PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES THE MODIFICATION OF AN EXISTING TRAFFIC CONTROL SIGNAL IN CONJUNCTION WITH CONSTRUCTION OF A NEW ACCESS DRIVEWAY TO FRANKLIN HIGH SCHOOL AT MD 140, IN BALTIMORE COUNTY. MD 140 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

AS PART OF THIS PROJECT, THE NORTHBOUND APROACH OF MD 140 WILL BE STRIPED TO PROVIDE A 250 FOOT LEFT TURN LANE.

INTERSECTION OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA SIX-PHASE SEMI-ACTUATED MODE WITH THE FRANKLIN HIGH SCHOOL/REISTERSTOWN SHOPPING CENTER APPROACHES SPLIT PHASED AND THE MD 140 APPROACHES RUNNING CONCURRENTLY.

EXCLUSIVE/PERMISSIVE LEFT TURN PHASES WILL BE PROVIDED FOR NORTHBOUND AND SOUTHBOUND MD 140.

CONTROLLER REQUIREMENTS

INSTALL A NEW FULL-TRAFFIC ACTUATED, EIGHT-PHASE CONTROLLER WITH TWO 2-CHANNEL, TIME DELAY OUTPUT LOOP DETECTOR AMPLIFIERS, INTERSECTION MONITOR WITH BATTERY BACKUP FOR PHONE DROP AND ASSOCIATED HARNESSES HOUSED IN A NEMA SIZE 6 BASE MOUNTED CABINET.

SPECIAL NOTE

CONTRACTOR MUST MAINTAIN OPERATION OF EXISTING SIGNAL EQUIPMENT UNTIL SUCH TIME AS THE NEW SIGNAL IS IN OPERATION. SIGNAL HEADS NOT IN USE DURING A PARTICULAR CONSTRUCTION PHASE SHALL BE BAGGED SO AS NOT TO CREATE CONFLICTS.

EQUIPMENT LIST "A"

A. Equipment to be furnished by SHA and installed by the Contractor

Item No.	Quantity	Description
9001	3 EA	12" one-way pedestrian signal head with proper pole mounting hardware
9002	2 EA	12" one-way pedestrian signal head with proper pedestal mounting hardware
9003	3 EA	12" one-way three-section (R,Y,G) adjustable traffic signal head with proper mast arm mounting hardware and tunnel visors
9006	2 EA	12" one-way five section (R, Y, YA, G, GA) adjustable traffic signal head with proper mast arm mounting hardware and tunnel visors
9007	1 EA	12"/8" one-way five section (R,Y,YA, G, GA) adjustable traffic signal head with proper mast arm mounting hardware and tunnel visors
9008	1 EA	Eight-phase, full-traffic actuated, solid state digital controller with intersection monitor with system package battery back-up for a phone drop and all other necessary equipment housed in a NEMA "6" base mounted cabinet
9010	2 EA	Four-channel time delay output loop detector amplifier
9011	2 EA	12" one-way four-section (R, Y, G, GA) adjustable traffic signal head with proper mast arm mounting hardware and tunnel visors
9012	159 SF	Sheet aluminum signs to consist of:
	- 2 EA	R10-12 "LEFT TURN YIELD ON GREEN O" sign (30"x36") mast arm mounted
	- 1 EA	R3-5R "RIGHT ARROW ONLY" symbol sign (30"x36") mast arm mounted
	- 1 EA	R3-5L "LEFT ARROW ONLY" symbol sign (30"x36") mast arm mounted
	- 4 EA	M6-2 Directional arrow - diagonal (21"x15")
	- 4 EA	S2-1 School crossing (symbol) (36"x36")
	- 2 EA	S1-1(1) School advance sign (symbol) (36"x42")
	- 2 EA	S1-1 School Warning (36"x36") 1-banded to pole, 1-post mounted

EQUIPMENT LIST "B"

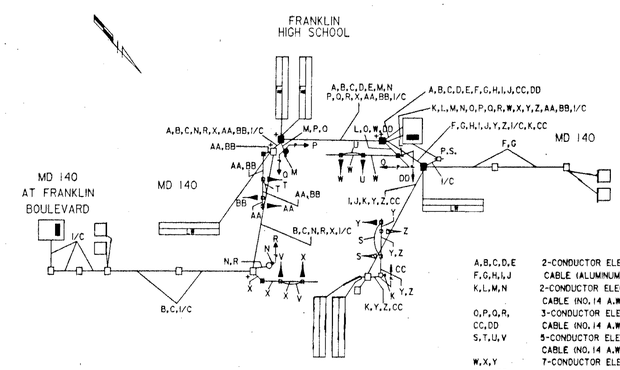
B. Equipment to be furnished and installed by the Contractor

Item No.	Quantity	Description
2001	2 CY	Test Pit Excavation
5001	140 LF	24" white permanent preformed pavement marking tape
5002	1250 LF	12" white permanent preformed pavement marking tape
5003	250 LF	6" yellow pavement marking tape
5004	200 LF	6" white pavement marking tape
5005	600 LF	Removal of existing pavement markings
5006	1 EA	Permanent preformed pavement marking arrow
8001	12 CY	Concrete Foundation
8002	140 LF	3" schedule 80 rigid polyvinyl chloride conduit (trenched)
8003	20 LF	4" schedule 80 rigid polyvinyl chloride conduit (trenched)
8004	70 LF	2" schedule 80 rigid polyvinyl chloride conduit (trenched)
8005	70 LF	3" schedule 80 rigid polyvinyl chloride conduit (slotted)
8006	30 LF	1" liquid tight flexible non-metallic conduit for detector sleeve
8007	2430 LF	2-conductor electrical cable (aluminum shielded)
8008	580 LF	2-conductor electrical cable (No. 14 A.W.G.)
8009	750 LF	3-conductor electrical cable (No. 14 A.W.G.)
8010	50 LF	5-conductor electrical cable (No. 14 A.W.G.)
8011	1270 LF	7-conductor electrical cable (No. 14 A.W.G.)
8012	1720 LF	Loop detector wire (No. 14 A.W.G.) encased in 1/4" flexible tubing
8013	530 LF	Sawcut (Loop Detector)
8014	3 EA	Handhole
8015	5 EA	Grounding rod
8016	1 EA	Control and distribution equipment
8017	3 EA	Pedestrian push button and sign
8018	70 LF	1-conductor electrical cable (No. 4 A.W.G.)
8019	1 EA	Use Existing Disk and As-built Traffic Control Devices
8020	1 EA	Cut, cap, and clean mast arm in field
8021	1 EA	Remove existing interconnect cable and reconnect existing interconnect cable
8022	1320 LF	12/19 telemetry interconnect cable
8023	1 EA	Remove and dispose of existing material and equipment
8024	24 SF	Relocate sign (Mast arm mounted)
8025	50 LF	4"x4" wood post
8026	30 SF	Install ground mounted sign
8027	54 SF	Band sign to signal pole
8028	30 SF	Install mast arm mounted sign
8029	11 SF	Remove mast arm mounted sign
8030	1 EA	Replace existing pedestrian push button sign
8031	33 SF	Remove existing pole mounted signs
8032	1 EA	21' steel pole with 50' mast arm
8033	2 EA	21' steel pole with 38' mast arm
8034	1 EA	10' Breakaway Pedestal pole

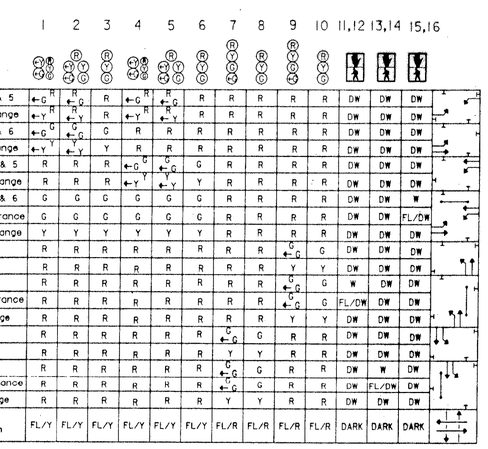
Install the following items:

- 3 EA pole with mast arms
- 8 EA signal heads mast arm mounted
- 1 EA pedestal pole
- 5 EA pedestrian signal heads pole or pedestal mounted
- 5 EA signs mast arm mounted
- 9 EA signs pole mounted
- 1 EA cabinet and controller

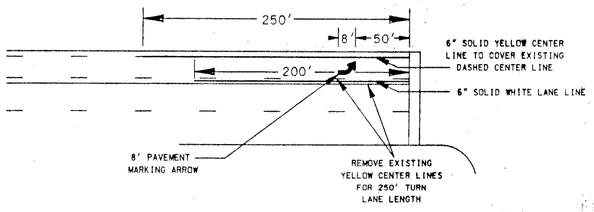
WIRING DIAGRAM



PHASE CHART



LEFT TURN LANE PAVEMENT MARKING DETAIL



REVISIONS	APPROVALS
	ASST. TRAFFIC ENGINEERING DESIGN DIVISION
	ASST. DISTRICT ENGINEER, TRAFFIC
	CHIEF, TRAFFIC ENGINEERING DESIGN DIVISION
	DIRECTOR, TRAFFIC & SAFETY

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

MD 140 at Reisterstown Shopping Center

DRAWN BY:	F.A.P. NO.	TS NO. 943 C-GI	SHEET NO. 2 OF 2
CHECKED BY:	S.H.A. NO.		
SCALE:	COUNTY:	T.I.M.S. NO.	
DATE:	LOG MILE:		