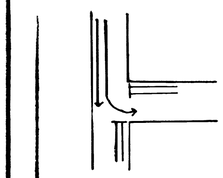
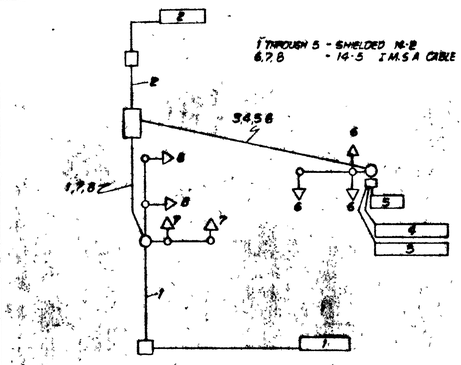
PHASE & SEQUENCE DIAGRAM



	TRAFFIC SIGNAL HEADS			
	2	1,5	3,4	6,7
PHASE 1	←3G	G	R	R
PHASE 1 CLEAR	←AG	G	R	R
PHASE 2	G	G	G	R
PHASE 2 CLEAR	A	A	A	R
PHASE 3	R	R	R	G
PHASE 3 CLEAR	R	R	R	A
FLASH PHASE	F/A	F/A	F/A	F/R



(AS-BUILT) WIRING DIAGRAM

NO SCALE

LEFT - TURN EQUIPMENT ⚠

A. SIGNAL HEADS - STD. CAP VISORS
Remove existing signal head #2, and replace with 5 head. COMBINATION
No. (see plan)
Traffic Signal } #2
Size of indication
12" Red
12" Amber, 12" Amber Arrow
12" Green, 12" Green Arrow

H. CONTROLLER MODIFICATIONS
Phase module(s), Solid State load switch(es) FOR ECONOLITE ENC 4000 S/N 472 P/N 31405G100 PROGRAM 31454

#746

EXISTING EQUIPMENT LIST

SEE PAGE 9-11 OF SPECIFICATIONS FOR MAKE/MODEL

*A CONTROLLER
1 Fully actuated two (2) phase solid state digital modular controller expandable to three (3) vehicle phases fully actuated plus all-red pedestrian phase actuated
2 Memory and recall for each phase
3 Standard Police Panel (ref 8.8.A.10 General Specifications) without manual override
4 All red clearance interval for each phase
5 Conflict monitor with solid state signal loading switches
6 Two (2) Loop detector amplifiers (standard)
7 Minimum acceptable adjustment range
a) Major & Minor street initial period and unit extension 2-30 sec
b) Major & Minor street extension 10-60 sec
c) Vehicle clearance interval and all red clearance interval up to 10 sec
8 Base mounted control cabinet large enough to accommodate the ultimate 3 phase and pedestrian phase
9 Control cabinet to be finished bronze
10 Two Loop detector amplifiers with adjustable delayed timer.

B DETECTORS

Phase	Detector	Dimensions
A	1&2	6'x18'
B	3,4,5	6'x12'

Loops No 4&5 will be wired in parallel
Loop No 3 and 4&5 will be connected to delayed timer detectors.

C SIGNAL HEADS
1 A Signal heads shall have 12" red, 8" amber and 8" green indications with standard cap visors

D. POLES - MAST ARM

No (SEE PLAN)	Description
1	Truss arm support with 90° Angle at separation with 78' Span supporting an Ultimate 3 signal heads and the 16' span supporting 2 signal heads
2	Single Arm 34' span supports 3 signal heads

Poles Finish - Manufacturers prime coat with exterior Bronze finish to be applied in the field

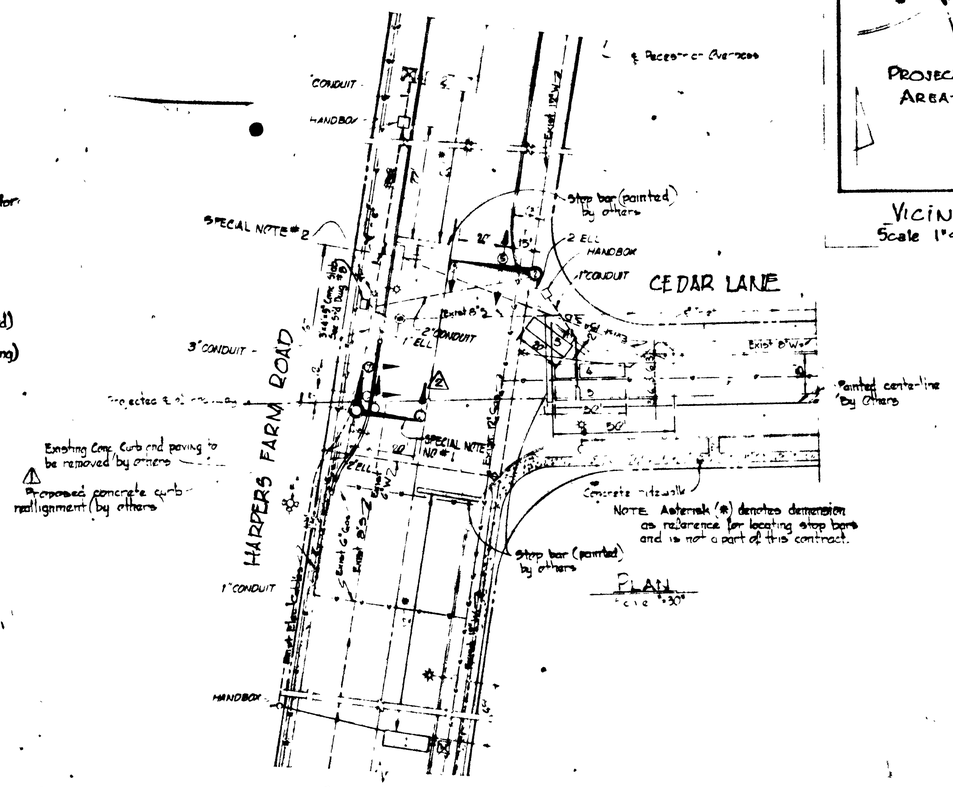
Pole Design - Style and appearance equivalent to UNION METAL DESIGN D0300.

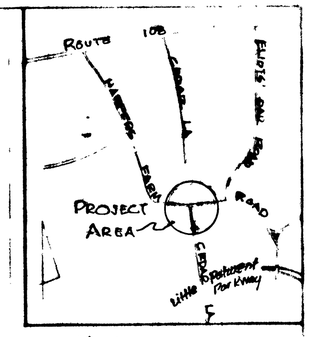
E SPECIAL NOTE #1
Signal heads 1&2 must be mounted at a maximum clearance of 16' above the roadway surface to obtain maximum visibility from beyond Pedestrian Overpass

F. SPECIAL NOTE #2
In accordance with the D.G.S.E requirements, a hinged steel (12ga) or aluminum (10ga) enclosure with hasp, shall be provided for vandal protection.

SYMBOLS

- Signal Heads
- Vehicle Loop Detector
- HB Hand Box
- M Meter
- C Control Cabinet
- Steel Pole (Proposed)
- Street Light (existing)





VICINITY
Scale 1" = 2000'

GENERAL NOTES

1 The Contractor shall not be responsible for highway markings
2 The timing of the Traffic Signal System shall be furnished by the Traffic Engineer (Reference 4.09 g, General Specifications)
3 The Contractor shall comply with the General Specifications for Installation of and Equipment for Traffic Signals prepared by Howard County Dept of Public Works, Bureau of Engineering, Division of Traffic Engineering - Oct. 1974 and Feb. 1976 ⚠
4 The Contractor shall locate all underground utilities prior to construction as required ⚠
5 All disturbed areas shall be seeded and mulched.

Elizabeth Anderson-Colao 4/1/81
CHIEF, DIV. RDS., BRIDGES, & STM. DRNG.

James Skinner 4/3/81
CHIEF, DIV. TRAFFIC ENGINEERING

William E. Ray 4/3/81
CHIEF, BUREAU OF ENGINEERING

Hal F. Numm 4-6-81
DIRECTOR, DEPT. OF PUBLIC WORKS

Rev Date	Revision Description	Rev No.
3/24/81	LEFT TURN PHASES	⚠
3-2-77	RELOCATED CONC. METE. CURB	

HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING
CAPITAL PROJECT T-1-7012
TRAFFIC SIGNAL CONSTRUCTION PLAN AND EQUIPMENT LIST

CAPITAL IMPROVEMENT PROJ. T-1-7012
HARPERS FARM ROAD AT CEDAR LANE

Scale as Noted
Date 3/24/81
Sheet 1 of 1
Project No. 81-3
Designed: DC & EAC
Drawn: EAC & DC
Check: JK & EAC

AS-BUILT JUNE 6, 1979

HARPCED 1