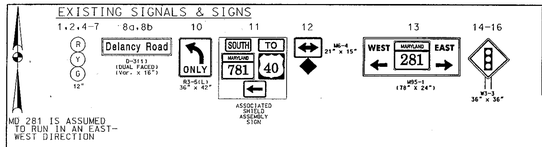
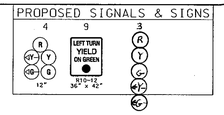
EXISTING SIGNALS & SIGNS



PROPOSED SIGNALS & SIGNS



CONSTRUCTION DETAILS

A. INSTALL THE PROPOSED SIGNAL HEAD, AND SIGN. REMOVE THE EXISTING SIGNAL HEAD.
B. INSTALL THE PROPOSED 6 FT. X 30 FT. (3-6-3 TURNS) QUADRUPOLE TYPE LOOP DETECTOR ENCASED IN 1/4 IN. FLEXIBLE TUBING.
C. INSTALL THE PROPOSED 1 IN. ELECTRICAL CONDUIT - GALVANIZED DETECTOR SLEEVE.
D. USE THE EXISTING CONDUIT.
E. USE THE EXISTING HANDHOLE.
F. INSTALL THE PROPOSED HANDHOLE, AND GROUND ROD.
G. INSTALL THE PROPOSED 10' PEDESTAL POLE AND BASE, FOUNDATION, 2" PVC CONDUIT BEND, AND SIGNAL HEAD.
H. INSTALL THE PROPOSED 2" PVC SCHEDULE 80 CONDUIT - TRENCHED.
I. INSTALL THE PROPOSED 4" PVC SCHEDULE 80 CONDUIT - BORED.

PROJECT CONTACTS

THE PROJECT CONTACTS ARE AS FOLLOWS:

MR. ROBERT KIEL
ASSISTANT DISTRICT ENGINEER - TRAFFIC
PHONE: (410) 810-3740

MR. TERRY O. WRIGHT
ASSISTANT DISTRICT ENGINEER - MAINTENANCE
PHONE: (410) 810-3290

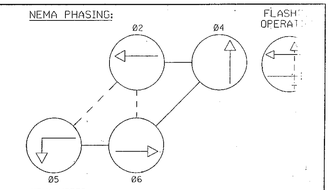
MR. BARRY CLOTHIER
ASSISTANT DISTRICT ENGINEER - UTILITIES
PHONE: (410) 810-3275

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

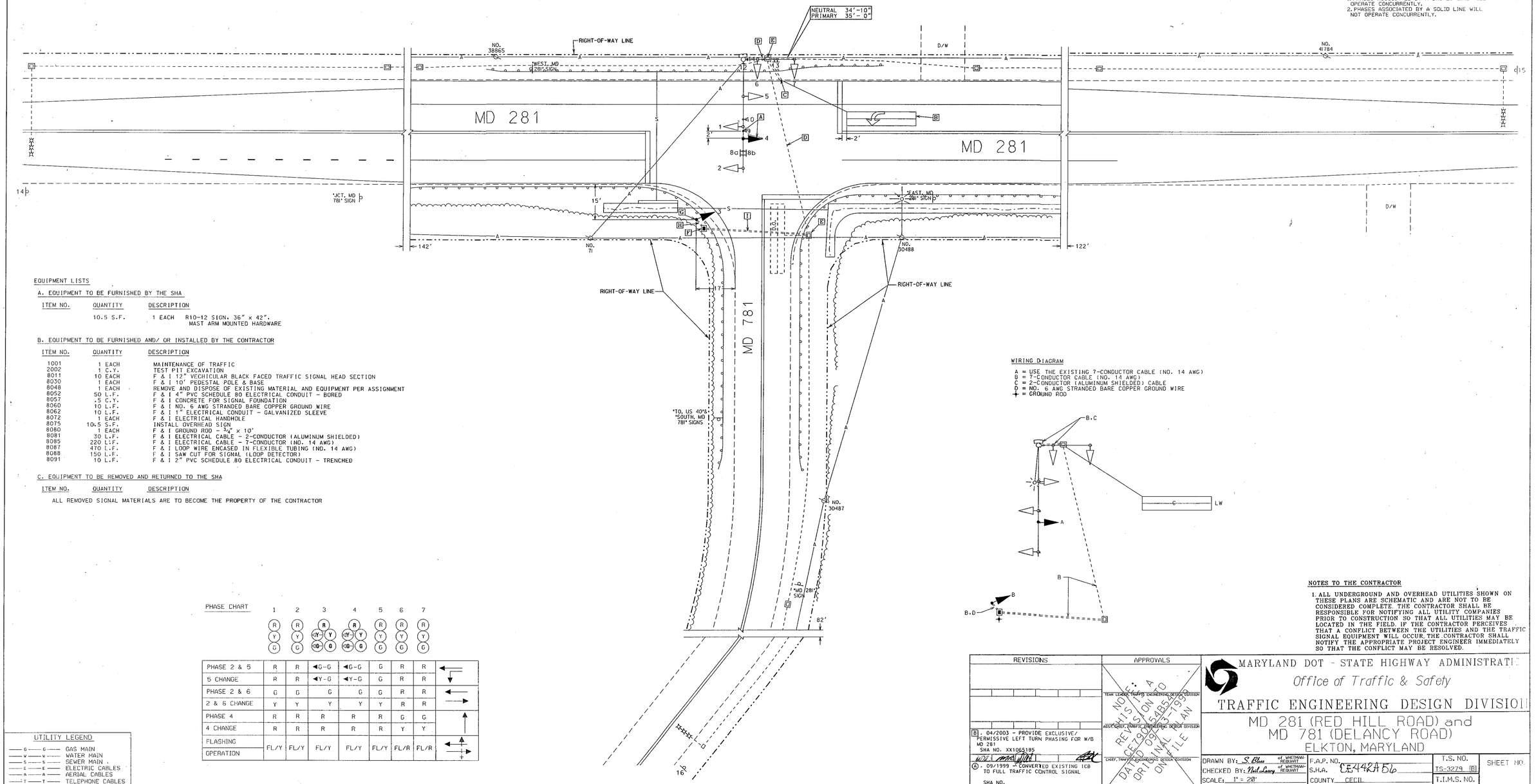
MR. ROBERT SNYDER
ASSISTANT DIVISION CHIEF, TRAFFIC OPERATIONS DIVISION
PHONE: (410) 787-7631

MR. EDWARD RODENHIZER
CHIEF, SIGNAL OPERATIONS SECTION
PHONE: (410) 787-7652

NEMA PHASING:



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



EQUIPMENT LISTS

A. EQUIPMENT TO BE FURNISHED BY THE SHA

ITEM NO.	QUANTITY	DESCRIPTION
	10.5 S.F.	1 EACH R10-12 SIGN, 36" x 42". MAST ARM MOUNTED HARDWARE

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

ITEM NO.	QUANTITY	DESCRIPTION
1001	1 EACH	MAINTENANCE OF TRAFFIC
2002	1 C.Y.	TEST PIT EXCAVATION
8011	10 EACH	F & I 12" VECHICULAR BLACK FACED TRAFFIC SIGNAL HEAD SECTION
8030	1 EACH	F & I 10' PEDESTAL POLE & BASE
8048	1 EACH	REMOVE AND DISPOSE OF EXISTING MATERIAL AND EQUIPMENT PER ASSIGNMENT
8052	50 L.F.	F & I 4" PVC SCHEDULE 80 ELECTRICAL CONDUIT - BORED
8057	.5 C.Y.	F & I CONCRETE FOR SIGNAL FOUNDATION
8060	10 L.F.	F & I NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
8062	10 L.F.	F & I 1" ELECTRICAL CONDUIT - GALVANIZED SLEEVE
8072	1 EACH	F & I ELECTRICAL HANDHOLE
8075	10.5 S.F.	INSTALL OVERHEAD SIGN
8080	1 EACH	F & I GROUND ROD - 3/4" x 10'
8081	30 L.F.	F & I ELECTRICAL CABLE - 2-CONDUCTOR (ALUMINUM SHIELDED)
8085	220 L.F.	F & I ELECTRICAL CABLE - 7-CONDUCTOR (NO. 14 AWG)
8087	470 L.F.	F & I LOOP WIRE ENCASED IN FLEXIBLE TUBING (NO. 14 AWG)
8088	150 L.F.	F & I SAW CUT FOR SIGNAL (LOOP DETECTOR)
8091	10 L.F.	F & I 2" PVC SCHEDULE 80 ELECTRICAL CONDUIT - TRENCHED

C. EQUIPMENT TO BE REMOVED AND RETURNED TO THE SHA

ITEM NO.	QUANTITY	DESCRIPTION
		ALL REMOVED SIGNAL MATERIALS ARE TO BECOME THE PROPERTY OF THE CONTRACTOR

WIRING DIAGRAM

A = USE THE EXISTING 7-CONDUCTOR CABLE (NO. 14 AWG)
B = 7-CONDUCTOR CABLE (NO. 14 AWG)
C = 2-CONDUCTOR (ALUMINUM SHIELDED) CABLE
D = NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
⏚ = GROUND ROD

PHASE CHART

	1	2	3	4	5	6	7	
PHASE 2 & 5	R	R	◄G-G	◄G-G	G	R	R	← ↓
5 CHANGE	R	R	◄Y-G	◄Y-G	G	R	R	
PHASE 2 & 6	G	G	G	G	G	R	R	←
2 & 6 CHANGE	Y	Y	Y	Y	Y	R	R	→
PHASE 4	R	R	R	R	R	G	G	↑
4 CHANGE	R	R	R	R	R	Y	Y	
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	← ↑ + →

UTILITY LEGEND

—G—G—	GAS MAIN
—W—W—	WATER MAIN
—S—S—	SEWER MAIN
—E—E—	ELECTRIC CABLES
—A—A—	AERIAL CABLES
—T—T—	TELEPHONE CABLES
—D—D—	STORM DRAIN

NOTES TO THE CONTRACTOR

1. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC AND ARE NOT TO BE CONSIDERED COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING ALL UTILITY COMPANIES PRIOR TO CONSTRUCTION SO THAT ALL UTILITIES MAY BE LOCATED IN THE FIELD. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN THE UTILITIES AND THE TRAFFIC SIGNAL EQUIPMENT WILL OCCUR, THE CONTRACTOR SHALL NOTIFY THE APPROPRIATE PROJECT ENGINEER IMMEDIATELY SO THAT THE CONFLICT MAY BE RESOLVED.

REVISIONS	APPROVALS
B. 04/2003 - PROVIDE EXCLUSIVE/ PERMISSIVE LEFT TURN PHASING FOR W/B MD 281. SHA NO. XX1065185	TEAM LEADER, TRAFFIC ENGINEERING DESIGN DIVISION
A. 09/1999 - CONVERTED EXISTING ICB TO FULL TRAFFIC CONTROL SIGNAL. SHA NO.	ASST. CHIEF, TRAFFIC ENGINEERING DESIGN DIVISION
	CHIEF, TRAFFIC ENGINEERING DESIGN DIVISION
	DIRECTOR, OFFICE OF TRAFFIC & SAFETY

NOT A REVISION TO THE ORIGINAL PLAN ON FILE DATED 09/23/1999 CE7915 54B5

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

MD 281 (RED HILL ROAD) and MD 781 (DELANCY ROAD)
ELKTON, MARYLAND

DRAWN BY: S. Blue of WHITMAN-REQUART	F.A.P. NO.	T.S. NO. TS-3279 B	SHEET NO.
CHECKED BY: Phil Lahey of WHITMAN-REQUART	S.H.A. CE7442A56		
SCALE: 1" = 20'	COUNTY CECIL	T.I.M.S. NO. E541	1 OF 1
DATE: 09/23/1999	LOG MILE 07028101.81		