

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	(111)ELE	GRUNDY	16	1
		ILLINOIS	CONTRACT NO. 66M01	

INDEX OF SHEETS

- 1. COVER SHEET
- 2. GENERAL NOTES
- 3 - 4. SUMMARY OF QUANTITIES
- 5 - 6. TYPICAL ROADWAY SECTIONS
- 7. SCHEDULES
- 8. CONCRETE FOUNDATION TYPE "C"
- 9. SIGN PANELS - TYPE 2
- 10 - 12. EXISTING PLAN DETAILS: LOCATION #1
INTERSECTION IL ROUTE 47 AND PINE BLUFF ROAD
- 13 - 15. EXISTING PLAN DETAILS: LOCATION #2
INTERSECTION OF IL 47 AND SOUTHMOR ROAD
- 16. TEMPORARY INFORMATION SIGNING

STANDARDS

- 000001-08 STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
- 701001-02 OFF-ROAD OPERATIONS 2L, 2W, MORE THAN 15' (4.5 m) AWAY
- 701006-05 OFF-ROAD OPERATIONS 2L, 2W, 15' (4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE
- 701201-05 LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS ≥ 45 MPH
- 701301-04 LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
- 701701-10 URBAN LANE CLOSURE, MULTILANE INTERSECTION
- 701901-08 TRAFFIC CONTROL DEVICES
- 862001-01 UNINTERRUPTABLE POWER SUPPLY, (UPS)
- 878001-11 CONCRETE FOUNDATION DETAILS

**PROPOSED
HIGHWAY PLANS**

F.A.P. ROUTE 326 (IL 47)
SECTION (111)ELE
TRAFFIC SIGNAL CONTROLLER CABINET
AND SIGNAL HEAD REPLACEMENT
GRUNDY COUNTY

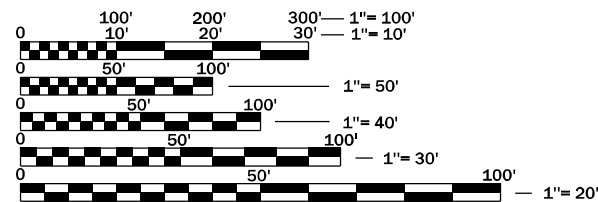
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PROJECT LOCATION

LOCATION NO. 1
INTERSECTION OF
IL ROUTE 47
AND
PINE BLUFF ROAD

PROJECT LOCATION

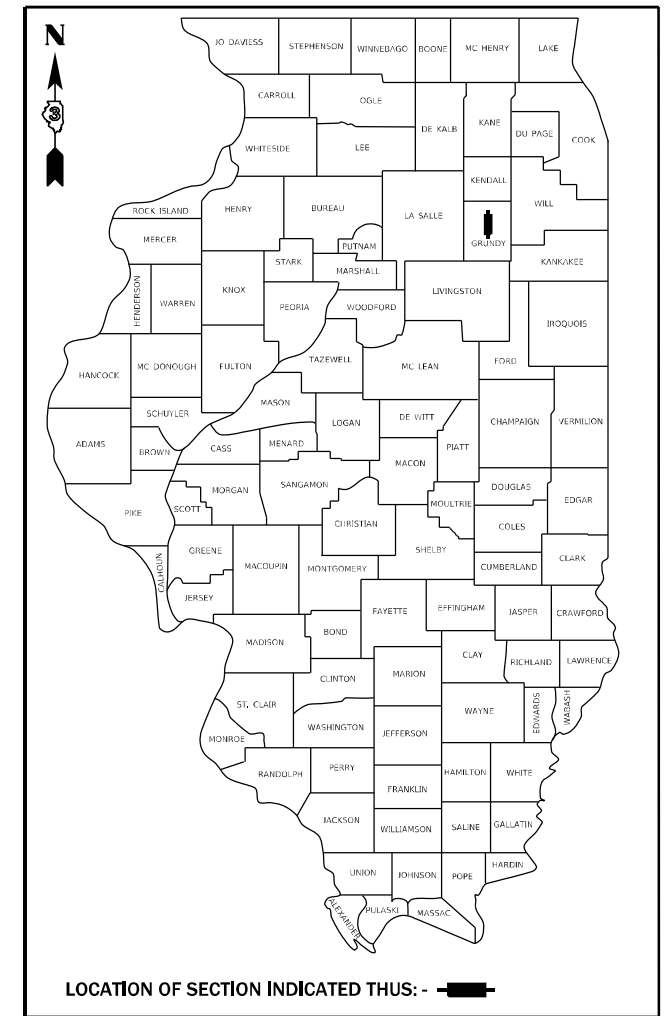
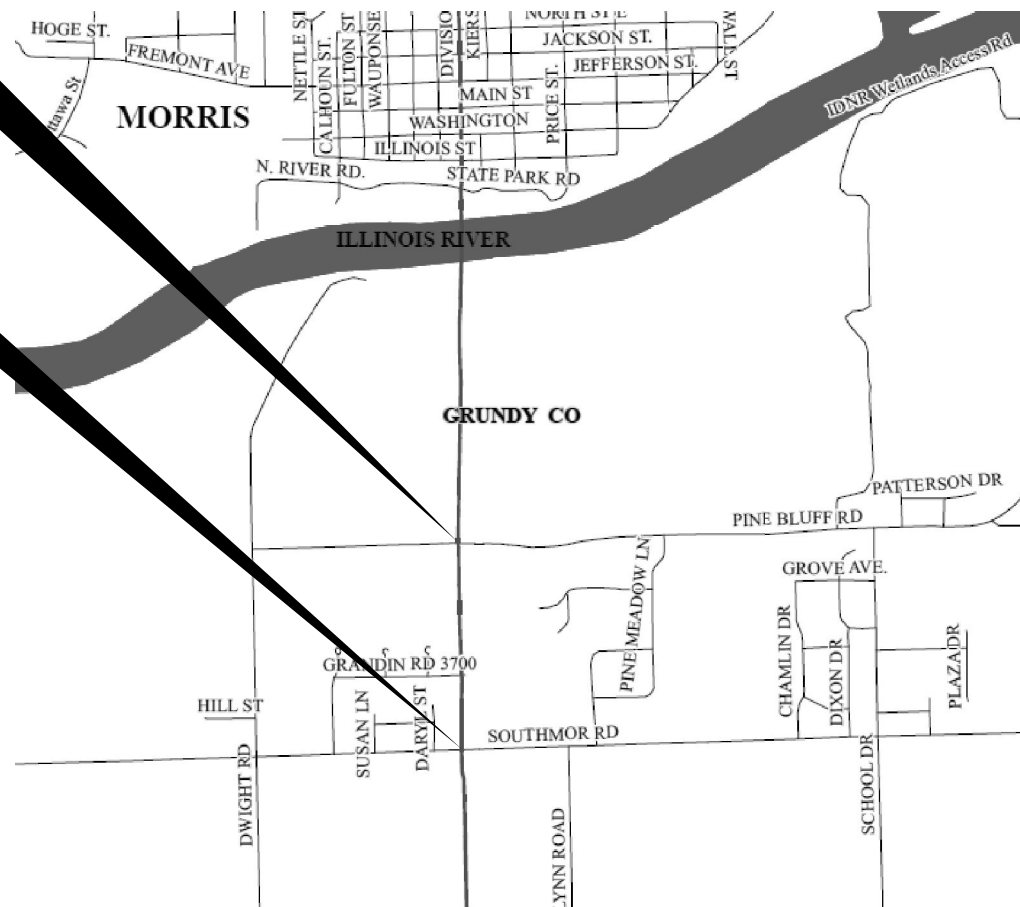
LOCATION NO. 2
INTERSECTION OF
IL ROUTE 47
AND
SOUTHMOR ROAD



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

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

PROJECT ENGINEER YOGESH PATEL P.E.
UNIT CHIEF RON WOODSHANK
DISTRICT 3 NO. (815) 434-6131
CONTRACT NO. 66M01



FUNCTIONAL CLASSIFICATION	FUNCTIONAL CLASSIFICATION
LOCATION NO. 1	LOCATION NO. 2
URBAN - OTHER PRINCIPAL ARTERIAL (OPA)	URBAN - OTHER PRINCIPAL ARTERIAL (OPA)
F.A.P. ROUTE 326 (IL 47)	F.A.P. ROUTE 326 (IL 47)
2019 ADT = 18900	2019 ADT = 13200
P.V. 87.3 % S.U. 6.6 % M.U. 6.1 %	P.V. 88.2 % S.U. 4.2 % M.U. 7.6 %
URBAN	URBAN
PINE BLUFF ROAD	SOUTHMOR ROAD
2019 ADT = 4350	2019 ADT = 1300

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED January 31, 2022

David Almond
REGIONAL ENGINEER

March 25, 2022
[Signature]
ENGINEER OF DESIGN AND ENVIRONMENT

March 2, 2022
Stephen M. Frantz
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

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OF THE STATE OF ILLINOIS**

TRAFFIC SIGNAL GENERAL NOTES

1. PLAN DIMENSIONS AND DETAILS RELATIVE TO EXISTING PLANS ARE SUBJECT TO NOMINAL CONSTRUCTION VARIATIONS. THE CONTRACTOR SHALL FIELD VERIFY EXISTING DIMENSIONS AND DETAILS AFFECTING NEW CONSTRUCTION AND MAKE NECESSARY APPROVED ADJUSTMENTS PRIOR TO CONSTRUCTION OR ORDERING OF MATERIALS. SUCH VARIATIONS SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATION FOR A CHANGE IN SCOPE OF WORK; HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED AT THE UNIT PRICE BID FOR THE WORK.
2. THE TRAFFIC SIGNAL SECTION AT THE ILLINOIS DEPARTMENT OF TRANSPORTATION, DISTRICT 3, SHALL BE NOTIFIED AT (815)434-8505 AT LEAST 72 HOURS PRIOR TO TURNING ON ANY FLASHER OR CONTROLLER UNITS.
3. ALL TRAFFIC SIGNAL HEADS SHALL BE 12-INCH POLYCARBONATE.
4. THE CONTRACTOR SHALL ARRANGE FOR A FACTORY OR SUPPLIER REPRESENTATIVE TO BE PRESENT AT THE INTERSECTION WHEN THE SIGNAL IS TURNED ON. COST TO BE INCLUDED WITH THE TRAFFIC SIGNAL CONTROLLER PAY ITEM.
5. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR PLACING CONDUIT AT A GREATER THEN 2' MINIMUM DEPTH TO AVOID OBSTACLES SUCH AS UNDERGROUND UTILITIES.
6. THE ELECTRICAL CONDUCTORS FOR ALL TRAFFIC SIGNAL HEADS SHALL BE SOLID, SOFT COPPER.
7. ALL THREADS OF BOLTS USED IN THE ASSEMBLY OF TRAFFIC SIGNAL COMPONENTS SHALL BE COATED WITH A NON-LEAD BASED ANTI-SEIZE COMPOUND, SIMILAR TO LEAD PLATE, PRIOR TO ASSEMBLY.
8. ALL HARDWARE SHALL BE TIGHTENED AND WELL SECURED. CABLES SHALL BE NEATLY TRAINED IN THE CONTROLLER CABINET.
9. ALL TRAFFIC SIGNAL WIRING SHALL EXTEND FROM THE CONTROLLER TO SIGNAL. SPLICES IN JUNCTION BOXES WILL NOT BE ALLOWED.
10. THE CONTROLLER CABINET SHALL BE PLACED SO THAT A TECHNICIAN MAY SEE THE INTERSECTION OVER THE TOP OF THE CABINETS WHILE WATCHING THE COMPONENTS IN THE CABINET.
11. THE PROPOSED TRAFFIC SIGNAL CONTROLLER CABINET SHALL BE FURNISHED WITH A MANUAL CONTROL SWITCH AND MANUAL CONTROL CHORD WITHIN THE POLICE DOOR COMPARTMENT. THIS WORK SHALL BE INCLUDED IN THE COST OF THE CONTROLLER CABINET PAY ITEM.
12. THE CONTRACTOR SHALL PROVIDE A SELF-ADHERED PHASE DIAGRAM ON THE INSIDE OF THE CONTROLLER CABINET DOOR.
13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ELECTRICAL SERVICE FOR THE TRAFFIC SIGNALS. THE CONTRACTOR SHALL CONTACT THE UTILITY COMPANY PRIOR TO BEGINNING WORK TO OBTAIN THE UTILITY COMPANY REQUIREMENTS FOR THE SERVICE INSTALLATION.
14. ALL VEHICLE SIGNAL HEADS SHALL HAVE POLYCARBONATE BLACK HOUSING AND "STEEL OR ALUMINUM BACKPLATES PER ARTICLE 1078.01f)"
15. THE ELEVATION OF THE TOP OF THE DOUBLE HANDHOLE SHALL BE LESS THAN THE ELEVATION OF THE TOP OF THE CONTROLLER CABINET.
16. ALL UNINTERRUPTIBLE POWER SUPPLIES SHALL BE EQUIPPED WITH ALPHA GUARD MONITORS.
17. ALL GROUNDING MATERIALS FOR CONCRETE FOUNDATIONS SHALL REFER TO SECTION 807 OF THE STANDARD SPECIFICATIONS.

TRAFFIC SIGNAL GENERAL NOTES CONT'D

18. THE SURGE PROTECTOR IN THE CONTROLLER CABINET SHALL HAVE AN INDICATOR LIGHT.
19. ALL EXCAVATED MATERIAL, WHICH INCLUDED DIGGING OR GRADING OF ANY SOIL OR FILL MATERIAL, WITH THE EXCEPTION OF AGGREGATE FILLS MUST BE INCORPORATED WITHIN THE IDOT RIGHT OF WAY DUE TO ENVIRONMENTAL DOCUMENTATION REQUIREMENTS.
20. 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 SPECIFICATIONS AND AS DIRECTED BY THE ENGINEER. THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE COST OF THE EXCAVATION.
21. THE CONTRACTOR SHALL CONTACT JULIE AT LEAST 48 HOURS PRIOR TO EXCAVATION TO DETERMINE WHICH UTILITIES ARE IN THE AREA.
22. 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)434-8417 TO LOCATE THE UNDERGROUND FACILITIES, PROVIDING A MINIMUM OF 72 HOURS NOTICE. THE DEPARTMENT IS NOT A MEMBER OF THE JOINT UTILITY LOCATING INFORMATION FOR EXCAVATORS (JULIE) SYSTEM.
23. ALL DAMAGE TO DEPARTMENT-OWNED UNDERGROUND FACILITIES CAUSED BY THE CONTRACTOR SHALL BE REPAIRED TO THE SATISFACTION OF THE DEPARTMENT AT THE CONTRACTOR'S EXPENSE. THIS SHALL INCLUDE ALL TEMPORARY REPAIRS REQUIRED TO KEEP THE FACILITY OPERATIONAL WHILE MATERIAL IS BEING OBTAINED TO MAKE PERMANENT REPAIRS. SPLICING OF ELECTRICAL CABLE WILL NOT BE ALLOWED. ELECTRICAL CABLE SHALL BE REPLACED FROM POLE TO POLE OR CONTROLLER.
24. ALL TRAFFIC SIGNAL CONTROLLERS SHALL INCLUDE NTCIP AND THE VIDEO DETECTION SHALL USE VIDEO "G".
25. WHENEVER THE CONTRACTOR IS WORKING, THE CONTRACTOR SHALL NECESSARY PRECAUTIONS FOR PEDESTRIAN TRAFFIC WITHIN THE WORK ZONE.

COMMITMENTS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DISTRICT THREE
AS BUILT INFORMATION

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DISTRICT THREE

SUPERVISING CONSTRUCTION FIELD ENGINEER

PREPARED BY: _____
DISTRICT STUDIES & PLANS ENGINEER

RESIDENT ENGINEER / TECHNICIAN

DATE: _____

START & END DATES
OF CONSTRUCTION:

INSPECTORS:

EXAMINED BY: _____
DISTRICT CONSTRUCTION ENGINEER

DISTRICT MATERIALS ENGINEER

DISTRICT OPERATIONS ENGINEER

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PLOT DATE = 1/25/2022	DATE - 9/18/2021	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

GENERAL NOTES

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	(111)ELE	GRUNDY	16	2
CONTRACT NO. 66M01				
ILLINOIS FED. AID PROJECT				

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE	
				CONTRACT MAINTENANCE	
				100% STATE	
				TRAFFIC SIGNALS	
				0021	
				URBAN	
67100100	MOBILIZATION	L SUM	1		1
70102637	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	EACH	2		2
* 72000200	SIGN PANEL - TYPE 2	SQ FT	86		86
* 72400320	REMOVE SIGN PANEL - TYPE 2	SQ FT	86		86
85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	2		2
85700200	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET	EACH	2		2
86200300	UNINTERRUPTABLE POWER SUPPLY, EXTENDED	EACH	2		2
87800150	CONCRETE FOUNDATION, TYPE C	FOOT	7		7
88040070	SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	5		5
88040090	SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	22		22
88040150	SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	3		3
88040160	SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED	EACH	3		3
89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	2		2
X1400215	REMOTE CONTROLLED VIDEO SYSTEM	EACH	2		2

*= SPECIALTY ITEM

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	DATE - 9/18/2021	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES

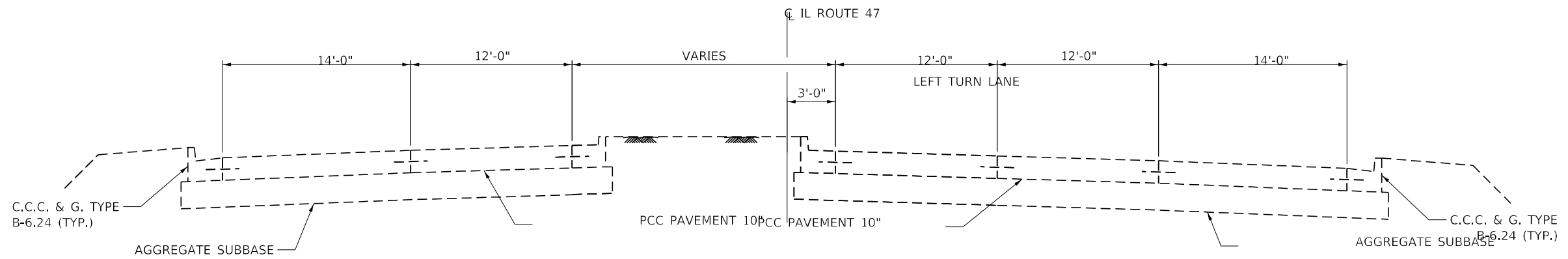
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 66M01				
ILLINOIS FED. AID PROJECT				

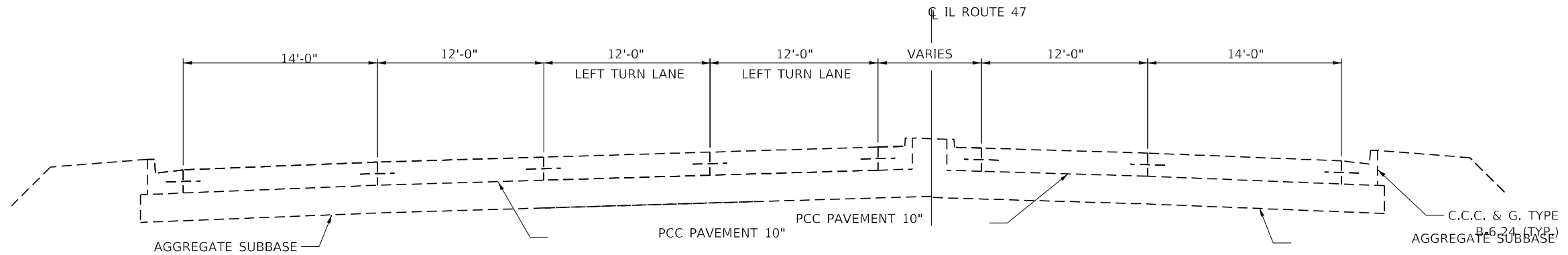
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				TRAFFIC SIGNALS	
				0021	URBAN
X1400318	TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC, SPECIAL	EACH	33		33
X7010101	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	EACH	2		2
Z0030850	TEMPORARY INFORMATION SIGNING	SQ FT	168		168
Z0033072	VIDEO VEHICLE DETECTION SYSTEM	EACH	2		2
Z0073509	PERMANENT TRAFFIC SIGNAL TIMING	EACH	2		2

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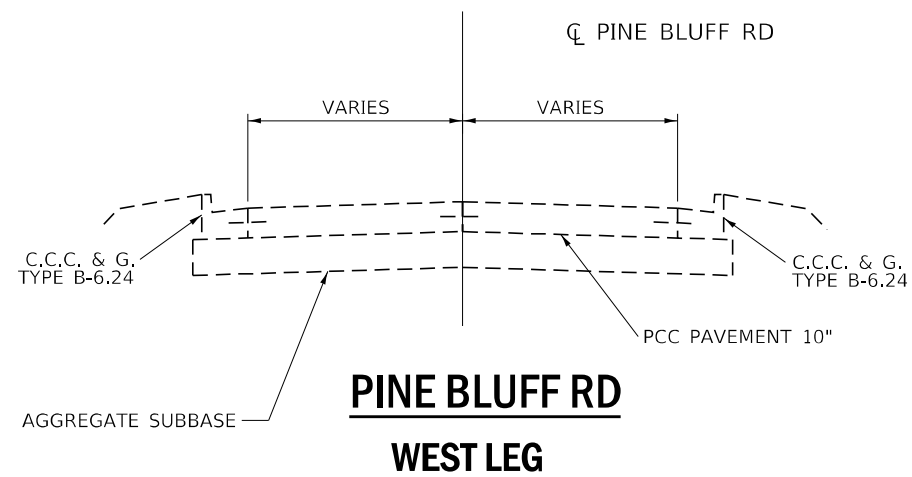
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DATE - 9/18/2021	DATE - 9/18/2021	REVISED -		ILLINOIS FED. AID PROJECT							



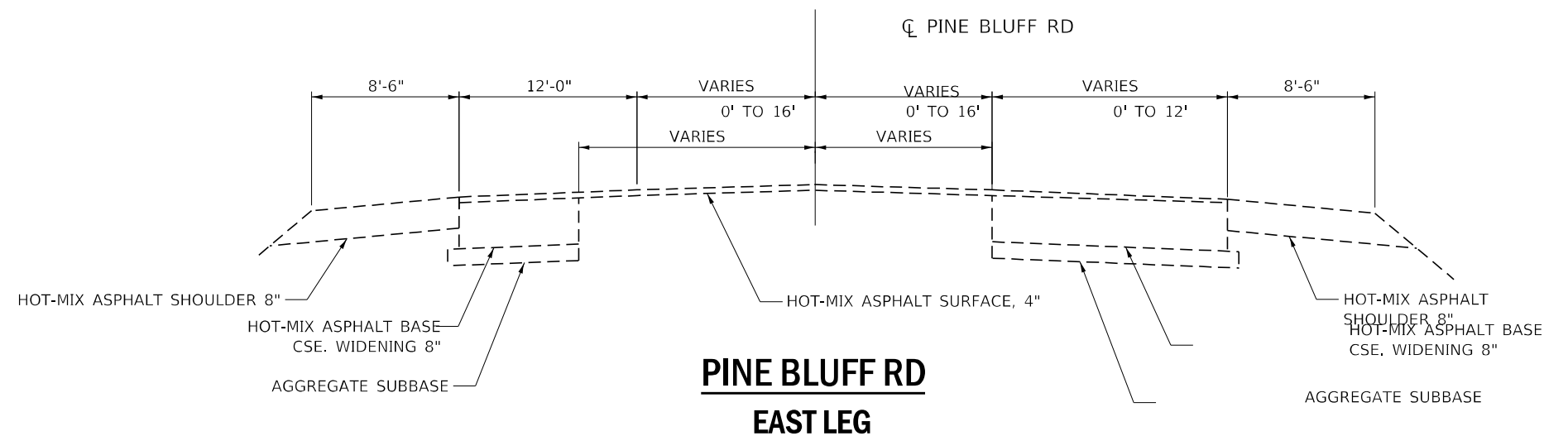
TYPICAL SECTION
LOCATION NO. 1 - PINE BLUFF ROAD
IL ROUTE 47
SOUTH LEG LOOKING NORTH



TYPICAL SECTION
LOCATION NO. 1 - PINE BLUFF ROAD
IL ROUTE 47
NORTH LEG LOOKING NORTH



PINE BLUFF RD
WEST LEG



PINE BLUFF RD
EAST LEG

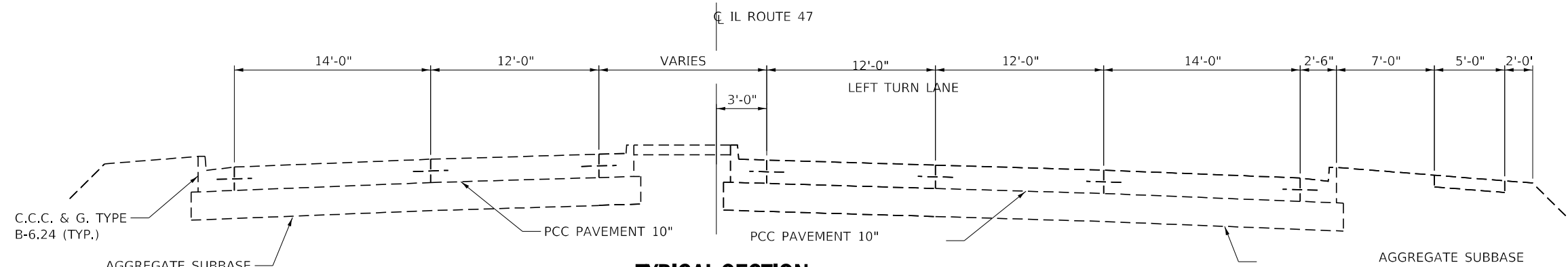
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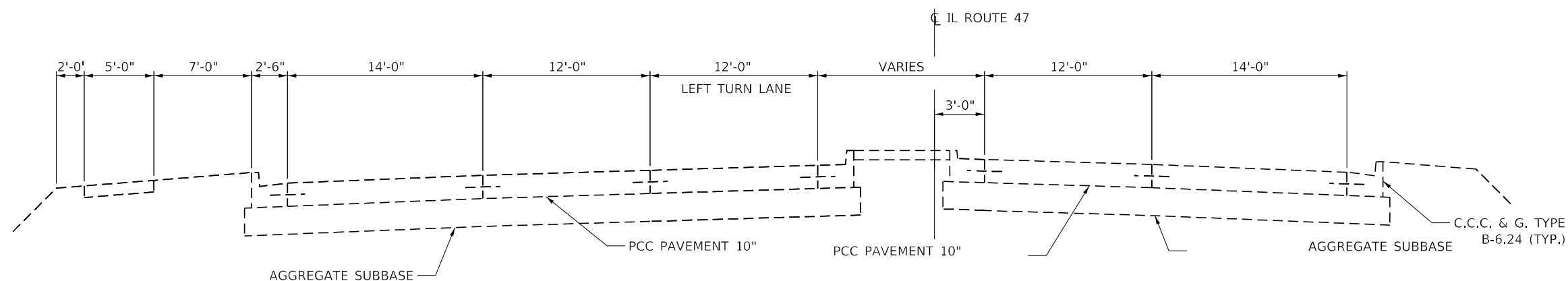
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTION	
LOCATION NO. 1 - PINE BLUFF ROAD	
SCALE:	SHEET 1 OF 1 SHEETS STA. TO STA.

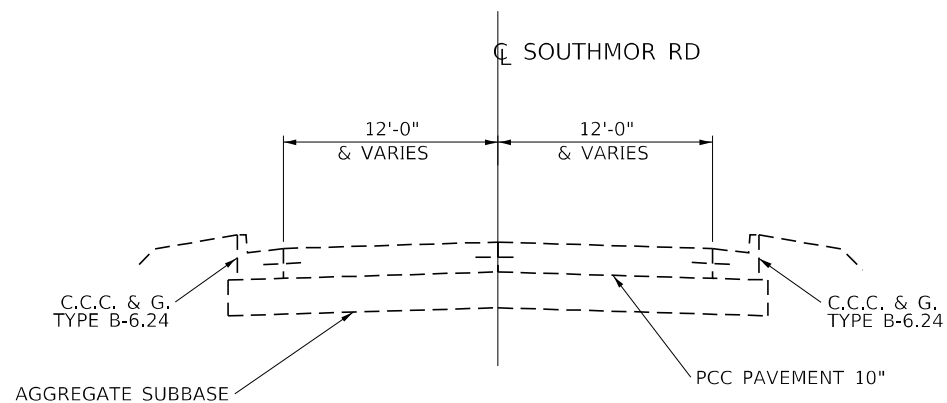
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CONTRACT NO. 66M01				
ILLINOIS FED. AID PROJECT				



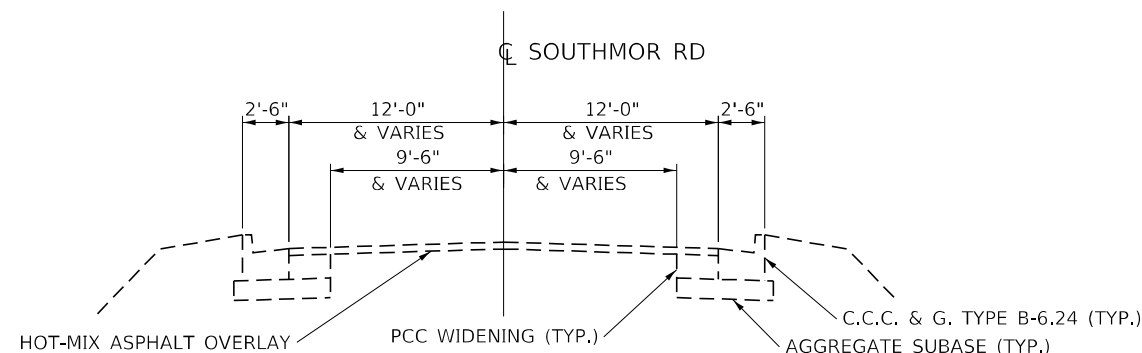
TYPICAL SECTION
LOCATION NO. 2 - SOUTHMOR ROAD
IL ROUTE 47
SOUTH LEG LOOKING NORTH



TYPICAL SECTION
LOCATION NO. 2 - SOUTHMOR ROAD
IL ROUTE 47
NORTH LEG LOOKING NORTH



SOUTHMOR RD
WEST LEG



SOUTHMOR RD
EAST LEG

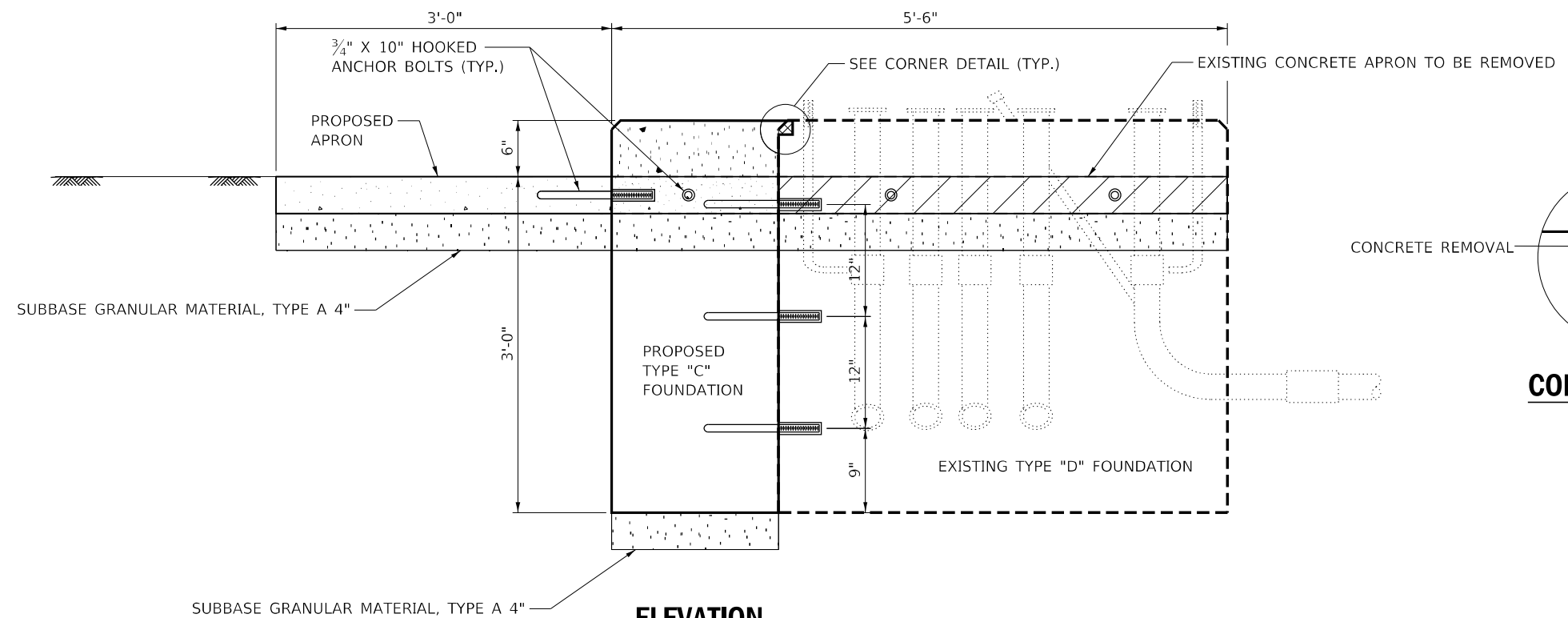
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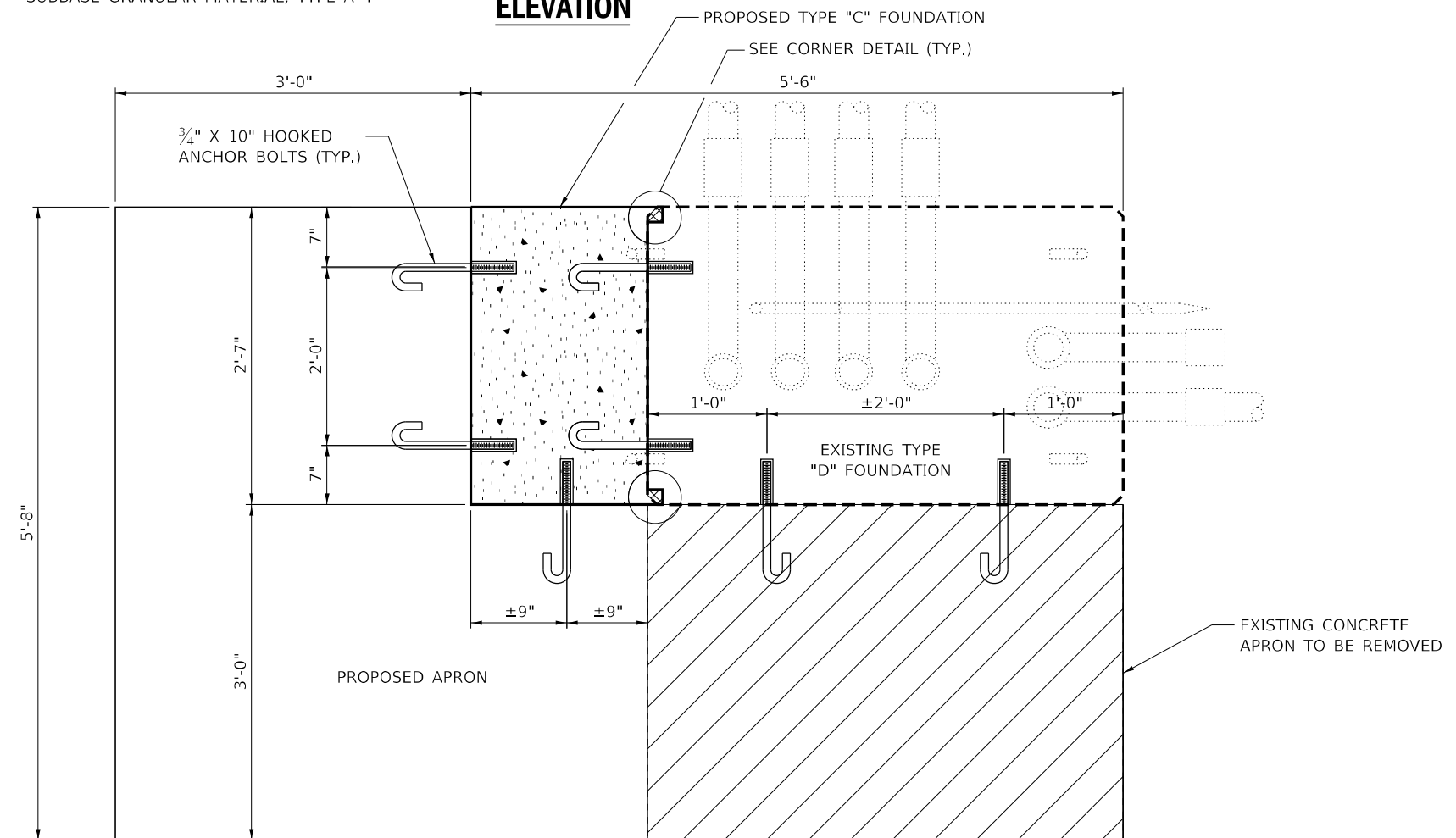
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTION	
LOCATION NO. 2 - SOUTHMOR ROAD	
SCALE:	SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE. 326	SECTION (111)ELE	COUNTY GRUNDY	TOTAL SHEETS 16	SHEET NO. 6
CONTRACT NO. 66M01				
ILLINOIS FED. AID PROJECT				



ELEVATION



PLAN

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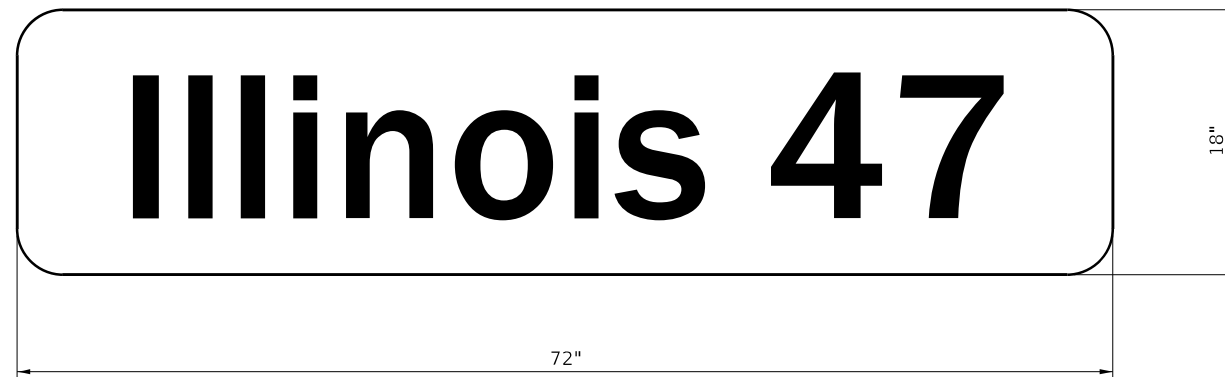
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PLOT DATE = 1/25/2022	DATE - 9/18/2021	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

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

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

F.A.P. RTE. 326	SECTION (111)ELE	COUNTY GRUNDY	TOTAL SHEETS 16	SHEET NO. 8
CONTRACT NO. 66M01				
ILLINOIS FED. AID PROJECT				



0.8" BORDER

8" D SERIES LETTERS

4 SIGNS REQUIRED = 2 SIGN PANELS AT PINE BLUFF ROAD = 9.0 SQ FT EACH = 18 SQ FT TOTAL

2 SIGN PANELS AT SOUTH MOR ROAD = 9.0 SQ FT EACH = 18 SQ FT TOTAL

0.8" BORDER

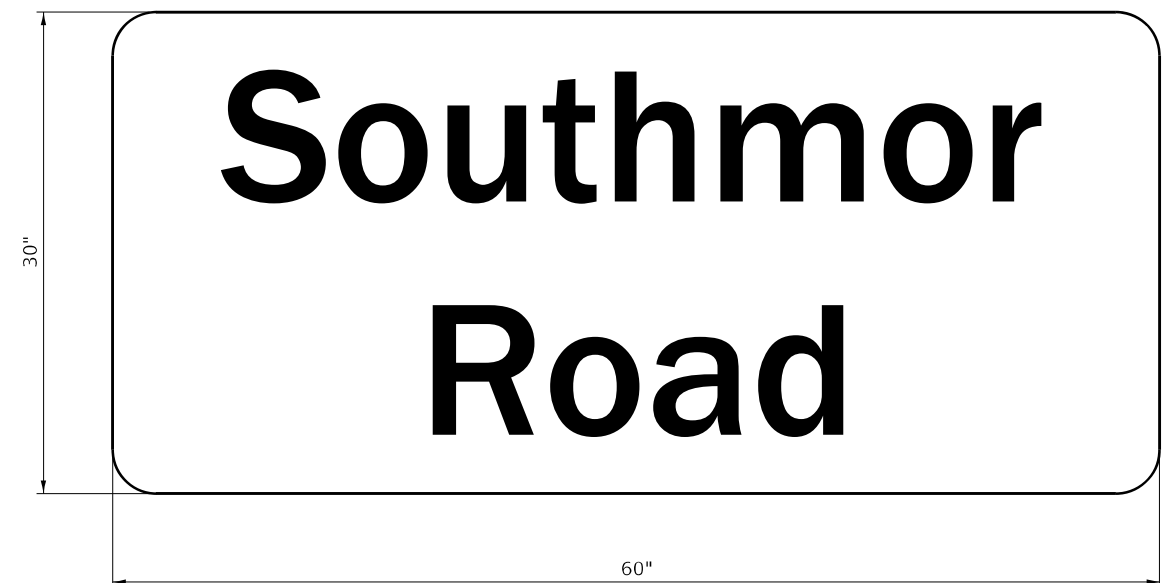
8" D SERIES LETTERS

2 SIGNS REQUIRED = 2 SIGN PANELS AT PINE BLUFF ROAD = 12.5 SQ FT EACH = 25 SQ FT TOTAL

0.8" BORDER

8" D SERIES LETTERS

2 SIGNS REQUIRED = 2 SIGN PANELS AT SOUTH MOR ROAD = 12.5 SQ FT EACH = 25 SQ FT TOTAL



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PLOT DATE = 1/25/2022	DATE - 9/18/2021	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SIGN PANELS - TYPE 2

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

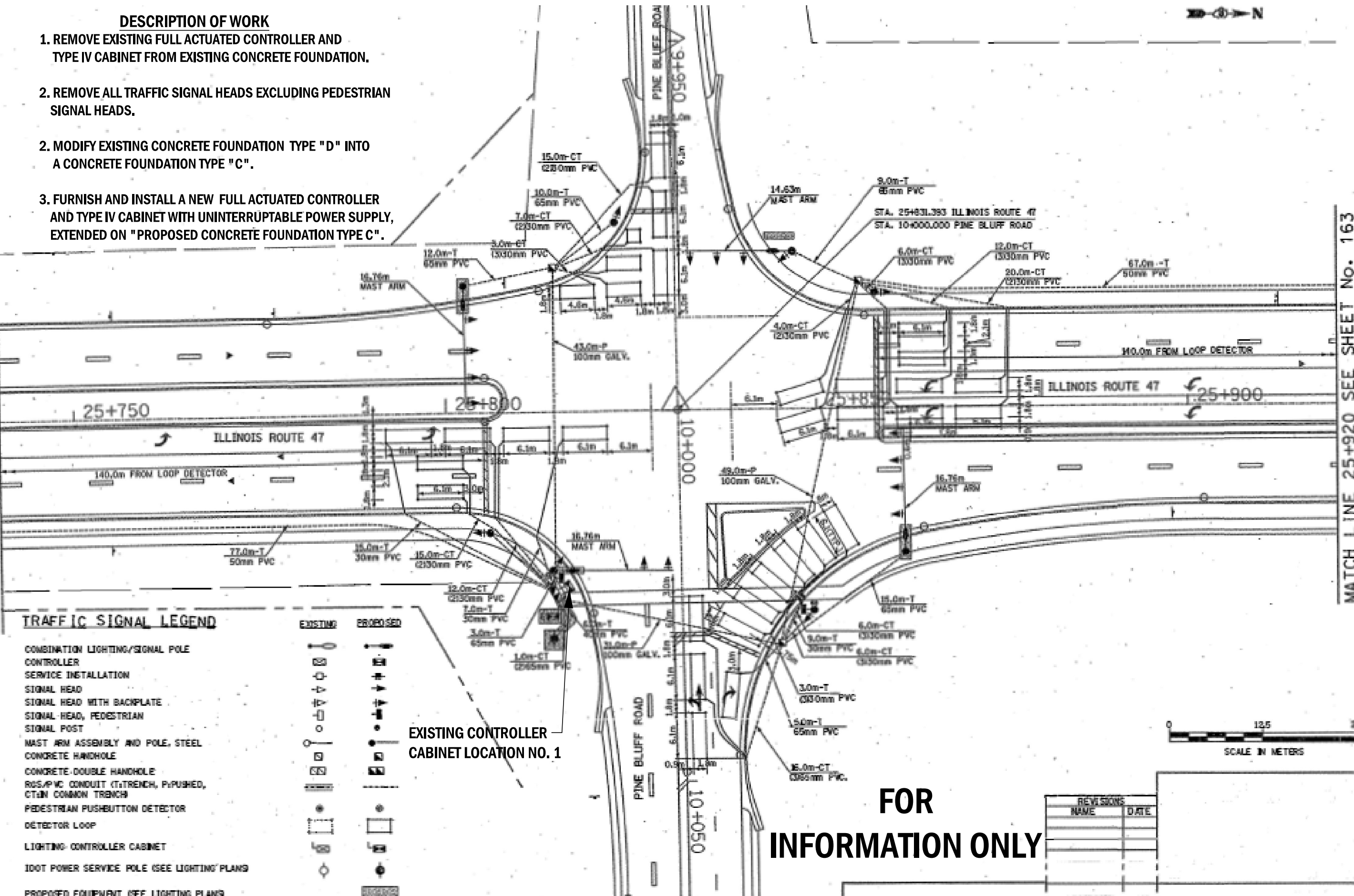
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	(111)ELE	GRUNDY	16	9
CONTRACT NO. 66M01				
ILLINOIS FED. AID PROJECT				

DESCRIPTION OF WORK

1. REMOVE EXISTING FULL ACTUATED CONTROLLER AND TYPE IV CABINET FROM EXISTING CONCRETE FOUNDATION.
2. REMOVE ALL TRAFFIC SIGNAL HEADS EXCLUDING PEDESTRIAN SIGNAL HEADS.
2. MODIFY EXISTING CONCRETE FOUNDATION TYPE "D" INTO A CONCRETE FOUNDATION TYPE "C".
3. FURNISH AND INSTALL A NEW FULL ACTUATED CONTROLLER AND TYPE IV CABINET WITH UNINTERRUPTABLE POWER SUPPLY, EXTENDED ON "PROPOSED CONCRETE FOUNDATION TYPE C".

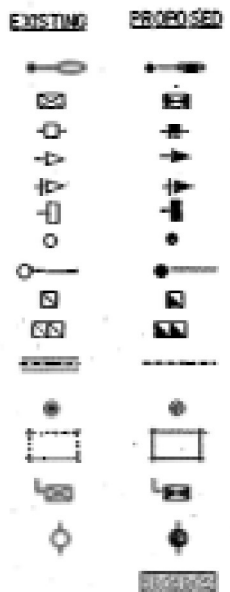
MATCH LINE 25+740 SEE SHEET No. 163

MATCH LINE 25+920 SEE SHEET No. 163



TRAFFIC SIGNAL LEGEND

- COMBINATION LIGHTING/SIGNAL POLE
- CONTROLLER
- SERVICE INSTALLATION
- SIGNAL HEAD
- SIGNAL HEAD WITH BACKPLATE
- SIGNAL HEAD, PEDESTRIAN
- SIGNAL POST
- MAST ARM ASSEMBLY AND POLE, STEEL
- CONCRETE HANDHOLE
- CONCRETE DOUBLE HANDHOLE
- RCS/PVC CONDUIT (T=TRENCH, P=PUSHED, CT=COMMON TRENCH)
- PEDESTRIAN PUSHBUTTON DETECTOR
- DETECTOR LOOP
- LIGHTING-CONTROLLER CABINET
- IDOT POWER SERVICE POLE (SEE LIGHTING PLANS)
- PROPOSED EQUIPMENT (SEE LIGHTING PLANS)



EXISTING CONTROLLER CABINET LOCATION NO. 1

FOR INFORMATION ONLY



REVISIONS	
NAME	DATE

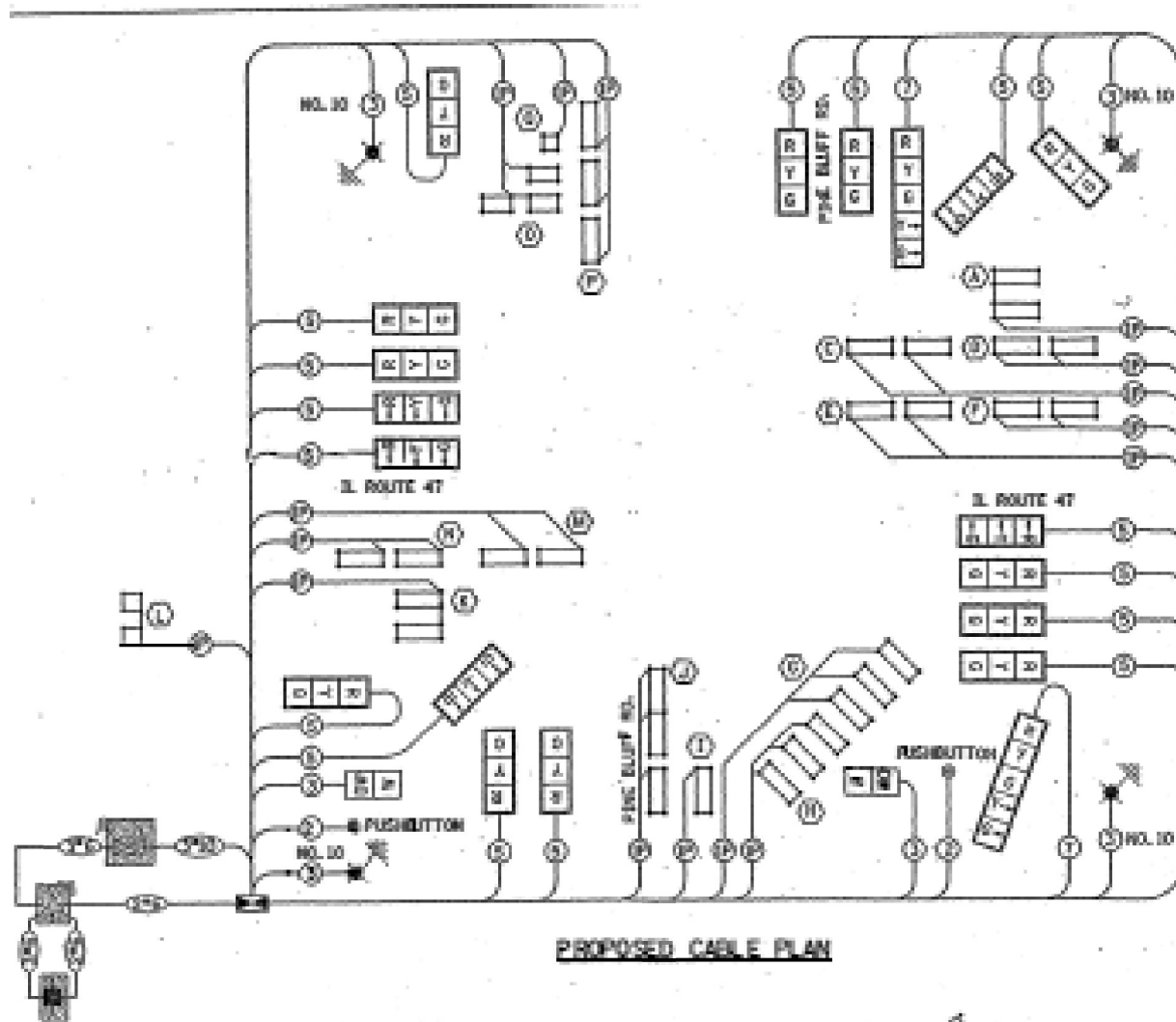
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PLOT DATE = 1/25/2022	CHECKED - YP	REVISED -
	DATE - 9/18/2021	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL PLAN	
LOCATION NO. 1 - INTERSECTION IL 47 AND PINE BLUFF ROAD	
SCALE:	SHEET 1 OF 3 SHEETS STA. TO STA.

F.A.P. RTE. 326	SECTION (111)ELE	COUNTY GRUNDY	TOTAL SHEETS 16	SHEET NO. 10
CONTRACT NO. 66M01				
ILLINOIS FED. AID PROJECT				



PROPOSED CABLE PLAN

CABLE PLAN LEGEND

- 12" (300mm) TRAFFIC SIGNAL SECTION
- 12" (300mm) TRAFFIC SIGNAL SECTION
- 12" (300mm) PEDESTRIAN SIGNAL SECTION
- 12" (300mm) PEDESTRIAN SIGNAL SECTION

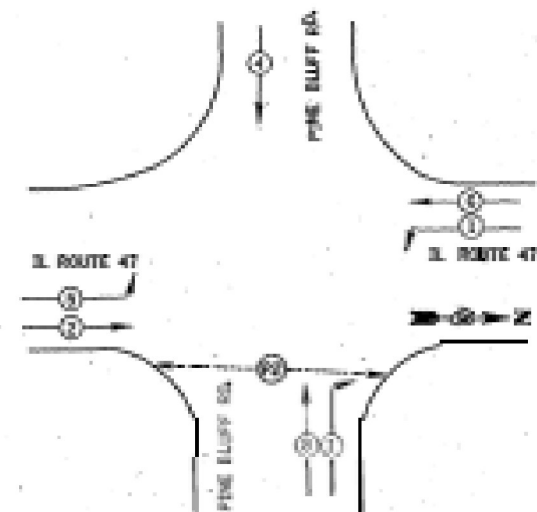
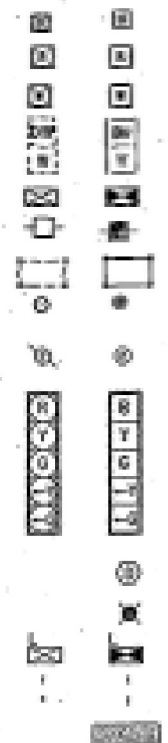
- TRAFFIC CONTROLLER CABINET
- SERVICE INSTALLATION
- VEHICLE DETECTOR, INDUCTANCE LOOP
- PUSHBUTTON DETECTOR

NUMBERS DENOTE NUMBER OF CONDUCTORS.
ALL CABLE NO. 14 EXCEPT AS INDICATED.
ALL LOOP DETECTOR CABLE TO BE SHIELDED.

SIGNAL FACE WITH BACKPLATE.

- DETECTION LOOP IDENTIFICATION
- COMBINATION LIGHTING / SIGNAL POLE
- LIGHTING CONTROLLER CABINET
- DOT POWER SERVICE POLE PROVIDED BY ELECTRICAL
- PROPOSED EQUIPMENT PROVIDED BY ELECTRICAL

CONDUCTOR DESIGNATION



PHASE DESIGNATION DIAGRAM

- LEGEND**
- ← ● → DUAL ENTRY PHASE
 - ← ● → PEDESTRIAN MOVEMENT
 - NUMBER REFERS TO ASSOCIATED PHASE

ELECTRICAL LOAD CHART

ILLINOIS ROUTE 47			
SIGNAL SECTION	NUMBER	WATTAGE EACH	BURN TIME (hr)
RED	7	135	65
YELLOW	7	135	5
GREEN	4	135	30
YELLOW ARROW	0	-	5
GREEN ARROW	3	135	5
PINE BLUFF ROAD			
ITEM	NUMBER	WATTAGE EACH	BURN TIME (hr)
RED	30	135	75
YELLOW	30	135	5
GREEN	7	135	30
YELLOW ARROW	2	135	5
GREEN ARROW	5	135	5
WALK	2	135	20
DON'T WALK	2	135	30
TRAFFIC SIGNAL CABINET			
SIGNAL SECTION	NUMBER	WATTAGE EACH	BURN TIME (hr)
CONTROLLER	1	6	300
LOOP DETECTORS	20	4	300
HIGHWAY LIGHTING			
ITEM	NUMBER	WATTAGE EACH	BURN TIME (hr)
CONTROLLER	1	6	300
LUMINAIRE	4	300	45

DETECTOR LOOP INDUCTANCE CHART

LOOP SYSTEM	PHASE NO.	LABEL	NUMBER OF TURNS	INDUCTANCE (mH)	FREQUENCY (HERTZ)	J PIN STATUS
A	6	SB	4	305	25.234	OFF
B	6	SB FAR	6	640	23.957	ON
C	1	SBLT FR	4	305	25.234	ON
D	1	SBLT FR	4	305	25.234	ON
E	1	SBLT BK	4	305	25.234	ON
F	1	SBLT BK	4	305	25.234	ON
G	1	WB RTFR	4	300	21.471	OFF
H	1	WB RTBK	4	300	21.471	OFF
I	1	WB RT	4	300	26.072	ON
J	0	WB	4	300	21.471	ON
K	2	WB	4	524	26.662	ON
L	2	WB FAR	6	614	24.631	ON
M	5	WB LT FR	4	524	26.662	ON
N	5	WB LT BK	4	524	26.662	ON
O	4	WB RTFR	4	667	23.632	OFF
P	4	WB	4	307	21.353	ON
Q	4	WB RTBK	4	306	40.905	OFF

J PIN STATUS:
"ON" MEANS STANDARD DETECTOR SETUP.
"OFF" MEANS THE J PIN HAS BEEN DISCONNECTED, BUT INTACT AT THE HARNESS PANEL WITH THE NECESSARY SPREAD CONNECTION ATTACHED, MARKED, AND INSULATED.

FOR INFORMATION ONLY

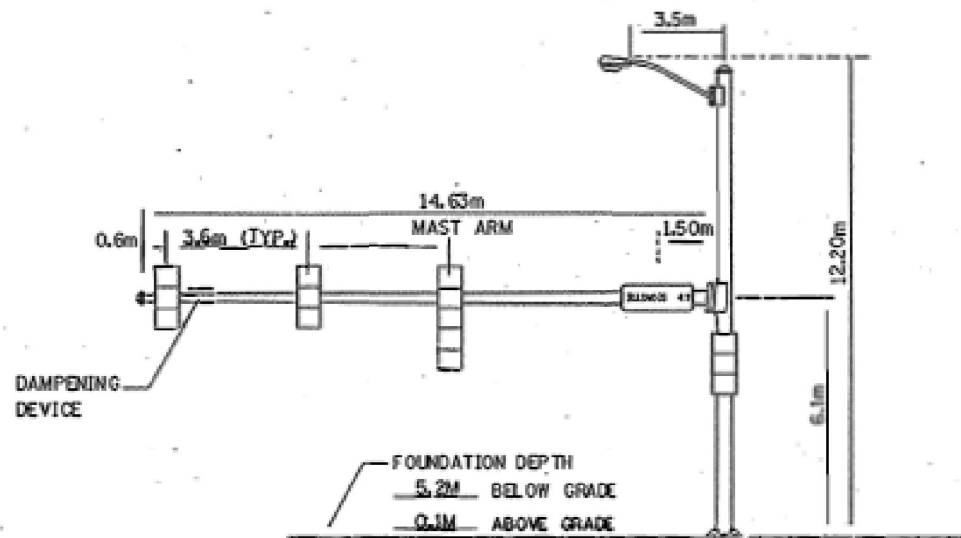
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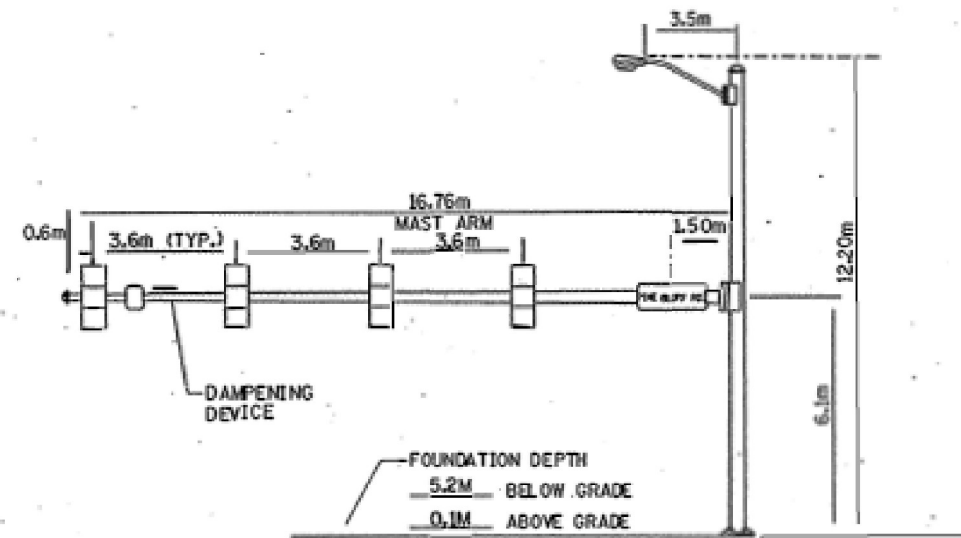
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL PLAN	
LOCATION NO. 1 - INTERSECTION IL 47 AND PINE BLUFF ROAD	
SCALE:	SHEET 2 OF 3 SHEETS STA. TO STA.

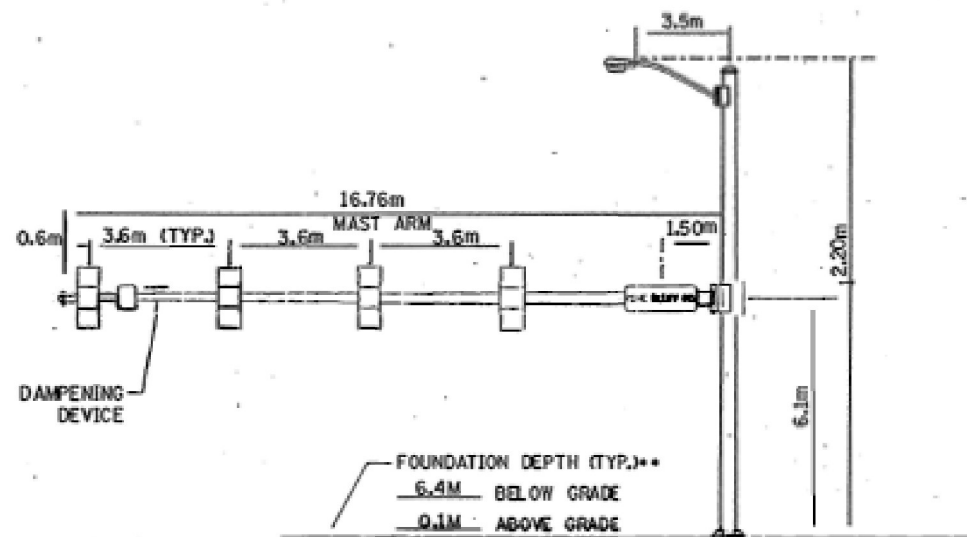
F.A.P. RTE. 326	SECTION (111)ELE	COUNTY GRUNDY	TOTAL SHEETS 16	SHEET NO. 11
			CONTRACT NO. 66M01	
ILLINOIS FED. AID PROJECT				



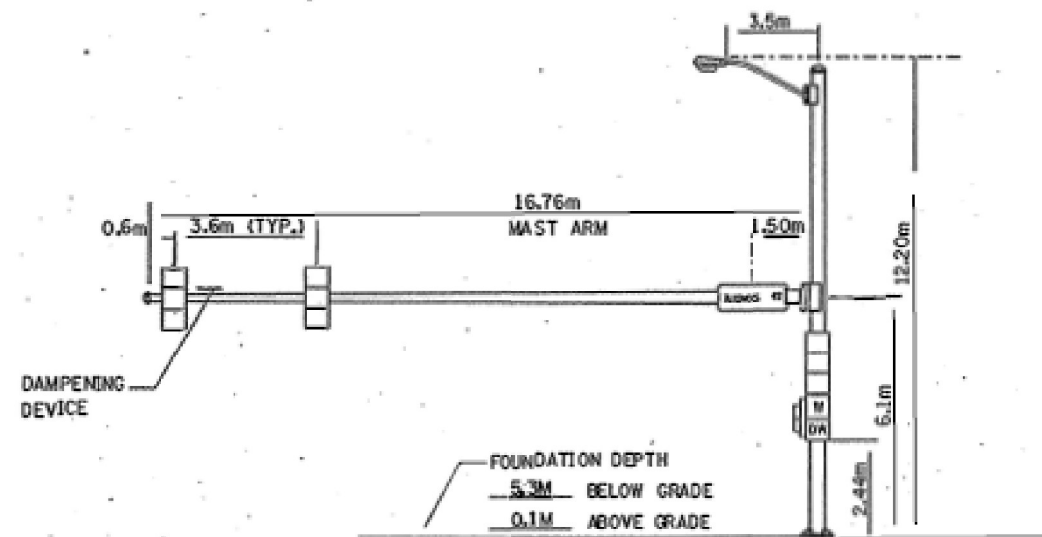
(North West) QUADRANT



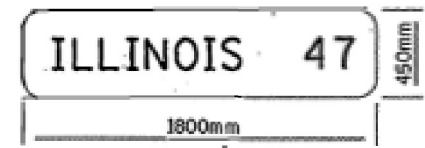
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(South West) QUADRANT



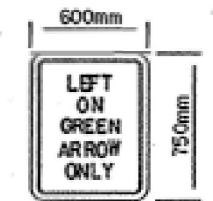
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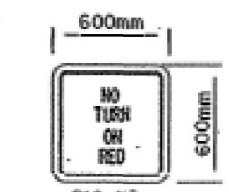
ILLINOIS 47
19mm (0.75") BORDER
200mm (8") D SERIES LETTERS-HIGH INTENSITY SHEETING
2 SIGNS
0.81 Sqm Ea = 1.62 Sqm
TYPE-1



PINE BLUFF ROAD
19mm (0.75") BORDER
200mm (8") D SERIES LETTERS-HIGH INTENSITY SHEETING
2 SIGNS REQUIRED
1.35 Sqm Ea = 2.70 Sqm
TYPE-2



R10-5
600mm x 750mm
4 SIGNS REQUIRED
TOTAL AREA = 0.9 Sqm

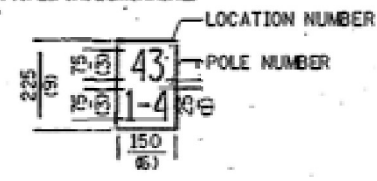


R10-11B
600mm x 600mm
5 SIGNS REQUIRED
TOTAL AREA = 1.80 Sq. m

ONE SIGN SHALL BE LOCATED 150 TO 300 TO THE RIGHT OF THE MAST ARM MOUNTED LEFT TURN SIGNAL. A SECOND SIGN SHALL BE LOCATED DIRECTLY BELOW AND PARALLEL TO THE BACKPLATE OF EACH POST BRACKETED 3 SECTION LEFT TURN ARROW SIGNAL.

"INSTALL AND ORIENT ARM BRACKET OVER POLE TENON AND FIRMLY HAND TIGHTEN THE TWO SET SCREWS. USE THIRD HOLE IN ARM BRACKET AS A GUIDE TO DRILL A 8.3 (21/64) DIAMETER HOLE THROUGH TENON. INSTALL AND TIGHTEN SELF TAPPING SCREW. TIGHTEN SET SCREWS ON ADDITIONAL (1/4 TO 3/8) TURN WITH HEX KEY (NOT PROVIDED). INSTALL LOCKNUT ON SET SCREWS IF THREADED PROJECTION ALLOWS."

POLE SHALL MEET AASHTO STANDARD SPECIFICATIONS FOR 128.72 Km (80 mph) WIND LOADING AND 40.82 Kg (90 lb.), .37 m² (4.0 Sq. Ft.) E.P.A. LUMINAIRE.



WORD "GRADE" IS TO BE INTERPRETED AS TOP OF CURB. TOP OF FOUNDATION SHALL NOT BE EXPOSED MORE THAN 100mm ABOVE THE SURROUNDING GROUND. THE SOIL CONDITIONS ARE UNSTABLE. THE CONTRACTOR MAY NEED TO USE CASINGS FOR ALL FOUNDATIONS

FOR INFORMATION ONLY

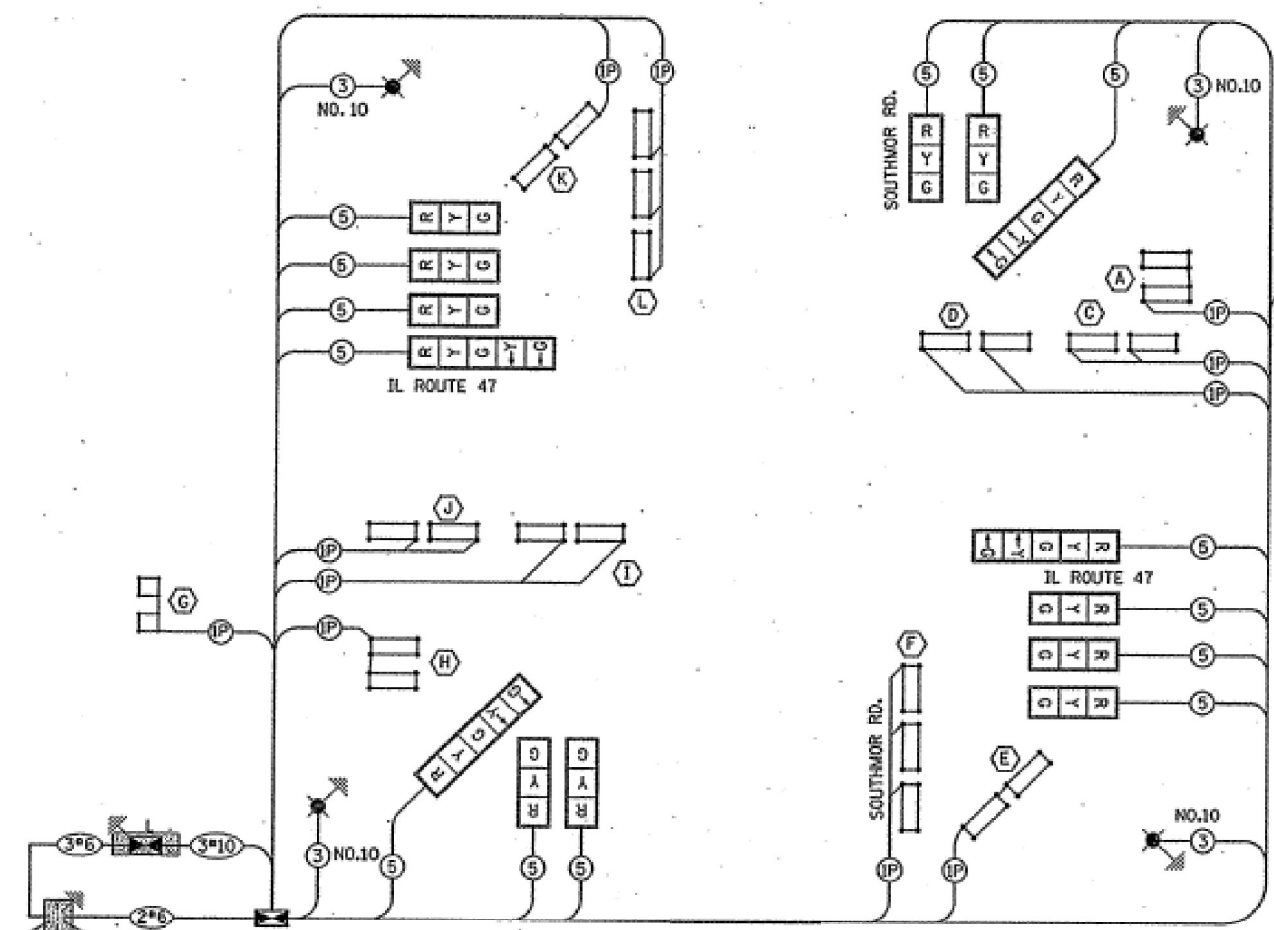
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PLOT DATE = 1/22/2022	DATE - 9/18/2021	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL PLAN
LOCATION NO. 1 - INTERSECTION IL 47 AND PINE BLUFF ROAD
SCALE: SHEET 3 OF 3 SHEETS STA. TO STA.

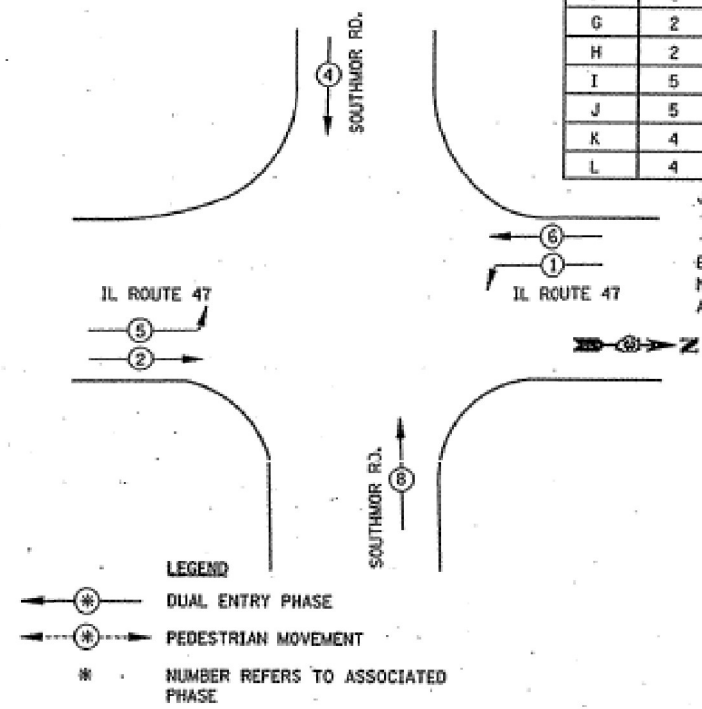
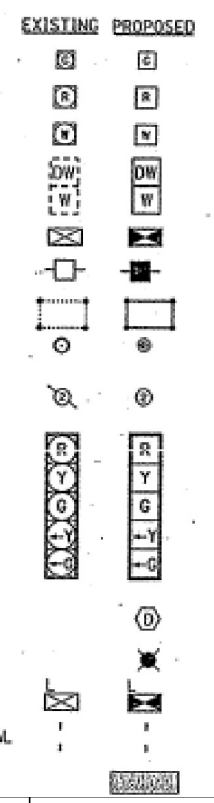
F.A.P. RTE. 326	SECTION (111)ELE	COUNTY GRUNDY	TOTAL SHEETS 16	SHEET NO. 12
CONTRACT NO. 66M01				
ILLINOIS FED. AID PROJECT				



PROPOSED CABLE PLAN

- CABLE PLAN LEGEND**
- 12" (300mm) TRAFFIC-SIGNAL SECTION
 - 12" (300mm) TRAFFIC SIGNAL SECTION
 - 12" (300mm) PEDESTRIAN SIGNAL SECTION
 - 12" (300mm) PEDESTRIAN SIGNAL SECTION

- TRAFFIC CONTROLLER CABINET
- SERVICE INSTALLATION
- VEHICLE DETECTOR, INDUCTION LOOP
- PUSHBUTTON DETECTOR
- DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.
- SIGNAL FACE WITH BACKPLATE.
- DETECTION LOOP IDENTIFICATION
- COMBINATION LIGHTING / SIGNAL POLE
- LIGHTING CONTROLLER CABINET
- IDOT POWER SERVICE POLE PROVIDED BY ELECTRICAL
- PROPOSED EQUIPMENT PROVIDED BY ELECTRICAL



ELECTRICAL LOAD CHART

ILLINOIS ROUTE 47			
SIGNAL SECTION	NUMBER	WATTAGE EACH	BURN TIME (%)
RED	8	135	60
YELLOW	8	135	5
GREEN	6	135	35
YELLOW ARROW	6	-	5
GREEN ARROW	6	135	5
SOUTHMOR ROAD			
ITEM	NUMBER	WATTAGE EACH	BURN TIME (%)
RED	4	135	60
YELLOW	4	135	5
GREEN	4	135	35
TRAFFIC SIGNAL CABINET			
SIGNAL SECTION	NUMBER	WATTAGE EACH	BURN TIME (%)
CONTROLLER	1	6	100
LOOP DETECTORS	24	4	100
HIGHWAY LIGHTING			
ITEM	NUMBER	WATTAGE EACH	BURN TIME (%)
CONTROLLER	1	6	100
LUMINAIRE	4	310	45

DETECTOR LOOP INDUCTANCE CHART

LOOP SYSTEM	PHASE NO.	LABEL	NUMBER OF TURNS	INDUCTANCE (mH)	FREQUENCY (HERTZ)	J PIN STATUS
A	6	SB STBR	4	575	25,452	OFF
B	6	SB FAR	6	663	23,703	ON
C	1	SBLT FR	4	575	25,452	ON
D	1	SBLT BK	4	575	25,452	ON
E	8	WB RT	4	449	28,800	OFF
F	8	WB	4	808	21,471	ON
G	2	NB FAR	6	609	24,732	ON
H	2	NB	4	524	26,662	OFF
I	5	NBLT FR	4	524	26,662	ON
J	5	NBLT BK	4	524	26,662	ON
K	4	EB RT	4	552	25,977	OFF
L	4	EB	4	812	21,418	ON

J PIN STATUS:
 "ON" MEANS STANDARD DETECTOR SETUP.
 "OFF" MEANS THE J WIRE HAS BEEN DISCONNECTED, BUT INTACT AT THE HARNESS PANEL WITH THE NECESSARY SPADE CONNECTION ATTACHED, MARKED, AND INSULATED.

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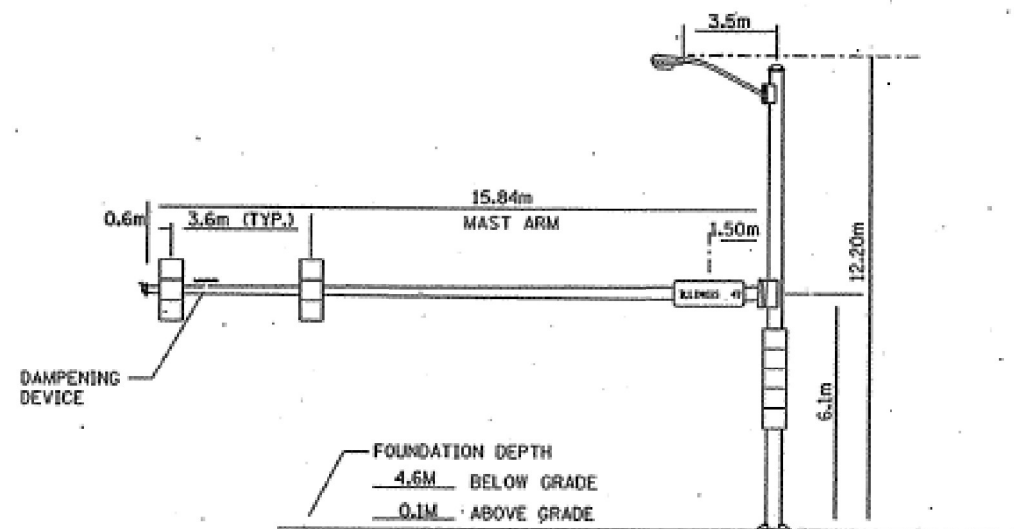
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STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

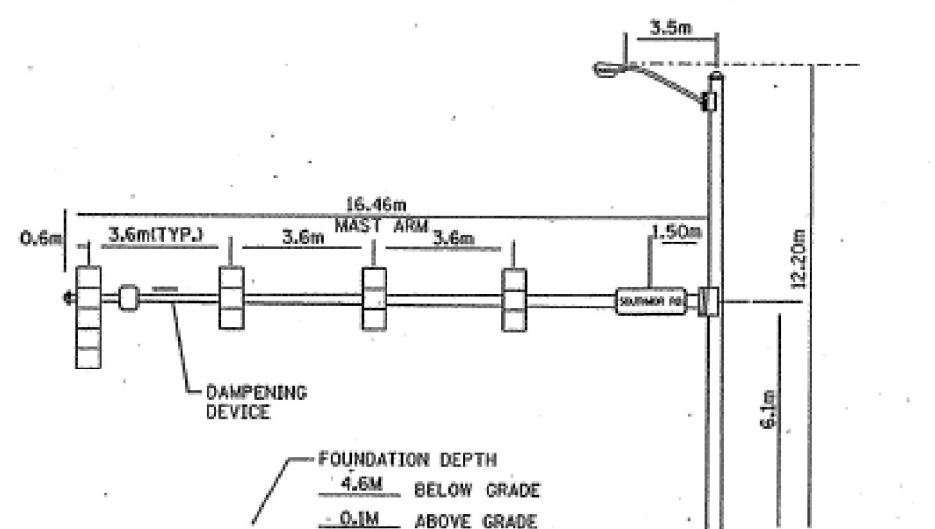
TRAFFIC SIGNAL PLAN
 LOCATION NO. 2 - INTERSECTION IL 47 AND SOUTHMOR ROAD
 SCALE: SHEET 2 OF 3 SHEETS STA. TO STA.

F.A.P. RTE. 326	SECTION (111)ELE	COUNTY GRUNDY	TOTAL SHEETS 16	SHEET NO. 14
CONTRACT NO. 66M01				
ILLINOIS FED. AID PROJECT				

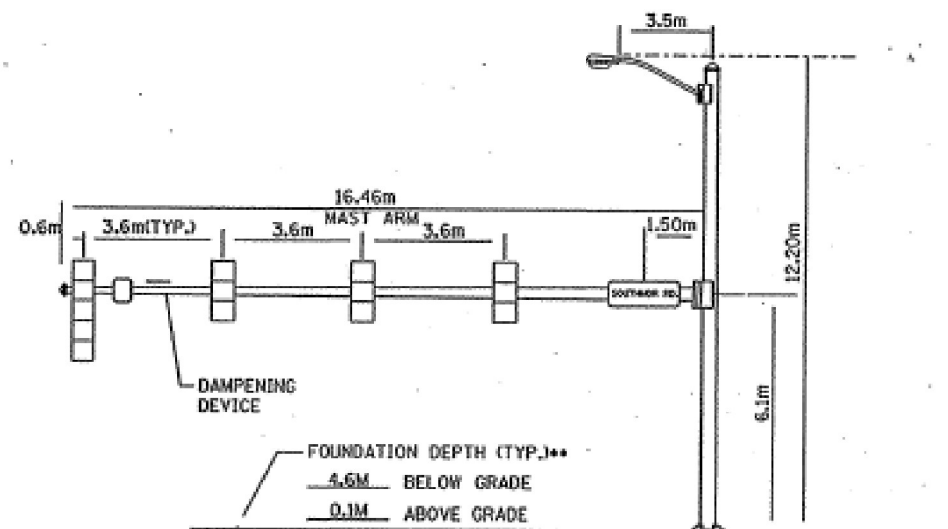
STA.	TO STA.
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT
* (111R-1, NARS-1)	



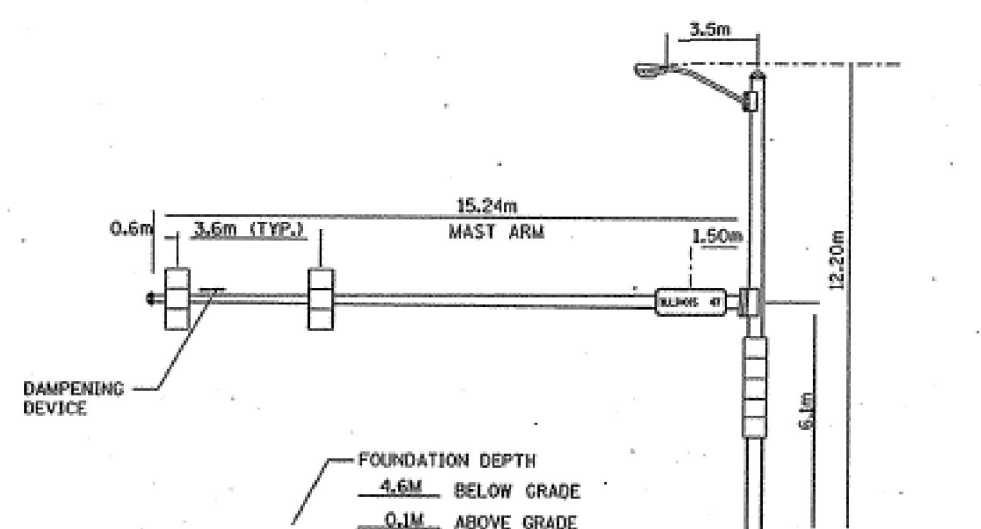
(North West) QUADRANT



(North East) QUADRANT



(South West) QUADRANT



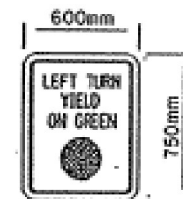
(South East) QUADRANT

ILLINOIS 47

19mm (0.75") BORDER
200mm (8") D SERIES LETTERS-HIGH INTENSITY SHEETING
2 SIGNS REQUIRED
0.81 Sq.m Ea = 1.62 Sq.m
TYPE-1

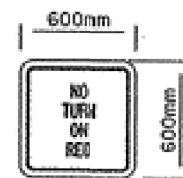
SOUTHMOR ROAD

19mm (0.75") BORDER
200mm (8") D SERIES LETTERS-HIGH INTENSITY SHEETING
2 SIGNS REQUIRED
1.35 Sq.m Ea = 2.70 Sq.m
TYPE-2



R10-12
600mm x 750mm
2 SIGNS REQUIRED
TOTAL AREA = 0.9 Sq. m

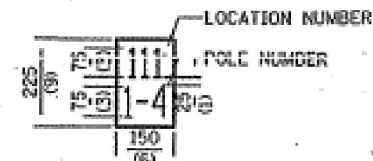
THIS SIGN SHALL BE LOCATED 150 TO 300 TO THE RIGHT OF THE MAST ARM MOUNTED LEFT TURN SIGNAL.



R10-11B
600mm x 600mm
4 SIGNS REQUIRED
TOTAL AREA = 1.44 Sq. m

"INSTALL AND ORIENT ARM BRACKET OVER POLE TENON AND FIRMLY HAND TIGHTEN THE TWO SET SCREWS. USE THIRD HOLE IN ARM BRACKET AS A GUIDE TO DRILL A 8.3 (21/64) DIAMETER HOLE THROUGH TENON. INSTALL AND TIGHTEN SELF TAPPING SCREW. TIGHTEN SET SCREWS ON ADDITIONAL (1/4 TO 3/8) TURN WITH HEX KEY (NOT PROVIDED). INSTALL LOCKNUT ON SET SCREWS IF THREADED PROJECTION ALLOWS."

POLE SHALL MEET AASHTO STANDARD SPECIFICATIONS FOR 128.72 Km (80 mph) WIND LOADING AND 40.82 Kg (90 lb.), .37 m² (4.0 Sq. ft.) E.P.A. LUMINAIRE.



- WORD "GRADE" IS TO BE INTERPRETED AS TOP OF CURB. TOP OF FOUNDATION SHALL NOT BE EXPOSED MORE THAN 100mm ABOVE THE SURROUNDING GROUND.
- THE SOIL CONDITIONS ARE UNSTABLE. THE CONTRACTOR MAY NEED TO USE CASINGS FOR ALL FOUNDATIONS

NOTE:

FOR INFORMATION ONLY



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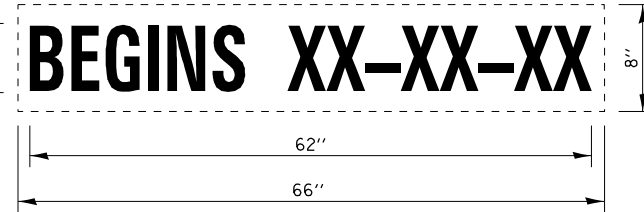
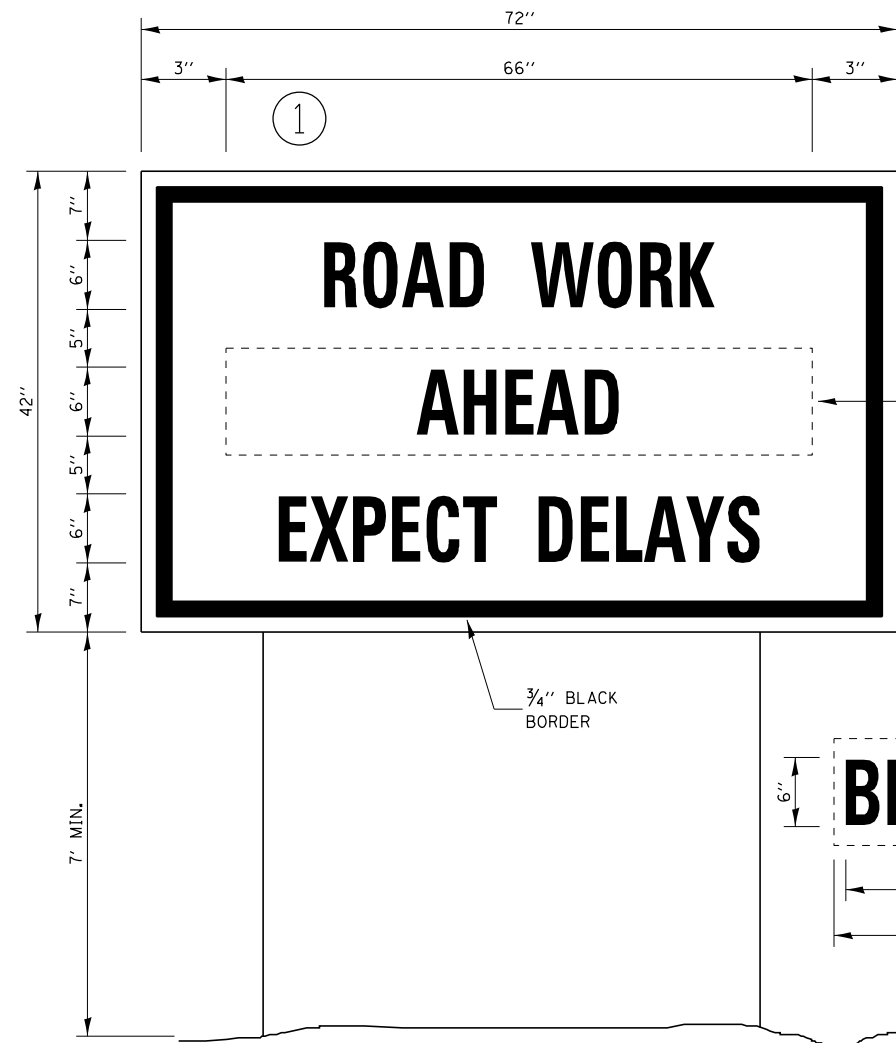
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PLOT DATE = 1/22/2022	DATE - 9/18/2021	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL PLAN
LOCATION NO. 2 - INTERSECTION IL 47 AND SOUTHMOR ROAD

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

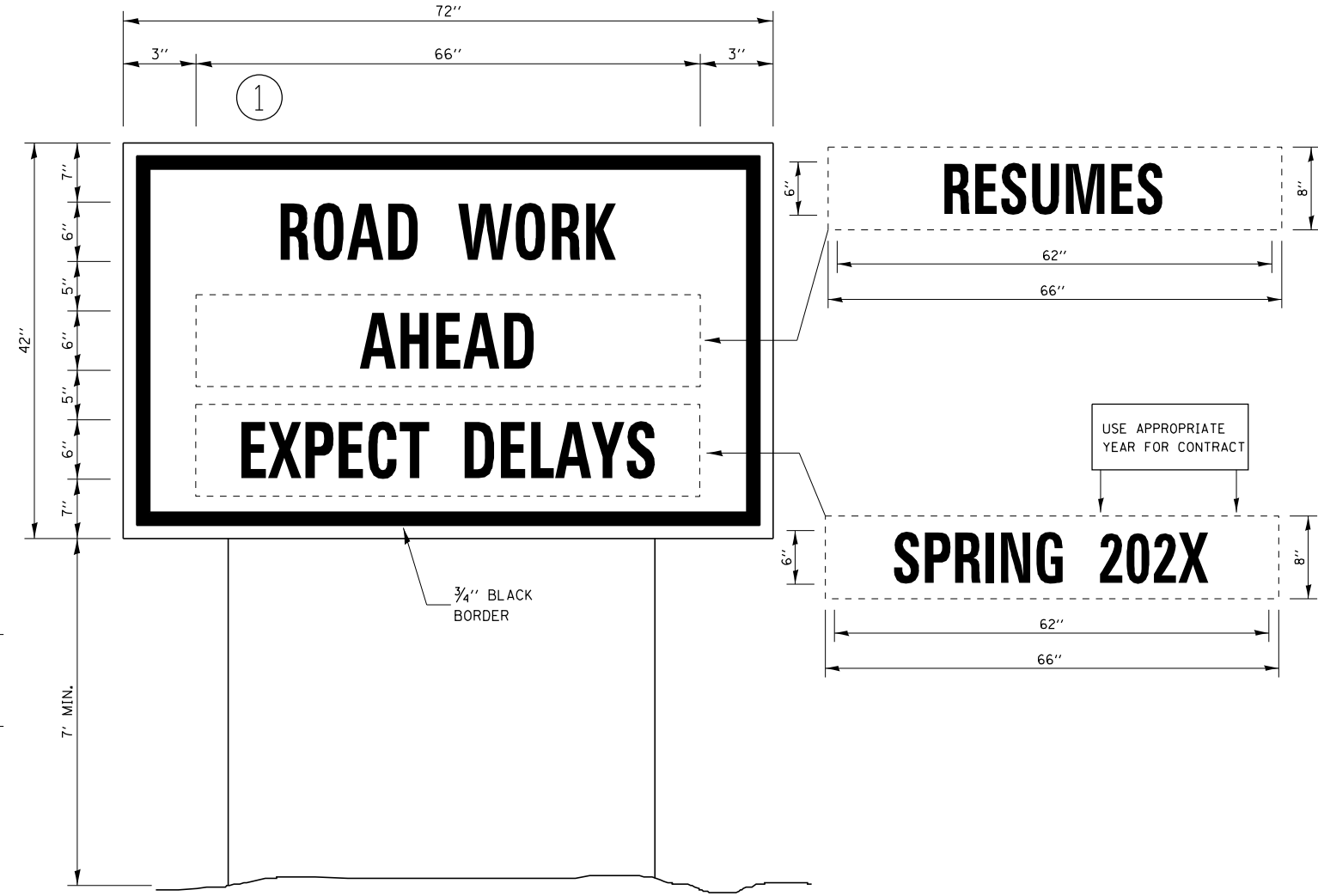
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	(111)ELE	GRUNDY	16	15
CONTRACT NO. 66M01				
ILLINOIS FED. AID PROJECT				



TEMPORARY INFORMATION SIGNING

NOTES:

1. USE 6" D BLACK LETTERING ON FLOURESENT ORANGE BACKGROUND.
2. ERECT SIGNS AT LOCATIONS IN ADVANCE OF THE "ROAD CONSTRUCTION AHEAD" SIGNS AS DIRECTED BY THE ENGINEER.
3. ERECT SIGN ① WITH INSTALLED PANEL ② A MINIMUM OF ONE WEEK PRIOR TO THE START OF THE LANE CLOSURE.
4. REMOVE PANEL ② ON THAT DATE.
5. SEE SPECIAL PROVISION "TEMPORARY INFORMATION SIGNING" FOR ADDITIONAL INFORMATION.
6. WILL BE PAID FOR PER SO FT AS "TEMPORARY INFORMATION SIGNING". EACH SIGN = 21 SQ FT AND THE DATE PANEL ② WILL NOT BE MEASURED SEPARATELY FOR PAYMENT.



WINTER SHUT DOWN SIGNING

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PLOT DATE = 1/22/2022	CHECKED - YP	REVISED -
	DATE - 9/18/2021	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

TEMPORARY INFORMATION SIGNING

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	(111)ELE	GRUNDY	16	16
CONTRACT NO. 66M01				
ILLINOIS FED. AID PROJECT				