PROJECT DESCRIPTION

I. GENERAL

THIS PROJECT INVOLVES THE INSTALLATION OF VIDEO DETECTION, ACCESSIBLE PEDESTRIAN PUSHBUTTON STATIONS, AND LED COUNTDOWN PEDESTRIAN HEADS TO THE EXISTING TRAFFIC SIGNAL AT THE INTERSECTION OF MD 213 (WASHINGTON AVE) AND MD 289 (CROSS STREET/PHILOSOPHERS TERRACE) IN KENT COUNTY.

II. INTERSECTION OPERATION

AN EXISTING CONTROLLER HOUSED IN A POLE MOUNTED CABINET SHALL REMAIN IN USE AT THIS LOCATION. THE INTERSECTION OPERATES IN A NEMA FIVE PHASE, FULL ACTUATED MODE. THE LEFT TURN PHASING ALONG NORTHBOUND MD 213 OPERATES AS EXCLUSIVE/PERMISSIVE PHASING. THE EASTBOUND AND WESTBOUND MD 289 (CROSS STREET)/PHILOSOPHERS TERR. MOVEMENTS OPERATE AS CONCURRENT PHASING. THE SIGNAL OPERATES WITH VIDEO DETECTION ON THE SIDE STREETS AND PEDESTRIAN MOVEMENTS ACROSS ALL FOUR LEGS OF THE INTERSECTION. EXISTING FIRE PRE-EMPTION PHASING SHALL REMAIN FOR BOTH OF THE SOUTHBOUND AND NORTHBOUND MD 213 APPROACHES.

III. ACCESSIBLE PEDESTRIAN PUSHBUTTON STATION OPERATION:

WHEN THE PEDESTRIAN LOCATES AND PRESSES THE PUSHBUTTON FOR AN EXTENDED TIME; THE STATION UNIT WILL ANNOUNCE THE FOLLOWING MESSAGES FOR EACH LEG OF THE INTERSECTION:

1. NORTH AND SOUTH LEGS OF MD 213
   WAIT: **"WAIT TO CROSS MAPLE AT CROSS"**
   WALK: **"MAPLE, WALK SIGN IS ON TO CROSS MAPLE"**
2. EAST LEG
   WAIT: "WAIT TO CROSS PHILOSOPHERS AT **MAPLE"**
   WALK: **"PHILOSOPHERS, WALK SIGN IS ON TO CROSS PHILOSOPHERS"**
3. WEST LEG
   WAIT: "WAIT TO CROSS CROSS AT **MAPLE"**
   WALK: **"CROSS, WALK SIGN IS ON TO CROSS CROSS"**

THE WALK MESSAGE WILL LAST FOR THE DURATION OF THE "WALK PHASE"

EQUIPMENT LIST

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

ITEM CODE#	QTY	UNITS	DESCRIPTION
9001	1	EA	VIDEO INTERFACE UNIT
9038	1	EA	CABINET BOTTOM PLATE, SIZE 5
9571	8	SF	SHEET ALUMINIUM MAST ARM/POLE MOUNTED SIGNS
			4 EA R10-3 COUNTDOWN PEDESTRIAN PUSHBUTTON SIGN "TO CROSS WASHINGTON AVE" (9"x 15")
			2 EA R10-3 COUNTDOWN PEDESTRIAN PUSHBUTTON SIGN "TO CROSS CROSS ST" (9"x 15")
			2 EA R10-3 COUNTDOWN PEDESTRIAN PUSHBUTTON SIGN "TO CROSS PHILOSOPHERS TERR" (9"x 15")

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

ITEM CODE#	QTY	UNITS	DESCRIPTION
1001	1	LS	MAINTENANCE OF TRAFFIC
2002	4	CY	TEST PIT EXCAVATION
6001	36	LF	STANDARD TYPE A COMBINATION CURB AND GUTTER 12 INCH GUTTER PAN 8 INCH DEPTH
6002	216	SF	5 INCH CONCRETE SIDEWALK
8002	1	EA	2-WIRE CENTRAL CONTROL UNIT
8006	2	EA	ADJUST HANDHOLE TO GRADE
8007	8	EA	AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON STATION AND SIGNS
8008	6	EA	BREAKAWAY PEDESTAL POLE (ANY SIZE), POWER COATED BROWN II 595a
8011	8	EA	LED 16 INCH COUNTDOWN PEDESTRIAN SIGNAL
8014	1	EA	REMOVE AND DISPOSE OF EQUIPMENT PER ASSIGNMENT
8016	20	LF	3 INCH ELECTRICAL CONDUIT SCHEDULE 80
8019	70	LF	UP TO 4 INCH SCHEDULE 80 RIGID PVC - TRENCHED
8021	60	SF	DETECTABLE WARNING SURFACES
8022	12	SF	RELOCATE EXISTING SIGN
8027	1	EA	WEATHERHEAD, 3 INCH
8032	8	SF	INSTALL OVERHEAD SIGN
8033	2	EA	VIDEO DETECTION CAMERA AND CABLE UP TO 500 FT
8037	725	LF	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)
8039	770	LF	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)

C. ALL OTHER MATERIALS TO BE REMOVED BY THE CONTRACTOR SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

SPECIAL NOTES

THE CONTACT PERSONS FOR SHA ARE AS FOLLOWS:

MR. FRANK ANUSZEWSKI
PROJECT MANAGER
PHONE: (410) 787-4047

MR. ROBERT L. KIEL
ASSISTANT DISTRICT ENGINEER - TRAFFIC
PHONE: (410) 810-3240

MR. TERRY O. WRIGHT
ASSISTANT DISTRICT ENGINEER - MAINTENANCE
PHONE: (410) 810-3250

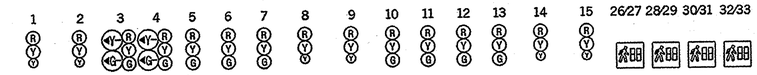
MR. WM NORRIS EMBERT
ASSISTANT DISTRICT ENGINEER - CONSTRUCTION
PHONE: (410) 810-3270

MR. BARRIER CLOTHIER
DISTRICT UTILITY ENGINEER
PHONE: (410) 810-3275

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

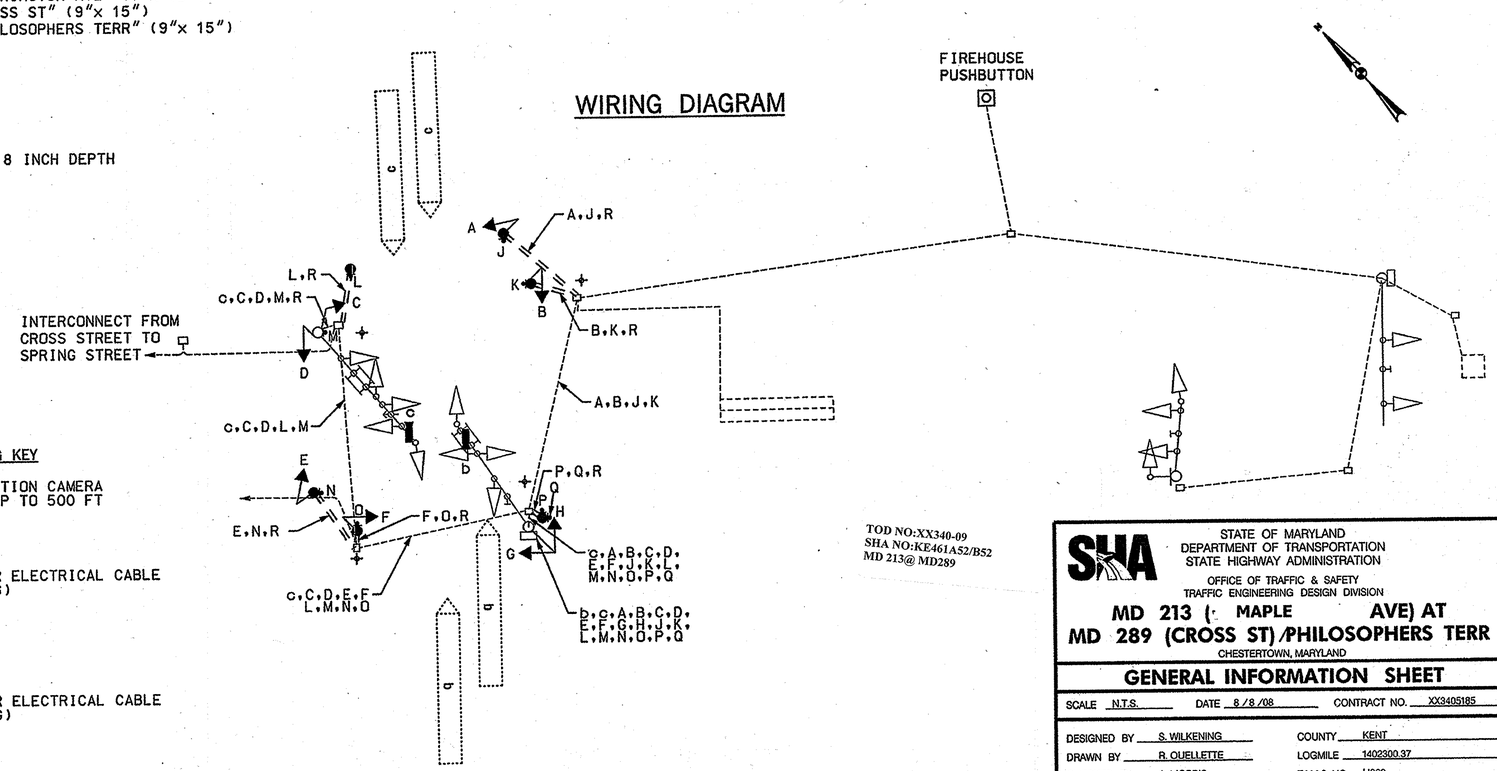
MR. ED RODENHIZER
SIGNAL SHOP (410) 787-7652

PHASE CHART



	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	26/27	28/29	30/31	32/33
PHASE 1 AND 6	FL /8"Y	FL /8"Y	←G/G	←G/G	G	R	R	FL /8"Y	FL /8"Y	R	R	R	R	R	R	DW	WK	DW	DW
1 AND 6 CHANGE	FL /8"Y	FL /8"Y	←Y/G	←Y/G	G	R	R	FL /8"Y	FL /8"Y	R	R	R	R	R	R	DW	WK	DW	DW
PHASE 2 AND 6	FL /8"Y	FL /8"Y	G	G	G	G	G	FL /8"Y	FL /8"Y	R	R	R	R	R	R	WK	WK	DW	DW
PED CLEARANCE	FL /8"Y	FL /8"Y	G	G	G	G	G	FL /8"Y	FL /8"Y	R	R	R	R	R	R	FL/DW	FL/DW	DW	DW
2 AND 6 CHANGE	FL /8"Y	FL /8"Y	Y	Y	Y	Y	Y	FL /8"Y	FL /8"Y	R	R	R	G	R	R	DW	DW	DW	DW
PHASE 4 AND 8	FL /8"Y	FL /8"Y	R	R	R	R	R	FL /8"Y	FL /8"Y	G	G	G	G	R	R	DW	DW	DW	DW
4 AND 8 CHANGE	FL /8"Y	FL /8"Y	R	R	R	R	R	FL /8"Y	FL /8"Y	Y	Y	Y	Y	R	R	DW	DW	DW	DW
PHASE 4 AND 8 ALT	FL /8"Y	FL /8"Y	R	R	R	R	R	FL /8"Y	FL /8"Y	G	G	G	G	R	R	DW	DW	WK	WK
PED CLEARANCE	FL /8"Y	FL /8"Y	R	R	R	R	R	FL /8"Y	FL /8"Y	G	G	G	G	R	R	DW	DW	FL/DW	FL/DW
4 AND 8 ALT CHANGE	FL /8"Y	FL /8"Y	R	R	R	R	R	FL /8"Y	FL /8"Y	Y	Y	Y	Y	R	R	DW	DW	DW	DW
FLASHING OPERATION	FL /8"Y	FL /8"Y	FL /Y	FL /Y	FL /Y	FL /Y	FL /Y	FL /8"Y	FL /8"Y	FL /R	FL /R	FL /R	FL /R	R	R	DARK	DARK	DARK	DARK
FIRE PRE-EMPTION																			
PRE-EMPTION PHASE 2 AND 6	R	R	G	G	G	G	G	R	R	R	R	R	R	8" FL /Y	8" FL /Y	DW	DW	DW	DW
PRE-EMPTION CLEARANCE PHASE 2 AND 6	8" Quick Flash Y	8" Quick Flash Y	G	G	G	G	G	8" Quick Flash Y	8" Quick Flash Y	R	R	R	R	R	R	DW	DW	DW	DW
	12" Y	12" Y	G	G	G	G	G	12" Y	12" Y	R	R	R	R	R	R	DW	DW	DW	DW
PHASE 2 AND 6 NORMAL OPERATION	8" FL /Y	8" FL /Y	G	G	G	G	G	8" FL /Y	8" FL /Y	R	R	R	R	FL /R	FL /R	DW	DW	DW	DW

WIRING DIAGRAM



WIRING KEY

b, c	VIDEO DETECTION CAMERA AND CABLE UP TO 500 FT
A, B, C, D, E, F, G, H	5 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
J, K, L, M, N, O, P, Q	2 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
R	NO. 6 AWG STRANDED COPPER GROUND WIRE
+	(GROUND ROD)

TOD NO:XX340-09
SHA NO:KE461A52/B52
MD 213@ MD289

CENTURY ENGINEERING
CONSULTING ENGINEERS - PLANNERS
10710 GILROY ROAD
HUNT VALLEY, MD 21031

T3 design
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SUITE 101-C
FAIRFAX, VA 22030
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STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION

MD 213 (MAPLE AVE) AT MD 289 (CROSS ST)/PHILOSOPHERS TERR
CHESTERTOWN, MARYLAND

GENERAL INFORMATION SHEET

SCALE N.T.S. DATE 8/8/08 CONTRACT NO. XX3405185

DESIGNED BY S. WILKENING
DRAWN BY R. OUELLETTE
CHECKED BY A. MORRIS
F.A.P. NO.
COUNTY KENT
LOGMILE 1402300.37
T.I.M.S. NO. H863
TOD NO.

DRAWING NO. TS 1679F - GI
SHEET NO. 2 OF 3

PLOTTED: @DATETIME@
FILE: @FILE@

DRILL HOLES
DRILL HOLES
DRILL HOLES
DRILL HOLES
BORDER REV. DATE: June 1, 2004
BY:@USERNAME@