EX. SIGNS TO BE REMOVED (CONTINUED ON SHEET 2)

20A, 21A

EXISTING SIGNS TO BE RELOCATED

17 — 19 — S2-1 (30x30") — M6-2 (21"x15")

14 — Frankfort DR — 16 — Frankfort DR — D-3(1) (DUAL FACED) (VAR.x16")

13 — R3-2 (30"x30")

PROPOSED SIGNS (CONTINUED ON SHEET 2)

15 — SCHOOL SPEED LIMIT 35 WHEN FLASHING — FINES DOUBLE — S4-4(1) (30"x15")

18 — R3-1 (30"x30") — S5-1 (36"x72")

20 — WEST 193 EAST — M95-1 (78" x 24")

22 — EAST 193 WEST — M95-1 (78" x 24")

24 — PUSH BUTTON TO CROSS GREENBELT ROAD — R10-3(1) 9" x 15"

25 — PUSH BUTTON TO CROSS GREENBELT ROAD — R10-3(1) 9" x 15"

21 — ONLY — R3-5L (30"x30")

23 — R3-6 (30"x36")

PROPOSED VIDEO DETECTION CAMERA

a, b

VIDEO ZONE DETECTION

a

PROPOSED SIGNALS (CONTINUED ON SHEET 2)

1,2,5-10: R Y G — 12"(LED)

3,4: Y — 12"(LED)

11,12: 16" LED COUNTDOWN PEDESTRIAN SIGNAL HEAD

NEMA PHASING

Ø2, Ø4, Ø6, Ø8

FLASHING OPERATION

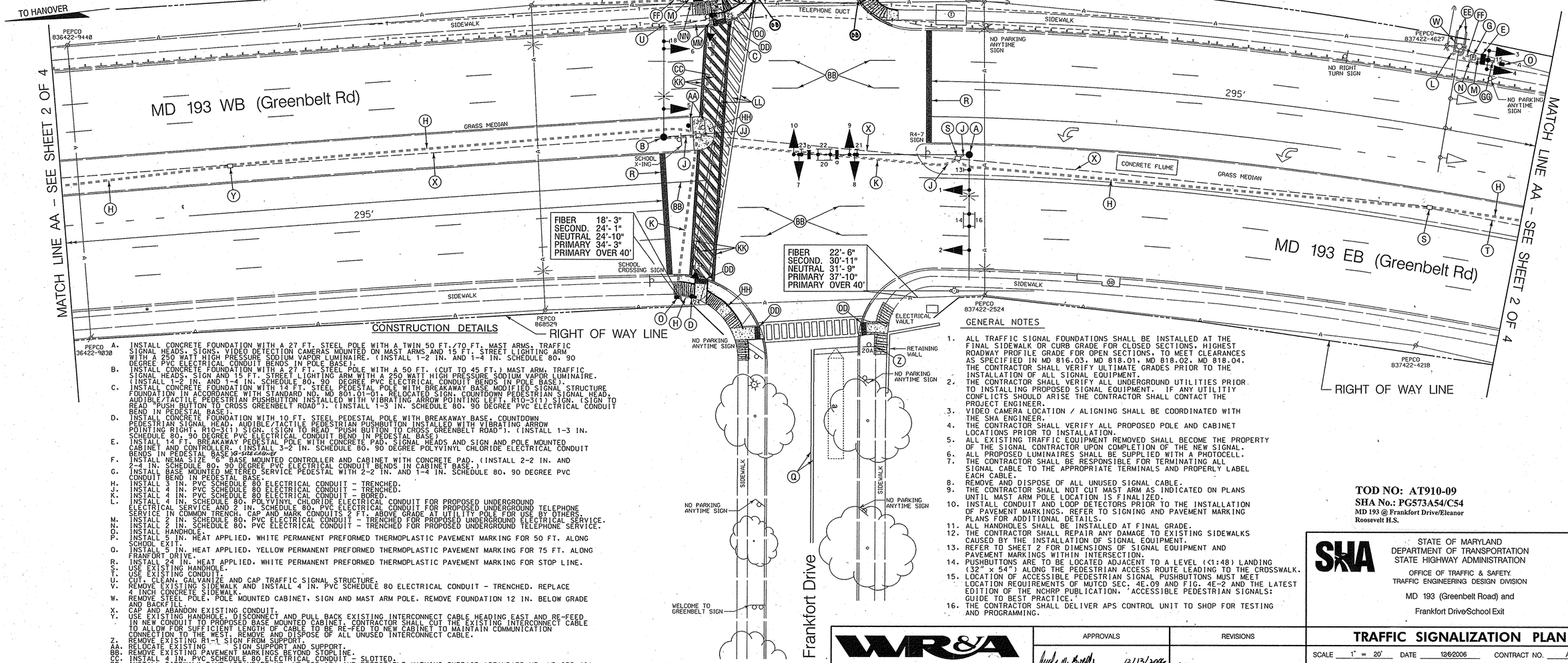
Ø4+Ø8 ALT.

MD 193 IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION

SPECIAL NOTES:

1. CONTRACTOR SHALL USE CAUTION WHEN INSTALLING SIGNAL EQUIPMENT TO AVOID DISTURBANCE OF EXISTING UNDERGROUND UTILITIES. CONTRACTOR SHALL TEST PIT TO DETERMINE EXACT LOCATION AND DEPTH OF UNDERGROUND UTILITIES PRIOR TO INSTALLING SIGNAL EQUIPMENT.
2. THE TACTILE ARROWS FOR THE AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTONS SHALL BE LOCATED PARALLEL TO THE CROSSWALK FOR WHICH THEY APPLY.

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



CONSTRUCTION DETAILS

A. INSTALL CONCRETE FOUNDATION WITH A 27 FT. STEEL POLE WITH A TWIN 50 FT./70 FT. MAST ARMS, TRAFFIC SIGNAL HEADS, SIGNS, VIDEO DETECTION CAMERAS MOUNTED ON MAST ARMS AND 15 FT. STREET LIGHTING ARM WITH A 250 WATT HIGH PRESSURE SODIUM VAPOR LUMINAIRE. (INSTALL 1-2 IN. AND 1-4 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BENDS IN POLE BASE).

B. INSTALL CONCRETE FOUNDATION WITH A 27 FT. STEEL POLE WITH A 50 FT. (CUT TO 45 FT.) MAST ARM, TRAFFIC SIGNAL HEADS, SIGN AND 15 FT. STREET LIGHTING ARM WITH A 250 WATT HIGH PRESSURE SODIUM VAPOR LUMINAIRE. (INSTALL 1-2 IN. AND 1-4 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BENDS IN POLE BASE).

C. INSTALL CONCRETE FOUNDATION WITH 14 FT. STEEL PEDESTAL POLE WITH BREAKAWAY BASE MODIFIED SIGNAL STRUCTURE FOUNDATION IN ACCORDANCE WITH STANDARD NO. MD 801.01-01. RELOCATED SIGN, COUNTDOWN PEDESTRIAN SIGNAL HEAD, AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON INSTALLED WITH VIBRATING ARROW POINTING LEFT. R10-3(1) SIGN. (SIGN TO READ "PUSH BUTTON TO CROSS GREENBELT ROAD"). (INSTALL 1-3 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BEND IN PEDESTAL BASE).

D. INSTALL CONCRETE FOUNDATION WITH 10 FT. STEEL PEDESTAL POLE WITH BREAKAWAY BASE, COUNTDOWN PEDESTRIAN SIGNAL HEAD, AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON INSTALLED WITH VIBRATING ARROW POINTING RIGHT. R10-3(1) SIGN. (SIGN TO READ "PUSH BUTTON TO CROSS GREENBELT ROAD"). (INSTALL 1-3 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BEND IN PEDESTAL BASE).

E. INSTALL 14 FT. BREAKAWAY PEDESTAL POLE WITH CONCRETE PAD, SIGNAL HEADS AND SIGN AND POLE MOUNTED CABINET AND CONTROLLER. (INSTALL 3-2 IN. SCHEDULE 80, 90 DEGREE POLYVINYL CHLORIDE ELECTRICAL CONDUIT BENDS IN PEDESTAL BASE)

F. INSTALL NEMA SIZE "6" BASE MOUNTED CONTROLLER AND CABINET WITH CONCRETE PAD. (INSTALL 2-2 IN. AND 2-4 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BENDS IN CABINET BASE.)

G. INSTALL BASE MOUNTED METERED SERVICE PEDESTAL WITH 2-2 IN. AND 1-4 IN. SCHEDULE 80, 90 DEGREE PVC CONDUIT BEND IN PEDESTAL BASE.

H. INSTALL 3 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT - TRENCHED.

J. INSTALL 4 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT - TRENCHED.

K. INSTALL 4 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT - BORED.

L. INSTALL 4 IN. SCHEDULE 80, POLYVINYL CHLORIDE ELECTRICAL CONDUIT FOR PROPOSED UNDERGROUND ELECTRICAL SERVICE AND 2 IN. SCHEDULE 80, PVC ELECTRICAL CONDUIT FOR PROPOSED UNDERGROUND TELEPHONE SERVICE IN COMMON TRENCH. CAP AND MARK CONDUITS 2 FT. ABOVE GRADE AT UTILITY POLE FOR USE BY OTHERS.

M. INSTALL 2 IN. SCHEDULE 80, PVC ELECTRICAL CONDUIT - TRENCHED FOR PROPOSED UNDERGROUND ELECTRICAL SERVICE.

N. INSTALL 2 IN. SCHEDULE 80, PVC ELECTRICAL CONDUIT - TRENCHED FOR PROPOSED UNDERGROUND TELEPHONE SERVICE.

O. INSTALL HANDHOLE.

P. INSTALL 5 IN. HEAT APPLIED, WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING FOR 50 FT. ALONG SCHOOL EXIT.

Q. INSTALL 5 IN. HEAT APPLIED, YELLOW PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING FOR 75 FT. ALONG FRANFORT DRIVE.

R. INSTALL 24 IN. HEAT APPLIED, WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING FOR STOP LINE.

S. USE EXISTING HANDHOLE.

T. USE EXISTING CONDUIT.

U. CUT, CLEAN, GALVANIZE AND CAP TRAFFIC SIGNAL STRUCTURE.

V. REMOVE EXISTING SIDEWALK AND INSTALL 4 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT - TRENCHED. REPLACE 4 INCH CONCRETE SIDEWALK.

W. REMOVE STEEL POLE, POLE MOUNTED CABINET, SIGN AND MAST ARM POLE. REMOVE FOUNDATION 12 IN. BELOW GRADE AND BACKFILL.

X. CAP AND ABANDON EXISTING CONDUIT.

Y. USE EXISTING HANDHOLE. DISCONNECT AND PULL BACK EXISTING INTERCONNECT CABLE HEADING EAST AND RE-FEED IN NEW CONDUIT TO PROPOSED BASE MOUNTED CABINET. CONTRACTOR SHALL CUT THE EXISTING INTERCONNECT CABLE TO ALLOW FOR SUFFICIENT LENGTH OF CABLE TO BE RE-FED TO NEW CABINET TO MAINTAIN COMMUNICATION CONNECTION TO THE WEST. REMOVE AND DISPOSE OF ALL UNUSED INTERCONNECT CABLE.

Z. REMOVE EXISTING R1-1 SIGN FROM SUPPORT.

AA. RELOCATE EXISTING SIGN SUPPORT AND SUPPORT.

BB. REMOVE EXISTING PAVEMENT MARKINGS BEYOND STOPLINE.

CC. INSTALL 4 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT - SLOTTED.

DD. INSTALL SIDEWALK RAMP (STANDARD NO. MD 655.13) AND DETECTABLE WARNING SURFACE (STANDARD NO. MD 655.40).

EE. REMOVE EXISTING TIMBER RETAINING WALL AND BACKFILL.

FF. INSTALL 4 IN. SCHEDULE 80, PVC ELECTRICAL CONDUIT - TRENCHED FOR PROPOSED UNDERGROUND ELECTRICAL SERVICE.

GG. INSTALL 2 IN. SCHEDULE 80, PVC ELECTRICAL CONDUIT - TRENCHED.

HH. INSTALL 4 IN. CONCRETE SIDEWALK.

JJ. ADJUST HANDHOLE TO EXISTING GRADE.

KK. INSTALL 12 IN. HEAT APPLIED, WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING FOR CROSSWALK.

LL. REMOVE EXISTING PAVEMENT MARKINGS (CROSSWALK MARKINGS).

MM. RELOCATE AND BAND EXISTING S2-1 AND M6-2 SIGNS TO NEW PEDESTAL POLE. REMOVE EXISTING SUPPORT.

NN. INSTALL 2 IN. SCHEDULE 80, POLYVINYL CHLORIDE ELECTRICAL CONDUIT - TRENCHED FOR ROADWAY LIGHTING.

OO. REMOVE EXISTING SIDEWALK AND INSTALL 4 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT - TRENCHED. REPLACE 3 INCH CONCRETE SIDEWALK.

PP. INSTALL HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING ARROW.

GENERAL NOTES

1. 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.
2. THE CONTRACTOR SHALL VERIFY ALL UNDERGROUND UTILITIES PRIOR TO INSTALLING PROPOSED SIGNAL EQUIPMENT. IF ANY UTILITIY CONFLICTS SHOULD ARISE THE CONTRACTOR SHALL CONTACT THE PROJECT ENGINEER.
3. VIDEO CAMERA LOCATION / ALIGNING SHALL BE COORDINATED WITH THE SHA ENGINEER.
4. THE CONTRACTOR SHALL VERIFY ALL PROPOSED POLE AND CABINET LOCATIONS PRIOR TO INSTALLATION.
5. ALL EXISTING TRAFFIC EQUIPMENT REMOVED SHALL BECOME THE PROPERTY OF THE SIGNAL CONTRACTOR UPON COMPLETION OF THE NEW SIGNAL.
6. ALL PROPOSED LUMINAIRES SHALL BE SUPPLIED WITH A PHOTOCELL.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TERMINATING ALL SIGNAL CABLE TO THE APPROPRIATE TERMINALS AND PROPERLY LABEL EACH CABLE.
8. REMOVE AND DISPOSE OF ALL UNUSED SIGNAL CABLE.
9. THE CONTRACTOR SHALL NOT CUT MAST ARM AS INDICATED ON PLANS UNTIL MAST ARM POLE LOCATION IS FINALIZED.
10. INSTALL CONDUIT AND LOOP DETECTORS PRIOR TO THE INSTALLATION OF PAVEMENT MARKINGS. REFER TO SIGNING AND PAVEMENT MARKING PLANS FOR ADDITIONAL DETAILS.
11. ALL HANDHOLES SHALL BE INSTALLED AT FINAL GRADE.
12. THE CONTRACTOR SHALL REPAIR ANY DAMAGE TO EXISTING SIDEWALKS CAUSED BY THE INSTALLATION OF SIGNAL EQUIPMENT.
13. REFER TO SHEET 2 FOR DIMENSIONS OF SIGNAL EQUIPMENT AND PAVEMENT MARKINGS WITHIN INTERSECTION.
14. PUSHBUTTONS ARE TO BE LOCATED ADJACENT TO A LEVEL (<1:48) LANDING (32" x 54") ALONG THE PEDESTRIAN ACCESS ROUTE LEADING TO THE CROSSWALK.
15. LOCATION OF ACCESSIBLE PEDESTRIAN SIGNAL PUSHBUTTONS MUST MEET LOCATION REQUIREMENTS OF MUTCD SEC. 4E.09 AND FIG. 4E-2 AND THE LATEST EDITION OF THE NCHRP PUBLICATION, 'ACCESSIBLE PEDESTRIAN SIGNALS: GUIDE TO BEST PRACTICE.'
16. THE CONTRACTOR SHALL DELIVER APS CONTROL UNIT TO SHOP FOR TESTING AND PROGRAMMING.

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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APPROVALS

DESIGNER	12/13/2006
ASST. DIV. CHIEF	12/14/06
DIVISION CHIEF	12/14/06
OFFICE DIRECTOR	12/15/06

REVISIONS

TOD NO: AT910-09
SHA No.: PG573A54/C54
MD 193 @ Frankfort Drive/Eleanor Roosevelt H.S.

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

MD 193 (Greenbelt Road) and Frankfort Drive/School Exit

TRAFFIC SIGNALIZATION PLAN

SCALE	1" = 20'	DATE	12/6/2006
CONTRACT NO.	AT9105185		
DESIGNED BY	S. Bloss	COUNTY	Prince George's
DRAWN BY	S. Bloss	LOGMILE	16019307.56
CHECKED BY	N. Leary	TIMS NO.	H887
FAP NO.		TOD NO.	

TS NO. 4537 | DRAWING TS1 - 1 OF 4 | SHEET NO. 1 OF 4

PLOTTED: Monday, December 11, 2006 AT 01:55 PM
FILE: n:\31556-074\cadd\pSG-P001_h887.dgn

BY: sbloss