

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		COLES	17	1

D7 SIGNAL MODERNIZATION 2007-1

D-97-077-06

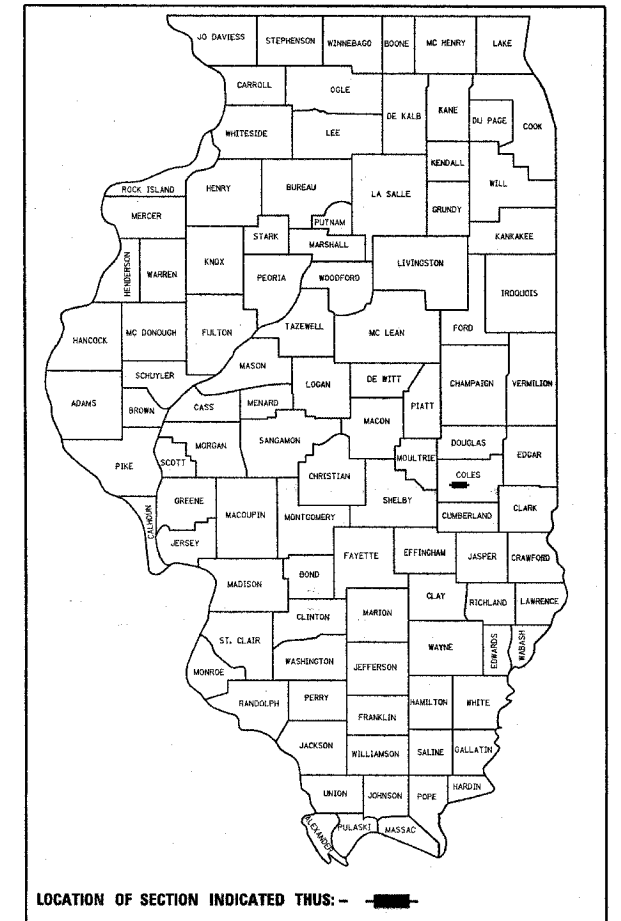
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

**PROPOSED
HIGHWAY PLANS**

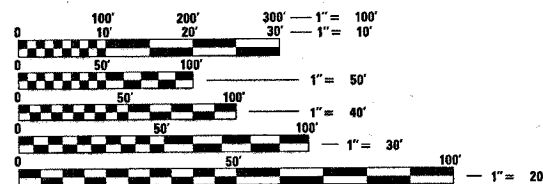
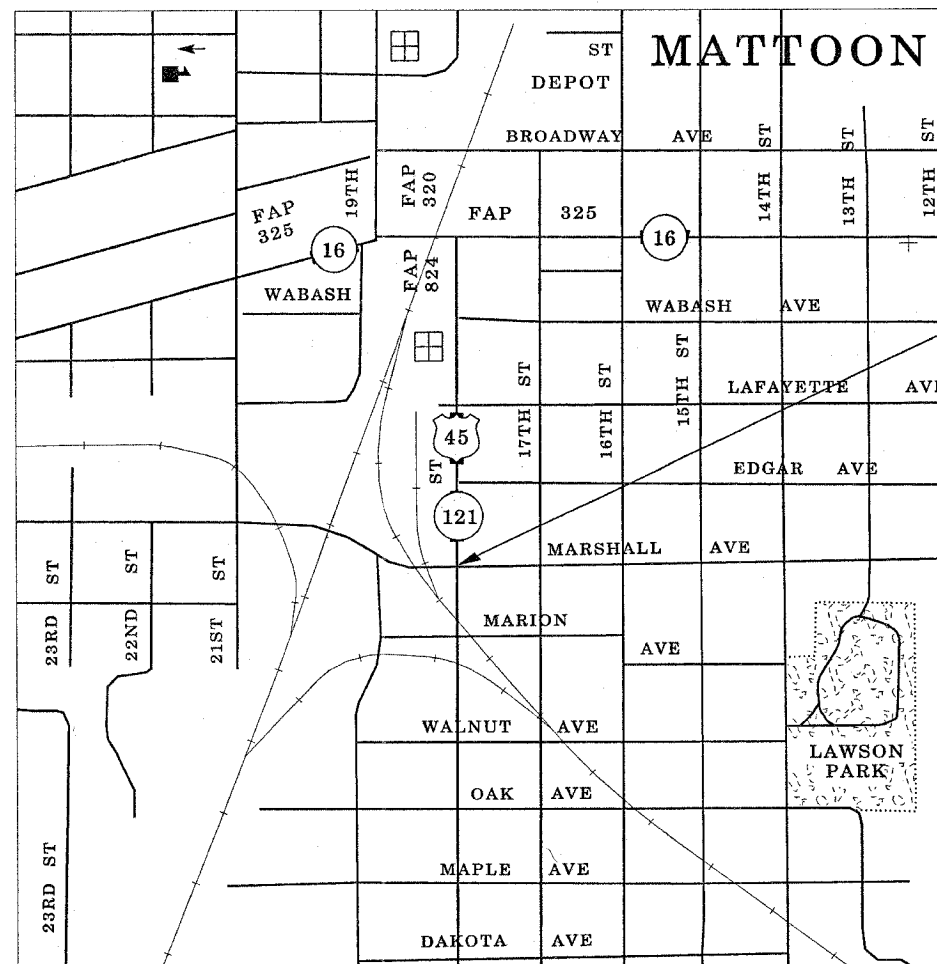
FAP ROUTE 824 (US ROUTE 45)
D7 SIGNAL MODERNIZATION 2007-1
PROJECT SBP-0824(015)
COLES COUNTY

C-97-123-06

FOR INDEX OF SHEETS, SEE SHEET NO. 2



LOCATION OF PROJECT
US 45 AND MARSHALL AVE.
IN MATTOON



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

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED Aug. 16 2006

Christine M. Reeder
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

October 13, 2006
Mike Hine
ENGINEER OF DESIGN AND ENVIRONMENT

October 13, 2006
Milton R. Sosa
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

**PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS**

district
8/16/2006
c:\projects\view\74205\d\07706pa.dgn

PROJECT ENGINEER : ROB MACKLIN
SQUAD LEADER : LYNN MCCLELLAN
DESIGNER : LYNN MCCLELLAN
TELEPHONE : 217/7342-3951 EX 245

CONTRACT NO. 74205

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
824	*	COLES	7	2
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

* DT SIGNAL MODERNIZATION 2007-1

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 MARCH 1, 2005; AND "THE SPECIAL PROVISIONS" INCLUDED IN THE PROPOSAL.

THIS PROJECT IS LOCATED AT THE INTERSECTION OF US 45 (LAKELAND BLVD) & MARSHALL AVENUE IN THE CITY OF MATTOON, IN COLES COUNTY. THE WORK INCLUDED IN THIS SECTION CONSISTS OF INSTALLING TRAFFIC AND PEDESTRIAN SIGNALS AND ALL OTHER WORK NECESSARY TO COMPLETE THIS SECTION.

THE EXISTING UTILITY LINES ARE SHOWN ON THE PLANS TO INDICATE THEIR PRESENCE AND APPROXIMATE LOCATION. 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 TRAFFIC OPERATIONS UNIT CHIEF (MIKE WORTHEY) AT THE ILLINOIS DEPARTMENT OF TRANSPORTATION SHALL BE NOTIFIED AT 217-342-8284 AT LEAST 72 HOURS PRIOR TO TURNING ON ANY FLASHER OR CONTROLLER UNIT.

THE SIZE OF THE CABLE SUPPLIED SHALL BE EQUAL TO OR GREATER THAN THE SIZE OF THE CABLE REQUIRED TO CARRY THE LOAD BETWEEN THE CONTROLLER AND THE SERVICE INSTALLATION.

THE CONTRACTOR SHALL ARRANGE FOR A FACTORY OR SUPPLIER REPRESENTATIVE TO BE PRESENT AT THE INTERSECTION WHEN THE SIGNALS ARE TURNED ON. THE REPRESENTATIVE SHALL MAKE CERTAIN THAT ALL EQUIPMENT OPERATES TO THE SATISFACTION OF THE ENGINEER.

A 2 FOOT MINIMUM, 6 FOOT DESIRABLE, HORIZONTAL CLEARANCE SHALL BE MAINTAINED FROM THE BACK OF CURB TO THE EDGE OF SIGNAL POST FOUNDATIONS. A 5 FOOT MINIMUM HORIZONTAL CLEARANCE SHALL BE MAINTAINED FROM THE BACK OF THE CURB TO ALL MAST ARM FOUNDATIONS.

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 ASSEMBLY.

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.

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.

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 SIGNAL HEAD PAY ITEMS.

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, WHICHEVER IS GREATER.

THERE ARE 8 EXISTING LOAD SWITCHES AT THE INTERSECTION OF US 45 & MARSHALL AVENUE THAT WILL NEED TO BE REMOVED AND REPLACED. AN ADDITIONAL 2 LOAD SWITCHES WILL BE INSTALLED DUE TO PHASE CHANGING AT THE INTERSECTION. ALL 10 LOAD SWITCHES WILL BE INCLUDED WITH THE MODIFY CONTROLLER CABINET PAY ITEM.

ALL EXISTING EQUIPMENT THAT IS TO BE REMOVED UNDER THIS CONTRACT SHALL BECOME THE PROPERTY OF THE CITY OF MATTOON. THE CONTRACTOR SHALL CONTACT THE CITY AND MAKE ARRANGEMENTS FOR THE DELIVERY OF THE EQUIPMENT.

CITY OF MATTOON CONTACT:
 STEVE CAMDEN
 DEPARTMENT OF PUBLIC WORKS
 221 N. 12TH ST.
 MATTOON, IL 61938
 PHONE: (217) 235-5171

INDEX OF SHEETS

- 1 COVER SHEET
- 2 INDEX OF SHEETS AND GENERAL NOTES
- 3 SUMMARY OF QUANTITIES
- 4 SIGNAL LAYOUT
- 5 CABLE LAYOUT
- 6 DETAILS
- 7 BORING LOGS

THE FOLLOWING STANDARDS ARE A PART OF THESE PLANS AND ARE INCLUDED AFTER SHEET NO. 7:

- 000001-04 STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
- 701006-02 OFF-RD OPERATIONS, 2L, 2W, 15' TO 2' FROM EDGE OF PAVEMENT
- 701101-01 OFF-RD OPERATIONS, MULTILANE, 15' TO 2' FROM EDGE OF PAVEMENT
- 701701-04 URBAN LANE CLOSURE, MULTILANE INTERSECTION
- 701801-03 LANE CLOSURE MULTILANE 1W OR 2W CROSSWALK OR SIDEWALK CLOSURE
- 702001-06 TRAFFIC CONTROL DEVICES
- 720001 SIGN PANEL MOUNTING DETAILS
- 720006 SIGN PANEL ERECTION DETAILS
- 720016-01 MAST ARM MOUNTED STREET NAME SIGNS
- 857001 STANDARD PHASE DESIGNATION DIAGRAMS AND PHASE SEQUENCES
- 873001 TRAFFIC SIGNAL GROUNDING
- 877001-02 STEEL MAST ARM ASSEMBLY AND POLE
- 878001-04 CONCRETE FOUNDATION DETAILS
- 880006 TRAFFIC SIGNAL MOUNTING DETAILS

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

**GENERAL NOTES
&
INDEX OF SHEETS**

SCALE: VERT.
 HORIZ.
 DATE

DRAWN BY
 CHECKED BY

URBAN
90% FED.
5% STATE
5% CITY

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
824	*	COLES	7	3
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

* D7 SIGNAL MODERNIZATION 2007-1

SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE
CODE NO	ITEM	UNIT		Y031-1F
* 42400100	PORTLAND CEMENT CONCRETE SIDEWALK 4 INCH	SO FT	136	136
* 44000600	SIDEWALK REMOVAL	SO FT	136	136
67100100	MOBILIZATION	L SUM	1	1
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1	1
70102640	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	1	1
* 72000200	SIGN PANEL - TYPE 2	SO FT	52	52
81012700	CONDUIT IN TRENCH, 2 1/2" DIA., PVC	FOOT	89	89
81500200	TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	89	89
87301245	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	924	924
87301255	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	1269	1269
87502660	TRAFFIC SIGNAL POST, ALUMINUM 12 FT.	EACH	1	1
87502720	TRAFFIC SIGNAL POST, ALUMINUM 18 FT.	EACH	4	4
87700210	STEEL MAST ARM ASSEMBLY AND POLE, 34 FT.	EACH	1	1
87700220	STEEL MAST ARM ASSEMBLY AND POLE, 36 FT.	EACH	1	1
87700250	STEEL MAST ARM ASSEMBLY AND POLE, 42 FT.	EACH	2	2
87800100	CONCRETE FOUNDATION, TYPE A	FOOT	6	6
87800415	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	48	48
87900200	DRILL EXISTING HANDHOLE	EACH	5	5
88200410	TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC	EACH	18	18
88800100	PEDESTRIAN PUSH-BUTTON	EACH	8	8
89502210	MODIFY EXISTING CONTROLLER CABINET	EACH	1	1
89502300	REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	1938	1938
89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1	1
89502385	REMOVE EXISTING CONCRETE FOUNDATION	EACH	5	5
X8730027	ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	FOOT	521	521
X8801310	SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	6	6
X8801400	SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED	EACH	4	4
X8801437	SIGNAL HEAD, POLYCARBONATE, LED, 2-FACE, 1-3-SECTION, 1-5-SECTION, BRACKET MOUNTED	EACH	4	4
X8810395	PEDESTRIAN SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, BRACKET MOUNTED	EACH	6	6
X8810495	PEDESTRIAN SIGNAL HEAD, POLYCARBONATE, LED, 2-FACE, BRACKET MOUNTED	EACH	1	1

* SPECIALTY ITEMS

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

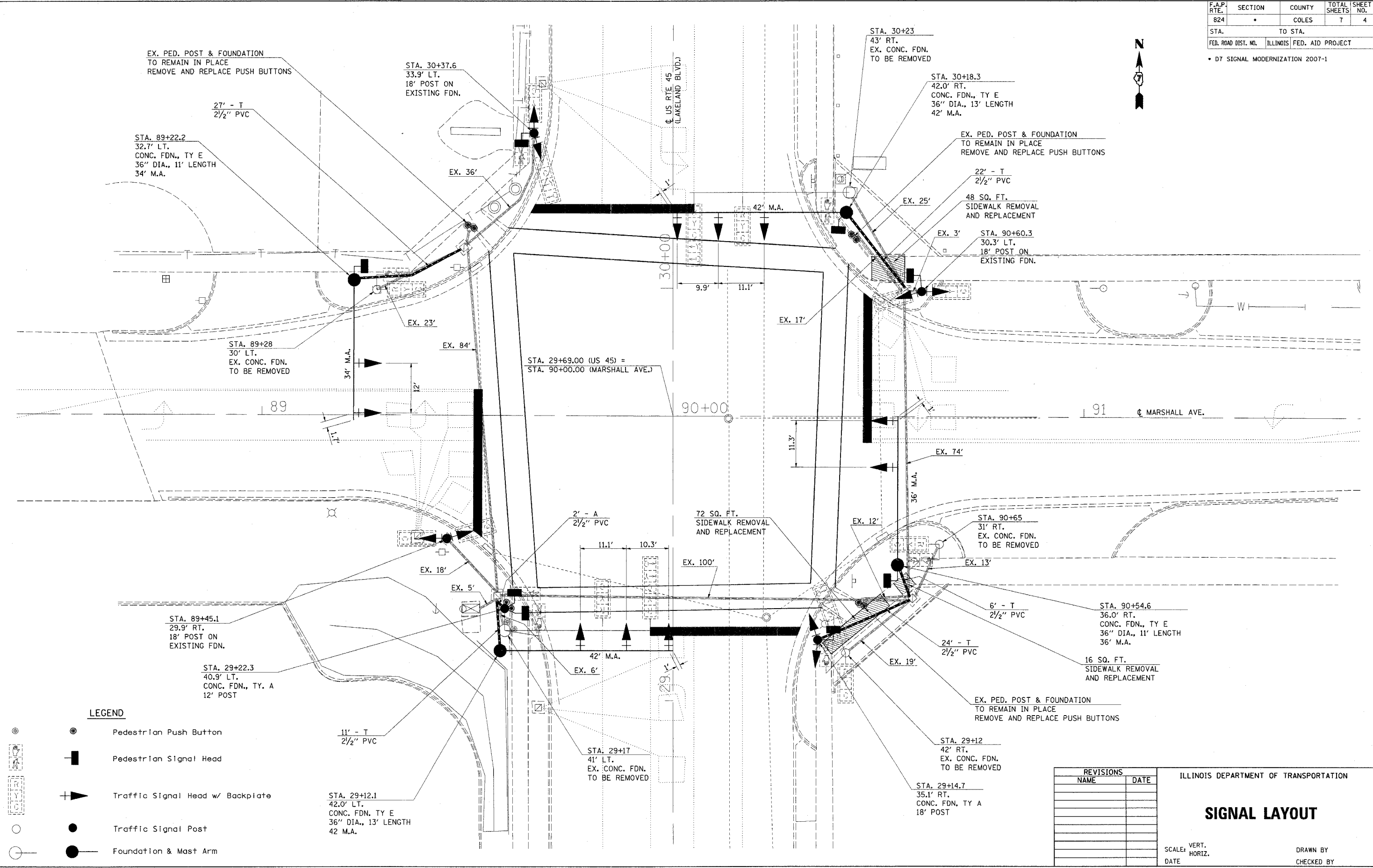
SUMMARY OF QUANTITIES

SCALE: VERT. DATE
HORIZ. DATE

DRAWN BY
CHECKED BY

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
824	*	COLES	7	4
STA. TO STA.				
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

• DT SIGNAL MODERNIZATION 2007-1



LEGEND

- Pedestrian Push Button
- Pedestrian Signal Head
- Traffic Signal Head w/ Backplate
- Traffic Signal Post
- Foundation & Mast Arm

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SIGNAL LAYOUT

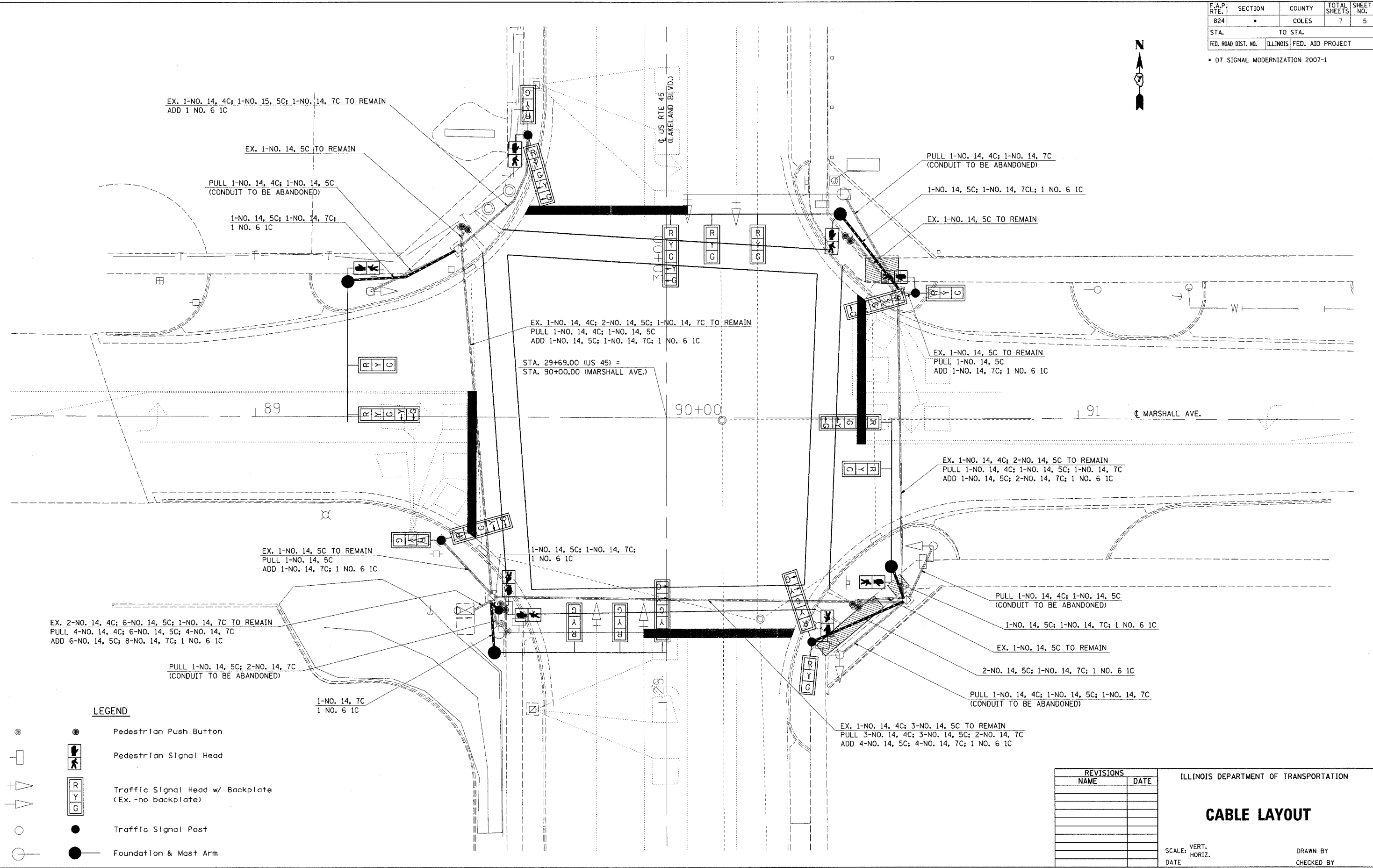
SCALE: VERT. DATE HORIZ. DATE DRAWN BY CHECKED BY

PLOT DATE = 8/15/2006
 PLOT SCALE = 1/8"=1'-0"
 USER NAME = smart27

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
824	*	COLES	7	5

STA.	TO STA.
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT

• DT SIGNAL MODERNIZATION 2007-1



EX. 1-NO. 14, 4C; 1-NO. 15, 5C; 1-NO. 14, 7C TO REMAIN
ADD 1 NO. 6 1C

EX. 1-NO. 14, 5C TO REMAIN

PULL 1-NO. 14, 4C; 1-NO. 14, 5C
(CONDUIT TO BE ABANDONED)

1-NO. 14, 5C; 1-NO. 14, 7C;
1 NO. 6 1C

PULL 1-NO. 14, 4C; 1-NO. 14, 7C
(CONDUIT TO BE ABANDONED)

1-NO. 14, 5C; 1-NO. 14, 7C; 1 NO. 6 1C

EX. 1-NO. 14, 5C TO REMAIN

EX. 1-NO. 14, 4C; 2-NO. 14, 5C; 1-NO. 14, 7C TO REMAIN
PULL 1-NO. 14, 4C; 1-NO. 14, 5C
ADD 1-NO. 14, 5C; 1-NO. 14, 7C; 1 NO. 6 1C

STA. 29+69.00 (US 45) =
STA. 90+00.00 (MARSHALL AVE.)

EX. 1-NO. 14, 5C TO REMAIN
PULL 1-NO. 14, 5C
ADD 1-NO. 14, 7C; 1 NO. 6 1C

EX. 1-NO. 14, 4C; 2-NO. 14, 5C TO REMAIN
PULL 1-NO. 14, 4C; 1-NO. 14, 5C; 1-NO. 14, 7C
ADD 1-NO. 14, 5C; 2-NO. 14, 7C; 1 NO. 6 1C

EX. 1-NO. 14, 5C TO REMAIN
PULL 1-NO. 14, 5C
ADD 1-NO. 14, 7C; 1 NO. 6 1C

1-NO. 14, 5C; 1-NO. 14, 7C;
1 NO. 6 1C

EX. 2-NO. 14, 4C; 6-NO. 14, 5C; 1-NO. 14, 7C TO REMAIN
PULL 4-NO. 14, 4C; 6-NO. 14, 5C; 4-NO. 14, 7C
ADD 6-NO. 14, 5C; 8-NO. 14, 7C; 1 NO. 6 1C

PULL 1-NO. 14, 5C; 2-NO. 14, 7C
(CONDUIT TO BE ABANDONED)

1-NO. 14, 7C
1 NO. 6 1C

PULL 1-NO. 14, 4C; 1-NO. 14, 5C
(CONDUIT TO BE ABANDONED)

1-NO. 14, 5C; 1-NO. 14, 7C; 1 NO. 6 1C

EX. 1-NO. 14, 5C TO REMAIN

2-NO. 14, 5C; 1-NO. 14, 7C; 1 NO. 6 1C

PULL 1-NO. 14, 4C; 1-NO. 14, 5C; 1-NO. 14, 7C
(CONDUIT TO BE ABANDONED)

EX. 1-NO. 14, 4C; 3-NO. 14, 5C TO REMAIN
PULL 3-NO. 14, 4C; 3-NO. 14, 5C; 2-NO. 14, 7C
ADD 4-NO. 14, 5C; 4-NO. 14, 7C; 1 NO. 6 1C

LEGEND

- Pedestrian Push Button
- Pedestrian Signal Head
- Traffic Signal Head w/ Backplate
(Ex. -no backplate)
- Traffic Signal Post
- Foundation & Mast Arm

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

CABLE LAYOUT

SCALE: VERT.
HORIZ.
DATE

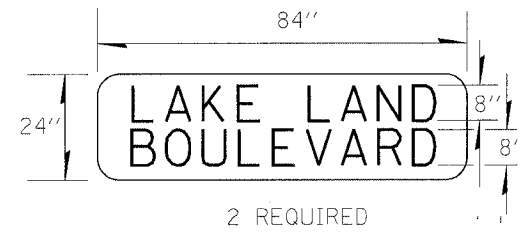
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USER NAME = mstrack

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
824	*	COLES	7	6
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

• D7 SIGNAL MODERNIZATION 2007-1

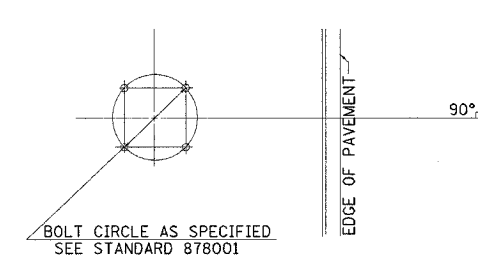
STREET NAME SIGNS



STREET NAME SIGNS

NOTES:

1. ALL SIGNS SHALL HAVE A WHITE REFLECTORIZED LEGEND AND BORDER ON A GREEN REFLECTORIZED BACKGROUND.
2. LETTER SIZE 80.



DETAIL OF MAST ARM FOUNDATION
BOLT PATTERN

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
**STREET NAME
 AND
 MAST ARM FOUNDATION
 BOLT PATTERN DETAIL**

SCALE: VERT. _____
 HORIZ. _____

DATE _____ DRAWN BY _____
 CHECKED BY _____

