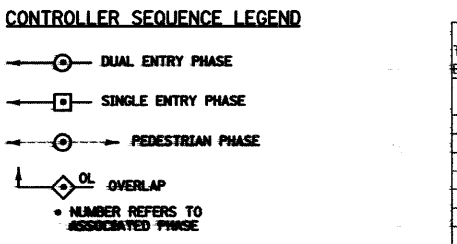
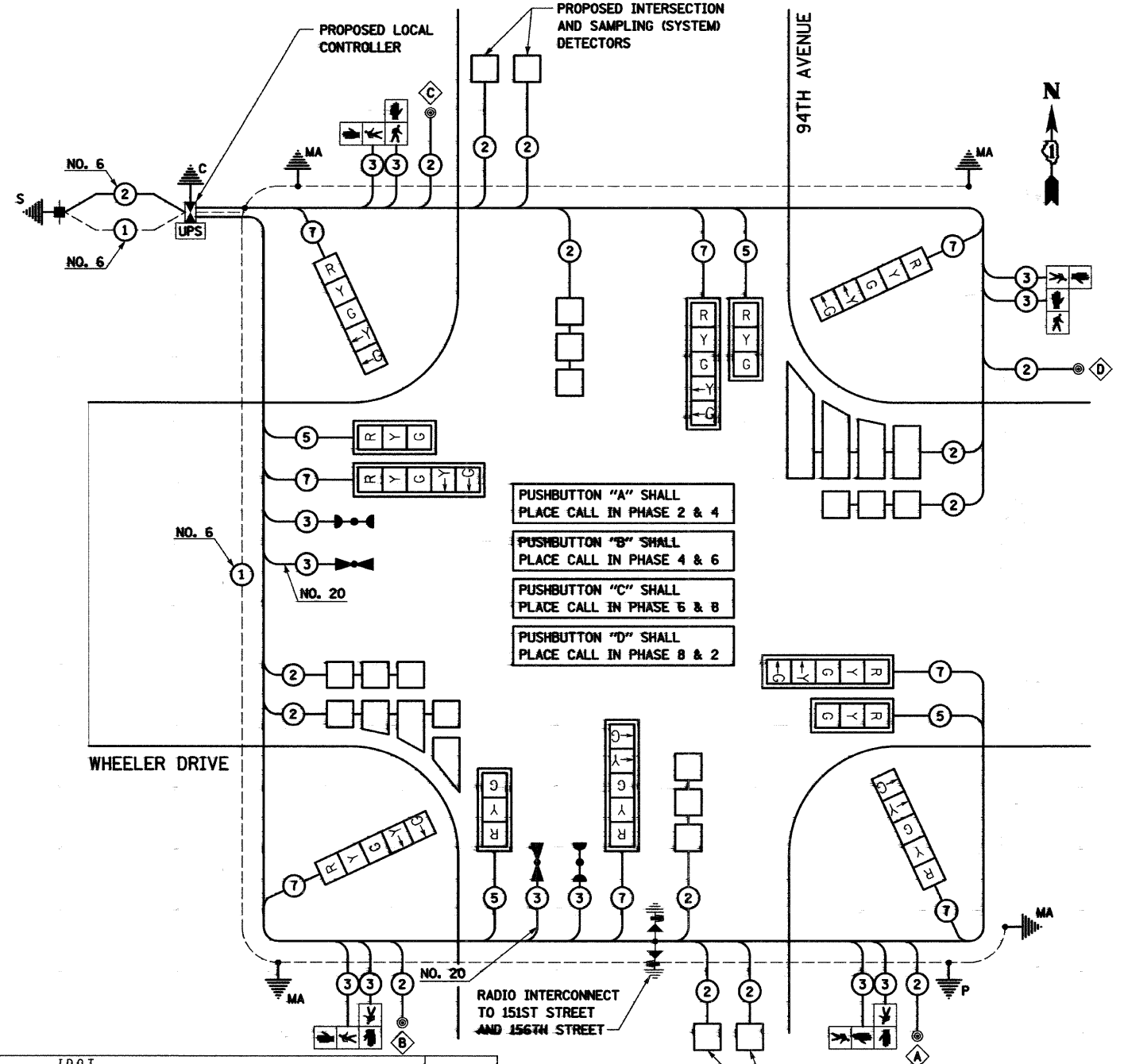


PHASE DESIGNATION DIAGRAM



PROPOSED EMERGENCY VEHICLE PREEMPTORS	
EMERGENCY VEHICLE PREEMPTOR	3
MOVEMENT	4



CABLE PLAN

I.D.O.T.
TRAFFIC SIGNAL INSTALLATION
ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. LAMPS	WATTAGE	LED	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	12	17		0.50	102
(YELLOW)	12	25		0.25	75
(GREEN)	12	15		0.25	45
ARROW	16	12		0.10	19.2
PED. SIGNAL	8	25		1.00	200
CONTROLLER	1	100		1.00	100
ILLUM. SIGN					
FLASHER					
UPS	1	25		1.00	25
TOTAL =					566.2

ENERGY COSTS TO:
VILLAGE OF ORLAND PARK
14700 RAVINIA AVENUE
ORLAND PARK, IL 60462

ENERGY SUPPLY CONTACT: NILES K. AKBAR
(708) 235-2550
COMED

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)
TYPE C - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'±L-2'
TYPE D - CONTROLLER	4 (1.2)	SIGNAL POST	2 (1.0)		(6m±L-0.6m)
TYPE E - M.A. LENGTH		CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
<30'	30" (900mm)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
<40'	30" (750mm)	ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
<40'	36" (900mm)	GROUND CABLE	1 (0.5)	SERVICE TO BE GROUND	13.5 (4.1)
<50'	36" (900mm)		13 (4.0)	POST MOUNTED	6 (1.8)
>50'	36" (900mm)		15 (4.6)		

PLANS FOR PROPOSED FEDERAL AID HIGHWAY
FAU ROUTE 1686 (94TH AVE) AND
FAU ROUTE 1603 (151ST ST)
VILLAGE OF ORLAND PARK

CABLE PLAN LEGEND

EXISTING	PROPOSED	DESCRIPTION
(G)	(G)	8" (200mm) TRAFFIC SIGNAL SECTION
(R)	(R)	12" (300mm) TRAFFIC SIGNAL SECTION
(W)	(W)	12" (300mm) PEDESTRIAN SIGNAL SECTION
(P)	(P)	12" (300mm) PEDESTRIAN SIGNAL SECTION
(C)	(C)	CONTROLLER CABINET
(S)	(S)	SERVICE INSTALLATION
(T)	(T)	TELEPHONE INSTALLATION
(V)	(V)	VEHICLE DETECTOR, INDUCTION LOOP
(M)	(M)	MAGNETIC DETECTOR
(E)	(E)	EMERGENCY VEHICLE LIGHT DETECTOR
(B)	(B)	CONFIRMATION BEACON
(D)	(D)	PUSHBUTTON DETECTOR
(2)	(2)	2 DENOTES NUMBER OF CONDUCTORS, ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.
(1)	(1)	1 GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)
(24)	(24)	24 FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SM12F
(R)	(R)	SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD.
(R)	(R)	RAILROAD CONTROL CABINET
(E)	(E)	ILLUMINATED SIGN "NO LEFT TURN"
(E)	(E)	ILLUMINATED SIGN "NO RIGHT TURN"
(H/C)	(H/C)	GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (H), OR CONTROLLER (C)
(P)	(P)	GROUND ROD AT POST (P) OR MAST ARM POLE (MA)
(S)	(S)	GROUND ROD AT ELECTRIC SERVICE INSTALLATION
(A)	(A)	WIRELESS ANTENNA
(UPS)	(UPS)	UNINTERRUPTIBLE POWER SUPPLY

SCHEDULE OF QUANTITIES

PAY ITEM #	PAY ITEMS	UNIT	TOTAL
72000100	SIGN PANEL, TYPE 1	50 FT	50
81000600	CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL	FOOT	556
81000800	CONDUIT IN TRENCH, 3" DIA., GALVANIZED STEEL	FOOT	57
81018500	CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL	FOOT	105
81018700	CONDUIT PUSHED, 3" DIA., GALVANIZED STEEL	FOOT	43
81018900	CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL	FOOT	335
81400100	HANDHOLE	EACH	3
81400200	HEAVY-DUTY HANDHOLE	EACH	4
81400300	DOUBLE HANDHOLE	EACH	2
81900200	TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	613
85700200	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET	EACH	1
87301215	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	458.0
87301225	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	1108.0
87301245	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	700.0
87301255	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	1330.0
87301305	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	1614.5
87301805	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C	FOOT	93.5
87502500	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	1
87700170	STEEL MAST ARM ASSEMBLY AND POLE, 26 FT.	EACH	1
87700200	STEEL MAST ARM ASSEMBLY AND POLE, 32 FT.	EACH	1
87700220	STEEL MAST ARM ASSEMBLY AND POLE, 36 FT.	EACH	1
87700260	STEEL MAST ARM ASSEMBLY AND POLE, 44 FT.	EACH	1
87800100	CONCRETE FOUNDATION, TYPE A	FOOT	4
87800150	CONCRETE FOUNDATION, TYPE A	FOOT	4
87800400	CONCRETE FOUNDATION, TYPE E, 30-INCH DIAMETER	FOOT	45
87800415	CONCRETE FOUNDATION, TYPE E, 36-INCH DIAMETER	FOOT	15
88030020	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	4
88030100	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	4
88030110	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED	EACH	4
88102740	PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED	EACH	4
88200210	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	8
88500100	INDUCTIVE LOOP DETECTOR	EACH	10
88600100	DETECTOR LOOP, TYPE I	FOOT	981
88700200	LIGHT DETECTOR	EACH	2
88700300	LIGHT DETECTOR AMPLIFIER	EACH	1
88800100	PEDESTRIAN PUSH-BUTTON	EACH	4
X8050010	SERVICE INSTALLATION - GROUND MOUNTED	EACH	1
X8730027	ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	FOOT	777.0
X8730250	ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED	FOOT	245.0
XX006661	UNINTERRUPTIBLE POWER SUPPLY	EACH	1

SEC Group, Inc.
Engineering - Surveying - Planning - Landscape Architecture
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USER NAME = sjohnson
DESIGNED - TSC
DRAWN - RCB
CHECKED - APS
DATE - 3/13/09

REVISED -
REVISED -
REVISED -
REVISED -

SCALE: NONE SHEET NO. 9 OF 16 SHEETS STA. TO STA.

CABLE PLAN AND PHASE DESIGNATION DIAGRAM

FAU RTE 1686/1603 SECTION 08-00065-00-TL COUNTY COOK TOTAL SHEETS 16 SHEET NO. 9 CONTRACT NO. 63050 FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT