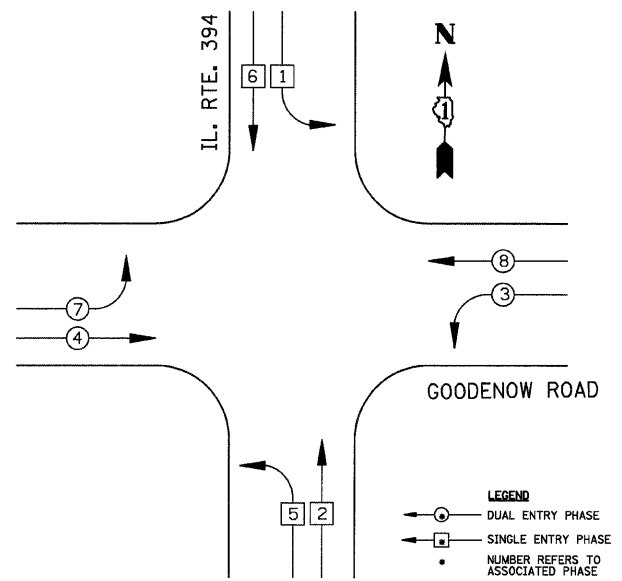


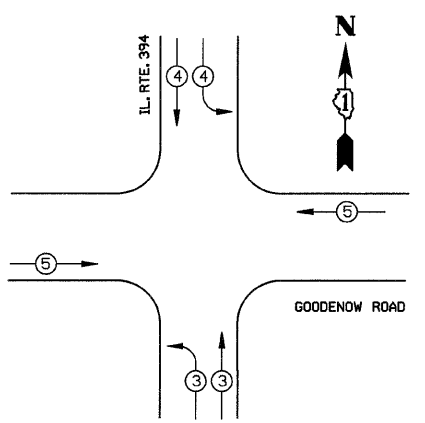
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332/876	2002-113R	WILL	242	103
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT NO. 62542				

CONTROLLER SEQUENCE



LEGEND
 ○ DUAL ENTRY PHASE
 □ SINGLE ENTRY PHASE
 • NUMBER REFERS TO ASSOCIATED PHASE

PHASE DESIGNATION DIAGRAM



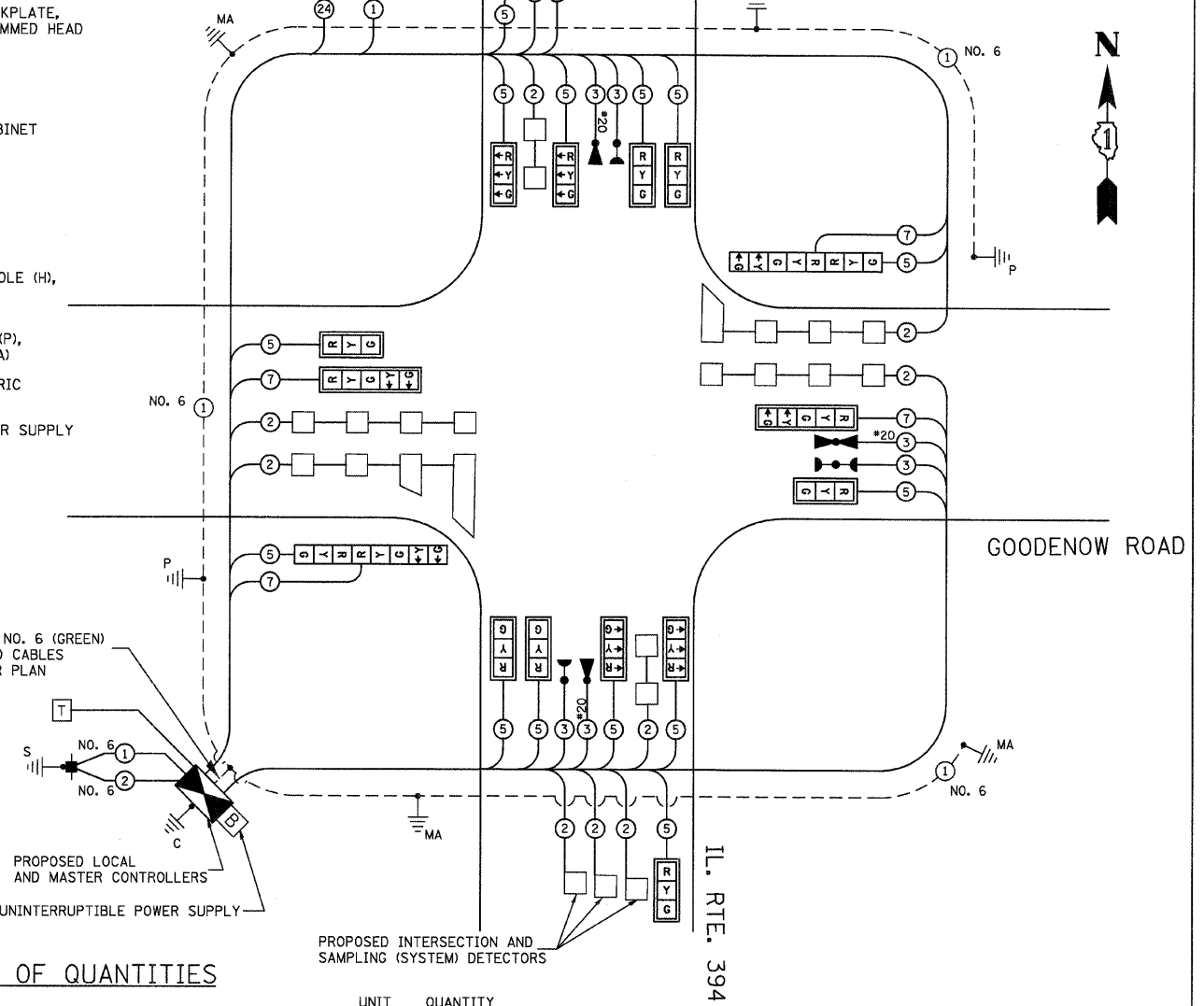
PROPOSED EMERGENCY VEHICLE PREEMPTORS				
EMERGENCY VEHICLE PREEMPTOR	3	4	5	
MOVEMENT				

EMERGENCY VEHICLE PREEMPTION SEQUENCE

CABLE PLAN LEGEND

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

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



SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
HEAVY-DUTY HANDHOLE	EACH	9
DOUBLE HANDHOLE	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE V CABINET	EACH	1
TRANSCIVER - FIBER OPTIC	EACH	1
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	14
INDUCTIVE LOOP DETECTOR	EACH	11
LIGHT DETECTOR	EACH	3
LIGHT DETECTOR AMPLIFIER	EACH	1
TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
SIGN PANEL-TYPE 1	SQ M	1.68
SIGN PANEL-TYPE 2	SQ M	2.78
CONDUIT IN TRENCH, 50MM DIA., GALVANIZED STEEL	METER	150.0
CONDUIT IN TRENCH, 65MM DIA., GALVANIZED STEEL	METER	25.0
CONDUIT IN TRENCH, 100MM DIA., GALVANIZED STEEL	METER	3.0
CONDUIT PUSHED, 50MM DIA., GALVANIZED STEEL	METER	10.0
CONDUIT PUSHED, 100MM DIA., GALVANIZED STEEL	METER	139.5
TRENCH AND BACKFILL FOR ELECTRICAL WORK	METER	178.0
ELECTRIC CABLE IN CONDUIT, SIGNAL, NO. 14 3C	METER	111.8
ELECTRIC CABLE IN CONDUIT, SIGNAL, NO. 14 5C	METER	943.2
ELECTRIC CABLE IN CONDUIT, SIGNAL, NO. 14 7C	METER	266.3
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	METER	773.7
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	METER	30.5
TRAFFIC SIGNAL POST, GALVANIZED STEEL, 4.85 METER	EACH	2
CONCRETE FOUNDATION, TYPE A	METER	2.4
CONCRETE FOUNDATION, TYPE C	METER	1.2
CONCRETE FOUNDATION, TYPE E 900MM DIAMETER	METER	18.4
DETECTOR LOOP, TYPE I	METER	201
ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	METER	235.3
ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED	METER	111.75
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE, 14.02 M	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE, 16.76 M	EACH	1
SERVICE INSTALLATION, POLE MOUNT	EACH	1
SIGNAL HEAD, L.E.D., 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	12
SIGNAL HEAD, L.E.D., 1-FACE, 5-SECTION, MAST ARM MOUNTED	EACH	2
SIGNAL HEAD, L.E.D., 2-FACE, 1-3 SECTION, 1-5-SECTION, BRACKET MOUNTED	EACH	2
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH DUAL MAST ARMS, 9.14 METER AND 16.47 METER	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH DUAL MAST ARMS, 7.31 METER AND 15.85 METER	EACH	1
TEMPORARY TRAFFIC SIGNAL TIMING	EACH	1
UNINTERRUPTIBLE POWER SUPPLY	EACH	1
100% COST TO THE CRETE TOWNSHIP FIRE PROTECTION DISTRICT		

CABLE PLAN

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
**SCHEDULE OF QUANTITIES, CABLE PLAN,
 PHASE DESIGNATION DIAGRAM AND
 EMERGENCY VEHICLE SEQUENCE OF OPERATION**
 ILL. RTE. 394 (CALUMET EXP) AT GOODENOW ROAD
 SCALE: 1:250
 DATE: 08-24-09
 DRAWN BY: RDS
 DESIGNED BY: BAC
 CHECKED BY: JGG

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					
TYPE	NO. LAMPS	WATTAGE INCAND. LED	OPERATION (%)	TOTAL WATTAGE	
SIGNAL (RED)	18	135	17	0.50	153.00
(YELLOW)	14	135	25	0.25	87.50
(GREEN)	14	135	15	0.25	52.50
ARROW	16	135	12	0.10	19.20
PED. SIGNAL		90	25	1.00	
CONTROLLER	1	100	100	1.00	100.00
ILLUM. SIGN		84		0.05	
FLASHER				0.50	
ENERGY COSTS TO: IDOT DISTRICT ONE				TOTAL =	412.20
ENERGY SUPPLY CONTACT: PHIL GASTON PHONE: 708-235-2338 COMPANY: CDM ED					

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' H, 2" (60mm) O.D.
E - M. ARM POLE		SIGNAL POST	2 (1.0)	BRACKET MOUNTED	13 (4.0)
24" (600mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)	PED. BUTTON	4 (1.2)
30" (750mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	ELECTRIC SERVICE	13.5 (4.1)
36" (900mm)	15 (4.6)	ELECTRIC SERVICE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
		GROUND CABLE	1 (0.5)	POST MOUNTED	6 (1.8)