## PROPOSED SIGNS

22,23,29 — R3-5(L) (30" X 36")

27 — R3-3(2) (30" X 30")

31 — WEST / MARYLAND 198 — ASSOCIATED SHIELD ASSEMBLY (48" X 75")

28 — EAST / MARYLAND 198 — ASSOCIATED SHIELD ASSEMBLY (36" X 51")

21 — SIGNAL AHEAD / PREPARE TO STOP WHEN FLASHING — W3-3(2) (120" X 60")

24-26 — PUSH BUTTON TO CROSS MD 198 — R10-4(I) (9" X 12")

30 — R3-6(L) (30" X 36")

32,33 — R10-4(MOD) (9" X 12")

## PROPOSED EQUIPMENT

I,II,III — VIDEO DETECTION CAMERA

## PROPOSED SIGNALS

1,2 — Y 12"

3,4,5 — R Y G 12" 12" 12"

6-12 — R Y G

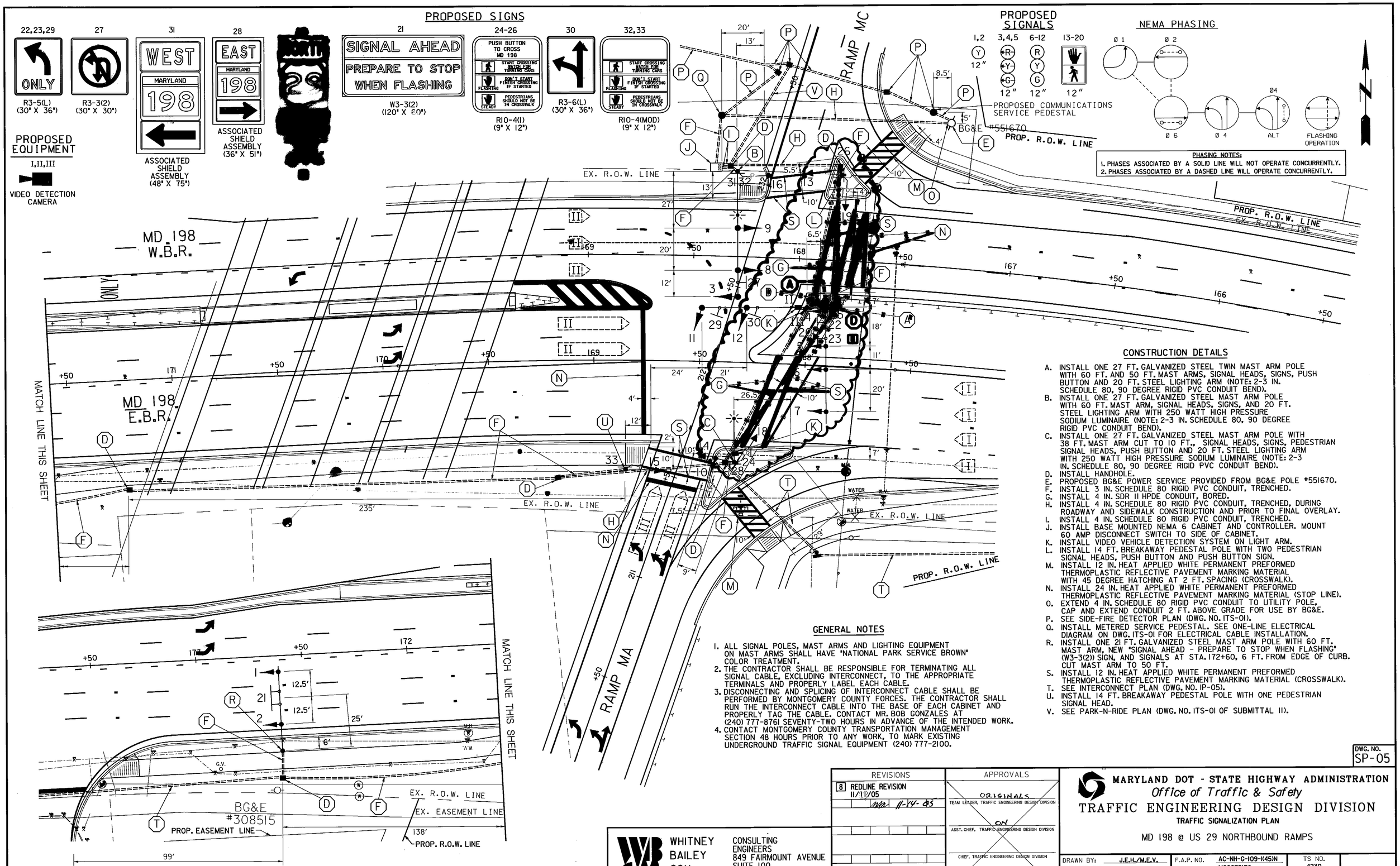
13-20

## NEMA PHASING

Ø1 Ø2 Ø6 Ø4 Ø4 ALT FLASHING OPERATION

**PHASING NOTES:**

1. PHASES ASSOCIATED BY A SOLID LINE WILL NOT OPERATE CONCURRENTLY.
2. PHASES ASSOCIATED BY A DASHED LINE WILL OPERATE CONCURRENTLY.




## CONSTRUCTION DETAILS

A. INSTALL ONE 27 FT. GALVANIZED STEEL TWIN MAST ARM POLE WITH 60 FT. AND 50 FT. MAST ARMS, SIGNAL HEADS, SIGNS, PUSH BUTTON AND 20 FT. STEEL LIGHTING ARM (NOTE: 2-3 IN. SCHEDULE 80, 90 DEGREE RIGID PVC CONDUIT BEND).
B. INSTALL ONE 27 FT. GALVANIZED STEEL MAST ARM POLE WITH 60 FT. MAST ARM, SIGNAL HEADS, SIGNS, AND 20 FT. STEEL LIGHTING ARM WITH 250 WATT HIGH PRESSURE SODIUM LUMINAIRE (NOTE: 2-3 IN. SCHEDULE 80, 90 DEGREE RIGID PVC CONDUIT BEND).
C. INSTALL ONE 27 FT. GALVANIZED STEEL MAST ARM POLE WITH 38 FT. MAST ARM CUT TO 10 FT., SIGNAL HEADS, SIGNS, PEDESTRIAN SIGNAL HEADS, PUSH BUTTON AND 20 FT. STEEL LIGHTING ARM WITH 250 WATT HIGH PRESSURE SODIUM LUMINAIRE (NOTE: 2-3 IN. SCHEDULE 80, 90 DEGREE RIGID PVC CONDUIT BEND).
D. INSTALL HANDHOLE.
E. PROPOSED BG&E POWER SERVICE PROVIDED FROM BG&E POLE #551670.
F. INSTALL 3 IN. SCHEDULE 80 RIGID PVC CONDUIT, TRENCHED.
G. INSTALL 4 IN. SDR 11 HPDE CONDUIT, BORED.
H. INSTALL 4 IN. SCHEDULE 80 RIGID PVC CONDUIT, TRENCHED, DURING ROADWAY AND SIDEWALK CONSTRUCTION AND PRIOR TO FINAL OVERLAY.
I. INSTALL 4 IN. SCHEDULE 80 RIGID PVC CONDUIT, TRENCHED.
J. INSTALL BASE MOUNTED NEMA 6 CABINET AND CONTROLLER. MOUNT 60 AMP DISCONNECT SWITCH TO SIDE OF CABINET.
K. INSTALL VIDEO VEHICLE DETECTION SYSTEM ON LIGHT ARM.
L. INSTALL 14 FT. BREAKAWAY PEDESTAL POLE WITH TWO PEDESTRIAN SIGNAL HEADS, PUSH BUTTON AND PUSH BUTTON SIGN.
M. INSTALL 12 IN. HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC REFLECTIVE PAVEMENT MARKING MATERIAL WITH 45 DEGREE HATCHING AT 2 FT. SPACING (CROSSWALK).
N. INSTALL 24 IN. HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC REFLECTIVE PAVEMENT MARKING MATERIAL (STOP LINE).
O. EXTEND 4 IN. SCHEDULE 80 RIGID PVC CONDUIT TO UTILITY POLE, CAP AND EXTEND CONDUIT 2 FT. ABOVE GRADE FOR USE BY BG&E.
P. SEE SIDE-FIRE DETECTOR PLAN (DWG. NO. ITS-01).
Q. INSTALL METERED SERVICE PEDESTAL. SEE ONE-LINE ELECTRICAL DIAGRAM ON DWG. ITS-01 FOR ELECTRICAL CABLE INSTALLATION.
R. INSTALL ONE 21 FT. GALVANIZED STEEL MAST ARM POLE WITH 60 FT. MAST ARM, NEW "SIGNAL AHEAD - PREPARE TO STOP WHEN FLASHING" (W3-3(2)) SIGN, AND SIGNALS AT STA. 172+60, 6 FT. FROM EDGE OF CURB. CUT MAST ARM TO 50 FT.
S. INSTALL 12 IN. HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC REFLECTIVE PAVEMENT MARKING MATERIAL (CROSSWALK).
T. SEE INTERCONNECT PLAN (DWG. NO. IP-05).
U. INSTALL 14 FT. BREAKAWAY PEDESTAL POLE WITH ONE PEDESTRIAN SIGNAL HEAD.
V. SEE PARK-N-RIDE PLAN (DWG. NO. ITS-01 OF SUBMITTAL 11).

## GENERAL NOTES

1. ALL SIGNAL POLES, MAST ARMS AND LIGHTING EQUIPMENT ON MAST ARMS SHALL HAVE "NATIONAL PARK SERVICE BROWN" COLOR TREATMENT.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TERMINATING ALL SIGNAL CABLE, EXCLUDING INTERCONNECT, TO THE APPROPRIATE TERMINALS AND PROPERLY LABEL EACH CABLE.
3. DISCONNECTING AND SPLICING OF INTERCONNECT CABLE SHALL BE PERFORMED BY MONTGOMERY COUNTY FORCES. THE CONTRACTOR SHALL RUN THE INTERCONNECT CABLE INTO THE BASE OF EACH CABINET AND PROPERLY TAG THE CABLE. CONTACT MR. BOB GONZALES AT (240) 777-8761 SEVENTY-TWO HOURS IN ADVANCE OF THE INTENDED WORK.
4. CONTACT MONTGOMERY COUNTY TRANSPORTATION MANAGEMENT SECTION 48 HOURS PRIOR TO ANY WORK, TO MARK EXISTING UNDERGROUND TRAFFIC SIGNAL EQUIPMENT (240) 777-2100.

DWG. NO. SP-05

| REVISIONS | APPROVALS |
|---|---|
| 8 REDLINE REVISION 11/11/05 — 11-14-05 | ORIGINALS — TEAM LEADER, TRAFFIC ENGINEERING DESIGN DIVISION |
| | ON — ASST. CHIEF, TRAFFIC ENGINEERING DESIGN DIVISION |
| | CHIEF, TRAFFIC ENGINEERING DESIGN DIVISION |
| | FILE — DIRECTOR, OFFICE OF TRAFFIC & SAFETY |

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(410) 512-4500

**MARYLAND DOT - STATE HIGHWAY ADMINISTRATION**
*Office of Traffic & Safety*
TRAFFIC ENGINEERING DESIGN DIVISION
TRAFFIC SIGNALIZATION PLAN
MD 198 @ US 29 NORTHBOUND RAMPS

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|---|---|---|---|---|---|
| DRAWN BY: | J.E.H./M.E.V. | F.A.P. NO. | AC-NH-G-109-K(45)N | TS NO. 4230 | SHEET NO. 26 OF 28 |
| CHECKED BY: | J.W.H. | S.H.A. NO. | M0867517.0 | | |
| SCALE: | 1" = 20' | COUNTY: | MONTGOMERY | T.I.M.S. NO. E856 | |
| DATE: | SEPTEMBER 2003 | LOG MILE: | 15.019803.68 | | |

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