PROJECT DESCRIPTION

THIS PROJECT INVOLVES MODIFYING THE SOUTHBOUND MD 189 EXCLUSIVE/PERMISSIVE PHASE TO EXCLUSIVE TO PROVIDE FOR SECOND LEFT-TURN LANE. MODIFY NORTHBOUND MD 189 EXCLUSIVE/PERMISSIVE PHASE TO EXCLUSIVE AS A RESULT. INSTALL PEDESTAL-MOUNTED PEDESTRIAN HEADS WITH PUSHBUTTON IN SOUTHWEST QUADRANT. MODIFY ALL TRAFFIC SIGNAL HEAD SECTIONS TO BLACK HOUSING.

CONTROLLER OPERATION

THE EXISTING EIGHT-PHASE FULLY ACTUATED NEMA CONTROLLER WILL BE USED. THE CONTROLLER WILL OPERATE AS A EIGHT PHASE SEMI-ACTUATED CONTROLLER WITH THE NORTHBOUND AND SOUTHBOUND MD 189 APPROACHES RUNNING CONCURRENTLY AND THE EASTBOUND AND WESTBOUND WOOTTON PARKWAY APPROACHES RUNNING IN SEPARATE PHASES. EXCLUSIVE PHASING WILL BE PROVIDED FOR THE NORTHBOUND AND SOUTHBOUND MD 189 LEFT-TURN MOVEMENTS.

CONTACT PERSONS FOR DISTRICT 3 ARE :

MR. LEE STARKLOFF
ASSISTANT DISTRICT ENGINEER - TRAFFIC
(301) 513-7358

MR. AUGUSTINE REBISH
ASSISTANT DISTRICT ENGINEER - UTILITIES
(301) 513-7350

MR. RALEIGH MEDLEY
ASSISTANT DISTRICT ENGINEER - MAINTENANCE
(301) 513-7304

THE POWER COMPANY REPRESENTATIVE IS:

POTOMAC ELECTRIC POWER COMPANY
MR. JIM SLAYTON
(202) 872-2000

CONTACT PERSONS FOR THE OFFICE OF TRAFFIC AND SAFETY ARE:

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

MR. ROBERT SNYDER
ASSISTANT DIVISION CHIEF, TRAFFIC OPERATIONS
(410) 787-7631

MR. ED RODENHIZER
CHIEF, SIGNAL OPERATIONS
(410) 787-7652

MR. EUGENE BAILEY
TEAM LEADER SIGN OPERATIONS
(410) 787-7676

THE MONTGOMERY COUNTY DPWT REPRESENTATIVE IS:

MR. ROBERT GONZALES, ENGINEER TRAFFIC
(240) 777-8761

EQUIPMENT LIST

A. EQUIPMENT TO BE FURNISHED BY STATE HIGHWAY ADMINISTRATION

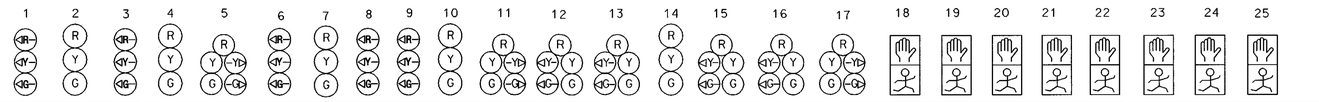
ITEM NO.	QUANTITY	DESCRIPTION
9001	59 SF	SHEET ALUMINUM SIGNS 3-EACH R3-5L (30"X36") - SPAN WIRE MOUNTED 1-EACH ASSOCIATED SHIELD ASSEMBLY SIGN (30"X51") - POLE MOUNTED 1-EACH ASSOCIATED SHIELD ASSEMBLY SIGN (48"X75") - POLE MOUNTED

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

ITEM NO.	QUANTITY	DESCRIPTION
1001	1 EA	MAINTENANCE OF TRAFFIC
2002	1 CY	TEST PIT
5001	6 EA	F&I HEAT APPLIED PERMANENT THERMOPLASTIC PAVEMENT MARKING ARROW
5004	120 LF	F&I 12 INCH HEAT APPLIED WHITE THERMOPLASTIC PAVEMENT MARKING
5008	700 LF	F&I REMOVAL OF EXISTING PAVEMENT LINE MARKINGS - ANY WIDTH
6004	160 SF	F&I 4 INCH CONCRETE SIDEWALK
8010	4 EA	F&I 12 INCH PEDESTRIAN SIGNAL HEAD SECTION
8011	63 EA	F&I 12 INCH VEHICULAR TRAFFIC SIGNAL HEAD SECTION BLACK FACED
8014	1 EA	F&I 250 WATT HIGH PRESSURE SODIUM LAMP AND LUMINAIRE WITH PHOTOCELL
8030	1 EA	F&I 10 PEDESTAL POLE AND BASE
8032	1 EA	F&I PUSHBUTTON AND R10-4(1) SIGN, 9"x12", "PUSHBUTTON TO CROSS FALLS RD"
8048	1 EA	REMOVE & DISPOSE OF MATERIAL AND EQUIPMENT PER ASSIGNMENT
8051	15 LF	F&I 3 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
8059	1 CY	F&I CONCRETE FOR SIGNAL FOUNDATION
8062	20 LF	F&I NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
8069	50 LF	F&I 4 INCH SCHEDULE 80 RIGID PVC CONDUIT - SLOTTED
8070	20 LF	F&I 1 INCH LIQUID TIGHT FLEXIBLE NON-METALLIC CONDUIT FOR DETECTOR SLEEVE
8074	1 EA	F&I ELECTRICAL HANDHOLE
8077	59 SF	INSTALL OVERHEAD SIGN
8082	1 EA	F&I GROUND ROD - 3/4 INCH DIAMETER X 10 FOOT LENGTH
8083	1100 LF	F&I ELECTRICAL CABLE, 2-CONDUCTOR (ALUMINUM SHIELDED)
8084	110 LF	F&I ELECTRICAL CABLE, 2-CONDUCTOR NO. 14 AWG
8086	2450 LF	F&I ELECTRICAL CABLE, 5-CONDUCTOR NO. 14 AWG
8087	2600 LF	F&I ELECTRICAL CABLE, 7-CONDUCTOR NO. 14 AWG
8088	500 LF	F&I ELECTRICAL CABLE, 2-CONDUCTOR NO. 12 AWG
8089	1300 LF	F&I LOOP WIRE ENCASED IN FLEXIBLE TUBING NO. 14 AWG
8090	350 LF	F&I SAW CUT FOR SIGNAL (LOOP DETECTOR)
NEG.	25 EA	REMOVAL OF PLOWABLE RAISED PAVEMENT MARKERS
NEG.	270 LF	F&I 5 INCH WHITE LEAD FREE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
NEG.	1 EA	F&I 20 FOOT LIGHTING ARM ON SIGNAL STRUCTURE

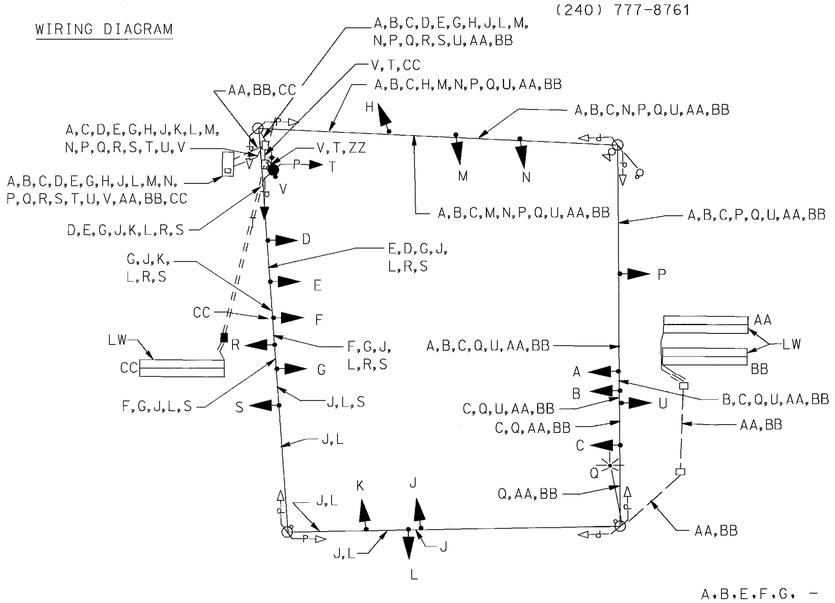
C. EQUIPMENT TO BE REMOVED BY THE CONTRACTOR

ITEM NO.	QUANTITY	DESCRIPTIO
NO EQUIPMENT IS TO BE RETURNED TO MSHA		



	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 & 5	◁G-	R	◁G-	R	R	◁G-	R	◁G-	◁G-	R	R	R	R	R	R	R	R - G▷	DW	DW	DW	DW	DW	DW	DW	DW
1 & 5 CHANGE	THE CONTROLLER MAY SKIP TO PHASES 1 & 6 OR 2 & 5 OR 2 & 6																								
PHASE 1 & 6	◁G-	G	◁G-	G	G - G▷	◁R-	R	◁R-	◁R-	R	R	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
1 & 6 CHANGE	◁Y-	Y	◁Y-	Y	Y - Y▷	◁R-	R	◁R-	◁R-	R	R	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 2 & 5	◁R-	R	◁R-	R	R	◁G-	G	◁G-	◁G-	G	G - G▷	R	R	R	R	R	R - G▷	DW	DW	DW	DW	DW	DW	DW	DW
2 & 5 CHANGE	◁R-	R	◁R-	R	R	◁Y-	Y	◁Y-	◁Y-	Y	Y - Y▷	R	R	R	R	R	R - Y▷	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 2 & 6	◁R-	G	◁R-	G	G	◁R-	G	◁R-	◁R-	G	G	R	R	R	R	R	R	W	W	W	W	DW	DW	DW	DW
PED. CLEAR	◁R-	G	◁R-	G	G	◁R-	G	◁R-	◁R-	G	G	R	R	R	R	R	R	FL/DW	FL/DW	FL/DW	FL/DW	DW	DW	DW	DW
2 & 6 CHANGE	◁R-	Y	◁R-	Y	Y	◁R-	Y	◁R-	◁R-	Y	Y	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 3 & 7	◁R-	R	◁R-	R	R - G▷	◁R-	R	◁R-	◁R-	R	R - G▷	◁G- R	◁G- R	R	◁G- R	◁G- R	R	DW	DW	DW	DW	DW	DW	DW	DW
3 & 7 CHANGE	THE CONTROLLER MAY SKIP TO PHASES 3 & 8 OR 4 & 7 OR 4 & 8																								
PHASE 3 & 8	◁R-	R	◁R-	R	R - G▷	◁R-	R	◁R-	◁R-	R	R	R	R	R	◁G- G	◁G- G	G - G▷	DW	DW	DW	DW	DW	DW	DW	DW
3 & 8 CHANGE	◁R-	R	◁R-	R	R - Y▷	◁R-	R	◁R-	◁R-	R	R	R	R	R	◁Y- Y	◁Y- Y	Y - Y▷	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 4 & 7	◁R-	R	◁R-	R	R	◁R-	R	◁R-	◁R-	R	R - G▷	◁G- G	◁G- G	G	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
4 & 7 CHANGE	◁R-	R	◁R-	R	R	◁R-	R	◁R-	◁R-	R	R - Y▷	◁Y- Y	◁Y- Y	Y	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 4 & 8	◁R-	R	◁R-	R	R	◁R-	R	◁R-	◁R-	R	R	G	G	G	G	G	G	DW	DW	DW	DW	DW	DW	DW	DW
4 & 8 CHANGE	◁R-	R	◁R-	R	R	◁R-	R	◁R-	◁R-	R	R	Y	Y	Y	Y	Y	Y	DW	DW	DW	DW	DW	DW	DW	DW
ALT. 4 & 8	◁R-	R	◁R-	R	R	◁R-	R	◁R-	◁R-	R	R	G	G	G	G	G	G	DW	DW	DW	DW	W	W	W	W
PED. CLEAR	◁R-	R	◁R-	R	R	◁R-	R	◁R-	◁R-	R	R	G	G	G	G	G	G	DW	DW	DW	DW	FL/DW	FL/DW	FL/DW	FL/DW
ALT. CHANGE	◁R-	R	◁R-	R	R	◁R-	R	◁R-	◁R-	R	R	Y	Y	Y	Y	Y	Y	DW	DW	DW	DW	DW	DW	DW	DW
FLASHING OPERATION	FL/ ◁R-	FL/ Y	FL/ ◁R-	FL/ Y	FL/ Y	FL/ ◁R-	FL/ Y	FL/ ◁R-	FL/ ◁R-	FL/ Y	FL/ Y	FL/ R	FL/ R	FL/ R	FL/ R	FL/ R	FL/ R	DARK	DARK	DARK	DARK	DARK	DARK	DARK	DARK

WIRING DIAGRAM



MD 189 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION

A,B,E,F,G, K,P,U,R,S,T - 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)

C,D,H,J, L,M,N - 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)

LW - LOOP WIRE ENCASED IN 1/4 INCH FLEXIBLE TUBING (NO. 14 A.W.G.)

ZZ - STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)

✦ - GROUND ROD 3/4" DIAMETER X 10' LENGTH

AA,BB,CC - 2-CONDUCTOR ELECTRICAL CABLE ALUMINUM SHIELDED (NO. 14 A.W.G.)

V - 2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)

Q - 2-CONDUCTOR ELECTRICAL CABLE (NO. 12 A.W.G.)

WIRING NOTE:

1) EXISTING WIRING FOR EQUIPMENT WHICH IS BEING REMOVED SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR.

2) EXISTING WIRING NOT DETAILED SHALL REMAIN IN PLACE.

KCI TECHNOLOGIES
ENGINEERS
PLANNERS
SCIENTISTS
CONSTRUCTION MANAGERS
10 NORTH PARK DRIVE
HUNT VALLEY, MD 21030
PHONE:(410) 316-7800
FAX:(410) 316-7817
www.kci.com

MARYLAND DOT - STATE HIGHWAY ADMINISTRA
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISIO
MD 189 (FALLS ROAD) AND WOOTTON PARKWA
ROCKVILLE, MARYLAND
GENERAL INFORMATION SHEET

DRAWN BY:	M. Pierre	F.A.P. NO.	AC-STPG-000S(786)E	TS NO.	4179B-GI
CHECKED BY:	J. Lawrence	S.H.A. NO.	MS189A51		
SCALE:	1"=20'	COUNTY:	MONTGOMERY	T.I.M.S. NO.	F218
DATE:	07-25-02	LOG MILE:	15018906.41		

SHE
2

PLOTTED: 10:31 AM on Thursday, July 25, 2002
BY: Rick Rhodes (Wilson T. Ksko)
FILE: m:\1997\01970230\drawings\gg01F226_B.dgn