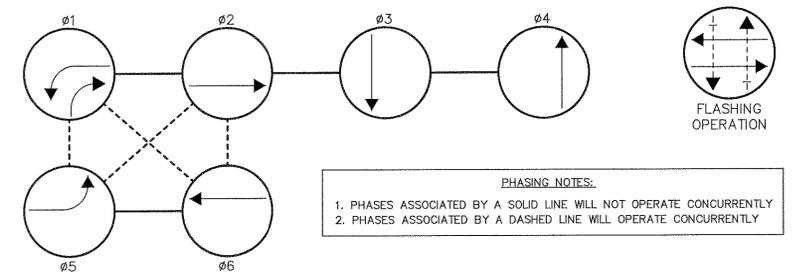


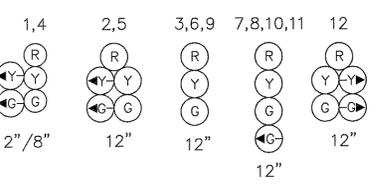
FHWA REGION NO	STATE	FED. AID PROJ. NO	SHEET NO.	TOTAL SHEETS
3	MD.	SEE TITLE SHEET		

NEMA PHASING

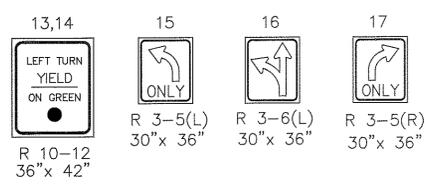


PHASING NOTES:
 1. PHASES ASSOCIATED BY A SOLID LINE WILL NOT OPERATE CONCURRENTLY
 2. PHASES ASSOCIATED BY A DASHED LINE WILL OPERATE CONCURRENTLY

SIGNALS



SIGNS



NOTE: Signal heads 1-6, 10,11 and Signs 13,16,17 are existing and are to be unbagged and relocated.
 Signal heads 7-9 are existing and are to remain.
 Sign 15 is existing and is to be temporarily bagged.
 Signal head 12 is proposed.
 Sign 14 is existing and is to be relocated.

Intersection Operation

The existing cabinet, and controller are to be utilized. The phasing is to be modified to include an eastbound to southbound right turn overlap.

Construction Details

- A. Existing cabinet/controller are to be utilized.
- B. Use existing handhole and splice new loopwire to existing 2-conductor aluminum shielded cable.
- C. Use existing conduit.
- D. Install handhole.
- E. Install 1 in. liquid tight, non-metallic conduit for loop detector sleeve.
- F. Install 1 in. galvanized steel conduit for loop detector sleeve.
- G. Use existing loop detector sleeve.
- H. Install 6 ft. x 22 ft. quadrupole type vehicle loop detector (2-4-2 turns).
- I. Install 6 ft. x 30 ft. quadrupole type vehicle loop detector (2-4-2 turns).
- J. Use existing span wire. Unbag polycarbonate traffic signal heads, and sign. Relocate as shown. Temporarily bag existing signal heads.
- K. Use existing span wire, relocate existing vehicle signal head, install new signal head and unbag signs as shown.
- L. Use existing span wire, relocate existing vehicle signal head as shown.
- M. Install 24 in. preformed white pavement marking for stop line.
- N. Install 2 in. polyvinyl chloride (Schedule 80) electrical conduit - slotted.
- O. Install 2 in. polyvinyl chloride (Schedule 40) electrical conduit - trenched.
- P. Use existing strain pole, pull back existing 2-conductor aluminum shielded cable, re-run in new conduit and splice to new loopwire. Use existing conduit bend.
- Q. Cap and abandon existing conduit.
- R. Remove existing handhole.
- S. Use existing span wire. Unbag existing signal heads and relocate as shown. Remove polycarbonate signal heads. Relocate existing sign as shown.

Equipment List "A"

Equipment to be supplied by the SHA.

Quantity	Unit	Description
1	EA	12 in., one-way, five section (R,Y,YA,G,GA) adjustable traffic signal head - span wire mount.

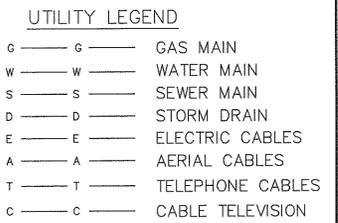
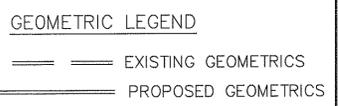
Equipment List "B"

Equipment to be furnished and/or installed by the Contractor.

Quantity	Unit	Description
125	LF	24 in. preformed white pavement marking for stop line.
1	EA	Handhole.
850	LF	Sawcut for signal loop detector.
2225	LF	Loop detector wire (No. 14 A.W.G.) encased in flexible tubing.
100	LF	2-conductor (aluminum shielded) electrical cable (No. 14 A.W.G.).
75	LF	1 in. galvanized steel conduit for loop detector sleeve.
30	LF	1 in. liquid tight, flexible, non-metallic conduit for loop detector sleeve.
20	LF	2 in. polyvinyl chloride (Schedule 40) electrical conduit - trenched.
60	LF	2 in. polyvinyl chloride (Schedule 80) electrical conduit - slotted.
1	EA	Ground rod - 3/4 in. diameter x 10 ft. length.
1	EA	Install traffic signal head - span wire mount.
8	EA	Relocate traffic signal head - span wire mount.
21	SF	Relocate existing sheet aluminum signing - overhead mount.
6	EA	Loop detector splice.
1	EA	Temporarily bag existing overhead sign.
LS	LS	Removal of existing traffic signal equipment.

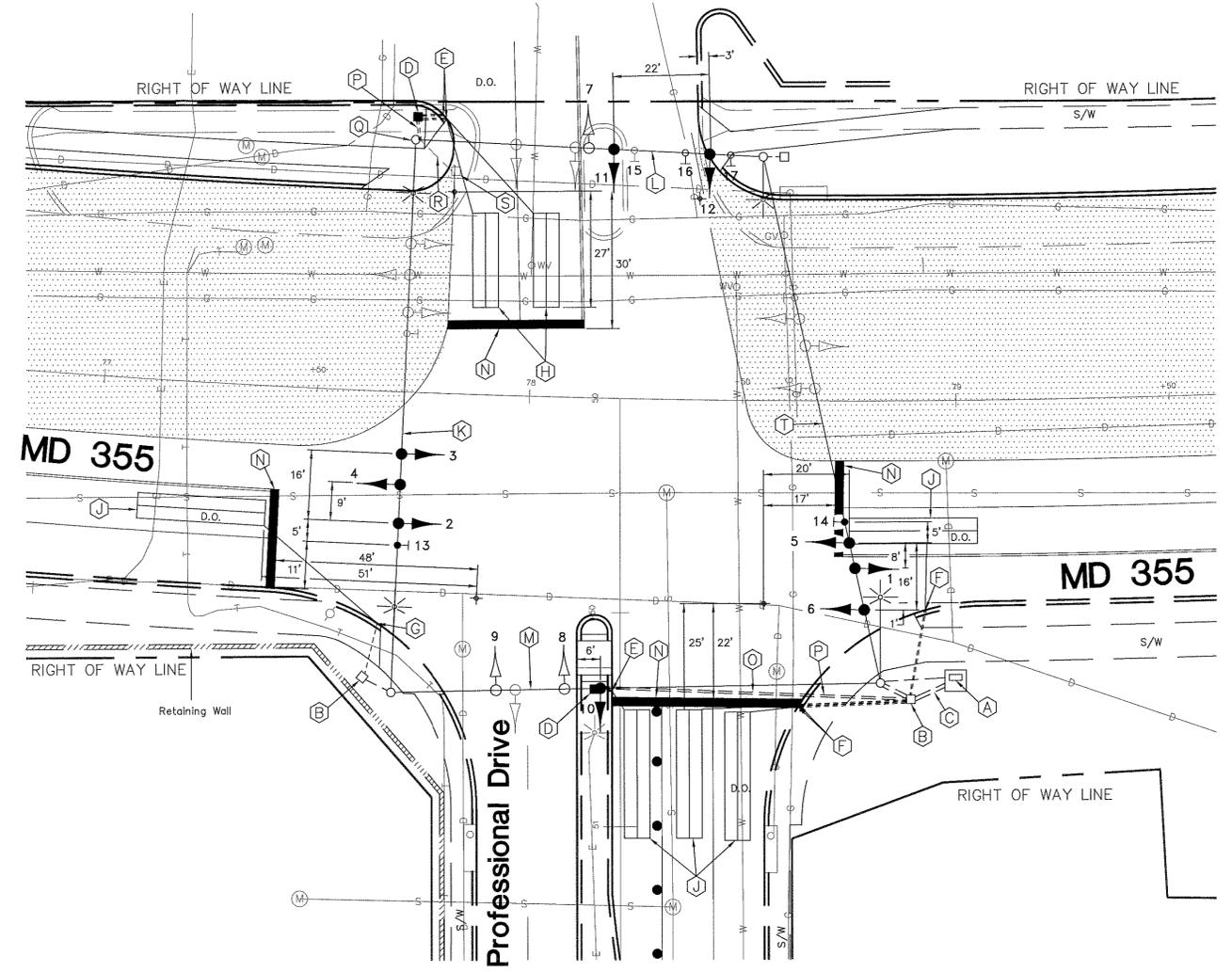
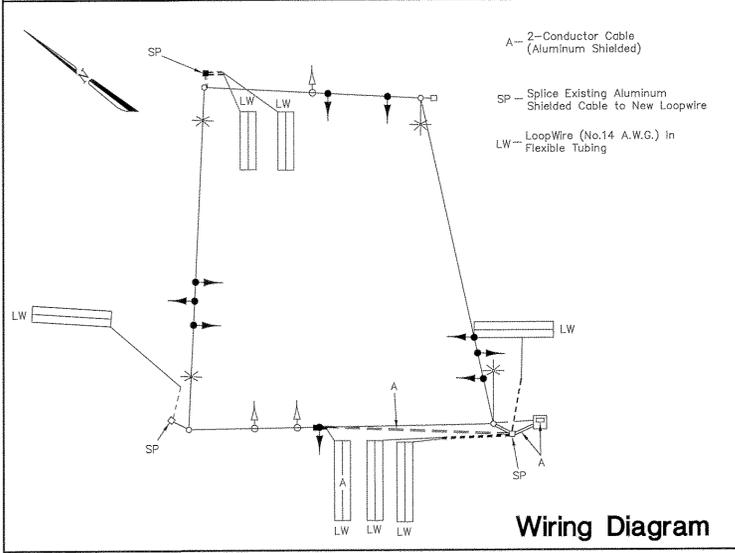
NOTES

1. "D.O." indicates delay output loop detector.
2. Proposed geometrics shall be confirmed prior to the installation of signal equipment.
3. Loop detectors and conduit shall be installed prior to the installation of pavement markings.
4. Pavement markings detailed are proposed and are to be installed by the contractor in accordance with S.H.A. standards. All other pavement markings not detailed will be installed as part of the highway contract.
5. Revision 'A' is a revision to the traffic signal built in October, 1988 under Contract S.H.A. No.: BW-357-802-312.
6. All utilities are shown in their approximate location and are not to be considered as complete. The Contractor shall be responsible for contacting Miss Utility to verify the the locations of all utilities. The Contractor shall contact the appropriate personnel prior to construction to avoid potential conflicts so that field adjustments can be made.
7. Interconnect to be maintained at all times.



Phase Chart

Phase	1	2	3	4	5	6	7	8	9	10	11	12
Phase 1 & 5	R	R	R	R	R	R	R	R	R	R	R	R
1 & 5 Change To Phase 1 & 6 or Phase 2 & 5	G	G	G	G	G	G	G	G	G	G	G	G
Phase 1 & 6	G	G	G	R	R	R	R	R	R	R	R	R
1 Change	G	G	G	R	R	R	R	R	R	R	R	R
Phase 2 & 5	R	R	R	R	R	R	R	R	R	R	R	R
5 Change	R	R	R	G	G	G	G	G	G	G	G	G
Phase 2 & 6	G	G	G	G	G	G	R	R	R	R	R	R
2 & 6 Change	Y	Y	Y	Y	Y	Y	R	R	R	R	R	R
Phase 3	R	R	R	R	R	R	R	R	R	R	R	R
3 Change	R	R	R	R	R	R	Y	Y	Y	Y	Y	Y
Phase 4	R	R	R	R	R	R	R	R	R	R	R	R
4 Change	R	R	R	R	R	R	R	R	R	Y	Y	Y
Flashing Operation	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R						



LEGEND

CONSTRUCTION AREA

Maintenance of Traffic
 Phase 2, Stage 2

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

SIGNAL # 15035516.65

MD 355 at Professional Drive

COUNTY: MONTGOMERY

DRAWN BY: C. Buitrago
 DES. BY: D. Renshaw
 CHK. BY: D. Doda

DATE: October 13, 1988
 SCALE: 1" = 20'

F.A.P. NO. N/A
 S.H.A. NO. BW-357-802-312

TS/STD. NO. 2517A-X4-P
 SHEET NO. OF

REVISIONS	APPROVALS
	CHIEF, SIGNAL DESIGN SECTION
	ASST. DISTRICT ENGINEER, TRAFFIC
	CHIEF, TRAFFIC ENGINEERING DESIGN DIVISION
	DIRECTOR, OFFICE OF TRAFFIC & SAFETY

Revision 'A'

11409 CRONHILL DRIVE
 OWINGS MILLS, MD. 21117
 (410) 363-1908
 A/E JOB NO: 84-264

November 6, 1995
 Rebuild to new geometrics.
 S.H.A. No.: M 611-501-371