NOTE: MD 190 IS CONSIDERED TO RUN IN AN EAST- WEST DIRECTION.

EXISTING SIGNS

21 NORTH MARYLAND 191 →
20 EAST MARYLAND 190
16 NORTH MARYLAND 191 ←
27 WEST MARYLAND 190 ← | EAST MARYLAND 190 →
31 EAST MARYLAND 190 → | WEST MARYLAND 190 ←
END MARYLAND 191
25 WEST MARYLAND 190
26 RIGHT LANE MUST TURN RIGHT INTERSTATE 495 →

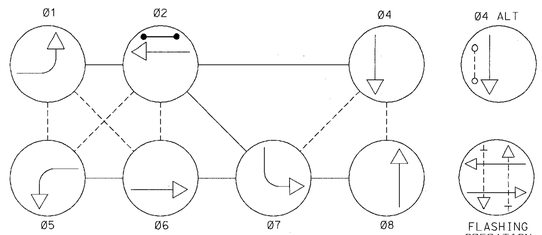
PROPOSED SIGNS

29b,33a River RD <8900 — D3-2 VARIABLE X 16"
29a,33b River RD 8900> — D3-2 VARIABLE X 16"
17,22 Bradley BLVD <8900 — D3-2 VARIABLE X 16"
19,24 Bradley BLVD 8900> — D3-2 VARIABLE X 16"
PUSH BUTTON TO CROSS RIVER ROAD — START CROSSING WATCH FOR TURNING CARS; DON'T START FINISH CROSSING IF STARTED; PEDESTRIANS SHOULD NOT BE IN CROSSWALK — R10-4C 9" x 12" (TO BE INSTALLED WITH PUSHBUTTON)
PUSH BUTTON TO CROSS — START CROSSING WATCH FOR TURNING CARS; DON'T START FINISH CROSSING IF STARTED; PEDESTRIANS SHOULD NOT BE IN CROSSWALK — R10-4C 9" x 12"
18,32 LEFT TURN YIELD ON GREEN — R10-12 36"x 42"
34 — R3-6(R) 30" x 36"
23,28 — R3-1 30" x 30" (FIBER OPTIC SIGN)
30 ONLY — R3-5R 30" x 36"
35,36 BLK/FY — W11-2 30"X30" — M6-2 21"X15"

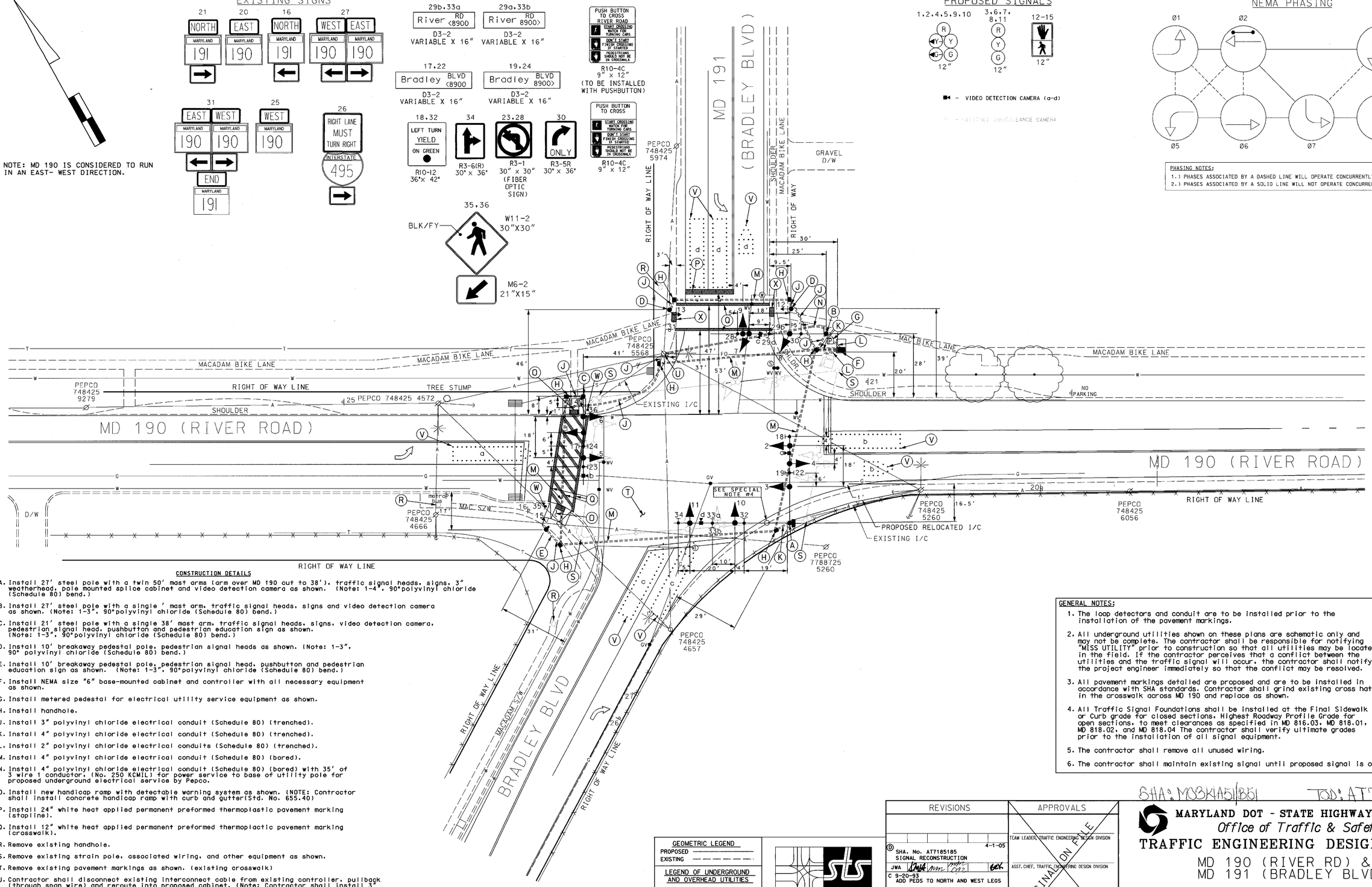
PROPOSED SIGNALS

1,2,4,5,9,10 — 12"
3,6,7,8,11 — 12"
12-15 — 12"
■◄ – VIDEO DETECTION CAMERA (a-d)
◄ – EXISTING SURVEILLANCE CAMERA

NEMA PHASING



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



CONSTRUCTION DETAILS

A. Install 27' steel pole with a twin 50' mast arms (arm over MD 190 cut to 38'), traffic signal heads, signs, 3" weatherhead, pole mounted splice cabinet and video detection camera as shown. (Note: 1-4", 90°polyvinyl chloride (Schedule 80) bend.)

B. Install 27' steel pole with a single ' mast arm, traffic signal heads, signs and video detection camera as shown. (Note: 1-3", 90°polyvinyl chloride (Schedule 80) bend.)

C. Install 21' steel pole with a single 38' mast arm, traffic signal heads, signs, video detection camera, pedestrian signal head, pushbutton and pedestrian education sign as shown. (Note: 1-3", 90°polyvinyl chloride (Schedule 80) bend.)

D. Install 10' breakaway pedestal pole, pedestrian signal heads as shown. (Note: 1-3", 90° polyvinyl chloride (Schedule 80) bend.)

E. Install 10' breakaway pedestal pole, pedestrian signal head, pushbutton and pedestrian education sign as shown. (Note: 1-3", 90°polyvinyl chloride (Schedule 80) bend.)

F. Install NEMA size "6" base-mounted cabinet and controller with all necessary equipment as shown.

G. Install metered pedestal for electrical utility service equipment as shown.

H. Install handhole.

J. Install 3" polyvinyl chloride electrical conduit (Schedule 80) (trenched).

K. Install 4" polyvinyl chloride electrical conduit (Schedule 80) (trenched).

L. Install 2" polyvinyl chloride electrical conduits (Schedule 80) (trenched).

M. Install 4" polyvinyl chloride electrical conduit (Schedule 80) (bored).

N. Install 4" polyvinyl chloride electrical conduit (Schedule 80) (bored) with 35' of 3 wire 1 conductor, (No. 250 KCMIL) for power service to base of utility pole for proposed underground electrical service by Pepco.

O. Install new handicap ramp with detectable warning system as shown. (NOTE: Contractor shall install concrete handicap ramp with curb and gutter(Std. No. 655.40)

P. Install 24" white heat applied permanent preformed thermoplastic pavement marking (stopline).

Q. Install 12" white heat applied permanent preformed thermoplactic pavement marking (crosswalk).

R. Remove existing handhole.

S. Remove existing strain pole, associated wiring, and other equipment as shown.

T. Remove existing pavement markings as shown. (existing crosswalk)

U. Contractor shall disconnect existing interconnect cable from existing controller, pullback (through span wire) and reroute into proposed cabinet. (Note: Contractor shall install 3" galvanized riser to use for the rerouting of existing interconnect cable to new cabinet.)

V. Video Detection zone.

W. Install ground mounted signs on 4" x 4" wood posts as shown.

X. Install Detectable Warning Surfaces as shown.

GENERAL NOTES:

1. The loop detectors and conduit are to be installed prior to the installation of the pavement markings.
2. All underground 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.
3. All pavement markings detailed are proposed and are to be installed in accordance with SHA standards. Contractor shall grind existing cross hatching in the crosswalk across MD 190 and replace as shown.
4. 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, and MD 818.04 The contractor shall verify ultimate grades prior to the installation of all signal equipment.
5. The contractor shall remove all unused wiring.
6. The contractor shall maintain existing signal until proposed signal is operation.

SHA: M03H4351B51 TOD: AT718-04

GEOMETRIC LEGEND
PROPOSED
EXISTING

LEGEND OF UNDERGROUND AND OVERHEAD UTILITIES
AERIAL CABLE —A—A—
ELECTRIC —E—E—
TELEPHONE —T—T—
GAS —G—G—
SEWER —S—S—
WATER —W—W—
CABLE TV —TV—TV—

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Fax (410) 590-6637

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REVISIONS	APPROVALS
D SHA. No. AT7185185 SIGNAL RECONSTRUCTION 4-1-05 JWA	TEAM LEADER, TRAFFIC ENGINEERING DESIGN DIVISION
C 9-20-93 ADD PEDS TO NORTH AND WEST LEGS DJD	ASST. CHIEF, TRAFFIC ENGINEERING DESIGN DIVISION
B 3/91 INSTALLING LOOP DETECTORS DUE TO WIDENING AND RESURFACING M-624-501-376 DCD	CHIEF, TRAFFIC ENGINEERING DESIGN DIVISION
	DIRECTOR, TRAFFIC & SAFETY

ORIGINAL ON FILE

MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
MD 190 (RIVER RD) & MD 191 (BRADLEY BLVD)

DRAWN BY: FWR	F.A.P. NO.		TS NO. 771D	SHEET NO.	
CHECKED BY:	S.H.A. NO.	M-929X-375			
SCALE: 1"= 20'	COUNTY:	MONTGOMERY	T.I.M.S. NO. F066	1 OF 2	
DATE: 5/74	LOC MILE:	15019010.02			