• D7 SIGNAL MODERNIZATION 2006-1

GENERAL NOTES

THIS SECTION SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PLANS, THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", ADOPTED JANUARY 1, 2002; THE "SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS" ADOPTED JANUARY 1, 2004: AND "THE SPECIAL PROVISIONS" INCLUDED IN THE PROPOSAL.

THIS PROJECT IS LOCATED AT THE INTERSECTION OF FAP 95 (IL 33-FAYETTE AVENUE) & BANKER STREET, FAP 95 (IL 33-FAYETTE AVENUE) & MAPLE STREET AND FAU 8379 (US 45) & RICKLEMAN AVENUE ALL IN THE CITY OF EFFINGHAM, IN EFFINGHAM COUNTY. THE WORK INCLUDED IN THIS SECTION CONSISTS OF MEDIAN REMOVAL AND PAVEMENT REPLACEMENT, INSTALLING TRAFFIC AND PEDESTRIAN SIGNALS, AN UNINTERRUPTIBLE POWER SUPPLY AND ALL OTHER WORK NECESSARY TO COMPLETE THIS SECTION.

THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO BEGINNING CONSTRUCTION. CALL J. U. L. I. E. AT 1-800-892-0123.

THE LOCATION OF ALL TRAFFIC COMPONENTS AS SHOWN ON THE PLANS ARE APPROXIMATE ONLY. THE FINAL LOCATION SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

A 2 FOOT MINIMUM, 6 FOOT DESIRABLE, HORIZONTAL CLEARANCE SHALL BE MAINTAINED FROM THE BACK OF CURB TO THE EDGE OF HANDHOLES, JUNCTION BOXES AND SIGNAL POST FOUNDATIONS. A 5 FOOT MINIMUM HORIZONTAL CLEARANCE SHALL BE MAINTAINED FROM THE BACK OF THE CURB TO ALL MAST ARM FOUNDATIONS. CONTROLLER FOUNDATIONS SHALL BE LOCATED AS FAR FROM THE BACK OF THE CURB AS POSSIBLE TO PROTECT THE CONTROLLER CABINET.

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

ALL THREADS OF BOLTS USED IN ASSEMBLY OF TRAFFIC SIGNAL COMPONENTS SHALL BE COATED WITH A NON-LEAD BASED ANTI-SEIZE COMPOUND, SIMILAR TO LEAD PLATE, PRIOR TO

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

THE CONTRACTOR IS RESPONSIBLE FOR UNCOVERING OR HAND DIGGING AROUND UTILITIES AS NECESSARY. THE COST OF THIS WORK IS TO BE INCLUDED WITH THE TRENCH AND BACKFILL FOR ELECTRICAL WORK PAY ITEM.

THE NUMBER OF CONDUCTORS FOR ELECTRIC CABLES AS SHOWN ON THE PLANS SHALL BE THE MINIMUM NUMBER OF CONDUCTORS FURNISHED FOR EACH LOCATION. THE CONTRACTOR MAY SUBSTITUTE AN ELECTRIC CABLE WITH MORE CONDUCTORS THAN SPECIFIED BUT NO ADDITIONAL COMPENSATION WILL BE MADE FOR THE EXTRA CONDUCTORS.

GENERAL NOTES (Cont'd)

ALL NEW TRAFFIC AND PEDESTRIAN SIGNAL WIRING SHALL EXTEND FROM CONTROLLER TO SIGNAL. SPLICES IN HANDHOLES WILL NOT BE ALLOWED.

ALL MAST ARM MOUNTED SIGNAL HEADS ON AN INDIVIDUAL MAST ARM SHALL BE MOUNTED SO THAT THE RED INDICATIONS ARE LEVEL WITH EACH OTHER.

ALL TRAFFIC SIGNAL MAST ARM ASSEMBLIES (STANDARD, COMBINATION, OR DUAL) MUST BE DESIGNED FOR THE LOADINGS SHOWN ON THE HIGHWAY STANDARDS OR THESE SIGNAL PLANS,

THE LUMINAIRE ARM LENGTH ON THE COMBINATION MAST ARM ASSEMBLY ON BANKER STREET (STA. 106+44.8) SHALL BE 6'. THE LUMINAIRE ARM SHALL BE SITUATED SO THAT IT PROTRUDES FROM THE POLE IN THE SAME DIRECTION AS THE MAST ARM. THE LUMINAIRE MOUNTING HEIGHT SHALL BE 35 FEET. THE EXISTING LUMINAIRE POLE, FOUNDATION AND LUMINAIRE SHALL BE REMOVED AND SALVAGED BY AMERICIPS FORCES. THE CONTRACTOR SHALL INSTALL THE SALVAGED LUMINAIRE ON THE MAST ARM AND PULL THE WIRING FROM THE LUMINAIRE DOWN THE MAST ARM AND LEAVE THE SLACK COILED AT THE FOUNDATION. AMERENCIPS WILL MAKE THE FINAL CONNECTION AT THE BASE OF THE MAST ARM.

THERE ARE 14 EXISTING LOAD SWITCHES AT THE INTERSECTION OF FAYETTE & BANKER AND 10 EXISTING LOAD SWITCHES AT THE INTERSECTION OF FAYETTE AVENUE & MAPLE STREET THAT WILL ALL NEED TO BE REMOVED AND REPLACED.

THIS WORK SHALL BE DONE IN ACCORDANCE WITH THE APPLICABLE PORTION OF SECTION 895 OF THE STANDARD SPECIFICATIONS. THERE ARE 5 EXISTING TRAFFIC SIGNAL HEADS AT THE INTERSECTION OF FAYETTE AVENUE & BANKER STREET AND 10 EXISTING TRAFFIC SIGNAL HEADS AT THE INTERSECTION OF FAYETTE AVENUE & MAPLE STREET THAT SHALL BECOME THE PROPERTY OF THE CITY OF EFFINGHAM. THE CONTRACTOR SHALL SAVE HARMLESS AND DELIVER THE EQUIPMENT TO:

EFFINGHAM ELECTRIC SHOP, INC 1301 S. BANKER ST EFFINGHAM, IL 62401 217-342-3474

CITY OF EFFINGHAM CONTACT:

GREG KOESTER-ENGINEERING TECHNICIAN CITY OF EFFINGHAM 217-342-5303

INDEX OF SHEETS

- COVER SHEET
- INDEX OF SHEETS AND GENERAL NOTES
- SUMMARY OF QUANTITIES
- PAVEMENT MARKING SCHEDULE-FAYETTE & BANKER
- EXISTING SIGNAL LAYOUT-FAYETTE & BANKER
- PROPOSED SIGNAL LAYOUT-FAYETTE & BANKER PROPOSED PAVEMENT MARKING LAYOUT-FAYETTE & BANKER
- EXISTING SIGNAL LAYOUT-FAYETTE & MAPLE
- PROPOSED SIGNAL LAYOUT-FAYETTE & MAPLE
- PROPOSED CABLE LAYOUT-FAYETTE & MAPLE INTERSECTION OF US 45 & RICKLEMAN AVENUE 11
- 12 BORING LOGS

STANDARDS IN THE PLANS

THE FOLLOWING STANDARDS ARE A PART OF THESE PLANS AND ARE INCLUDED AFTER SHEET NO. 12:

STANDARD SYMBOLS. ABBREVIATIONS AND PATTERNS 000001-04

420601-04 24' PCC PAVEMENT

PAVEMENT FABRIC 420701-01

OFF-ROAD OPERATIONS, 2L, 2W, 15' TO 2' FROM EDGE OF 701006-02

PAVEMENT

701606-04 URBAN LANE CLOSURE, MULTILANE, 2W W/ MOUNTABLE

MEDIAN

701701-04 URBAN LANE CLOSURE, MULTILANE INTERSECTION

SIDEWALK CLOSURE 701801-03

TRAFFIC CONTROL DEVICES 702001-06

SIGN PANEL MOUNTING DETAILS 720001

857001 STANDARD PHASE DESIGNATION DIAGRAMS AND PHASE SEQUENCES

UNINTERRUPTABLE POWER SUPPLY 862001

TRAFFIC SIGNAL GROUNDING 873001 STEEL MAST ARM ASSEMBLY AND POLE 877001-02

878001-04 CONCRETE FOUNDATION DETAILS

880006 TRAFFIC SIGNAL MOUNTING DETAILS

886001 DETECTOR LOOP INSTALLATIONS

886006 TYPICAL LAYOUTS FOR DETECTION LOOPS

780001-01

ILLINOIS DEPARTMENT OF TRANSPORTATION GENERAL NOTES INDEX OF SHEETS STANDARDS IN THE PLANS SCALE: VERT. DRAWN BY DATE

CHECKED BY

SUMMARY OF QUANTITIES

			CONTRACT	NO. 74	087	
F.A. RTE.	SECTION	4	COUNTY	TOTAL SHEETS	SHEET NO.	
. •			EFFINGHAM	12	. 3	
STA.		TI	STA.			
FED. ROA	D DIST, NO.	THE INO	S FED. AID	PROJECT		

					90% FEO. 7.5% STATE 2.5% CITY	5) 5)	I.FEO. I.STATE I.ONY
		SUMMARY OF QUANTITIES		URBAN TOTAL	Y031-1F	TRUCTION TYPE Y031-1F	Y031-1F
	CODE NO	ITEM	UNIT	QUANTITIES	BANKER ST. & FAYETTE AVE.	MAPLE ST. & FAYETTE AVE.	RICKLEMAN AVE. & U.S. RTE. 45
*	42000500	PORTLAND CEMENT CONCRETE PAVEMENT 10"	SQ YD	18	18		
*	42001200	PAVEMENT FABRIC	SQ YD	18	18	,	
*	42400100	PORTLAND CEMENT CONCRETE SIDEWALK 4	SQ FT	60		60	
*	44000600	SIDEWALK REMOVAL	SQ FT	60		60	
*	44003100	MEDIAN REMOVAL	SQ FT	189	189		
*	60622400	CONCRETE MEDIAN. TYPE SM-6.06	SQ FT	27	27	÷	
	67100100	MOBILIZATION	L SUM	1	0. 34	0. 33	0.33
Δ	~~~						>
***************************************	70102625	TRAFFIC CONTROL AND PROTECTION, STANDARD 701606	L SUM	1	1		
	70102635	TRAFFIC CONTROL AND PROTECTION. STANDARD 701701	L SUM	1	0.5	0.5	
	70102640	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	1		1	
*	78005100	EPOXY PAVEMENT MARKING - LETTERS AND SYMBOLS	SO FT	427	427		
*	78005110	EPOXY PAVEMENT MARKING - LINE 4"	FOOT	1212	1212		
*	78005130	EPOXY PAVEMENT MARKING - LINE 6"	FOOT	2050	2050		
*	78005150	EPOXY PAVEMENT MARKING - LINE 12"	FOOT	101	101		
*	780051-80	EPOXY PAVEMENT MARKING - LINE 24"	FOOT	191	191		
	78300100	PAVEMENT MARKING REMOVAL	SQ FT	693	693		
	81012600	CONDUIT IN TRENCH, 2" DIA., PVC	FOOT	25		25	•
	81500200	TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	25		25	
	81702450	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 3-1/C NO. 10	FOOT	54	54	-	
	86200300	UNINTERRUPTIBLE POWER SUPPLY, EXTENDED	EACH	1			1
	87301245	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	318		318	\$
	87301255	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	317		317	
	87502660	TRAFFIC SIGNAL POST, ALUMINUM 12 FT.	EACH	. 1		1	, *
	87502720	TRAFFIC SIGNAL POST, ALUMINUM 18 FT.	EACH	2,		. 2	
	87700170	STEEL MAST ARM ASSEMBLY AND POLE, 26 FT.	EACH	í		1 .	
	87702890	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 32 FT.	EACH	1	1		
	87800100	CONCRETE FOUNDATION. TYPE A	FOOT	3		3	
	87800400	CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	13.5		13.5	
	87800415	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	15	15		

•		approximately a complete special speci	I	90/ FED . 1.5 % STATE 2.5 % CITY	D7 SIGNAL MODES	TATE	
	SUMMARY OF QUANTITIES		URBAN TOTAL	Y031-1F	Y031-1F	Y031-1F	
CODE NO	ITEM	UNIT	QUANTITIES	BANKER ST. & FAYETTE AVE.	MAPLE ST. & FAYETTE AVE.	RICKLEMAN AVE & U.S. RTE. 45	
88200410	TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC	EACH	31	17	14		
88600100	DETECTOR LOOP, TYPE I	FOOT	166	166			
88800100	PEDESTRIAN PUSH-BUTTON	EACH	12	6	6		
89500400	RELOCATE EXISTING PEDESTRIAN PUSH-BUTTON	EACH	2		2		
89502210	MODIFY EXISTING CONTROLLER CABINET	EACH	2	1	1		
89502300	REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	437		437		
89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	2	1	1 -		
89502385	REMOVE EXISTING CONCRETE FOUNDATION	EACH	1		1		
X0323336	LED SIGNAL FACE RETROFIT, RED BALL	EACH	12	12			
X0323337	LED SIGNAL FACE RETROFIT, GREEN BALL	EACH	12	12			
X0323418	LED SIGNAL FACE RETROFIT, YELLOW BALL	EACH	12	12			
X0323419	LED SIGNAL FACE RETROFIT, YELLOW ARROW	EACH	7	7			
X0323420	LED SIGNAL FACE RETROFIT, GREEN ARROW	EACH	7	7			
X0323421	LED SIGNAL FACE RETROFIT, WALK SIGNAL	EACH	. 6	6			
X0323422	LED SIGNAL FACE RETROFIT, DONT WALK SIGNAL	EACH	6	6	,		
X8801300	SIGNAL HEAD , POLYCARBONATE, LED. 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	2	-	2	·	
X8801310	SIGNAL HEAD , POLYCARBONATE, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	6		6		
X8801345	SIGNAL HEAD , POLYCARBONATE, LED. 1-FACE, 4-SECTION, BRACKET MOUNTED	EACH	2	2			
X8801350	SIGNAL HEAD , POLYCARBONATE, LED. 1-FACE, 4-SECTION, MAST ARM MOUNTED	EACH	3	. 3			
X8801400	SIGNAL HEAD , POLYCARBONATE, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED	EACH	2		2		
X8801437	SIGNAL HEAD , POLYCARBONATE, LED, 2-FACE, 1-3-SECTION, 1-5-SECTION, BRACKET MOUNTED	EACH	2		2		
X8810495	PEDESTRIAN SIGNAL HEAD, POLYCARBONATE, LED, 2-FACE, BRACKET MOUNTED	EACH	4		4		
Z0075300	TIE BARS	EACH	38	38			

* SPECIALTY ITEMS

A Rev. 5-31-06

REVISIONS
NAME DATE

SUMMARY OF QUANTITIES

SCALE: VERT. DRAWN BY HORIZ. DATE

OTHER CHECKED BY

.07 DATE = 3/24/2006
LE NAME = 0FILEL®
.01 SCALE = 0SCALE®

Division of Highways III. Dept. of Trans. D-7								Date	11/	22:05
	IPTION			TS	Mast Arm Foundation	LOGGE	D BY	E	Sandsch	afer
D7 Signal SECTION Modernization	LOCATIO	N _	SE 1/4, S	EC. 20,	TWP. 8 N, RNG. 6 E, 3 PM					
COUNTY Effingham I	RILLING METH	HOD	_	1	Iollow stem auger	HAMMER TYPE		Auto	140#	
STRUCT. NO. NA Station gINT 025-ts02 BORING NO. 1 Station * Offset ft 198.81 Ground Surface Elev. ft 198.81	D E P T H	B L O W S	U C S Qu (tsf)	M O I S T	Surface Water Elev. Stream Bed Elev. Groundwater Elev.: First Encounter Upon Completion After Hrs.	N/A ft N/A ft 181.8 ft 181.8 ft N/A ft	D E P T H	B L O W S	U C S Qu (tst)	M O I S T
7 34" concrete pavement. Gray, LOAM. Very stiff to medium, damp,	198.21	3			Benchmark: Top of NW bolt cover existing mast arm foundation NE corner at intersection of Ma Street and Fayette Avenue = assumed 200.00'	n in				
gray/red, CLAY w/Silt.		7	1.7 B	22	* Location of B1: 5.5' N and W of existing center of mast ar foundation in NE corner, as above. Located in NB lane of					
		5 5 5	0.8 B	23	Maple Street.		-26			
		1 3 4	0.7 B	21						
	-1	2 2	0.5	23						
	186,31	3	В							
Hard, very moist, red, SANDY LOAM TILL.	150.51	22 49	4.9 PP	9						
Hard, very moist, gray, CLAY	183.01	30 40 45	+4.5 PP	6			-35			
LOAM TILL, sample pokerchipped. Stiff, damp, gray, SANDY LOAM TILL.	181.81	49	1.7	9						
Extent of exploration.		50/2"	S							

BBS, from 137 (Rev. 8-99)

		CC	NTRACT	NO. 74	087
F.A. SECTION		1 0	OUNTY	TOTAL SHEETS	SHEET NO.
	•		EFFINGHA M	12	12
STA.		TO	STA.		
FED. ROA	AD DIST. NO.	ILLINOIS	FED. AID	PROJECT	

• D7 SIGNAL MODERNIZATION 2006-1

Illinois Department of Transportation Division of Highways 10. Dept. of Trans D-7				į	SOIL BORING LOG Date 4000
ROUTE FAU 8379 (US 45) DESCRIPTION				TS	Mast Arm Foundation LOGGED BY E. Sandschafer
SECTION D7 Signal Mod 2006-1 LOC	ATION	_	NW 1/4	SEC. 29	TWP. 8 N, RNG. 6 E, 3 PM
COUNTY Effingham DRILLING	METHO	Œ		Hollow	stem auger & split spoon HAMMER TYPE Auto 140#
STRUCT. NO. NA Station 025-T803 BORING NO. 1 Station 106+35 Offset 42.00ft Rt Ground Surface Elev. 594.02 ft	D E P T H	B L O W S	U C S Qu (tsf)	M O I S T	Surface Water Elev. NA ft E L C
Topsoil					fine gravel. (continued) 573.02 42 BS Extent of exploration.
Sand.		1 3 4	0.5 B	23	Benchmark: Traverse point #100, iron pin wcap, Elevation = 594.46' Provided by Program Development.
		3 4 6	0.6 B	18	
		0 2	0.8	20	=
		4	В		
	-10	1 3 3	0.7 B	21	
Soft, very damp, gray, LOAM.	_	1 2 2	0.3 B	19	
Hard, moist, red, SANDY CLAY LOAM TILL.	-15	16 27 32	4.4 B	9	
Hard, moist, gray, LOAM TILL w/ fine gravel.		11 19	5.0	8	
	-20	19	В		

				·				
	REVISIONS	DATE	ILLINOIS DEPARTMENT OF TRANSPORTATION					
	NAME	DATE	BORING LOGS					
			MAPLE	STREET				
			Δ	AND				
			BANKE	R STREET				
ley. Sheet 5-31-06			SCALE: VERT.	DRAWN BY				
Cey. Speet 9.31.00			DATE	CHECKED BY				

A R