

PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE REPLACEMENT OF EXISTING SIGNAL HEADS WITH LED SIGNAL HEADS, INSTALLATION OF LED COUNTDOWN PEDESTRIAN SIGNAL HEADS, VIDEO DETECTION, APS PUSHBUTTONS AND SIGNS AT THE INTERSECTION OF MD 212 (POWDER MILL ROAD) AND THE HIGH POINT HIGH SCHOOL ENTRANCE IN PRINCE GEORGE'S COUNTY, MD 212 IS ASSUMED TO RUN IN AN NORTH-SOUTH DIRECTION.

INTERSECTION OPERATION

THIS INTERSECTION CURRENTLY OPERATES IN A NEMA THREE-PHASE FULL-TRAFFIC-ACTUATED MODE WITH AN ALTERNATE PEDESTRIAN PHASE FOR THE EAST LEG OF THE INTERSECTION.

CONTROLLER REQUIREMENTS

THE EXISTING FULL-TRAFFIC-ACTUATED EIGHT PHASE TRAFFIC SIGNAL CONTROLLER HOUSED IN A BASE MOUNTED CABINET WILL BE USED. AN APS CENTRAL CONTROL UNIT WILL BE FURNISHED BY THE CONTRACTOR AND INSTALLED BY THE SHA. VIDEO DETECTION INTERFACE EQUIPMENT SHALL BE FURNISHED AND INSTALLED BY THE SHA.

SPECIAL NOTE

APS WILL FUNCTION AS FOLLOWS:

TO CROSS POWDER MILL ROAD:

- A. WHEN PEDESTRIAN LOCATES AND PRESSES PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON UNIT MESSAGE WILL BE "WAIT TO CROSS POWDER MILL AT SCHOOL ENTRANCE, WAIT"
B. WHEN WALK PHASE BEGINS, THE MESSAGE WILL BE A RAPID TICK WHICH WILL LAST FOR THE DURATION OF THE WALK PHASE.

TO CROSS SCHOOL ENTRANCE:

- A. WHEN PEDESTRIAN LOCATES AND PRESSES PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON UNIT MESSAGE WILL BE "WAIT TO CROSS SCHOOL ENTRANCE AT POWDER MILL, WAIT"
B. WHEN WALK PHASE BEGINS, THE MESSAGE WILL BE A RAPID TICK WHICH WILL LAST FOR THE DURATION OF THE WALK PHASE.

CONTACT PERSONS FOR DISTRICT #3 ARE AS FOLLOWS:

MS. FELECIA MURPHY ASSISTANT DISTRICT ENGINEER-TRAFFIC PHONE: (301)513-7358
MR. VICTOR GRAFTON UTILITY ENGINEER PHONE: (301)513-7350
MR. VERNON STINNETT ASSISTANT DISTRICT ENGINEER-MAINTENANCE PHONE: (301)513-7304

CONTACT PERSONS FOR OOTS ARE AS FOLLOWS:

MR. RICHARD L. DAFF, SR. CHIEF, TRAFFIC OPERATIONS DIVISION PHONE: (410)787-7404
MR. ROBERT SNYDER ASSISTANT DIVISION CHIEF TRAFFIC OPERATIONS (410)787-7630
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WIRING KEY

Table with 4 columns: Code, Description, Code, Description. Includes entries for 5-conductor electrical cable, 2-conductor electrical cable, video detection camera cable, 7-conductor electrical cable, stranded bare copper ground wire, power source, existing ground rod, existing 5-conductor electrical cable, and existing 7-conductor electrical cable.

EQUIPMENT LIST "A"

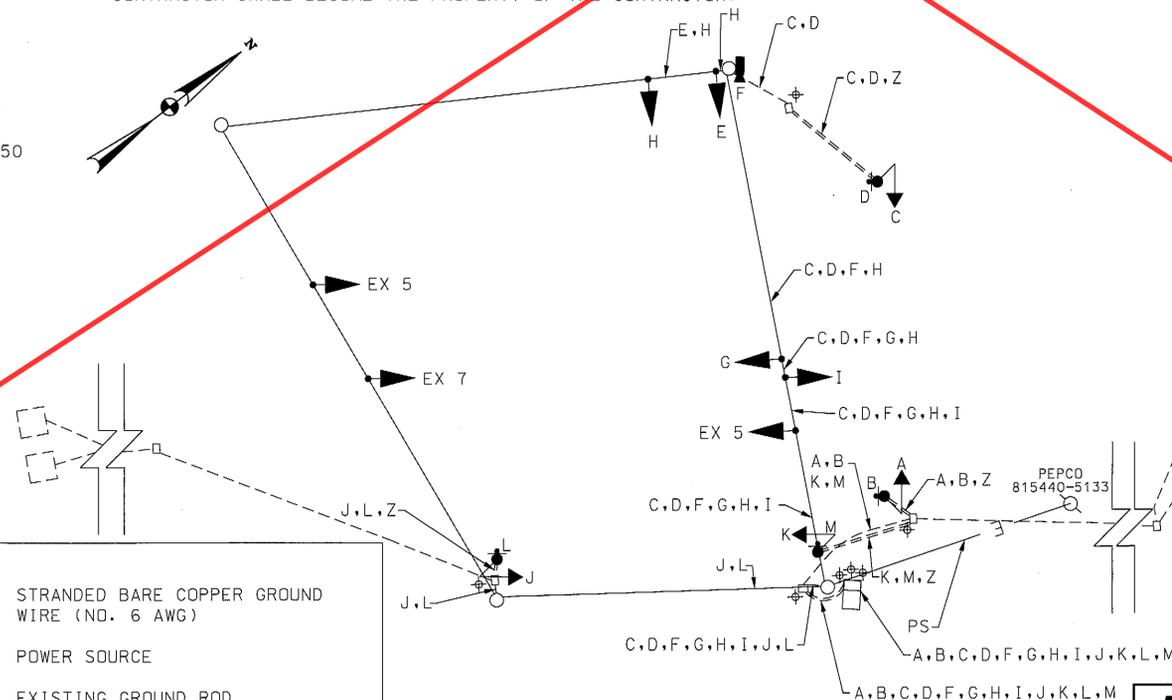
Table with 4 columns: ITEM NO., DESCRIPTION, UNIT, QUANTITY. Lists equipment to be supplied by the SHA, including video detection interface equipment, sheet aluminum ground mounted signs, and sheet aluminum span mounted signs.

EQUIPMENT LIST "B"

Table with 4 columns: ITEM NO., DESCRIPTION, UNIT, QUANTITY. Lists equipment to be furnished and/or installed by the contractor, including maintenance of traffic, removal of markings, excavation, test pits, pavement markings, curbs, sidewalks, signal head sections, control units, handholes, pedestrian pushbutton stations, breakaway pedestals, LED signal heads, and various cables and fencing.

EQUIPMENT LIST "C"

C. EQUIPMENT TO BE REMOVED BY THE CONTRACTOR AND RETURNED TO SHA. ALL MATERIALS AND EQUIPMENT REMOVED BY THE CONTRACTOR SHALL BECOME THE PROPERTY OF THE CONTRACTOR.



WIRING DIAGRAM

PHASING CHART

Phasing chart table with columns for phases 1-11 and rows for different signal phases (PHASE 2 & 6, PED CLEARANCE, 2 & 6 CHANGE, PHASE 4, 4 CHANGE, PHASE 4 ALT, PED CLEARANCE, 4 ALT CHANGE, FLASHING OPERATION). Includes a north arrow and pedestrian symbols.

GENERAL NOTES

- 1. THE CONTRACTOR SHALL VERIFY ALL PROPOSED POLE LOCATIONS PRIOR TO INSTALLATION.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TERMINATING ALL SIGNAL CABLE TO THE APPROPRIATE TERMINALS AND PROPERLY LABELING EACH CABLE.
3. ALL UNUSED CABLE SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR.
4. UNDERGROUND UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE.
5. ALL TRAFFIC SIGNAL FOUNDATIONS SHALL BE INSTALLED AT THE FINAL SIDEWALK GRADE.
6. ACCESSIBLE PEDESTRIAN CONTROL EQUIPMENT SHALL BE DELIVERED TO THE SHA SIGNAL SHOP FOR TESTING AND PROGRAMMING PRIOR TO INSTALLATION.
7. LOCATION OF ACCESSIBLE PEDESTRIAN PUSHBUTTONS MUST MEET THE LOCATION REQUIREMENTS OF THE MUTCD, SECTION 4E-09 AND FIGURE 4E-2 AND THE NCHRP PUBLICATION, "ACCESSIBLE PEDESTRIAN SIGNAL: GUIDE TO BEST PRACTICE."
8. PUSHBUTTONS ARE TO BE LOCATED SO THAT THEY CAN BE ACTIVATED BY A PERSON IN A WHEELCHAIR FROM 60"x60" LEVEL LANDING AREA.
9. PUSHBUTTON IS TO BE LOCATED SO THAT A PEDESTRIAN IN A WHEELCHAIR LOCATED ON THE LEVEL LANDING AREA, DOES NOT HAVE TO REACH MORE THAN 18".
10. THE 10' SEPARATION BETWEEN PUSHBUTTONS IS TO BE MEASURED FROM FACE OF PUSHBUTTON, NOT CENTER TO CENTER OF POLE.
11. VIDEO DETECTION CAMERA LOCATION / ALIGNMENT SHALL BE COORDINATED WITH THE SHA ENGINEER.

TOD NO: XX449-58
SHA NO: PG556A51/B5J
MD 212 @ High Point High School

SHA STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF TRAFFIC & SAFETY TRAFFIC ENGINEERING DESIGN DIVISION MD 212 (POWDER MILL ROAD) AT HIGH POINT HIGH SCHOOL POWDER MILL, MARYLAND

Table with 2 main sections: REVISIONS and GENERAL INFORMATION SHEET. Includes fields for scale, date, contract no., designer, drawer, checker, and sheet no.

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