

PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES THE RECONSTRUCTION OF THE EXISTING TRAFFIC SIGNAL INCLUDING THE INSTALLATION OF ACCESSIBLE PEDESTRIAN SIGNALS, COUNTDOWN PEDESTRIAN SIGNALS, ADA RAMP MODIFICATIONS, LED VEHICULAR SIGNAL HEADS, AND REPLACEMENT OF EXISTING INTERCONNECT AT THE INTERSECTION OF US 1 (RHODE ISLAND AVENUE) AND 37TH STREET IN PRINCE GEORGE'S COUNTY.

US 1 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION WILL CONTINUE TO OPERATE IN A NEMA THREE-PHASE, FULL TRAFFIC-SEMIACTUATED MODE. THE PEDESTRIAN PHASE ACROSS THE MAINLINE AND SOUTHBOUND FIREHOUSE PRE-EMPTION PHASE SHALL REMAIN. THE PEDESTRIAN PHASE ACROSS THE SIDE STREET WILL BE REMOVED.

CONTROLLER REQUIREMENTS

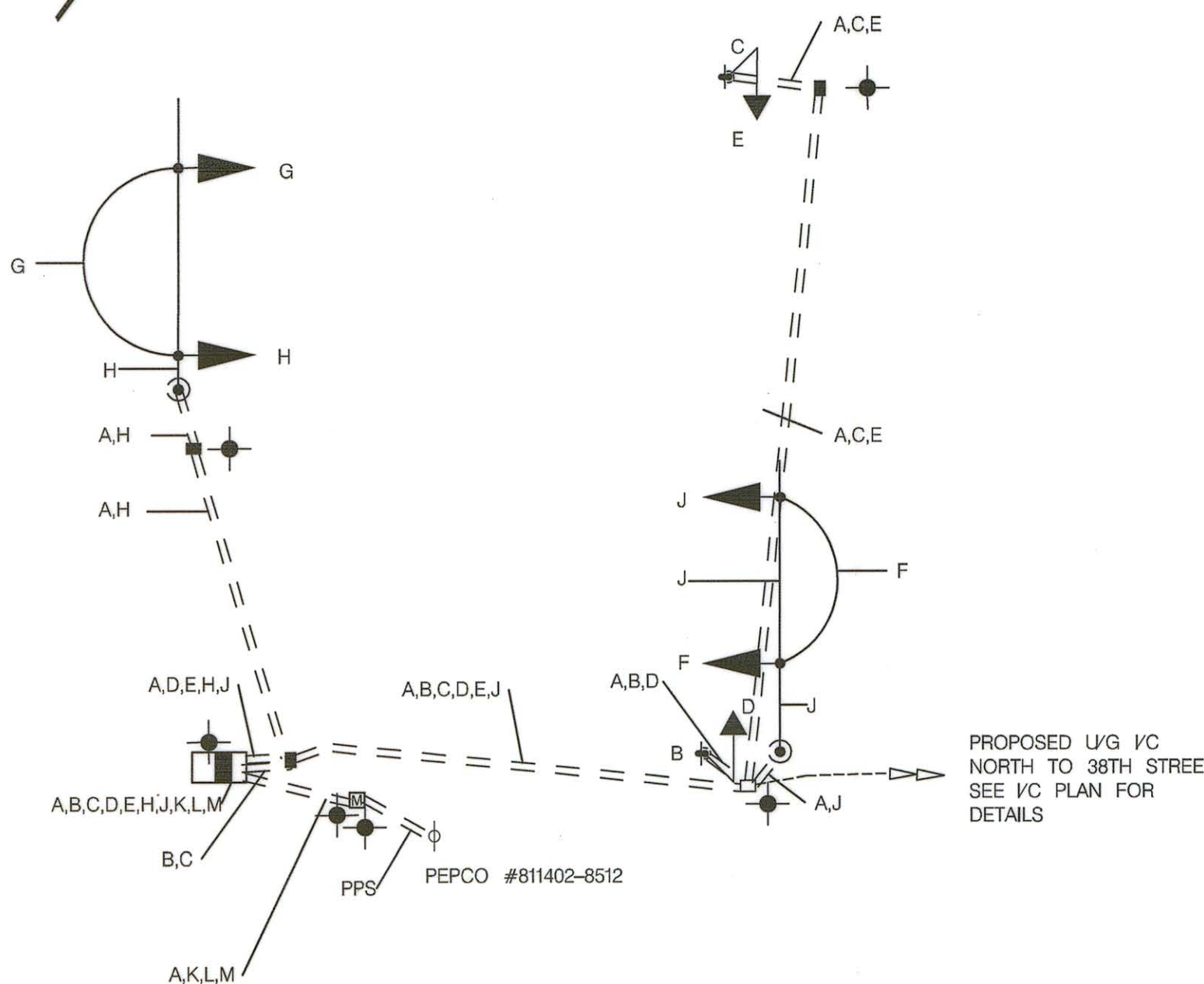
THE CONTRACTOR SHALL INSTALL A NEW NEMA SIZE 'S' BASE MOUNTED CABINET WITH ASSOCIATED EQUIPMENT. THE SHA SIGNAL SHOP SHALL INSTALL THE CONTROLLER AND ASSOCIATED EQUIPMENT WITHIN THE CABINET. THE CONTRACTOR SHALL INSTALL ONE (1) 2-WIRE CENTRAL CONTROL UNIT WITHIN THE CABINET.

APS WILL FUNCTION AS FOLLOWS:

TO CROSS RHODE ISLAND AVENUE

- A. WHEN A PEDESTRIAN LOCATES AND PRESSES THE PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON MESSAGE WILL BE 'WAIT TO CROSS RHODE ISLAND AT 37TH, WAIT'.
- B. WHEN THE 'WALK' PHASE BEGINS, THE MESSAGE WILL BE A RAPID TICK, WHICH WILL LAST FOR THE DURATION OF THE 'WALK' PHASE.

WIRING DIAGRAM



- A - NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
- B - ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)
- C - ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
- D - ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)
- E - ELECTRICAL CABLE - 1 CONDUCTOR (NO. 8 AWG THHN/THWN)
- F - PROPOSED UNDERGROUND POWER SERVICE (NO. 2/0 AWG, THHN/THWN)
- G - PROPOSED GROUND ROD - 3/4 IN. DIAMETER X 10 FOOT LENGTH



THE CONTACT PERSONS FOR DISTRICT #3 ARE AS FOLLOWS:

Mr. Venu Nemanl
Assistant District Engineer - Traffic
Phone: 301-513-7358

Mr. Victor Grafton
District Utility Engineer
Phone: 301-513-7350

Mr. Tom Fountain
Assistant District Engineer - Maintenance
Phone: 301-513-7304

OFFICE OF TRAFFIC AND SAFETY:

Ms. Corren Johnson
Chief, Traffic Operations Division
Phone: 410-787-7630

Mr. Robert Snyder
Assistant Division Chief, Traffic Operations
410-787-7630

Mr. Edward Rodenhizer
Team Leader Signal Operations
Phone: 410-787-7650

Mr. Eugene Bailey
Team Leader Sign Operations
410-787-7670

The Power Company is:
Peeco
8300 Old Marlboro Pike
Upper Marlboro, MD 20442
Phone: 301-961-5325

EQUIPMENT LIST 'A'

EQUIPMENT TO BE FURNISHED BY THE SHA.

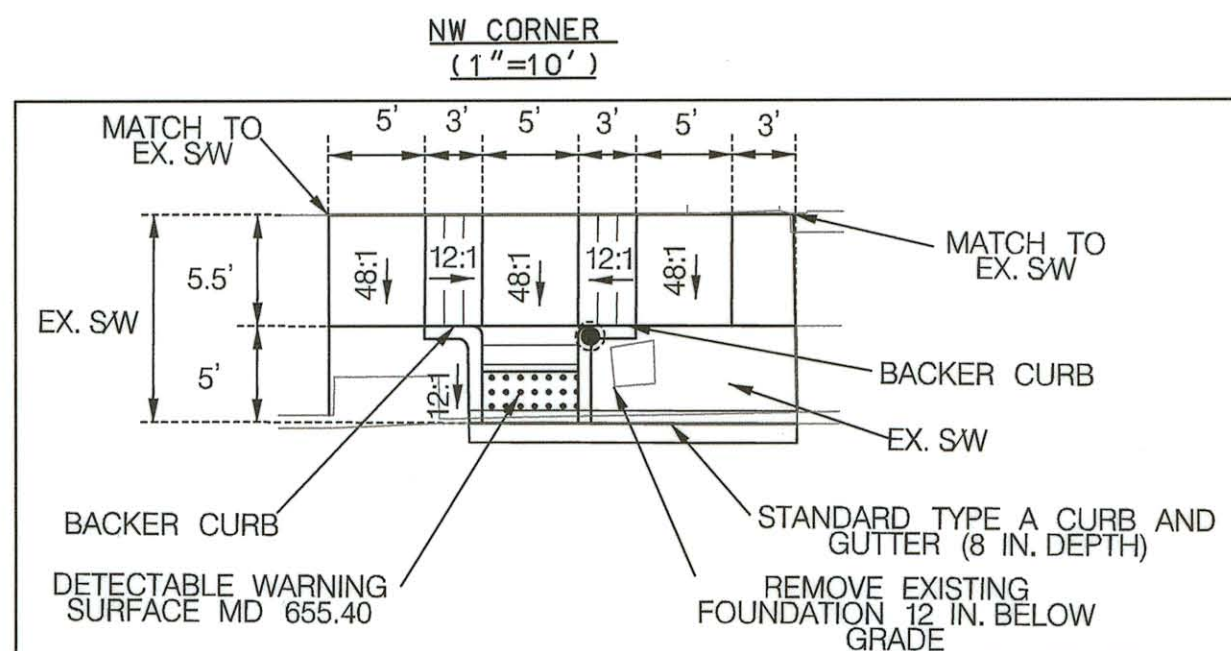
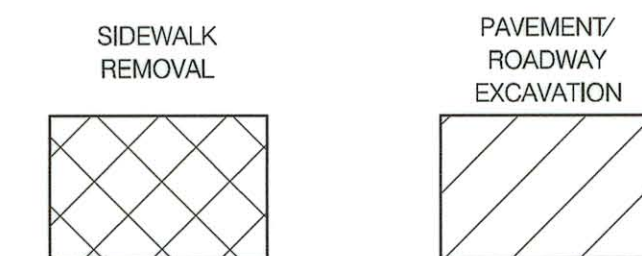
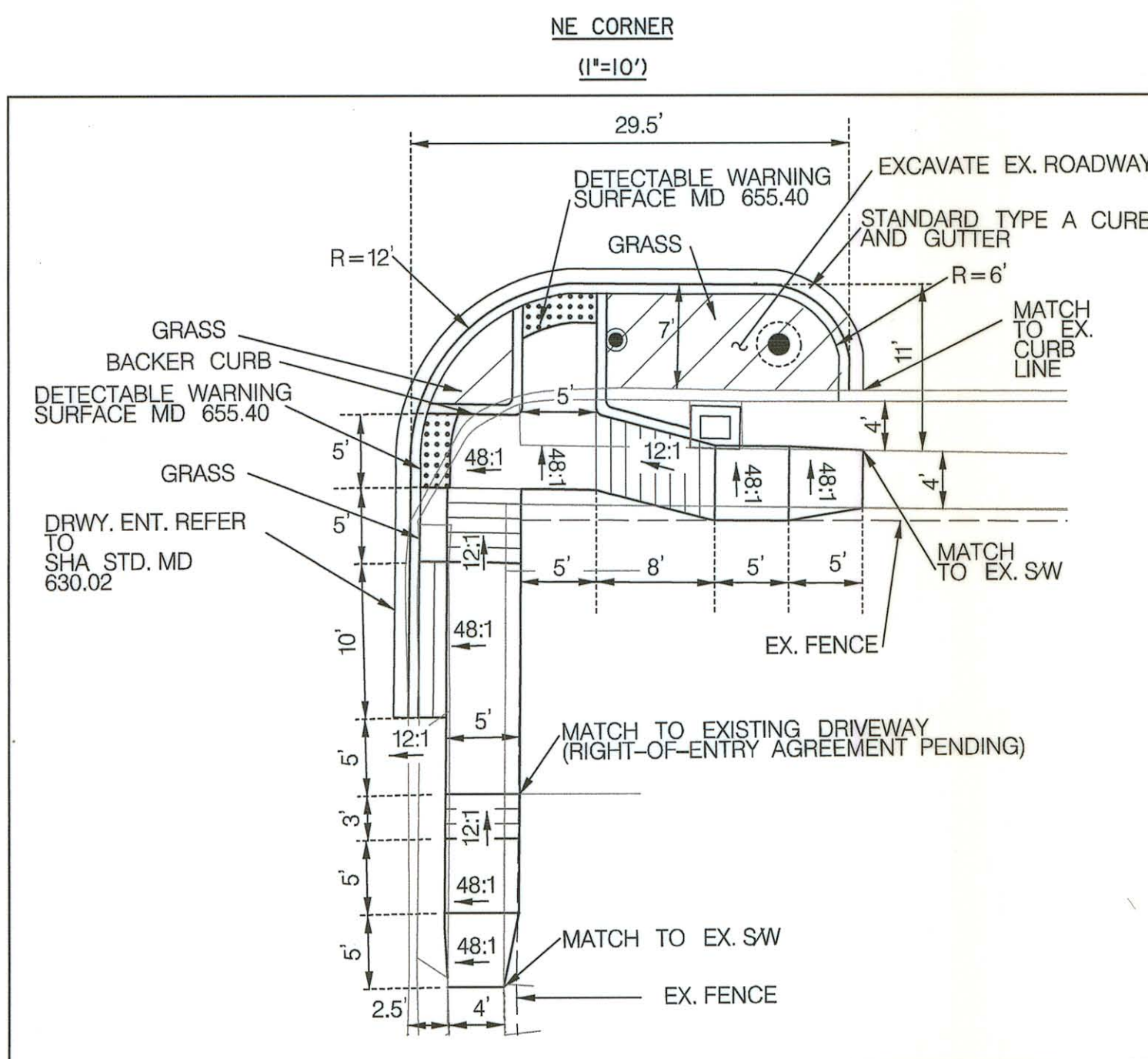
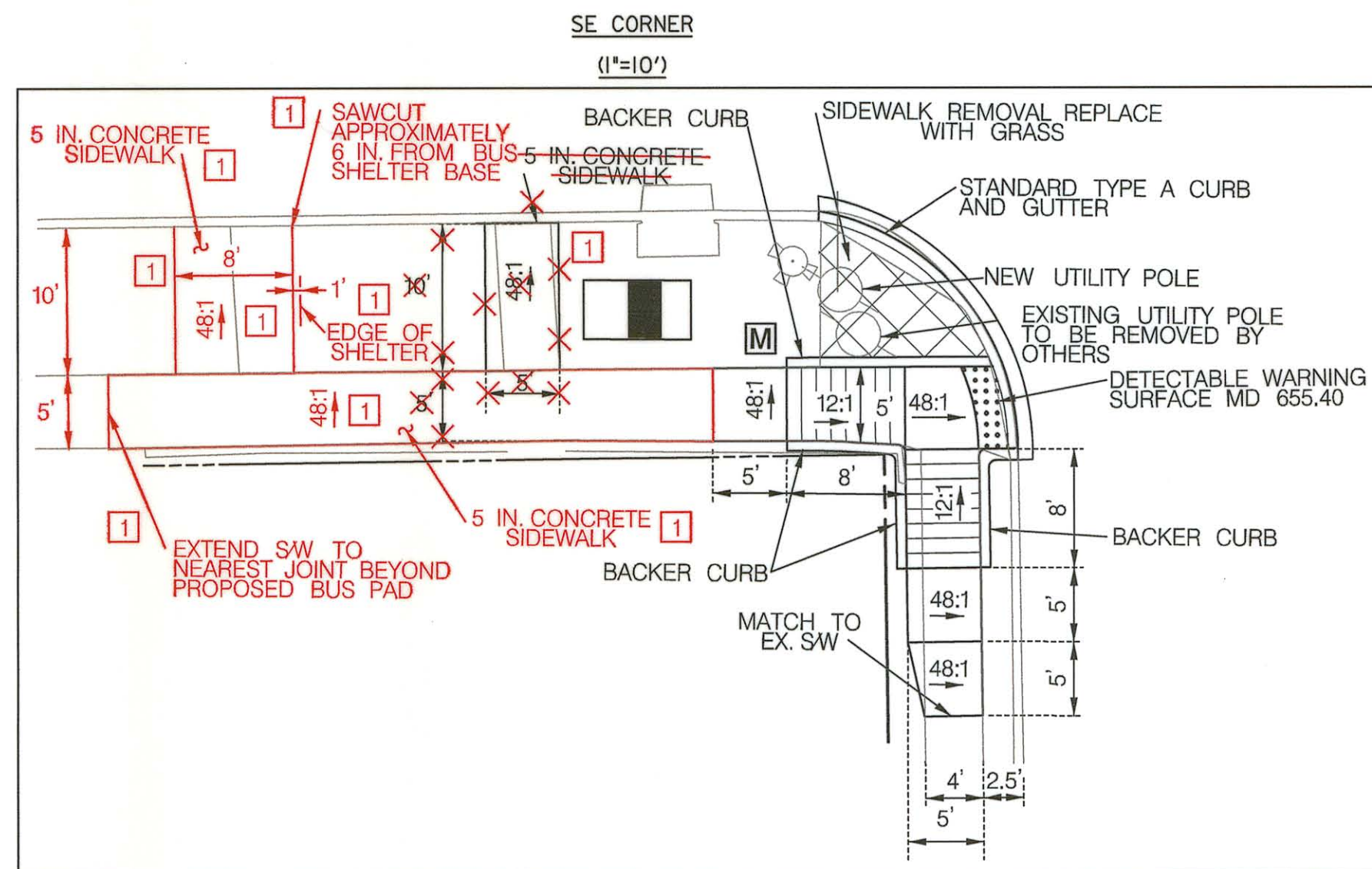
ITEM NO	QUANTITY	DESCRIPTION
9104	1 EA	SIZE 'S' CABINET WITH CONTROLLER AND VIDEO INTERFACE EQUIPMENT: 1-8 CAMERAS
9570	69 SF	SHEET ALUMINUM GROUND MOUNTED SIGN
		6 EA - S1-1 (36 IN. X 36 IN.)
		3 EA - W16-7pL (24 IN. X 12 IN.)
		3 EA - W16-7pR (24 IN. X 12 IN.)
		1 EA - R6-1R (36 IN. X 12.)
9571	23 SF	SHEET ALUMINUM MAST ARM/POLE MOUNTED SIGN:
		2 EA - R10-3(1) (9 IN. X 15 IN.)
		PUSH BUTTON TO CROSS RHODE ISLAND AVE
		2 EA - D-3(1) (96 IN. X 16 IN.)
		37TH STREET

EQUIPMENT LIST 'C'

EQUIPMENT TO BE REMOVED AND RETURNED TO SHA.

ITEM NO QUANTITY DESCRIPTION

NONE - CONTROLLER AND AUXILIARY EQUIPMENT TO BE REMOVED BY SHA SIGNAL SHOP



EQUIPMENT LIST 'B'

EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR.

ITEM NO	QUANTITY	DESCRIPTION
1001	1 EA	MAINTENANCE OF TRAFFIC
2001	4 CY	CLASS 2 EXCAVATION
2002	3 CY	TEST PIT EXCAVATION
5002	85 LF	5 INCH HEAT APPLIED WHITE OR YELLOW PERMANENT PAVEMENT MARKINGS
5003	335 LF	REMOVAL OF EXISTING PERMANENT PAVEMENT LINE MARKINGS
5004	340 LF	12 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES
5005	70 LF	24 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES
6001	205 LF	STANDARD TYPE A COMBINATION CURB AND GUTTER 12 INCH GUTTER PAN 8 INCH DEPTH
6002	1450 - 1200 SF	5 INCH CONCRETE SIDEWALK
6003	40 SF	DETECTABLE WARNING SURFACE FOR CURB RAMPS
8001	12 EA	12 INCH LED SIGNAL HEAD SECTION
8002	1 EA	2-WIRE CENTRAL CONTROL UNIT
8008	2 EA	AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON STATION AND SIGNS
8009	2 EA	BREAKAWAY PEDESTAL POLE (ANY SIZE)
8012	1 EA	EMBEDDED METERED SERVICE PEDESTAL WITH BYPASS SWITCH
8014	1 EA	INSTALL CONTROLLER AND CABINET BASE MOUNT (ANY SIZE)
8016	2 EA	LED 16 INCH COUNTDOWN PEDESTRIAN SIGNAL HEAD
8018	2 EA	MAST ARM POLE & 38' MAST ARM ANY 'T' DIMENSION
8024	1 EA	REMOVE & DISPOSE OF EQUIPMENT (PER ASSIGNMENT)
8031	105 LF	1 - CONDUCTOR ELECTRICAL CABLE (NO. 2/0 AWG/THHN)
8039	200 LF	UP TO 4 INCH SCHEDULE 80 RIGID PVC CONDUIT - SLOTTED
8040	60 LF	UP TO 4 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
8041	70 LF	WOOD SIGN SUPPORTS UP TO 4' X 6'
8042	92 SF	INSTALL OVERHEAD OR GROUND MOUNTED SIGN (INCLUDING ALL HARDWARE)
8044	310 LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
8047	30 LF	ELECTRICAL CABLE 1 - CONDUCTOR (NO. 8 AWG-THHN/THWN)
8048	3 EA	FURNISH AND INSTALL ELECTRICAL HANDHOLE
8053	1 EA	CUT, CLEAN GALVANIZE AND CAP TRAFFIC SIGNAL STRUCTURE
8055	300 LF	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)
8057	1250 LF	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
8058	430 LF	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)

PHASE CHART

	1	2	3	4	5	6	
	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	
PHASE 2 & 6	G	G	G	G	DW	DW	
PHASE 2 & 6 CHANGE	Y	Y	Y	Y	DW	DW	
PHASE 4 PED	R	R	R	R	WK	WK	
PED CLEARANCE	R	R	R	R	FDW	FDW	
PHASE 4 CHANGE	R	R	R	R	DW	DW	
PRE-EMPTION 1	R	R	G	G	DW	DW	
PRE-EMPTION 1 CHANGE	R	R	Y	Y	DW	DW	
FLASHING OPERATION	FLY	FLY	FLY	FLY	DARK	DARK	

1 REDLINE REVISION NO. 1 SEPTEMBER 2013
TADD APPROVAL SHA NO. XX4395185

SHA		STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF TRAFFIC & SAFETY TRAFFIC ENGINEERING DESIGN DIVISION US 1 (RHODE ISLAND AVENUE) AT 37TH STREET MOUNT RAINIER, MARYLAND	
GENERAL INFORMATION			
SCALE NONE		ADVERTISED DATE 4/22/2013	CONTRACT NO. XX4395185
DESIGNED BY MNV	COUNTY PRINCE GEORGE'S		
DRAWN BY MNV	LOGMILE 16000100.34		
CHECKED BY SDY	TMS NO. K365		
F.A.P. NO.	TOD NO.		
TS NO. 1129-C-GI	DRAWING SG-02 OF 02	SHEET NO. 02 OF 03	