

INDEX OF SHEETS

1. TITLE SHEET
2. SUMMARY OF QUANTITIES
3. DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS - 1 OF 4
4. DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS - 2 OF 4
5. DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS - 3 OF 4
6. DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS - 4 OF 4
7. TRAFFIC SIGNAL MODERNIZATION PLAN
ESSINGTON ROAD AT U.S. RTE 52 (JEFFERSON ST.)
8. SCHEDULE OF QUANTITIES, CABLE PLAN AND PHASE DESIGNATION DIAGRAM
ESSINGTON ROAD AT U.S. RTE 52 (JEFFERSON ST.)
9. TRAFFIC SIGNAL MODERNIZATION PLAN
ESSINGTON ROAD AT GLENWOOD AVENUE
10. SCHEDULE OF QUANTITIES, CABLE PLAN AND PHASE DESIGNATION DIAGRAM
ESSINGTON ROAD AT GLENWOOD AVENUE
11. TRAFFIC SIGNAL MODERNIZATION PLAN
ESSINGTON ROAD AT BLACK ROAD
12. SCHEDULE OF QUANTITIES, CABLE PLAN AND PHASE DESIGNATION DIAGRAM
ESSINGTON ROAD AT BLACK ROAD
13. TRAFFIC SIGNAL MODERNIZATION PLAN
ESSINGTON ROAD AT INGALLS AVENUE
14. SCHEDULE OF QUANTITIES, CABLE PLAN AND PHASE DESIGNATION DIAGRAM
ESSINGTON ROAD AT INGALLS AVENUE
15. TRAFFIC SIGNAL MODERNIZATION PLAN
ESSINGTON ROAD AT THEODORE STREET
16. SCHEDULE OF QUANTITIES, CABLE PLAN AND PHASE DESIGNATION DIAGRAM
ESSINGTON ROAD AT THEODORE STREET
17. TRAFFIC SIGNAL MODERNIZATION PLAN
ESSINGTON ROAD AT THOMAS HICKEY AVENUE
18. SCHEDULE OF QUANTITIES, CABLE PLAN AND PHASE DESIGNATION DIAGRAM
ESSINGTON ROAD AT THOMAS HICKEY AVENUE
19. TRAFFIC SIGNAL MODERNIZATION PLAN
ESSINGTON ROAD AT FIDAY ROAD
20. SCHEDULE OF QUANTITIES, CABLE PLAN AND PHASE DESIGNATION DIAGRAM
ESSINGTON ROAD AT FIDAY ROAD
21. TRAFFIC SIGNAL MODERNIZATION PLAN
ESSINGTON ROAD AT VIMY RIDGE DRIVE
22. SCHEDULE OF QUANTITIES, CABLE PLAN AND PHASE DESIGNATION DIAGRAM
ESSINGTON ROAD AT VIMY RIDGE DRIVE
23. TRAFFIC SIGNAL MODERNIZATION PLAN
ESSINGTON ROAD AT CATON FARM ROAD
24. SCHEDULE OF QUANTITIES, CABLE PLAN AND PHASE DESIGNATION DIAGRAM
ESSINGTON ROAD AT CATON FARM ROAD
25. TRAFFIC SIGNAL MODERNIZATION PLAN
ESSINGTON ROAD AT HENNEPIN DRIVE
26. SCHEDULE OF QUANTITIES, CABLE PLAN AND PHASE DESIGNATION DIAGRAM
ESSINGTON ROAD AT HENNEPIN DRIVE
27. INTERCONNECT PLAN - SHEET 1 OF 4
28. INTERCONNECT PLAN - SHEET 2 OF 4
29. INTERCONNECT PLAN - SHEET 3 OF 4
30. INTERCONNECT PLAN - SHEET 4 OF 4
31. INTERCONNECT SCHEMATIC AND SCHEDULE OF QUANTITIES

IDOT STANDARDS

- 701501-04 URBAN LANE CLOSURE 2L, 2W, UNDIVIDED
- 701601-05 URBAN LANE CLOSURE, MULTILANE, 1W OR 2W WITH NONTRAVERSIBLE MEDIAN
- 701701-05 URBAN LANE CLOSURE, MULTILANE INTERSECTION
- 701801-03 LANE CLOSURE MULTILANE 1W OR 2W CROSSWALK OR SIDEWALK CLOSURE
- 701901 TRAFFIC CONTROL DEVICES
- 720001 SIGN PANEL MOUNTING DETAILS
- 814001-01 HANDHOLES
- 814006-01 DOUBLE HANDHOLES
- 857001 STANDARD PHASE DESIGNATION DIAGRAMS AND PHASE SEQUENCES
- 878001-06 CONCRETE FOUNDATION DETAILS
- 880006 TRAFFIC SIGNAL MOUNTING DETAILS
- 886001 DETECTOR LOOP INSTALLATIONS

83992

PLANS PREPARED BY:
GEWALT HAMILTON
ASSOCIATES, INC.

Consulting Engineers & Surveyors

860 Forest Edge Drive
Vernon Hills, IL 60061
847-478-9700
FAX 847-478-9701

EXISTING UTILITIES: WHEN THE PLANS OR SPECIAL PROVISIONS INCLUDE INFORMATION PERTAINING TO THE LOCATION OF UNDERGROUND UTILITY FACILITIES, SUCH INFORMATION REPRESENTS ONLY THE OPINION OF THE ENGINEER AS TO THE LOCATION OF SUCH UTILITIES AND IS ONLY INCLUDED FOR THE CONVENIENCE OF THE BIDDER. THE ENGINEER AND OWNER ASSUME NO RESPONSIBILITY WHATSOEVER IN RESPECT TO THE SUFFICIENCY OR ACCURACY OF THE INFORMATION SHOWN ON THE PLANS RELATIVE TO THE LOCATION OF UNDERGROUND UTILITY FACILITIES OR THE MANNER IN WHICH THEY ARE TO BE REMOVED OR ADJUSTED. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE ACTUAL LOCATION OF ALL SUCH FACILITIES. HE SHALL ALSO OBTAIN FROM THE RESPECTIVE UTILITY COMPANIES, DETAILED INFORMATION RELATIVE TO THE LOCATION OF THEIR FACILITIES AND THE WORKING SCHEDULES OF THE UTILITY COMPANIES FOR REMOVING OR ADJUSTING THEM.

CONTRACTOR IS RESPONSIBLE FOR CONTACTING J.U.L.I.E. AT 1-800-892-0123 AND MUST OBTAIN A DIG NUMBER A MINIMUM OF 72 HOURS PRIOR TO ANY WORK BEING DONE.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PLANS FOR PROPOSED
FEDERAL AID HIGHWAY

FIBER OPTIC AND RADIO COMMUNICATIONS NETWORK

ESSINGTON ROAD FROM

U.S. RTE 52 (JEFFERSON ST.) TO HENNEPIN DRIVE

F.A.U. ROUTE 326

SECTION 05-00395-00-TL

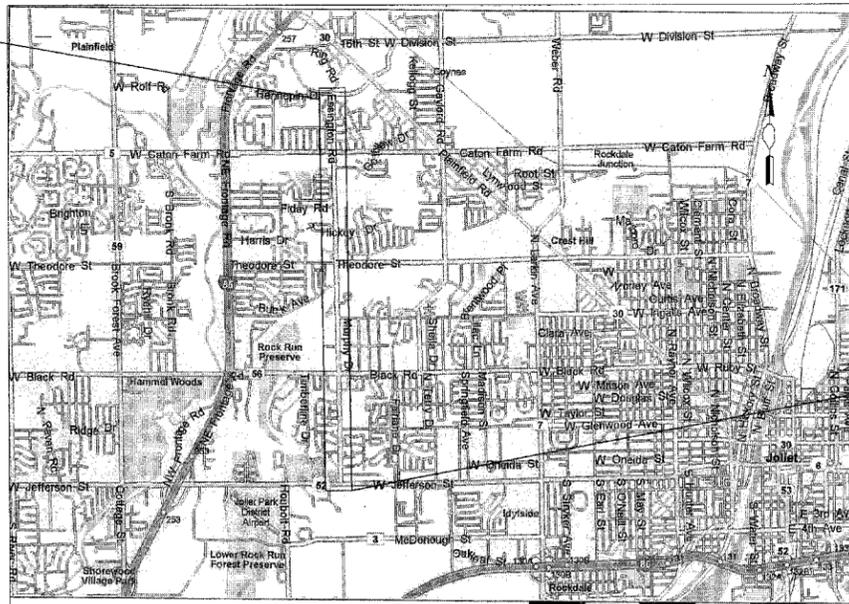
PROJECT NO. CMM-8003(604)

JOB NO. C-91-280-06

CITY OF JOLIET

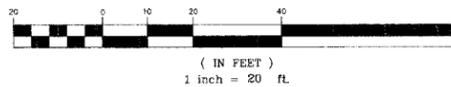
LOCATION MAP
(NOT TO SCALE)

END IMPROVEMENT
HENNEPIN DRIVE

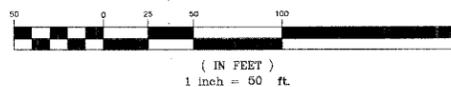


BEGIN IMPROVEMENT
U.S. RTE 52 (JEFFERSON ST.)

TRAFFIC SIGNAL MODERNIZATION PLAN
GRAPHIC SCALE



INTERCONNECT PLAN
GRAPHIC SCALE



F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	05-00395-00-TL	WILL	31	1
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO: 83992				



LOCATION OF SECTION INDICATED THUS: [shaded box]



Toby C. Mickey
12/11/07

AGENCY RESPONSIBLE FOR LETTING

Approved: *[Signature]* 12/11/07
CITY OF JOLIET, TRAFFIC ENGINEER
Local Agency, Position

Passed: *[Signature]* CHRISTOPHER HOLT
DECEMBER 16, 2007
District # Engineer of Local Roads & Streets

Releasing for Bid Based on Limited Review
Dec. 19, 2007
[Signature]
Deputy Director of Highways, Region # Engineer



Call 48 hours before you dig
(Excluding Sat., Sun., & Holidays)
1-800-892-0123

SUMMARY OF QUANTITIES

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	05-00395-00-TL	WILL	31	2
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
CONTRACT NO: 83992				

SUMMARY OF TRAFFIC SIGNAL QUANTITIES				ESSINGTON ROAD AT											
CODE NO.	ITEM	UNIT	TOTAL	U.S. RTE 52	GLENWOOD	BLACK	INGALLS	THEODORE	THOMAS HICKEY	FIDAY	VIMY RIDGE	CATON FARM	HENNEPIN	INTERCONNECT	
				(JEFFERSON ST.)	AVENUE	ROAD	AVENUE	STREET	AVENUE	ROAD	DRIVE	ROAD	DRIVE		
67100100	MOBILIZATION	L SUM	1												1
70102620	TRAFFIC CONTROL AND PROTECTION, STANDARD 701501	L SUM	1												1
70102630	TRAFFIC CONTROL AND PROTECTION, STANDARD 701601	L SUM	1												1
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1												1
70102640	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	1												1
72000100	SIGN PANEL - TYPE I	SQ FT	12.62	0.97	1.46	1.94	1.46	1.94	0.24		0.73	1.94	1.94		
81000600	CONDUIT IN TRENCH, 2" DIA, GALVANIZED STEEL	FOOT	8,535					240					461		7,834
81000700	CONDUIT IN TRENCH, 2 1/2" DIA, GALVANIZED STEEL	FOOT	9				9								
81018500	CONDUIT PUSHED, 2" DIA, GALVANIZED STEEL	FOOT	1,149					45					52		1,052
81400100	HANDHOLE	EACH	15										2		13
81900200	TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	8,544				9	240					461		7,834
85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	10	1	1	1	1	1	1	1	1	1	1		
85700205	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	3			1	1					1			
85700305	FULL-ACTUATED CONTROLLER AND TYPE V CABINET, SPECIAL	EACH	1					1							
86000105	MASTER CONTROLLER (SPECIAL)	EACH	1						1						1
85900100	TRANSCEIVER	EACH	9		1	1	1	1	1	1	1	1	1		
87301215	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	2,355	919	574		389	325	96		52				
87301225	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	2,174	955	451		425	343							
87301245	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	121	60			61								
87301255	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	1,377	489	226		152	510							
87301305	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	3,435			645				785		639	1366		
X0322925	ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C	FOOT	11,105												11,105
X8710020	FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM12F	FOOT	11,105												11,105
XX003861	ELECTRIC CABLE IN CONDUIT, COAXIAL	FOOT	823		195	97						101	230		
87502480	TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EACH	2	1			1								
87502500	TRAFFIC SIGNAL POST, GALVANIZED STEEL 18 FT.	EACH	8	2	1		1	2							
87800100	CONCRETE FOUNDATION, TYPE A	FOOT	4				4								
87900100	DRILL EXISTING FOUNDATION	EACH	1					1							
87900200	DRILL EXISTING HANDHOLE	EACH	12				1						2		9
88000160	SIGNAL HEAD, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	1	1											
88000280	SIGNAL HEAD, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	2	2											
88100200	PEDESTRIAN SIGNAL HEAD, 1-FACE, BRACKET MOUNTED	EACH	2	2											
88100400	PEDESTRIAN SIGNAL HEAD, 2-FACE, BRACKET MOUNTED	EACH	1	1											
88030050	SIGNAL HEAD, L.E.D., 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	1				1								
88030100	SIGNAL HEAD, L.E.D., 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	3		1		1	1							
88030220	SIGNAL HEAD, L.E.D., 2-FACE, 5-SECTION, BRACKET MOUNTED	EACH	1					1							
88102110	PEDESTRIAN SIGNAL HEAD, L.E.D., 1-FACE, BRACKET MOUNTED	EACH	2					2							
88102140	PEDESTRIAN SIGNAL HEAD, L.E.D., 2-FACE, BRACKET MOUNTED	EACH	3		1		2								
88500100	INDUCTIVE LOOP DETECTOR	EACH	46			8	8	14		2		10	4		
88600100	DETECTOR LOOP, TYPE I	FOOT	113										113		
88700300	LIGHT DETECTOR AMPLIFIER	EACH	4			1	1	1				1			
88800100	PEDESTRIAN PUSH-BUTTON	EACH	34	4	4	8	5	8	1		1	3			
89502200	MODIFY EXISTING CONTROLLER	EACH	6		1				1	1	1	1	1		
89502300	REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	5,268	1952	878	97	1180	1159							
89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	6	1	1	1	1	1				1			
89502385	REMOVE EXISTING CONCRETE FOUNDATION	EACH	1				1								
XX003665	REBUILD EXISTING HANDHOLE TO DOUBLE HANDHOLE	EACH	3							1		1	1		
X0323113	RADIO INTERCONNECT SYSTEM	EACH	1												1

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE."

NEW CABINETS SHALL HAVE FRONT AND BACK DOORS AND A SEPARATE CIRCUIT BREAKER FOR STREET LIGHTING.

RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO 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 SEEDING IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

PLANS PREPARED BY:
GEWALT HAMILTON
 ASSOCIATES, INC.
 Consulting Engineers & Surveyors
 350 Forest Edge Drive
 Vernon Hills, IL 60061
 (847) 478-9700
 (847) 478-9701 Fax

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

ESSINGTON ROAD FROM U.S. RTE 52 (JEFFERSON ST.) TO HENNEPIN DRIVE

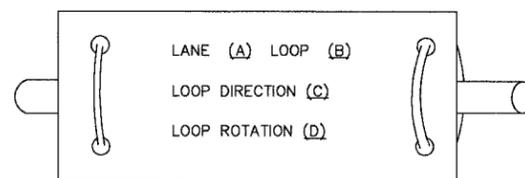
SCALE: N.T.S.
 DATE: DECEMBER 7, 2007

DRAWN BY: LB
 DESIGNED BY: TCM
 CHECKED BY: BLS

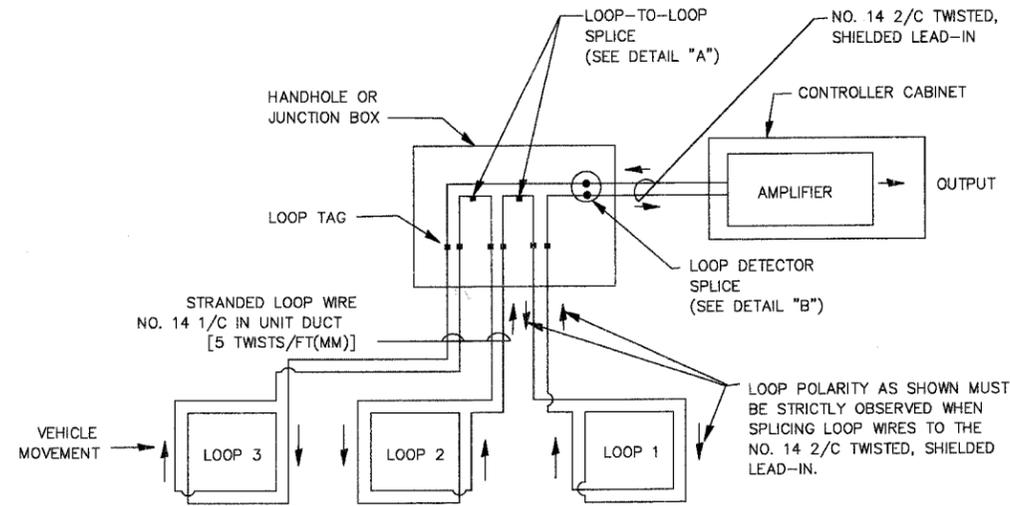
LOOP DETECTOR NOTES

1. EACH PAIR OF LOOP WIRES SHALL BE PLACED IN A SEPARATE UNIT DUCT FROM THE EDGE OF PAVEMENT TO THE HANDHOLE. SPACING BETWEEN THE HOLES DRILLED IN THE PAVEMENT SHALL NOT BE LESS THAN 6" (150 mm). UNIT DUCT SHALL BE INCLUDED IN THE COST OF THE LOOP WIRE.
2. THE NUMBER OF LOOP TURNS SHALL BE AS RECOMMENDED BY THE AMPLIFIER MANUFACTURER. ALL ADJACENT SIDES OF THE LOOPS SHALL BE INSTALLED IN SUCH A WAY THAT THE CURRENT FLOW IS IN THE SAME DIRECTION TO REINFORCE ITS MAGNETIC FIELDS FOR SMALL VEHICLE DETECTION.
3. EACH LOOP LEAD-IN SHALL BE IDENTIFIED AND PERMANENTLY TAGGED IN THE HANDHOLE. EACH LEAD-IN CABLE TAG SHALL INDICATE THE LOCATION OF THE LOOP, LOOP ROTATION (CLOCKWISE/COUNTERCLOCKWISE), LOOP LEAD-IN DIRECTION (IN OR OUT), LOOP CABLE NUMBER AND LOCATION IN CABINET, AND NUMBER OF TURNS IN THE DETECTOR LOOPS IN WATER PROOF INK AS INDICATED ON THE DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAIL. THE CONTRACTOR SHALL MARK LOOP LOCATIONS ON RECORD DRAWINGS AND PRESENT TO THE ENGINEER AFTER FINAL INSPECTION. LOOPS SHALL BE MARKED BY LANE AND LOOP NUMBER. SEE DETAIL BELOW.
4. ALL LOOP CABLE SHALL BE FASTENED WITH PLASTIC TIE WRAP TO THE HANDHOLE HOOKS.
5. IN ASPHALT PAVEMENT, LOOPS SHOULD BE PLACED IN THE BINDER AND DIVESHOLES MARKED AT THE CURB WITH A SAW-CUT. THE SAW-CUT SHALL BE CUT IN ACCORDANCE WITH LOCAL AND E.P.A. DUST CONTROL REQUIREMENTS. DETECTOR LOOP(S) SHALL NOT BE INSTALLED IN WET CONDITIONS AND THE SAW-CUTS MUST BE FREE OF DEBRIS AND RESIDUE SUCH AS DUST AND WATER WHICH IS TO BE ACHIEVED BY THE USE OF COMPRESSED AIR, WIRE BRUSHING AND HEAT DRYING ACCORDING TO SEALANT MANUFACTURER REQUIREMENTS. THE DETECTOR WIRE SHALL BE HELD IN PLACE BY THE USE OF FORM WEDGES. WEDGES SHALL BE SPACED NO MORE THAN 18" (450 mm) APART.
6. LOOP SPLICES SHALL BE SOLDERED USING A SOLDERING IRON. BLOW TORCHES OR OTHER DEVICES WHICH OXIDIZE COPPER CABLE SHALL NOT BE ALLOWED FOR SOLDERING OPERATIONS. SEE DETAIL BELOW RIGHT.
7. PREFORMED DETECTOR LOOPS SHALL BE USED, AS SHOWN ON THE PLANS, WHERE NEW CONCRETE PAVEMENT IS PROPOSED. THE INSTALLATION OF PREFORMED LOOPS SHALL BE IN ACCORDANCE WITH THE DISTRICT 1 SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER.

LOOP LEAD-IN CABLE TAG

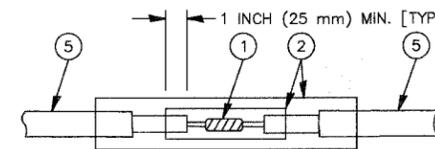


- A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

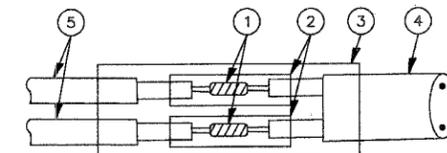


DETECTOR LOOP WIRING SCHEMATIC

- LOOPS SHALL BE SPLICED IN SERIES.
- SAW-CUTS SHALL BE A MINIMUM WIDTH OF 5/16" (8 mm).
- SAW-CUT DEPTHS SHALL BE 3" (75 mm). IF IN CONCRETE, THE SAW-CUT DEPTH SHALL BE TO THE TOP OF THE REINFORCEMENT.
- LOOP CORNERS SHALL BE DRILLED WITH A 2" (50 mm) DIAMETER CORE.



DETAIL "A"
LOOP-TO-LOOP SPLICE



DETAIL "B"
LOOP-TO-CONTROLLER SPLICE

LOOP DETECTOR SPLICE

- 1 WESTERN UNION SPLICE SOLDERED WITH ROSIN CORE FLUX. ALL EXPOSED SURFACES OF THE SOLDER SHALL BE SMOOTH.
- 2 WCSMW 30/100 HEAT SHRINK TUBE, MINIMUM LENGTH 3" (75 mm), UNDERWATER GRADE.
- 3 WCS 200/750 HEAT SHRINK TUBE, MINIMUM LENGTH 6" (150 mm), UNDERWATER GRADE.
- 4 NO. 14 2/C TWISTED, SHIELED CABLE.
- 5 LOOP CONDUCTOR WITH FLEXIBLE PLASTIC TUBE.

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: VERT. NONE
HORIZ. NONE
DATE 1-01-02

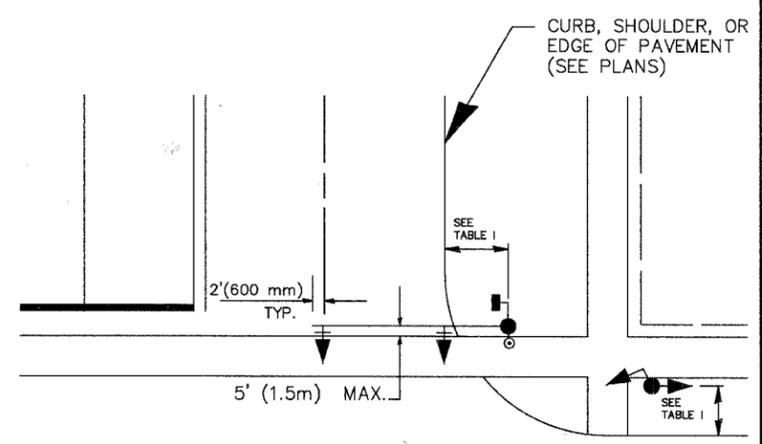
DRAWN BY: RWP
DESIGNED BY: DAZ
CHECKED BY: DAZ
SHEET 1 OF 4

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			31	3
STA. TO STA.				
FED. ROAD DIST. NO. 1 ILLINOIS		FED. AID PROJECT		
CONTRACT NO: 83992				

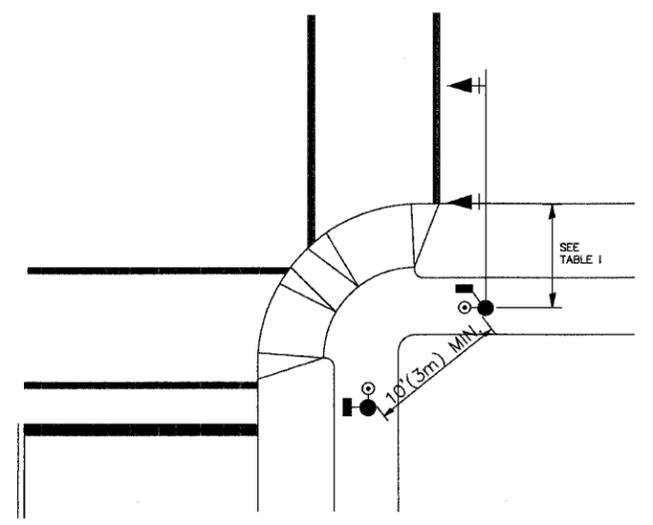
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		WILL.	31	4
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT	
CONTRACT NO: 83992				

TRAFFIC SIGNAL MAST ARM AND POST

MAST ARM MOUNTED SIGNAL IN PROPOSED & FUTURE SIDEWALK AREA. INTERSECTION SHOWN WITH PEDESTRIAN SIGNAL AND PUSHBUTTON DETECTOR



PEDESTRIAN SIGNAL PUSHBUTTON



RECOMMENDED PUSHBUTTON LOCATIONS FOR ACCESSIBLE PEDESTRIAN SIGNALS SHALL BE IN ACCORDANCE WITH THE CURRENT MUTCD (SEE NOTE 1). TO MEET MUTCD REQUIREMENTS, PEDESTRIAN SIGNAL PUSHBUTTONS MAY HAVE TO BE MOUNTED ON A SEPARATE POST.

NOTES:

- AT ACCESSIBLE PEDESTRIAN SIGNAL LOCATIONS WITH PEDESTRIAN ACTUATION, EACH PUSHBUTTON SHALL ACTIVATE BOTH THE WALK INTERVAL AND THE ACCESSIBLE PEDESTRIAN SIGNALS.

AT ACCESSIBLE PEDESTRIAN SIGNAL LOCATIONS, PUSHBUTTONS SHOULD CLEARLY INDICATE WHICH CROSSWALK SIGNAL IS ACTUATED BY EACH PUSHBUTTON. PUSHBUTTONS AND TACTILE ARROWS SHOULD HAVE HIGH VISUAL CONTRAST (SEE THE DEPARTMENT OF JUSTICE'S AMERICANS WITH DISABILITIES ACT STANDARDS FOR ACCESSIBLE DESIGN, 1991). TACTILE ARROWS SHOULD POINT IN THE SAME DIRECTION AS THE ASSOCIATED CROSSWALK. AT CORNERS OF SIGNALIZED LOCATIONS WITH ACCESSIBLE PEDESTRIAN SIGNALS WHERE PEDESTRIAN PUSHBUTTONS ARE PROVIDED, THE PUSHBUTTONS SHOULD BE SEPARATED BY THE DISTANCE OF AT LEAST 10 FT (3m). THIS ENABLES PEDESTRIANS WHO HAVE VISUAL DISABILITIES TO DISTINGUISH AND LOCATE THE APPROPRIATE PUSHBUTTON.

PUSHBUTTONS FOR ACCESSIBLE PEDESTRIAN SIGNALS SHOULD BE LOCATED AS FOLLOWS:
 - A: ADJACENT TO A LEVEL ALL-WEATHER SURFACE TO PROVIDE ACCESS FROM A WHEELCHAIR, AND WHERE THERE IS AN ALL WEATHER SURFACE, WHEELCHAIR ACCESSIBLE ROUTE TO THE RAMP.
 - B: WITHIN 5 FT (1.5m) OF THE CROSSWALK EXTENDED.
 - C: WITHIN 10 FT (3m) OF THE EDGE OF CURB, SHOULDER, OR PAVEMENT.
 - D: PARALLEL TO THE CROSSWALK TO BE USED (SEE MUTCD FIGURE 4E-2).
 - E: NORMAL PEDESTRIAN PUSHBUTTON MOUNTING HEIGHT SHOULD BE 3.5 FT (1.05m) ABOVE ADJACENT SIDEWALK
- PEDESTRIAN SIGNAL FACES SHALL BE MOUNTED WITH THE BOTTOM OF THE HOUSING NOT LESS THAN 8 FT (2.4m) NOR MORE THAN 10 FT (3.0m) ABOVE THE SIDEWALK LEVEL AND SO THERE IS A PEDESTRIAN INDICATION IN THE LINE OF PEDESTRIANS' VISION WHICH PERTAINS TO THE CROSSWALK BEING USED.
- THE BOTTOM OF THE HOUSING OF A VEHICLE SIGNAL FACE, NOT MOUNTED OVER A ROADWAY, SHALL BE AT LEAST 10 FT (3.0m) BUT NOT MORE THAN 15 FT (4.5m) ABOVE THE SIDEWALK OR, ABOVE THE PAVEMENT GRADE AT THE CENTER OF THE HIGHWAY IF NO SIDEWALKS EXIST.
- THE BOTTOM OF THE HOUSING OF A VEHICLE SIGNAL FACE, MOUNTED OVER A ROADWAY, SHALL BE ACCORDING TO CURRENT STATE STANDARDS 877001 AND 877006. (16 FT (5m) MIN., 18 FT (5.5m) MAX., FROM HIGHEST POINT OF PAVEMENT)

PEDESTRIAN SIGNAL POST

PEDESTRIAN SIGNAL HEAD AND PEDESTRIAN PUSHBUTTON DETECTOR LOCATION

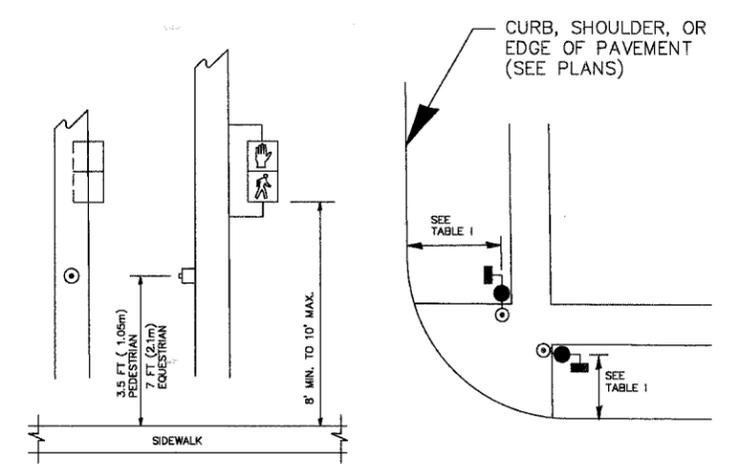


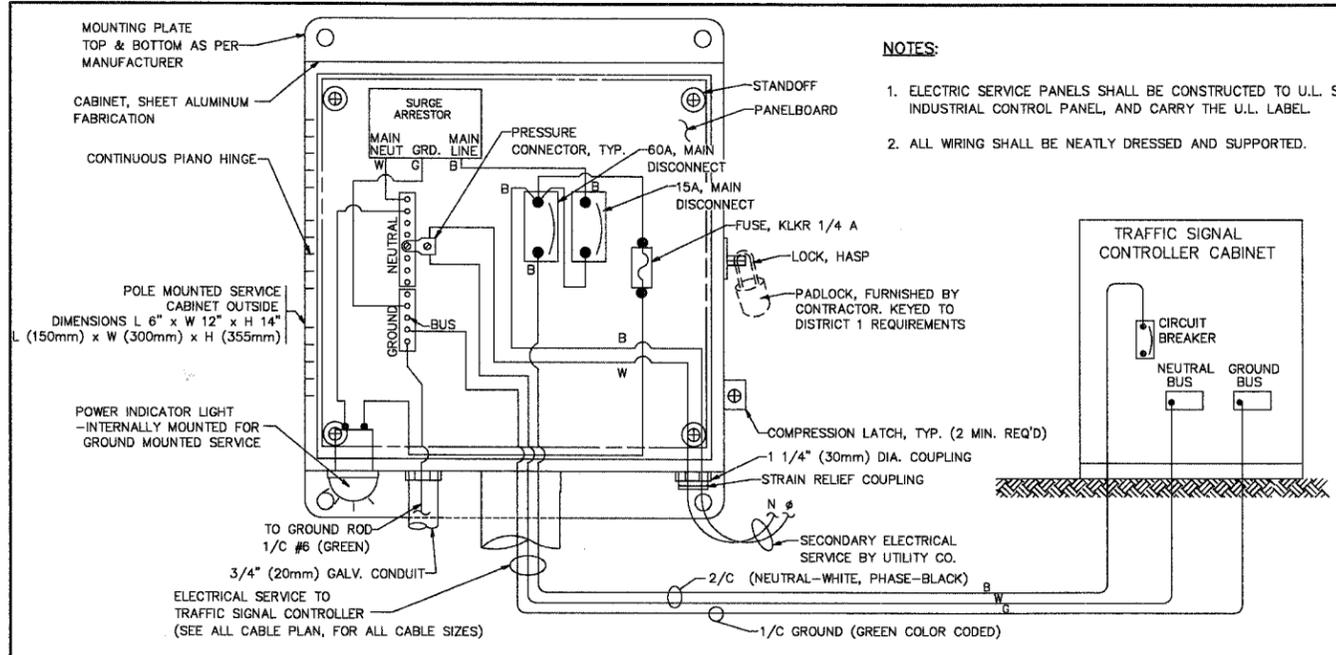
TABLE I

TRAFFIC SIGNAL EQUIPMENT	COMBINATION CONCRETE CURB AND GUTTER (MIN. DIST. FROM BACK OF CURB)	SHOULDER/NON-CURBED AREA (MIN. DIST. FROM EDGE OF PAVEMENT)
TRAFFIC SIGNAL MAST ARM POLE	6 FT (1.8m)	SHOULDER WIDTH + 2FT(0.6m), MINIMUM 10FT(3.0m)
TRAFFIC SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2FT(0.6m), MINIMUM 10FT(3.0m)
PEDESTRIAN SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2FT(0.6m), MINIMUM 10FT(3.0m)
PEDESTRIAN PUSHBUTTON	SEE NOTE 1	SEE NOTE 1

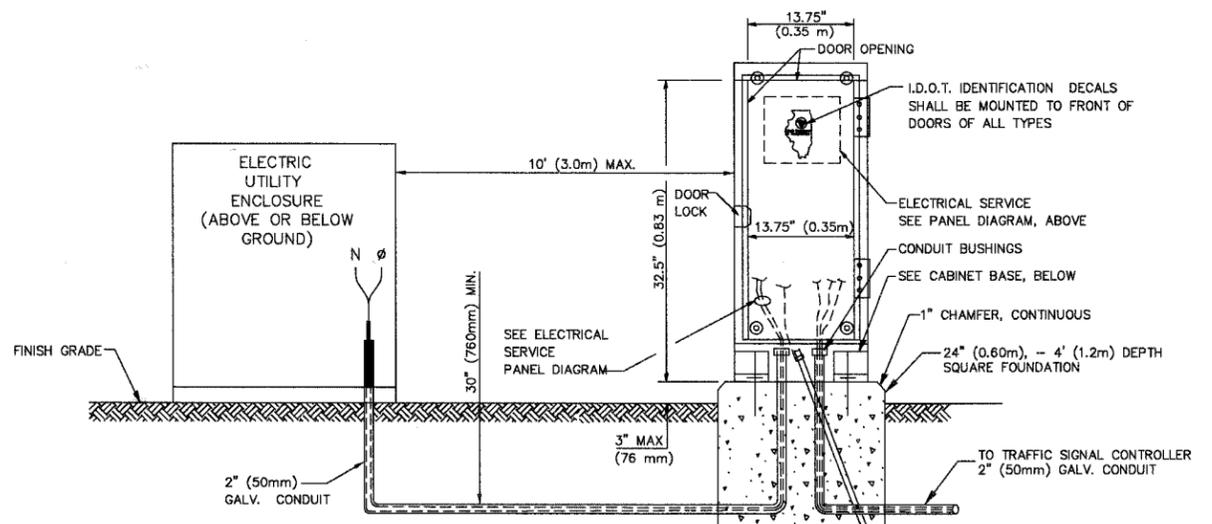
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
DISTRICT ONE
STANDARD TRAFFIC SIGNAL
DESIGN DETAILS
 SCALE: VERT. NONE
 HORIZ. NONE
 DATE 1-01-02
 DRAWN BY: RWP
 DESIGNED BY: DAD
 CHECKED BY: DAZ
 SHEET 2 OF 4

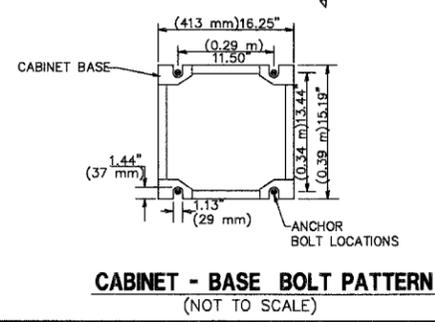
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	-	WILL	31	5
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT	
CONTRACT NO: 83992				



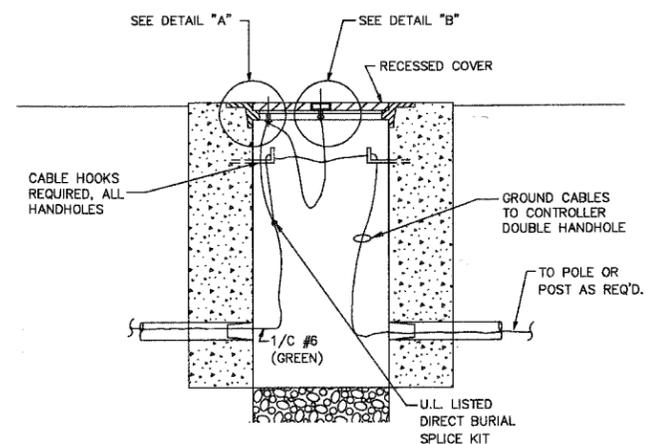
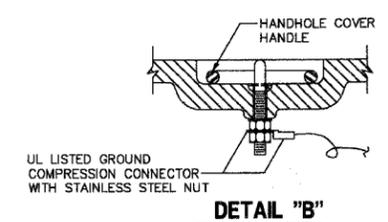
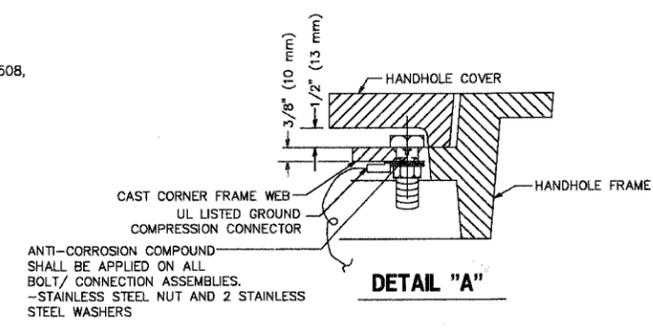
ELECTRICAL SERVICE - PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE)
SERVICE INSTALLATION POLE MOUNT (SHOWN)
(NOT TO SCALE)



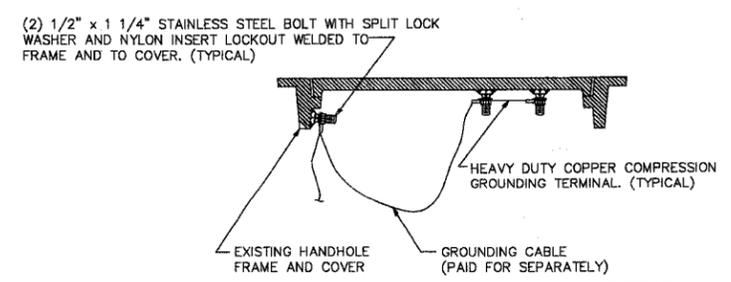
SERVICE INSTALLATION GROUND MOUNT
(NOT TO SCALE)



CABINET - BASE BOLT PATTERN
(NOT TO SCALE)



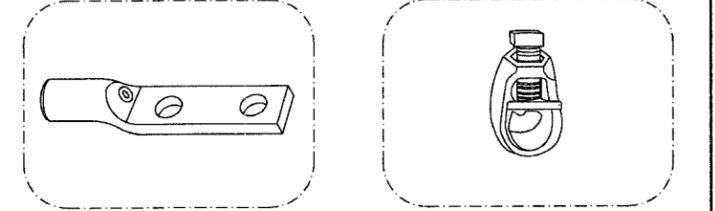
HANDHOLE COVER & FRAME - GROUNDING DETAIL
(NOT TO SCALE)



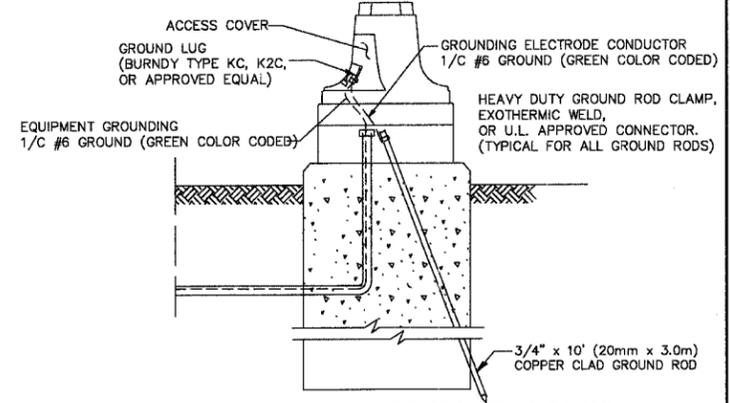
EXISTING HANDHOLE COVER & FRAME - GROUNDING DETAIL
(NOT TO SCALE)

NOTES:
GROUNDING SYSTEM

- THE GROUNDING SYSTEM SHALL CONSIST OF AN INSULATED CONDUCTOR TYPE XLP, NO. 6 A.W.G., STRANDED COPPER TO BE INSTALLED IN RACEWAYS. THE GROUNDING CABLE SHALL BE INSTALLED IN A CONTINUOUS MANNER AS SHOWN ON THE CABLE PLAN PROVIDED. ALL GROUNDING CONDUCTORS SHALL BE BONDED TO METAL ENCLOSURE (HANDHOLE, POST, MAST ARM, CONTROLLER, ETC.). GROUND ROD SHALL BE 3/4" DIA. x 10'-0" (20mm x 3.0m) LONG, COPPER CLAD. ONE GROUND ROD SHALL BE INSTALLED AT ALL POST FOUNDATIONS, POLE FOUNDATIONS, CONTROLLER CABINET FOUNDATION AND ELECTRICAL SERVICE INSTALLATION AS INDICATED ON THE CABLE PLAN. IF THERE ARE ANY SPECIAL CONDITIONS SUCH AS SUB-SURFACE CONDITIONS OR INSTALLATION PROBLEMS, THE RESIDENT ENGINEER SHALL BE NOTIFIED OR CONTACT THE BUREAU OF TRAFFIC, ILLINOIS DEPARTMENT OF TRANSPORTATION DISTRICT ONE AT (847) 705-4139.
- THE NEUTRAL CONDUCTOR AND THE GROUND CONDUCTOR SHALL BE CONNECTED IN THE SERVICE INSTALLATION. AT NO OTHER POINT IN THE TRAFFIC SIGNAL SYSTEM SHALL THE NEUTRAL AND GROUND CONDUCTORS BE CONNECTED.
- ALL EQUIPMENT GROUNDING CONDUCTORS SHALL TERMINATE AT THE GROUND BUS IN THE CONTROLLER CABINET.
- THE CONTRACTOR SHALL PROVIDE A GROUND CABLE WITH CONNECTORS BETWEEN THE HANDHOLE COVER AND HANDHOLE FRAME.



- NOTES:**
- ALL CLAMPS SHALL BE BRONZE OR COPPER, UL APPROVED.
 - GROUND CABLE SHALL BE LOOPED OVER HOOKS IN THE HANDHOLES 6.5' (2.0m) SLACK SHALL BE PROVIDED IN SINGLE HANDHOLES 13' (4.0m) OF SLACK SHALL BE PROVIDED IN DOUBLE HANDHOLES. 5' (1.4m) OF SLACK SHALL BE PROVIDED BETWEEN FRAME AND COVER.



MAST ARM POLE / POST-GROUNDING DETAIL
(NOT TO SCALE)

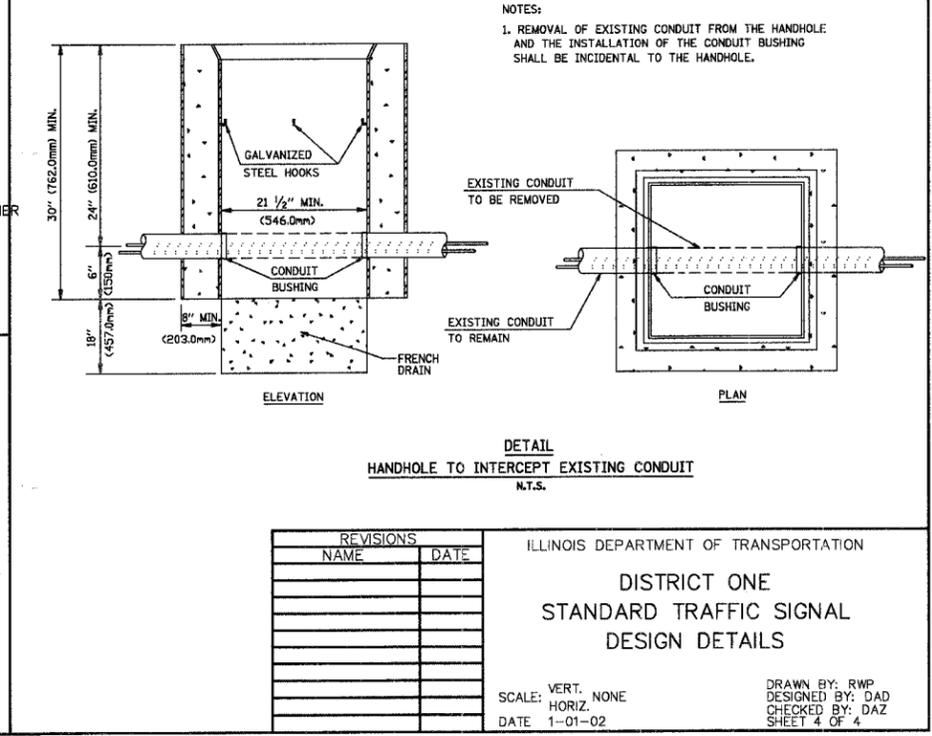
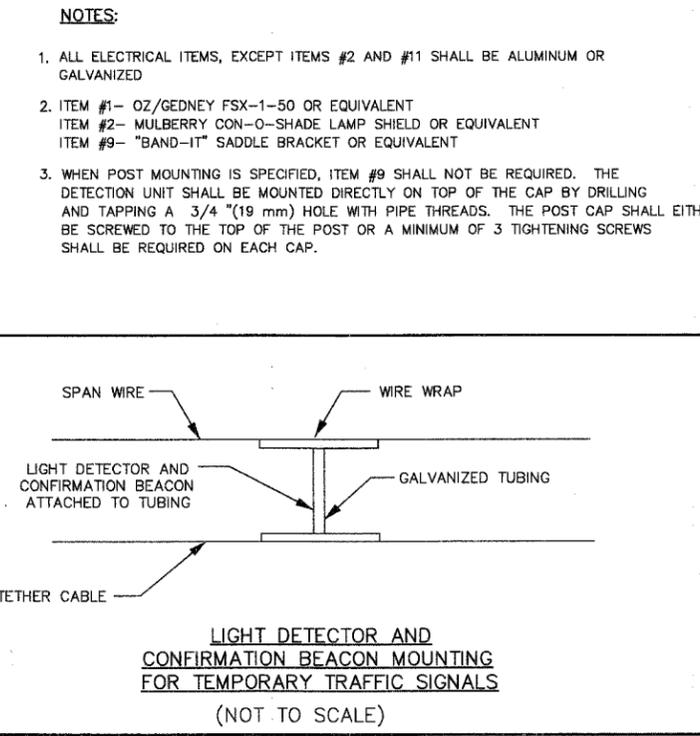
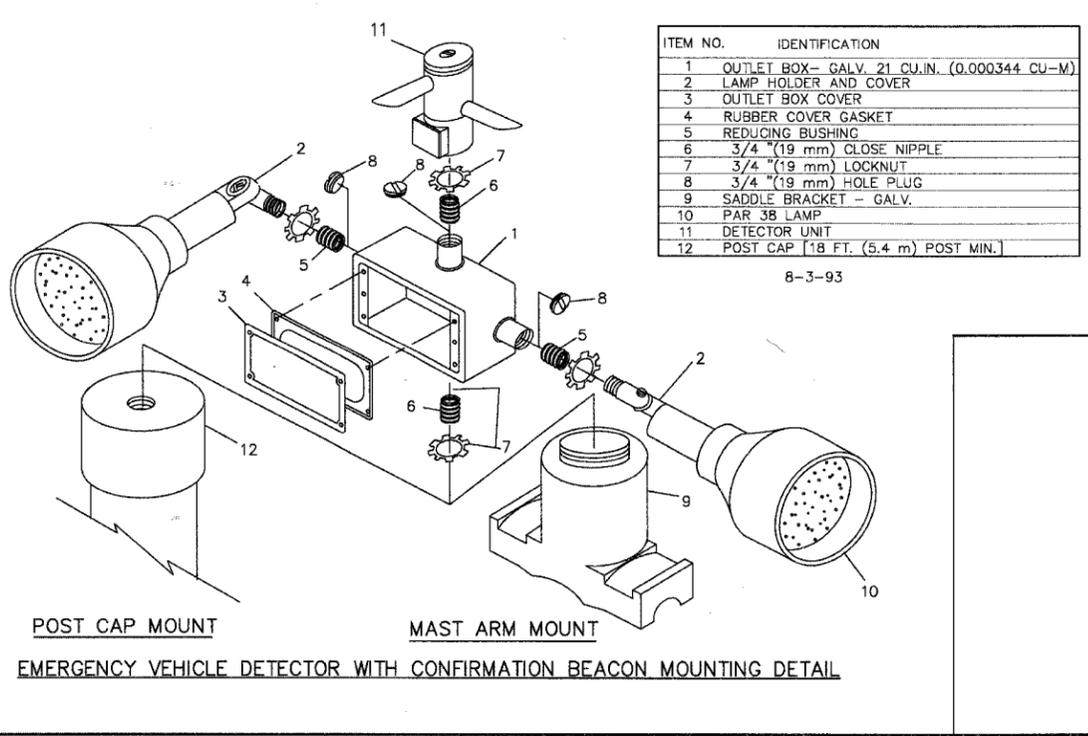
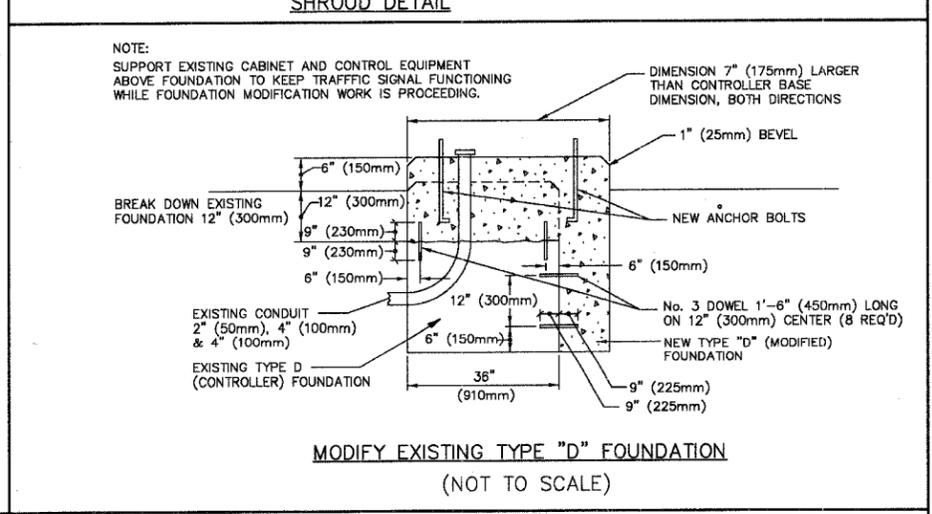
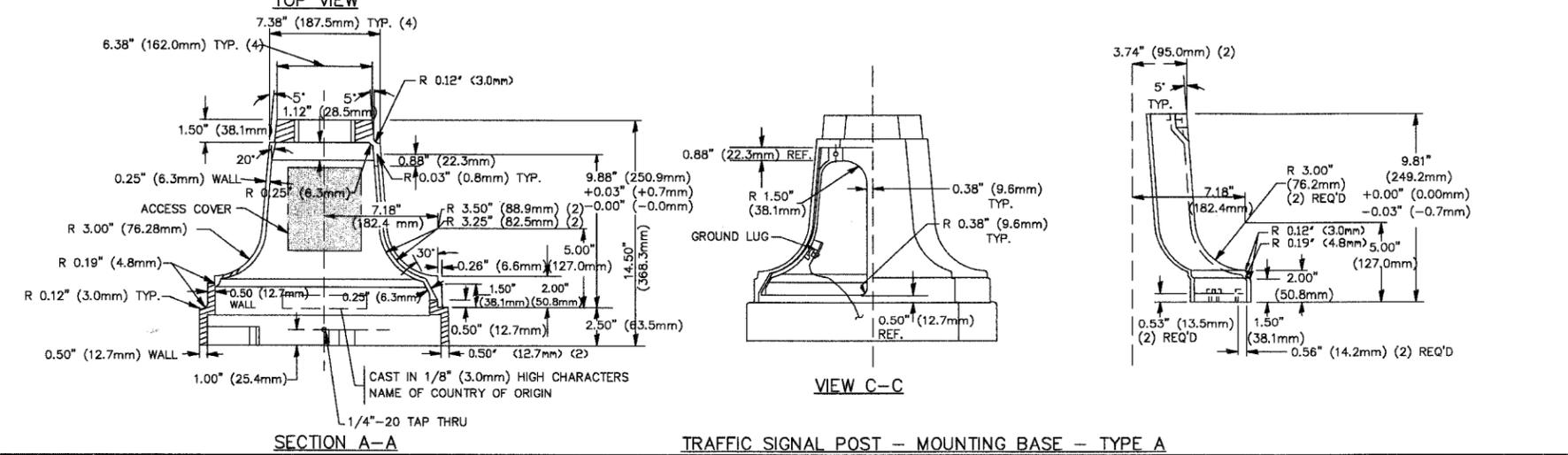
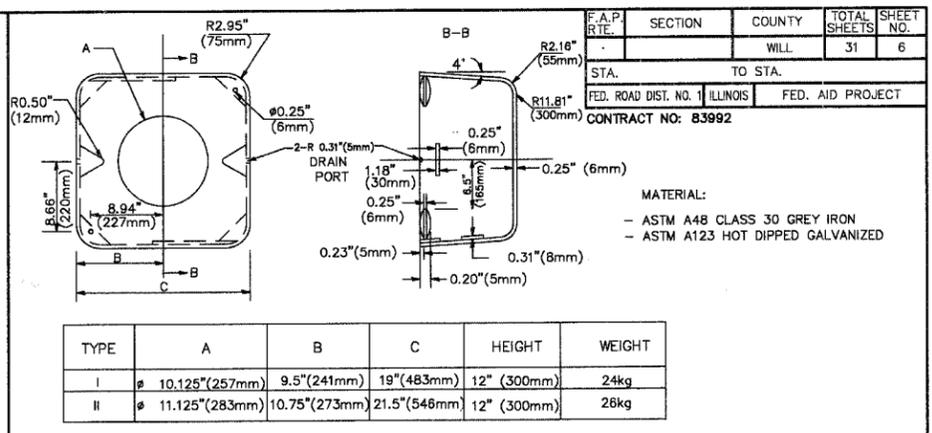
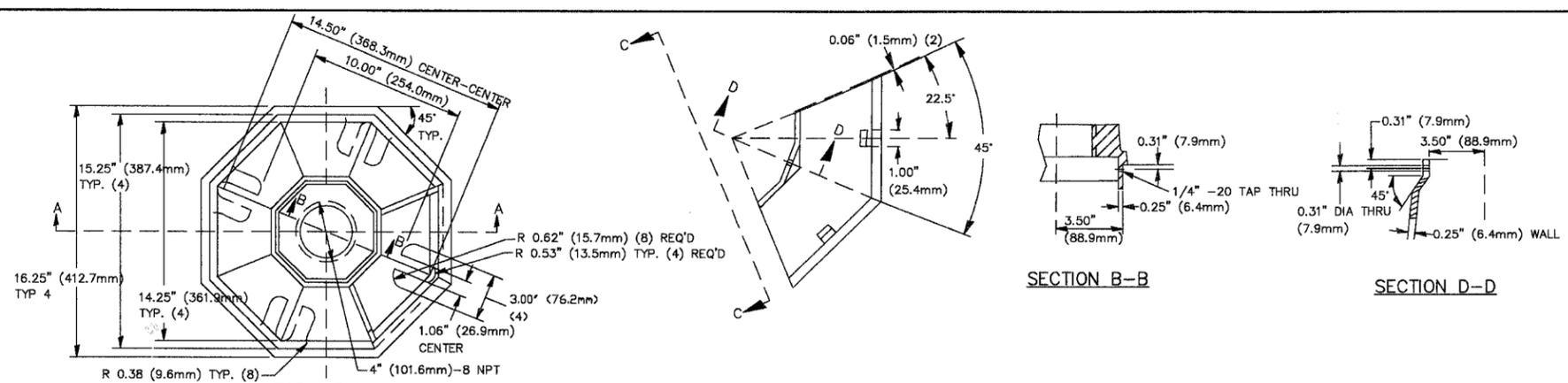
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
DISTRICT ONE
STANDARD TRAFFIC SIGNAL
DESIGN DETAILS

SCALE: VERT. NONE
HORIZ. NONE
DATE 1-01-02

DRAWN BY: RWP
DESIGNED BY: DAD
CHECKED BY: DAZ
SHEET 3 OF 4

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		WILL	31	6
STA.	TO STA.			
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		
CONTRACT NO: 83992				



F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	05-00395-00-TL	WILL	31	7
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
CONTRACT NO: 83992				

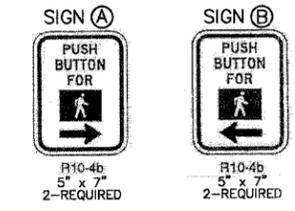
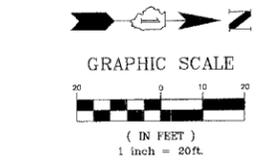
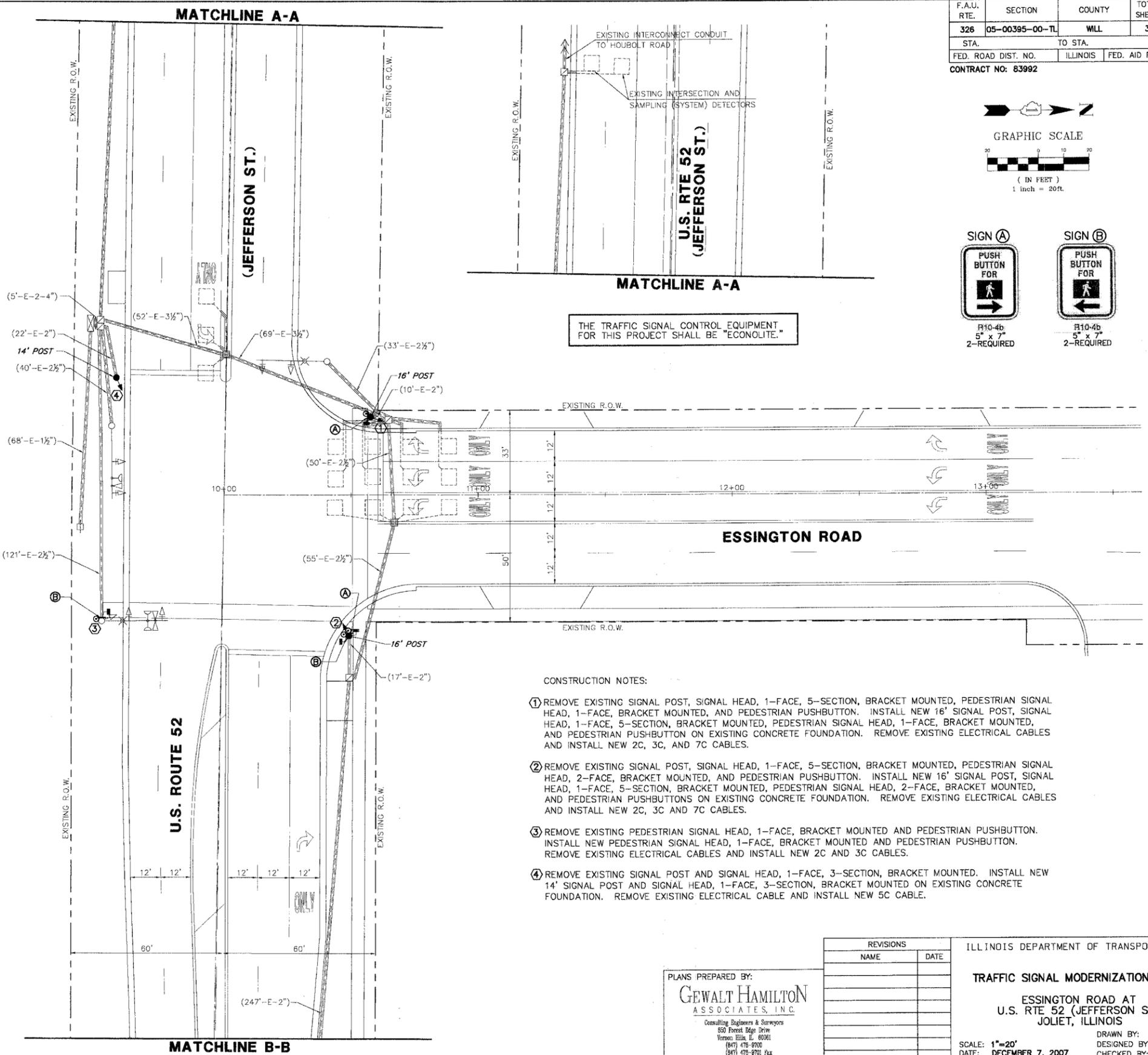
TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING
CONTROLLER SERVICE INSTALLATION		
SIGNAL HEAD		
SIGNAL HEAD WITH BACKPLATE		
SIGNAL HEAD, PEDESTRIAN		
SIGNAL POST		
MAST ARM ASSEMBLY AND POLE, STEEL		
MAST ARM ASSEMBLY AND POLE, ALUMINUM		
COMBINATION MAST ARM ASSEMBLY AND POLE, STEEL WITH LUMINAIRE		
UNIT DUCT		
COMMON TRENCH		
HANDHOLE		
HEAVY DUTY HANDHOLE		
DOUBLE HANDHOLE		
G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)		
PEDESTRIAN PUSHBUTTON DETECTOR		
DETECTOR LOOP		
CAST IRON JUNCTION BOX		
EMERGENCY VEHICLE LIGHT DETECTOR		
CONFIRMATION BEACON		
SIGNAL HEAD OPTICALLY PROGRAMMED		
CONDUIT SPLICE		
WOOD POLE		
RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II		
VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE		
RAILROAD CONTROL CABINET		
TELEPHONE CONNECTION		
ILLUMINATED SIGN "NO LEFT TURN"		
ILLUMINATED SIGN "NO RIGHT TURN"		
RADIO ANTENNA		

RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO 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.

THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

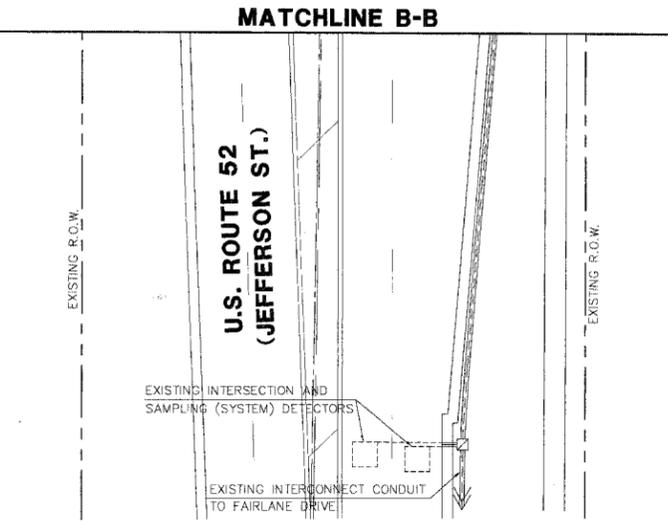
1	EACH	SIGNAL HEAD, 1-FACE, 3-SECTION
2	EACH	SIGNAL HEAD, 1-FACE, 5-SECTION
2	EACH	PEDESTRIAN SIGNAL HEAD, 1-FACE
1	EACH	PEDESTRIAN SIGNAL HEAD, 2-FACE
3	EACH	TRAFFIC SIGNAL POST



THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE."

CONSTRUCTION NOTES:

- 1 REMOVE EXISTING SIGNAL POST, SIGNAL HEAD, 1-FACE, 5-SECTION, BRACKET MOUNTED, PEDESTRIAN SIGNAL HEAD, 1-FACE, BRACKET MOUNTED, AND PEDESTRIAN PUSHBUTTON. INSTALL NEW 16' SIGNAL POST, SIGNAL HEAD, 1-FACE, 5-SECTION, BRACKET MOUNTED, PEDESTRIAN SIGNAL HEAD, 1-FACE, BRACKET MOUNTED, AND PEDESTRIAN PUSHBUTTON ON EXISTING CONCRETE FOUNDATION. REMOVE EXISTING ELECTRICAL CABLES AND INSTALL NEW 2C, 3C, AND 7C CABLES.
- 2 REMOVE EXISTING SIGNAL POST, SIGNAL HEAD, 1-FACE, 5-SECTION, BRACKET MOUNTED, PEDESTRIAN SIGNAL HEAD, 2-FACE, BRACKET MOUNTED, AND PEDESTRIAN PUSHBUTTON. INSTALL NEW 16' SIGNAL POST, SIGNAL HEAD, 1-FACE, 5-SECTION, BRACKET MOUNTED, PEDESTRIAN SIGNAL HEAD, 2-FACE, BRACKET MOUNTED, AND PEDESTRIAN PUSHBUTTONS ON EXISTING CONCRETE FOUNDATION. REMOVE EXISTING ELECTRICAL CABLES AND INSTALL NEW 2C, 3C AND 7C CABLES.
- 3 REMOVE EXISTING PEDESTRIAN SIGNAL HEAD, 1-FACE, BRACKET MOUNTED AND PEDESTRIAN PUSHBUTTON. INSTALL NEW PEDESTRIAN SIGNAL HEAD, 1-FACE, BRACKET MOUNTED AND PEDESTRIAN PUSHBUTTON. REMOVE EXISTING ELECTRICAL CABLES AND INSTALL NEW 2C AND 3C CABLES.
- 4 REMOVE EXISTING SIGNAL POST AND SIGNAL HEAD, 1-FACE, 3-SECTION, BRACKET MOUNTED. INSTALL NEW 14' SIGNAL POST AND SIGNAL HEAD, 1-FACE, 3-SECTION, BRACKET MOUNTED ON EXISTING CONCRETE FOUNDATION. REMOVE EXISTING ELECTRICAL CABLE AND INSTALL NEW 5C CABLE.



PLANS PREPARED BY:
GEWALT HAMILTON
 ASSOCIATES, INC.
 Consulting Engineers & Surveyors
 650 Forest Edge Drive
 Vernon Hills, IL 60061
 (815) 478-6700
 (815) 478-6701 Fax

REVISIONS	
NAME	DATE

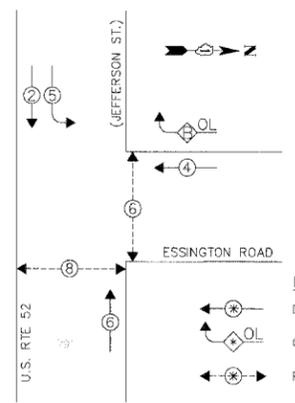
ILLINOIS DEPARTMENT OF TRANSPORTATION
TRAFFIC SIGNAL MODERNIZATION PLAN
 ESSINGTON ROAD AT
 U.S. RTE 52 (JEFFERSON ST.)
 JOLIET, ILLINOIS
 SCALE: 1"=20'
 DATE: DECEMBER 7, 2007
 DRAWN BY: LB
 DESIGNED BY: TCM
 CHECKED BY: BLS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	05-00395-00-TL	WILL	31	8
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
CONTRACT NO: 83992				

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 INSTALLATION
⊖	⊖	VEHICLE DETECTOR, INDUCTION LOOP
⊖	⊖	MAGNETIC DETECTOR
⊖	⊖	EMERGENCY VEHICLE LIGHT DETECTOR
⊖	⊖	CONFIRMATION BEACON
⊖	⊖	PUSHBUTTON DETECTOR
⊖	⊖	DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.
⊖	⊖	① GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)
⊖	⊖	② 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"
H/C	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
+	+	RADIO ANTENNA
⊖	⊖	COAXIAL CABLE

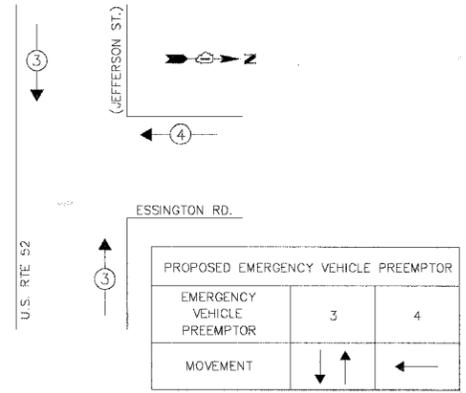
CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM

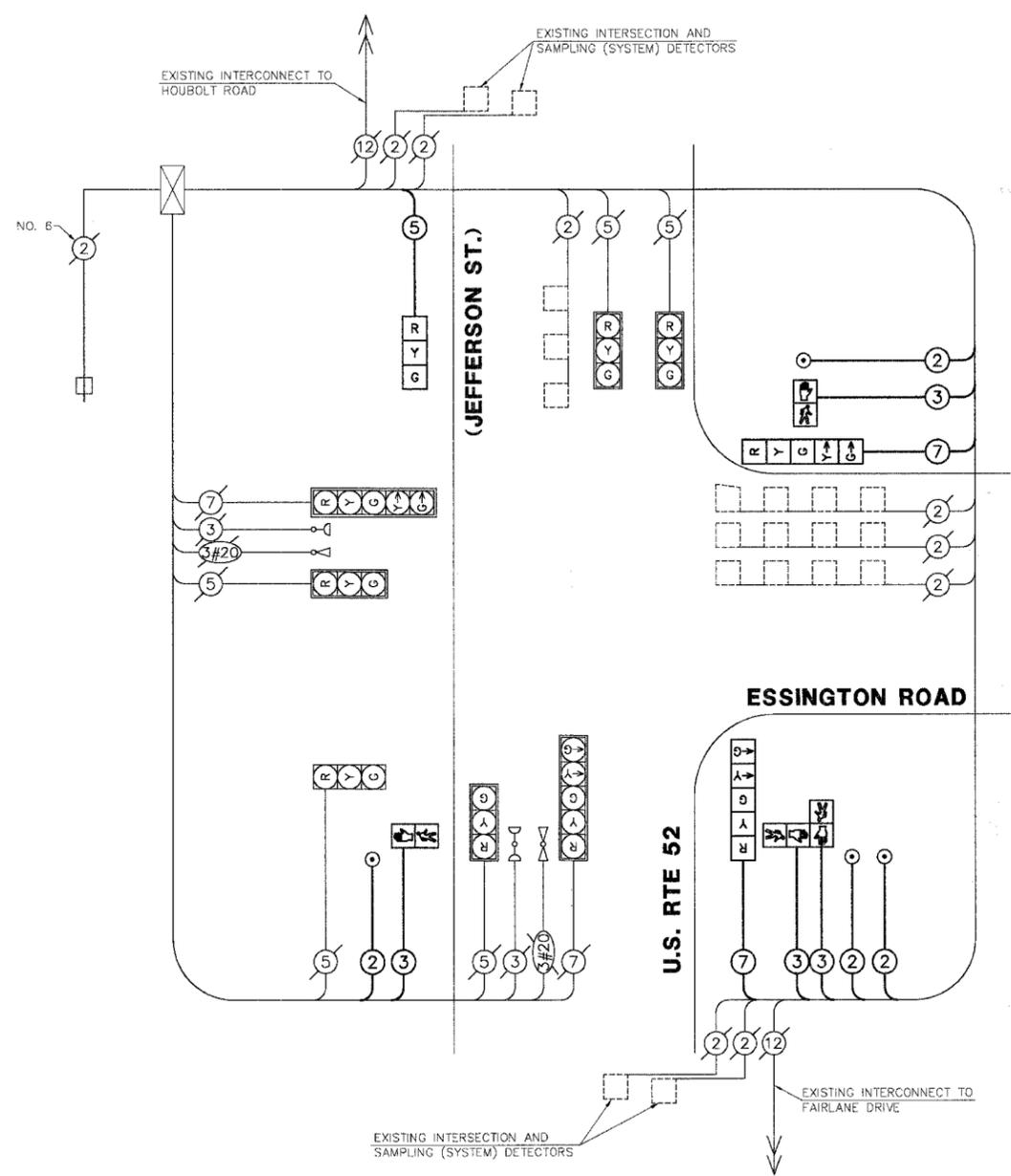
OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
B	= 4	+ 5

EMERGENCY VEHICLE PREEMPTION SEQUENCE



RESTORATION OF WORK AREA, RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO 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 SEED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

CABLE PLAN



1.D.D.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. OF LAMPS	WATTAGE (INCAND.)	LED	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	10	135		0.50	675.0
(YELLOW)	10	135		0.25	337.5
(GREEN)	10	135		0.25	337.5
ARROW	8	135		0.10	108.0
PED. SIGNAL	4	90		1.00	360.0
CONTROLLER	1	100		1.00	100.0

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE."

ESSINGTON ROAD AT U.S. RTE 52 (JEFFERSON ST.) SCHEDULE OF INTERSECTION QUANTITIES

ITEM	UNIT	QUANTITY
SIGN PANEL - TYPE I	SQ FT	0.97
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	919
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	955
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	60
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	489
TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	2
SIGNAL HEAD, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	1
SIGNAL HEAD, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	2
PEDESTRIAN SIGNAL HEAD, 1-FACE, BRACKET MOUNTED	EACH	2
PEDESTRIAN SIGNAL HEAD, 2-FACE, BRACKET MOUNTED	EACH	1
PEDESTRIAN PUSHBUTTON	EACH	4
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	1952
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1

ENERGY COSTS TO: TOTAL = 1918.0

ILLINOIS DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAY/DISTRICT 1
201 WEST CENTER COURT
SCHAUMBURG, ILLINOIS 60196-1096

ENERGY SUPPLY: CONTACT: BETTY BRULC
PHONE: (815) 724-5052
COMPANY: 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)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'L-2"=
C - M. ARM POLE		SIGNAL POST	2 (1.0)	(6m+L-0.6m)=	
24" (600mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
30" (750mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
36" (900mm)	15 (4.6)	ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
		GROUND CABLE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
				POST MOUNTED	6 (1.8)

PLANS PREPARED BY:
GEWALT HAMILTON ASSOCIATES, INC.
Consulting Engineers & Surveyors
650 Forest Edge Drive
Version 10/11, IL 60001
(815) 478-9700
(815) 478-9701 Fax

REVISIONS

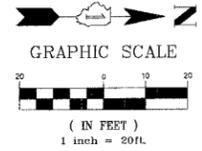
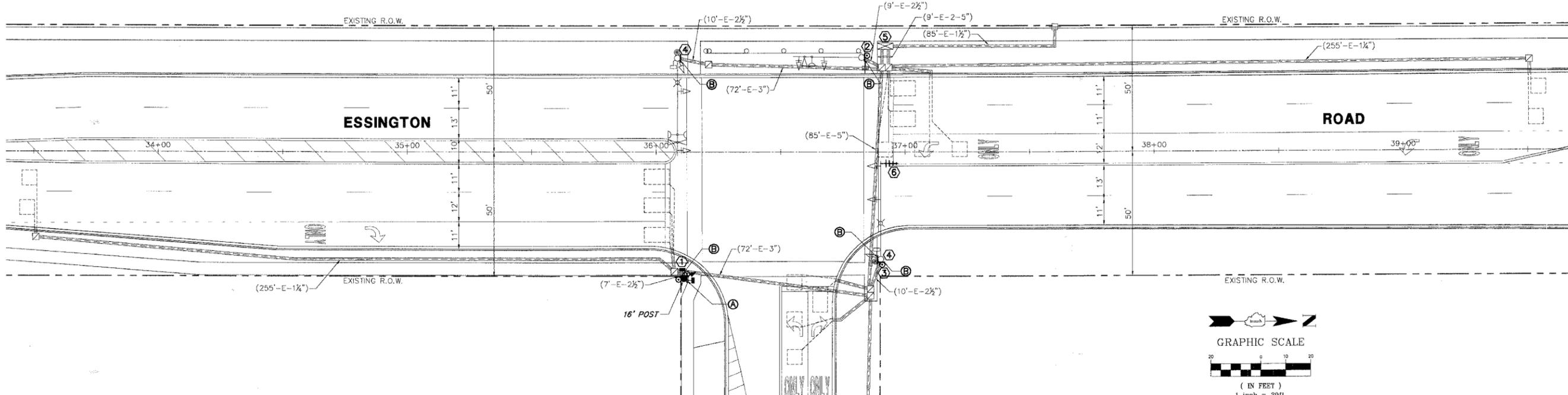
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SCHEDULE OF QUANTITIES, CABLE PLAN AND PHASE DESIGNATION DIAGRAM
ESSINGTON ROAD AT U.S. RTE 52 (JEFFERSON ST.)
JOLIET, ILLINOIS

SCALE: N.T.S.
DATE: DECEMBER 7, 2007

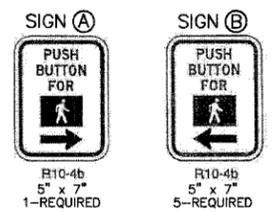
DRAWN BY: LB
DESIGNED BY: TCM
CHECKED BY: BLS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	05-00395-00-TL	WILL	31	9
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO: 83992				



TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING
CONTROLLER		
SERVICE INSTALLATION		
SIGNAL HEAD		
SIGNAL HEAD WITH BACKPLATE		
SIGNAL HEAD, PEDESTRIAN		
SIGNAL POST		
MAST ARM ASSEMBLY AND POLE, STEEL		
MAST ARM ASSEMBLY AND POLE, ALUMINUM		
COMBINATION MAST ARM ASSEMBLY AND POLE, STEEL WITH LUMINAIRE		
UNIT DUCT		
COMMON TRENCH		
HANDHOLE		
HEAVY DUTY HANDHOLE		
DOUBLE HANDHOLE		
G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)		
PEDESTRIAN PUSHBUTTON DETECTOR		
DETECTOR LOOP		
CAST IRON JUNCTION BOX		
EMERGENCY VEHICLE LIGHT DETECTOR		
CONFIRMATION BEACON		
SIGNAL HEAD OPTICALLY PROGRAMMED		
CONDUIT SPLICE		
WOOD POLE		
RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II		
VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE		
RAILROAD CONTROL CABINET		
TELEPHONE CONNECTION		
ILLUMINATED SIGN NO LEFT TURN		
ILLUMINATED SIGN NO RIGHT TURN		
RADIO ANTENNA		



- THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.
- 1 EACH SIGNAL HEAD, 1-FACE, 5-SECTION
 - 1 EACH PEDESTRIAN SIGNAL HEAD, 2-FACE
 - 1 EACH TRAFFIC SIGNAL POST

- CONSTRUCTION NOTES:
- 1 REMOVE EXISTING SIGNAL POST, SIGNAL HEAD, 1-FACE, 5-SECTION, BRACKET MOUNTED, PEDESTRIAN SIGNAL HEAD, 2-FACE, BRACKET MOUNTED, AND PEDESTRIAN PUSHBUTTON. INSTALL NEW 16' SIGNAL POST, SIGNAL HEAD, L.E.D., 1-FACE, 5-SECTION, BRACKET MOUNTED, PEDESTRIAN SIGNAL HEAD, L.E.D., 2-FACE, BRACKET MOUNTED, AND PEDESTRIAN PUSHBUTTONS ON EXISTING CONCRETE FOUNDATION. REMOVE EXISTING ELECTRICAL CABLES AND INSTALL NEW 2C, 3C AND 7C CABLES.
 - 2 REMOVE EXISTING PEDESTRIAN PUSHBUTTON AND SIGN AND INSTALL NEW PEDESTRIAN PUSHBUTTON AND SIGN.
 - 3 INSTALL NEW PEDESTRIAN PUSHBUTTON AND SIGN. INSTALL NEW 2C CABLE.
 - 4 REMOVE EXISTING PEDESTRIAN PUSHBUTTON SIGN AND INSTALL NEW PEDESTRIAN PUSHBUTTON SIGN.
 - 5 MODIFY EXISTING CONTROLLER. INSTALL NEW TRANSCEIVER IN EXISTING CONTROLLER.
 - 6 INSTALL NEW RADIO ANTENNA ON EXISTING MAST ARM FOR INTERCONNECT.

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE."

RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO 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.

PLANS PREPARED BY:
GEWALT HAMILTON ASSOCIATES, INC.
 Consulting Engineers & Surveyors
 850 Forest Edge Drive
 Vernon Hills, IL 60061
 (847) 478-9700
 (847) 478-9701 Fax

REVISIONS	
NAME	DATE

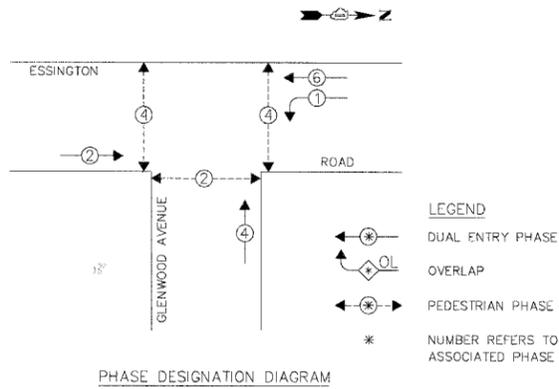
ILLINOIS DEPARTMENT OF TRANSPORTATION
TRAFFIC SIGNAL MODERNIZATION PLAN
 ESSINGTON ROAD AT GLENWOOD AVENUE
 JOLIET, ILLINOIS

SCALE: 1"=20'
 DATE: DECEMBER 7, 2007

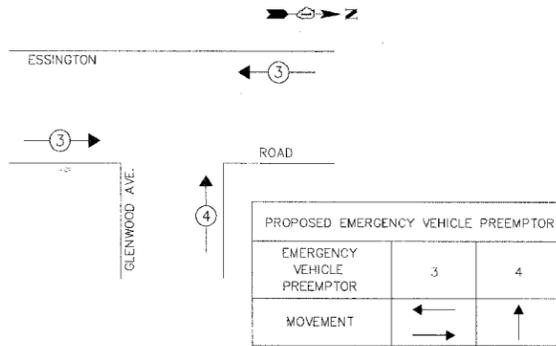
DRAWN BY: LB
 DESIGNED BY: TCM
 CHECKED BY: BLS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	05-00395-00-TL	WILL	31	10
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO: 83992				

CONTROLLER SEQUENCE

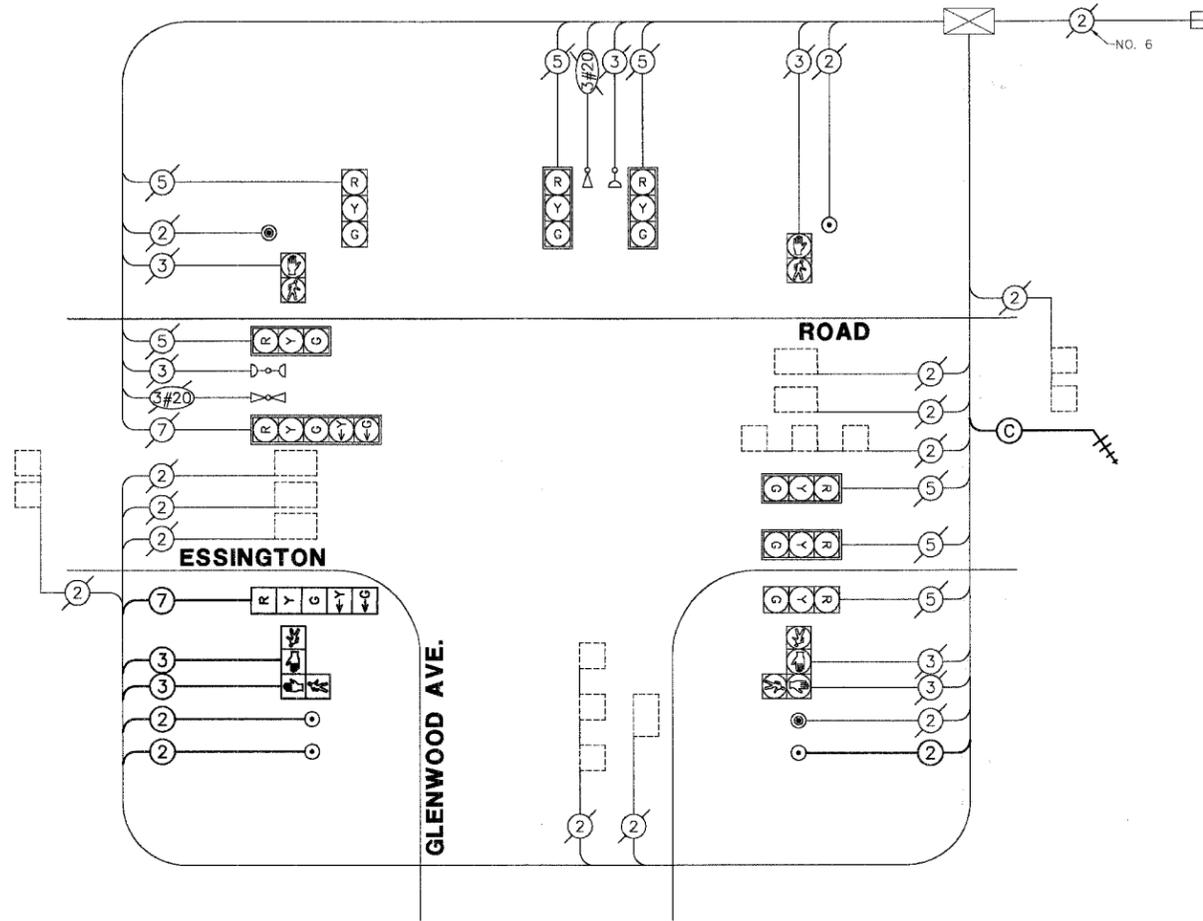


EMERGENCY VEHICLE PREEMPTION SEQUENCE



RESTORATION OF WORK AREA, RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO 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.

CABLE PLAN



CABLE PLAN LEGEND

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

ESSINGTON ROAD AT GLENWOOD AVENUE SCHEDULE OF INTERSECTION QUANTITIES

ITEM	UNIT	QUANTITY
SIGN PANEL - TYPE I	SQ FT	1.46
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRANSCIVER	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	574
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	451
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	226
ELECTRIC CABLE IN CONDUIT, COAXIAL	FOOT	195
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT	EACH	1
SIGNAL HEAD, L.E.D., 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	1
PEDESTRIAN SIGNAL HEAD, L.E.D., 2-FACE, BRACKET MOUNTED	EACH	1
PEDESTRIAN PUSHBUTTON	EACH	4
MODIFY EXISTING CONTROLLER	EACH	1
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	878
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1

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

TYPE	NO. OF LAMPS	WATTAGE (INCAND.)	LED	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	8	135		0.50	540.0
(YELLOW)	8	135		0.25	270.0
(GREEN)	8	135		0.25	270.0
SIGNAL (RED)	1		17	0.50	8.5
(YELLOW)	1		25	0.25	6.25
(GREEN)	4		15	0.25	3.75
ARROW	2	135		0.10	27.0
ARROW	2		12	0.10	2.4
PED. SIGNAL	4	90		1.00	360.0
PED. SIGNAL	2		25	1.00	50.0
CONTROLLER	1	100		1.00	100.0
ENERGY COSTS TO: TOTAL =					1637.9

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE."

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'L-2"=
C - M. ARM POLE		SIGNAL POST	2 (1.0)	(6m+L-0.6m)=	
24" (600mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
30" (750mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
36" (900mm)	15 (4.6)	ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
		GROUND CABLE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
				POST MOUNTED	6 (1.8)

PLANS PREPARED BY:
GEWALT HAMILTON ASSOCIATES, INC.
 Consulting Engineers & Surveyors
 850 Forest Ridge Drive
 Vernon Hills, IL 60061
 (847) 478-9700
 (847) 478-9701 Fax

REVISIONS

NAME	DATE

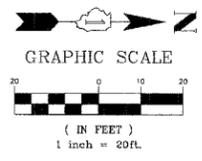
ILLINOIS DEPARTMENT OF TRANSPORTATION
SCHEDULE OF QUANTITIES, CABLE PLAN AND PHASE DESIGNATION DIAGRAM
 ESSINGTON ROAD AT GLENWOOD AVENUE
 JOLIET, ILLINOIS
 SCALE: N.T.S.
 DATE: DECEMBER 7, 2007
 DRAWN BY: LB
 DESIGNED BY: TCM
 CHECKED BY: BLS

ILLINOIS DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAY/DISTRICT 1
 201 WEST CENTER COURT
 SCHAUMBURG, ILLINOIS 60196-1096
 ENERGY SUPPLY: CONTACT: BETTY BRULC
 PHONE: (815) 724-5052
 COMPANY: COMED

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	05-00395-00-TL	WILL	31	11
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
CONTRACT NO: 83992				

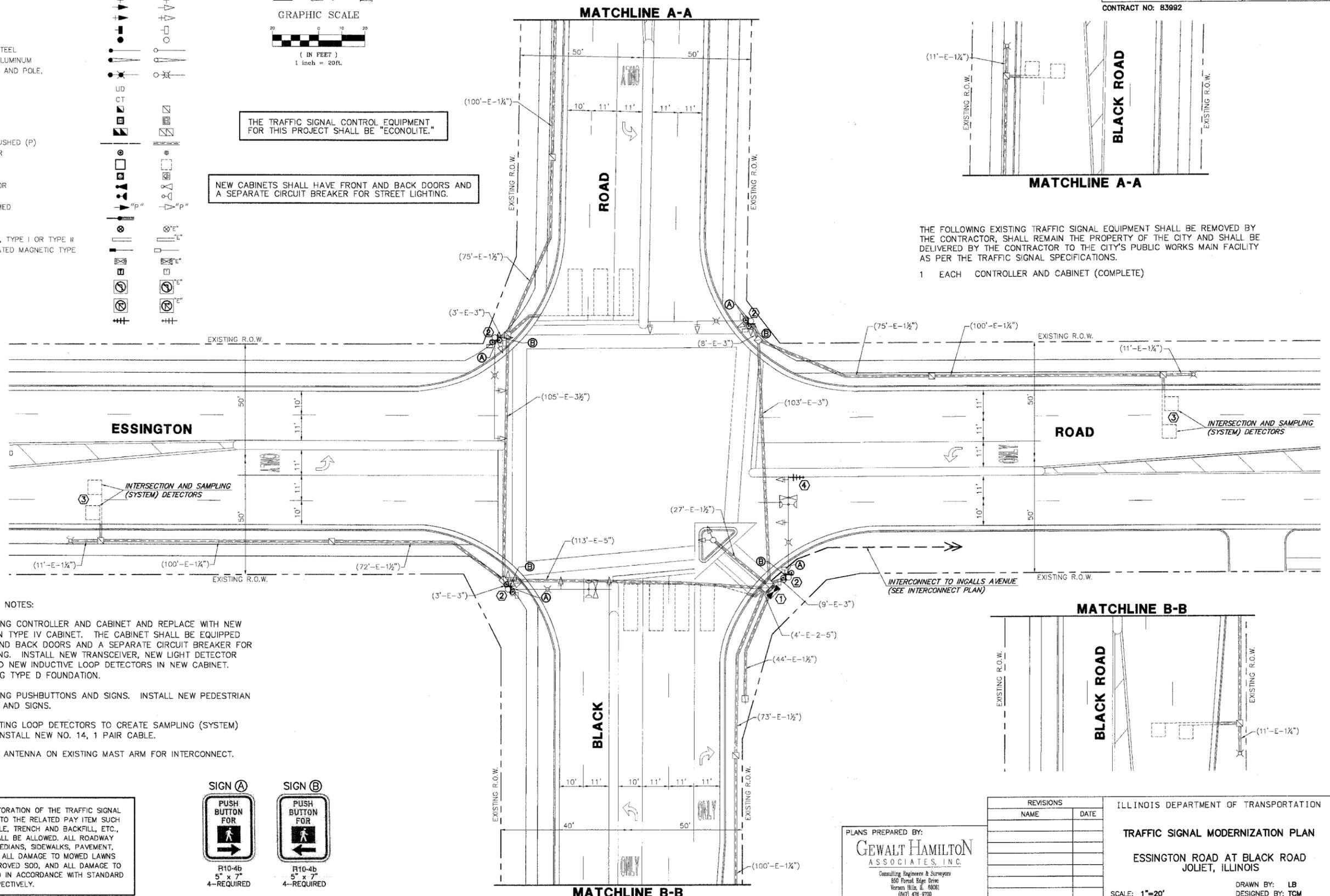
TRAFFIC SIGNAL LEGEND

- | | | |
|--|--|--|
| CONTROLLER | | |
| SERVICE INSTALLATION | | |
| SIGNAL HEAD | | |
| SIGNAL HEAD WITH BACKPLATE | | |
| SIGNAL HEAD, PEDESTRIAN | | |
| SIGNAL POST | | |
| MAST ARM ASSEMBLY AND POLE, STEEL | | |
| MAST ARM ASSEMBLY AND POLE, ALUMINUM | | |
| COMBINATION MAST ARM ASSEMBLY AND POLE, STEEL WITH LUMINAIRE | | |
| UNIT DUCT | | |
| COMMON TRENCH | | |
| HANDHOLE | | |
| HEAVY DUTY HANDHOLE | | |
| DOUBLE HANDHOLE | | |
| G.S. CONDUIT IN TRENCH (T) OR PUSHED (P) | | |
| PEDESTRIAN PUSHBUTTON DETECTOR | | |
| DETECTOR LOOP | | |
| CAST IRON JUNCTION BOX | | |
| EMERGENCY VEHICLE LIGHT DETECTOR | | |
| CONFIRMATION BEACON | | |
| SIGNAL HEAD OPTICALLY PROGRAMMED | | |
| CONDUIT SPLICE | | |
| WOOD POLE | | |
| RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II | | |
| VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE | | |
| RAILROAD CONTROL CABINET | | |
| TELEPHONE CONNECTION | | |
| ILLUMINATED SIGN NO LEFT TURN | | |
| ILLUMINATED SIGN NO RIGHT TURN | | |
| RADIO ANTENNA | | |



THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE."

NEW CABINETS SHALL HAVE FRONT AND BACK DOORS AND A SEPARATE CIRCUIT BREAKER FOR STREET LIGHTING.



THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE CITY AND SHALL BE DELIVERED BY THE CONTRACTOR TO THE CITY'S PUBLIC WORKS MAIN FACILITY AS PER THE TRAFFIC SIGNAL SPECIFICATIONS.

- 1 EACH CONTROLLER AND CABINET (COMPLETE)

CONSTRUCTION NOTES:

- ① REMOVE EXISTING CONTROLLER AND CABINET AND REPLACE WITH NEW CONTROLLER IN TYPE IV CABINET. THE CABINET SHALL BE EQUIPPED WITH FRONT AND BACK DOORS AND A SEPARATE CIRCUIT BREAKER FOR STREET LIGHTING. INSTALL NEW TRANSCEIVER, NEW LIGHT DETECTOR AMPLIFIER, AND NEW INDUCTIVE LOOP DETECTORS IN NEW CABINET. REUSE EXISTING TYPE D FOUNDATION.
- ② REMOVE EXISTING PUSHBUTTONS AND SIGNS. INSTALL NEW PEDESTRIAN PUSHBUTTONS AND SIGNS.
- ③ RESPLICE EXISTING LOOP DETECTORS TO CREATE SAMPLING (SYSTEM) DETECTORS. INSTALL NEW NO. 14, 1 PAIR CABLE.
- ④ INSTALL RADIO ANTENNA ON EXISTING MAST ARM FOR INTERCONNECT.

RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO 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 SOO, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.



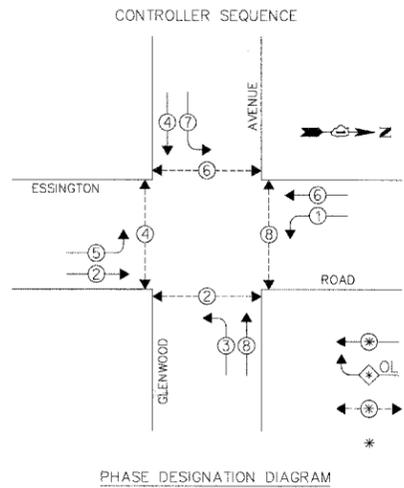
PLANS PREPARED BY:
GEWALT HAMILTON ASSOCIATES, INC.
Consulting Engineers & Surveyors
650 Forest Edge Drive
Vernon Hills, IL 60061
(847) 476-9700
(847) 476-9701 Fax

REVISIONS	
NAME	DATE

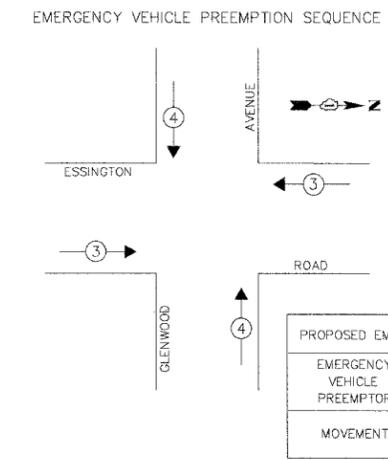
ILLINOIS DEPARTMENT OF TRANSPORTATION
TRAFFIC SIGNAL MODERNIZATION PLAN
ESSINGTON ROAD AT BLACK ROAD
JOLIET, ILLINOIS
SCALE: 1"=20'
DATE: DECEMBER 7, 2007
DRAWN BY: LB
DESIGNED BY: TCM
CHECKED BY: BLS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	05-00395-00-TL	WILL	31	12
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
CONTRACT NO: 83992				

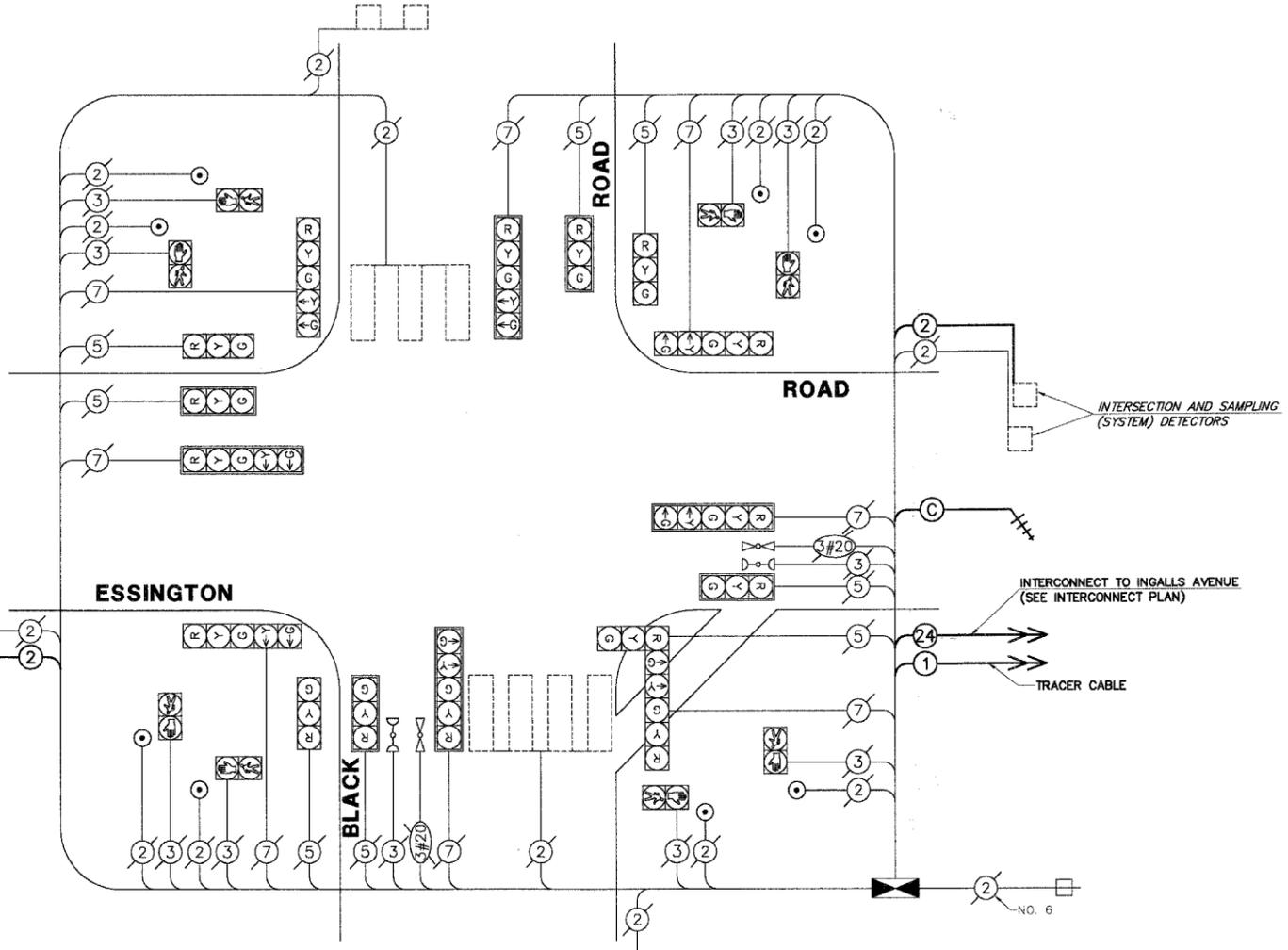
CABLE PLAN



LEGEND
 * DUAL ENTRY PHASE
 OL OVERLAP
 * PEDESTRIAN PHASE
 * NUMBER REFERS TO ASSOCIATED PHASE



INTERSECTION AND SAMPLING (SYSTEM) DETECTORS



CABLE PLAN LEGEND

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

RESTORATION OF WORK AREA, RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO 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.

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE INCAND.	LED	% OPERATION	
SIGNAL (RED)	16	135		0.50	1080.0
(YELLOW)	16	135		0.25	540.0
(GREEN)	16	135		0.25	540.0
ARROW	16	135		0.10	216.0
PED. SIGNAL	8	90		1.00	720.0
CONTROLLER	1	100		1.00	100.0
TOTAL =					3196.0

NEW CABINETS SHALL HAVE FRONT AND BACK DOORS AND A SEPARATE CIRCUIT BREAKER FOR STREET LIGHTING.

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE."

ESSINGTON ROAD AT BLACK ROAD SCHEDULE OF INTERSECTION QUANTITIES		
ITEM	UNIT	QUANTITY
SIGN PANEL - TYPE I	SQ FT	1.94
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER IN TYPE IV CABINET, SPECIAL	EACH	1
TRANSCIVER	EACH	1
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	645
ELECTRIC CABLE IN CONDUIT, COAXIAL	FOOT	97
INDUCTIVE LOOP DETECTOR	EACH	8
LIGHT DETECTOR AMPLIFIER	EACH	1
PEDESTRIAN PUSHBUTTON	EACH	8
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	97
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	FOOT	1

ENERGY COSTS TO: TOTAL = 3196.0
 ILLINOIS DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAY/DISTRICT 1
 201 WEST CENTER COURT
 SCHAUMBURG, ILLINOIS 60196-1096
 ENERGY SUPPLY: CONTACT: BETTY BRULC
 PHONE: (815) 724-5052
 COMPANY: COMED

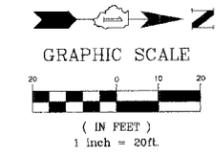
FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20+L-2=
C - M. ARM POLE		SIGNAL POST	2 (1.0)	(6m+L-0.6m)=	
24" (600mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
30" (750mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
36" (900mm)	15 (4.6)	ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
		GROUND CABLE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
				POST MOUNTED	6 (1.8)

PLANS PREPARED BY:
GEWALT HAMILTON ASSOCIATES, INC.
 Consulting Engineers & Surveyors
 850 Forest Edge Drive
 Verzen Hill, IL 60001
 (847) 478-9700
 (847) 478-9701 Fax

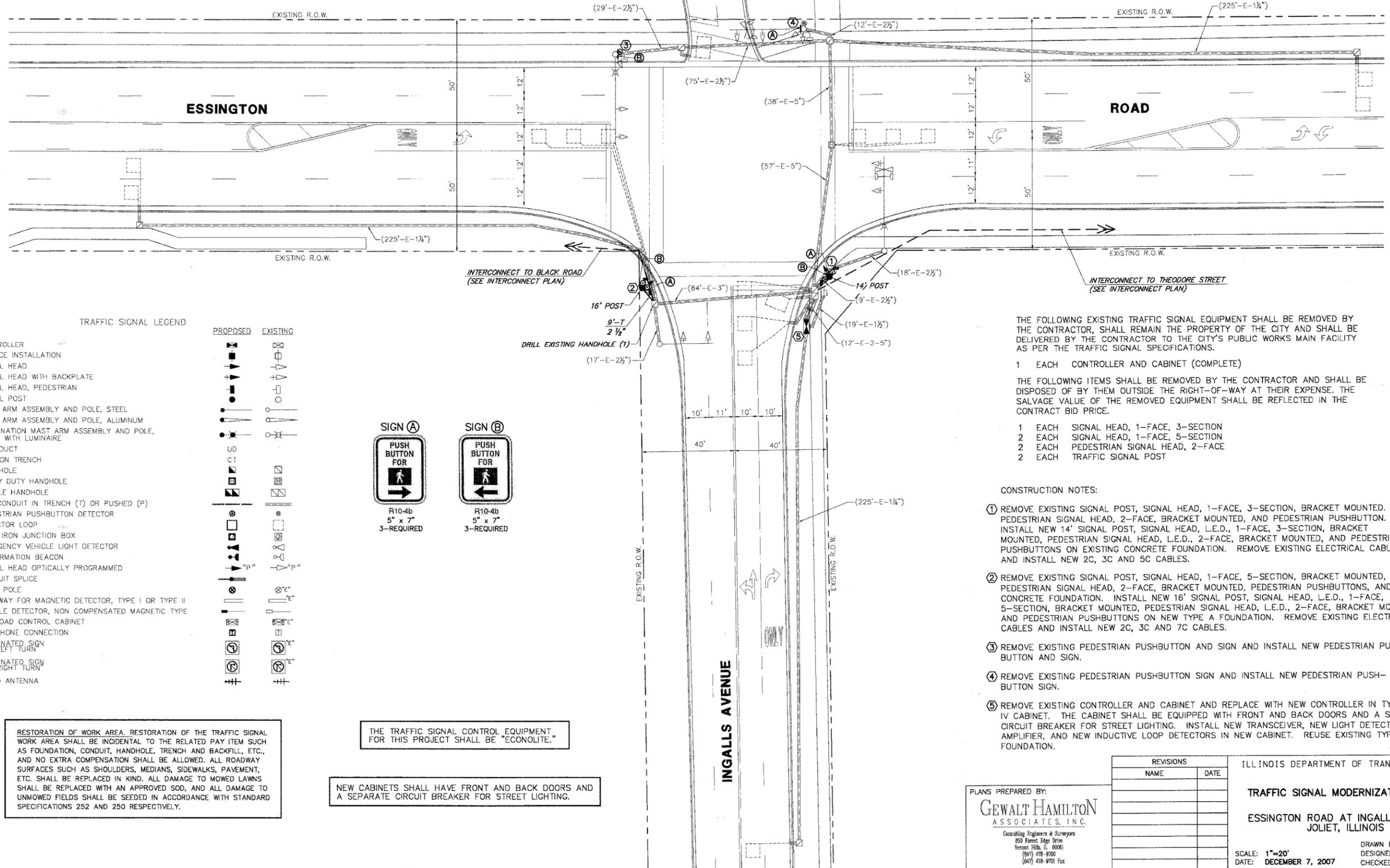
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SCHEDULE OF QUANTITIES, CABLE PLAN AND PHASE DESIGNATION DIAGRAM
 ESSINGTON ROAD AT BLACK ROAD
 JOLIET, ILLINOIS
 SCALE: N.T.S.
 DATE: DECEMBER 7, 2007
 DRAWN BY: LB
 DESIGNED BY: TCM
 CHECKED BY: BLS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	05-00395-00-TL	WILL	31	13
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO: 83992				



ROCK RUN PRESERVE DRIVE



TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING
CONTROLLER		
SERVICE INSTALLATION		
SIGNAL HEAD		
SIGNAL HEAD WITH BACKPLATE		
SIGNAL HEAD, PEDESTRIAN		
SIGNAL POST		
MAST ARM ASSEMBLY AND POLE, STEEL		
MAST ARM ASSEMBLY AND POLE, ALUMINUM		
COMBINATION MAST ARM ASSEMBLY AND POLE, STEEL WITH LUMINAIRE		
UNIT DUCT		
COMMON TRENCH		
HANDHOLE		
HEAVY DUTY HANDHOLE		
DOUBLE HANDHOLE		
G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)		
PEDESTRIAN PUSHBUTTON DETECTOR		
DETECTOR LOOP		
CAST IRON JUNCTION BOX		
EMERGENCY VEHICLE LIGHT DETECTOR		
CONFIRMATION BEACON		
SIGNAL HEAD OPTICALLY PROGRAMMED		
CONDUIT SPLICE		
WOOD POLE		
RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II		
VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE		
RAILROAD CONTROL CABINET		
TELEPHONE CONNECTION		
ILLUMINATED SIGN NO LEFT TURN		
ILLUMINATED SIGN NO RIGHT TURN		
RADIO ANTENNA		



THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE CITY AND SHALL BE DELIVERED BY THE CONTRACTOR TO THE CITY'S PUBLIC WORKS MAIN FACILITY AS PER THE TRAFFIC SIGNAL SPECIFICATIONS.

- 1 EACH CONTROLLER AND CABINET (COMPLETE)

THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

- 1 EACH SIGNAL HEAD, 1-FACE, 3-SECTION
- 2 EACH SIGNAL HEAD, 1-FACE, 5-SECTION
- 2 EACH PEDESTRIAN SIGNAL HEAD, 2-FACE
- 2 EACH TRAFFIC SIGNAL POST

CONSTRUCTION NOTES:

- REMOVE EXISTING SIGNAL POST, SIGNAL HEAD, 1-FACE, 3-SECTION, BRACKET MOUNTED. PEDESTRIAN SIGNAL HEAD, 2-FACE, BRACKET MOUNTED, AND PEDESTRIAN PUSHBUTTON. INSTALL NEW 14' SIGNAL POST, SIGNAL HEAD, L.E.D., 1-FACE, 3-SECTION, BRACKET MOUNTED, PEDESTRIAN SIGNAL HEAD, L.E.D., 2-FACE, BRACKET MOUNTED, AND PEDESTRIAN PUSHBUTTONS ON EXISTING CONCRETE FOUNDATION. REMOVE EXISTING ELECTRICAL CABLES AND INSTALL NEW 2C, 3C AND 5C CABLES.
- REMOVE EXISTING SIGNAL POST, SIGNAL HEAD, 1-FACE, 5-SECTION, BRACKET MOUNTED, PEDESTRIAN SIGNAL HEAD, 2-FACE, BRACKET MOUNTED, PEDESTRIAN PUSHBUTTONS, AND CONCRETE FOUNDATION. INSTALL NEW 16' SIGNAL POST, SIGNAL HEAD, L.E.D., 1-FACE, 5-SECTION, BRACKET MOUNTED, PEDESTRIAN SIGNAL HEAD, L.E.D., 2-FACE, BRACKET MOUNTED, AND PEDESTRIAN PUSHBUTTONS ON NEW TYPE A FOUNDATION. REMOVE EXISTING ELECTRICAL CABLES AND INSTALL NEW 2C, 3C AND 7C CABLES.
- REMOVE EXISTING PEDESTRIAN PUSHBUTTON AND SIGN AND INSTALL NEW PEDESTRIAN PUSH-BUTTON AND SIGN.
- REMOVE EXISTING PEDESTRIAN PUSHBUTTON SIGN AND INSTALL NEW PEDESTRIAN PUSH-BUTTON SIGN.
- REMOVE EXISTING CONTROLLER AND CABINET AND REPLACE WITH NEW CONTROLLER IN TYPE IV CABINET. THE CABINET SHALL BE EQUIPPED WITH FRONT AND BACK DOORS AND A SEPARATE CIRCUIT BREAKER FOR STREET LIGHTING. INSTALL NEW TRANSCEIVER, NEW LIGHT DETECTOR AMPLIFIER, AND NEW INDUCTIVE LOOP DETECTORS IN NEW CABINET. REUSE EXISTING TYPE D FOUNDATION.

RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO 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.

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE."

NEW CABINETS SHALL HAVE FRONT AND BACK DOORS AND A SEPARATE CIRCUIT BREAKER FOR STREET LIGHTING.

PLANS PREPARED BY:
GEWALT HAMILTON ASSOCIATES, INC.
 Consulting Engineers & Surveyors
 850 Forest Edge Drive
 Vernon Hills, IL 60061
 (847) 478-9700
 (847) 478-9701 Fax

REVISIONS	
NAME	DATE

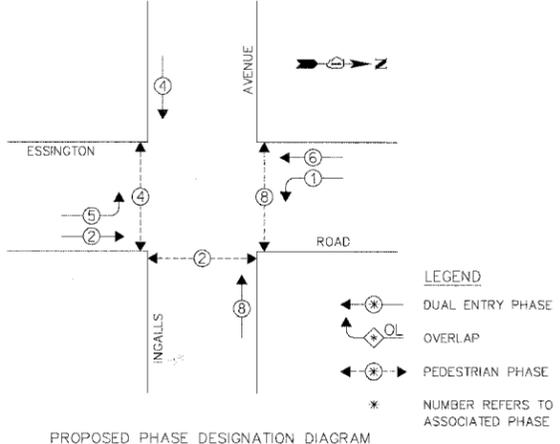
ILLINOIS DEPARTMENT OF TRANSPORTATION
TRAFFIC SIGNAL MODERNIZATION PLAN
 ESSINGTON ROAD AT INGALLS AVENUE
 JOLIET, ILLINOIS
 DRAWN BY: LB
 DESIGNED BY: TCM
 CHECKED BY: BLS
 SCALE: 1"=20'
 DATE: DECEMBER 7, 2007

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	05-00395-00-TL	WLL	31	14
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
CONTRACT NO: 83992				

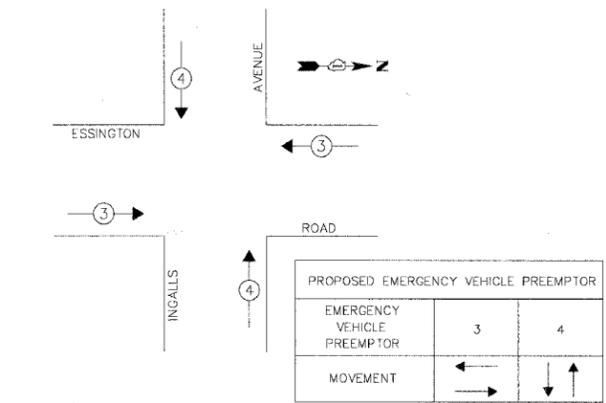
CABLE PLAN LEGEND

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 INSTALLATION
		VEHICLE DETECTOR, INDUCTION LOOP
		MAGNETIC DETECTOR
		EMERGENCY VEHICLE LIGHT DETECTOR
		CONFIRMATION BEACON
		PUSHBUTTON DETECTOR
		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
		RADIO ANTENNA
		COAXIAL CABLE

PROPOSED CONTROLLER SEQUENCE



PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE

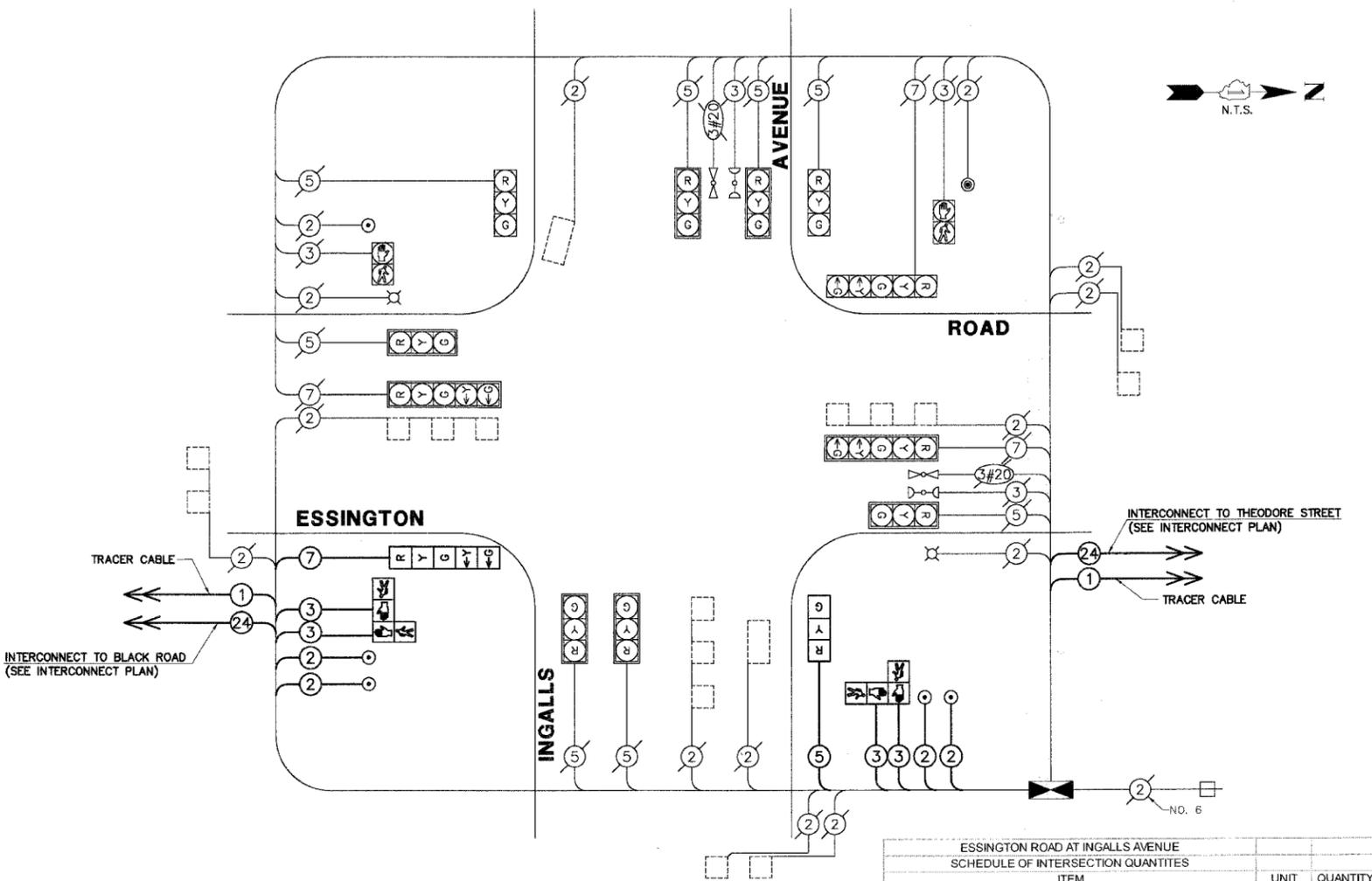


RESTORATION OF WORK AREA, RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL 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.

NEW CABINETS SHALL HAVE FRONT AND BACK DOORS AND A SEPARATE CIRCUIT BREAKER FOR STREET LIGHTING.

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE."

CABLE PLAN



ESSINGTON ROAD AT INGALLS AVENUE SCHEDULE OF INTERSECTION QUANTITIES

ITEM	UNIT	QUANTITY
SIGN PANEL - TYPE I	SQ FT	1.46
CONDUIT IN TRENCH, 2 1/2" DIA., GALVANIZED STEEL	FOOT	9
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	9
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1
TRANSCIVER	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	389
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	425
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	61
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	152
TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	1
CONCRETE FOUNDATION, TYPE A	FOOT	4
DRILL EXISTING HANDHOLE	EACH	1
SIGNAL HEAD, L.E.D., 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	1
SIGNAL HEAD, L.E.D., 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	1
PEDESTRIAN SIGNAL HEAD, L.E.D., 2-FACE, BRACKET MOUNTED	EACH	2
INDUCTIVE LOOP DETECTOR	EACH	8
LIGHT DETECTOR AMPLIFIER	EACH	1
PEDESTRIAN PUSHBUTTON	EACH	5
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	1180
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	1

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

TYPE	NO. OF LAMPS	WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	11	135	0.50	742.5
(YELLOW)	11	135	0.25	371.25
(GREEN)	11	135	0.25	371.25
SIGNAL (RED)	2	17	0.50	17.0
(YELLOW)	2	25	0.25	12.5
(GREEN)	2	15	0.25	7.5
ARROW	6	135	0.10	81.0
ARROW	2	12	0.10	2.4
PED. SIGNAL	2	90	1.00	180.0
PED. SIGNAL	4	25	1.00	100.0
CONTROLLER	1	100	1.00	100.0
TOTAL =				1985.4

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+L-2=
C - M. ARM POLE		SIGNAL POST	2 (1.0)		(6m+L-0.6m)=
	24" (600mm)	CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
	30" (750mm)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
	36" (900mm)	ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
		GROUND CABLE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
				POST MOUNTED	6 (1.8)

PLANS PREPARED BY:
GEWALT HAMILTON ASSOCIATES, INC.
 Consulting Engineers & Surveyors
 650 Forest Ridge Drive
 Vernon Hills, IL 60061
 (847) 476-9700
 (847) 476-9701 Fax

REVISIONS

NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SCHEDULE OF QUANTITIES, CABLE PLAN AND PHASE DESIGNATION DIAGRAM
 ESSINGTON ROAD AT INGALLS AVENUE
 JOLIET, ILLINOIS

SCALE: N.T.S.
 DATE: DECEMBER 7, 2007

DRAWN BY: LB
 DESIGNED BY: TCM
 CHECKED BY: BLS

ILLINOIS DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAY/DISTRICT 1
 201 WEST CENTER COURT
 SCHAUMBURG, ILLINOIS 60196-1096

ENERGY SUPPLY: CONTACT: BETTY BRULC
 PHONE: (815) 724-5052
 COMPANY: COMED

CONSTRUCTION NOTES:

- ① REMOVE EXISTING SIGNAL POST, SIGNAL HEAD, 2-FACE, 5-SECTION, BRACKET MOUNTED, PEDESTRIAN SIGNAL HEAD, 1-FACE, BRACKET MOUNTED, AND PEDESTRIAN PUSHBUTTON. INSTALL NEW 16' POST, SIGNAL HEAD, L.E.D., 2-FACE, 5-SECTION, BRACKET MOUNTED, PEDESTRIAN SIGNAL HEAD, L.E.D., 1-FACE, BRACKET MOUNTED, AND PEDESTRIAN PUSHBUTTON ON EXISTING CONCRETE FOUNDATION. REMOVE EXISTING ELECTRICAL CABLES AND INSTALL NEW 2C, 3C AND 7C CABLES.
- ② REMOVE EXISTING SIGNAL POST, SIGNAL HEAD, 1-FACE, 5-SECTION, BRACKET MOUNTED, PEDESTRIAN SIGNAL HEAD, 1-FACE, BRACKET MOUNTED, AND PEDESTRIAN PUSHBUTTON. INSTALL NEW 16' SIGNAL POST, SIGNAL HEAD, L.E.D., 1-FACE, 5-SECTION, BRACKET MOUNTED, AND PEDESTRIAN PUSHBUTTON ON EXISTING CONCRETE FOUNDATION. REMOVE ELECTRICAL CABLES AND INSTALL NEW 2C, 3C AND 7C CABLES.
- ③ REMOVE EXISTING PEDESTRIAN PUSHBUTTON AND SIGN AND INSTALL NEW PEDESTRIAN PUSHBUTTON AND SIGN.
- ④ REMOVE EXISTING PEDESTRIAN PUSHBUTTONS AND SIGN(S) AND INSTALL NEW PEDESTRIAN PUSHBUTTONS AND SIGNS.
- ⑤ REMOVE EXISTING CONTROLLER AND CABINET AND REPLACE WITH NEW CONTROLLER AND MASTER CONTROLLER IN TYPE V CABINET. THE NEW CABINET SHALL BE EQUIPPED WITH FRONT AND BACK DOORS AND A SEPARATE CIRCUIT BREAKER FOR STREET LIGHTING. INSTALL NEW TRANSCEIVER, NEW LIGHT DETECTOR AMPLIFIER, AND NEW INDUCTIVE LOOP DETECTORS IN NEW CABINET. REUSE EXISTING TYPE D FOUNDATION.
- ⑥ INSTALL RADIO ANTENNAS ON EXISTING MAST ARM FOR INTERCONNECT.

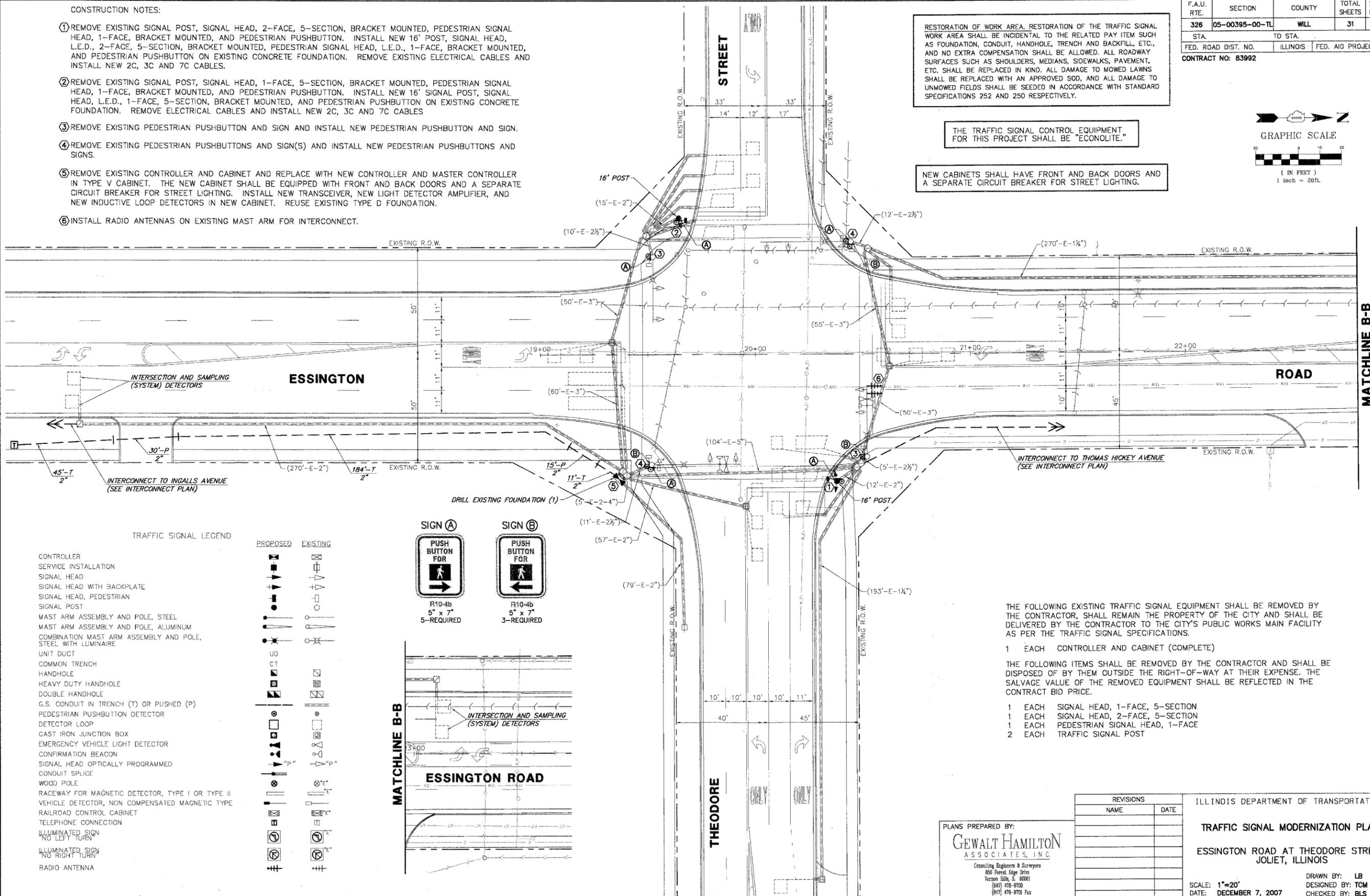
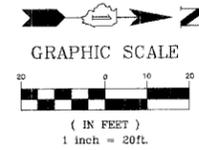
RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE."

NEW CABINETS SHALL HAVE FRONT AND BACK DOORS AND A SEPARATE CIRCUIT BREAKER FOR STREET LIGHTING.

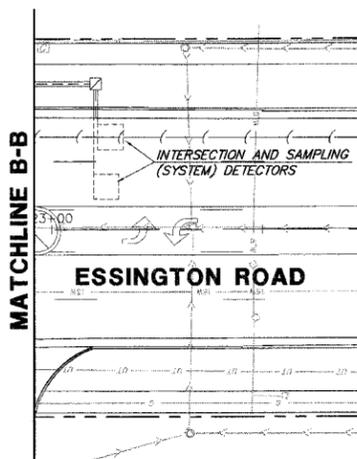
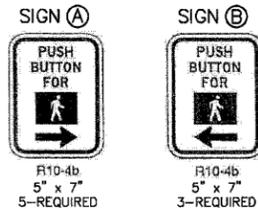
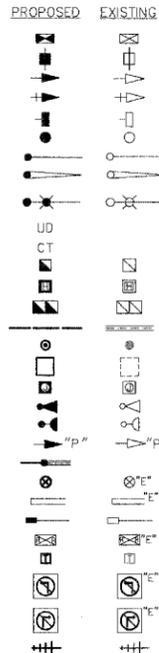
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	05-00395-00-TL	WILL	31	15
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

CONTRACT NO: 83992



TRAFFIC SIGNAL LEGEND

- CONTROLLER
- SERVICE INSTALLATION
- SIGNAL HEAD
- SIGNAL HEAD WITH BACKPLATE
- SIGNAL HEAD, PEDESTRIAN
- SIGNAL POST
- MAST ARM ASSEMBLY AND POLE, STEEL
- MAST ARM ASSEMBLY AND POLE, ALUMINUM
- COMBINATION MAST ARM ASSEMBLY AND POLE, STEEL WITH LUMINAIRE
- UNIT DUCT
- COMMON TRENCH
- HANDHOLE
- HEAVY DUTY HANDHOLE
- DOUBLE HANDHOLE
- G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)
- PEDESTRIAN PUSHBUTTON DETECTOR
- DETECTOR LOOP
- CAST IRON JUNCTION BOX
- EMERGENCY VEHICLE LIGHT DETECTOR
- CONFIRMATION BEACON
- SIGNAL HEAD OPTICALLY PROGRAMMED
- CONDUIT SPLICE
- WOOD POLE
- RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II
- VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE
- RAILROAD CONTROL CABINET
- TELEPHONE CONNECTION
- ILLUMINATED SIGN "NO LEFT TURN"
- ILLUMINATED SIGN "NO RIGHT TURN"
- RADIO ANTENNA



THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE CITY AND SHALL BE DELIVERED BY THE CONTRACTOR TO THE CITY'S PUBLIC WORKS MAIN FACILITY AS PER THE TRAFFIC SIGNAL SPECIFICATIONS.

- 1 EACH CONTROLLER AND CABINET (COMPLETE)

THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

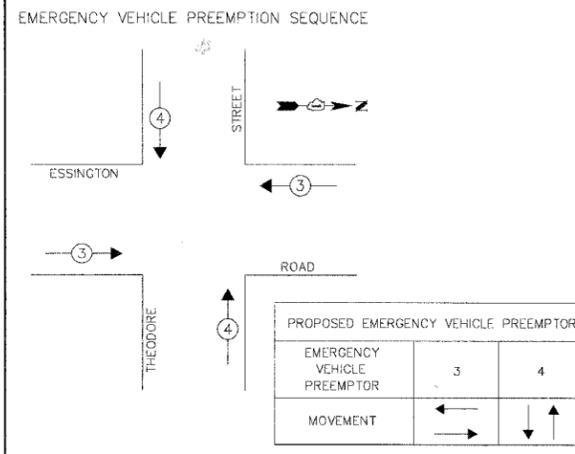
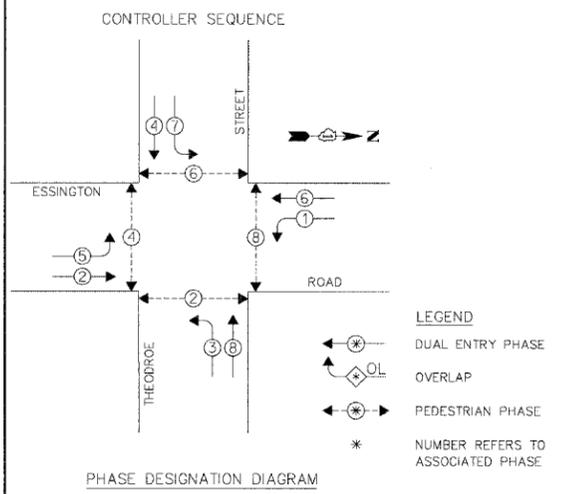
- 1 EACH SIGNAL HEAD, 1-FACE, 5-SECTION
- 1 EACH SIGNAL HEAD, 2-FACE, 5-SECTION
- 1 EACH PEDESTRIAN SIGNAL HEAD, 1-FACE
- 2 EACH TRAFFIC SIGNAL POST

PLANS PREPARED BY:
GEWALT HAMILTON
 ASSOCIATES, INC.
 Consulting Engineers & Surveyors
 850 Forest Edge Drive
 Vernon Hills, IL 60061
 (847) 478-9700
 (815) 478-9701 Fax

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
TRAFFIC SIGNAL MODERNIZATION PLAN
 ESSINGTON ROAD AT THEODORE STREET
 JOLIET, ILLINOIS
 SCALE: 1"=20'
 DATE: DECEMBER 7, 2007
 DRAWN BY: LB
 DESIGNED BY: TCM
 CHECKED BY: BLS

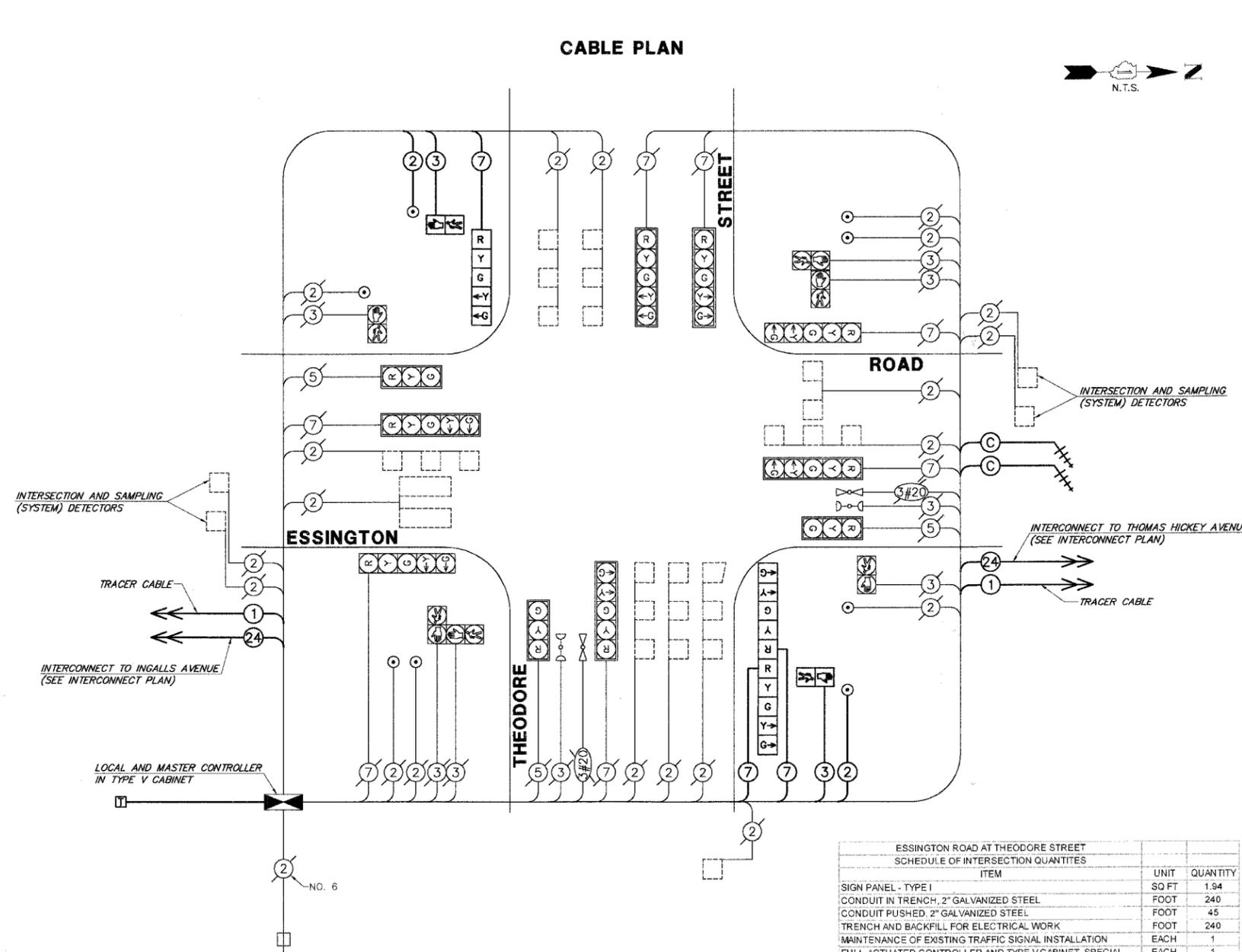
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	05-00395-00-TL	WILL	31	18
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
CONTRACT NO: 83992				



RESTORATION OF WORK AREA, RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO 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.

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE INCAND.	LED	% OPERATION	
SIGNAL (RED)	10	135		0.50	675.0
(YELLOW)	10	135		0.25	337.5
(GREEN)	10	135		0.25	337.5
SIGNAL (RED)	3		17	0.50	25.5
(YELLOW)	3		25	0.25	18.75
(GREEN)	3		15	0.25	11.25
ARROW	14	135		0.10	189.0
ARROW	6		12	0.10	7.2
PED. SIGNAL	6	90		1.00	540.0
PED. SIGNAL	2		25	1.00	50.0
CONTROLLER	1	100		1.00	100.0
ENERGY COSTS TO:					TOTAL = 2291.7

ILLINOIS DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAY/DISTRICT 1
 201 WEST CENTER COURT
 SCHAUMBURG, ILLINOIS 60196-1096
 ENERGY SUPPLY: CONTACT: BETTY BRULC
 PHONE: (815) 724-5052
 COMPANY: COMED



THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE."

NEW CABINETS SHALL HAVE FRONT AND BACK DOORS AND A SEPARATE CIRCUIT BREAKER FOR STREET LIGHTING.

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+L-2=
C - M. ARM POLE		SIGNAL POST	2 (1.0)		(6m+L-0.6m)=
24" (600mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
30" (750mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
36" (900mm)	15 (4.6)	ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
		GROUND CABLE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
				POST MOUNTED	6 (1.8)

ESSINGTON ROAD AT THEODORE STREET SCHEDULE OF INTERSECTION QUANTITIES		
ITEM	UNIT	QUANTITY
SIGN PANEL - TYPE I	SQ FT	1.94
CONDUIT IN TRENCH, 2" GALVANIZED STEEL	FOOT	240
CONDUIT PUSHED, 2" GALVANIZED STEEL	FOOT	45
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	240
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE V CABINET, SPECIAL	EACH	1
TRANSCEIVER	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	325
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	343
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	510
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	2
DRILL EXISTING FOUNDATION	EACH	1
SIGNAL HEAD, L.E.D., 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	1
SIGNAL HEAD, L.E.D., 2-FACE, 5-SECTION, BRACKET MOUNTED	EACH	1
PEDESTRIAN SIGNAL HEAD, L.E.D., 1-FACE, BRACKET MOUNTED	EACH	2
INDUCTIVE LOOP DETECTOR	EACH	14
LIGHT DETECTOR AMPLIFIER	EACH	1
PEDESTRIAN PUSHBUTTON	EACH	8
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	1159
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1

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 INSTALLATION
□	□	VEHICLE DETECTOR, INDUCTION LOOP
□	□	MAGNETIC DETECTOR
□	□	EMERGENCY VEHICLE LIGHT DETECTOR
□	□	CONFIRMATION BEACON
□	□	PUSHBUTTON DETECTOR
□	□	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
□	□	RADIO ANTENNA
□	□	COAXIAL CABLE

PLANS PREPARED BY:
GEWALT HAMILTON ASSOCIATES, INC.
 Consulting Engineers & Surveyors
 850 Forest Ridge Drive
 Vernon Hills, IL 60061
 (847) 478-9700
 (847) 478-9701 Fax

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

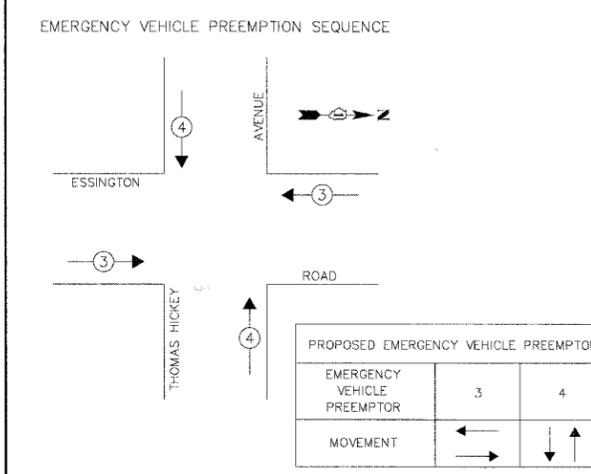
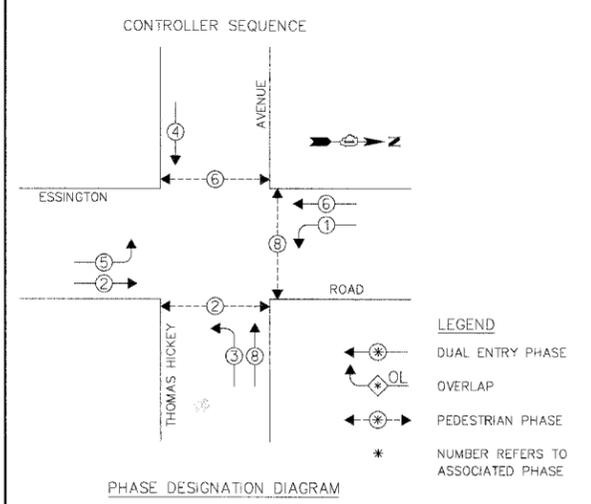
SCHEDULE OF QUANTITIES, CABLE PLAN AND PHASE DESIGNATION DIAGRAM

ESSINGTON ROAD AT THEODORE STREET
 JOLIET, ILLINOIS

SCALE: N.T.S.
 DATE: DECEMBER 7, 2007

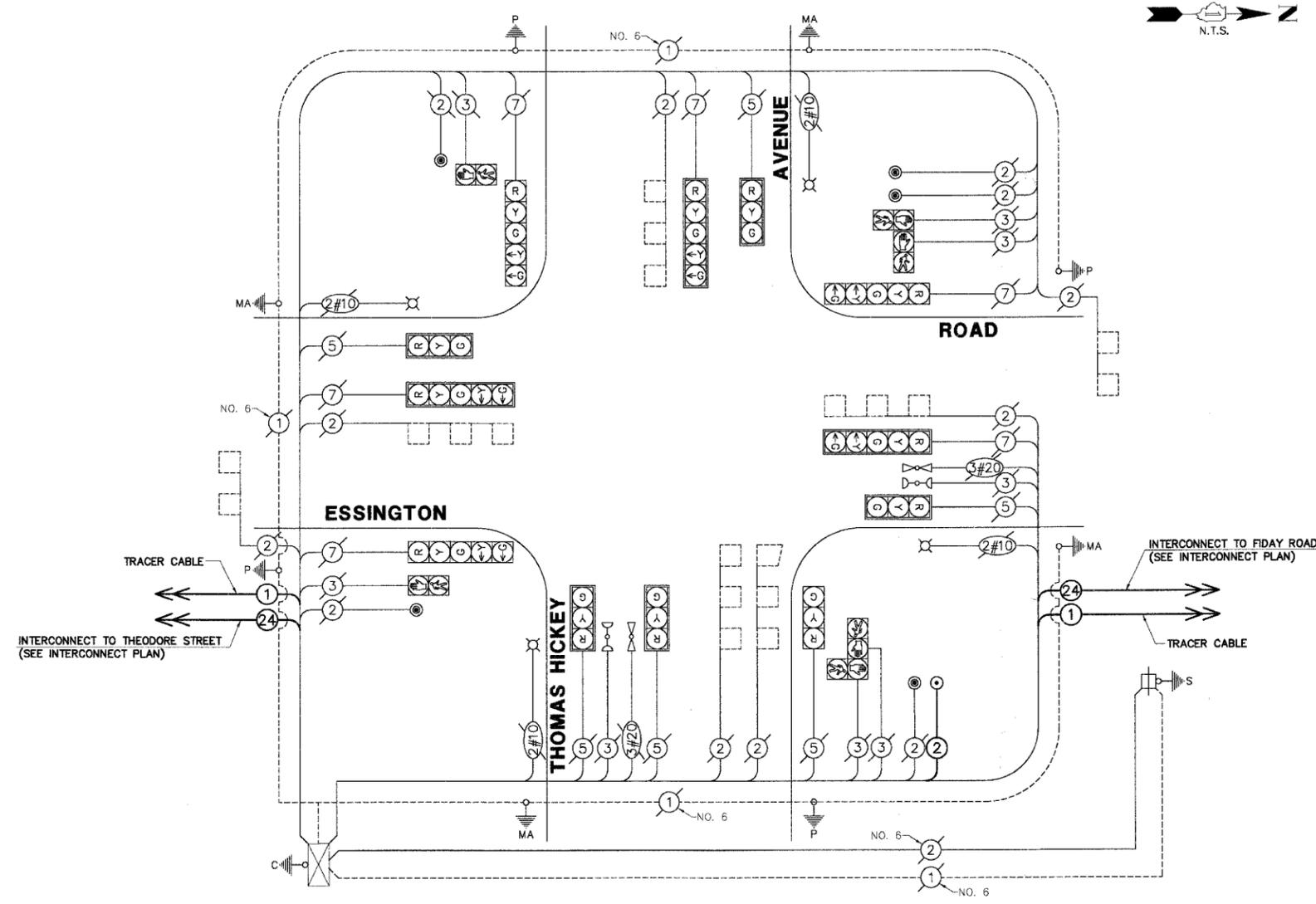
DRAWN BY: LB
 DESIGNED BY: TCM
 CHECKED BY: BLS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	05-00395-00-TL	WILL	31	18
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
CONTRACT NO: 83992				



RESTORATION OF WORK AREA, RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO 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 SEED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

CABLE PLAN



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 INSTALLATION
⊠	⊠	VEHICLE DETECTOR, INDUCTION LOOP
⊠	⊠	MAGNETIC DETECTOR
⊠	⊠	EMERGENCY VEHICLE LIGHT DETECTOR
⊠	⊠	CONFIRMATION BEACON
⊠	⊠	PUSHBUTTON DETECTOR
⊠	⊠	2 DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.
⊠	⊠	1 GROUND CABLE IN CONDUIT
⊠	⊠	NO. 6 SOLID COPPER (GREEN)
⊠	⊠	2# 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"
H/C	⊠	GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (H), OR CONTROLLER (C)
P	⊠	GROUND ROD AT POST (P) OR MAST ARM POLE (MA)
S	⊠	GROUND ROD AT ELECTRIC SERVICE INSTALLATION
+++	⊠	RADIO ANTENNA
⊠	⊠	COAXIAL CABLE

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

TYPE	NO. OF LAMPS	WATTAGE		% OPERATION	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	12	135		0.50	810.0
(YELLOW)	12	135		0.25	405.0
(GREEN)	12	135		0.25	405.0
ARROW	12	135		0.10	162.0
PED. SIGNAL	6	90		1.00	540.0
CONTROLLER	1	100		1.00	100.0
TOTAL =					2422.0

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE."

ESSINGTON ROAD AT THOMAS HICKEY AVENUE SCHEDULE OF INTERSECTION QUANTITIES

ITEM	UNIT	QUANTITY
SIGN PANEL - TYPE I	SQ FT	0.24
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRANSCIVER	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	96
PEDESTRIAN PUSHBUTTON	EACH	1
MODIFY EXISTING CONTROLLER	EACH	1

ENERGY COSTS TO: TOTAL = 2422.0

ILLINOIS DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAY/DISTRICT 1
201 WEST CENTER COURT
SCHAUMBURG, ILLINOIS 60196-1096

ENERGY SUPPLY: CONTACT: BETTY BRULC
PHONE: (815) 724-5052
COMPANY: 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)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20+L-2=
C - M. ARM POLE		SIGNAL POST	2 (1.0)		(8m+L-0.6m)=
24" (600mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
30" (750mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
36" (900mm)	15 (4.6)	ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
		GROUND CABLE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
				POST MOUNTED	6 (1.8)

PLANS PREPARED BY:
GEWALT HAMILTON ASSOCIATES, INC.
Consulting Engineers & Surveyors
850 Forest Edge Drive
Vernon Hills, IL 60061
(847) 478-9700
(847) 478-9701 Fax

REVISIONS

NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN AND PHASE DESIGNATION DIAGRAM

ESSINGTON ROAD AT THOMAS HICKEY AVE. JOLIET, ILLINOIS

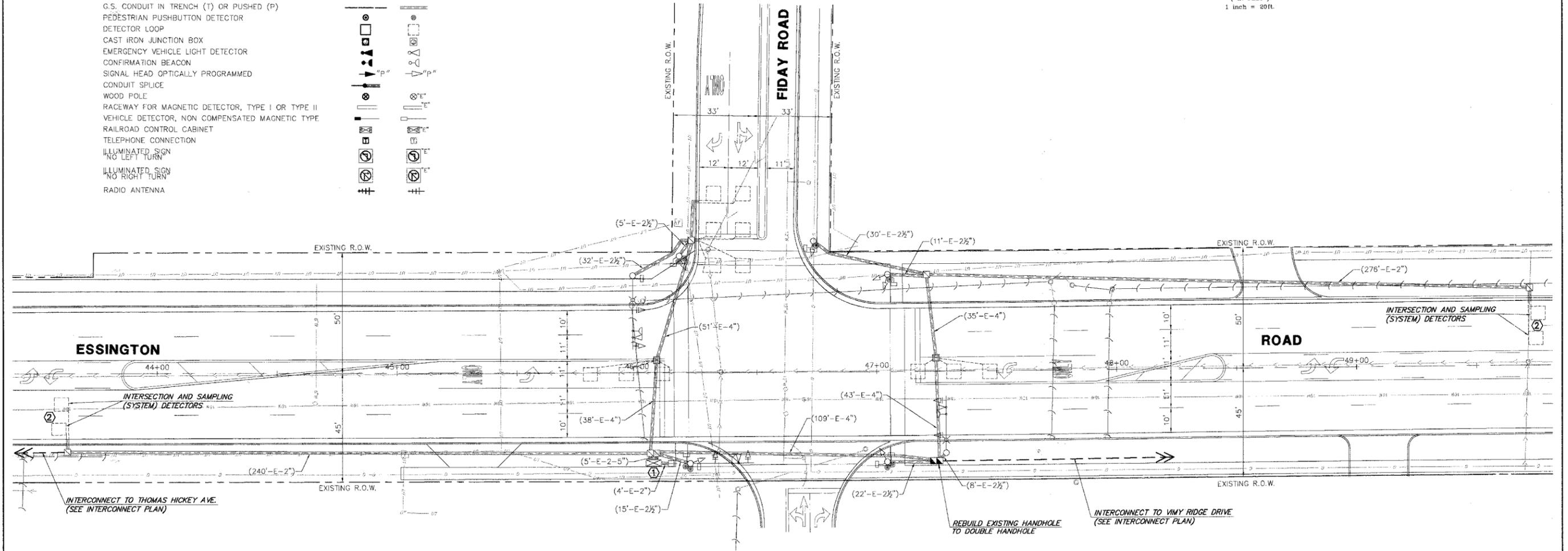
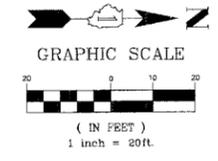
SCALE: N.T.S.
DATE: DECEMBER 7, 2007

DRAWN BY: LB
DESIGNED BY: TCM
CHECKED BY: BLS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	05-00395-00-TL	WILL	31	19
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
CONTRACT NO: 83992				

TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING
CONTROLLER		
SERVICE INSTALLATION		
SIGNAL HEAD		
SIGNAL HEAD WITH BACKPLATE		
SIGNAL HEAD, PEDESTRIAN		
SIGNAL POST		
MAST ARM ASSEMBLY AND POLE, STEEL		
MAST ARM ASSEMBLY AND POLE, ALUMINUM		
COMBINATION MAST ARM ASSEMBLY AND POLE, STEEL WITH LUMINAIRE		
UNIT DUCT	UD	
COMMON TRENCH	CT	
HANDHOLE		
HEAVY DUTY HANDHOLE		
DOUBLE HANDHOLE		
C.S. CONDUIT IN TRENCH (T) OR PUSHED (P)		
PEDESTRIAN PUSHBUTTON DETECTOR		
DETECTOR LOOP		
CAST IRON JUNCTION BOX		
EMERGENCY VEHICLE LIGHT DETECTOR		
CONFIRMATION BEACON		
SIGNAL HEAD OPTICALLY PROGRAMMED		
CONDUIT SPLICE		
WOOD POLE		
RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II		
VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE		
RAILROAD CONTROL CABINET		
TELEPHONE CONNECTION		
ILLUMINATED SIGN NO LEFT TURN		
ILLUMINATED SIGN NO RIGHT TURN		
RADIO ANTENNA		



RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO 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.

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE."

CONSTRUCTION NOTES:

- ① MODIFY EXISTING CONTROLLER. ROTATE PHASING AND INSTALL NEW TRANSCEIVER IN EXISTING CONTROLLER. UPDATE CABINET DECALS TO REFLECT NEW PHASING AND PROVIDE FIVE NEW SETS OF CABINET PRINTS.
- ② RESPLICE EXISTING LOOP DETECTORS TO CREATE SAMPLING (SYSTEM) DETECTORS. INSTALL NEW NO. 14, 1 PAIR CABLE.

PLANS PREPARED BY:
GEWALT HAMILTON ASSOCIATES, INC.
 Consulting Engineers & Surveyors
 850 Forest Edge Drive
 Vernon Hills, IL 60061
 (847) 478-9700
 (847) 478-9701 Fax

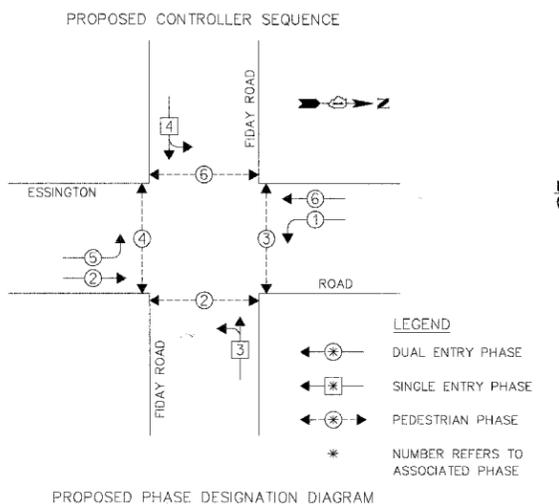
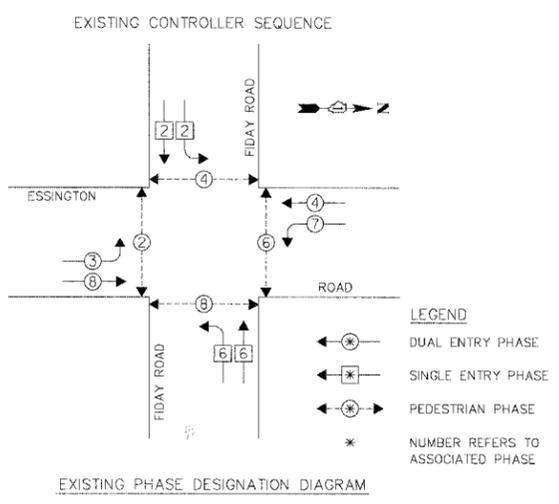
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
TRAFFIC SIGNAL MODERNIZATION PLAN
 ESSINGTON ROAD AT FIDAY ROAD
 JOLIET, ILLINOIS
 SCALE: 1"=20'
 DATE: DECEMBER 7, 2007
 DRAWN BY: LB
 DESIGNED BY: TCM
 CHECKED BY: BLS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	05-00395-00-TL	WILL	31	20
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO: 83992				

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 INSTALLATION
⊖	⊖	VEHICLE DETECTOR, INDUCTION LOOP
⊖	⊖	MAGNETIC DETECTOR
⊖	⊖	EMERGENCY VEHICLE LIGHT DETECTOR
⊖	⊖	CONFIRMATION BEACON
⊖	⊖	PUSHBUTTON DETECTOR
⊖	⊖	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"
H/C	⊖	GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (H), OR CONTROLLER (C)
P	⊖	GROUND ROD AT POST (P) OR MAST ARM POLE (MA)
S	⊖	GROUND ROD AT ELECTRIC SERVICE INSTALLATION
⊖	⊖	RADIO ANTENNA
⊖	⊖	COAXIAL CABLE



RESTORATION OF WORK AREA, RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO 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 SEED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

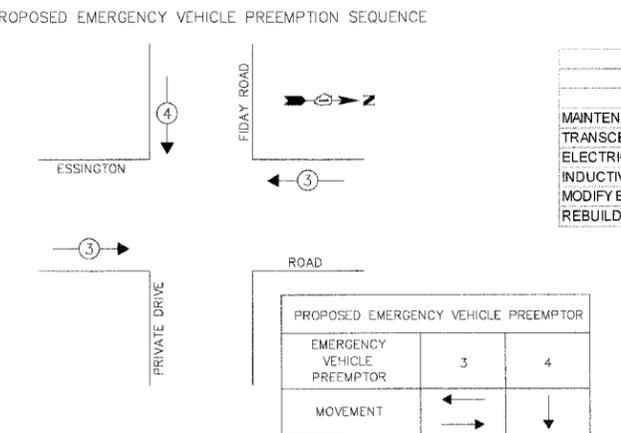
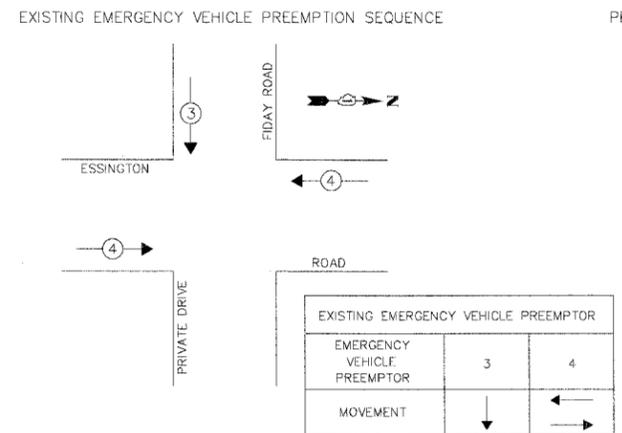
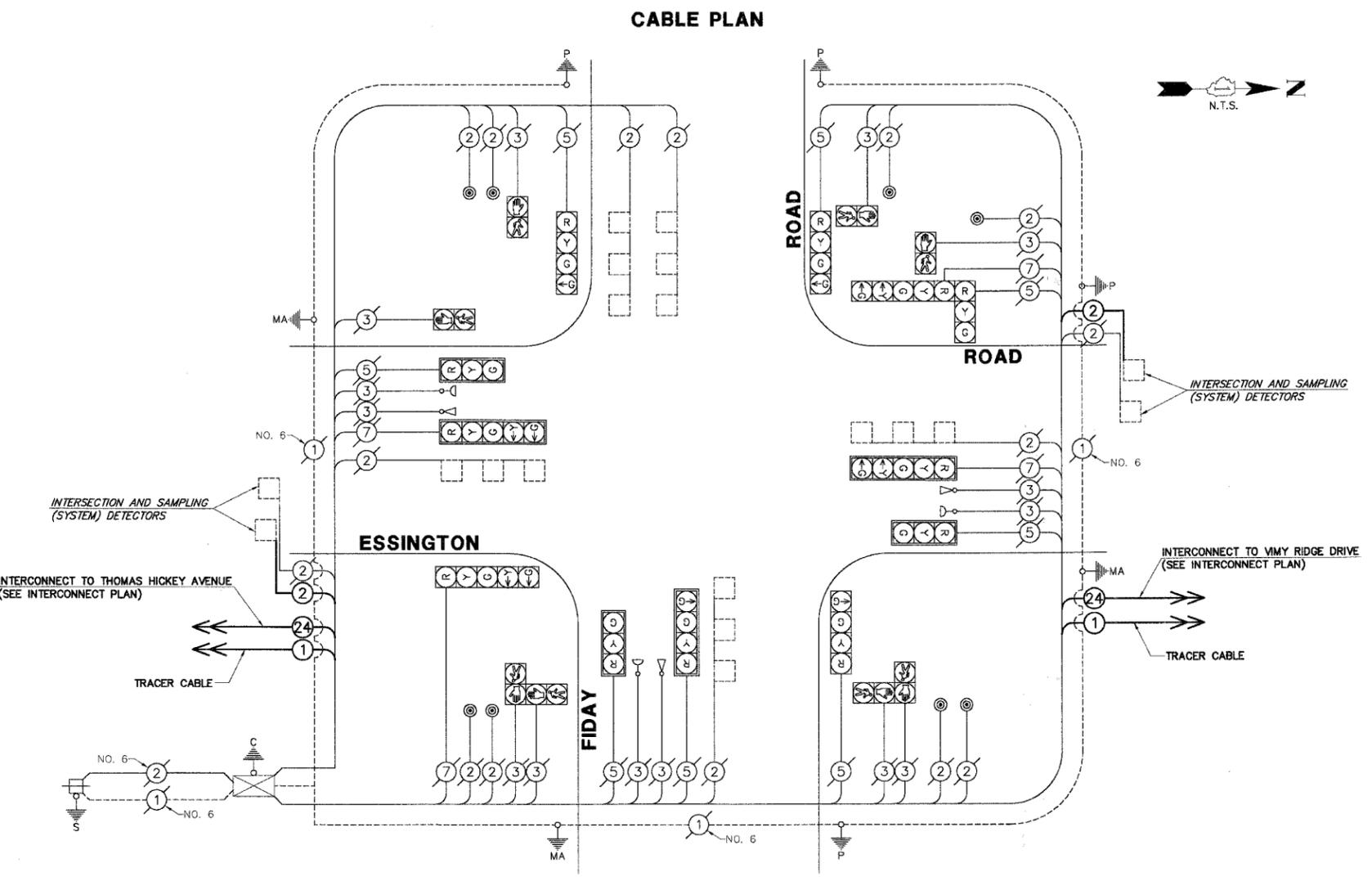
I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. OF LAMPS	WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	12	135	0.50	810.0
(YELLOW)	12	135	0.25	405.0
(GREEN)	12	135	0.25	405.0
ARROW	12	135	0.10	162.0
PED. SIGNAL	8	90	1.00	720.0
CONTROLLER	1	100	1.00	100.0

ENERGY COSTS TO: TOTAL = 2602.0

ILLINOIS DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAY/DISTRICT 1
201 WEST CENTER COURT
SCHAUMBURG, ILLINOIS 60196-1096

ENERGY SUPPLY: CONTACT: BETTY BRULC
PHONE: (815) 724-5052
COMPANY: COMED



ESSINGTON ROAD AT FIDAY ROAD SCHEDULE OF INTERSECTION QUANTITIES

ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRANSCIVER	EACH	1
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	785
INDUCTIVE LOOP DETECTOR	EACH	2
MODIFY EXISTING CONTROLLER	EACH	1
REBUILD EXISTING HANDHOLE TO DOUBLE HANDHOLE	EACH	1

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE."

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 HL-2=
C - M. ARM POLE		SIGNAL POST	2 (1.0)	(6m+L-0.6m)=	
24" (600mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
30" (750mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
36" (900mm)	15 (4.6)	ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
		GROUND CABLE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
				POST MOUNTED	6 (1.8)

PLANS PREPARED BY:
GEWALT HAMILTON ASSOCIATES, INC.
Consulting Engineers & Surveyors
850 Forest Edge Drive
Verona Hills, IL 60061
(815) 478-9700
(815) 478-9701 Fax

REVISIONS

NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN AND PHASE DESIGNATION DIAGRAM

ESSINGTON ROAD AT FIDAY ROAD
JOLIET, ILLINOIS

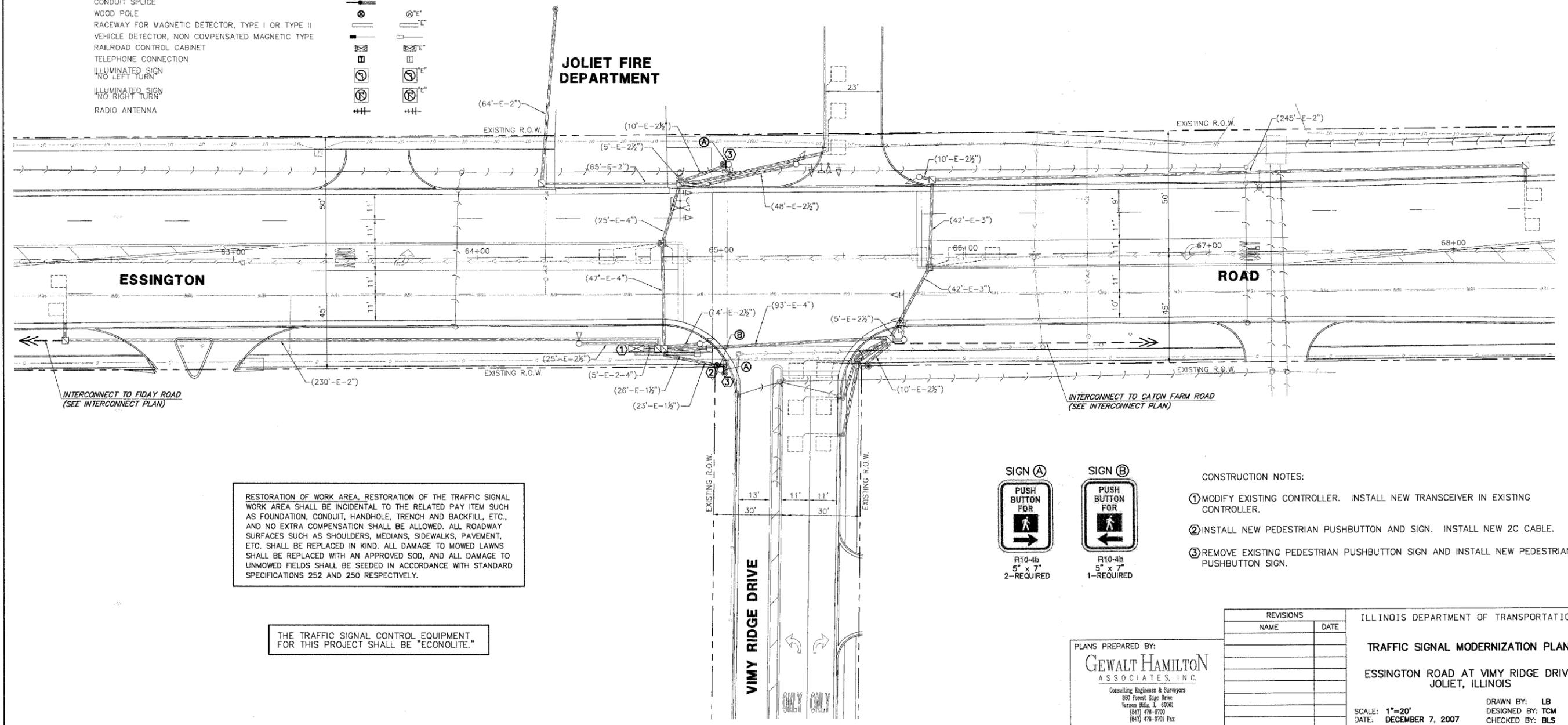
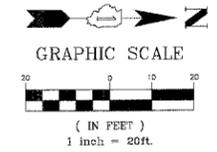
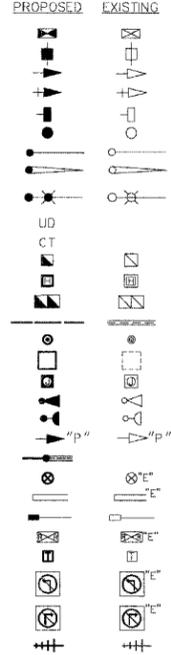
SCALE: N.T.S.
DATE: DECEMBER 7, 2007

DRAWN BY: LB
DESIGNED BY: TCM
CHECKED BY: BLS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	05-00395-00-TL	WILL	31	21
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
CONTRACT NO: 83992				

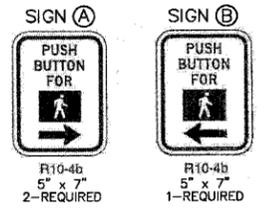
TRAFFIC SIGNAL LEGEND

- CONTROLLER
- SERVICE INSTALLATION
- SIGNAL HEAD
- SIGNAL HEAD WITH BACKPLATE
- SIGNAL HEAD, PEDESTRIAN
- SIGNAL POST
- MAST ARM ASSEMBLY AND POLE, STEEL
- MAST ARM ASSEMBLY AND POLE, ALUMINUM
- COMBINATION MAST ARM ASSEMBLY AND POLE, STEEL WITH LUMINAIRE
- UNIT DUCT
- COMMON TRENCH
- HANDHOLE
- HEAVY DUTY HANDHOLE
- DOUBLE HANDHOLE
- G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)
- PEDESTRIAN PUSHBUTTON DETECTOR
- DETECTOR LOOP
- CAST IRON JUNCTION BOX
- EMERGENCY VEHICLE LIGHT DETECTOR
- CONFIRMATION BEACON
- SIGNAL HEAD OPTICALLY PROGRAMMED
- CONDUIT SPLICE
- WOOD POLE
- RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II
- VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE
- RAILROAD CONTROL CABINET
- TELEPHONE CONNECTION
- ILLUMINATED SIGN
- NO LEFT TURN
- ILLUMINATED SIGN
- NO RIGHT TURN
- RADIO ANTENNA



RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO 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 SEEDING IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE."



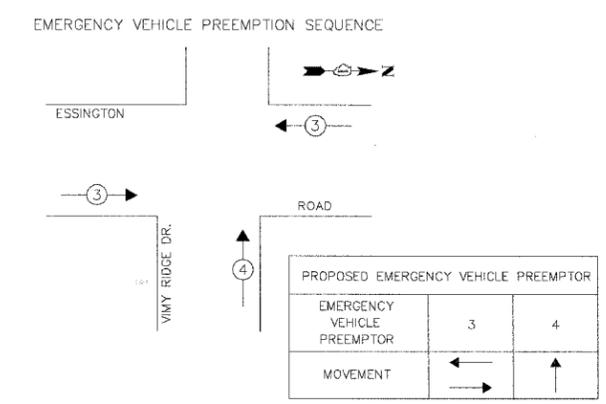
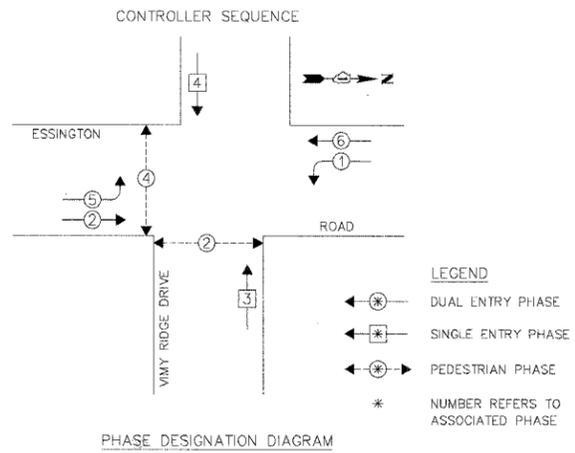
- CONSTRUCTION NOTES:
- ① MODIFY EXISTING CONTROLLER. INSTALL NEW TRANSCEIVER IN EXISTING CONTROLLER.
 - ② INSTALL NEW PEDESTRIAN PUSHBUTTON AND SIGN. INSTALL NEW 2C CABLE.
 - ③ REMOVE EXISTING PEDESTRIAN PUSHBUTTON SIGN AND INSTALL NEW PEDESTRIAN PUSHBUTTON SIGN.

PLANS PREPARED BY:
GEWALT HAMILTON ASSOCIATES, INC.
 Consulting Engineers & Surveyors
 850 Forest Edge Drive
 Vernon Hills, IL 60061
 (847) 478-9700
 (847) 478-9701 Fax

REVISIONS	
NAME	DATE

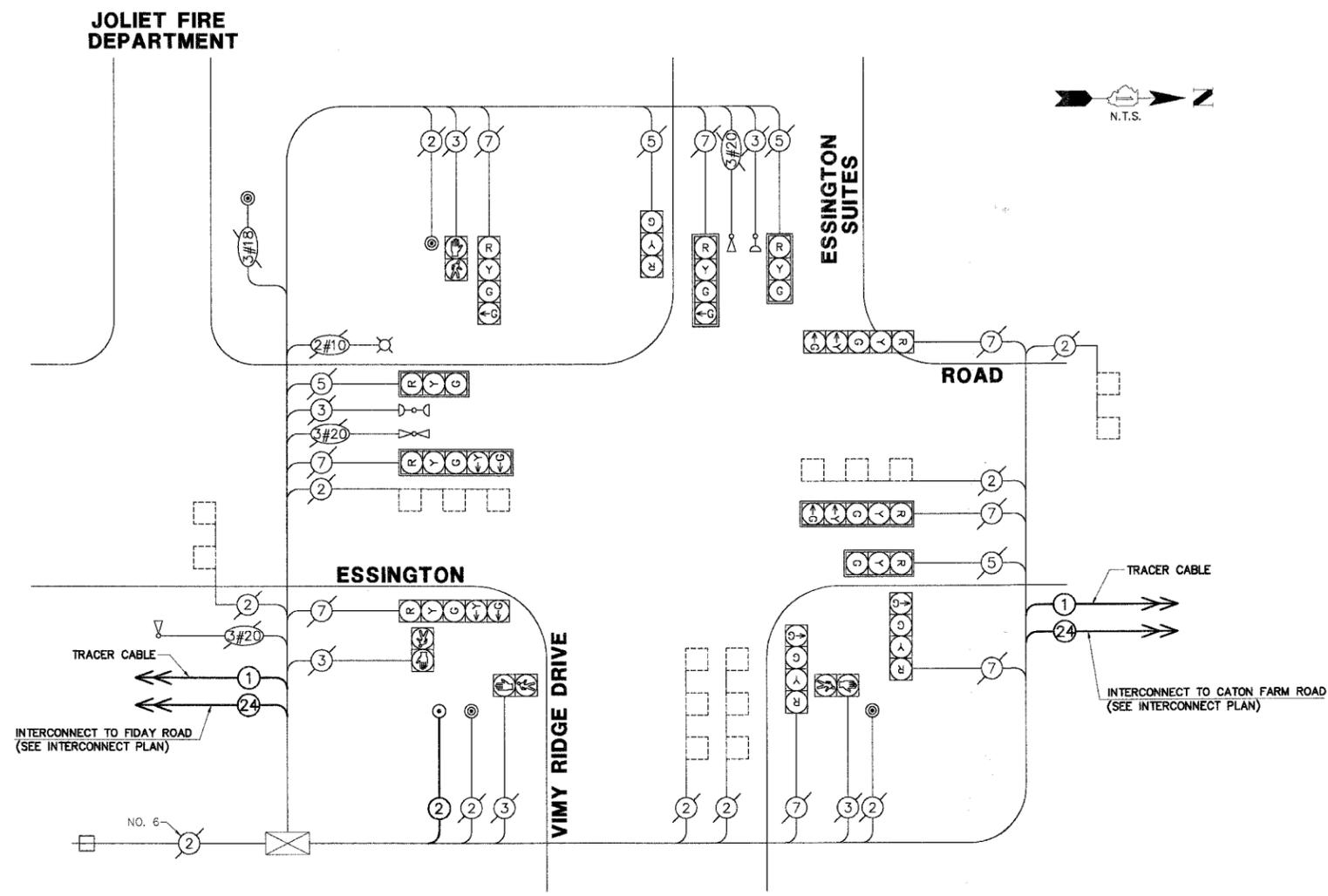
ILLINOIS DEPARTMENT OF TRANSPORTATION
TRAFFIC SIGNAL MODERNIZATION PLAN
 ESSINGTON ROAD AT VIMY RIDGE DRIVE
 JOLIET, ILLINOIS
 SCALE: 1"=20'
 DATE: DECEMBER 7, 2007
 DRAWN BY: LB
 DESIGNED BY: TCM
 CHECKED BY: BLS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	05-00395-00-TL	WILL	31	22
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
CONTRACT NO: 83992				



RESTORATION OF WORK AREA, RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO 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.

CABLE PLAN



CABLE PLAN LEGEND

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

ESSINGTON ROAD AT VIMY RIDGE DRIVE SCHEDULE OF INTERSECTION QUANTITIES

ITEM	UNIT	QUANTITY
SIGN PANEL - TYPE I	SQ FT	0.73
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRANSCEIVER	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	52
PEDESTRIAN PUSHBUTTON	EACH	1
MODIFY EXISTING CONTROLLER	EACH	1

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

TYPE	NO. OF LAMPS	WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	12	135	0.50	810.0
(YELLOW)	12	135	0.25	405.0
(GREEN)	12	135	0.25	405.0
ARROW	8	135	0.10	108.0
PED. SIGNAL	4	90	1.00	360.0
CONTROLLER	1	100	1.00	100.0

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE."

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+L-2=
C - M. ARM POLE		SIGNAL POST	2 (1.0)		(6m+L-0.6m)=
24" (600mm)	10 (3.0)	CONTROLLER CAB.	1 (0.3)	BRACKET MOUNTED	13 (4.0)
30" (750mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
36" (900mm)	15 (4.6)	ELECTRIC SERVICE	1 (0.3)	ELECTRIC SERVICE	13.5 (4.1)
		GROUND CABLE	1 (0.3)	SERVICE TO GROUND	13.5 (4.1)
				POST MOUNTED	6 (1.8)

ENERGY COSTS TO: TOTAL = 2188.0

ILLINOIS DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAY/DISTRICT 1
 201 WEST CENTER COURT
 SCHAUMBURG, ILLINOIS 60196-1096

ENERGY SUPPLY: CONTACT: BETTY BRULC
 PHONE: (815) 724-5052
 COMPANY: COMED

PLANS PREPARED BY:
GEWALT HAMILTON ASSOCIATES, INC.
 Consulting Engineers & Surveyors
 850 Forest Edge Drive
 Vershire, Vt. 05681
 (847) 478-9700
 (847) 478-9702 Fax

REVISIONS

NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN AND PHASE DESIGNATION DIAGRAM

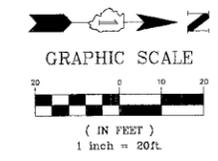
ESSINGTON ROAD AT VIMY RIDGE DRIVE JOLIET, ILLINOIS

SCALE: N.T.S. DRAWN BY: LB
 DATE: DECEMBER 7, 2007 DESIGNED BY: TCM
 CHECKED BY: BLS

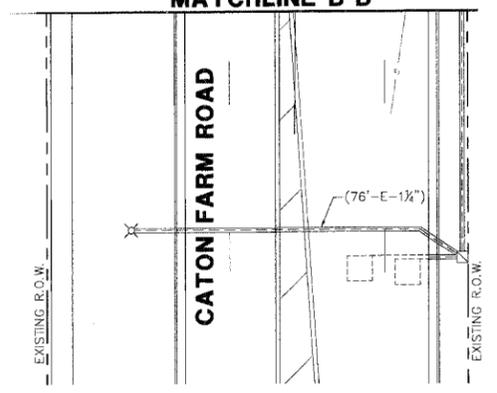
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	05-00395-00-TL	WILL	31	23
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO: 83992				

TRAFFIC SIGNAL LEGEND

CONTROLLER	PROPOSED	EXISTING
SERVICE INSTALLATION		
SIGNAL HEAD		
SIGNAL HEAD WITH BACKPLATE		
SIGNAL HEAD, PEDESTRIAN		
SIGNAL POST		
MAST ARM ASSEMBLY AND POLE, STEEL		
MAST ARM ASSEMBLY AND POLE, ALUMINUM		
COMBINATION MAST ARM ASSEMBLY AND POLE, STEEL WITH LUMINAIRE		
UNIT DUCT		
COMMON TRENCH		
HANDHOLE		
HEAVY DUTY HANDHOLE		
DOUBLE HANDHOLE		
G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)		
PEDESTRIAN PUSHBUTTON DETECTOR		
DETECTOR LOOP		
CAST IRON JUNCTION BOX		
EMERGENCY VEHICLE LIGHT DETECTOR		
CONFIRMATION BEACON		
SIGNAL HEAD OPTICALLY PROGRAMMED		
CONDUIT SPLICE		
WOOD POLE		
RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II		
VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE		
RAILROAD CONTROL CABINET		
TELEPHONE CONNECTION		
ILLUMINATED SIGN "NO LEFT TURN"		
ILLUMINATED SIGN "NO RIGHT TURN"		
RADIO ANTENNA		

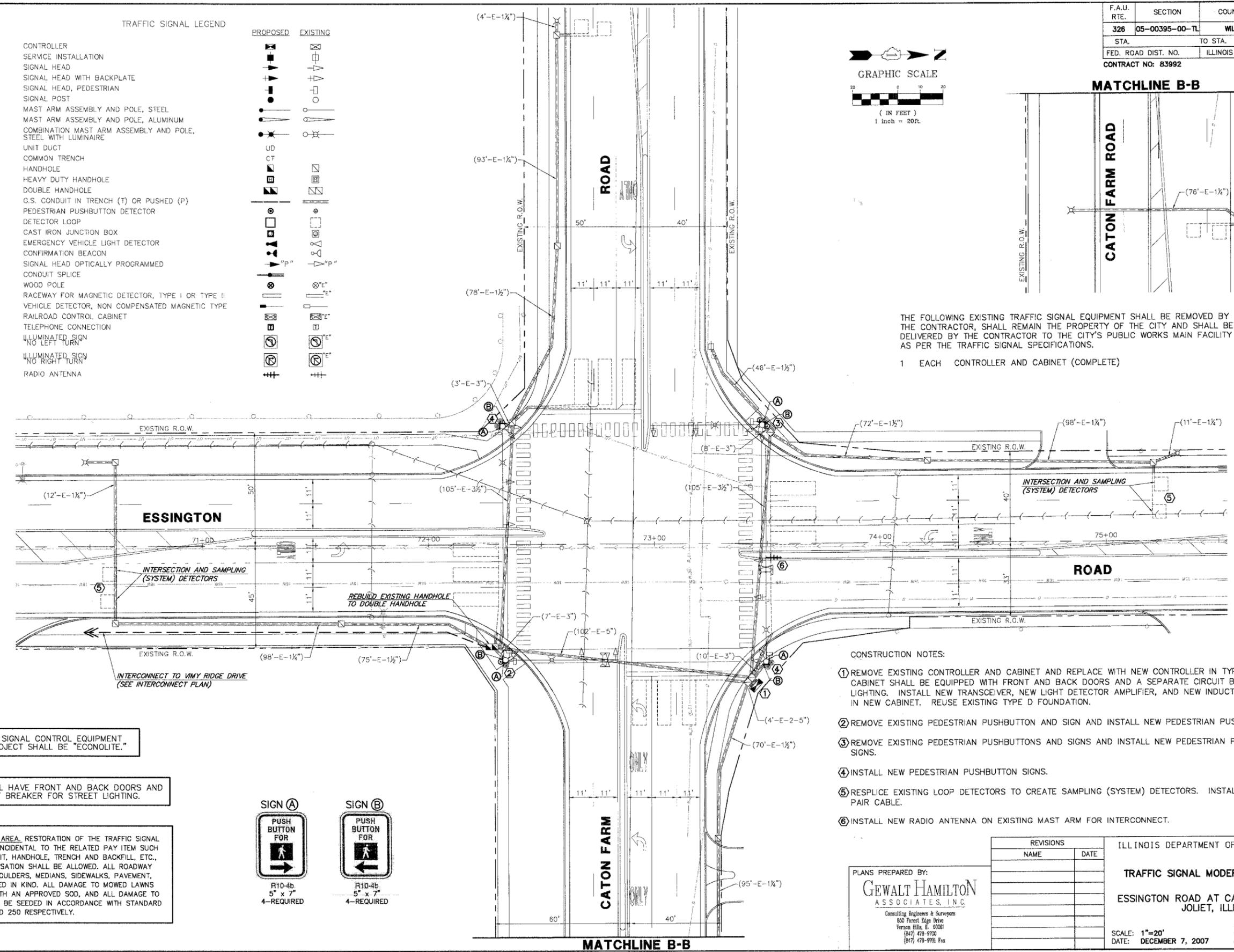


MATCHLINE B-B



THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE CITY AND SHALL BE DELIVERED BY THE CONTRACTOR TO THE CITY'S PUBLIC WORKS MAIN FACILITY AS PER THE TRAFFIC SIGNAL SPECIFICATIONS.

- 1 EACH CONTROLLER AND CABINET (COMPLETE)



INTERSECTION AND SAMPLING (SYSTEM) DETECTORS

CONSTRUCTION NOTES:

- REMOVE EXISTING CONTROLLER AND CABINET AND REPLACE WITH NEW CONTROLLER IN TYPE IV CABINET. THE CABINET SHALL BE EQUIPPED WITH FRONT AND BACK DOORS AND A SEPARATE CIRCUIT BREAKER FOR STREET LIGHTING. INSTALL NEW TRANSCEIVER, NEW LIGHT DETECTOR AMPLIFIER, AND NEW INDUCTIVE LOOP DETECTORS IN NEW CABINET. REUSE EXISTING TYPE D FOUNDATION.
- REMOVE EXISTING PEDESTRIAN PUSHBUTTON AND SIGN AND INSTALL NEW PEDESTRIAN PUSHBUTTON AND SIGN.
- REMOVE EXISTING PEDESTRIAN PUSHBUTTONS AND SIGNS AND INSTALL NEW PEDESTRIAN PUSHBUTTONS AND SIGNS.
- INSTALL NEW PEDESTRIAN PUSHBUTTON SIGNS.
- RESPICE EXISTING LOOP DETECTORS TO CREATE SAMPLING (SYSTEM) DETECTORS. INSTALL NEW NO. 14, PAIR CABLE.
- INSTALL NEW RADIO ANTENNA ON EXISTING MAST ARM FOR INTERCONNECT.

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE."

NEW CABINETS SHALL HAVE FRONT AND BACK DOORS AND A SEPARATE CIRCUIT BREAKER FOR STREET LIGHTING.

RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO 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 SEEDD IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.



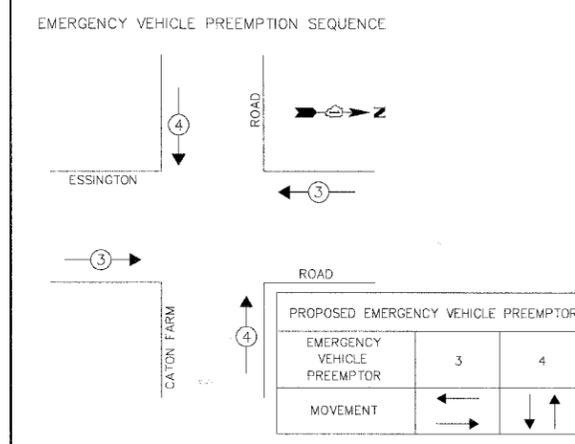
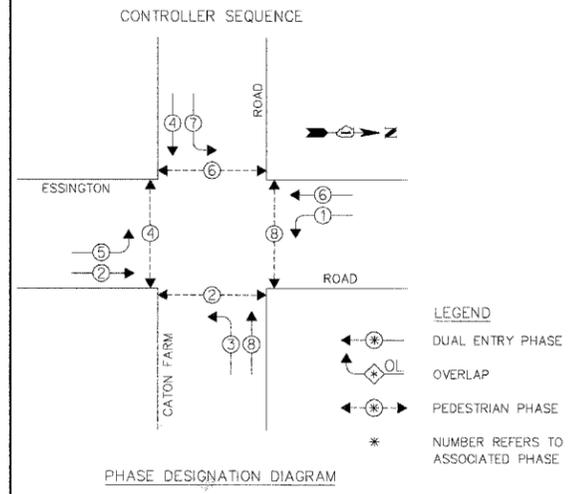
PLANS PREPARED BY:
GEWALT HAMILTON ASSOCIATES, INC.
 Consulting Engineers & Surveyors
 650 Forest Edge Drive
 Vernon Hills, IL 60061
 (847) 478-9700
 (847) 478-9700 Fax

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
TRAFFIC SIGNAL MODERNIZATION PLAN
 ESSINGTON ROAD AT CATON FARM ROAD
 JOLIET, ILLINOIS
 SCALE: 1"=20'
 DATE: DECEMBER 7, 2007
 DRAWN BY: LB
 DESIGNED BY: TCM
 CHECKED BY: BLS

MATCHLINE B-B

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	05-00395-00-TL	WLL	31	24
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO: 83992				



RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO 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 SEEDING IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE INCAND.	LED	% OPERATION	
SIGNAL (RED)	16	135		0.50	1080.0
(YELLOW)	16	135		0.25	540.0
(GREEN)	16	135		0.25	540.0
ARROW	16	135		0.10	216.0
PED. SIGNAL	8	90		1.00	720.0
CONTROLLER	1	100		1.00	100.0
TOTAL =					3196.0

ENERGY COSTS TO: TOTAL = 3196.0

ILLINOIS DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAY/DISTRICT 1
 201 WEST CENTER COURT
 SCHAUMBURG, ILLINOIS 60196-1096

ENERGY SUPPLY: CONTACT: BETTY BRULC
 PHONE: (815) 724-5052
 COMPANY: 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)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20' L-2 =
C - M. ARM POLE		SIGNAL POST	2 (1.0)	(6m+L-0.6m) =	
24" (600mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
30" (750mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
36" (900mm)	15 (4.6)	ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
		GROUND CABLE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
				POST MOUNTED	6 (1.8)

INTERSECTION AND SAMPLING (SYSTEM) DETECTORS

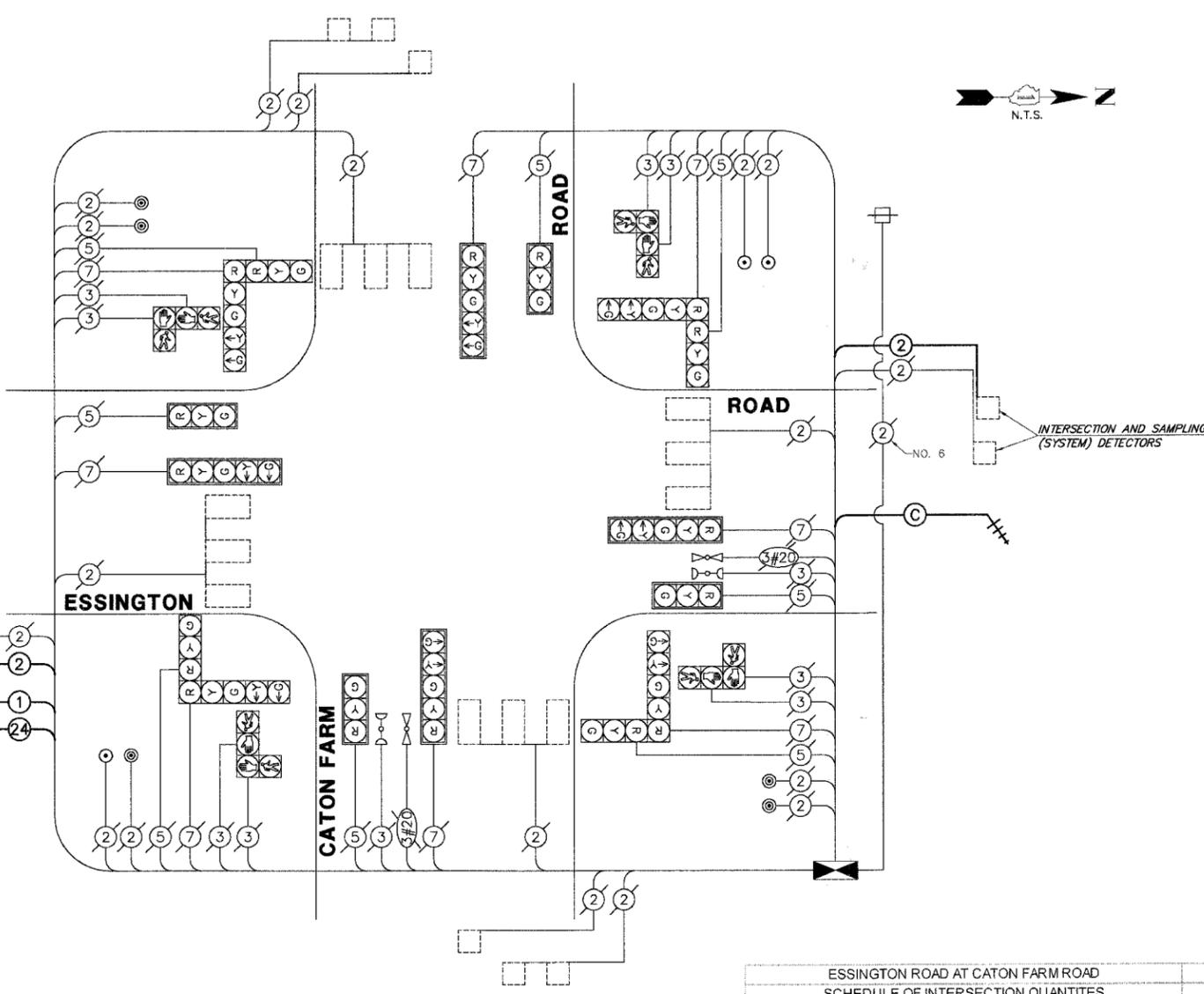
TRACER CABLE

INTERCONNECT TO VMY RIDGE DRIVE (SEE INTERCONNECT PLAN)

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE."

NEW CABINETS SHALL HAVE FRONT AND BACK DOORS AND A SEPARATE CIRCUIT BREAKER FOR STREET LIGHTING.

CABLE PLAN



ESSINGTON ROAD AT CATON FARM ROAD SCHEDULE OF INTERSECTION QUANTITIES		
ITEM	UNIT	QUANTITY
SIGN PANEL - TYPE I	SQ FT	1.94
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1
TRANSCEIVER	EACH	1
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	639
ELECTRIC CABLE IN CONDUIT, COAXIAL	FOOT	101
INDUCTIVE LOOP DETECTOR	EACH	10
LIGHT DETECTOR AMPLIFIER	EACH	1
PEDESTRIAN PUSHBUTTON	EACH	3
MODIFY EXISTING CONTROLLER	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REBUILD EXISTING HANDHOLE TO DOUBLE HANDHOLE	EACH	1

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 INSTALLATION
⊖	⊖	VEHICLE DETECTOR, INDUCTION LOOP
⊖	⊖	MAGNETIC DETECTOR
⊖	⊖	EMERGENCY VEHICLE LIGHT DETECTOR
⊖	⊖	CONFIRMATION BEACON
⊖	⊖	PUSHBUTTON DETECTOR
⊖	⊖	⊖ 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"
H/C	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
++	++	RADIO ANTENNA
⊖	⊖	⊖ COAXIAL CABLE

PLANS PREPARED BY:
GEWALT HAMILTON ASSOCIATES, INC.
 Consulting Engineers & Surveyors
 800 Forest Edge Drive
 Vernon Hills, IL 60061
 (815) 478-9700
 (815) 478-9701 Fax

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN AND PHASE DESIGNATION DIAGRAM

ESSINGTON ROAD AT CATON FARM ROAD
 JOLIET, ILLINOIS

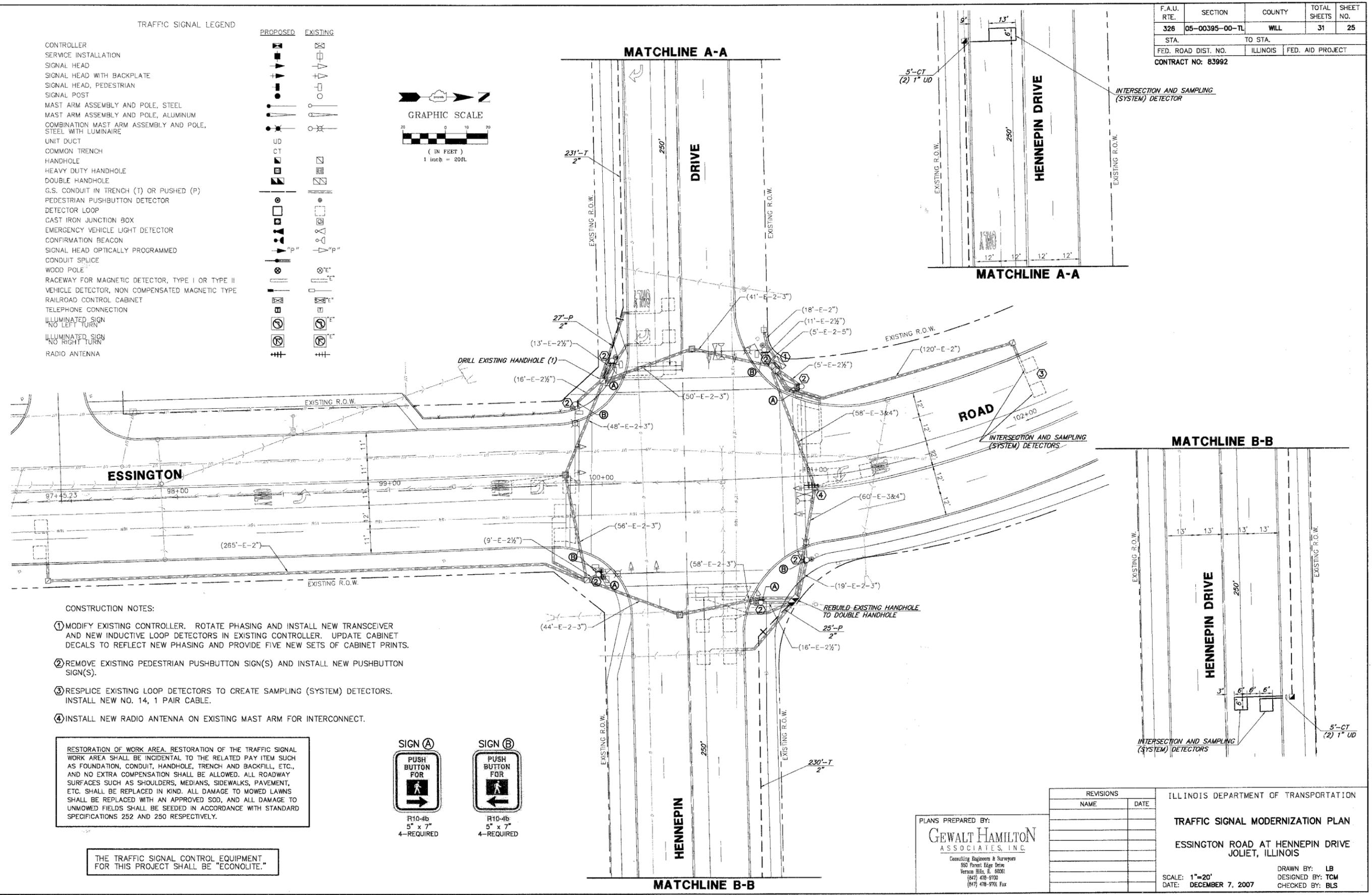
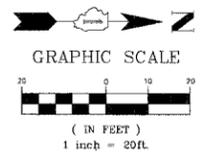
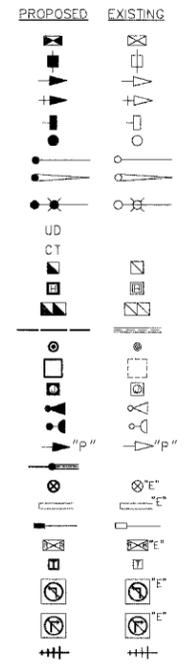
SCALE: N.T.S.
 DATE: DECEMBER 7, 2007

DRAWN BY: LB
 DESIGNED BY: TOM
 CHECKED BY: BLS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	05-00395-00-TL	WILL	31	25
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO: 83992				

TRAFFIC SIGNAL LEGEND

- CONTROLLER
- SERVICE INSTALLATION
- SIGNAL HEAD
- SIGNAL HEAD WITH BACKPLATE
- SIGNAL HEAD, PEDESTRIAN
- SIGNAL POST
- MAST ARM ASSEMBLY AND POLE, STEEL
- MAST ARM ASSEMBLY AND POLE, ALUMINUM
- COMBINATION MAST ARM ASSEMBLY AND POLE, STEEL WITH LUMINAIRE
- UNIT DUCT
- COMMON TRENCH
- HANDHOLE
- HEAVY DUTY HANDHOLE
- DOUBLE HANDHOLE
- G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)
- PEDESTRIAN PUSHBUTTON DETECTOR
- DETECTOR LOOP
- CAST IRON JUNCTION BOX
- EMERGENCY VEHICLE LIGHT DETECTOR
- CONFIRMATION BEACON
- SIGNAL HEAD OPTICALLY PROGRAMMED
- CONDUIT SPLICE
- WOOD POLE
- RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II
- VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE
- RAILROAD CONTROL CABINET
- TELEPHONE CONNECTION
- ILLUMINATED SIGN "NO LEFT TURN"
- ILLUMINATED SIGN "NO RIGHT TURN"
- RADIO ANTENNA



CONSTRUCTION NOTES:

- 1) MODIFY EXISTING CONTROLLER. ROTATE PHASING AND INSTALL NEW TRANSCEIVER AND NEW INDUCTIVE LOOP DETECTORS IN EXISTING CONTROLLER. UPDATE CABINET DECALS TO REFLECT NEW PHASING AND PROVIDE FIVE NEW SETS OF CABINET PRINTS.
- 2) REMOVE EXISTING PEDESTRIAN PUSHBUTTON SIGN(S) AND INSTALL NEW PUSHBUTTON SIGN(S).
- 3) RESPLICE EXISTING LOOP DETECTORS TO CREATE SAMPLING (SYSTEM) DETECTORS. INSTALL NEW NO. 14, 1 PAIR CABLE.
- 4) INSTALL NEW RADIO ANTENNA ON EXISTING MAST ARM FOR INTERCONNECT.

RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO 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.

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE."

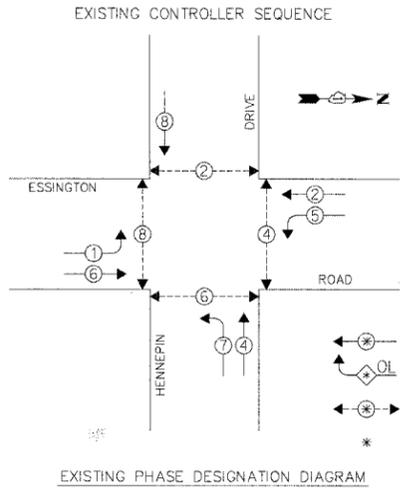


PLANS PREPARED BY:
GEWALT HAMILTON ASSOCIATES, INC.
 Consulting Engineers & Surveyors
 850 Forest Edge Drive
 Vernon Hills, IL 60061
 (847) 478-9700
 (847) 478-9701, Fax

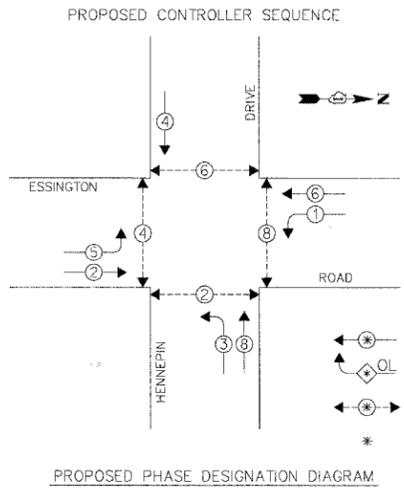
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
TRAFFIC SIGNAL MODERNIZATION PLAN
 ESSINGTON ROAD AT HENNEPIN DRIVE
 JOLIET, ILLINOIS
 SCALE: 1"=20'
 DATE: DECEMBER 7, 2007
 DRAWN BY: LB
 DESIGNED BY: TCM
 CHECKED BY: BLS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	05-00395-00-TL	WILL	31	26
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
CONTRACT NO: 83992				



EXISTING PHASE DESIGNATION DIAGRAM

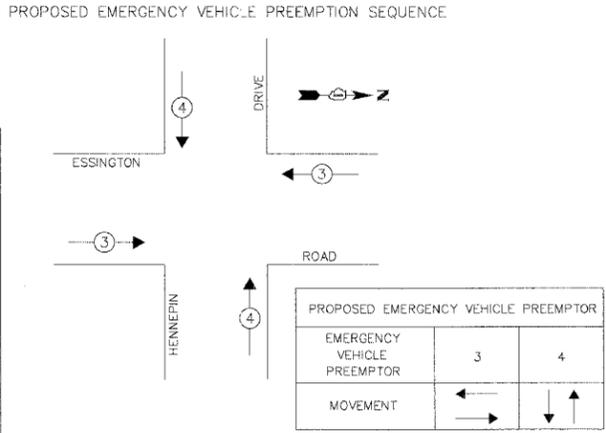


PROPOSED PHASE DESIGNATION DIAGRAM

RESTORATION OF WORK AREA, RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO 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 SEED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

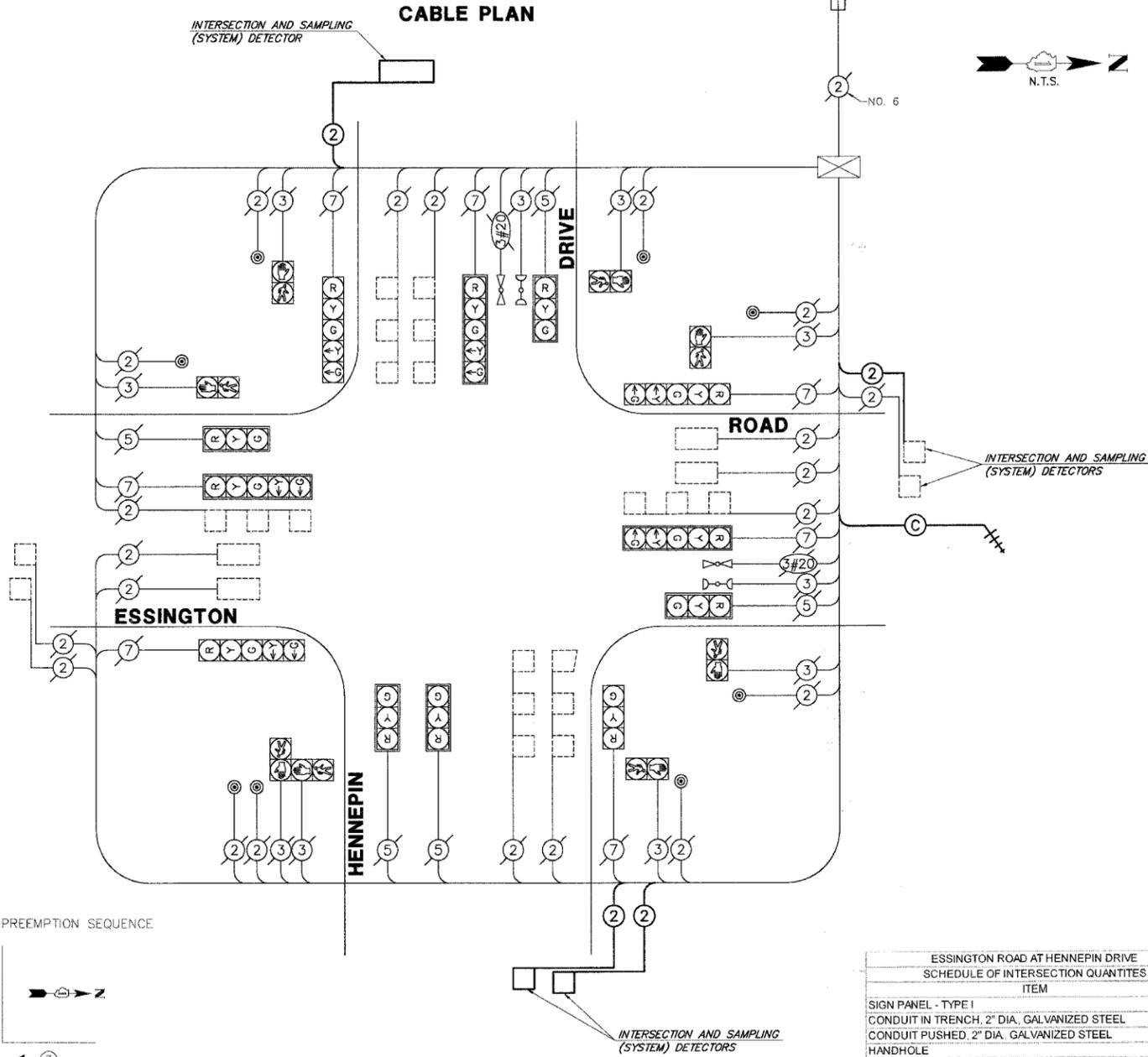
I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE x INCAND.	LED	% OPERATION	
SIGNAL (RED)	12	135		0.50	810.0
(YELLOW)	12	135		0.25	405.0
(GREEN)	12	135		0.25	405.0
ARROW	12	135		0.10	162.0
PED. SIGNAL	8	90		1.00	720.0
CONTROLLER	1	100		1.00	100.0
TOTAL =					2602.0

ENERGY COSTS TO: TOTAL = 2602.0
ILLINOIS DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAY/DISTRICT 1
 201 WEST CENTER COURT
 SCHAMBURG, ILLINOIS 60196-1096
 ENERGY SUPPLY: CONTACT: BETTY BRULC
 PHONE: (815) 724-5052
 COMPANY: 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)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'L-2"=
C - M. ARM POLE		SIGNAL POST	2 (1.0)	(6m+L-0.6m)=	
24" (600mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
30" (750mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
36" (900mm)	15 (4.6)	ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
		GROUND CABLE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
				POST MOUNTED	6 (1.8)

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE."



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 INSTALLATION
⊖	⊖	VEHICLE DETECTOR, INDUCTION LOOP
⊖	⊖	MAGNETIC DETECTOR
⊖	⊖	EMERGENCY VEHICLE LIGHT DETECTOR
⊖	⊖	CONFIRMATION BEACON
⊖	⊖	PUSHBUTTON DETECTOR
⊖	⊖	⊖ 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"
H/C	⊖	⊖ GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (H), OR CONTROLLER (C)
P	⊖	⊖ GROUND ROD AT POST (P) OR MAST ARM POLE (MA)
S	⊖	⊖ GROUND ROD AT ELECTRIC SERVICE INSTALLATION
⊖	⊖	⊖ RADIO ANTENNA
⊖	⊖	⊖ COAXIAL CABLE

ESSINGTON ROAD AT HENNEPIN DRIVE SCHEDULE OF INTERSECTION QUANTITIES		
ITEM	UNIT	QUANTITY
SIGN PANEL - TYPE I	SQ. FT.	194
CONDUIT IN TRENCH, 2" DIA. GALVANIZED STEEL	FOOT	461
CONDUIT PUSHED, 2" DIA. GALVANIZED STEEL	FOOT	52
HANDHOLE	EACH	2
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	461
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRANSCEIVER	EACH	1
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	1366
ELECTRIC CABLE IN CONDUIT, COAXIAL	FOOT	230
DRILL EXISTING HANDHOLE	EACH	2
INDUCTIVE LOOP DETECTOR	EACH	4
DETECTOR LOOP, TYPE I	FOOT	113
MODIFY EXISTING CONTROLLER	EACH	1
REBUILD EXISTING HANDHOLE TO DOUBLE HANDHOLE	EACH	1

PLANS PREPARED BY:
GEWALT HAMILTON ASSOCIATES, INC.
 Consulting Engineers & Surveyors
 650 Forest Edge Drive
 Vernon Hills, IL 60061
 (847) 478-9700
 (847) 478-9701 Fax

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SCHEDULE OF QUANTITIES, CABLE PLAN AND PHASE DESIGNATION DIAGRAM
 ESSINGTON ROAD AT HENNEPIN DRIVE
 JOLIET, ILLINOIS
 SCALE: N.T.S.
 DATE: DECEMBER 7, 2007
 DRAWN BY: LB
 DESIGNED BY: TCM
 CHECKED BY: BLS

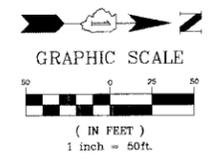
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	05-00395-00-TL	WILL	31	27
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO: 83992

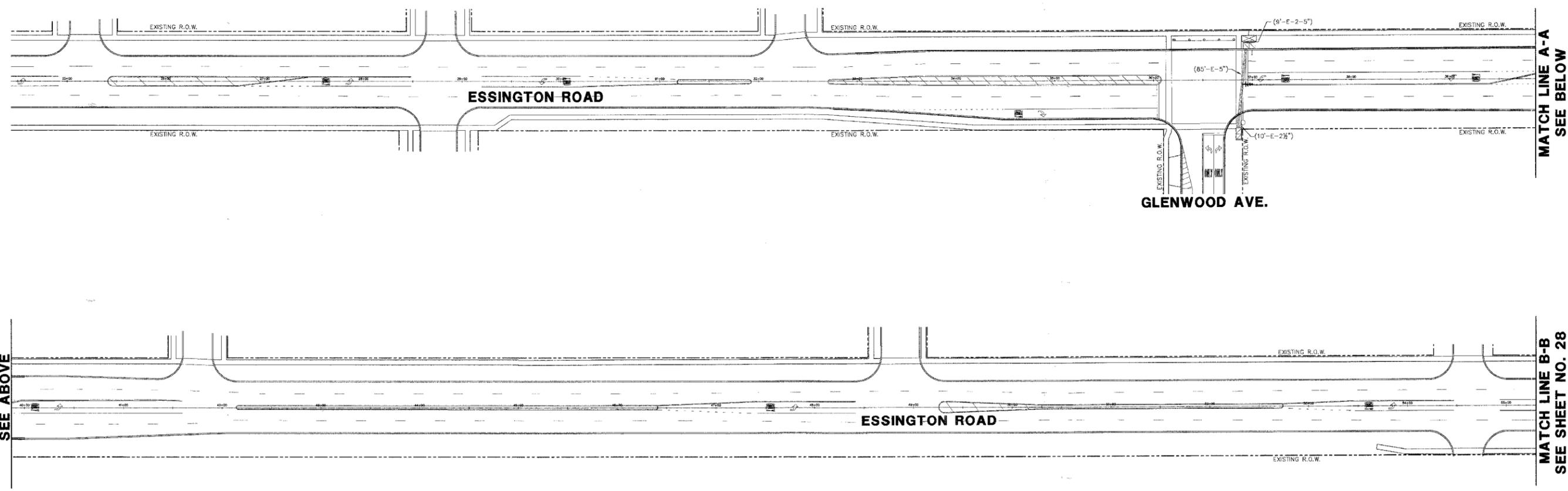
INTERCONNECT PLAN LEGEND

	PROPOSED	EXISTING
CONTROLLER		
HANDHOLE		
DOUBLE HANDHOLE		
HEAVY-DUTY HANDHOLE		
G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)		
DETECTOR LOOP		
UNIT DUCT		
SYSTEM		
INTERSECTION		
RADIO		

RESTORATION OF WORK AREA, RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO 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 IN KIND. ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.



THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE."



MATCH LINE A-A
SEE ABOVE

MATCH LINE A-A
SEE BELOW

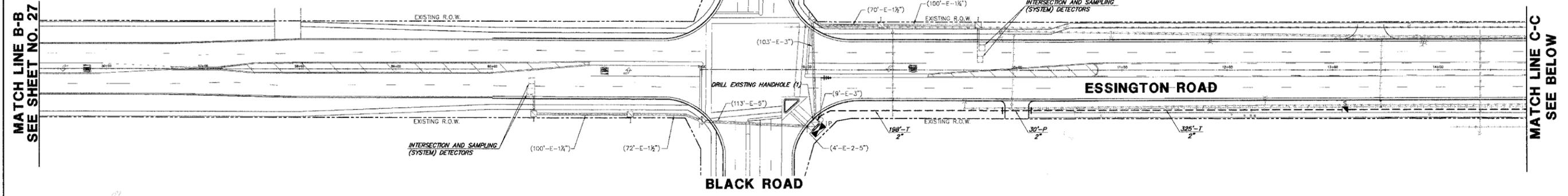
MATCH LINE B-B
SEE SHEET NO. 28

PLANS PREPARED BY:
GEWALT HAMILTON ASSOCIATES, INC.
Consulting Engineers & Surveyors
650 Forest Edge Drive
Vernon Hills, IL 60061
(847) 478-9700
(847) 478-9701 Fax

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
INTERCONNECT PLAN - SHEET 1 OF 4
ESSINGTON ROAD FROM US RTE 52 (JEFFERSON ST.) TO HENNEPIN DRIVE JOLIET, ILLINOIS
SCALE: 1"=50'
DATE: DECEMBER 7, 2007
DRAWN BY: LB
DESIGNED BY: TCM
CHECKED BY: BLS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	05-00395-00-TL	WILL	31	28
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
CONTRACT NO: 83992				

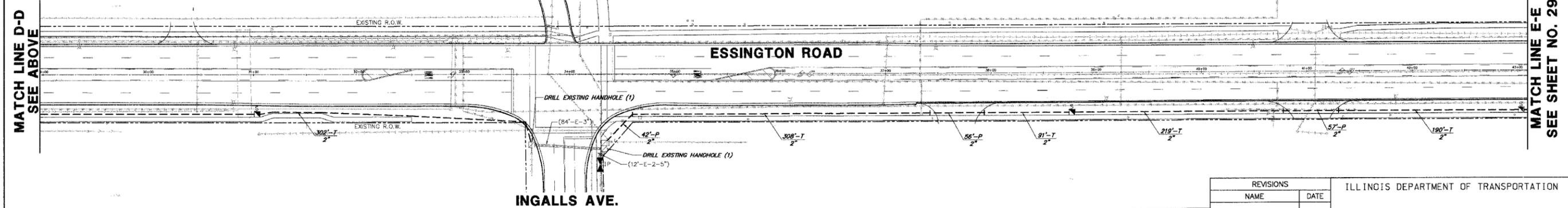
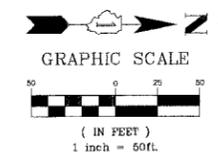


RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL 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.

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE."

INTERCONNECT PLAN LEGEND

	PROPOSED	EXISTING
CONTROLLER	☒	☒
HANDHOLE	■	■
DOUBLE HANDHOLE	▣	▣
HEAVY-DUTY HANDHOLE	■	■
G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)	---	---
DETECTOR LOOP	□	□
UNIT DUCT	UD	
SYSTEM	S	
INTERSECTION	IP	I
RADIO	+++	



PLANS PREPARED BY:
GEWALT HAMILTON ASSOCIATES, INC.
 Consulting Engineers & Surveyors
 850 Forest Edge Drive
 Verona Hills, IL 60081
 (847) 478-9700
 (847) 478-9701 Fax

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
INTERCONNECT PLAN - SHEET 2 OF 4
 ESSINGTON ROAD FROM US RTE 52 (JEFFERSON ST.) TO HENNEPIN DRIVE JOLIET, ILLINOIS
 SCALE: 1"=50'
 DATE: DECEMBER 7, 2007
 DRAWN BY: LB
 DESIGNED BY: TCM
 CHECKED BY: BLS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	05-00395-00-TL	WILL	31	29
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
CONTRACT NO: 83992				

MATCH LINE E-E
SEE SHEET NO. 28

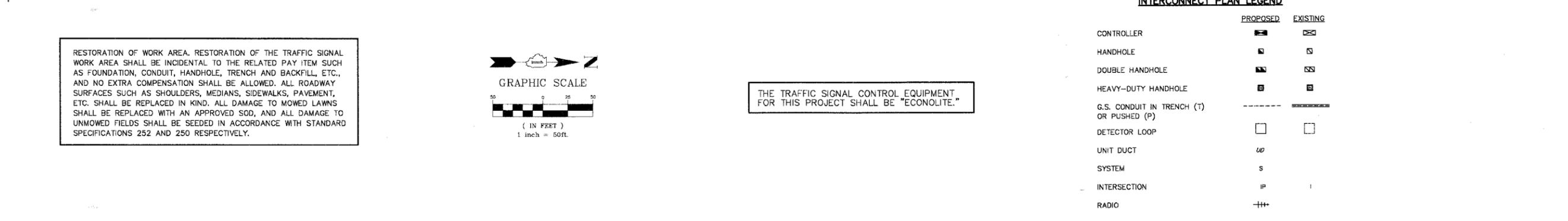
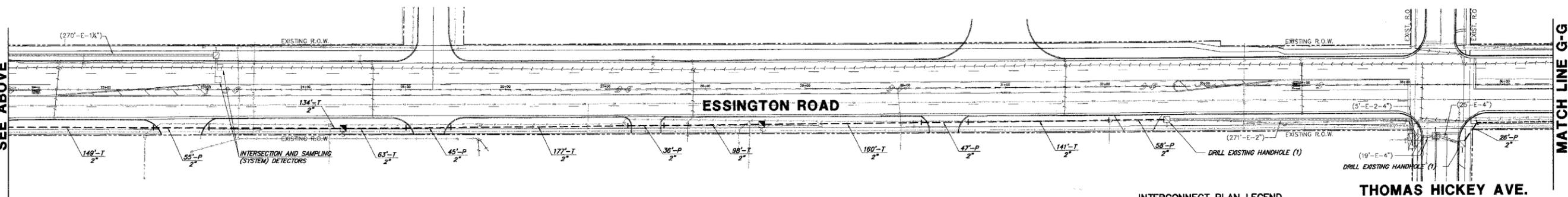
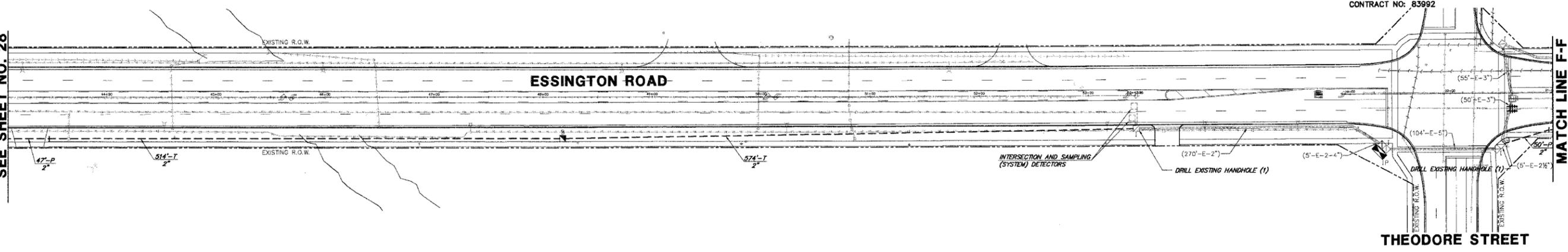
MATCH LINE F-F
SEE BELOW

MATCH LINE F-F
SEE ABOVE

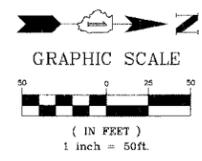
MATCH LINE G-G
SEE BELOW

MATCH LINE G-G
SEE ABOVE

MATCH LINE H-H
SEE SHEET NO. 30



RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO 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.



THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE."

INTERCONNECT PLAN LEGEND

	PROPOSED	EXISTING
CONTROLLER		
HANDHOLE		
DOUBLE HANDHOLE		
HEAVY-DUTY HANDHOLE		
G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)		
DETECTOR LOOP		
UNIT DUCT		
SYSTEM		
INTERSECTION		
RADIO		

PLANS PREPARED BY:
GEWALT HAMILTON ASSOCIATES, INC.
Consulting Engineers & Surveyors
450 Forest Edge Drive
Vernon Hills, IL 60061
(847) 478-9700
(847) 478-9701 Fax

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
INTERCONNECT PLAN - SHEET 3 OF 4
ESSINGTON ROAD FROM US RTE 52 (JEFFERSON ST.) TO HENNEPIN DRIVE JOLIET, ILLINOIS
SCALE: 1"=50'
DATE: DECEMBER 7, 2007
DRAWN BY: LB
DESIGNED BY: TCM
CHECKED BY: BLS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	05-00395-00-TL	WILL	31	30
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
CONTRACT NO: 83992				

MATCH LINE H-H
SEE SHEET NO. 29

MATCH LINE I-I
SEE BELOW

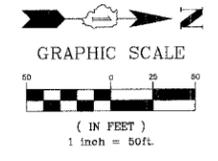
RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL 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.

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE."

INTERCONNECT PLAN LEGEND

	PROPOSED	EXISTING
CONTROLLER		
HANDHOLE		
DOUBLE HANDHOLE		
HEAVY-DUTY HANDHOLE		
G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)		
DETECTOR LOOP		
UNIT DUCT		
SYSTEM		
INTERSECTION		
RADIO		

VIMY RIDGE DR.



MATCH LINE I-I
SEE ABOVE

MATCH LINE J-J
SEE BELOW

CATON FARM RD.

ESSINGTON ROAD

MATCH LINE J-J
SEE ABOVE

MATCH LINE K-K
SEE BELOW

ESSINGTON ROAD

MATCHLINE M-M

HENNEPIN DR.

HENNEPIN DR.

MATCH LINE K-K
SEE ABOVE

ESSINGTON ROAD

MATCHLINE L-L

HENNEPIN DR.

MATCHLINE M-M

PLANS PREPARED BY:
GEWALT HAMILTON ASSOCIATES, INC.
Consulting Engineers & Surveyors
850 Forrest Edge Drive
Vernon Hills, IL 60061
(847) 478-9700
(847) 478-9701 Fax

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
INTERCONNECT PLAN - SHEET 4 OF 4
ESSINGTON ROAD FROM US RTE 52 (JEFFERSON ST.) TO HENNEPIN DRIVE JOLIET, ILLINOIS
SCALE: 1"=50'
DATE: DECEMBER 7, 2007
DRAWN BY: LB
DESIGNED BY: TCM
CHECKED BY: BLS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	05-00395-00-TL	WILL	31	31
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
CONTRACT NO: 83992				

INTERCONNECT SCHEMATIC LEGEND

EXISTING INTERSECTION CONTROLLER		PROPOSED SAMPLING (SYSTEM) PREFORMED DETECTORS	
PROPOSED INTERSECTION CONTROLLER		EXISTING FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM12F	
EXISTING MASTER CONTROLLER		PROPOSED FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM12F	
PROPOSED MASTER CONTROLLER		EXISTING INTERCONNECT CABLE - NO. 62.5/125 12F FIBER OPTIC CABLE	
MASTER MASTER CONTROLLER		PROPOSED FIBER OPTIC CABLE IN CONDUIT, 62.5/125 12F FIBER OPTIC CABLE	
EXISTING INTERSECTION & SAMPLING (SYSTEM) DETECTORS		EXISTING INTERCONNECT CABLE - NO. 18 3 PAIR TWISTED, SHIELDED	
PROPOSED INTERSECTION & SAMPLING (SYSTEM) DETECTORS		PROPOSED INTERCONNECT CABLE - NO. 18 3 PAIR TWISTED, SHIELDED	
EXISTING INTERSECTION LOOP DETECTORS		EXISTING LOOP DETECTOR CABLE 2/C TWISTED, SHIELDED	
PROPOSED SAMPLING (SYSTEM) DETECTORS		PROPOSED LOOP DETECTOR CABLE 2/C TWISTED, SHIELDED	
EXISTING SAMPLING (SYSTEM) DETECTORS		EXISTING ELECTRIC CABLE, 1/C (AS SPECIFIED)	
PROPOSED SAMPLING (SYSTEM) DETECTORS		PROPOSED ELECTRIC CABLE, 1/C (AS SPECIFIED)	
EXISTING SAMPLING (SYSTEM) DETECTORS, PROPOSED INTERSECTION AND SAMPLING (SYSTEM) DETECTORS		EXISTING TELEPHONE CONNECTION	
EXISTING SAMPLING (SYSTEM) DETECTORS, PROPOSED SAMPLING (SYSTEM) DETECTORS		PROPOSED TELEPHONE CONNECTION	
EXISTING PREFORMED INTERSECTION & SAMPLING (SYSTEM) DETECTORS		PROPOSED RADIO	
PROPOSED PREFORMED INTERSECTION & SAMPLING (SYSTEM) DETECTORS			
EXISTING SAMPLING (SYSTEM) DETECTORS, PROPOSED SAMPLING (SYSTEM) DETECTORS			

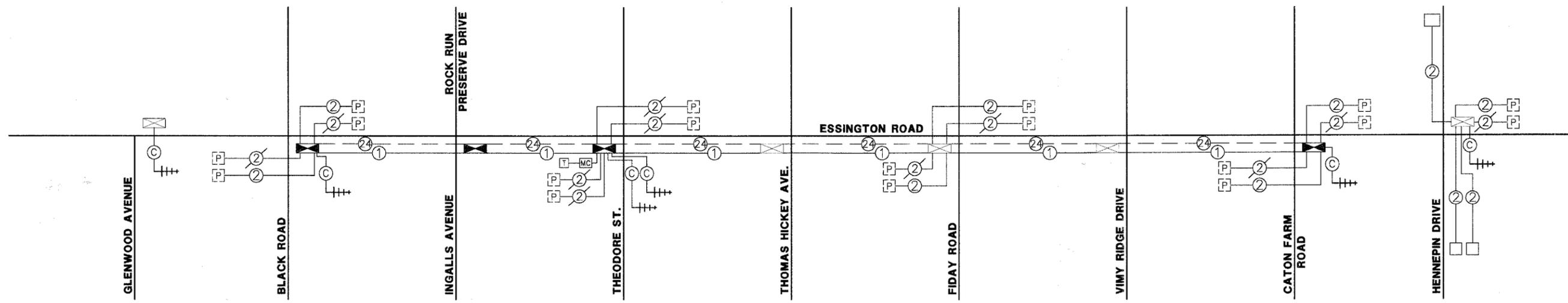


RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL 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.

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE."

NEW CABINETS SHALL HAVE FRONT AND BACK DOORS AND A SEPARATE CIRCUIT BREAKER FOR STREET LIGHTING.

ESSINGTON ROAD SCHEDULE OF INTERCONNECT QUANTITIES		
ITEM	UNIT	QUANTITY
MOBILIZATION	L SUM	1
TRAFFIC CONTROL AND PROTECTION, STANDARD 701501	L SUM	1
TRAFFIC CONTROL AND PROTECTION, STANDARD 701601	L SUM	1
TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1
TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	1
CONDUIT IN TRENCH, 2" DIA, GALVANIZED STEEL	FOOT	7,834
CONDUIT PUSHED, 2" DIA, GALVANIZED STEEL	FOOT	1,052
HANDHOLE	EACH	13
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	7,834
MASTER CONTROLLER (SPECIAL)	EACH	1
ELECTRIC CABLE IN CONDUIT, TRACER NO. 14 1C	FOOT	11,105
FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM12F	FOOT	11,105
DRILL EXISTING HANDHOLE	EACH	9
RADIO INTERCONNECT SYSTEM	EACH	1



PLANS PREPARED BY:
GEWALT HAMILTON ASSOCIATES, INC.
 Consulting Engineers & Surveyors
 850 Forest Edge Drive
 Vernon Hills, IL 60061
 (847) 478-9700
 (847) 478-9701 Fax

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
INTERCONNECT SCHEMATIC AND SCHEDULE OF QUANTITIES
 ESSINGTON ROAD FROM US RTE 52 (JEFFERSON ST.) TO HENNEPIN DRIVE JOLIET, ILLINOIS
 DRAWN BY: LB
 DESIGNED BY: TCM
 CHECKED BY: BLS
 SCALE: N.T.S.
 DATE: DECEMBER 7, 2007