PROJECT DESCRIPTION

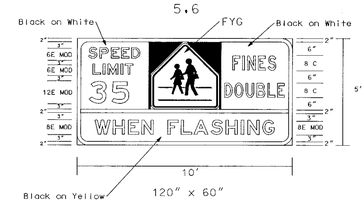
THIS PROJECT INVOLVES THE INSTALLATION OF TWO SPEED REDUCING HIB SCHOOL FLASHERS FOR EASTERN MIDDLE SCHOOL LOCATED IN MONTGOMERY CO.

EXISTING SIGNS TO BE REMOVED

13.14.15.16

PROPOSED SIGNS

5.6



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S 5-2
24"X30"

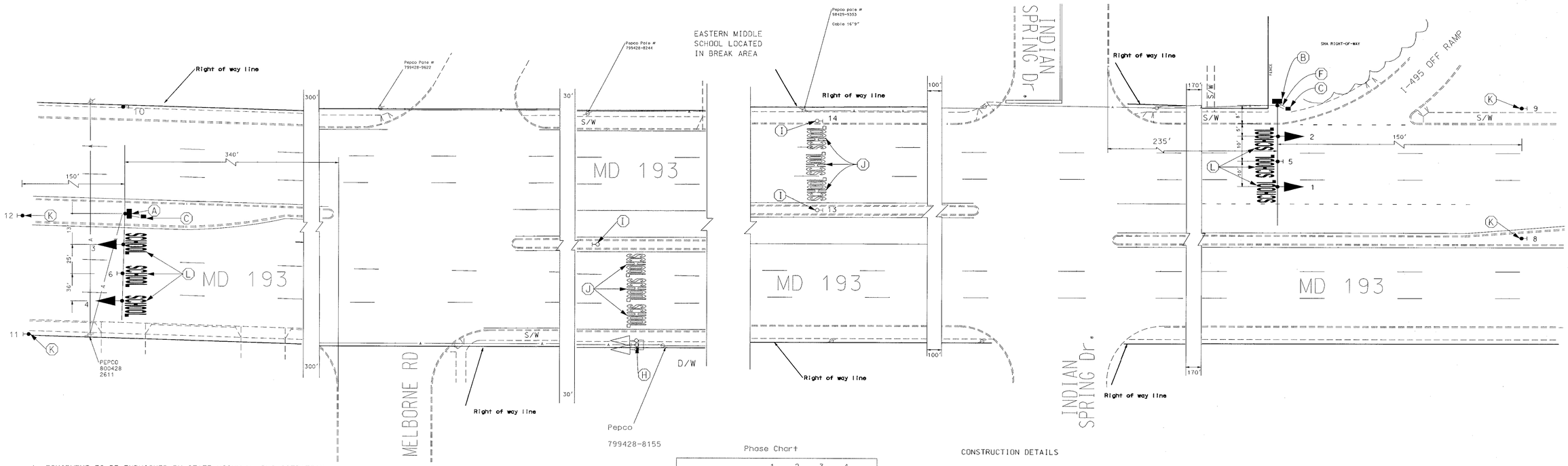
8.9.11.12

S 1-1
36"X36"

PROPOSED SIGNALS

1-4

12"



A. EQUIPMENT TO BE FURNISHED BY STATE HIGHWAY ADMINISTRATION

ITEM NO.	QUANTITY	DESCRIPTION
9076	2 EA	CABINET "G" TYPE POLE MT
9089	141 SF	FLAT SHEET ALUM SIGN-YELLOW, ORANGE, & SILVER (SF) 2 EA 120"X60" SPECIAL SHCOOL (SPEED LIMIT 35) (FINES DOUBLE WHEN FLASHING) 4 EA S1-1 36"X36" (SCHOOL CHILDREN SYMBOL) 1 EA S5-2 24"X30"
9099	6 EA	SIGN HARDWARE 60 INCH FORM TUBE
9100	6 EA	SIGN HARDWARE ASTRO BRACKET 84 INCH CABLE
9087	2 EA	CONTROLLER ASC II W/ TELEMETRY
9000	1 EA	27 FOOT STEEL POLE WITH 52-70 NON STOCK BUTT SECTION
9000	1 EA	27 FOOT STEEL POLE WITH 52-70 BUTT SECTION

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

ITEM NO.	QUANTITY	DESCRIPTION
0	PA	UTILITY UNIT
1001	1 EA	MAINTENANCE OF TRAFFIC
2001	2 CY	TEST PIT EXCAVATION
2004	.5 CY	CLASS 2 EXCAVATION
5005	36 EA	HEAT APPLIED PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING LETTER
5008	36 EA	REMOVE EXISTING PAVEMENT MARKING LETTER OR ARROW
8000	3 EA	TO BE NEGOTIATED - NEG-REMOVE AND DISPOSE OF GROUND MOUNTED SIGNS
8001	10 CY	FURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION
8006	1 EA	CUT, CLEAN GALVANIZE AND CAP TRAFFIC SIGNAL STRUCTURE
8019	2 EA	INSTALL CONTROLLER AND CABINET - POLE MOUNT
8024	20 LF	FURNISH AND INSTALL 2 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
8033	2 EA	FURNISH AND INSTALL ELECTRICAL HANDHOLE
8034	2 EA	FURNISH AND INSTALL GROUND ROD $\frac{3}{4}$ INCH DIAMETER X 10 FOOT LENGTH
8043	240 LF	FURNISH AND INSTALL ELECTRICAL CABLE - 3 CONDUCTOR (NO 14 AWG)
8047	60 LF	FURNISH AND INSTALL ELECTRICAL CABLE 1-CONDUCTOR NO. 8 AWG- THHN/THWN
8048	40 LF	FURNISH AND INSTALL NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
8049	300 LF	FURNISH AND INSTALL ELECTRICAL CABLE 1-CONDUCTOR NO. 4 AWG- THHN/THWN
8050	16 LF	FURNISH AND INSTALL WOOD SIGN SUPPORTS 4 INCH X 4 INCH
8052	41 SF	INSTALL GROUND MOUNTED SIGN
8053	100 SF	INSTALL OVERHEAD SIGN
8057	1 EA	REMOVE AND DISPOSE OF EXISTING FOUNDATION 12 INCH BELOW GRADE
8058	1 EA	REMOVAL OF EXISTING CONTROLLER, CABINET AND GALVANIZED SIGNAL STRUCTURE
8066	2 EA	FURNISH AND INSTALL CONTROL AND DISTRIBUTION EQUIPMENT (120/240 V, 1 PHASE 3 WIRE SYSTEM)
8069	2 EA	FURNISH AND INSTALL PHOTOCELL
8074	1 EA	INSTALL STEEL POLE AND SINGLE MAST ARM (ANY SIZE)
8084	4 EA	FURNISH AND INSTALL 12 INCH VEHICULAR TRAFFIC SIGNAL HEAD SECTION

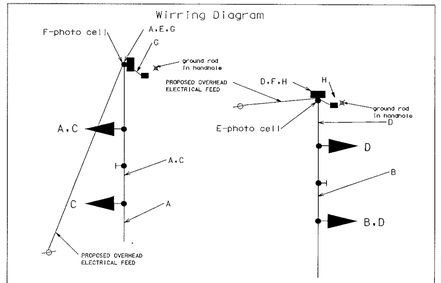
C. EQUIPMNENT TO BE RETURNED TO STATE HIGHWAY ADMIN.

NONE

Phase Chart

	1	2	3	4
	Y	Y	Y	Y
FL 1	Y		Y	
FL 2		Y		Y

Wirring Diagram



A-F 3 conductor electrical cable # 14 AWG
G.H # 6 AWG Bare copper ground wire
I.J # 4 AWG 1-Conducor cable 3 times

CONSTRUCTION DETAILS

A. Install 27' steel pole with a 52-70' butt section, traffic signal heads, sign, cabinet, photocell, control and distribution equipment, 1¼" riser for service, 1 inch riser for telecommunications and foundation as shown cut clean and gavanize arm to 44' (Note: 3-2" 90 PVC in pole base.)
B. Install 27 foot steel pole with, mast arm, traffic signal heads, sign, cabinet, photocell, control and distribution equipment, 1¼inch riser for electrical service, 1 inch riser for telephone service, and concrete foundation as shown cut clean and gavanize arm to 44'. (Note: 2-2" 90 PVC in pole base)
C. Install handhole.
D. Not used
E. Not used
F. Install 2" PVC electrical conduit Schedule 80 - trenched
G. Not used
H. Remove existing pedestal pole, base, signal heads, cabinet, and remove foundation 12" below grade.
I. Remove existing ground mounted sign.
J. Remove existing pavement markings.
K. Install ground mounted sign as shown.
L. Install pavement marking letters as shown

REVISIONS	APPROVALS
(A) RELOCATE MAST ARM POLES DUE TO UNDERGROUND UTILITY CONFLICTS XX1005385 TIMS# D980 6/2001	TEAM LEADER, TRAFFIC ENGINEERING DESIGN DIVISION
(B) RELOCATE MAST ARM TO MEDIAN DUE TO UTILITY CONFLICTS XX1005385 TIMS# D980 7/2001	ASST. CHIEF TRAFFIC ENGINEERING DESIGN DIVISION
	CHIEF, TRAFFIC ENGINEERING DESIGN DIVISION
	DIRECTOR, TRAFFIC & SAFETY

ORIGINATION FILE

MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
MD 193 at Eastern Middle School
MD 193 West of Indian Spring Rd 15019305.06
MD 193 East of Melboune Ave. 15019305.35

DRAWN BY: J. Henkel	F.A.P. NO.		TS NO. 4014B	SHEET NO.
CHECKED BY: M.Rucker	S.H.A. NO. XX1005385			
SCALE: 1" = 20'	COUNTY: Montgomery		T.I.M.S. NO. D980	01 OF 01
DATE: 6/2000	LOG MILE: 15019305.06			

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