

F H W A REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	MD			

PROJECT DESCRIPTION

- I. GENERAL
This project involves the modification of an existing Traffic Control Signal with street lighting at the intersection of MD 108 and Win Kelly Park Driveway in Howard County. The modification is necessary due to the widening of MD 108 and the construction of a new fire station and Park and Ride on the south side of the intersection.
- II. INTERSECTION OPERATION
1.) The intersection is to operate in a NEMA six-phase, fully-actuated mode, with the MD 108 approaches running concurrently. Exclusive/Permissive left turn phases shall be provided for both approaches of MD 108. A pedestrian phase with pushbutton actuation shall be provided across the west leg of MD 108. The pedestrian phase across the Win Kelly Auto Park Driveway shall be on recall. The Win Kelly Auto Park Driveway and the Park and Ride/Fire Station Access Road approaches shall run concurrently.
2.) The existing base-mounted cabinet shall be maintained at this intersection.
- III. SPECIAL NOTE
All field wiring to the existing controller shall be terminated to the appropriate controller cabinet connectors by the Contractor and labeled. All other controller cabinet wiring will be performed by the S.H.A. Signal Shop. Contact Mr. Ed Ridenhizer at (410) 767-7650 seventy-two (72) hours in advance of intended work.

EQUIPMENT LISTS

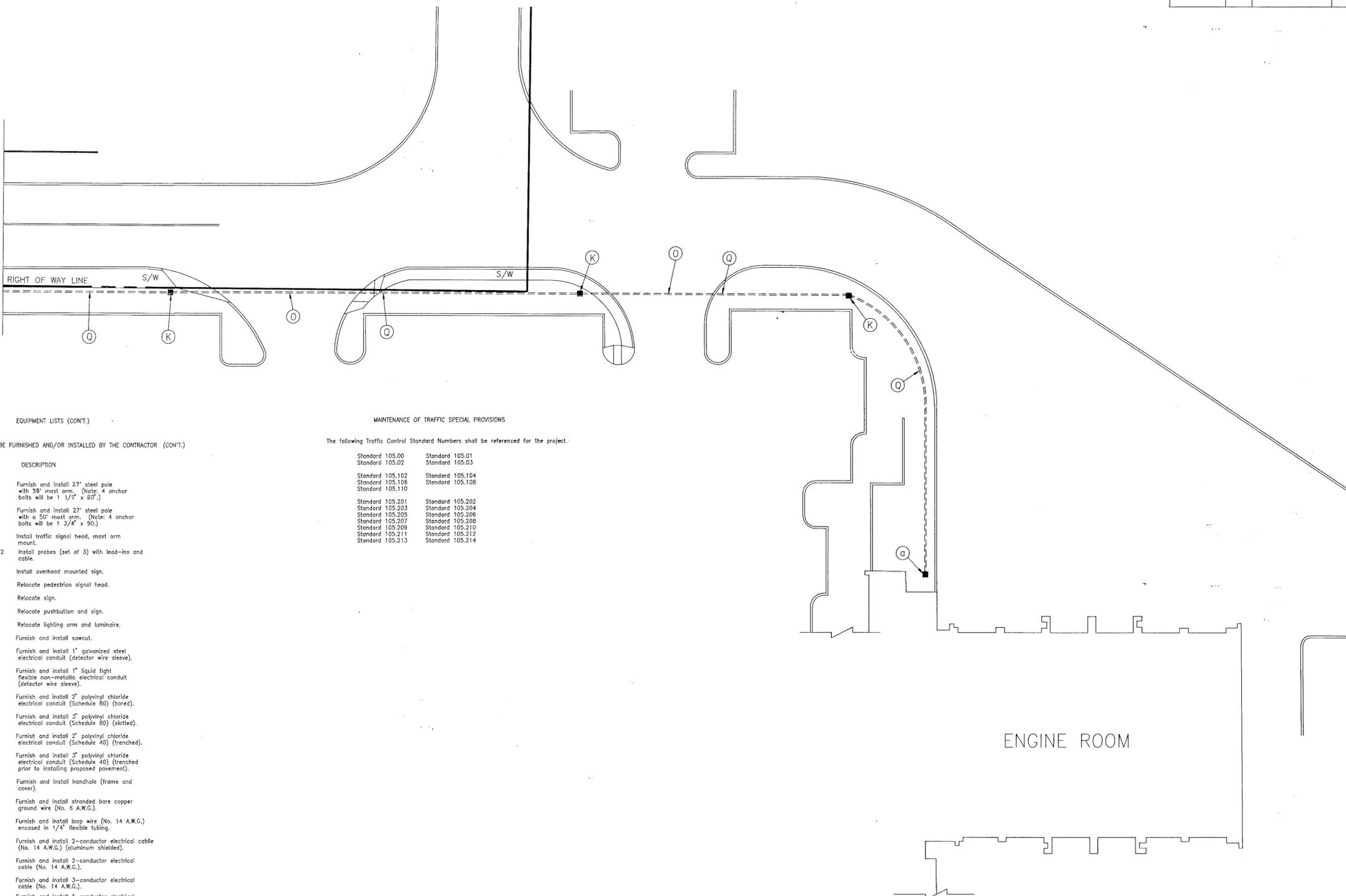
A. EQUIPMENT TO BE SUPPLIED BY S.H.A.

QUANTITY	SPEC. SECTION	DESCRIPTION
4 EA	814	12", one-way, three-section (R,Y,G) traffic signal head with adjustable bracket for mast arm mounting and tunnel visors.
1 EA	814	12", one-way, four-section (R,Y,G,G) traffic signal head with adjustable bracket for mast arm mounting and tunnel visors.
2 EA	814	12", one-way, five-section (R,Y,Y,G,G) (left arrows) traffic signal head with adjustable bracket for mast arm mounting and tunnel visors.
1 EA	814	Combination 8"-12" one-way, five-section (G-R,Y,G) (12"-18" GA) (left arrows) traffic signal head with adjustable bracket for mast arm mounting and tunnel visors.
18 SF	813	Sheet aluminum signs to consist of: 1 EA R-10-12 "LEFT TURN YIELD ON GREEN (BALL)" sign, (36" x 42") mast arm mounted. 1 EA R3-SR "RIGHT TURN ONLY" sign, (30" x 36") mast arm mounted.
2 SETS		Probes (Model 20002) (set of 3) with lead-ins and 500 LF of Micro-loop lead-in (home-run cable).
2 EA		Hardware for pole mounted pedestrian signal head.

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

QUANTITY	SPEC. SECTION	DESCRIPTION
LS	106	Mobilization
LS	106	Maintenance of traffic.
150 SF	104	Temporary traffic sign.
10 UD	105	Flashing arrow panels.
3 CY	204	Test pit excavation.
150 LF	SP-555	Furnish and install thermo plastic pavement marking, white (12" width for crosswalks).
115 LF	SP-555	Furnish and install thermo plastic pavement marking, white (24" width for stoplines).
1 EA	SP-555	Furnish and install "ONLY" (word) thermo plastic pavement marking.
2 EA	SP-555	Furnish and install curved arrow (symbol) thermo plastic pavement marking (right).
9 CY	801	Furnish and install concrete foundation.
3 EA	801	Furnish and install ground.
3 EA	801	Furnish and install ground rod, 3/4" diameter x 10' length.

MATCH LINE "B" - SEE SHEET 1 OF 3



EQUIPMENT LISTS (CONT.)

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

QUANTITY	SPEC. SECTION	DESCRIPTION
1 EA	818	Furnish and install 27' steel pole with 38" mast arm. (Note: 4 anchor bolts will be 1 1/2" x 80".)
2 EA	818	Furnish and install 27' steel pole with a 50" mast arm. (Note: 4 anchor bolts will be 1 3/4" x 90".)
8 EA	814	Install traffic signal head, mast arm mount.
2 SETS	815.01/815.02	Install probes (set of 3) with lead-ins and cable.
18 SF	813	Install overhead mounted sign.
3 EA		Relocate pedestrian signal head.
2 EA		Relocate sign.
2 EA		Relocate pushbutton and sign.
1 EA		Relocate lighting arm and luminaire.
865 LF	815	Furnish and install sawcut.
30 LF	805	Furnish and install 1" galvanized steel electrical conduit (detector wire sleeve).
17 LF	805	Furnish and install 1" liquid tight flexible non-metallic electrical conduit (detector wire sleeve).
130 LF	805	Furnish and install 2" polyvinyl chloride electrical conduit (Schedule 80) (bored).
70 LF	805	Furnish and install 3" polyvinyl chloride electrical conduit (Schedule 80) (slotted).
470 LF	805	Furnish and install 2" polyvinyl chloride electrical conduit (Schedule 40) (trenched).
60 LF	805	Furnish and install 3" polyvinyl chloride electrical conduit (Schedule 40) (trenched prior to installing proposed pavement).
7 EA	811	Furnish and install handhole (frame and cover).
1050 LF	804	Furnish and install stranded bare copper ground wire (No. 6 A.W.G.).
2080 LF	810	Furnish and install loop wire (No. 14 A.W.G.) encased in 1/4" flexible tubing.
580 LF	810	Furnish and install 2-conductor electrical cable (No. 14 A.W.G.) (aluminum shielded).
220 LF	810	Furnish and install 2-conductor electrical cable (No. 14 A.W.G.).
330 LF	810	Furnish and install 3-conductor electrical cable (No. 14 A.W.G.).
975 LF	810	Furnish and install 5-conductor electrical cable (No. 14 A.W.G.).
1200 LF	810	Furnish and install 7-conductor electrical cable (No. 14 A.W.G.).
300 LF	810	Furnish and install 2-conductor electrical cable (No. 12 A.W.G.) type THHN tray cable.
1 EA	SP-	Remove and dispose of existing foundation 12' below grade.
1 EA	SP-	Removal of existing equipment.
1 EA	SP-	Delivery of removed material and equipment. 1 EA Fiber-optic sign, mast arm mounted. 1 EA Fiber-optic sign, pole mounted.
1 EA	SP-	Remove and dispose of existing material and equipment.
1 EA	SP-	Use existing plan on disk and as-built traffic control device.

MAINTENANCE OF TRAFFIC SPECIAL PROVISIONS

The following Traffic Control Standard Numbers shall be referenced for the project.

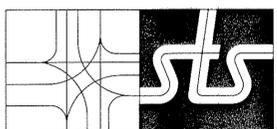
Standard 105.00	Standard 105.01
Standard 105.02	Standard 105.03
Standard 105.102	Standard 105.104
Standard 105.106	Standard 105.108
Standard 105.110	
Standard 105.201	Standard 105.202
Standard 105.203	Standard 105.204
Standard 105.205	Standard 105.206
Standard 105.207	Standard 105.208
Standard 105.209	Standard 105.210
Standard 105.211	Standard 105.212
Standard 105.213	Standard 105.214

GEOMETRIC LEGEND

PROPOSED _____
EXISTING _____

LEGEND OF UNDERGROUND AND OVERHEAD UTILITIES

AERIAL CABLE — A — A —
ELECTRIC — E — E —
TELEPHONE — T — T —
GAS — G — G —
SEWER — S — S —
WATER — W — W —
CABLE TV — TV — TV —



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REVISIONS

APPROVALS

ASST. DIVISION CHIEF _____
ASST. DISTRICT ENGINEER, TRAFFIC _____
CHIEF, TRAFFIC ENGINEERING DESIGN DIVISION _____
DIRECTOR, OFFICE OF TRAFFIC AND SAFETY _____

MDOT — STATE HIGHWAY ADMINISTRATION
Office of Traffic and Safety
TRAFFIC ENGINEERING DESIGN DIVISION
GENERAL INFORMATION

DRAWN BY: EPH/DDS
DES. BY: R.R.ZACHERL (FOR STS)
CHK. BY: _____
DATE: 5-30-97
SCALE: 1"=20'
F.A.P. NO. _____
S.H.A. NO. _____
TS/STD. NO. 3409A
SHEET NO. _____ OF _____