### 06-16-2023 LETTING ITEM 027

**INDEX** 

SUMMARY OF QUANTITIES TRAFFIC SIGNAL REMOVAL PLAN

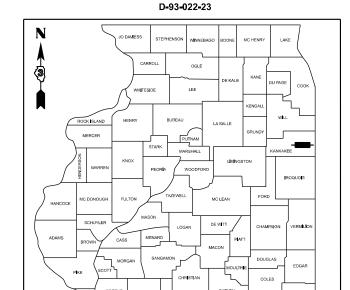
MAST ARM DETAILS

11 SOIL BORINGS

PROPOSED TRAFFIC SIGNAL PLAN TEMPORARY TRAFFIC SIGNAL PLAN CABLE PLAN AND PHASE DESIGNATION SIGN SCHEDULE AND DETAILS

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

#### ILLINOIS CONTRACT NO. 66N15 SIGNAL MAST ARM REP 2023-01



IL 17 - OTHER ARTERIAL 2021 ADT = 9.550P.V. = 80.1% S.U. = 5.2% M.U. = 14.7% IL 1 - OTHER ARTERIAL 2021 ADT = 3.850P.V. = 92.2% S.U. = 4.9% M.U. = 2.9%

### STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

submitted March 22

LOCATION OF SECTION INDICATED THUS: -

May 12, 2023

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

### COVER SHEET GENERAL NOTES

**FAP ROUTE 332 (IL 1)** 

# TRAFFIC SIGNAL MAST ARM REPLACEMENT

# **PROPOSED HIGHWAY PLANS**

**SECTION SIGNAL MÁST ARM REP 2023-01** 

# **KANKAKEE COUNTY**

C-93-043-23

**GROSS & NET LENGTH = POINT LOCATION** 

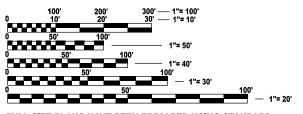
# PROJECT LOCATION INTERSECTION OF IL 17 & IL 1 KANKAKEE CO. ILLINOIS **LOCATION MAP**

### **LIST OF ILLINOIS DOT HIGHWAY STANDARDS**

000001-08	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001006	DECIMAL OF AN INCH AND OF A FOOT
701101-05	OFF-ROAD OPERATIONS, MULTILANE, 15' TO 24" FROM PAVEMENT EDGE
701106-02	OFF-ROAD OPERATIONS, MULTILANE, MORE THAN 15' AWAY
701701-10	URBAN LANE CLOSURE, MULTILANE INTERSECTION
701901-08	TRAFFIC CONTROL DEVICES
720016-04	MAST ARM MOUNTED STREET NAME SIGNS
857001-01	STANDARD PHASE DESIGNATION DIAGRAMS AND PHASE SEQUENCES

TRAFFIC SIGNAL GROUNDING & BONDING STEEL MAST ARM ASSEMBLY AND POLE 16' THROUGH 55'

CONCRETE FOUNDATION DETAILS 880006-01 TRAFFIC SIGNAL MOUNTING DETAILS



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.

 $\circ$ 

 $\circ$ 

**JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION** 1-800-892-0123

PROJECT ENGINEER: BRAD DUNCAN, P.E. **UNIT CHIEF: MOHAMED YOUSIF DISTRICT 3 NO.** (815)434-6131 **CONTRACT NO. 66N15** 

### **GENERAL NOTES**

- THE TRAFFIC SIGNAL SECTION AT THE ILLINOIS DEPARTMENT OF TRANSPORTATION, DISTRICT 3, SHALL BE NOTIFIED AT 815-434-6131 AT LEAST 72 HOURS PRIOR TO TURNING ON ANY FLASHER OR CONTROLLER UNITS.
- 2. 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. THE JULIE NUMBER IS 800-892-0123. THE MEMBERS OF JULIE KNOWN TO BE WITHIN THE LIMITS OF THE IMPROVEMENT ARE:
  - AT&T
  - COMCAST
  - COMED
  - NICOR
- 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 SPECIFICATIONS.
- 4. ALL TRAFFIC SIGNAL HEADS SHALL BE 12-INCH POLYCARBONATE
- TRAFFIC SIGNAL HEADS SHALL BE PROPERLY COVERED PRIOR TO INTERSECTION TURN-ON OR AS DIRECTED BY THE ENGINEER. THIS COST SHALL BE INCLUDED WITH THE COST OF THE ASSOCIATED TRAFFIC SIGNAL PAY ITEMS.
- 6. RELOCATE EXISTING SIGNAL HEAD SHALL INCLUDE THE BACKPLATES AND SNOW CONES.
- 7. A  $\frac{1}{4}$ " DIAMETER CONTINUOUS RODENT RESISTANT NYLON ROPE SHALL BE FURNISHED AND LEFT IN PLACE IN ALL CONDUITS BETWEEN HANDHOLES AND FOUNDATIONS OR CONTROLLER. THIS COST SHALL BE INCLUDED WITH THE COST OF CONDUIT PAY ITEM.
- 8. 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.
- ALL CONDUIT IN TRENCH SHALL BE P.V.C. ALL PUSHED CONDUIT MAY BE P.V.C. OR GALVANIZED STEEL. CONDUIT ATTACHED TO STRUCTURES SHALL BE GALVANIZED STEEL.
- 10. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR PLACING CONDUIT AT A GREATER THAN 2' MINIMUM DEPTH TO AVOID OBSTACLES SUCH AS UNDERGROUND UTILITIES.
- 11. THE ELECTRICAL CONDUCTORS FOR ALL TRAFFIC SIGNAL HEADS SHALL BE SOLID, SOFT COPPER.
- 12. 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.

- 13. ALL HARDWARE SHALL BE TIGHTENED AND WELL SECURED, CABLES SHALL BE NEATLY WOUND IN HANDHOLES. CABLES SHALL BE NEATLY TRAINED IN THE CONTROLLER CABINET.
- 14. ALL TRAFFIC SIGNAL WIRING SHALL EXTEND FROM CONTROLLER TO SIGNAL. SPLICES IN JUNCTION BOXES WILL NOT BE ALLOWED.
- 15. ALL GROUNDING MATERIALS FOR CONCRETE FOUNDATIONS SHALL REFER TO SECTION 807 OF THE STANDARD SPECIFICATIONS.
- 16. 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.
- 17. THE MAST ARM FOUNDATIONS SHALL BE LOCATED A MINIMUM 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, GET MORE THAN 6' IF POSSIBLE IF THE SIGNAL HEAD STILL LINES UP IN CENTER OF LANE.
- 18. ANY EXCAVATED MATERIAL, WHICH INCLUDES 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.

### **COMMITMENTS:**

NONE

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DISTRICT THREE
AS BUILT INFORMATION

SUPERVISING CONSTRUCTION FIELD ENGINEER
-----------------------------------------

RESIDENT ENGINEER / TECHNICIAN

START & END DATES
OF CONSTRUCTION:

INSPECTORS:

SCALE:

CONSTR. CODE							
80% FED							
20% STATE							
RAFFIC SIGNALS							

I TEM  AL WASTE DISPOSAL  SAL ANALYSIS  D SUBSTANCES PRE-CONSTRUCTION PLAN  D SUBSTANCES FINAL CONSTRUCTION REPORT  D SUBSTANCES MONITORING	UNIT CU YD EACH L SUM L SUM CAL DA	TOTAL QUANTITY  7  1  1	TRAFFIC SIGNALS 0021 RURAL 7 1
AL WASTE DISPOSAL  SAL ANALYSIS  D SUBSTANCES PRE-CONSTRUCTION PLAN  D SUBSTANCES FINAL CONSTRUCTION REPORT  D SUBSTANCES MONITORING	CU YD  EACH  L SUM	7 1 1 1	7 1 1
AL WASTE DISPOSAL  SAL ANALYSIS  D SUBSTANCES PRE-CONSTRUCTION PLAN  D SUBSTANCES FINAL CONSTRUCTION REPORT  D SUBSTANCES MONITORING	CU YD  EACH  L SUM	7 1 1 1	7 1 1
AL WASTE DISPOSAL  SAL ANALYSIS  D SUBSTANCES PRE-CONSTRUCTION PLAN  D SUBSTANCES FINAL CONSTRUCTION REPORT  D SUBSTANCES MONITORING	CU YD  EACH  L SUM	7 1 1	7 1 1
SAL ANALYSIS  D SUBSTANCES PRE-CONSTRUCTION PLAN  D SUBSTANCES FINAL CONSTRUCTION REPORT  D SUBSTANCES MONITORING	EACH L SUM L SUM	1	1
D SUBSTANCES PRE-CONSTRUCTION PLAN  D SUBSTANCES FINAL CONSTRUCTION REPORT  D SUBSTANCES MONITORING	L SUM	1	1
D SUBSTANCES PRE-CONSTRUCTION PLAN  D SUBSTANCES FINAL CONSTRUCTION REPORT  D SUBSTANCES MONITORING	L SUM	1	1
) SUBSTANCES FINAL CONSTRUCTION REPORT  ) SUBSTANCES MONITORING	L SUM		
) SUBSTANCES MONITORING		1	1
) SUBSTANCES MONITORING		1	1
	CAL DA		1
		1	1
DN .	L SUM	1	1
NTROL AND PROTECTION, STANDARD 701701	L SUM	1	1
SIGN PANEL - TYPE 1	SQ FT	12	12
DUND CONDUIT, PVC, 3" DIA	FOOT	41	41
CE OF EXISTING TRAFFIC SIGNAL INSTALLATION	FACH	1	1
OL OF EXISTING HOVER OF GROWE INDIFFERENCE	EAOIT	1	1
CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	1887	1887
CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	1007	1007
CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	53	53
	EACH	1	1
;	CE OF EXISTING TRAFFIC SIGNAL INSTALLATION  ABLE IN CONDUIT, SIGNAL NO. 14 5C  ABLE IN CONDUIT, SIGNAL NO. 14 7C	ABLE IN CONDUIT, SIGNAL NO. 14 5C  ABLE IN CONDUIT, SIGNAL NO. 14 7C  ABLE IN CONDUIT, SIGNAL NO. 14 7C  FOOT  ABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	ABLE IN CONDUIT, SIGNAL NO. 14 7C  FOOT  1007  ABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C  FOOT  53

<sup>\*=</sup> SPECIALTY ITEM

SCALE: \_

USER NAME = Jon.Woodyer	DESIGNED	REVISED	
	DRAWN	REVISED	ĺ
PLOT SCALE = 100.000 ' / in.	CHECKED	REVISED	ĺ
PLOT DATE = 3/15/2023	DATE	REVISED	ĺ

							SECTION			SHEET NO.
	SUMMARY OF QUANTITIES						*	KANKAKEE	11	3
						* SIG	SNAL MAST ARM REP 2023-01	CONTRACT NO. 66N15		
HEET 1	OF	2	SHEETS	STA	TO STA	ILLINOIS FED. AID PROJECT				

CONSTR. CODE 80% FED 20% STATE

				TRAFFIC SIGNALS
CODE			TOTAL	0021
NO.	ITEM	UNIT	QUANTITY	RURAL
87700270	STEEL MAST ARM ASSEMBLY AND POLE, 46 FT.	EACH	1	1
87800415	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	27.5	27.5
87900200	DRILL EXISTING HANDHOLE	EACH	2	2
89000100	TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1	1
89500100	RELOCATE EXISTING SIGNAL HEAD	EACH	6	6
89501250	RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1	1
			_	-
89502300	REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	2919	2919
89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1	1
89502385	REMOVE EXISTING CONCRETE FOUNDATION	EACH	2	2
X0324599	ROD AND CLEAN EXISTING CONDUIT	FOOT	500	500

REVISED	-		
REVISED	-		
REVISED	-		
REVISED	-		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCALE: \_

	SUMMARY OF QUANTITIES						SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
							*	KANKAKEE	11	4
					* 810	NAL MAST ARM REP 2023-01	CONTRACT NO. 66N15			
	SHEET 2	OF 2	SHEETS	STA	TO STA	ILLINOIS FED. AID PROJECT				

DDEL: Default

USER NAME = Jon.Woodyer

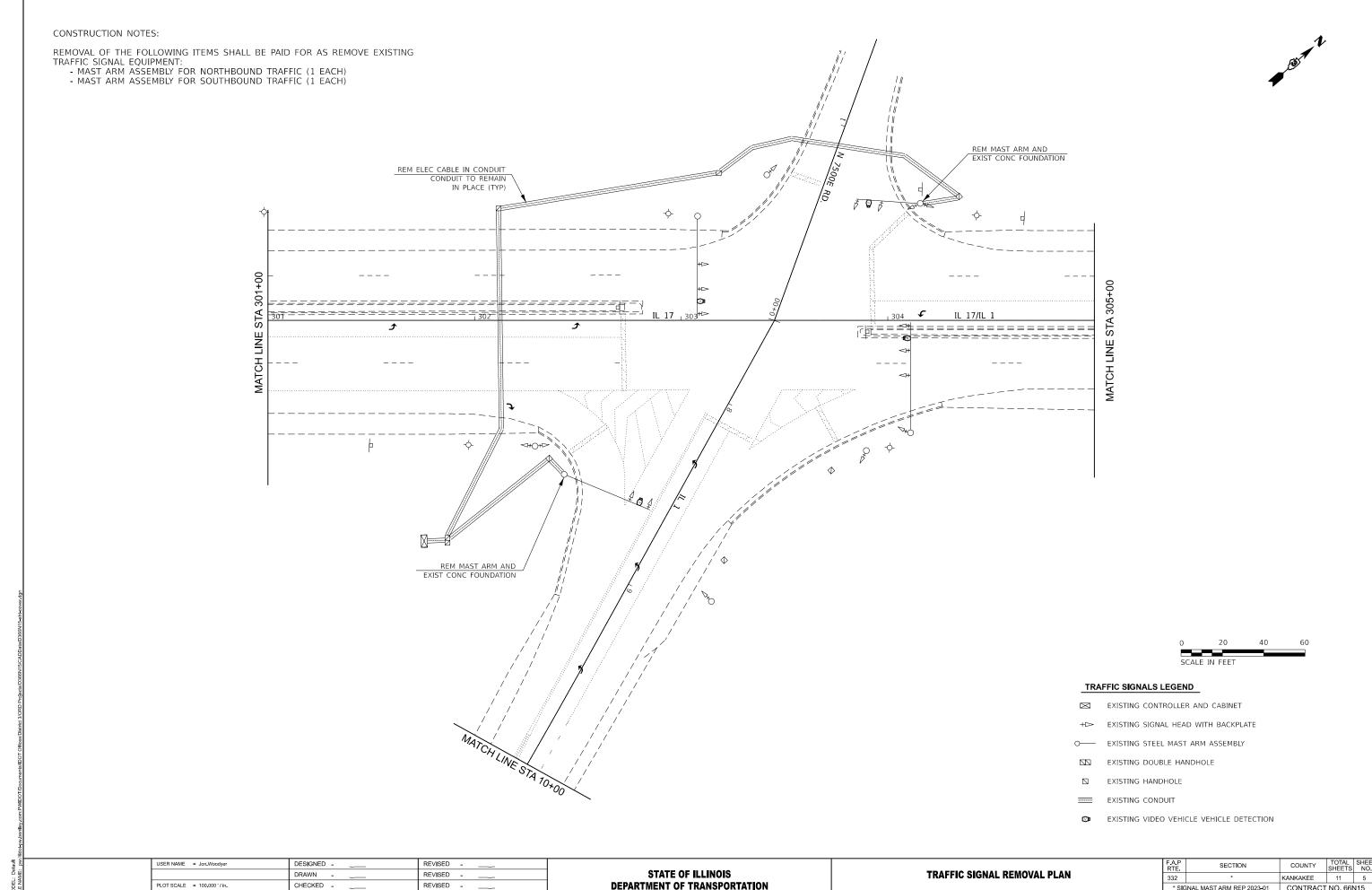
PLOT DATE = 3/15/2023

DESIGNED -

DRAWN -CHECKED -

DATE

MODEL: Default



SCALE:

\* SIGNAL MAST ARM REP 2023-01 CONTRACT NO. 66N15

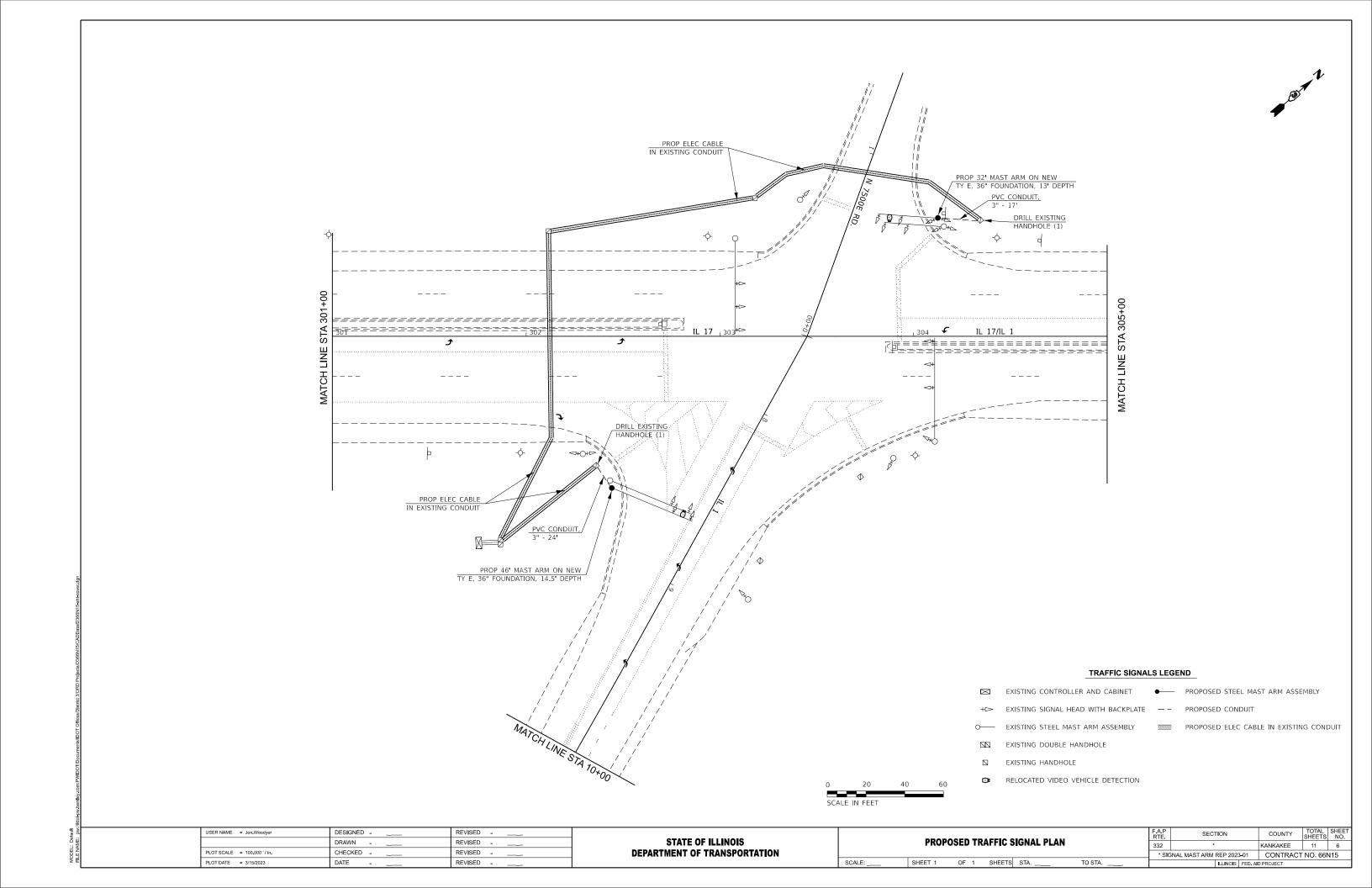
ILLINOIS FED. AID PROJECT

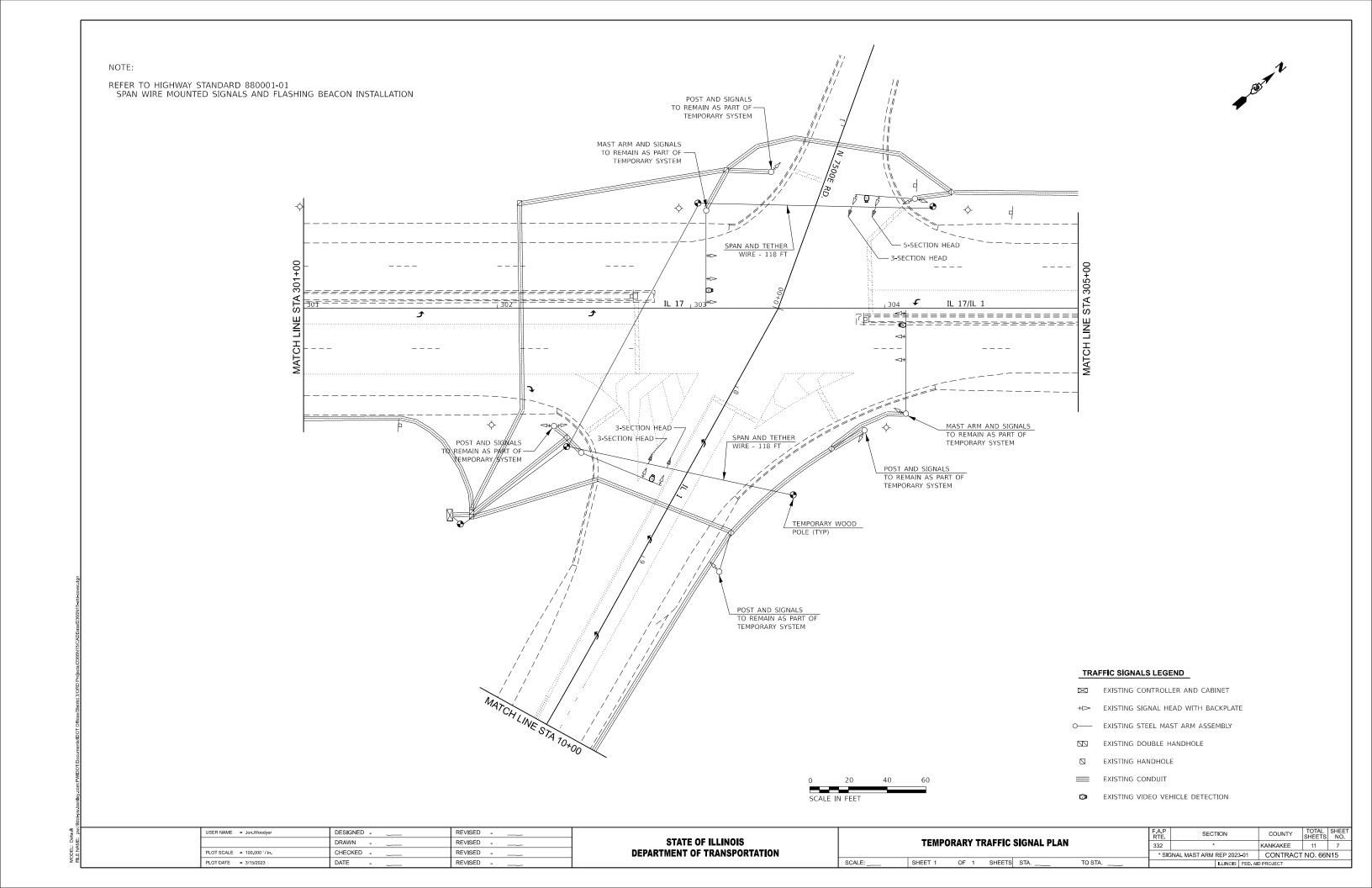
SHEET 1 OF 1 SHEETS STA. TO STA.

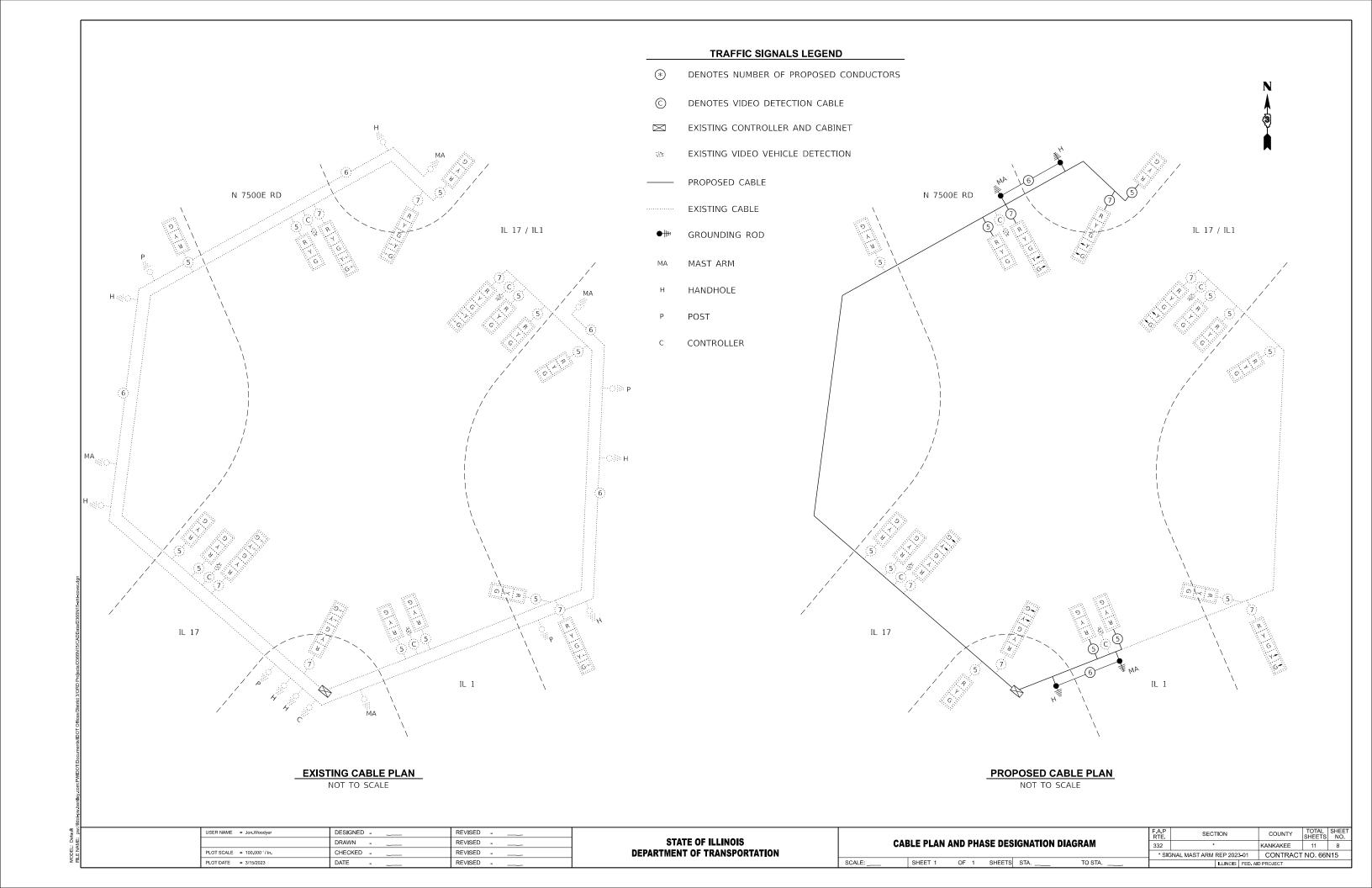
PLOT DATE = 3/15/2023

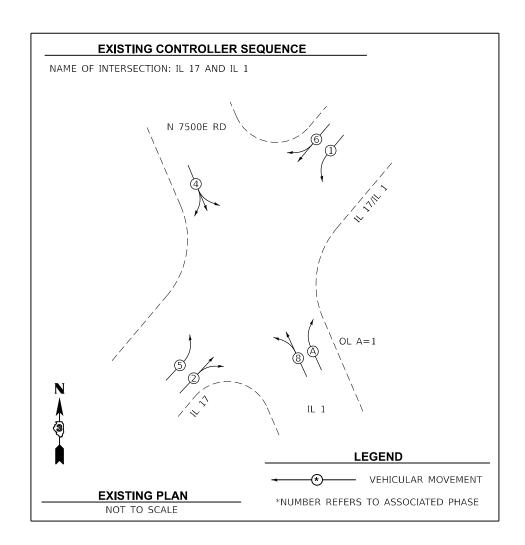
DATE

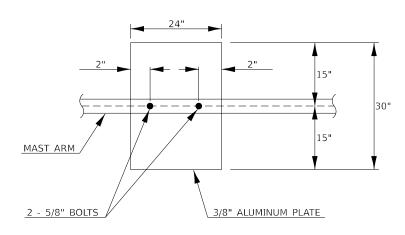
REVISED











### DAMPENING PLATE DETAIL (NTS)

(TOP VIEW) INCIDENTAL TO MAST ARM QTY

SIGN RELOCATION SCHEDULE									
			RELOCATE						
LOCATION/TYPE	SIZE	QUANTITY	SIGN PANEL						
			TYPE 1						
	INCHES	EACH	SQ FT						
NORTHBOUND MAST ARM									
ILLINOIS 17 STREET NAME	48 x 18	1	6.0						
SOUTHBOUND MAST ARM									
ILLINOIS 17 STREET NAME	48 x 18	1	6.0						
ТОТ	AL	2.0	12.0						

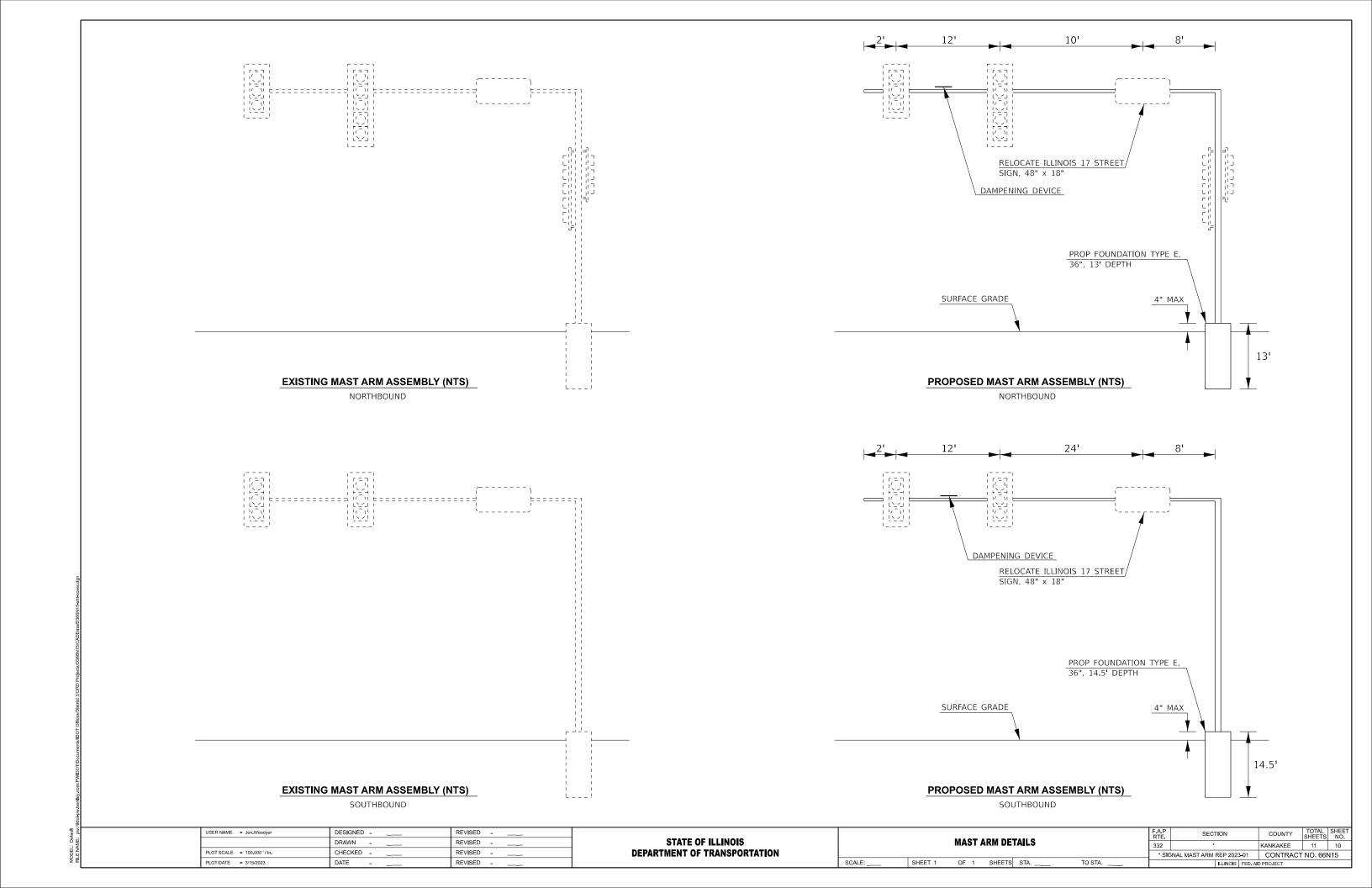


TWO SIGNS TO BE RELOCATED - 6.0 SQ FT EACH UPPER CASE/LOWER CASE LETTERING, 8" TYPE ZZ SHEETING

USER NAME = Jon.Woodyer	DESIGNED	REVISED -
	DRAWN	REVISED
PLOT SCALE = 100.000 ' / in.	CHECKED	REVISED
PLOT DATE = 3/15/2023	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

		F.A.P RTE. SECTION			COUNTY	TOTAL SHEETS	SHEET NO.					
	SIGN SCHEDULE							*		KANKAKEE	11	9
								* SIGNAL MAST ARM REP 2023-01			CONTRACT NO. 66N15	
	SCALE:	SHEET 1	OF 1	SHEETS	STA	TO STA	ILLINOIS FED. AID PROJECT					



Illinois Departi of Transportat	ne ion	nt		SOIL BORING LOG				
Division of Highways Illinois Department of Transportation					Date5/			
ROUTE FAP 332 (IL 1) DE (1R-1)RS, (K-15d,5)RS-3,	SCR	IPTION	NIL	1 & IL	17 Intersection in Sun River Terrace LOGGED BYK. Wh			
SECTION (K-15d)BR, (5) W&RS	_ ι	LOCAT	TION _	SE 1/4	i, SEC. 33, TWP. 31N, RNG. 13E, 3 <sup>rd</sup> PM, de , Longitude			
COUNTY Kankakee DRILLING	G ME	THOD		Latito	HAMMER TYPE			
STRUCT. NO.	D		U	м	Surface Water Elev ft			
Station	E	L	C	0	Stream Bed Elev ft			
BORING NO. B-1 (S.W. Quad.)	Т	W		S	Groundwater Elev.:			
Station	Н		Qu	Т	First Encounter ft Upon Completion ft			
Ground Surface Elev. ft	(ft)	(/6")	(tsf)	(%)	After Hrs. ft			
Brown Sandy Loam with Gravel (Fill)	_			11				
	_		1.0					
Black Sandy Loam								
	-5			20				
			0.5					
Dark Gray Sandy Loam	_		0.5	16				
	_							
Gray Sand - Fine Gravel (Loamy & Cohesive)	_			17				
a concerto,	_							
Gray - Brown Sand & Gravel	-10							
(Wet) some Free Water				18				
	_							
	_							
End of Boring								
	_							
	-15							
	_							
	_							
	_	-						
	_	]						
	_							
	-20							

SECTION (1R-1)RS, (K-15d,5)RS-3, (K-15d)BR, (5) W&RS	_ ı	LOCAT	ION	IL 1 & IL 17 Intersection in Sun River Terrace LOGGED BYK, Whitt  N SE 1/4, SEC. 33, TWP. 31N, RNG. 13E, 3 <sup>rd</sup> PM, Latitude , Longitude					
COUNTY Kankakee DRILLIN  STRUCT. NO. Station  BORING NO. B-3 (N.E. Quad.)  Station Offset County Surface Flow	D E P T H	B L O W	U C s	M O I S T	Surface Water Elev. ft Stream Bed Elev. ft  Groundwater Elev.: First Encounter ft Upon Completion ft				
Ground Surface Elev ft  Black - Brown Sandy Loam (Fill)			0.5-1.0		After Hrs ft				
Black Sandy Loam  Gray Wet Sand	-5		0.7	29					
Gray Loam Gray Wet Sand & Gravel	-10		1.0	20					
End of Boring	-15								

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)

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCALE: \_

BBS, form 137 (Rev. 8-99)