

PROJECT DESCRIPTION

- I. GENERAL
This project involves the reconstruction of an existing Traffic Control Signal at the intersection of MD 528 and Convention Center Drive in Worcester County. The interconnect cable north to 40th Street and south to 38th Street shall be replaced. MD 528 is assumed to run in a north-south direction.
- II. INTERSECTION OPERATION
- The intersection operates in a NEMA four-phase, full-actuated mode. MD 528 approaches run concurrently, with an Exclusive/Permissive left turn movement for northbound MD 528. The Convention Center Drive shall operate alone. There is a pedestrian phase with pushbutton actuation provided across the south and north approach of MD 528.
 - A full-traffic-actuated, eight-phase controller with one (1) four-channel, rack mount loop detector amplifier, rack power supply and associated equipment and harnesses housed in a NEMA size "6" base-mounted cabinet shall be installed at this intersection.
- III. SPECIAL NOTES
- Upon completion of this project, the Contractor shall notify Mr. Robert Snyder at (410) 787-7631 to arrange for the phone line installation. The Contractor is to provide Mr. Robert Snyder with the nearest street address, zip code and phone number.
 - The Contractor shall be responsible for terminating all signal cables, excluding interconnect, to the appropriate terminals and shall properly label each cable.

EQUIPMENT LISTS

ITEM NO.	QUANTITY	DESCRIPTION
9000	1 EA.	Eight-phase, full-actuated, solid state digital controller with one-4-channel rack mount amplifier, rack power supply and all necessary equipment and harnesses housed in a NEMA size "6" base-mounted cabinet.
9089	65.75 L.F.	Sheet aluminum signs to consist of: 1 EA. R10-12 "LEFT TURN YIELD ON GREEN BALL" sign, (36" x 42") mast arm mounted. 1 EA. R10-12(2) "NO. LEFT. OR U. TURN" sign (36" x 42") mast arm mounted. 1 EA. R3-3(2) "NO. LEFT. OR U. TURN" symbol sign (30" x 30") ground mounted. 1 EA. R3-5L "LEFT TURN ONLY" sign, (30" x 36") mast arm mounted. 2 EA. R3-17 mod "◇, RIGHT LANE, BUSES AND, RIGHT, TURNS, ONLY" sign (30" x 42") mast arm mounted. 1 EA. R9-1 mod "YIELD, TO PED" sign, (48" x 48") mast arm mounted.
9090	28 L.F.	Sheet aluminum signs to consist of: (Blue/ Green) 1 EA. D3-2 "Coastal HWY" sign (variable x 16") mast arm mounted. 2 EA. D3-2 "Convention Cnt DR" dual faced sign (variable x 16") mast arm mounted.
9096	4 EA.	Pedestrian pushbutton and R10-3C sign to read "PUSHBUTTON TO CROSS COASTAL HWY."

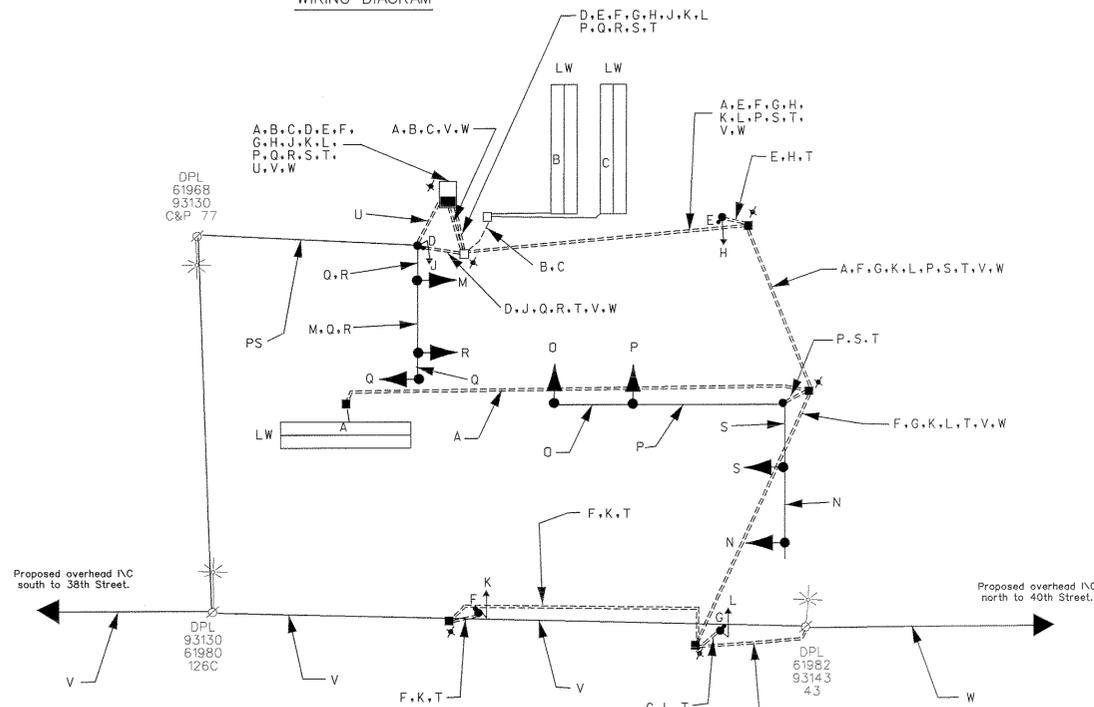
EQUIPMENT LISTS (CON'T.)

ITEM NO.	QUANTITY	DESCRIPTION
1001	2 EA	Maintenance of traffic.
2001	2 CY	Test pit excavation.
2004	12 CY	Class 2- Excavation.
5003	600 LF	Furnish and install 12" white heat applied preformed thermoplastic pavement markings
5004	100 LF	Furnish and install 24" white heat applied preformed thermoplastic pavement markings.
5008	520 LF	Remove the existing pavement markings.
6001	325 SF	Furnish and install 4" concrete sidewalk, mix No. 2.
8001	9.5 CY	Furnish and install concrete foundation.
8003	3 EA	Furnish and install 10' breakaway pedestal pole.
8018	4 EA	Install pushbutton and sign.
8020	1 EA	Install controller and cabinet-base mounted.
8021	334 LF	Furnish and install sawcut for loop detector.
8023	25 LF	Furnish and install 1" liquid tight flexible non-metallic conduit for detector sleeve.
8024	15 LF	Furnish and install 2" schedule 80 rigid PVC conduit-trenched.
8027	80 LF	Furnish and install 3" schedule 80 rigid PVC conduit-trenched.
8030	25 LF	Furnish and install 4" schedule 80 rigid PVC conduit-trenched.
8031	420 LF	Furnish and install 4" schedule 80 rigid PVC conduit-slotted.
8033	5 EA	Furnish and install electrical handhole.
8034	6 EA	Furnish and install ground rod-3/4" dia. x 10' length.
8038	2180 LF	Furnish and install 12 pair communication cable self-supporting (overhead).
8040	1262 LF	Furnish and install loop wire encased in flexible tubing (No. 14 AWG).

EQUIPMENT LISTS (CON'T.)

ITEM NO.	QUANTITY	DESCRIPTION
8041	310 LF	Furnish and install 2-conductor electrical cable (No. 14 A.W.G.) (aluminum shielded).
8042	815 LF	Furnish and install 2-conductor electrical cable (No. 14 A.W.G.).
8043	840 LF	Furnish and install 3-conductor electrical cable (No. 14 A.W.G.).
8044	90 LF	Furnish and install 5-conductor electrical cable (No. 14 A.W.G.).
8045	750 LF	Furnish and install 7-conductor electrical cable (No. 14 A.W.G.).
8046	360 LF	Furnish and install No 6 AWG stranded bare copper ground wire.
8048	30 LF	Furnish and install 1-conductor electrical cable (No. 4 A.W.G.) THHN-THWN.
8049	16 LF	Furnish and install wood sign supports (4" x 4").
8050	10.5 SF	Install ground mounted sign.
8052	83.25 SF	Install overhead sign.
8057	4 EA	Remove and dispose of existing foundation 12" below grade.
8058	1 EA	Removal of existing controller, cabinet and galvanized signal structure.
8059	1 EA	Delivery of removed controller, cabinet and galvanized signal structure.
8060	1 EA	Removal and salvage of existing material signal equipment.
8063	40 LF	Furnish and install 3" riser.
8066	1 EA	Furnish and install control and distribution equipment (120/240V, 1-phase, 3-wire system).
8082	1 EA	Furnish and install mast arm pole and twin (70" side road/ 50" mainline) mast arms (Note: 4-anchor bolts 2" x 90").
8084	22 EA	Furnish and install 12" vehicular traffic signal head section.
8085	3 EA	Furnish and install 8" vehicular traffic signal head section.
8087	8 EA	Furnish and install 12" pedestrian signal head section.
Neg.	1 EA	Furnish and install mast arm pole with 15ft. 'T' and 60' mast arm. (Note: 4-anchor bolts 2" x 90").
Neg.	140 SF	Remove and replace ornamental brick median for the installation of signal equipment.

WIRING DIAGRAM

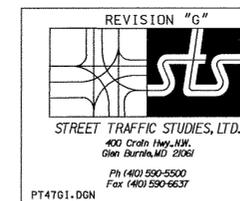


Wiring Key

- A, B, C } 2- Conductor (NO. 14 AWG) aluminum shielded.
- D, E, F, G } 2- Conductor (NO. 14 AWG) electrical cable.
- H, I, J, K, L } 3- Conductor (NO. 14 AWG) electrical cable.
- M, N, O } 5- Conductor (NO. 14 AWG) electrical cable.
- P, Q, R, S } 7- Conductor (NO. 14 AWG) electrical cable.
- T- NO. 6 AWG stranded bare copper ground wire.
- U- 3- Wire service cable
- V } 12- Pair voice grade communication cable.
- LW- Loop wire (NO. 14 AWG)
- EL- Existing loop wire.
- PS- Proposed overhead service to be installed by Connectiv.
- ⊕- Ground rod

PHASE CHART

	1	2	3	4	5	6	7	8	9	10	11
PHASE 1 & 6	G	G	R	R	R	R	R	DW	DW	DW	DW
1 CHANGE	G	G	R	R	R	R	R	DW	DW	DW	DW
PHASE 2 & 6	G	G	G	G	G	R	R	DW	DW	DW	DW
2 & 6 CHANGE	Y	Y	Y	Y	Y	R	R	DW	DW	DW	DW
PHASE 4	R	R	R	R	R	G	G	DW	DW	DW	DW
4 CHANGE	R	R	R	R	R	Y	Y	DW	DW	DW	DW
PHASE 4 ALT	R	R	R	R	R	G	G	WK	WK	WK	WK
PED CLEARANCE	R	R	R	R	R	G	G	FL/DW	FL/DW	FL/DW	FL/DW
ALT 4 CHANGE	R	R	R	R	R	Y	Y	DW	DW	DW	DW
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	DARK	DARK	DARK	DARK



MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION

MD 528 (COASTAL HIGHWAY)
AND CONVENTION CENTER DRIVE

DRAWN BY: E. MILESKY	F.A.P. NO. AC-STPG-0005(683)E	TS NO. 5756-01
CHECKED BY: RRZ	S.H.A. NO. W0758 A30/2558	SHEET NO. 2 OF 2
SCALE: NONE	COUNTY: WORCESTER	T.I.M.S. NO. E 171
DATE: 12-12-00	LOG MILE: 23052805.99	