PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES THE INSTALLATION OF A RIGHT TURN OVERLAP PHASE FROM EASTBOUND US 50 (JOHN HANSON HIGHWAY) OFF RAMP ONTO SOUTHBOUND COLUMBIA PARK ROAD IN PRINCE GEORGE'S COUNTY. LED SIGNAL HEADS AND 16 INCH PEDESTRIAN COUNTDOWN SIGNAL HEADS WILL REPLACE THE EXISTING TRAFFIC SIGNAL HEADS AND PEDESTRIAN SIGNAL HEADS. THE PRESENCE LOOP DETECTORS ALONG CHEVERLY AVENUE AND US 50 EASTBOUND OFF-RAMP WILL BE REPLACED WITH VIDEO DETECTION. MD 459 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION WILL CONTINUE TO OPERATE IN A NEMA FIVE-PHASE, FULL-TRAFFIC-ACTUATED MODE WITH EXCLUSIVE/PERMISSIVE LEFT TURN PHASING ALONG MD 459. THE CONCURRENT MAINLINE, PEDESTRIAN PHASES AND ALTERNATIVE SIDE STREET PHASES WILL REMAIN. A RIGHT TURN OVERLAP PHASE WILL BE ADDED FOR EASTBOUND US 50 OFF RAMP ONTO SOUTHBOUND COLUMBIA PARK ROAD.

CONTROLLER REQUIREMENTS

THE EXISTING BASE MOUNTED / POLE MOUNTED CONTROLLERS SHALL REMAIN.

THE CONTACT PERSONS FOR DISTRICT #3 ARE AS FOLLOWS:

Mr. Brian Young
Assistant District Engineer - Traffic
Phone: 301-513-7358

Mr. Augie Rebish
Assistant District Engineer - Utility
Phone: 301-513-7350

Mr. Wayne Mowdy
Assistant District Engineer - Maintenance
Phone: 301-513-7304

Mr. Richard L. Daff Sr.
Chief, Traffic Operations Division
Phone: 410-787-7630

Mr. Edward Rodenhizer
Chief, Signal Operations Division
Phone: 410-787-7650

The Power Company Representative is:
Potomac Electric Power Company
8300 Old Marlboro Pike
Upper Marlboro, Maryland 20772
Phone: 301-961-5325

EQUIPMENT LIST 'A'

EQUIPMENT TO BE FURNISHED BY THE SHA.

ITEM NO	QUANTITY	DESCRIPTION
9571	10 SF	4 EA - R10-4(I) MOD, (9"X15")
		"PUSH BUTTON TO CROSS US 50 RAMP"
		2 EA - R10-4(I) MOD, (9"X15")
		"PUSH BUTTON TO CROSS TUXEDO RD"
		2 EA - R10-4(I) MOD, (9"X15")
		"PUSH BUTTON TO CROSS COLUMBIA PARK RD"
		2 EA - R10-4(I) MOD, (9"X15")
		"PUSH BUTTON TO CROSS CHEVERLY AVE"

EQUIPMENT LIST 'C'

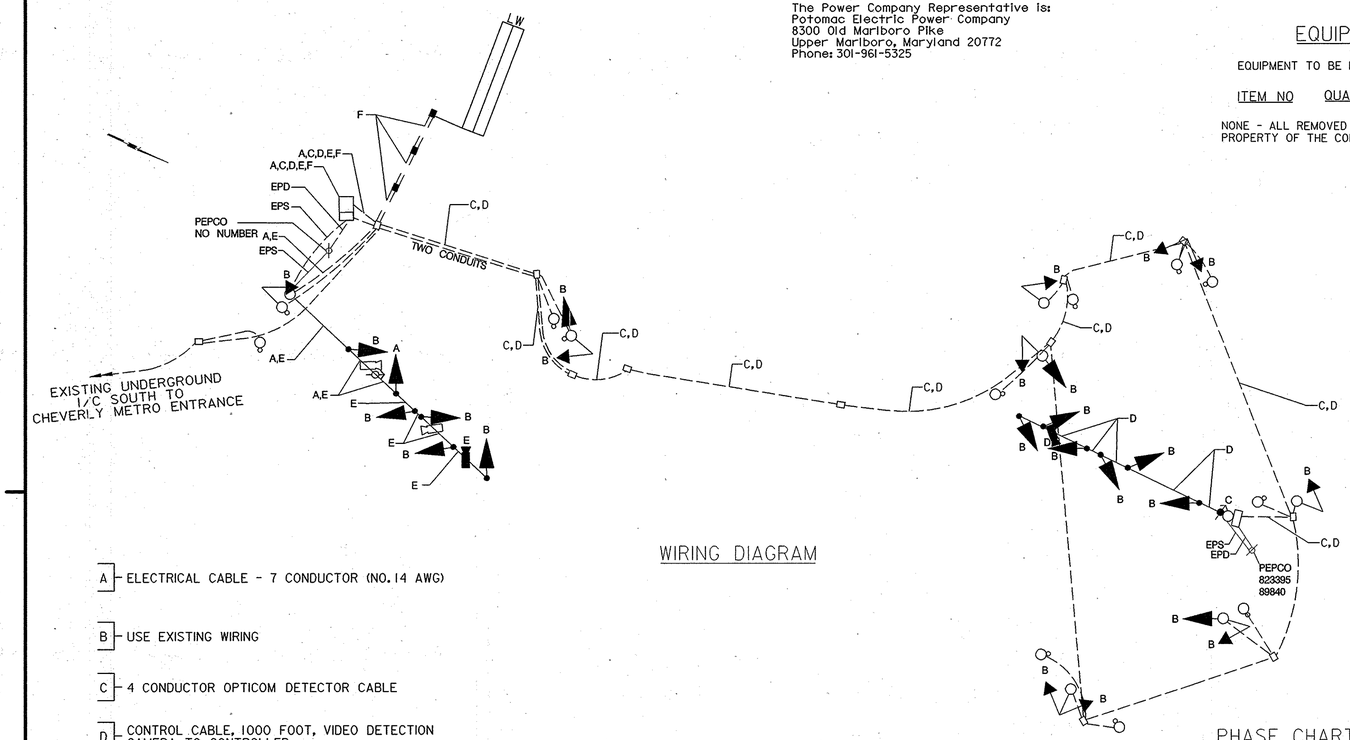
EQUIPMENT TO BE REMOVED AND RETURNED TO SHA.

ITEM NO	QUANTITY	DESCRIPTION
NONE - ALL REMOVED EQUIPMENT SHALL BECOME THE PROPERTY OF THE CONTRACTOR		

EQUIPMENT LIST 'B'

EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR.

ITEM NO	QUANTITY	DESCRIPTION
1001	1 EA	MAINTENANCE OF TRAFFIC PER ASSIGNMENT
5003	575 LF	12 INCH WHITE LEAD FREE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
5004	200 LF	24 INCH WHITE LEAD FREE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
5005	775 LF	REMOVAL OF EXISTING PERMANENT PAVEMENT LINE MARKINGS - ANY WIDTH
6002	16 LF	STANDARD TYPE A COMBINATION CURB AND GUTTER 12 INCH GUTTER PAN 8 INCH DEPTH
6003	1125 SF	4 INCH CONCRETE SIDEWALK
8000	1 EA	CONTROL CABLE, 1000 FOOT, VIDEO DETECTION CAMERA TO CONTROLLER
8000	2 EA	RELOCATE EXISTING PUSHBUTTON
8002	16 EA	12 INCH RED OR GREEN LED SIGNAL HEAD SECTION
8003	9 EA	12 INCH YELLOW LED SIGNAL HEAD SECTION
8008	1 EA	3M OPTICOM #764 DISCRIMINATOR MODULE
8009	1 EA	3M OPTICOM EMITTER SERIES, VISIBLE LIGHT FILTER & HARDWARE
8013	2 EA	ADJUST HANDHOLE TO GRADE
8017	1 EA	CONTROL CABLE, 300 FOOT, VIDEO DETECTION CAMERA TO CONTROLLER
8024	10 EA	16 INCH LED COUNTDOWN PEDESTRIAN SIGNAL HEAD
8025	24 EA	LED SIGNAL HEAD MODULES (ANY SIZE)
8028	1 EA	REMOVE & DISPOSE OF EQUIPMENT (PER ASSIGNMENT)
8033	500 LF	4 CONDUCTOR OPTICOM DETECTOR CABLE
8037	60 SF	DETECTABLE WARNING SURFACE
8049	550 LF	3 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
8054	10 LF	1 INCH LIQUID TIGHT FLEXIBLE NON-METALLIC CONDUIT FOR DETECTOR SLEEVE
8062	3 EA	FURNISH AND INSTALL ELECTRICAL HANDHOLE
8064	10 SF	INSTALL OVERHEAD SIGN
8065	2 EA	VIDEO DETECTION CAMERA
8066	1 EA	OPTICOM NO. 721 DETECTOR EYE
8075	550 LF	ELECTRICAL CABLE - 2 CONDUCTOR (ALUMINUM SHIELDED)
8079	135 LF	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)
8080	420 LF	LOOP WIRE ENCASED IN FLEXIBLE TUBING (NO. 14 AWG)
8081	130 LF	SAW CUT FOR SIGNAL (LOOP DETECTOR)



WIRING DIAGRAM

- A — ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)
- B — USE EXISTING WIRING
- C — 4 CONDUCTOR OPTICOM DETECTOR CABLE
- D — CONTROL CABLE, 1000 FOOT, VIDEO DETECTION CAMERA TO CONTROLLER
- E — CONTROL CABLE, 300 FOOT, VIDEO DETECTION CAMERA TO CONTROLLER
- F — ELECTRICAL CABLE - 2 CONDUCTOR ALUMINUM SHIELDED (NO. 14 AWG)
- LW — LOOP WIRE
- EPS — EXISTING POWER SOURCE
- EPD — EXISTING PHONE DROP

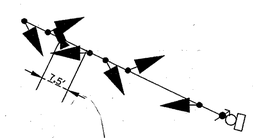
PHASE CHART

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
PHASE 1	R	R	R	R	G	G	G	~~G~~ G	G	G	R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 1 CHANGE	THE CONTROLLER MAY SKIP TO PHASE 5 OR 2 & 6																								
PHASE 5	G	G	R	R	R	R	R ~~G~~	~~G~~ G	G	G	R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 5 CHANGE	G	G	R	R	R	R	R ~~Y~~	~~Y~~ G	G	G	R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 2 & 6	G	G	G	G	R	R	R	G	G	G	G	G	R	R	R	W	W	W	W	W	W	DW	DW	DW	DW
PHASE 2 & 6 PED. CLEARANCE	G	G	G	G	R	R	R	G	G	G	G	G	R	R	R	W	W	FL/DW	FL/DW	FL/DW	FL/DW	DW	DW	DW	DW
PHASE 2 & 6 CHANGE	G	G	G	G	R	R	R	Y	Y	Y	Y	Y	R	R	R	W	W	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 4	G	G	G	G	R	R	R	R	R	R	R	R	G	G	G	W	W	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 4 PED. CLEARANCE	G	G	G	G	R	R	R	R	R	R	R	R	G	G	G	FL/DW	FL/DW	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 4 CHANGE	Y	Y	Y	Y	R	R	R	R	R	R	R	R	Y	Y	Y	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 4 ALT	G	G	G	G	R	R	R	R	R	R	R	R	G	G	G	W	W	DW	DW	DW	DW	W	W	W	W
PHASE 4 ALT PED. CLEARANCE	G	G	G	G	R	R	R	R	R	R	R	R	G	G	G	FL/DW	FL/DW	DW	DW	DW	DW	FL/DW	FL/DW	FL/DW	FL/DW
PHASE 4 ALT CHANGE	Y	Y	Y	Y	R	R	R	R	R	R	R	R	Y	Y	Y	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 2 PRE-EMPT	R	R	G	G	R	R	R	R	R	R	G	G	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 2 PRE-EMPT CHANGE	R	R	Y	Y	R	R	R	R	R	R	Y	Y	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	DARK	DARK	DARK	DARK	DARK	DARK	DARK	DARK	DARK	DARK

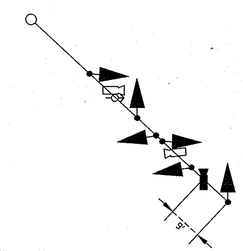
VIDEO DETECTION CAMERA LAYOUT

SCALE: 1"=20'

459 (TUXEDO ROAD) AT CHEVERLY AVENUE



459 (COLUMBIA PARK ROAD) AT US 50 EASTBOUND OFF-RAMP



TOD No: AT782-60
SHA No.: PG694A59/B59
US 50 ramp @ Columbia Road

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

MD 459 (COLUMBIA PARK ROAD) AND
CHEVERLY AVENUE / US 50 RAMP

GENERAL INFORMATION

SCALE NONE DATE 10/2006 CONTRACT NO. AT7825185

DESIGNED BY VGN
DRAWN BY VGN
CHECKED BY BAB
F.A.P. NO.

COUNTY PRINCE GEORGE'S
LOGMILE 16045900.00
T.I.M.S. NO. G890
TOD NO. AT288-50

DRAWING NO. TS-2091C OF SHEET NO. 2 OF 2

STV Incorporated
engineers / architects / planners / construction managers
7125 Ambassador Road Baltimore, MD 21244-2722 (410) 944-9112

BY: WEAVERCC

PLOTTED: THURSDAY, NOVEMBER 30, 2006 AT 09:23 AM
FILE: I:\PROJECTS\0312513\0312513.0021\DRAWINGS\TRA\PSG-P002_M459.DGN