DRILL HOLES

DRILL HOLES

DRILL HOLES

Border Rev. Date: Wave12202407

PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES THE INSTALLATION OF RED LIGHT CAMERA EQUIPMENT TO THE EXISTING TRAFFIC SIGNAL AT THE INTERSECTION OF MD 185 (CONNECTICUT AVE) NB AND MD 547 (KNOWLES AVE).

LANES MONITORED – 1 DEDICATED LEFT, 2 THRU, AND 1 RIGHT/THRU.

INTERSECTION OPERATION

THE INTERSECTION OPERATION WILL REMAIN UNCHANGED.

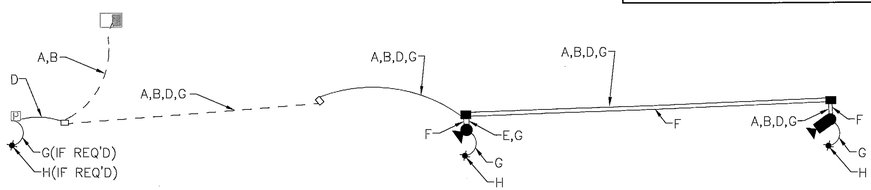
EQUIPMENT LIST

A. EQUIPMENT TO BE SUPPLIED BY THE ADMINISTRATION
NONE

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR.

QUANTITY	UNITS	DESCRIPTION
LUMP SUM	LS	MAINTENANCE OF TRAFFIC
LUMP SUM	LS	MOBILIZATION
2	CY	TEST PIT EXCAVATION
1	EA	RLCS–1 CAMERA ASSEMBLY
2	EA	RLCS–1 FLASH ASSEMBLY
300	LF	2 IN PVC CONDUIT (SCHEDULE 80) – TRENCHED
250	LF	115 V POWER SIGNAL PHASE–7 CONDUCTOR (#14) CABLE (FOR LANE 1 LEFT HAND TURN LANE)
250	LF	115 V POWER SIGNAL PHASE–7 CONDUCTOR (#14) CABLE (FOR LANE THRU LANES)
3	EA	GROUND ROD – 3/4 IN. X 10 FT. LENGTH
275	LF	POWER (3) #10 CONDUCTORS THHN (HOT, NEUTRAL, AND GROUND)
2	EA	SENSYS RECEIVER ASSEMBLY
125	LF	CAT 5e SHIELDED (BELDEN 7919A OR EQ.)
125	LF	CAT 5e SHIELDED (BELDEN 7919A OR EQ.)
125	LF	CAT 5e SHIELDED (BELDEN 7919A OR EQ.)
125	LF	CAT 5e SHIELDED (BELDEN 7919A OR EQ.)
125	LF	115 V POWER 4 CONDUCTOR (#14) CABLE
125	LF	115 V POWER 4 CONDUCTOR (#14) CABLE
300	LF	STRANDED BARE COPPER GROUND WIRE (NO. 6 AWG)

NOTE: ALL CAT 5E CABLE TERMINATIONS WILL REQUIRE SENTINEL 106S08080058C34 ENDS AND A SENTINEL 90007 RATCHET HAND TOOL



WIRING KEY

A 7–CONDUCTOR CABLE (NO. 14 AWG)ALL LANES

B 7–CONDUCTOR CABLE (NO. 14 AWG)LEFT HAND TURN LANE

C COMCAST TO PROVIDE CABLE

D (3) #10 CONDUCTORS THHN (HOT, NEUTRAL, GROUND)

E (2) 4–CONDUCTOR CABLE (NO. 14 AWG)

F (4) CAT 5e SHIELDED (BELDEN 7919a OR EQ.)

G STRANDED BARE COPPER GROUND WIRE (NO. 6 AWG)

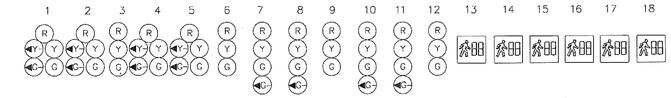
H PROPOSED GROUNDING ROD

NOTE: GROUNDING ROD AND STRANDED BARE COPPER GROUND WIRE (NO. 6 AWG) MAY BE OMITTED AT EXISTING POWER PEDESTAL IF CONTRACTOR CAN VERIFY THAT EXISTING POWER PEDESTAL IS GROUNDED PER SHA STANDARDS.

STATE OF MARYLAND
WAYNE CREE
34236
PROFESSIONAL ENGINEER
Wayne Cree 5/22/12

Red Light Camera
BW313M83
MD 185 @ MD 547 (Knowles Ave.)

PHASE CHART



	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
PHASE 1 & 5	G/R	G/R	R	G/R	G/R	R	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW
CHANGES TO PHASES 1 & 6, 2 & 5 OR 2 & 6																		
PHASE 1 & 6	G/G	G/G	G	R	R	R	R	R	R	R	R	R	DW	WK	WK	DW	DW	DW
1 & 6 CHANGE	Y/G	Y/G	G	R	R	R	R	R	R	R	R	R	DW	WK	WK	DW	DW	DW
PHASE 2 & 5	R	R	R	G/G	G/G	G	R	R	R	R	R	R	WK	DW	DW	WK	DW	DW
2 & 5 CHANGE	R	R	R	Y/G	Y/G	G	R	R	R	R	R	R	WK	DW	DW	WK	DW	DW
PHASE 2 & 6	G	G	G	G	G	G	R	R	R	R	R	R	WK	WK	WK	WK	DW	DW
PED CLEAR / COUNTDOWN	G	G	G	G	G	G	R	R	R	R	R	R	FL/DW	FL/DW	FL/DW	FL/DW	DW	DW
2 & 6 CHANGE	Y	Y	Y	Y	Y	Y	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW
PHASE 3	R	R	R	R	R	R	R	R	R	G/G	G/G	G	DW	DW	DW	DW	DW	DW
3 CHANGE	R	R	R	R	R	R	R	R	R	Y	Y	Y	DW	DW	DW	DW	DW	DW
PHASE 4	R	R	R	R	R	R	G/G	G/G	G	R	R	R	DW	DW	DW	DW	DW	DW
4 CHANGE	R	R	R	R	R	R	Y	Y	Y	R	R	R	DW	DW	DW	DW	DW	DW
PHASE 4 ALT	R	R	R	R	R	R	G/G	G/G	G	R	R	R	DW	DW	DW	DW	WK	WK
PED CLEAR / COUNTDOWN	R	R	R	R	R	R	G/G	G/G	G	R	R	R	DW	DW	DW	DW	FL/DW	FL/DW
4 ALT CHANGE	R	R	R	R	R	R	Y	Y	Y	R	R	R	DW	DW	DW	DW	DW	DW
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	DARK	DARK	DARK	DARK	DARK	DARK

GENERAL NOTES

1. THE CONTRACTOR SHALL VERIFY WITH ACS CONSTRUCTION MANAGER AND SHA INSPECTOR ALL PROPOSED POLE AND CABINET LOCATIONS PRIOR TO INSTALLATION.

2. GEOMETRICS SHALL BE CONFIRMED PRIOR TO THE INSTALLATION OF RED LIGHT EQUIPMENT.

3. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC AND ARE NOT TO BE CONSIDERED COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING ALL UTILITY COMPANIES PRIOR TO CONSTRUCTION SO THAT ALL UTILITIES MAY BE LOCATED IN THE FIELD. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN THE UTILITIES AND THE TRAFFIC EQUIPMENT WILL OCCUR, THE CONTRACTOR SHALL NOTIFY THE APPROPRIATE PROJECT ENGINEER IMMEDIATELY.

4. THE CONTRACTOR IS TO BE AWARE THAT THE SHA HAS EXISTING UNDERGROUND CONDUITS, TRAFFIC SIGNAL INTERCONNECT CABLES AND ROADS SIGN IN THE VICINITY OF PROPOSED EQUIPMENT. ANY DAMAGE TO THESE FACILITY'S AS A RESULT OF THE CONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR OR HIS CLIENT TO REPAIR OR REPLACE.

5. CONTACT MONTGOMERY COUNTY SIGNAL SHOP (301–279–1291) AT LEAST 72 HOURS IN ADVANCE OF PROPOSED WORK TO ARRANGE FOR CABINET WIRING.

   * MONTGOMERY COUNTY ENGINEER – KAMAL HAMUD 240–777–8761
   * MONTGOMERY COUNTY TECHNICIAN SUPERVISOR ROBERT RICKETS 240–876–3681

6. CONTACT SHA TRAFFIC CONTROL DEVICE INSPECTION SECTION AT LEAST 72 HOURS IN ADVANCE OF ANY WORK TO ARRANGE FOR INSPECTION SERVICES.

   * SHA INSPECTION TEAM LEADER – ADRIAN PUGH 410–787–7645

ACS
A xerox Company
12410 MILESTONE CENTER DR. 4TH FLOOR
GERMANTOWN, MD 20876

BY: $USERNAME$

APPROVALS	
TEAM LEADER	
ASST. DIV. CHIEF	
DIVISION CHIEF	
OFFICE DIRECTOR	

REVISIONS		
F	RED LIGHT CAMERA INSTALLATION TIMS # L436 BW 313 M82	05/18/12
JSC		
E	INSTALL APS AND CPS SIGNALS FOR EXIST. WEST AND SOUTH LEGS OF INTERSECTION. SHA NO.: XX4403155	1/28/09
JWA		
D	GEOMETRIC CHANGE, RELOCATED SIGNAL HEADS S.H.A. No.:BW996M82	07/07/05

PLOTTED: $DATETIME$
FILE: $FILE$

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION

WIRING KEY

MD 185 (CONNECTICUT AVE) NB AND MD 547 (KNOWLES AVE)

SCALE NONE ADVERTISED DATE _____ CONTRACT NO. _____

DESIGNED BY _____ COUNTY MONTGOMERY
DRAWN BY _____ LOGMILE 15018504.24
CHECKED BY _____ TIMS NO. _____
F.A.P. NO. _____ TOD NO. _____

DRAWING NO. 2665F – OF SHEET NO. 2 OF 2