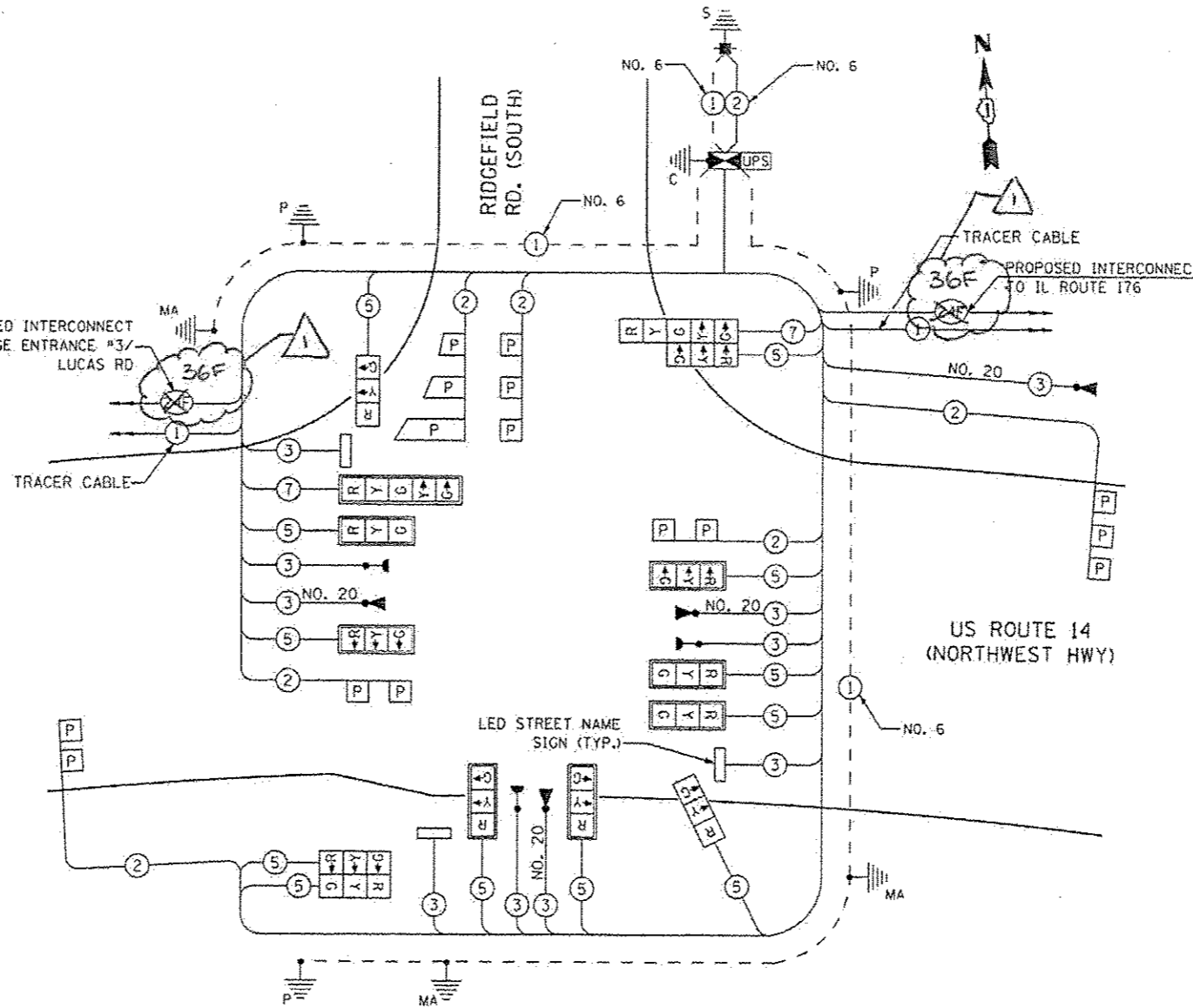


**SCHEDULE OF QUANTITIES**

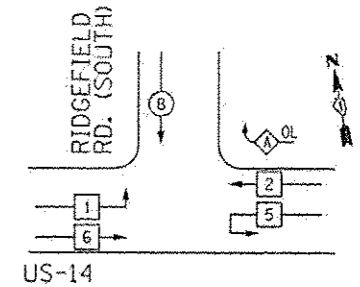
ITEM	UNIT	QTY
LED INTERNALLY ILLUMINATED STREET NAME SIGN	EA	3
SIGN PANEL - TYPE 1	SF	30
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FT	648
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2 1/2" DIA.	FT	375
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FT	115
UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FT	254
HANDHOLE	EA	4
HEAVY-DUTY HANDHOLE	EA	3
DOUBLE HANDHOLE	EA	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EA	1
TRANSDUCER - FIBER OPTIC	EA	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 34 3C	FT	1059
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 34 5C	FT	2718
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 34 7C	FT	249
ELECTRIC CABLE IN CONDUIT, LEAD-IN NO. 14 1 PAIR	FT	1295
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2/C	FT	134
TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EA	2
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EA	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 18 FT.	EA	1
STEEL MAST ARM ASSEMBLY AND POLE, 48 FT.	EA	1
STEEL MAST ARM ASSEMBLY AND POLE, 52 FT.	EA	1
STEEL MAST ARM ASSEMBLY AND POLE, 64 FT.	EA	1
CONCRETE FOUNDATION, TYPE A	FT	16
CONCRETE FOUNDATION, TYPE C	FT	4
CONCRETE FOUNDATION, TYPE E 36 INCH DIAMETER	FT	28
CONCRETE FOUNDATION, TYPE E 42 INCH DIAMETER	FT	21
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EA	7
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EA	2
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EA	1
SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED	EA	1
SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED	EA	1
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EA	8
INDUCTIVE LOOP DETECTOR	EA	6
LIGHT DETECTOR	EA	4
LIGHT DETECTOR AMPLIFIER	EA	1
TEMPORARY TRAFFIC SIGNAL INSTALLATION	EA	2
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EA	1
REMOVE EXISTING CONCRETE FOUNDATION	EA	1
PERFORMED DETECTOR LOOP	FT	513
TEMPORARY TRAFFIC SIGNAL TIMING	EA	1
SERVICE INSTALLATION - POLE MOUNTED	EA	1
UNINTERRUPTIBLE POWER SUPPLY SPECIAL	EA	1
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FT	746
ELECTRIC CABLE IN CONDUIT, NO. 20 3/C, TWISTED, SHIELDED	FT	1092

100% LOCAL AGENCY COST



**CABLE PLAN**

**CONTROLLER SEQUENCE**



**PHASE DESIGNATION DIAGRAM**

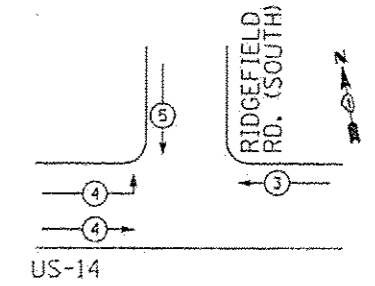
**RIGHT TURN OVERLAP PHASE DESIGNATION**

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
A	2	8

**LEGEND**

- DUAL ENTRY PHASE
- SINGLE ENTRY PHASE
- △ OL OVERLAP
- PEDESTRIAN PHASE
- NUMBER REFERS TO ASSOCIATED PHASE

**EMERGENCY VEHICLE PREEMPTION SEQUENCE**



PROPOSED EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTOR	3	4	5
MOVEMENT	←	→	↑

NOTE: THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

NOTE: THE EMERGENCY PREEMPTION EQUIPMENT FOR THIS PROJECT SHALL BE "OPTICOM" BRAND TO MATCH THE EXISTING CITY SYSTEM.

THE END OF THE TRACER CABLE SHALL BE CONTINUOUS AND EXTEND INTO THE CONTROLLER CABINET.

RESTORATION OF WORK AREA: RESTORATION OF THE TRAFFIC WORK AREA SHALL BE INCLUDED IN THE COST OF 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 250 RESPECTIVELY.

**EJM ENGINEERING, INC.**  
411 South Wolfe Street Suite 1000  
Chicago, Illinois 60607

I.O.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					
TYPE	NO. OF LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	13	135	17	0.50	110.5
(YELLOW)	13	135	25	0.25	81.25
(GREEN)	13	135	15	0.25	48.75
ARROW	4	135	12	0.10	4.8
CONTROLLER	1	100	100	1.00	100
LED SIGN	2		90	0.50	90
LED SIGN (6'x)	1		120	0.50	60

ENERGY COSTS TO: TOTAL \$ 495.3

**CITY OF CRYSTAL LAKE**  
100 WEST WOODSTOCK ST  
CRYSTAL LAKE, ILLINOIS 60014

ENERGY SUPPLY CONTACT: MIKE WIDHALM  
PHONE: (815) 263-5624  
COMPANY: COMED

FILE NAME	USER NAME	DESIGNED	REVISION
...AO162917-SH1-TSD2A.dgn	...	JW	LP 7/10/14
		JW	REVISED
		RS	REVISED
			REVISED

**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**

**SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE US RTE. 14 AND RIDGEFIELD ROAD (SOUTH)**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
305	2TR-3	MCHEENY	431	297
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				CONTRACT NO. 62517

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.