

**PROJECT DESCRIPTION**

**I. GENERAL:**

THIS PROJECT INVOLVES THE RECONSTRUCTION OF AN EXISTING TRAFFIC SIGNAL TO MAST ARM STRUCTURES AT THE INTERSECTION OF MD 202 (LANDOVER ROAD) AND CHEVERLY AVENUE IN PRINCE GEORGE'S COUNTY. THE EXISTING INTERCONNECT SHALL BE MAINTAINED TEMPORARILY UNTIL THE PROPOSED MD 202 AT I-295 RAMP CONTROLLER/ IS OPERATIONAL. MD 202 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

**II. INTERSECTION OPERATION:**

A SYSTEM READY BASE-MOUNTED CABINET AND CONTROLLER WITH ALL NECESSARY EQUIPMENT WILL BE INSTALLED AT THE INTERSECTION OF MD 202 AND CHEVERLY AVENUE. THE INTERSECTION WILL CONTINUE TO OPERATE IN A NEMA FOUR-PHASE, FULLY-ACTUATED MODE. MD 202 THRU-MOVEMENTS OPERATE CONCURRENTLY WITH AN EXCLUSIVE /PERMISSIVE NORTHBOUND LEFT TURN. CHEVERLY AVENUE WILL OPERATE ALONE WITH A DOUBLE LEFT TURN MOVEMENT.

VIDEO CAMERAS SHALL ACTUATE PRESENCE DETECTION AND NON-INVASIVE DETECTORS SHALL PROVIDE ADVANCE DETECTION ON MD 202. THE STREET NAME SIGN SHALL BE UPDATED TO CURRENT STANDARDS. VIDEO CAMERAS SHALL PROVIDE SAMPLING FOR THE NORTHBOUND TRAFFIC.

THE EXISTING SOUTH LEG OF UNDERGROUND INTERCONNECT CABLE TO 62nd PLACE SHALL BE PULLED BACK AND RE-ROUTED TO THE NEW CHEVERLY AVENUE. CONTROLLER/CABINET.

THE EXISTING OVERHEAD NORTH LEG OF INTERCONNECT CABLE FROM THE I-295 RAMP SHALL REMAIN UNTIL THE NEW UNDERGROUND INTERCONNECT RUN HAS BEEN INSTALLED TO THE NEW CONTROLLER/CABINET AT I-295. THE EXISTING CONTROLLER/CABINET AT CHEVERLY AVENUE SHALL OPERATE AS A RELAY TO THE PROPOSED CHEVERLY AVENUE. CONTROLLER/CABINET.

**III. SPECIAL NOTES:**

THE CONTRACTOR SHALL CONTACT MR. RICHARD PERKINS WITH ATS AT 202-269-4404 AT LEAST TWO WEEKS PRIOR TO STARTING WORK AT THE INTERSECTION, TO HAVE THE RED-LIGHT CAMERA CABLES DISCONNECTED. THE CABLES SHALL BE PULLED BACK AND STORED IN THE NEAREST HANDHOLE. ONCE THE SIGNAL RECONSTRUCTION IS COMPLETED ATS WILL RE-ROUTE THE CABLES INTO THE NEW CONTROLLER/CABINET UNDER THE DIRECTION OF AUTHORIZED PRINCE GEORGE'S COUNTY PERSONNEL.

THE TWIN MAST ARM POLE SHALL HAVE A 15 FOOT 'T' DIMENSION WITH STANDARD 50'/50' MAST ARMS, NOT THE SPECIAL CURVED ARMS ASSOCIATED WITH 15 'T' UPRIGHT. THE FOUNDATION WILL BE RAISED 3' DUE TO THE SLOPE. SIGNAL HEADS SHALL BE INSTALLED WITH THE STANDARD CLEARANCE FROM THE CROWN OF ROAD TO THE BUTTON OF THE SIGNAL HEAD.

**PROJECT CONTACTS:**

**1. THE CONTACT PERSONNEL FOR THIS PROJECT ARE AS FOLLOWS:**

MS. FELECIA MURPHY, ASSISTANT DISTRICT ENGINEER - TRAFFIC  
PHONE: (301) 513-7358

MR. DUANNE BERNARD, ASSISTANT DISTRICT ENGINEER - CONSTRUCTION  
PHONE: (301) 513-7336

MR. VERNON STINNETT, ASSISTANT DISTRICT ENGINEER - MAINTENANCE  
PHONE: (310) 513-7304

MR. VICTOR GRAFTON, UTILITY ENGINEER  
PHONE: (310) 513-7350

MR. RICHARD DAFF, SR., CHIEF TRAFFIC OPERATIONS DIVISION  
PHONE: (410) 787-7630

MR. EDWARD RODENHIZER, CHIEF SIGNAL SHOP  
PHONE: (410) 787-7652

MR. SONNY BAILEY, CHIEF SIGN SHOP  
PHONE: (410) 787-7676

**RED LIGHT CAMERA CONTACTS -**

MR. RICHARD (JASON) PERKINS (ATS REP.)  
202-269-4404

MR. DAVE WARRINGTON, CHEVERLY TOWN ADMINISTRATOR  
301-773-8360

**THE POWER COMPANY REPRESENTATIVE:**

PEPCO

**2. MAINTENANCE OF TRAFFIC WILL BE HANDLED BY THE CONTRACTOR UTILIZING THE STANDARD PLATES FOR TRAFFIC CONTROL FROM SECTION MD 104.00 OF THE SHA BOOK OF STANDARDS FOR HIGHWAYS & INCIDENTAL STRUCTURES.**

**EQUIPMENT LIST "A"**

**A. EQUIPMENT TO BE SUPPLIED BY SHA AND INSTALLED BY THE CONTRACTOR.**

CAT CODE	QUANTITY	DESCRIPTION
900000	1 EA	LOCAL CONTROLLER WITH TELEMETRY, VIDEO INTERFACE UNIT AND ALL NECESSARY EQUIPMENT HOUSED IN A NEMA SIZE '6' BASE MOUNTED CABINET
900000	86.75 SF	FLAT SHEET ALUMINUM SIGNS CONSISTING OF:
	2 EA	R3-5(L) "LEFT TURN ONLY" MAST ARM MOUNTED (30"x36")
	1 EA	R3-6mod "LEFT & RIGHT TURN ARROWS" MAST ARM MOUNTED (30"x36")
	1 EA	D-3(1) (VAR x 16") MAST ARM MOUNTED (DUAL FACED) "LEFT ARROW, Cheverly AVE/Cheverly AVE, RIGHT ARROW"
	1 EA	D-3(1) (VAR x 16") MAST ARM MOUNTED "Landover RD"
	1 EA	W11-2 "PEDESTRIAN WARNING" GROUND MOUNTED (36"x36")
	1 EA	M6-2(1)R "DIAGONAL RIGHT ARROW" GROUND MOUNTED (12"x15")
		SHIELD ASSEMBLY PANEL
	1 EA	"SOUTH, MD 202, RIGHT ARROW" POLE MOUNTED (30"x51")
	1 EA	"NORTH, MD 202, LEFT ARROW" POLE MOUNTED (48"x75")

**EQUIPMENT LIST "B"**

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

ITEM NO.	QUANTITY	DESCRIPTION
1003	2 EA	MAINTENANCE OF TRAFFIC
2002	2 CY	TEST PIT EXCAVATION
6002	300 SF	5 INCH CONCRETE SIDEWALK
8003	3 EA	8" LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION
8004	2 EA	ADJUST EXISTING HANDHOLE TO GRADE WITH NEW COLLAR
8018	1 EA	MAST ARM POLE & 50' MAST ARM (15 FOOT 'T' DIM.)
8020	6 EA	NON-INVASIVE PROBES ANY LENGTH LEAD-IN CABLE
8021	1 EA	REMOVE & DISPOSE MATERIAL AND EQUIPMENT PER JOB
8023	1 EA	MAST ARM POLE & TWIN 50' MAST ARM (15 FOOT 'T' DIM. BUT STANDARD ARMS SEE GENERAL NOTE 9)
8025	3 EA	VIDEO DETECTION CAMERA AND CABLE UP TO 500'
8028	40 LF	12 PAIR COMMUNICATION CABLE (OVERHEAD OR UNDERGROUND)
8031	750 LF	DISCONNECT, PULL BACK & RE-ROUTE EXISTING CABLES
8033	180 LF	SCHEDULE 80 PVC CONDUIT UP TO 4" - BORED
8034	200 LF	SCHEDULE 80 PVC CONDUIT UP TO 4" - SLOTTED
8035	680 LF	SCHEDULE 80 PVC CONDUIT UP TO 4" - TRENCHED
8036	16 LF	WOOD SIGN SUPPORT UP TO 4"x6"
8038	86.75 SF	INSTALL OVERHEAD AND GROUND-MOUNTED SIGNS INCLUDING HARDWARE
8039	31 SF	REMOVE AND RE-INSTALL DECORATIVE BRICK SIDEWALK
8040	750 LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
8045	45 LF	CABLE 1-CONDUCTOR, NO. 8 AWG-THHN/THWN
8046	11 EA	FURNISH AND INSTALL ELECTRICAL HANDHOLE
8050	22 EA	12" LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION
8056	80 LF	ELECTRICAL CABLE - 5 CONDUCTOR (NO.14 AWG)
8057	1350 LF	ELECTRICAL CABLE - 7 CONDUCTOR (NO.14 AWG)
8065	1 EA	INSTALL CONTROLLER AND CABINET - BASE MOUNT

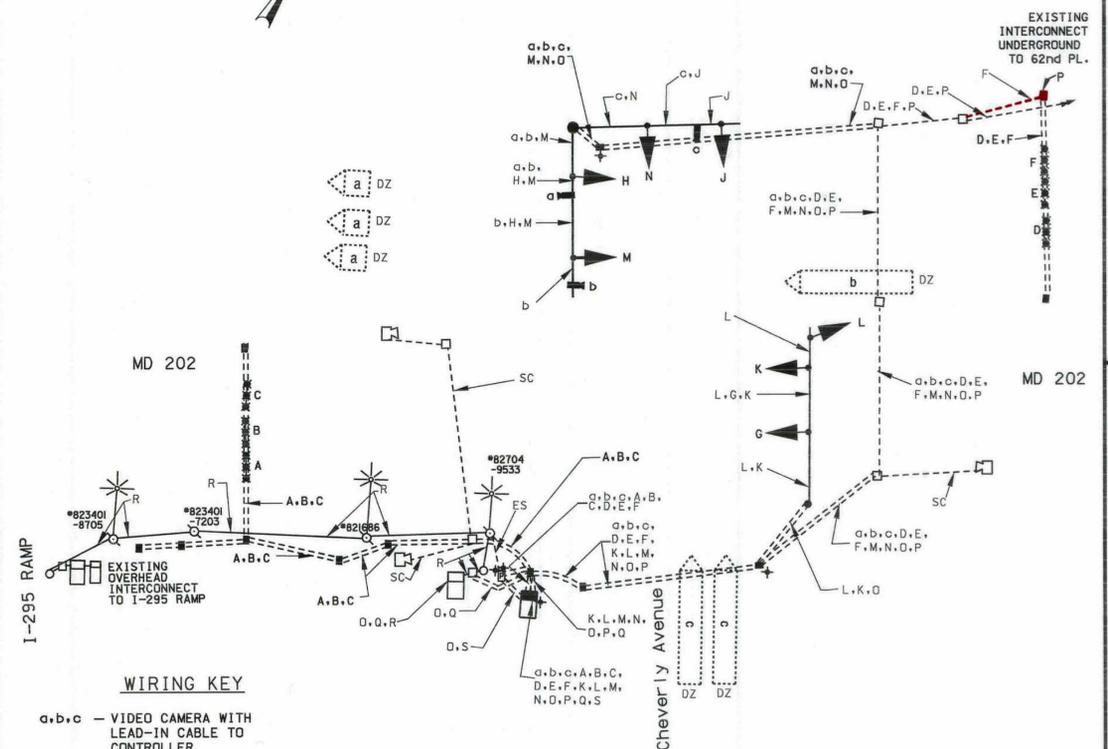
**EQUIPMENT LIST "C"**

**C. SHA FORCES SHALL REMOVE THE CONTROLLER AND ALL AUXILIARY EQUIPMENT FROM THE CONTROLLER CABINET. THE CABINET AND ALL OTHER MATERIALS TO BE REMOVED BY THE CONTRACTOR SHALL BECOME THE PROPERTY OF THE CONTRACTOR.**

**PHASE CHART**

	1	2	3	4	5	6	7
Phases 2 & 5	R	R	G	G	R	R	
5 Change	R	R	G	G	R	R	
Phases 2 & 6	G	G	G	G	R	R	
2 & 6 Change	Y	Y	Y	Y	R	R	
Phase 4	R	R	R	R	G	G	
4 Change	R	R	R	R	Y	Y	
Flashing Operation	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	

**WIRING DIAGRAM**



**WIRING KEY**

- a,b,c - VIDEO CAMERA WITH LEAD-IN CABLE TO CONTROLLER
- A,B,C - NON-INVASIVE PROBES WITH LEAD-IN CABLE TO CONTROLLER
- G,H,J - 5-CONDUCTOR (NO.14 AWG) ELECTRICAL CABLE
- K,L,M,N - 7-CONDUCTOR (NO.14 AWG) ELECTRICAL CABLE
- D - NO. 6 AWG, STRANDED BARE COPPER GROUND WIRE
- P - EXISTING INTERCONNECT CABLE TO BE PULLED BACK AND RE-ROUTED TO NEW CONTROLLER
- (TEMPORARY RUN OF)
- Q - 12 PAIR COMMUNICATION CABLE UNDERGROUND FROM EXISTING CABINET TO NEW CONTROLLER/CABINET
- R - EXISTING OVERHEAD INTERCONNECT CABLE AND HARDWARE TO BE MAINTAINED
- S - NO. 8 AWG, THHN/THWN ELECTRICAL SERVICE CABLE (3 RUNS)
- SC - TRAFFIC SPEED CAMERA TO BE RE-WIRED BY OTHERS
- ES - EXISTING SERVICE FEED
- DZ - DETECTION ZONE
- + - GROUND ROD

**TEDD APPROVAL REDLINE 1** *Jeff Hordel n/n/n*  
11/16/2010

**SHA** STATE OF MARYLAND  
DEPARTMENT OF TRANSPORTATION  
STATE HIGHWAY ADMINISTRATION  
OFFICE OF TRAFFIC & SAFETY  
TRAFFIC ENGINEERING DESIGN DIVISION  
MD 202 (LANDOVER ROAD)  
AND CHEVERLY AVENUE  
LANDOVER, MD

**GENERAL INFORMATION SHEET**

SCALE: NONE	ADVERTISED DATE: 6/14/2010	CONTRACT NO. XX3515168
DESIGNED BY: EMM	LOGMILE: 16020213.28	COUNTY: PRINCE GEORGE'S
DRAWN BY: EMM	TMS NO. K-032	
CHECKED BY: MAR/NMR	TOD NO.	
F.A.P. NO.		
TS NO. 691D-G1	DRAWING SG 02 OF 2	SHEET NO. 2 OF 2

**THIRTY CENTURY**  
ENGINEERING  
CONSULTING ENGINEERS - PLANNERS  
10710 GILROY ROAD  
HUNT VALLEY, MD 21031  
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BY: jhenkel