EXISTING SIGNAL HEADS TO REMAIN

1,3,6,8 — 12"
2,4,5,7,9,10,13,15,17 — 12"
11,12,14,16 — 12"

MD 355 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION

EXISTING SIGNS TO REMAIN

30/33 Shady Grove RD 16400> — D-3(1) (VAR.x16") DUAL FACED
34/37 Shady Grove RD <16400 — D-3(1) (VAR.x16") DUAL FACED
38,39,46,47,57,58 — R3-5(L) (30"x36")
40,48,59 — R3-6(L) (30"x36")
41,50 — R3-5(R) (MOD) (30"x36") BLANKOUT SIGN
42,51 — R3-5(R) (30"x36")
43 — M1-5(6) (30"x48")
55 — M1-5(6) (30"x48")
56 — M1-5(6) (48"x72")
44/60,49/52 Frederick RD — D-3(1) (VAR.x16") DUAL FACED

PROPOSED SIGNS

24,26,28 — R10-3(1) 9"x15" W/ APS
25,27 — R10-3(1) 9"x15" W/ APS
29 — R10-3(1) 9"x15" W/ APS
31,35,53 — W11-2 FY (30"x30") W16-7p(R) FY (24"x12")
32,36,54 — W11-2 FY (30"x30") W16-7p(L) FY (24"x12")
45 — M3-1 30"x15"; M1-5 48"x36"; M6-1 30"x21"

NEMA PHASING

Ø1, Ø2, Ø3, Ø4, Ø4 ALT, Ø5, Ø6 LAG LEFT, FLASHING OPERATION

PHASING NOTES:
1. PHASES ASSOCIATED BY A SOLID LINE WILL NOT OPERATE CONCURRENTLY.
2. PHASES ASSOCIATED BY A DASHED LINE MAY OPERATE CONCURRENTLY.

EXISTING VIDEO DETECTION CAMERAS

a,b,c,d, e,f,g,h

EXISTING SIGNAL HEADS TO BE REMOVED

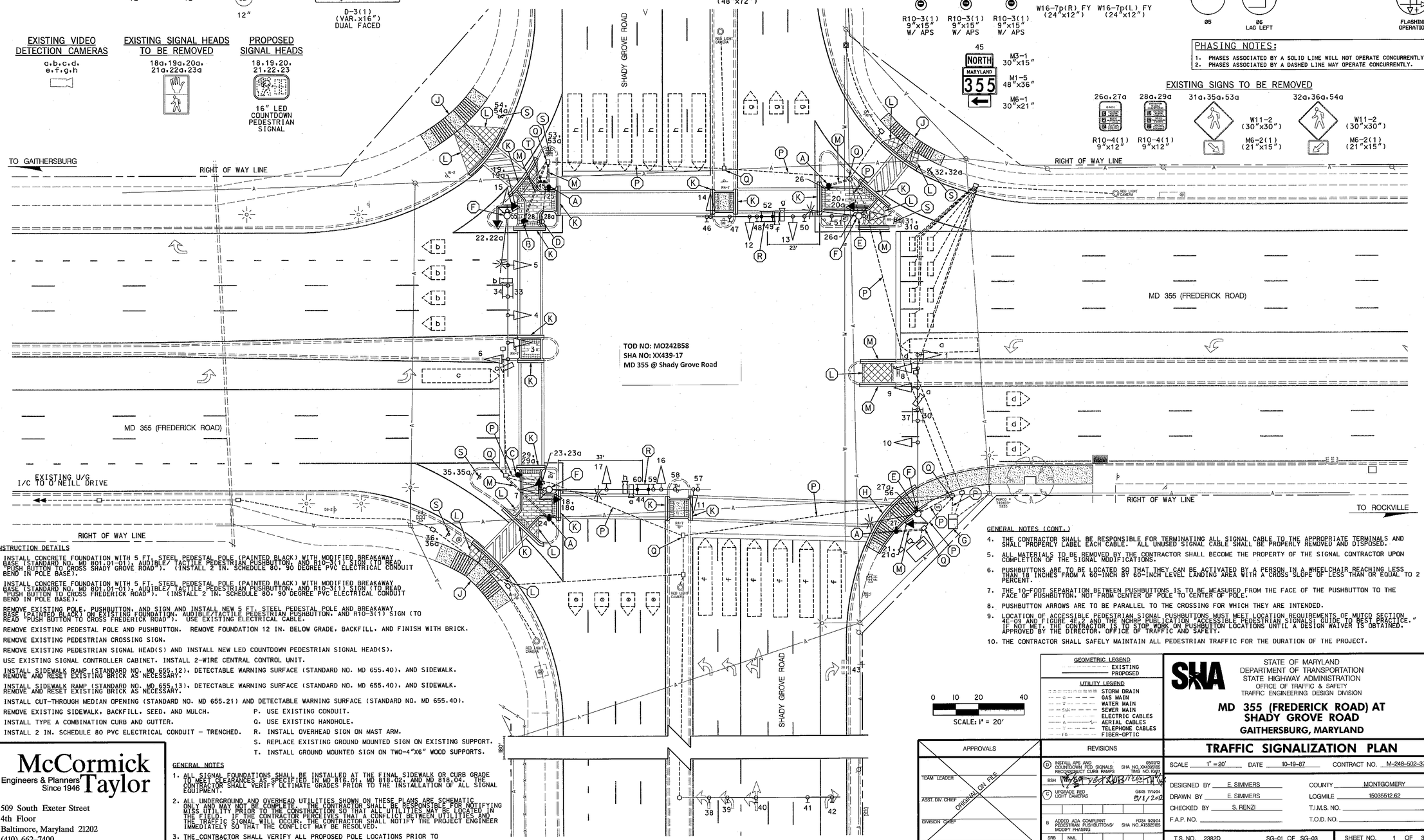
18a,19a,20a, 21a,22a,23a

PROPOSED SIGNAL HEADS

18,19,20, 21,22,23
16" LED COUNTDOWN PEDESTRIAN SIGNAL

EXISTING SIGNS TO BE REMOVED

26a,27a — R10-4(1) 9"x12"
28a,29a — R10-4(1) 9"x12"
31a,35a,53a — W11-2 (30"x30") M6-2(1) (21"x15")
32a,36a,54a — W11-2 (30"x30") M6-2(1) (21"x15")



CONSTRUCTION DETAILS

A. INSTALL CONCRETE FOUNDATION WITH 5 FT. STEEL PEDESTAL POLE (PAINTED BLACK) WITH MODIFIED BREAKAWAY BASE (STANDARD NO. MD 801.01-01), AUDIBLE/ TACTILE PEDESTRIAN PUSHBUTTON, AND R10-3(1) SIGN (TO READ "PUSH BUTTON TO CROSS SHADY GROVE ROAD"). (INSTALL 2 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BEND IN POLE BASE).

B. INSTALL CONCRETE FOUNDATION WITH 5 FT. STEEL PEDESTAL POLE (PAINTED BLACK) WITH MODIFIED BREAKAWAY BASE (STANDARD NO. MD 801.01-01), AUDIBLE/ TACTILE PEDESTRIAN PUSHBUTTON, AND R10-3(1) SIGN (TO READ "PUSH BUTTON TO CROSS FREDERICK ROAD"). (INSTALL 2 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BEND IN POLE BASE).

C. REMOVE EXISTING POLE, PUSHBUTTON, AND SIGN AND INSTALL NEW 5 FT. STEEL PEDESTAL POLE AND BREAKAWAY BASE (PAINTED BLACK) ON EXISTING FOUNDATION, AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON, AND R10-3(1) SIGN (TO READ "PUSH BUTTON TO CROSS FREDERICK ROAD"). USE EXISTING ELECTRICAL CABLE.

D. REMOVE EXISTING PEDESTAL POLE AND PUSHBUTTON. REMOVE FOUNDATION 12 IN. BELOW GRADE, BACKFILL, AND FINISH WITH BRICK.

E. REMOVE EXISTING PEDESTRIAN CROSSING SIGN.

F. REMOVE EXISTING PEDESTRIAN SIGNAL HEAD(S) AND INSTALL NEW LED COUNTDOWN PEDESTRIAN SIGNAL HEAD(S).

G. USE EXISTING SIGNAL CONTROLLER CABINET. INSTALL 2-WIRE CENTRAL CONTROL UNIT.

H. INSTALL SIDEWALK RAMP (STANDARD NO. MD 655.12), DETECTABLE WARNING SURFACE (STANDARD NO. MD 655.40), AND SIDEWALK. REMOVE AND RESET EXISTING BRICK AS NECESSARY.

J. INSTALL SIDEWALK RAMP (STANDARD NO. MD 655.13), DETECTABLE WARNING SURFACE (STANDARD NO. MD 655.40), AND SIDEWALK. REMOVE AND RESET EXISTING BRICK AS NECESSARY.

K. INSTALL CUT-THROUGH MEDIAN OPENING (STANDARD NO. MD 655.21) AND DETECTABLE WARNING SURFACE (STANDARD NO. MD 655.40).

L. REMOVE EXISTING SIDEWALK, BACKFILL, SEED, AND MULCH.

M. INSTALL TYPE A COMBINATION CURB AND GUTTER.

N. INSTALL 2 IN. SCHEDULE 80 PVC ELECTRICAL CONDUIT – TRENCHED.

P. USE EXISTING CONDUIT.

Q. USE EXISTING HANDHOLE.

R. INSTALL OVERHEAD SIGN ON MAST ARM.

S. REPLACE EXISTING GROUND MOUNTED SIGN ON EXISTING SUPPORT.

T. INSTALL GROUND MOUNTED SIGN ON TWO-4"X6" WOOD SUPPORTS.

GENERAL NOTES

1. ALL SIGNAL FOUNDATIONS SHALL BE INSTALLED AT THE FINAL SIDEWALK OR CURB GRADE TO MEET CLEARANCES AS SPECIFIED IN MD 816.01, MD 818.02, AND MD 818.04. THE CONTRACTOR SHALL VERIFY ULTIMATE GRADES PRIOR TO THE INSTALLATION OF ALL SIGNAL EQUIPMENT.
2. 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 THE CONSTRUCTION SO THAT ALL UTILITIES MAY BE LOCATED IN THE FIELD. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IMMEDIATELY SO THAT THE CONFLICT MAY BE RESOLVED.
3. THE CONTRACTOR SHALL VERIFY ALL PROPOSED POLE LOCATIONS PRIOR TO INSTALLATION.

GENERAL NOTES (CONT.)

4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TERMINATING ALL SIGNAL CABLE TO THE APPROPRIATE TERMINALS AND SHALL PROPERLY LABEL EACH CABLE. ALL UNUSED SIGNAL CABLE SHALL BE PROPERLY REMOVED AND DISPOSED.
5. ALL MATERIALS TO BE REMOVED BY THE CONTRACTOR SHALL BECOME THE PROPERTY OF THE SIGNAL CONTRACTOR UPON COMPLETION OF THE SIGNAL MODIFICATIONS.
6. PUSHBUTTONS ARE TO BE LOCATED SO THAT THEY CAN BE ACTIVATED BY A PERSON IN A WHEELCHAIR REACHING LESS THAN 18 INCHES FROM A 60-INCH BY 60-INCH LEVEL LANDING AREA WITH A CROSS SLOPE OF LESS THAN OR EQUAL TO 2 PERCENT.
7. THE 10-FOOT SEPARATION BETWEEN PUSHBUTTONS IS TO BE MEASURED FROM THE FACE OF THE PUSHBUTTON TO THE FACE OF PUSHBUTTON, NOT FROM CENTER OF POLE TO CENTER OF POLE.
8. PUSHBUTTON ARROWS ARE TO BE PARALLEL TO THE CROSSING FOR WHICH THEY ARE INTENDED.
9. LOCATION OF ACCESSIBLE PEDESTRIAN SIGNAL PUSHBUTTONS MUST MEET LOCATION REQUIREMENTS OF MUTCD SECTION 4E-09 AND FIGURE 4E-2 AND THE NCHRP PUBLICATION "ACCESSIBLE PEDESTRIAN SIGNALS: GUIDE TO BEST PRACTICE." IF NOT MET, THE CONTRACTOR IS TO STOP WORK ON PUSHBUTTON LOCATIONS UNTIL A DESIGN WAIVER IS OBTAINED, APPROVED BY THE DIRECTOR, OFFICE OF TRAFFIC AND SAFETY.
10. THE CONTRACTOR SHALL SAFELY MAINTAIN ALL PEDESTRIAN TRAFFIC FOR THE DURATION OF THE PROJECT.

0 10 20 40
SCALE: 1" = 20'

GEOMETRIC LEGEND: EXISTING / PROPOSED

UTILITY LEGEND: STORM DRAIN, GAS MAIN, WATER MAIN, SEWER MAIN, ELECTRIC CABLES, AERIAL CABLES, TELEPHONE CABLES, FIBER-OPTIC

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BY: clyates

APPROVALS: TEAM LEADER, ASST. DIV. CHIEF, DIVISION CHIEF, OFFICE DIRECTOR — ORIGINAL ON FILE

REVISIONS

D	INSTALL APS AND COUNTDOWN PED SIGNALS; RECONSTRUCT CURB RAMPS	05/22/12	SHA NO. XX439/355 TMS NO. 15927
BSH			
C	UPGRADE RED LIGHT CAMERAS	08/15 11/14/01	5/1/2012
B	ADDED ADA COMPLIANT PEDESTRIAN PUSHBUTTONS/ MODIFY PHASING	02/04 9/29/04	SHA NO. AT8825180
SRB	NML		

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

MD 355 (FREDERICK ROAD) AT SHADY GROVE ROAD
GAITHERSBURG, MARYLAND

TRAFFIC SIGNALIZATION PLAN

SCALE 1" = 20' DATE 10-19-87 CONTRACT NO. M-248-502-372

DESIGNED BY E. SIMMERS COUNTY MONTGOMERY
DRAWN BY E. SIMMERS LOGMILE 15035512.62
CHECKED BY S. RENZI T.I.M.S. NO.
F.A.P. NO. T.O.D. NO.

T.S. NO. 2382D SG-01 OF SG-03 SHEET NO. 1 OF 3

PLOTTED: Tuesday, May 22, 2012 AT 01:53 PM
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