	10	#4	13'-8"	
h8	34	#8	17'-11"	
h9	4	#4	16'-3"	
h10	29	#8	8'-0"	
h11	4	#4	13'-2"	
h12	19	#8	18'-9"	
h13	2	#4	15'-8"	
s	41	#4	5'-5"	
s1	41	#4	5'-3"	
v	239	#6	10'-3"	
v1	460	#6	4'-7"	
v2	154	#5	9'-2"	
v3	30	#4	23'-6"	
v4	15	#4	24'-10"	
v5	308	#5	9'-2"	
v6	154	#5	4'-6"	
Concrete Box Culverts		Cu. Yd.	382.8	
Reinforcement Bars		Pound	75,980	

FILE NAME: 047-3180-62M71-006-Culvert Details.dgn
PLOT DRIVER: HRG_IL_DOT_pat_bw.pltcfg
PEN TABLE: HRG_IL_DOT_pentable.tbl

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USER NAME = Jeff.helmer	DESIGNED – RAT	REVISED -	
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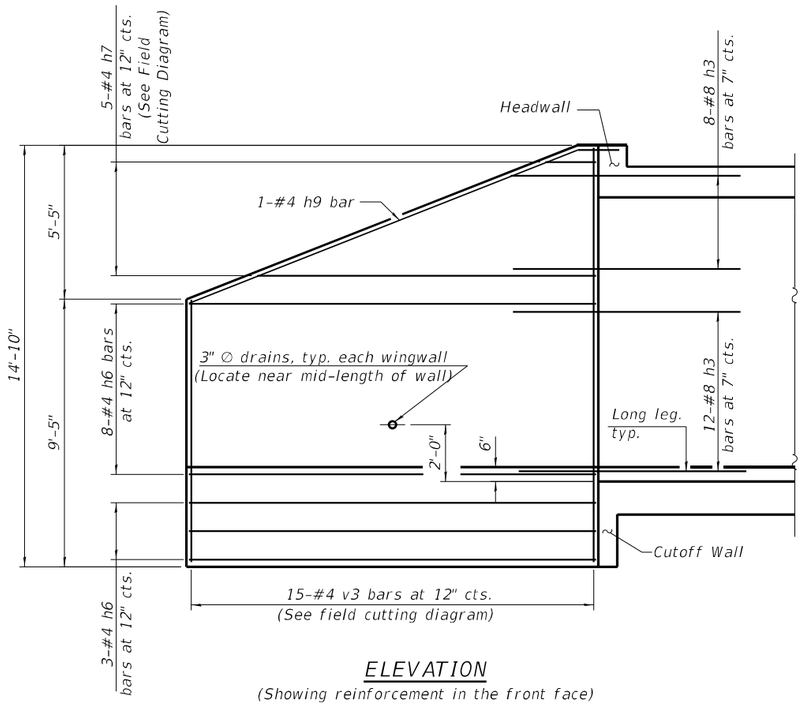
PLOT SCALE =	DRAWN – WJH	REVISED -	
PLOT DATE = 3/2/2026	CHECKED – AEU	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

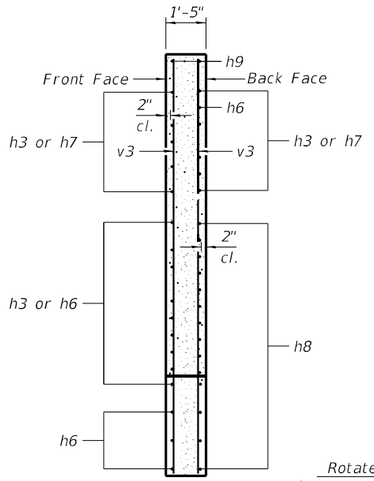
CULVERT DETAILS
STRUCTURE NO. 047-3180
SHEET NO. 6 OF 10 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2505	(61 & 108) W&R-1	KENDALL	531	372
		CONTRACT NO. 62M71		
		ILLINOIS	FED. AID PROJECT	

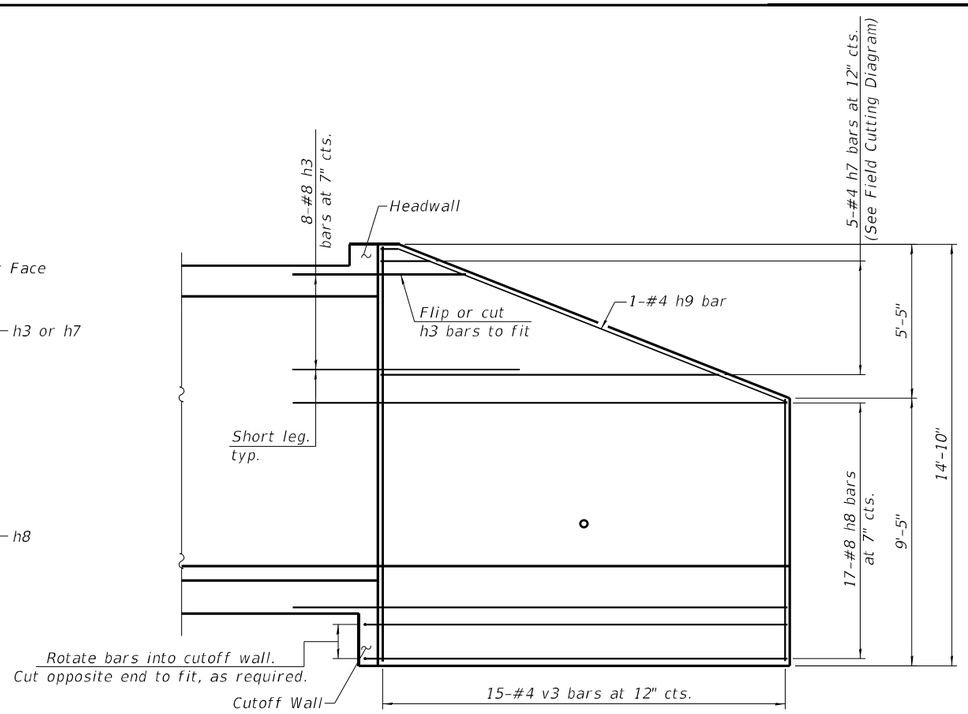


ELEVATION

(Showing reinforcement in the front face)

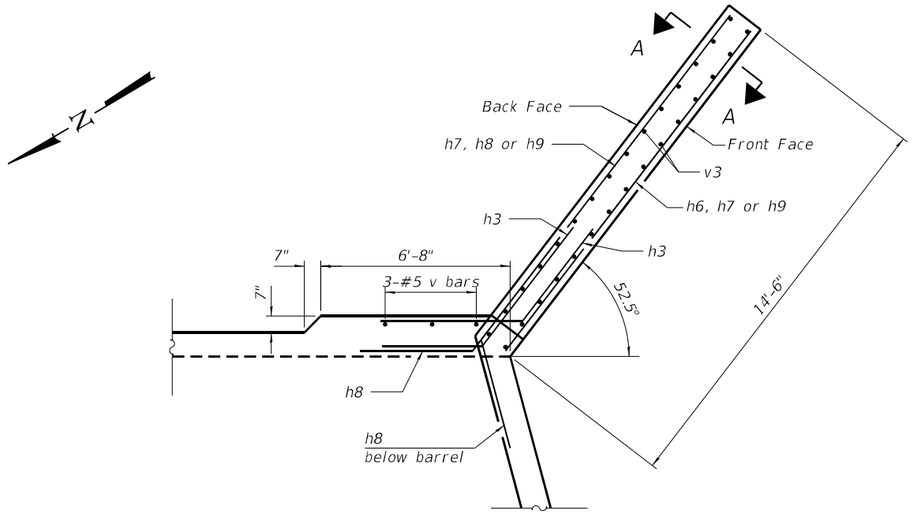


SECTION A-A



ELEVATION

(Showing reinforcement in the back face)



PLAN

(Southeast wingwall shown, Northwest wingwall similiar by 180° rotation)

FILE NAME: 047-3180-62M71-007-WingwallDetails.dgn
PLOT DRIVER: HRG_IL_007_pdf_bw.pltcfg
PEN TABLES: HRG_IL_007_pentable.tbl

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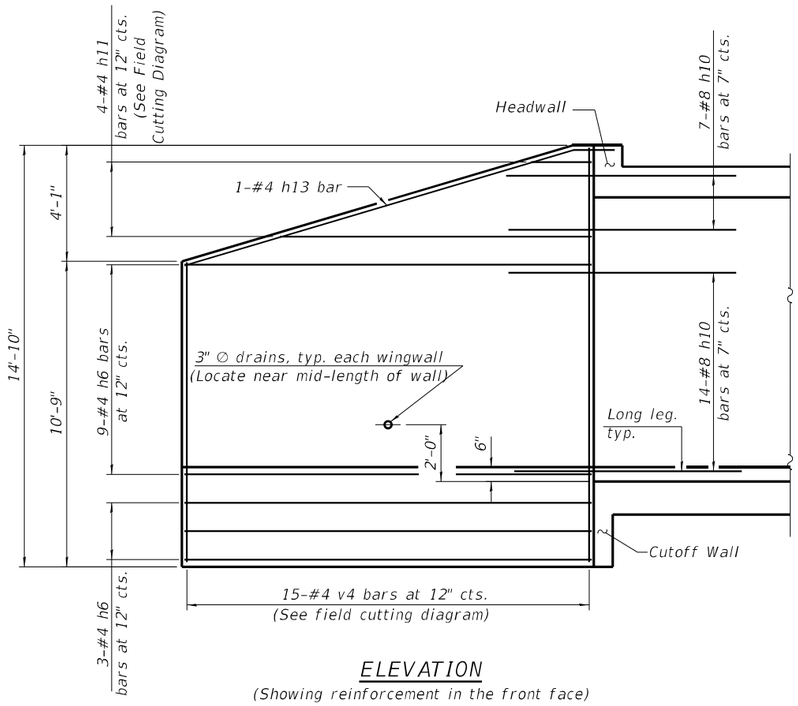
USER NAME = Jeff.helmer	DESIGNED – RAT	REVISED -
	CHECKED – AEU	REVISED -
PLOT SCALE =	DRAWN – WJH	REVISED -
PLOT DATE = 3/2/2026	CHECKED – AEU	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

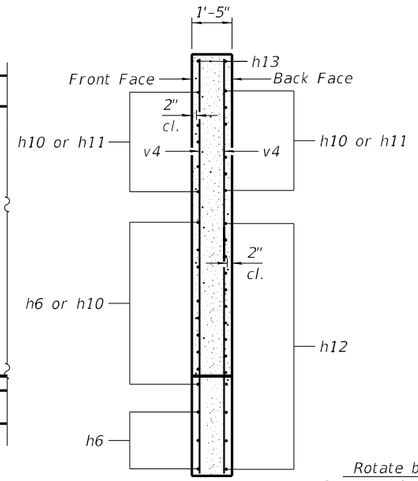
WINGWALL DETAILS
STRUCTURE NO. 047-3180
SHEET NO. 7 OF 10 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2505	(61 & 108) W&R-1	KENDALL	531	373
		CONTRACT NO. 62M71		
	ILLINOIS	FED. AID PROJECT		

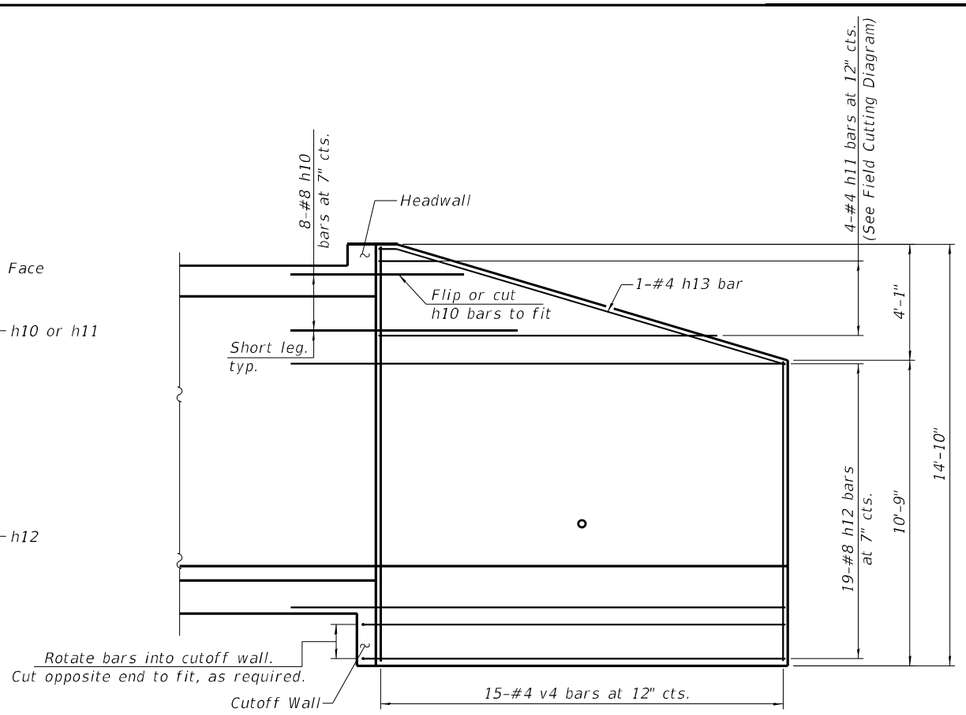


ELEVATION

(Showing reinforcement in the front face)

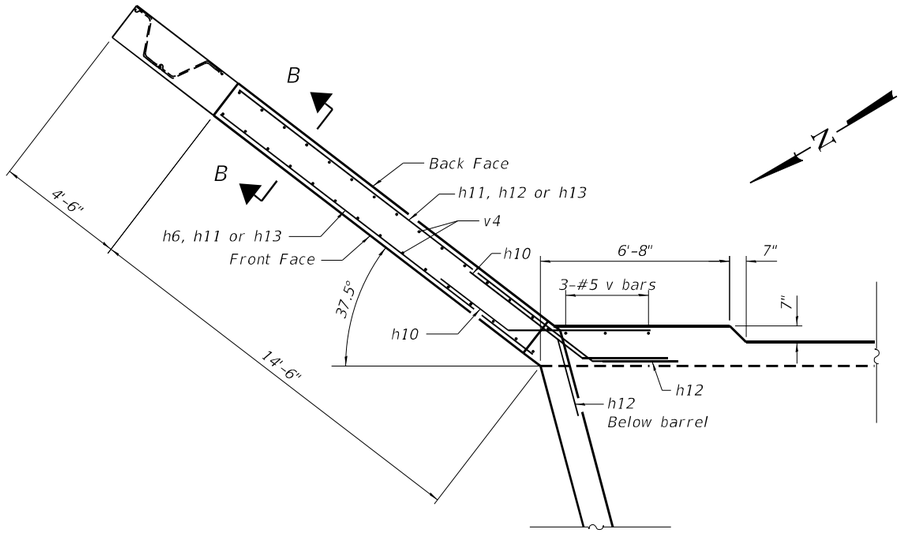


SECTION B-B



ELEVATION

(Showing reinforcement in the back face)



PLAN

(Northeast wingwall shown)

FILE NAME: 047-3180-62M71-D08-WingwallDetailsII.dgn
PLOT DRIVER: HRG_IL_D01_pdf_bw.pltcfg
PEN TABLES: HRG_IL_D01_pentable.tbl

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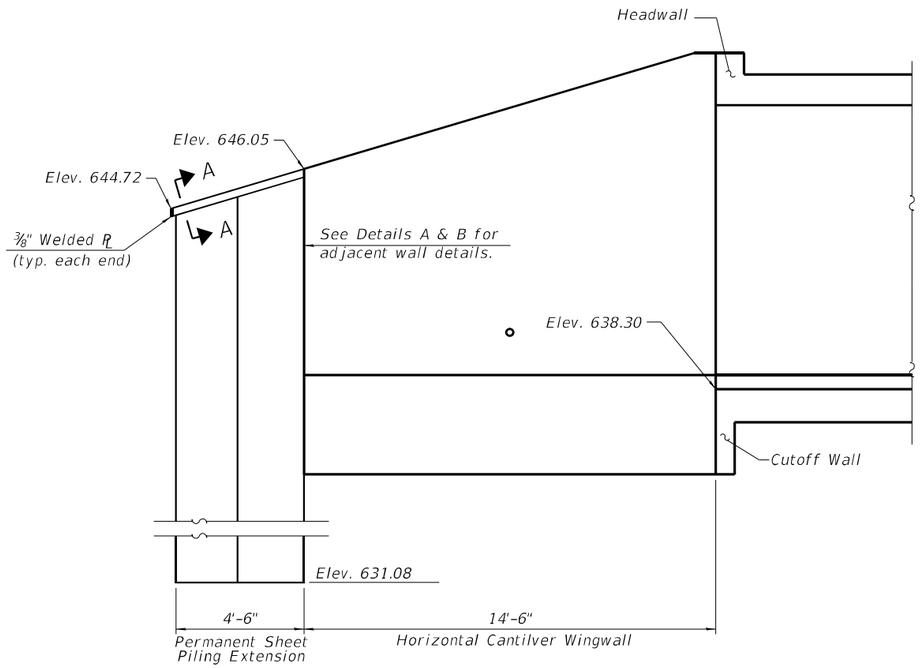
Illinois Professional Design Firm
184-001322

USER NAME = Jeff.helmer	DESIGNED – RAT	REVISED -
	CHECKED – AEU	REVISED -
PLOT SCALE =	DRAWN – AEU	REVISED -
PLOT DATE = 3/2/2026	CHECKED – AEU	REVISED -

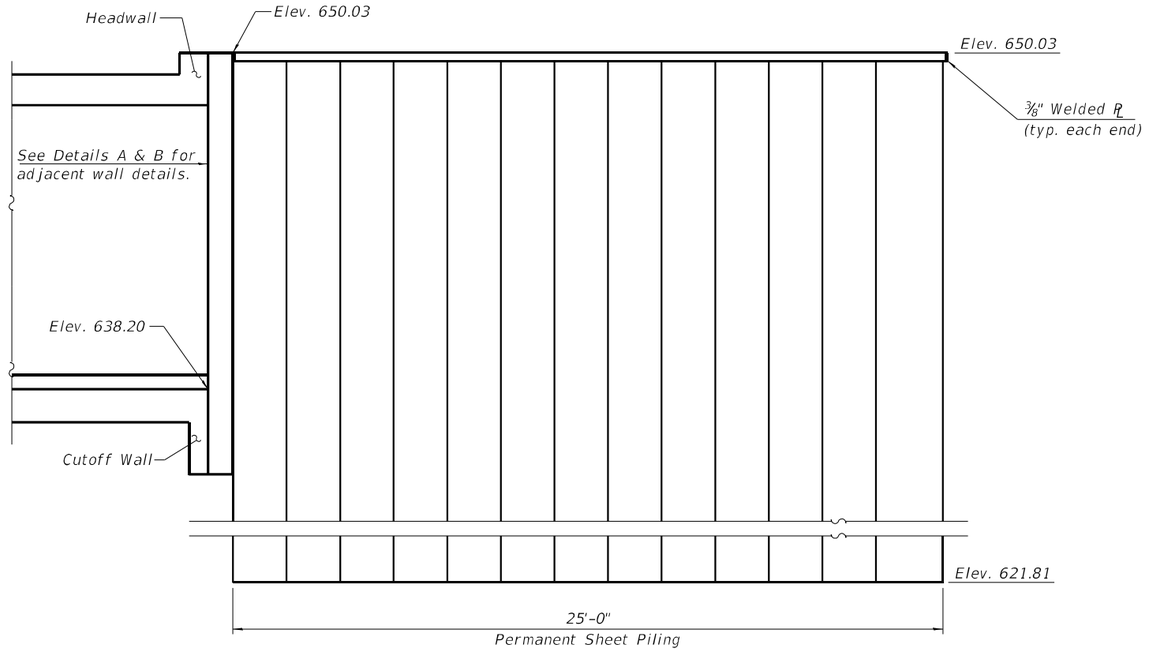
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WINGWALL DETAILS
STRUCTURE NO. 047–3180
SHEET NO. 8 OF 10 SHEETS

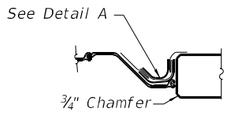
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2502	2020-198-W&T	KENDALL	531	374
		CONTRACT NO. 62M71		
	ILLINOIS	FED. AID PROJECT		



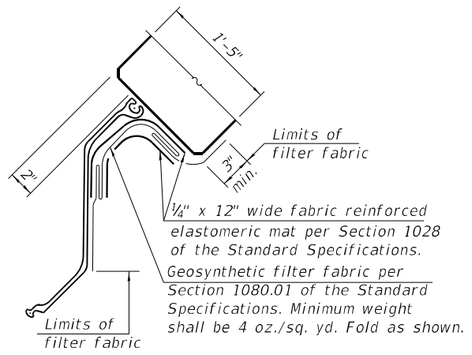
ELEVATION
(Northeast Wingwall Extension)



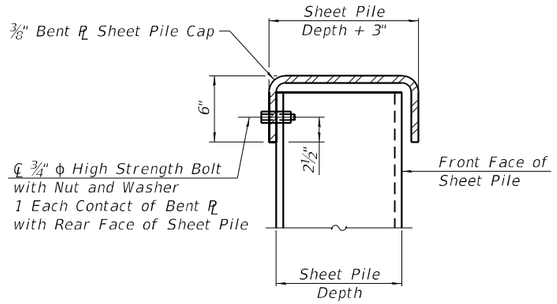
ELEVATION
(Southwest Wingwall)



DETAIL B



DETAIL A



SECTION A-A

Notes:

The minimum effective section modulus of the permanent steel sheet pile wall shall be 48.9 in.^{3}/ft. which includes allowance for long term corrosion loss.

Sheet piling shall not be driven until the concrete strength has attained a minimum flexural strength of 650 psi or a minimum compressive strength of 3500 psi.

The cost of furnishing and installing the bent PL sheet pile cap, elastomeric mat, and filter fabric shall be included in the cost of Permanent Sheet Piling.

BILL OF MATERIAL

Item	Unit	Total
Permanent Sheet Piling	Sq. Ft.	770

FILE NAME: 047-3180-62M71-009-WingwallDetailsIll.dgn
PLOT DRIVER: HRG_IL_001_pdf_bwpltcfg
PEN TABLES: HRG_IL_001_pentable.tbl

HRGreen.com
Illinois Professional Design Firm
184-001322

USER NAME = Jeff.helmer	DESIGNED – RAT	REVISED -	
	CHECKED – AEU	REVISED -	
PLOT SCALE =	DRAWN – AEU	REVISED -	
PLOT DATE = 3/2/2026	CHECKED – AEU	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PERMANENT SHEET PILE WINGWALL DETAILS
STRUCTURE NO. 047–3180
SHEET NO. 9 OF 10 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2502	2020-198-W&T	KENDALL	531	375
		CONTRACT NO. 62M71		
	ILLINOIS	FED. AID PROJECT		

Illinois Department of Transportation
Division of Highways
ILLINOIS DOT

SOIL BORING LOG

Date 11/20/12

ROUTE Galena Road (FAU 2502) **DESCRIPTION** Galena Road over Rob Roy Creek at Intersection with IL 47 **LOGGED BY** Larry Myers

SECTION 01-00069-00-BR **LOCATION** NW 1/4, **SEC.** 9, **TWP.** 37N, **RNG.** 7E

COUNTY Kendall **DRILLING METHOD** Hollow Stem Auger **HAMMER TYPE** CME Automatic

STRUCT. NO. 047-3180
Station 98+39.00

BORING NO. 1 (S.W. Quad.)
Station 97+87
Offset 72.00 ft Rt.
Ground Surface Elev. 646.94 ft

Surface Water Elev. 641.71 ft
Stream Bed Elev. 640.97 ft

Groundwater Elev.:
First Encounter 639.9 ft ▼
Upon Completion 636.9 ft ▽
After ____ Hrs. ____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Augered Black & Brown Silty Clay/Silty Clay Loam Fill			
644.44			
Stiff to Very Stiff Brown, Gray, Black Silty Clay Loam & Silty Clay Fill	6		
	4 3	2.5 P	30.1
642.44			
Stiff Gray Silt, Fine Sand, Silty Loam Interbedded - Alluvial Deposits	3		
	3 4	1.5 P	18.2
639.94 ▼			
Medium Gray Fine Sand to Coarse Gravel - Cobble/Boulder Potential with Free Water	7		
	11 12		9.9
637.44			
Stiff Gray Sandy Clay Loam Till with Heavy Gravel Pieces ▽	2		
	2 2	1.0 P	10.6
634.44			
Stiff to Very Stiff Gray Sandy Clay Loam Till with Layers of Silt, Sand & Gravel	3		
	4 5	2.0 P	14.5
-15	4		
	5 7	2.5 P	13.8
	2		
	2 3	1.5 P	12.4
626.94 -20			

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
	5		
Medium to Dense Gray Fine Sand to Coarse Gravel with Layers of Sandy Loam Till	7 9	2.0 P	11.4
	9		
	9 18		16.5
-25			
	15		
	16 21		9.0
619.94			
Hard Brown Sandy Clay Loam Till	17		
	21 33		14.9
* Existing stationing along Galena Road assumed to increase eastbound. -30	15		
	18 27		12.4
615.44			
End of Boring			
-35			
-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)

BBS, form 137 (Rev. 8-99)

FILE NAME: 047-3180-62M71-00-BoringLogs.dgn
PLOT DRIVER: HRG_IL_DOT_pdf_bw.pltcfg
PEN TABLE: HRG_IL_DOT_pentable.tbl

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USER NAME = Jeff.helmer	DESIGNED – RAT	REVISED -	
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PLOT SCALE =	DRAWN – WJH	REVISED -	
PLOT DATE = 3/2/2026	CHECKED – AEU	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOG
STRUCTURE NO. 047–3180
SHEET NO. 10 OF 10 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2505	(61 & 108) W&R-1	KENDALL	531	376
		CONTRACT NO. 62M71		
	ILLINOIS	FED. AID PROJECT		

Benchmark 102:
Chiseled square in the southeast corner of concrete traffic signal controller pad at the northeast corner of Illinois Route 47 and U.S. Route 30/Baseline Road.
Elevation: 656.66 (NAVD 88).

Existing Structure:
Structure No. 045-3044 built in 1966 is a single span reinforced concrete slab bridge with a 15° skew. The bridge has a structure length of 30'-0" and an out-to-out width of 26'-0". The structure is supported on reinforced concrete closed abutments and untreated timber piles.

Traffic Control:
Road will be closed. Traffic will be detoured.

No Salvage

Precast alternate is not allowed.

DESIGN SPECIFICATIONS

2024 AASHTO LRFD Bridge Design Specifications, 10th Edition

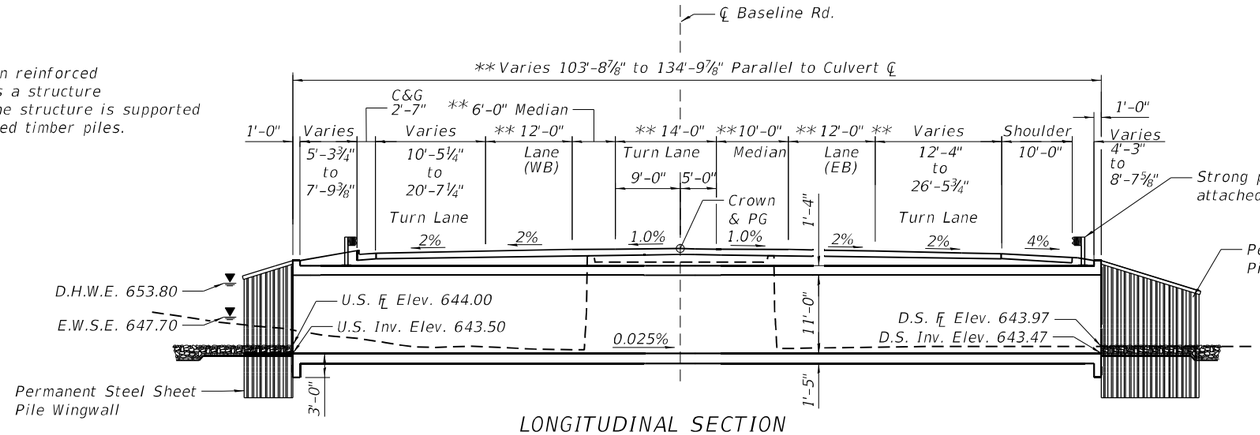
DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)
fy = 50,000 psi (Steel Piling)
fy = 36,000 psi (Tie back rods, plates)

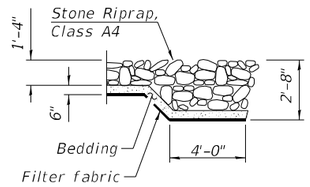
LOADING HL-93

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

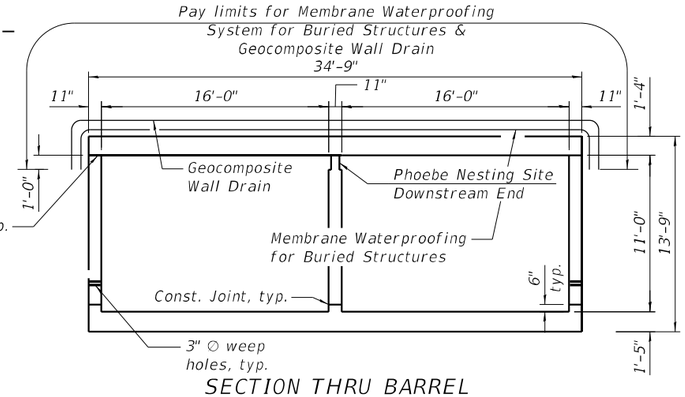


LONGITUDINAL SECTION

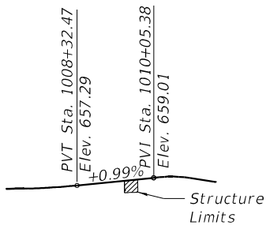
(Looking East)
*** Measured perpendicular to Roadway Centerline unless noted otherwise.*



SECTION A-A

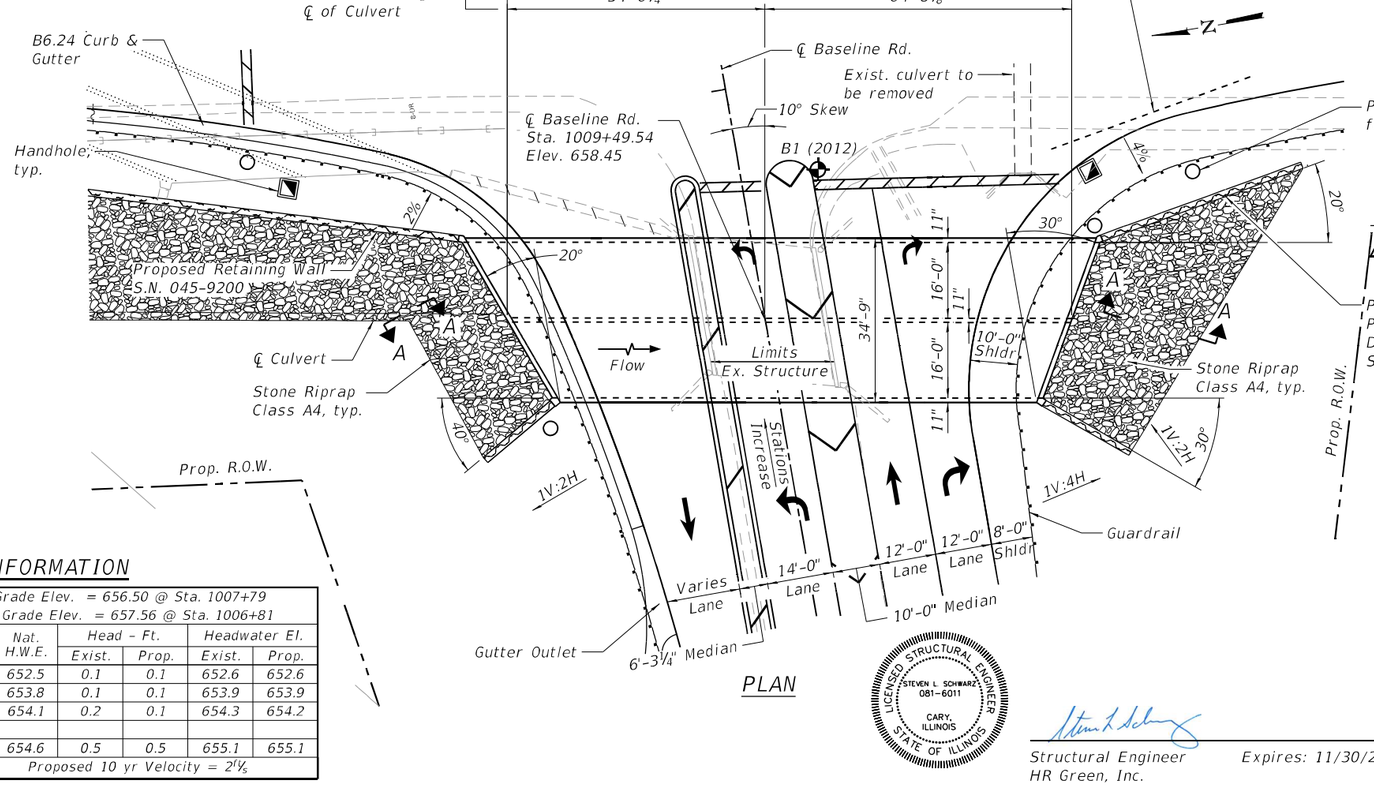


SECTION THRU BARREL



PROFILE GRADE

(Along ℄ Baseline Rd.)

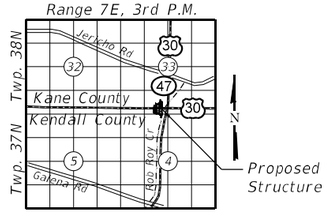


PLAN

STATION 1009+49.54
BUILT 202X BY
STATE OF ILLINOIS
F.A.P. RTE 326
SEC 2020-198-W&T
LOADING HL-93
STRUCTURE NO. 045-8306

NAME PLATE

See Std. 515001



LOCATION SKETCH

LEGEND

Soil Boring

APPROVED
For Structural Adequacy Only
Engineer of Bridges & Structures

WATERWAY INFORMATION

Drainage Area = 7.1 Sq. Mi. — *Existing Low Grade Elev. = 656.50 @ Sta. 1007+79* — *Proposed Low Grade Elev. = 657.56 @ Sta. 1006+81*

Flood	Freq. Yr.	Q C.F.S.	Opening Ft² Exist.	Opening Ft² Prop.	Nat. H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
	10	456	215	272	652.5	0.1	0.1	652.6	652.6
Design	50	766	251	314	653.8	0.1	0.1	653.9	653.9
Base	100	916	259	323	654.1	0.2	0.1	654.3	654.2
Overtopping									
Max Calc.	500	1,231	272	339	654.6	0.5	0.5	655.1	655.1

Existing 10 yr Velocity = 2 ft/s — *Proposed 10 yr Velocity = 2 ft/s*

GENERAL PLAN AND ELEVATION
BASELINE ROAD / M.S. 1993A
OVER ROB ROY CREEK
F.A.P. RTE. 326 - SEC. 2020-198-W&T
KANE/KENDALL COUNTY
STATION 1009+49.54
STRUCTURE NO. 045-8306

LICENSED STRUCTURAL ENGINEER — STEVEN L. SCHWARZ 081-6011 — CARY, ILLINOIS — STATE OF ILLINOIS

Structural Engineer — *Expires: 11/30/2026*
HR Green, Inc.

FILE NAME: 045-8306-62M71-000-GPE.dgn
PLOT DRIVER: /HRG_IL_DOT.pdf_bw.pltcfg
PEN TABLES: HRG_IL_DOT.pentable.tbl

HRGreen.com
Illinois Professional Design Firm # 184-001322
HRGreen

USER NAME = Jeff.helmer	DESIGNED — SLS	REVISED -	
	CHECKED — RAT	REVISED -	
PLOT SCALE =	DRAWN — JJH	REVISED -	
PLOT DATE = 3/2/2026	CHECKED — AEU	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. 1 OF 10 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	2020-198-W&T	KANE/KENDALL	531	377
		CONTRACT NO. 62M71		
		ILLINOIS	FED. AID PROJECT	

GENERAL NOTES

Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the engineer.

Cost of deadman system and excavation for same shall be included in the cost of permanent sheet pilng.

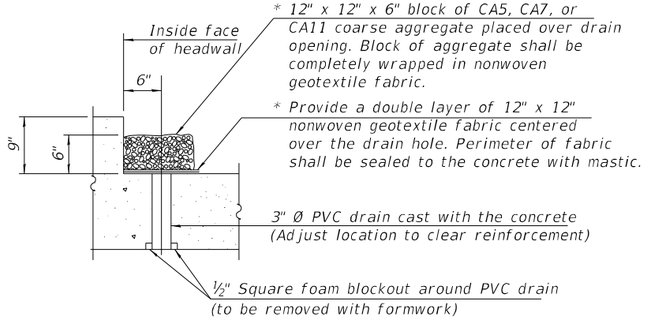
Geocomposite Wall Drain shall be according to Section 591 of the Standard Specifications, except that concrete nails shall not be used in areas where it overlaps membrane waterproofing system for Buried Structures.

INDEX OF SHEETS

TOTAL BILL OF MATERIAL

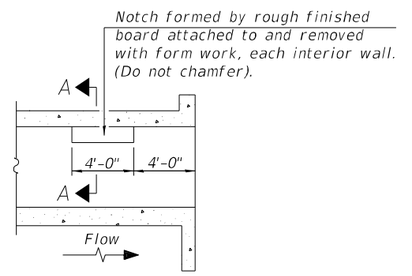
ITEM	UNIT	QUANTITY	TOTAL
STONE RIPRAP, CLASS A4	SQ YD	212	212
FILTER FABRIC	SQ YD	212	212
REMOVAL OF EXISTING STRUCTURE NO. 2	EACH	1	1
REINFORCEMENT BARS	POUND	111,860	111,860
NAME PLATES	EACH	1	1
PERMANENT SHEET PILING	SQ FT	2144	2144
CONCRETE BOX CULVERTS	CU YD	564	564
GEOCOMPOSITE WALL DRAIN	SQ YD	514	514
STRONG POST GUARDRAIL ATTACHED TO CULVERT	FOOT	77	77
MEMBRANE WATERPROOFING SYSTEM FOR BURIED STRUCTURES	SQ YD	514	514

* Nonwoven geotextile fabric shall conform to the requirements of Article 1080.01 of the Standard Specifications. The minimum weight of the fabric shall be 6 ounces per square yard.

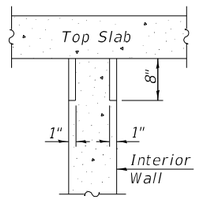


DRAIN DETAIL

(All costs associated with furnishing and constructing the above drain detail will not be measured for payment but shall be included in the contract unit price for the associated work.)



LONGITUDINAL SECTION



SECTION A-A

PHOEBE NESTING SITE DETAILS

(Downstream End Only)

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PLOT DRIVER: /HRG_IL_001_pdf_bw.plt
PEN TABLES: HRG_IL_001_pentable.tbl

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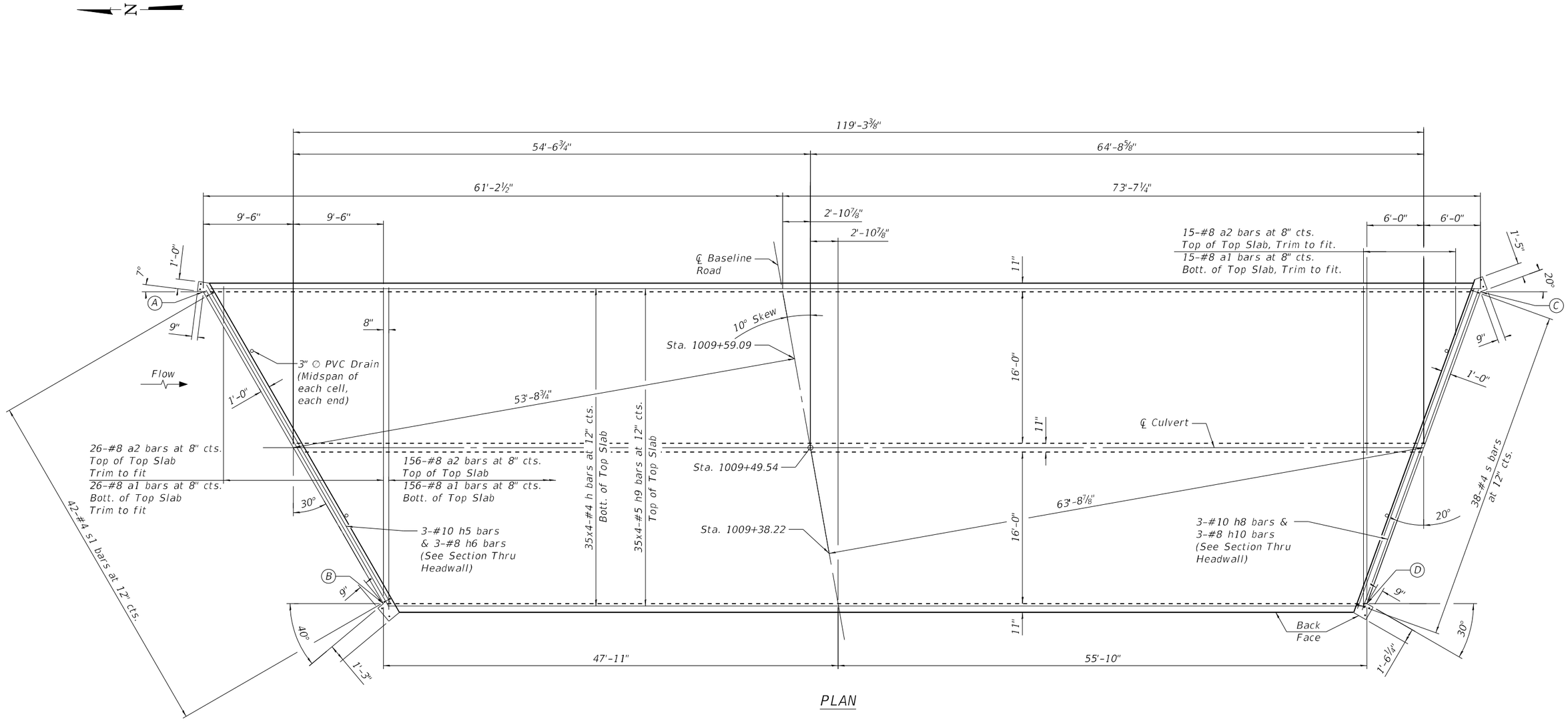
Illinois Professional Design Firm
184-001322

USER NAME = Jeff.helmer	DESIGNED – SLS	REVISED -
	CHECKED – RAT	REVISED -
PLOT SCALE =	DRAWN – JJH	REVISED -
PLOT DATE = 3/2/2026	CHECKED – AEU	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES, INDEX OF SHEETS AND TOTAL BILL OF MATERIALS
STRUCTURE NO. 045–8306
SHEET NO. 2 OF 10 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	2020-198-W&T	KANE/KENDALL	531	378
			CONTRACT NO. 62M71	
	ILLINOIS	FED. AID PROJECT		



PLAN

MINIMUM BAR LAP

#4 bars = 2'-3"
#5 bars = 2'-9"

Notes:

Bars indicated thus 12x4-#5 etc. indicates 12 lines of bars with 4 lengths per line.

At the Contractor's option, a longer v1 bar may be ordered to replace the v bar. No reduction in quantities shall be made for this substitution.

See sheet 9 of 10 for Bill of Material and headwall details.

Location	Station	Offset
A	1009+76.95	60.20' LT.
B	1009+41.23	47.25' LT.
C	1009+53.36	72.25' RT.
D	1009+23.06	54.93' RT.

-Points are located at end of slab at inside face of exterior walls.

FILE NAME: 045-8306-62M71-003-TopSlabReinf.dgn
PLOT DRIVER: /HRG_IL_D01_pdf_bw.ctf
PEN TABLE: HRG_IL_D01_pentable.tbl

HRGreen.com
Illinois Professional Design Firm
184-001322

USER NAME = Jeff.helmer	DESIGNED - SLS	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TOP SLAB STRUCTURE NO. 045-8306	
	CHECKED - RAT	REVISED -			
PLOT SCALE =	DRAWN - JJH	REVISED -			
PLOT DATE = 3/2/2026	CHECKED - AEU	REVISED -		SHEET NO. 3 OF 10 SHEETS	

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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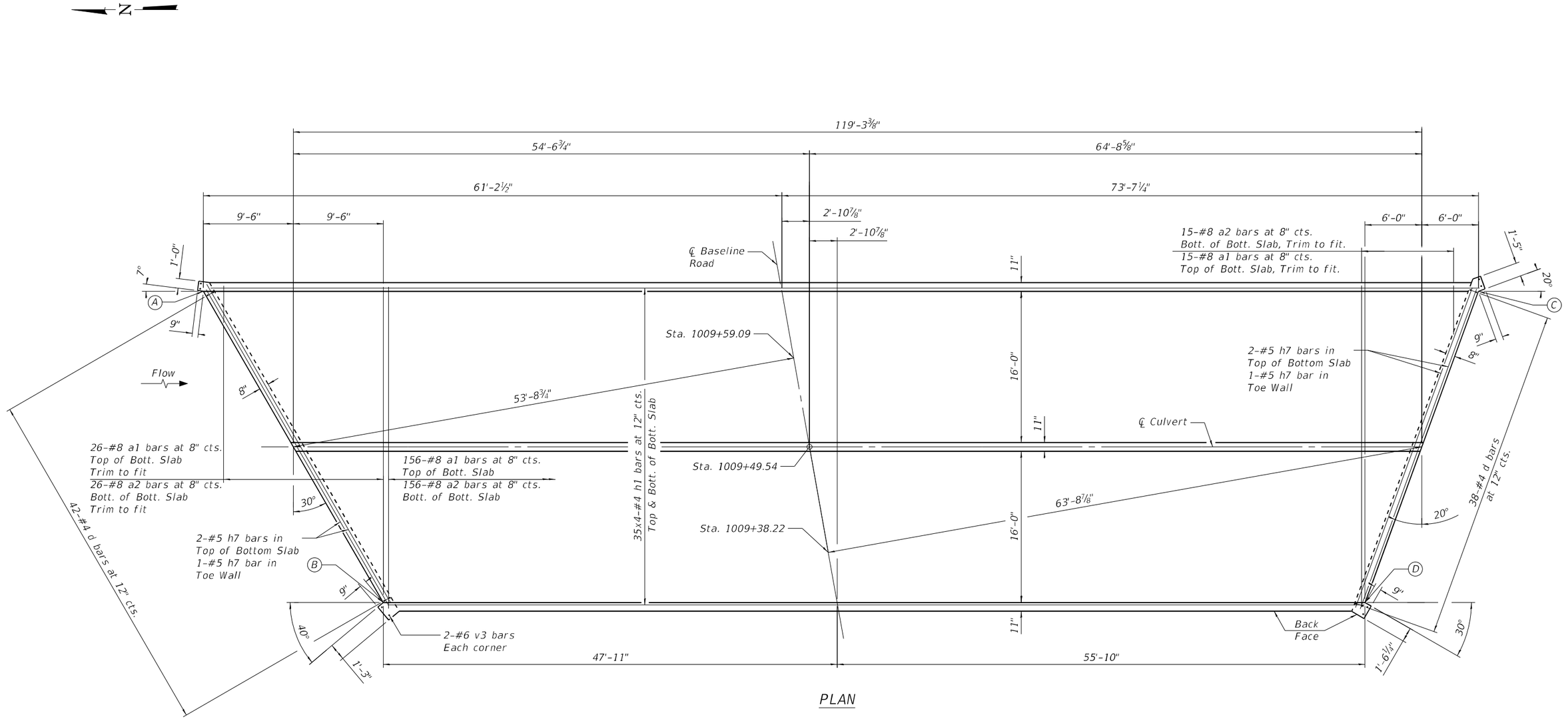
		CONTRACT NO. 62M71		
	ILLINOIS	FED. AID PROJECT		



PLAN

MINIMUM BAR LAP

#4 bars = 2'-3"
#5 bars = 2'-9"

Notes:

Bars indicated thus 12x4-#5 etc. indicates 12 lines of bars with 4 lengths per line.

At the Contractor's option, a longer v1 bar may be ordered to replace the v bar. No reduction in quantities shall be made for this substitution.

See sheet 9 of 10 for Bill of Material and headwall details.

Location	Station	Offset
A	1009+76.95	60.20' LT.
B	1009+41.23	47.25' LT.
C	1009+53.36	72.25' RT.
D	1009+23.06	54.93' RT.

-Points are located at end of slab at inside face of exterior walls.

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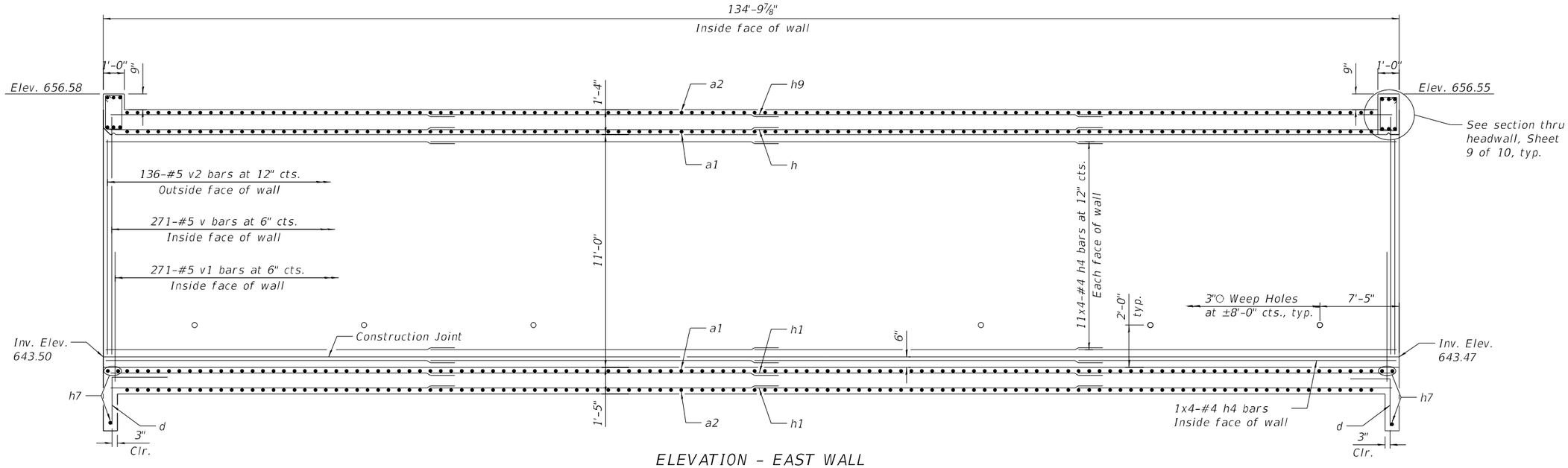
PLOT SCALE =	DRAWN - JJH	REVISED -	
PLOT DATE = 3/2/2026	CHECKED - AEU	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BOTTOM SLAB
STRUCTURE NO. 045-8306
SHEET NO. 4 OF 10 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	2020-198-W&T	KANE/KENDALL	531	380
		CONTRACT NO. 62M71		
	ILLINOIS	FED. AID PROJECT		



ELEVATION - EAST WALL

Notes:

Bars indicated thus 12x4-#5 etc. indicates 12 lines of bars with 4 lengths per line.

At the Contractor's option, a longer v1 bar may be ordered to replace the v bar. No reduction in quantities shall be made for this substitution.

See sheet 9 of 10 for Bill of Material and culvert details.

MINIMUM BAR LAP

#4 bars = 2'-3"

#5 bars = 2'-9"

FILE NAME: 045-8306-62M71-005-WallElevations.dgn
PLOT DRIVER: HRG_IL_D01_pdf_bw.pltcfg
PEN TABLE: HRG_IL_D01_pentable.tbl

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Illinois Professional Design Firm
184-001322

USER NAME = Jeff.helmer	DESIGNED - SLS	REVISED -	
	CHECKED - RAT	REVISED -	
PLOT SCALE =	DRAWN - JJH	REVISED -	
PLOT DATE = 3/2/2026	CHECKED - AEU	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WALL ELEVATIONS
STRUCTURE NO. 045-8306
SHEET NO. 5 OF 10 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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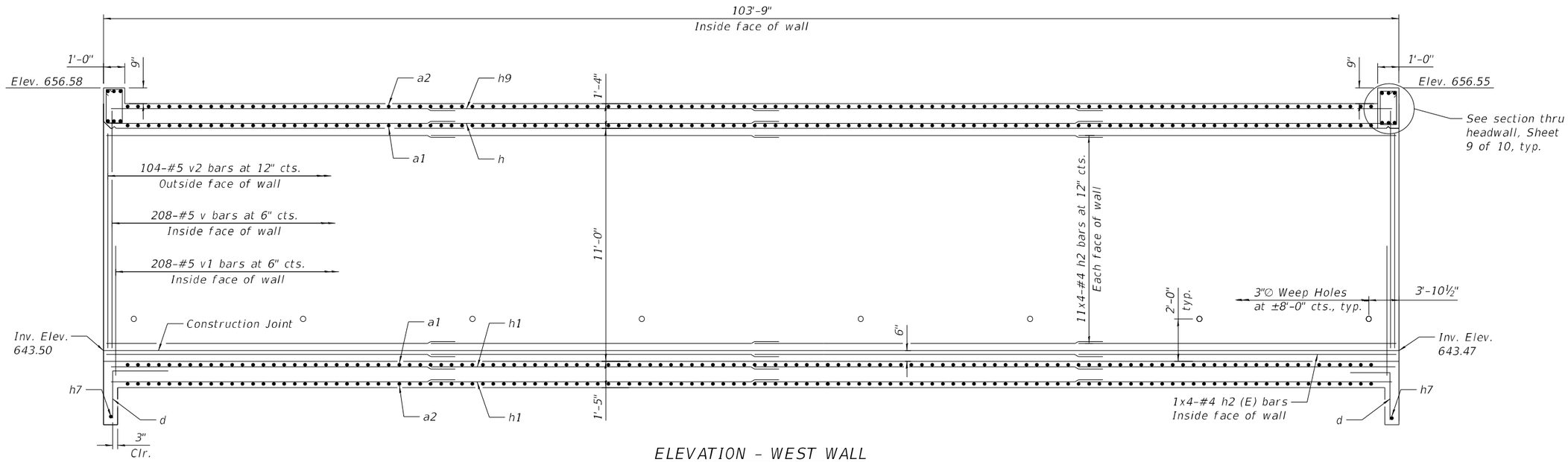
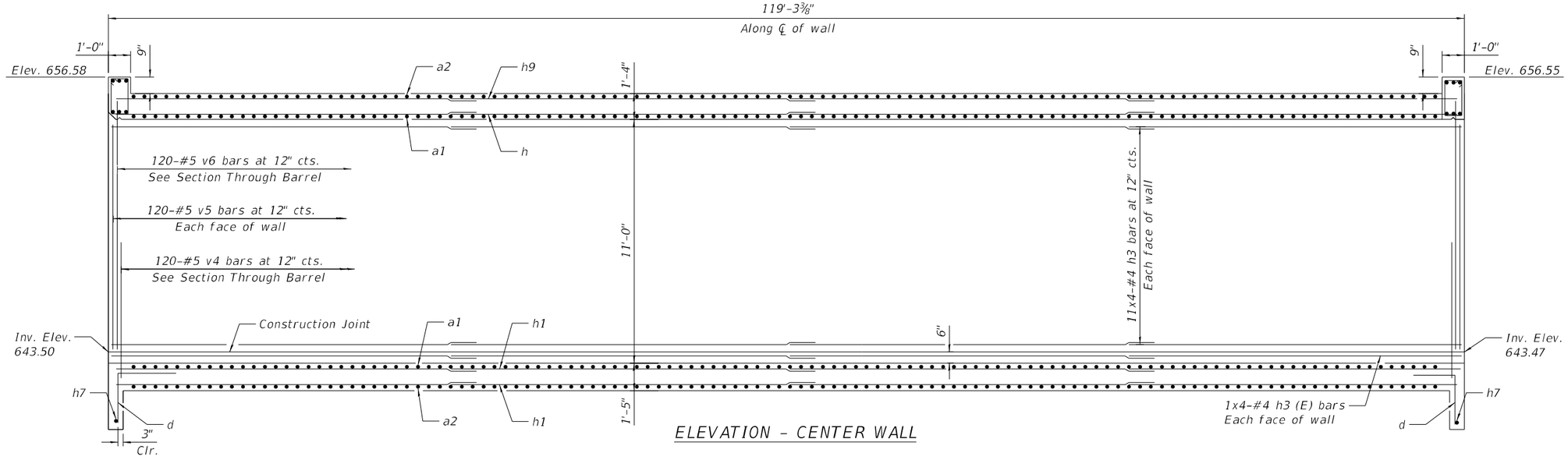
		CONTRACT NO. 62M71		
	ILLINOIS	FED. AID PROJECT		



ELEVATION - WEST WALL



ELEVATION - CENTER WALL

Notes:

Bars indicated thus 12x4-#5 etc. indicates 12 lines of bars with 4 lengths per line.

At the Contractor's option, a longer v1 bar may be ordered to replace the v bar. No reduction in quantities shall be made for this substitution.

See sheet 9 of 10 for Bill of Material and culvert details.

MINIMUM BAR LAP

#4 bars = 2'-3"
#5 bars = 2'-9"

FILE NAME: 045-8306-62M71-006-WallElevations.dgn
PLOT DRIVER: /ARC_IL_001.pdf.pwg,arc.cfg
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Illinois Professional Design Firm
184-001322

USER NAME = Jeff.heimer	DESIGNED - SLS	REVISED -	
	CHECKED - RAT	REVISED -	
PLOT SCALE =	DRAWN - JJH	REVISED -	
PLOT DATE = 3/2/2026	CHECKED - AEU	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WALL ELEVATIONS
STRUCTURE NO. 045-8306
SHEET NO. 6 OF 10 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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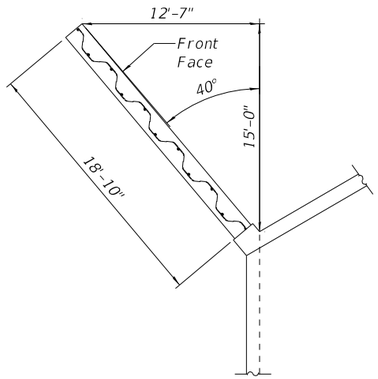
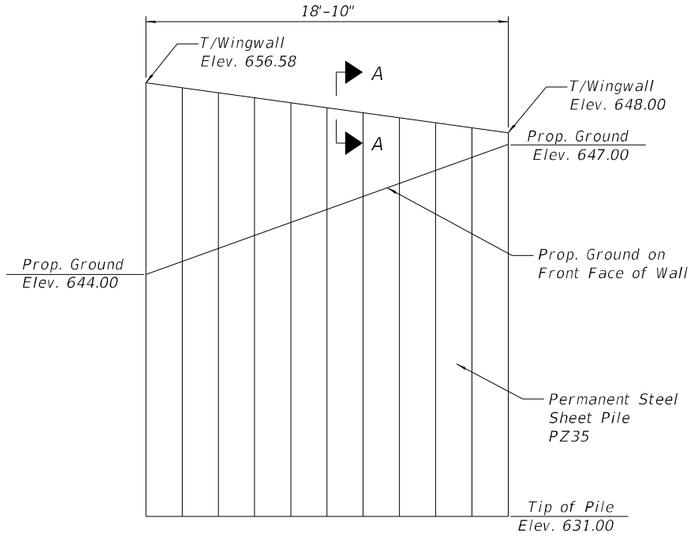
		CONTRACT NO. 62M71		
	ILLINOIS	FED. AID PROJECT		

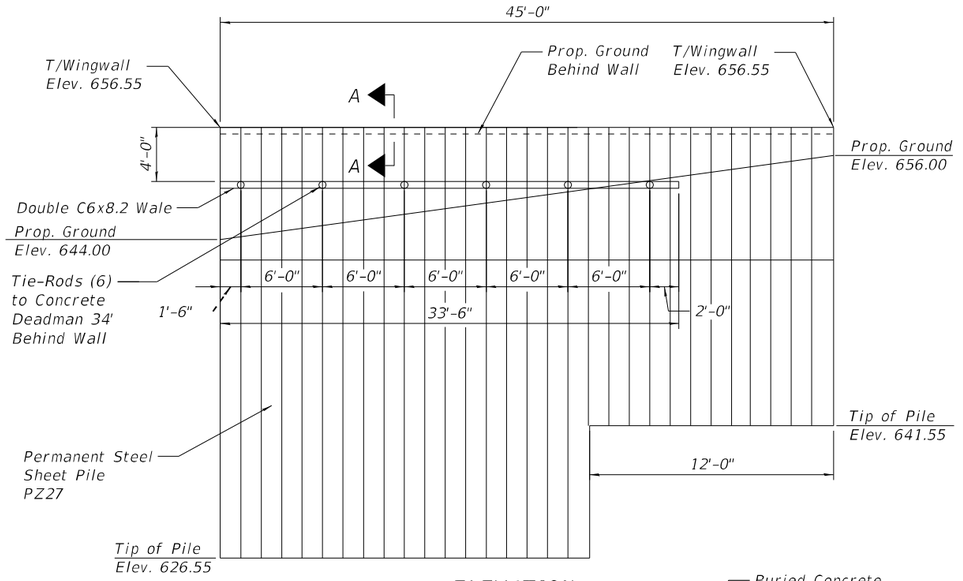


PLAN

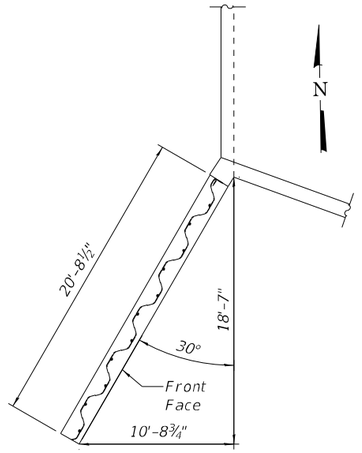


ELEVATION
(LOOKING WEST)

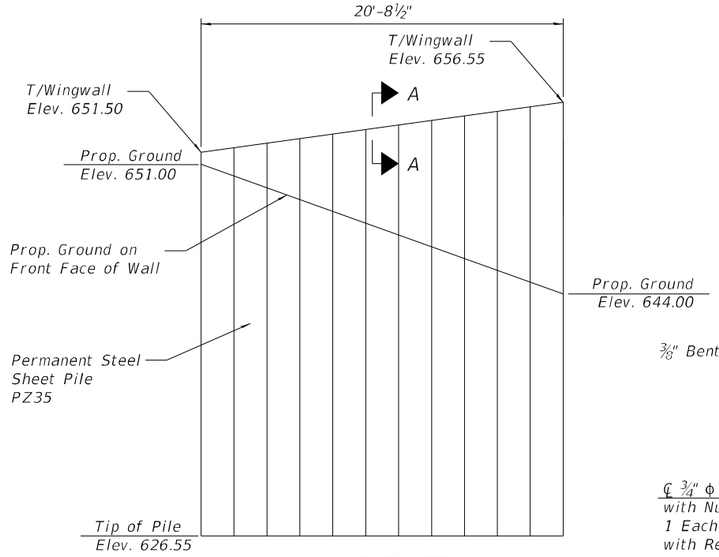
NORTHWEST CORNER



ELEVATION
(LOOKING EAST)

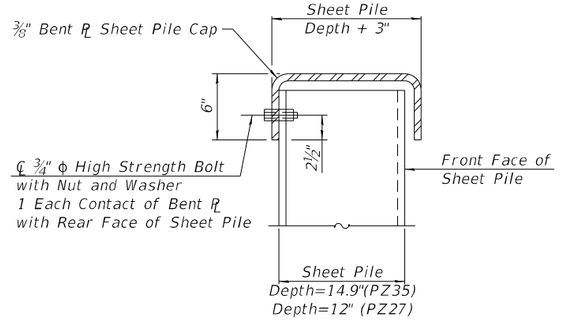


PLAN

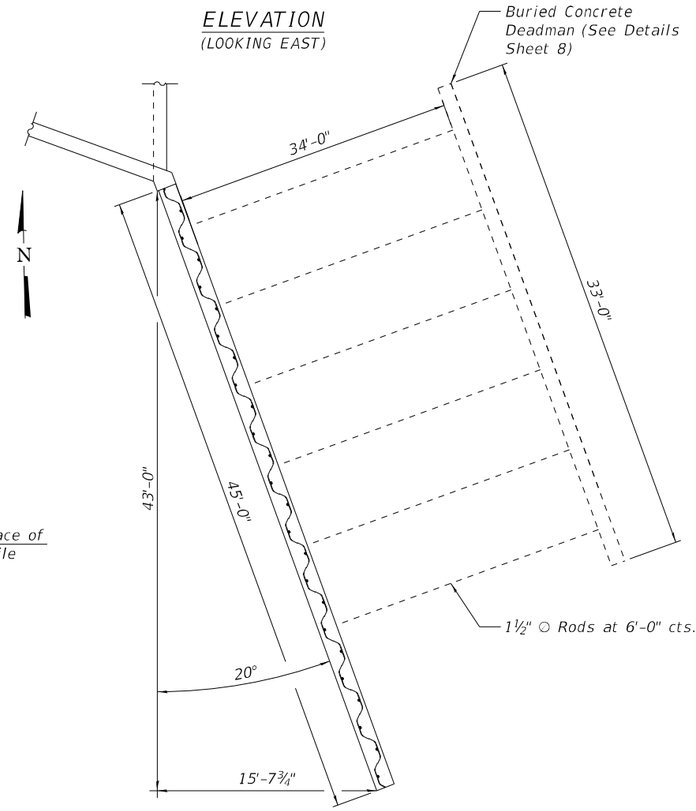


ELEVATION
(LOOKING WEST)

SOUTHWEST CORNER



SECTION A-A



PLAN

SOUTHEAST CORNER

Notes:

Cost of deadman system and excavation for same shall be included in the cost of Permanent Sheet Piling

As indicated on the boring logs, potential cobbles and boulders may be present within the embedment depths necessary. It should be assumed that vibratory installation of sheet pile sections may not be sufficient, and that hammering may be necessary.

The minimum effective section modulus of the permanent steel sheet pile wall shall be 30.2 (PZ27) or 48.5 (PZ35) in.³/ft. Which includes allowance for long term corrosion loss.

Notes (Cont.):

Sheet piling shall not be driven until the concrete strength has attained a minimum flexural strength of 650 psi or a minimum compressive strength of 3500 psi.

The cost of furnishing and installing the bent ℄ sheet pile cap, elastomeric mat, deadman anchorage system, and filter fabric shall be included in the cost of Permanent Sheet Piling.

FILE NAME: 045-8306-62M71-007-WingWallDetails.dgn
PLOT DRIVER: /ARC_E_001_pdf_bw.pltcfg
PEN TABLE: ARC_E_001_pentable.tbl

HRGreen.com
Illinois Professional Design Firm
184-001322
HRGreen

USER NAME = Jeff.helmer	DESIGNED – SLS	REVISED -	
	CHECKED – RAT	REVISED -	
PLOT SCALE =	DRAWN – JJH	REVISED -	
PLOT DATE = 3/2/2026	CHECKED – AEU	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WINGWALL DETAILS
STRUCTURE NO. 045-8306
SHEET NO. 7 OF 10 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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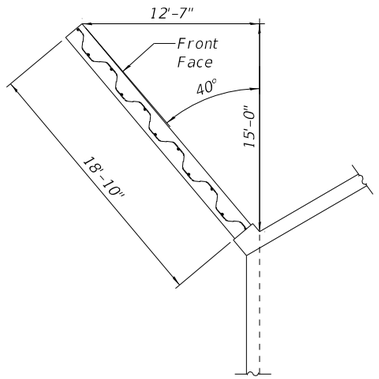
		CONTRACT NO. 62M71		
	ILLINOIS	FED. AID PROJECT		



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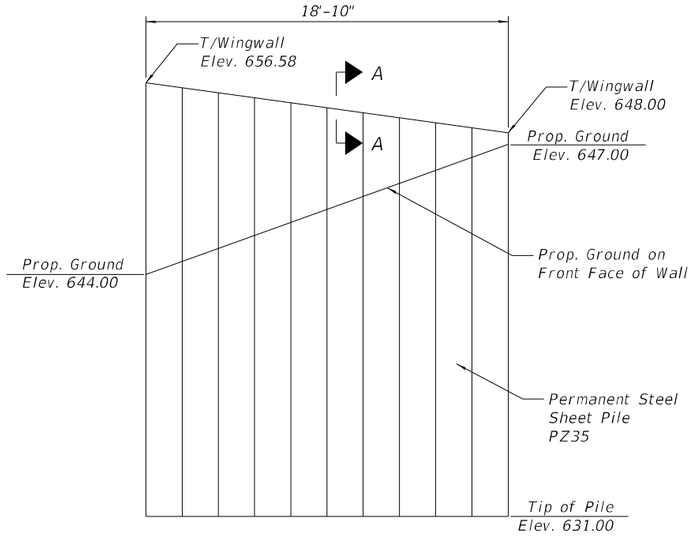
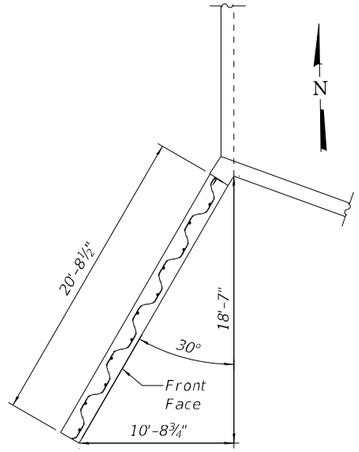
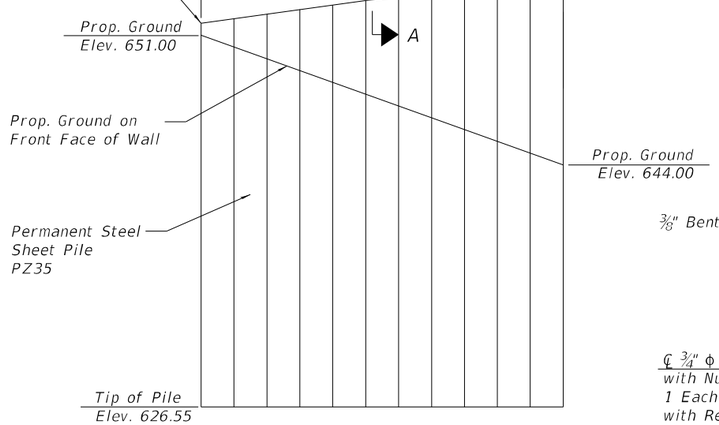


ELEVATION
(LOOKING WEST)

NORTHWEST CORNER

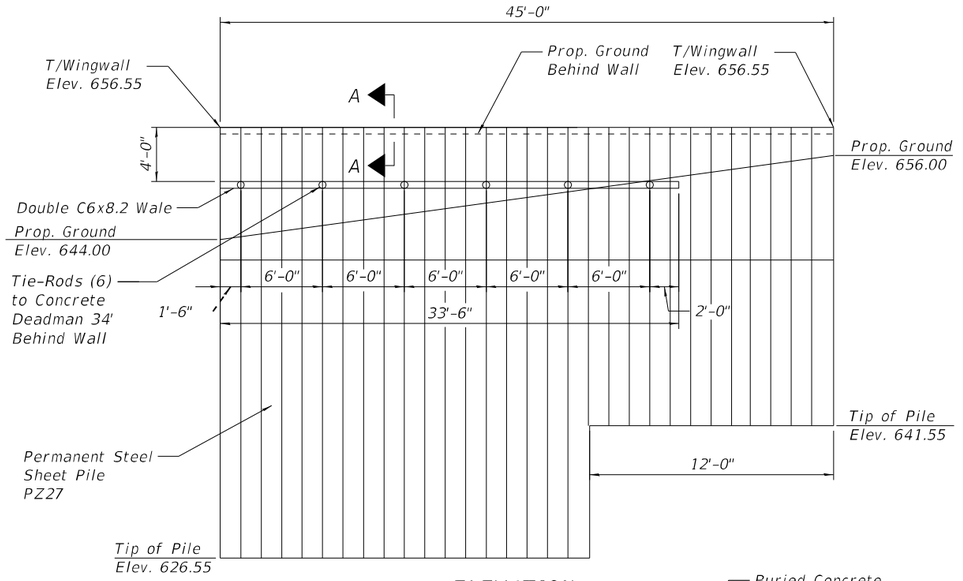


PLAN



ELEVATION
(LOOKING WEST)

SOUTHWEST CORNER



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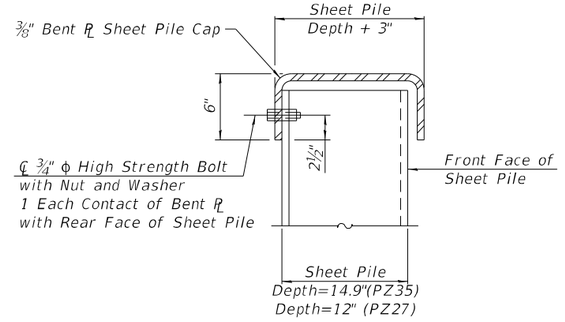
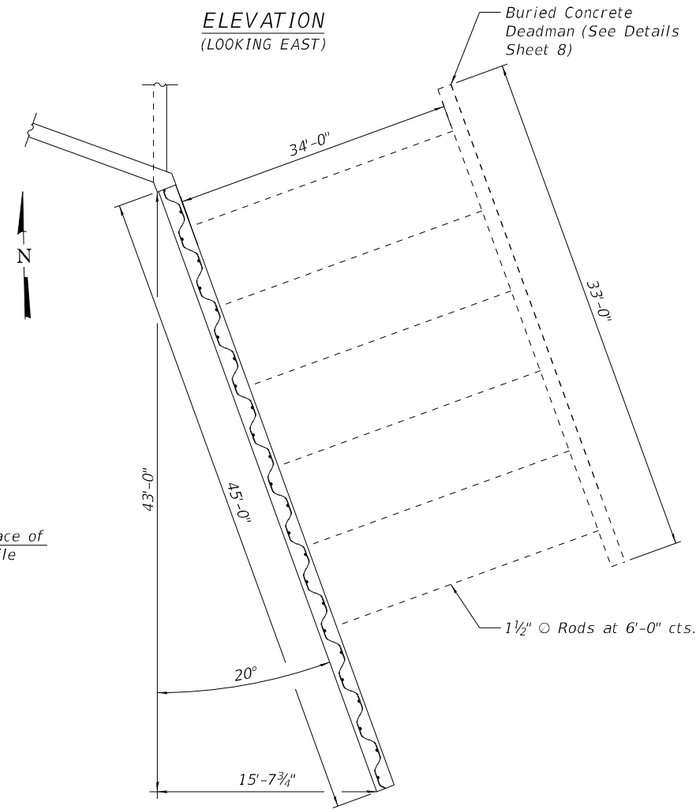
(LOOKING EAST)



SECTION A-A



PLAN

SOUTHEAST CORNER

Notes:

Cost of deadman system and excavation for same shall be included in the cost of Permanent Sheet Piling

As indicated on the boring logs, potential cobbles and boulders may be present within the embedment depths necessary. It should be assumed that vibratory installation of sheet pile sections may not be sufficient, and that hammering may be necessary.

The minimum effective section modulus of the permanent steel sheet pile wall shall be 30.2 (PZ27) or 48.5 (PZ35) in.³/ft. Which includes allowance for long term corrosion loss.

Notes (Cont.):

Sheet piling shall not be driven until the concrete strength has attained a minimum flexural strength of 650 psi or a minimum compressive strength of 3500 psi.

The cost of furnishing and installing the bent ℄ sheet pile cap, elastomeric mat, deadman anchorage system, and filter fabric shall be included in the cost of Permanent Sheet Piling.

See special provision for Deadman Anchor System.

1

FILE NAME: 045-8306-62M71-007-WingWallDetails.dgn
PLOT DRIVER: /HRG_IL_D01_pdf_bw.plotcfg
PEN TABLE: HRG_IL_D01_pentable.tbl

HRGreen.com
Illinois Professional Design Firm
184-001322

USER NAME = Jeff.helmer	DESIGNED - SLS	REVISED - 1 5/8/2026 SLS	
	CHECKED - RAT	REVISED -	
PLOT SCALE =	DRAWN - JJH	REVISED -	
PLOT DATE = 5/11/2026	CHECKED - AEU	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WINGWALL DETAILS
STRUCTURE NO. 045-8306
SHEET NO. 7 OF 10 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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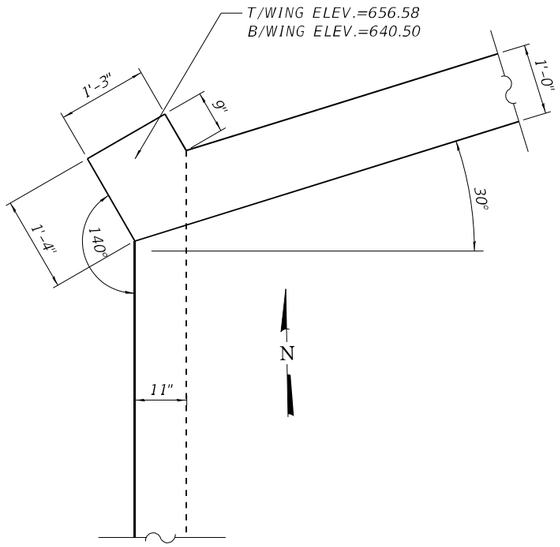
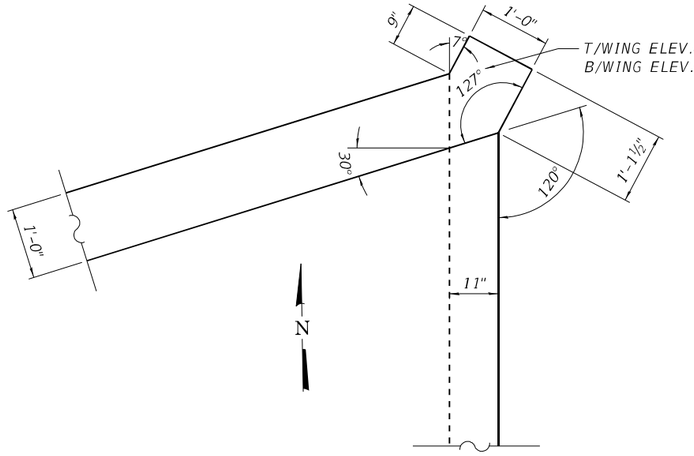
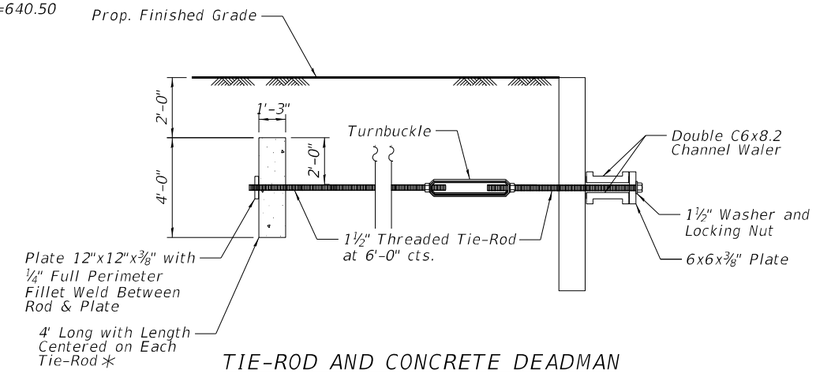
		CONTRACT NO. 62M71		
	ILLINOIS FED. AID PROJECT			



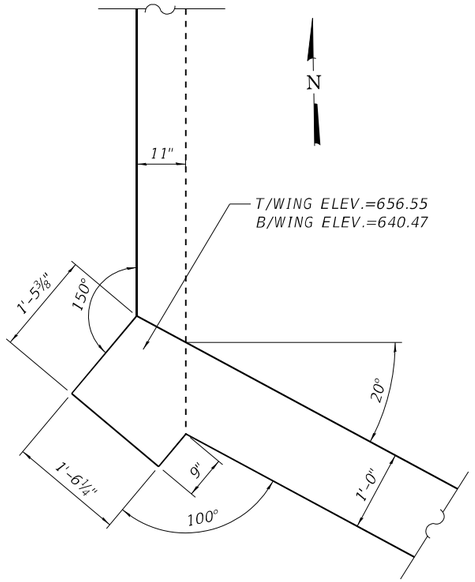
NORTHWEST CORNER



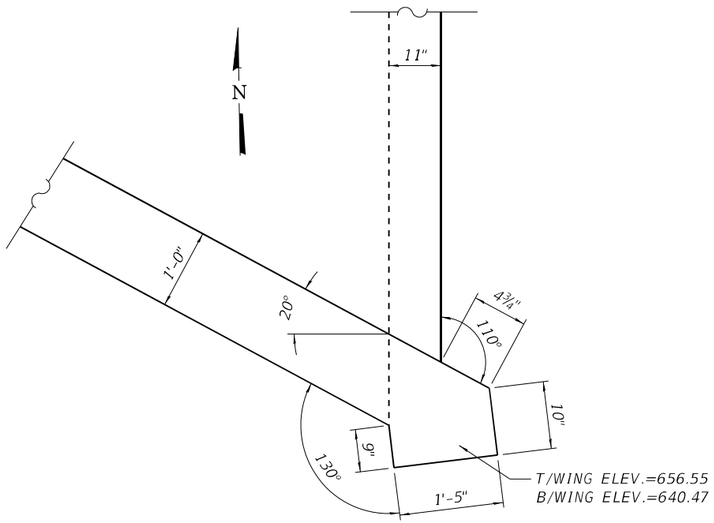
NORTHEAST CORNER



TIE-ROD AND CONCRETE DEADMAN
FOR SOUTHEAST WALL



SOUTHWEST CORNER



SOUTHEAST CORNER

Notes:

All hardware, channels, plates, etc. to be Hot Dip Galvanized in accordance with AASHTO M232.

All items shown in detail shall be included in the cost of Permanent Sheet Piling.

* A continuous wall may be used instead of individual 4' long pieces.

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HRGreen.com
Illinois Professional Design Firm
184-001322

USER NAME = Jeff.helmer	DESIGNED – SLS	REVISED -	
	CHECKED – RAT	REVISED -	
PLOT SCALE =	DRAWN – JJH	REVISED -	
PLOT DATE = 3/2/2026	CHECKED – AEU	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WINGWALL DETAILS
STRUCTURE NO. 045–8306
SHEET NO. 8 OF 10 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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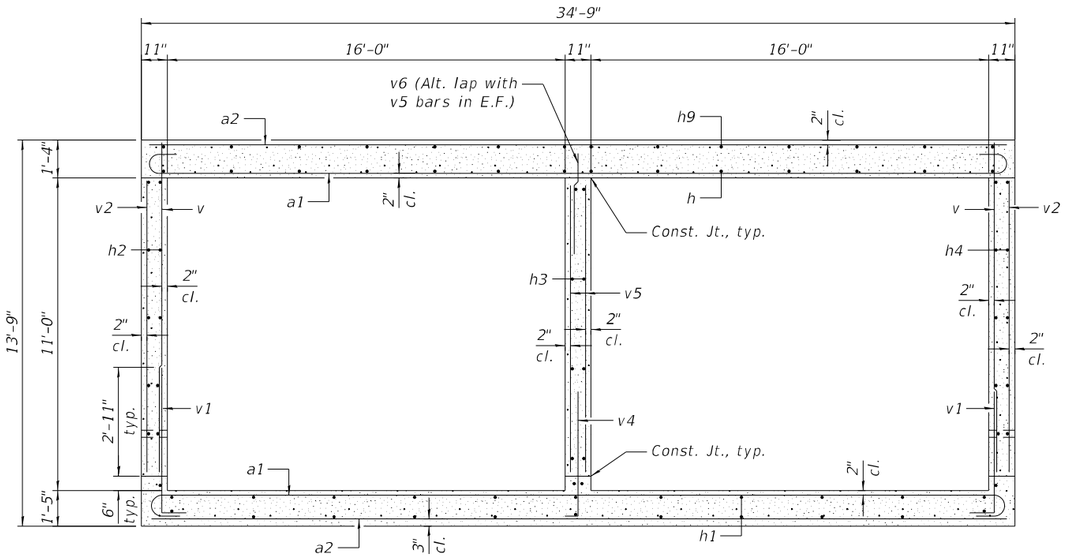
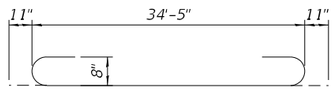
		CONTRACT NO. 62M71		
	ILLINOIS	FED. AID PROJECT		

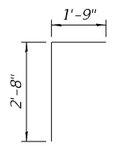


SECTION THRU BARREL

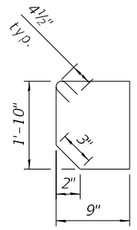
(Looking North)



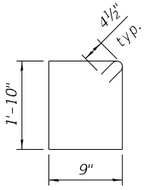
BAR a1



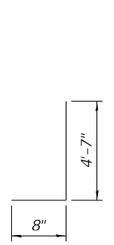
BAR d



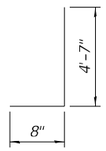
BAR s1



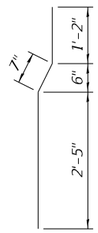
BAR s



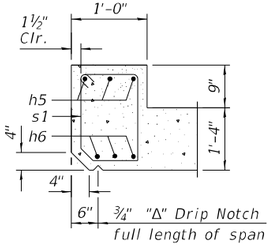
BAR v1



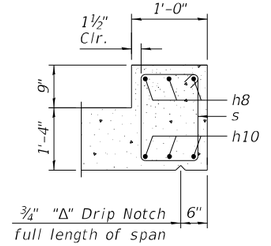
BAR v4



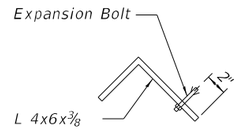
BAR v6



UPSTREAM

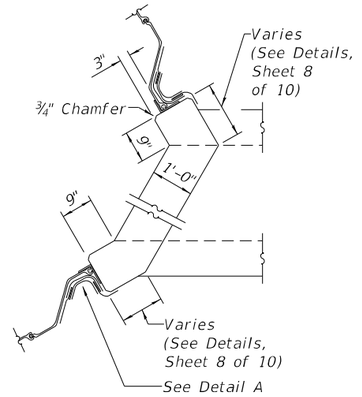


DOWNSTREAM



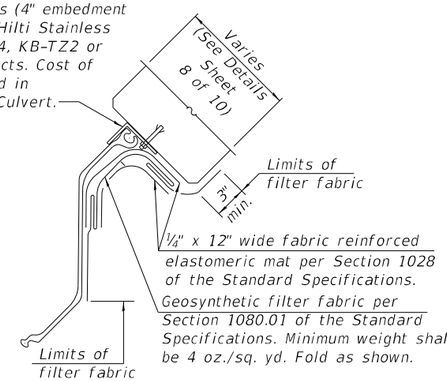
ANGLE DETAIL

SECTION THRU HEADWALL



CORNER DETAIL

L 4x6x⅜"xFull Height Anchor to end of wing with ¾" statinless steel expansion bolts (4" embedment min.) such as Hilti Stainless Steel, type 304, KB-TZ2 or similar at 12" cts. Cost of angles included in Concrete Box Culvert.



DETAIL A

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a1	394	#8	36'-3"	
a2	394	#8	34'-5"	
d	80	#4	4'-5"	
h	140	#4	35'-4"	
h1	280	#4	35'-4"	
h2	92	#4	27'-7"	
h3	96	#4	31'-6"	
h4	92	#4	35'-4"	
h5	3	#10	39'-10"	
h6	3	#8	39'-10"	
h7	6	#5	40'-0"	
h8	3	#10	36'-8"	
h9	140	#5	35'-8"	
h10	3	#8	36'-8"	
s	38	#4	5'-11"	
s1	42	#4	5'-10"	
v	479	#5	11'-6"	
v1	479	#5	5'-3"	
v2	240	#5	10'-2"	
v3	8	#6	15'-9"	
v4	120	#5	5'-3"	
v5	240	#5	10'-2"	
v6	120	#5	4'-6"	
Concrete Box Culverts		Cu. Yd.	563.6	
Reinforcement Bars		Pound	111,860	
Permanent Sheet Piling		Sq. Ft.	2,182	

Notes:

The minimum effective section modulus of the permanent steel sheet pile wall shall be 30.2 (PZ27) or 48.5 (PZ35) in.³/ft. Which includes allowance for long term corrosion loss.

Sheet piling shall not be driven until the concrete strength has attained a minimum flexural strength of 650 psi or a minimum compressive strength of 3500 psi.

The cost of furnishing and installing the bent ℄ sheet pile cap, elastomeric mat, deadman anchorage system, and filter fabric shall be included in the cost of Permanent Sheet Piling.

FILE NAME: 045-8306-62M71-009-details01.dgn
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PEN TABLE: HRG_IL_D01_pentable.tbl

HRGreen.com
Illinois Professional Design Firm
184-001322

USER NAME = Jeff.helmer	DESIGNED – SLS	REVISED -	
	CHECKED – RAT	REVISED -	
PLOT SCALE =	DRAWN – JJH	REVISED -	
PLOT DATE = 3/2/2026	CHECKED – AEU	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CULVERT DETAILS
STRUCTURE NO. 045-8306

SHEET NO. 9 OF 10 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	2020-198-W&T	KANE/KENDALL	531	385
		CONTRACT NO. 62M71		
	ILLINOIS	FED. AID PROJECT		

Illinois Department of Transportation
Division of Highways
ILLINOIS DOT

SOIL BORING LOG

Date 11/21/12

ROUTE Baseline Road **DESCRIPTION** Baseline Road over Rob Roy Creek, 0.01 mile west of IL 47 **LOGGED BY** Larry Myers

SECTION _____ **LOCATION** NW 1/4, **SEC.** 4, **TWP.** 37N, **RNG.** 7E, 3rd **PM**

COUNTY Kane **DRILLING METHOD** Hollow Stem Auger **HAMMER TYPE** CME Automatic

STRUCT. NO. 045-3044 (Exist.)
Station 6+10

BORING NO. 1 (S.W. Quad.)
Station 5+70 *
Offset 38.00ft Rt.
Ground Surface Elev. 653.64 ft

Surface Water Elev. 646.42 ft
Stream Bed Elev. 644.38 ft

Groundwater Elev.:
First Encounter 643.6 ft ▼
Upon Completion 643.6 ft ▽
After ____ **Hrs.** ____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Material Description
				Augered Brown Silty Clay Loam Fill.
651.14				
	5			Hard to Very Stiff Brown, Black, and Gray Silty Clay Loam, Sandy Loam, and Silt Fill with Gravel Pieces.
	3	4.0	17.5	
	4	P		
648.64				
-5	3			Medium Brown Loamy Fine Sand to Coarse Gravel.
	5		8.5	
	6			
646.64				
	3			Medium to Dense Gray Fine Sand to Coarse Gravel with Minor Loam at 8 feet. Cobble / Boulder potential and some sand layers. Loamy at 30 feet.
	5		9.6	
	9			
▼-10				
	9			
	12		12.7	
	21			
	7			* Existing stationing along Baseline Road assumed to increase eastbound.
	7		15.6	
	8			
-15				
	14			
	12		9.8	
	8			
	4			
	5		19.6	
	7			
-20				

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Material Description
	10			Medium to Dense Gray Fine Sand to Coarse Gravel with Minor Loam at 8 feet. Cobble / Boulder potential and some sand layers. Loamy at 30 feet.
	12		12.7	
	16			
	12			
	14		12.1	
	18			
-25				
	19			
	19		14.5	
	18			
	10			* Existing stationing along Baseline Road assumed to increase eastbound. *(continued)*
	12		15.4	
	21			
-30				
	9			
	9		22.5	
622.14	8			
				End of Boring
-35				
-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)

BBS, form 137 (Rev. 8-99)

FILE NAME: 045-8306-62M71-010-blog.dgn
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PEN TABLE: HRG_IL_001_pentable.tbl

HRGreen.com
Illinois Professional Design Firm
184-001322

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	CHECKED – RAT	REVISED -	
PLOT SCALE =	DRAWN – JJH	REVISED -	
PLOT DATE = 3/2/2026	CHECKED – AEU	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOG
STRUCTURE NO. 045–8306
SHEET NO. 10 OF 10 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	2020-198-W&T	KANE/KENDALL	531	386
		CONTRACT NO. 62M71		
	ILLINOIS	FED. AID PROJECT		

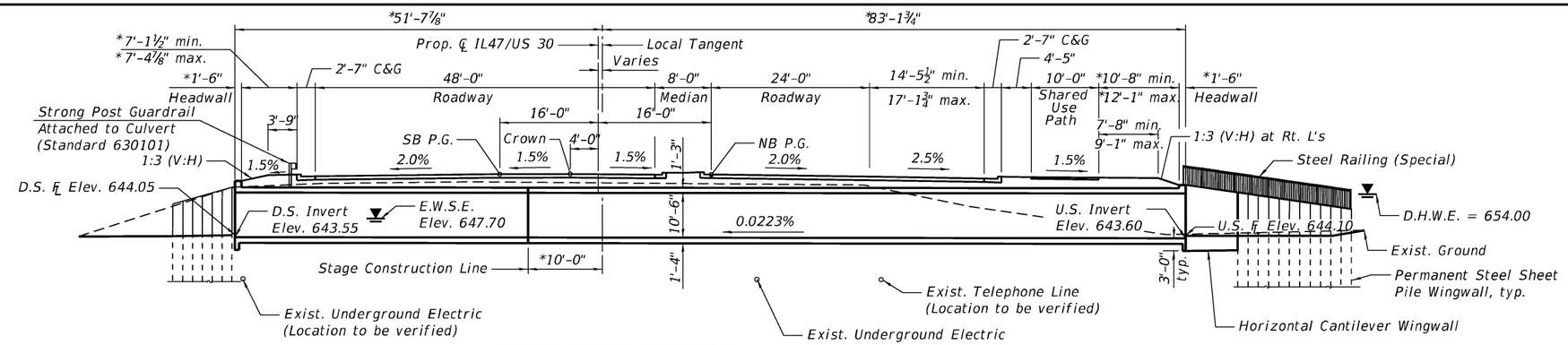
Benchmark 102:
Chiseled square in SE corner of concrete signal controller pad
Elev: 656.66 (NAVD 88)

Existing Structure:
Structure No. 045-2011 Built in 1989 as FAP 100, Section 10B-1-R(87) as a double 10'-6" x 10'-0" reinforced concrete box culvert, 218'-0" out-to-out of headwalls. The existing culvert is to be removed and replaced with a cast-in-place double box culvert. Traffic to be maintained utilizing stage construction.

No Salvage

CURVE DATA

PROP. CURVE PR IL47 12
P.I. Sta. = 324+42.74
Δ = 12° 02' 58" (LT)
D = 0° 40' 27"
R = 8,500.00'
T = 897.10'
L = 1,787.59'
E = 47.21'
P.C. Sta. = 315+45.64
P.T. Sta. = 333+33.23



LONGITUDINAL SECTION

(Looking North)
(Dimensions shown are radial to the ℄ Roadway unless noted otherwise)

* Perpendicular to Local Tangent

LOADING HL-93

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

DESIGN SPECIFICATIONS

2024 AASHTO LRFD Bridge Design Specifications, 10th Edition

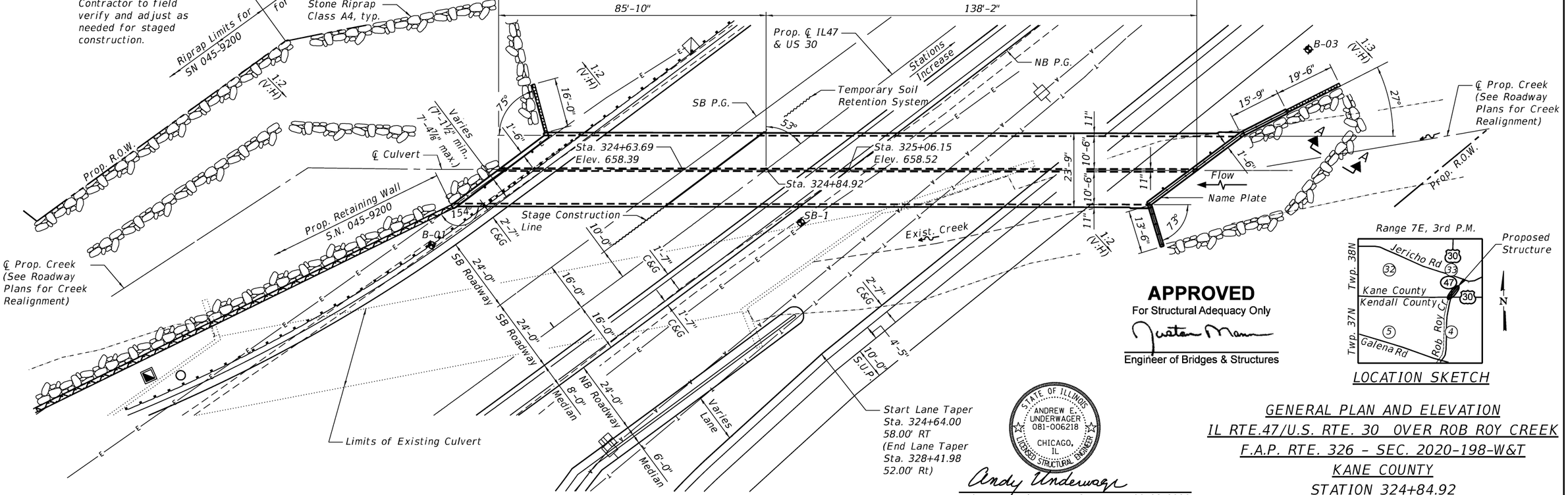
DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)

LEGEND

- ⌖ – Soil Boring
- S.U.P. = Shared Use Path
- —E— = Buried Electrical
- —T— = Buried Telephone
- —A— = Overhead Utilities
- ◪ = Prop. Control Unit (electrical)
- ◪ = Exist. Control Unit (electrical)



PLAN

APPROVED
For Structural Adequacy Only

Engineer of Bridges & Structures

LOCATION SKETCH

STATE OF ILLINOIS
ANDREW E. UNDERWAGER
081-006218
CHICAGO, IL
LICENSED STRUCTURAL ENGINEER

Andy Underwager

Andrew E. Underwager, S.E. 02/28/2026
License Number: 081-006218
My license renewal date is November 30, 2026.

GENERAL PLAN AND ELEVATION
IL RTE.47/U.S. RTE. 30 OVER ROB ROY CREEK
F.A.P. RTE. 326 – SEC. 2020-198-W&T
KANE COUNTY
STATION 324+84.92
STRUCTURE NO. 045-8305

FILE NAME: 045-8305-62M71-001-GPE.dgn
PLOT DRIVER: /HRG_IL_001_pdf_bw.plt
PEN TABLES: HRG_IL_001_pentable.tbl

HRGreen.com
Illinois Professional Design Firm # 184-001322

USER NAME = jwhyte	DESIGNED – JMW	REVISED -
	CHECKED – AEU	REVISED -
PLOT SCALE =	DRAWN – JJH	REVISED -
PLOT DATE = 4/30/2026	CHECKED – AEU	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. 1 OF 17 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	2020-198-W&T	KANE	531	387
		CONTRACT NO. 62M71		
		ILLINOIS	FED. AID PROJECT	

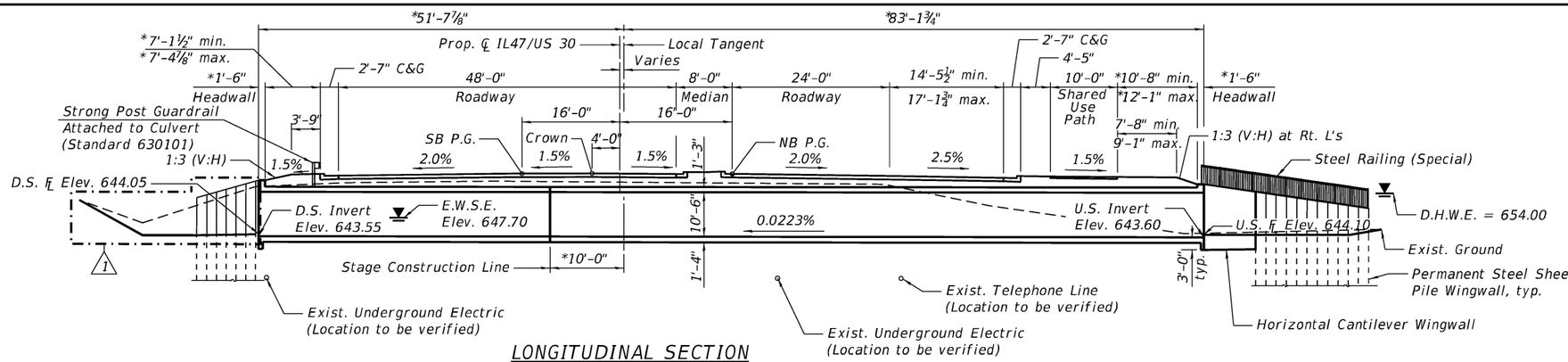
Benchmark 102:
Chiseled square in SE corner of concrete signal controller pad
Elev: 656.66 (NAVD 88)

Existing Structure:
Structure No. 045-2011 Built in 1989 as FAP 100, Section 10B-1-R(87) as a double 10'-6" x 10'-0" reinforced concrete box culvert, 218'-0" out-to-out of headwalls. The existing culvert is to be removed and replaced with a cast-in-place double box culvert. Traffic to be maintained utilizing stage construction.

No Salvage

CURVE DATA

PROP. CURVE PR IL47 12
P.I. Sta. = 324+42.74
Δ = 12° 02' 58" (LT)
D = 0° 40' 27"
R = 8,500.00'
T = 897.10'
L = 1,787.59'
E = 47.21'
P.C. Sta. = 315+45.64
P.T. Sta. = 333+33.23



LONGITUDINAL SECTION

(Looking North)
(Dimensions shown are radial to the ℄ Roadway unless noted otherwise)

* Perpendicular to Local Tangent

LOADING HL-93

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

DESIGN SPECIFICATIONS

2024 AASHTO LRFD Bridge Design Specifications, 10th Edition

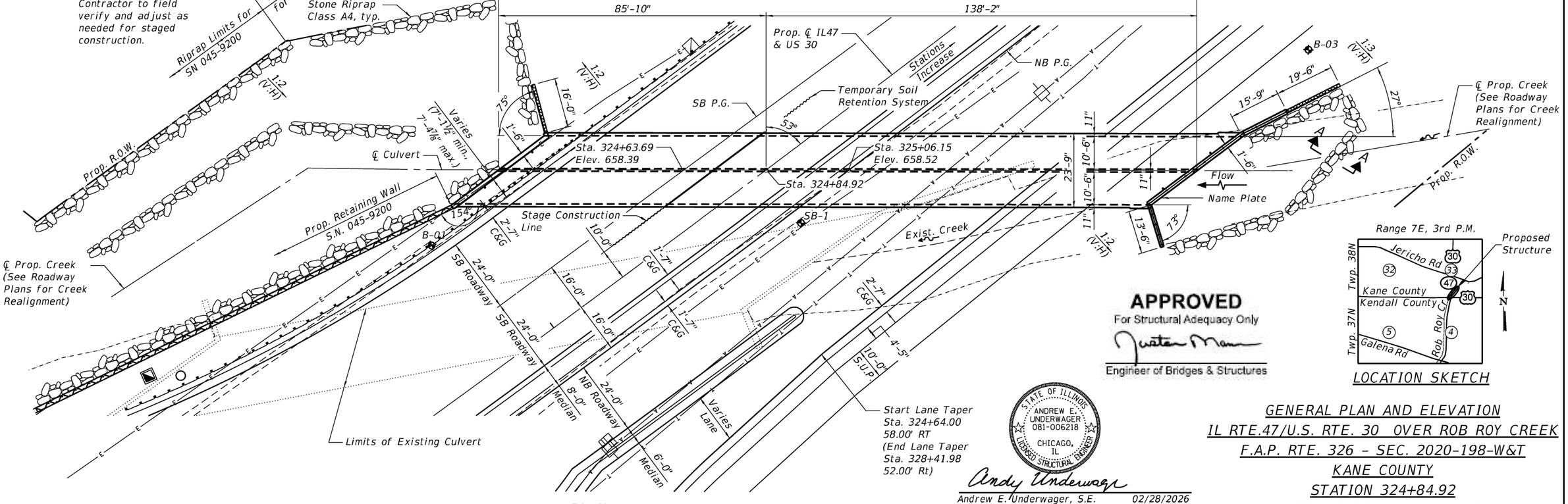
DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)

LEGEND

- ⌖ – Soil Boring
- S.U.P. = Shared Use Path
- —E— = Buried Electrical
- —T— = Buried Telephone
- —A— = Overhead Utilities
- ◪ = Prop. Control Unit (electrical)
- ⊘ = Exist. Control Unit (electrical)



PLAN

APPROVED
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Engineer of Bridges & Structures

STATE OF ILLINOIS
ANDREW E. UNDERWAGER
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Andy Underwager
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LOCATION SKETCH

GENERAL PLAN AND ELEVATION
IL RTE.47/U.S. RTE. 30 OVER ROB ROY CREEK
F.A.P. RTE. 326 – SEC. 2020-198-W&T
KANE COUNTY
STATION 324+84.92
STRUCTURE NO. 045-8305

FILE NAME: 045-8305-62M71-001-GPE.dgn
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USER NAME = Jeff.helmer	DESIGNED – JMW	REVISED - 1 5/14/2026 JMW	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION		
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PLOT SCALE =	DRAWN – JJH	REVISED -			
PLOT DATE = 5/14/2026	CHECKED – AEU	REVISED -		SHEET NO. 1 OF 17 SHEETS	

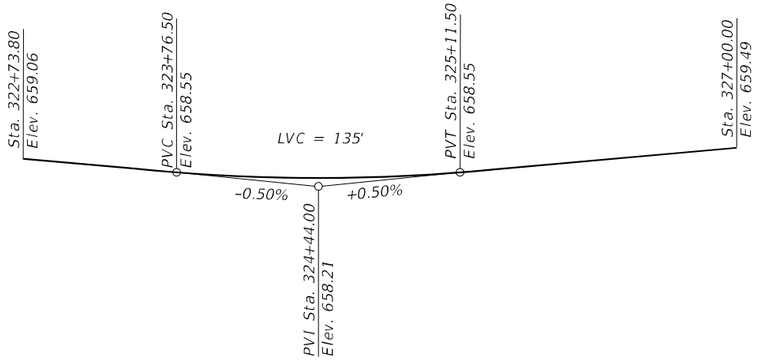
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	2020-198-W&T	KANE	531	387
		CONTRACT NO. 62M71		
		ILLINOIS	FED. AID PROJECT	

GENERAL NOTES

1. Layout of riprap may be varied to suit ground conditions in the field as directed by the Engineer.
2. Precast Concrete alternate is not allowed.

STATION 324+84.92
BUILT BY
STATE OF ILLINOIS
FAP 326 - SEC. 2020-198-W&T
LOADING HL-93
STRUCTURE NO. 045-8305

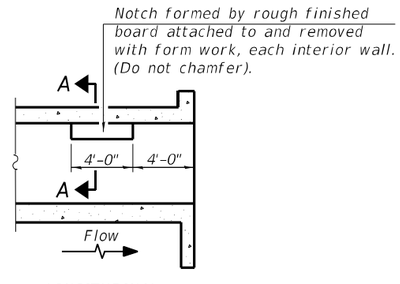
NAME PLATE
See Std. 515001



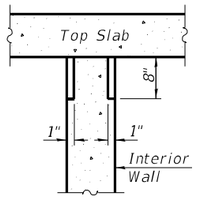
PROFILE GRADE
Along N.B & S.B Profile Grades

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Stone Riprap, Class A4	Sq. Yd.	709
Filter Fabric	Sq. Yd.	709
Removal of Existing Structures No.4	Each	1
Reinforcement Bars	Pound	186,050
Bar Splicers	Each	230
Name Plates	Each	1
Permanent Sheet Piling	Sq. Ft.	1,270
Temporary Soil Retention System	Sq. Ft.	1,866
Concrete Box Culverts	Cu. Yd.	785.8
Geocomposite Wall Drain	Sq. Yd.	687
Strong Post Guardrail Attached to Culvert	Foot	47
Membrane Waterproofing System for Buried Structures	Sq. Yd.	687
Steel Railing (Special)	Foot	88



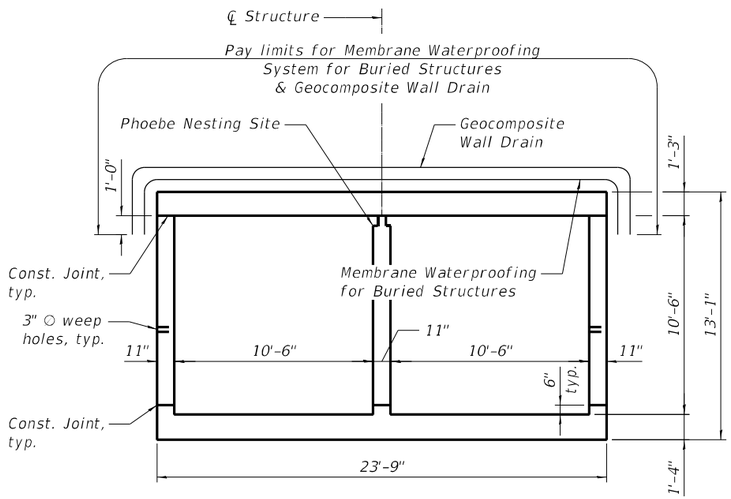
LONGITUDINAL SECTION



SECTION A-A

PHOEBE NESTING SITE DETAILS
(Downstream End Only)

INDEX OF SHEETS



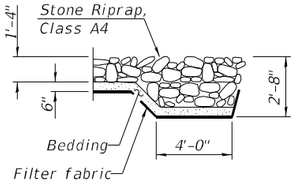
CROSS SECTION

WATERWAY INFORMATION

Drainage Area = 7.1 Sq. Mi.
Existing Low Grade Elev. = 657.19 @ Sta. 323+54.00
Proposed Low Grade Elev. = 658.38 @ Sta. 324+44.00

Flood	Freq. Yr.	Q C.F.S.	Opening Ft²		Nat. H.W.E.	Head - Ft.		Headwater El.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
	10	456	185	179	652.6	0.1	0.1	652.7	652.7
Design	50	766	205	208	654.0	0.4	0.4	654.4	654.4
Base	100	916	205	210	654.3	0.6	0.6	654.9	654.9
Overtopping									
Max Calc.	500	1,231	205	210	654.9	1.5	1.5	656.4	656.4

Existing 10 yr Velocity = 2.28 ft/s Proposed 10 yr Velocity = 2.55 ft/s



SECTION A-A

Note:
Geocomposite Wall Drain shall be according to Section 591 of the Standard Specifications, except that concrete nails shall not be used in areas where it overlaps Membrane Waterproofing System for Buried Structures.

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USER NAME = Jeff.helmer	DESIGNED - JMW	REVISED -	
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PLOT SCALE =	DRAWN - JJH	REVISED -	
PLOT DATE = 3/5/2026	CHECKED - AEU	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL DATA
STRUCTURE NO. 045-8305
SHEET NO. 2 OF 17 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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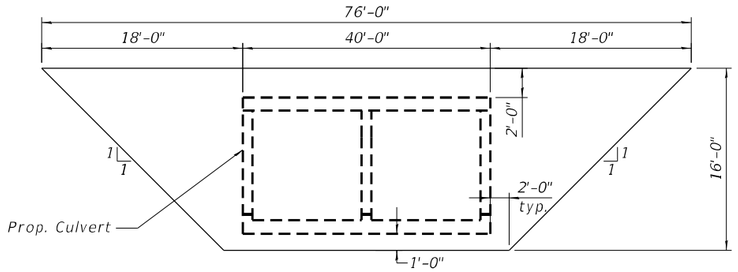
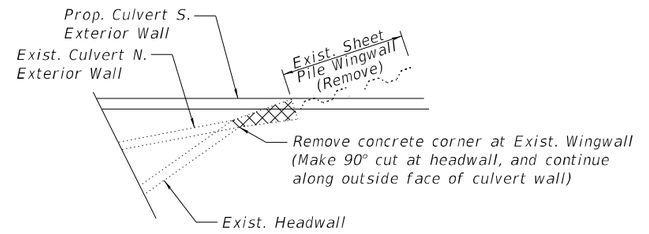
		CONTRACT NO. 62M71		
	ILLINOIS FED. AID PROJECT			

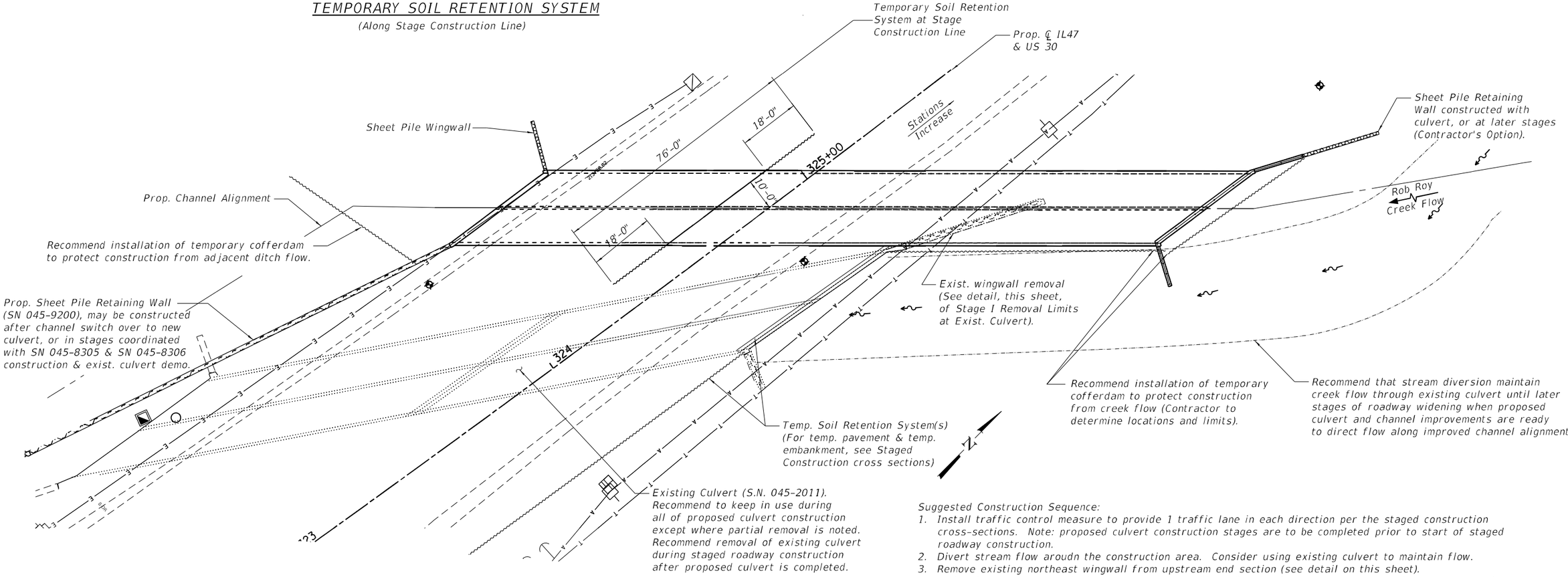


TEMPORARY SOIL RETENTION SYSTEM

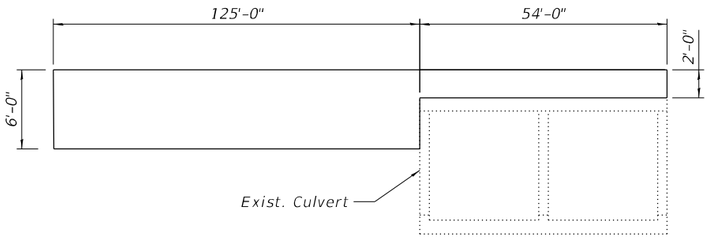
(Along Stage Construction Line)



STAGE I REMOVAL LIMITS AT EXISTING CULVERT



PLAN



TEMPORARY SOIL RETENTION SYSTEM

(Along Northbound Embankment)

Notes:

All prop. culvert construction staging shall occur prior to prop. roadway construction.

Stream diversion means and methods, including use of cofferdams, are the responsibility of the Contractor and the cost for all stream diversion work (including cofferdams) shall be included in the contract unit price for Concrete Box Culverts.

Utility relocations shall be coordinated by Contractor ahead of construction, including pre-stage construction activities.

Per the Standard Specifications, all excavation, backfill and stream diversion work shall be included in the unit price for Concrete Box Culverts.

A cantilevered sheet pile 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.

Suggested Construction Sequence:

1. *Install traffic control measure to provide 1 traffic lane in each direction per the staged construction cross-sections. Note: proposed culvert construction stages are to be completed prior to start of staged roadway construction.*
2. *Divert stream flow aroudn the construction area. Consider using existing culvert to maintain flow.*
3. *Remove existing northeast wingwall from upstream end section (see detail on this sheet).*
4. *Install temporary soil retention measures along Stage Construction Line, and along outside embankments as needed.*
5. *Install Stage I Constrution limits of proposed culvert, complete full depth patch of existing roadway removed for culvert construction and install temporary pavement widening.*
6. *Shift traffic control measures to Stage II Traffic side of roadway. Close lanes on Stage II Construction side.*
7. *Install Stage II Construction limits of proposed culvert. Full proposed roadway section cannot be built during this stage. Roadway construction shall be limited to replacement of pavement to match existing roadway profile and installation of temporary widening for maintenance of traffic.*
8. *Construct downstream channel section from proposed culvert to existing channel.*
9. *Shift upstream channel alignment to proposed culvert upstream opening and close off channel to existing culvert at upstream and downstream ends of the existing culvert. Such work shall be the responsibility of the Contractor and their means and methods as part of the stream diversion for the Concrete Box Culvert construction.*
10. *Repeat traffic staging sequences for demolition and removal of existintg culvert in conjunction with proposed roadway construction.*
11. *Coordinate construction of adjacent retaining wall and deadman tie-back system along west side of IL 47 with staged demolition of existing culvert and proposed construction of new culvert at downstream crossing under Baseline Road.*

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USER NAME = Jwhyte	DESIGNED – JMW	REVISED -
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PLOT SCALE =	DRAWN – JJH	REVISED -
PLOT DATE = 4/30/2026	CHECKED – AEU	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PRE-STAGE CONSTRUCTION DETAILS
STRUCTURE NO. 045-8305
SHEET NO. 3 OF 17 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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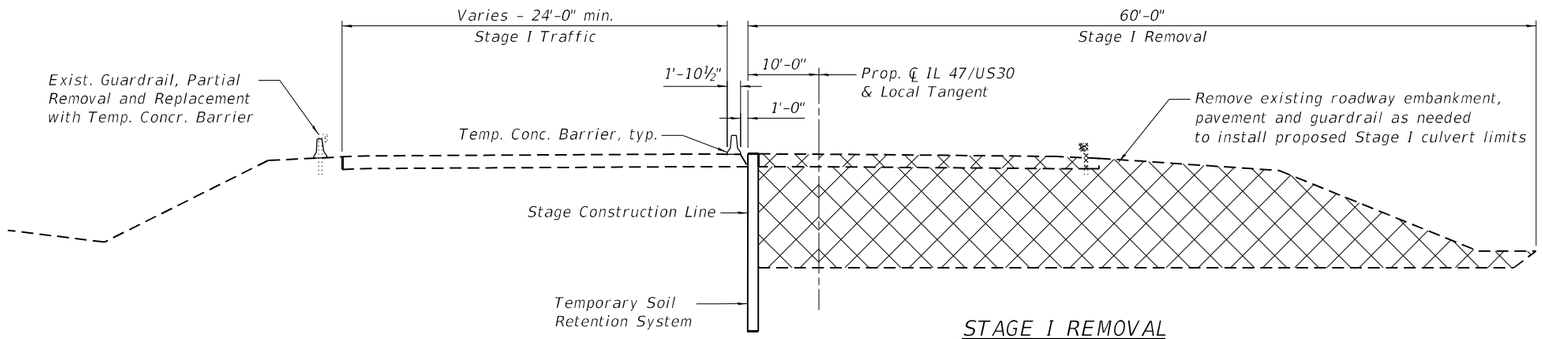
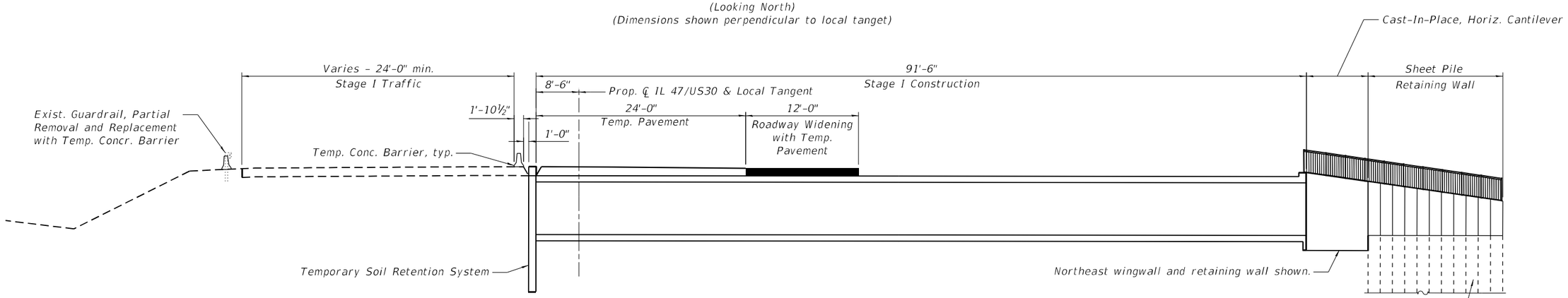
		CONTRACT NO. 62M71		
	ILLINOIS FED. AID PROJECT			



STAGE I REMOVAL

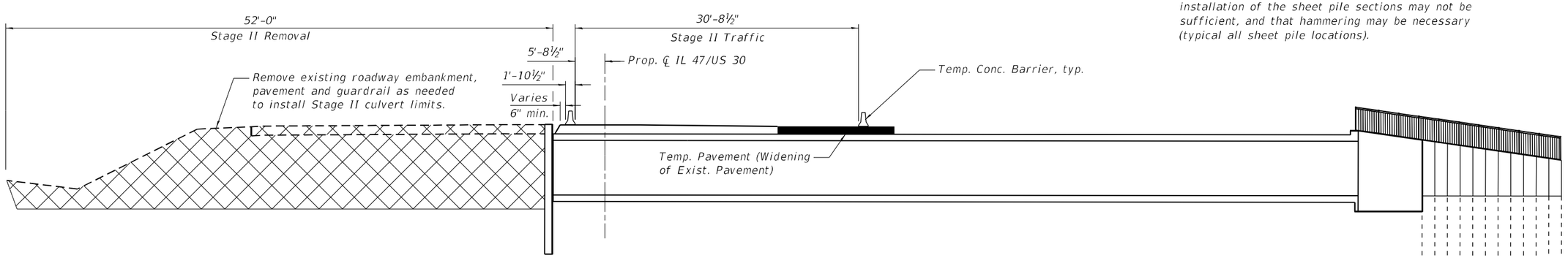
(Looking North)
(Dimensions shown perpendicular to local tanget)



STAGE I CONSTRUCTION

(Looking North)
(Dimensions shown perpendicular to local tanget)

As indicated on the boring logs, potential cobbles and boulders may be present within the embedment depths necessary. It should be assumed that vibratory installation of the sheet pile sections may not be sufficient, and that hammering may be necessary (typical all sheet pile locations).



STAGE II REMOVAL

(Looking North)
(Dimensions shown perpendicular to local tanget)

Note:
For quantity of Temporary Concrete Barrier, see Roadway Plans.

FILE NAME: 045-8305-62M71-004-Stage Const.dgn
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USER NAME = Jwhyte	DESIGNED - JMW	REVISED -	
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PLOT SCALE =	DRAWN - JJH	REVISED -	
PLOT DATE = 4/30/2026	CHECKED - AEU	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE CONSTRUCTION DETAILS
STRUCTURE NO. 045-8305
SHEET NO. 4 OF 17 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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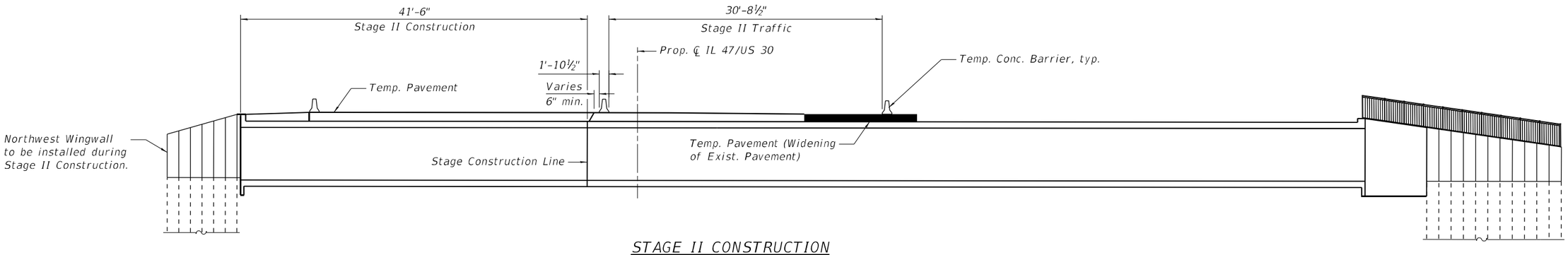
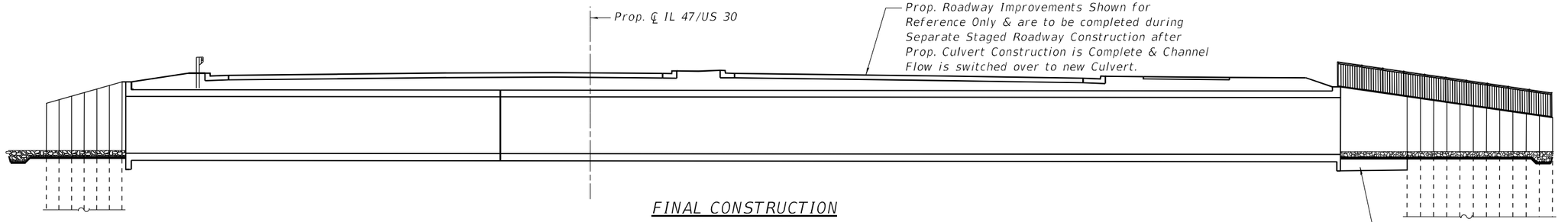
		CONTRACT NO. 62M71		
	ILLINOIS FED. AID PROJECT			



STAGE II CONSTRUCTION

(Looking North)

(Dimensions shown perpendicular to local tanget)



FINAL CONSTRUCTION

(Looking North)

Staged construction of the proposed culvert shall be completed prior to proposed roadway staged construction.
Removal of the existing culvert located further downstation will occur at the time of staged roadway construction.

Note:
For quantity of Temporary Concrete Barrier, see Roadway Plans.

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PLOT DATE = 4/30/2026	CHECKED – AEU	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE CONSTRUCTION DETAILS
STRUCTURE NO. 045–8305
SHEET NO. 5 OF 17 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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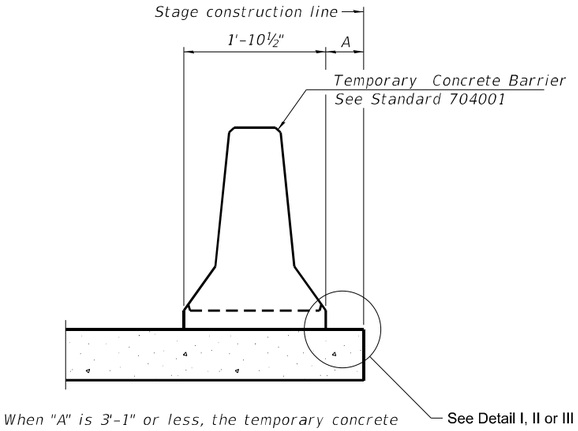
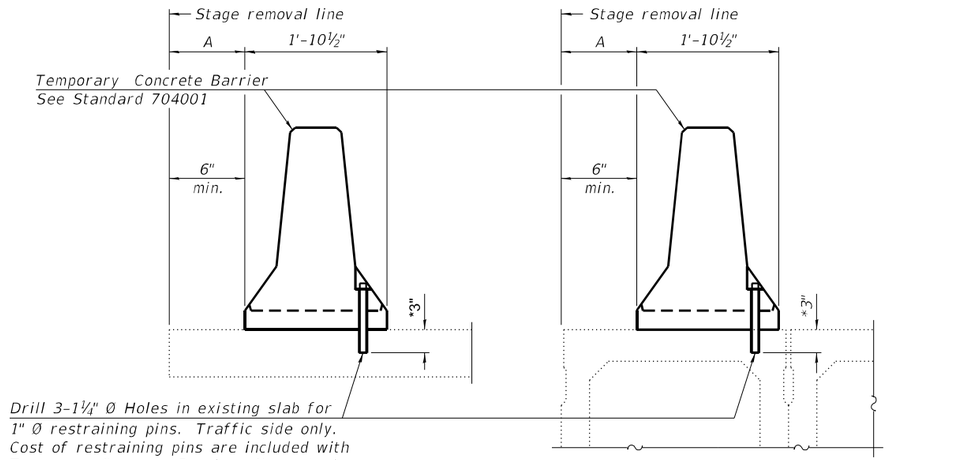
		CONTRACT NO. 62M71		
	ILLINOIS	FED. AID PROJECT		



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

NEW SLAB OR NEW DECK BEAM



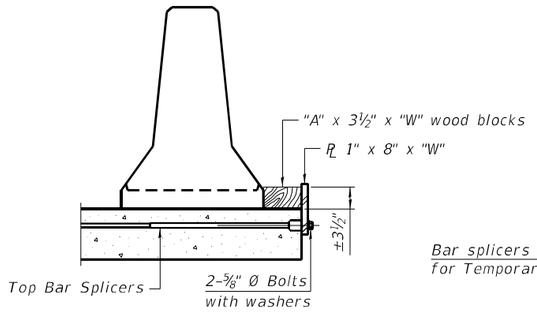
Drill 3-1¼" Ø Holes in existing slab for 1" Ø restraining pins. Traffic side only. Cost of restraining pins are included with Temporary Concrete Barrier. No restraint is required when "A" is greater than 3'-1".

EXISTING SLAB

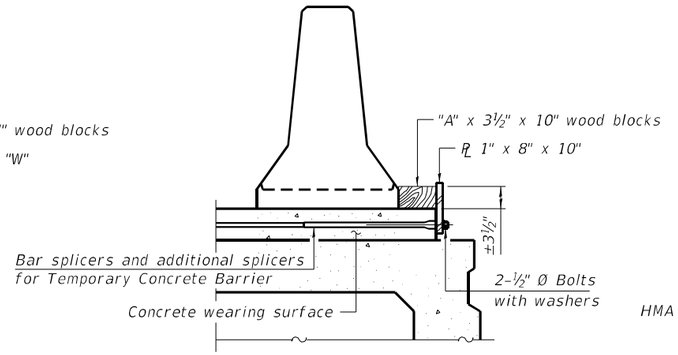
* When hot-mix asphalt wearing surface is present, embedment shall be 3" plus the wearing surface depth.

EXISTING DECK BEAM

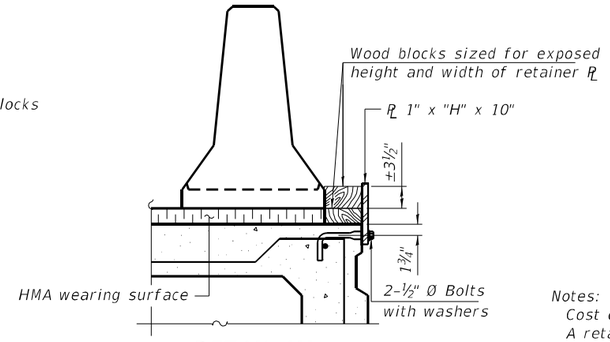
SECTIONS THRU SLAB OR DECK BEAM



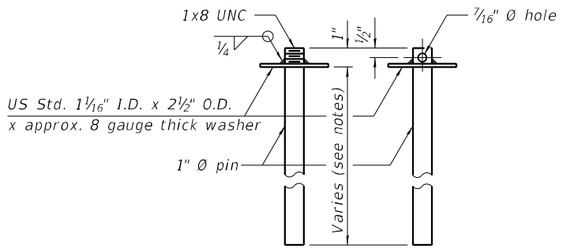
DETAIL I



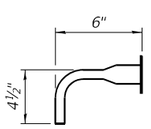
DETAIL II



DETAIL III



RESTRAINING PIN



BAR SPLICER FOR #4 BAR - DETAIL III

Notes:

Cost of retainer assembly is included with Temporary Concrete Barrier.

A retainer assembly shall be located at the approximate ℄ of each temporary concrete barrier.

The retainer plate shall not be removed until the concrete on the adjacent stage is ready to be poured. For Detail III applications the retainer plate shall not be removed until just prior to placing the adjacent beam.

When the 'A' dimension is less than 1½", 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.

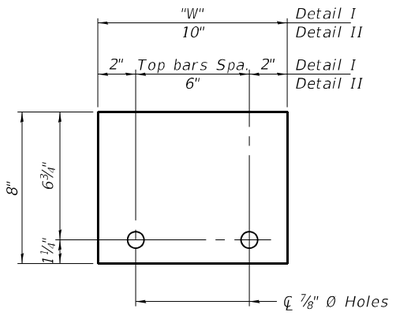
Detail III - Installation for a new deck beam with no initial wearing surface or with an initial hot-mix asphalt (HMA) wearing surface present. The deck beam directly beneath the temporary concrete barrier shall be fabricated with bar splicer inserts in the side of the beam, as detailed, to accommodate 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

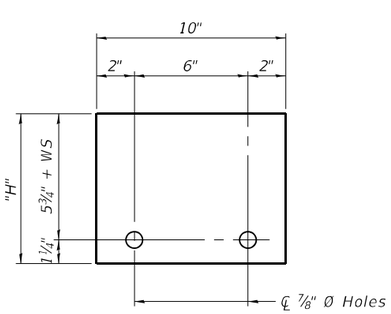
R-27

5-15-2023



STEEL RETAINER ℄ 1" x 8" x "W"

(Detail I and II)



STEEL RETAINER ℄ 1" x "H" x 10"

(Detail III)

FILE NAME: 045-8305-62M71-006-TempBarrier.dgn
PLOT DRIVER: \\HRG_IL_DOT.pdf.pltcfg
PEN TABLE: \\HRG_IL_DOT.pentable.tbl

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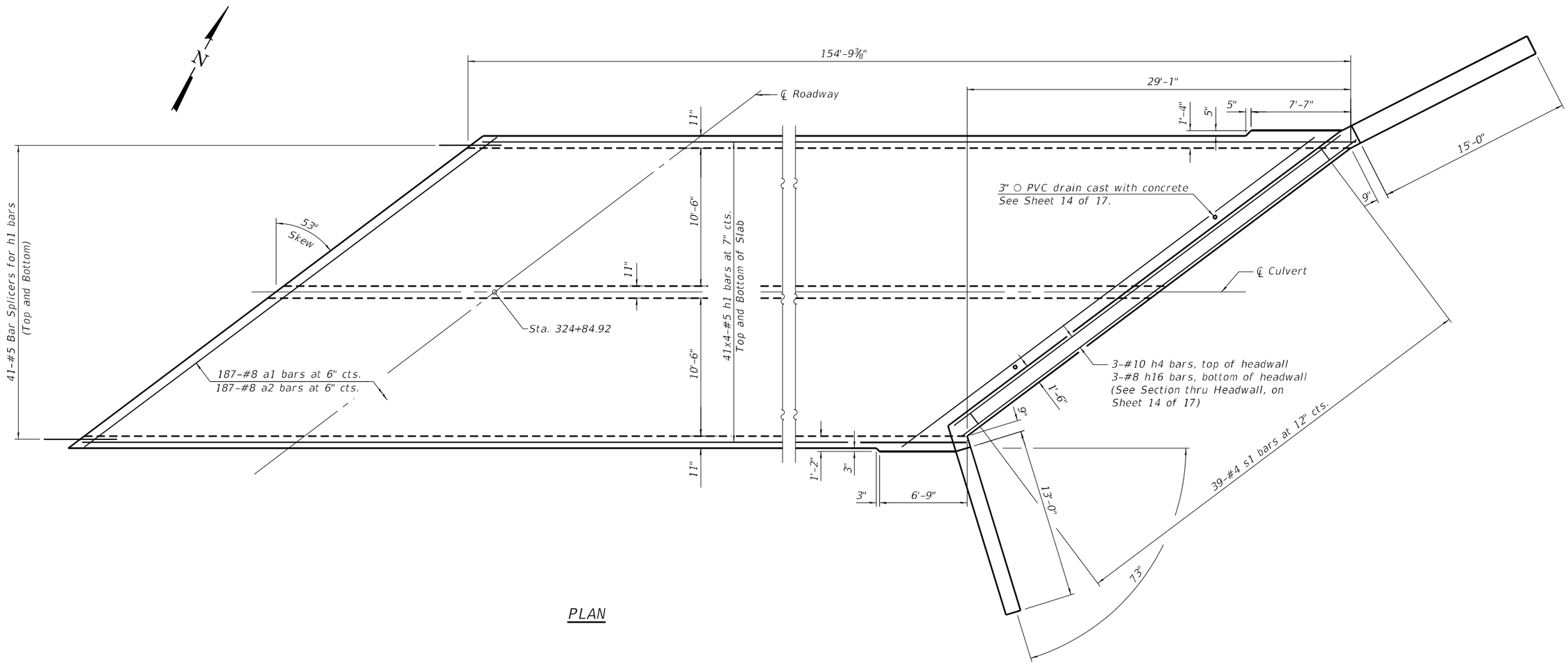
USER NAME = Jeff.helmer	DESIGNED - JMW	REVISED -
	CHECKED - AEU	REVISED -
PLOT SCALE =	DRAWN - JJH	REVISED -
PLOT DATE = 3/5/2026	CHECKED - AEU	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY CONCRETE BARRIER
STRUCTURE NO. 045-8305
SHEET NO. 6 OF 17 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	2020-198-W&T	KANE	531	392
		CONTRACT NO. 62M71		
	ILLINOIS FED. AID PROJECT			



PLAN

MINIMUM BAR LAP

#5 bars = 2'-3"

Notes:
See Sheet 12 of 17 for northeast and southeast wingwall details
A distance of half the length of the wingwall but not less than six feet of the barrel shall be poured monolithically with the wingwalls.
Bars indicated thus 40x2-#5 etc. indicates 40 lines of bars with 2 lengths per line.

FILE NAME: 045-8305-62M71-007-Stg-1TopSlab.dgn
PLOT DRIVER: \\HRG.IL_DOT.pdf.bwptcfg
PEN TABLE: \\HRG.IL_DOT.pentable.tbl

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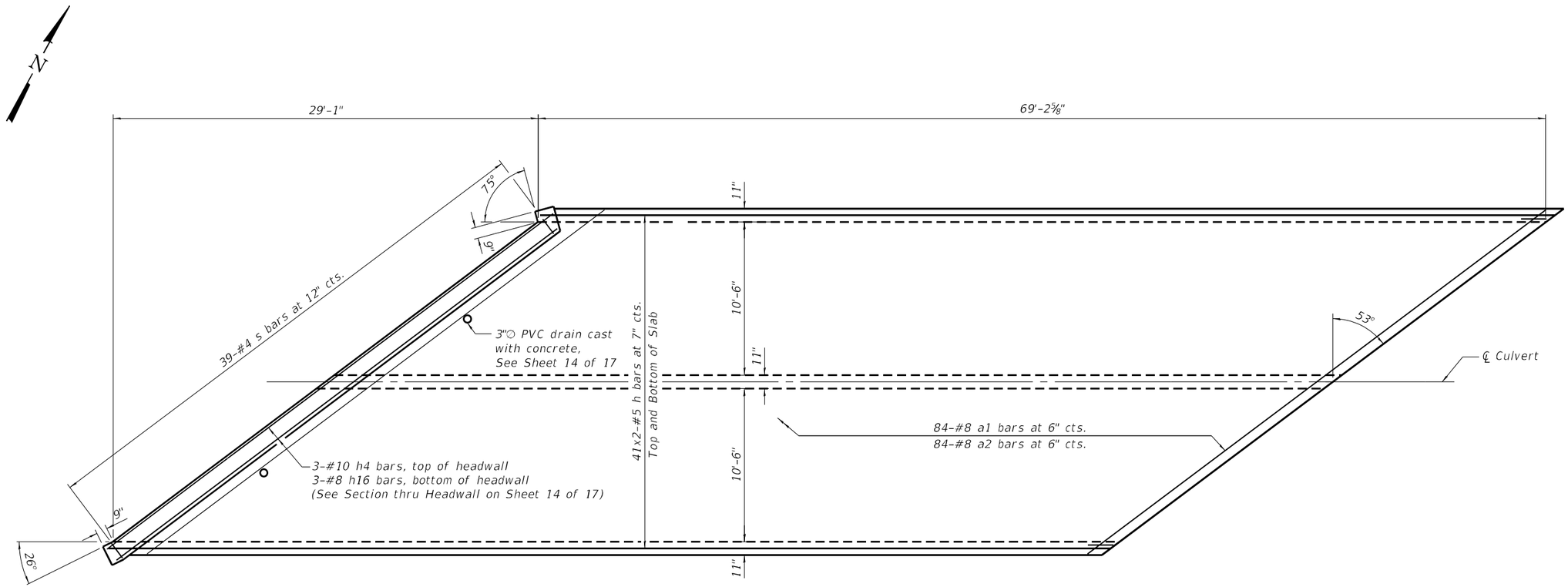
USER NAME = jwhyte	DESIGNED - JMW	REVISED -	
	CHECKED - AEU	REVISED -	
PLOT SCALE =	DRAWN - JJH	REVISED -	
PLOT DATE = 4/30/2026	CHECKED - AEU	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CULVERT DETAILS – TOP SLAB (STAGE I)
STRUCTURE NO. 045–8305
SHEET NO. 7 OF 17 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	2020-198-W&T	KANE	531	393
		CONTRACT NO. 62M71		
	ILLINOIS FED. AID PROJECT			



PLAN

MINIMUM BAR LAP

#5 bars = 2'-3"

Notes:
See Sheet 13 of 17 for northwest wingwall details
Bars indicated thus 40x2-#5 etc. indicates 40 lines of bars with 2 lengths per line.

FILE NAME: 045-8305-62M71-008-Sty-2 TopSlab.dgn
PLOT DRIVER: /HRG_IL_DOT.pdf.bwplrfg
PEN TABLES: HRG_IL_DOT_pentable.tbl

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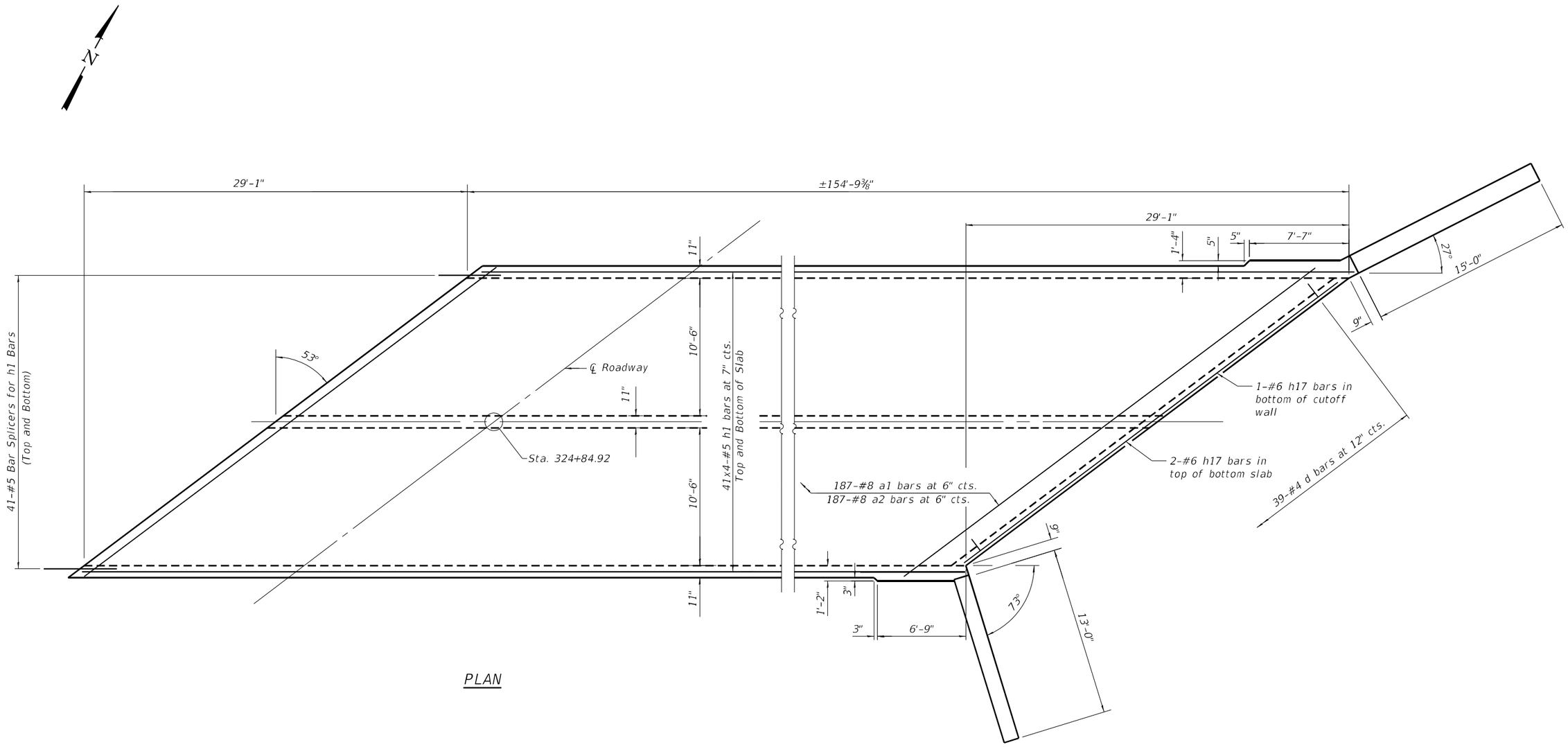
	CHECKED – AEU	REVISED -	
PLOT SCALE =	DRAWN – JJH	REVISED -	
PLOT DATE = 4/30/2026	CHECKED – AEU	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CULVERT DETAILS – TOP SLAB (STAGE II)
STRUCTURE NO. 045–8305
SHEET NO. 8 OF 17 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	2020-198-W&T	KANE	531	394
		CONTRACT NO. 62M71		
	ILLINOIS	FED. AID PROJECT		



PLAN

MINIMUM BAR LAP

#5 bars = 2'-3"

Notes:
See Sheet 12 of 17 for northeast and southeast wingwall details.
A distance of half the length of the wingwall but not less than six feet of the barrel shall be poured monolithically with the wingwalls.
Bars indicated thus 40x2-#5 etc. indicates 40 lines of bars with 2 lengths per line.

FILE NAME: 045-8305-62M71-009-Stg1BotSlab.dgn
PLOT DRIVER: \\HRG.IL.IDOT.prf.bwp1p1cfg
PEN TABLE: HRG.IL.IDOT.penTable.tbl

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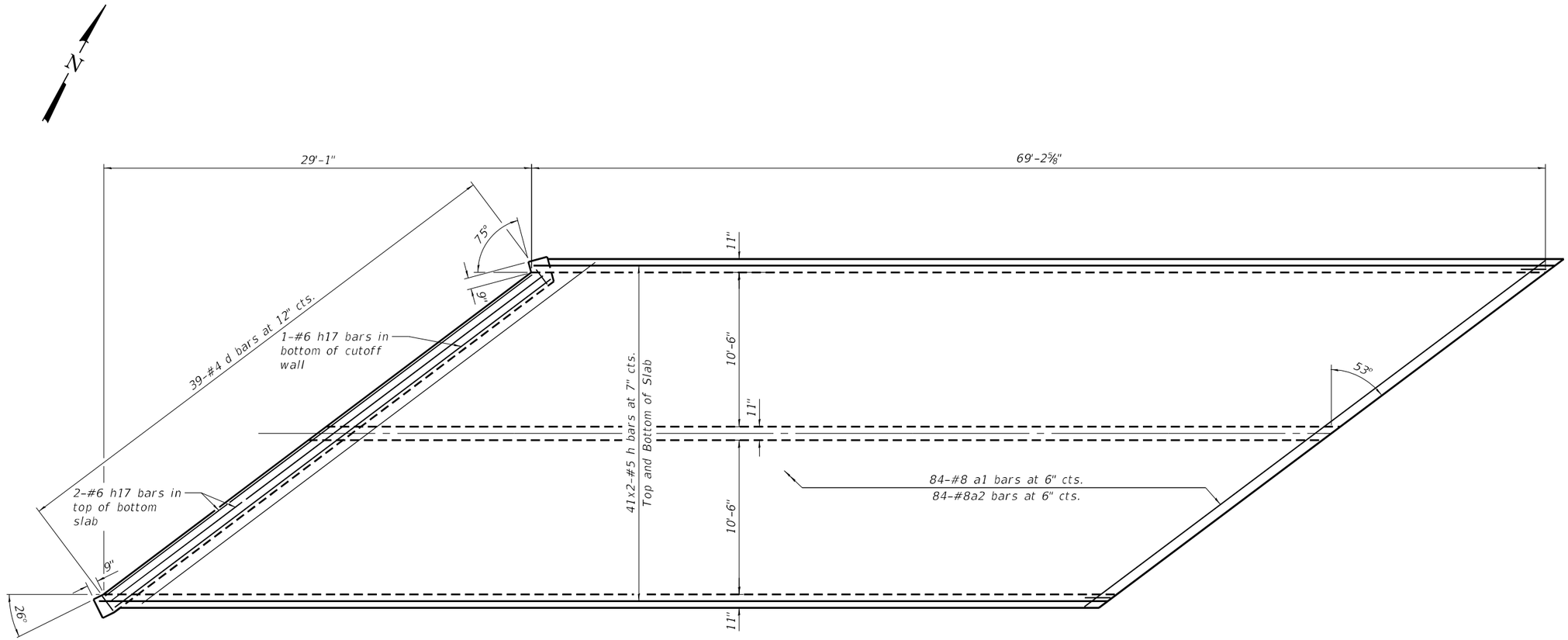
	CHECKED - AEU	REVISED -	
PLOT SCALE =	DRAWN - JJH	REVISED -	
PLOT DATE = 3/5/2026	CHECKED - AEU	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CULVERT DETAILS – BOTTOM SLAB (STAGE I)
STRUCTURE NO. 045–8305
SHEET NO. 9 OF 17 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	2020-198-W&T	KANE	531	395
		CONTRACT NO. 62M71		
	ILLINOIS FED. AID PROJECT			



PLAN

MINIMUM BAR LAP

#5 bars = 2'-3"

Notes:
See Sheet 13 of 17 for northwest and southwest wingwall details
Bars indicated thus 40x2-#5 etc. indicates 40 lines of bars with 2 lengths per line.

FILE NAME: 045-8305-62M71-000-Stg-2 BotSlab.dgn
PLOT DRIVER: /HRG_IL_DOT.pdf.pwdrvrg
PEN TABLE: HRG_IL_DOT.pentable.tbl

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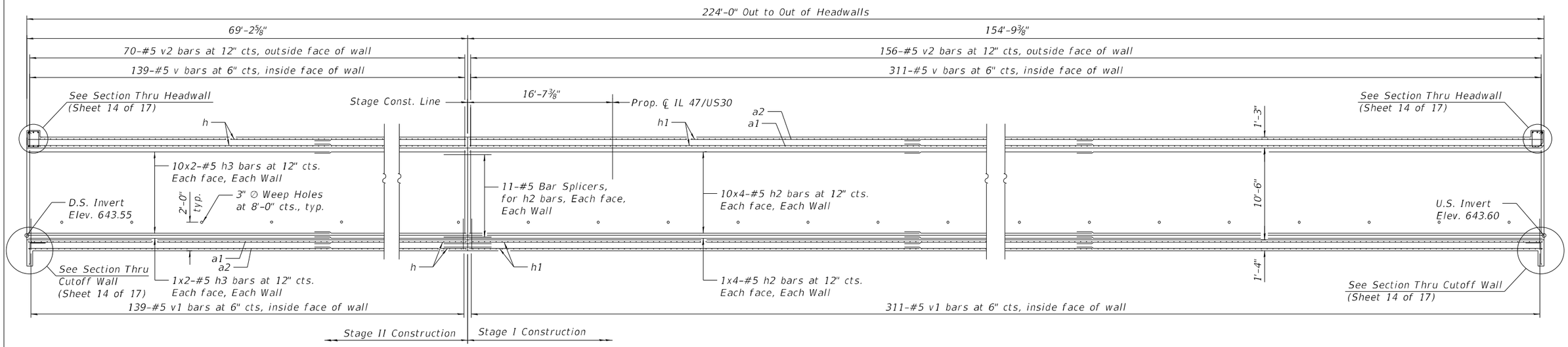
PLOT SCALE =	DRAWN – JJH	REVISED -	
PLOT DATE = 4/30/2026	CHECKED – AEU	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

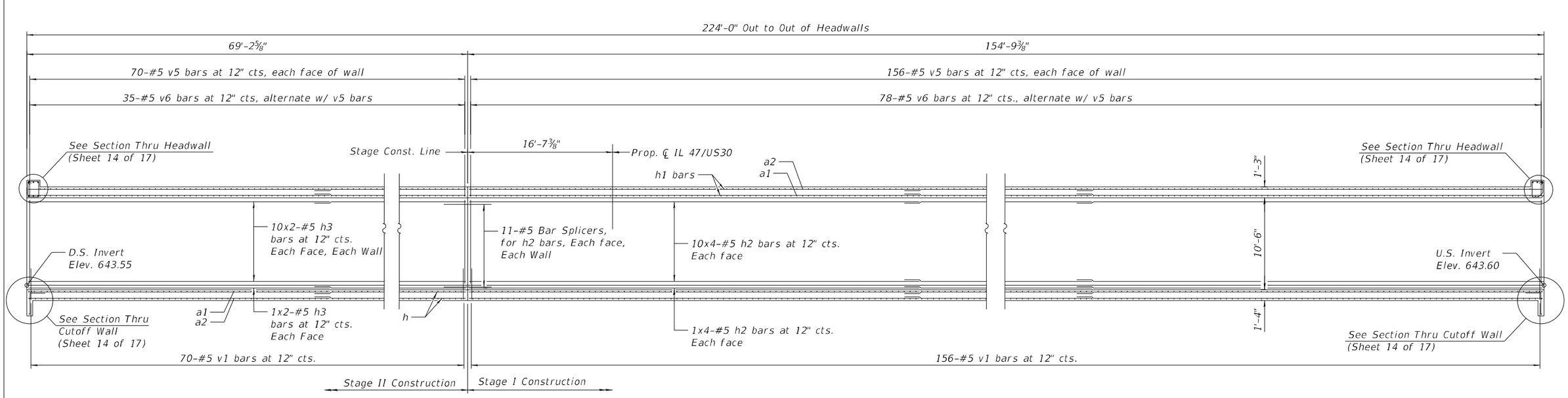
CULVERT DETAILS – BOTTOM SLAB (STAGE II)
STRUCTURE NO. 045–8305
SHEET NO. 10 OF 17 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	2020-198-W&T	KANE	531	396
		CONTRACT NO. 62M71		
	ILLINOIS	FED. AID PROJECT		



LONGITUDINAL SECTION – EXTERIOR WALLS

(Looking East)



LONGITUDINAL SECTION – INTERIOR WALL

(Looking East)

MINIMUM BAR LAP

#5 bars = 2'-3"

FILE NAME: 045-8305-62M71-Olr-Culvert Details-Sections
PLOT DRIVER: /HRG_IL_DOT.pdf_bw.ptrfg
PEN TABLE: HRG_IL_DOT_pentable.tbl

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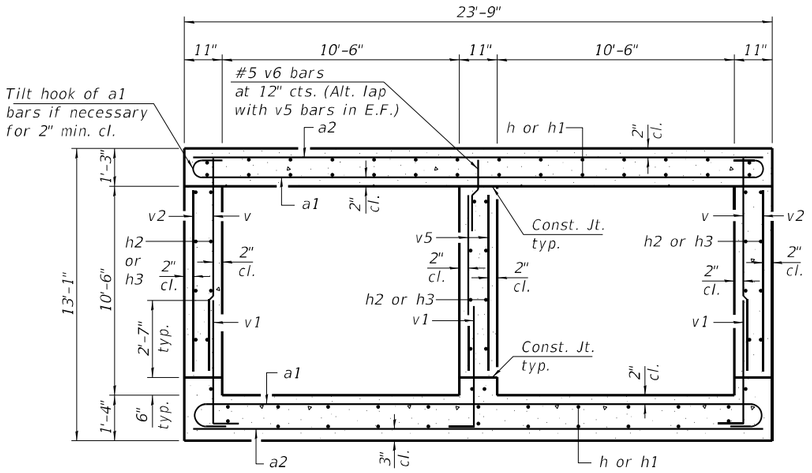
PLOT SCALE =	DRAWN – JJH	REVISED -	
PLOT DATE = 4/30/2026	CHECKED – AEU	REVISED -	

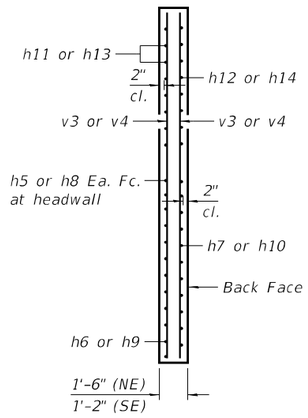
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CULVERT DETAILS – SECTIONS
STRUCTURE NO. 045–8305
SHEET NO. 11 OF 17 SHEETS

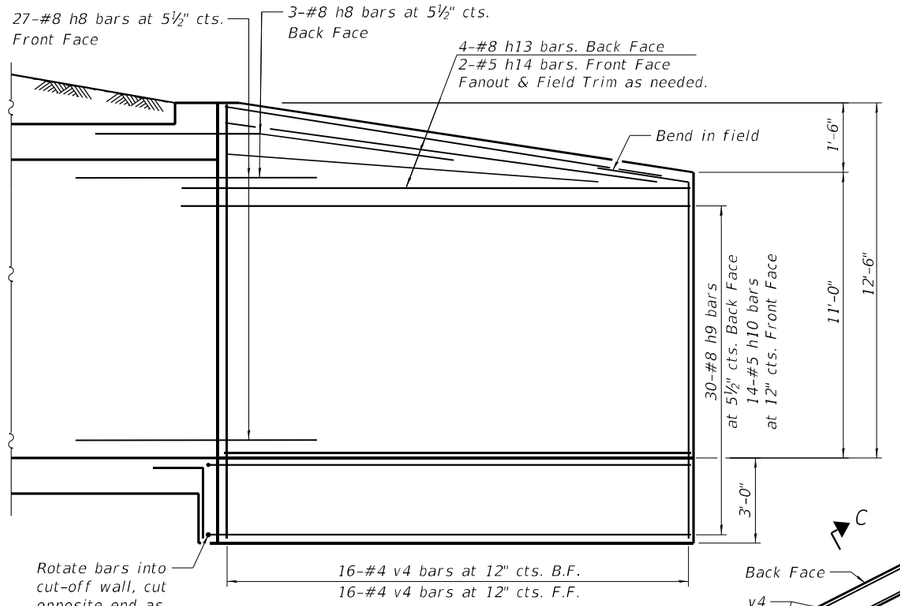
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	2020-198-W&T	KANE	531	397
		CONTRACT NO. 62M71		
	ILLINOIS	FED. AID PROJECT		



SECTION THRU BARREL

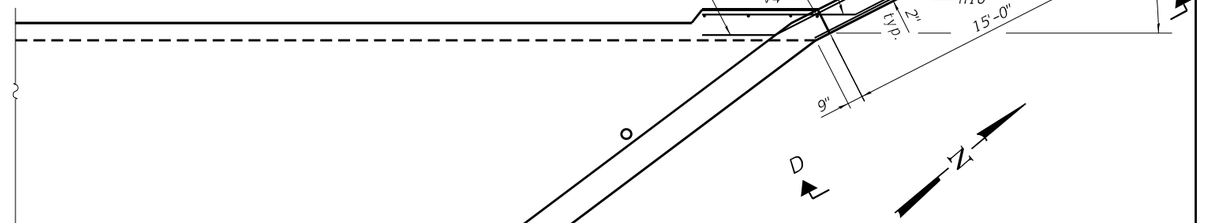


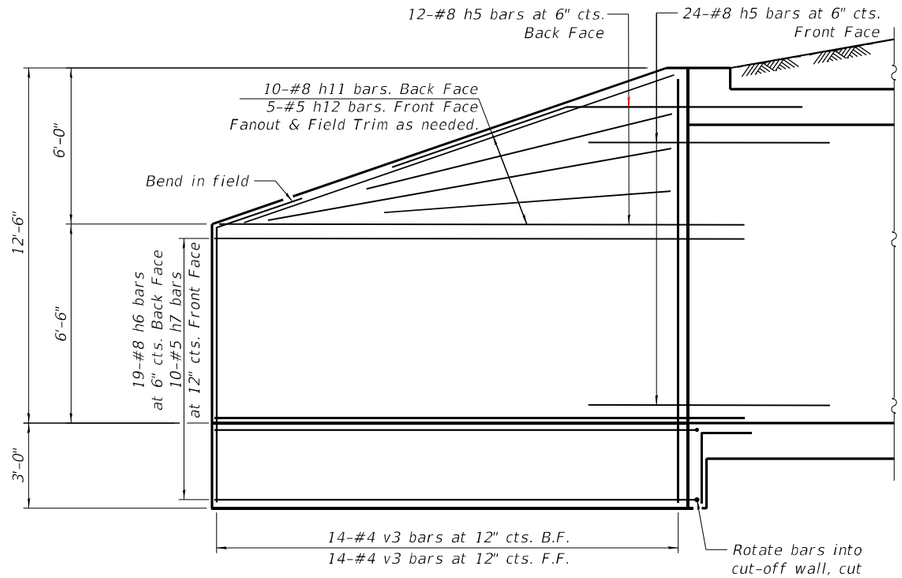
SECTION C-C



VIEW D-D

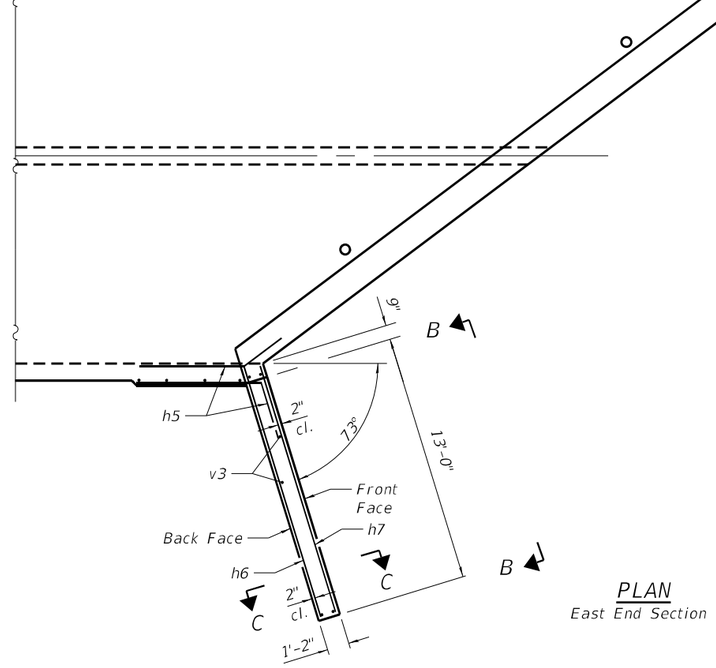
Northeast Wingwall





VIEW B-B

Southeast Wingwall



PLAN

East End Section

FILE NAME: 045-8305-62M71-002-Culvert Details-Wingwalls
PLOT DRIVER: /HRG_IL_001.pdf.bwptcfg
PEN TABLE: HRG_IL_001_pentable.tbl

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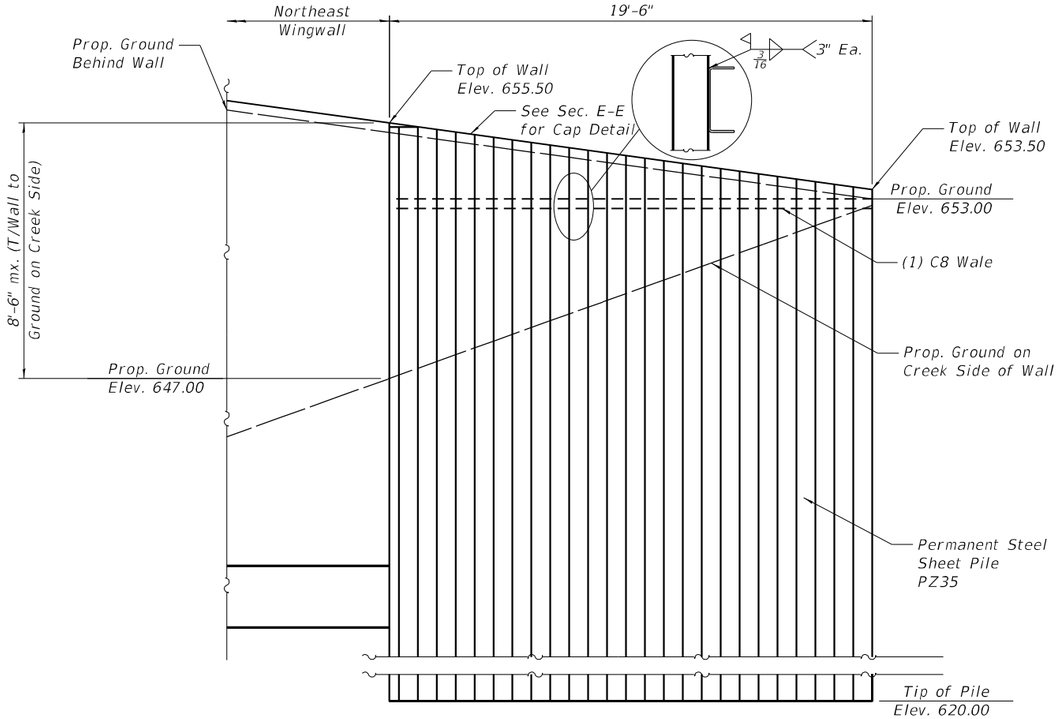
USER NAME = Jeff.heimer	DESIGNED – JMW	REVISED -	
	CHECKED – AEU	REVISED -	
PLOT SCALE =	DRAWN – JJH	REVISED -	
PLOT DATE = 3/5/2026	CHECKED – AEU	REVISED -	

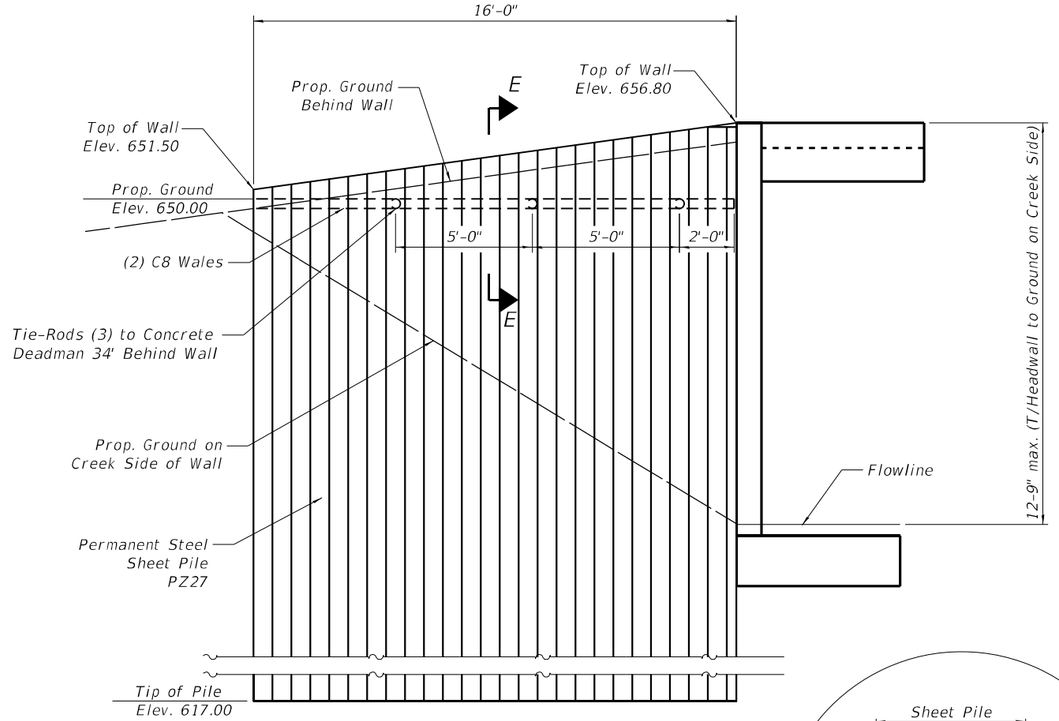
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CULVERT DETAILS – WINGWALLS
STRUCTURE NO. 045–8305
SHEET NO. 12 OF 17 SHEETS

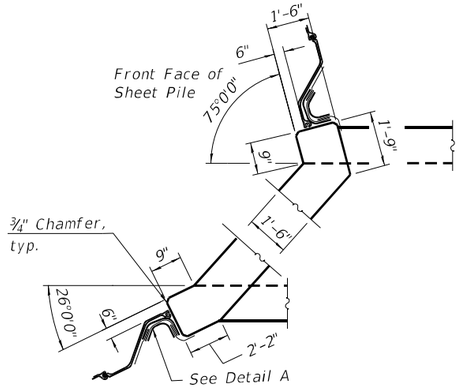
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	2020-198-W&T	KANE	531	398
		CONTRACT NO. 62M71		
	ILLINOIS	FED. AID PROJECT		

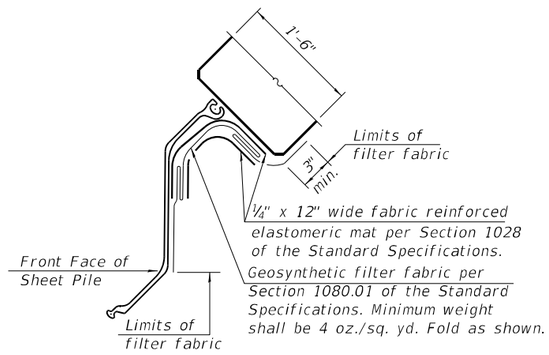


NORTHEAST RETAINING WALL



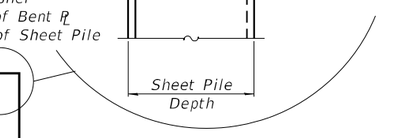
NORTHWEST WINGWALL





DETAIL A

WEST HEADWALL CORNER DETAILS



SECTION E-E

TIE-ROD AND CONCRETE DEADMAN
FOR NORTHWEST WINGWALL

All labor and materials required to install the deadman system shall be included in the unit price for Permanent Sheet Piling. See special provision for Deadman Anchor System.

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Permanent Sheet Piling	Sq.Ft.	1,270

Notes:

The minimum effective section modulus of the permanent steel sheet pile wall shall be 48.9 in.³/ft.

Sheet piling shall not be driven until the concrete strength has attained a minimum flexural strength of 650 psi or a minimum compressive strength of 3500 psi.

The cost of furnishing and installing the bent PL sheet pile cap, elastomeric mat, and filter fabric shall be included in the cost of Permanent Sheet Piling.

FILE NAME: 045-8305-62M71-01-Culvert Details-Wingwalls2.dgn
PLOT DRIVER: /HRG_IL_D01.pdf.bw.pltcfg
PEN TABLES: HRG_IL_D01_pentable.tbl

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USER NAME = Jeff.helmer	DESIGNED – JMW	REVISED -	
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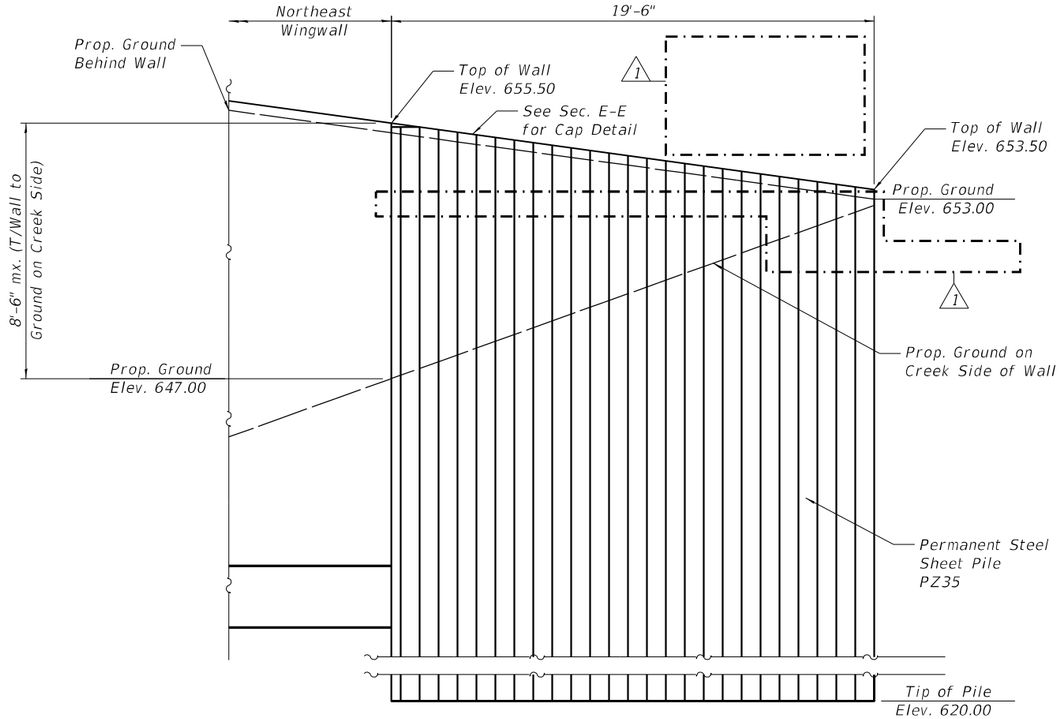
PLOT SCALE =	DRAWN – JJH	REVISED -	
PLOT DATE = 3/5/2026	CHECKED – AEU	REVISED -	

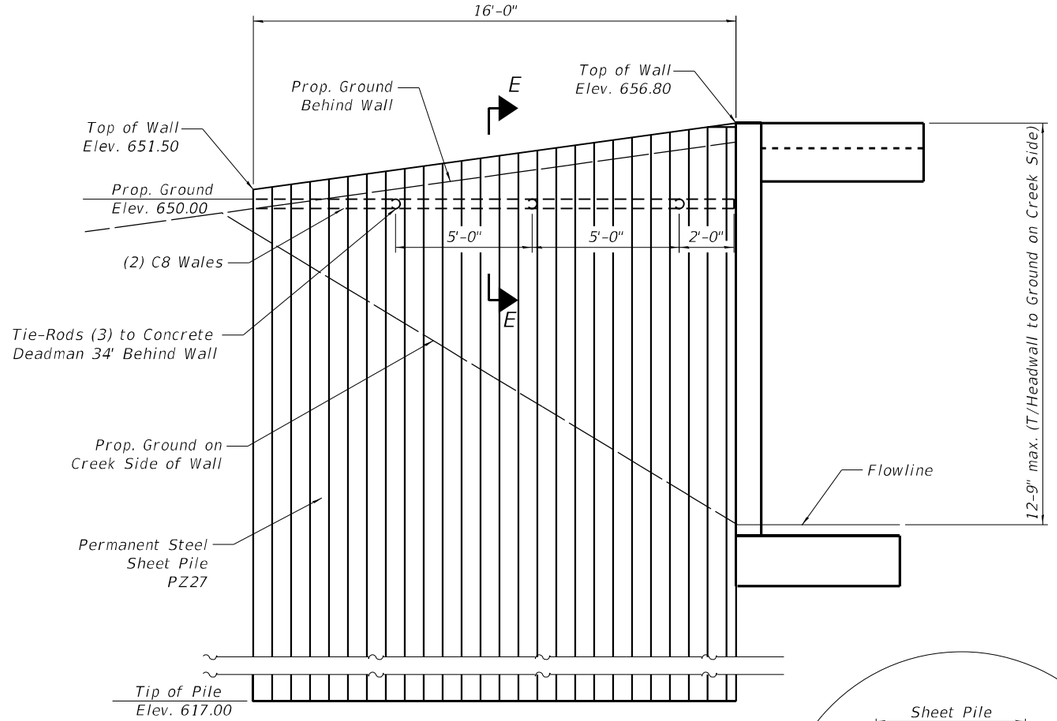
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CULVERT DETAILS – WINGWALLS
STRUCTURE NO. 045-8305
SHEET NO. 13 OF 17 SHEETS

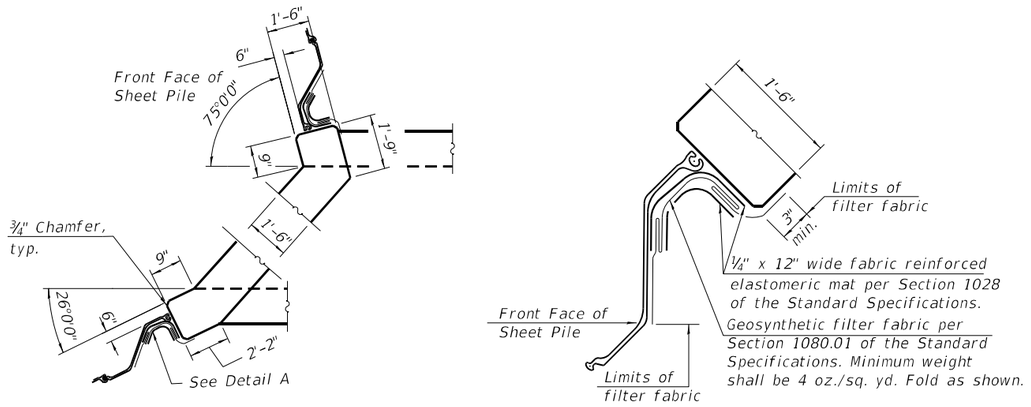
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	2020-198-W&T	KANE	531	399
		CONTRACT NO. 62M71		
		ILLINOIS	FED. AID PROJECT	



NORTHEAST RETAINING WALL



NORTHWEST WINGWALL



DETAIL A

WEST HEADWALL CORNER DETAILS

SECTION E-E

TIE-ROD AND CONCRETE DEADMAN

FOR NORTHWEST WINGWALL

All labor and materials required to install the deadman system shall be included in the unit price for Permanent Sheet Piling. See special provision for Deadman Anchor System.

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Permanent Sheet Piling	Sq.Ft.	1,270

Notes:

The minimum effective section modulus of the permanent steel sheet pile wall shall be 48.9 in.³/ft.

Sheet piling shall not be driven until the concrete strength has attained a minimum flexural strength of 650 psi or a minimum compressive strength of 3500 psi.

The cost of furnishing and installing the bent PL sheet pile cap, elastomeric mat, and filter fabric shall be included in the cost of Permanent Sheet Piling.

FILE NAME: 045-8305-62M71-Ds1-Culvert Details-Wingwalls2.dgn
PLOT DRIVER: /HRG_IL_D01.pdf.bw.pltcfg
PEN TABLES: HRG_IL_D01_pentable.tbl

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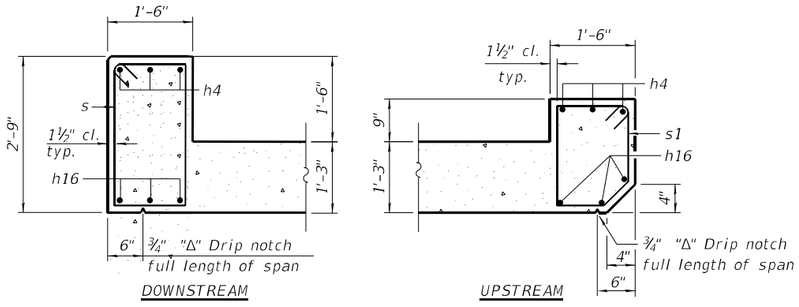
USER NAME = Jeff.helmer		DESIGNED – JMW	REVISED - 1 5/14/2026 JMW		
		CHECKED – AEU	REVISED -		
PLOT SCALE =		DRAWN – JJH	REVISED -		
PLOT DATE = 5/14/2026		CHECKED – AEU	REVISED -		

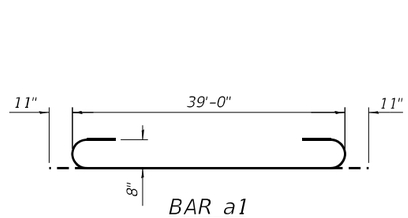
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CULVERT DETAILS – WINGWALLS
STRUCTURE NO. 045–8305
SHEET NO. 13 OF 17 SHEETS

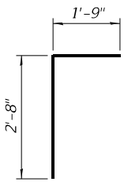
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	2020-198-W&T	KANE	531	399
		CONTRACT NO. 62M71		
		ILLINOIS	FED. AID PROJECT	



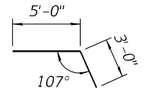
SECTION THRU HEADWALL



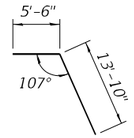
BAR a1



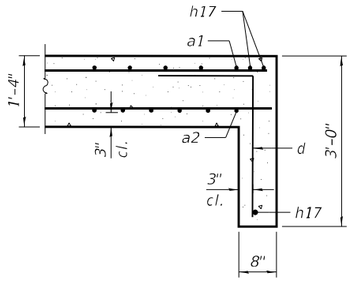
BAR d



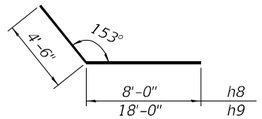
BAR h5



BAR h6

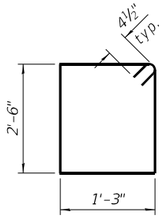


SECTION THRU CUTOFF WALLS

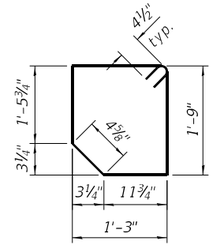


BARS h8 & h9

Orientate bar so 4'-6" lap is developed ea. side of wall joint

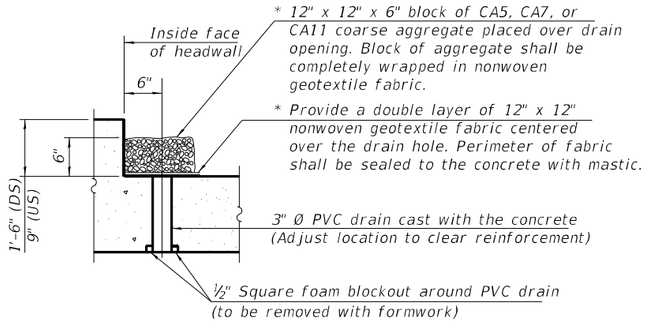


BAR s



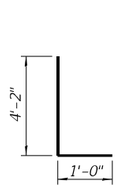
BAR s1

* Nonwoven geotextile fabric shall conform to the requirements of Article 1080.01 of the Standard Specifications. The minimum weight of the fabric shall be 6 ounces per square yard.

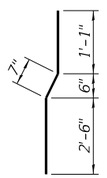


DRAIN DETAIL

(All costs associated with furnishing and constructing the above drain detail will not be measured for payment but shall be included in the contract unit price for the associated work.)



BAR v1



BAR v6

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a1	542	#8	40'-10"	
a2	542	#8	39'-0"	
d	78	#4	4'-5"	
h	164	#5	35'-7"	
h1	328	#5	40'-4"	
h2	264	#5	40'-4"	
h3	132	#5	35'-7"	
h4	6	#10	38'-0"	
h5	36	#8	8'-0"	
h6	19	#8	19'-4"	
h7	10	#5	13'-5"	
h8	30	#8	12'-6"	
h9	30	#8	22'-6"	
h10	14	#5	15'-5"	
h11	10	#8	14'-0"	
h12	5	#5	14'-0"	
h13	4	#8	15'-0"	
h14	2	#5	15'-0"	
h16	6	#8	38'-0"	
h17	6	#6	38'-0"	
s	39	#4	8'-3"	
s1	39	#4	6'-7"	
v	900	#5	10'-11"	
v1	1,126	#5	5'-2"	
v2	452	#5	9'-8"	
v3	28	#4	15'-2"	
v4	32	#4	15'-2"	
v5	452	#5	9'-8"	
v6	113	#5	4'-2"	
Concrete Box Culverts			Cu. Yd.	785.8
Reinforcement Bars			Pound	186,050

FILE NAME: 045-8305-62M71-04-Culvert Details
PLOT DRIVER: /ARC_IL_001.pdf.bwl.pltcfg
PEN TABLE: ARC_IL_001.pentbl.tbl

HRGreen.com
Illinois Professional Design Firm
184-001322

USER NAME = Jeff.helmer	DESIGNED – JMW	REVISED -	
	CHECKED – AEU	REVISED -	
PLOT SCALE =	DRAWN – JJH	REVISED -	
PLOT DATE = 3/5/2026	CHECKED – AEU	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CULVERT DETAILS
STRUCTURE NO. 045–8305
SHEET NO. 14 OF 17 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	2020-198-W&T	KANE	531	400
		CONTRACT NO. 62M71		
	ILLINOIS FED. AID PROJECT			