

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
**PLANS FOR PROPOSED  
 FEDERAL AID HIGHWAY**

**VILLAGE of DOLTON**  
**TRAFFIC SIGNAL PRIORITY PREEMPTION IMPROVEMENTS**  
 PROJECT: ARA-9003(336)  
 SECTION NO.: 09-00114-00-TL  
**C-91-652-09**  
**COOK COUNTY**

F. A. N. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	09-00114-00-TL	COOK	43	1
STA.	TO STA.			
FED. ROAD DIST. NO.	ALIGNED	FED. AID PROJECT ARA-9003(336)		

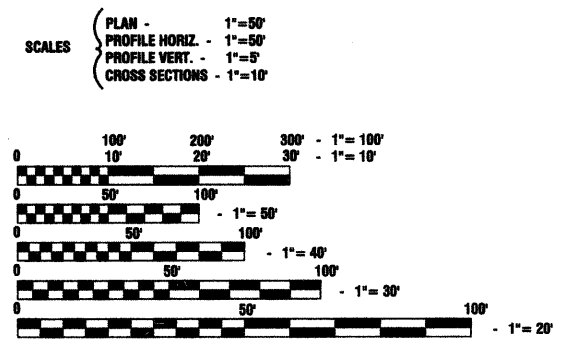
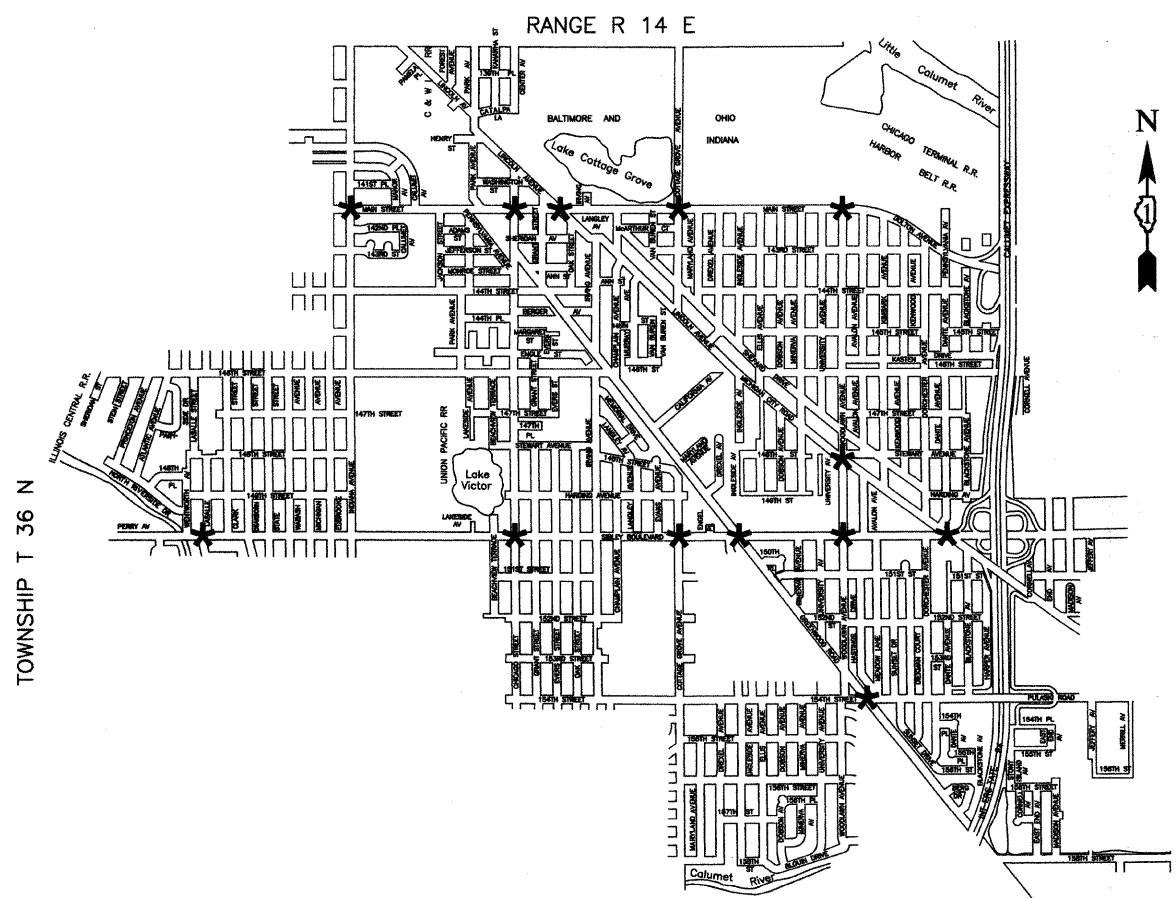
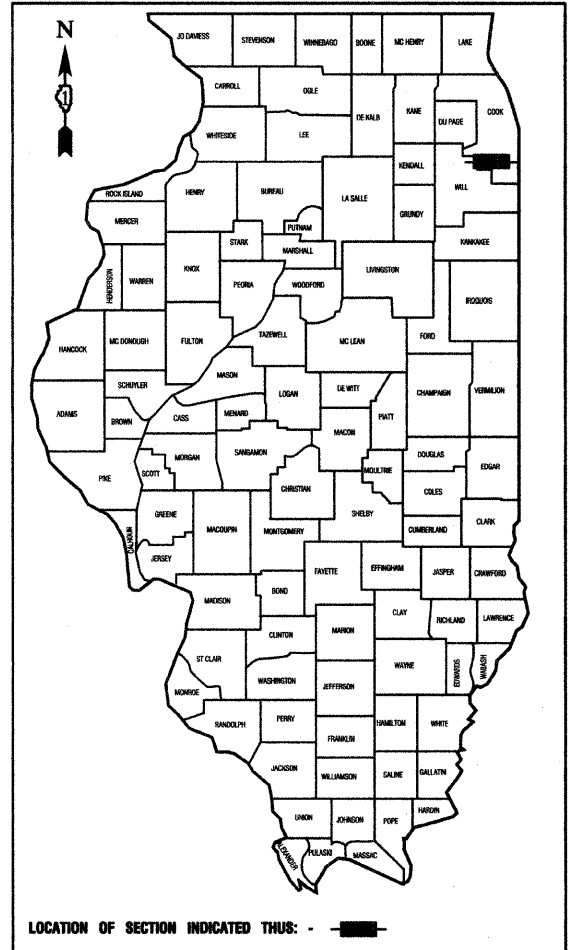
CONTRACT #63317

**INDEX OF SHEETS**

- COVER SHEET, INDEX OF SHEETS, & STATE STANDARDS
- LOCATION MAP
- SUMMARY OF QUANTITIES & GENERAL NOTES
- 4.-38. VILLAGE OF DOLTON
- 39.-43. IDOT DISTRICT 1 STANDARD DETAILS

**HIGHWAY STANDARDS**

- 701301-03 LANE CLOSURE, 2L, 2W, SHORT TIME OPERATION
- 701701-06 URBAN LANE CLOSURE, MULTILANE, INTERSECTION
- 701901-01 TRAFFIC CONTROL DEVICES
- 857001-01 STANDARD PHASE DESIGNATION DIAGRAMS AND PHASE SEQUENCES
- 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.

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

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS

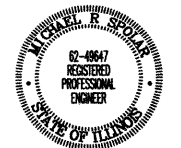
Approved: 10/14/09  
*Thomas C. Lewis*  
 Mayor, Village of Dolton

Passed: OCTOBER 27, 2009  
*Charles A. Helt*  
 District 1 Engineer of Local Roads & Streets

Released for Bid Based on Limited Review: OCTOBER 29, 2009  
*Diane M. O'Keefe*  
 Deputy Director of Highways, Region 1 Engineer

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 THE STATE OF ILLINOIS

PREPARED BY OR UNDER THE DIRECT SUPERVISION OF:  
*Michael Spota*  
 10/12/09



FIELD ENGINEER: MELCHOR MANGOBA (847) 705-4408  
 CONSULTANTS: ROBINSON ENGINEERING, LTD. 708-331-6700

**CONTRACT NO. 63317**

**LOCATION MAP**  
 NO SCALE  
 LENGTH OF PROJECT - 13 INTERSECTIONS

\* INTERSECTION LOCATION



TOWNSHIP T 36 N

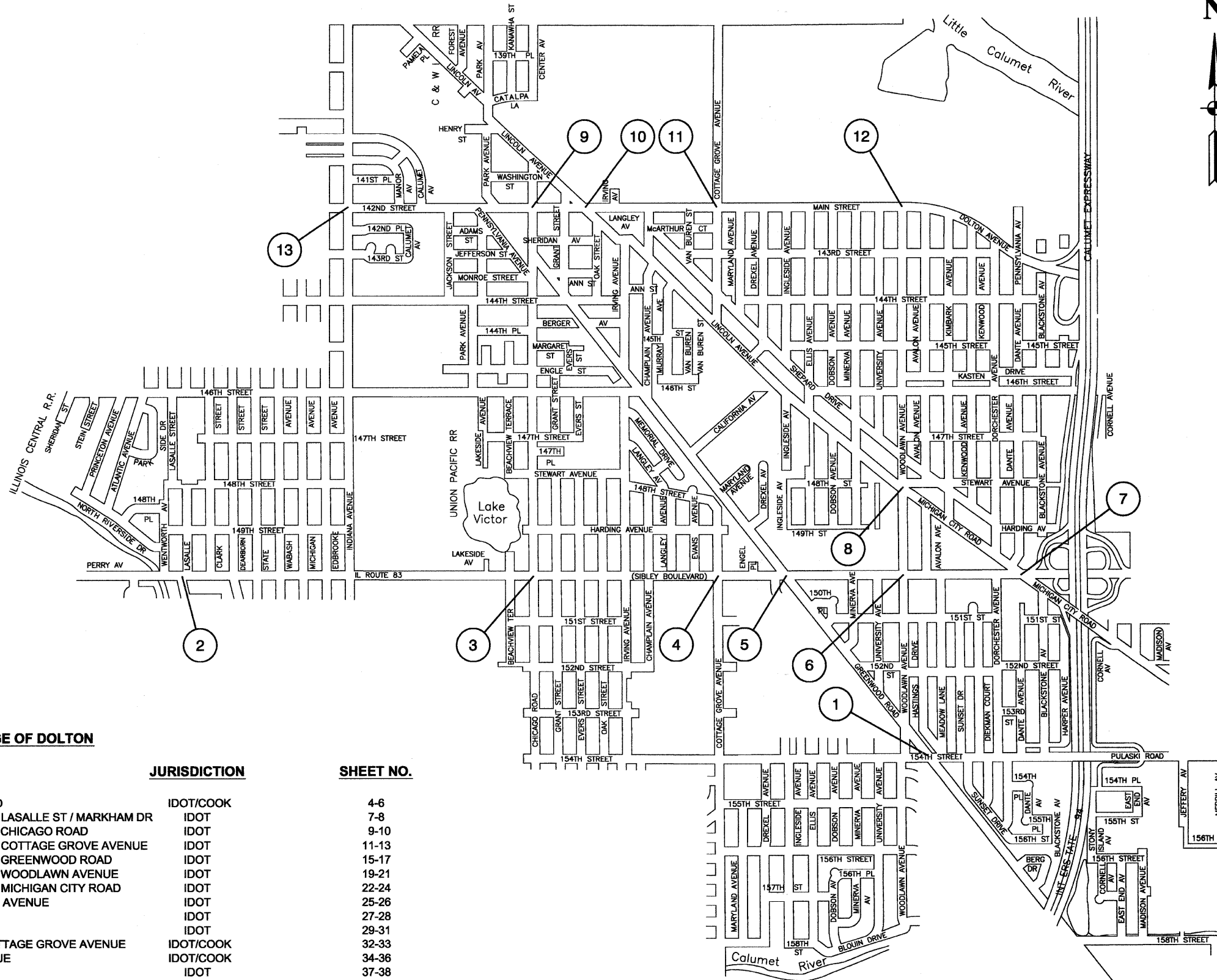
**VILLAGE OF DOLTON**

**LOCATION**

**JURISDICTION**

**SHEET NO.**

1	154TH STREET & GREENWOOD ROAD	IDOT/COOK	4-6
2	IL ROUTE 83 (SIBLEY BOULEVARD) & LASALLE ST / MARKHAM DR	IDOT	7-8
3	IL ROUTE 83 (SIBLEY BOULEVARD) & CHICAGO ROAD	IDOT	9-10
4	IL ROUTE 83 (SIBLEY BOULEVARD) & COTTAGE GROVE AVENUE	IDOT	11-13
5	IL ROUTE 83 (SIBLEY BOULEVARD) & GREENWOOD ROAD	IDOT	15-17
6	IL ROUTE 83 (SIBLEY BOULEVARD) & WOODLAWN AVENUE	IDOT	19-21
7	IL ROUTE 83 (SIBLEY BOULEVARD) & MICHIGAN CITY ROAD	IDOT	22-24
8	MICHIGAN CITY ROAD & WOODLAWN AVENUE	IDOT	25-26
9	CHICAGO ROAD & 142ND STREET	IDOT	27-28
10	LINCOLN AVENUE & 142ND STREET	IDOT	29-31
11	MAIN STREET / 142ND STREET & COTTAGE GROVE AVENUE	IDOT/COOK	32-33
12	142ND STREET & WOODLAWN AVENUE	IDOT/COOK	34-36
13	142ND STREET & INDIANA AVENUE	IDOT	37-38



FILE NAME = 08324-LCTN-01 - IDOT P01	USER NAME =	DESIGNED -- MRS	REVISD --	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>PROPOSED EMERGENCY VEHICLE PREEMPTION LOCATION MAP VILLAGE OF DOLTON, ILLINOIS</b>	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
PLOT SCALE =	CHECKED -- PKB	REVISD --	08-00114-00-TL			COOK	43	2		
PLOT DATE = 10-13-09	DRAWN -- PS	REVISD --	CONTRACT NO. 63317							
CHECKED -- AG	REVISD --	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT ARA-9003(336)								

SCALE: SHEET NO. 2 OF 43 SHEETS STA. TO STA.

S.I. CODE NO.	PAY ITEM DESCRIPTION	UNIT	TOTAL QUAN	Y031-IF												
				154TH STREET & GREENWOOD ROAD	ILL. ROUTE 83 (SIBLEY BLVD) & LASALLE ST / MARKHAM DR	ILL. ROUTE 83 (SIBLEY BLVD) & CHICAGO ROAD	ILL. ROUTE 83 (SIBLEY BLVD) & COTTAGE GROVE AVE	ILL. ROUTE 83 (SIBLEY BLVD) & GREENWOOD ROAD	ILL. ROUTE 83 (SIBLEY BLVD) & WOODLAWN AVENUE	ILL. ROUTE 83 (SIBLEY BLVD) & MICHIGAN CITY ROAD	MICHIGAN CITY ROAD & WOODLAWN AVENUE	CHICAGO ROAD & 142ND STREET	LINCOLN AVENUE & 142ND STREET	MAIN STREET / 142ND STREET & COTTAGE GROVE AVENUE	142ND STREET & WOODLAWN AVENUE	142ND STREET & INDIANA AVENUE
INTERSECTION NUMBER				1	2	3	4	5	6	7	8	9	10	11	12	13
67100100	MOBILIZATION	L SUM	1													
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1													
81018500	CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL	FOOT	150								150					
85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	13	1	1	1	1	1	1	1	1	1	1	1	1	1
85700200	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET	EACH	2								1				1	
87301225	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	3991	355	450	289	306	284	515	417	159	192	255	273	266	234
87301245	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	548								548					
87502520	TRAFFIC SIGNAL POST, GALVANIZED STEEL 18 FT.	EACH	4						2		1				1	
87900200	DRILL EXISTING HANDHOLE	EACH	4								4					
88500100	INDUCTIVE LOOP DETECTOR	EACH	6								3				3	
88700200	LIGHT DETECTOR	EACH	27	2	2	2	2	2	3	2	2	2	2	2	2	2
88700300	LIGHT DETECTOR AMPLIFIER	EACH	13	1	1	1	1	1	1	1	1	1	1	1	1	1
89500100	RELOCATE EXISTING SIGNAL HEAD	EACH	6						4		1				1	
89500200	RELOCATE EXISTING PEDESTRIAN SIGNAL HEAD	EACH	3						1		1				1	
89500400	RELOCATE EXISTING PEDESTRIAN PUSH-BUTTON	EACH	3						1		1				1	
89502200	MODIFY EXISTING CONTROLLER	EACH	11	1	1	1	1	1	1	1		1	1	1		1
89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	7						3		2				2	
X8730250	ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED	FOOT	3991	355	450	289	306	284	515	417	159	192	255	273	266	234
X8780110	MODIFY EXISTING TYPE "D" FOUNDATION	EACH	1								1					
XX007286	MAGNETIC DETECTOR AMPLIFIER	EACH	2								2					

**GENERAL NOTES**

UNLESS OTHERWISE SPECIFIED ON THE PLANS OR IN THE SPECIAL PROVISIONS, ALL WORK INSTALLED UNDER THIS CONTRACT INVOLVING TRAFFIC CONTROL DEVICES SHALL BE IN STRICT ACCORDANCE WITH ANY AND ALL APPLICABLE REQUIREMENTS OF THE ILLINOIS DEPARTMENT OF TRANSPORTATION'S "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAY", LATEST EDITION.

ANY REFERENCE TO STANDARDS THROUGHOUT THE PLANS OR SPECIAL PROVISIONS SHALL BE INTERPRETED TO BE THE LATEST STANDARDS OF THE ILLINOIS DEPARTMENT OF TRANSPORTATION.

THE CONTRACTOR MUST CONTACT IDOT BUREAU OF CONSTRUCTION (847) 705-4300 AND ROBINSON ENGINEERING 72 HOURS PRIOR TO THE START OF ANY WORK ON THIS PROJECT. IDOT BUREAU OF LOCAL ROADS COORDINATOR, (847) 705-4189, SHALL BE NOTIFIED OF ALL MAINTENANCE TRANSFERS.

THE CONTRACTOR SHALL TEST AND ADJUST ALL EMERGENCY VEHICLE PREEMPTION EQUIPMENT WITH THE LOCAL FIRE DEPARTMENT PRIOR TO THE FINAL INSPECTION. THE CONTRACTOR SHALL NOTIFY THE LOCAL FIRE DEPARTMENTS 48 HOURS PRIOR TO THE TESTING.

THE CONTRACTOR SHALL NOTIFY THE LOCAL POLICE DEPARTMENTS 24 HOURS PRIOR TO ANY TRAFFIC LANE CLOSURES FOR THE INSTALLATION OF EVP EQUIPMENT.

THE REMOVAL OF ANY DRIVEWAYS, PAVEMENT, CURB, SIDEWALK, ETC., SHALL BE ACCOMPLISHED BY MEANS OF A SAW CUT JOINT, AT THE DIRECTION OF THE ENGINEER. THIS WORK SHALL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE VARIOUS ITEMS.

THE APPROXIMATE LOCATION OF KNOWN PUBLIC UTILITIES ARE SHOWN ON THE PLANS. HOWEVER, THE VILLAGE DOES NOT GUARANTEE ITS ACCURACY. PRIOR TO COMMENCING OPERATIONS ON THE PROJECT, WHICH MAY IN ANY WAY CREATE THE POSSIBILITY OF INVOLVEMENT WITH EXISTING UTILITIES, THE CONTRACTOR SHALL CONTACT THE UTILITY INVOLVED. THE RESPECTIVE OWNERS, WITH THE EXCEPTION OF THOSE OWNED BY THE VILLAGE WILL DO ADJUSTMENT OF ALL PUBLIC UTILITIES WITHIN THE LIMITS OF THIS IMPROVEMENT. NO ADDITIONAL COMPENSATION WILL BE ALLOWED DUE TO DELAYS OR INCONVENIENCES CAUSED BY THESE ADJUSTMENTS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY LOCATIONS OF UNDERGROUND INSTALLATION BEFORE STARTING CONSTRUCTION OPERATIONS.

ALL EXCAVATED AND UNNEEDED EXCAVATED MATERIAL SHALL BE REMOVED FROM THE JOB SITE THE SAME DAY THAT IT WAS EXCAVATED. FAILURE TO ABIDE BY THIS WILL RESULT IN THE CONTRACTOR BEING ACCESSED TRAFFIC CONTROL DEFICIENCY DEDUCTIONS AS INCLUDED IN THE SPECIAL PROVISIONS.

WHEN, IN THE CONSTRUCTION OPERATION, ANY LOOSE MATERIAL IS DEPOSITED IN THE FLOW LINE OF DITCHES, GUTTERS, OR OTHER DRAINAGE STRUCTURES SO THAT THE NATURAL FLOW OF WATER IS OBSTRUCTED, THE CONTRACTOR AT HIS EXPENSE SHALL REMOVE THIS MATERIAL AT THE CLOSE OF EACH DAY.

ALL TRENCHES AND AREAS OF DISTURBED GROUND ADJACENT TO CONCRETE FOUNDATIONS AND HANDHOLES SHALL BE RESTORED BY SODDING THE SURFACE IN ACCORDANCE WITH SECTION 252 OF THE STANDARD SPECIFICATIONS WITH 2 WEEKS OF COMPLETION OF UNDERGROUND WORK. THIS WORK SHALL BE INCLUDED IN THE COST OF RELATED TRENCHES, CONCRETE FOUNDATIONS, AND HANDHOLES.

Global Traffic Technologies, (GTT), OPTICOM 400 SERIES PHASE SELECTORS AND THE MOST RECENT MODEL OF THE OPTICAL DETECTOR SHALL BE INSTALLED AT INTERSECTIONS LOCATED WITHIN THE VILLAGE OF DOLTON.

FILE NAME = 09324-QUAN-01 - IDOT P01

USER NAME =	DESIGNED -- MRS	REVISED --
	CHECKED -- PKB	REVISED --
PLOT SCALE =	DRAWN -- PS	REVISED --
PLOT DATE = 10-13-09	CHECKED -- AG	REVISED --

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

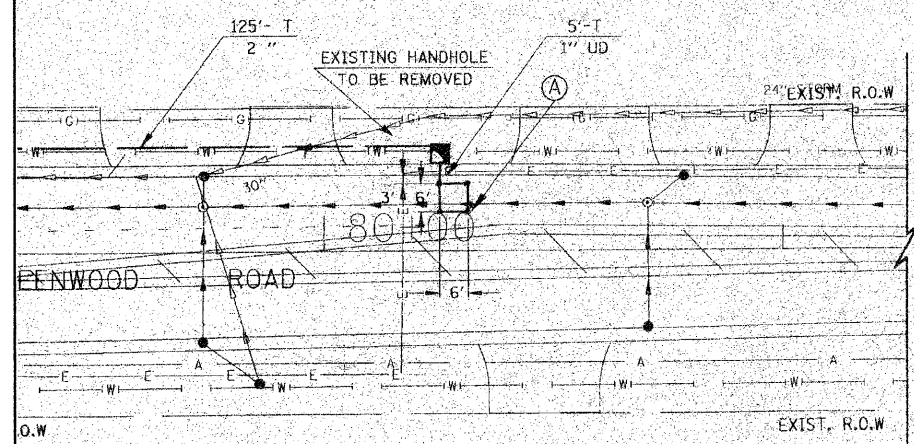
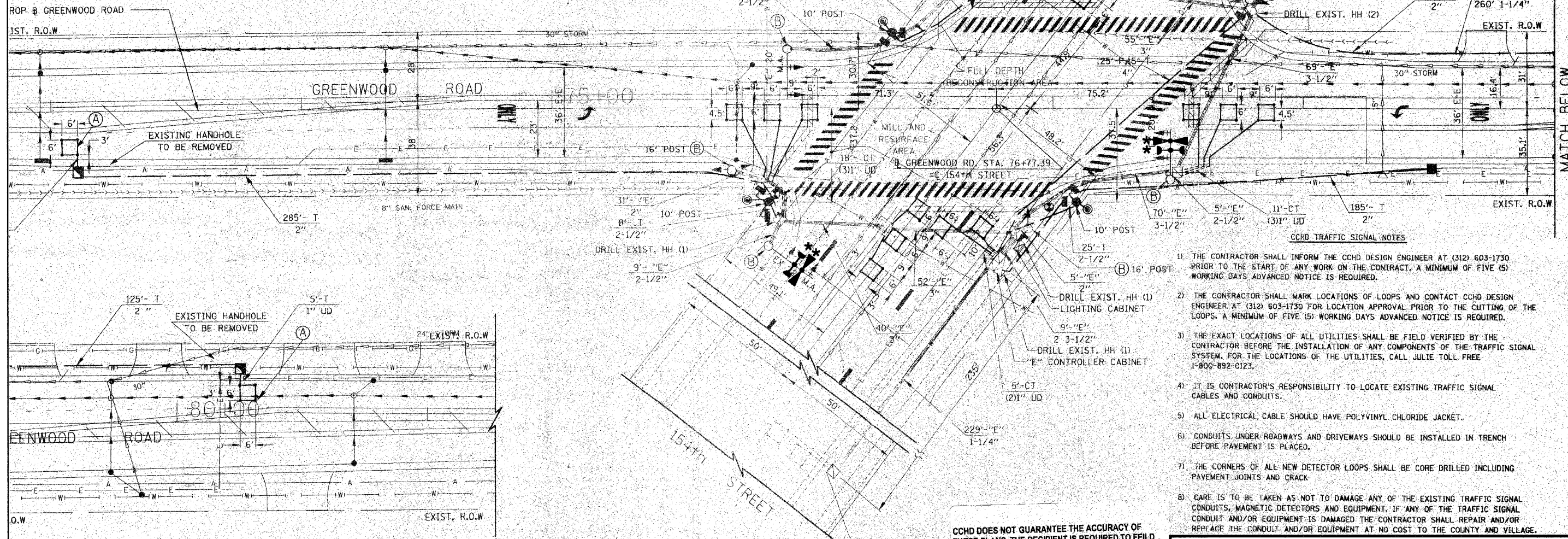
**PROPOSED EMERGENCY VEHICLE PREEMPTION  
SUMMARY OF QUANTITIES & GENERAL NOTES  
VILLAGE OF DOLTON, ILLINOIS**

SCALE: SHEET NO. 3 OF 43 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	09-00114-00-TL	COOK	43	3
FED. ROAD DIST. NO. 1 ILLINOIS			FED. AID PROJECT ARA-9003(336)	
			CONTRACT NO. 63317	

TRAFFIC SIGNAL LEGEND		EXISTING	PROPOSED	TRAFFIC SIGNAL LEGEND		EXISTING	PROPOSED
CONTROLLER				HANDHOLE			
SERVICE INSTALLATION				HEAVY DUTY HANDHOLE			
SIGNAL HEAD				DOUBLE HANDHOLE			
SIGNAL HEAD WITH BACKPLATE				G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)			
SIGNAL HEAD, PEDESTRIAN				PEDESTRIAN PUSH BUTTON DETECTOR (WITH SIGNS)			
SIGNAL POST				DETECTOR LOOP			
MAST ASSEMBLY AND POLE, STEEL				EMERGENCY VEHICLE LIGHT DETECTOR			
MAST ARM ASSEMBLY AND POLE, ALUMINUM				CONFIRMATION BEACON			
COMMON TRENCH			CT	SIGNAL HEAD OPTICALLY PROGRAMMED			
UNIT DUCT			UD	CONDUIT SPLICE			

"E" = EXISTING



**(A) LOOP REPLACEMENT NOTES:**  
 -REMOVE 2/C WIRE FROM LOOP TO HANDHOLE AT INTERSECTION.  
 -ABANDON EXISTING BACK-LOOP CONDUIT UP TO HANDHOLE AT INTERSECTION.  
 -INSTALL NEW CONDUIT FROM HANDHOLE AT INTERSECTION TO NEW BACK-LOOP HANDHOLE.  
 -REPLACE 2/C WIRE FROM HANDHOLE AT INTERSECTION TO BACK-LOOPS.

**(B) SIGNAL HEAD REPLACEMENT NOTES:**  
 -ALL TRAFFIC SIGNAL HEADS SHALL BE REPLACED WITH L.E.D. (LIGHT EMITTING DIODE)  
 -WHERE SIGNAL HEADS ARE TO BE REPLACED, EXISTING CABLES SHALL BE USED

CCHD DOES NOT GUARANTEE THE ACCURACY OF THESE PLANS. THE RECIPIENT IS REQUIRED TO FIELD CHECK THE EXISTING INSTALLATION TO VERIFY THE EQUIPMENT LOCATIONS

- CCHD TRAFFIC SIGNAL NOTES**
- 1) THE CONTRACTOR SHALL INFORM THE CCHD DESIGN ENGINEER AT (312) 603-1730 PRIOR TO THE START OF ANY WORK ON THE CONTRACT. A MINIMUM OF FIVE (5) WORKING DAYS ADVANCED NOTICE IS REQUIRED.
  - 2) THE CONTRACTOR SHALL MARK LOCATIONS OF LOOPS AND CONTACT CCHD DESIGN ENGINEER AT (312) 603-1730 FOR LOCATION APPROVAL PRIOR TO THE CUTTING OF THE LOOPS. A MINIMUM OF FIVE (5) WORKING DAYS ADVANCED NOTICE IS REQUIRED.
  - 3) THE EXACT LOCATIONS OF ALL UTILITIES SHALL BE FIELD VERIFIED BY THE CONTRACTOR BEFORE THE INSTALLATION OF ANY COMPONENTS OF THE TRAFFIC SIGNAL SYSTEM. FOR THE LOCATIONS OF THE UTILITIES, CALL JULIE TOLL FREE 1-800-892-0123.
  - 4) IT IS CONTRACTOR'S RESPONSIBILITY TO LOCATE EXISTING TRAFFIC SIGNAL CABLES AND CONDUITS.
  - 5) ALL ELECTRICAL CABLE SHOULD HAVE POLYVINYL CHLORIDE JACKET.
  - 6) CONDUITS UNDER ROADWAYS AND DRIVEWAYS SHOULD BE INSTALLED IN TRENCH BEFORE PAVEMENT IS PLACED.
  - 7) THE CORNERS OF ALL NEW DETECTOR LOOPS SHALL BE CORE DRILLED INCLUDING PAVEMENT JOINTS AND CRACK
  - 8) CARE IS TO BE TAKEN AS NOT TO DAMAGE ANY OF THE EXISTING TRAFFIC SIGNAL CONDUITS, MAGNETIC DETECTORS AND EQUIPMENT. IF ANY OF THE TRAFFIC SIGNAL CONDUIT AND/OR EQUIPMENT IS DAMAGED THE CONTRACTOR SHALL REPAIR AND/OR REPLACE THE CONDUIT AND/OR EQUIPMENT AT NO COST TO THE COUNTY AND VILLAGE.

**THIS PLAN IS FOR THE PURPOSE OF INSTALLING EMERGENCY VEHICLE PREEMPTION EQUIPMENT AS SHOWN PER PLAN INDICATED IN THE SCHEDULE OF QUANTITIES. ALL OTHER EQUIPMENT SHOWN SHALL BE DISREGARDED.**

NOTE:  
 ALL NEW AND REPLACED TRAFFIC SIGNAL HEADS, AND ALL PEDESTRIAN HEADS SHALL BE L.E.D. (LIGHT EMITTING DIODE)

**\* ADDED EV PREEMPTION LOCATION NO. 1**

FILE NAME = 0824-PLAN-02 - IDOT P01	USER NAME =	DESIGNED - MRS	REVISD - 10-13-09 *
		CHECKED - PKB	REVISD -
	PLOT SCALE =	DRAWN - PS	REVISD -
	PLOT DATE = 10-13-09	CHECKED - AG	REVISD -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**PROPOSED EMERGENCY VEHICLE PREEMPTION  
 154TH STREET & GREENWOOD ROAD  
 TRAFFIC SIGNAL PLAN**

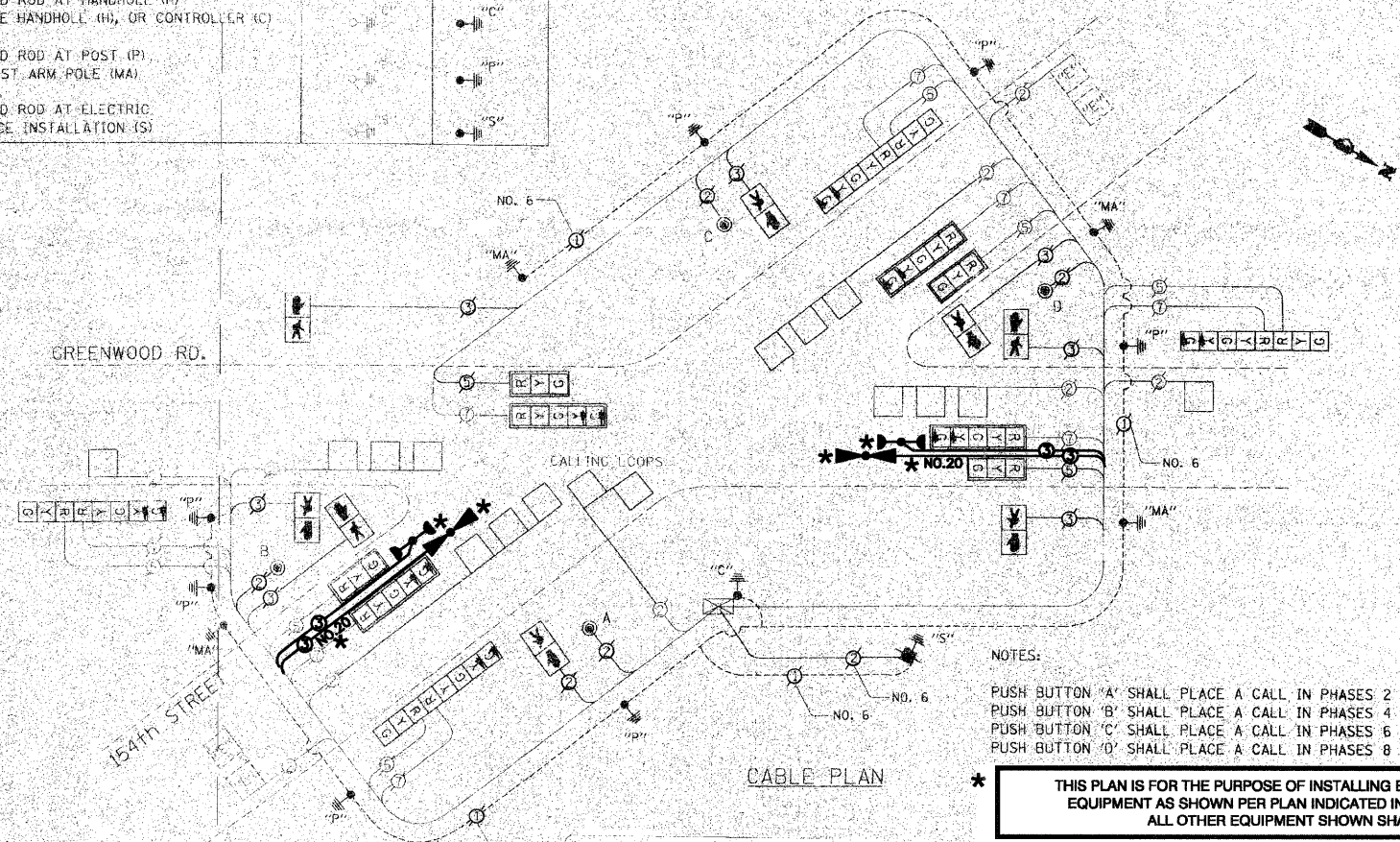
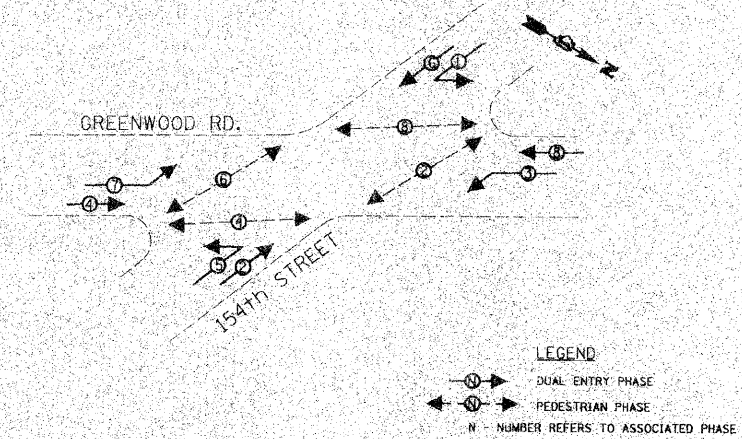
SCALE: AS SHOWN SHEET NO. 4 OF 43 SHEETS STA. TO STA.

F.A.U. RTE. 1607	SECTION 08-00114-00-TL	COUNTY COOK	TOTAL SHEETS 43	SHEET NO. 4
FED. ROAD DIST. NO. 1 ILLINOIS			FED. AID PROJECT ARA-9003(336)	

**SCHEDULE OF QUANTITIES**

NO.	ITEM DESCRIPTION	UNIT	TOTAL
177	SERVICE INSTALLATION, POLE MOUNT	EACH	2
179	CONDUIT IN TRENCH, 2 IN. DIA., GALVANIZED STEEL	FOOT	60
180	CONDUIT IN TRENCH, 2 1/2 IN. DIA., GALVANIZED STEEL	FOOT	103
181	CONDUIT IN TRENCH, 4 IN. DIA., GALVANIZED STEEL	FOOT	15
182	CONDUIT PUSHED, 4 IN. DIA., GALVANIZED STEEL	FOOT	145
183	HANDHOLE	EACH	3
184	TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	722
185	REMOVAL OF ELECTRICAL SERVICE INSTALLATION	EACH	1
186	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
190	GROUNDING EXISTING HANDHOLE FRAME AND COVER	EACH	9
191	ELECTRIC CABLE IN CONDUIT, GROUNDING NO. 6; 1C	FOOT	1336
192	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6-2C	FOOT	205
193	ELECTRICAL CABLE IN CONDUIT, SIGNAL, NO. 14-2C	FOOT	777
194	ELECTRICAL CABLE IN CONDUIT, SIGNAL, NO. 14-3C	FOOT	1649
195	ELECTRICAL CABLE IN CONDUIT, SIGNAL, NO. 14-5C	FOOT	872
196	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14-2 PAIR	FOOT	400
198	TRAFFIC SIGNAL POST, GALVANIZED STEEL 10'	EACH	3
199	CONCRETE FOUNDATION, TYPE A	FOOT	12
200	DRILL EXISTING HANDHOLE	EACH	8
201	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	4
202	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED	EACH	4
203	SIGNAL HEAD, LED, 2-FACE, 1-5 SECTION, BRACKET MOUNTED	EACH	4
205	PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED	EACH	4
206	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	8
207	DETECTOR LOOP, TYPE 1	FOOT	620
208	PEDESTRIAN PUSHBUTTON	EACH	4
209	TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
210	MODIFY EXISTING CONTROLLER	EACH	1
211	REMOVE AND REINSTALL ELECTRIC CABLE FROM CONDUIT	FOOT	600
212	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
213	REMOVE EXISTING HANDHOLE	EACH	2
214	REBUILD EXISTING HANDHOLE	EACH	2

CABLE PLAN LEGEND	EXISTING	PROPOSED
8" TRAFFIC SIGNAL SECTION	[Symbol]	[Symbol]
12" TRAFFIC SIGNAL SECTION	[Symbol]	[Symbol]
LEFT TURN YELLOW	[Symbol]	[Symbol]
LEFT TURN GREEN	[Symbol]	[Symbol]
12" PEDESTRIAN SIGNAL SECTION	[Symbol]	[Symbol]
CONTROLLER CABINET	[Symbol]	[Symbol]
SERVICE INSTALLATION	[Symbol]	[Symbol]
VEHICLE DETECTOR INDUCTION LOOP	[Symbol]	[Symbol]
EMERGENCY VEHICLE LIGHT DETECTOR	[Symbol]	[Symbol]
CONFIRMATION BEACON	[Symbol]	[Symbol]
PEDESTRIAN PUSHBUTTON DETECTOR	[Symbol]	[Symbol]
DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.	[Symbol]	[Symbol]
GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)	[Symbol]	[Symbol]
SIGNAL FACE WITH BACKPLATE "P" INDICATES PROGRAMMED HEAD	[Symbol]	[Symbol]
GROUND ROD AT HANDHOLE (H) DOUBLE HANDHOLE (HH), OR CONTROLLER (C)	[Symbol]	[Symbol]
GROUND ROD AT POST (P) OR MAST ARM POLE (MA)	[Symbol]	[Symbol]
GROUND ROD AT ELECTRIC SERVICE INSTALLATION (S)	[Symbol]	[Symbol]



TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	INCAND.	LED	% OPERATION	
SIGNAL (RED)	16	135	17	0.50	136
(YELLOW)	16	135	25	0.25	100
(GREEN)	16	135	15	0.25	60
ARROW	8	135	12	0.10	9.6
PED. SIGNAL	8	90	25	1.00	200
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		252	35	0.05	
FLASHER				0.50	
TOTAL =					605.6

FOUNDATION (DEPTH)	FT.
TYPE A-POST	4
D-CONTROLLER	4
E-M. ARM POLE	10
24"	15
30"	15

CABLE SLACK	FT.
HANDHOLE	6.5
DOUBLE HANDHOLE	13
SIGNAL POST	2
CONTROLLER CAB.	1
FIBER OPTIC	13
ELECTRIC SERVICE	1
GROUND CABLE	1

VERTICAL	FT.
ALL FOUNDATIONS	3.5
MAST ARM (L) POLE 20'+L-2'	
BRACKET MOUNTED	13
PED. PUSHBUTTON	4
ELECTRIC SERVICE	13.5
SERVICE TO GROUND	13.5
POST MOUNTED	6

ENERGY COSTS TO:  
**THE VILLAGE OF DOLTON**

ENERGY SUPPLY CONTACT:  
 PHONE: \_\_\_\_\_  
 COMPANY: COMED

CCHD DOES NOT GUARANTEE THE ACCURACY OF THESE PLANS. THE RECIPIENT IS REQUIRED TO FIELD CHECK THE EXISTING INSTALLATION TO VERIFY THE EQUIPMENT LOCATIONS

**\* THIS PLAN IS FOR THE PURPOSE OF INSTALLING EMERGENCY VEHICLE PREEMPTION EQUIPMENT AS SHOWN PER PLAN INDICATED IN THE SCHEDULE OF QUANTITIES. ALL OTHER EQUIPMENT SHOWN SHALL BE DISREGARDED.**

**\* ADDED EV PREEMPTION LOCATION NO. 1**

FILE NAME = 08324-PLAN-02 - I00T P02	USER NAME =	DESIGNED = MRS	REVISED = 10-13-09 *
		CHECKED = PKB	REVISED =
	PLOT SCALE =	DRAWN = PS	REVISED =
	PLOT DATE = 10-13-09	CHECKED = AG	REVISED =

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

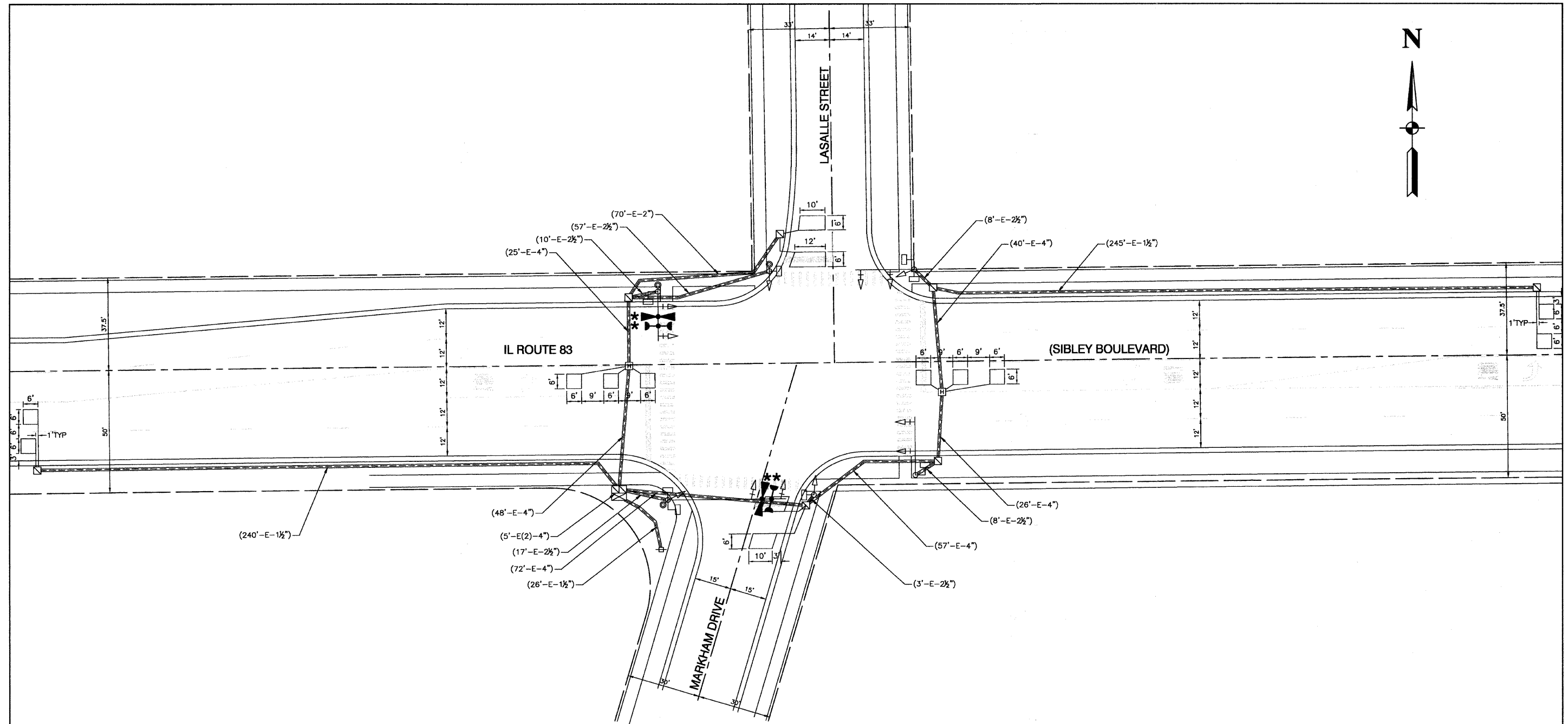
**PROPOSED EMERGENCY VEHICLE PREEMPTION  
 154TH STREET & GREENWOOD ROAD  
 SCHEDULE OF QUANTITIES, CABLE PLAN, & PHASE DESIGNATION DIAGRAM**

SCALE: NTS SHEET NO. 5 OF 43 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1607	09-00114-00-TL	COOK	43	5

CONTRACT NO. 63317  
 FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT ARA-9003(836)





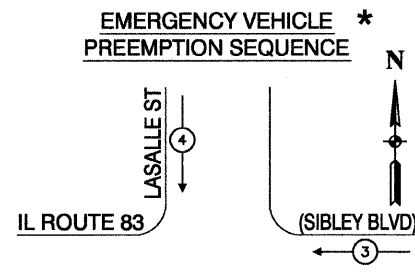
**TRAFFIC SIGNAL LEGEND**

PROPOSED		EXISTING		PROPOSED		EXISTING		PROPOSED		EXISTING	
CONTROLLER			HANDHOLE			CONDUIT SPLICE					
SERVICE INSTALLATION			HEAVY DUTY HANDHOLE			WOOD POLE					
SIGNAL HEAD			DOUBLE HANDHOLE			RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II					
SIGNAL HEAD WITH BACKPLATE			G.S. CONDUIT IN GROUND			VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE					
SIGNAL HEAD, PEDESTRIAN			PEDESTRIAN PUSHBUTTON DETECTOR			RAILROAD CONTROL CABINET					
SIGNAL POST			DETECTOR LOOP			TELEPHONE CONNECTION					
MAST ARM ASSEMBLY AND POLE, STEEL			CAST IRON JUNCTION BOX			ILLUMINATED SIGN, FIBER OPTIC "NO LEFT TURN"					
MAST ARM ASSEMBLY AND POLE, ALUMINUM			EMERGENCY VEHICLE SYSTEM DETECTOR			ILLUMINATED SIGN, FIBER OPTIC "NO RIGHT TURN"					
COMBINATION MAST ARM ASSEMBLY AND POLE, STEEL W/ LUMINAIRE			CONFIRMATION BEACON			UNINTERRUPTIBLE POWER SUPPLY					
UNIT DUCT			SIGNAL HEAD OPTICALLY PROGRAMMED								
COMMON TRENCH											

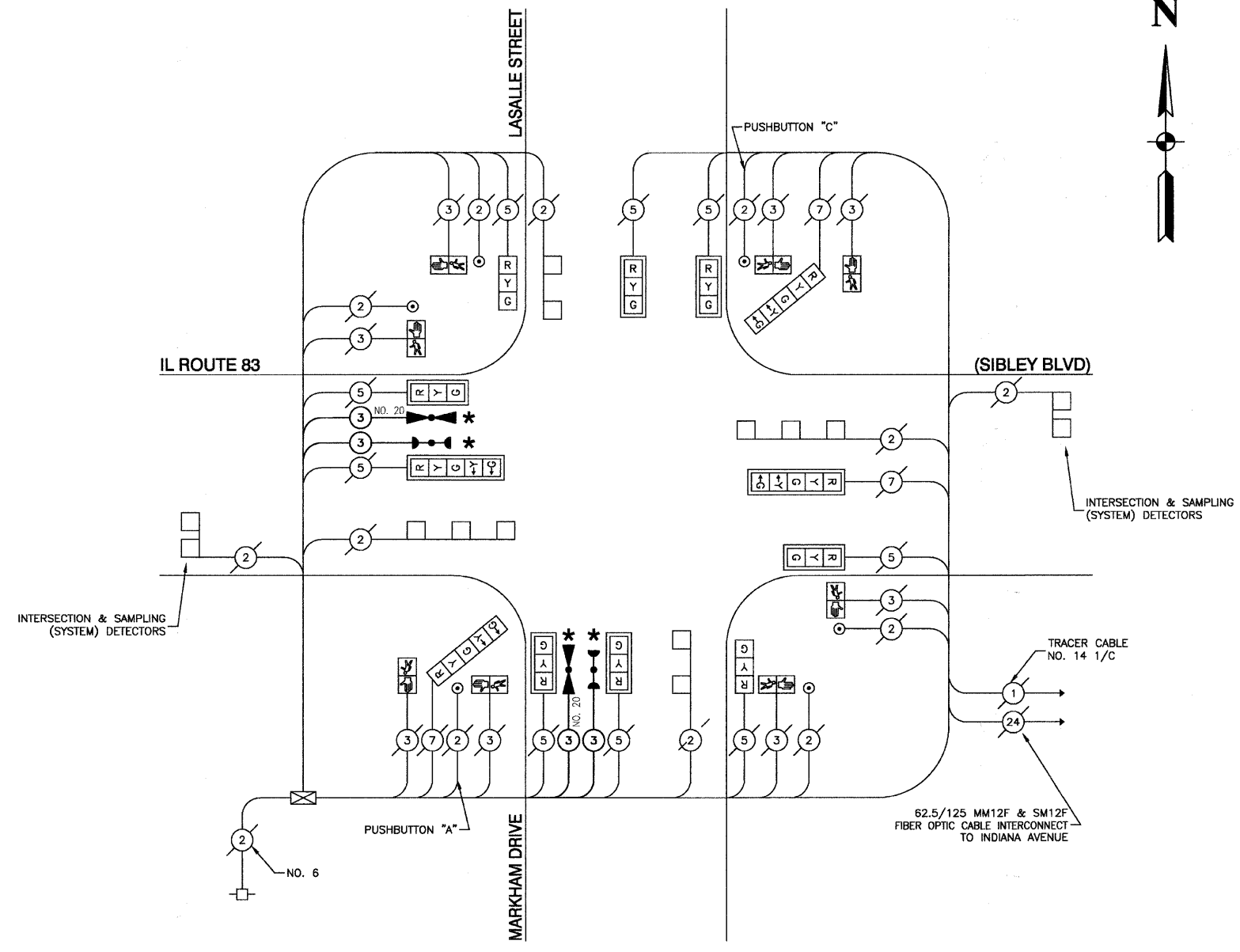
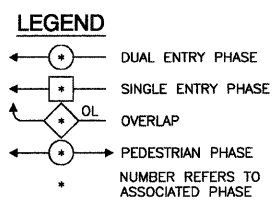
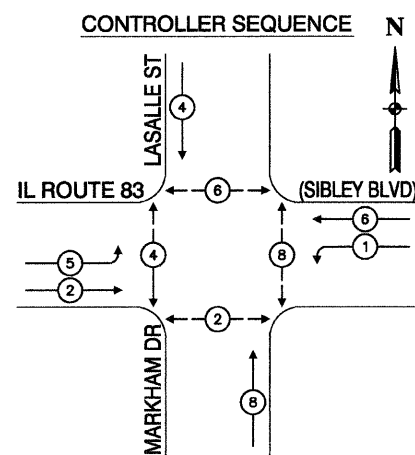
\* THIS PLAN IS FOR THE PURPOSE OF INSTALLING EMERGENCY VEHICLE PREEMPTION EQUIPMENT AS SHOWN PER PLAN INDICATED IN THE SCHEDULE OF QUANTITIES. ALL OTHER EQUIPMENT SHOWN SHALL BE DISREGARDED.

\* ADDED BY PREEMPTION LOCATION NO. 2

FILE NAME = 0924-PLAN-19 - IDOT P01	USER NAME =	DESIGNED -- MRS	REVISION -- 10-13-09 *	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>PROPOSED EMERGENCY VEHICLE PREEMPTION IL ROUTE 83 (SIBLEY BOULEVARD) &amp; LASALLE/MARKHAM TRAFFIC SIGNAL PLAN</b>			F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE =	CHECKED -- PKB	REVISION --		SCALE: NTS			09-00114-00-TL	COOK	43	7	
	PLOT DATE = 10-13-09	DRAWN -- PS	REVISION --		SHEET NO. 7 OF 43 SHEETS			CONTRACT NO. 63317				
		CHECKED -- AG	REVISION --		STA. TO STA.			FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT ARA-9003(336)				



PROPOSED EMERGENCY VEHICLE PREEMPTORS	
EMERGENCY VEHICLE PREEMPTORS	3 4
MOVEMENT	← →



NOTE:  
 PUSHBUTTON "A" SHALL PLACE A CALL IN PHASES 2 & 4  
 PUSHBUTTON "C" SHALL PLACE A CALL IN PHASES 6 & 8

**CABLE PLAN**  
NOT TO SCALE

**\* SCHEDULE OF QUANTITIES**

ITEM	UNIT	QUAN
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	450
LIGHT DETECTOR	EACH	2
LIGHT DETECTOR AMPLIFIER	EACH	1
MODIFY EXISTING CONTROLLER	EACH	1
ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED	FOOT	450



**CABLE PLAN LEGEND**

EXISTING	PROPOSED	DESCRIPTION
⊕	⊕	8" TRAFFIC SIGNAL SECTION
⊕	⊕	12" TRAFFIC SIGNAL SECTION
⊕	⊕	12" PEDESTRIAN SIGNAL SECTION
⊕	⊕	12" PEDESTRIAN SIGNAL SECTION
⊕	⊕	CONTROLLER CABINET
⊕	⊕	UNINTERRUPTIBLE POWER SUPPLY
⊕	⊕	SERVICE INSTALLATION
⊕	⊕	TELEPHONE CONNECTION
⊕	⊕	MAGNETIC DETECTOR
⊕	⊕	EMERGENCY VEHICLE LIGHT DETECTOR
⊕	⊕	CONFIRMATION BEACON
⊕	⊕	PUSHBUTTON DETECTOR
⊕	⊕	VEHICLE DETECTOR, INDUCTION LOOP
⊕	⊕	DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.
⊕	⊕	SIGNAL FACE WITH BACKPLATE
⊕	⊕	"P" INDICATES PROGRAMMED HEAD
⊕	⊕	RAILROAD CONTROL CABINET
⊕	⊕	ILLUMINATED SIGN, FIBOR OPTIC "NO LEFT TURN"
⊕	⊕	ILLUMINATED SIGN, FIBOR OPTIC "NO RIGHT TURN"
H/C	H/C	GROUND ROD AT HANDHOLE, DOUBLE HANDHOLE, OR CONTROLLER
P	P	GROUND ROD AT POST OR MAST ARM POLE
S	S	GROUND ROD AT ELECTRIC SERVICE INSTALLATION
⊕	⊕	GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)
⊕	⊕	FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F & SM12F

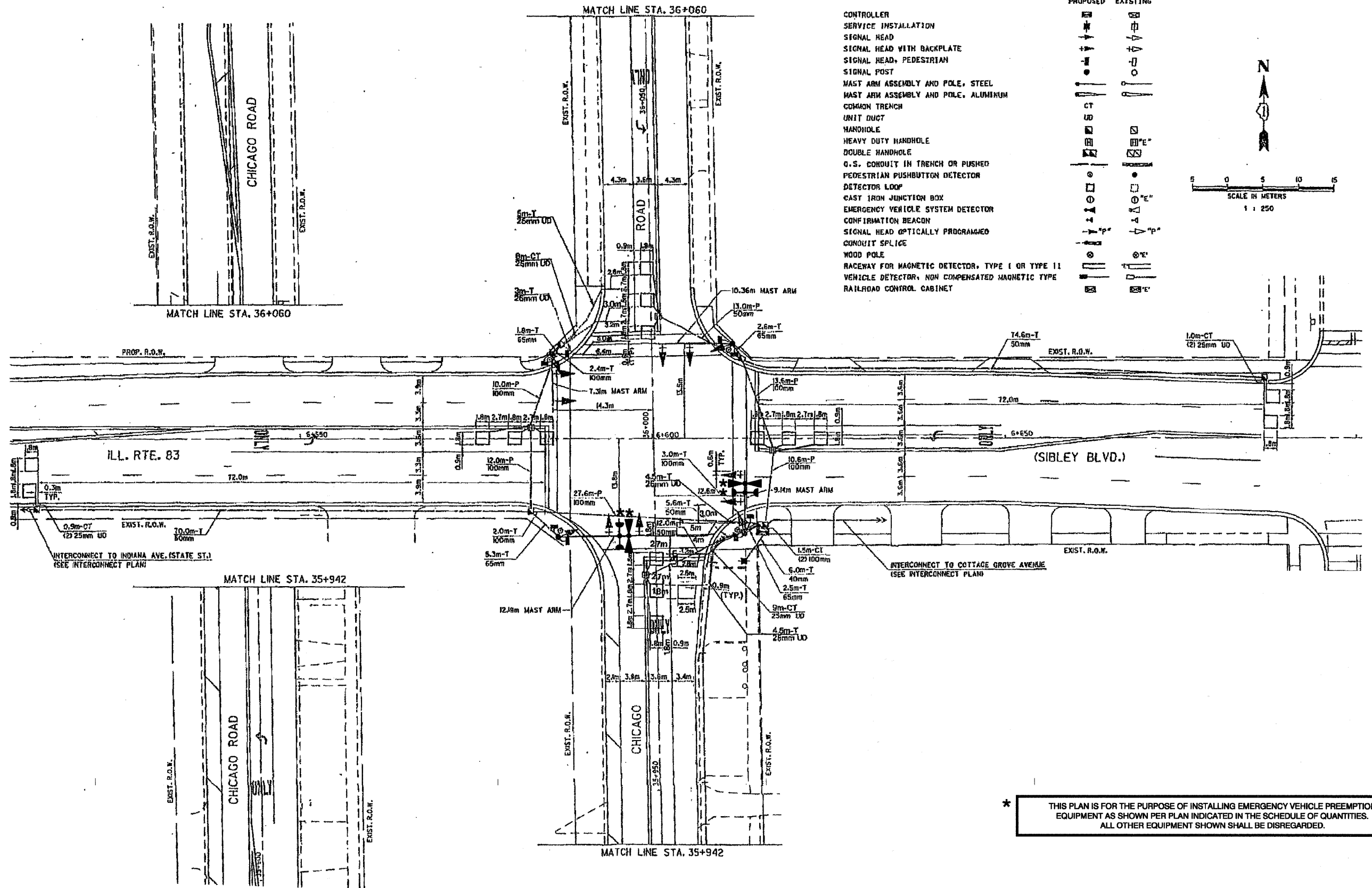
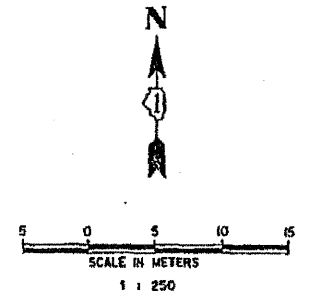
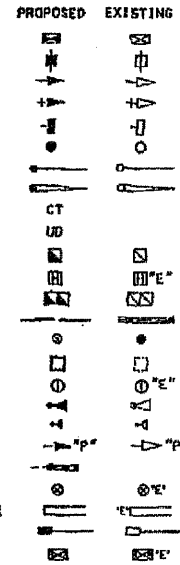
**\* THIS PLAN IS FOR THE PURPOSE OF INSTALLING EMERGENCY VEHICLE PREEMPTION EQUIPMENT AS SHOWN PER PLAN INDICATED IN THE SCHEDULE OF QUANTITIES. ALL OTHER EQUIPMENT SHOWN SHALL BE DISREGARDED.**

**\* ADDED EV PREEMPTION LOCATION NO. 2**



TRAFFIC SIGNAL LEGEND

- CONTROLLER
- SERVICE INSTALLATION
- SIGNAL HEAD
- SIGNAL HEAD WITH BACKPLATE
- SIGNAL HEAD, PEDESTRIAN
- SIGNAL POST
- MAST ARM ASSEMBLY AND POLE, STEEL
- MAST ARM ASSEMBLY AND POLE, ALUMINUM
- COMMON TRENCH
- UNIT DUCT
- HANDHOLE
- HEAVY DUTY HANDHOLE
- DOUBLE HANDHOLE
- G.S. CONDUIT IN TRENCH OR PUSHED
- PEDESTRIAN PUSHBUTTON DETECTOR
- DETECTOR LOOP
- CAST IRON JUNCTION BOX
- EMERGENCY VEHICLE SYSTEM DETECTOR
- CONFIRMATION BEACON
- SIGNAL HEAD OPTICALLY PROGRAMMED
- CONDUIT SPLICE
- WOOD POLE
- RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II
- VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE
- RAILROAD CONTROL CABINET



\* THIS PLAN IS FOR THE PURPOSE OF INSTALLING EMERGENCY VEHICLE PREEMPTION EQUIPMENT AS SHOWN PER PLAN INDICATED IN THE SCHEDULE OF QUANTITIES. ALL OTHER EQUIPMENT SHOWN SHALL BE DISREGARDED.

\* ADDED EV PREEMPTION LOCATION NO. 3

FILE NAME = 0924-PLAN-05 - IDOT P01	USER NAME =	DESIGNED -- MRS	REVISED -- 10-13-08 *
		CHECKED -- PKB	REVISED --
	PLOT SCALE =	DRAWN -- PS	REVISED --
	PLOT DATE = 10-13-08	CHECKED -- AG	REVISED --

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

PROPOSED EMERGENCY VEHICLE PREEMPTION  
IL ROUTE 83 (SIBLEY BOULEVARD) & CHICAGO ROAD  
TRAFFIC SIGNAL PLAN

SCALE: AS SHOWN    SHEET NO. 9 OF 49 SHEETS    STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
397	09-00114-00-TL	COOK	43	9
CONTRACT NO. 63317				
FED. ROAD DIST. NO. 1    ILLINOIS    FED. AID PROJECT    ARA-9003(636)				

**SCHEDULE OF QUANTITIES**

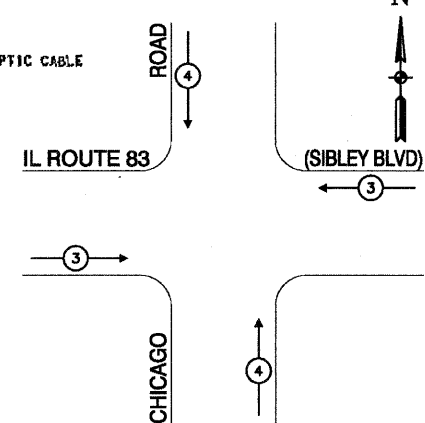
QUANTITY	UNIT	ITEM
1.6	SO M	SIGN PANEL - TYPE 1
2.6	SO M	SIGN PANEL - TYPE 2
4	EACH	SIGNAL HEAD, 1-FACE, 3-SECTION, MAST ARM MOUNTED
4	EACH	SIGNAL HEAD, 1-FACE, 8-SECTION, BRACKET MOUNTED
4	EACH	SIGNAL HEAD, 1-FACE, 5-SECTION, MAST ARM MOUNTED
4	EACH	PEDESTRIAN SIGNAL HEAD, 2-FACE, BRACKET MOUNTED
8	EACH	TRAFFIC SIGNAL BACKPLATE
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 7.14 METER
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 7.14 METER
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 10.36 METER
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 12.19 METER
1	EACH	FULL-AUTOMATED CONTROLLER AND TYPE IV CABINET
8	EACH	INDUCTIVE LOOP DETECTOR
222.1	METER	DETECTOR CORD, TYPE I
4	EACH	PEDESTRIAN PUSH-BUTTON
6	METER	CONDUIT IN TRENCH, 40MM DIA., GALVANIZED STEEL
150.2	METER	CONDUIT IN TRENCH, 50MM DIA., GALVANIZED STEEL
12.2	METER	CONDUIT IN TRENCH, 50MM DIA., GALVANIZED STEEL
6.9	METER	CONDUIT IN TRENCH, 50MM DIA., GALVANIZED STEEL
22	METER	CONDUIT PUSHED, 50MM DIA., GALVANIZED STEEL
73.8	METER	CONDUIT PUSHED, 50MM DIA., GALVANIZED STEEL
10	METER	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 8 2 C
171.6	METER	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C
363.2	METER	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C
210.98	METER	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 8C
407.76	METER	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C
447	METER	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR
1	EACH	SERVICE INSTALLATION, TYPE C
1.2	METER	CONCRETE FOUNDATION, TYPE D
3	METER	CONCRETE FOUNDATION, TYPE E 600MM DIAMETER
15.72	METER	CONCRETE FOUNDATION, TYPE E 750MM DIAMETER
5	EACH	HANDHOLE
4	EACH	HEAVY-DUTY HANDHOLE
1	EACH	DOUBLE HANDHOLE
184.8	METER	TRENCH AND BACKFILL FOR ELECTRICAL WORK
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
9	EACH	REMOVE EXISTING HANDHOLE
1	EACH	REMOVE EXISTING CONCRETE FOUNDATION
1	EACH	TEMPORARY TRAFFIC SIGNAL INSTALLATION
1	EACH	TRANSCIVER - FIBER OPTIC



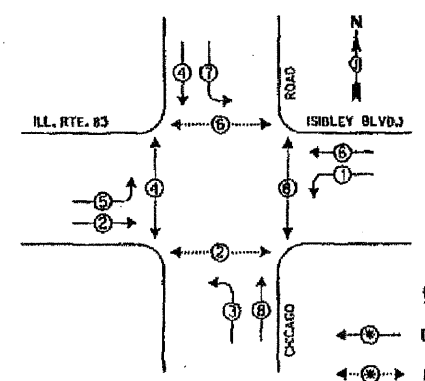
**CABLE PLAN LEGEND**

EXISTING	PROPOSED	DESCRIPTION
		8" (200 mm) TRAFFIC SIGNAL SECTION
		12" (300 mm) TRAFFIC SIGNAL SECTION
		12" (300 mm) PEDESTRIAN SIGNAL SECTION
		CONTROLLER CABINET
		SERVICE INSTALLATION
		VEHICLE DETECTOR, INDUCTION LOOP
		MAGNETIC DETECTOR
		EMERGENCY VEHICLE LIGHT DETECTOR
		CONFIRMATION BEACON
		PUSHBUTTON DETECTOR
		DENOTES NUMBER OF CONDUCTORS.
		ALL CABLE NO. 14 EXCEPT AS INDICATED.
		ALL LOOP DETECTOR CABLE TO BE SHIELDED.
		SIGNAL FACE WITH BACKPLATE.
		"P" INDICATES PROGRAMMED HEAD.

**EMERGENCY VEHICLE \*  
PREEMPTION SEQUENCE**



**CONTROLLER SEQUENCE**  
REFERRING TO STANDARD 087001, THE VEHICULAR AND PEDESTRIAN PHASES USED ARE DESIGNATED BELOW.



**LEGEND**  
 DUAL ENTRY PHASE  
 PEDESTRIAN PHASE  
 \* NUMBER REFERS TO ASSOCIATED PHASE

**PHASE DESIGNATION DIAGRAM**  
 DUAL ENTRY - ALL LEGS  
 PROTECTED/PERMITTED LEFT TURN PHASING

THE END OF THE TRACER CABLE SHALL BE TIED TO A CABLE HOOK IN THE DOUBLE HANDHOLE CLOSEST TO THE CONTROLLER FOUNDATION.

THE END OF THE TRACER CABLE SHALL BE TIED TO A CABLE HOOK IN THE DOUBLE HANDHOLE CLOSEST TO THE CONTROLLER FOUNDATION.

**NOTE:**  
 PUSHBUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4.  
 PUSHBUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6.  
 PUSHBUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8.  
 PUSHBUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8.

**\* SCHEDULE OF QUANTITIES**

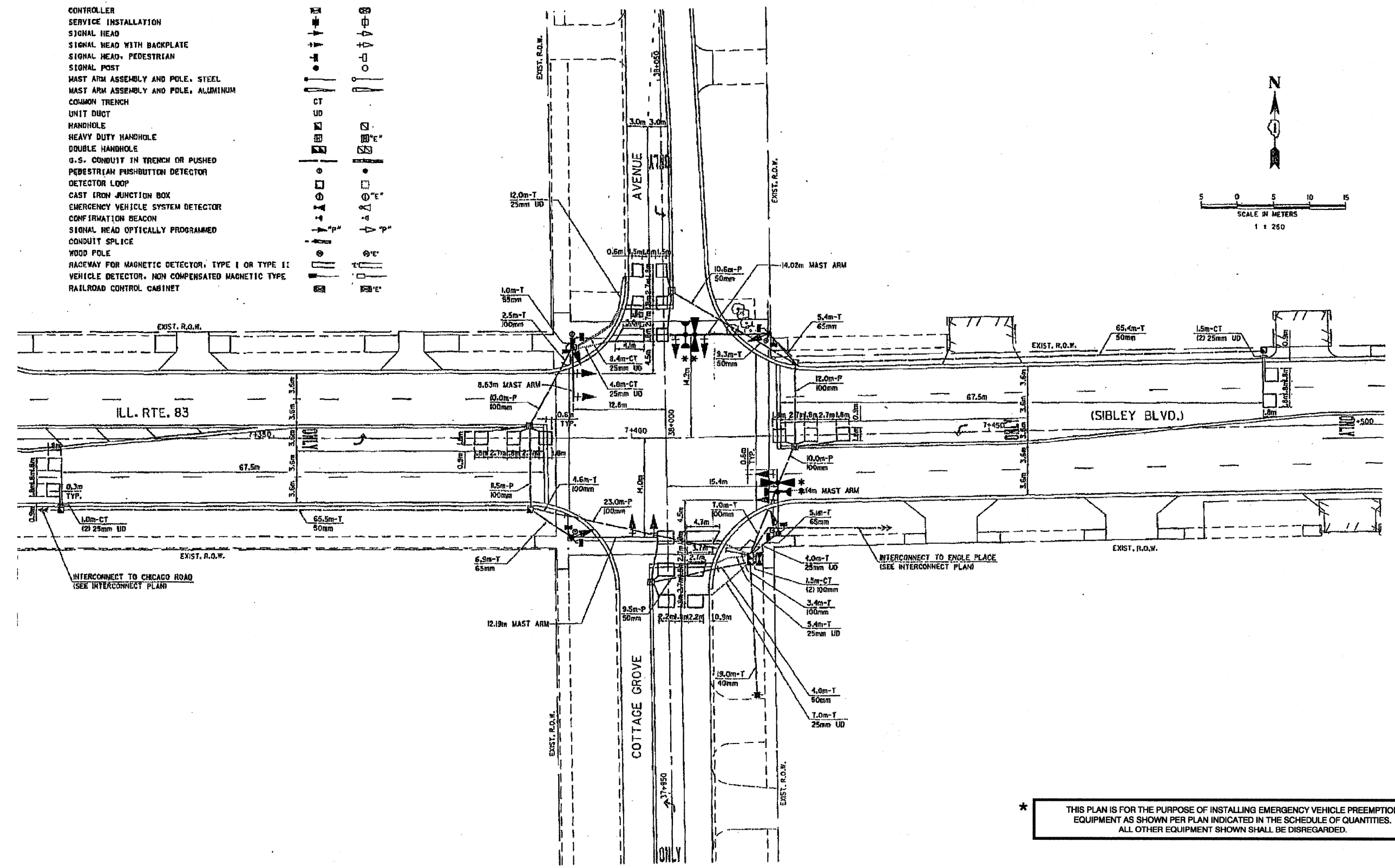
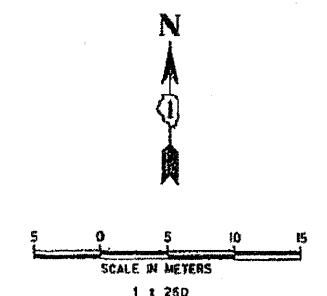
ITEM	UNIT	QUAN
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	289
LIGHT DETECTOR	EACH	2
LIGHT DETECTOR AMPLIFIER	EACH	1
MODIFY EXISTING CONTROLLER	EACH	1
ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED	FOOT	289

\* THIS PLAN IS FOR THE PURPOSE OF INSTALLING EMERGENCY VEHICLE PREEMPTION EQUIPMENT AS SHOWN PER PLAN INDICATED IN THE SCHEDULE OF QUANTITIES. ALL OTHER EQUIPMENT SHOWN SHALL BE DISREGARDED.

**\* ADDED BY PREEMPTION  
LOCATION NO. 3**

TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING
CONTROLLER		
SERVICE INSTALLATION		
SIGNAL HEAD		
SIGNAL HEAD WITH BACKPLATE		
SIGNAL HEAD - PEDESTRIAN		
SIGNAL POST		
MAST ARM ASSEMBLY AND POLE, STEEL		
MAST ARM ASSEMBLY AND POLE, ALUMINUM		
COMMON TRENCH		
UNIT DUCT		
HANDHOLE		
HEAVY DUTY HANDHOLE		
DOUBLE HANDHOLE		
G.S. CONDUIT IN TRENCH OR PUSHED		
PEDESTRIAN PUSHBUTTON DETECTOR		
DETECTOR LOOP		
CAST IRON JUNCTION BOX		
EMERGENCY VEHICLE SYSTEM DETECTOR		
CONFIRMATION BEACON		
SIGNAL HEAD OPTICALLY PROGRAMMED		
CONDUIT SPLICE		
WOOD POLE		
RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II		
VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE		
RAILROAD CONTROL CABINET		



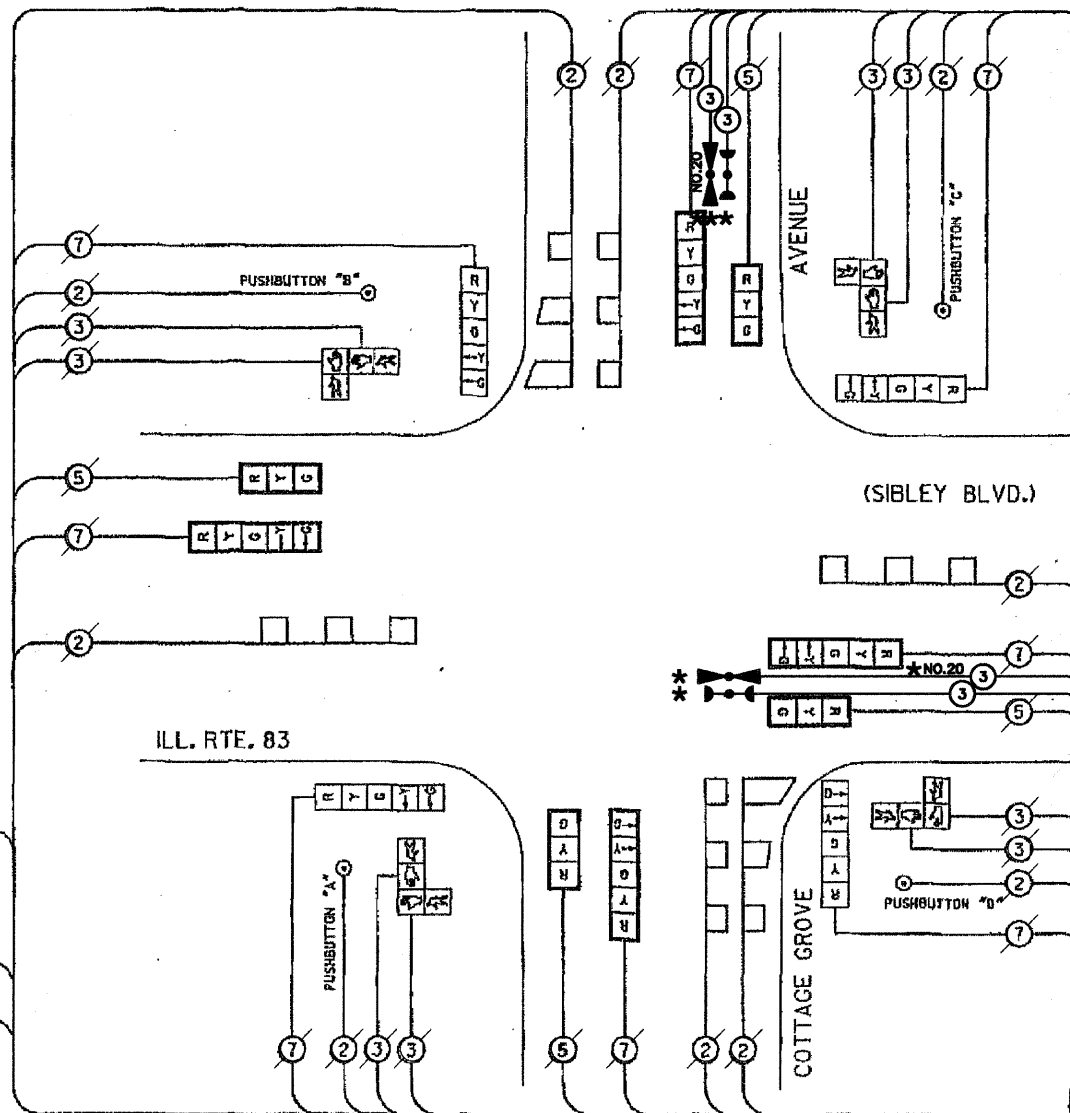
FILE NAME = 06224-PLAN06 - I.DOT P01	USER NAME =	DESIGNED - MRS	REVISED - 10-13-09 *	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PROPOSED EMERGENCY VEHICLE PREEMPTION IL ROUTE 83 (SIBLEY BOULEVARD) & COTTAGE GROVE AVENUE TRAFFIC SIGNAL PLAN	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
PLOT SCALE =	DRAWN - PS	CHECKED - PKB	REVISED -			397	09-00114-00-TL	COOK	43	11	
PLOT DATE = 10-13-09	CHECKED - AG	REVISED -	REVISED -			CONTRACT NO. 63317					
						FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT ARA-9003(336)					

SCHEDULE OF QUANTITIES

QUANTITY	UNIT	ITEM
5.4	SD M	SIGN PANEL - TYPE 2
4	EACH	SIGNAL HEAD, 1-FACE, 3-SECTION, MAST ARM MOUNTED
4	EACH	SIGNAL HEAD, 1-FACE, 5-SECTION, BRACKET MOUNTED
4	EACH	SIGNAL HEAD, 1-FACE, 5-SECTION, MAST ARM MOUNTED
4	EACH	PEDESTRIAN SIGNAL HEAD, 2-FACE, BRACKET MOUNTED
0	EACH	TRAFFIC SIGNAL BACKPLATE
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 8.53 METER
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 9.14 METER
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 12.19 METER
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 14.02 METER
1	EACH	FLEX-ACTUATED CONTROLLER AND TYPE IV CABINET
1	EACH	INDUCTIVE LOOP DETECTOR
217.6	METER	DETECTOR LOOP, TYPE I
4	EACH	PEDESTRIAN PUSH-BUTTON
19	METER	CONDUIT IN TRENCH, 100MM DIA, GALVANIZED STEEL
144.2	METER	CONDUIT IN TRENCH, 50MM DIA, GALVANIZED STEEL
18.4	METER	CONDUIT IN TRENCH, 60MM DIA, GALVANIZED STEEL
17.9	METER	CONDUIT IN TRENCH, 100MM DIA, GALVANIZED STEEL
20.1	METER	CONDUIT PIPED, 50MM DIA, GALVANIZED STEEL
66.5	METER	CONDUIT PIPED, 100MM DIA, GALVANIZED STEEL
28.5	METER	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C
181.4	METER	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C
382.8	METER	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C
224.6	METER	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C
432.2	METER	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C
449.8	METER	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 RAR
1	EACH	SERVICE INSTALLATION, TYPE C
1.2	METER	CONCRETE FOUNDATION, TYPE D
3	METER	CONCRETE FOUNDATION, TYPE E 600MM DIAMETER
13.72	METER	CONCRETE FOUNDATION, TYPE E 750MM DIAMETER
5	EACH	HANDHOLE
4	EACH	HEAVY-DUTY HANDHOLE
1	EACH	DOUBLE HANDHOLE
230	METER	TRENCH AND BACKFILL FOR ELECTRICAL WORK
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
1	EACH	REMOVE EXISTING HANDHOLE
9	EACH	REMOVE EXISTING CONCRETE FOUNDATION
1	EACH	TEMPORARY TRAFFIC SIGNAL INSTALLATION
1	EACH	TRANSCEIVER - FIBER OPTIC

CABLE PLAN LEGEND

EXISTING	PROPOSED	DESCRIPTION
		8" (200 mm) TRAFFIC SIGNAL SECTION
		12" (300 mm) TRAFFIC SIGNAL SECTION
		12" (300 mm) PEDESTRIAN SIGNAL SECTION
		12" (300 mm) PEDESTRIAN SIGNAL SECTION
		CONTROLLER CABINET
		SERVICE INSTALLATION
		VEHICLE DETECTOR, INDUCTION LOOP
		MAGNETIC DETECTOR
		EMERGENCY VEHICLE LIGHT DETECTOR
		CONFIRMATION BEACON
		PUSHBUTTON DETECTOR
		DENOTES NUMBER OF CONDUCTORS.
		ALL CABLE NO. 14 EXCEPT AS INDICATED.
		ALL LOOP DETECTOR CABLE TO BE SHIELDED.
		SIGNAL FACE WITH BACKPLATE.
		"P" INDICATES PROGRAMMED HEAD.
		NO. 62.5/125 12F FIBER OPTIC CABLE



THE END OF THE TRACER CABLE SHALL BE TIED TO A CABLE HOOK IN THE DOUBLE HANDHOLE CLOSEST TO THE CONTROLLER FOUNDATION.

TRACER CABLE  
 INTERCONNECT TO CHICAGO ROAD  
 No. 62.5/125 12F FIBER OPTIC CABLE

INTERCONNECT TO FIRE STATION EMERGENCY VEHICLE PUSHBUTTON ASSEMBLY (SEE INTERCONNECT PLAN)

THE END OF THE TRACER CABLE SHALL BE TIED TO A CABLE HOOK IN THE DOUBLE HANDHOLE CLOSEST TO THE CONTROLLER FOUNDATION.

TRACER CABLE  
 INTERCONNECT TO ENGLE PLACE  
 No. 62.5/125 12F FIBER OPTIC CABLE

NOTE:  
 PUSHBUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4.  
 PUSHBUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6.  
 PUSHBUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8.  
 PUSHBUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8.

\* SCHEDULE OF QUANTITIES

ITEM	UNIT	QUAN
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	306
LIGHT DETECTOR	EACH	2
LIGHT DETECTOR AMPLIFIER	EACH	1
MODIFY EXISTING CONTROLLER	EACH	1
ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED	FOOT	306

\* THIS PLAN IS FOR THE PURPOSE OF INSTALLING EMERGENCY VEHICLE PREEMPTION EQUIPMENT AS SHOWN PER PLAN INDICATED IN THE SCHEDULE OF QUANTITIES. ALL OTHER EQUIPMENT SHOWN SHALL BE DISREGARDED.

\* ADDED EV PREEMPTION LOCATION NO. 4

FILE NAME = 0924-PLAN-06 - I.DOT P02

USER NAME =	DESIGNED - MRS	REVISED - 10-13-09 *
PLOT SCALE =	CHECKED - PKB	REVISED -
PLOT DATE = 10-13-09	DRAWN - PS	REVISED -
	CHECKED - AG	REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

PROPOSED EMERGENCY VEHICLE PREEMPTION  
 IL ROUTE 83 (SIBLEY BOULEVARD) & COTTAGE GROVE AVENUE  
 SCHEDULE OF QUANTITIES, CABLE PLAN, & PHASE DESIGNATION DIAGRAM

SCALE: NTS SHEET NO. 12 OF 43 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
397	09-00114-00-TL	COOK	43	12
CONTRACT NO. 63317				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT ARA-9003(336)				



**PROPOSED EMERGENCY VEHICLE PREEMPTION  
SEQUENCE OF OPERATION**

CHANGE FROM NORMAL SEQUENCE OF OPERATION INTERVAL NUMBER	1		5				10				15				18				22				27				31				PREEMPTOR NUMBER 3	PREEMPTOR NUMBER 4	PREEMPTOR NUMBER 5	RESUME NORMAL SEQUENCE
	1A	1B	1C	1D	1E	1F	1G	1H	1J	1K	1L	1M	1N	1P	1Q	1R	1S	1T	1U	1V	1W	1X	1Y	1Z	1AA	1AB	1AC	1AD	1AE	1AF	2	3	4	
EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER	1B	2,3 OR 4	1D	1E	2 OR 4	1G	3	1J	1K	2 OR 4	1M	3	1P	1Q	2 OR 4	3	1T	2,3 OR 4	1V	1W	2 OR 3	1Y	4	1AA	2 OR 3	4	1AD	1AE	2 OR 3	4				
CHANGE TO EMERGENCY VEHICLE PREEMPTION SEQUENCE INTERVAL	1B	2,3 OR 4	1D	1E	2 OR 4	1G	3	1J	1K	2 OR 4	1M	3	1P	1Q	2 OR 4	3	1T	2,3 OR 4	1V	1W	2 OR 3	1Y	4	1AA	2 OR 3	4	1AD	1AE	2 OR 3	4				
ILL 83 E/B FAR RIGHT SIGNAL	R	R	G	Y	R	G	G	R	R	R	R	R	G	Y	R	G	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	
ILL 83 E/B FAR LEFT AND END MAST ARM SIGNALS	R	R	G	Y	R	G	G	R	R	R	R	R	G	Y	R	G	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	
ILL 83 W/B FAR RIGHT SIGNAL	R	R	R	R	R	R	R	G	Y	R	G	G	G	Y	R	G	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	
ILL 83 W/B FAR LEFT AND END MAST ARM SIGNALS	R	R	R	R	R	R	R	G	Y	R	G	G	G	Y	R	G	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	
GREENWOOD RD. N/B FAR RIGHT SIGNAL	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	
GREENWOOD RD. N/B FAR LEFT AND END MAST ARM SIGNALS	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	
GREENWOOD RD. S/B FAR RIGHT SIGNAL	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	
GREENWOOD RD. S/B FAR LEFT AND END MAST ARM SIGNALS	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	
PEDESTRIAN SIGNALS CROSSING ON SOUTH SIDE OF GREENWOOD RD.	DW	DW	FL DW	DW	DW	FL DW	DW	DW	DW	DW	DW	DW	FL DW	DW	DW	FL DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	
PEDESTRIAN SIGNALS CROSSING ON NORTH SIDE OF GREENWOOD RD.	DW	DW	DW	DW	DW	DW	DW	FL DW	DW	DW	FL DW	DW	FL DW	DW	DW	FL DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	
PEDESTRIAN SIGNALS CROSSING ON EAST SIDE OF ILL. 83	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	

\* TO APPEAR ONLY UPON PUSHBUTTON ACTIVATION

\*\* FLASHING "DON'T WALK" IS TO TERMINATE AT THE COMPLETION OF THE PEDESTRIAN INTERVAL CLEARANCE.

⊕ THIS "WALK" OR FLASHING "DON'T WALK" INTERVAL MAY FINISH TIMING IN THE BIDIRECTIONAL STRAIGHT THROUGH MOVEMENT IF THE LEFT ARROW TIME IS NOT SUFFICIENT TO COMPLETE "WALK" OR FLASHING "DON'T WALK" INTERVALS.

W = "WALK"

FL DW = FLASHING "DON'T WALK"

DW = "DON'T WALK"

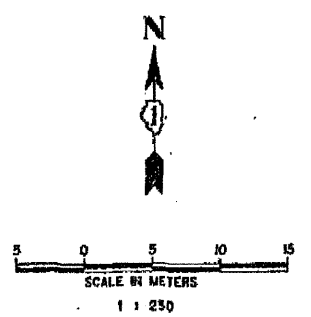
◇ EMERGENCY VEHICLE SEQUENCE SHALL PROVIDE THE PROPER CLEARANCE INTERVAL TO RESUME THE NORMAL SEQUENCE OF OPERATION ON PROPER CLEARANCE INTERVAL TO DISPLAY A DIFFERENT EMERGENCY INTERVAL AFTER EMERGENCY VEHICLE INTERVAL 2 IS TERMINATED.

FIRE STATION PUSH BUTTON SHALL CALL EVP SEQUENCE 2, PREEMPTOR 3.

\* THIS PLAN IS FOR THE PURPOSE OF INSTALLING EMERGENCY VEHICLE PREEMPTION EQUIPMENT AS SHOWN PER PLAN INDICATED IN THE SCHEDULE OF QUANTITIES. ALL OTHER EQUIPMENT SHOWN SHALL BE DISREGARDED.

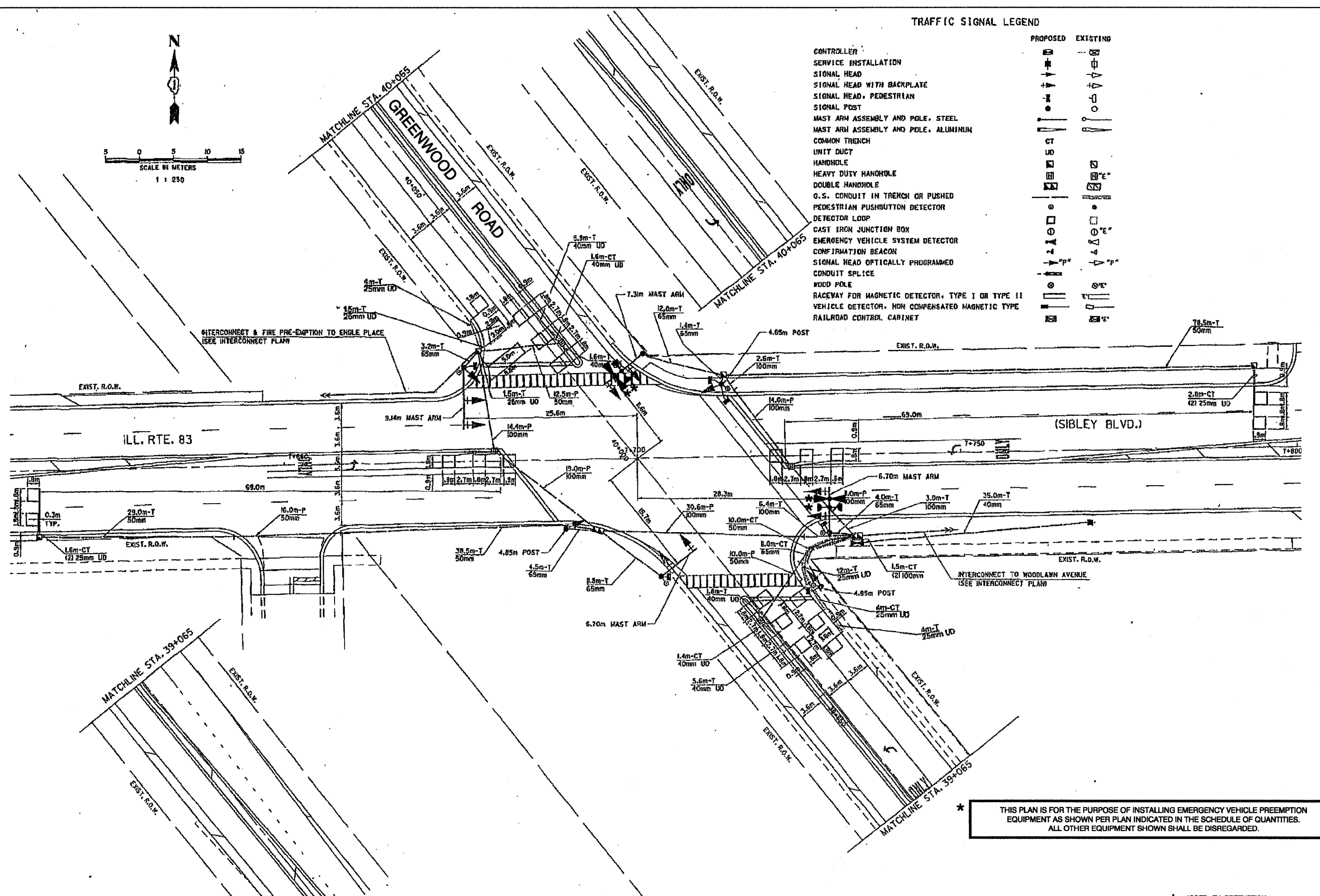
\* ADDED EV PREEMPTION LOCATION NO. 4

FILE NAME = 0924-PLAN-06 - IDOT P04	USER NAME =	DESIGNED -- MRS	REVISED -- 10-13-09 *	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>PROPOSED EMERGENCY VEHICLE PREEMPTION IL ROUTE 83 (SIBLEY BOULEVARD) &amp; COTTAGE GROVE AVENUE SEQUENCE OF OPERATION &amp; EMERGENCY VEHICLE PRIORITY SEQUENCE</b>	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	CHECKED -- PKB	REVISED --	397			09-00114-00-TL	COOK	43	14	
	PLOT SCALE =	DRAWN -- PS	REVISED --			CONTRACT NO. 63317				
	PLOT DATE = 10-13-09	CHECKED -- AG	REVISED --			FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT	ARA-9003(336)	
					SCALE: NTS	SHEET NO. 14 OF 43 SHEETS	STA. TO STA.			



**TRAFFIC SIGNAL LEGEND**

	PROPOSED	EXISTING
CONTROLLER		
SERVICE INSTALLATION		
SIGNAL HEAD		
SIGNAL HEAD WITH BACKPLATE		
SIGNAL HEAD, PEDESTRIAN		
SIGNAL POST		
MAST ARM ASSEMBLY AND POLE, STEEL		
MAST ARM ASSEMBLY AND POLE, ALUMINUM		
COMMON TRENCH		
UNIT DUCT		
HANDHOLE		
HEAVY DUTY HANDHOLE		
DOUBLE HANDHOLE		
G.S. CONDUIT IN TRENCH OR PUSHED		
PEDESTRIAN PUSHBUTTON DETECTOR		
DETECTOR LOOP		
CAST IRON JUNCTION BOX		
EMERGENCY VEHICLE SYSTEM DETECTOR		
CONFIRMATION BEACON		
SIGNAL HEAD OPTICALLY PROGRAMMED		
CONDUIT SPLICE		
WOOD POLE		
RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II		
VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE		
RAILROAD CONTRL. CABINET		



\* THIS PLAN IS FOR THE PURPOSE OF INSTALLING EMERGENCY VEHICLE PREEMPTION EQUIPMENT AS SHOWN PER PLAN INDICATED IN THE SCHEDULE OF QUANTITIES. ALL OTHER EQUIPMENT SHOWN SHALL BE DISREGARDED.

**\* ADDED EV PREEMPTION LOCATION NO. 5**

FILE NAME = 0924-PLAN-07-1DOT P01	USER NAME =	DESIGNED — MRS	REVISED — 10-13-09 *
		CHECKED — PKB	REVISED —
	PLOT SCALE =	DRAWN — PS	REVISED —
	PLOT DATE = 10-13-09	CHECKED — AG	REVISED —

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**PROPOSED EMERGENCY VEHICLE PREEMPTION  
IL ROUTE 83 (SIBLEY BOULEVARD) & GREENWOOD ROAD  
TRAFFIC SIGNAL PLAN**

SCALE: AS SHOWN SHEET NO. 15 OF 43 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
397	09-00114-00-TL	COOK	43	15
CONTRACT NO. 63317				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT ARA-9003(336)				

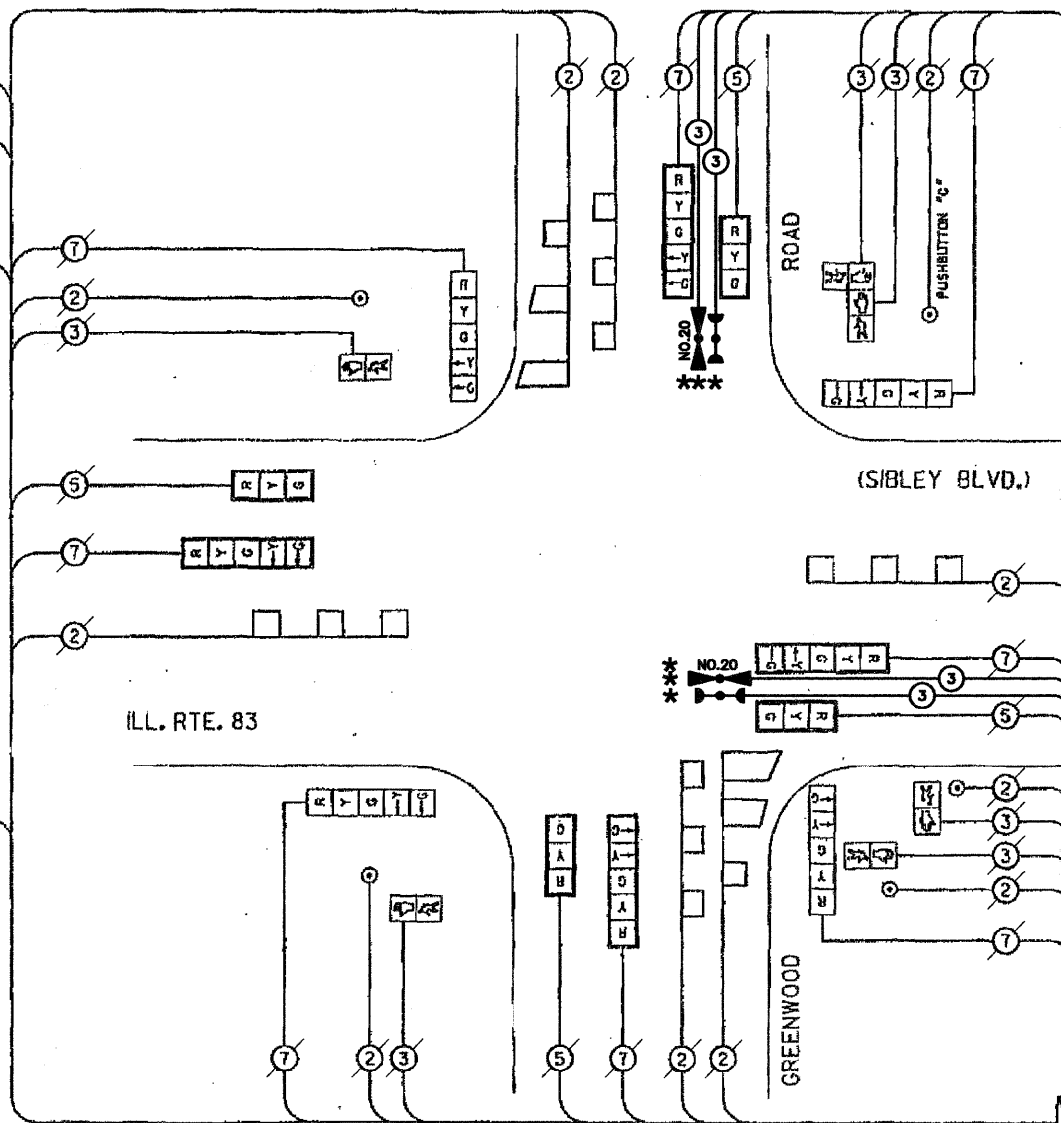
THE END OF THE TRACER CABLE SHALL BE TIED TO A CABLE HOOK IN THE DOUBLE HANDHOLE CLOSEST TO THE CONTROLLER FOUNDATION.

TRACER CABLE  
 INTERCONNECT TO ENGLE PLACE  
 No. 62.5/125 12F FIBER OPTIC CABLE  
 FIRE PREEMPTION CABLE TO ENGLE PLACE



CABLE PLAN LEGEND

- |          |          |   |
|----------|----------|---|
| EXISTING | PROPOSED |   |
|          |          | 8" (200 mm) TRAFFIC SIGNAL SECTION  |
|          |          | 12" (300 mm) TRAFFIC SIGNAL SECTION   |
|          |          | 12" (300 mm) PEDESTRIAN SIGNAL SECTION  |
|          |          | 12" (300 mm) PEDESTRIAN SIGNAL SECTION  |
|          |          | CONTROLLER CABINET  |
|          |          | SERVICE INSTALLATION  |
|          |          | VEHICLE DETECTOR, INDUCTION LOOP  |
|          |          | MAGNETIC DETECTOR   |
|          |          | EMERGENCY VEHICLE LIGHT DETECTOR  |
|          |          | CONFIRMATION BEACON   |
|          |          | PUSHBUTTON DETECTOR   |
|          |          | DENOTES NUMBER OF CONDUCTORS.<br>ALL CABLE NO. 14 EXCEPT AS INDICATED.<br>ALL LOOP DETECTOR CABLE TO BE SHIELDED. |
|          |          | SIGNAL FACE WITH BACKPLATE.<br>"P" INDICATES PROGRAMMED HEAD.   |
|          |          | No. 62.5/125 12F FIBER OPTIC CABLE  |



THE END OF THE TRACER CABLE SHALL BE TIED TO A CABLE HOOK IN THE DOUBLE HANDHOLE CLOSEST TO THE CONTROLLER FOUNDATION.

TRACER CABLE  
 INTERCONNECT TO WOODLAWN AVENUE  
 No. 62.5/125 12F FIBER OPTIC CABLE

SCHEDULE OF QUANTITIES

QUANTITY	UNIT	ITEM
18	SQ M	SIGN PANEL - TYPE 1
2.6	SQ M	SIGN PANEL - TYPE 2
4	EACH	SIGNAL HEAD, 1-FACE, 3-SECTION, MAST ARM MOUNTED
4	EACH	SIGNAL HEAD, 1-FACE, 5-SECTION, BRACKET MOUNTED
4	EACH	SIGNAL HEAD, 1-FACE, 8-SECTION, MAST ARM MOUNTED
4	EACH	PEDESTRIAN SIGNAL HEAD, 1-FACE, BRACKET MOUNTED
1	EACH	PEDESTRIAN SIGNAL HEAD, 2-FACE, BRACKET MOUNTED
8	EACH	TRAFFIC SIGNAL BACKPLATE
3	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 4.85 METER
2	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 6.70 METER
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 7.31 METER
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 9.14 METER
1	EACH	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET
8	EACH	INDUCTIVE LOOP DETECTOR
195.0	METER	DETECTOR LOOP, TYPE
5	EACH	PEDESTRIAN PUSH-BUTTON
35	METER	CONDUIT IN TRENCH, 40MM DIA, GALVANIZED STEEL
185	METER	CONDUIT IN TRENCH, 60MM DIA, GALVANIZED STEEL
45.5	METER	CONDUIT IN TRENCH, 85MM DIA, GALVANIZED STEEL
15	METER	CONDUIT IN TRENCH, 100MM DIA, GALVANIZED STEEL
30.5	METER	CONDUIT PUSHED, 80MM DIA, GALVANIZED STEEL
89	METER	CONDUIT PUSHED, 100MM DIA, GALVANIZED STEEL
39	METER	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 8 2C
230.4	METER	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C
290.4	METER	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C
292	METER	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C
486.4	METER	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C
554.9	METER	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR
1	EACH	SERVICE INSTALLATION, TYPE C
3.6	METER	CONCRETE FOUNDATION, TYPE A
1.2	METER	CONCRETE FOUNDATION, TYPE B
9.15	METER	CONCRETE FOUNDATION, TYPE E 600MM DIAMETER
4.57	METER	CONCRETE FOUNDATION, TYPE E 750MM DIAMETER
4	EACH	HANDHOLE
4	EACH	HEAVY-DUTY HANDHOLE
2	EACH	DOUBLE HANDHOLE
279.3	METER	TRENCH AND BACKFILL FOR ELECTRICAL WORK
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
1	EACH	REMOVE EXISTING HANDHOLE
10	EACH	REMOVE EXISTING CONCRETE FOUNDATION
1	EACH	TEMPORARY TRAFFIC SIGNAL INSTALLATION
1	EACH	TRANSCIVER - FIBER OPTIC

NOTE:  
 PUSHBUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8.

\* SCHEDULE OF QUANTITIES

ITEM	UNIT	QUAN
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	284
LIGHT DETECTOR	EACH	2
LIGHT DETECTOR AMPLIFIER	EACH	1
MODIFY EXISTING CONTROLLER	EACH	1
ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED	FOOT	284

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\* ADDED EV PREEMPTION LOCATION NO. 5





**PROPOSED EMERGENCY VEHICLE PREEMPTION  
SEQUENCE OF OPERATION**

CHANGE FROM NORMAL SEQUENCE OF OPERATION INTERVAL NUMBER																																	PREEMPTOR NUMBER 3	PREEMPTOR NUMBER 4	PREEMPTOR NUMBER 5	RESUME NORMAL SEQUENCE												
	1	5					10					15					18			22					27					32					2		3	4										
EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER	1A	1B	1C	1D	1E	1F	1G	1H	1J	1K	1L	1M	1N	1P	1Q	1R	1S	1T	1U	1V	1W	1X	1Y	1Z	1AA	1AB	1AC	1AD	1AE	1AF	1AG	1AH	2	3	4													
CHANGE TO EMERGENCY VEHICLE PREEMPTION SEQUENCE INTERVAL	1B	2,3 OR 4	1D	1E	2 OR 4	1G	3	1J	1K	2 OR 4	1M	3	1P	1Q	2 OR 4	3	1T	2,3 OR 4	1V	1W	2 OR 3	1Y	4	1AA	1AB	2 OR 3	1AD	4	1AF	1AG	2 OR 3	4																
ILL 83 E/B FAR RIGHT SIGNAL	R	R	G	Y	R	G	G	R	R	R	R	R	G	Y	R	G	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	R	◇							
ILL 83 E/B FAR LEFT AND END MAST ARM SIGNALS	R	R	G	Y	R	G	G	R	R	R	R	R	G	Y	R	G	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	R	◇					
ILL 83 W/B FAR RIGHT SIGNAL	R	R	R	R	R	R	R	G	Y	R	G	G	G	Y	R	G	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	R	◇					
ILL 83 W/B FAR LEFT AND END MAST ARM SIGNALS	R	R	R	R	R	R	R	G	Y	R	G	G	G	Y	R	G	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	R	◇					
COTTAGE GROVE AVE. N/B FAR RIGHT SIGNAL	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	R	◇			
COTTAGE GROVE AVE. N/B FAR LEFT AND END MAST ARM SIGNALS	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	R	◇		
COTTAGE GROVE AVE. S/B FAR RIGHT SIGNAL	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	R	◇	
COTTAGE GROVE AVE. S/B FAR LEFT AND END MAST ARM SIGNALS	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	R	◇
PEDESTRIAN SIGNALS CROSSING ON SOUTH SIDE OF COTTAGE GROVE AVE.	DW	DW	FL DW	DW	DW	FL DW	DW	DW	DW	DW	DW	DW	FL DW	DW	DW	FL DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	◇		
PEDESTRIAN SIGNALS CROSSING ON WEST SIDE OF ILL. 83	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	◇		
PEDESTRIAN SIGNALS CROSSING ON NORTH SIDE OF COTTAGE GROVE AVE.	DW	DW	DW	DW	DW	DW	FL DW	DW	DW	FL DW	DW	FL DW	DW	DW	FL DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	◇		
PEDESTRIAN SIGNALS CROSSING ON EAST SIDE OF ILL. 83	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	FL DW	DW	DW	FL DW	DW	DW	DW	DW	FL DW	DW	FL DW	DW	DW	FL DW	DW	DW	FL DW	DW	DW	FL DW	DW	DW	DW	DW	DW	DW	DW	◇			

\* TO APPEAR ONLY UPON PUSHBUTTON ACTIVATION

\*\* FLASHING "DON'T WALK" IS TO TERMINATE AT THE COMPLETION OF THE PEDESTRIAN INTERVAL CLEARANCE.

◇ THIS "WALK" OR FLASHING "DON'T WALK" INTERVAL MAY FINISH TIMING IN THE BIDIRECTIONAL STRAIGHT THROUGH MOVEMENT IF THE LEFT ARROW TIME IS NOT SUFFICIENT TO COMPLETE "WALK" OR FLASHING "DON'T WALK" INTERVALS.

W = "WALK"

FL DW = FLASHING "DON'T WALK"

DW = "DON'T WALK"

\* THIS PLAN IS FOR THE PURPOSE OF INSTALLING EMERGENCY VEHICLE PREEMPTION EQUIPMENT AS SHOWN PER PLAN INDICATED IN THE SCHEDULE OF QUANTITIES. ALL OTHER EQUIPMENT SHOWN SHALL BE DISREGARDED.

◇ EMERGENCY VEHICLE SEQUENCE SHALL PROVIDE THE PROPER CLEARANCE INTERVAL TO RESUME THE NORMAL SEQUENCE OF OPERATION ON PROPER CLEARANCE INTERVAL TO DISPLAY A DIFFERENT EMERGENCY INTERVAL AFTER EMERGENCY VEHICLE INTERVAL 2 IS TERMINATED.

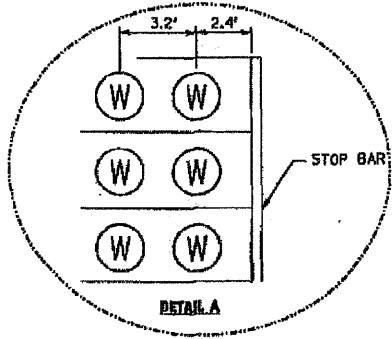
FIRE STATION PUSH BUTTON SHALL CALL EVP SEQUENCE 2, PREEMPTOR 3.

\* ADDED EV PREEMPTION LOCATION NO. 5

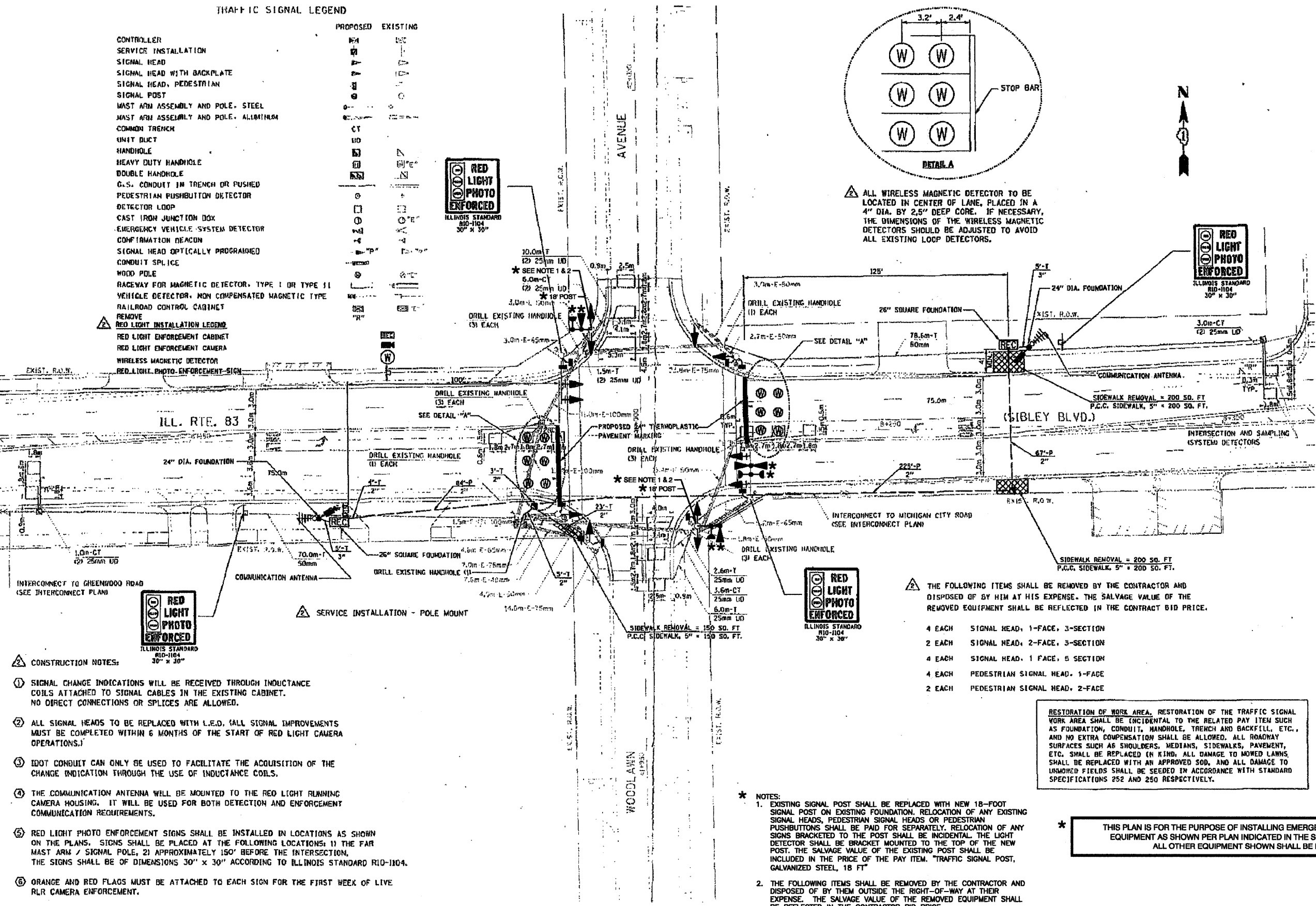
FILE NAME = 0924-PLAN-07 - IDOT P04	USER NAME =	DESIGNED -- MRS	REVISED -- 10-13-09 *	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>PROPOSED EMERGENCY VEHICLE PREEMPTION ILL ROUTE 83 (SIBLEY BOULEVARD) &amp; GREENWOOD ROAD SEQUENCE OF OPERATION &amp; EMERGENCY VEHICLE PRIORITY SEQUENCE</b>			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE =	CHECKED -- PKB	REVISED --					397	09-00114-00-TL	COOK	43	18
	PLOT DATE = 10-13-09	DRAWN -- PS	REVISED --					CONTRACT NO. 63317				
		CHECKED -- AG	REVISED --					FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT ARA-9003(336)				
					SCALE: NTS	SHEET NO. 18 OF 43 SHEETS	STA. TO STA.					

TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING
CONTROLLER	—	—
SERVICE INSTALLATION	—	—
SIGNAL HEAD	—	—
SIGNAL HEAD WITH BACKPLATE	—	—
SIGNAL HEAD, PEDESTRIAN	—	—
SIGNAL POST	—	—
MAST ARM ASSEMBLY AND POLE, STEEL	—	—
MAST ARM ASSEMBLY AND POLE, ALUMINUM	—	—
COMMON TRENCH	—	—
UNIT DUCT	—	—
HANDHOLE	—	—
HEAVY DUTY HANDHOLE	—	—
DOUBLE HANDHOLE	—	—
G.S. CONDUIT IN TRENCH OR PUSHED	—	—
PEDESTRIAN PUSHBUTTON DETECTOR	—	—
DETECTOR LOOP	—	—
CAST IRON JUNCTION BOX	—	—
EMERGENCY VEHICLE SYSTEM DETECTOR	—	—
CONFIRMATION DEACON	—	—
SIGNAL HEAD OPTICALLY PROGRAMMED	—	—
CONDUIT SPLICE	—	—
WOOD POLE	—	—
RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II	—	—
VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE	—	—
RAILROAD CONTROL CABINET	—	—
REMOVE RED LIGHT INSTALLATION LEGEND	—	—
RED LIGHT ENFORCEMENT CABINET	—	—
RED LIGHT ENFORCEMENT CAMERA	—	—
WIRELESS MAGNETIC DETECTOR	—	—
RED LIGHT PHOTO ENFORCEMENT SIGN	—	—



ALL WIRELESS MAGNETIC DETECTOR TO BE LOCATED IN CENTER OF LANE, PLACED IN A 4" DIA. BY 2.5" DEEP CORE. IF NECESSARY, THE DIMENSIONS OF THE WIRELESS MAGNETIC DETECTORS SHOULD BE ADJUSTED TO AVOID ALL EXISTING LOOP DETECTORS.



- CONSTRUCTION NOTES:
- SIGNAL CHANGE INDICATIONS WILL BE RECEIVED THROUGH INDUCTANCE COILS ATTACHED TO SIGNAL CABLES IN THE EXISTING CABINET. NO DIRECT CONNECTIONS OR SPLICES ARE ALLOWED.
  - ALL SIGNAL HEADS TO BE REPLACED WITH L.E.D. (ALL SIGNAL IMPROVEMENTS MUST BE COMPLETED WITHIN 6 MONTHS OF THE START OF RED LIGHT CAMERA OPERATIONS.)
  - IDOT CONDUIT CAN ONLY BE USED TO FACILITATE THE ACQUISITION OF THE CHANGE INDICATION THROUGH THE USE OF INDUCTANCE COILS.
  - THE COMMUNICATION ANTENNA WILL BE MOUNTED TO THE RED LIGHT RUNNING CAMERA HOUSING. IT WILL BE USED FOR BOTH DETECTION AND ENFORCEMENT COMMUNICATION REQUIREMENTS.
  - RED LIGHT PHOTO ENFORCEMENT SIGNS SHALL BE INSTALLED IN LOCATIONS AS SHOWN ON THE PLANS. SIGNS SHALL BE PLACED AT THE FOLLOWING LOCATIONS: 1) THE FAR MAST ARM / SIGNAL POLE, 2) APPROXIMATELY 150' BEFORE THE INTERSECTION. THE SIGNS SHALL BE OF DIMENSIONS 30" x 30" ACCORDING TO ILLINOIS STANDARD R10-1104.
  - ORANGE AND RED FLAGS MUST BE ATTACHED TO EACH SIGN FOR THE FIRST WEEK OF LIVE RLR CAMERA ENFORCEMENT.

THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND DISPOSED OF BY HIM AT HIS EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

- 4 EACH SIGNAL HEAD, 1-FACE, 3-SECTION
- 2 EACH SIGNAL HEAD, 2-FACE, 3-SECTION
- 4 EACH SIGNAL HEAD, 1-FACE, 5-SECTION
- 4 EACH PEDESTRIAN SIGNAL HEAD, 1-FACE
- 2 EACH PEDESTRIAN SIGNAL HEAD, 2-FACE

RESTORATION OF WORK AREA, RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOB, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDING IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

THIS PLAN IS FOR THE PURPOSE OF INSTALLING EMERGENCY VEHICLE PREEMPTION EQUIPMENT AS SHOWN PER PLAN INDICATED IN THE SCHEDULE OF QUANTITIES. ALL OTHER EQUIPMENT SHOWN SHALL BE DISREGARDED.

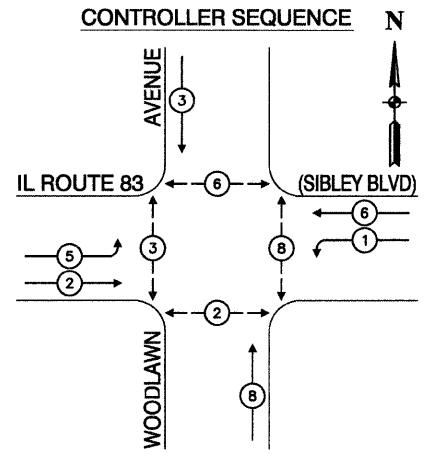
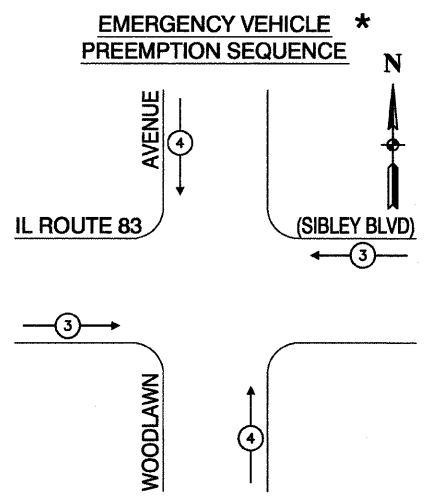
- NOTES:
- EXISTING SIGNAL POST SHALL BE REPLACED WITH NEW 18-FOOT SIGNAL POST ON EXISTING FOUNDATION. RELOCATION OF ANY EXISTING SIGNAL HEADS, PEDESTRIAN SIGNAL HEADS OR PEDESTRIAN PUSHBUTTONS SHALL BE PAID FOR SEPARATELY. RELOCATION OF ANY SIGNS BRACKETED TO THE POST SHALL BE INCIDENTAL. THE LIGHT DETECTOR SHALL BE BRACKET MOUNTED TO THE TOP OF THE NEW POST. THE SALVAGE VALUE OF THE EXISTING POST SHALL BE INCLUDED IN THE PRICE OF THE PAY ITEM. TRAFFIC SIGNAL POST, GALVANIZED STEEL, 18 FT
  - THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACTOR BID PRICE.

TRAFFIC SIGNAL POST, 16FT

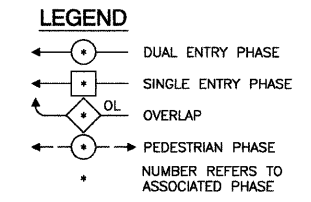
ADDED EV PREEMPTION LOCATION NO. 6

FILE NAME = 0824-PLAN-08 - I007 P01	USER NAME =	DESIGNED — MRS	REVISED — 10-13-09 *	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PROPOSED EMERGENCY VEHICLE PREEMPTION IL ROUTE 83 (SIBLEY BOULEVARD) & WOODLAWN AVENUE TRAFFIC SIGNAL PLAN		F.A.P. RTE. 397	SECTION 09-00114-00-TL	COUNTY COOK	TOTAL SHEETS 43	SHEET NO. 19	
	PLOT SCALE =	CHECKED — PKB	REVISED —		SCALE: AS SHOWN	SHEET NO. 19 OF 43 SHEETS	STA. TO STA.	CONTRACT NO. 63317		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT ARA-9003(336)		
	PLOT DATE = 10-13-09	DRAWN — PS	REVISED —									
		CHECKED — AG	REVISED —									





PROPOSED EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTORS	3	4
MOVEMENT	→	↑



**\* SCHEDULE OF QUANTITIES**

ITEM	UNIT	QUAN
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	515
LIGHT DETECTOR	EACH	3
LIGHT DETECTOR AMPLIFIER	EACH	1
RELOCATE EXISTING SIGNAL HEAD	EACH	4
RELOCATE EXISTING PEDESTRIAN SIGNAL HEAD	EACH	1
RELOCATE EXISTING PEDESTRIAN PUSH-BUTTON	EACH	1
MODIFY EXISTING CONTROLLER	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED	FOOT	515
TRAFFIC SIGNAL POST, GALVANIZED STEEL 18 FT	EACH	2

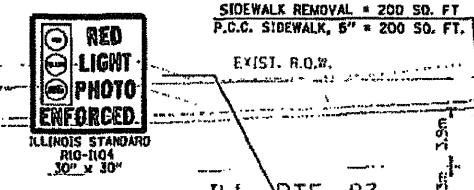
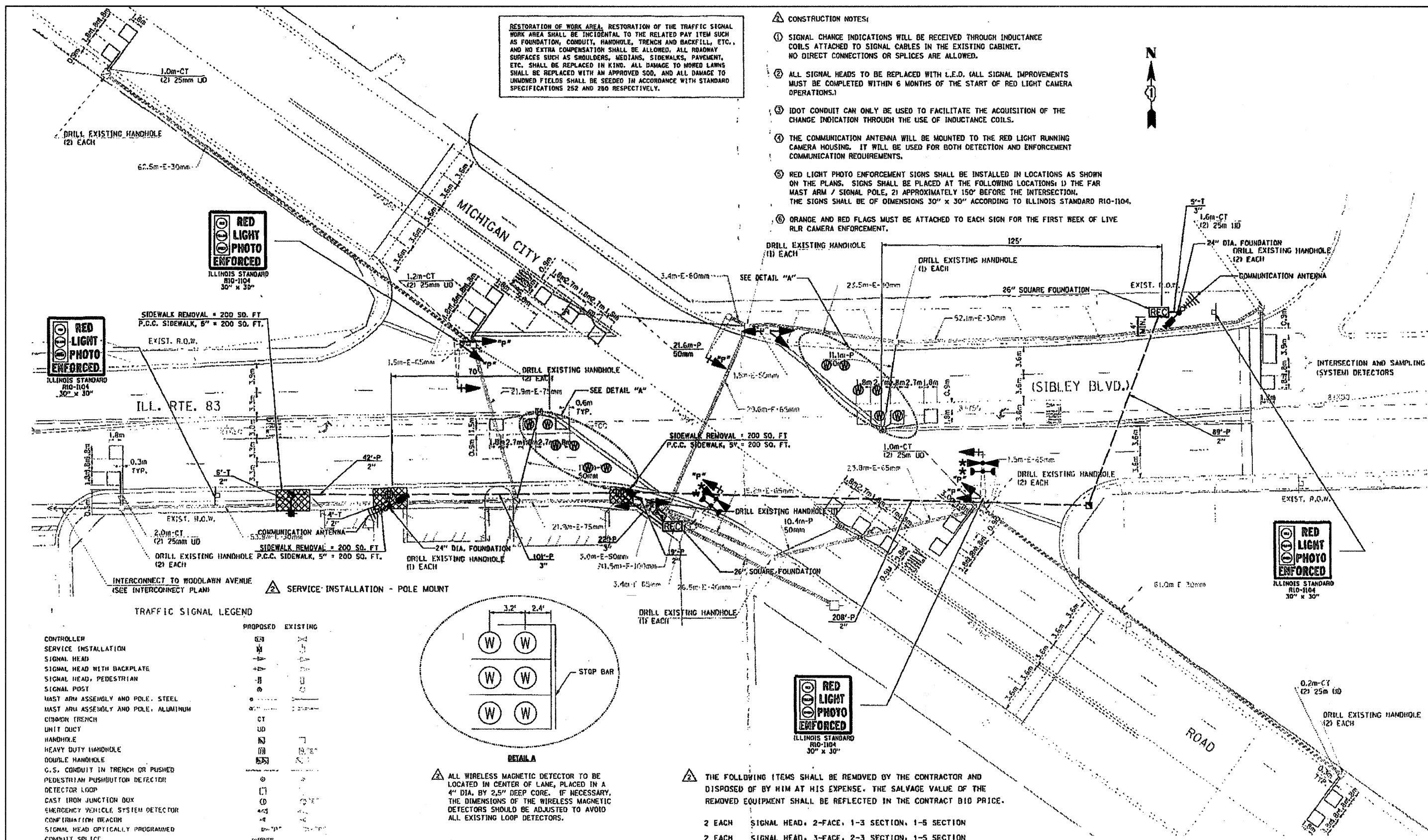
**\* THIS PLAN IS FOR THE PURPOSE OF INSTALLING EMERGENCY VEHICLE PREEMPTION EQUIPMENT AS SHOWN PER PLAN INDICATED IN THE SCHEDULE OF QUANTITIES. ALL OTHER EQUIPMENT SHOWN SHALL BE DISREGARDED.**

**\* ADDED EV PREEMPTION LOCATION NO. 6**

FILE NAME = 0924-PLAN-06 - IDOT P03	USER NAME =	DESIGNED -- MRS	REVISED -- 10-13-09 *	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>PROPOSED EMERGENCY VEHICLE PREEMPTION IL ROUTE 83 (SIBLEY BOULEVARD) &amp; WOODLAWN AVENUE SCHEDULE OF QUANTITIES, CABLE PLAN, &amp; PHASE DESIGNATION DIAGRAM</b>			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE =	CHECKED -- PKB	REVISED --		397	09-00114-00-TL	COOK	43	21			
	PLOT DATE = 10-13-09	DRAWN -- PS	REVISED --		CONTRACT NO. 63317							
		CHECKED -- AG	REVISED --		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT ARA-9003(936)							

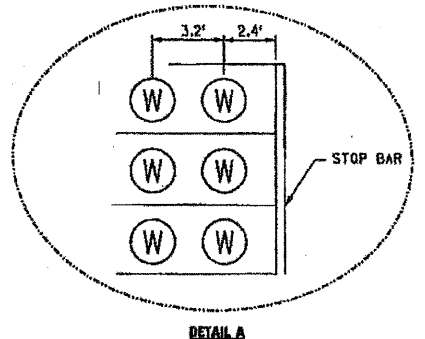
RESTORATION OF WORK AREA, RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 260 RESPECTIVELY.

- CONSTRUCTION NOTES:**
- SIGNAL CHANGE INDICATIONS WILL BE RECEIVED THROUGH INDUCTANCE COILS ATTACHED TO SIGNAL CABLES IN THE EXISTING CABINET. NO DIRECT CONNECTIONS OR SPLICES ARE ALLOWED.
  - ALL SIGNAL HEADS TO BE REPLACED WITH L.E.D. (ALL SIGNAL IMPROVEMENTS MUST BE COMPLETED WITHIN 6 MONTHS OF THE START OF RED LIGHT CAMERA OPERATIONS.)
  - IDOT CONDUIT CAN ONLY BE USED TO FACILITATE THE ACQUISITION OF THE CHANGE INDICATION THROUGH THE USE OF INDUCTANCE COILS.
  - THE COMMUNICATION ANTENNA WILL BE MOUNTED TO THE RED LIGHT RUNNING CAMERA HOUSING. IT WILL BE USED FOR BOTH DETECTION AND ENFORCEMENT COMMUNICATION REQUIREMENTS.
  - RED LIGHT PHOTO ENFORCEMENT SIGNS SHALL BE INSTALLED IN LOCATIONS AS SHOWN ON THE PLANS. SIGNS SHALL BE PLACED AT THE FOLLOWING LOCATIONS: 1) THE FAR MAST ARM / SIGNAL POLE, 2) APPROXIMATELY 150' BEFORE THE INTERSECTION. THE SIGNS SHALL BE OF DIMENSIONS 30" x 30" ACCORDING TO ILLINOIS STANDARD RIO-1104.
  - ORANGE AND RED FLAGS MUST BE ATTACHED TO EACH SIGN FOR THE FIRST WEEK OF LIVE RLR CAMERA ENFORCEMENT.



**TRAFFIC SIGNAL LEGEND**

	PROPOSED	EXISTING
CONTROLLER	CS	CS
SERVICE INSTALLATION	SI	SI
SIGNAL HEAD	A	A
SIGNAL HEAD WITH BACKPLATE	A+	A+
SIGNAL HEAD, PEDESTRIAN	A-P	A-P
SIGNAL POST	SP	SP
MAST ARM ASSEMBLY AND POLE, STEEL	MA	MA
MAST ARM ASSEMBLY AND POLE, ALUMINUM	MAA	MAA
CINDOR TRENCH	CT	CT
UNIT DUCT	UD	UD
HANDHOLE	H	H
HEAVY DUTY HANDHOLE	H2	H2
DOUBLE HANDHOLE	H2S	H2S
C.S. CONDUIT IN TRENCH OR PUSHED	CC	CC
PEDESTRIAN PUSHBUTTON DETECTOR	PB	PB
DETECTOR LOOP	L	L
CAST IRON JUNCTION BOX	CB	CB
EMERGENCY VEHICLE SYSTEM DETECTOR	EVSD	EVSD
CONFIRMATION BEACON	CB	CB
SIGNAL HEAD OPTICALLY PROGRAMMED	OP	OP
CONDUIT SPLICE	CS	CS
HEAD POLE	HP	HP
RADEWAY FOR MAGNETIC DETECTOR, TYPE 1 OR TYPE 11	MD	MD
VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE	VD	VD
RAILROAD CINDOR CABINET	RC	RC



ALL WIRELESS MAGNETIC DETECTOR TO BE LOCATED IN CENTER OF LANE, PLACED IN A 4" DIA. BY 2.5" DEEP CORE. IF NECESSARY, THE DIMENSIONS OF THE WIRELESS MAGNETIC DETECTORS SHOULD BE ADJUSTED TO AVOID ALL EXISTING LOOP DETECTORS.

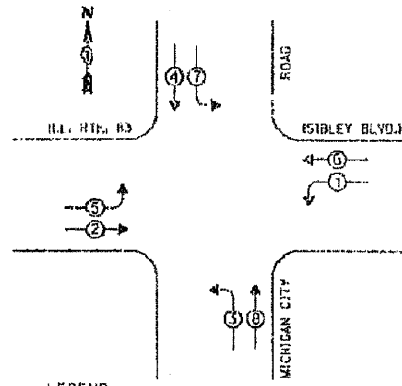
**RED LIGHT INSTALLATION LEGEND**  
 RED LIGHT ENFORCEMENT CABINET  
 RED LIGHT ENFORCEMENT CAMERA  
 WIRELESS MAGNETIC DETECTOR  
 RED LIGHT PHOTO ENFORCEMENT SIGN

- THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND DISPOSED OF BY HIM AT HIS EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.
- 2 EACH SIGNAL HEAD, 2-FACE, 1-3 SECTION, 1-5 SECTION
  - 2 EACH SIGNAL HEAD, 3-FACE, 2-3 SECTION, 1-5 SECTION
  - 4 EACH SIGNAL HEAD, 1 FACE, 5 SECTION

\* THIS PLAN IS FOR THE PURPOSE OF INSTALLING EMERGENCY VEHICLE PREEMPTION EQUIPMENT AS SHOWN PER PLAN INDICATED IN THE SCHEDULE OF QUANTITIES. ALL OTHER EQUIPMENT SHOWN SHALL BE DISREGARDED.

**CONTROLLER SEQUENCE**

REFERRING TO STANDARD 2393, THE VEHICULAR AND PEDESTRIAN PHASES USED ARE DESIGNATED BELOW.



**LEGEND**

- ① → → DUAL ENTRY PHASE
- ① → → PEDESTRIAN PHASE
- \* NUMBER REFERS TO ASSOCIATED PHASE

**PHASE DESIGNATION DIAGRAM**

DUAL ENTRY - ALL LEGS  
PROTECTED/PERMITTED LEFT TURN PHASING

**CONSTRUCTION NOTES:**

- ① SIGNAL CHANGE INDICATIONS WILL BE RECEIVED THROUGH INDUCTANCE COILS ATTACHED TO SIGNAL CABLES IN THE EXISTING CABINET. NO DIRECT CONNECTIONS OR SPLICES ARE ALLOWED.
- ② ALL SIGNAL HEADS TO BE REPLACED WITH L.E.D. (ALL SIGNAL IMPROVEMENTS MUST BE COMPLETED WITHIN 6 MONTHS OF THE START OF RED LIGHT CAMERA OPERATIONS.)
- ③ IDOT CONDUIT CAN ONLY BE USED TO FACILITATE THE ACQUISITION OF THE CHANGE INDICATION THROUGH THE USE OF INDUCTANCE COILS.
- ④ THE COMMUNICATION ANTENNA WILL BE MOUNTED TO THE RED LIGHT RUNNING CAMERA HOUSING. IT WILL BE USED FOR BOTH DETECTION AND ENFORCEMENT COMMUNICATION REQUIREMENTS.

TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMP'S	WATTAGE	PER HOUR OPERATION		
SIGNAL (RED)	14	17	0.50		119.00
(YELLOW)	14	25	0.25		81.00
(GREEN)	14	15	0.25		52.00
ARRON	16	12	0.10		19.20
PED. SIGNAL		25	1.00		
CONTROLLER	1	100	1.00		100.00
ILLUM. SIGN		25	0.05		
FLASHER				0.50	
ENERGY COSTS TO:				TOTAL =	314.20

ILLINOIS DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAY/DISTRICT 1  
701 WEST CENTER COURT/SCHAUMBURG, ILLINOIS 60196-1096  
ENERGY SUPPLY CONTACT: TONY ESCALANTE  
PHONE: 1-708-238-2328  
COMPANY: SOU.SD

*X NOT LED*

THE END OF THE TRACER CABLE SHALL BE TIED TO A CABLE HOOP IN THE DOUBLE HANDHOLE CLOSEST TO THE CONTROLLER FOUNDATION.

TRACER CABLE

**SERVICE INSTALLATION - POLE MOUNT**

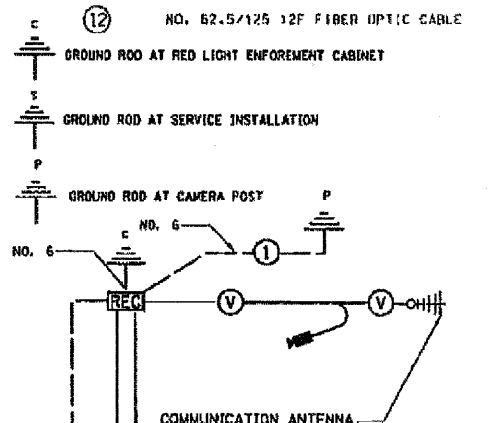


ITEM	QTY	TOTAL	Quantity	
			Michigan City Rd. Eastbound	Michigan City Rd. Westbound
TRAFFIC CONTROL AND PROTECTION, COMPLETE	1	1		
PORTLAND CEMENT CONCRETE SIGNALS, 8"	600	600	600	
SIGNAL KIT (REMOVABLE)	600	600	600	
CONDUIT IN TRENCH, 3" DIA., GALVANIZED STEEL	20	20		
CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL	388	388		
CONDUIT IN TRENCH, 3" DIA., GALVANIZED STEEL	20	20		
CONDUIT PUSHED, 3" DIA., GALVANIZED STEEL	193	193		
TRENCH AND BACKFILL FOR ELECTRICAL WORK	10	10		
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	1	1		
ELECTRIC CABINET IN CONDUIT SERVICE, NO. 8 24"	200	200		
ELECTRIC CABINET IN CONDUIT SERVICE, NO. 8 12"	288	288		
CONCRETE FOUNDATION TYPE	2	2		
CONCRETE FOUNDATION 20' SQUARE	2	2		
EXISTING HANDHOLE	1	1		
HEAVY DUTY HANDHOLE	1	1		
WIRELESS MAGNETIC DETECTOR	1	1		
RED LIGHT PHOTO ENFORCEMENT SIGN, 30" X 30"	1	1		
INSTALLATION OF PRIVATE SERVICE DISCONNECT	1	1		
INSTALLATION OF VENDOR SUPPLY EQUIPMENT	1	1		
SIGNAL HEAD, L.E.D., 1-PAGE SECTION, MAST ARM MOUNTED	2	2		
SIGNAL HEAD, L.E.D., 3-PAGE SECTION, 1-3 SECTION, BRACKET MOUNTED	2	2		
OPTICALLY PROGRAMMED SIGNAL HEAD, L.E.D., 1-PAGE SECTION, MAST ARM MOUNTED	2	2		
OPTICALLY PROGRAMMED SIGNAL HEAD, L.E.D., 3-PAGE SECTION, 1-3 SECTION, BRACKET MOUNTED	2	2		
TRAFFIC SIGNAL BACKPLATE, LAMINATED ALUMINUM	4	4		

(ALL ITEMS TO BE INSTALLED AT TIME OF RED CAMERA INSTALLATION UNLESS OTHERWISE NOTED)  
\*ITEMS TO BE INSTALLED NO LATER THAN 6 MONTHS AFTER RED CAMERA OPERATION

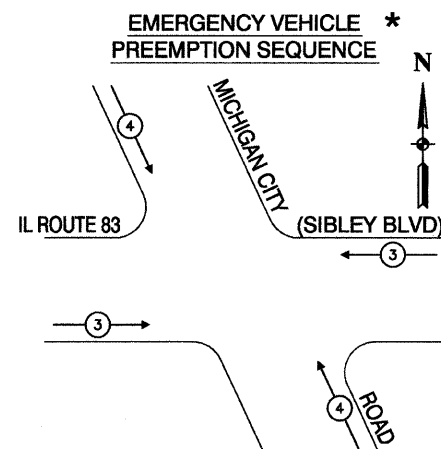
**CABLE PLAN LEGEND**

- EXISTING
- PROPOSED
- 8" (200 mm) TRAFFIC SIGNAL SECTION
- 12" (300 mm) TRAFFIC SIGNAL SECTION
- 12" (300 mm) PEDESTRIAN SIGNAL SECTION
- 12" (300 mm) PEDESTRIAN SIGNAL SECTION
- CONTROLLER CABINET
- SERVICE INSTALLATION
- VEHICLE DETECTOR, INDUCTANCE LOOP
- MAGNETIC DETECTOR
- EMERGENCY VEHICLE LIGHT DETECTOR
- CONFIRMATION BEACON
- PUSHBUTTON DETECTOR
- ② DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.
- SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD.



- RED LIGHT INSTALLATION LEGEND**
- REC RED LIGHT ENFORCEMENT CABINET
  - W RED LIGHT ENFORCEMENT CAMERA
  - V WIRELESS MAGNETIC DETECTOR
  - V VENDOR SPECIFIC CABLE

\* THIS PLAN IS FOR THE PURPOSE OF INSTALLING EMERGENCY VEHICLE PREEMPTION EQUIPMENT AS SHOWN PER PLAN INDICATED IN THE SCHEDULE OF QUANTITIES. ALL OTHER EQUIPMENT SHOWN SHALL BE DISREGARDED.



PROPOSED EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTORS	3	4
MOVEMENT	→	↘

**\* SCHEDULE OF QUANTITIES**

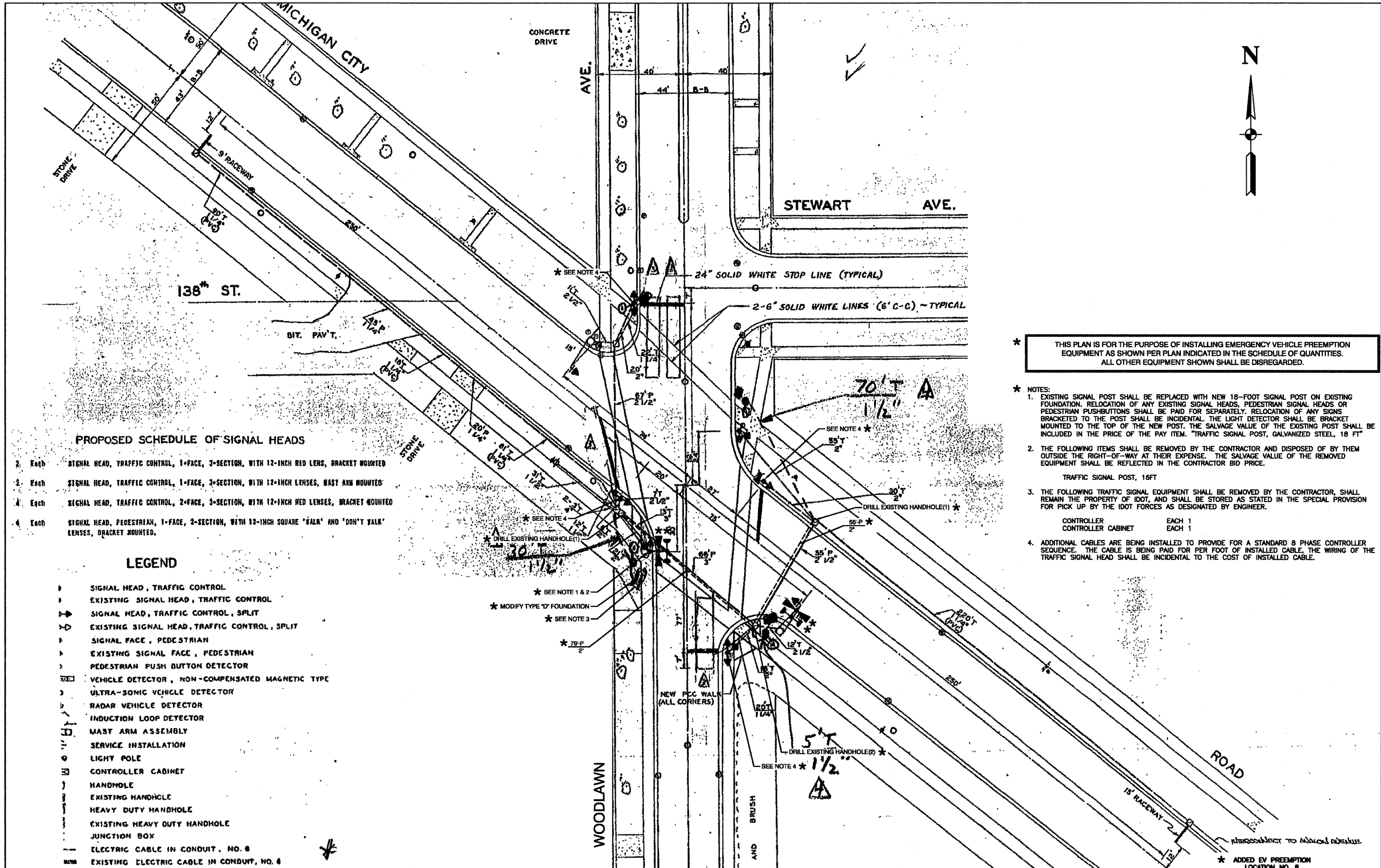
ITEM	UNIT	QUAN
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	417
LIGHT DETECTOR	EACH	2
LIGHT DETECTOR AMPLIFIER	EACH	1
MODIFY EXISTING CONTROLLER	EACH	1
ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED	FOOT	417

**\* THIS PLAN IS FOR THE PURPOSE OF INSTALLING EMERGENCY VEHICLE PREEMPTION EQUIPMENT AS SHOWN PER PLAN INDICATED IN THE SCHEDULE OF QUANTITIES. ALL OTHER EQUIPMENT SHOWN SHALL BE DISREGARDED.**

**\* ADDED EV PREEMPTION LOCATION NO. 7**

FILE NAME = 09224-PLAN-09 - IDOT P03	USER NAME =	DESIGNED -- MRS	REVISED -- 10-13-09 *	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>PROPOSED EMERGENCY VEHICLE PREEMPTION IL ROUTE 83 (SIBLEY BOULEVARD) &amp; MICHIGAN CITY ROAD SCHEDULE OF QUANTITIES, CABLE PLAN, &amp; SEQUENCE OF OPERATION</b>				F.A.P. RTE. 397	SECTION 09-00114-00-TL	COUNTY COOK	TOTAL SHEETS 43	SHEET NO. 24
	PLOT SCALE =	CHECKED -- PKB	REVISED --		SCALE: NTS	SHEET NO. 24 OF 43 SHEETS	STA. TO STA.	CONTRACT NO. 63317					
	PLOT DATE = 10-13-09	DRAWN -- PS	REVISED --		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT ARA-9003(336)								
		CHECKED -- AG	REVISED --										





**PROPOSED SCHEDULE OF SIGNAL HEADS**

- 2 Each SIGNAL HEAD, TRAFFIC CONTROL, 1-FACE, 3-SECTION, WITH 12-INCH RED LENS, BRACKET MOUNTED
- 2 Each SIGNAL HEAD, TRAFFIC CONTROL, 1-FACE, 3-SECTION, WITH 12-INCH LENSES, MAST ARM MOUNTED
- 4 Each SIGNAL HEAD, TRAFFIC CONTROL, 2-FACE, 3-SECTION, WITH 12-INCH RED LENSES, BRACKET MOUNTED
- 4 Each SIGNAL HEAD, PEDESTRIAN, 1-FACE, 2-SECTION, WITH 12-INCH SQUARE "WALK" AND "DON'T WALK" LENSES, BRACKET MOUNTED.

**LEGEND**

- ▷ SIGNAL HEAD, TRAFFIC CONTROL
- ▷ EXISTING SIGNAL HEAD, TRAFFIC CONTROL
- ▷▷ SIGNAL HEAD, TRAFFIC CONTROL, SPLIT
- ▷▷ EXISTING SIGNAL HEAD, TRAFFIC CONTROL, SPLIT
- ▷ SIGNAL FACE, PEDESTRIAN
- ▷ EXISTING SIGNAL FACE, PEDESTRIAN
- ▷ PEDESTRIAN PUSH BUTTON DETECTOR
- ▷ VEHICLE DETECTOR, NON-COMPENSATED MAGNETIC TYPE
- ▷ ULTRA-SONIC VEHICLE DETECTOR
- ▷ RADAR VEHICLE DETECTOR
- ▷ INDUCTION LOOP DETECTOR
- ▷ MAST ARM ASSEMBLY
- ▷ SERVICE INSTALLATION
- ▷ LIGHT POLE
- ▷ CONTROLLER CABINET
- ▷ HANDHOLE
- ▷ EXISTING HANDHOLE
- ▷ HEAVY DUTY HANDHOLE
- ▷ EXISTING HEAVY DUTY HANDHOLE
- ▷ JUNCTION BOX
- ELECTRIC CABLE IN CONDUIT, NO. 8
- EXISTING ELECTRIC CABLE IN CONDUIT, NO. 8

\* THIS PLAN IS FOR THE PURPOSE OF INSTALLING EMERGENCY VEHICLE PREEMPTION EQUIPMENT AS SHOWN PER PLAN INDICATED IN THE SCHEDULE OF QUANTITIES. ALL OTHER EQUIPMENT SHOWN SHALL BE DISREGARDED.

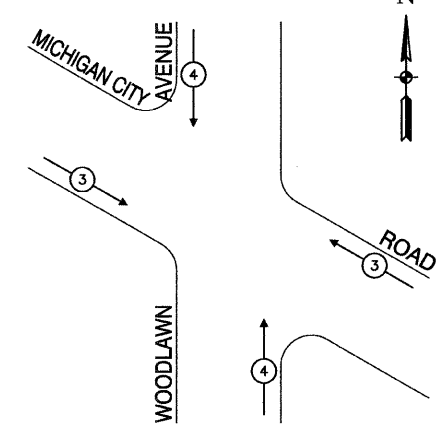
- \* NOTES:
- EXISTING SIGNAL POST SHALL BE REPLACED WITH NEW 18-FOOT SIGNAL POST ON EXISTING FOUNDATION. RELOCATION OF ANY EXISTING SIGNAL HEADS, PEDESTRIAN SIGNAL HEADS OR PEDESTRIAN PUSHBUTTONS SHALL BE PAID FOR SEPARATELY. RELOCATION OF ANY SIGNS BRACKETED TO THE POST SHALL BE INCIDENTAL. THE LIGHT DETECTOR SHALL BE BRACKET MOUNTED TO THE TOP OF THE NEW POST. THE SALVAGE VALUE OF THE EXISTING POST SHALL BE INCLUDED IN THE PRICE OF THE PAY ITEM. "TRAFFIC SIGNAL POST, GALVANIZED STEEL, 18 FT"
  - THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACTOR BID PRICE.  
TRAFFIC SIGNAL POST, 16FT
  - THE FOLLOWING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF IDOT, AND SHALL BE STORED AS STATED IN THE SPECIAL PROVISION FOR PICK UP BY THE IDOT FORCES AS DESIGNATED BY ENGINEER.  
CONTROLLER CABINET EACH 1  
CONTROLLER CABINET EACH 1
  - ADDITIONAL CABLES ARE BEING INSTALLED TO PROVIDE FOR A STANDARD 8 PHASE CONTROLLER SEQUENCE. THE CABLE IS BEING PAID FOR PER FOOT OF INSTALLED CABLE. THE WIRING OF THE TRAFFIC SIGNAL HEAD SHALL BE INCIDENTAL TO THE COST OF INSTALLED CABLE.

FILE NAME = 08024-PLAN-12 - IDOT P01	USER NAME =	DESIGNED - MRS	REVISED - 10-13-09 *
		CHECKED - PKB	REVISED -
	PLOT SCALE =	DRAWN - PS	REVISED -
	PLOT DATE = 10-13-09	CHECKED - AG	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

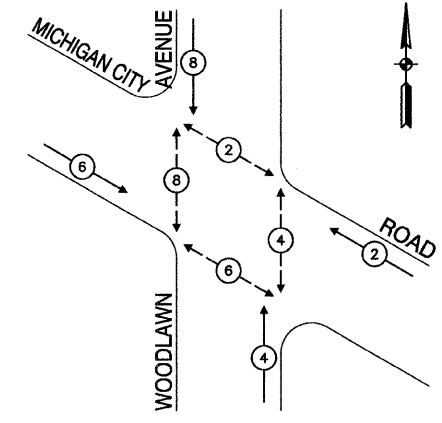
PROPOSED EMERGENCY VEHICLE PREEMPTION MICHIGAN CITY ROAD & WOODLAWN AVENUE TRAFFIC SIGNAL PLAN		F.A.U. R.T.E. 3593	SECTION 09-00114-00-TL	COUNTY COOK	TOTAL SHEETS 43	SHEET NO. 25
SCALE: 1"=20'		SHEET NO. 25 OF 43 SHEETS		STA. TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS   FED. AID PROJECT ARA-9003(336)	

**EMERGENCY VEHICLE \*  
PREEMPTION SEQUENCE**



PROPOSED EMERGENCY VEHICLE PREEMPTORS	
EMERGENCY VEHICLE PREEMPTORS	3 4
MOVEMENT	↖ ↗

**CONTROLLER SEQUENCE**



**LEGEND**

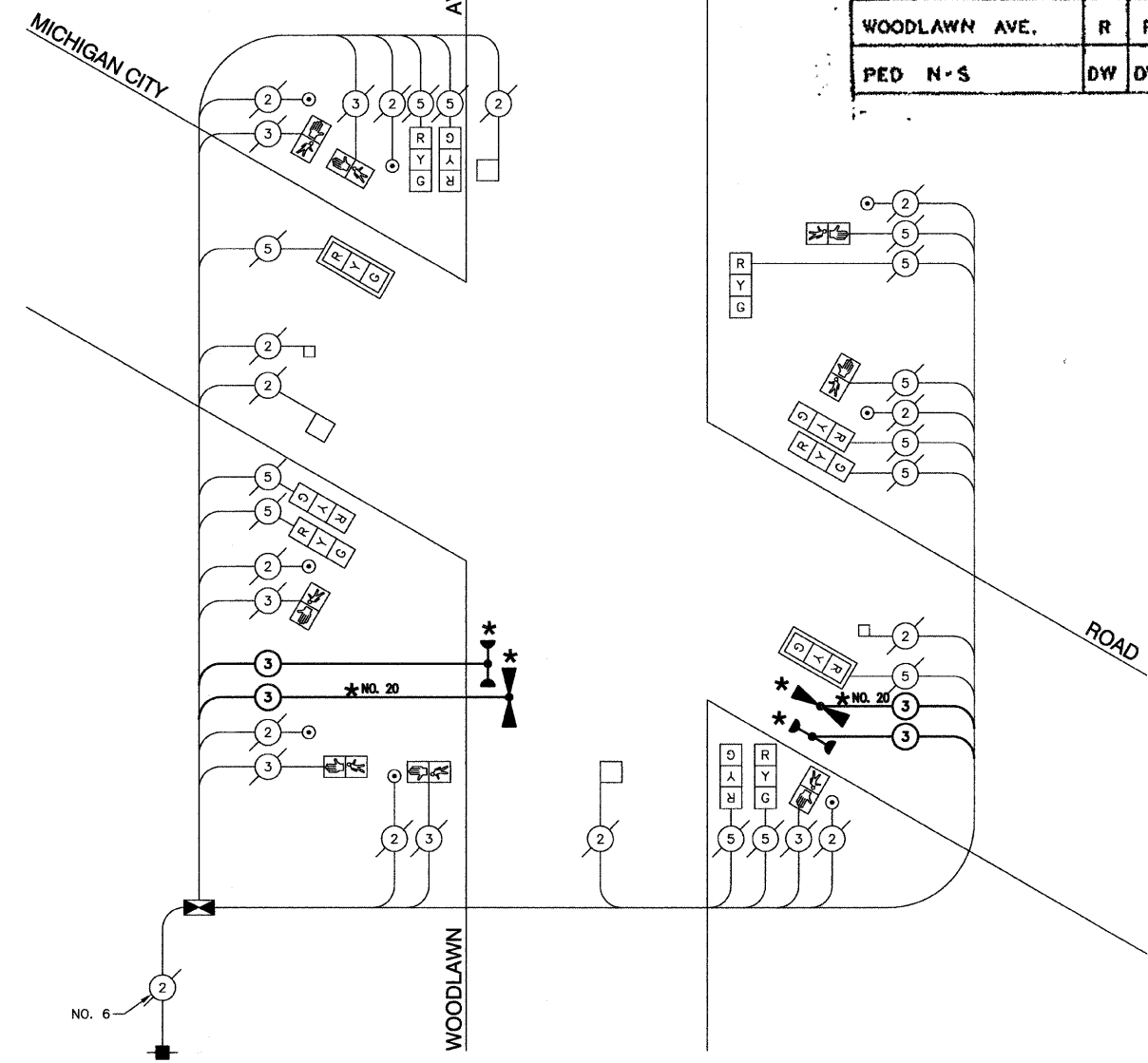
- ⊕ DUAL ENTRY PHASE
- ⊙ SINGLE ENTRY PHASE
- OL OVERLAP
- ⊖ PEDESTRIAN PHASE
- NUMBER REFERS TO ASSOCIATED PHASE

**EXISTING SEQUENCE**

PHASE	A		B			FLASH
	1	2	3	4	5	
MICHIGAN CITY RD.	G	Y	R	R	R	R
WOODLAWN AVE.	R	R	G	G	Y	R
PED N-S	DW	DW	W	DW	DW	

**CABLE PLAN LEGEND**

EXISTING	PROPOSED	
⊕	⊕	8" TRAFFIC SIGNAL SECTION
⊙	⊙	12" TRAFFIC SIGNAL SECTION
⊖	⊖	12" PEDESTRIAN SIGNAL SECTION
⊖	⊖	12" PEDESTRIAN SIGNAL SECTION
⊖	⊖	CONTROLLER CABINET
⊖	⊖	UNINTERRUPTIBLE POWER SUPPLY
⊖	⊖	SERVICE INSTALLATION
⊖	⊖	TELEPHONE CONNECTION
⊖	⊖	MAGNETIC DETECTOR
⊖	⊖	EMERGENCY VEHICLE LIGHT DETECTOR
⊖	⊖	CONFIRMATION BEACON
⊖	⊖	PUSHBUTTON DETECTOR
⊖	⊖	MAGNETIC DETECTOR
⊖	⊖	VEHICLE DETECTOR, INDUCTION LOOP
⊖	⊖	DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.
⊖	⊖	SIGNAL FACE WITH BACKPLATE
⊖	⊖	"P" INDICATES PROGRAMMED HEAD
⊖	⊖	GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)
⊖	⊖	FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F & SM12F



**CABLE PLAN**  
NOT TO SCALE

**\* SCHEDULE OF QUANTITIES**

ITEM	UNIT	QUAN
CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL	FOOT	150
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	159
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	548
TRAFFIC SIGNAL POST, GALVANIZED STEEL 18 FT.	EACH	1
DRILL EXISTING HANDHOLE	EACH	4
INDUCTIVE LOOP DETECTOR	EACH	3
LIGHT DETECTOR	EACH	2
LIGHT DETECTOR AMPLIFIER	EACH	1
RELOCATE EXISTING SIGNAL HEAD	EACH	1
RELOCATE EXISTING PEDESTRIAN SIGNAL HEAD	EACH	1
RELOCATE EXISTING PEDESTRIAN PUSH-BUTTON	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	2
ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED	FOOT	159
MODIFY EXISTING TYPE "D" FOUNDATION	EACH	1
MAGNETIC DETECTOR AMPLIFIER	EACH	2

**\* THIS PLAN IS FOR THE PURPOSE OF INSTALLING EMERGENCY VEHICLE PREEMPTION EQUIPMENT AS SHOWN PER PLAN INDICATED IN THE SCHEDULE OF QUANTITIES. ALL OTHER EQUIPMENT SHOWN SHALL BE DISREGARDED.**

**\* ADDED EV PREEMPTION LOCATION NO. 8**

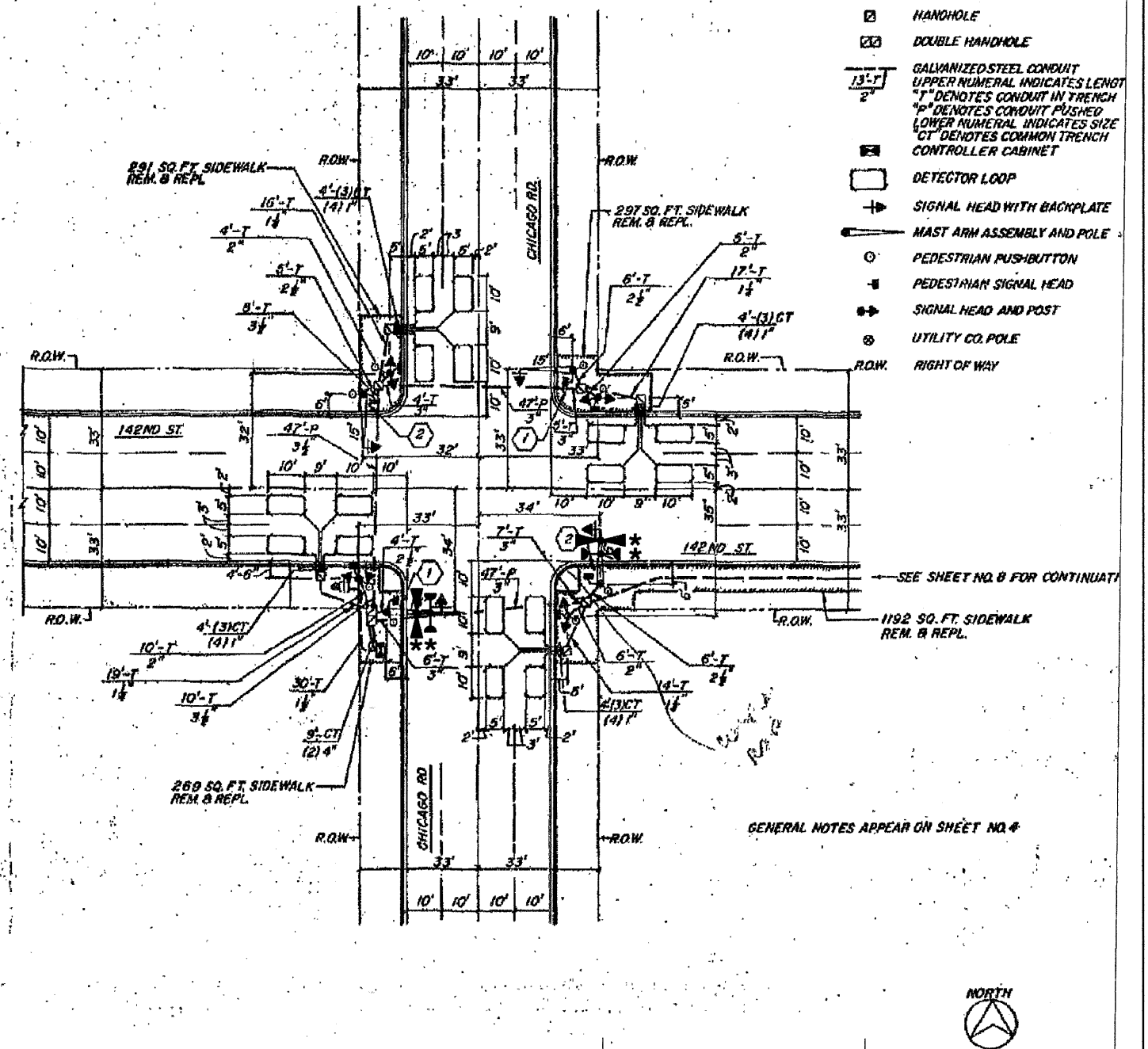
FILE NAME = 0924-PLAN-12 - IDOT P02	USER NAME =	DESIGNED - MRS	REVISED - 10-13-09 *	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>PROPOSED EMERGENCY VEHICLE PREEMPTION MICHIGAN CITY ROAD &amp; WOODLAWN AVENUE SCHEDULE OF QUANTITIES, CABLE PLAN, &amp; PHASE DESIGNATION DIAGRAM</b>		F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	PLOT SCALE =	CHECKED - PKB	REVISED -		SCALE: 1"=20'	SHEET NO. 26	OF 43 SHEETS	3593	09-00114-00-TL	COOK	43	26
	PLOT DATE = 10-13-09	DRAWN - PS	REVISED -									
		CHECKED - AG	REVISED -					FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT	ARA-9003(336)	

**SCHEDULE OF QUANTITIES**

QUANTITY	UNIT	DESCRIPTION
2049	SQ. FT.	SIDEWALK REMOVAL AND REPLACEMENT
30	SQ. FT.	SIGN PANEL, TYPE 1
4	EACH	SIGNAL HEAD, ALUMINUM, 1-FACE 3-SECTION, MAST ARM MOUNTED
4	EACH	SIGNAL HEAD, ALUMINUM, 2-FACE 3-SECTION, BRACKET MOUNTED
8	EACH	PEDESTRIAN SIGNAL HEAD, ALUMINUM, 1-FACE, BRACKET MOUNTED
4	EACH	TRAFFIC SIGNAL BACKPLATE
4	EACH	TRAFFIC SIGNAL POST FERROUS 14 FT.
4	EACH	ALUMINUM MAST ARM ASSEMBLY AND POLE, 15 FT. (1 1/2" - 9" POLE)
1	EACH	FULL-ACTUATED CONTROLLER, 2 PHASES, DIGITAL TIMING IN TYPE III CABINET
4	EACH	INDUCTION LOOP DETECTOR AMPLIFIER, DIGITAL DESIGN
4	EACH	INDUCTION LOOP DETECTOR AMPLIFIER WITH CALL DELAY, DIGITAL DESIGN
640	LIN. FT.	DETECTOR LOOP
8	EACH	PEDESTRIAN PUSHBUTTON
64	LIN. FT.	GALVANIZED STEEL CONDUIT IN TRENCH 1"
66	LIN. FT.	GALVANIZED STEEL CONDUIT IN TRENCH 1 1/2"
30	LIN. FT.	GALVANIZED STEEL CONDUIT IN TRENCH 1 3/4"
25	LIN. FT.	GALVANIZED STEEL CONDUIT IN TRENCH 2"
21	LIN. FT.	GALVANIZED STEEL CONDUIT IN TRENCH 2 1/2"
22	LIN. FT.	GALVANIZED STEEL CONDUIT IN TRENCH 3"
15	LIN. FT.	GALVANIZED STEEL CONDUIT IN TRENCH 3 1/2"
18	LIN. FT.	GALVANIZED STEEL CONDUIT IN TRENCH 4"
94	LIN. FT.	GALVANIZED STEEL CONDUIT, PUSHED 3"
47	LIN. FT.	GALVANIZED STEEL CONDUIT, PUSHED 3 1/2"
31	LIN. FT.	ELECTRIC CABLE IN CONDUIT NO. 6 2/C
766	LIN. FT.	ELECTRIC CABLE IN CONDUIT NO. 12 2/C
766	LIN. FT.	ELECTRIC CABLE IN CONDUIT NO. 12 3/C
914	LIN. FT.	ELECTRIC CABLE IN CONDUIT NO. 12 5/C
684	LIN. FT.	ELECTRIC CABLE IN CONDUIT NO. 12 2/C SHIELDED
1	EACH	SERVICE INSTALLATION, TYPE C
12	LIN. FT.	CONCRETE FOUNDATION, TYPE A
3 1/2	LIN. FT.	CONCRETE FOUNDATION, TYPE D
40	LIN. FT.	CONCRETE FOUNDATION, TYPE E 24-INCH DIAMETER
7	EACH	CONCRETE HANDHOLE
1	EACH	CONCRETE DOUBLE HANDHOLE
204	LIN. FT.	TRENCH AND BACKFILL
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
4	EACH	REMOVE EXISTING HANDHOLE
7	EACH	REMOVE EXISTING CONCRETE FOUNDATION
640	LIN. FT.	THERMOPLASTIC PAVEMENT MARKING - LINE 4"
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION

**LEGEND**

- SIGN PANEL LOCATION
- SERVICE INSTALLATION
- HANDHOLE
- DOUBLE HANDHOLE
- GALVANIZED STEEL CONDUIT  
UPPER NUMERAL INDICATES LENGTH  
"T" DENOTES CONDUIT IN TRENCH  
"P" DENOTES CONDUIT PUSHED  
LOWER NUMERAL INDICATES SIZE  
"CT" DENOTES COMMON TRENCH
- CONTROLLER CABINET
- DETECTOR LOOP
- SIGNAL HEAD WITH BACKPLATE
- MAST ARM ASSEMBLY AND POLE
- PEDESTRIAN PUSHBUTTON
- PEDESTRIAN SIGNAL HEAD
- SIGNAL HEAD AND POST
- UTILITY CO. POLE
- RIGHT OF WAY



\* THIS PLAN IS FOR THE PURPOSE OF INSTALLING EMERGENCY VEHICLE PREEMPTION EQUIPMENT AS SHOWN PER PLAN INDICATED IN THE SCHEDULE OF QUANTITIES. ALL OTHER EQUIPMENT SHOWN SHALL BE DISREGARDED.

\* ADDED BY PREEMPTION LOCATION NO. 9

FILE NAME = 0924-PLAN-13 - IDOT P01	USER NAME =	DESIGNED -- MRS	REVISOR -- 10-13-09 *	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PROPOSED EMERGENCY VEHICLE PREEMPTION 142ND STREET & CHICAGO ROAD TRAFFIC SIGNAL PLAN	F.A.U. RTE. 1598/2821	SECTION 09-00114-00-TL	COUNTY COOK	TOTAL SHEETS 43	SHEET NO. 27	
	PLOT SCALE =	CHECKED -- PKB	REVISOR --			SCALE: 1"=20'	SHEET NO. 27 OF 43 SHEETS	STA. TO STA.	FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT ARA-9003(838)
	PLOT DATE = 10-13-09	DRAWN -- PS	REVISOR --								
		CHECKED -- AG	REVISOR --								

**PROPOSED SEQUENCE OF OPERATION**

PHASE	2				4				Fig.
MOVEMENT	P P P P				P P P P				
INTERVAL	#1	2	3	4	#5	6	7	8	
STREET	CHANGE TO								
CHICAGO AVE. SIGNALS	G	G	Y	R	R	R	R	R	R
142ND ST. SIGNALS	R	R	R	R	G	G	Y	R	R
PEDESTRIAN SIGNALS ACROSS 142ND ST.	W	Flg. DW #1	DW	DW	DW	DW	DW	DW	DARK
PEDESTRIAN SIGNALS ACROSS CHICAGO RD.	DW	DW	DW	DW	W	Flg. DW #2	DW	DW	DARK

PHASES 2 & 4 SHALL HAVE NON-LOCKING MEMORY

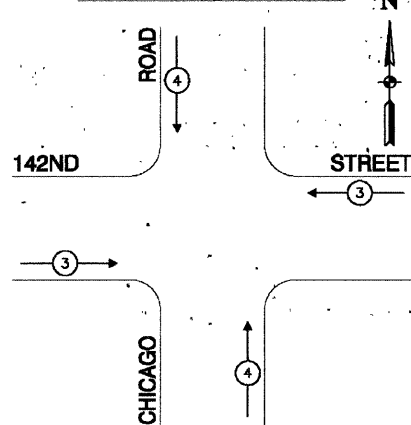
# TO APPEAR ON PEDESTRIAN ACTUATION ONLY

\*\* FLASHING "DON'T WALK" SHALL TERMINATE AT COMPLETION OF PEDESTRIAN CLEARANCE INTERVAL. A STEADY "DON'T WALK" SHALL APPEAR IN THE ABSENCE OF PEDESTRIAN ACTUATION.

**GENERAL NOTES**

- ALL DETECTOR LOOPS SHALL CONSIST OF THE NUMBER OF TURNS AS RECOMMENDED BY THE MANUFACTURER. DETECTOR LOOPS AND LEAD-IN WIRING SHALL BE INSTALLED IN STRICT CONFORMITY WITH THE MANUFACTURER'S RECOMMENDATIONS.
- THE 2/C NO. 12 SHIELDED CABLE TO BE USED FOR THE DETECTOR LOOP LEAD-IN SHALL BE MEASURED FROM THE SPLICE TO THE CONTROLLER AS SPECIFIED IN SECTION 1421.04 OF THE STANDARD SPECIFICATIONS FOR TRAFFIC CONTROL ITEMS EXCEPT NO SLACK SHALL BE ALLOWED. THE DETECTOR LOOP SHALL BE MEASURED FOR THAT PORTION OF SAW CUT BEYOND THE SPLICE AS SPECIFIED IN SECTION 1418.04 OF THE STANDARD SPECIFICATIONS FOR TRAFFIC CONTROL ITEMS. FLAT CABLE WILL NOT BE PERMITTED.
- ALL POST MOUNTED SIGNALS SHALL BE BRACKET MOUNTED.
- ELECTRIC CABLE THAT IS FURNISHED BY THE CONTRACTOR SHALL BE PROTECTED BY POLYETHYLENE INSULATION WITH A POLYVINYLCHLORIDE JACKET, UNLESS OTHERWISE SPECIFIED.
- THE REMOVAL AND REPLACEMENT OF SIDEWALK, DRIVEWAY, MEDIAN AND ISLAND SURFACE PAVING AT HANDHOLES, JACKING PITS, INSPECTION OPENINGS AND CONCRETE JUNCTION BOXES SHALL BE INCIDENTAL TO THE CONTRACT AND NO SEPARATE PAYMENT WILL BE MADE. REPLACEMENT SHALL BE MADE WITH A LIKE MATERIAL OF A LIKE THICKNESS TO THE EXISTING SURFACE.

**EMERGENCY VEHICLE PREEMPTION SEQUENCE**



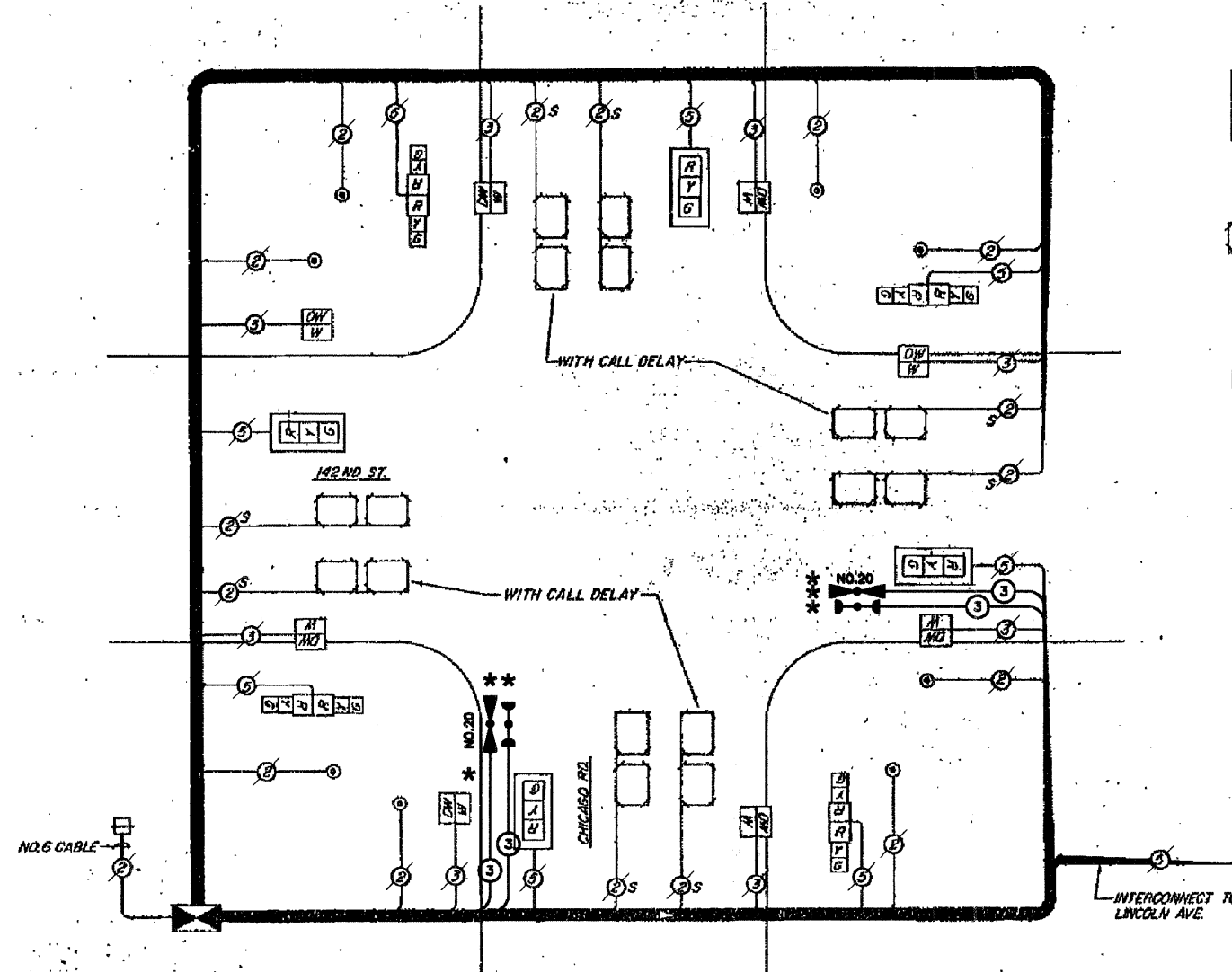
PROPOSED EMERGENCY VEHICLE PREEMPTORS	
EMERGENCY VEHICLE PREEMPTORS	3 4
MOVEMENT	← → ↑ ↓

**PROPOSED SCHEDULE OF TRAFFIC SIGNAL HEADS**

- 4 EACH SIGNAL HEAD, ALUMINUM, 2-FACE, 3-SECTION WITH 12" RED LENSES, BRAC MOUNTED
- 4 EACH SIGNAL HEAD, ALUMINUM, 1-FACE, 3-SECTION WITH 12" LENSES, MAST ARM MOUNTED
- 8 EACH PEDESTRIAN SIGNAL HEAD, ALUMINUM, 1-FACE, 2-SECTION WITH 12" LENSES, BRACKET MOUNTED

**LEGEND**

- R 12" TRAFFIC SIGNAL SECTION
- G 6" TRAFFIC SIGNAL SECTION
- P Y G SIGNAL HEAD WITH BACKPLATE
- 5 DENOTES NUMBER OF CONDUCTORS, ALL NO. 12 UNLESS OTHERWISE INDICATED
- DETECTOR LOOP
- DW W PEDESTRIAN SIGNAL HEAD
- PEDESTRIAN PUSHBUTTON
- SERVICE INSTALLATION
- CONTROLLER
- S SHIELDED CABLE



ALL DETECTOR LOOP LEAD-IN CABLE SHALL BE 2/C NO. 12 SHIELDED CABLE

**\* SCHEDULE OF QUANTITIES**

ITEM	UNIT	QUAN
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	192
LIGHT DETECTOR	EACH	2
LIGHT DETECTOR AMPLIFIER	EACH	1
MODIFY EXISTING CONTROLLER	EACH	1
ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED	FOOT	192

\* THIS PLAN IS FOR THE PURPOSE OF INSTALLING EMERGENCY VEHICLE PREEMPTION EQUIPMENT AS SHOWN PER PLAN INDICATED IN THE SCHEDULE OF QUANTITIES. ALL OTHER EQUIPMENT SHOWN SHALL BE DISREGARDED.

\* ADDED EV PREEMPTION LOCATION NO. 9

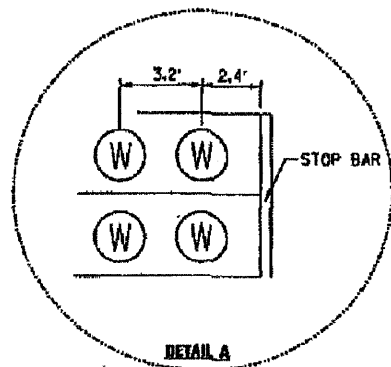
FILE NAME = 0924-PLAN-13 - I007.P02

USER NAME	DESIGNED	REVISION
-	MRS	10-13-09 *
-	PKB	-
-	PS	-
-	AG	-

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

PROPOSED EMERGENCY VEHICLE PREEMPTION  
142ND STREET & CHICAGO ROAD  
SCHEDULE OF QUANTITIES, CABLE PLAN, & SEQUENCE OF OPERATION

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1888/2021	09-0014-00-TL	COOK	43	28
CONTRACT NO. 63317				
FED. ROAD DIST. NO. 1   ILLINOIS   FED. AID PROJECT ARA-6003(336)				



ALL WIRELESS MAGNETIC DETECTOR TO BE LOCATED IN CENTER OF LANE, PLACED IN A 4" DIA. BY 2.5" DEEP CORE. IF NECESSARY, THE DIMENSIONS OF THE WIRELESS MAGNETIC DETECTORS SHOULD BE ADJUSTED TO AVOID ALL EXISTING LOOP DETECTORS.

RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOG, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

**RED LIGHT INSTALLATION LEGEND**  
 RED LIGHT ENFORCEMENT CABINET  
 RED LIGHT ENFORCEMENT CAMERA  
 WIRELESS MAGNETIC DETECTOR  
 RED LIGHT PHOTO ENFORCEMENT SIGN

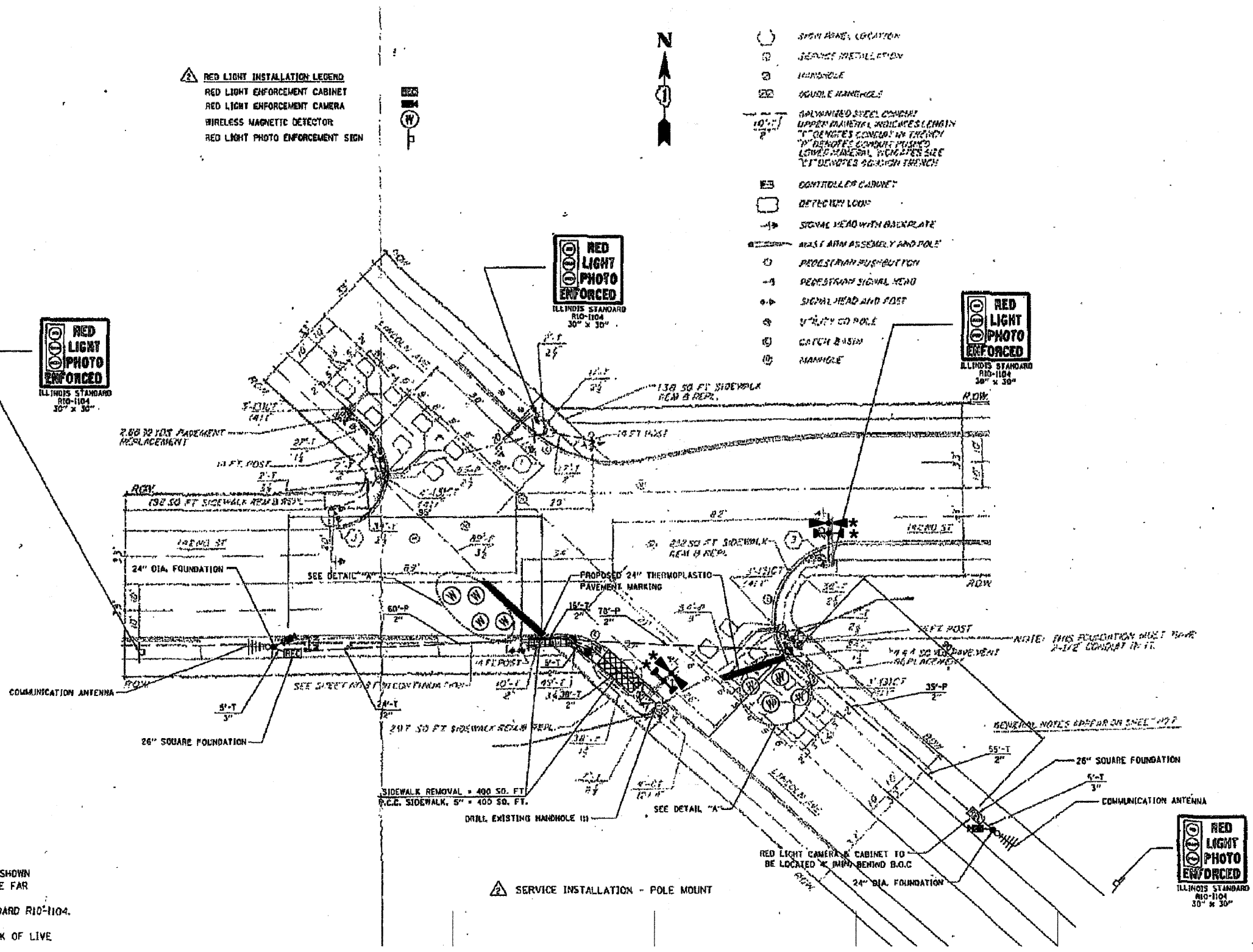
SPIN ARM LOCATION  
 SERVICE INSTALLATION  
 HANDHOLE  
 SIGNAL HANDHOLE  
 GALVANIZED STEEL CONDUIT  
 UPPER DIAMETER: 1.5" MINIMUM LENGTH  
 " " DIAMETER: 1.5" MINIMUM LENGTH  
 " " DIAMETER: 1.5" MINIMUM LENGTH  
 LOWER DIAMETER: 1.5" MINIMUM LENGTH  
 " " DIAMETER: 1.5" MINIMUM LENGTH

CONTROLLED CABINET  
 DETECTION LOOP  
 SIGNAL HEAD WITH BASEPLATE  
 SIGNAL ARM ASSEMBLY AND POLE  
 PEDESTRIAN PUSHBUTTON  
 PEDESTRIAN SIGNAL HEAD  
 SIGNAL HEAD AND POST  
 UTILITY CO. POLE  
 CATCH BASIN  
 HANDHOLE



**CONSTRUCTION NOTES:**

- SIGNAL CHANGE INDICATIONS WILL BE RECEIVED THROUGH INDUCTANCE COILS ATTACHED TO SIGNAL CABLES IN THE EXISTING CABINET. NO DIRECT CONNECTIONS OR SPLICES ARE ALLOWED.
- IDOT CONDUIT CAN ONLY BE USED TO FACILITATE THE ACQUISITION OF THE CHANGE INDICATION THROUGH THE USE OF INDUCTANCE COILS.
- THE COMMUNICATION ANTENNA WILL BE MOUNTED TO THE RED LIGHT RUNNING CAMERA HOUSING. IT WILL BE USED FOR BOTH DETECTION AND ENFORCEMENT COMMUNICATION REQUIREMENTS.
- RED LIGHT PHOTO ENFORCEMENT SIGNS SHALL BE INSTALLED IN LOCATIONS AS SHOWN ON THE PLANS. SIGNS SHALL BE PLACED AT THE FOLLOWING LOCATIONS: 1) THE FAR MAST ARM / SIGNAL POLE, 2) APPROXIMATELY 150' BEFORE THE INTERSECTION. THE SIGNS SHALL BE OF DIMENSIONS 30" x 30" ACCORDING TO ILLINOIS STANDARD R10-1104.
- ORANGE AND RED FLAGS MUST BE ATTACHED TO EACH SIGN FOR THE FIRST WEEK OF LIVE RLR CAMERA ENFORCEMENT.



\* THIS PLAN IS FOR THE PURPOSE OF INSTALLING EMERGENCY VEHICLE PREEMPTION EQUIPMENT AS SHOWN PER PLAN INDICATED IN THE SCHEDULE OF QUANTITIES. ALL OTHER EQUIPMENT SHOWN SHALL BE DISREGARDED.

\* ADDED EV PREEMPTION LOCATION NO. 10

FILE NAME = 0824-PLAN-14 - IDOT P01	USER NAME =	DESIGNED - MFS	REVISED - 10-13-09 *	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PROPOSED EMERGENCY VEHICLE PREEMPTION 142ND STREET & LINCOLN AVENUE TRAFFIC SIGNAL PLAN			F.A.U. RTE. 15983593	SECTION 09-00114-00-TL	COUNTY COOK	TOTAL SHEETS 43	SHEET NO. 29
PLOT SCALE =	DRAWN - PS	CHECKED - PKB	REVISED -		SCALE: 1"=20'	SHEET NO. 29 OF 43 SHEETS	STA. TO STA.	CONTRACT NO. 63317				
PLOT DATE = 10-13-09	CHECKED - AG	DRAWN - PS	REVISED -		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT ARA-9003(539)							



PHASE	MOVEMENT									
	1	2	3	4	5	6	7	8	9	10
INTERVAL										
STREET	CHANGE TO									
142ND ST SOUTHBOUND										
142ND ST NORTHBOUND										
142ND ST EASTBOUND										
142ND ST WESTBOUND										
PEDESTRIAN SIGNALS ACROSS 142ND ST										
PEDESTRIAN SIGNALS ACROSS LINCOLN AVE										

\* TO APPEAR ON PEDESTRIAN ACTUATION ONLY  
 \* FLASHING "DON'T WALK" SHALL TERMINATE AT COMPLETION OF PEDESTRIAN CLEARANCE INTERVAL  
 \* A STATION "DON'T WALK" SHALL APPEAR IN THE ABSENCE OF PEDESTRIAN ACTUATION

**SCHEDULE OF QUANTITIES**

ITEM	UNIT	TOTAL	Interaction Quantity	Lincoln	
				at 142nd Street Eastbound	at 142nd Street Northbound
TRAFFIC CONTROL AND PROTECTION, COMPLETE	LSUM	1	1		
PORTLAND CEMENT CONCRETE SIDEWALK, 6"	50 FT	400		400	
BIDEWALK REMOVAL	50 FT	400		400	
CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL	FOOT	168		85	108
CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL	FOOT	173		80	118
CONDUIT IN TRENCH, 3" DIA., GALVANIZED STEEL	FOOT	10		6	6
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	168		80	88
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1	1		
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C	FOOT	338		130	208
ELECTRIC CABLE IN CONDUIT, GROUND, NO. 6 1C	FOOT	378		182	227
CONCRETE FOUNDATION TYPE A	FOOT	8		4	4
CONCRETE FOUNDATION, 26" SQUARE	FOOT	8		4	4
HANDHOLE	EACH	2		1	1
DRILL EXISTING HANDHOLE	EACH	1	1		
WIRELESS MAGNETIC DETECTOR	EACH	8		4	4
RED LIGHT PHOTO ENFORCEMENT SIGN, 50" x 30"	EACH	4		2	2
INSTALLATION OF PRIVATE SERVICE DISCONNECT	LSUM	1	1		
INSTALLATION OF VENDOR SUPPLIED EQUIPMENT	LSUM	2		1	1
THERMOPLASTIC PAVEMENT MARKING - LINE 2"	FOOT	58		31	25

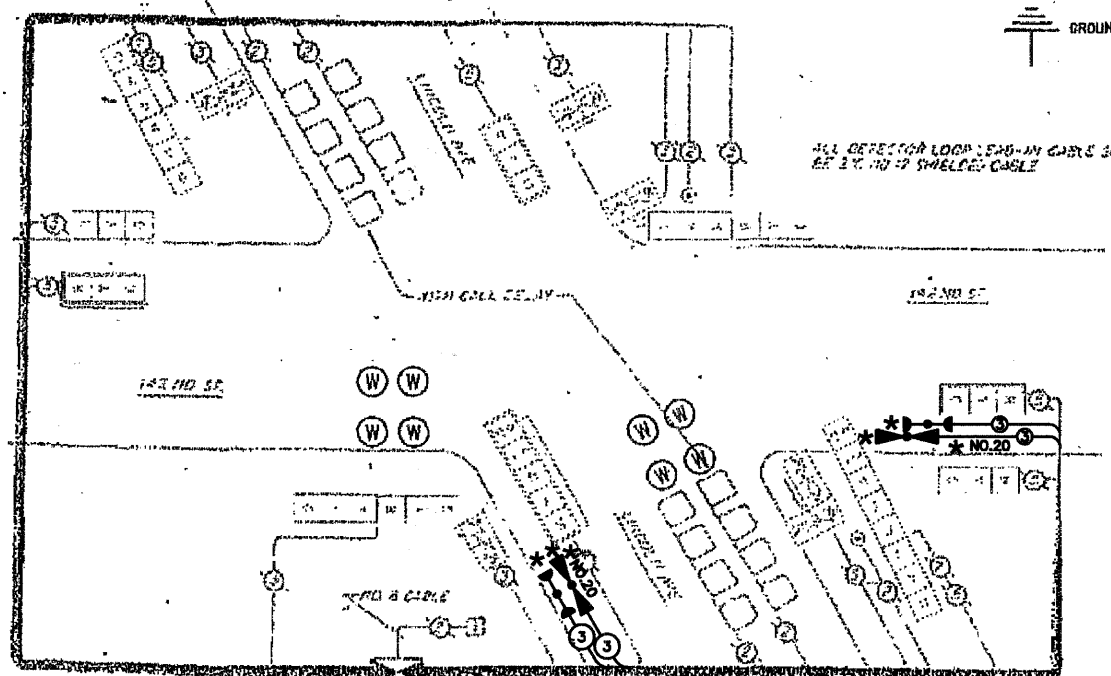
(ALL ITEMS TO BE INSTALLED AT TIME OF RLR CAMERA INSTALLATION UNLESS OTHERWISE NOTED)

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE	LED	% OPERATION	
SIGNAL (RED)	14		17	0.50	119.00
(YELLOW)	14		25	0.25	87.50
(GREEN)	14		15	0.25	52.50
ARROW	4		12	0.10	4.80
PED. SIGNAL	6		25	1.00	150.00
CONTROLLER	1		100	1.00	100.00
ILLUM. SIGN			25	0.05	
FLASHER				0.50	
ENERGY COSTS TO:				TOTAL =	513.80

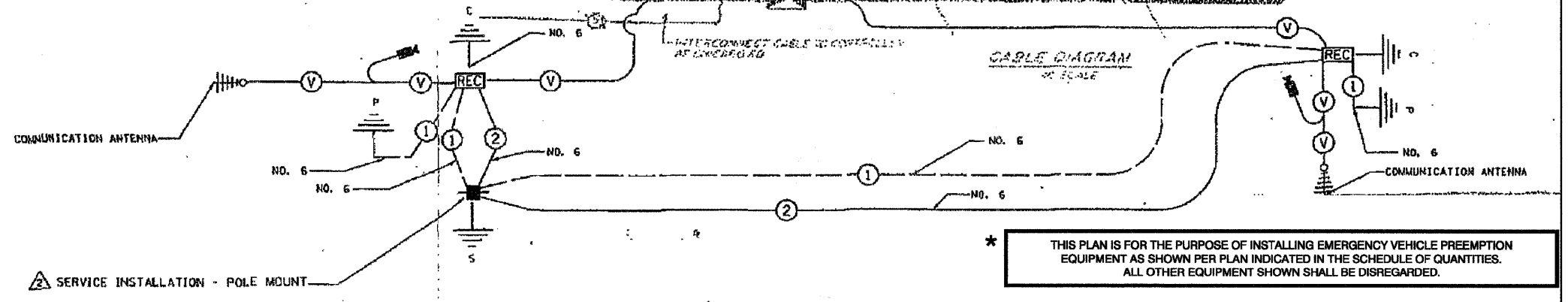
ILLINOIS DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAY/DISTRICT 1  
 201 WEST CENTER COURT/SCHAUMBURG, ILLINOIS 60196-1096  
 ENERGY SUPPLY CONTACT: TONY ESCALANTE  
 PHONE: 1-708-235-2328  
 COMPANY: GDM ED

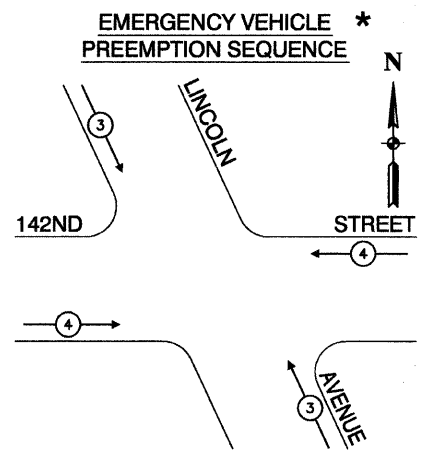
**LEGEND**

- SIGNAL HEAD (WITH BULBS, etc)
- RED LIGHT ENFORCEMENT CABINET
- RED LIGHT ENFORCEMENT CAMERA
- WIRELESS MAGNETIC DETECTOR
- VENDOR SPECIFIC CABLE
- GROUND ROD AT CAMERA POST
- GROUND ROD AT RED LIGHT ENFORCEMENT CABINET
- GROUND ROD AT SERVICE INSTALLATION
- SIGNAL HEAD
- GROUND ROD
- WIRELESS MAGNETIC DETECTOR
- RED LIGHT ENFORCEMENT CAMERA
- RED LIGHT ENFORCEMENT CABINET
- VENDOR SPECIFIC CABLE
- GROUND ROD AT CAMERA POST
- GROUND ROD AT RED LIGHT ENFORCEMENT CABINET
- GROUND ROD AT SERVICE INSTALLATION
- SIGNAL HEAD



- CONSTRUCTION NOTES:**
- SIGNAL CHANGE INDICATIONS WILL BE RECEIVED THROUGH INDUCTANCE COILS ATTACHED TO SIGNAL CABLES IN THE EXISTING CABINET. NO DIRECT CONNECTIONS OR SPLICES ARE ALLOWED.
  - IDOT CONDUIT CAN ONLY BE USED TO FACILITATE THE ACQUISITION OF THE CHANGE INDICATION THROUGH THE USE OF INDUCTANCE COILS.
  - THE COMMUNICATION ANTENNA WILL BE MOUNTED TO THE RED LIGHT RUNNING CAMERA HOUSING. IT WILL BE USED FOR BOTH DETECTION AND ENFORCEMENT COMMUNICATION REQUIREMENTS.





PROPOSED EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTORS	3	4
MOVEMENT	↘	→

**\* SCHEDULE OF QUANTITIES**

ITEM	UNIT	QUAN
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	255
LIGHT DETECTOR	EACH	2
LIGHT DETECTOR AMPLIFIER	EACH	1
MODIFY EXISTING CONTROLLER	EACH	1
ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED	FOOT	255

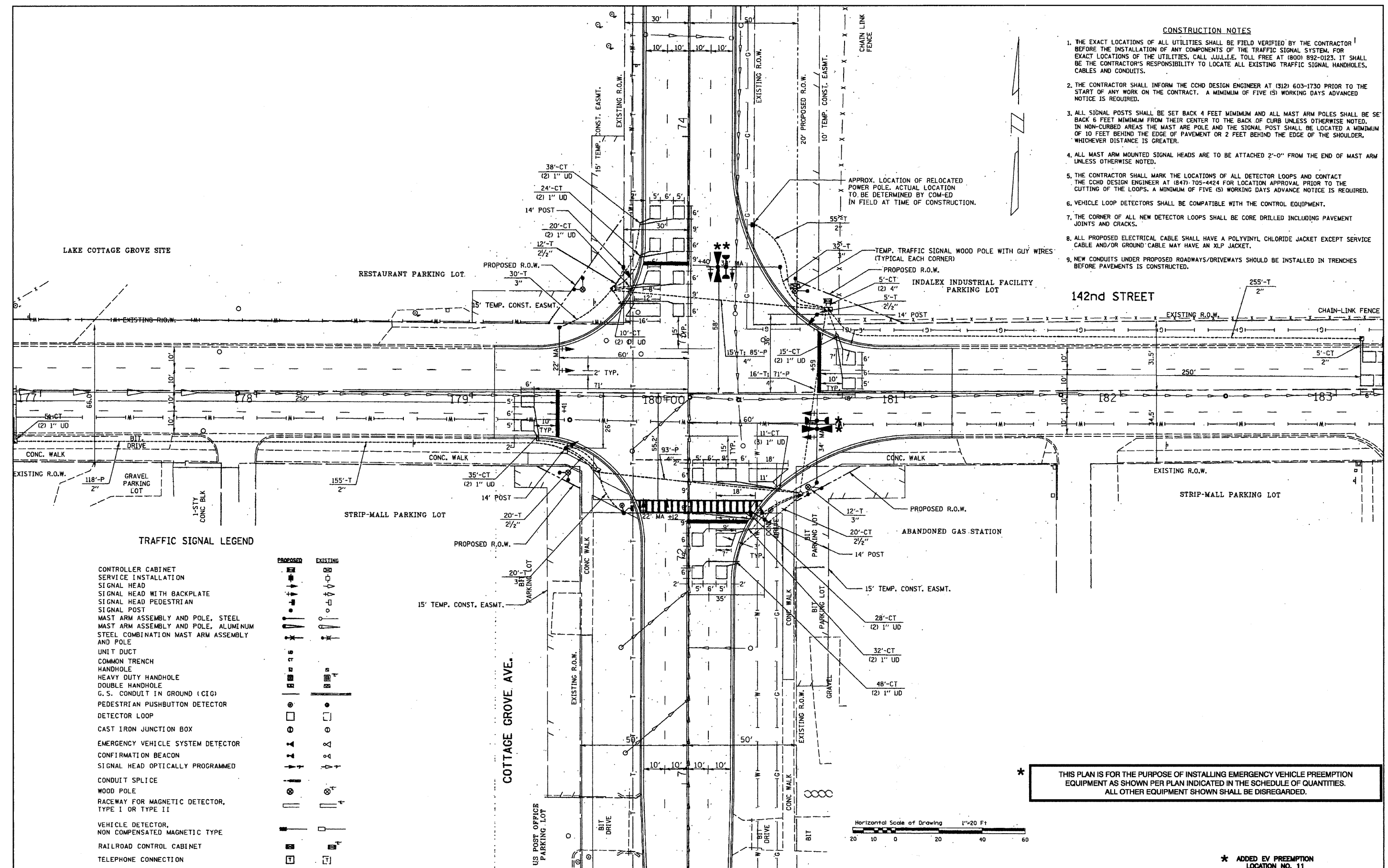
\* THIS PLAN IS FOR THE PURPOSE OF INSTALLING EMERGENCY VEHICLE PREEMPTION EQUIPMENT AS SHOWN PER PLAN INDICATED IN THE SCHEDULE OF QUANTITIES. ALL OTHER EQUIPMENT SHOWN SHALL BE DISREGARDED.

**\* ADDED EV PREEMPTION LOCATION NO. 10**

FILE NAME = 0924-PLAN-14 - IDOT P03	USER NAME =	DESIGNED - MRS	REVISED - 10-13-09 *	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>PROPOSED EMERGENCY VEHICLE PREEMPTION 142ND STREET &amp; LINCOLN AVENUE SCHEDULE OF QUANTITIES, CABLE PLAN, &amp; SEQUENCE OF OPERATION</b>			F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE =	CHECKED - PKB	REVISED -		1599/3593	09-00114-00-TL	COOK	43	31			
	PLOT DATE = 10-13-09	DRAWN - PS	REVISED -		CONTRACT NO. 63317							
		CHECKED - AG	REVISED -		SCALE: NTS	SHEET NO. 31 OF 43 SHEETS	STA. TO STA.	FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT ARA-9003(336)		

**CONSTRUCTION NOTES**

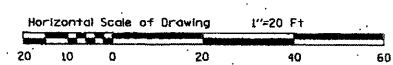
1. THE EXACT LOCATIONS OF ALL UTILITIES SHALL BE FIELD VERIFIED BY THE CONTRACTOR BEFORE THE INSTALLATION OF ANY COMPONENTS OF THE TRAFFIC SIGNAL SYSTEM. FOR EXACT LOCATIONS OF THE UTILITIES, CALL JULLIE, TOLL FREE AT (800) 892-0123. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO LOCATE ALL EXISTING TRAFFIC SIGNAL HANDHOLES, CABLES AND CONDUITS.
2. THE CONTRACTOR SHALL INFORM THE CCHD DESIGN ENGINEER AT (312) 603-1730 PRIOR TO THE START OF ANY WORK ON THE CONTRACT. A MINIMUM OF FIVE (5) WORKING DAYS ADVANCED NOTICE IS REQUIRED.
3. ALL SIGNAL POSTS SHALL BE SET BACK 4 FEET MINIMUM AND ALL MAST ARM POLES SHALL BE SET BACK 6 FEET MINIMUM FROM THEIR CENTER TO THE BACK OF CURB UNLESS OTHERWISE NOTED. IN NON-CURBED AREAS THE MAST ARM POLE AND THE SIGNAL POST SHALL BE LOCATED A MINIMUM OF 10 FEET BEHIND THE EDGE OF PAVEMENT OR 2 FEET BEHIND THE EDGE OF THE SHOULDER, WHICHEVER DISTANCE IS GREATER.
4. ALL MAST ARM MOUNTED SIGNAL HEADS ARE TO BE ATTACHED 2'-0" FROM THE END OF MAST ARM UNLESS OTHERWISE NOTED.
5. THE CONTRACTOR SHALL MARK THE LOCATIONS OF ALL DETECTOR LOOPS AND CONTACT THE CCHD DESIGN ENGINEER AT (847) 705-4424 FOR LOCATION APPROVAL PRIOR TO THE CUTTING OF THE LOOPS. A MINIMUM OF FIVE (5) WORKING DAYS ADVANCE NOTICE IS REQUIRED.
6. VEHICLE LOOP DETECTORS SHALL BE COMPATIBLE WITH THE CONTROL EQUIPMENT.
7. THE CORNER OF ALL NEW DETECTOR LOOPS SHALL BE CORE DRILLED INCLUDING PAVEMENT JOINTS AND CRACKS.
8. ALL PROPOSED ELECTRICAL CABLE SHALL HAVE A POLYVINYL CHLORIDE JACKET EXCEPT SERVICE CABLE AND/OR GROUND CABLE MAY HAVE AN XLP JACKET.
9. NEW CONDUITS UNDER PROPOSED ROADWAYS/DRIVEWAYS SHOULD BE INSTALLED IN TRENCHES BEFORE PAVEMENTS IS CONSTRUCTED.



**TRAFFIC SIGNAL LEGEND**

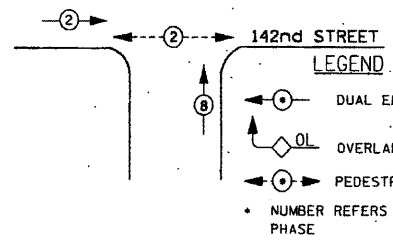
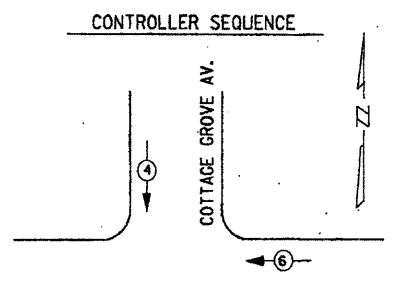
	PROPOSED	EXISTING
CONTROLLER CABINET	[Symbol]	[Symbol]
SERVICE INSTALLATION	[Symbol]	[Symbol]
SIGNAL HEAD	[Symbol]	[Symbol]
SIGNAL HEAD WITH BACKPLATE	[Symbol]	[Symbol]
SIGNAL HEAD PEDESTRIAN	[Symbol]	[Symbol]
SIGNAL POST	[Symbol]	[Symbol]
MAST ARM ASSEMBLY AND POLE, STEEL	[Symbol]	[Symbol]
MAST ARM ASSEMBLY AND POLE, ALUMINUM	[Symbol]	[Symbol]
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE	[Symbol]	[Symbol]
UNIT DUCT	[Symbol]	[Symbol]
COMMON TRENCH	[Symbol]	[Symbol]
HANDHOLE	[Symbol]	[Symbol]
HEAVY DUTY HANDHOLE	[Symbol]	[Symbol]
DOUBLE HANDHOLE	[Symbol]	[Symbol]
G. S. CONDUIT IN GROUND (CIG)	[Symbol]	[Symbol]
PEDESTRIAN PUSHBUTTON DETECTOR	[Symbol]	[Symbol]
DETECTOR LOOP	[Symbol]	[Symbol]
CAST IRON JUNCTION BOX	[Symbol]	[Symbol]
EMERGENCY VEHICLE SYSTEM DETECTOR	[Symbol]	[Symbol]
CONFIRMATION BEACON	[Symbol]	[Symbol]
SIGNAL HEAD OPTICALLY PROGRAMMED	[Symbol]	[Symbol]
CONDUIT SPLICE	[Symbol]	[Symbol]
WOOD POLE	[Symbol]	[Symbol]
RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II	[Symbol]	[Symbol]
VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE	[Symbol]	[Symbol]
RAILROAD CONTROL CABINET	[Symbol]	[Symbol]
TELEPHONE CONNECTION	[Symbol]	[Symbol]

**\* THIS PLAN IS FOR THE PURPOSE OF INSTALLING EMERGENCY VEHICLE PREEMPTION EQUIPMENT AS SHOWN PER PLAN INDICATED IN THE SCHEDULE OF QUANTITIES. ALL OTHER EQUIPMENT SHOWN SHALL BE DISREGARDED.**



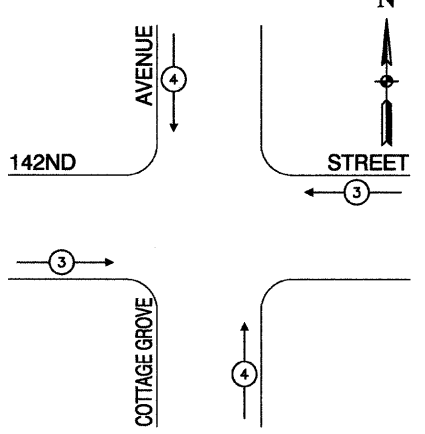
FILE NAME = 0824-PLAN-15 - 100T P01	USER NAME =	DESIGNED - MRS	REVISED - 10-13-09 *	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>PROPOSED EMERGENCY VEHICLE PREEMPTION 142ND STREET &amp; COTTAGE GROVE AVENUE TRAFFIC SIGNAL PLAN</b>		F.A.U. RTE. 1588/2824	SECTION 09-00114-00-TL	COUNTY COOK	TOTAL SHEETS 43	SHEET NO. 32	
PLOT SCALE =	DRAWN - PS	CHECKED - PKB	REVISED -		SCALE: 1"=20'	SHEET NO. 32 OF 43 SHEETS	STA. TO STA.	CONTRACT NO. 63317				
PLOT DATE = 10-13-09	CHECKED - AG	DRAWN - PS	REVISED -		* ADDED EV PREEMPTION LOCATION NO. 11							
					FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT ARA-9003(336)							





PHASE DESIGNATION DIAGRAM

EMERGENCY VEHICLE \*  
PREEMPTION SEQUENCE



PROPOSED EMERGENCY VEHICLE PREEMPTORS	
EMERGENCY VEHICLE PREEMPTION	3 4
MOVEMENT	→ ←

SCHEDULE OF QUANTITIES

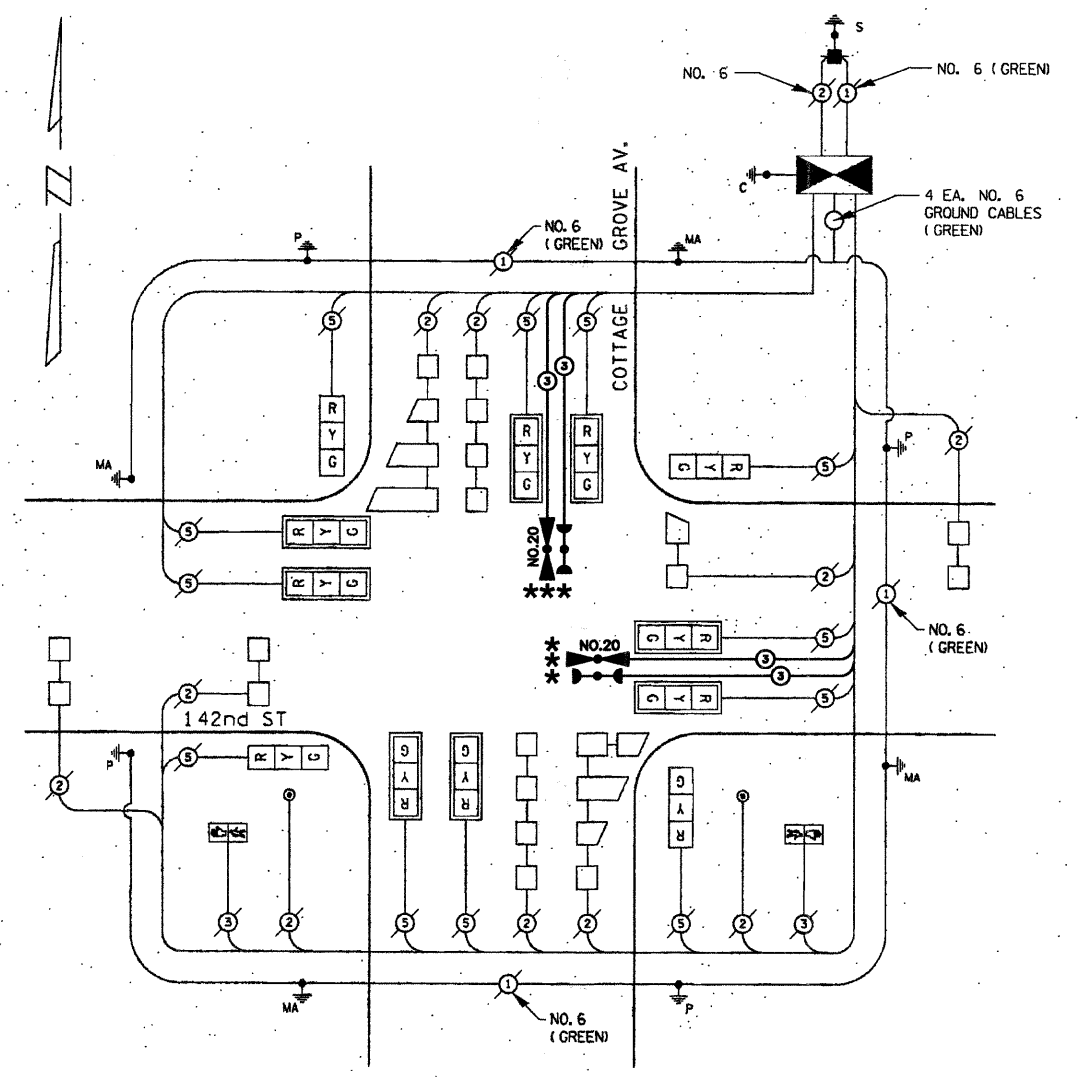
ITEM	UNIT	QUANTITY
SIGN PANEL-TYPE 1	50 FT	13.5
SIGN PANEL-TYPE 2	50 FT	27.5
CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL	FOOT	560
CONDUIT IN TRENCH, 2-1/2" DIA., GALVANIZED STEEL	FOOT	85
CONDUIT IN TRENCH, 3" DIA., GALVANIZED STEEL	FOOT	90
CONDUIT IN TRENCH, 4" DIA., GALVANIZED STEEL	FOOT	50
CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL	FOOT	30
CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL	FOOT	275
HANDHOLE	EACH	5
DOUBLE HANDHOLE	EACH	1
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	740
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	390
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	400
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	2085
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14, 1 PAIR	FOOT	1500
ELECTRIC CABLE IN CONDUIT, SERVICE NO. 6, 2 C	FOOT	65
ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6, 1 C	FOOT	575
TRAFFIC SIGNAL POST, GALVANIZED STEEL, 14 FT.	EACH	4
STEEL MAST ARM ASSEMBLY AND POLE, 22 FT.	EACH	2
STEEL MAST ARM ASSEMBLY AND POLE, 34 FT.	EACH	2
CONCRETE FOUNDATION, TYPE D	FOOT	16
CONCRETE FOUNDATION, TYPE D	FOOT	4
CONCRETE FOUNDATION, TYPE E, 30-INCH DIAMETER	FOOT	47
TRAFFIC SIGNAL BACKPLATE	EACH	8
INDUCTION LOOP DETECTOR	EACH	8
DETECTOR LOOP, TYPE I	FOOT	870
PEDESTRIAN PUSHBUTTON	EACH	2
TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING HANDHOLE	EACH	8
REMOVE EXISTING CONCRETE FOUNDATION	EACH	9
SIGNAL HEAD, L.E.D., 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	8
SIGNAL HEAD, L.E.D., 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	4
PEDESTRIAN SIGNAL HEAD, L.E.D., 1-FACE, BRACKET MOUNTED	EACH	4
SERVICE INSTALLATION, POLE MOUNT	EACH	1

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL
TYPE	NO. LAMPS	WATTAGE (INCAND.)	WATTAGE (LED)	% OPERATION	WATTAGE
SIGNAL (RED)	12	156	17	0.50	102.00
(YELLOW)	12	156	25	0.25	75.00
(GREEN)	12	156	15	0.25	45.00
ARROW		156	12	0.10	
PED. SIGNAL	2	96	25	1.00	50.00
CONTROLLER	1	700	100	1.00	100.00
ILLUM. SIGN		84		0.05	
FLASHER					0.50
ENERGY COSTS TO: (EXIST. SERVICE DROP) TOTAL =					372.00

FOUNDATION	FT. (m) (DEPTH)	CABLE SLACK	FT. (m)	VERTICAL CABLE	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'-H-2"
E - M. ARM POLE		SIGNAL POST	3 (1.0)	6m H-0.6m=	
< 30' MA 30" (750mm) DIA.	10' (3.0)	CONTROLLER CAB.	3 (1.0)	BRACKET MOUNTED	13 (4.0)
< 40' MA 30" (750mm) DIA.	13.5' (4.1)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
< 40' MA 36" (900mm) DIA.	11' (3.3)	ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
< 50' MA 36" (900mm) DIA.	13' (4.0)	GROUND CABLE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
≥ 50' MA 36" (900mm) DIA.	15' (4.6)	POST MOUNTED			6 (1.8)

VILLAGE OF DOLTON  
14014 PARK AV.  
DOLTON, IL 60615  
ENERGY SUPPLY CONTACT: DOUG BROWNFIELD  
PHONE: 708-235-2339  
COMPANY: COM. EDISON

DESIGNED - MRS	REVISED - 10-13-09 *
CHECKED - PKB	REVISED -
DRAWN - PS	REVISED -
CHECKED - AG	REVISED -



CABLE PLAN

\* SCHEDULE OF QUANTITIES

ITEM	UNIT	QUAN
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	273
LIGHT DETECTOR	EACH	2
LIGHT DETECTOR AMPLIFIER	EACH	1
MODIFY EXISTING CONTROLLER	EACH	1
ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED	FOOT	273

CABLE PLAN LEGEND

- EXISTING: (R) 12" (300mm) TRAFFIC SIGNAL SECTION
- EXISTING: (W) 12" (300mm) PEDESTRIAN SIGNAL SECTION
- EXISTING: (S) 12" (300mm) PEDESTRIAN SIGNAL SECTION
- EXISTING: (C) CONTROLLER CABINET
- EXISTING: (I) SERVICE INSTALLATION
- EXISTING: (T) TELEPHONE CONNECTION
- EXISTING: (V) VEHICLE DETECTOR, INDUCTION LOOP
- EXISTING: (M) MAGNETIC DETECTOR
- EXISTING: (E) EMERGENCY VEHICLE LIGHT DETECTOR
- EXISTING: (B) CONFIRMATION BEACON
- EXISTING: (P) PUSHBUTTON DETECTOR
- EXISTING: (2) DENOTES NUMBER OF CONDUCTORS, ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.
- EXISTING: (1) GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)
- EXISTING: (24) FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 MM12F SM12F
- EXISTING: (R Y G) SIGNAL FACE WITH BACKPLATE, "P" INDICATES PROGRAMMED HEAD
- EXISTING: (R Y G) RAILROAD CONTROL CABINET
- EXISTING: (E) ILLUMINATED SIGN, L.E.D. "NO LEFT TURN"
- EXISTING: (E) ILLUMINATED SIGN, L.E.D. "NO RIGHT TURN"
- EXISTING: (H/C) GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (H), OR CONTROLLER (C).
- EXISTING: (P) GROUND ROD AT POST (P), OR MAST ARM POLE (MA).
- EXISTING: (S) GROUND ROD AT ELECTRIC SERVICE INSTALLATION
- PROPOSED: (R) 12" (300mm) TRAFFIC SIGNAL SECTION
- PROPOSED: (W) 12" (300mm) PEDESTRIAN SIGNAL SECTION
- PROPOSED: (S) 12" (300mm) PEDESTRIAN SIGNAL SECTION
- PROPOSED: (C) CONTROLLER CABINET
- PROPOSED: (I) SERVICE INSTALLATION
- PROPOSED: (T) TELEPHONE CONNECTION
- PROPOSED: (V) VEHICLE DETECTOR, INDUCTION LOOP
- PROPOSED: (M) MAGNETIC DETECTOR
- PROPOSED: (E) EMERGENCY VEHICLE LIGHT DETECTOR
- PROPOSED: (B) CONFIRMATION BEACON
- PROPOSED: (P) PUSHBUTTON DETECTOR
- PROPOSED: (2) DENOTES NUMBER OF CONDUCTORS, ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.
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- PROPOSED: (R Y G) RAILROAD CONTROL CABINET
- PROPOSED: (E) ILLUMINATED SIGN, L.E.D. "NO LEFT TURN"
- PROPOSED: (E) ILLUMINATED SIGN, L.E.D. "NO RIGHT TURN"
- PROPOSED: (H/C) GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (H), OR CONTROLLER (C).
- PROPOSED: (P) GROUND ROD AT POST (P), OR MAST ARM POLE (MA).
- PROPOSED: (S) GROUND ROD AT ELECTRIC SERVICE INSTALLATION

\* THIS PLAN IS FOR THE PURPOSE OF INSTALLING EMERGENCY VEHICLE PREEMPTION EQUIPMENT AS SHOWN PER PLAN INDICATED IN THE SCHEDULE OF QUANTITIES. ALL OTHER EQUIPMENT SHOWN SHALL BE DISREGARDED.

\* ADDED EV PREEMPTION  
LOCATION NO. 11

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

PROPOSED EMERGENCY VEHICLE PREEMPTION  
142ND STREET & COTTAGE GROVE AVENUE  
SCHEDULE OF QUANTITIES, CABLE PLAN, & SEQUENCE OF OPERATION

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1586/2924	09-00114-00-TL	COOK	43	33
CONTRACT NO. 63317				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT ARA-9003(336)				

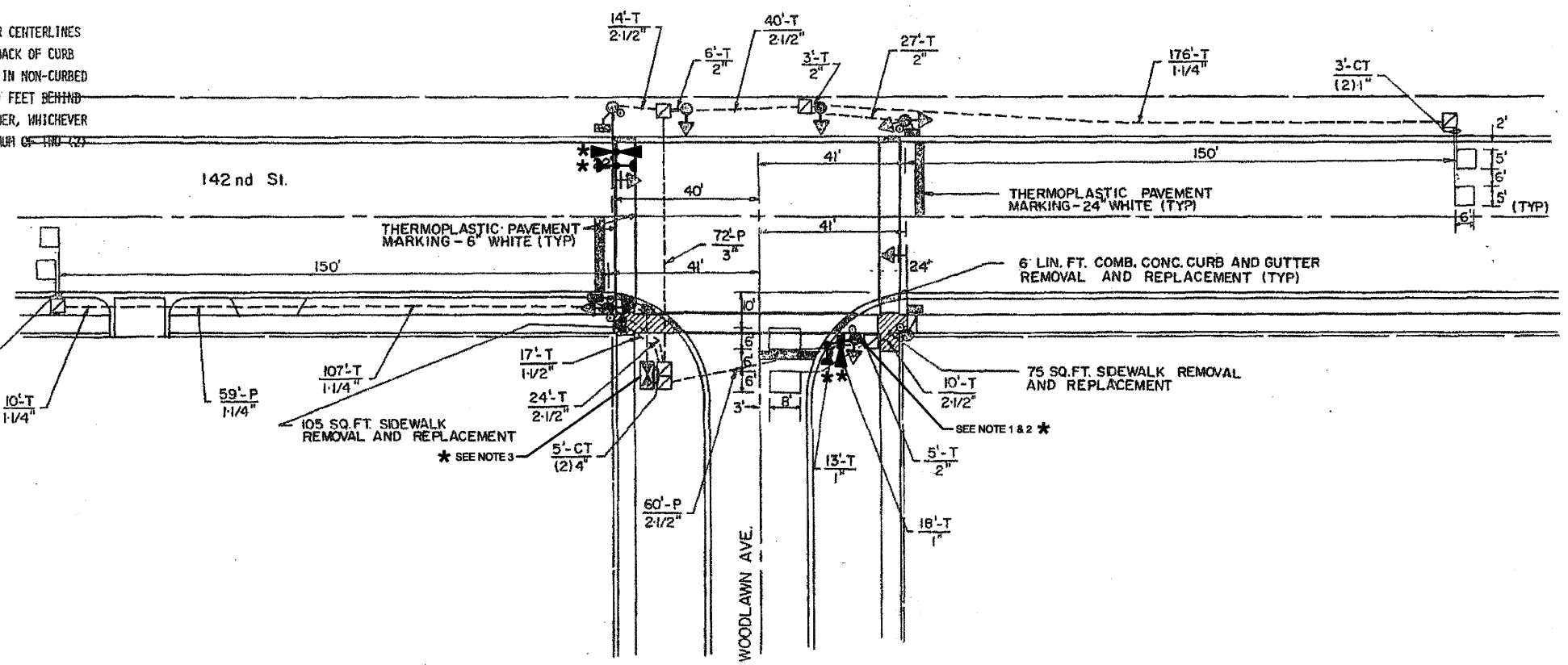
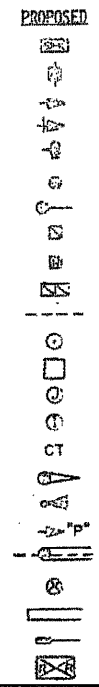
SCALE: NTS SHEET NO. 33 OF 43 SHEETS STA. TO STA.



- BE INSTALLED IN STRICT CONFORMITY WITH THE LOOP DETECTOR AMPLIFIER MANUFACTURERS RECOMMENDATIONS. THE DETECTOR LOOP SHALL BE MEASURED FOR THAT PORTION OF SAW CUT BEYOND THE SPLICE AS SPECIFIED IN SECTION T 418.04 OF THE SPECIFICATIONS FOR TRAFFIC CONTROL ITEMS.
2. LEAD-IN WIRING SHALL BE INSTALLED IN STRICT CONFORMITY WITH THE MANUFACTURERS RECOMMENDATIONS. THE 2/C SHIELDED CABLE TO BE USED FOR THE DETECTOR LOOP LEAD-IN SHALL BE MEASURED FROM THE SPLICE TO THE CONTROLLER AS SPECIFIED IN SECTION T 421.04 OF THE STANDARD SPECIFICATIONS FOR TRAFFIC CONTROL ITEMS. FLAT CABLE WILL NOT BE PERMITTED.
3. ALL SIGNAL AND DETECTOR ELECTRIC CABLE THAT IS FURNISHED BY THE CONTRACTOR SHALL BE PROTECTED BY POLETHYLENE INSULATION WITH A POLYVINYLCHLORIDE JACKET. SERVICE CABLE MAY HAVE AN XLP JACKET.
4. THE REMOVAL AND REPLACEMENT OF SIDEWALK, DRIVEWAY, MEDIAN AND ISLAND SURFACE PAVING AT HANDHOLES, JACKING PITS, INSPECTION OPENINGS AND CONCRETE JUNCTION BOXES SHALL BE SAW CUT AROUND THE AREA TO BE REMOVED. THE REMOVAL AND REPLACEMENT OF SIDEWALK, DRIVEWAY, MEDIAN AND ISLAND SURFACE PAVING WILL BE PAID FOR SEPARATELY.
5. THE EXACT LOCATION OF ALL UTILITIES SHALL BE FIELD VERIFIED BY THE CONTRACTOR BEFORE THE INSTALLATION OF ANY COMPONENTS OF THE TRAFFIC SIGNAL SYSTEM. FOR LOCATION OF UTILITIES CALL J.U.L.I.E. TOLL FREE NUMBER 800-892-0123 AND STATE MAINTAINED TRAFFIC SIGNAL 312-378-2800.
6. ALL SIGNAL POST AND MAST ARM POLES SHALL BE LOCATED WITH THEIR CENTERLINES A MINIMUM OF FOUR (4) AND SIX (6) FEET RESPECTIVELY FROM THE BACK OF CURB UNLESS NOTED OR DIMENSIONED TO THE CONTRARY ON THE DRAWINGS. IN NON-CURBED AREAS THE MAST ARM POLE SHALL BE LOCATED A MINIMUM OF TEN (10) FEET BEHIND THE EDGE OF PAVEMENT OR TWO (2) FEET BEHIND THE EDGE OF SHOULDER, WHICHEVER DISTANCE IS GREATER. SIGNAL POSTS SHOULD BE PLACED AT A MINIMUM OF TWO (2) FEET BEHIND THE EDGE OF THE SHOULDER.
7. FOR THE LOCATION OF ALL LOOPS AT THIS INTERSECTION, CONTACT THE I.D.O.T. AREA TRAFFIC SIGNAL ENGINEER AT 800-4139 WHO WILL MARK THE PAVEMENT FOR THE CUTTING OF THE LOOPS.

**TRAFFIC SIGNAL LEGEND**

- PROPOSED**
- CONTROLLER
  - SERVICE INSTALLATION
  - SIGNAL HEAD
  - SIGNAL HEAD WITH BACKPLATE
  - SIGNAL HEAD, PEDESTRIAN
  - SIGNAL POST
  - MAST ARM ASSEMBLY AND POLE, STEEL
  - HANDHOLE
  - HEAVY DUTY HANDHOLE
  - DOUBLE HANDHOLE
  - G.S. CONDUIT IN TRENCH OR PUSHED
  - PEDESTRIAN PUSHBUTTON DETECTOR
  - DETECTOR LOOP
  - CONCRETE JUNCTION BOX
  - CAST IRON JUNCTION BOX
  - COMMON TRENCH
  - MAST ARM ASSEMBLY AND POLE, ALUMINUM
  - EMERGENCY VEHICLE SYSTEM DETECTOR
  - SIGNAL HEAD OPTICALLY PROGRAMMED
  - CONDUIT SPLICE
  - WOOD POLE
  - RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II
  - VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE
  - RAILROAD CONTROL CABINET



- \* NOTES:**
1. EXISTING SIGNAL POST SHALL BE REPLACED WITH NEW 18-FOOT SIGNAL POST ON EXISTING FOUNDATION. RELOCATION OF ANY EXISTING SIGNAL HEADS, PEDESTRIAN SIGNAL HEADS OR PEDESTRIAN PUSHBUTTONS SHALL BE PAID FOR SEPARATELY. RELOCATION OF ANY SIGNS BRACKETED TO THE POST SHALL BE INCIDENTAL. THE LIGHT DETECTOR SHALL BE BRACKET MOUNTED TO THE TOP OF THE NEW POST. THE SALVAGE VALUE OF THE EXISTING POST SHALL BE INCLUDED IN THE PRICE OF THE PAY ITEM. TRAFFIC SIGNAL POST, GALVANIZED STEEL, 18 FT
  2. THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACTOR BID PRICE.  
TRAFFIC SIGNAL POST, 18FT
  3. THE FOLLOWING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF IDOT, AND SHALL BE STORED AS STATED IN THE SPECIAL PROVISION FOR PICK UP BY THE IDOT FORCES AS DESIGNATED BY ENGINEER.  
CONTROLLER EACH  
CONTROLLER CABINET EACH 1

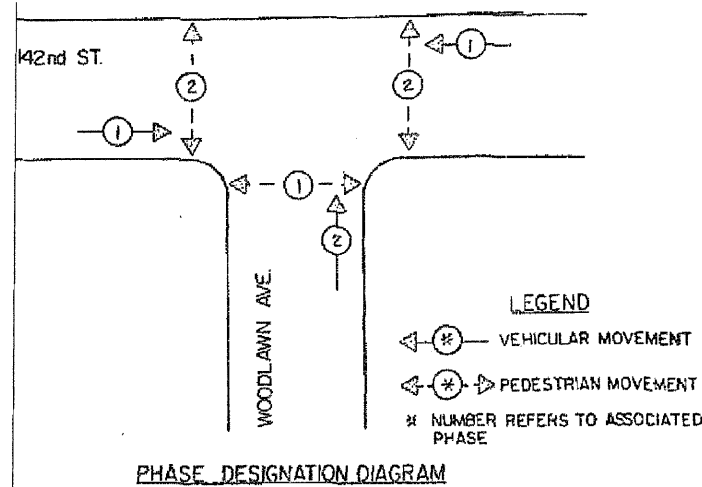
**\* THIS PLAN IS FOR THE PURPOSE OF INSTALLING EMERGENCY VEHICLE PREEMPTION EQUIPMENT AS SHOWN PER PLAN INDICATED IN THE SCHEDULE OF QUANTITIES. ALL OTHER EQUIPMENT SHOWN SHALL BE DISREGARDED.**

**\* ADDED EV PREEMPTION LOCATION NO. 12**

FILE NAME = 0924-PLAN-16 - IDOT P01	USER NAME =	DESIGNED - MFS	REVISED - 10-13-08 *	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>PROPOSED EMERGENCY VEHICLE PREEMPTION 142ND STREET &amp; WOODLAWN AVENUE TRAFFIC SIGNAL PLAN</b>		F.A.U. RTE. 1599	SECTION 09-00114-00-TL	COUNTY COOK	TOTAL SHEETS 43	SHEET NO. 34	
	PLOT SCALE =	CHECKED - PKB	REVISED -		SCALE: 1"=20'	SHEET NO. 34	OF 43 SHEETS	STA. TO STA.	CONTRACT NO. 63317			
	PLOT DATE = 10-13-08	DRAWN - PS	REVISED -									
		CHECKED - AG	REVISED -		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT ARA-9003(536)							

CONTROLLER SEQUENCE I

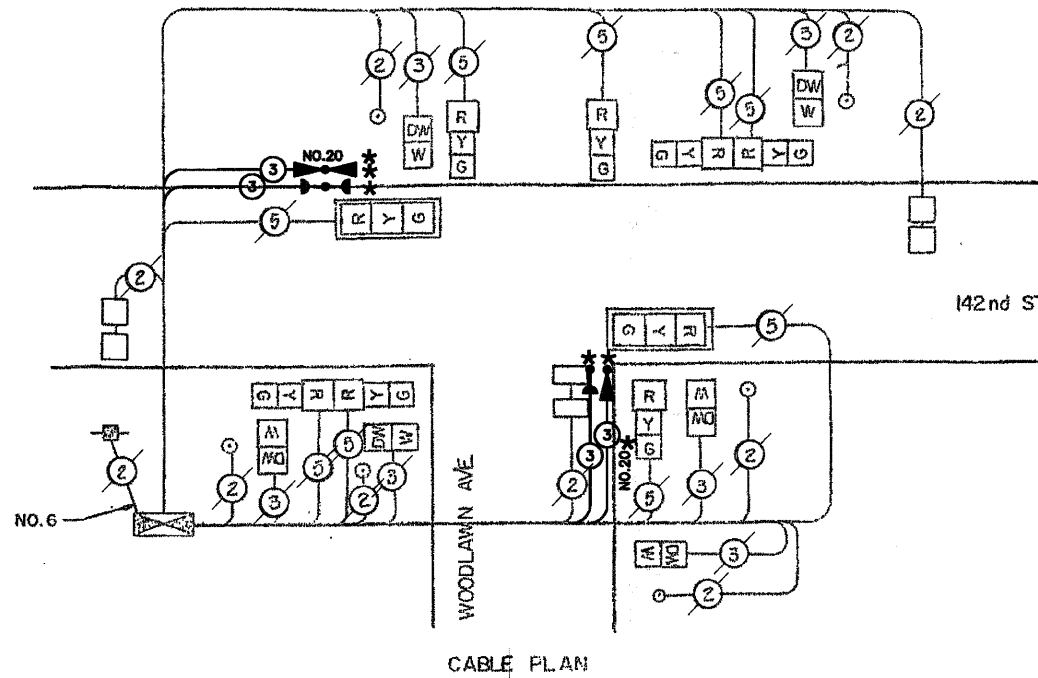
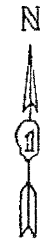
REFERRING TO STANDARD 2393, THE VEHICULAR AND PEDESTRIAN PHASES USED ARE DESIGNATED BELOW.



SFTY-16

SUMMARY OF QUANTITIES

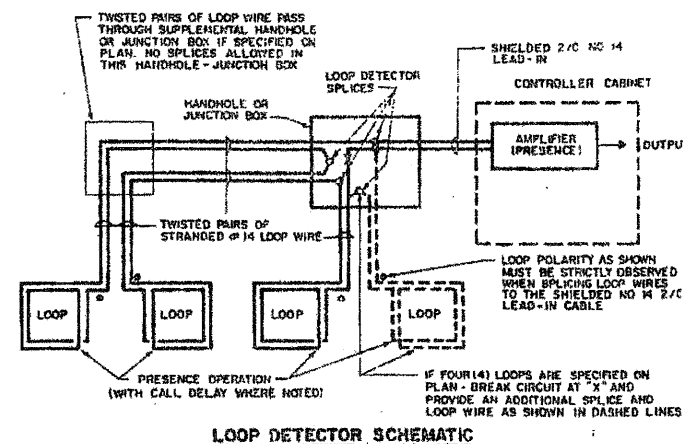
QUANTITY	UNIT	ITEM	ITEM NO.	QTY	UNIT	DESCRIPTION
18	SG. FT.	SIGN PANEL TYPE 1	T42009	10	LIN. FT.	GALVANIZED STEEL CONDUIT IN TRENCH 4"
3	EACH	SIGNAL HEAD, ALUMINUM, 1-FACE, 3-SECTION, BRACKET MOUNTED	T42013	59	LIN. FT.	GALVANIZED STEEL CONDUIT, PUSHED 1-1/4"
2	EACH	SIGNAL HEAD, ALUMINUM, 1-FACE, 3-SECTION, MAST ARM MOUNTED	T42016	60	LIN. FT.	GALVANIZED STEEL CONDUIT, PUSHED 2-1/2"
2	EACH	SIGNAL HEAD, ALUMINUM, 2-FACE, 3-SECTION, BRACKET MOUNTED	T42017	72	LIN. FT.	GALVANIZED STEEL CONDUIT, PUSHED 3"
2	EACH	SIGNAL HEAD, ALUMINUM, 2-FACE, 3-SECTION, BRACKET MOUNTED	T42124	18	LIN. FT.	ELECTRIC CABLE IN CONDUIT NO. 6 2/C
4	EACH	PEDESTRIAN SIGNAL HEAD, ALUMINUM, 1-FACE, BRACKET MOUNTED	T42142	558	LIN. FT.	ELECTRIC CABLE IN CONDUIT NO. 14 2/C
1	EACH	PEDESTRIAN SIGNAL HEAD, ALUMINUM, 2-FACE, BRACKET MOUNTED	T421A5	558	LIN. FT.	ELECTRIC CABLE IN CONDUIT NO. 14 3/C
2	EACH	TRAFFIC SIGNAL BACKPLATE	T421A1	1022	LIN. FT.	ELECTRIC CABLE IN CONDUIT NO. 14 5/C
5	EACH	TRAFFIC SIGNAL POST, FERROUS 14 FT.	T42184	608	LIN. FT.	ELECTRIC CABLE IN CONDUIT NO. 14 2/C SHIELDED
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE 24 FT.	T42605	1	EACH	SERVICE INSTALLATION, TYPE C
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE 24 FT.	T42701	15	LIN. FT.	CONCRETE FOUNDATION, TYPE A
1	EACH	FULL-ACTUATED CONTROLLER, STANDARD SEQUENCE I, 2 PHASES, IN TYPE IV CABINET	T42702	3.5	LIN. FT.	CONCRETE FOUNDATION, TYPE D
2	EACH	INDUCTION LOOP DETECTOR AMPLIFIER, DIGITAL DESIGN	T42703	20	LIN. FT.	CONCRETE FOUNDATION, TYPE E 24-INCH DIAMETER
1	EACH	INDUCTION LOOP DETECTOR AMPLIFIER WITH CALL DELAY, DIGITAL DESIGN	T42804	5	EACH	CONCRETE HANDHOLE
250	LIN. FT.	DETECTOR LOOP	T42806	1	EACH	CONCRETE DOUBLE HANDHOLE
6	EACH	PEDESTRIAN PUSHBUTTON	T43001	471	LIN. FT.	TRENCH AND BACKFILL
43	LIN. FT.	GALVANIZED STEEL CONDUIT IN TRENCH 1"	T50104	253	LIN. FT.	THERMOPLASTIC PAVEMENT MARKING - LINE 6"
293	LIN. FT.	GALVANIZED STEEL CONDUIT IN TRENCH 1-1/4"	T50107	56	LIN. FT.	THERMOPLASTIC PAVEMENT MARKING - LINE 24"
17	LIN. FT.	GALVANIZED STEEL CONDUIT IN TRENCH 1-3/2"	617017	36	LIN. FT.	COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT
41	LIN. FT.	GALVANIZED STEEL CONDUIT IN TRENCH 2"	617046	180	SG. FT.	SIDEWALK REMOVAL AND REPLACEMENT
88	LIN. FT.	GALVANIZED STEEL CONDUIT IN TRENCH 2-1/2"	X04748	1	L. SUM	MOBILIZATION



SCHEDULE OF SIGNAL HEADS

3	EACH	SIGNAL HEAD, ALUMINUM, 1-FACE, 3-SECTION WITH 12" RED LENSES, BRACKET MOUNTED
2	EACH	SIGNAL HEAD, ALUMINUM, 1-FACE, 3-SECTION WITH 12" LENSES, MAST ARM MOUNTED
2	EACH	SIGNAL HEAD, ALUMINUM, 2-FACE, 3-SECTION WITH 12" RED LENSES, BRACKET MOUNTED
4	EACH	PEDESTRIAN SIGNAL HEAD, ALUMINUM, 1-FACE, 2-SECTION WITH 12" LENSES, BRACKET MOUNTED
1	EACH	PEDESTRIAN SIGNAL HEAD, ALUMINUM, 2-FACE, 2-SECTION WITH 12" LENSES, BRACKET MOUNTED

1. EACH LOOP LEAD-IN SHALL BE PLACED IN A SEPARATE CONDUIT FROM EDGE OF PAVEMENT TO HANDHOLE. SPACING BETWEEN THE HOLES DRILLED IN THE PAVEMENT SHALL NOT BE LESS THAN 6".
2. EACH LOOP DETECTOR SPLICE SHALL BE AN INDIVIDUAL TYPE II OR TYPE III SPLICE.
3. LOOP TURNS AS RECOMMENDED BY THE MANUFACTURER.



\* THIS PLAN IS FOR THE PURPOSE OF INSTALLING EMERGENCY VEHICLE PREEMPTION EQUIPMENT AS SHOWN PER PLAN INDICATED IN THE SCHEDULE OF QUANTITIES. ALL OTHER EQUIPMENT SHOWN SHALL BE DISREGARDED.

\* ADDED EV PREEMPTION LOCATION NO. 12

FILE NAME = 0924-PLAN-16 - IDOT P02

USER NAME	DESIGNED	REVISION
-	MRS	10-13-09 *
-	PKB	-
-	PS	-
-	AG	-

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

PROPOSED EMERGENCY VEHICLE PREEMPTION  
142ND STREET & WOODLAWN AVENUE  
SCHEDULE OF QUANTITIES, CABLE PLAN, & SEQUENCE OF OPERATION

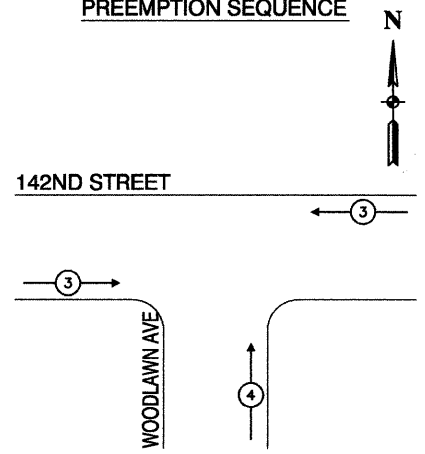
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1599	09-00114-00-TL	COOK	43	35

CONTRACT NO. 63317

SCALE: NTS SHEET NO. 35 OF 43 SHEETS STA. TO STA.

FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT ARA-9003(536)

**EMERGENCY VEHICLE \*  
PREEMPTION SEQUENCE**



PROPOSED EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTORS	3	4
MOVEMENT	← →	↑

**\* SCHEDULE OF QUANTITIES**

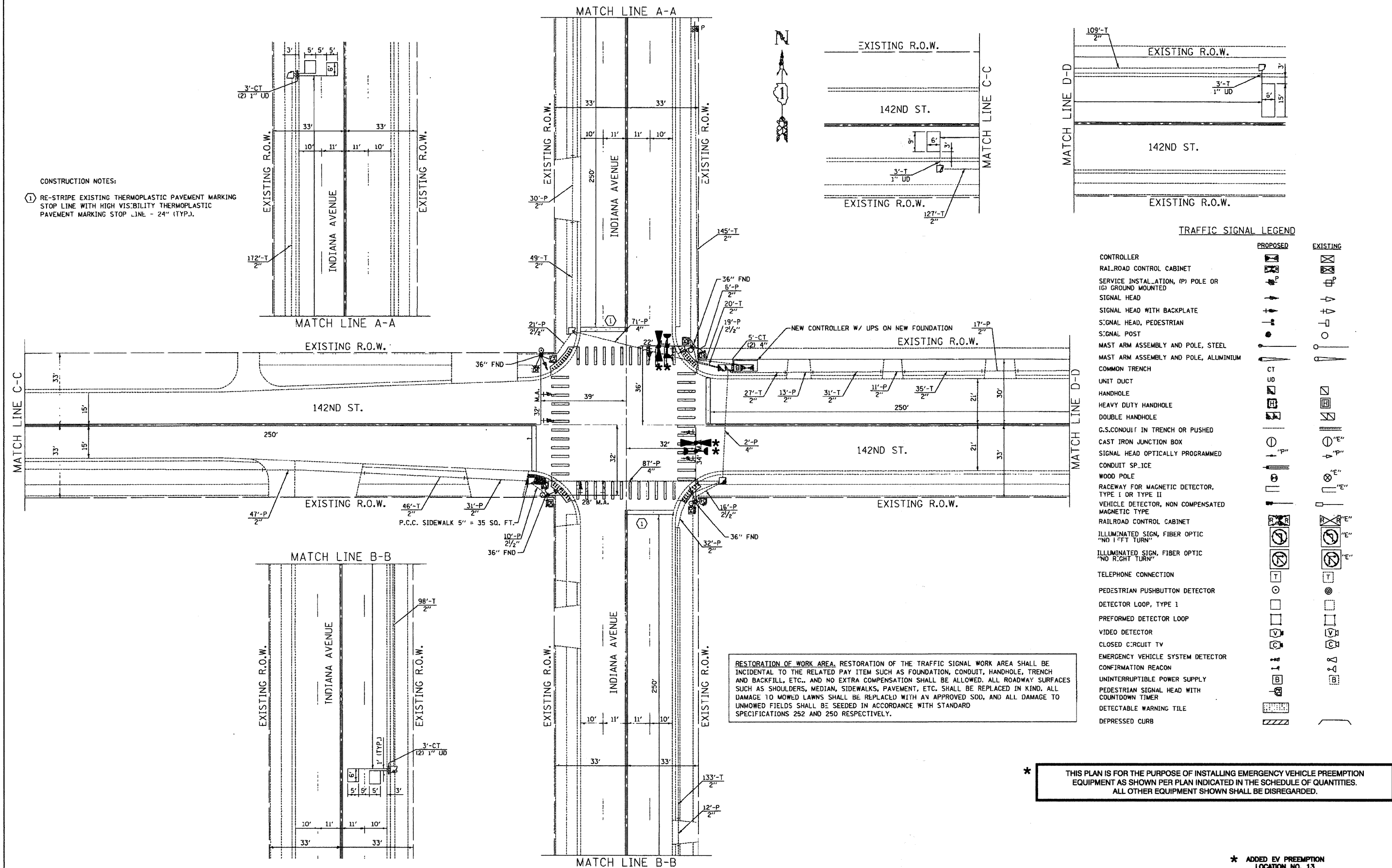
ITEM	UNIT	QUAN
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	266
TRAFFIC SIGNAL POST, GALVANIZED STEEL 18 FT.	EACH	1
INDUCTIVE LOOP DETECTOR	EACH	3
LIGHT DETECTOR	EACH	2
LIGHT DETECTOR AMPLIFIER	EACH	1
RELOCATE EXISTING SIGNAL HEAD	EACH	1
RELOCATE EXISTING PEDESTRIAN SIGNAL HEAD	EACH	1
RELOCATE EXISTING PEDESTRIAN PUSH-BUTTON	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	2
ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED	FOOT	266

\* THIS PLAN IS FOR THE PURPOSE OF INSTALLING EMERGENCY VEHICLE PREEMPTION EQUIPMENT AS SHOWN PER PLAN INDICATED IN THE SCHEDULE OF QUANTITIES. ALL OTHER EQUIPMENT SHOWN SHALL BE DISREGARDED.

**\* ADDED EV PREEMPTION  
LOCATION NO. 12**

FILE NAME = 09324-PLAN-16 - IDOT P03	USER NAME =	DESIGNED - MRS	REVISED - 10-13-09 *	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>PROPOSED EMERGENCY VEHICLE PREEMPTION 142ND STREET &amp; WOODLAWN AVENUE SCHEDULE OF QUANTITIES, CABLE PLAN, &amp; SEQUENCE OF OPERATION</b>			F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE =	CHECKED - PKB	REVISED -		1599	09-00114-00-TL	COOK	43	36			
	PLOT DATE = 10-13-09	DRAWN - PS	REVISED -		CONTRACT NO. 63317							
		CHECKED - AG	REVISED -		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT ARA-9003(336)							

CONSTRUCTION NOTES:  
 ① RE-STRIPE EXISTING THERMOPLASTIC PAVEMENT MARKING STOP LINE WITH HIGH VISIBILITY THERMOPLASTIC PAVEMENT MARKING STOP LINE - 24" (TYP.).



TRAFFIC SIGNAL LEGEND

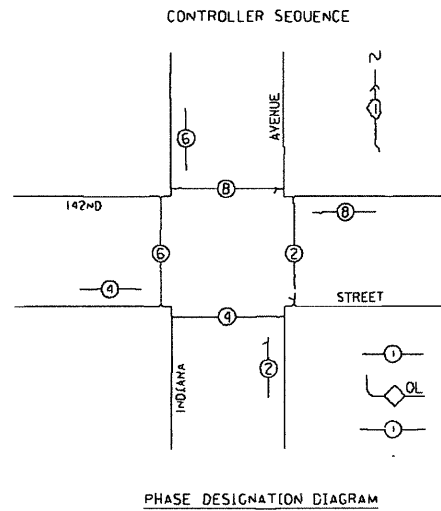
	PROPOSED	EXISTING
CONTROLLER	[Symbol]	[Symbol]
RAILROAD CONTROL CABINET	[Symbol]	[Symbol]
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNTED	[Symbol]	[Symbol]
SIGNAL HEAD	[Symbol]	[Symbol]
SIGNAL HEAD WITH BACKPLATE	[Symbol]	[Symbol]
SIGNAL HEAD, PEDESTRIAN	[Symbol]	[Symbol]
SIGNAL POST	[Symbol]	[Symbol]
MAST ARM ASSEMBLY AND POLE, STEEL	[Symbol]	[Symbol]
MAST ARM ASSEMBLY AND POLE, ALUMINIUM	[Symbol]	[Symbol]
COMMON TRENCH	[Symbol]	[Symbol]
UNIT DUCT	[Symbol]	[Symbol]
HANDHOLE	[Symbol]	[Symbol]
HEAVY DUTY HANDHOLE	[Symbol]	[Symbol]
DOUBLE HANDHOLE	[Symbol]	[Symbol]
G.S.CONDUIT IN TRENCH OR PUSHED	[Symbol]	[Symbol]
CAST IRON JUNCTION BOX	[Symbol]	[Symbol]
SIGNAL HEAD OPTICALLY PROGRAMMED	[Symbol]	[Symbol]
CONDUIT SPACE	[Symbol]	[Symbol]
WOOD POLE	[Symbol]	[Symbol]
RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II	[Symbol]	[Symbol]
VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE	[Symbol]	[Symbol]
RAILROAD CONTROL CABINET	[Symbol]	[Symbol]
ILLUMINATED SIGN, FIBER OPTIC "NO LEFT TURN"	[Symbol]	[Symbol]
ILLUMINATED SIGN, FIBER OPTIC "NO RIGHT TURN"	[Symbol]	[Symbol]
TELEPHONE CONNECTION	[Symbol]	[Symbol]
PEDESTRIAN PUSHBUTTON DETECTOR	[Symbol]	[Symbol]
DETECTOR LOOP, TYPE 1	[Symbol]	[Symbol]
PERFORMED DETECTOR LOOP	[Symbol]	[Symbol]
VIDEO DETECTOR	[Symbol]	[Symbol]
CLOSED CIRCUIT TV	[Symbol]	[Symbol]
EMERGENCY VEHICLE SYSTEM DETECTOR	[Symbol]	[Symbol]
CONFIRMATION REACON	[Symbol]	[Symbol]
UNINTERRUPTIBLE POWER SUPPLY	[Symbol]	[Symbol]
PEDESTRIAN SIGNAL HEAD WITH COUNTDOWN TIMER	[Symbol]	[Symbol]
DETECTABLE WARNING TILE	[Symbol]	[Symbol]
DEPRESSED CURB	[Symbol]	[Symbol]

RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC. AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIAN, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

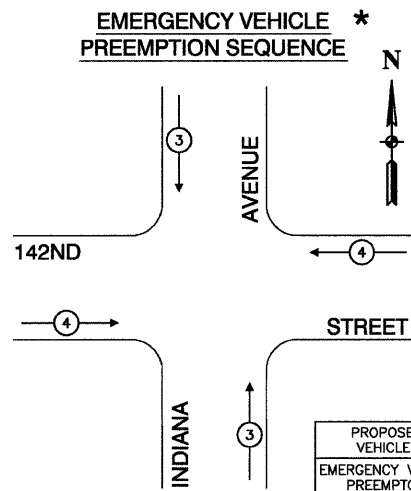
\* THIS PLAN IS FOR THE PURPOSE OF INSTALLING EMERGENCY VEHICLE PREEMPTION EQUIPMENT AS SHOWN PER PLAN INDICATED IN THE SCHEDULE OF QUANTITIES. ALL OTHER EQUIPMENT SHOWN SHALL BE DISREGARDED.

\* ADDED EV PREEMPTION LOCATION NO. 13

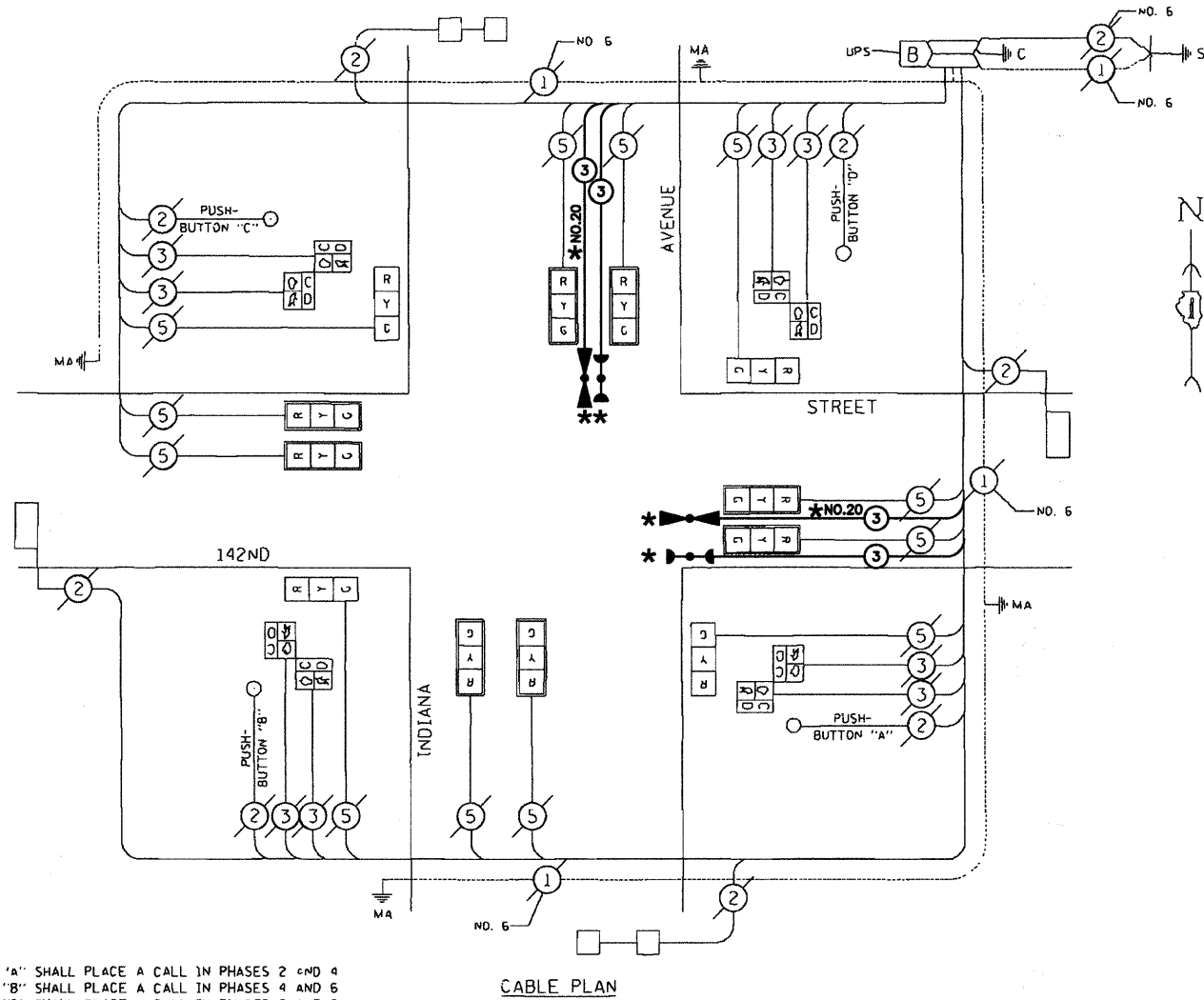
FILE NAME = 06324-PLAN-11 - IDOT P01	USER NAME =	DESIGNED - MRS	REVISED - 10-13-09 *	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PROPOSED EMERGENCY VEHICLE PREEMPTION 142ND STREET & INDIANA AVENUE TRAFFIC SIGNAL PLAN			F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE =	CHECKED - PKB	REVISED -		1699/2806	09-00114-00-TL	COOK	43	37			
	PLOT DATE = 10-13-09	DRAWN - PS	REVISED -		CONTRACT NO. 63317							
		CHECKED - AG	REVISED -		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT ARA-9003(336)							



**LEGEND**  
 ○ DUAL ENTRY PHASE  
 ○ OL OVERLAP  
 ○ PEDESTRIAN PHASE  
 ○ NUMBER REFERS TO ASSOCIATED PHASE



PROPOSED EMERGENCY VEHICLE PREEMPTORS	
EMERGENCY VEHICLE PREEMPTORS	3 4
MOVEMENT	↑ ↓



**NOTE:**  
 PUSHBUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4  
 PUSHBUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6  
 PUSHBUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8  
 PUSHBUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8

**\* SCHEDULE OF QUANTITIES**

ITEM	UNIT	QUAN
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	234
LIGHT DETECTOR	EACH	2
LIGHT DETECTOR AMPLIFIER	EACH	1
MODIFY EXISTING CONTROLLER	EACH	1
ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED	FOOT	234

**CABLE PLAN LEGEND**

PROPOSED	EXISTING	
Ⓞ	Ⓞ	8" (200mm) TRAFFIC SIGNAL SECTION
Ⓞ	Ⓞ	12" (300mm) TRAFFIC SIGNAL SECTION
Ⓞ	Ⓞ	12" (300mm) PEDESTRIAN SIGNAL SECTION
Ⓞ	Ⓞ	12" (300mm) PEDESTRIAN SIGNAL SECTION
Ⓞ	Ⓞ	CONTROLLER CABINET SERVICE INSTALLATION
Ⓞ	Ⓞ	TELEPHONE CONNECTION
Ⓞ	Ⓞ	MAGNETIC DETECTOR
Ⓞ	Ⓞ	PUSHBUTTON DETECTOR
Ⓞ	Ⓞ	VEHICLE DETECTOR INDUCTION LOOP
Ⓞ	Ⓞ	Ⓞ DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.
Ⓞ	Ⓞ	SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD
Ⓞ	Ⓞ	RAILROAD CONTROL CABINET
Ⓞ	Ⓞ	ILLUMINATED SIGN, FIBER OPTIC "NO LEFT TURN"
Ⓞ	Ⓞ	ILLUMINATED SIGN, FIBER OPTIC "NO RIGHT TURN"
Ⓞ	Ⓞ	GROUND ROD AT HANDHOLE, DOUBLE HANDHOLE OR CONTROLLER
Ⓞ	Ⓞ	GROUND ROD AT POST OR MAST ARM POLE
Ⓞ	Ⓞ	GROUND ROD AT ELECTRIC SERVICE INSTALLATION
Ⓞ	Ⓞ	GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)
Ⓞ	Ⓞ	FIBER OPTIC CABLE IN CONDUIT NO. 62 5/125 2-MM12F & SM12F
Ⓞ	Ⓞ	MICROWAVE VEHICLE SENSOR
Ⓞ	Ⓞ	VIDEO DETECTOR
Ⓞ	Ⓞ	CLOSED CIRCUIT TV
Ⓞ	Ⓞ	EMERGENCY VEHICLE LIGHT DETECTOR
Ⓞ	Ⓞ	CONFIRMATION BEACON
Ⓞ	Ⓞ	UNINTERRUPTIBLE POWER SUPPLY
Ⓞ	Ⓞ	PEDESTRIAN SIGNAL HEAD WITH COUNTDOWN TIMER

I.O.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	WATTAGE LED	% OPERATION	
SIGNAL (RED)	12	17	0.50	0.50	102.00
(YELLOW)	12	25	0.25	0.25	75.00
(GREEN)	12	15	0.25	0.25	45.00
ARROW	-	12	0.10	0.10	0.00
PED. SIGNAL	8	25	1.00	1.00	200.00
CONTROLLER	1	100	1.00	1.00	100.00
ILLUM. SIGN	-	-	0.05	-	-
FLASHER	-	-	0.05	-	-
ENERGY COSTS TO:					TOTAL= 522.00

VILLAGE OF DOLTON  
 18014 PARK AVENUE  
 DOLTON, IL 60419

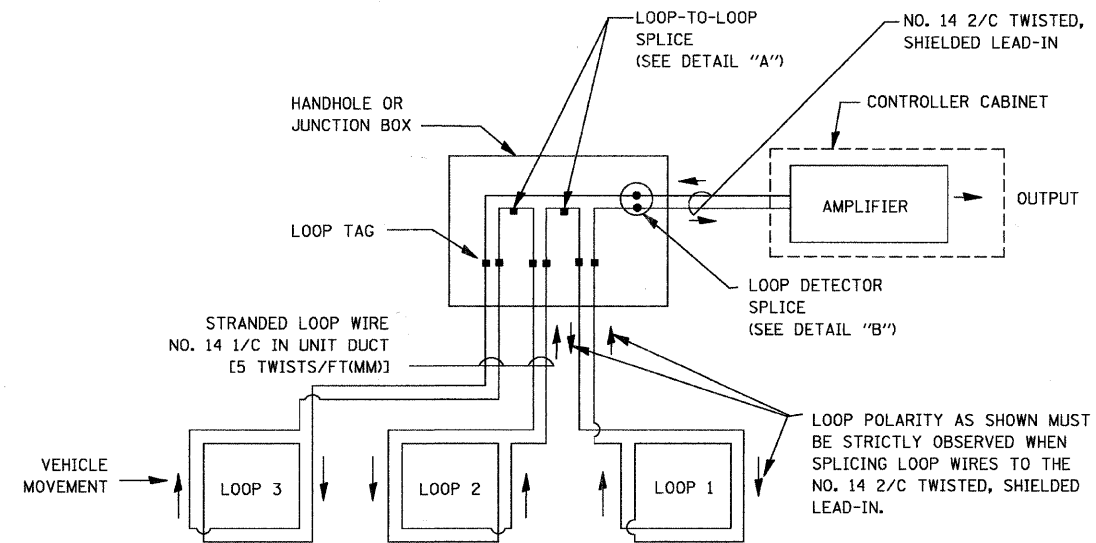
ENERGY SUPPLY CONTACT: TONY ESCALANTE  
 PHONE: (708) 235-2328  
 COMPANY: COMMONWEALTH EDISON

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'±L-2'
E - M. ARM POLE	4 (1.2)	SIGNAL POST	2 (1.0)	16m±L-0.5m±	
24" (600mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
30" (750mm)	15 (4.5)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
		ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
		GROUND CABLE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
				POST MOUNTED	5 (1.5)

**\* THIS PLAN IS FOR THE PURPOSE OF INSTALLING EMERGENCY VEHICLE PREEMPTION EQUIPMENT AS SHOWN PER PLAN INDICATED IN THE SCHEDULE OF QUANTITIES. ALL OTHER EQUIPMENT SHOWN SHALL BE DISREGARDED.**

**LOOP DETECTOR NOTES**

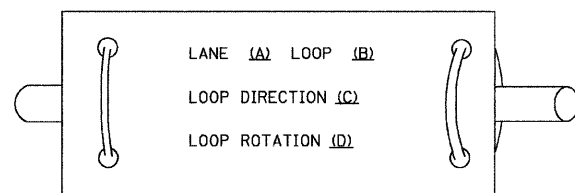
- EACH PAIR OF LOOP WIRES SHALL BE PLACED IN A SEPARATE UNIT DUCT FROM THE EDGE OF PAVEMENT TO THE HANDHOLE. SPACING BETWEEN THE HOLES DRILLED IN THE PAVEMENT SHALL NOT BE LESS THAN 6" (150 mm). UNIT DUCT SHALL BE INCLUDED IN THE COST OF THE LOOP WIRE.
- THE NUMBER OF LOOP TURNS SHALL BE AS RECOMMENDED 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.
- EACH LOOP LEAD-IN SHALL BE IDENTIFIED AND PERMANENTLY TAGGED IN THE HANDHOLE. EACH LEAD-IN CABLE TAG SHALL INDICATE THE LOCATION OF THE LOOP, LOOP ROTATION (CLOCKWISE/COUNTERCLOCKWISE), LOOP LEAD-IN DIRECTION (IN OR OUT), LOOP CABLE NUMBER AND LOCATION IN CABINET, AND NUMBER OF TURNS IN THE DETECTOR LOOPS IN WATER PROOF INK AS INDICATED ON THE DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAIL. THE CONTRACTOR SHALL MARK LOOP LOCATIONS ON RECORD DRAWINGS AND PRESENT TO THE ENGINEER AFTER FINAL INSPECTION. LOOPS SHALL BE MARKED BY LANE AND LOOP NUMBER. SEE DETAIL BELOW.
- ALL LOOP CABLE SHALL BE FASTENED WITH PLASTIC TIE WRAP TO THE HANDHOLE HOOKS.
- IN ASPHALT PAVEMENT, LOOPS SHOULD BE PLACED IN THE BINDER AND DIVEHOLES 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" (450 mm) APART.
- 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. SEE DETAIL BELOW RIGHT.
- PERFORMED DETECTOR LOOPS SHALL BE USED, AS SHOWN ON THE PLANS, WHERE NEW CONCRETE PAVEMENT IS PROPOSED. THE INSTALLATION OF PERFORMED LOOPS SHALL BE IN ACCORDANCE WITH THE DISTRICT 1 SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER.



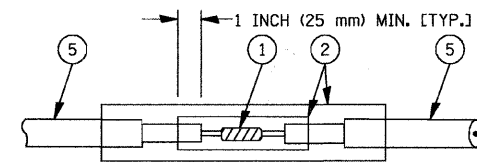
**DETECTOR LOOP WIRING SCHEMATIC**

- LOOPS SHALL BE SPLICED IN SERIES.
- SAW-CUTS SHALL BE A MINIMUM WIDTH OF 5/16" (8 mm).
- SAW-CUT DEPTHS SHALL BE 3" (75 mm). IF IN CONCRETE, THE SAW-CUT DEPTH SHALL BE TO THE TOP OF THE REINFORCEMENT.
- LOOP CORNERS SHALL BE DRILLED WITH A 2" (50 mm) DIAMETER CORE.

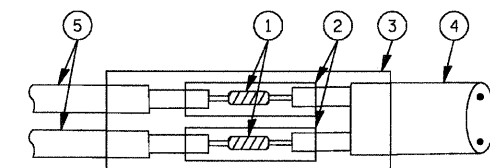
**LOOP LEAD-IN CABLE TAG**



- LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.



**DETAIL "A"  
LOOP-TO-LOOP SPLICE**



**DETAIL "B"  
LOOP-TO-CONTROLLER SPLICE**

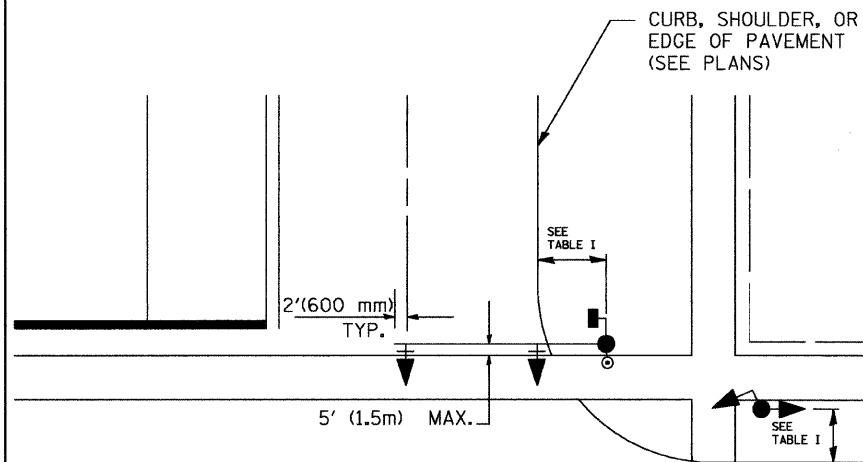
**LOOP DETECTOR SPLICE**

- WESTERN UNION SPLICE SOLDERED WITH ROSIN CORE FLUX. ALL EXPOSED SURFACES OF THE SOLDER SHALL BE SMOOTH.
- WCSMW 30/100 HEAT SHRINK TUBE, MINIMUM LENGTH 3" (75 mm), UNDERWATER GRADE.
- WCS 200/750 HEAT SHRINK TUBE, MINIMUM LENGTH 6" (150 mm), UNDERWATER GRADE.
- NO. 14 2/C TWISTED, SHIELDED CABLE.
- LOOP CONDUCTOR WITH FLEXIBLE PLASTIC TUBE.

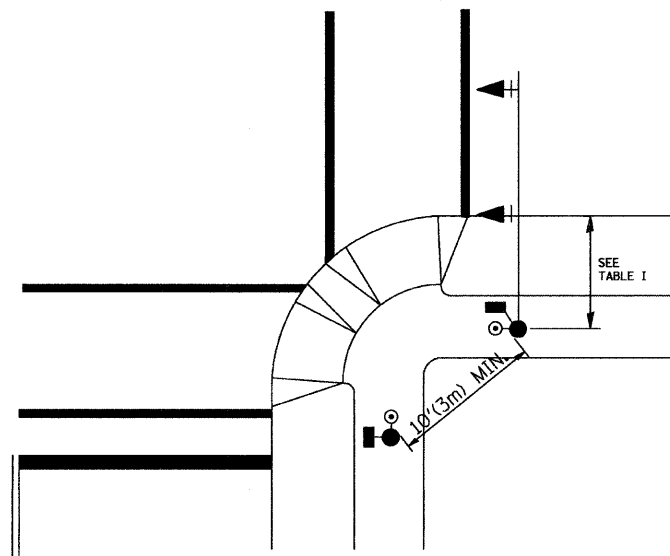
FILE NAME = 09324-DTLS-TS09a - TS-05A	USER NAME = geglianobt	DESIGNED -- D.A.D.	REVISED -- 11-12-01	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS</b>	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 50,0000' / IN.	CHECKED --	REVISED -- BUR. TRAFFIC 01-01-02			09-00114-00-TL	COOK	43	39	
	PLOT DATE = 1/4/2008	DRAWN --	REVISED --			<b>TS-05</b>		CONTRACT NO. 63317		
		CHECKED -- 05-30-00	REVISED --			FED. ROAD DIST. NO. 1 ILLINOIS		FED. AID PROJECT ARA-9003(339)		
SCALE: SHEET NO. 39 OF 43 SHEETS STA. TO STA.										

**TRAFFIC SIGNAL MAST ARM AND POST**

MAST ARM MOUNTED SIGNAL IN PROPOSED & FUTURE SIDEWALK AREA. INTERSECTION SHOWN WITH PEDESTRIAN SIGNAL AND PUSHBUTTON DETECTOR



**PEDESTRIAN SIGNAL PUSHBUTTON**



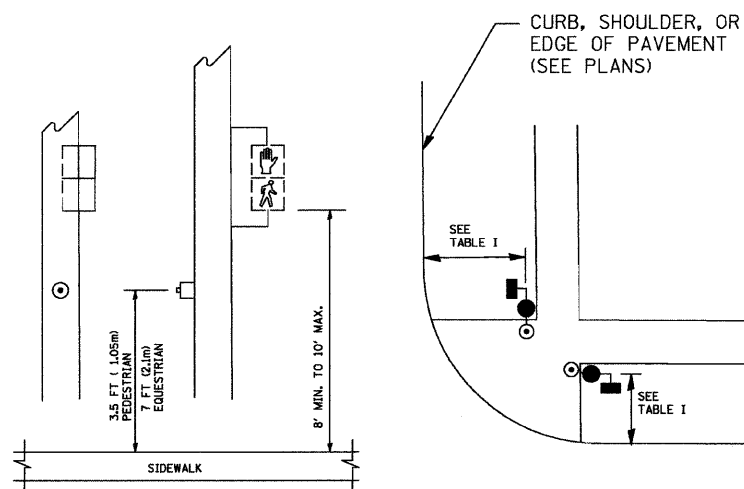
RECOMMENDED PUSHBUTTON LOCATIONS FOR ACCESSIBLE PEDESTRIAN SIGNALS SHALL BE IN ACCORDANCE WITH THE CURRENT MUTCD (SEE NOTE 1). TO MEET MUTCD REQUIREMENTS, PEDESTRIAN SIGNAL PUSHBUTTONS MAY HAVE TO BE MOUNTED ON A SEPARATE POST.

**NOTES:**

- AT ACCESSIBLE PEDESTRIAN SIGNAL LOCATIONS WITH PEDESTRIAN ACTUATION. EACH PUSHBUTTON SHALL ACTIVATE BOTH THE WALK INTERVAL AND THE ACCESSIBLE PEDESTRIAN SIGNALS.  
  
AT ACCESSIBLE PEDESTRIAN SIGNAL LOCATIONS, PUSHBUTTONS SHOULD CLEARLY INDICATE WHICH CROSSWALK SIGNAL IS ACTUATED BY EACH PUSHBUTTON. PUSHBUTTONS AND TACTILE ARROWS SHOULD HAVE HIGH VISUAL CONTRAST (SEE THE DEPARTMENT OF JUSTICE'S AMERICANS WITH DISABILITIES ACT STANDARDS FOR ACCESSIBLE DESIGN, 1991). TACTILE ARROWS SHOULD POINT IN THE SAME DIRECTION AS THE ASSOCIATED CROSSWALK. AT CORNERS OF SIGNALIZED LOCATIONS WITH ACCESSIBLE PEDESTRIAN SIGNALS WHERE PEDESTRIAN PUSHBUTTONS ARE PROVIDED, THE PUSHBUTTONS SHOULD BE SEPARATED BY THE DISTANCE OF AT LEAST 10 FT (3m). THIS ENABLES PEDESTRIANS WHO HAVE VISUAL DISABILITIES TO DISTINGUISH AND LOCATE THE APPROPRIATE PUSHBUTTON.  
  
PUSHBUTTONS FOR ACCESSIBLE PEDESTRIAN SIGNALS SHOULD BE LOCATED AS FOLLOWS:  
 A: ADJACENT TO A LEVEL ALL-WEATHER SURFACE TO PROVIDE ACCESS FROM A WHEELCHAIR, AND WHERE THERE IS AN ALL WEATHER SURFACE, WHEELCHAIR ACCESSIBLE ROUTE TO THE RAMP.  
 B: WITHIN 5 FT (1.5m) OF THE CROSSWALK EXTENDED.  
 C: WITHIN 10 FT (3m) OF THE EDGE OF CURB, SHOULDER, OR PAVEMENT.  
 D: PARALLEL TO THE CROSSWALK TO BE USED (SEE MUTCD FIGURE 4E-2).  
 E: NORMAL PEDESTRIAN PUSHBUTTON MOUNTING HEIGHT SHOULD BE 3.5 FT (1.05m) ABOVE ADJACENT SIDEWALK
- PEDESTRIAN SIGNAL FACES SHALL BE MOUNTED WITH THE BOTTOM OF THE HOUSING NOT LESS THAN 8 FT (2.4m) NOR MORE THAN 10 FT (3.0m) ABOVE THE SIDEWALK LEVEL AND SO THERE IS A PEDESTRIAN INDICATION IN THE LINE OF PEDESTRIANS' VISION WHICH PERTAINS TO THE CROSSWALK BEING USED.
- THE BOTTOM OF THE HOUSING OF A VEHICLE SIGNAL FACE, NOT MOUNTED OVER A ROADWAY, SHALL BE AT LEAST 10 FT (3.0m) BUT NOT MORE THAN 15 FT (4.5m) ABOVE THE SIDEWALK OR, ABOVE THE PAVEMENT GRADE AT THE CENTER OF THE HIGHWAY IF NO SIDEWALKS EXIST.
- THE BOTTOM OF THE HOUSING OF A VEHICLE SIGNAL FACE, MOUNTED OVER A ROADWAY, SHALL BE ACCORDING TO CURRENT STATE STANDARDS 877001 AND 877006. (16 FT (5m) MIN., 18 FT (5.5m) MAX., FROM HIGHEST POINT OF PAVEMENT)

**PEDESTRIAN SIGNAL POST**

PEDESTRIAN SIGNAL HEAD AND PEDESTRIAN PUSHBUTTON DETECTOR LOCATION



**TABLE I**

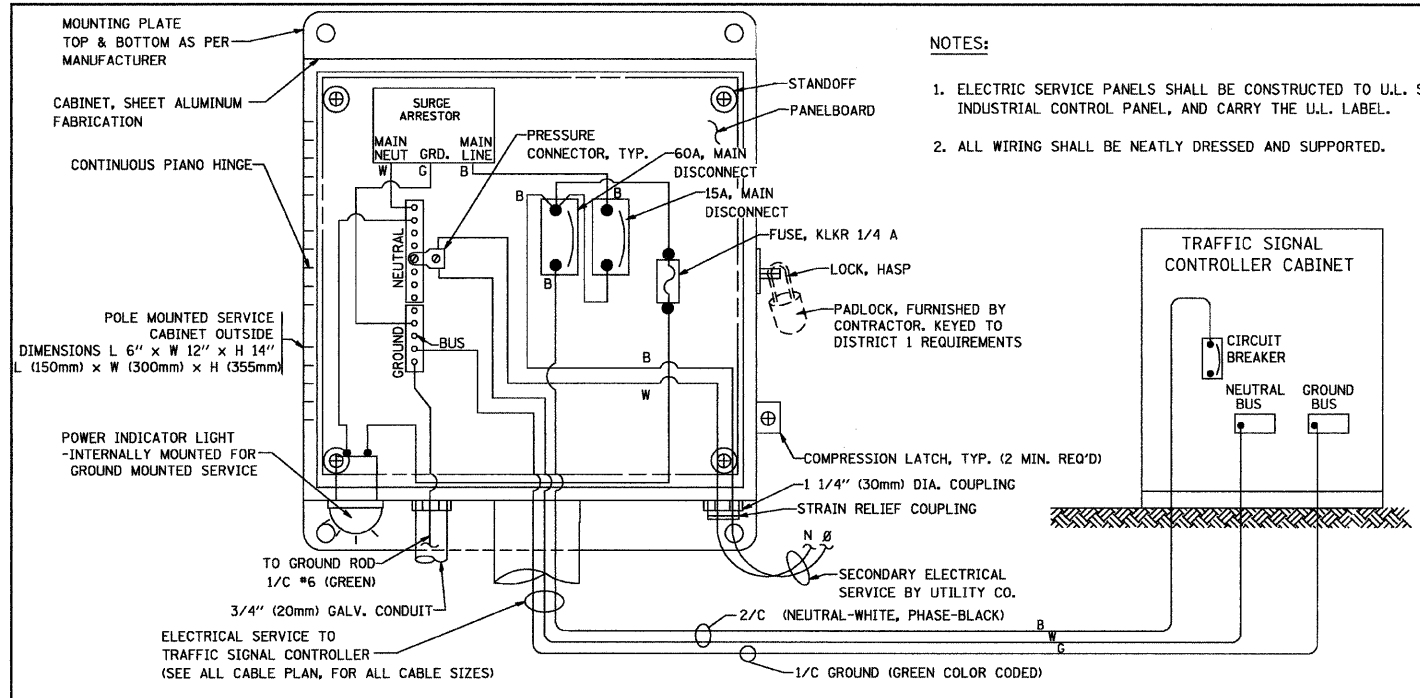
TRAFFIC SIGNAL EQUIPMENT	COMBINATION CONCRETE CURB AND GUTTER (MIN. DIST. FROM BACK OF CURB)	SHOULDER/NON-CURBED AREA (MIN. DIST. FROM EDGE OF PAVEMENT)
TRAFFIC SIGNAL MAST ARM POLE	6 FT (1.8m)	SHOULDER WIDTH + 2FT(0.6m), MINIMUM 10FT(3.0m)
TRAFFIC SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2FT(0.6m), MINIMUM 10FT(3.0m)
PEDESTRIAN SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2FT(0.6m), MINIMUM 10FT(3.0m)
PEDESTRIAN PUSHBUTTON	SEE NOTE 1	SEE NOTE 1

FILE NAME = 08024-DTLS-TS05b - TS-05b	USER NAME = geglrenobt	DESIGNED -- D.A.D.	REVISED -- BUR. TRAFFIC 01-01-02
		CHECKED --	REVISED --
		DRAWN --	REVISED --
		CHECKED --	REVISED --
PLOT SCALE = 5/8"=1'-0"			
PLOT DATE = 1/4/2008			

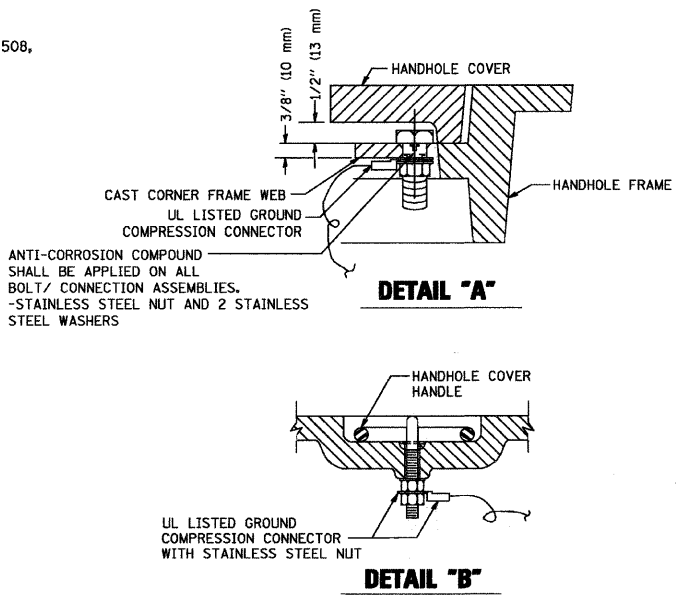
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>DISTRICT ONE</b>		F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
<b>STANDARD TRAFFIC SIGNAL DESIGN DETAILS</b>			09-00114-00-TL	COOK	43	40
SCALE:		SHEET NO. 40 OF 43 SHEETS	STA.	TO STA.	CONTRACT NO. 63317	
					FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT ARA-9003(336)	



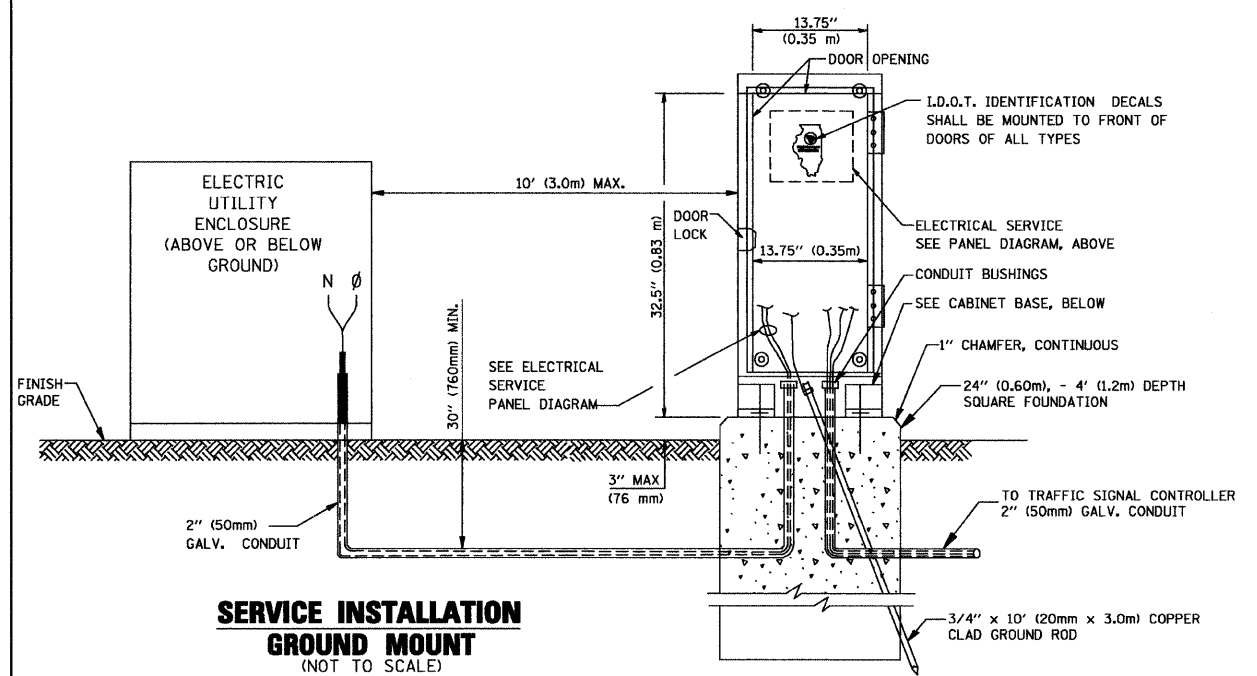


- NOTES:**
1. ELECTRIC SERVICE PANELS SHALL BE CONSTRUCTED TO U.L. STD 508, INDUSTRIAL CONTROL PANEL, AND CARRY THE U.L. LABEL.
  2. ALL WIRING SHALL BE NEATLY DRESSED AND SUPPORTED.

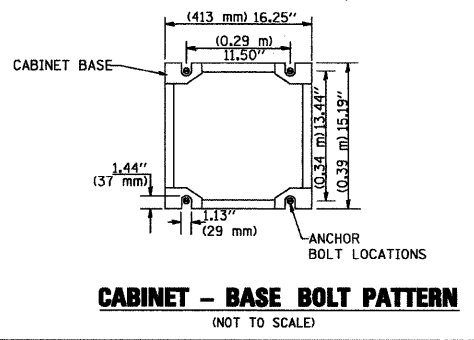


- NOTES:**
- GROUNDING SYSTEM**
1. THE GROUNDING SYSTEM SHALL CONSIST OF AN INSULATED CONDUCTOR TYPE XLP, NO. 6 A.W.G., STRANDED COPPER TO BE INSTALLED IN RACEWAYS. THE GROUNDING CABLE SHALL BE INSTALLED IN A CONTINUOUS MANNER AS SHOWN ON THE CABLE PLAN PROVIDED. ALL GROUNDING CONDUCTORS SHALL BE BONDED TO METAL ENCLOSURE (HANDHOLE, POST, MAST ARM, CONTROLLER, ETC.). GROUND ROD SHALL BE 3/4" DIA. x 10'-0" (20mm x 3.0m) LONG, COPPER CLAD. ONE GROUND ROD SHALL BE INSTALLED AT ALL POST FOUNDATIONS, POLE FOUNDATIONS, CONTROLLER CABINET FOUNDATION AND ELECTRICAL SERVICE INSTALLATION AS INDICATED ON THE CABLE PLAN. IF THERE ARE ANY SPECIAL CONDITIONS SUCH AS SUB-SURFACE CONDITIONS OR INSTALLATION PROBLEMS, THE RESIDENT ENGINEER SHALL BE NOTIFIED OR CONTACT THE BUREAU OF TRAFFIC, ILLINOIS DEPARTMENT OF TRANSPORTATION DISTRICT ONE AT (847) 705-4139.
  2. THE NEUTRAL CONDUCTOR AND THE GROUND CONDUCTOR SHALL BE CONNECTED IN THE SERVICE INSTALLATION. AT NO OTHER POINT IN THE TRAFFIC SIGNAL SYSTEM SHALL THE NEUTRAL AND GROUND CONDUCTORS BE CONNECTED.
  3. ALL EQUIPMENT GROUNDING CONDUCTORS SHALL TERMINATE AT THE GROUND BUS IN THE CONTROLLER CABINET.
  4. THE CONTRACTOR SHALL PROVIDE A GROUND CABLE WITH CONNECTORS BETWEEN THE HANDHOLE COVER AND HANDHOLE FRAME.

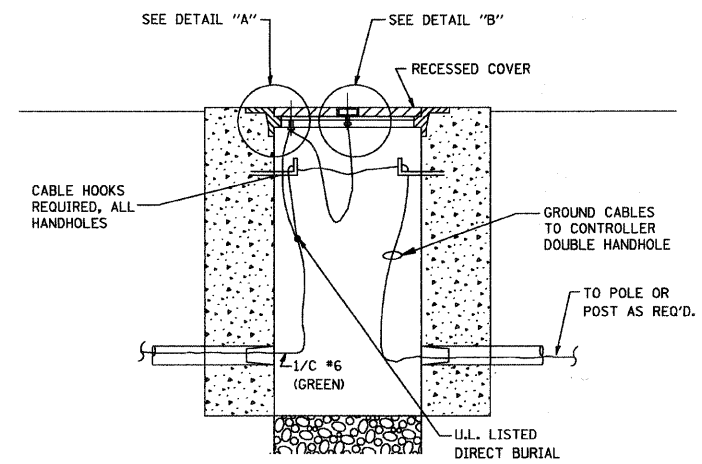
**ELECTRICAL SERVICE - PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE)**  
**SERVICE INSTALLATION POLE MOUNT (SHOWN)**  
 (NOT TO SCALE)



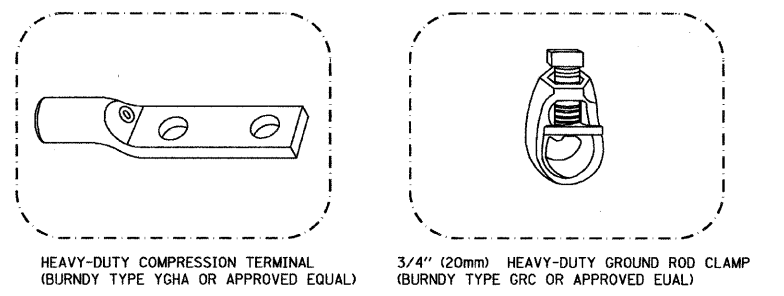
**SERVICE INSTALLATION GROUND MOUNT**  
 (NOT TO SCALE)



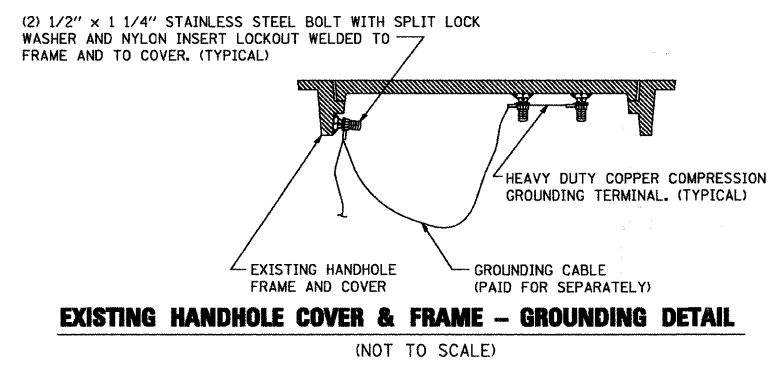
**CABINET - BASE BOLT PATTERN**  
 (NOT TO SCALE)



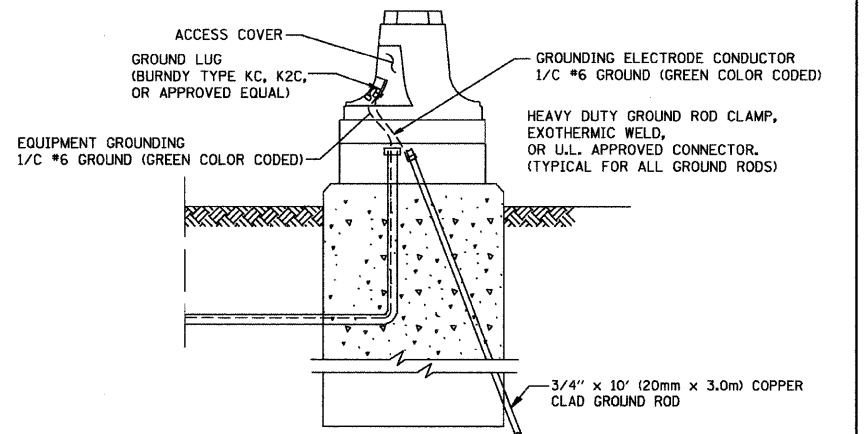
**HANDHOLE COVER & FRAME - GROUNDING DETAIL**  
 (NOT TO SCALE)



- NOTES:**
- ALL CLAMPS SHALL BE BRONZE OR COPPER, UL APPROVED.
  - GROUND CABLE SHALL BE LOOPED OVER HOOKS IN THE HANDHOLES 6.5' (2.0m) SLACK SHALL BE PROVIDED IN SINGLE HANDHOLES. 13' (4.0m) OF SLACK SHALL BE PROVIDED IN DOUBLE HANDHOLES. 5' (1.4m) OF SLACK SHALL BE PROVIDED BETWEEN FRAME AND COVER.

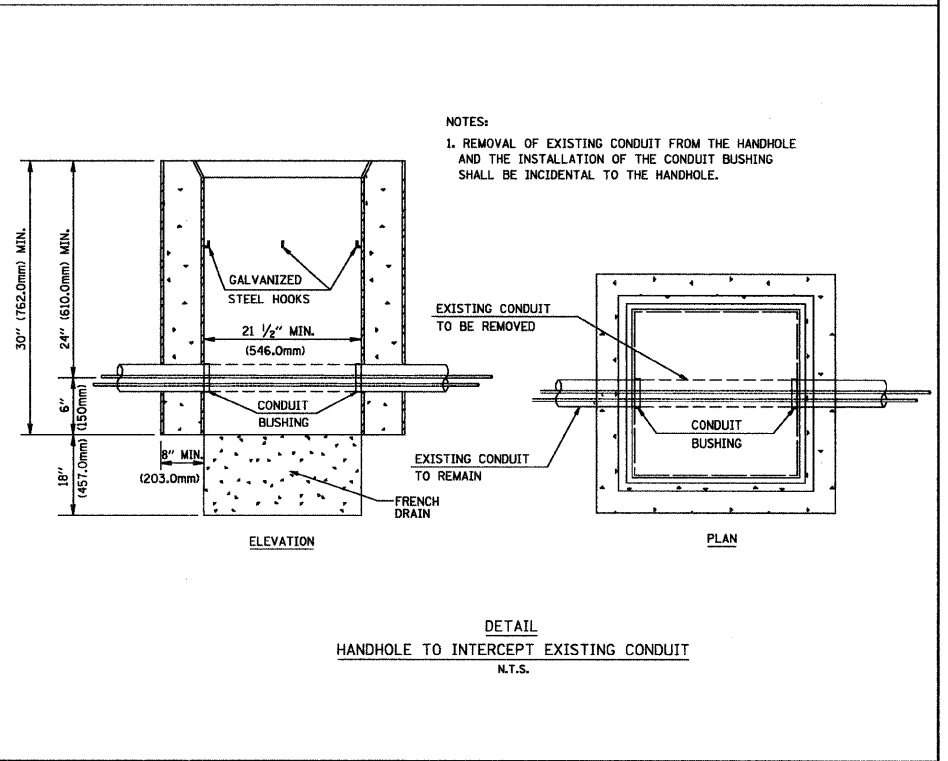
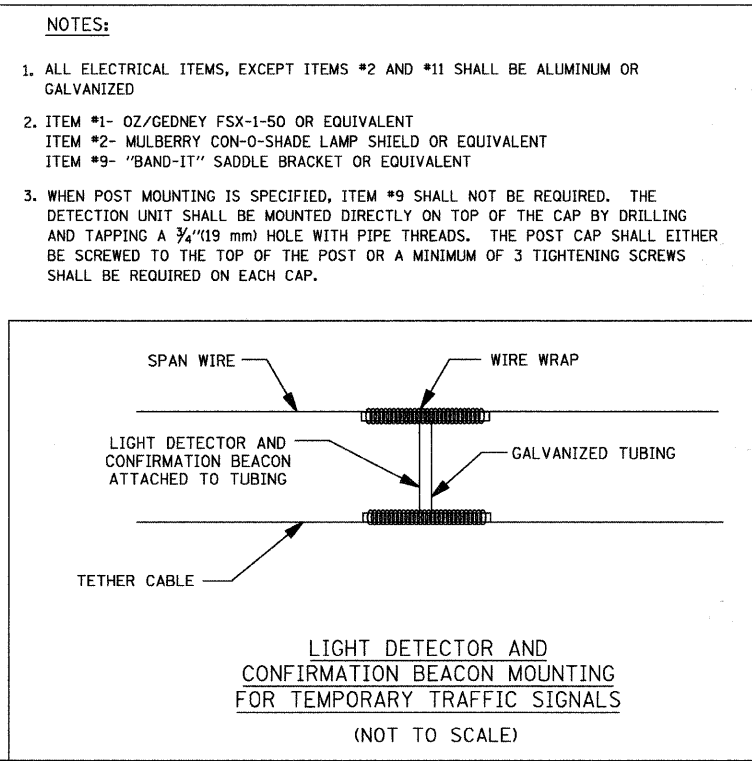
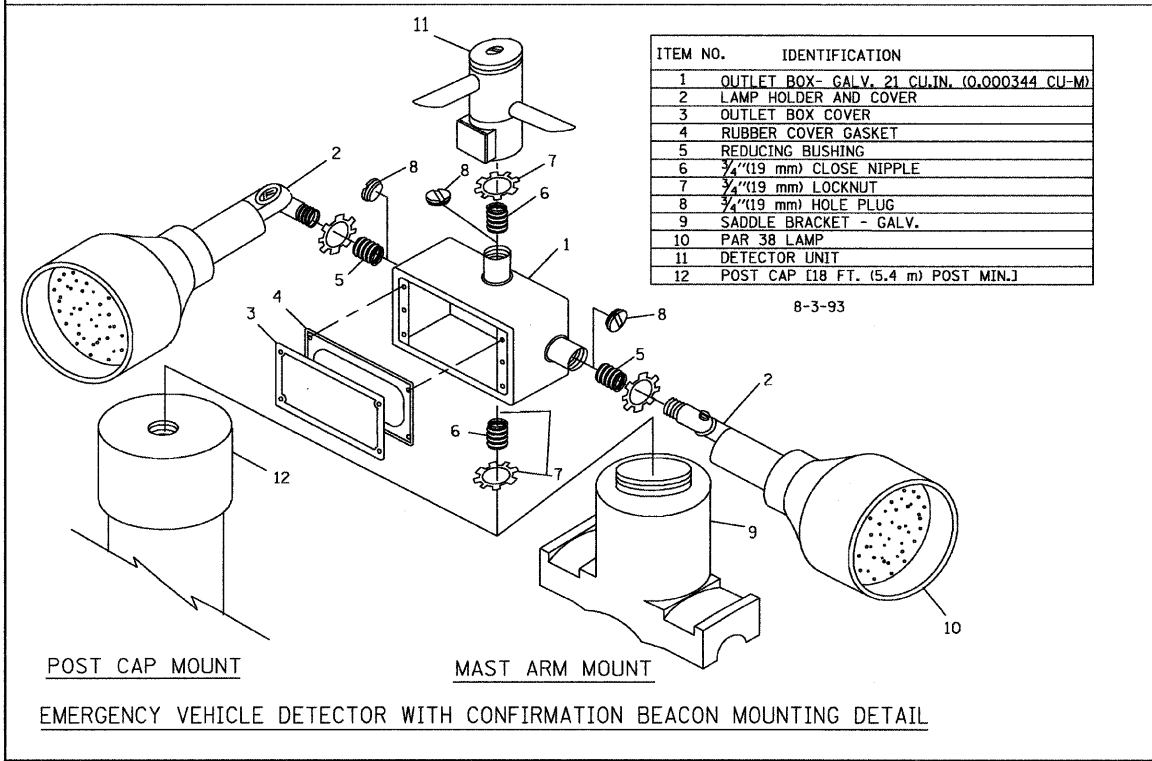
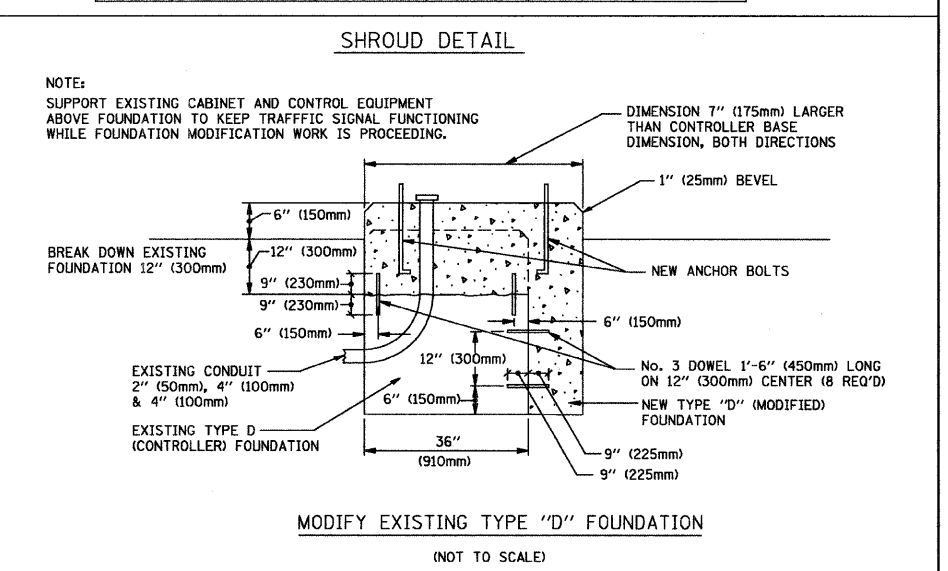
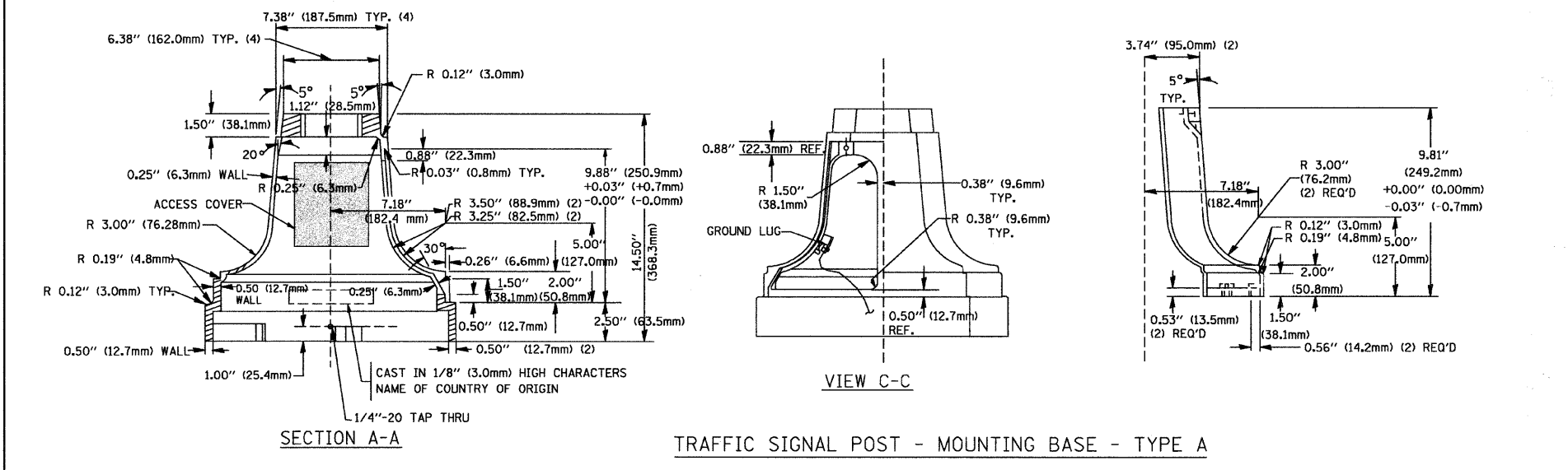
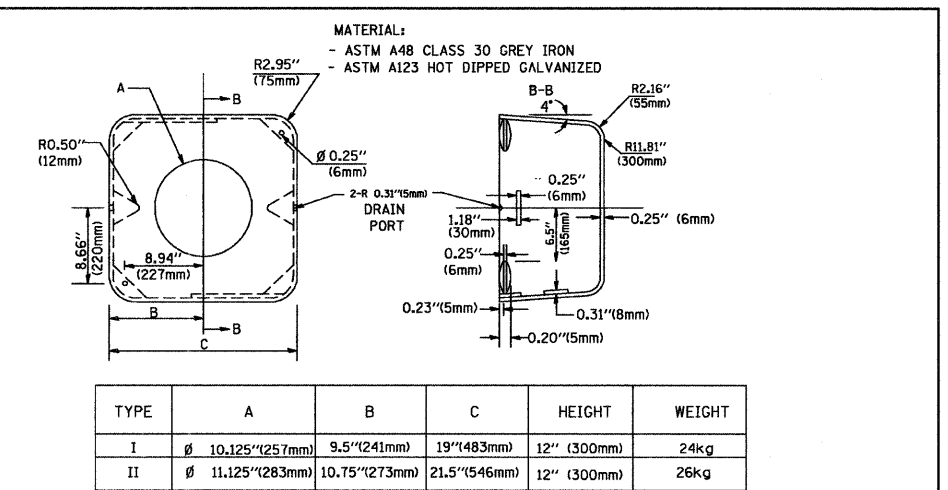
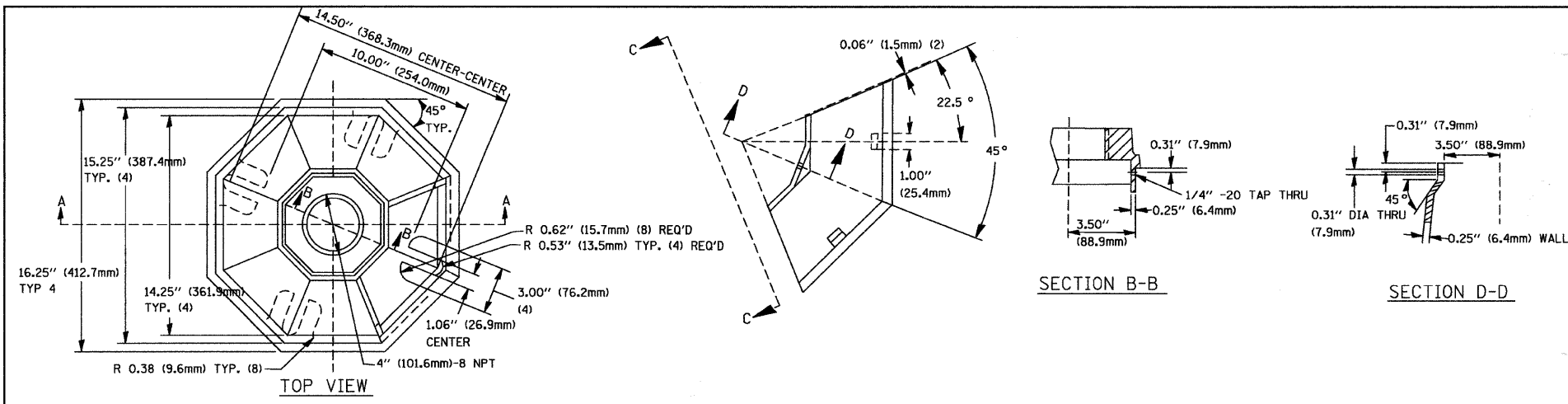


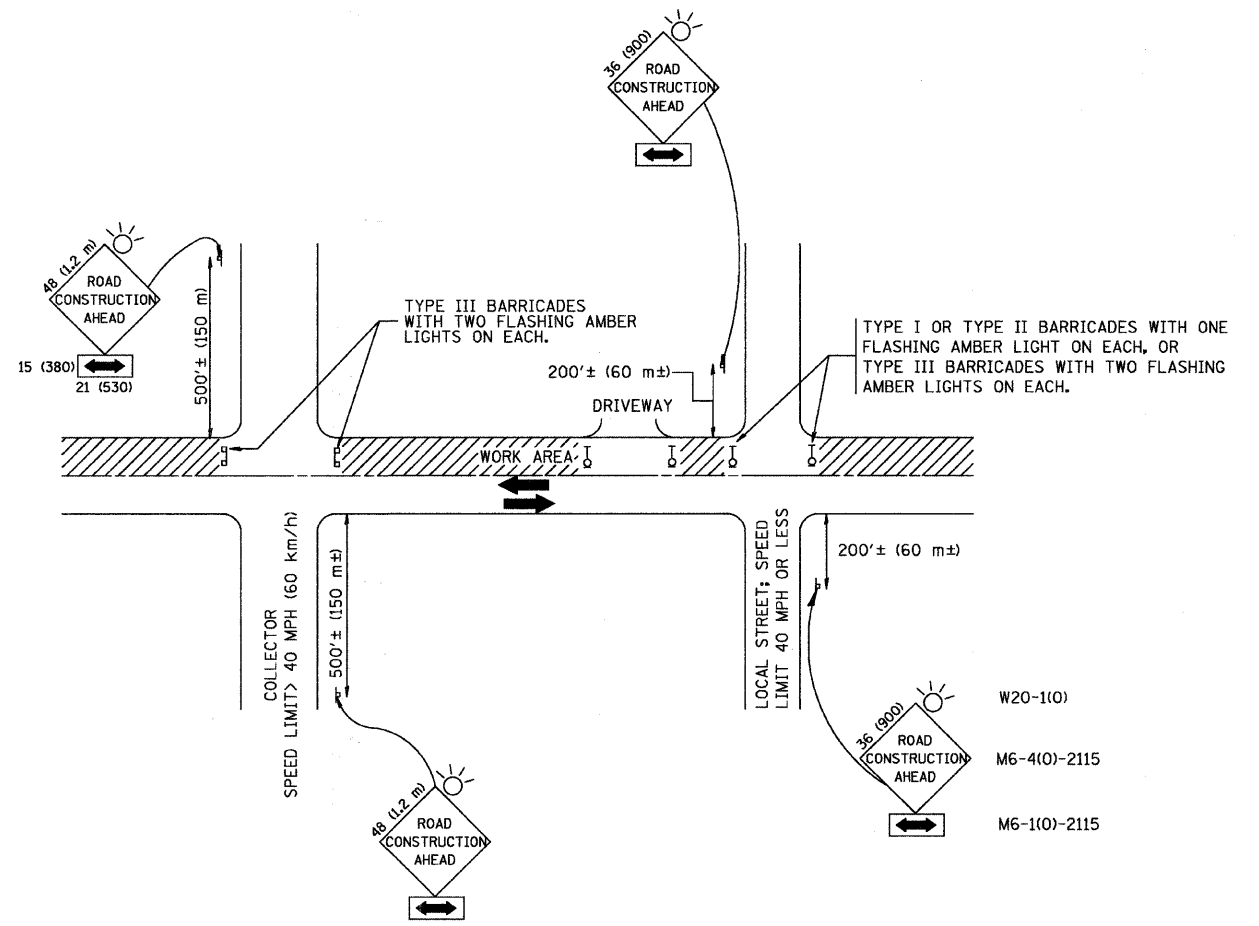
**EXISTING HANDHOLE COVER & FRAME - GROUNDING DETAIL**  
 (NOT TO SCALE)



**MAST ARM POLE / POST - GROUNDING DETAIL**  
 (NOT TO SCALE)

FILE NAME = 09024-DTL5-TS05c - TS-05C	USER NAME = gaglianob	DESIGNED - D.A.D.	REVISED - 03-15-01	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
PLOT SCALE = 50.0000 / IN.	DRAWN -	CHECKED -	REVISED - BUR. TRAFFIC 01-01-02			09-00114-00-TL	COOK	43	41	
PLOT DATE = 1/4/2008	CHECKED - 05-30-00	REVISED -				<b>TS-05</b>	CONTRACT NO. 63317			
						FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT ARA-9003(336)		





TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

NOTES:

A. FOR NO LANE RESTRICTION ON THE SIDE ROAD OR DRIVEWAYS

1. SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
  - a) ONE **ROAD CONSTRUCTION AHEAD** SIGN 36 x 36 (900x900) WITH A FLASHER AND FLAG MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.
  - b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.
2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
  - a) ONE **ROAD CONSTRUCTION AHEAD** SIGN 48 x 48 (1.2 m x 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.
  - b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.
3. WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).

B. FOR A LANE CLOSURE ON A SIDE ROAD OR DRIVEWAY:

USE APPLICABLE PORTIONS OF THE TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES (STD. 701501, STD. 701606 OR THE APPROPRIATE STANDARD). THE SPACING OF SIGNS AND BARRICADES SHALL BE ADJUSTED FOR FIELD CONDITIONS AS DIRECTED BY THE ENGINEER. THE DIRECTIONAL ARROW SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE SIDE ROAD LANE CLOSURE.

C. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAY UNLESS OTHERWISE NOTED.

D. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCIDENTAL TO THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

All dimensions are in millimeters (Inches) unless otherwise shown.

FILE NAME = 0824-DTLS-01 - TC-10	USER NAME = geg1tenobt	DESIGNED -- LHA	REVISED -- J. OBERLE 10-18-95
		CHECKED --	REVISED -- A. HOUSEH 03-06-96
	PLOT SCALE = 50.8000 "/ IN.	DRAWN --	REVISED -- A. HOUSEH 10-15-96
	PLOT DATE = 1/4/2008	CHECKED -- 06-89	REVISED -- T. RAMMACHER 01-06-00

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL AND PROTECTION FOR  
SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

SCALE: SHEET NO. 43 OF 43 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	09-00114-00-TL	COOK	43	43
TC-10			CONTRACT NO. 63317	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT ARA-9003(336)				