

DRILL HOLES

ORDER REV. DATE: June 1, 2004

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PROJECT DESCRIPTION

I. GENERAL

This project involves the modification of an existing strain pole Traffic Control Signal with street lighting and interconnect at the intersection of MD 28 (Norbeck Rd) and East Gude Drive in Montgomery County. The existing signal heads shall be replaced with LED signal heads. Additionally, Countdown pedestrian signal heads with audible pushbuttons shall be installed at this location. MD 28 (Norbeck Rd) is assumed to run an east-west direction.

II. INTERSECTION OPERATION

- 1. The intersection shall continue to operate in a NEMA four-phase, semi-actuated mode, with the MD 28 (Norbeck Rd) approaches running concurrently. The Exclusive left turn phase for the eastbound approach of MD 28 (Norbeck Rd) shall remain in operation. The pedestrian phase across the west leg of MD 28 (Norbeck Rd) shall now be a Countdown pedestrian phase with audible pushbutton actuation. A Countdown pedestrian phase with audible pushbuttons on recall shall be installed across the East Gude approach. Farside sampling stations for both approaches of MD 28 (Norbeck Rd) shall remain in operation. The East Gude Drive approach shall also continue to run concurrently.
2. The existing full-traffic-actuated, eight-phase controller with all necessary equipment housed in a NEMA size 6" base-mounted cabinet shall be utilized at this intersection.
3. Montgomery County signal shop shall install APS control unit into controller cabinet. The Contractor shall deliver the Control Unit and audible pushbuttons to the Montgomery Signal Shop for testing and programming.

III. SPECIAL NOTES

- 1. The Contractor shall be responsible for terminating all signal cables, to the appropriate terminals and shall properly label each cable.
2. All controller cabinet wiring will be performed by Montgomery County Forces. Contact Kamal Hamud at (240) 777-8761 seventy-two hours in advance of intended work.
3. All underground and overhead utilities shown on these plans are schematic only and may not be complete. The Contractor shall be responsible for notifying Miss Utility prior to construction so that all utilities may be located in the field. If the Contractor perceives that a conflict between the utilities and the traffic signal will occur, the Contractor shall notify the Project Engineer immediately so that the conflict may be resolved.
4. APS will function as follows:
TO CROSS MD 28 (NORBECK ROAD)
a. When pedestrian locates and presses the pushbutton for an extended time, the pushbutton unit will announce the following message "Wait to cross Norbeck at East Gude."
b. When the WALK phase begins, the pushbutton unit will provide a rapid tick which will last for the duration of the WALK phase.
TO CROSS EAST GUDE DRIVE
a. When pedestrian locates and presses the pushbutton for an extended time, the pushbutton unit will announce the following message "Wait to cross East Gude at Norbeck."
b. When the WALK phase begins, the pushbutton unit will provide a rapid tick which will last for the duration of the WALK phase.

The contact persons for District #3 (Montgomery County) are as follows:

Mr. Jeff Wentz
Assistant District Engineer - Traffic
Phone: (301) 513-7358

Mr. Wayne Mowdy
Assistant District Engineer - Maintenance
Phone: (301) 513-7304

Mr. Augie Rebish
District Engineer - Utility
Phone: (301) 513-7350

Mr. Richard L. Daff, Sr.
Chief, Traffic Operations Division
Phone: (410) 787-7630

Mr. Keith Lord
Montgomery County Signal Shop
(301) 674-8965

Mr. Sonny Bailey
Chief Sign Shop
410-787-7676

EQUIPMENT LIST

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

Table with columns: ITEM NO., DESCRIPTION, QUANTITY. Includes items like Sheet aluminum signs, Pedestrian education R10-3(1) sign, W11-1(3) 'HIKER BIKER CROSSING' sign, W16-7P(L) 'arrow' diagonal sign, and RS-1 'DO NOT ENTER' sign.

B. EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR

Table with columns: ITEM NO., DESCRIPTION, QUANTITY. Includes items like Maintenance of traffic per assignment, Removal of existing permanent pavement line markings, Test Pit Excavation, 12" white lead free permanent preformed thermoplastic pavement marking, Standard type A combination curb and gutter, 5" concrete sidewalk, 12" LED signal head section, 2 wire Central Control unit, Adjust and re-ring existing span wire, Audible/tactile pedestrian pushbutton station & signs, Breakaway pedestal pole, LED 16" countdown pedestrian signal heads, Remove and dispose of existing material & equipment per assignment, Schedule 80 rigid PVC conduit up to 4" - bored, Detectable warning surfaces, Relocate existing sign, Wood sign supports 4"x4", No. 6 AWG stranded bare copper ground wire, Furnish and install electrical handhole, Install ground mounted sign, Electrical cable - 2 conductor, Electrical cable - 5 conductor.

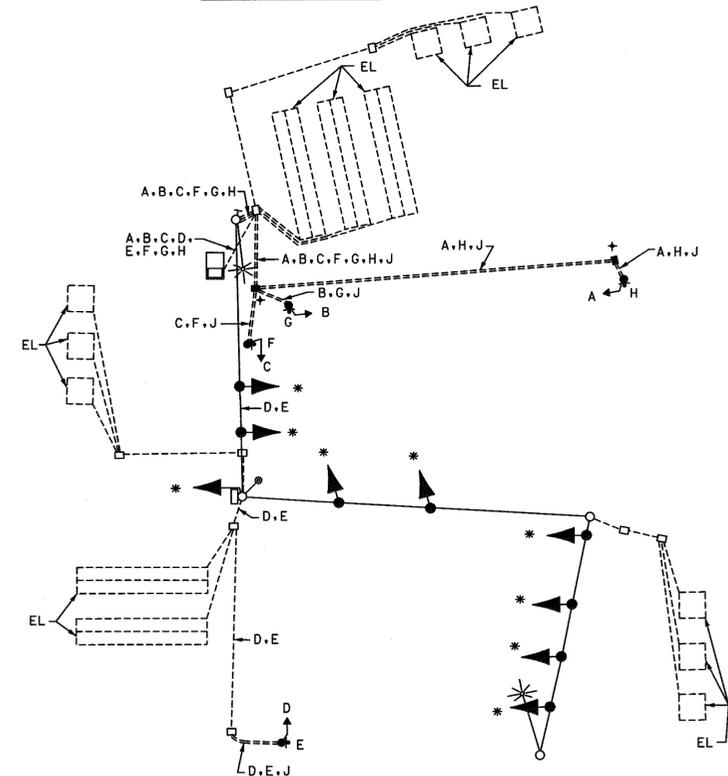
C. EQUIPMENT TO BE REMOVED

All removed signal materials are to become property of the contractor.

PHASE CHART

Phase chart table showing signal phases (1-13) and their corresponding light colors (G, Y, R, DW, WK, FL/DW, DARK) for various changes and operations.

WIRING DIAGRAM



WIRING KEY
A, B, C, D } 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
E, F, G, H }
J - STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
EL - LOOP WIRE (NO. 14 A.W.G.) EXISTING
+ - GROUND ROD
* - USE EXISTING WIRING

TOD NO: XX449-16
SHA NO: MO205A52/B52
MD 28@ EAST GUDE DR

STREET TRAFFIC STUDIES, LTD.
400 Crain Hwy., #201
Owens Branch, MD 20691
Ph (410) 590-5900
Fax (410) 590-6637

STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION
MD 28 (NORBECK ROAD) AT EAST GUDE DRIVE
ROCKVILLE, MARYLAND
GENERAL INFORMATION SHEET
SCALE NONE DATE 10/14/08 CONTRACT NO. XX4495185
DESIGNED BY JAMES ALLEN JR COUNTY MONTGOMERY
DRAWN BY ROB CICCHINI LOGMILE 15028023.77
CHECKED BY [Signature] TMS NO. I641
F.A.P. NO. TOD NO.
TS NO. 432F DRAWING NO. 2 OF 2 SHEET NO. OF

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