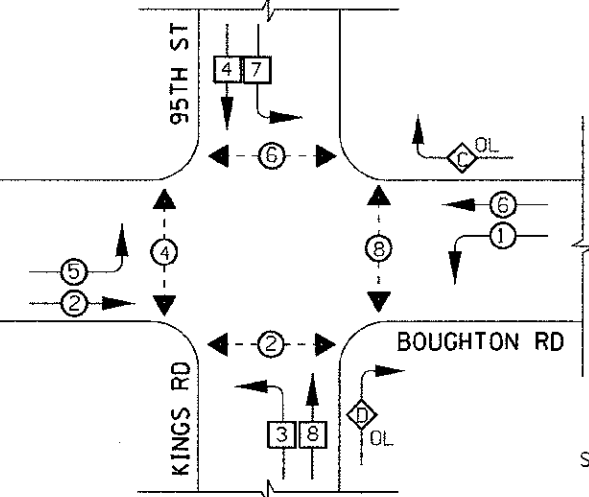


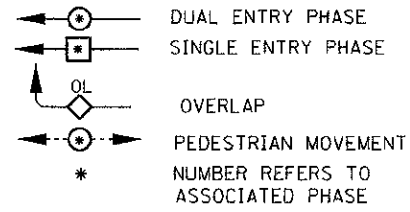
**CONTROLLER SEQUENCE**



**PHASE DESIGNATION DIAGRAM**

PROTECTED/PERMITTED LEFT TURN PHASING WITH RIGHT TURN OVERLAP

**LEGEND**



**RIGHT TURN OVERLAP PHASE DESIGNATION**

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
C	= 6	+ 7
D	= 8	+ 1

**NOTE:**  
EQUIPMENT GROUND CONDUCTOR (GREEN COLOR CODED) SPLICE TO FRAME AND COVER IS REQUIRED FOR ALL HANDHOLES OR DOUBLE HANDHOLES THAT CARRY SIGNAL CABLES AND SERVICE CABLES.

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE (INCAND.)	LED	% OPERATION	
SIGNAL (RED)	16	-	17	0.50	136.00
(YELLOW)	16	-	25	0.25	100.00
(GREEN)	16	-	15	0.25	60.00
ARROW	28	-	12	0.10	33.60
PED. SIGNAL	8	-	25	1.00	200.00
CONTROLLER	1	-	100	1.00	100.00
ILLUM. SIGN	4	-	60	0.50	120.00
<b>TOTAL =</b>					<b>749.60</b>

**ENERGY COSTS TO:**  
VILLAGE OF BOLINGBROOK  
375 BRIARCLIFF ROAD  
BOLINGBROOK, IL 60440-0951  
ENERGY SUPPLY CONTACT: **DAVE BOLLINGER**  
PHONE: (815) 724-5717  
COMPANY: **COMED**

2 IC No 6  
SEE LIGHTING STANDARDS

INTERSECTION AND SAMPLING (SYSTEM) DETECTORS

BOUGHTON RD

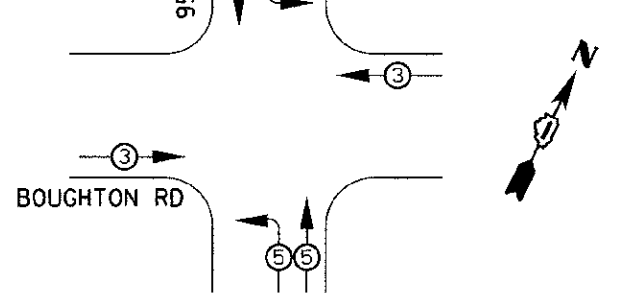
2 IC No 6  
SEE LIGHTING STANDARDS

**NOTES:**

1. ALL SIGNAL SECTIONS SHALL BE 12"
2. THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT SHALL BE "ECONOLITE".
3. REINSTALL ILLUMINATED MAST ARM MOUNTED STREET NAME SIGNS ON ALL NEW MAST ARMS ("RELOCATE EXISTING ILLUMINATED SIGN").
4. THIS IS A SYSTEM GROUND THAT SHALL INTERCONNECT ALL GROUND RODS WITH NO. 6 1/C SOLID COPPER AWG.
5. THE NEUTRAL AND GROUND SHALL BE TIED AT THE SERVICE INSTALLATION, BUT SHALL BE SEPARATED AT THE TRAFFIC CONTROL CABINET.
6. ALL TRAFFIC SIGNAL AND PEDESTRIAN SIGNAL LENSES, AND NEW E.V.P. EQUIPMENT, SHALL BE L.E.D. TYPE.
7. ALL TRAFFIC SIGNAL HEADS TO HAVE "YELLOW" BODY AND "BLACK" BRACKETS.

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE ECONOLITE TO MATCH THE EXISTING SYSTEM.

**EMERGENCY VEHICLE PREEMPTION SEQUENCE**



PROPOSED EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTOR	3	4	5
MOVEMENT	←	↓	↶

**SCHEDULE OF QUANTITIES**

(INCLUDES QUANTITIES FOR TRAFFIC SIGNAL INTERCONNECT - SEE DRAWING 6 OF 6)  
(SEE SIGN SCHEDULES FOR ALL INTERSECTION SIGNAGE QUANTITIES)

PAY ITEM	UNITS	QNTY.
SERVICE INSTALLATION - GROUND MOUNTED	EACH	1
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2 IN. DIA.	FOOT	1,143
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2 1/2 IN. DIA.	FOOT	78
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3 IN. DIA.	FOOT	38
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3 1/2 IN. DIA.	FOOT	12
UNDERGROUND CONDUIT, GALVANIZED STEEL, 4 IN. DIA.	FOOT	442
HANDHOLE	EACH	7
HEAVY DUTY HANDHOLE	EACH	4
DOUBLE HANDHOLE	EACH	3
ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE), 1/2" NO. 10	FOOT	741
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET	EACH	1
UNINTERRUPTIBLE POWER SUPPLY, EXTENDED	EACH	1
TRANSCEIVER - FIBER OPTIC	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL, NO. 14 2C	FOOT	1,306
ELECTRIC CABLE IN CONDUIT, SIGNAL, NO. 14 3C	FOOT	1,906
ELECTRIC CABLE IN CONDUIT, SIGNAL, NO. 14 5C	FOOT	2,424
ELECTRIC CABLE IN CONDUIT, SIGNAL, NO. 14 7C	FOOT	1,598
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	3,796
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C	FOOT	37
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	612
TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 50 FT.	EACH	2
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 58 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 60 FT.	EACH	1
CONCRETE FOUNDATION, TYPE A	FOOT	16
CONCRETE FOUNDATION, TYPE C	FOOT	4
CONCRETE FOUNDATION, TYPE E, 36 INCH DIAMETER	FOOT	30
CONCRETE FOUNDATION, TYPE E, 42 INCH DIAMETER	FOOT	42
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	5
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	2
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	1
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED	EACH	1
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	8
TRAFFIC SIGNAL BACKPLATE, LOUVERED	EACH	12
INDUCTIVE LOOP DETECTOR	EACH	14
DETECTOR LOOP, TYPE 1	FOOT	954
LIGHT DETECTOR	EACH	2
LIGHT DETECTOR AMPLIFIER	EACH	1
PEDESTRIAN PUSH-BUTTON	EACH	5
TEMPORARY TRAFFIC SIGNAL INSTALLATION	L SUM	1
RELOCATE EXISTING SIGNAL HEAD	EACH	11
RELOCATE EXISTING ILLUMINATED SIGN	EACH	4
RELOCATE EXISTING PEDESTRIAN PUSH-BUTTON	EACH	3
RELOCATE EXISTING TRAFFIC SIGNAL POST	EACH	2
RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, DETECTOR UNIT	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING HANDHOLE	EACH	10
REMOVE EXISTING DOUBLE HANDHOLE	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	10
REMOVE AND REINSTALL FIBER OPTIC CABLE IN CONDUIT	L SUM	1
ELECTRIC CABLE IN CONDUIT, NO 20 3C, TWISTED SHIELDED	FOOT	544
RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL 2	EACH	1
TEMPORARY TRAFFIC SIGNAL TIMING	EACH	1