US 29A
IS ASSUMED TO RUN
IN A NORTH-SOUTH
DIRECTION

EXISTING SIGNS TO REMAIN

13.19 — DO NOT ENTER — R5-1 30" x 30"

37 — ONE WAY — R6-1R 36" x 12"

EXISTING SIGNS TO BE REMOVED

16r,22r — R4-7 24" x 30"

26r — STOP — R1-1 30" x 30"

28r,32r,36r — DO NOT ENTER — R5-1 30" x 30"

34r — STOP — R1-1 30" x 30"

RIGHT TURN ONLY — R3-5(1) 24" x 30"

USE CROSSWALK — R9-3b 16" x 12"

PROPOSED SIGNS

11a, 12a — PUSH BUTTON FOR PEDESTRIAN OLD COLUMBIA PIKE — STREET NAME SMALLE TYPE 2 — R10-3(1) 9" x 15"

14,18,20,24 — NEW — W16-14(1) (30"x30") W3-3 (48"x48")

15,21,33 — R4-7 24" x 30" @15°

ONE WAY — 25,30 R6-1L 36" x 12"

ONE WAY — 27,35 R6-1R 36" x 12"

17,23a — National DR

17a,23 — National DR — D-3(1) (VAR.x16") DUAL FACED

29,31 — Old Columbia Pike — D-3(1) DUAL FACED (VAR.X16")

SIGNAL POLE LOCATION DETAIL

NOT TO SCALE

PROPOSED SIGNALS

1-10 — R Y G — 12"

11,12 — 16" LED COUNTDOWN PEDESTRIAN SIGNAL

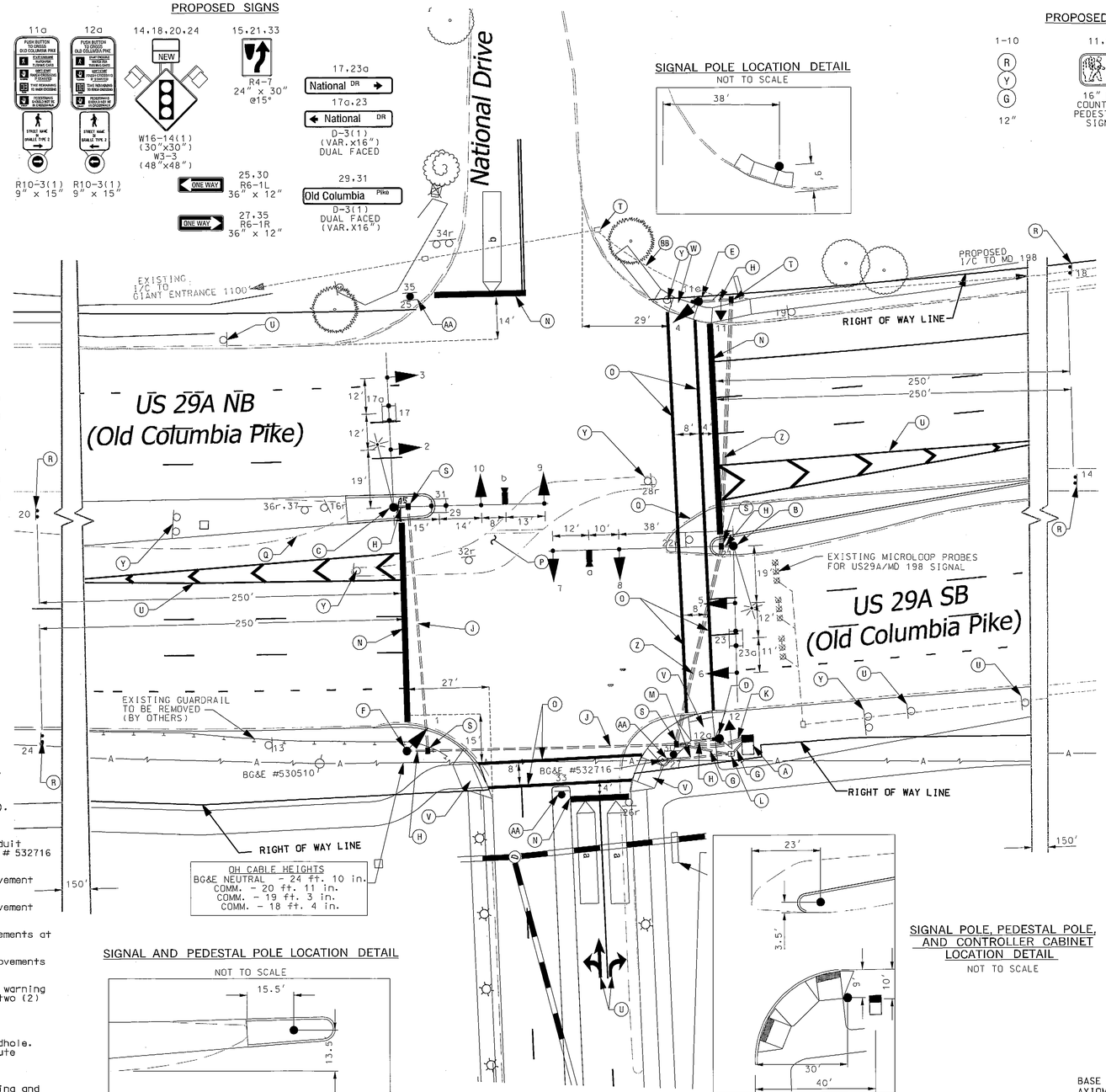
a,b — PROPOSED VIDEO DETECTION

NEMA PHASING

Ø2 Ø4 Ø6 Ø8

ALT Ø4 — FLASHING OPERATION

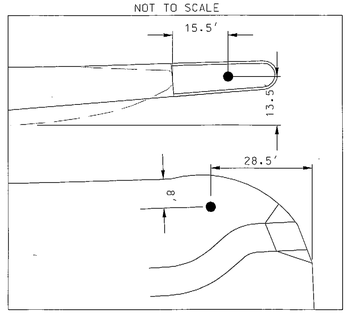
NOTE: PHASES ASSOCIATED BY A DASHED LINE WILL OPERATE CONCURRENTLY. PHASES ASSOCIATED BY A SOLID LINE WILL NOT OPERATE CONCURRENTLY.



OH CABLE HEIGHTS
BG&E NEUTRAL - 24 ft. 10 in.
COMM. - 20 ft. 11 in.
COMM. - 19 ft. 3 in.
COMM. - 18 ft. 4 in.

SIGNAL AND PEDESTAL POLE LOCATION DETAIL

NOT TO SCALE



SIGNAL POLE, PEDESTAL POLE, AND CONTROLLER CABINET LOCATION DETAIL

NOT TO SCALE

CONSTRUCTION DETAILS

A. Install proposed NEMA size "6" base mounted cabinet and controller and all necessary equipment as shown (Note: 2-4" and 2-2" schedule 80 PVC 90 degree bends).

B. Install 27 ft. steel pole with twin 50 ft./60 ft mast arms, signal heads, video detection camera, signs, and 20 ft. lighting arm with 250 watt HPS luminaire (Note: 2-3" PVC 90-degree bends).Galvanized steel pole, including exposed anchor bolts, flange bolts, nuts, and washers shall be brown powder coated (Federal Standard Number 595a-20040).

C. Install 27 ft. steel pole with twin 50 ft./50 ft mast arms, signal heads, video detection camera, signs, and 20 ft. lighting arm with 250 watt HPS luminaire (Note: 2-3" PVC 90-degree bends).Galvanized steel pole, including exposed anchor bolts, flange bolts, nuts, and washers shall be brown powder coated (Federal Standard Number 595a-20040).

D. Install 10 ft. steel breakaway pedestal pole with pedestrian signal head, and pedestrian push button and sign assembly (Note: 1-3" PVC 90-degree bend). Galvanized steel pole, including exposed anchor bolts, flange bolts, nuts, and washers shall be brown powder coated (Federal Standard Number 595a-20040).

E. Install 14 ft. steel breakaway pedestal pole with signal head, pedestrian signal head, and pedestrian push button and sign assembly (Note: 1-3" PVC 90-degree bend). Galvanized steel pole, including exposed anchor bolts, flange bolts, nuts, and washers shall be brown powder coated (Federal Standard Number 595a-20040).

F. Install 14 ft. steel breakaway pedestal pole with signal head (Note: 1-3" PVC 90-degree bend). Galvanized steel pole, including exposed anchor bolts, flange bolts, nuts, and washers, shall be brown powder coated (Federal Standard Number 595a-20040).

G. Install 1-2" Schedule 80 PVC conduit (trenched)

H. Install 1-3" Schedule 80 PVC conduit (trenched).

J. Install 1-4" Schedule 80 PVC conduit (bored).

K. Install 2-4" Schedule 80 PVC conduits (trenched).

L. Install 100A metered service pedestal.

M. Install 3" Schedule 80 rigid electrical PVC conduit (trenched) with 90-degree bend at base of BG&E # 532716 and 3" riser.

N. Install 24" white heat-applied thermoplastic pavement marking for stop line.

O. Install 12" white heat-applied thermoplastic pavement marking for cross walk.

P. Existing median to be removed to allow full movements at intersection (by others).

Q. Existing medians to be modified to allow full movements at intersection (by others)

R. Install ground-mounted advanced traffic control warning sign assembly. Sign supports shall consist of two (2) 4" x 6" wood posts.

S. Install handhole

T. Pull back existing interconnect to existing handhole. Cut existing conduit. Install handhole and reroute interconnect to proposed cabinet.

U. See signing and pavement marking plan for existing and proposed signs and pavement markings.

V. New perpendicular sidewalk ramp per SHA Standard No. MD 655.11 (by others).

W. New parallel sidewalk ramp per SHA Standard No. MD 655.12 (by others).

Y. Sign to be removed per the signing and pavement marking plans.

Z Install 2-4" schedules 80 PVC conduits (bored).

AA. Install proposed sign on 4"x4" wood post.

BB. Use existing conduit.

GENERAL NOTES

1. Video camera location / aligning shall be coordinated with the SHA engineer.
2. The contractor shall verify all proposed pole and cabinet locations prior to installation.
3. For final intersection signing and pavement markings refer to the signing and marking plans, other than those detailed on the plan. all pavement markings shall be installed in accordance with MSHA standards.
4. All existing traffic signal equipment removed shall become the property of the signal contractor upon completion of the new signal.
5. All proposed luminaires shall be supplied with a photocell.
6. 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.
7. All traffic signal foundations shall be installed at the final sidewalk or curb grade for closed sections, highest roadway profile grade for open sections, to meet clearances as specified in MD 816.03, MD 818.01, MD 818.02, MD 818.04. The contractor shall verify ultimate grades prior to the installation of all signal equipment.
8. All equipment, materials, work zone safety measures, and workmanship shall comply to the 2006 Maryland State Highway Administration Manual on Uniform Traffic Control Devices.
9. These plans are approved for construction for a period of one (1) year from the date of approval. Should construction not begin within that timeframe, these plans shall be null and void without a review from SHA-TEDD.
10. The contractor shall pull all proposed electrical cables into the controller cabinet and properly tag/label each cable. All internal wiring shall be conducted by Montgomery County forces.
11. Remove advanced traffic control warning sign assembly after 90 days of signal operation or as directed by SHA District #3 Traffic.

APS NOTES

1. Pushbuttons are to be located so that they can be activated by a person in a wheelchair reaching less than 18" from a 60" x 60" level landing area with a cross slope of less than or equal to 2%.
2. Pushbutton arrows are to be parallel to the crossing for which they are intended.
3. Location of accessible pedestrian signal pushbuttons must meet location requirements of 2006 Maryland State Highway Administration MUTCD sec. 4E.09 and Fig. 4E.2 and the NCHRP publication, Accessible Pedestrian Signals: Guide to Best Practice. If not met, the contractor is to stop work on pushbutton location until a design waiver is obtained, approved by the Director, Office of Traffic and Safety.

GEOMETRIC LEGEND

EXISTING
PROPOSED

UTILITY LEGEND

E — OVERHEAD CABLES
PROPOSED STORM SEWER (BY OTHERS)

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APPROVALS		REVISIONS
TEAM LEADER	8/23/2010	
ASST. DIV. CHIEF	8/26/10	
DIVISION CHIEF		
OFFICE DIRECTOR	9/1/10	

BASE MAPPING PROVIDED BY:
AXIOM ENGINEERING DESIGN

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION

US 29A (OLD COLUMBIA PIKE) AND NATIONAL DRIVE / SHOPPING CENTER

BURTONSVILLE, MD

TRAFFIC SIGNAL PLAN

SCALE	1" = 20'	DATE AUGUST 12, 2010	CONTRACT NO. BW996M82
DESIGNED BY	GDG	COUNTY	MONTGOMERY
DRAWN BY	MEG	LOGMILE	15029A00.11
CHECKED BY	KWF MR	TIMS NO.	K076
F.A.P. NO.		TOD NO.	
TS NO. 4738		SHEET NO.	1 OF 3

PLOTTED: Wednesday, August 18, 2010 AT 10:19 AM
FILE: J:\DATA\K076\PS&E Files\From KHA\K076_P001.dgn

BY: mfukui