

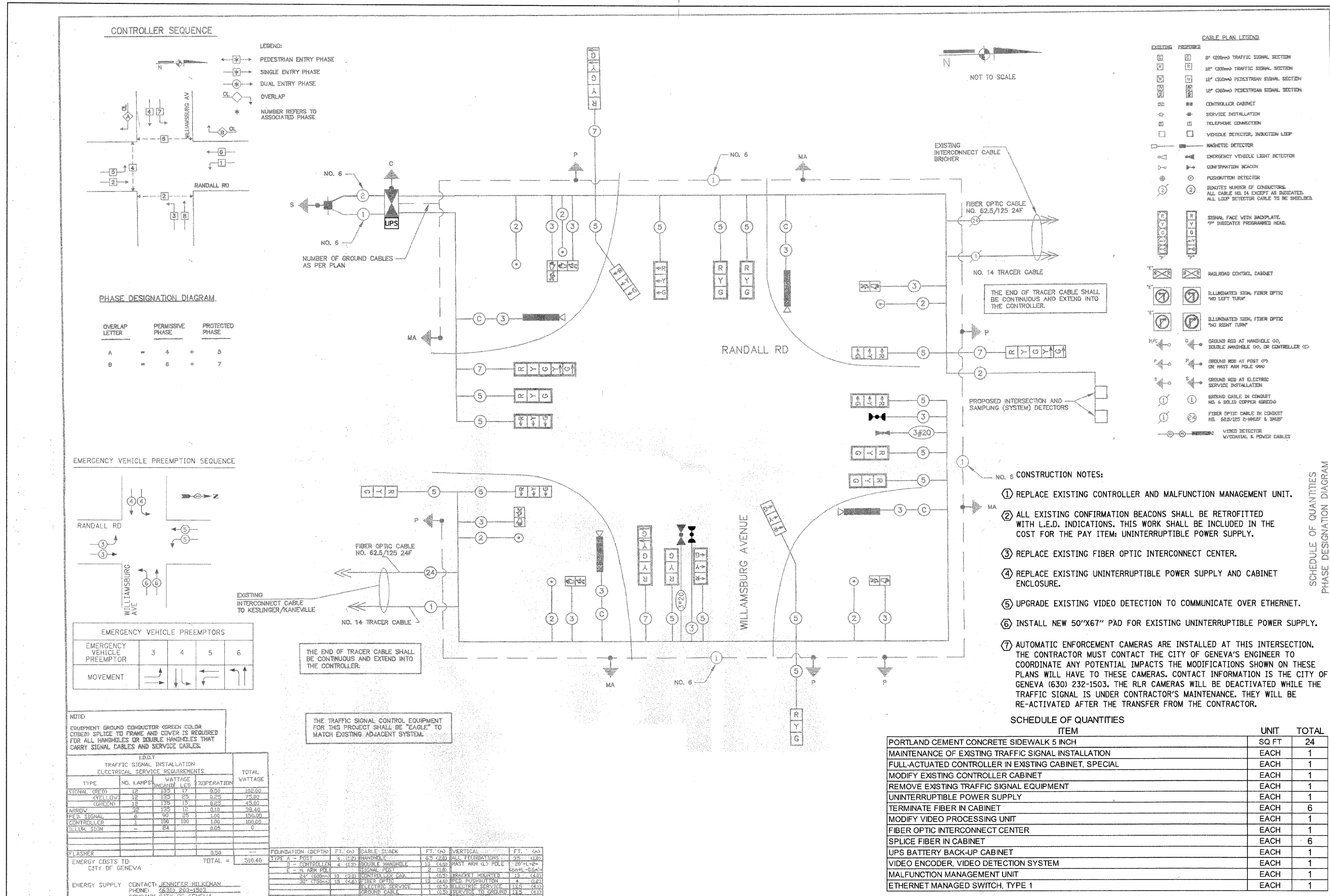
DATE: _____ BY: _____
 SURVEYED: _____
 GRADES CHECKED: _____
 B.M. NOTED: _____
 PLYMOUTH: NOTARY'S OFFICE

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 SURVEYED: _____
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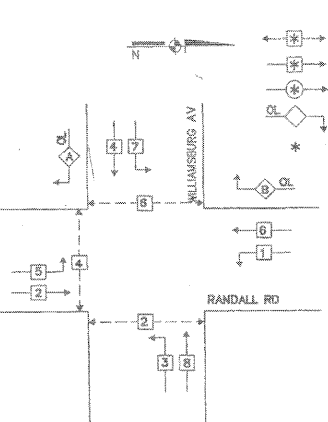
PROFILE SURVEYED: _____
 GRADES CHECKED: _____
 B.M. NOTED: _____
 PLYMOUTH: NOTARY'S OFFICE

FILE NAME: N:\kenecounty\080673\Traffic\021_CAB_Randall-Williamsburg.dgn
 USER NAME: JFPACONE
 DESIGNED: ABR
 DRAWN: FCP
 CHECKED: MJT
 DATE: AUGUST 31, 2010

REVISIONS:
 REVISED: _____
 REVISED: _____
 REVISED: _____



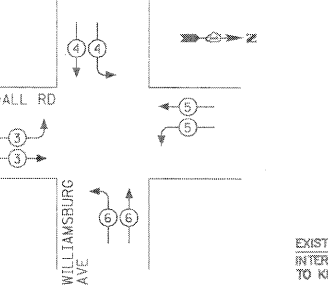
CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
A	= 4 + 5	
B	= 6 + 7	

EMERGENCY VEHICLE PREEMPTION SEQUENCE



EMERGENCY VEHICLE PREEMPTORS

EMERGENCY VEHICLE PREEMPTOR	3	4	5	6
MOVEMENT	→	←	↔	↔

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

TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. LAMPS	VOLTAGE	OPERATION	TOTAL WATTAGE
SIGNAL GREEN	12	120	0.50	108.00
CYCLING (W)	12	120	0.25	72.00
(GREEN)	12	120	0.25	45.00
ARROW	32	120	0.10	39.40
PED. SIGNAL	6	90	1.00	150.00
CONTROLLER	100	100	1.00	100.00
ILLUM. SIGN	1	84	0.05	0
FLASHER			0.50	---
ENERGY COSTS TO CITY OF GENEVA			TOTAL =	510.40

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
B - CONTROLLER	4 (1.2)	DOUBLE HANDLE	13 (4.0)	PAST ARM (D) POLE	20 (6.1)
C - H. 250	2 (0.6)	SIGNAL POST	2 (0.6)		
24" (600mm)	10 (3.0)	CONTROLLESS CAB.	1 (0.3)	BASKET MOUNTED	13 (4.0)
30" (750mm)	13 (4.0)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
		ELECTRIC SERVICE	1 (0.3)	RELAYED SERVICE	13.5 (4.1)
		GROUND CABLE	1 (0.3)	SERVICE TO GROUND	13.5 (4.1)
				BEST MOUNTED	6 (1.8)

CABLE PLAN LEGEND

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
⊖	⊖	VEHICLE DETECTOR, INDUCTIVE LOOP
⊖	⊖	MAGNETIC DETECTOR
⊖	⊖	EMERGENCY VEHICLE LIGHT DETECTOR
⊖	⊖	CONFIRMATION BEACON
⊖	⊖	PUSHBUTTON DETECTOR
⊖	⊖	INDICATES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.
⊖	⊖	SIGNAL FACE WITH BACKPLATE. ** INDICATES PROGRAMMED HEAD.
⊖	⊖	RAILROAD CONTROL CABINET
⊖	⊖	ILLUMINATED SIGN, FIBER OPTIC "NO LEFT TURN"
⊖	⊖	ILLUMINATED SIGN, FIBER OPTIC "NO RIGHT TURN"
H/C	⊖	GROUND ROD AT HANDLE GO, DOUBLE HANDLE GO, OR CONTROLLER (C)
⊖	⊖	GROUND ROD AT FIRST (P) OR LAST ARM POLE (GO)
⊖	⊖	GROUND ROD AT ELECTRIC SERVICE INSTALLATION
⊖	⊖	GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (6000)
⊖	⊖	FIBER OPTIC CABLE IN CONDUIT NO. 60.5/125 R-WHELF & SHELF
⊖	⊖	VIDEO DETECTOR W/COAXIAL & POWER CABLES

- NO. 6 CONSTRUCTION NOTES:**
- REPLACE EXISTING CONTROLLER AND MALFUNCTION MANAGEMENT UNIT.
 - ALL EXISTING CONFIRMATION BEACONS SHALL BE RETROFITTED WITH L.E.D. INDICATIONS. THIS WORK SHALL BE INCLUDED IN THE COST FOR THE PAY ITEM: UNINTERRUPTIBLE POWER SUPPLY.
 - REPLACE EXISTING FIBER OPTIC INTERCONNECT CENTER.
 - REPLACE EXISTING UNINTERRUPTIBLE POWER SUPPLY AND CABINET ENCLOSURE.
 - UPGRADE EXISTING VIDEO DETECTION TO COMMUNICATE OVER ETHERNET.
 - INSTALL NEW 50"x67" PAD FOR EXISTING UNINTERRUPTIBLE POWER SUPPLY.
 - AUTOMATIC ENFORCEMENT CAMERAS ARE INSTALLED AT THIS INTERSECTION. THE CONTRACTOR MUST CONTACT THE CITY OF GENEVA'S ENGINEER TO COORDINATE ANY POTENTIAL IMPACTS THE MODIFICATIONS SHOWN ON THESE PLANS WILL HAVE TO THESE CAMERAS. CONTACT INFORMATION IS THE CITY OF GENEVA (630) 232-1503. THE RLR CAMERAS WILL BE DEACTIVATED WHILE THE TRAFFIC SIGNAL IS UNDER CONTRACTOR'S MAINTENANCE. THEY WILL BE RE-ACTIVATED AFTER THE TRANSFER FROM THE CONTRACTOR.

SCHEDULE OF QUANTITIES

ITEM	UNIT	TOTAL
PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	24
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER IN EXISTING CABINET, SPECIAL	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTIBLE POWER SUPPLY	EACH	1
TERMINATE FIBER IN CABINET	EACH	6
MODIFY VIDEO PROCESSING UNIT	EACH	1
FIBER OPTIC INTERCONNECT CENTER	EACH	1
SPLICE FIBER IN CABINET	EACH	6
UPS BATTERY BACK-UP CABINET	EACH	1
VIDEO ENCODER, VIDEO DETECTION SYSTEM	EACH	1
MALFUNCTION MANAGEMENT UNIT	EACH	1
ETHERNET MANAGED SWITCH, TYPE 1	EACH	1

CABLE PLAN, PHASE DESIGNATION DIAGRAM, EMERGENCY VEHICLE PREEMPTION SEQUENCE
 RANDALL ROAD AND WILLIAMSBURG AV
 GENEVA, ILLINOIS
 SCHEDULE OF QUANTITIES
 PHASE DESIGNATION DIAGRAM
 CABLE PLAN
 MJD ENGINEERING
 3709 NORTH OKETO
 CHICAGO, ILLINOIS 60634 (773) 625-6565
 9 OF 10

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE RANDALL ROAD AND WILLIAMSBURG AV

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	09-00237-02-TL	KANE	100	21

CONTRACT NO. 63525
 ILLINOIS FED. AID PROJECT