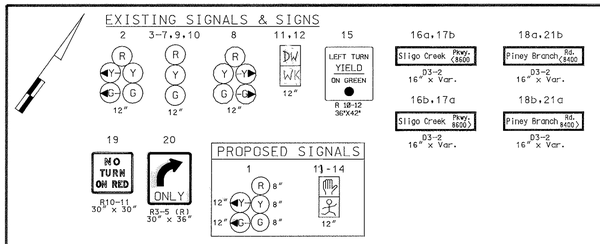
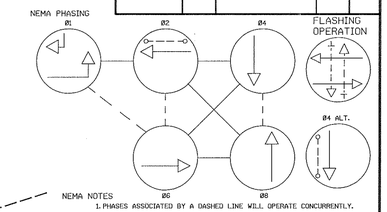
F.H.W.A. REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	MD		1	1

EXISTING SIGNALS & SIGNS



PHASE CHART

	1	2	3	4	5	6	7	8	9	10	11-12	13-14
PHASE 1 & 6	G-G	G-G	G	R	R	R	R	R-G	R	R	DW	DW
1 CHANGE	Y-G	Y-G	G	R	R	R	R	R-Y	R	R	DW	DW
PHASE 2 & 6	G	G	G	G	G	G	R	R	R	R	WK	DW
PED. CLEAR	G	G	G	G	G	G	R	R	R	R	FL/DW	DW
2 & 6 CHANGE	Y	Y	Y	Y	Y	Y	R	R	R	R	DW	DW
PHASE 4 & 8	R	R	R	R	R	R	G	G	G	G	DW	DW
4 & 8 CHANGE	R	R	R	R	R	R	Y	Y	Y	Y	DW	DW
4 & 8 ALT.	R	R	R	R	R	R	G	G	G	G	DW	WK
PED. CLEAR	R	R	R	R	R	R	G	G	G	G	DW	FL/DW
4 & 8 ALT. CHANGE	R	R	R	R	R	R	Y	Y	Y	Y	DW	DW
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R	DARK	DARK



NEMA NOTES
1. PHASES ASSOCIATED BY A DASHED LINE WILL OPERATE CONCURRENTLY.
2. PHASES ASSOCIATED BY A SOLID LINE WILL NOT OPERATE CONCURRENTLY.

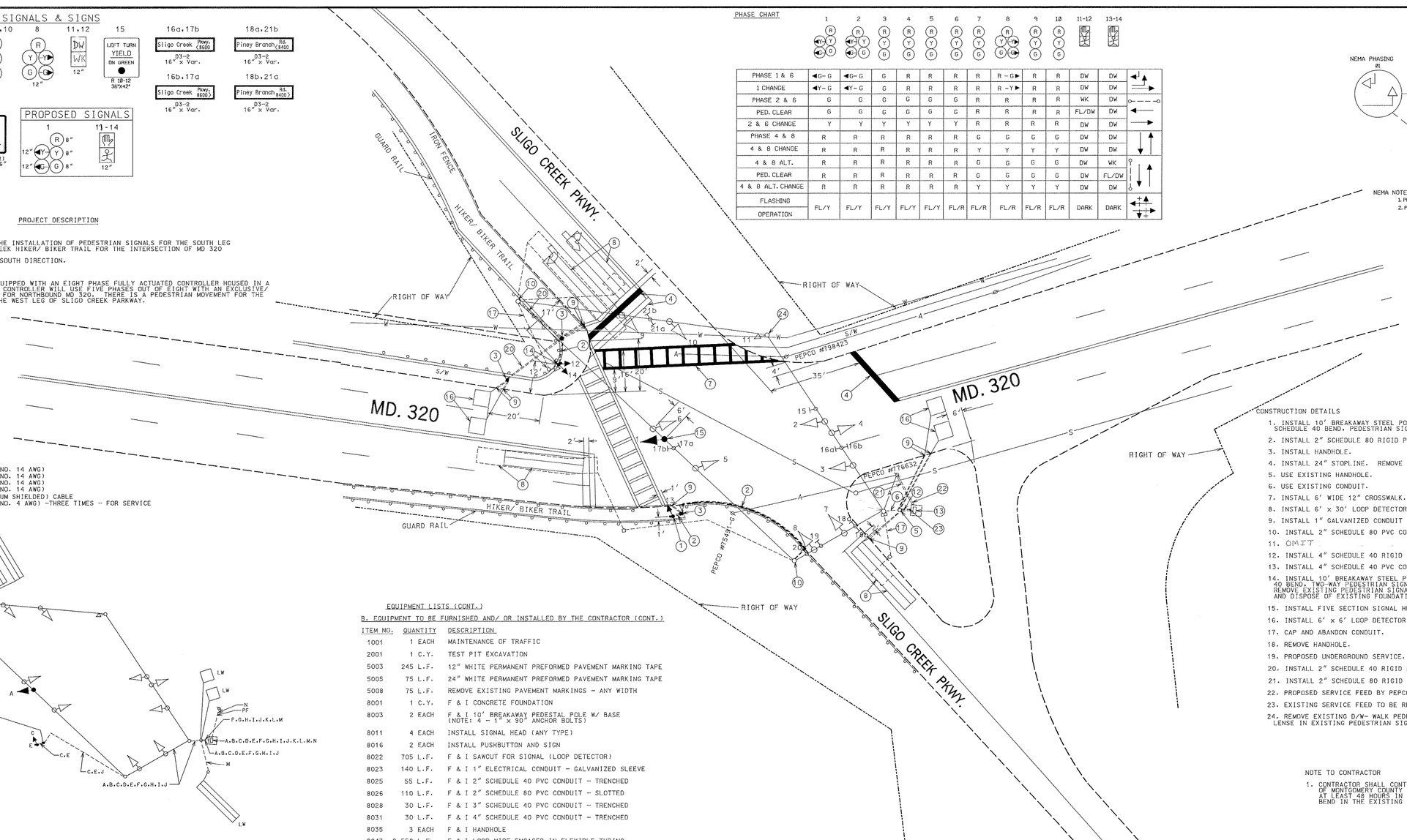
PROJECT DESCRIPTION

I. GENERAL

THIS PROJECT INVOLVES THE INSTALLATION OF PEDESTRIAN SIGNALS FOR THE SOUTH LEG OF MD 320 FOR THE SLIGO CREEK HIKER/ BIKER TRAIL FOR THE INTERSECTION OF MD 320 AND SLIGO CREEK PARKWAY.
MD 320 RUNS IN A NORTH-SOUTH DIRECTION.

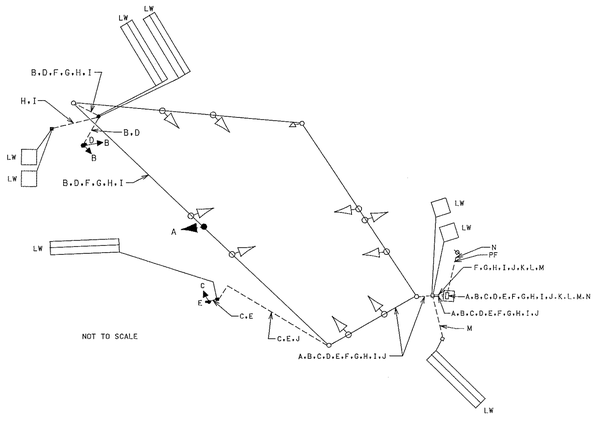
II. INTERSECTION OPERATION

THIS INTERSECTION IS EQUIPPED WITH AN EIGHT PHASE FULLY ACTUATED CONTROLLER HOUSED IN A BASE MOUNTED CABINET. THE CONTROLLER WILL USE FIVE PHASES OUT OF EIGHT WITH AN EXCLUSIVE/ PERMISSIVE LEFT TURN PHASE FOR NORTHBOUND MD 320. THERE IS A PEDESTRIAN MOVEMENT FOR THE SOUTH LEG OF MD 320. AND THE WEST LEG OF SLIGO CREEK PARKWAY.



WIRING DIAGRAM

A = 7 CONDUCTOR CABLE (NO. 14 AWG)
B = 5 CONDUCTOR CABLE (NO. 14 AWG)
C = 3 CONDUCTOR CABLE (NO. 14 AWG)
D-E = 2 CONDUCTOR CABLE (NO. 14 AWG)
F-M = 2 CONDUCTOR (ALUMINUM SHIELDED) CABLE
N = 1 CONDUCTOR CABLE (NO. 4 AWG) -THREE TIMES - FOR SERVICE
PF = PROPOSED FEED
LW = LOOP WIRE



EQUIPMENT LISTS

A. EQUIPMENT TO BE FURNISHED BY THE ADMINISTRATION

ITEM NO.	QUANTITY	DESCRIPTION
	1 EACH	12" TWO WAY, TWO SECTION PEDESTRIAN SIGNAL HEADS, PEDESTAL MOUNT HARDWARE
	1 EACH	12" ONE WAY, TWO SECTION PEDESTRIAN SIGNAL HEAD, PEDESTAL MOUNT HARDWARE
	1 EACH	COMBINATION 8"/ 12" ONE WAY, FIVE SECTION (12" RA.GA.8" R.Y.G) SIGNAL HEAD, SPAN WIRE MOUNT HARDWARE
1.5 S.F.	2 EACH	PUSHBUTTON W/ R10-3C SIGN, "PUSH BUTTON TO CROSS PINEY BRANCH RD.", 12" x 9", PEDESTAL MOUNTED HARDWARE
	1 EACH	12" SYMBOLIC LENSE FOR PEDESTRIAN SIGNAL HEAD

EQUIPMENT LISTS (CONT.)

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

ITEM NO.	QUANTITY	DESCRIPTION
1001	1 EACH	MAINTENANCE OF TRAFFIC
2001	1 C.Y.	TEST PIT EXCAVATION
5003	245 L.F.	12" WHITE PERMANENT PREFORMED PAVEMENT MARKING TAPE
5005	75 L.F.	24" WHITE PERMANENT PREFORMED PAVEMENT MARKING TAPE
5008	75 L.F.	REMOVE EXISTING PAVEMENT MARKINGS - ANY WIDTH
8001	1 C.Y.	F & I CONCRETE FOUNDATION
8003	2 EACH	F & I 10' BREAKAWAY PEDESTAL POLE W/ BASE (NOTE: 4 - 1" x 90" ANCHOR BOLTS)
8011	4 EACH	INSTALL SIGNAL HEAD (ANY TYPE)
8016	2 EACH	INSTALL PUSHBUTTON AND SIGN
8022	705 L.F.	F & I SAWCUT FOR SIGNAL (LOOP DETECTOR)
8023	140 L.F.	F & I 1" ELECTRICAL CONDUIT - GALVANIZED SLEEVE
8025	55 L.F.	F & I 2" SCHEDULE 40 PVC CONDUIT - TRENCHED
8026	110 L.F.	F & I 2" SCHEDULE 80 PVC CONDUIT - SLOTTED
8028	30 L.F.	F & I 3" SCHEDULE 40 PVC CONDUIT - TRENCHED
8031	30 L.F.	F & I 4" SCHEDULE 40 PVC CONDUIT - TRENCHED
8035	3 EACH	F & I HANDHOLE
8043	2,550 L.F.	F & I LOOP WIRE ENCASED IN FLEXIBLE TUBING
8044	1,590 L.F.	F & I ELECTRICAL CABLE - 2 CONDUCTOR (ALUMINUM SHIELDED)
8045	650 L.F.	F & I ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)
8046	260 L.F.	F & I ELECTRICAL CABLE - 3 CONDUCTOR (NO. 14 AWG)
8047	370 L.F.	F & I ELECTRICAL CABLE - 5-CONDUCTOR (NO. 14 AWG)
8048	200 L.F.	F & I ELECTRICAL CABLE - 7-CONDUCTOR (NO. 14 AWG)
8053	90 L.F.	F & I ELECTRICAL CABLE - 1-CONDUCTOR (NO. 4 AWG)
8068	2 EACH	F & I CONDUIT BEND IN EXISTING BASE
8070	20 L.F.	F & I 2" SCHEDULE 80 PVC CONDUIT - TRENCHED
8076	1 EACH	F & I CONTROL AND DISTRIBUTION EQUIPMENT (120/249 V. 1 PHASE 3 WIRE SYST)
NEG.	1 EACH	REMOVE EXISTING D/W - WK LENSE AND INSTALL SYBOLIC PEDESTRIAN LENSE IN PEDESTRIAN SIGNAL

CONSTRUCTION DETAILS

1. INSTALL 10' BREAKAWAY STEEL POLE WITH BASE, FOUNDATION, 2" PVC SCHEDULE 40 BEND, PEDESTRIAN SIGNALS (1), PUSHBUTTON, AND PEDESTRIAN SIGN.
2. INSTALL 2" SCHEDULE 80 RIGID PVC CONDUIT - SLOTTED.
3. INSTALL HANDHOLE.
4. INSTALL 24" STOPLINE. REMOVE EXISTING STOPLINE.
5. USE EXISTING HANDHOLE.
6. USE EXISTING CONDUIT.
7. INSTALL 6' WIDE 12" CROSSWALK.
8. INSTALL 6' x 30' LOOP DETECTOR (3-6-3 TURNS). DISCONNECT EXISTING DETECTOR.
9. INSTALL 1" GALVANIZED CONDUIT - SLEEVE.
10. INSTALL 2" SCHEDULE 80 PVC CONDUIT BEND IN EXISTING BASE.
11. OMIT
12. INSTALL 4" SCHEDULE 40 RIGID PVC CONDUIT - TRENCHED.
13. INSTALL 4" SCHEDULE 40 PVC CONDUIT BEND IN EXISTING BASE.
14. INSTALL 10' BREAKAWAY STEEL POLE WITH BASE, FOUNDATION, 2" PVC SCHEDULE 40 BEND, TWO-WAY PEDESTRIAN SIGNALS (1), PUSHBUTTON, AND PEDESTRIAN SIGN. REMOVE EXISTING PEDESTRIAN SIGNAL, BREAKAWAY SIGNAL POLE, AND BASE. REMOVE AND DISPOSE OF EXISTING FOUNDATION 12" BELOW GRADE.
15. INSTALL FIVE SECTION SIGNAL HEAD.
16. INSTALL 6' x 6' LOOP DETECTOR (4 TURNS).
17. CAP AND ABANDON CONDUIT.
18. REMOVE HANDHOLE.
19. PROPOSED UNDERGROUND SERVICE.
20. INSTALL 2" SCHEDULE 40 RIGID PVC CONDUIT - TRENCHED.
21. INSTALL 2" SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED.
22. PROPOSED SERVICE FEED BY PEPCO.
23. EXISTING SERVICE FEED TO BE REMOVED BY PEPCO.
24. REMOVE EXISTING D/W- WALK PEDESTRIAN SIGN, AND INSTALL SYMBOLIC LENSE IN EXISTING PEDESTRIAN SIGNAL.

NOTE TO CONTRACTOR

1. CONTRACTOR SHALL CONTACT MR. EMIL WOLANIN (1-301-217-2190) OF MONTGOMERY COUNTY DEPT. OF PUBLIC WORKS AND TRANSPORTATION AT LEAST 48 HOURS IN ADVANCE BEFORE INSTALLING THE 4" CONDUIT BEND IN THE EXISTING CONTROLLER BASE.

UTILITY LEGEND

G	GAS MAIN
W	WATER MAIN
S	SEWER MAIN
E	ELECTRIC CABLES
A	AERIAL CABLES
T	TELEPHONE CABLES

REVISIONS
A. 07/96 - INSTALLED PED. SIGNALS FOR SOUTH LEG/OF/MD 320 & REPLACED LOOPS; MHA/RAA/02-501-385 11/96
COMM WILLIAMS FSK GRB

APPROVALS

ORIGINAL
ASST. DIVISION CHIEF, TEDD
ON FILE
ASST. DISTRICT ENGINEER, TRAFFIC
FROM MONTGOMERY
CHIEF, TRAFFIC ENGINEERING DESIGN DIVISION
COUNTY
DIRECTOR, OFFICE OF TRAFFIC & SAFETY

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

MD. 320 & SLIGO CREEK PARKWAY

DATE 4/8/75

DRAWN BY: G.S.D. — DIV. OF TRAFFIC MONTGOMERY CO.	F.A.P. NO.	PLAN SHEET NO.: 3683 TS-3617 (A)	SHEET NO. 1 OF 1
DES. BY: E.J.C. & G.S.D. — DIV. OF TRAFFIC MONTGOMERY CO.	S.H.A. NO.		
CHECK BY:	COUNTY MONTGOMERY		
SCALE: 1" = 20'			

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